

USER MANUAL

K3

CUSTOM[®]

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



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

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.
 - When positioning the device, make sure cables do not get damaged.
 - Use the type of electrical power supply indicated on the device label. If uncertain, contact your dealer.
 - Make sure the electrical system that supplies power to the device is equipped with a ground wire and is protected by a differential switch.
 - 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.
 - 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.
 - Periodically perform scheduled maintenance on the device to avoid dirt build-up that could compromise the correct, safe operation of the unit.
 - Before any type of work is done on the machine, disconnect the power supply.
 - 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.
- 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.



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 2006/95/CE and 2004/108/CE inasmuch as it was designed in conformity with the provisions laid down in the following Standards:

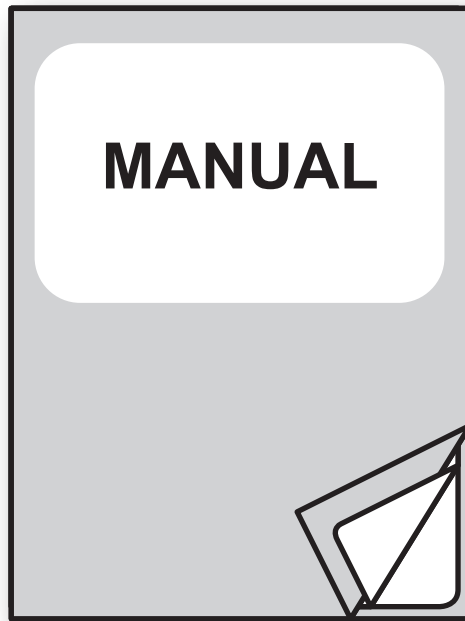
- EN 55022 Class B (*Limits and methods of measurements of radio disturbance characteristics of Information Technology Equipment*)
- EN 55024 (*Information Technology Equipment – Immunity characteristics – Limits and methods of measurement*)
- EN 60950-1 (*Safety of information equipment including electrical business equipment*)



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.



For details on the commands,
refer to the manual with code **77200000002700**

TABLE OF CONTENTS

| | | |
|----------|---|-----------|
| 1 | INTRODUCTION | 9 |
| 1.1 | Document structure | 9 |
| 1.2 | Explanatory notes used in this manual | 9 |
| 2 | DESCRIPTION | 11 |
| 2.1 | Box content | 11 |
| 2.2 | Device components | 12 |
| 2.3 | Product label | 14 |
| 2.4 | Key functions: power up | 15 |
| 2.5 | Key functions: standby | 16 |
| 2.6 | Status led flashes | 17 |
| 3 | INSTALLATION | 19 |
| 3.1 | Wall mounting | 19 |
| 3.2 | Connections | 24 |
| 3.3 | Pinout | 25 |
| 3.4 | Driver and SDK | 29 |
| 4 | OPERATION | 31 |
| 4.1 | Opening the cover | 31 |
| 4.2 | Adjusting the alignment sensor (optional) | 32 |
| 4.3 | Switch the device ON/OFF | 34 |
| 4.4 | Loading the paper roll | 35 |
| 4.5 | Loading the fanfold | 36 |
| 5 | CONFIGURATION | 37 |
| 5.1 | Configuration mode | 37 |
| 5.2 | Setup report | 38 |
| 5.3 | Device status | 39 |
| 5.4 | Printer parameters | 40 |
| 5.5 | Ethernet parameters | 45 |
| 5.6 | Hexadecimal dump | 46 |
| 6 | MAINTENANCE | 47 |
| 6.1 | Autocutter paper jam | 47 |
| 6.2 | Planning of cleaning operations | 48 |
| 6.3 | Cleaning | 49 |
| 6.4 | Upgrade firmware | 54 |

| | | |
|-----------|---|-----------|
| 7 | SPECIFICATION | 57 |
| 7.1 | Hardware specifications | 57 |
| 7.2 | Character specifications | 60 |
| 7.3 | Device dimensions | 61 |
| 7.4 | Power supply dimensions cod. 963GE020000003 | 63 |
| 7.5 | Paper specification | 64 |
| 7.6 | Character sets in ESC/POS™ emulation | 68 |
| 7.7 | True Type fonts | 70 |
| | | |
| 8 | CONSUMABLES | 71 |
| | | |
| 9 | ACCESSORIES | 73 |
| | | |
| 10 | ALIGNMENT | 75 |
| 10.1 | Enable alignment | 76 |
| 10.2 | Calibration | 79 |
| 10.3 | Alignment parameters | 82 |
| 10.4 | Printing area | 85 |
| | | |
| 11 | TECHNICAL SERVICE | 87 |
| | | |
| 12 | ADVANCED FUNCTIONS | 89 |
| 12.1 | File sharing | 89 |
| 12.2 | Embedded Web Server | 90 |
| 12.3 | Embedded Web Server: access | 91 |
| 12.4 | Embedded Web Server: functions | 93 |
| 12.5 | Locator | 95 |
| 12.6 | Drivers installation | 96 |
| 12.7 | Logos management | 97 |
| 12.8 | Fonts management | 99 |
| 12.9 | Setup | 101 |

1 INTRODUCTION

1.1 Document structure

This document includes the following chapters:

| | | |
|----|--------------------|--|
| 1 | INTRODUCTION | information about this document |
| 2 | DESCRIPTION | general description of device |
| 3 | INSTALLATION | information required for a correct installation of the device |
| 4 | OPERATION | information required to make the device operative |
| 5 | CONFIGURATION | description of the configuration parameters of the device |
| 6 | MAINTENANCE | information for a correct periodic maintenance |
| 7 | SPECIFICATION | technical specification for the device and its accessories |
| 8 | CONSUMABLES | description and installation of the available consumables for the device |
| 9 | ACCESSORIES | description and installation of the available accessories for the device |
| 10 | ALIGNMENT | information required for managing the paper alignment |
| 11 | TECHNICAL SERVICE | information required for contacting the technical service |
| 12 | ADVANCED FUNCTIONS | information about special functions available with the device |

1.2 Explanatory notes used in this manual

NOTE:

Gives important information or suggestions relative to the use of the device

ATTENTION:

Gives information that must be carefully followed to guard against damaging the device

DANGER:

Gives information that must be carefully followed to guard against operator injury or damage

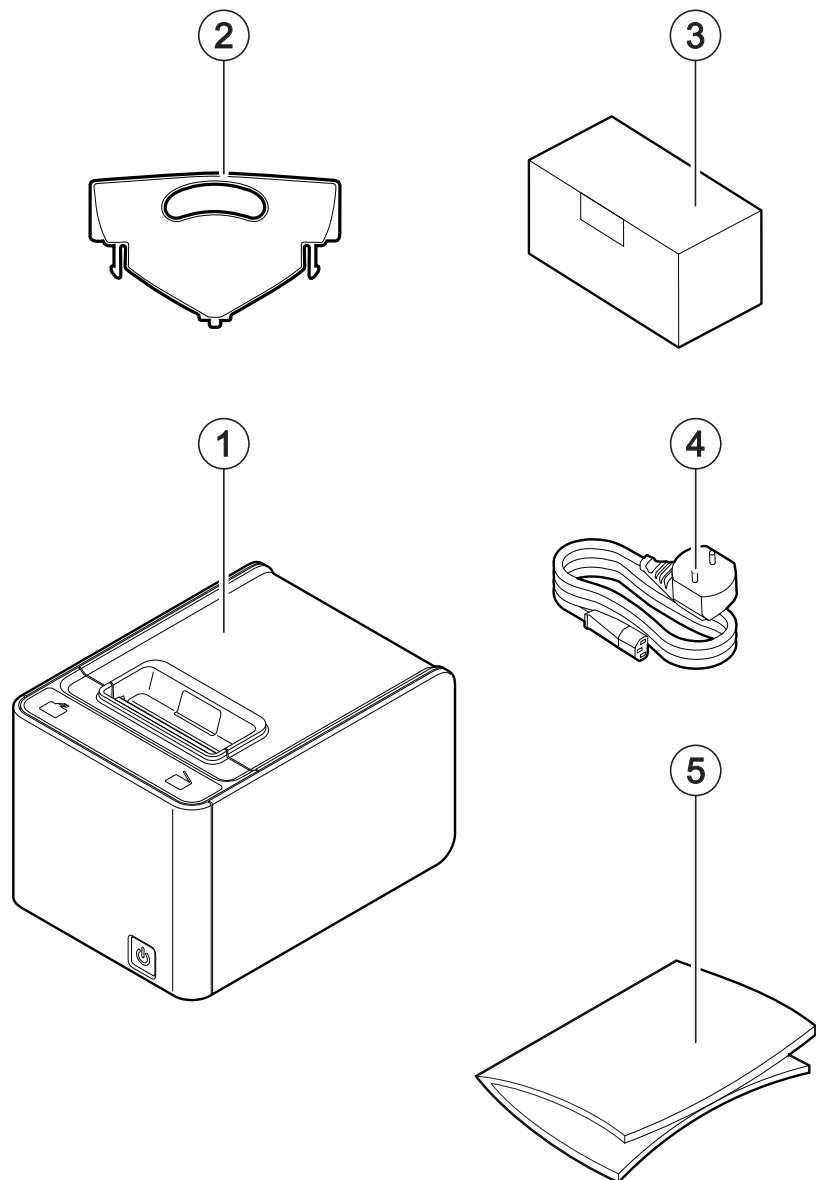
2 DESCRIPTION

2.1 Box content

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. Device
2. Paper guide
3. AC adapter
4. AC Power cable
5. Short guide

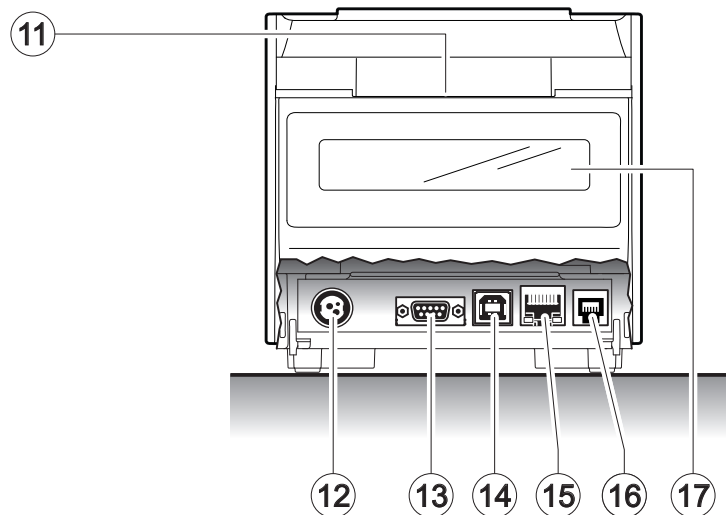
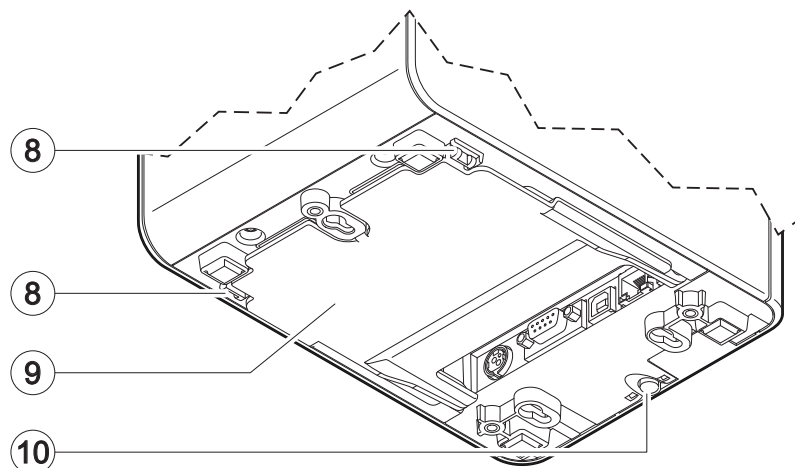
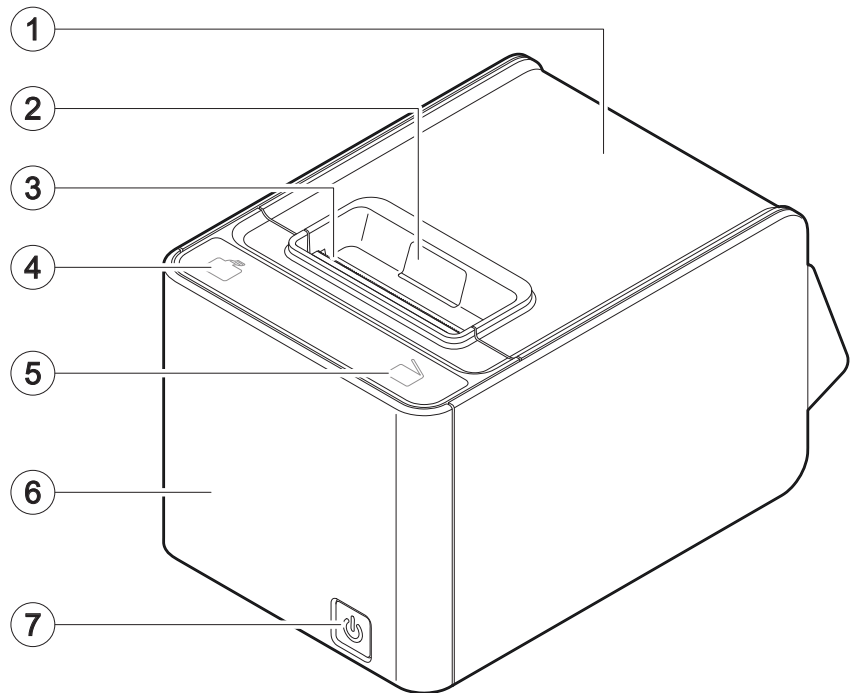


- Open the device packaging.
- Remove the packing frame content and remove the packing frame.
- Take out the device.
- Keep the box, trays and packing materials in the event the device must be transported/shipped in the future.

2.2 Device components

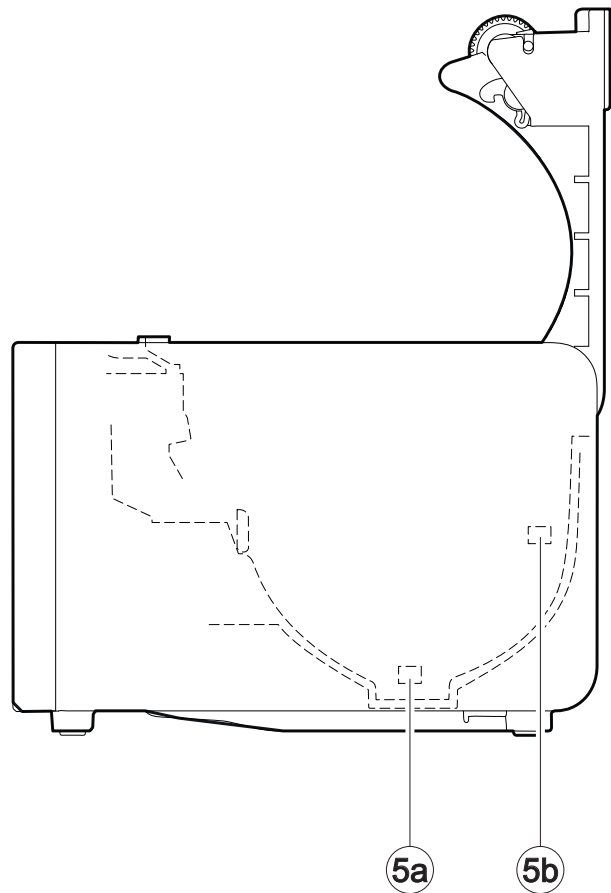
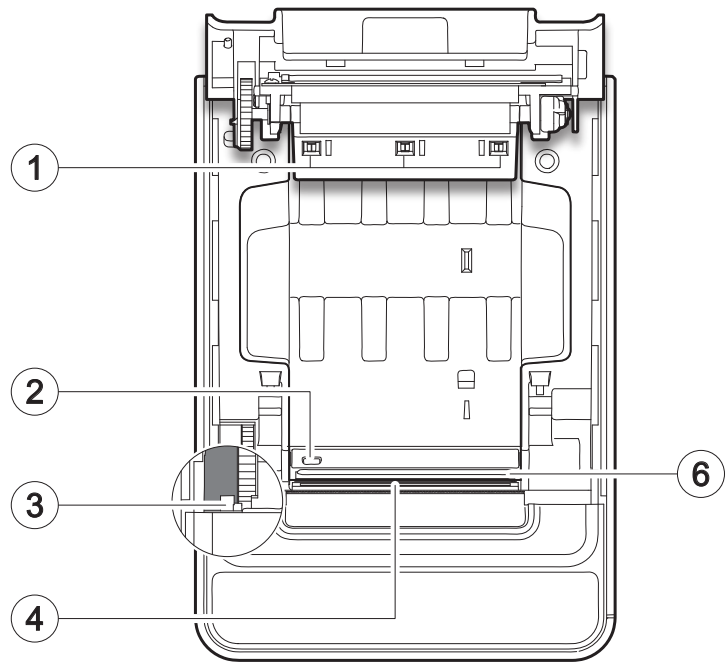
External view

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



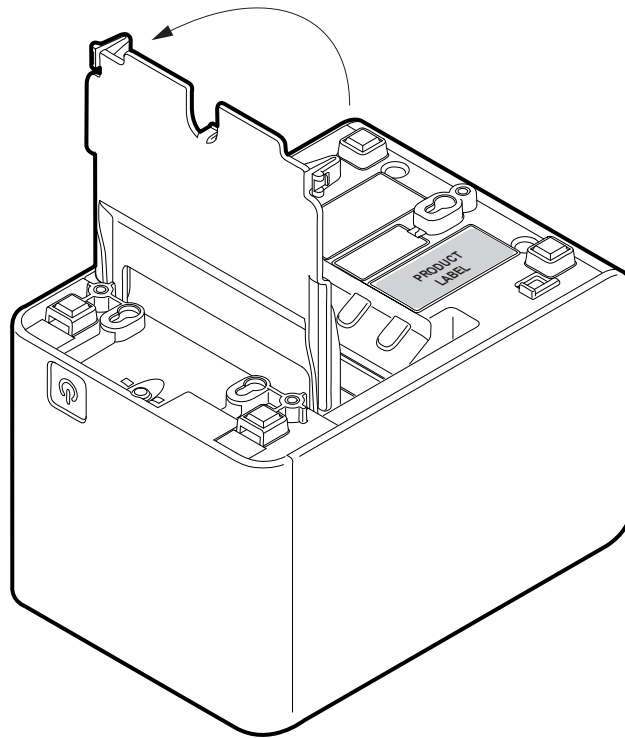
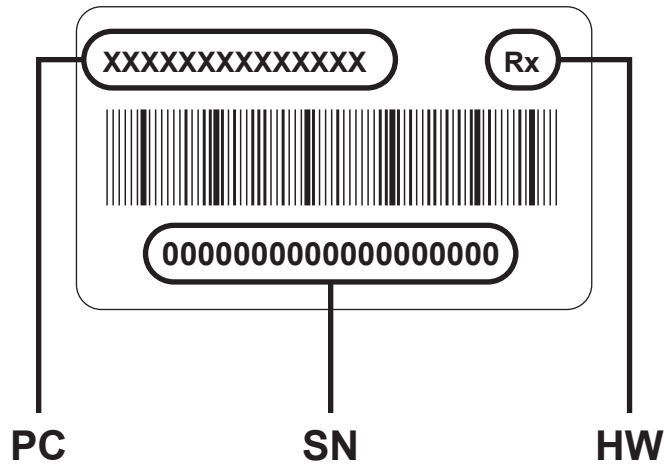
Internal view

1. System with three sensors for detecting black mark or hole on the non-thermal side of the paper (optional)
2. Sensor for paper and black mark detection
3. Sensor for cover open
4. Mobile sensor for detecting black mark or hole on the thermal side of the paper (optional)
5. Sensor for detecting near paper end, adjustable in 2 positions (a = device in the normal position, b = device mounted on the wall)
6. Temperature sensor for the print-head

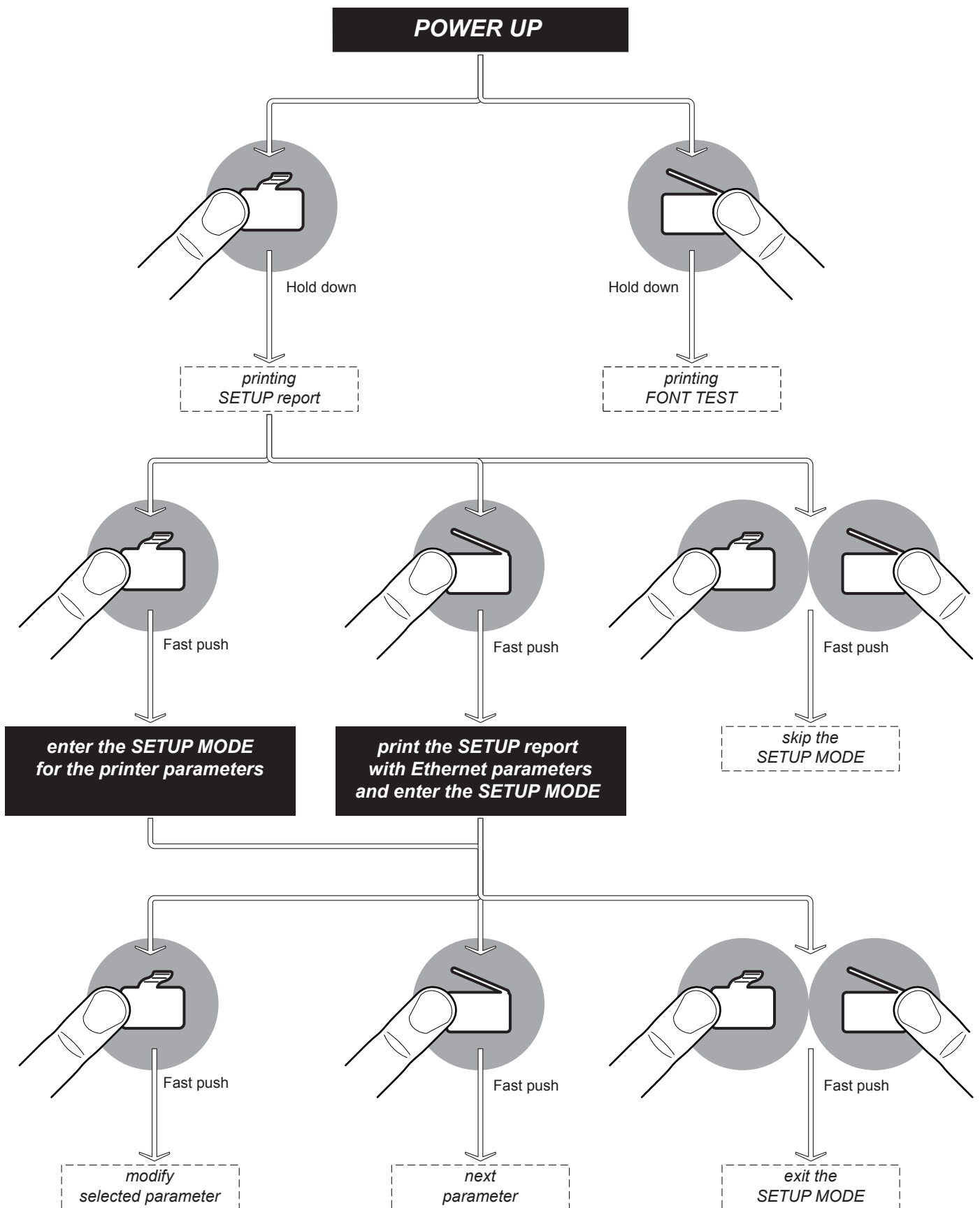


2.3 Product label

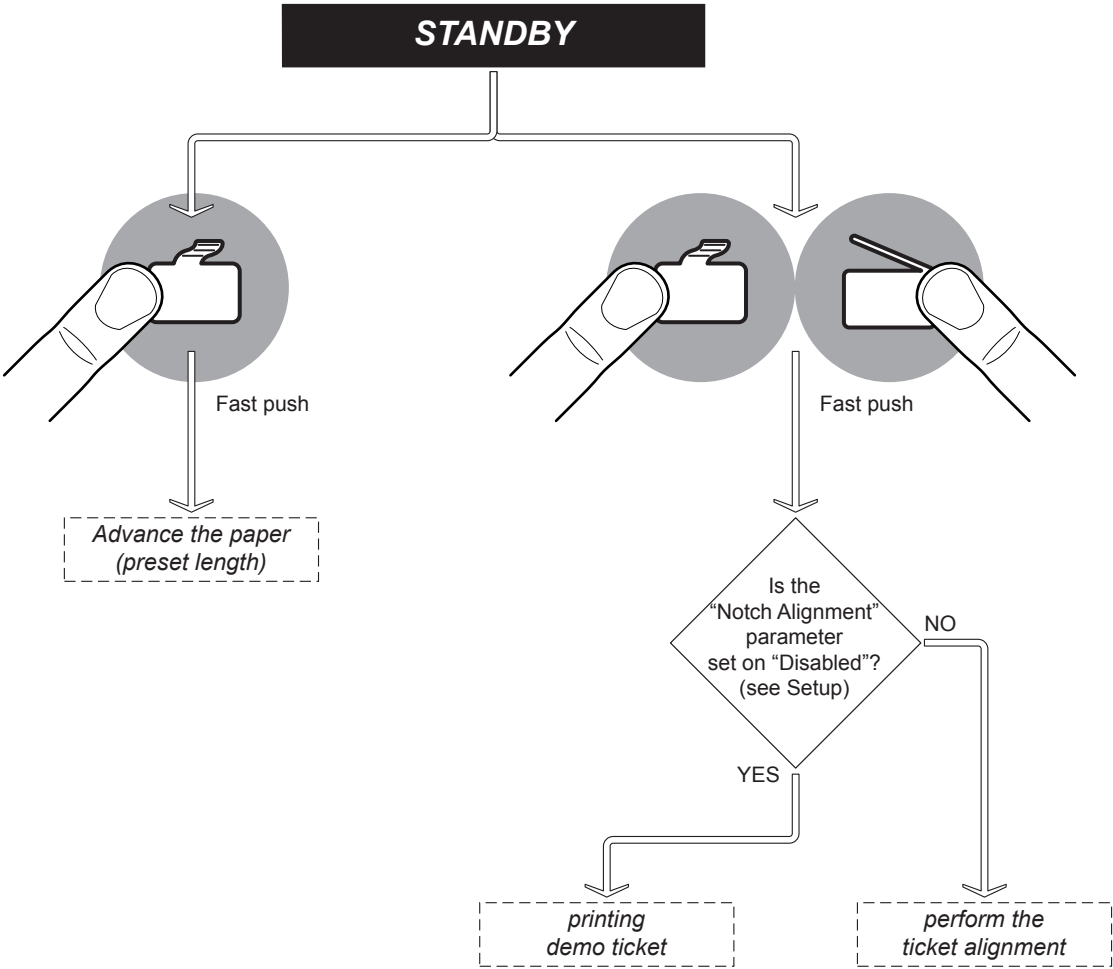
PC = Product code (14 digits)
SN = Serial number
HW = Hardware release



2.4 Key functions: power up








2.5 Key functions: standby



2.6 Status led flashes

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 |  | 1 x | RECEIVE DATA |
| | | 2 x | RECEPTION ERRORS (PARITY, FRAME ERROR, OVERRUN ERROR) |
| | | 3 x | COMMAND NOT RECOGNIZED |
| | | 4 x | COMMAND RECEPTION TIME OUT |
| | | 5 x | NEAR PAPER END |
| PURPLE RECOVERABLE ERROR |  | 2 x | HEADING OVER TEMPERATURE |
| | | 3 x | PAPER END |
| | | 5 x | POWER SUPPLY VOLTAGE INCORRECT |
| RED UNRECOVERABLE ERROR |  | 6 x | COVER OPEN |
| | | 3 x | RAM ERROR |
| | | 4 x | EXTERNAL FLASH ERROR |
| | | 5 x | CUTTER ERROR |

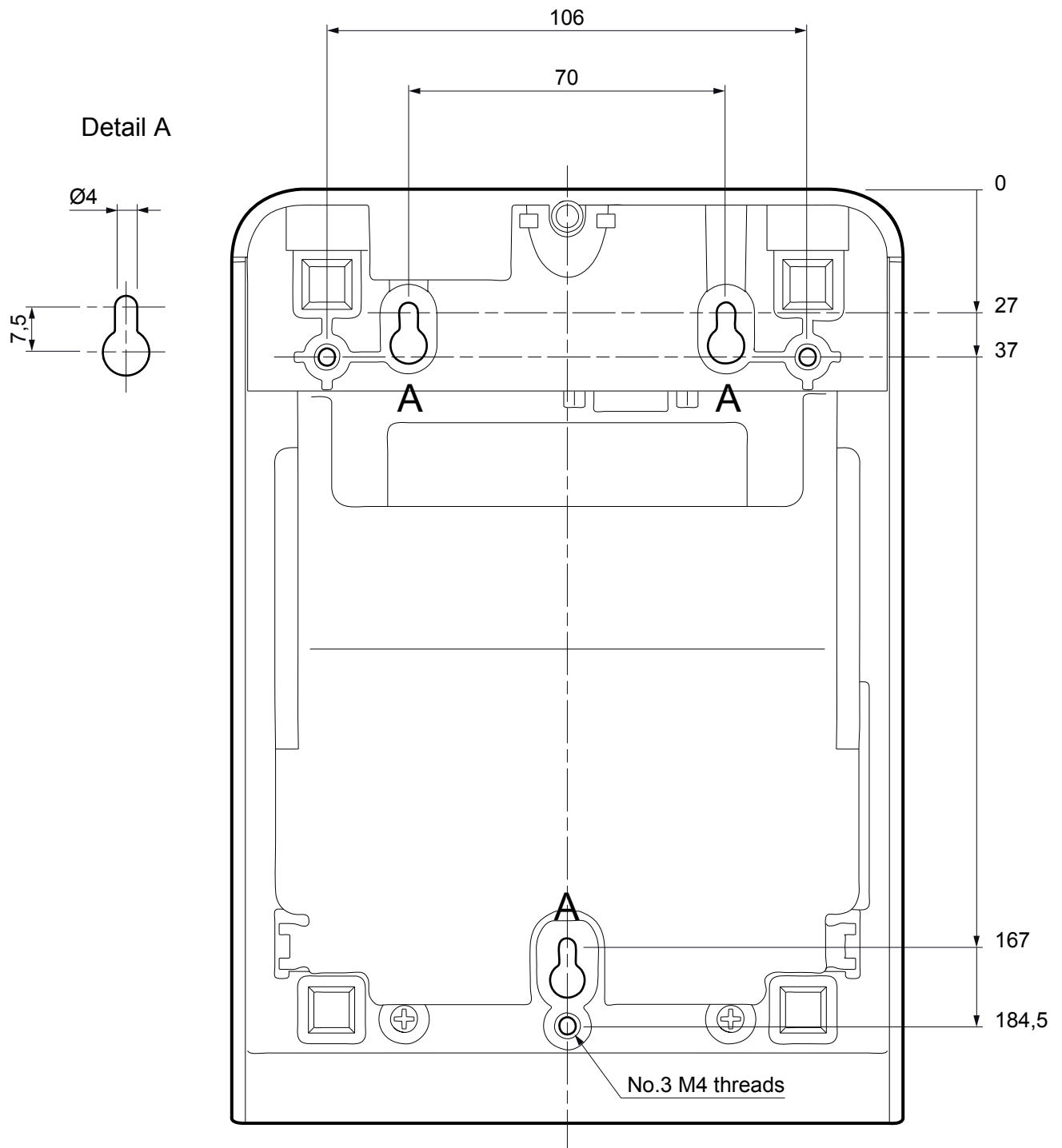
3 INSTALLATION

3.1 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.



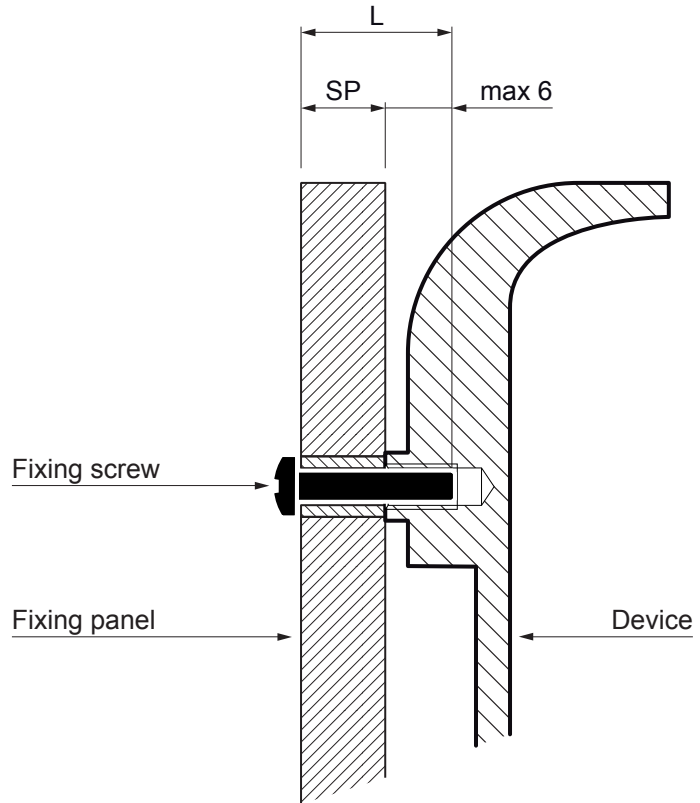
Guidelines for wall mounting with M4 screws

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

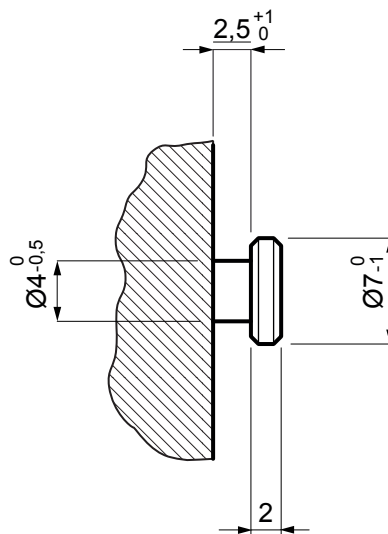
$$L \leq 6 \text{ mm} + SP$$

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



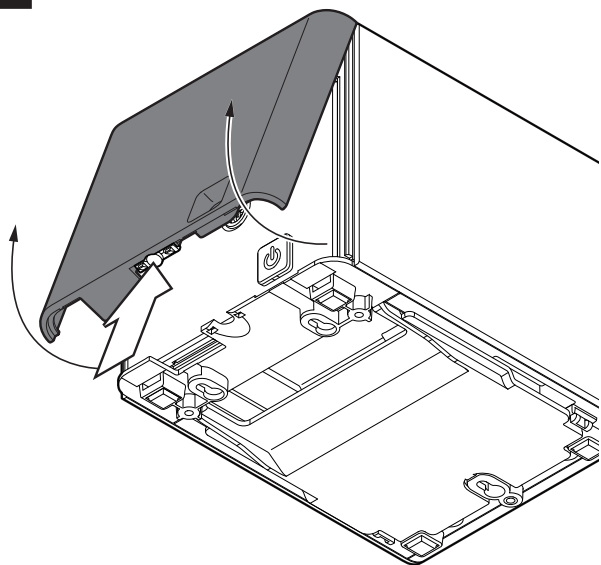
Guidelines for wall mounting on pins

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.



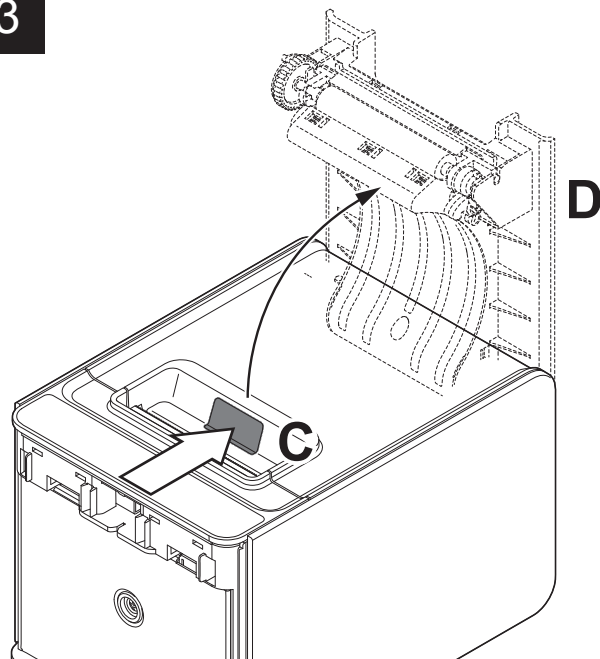
Mounting

1



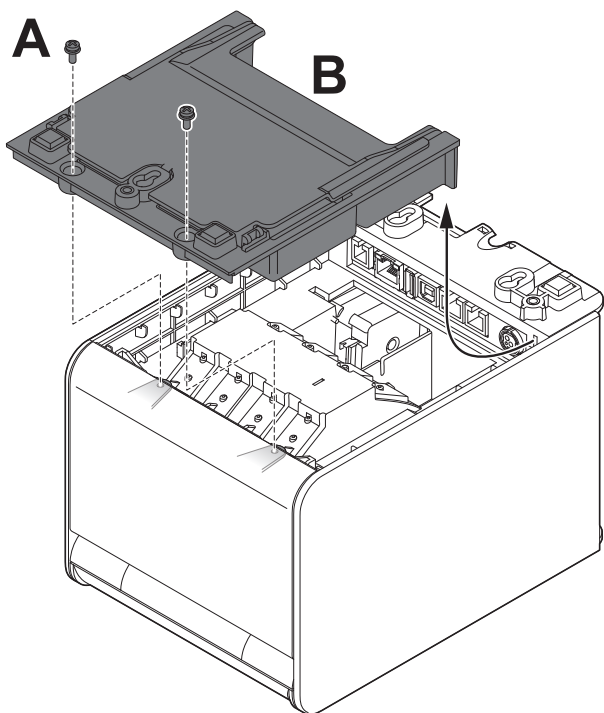
Press the release button and remove the front cover

3



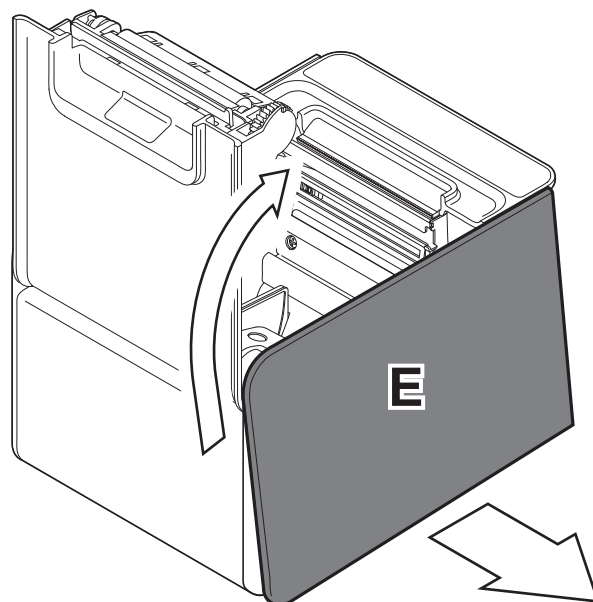
Press the service button C to open the device cover D

2



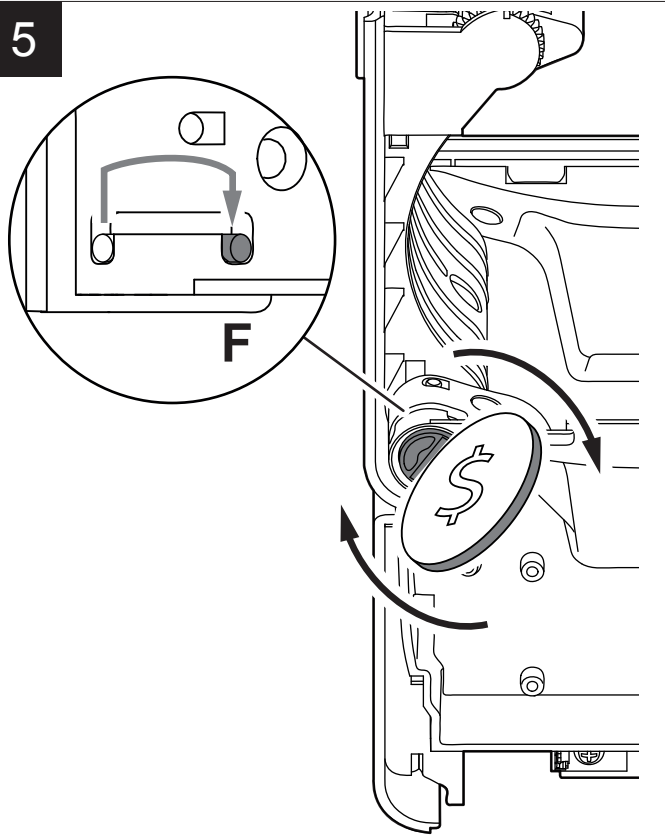
Turn the device upside down and unscrew the 2 fixing screws A. Remove the base B of the device by pulling it out from the seats in the direction shown.

4



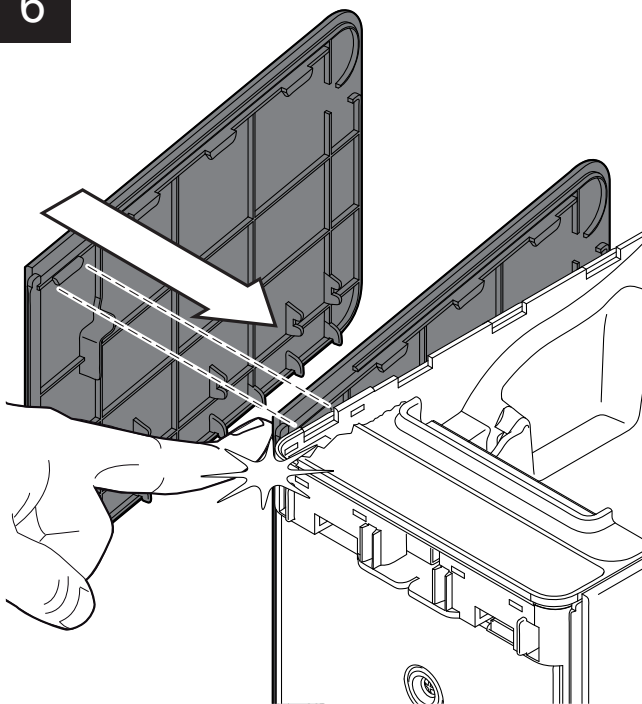
Pull the lower part of the side E. Rotate the rear to release it from its seats on the frame

5



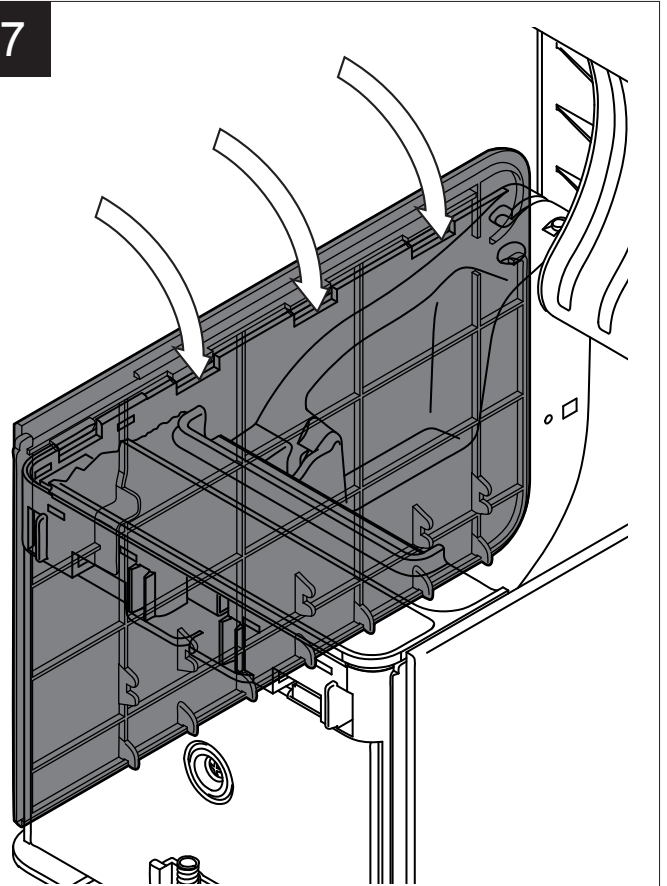
Rotate the selector that adjusts the load on the return spring for the cover in position F by using a coin

6



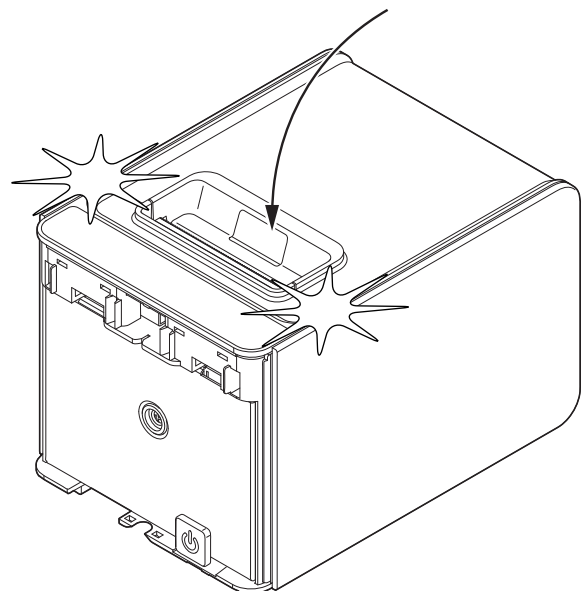
Tilt the side and insert the pin into its seat on the frame.
Press in the specified position to lock the pin.

7



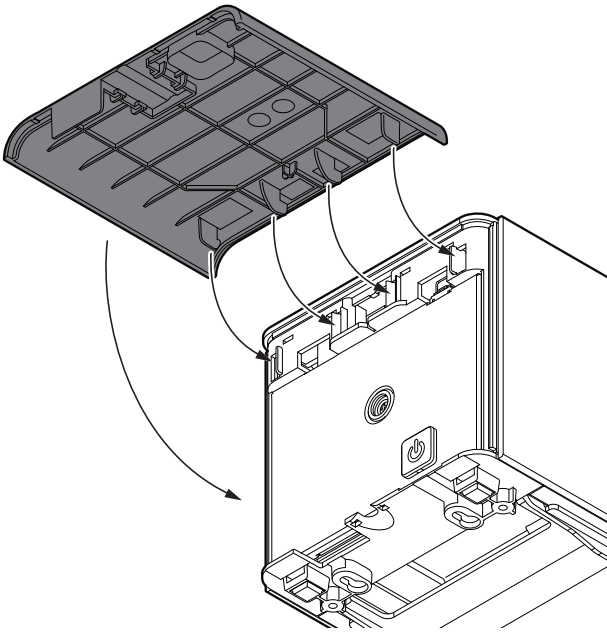
Turn down the side to lock the other pins in its seats on the frame.

8



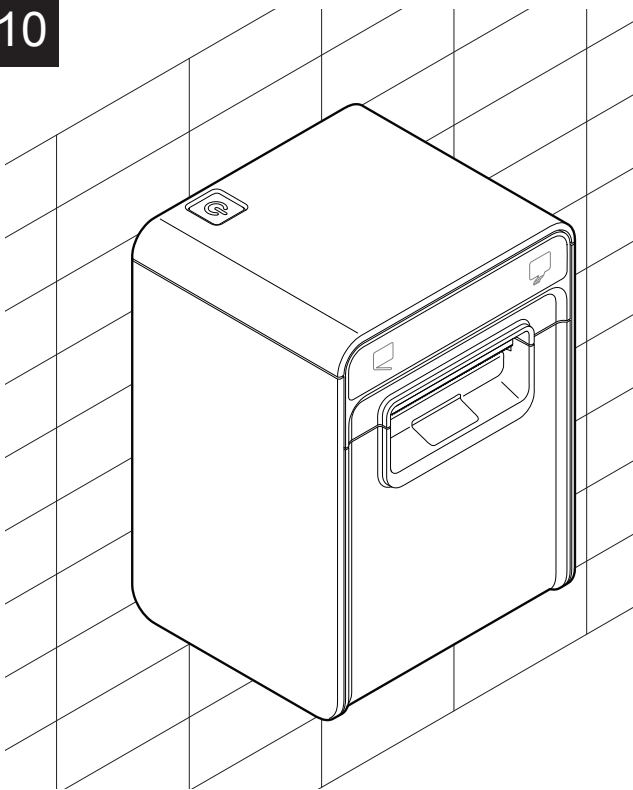
Close the device cover

9



Reassemble the cover removed previously

10



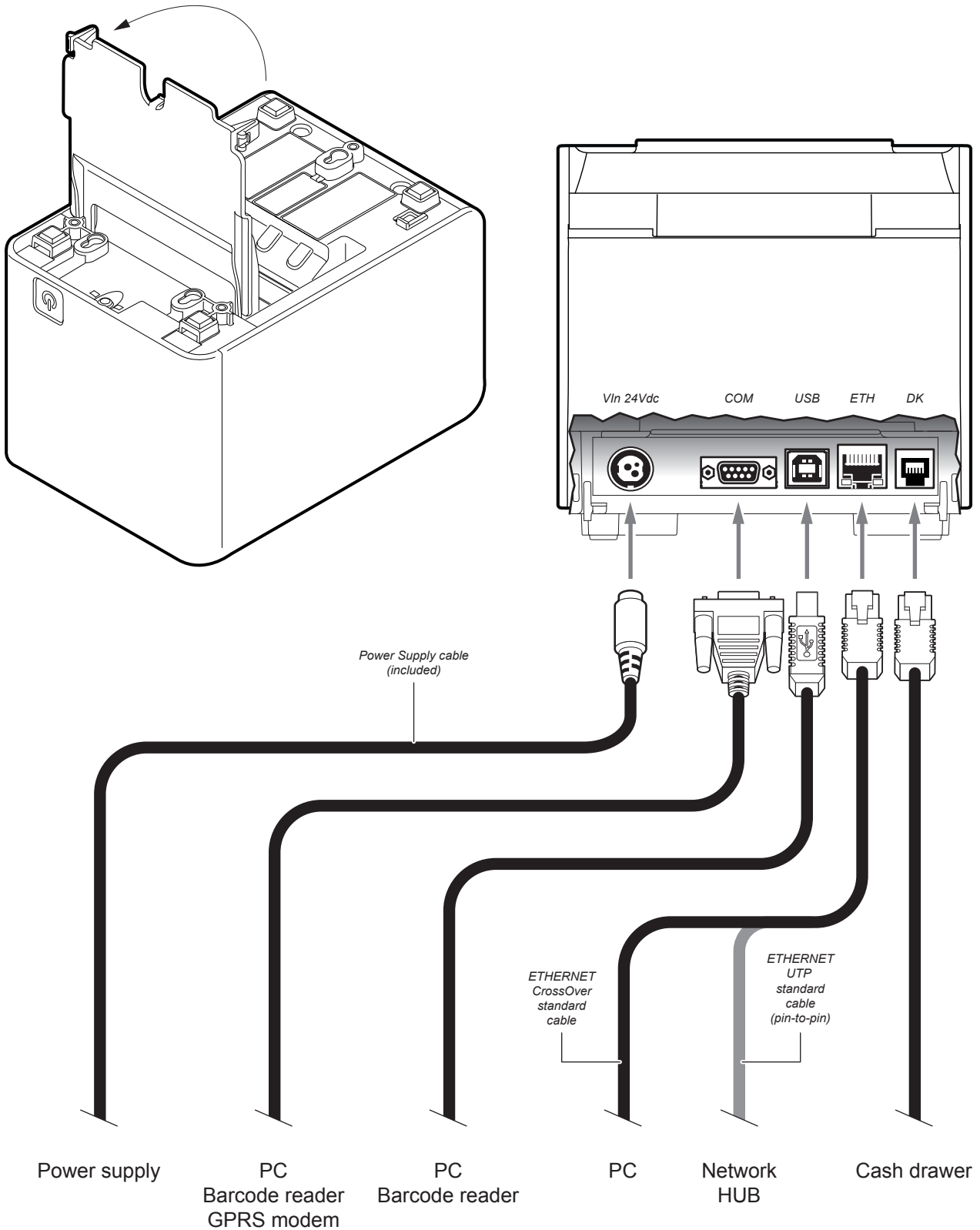
Fix the device to the wall

3.2 Connections

The following figure shows the possible connections for the device.

ATTENTION:

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



3.3 Pinout

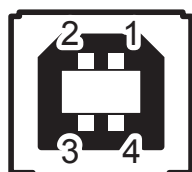
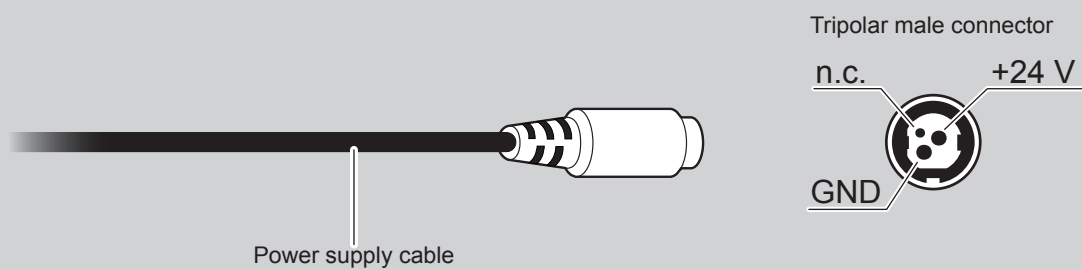


POWER SUPPLY
Tripolar female connector

| | | |
|----|---|-----------|
| J1 | 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

| | | | |
|----|-----|-----------|----------|
| J4 | 1 | USB0-VBUS | (in) |
| | 2 | D0 - | (in/out) |
| | 3 | D0 + | (in/out) |
| | 4 | GND | |
| | SH1 | SHIELD | |
| | SH2 | SHIELD | |



RS232 SERIAL INTERFACE

Female DB9 connector

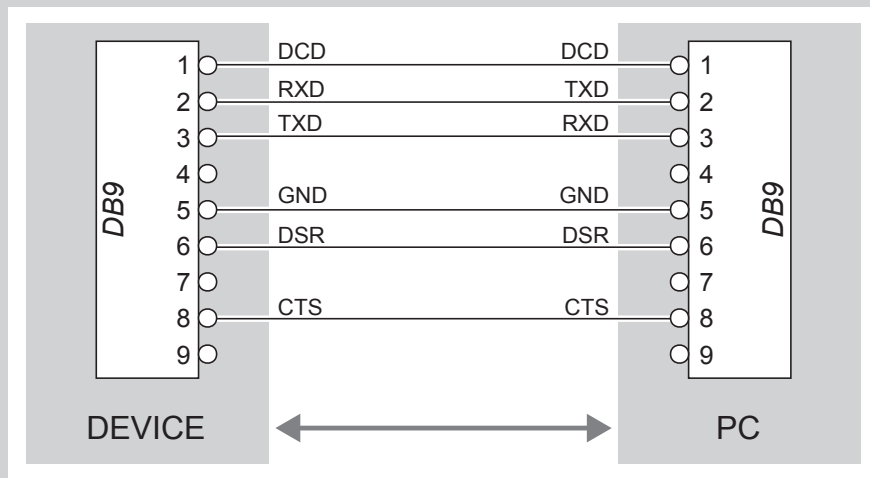
| | | | |
|----|---|------|--|
| J3 | 1 | DTR | |
| | 2 | TX | During transmission, takes the values "0" and "1" depending on data. |
| | 3 | RX | During reception, takes the values "0" and "1" depending on data. |
| | 4 | DSR | |
| | 5 | GND | |
| | 6 | DTR | When "1", device is power on. |
| | 7 | CTS | |
| | 8 | RTS | When "1", device is ready to receive data |
| | 9 | n.c. | |

NOTES:

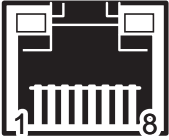
Given the presence of the RS232 standard, logic value "0" corresponds to a voltage level of between +3Vdc and +15Vdc and logic value "1" corresponds to a voltage level of between -3Vdc and -15Vdc.

K3 > PC connection

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



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 |

NOTES:

The functionality of two led are specified in the following table:

| 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).



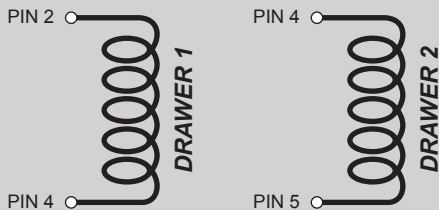
DRAWER CONNECTOR

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 | | |

ATTENTION:

This device can manage drawers of different power supplies (6V, 12V, 18V, 24V). To prevent a current overload, check and set correctly the kind of cash drawer.



NOTE:

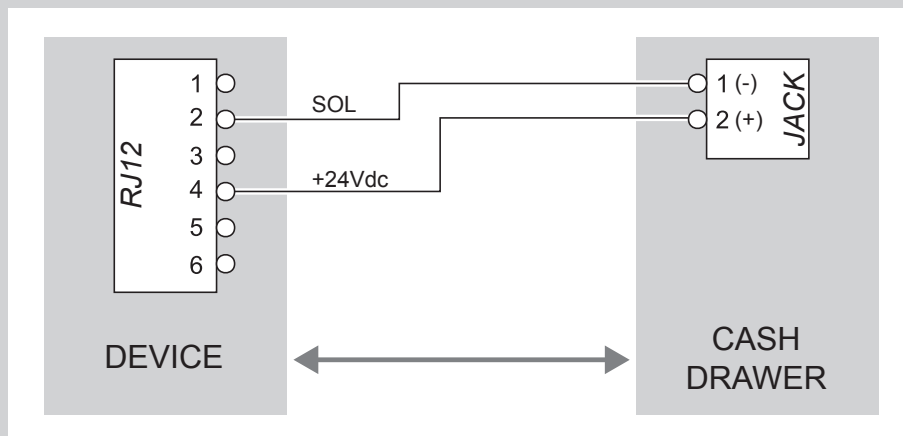
The solenoid of the drawer 1 must be connected from Pin 2 to Pin 4 on the drawer connector

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

NOTE:

K3 > 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



3.4 Driver and SDK

The drivers are available 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 OPOS | |
| Linux | | 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 library. |
| 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. |

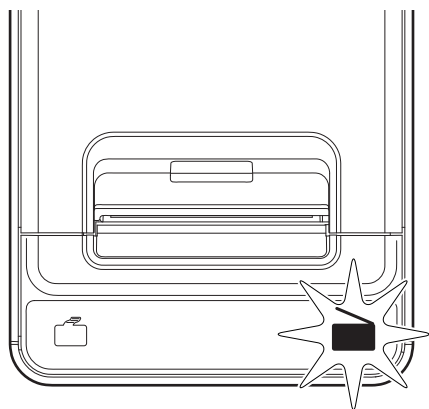
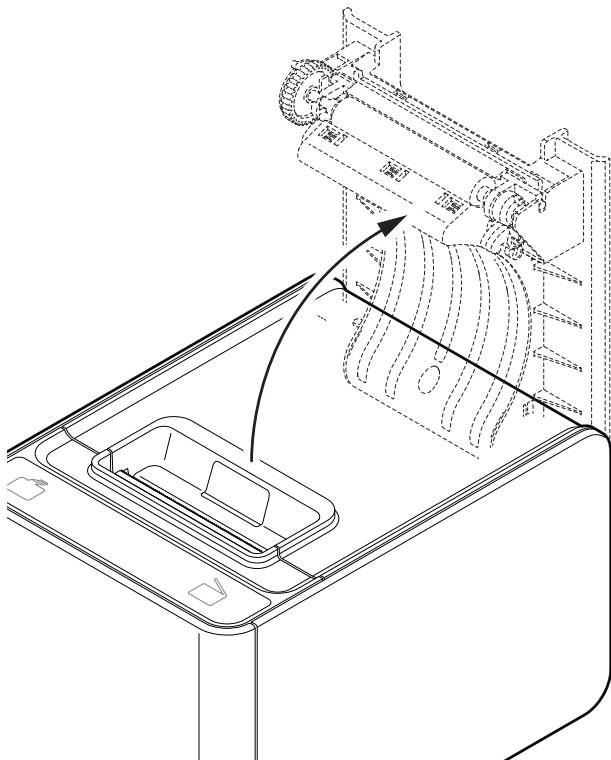
NOTA:

All drivers can be found in the DOWNLOAD section of the web site www.custom.biz.

4 OPERATION

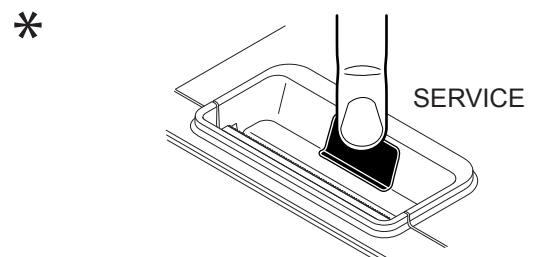
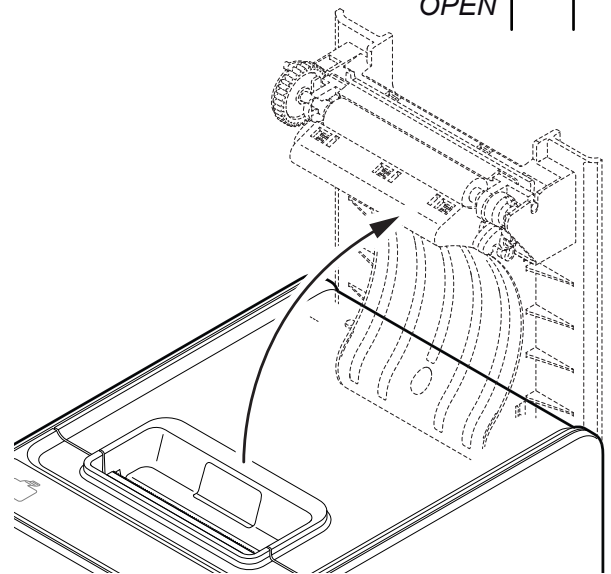
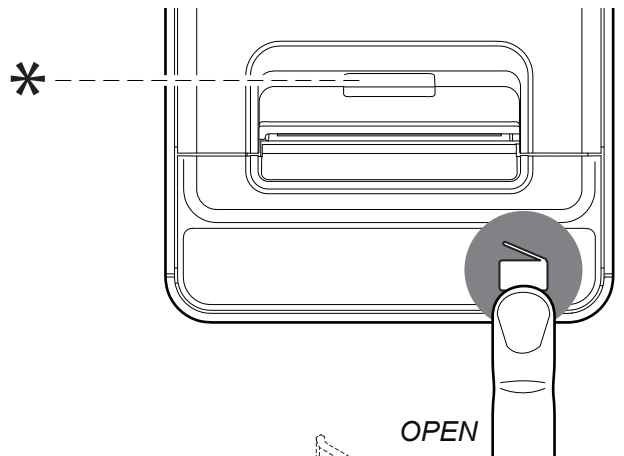
4.1 Opening the cover

Automatic



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"

Manual



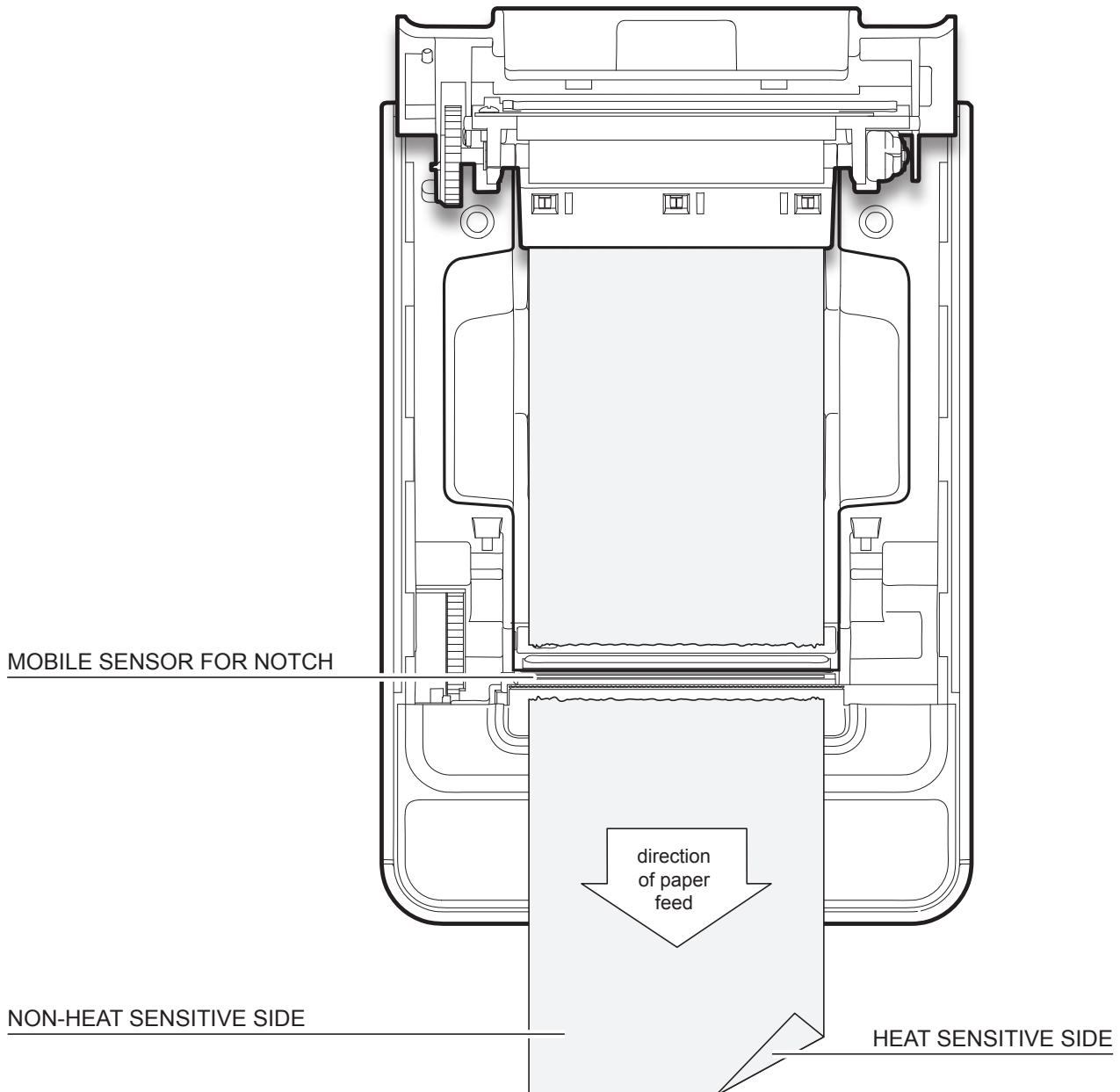
Press and hold the OPEN button to open the device cover.
Or in case of anomalies press the service button.

4.2 Adjusting the alignment sensor (optional)

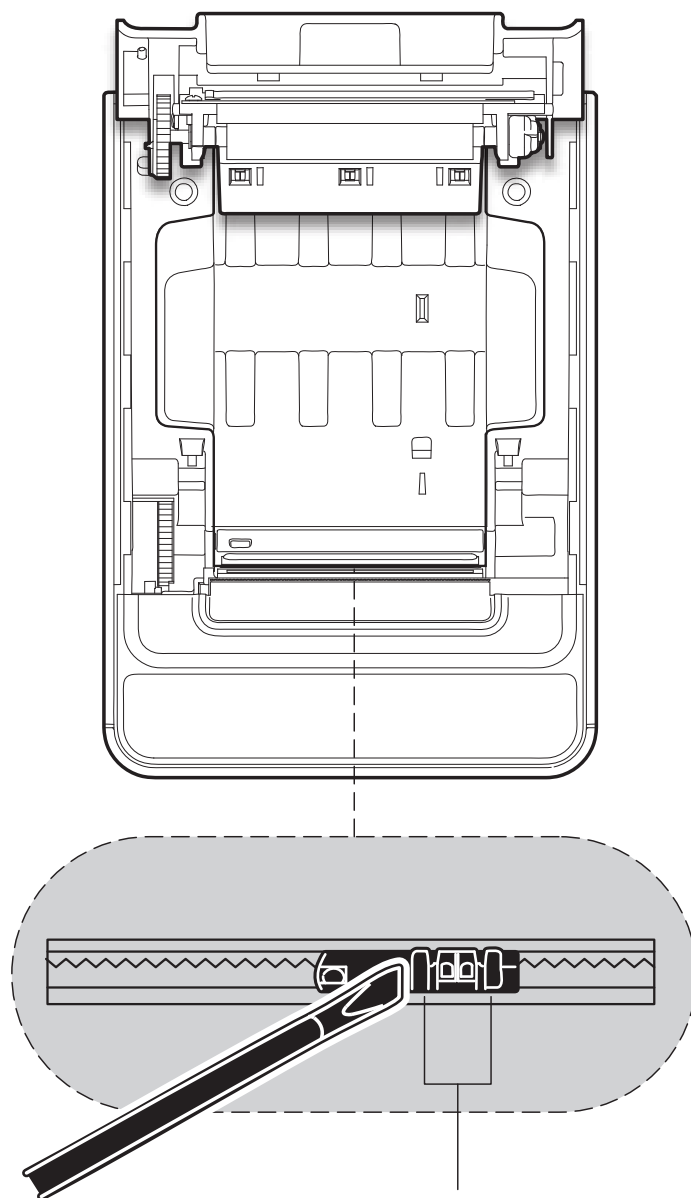
The device can be optionally equipped with a mobile sensor for the detection of the alignment black mark placed on the thermal side of paper as shown below.

The device user will need to manually move this mobile sensor according to the position of the black mark on the paper (see next paragraphs).

To use this sensor for black mark detection, you must set the "Notch/B.Mark Position" setup parameter on the "Bottom" value (see Chapter 5).



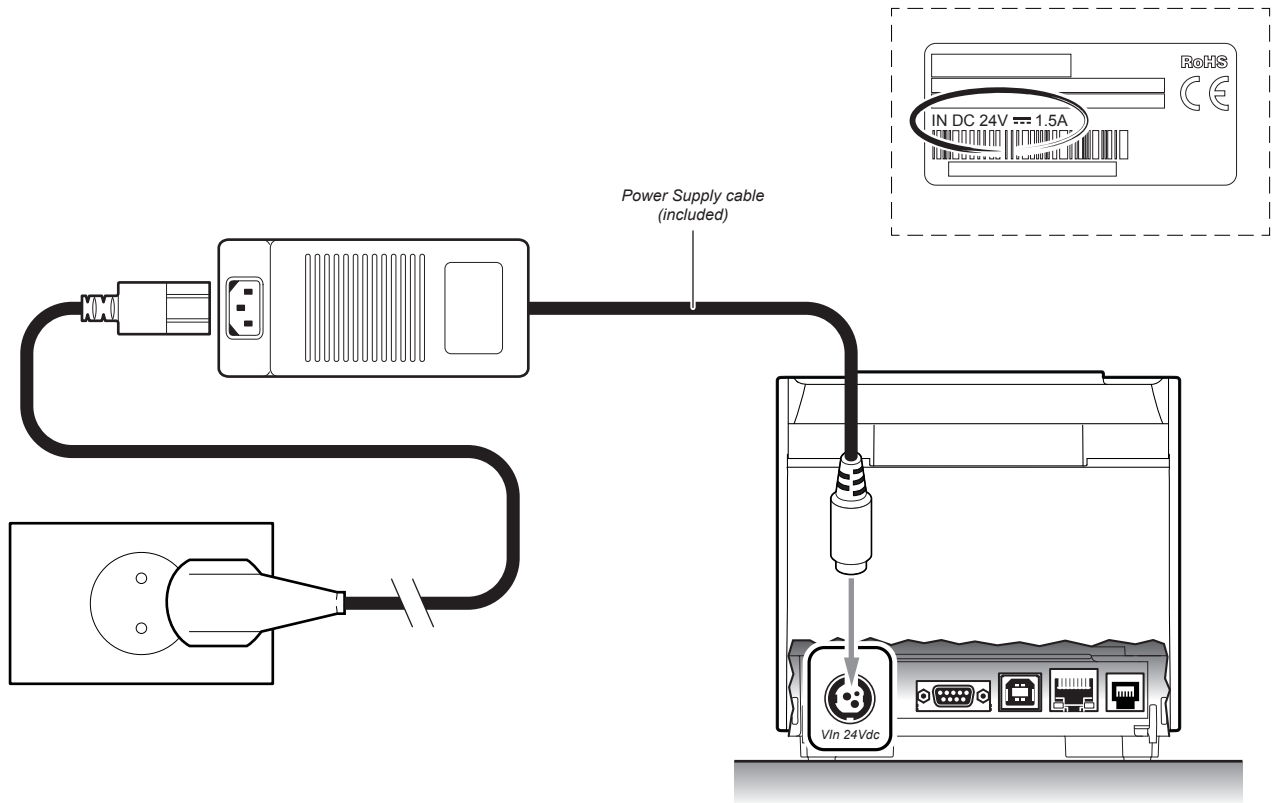
To adjust the mobile sensor position according to the black mark position on paper, open the device cover (see par. 4.1) and move the sensor to the desired position using a small screwdriver or a pointed object.



ATTENTION:
To avoid damaging the sensor,
use the plastic tabs as foothold
for the screwdriver to push
the sensor in the desired position.

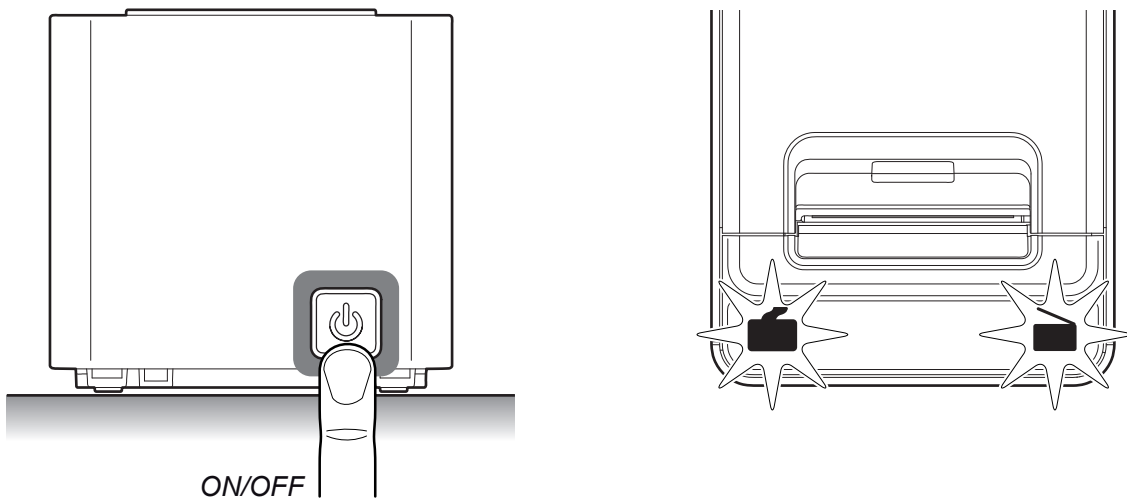
4.3 Switch the device ON/OFF

1



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

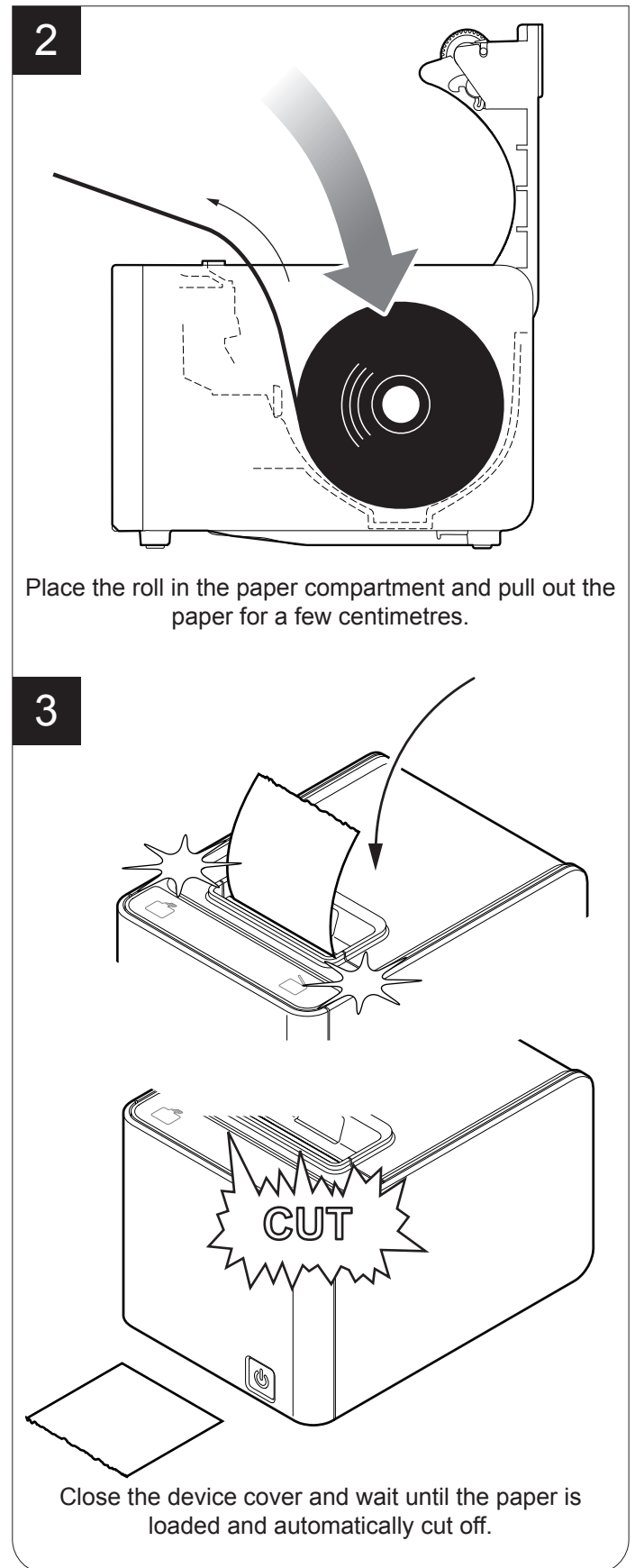
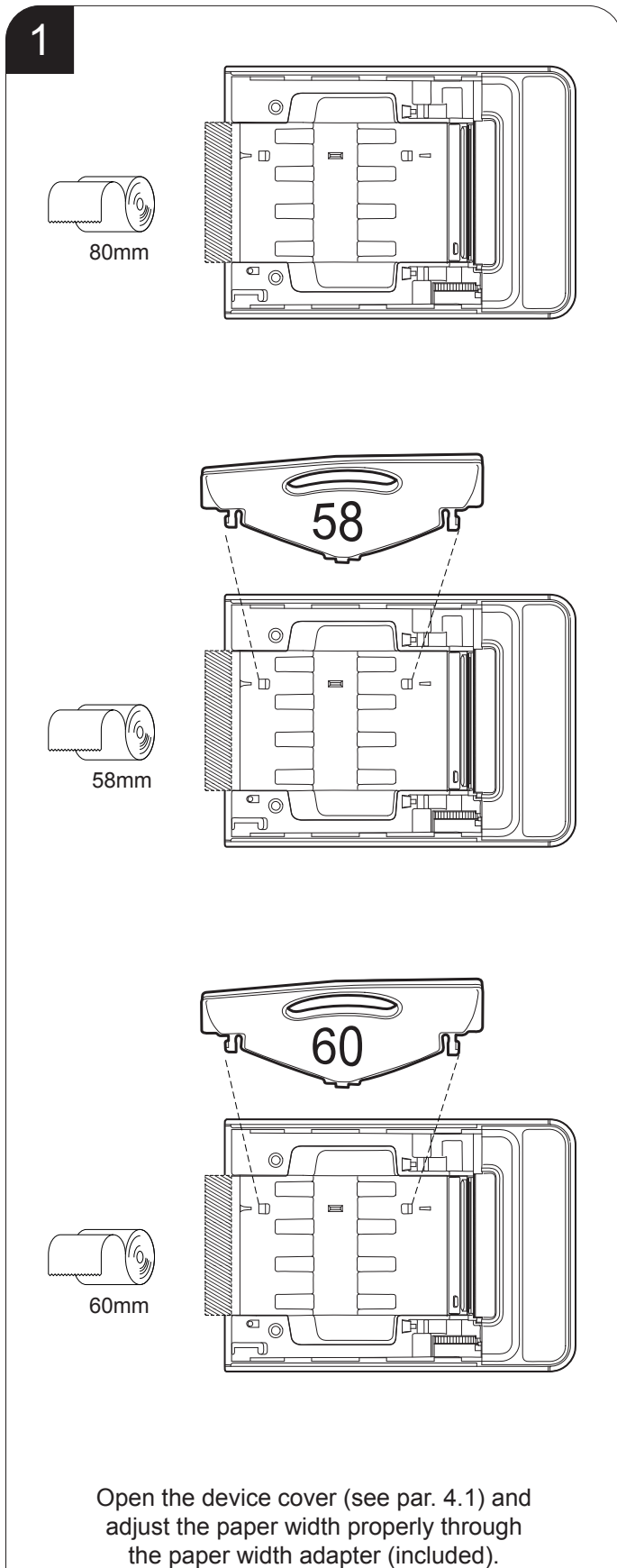
2



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.

4.4 Loading the paper roll

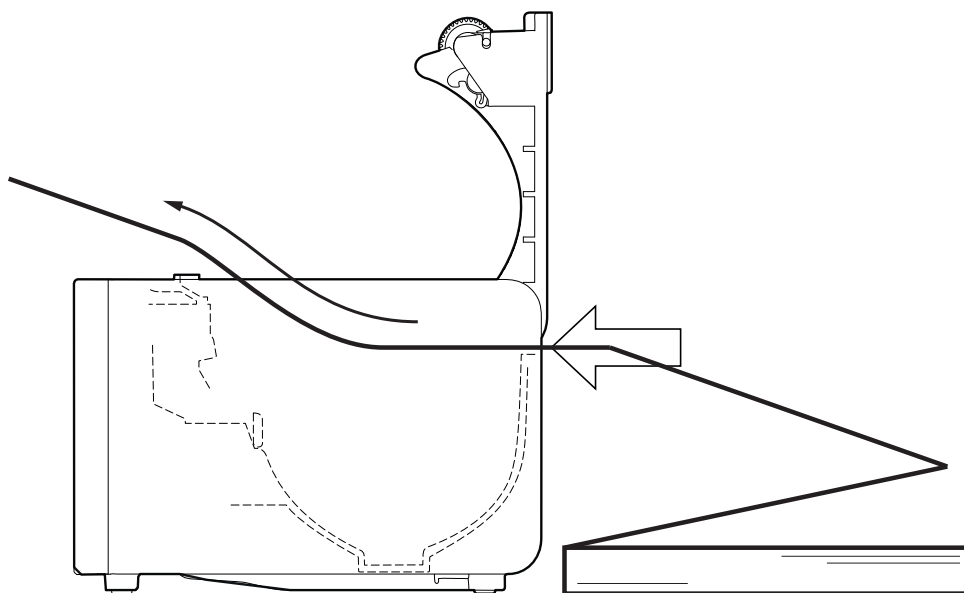
To change the paper proceed as follows. At every change of paper, check inside the device to locate and remove any scraps of paper.



4.5 Loading the fanfold

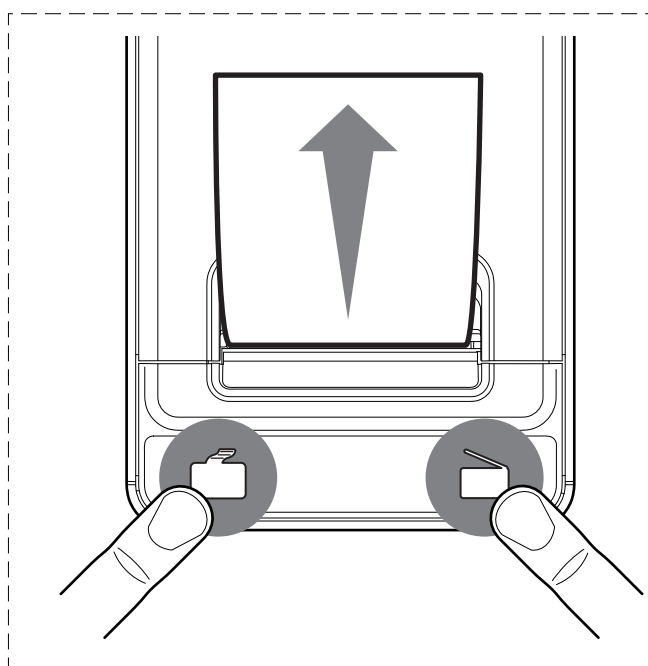
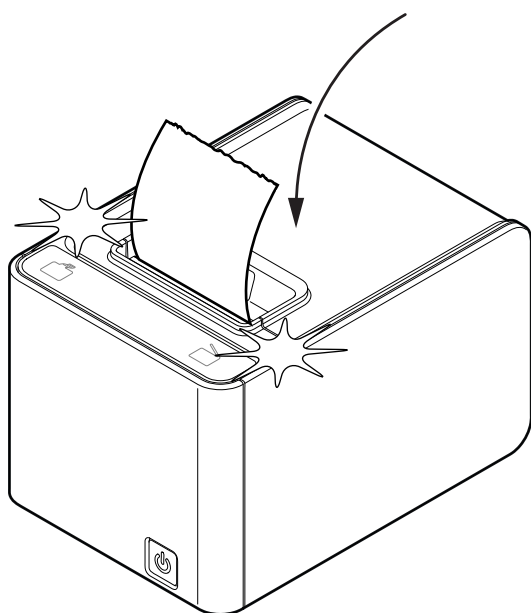
To change the paper proceed as follows. At every change of paper, check inside the device to locate and remove any scraps of paper.

1



Open the device cover (see par. 4.1) and insert the fanfold through the input slot, located on the back of the device. Pull out the paper for a few centimetres.

2



Close the device cover.

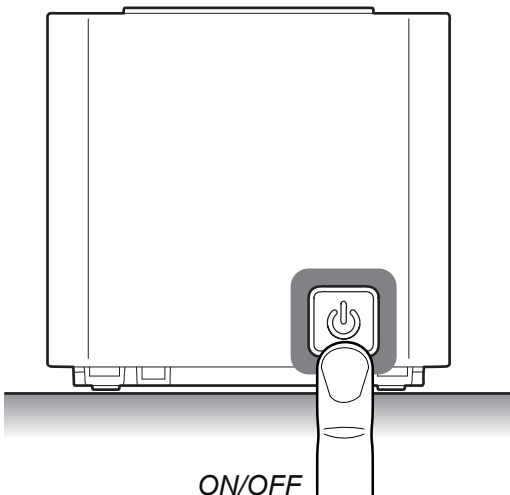
If the parameter "Notch Alignment" is enabled Proceed with alignment by pressing both keys

5 CONFIGURATION

5.1 Configuration mode

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

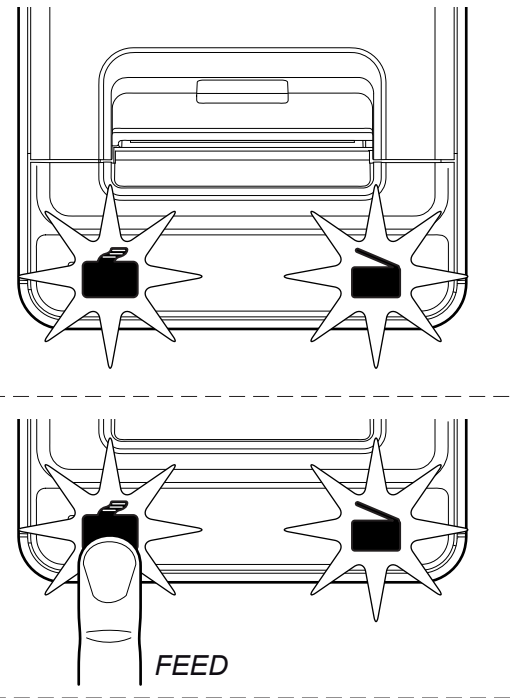
1



ON/OFF

Turn on the device by pressing the ON/OFF key.

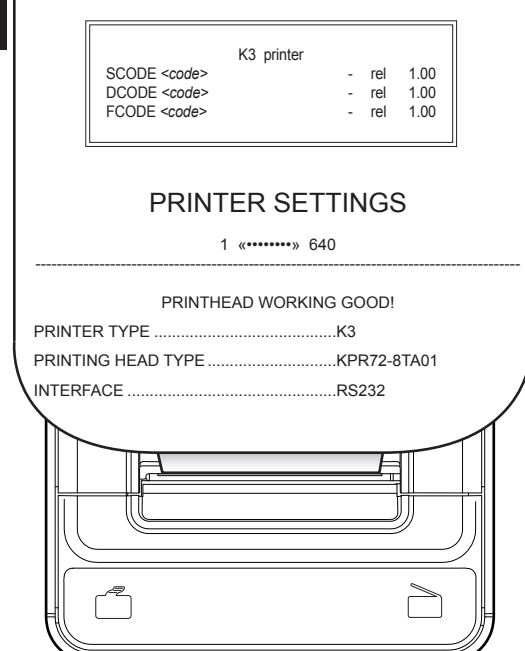
2



FEED

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

3



K3 printer
SCODE <code> - rel 1.00
DCODE <code> - rel 1.00
FCODE <code> - rel 1.00

PRINTER SETTINGS

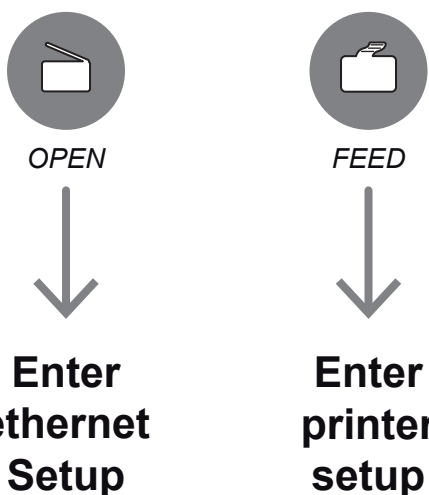
1 «*****» 640

PRINTHEAD WORKING GOOD!

PRINTER TYPEK3
PRINTING HEAD TYPEKPR72-8TA01
INTERFACERS232

The device prints the report with parameters for printer settings.

4



OPEN

FEED

Enter ethernet Setup

Enter printer setup

Press the FEED key to enter the configuration mode or press the OPEN key to print the SETUP report with the Ethernet parameters.

5.2 Setup report

The following figures show the setup reports of the device. The shown values for parameters are sample values; for the list and the description of device and Ethernet parameters see the following paragraphs.

| | | |
|--|---|---|
| <p><i>DEVICE NAME and FIRMWARE MODULES RELEASE</i></p> | } | <p style="text-align: center;">K3 printer</p> <p>SCODE <code> - rel 1.00 DCODE <code> - rel 1.00 FCODE <code> - rel 1.00</p> |
| <p><i>PRINTING HEAD STATUS</i></p> | } | <p style="text-align: center;">PRINTER SETTINGS</p> <p style="text-align: center;">1 «*****» 576</p> <hr style="border-top: 1px dashed black;"/> <p style="text-align: center;">PRINthead WORKING GOOD!</p> |
| <p><i>DEVICE STATUS</i></p> | } | <p>PRINTER TYPEK3 PRINTING HEAD TYPE.....KPR72-8TA01 INTERFACERS232 PROGRAM MEMORY TEST.....OK DYNAMIC RAM TEST.....OK EXTERNAL MEMORY TESTOK CUTTER TEST.....OK HEAD VOLTAGE [V] = 23,37 HEAD TEMPERATURE [°C] = 25 POWER ON COUNTER = 4 PAPER PRINTED [cm] = 40 CUT COUNTER = 1</p> |
| <p><i>PRINTER PARAMETERS</i></p> | } | <p>Printer Emulation : ESC/POS (TM) RS232 Baud Rate : 115200 bps RS232 Data Length..... : 8 bits/chr RS232 Parity : None RS232 Handshaking : Hardware Busy Condition : RxFull USB Mass Storage..... : Disabled USB Address Number : 0 USB Virtual COM..... : Disabled Print Mode : Normal Autofeed : CR Disabled Code Table [num] : 0 Chinese Font..... : Disabled Chars / inch : A=15 B=20 cpi Speed / Quality..... : Normal Print Width..... : 72mm[80PaperW] Paper Threshold : 40% Notch/B.Mark Position : Bottom Notch Threshold : 40% Notch Distance [mm] : +15 Total cut : Enabled PaperEnd Buffer Clear : Disabled PrintHead Test PowerOn..... : Disabled Data Logger..... : Disabled Line Space Reduction : Disabled Line Feed Reduction : Disabled Barcode height Reduct..... : Disabled Print Density..... : 0%</p> |
| <p><i>KEYS FUNCTIONS</i></p> | } | <p>[FEED] enter Printer setup [OPEN] enter Ethernet Setup [FEED + OPEN] skip Setup</p> |

| | | |
|---------------------|---|---|
| KEYS FUNCTIONS | { | <p>[FEED] enter Printer setup [OPEN] enter Ethernet Setup [FEED + OPEN] skip Setup</p> |
| ETHERNET PARAMETERS | { | <p>DHCP Client : Disabled FTP Server : Disabled</p> <p>IP Address : 192.168. 0. 1 Subnet Mask : 255.255.240. 0 Default Gateway..... : 192.168. 0. 5</p> <p>MAC Address : 00-0E-E2-02-0B-0D</p> <p>For advanced printer setup please connect to the site http://192.168.0.1</p> |

5.3 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 | <i>device model</i> |
| PRINTING HEAD TYPE | <i>print head model</i> |
| INTERFACE | <i>interface present</i> |
| PROGRAM MEMORY TEST | <i>OK appears if functioning and NOT OK if faulty</i> |
| DYNAMIC RAM TEST | <i>OK appears if functioning and NOT OK if faulty</i> |
| EXTERNAL MEMORY TEST | <i>OK appears if functioning and NOT OK if faulty</i> |
| CUTTER TEST | <i>OK appears if functioning and NOT OK if faulty</i> |
| HEAD VOLTAGE | <i>voltage of the head</i> |
| HEAD TEMPERATURE | <i>temperature of the head</i> |
| POWER ON COUNTER | <i>number of power-ups made</i> |
| PAPER PRINTED | <i>centimetres of paper printed</i> |
| CUT COUNTER | <i>number of cuts performed</i> |

5.4 Printer parameters

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

The parameters marked with the symbol ^D are the default values.

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

| | |
|--------------------------|---|
| PRINTER EMULATION | <i>Available emulations for the device:</i> <i>SVELTA</i> <i>ESC/POS™ ^D</i> |
| RS232 BAUD RATE | <i>Communication speed of the serial interface:</i> <i>115200 ^D 9600</i> <i>57600 4800</i> <i>38400 2400</i> <i>19200 1200</i> <i>NOTE: Parameter valid only with serial interface.</i> |
| RS232 DATA LENGTH | <i>Number of bit used for characters encoding:</i> <i>7 bits/char</i> <i>8 bits/char ^D</i> <i>NOTE: Parameter valid only with serial interface.</i> |
| RS232 PARITY | <i>Bit for the parity control of the serial interface:</i> <i>None ^D = parity bit omitted</i> <i>Even = even value for parity bit</i> <i>Odd = odd value for parity bit</i> <i>NOTE: Parameter valid only with serial interface.</i> |
| RS232 HANDSHAKING | <i>Handshaking:</i> <i>XON/XOFF = software handshaking</i> <i>Hardware ^D = hardware handshaking (CTS/RTS)</i> <i>NOTES:</i> <i>Parameter valid only with serial interface.</i> <i>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.</i> |
| BUSY CONDITION | <i>Activation mode for Busy signal:</i> <i>OffLine/ RXFull = Busy signal is activated when the device is both in OffLine status and the buffer is full</i> <i>RXFull ^D = Busy signal is activated when the buffer is full</i> <i>NOTE: Parameter valid only with serial interface.</i> |

USB MASS STORAGE

Sharing mode from Mass Storage:

Disabled^D = sharing mode disabled

Enabled = sharing mode enabled

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):

| | | | | |
|----------------------|----------|----------|----------|----------|
| <i>0^D</i> | <i>2</i> | <i>4</i> | <i>6</i> | <i>8</i> |
| <i>1</i> | <i>3</i> | <i>5</i> | <i>7</i> | <i>9</i> |

USB VIRTUAL COM

Setting the USB port as a virtual serial port:

Disabled^D = Virtual COM disabled

Enabled = Virtual COM enabled

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

NOTE: The parameter is printed only with ESC/POS™ emulation enabled.

CODE TABLE [num]

Identifier number of the character code table to use.

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:

Setting the digit for tens:

CODE TABLE [num x 10]

| | | |
|----------------------|----------|----------|
| <i>0^D</i> | <i>2</i> | <i>4</i> |
| <i>1</i> | <i>3</i> | <i>5</i> |

Setting the digit for units:

CODE TABLE [num x 1]

| | | | | |
|----------------------|----------|----------|----------|----------|
| <i>0^D</i> | <i>2</i> | <i>4</i> | <i>6</i> | <i>8</i> |
| <i>1</i> | <i>3</i> | <i>5</i> | <i>7</i> | <i>9</i> |

NOTE:

See the paragraph 7.6 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).

CHINESE FONT

Setting of the chinese font:

Disabled^D = Disables the use of the chinese extended font GB18030-2000

Enabled = Enables the use of the chinese extended font GB18030-2000

NOTE:

When the chinese font is enabled, the selection of the character code table is suspended (par. "CODE TABLE").

When the Chinese fonts is disabled, it returns the character code table previously in use (par. "CODE TABLE").

CHARS / INCH*Font selection:*

A = 11 cpi, B = 15 cpi
A = 15 cpi, B = 20 cpi^D
A = 20 cpi, B = 15 cpi

NOTES:
CPI = Characters Per Inch
The parameter is printed only with ESC/POS™ emulation enabled.

SPEED / QUALITY*Setting of printing speed and printing quality:*

Normal^D
High Quality
High Speed
Gray scale

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:*

| | | |
|------------------------|------------|------------|
| <i>30%</i> | <i>60%</i> | <i>90%</i> |
| <i>40%^D</i> | <i>70%</i> | |
| <i>50%</i> | <i>80%</i> | |

NOTCH/B.MARK POSITION*Position of the alignment notch and choice of appropriate notch sensor:*

Disabled^D = the notch alignment is not performed
Top = the notch position is detected by the upper sensors (reflection)
Bottom = the notch position is detected by the lower sensor (reflection)
Transparent = the notch is detected by the lower sensor and the upper sensor placed in front of (transparence)

NOTE:
The value "Top" can be enabled only in presence of the system with three top sensors (optional).
If the device is equipped with the optional mobile sensor and the value "Bottom" is enabled, the following happens: the fixed sensor takes care of detecting the paper presence and the mobile sensor takes care of detecting the notch

NOTCH THRESHOLD*Threshold value (in percent) for the recognition of the presence of notch by the notch sensor:*

| | | |
|------------------------|------------|------------|
| <i>30%</i> | <i>60%</i> | <i>90%</i> |
| <i>40%^D</i> | <i>70%</i> | |
| <i>50%</i> | <i>80%</i> | |

NOTE: If the "Notch/B.Mark position" parameter is disabled, this parameter is not printed.

NOTCH DISTANCE

“Notch Distance” is the minimum distance (in mm) between the upper edge of ticket and the notch (see chapter 10).

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):

Sign setting:

NOTCH DISTANCE SIGN

+^D = positive distance
- = negative distance

Setting the digit for tens:

NOTCH DISTANCE [mm x 10]

| | | | | |
|----------------|---|---|---|---|
| 0 ^D | 2 | 4 | 6 | 8 |
| 1 | 3 | 5 | 7 | 9 |

Setting the digit for units:

NOTCH DISTANCE [mm x 1]

| | | | | |
|----------------|---|---|---|---|
| 0 ^D | 2 | 4 | 6 | 8 |
| 1 | 3 | 5 | 7 | 9 |

Setting the digit for decimals:

NOTCH DISTANCE [mm x .1]

| | | | | |
|----------------|---|---|---|---|
| 0 ^D | 2 | 4 | 6 | 8 |
| 1 | 3 | 5 | 7 | 9 |

NOTES:

For example, to set the notch distance to 15 mm, modify the parameters as follows:

Notch Distance Sign = +
Notch Distance [mm x 10] = 1
Notch Distance [mm x 1] = 5
Notch Distance [mm x .1] = 0

If the “Notch/b.mark position” parameter is disabled, the parameters for the “Notch Distance” are not printed.

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*

NOTE:

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%*

PRINT DENSITY

Adjusting the printing density:

| | | |
|-------------|----------------------|-------------|
| <i>-50%</i> | <i>-12%</i> | <i>+25%</i> |
| <i>-37%</i> | <i>0^D</i> | <i>+37%</i> |
| <i>-25%</i> | <i>+12%</i> | <i>+50%</i> |

5.5 Ethernet parameters

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

| | |
|------------------------|--|
| DHCP CLIENT | <i>Setting of the DHCP protocol:</i> <i>Disabled ^D = protocol disabled</i> <i>Enabled = protocol enabled</i> |
| FTP SERVER | <i>Setting of the FTP server:</i> <i>Disabled ^D = server disabled</i> <i>Enabled = server enabled</i> |
| IP ADDRESS | <i>IP address of device; this parameter is assigned by the network administrator.</i> <div style="background-color: #f0f0f0; padding: 5px;"><p>NOTE: Press the FEED key to modify the value of the highlighted digit. Pressing OPEN key to move the cursor on the next digit (if the cursor is on the latest digit, proceed to next parameter by pressing the OPEN key).</p></div> |
| SUBNET MASK | <i>IP address of device; this parameter is assigned by the network administrator.</i> <div style="background-color: #f0f0f0; padding: 5px;"><p>NOTE: Press the FEED key to modify the value of the highlighted digit. Pressing OPEN key to move the cursor on the next digit (if the cursor is on the latest digit, proceed to next parameter by pressing the OPEN key).</p></div> |
| DEFAULT GATEWAY | <i>This parameter identifies the Gateway IP address used to send applications to the external network.</i> <div style="background-color: #f0f0f0; padding: 5px;"><p>NOTE: Press the FEED key to modify the value of the highlighted digit. Pressing OPEN key to move the cursor on the next digit (if the cursor is on the latest digit, proceed to next parameter by pressing the OPEN key).</p></div> |
| MAC ADDRESS | <i>This is the number, provided by the constructor, that identifies the device; this number is univocal.</i> <div style="background-color: #f0f0f0; padding: 5px;"><p>NOTE: This parameter can't be modified by set up.</p></div> |

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 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.

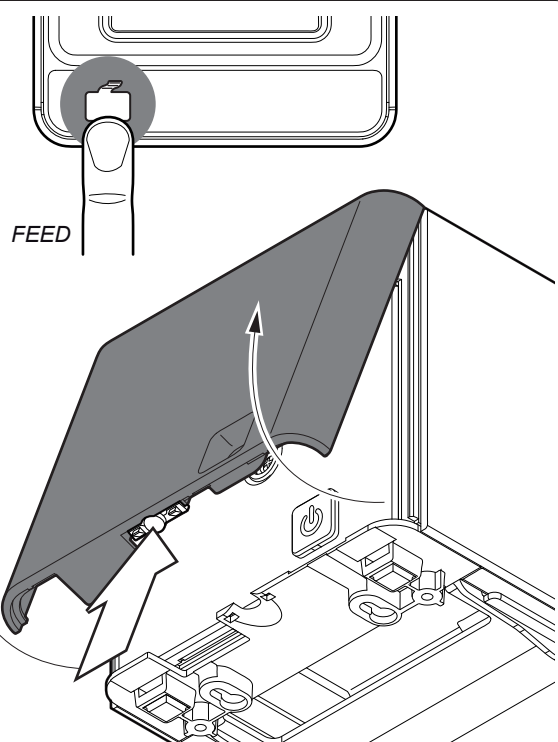
During the startup, if you hold down the FEED key, the printer enters the self-test routine and print the setup report. The printer remains in standby until a key is pressed or characters are received through the communication port (Hexadecimal Dump mode). For each character sent, the receipt contain 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:

| 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 | ... | kl sdf ... |
| 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 paper jam

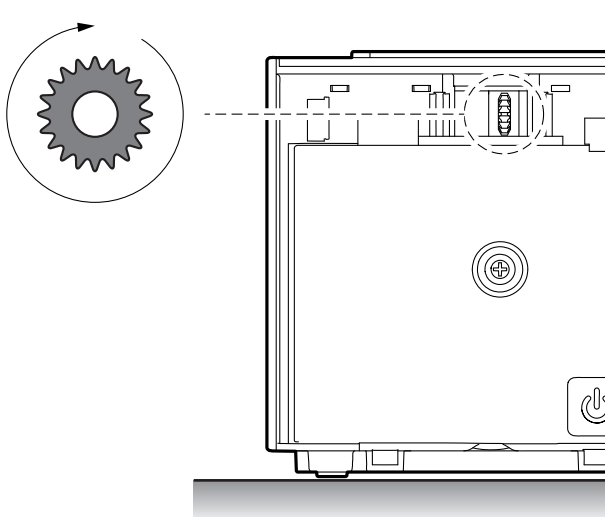
1



FEED

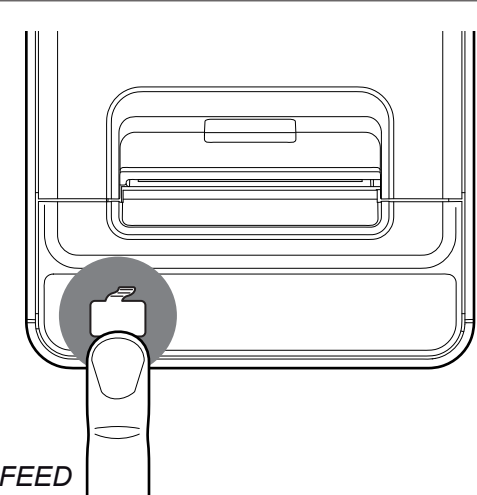
Press the FEED key to try to unlock the cutter.
If the cutter did not unlock press the release button
and remove the front cover.

2



Rotate the gear in one of two directions (approximately
a full turn).

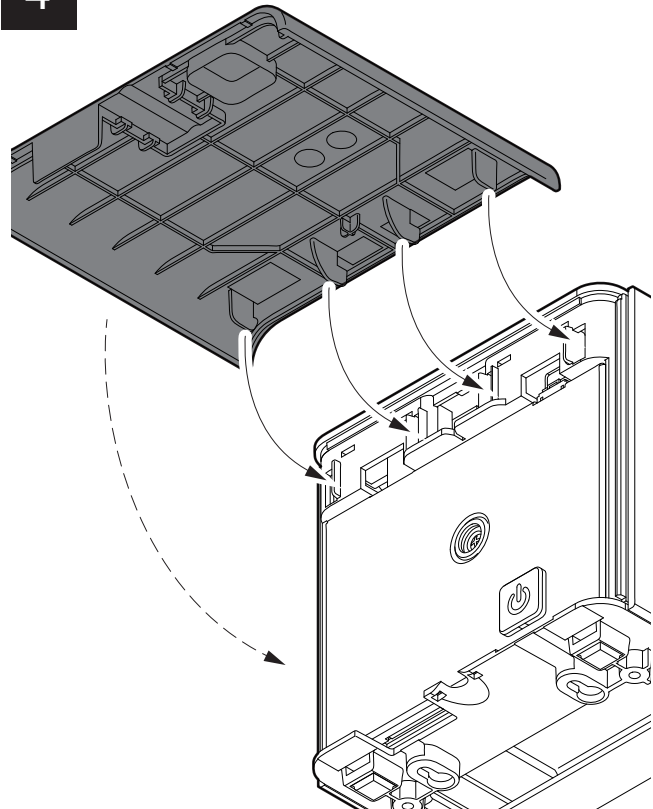
3



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.

| EVERY PAPER CHANGE | |
|-----------------------------|------------------------------------|
| Printhead | 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 |

For specific procedures, see the following pages.

NOTE:

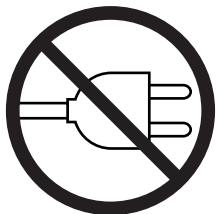
If you use the device in dusty environments, you must reduce the intervals between the cleaning operations.

6.3 Cleaning

For periodic cleaning of the device, see the instructions below

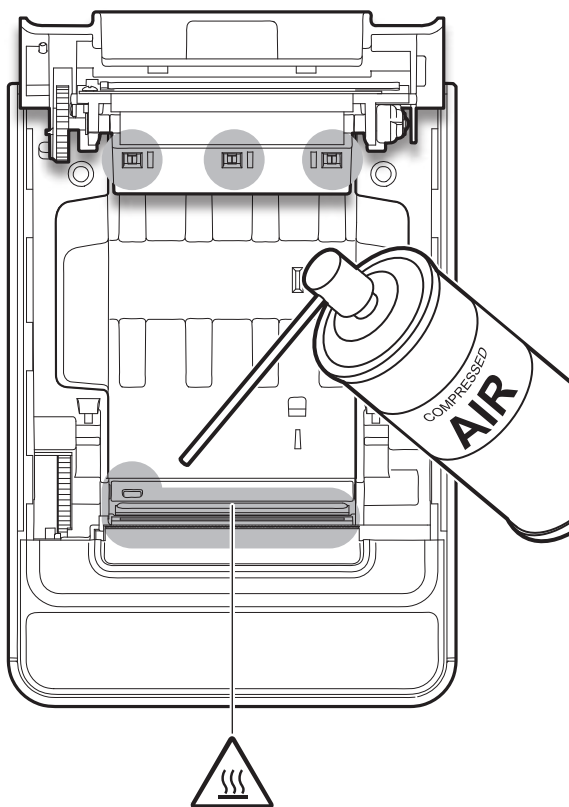
Sensors

1



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

2



Clean the device sensors by using compressed air.

ATTENTION:

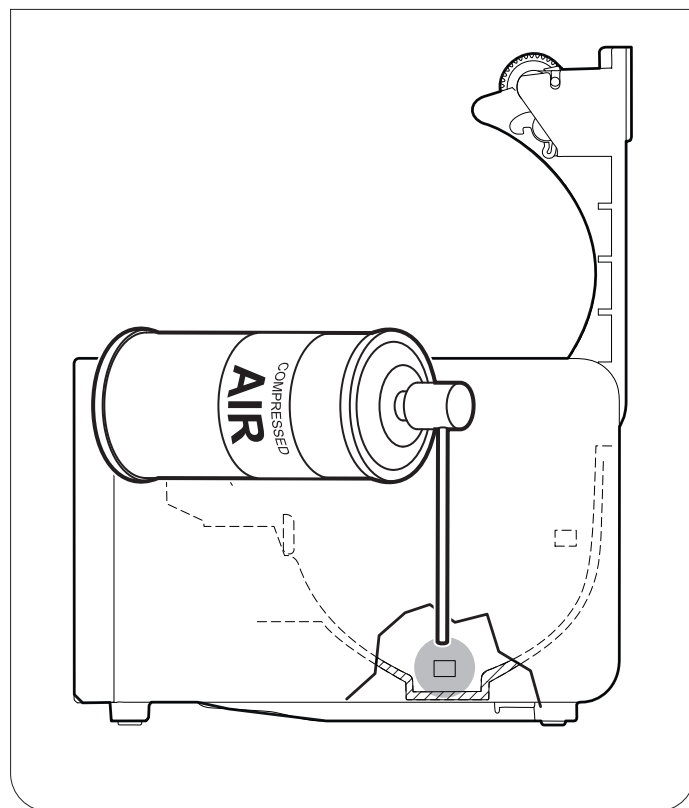
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.



Alcohol, solvent

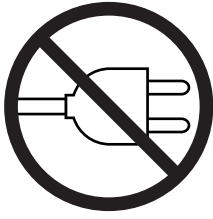


ON



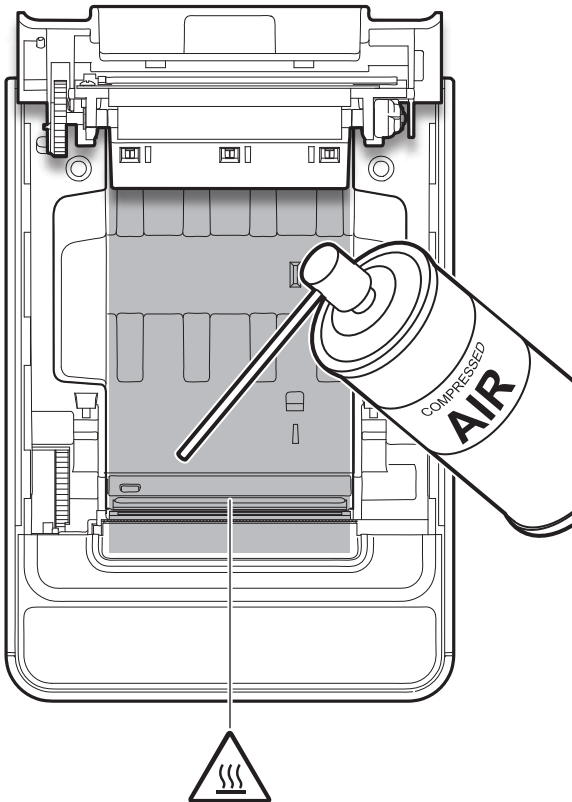
Paper path

1



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

2



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

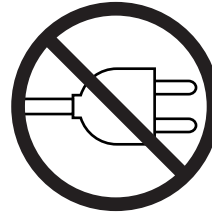
ATTENTION:

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



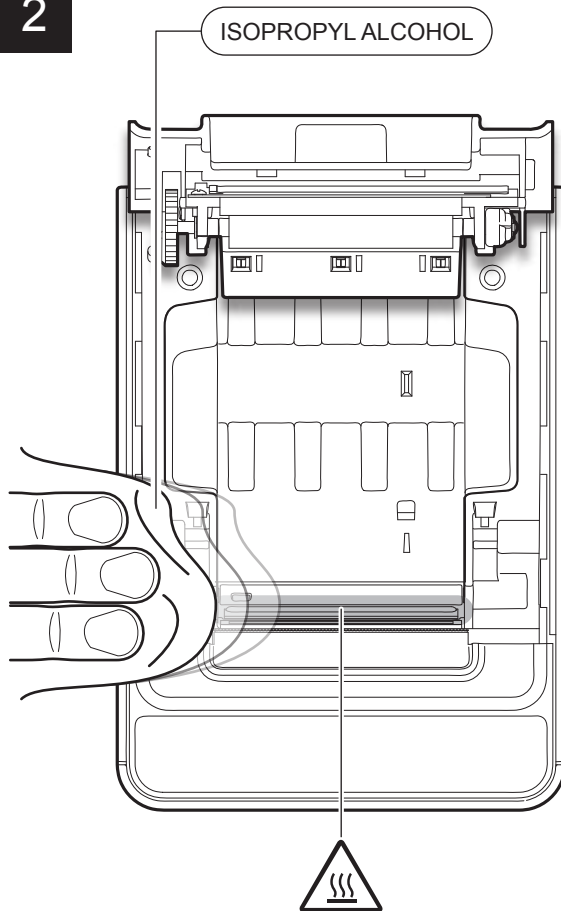
Print head

1



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

2



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

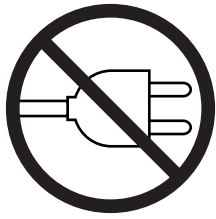
ATTENTION:

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



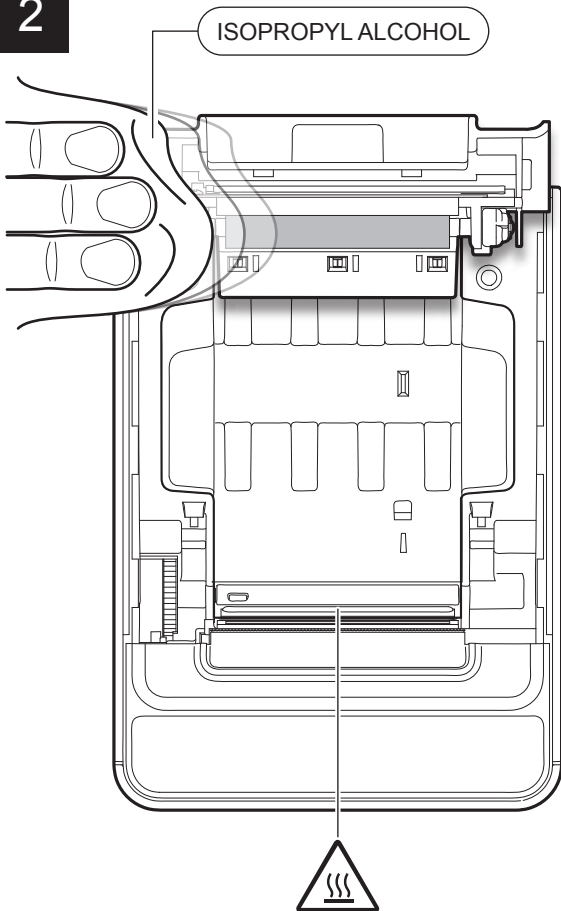
Printing roller

1



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

2



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

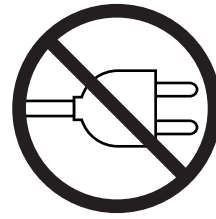
ATTENTION:

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



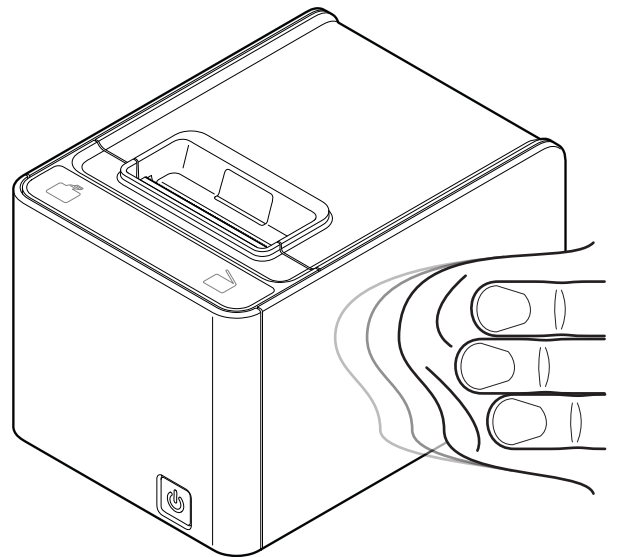
Case

1



Disconnect the power supply cable

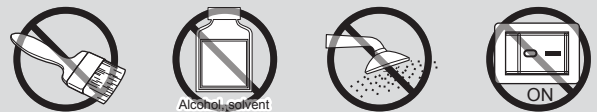
2



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

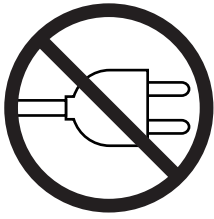
ATTENTION:

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



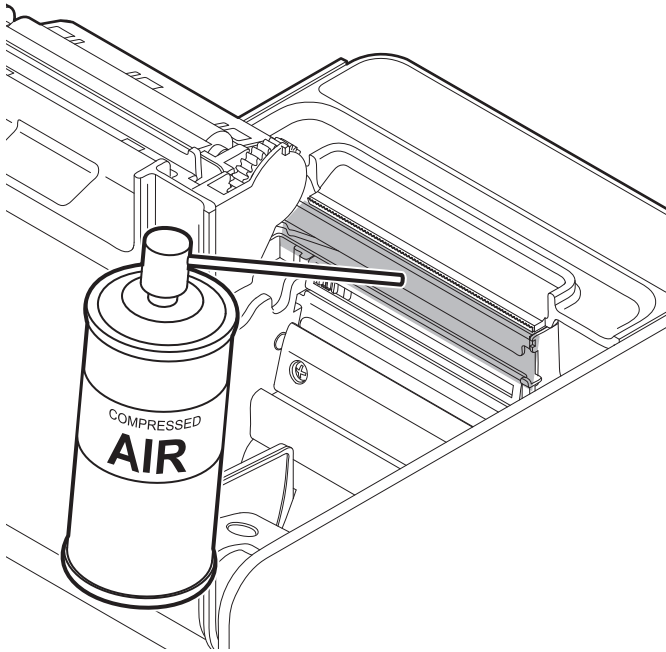
Cutter

1



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

2



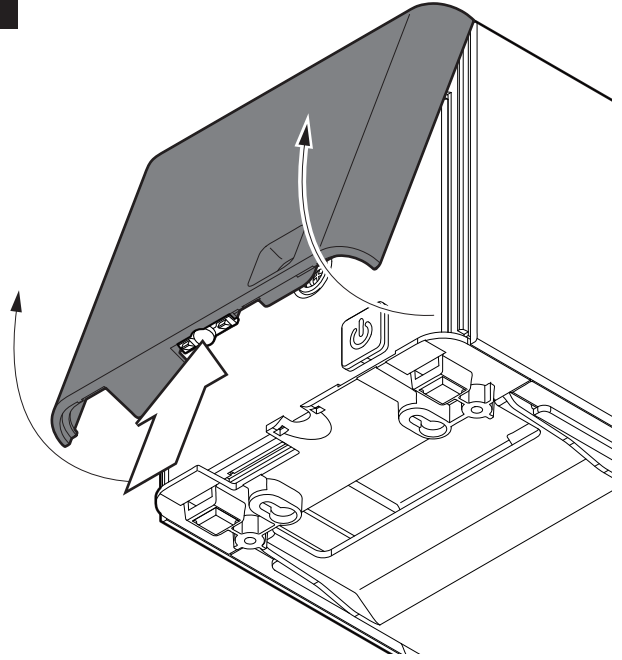
Clean the cutter compartment from the inside using compressed air.

ATTENTION:

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

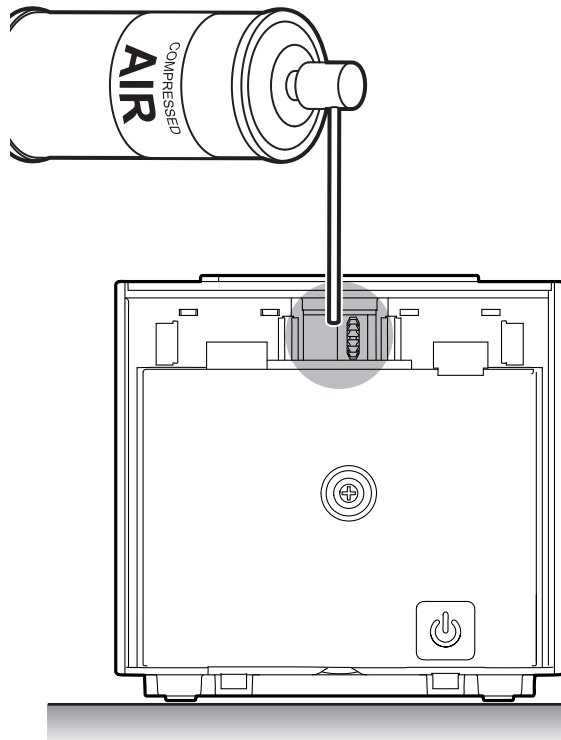


3



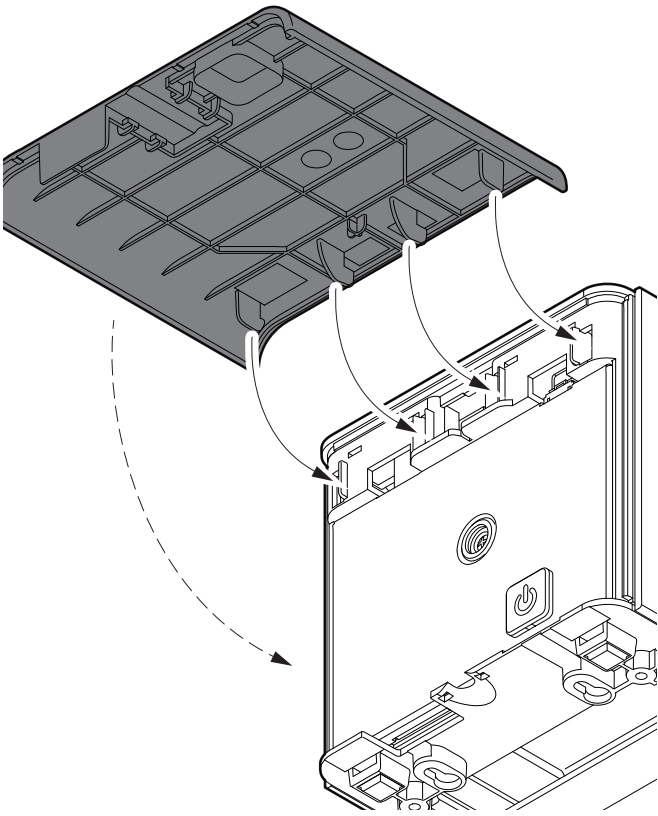
Press the release button and remove the front cover.

4



Clean the cutter compartment from the outside using compressed air.

5



Reassemble the cover removed previously.

6.4 Upgrade firmware

WARNING: During communication between PC/device for the firmware update it is strictly forbidden to disconnect the communication cable or to remove the power supply of the devices not to endanger the proper functioning of the device.

NOTES:

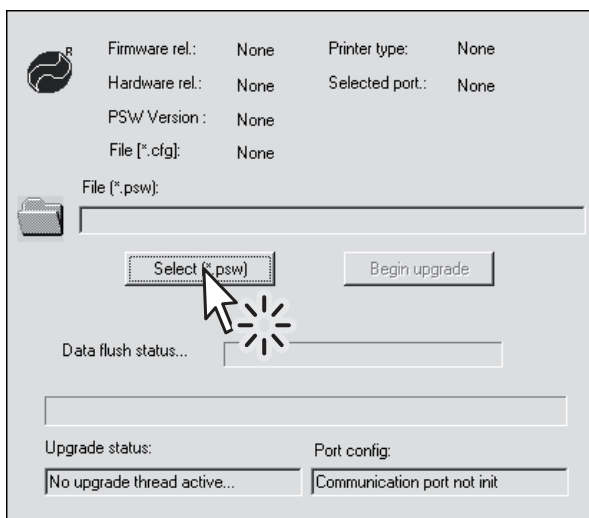
The latest firmware of the device is available in the download area of the web site www.custom.biz

Install on the PC used for device upgrading the UPG-CEPRN software available in the download area of the web site www.custom.biz.

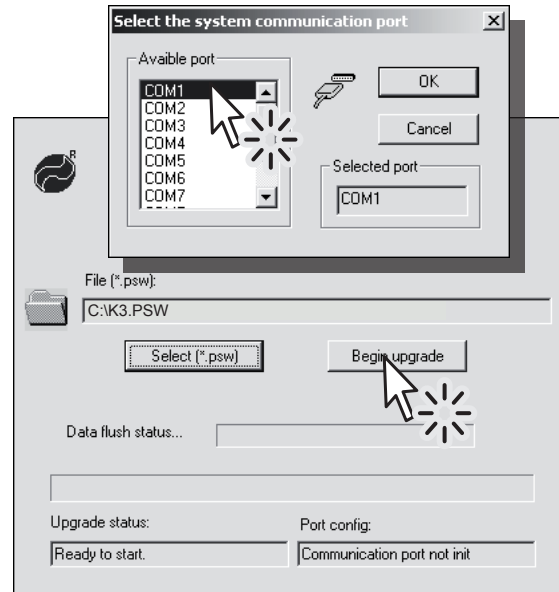
UPDATE VIA SERIAL INTERFACE

Proceed as follows:

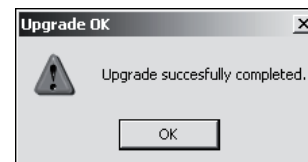
1. Write down the product code (14 digits) printed on the product label (see par. 2.3).
2. Go to the web site www.custom.biz and download the appropriate firmware release from the DOWNLOAD area.
3. Print the SETUP report (see chapter 5).
4. Switch OFF the device.
5. Connect the device to the PC using a serial cable (see paragraph 3.2).
6. Switch ON the device.
7. Launch the software UPGCEPRN.
8. Select the update file .PSW location:



9. Select the serial communication port (ex. COM1):



10. Detecting and setting of the parameters necessary for serial communication are performed automatically and then updating begins.
11. After a few minutes a message on the screen warns that the update is completed.



12. Print a new SETUP report to verify the new firmware release (see chapter 5).

UPDATE VIA USB INTERFACE

ATTENTION:

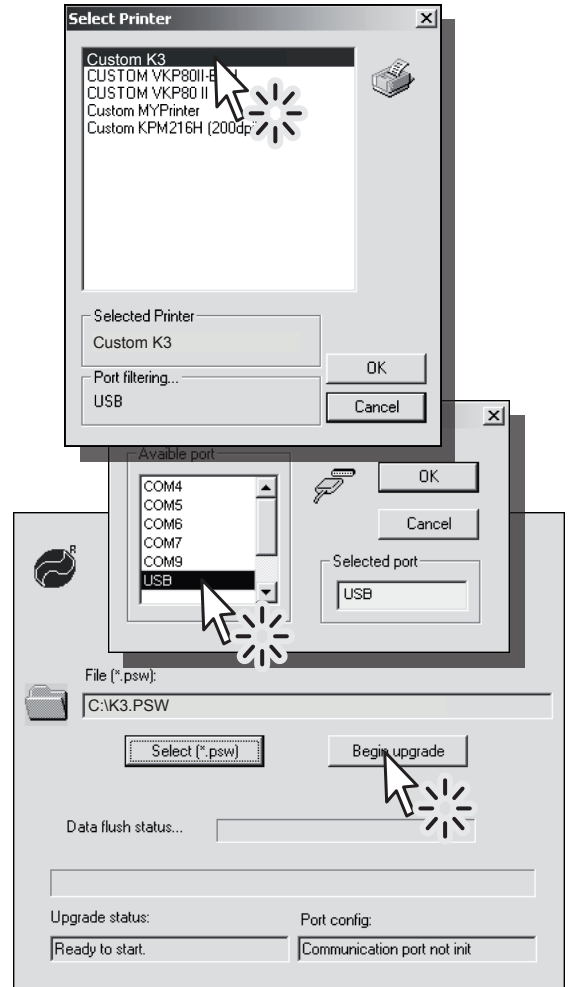
Only during the firmware update, the connection between PC and device must be direct, without the use of wireless HUB.

Only during the firmware update, do not connect or disconnect other USB devices.

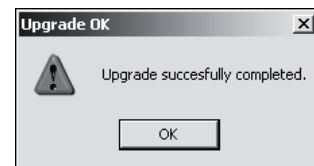
NOTE: For communication via USB you must install on PC the device driver available in the download area of the web site www.custom.biz.

Proceed as follows:

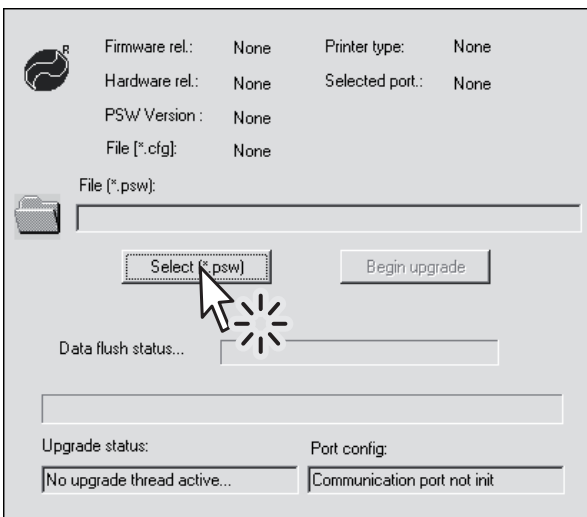
1. Write down the product code (14 digits) printed on the product label (see par. 2.3).
2. Go to the web site www.custom.biz and download the appropriate firmware release from the DOWNLOAD area.
3. Print the SETUP report (see chapter 5).
4. Switch OFF the device.
5. Connect the device to the PC using a USB cable (see paragraph 3.2).
6. Switch ON the device.
7. Launch the software UPGCEPRN.
8. Select the update file .PSW location:



10. After a few minutes a message on the screen warns that the update is completed.



11. Print a new SETUP report to verify the new firmware release (see chapter 5).



9. Select item USB and then select the USB device among those proposed (ex. K3):

7 SPECIFICATION

7.1 Hardware specifications

| GENERALS | |
|--------------------------|---|
| Sensors | Head temperature, paper presence, detection of black mark, cover open, near paper end, adjustable detection of black mark (optional), detection of black mark on ,non-thermal side (optional) |
| Emulations | ESC/POS™ |
| Printing driver | Windows XP, VISTA (32/64bit), Windows 7 (32/64bit), Windows 8 (32/64bit), Linux, OPOS, JavaPOS, Android, iOS, Windows Phone 8 |
| INTERFACES | |
| USB port | 12 Mbit/sec (USB 2.0 full speed) |
| RS232 serial port | from 1200 to 115200 bps |
| ETHERNET port | 10 Mbit/sec |
| MEMORIES | |
| Receive buffer | 16 Kbytes |
| Flash memory | 4 Mbytes (+1Mbyte internal to the micro) |
| RAM memory | 64 Mbytes |
| Graphic memory | Logos dynamic management (max 1MB graphic memory) |
| PRINTER | |
| Resolution | 203 dpi (8 dot/mm) |
| Printing method | Thermal, fixed head |
| Head life ⁽¹⁾ | 200 Km / 200M pulse |

| | |
|-----------------------------------|---|
| Printing width | 50, 54, 72 mm |
| Printing mode | Normal, 90°, 180°, 270° |
| Printing format | Height/Width from 1 to 8, bold, reverse, underlined, italic |
| Character fonts | 54 character code tables (see par. 7.6) 2 TrueType font ⁽²⁾ Extended chinese GB18030-2000 |
| Printable barcode | UPCA, UPCE, EAN13, EAN8, CODE39, ITF, CODABAR, CODE93, CODE128, CODE32, PDF417, DATAMATRIX, AZTEC, QR CODE |
| Printing speed ^{(1) (3)} | High Speed = 280 mm/sec Normal = 190 mm/sec High Quality = 140 mm/sec Grey Scale = 120 mm/sec |

PAPER

| | |
|-----------------------------|--|
| Type of paper | Thermal rolls, heat-sensitive side on outside of roll Fanfold |
| Paper width | 58, 60, 80 mm ± 0,5 mm |
| Paper weight | from 58 g/m ² to 90 g/m ² |
| Paper thickness | from 63 µm to 85 µm |
| Recommended types of paper | KANZAN KF50 and KP460 MITSUBISHI PG5075 and TL4000 |
| External roll diameter | max. 100 mm |
| External roll core diameter | 25 mm (+ 1mm) |
| Core thickness | 2 mm (+1 mm) |
| Paper end | Not attached to roll core |
| Core type | Cardboard or plastic |

CUTTER

| | |
|-------------------------------|------------------|
| Paper cut | Total or partial |
| Estimated life ⁽¹⁾ | 1 000 000 cuts |

PRINTER ELECTRICAL SPECIFICATIONS

| | |
|-----------------------------------|---|
| Power supply | 24 Vdc \pm 10% (optional external power supply) |
| Medium consumption ⁽³⁾ | 1,5 A |
| Stand-by consumption | 0,1 A |

ELECTRICAL SPECIFICATIONS POWER SUPPLY cod.963GE020000003

| | |
|----------------------|-------------------------|
| Power supply voltage | from 100 Vac to 240 Vac |
| Frequency | from 50 Hz to 60 Hz |
| Current (output) | 2.5 A |
| Power | 60 W |

ENVIRONMENTAL CONDITIONS

| | |
|---------------------------|-----------------------|
| Operating temperature | from 0°C to +50°C |
| Relative humidity | from 10% Rh to 85% Rh |
| Storage temperature | from -20 °C to +70 °C |
| Storage relative humidity | from 10% Rh to 90% Rh |

NOTES:

(1) : Respecting the regular schedule of cleaning for the device components.

(2) : "Veramono.ttf" and "Vera.ttf" are installed on device flash disk. It is possible to install additional TrueType fonts (see par.12.8).

(3) : Referred to a standard CUSTOM receipt (L=10cm, Density = 12,5% dots on).

7.2 Character specifications

| | | | |
|------------------------------|----------|-----------|----------|
| Character set | | 3 | |
| Character density | 11 cpi | 15 cpi | 20 cpi |
| Number of columns | 32 | 44 | 57 |
| Chars / sec | 2026 | 2806 | 3648 |
| Lines / sec | 63 | 63 | 63 |
| Characters (L x H mm)-Normal | 2,25 x 3 | 1,625 x 3 | 1,25 x 3 |

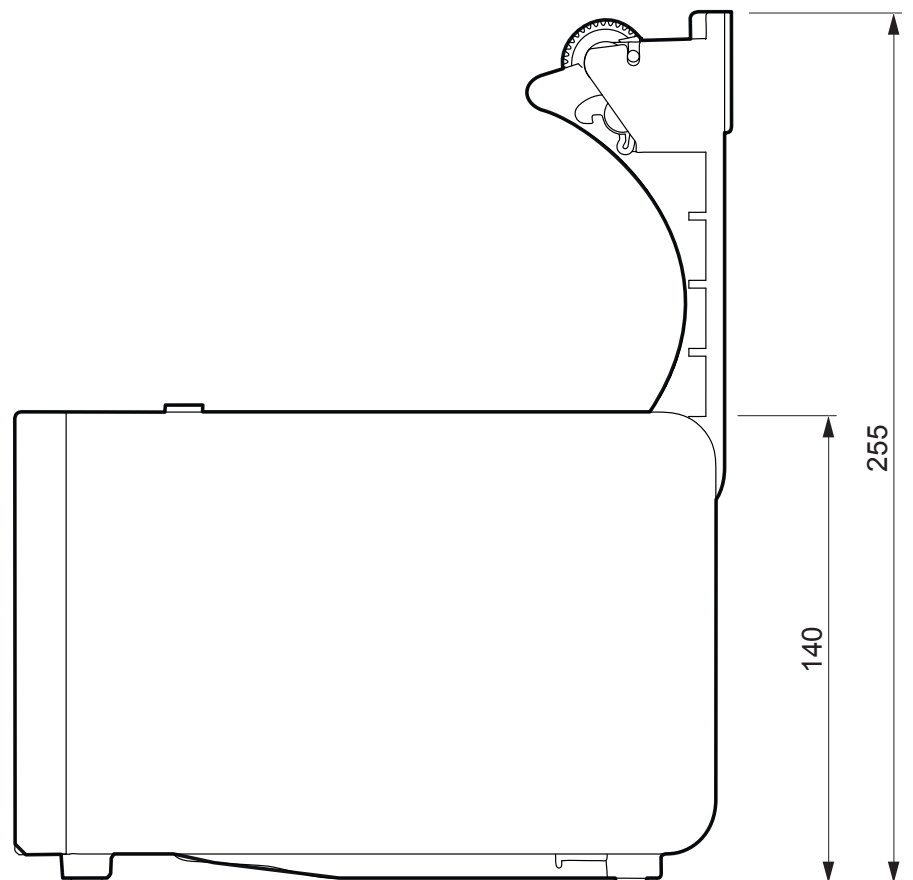
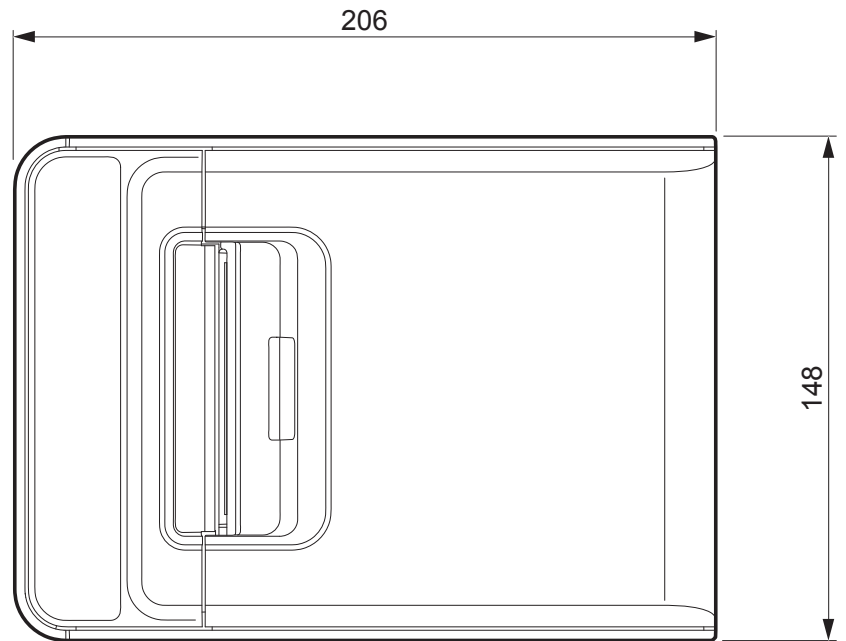
7.3 Device dimensions

Standard model

| | |
|------------------------|--------|
| Length | 206 mm |
| Height | 140 mm |
| Height with cover open | 255 mm |
| Width | 148 mm |
| Weight | 1970 g |

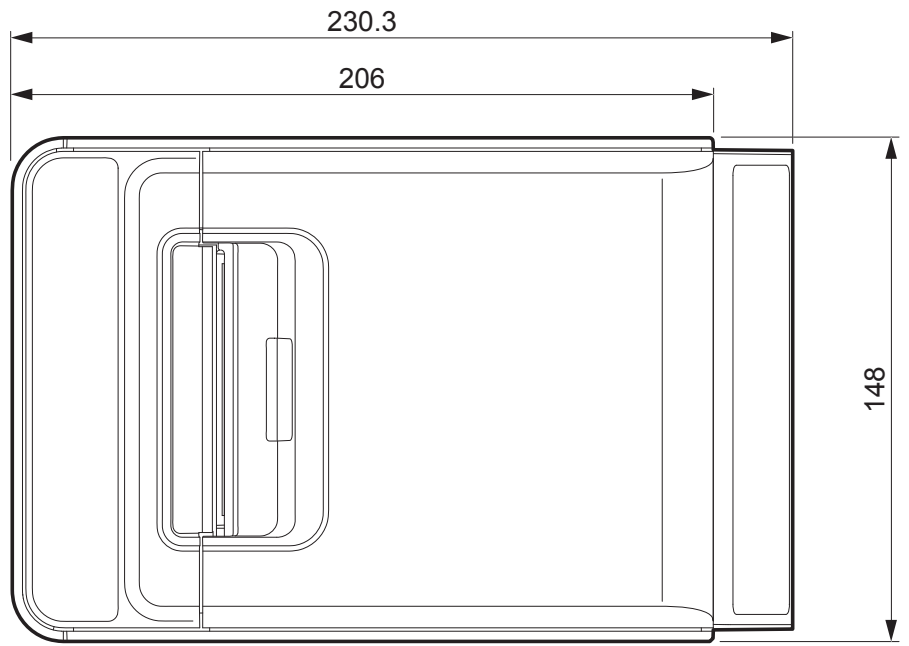
NOTE:

Dimensions referred to devices without paper roll.
All the dimensions shown in following figures are in millimetres.

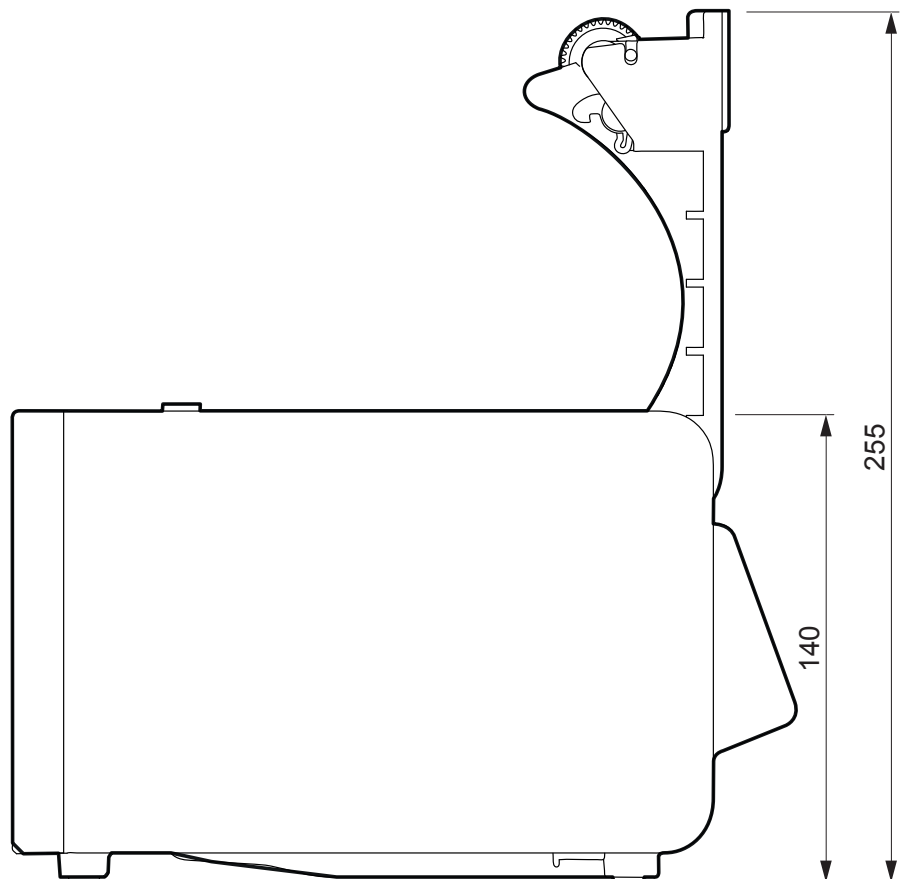


Model with display

| | |
|------------------------|----------|
| Length | 230.3 mm |
| Height | 140 mm |
| Height with cover open | 255 mm |
| Width | 148 mm |
| Weight | 2100 g |



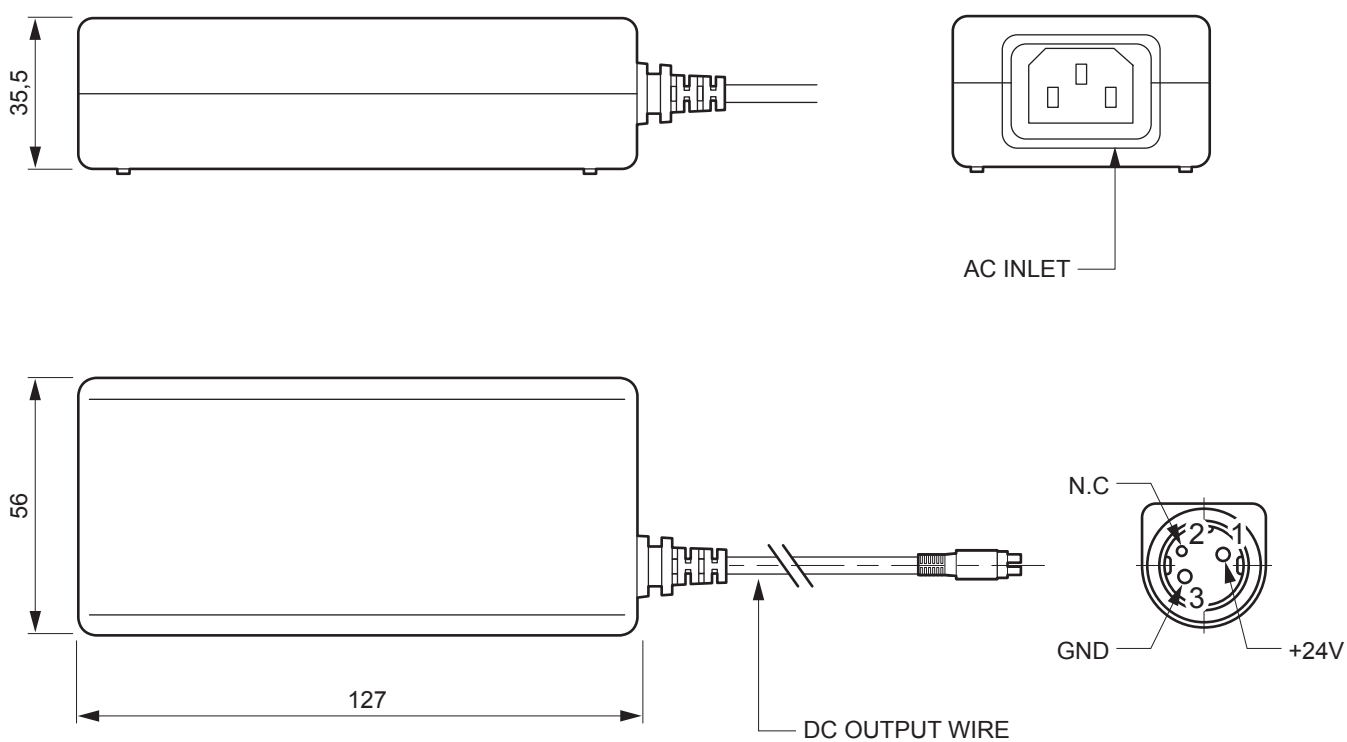
NOTE:
Dimensions referred to devices without paper roll.
All the dimensions shown in following figures are in millimetres.



7.4 Power supply dimensions cod. 963GE020000003

| | |
|--------|---------|
| Length | 127 mm |
| Height | 35,5 mm |
| Width | 56 mm |

All the dimensions shown in following figures are in millimetres.

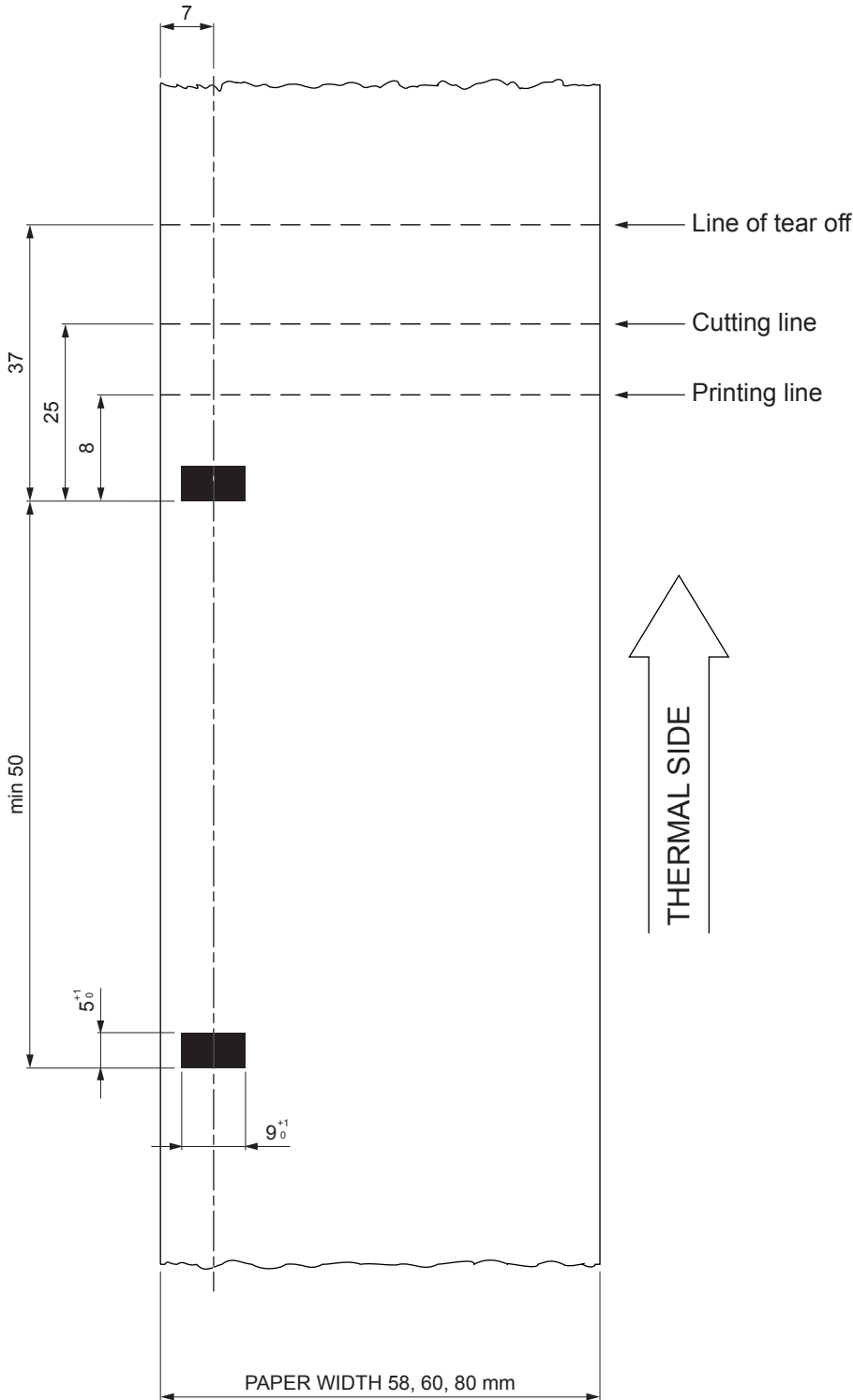


7.5 Paper specification

Paper with black mark for fixed sensor

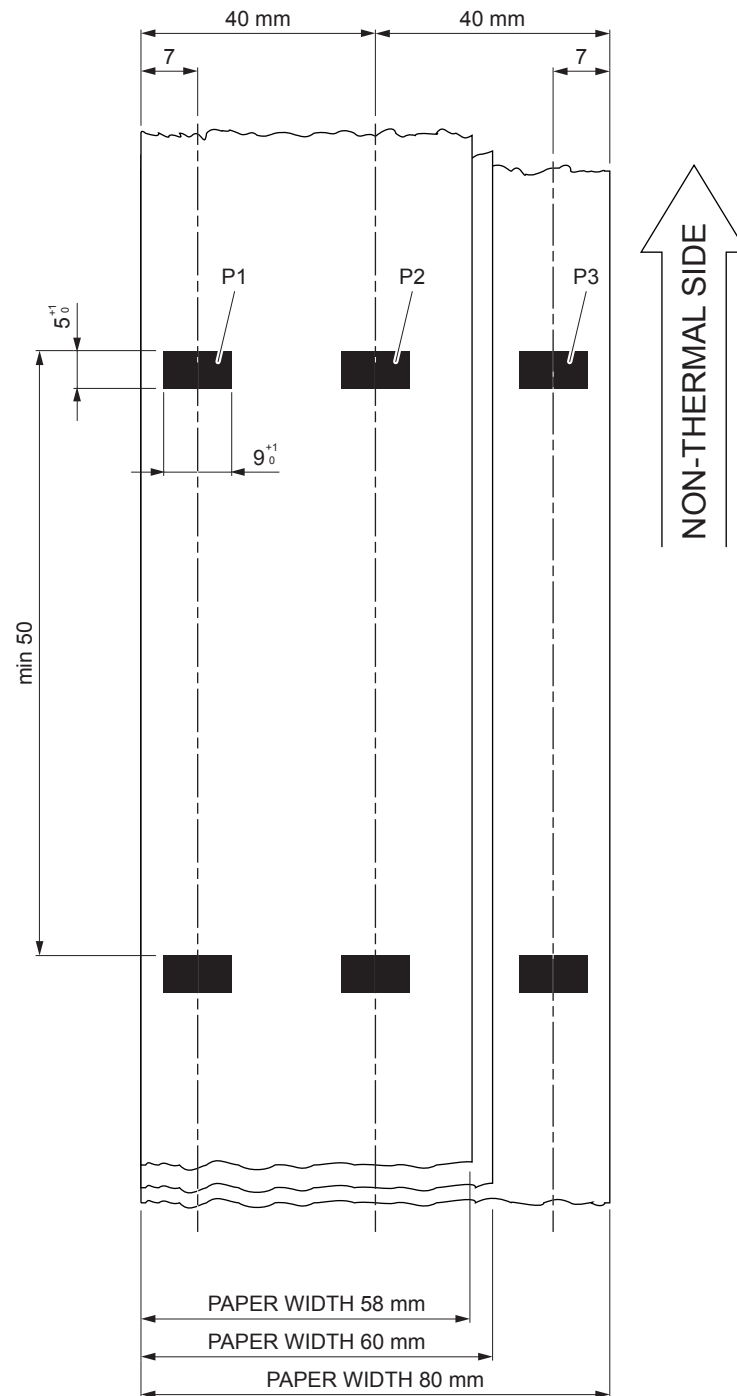
The following image shows the placement of the black mark on the thermal side of the paper. For more information about the use of paper with black mark see Chapter 10.

All the dimensions shown in following figures are in millimetres.



The following image shows the placement of the black mark on the non-thermal side of the paper. The black mark can be placed either in the position P1 or P2 (paper width 58 or 60mm) or even as a P3 (paper width 80mm). For more information about the use of paper with black mark Chapter 10.

All the dimensions shown in following figures are in millimetres.

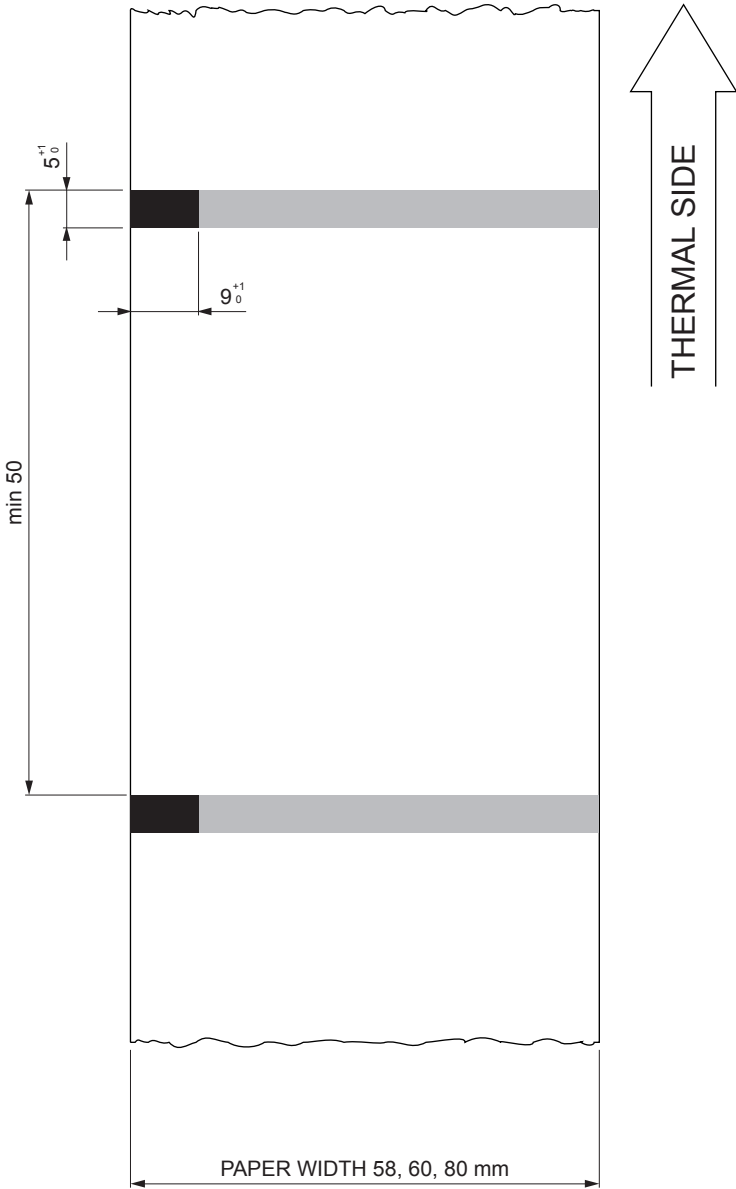


Paper with black mark for mobile sensor

The following image shows the placement of the black mark on the thermal side of the paper. The notch can be placed anywhere on the whole width of the paper.

For more information about the use of paper with black mark see Chapter 10.

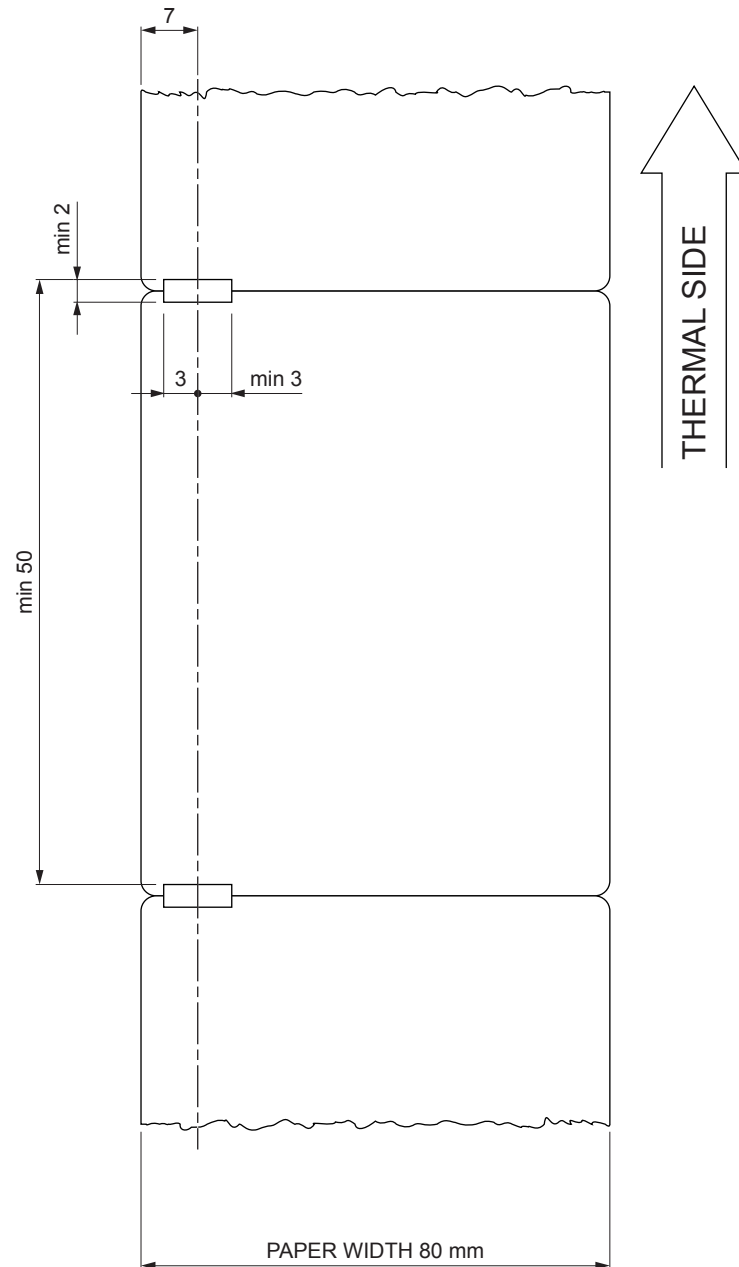
All the dimensions shown in following figures are in millimetres.



Fanfold paper with hole

The following image shows the placement of the hole on the paper by referring to the thermal side.
To manage tickets with hole, set the parameter "Notch / B.Mark position" to "Transparence" (see par. 5.4).
For more information about the use of paper with hole see Chapter 10.

All the dimensions shown in following figures are in millimetres.



7.6 Character sets in ESC/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 par.2.4).

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 par. 5.4).

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 - Vientamese | on request |
| 31 | TCVN_3 - Vientamese | 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 - Ukranian | |
| 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 - Vientamese | |
| 53 | KZ1048 - Kazakhstan | |
| 255 | Space page | |

7.7 True Type fonts

In ESC/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.

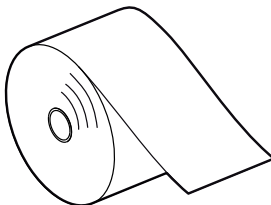
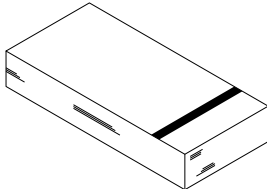
TrueType fonts will be automatically scaled by the device in order to obtain the same available width for the embedded fonts (11, 15 and 20 cpi).

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.

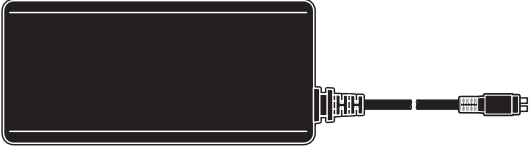
8 CONSUMABLES

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

| DESCRIPTION | CODE |
|--|---|
| <p>THERMAL PAPER ROLL</p> <p>weight = 165g/m² width = 80mm Ø external = 180mm Ø core = 25mm</p> | <p>67300000000385</p>  |
| <p>FANFOLD</p> <p>weight = 255g/m² dimensions = 155mm x 65mm</p> | <p>67A00000000305</p>  |

9 ACCESSORIES

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

| DESCRIPTION | CODE |
|---|---|
| POWER SUPPLY (for technical specifications, see the paragraph 7.1) | 963GE020000003  |

10 ALIGNMENT

Device is provided with sensors for the use of alignment notch in order to handle:

- roll of tickets with pre-printed fields and a fixed length;
- FanFold of tickets with pre-printed fields and a fixed length.

The alignment notch may be formed by

- black mark printed on paper (see par.7.5);
- hole between two tickets (see par.7.5);

All alignment sensors are “reflection” sensors: this kind of sensor emits a band of light and detects the quantity of light reflected to it. The presence of the notch 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.

To use tickets with holes, it is possible to use the same sensors as “transparence” sensors, coupled two by two: a beam of light is emitted by the transmitter sensor and the quantity of light which reaches the opposite receiver sensor is detected. The presence of the hole is detected evaluating the amount of light that arrives to the opposite sensor, considering that the paper doesn't allow the beam of light to reach the receiver, whereas a hole lets the light to reach the receiver.

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

10.1 Enable alignment

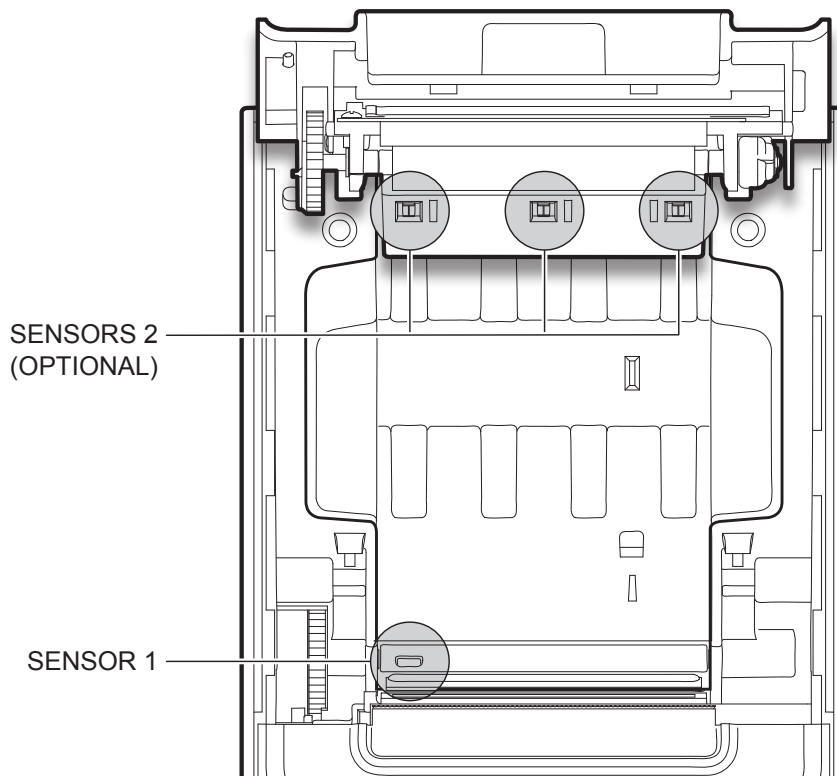
Device is provided with one, two or three sensors for alignment, placed as follows:

- one fixed sensor on the lower flat of device
- one mobile sensor (optional) on the lower flat of device
- a system with three sensors on the upper flat of device.

To guarantee the alignment, it is necessary to correctly choose the sensor to use for the notch detection depending on the type of notch and its location on the ticket.

To do this, you must enable the parameter “Notch/B.Mark Position” during the Setup procedure (see chapter 5) and set the correct value of this parameter as described in the following table.

| SENSOR USED (see following figures) | VALUE OF THE “NOTCH/B.MARK POSITION” PARAMETER | USING MODE OF SENSORS | NOTCH TYPE |
|--|--|--------------------------|---|
| - | Disabled | - | Alignment disabled |
| 1 | Bottom | Reflection | Black mark printed on the non-thermal side of paper |
| 2 | Top | Reflection | Black mark printed on the thermal side of paper |
| 1 + 2 | Transparence | Transparence | Hole between tickets |

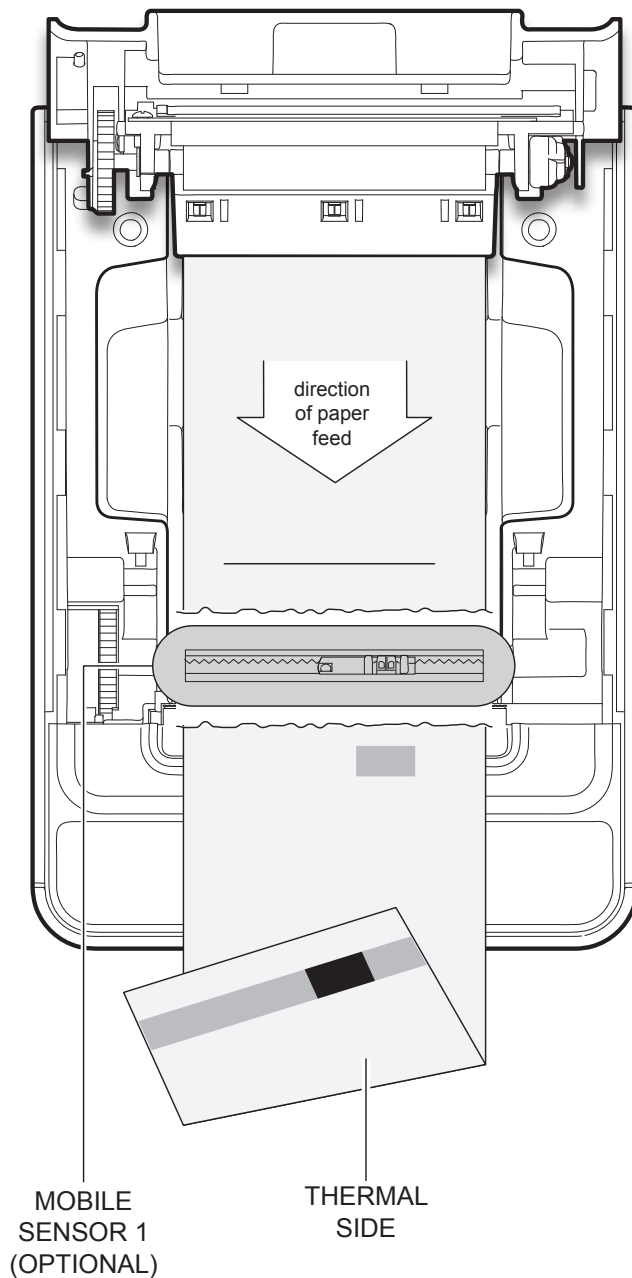
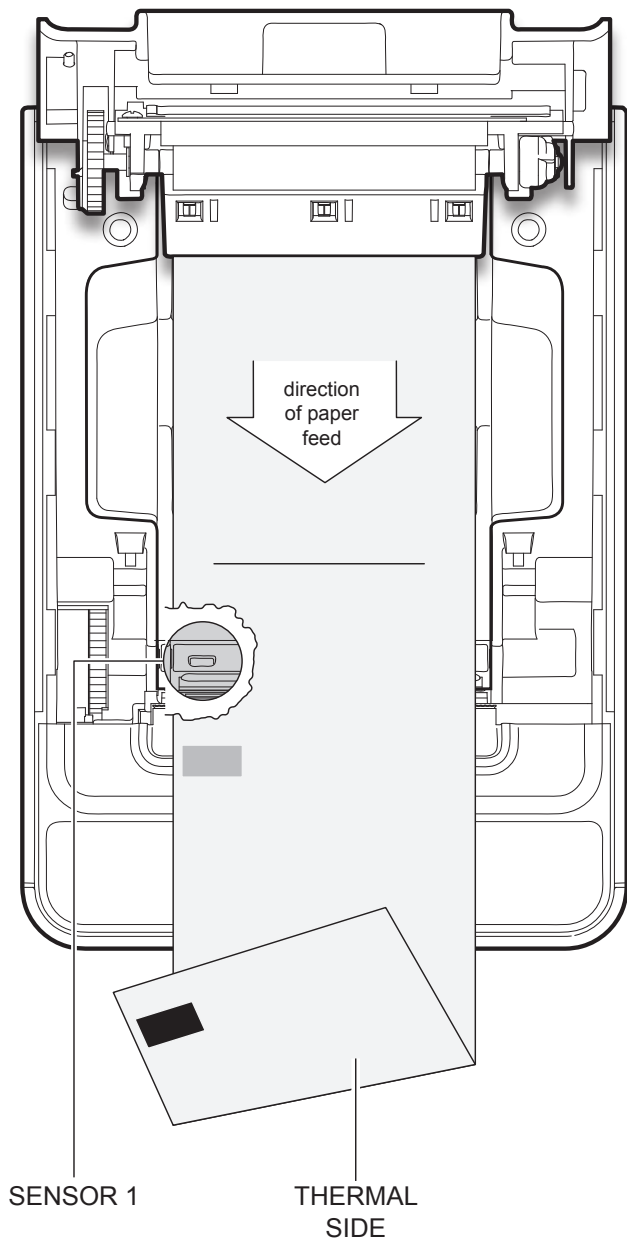


The following figures show the usable format of paper and the corresponding sensors used for alignment:

Paper with black mark on the thermal side

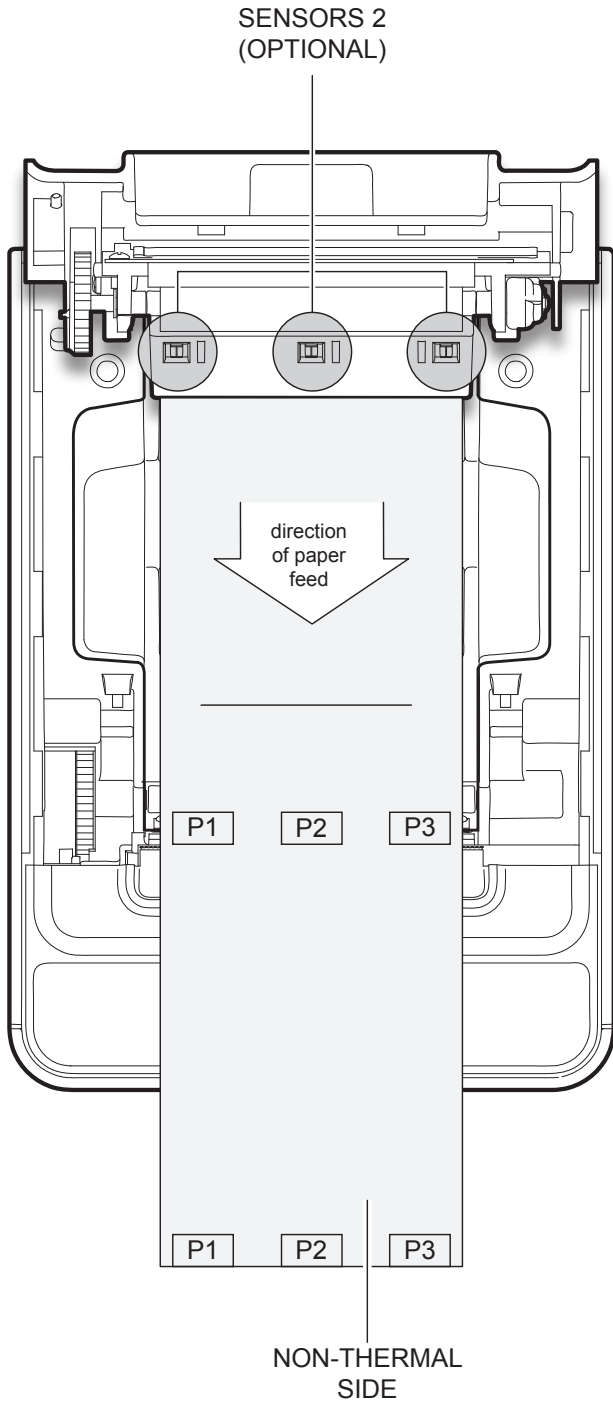
In the standard model the detection of black mark and paper presence is performed by the fixed sensor.

In the model with adjustable sensor (optional) detecting the presence of paper is executed by the fixed sensor while the black mark detection is performed by the mobile sensor.



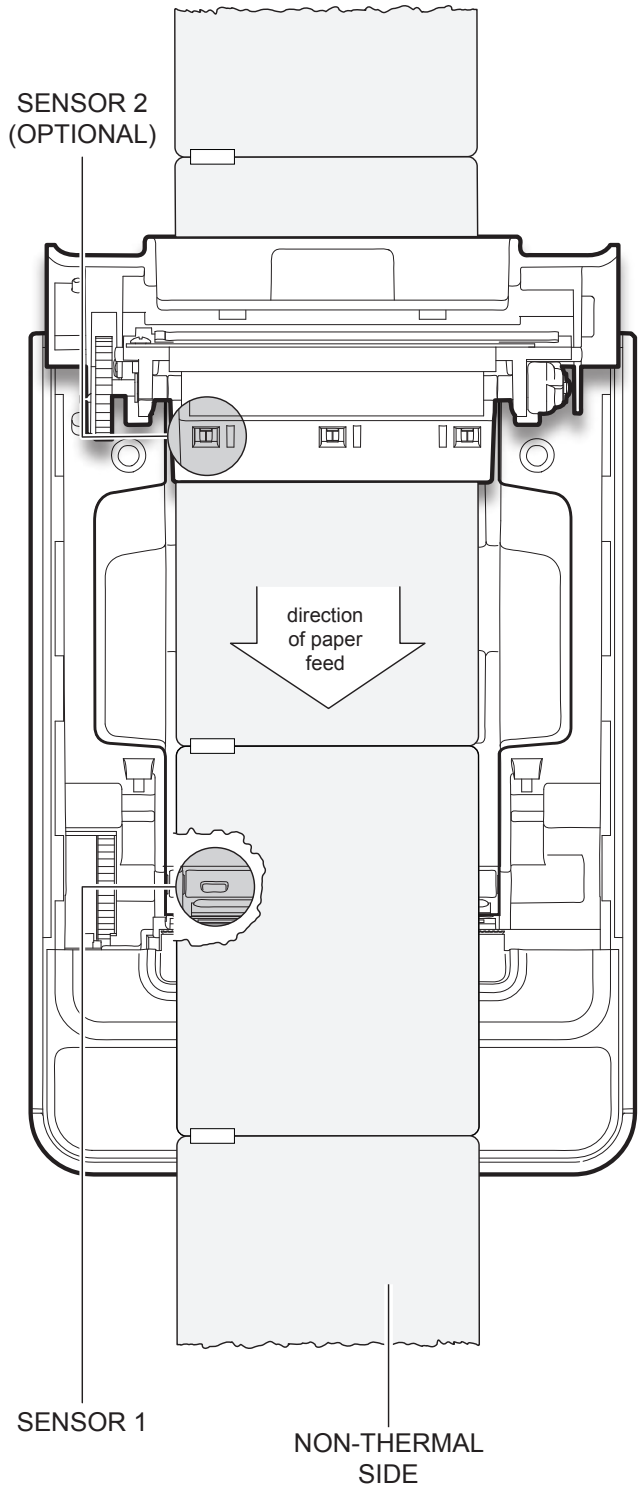
Paper with black mark on the non-thermal

The black mark can be placed in one of three zones shown. This configuration requires the system with three sensors (optional).



Tickets with hole

This configuration requires the system with three sensors (optional).



10.2 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 “Notch/B.Mark Position” parameter is set to a value other than “Disabled” (see chapter 5).

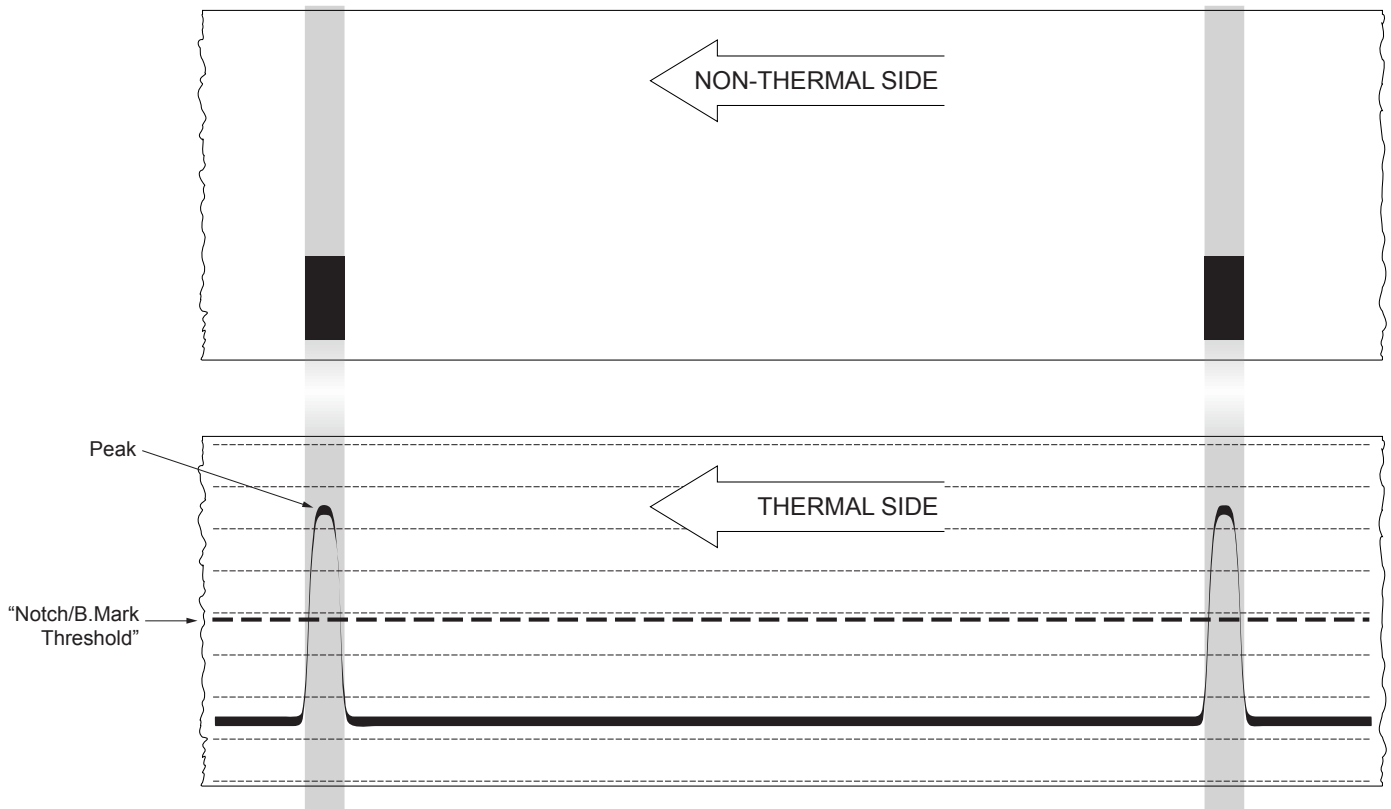
When self-calibration starts, the device performs some paper feeds and then it prints the calibration result and the value of the PWM duty-cycle of the alignment sensor driver so that it can be perform an optimal notch detection:

Autosetting Notch : OK
PWM Duty Cycle : 85.3%

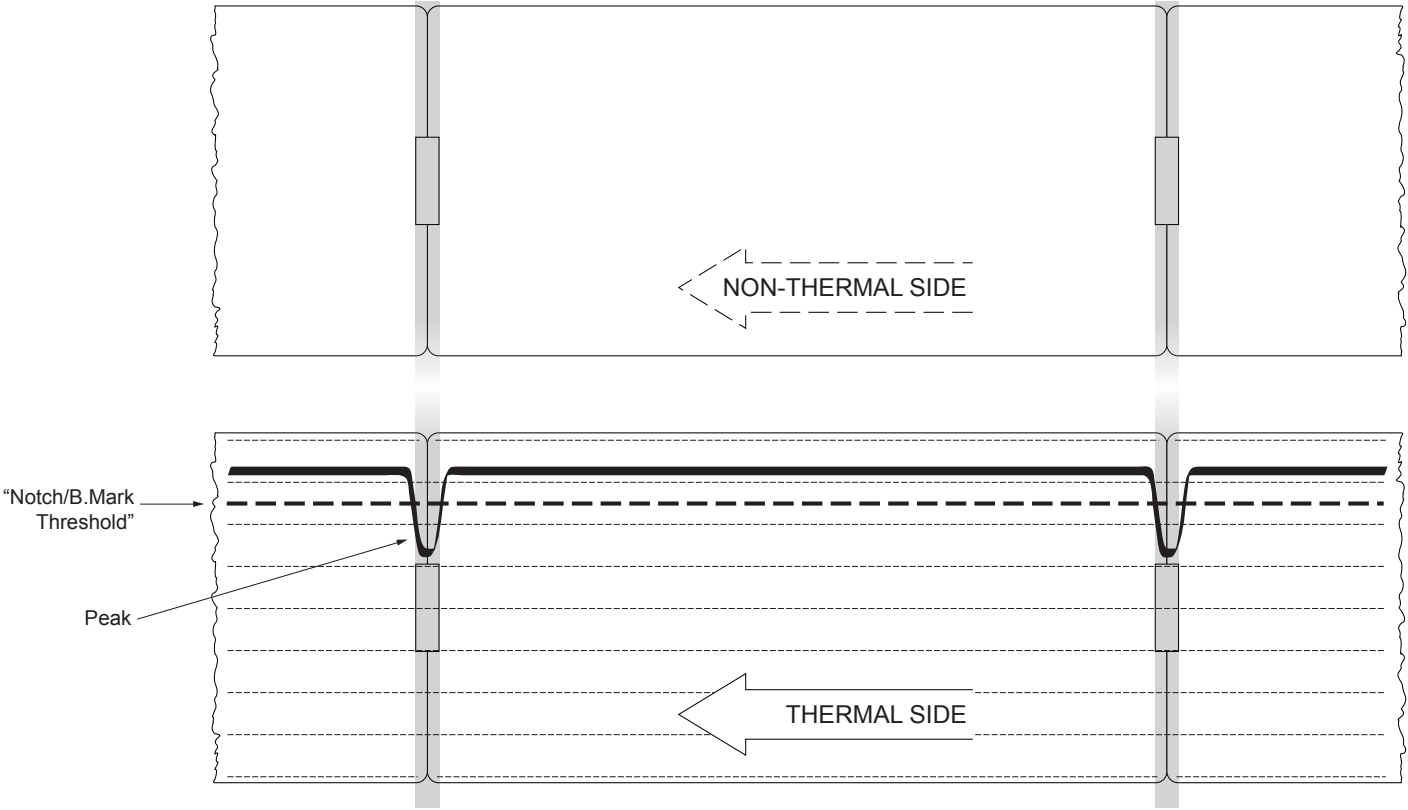
The “Autosetting Notch” parameter indicates the result of the self-calibration procedure; OK will appear if it has been successful, NOT OK will appear if the procedure has failed.

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 “Notch/B.Mark Threshold” parameter which represents the detection threshold of the notch. 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 “Notch/B.Mark Threshold” value. This graphic representation is useful to set the most suitable value to assign to the “Notch/B.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.

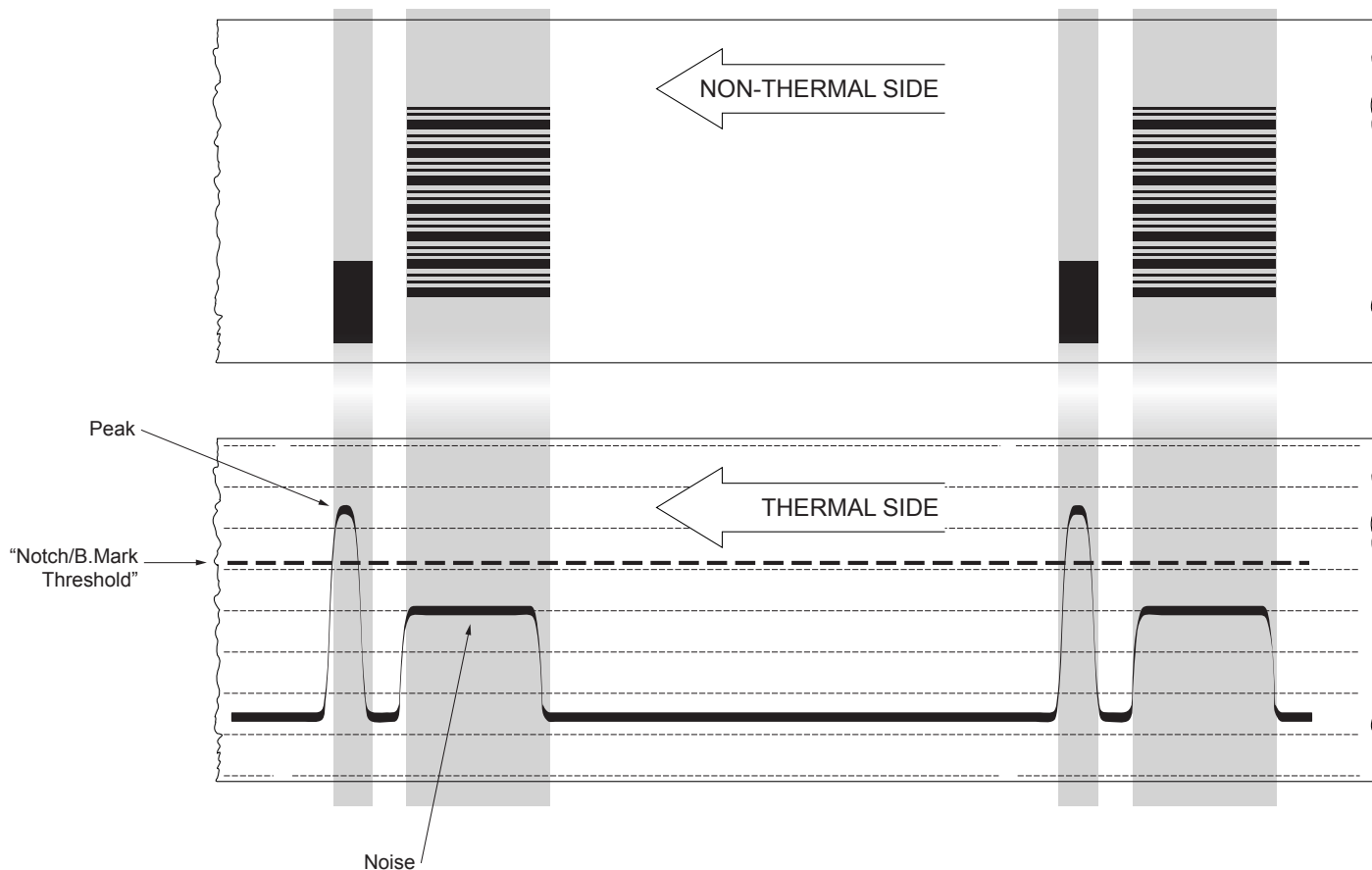
The following figure shows an example of paper with the non-thermal paper printed with black marks: the outgoing voltage is constant while passing the white paper between two notches and presents a peak at each black mark. In this case, the optimal value for the “Notch/B.Mark Threshold” parameter is placed about half of the peak.



The following figure shows an example of paper with holes: the outgoing voltage is constant while passing the paper between two holes and presents a variation at each hole. In this case, the optimal value for the “Notch/B.Mark Threshold” parameter is placed about half of the variation.



The following figure shows an example of paper with the non-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 notches, presents a peak at each black mark and presents some “noise” at each barcode. In this case, the optimal value for the “Notch/B.Mark Threshold” parameter is located about halfway between the peak value and the maximum value of the “noise”.



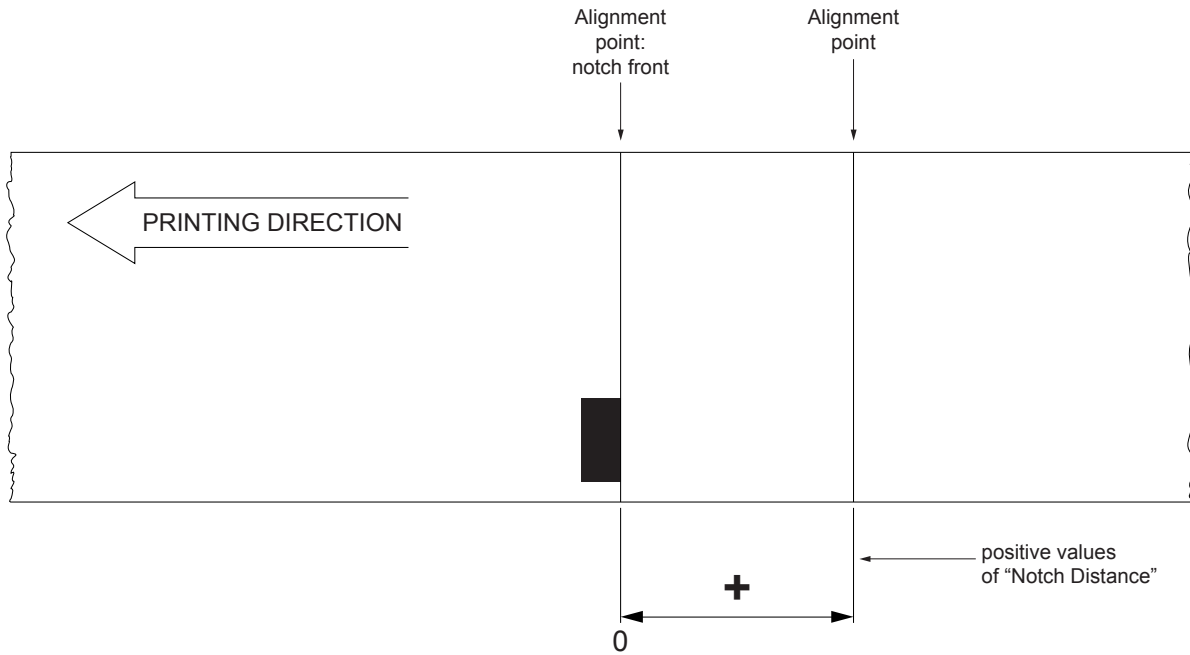
If the maximum value of “noise” read by the sensor is very close of the peak value, it might be difficult to place the value of the “Notch/B.Mark Threshold” at an intermediate point. In these cases, it is mandatory that the portion of paper between the point of printing end and the front notch is completely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

10.3 Alignment parameters

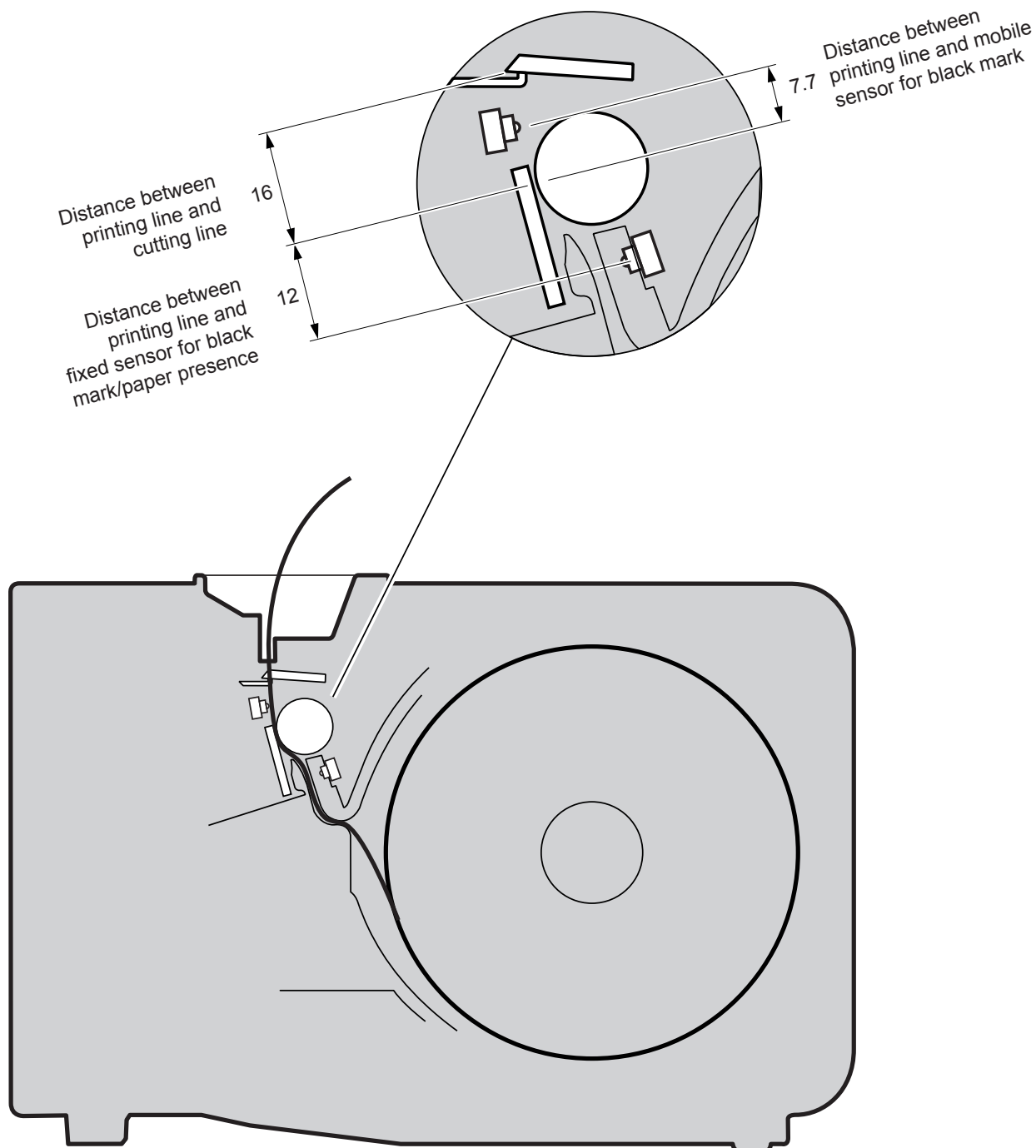
The “alignment point” is defined as the position inside the ticket to use for the notch alignment. The distance between the notch edge and the alignment point is defined as “Notch Distance”.

Referring to the front of the notch, the value of “Notch Distance” value varies from 0mm minimum and 99.9mm maximum.

If the “Notch Distance” value is set to 0, the alignment point is set at the beginning of the notch.



The following figure shows a section of the device with the paper path and the distances (in mm) between the alignment sensor, the print head and the cutter (cutting line).



ESC/POS™ EMULATION

To define the alignment point you need to set the device parameters that compose the numerical value of the “Notch Distance” parameter. (see par.5.4).

For example, to set a notch distance of 15mm between the notch and the alignment point, the parameters must be set on the following values:

| | |
|---------------------------------|-----|
| <i>Notch Distance Sign</i> | : + |
| <i>Notch Distance [mm x 10]</i> | : 1 |
| <i>Notch Distance [mm x 1]</i> | : 5 |
| <i>Notch Distance [mm x .1]</i> | : 0 |

The “Notch Distance” parameter, may be modified as follows:

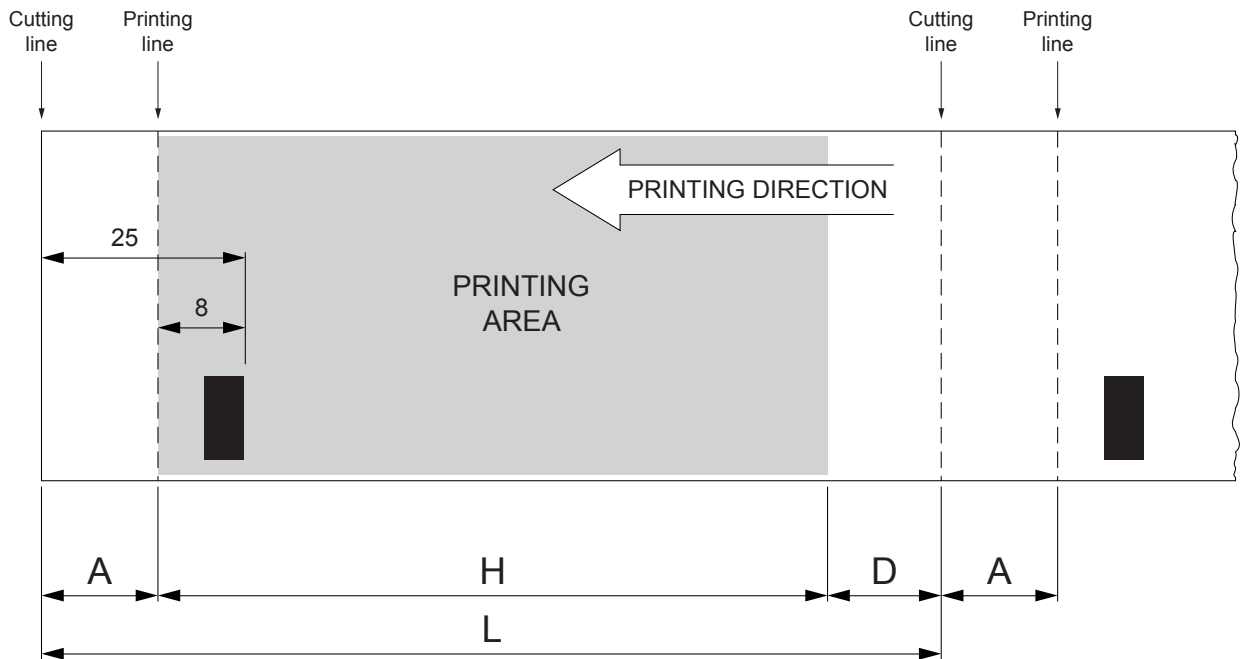
- during the Setup procedure of the device (see chapter 5)
- by modifying the Setup.ini file (see par.12.9)
- by using the 0x1D 0xE7 command (for more details, refer to the Commands Manual)
- by driver

10.4 Printing area

In order to print ticket containing only one notch and to not overlay printing to a notch (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-notch distance

The following figure shows an example of tickets with “Notch Distance” set to 0:



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

“Distance between notch front/cutting line” - “Distance between notch front/printing line”

where:

“Distance between notch front/cutting line” = 25 mm (fixed distance)

“Distance between notch 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 notch.

To use all the notches 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.


11 TECHNICAL SERVICE

In case of failure, contact the Technical Service by sending an e-mail to support@custom.it detailing:

1. Product code
2. Serial number
3. Hardware release
4. Firmware release

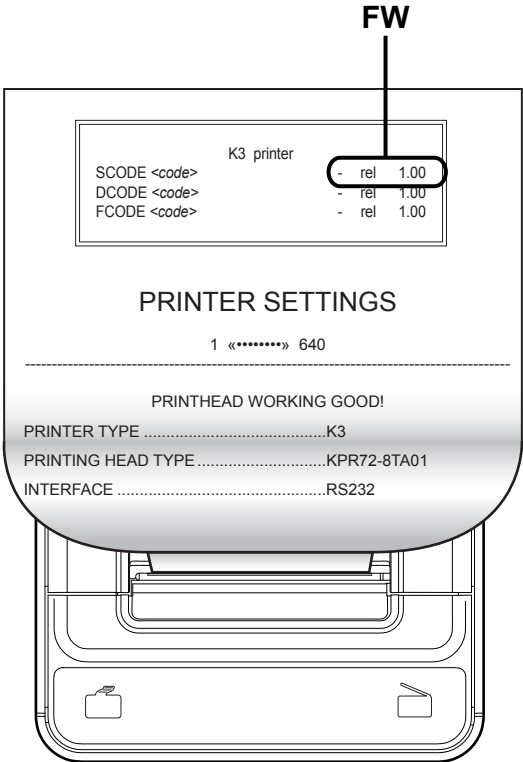
To get the necessary data, proceed as follows:

1



Write down the data printed on the product label (see paragraph 2.3)

2



Print a Setup report (see paragraph 5.1)
The Setup report shows the firmware release

3



↓

support@custom.it
Customer Service Department

Send an e-mail to the Technical Service,
with the data collected

12 ADVANCED FUNCTIONS

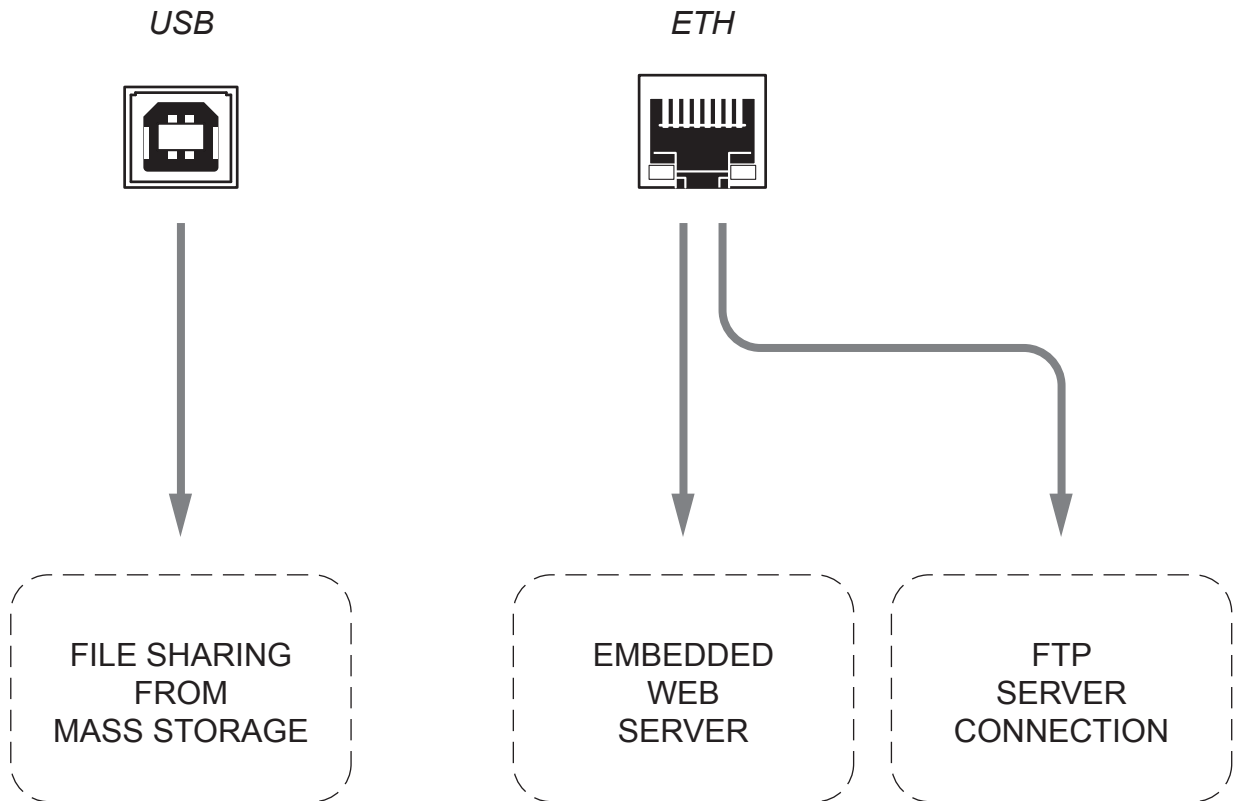
12.1 File sharing

The devices can be connected to a PC through two types of connections (see par.3.2):

1. with USB cable
2. with Ethernet cable.

According to the connection made, it is possible to manage drivers, fonts and logos of the device and configure the operating parameters in three different ways

1. by files sharing from Mass Storage, in case of USB connection
2. by files sharing from FTP Server connection, in case of Ethernet connection
3. by entering the Embedded Web Server, in case of Ethernet connection.



12.2 Embedded Web Server

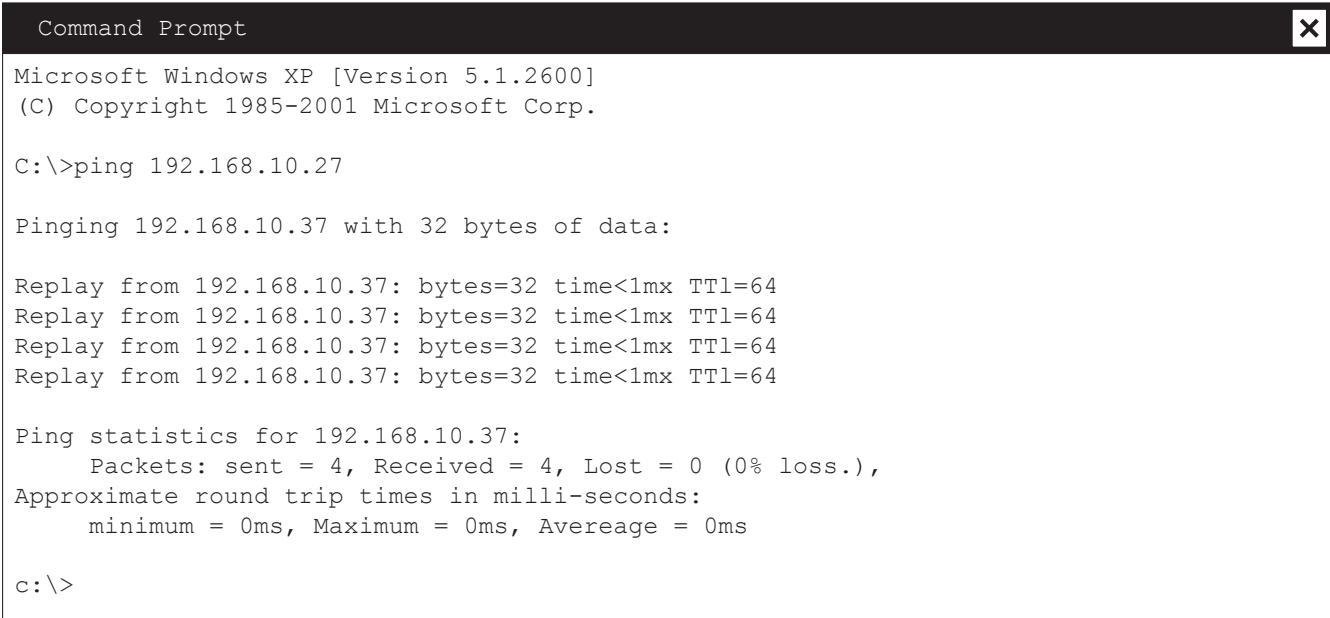
Device is equipped with an Embedded Web Server that allows to execute some operations on device, through a clear web interface, including:

- monitoring the device status;
- setting operating parameters;
- configuring network settings;
- managing the logos;
- configuring the email service to make diagnostics and maintenance operations easier;
- download printing drivers.

Before entering in the Embedded Web Server, check that:

- the device is connected and turned on;
- the device has a network connection based on the IP protocol;
- the following ports are opened (if a Firewall is present on computer): 9100 (or differently set up). 15000, 15001, 15002;
- have a Web browser on the computer;
- the device is connected to the network and its IP address and its Subnet Mask are set up in a correct way. To check the setting of these parameters, open a new terminal window and type “ping” on the command bar followed by the IP address of the device. The picture shows an example of a positive result after the “ping” command. Otherwise, if connection isn’t possible, to its IP address, a failure notice will appear.

Example: ping 192. 168. 10. 37



```
Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\>ping 192.168.10.27

Pinging 192.168.10.37 with 32 bytes of data:

Reply from 192.168.10.37: bytes=32 time<1mx TTL=64
Reply from 192.168.10.37: bytes=32 time<1mx TTL=64
Reply from 192.168.10.37: bytes=32 time<1mx TTL=64
Reply from 192.168.10.37: bytes=32time<1mx TTL=64

Ping statistics for 192.168.10.37:
    Packets: sent = 4, Received = 4, Lost = 0 (0% loss.),
    Approximate round trip times in milli-seconds:
        minimum = 0ms, Maximum = 0ms, Avereage = 0ms

c:\>
```

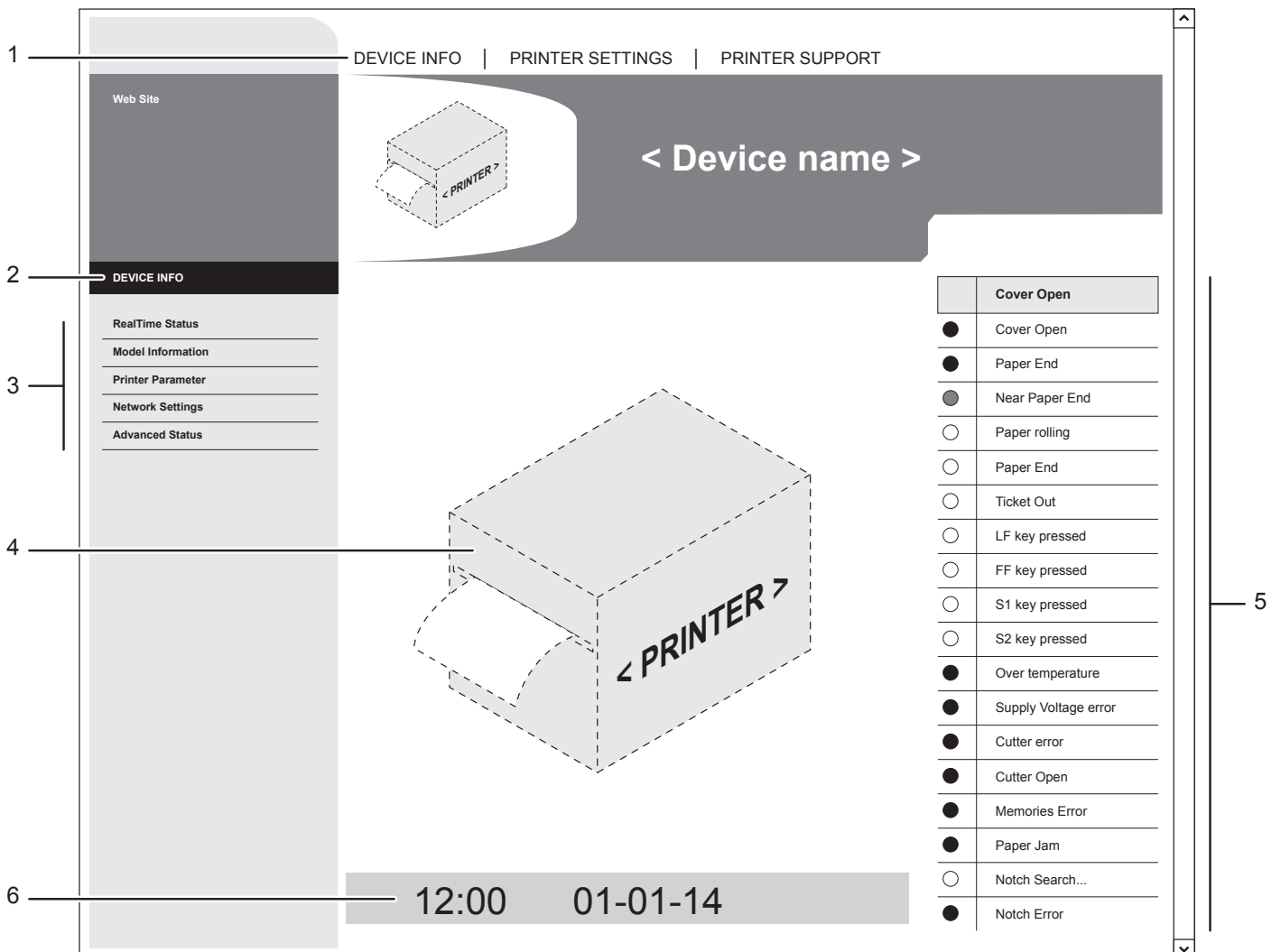
12.3 Embedded Web Server: access

To enter the Embedded Web Server, type the IP address assigned to the device into Web browser. To know the IP address of the device, print the Set-up report of the device (see chapter 5) or use “Locator”. For example, if IP address of the device is 192.168.10.37, type in the Web browser:

http://192.168.10.37

On the screen will appear the internal default page that corresponds to the section “Device Info” The home page is divided into 6 areas whose functions are described below:

1. **SECTIONS:** The web server has three sections listed within each web page. These sections are: Device Info, Printer Settings, Printer Support.
2. **CURRENT PAGE** Reports section currently displayed.
3. **TOOLS** Lists the tools available within the chosen section.
4. **PRINTER PICTURE** Displays a picture representative of the device operational status. The picture changes depending on the parameters reported in area number 5.
5. **REAL TIME STATUS** Report a list of operating parameters controlled and monitored in real time (with a regular refresh from 5 to 15sec).
6. **TIME AND DATE** Displays the current time and date.



To enter some sections and some configuration services, it is required the identification of the user and password. To make registration and to obtain the access to the restricted areas, when it is required insert the user name and the password as indicated in the following table:

| | |
|-----------|-----------------|
| User Name | Custom |
| Password | AlwaysOn |

NOTE: Respect capital and small letters as indicated in table.

12.4 Embedded Web Server: functions

The “Printer Settings” section is a restricted one. To enter the section, it is required the identification of the user and password. With the tools of this section, it is possible to set up the same parameters of the device that are configurable in the device’s Set-up mode (see chapter 5).

The following figure shows the page for the “EMAIL SETUP” tool. It is divided into 4 areas:

1. **SECTIONS:** Are the same as described on the main page
2. **CURRENT PAGE** Reports section currently displayed.
3. **TOOLS** Lists the tools available within the chosen section.
4. **EMAIL SETUP** Displays the fields available to configure the automatically delivery of service email in order to inform the user when a change occurs to operating status of the device. It is possible to select the events to enable the sending of the email

The screenshot shows the 'EMAIL SETUP' configuration page. At the top, there are navigation tabs: 'DEVICE INFO', 'PRINTER SETTINGS', and 'PRINTER SUPPORT'. Below the tabs is a header area with a printer icon and the text '< Device name >'. The left sidebar contains a menu with 'PRINTER SETTINGS' selected. The main content area is titled 'E-Mail Service Settings' and contains the following fields and options:

| | |
|---------------------|---|
| SMTP Server Address | smtp.xxxxx.it |
| SMTP Server Port | 25 |
| E-mail To | Utente@xxxxxx.it |
| E-mail From | <PRINTER>@xxxxxx.it |
| E-mail Subject | test |
| E-mail Message | Testo libero |
| | <input checked="" type="checkbox"/> Include Printer Status |
| Send e-mail event | <input type="checkbox"/> when Paper End is detected <input type="checkbox"/> when Near Paper End is detected <input checked="" type="checkbox"/> on Printer Power On <input checked="" type="checkbox"/> when Near Paper End is detected <input type="checkbox"/> on Cut <input type="checkbox"/> on LF key pressed <input type="checkbox"/> on FF key pressed <input type="checkbox"/> on S1 key pressed <input type="checkbox"/> on S2 key pressed <input checked="" type="checkbox"/> on Cut error <input checked="" type="checkbox"/> on Paper Jam <input checked="" type="checkbox"/> on Notch Align error <input type="checkbox"/> on Autoload <input checked="" type="checkbox"/> on Head Over Temperature error <input checked="" type="checkbox"/> on Supply Voltage error |
| | <input type="button" value="Reset e-mail settings..."/> <input type="button" value="Save e-mail settings"/> |

With the tools in the “Printer Support” section, it is possible to download drivers, manage logos and test some device function for demonstrative and service purpose,

The following figure shows the page for the “ADVANCED FUNCTIONS” tool. It is divided into 4 areas:

1. **SECTIONS:** Are the same as described on the main page
2. **CURRENT PAGE** Reports section currently displayed.
3. **TOOLS** Lists the tools available within the chosen section.
4. **ADVANCED FUNCTION** Displays all the tests available for the device: printing a test page, the font test and the logos test, the self-calibration of the notch sensors and the ticket alignment.

1 — DEVICE INFO | PRINTER SETTINGS | PRINTER SUPPORT

2 — Web Site

2 — PRINTER SUPPORT

3 — Download Driver

3 — Advanced Function

3 — Picture Settings

3 — Font Settings

3 — Firmware Upgrade

4 — < Device name >

Advanced Function

Warning : Use these function only when the printer is in standby!
All functions below, if used while the printer is executing a print job from communication port, may corrupt the printout.

| Test Page | |
|-----------------|----------------|
| Print Test Page | Exec Test Page |

| Logo Test | |
|------------------|--|
| Logo Description | <input type="checkbox"/> Print all Logos |
| Logo Test | Exec Logo Test |

| Font Test | |
|------------------|------------------|
| Font Description | ESC/POS - 11 CPI |
| Font Test | Exec Font Test |

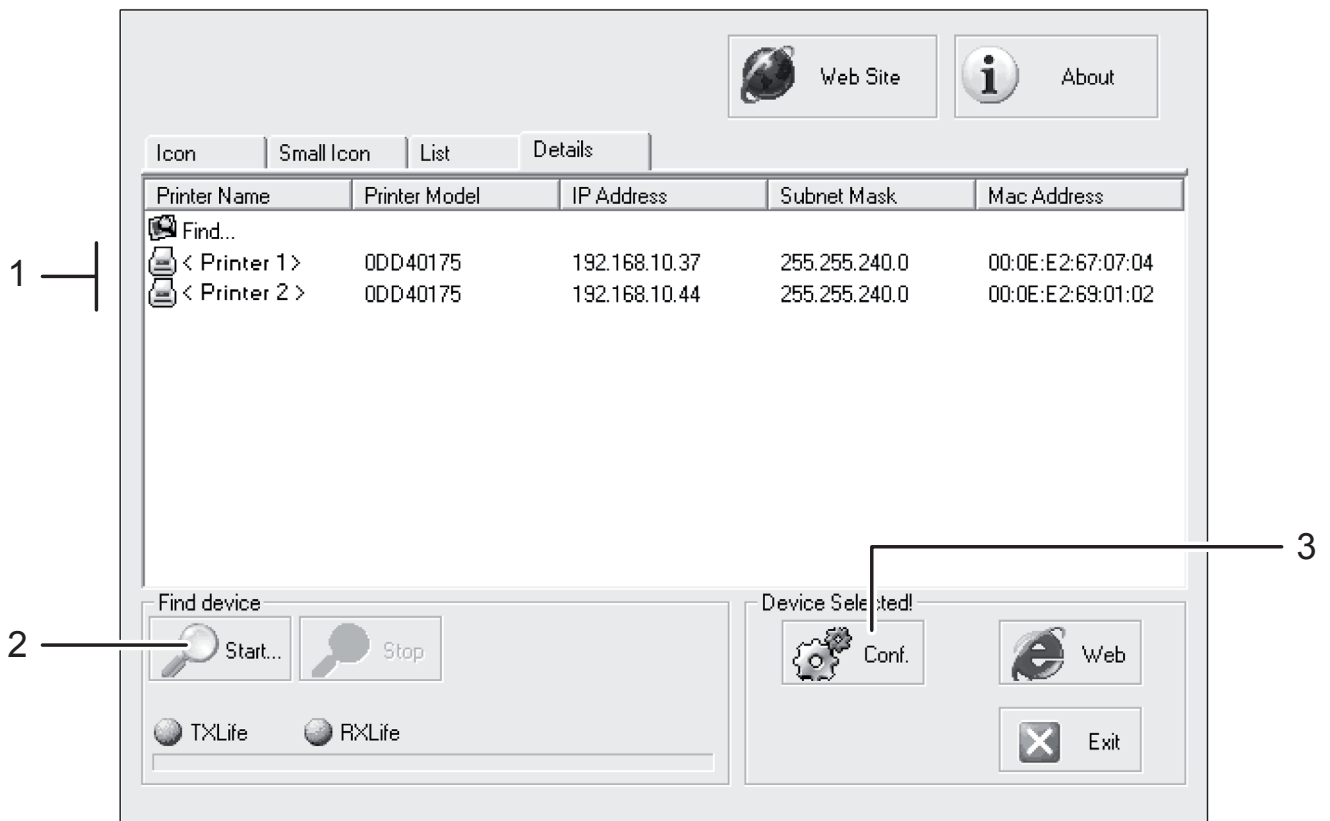
| Advanced Function | |
|--------------------------|-----------------------------|
| Notch Autose | Exec Notch Autose |
| Characterize Paper | Exec Paper Characterization |
| Align icket to print | Exec Align |
| Align ticket to cutter | Exec Align to cut |
| Cut Paper | Exec Paper Cut |
| Reset To Factory Default | Reset To Factory Default |

12.5 Locator

With the device it is possible to use an external software to perform a search for devices connected to the network with Ethernet cable, even without knowing the IP addresses of individual device

The following figure shows the software interface:

1. **DEVICES:** Displays the list of the connected devices.
2. **“START...”** Starts a new search.
3. **“CONF.”** Enters the configuration window of the network parameters of the selected device.



12.6 Drivers installation

Embedded Web Server

To install a new driver update for the device, enter the “DRIVER” page of the “PRINTER SUPPORT” section of the embedded Web Server (see the following figure).

DEVICE INFO | PRINTER SETTINGS | PRINTER SUPPORT

Web Site

PRINTER SUPPORT

Download Driver

Advanced Function

Picture Settings

Font Settings

Firmware Upgrade

< Device name >

Download Driver

You can find on this section the printer drivers.
The drivers are stored inside the printer memory: is not needed an active internet connection

<Printer>_rel_111_Win2K_2K3_XP.exe | Release : 1.11 | File Size : 37 KB

Microsoft Windows GPD Driver
Related product(s) : <PRINTER>
Category : Drivers
Operative system(s) : Windows 2000 / XP / Vista

Download file >>

<Printer>_cupsdrv-1.00.tar.gz | Release : 1.00 | File Size : 12 KB

CUPS (Common Unix Printer System) based printer drivers
Related product(s) : <PRINTER>
Category : Drivers
Operative system(s) : Linux

Download file >>

Mass Storage / FTP Server

It is possible to install the new driver update directly into the folder “DRIVER” on the Flash Drive of the device. You can enter the Flash Drive by files sharing from Mass Storage or by files sharing from FTP Server connection (see par.12.1).

In both cases, the relative parameter should be enabled during the configuration process (see chapter 5).

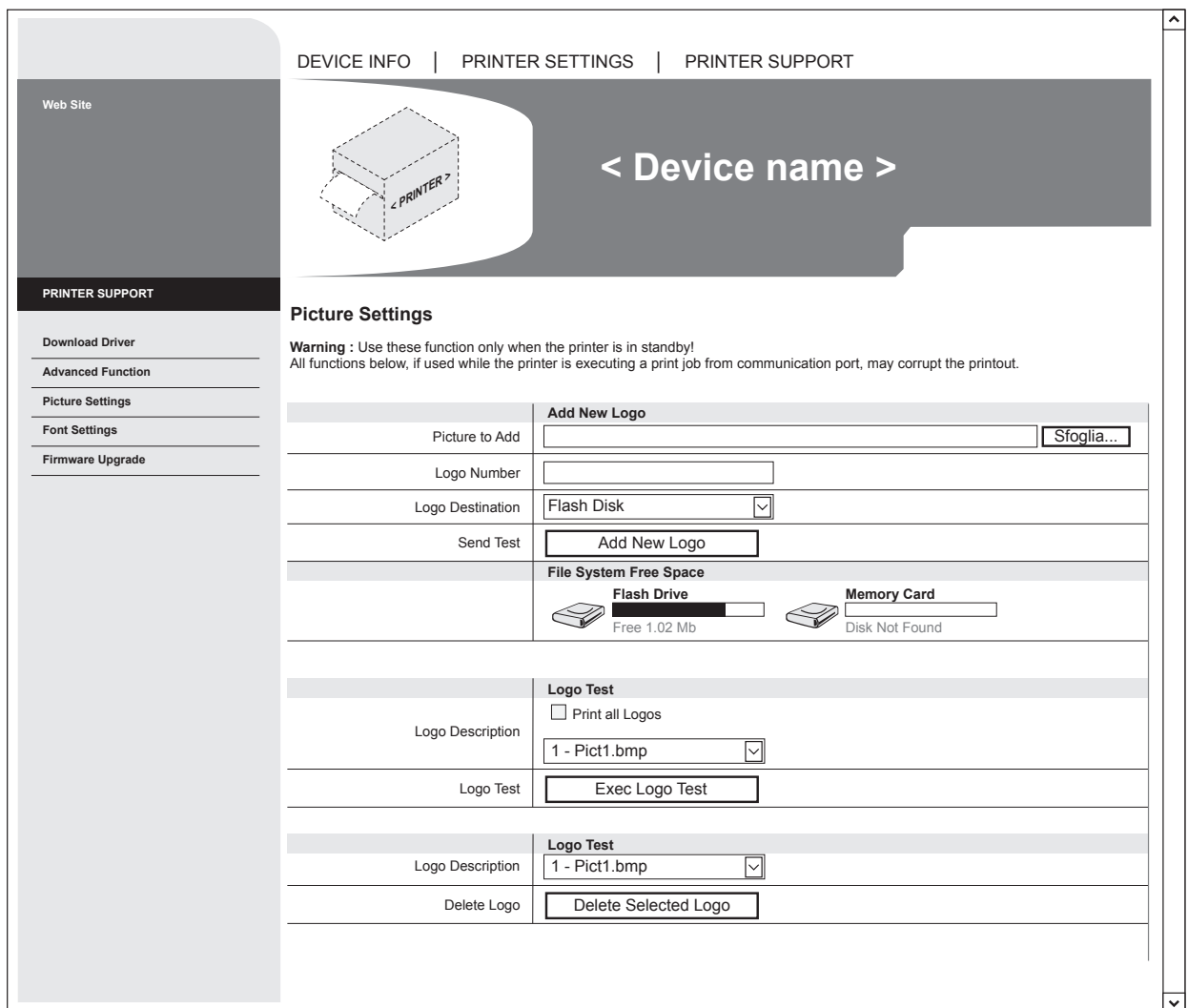
NOTE: To know the IP address of the device, print the Set-up report of the device (see chapter 5) or use “Locator”. Type in the address bar “ftp://” followed by the IP address of the device.

12.7 Logos management

It is possible to store new logos in addition to default logos stored on Flash Disk. The device automatically provides to convert BMP image to the error-diffusion format in black and white. Logos may be stored on Flash Disk.

Embedded Web Server

To add a new logo to the device enter the "PICTURE SETTINGS" page of the "PRINTER SUPPORT" section of the embedded Web Server (see the following figure).



Mass Storage / FTP Server

It is possible to add the new logo directly into the folder "PICTURES" on the Flash Drive of the device. You can enter the Flash Drive by files sharing from Mass Storage or by files sharing from FTP Server connection (see par. 12.1).

In both cases, the relative parameter should be enabled during the configuration process (see chapter 5).

After adding the logo, open the configuration file "PictList.ini" and add a new line with a number associated to the logo (to be used with device's commands), a letter for the memory unit and the logo file name, as indicated in the instructions written inside the "PictList.ini" file.

To delete a logos stored in the device, proceed as follows:

1. delete the selected logo from the "Pictures" folder on Flash Disk.
2. in the configuration file "PictList.ini", delete the line related to the erased logo.

The logos stored into a unit memory and converted by the device, can be printed by using the number associated to the logo during the conversion step.

The correspondence between file-name and logo-number is warrant by the configuration file "PictList.ini" and it is verifiable with the logo test.

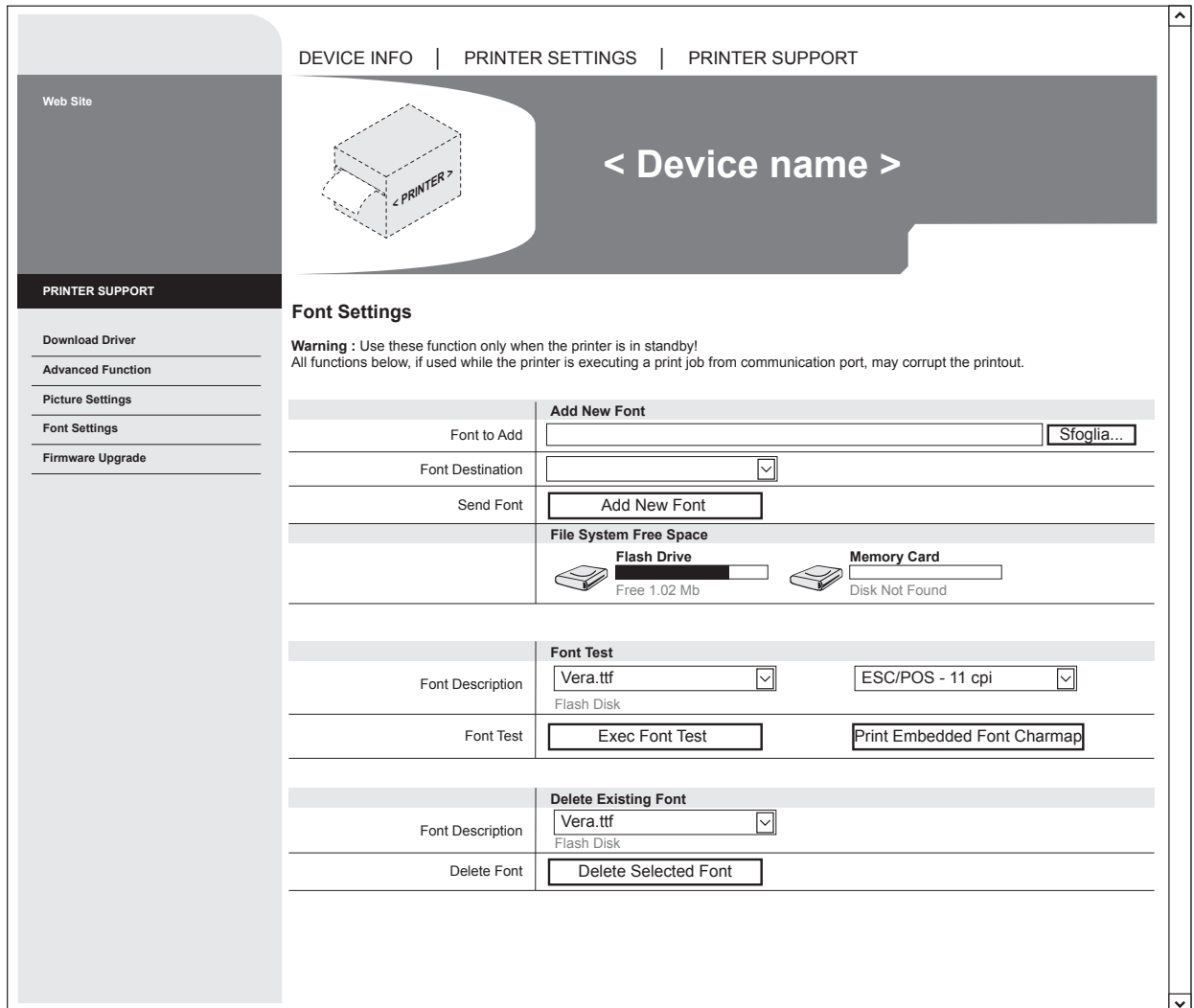
NOTE: To know the IP address of the device, print the Set-up report of the device (see chapter 5) or use "Locator". Type in the address bar "ftp://" followed by the IP address of the device.

12.8 Fonts management

It is possible to store new font in addition to default fonts stored on Flash Disk. Fonts may be stored on Flash Disk. The use of the Memory Card allows to handle more fonts (however, the max number of manageable fonts is limited by the RAM memory reserved for fonts management).

Embedded Web Server

To add a new font to the device enter the "FONT SETTINGS" page of the "PRINTER SUPPORT" section of the embedded Web Server (see the following figure).



Mass Storage / FTP Server

It is possible to add the new font directly into the folder “FONTS” on the Flash Drive of the device. You can enter the Flash Drive by files sharing from Mass Storage or by files sharing from FTP Server connection (see par. 12.1). In both cases, the relative parameter should be enabled during the configuration process (see chapter 5).

NOTE:

To know the IP address of the device, print the Set-up report of the device (see chapter 5) or use “Locator”. Type in the address bar “ftp://” followed by the IP address of the device.

Uploading the new font directly from the “Font” folder of Microsoft® Windows® directory, remember that the displayed font name into the “Font” folder may not match the real name of the font file.

12.9 Setup

Embedded Web Server

Device permits the configuration of default parameters for device and network setup by entering the “PRINTER SETUP” page and the “NETWORK SETUP” page of the “PRINTER SETTINGS” section of the embedded Web Server (see the following figure).

The screenshot displays the Embedded Web Server interface. At the top, there are navigation tabs: "DEVICE INFO", "PRINTER SETTINGS" (which is active), and "PRINTER SUPPORT". Below the navigation is a header area with a printer icon and the text "< Device name >".

On the left side, there is a sidebar menu with the following items: "Web Site", "PRINTER SETTINGS" (highlighted), "Printer Setup", "Network Setup", "Email Setup", and "Email Log".

The main content area is titled "< PRINTER > Printer Settings" and contains a list of configuration options, each with a dropdown menu:

- Printer Emulation: ESC/POS (TM)
- Autofeed: CR disabled
- Chars/inch: A=15 B=20 cpi
- Busy Condition: RxFull
- Print Mode: Normal
- Print Density: 0%
- Speed/Quality: High Speed
- Paper Width: 82 mm
- Paper Threshold: 40 %
- Notch Position: Disabled
- Notch Threshold: 40 %
- Notch Distance: +0.0
- Ticket Locking: Disabled
- Paper End Buffer Clear: Disabled

Below these settings is a section titled "COM Port Settings":

- RS232 Baud Rate: 115200 bps
- RS202 Data Length: 8 bits/chr

On the right side of the interface, there is a date and time selection widget. It shows a calendar for January 2014 with the 10th selected. Below the calendar, there is a time field set to 12:00 and a "Select date" button. At the bottom of this widget is an "Apply Date and Time" button.

Mass Storage / FTP Server

It is possible to configure the default parameters for device and network setup by editing the “Setup.ini” file on the device Flash Drive.

You can enter the Flash Drive by files sharing from Mass Storage or by files sharing from FTP Server connection (see par.12.1).

In both cases, the relative parameter should be enabled during the configuration process (see chapter 5).

After editing device’s parameter, simply save the “Setup.ini” file to make the modifies activated.

The "Setup.ini" file is a configuration file that contains all the configurable parameters listed in text format and divided into some sections (indicated in square brackets).

The available values for every parameter, are listed after the parameter name. The value marked with the symbol ' * ' is the default one. To modify device's parameters, change the numeric value after the name of parameters. To set the parameter to the default value, change the numeric value with the symbol D.

The "Setup.ini" file permits the configuration of the following parameters:

[PRINT]

| | | | | |
|-----------------------|----------------------|--|----------------------------------|----------|
| Print Mode | 0*, 1 | 0 = Normal 1 = Reverse | | |
| Autofeed | 0*, 1 | 0 = CR disabled 1 = CR enable | | |
| Chars / inch | 0, 1*, 2 | 0 = A=11 B=15 cpi 1 = A=15 B=20 cpi 2 = A=20 B=15 cpi | | |
| Code Table [num] | 0 | | | |
| Chinese font | 0*, 1 | 0 = Disabled 1 = Enabled | | |
| Speed / Quality | 0, 1*, 2 | 0 = High Quality 1 = Normal 2 = High Speed 3 = Grey scale | | |
| Paper Width | 0, 1, 2* | 0 = 50mm[58 PaperW] 1 = 54mm[60 PaperW] 2 = 72mm[80 PaperW] | | |
| Paper Threshold | 0, 1*, 2, 3, 4, 5, 6 | 0 = 30 % 1 = 40 % 2 = 50 % | 3 = 60 % 4 = 70 % 5 = 80 % | 6 = 90 % |
| Notch/B.Mark Position | 0*, 1, 2 | 0 = Disabled 1 = Bottom 2 = Top | | |
| Notch Threshold | 0, 1*, 2, 3, 4, 5, 6 | 0 = 30 % 1 = 40 % 2 = 50 % | 3 = 60 % 4 = 70 % 5 = 80 % | 6 = 90 % |
| Notch Distance [mm] | | | | |
| Total cut | 0*, 1 | 0 = Enabled 1 = Disabled | | |

| | | | | |
|--------------------------|----------------------------|---|-------------------------------------|--|
| PaperEnd Buffer Clear | 0*, 1 | 0 = Disabled 1 = Enabled | | |
| PrintHead Test PowerOn | 0*, 1 | 0 = Disabled 1 = Enabled | | |
| Data Logger | 0*, 1, 2, 3 | 0 = Disabled 1 = Text 2 = Graphic 3 = Text + Graphic | | |
| Line Space Reduction | 0*, 1, 2, 3 | 0 = Disabled 1 = 25% 2 = 50% 3 = 75% | | |
| Line Feed Reduction | 0*, 1, 2, 3 | 0 = Disabled 1 = 25% 2 = 50% 3 = 75% | | |
| Barcode Height Reduction | 0*, 1, 2, 3 | 0 = Disabled 1 = 25% 2 = 50% 3 = 75% | | |
| Print Density | 0, 1, 2, 3, 4*, 5, 6, 7, 8 | 0 = - 50 % 1 = - 37 % 2 = - 25 % | 3 = - 12 % 4 = 0 % 5 = + 12 % | 6 = + 25 % 7 = + 37 % 8 = + 50 % |

[INTERFACE]

| | | | | |
|-------------------|-------------------------|--|--|---------------------------------|
| RS232 Baud Rate | 1, 2, 3, 4, 5, 6, 7, 8* | 1 = 1200 bps 2 = 2400 bps 3 = 4800 bps | 4 = 9600 bps 5 = 19200 bps 6 = 38400 bps | 7 = 57600 bps 8 = 115200 bps |
| RS232 Data Length | 0*, 1 | 0 = 8 bits/chr 1 = 7 bits/chr | | |
| RS232 Parity | 0*, 1, 2 | 0 = None 1 = Even | 2 = Odd | |
| RS232 Handshaking | 0, 1* | 0 = Xon/Xoff 1 = Hardware | | |
| Busy Condition | 0*, 1 | 0 = RxFull 1 = OffLine/RxFull | | |

| | | | | |
|--------------------|-------------------------------|----------------------------------|----------------------------------|----------------|
| USB Virtual COM | 0*, 1 | 0 = Disabled 1 = Enabled | | |
| USB Mass Storage | 0*, 1 | 0 = Disabled 1 = Enabled | | |
| USB Address Number | 0*, 1, 2, 3, 4, 5, 6, 7, 8, 9 | 0 = 0 1 = 1 2 = 2 3 = 3 | 4 = 4 5 = 5 6 = 6 7 = 7 | 8 = 8 9 = 9 |

[NETWORK]

| | | | | |
|----------------------------|-------|-----------------------------|--|--|
| DHCP Client | 0*, 1 | 0 = Disabled 1 = Enabled | | |
| FTP Server | 0*, 1 | 0 = Disabled 1 = Enabled | | |
| IP Address | | | | |
| Subnet Mask | | | | |
| Default Gateway | | | | |
| Domain Name System | | | | |
| TCP Printer Port | | | | |
| MAC Address (Solo lettera) | | | | |

NOTE:

To know the IP address of the device, print the Set-up report of the device (see chapter 5) or use "Locator". Type in the address bar "ftp://" followed by the IP address of the device.

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