OEM

USER MANUAL

VKP80III

Commands manual **77200000000200**

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

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

GENERAL 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 15A in the vicinity of 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 battery pack.
- 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 ENGINEERING 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.

CE 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 *(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.

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

TABLE OF CONTENTS

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	ACCESSORIES	description and installation of the available accessories for the device
9	CONSUMABLES	description and installation of the available consumables for the device
10	ALIGNMENT	information required for managing the paper alignment
11	TECHNICAL SERVICE	information required for contacting the technical service

1.2 Explanatory notes used in this manual

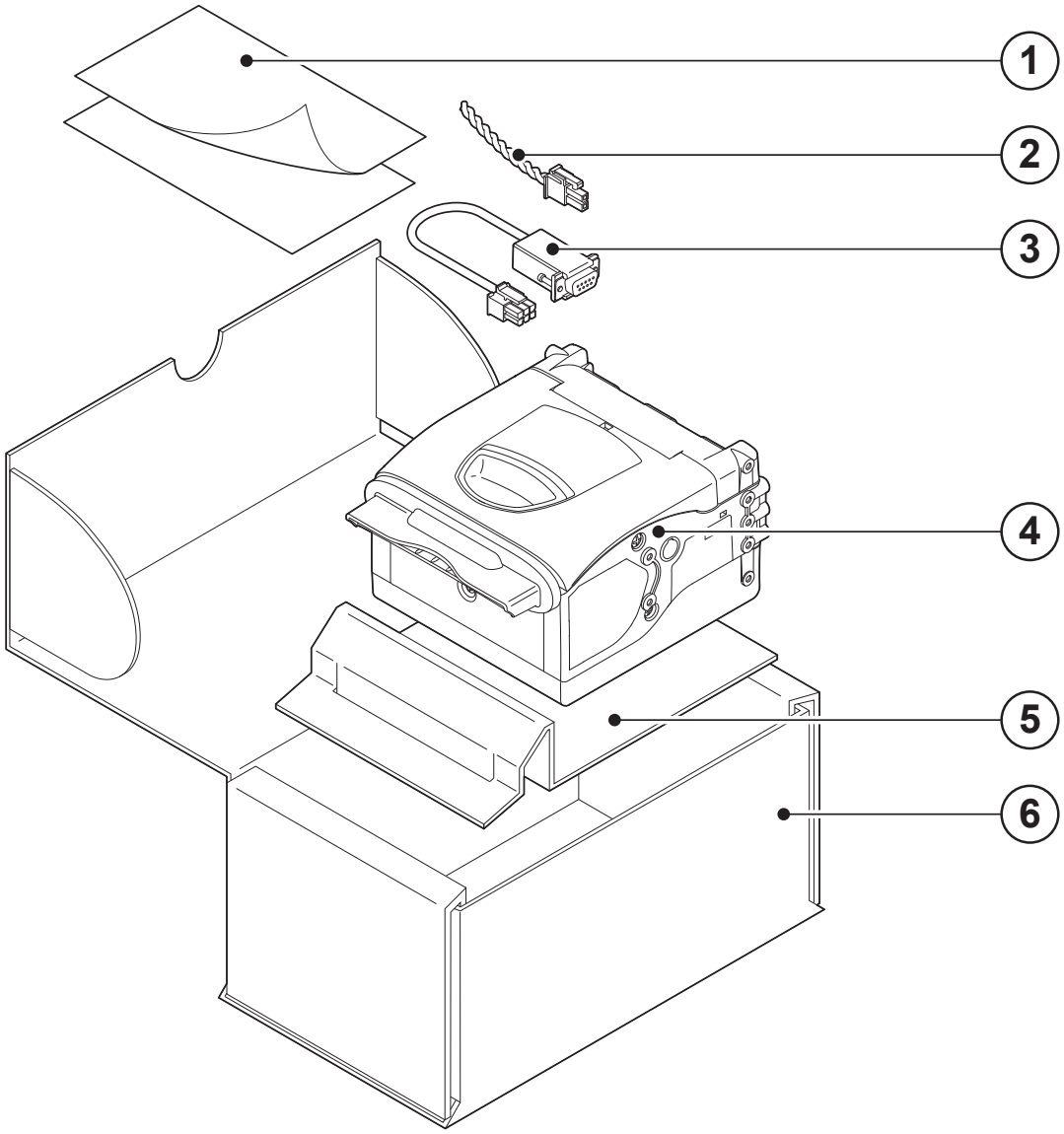
NOTE:	Information or suggestions relative to the use of the printer.
ATTENTION:	Information required to guard against damaging the printer.
DANGER:	Information required to guard against operator injury or damage.

2 DESCRIPTION

2.1 Unpacking the printer

Remove the printer from its carton being careful not to damage the packing material so that it may be re-used if the printer 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. Installation instructions
2. Power supply cable
3. Adapter cable
4. Printer
5. Foam packing shell
6. Box

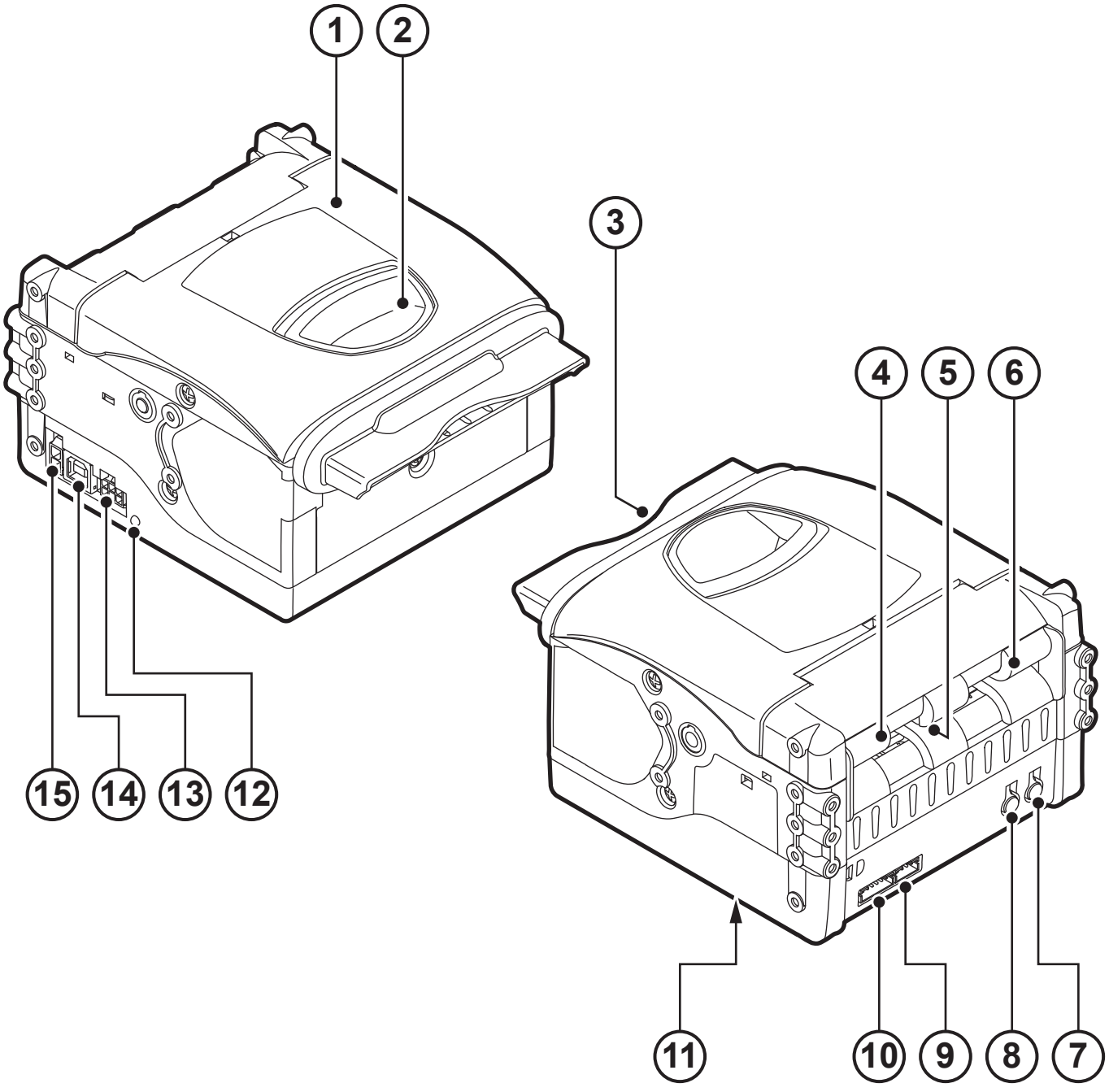


- Open the printer packaging
- Remove the upper packing frame content and remove the upper packing frame.
- Take out the printer.
- Keep the box, trays and packing materials in the event the printer must be transported/shipped in the future.

2.2 Printer component

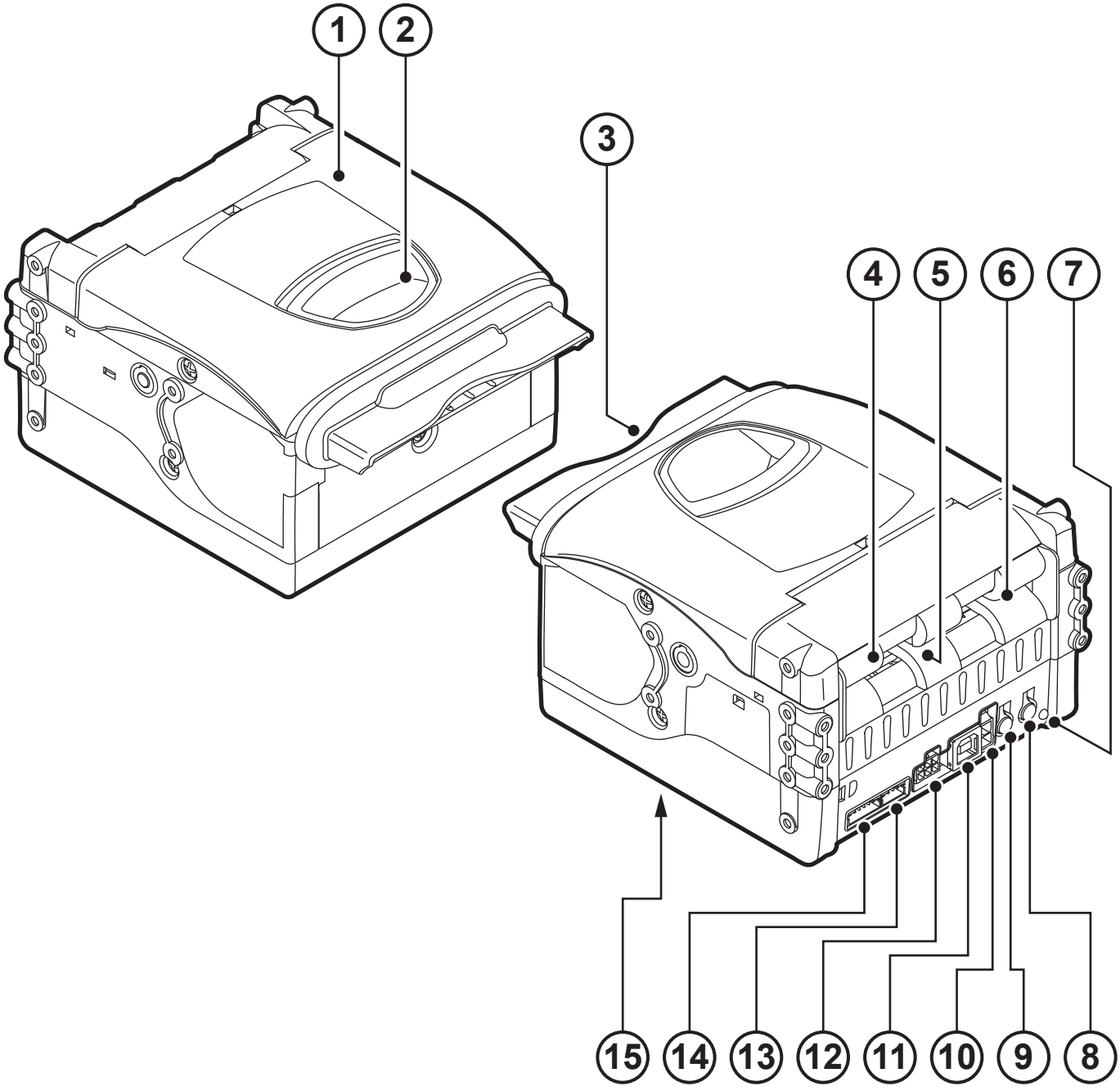
EXTERNAL VIEW
(models with lateral connectors)

1. Printer cover
2. Opening lever
3. Paper output
4. Left cursor for paper input
5. Paper input
6. Right cursor for paper input
7. FORM FEED key
8. LINE FEED key
9. Connector for near paper end sensor (external)
10. Expansion connector (for optional external device)
11. Product label
12. Status led
13. RS232 interface connector
14. USB interface connector
15. Power supply connector



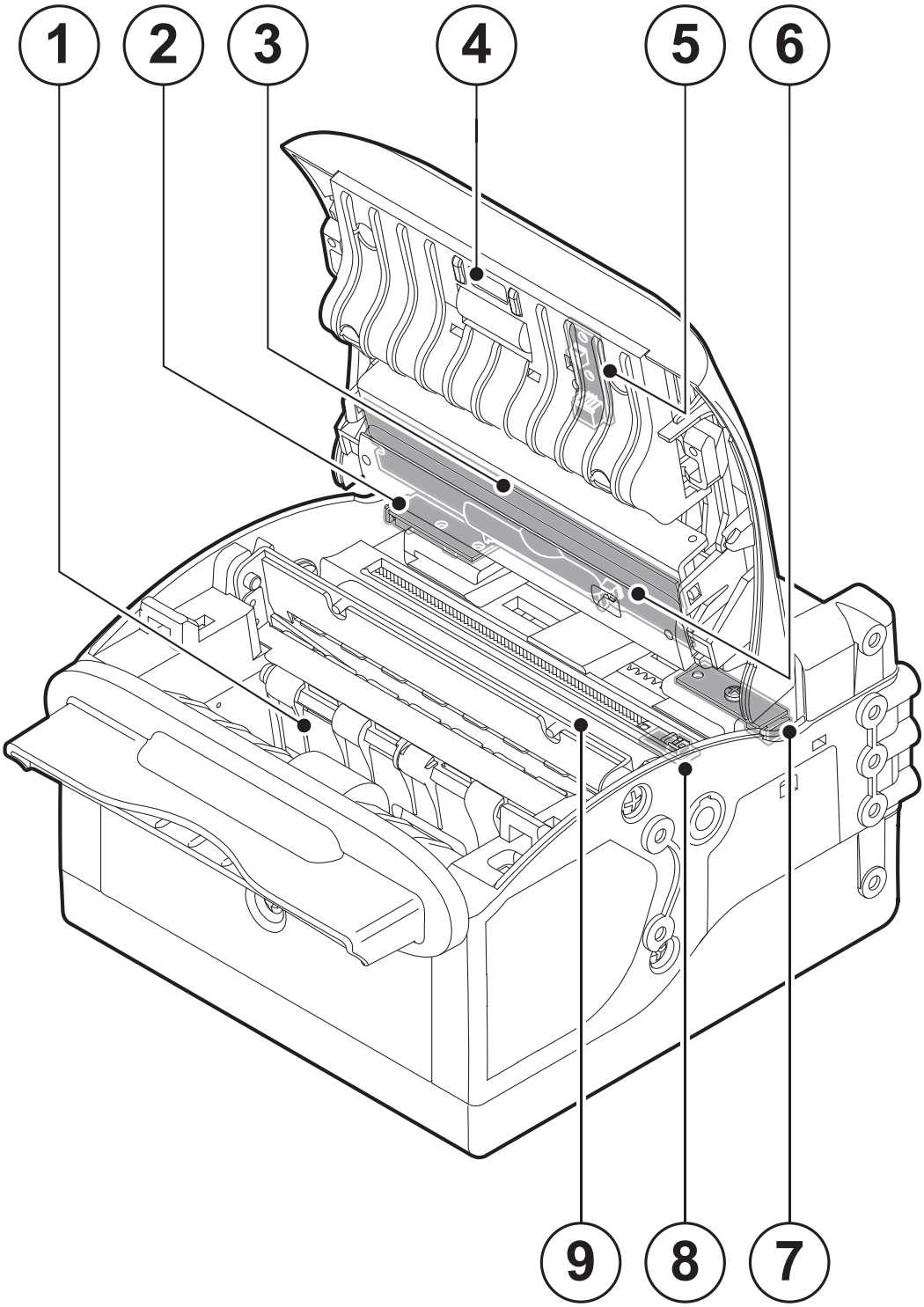
EXTERNAL VIEW
(models with rear connectors)

1. Printer cover
2. Opening lever
3. Paper output
4. Left cursor for paper input
5. Paper input
6. Right cursor for paper input
7. Status led
8. FORM FEED key
9. LINE FEED key
10. Power supply connector
11. USB interface connector
12. RS232 interface connector
13. Connector for near paper end sensor (external)
14. Expansion connector (for optional external device)
15. Prodoct label



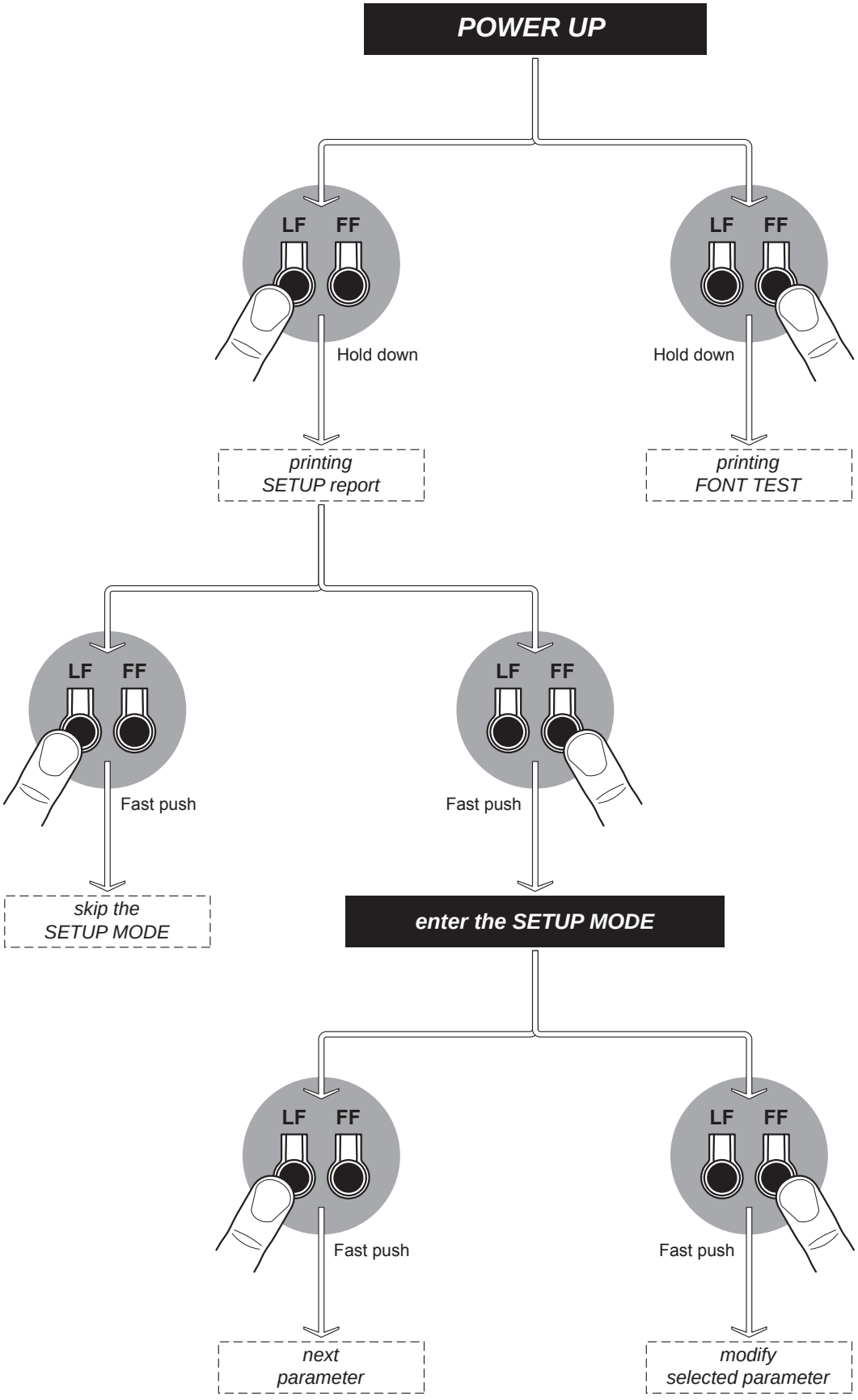
INTERNAL VIEW
(all models)

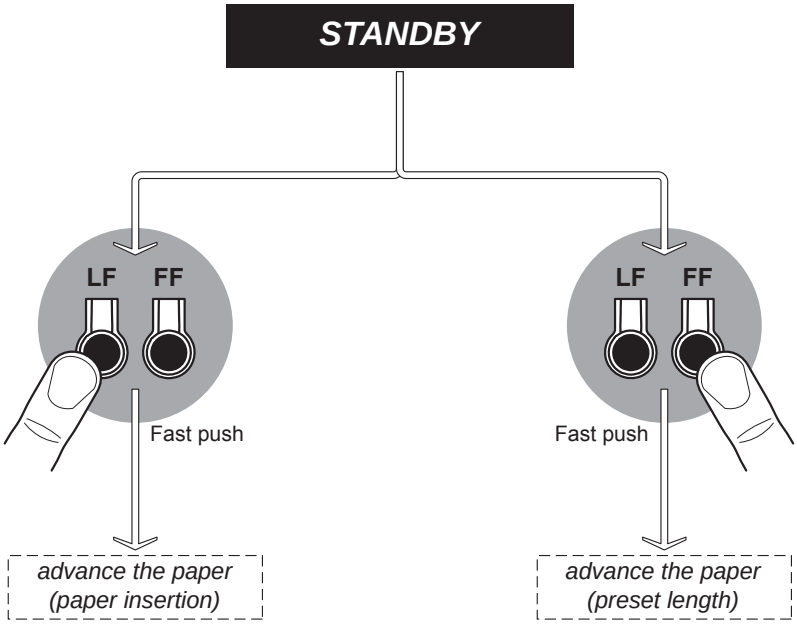
1. Ejector bulkhead
2. Upper left sensor for notch (optional)
3. Printing head
4. Internal barcode reader (optional)
5. Paper out presence sensors
6. Paper in presence sensors (built-in printing head)
7. Upper right sensor for notch (optional)
8. Lower mobile sensor for notch
9. Cutter



2.3 Key functions

The following figures show the functions of printer's keys according to the operating condition of the device.




STANDBY
LF
FF
Fast push
advance the paper
(paper insertion)
LF
FF
Fast push
advance the paper
(preset length)

2.4 Status led flashes

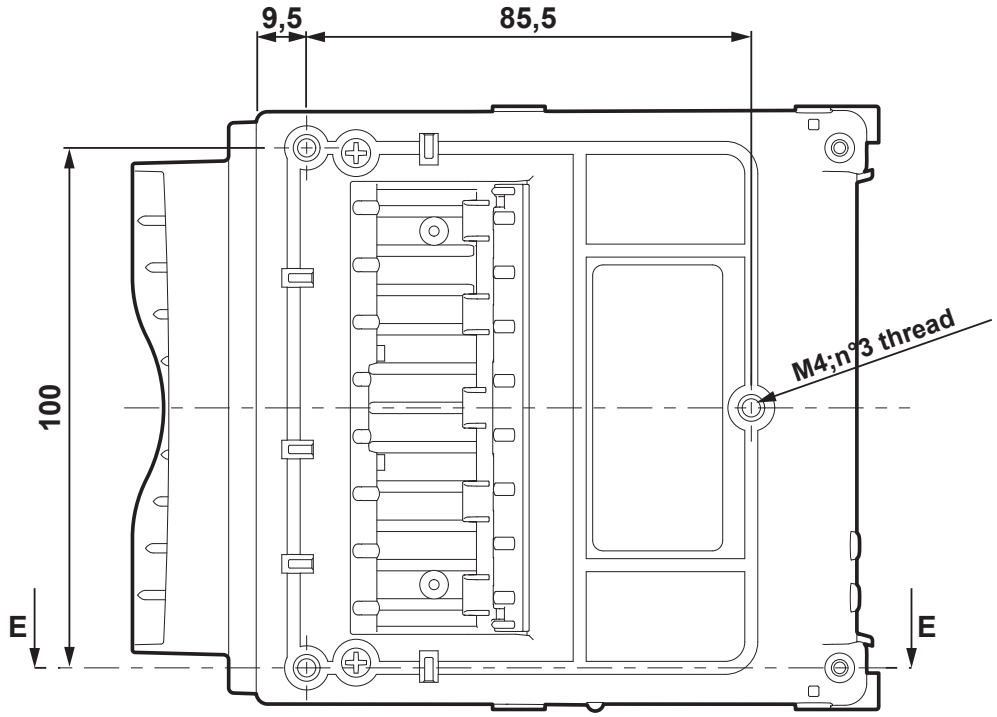
The Status led indicates hardware status of device. Given in the table below are the various led signals and the corresponding printer status.

STATUS LED			DESCRIPTION
-	○	*OFF*	PRINTER OFF
GREEN	●	*ON*	PRINTER ON: NO ERROR
GREEN 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
YELLOW RECOVERABLE ERROR	☼	*2 x*	HEADING OVER TEMPERATURE
		3 x	PAPER END
		4 x	PAPER JAM
		5 x	POWER SUPPLY VOLTAGE INCORRECT
		6 x	COVER OPEN
RED UNRECOVERABLE ERROR	☼	*1 x*	EJECTOR ROLLER ERROR
		2 x	EJECTOR BULKHEAD ERROR
		3 x	RAM ERROR
		5 x	CUTTER ERROR

3 INSTALLATION

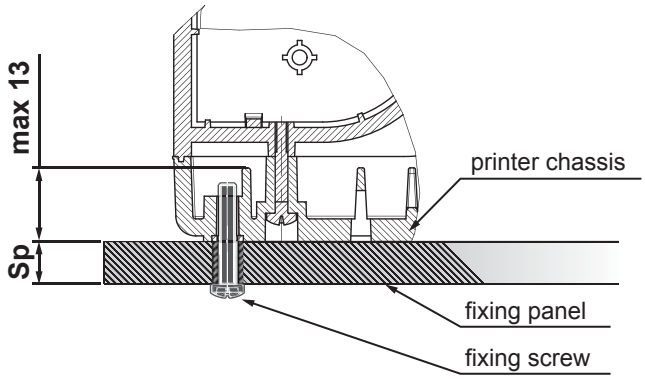
3.1 Fastening

The printer is provided with three fixing holes on the bottom of device (see following figure). To fasten the printer on a panel, use three M4 screws



It's very important to consider the screws length to not damage the internal components placed near the fixing holes (see following figure).

Section E-E



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

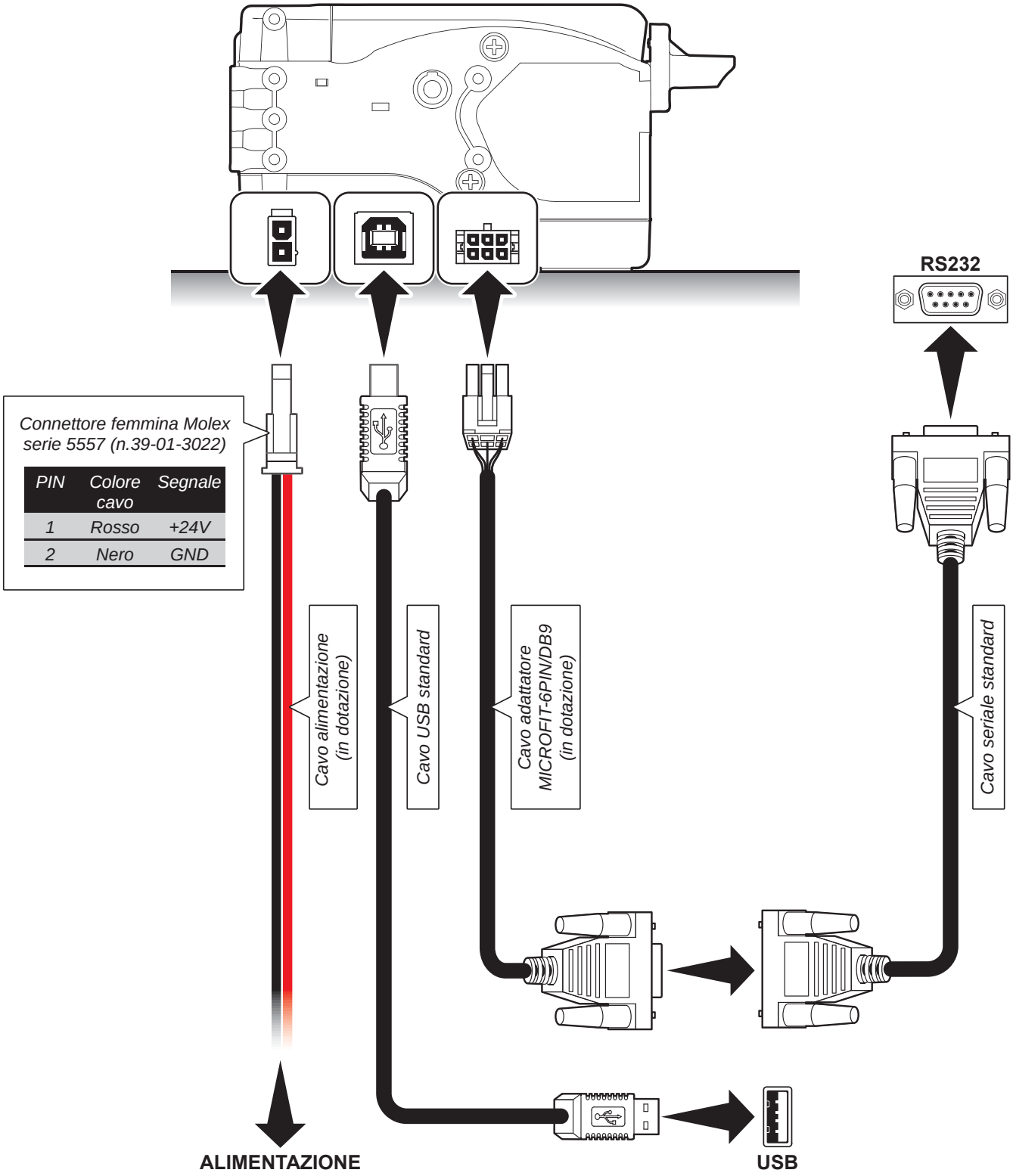
$$L \leq 13mm + Sp$$

For example, if panel thickness is 10mm (Sp = 10mm) the max screw length will be 23mm.

3.2 Connections

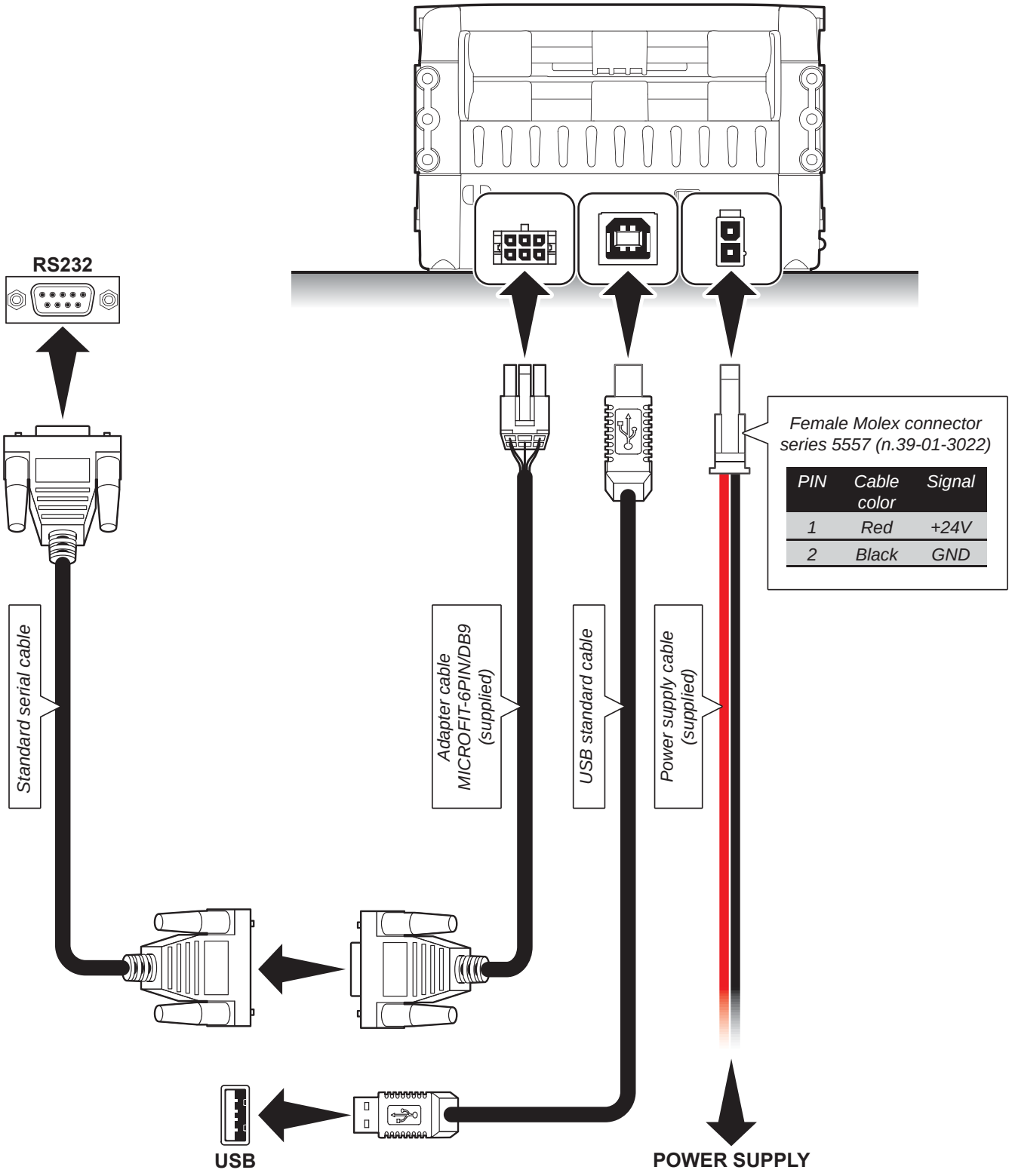
The following figures show the pollible connections for device.

MODEL WITH LATERAL CONNECTORS



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

MODEL WITH REAR CONNECTORS



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

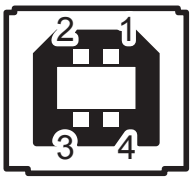
3.3 Interfaces

POWER SUPPLY

Male Molex connector series 5569 vertical (no. 39-30-1020)

J13	1	+24 Vdc
	2	GND

ATTENTION:
Respect power supply polarity.



USB INTERFACE

Female USB type B connector

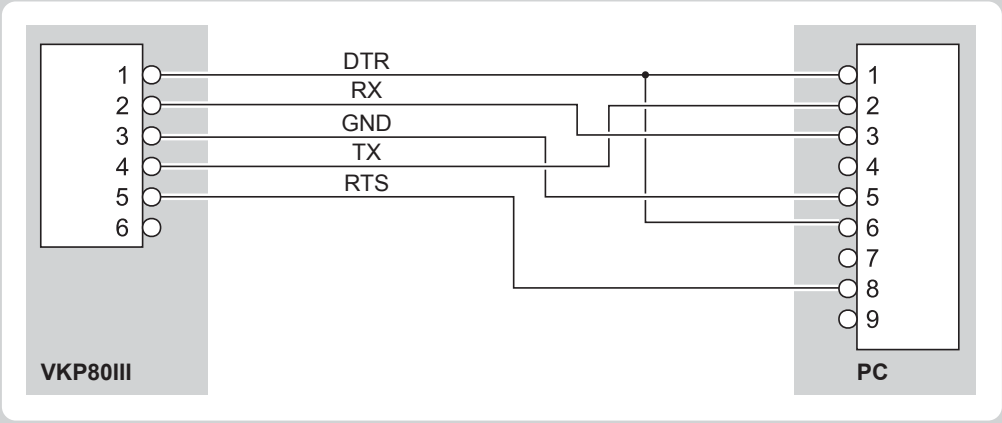
J2	1	USB0-VBUS	(in)
	2	D0 -	(in/out)
	3	D0 +	(in/out)
	4	GND	
	SH1	SHIELD	
	SH2	SHIELD	

SERIAL INTERFACE

Female MICROFIT-6PIN connector *(cable insertion side)*

J1	1	DTR	(out)	Data terminal ready
	2	RX	(in)	Data reception signal
	3	GND		
	4	TX	(out)	Data transmission signal
	5	RTS	(out)	Request to send
	6	n.c.		

NOTE:
Use the adapter cable MICROFIT-6PIN/DB9 (supplied) and a RS232 serial cable to connect the printer to a personal computer. The diagram below illustrate a sample connection between the printer and a PC using a 9-pin female connector.



ATTENTION:
It is recommended to secure with a tie the adapter cable MICROFIT-6PIN/DB9 to a fixed support in order to prevent the connector on control board bears the weight of the cables.

3.4 Driver

The drivers are available for the following operating system:

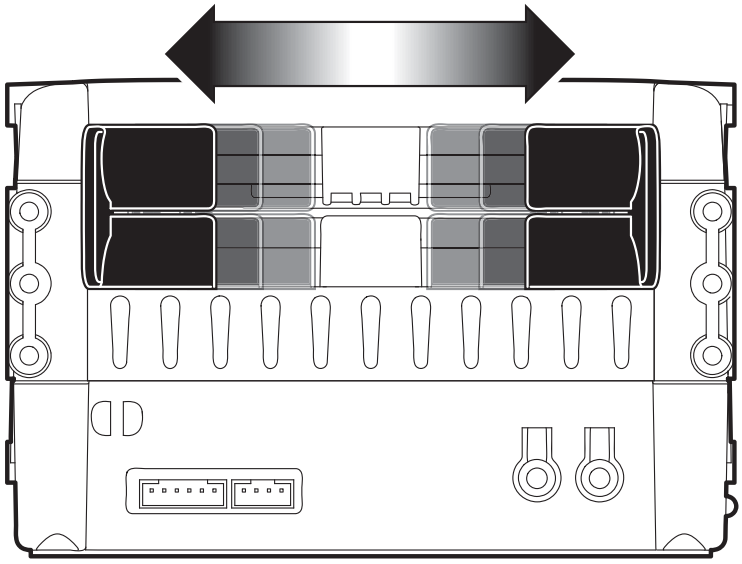
OPERATING SYSTEM	INSTALLATION PROCEDURE
Windows 2K	From the START menu, press Enter and key-in the path where the SW was saved on your PC, then click OK. Follow the instructions that appear on the screen to install the driver.
Windows XP	
Windows VISTA (32/64bit)	
Windows 7 (32/64bit)	
Opos	
Linux	Follow the instruction get back on the README.TXT file you can find it in the software package downloaded in advance.

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

4 OPERATION

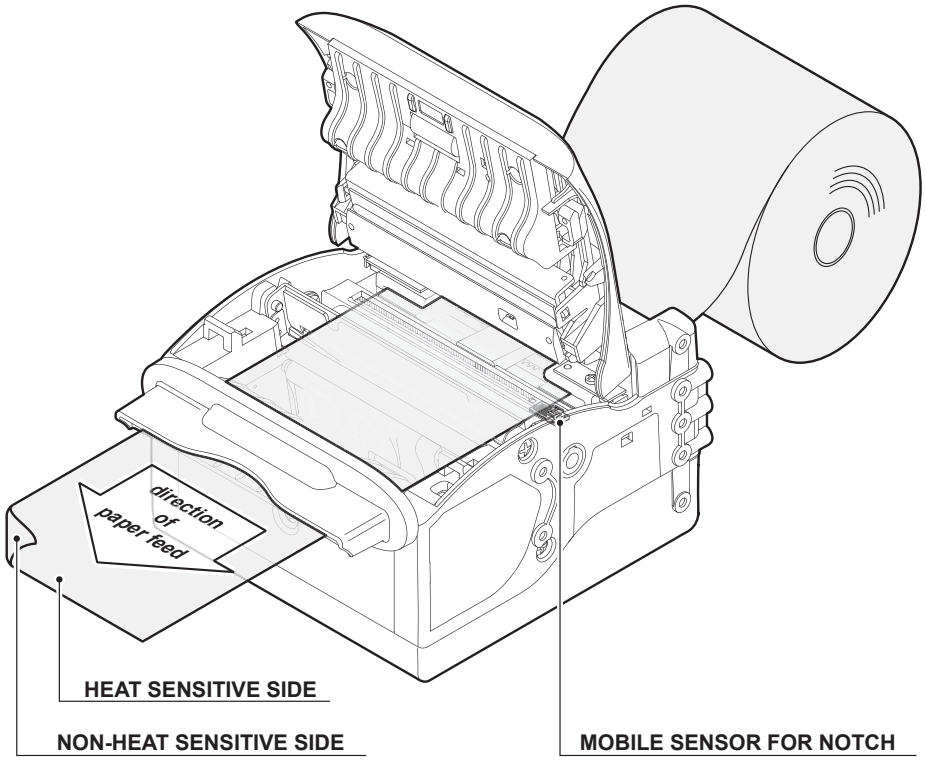
4.1 Adjusting paper width

Paper width may be adjusted from 50mm to 82,5mm using the right and the left cursors located at the paper infeed.

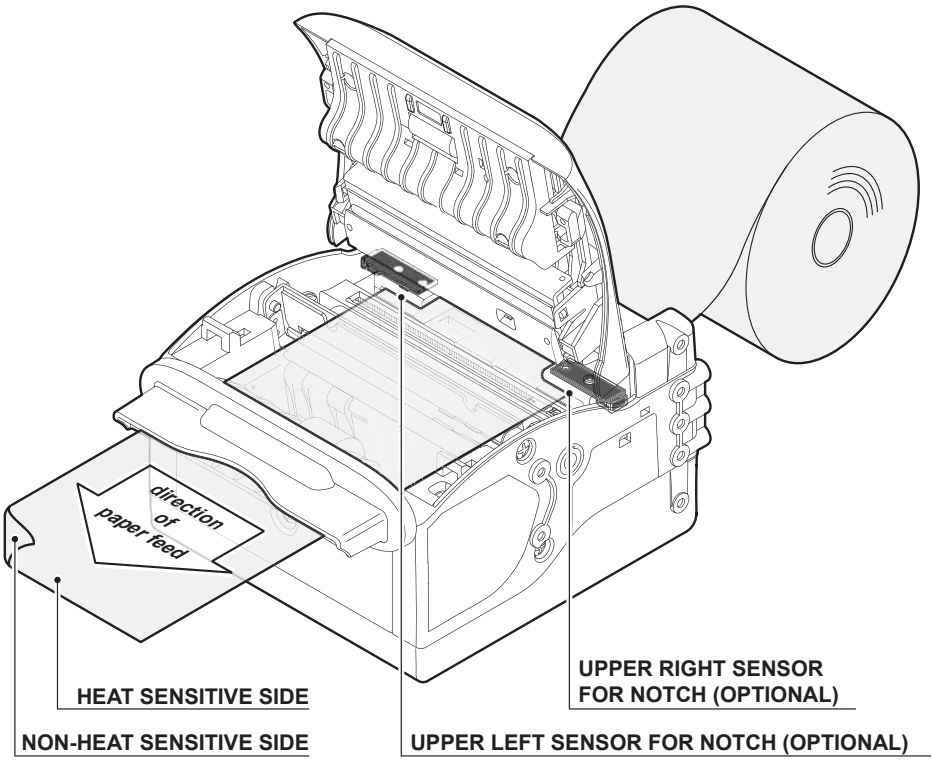


4.2 Adjusting alignment sensors

Printer is provided with a mobile sensor for the detection of alignment notch placed on the non-heat sensitive side of paper (located lower than the plane of the paper inside the printer).

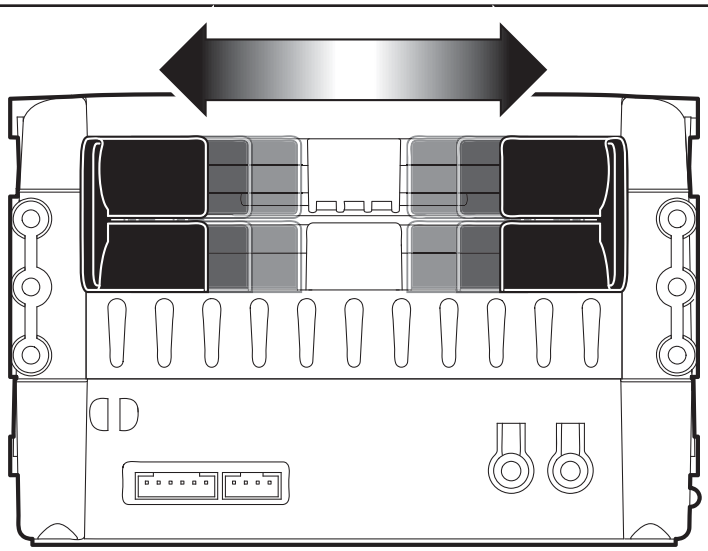


In addition, the printer can be optionally equipped with a sensor for alignment notch placed on the heat sensitive side of paper (located upper than the plane of the paper inside the printer). The sensor can be assembled on the left cursor or on the right cursor of the paper infeed. The sensor position is adjusted during the paper width adjusting.



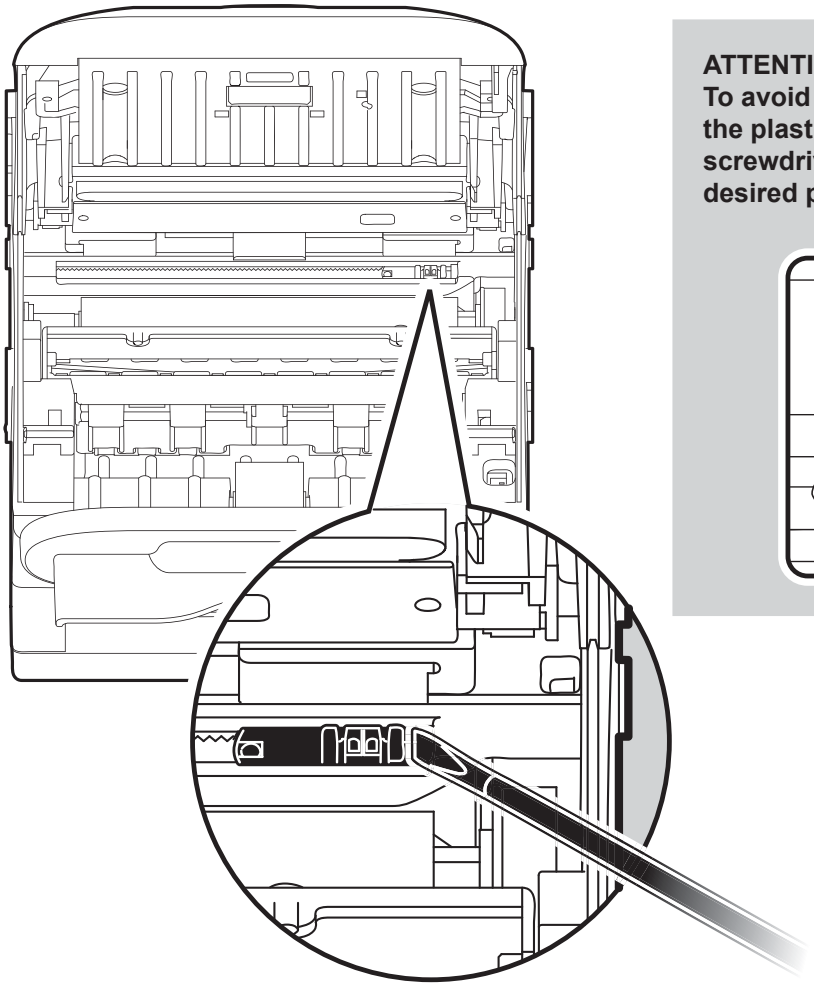
To adjust the mobile sensor position according to the notch position on paper, proceed as follows:

1



Adjust the paper width.
See previous paragraphs.

2



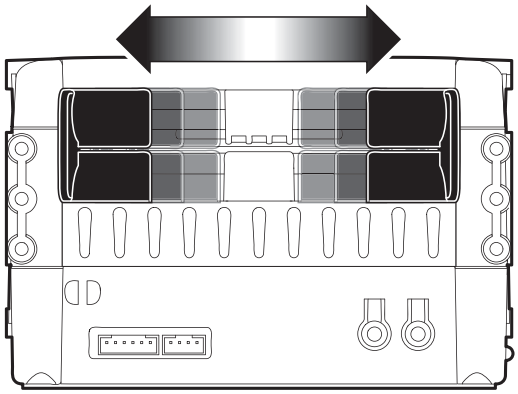
ATTENTION:
To avoid damaging the sensors, use the plastic tabs as foothold for the screwdriver to push the sensor in the desired position.

Move the lower sensor to the desired position
using a small screwdriver or a pointed object.

4.3 Paper roll insertion

At every change of paper roll, check inside the printer. To change the paper roll, proceed as follows:

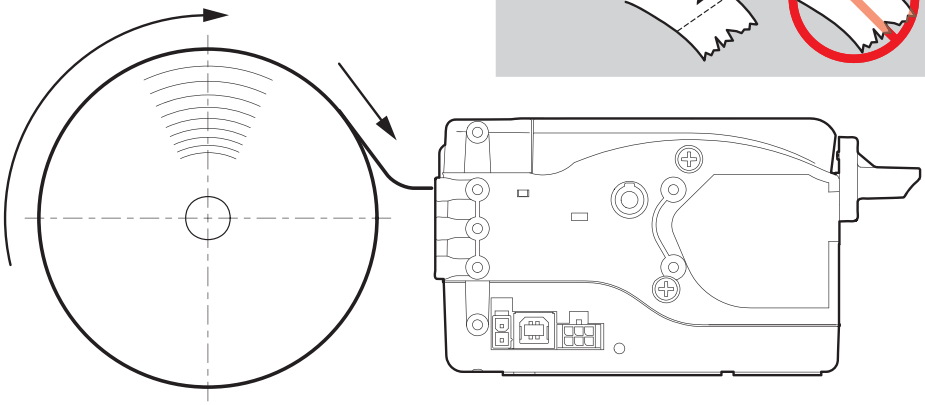
1



Adjust the paper width (see previous paragraphs).

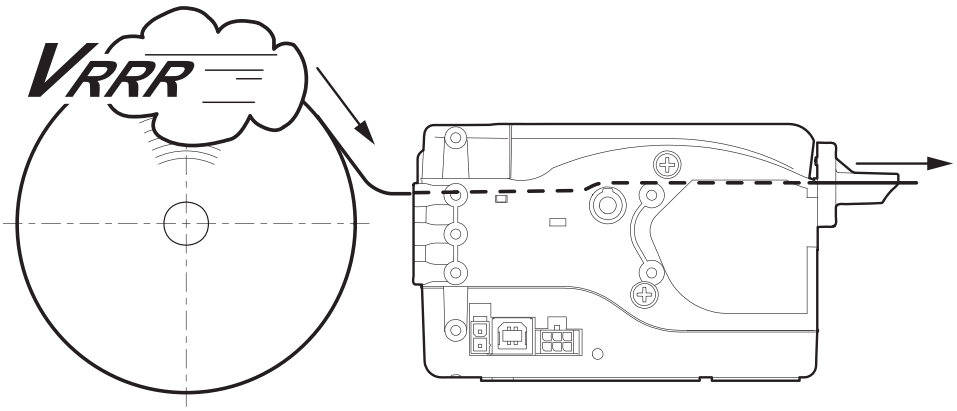
2

ATTENTION:
Make sure the cut is straight.



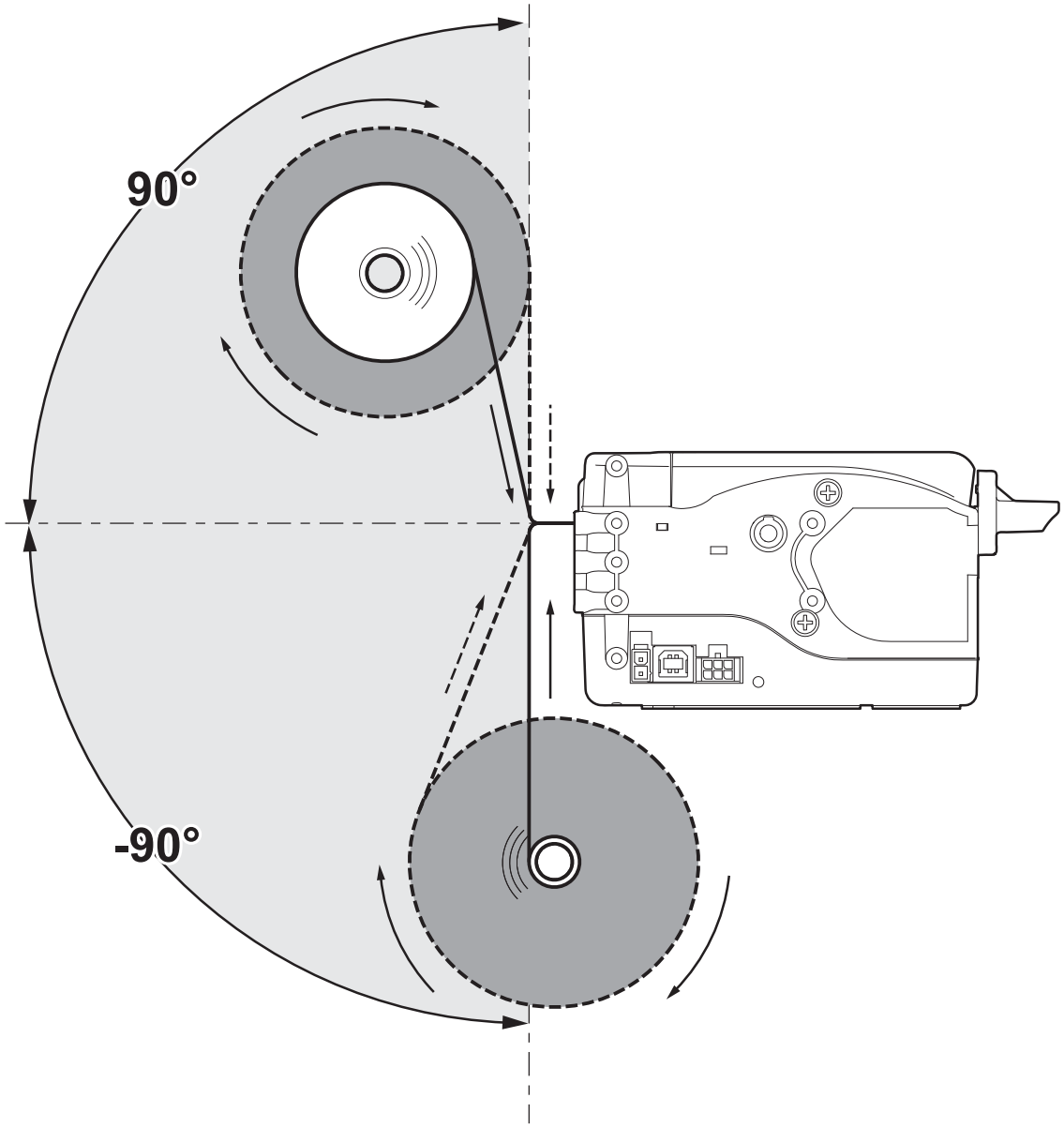
Position the paper roll, so that it unrolls correctly as shown in figure.

3



Insert the paper into the paper infeed opening and wait for it to load automatically.

The following figure gives the limit positions of the paper roll related to the printer for a correct paper loading without a paper roll holder support.
The direction of the paper will always form a maximum angle of 90 ° or -90 ° with the insertion plane of paper inside the printer.



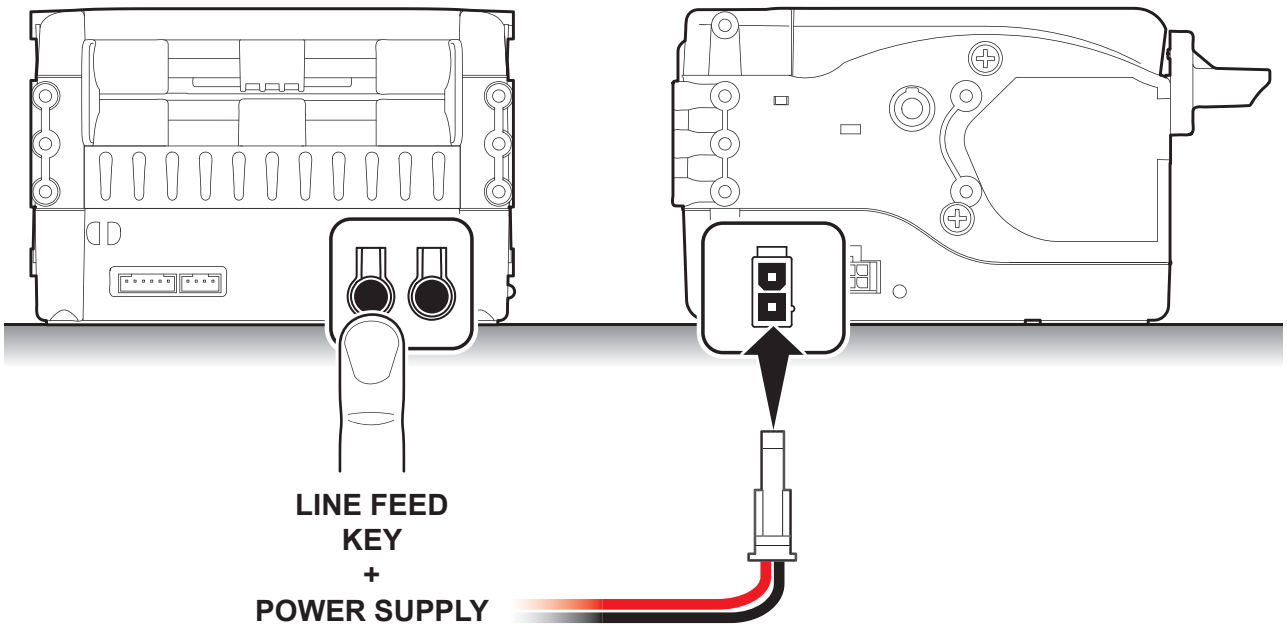
5 CONFIGURATION

5.1 Configuration mode

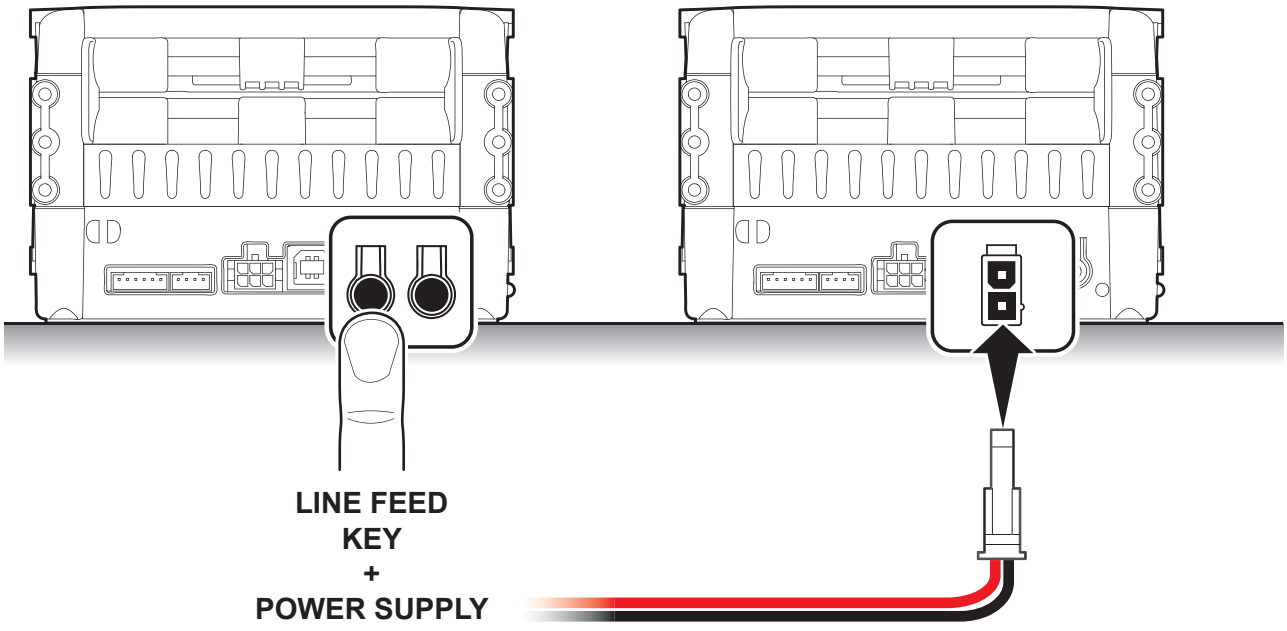
To enter the configuration mode and print a SETUP report with the operating parameters of the printer, proceed as follows.

1

model with lateral connector

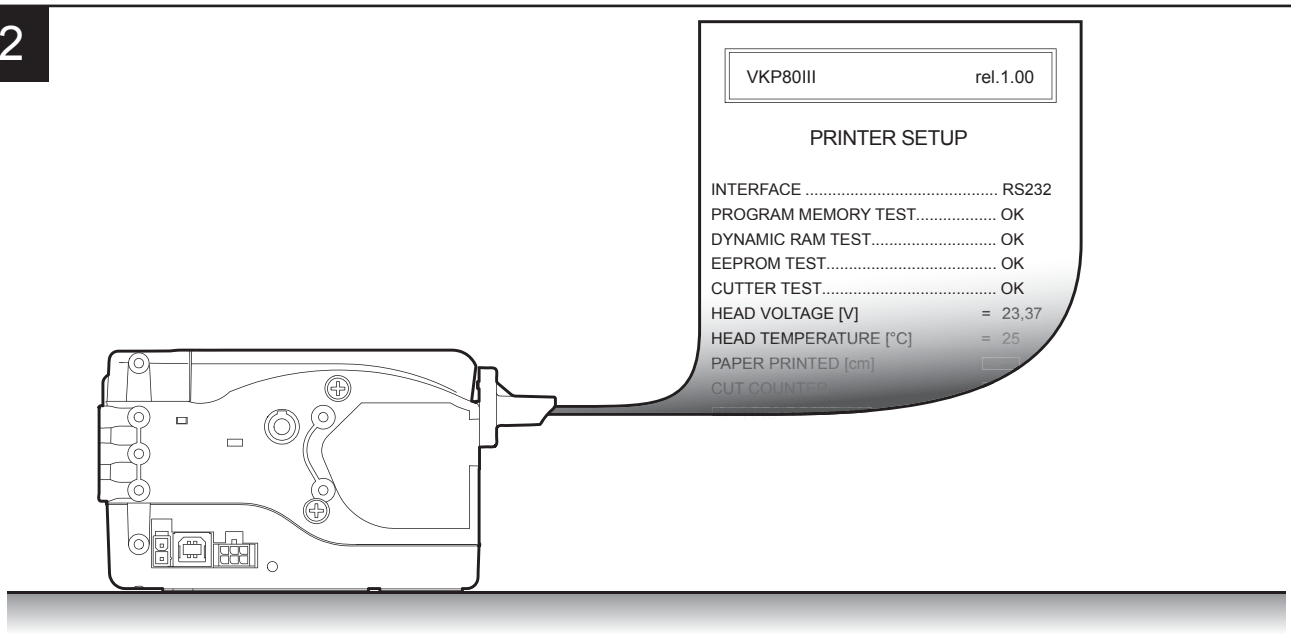


model with rear connector



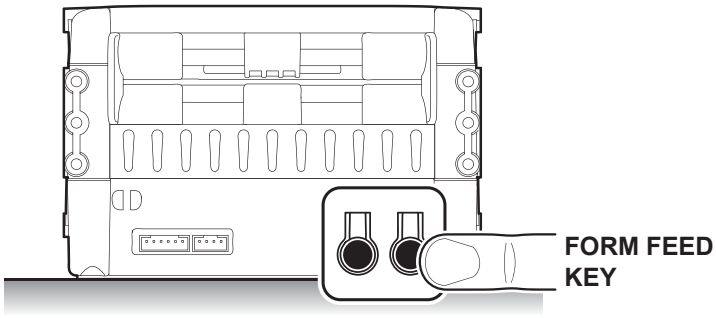
During power-up, hold down the LINE FEED key
while the wiring is plugged into the power supply connector of the printer.

2



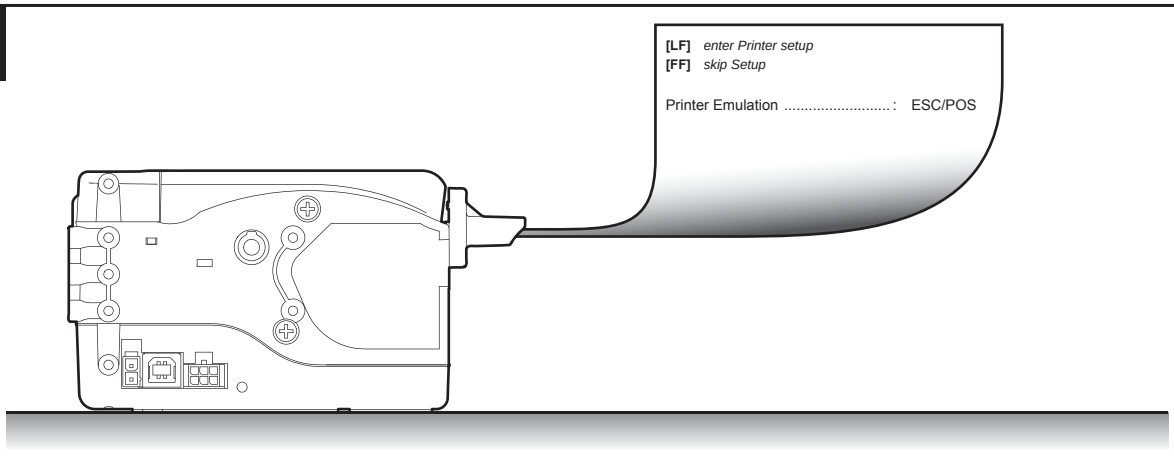
The device prints a SETUP report.

3



Press the FORM FEED key to enter the configuration mode

4

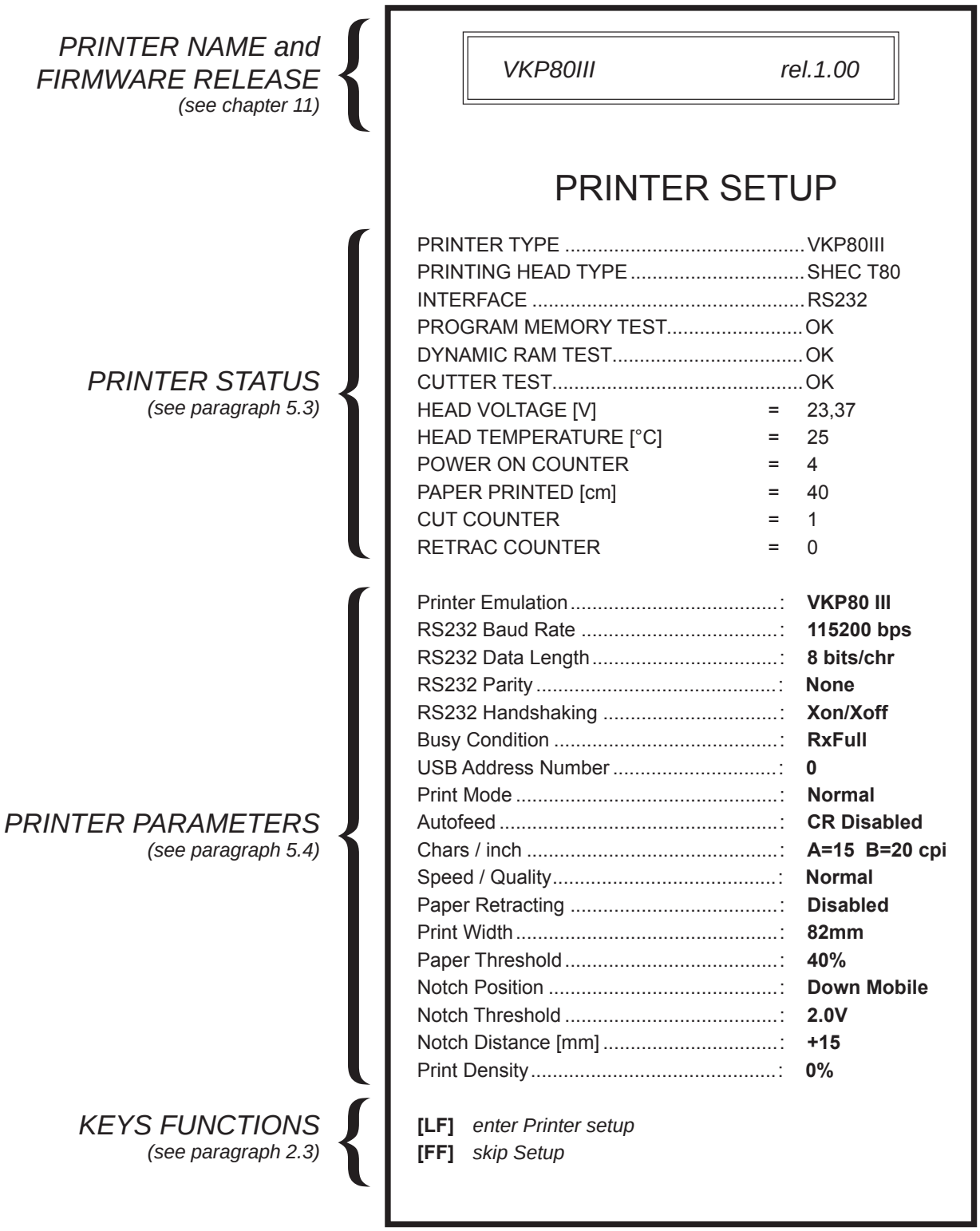


Proceed with the configuration by using the keys according the functions printed on paper (see par.2.3).
For description and values of setup parameters, see the following paragraphs.

NOTE:
During power-up, if the LINE FEED key is held down, the printer enters the auto-test routine and prints out the setup report. The printer will remain in standby in Hexadecimal dump mode (see following paragraphs) until another key is pressed or characters are received through the printer communication port.
When the FORM FEED key is pressed, the printer enters parameter configuration.
When the LINE FEED key is pressed, the printer exits setup and terminates the Hexadecimal dump function.

5.2 Setup report

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



5.3 Printer status

Printer 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	*is given the device model*
PRINTING HEAD TYPE	*is given the printing head model*
INTERFACE	*is given the interface present*
PROGRAM MEMORY TEST	*the message OK appears if functioning and NOT OK if faulty.*
DYNAMIC RAM TEST	*the message OK appears if functioning and NOT OK if faulty.*
EEPROM TEST	*the message OK appears if functioning and NOT OK if faulty.*
CUTTER TEST	*the message OK appears if functioning and NOT OK if faulty.*
HEAD VOLTAGE	*is given the voltage of the head.*
HEAD TEMPERATURE	*is given the temperature of the head.*
PAPER PRINTED	*is given the number of centimetres of paper printed.*
CUT COUNTER	*is given the number of cuts made.*
RETRACT COUNTER	*is given the number of “retract” made*
POWER ON COUNTER	*is given the number of power-ups made*

5.4 Printer parameters

This printer 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 printer has been turned off and they are stored in non-volatile memory.

PRINTER EMULATION

Available emulations for the device:

VKP80III [D]
VKP80II

RS232 BAUD RATE

Communication speed of the serial interface:

230400	*38400*	*4800*
115200	*19200 [D]*	*2400*
57600	*9600*	*1200*

NOTE: Parameter valid only with serial interface.

RS232 DATA LENGTH

Number of bit used for characters encoding:

7 bits/car
8 bits/car [D]

NOTE: Parameter valid only with serial interface.

RS232 PARITY

Bit for the parity control of the serial interface:

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

NOTE: Parameter valid only with serial interface.

RS232 HANDSHAKING

Handshaking:

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

NOTE: Parameter valid only with serial interface.
NOTE: When the receive buffer is full, if handshaking is set to XON/XOFF, the printer sends the XOFF ($13) on the serial port. When the receive buffer has cleared once again, if handshaking is set to XON/XOFF, the printer sends the XON ($11) on the serial port.

BUSY CONDITION

Activation mode for Busy signal:

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

NOTE: Parameter valid only with serial interface.

USB ADDRESS NUMBER

Numerical address code for the univocal identification of the USB device (in case of more than a USB device connected with the same PC):

0 [D]	*4*	*8*
1	*5*	*9*
2	*6*	
3	*7*	

PRINT MODE

Printing mode:

Normal [D] = enables printing in normal writing way
Reverse = enables printing rotated 180 degrees

NOTE: The parameter is printed only with VKP80III emulation enabled

AUTOFEED

Setting of the Carriage Return character:

CR disabled [D] =Carriage Return disabled
CR enabled = Carriage Return enabled

CHARS / INCH

Font selection:

A = 11 cpi, B = 15 cpi
A = 15 cpi, B = 20 cpi [D]
A = 20 cpi, B = 15 cpi

NOTA: CPI = Characters Per Inch

SPEED / QUALITY

Setting of printing speed and printing quality:

High Quality
Normal [D]
High Speed

PAPER RETRACTING

Setting of the "retract" function of the paper, with paper presence on ejector during power-up:

Disabled [D] = "retract" function disabled
Enabled = "retract" function enabled

NOTE: The parameter is printed only with VKP80III emulation enabled.

PRINT WIDTH

Width of printing area:

48 mm	*58 mm*	*68 mm*	*78 mm*
50 mm	*60 mm*	*70 mm*	*80 mm*
52 mm	*62 mm*	*72 mm*	
54 mm	*64 mm*	*74 mm*	
56 mm	*66 mm*	*76 mm [D]*	

NOTE: The parameter is printed only with VKP80III emulation enabled. With VKP80II emulation enabled, the printing width is fixed to 76mm.

PAPER THRESHOLD

Threshold value (in percent) for the recognition of the presence of paper by the paper presence sensor:

30%	*70%*
40% [D]	*80%*
50%	*90%*
60%	

NOTE: The parameter is printed only with VKP80III emulation enabled.

NOTCH POSITION

Position of the alignment notch and choice of appropriate notch sensor:

Disabled [D] = the notch alignment is not performed
Low Mobile = the notch position is detected by the lower mobile sensor (the notch can be positioned anywhere across the width of the non-heat sensitive side of paper)
Up Side (*) = the notch position is detected by the upper optional sensor (the notch is located on the heat sensitive side of paper and near the edge of the paper)

NOTE: The "Up Side" value is printed only with VKP80III emulation enabled.

NOTCH THRESHOLD

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

30%	*70%*
40% D	*80%*
50%	*90%*
60%	

NOTE: If the "Notch 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.
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 and one for the decimal part) and of the sign:

NOTCH DISTANCE SIGN

Sign setting:

+ D = positive distance
- = negative distance

NOTCH DISTANCE [mm x 10]

Setting the digit for tens:

0 D	*4*	*8*
1	*5*	*9*
2	*6*	
3	*7*	

NOTCH DISTANCE [mm x 1]

Setting the digit for units:

0 D	*4*	*8*
1	*5*	*9*
2	*6*	
3	*7*	

NOTCH DISTANCE [mm x .1]

Setting the digit for decimals:

0 D	*4*	*8*
1	*5*	*9*
2	*6*	
3	*7*	

NOTE: 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
NOTE: If the "Notch Position" parameter is disabled, the parameters for the "Notch Distance" are not printed.

PRINT DENSITY

Adjusting the printing density:

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

5.5 Hexadecimal dump

This function is used to diagnose the characters received through the communication port; the characters are printed out both as hexadecimal codes and ASCII codes.
Once the self-test routine has finished, the printer enters Hexadecimal Dump mode. The printer remains in standby until a key is pressed or characters are received through the communication port. For example, in the 200 dpi model, for every 8 characters received, the hexadecimal and corresponding ASCII codes are printed out (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 36 37 38     12345678
39 30 31 32 33 34 35 36     90123456
37 38 39 75 69 73 64 66     789uisdf
68 6B 6A 73 64 68 66 68     hkjsdhfh
73 64 66 6B 6A 68 73 64     sdfkjhsd
66 73 64 66 6B 68 6A 77     fsdfkhjw
65 69 6F 79 75 77 71 65     eioyuwqe
6F 72 69 75 77 65 72 69     oriuweri
6F 75 77 65 72 69 6F 75     ouweriou
77 65 72 69 6F 75 77 65     weriouwe
72 69 6F 75 77 65 72 68     riouwerh
6B 6C 73 64 66 68 6B 73     klsdfhks
64 66 6B 73 64 66 68 6A     dfksdfhj
73 64 66 6B 6A F2 73 64     sdfkj≥sd
66 6B F2 6A 73 68 64 66     fk≥jshdf
6A 6B 6C 68                 jklh
```

6 MAINTENANCE

6.1 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 ROLL CHANGE	
Printing head	Use isopropyl alcohol
Rollers	Use isopropyl alcohol
EVERY 5 ROLL CHANGES *	
Cutter	Use compressed air
Cutter compartment	Use compressed air or tweezers
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

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

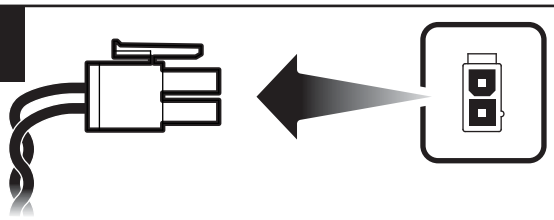
For specific procedures, see the following pages.

6.2 Cleaning

For periodic cleaning of the printer, see the instructions below

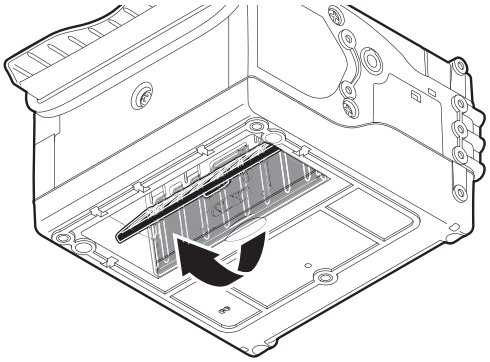
CUTTER COMPARTMENT

1



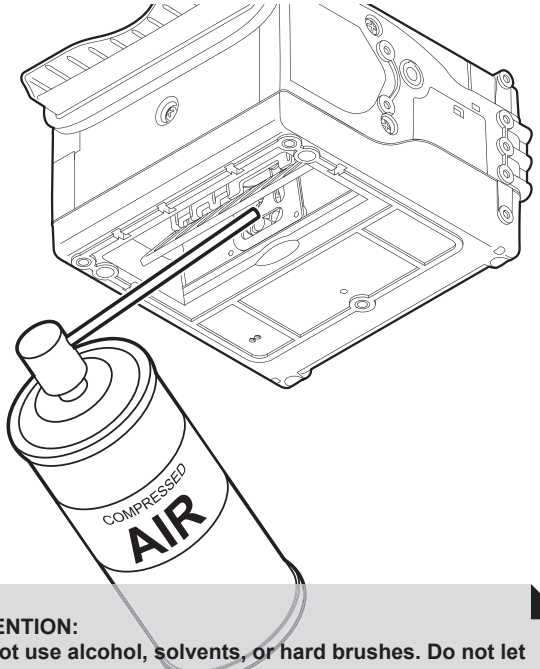
Disconnect the power supply cable.

2



Lift the magnetic bulkhead that closes the cutter compartment.

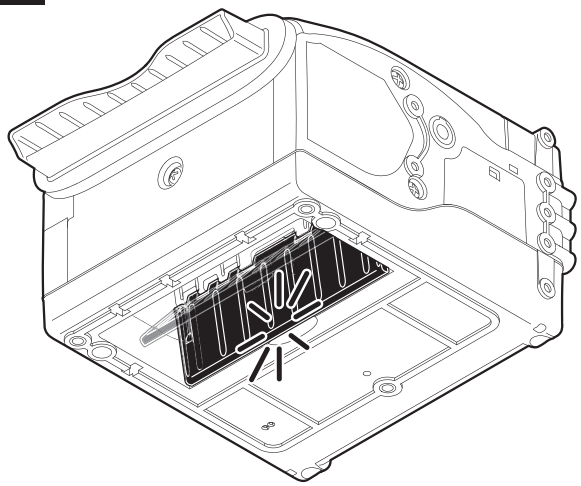
3



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

Remove any scraps of paper and the accumulated paper dust from the cutter compartment.

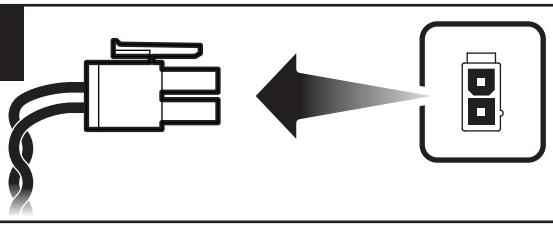
4



Lower the bulkhead to close the cutter compartment.

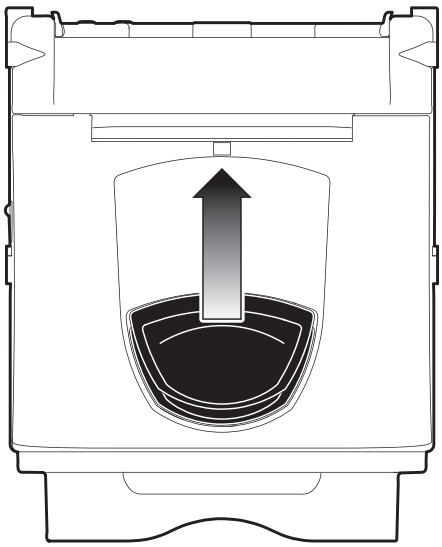
CUTTER

1



Disconnect the
power supply cable.

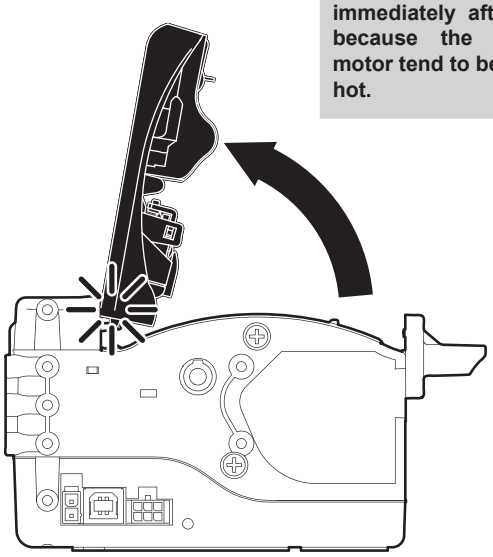
2



Unhook the printer cover
by using the opening lever.

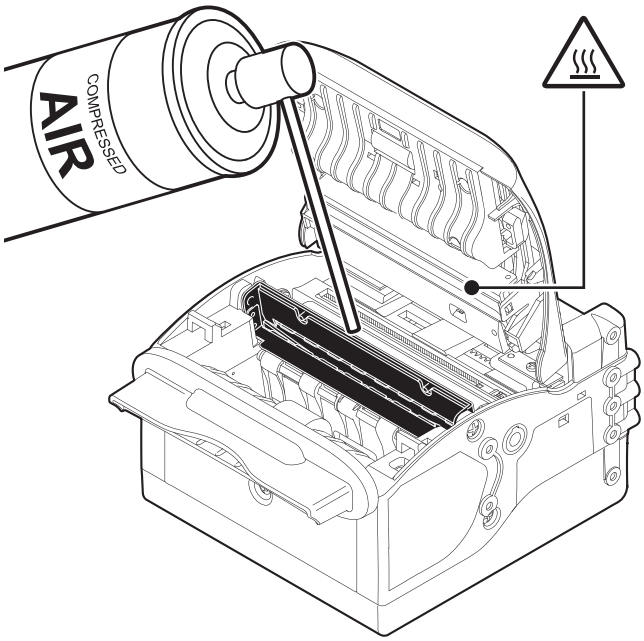
3

ATTENTION:
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.



Open the printer cover to the lock position.

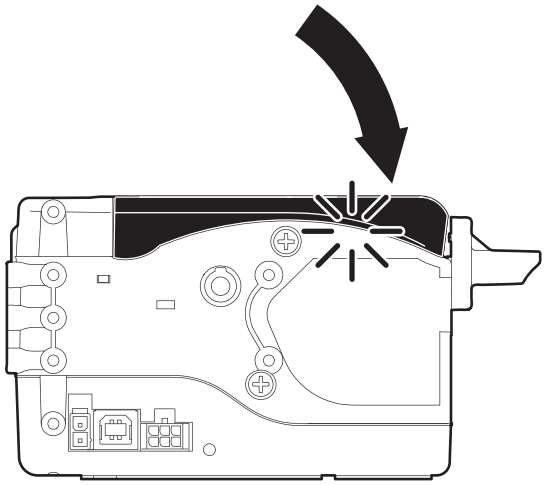
4



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

Clean the cutter by using compressed air.

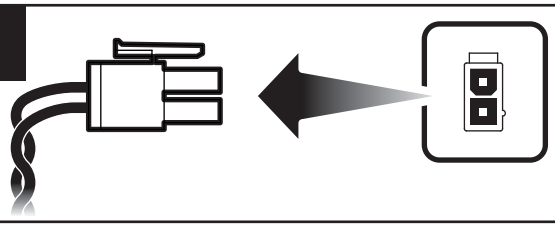
5



Close the printer cover.

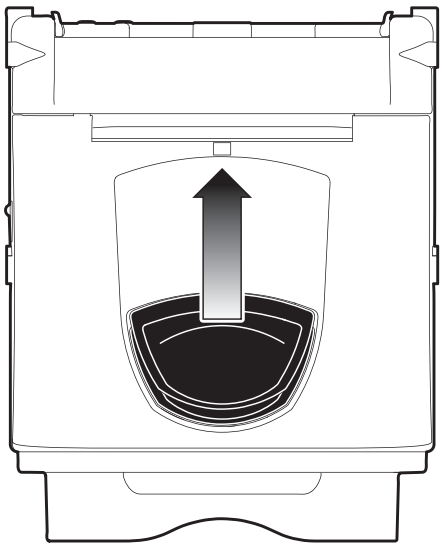
SENSORS

1



Disconnect the
power supply cable.

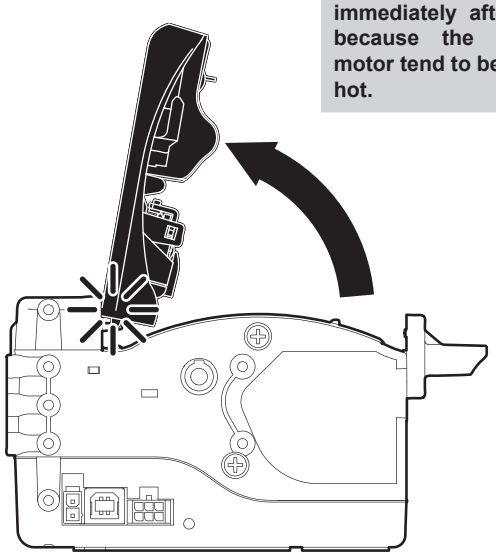
2



Unhook the printer cover by using the opening lever.

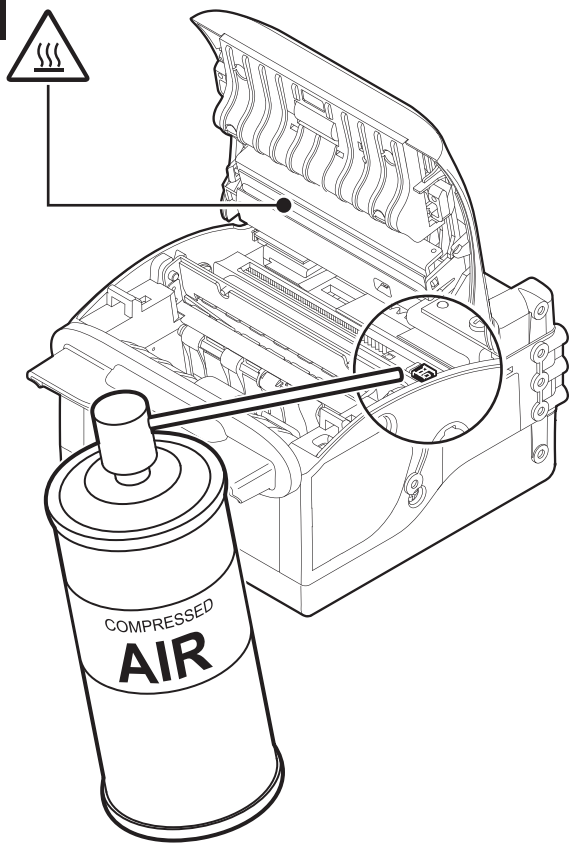
3

ATTENTION:
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.

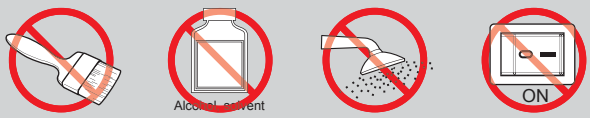


Open the printer cover to the lock position.

4

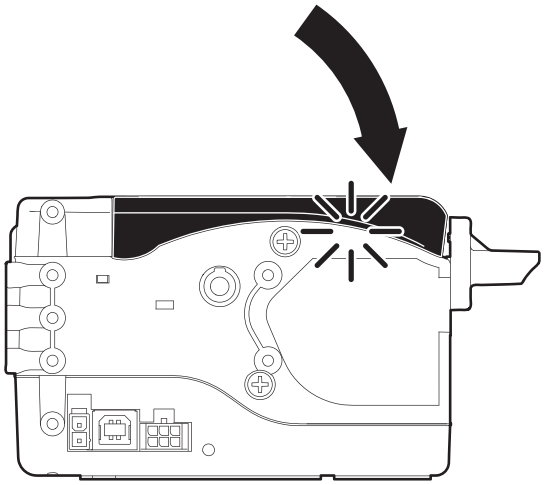


ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.



Carefully clean the printer sensors (see par.2.2)
by using compressed air.

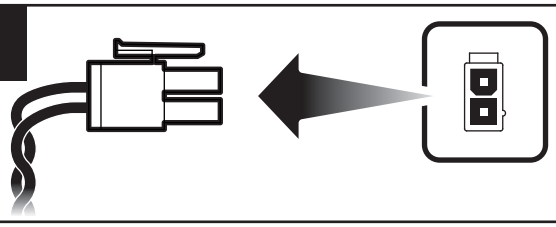
5



Close the printer cover

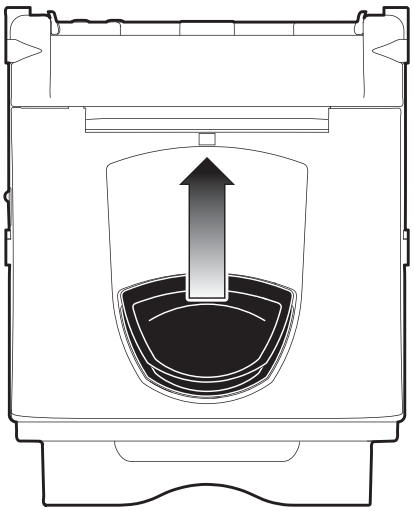
PAPER PATH

1



Disconnect the
power supply cable.

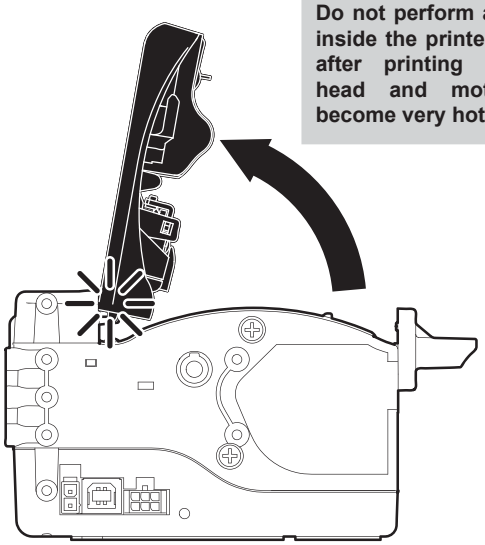
2



Unhook the printer cover
by using the opening lever.

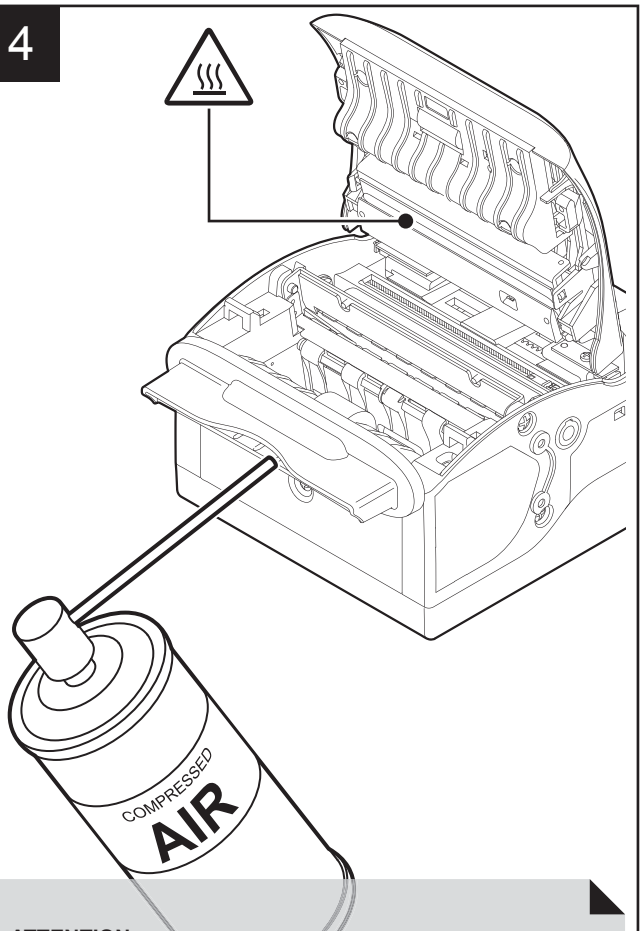
3

ATTENTION:
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.



Open the printer cover to the lock position.

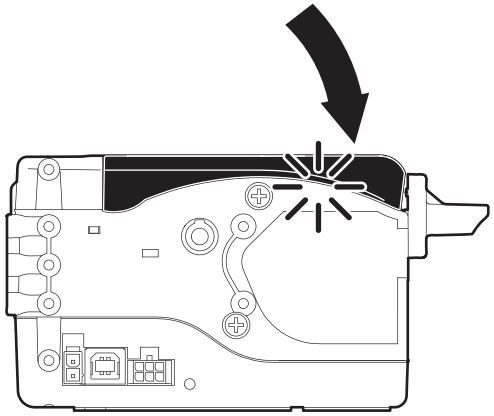
4



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

Remove any scraps of paper and the accumulated paper dust on the paper mouths, on the printing roller, on the cutter and on the area around the sensors.

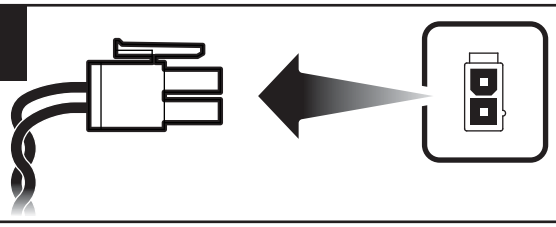
5



Close the printer cover

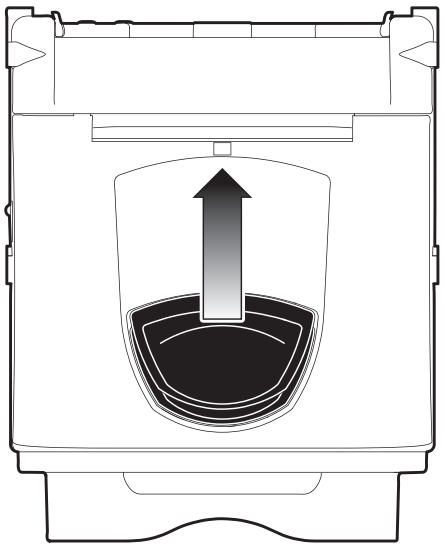
PRINTING HEAD

1



Disconnect the
power supply cable.

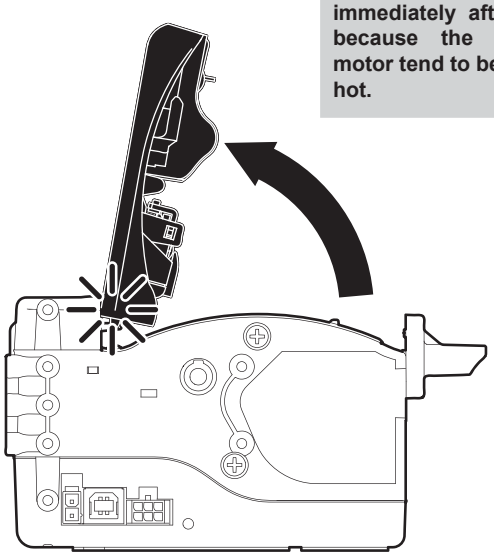
2



Unhook the printer cover
by using the opening lever.

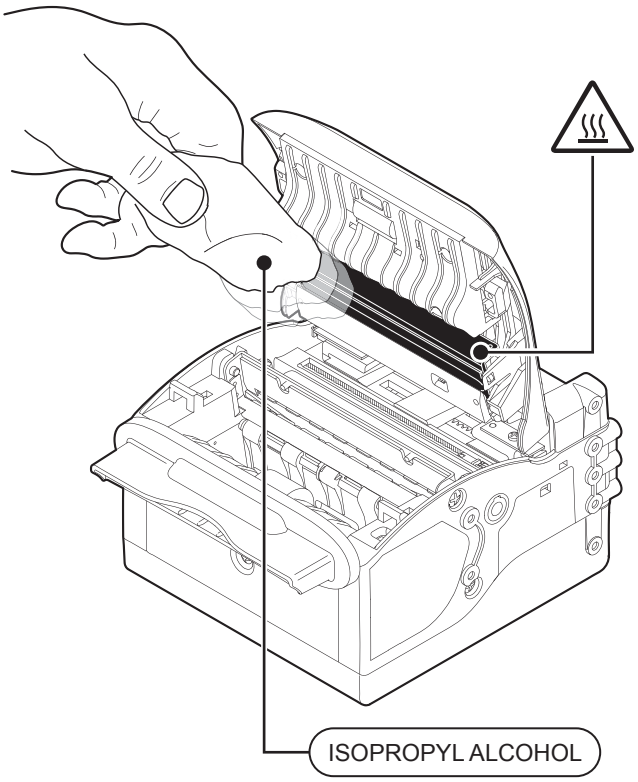
3

ATTENTION:
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.



Open the printer cover to the lock position.

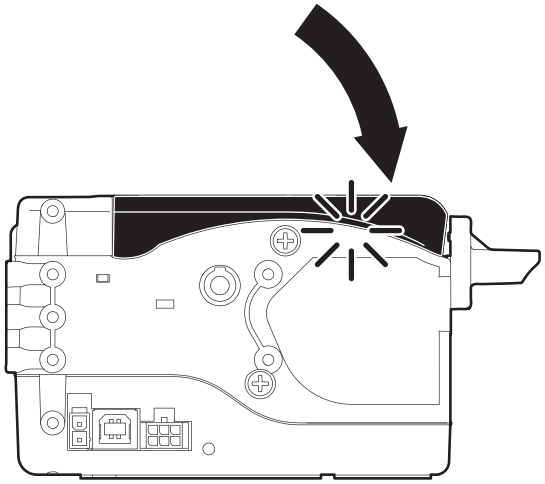
4



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

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

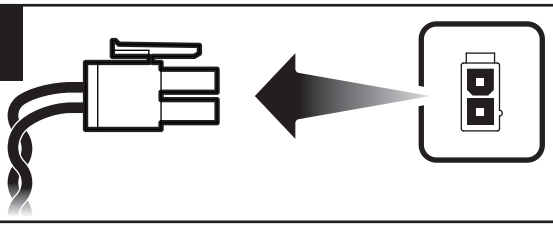
5



Close the printer cover

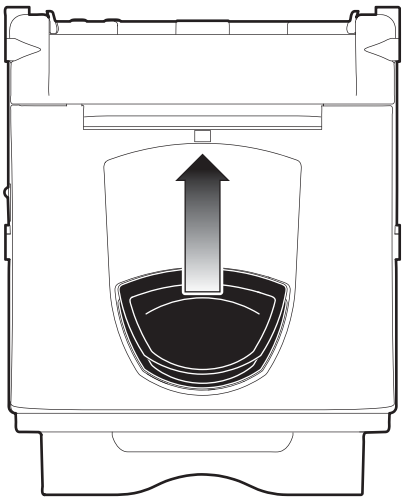
ROLLERS

1



Disconnect the
power supply cable.

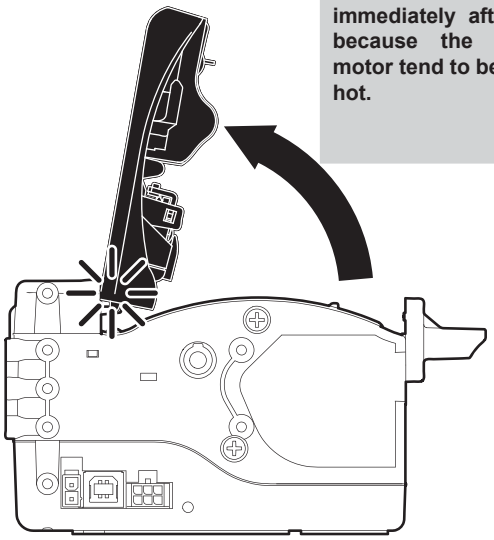
2



Unhook the printer cover
by using the opening lever.

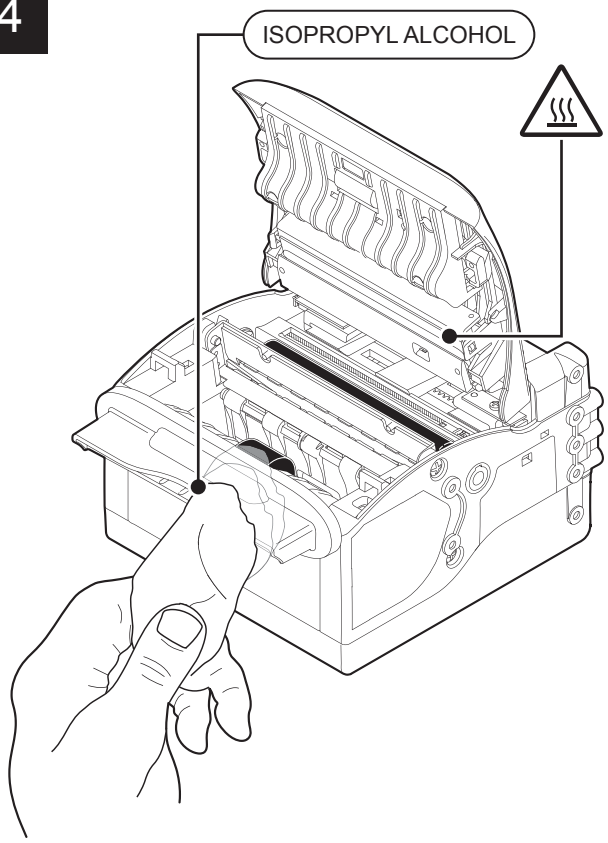
3

ATTENTION:
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.



Open the printer cover to the lock position.

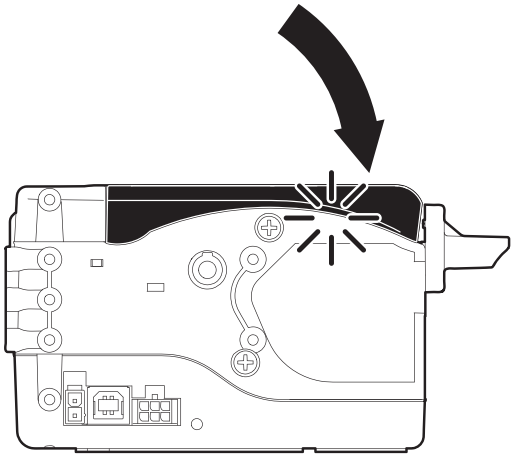
4



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

Clean the dragging roller
and the ejector roller
by using a soft cloth moistened with isopropyl.

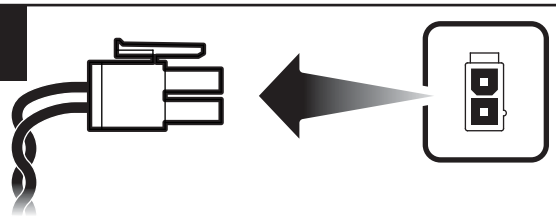
5



Close the printer cover.

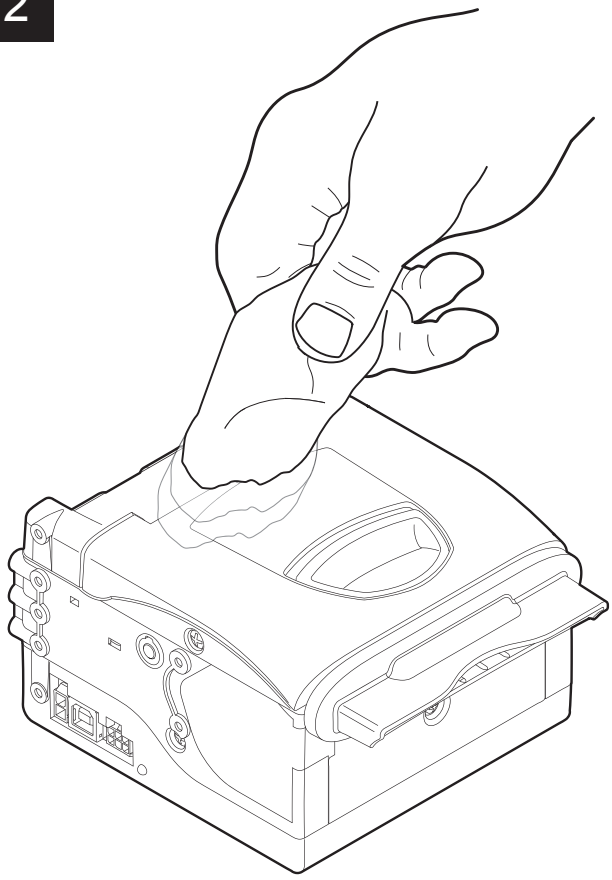
CASE

1



Disconnect the
power supply cable.

2



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

To clean the machine,
use pneumatic air or soft cloth.

6.3 Upgrade firmware

WARNING: During communication between PC/ printer 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 printer.

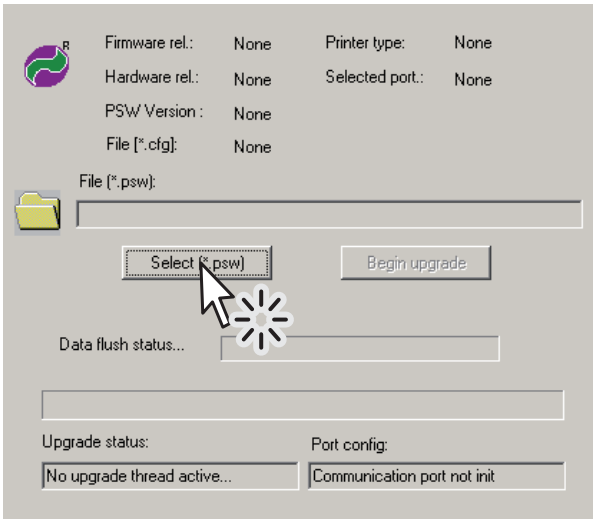
Note: The latest firmware of the printer is available in the download area of the web site www.custom.biz.

Note: Install on the PC used for printer upgrading the UPGCEPRN software available in the download area of the web site www.custom.biz.

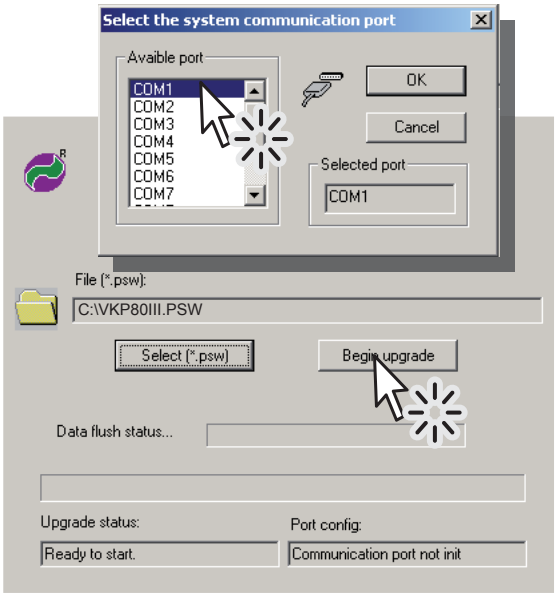
UPDATE VIA SERIAL INTERFACE

Proceed as follows:

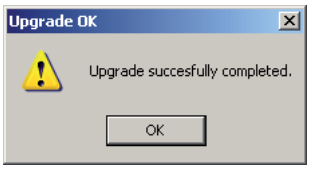
- Print the SETUP report (see chapter 5).
- Switch OFF the printer.
- Connect the printer to the PC using a USB cable or a serial cable (see paragraph 3.2).
- Switch ON the printer.
- Start the software UPGCEPRN.
- Select the update file .PSW location :



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



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



- 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 printer must be direct, without the use of wireless HUB.

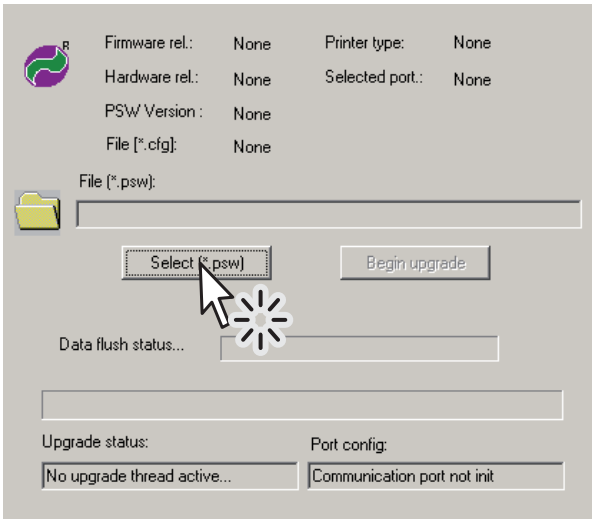
ATTENTION: Only during the firmware update, do not connect or disconnect other USB devices.

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

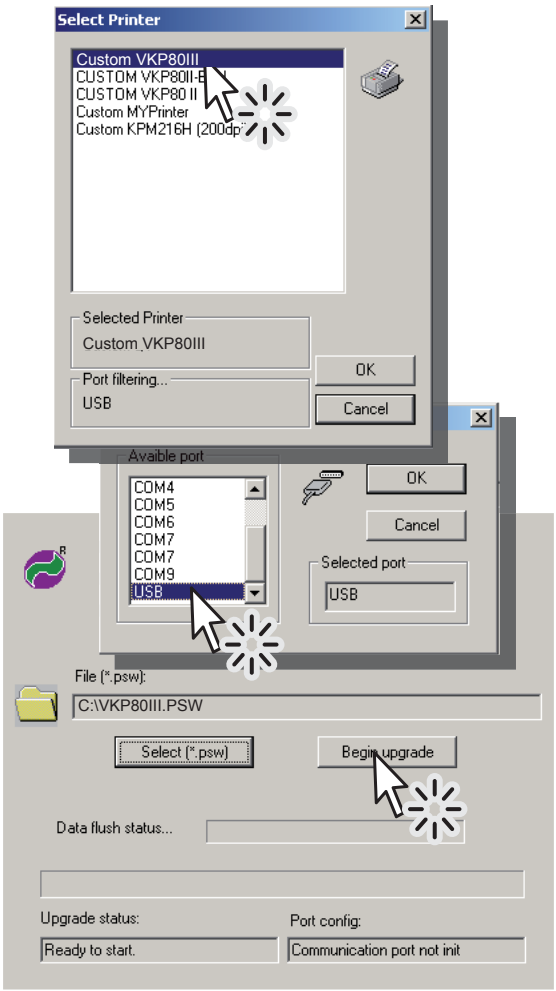
Proceed as follows:

- Print the SETUP report (see chapter 5).
- Switch OFF the printer.

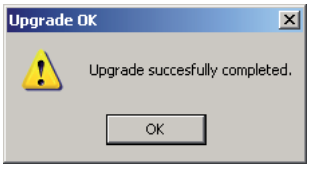
- Connect the printer to the PC using a USB cable or a serial cable (see paragraph 3.2).
- Switch ON the printer.
- Start the software UPGCEPRN.
- Select the update file .PSW location :



- Select item USB and then select the USB device among those proposed (ex. VKP80III):



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



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

7 SPECIFICATIONS

7.1 Hardware specifications

GENERAL	
Sensors	ticket presence on input, ticket presence on output, printing head temperature, mobile detector for notch on non-heat sensitive side of paper, fixed detector for notch on heat sensitive side of paper (optional), printing unit open, ejector position, bulkhead position, near paper end on external paper roll holder (optional)
MTBF(1)	147823 h
Emulations	VKP80II, VKP80III
Printing driver	Windows 2K, XP, VISTA (32/64bit), Windows 7 (32/64bit)
INTERFACES	
RS232 serial connector	da 1200 a 230400 bps
USB connector	12 Mbit/sec (USB 2.0 full speed)
MEMORIES	
Flash memory	512 Kbytes
RAM memory	96 Kbytes + 8Mbytes external
Receive buffer	2 Kbytes
PRINTER	
Resolution	203 DPI (8 dot/mm)
Printing method	thermal, fixed head
Head life (2)	100 km
Printing width	from 48mm to 80mm (2mm step)
Printing mode	normal, 90°, 180°, 270°
Printing format	height/width from 1 to 8, bold, reverse, underlined, italic
Character fonts	PC437, PC850, PC860, PC863, PC865, PC858 (euro)
Printable barcode	UPC-A. UPC-E, EAN13, EAN8, CODE39, ITF, CODABAR, CODE93, CODE128, CODE32
Printing speed (2) (3)	High Quality = 100 mm/sec Normal = 150 mm/sec High Speed = 200 mm/sec
PAPER	
Type of paper	thermal rolls, heat-sensitive side on outside of roll
Paper width	from 50mm to 82,5mm
Paper weight	from 60 g/m^2 to 110 g/m^2

Recommended types of paper	KANZAN KF50, KP460 and KP390 MITSUBISHI PF5075, TL4000 and TF1067
Paper end	not attached to roll core
External roll diameter (4)	max 180 mm
Internal roll core diameter	25 mm
Core type	Cardboard or plastic
CUTTER	
Paper cut	total
Estimated life (2)	1 000 000 cutter number
ELECTRICAL SPECIFICATIONS VKP80III	
Power supply	24 Vdc ±10% (optional external power supply)
Medium consumption (3)	1 A
Stand-by consumption	0,04 A
ELECTRICAL SPECIFICATIONS POWER SUPPLY cod.PPSPS-100-24V (OPTIONAL)	
Power supply voltage	from 100Vac to 240Vac
Frequence	from 47Hz to 63Hz
Current (output)	4,3 A
Power	100W
ENVIRONMENTAL CONDITIONS	
Operating temperature	from 0°C to +50°C
Relative humidity	from 10% Rh to 80% Rh
Storage temperature	from -20 °C to +70 °C
Storage relative humidity	from 10% Rh to 90% Rh

NOTES:
(1) : Control board
(2) : Respecting the regular schedule of cleaning for the device components.
(3) : Referred to a standard CUSTOM receipt (L = 10cm, Density = 12,5% dots on).
(4) : For external rolls diameter higher to Ø120mm it's recommended to use a paper pretensioning device.

7.2 Character specifications

VKP80III EMULATION			
Character density	11 cpi	15 cpi	20 cpi
Number of columns	35	45	64
Chars / sec	2370	3047	4266
Lines / sec	66	66	66
Characters (L x H mm)-Normal	2,25 x 3	1,75 x 3	1,25 x 3

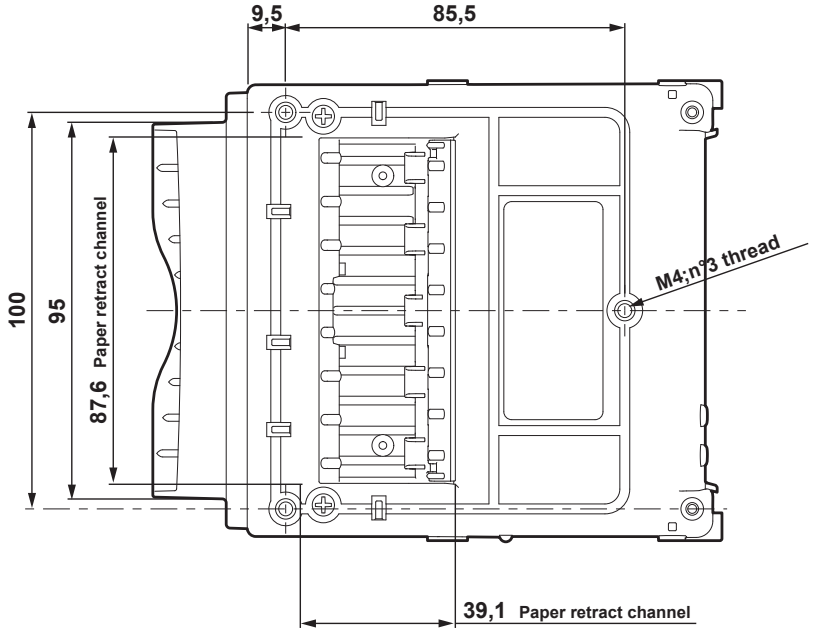
7.3 Ejector specifications

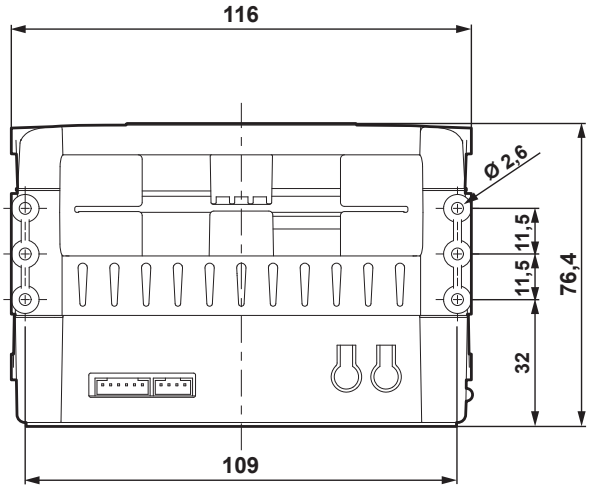
EJECTOR		
“Retracting” function	Ticket length	Ticket presentation
	70mm	10mm
	80mm	10 mm - 30 mm
	80 mm - 220 mm	10 mm - 30 mm
“Ejecting” function	Ticket length	Ticket presentation
	70mm	10mm
	> 80mm	10 mm - 30 mm
	350 mm (1)	10 mm - 30 mm

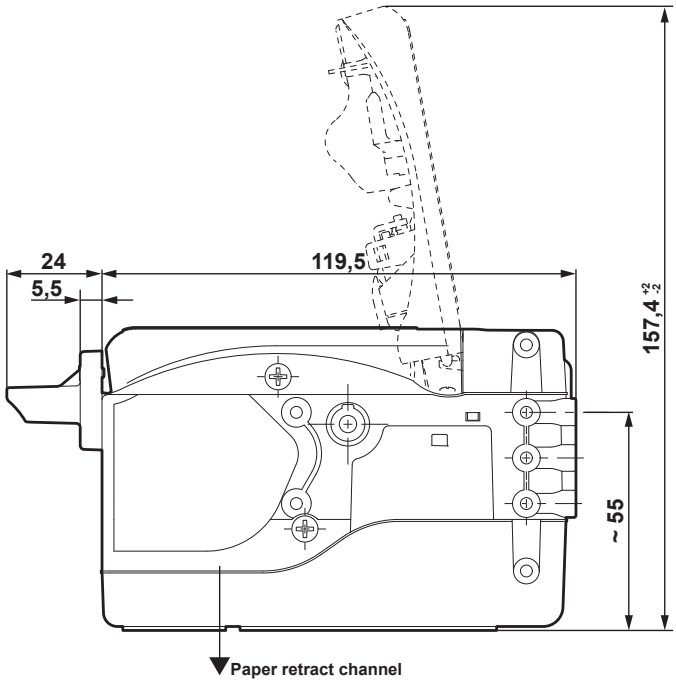
NOTE:
(1) : Maximum length recommended to guarantee the printer efficiency.

7.4 Printer dimensions

Length	143,5 mm
Height	*(with printing unit closed)* 76,4 mm *(with printing unit open)* 157,4 mm
Width	116 mm
Weight	800 g



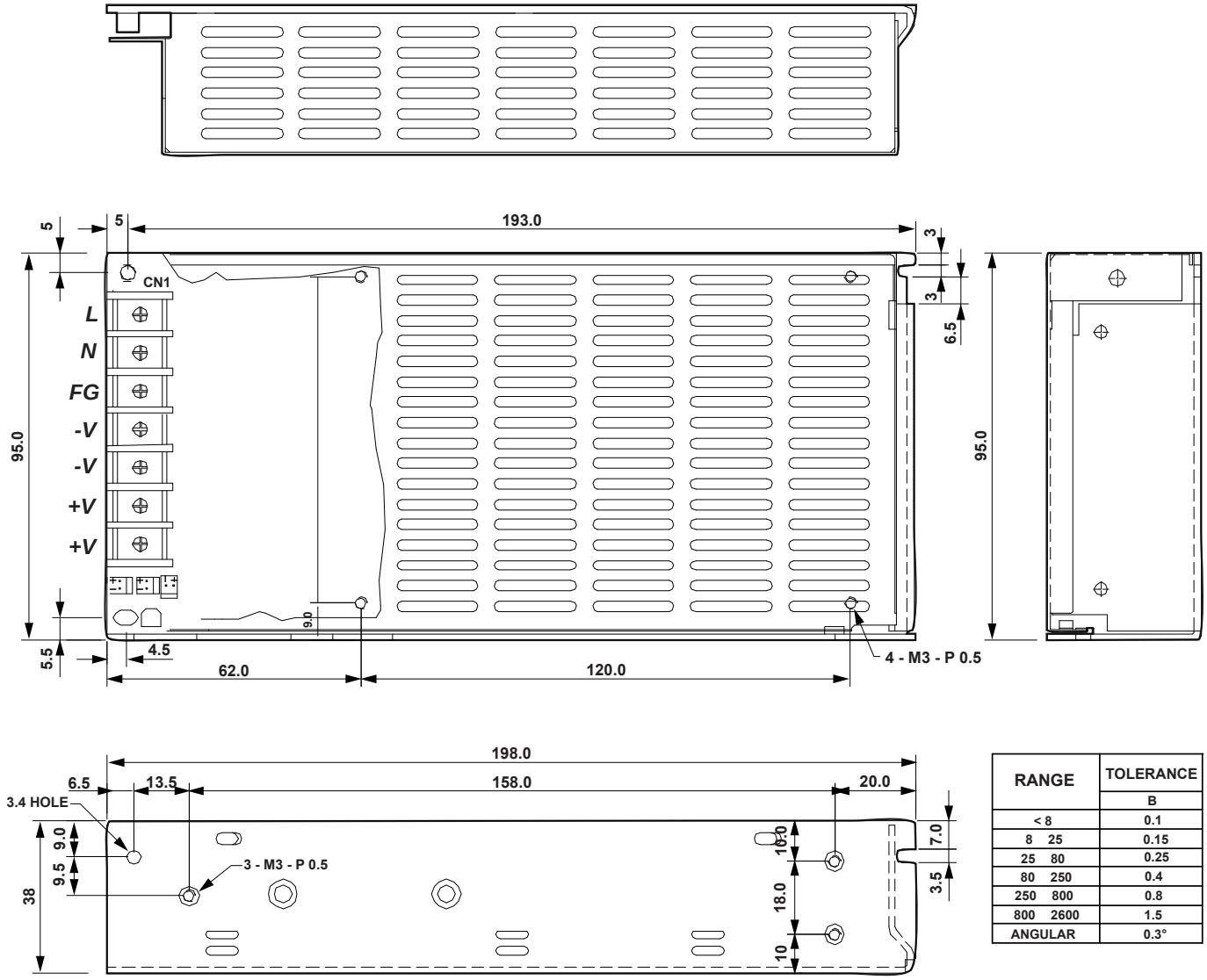




NOTE: Referred to printer models without paper roll holder optional.

7.5 Power supply dimensions cod.PPSPS-100-24V (optional)

Length	198 mm
Height	38 mm
Width	95 mm

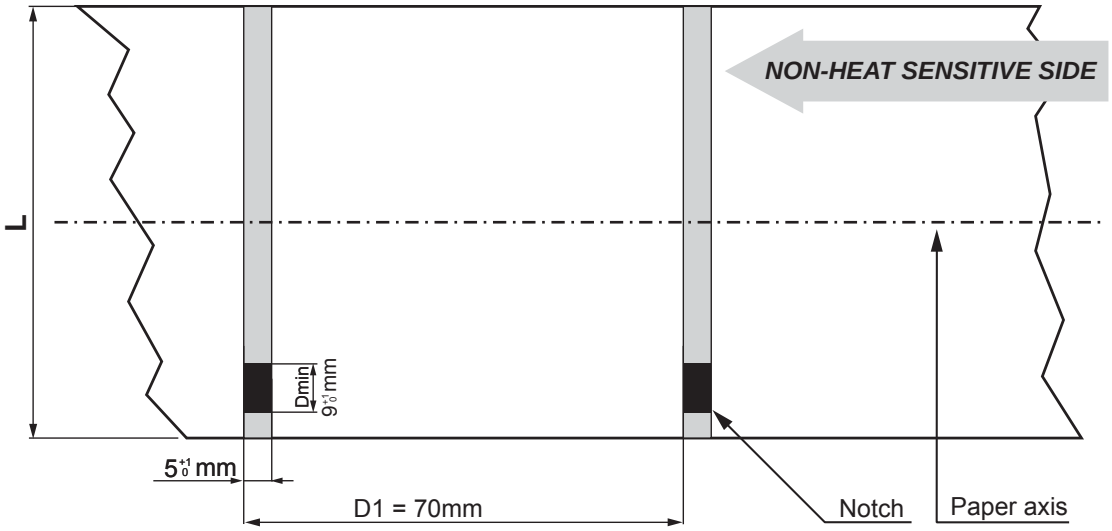


RANGE	TOLERANCE
	B
< 8	0.1
8 25	0.15
25 80	0.25
80 250	0.4
250 800	0.8
800 2600	1.5
ANGULAR	0.3°

7.6 Paper specifications

PAPER WITH ALIGNMENT NOTCH ON THE NON-HEAT SENSITIVE SIDE

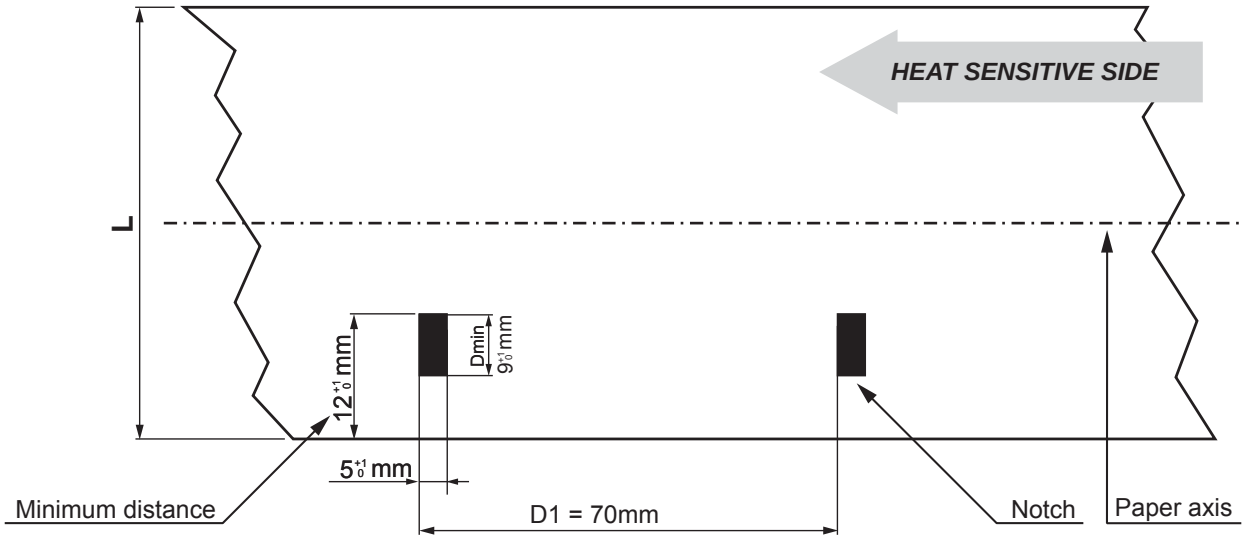
The following figure shows a sample paper with alignment notch placed on the non-heat sensitive side of paper. The notch can be positioned anywhere across the width of the paper, because the notch detector is a mobile sensor.



L = paper width used (adjustable from 50mm to 82,5 mm)
Dmin = minimum notch dimension
D1 = minimum notch to notch distance

PAPER WITH ALIGNMENT NOTCH ON THE HEAT SENSITIVE SIDE
only with VKP80III emulation enabled

The following figure shows a sample paper with alignment notch placed on the heat sensitive side of paper. This sample paper is for the printer models with the upper notch detector (optional) assembled on the right cursor. For models with the upper notch detector (optional) assembled on the left cursor, the paper will be symmetrical to its longitudinal axis.



L = paper width used (adjustable from 50mm to 82,5 mm)
Dmin = minimum notch dimension
D1 = minimum notch to notch distance

7.7 Character sets

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

PC437 CODE TABLE (Usa, Standard Europe)

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

PC850 CODE TABLE (Multilingual)

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

PC860 CODE TABLE (Portuguese)

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

PC863 CODE TABLE (Canadian, French)

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

PC865 CODE TABLE (Nordic)

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

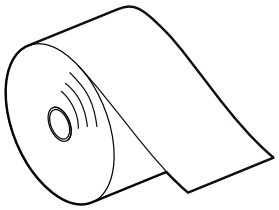
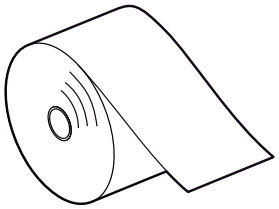
PC858 CODE TABLE (Euro symbol)

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

NOTE: To print the Euro (€) symbol, the command sequence is: $1B, $74, $13, $D5 (see Commands Manual).

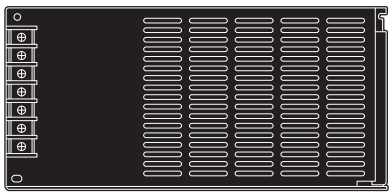
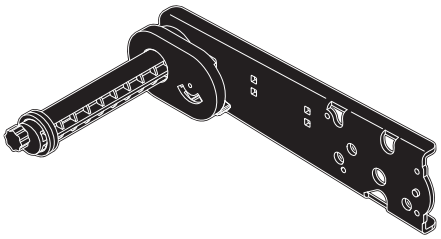
8 CONSUMABLES

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

DESCRIPTION	CODE
THERMAL PAPER ROLL WITH BACK SIDE PRE-PRINTED weight = 58g/m^2 width = 80mm Ø external = 48mm Ø core = 25mm	**RCT80X48-25MM-RS** 
THERMAL PAPER ROLL weight = 58g/m^2 width = 80mm Ø external = 130mm Ø core = 25mm	**RCT80X130-25MM** 

9 ACCESSORIES

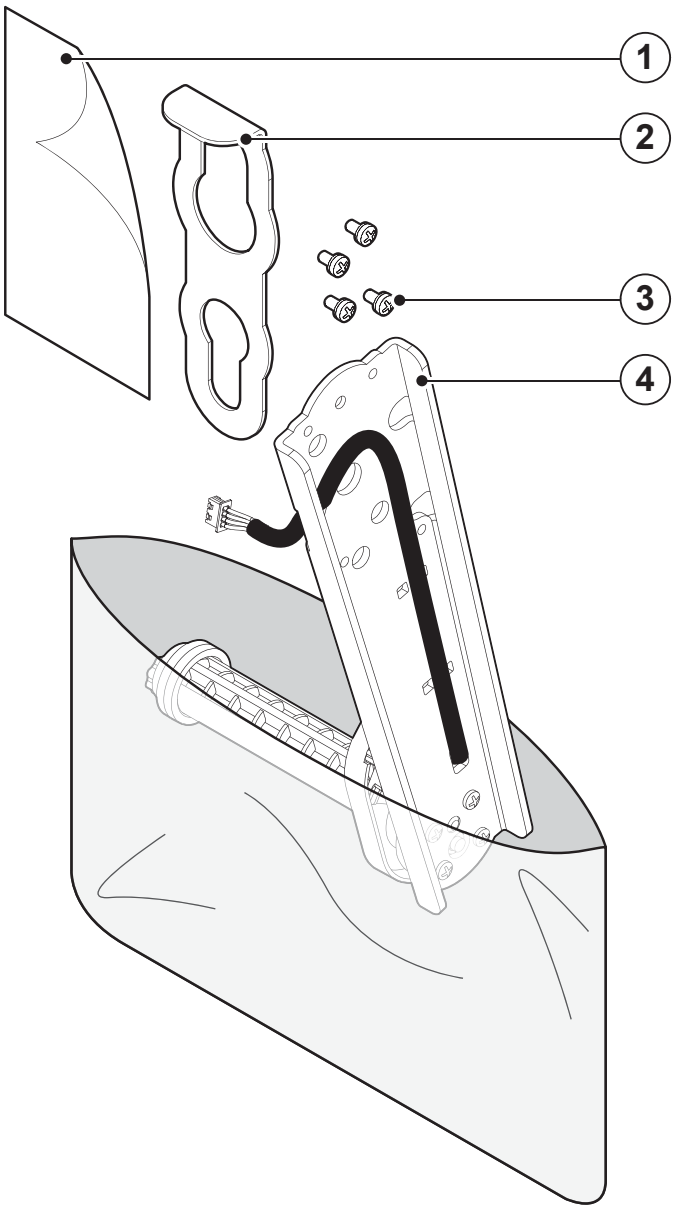
The available accessories for the device are listed in the following table:

DESCRIPTION	CODE
POWER SUPPLY (for technical specifications, see the paragraph 7.1)	**PPSPS-100-24V** 
PAPER ROLL HOLDER WITH NEAR PAPER END SENSOR (see the paragraph 8.1)	**PCXSP-VKP80II** 
ADJUSTABLE PAPER ROLL HOLDER WITH NEAR PAPER END SENSOR (see the paragraph 8.2)	**PCXSP-VKP80III** 

9.1 Paper roll holder

A paper roll holder kit (cod. PCXSP-VKP80II) is available for the printer to make it possible to use larger-width rolls of paper (max. Ø150 mm).

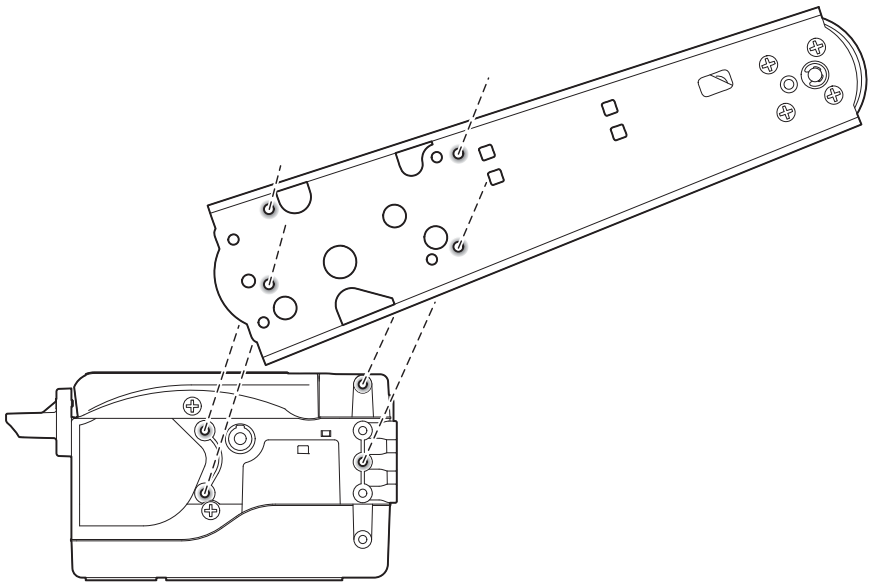
The kit includes (see figure):
1. Instruction sheet
2. Tie for roll blocking
3. No. 4 fastening screws
4. Paper holder support with near paper end sensor and regulating system for paper width.



ASSEMBLY INSTRUCTION

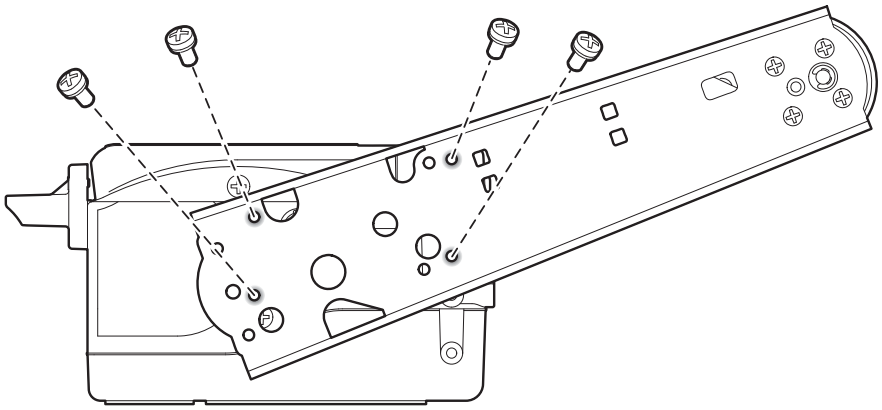
To assemble the paper roll holder to the printer, proceed as follows:

1



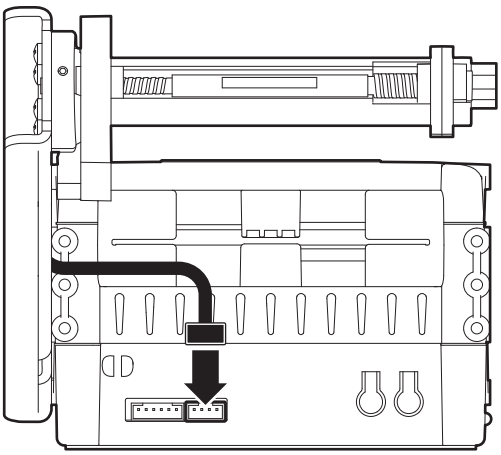
Place the roll holder near to the fixing holes on the right side of printer.

2



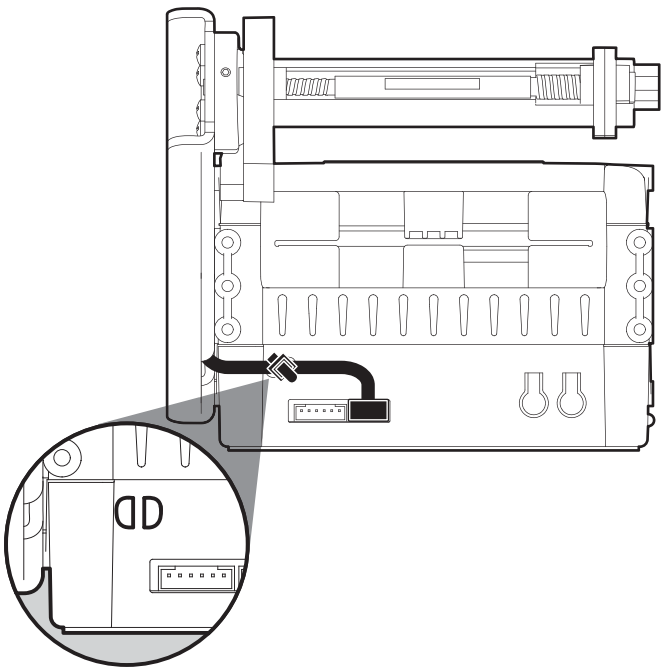
Fix the roll holder with the four fixing screws (supplied).

3



Insert the connector for the near paper end sensor.

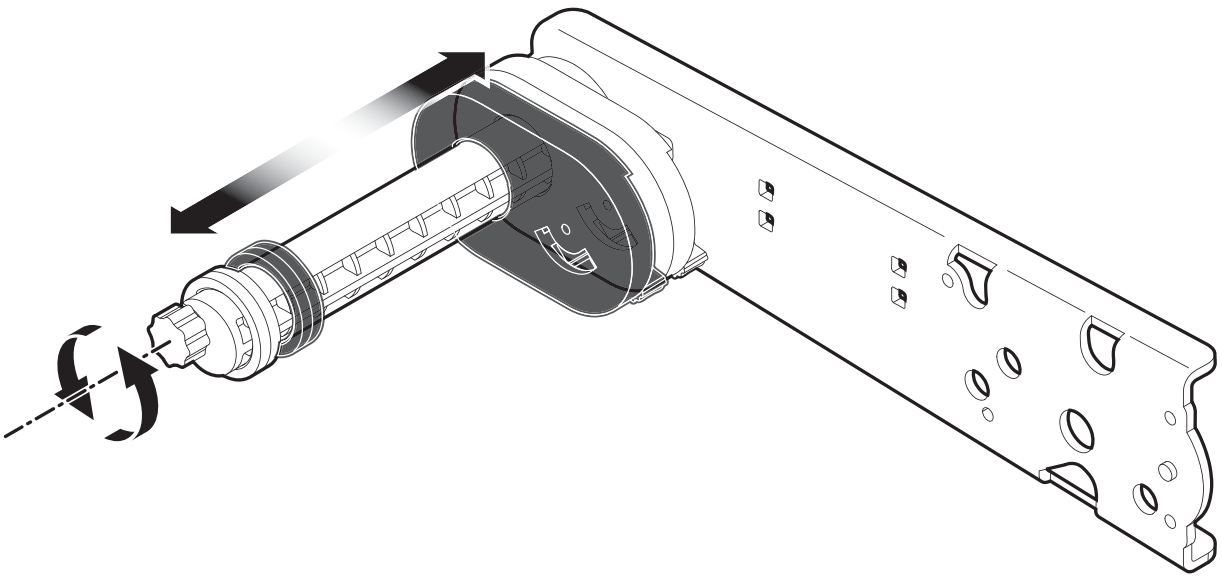
4



If necessary, you can ensure the cable to the printer with a tie using the appropriate slot in the back of the printer itself.

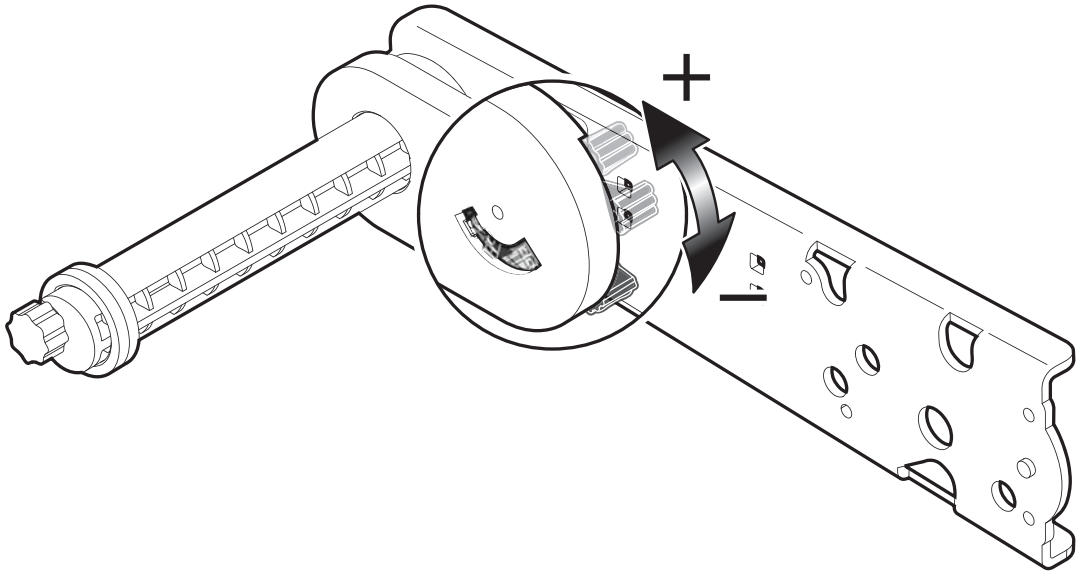
PAPER WIDTH ADJUSTING

Paper width may be set from 50mm to 82,5mm. max. To adjust the width of the paper roll housing, rotate the knob shown in figure.



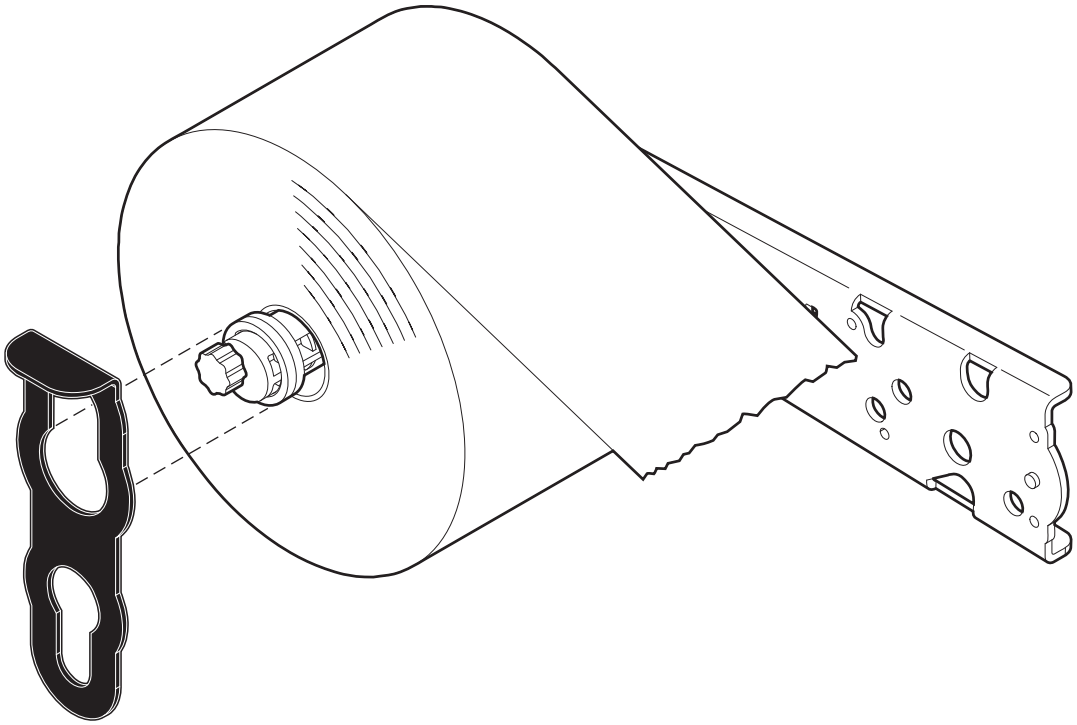
NEAR PAPER END ADJUSTING

Rotate the lever to adjust the position of the sensor for near paper end. Move the lever up to in-crease the reserve of paper, move the lever down to decrease the reserve of paper (see following figure).

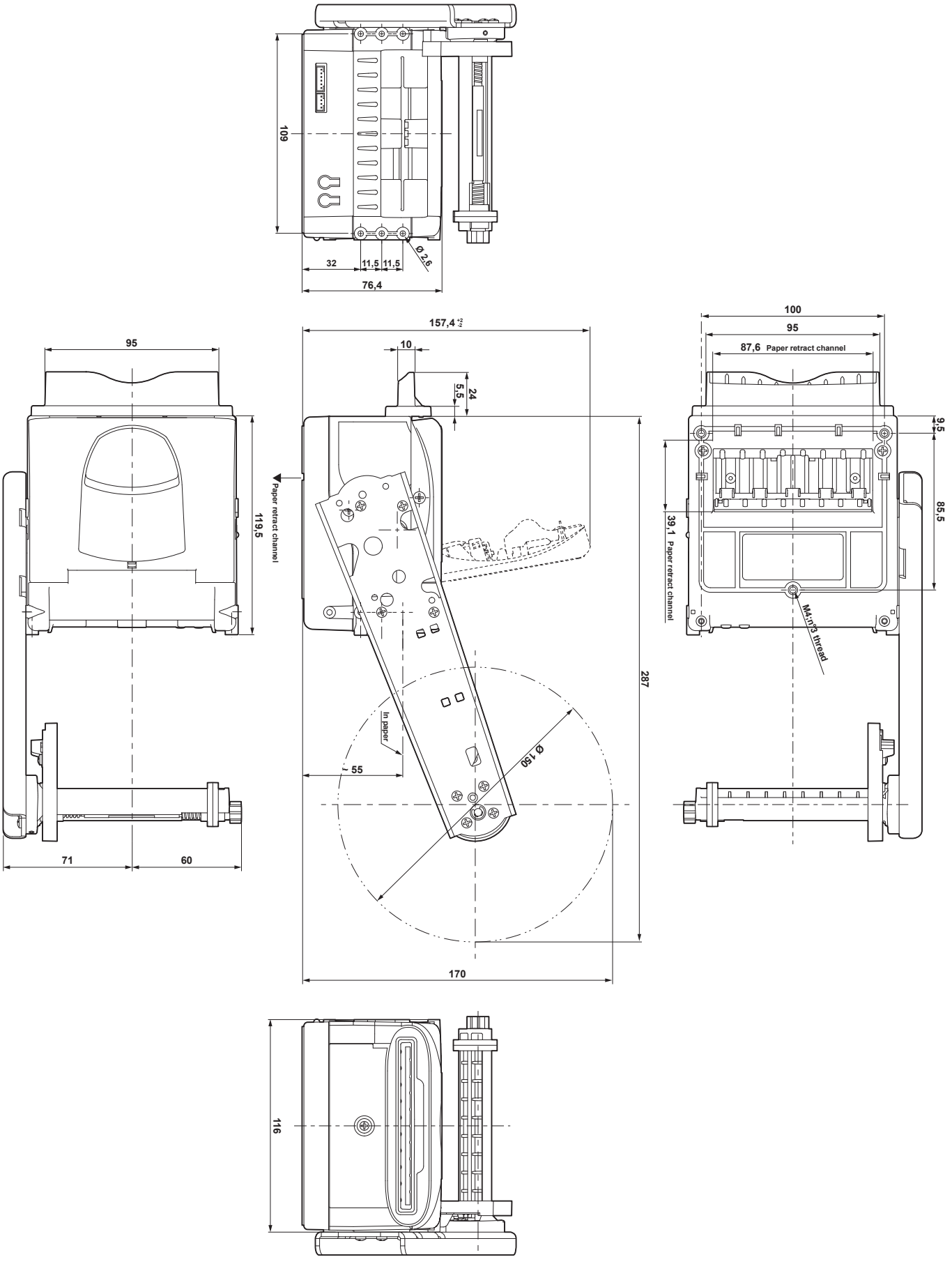


USE OF “TIE” FOR ROLL BLOCKING

Insert the “tie” as shown in figure to avoid the paper roll come out accidentally from the pin.



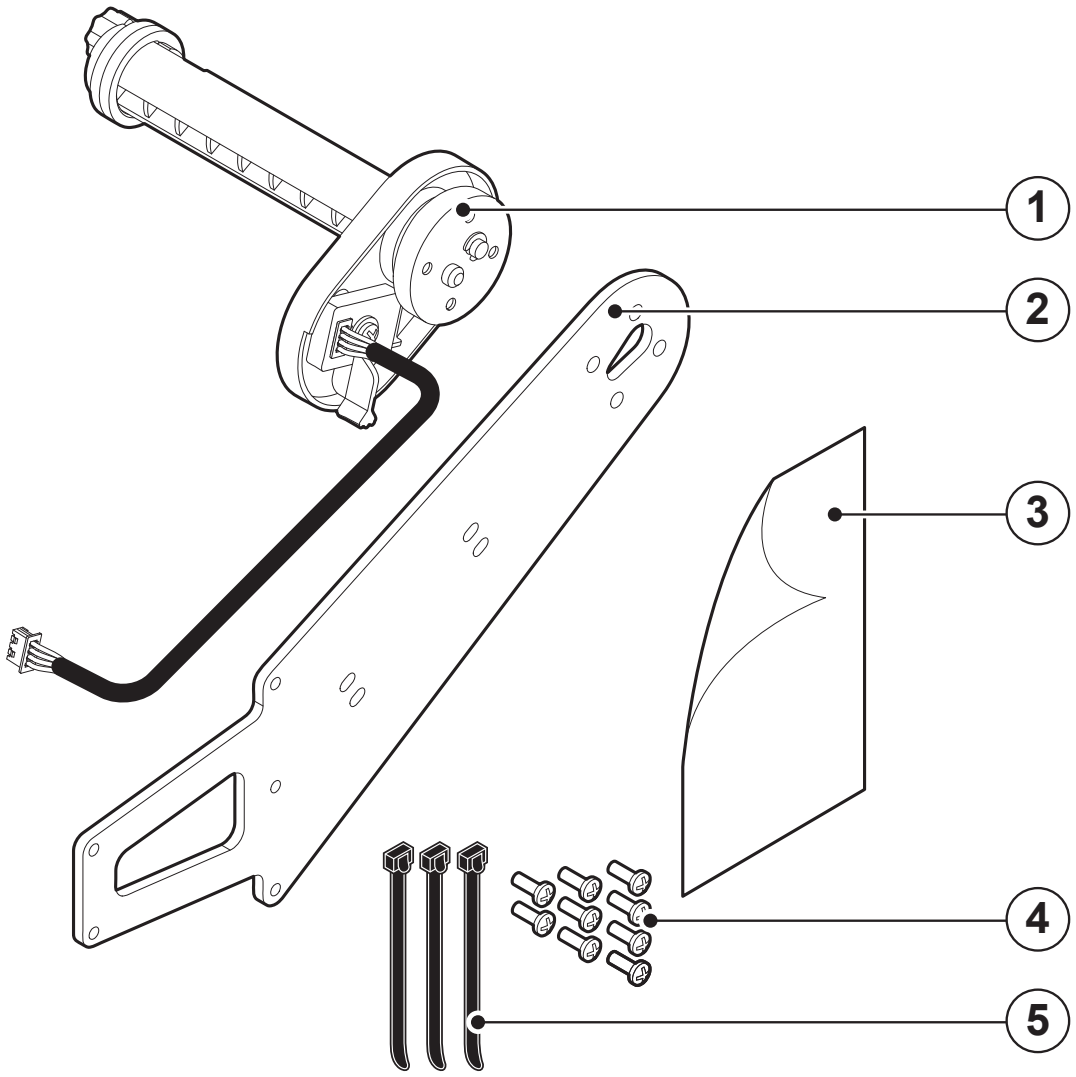
DIMENSIONS OF PRINTER WITH PAPER ROLL HOLDER



9.2 Adjustable holder for paper roll

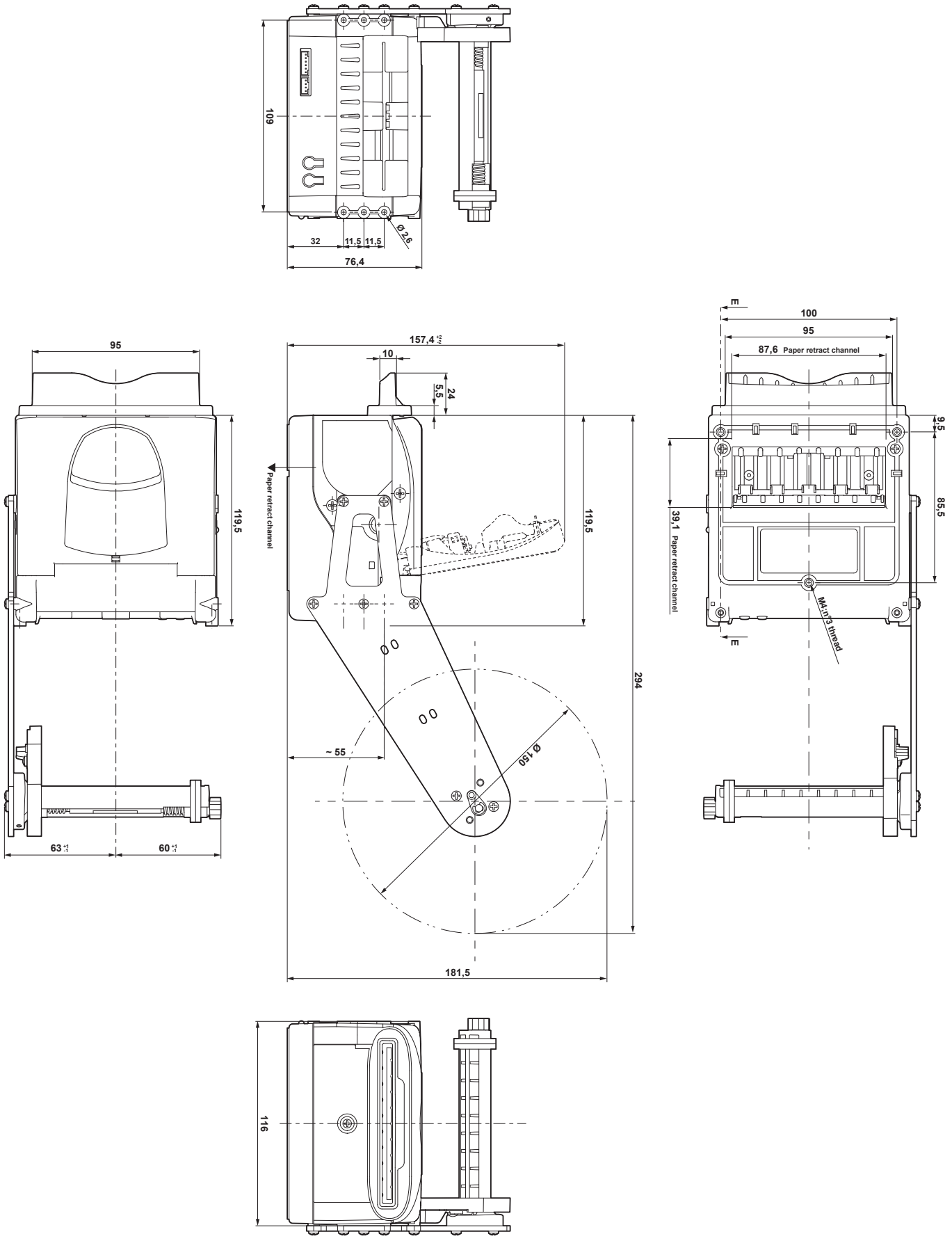
An adjustable holder kit for paper roll (cod. PCXSP-VKP80III) is available for the printer to make it possible to use larger-width rolls of paper (max. Ø150 mm).

The kit includes (see figure):
1. Pin for paper roll with near paper end sensor
2. Paper roll holder
3. Instruction sheet
4. No.5 fixing screws for holder + No.4 fixing screws for pin
5. Fixing ties for sensor cable



NOTE: To assemble the paper holder kit, refer to the instruction sheet enclosed with the kit.

DIMENSIONS OF PRINTER WITH ADJUSTABLE HOLDER FOR PAPER ROLL



10 MANAGING ALIGNMENT

Paper with an alignment notch can be used in order to handle tickets with pre-printed fields and a fixed length.
To guarantee the alignment it is necessary that the “Notch Alignment” parameter is enabled from the key setup (see chapter 5), that the alignment sensor is calibrated and that the parameters are correctly set.
The calibration of the sensor occurs automatically within the printer setup.

10.1 Enabling, calibrating and setting of parameters

The printer allows using paper with notch placed on the non-heat sensitive side of paper. It is possible to use paper with notch on the heat sensitive side only with printer models with optional upper sensor.

The notch sensor is a reflection sensor that 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, taking into account that the light is reflected by the white paper and absorbed by the black.

To ensure proper alignment, you must set the proper value of “Notch Position” parameter in the setup procedure, so choose the sensor to be used for detecting notch

“Notch Position” parameter	Using mode	Notch position on paper	Notes
Disabled	-	-	Alignment disabled
Down Mobile	REFLECTION	Notch on the non-heat sensitive side	Using alignment notch
Up side *	REFLECTION	Notch on the heat sensitive side (lateral)	Using alignment notch

* only for models with upper notch sensor and with VKP80III emulation enabled

Calibration of the sensor occurs automatically and consists in adjusting the quantity of light emitted to adapt it to the degree of whiteness of the paper used.

To start self-calibration, the “Notch Alignment” parameter will have to be enabled from the printer setup:

Notch Alignment : Enabled

The printer will perform some paper feeds at the end of which it will print the value settings, for example:

Autosetting Notch : OK
Threshold White : 2.3V [70%]

The “Autosetting Notch” parameter indicates the operating condition of the self-calibration process; OK will appear if it has been successful, but if it has failed the words NOT OK will appear.
In this case the default parameters concerning the “Threshold White” parameter will be set.

The “Threshold White” parameter indicates the power-up level of the sensor emitting side; its value ranges from 0V to 3.3V with the corresponding value appearing as a percentage (from 0% to 100%).

Another parameter that needs to be set is the threshold:

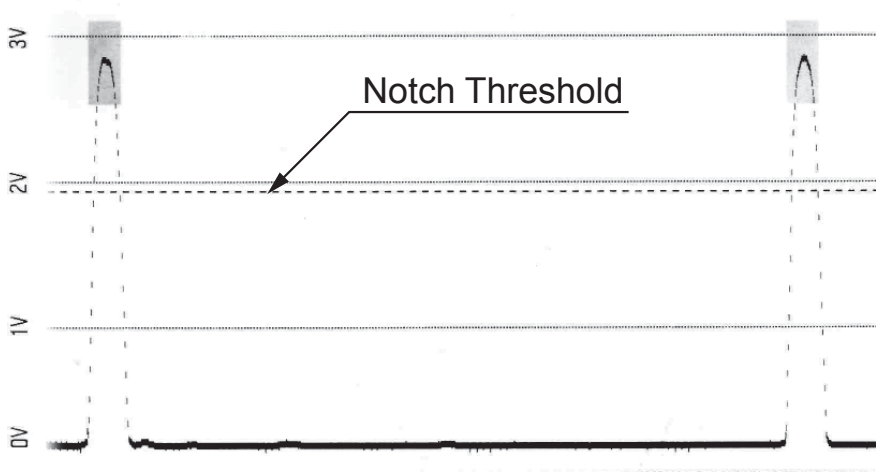
Notch Threshold : 1.98V

It is used to detect the presence of the notch: if the voltage value read by the sensor exceeds the threshold value set the notch is identified, otherwise the white paper is considered.
In order to better identify the optimum threshold for the paper being used, a paper characterization function is also available in setup.

Characterize Paper :Yes

By activating this parameter the outgoing voltage of the sensor will be presented in a graphic form as shown in following figure:

PAPER CHARACTERIZATION



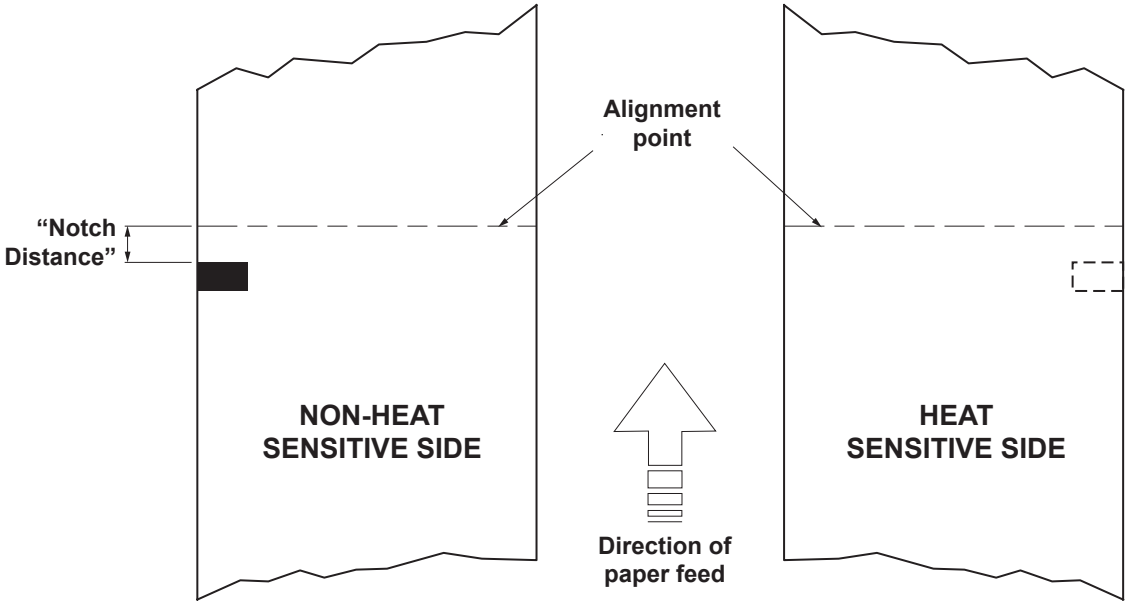
The graphic shows the references in Volts and the threshold value previously set. It is clear that by adjusting the threshold value it is possible to find the best position that takes into account the signal peak and the small oscillations around zero.

The ALIGNMENT POINT is defined as the position inside the ticket that is the desired alignment point.
The ALIGNMENT POINT can be defined over the notch or near this one; for this reason, the final parameters to be set in setup are:

Notch Dist. [mm x 10] : 1
Notch Dist. [mm x 1] : 5
Notch Dist. [mm x .1] : 0

These parameters define the “Notch Distance” that represents the distance from the notch to alignment; in the above example the notch distance is 15 mm.

The following figure shows how the “Notch Distance” parameter represents the distance that exists between the notch and the desired alignment point. This parameter can have a minimum value of 0mm (in this case the alignments occur in proximity of the beginning of the notch) and a maximum of 32 mm. In reality the maximum distance corresponds to the mechanical distance between the notch sensor and the head, and it is for this reason that higher values are not permitted, and negative values are not envisaged.



10.2 Alignment commands

Two alignment commands are available: $1D $F6 and $1D $F8.
The command $1D $F6 performs an alignment to the print head: the paper is fed through until the print head is at the first available alignment point.
The command $1D $F8 on the other hand refers to the cutter: the paper is fed through until the cutter is at the set alignment point, so that a subsequent cut will occur precisely at the alignment point.
Further explanations can be found in Commands Manual.

The “Notch Distance” parameter can be changed via the printer setup or by using the command $1D $E7. For further information refer to the Commands Manual.

10.3 Examples

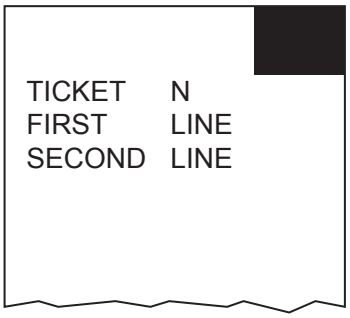
NOTE: To a better comprehension, in the following figures, the notch is indicated on the same side of the printing text.

Example 1

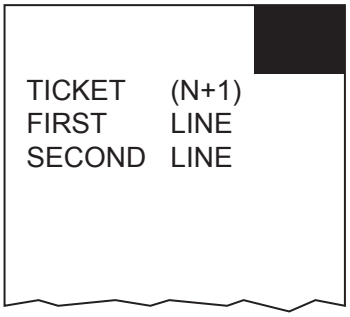
To print a sequence of tickets witch the cut is made over the notch it’s necessary set the notch distance to zero as follows (this setting have effect after the ticket already in the printer):

{Set Notch Distance}
$1D,$E7,$00,$00,

{Print text}
‘TICKET 1’,$0A,’FIRST LINE’,$0A,’SECOND LINE’,$0A
{Cut alignment}
$1D, $F8,
{Cut}
ESC,’i’,
...



{Print text}
‘TICKET 1’,$0A,’FIRST LINE’,$0A,’SECOND LINE’,$0A
{Cut alignment}
$1D,$F8,
{Cut}
ESC,’i’,
...

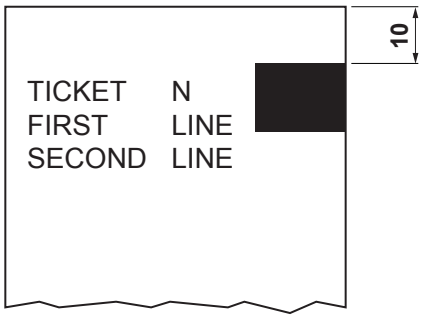


Example 2

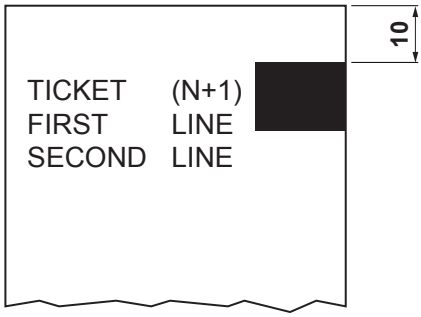
To cut 10mm before the notch the command sequence is (this setting have effect after the ticket already in the printer):

$1D, $E7, $00, $0A,

{Print text}
'TICKET 1',$0A,'FIRST LINE',$0A,'SECOND LINE',$0A
{Cut alignment}
$1D, $F8,
{Cut}
ESC,'i',
...



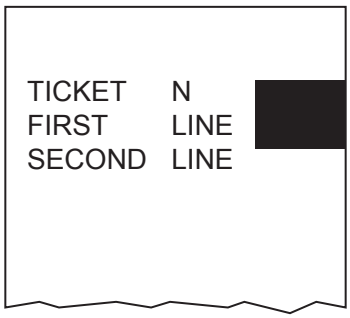
{Print text}
'TICKET 1',$0A,'FIRST LINE',$0A,'SECOND LINE',$0A
{Cut alignment}
$1D,$F8,
{Cut}
ESC,'i',
...



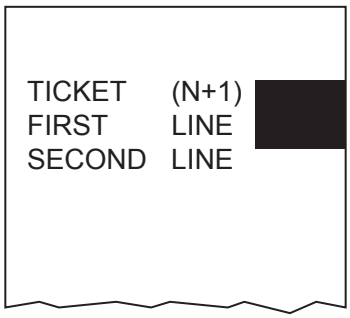
Example 3

To print over the notch the command sequence is (this setting have effect after the ticket already in the printer):

{Set Notch Distance}
$1D,$E7,$00,$00,
{Print text}
'TICKET 1',$0A,'FIRST LINE',$0A,'SECOND LINE',$0A
{Cut}
ESC,'i'
...



{Set Notch Distance}
$1D,$E7,$00,$00,
{Print text}
'TICKET 1',$0A,'FIRST LINE',$0A,'SECOND LINE',$0A
{Cut}
ESC,'i',
...

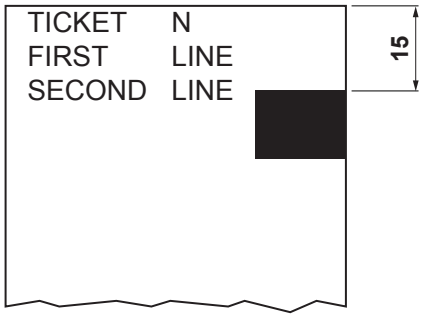


Example 4

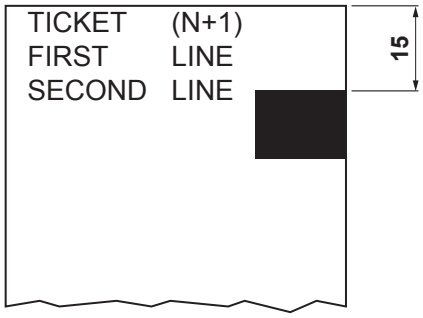
To print 15mm before the notch the command sequence is (this setting have effect after the ticket already in the printer):

{Set Notch Distance}
$1D,$E7,$00,$00,

{Print text}
'TICKET 1',$0A,'FIRST LINE',$0A,'SECOND LINE',$0A
{Cut alignment}
$1D, $F8,
{Cut}
ESC,'i',
...

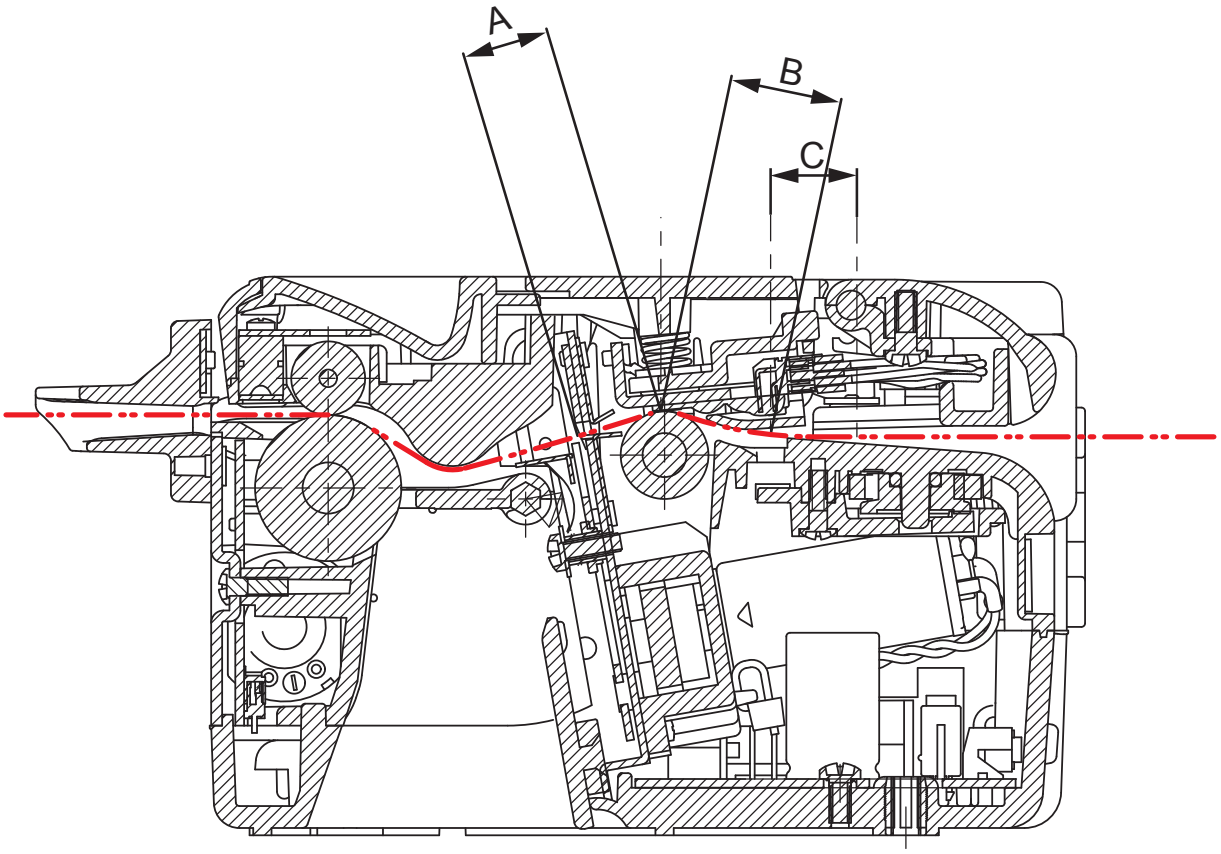


{Print text}
'TICKET 1',$0A,'FIRST LINE',$0A,'SECOND LINE',$0A
{Cut alignment}
$1D,$F8,
{Cut}
ESC,'i',



10.4 Position of the alignment sensors

The following figure shows a section of the printer with the positions of printing head, cutter and notch sensor.



where

A = 11,9mm = distance between cutting line (cutter) and printing line (printing head) on paper
B = 15,3mm = distance between printing line (printing head) and the lower mobile sensor for notch
C = 11,8mm = distance between the lower mobile sensor for notch and the upper notch sensor (only for models with upper notch sensor)

10.5 Ticket dimension

It is very important to well calibrate the height of the printer area, according to the distance between the two edges of the notch.
In order not to miss a notch (a ticket must therefore contain only one notch) the following equation must be used:

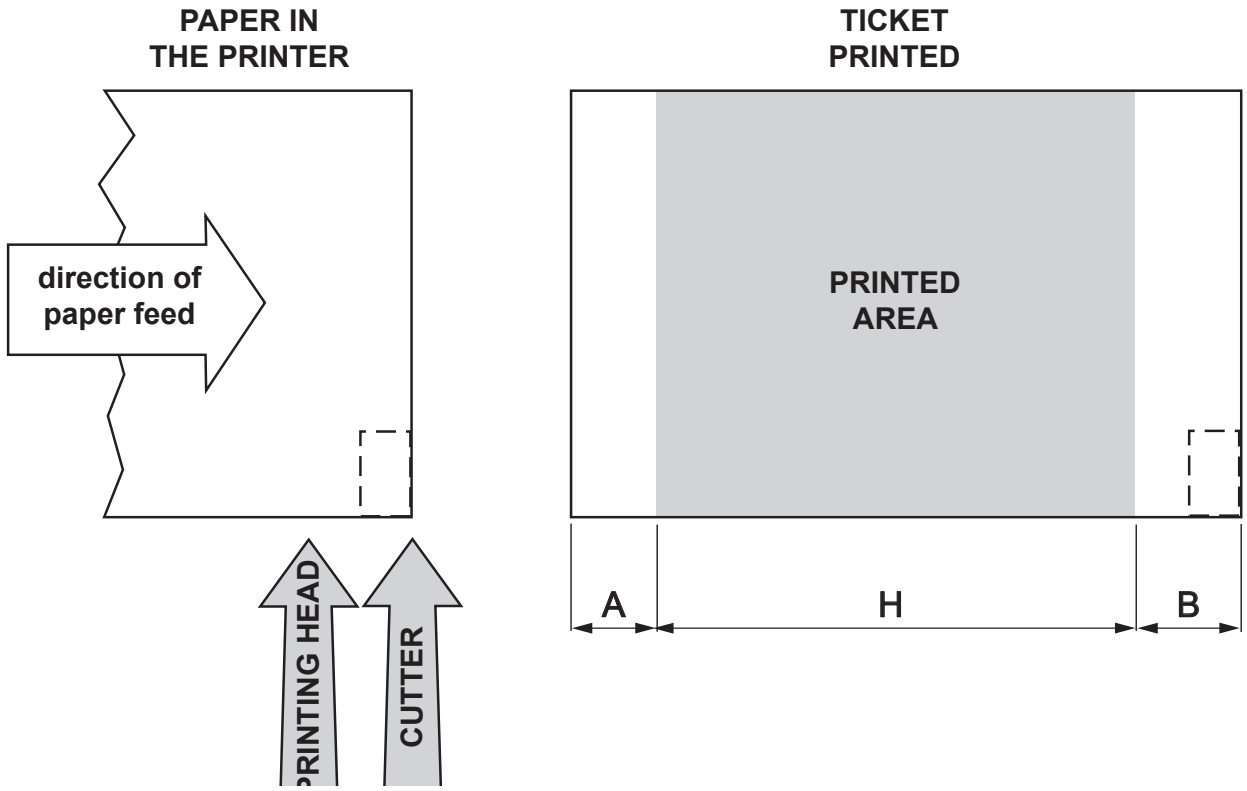
INTER-NOTCH DISTANCE>PRINTED AREA HEIGHT + NON-PRINTABLE AREA

where

INTER-NOTCH DISTANCE = the distance between two notch edges
NON-PRINTABLE AREA = cutter-head distance

The following picture shows a sequence of printed tickets aligning each one at the cut. It can be noted that increasing the printed area will result in superimposing what is to be printed at the subsequent notch. The size of the print area can be enlarged until it renders the alignment feed void, but not beyond. It is very important never to forget about the non-printable area that corresponds to the cutter-head distance and is the result of every cut.

LEGEND:
A = Alignment feed
H = Printing area height
B = Non printable area (CUTTER - PRINT HEAD)



10.6 Methods of usage

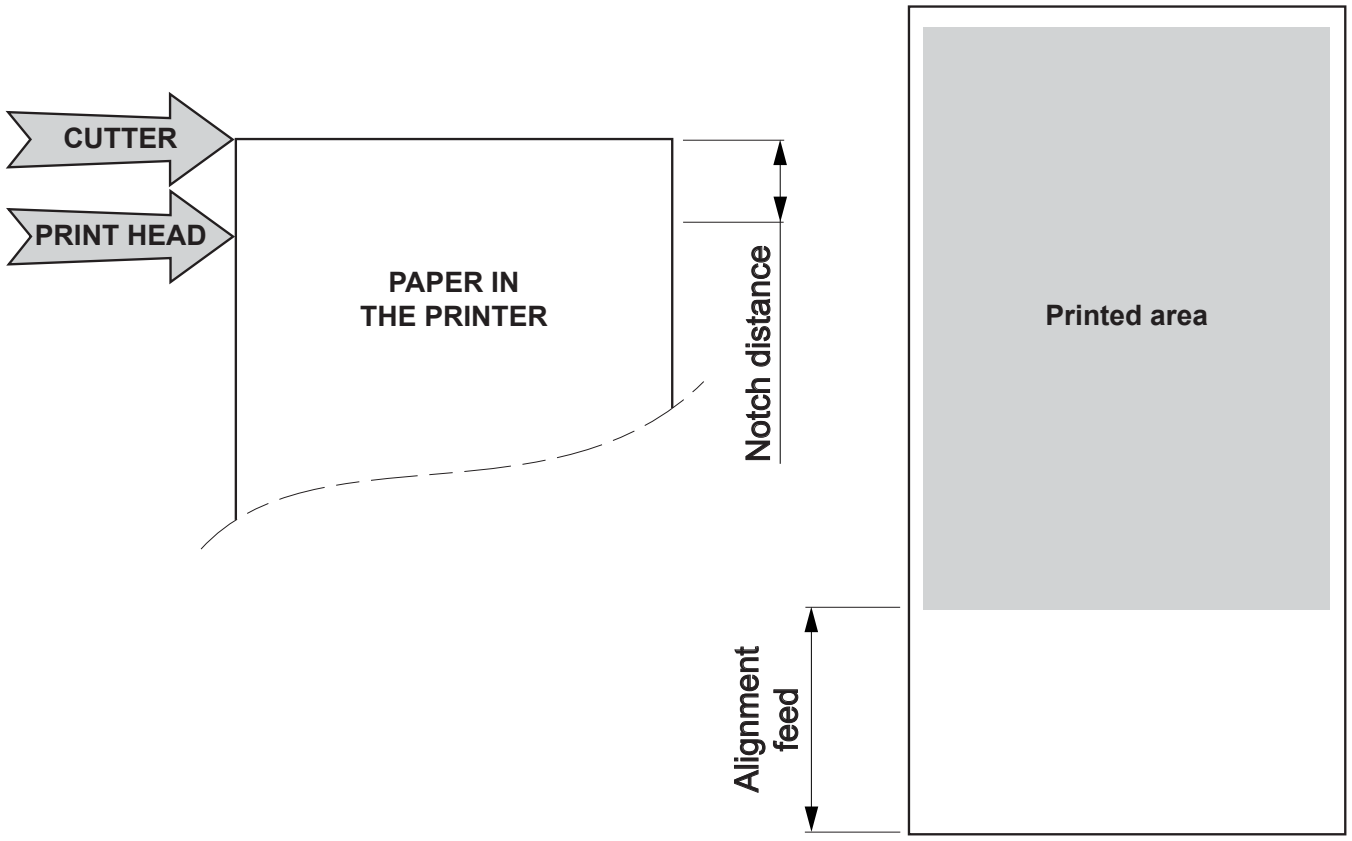
It is possible, when printing sequences of tickets, to primarily identify two different methods of operation that involve the alignment: ticket aligned at the cut and ticket aligned at printing.

ALIGNMENT AT THE CUT

The sequence of commands to be entered when wanting to align a ticket at the cut is as follows:

1. Ticket general setting; formatting of characters, print density, margins etc.
2. Print ticket: Printing of text, logos or any other graphics.
3. Alignment at the cut command: $1D $F8
4. Cut command

The result is shown in following figure:



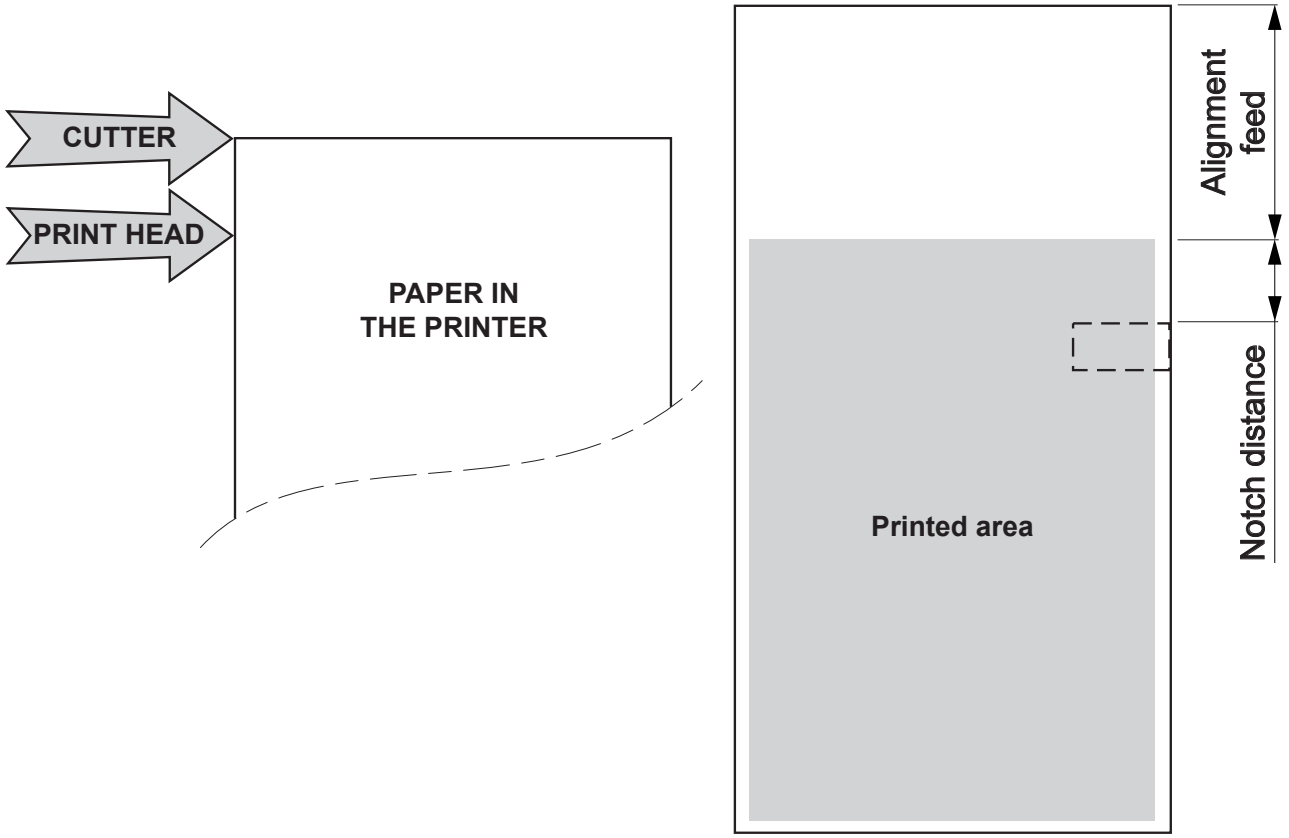
It is possible to see how the start of the ticket print area is not aligned, but the print starts in the rest position that the head took up at the moment the previous ticket was cut. At the end of the print area the printer has fed the paper through to align itself and perform the cut at the desired position.

ALIGNMENT AT PRINTING

Alignment at printing requires the following sequence of commands:

1. Ticket general setting; formatting of characters, print density, margins etc.
2. Print alignment commands: $1D $F6
3. Print ticket: Printing of text, logos or any other graphics.
4. Cut commands

The result is shown in following figure:



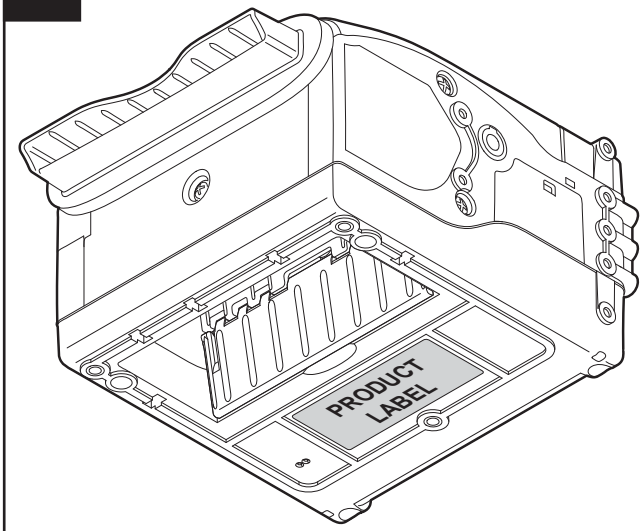
Unlike the previous case, the alignment feed takes place before the start of printing, so as to align the print area in the position required.

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

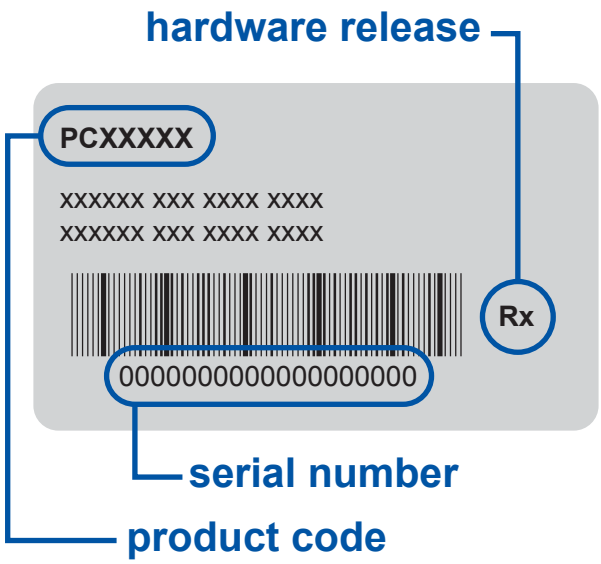
To get the necessary data, proceed as follows:

1



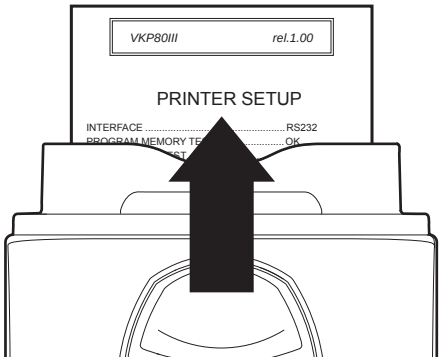
Find the product label located on the bottom of the printer.

2



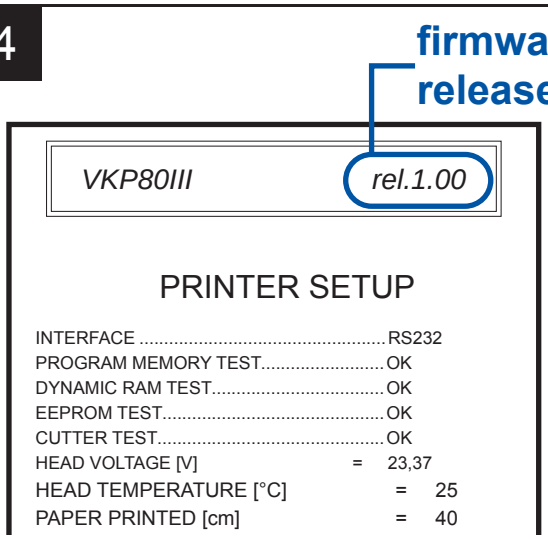
The label shows the product code, serial number and hardware release.

3



Print a Setup report
(see paragraphs 5.2)

4



The Setup report shows the firmware release.

5

support@custom.it
Customer Service Department

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

Part Number : 7620000000300 Rev.1.00

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