USER MANUAL

PRT80III

CUSTOM®

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

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

GENERAL 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.

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 60950-1 *(Safety of information equipment including electrical business equipment)*



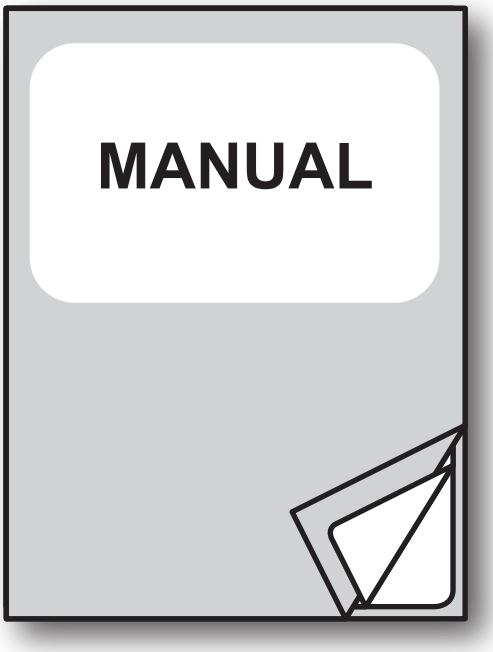
GUIDELINES FOR THE DISPOSAL OF THE PRODUCT

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.



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



For details on the commands,
refer to the manual with code **772000000003100**

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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	TECHNICAL SERVICE	information required for contacting the technical service
11	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

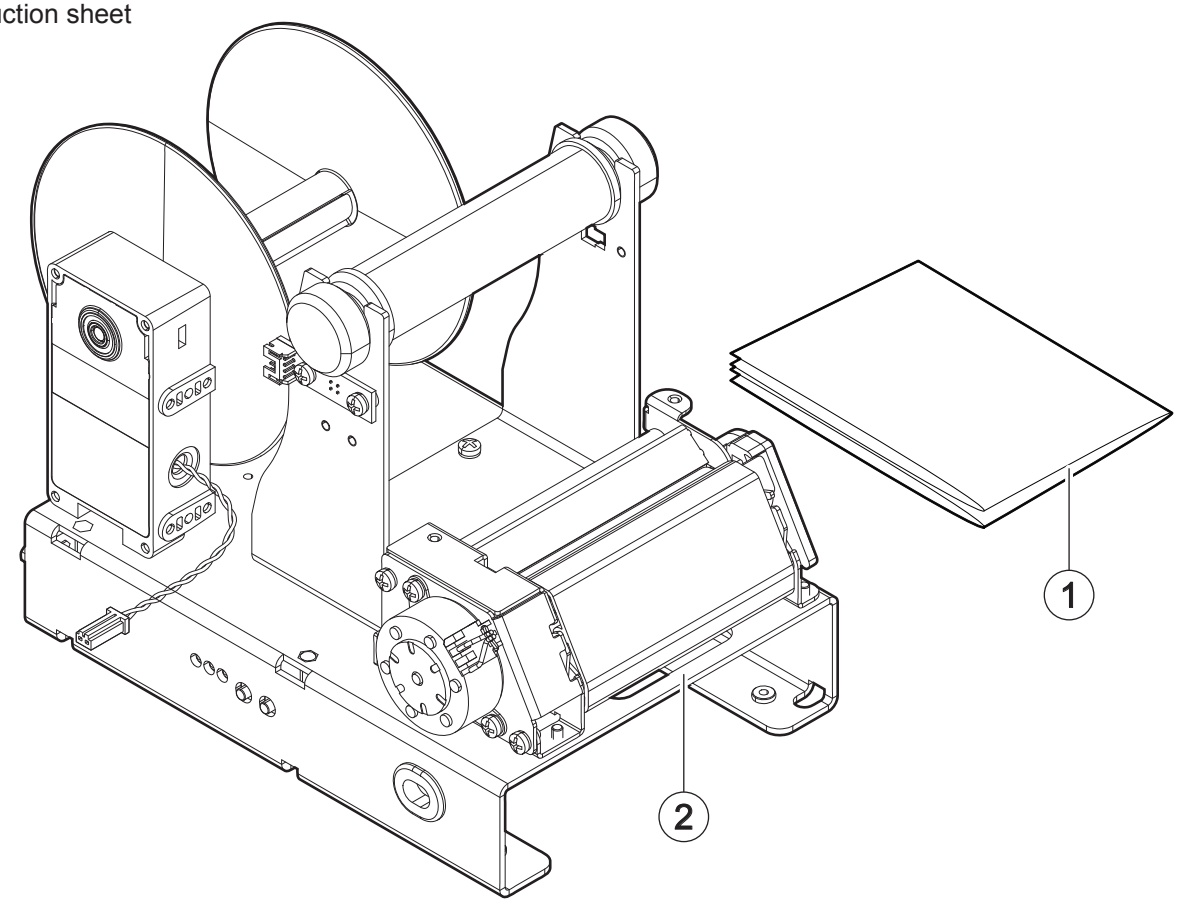
2 DESCRIPTION

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.

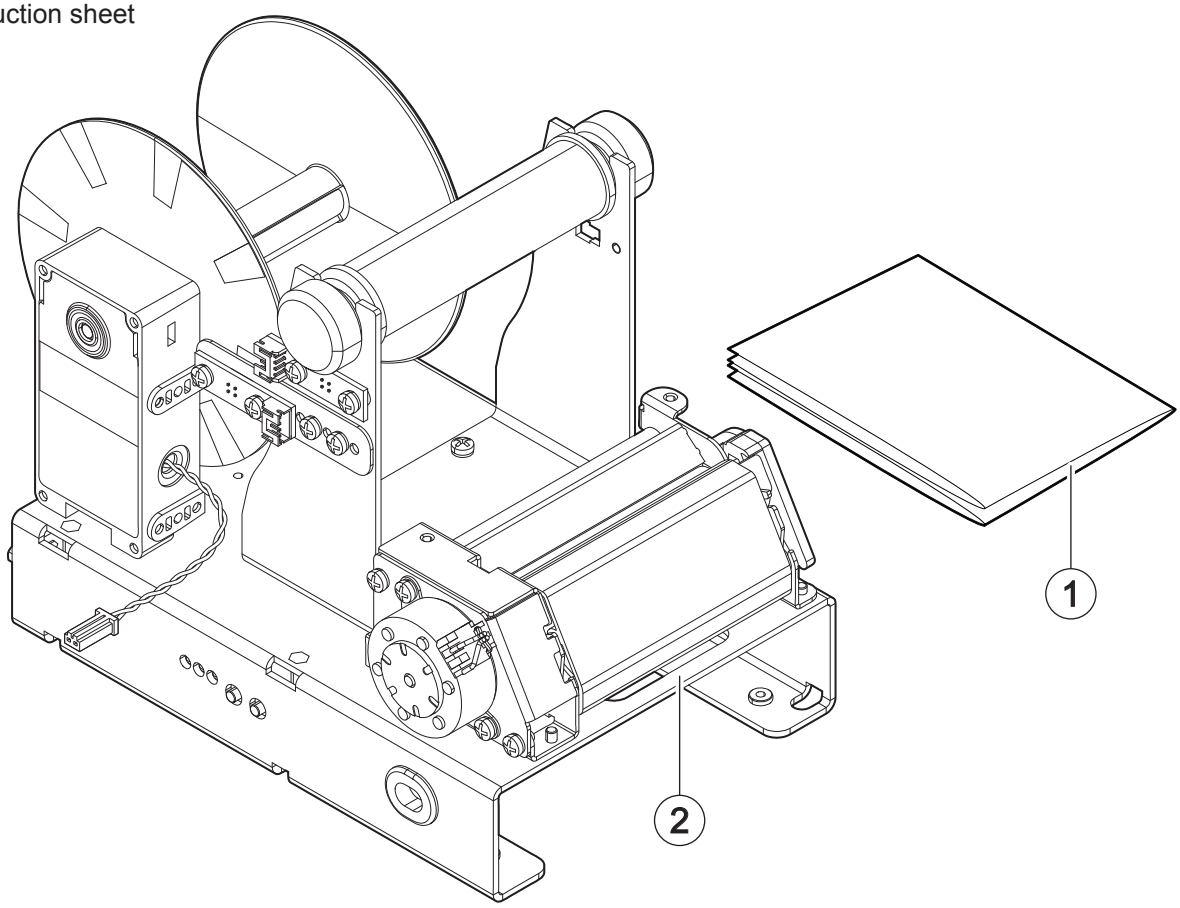
PRT80III (standard models)

1. Installation instruction sheet
2. Device



PRT80III (models with encoder)

3. Installation instruction sheet
4. Device

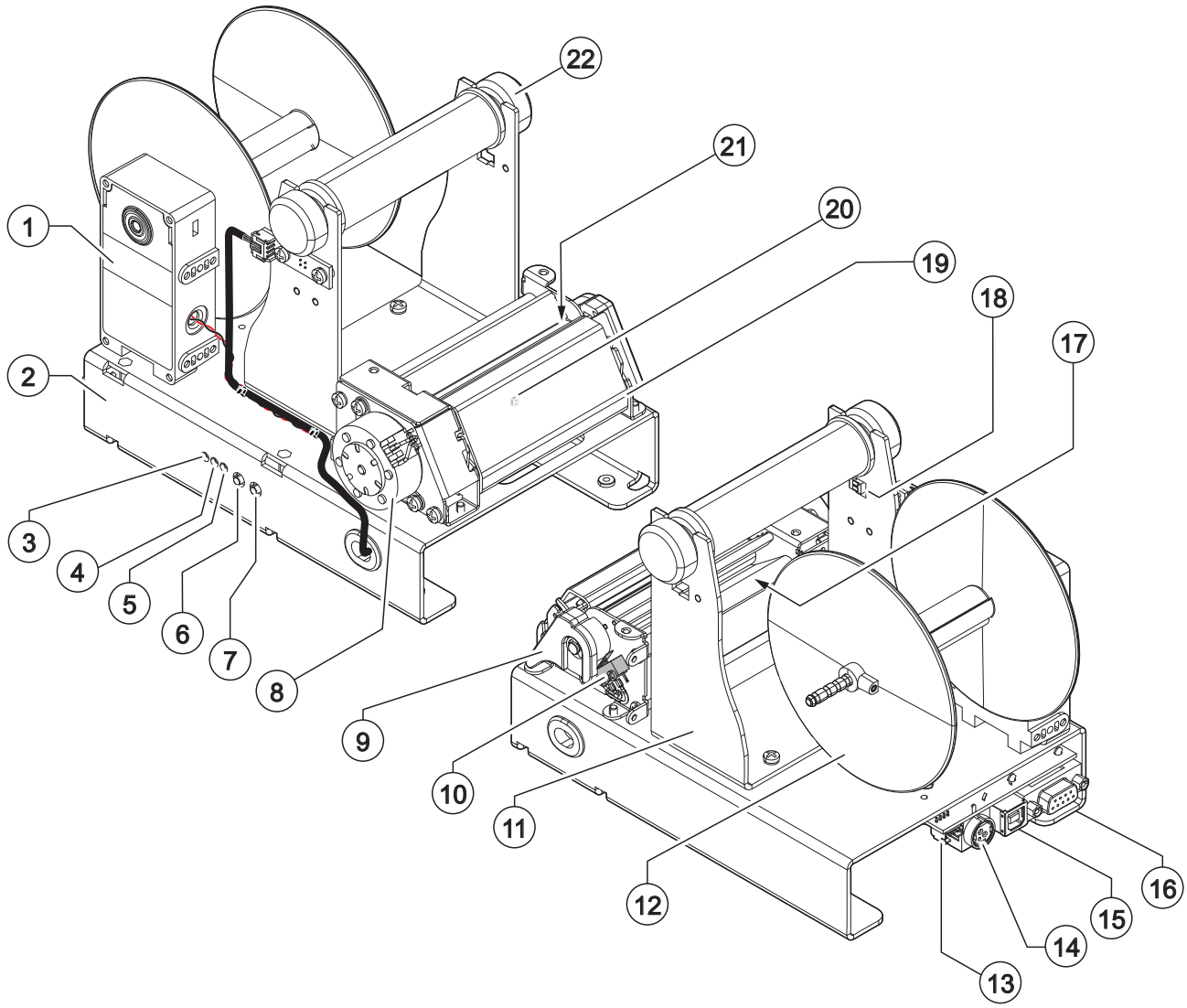


- Open the device packaging.
- Take out the device.
- Take out the rest of the content.
- Keep the box, trays and packing materials in the event the device must be transported/shipped in the future.

2.2 Device components: external views

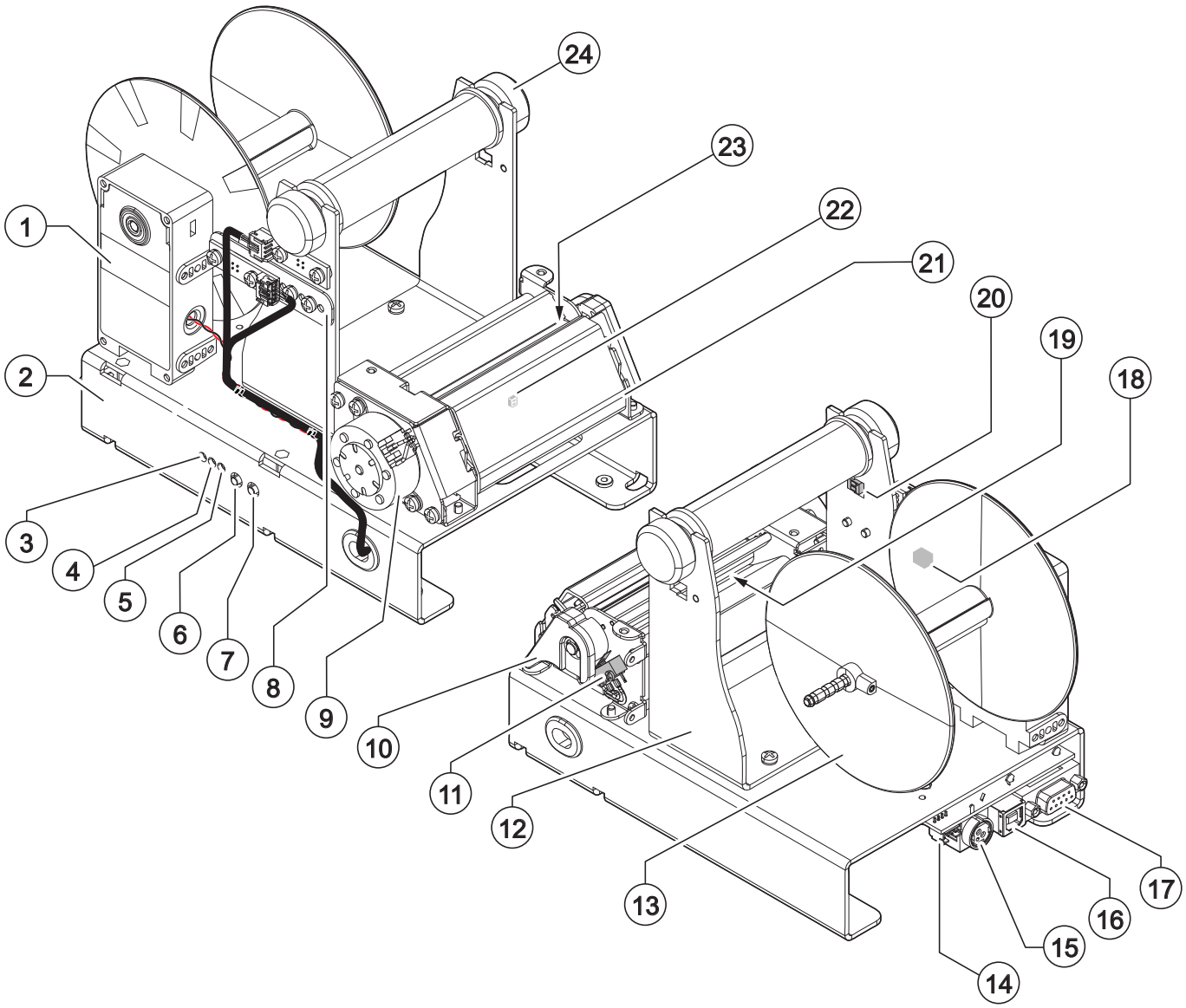
PRT80III (standard models)

1. Rewinder
2. Device chassis
3. Near paper end LED
4. STATUS LED
5. POWER ON LED
6. FF FORM FEED key
7. LF LINE FEED key
8. Printing mechanism motor
9. Lifting lever for printing head
10. Sensor for printing head lifted
11. Roll holder support
12. External ring for roll blocking (adjustable)
13. Connector for near paper end sensor
14. Power supply port
15. USB port
16. RS232 serial port
17. Paper input
18. Near paper end sensor
19. Printing mechanism + head temperature sensor
20. Sensor for paper presence in input
21. Paper out
22. Roll holder pin 80mm



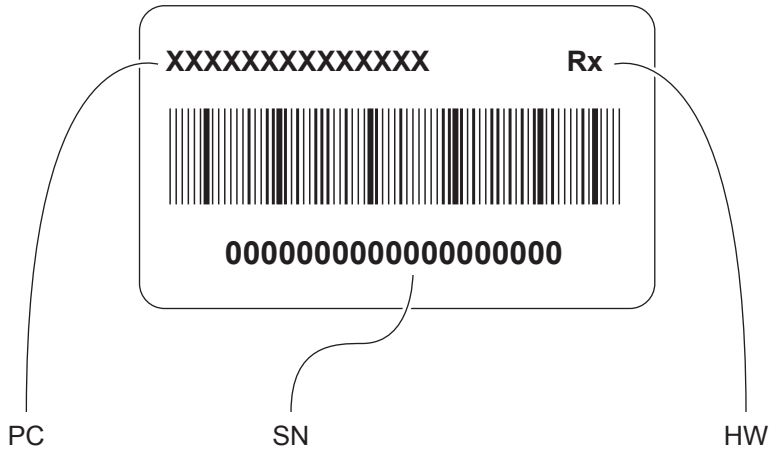
PRT80III (models with encoder)

1. Rewinder
2. Device chassis
3. Near paper end LED
4. STATUS LED
5. POWER ON LED
6. FF FORM FEED key
7. LF LINE FEED key
8. Sensor bracket anti-jam
9. Printing mechanism motor
10. Lifting lever for printing head
11. Sensor for printing head lifted
12. Roll holder support
13. External ring for roll blocking (adjustable)
14. Connector for near paper end sensor
15. Power supply port
16. USB port
17. RS232 serial port
18. Anti-jam sensor
19. Paper input
20. Near paper end sensor
21. Printing mechanism + head temperature sensor
22. Sensor for paper presence in input
23. Paper out
24. Roll holder pin 80mm

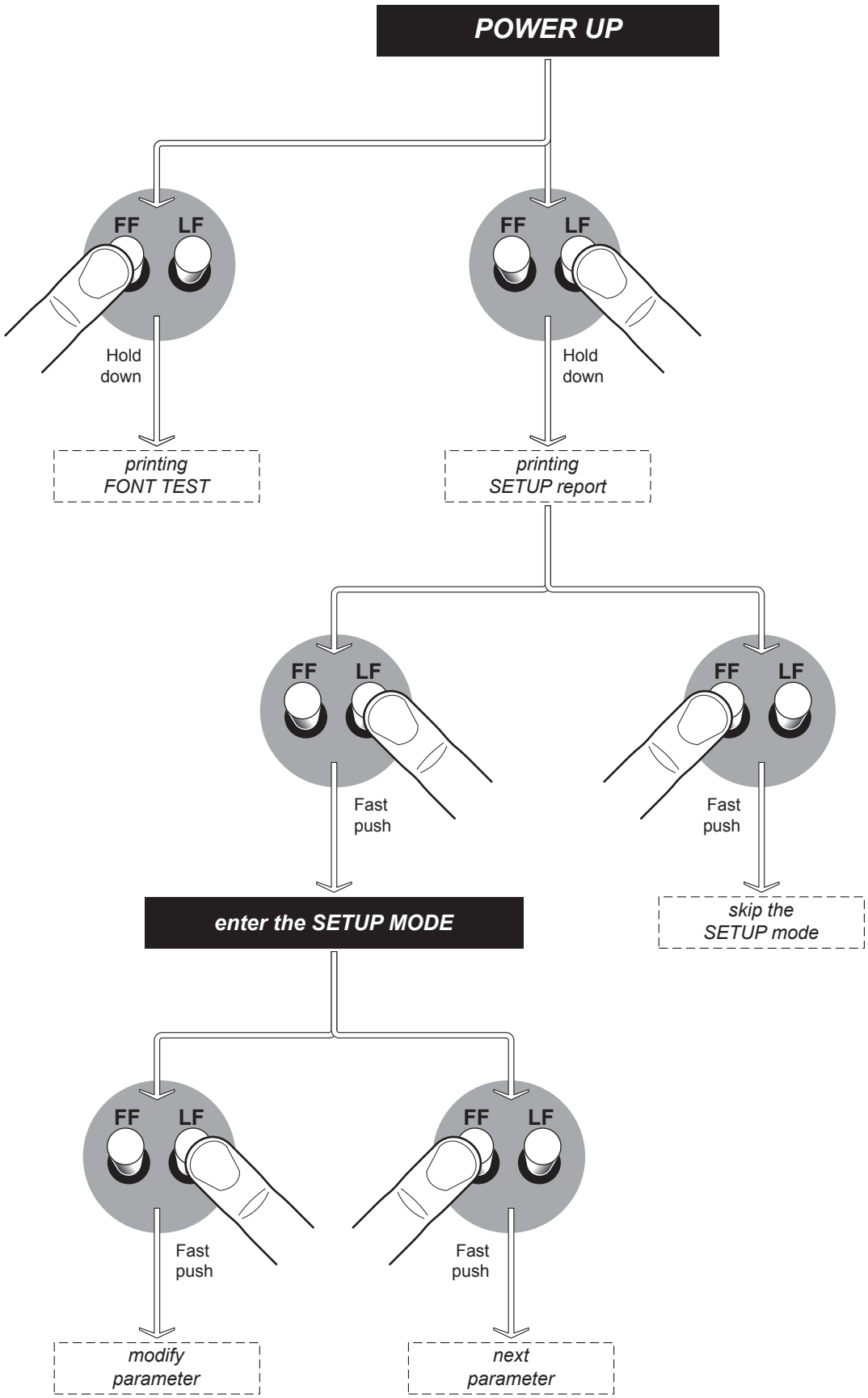


2.3 Product label

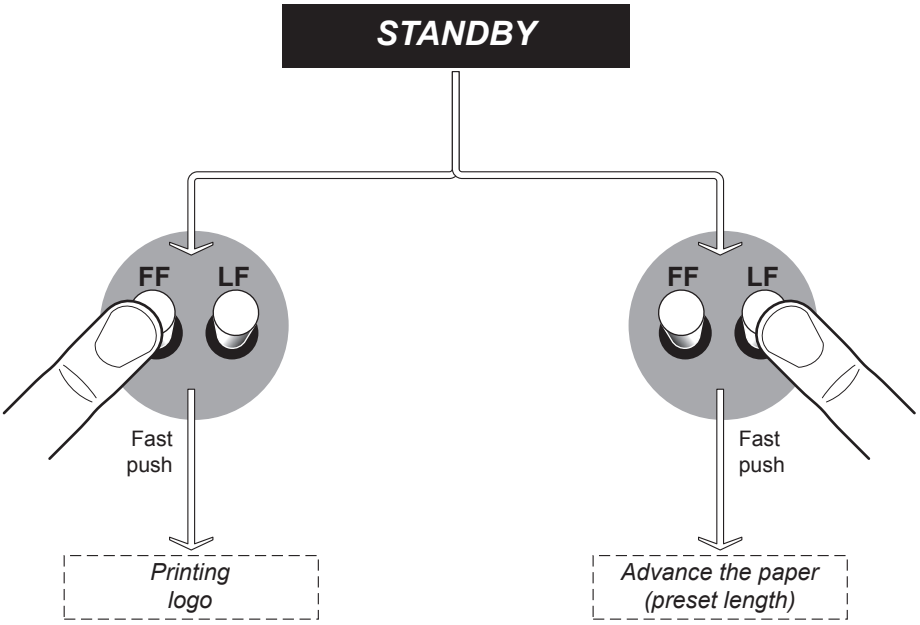
PC = Product code (14 digits)
SN = Serial number
HW = Hardware release



2.4 Key functions: power up



2.5 Key functions: standby



2.6 LED flashes

The three status LED indicates hardware status of device.

POWER ON LED

Signals the status of the powered device as shown in the following table.

STATUS LED			DESCRIPTION
-		***OFF***	DEVICE NOT POWERED
GREEN		***ON***	DEVICE POWERED

NEAR PAPER END LED

Signals the amount of paper on the paper roll as shown in the following table.

STATUS LED			DESCRIPTION
-		***OFF***	PAPER IN ABUNDANCE
RED		***ON***	NEAR PAPER END

STATUS LED

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

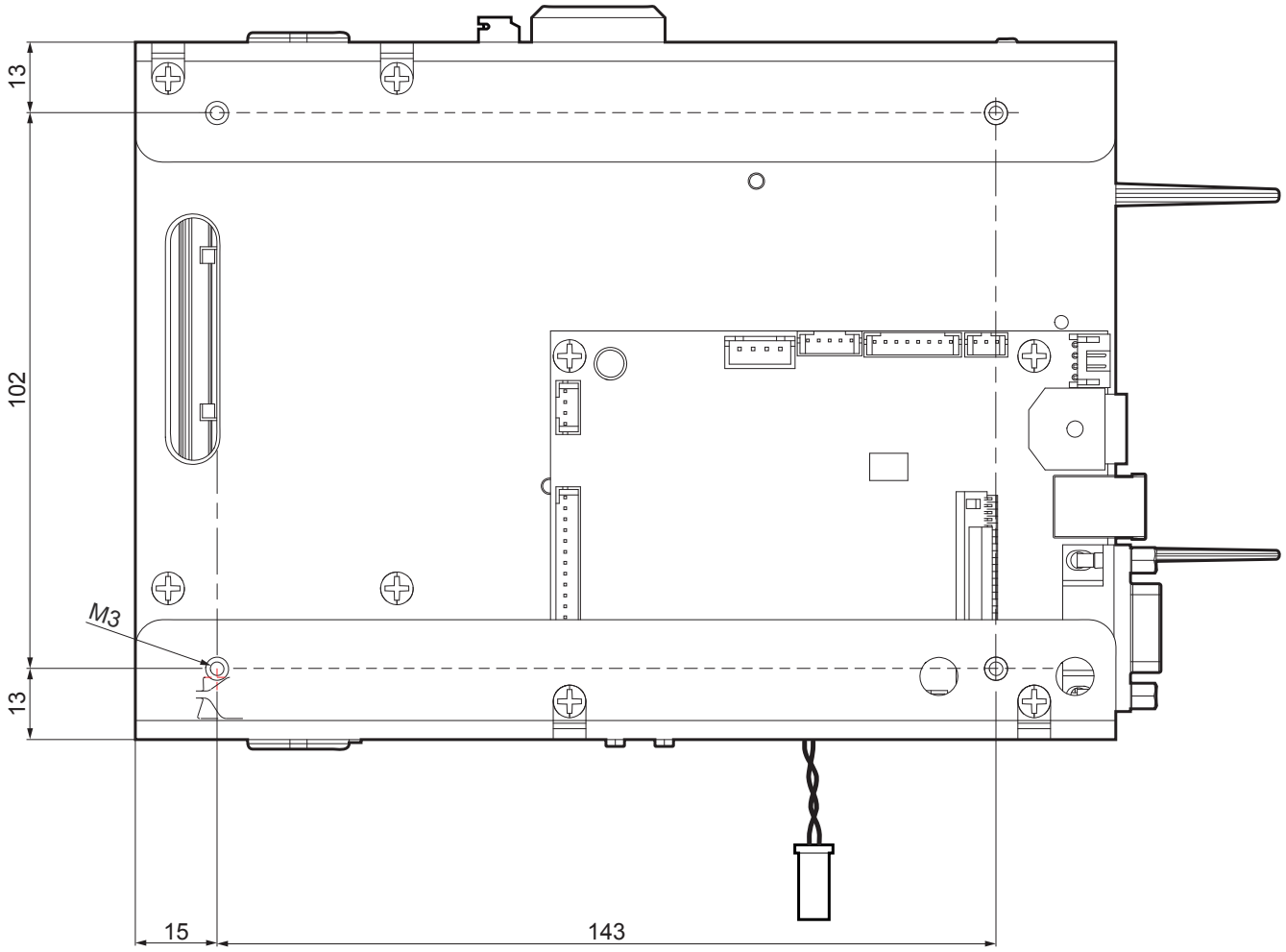
STATUS LED			DESCRIPTION
-		***OFF***	DEVICE OFF
YELLOW		***ON***	DEVICE ON: NO ERROR
YELLOW		***x 1***	RECEIVE DATA
		x 2	HEADING OVER TEMPERATURE
		x 3	PAPER END
		x 4	POWER SUPPLY VOLTAGE INCORRECT
		x 5	COM PORT ERROR
		x 6	COMMAND NOT RECOGNIZED
		x 7	CHARACTER RECEPTION ERROR
		x 8	PRINTING HEAD LIFTED
		x 9	PAPER JAM
		x 10	CUTTER ERROR
		x 11	RAM ERROR
		x 12	EXTERNAL MEMORY ERROR

3 INSTALLATION

3.1 Fastening

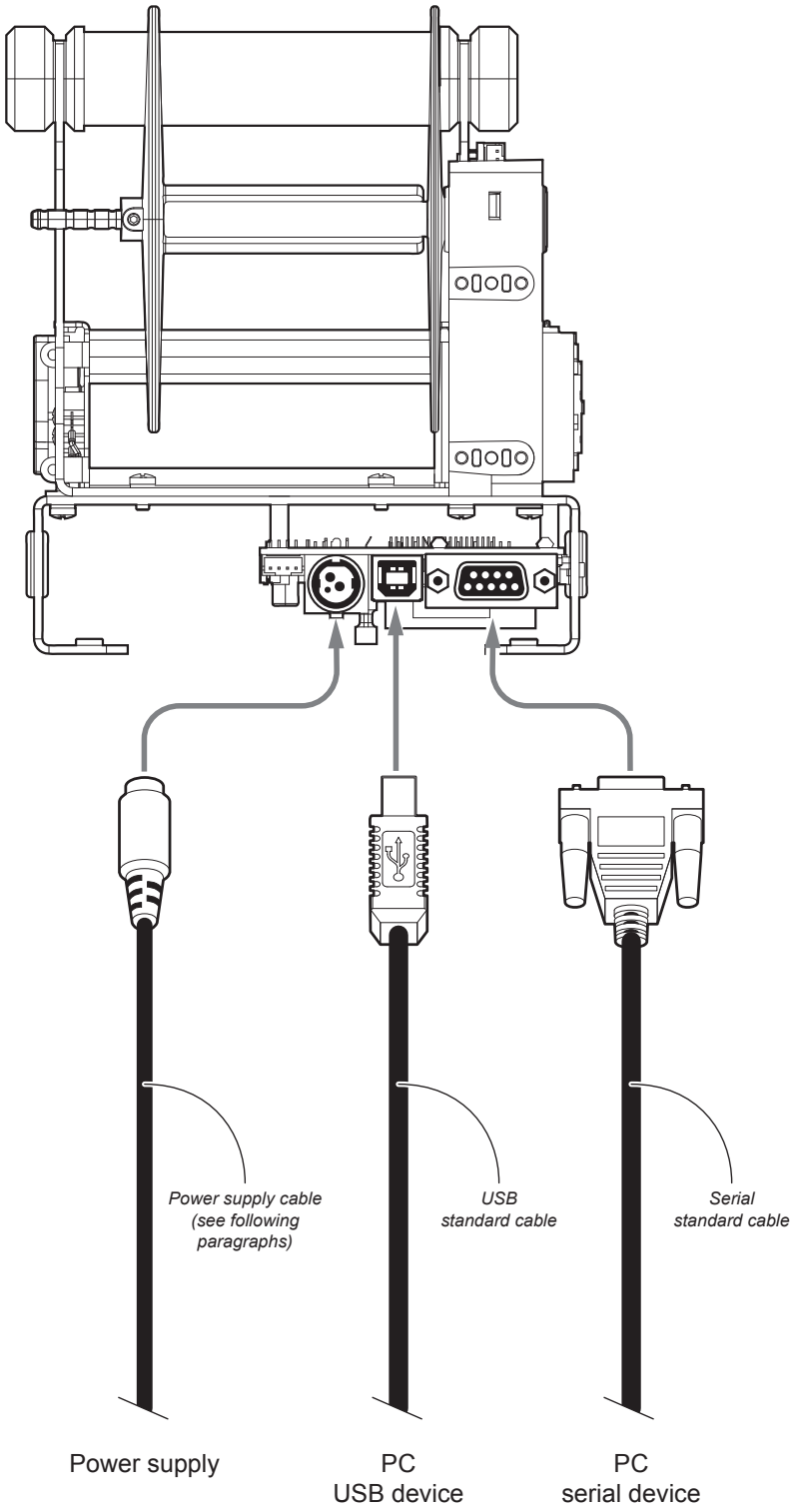
NOTE: All the dimensions shown in following figures are in millimetres.

The device is provided with three fixing holes on the bottom of device (see following figure).
To install the device on a panel, use four M3 screws.



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.

NOTES: If serial and USB connectors are inserted, communication port is USB.

3.3 Pinout

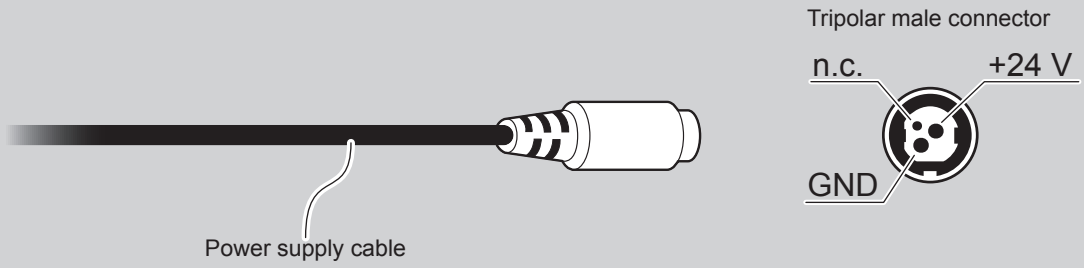


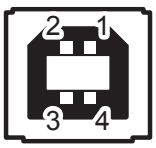
POWER SUPPLY
Tripolar female connector

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

ATTENTION:
Respect power supply polarity.

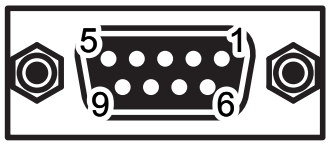
NOTE:
Power supply cable
The following figure shows the connector pinout of the power supply cable for the device:





USB INTERFACE
Female USB type B connector

J12	1	USB0-VBUS	(in)
	2	USB0_D-	(in/out)
	3	USB0_D+	(in/out)
	4	GND	
	SH1	SHIELD	
	SH2	SHIELD	



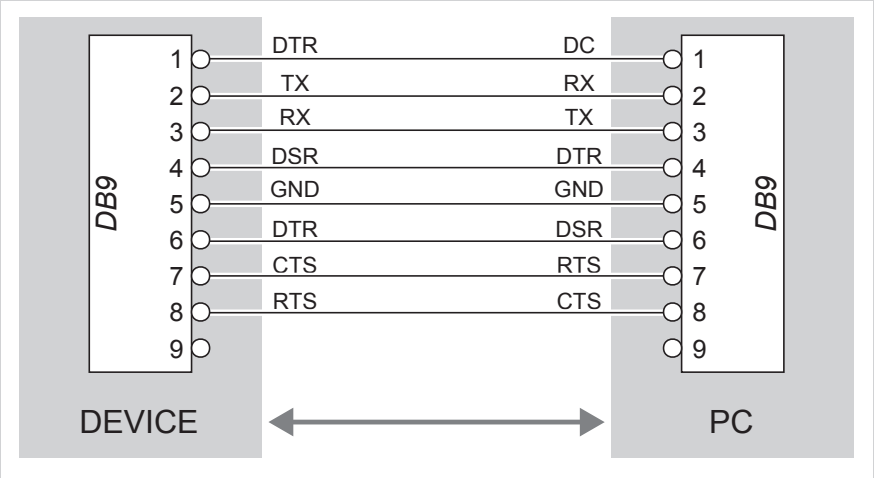
RS232 SERIAL INTERFACE

Female DB9 connector

J10	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	VCC	

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.

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



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



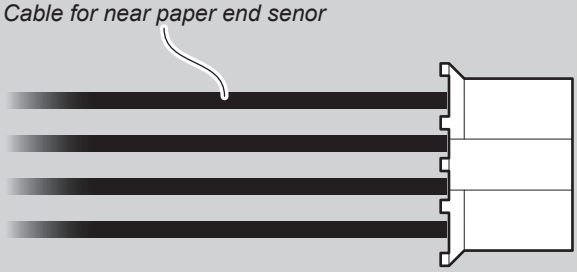
NEAR PAPER END

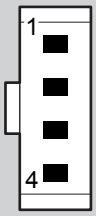
4 ways male JST connector (S4B-PH-K-S)

J17	1	VCC	
	2	QF-EXT	(in)
	3	QF-INT	
	4	GND	

NOTE: Cable for near paper end sensor.
The following figure shows the pinout of the connector of the cable for near paper end to use for the device:

Cable for near paper end senor





Female JST connector series PHR-4

PIN	*Cable color*	*Signal*
1	*Red*	*+5V*
2	*Blue*	*NPE (input)*
3	*Black*	*n.c.*
4	*Yellow*	*GND*

3.4 Driver and SDK

The drivers are available for the following operating system:

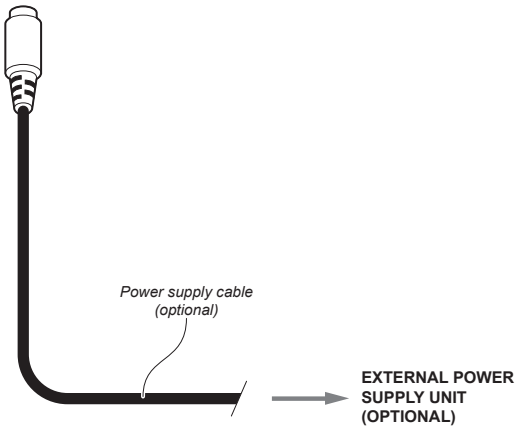
OPERATING SYSTEM	DESCRIPTION	INSTALLATION PROCEDURE
Windows	Driver for Windows XP	From the START menu, press Run and type-in the path where the SW was saved on your PC, then click OK. Follow the instructions that appear on the screen to install the driver.
	Driver for Windows VISTA (32/64bit)	
	Driver for Windows 7 (32/64bit)	
	Driver for Windows 8 (32/64bit)	
	Driver for Windows 8.1 (32/64bit)	
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.

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

4 OPERATION

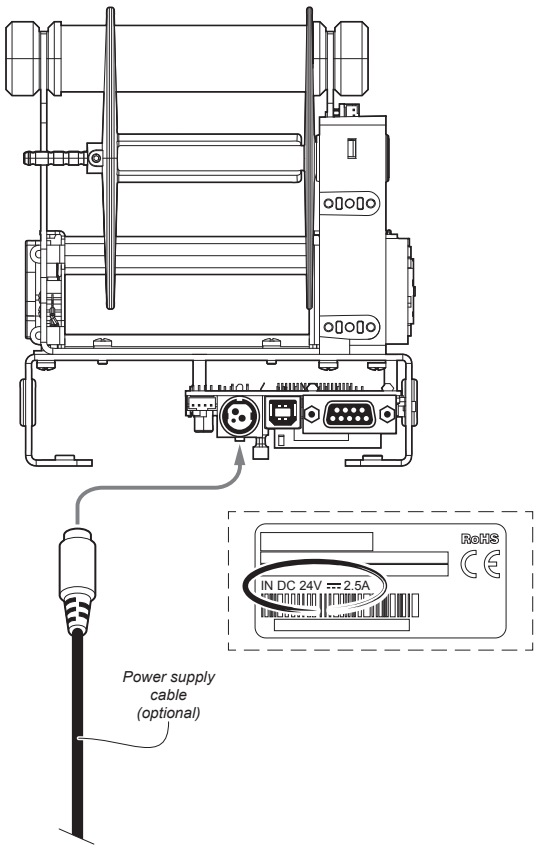
4.1 Switch the device ON

1



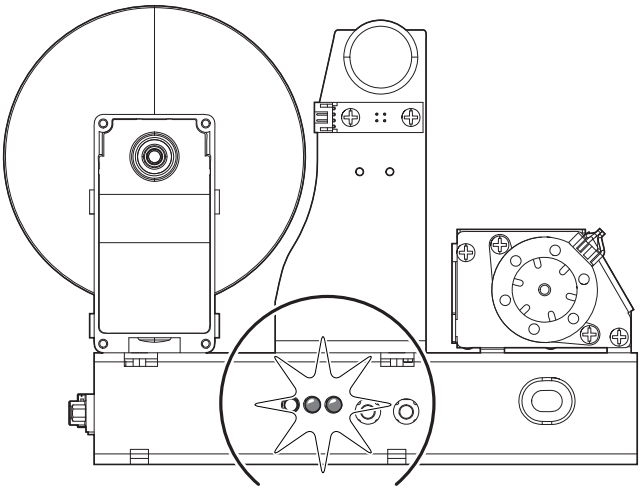
Connect the power supply cable
to an external power supply unit.

2



Connect the power supply cable to the device.
Use the type of electrical power supply
indicated on the label.

3

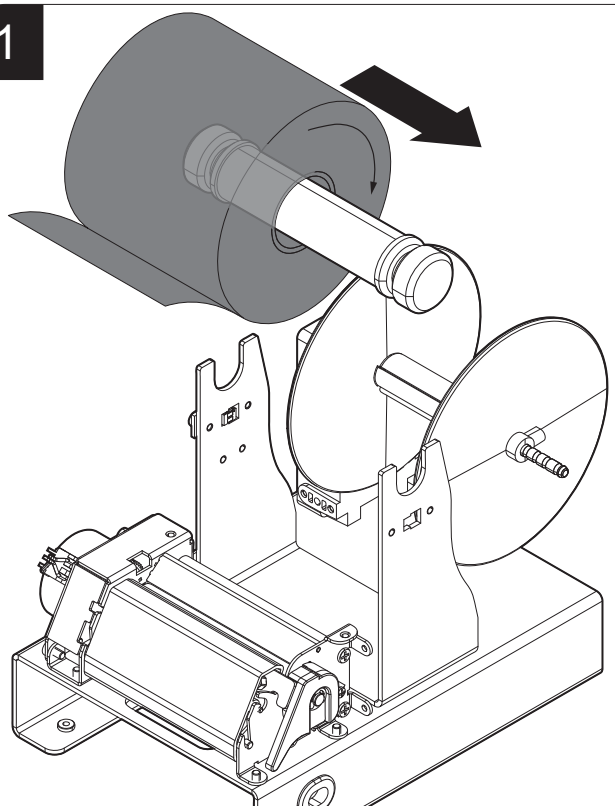


The status led (yellow) and the power on led (green)
turn on and the device is ready.

4.2 Loading the paper roll

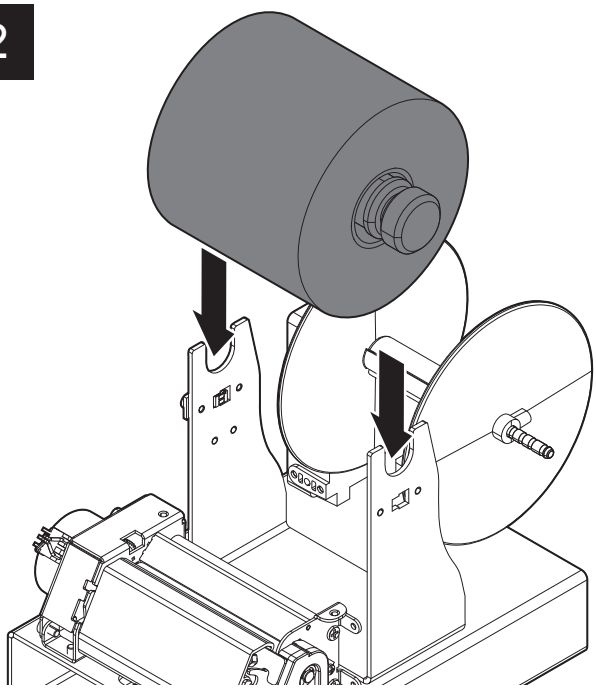
To load the paper proceed as follows. At every change of paper, check inside the device to locate and remove any scraps of paper.

1



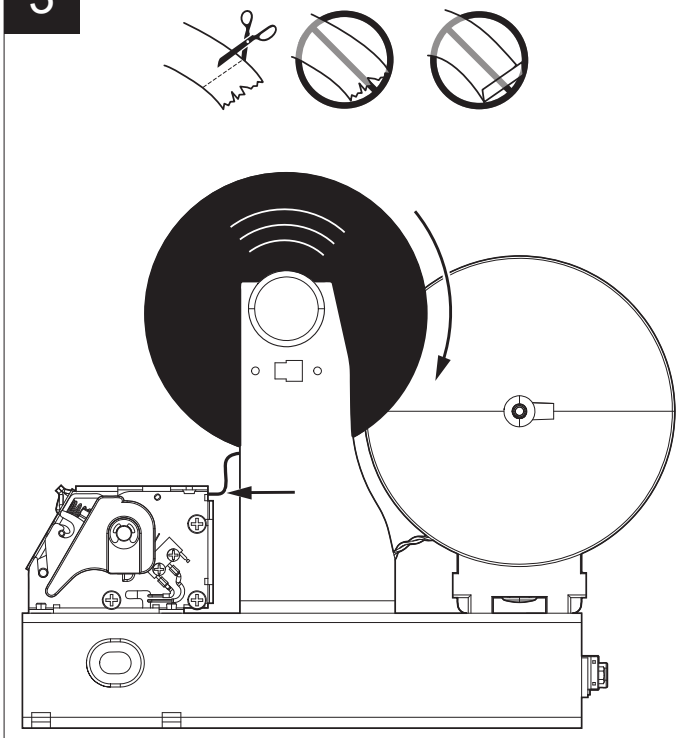
Insert the paper roll on the pin so that it unrolls correctly.

2



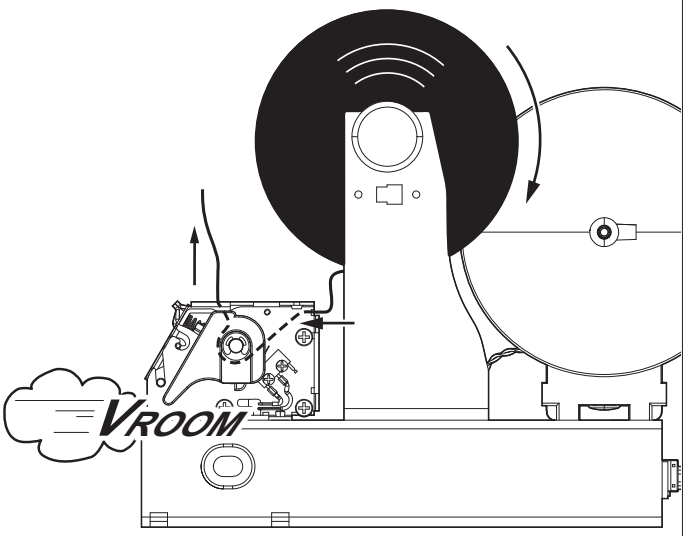
Place the paper roll on the paper roll holder.

3



Insert the paper into the input mouth.

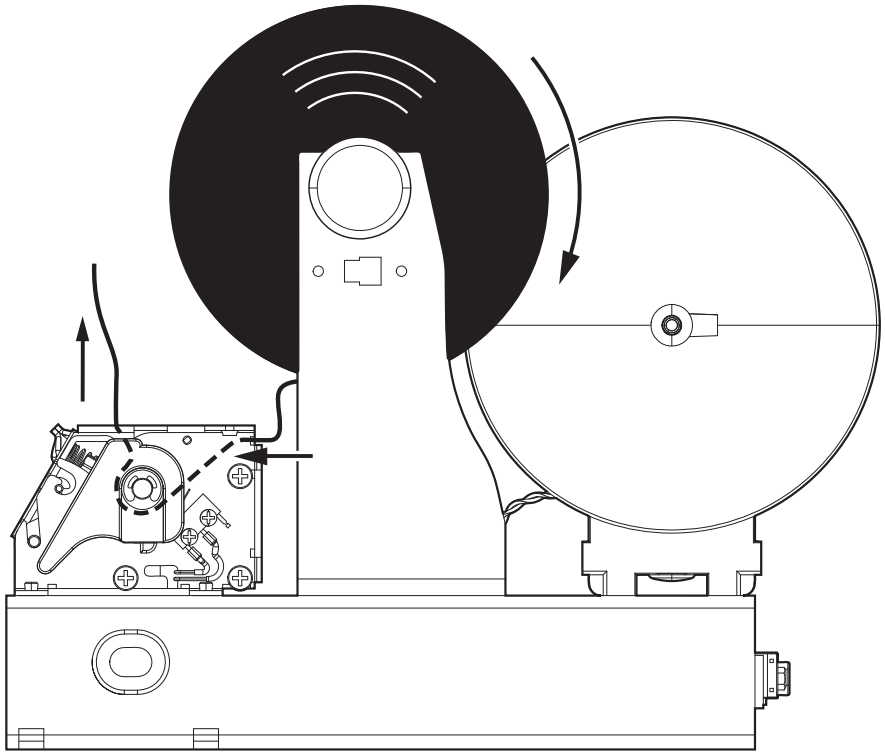
4



Wait until the paper is automatically loaded.

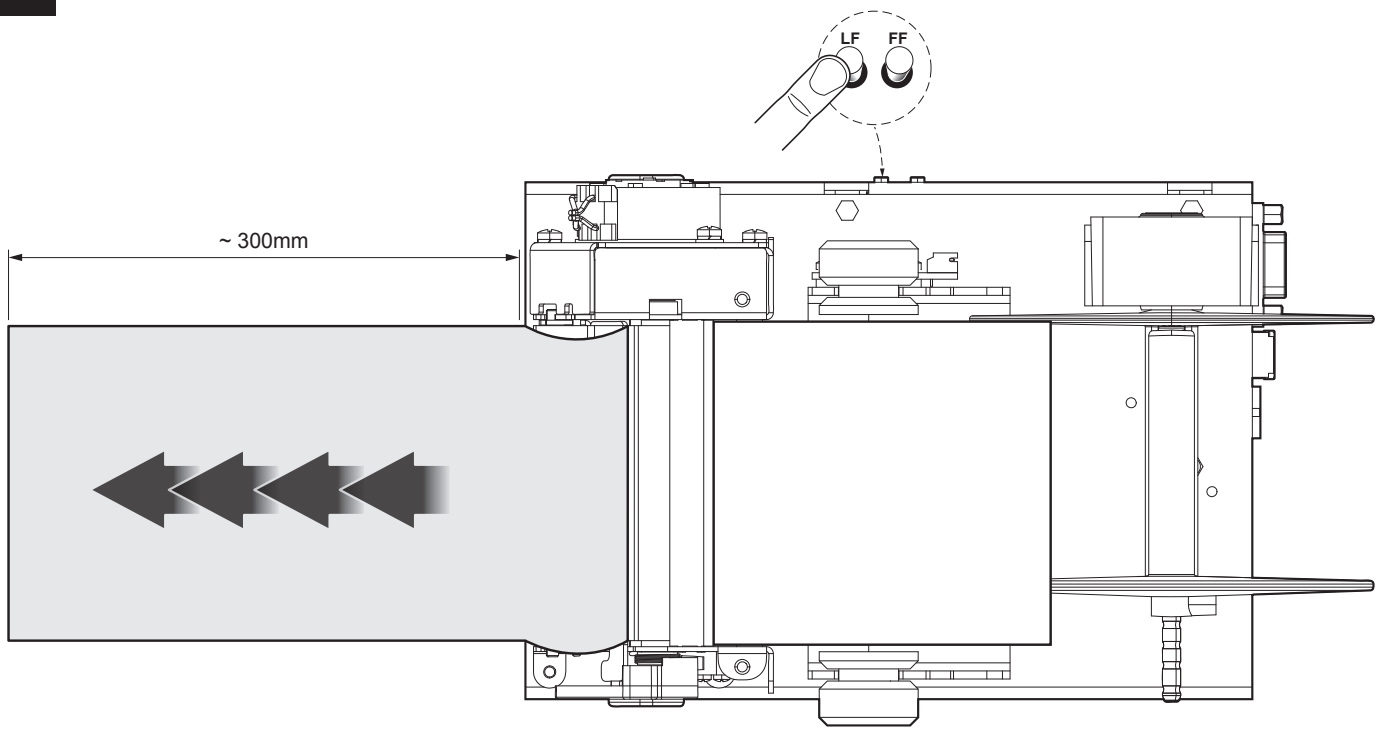
4.3 Fixing the paper on rewinder

1



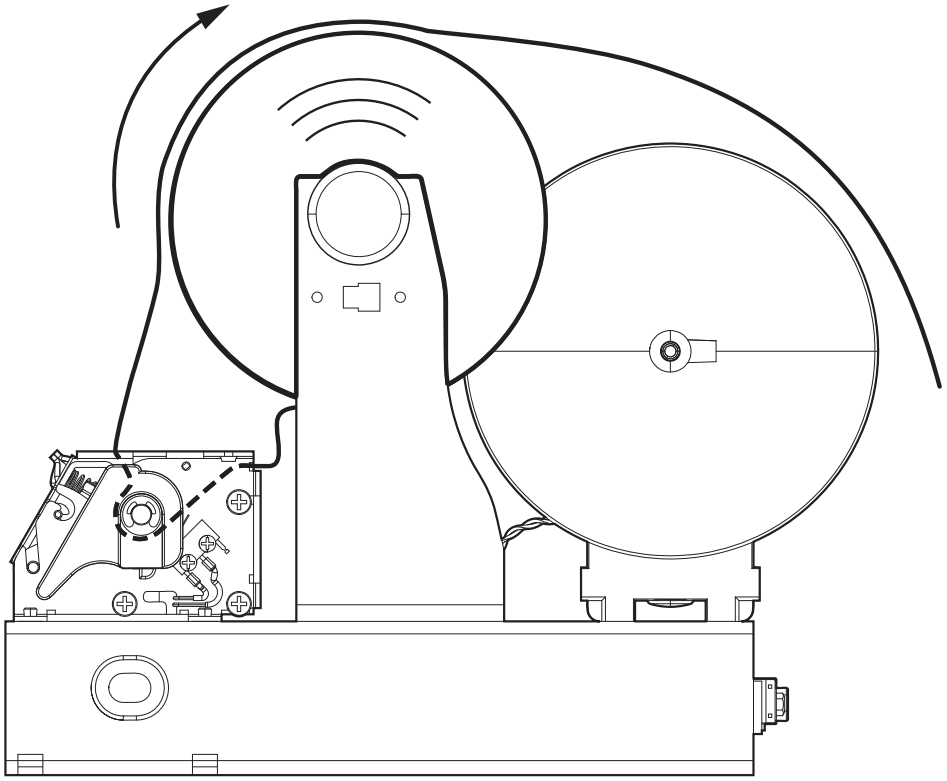
Load the paper into the device as described in the previous paragraphs.

2



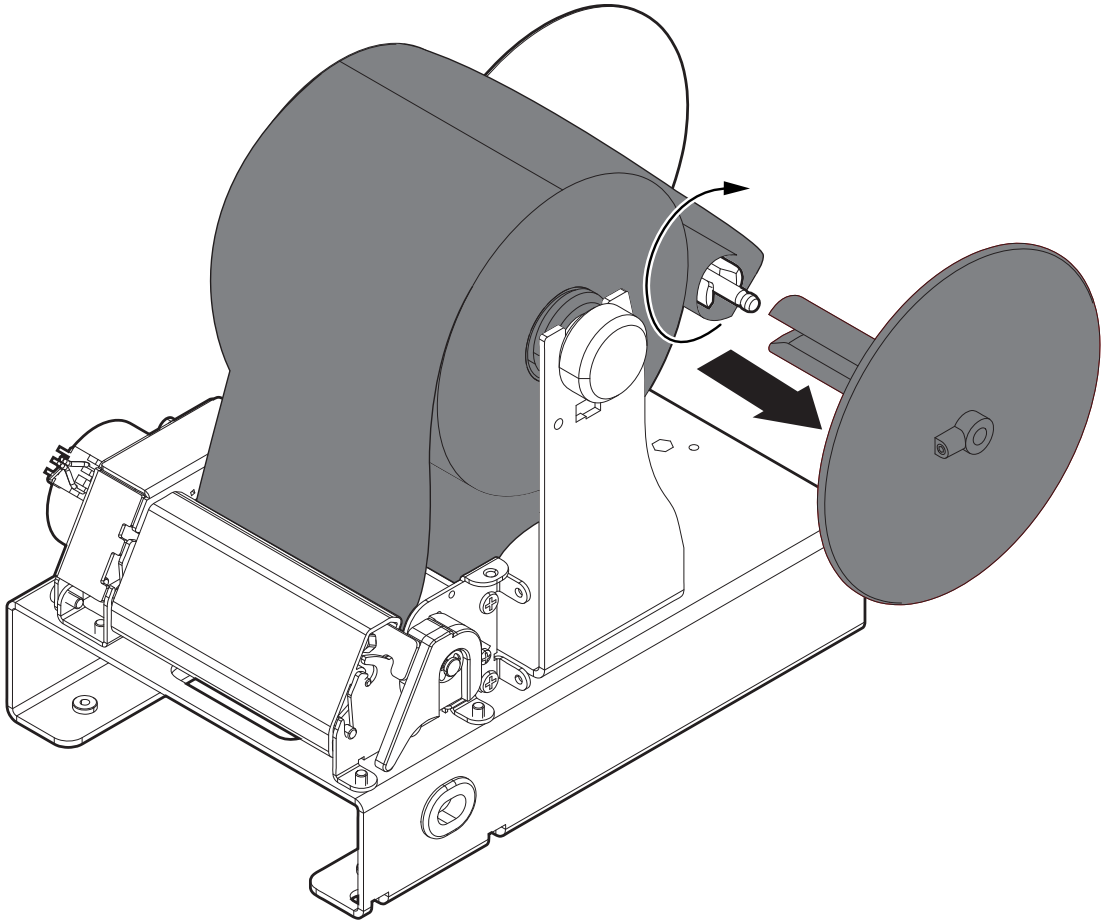
Press the LF LINE FEED button repeatedly to advance
the paper of at least 300mm beyond the edge of the paper outfeed.

3



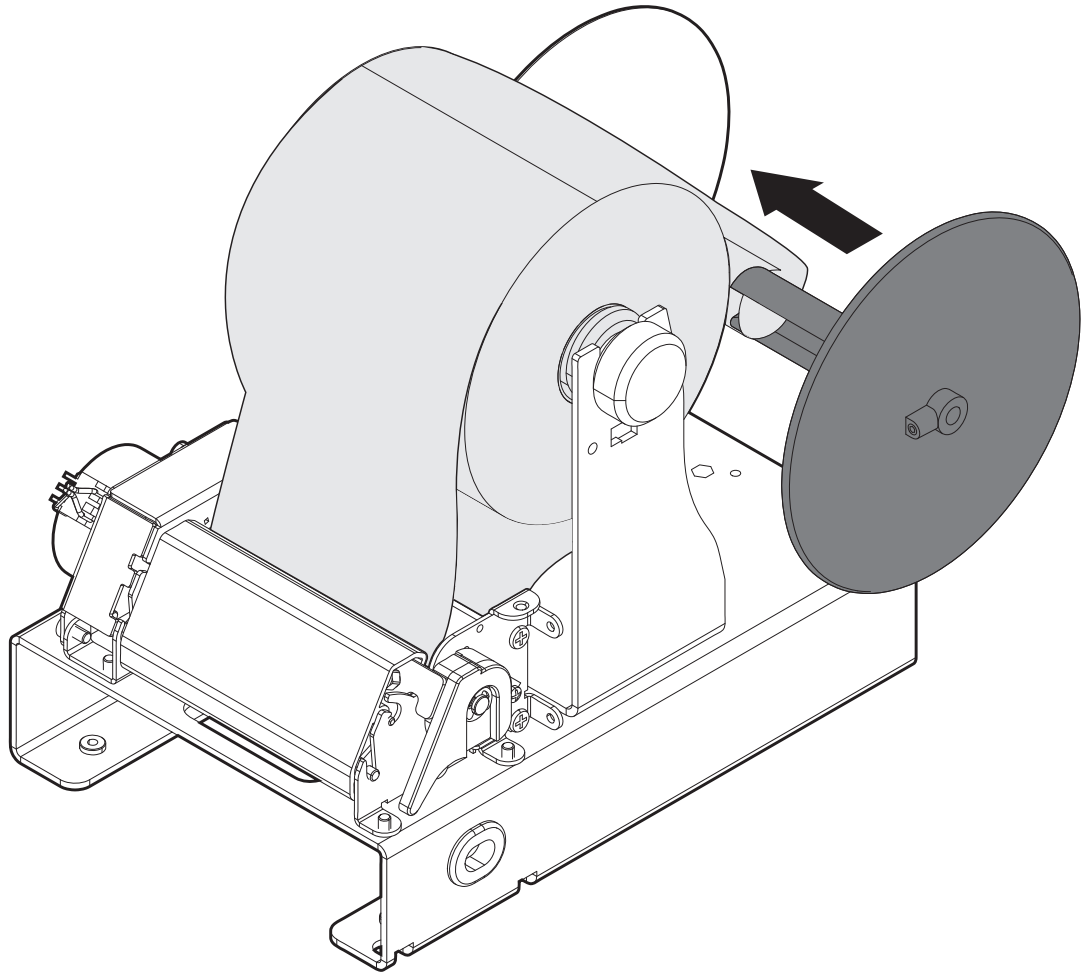
Pull the paper toward the rewinder respecting the path indicated by the arrows.

4



Remove the rewinder plastic disk and
wrap the paper around the pin as indicated by the arrow.

5



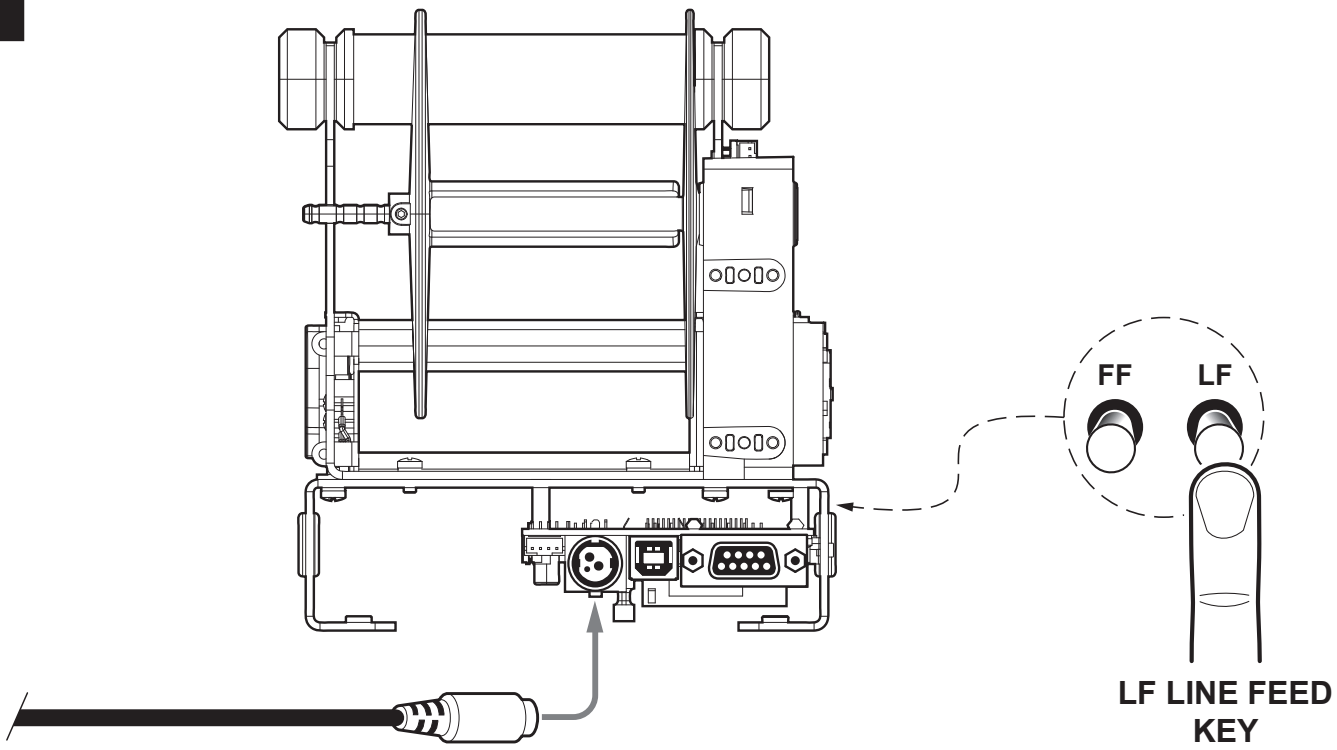
Block the paper by inserting the plastic disk.

5 CONFIGURATION

5.1 Configuration mode

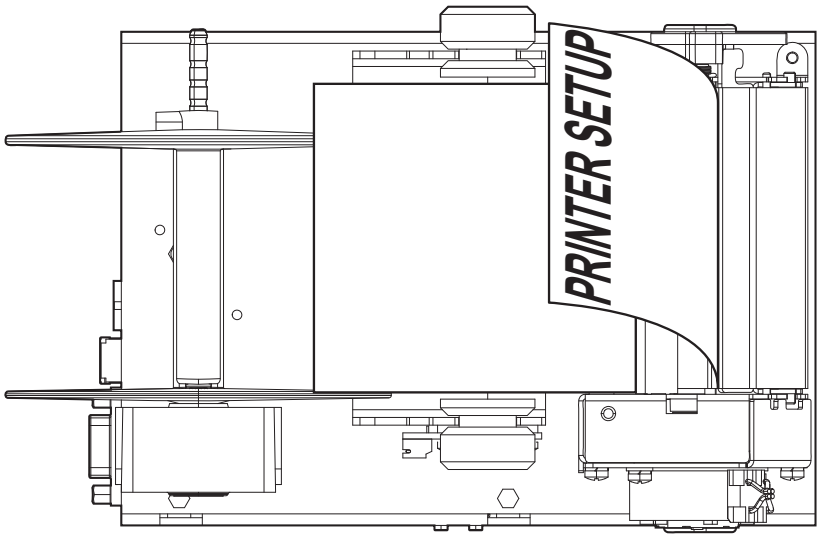
To enter the configuration mode and print a SETUP report with the operating parameters of the device, proceed as follows.

1



While pressing the LF LINE FEED key,
switch on the device by connecting the power supply cable.

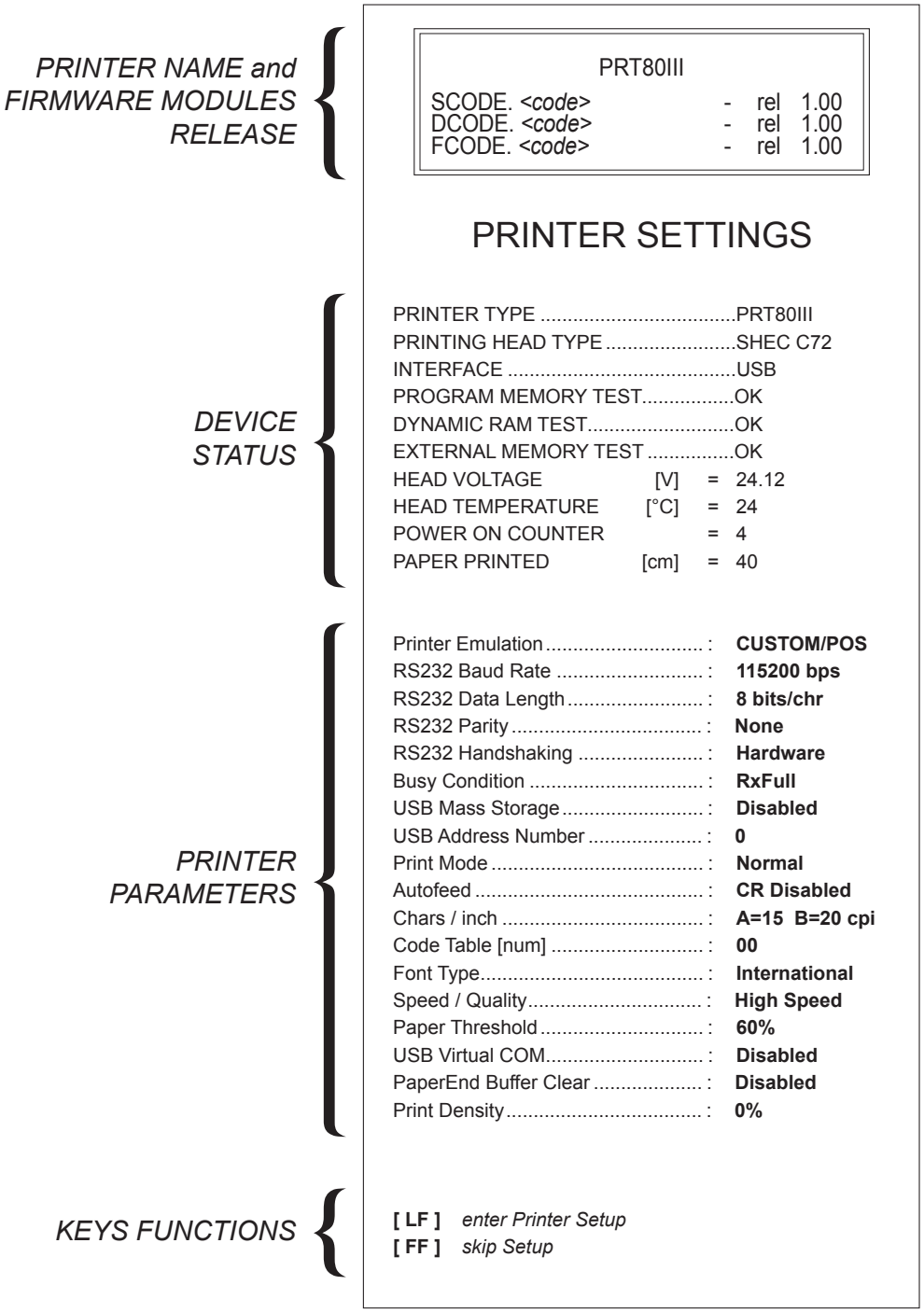
2



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

5.2 Setup report

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



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

5.4 Printer parameters

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

PRINTER EMULATION	*Available emulations for the device:* *CUSTOM/POS [D]* *PRT80* *CUSTOM TPT*
RS232 BAUD RATE	*Communication speed of the serial interface:* *1200 19200* *2400 38400* *4800 57600* *9600 115200 [D]* NOTE: Parameter valid only with serial interface.
RS232 DATA LENGTH	*Number of bit used for characters encoding:* *8 bits/car [D]* *7 bits/car* 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 = software handshaking* *Hardware [D] = hardware handshaking (CTS/RTS)* NOTES: Parameter valid only with serial interface. When the receive buffer is full, if handshaking is set to XON/XOFF, the device sends the XOFF (0x13) on the serial port. When the receive buffer has cleared once again, if handshaking is set to XON/XOFF, the device sends the XON (0x11) on the serial port.

BUSY CONDITION

Activation mode for Busy signal:

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

NOTE: Parameter valid only with serial interface.

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):

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

PRINT MODE

Printing mode:

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

AUTOFEED

Setting of the Carriage Return character:

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

CHARS / INCH

Font selection:

A = 11 cpi, B = 15 cpi
A = 15 cpi, B = 20 cpi [D]
A = 20 cpi, B = 25 cpi

NOTE:
CPI = Characters Per Inch

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:

CODE TABLE [num x 10]

Setting the digit for tens:

0 D 2 4
1 3 5

CODE TABLE [num x 1]

Setting the digit for units:

0 D 2 4 6 8
1 3 5 7 9

NOTE:
See the paragraph 7.5 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).

FONT TYPE

Setting of the font type:

International D = Enables the use of the 256 characters font tables
Chinese GB18030 = Enables the use of the chinese extended font GB18030-2000
Korean PC949 = Enables the use of the korean font PC949

NOTE: When the "INTERNATIONAL" font is enabled, you need to choose the character code table (parameter “CODE TABLE”). When the Chinese or Korean fonts is enabled, the selection of the character code table is suspended (parameter “CODE TABLE”).

SPEED / QUALITY

Setting of printing speed and printing quality:

Normal
High Quality
High Speed D

PAPER THRESHOLD

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

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

USB VIRTUAL COM

Setting the USB port as a virtual serial port:

Disabled D = Virtual COM disabled
Enabled = Virtual COM enabled

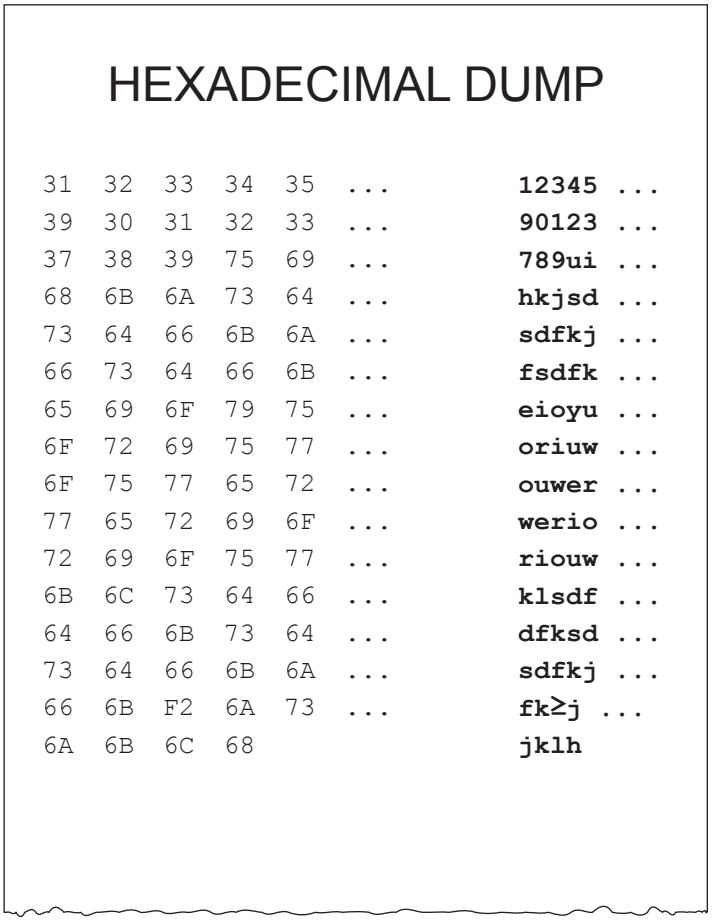
NOTE: To use this configuration it is necessary to install an additional driver.

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.*
PRINT DENSITY	*Adjusting the printing density:* *-25%* *-12%* *0 [D]* *+12%* *+25%*

5.5 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.

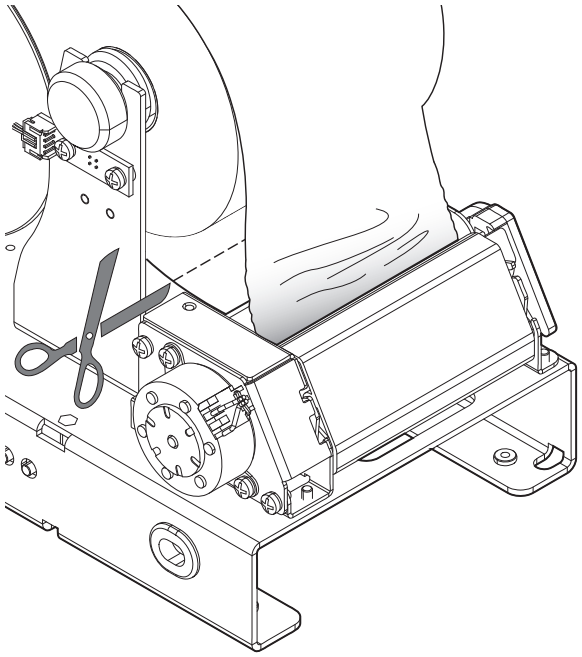
During the startup, if you hold down the LINE FEED key, the device enters the self-test routine and print the setup report. The device remains in standby until a key is pressed or characters are received through the communication port (Hexadecimal Dump mode). For each character sent, the ticket shows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



6 MAINTENANCE

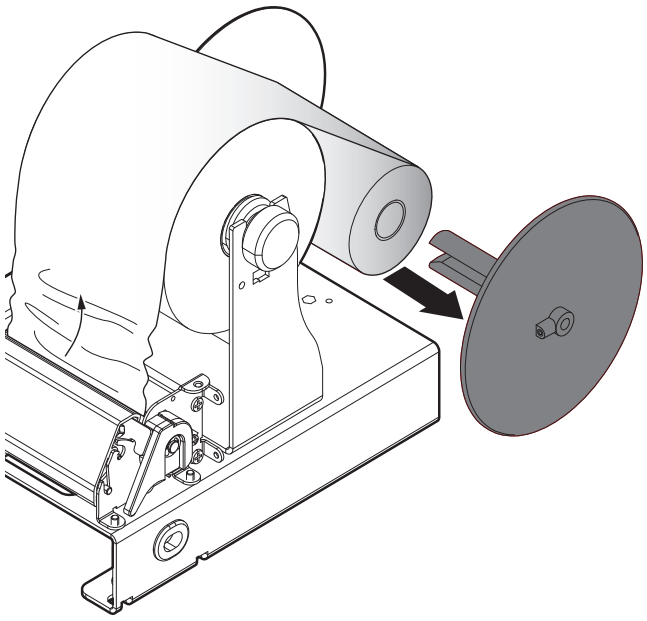
6.1 Printer paper jam

1



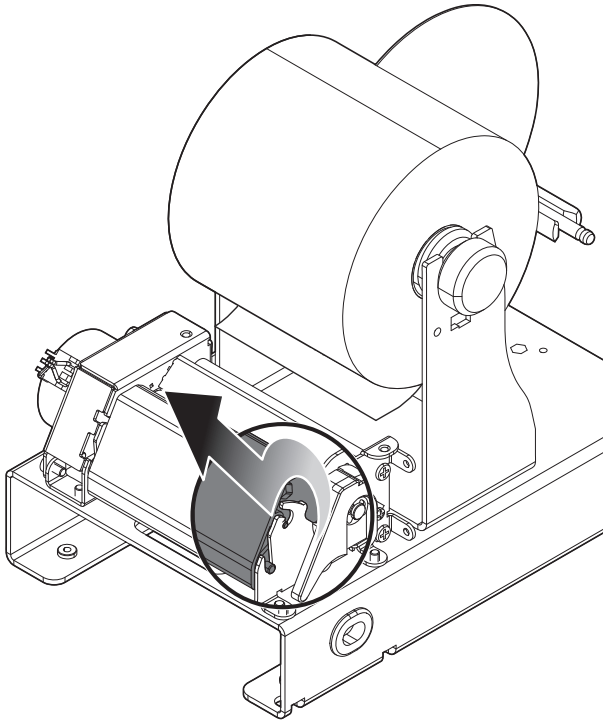
Cut the paper at the entrance of the printing mechanism as shown in figure.

2



Remove the rewinder plastic disk and the damaged paper as shown in figure.

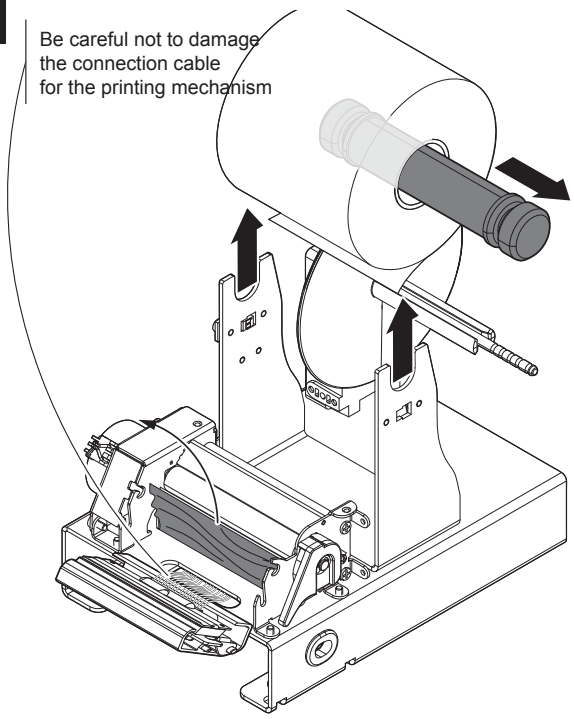
3



Unlock the printing mechanism as shown in figure.

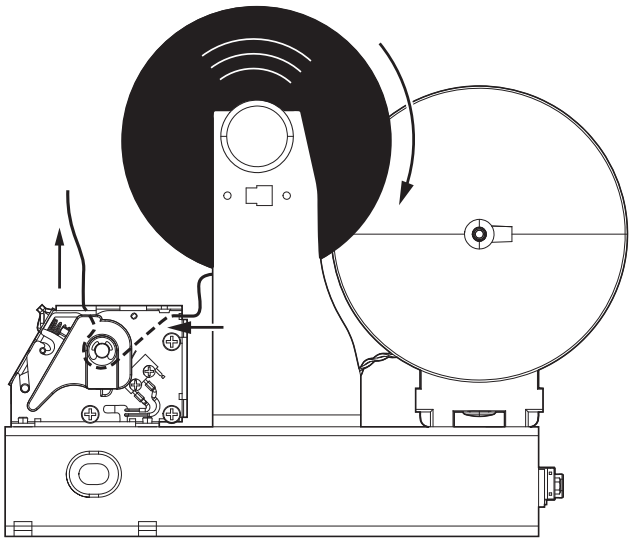
4

Be careful not to damage the connection cable for the printing mechanism



Remove the damaged paper if present under the printing mechanism and the paper roll with the pin.

5



Insert the paper into the device
(see previous paragraphs).

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	
Printing head	Use isopropyl alcohol
Rollers	Use isopropyl alcohol
EVERY 5 PAPER CHANGES	
Sensors	Use compressed air
EVERY 6 MONTHS OR AS NEEDED	
Case	Use compressed air or a soft cloth

For specific procedures, see the following pages.

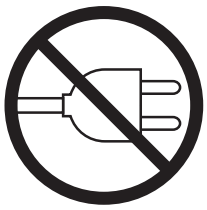
NOTES:
If you use the device in dusty environments, you must reduce the intervals between the cleaning operations.

6.3 Cleaning

For periodic cleaning of the device, see the instructions below.

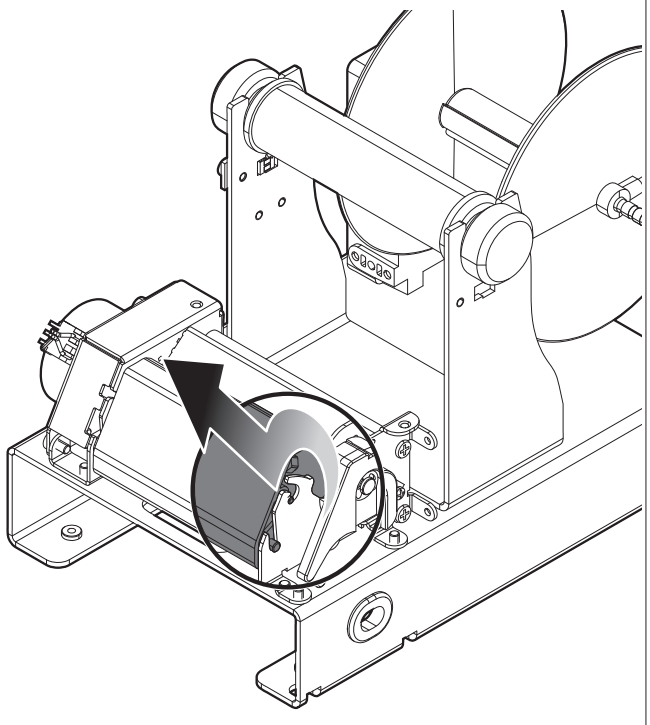
Printing head

1



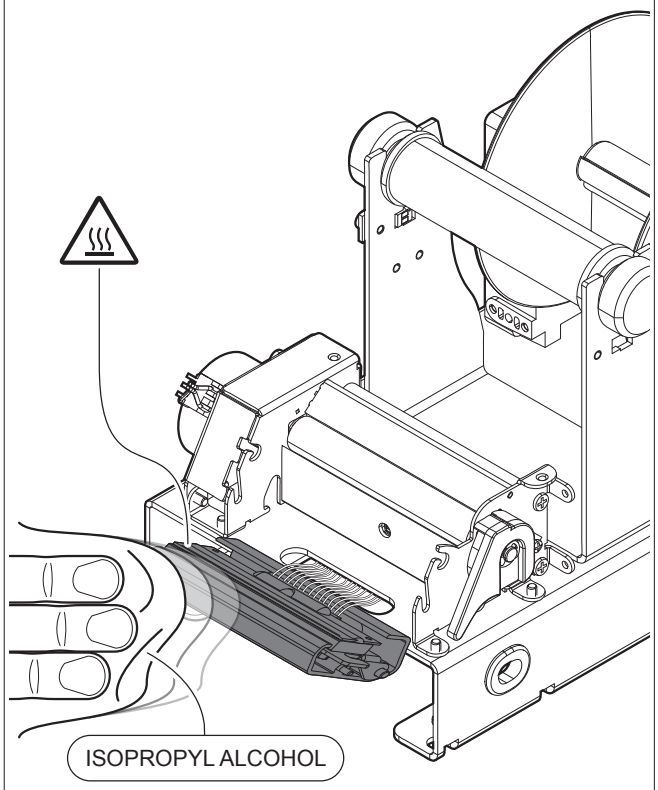
Disconnect the power supply cable.

2



Unlock the printing mechanism
as shown in figure.

3



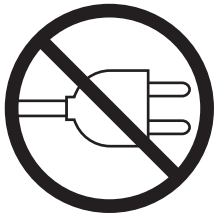
ATTENTION:
Do not use solvents, or hard brushes.
Do not let water or other liquids get inside the machine.



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

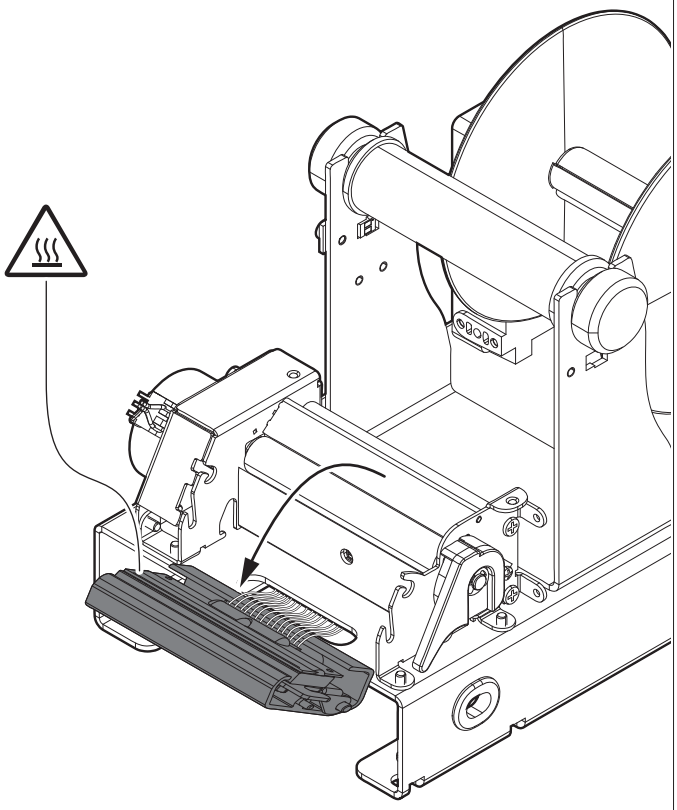
Printing roller

1



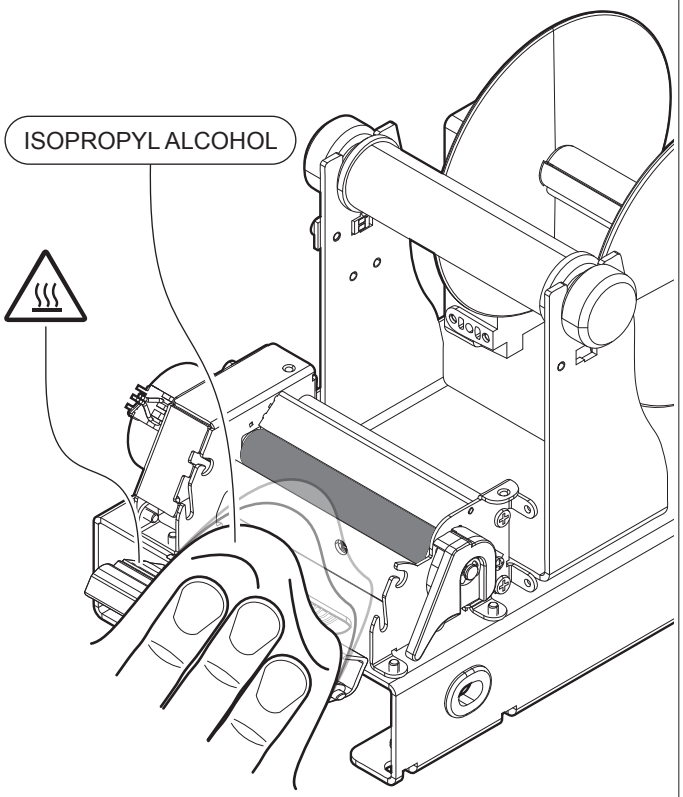
Disconnect the power supply cable.

2



Unlock the printing mechanism
by following the procedure as described
in the previous paragraphs.

3



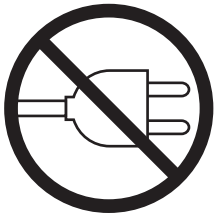
ATTENTION:
Do not use solvents, or hard brushes.
Do not let water or other liquids get inside the machine.



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

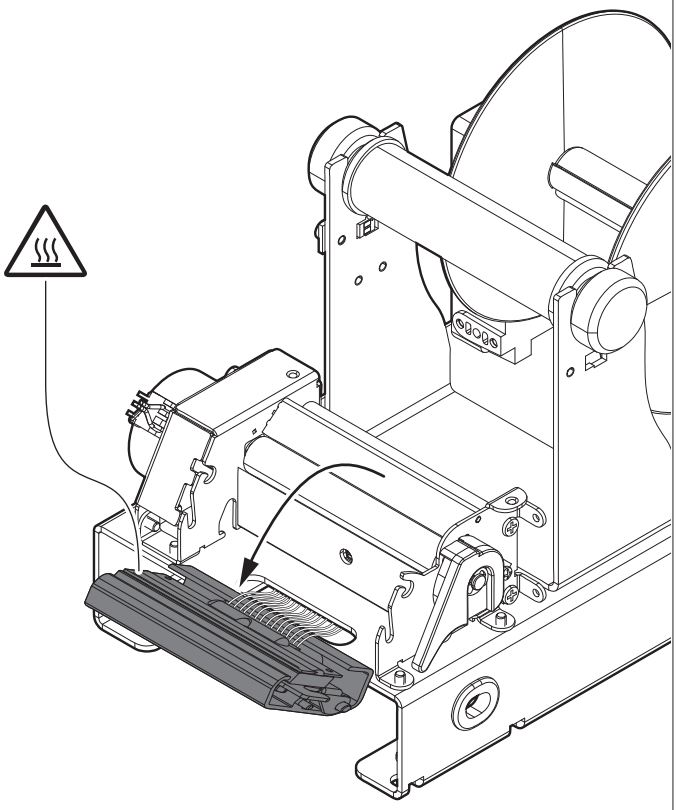
Sensor for paper presence in input

1



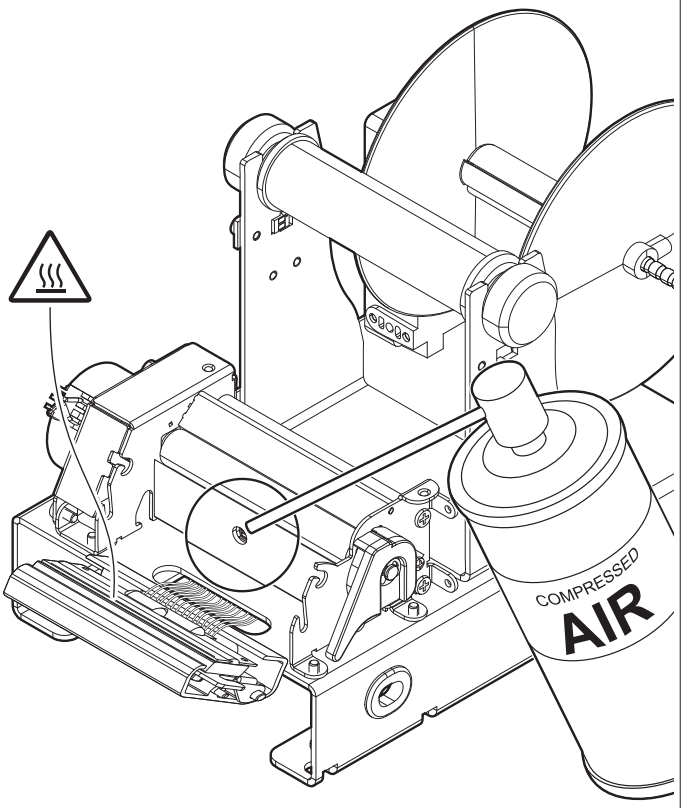
Disconnect the power supply cable.

2



Unlock the printing mechanism
by following the procedure as described
in the previous paragraphs.

3



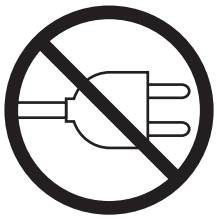
ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the device.



Clean the paper presence sensor in input
by using compressed air.

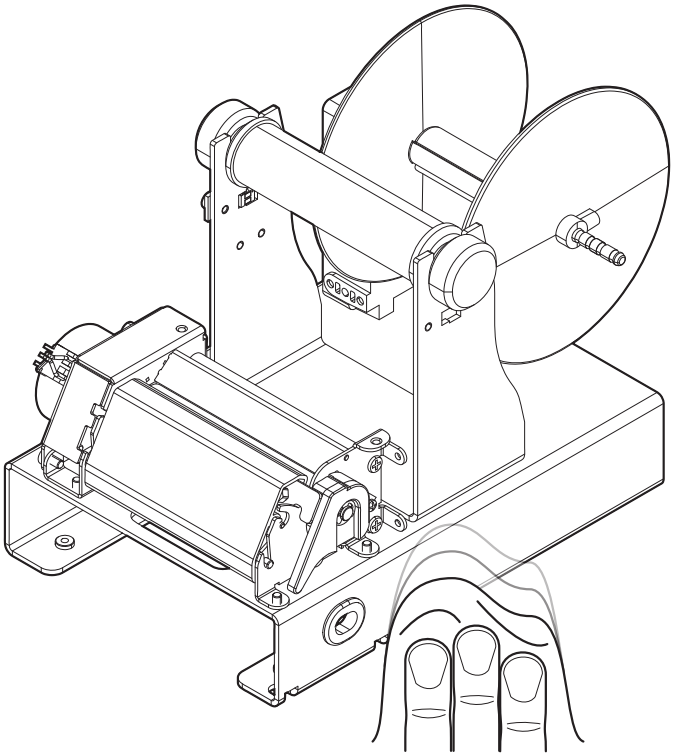
Case

1



Disconnect the power supply cable.

2



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



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

6.4 Upgrade firmware

WARNING: During communication between PC and 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 machine.

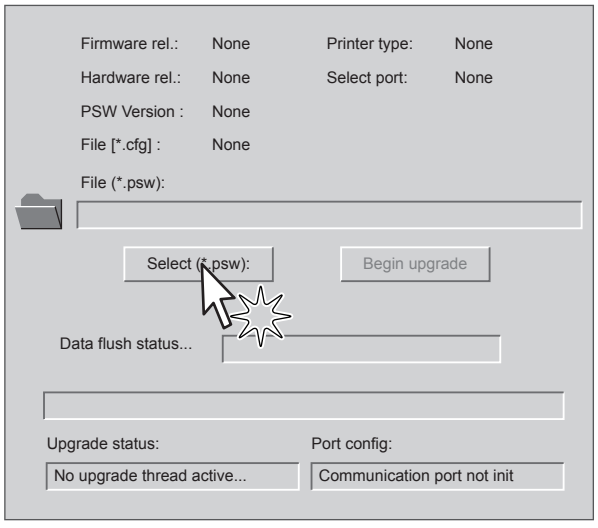
NOTES:
The latest firmware is available in the DOWNLOAD area of the web site www.custom.biz

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

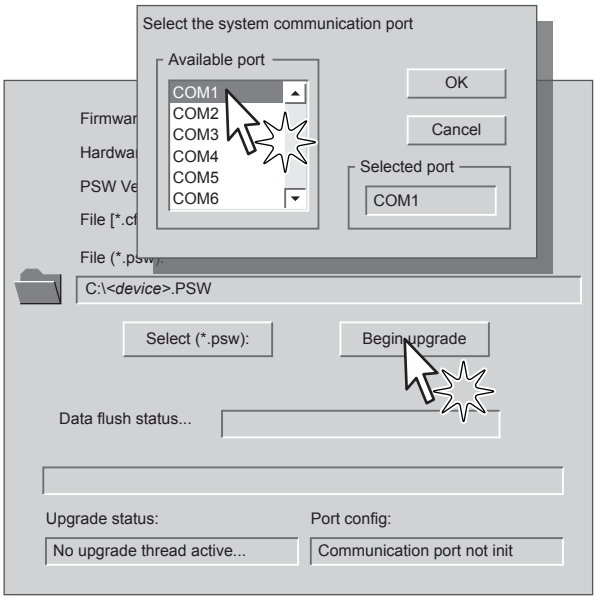
Update via serial interface

Proceed as follows:

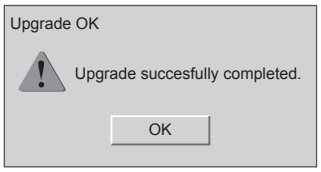
1. Write down the product code (14 digits) printed on the product label (see par.2.3).
2. Go to the web site www.custom.biz and download the appropriate firmware release from the DOWNLOAD area.
3. Print the SETUP report (see chapter 5).
4. Switch OFF the device.
5. Connect the device to the PC using a serial cable (see par. 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 (e.g. 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

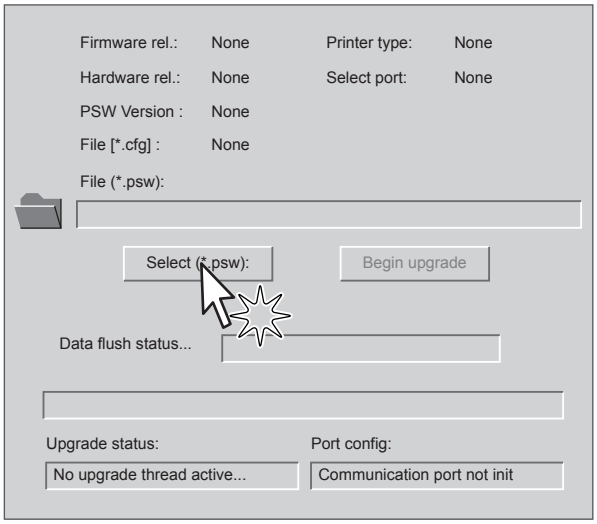
ATTENTION:
Only during the firmware update, the connection between PC and device must be direct, without the use of HUB device.

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

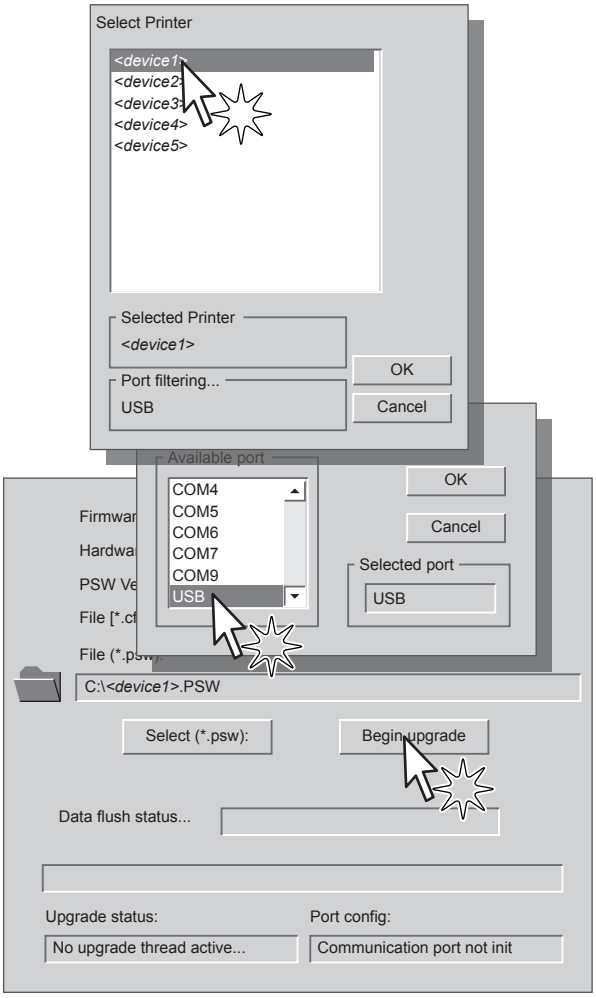
NOTE: For communication via USB you must install on PC the device driver available in the DOWNLOAD area of the web site www.custom.biz.

Proceed as follows:

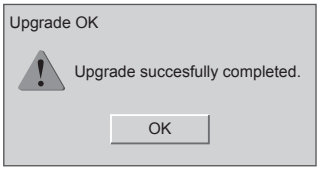
1. Write down the product code (14 digits) printed on the product label (see par.2.3).
2. Go to the web site www.custom.biz and download the appropriate firmware release from the DOWNLOAD area.
3. Print the SETUP report (see chapter 5).
4. Switch OFF the device.
5. Connect the device to the PC using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



9. Select item USB and then select the USB device among those proposed (e.g. device1):



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).

7 SPECIFICATION

7.1 Hardware specifications

Operating temperature	
Sensors	
PRT80III (standard models)	Head temperature, paper presence in input, printing head lifted, near paper end
PRT80III (models with encoder)	Head temperature, paper presence in input, printing head lifted, near paper end, antijam
MTBF (1)	122 000 hours
Emulations	CUSTOM/POS, PRT80, CUSTOM TPT
Printing driver	Windows XP VISTA (32/64bit) Windows 7 (32/64bit) Windows 8 (32/64bit) Windows 8.1 (32/64bit) Android
INTERFACES	
USB port	12 Mbit/sec (USB 2.0 full speed)
RS232 serial port	from 1200 to 115200 bps
MEMORIES	
Receive buffer	16 Kbytes
Flash memory	1 Mbytes internal, 4 Mbytes external (of which 1Mbyte available for user)
RAM memory	128 Kbytes internal + 8Mbytes external
PRINTER	
Resolution	203 dpi (8 dot/mm)
Printing method	Thermal, fixed head
Head life (2)	50 km

Printing width	76 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. 7.5) Extended chinese GB18030-2000, Korean PC949
Printable barcode	UPCA, UPCE, EAN13, EAN8, CODE39, ITF, CODABAR, CODE93, CODE128, CODE32, PDF417, DATAMATRIX, AZTEC, QRCODE
Printing speed (2) (3)	High quality = 80 mm/s Normal = 115 mm/s High Speed = 140 mm/s
PAPER	
Type of paper	Thermal rolls, heat-sensitive side on outside of roll
Paper width	80 ± 0,5 mm
Paper weight	from 58 g/m^2 to 80 g/m^2
Paper thickness	from 63 µm to 80 µm
Recommended types of paper	KANZAN KF50 and KP460 MITSUBISHI PF5067 and TL4000
External roll diameter	max 100 mm
External roll core diameter	25 mm (+ 1mm)
Paper end	Not attached to roll core
Core type	Cardboard or plastic
DEVICE ELECTRICAL SPECIFICATIONS	
Power supply	24 Vdc ±10% (optional external power supply)
Medium consumption (4)	2.5 A
Typical consumption (5)	1.2 A
Stand-by consumption	0.05 A

ELECTRICAL SPECIFICATIONS POWER SUPPLY cod.963GE020000003 (OPTIONAL)	
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) : 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) : Referred to the UL measurements (L = 10cm, Density = 50% dot on, Print density = +50%).
(5) : Referred to a standard CUSTOM receipt (L=10cm, Density = 12,5% dots on).

7.2 Character specifications

"CUSTOM/POS" emulation

Character set		3	
Character density	11 cpi	15 cpi	20 cpi
Number of columns	32	41	57
Chars / sec	1472	1886	2622
Lines / sec	46	46	46
Characters (L x H mm)-Normal	2,25 x 3	1,75 x 3	1,25 x 3

"PRT80" emulation and "CUSTOM TPT" emulation

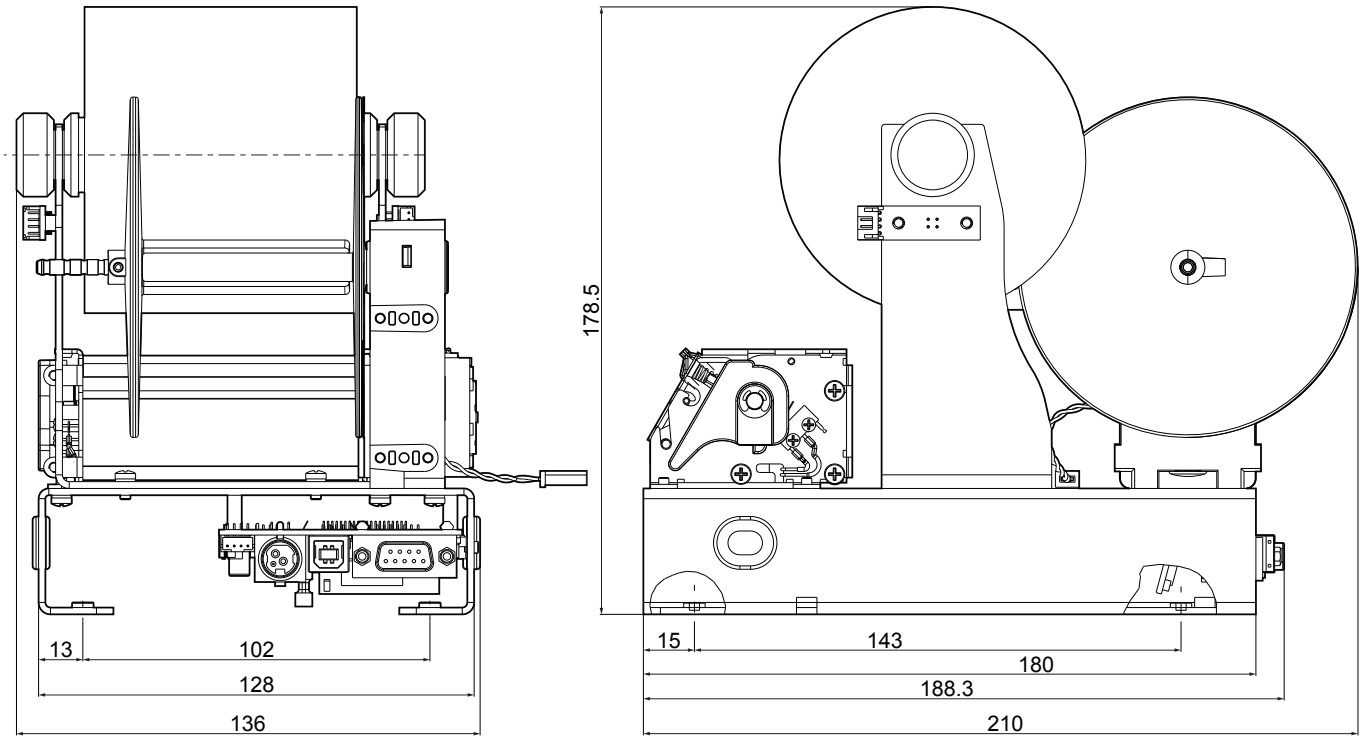
Character set		3	
Character density	11 cpi	15 cpi	20 cpi
Number of columns	31	40	56
Chars / sec	1426	1840	2576
Lines / sec	46	46	46
Characters (L x H mm)-Normal	2,25 x 3	1,75 x 3	1,25 x 3

NOTE: Theoretical values.

7.3 Device dimensions

Length	210 mm
Height	178.5 mm
Width	136 mm
Weight	1550 g

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

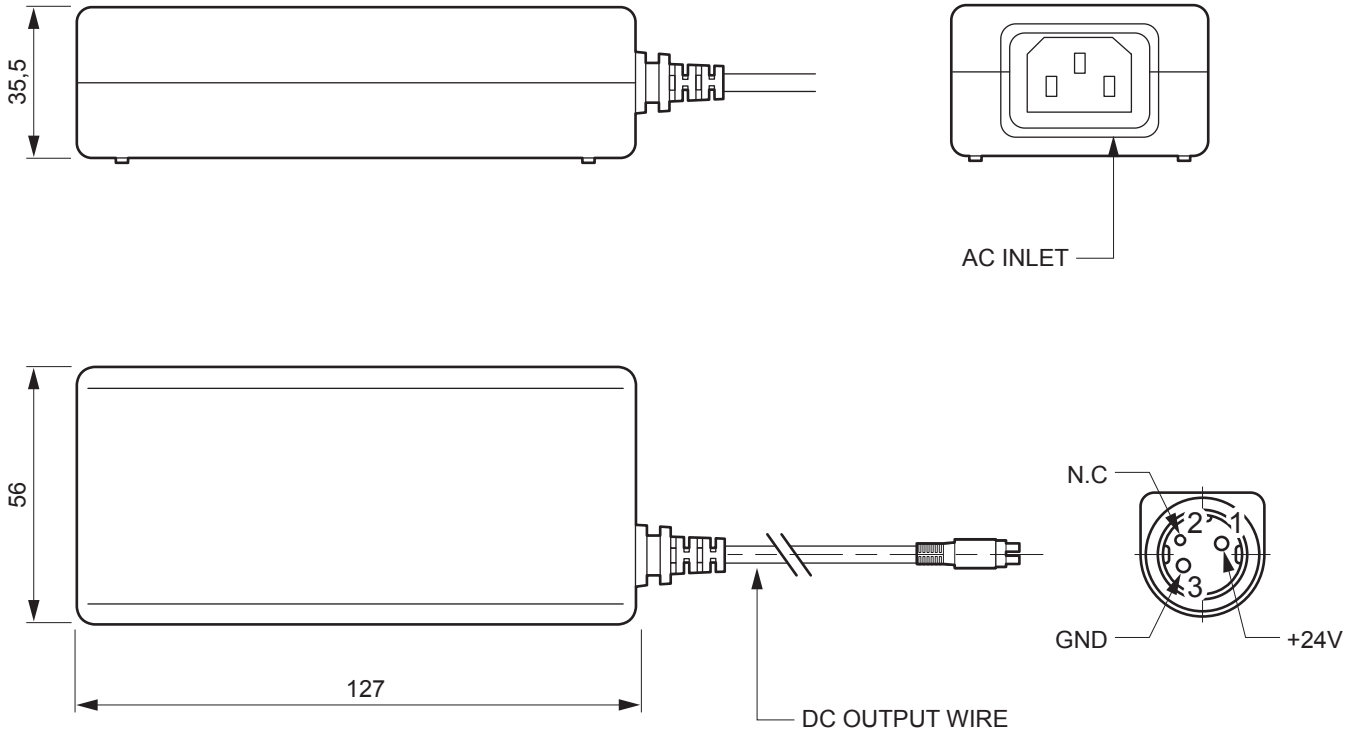


7.4 Dimensions of power supply cod. 963GE020000003 (optional)

PRT80III

Length	127 mm
Height	35.5 mm
Width	56 mm

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



7.5 Character sets

The device has 3 fonts of varying width (11, 15 and 20 cpi) which may be related one of the coding tables provided on the device.

To know the coding tables actually present on the device, you need to print the font test (see par.2.4).

You can set font and coding table by using the commands (see the Commands Manual of the device) or using the “Code Table”, "Chars / Inch" and "Font Type" parameters during the Setup procedure (see par.5.4).

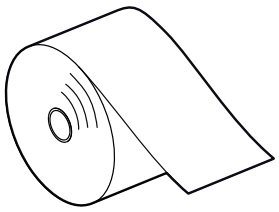
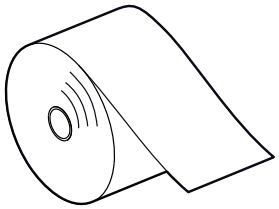
The following is the full list of coding tables that can be installed on the device.

<CodeTable>	Coding table	
0	PC437 - U.S.A., Standard Europe	
1	Katakana	
2	PC850 - Multilingual	
3	PC860 - Portuguese	
4	PC863 - Canadian/French	
5	PC865 - Nordic	
11	PC851 - Greek	on request
12	PC853 - Turkish	on request
13	PC857 - Turkish	on request
14	PC737 - Greek	on request
15	ISO8859-7 - Greek	on request
16	WPC1252	
17	PC866 - Cyrillic 2	
18	PC852 - Latin 2	on request
19	PC858 for Euro symbol at position 213	
20	KU42 - Thai	on request
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>	Coding table	
33	WPC775 - Baltic Rim	on request
34	PC855 - Cyrillic	on request
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	on request
42	PC1118 - Lithuanian	on request
43	PC1119 - Lithuanian	on request
44	PC1125 - Ukranian	on request
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	on request
255	Space page	

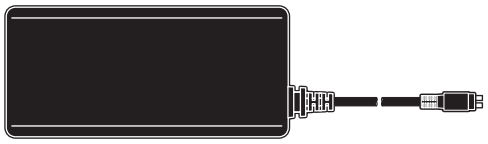
8 CONSUMABLES

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

DESCRIPTION	CODE
THERMAL PAPER ROLL width = 80mm Ø external = 48mm Ø core = 25mm	**67300000000393** 
THERMAL PAPER ROLL WITH BACK SIDE PRE-PRINTED width = 80mm Ø external = 48mm Ø core = 25mm	**67300000000395** 

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** 
ADAPTER CABLE 3 pin male power-DIN connector 0.5 mt	**26600000000012** 
SERIAL CABLE 9 pin male connector - 9 pin female connector 1.8 mt	**26500000000352** 
USB CABLE AB type 1.8 mt	**26500000000356** 

10 TECHNICAL SERVICE

In case of failure, contact the Technical Service by sending an e-mail detailing:

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

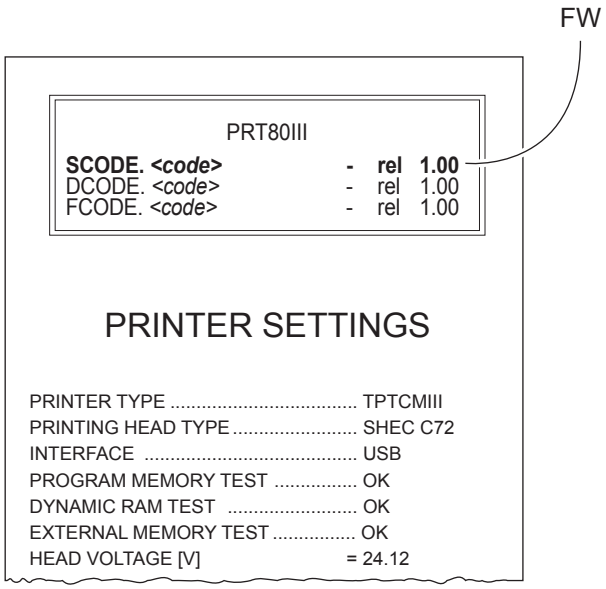
To get the necessary data, proceed as follows:

1



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

2



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

3



Customer Service Department:

support@custom.it
(worldwide)

or

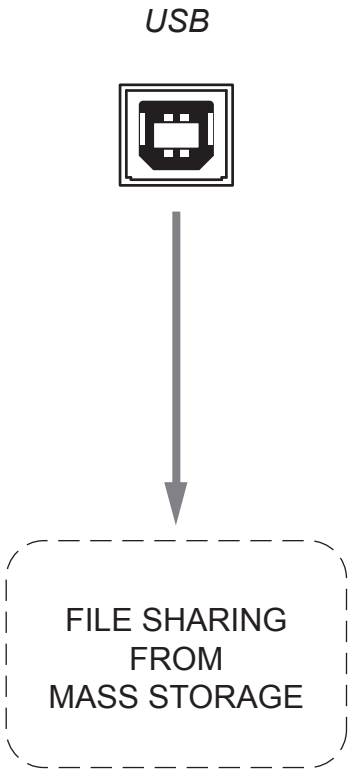
support@customamerica.com
(specific for North/South American customers)

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

11 ADVANCED FUNCTIONS

11.1 File sharing

The device can be connected to a PC with a USB cable.
Through this kind of connection, it is possible to manage drivers, fonts and logos of the device and configure the operating parameters by files sharing from Mass Storage.



11.2 Drivers installation

It is possible to install the new driver update directly into the folder “DRIVER” on the Flash Drive of the device.
To enter the Flash Drive by files sharing from Mass Storage you need to enable the relative parameter during the configuration process (see chapter 5).

11.3 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.

It is possible to directly add the new logo directly into the folder “PICTURES” on the Flash Drive of the device.
To enter the Flash Drive by files sharing from Mass Storage, you need to enable the relative parameter 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 on Flash Disk 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.

11.4 Fonts management

It is possible to store new font in addition to default fonts stored on Flash Disk.
You can directly add the new font directly into the folder “FONTS” on the Flash Drive of the device.
To enter the Flash Drive by files sharing from Mass Storage, you need to enable the relative parameter during the configuration process (see chapter 5).

NOTE:
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.

11.5 Setup

It is possible to configure the default parameters for device setup by editing the “Setup.ini” file on the Flash Drive.
To enter the Flash Drive by files sharing from Mass Storage, you need to enable the relative parameter 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 printer’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]

Printer Emulation	0*, 1, 2	0 = CUSTOM/POS 1 = PRT80 2 = CUSTOM TPT		
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*			
Font Type	0*, 1, 2	0 = International 1 = Chinese GB18030 2 = Korean CP949		
Speed / Quality	0, 1, 2*	0 = High Quality 1 = Normal 2 = High Speed		
Paper Threshold	0, 1, 2, 3*, 4, 5, 6	0 = 30 % 1 = 40 % 2 = 50 %	3 = 60 % 4 = 70 % 5 = 80 %	6 = 90 %
PaperEnd Buffer Clear	0*, 1	0 = Disabled 1 = Enabled		
Print Density	2, 3, 4*, 5, 6	2 = - 25 % 3 = - 12 % 4 = 0 %	5 = + 12 % 6 = + 25 %	

[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 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
USB Virtual COM	0*, 1	0 = Disabled 1 = Enabled		

Part Number : 76200000005600 Rev.1.00

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