USER MANUAL

VKP558

CUSTOM®

CUSTOM S.p.A.
Via Berettine 2/B
43010 Fontevivo (PARMA) - Italy
Tel. : +39 0521-680111
Fax : +39 0521-610701
http: www.custom.biz

Customer Service Department:
www.custom4u.it

© 2024 CUSTOM S.p.A. – Italy.
All rights reserved. Total or partial reproduction of this manual in whatever form, whether by printed or electronic means, is forbidden. While guaranteeing that the information contained in it has been carefully checked, CUSTOM S.p.A. and other entities utilized in the realization of this manual bear no responsibility for how the manual is used. Information regarding any errors found in it or suggestions on how it could be improved are appreciated. Since products are subject to continuous check and improvement, CUSTOM S.p.A. reserves the right to make changes in information contained in this manual without prior notification.

The pre-installed multimedia contents are protected from Copyright CUSTOM S.p.A. Other company and product names mentioned herein may be trademarks of their respective companies. Mention of third-party products is for informational purposes only and constitutes neither an endorsement nor a recommendation. CUSTOM S.p.A. assumes no responsibility with regard to the performance or use of these products.

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

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

GENERAL INSTRUCTIONS

CUSTOM S.p.A. declines all responsibility for accidents or damage to persons or property occurring as a result of tampering, structural or functional modifications, unsuitable or incorrect installations, environments not in keeping with the equipment's protection degree or with the required temperature and humidity conditions, failure to carry out maintenance and periodical inspections and poor repair work.

GENERAL SAFETY INFORMATION

Your attention is drawn to the following actions that could compromise the characteristics of the product:

- Read and retain the instructions which follow.
- Follow all indications and instructions given on the device.
- Make sure that the surface on which the device rests is stable. If it is not, the device could fall, seriously damaging it.
- Make sure that the device rests on a hard (non-padded) surface and that there is sufficient ventilation.
- Do not fix indissolubly the device or its accessories such as power supplies unless specifically provided in this manual.
- When positioning the device, make sure cables do not get damaged.
- [Only OEM equipment] The equipment must be installed in a kiosk or system that provides mechanical, electrical and fire protection.
- The mains power supply must comply with the rules in force in the Country where you intend to install the equipment.
- Make sure that there is an easily-accessible outlet with a capacity of no less than 10A closely to where the device is to be installed.
- Make sure the power cable provided with the appliance, or that you intend to use is suitable with the wall socket available in the system.
- Make sure the electrical system that supplies power to the device is equipped with a ground wire and is protected by a differential switch.
- Before any type of work is done on the machine, disconnect the power supply.
- Use the type of electrical power supply indicated on the device label.
- These devices are intended to be powered by a separately certified power module having an SELV, non-energy hazardous output. (IEC60950-1 second edition).
- [Only POS equipment] The energy to the equipment must be provided by power supply approved by CUSTOM S.p.A.
- Take care the operating temperature range of equipment and its ancillary components.
- Do not block the ventilation openings.
- Do not insert objects inside the device as this could cause short-circuiting or damage components that could jeopardize printer functioning.
- Do not carry out repairs on the device yourself, except for the normal maintenance operations given in the user manual.
- The equipment must be accessible on these components only to trained, authorized personnel.
- Periodically perform scheduled maintenance on the device to avoid dirt build-up that could compromise the correct, safe operation of the unit.
- Do not touch the head heating line with bare hands or metal objects. Do not perform any operation inside the printer immediately after printing because the head and motor tend to become very hot.
- Use consumables approved by CUSTOM S.p.A.

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 2014/30/EU and 2014/35/EU inasmuch as it was designed in conformity with the provisions laid down in the following Standards:

- EN 55032 *(Electromagnetic compatibility of multimedia equipment - Emission Requirements)*
- EN EN55024/EN55035 *(Electromagnetic compatibility of multimedia equipment - Immunity requirements)*
- EN IEC/EN62368-1 *(Audio/video, information and communication technology equipment)*

The device is in conformity with the essential requirements laid down in Directives 2014/53/EU about devices equipped with intentional radiators. The Declaration of Conformity and other available certifications can be downloaded from the site www.custom4u.it.



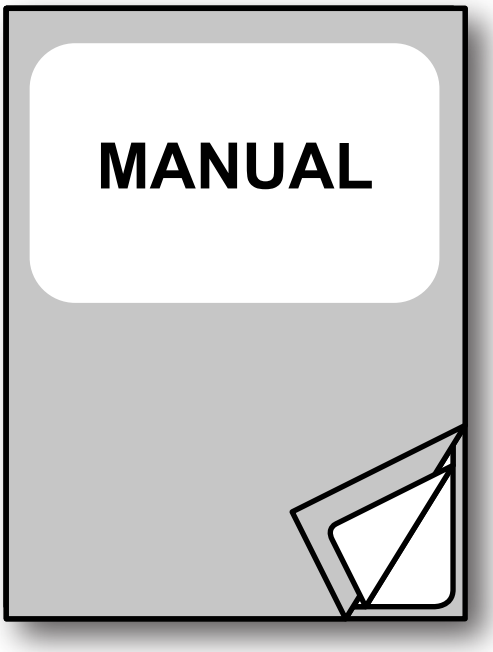
GUIDELINES FOR THE DISPOSAL OF THE PRODUCT

The crossed-out rubbish bin logo means that used electrical and electronic products shall NOT be mixed with unsorted municipal waste. For more detailed information about recycling of this product, refer to the instructions of your country for the disposal of these products.

- Do not dispose of this equipment as miscellaneous solid municipal waste, but arrange to have it collected separately.
- The re-use or correct recycling of the electronic and electrical equipment (EEE) is important in order to protect the environment and the wellbeing of humans.
- In accordance with European Directive WEEE 2012/19/EU, special collection points are available to which to deliver waste electrical and electronic equipment and the equipment can also be handed over to a distributor at the moment of purchasing a new equivalent type.
- The public administration and producers of electrical and electronic equipment are involved in facilitating the processes of the re-use and recovery of waste electrical and electronic equipment through the organisation of collection activities and the use of appropriate planning arrangements.
- Unauthorised disposal of waste electrical and electronic equipment is punishable by law with the appropriate penalties.
- For the waste sorting of the packaging materials, please check the local waste disposal laws.



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



For details on the commands,
refer to the manual with code **0577200M00094**

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

TABLE OF CONTENTS

1 INTRODUCTION 9

2 DESCRIPTION 11
2.1 Box content 11
2.2 Device components 12
2.3 Product label 13
2.4 Key functions: power up 14
2.5 Key functions: standby 15
2.6 Status LED flashes 16

3 INSTALLATION 17
3.1 Fastening 17
3.2 Connections 19
3.3 Pinout 20
3.4 Low-power setting 23
3.5 Serial port setting 24
3.6 Driver and SDK 26

4 OPERATION 27
4.1 Switch the device ON 27
4.2 Loading the paper roll 28
4.3 Centurion feature 30

5 CONFIGURATION 31
5.1 Configuration by keys 31
5.2 Configuration by software 33
5.3 Printer status 35
5.4 Printer parameters 36
5.5 Operating parameters 38
5.6 Hexadecimal dump 42

6 MAINTENANCE 43
6.1 Printer paper jam 43
6.2 Planning of cleaning operations 44
6.3 Cleaning 45
6.4 Firmware upgrade 48

7 SPECIFICATION 51
7.1 Hardware specifications 51
7.2 Character specifications in CUSTOM/POS emulation 54
7.3 Device dimensions 55
7.4 Power supply, power cord and adapter for power supply dimensions 56
7.5 Character sets in CUSTOM/POS emulation 58

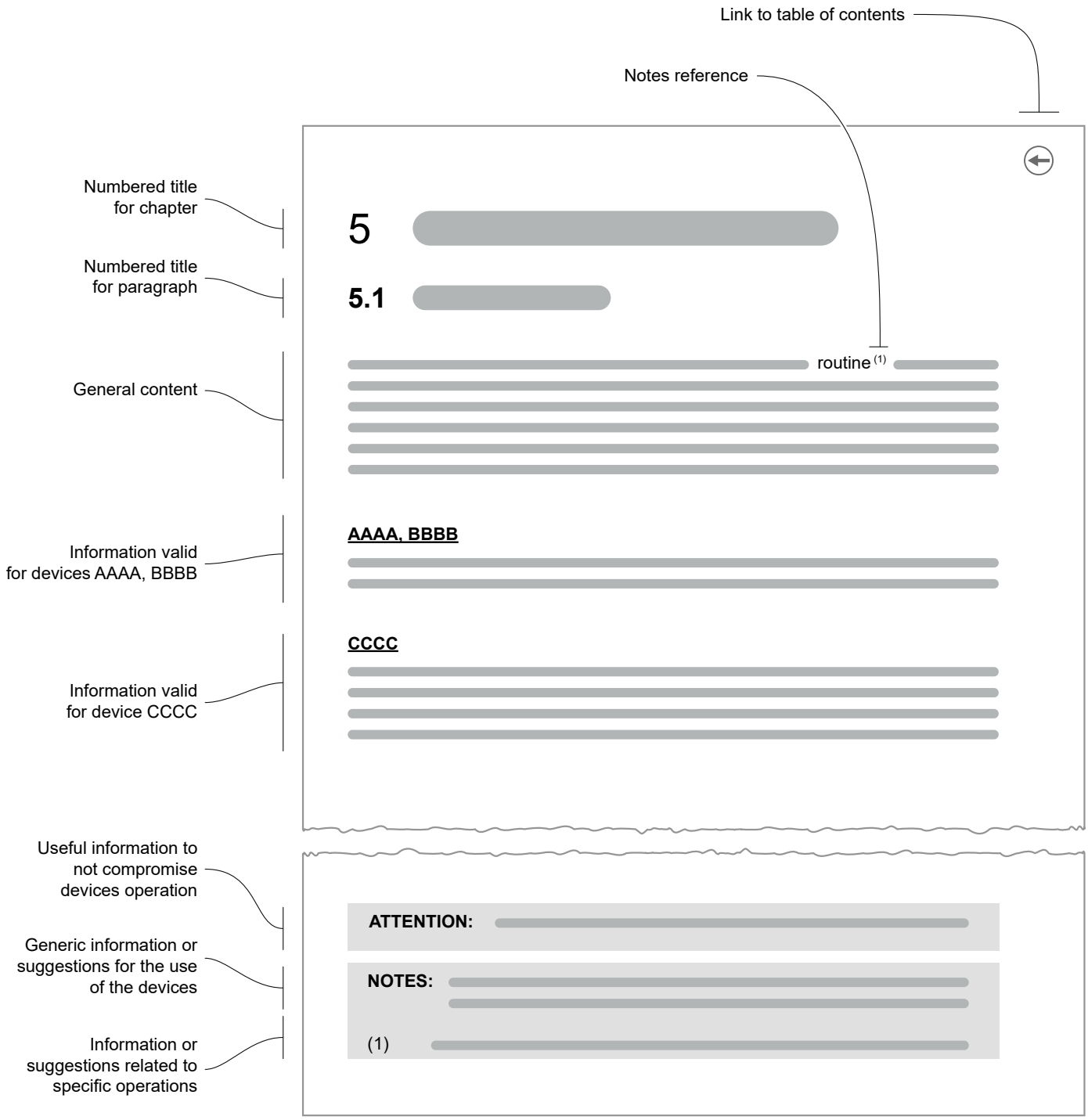
8 CONSUMABLES 61

9 ACCESSORIES 63

10 TECHNICAL SERVICE 65

1 INTRODUCTION

This document is divided into sections and chapters. Each chapter can be reached by the index at the beginning of this document. The index can be reached by the button on each page as shown in the diagram below.

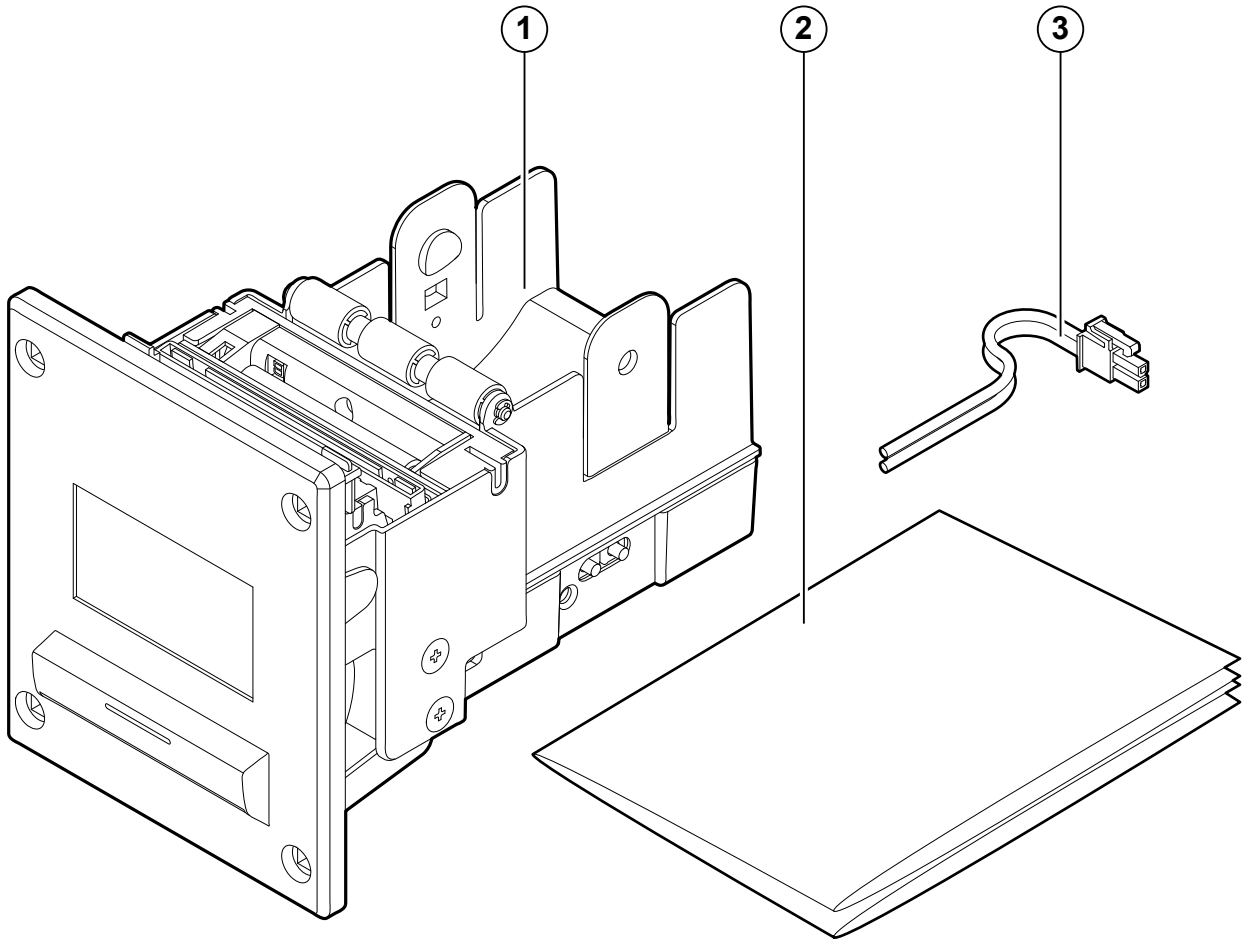


2 DESCRIPTION

2.1 Box content

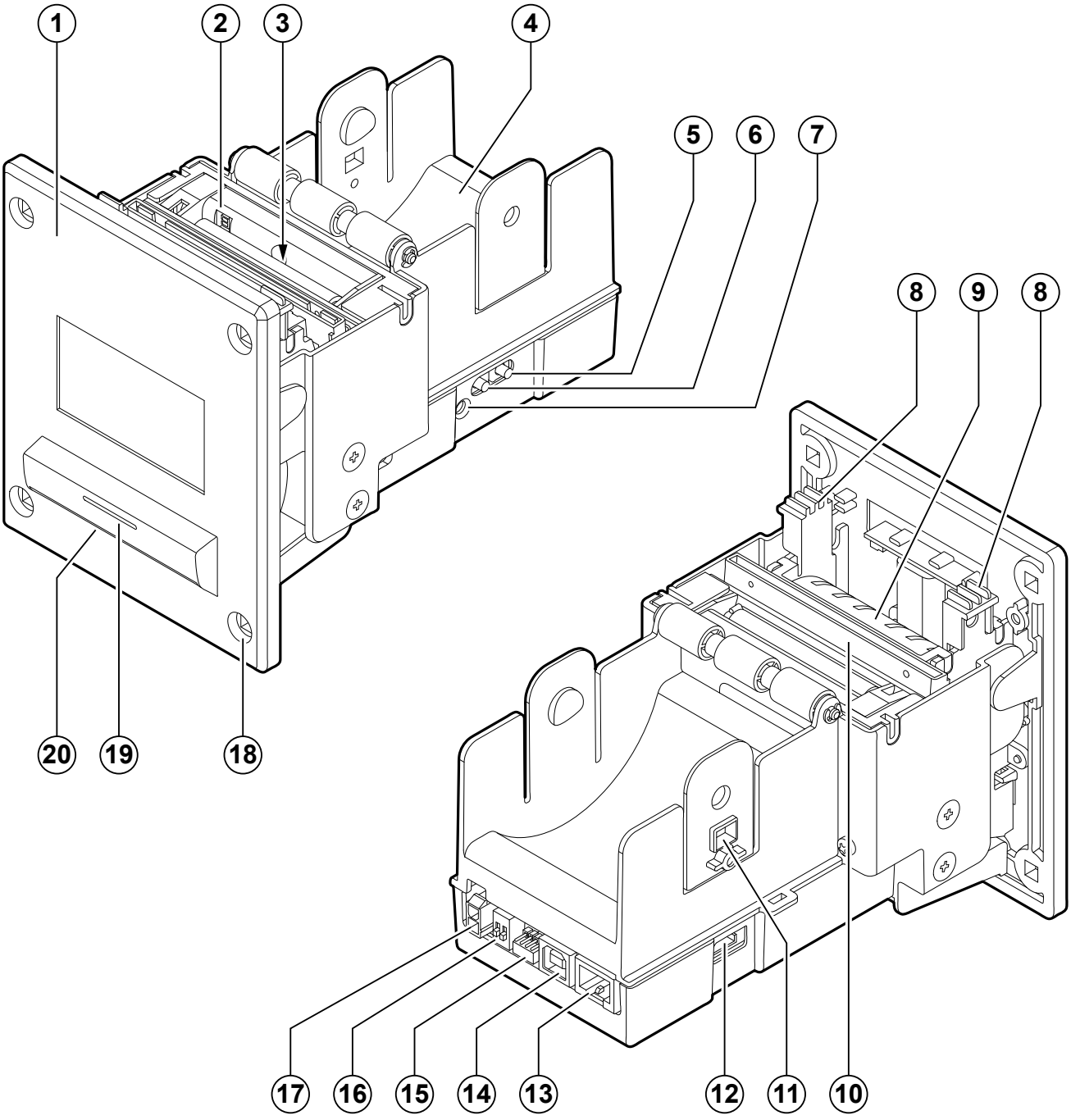
Remove the device from its carton being careful not to damage the packing material so that it may be re-used if the printer is to be transported in the future.
Make sure that all the components illustrated below are present and that there are no signs of damage. If there are, contact Customer Service.

1. Device
2. Documentation (Installation instruction sheet)
3. Power supply cable



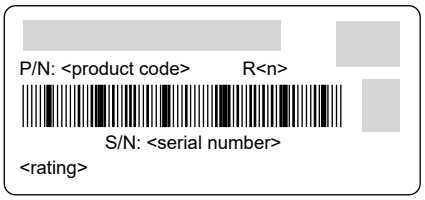
2.2 Device components

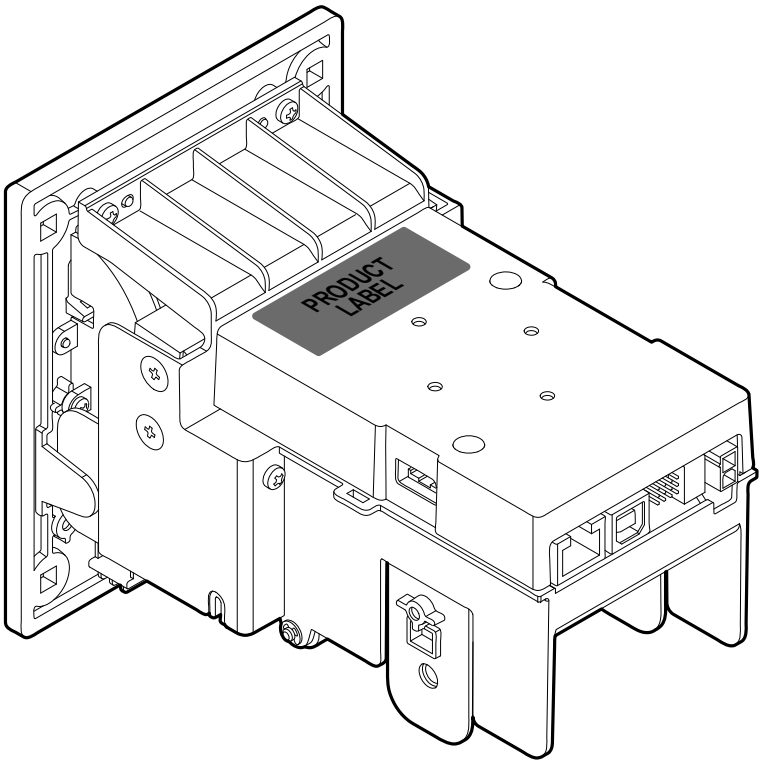
1. Front panel
2. Paper presence sensor
3. Paper input
4. Paper roll cradle
5. FEED key
6. PRINT key
7. Internal status LED
8. Release levers for paper guide chute
9. Paper guide chute
10. Cutter
11. Housing for low paper sensor (optional)
12. Connector for low paper sensor
13. Serial RS232/TTL port
14. USB port
15. Serial RS232/TTL setting
16. Low-power setting
17. Power supply port
18. Fixing holes for panel fastening (x 4)
19. Paper out LED
20. Paper out



2.3 Product label

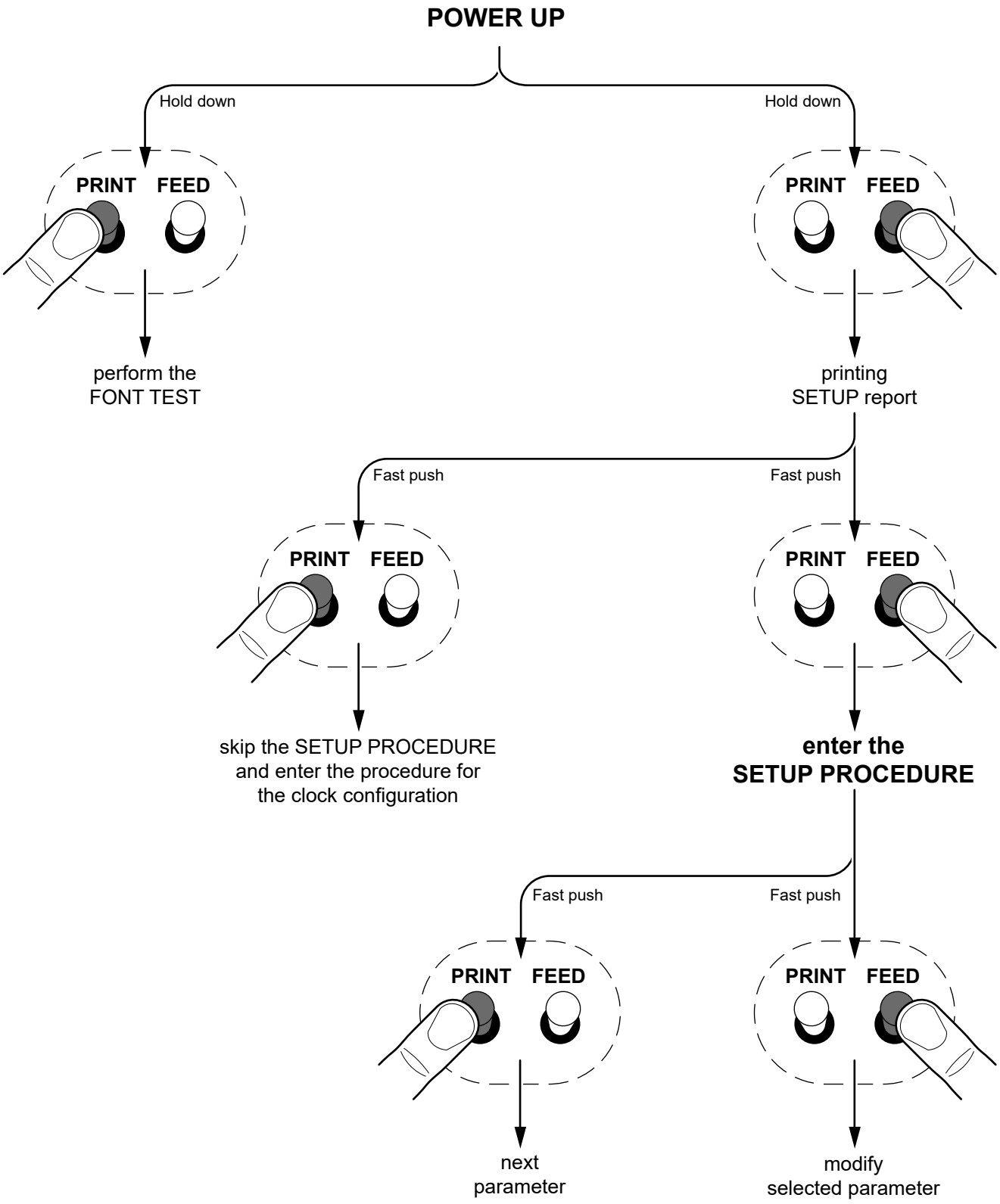
The main data used to identify the machine are shown on the label attached to the bottom of the device.
In particular, it shows the electrical data for the connection to a power source. It also shows the product code, the serial number and the hardware revision (R).





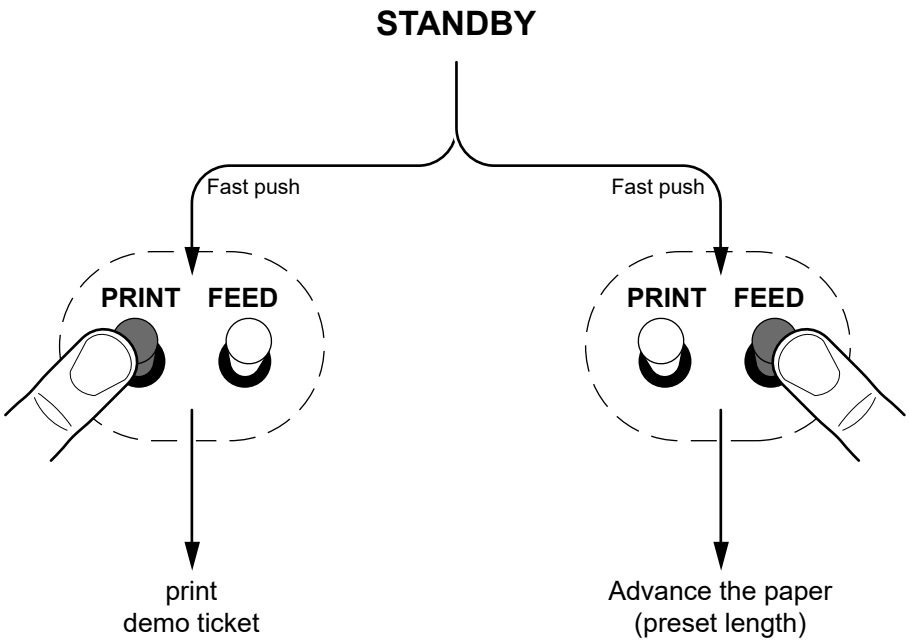
2.4 Key functions: power up

The following figure shows the functions of device's keys according to the operating condition.



2.5 Key functions: standby

The following figure shows the functions of device's keys according to the operating condition.



2.6 Status LED flashes

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

STATUS LED		DESCRIPTION
-	OFF	DEVICE OFF
GREEN	ON	DEVICE ON: NO ERROR
GREEN UNRECOVERABLE ERROR	x 2	HEADING OVER TEMPERATURE
	x 3	PAPER END
	x 4	POWER SUPPLY VOLTAGE INCORRECT
	x 5	RECEPTION ERRORS (PARITY, FRAME ERROR, OVERRUN ERROR)
	x 6	COMMAND NOT RECOGNIZED
	x 7	COMMAND RECEPTION TIME OUT
	x 8	CUTTER ERROR
	x 10	RECEIVING DATA

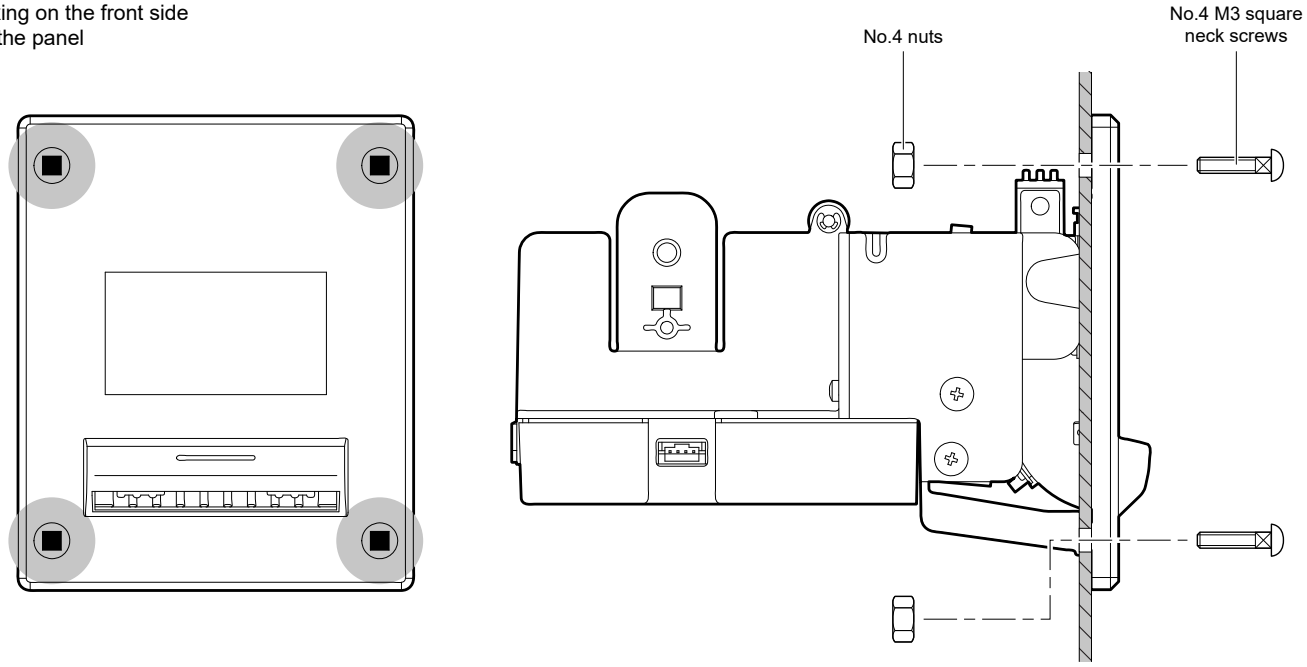
3 INSTALLATION

3.1 Fastening

The device is provided with four fixing holes on the front of device (see following figure). To fasten the device on a panel, use four M3 screws by following the scheme A.

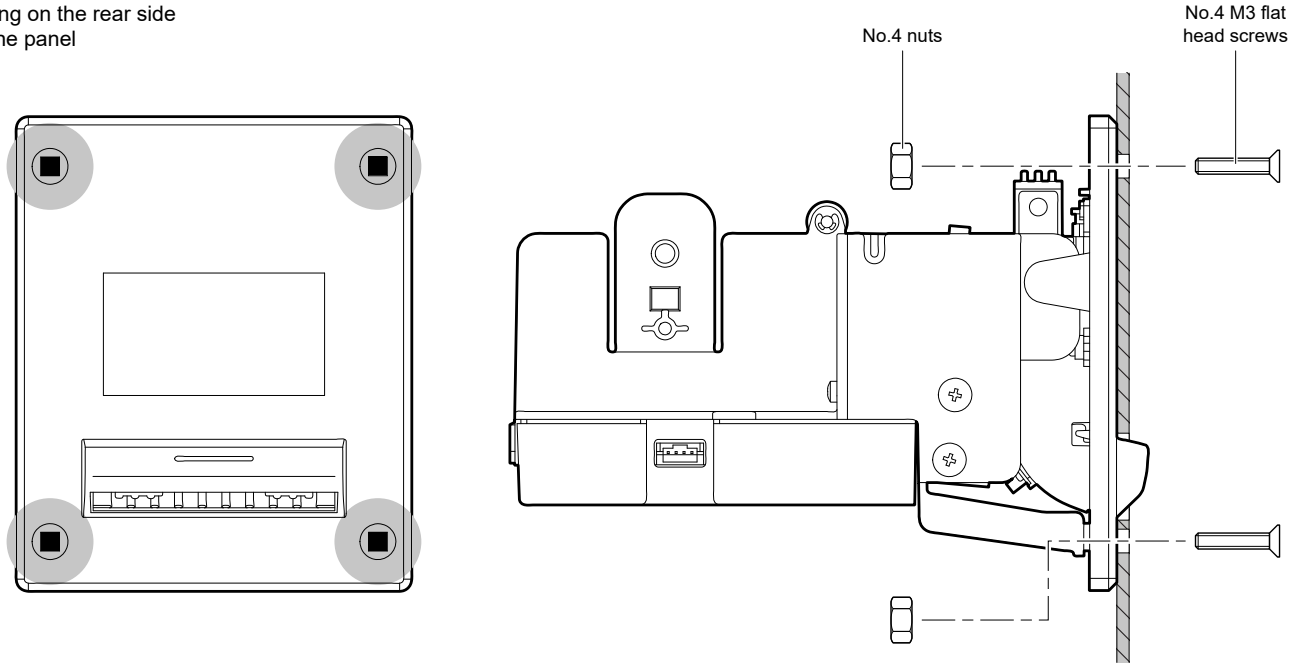
SCHEME A

Fixing on the front side
of the panel



SCHEME B

Fixing on the rear side
of the panel

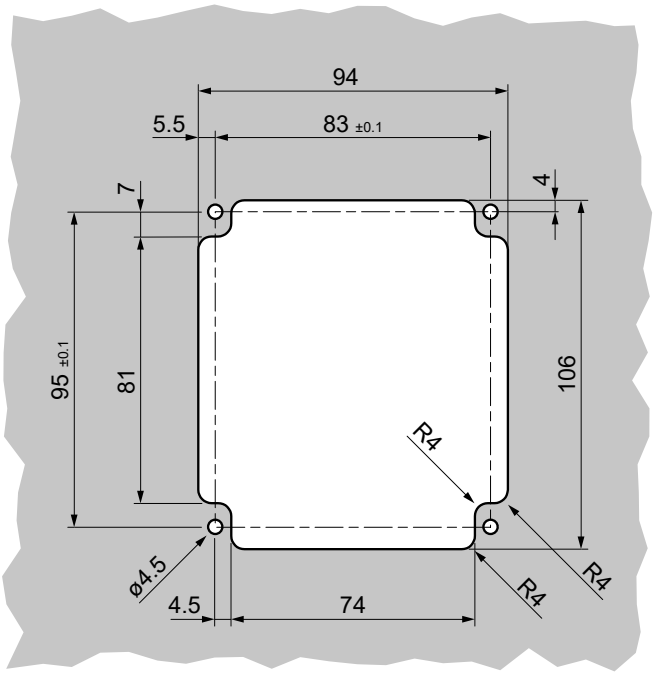


The drilling on the panel must comply with the measures shown in the following page (all the shown dimensions are in millimetres).

ATTENTION: Correctly prepare the fixing holes for screws and the drilling for the paper mouth in order to avoid deformation and torsion of the device or its components which could compromise its operation.

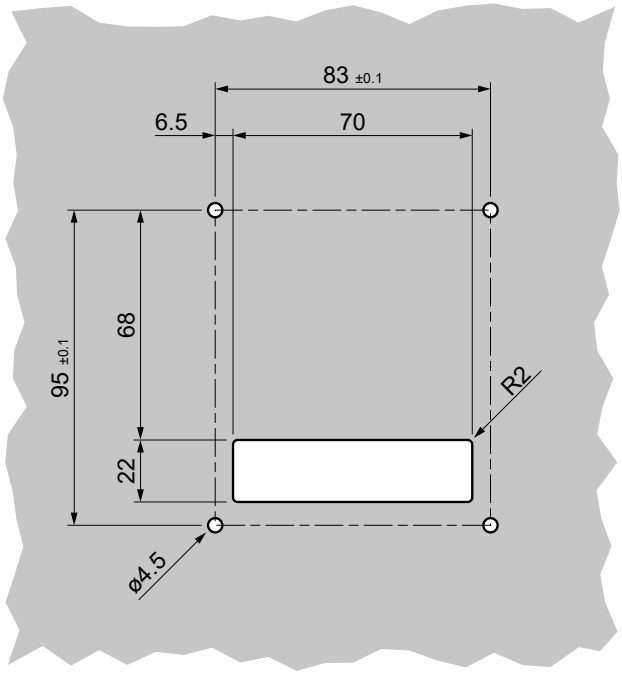
Drilling for mounting on panel with

SCHEME A

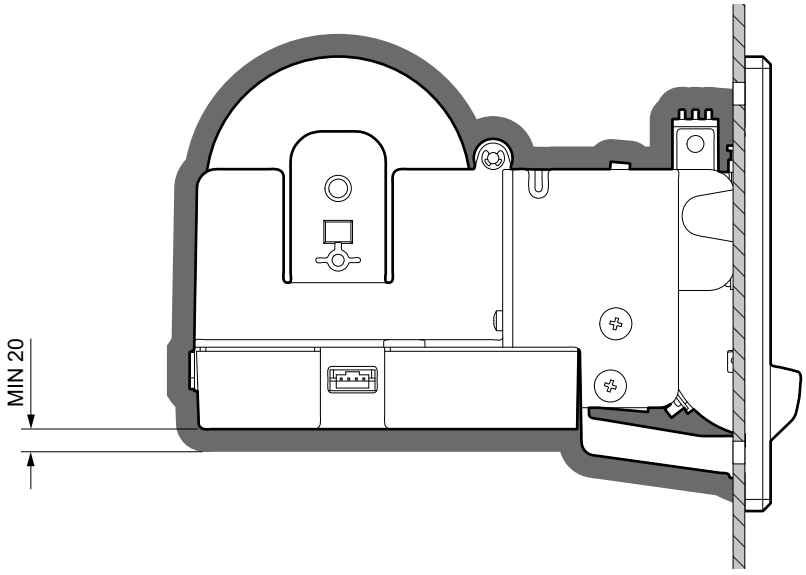


Drilling for mounting on panel with

SCHEME B

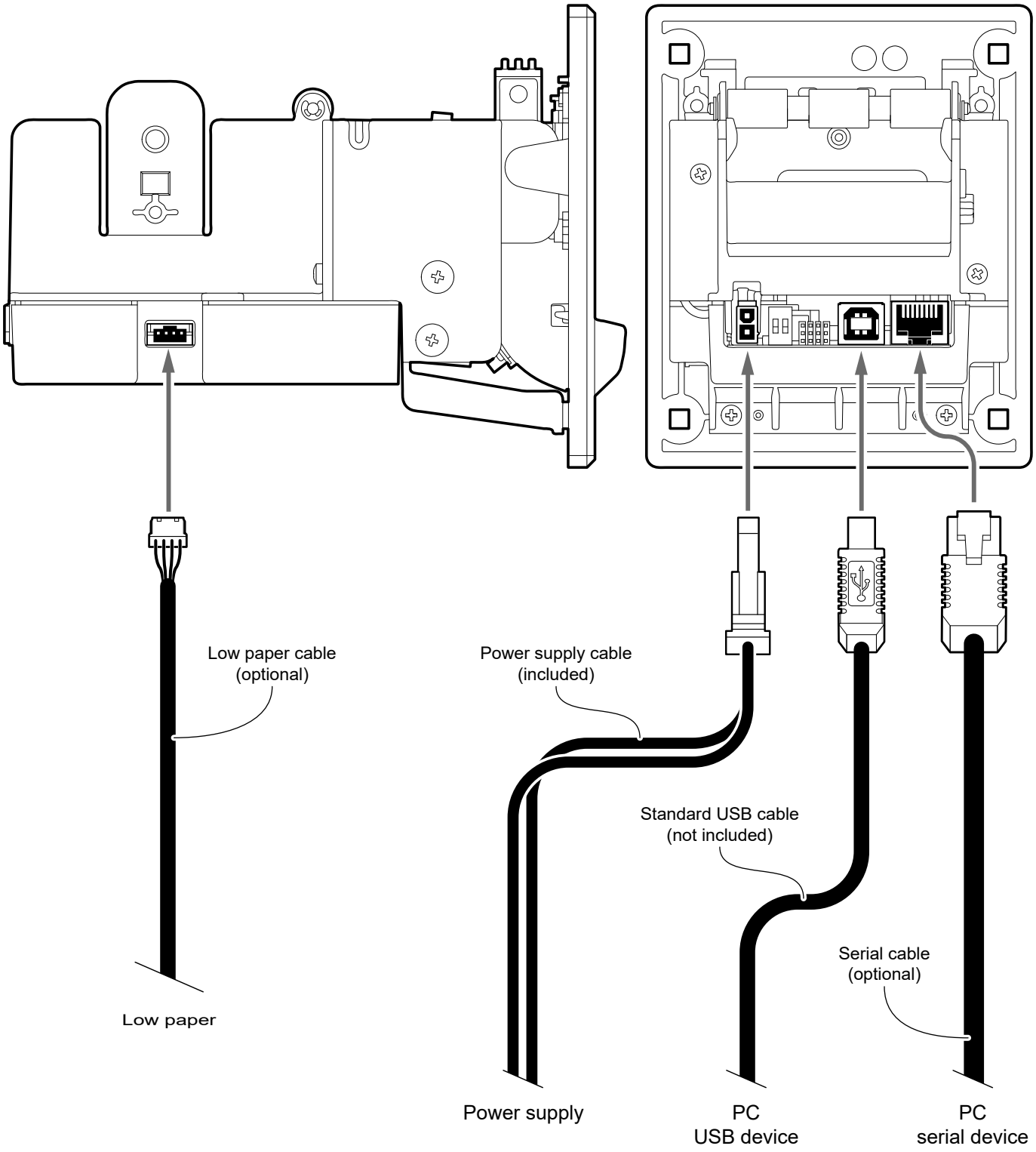


When you place the device in the operating position, make sure to leave the proper free space around the device of at least 20 mm so to not compromise operation and maintenance.
Refer to paragraph 7.3 for models dimensions.



3.2 Connections

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



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

3.3 Pinout

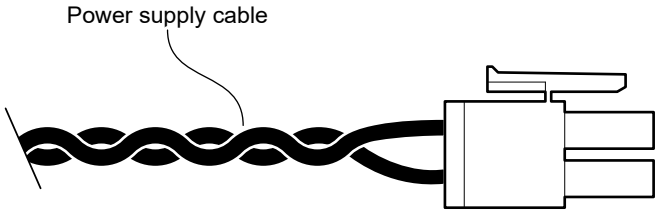


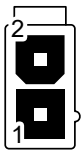
POWER SUPPLY

Male Molex connector series 5569 vertical (n° 39-30-1020)

J3	1	+VIN
	2	GND

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

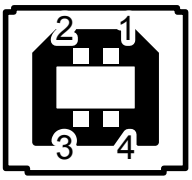




Female Molex connector series 5557 (n.39-01-3022)

PIN	Cable color	Signal
1	Red	+12 V
2	Black	GND

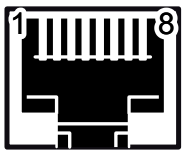
ATTENTION:
Respect power supply polarity.



USB INTERFACE

Female USB type B connector

J10	1	USB0-VBUS	(in)
	2	USB0_D-	(in/out)
	3	USB0_D+	(in/out)
	4	GND	



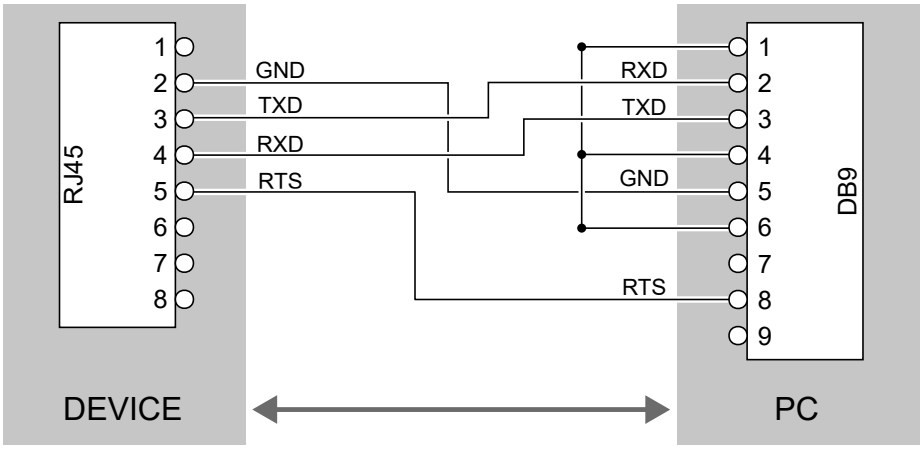
RS232/TTL SERIAL INTERFACE

Female RJ45 connector

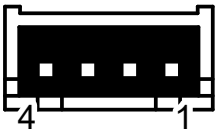
J5	1	+3.3V	
	2	GND	
	3	TX	During transmission, takes the values “0” and “1” depending on data
	4	RX	During reception, takes the values “0” and “1” depending on data
	5	RT	When “0”, printer is ready to receive data
	6	+Vi	
	7	EN-3V3	
	8	IO	

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

Device > PC connection
The following picture shows an example of connection between the device and a personal computer using a 8 pin RJ45 serial connector:



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

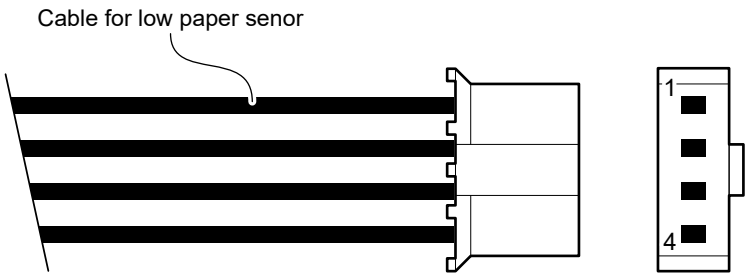


LOW PAPER

Male 4 ways JST connector (S4B-PH-SM4-TB)

J8	1	+3.3V	
	2	NPE	(in)
	3	GND	
	4	VLED-SENS	

The following figure shows the connector pinout of the near paper end sensor cable for the device:



Female JST connector series PHR-4

PIN	Cable color	Signal
1	Red	+3.3V
2	Blue	NPE
3	Black	GND
4	Yellow	VLED-SENS

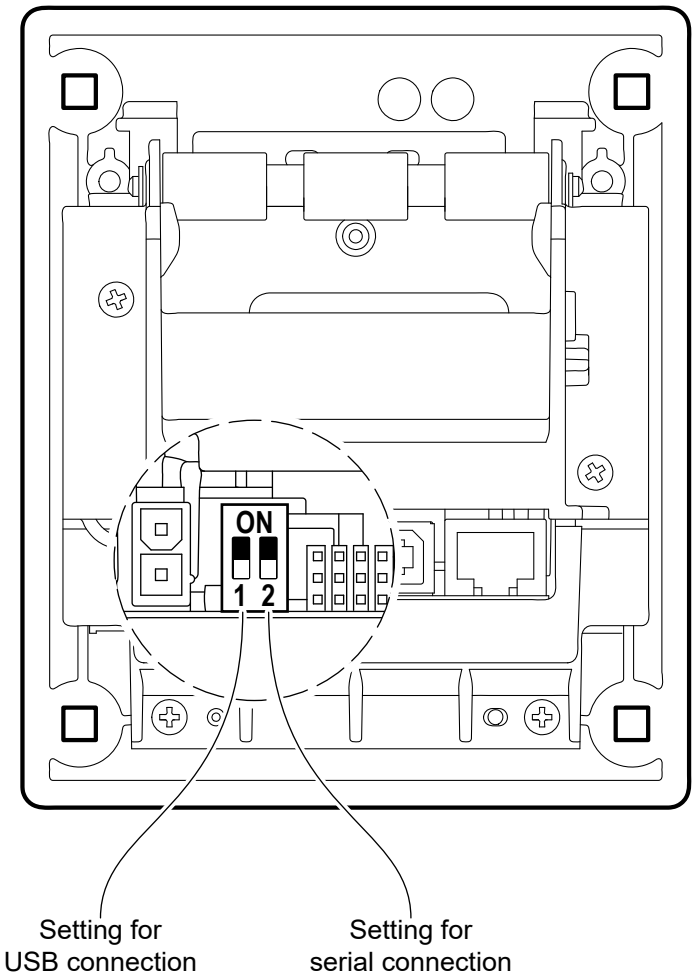
3.4 Low-power setting

VKP558 allows to set a low-power mode through the switches shown in figure.

The switch 1 sets the low-power mode in case of USB communication:
- when the switch is set to OFF, the low-power mode is disabled and VKP558 is always ON;
- when the switch is set to ON, the low-power mode is enabled and VKP558 turns off when the USB HOST connected via USB turns off.

The switch 2 sets the low-power mode in case of serial communication.
- when the switch is set to OFF, the low-power mode is disabled and VKP558 is always ON;
- when the switch is set to ON, the low-power mode is enabled and VKP558 turns off when the voltage on the pin 7 of the J5 serial connector is 0 V.

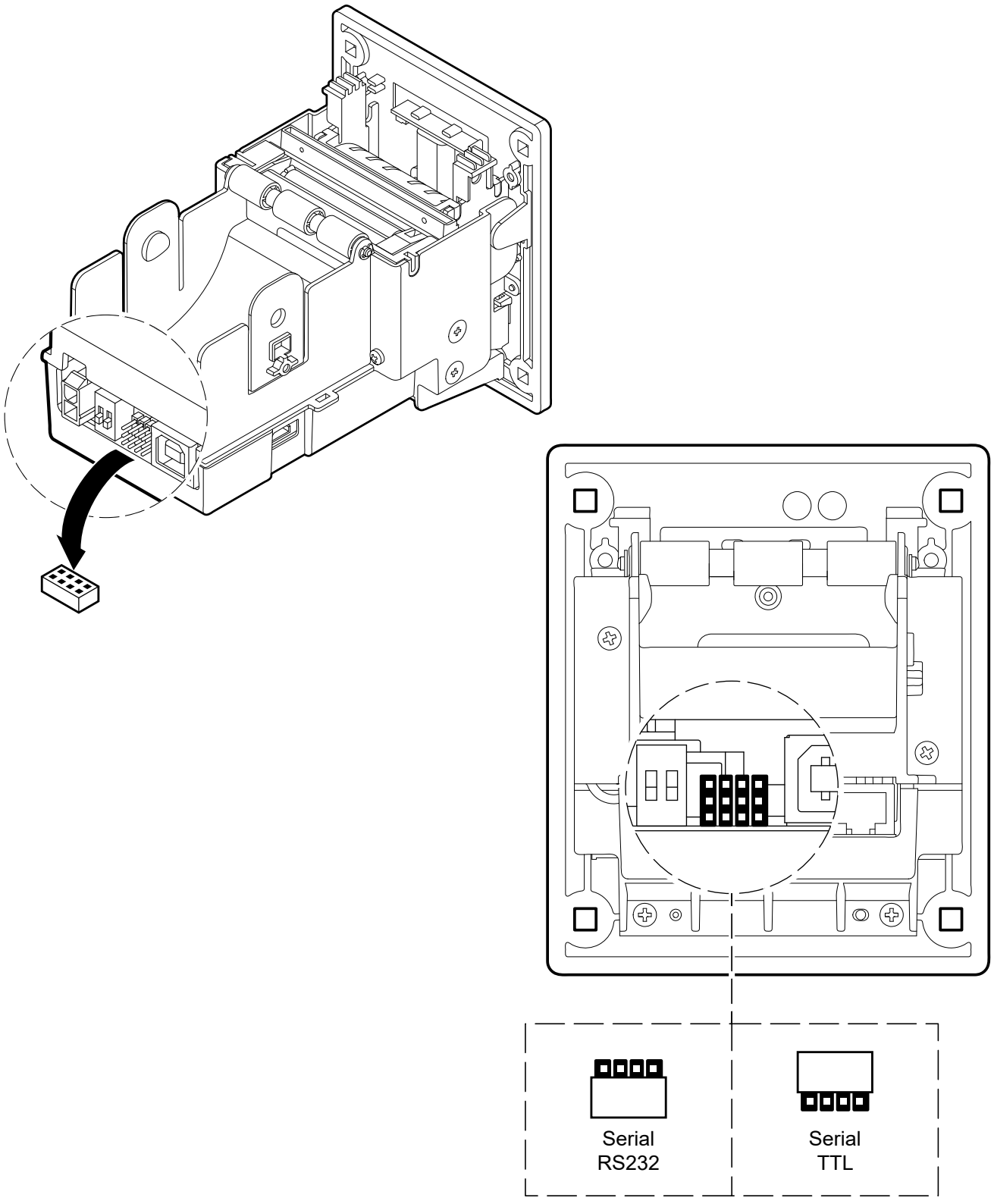
VKP558 leaves the factory with low-power mode disabled for both USB and serial RS232 communication.



3.5 Serial port setting

VKP558 allows to configure the type of serial communication through the jumper pins shown in figure.
The device leaves the factory with the serial RS232 configuration.

To change the type of communication, remove the jumper from the default position and place it according to the choosen type as shoen in figure.



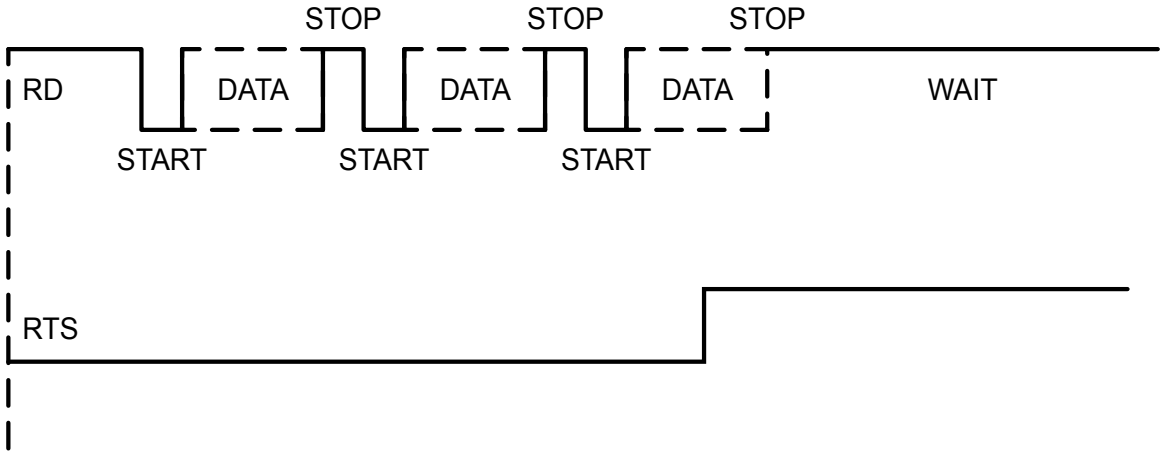
In the serial protocol, the signals which distinguish the communication are TD, RD, and RTS if the RTS/CTS protocol has been selected while, if the XON/XOFF protocol has been selected, the signals are TD and RD.

Transmission format

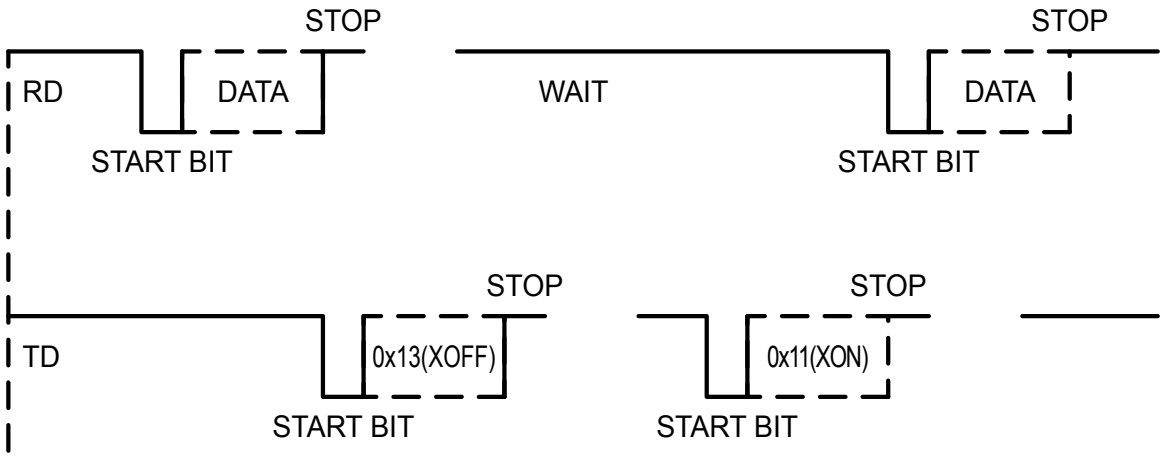


Notes:
(1) Bit 7 is present if only in the printer set-up is enabled 8 bit/char as data length.
(2) Parity Bit is preset if only in the printer set-up the parity is enabled.

RTS/CTS Protocol



XON/XOFF protocol



3.6 Driver and SDK

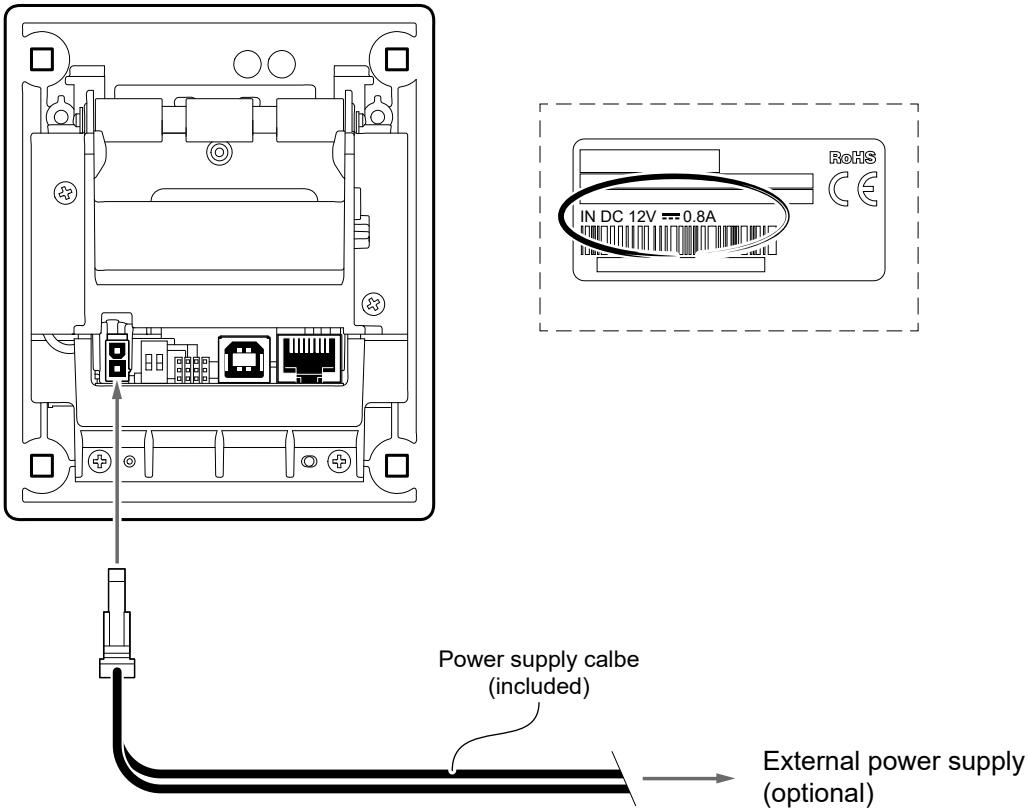
In the website www.custom4u.it are available the drivers for the following operating system:

OPERATING SYSTEM	DESCRIPTION	INSTALLATION PROCEDURE
Windows	Driver for Windows 7 (32/64 bit)	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 10 (32/64 bit)	
	Driver for Windows 11 (64 bit)	
	Self-installing driver for VIRTUAL COM (32/64 bit) (see paragraph 5.4)	
	OPOS SDK	Extract the zipped folder to the destination path desired. Follow the instructions present in the software package that you downloaded on how to install and use the SDK.
	JavaPOS SDK	
	Windows API SDK	
Linux	Driver CUPS (32/64 bit)	Follow the instruction get back on the “Readme.txt” file. You can find it in the software package downloaded in advance.
	Driver for VIRTUAL COM (32/64 bit) (see paragraph 5.4)	
	Linux API SDK	
	JavaPOS SDK	Extract the zipped folder to the destination path desired. Follow the instructions present in the software package that you downloaded on how to install and use the SDK.
Android	ANDROID API SDK	

4 OPERATION

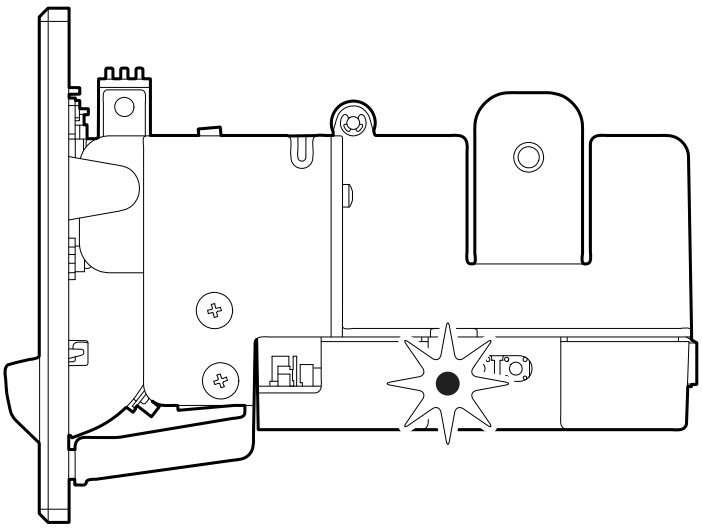
4.1 Switch the device ON

1



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

2

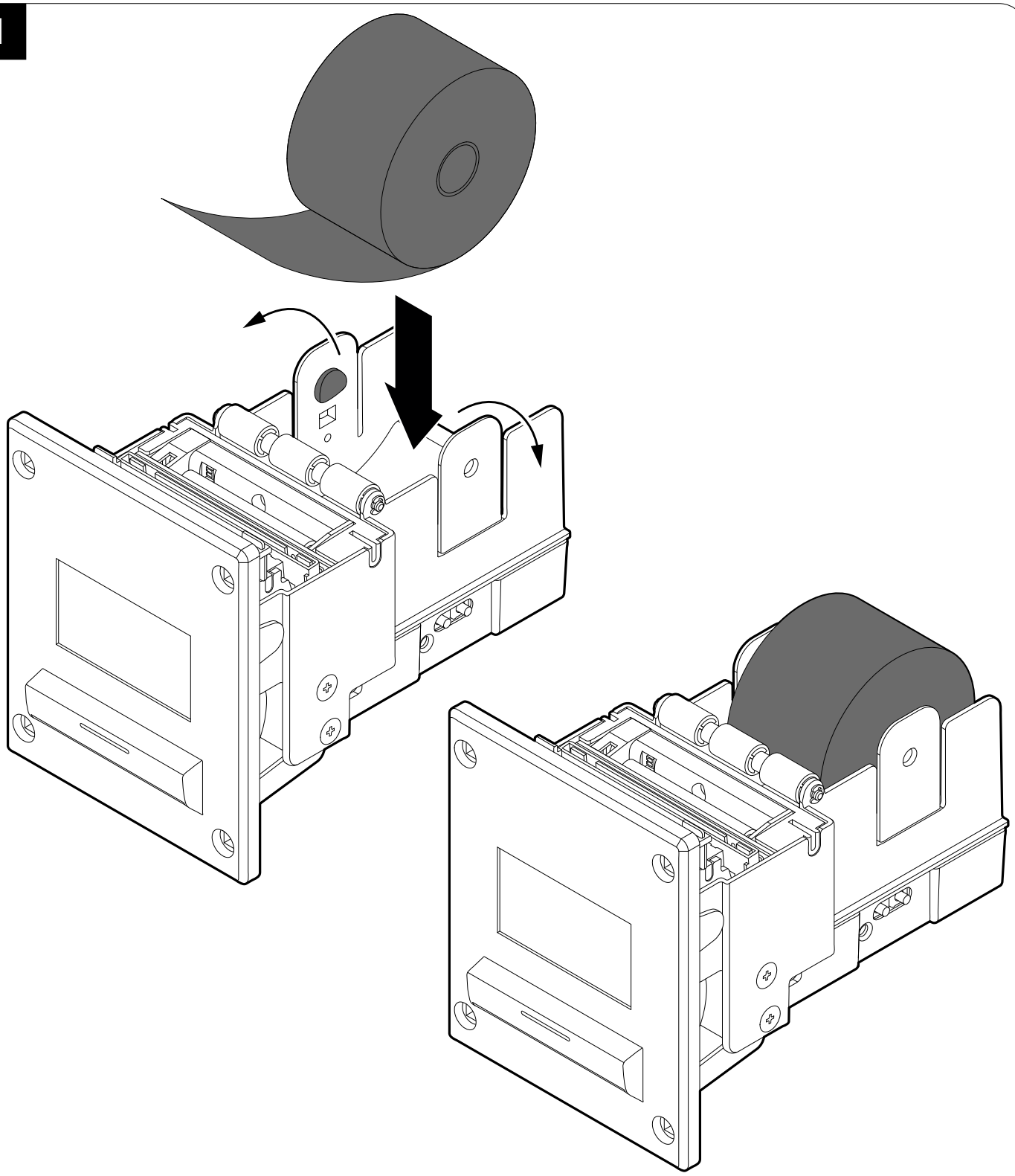


The status LED lights green.
The device is ready.

4.2 Loading the paper roll

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

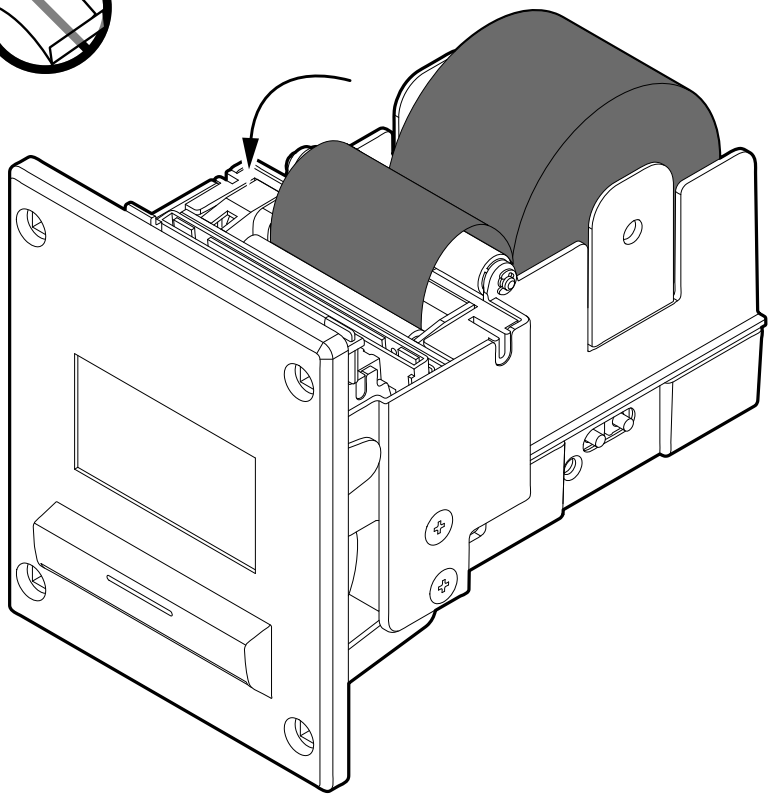
1



Slightly widen the housing fins and insert
the paper roll so that it unrolls correctly.
Fit the roll core into the two drawings on the fins.

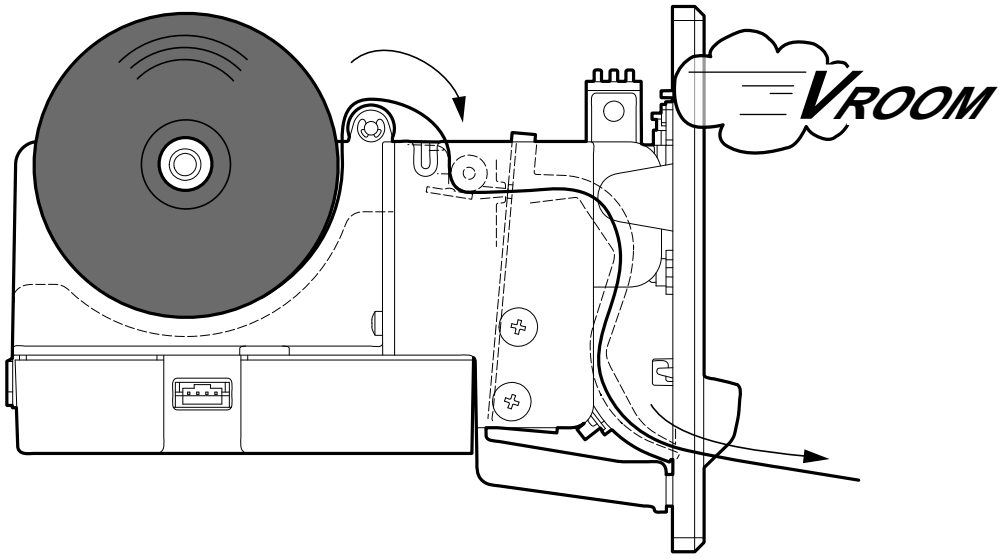
2





Insert the paper into the input mouth
as shown in the dedicated label.

3



Wait until the paper is
automatically loaded and cut.

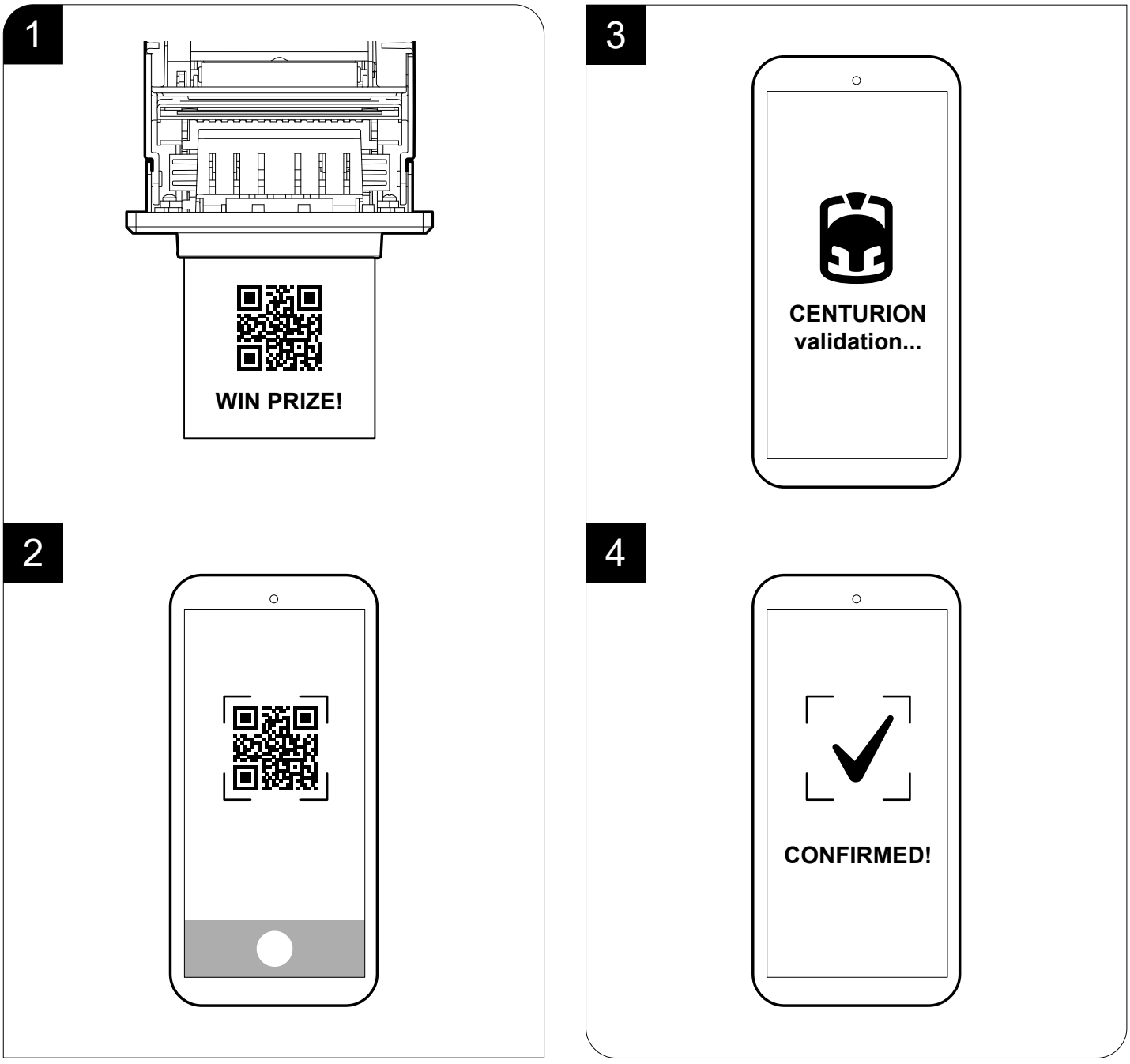
4.3 Centurion feature

Centurion is a VKP558 feature and a software system meant to allow verification of winning tickets and to avoid fake tickets to redeem prizes.

Centurion can be integrated into the customer application which totally manage the sensible data.
No additional device is required to make it work.

How Centurion works?
1. The paired printer delivers in the print out a QR-code which allows the validation process;
2. The scan of such QR-code allows to check printer UID;
3. UID allows to verify authenticity and integrity of the QR;
4. Centurion software delivers the result: valid or invalid ticket.

To use the Centurion feature, it is necessary to enable and configure the feature through the setup parameters (see paragraph 5.5).

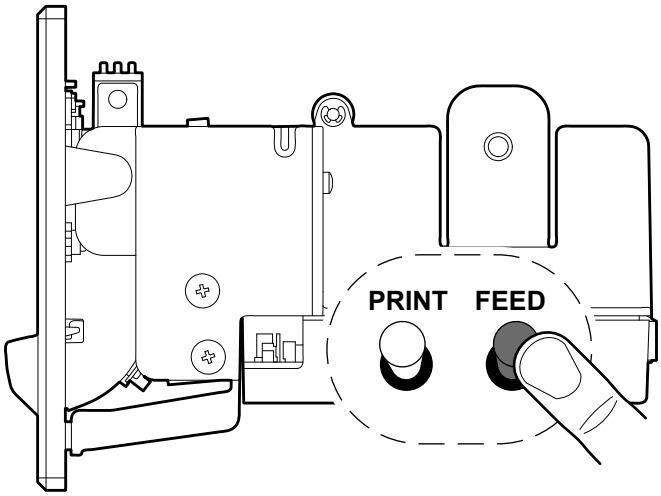


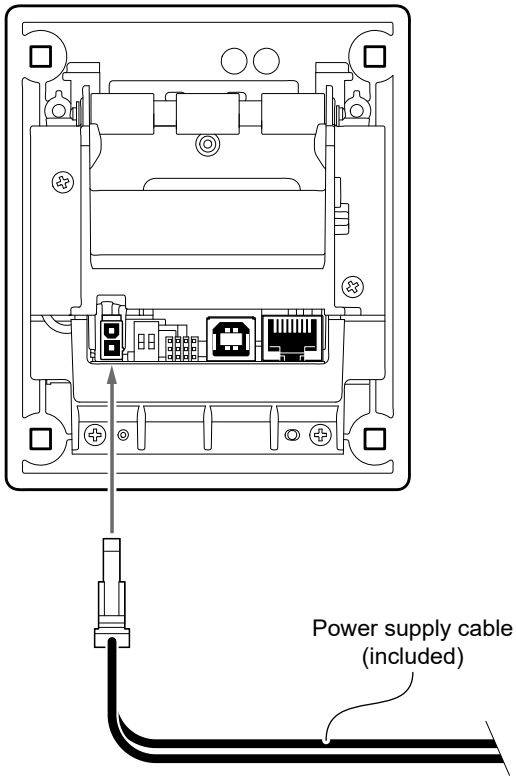
5 CONFIGURATION

5.1 Configuration by keys

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

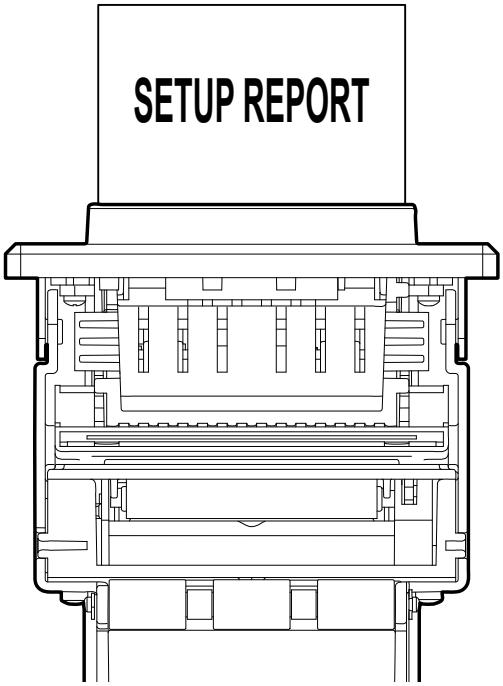
1





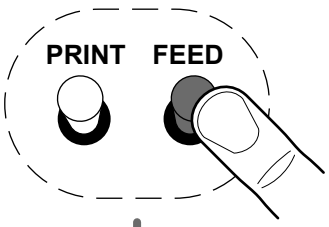
While pressing the FEED key, switch the device on as described in paragraph 4.1.

2



The device prints the report with settings parameters.

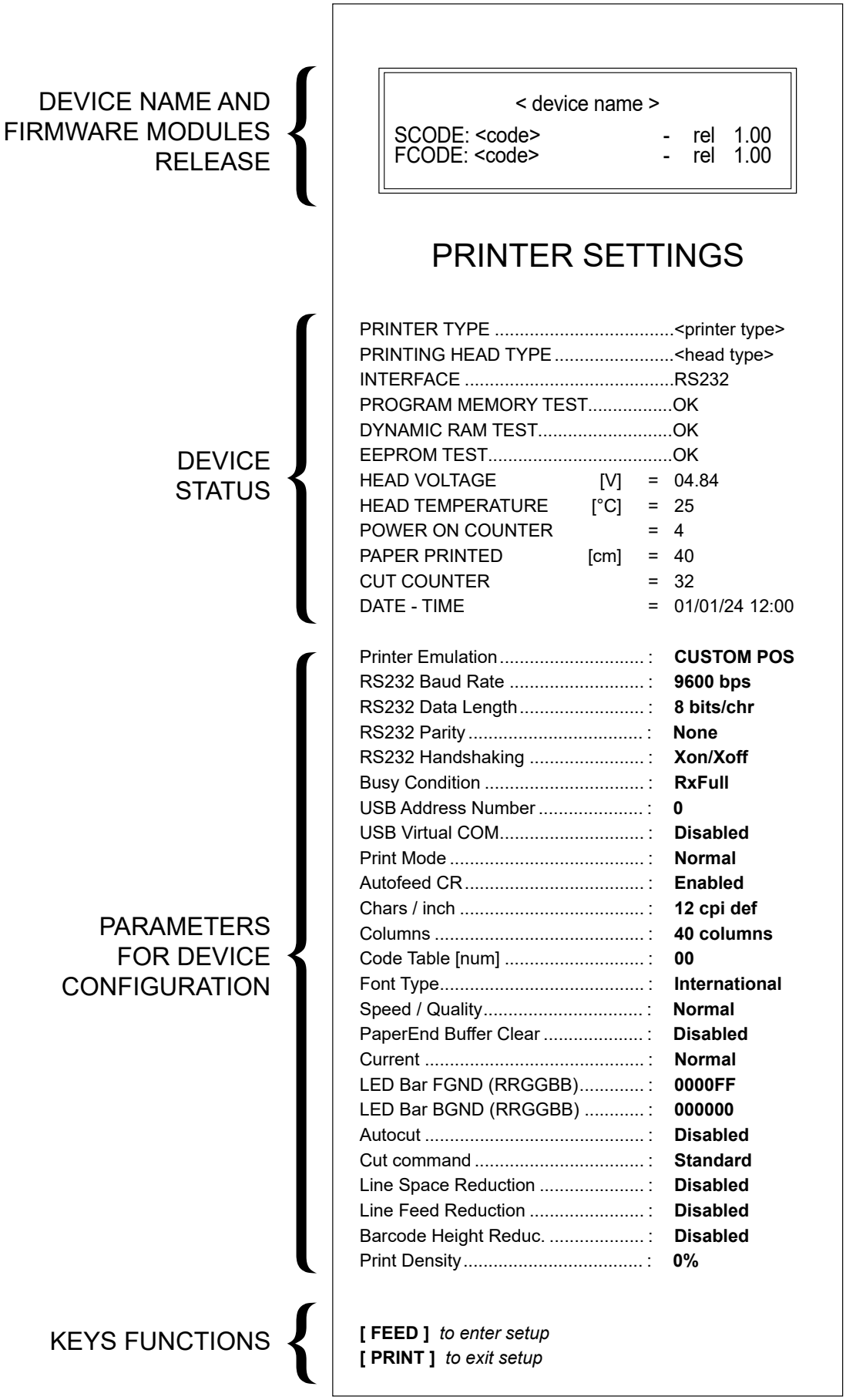
3



Enter SETUP PROCEDURE

Press the FEED key to enter the configuration mode.

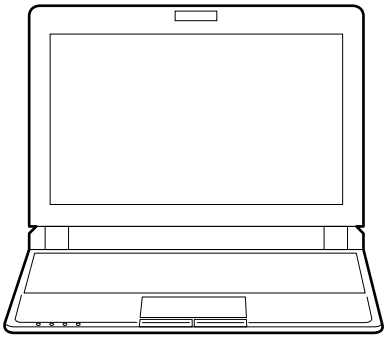
The following figure shows the setup report of the device. The shown values for parameters are sample values; for the list and the description of device parameters see the following paragraphs.



5.2 Configuration by software

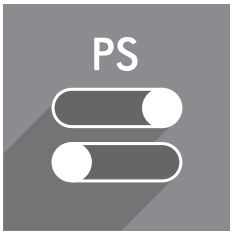
The setup parameters can be set by using the “PrinterSet” software tool available on www.custom4u.it.
For a detailed description of the device operating parameters see the following paragraphs.
To configure the device by software, proceed as follows.

1



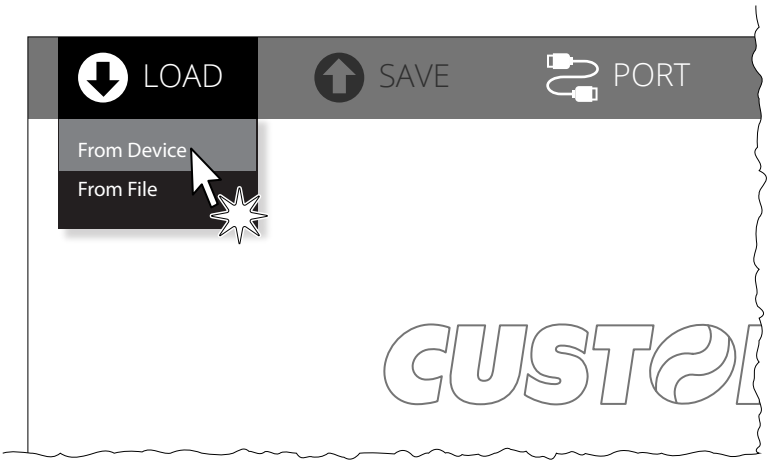
Connect the device to a PC directly (see paragraph 3.2),
without using HUB devices.

2



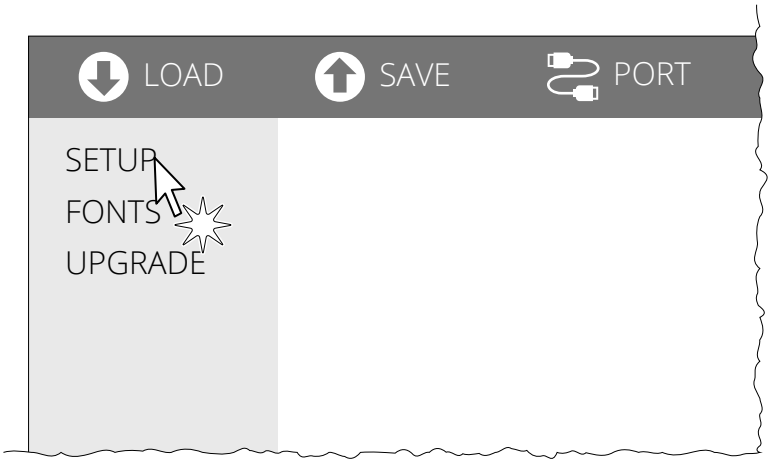
Start “PrinterSet” software tool.

3



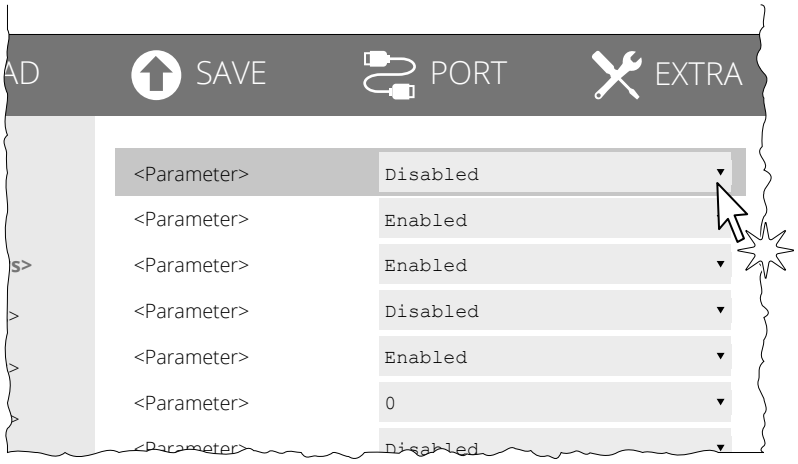
Click on LOAD > FROM DEVICE and select
the device connected to the PC.

4



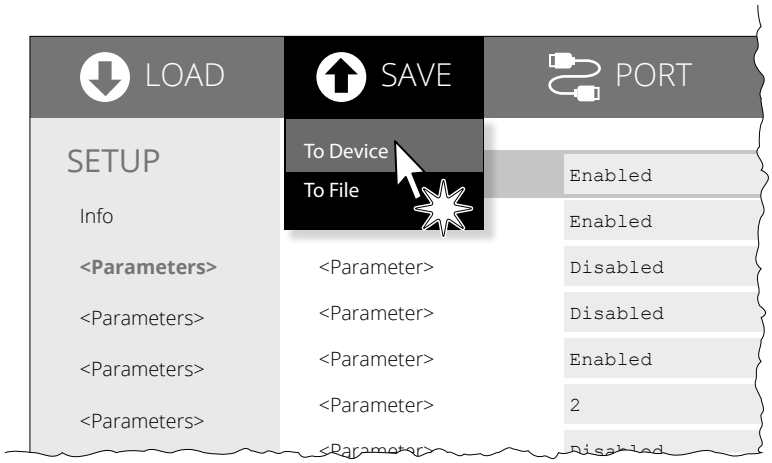
Click on SETUP to access the operating parameteres of the device to be configured.

5



Make the desired changes to the
device operating parameters.

6



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

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

5.3 Printer status

The 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	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
EEPROM TEST	OK appears if functioning and NOT OK if faulty
HEAD VOLTAGE	voltage of the head
HEAD TEMPERATURE	temperature of the head
POWER ON COUNTER	number of power-ups made
PAPER PRINTED	centimetres of paper printed
CUT COUNTER	number of cuts made
DATE - TIME	date and time

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.

RS232 BAUD RATE

Communication speed of the serial interface:

115200	9600 [D]
57600	4800
38400	2400
19200	1200

This parameter is valid only with serial interface.

RS232 DATA LENGTH

Number of bit used for characters encoding:

7 bits/car
8 bits/car [D]

This parameter is 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

This parameter is valid only with serial interface.

RS232 HANDSHAKING

Handshaking:

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

This parameter is 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:

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

This parameter is valid only with serial interface.

USB ADDRESS NUMBER

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

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

USB VIRTUAL COM	Setting the USB port as a virtual serial port: Disabled [D] = Virtual COM disabled Enabled = Virtual COM enabled To use this configuration it is necessary to install an addictional driver.

5.5 Operating 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 available for the device: TG558 CUSTOM POS [D]
PRINT MODE	Printing mode: Normal = enables printing in normal writing way Reverse [D] = enables printing rotated 180 degrees
AUTOFEED CR	Setting of the Carriage Return character: Disabled = Carriage Return disabled Enabled [D] = Carriage Return enabled
CHARS / INCH	Font selection: 12 cpi def [D] 12/16 cpi 16/22 cpi CPI = Characters Per Inch.
COLUMNS	Number of columns to use regardless of the setting of the parameter “Chars / Inch”: 40 columns [D] 42 columns 24 columns The parameter is printed only with TG558 emulation enabled.
CODE TABLE [num]	Identifier number of the character code table to use. The numeric value of the identifier is made up with the following two parameters for the setting of two digits for the tens and the units:

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

See 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

When the “International” font is enabled, you need to choose the character code table (parameter “Code Table”). When the Chinese font is enabled, the selection of the character code table is suspended (parameter “Code Table”).

SPEED / QUALITY

Setting of printing speed and printing quality:

Normal [D]
High Quality

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 printer 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.

CURRENT

Setting of the current consumption:

Normal [D]
Low current

AUTOCUT

Automatic cut execution:

Disabled [D] =	Cut disabled
Enabled Partial =	Enables a partial cut at the end of the ticket
Enabled Total =	Enables a total cut at the end of the ticket

If enabled, cutting is performed after a 500 ms timeout on character reception.

This parameter is valid only when in case of text printing. In case of graphics printing, the parameter does not work so as to avoid conflict with the printer driver.

CUT COMMAND

Setting of cut commands interpretation:

Standard [D] = The device receives and perform the commands for total and partial cut in standard mode, as described in the commands manual
Inverted = The device receives and perform the cut commands in inverted mode (the total cut command will perform the partial cut and vice versa)
Total cut only = The device receives and perform both the cut commands as total cut command
Partial cut only = The device receives and perform both the cut commands as partial cut command

The standard commands for cut available for the device are 0x1B 0x69 for the total cut and 0x1B 0x6D for the partial cut (see the commands manual for the device).

LINE SPACE REDUCTION

Disable or enable and adjust the reduction of the value of line spacing (vertical distance between the base line of row and the next one). Recommended to reduce paper consumption.

Disabled [D]
25%
50%
75%

LINE FEED REDUCTION

Disable or enable and adjust the reduction of the preset distance for paper feed (line feed). Recommended to reduce paper consumption.

Disabled [D]
25%
50%
75%

BARCODE HEIGHT REDUC.

Enable, disable and adjust the reduction of the value for the height of the barcode printed. Recommended to reduce paper consumption.

Disabled [D]
25%
50%
75%

PRINT DENSITY

Adjusting the printing density:

-50%	-12%	+25%
-37%	0 [D]	+37%
-25%	+12%	+50%

The print quality is strongly influenced by the type of chemical treatment and the type of storage to which the thermal paper has been subjected, as well as by the weight of the same. It may therefore necessary to act on this parameter to obtain the desired print quality.

SECURE QRCODE

Enable or disable the printing of the QRcode for verification at the end of the ticket:

Disabled [D] = QRcode printing disabled
Enabled = QRcode printing enabled

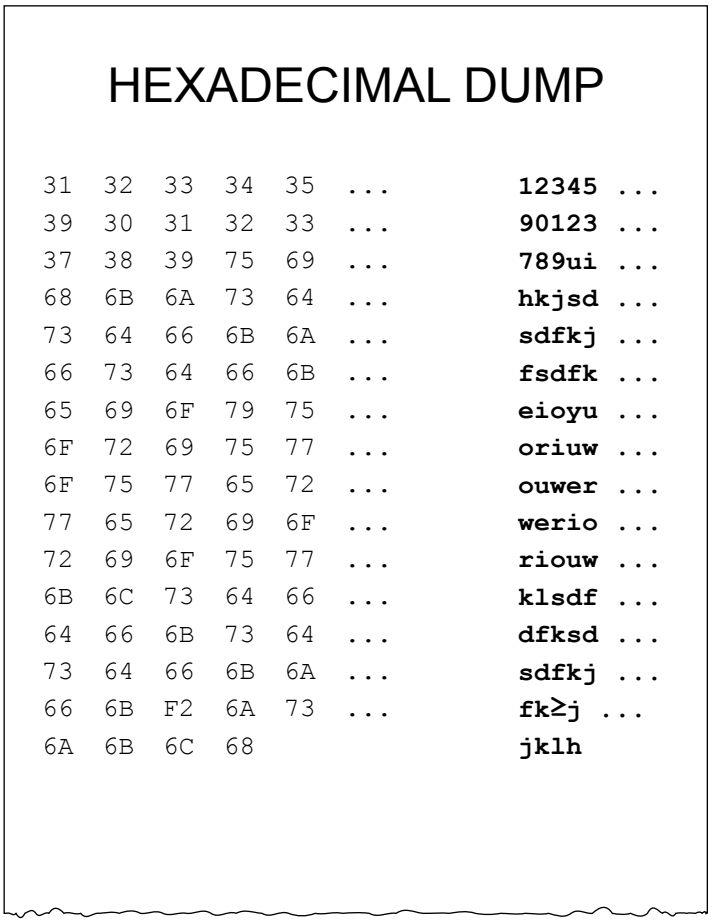
If enabled, QRcode printing is performed after a 500 ms timeout on character reception.

PARSING ENABLE	Enable or disable the encoding inside the QRcode for verification of the text between the start and end strings defined by the parameters “Parsing Start String” and “Parsing End String”. Disabled [D] = Use of start and end strings disabled Enabled = Use of start and end strings enabled This parameter can be modified by software (see paragraph 5.2)
PARSING START STRING	Setting of the start string to identify the text to be encoded within the QRcode for verification. This parameter can be modified by software (see paragraph 5.2)
PARSING END STRING	Setting of the end string to identify the text to be encoded within the QRcode for verification. This parameter can be modified by software (see paragraph 5.2)
LED bar FGND (RRGGBB)	Set the foreground color for the status LED on the bezel. This parameter consists in three value for red, green and blue color to be expressed in hexadecimal: RR = da 00 [D] a FF GG = da 00 [D] a FF BB = da 00 a FF [D]
LED bar BGND (RRGGBB)	Set the background color for the status LED on the bezel. This parameter consists in three value for red, green and blue color to be expressed in hexadecimal: RR = da 00 [D] a FF GG = da 00 [D] a FF BB = da 00 [D] a FF

5.6 Hexadecimal dump

This function is used for the diagnosis of the characters received from the communications port. Characters are printed as hexadecimal code and the corresponding ASCII code (see below). Each line is preceded by a counter in hexadecimal that indicates the number of bytes received.

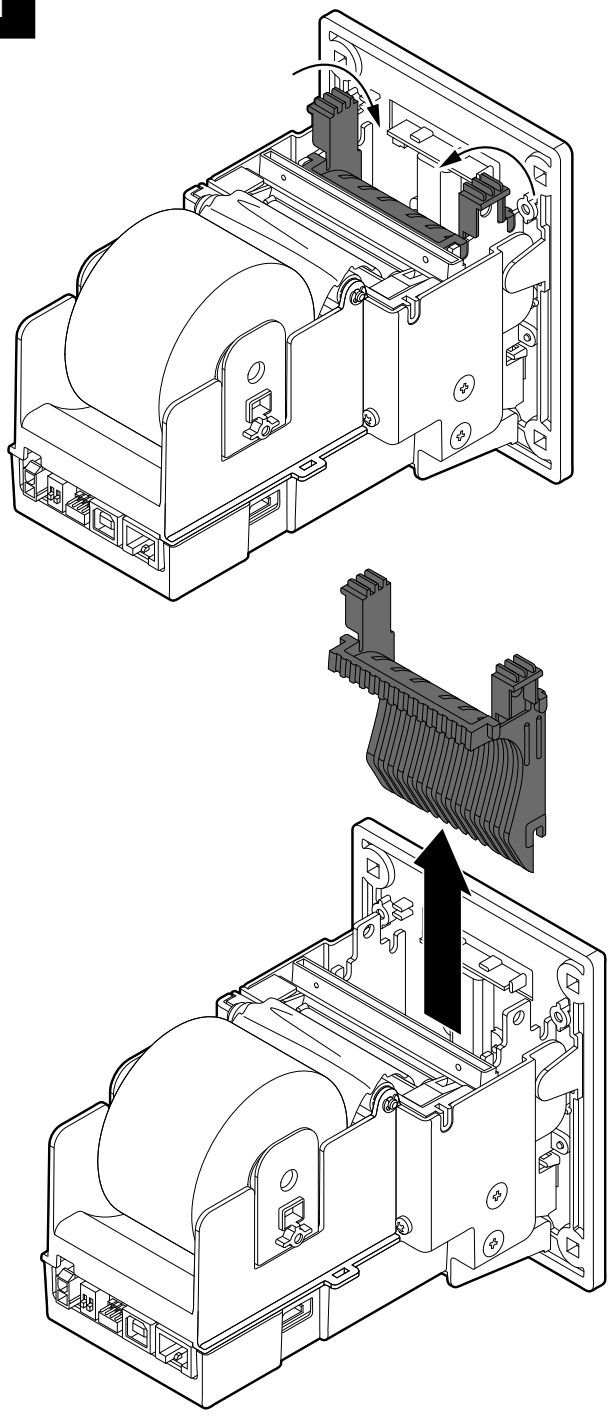
During the startup, if you hold down both the LF LINE FEED key and the FF FORM FEED key, the printer enters the self-test routine and print the setup report. The printer remains in standby until a key is pressed or characters are received through the communication port (Hexadecimal Dump mode). For each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



6 MAINTENANCE

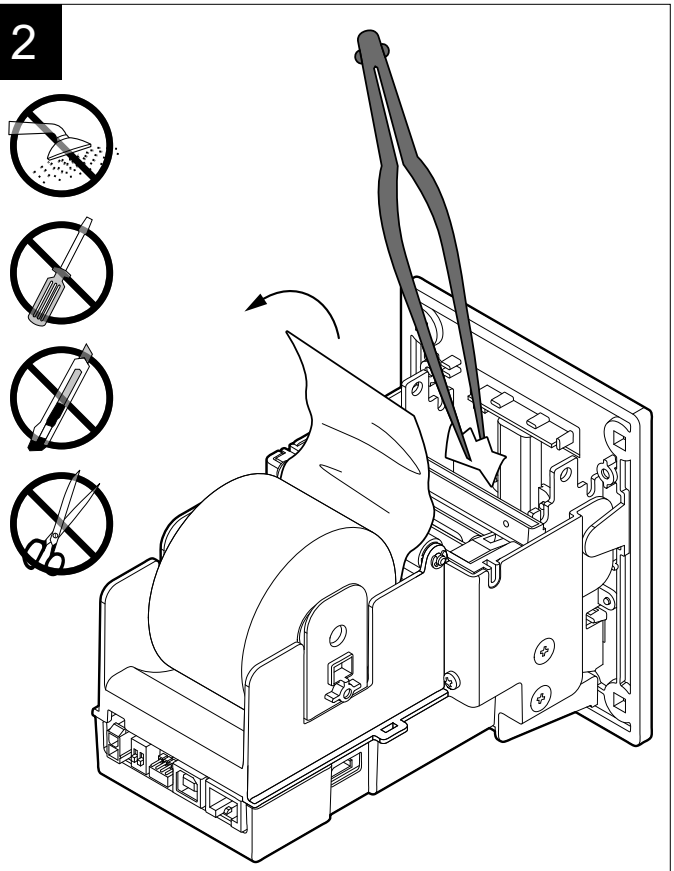
6.1 Printer paper jam

1



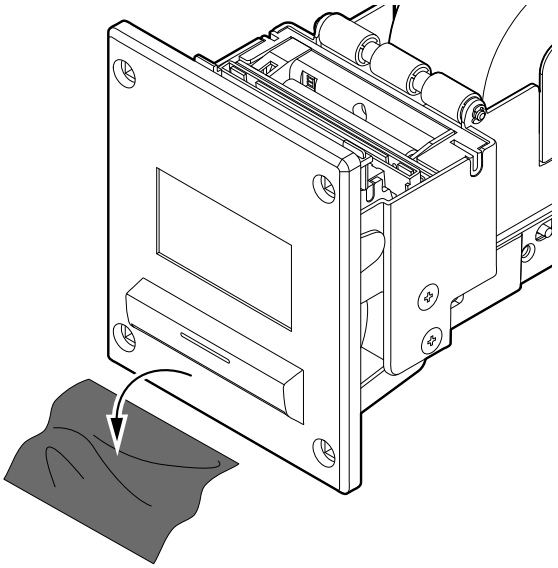
Slightly tighten the flaps of the paper chute and remove it from the seat by pulling it in the shown direction.

2



Remove the damaged paper and check the presence for paper scraps inside the printer; carefully remove all scraps of paper. If necessary, use tweezers.

3



Remove the damaged paper from the paper mouth.

6.2 Planning of cleaning operations

The regular cleaning of the device keeps the print quality and extends its life. The following table shows the recommended planning for the cleaning operations. If you use the device in dusty environments, you must reduce the intervals between the cleaning operations.
For specific procedures, see the following pages.

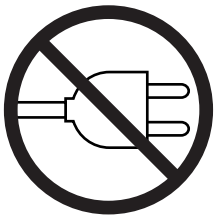
EVERY PAPER CHANGE	
Rollers	Use isopropyl alcohol
EVERY 5 PAPER CHANGES	
Paper path	Use compressed air or tweezers
Sensors	Use compressed air
EVERY 6 MONTHS OR AS NEEDED	
Printer case	Use compressed air or a soft cloth

6.3 Cleaning

For periodic cleaning of the device, see the instructions below

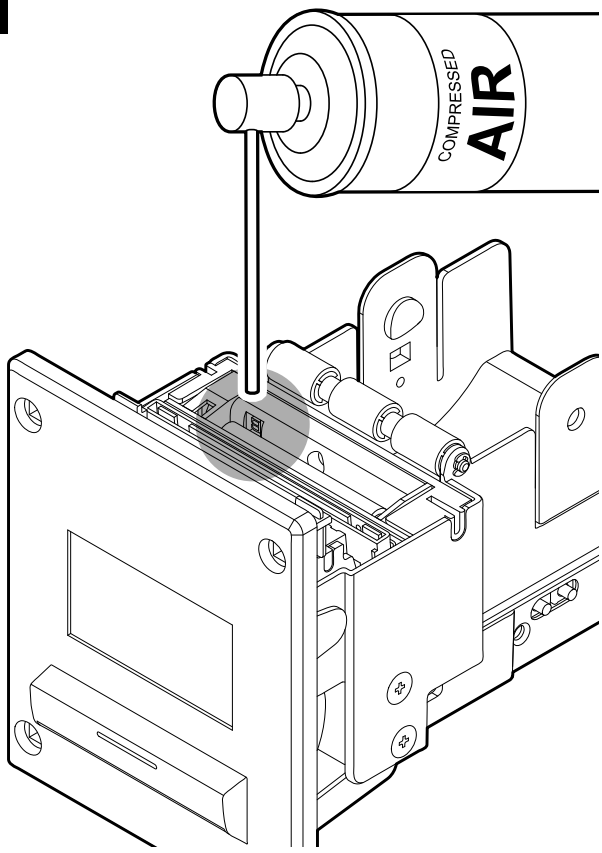
Sensors

1



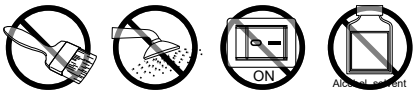
Disconnect the power supply cable

2



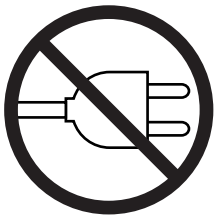
Clean the printer sensor
by using compressed air

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



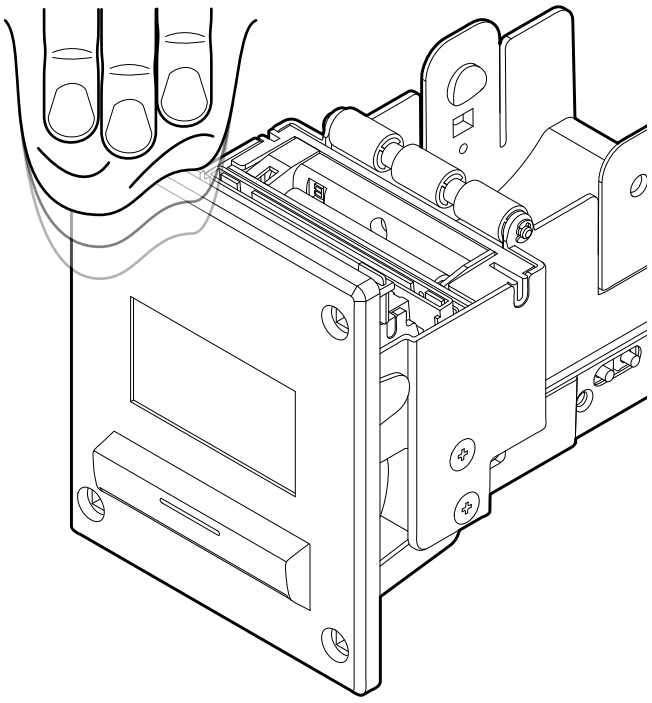
Case

1



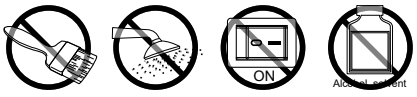
Disconnect the power supply cable

2



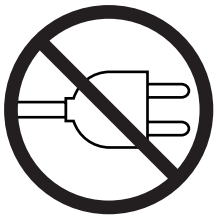
To clean the device,
use compressed air or a soft cloth.

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



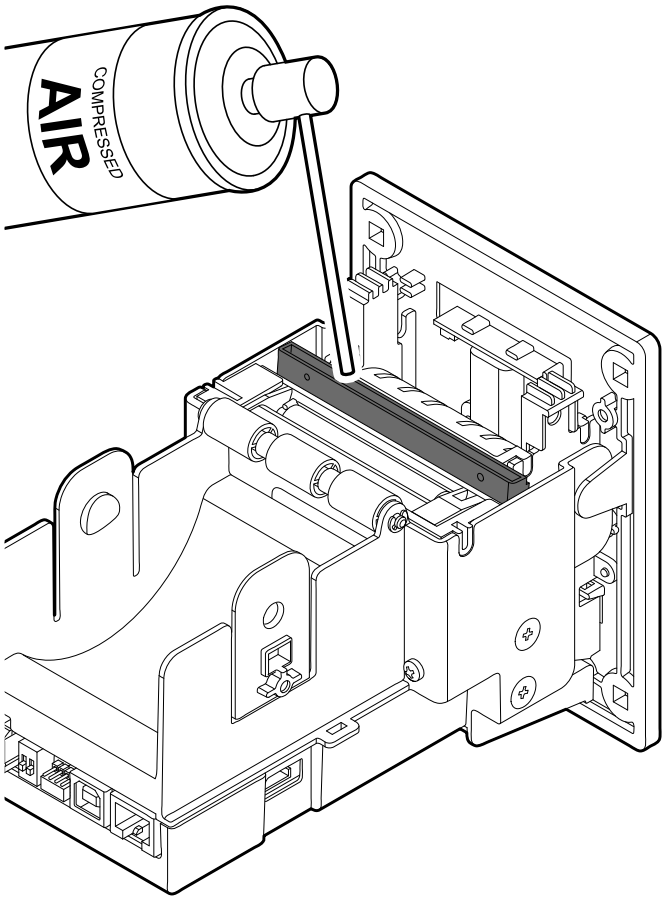
Cutter

1



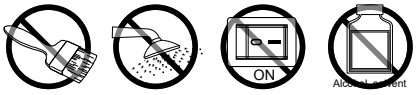
Disconnect the power supply cable

2



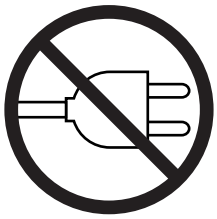
Clean the cutter by
using compressed air

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



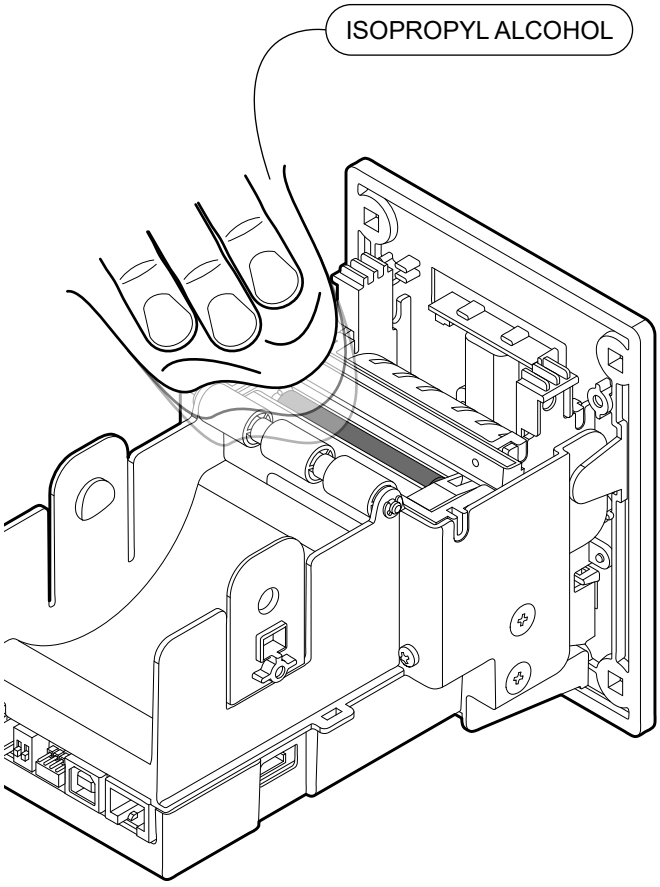
Printing roller

1



Disconnect the power supply cable

2



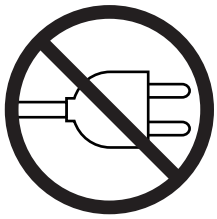
Clean the platen roller by using
a non-abrasive cloth moistened with isopropyl.

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



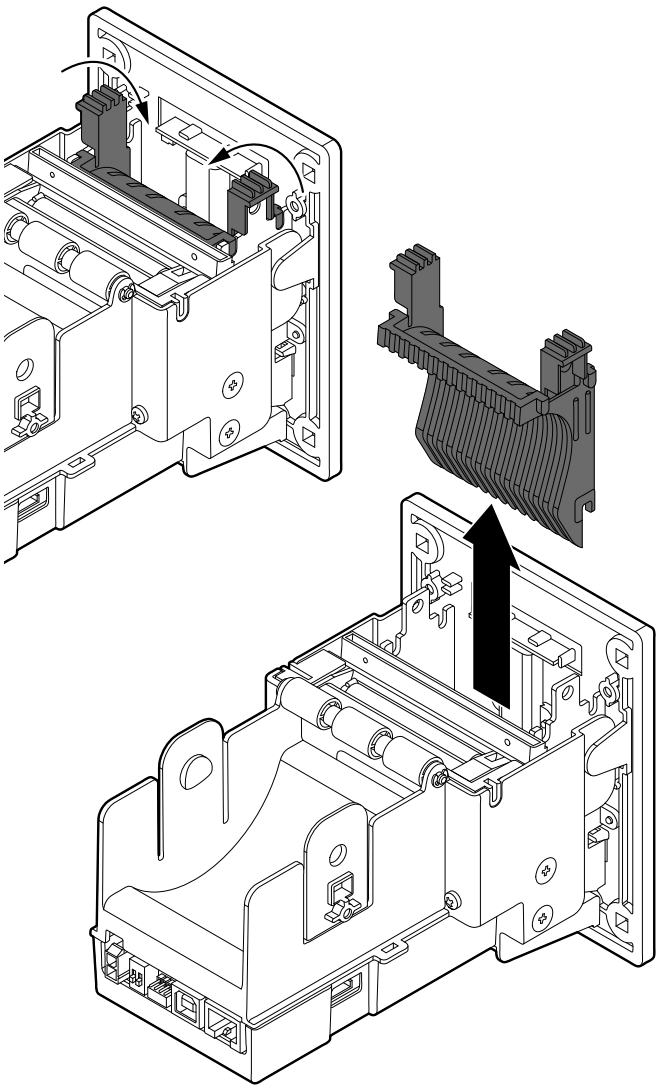
Paper compartment

1



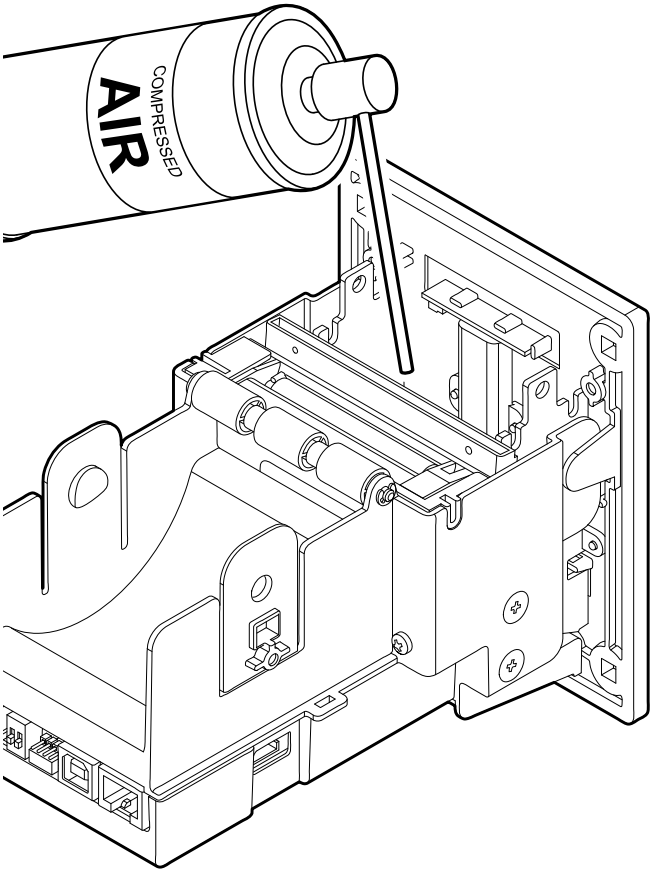
Disconnect the power supply cable

2

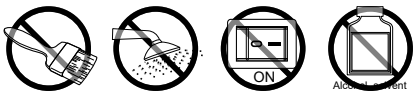


Slightly tighten the flaps of the paper chute and remove it from the seat by pulling it in the shown direction.

3



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



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

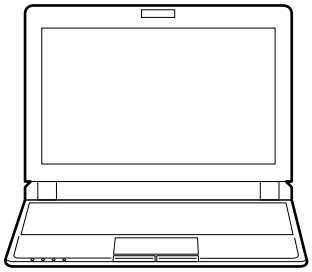
6.4 Firmware upgrade

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

1

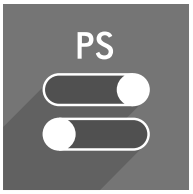
Login to the website www.custom4u.it, type in the product code of the device and download the latest firmware release available.

2



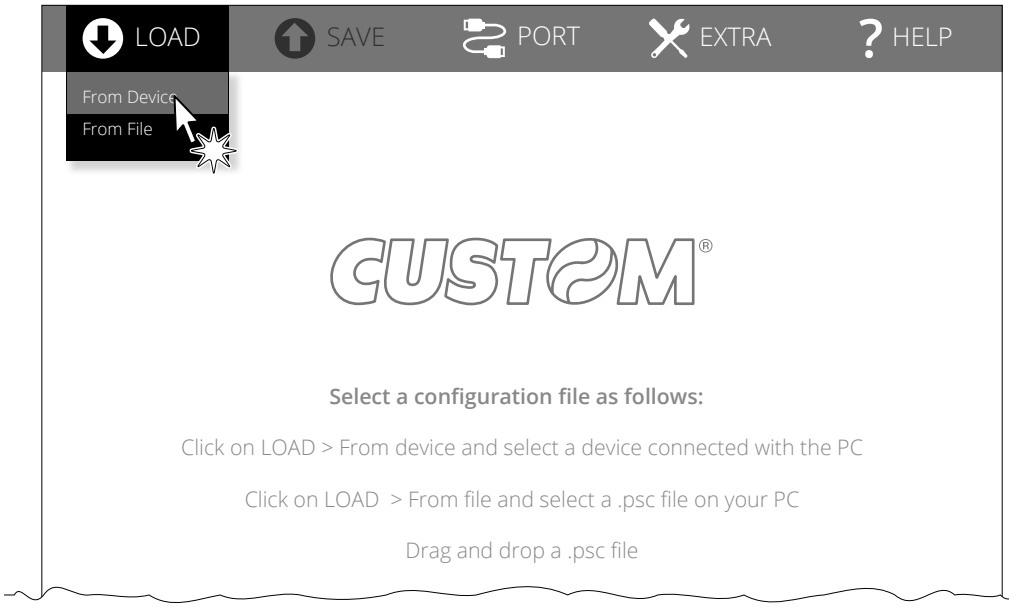
Connect the device to a PC directly (see paragraph 3.2), without using HUB devices.

3



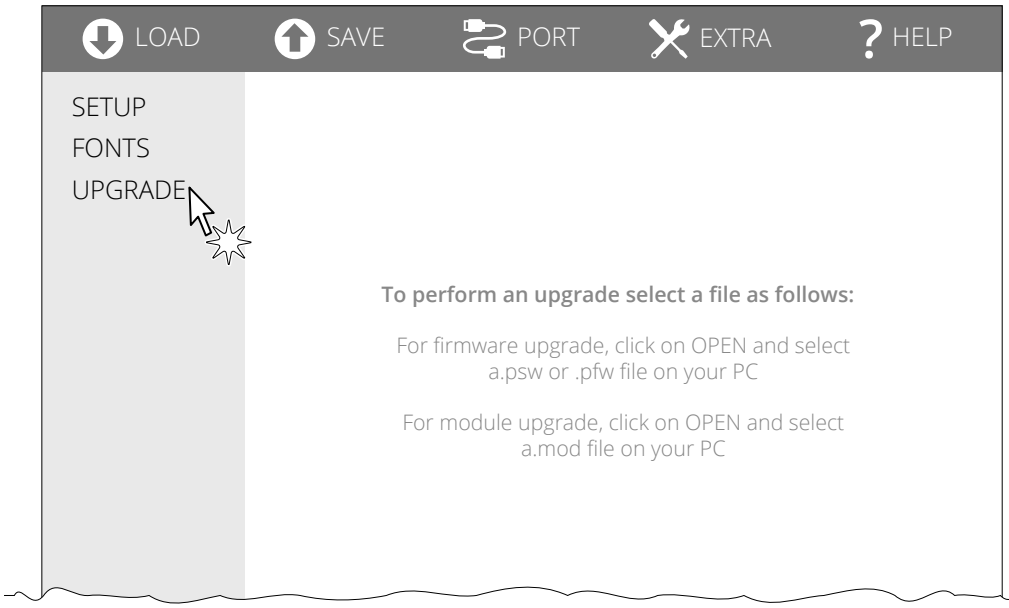
Start the “PrinterSet” software tool.

4



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

5



Click on UPGRADE and follow the instructions shown on the screen.

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

7 SPECIFICATION

7.1 Hardware specifications

GENERALS	
Sensors	Head temperature, paper presence cutter position, low paper (optional)
Emulations	CUSTOM/POS TG558
Printing driver	Windows 7 (32/64bit) Windows 10 (32/64bit) Windows 11 (64bit) OPOS Linux (32/64bit) Android
INTERFACES	
USB port	12 Mbit/sec (USB 2.0 full speed)
RS232/TTL serial port	from 1200 bps to 115200 bps
MEMORIES	
Receive buffer	8 KB
Flash memory	8 MB
Graphic memory	2 logos (384x682 dots)
PRINTER	
Resolution	203 dpi (8 dot/mm)
Printing method	Thermal, fixed head
Head life (1)	
Abrasion resistance (2)	50 km (with recommended paper, 12.5% duty cycle)
Pulse durability	100 M (referred to each dot)
Printing width	48 mm

Printing mode	Normal, 180°
Printing format	
12 cpi	Height/Width from 1 to 4, bold, reverse, underlined, italic
12/16 cpi, 16/22 cpi	Height/Width from 1 to 8, bold, reverse, underlined, italic
Character fonts	up to 42 character code tables (see paragraph 7.2) Extended chinese GB18030-2000 Korean PC949
Printable barcode	UPCA, UPCE, EAN13, EAN8 CODE39, ITF, CODABAR, CODE93, CODE128, CODE32, QRCODE
Printing speed (1) (3)	Normal = 70 mm/sec High Quality = 60 mm/sec
PAPER	
Type of paper	Thermal rolls, heat-sensitive side on outside of roll
Paper width	57 mm ± 0.5 mm
Paper weight	from 55 g/m^2 to 60 g/m^2
Paper thickness	from 60 µm to 65 µm
External roll diameter	max 70 mm
External roll core diameter	12 mm (+ 1mm)
Paper end	Not attached to roll core
Core type	Cardboard or plastic
Minimum ticket length	100 mm
AUTOCUTTER	
Paper cut	Total cut
Estimated life (1)	1000000 cuts (with paper thickness 65 µm, ambient temperature)

DEVICE ELECTRICAL SPECIFICATIONS	
Power supply	12 Vdc ±10% (optional external power supply)
Medium consumption (3)	0.8 A
Stand-by consumption	30 mA
Consumption in low-power mode (4)	0.6 mA
ENVIRONMENTAL CONDITIONS	
Operating temperature	from -10°C to +60°C (5)
Relative humidity (RH)	from 10% Rh to 90% Rh (without condensation)
Storage temperature	from -20 °C to +70 °C
Storage relative humidity (RH)	from 10% Rh to 90% Rh (without condensation)

NOTES:
(1) : Respecting the regular schedule of cleaning for the device components.
(2) : Damages caused by scratches, ESD and electromigration are excluded.
(3) : Referred to a standard CUSTOM receipt (L=10cm, Density = 12,5% dots on).
(4) : To set the low-power mode, see the paragraph 3.4.
(5) : If you use the device with the power supply code 963GE020000138, supplied as an accessory, the operating temperature range is from 0 °C to +45 °C.

7.2 Character specifications in CUSTOM/POS emulation

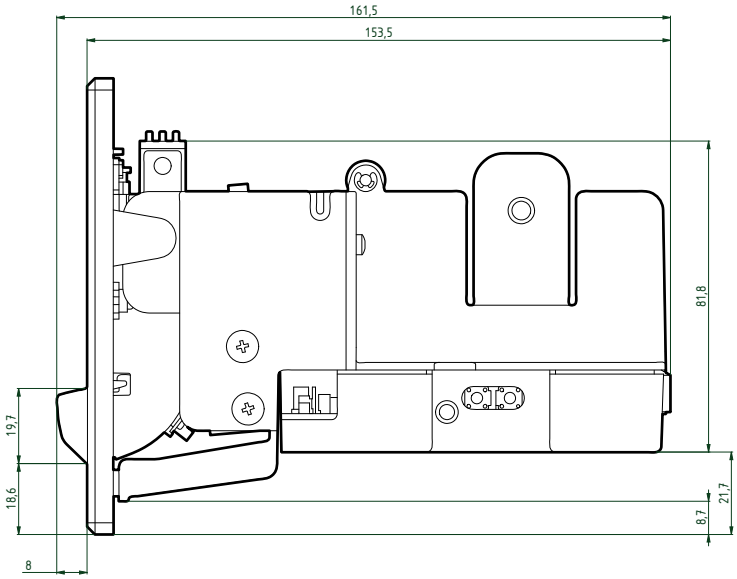
Character set		3	
Character density	12 cpi	16 cpi	22 cpi
Number of columns	24	32	42
Chars / sec	640	850	1140
Lines / sec	26	26	26
Characters (L x H mm)-Normal	2 x 3	1.5 x 3	1.125 x 3

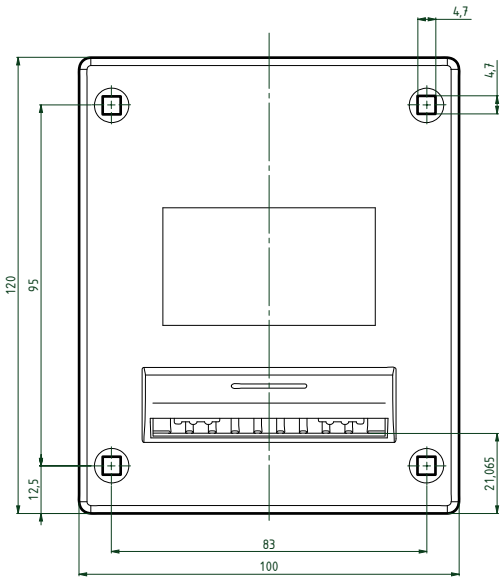
NOTE:
Theoretical values.

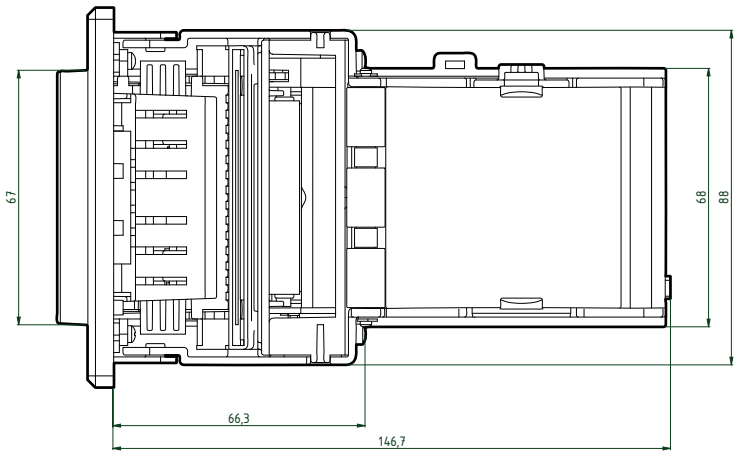
7.3 Device dimensions

Length	161.5 mm
Height	120 mm
Width	100 mm
Weight	490 g

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







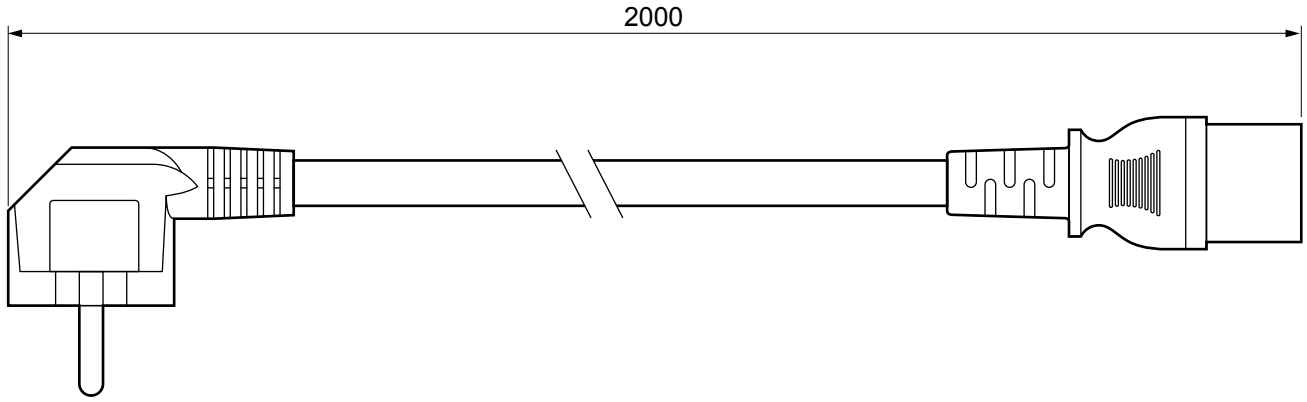
7.4 Power supply, power cord and adapter for power supply dimensions (optionals)

The following table shows the dimensions of the power supply, the power cord and the adapter for power supply optionals for the device:

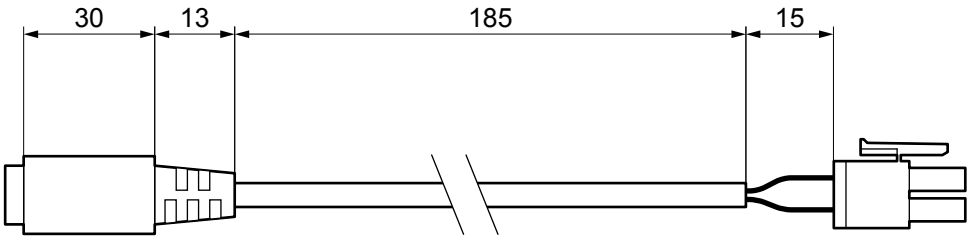
POWER CORD code 26100000000311	
Length	2000 mm
ADAPTER FOR POWER SUPPLY code 26900000000005	
Length	200 mm
POWER SUPPLY code 963GE020000138	
Length	116.3 mm
Height	31.3 mm
Width	25.4 mm

All the dimensions shown in following figures are in millimetres.

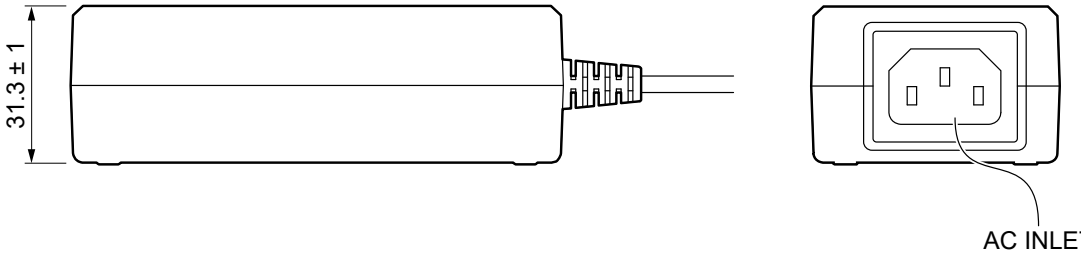
POWER CORD code 26100000000311

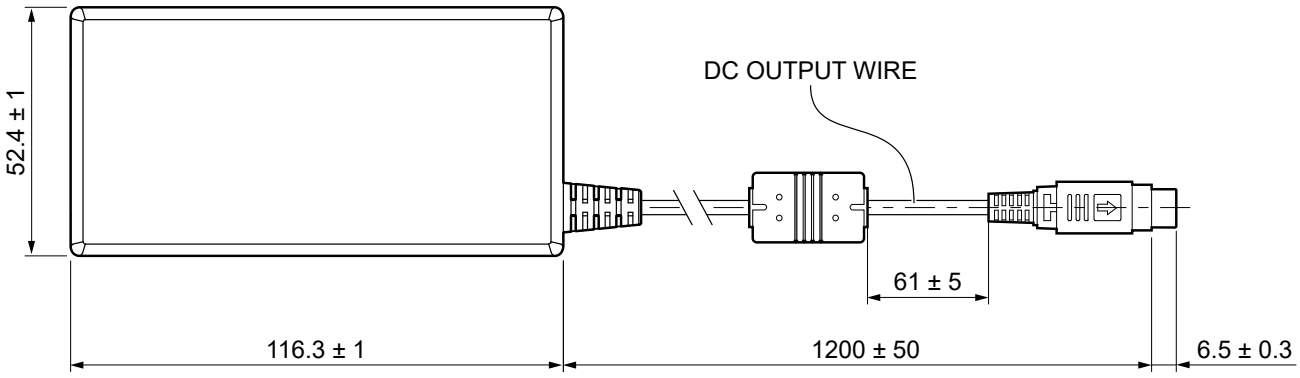


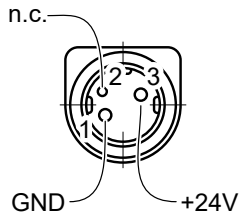
ADAPTER FOR POWER SUPPLY code 26900000000005



POWER SUPPLY code 963GE020000138







7.5 Character sets in CUSTOM/POS emulation

The printer has 3 internal fonts with a width of 12, 16, 22 cpi, which can be associated with one of the coding tables stored on the device.

To know the coding tables actually stored on the device, print the font test (see paragraph 2.4).

The selection of the font and the encoding table is done via command (see the commands manual of the device) or through the Setup procedure by properly setting the parameter “Chars / Inch”, “Code Table” and “Font Type” (see paragraph 5.5).

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

<CodeTable>	Character Tables	
0	PC437 - U.S.A., Standard Europe	
1	Katakana	on request
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
33	WPC775 - Baltic Rim	on request

<CodeTable>	Character Tables	
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	

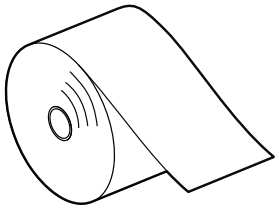
8 CONSUMABLES

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

67300000000344

THERMAL PAPER ROLL

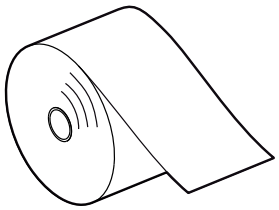
weight = 58g/m^2
width = 57mm
Ø external = 50mm
Ø core = 12mm



67300000000349

THERMAL PAPER ROLL
BACK PRINTED WITH "CUSTOM" LOGO

weight = 58g/m^2
width = 57mm
Ø external = 70mm
Ø core = 12mm

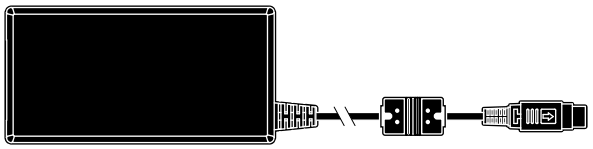


9 ACCESSORIES

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

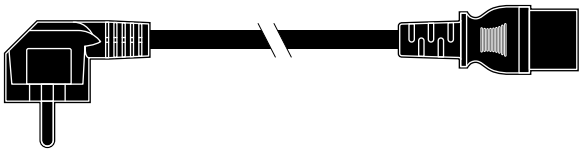
963GE020000138

POWER SUPPLY
(for technical specifications, see paragraph 7.1)



26100000000311

POWER CORD SCHUKO PLUG
length = 2 m
(see paragraph 7.4)



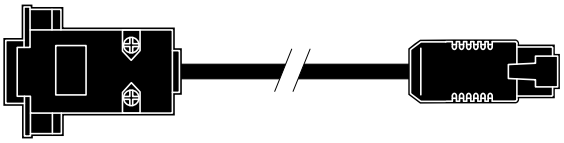
26900000000005

ADAPTER CABLE FOR POWER SUPPLY
length = 200 mm
(see paragraph 7.4)



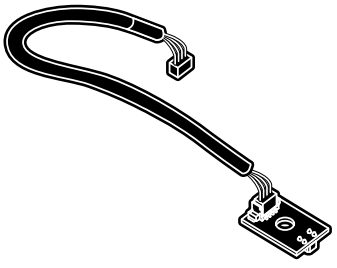
26500000000311

SERIAL CABLE RJ-DB9F
Length = 1.5 m



976PH010000001

KIT FOR LOW PAPER SENSOR
Lunghezza = 60 Mm



10 TECHNICAL SERVICE

In case of failure, contact the technical service accessing the website www.custom4u.it and using the support tools on the homepage. It is advisable to keep the identification data of the product at hand.

The product code, the serial number and the hardware release number can be found on the product label (see paragraph 2.3). The firmware release number (SCODE) can be found:

- on the setup report (see paragraph 5.1);
- connecting the device to a PC and starting the “PrinterSet” tool (see paragraph 5.2).

Code : 0576200M000156 Rev.1.30

CUSTOM S.p.A.
World Headquarters
Via Berettine, 2/B - 43010 Fontevivo, Parma ITALY
Tel. +39 0521 680111 - Fax +39 0521 610701
info@custom.biz - www.custom.biz

All rights reserved

www.custom.biz