USER MANUAL

mPLUS2

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

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

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

THE CE MARK AFFIXED TO THE PRODUCT CERTIFY THAT THE PRODUCT SATISFIES THE BASIC SAFETY REQUIREMENTS.

The device is in conformity with the essential Electromagnetic Compatibility and Electric Safety requirements laid down in Directives 2014/30/EU and 2014/35/EU inasmuch as it was designed in conformity with the provisions laid down in the following Standards:

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

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

GUIDELINES FOR THE DISPOSAL OF THE PRODUCT

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

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

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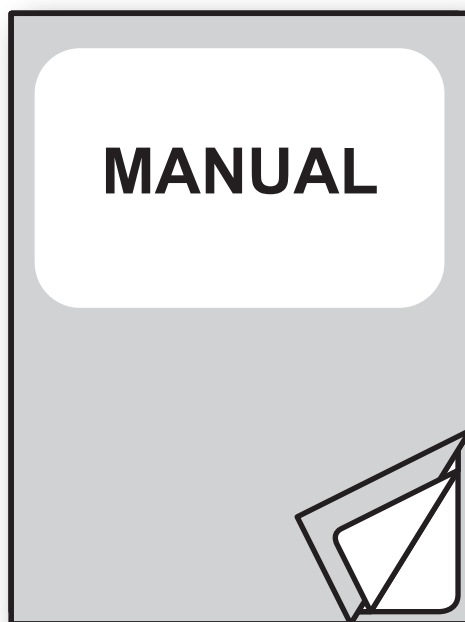
MANUAL

For details on the commands,
refer to the manual with code **77200000002100**

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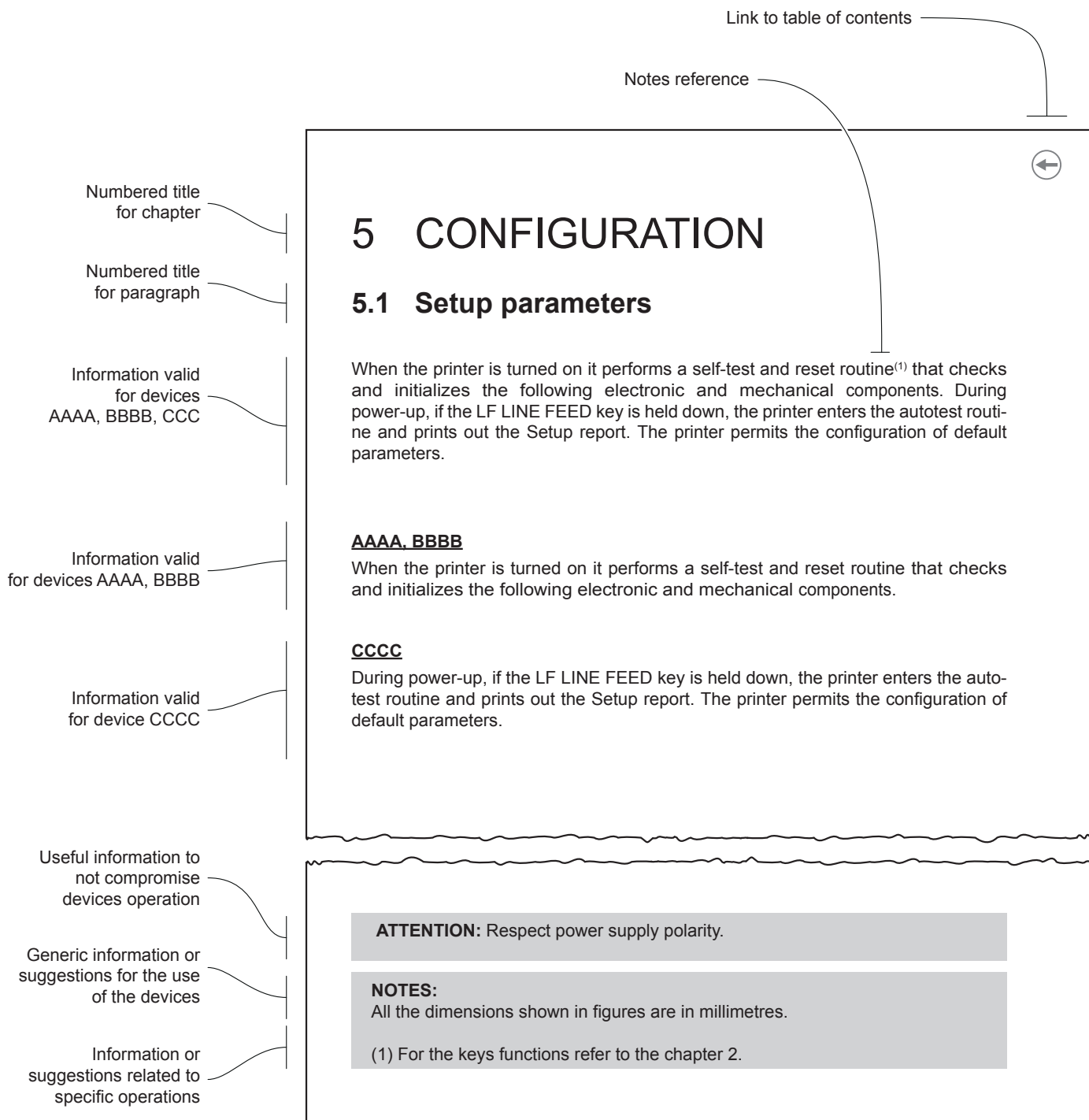refer to the manual with code **78200000001800**

TABLE OF CONTENTS

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1 INTRODUCTION

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

Link to table of contents

Notes reference

Numbered title for chapter

Numbered title for paragraph

Information valid for devices AAAA, BBBB, CCC

Information valid for devices AAAA, BBBB

Information valid for device CCCC

5 CONFIGURATION

5.1 Setup parameters

When the printer is turned on it performs a self-test and reset routine[1] that checks and initializes the following electronic and mechanical components. During power-up, if the LF LINE FEED key is held down, the printer enters the autotest routine and prints out the Setup report. The printer permits the configuration of default parameters.

AAAA, BBBB
When the printer is turned on it performs a self-test and reset routine that checks and initializes the following electronic and mechanical components.

CCCC
During power-up, if the LF LINE FEED key is held down, the printer enters the autotest routine and prints out the Setup report. The printer permits the configuration of default parameters.

Useful information to not compromise devices operation

Generic information or suggestions for the use of the devices

Information or suggestions related to specific operations

ATTENTION: Respect power supply polarity.

NOTES:
All the dimensions shown in figures are in millimetres.

(1) For the keys functions refer to the chapter 2.

2 DESCRIPTION

2.1 Box contents

Remove the device from its carton being careful not to damage the packing material so that it may be re-used if the device is to be transported in the future.
Make sure that all the components illustrated below are present and that there are no signs of damage. If there are, contact customer service.
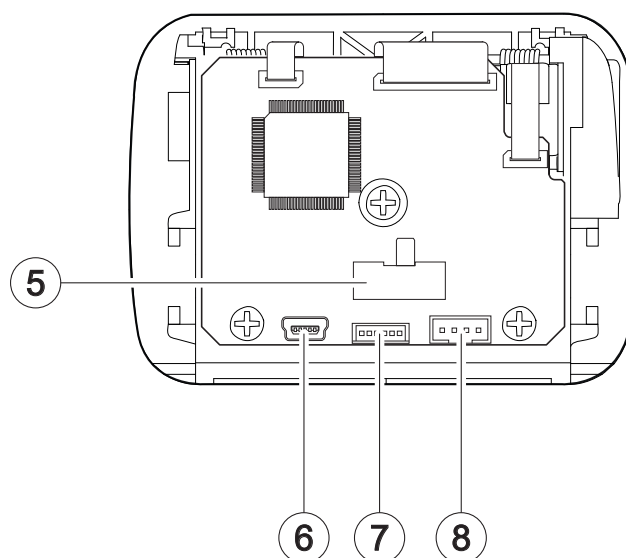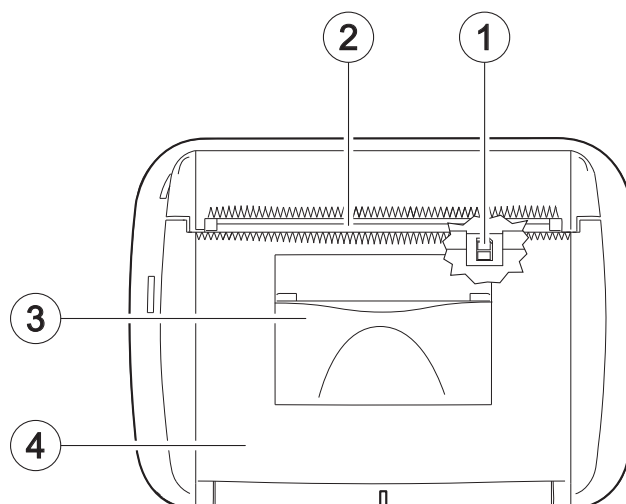
1. Fixing clips (x 2)

2. Device

3. Documentation

   (installation instruction sheet)
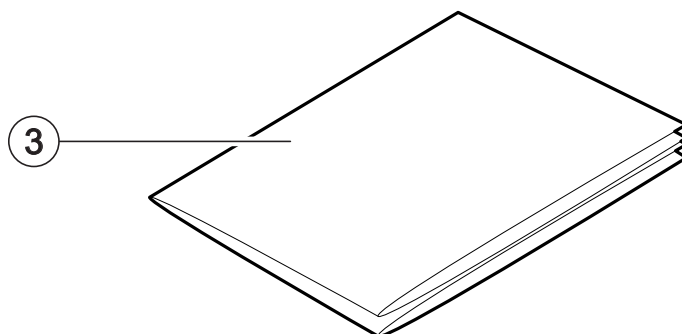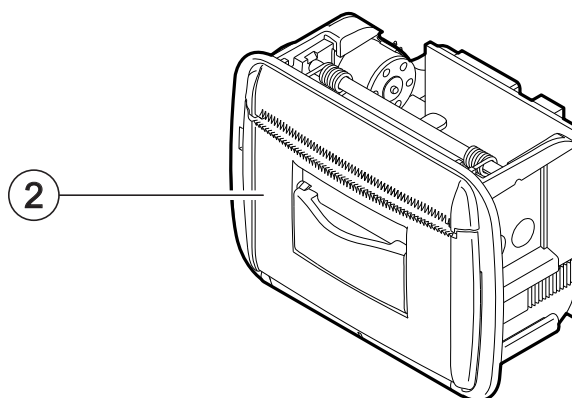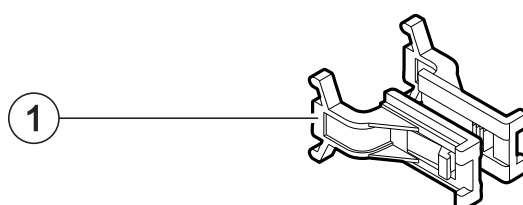
2.2 Device components

1. Sensor for paper detection
2. Paper out with serrated blade
3. Opening lever for paper compartment
4. Paper compartment
5. Switch for RS232/TTL serial communication
6. USB port
7. RS232/TTL serial port
8. Power supply port

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).
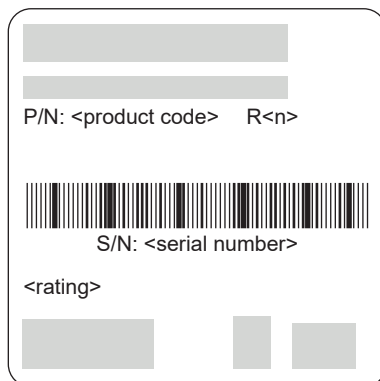
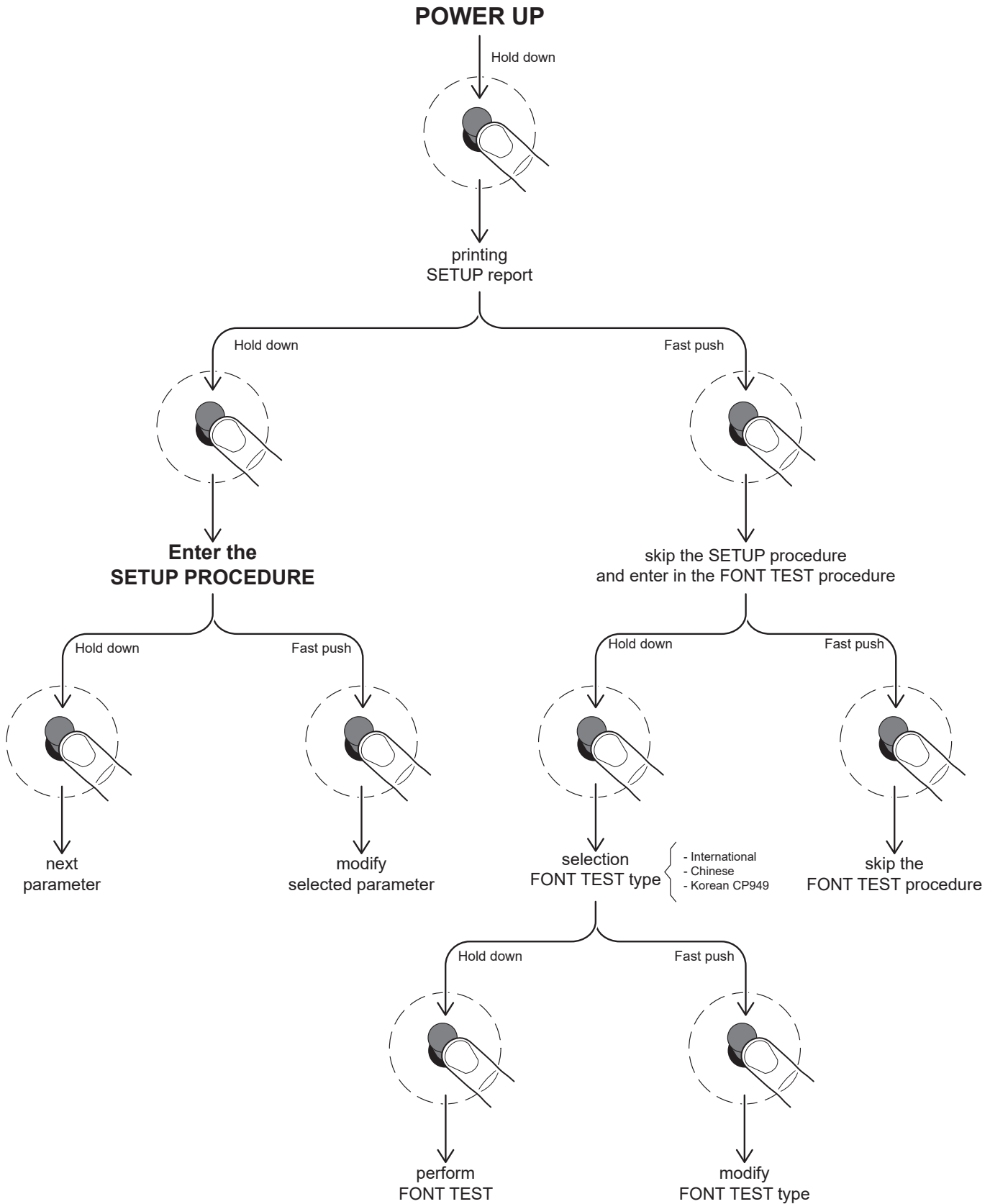## 2.4   Key functions: power up

To have the key shown in the figure is necessary to build a cable to be connected to the serial port (see paragraph 3.3).

POWER UP

Hold down

↓

printing
SETUP report

Hold down / Fast push

**Enter the
SETUP PROCEDURE**

skip the SETUP procedure
and enter in the FONT TEST procedure

Hold down / Fast push

next
parameter

modify
selected parameter

Hold down / Fast push

selection
FONT TEST type
- International
- Chinese
- Korean CP949

skip the
FONT TEST procedure

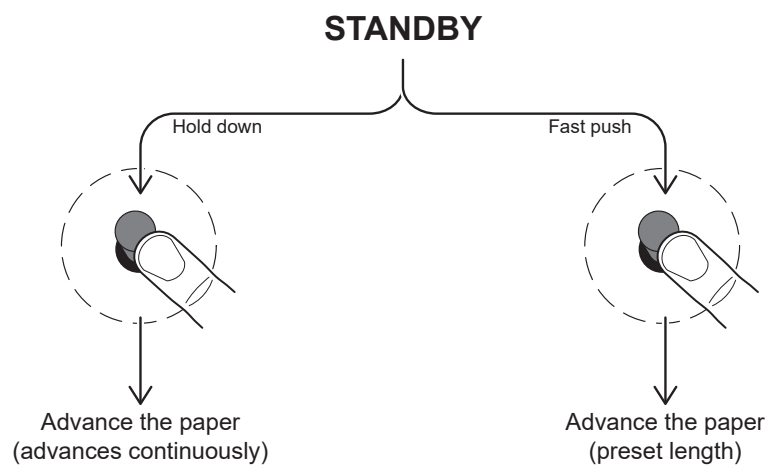Hold down / Fast push

perform
FONT TEST

modify
FONT TEST type

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2.5   Key functions: standby

To have the key shown in the figure is necessary to build a cable to be connected to the serial port (see).

STANDBY

Hold down   Fast push

Advance the paper
(advances continuously)

Advance the paper
(preset length)

2.6 Status messages

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

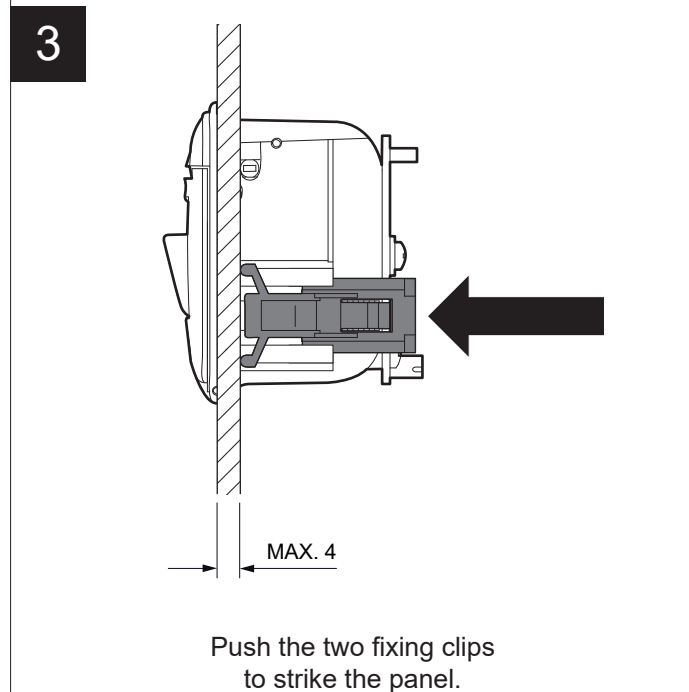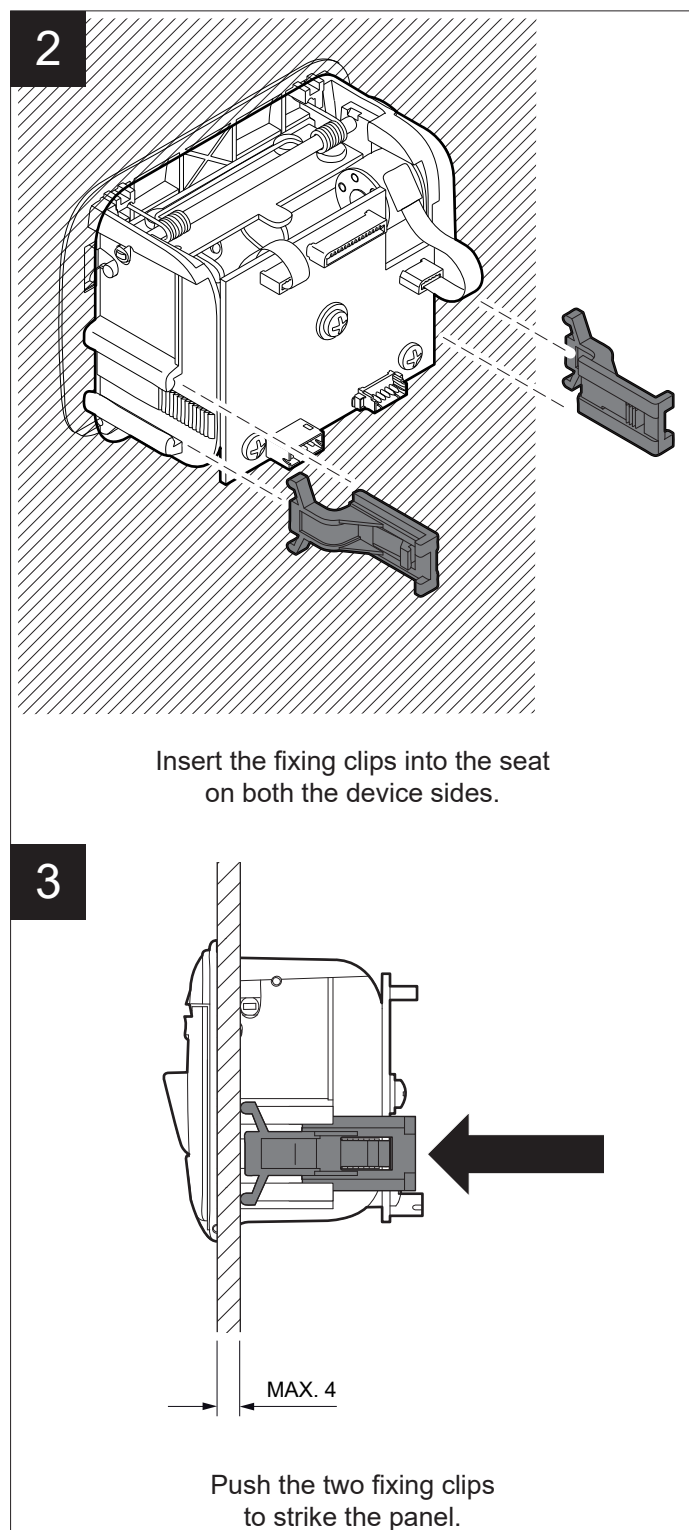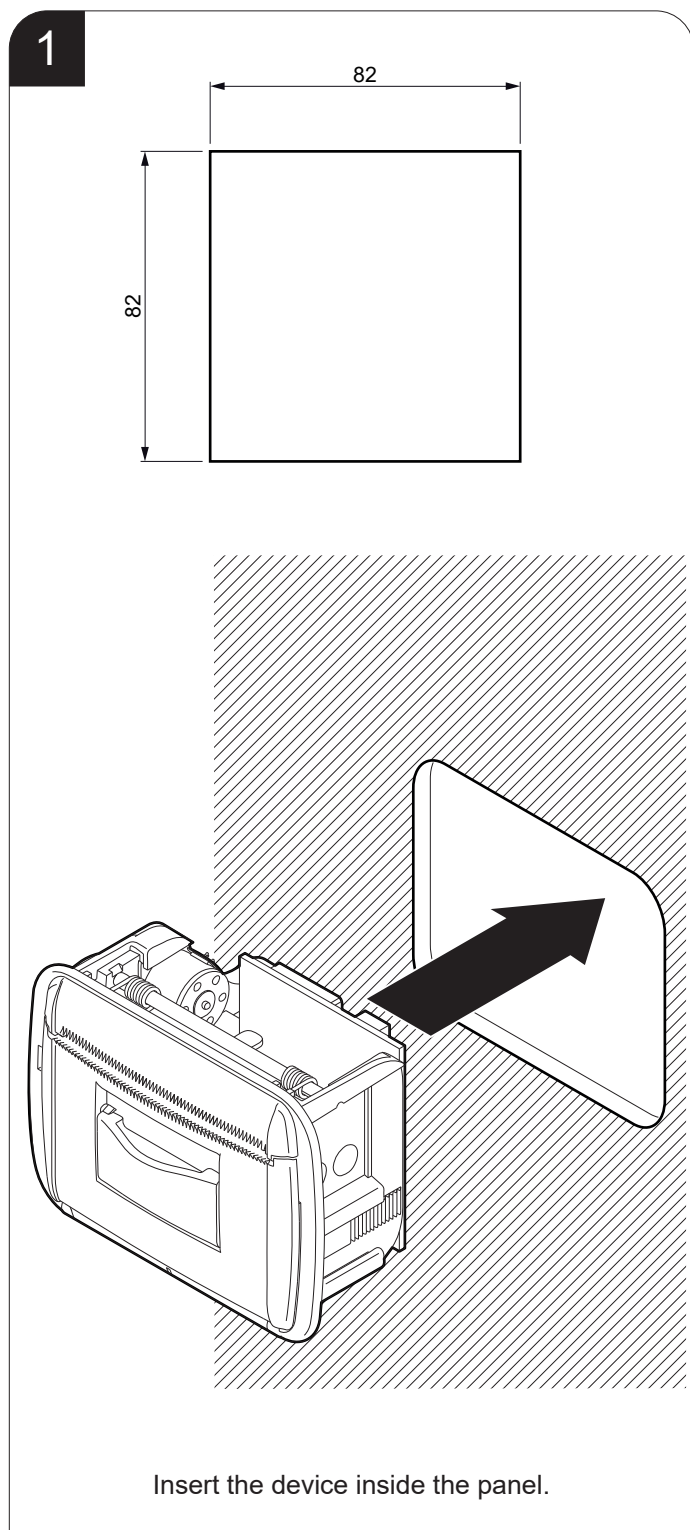| STATUS LED		DESCRIPTION
-	OFF	DEVICE OFF
GREEN	ON	DEVICE ON: NO ERROR
GREEN RECOVERABLE ERROR	x 2	PRINTHEAD OVERHEATED
	x 3	PAPER END
	x 4	POWER SUPPLY VOLTAGE INCORRECT
	x 5	RECEPTION ERRORS (PARITY, FRAME ERROR, OVERRUN ERROR)
	x 6	COMMAND NOT RECOGNIZED
	x 7	COMMAND RECEPTION TIME OUT

3   INSTALLATION

3.1   "EASYLOCK" fixing system

The device includes two plastic clips for fixing to the panel. This system allows you to lock the device on the panels of thickness max. 4 mm and requires no tools. Proceed as follows.

All the dimensions shown in following figures are in millimetres.

1

82

82

Insert the device inside the panel.

2

Insert the fixing clips into the seat on both the device sides.

3

MAX. 4

Push the two fixing clips to strike the panel.

4
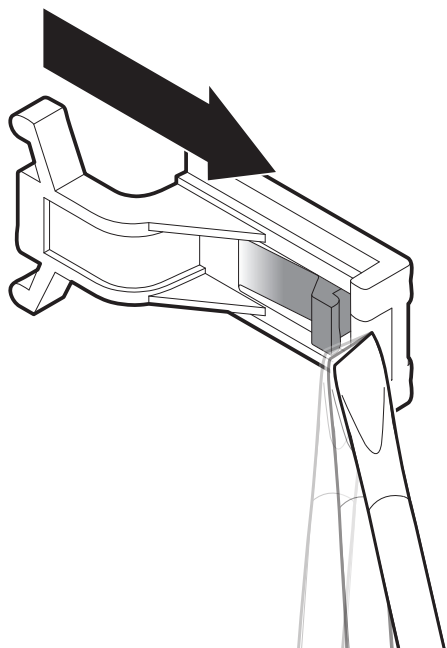
To remove the fixing clips lift the lever
shown in figure with a small screwdriver.

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, communication takes place via the USB port.

USB standard
cable

Power supply cable
(optional)

PC
USB device

Serial
RS232/TTL
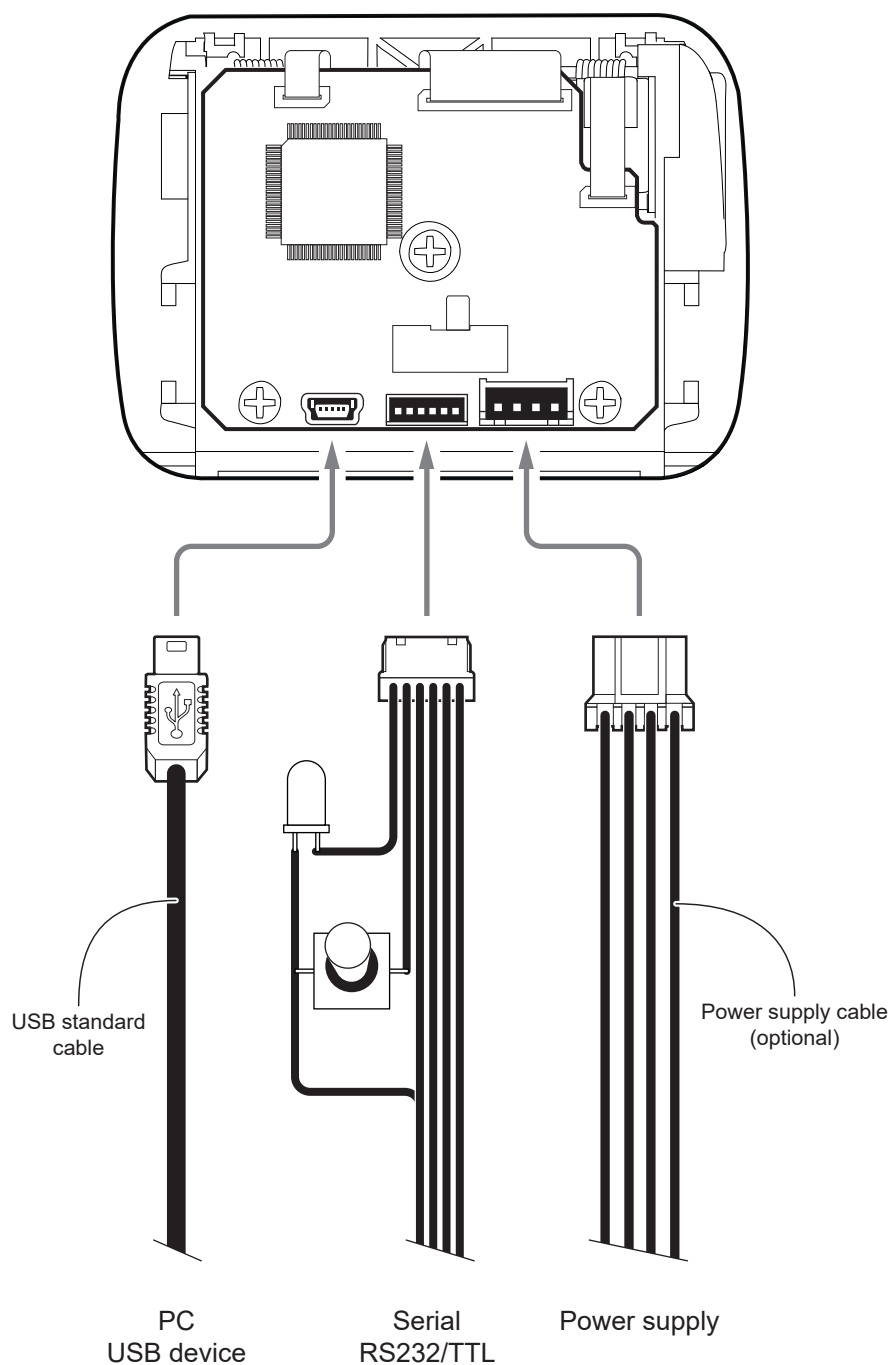
Power supply

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

3.3 Pinout

POWER SUPPLY
JST male connector (S4B-PH-K-S)

J4	1	GND
	2	GND
	3	+VP
	4	+VCC

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

Power supply cable

Female JST connector series PHR-4

PIN	Cable color	Signal
4	Black	GND
3	Black	GND
2	Orange	+VP
1	Red	+VCC
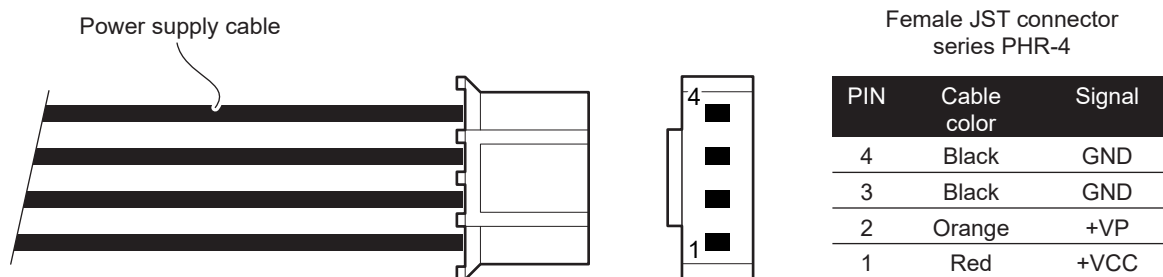
ATTENTION:
Respect power supply polarity.

MINI USB INTERFACE
Female MINI USB type B connector

J1	1	USB0_VBUS
	2	USB0_D-
	3	USB0_D+
	4	n.c.
	5	GND
	SH1	GND
	SH2	GND

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RS232/TTL SERIAL INTERFACE
Molex male connector 53048-0610 series (90°)

J2		
1	RT	
2	TX	During transmission, takes the values -VRS232 and + VRS232 depending on data
3	RX	During reception, takes the values -VRS232 and +VRS232 depending on data
4	GND	
5	FEED	
6	LED	
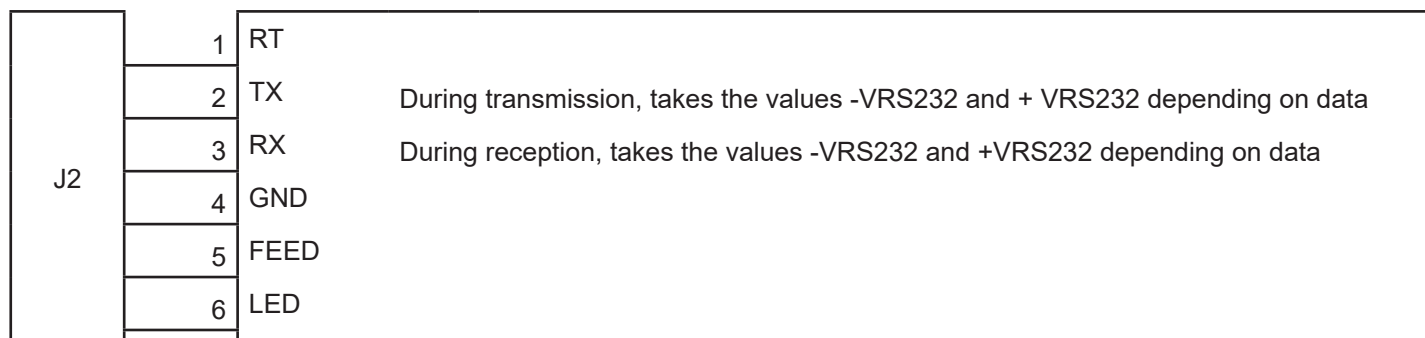
Given the presence of the RS232 standard, logic value "0" corresponds to the voltage value +VRS232 (voltage value between +3Vdc and +15Vdc) and logic value "1" corresponds to the voltage value -VRS232 (voltage value between -3Vdc and -15Vdc.

Device > PC connection
The following picture shows an example of connection between the device and a personal computer using a 9 pin RS232 serial connectors:
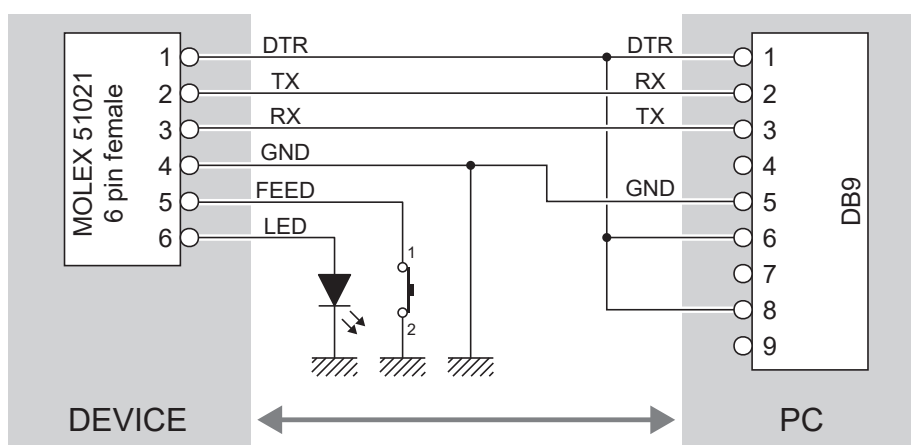
When use a serial cable, we recommend the installation of a ferrite core on the power supply cable.

3.4 Serial port setting

To set the serial port of the device, slide the switch shown in figure in the correct position:
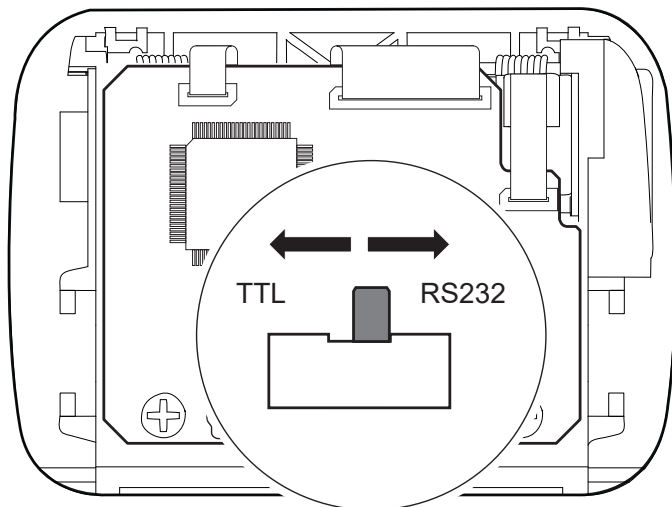
In the serial protocol, the signals which distinguish the communication are TD, RD, and RTS if the RTS/CTS protocol has been selected while, if the XON/XOFF protocol has been selected, the signals are TD and RD.
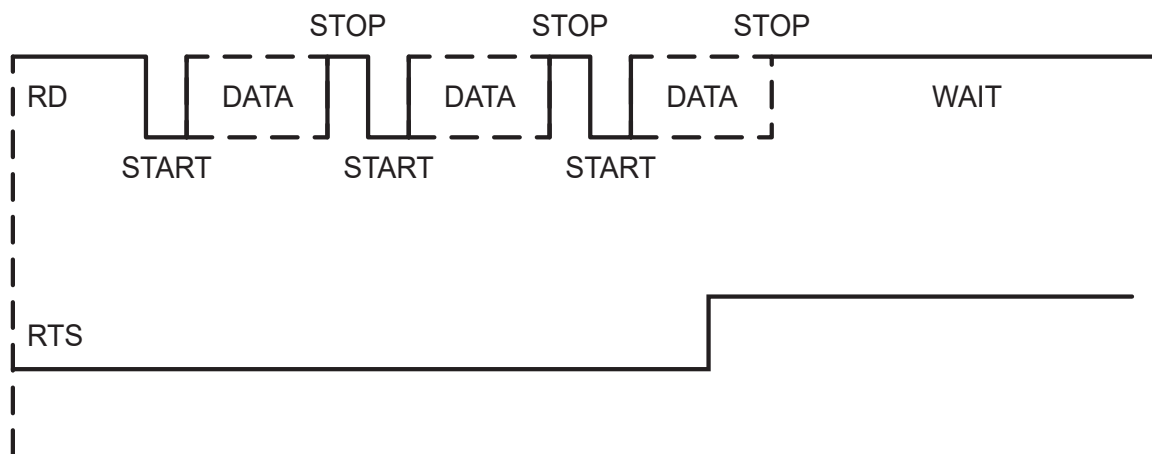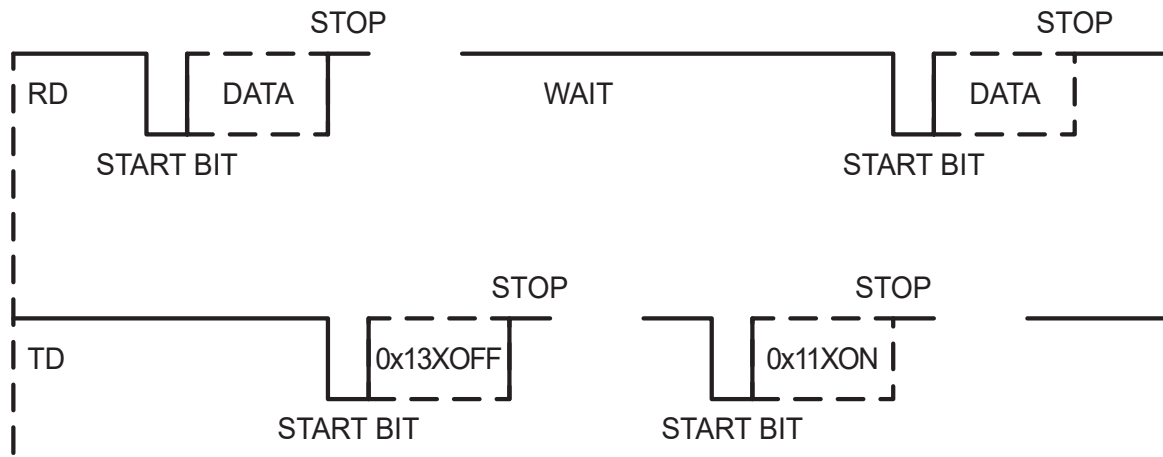
Transmission format

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

RTS/CTS Protocol

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XON/XOFF protocol

3.5   Driver and SDK

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

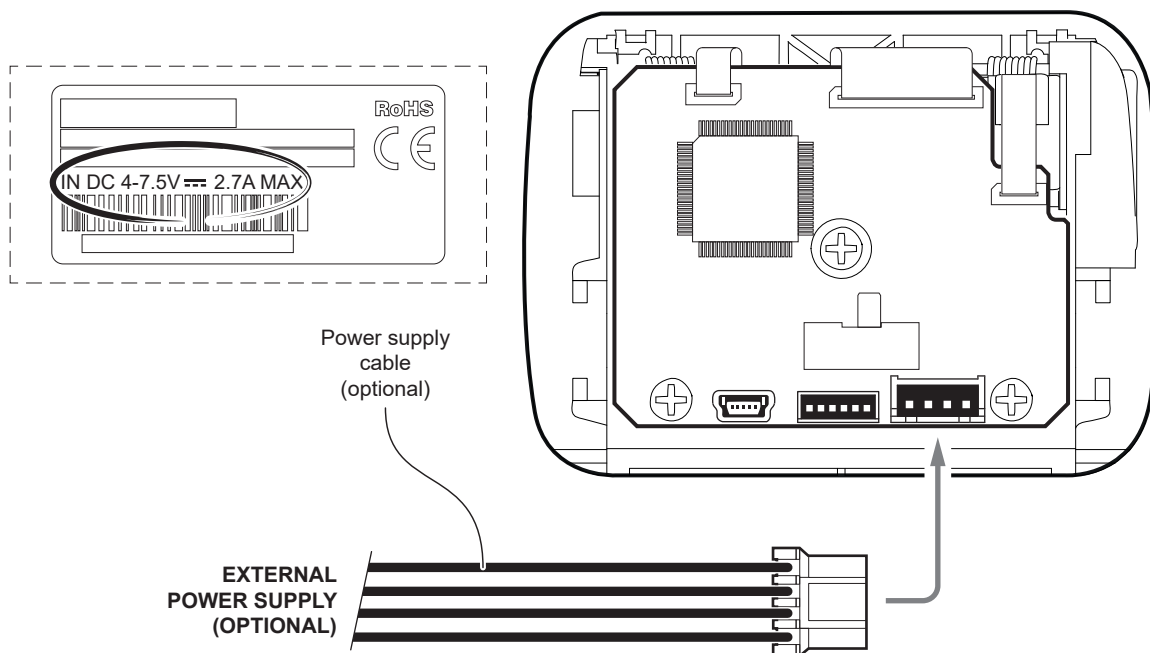| OPERATING SYSTEM	DESCRIPTION	INSTALLATION PROCEDURE
Windows	Driver for Windows XP	From the START menu, press Run and type-in the path where the SW was saved on your PC, then click OK. Follow the instructions that appear on the screen to install the driver.
	Driver for Windows VISTA (32/64 bit)	
	Driver for Windows 7 (32/64 bit)	
	Driver for Windows 8 (32/64 bit)	
	Driver for Windows 8.1 (32/64 bit)	
	Driver for Windows 10 (32/64 bit)	
	Self-installing driver for Virtual COM (32/64 bit) (see paragraph 5.4)	
Linux	32/64 bit	Follow the instruction get back on the "Readme.txt" file. You can find it in the software package downloaded in advance.
Android	SDK for Custom Android API	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.

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4 OPERATION

4.1 Opening device cover
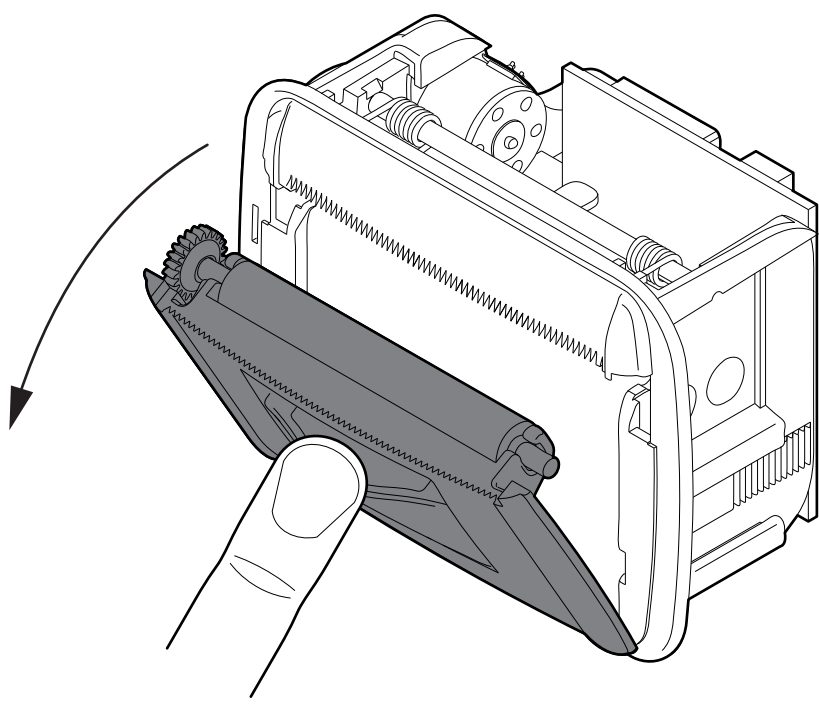
Press on the opening lever and open the device cover.

4.2 Switch the device on

1

Power supply cable (optional)

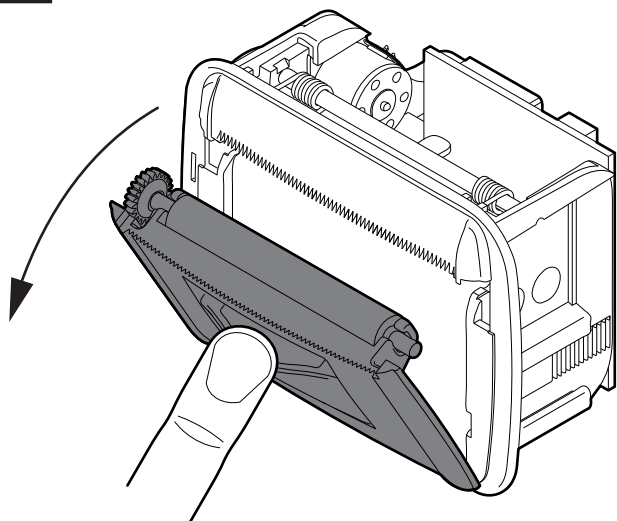IN DC 4-7.5V ⎓ 2.7A MAX

RoHS

EXTERNAL POWER SUPPLY (OPTIONAL)

Connect the power supply cable to an external power supply unit and to the device.
Use the type of electrical power supply indicated on the label.
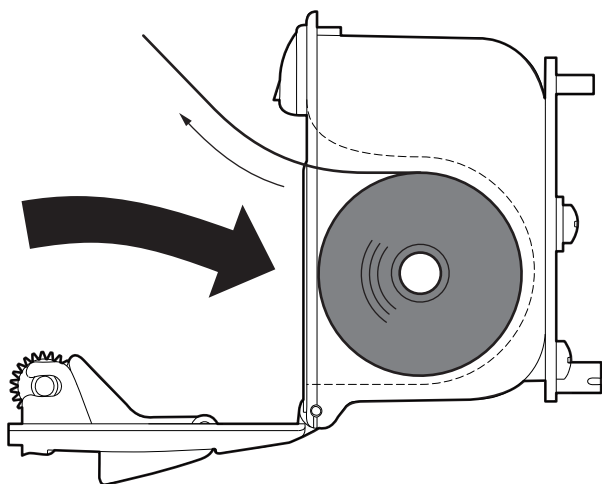
4.3   Loading the paper roll

To change the paper proceed as follows. At every change of paper, check inside the device to locate and remove any scraps of paper.
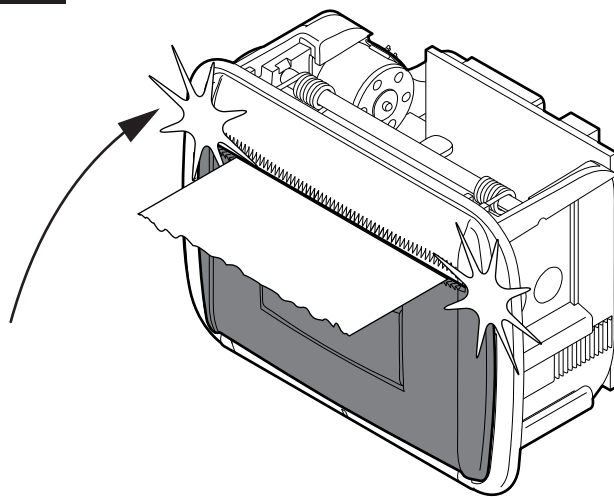
1

Open the device cover
(see paragraph 4.1).

2

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

3

Close the device cover.

4
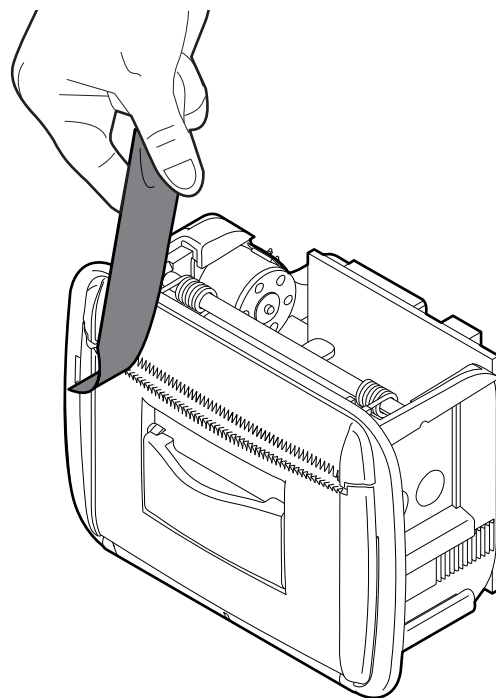
Remove the excess paper.
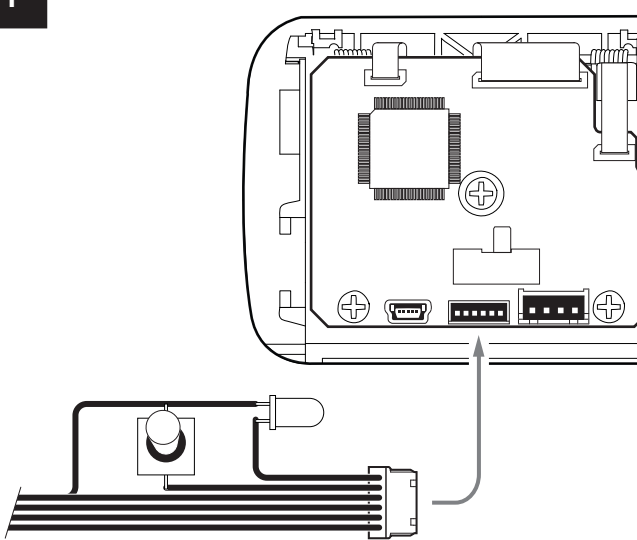
5 CONFIGURATION

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

Connect the serial cable.

2

While pressing the FEED key, switch on the
device by inserting the power supply cable.

3

PRINTER SETUP

The device prints the report with
parameters for settings.

4

Enter
setup

Hold down the FEED key to enter
the configuration mode (see paragraph 2.4).

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.

KEYS FUNCTIONS

[FAST PUSH] *to skip setup*
[PUSH] *to enter setup*
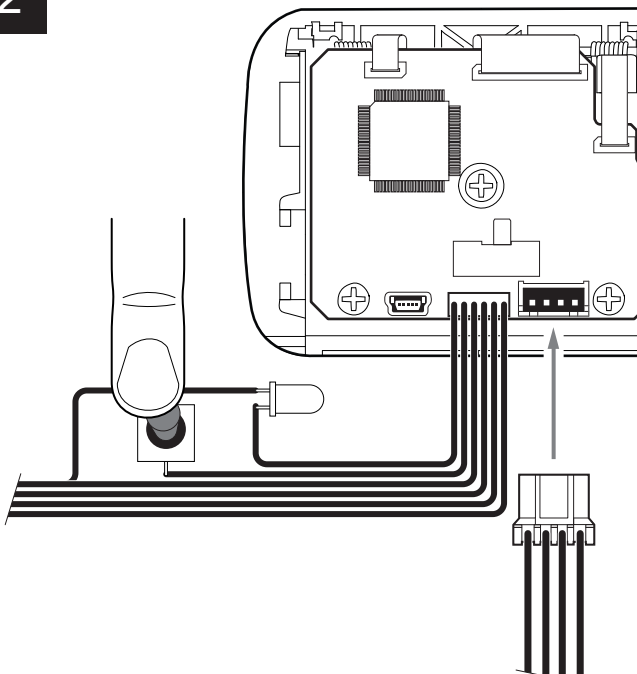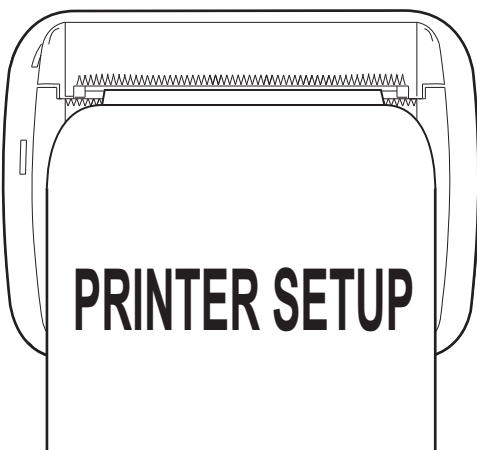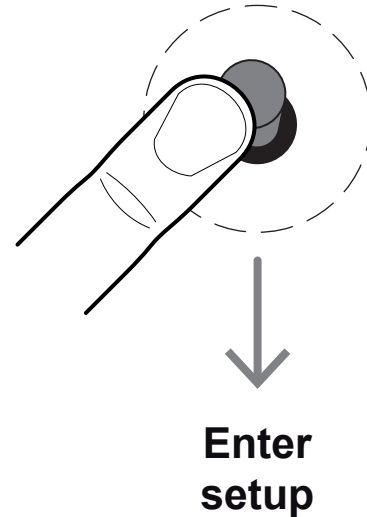
DEVICE NAME AND
FIRMWARE MODULES
RELEASE

< device name >
SCODE <code>   -   rel   1.00
FCODE <code>   -   rel   1.00

PRINTER SETTINGS

DEVICE
STATUS

PRINTER TYPE ....<device model>
PRINTING HEAD TYPE ....<head model>
INTERFACE ....USB
PROGRAM MEMORY TEST.................OK
DYNAMIC RAM TEST..........................OK
EEPROM TEST.....................................OK
HEAD VOLTAGE   [V]   =   04.84
HEAD TEMPERATURE   [°C]   =   25
POWER ON COUNTER   =   4
PAPER PRINTED   [cm]   =   40

PARAMETERS
FOR DEVICE
CONFIGURATION

Printer Emulation..............................: **PLUS**
RS232 Baud Rate ....: **9600 bps**
RS232 Data Length..........................: **8 bits/chr**
RS232 Parity ....: **None**
RS232 Handshaking ....: **Xon/Xoff**
Busy Condition ....: **RxFull**
USB Address Number ....: **0**
Print Mode ....: **Normal**
Autofeed ....: **CR Enabled**
Chars / inch ....: **A=13 B=17 cpi**
Columns 22 cpi................................: **40 columns**
Code Table [num] ....: **00**
Font Type..: **International**
Speed / Quality................................: **Normal**
PaperEnd Buffer Clear ....: **Disabled**
Power Off Command ....: **Disabled**
Print Density....................................: **0%**

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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.

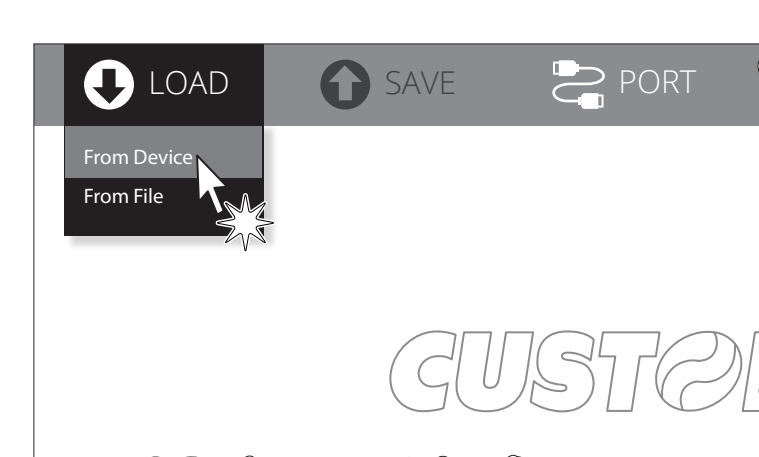**1**
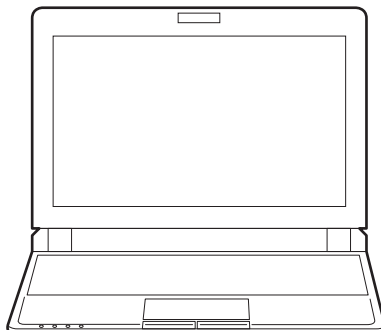
Connect the device to a PC directly (see paragraph 3.2),
without using HUB devices.

2
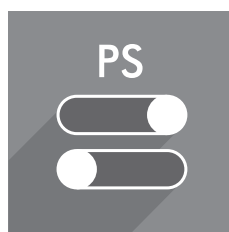
Start "PrinterSet" software tool.

3

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

4
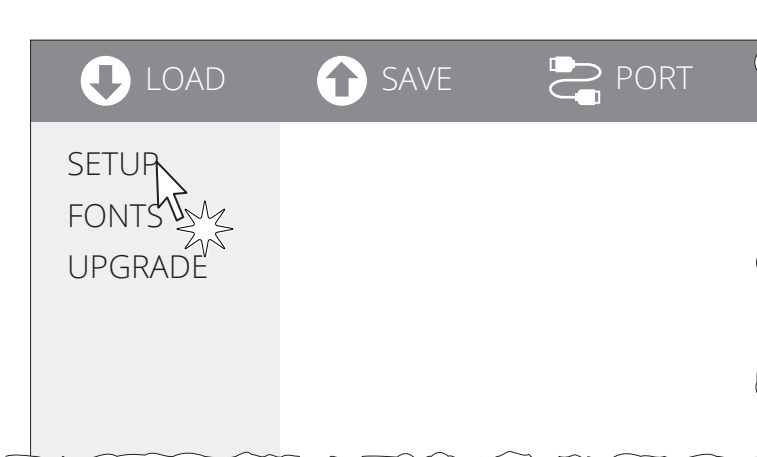
Click on SETUP to access the operating parameteres of the device to be configured.

5
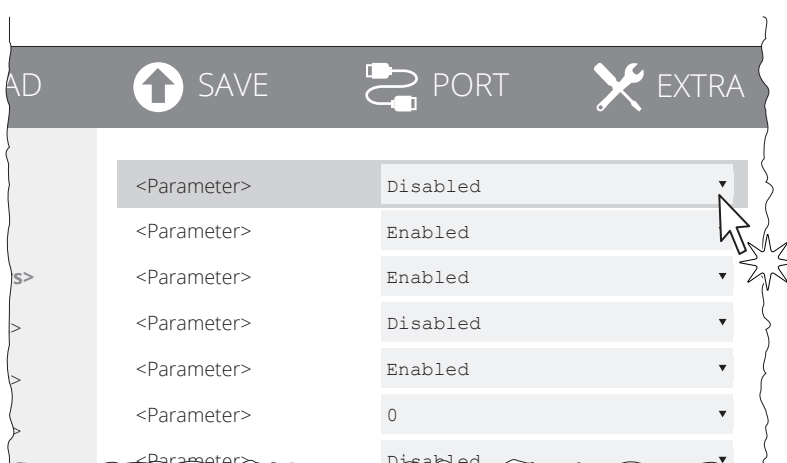
Make the desired changes to the
device operating parameters.

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.

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5.3   Device status
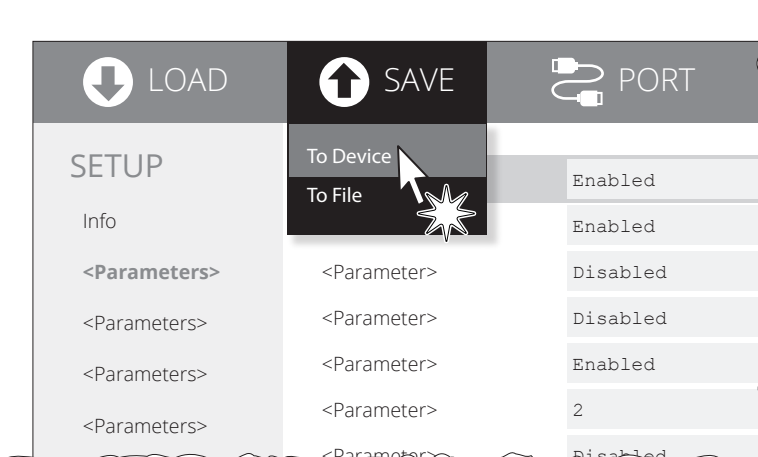
The device operating status is indicated in the configuration print-out in which, next to the name of the components displayed, the following information is given.

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
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

5.4   Communication parameters

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

RS232 BAUD RATE	Communication speed of the serial interface: 1200 9600 ^D 57600 2400 19200 115200 4800 38400 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 = software handshaking Hardware ^D = 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 device 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

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5.5   Operating parameters

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

PRINTER EMULATION	Available emulations for the device: CUSTOM/POS PLUS [D]
PRINT MODE	Printing mode: Normal = enables printing in normal writing way Reverse [D] = 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 = 13 cpi, B = 17 cpi A = 17 cpi, B = 22 cpi A = 22 cpi, B = 17 cpi [D] CPI = Characters Per Inch.
COLUMNS 22 cpi	Number of columns to use when the 17x22 cpi font is in use (see parameter "Chars / Inch"): 40 columns [D] 42 columns The parameter is printed only with PLUS or FH190 emulation enabled. To modify the parameter, set the PLUS or FH190 emulation (see parameter "Printer Emulation") and the 17x22 cpi font (see parameter "Chars / Inch").
CODE TABLE	Identifier number of the character code table to use. 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 CP949 = Enables the use of the korean font CP949 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:
	High Quality Normal [D] High Speed
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.
POWER OFF COMMAND	Enables or disables Power Off command (see commands manual):
	Disabled [D] = Power Off command disabled Enabled = Power Off command enabled
PRINT DENSITY	Adjusting the printing density:
	-50% -25% 0 [D] +25% +50% -37% -12% +12% +25%
	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.

5.6   Hexadecimal dump

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

During the startup, if you hold down the FEED key, the 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 receipt contain an indication of the hexadecimal and ASCII values (if the characters are underlined, the receive buffer is full). Shown below is an example of a Hexadecimal Dump:

```
                 HEXADECIMAL DUMP

   31  32  33  34  35  ...          12345 ...
   39  30  31  32  33  ...          90123 ...
   37  38  39  75  69  ...          789ui ...
   68  6B  6A  73  64  ...          hkjsd ...
   73  64  66  6B  6A  ...          sdfkj ...
   66  73  64  66  6B  ...          fsdfk ...
   65  69  6F  79  75  ...          eioyu ...
   6F  72  69  75  77  ...          oriuw ...
   6F  75  77  65  72  ...          ouwer ...
   77  65  72  69  6F  ...          werio ...
   72  69  6F  75  77  ...          riouw ...
   6B  6C  73  64  66  ...          klsdf ...
   64  66  6B  73  64  ...          dfksd ...
   73  64  66  6B  6A  ...          sdfkj ...
   66  6B  F2  6A  73  ...          fk≥j ...
   6A  6B  6C  68              jklh
```
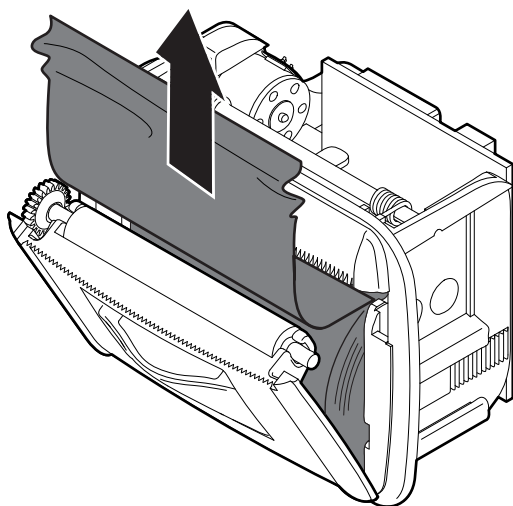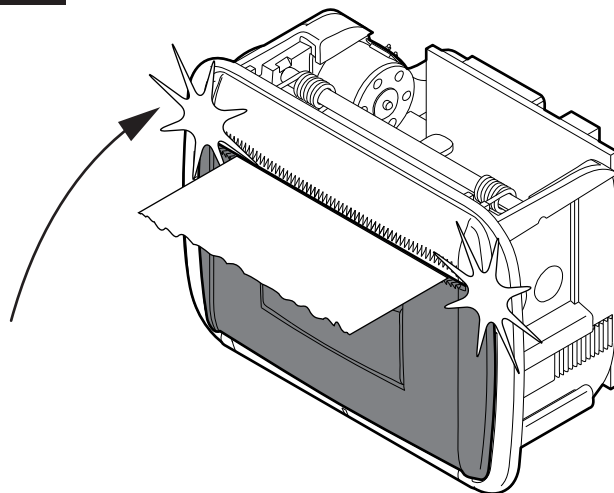
6 MAINTENANCE

6.1 Paper jam

1
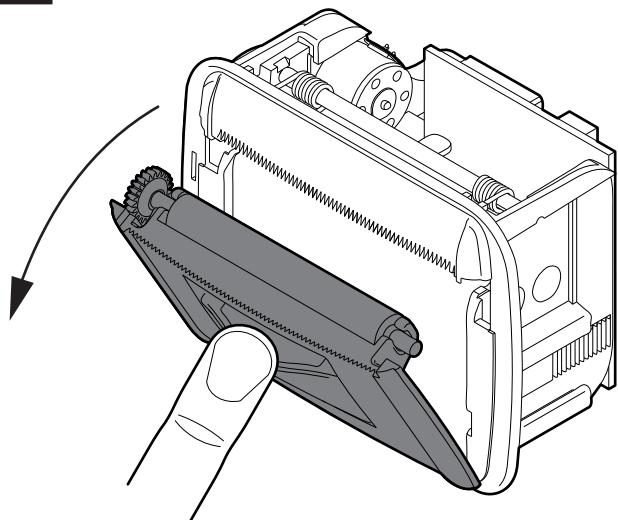
Open the device cover
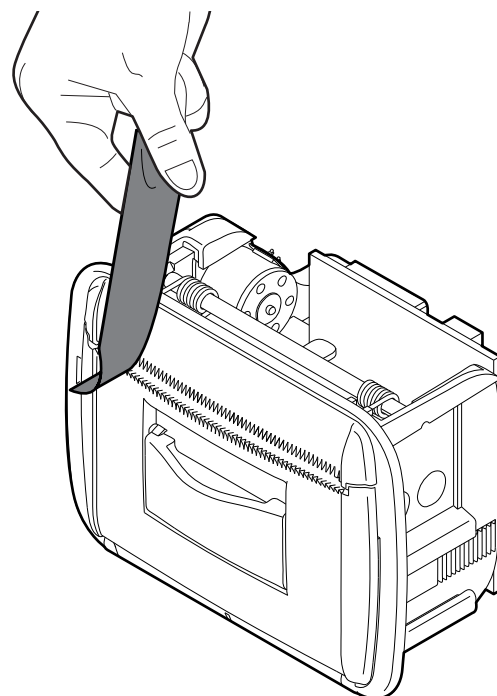(see paragraph 4.1).

2

Lift the damaged paper, check and remove any scraps
of paper. Pull the paper so that the damaged part
remains outside the device.

3

Close the device cover.

4

Remove the excess paper.

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.
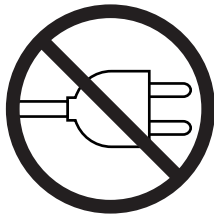
EVERY PAPER CHANGE	
Printhead	Use isopropyl alcohol
Platen roller	Use isopropyl alcohol
EVERY 5 PAPER CHANGES	
Paper path	Use compressed air or tweezers
Sensor	Use compressed air
EVERY 6 MONTHS OR AS NEEDED	
Case	Use compressed air or a soft cloth

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6.3   Cleaning

For periodic cleaning of the device, see instructions below.
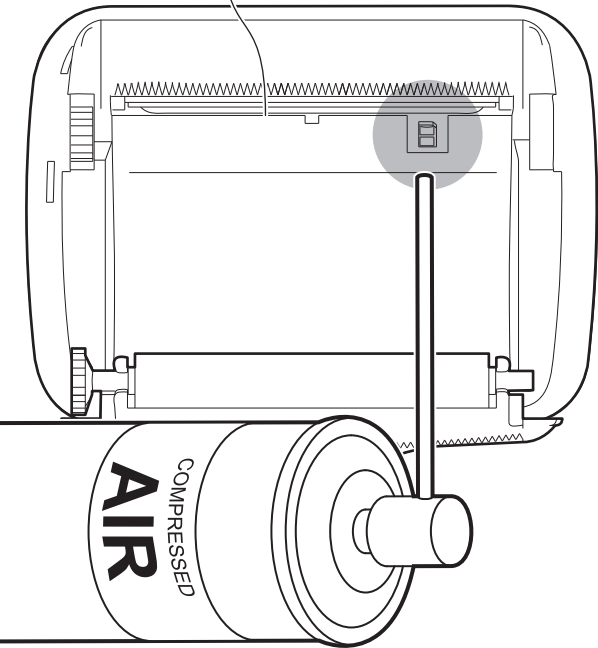
<u>**Sensors**</u>

1

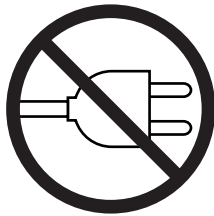Disconnect the power supply cable and open the device cover (see paragraph 4.1).

2

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

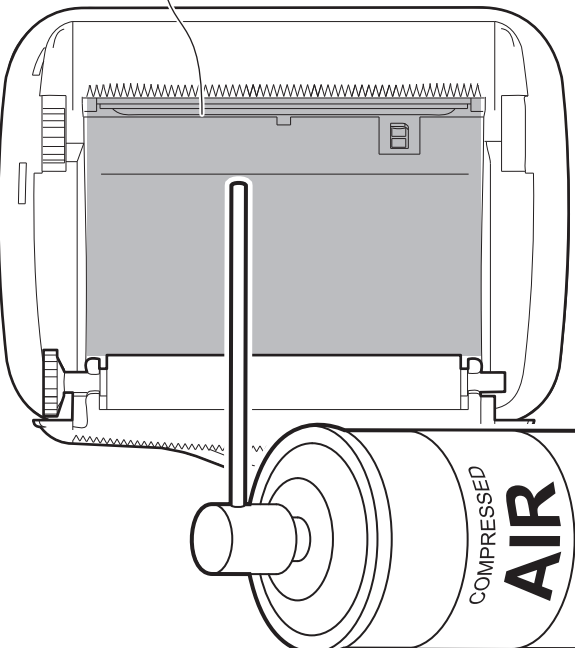Clean the device sensor by using compressed air.

<u>**Paper path**</u>

1

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

2

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

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

Printhead

1

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

2

ISOPROPYL ALCOHOL

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

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

Platen roller

1

Disconnect the power supply cable and
open the device cover (see paragraph 4.1).
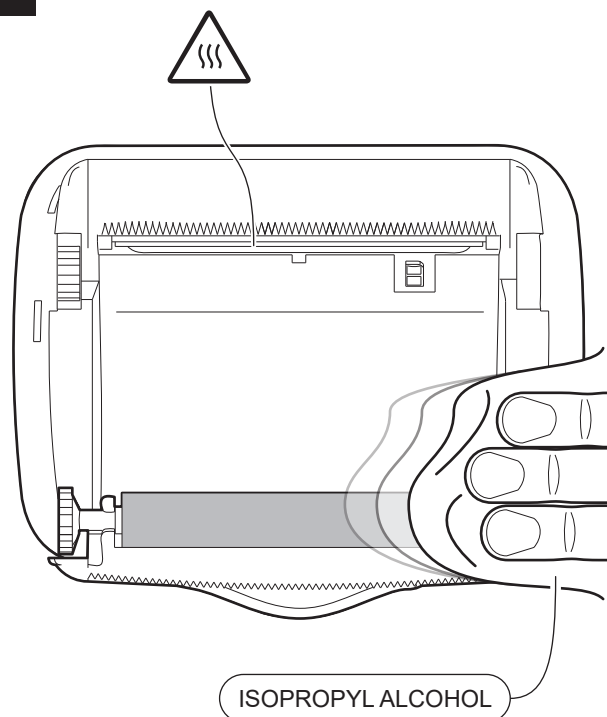
2

ISOPROPYL ALCOHOL

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

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

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Case

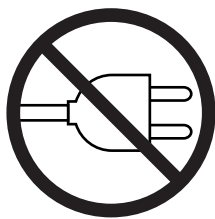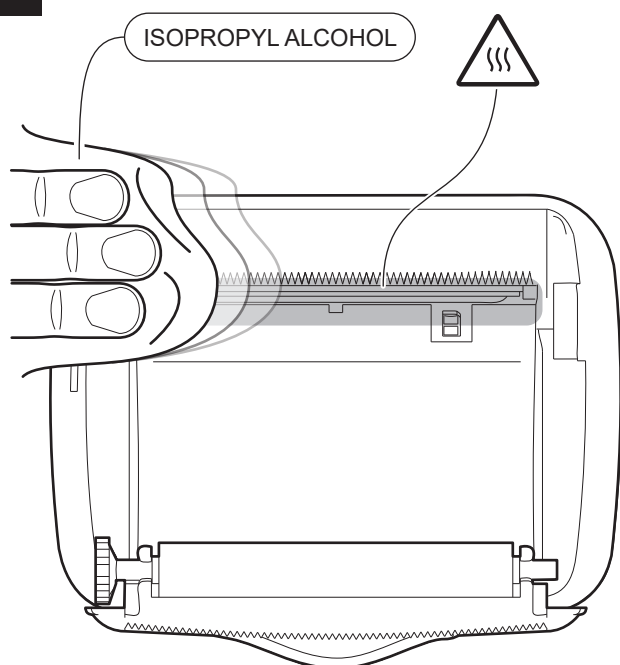**1**

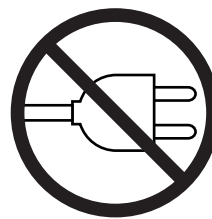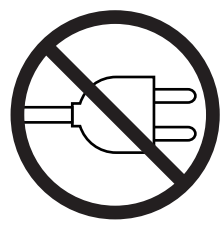Disconnect the power supply cable.

2
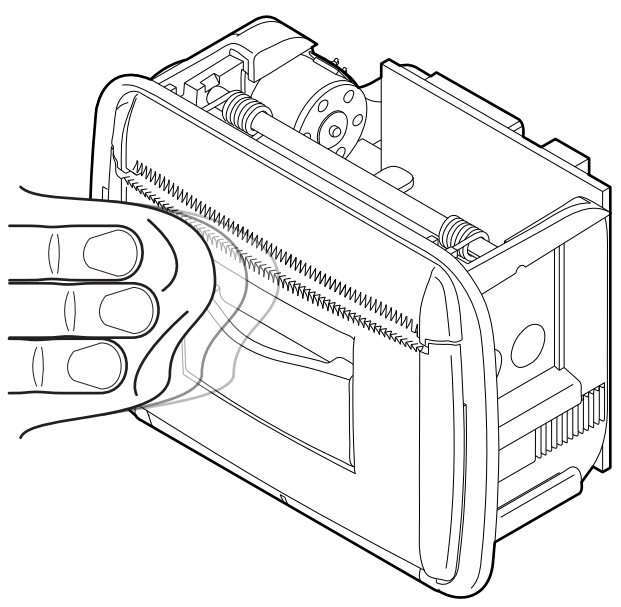
ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.

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

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

www.**CUSTOM4U**.it

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

2
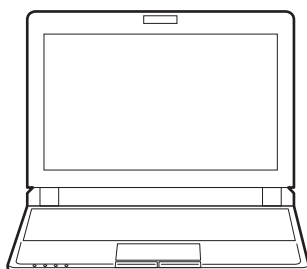
Connect the device to a PC directly (see paragraph 3.2),
without using HUB devices.

3

PS
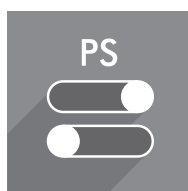
Start the "PrinterSet" software tool.

4

⬇ LOAD	⬆ SAVE	🔌 PORT	✖ EXTRA	❓ HELP

From Device
From File

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Select a configuration file as follows:

Click on LOAD > From device and select a device connected with the PC

Click on LOAD > From file and select a .psc file on your PC

Drag and drop a .psc file

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

5

⬇ LOAD	⬆ SAVE	🔌 PORT	✖ EXTRA	❓ HELP

SETUP
FONTS
UPGRADE

To perform an upgrade select a file as follows:

For firmware upgrade, click on OPEN and select
a.psw or .pfw file on your PC

For module upgrade, click on OPEN and select
a.mod file on your PC

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 SPECIFICATIONS

7.1 Hardware specifications

GENERALS	
Sensors	Head temperature, paper presence
Emulations	CUSTOM/POS PLUS
Printing driver	Windows XP Windows VISTA (32/64bit) Windows 7 (32/64bit) Windows 8 (32/64bit) Windows 8.1 (32/64bit) Windows 10 (32/64bit) Self-installing driver for Virtual COM (32/64 bit) Linux (32/64 bit) Android

INTERFACES	
USB port	12 Mbit/s (USB 2.0 full speed)
RS232/TTL serial port	from 1200 to 115200 bps

MEMORIES	
Receive buffer	16 kB
Flash memory	4 MB (+768 kB interna)
RAM memory	128 kB
Graphic memory	Logos dynamic management (max. 32 kB graphic memory)

DEVICE	
Resolution	203 dpi (8 dot/mm)
Printing method	Thermal, fixed head
Head life [1]	
Abrasion resistance [2]	100 Km (with recommended paper)
Pulse durability	100 M (12.5% duty cycle)

Printing width	48 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 paragraph 7.5) Extended chinese GB18030-2000 Korean PC949
Printable barcode	Codabar, Code 32, Code 39, Code 93, Code 128, EAN-8, EAN-13, ITF, UPC-A, UPC-E, PDF417, QRCode
Printing speed [1] [3]	Normal = 40 mm/sec High Quality = 30 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 70 g/m^2
Paper thickness	from 63 μm to 85 μm
Recommended types of paper	KANZAN KF50 and KP460 MITSUBISHI PF5067
External roll diameter	max. 30 mm
External roll core diameter	12 mm (+ 1mm)
Paper end	Not attached to roll core
Core type	Cardboard or plastic
DEVICE ELECTRICAL SPECIFICATIONS	
Power supply	from 4 to 7.5 Vdc (optional external power supply)
Typical consumption [3]	1.25 A (4 Vdc) 0.7 A (7.5 Vdc)
Standby consumption	0.1 A

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ELECTRICAL SPECIFICATIONS POWER SUPPLY code 964GE010000003 (optional)	
Power supply voltage	from 90 Vac to 264 Vac
Frequency	from 50 Hz to 60 Hz
Output	5 V, 5 A
Power	25 W
ENVIRONMENTAL CONDITIONS	
Operating temperature	from -20 °C to +70 °C
Relative humidity (RH)	from 10% to 85% (without condensation)
Storage temperature	from -20 °C to +70 °C
Storage relative humidity (RH)	from 10% to 90% (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 = 10 cm, Density = 12.5% dots on).

7.2 Character specifications

Character set		3	
Character density	13 cpi	17 cpi	22 cpi
Number of columns	24	32	40/42
Chars / seconds	360	480	640
Lines / seconds	15	15	15
Characters (L x H mm) - Normal	2 x 3	1.5 x 3	1.125 x 3

NOTE: Theoretical values.

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7.3 Device dimensions

Length	with cover closed 63.9 mm with cover opened 98.3 mm
Height	61.2 mm
Width	87.2 mm
Weight	98 g

All the dimensions shown in following figure are in millimetres and referred to devices without paper roll.
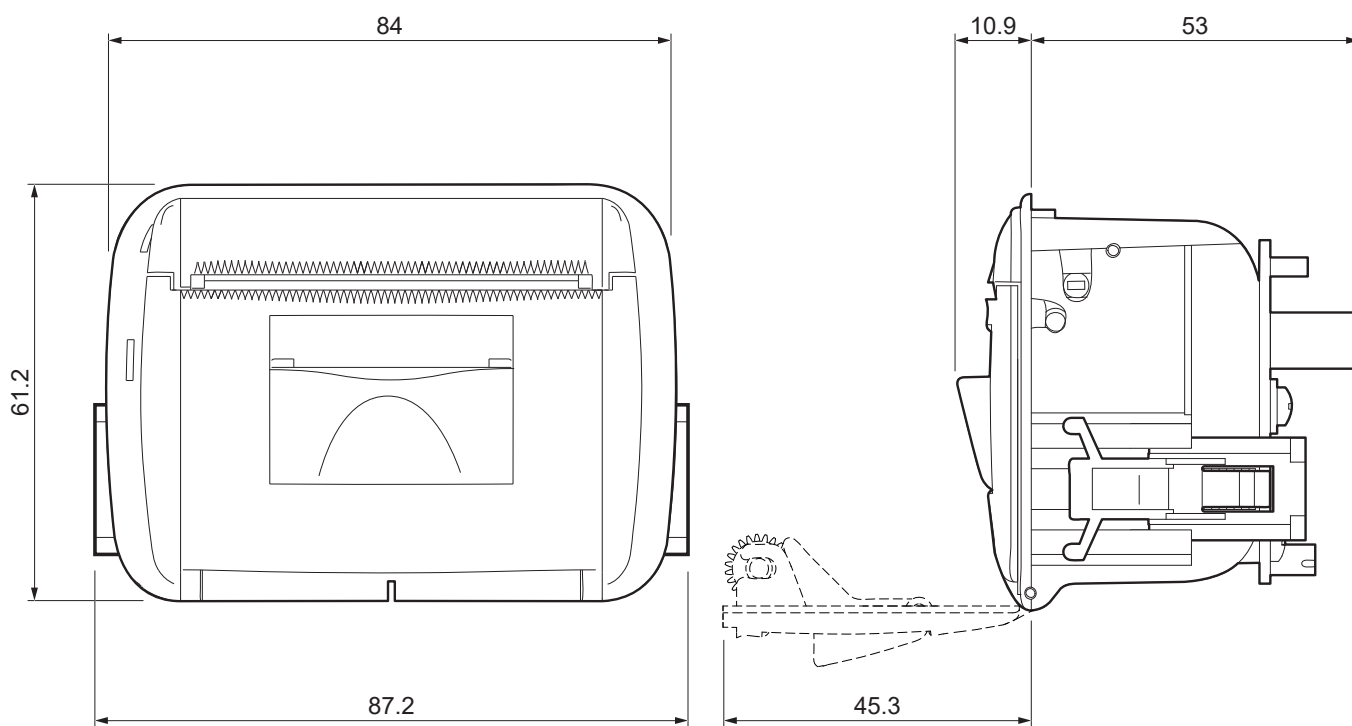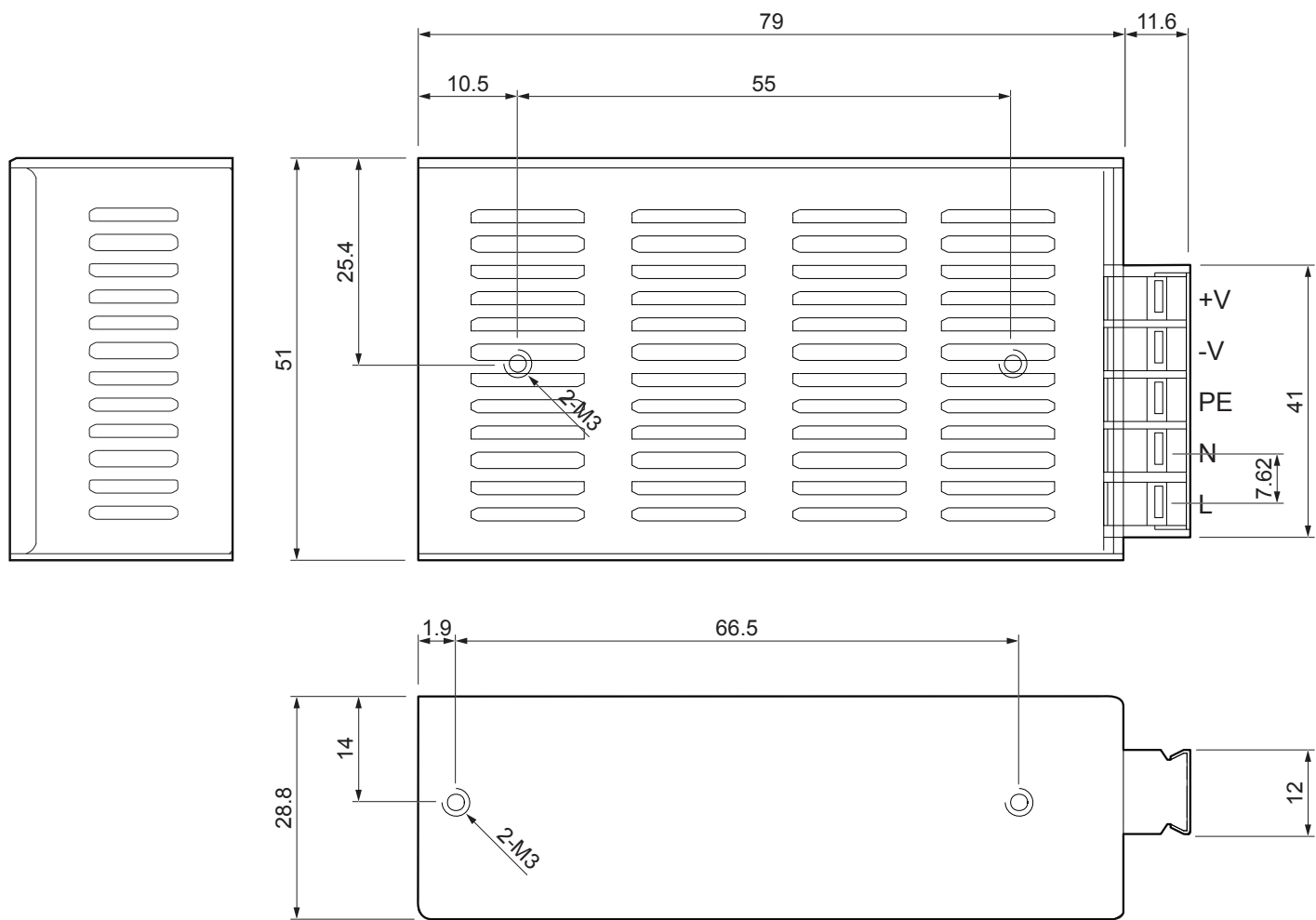
7.4 Power supply dimensions code 964GE010000003 (optional)

Length	90.6 mm
Height	28,8 mm
Width	51 mm

All the dimensions shown in following figure are in millimetres.

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7.5   Character sets

The device has 3 internal fonts with a width of 13, 17, 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	
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	

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8   CONSUMABLES

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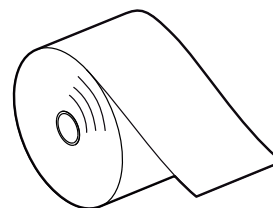

67300000000343

THERMAL PAPER ROLL
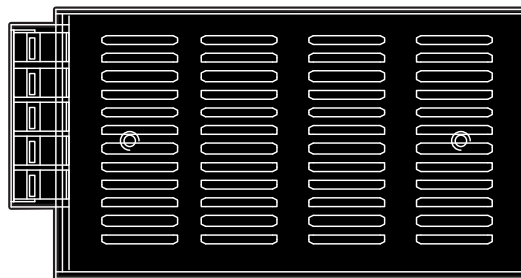Width = 57 mm
Ø external = 30 mm
Ø core = 13 mm

---

9 ACCESSORIES

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

964GE010000003

POWER SUPPLY
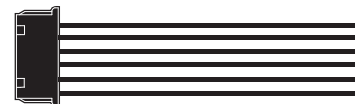(for technical specifications, see paragraph 7.1)

44000000032600

STARTER KIT
POWER SUPPLY CABLE + SERIAL/TTL INTERFACE 5 VOLT
Length = 500mm

---

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)

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