

USER MANUAL

D4 102

D4 202

D4 302-K

CUSTOM[®]

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

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

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.

TABLE OF CONTENTS

1	INTRODUCTION	7
2	IDENTIFICATION OF THE MODELS	9
3	DESCRIPTION	11
3.1	Box contents	11
3.2	Device components: external views	14
3.3	Connectors panel	17
3.4	Device components: internal view	19
3.5	Product label	20
3.6	Control panel	21
3.7	LCD screen icons	27
4	INSTALLATION	33
4.1	Connections	33
4.2	Pinout	35
4.3	Driver and SDK	39
5	OPERATION	41
5.1	Opening the top cover	41
5.2	Opening the ribbon compartment cover	42
5.3	Opening the frontal cover	44
5.4	Switch the device on	47
5.5	Loading the ribbon roll	48
5.6	Loading the ribbon label roll	52
6	MAINTENANCE	55
6.1	Planning of cleaning operations	55
6.2	Cleaning	56

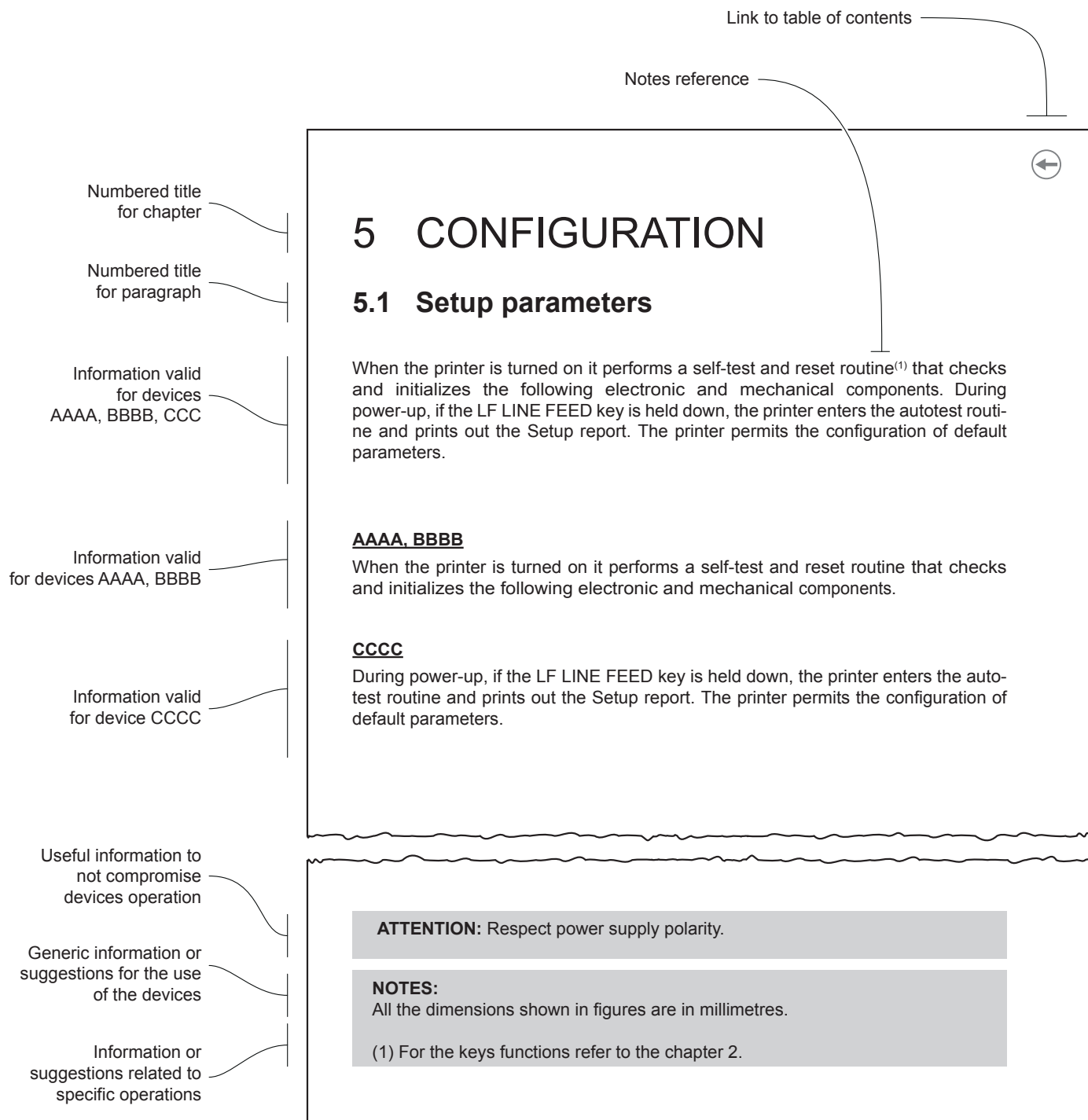


7	STANDALONE OPERATION D4 102.....	59
8	STANDALONE OPERATION D4 202 AND D4 302-K.....	63
8.1	Description of keyboard.....	63
8.2	Instruction guide of SD card.....	74
8.3	Check out printing records.....	76
8.4	Download firmware.....	77
8.5	Files converter (from frm. to frs.).....	79
9	SPECIFICATIONS.....	83
9.1	Hardware specifications.....	83
10	ACCESSORIES.....	87
11	TECHNICAL SERVICE.....	89



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 IDENTIFICATION OF THE MODELS

NOMENCLATURE	DESCRIPTION
D4 102	LABEL PRINTER D4 102 USB
D4 202	LABEL PRINTER D4 202 USB RS232
D4 302-K	LABEL PRINTER D4 302-K USB RS232





3 DESCRIPTION

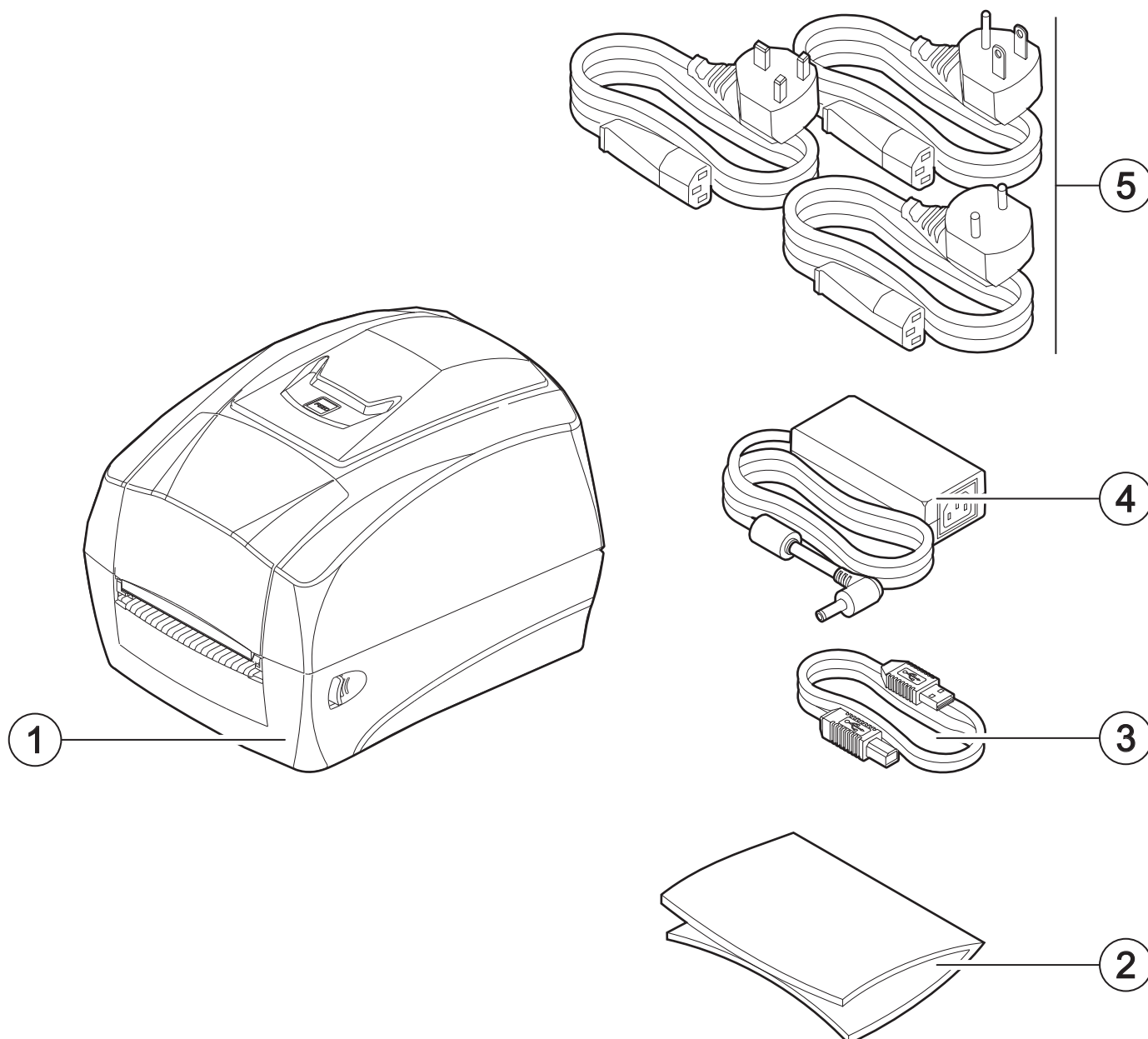
3.1 Box contents

Remove all the box contents (see following figures) 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.

D4 102

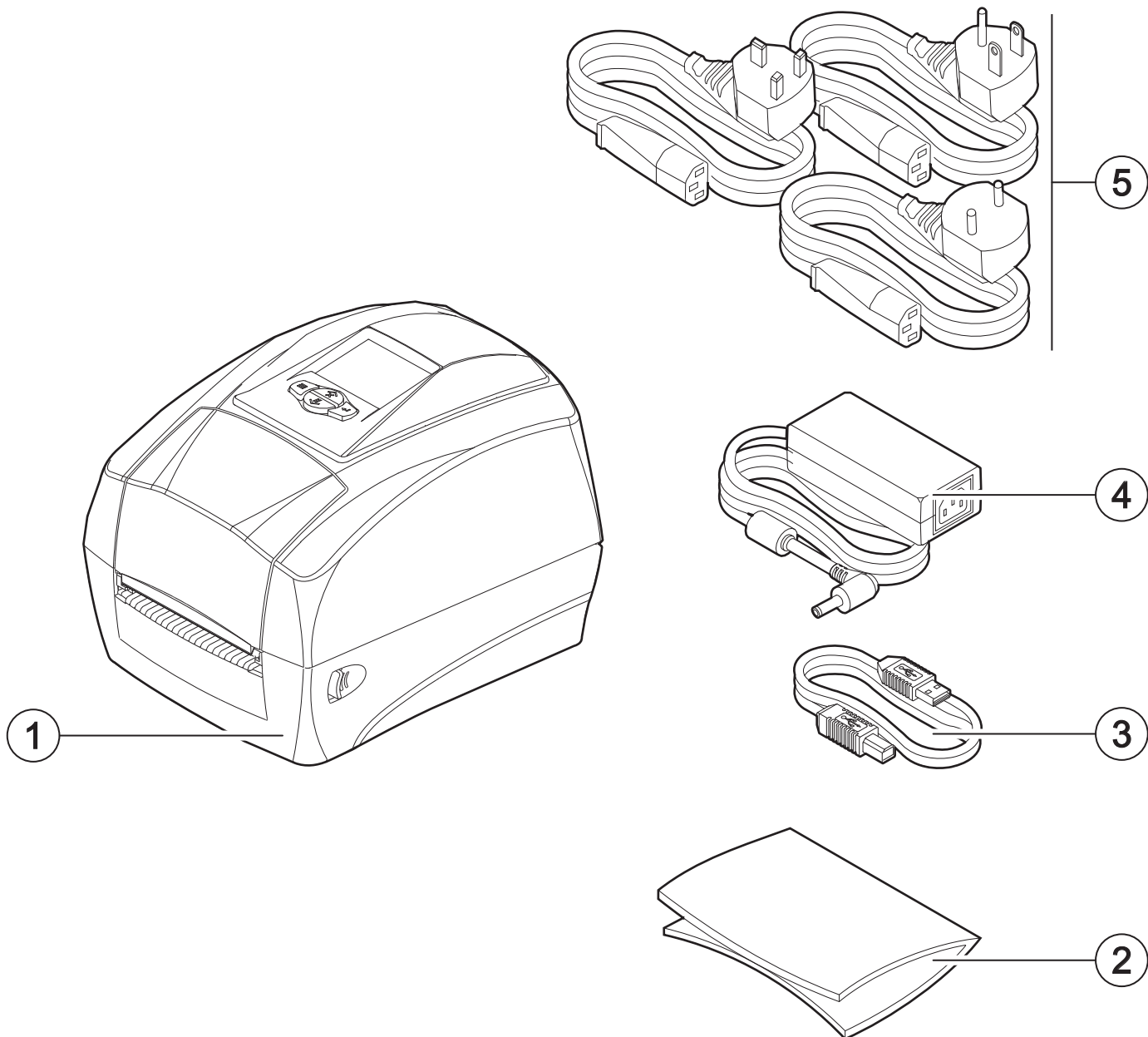
1. Device
2. Documentation (Short guide, warranty sheet)
3. USB cable
4. Power supply
5. Power supply cable





D4 202

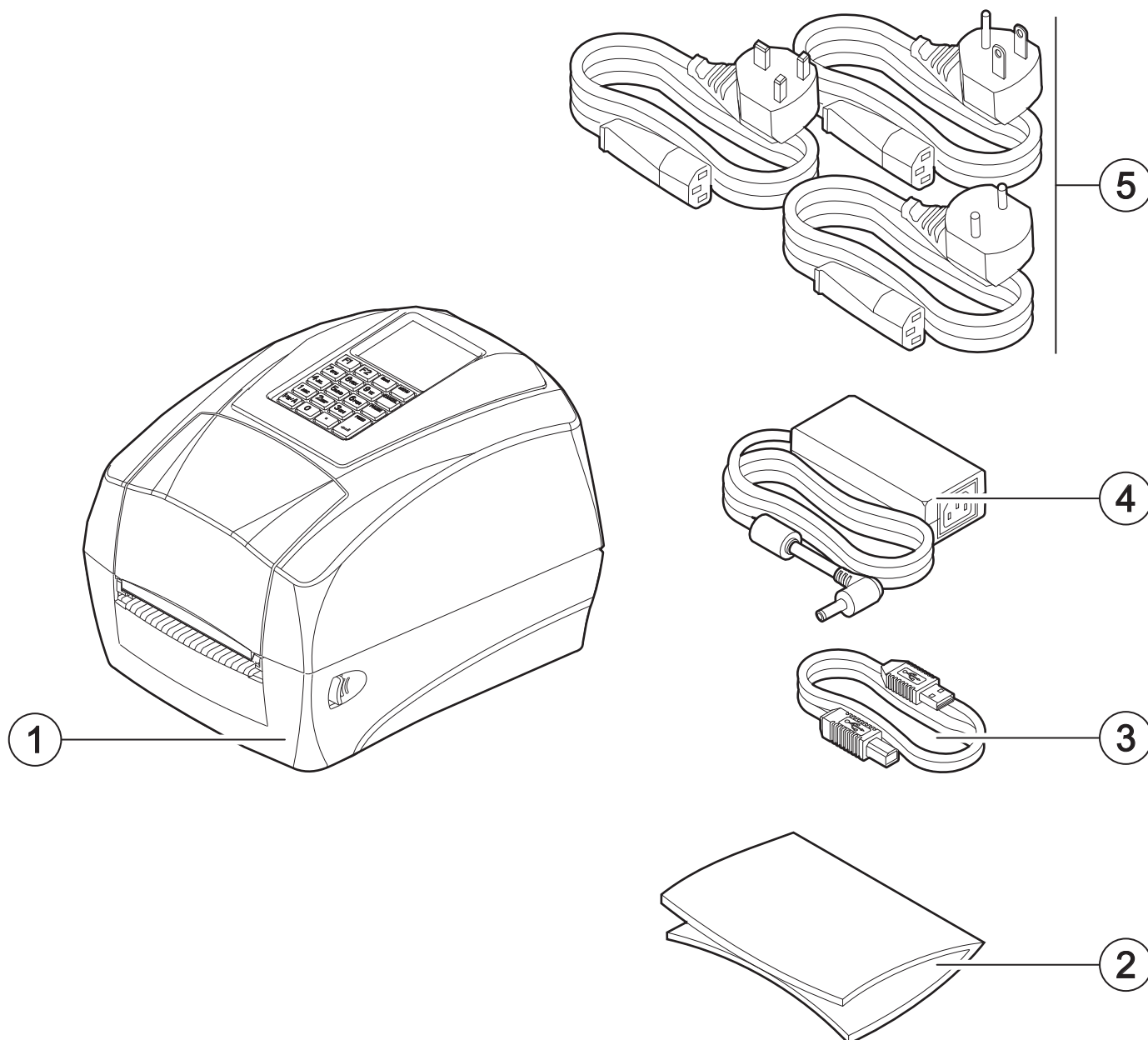
1. Device
2. Documentation (Short guide, warranty sheet)
3. USB cable
4. Power supply
5. Power supply cable





D4 302-K

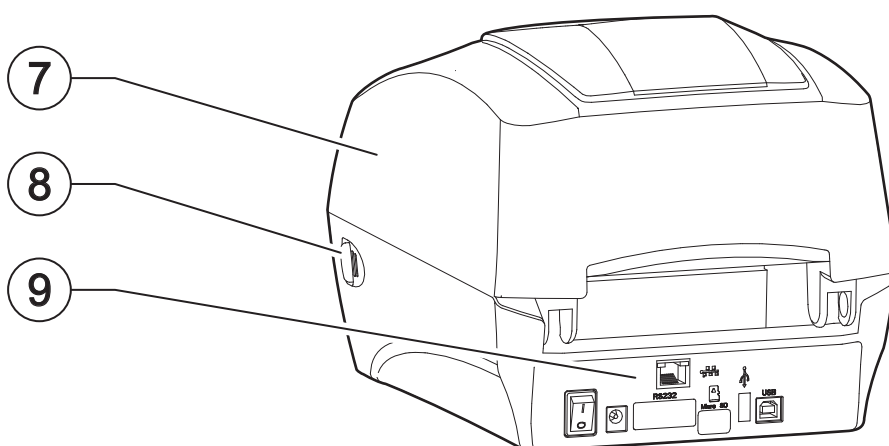
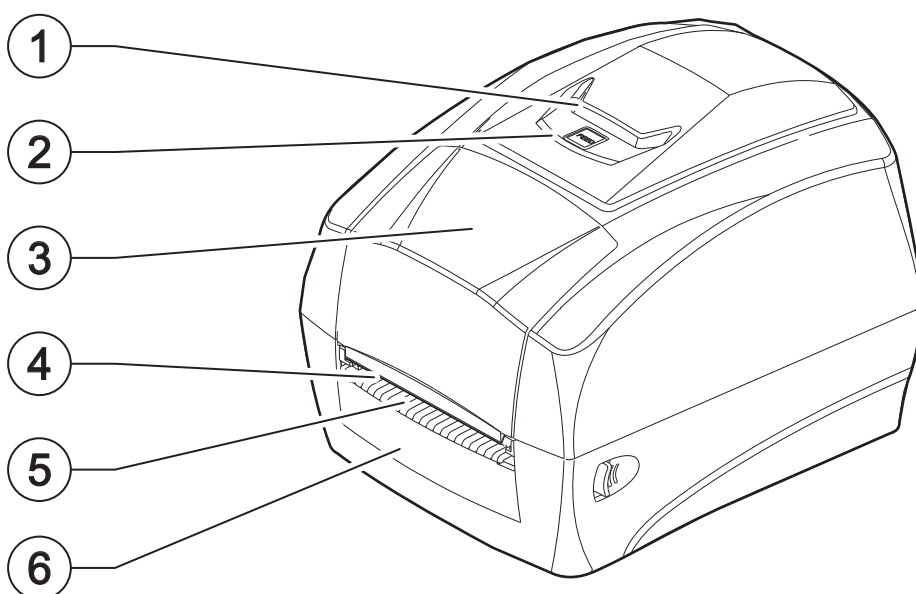
1. Device
2. Documentation (Short guide, warranty sheet)
3. USB cable
4. Power supply
5. Power supply cable



3.2 Device components: external views

D4 102

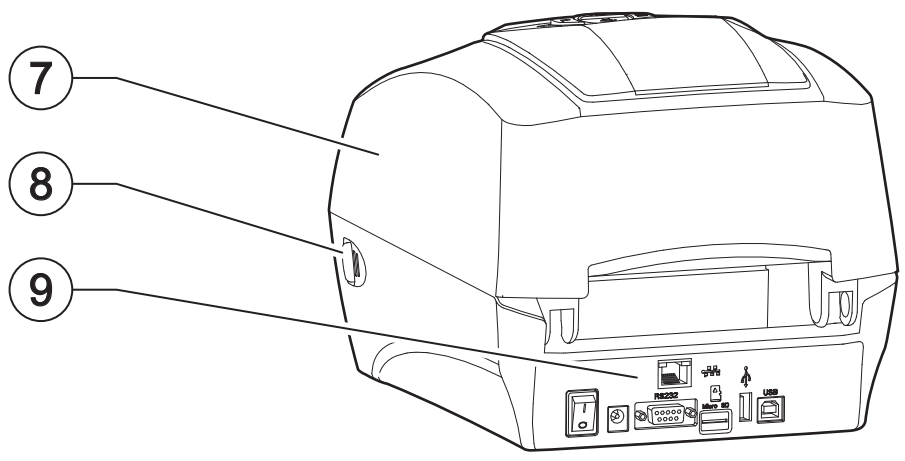
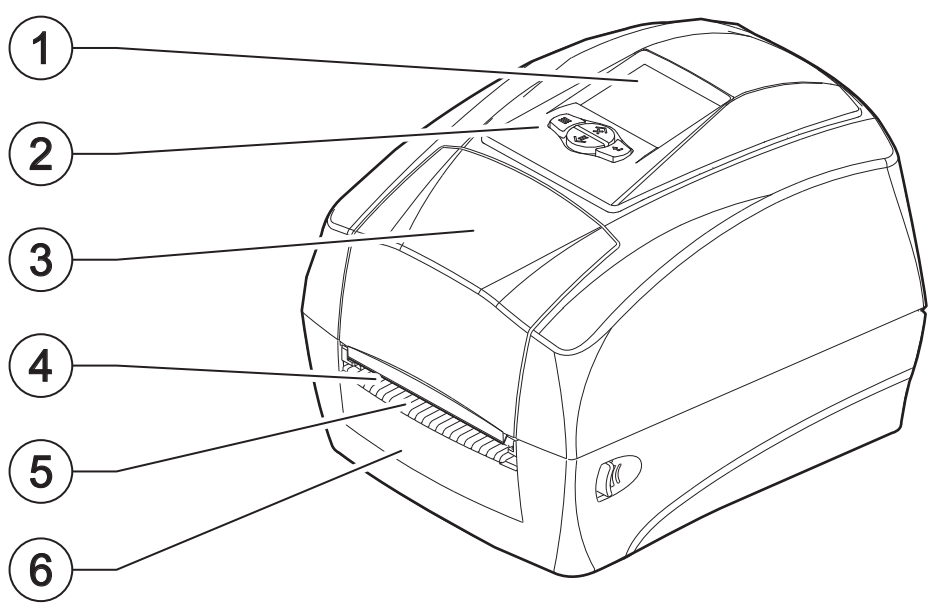
1. LED status
2. Control panel
3. Ribbon compartment cover
4. Tear off blade
5. Paper output
6. Front cover
7. Top cover
8. Release latch (x2)
9. Connectors panel





D4 202

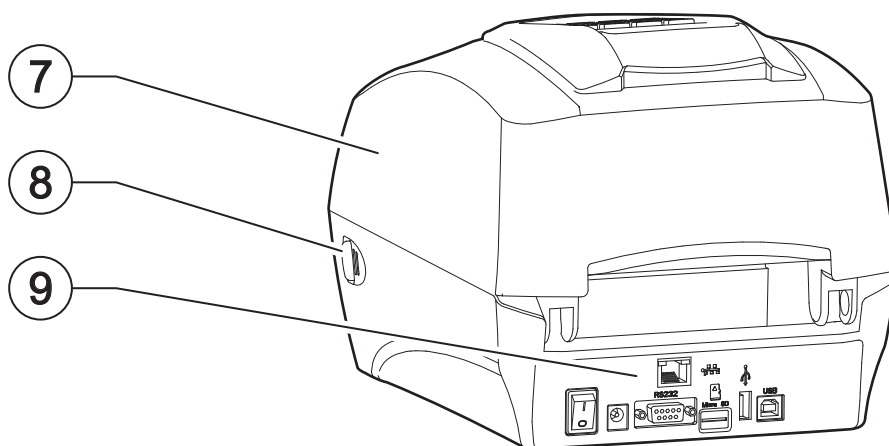
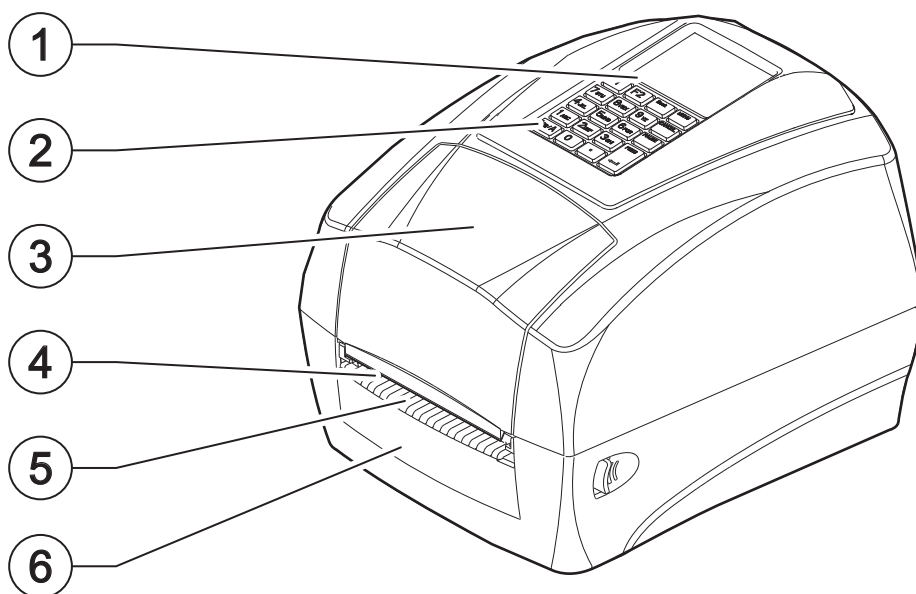
1. LCD screen
2. Control panel
3. Ribbon compartment cover
4. Tear off blade
5. Paper output
6. Front cover
7. Top cover
8. Release latch (x2)
9. Connectors panel





D4 302-K

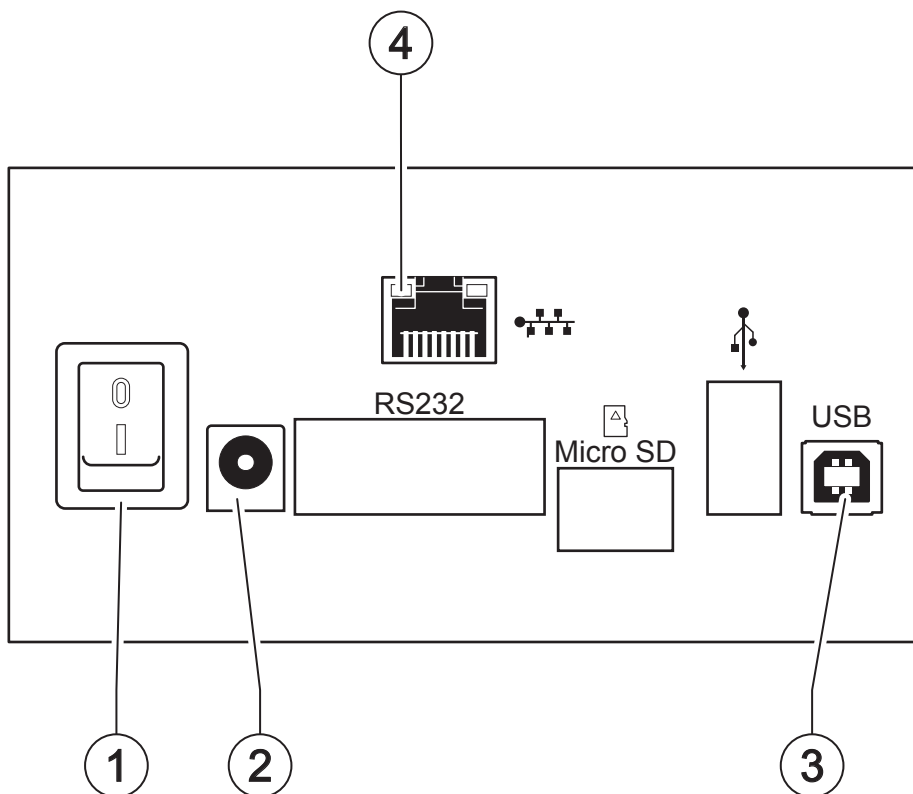
1. LCD screen
2. Control panel
3. Ribbon compartment cover
4. Tear off blade
5. Paper output
6. Front cover
7. Top cover
8. Release latch (x2)
9. Connectors panel



3.3 Connectors panel

D4 102

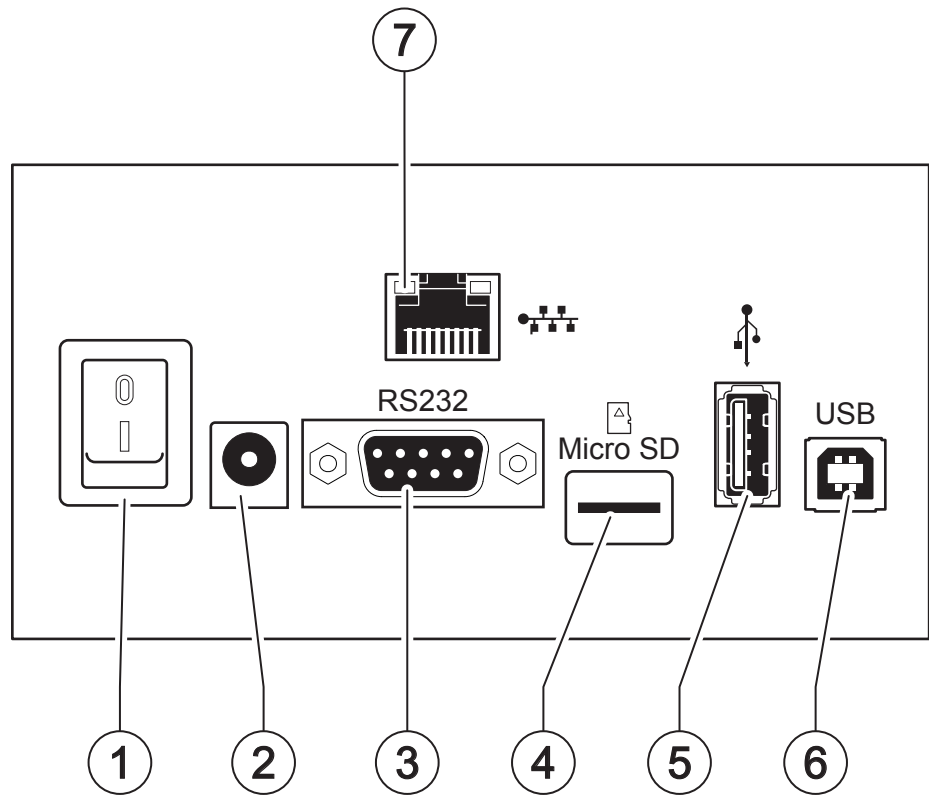
1. ON/OFF key
2. Power supply port
3. USB B Port
4. Ethernet port (optional)





D4 202, D4 302-K

1. ON/OFF key
2. Power supply port
3. RS232 port
4. MicroSD port
5. USB A port
6. USB B Port
7. Ethernet port (optional)

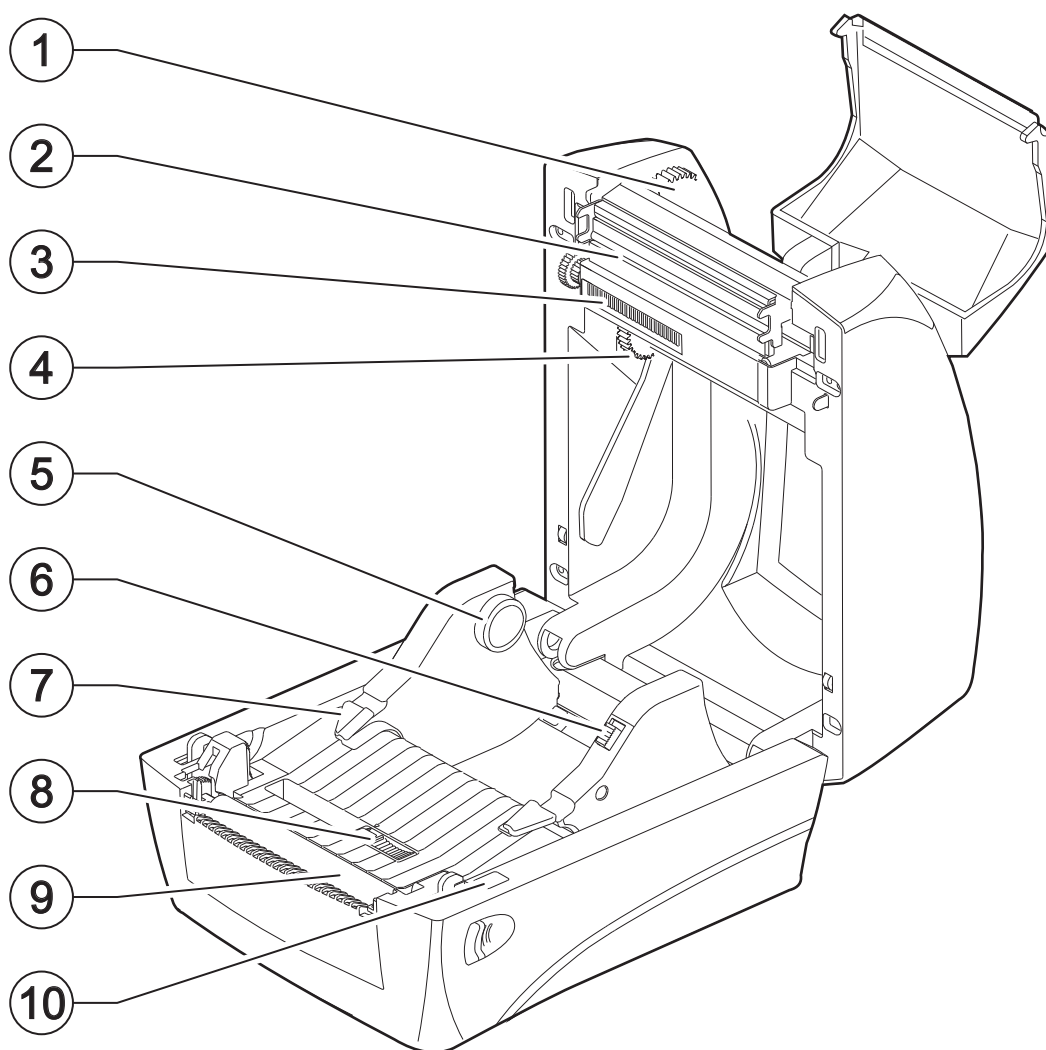




3.4 Device components: internal view

D4 102, D4 202, D4 302-K

- | | |
|---------------------------------------|--|
| 1. Gear wheel of the empty media core | 6. Holder latch |
| 2. Printhead | 7. Guides (x2) |
| 3. Ribbon label sensor | 8. Gap, notch or black mark movable sensor |
| 4. Gear wheel of the ribbon roll | 9. Platen roller |
| 5. Holder for ribbon label roll (x2) | 10. Top cover sensor |



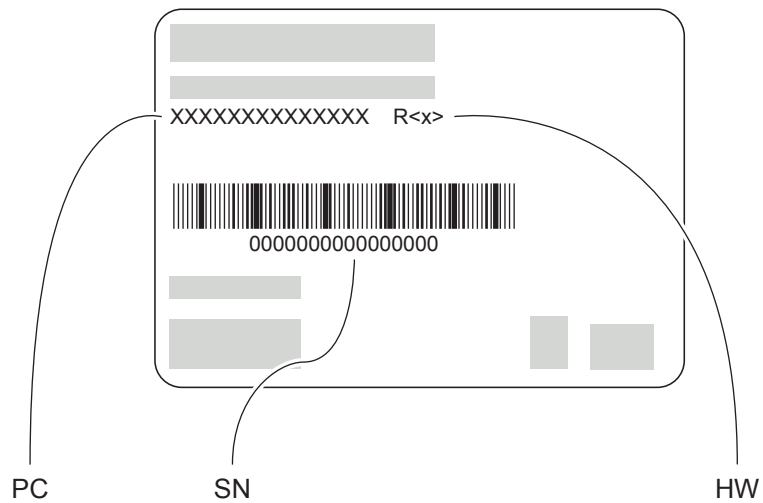


3.5 Product label

PC = Product code (14 digits)

SN = Serial number




HW = Hardware release





3.6 Control panel

D4 102

The key functions are available under the device Ready mode.


GRAPHIC SYMBOL	STATUS LED	DESCRIPTION
	GREEN LIGHT	Press once for feed a blank label
	YELLOW LIGHT	Press for 2 seconds for label calibration.
	GREEN LIGHT	Press for 4 seconds for print self test page.
	YELLOW LIGHT RAPIDLY FLASHING	Press 9 seconds to return for the factory default.

The key functions are available under the device Printing mode.

GRAPHIC SYMBOL	STATUS LED	DESCRIPTION
	GREEN LIGHT	Press once for pause/restart printing.
	GREEN LIGHT	Press for 3 seconds for cancel.



The key functions are available under the device Auto form mode.


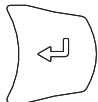
GRAPHIC SYMBOL	STATUS LED	DESCRIPTION
	YELLOW LIGHT	Continuously press when turning on the printer for cancel the auto form.

Status LED.



STATUS LED	DESCRIPTION
FLASH IN RED LIGHT	Label out. Ribbon out. Cover open. Label gap out.
FLASH IN GREEN LIGHT	Pause. Rapidly flash when receiving.
BLUE LIGHT AFTER YELLOW LIGHT	Print self test page.
CONSTANTLY FLASH IN YELLOW LIGHT	Auto form mode.
RAPIDLY FLASH IN YELLOW LIGHT	Reset to factory default.

D4 202





The key functions are available under the device Ready mode.

GRAPHIC SYMBOL	FUNCTION	DESCRIPTION
	MENU	Enter the menu list to setup the printer configuration.
	FEED	Feed a blank label.

The key functions are available under the device Printing mode.




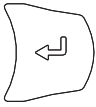
GRAPHIC SYMBOL	FUNCTION	DESCRIPTION
	CANCEL	Stop and cancel the current printing job. Removes the error status when problem is resolved.
	PAUSE	Stop and restart the printing process.

The key functions are available in Menu mode.

GRAPHIC SYMBOL	FUNCTION	DESCRIPTION
	RETURN	Return back to previous menu level.
	UP	Scroll up the menu options. Increase the parameter values.
	DOWN	Scroll down the menu options. Decrease the parameter values.
	ENTER	Confirm the selected option.





The key functions are available in Labelless calibration mode.



GRAPHIC SYMBOL	FUNCTION	DESCRIPTION
	MENU	Return back to previous menu level.
	CANCEL	Calibrate with ribbon.
	PAUSE	Calibrate without ribbon.
	FEED	Normal mode.

D4 302-K





The key functions are available under the device Ready mode.

GRAPHIC SYMBOL	FUNCTION	DESCRIPTION
	MENU	Enter the menu list to setup the printer configuration.
	FEED	Allow to feed a blank label.

The key functions are available under the device Printing mode.





GRAPHIC SYMBOL	FUNCTION	DESCRIPTION
	CANCEL	Stop and cancel the current printing job. Removes the error status when problem is resolved.
	PAUSE	Stop and restart the printing process.

The key functions are available in Menu mode.

GRAPHIC SYMBOL	FUNCTION	DESCRIPTION
	RETURN	Return back to previous menu level.
	UP	Scroll up the menu options. Increase the parameter values.
	DOWN	Scroll down the menu options. Decrease the parameter values.
	ENTER	Confirm the selected option.



The key functions are available in Labelless calibration mode.

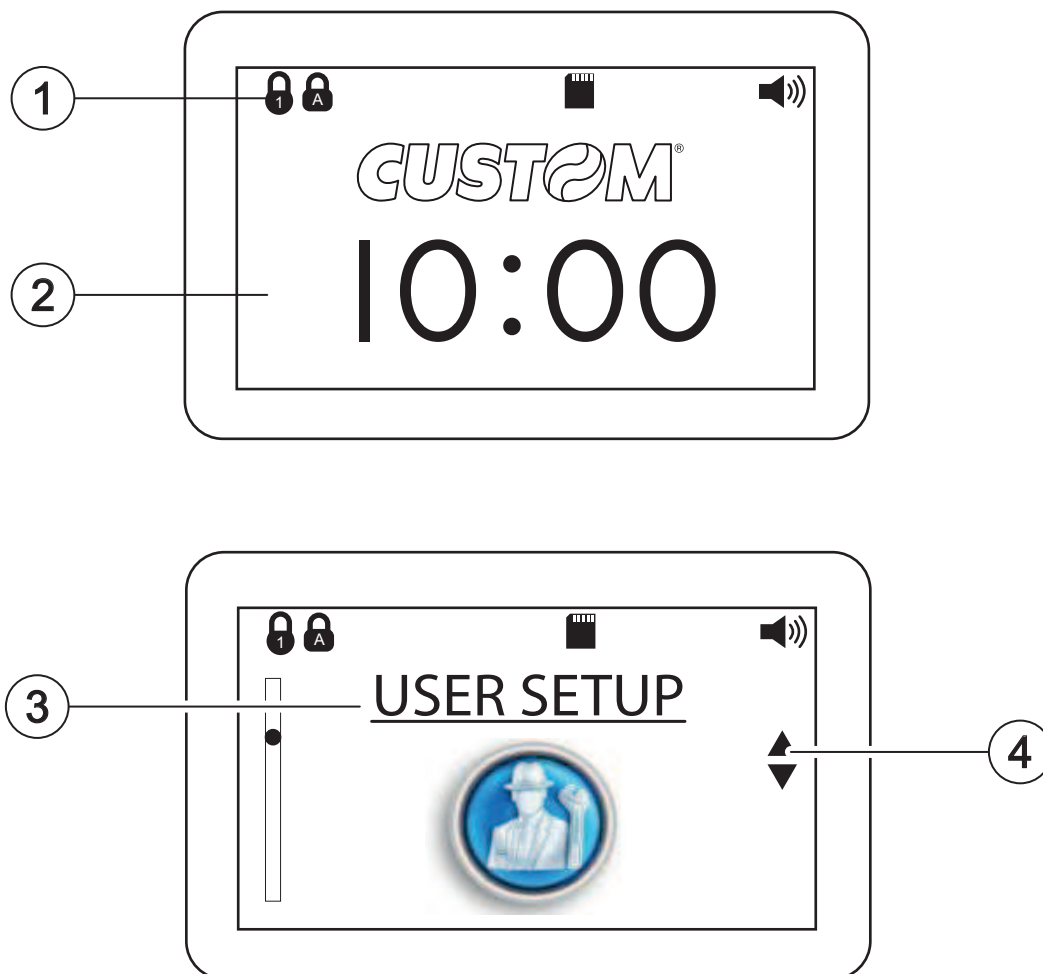
GRAPHIC SYMBOL	FUNCTION	DESCRIPTION
	MENU	Return back to previous menu level.
	CANCEL	Calibrate with ribbon.
	PAUSE	Calibrate without ribbon.
	FEED	Normal mode.

3.7 LCD screen icons

D4 202, D4 302-K






LCD screen information consists 4 parts to show the Printer status.

1. Device status (when printer is in Ready status)
2. Time and setting icon
3. Printer current status and setting level
4. Keys status bar














Device status bar.

GRAPHIC SYMBOL	FUNCTION	DESCRIPTION
	BUZZER ON	Buzzer symbol will be shown when buzzer is set to on.
	SD CARD INSERTED	SD card symbol will be shown when SD card is inserted.
	USB MASTER INTERFACE (keyboard or scanner) INSERTED	USB master symbol will be shown when interface is inserted.
	SCROLL UP	Key status bar: the symbol will be shown on the Key status bar when the key function is available.
	SCROLL DOWN	Key status bar: the symbol will be shown on the Key status bar when the key function is available.



Menu structure.

GRAPHIC SYMBOL	FUNCTION	DESCRIPTION
	INFORMATION	Printer configuration information.
	USER SETUP	
	LANGUAGE	Change menu language.
	LCD CONTRAST	Contrast of LCD.
	BUZZER VOLUME	Adjust the buzzer volume.
	DATE	Set the RTC Date.
	TIME	Set the RTC time.
	DEFAULT	Initiate to factory default.
	PASSWORD	Set the password to lock the change of parameter.



COMM. SETUP



RS-232

Set RS-232 parameter.



ETHERNET

Ethernet status and set configuration.



PRINT SETUP



TRANSFER MODE

Thermal transfer or thermal direct.



PRINT MODE

Set to peeler, cutter or tear off function.



SPEED

Printing speed.



DARKNESS

Printing heat value.













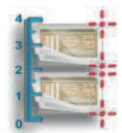


LABEL TYPE

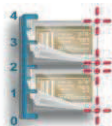
Select the label type.



GAP SENSOR

Select label sensor type.

	PRINT WIDTH	Set the print width.
	PRINT X OFFS	Adjust the origin of printer horizontal coordinate.
	PRINT Y OFFS	Adjust the origin of printer vertical coordinate.
	TPH Y OFFS	Set the print head vertical offset.
	BACK Y OFFS	Set the label stop position for peeler, cutter or tear-off mode.
	ERROR REPRINT	Reprint the previous label when error occurs.
	CANCEL MODE	Stop printing the current job.
	TEST	
	PRINT CONFIG.	Print the printer configuration.
	PRINT TEST	Print the test pattern.
	LABEL CALIBRATION	Calibrate the label.
	DUMP MODE	Print the dump data.
	CUTTER	Test cutter function.



**LABELLESS
CALIBRATION**

Calibrate with/without label.



MEMORY



FREE SIZE

Show the free memory size in
Flash and SD card.



LIST

List the forms, images and fonts
in memory device.



DELETE FILES

Delete separately the stored
forms, images and fonts in memory.



CLEAR MEMORY

Delete all stored forms, images
and fonts in the memory.



FORM



RUN THE FORM

Execute the stored form in
memory.



AUTO FORM

Execute automatically the
selected form as the printer
is power on.



F/W UPDATE

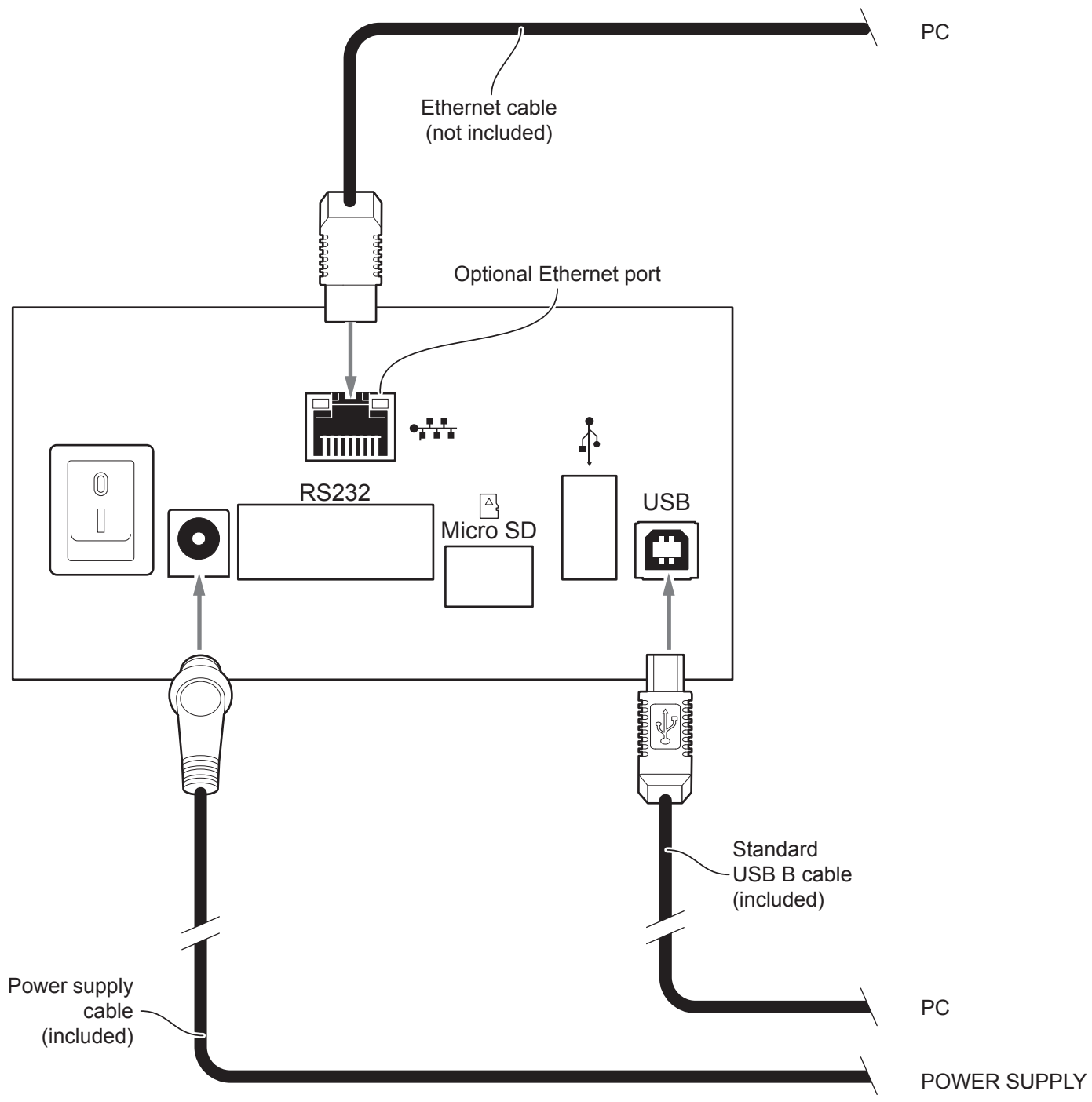
Update firmware directly
ROM the SD card.

4 INSTALLATION

4.1 Connections

The following figure shows the possible connections for the device. .

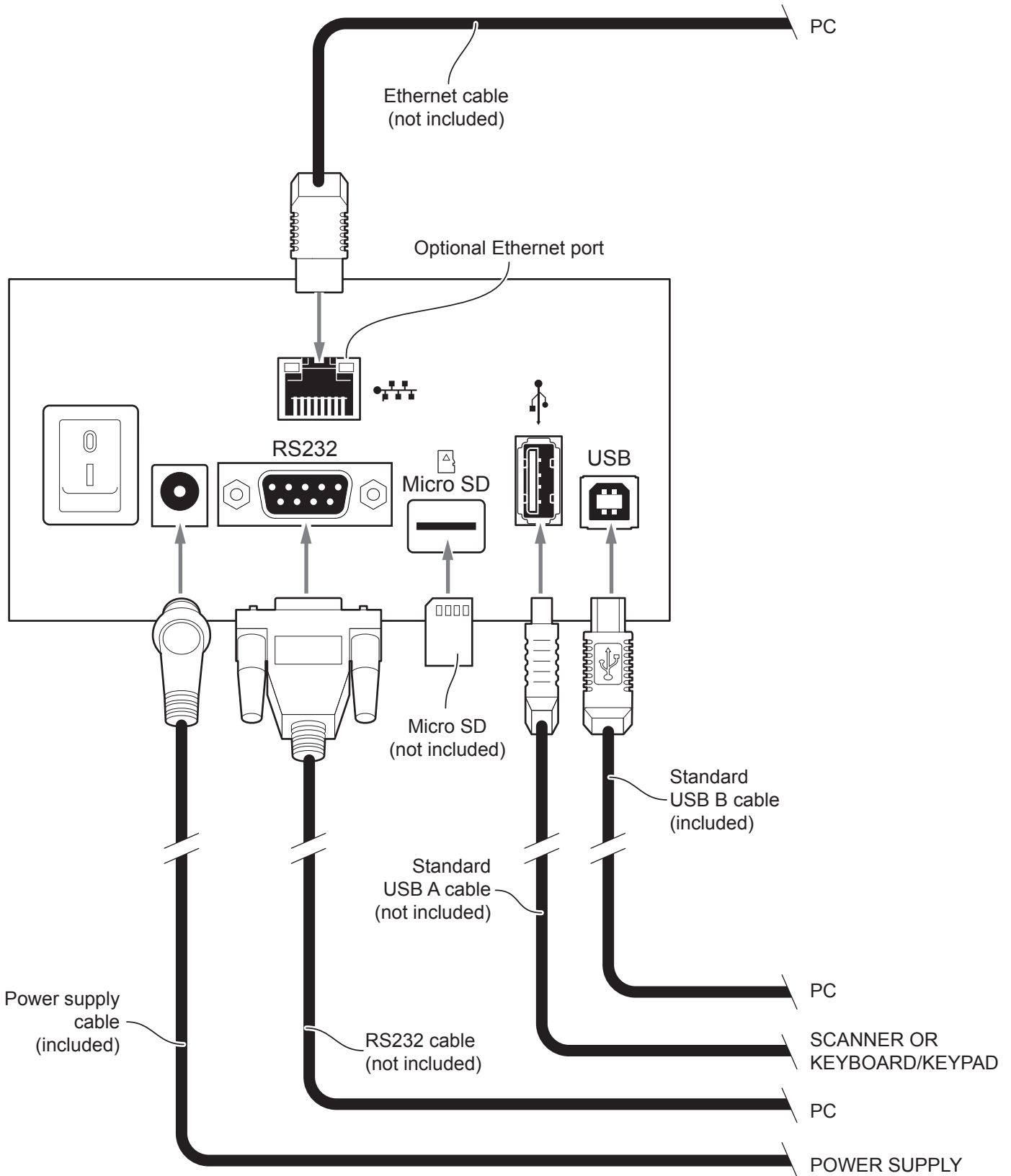
D4 102





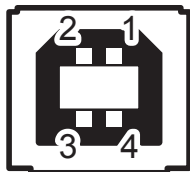
D4 202, D4 302-K

When the RS232 and USB communication cables are connected to the device at the same time, the communication take place via the USB port.



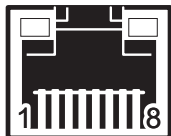
4.2 Pinout

D4 102, D4 202, D4 302-K



USB INTERFACE
Female USB type B connector

1	USB0_VBUS	(in)
2	USB0_D-	(in/out)
3	USB0_D+	(in/out)
4	GND	
SH1	SHIELD	
SH2	SHIELD	



ETHERNET INTERFACE (Optional)

Female RJ45 connector

1	RX +1
2	+3.3V ETH
3	RX -1
4	TX +1
5	+3.3V ETH
6	TX -1
7	n.c
8	GND
9	+3.3 V
10	LED-LNK
11	+3.3 V
12	LED-LAN
13	Shield
14	Shield

NOTES:

The functionality of two LED are specified in the following tables:

LED	FUNCTION
LED-LNK	Link (yellow color): the LED lights up when a connection is active
LED-LAN	Rx/Tx: (green color): the LED lights up when occurs a data reception or transmission

- For 10/100Base-TX connection:

LED	FUNCTION
LED-LNK	The LED light (yellow color) on when a connection is active and flashes when occurs a data reception or transmission
LED-LAN	The LED light (green color) on when occurs a 100 Mbit connection and off when occurs a 10 Mbit connection

The device automatically recognizes the type of connection (cross or pin-to-pin).

D4 202, D4 302-K



**USB INTERFACE (D4 202/
Female USB type A connector**

1	VBUS-A	(in)
2	HD-	
3	HD+	
4	GND	
SH1	GND	
SH2	GND	
SH3	GND	
SH4	GND	



RS232 SERIAL INTERFACE

Female DB9 connector

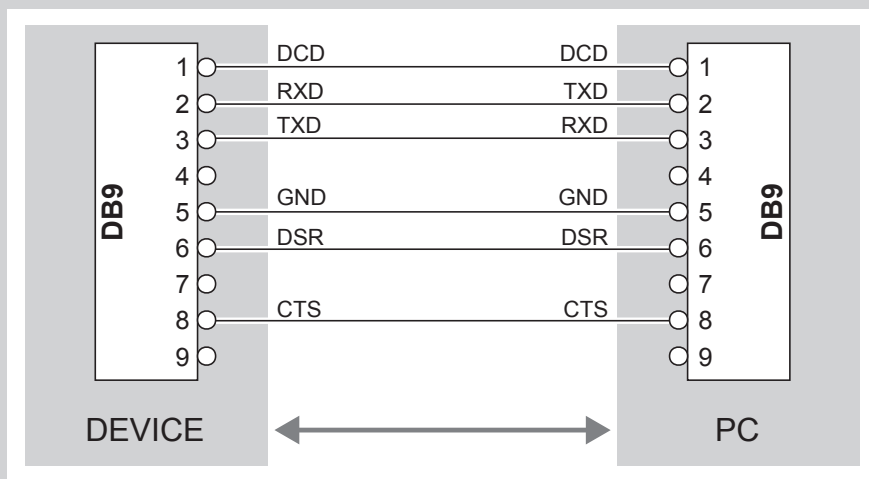
1	DTR	
2	TX	During transmission, takes the values -VRS232 and + VRS232 depending on data
3	RX	During reception, takes the values -VRS232 and +VRS232 depending on data
4	DSR	
5	GND	
6	DTR	When +VRS232, device is power on
7	CTS	
8	RTS	When +VRS232, device is ready to receive data
9	n.c.	

NOTES:

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 connector:



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



4.3 Driver and SDK

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

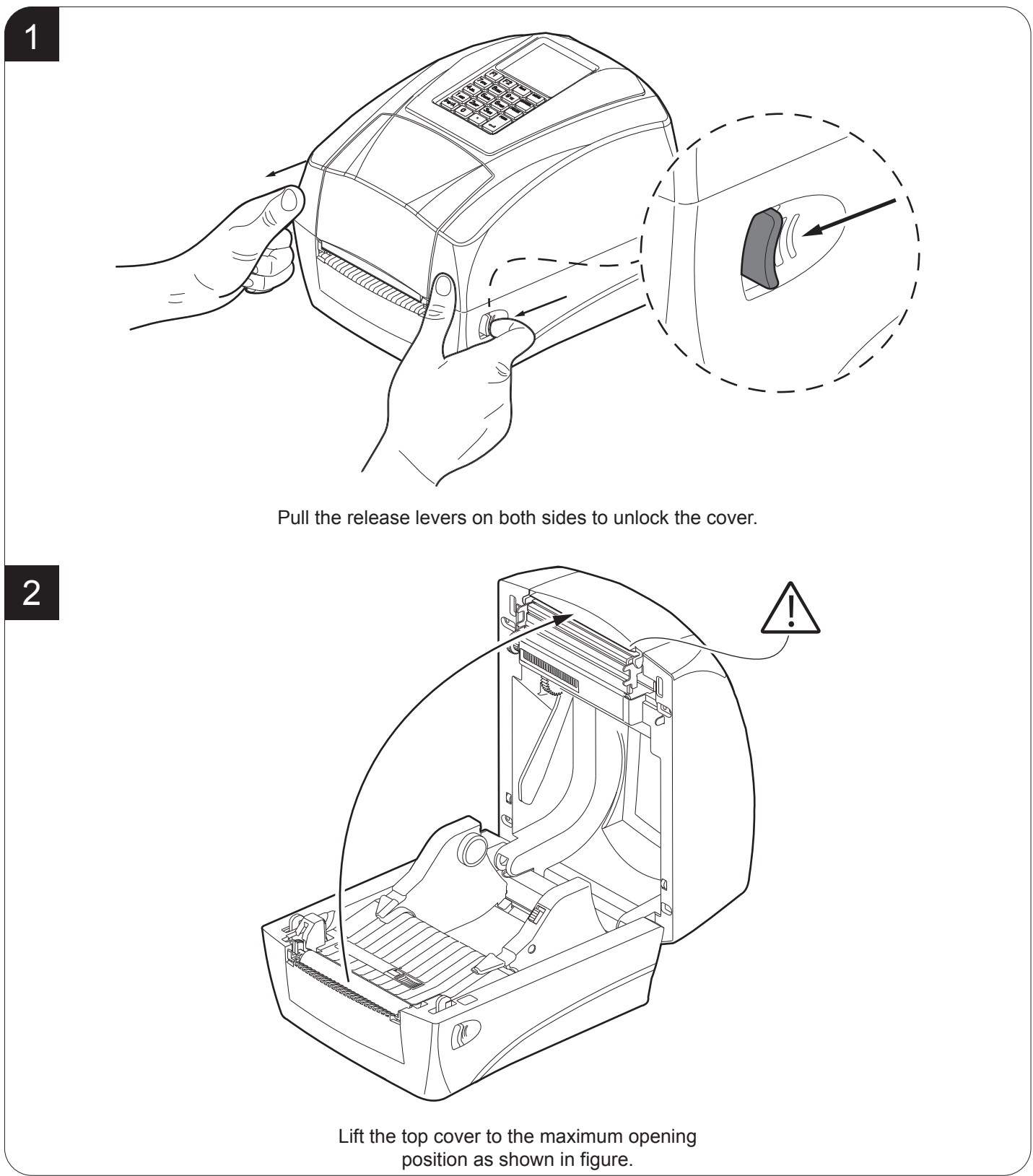
OPERATING SYSTEM	DESCRIPTION	INSTALLATION PROCEDURE
Windows	Driver for Windows XP	From the Start menu, press Run and type-in the path where the SW was saved on PC, then click OK. Follow the instructions on the screen to install the driver.
	Driver for Windows VISTA (32/64 bit)	
	Driver for Windows 7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



5 OPERATION

5.1 Opening the top cover

To open the top cover proceed as follows.



Pull the release levers on both sides to unlock the cover.

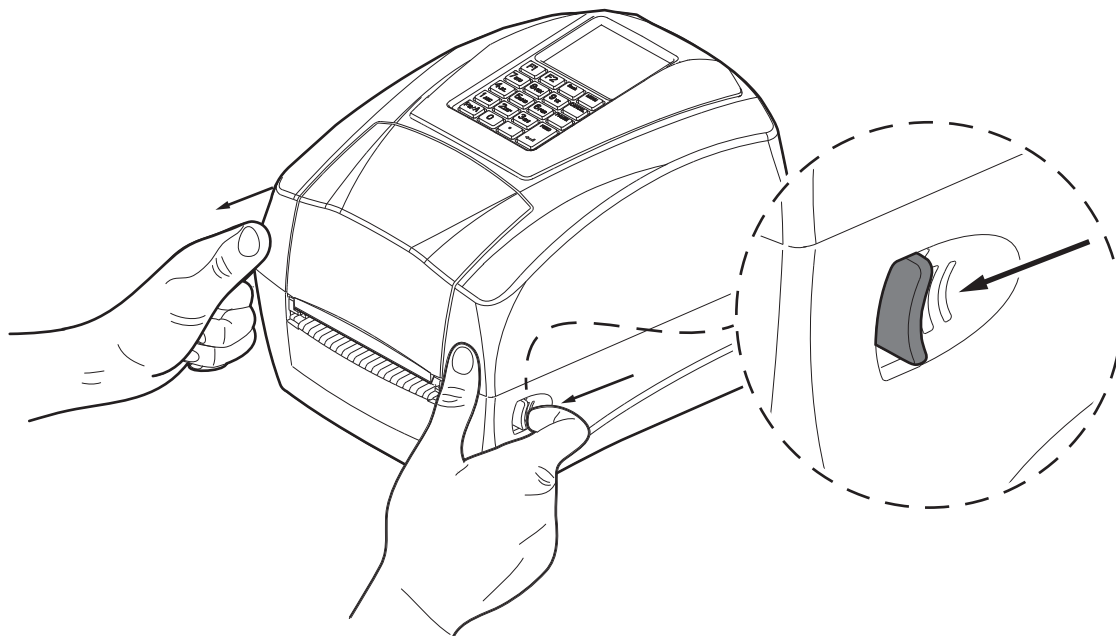
Lift the top cover to the maximum opening position as shown in figure.



5.2 Opening the ribbon compartment cover

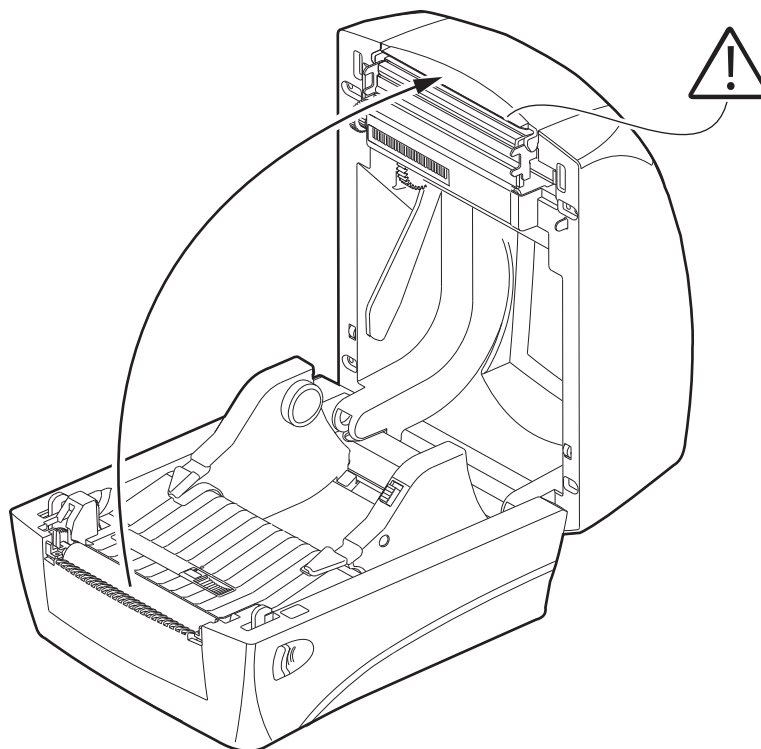
To open the ribbon compartment cover proceed as follows.

1



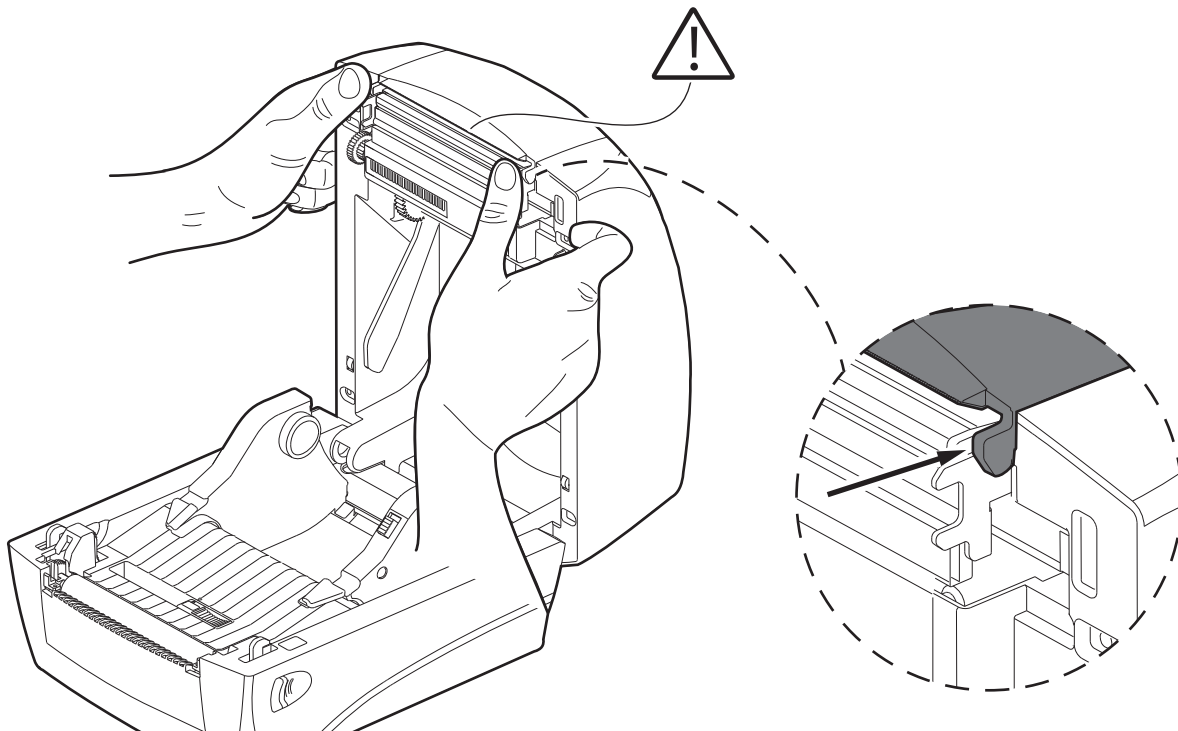
Pull the release levers on both sides to unlock the cover.

2



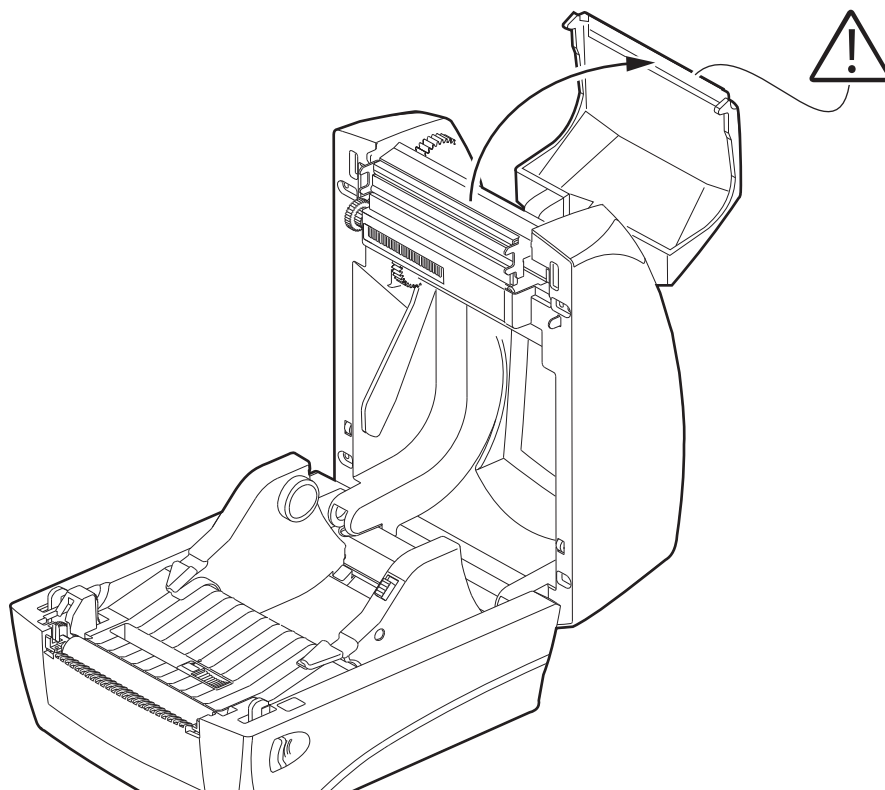
Lift the top cover to the maximum opening position as shown in figure.

3



Press the levers as shown in the figure.

4



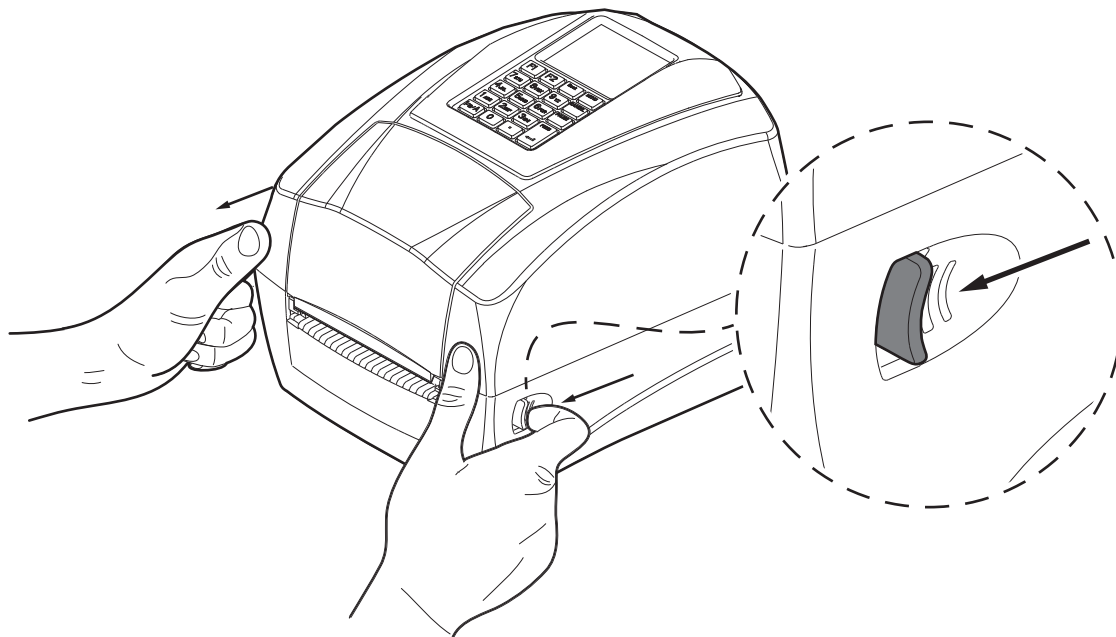
Lift the ribbon compartment cover to the maximum opening position as shown in figure.



5.3 Opening the frontal cover

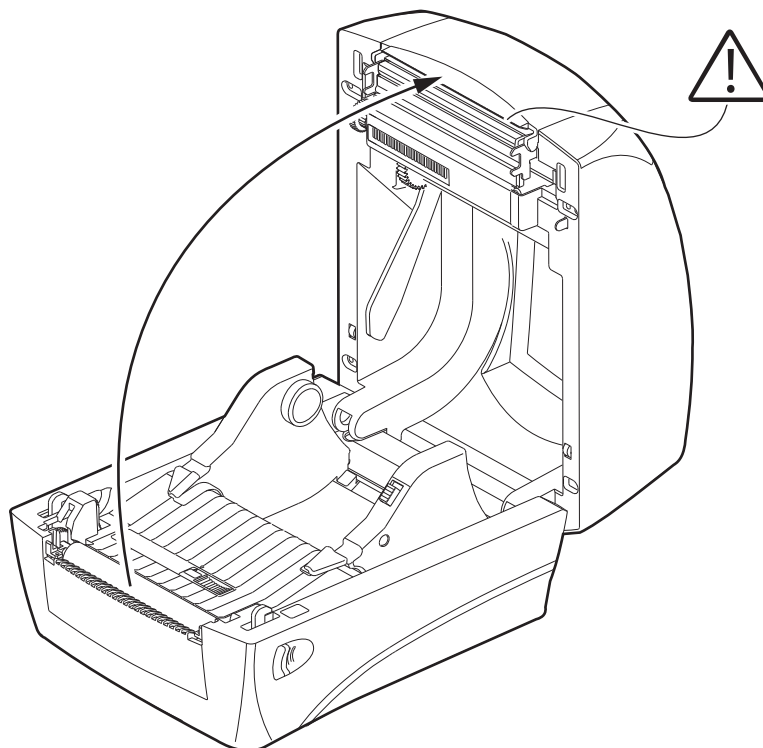
To open the front cover proceed as follows.

1



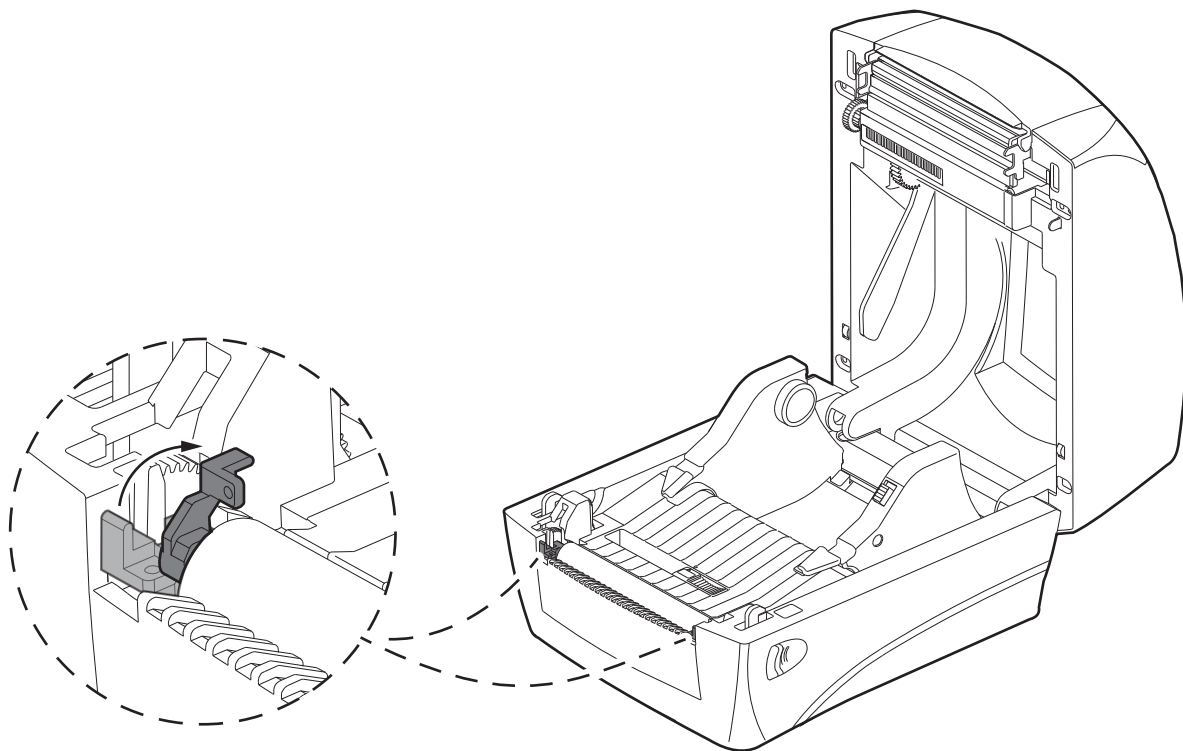
Pull the release levers on both sides to unlock the cover.

2



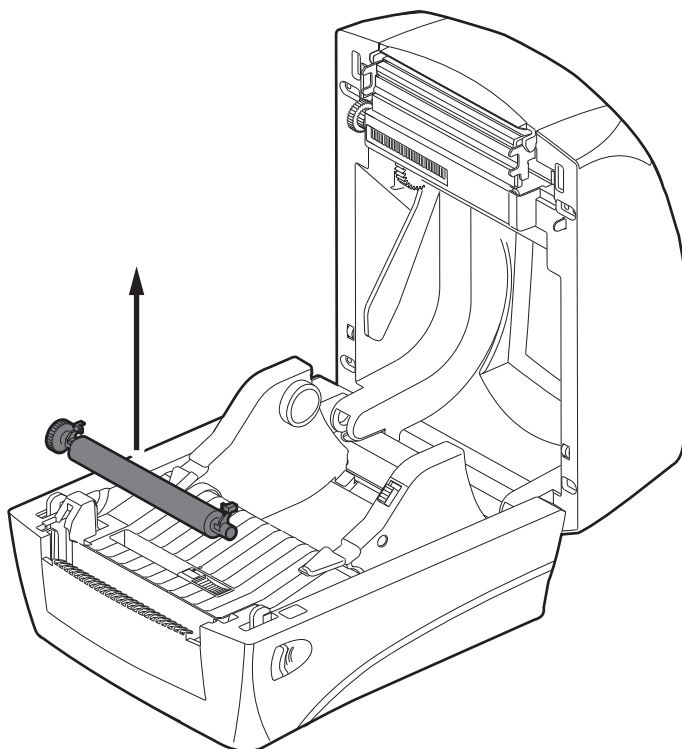
Lift the top cover to the maximum opening position as shown in figure.

3



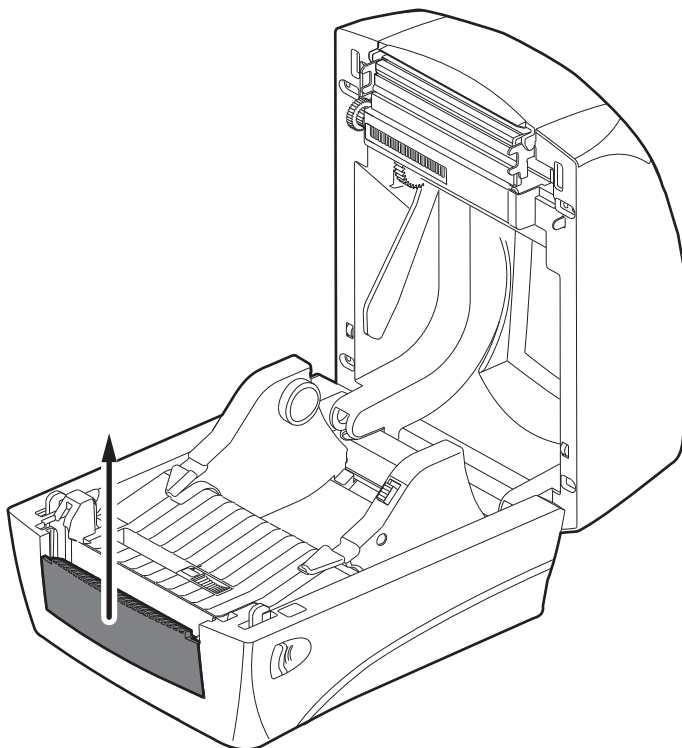
Push the platen roller bearing tabs (one on the right, one on the left) upwards and rotate them backwards to the end.

4



Lift and remove the platen roller.

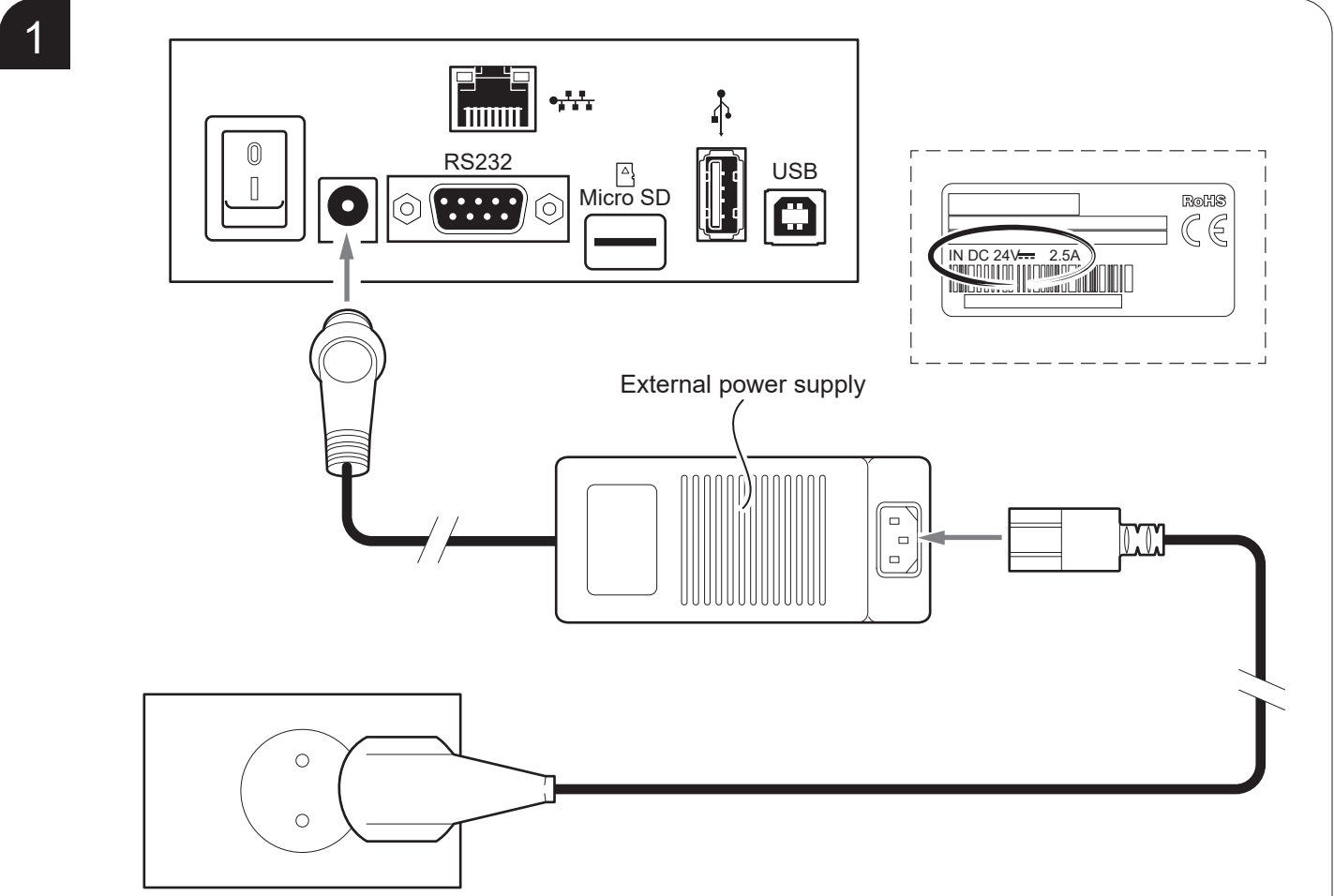
5



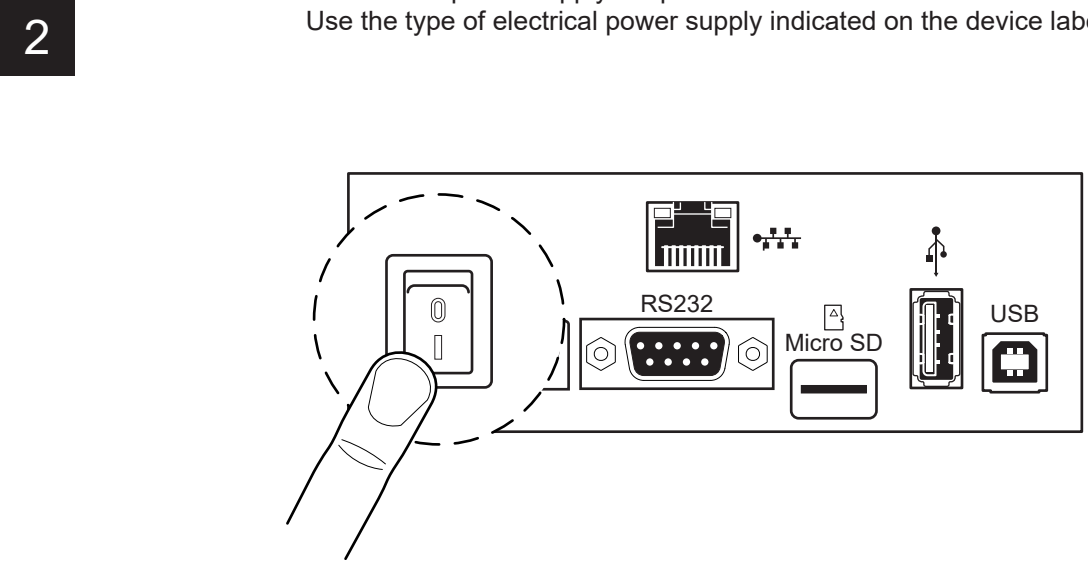
Lift and remove the front cover.

5.4 Switch the device on

To open turn on the device proceed as follows.



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



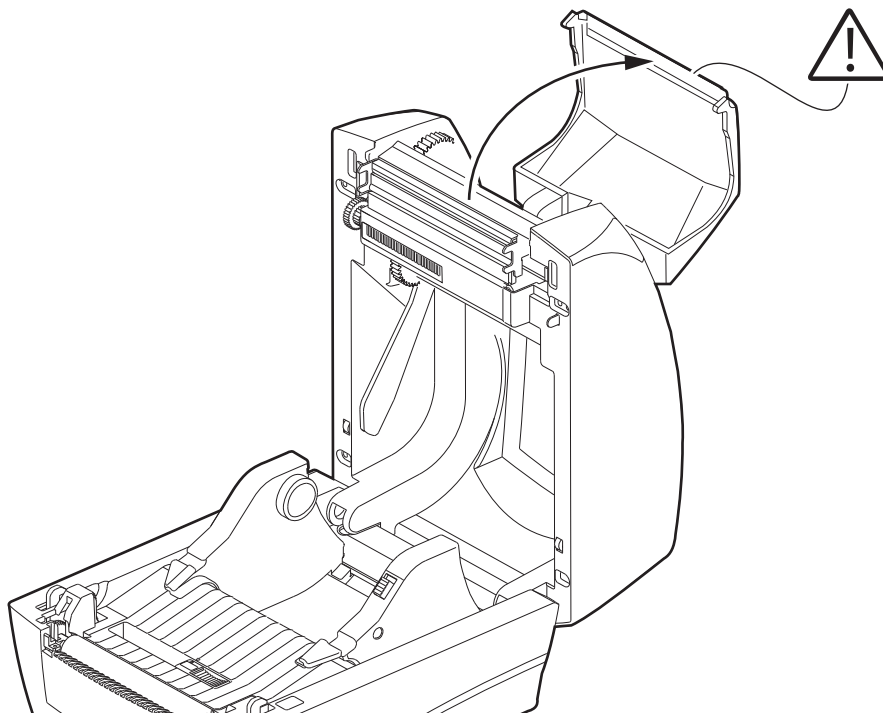
Locate the ON/OFF key in the right side.



5.5 Loading the ribbon roll

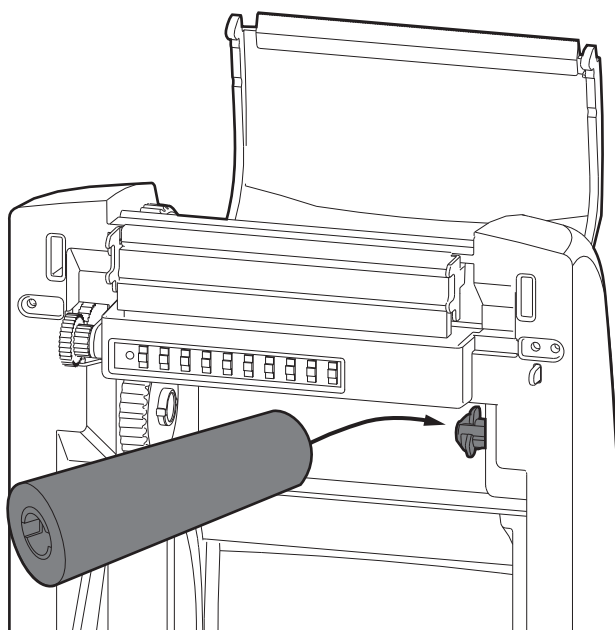
To load the ribbon roll into the device proceed as follows. At every change of paper, check inside the device to locate and remove any scraps of paper.
Only use approved paper rolls.

1



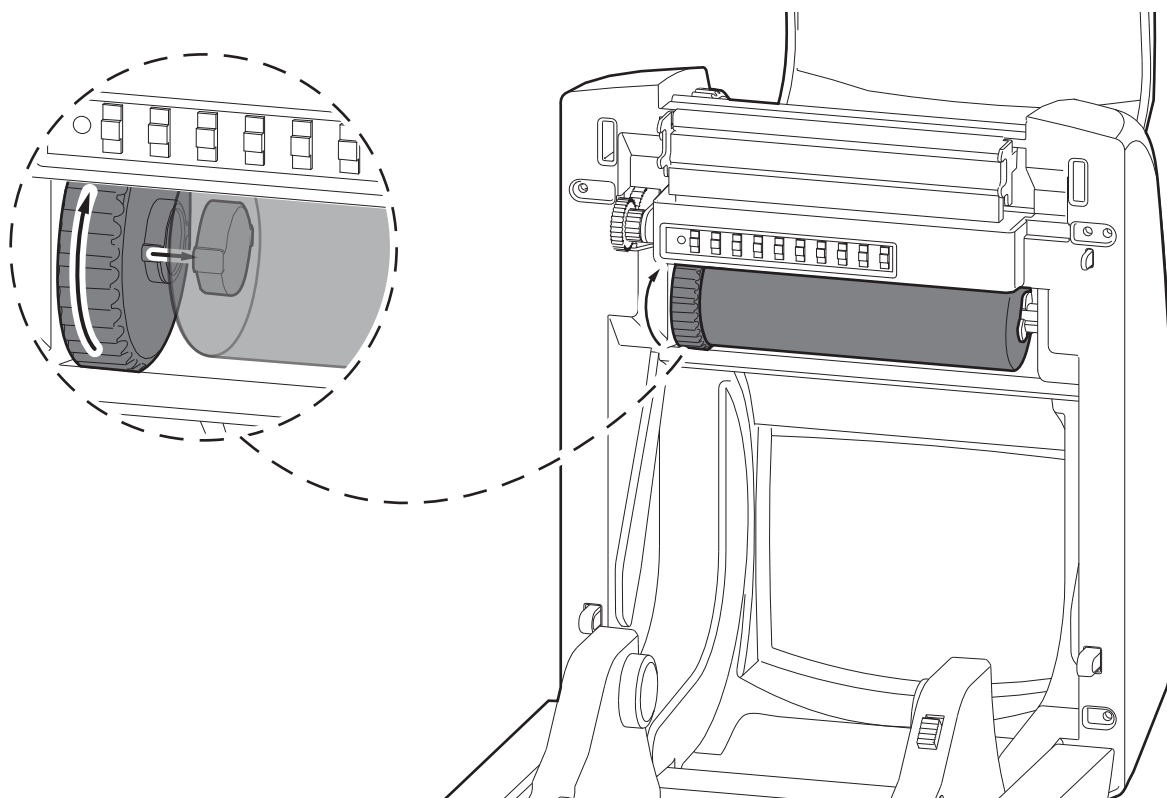
2

Ribbon compartment cover opening
see [paragraph 5.1](#).



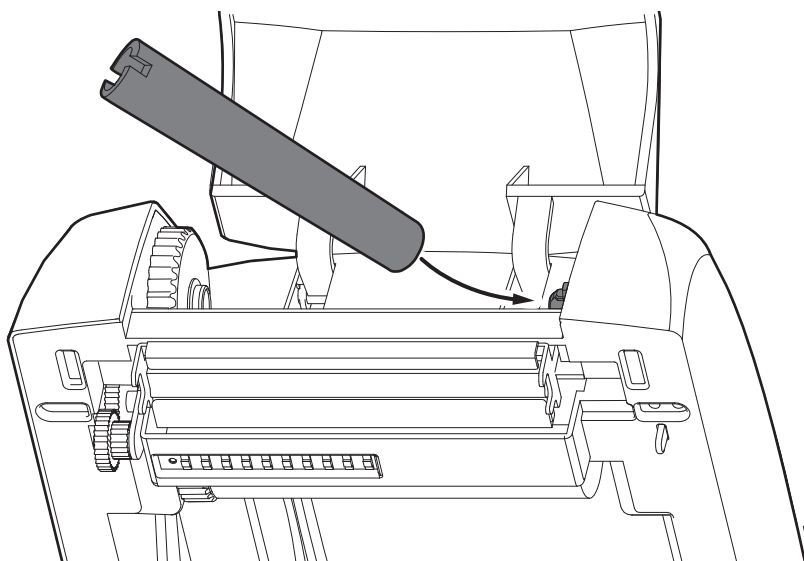
Insert the ribbon roll to the spindle.

3



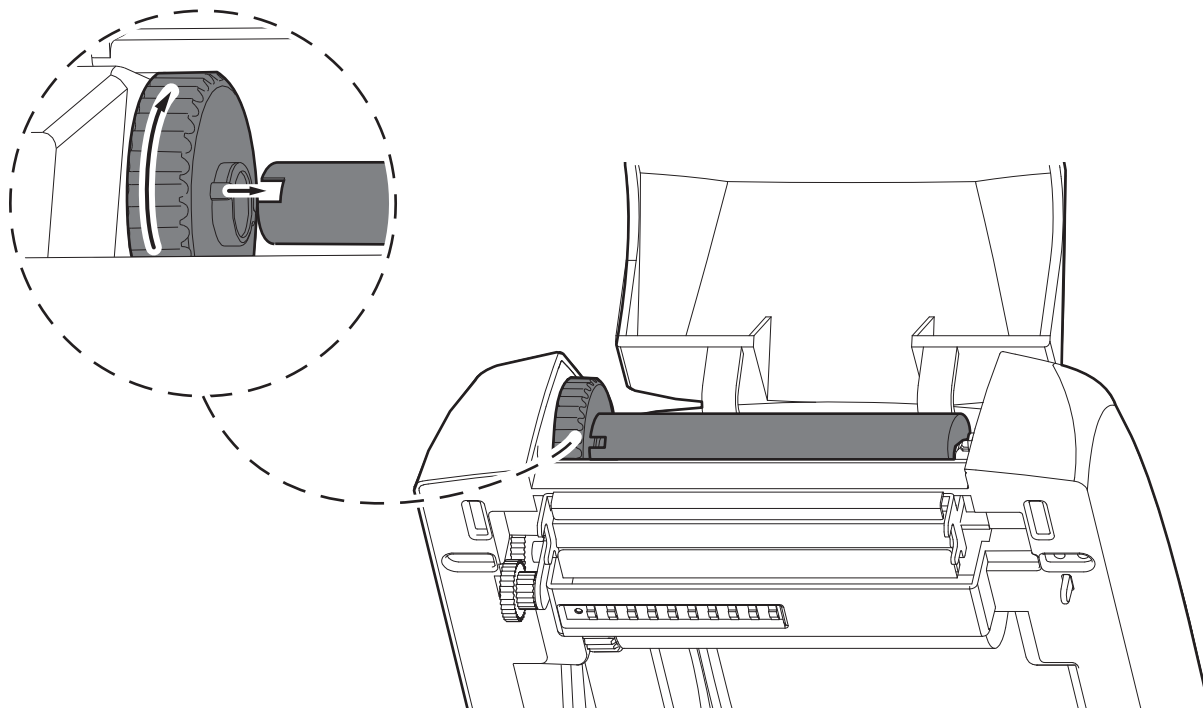
Rotate the gear wheel until the notches align and lock in to the left side of the ribbon roll.

4



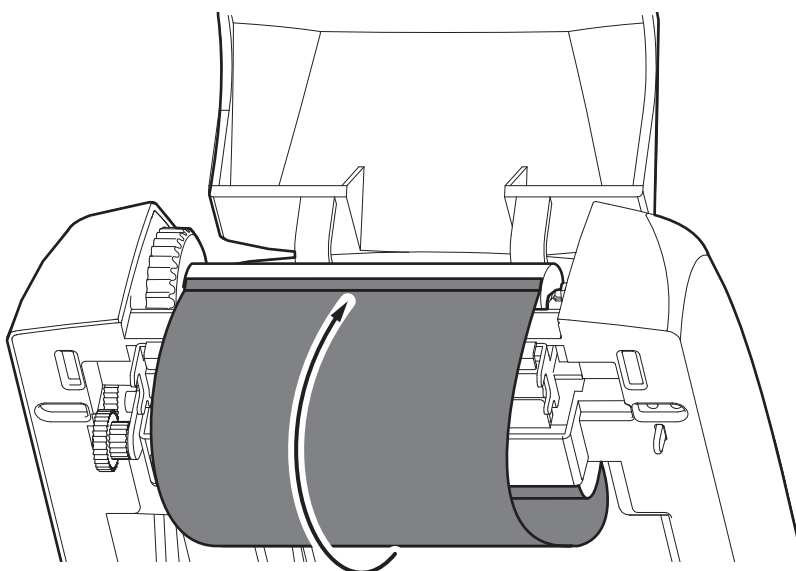
Insert the empty media core into the take up spindle.

5



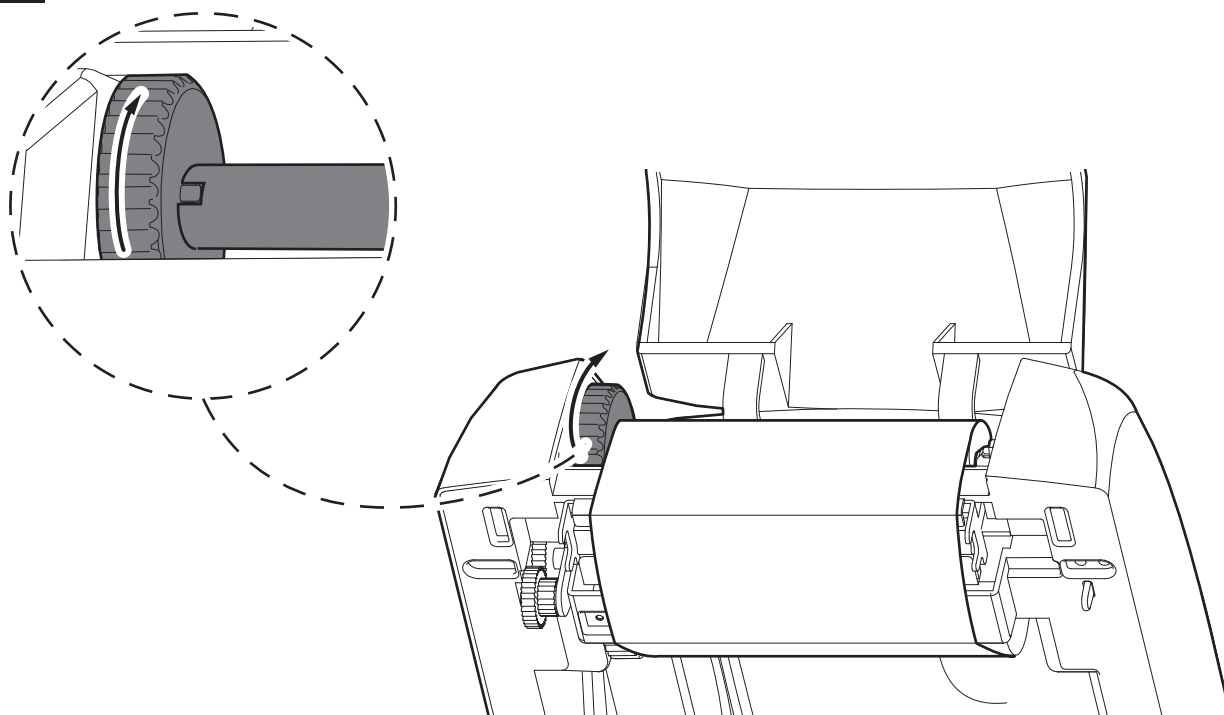
Rotate the gear wheel until the notches align and lock in to the left side of the empty media core.

6



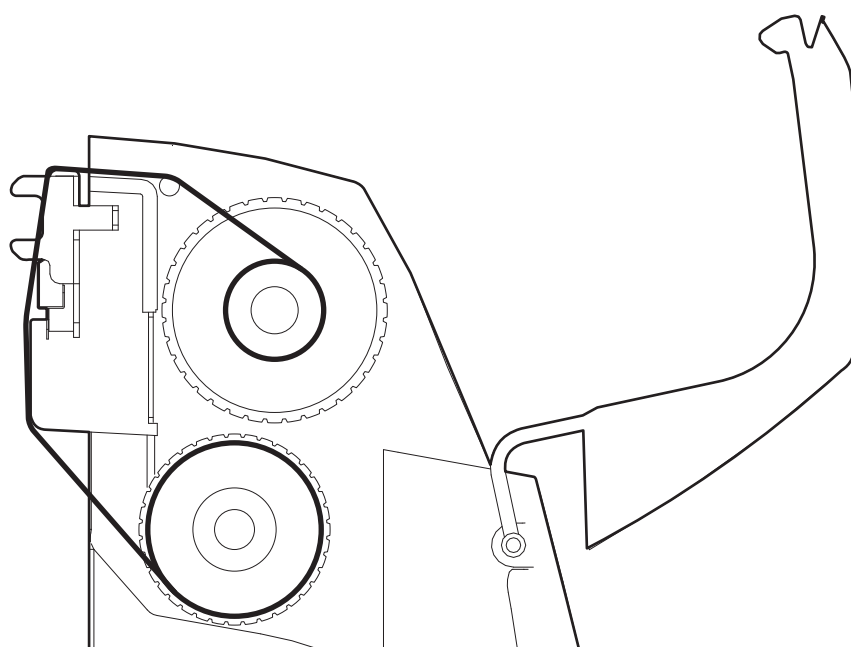
Pull the ribbon out from the ribbon roll and stick it with the adhesive tape on the empty media core take up.

7



Rotate the gear wheel on the left side of empty media core until the ribbon is pulled tight.

8



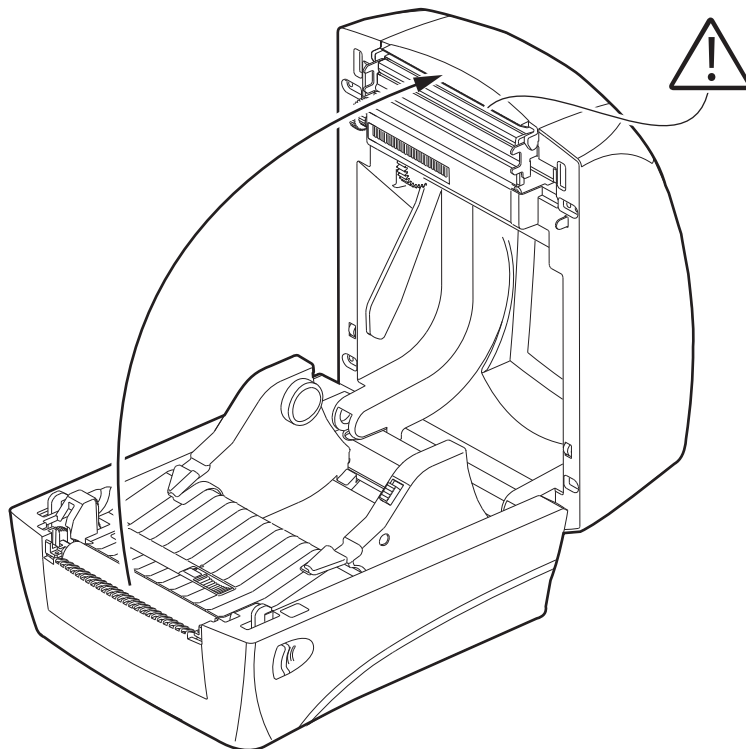
The figure show a section of the device with the ribbon path (outside wound).

5.6 Loading the ribbon label roll

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

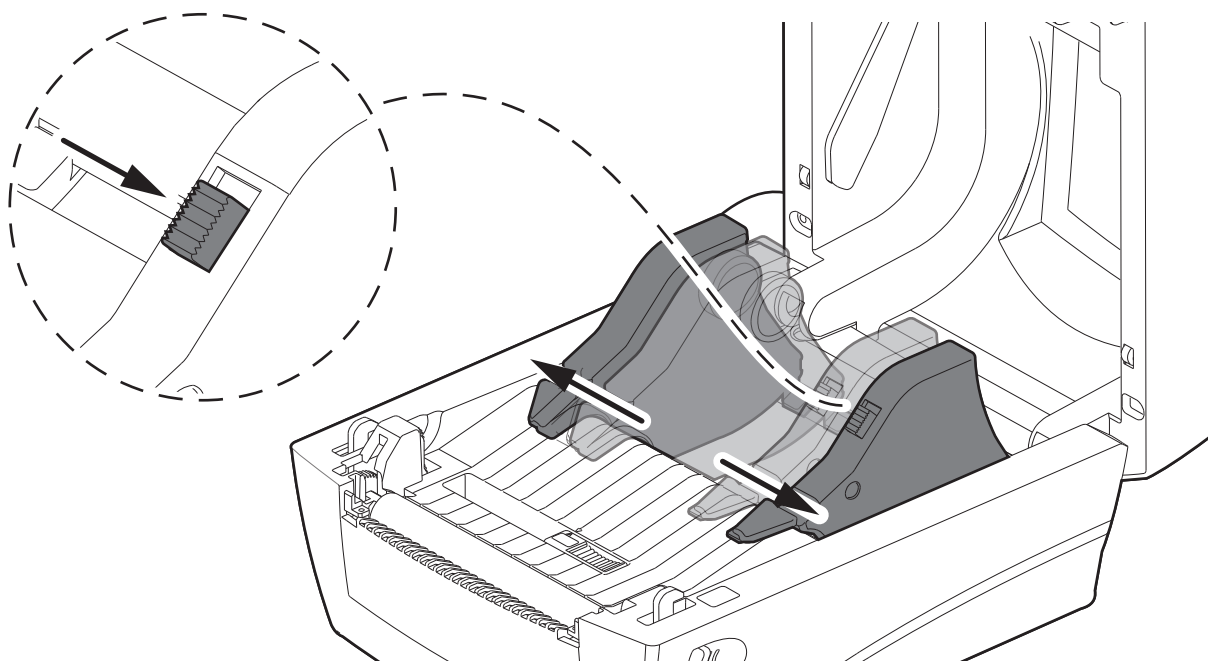
Only use approved label rolls.

1



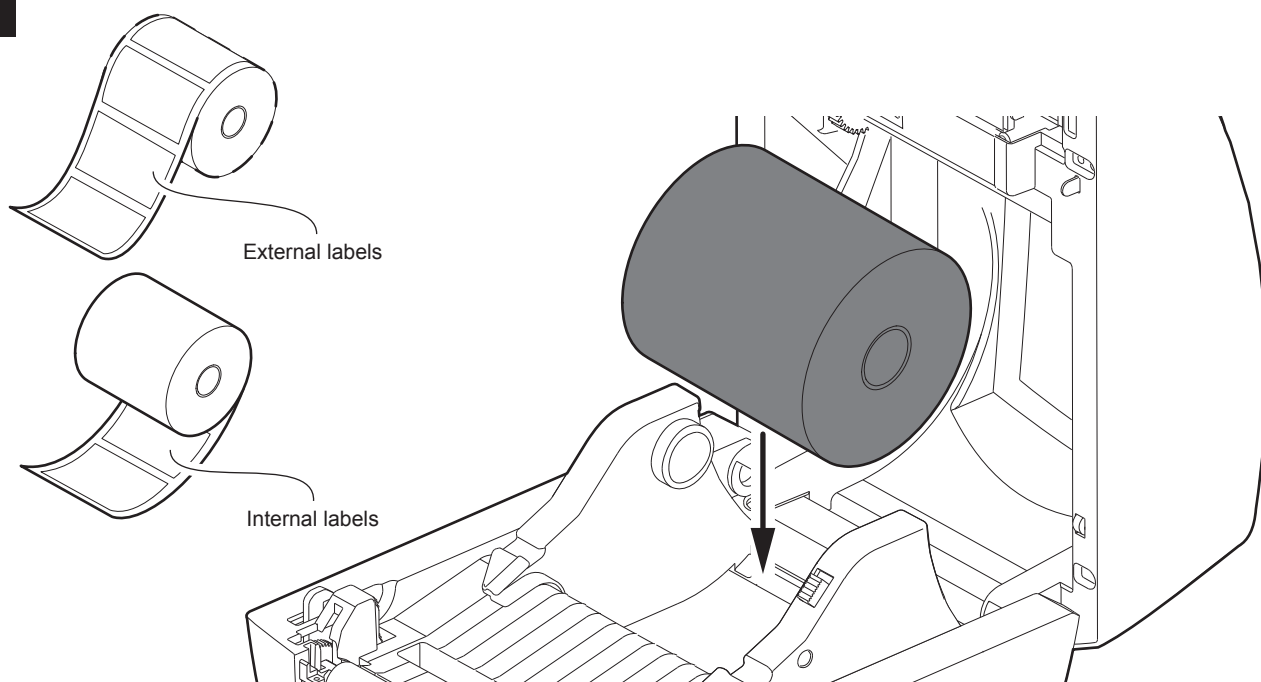
Top cover opening
see [paragraph 5.1](#).

2



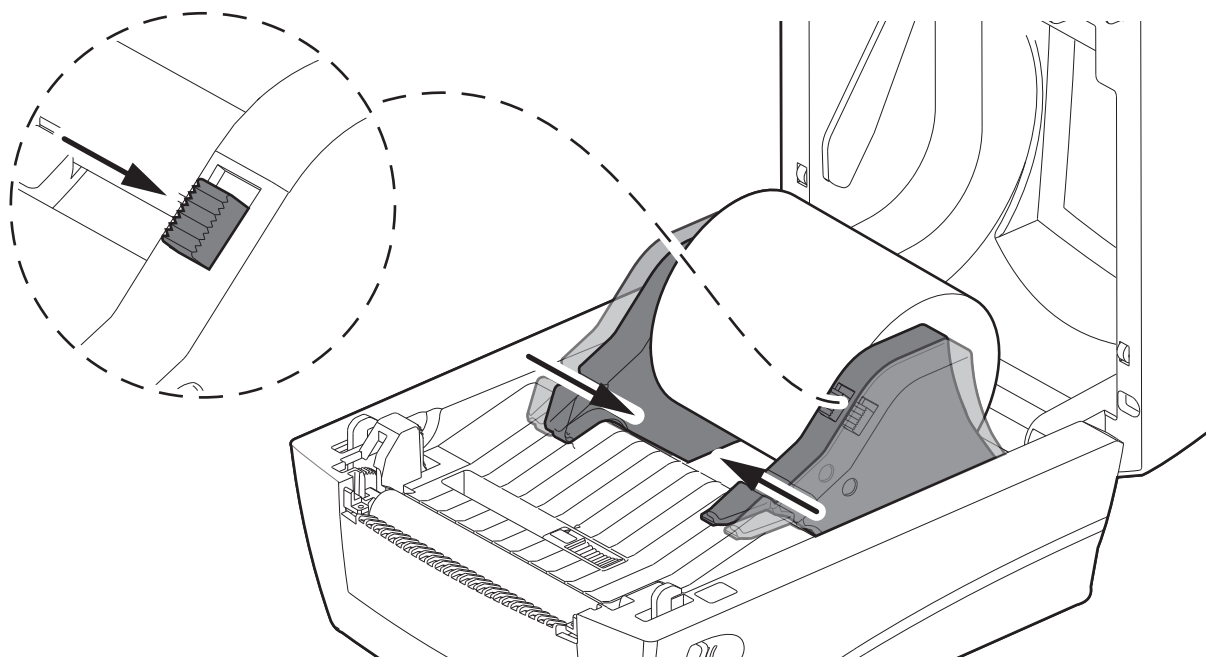
Press and hold the latch and pull the holders open.
Release the latch.

3



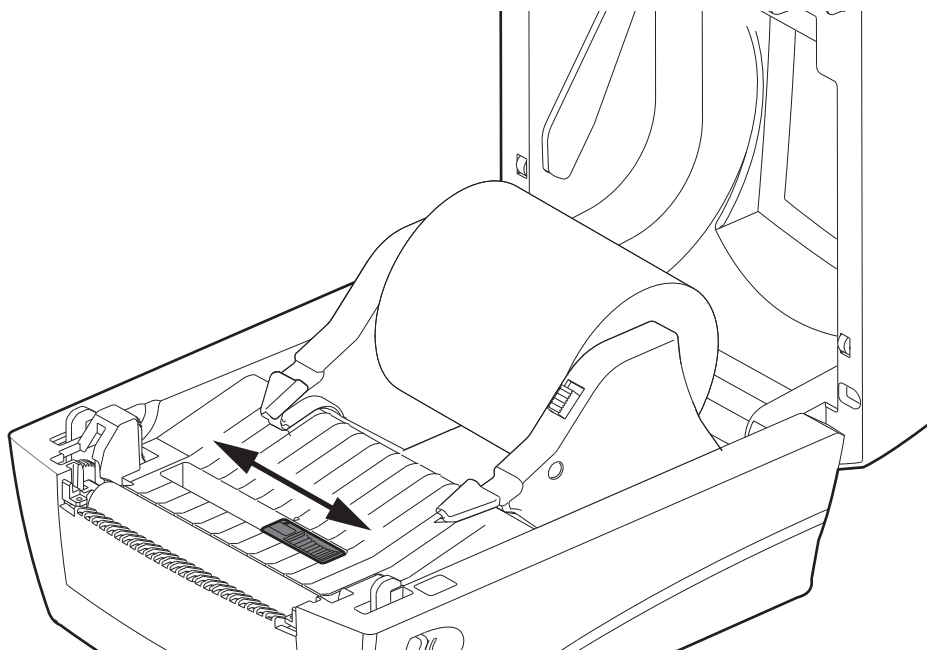
Insert the label roll. the label roll can be loaded with label inside or outside wound in the same way

4



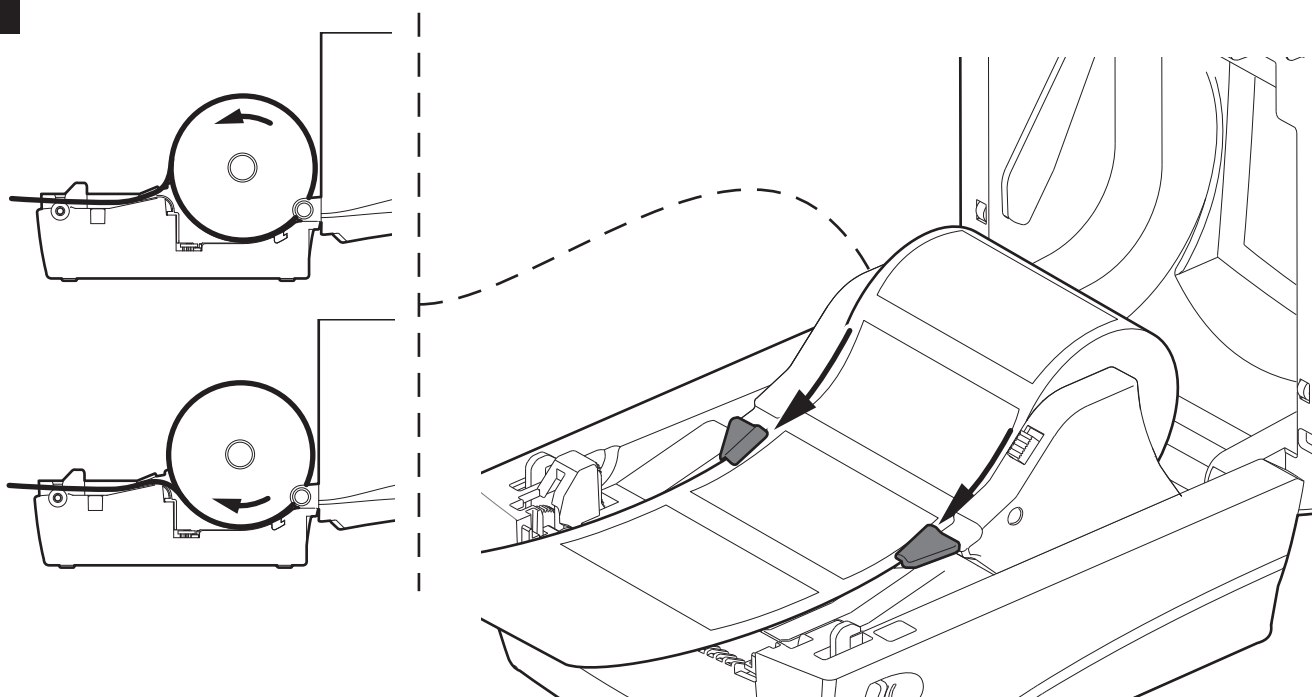
Press and hold the latch down and adjust the holders until the label roll is firmly supported. Release the latch.

5



Before pushing the labels ribbon under the guides, adjust the label sensor to appropriate position to detect the labels with gap, notch or black mark.

6



Pull the label ribbon and push it under the both guides.
Please make sure the printing surface is facing up.



6 MAINTENANCE

6.1 Planning of cleaning operations

The regular cleaning of the device keeps the print quality and extends its life. The following table shows the recommended planning for the cleaning operations. 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	
Printing head	Use isopropyl alcohol
Platen roller	Use isopropyl alcohol
EVERY 5 PAPER CHANGES	
Manual cutter	Use compressed air
Paper path	Use compressed air or tweezers
Sensors	Use compressed air
EVERY 6 MONTHS OR AS NEEDED	
Case	Use compressed air or a soft cloth

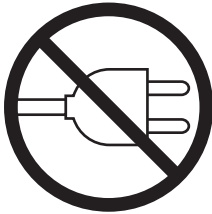


6.2 Cleaning

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

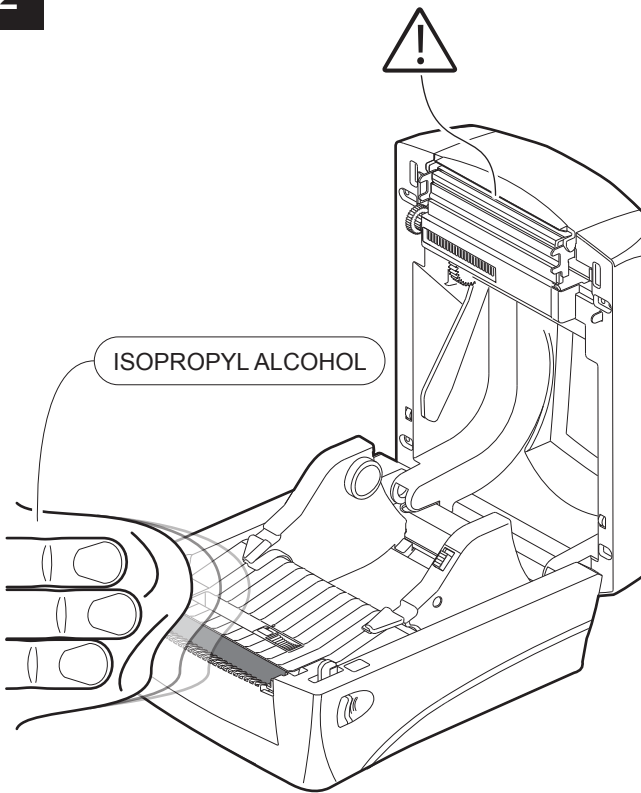
Platen roller

1




Disconnect the power supply cable and open the ribbon compartment cover (see [paragraph 5.1](#)).

2



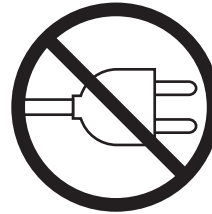
ATTENTION:
Do not use solvents, or hard brushes.
Do not let water or other liquids get inside the device.



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

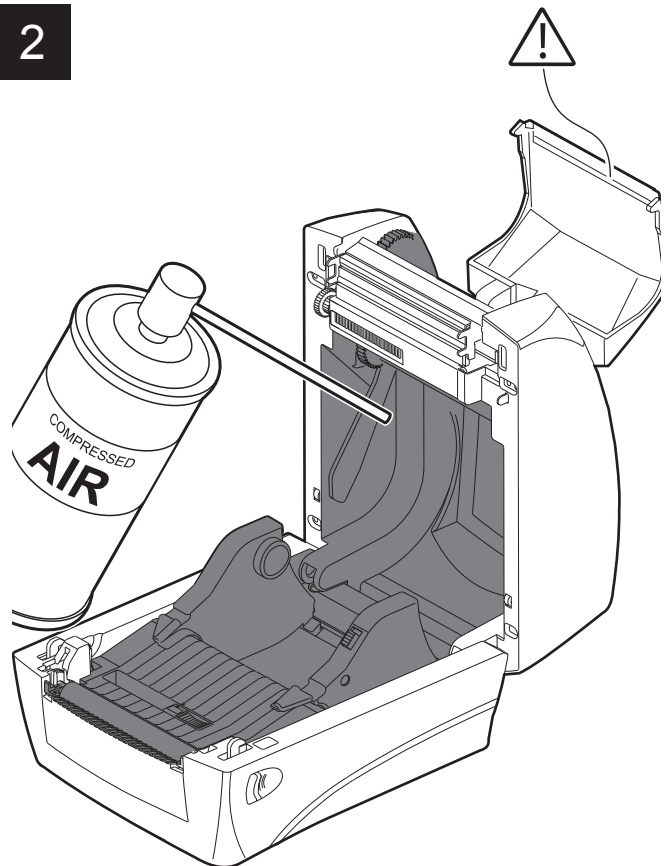
Paper path

1



Disconnect the power supply cable and open the ribbon compartment cover and top cover (see [paragraph 5.1](#)).

2



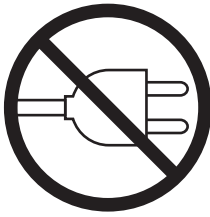
ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the device.



Remove any scraps of paper and the accumulated paper dust in the inspection compartment and in the paper input area.

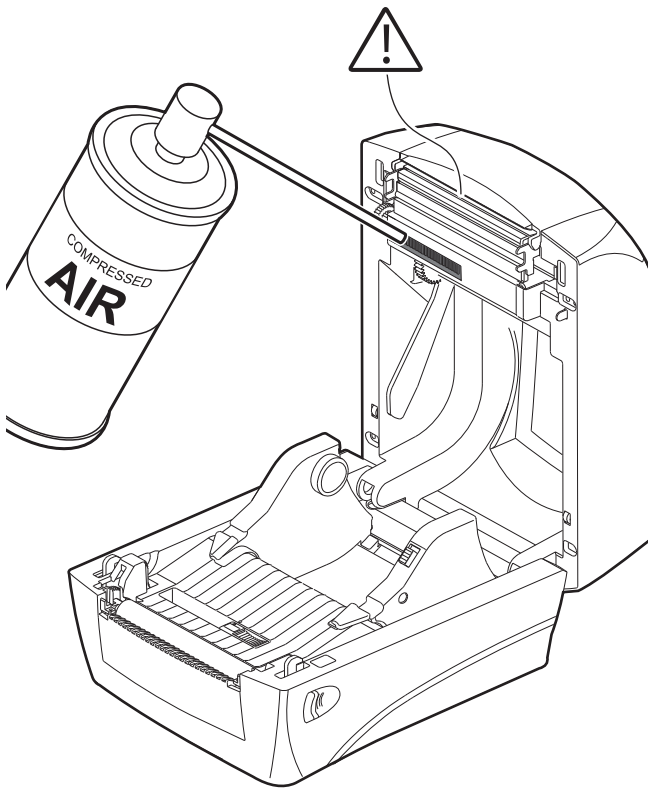
Sensor

1



Disconnect the power supply cable and open the ribbon compartment cover (see [paragraph 5.1](#)).

2



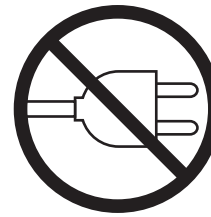
ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the device.



Clean the paper presence sensor and the sensor for the opening of the inspection door by using compressed air.

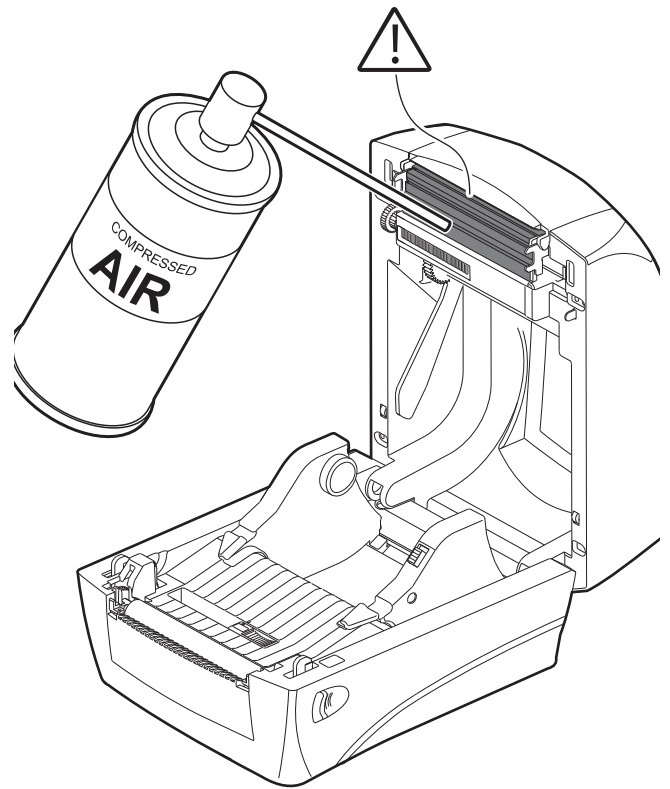
Printing head

1



Disconnect the power supply cable and open the ribbon compartment cover (see [paragraph 5.1](#)).

2



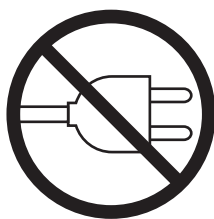
ATTENTION:
Do not use solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.



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

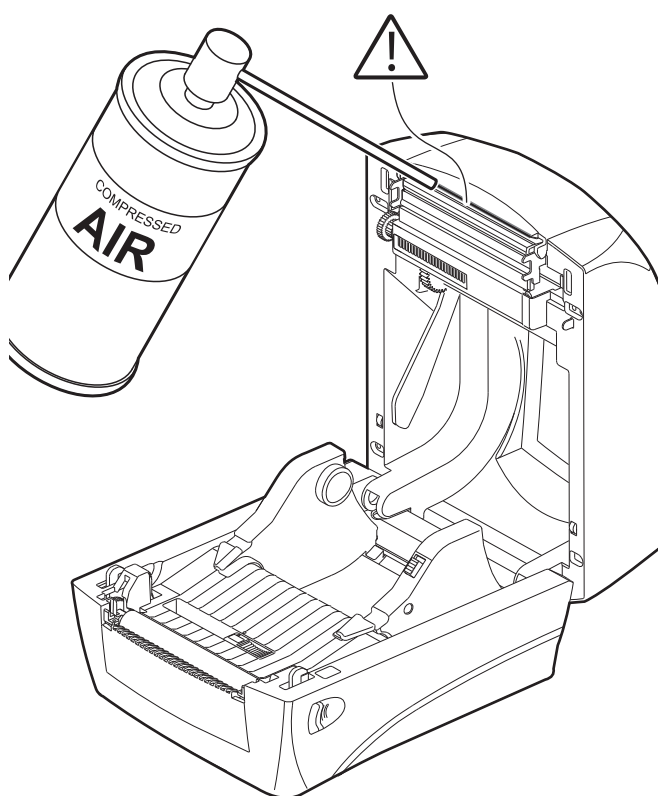
Manual cutter

1



Disconnect the power supply cable and open the ribbon compartment cover (see [paragraph 5.1](#)).

2



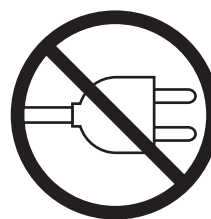
ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.



Clean the autocutter by using compressed air.

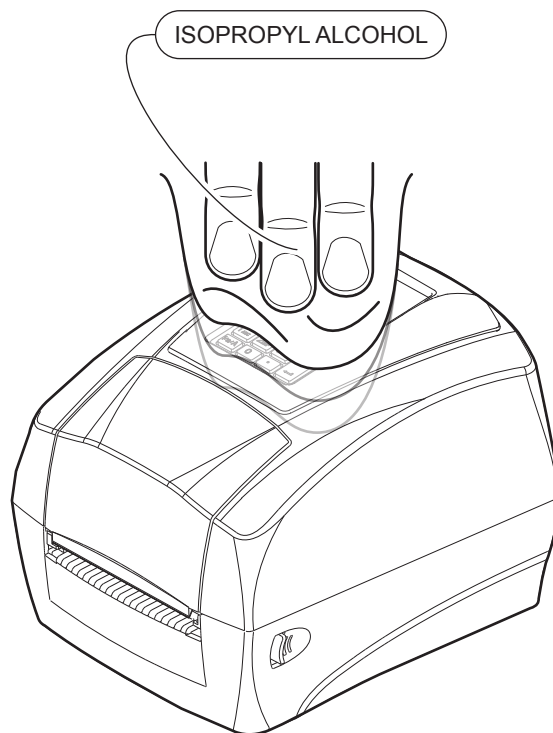
Chassis

1



Disconnect the power supply cable.

2



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



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

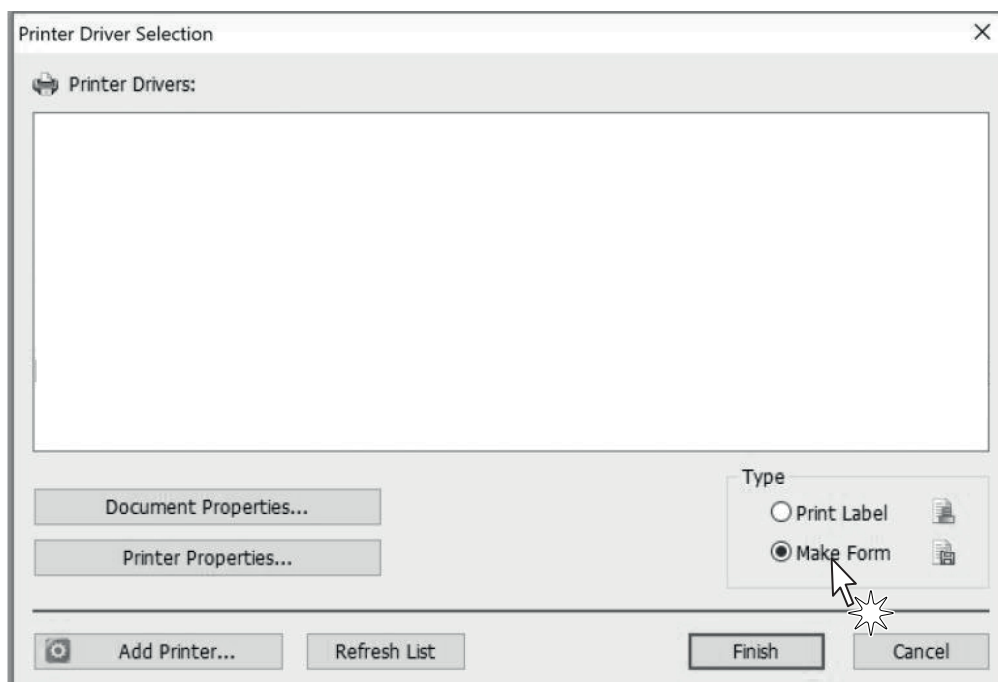
7 STANDALONE OPERATION D4 102

It's possible to operate the device alone without connecting PC to print labels. This section shows the way how to operate the standalone operation.

- Create a new blank label.

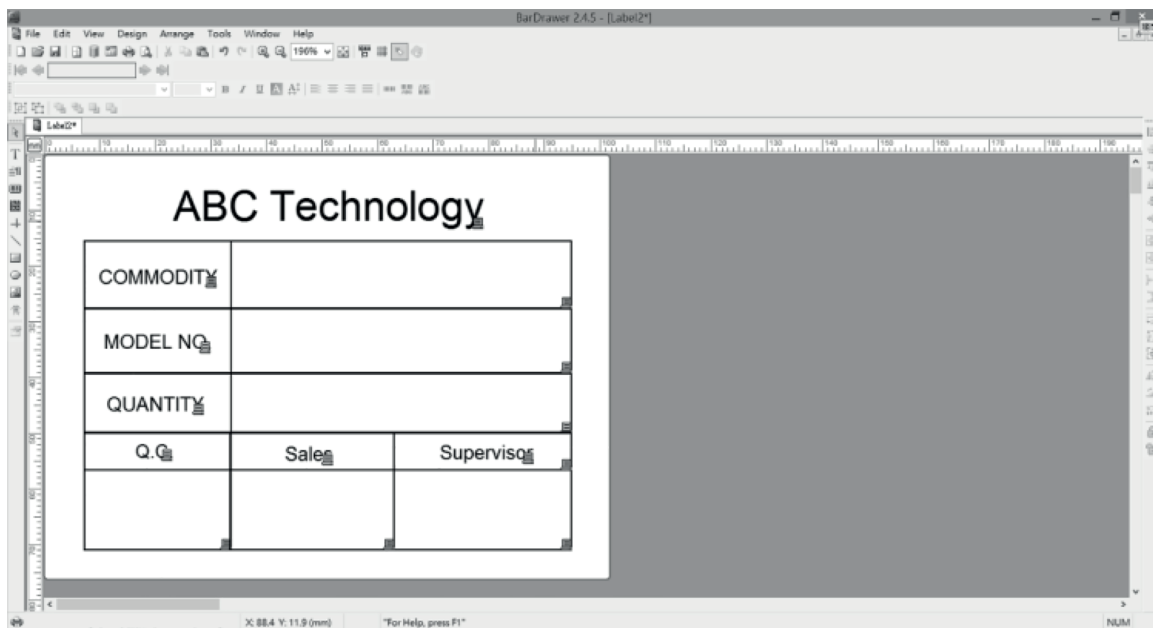


- Select "Make form" and press Finish key.

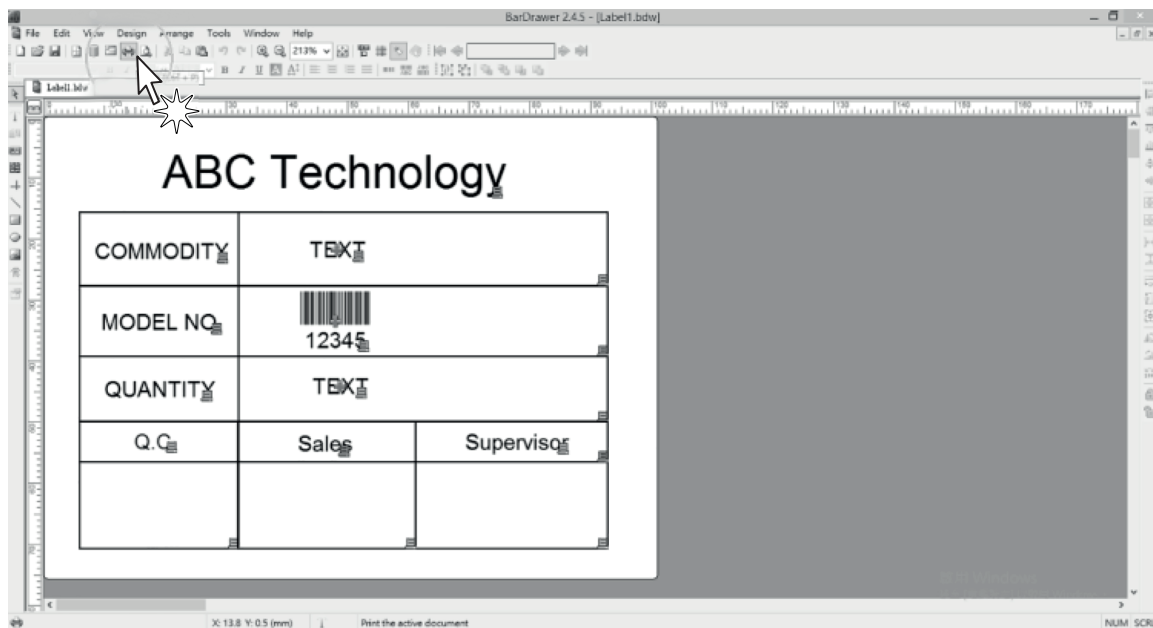




- Edit your label.

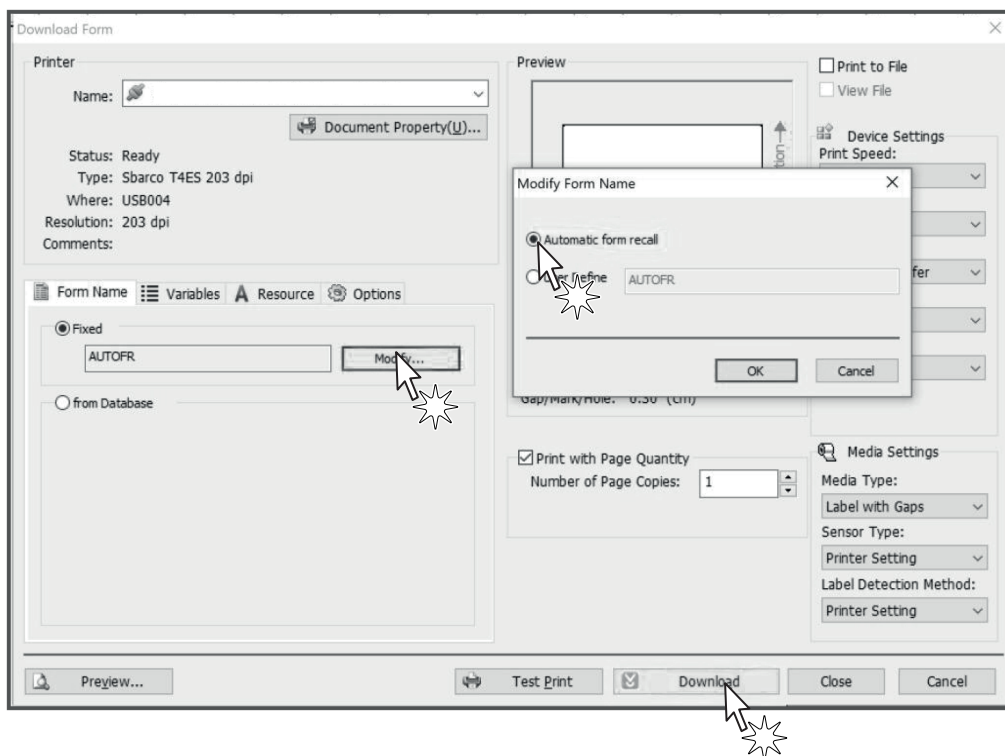


- Press "Print" icon key.

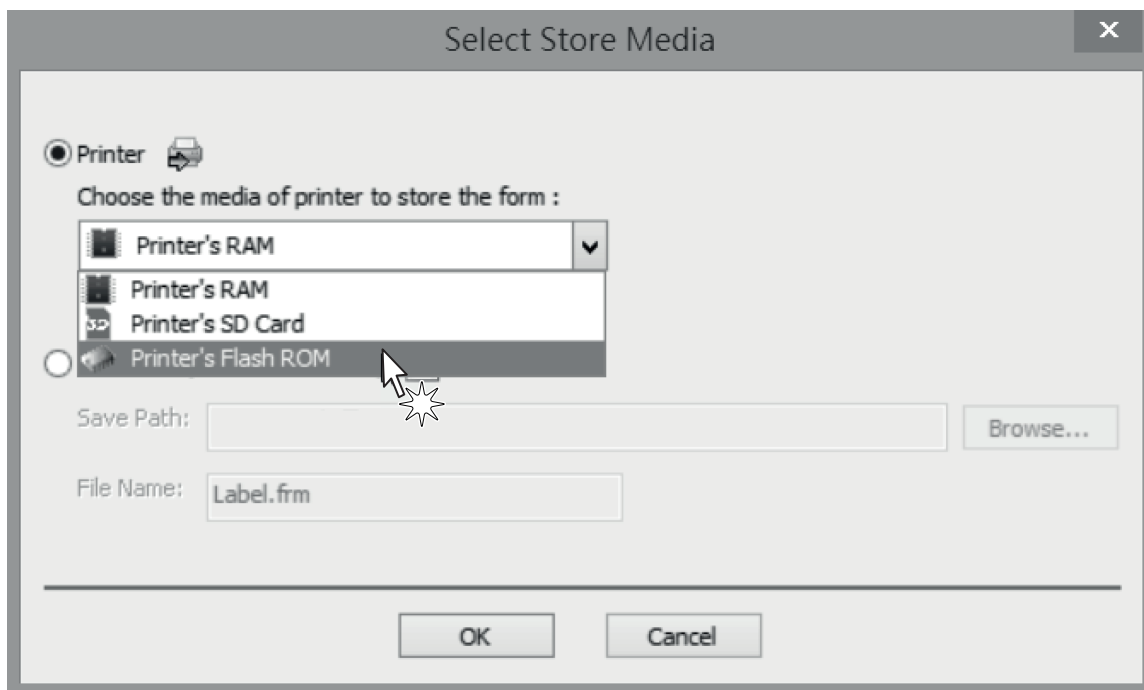




- Press “Modify” key / select “Automatic form recall” / press “Download”.



- Save the form into Printer's Flash ROM.



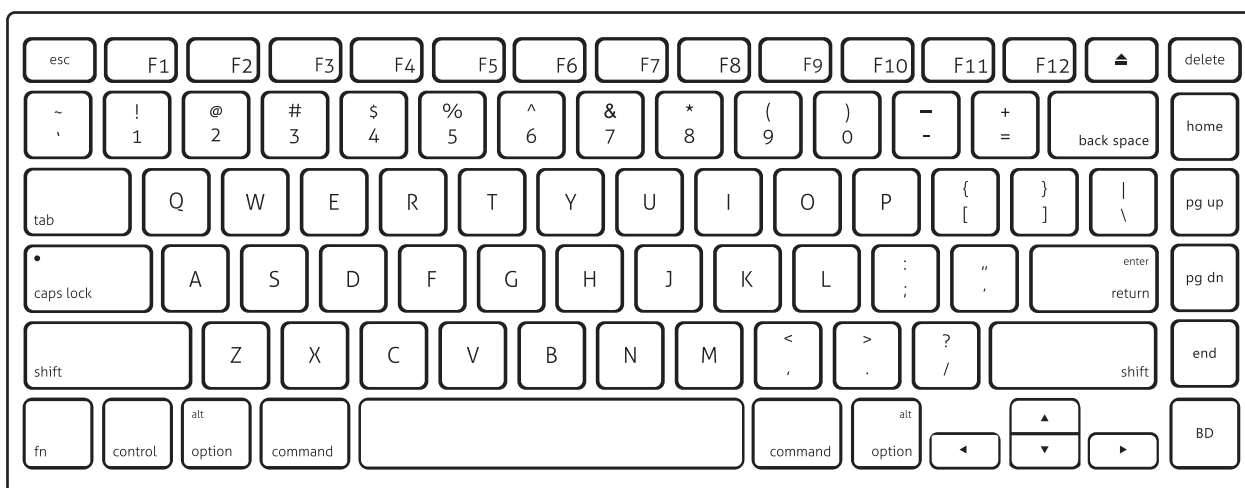
- After downloaded the form into the printer's flash ROM, the 3D indicator will be turned to purple color.
- To cancel the Standalone power off the device. Keep press the FEED key then power on the device, note to wait that the 3D indicator light start flashing and turn to purple again and release the Feed key. Open your computer device tool / file manager / delete the form from the form list.



8 STANDALONE OPERATION D4 202 AND D4 302-K

It's possible to operate the device alone without connecting PC to print label by using normal USB interface keyboard or scanner.

8.1 Description of keyboard



Where:

PRINTER STATUS	MAIN MENU	SUB MENU	KEY FUNCTION	DESCRIPTION
Ready			F1	Enter / Exit LCD Menu
			F4	Feed
Printing			F2	Cancel printing job
			F3	Pause printing job



PRINTER STATUS	MAIN MENU	SUB MENU	KEY FUNCTION	DESCRIPTION
			~!@#\$\$%^&*()-+`0~9_ =	
			{ } : " < > ? [] \ ; , . /	
			A ~ Z	Data
			a ~ z	
			0 ~ 9	
			Space	

			ESC	
Form operation	Form	Run the form Auto form	Caps Lock	
			Left Shift	
			Right Shift	
			Backspace	
			Home	Control key
			Delete	
			End	
			←	
			→	
			Num lock	



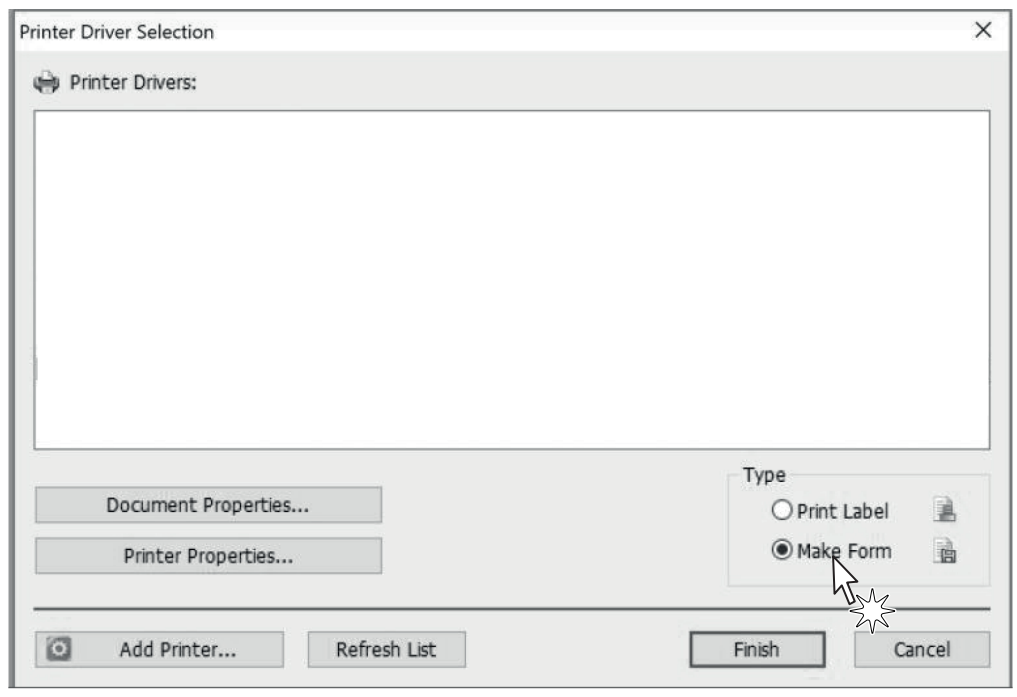
PRINTER STATUS	MAIN MENU	SUB MENU	KEY FUNCTION	DESCRIPTION	
LCD menu	Menu Item		↑	Scroll up	
			↓	Scroll down	
			ESC	Return to last menu level	
			Enter	Enter menu item	
	Setting			↑	Scroll up
				↓	Scroll down
				ESC	Return
				Enter	Save
	User setup	Date		↑	Scroll up
		Time		↓	Scroll down
		Password		ESC	Return
				Enter	Save / Next setting item
	Print setup	Darkness		↑	Add value
		Print width			
		Print x offs		↓	Reduce value
		Print yoffs			
		Tph y offs			
		Back y offs		ESC	Return
				Enter	Save
	Test	Print config			
		Print test		↑	Add Item
		Label cal.			
		Dump mode			
	Memory	Cutter		↓	Next item
		Free size			
		List			
		Delete files		ESC	Return
	Form	Clear memory			
		Run the form			
		Auto form		Enter	Select / Run function
	F/W update				



- Create a new blank label.

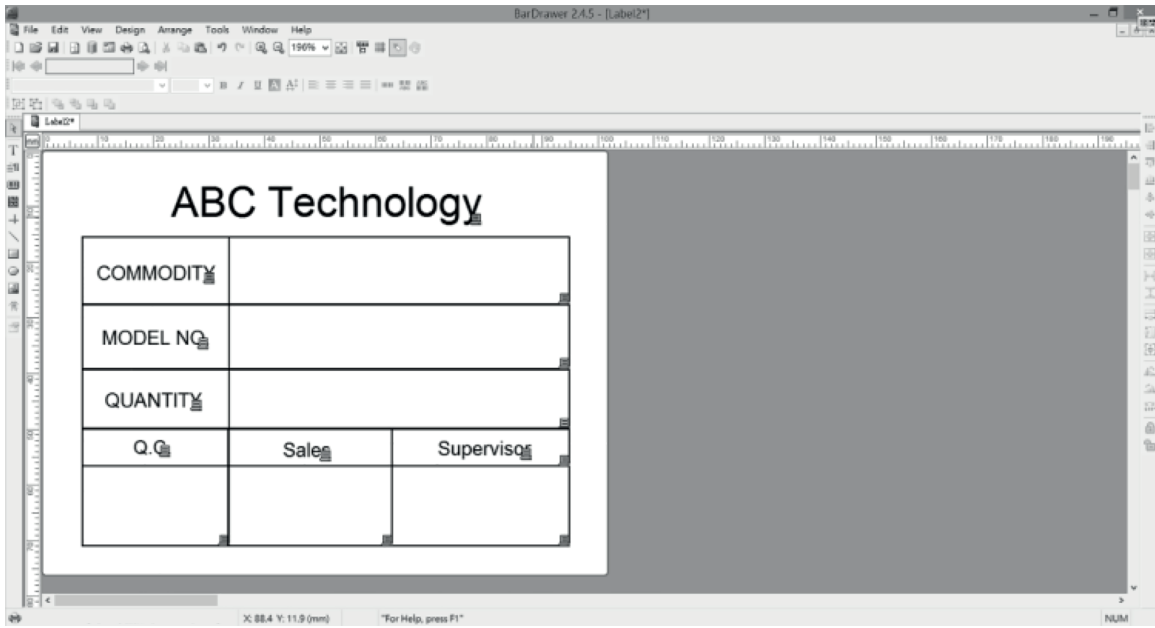


- Select
 - "Print Label" to create a label or
 - "Make Form" to create a template with variable fields

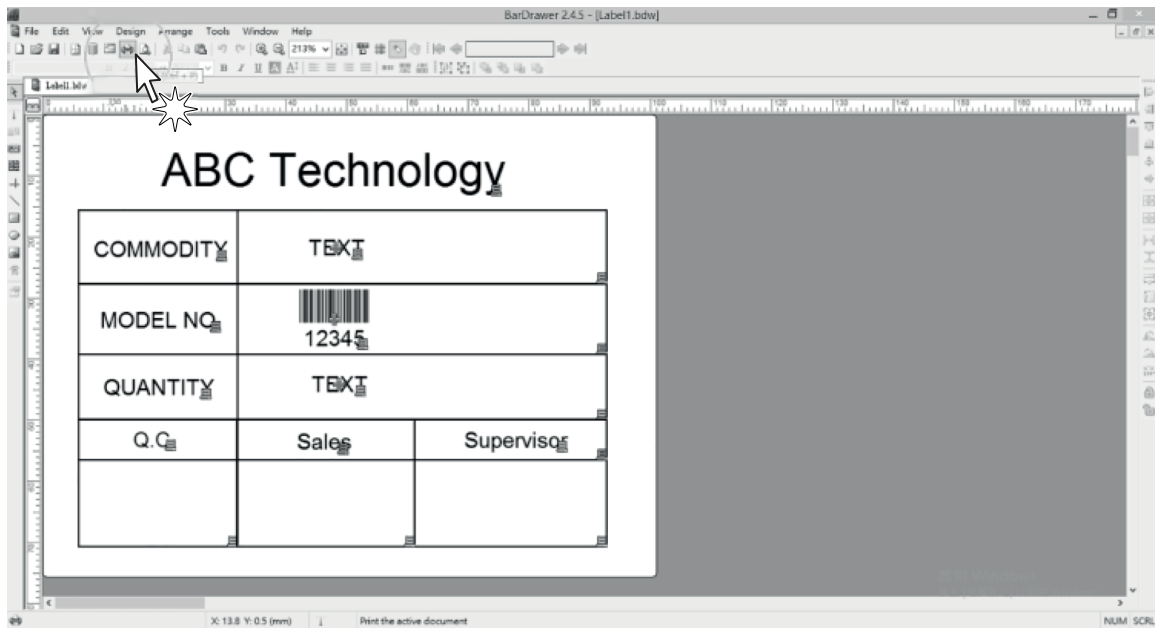




- Edit a form.

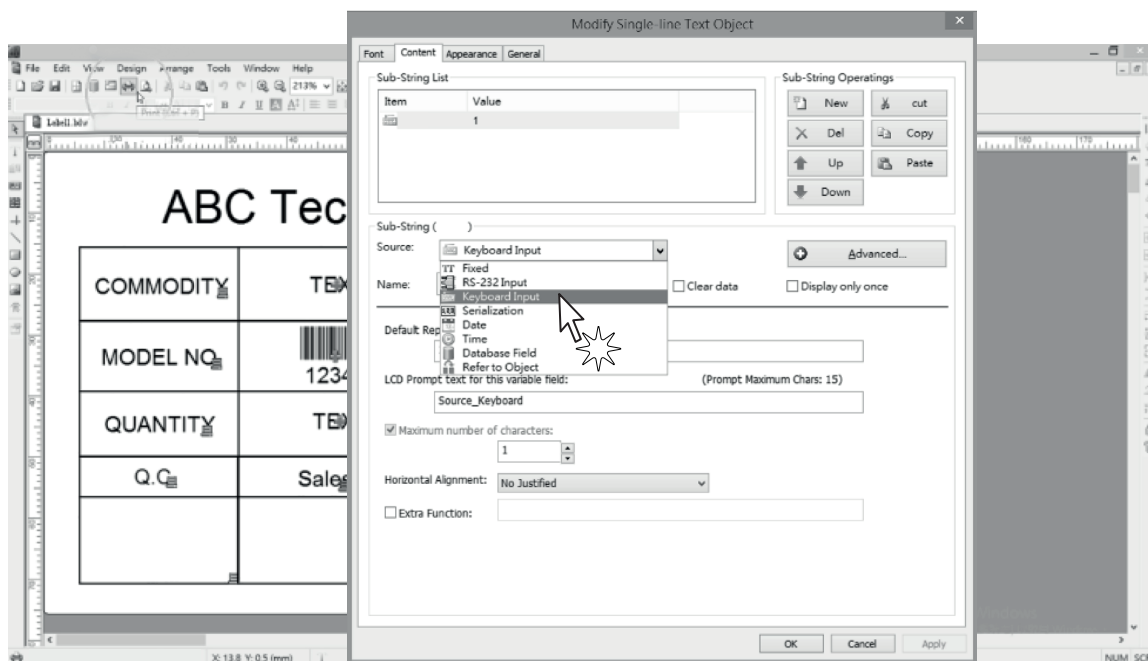


- Enter the "Text" or Barcode in editing field.

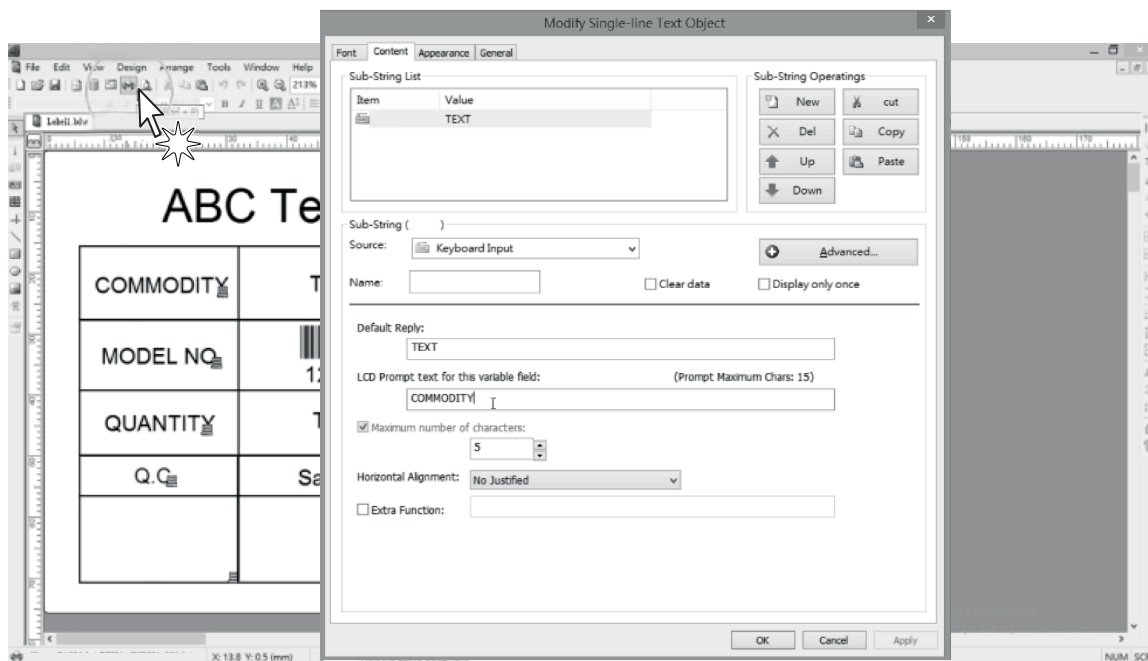




- Click twice on the "Text", select "Keyboard input" in Source field.

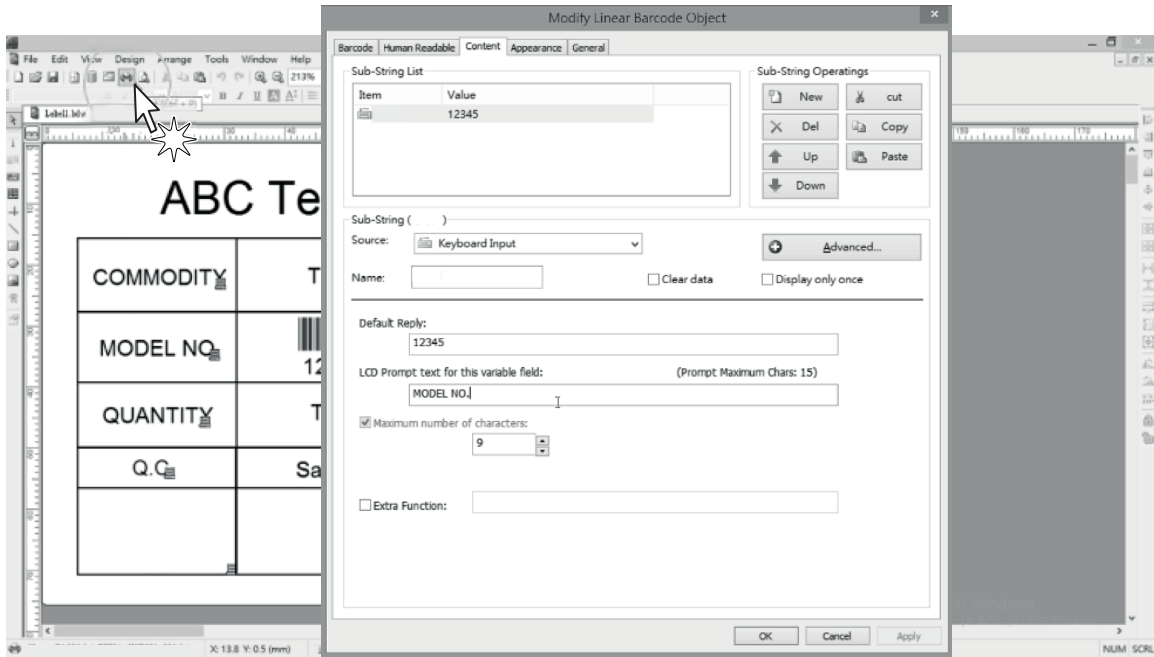


- Enter the prompt text would like to be shown on LCD monitor. Enter also the max characters.

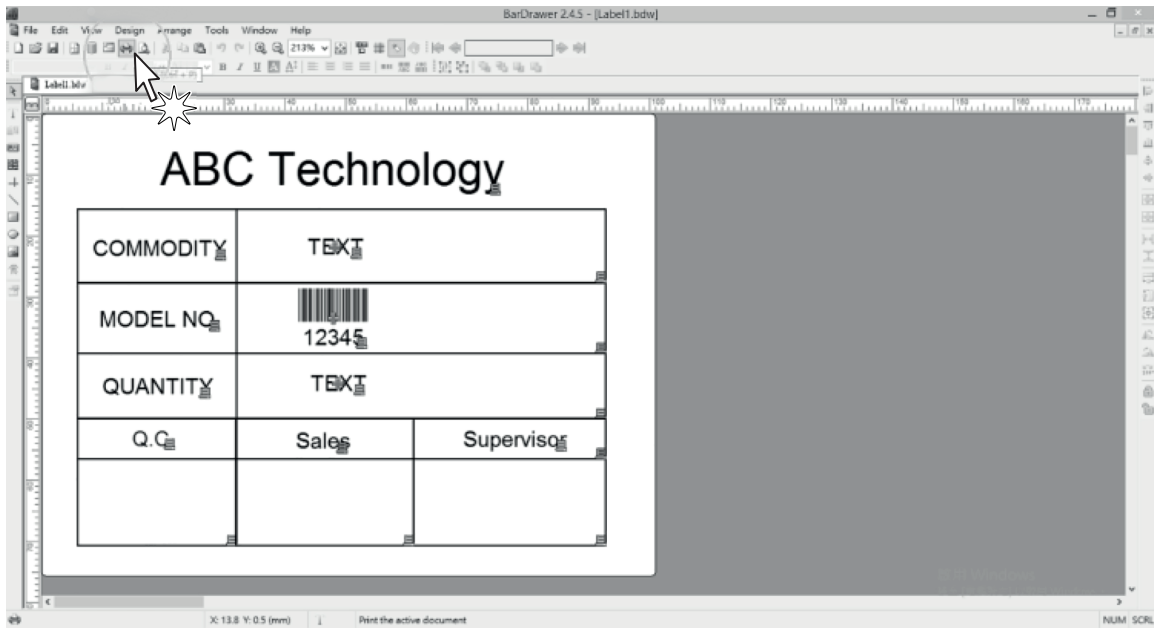




- Follow the last step for the other variable text.

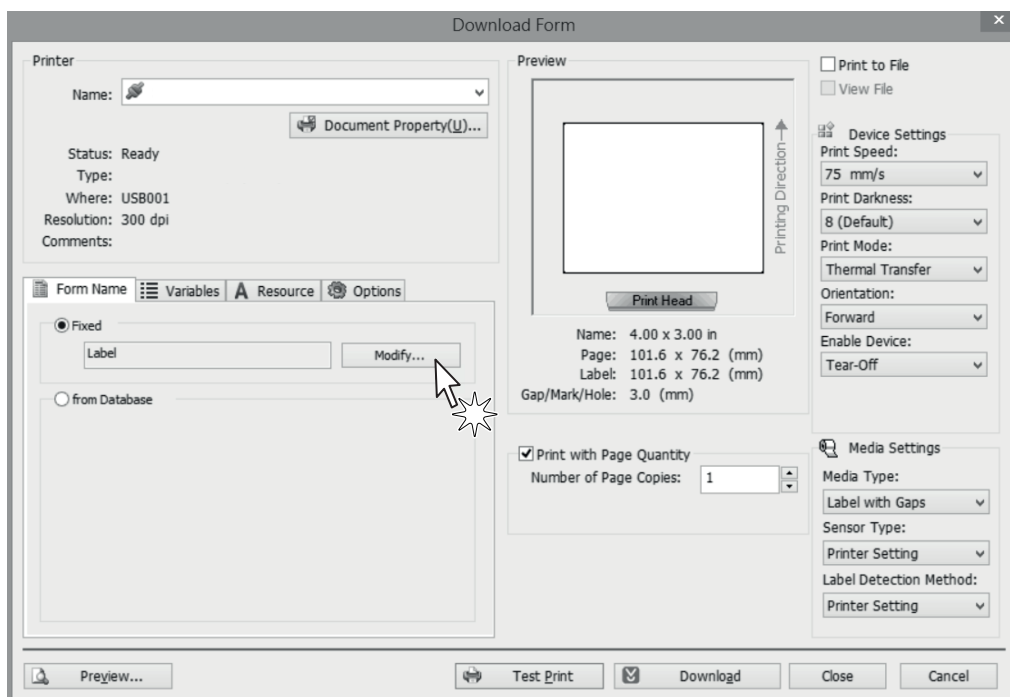


- Press "Print" key.

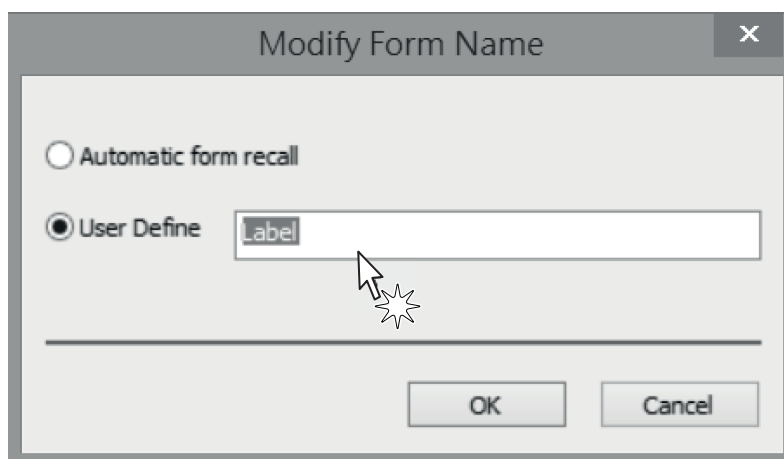




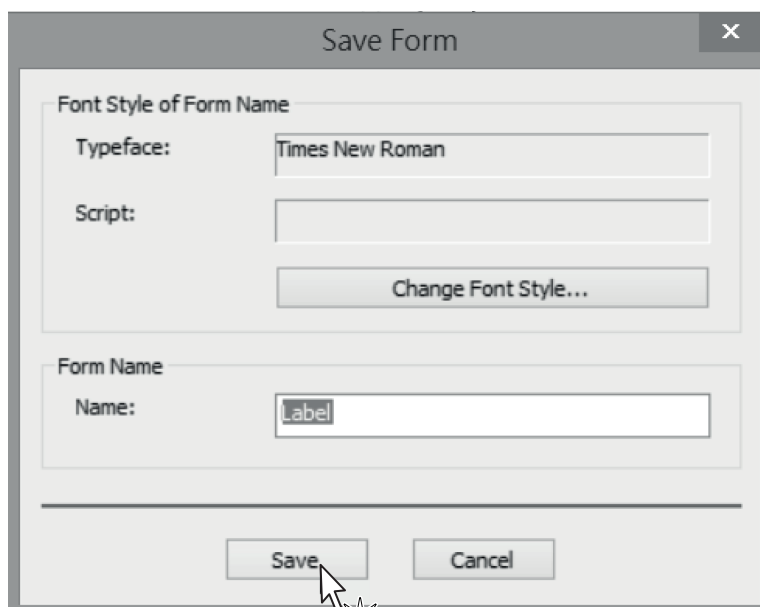
- Press “Modify” key to modify the form name.



- Modify the form name.

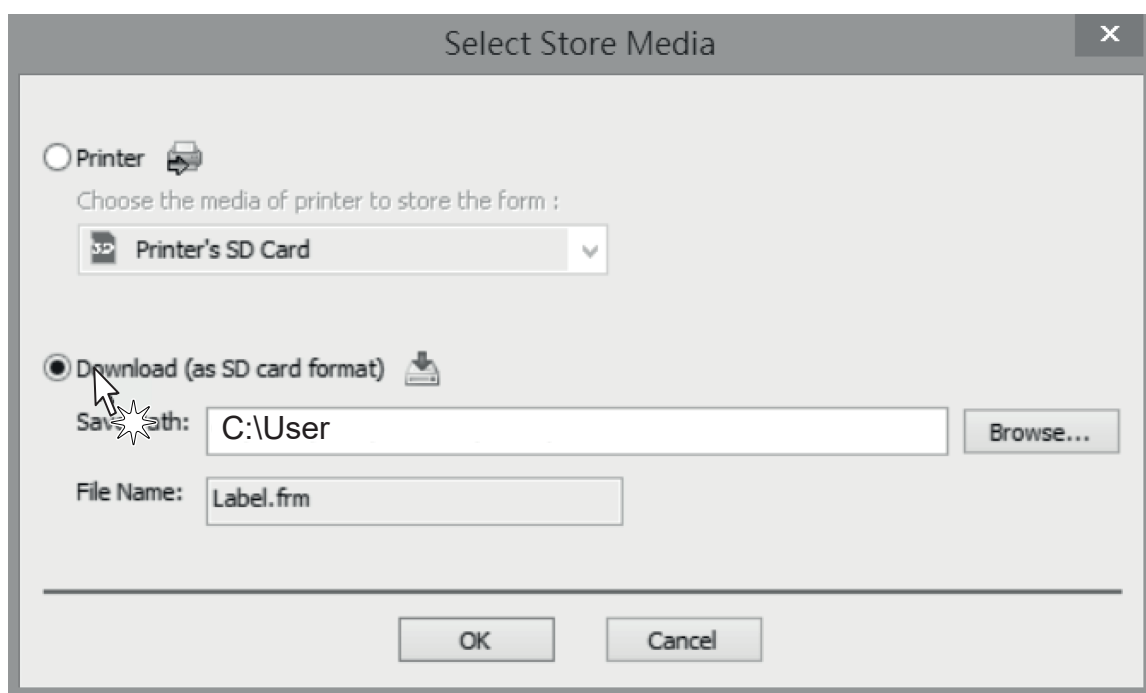


After modifying the form name, press “Download” and “Save” to load the form to memory device.



The "Save Form" dialog box contains two main sections. The top section, titled "Font Style of Form Name", includes a "Typeface:" field with "Times New Roman" selected, an empty "Script:" field, and a "Change Font Style..." button. The bottom section, titled "Form Name", includes a "Name:" field with "Label" entered. At the bottom of the dialog are "Save" and "Cancel" buttons, with a mouse cursor pointing at the "Save" button.

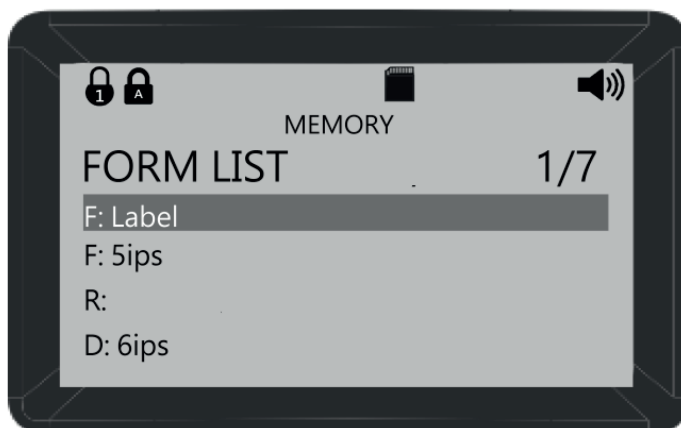
- There 3 ways you could store the form into Printer's: RAM, Flash ROM or SD card.



The "Select Store Media" dialog box offers three storage options. The "Printer" option is unselected, with a sub-section "Choose the media of printer to store the form :" containing a dropdown menu set to "Printer's SD Card". The "Download (as SD card format)" option is selected, and its "Save Path:" field is set to "C:\User", with a "Browse..." button to its right. The "File Name:" field is set to "Label.frm". At the bottom are "OK" and "Cancel" buttons, with a mouse cursor pointing at the "Download (as SD card format)" radio button.



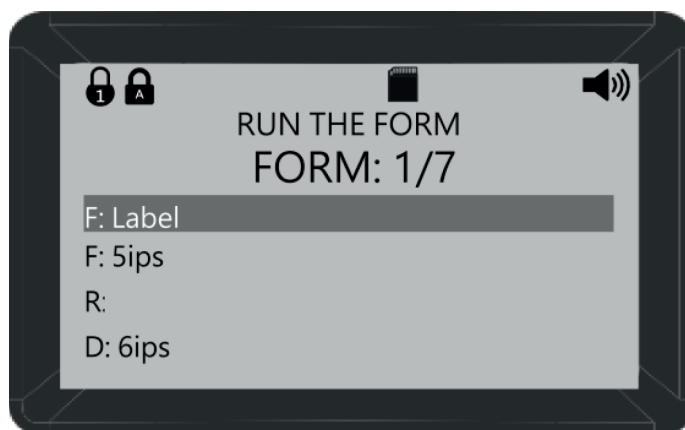
- After downloaded the form into the printer's flash ROM, check the FORM LIST in memory of printer menu. The form name "Label" will be shown in FORM list.



Where:

- R: Form is stored in device's SDRAM. The Form will disappear when device's power is off
- F: Form is stored in device's Flash ROM. The Form is saved in memory even power off the device
- D: Form is stored in SD card.

- Select the form Shipping label in the menu of "RUN THE FORM"



- Follow the prompt text you set to enter the data from the keyboard:



1. Enter the commodity



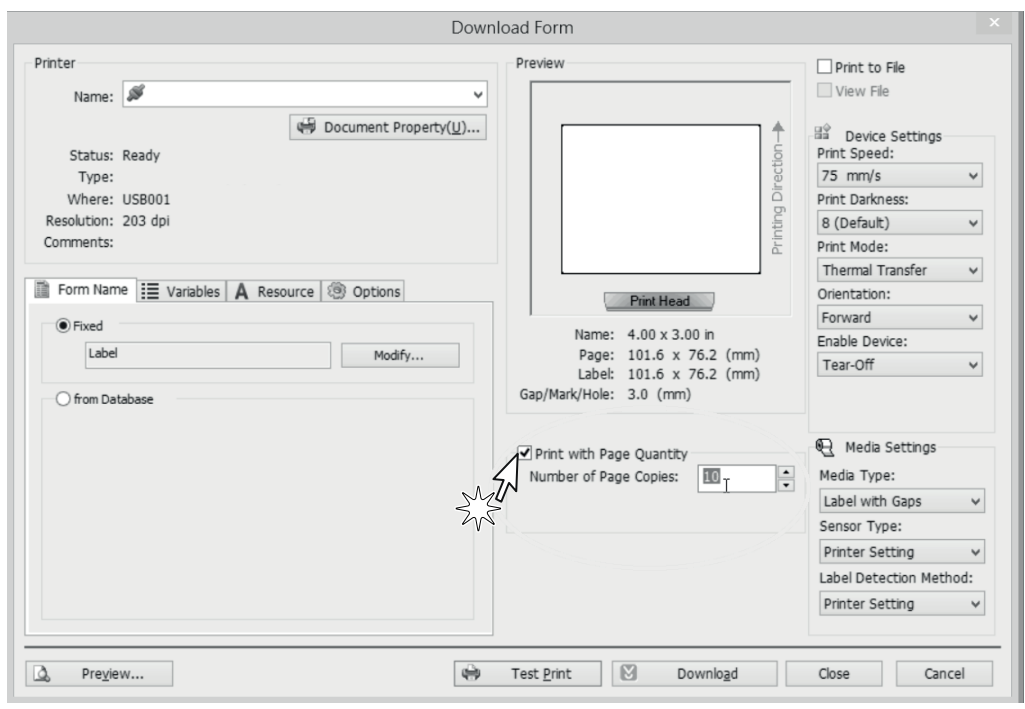
2. Enter the model No



3. Enter the quantity



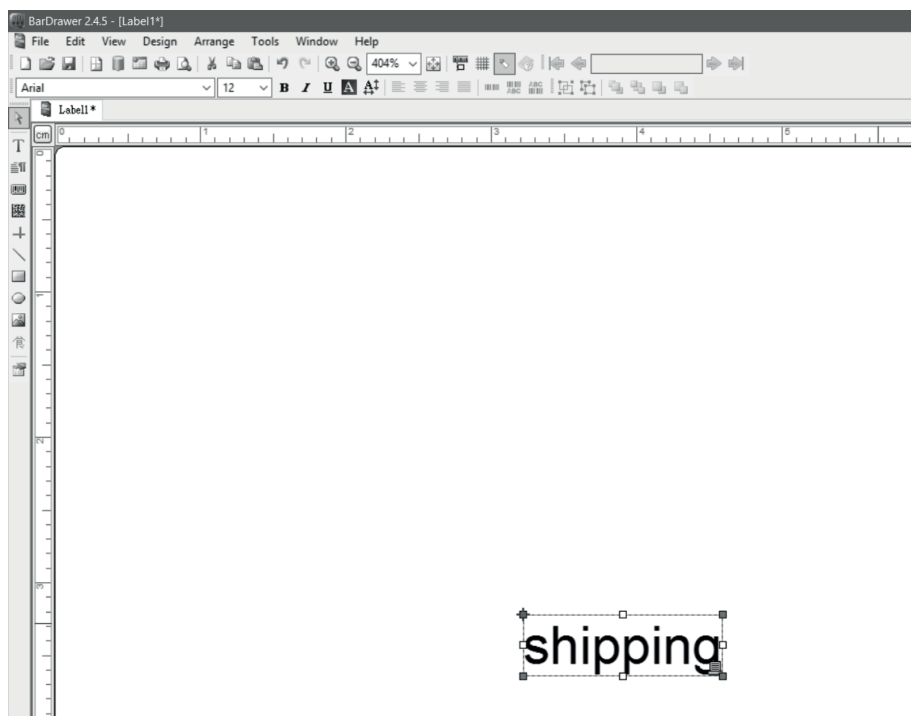
- Then, the printer will device the label quantity you set, if you set already the device quantity.



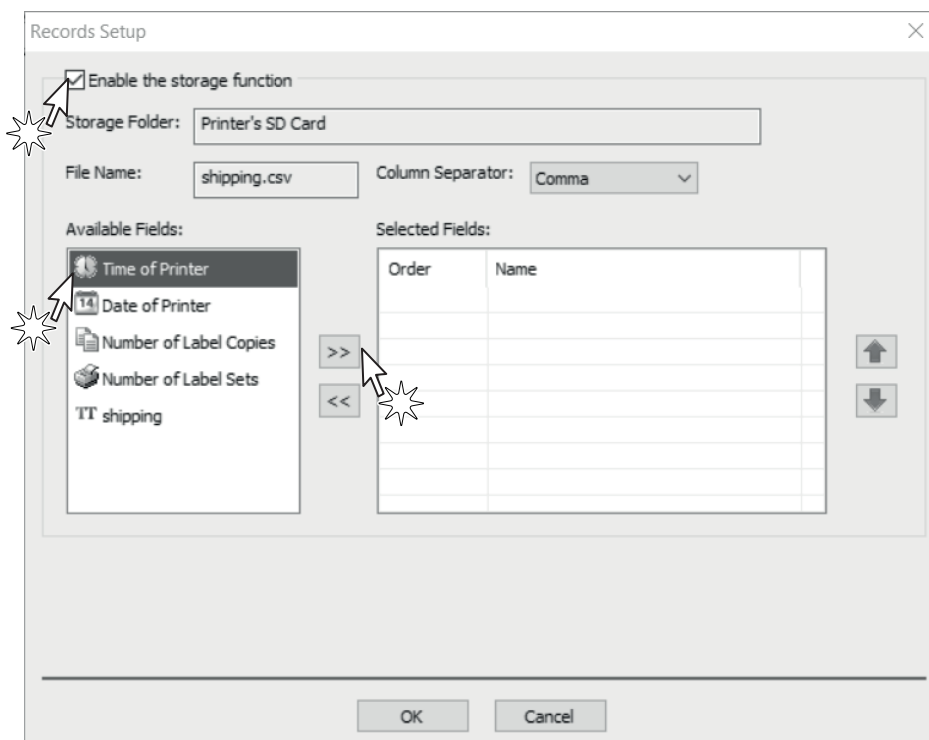
8.2 Instruction guide of SD card

After saved files into SD card, all of these files can be managed through PC. You can check description and detailed steps in the following parts:

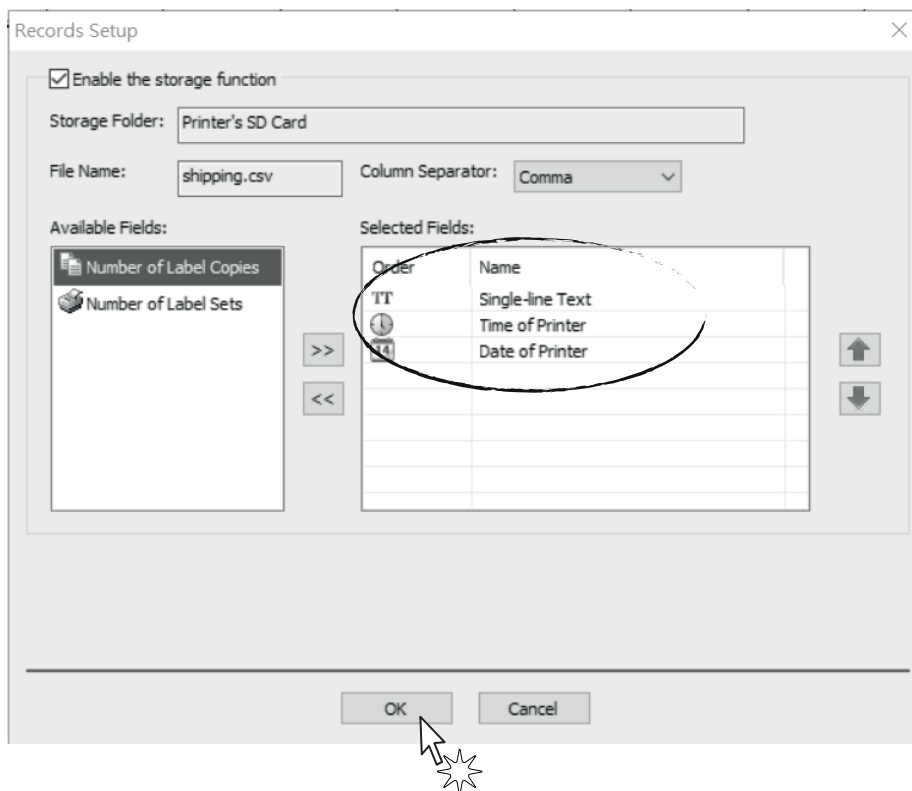
1. After compiled file, insert SD card into device.
2. The function of saving editing record can be activated by “records setup”.



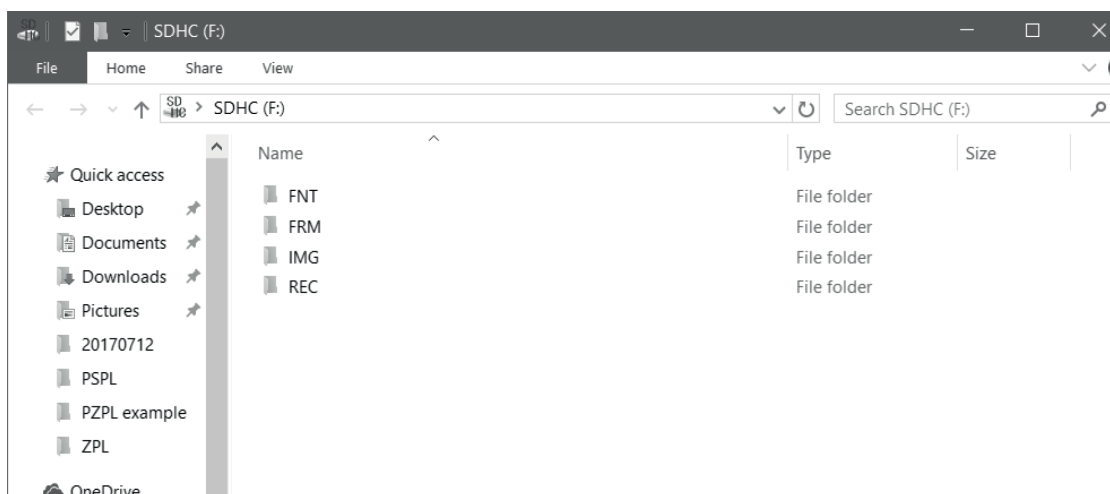
3. Click the “records setup”, then check “enable the storage function”. Choose the items which are needed to be recorded, and then click “>>”. Besides, “<<” can be used to delete item.



4. You can add or remove items according to your need. Click “OK” after you completed selection.



5. Remove SD card from printer and insert it into PC, the description of folders is showed below:



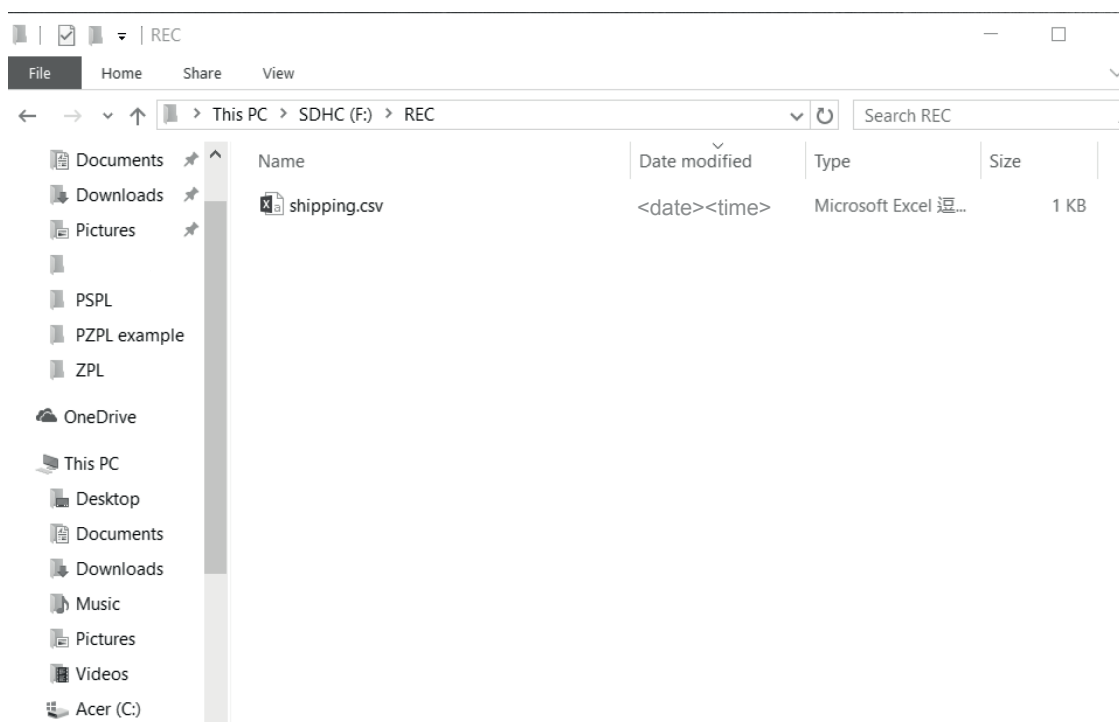
Where:

FOLDER	CATEGORY OF FILE	EXTENSION
FRM	form	.frs
REC	record	.csv
IMG	image	.ims
FNT	font	.fns



8.3 Check out printing records

If you need to check out printing records, open the folder “REC” and then find out the file which is named the same as form.



- After opened the file, all of the printing records will show up via Excel file format.

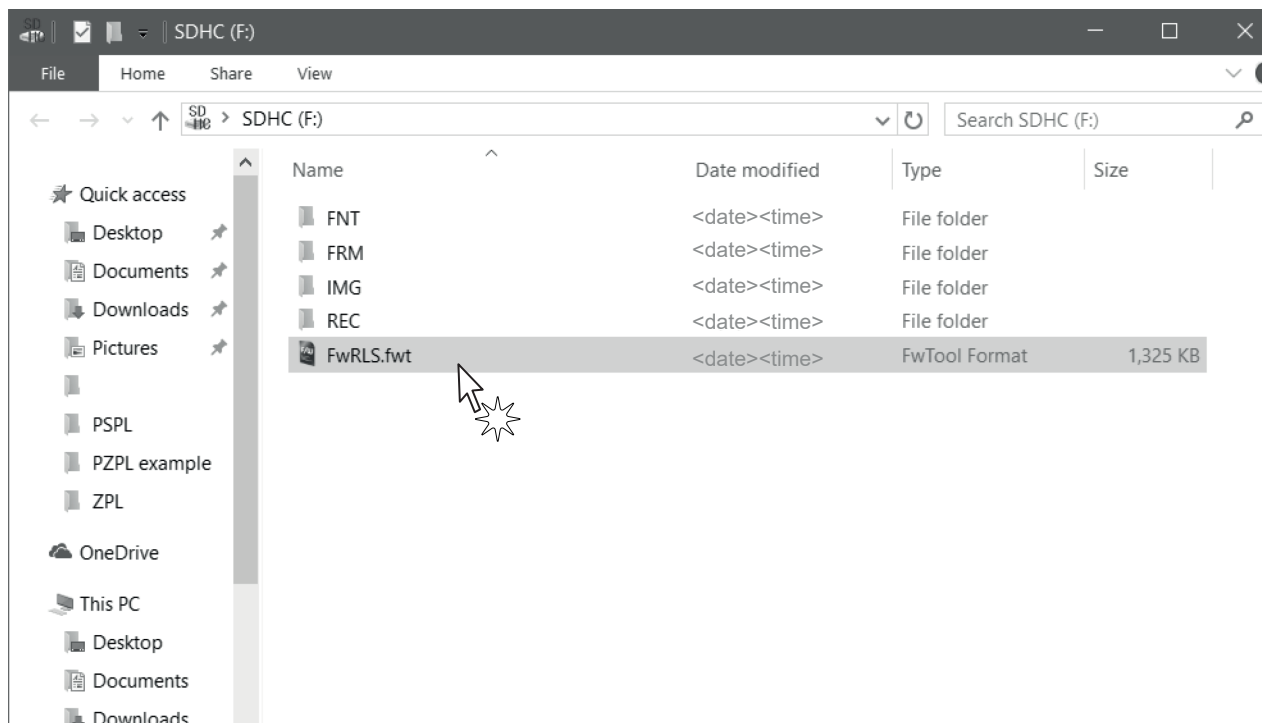
The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F
1	shipping	<time>	<date>			
2	shipping	<time>	<date>			
3	shipping	<time>	<date>			
4						
5						
6						
7						
8						
9						
10						
11						

8.4 Download firmware

This part is the instruction of how to download firmware through SD card. There are steps in the following:

- Save firmware file into SD card. Note that the file must be named “FwRLS.fwt”.

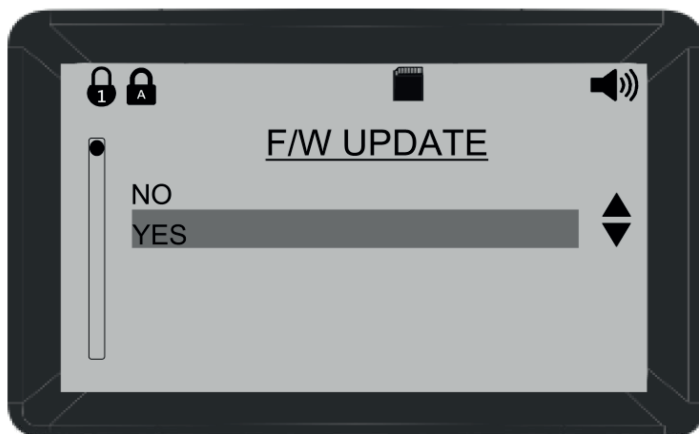


- Press “MENU”, and then choose “F/W update”.





- Press “YES”, and then the printer will update to the firmware version which has been chosen.



- You can check out the firmware version in “INFORMATION”.





8.5 Files converter (from frm. to frs.)

- Put the files you want to convert into a new folder, and then copy the converter named Transfer2FRS.exe from the CD to the folder.

<New folder>

B Drive (F:) > New folder

Name	Date modified	Type	Size
Application (1)			
Transfer2FRS.exe	<date><time>	Application	2,933 KB
Pro/E Format File (30)			
2.frm	<date><time>	Pro/E Format File	87 KB
3.frm	<date><time>	Pro/E Format File	87 KB
4.frm	<date><time>	Pro/E Format File	87 KB
5.frm	<date><time>	Pro/E Format File	87 KB
6.frm	<date><time>	Pro/E Format File	87 KB
649.frm	<date><time>	Pro/E Format File	88 KB
650.frm	<date><time>	Pro/E Format File	88 KB
651.frm	<date><time>	Pro/E Format File	88 KB

<CD>

F Drive (F:) > Application >

Name	Date modified	Type	Size
Fonts	<date><time>	File folder	
PrnDrv-1.6.5-140626	<date><time>	File folder	
BarDrawer-2.4.6-20180315.ms	<date><time>	Windows Installer ...	17,249 KB
BarDrawerManual 2.3.2 -	<date><time>	PDF File	6,575 KB
InstallManual-1.2.pdf	<date><time>	PDF File	7,902 KB
Transfer2FRS.exe	<date><time>	Application	2,933 KB





<Execute converter>

```

F:\New folder\Transfer2FRS.exe
Get "2.frm"
Get "3.frm"
Get "4.frm"
Get "5.frm"
Get "6.frm"
Get "649.frm"
Get "650.frm"
Get "651.frm"
Get "652.frm"
Get "653.frm"

```

<Convert completely>

B Drive (F:) > New folder

Name	Date modified	Type	Size
Application (1)			
Transfer2FRS.exe	<date><time>	Application	2,933 KB
FRS File (12)			
2.frs	<date><time>	FRS File	87 KB
3.frs	<date><time>	FRS File	87 KB
4.frs	<date><time>	FRS File	87 KB
5.frs	<date><time>	FRS File	87 KB
6.frs	<date><time>	FRS File	87 KB
649.frs	<date><time>	FRS File	88 KB
650.frs	<date><time>	FRS File	88 KB
651.frs	<date><time>	FRS File	88 KB
652.frs	<date><time>	FRS File	88 KB
653.frs	<date><time>	FRS File	88 KB
654.frs	<date><time>	FRS File	88 KB
655.frs	<date><time>	FRS File	88 KB
Pro/E Format File (10)			
2.frm	<date><time>	Pro/E Format File	87 KB
3.frm	<date><time>	Pro/E Format File	87 KB
4.frm	<date><time>	Pro/E Format File	87 KB
5.frm	<date><time>	Pro/E Format File	87 KB
6.frm	<date><time>	Pro/E Format File	87 KB



< Move to SD card >

Insert an empty SD card into the printer, and it will be added 4 folders automatically. Copy the converted files to the folder named FRM.

1. < SD card >

USB Drive (E:) >

Name	Date modified	Type	Size
FNT	<date><time>	File folder	
FRM	<date><time>	File folder	
IMG	<date><time>	File folder	
REC	<date><time>	File folder	

Type: File folder
Date modified: <date><time>
Empty folder

2. < FRM folder >

B Drive (E:) > FRM

Name	Date modified	Type	Size
2.frs	<date><time>	FRS File	87 KB
3.frs	<date><time>	FRS File	87 KB
4.frs	<date><time>	FRS File	87 KB
5.frs	<date><time>	FRS File	87 KB
6.frs	<date><time>	FRS File	87 KB
649.frs	<date><time>	FRS File	88 KB
650.frs	<date><time>	FRS File	88 KB
651.frs	<date><time>	FRS File	88 KB
652.frs	<date><time>	FRS File	88 KB
653.frs	<date><time>	FRS File	88 KB
654.frs	<date><time>	FRS File	88 KB
655.frs	<date><time>	FRS File	88 KB





9 SPECIFICATIONS

9.1 Hardware specifications

GENERAL	
Model	D4 102 D4 202 D4 302-K
CPU	32-bit CPU
Sensors	Hole and black mark movable sensor Ribbon sensor Ribbon compartment cover sensor
Printing driver	Windows XP VISTA (32/64 bit) Windows 7 (32/64 bit) Windows 8 (32/64 bit) Windows 8.1 (32/64 bit) Windows 10 (32/64 bit)
Audio	Beep sound when error occurs
INTERFACES	
D4 102	USB slave port Ethernet port 10 Mbit/s, 100 Mbit/s,(optional)
D4 202 D4 302-K	USB A port USB B port RS232 serial port from 9600 bps to 115200 bps Ethernet port 10 Mbit/s, 100 Mbit/s,(optional)
MEMORY	
D4 102	RAM: 64MB SDRAM ROM: 128MB Flash ROM
D4 202 D4 302-K	RAM: 128MB DDRAM ROM: 128MB Flash ROM Expendable slot for SD card (up to 32GB)



CONTROL PANEL

D4 102	1 multi-functional key 1 LED light (Red, blue, purple)
D4 202	4 multi-functional keys
D4 302-K	19 multi-functional keys

DISPLAY

D4 202 D4 302-K	Colorful LCD display 320x240 dots
--------------------	-----------------------------------

PAPER

Ribbon label	max. label width: 110 mm min. label width: 15 mm max. roll diameter: 127 mm core diameter: 25.4 mm Ribbon label thickness: from 0.06 mm to 0.2 mm Ribbon label thickness type: Continuous, die-cut, tag, fan-fold, black mark
--------------	--

Ribbon	OD: 39 mm max length: 100 m width: from 25.4 mm to 110 mm ID: 12.7 mm type: Wax, wax/resin, resin
--------	---

PRINTER

Resolution	203/300 dpi
------------	-------------

Print mode	Direct Thermal Thermal Transfer
------------	------------------------------------

Print length	Max. 3810 mm
--------------	--------------

Print width	104 mm
-------------	--------

Print speed	203 dpi 1 to 5 ips (option up to 6 ips) 300 dpi 1 to 4 ips
-------------	---

1D barcodes	Code39 standard or extended, Code39 with check digit, Code93, Code128 UCC, Code128 auto A,B,C modes, Codabar, EAN8, EAN8/13 2&5 digit add-on, EAN13, Interleaved 2 of 5, Interleaved 2 of 5 with check digit, Interleaved 2 of 5 with human readable check digit, UCC/EAN 128, UPC A, UPC A 2&5 digit add-on, UPC E, UPC E 2&5 digit add-on, UPC Interleaved 2 of 5, Code11
-------------	---



2D barcodes	Data Matrix, MaxiCode, PDF417, QR code
-------------	--

Fonts	5 internal expandable bitmap fonts (alpha-numeric) 2 internal expandable bitmap fonts (numeric only) Downloadable soft font 4 directions: 0, 90, 180, 270 degrees
-------	--

Image	PEPL: PCX, Direct binary graphic PDPL: PCX, BMP, HEX PZPL: HEX, Direct binary graphic, Compressed binary
-------	--

Dimension	Width: 200.00 mm Length: 263.19 mm Height: 188.29 mm Weight: 2000 g
-----------	--

AUTOCUTTER

Paper cut	Total cut
-----------	-----------

ELECTRICAL SPECIFICATIONS POWER SUPPLY cod. 48000000018500

Power supply voltage	from 100 Vac to 240 Vac
----------------------	-------------------------

Frequency	from 50 Hz to 60 Hz
-----------	---------------------

Output	24 V, 2.5 A
--------	-------------

Power	60 W
-------	------

ENVIRONMENTAL CONDITIONS

Operating temperature	from -10°C to +60°C
-----------------------	---------------------

Relative humidity (RH)	from 10% to 85% (w/o condensation)
------------------------	------------------------------------

Storage temperature	from -20 °C to +70 °C
---------------------	-----------------------

Storage relative humidity (RH)	from 10% to 90% (w/o condensation)
--------------------------------	------------------------------------



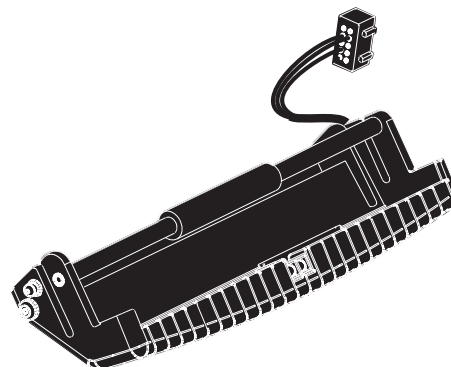
10 ACCESSORIES

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

D4 102, D4 202, D4 302-K

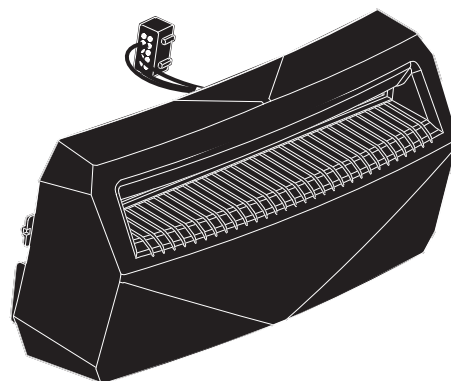
976MK01000002

PEELER MODULE



976MK01000001

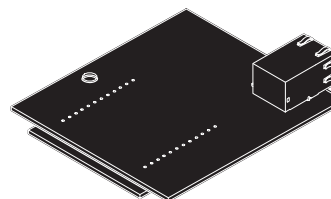
CUTTER MODULE



D4 202, D4 302-K

979MK02000001

ETH MODULE







11 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.





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