AVIATION

KPM302III
TK202III
TK302III

Manuale utente

CUSTOM

CUSTOM S.p.A. a socio unico
Via Isaac Newton 4
43010 Fontevivo (PR)
Italy
Tel. : +39 0521-680111
Fax : +39 0521-610701
http: www.custom.biz

Customer Service Department:
www.custom4u.it

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

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

GENERAL 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.
- For the waste sorting of the packaging materials, please check the local waste disposal laws.

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

FCC STATEMENT
(FEDERAL COMMUNICATIONS COMMISSIONS).

This note is valid only for device bringing FCC trademark.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:
The devices may not cause harmful interference.
The devices must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:
Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.

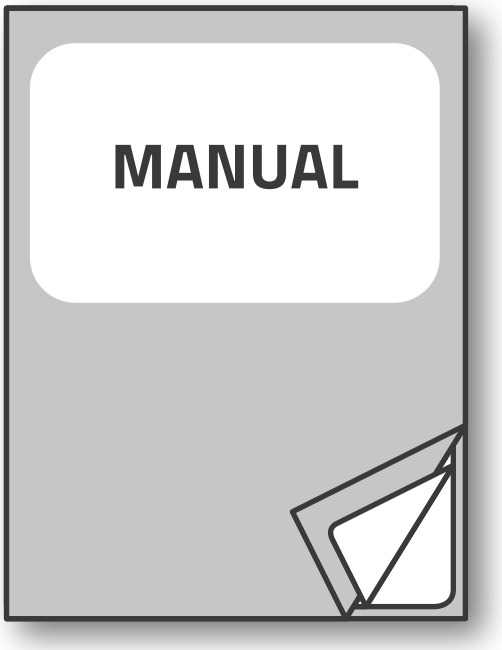
Modifications to this product not authorized by CUSTOM S.p.A. could void the FCC & Industry Canada regulations and negate your authority to operate the product.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This product meets the ENERGY STAR® guidelines for energy efficiency.

For more information about ENERGY STAR®, visit www.energystar.gov.

This note is valid only for device bringing ENERGY STAR® trademark.



For details about using of tool "PrinterSet",
refer to the manual with code **78200000001800**.

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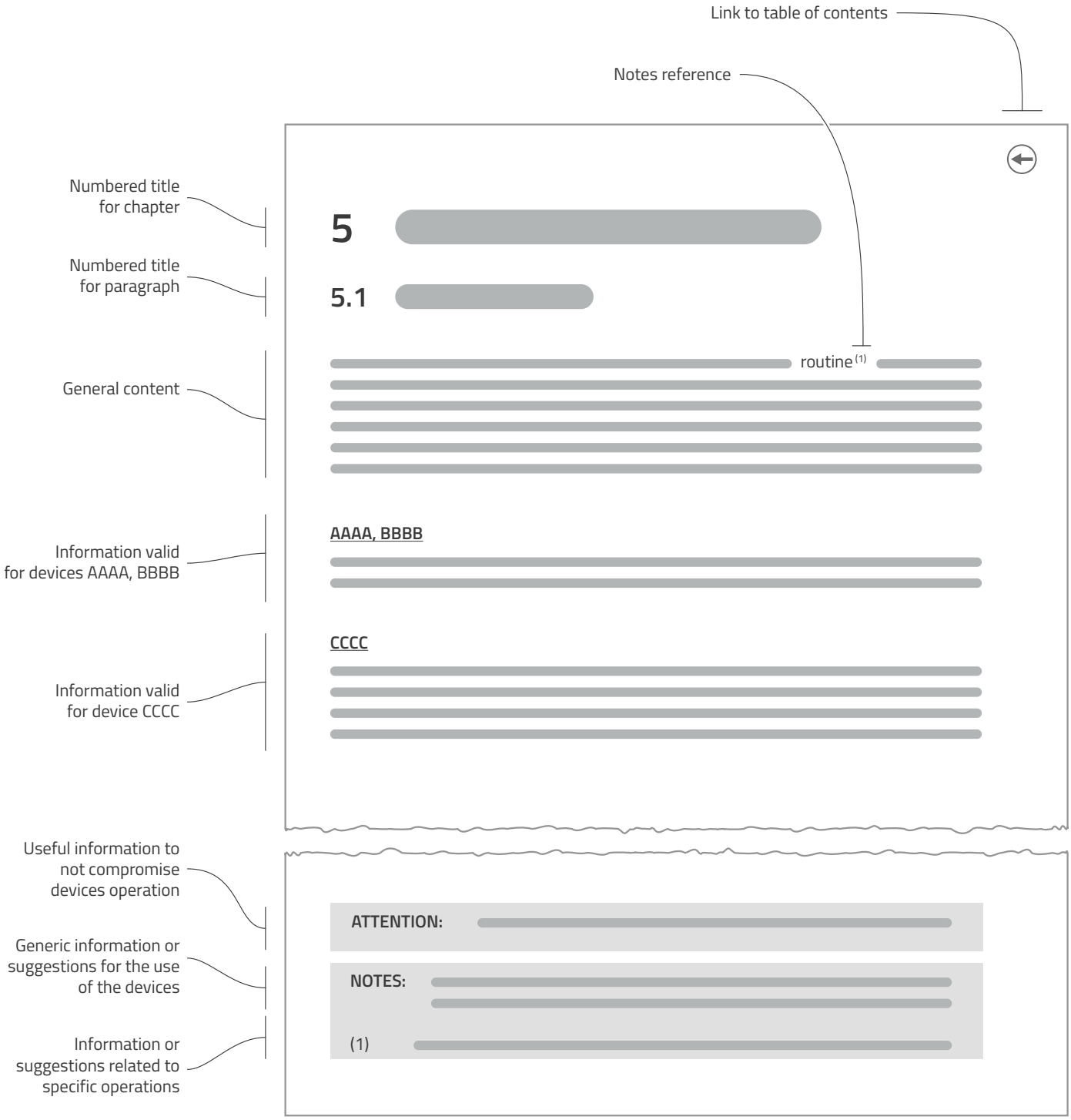
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1 INTRODUCTION

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.



2 IDENTIFICATION OF THE MODELS

NOMENCLATURE	DESCRIPTION
KPM302III	KPM302III base configuration
KPM302III TF	KPM302III with triple feeder
TK202III PLAS	TK202III with plastic chassis
TK302III PLAS	TK302III with plastic chassis
TK302III PLAS TF	TK302III with plastic chassis and triple feeder
TK302III PLAS EJ-vSTK	TK302III with plastic chassis, ejector group and vertical stacker
TK202III MET	TK202III with metal chassis
TK302III MET EJ	TK302III with metal chassis and ejector group
TK302III MET TF-EJ	TK302III with metal chassis, ejector group and triple feeder

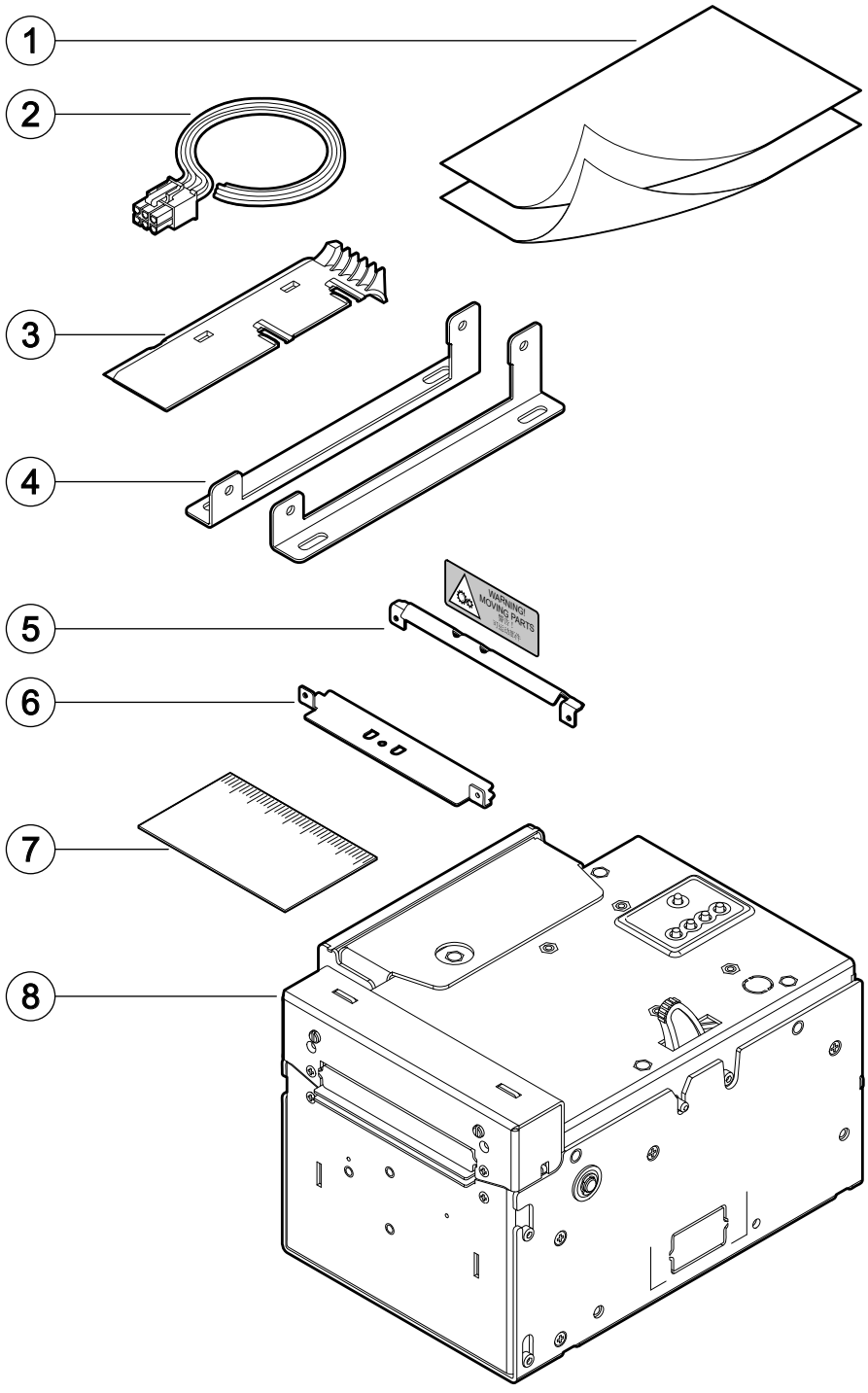
3 DESCRIPTION

3.1 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 the customer service.

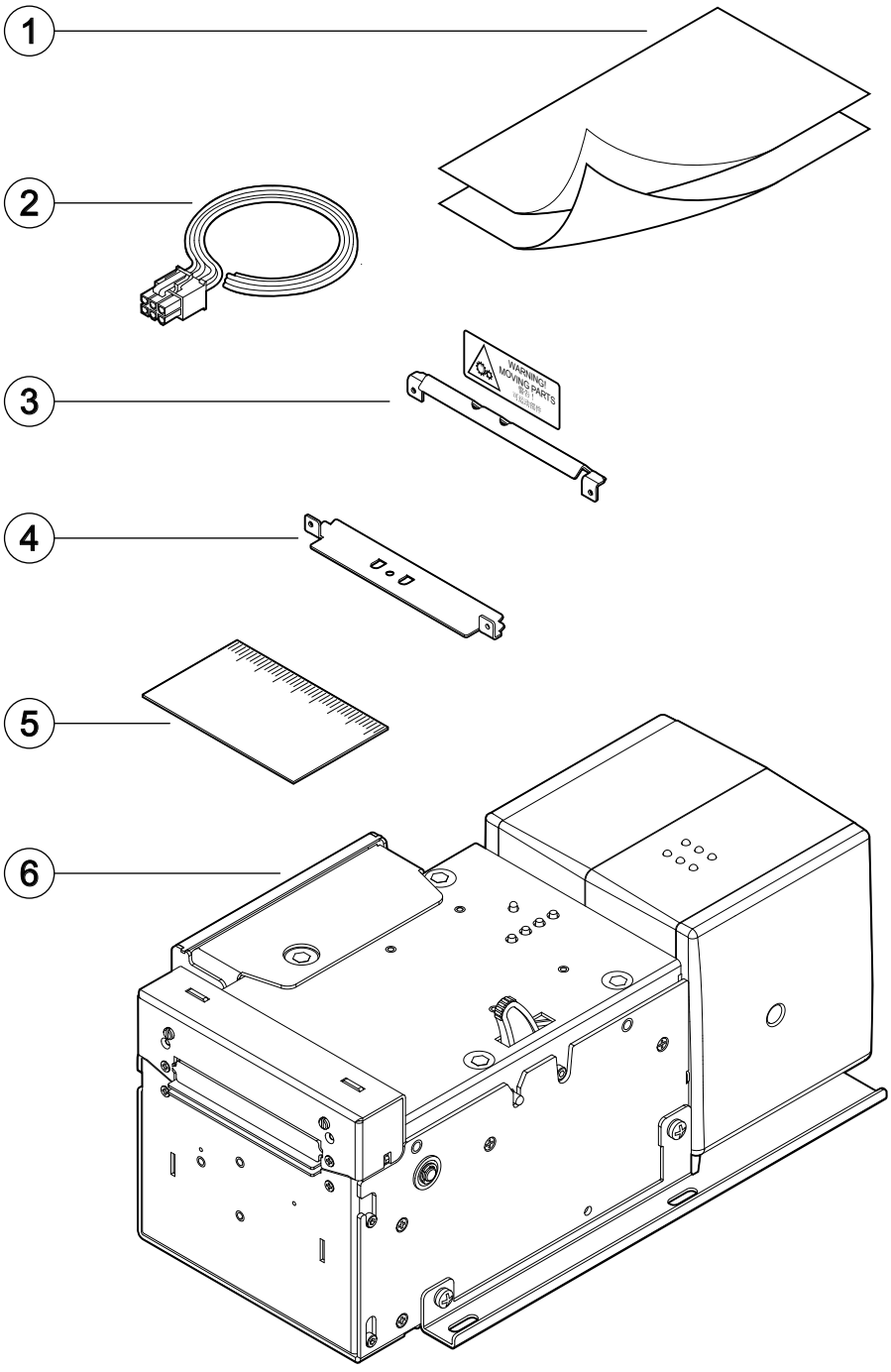
KPM302III

1. Documentation
   (installation instruction sheet)
2. Power supply cable
3. Spacer for paper width < 40 mm
4. Additional fixing bracket
5. Cut&Drop configuration kit
   (for installation, see paragraph 4.5)
6. Burster configuration kit
   (for installation, see paragraph 4.4)
7. Ruler
8. Device



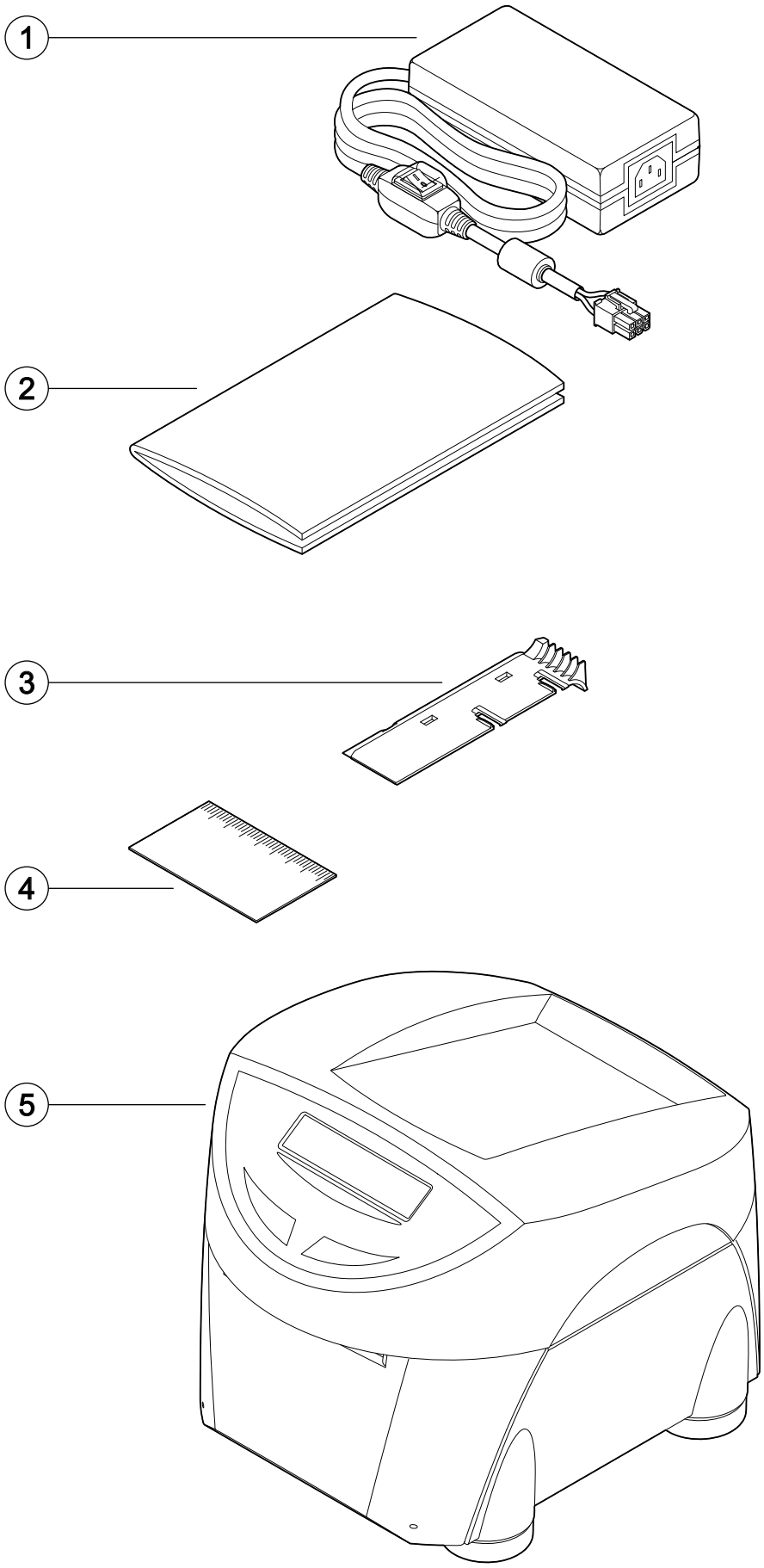
KPM302III TF

1. Documentation
   (installation instruction sheet)
2. Power supply cable
3. Cut&Drop configuration kit
   (for installation, see paragraph 4.5)
4. Burster configuration kit
   (for installation, see paragraph 4.4)
5. Ruler
6. Device



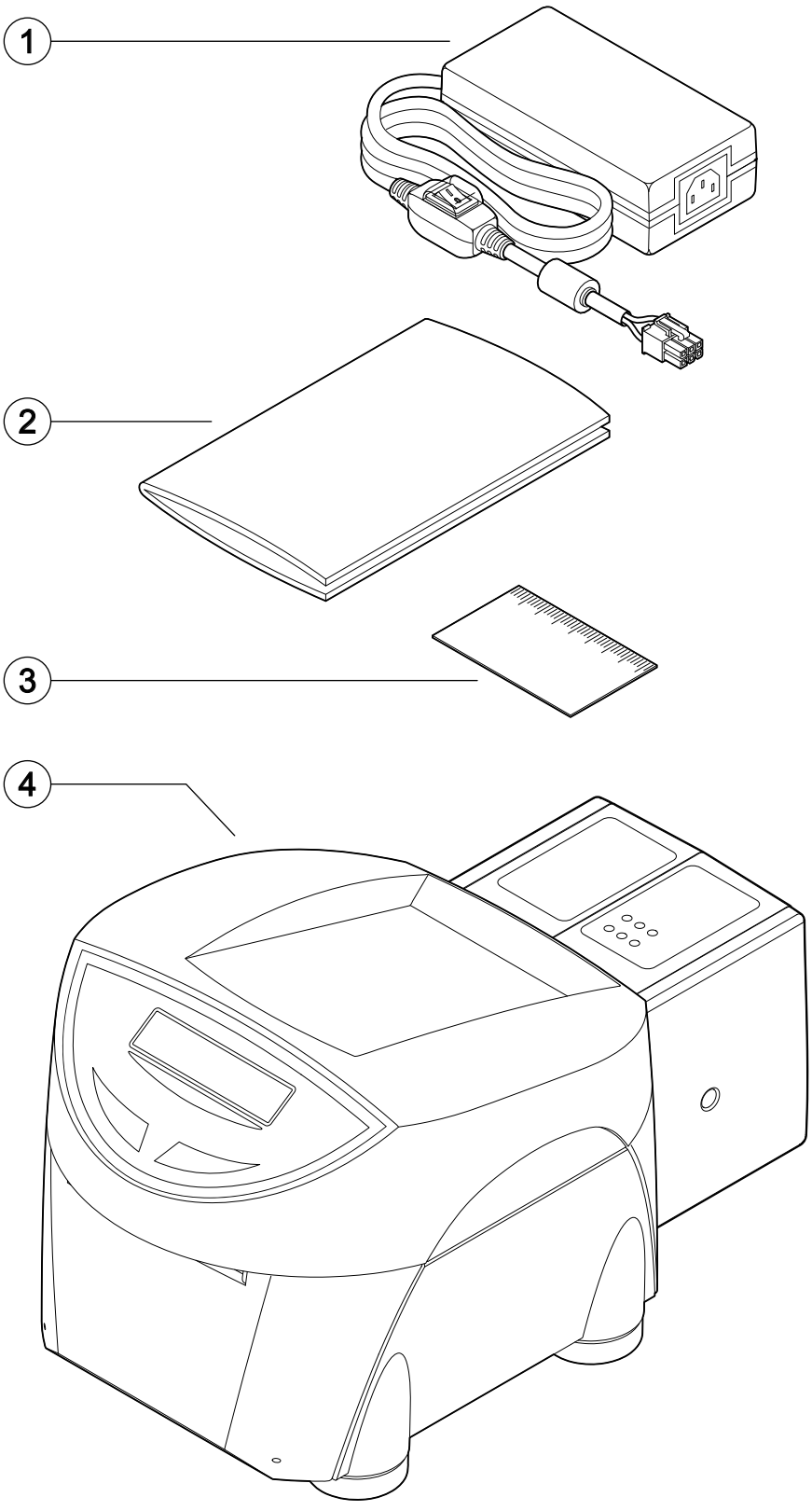
TK202III PLAS, TK302III PLAS, TK302III PLAS EJ-vSTK

1. AC adapter
2. Documentation (short guide)
3. Spacer for paper width < 40 mm
4. Ruler
5. Device



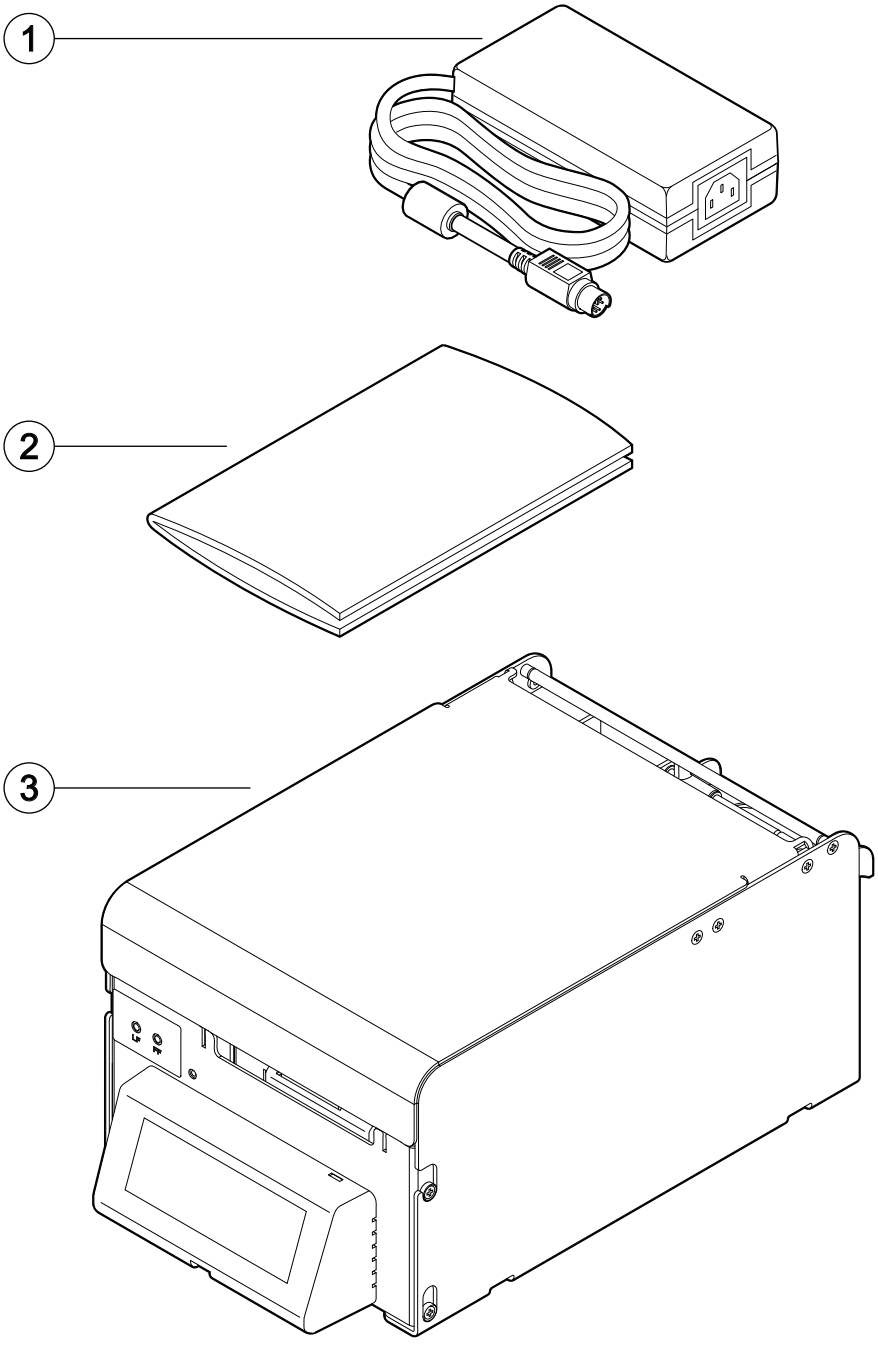
TK302III PLAS TF

1. AC adapter
2. Documentation (short guide)
3. Ruler
4. Device



TK202III MET, TK302III MET EJ, TK302III MET TF-EJ

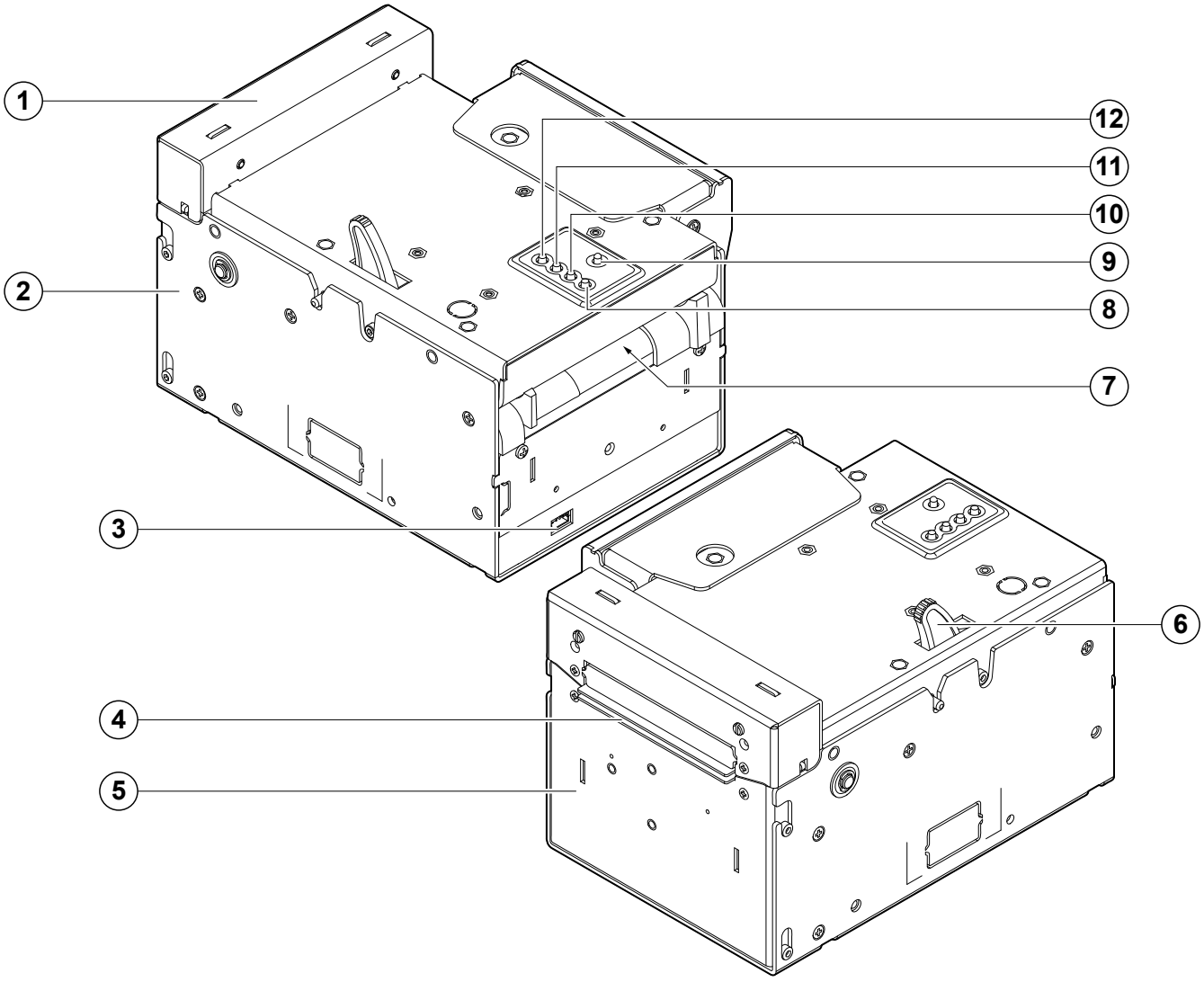
1. AC adapter
2. Documentation (short guide)
3. Device



3.2 Device components: external views

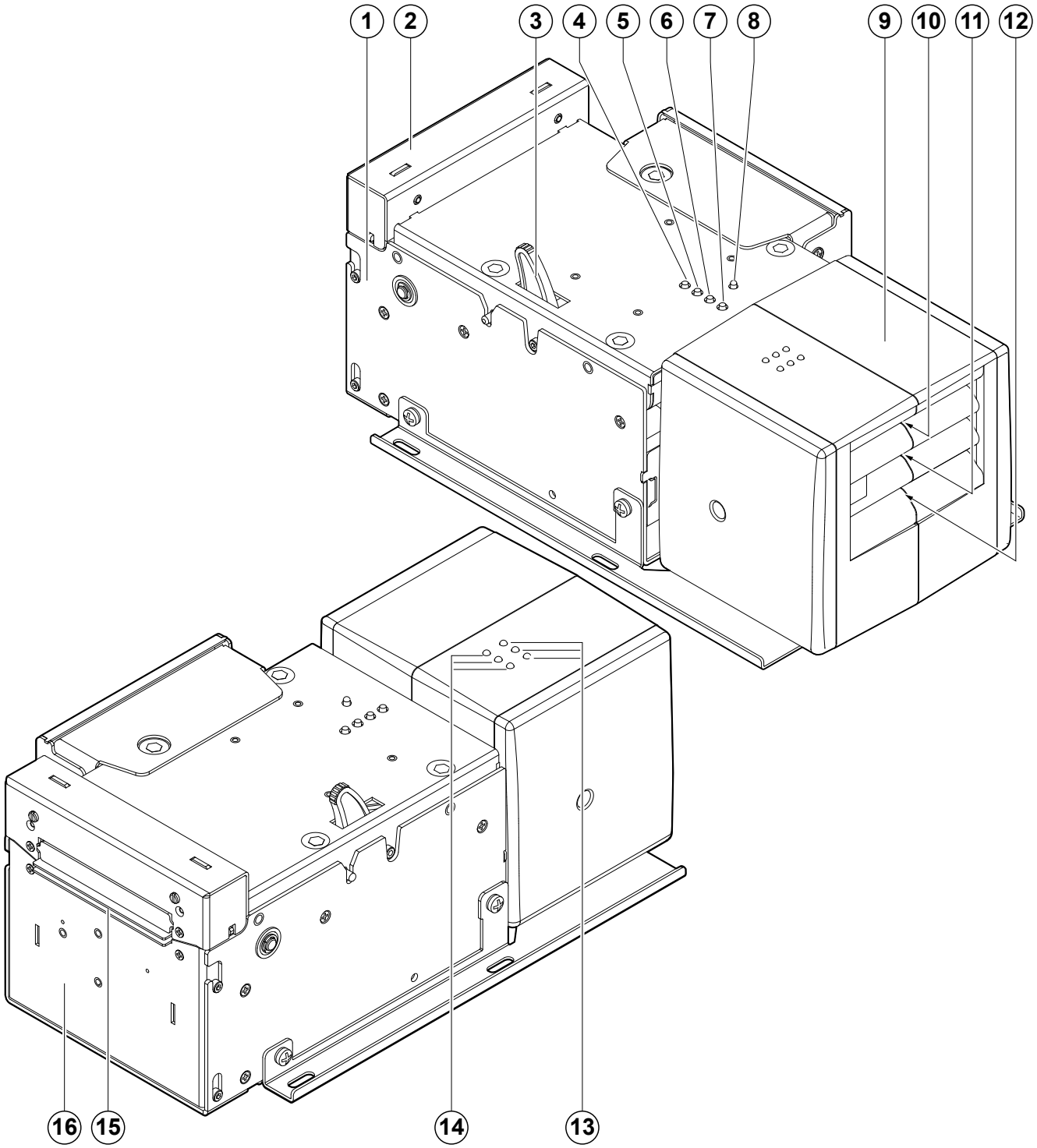
KPM302III

1. Print head group
2. Device chassis
3. External connector for low paper sensor
4. Paper out
5. Front cover
6. Opening lever for upper cover
7. Paper input
8. S2 key
9. Status LED
10. S1 key
11. FF key
12. LF key



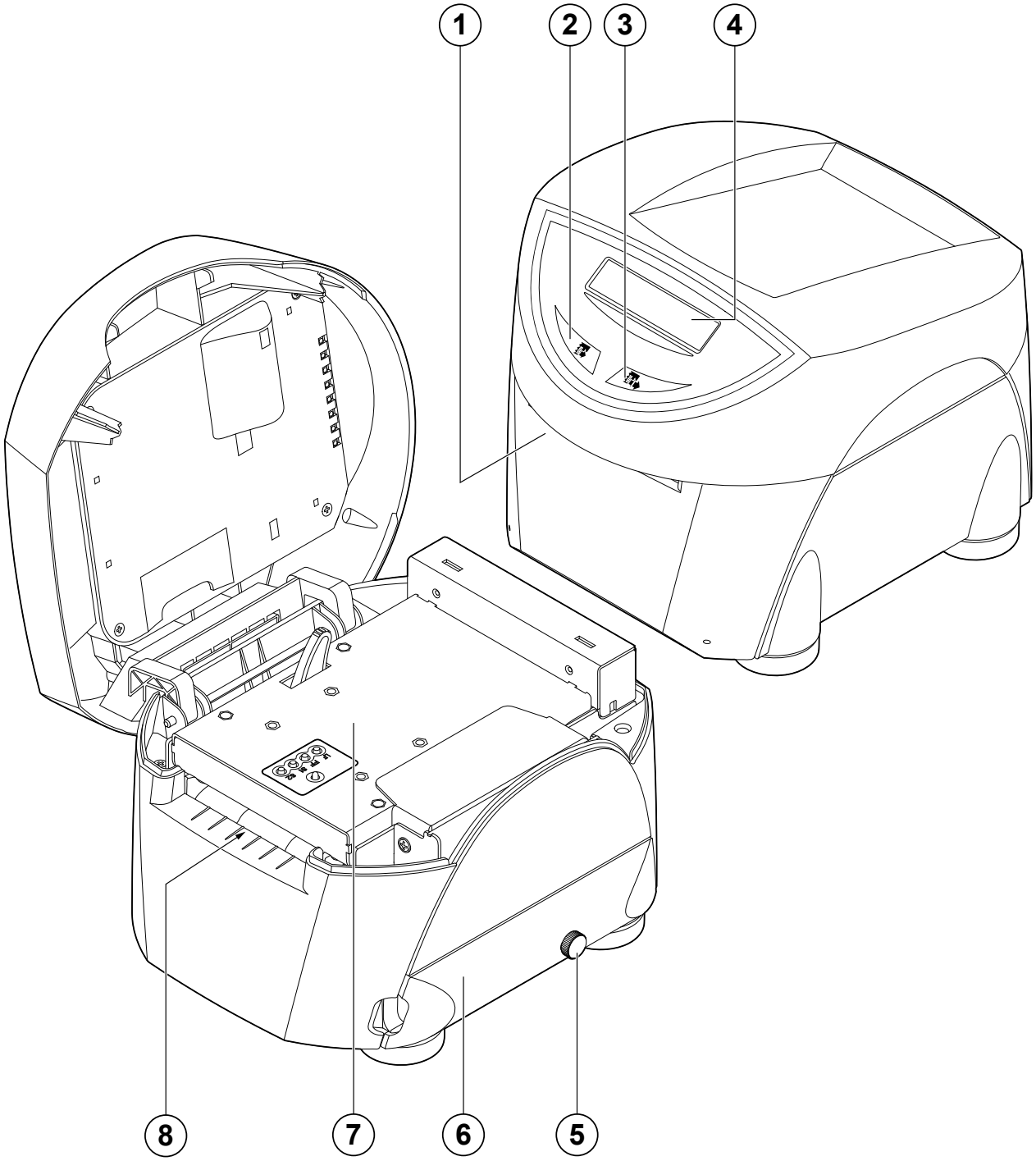
KPM302III TF

1. Device chassis
2. Print head group
3. Release lever for upper cover
4. LF key
5. FF key
6. S1 key
7. S2 key
8. Status LED
9. Triple feeder
10. Paper input feeder 1
11. Paper input feeder 2
12. Paper input feeder 3
13. Triple feeder LED (green)
14. Triple feeder LED (red)
15. Paper out
16. Front cover



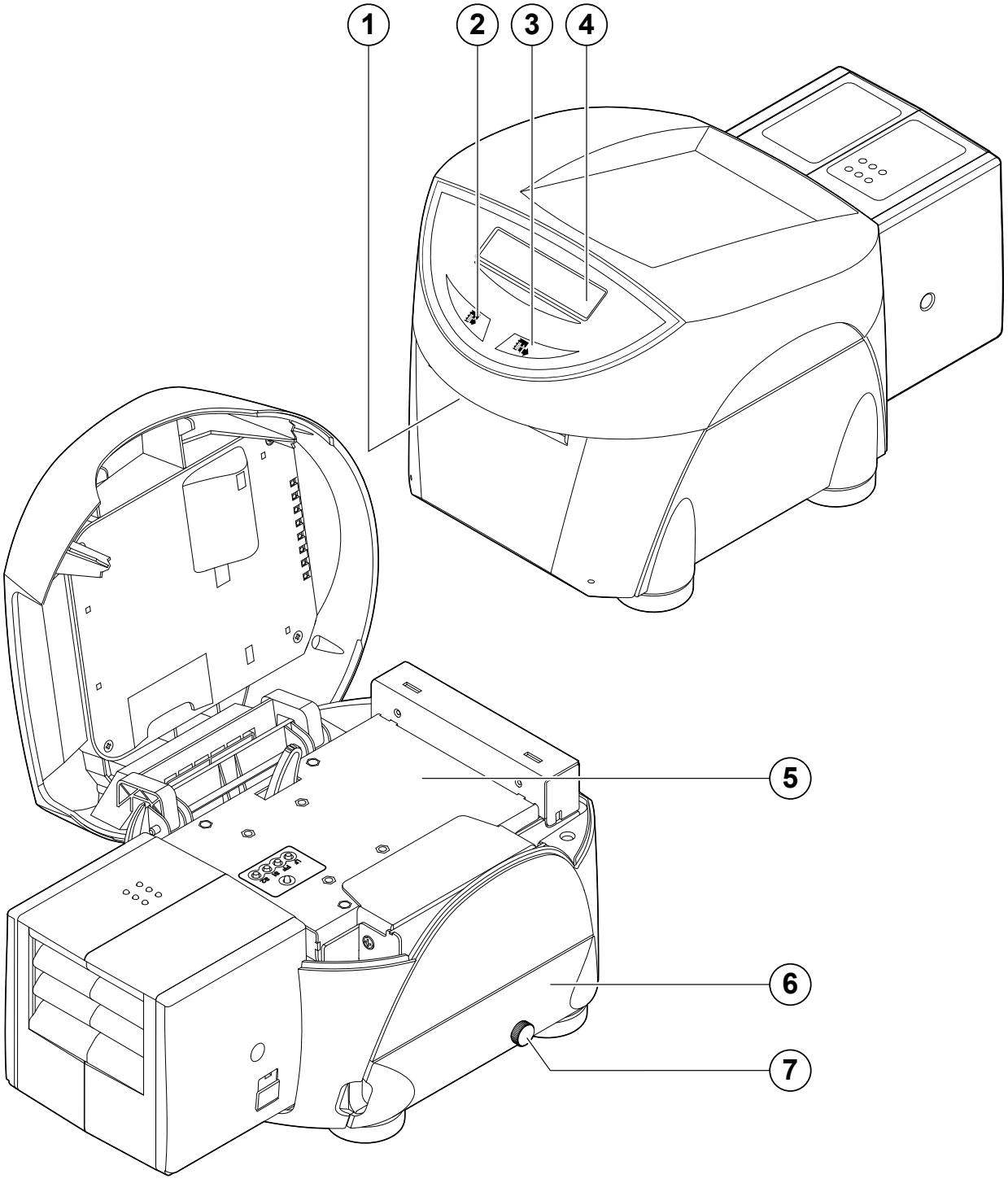
TK302III PLAS

1. Paper out
2. FF key
3. LF key
4. Display
5. Captive knob for connector cover opening
6. Connectors cover
7. Internal printer (see previous pages)
8. Paper input



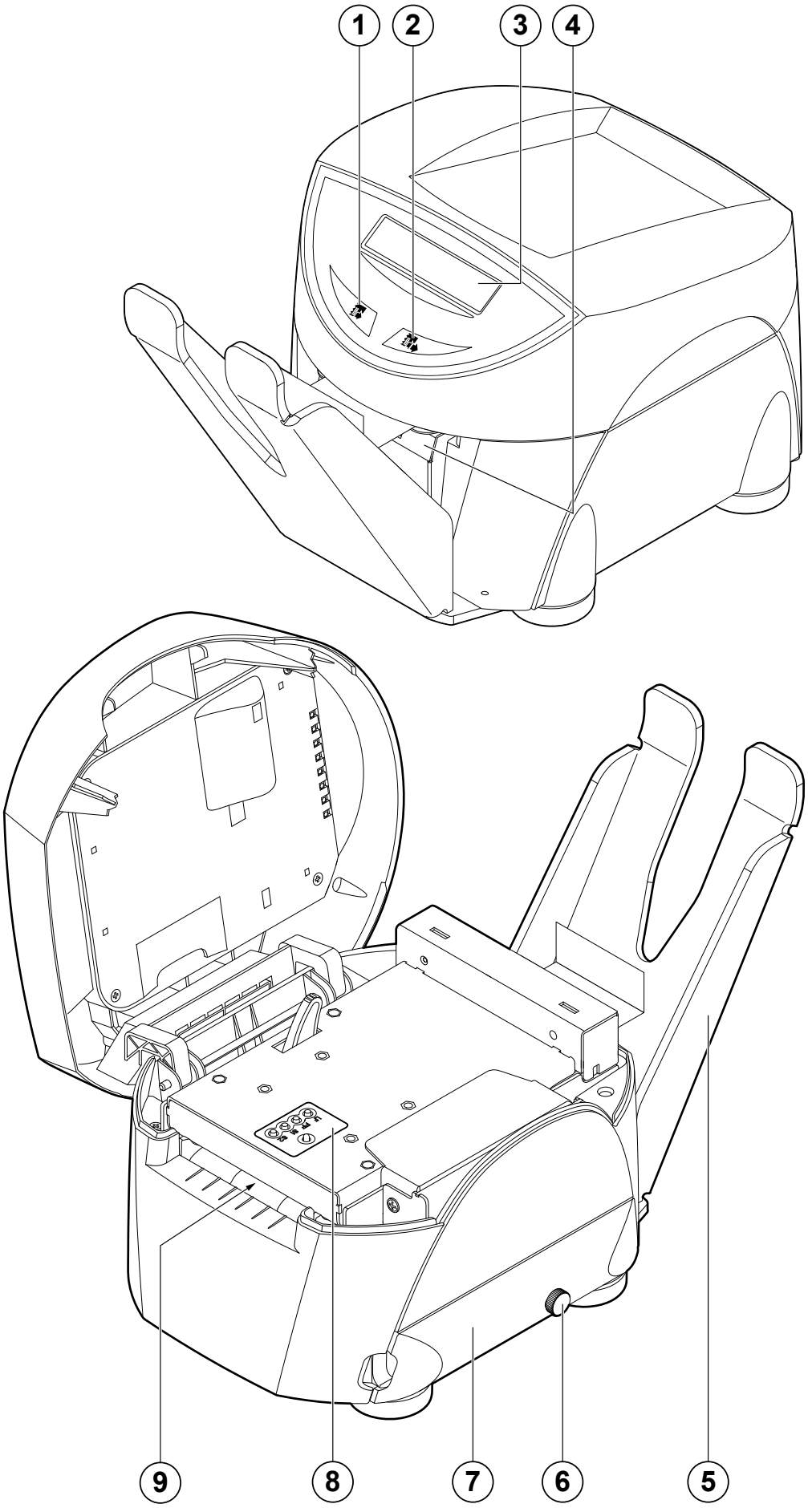
TK202III PLAS, TK302III PLAS TF

1. Paper out
2. FF key
3. LF key
4. Display
5. Internal printer with triple feeder (see previous pages)
6. Connectors cover
7. Captive knob for connector cover opening



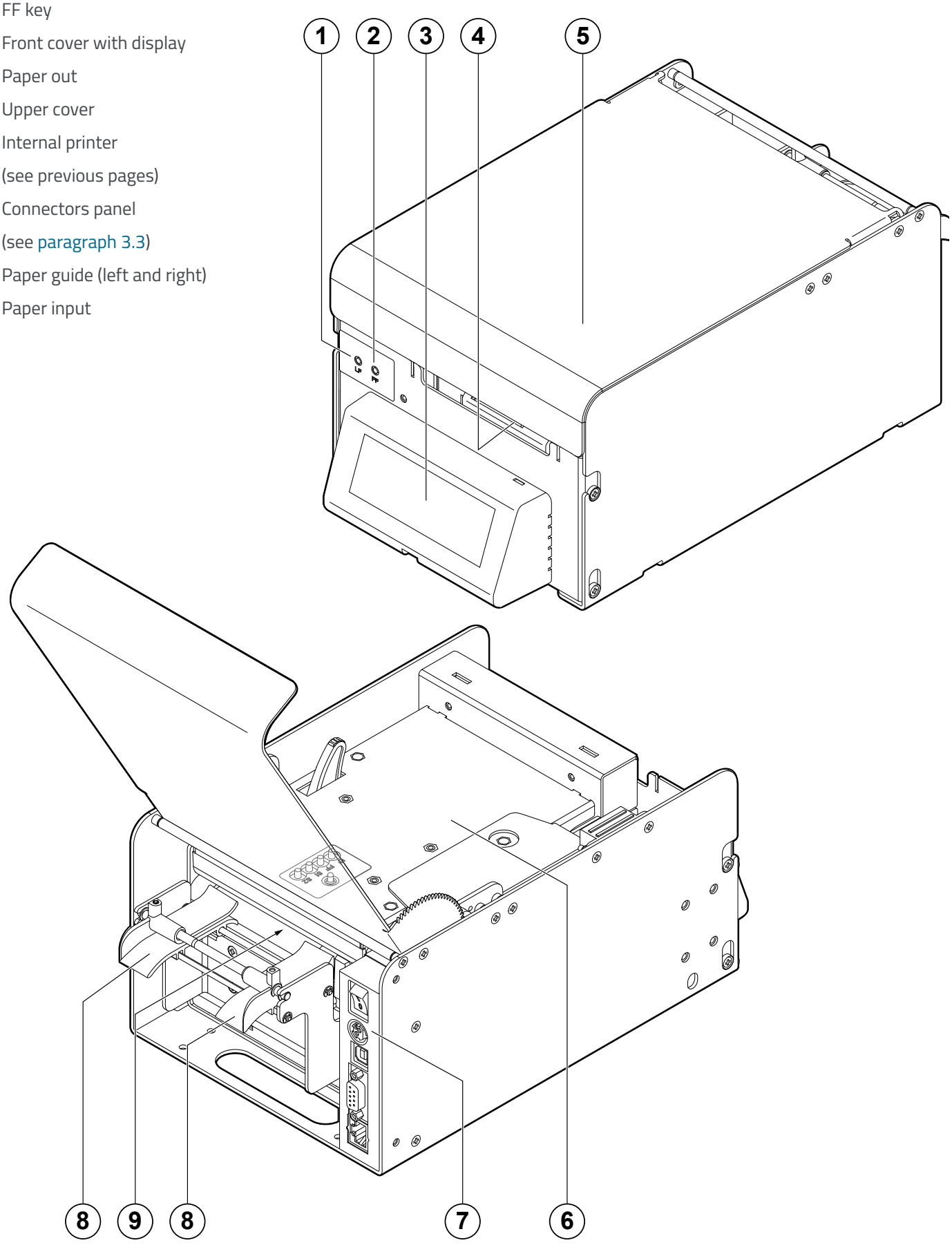
TK302III PLAS EJ-vSTK

1. FF key
2. LF key
3. Display
4. Ejector group and paper out
5. Vertical stacker
6. Captive knob for connector cover opening
7. Connectors cover
8. Internal printer (see previous pages)
9. Paper input



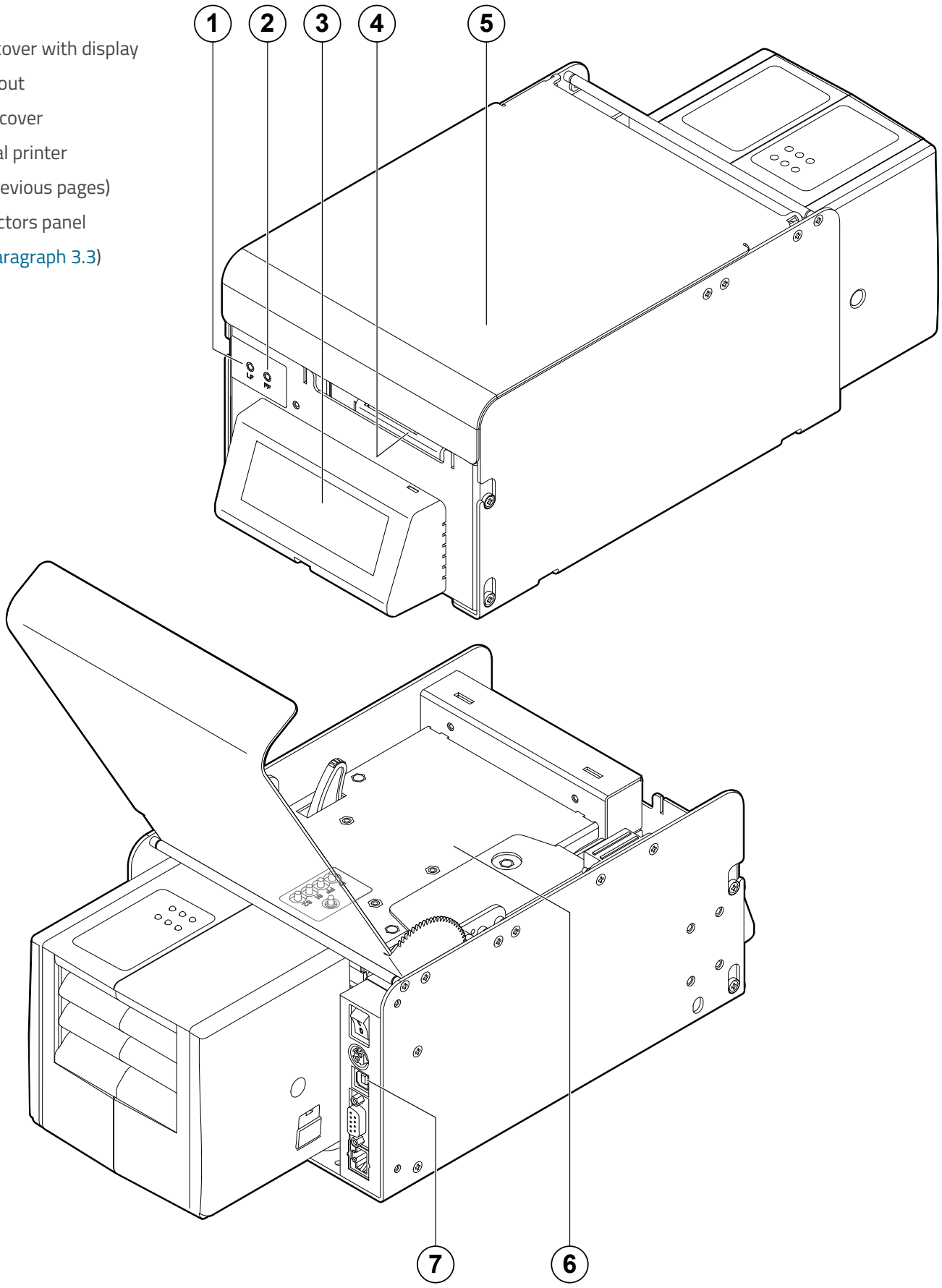
TK202III MET, TK302III MET EJ

1. LF key
2. FF key
3. Front cover with display
4. Paper out
5. Upper cover
6. Internal printer
   (see previous pages)
7. Connectors panel
   (see paragraph 3.3)
8. Paper guide (left and right)
9. Paper input



TK302III MET TF-EJ

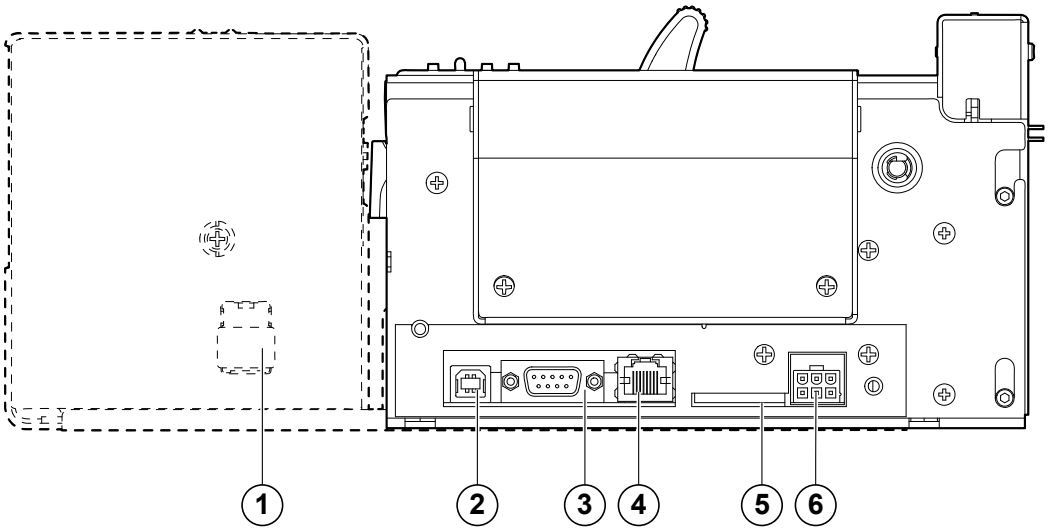
1. LF key
2. FF key
3. Front cover with display
4. Paper out
5. Upper cover
6. Internal printer
   (see previous pages)
7. Connectors panel
   (see paragraph 3.3)



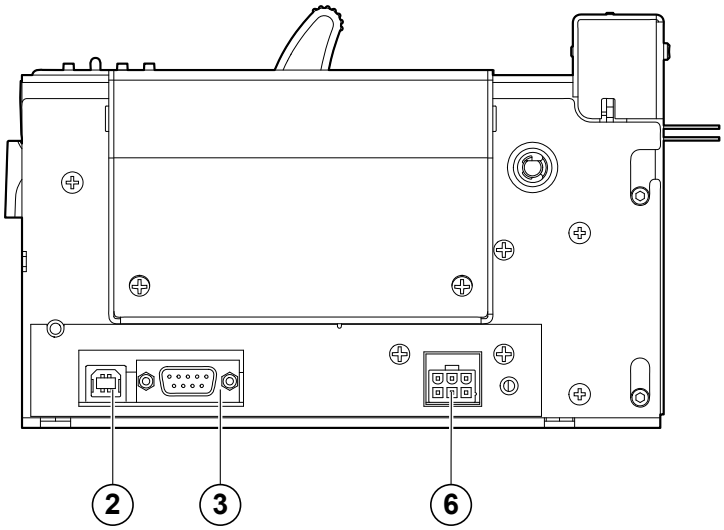
3.3 Device components: connectors panel

1. Cover for external low paper sensor connectors (for KPM302III TF, TK302III PLAS TF)
2. USB port
3. RS232 serial port
4. ETHERNET port
5. Slot for SD card
6. Power supply port

KPM302III, KPM302III TF
TK302III PLAS, TK302III PLAS TF, TK302III PLAS EJ-vSTK



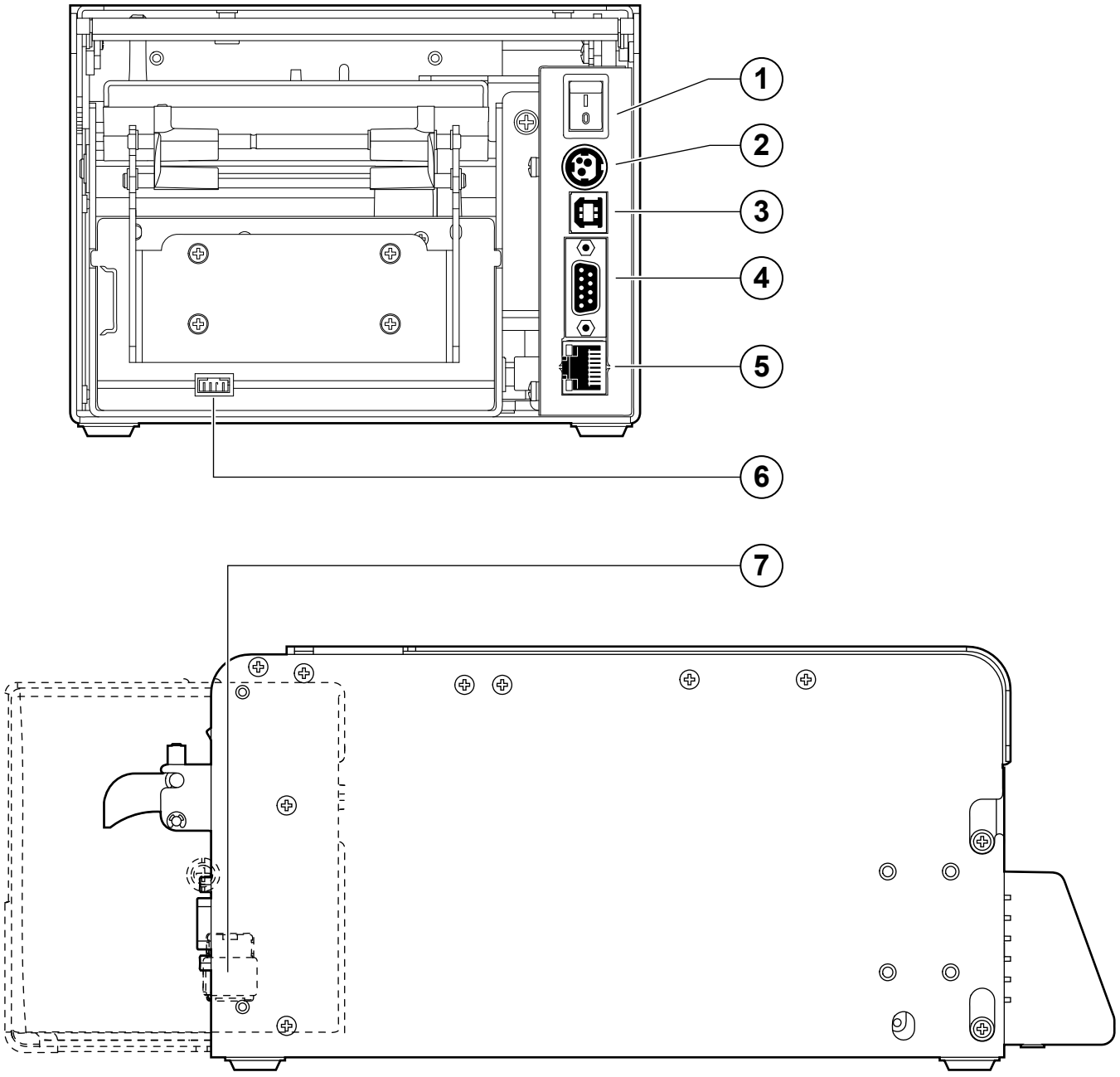
TK202III PLAS



NOTE: For ease of reference, for some models is represented only the internal printer group without external chassis or triple feeder.

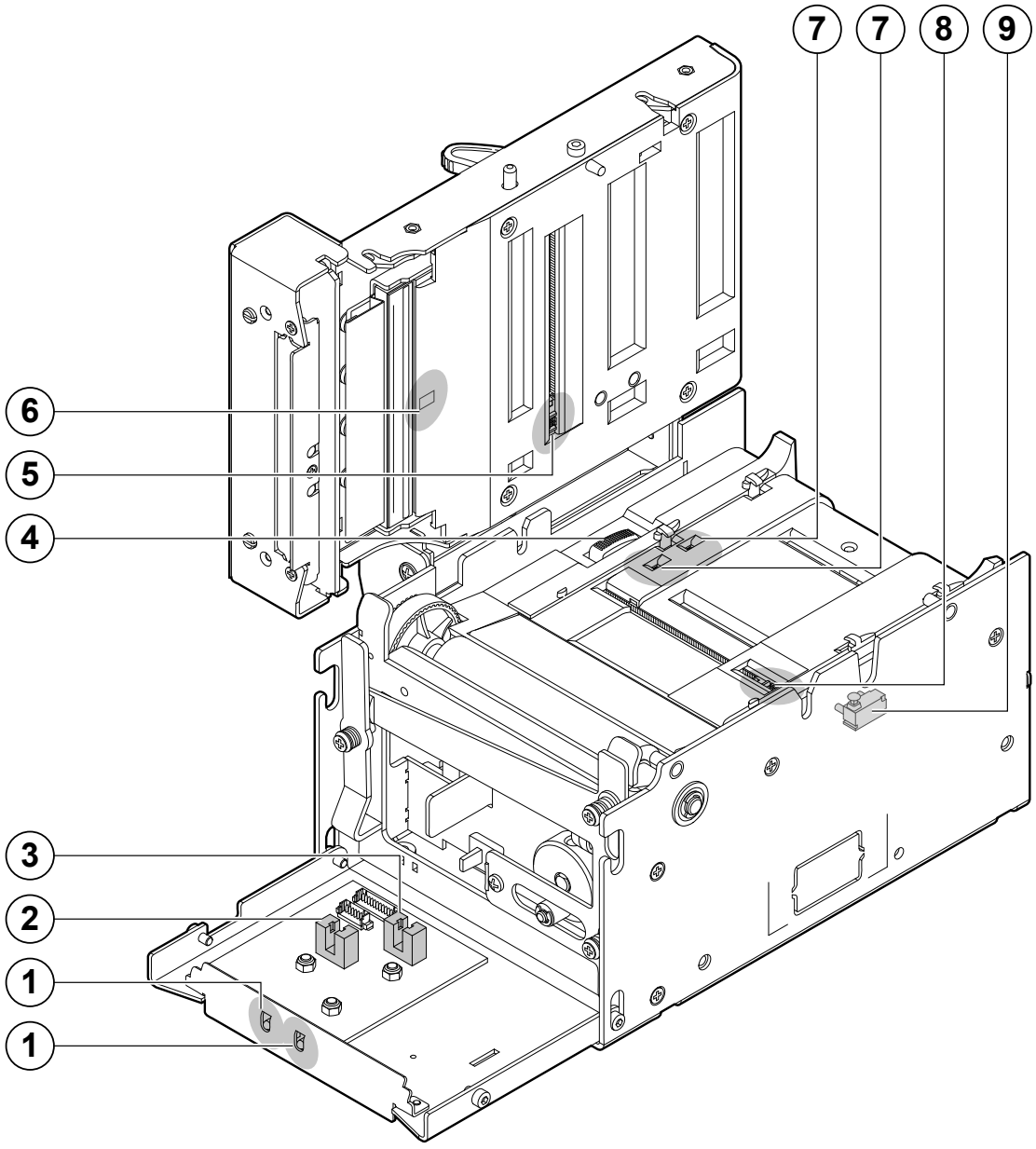
TK202III MET, TK302III MET EJ, TK302III MET TF-EJ

1. ON/OFF key
2. Power supply port
3. USB port
4. RS232 serial port
5. ETHERNET port (only for TK302III MET EJ, TK302III MET TF-EJ)
6. External connector for low paper sensor
7. Cover for external low paper sensor connectors (only for TK302III MET TF-EJ)



3.4 Device components: internal view

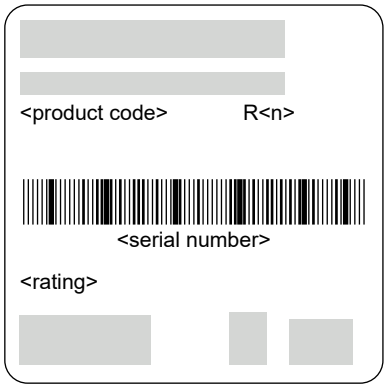
1. Sensors for detecting paper out presence
2. Sensor for detecting the opening of the front cover
3. Sensor for detecting the cutter position (only for models with autocutter)
4. Unlocking button for mobile paper guide
5. Top mobile sensor for detecting black mark on the thermal side of paper or hole between tickets
6. Sensor for printhead temperature
7. Sensor for detecting paper presence
8. Bottom mobile sensor for detecting black mark on the non-thermal side of paper or hole between tickets
9. Sensor for detecting the opening of the upper cover



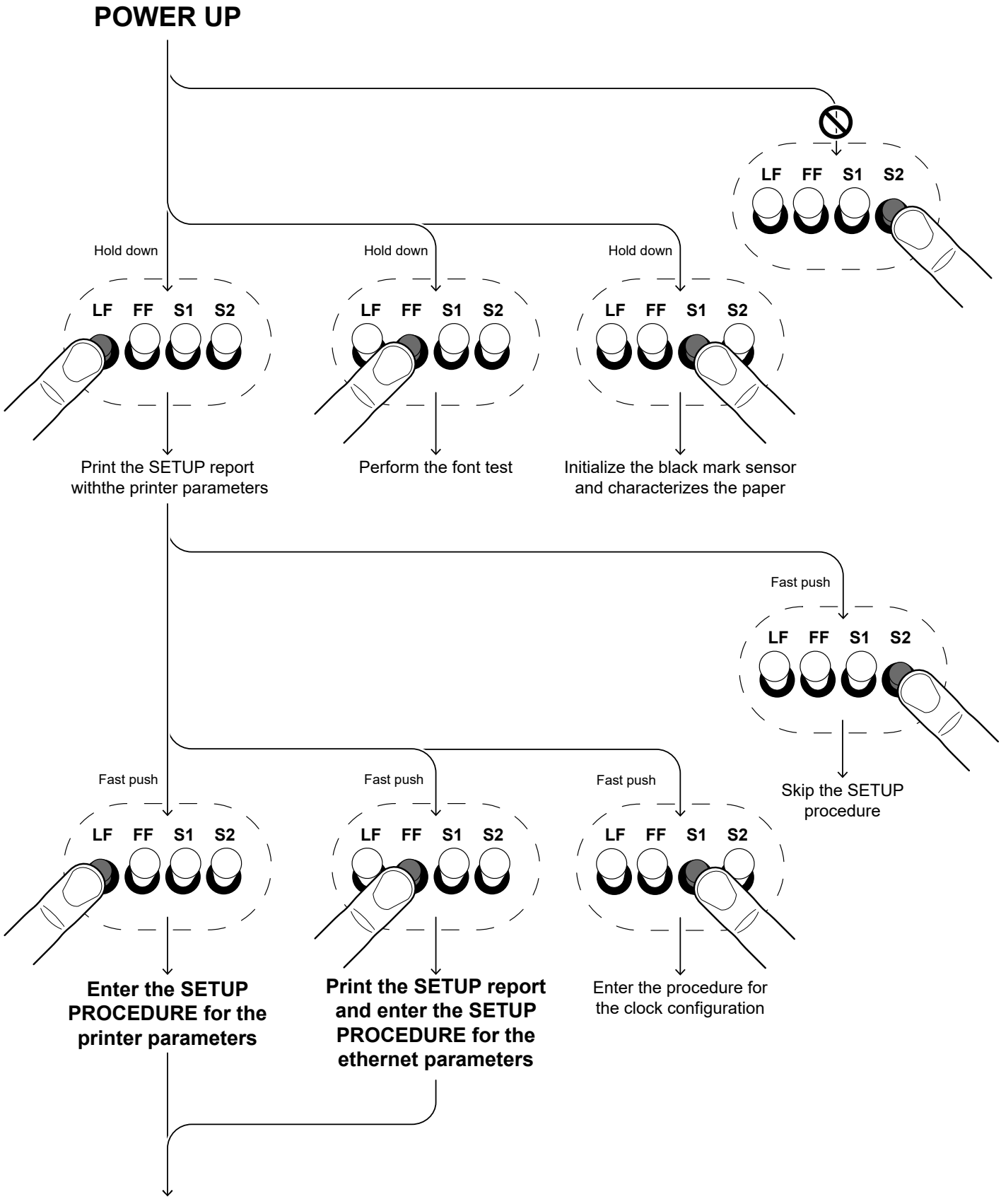
NOTE: For ease of reference, for some models is represented only the standard model of the internal printer group without external chassis or triple feeder.

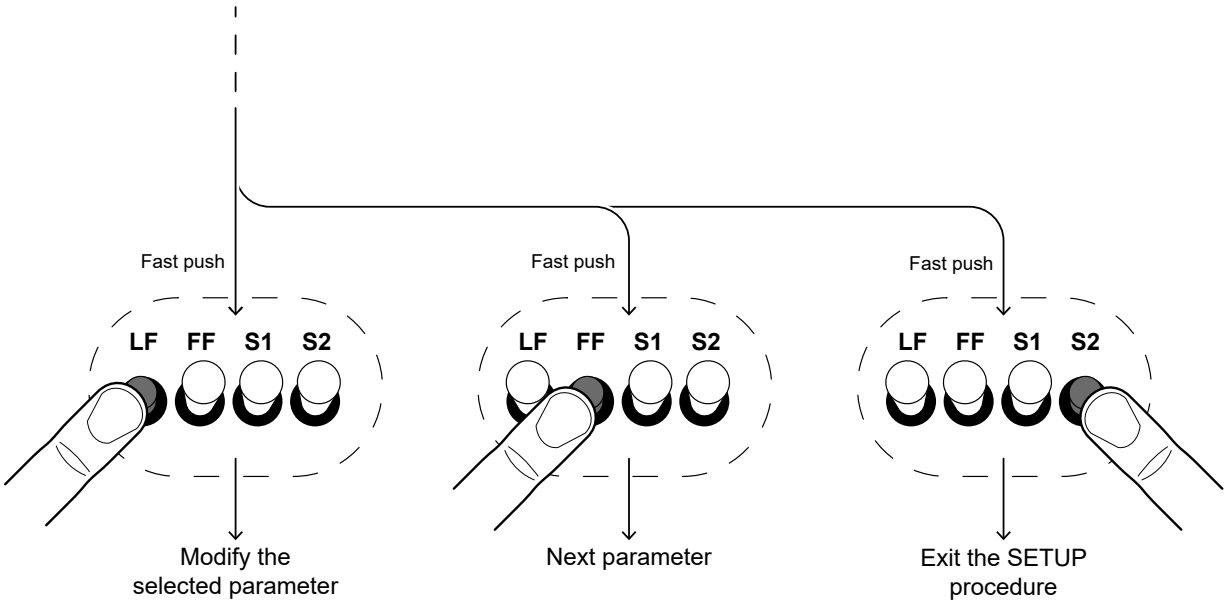
3.5 Device labels

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).



3.6 Key functions: power up

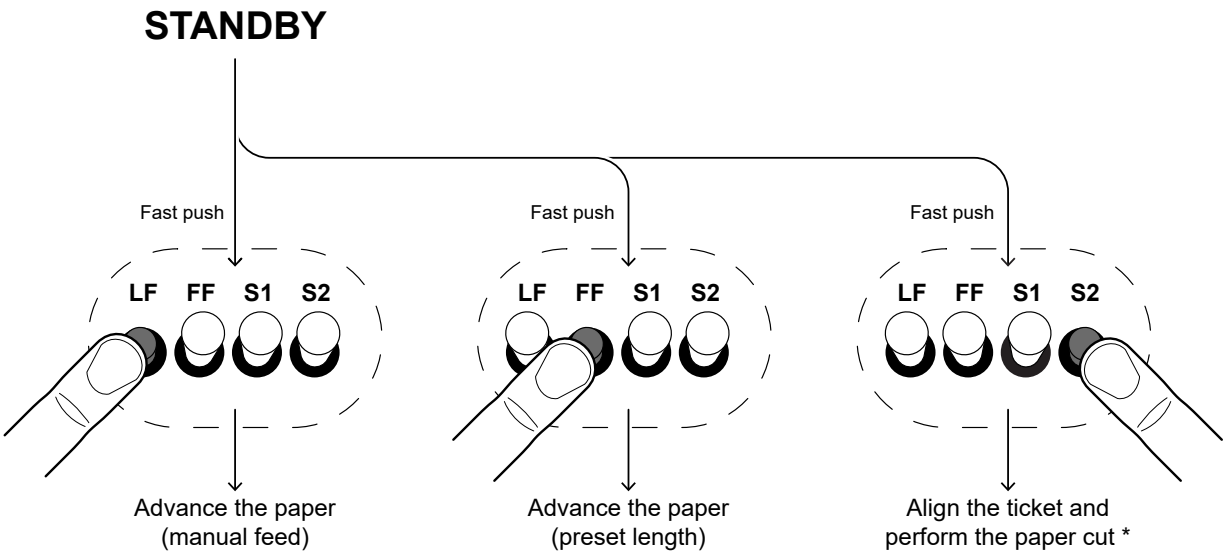




NOTE:
During power-up, do not press the S2 key because the device enter in a test modality that becomes unusable by keys; if this event occurs then turn off the device and turn on without pressing any key.

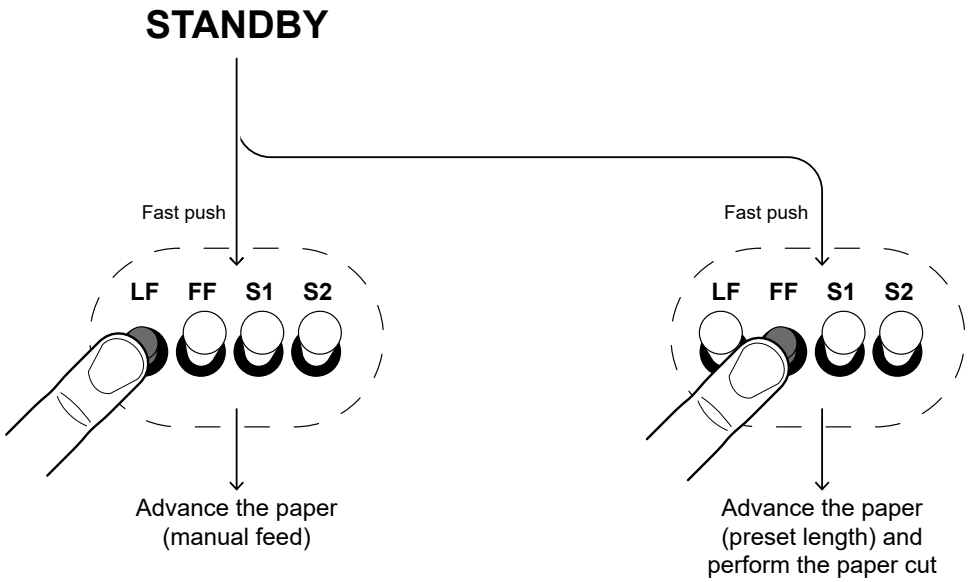
3.7 Key functions: standby

KPM302III, KPM302III TF



NOTE:
(*) Only with alignment enabled

TK202III PLAS, TK302III PLAS, TK302III PLAS TF, TK302III PLAS EJ-vSTK
TK202III MET, TK302III MET EJ, TK302III MET TF-EJ



3.8 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 COMMUNICATION STATUS	x 1	RECEIVE DATA
	x 2	RECEPTION ERRORS (PARITY, FRAME ERROR, OVERRUN ERROR)
	x 3	COMMAND NOT RECOGNIZED
	x 4	COMMAND RECEPTION TIME OUT
YELLOW RECOVERABLE ERROR	x 2	PRINTHEAD OVERHEATED
	x 3	PAPER END
	x 4	PAPER JAM
	x 5	POWER SUPPLY VOLTAGE INCORRECT
	x 6	COVER OPEN

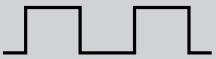
RED UNRECOVERABLE ERROR	x 3	RAM ERROR
	x 4	EEPROM ERROR
	x 5	CUTTER ERROR [1]
	x 6	FRONT COVER ERROR

NOTE:
(1) Only for models with autocutter.

3.9 Triple feeder status messages

KPM302III TF, TK302III PLAS TF, TK302III MET TF-EJ

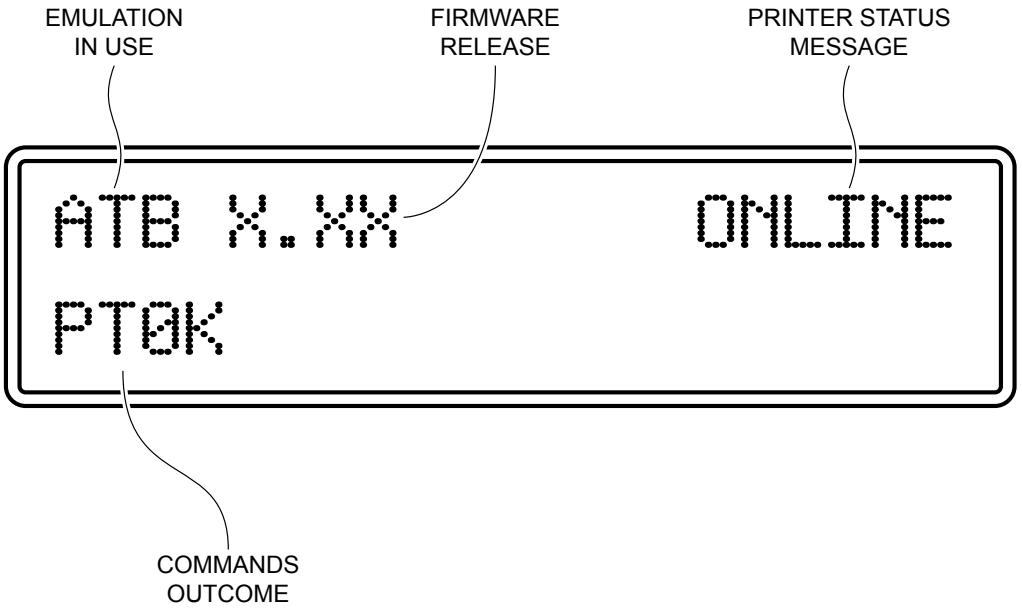
The LED panel of triple feeder is comprised of two LED (one of green colour and one of red colour) for each of the three paper input feeder.
The LED indicate the triple feeder status and the paper status. Given in the table below are the various LED signals and the corresponding triple feeder status.

STATUS LED		DESCRIPTION
RED PAPER END WARNING	OFF	PAPER PRESENCE
	ON	LOW PAPER
GREEN TRIPLE FEEDER STATUS	OFF	NO PAPER OR PAPER IN PARKING SPACE (1)
	ON	PAPER LOADED
		PAPER END DURING PRINTING
		PAPER JAM

NOTE:
(1) The paper is in “parking space” when it is present on the entrance of feeder but it is not loaded into the printer.

3.10 Messages on display

The display shows the emulation in use, the firmware release, a device status message and the outcome of the last sent command (see following image).



The possible outcomes of commands are several and they may be divided into two groups:
1. Successful outcome, which contains the OK answer to the last command (for example, PTOK)
2. Not successful outcome, which reports an error code (for example, ERR8)

The possible emulations are the following:
- ATB Emulation used to print the boarding passes
- BTP Emulation used to print the bag tags
- SER Service emulation. Generally used to configure the printer, perform updates or to print from Windows drivers

TK202III PLAS, TK302III PLAS, TK302III PLAS EJ-vSTK
TK202III MET, TK302III MET EJ

The possible status messages are the following:
- ONLINE The device is ready (standby message)
- OFFLINE The device is in a "busy" condition (during commands sending, on paper jam, and so on)
- LINK DOWN The serial connection cable is unplugged
- COVEROPEN The upper cover is open
- PAPERJAM The device has detected an anomaly along the paper path
- NOPAPER No paper loaded into the device

TK302III PLAS TF, TK302III MET TF-EJ

The possible status messages are the following:

- ONLINE The device is ready (standby message)
- OFFLINE The device is in a “busy” condition (during commands sending, on paper jam, and so on)
- LINK DOWN The serial connection cable is unplugged
- COVEROPEN The upper cover is open
- PAPERJAM The device has detected an anomaly along the paper path
- NOPAPER No paper loaded into the device
- BIN1EMPTY No paper loaded into the paper input 1 of the triple feeder
- BIN2EMPTY No paper loaded into the paper input 2 of the triple feeder
- BIN3EMPTY No paper loaded into the paper input 3 of the triple feeder

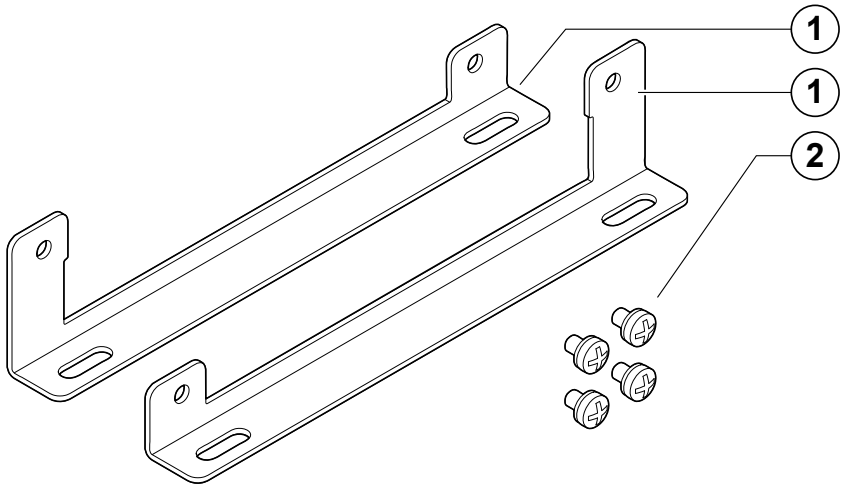
4 INSTALLATION

4.1 Fixing brackets

KPM302III

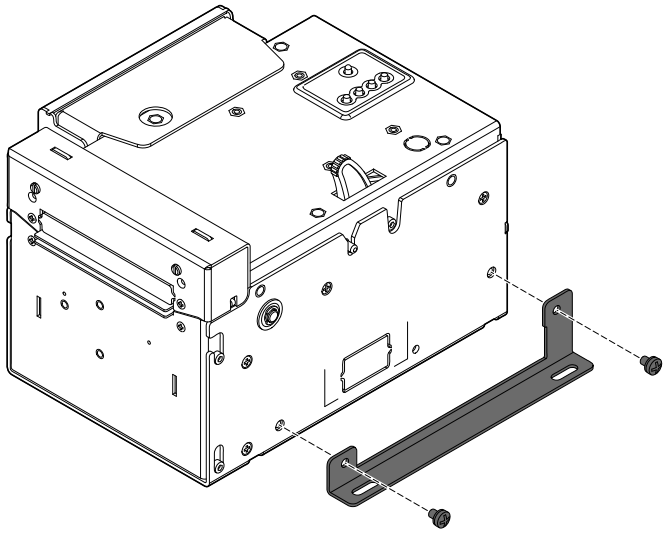
The device includes a kit for the assembly of two additional fixing brackets (see following figure).

The kit contains:
1. Two fixing brackets;
2. No.4 fixing screws.



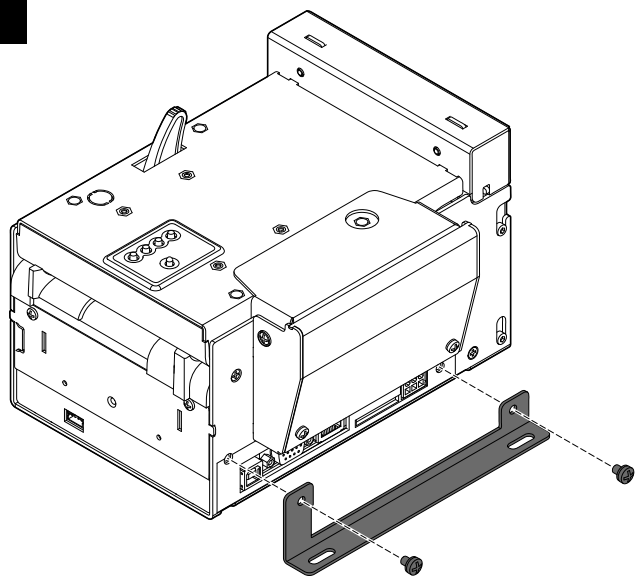
For the assembly procedure, proceed as follows:

1



Fix the bracket on
the right side of the device.

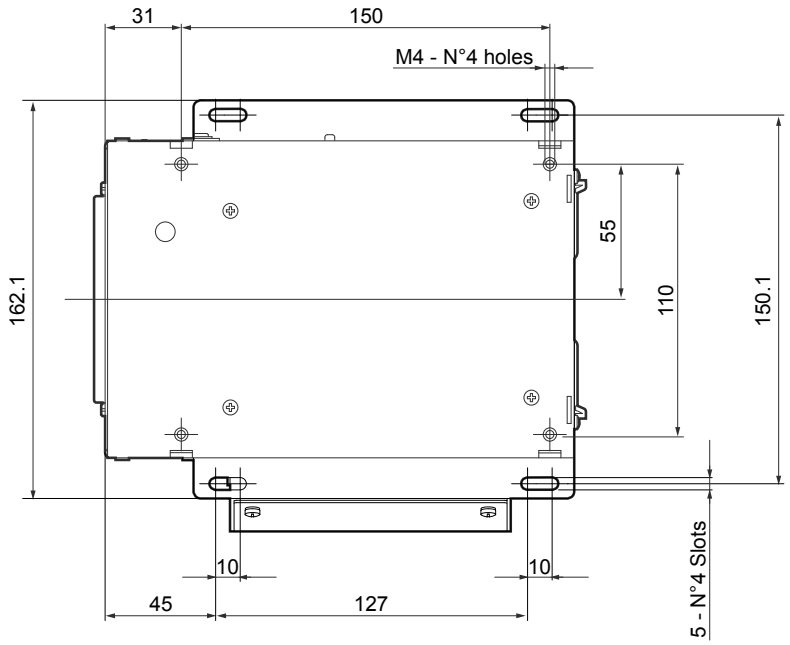
2

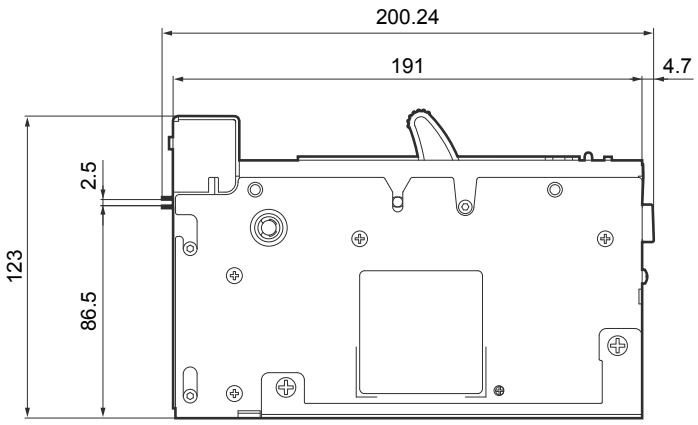


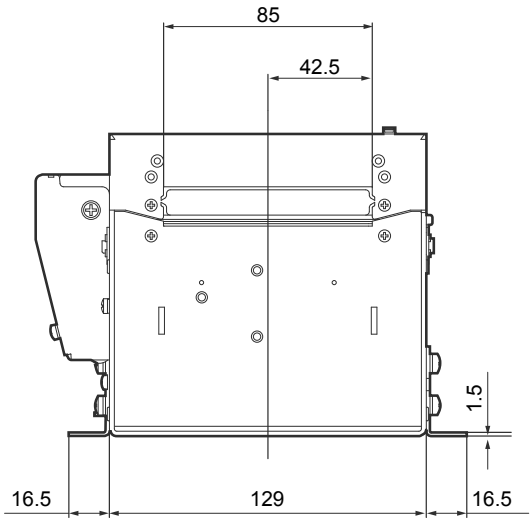
Fix the bracket on
the left side of the device.

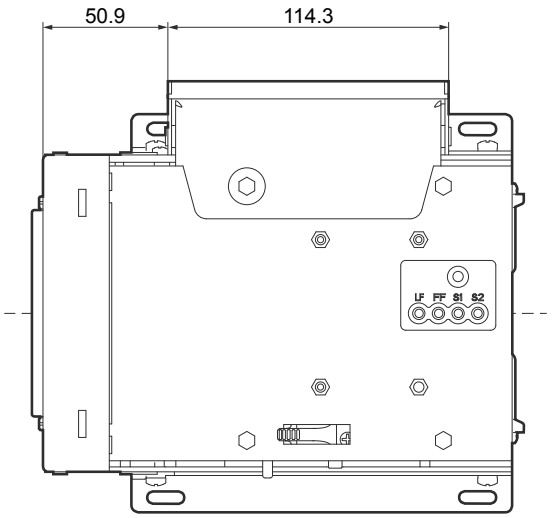
The following figures (dimensions in millimetres) show the device overall dimensions with the two additional brackets.

KPM302III

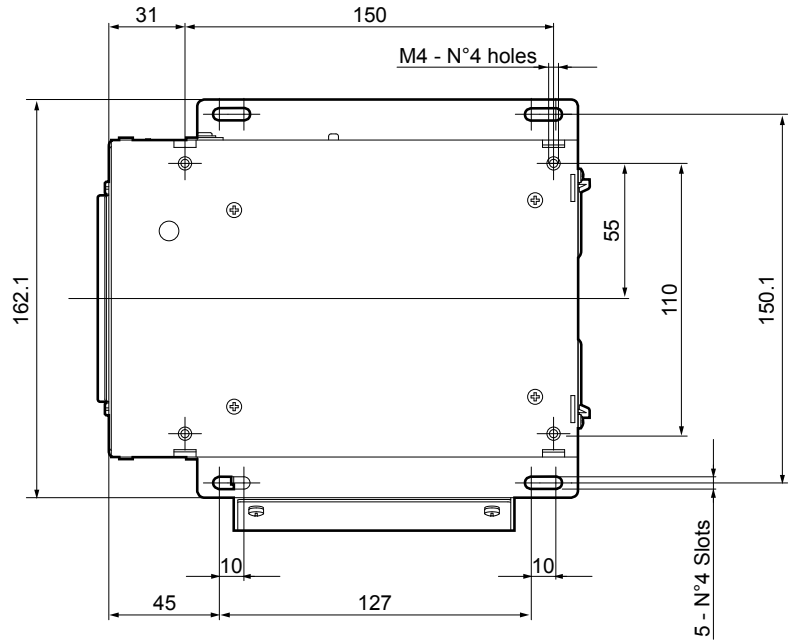


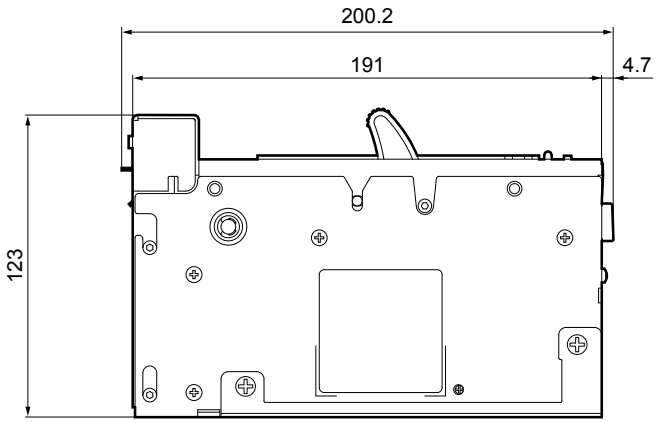


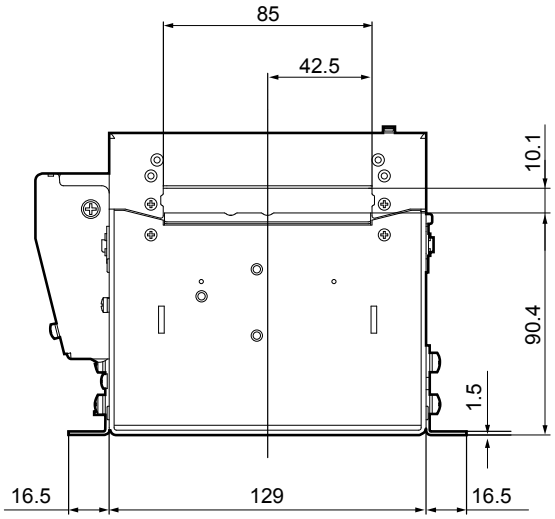


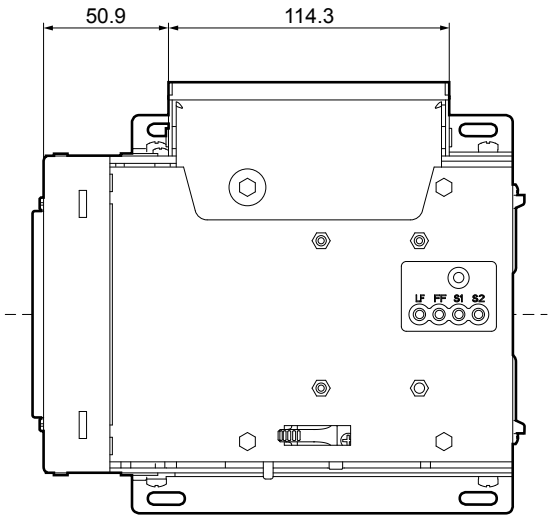


KPM302III (Cut&Drop configuration)

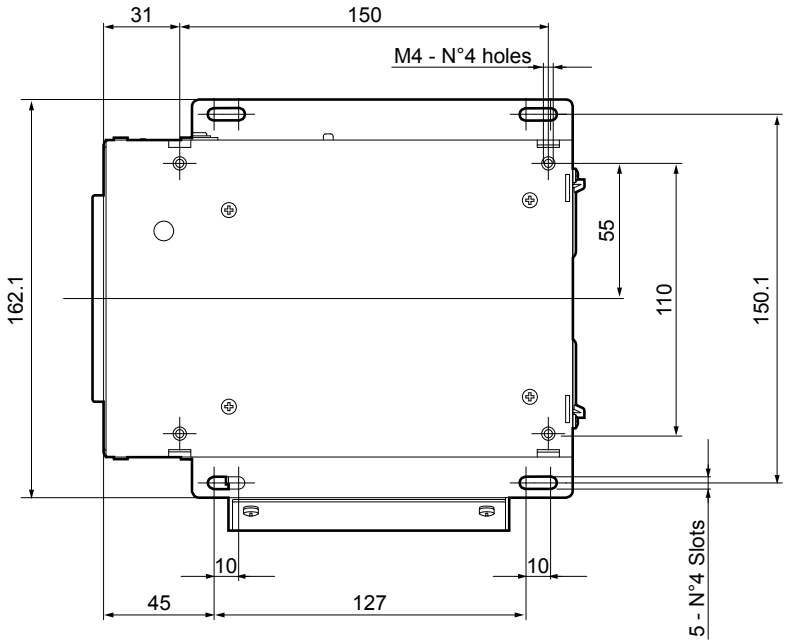


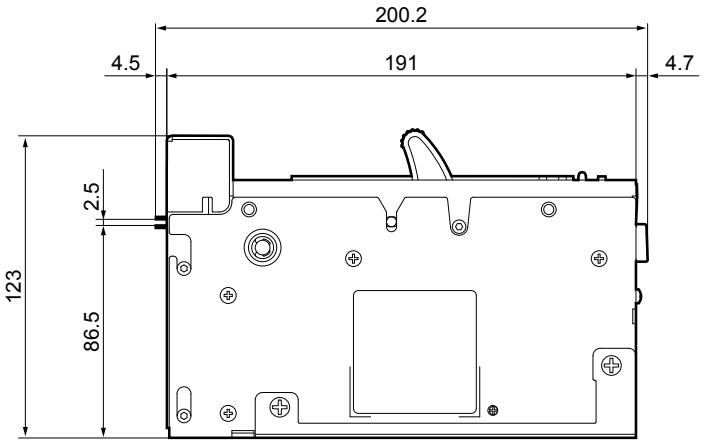


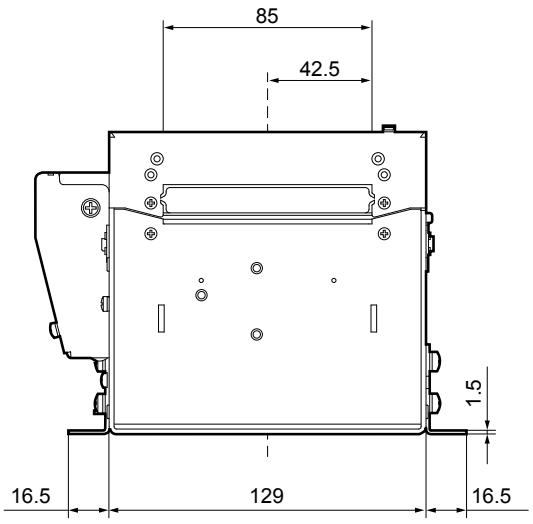


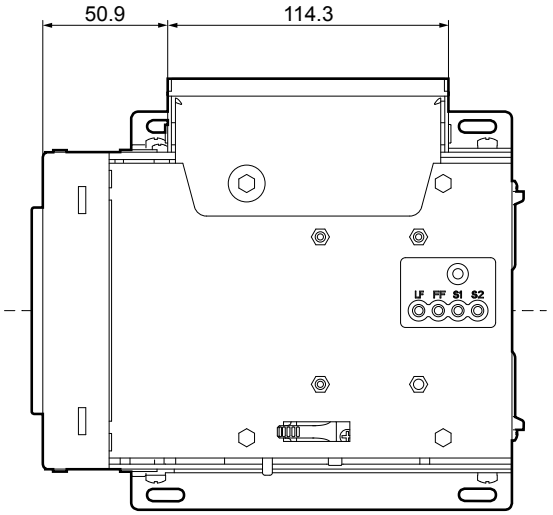


KPM302III (Burster configuration)







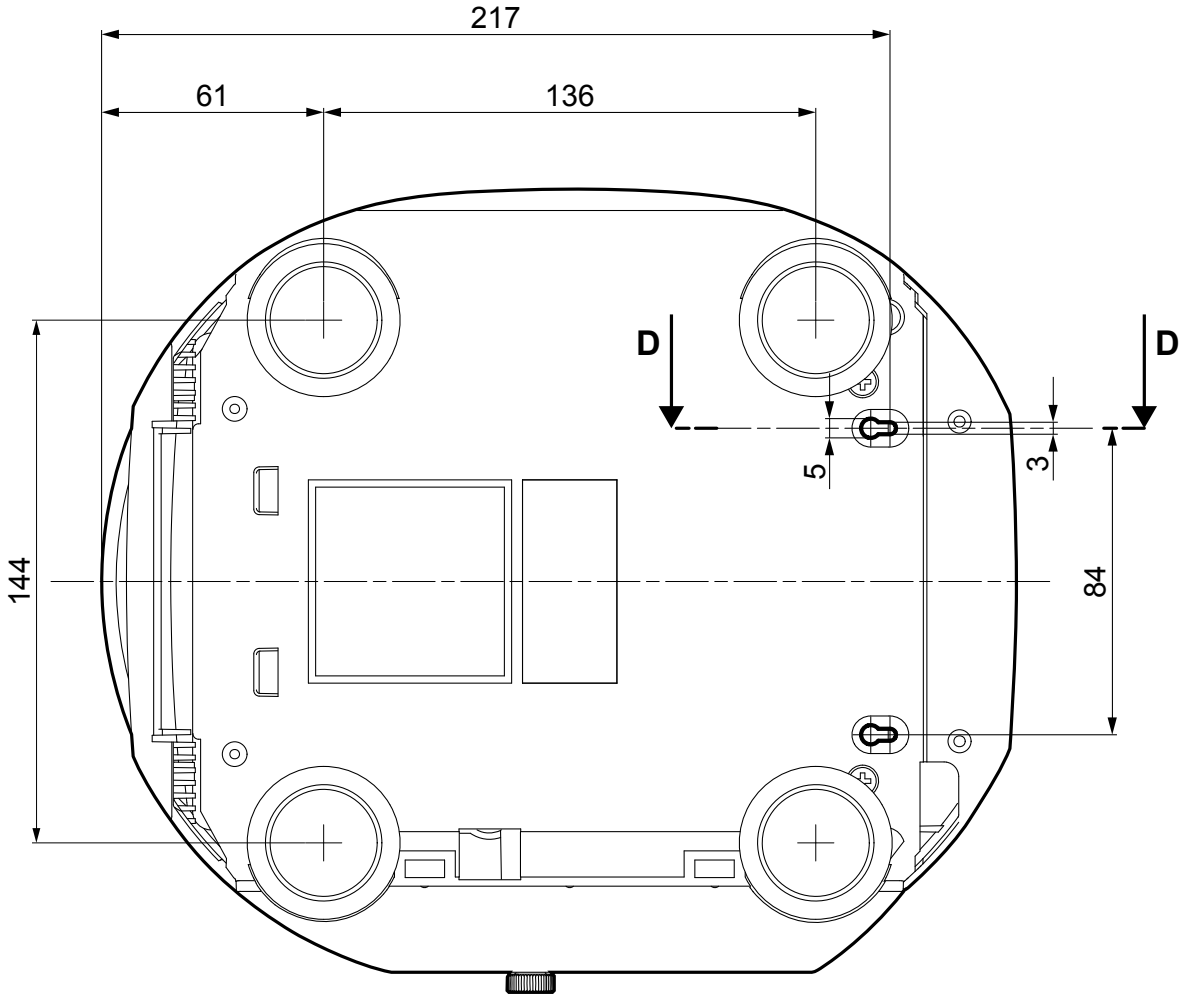


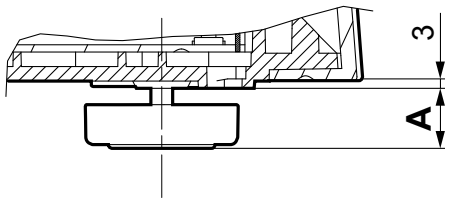
4.2 Fixing slots

TK202III PLAS, TK302III PLAS, TK302III PLAS TF, TK302III PLAS EJ-vSTK

The device is provided with two slots for the mounting of the machine on desk.

The slots are placed at the bottom of the machine (see following figure)





SECTION D-D

The height A shown in the previous figure varies according to the accessory mounted to the device (see chapter 9).

Arrange the desk with two fixing pins according to the measures shown in the previous page and the values of the height A listed in the table below.

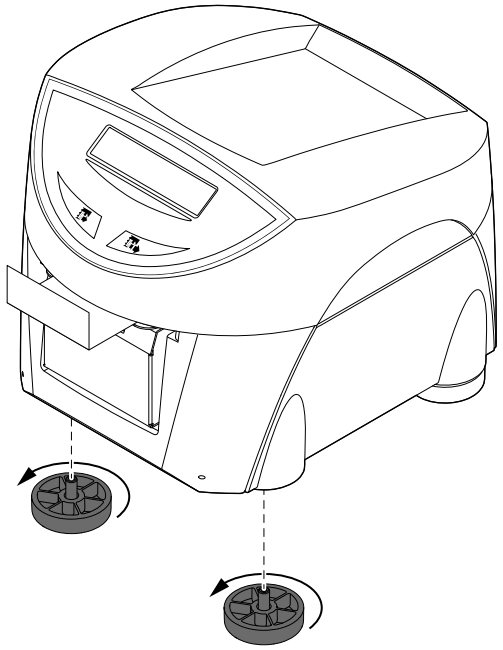
CONFIGURATION	HEIGHT
Device	12.5 mm
Device with paper roll holder (code 974BA010000312)	16 mm
Device with plastic ticket tray (code 976BD010000001)	18 mm
Device with metallic ticket tray (code 976BB010000003)	14.5 mm

4.3 Fixing vertical stacker

TK302III PLAS EJ-vSTK

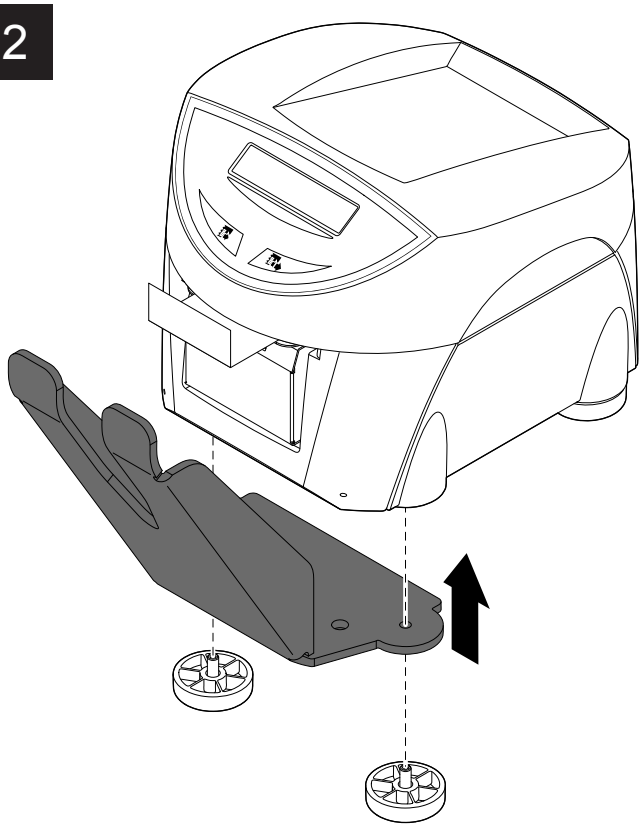
The device includes a vertical stacker for ticket storage (see paragraph 3.1). For the assembly procedure, proceed as follows.

1



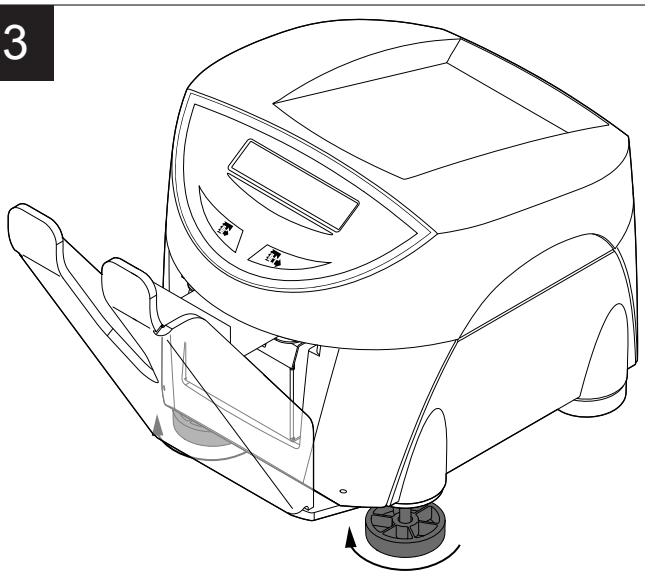
Unscrew and remove
the two front feet of the device.

2



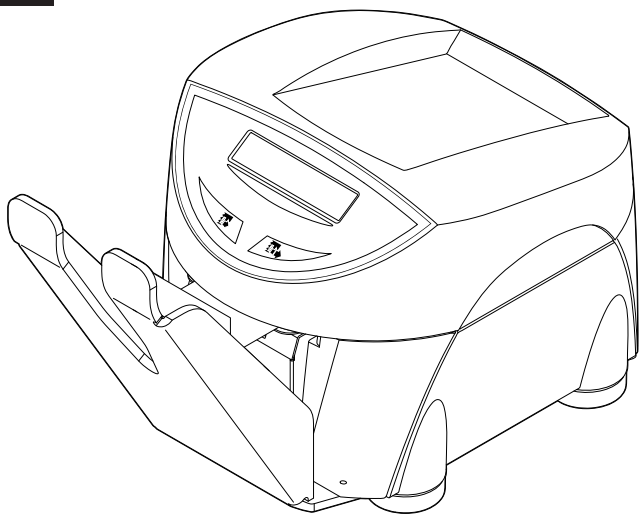
Place the vertical stacker
in the position shown in figure.

3



Fix the vertical stacker to the device
by screwing the two feet previously removed.

4



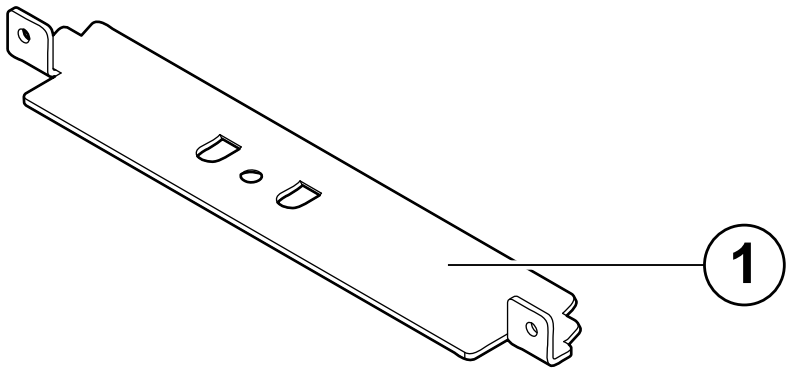
The device is ready.

4.4 Burster configuration

KPM302III, KPM302III TF

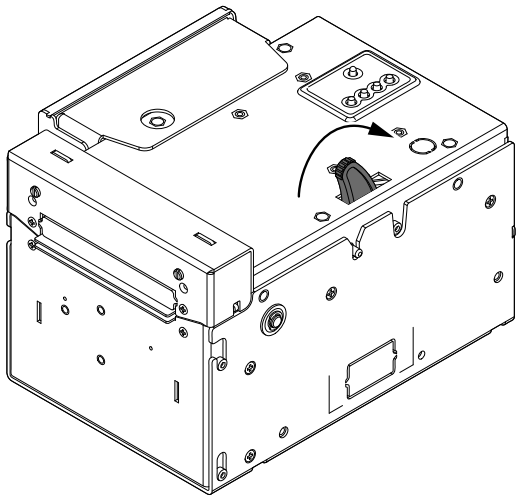
The device includes a kit for the Burster configuration (see following figure).

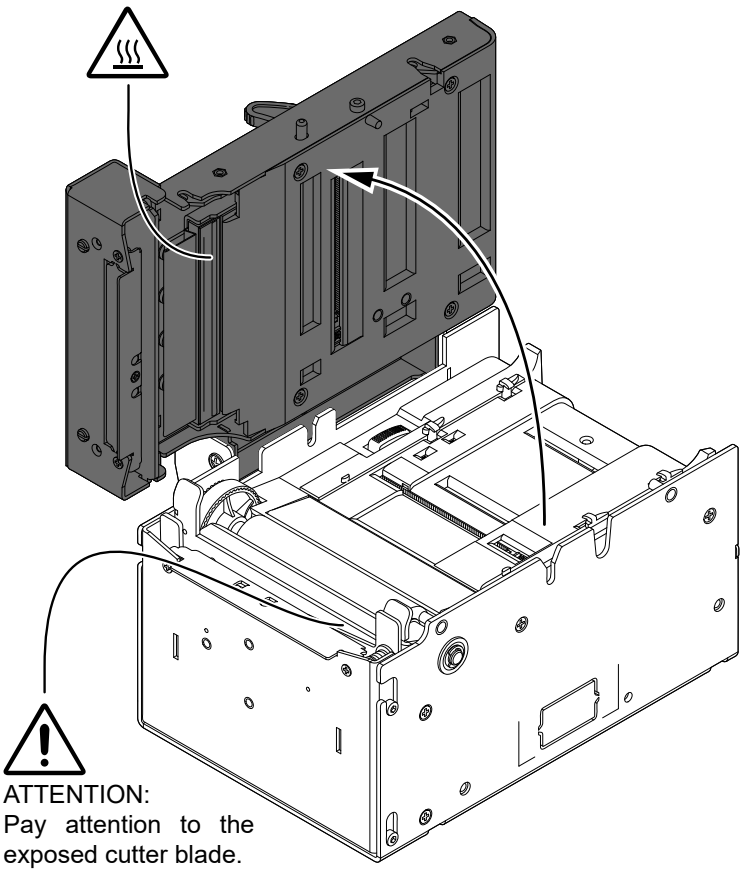
The kit contains:
1. Upper paper out feed mouth.



For the assembly procedure, proceed as follows:

1

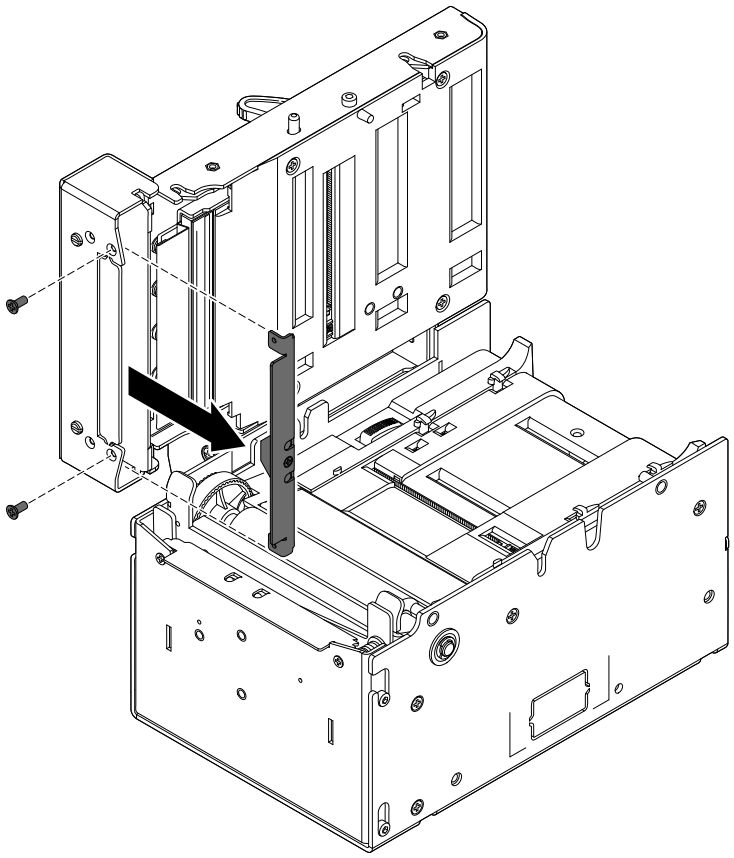




ATTENTION:
Pay attention to the exposed cutter blade.

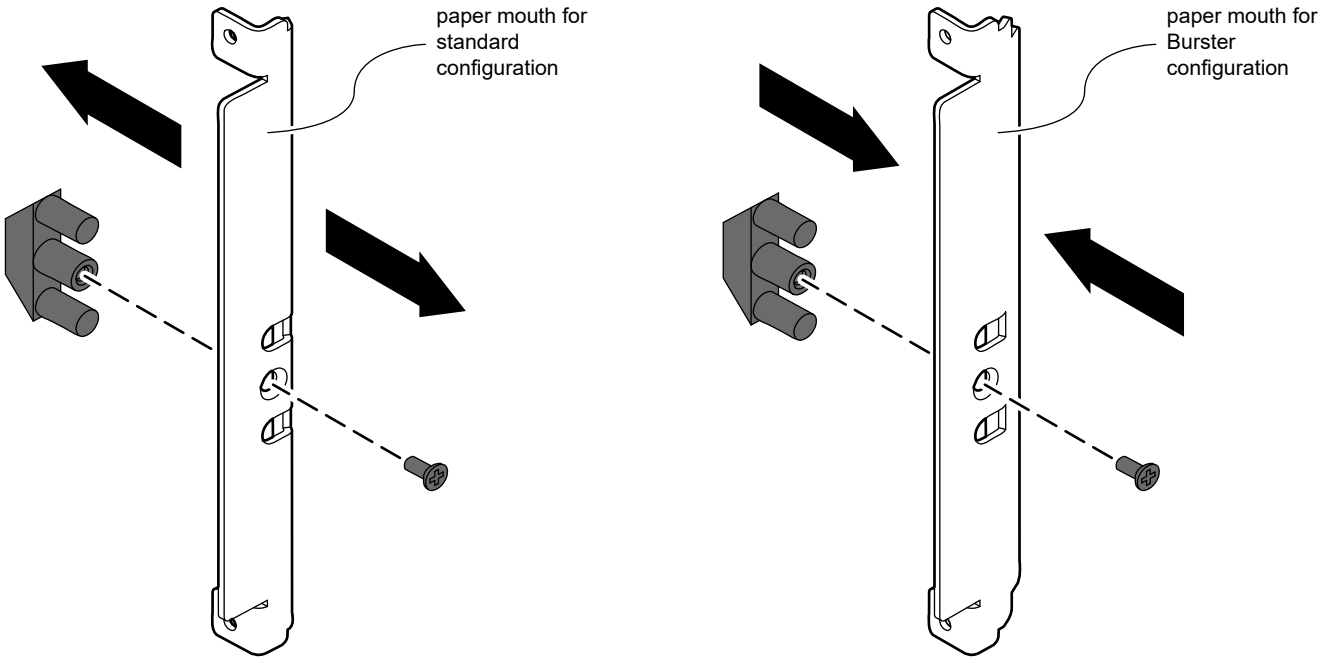
Open the upper cover.

2



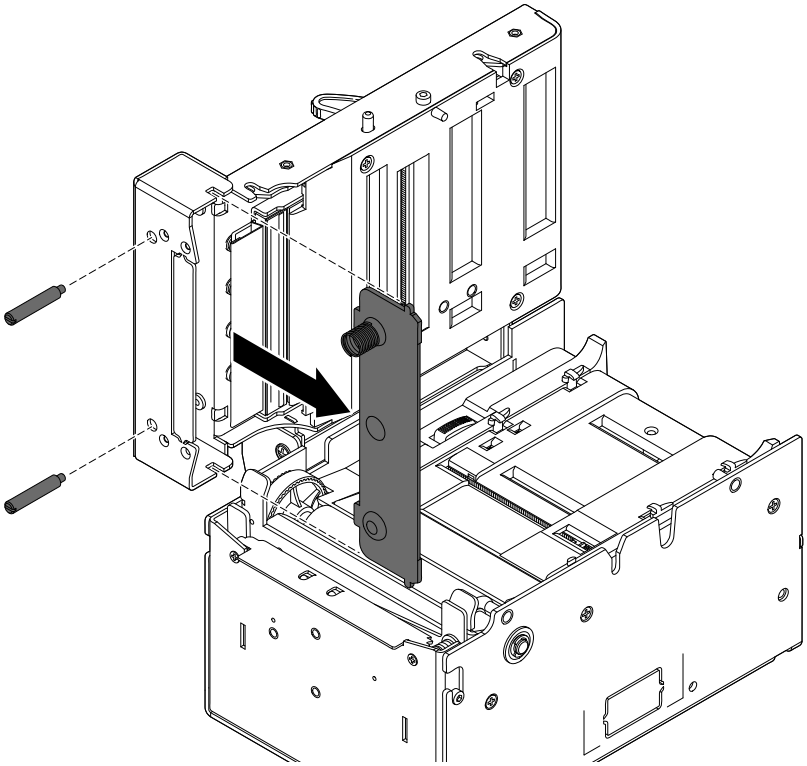
Unscrew the fixing screws and remove the upper paper mouth
for the standard configuration.

3



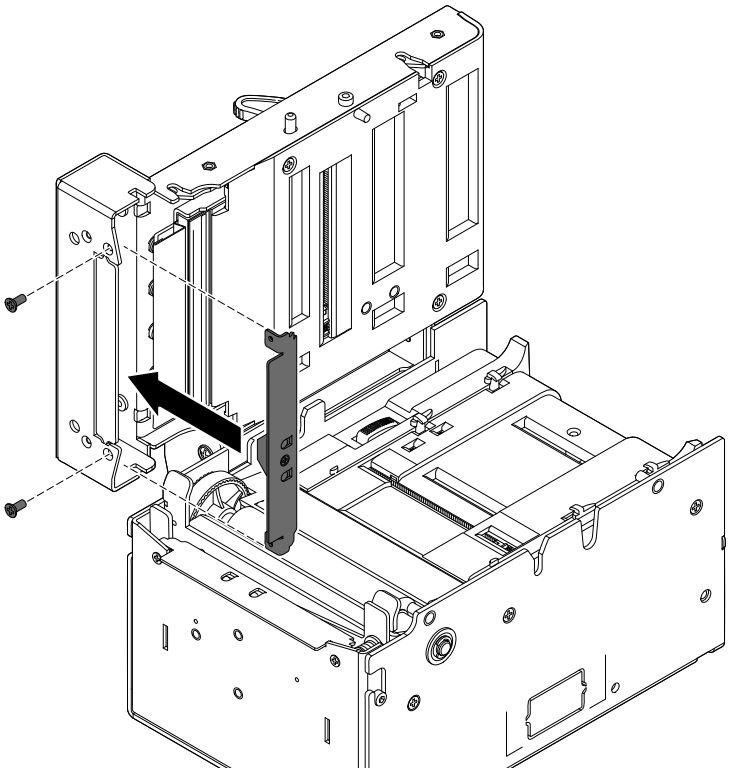
Unscrew the fixing screw and remove the light guide from the paper mouth for the standard configuration.
Using the same screw, fix the same light guide to the paper mouth for the Burster configuration.

4



Unscrew the fixing pins and take off the fixed blade and the spring.

5



Fix the paper mouth group for the Burster configuration
by using the screws previously removed.

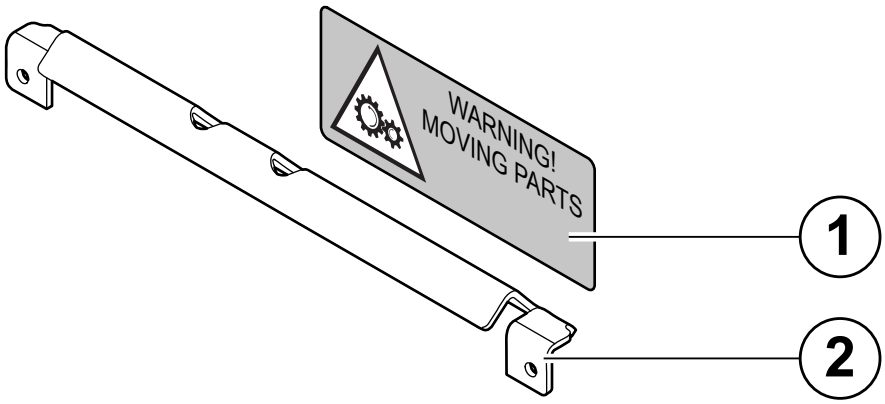
NOTE:
For ease of reference, for model with triple feeder is represented only the printer group without triple feeder.

4.5 Cut&Drop configuration

KPM302III, KPM302III TF

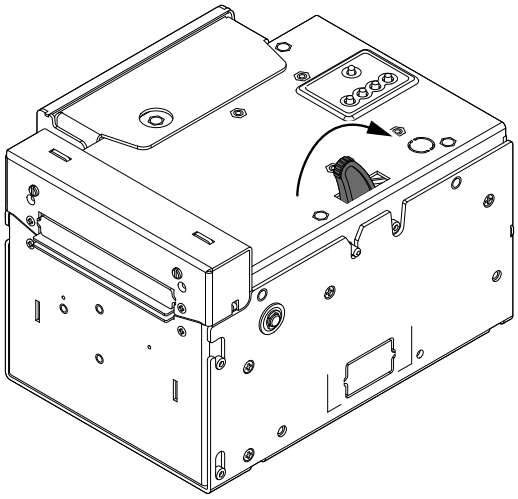
The device includes a kit for the Cut&Drop configuration (see the following figure).

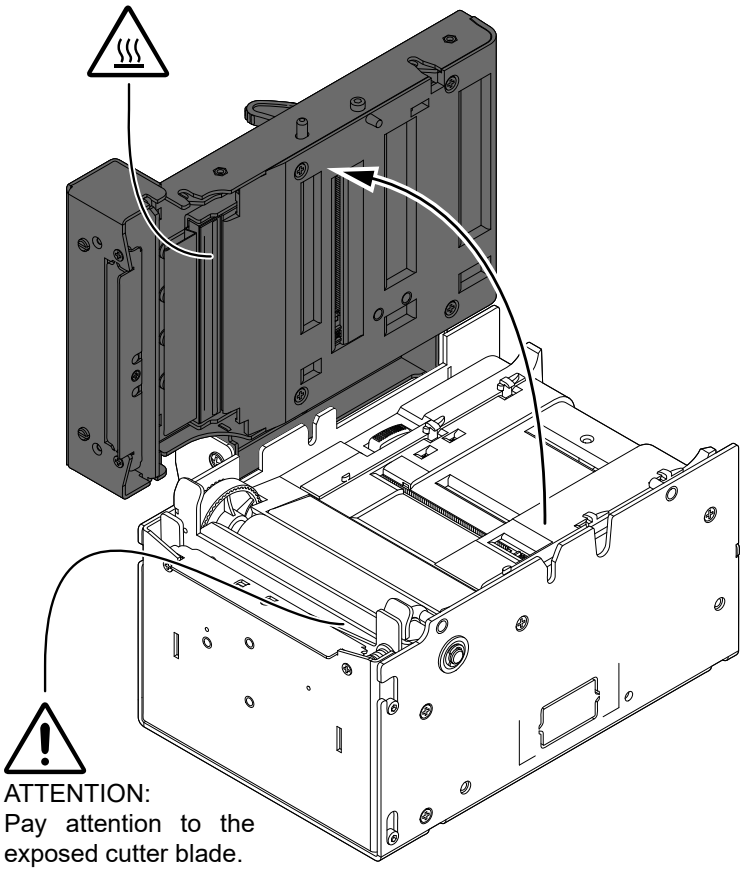
The kit contains:
1. Label
2. Lower paper out feed mouth.



For the assembly procedure, proceed as follows:

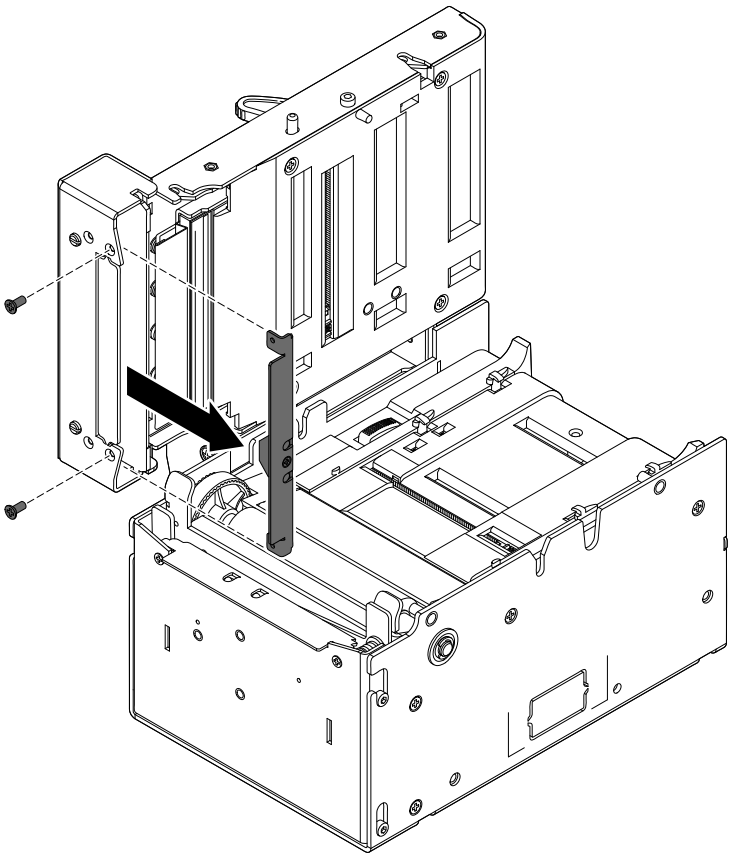
1





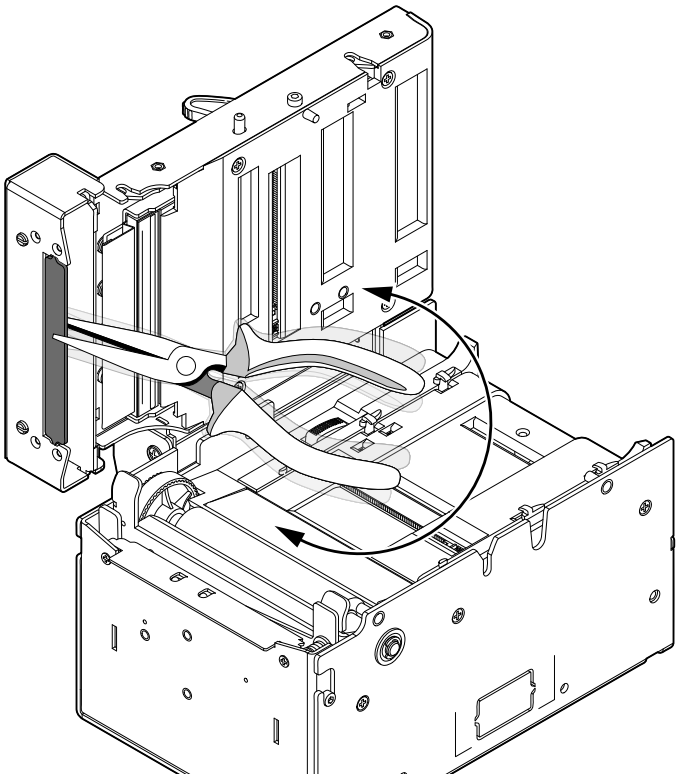
Open the upper cover.

2



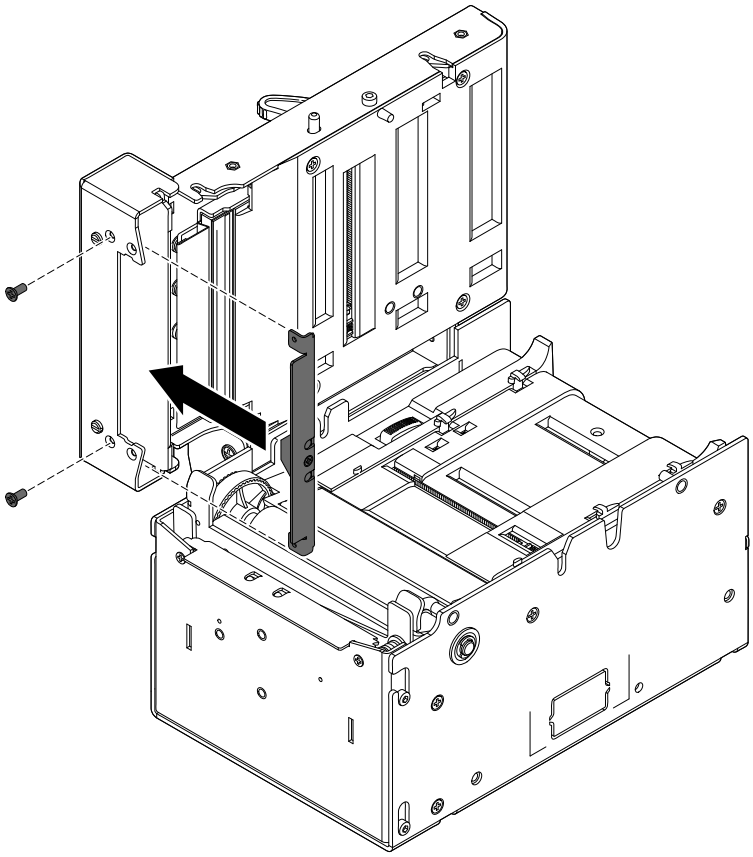
Unscrew the fixing screws and remove the upper paper mouth
for the standard configuration.

3



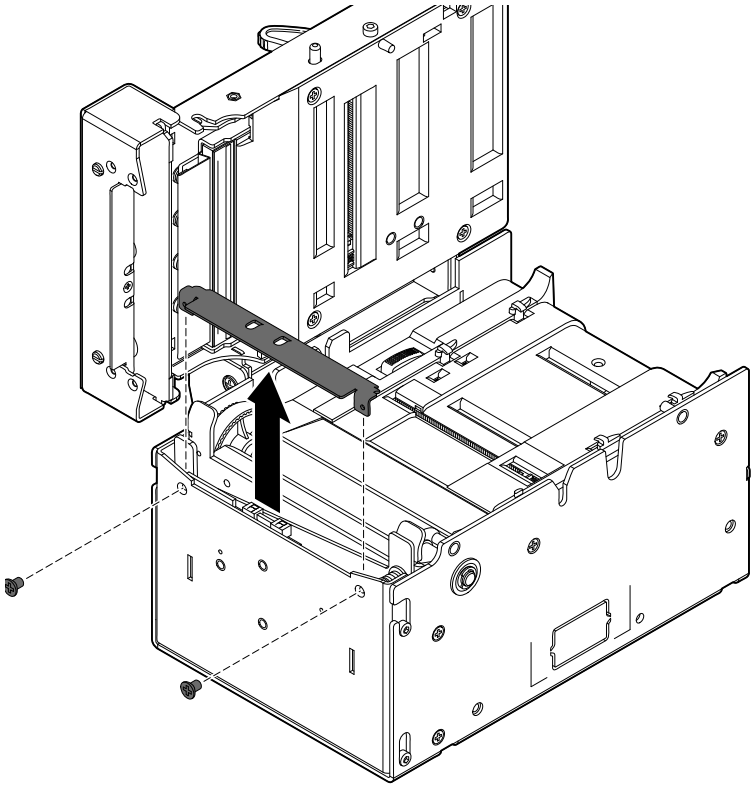
Using a clamp, remove the precut sheet metal
on the upper device cover.

4



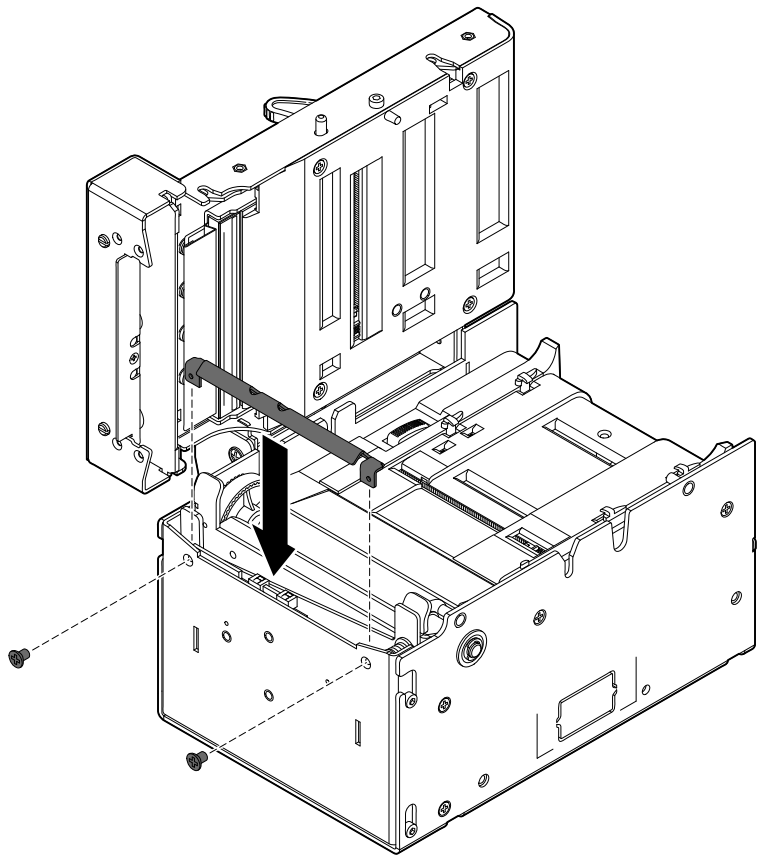
Fix the upper paper group for the standard configuration
in the upper holes on the cover using the screws previously removed.

5



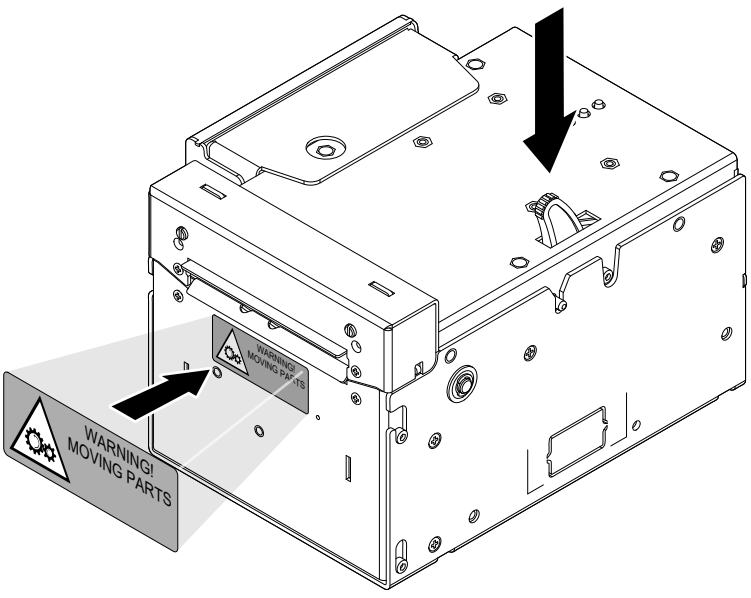
Unscrew the two fixing screws on the front cover and
take off the lower paper mouth of the standard configuration.

6



Fix the lower paper mouth for the Cut&Drop configuration
by using the screws previously removed.

7



Close the upper cover and paste the
label (supplied with the Cut&Drop kit) on the front cover.

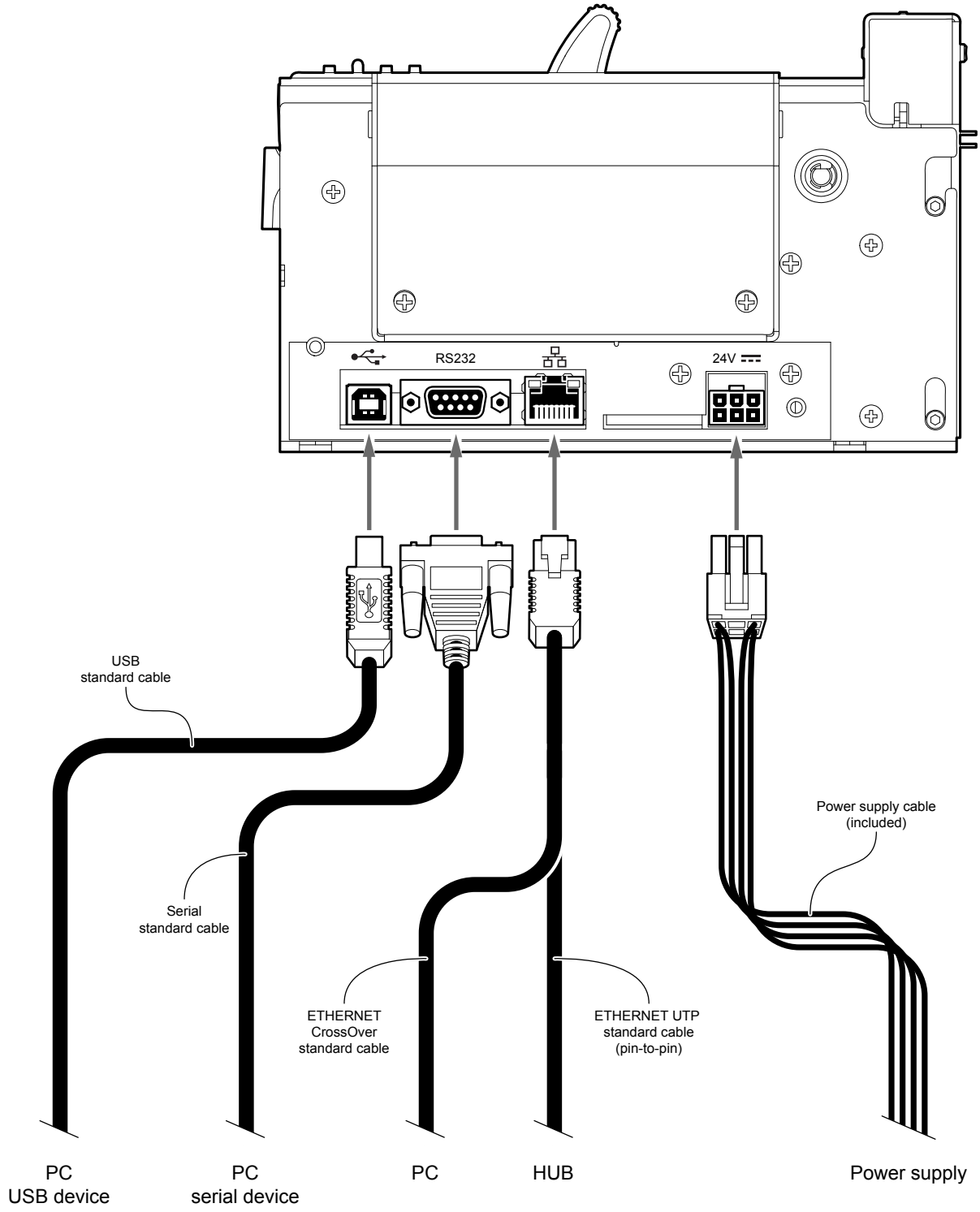
NOTE:
For ease of reference, for model with triple feeder is represented only the printer group without triple feeder.

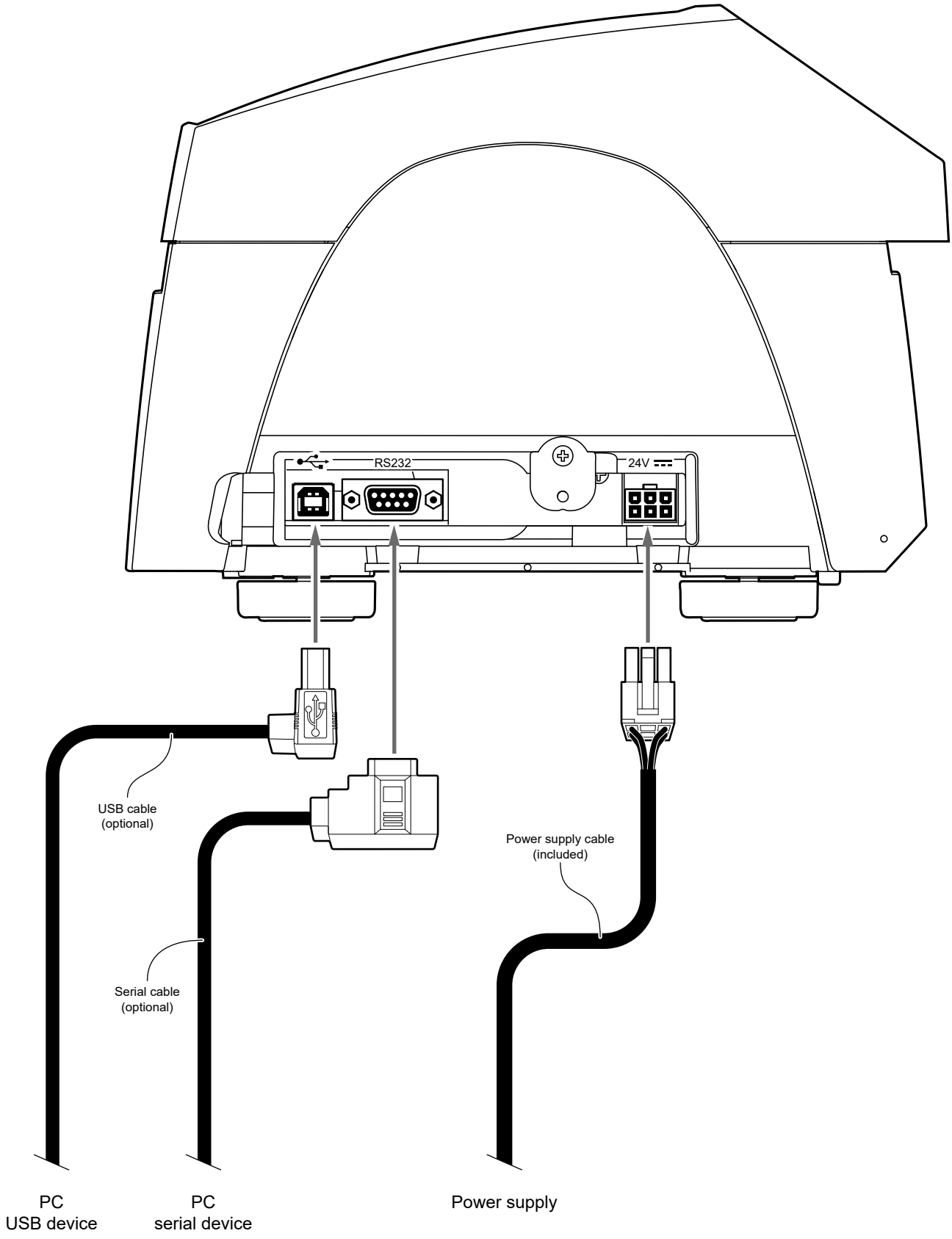
4.6 Connections

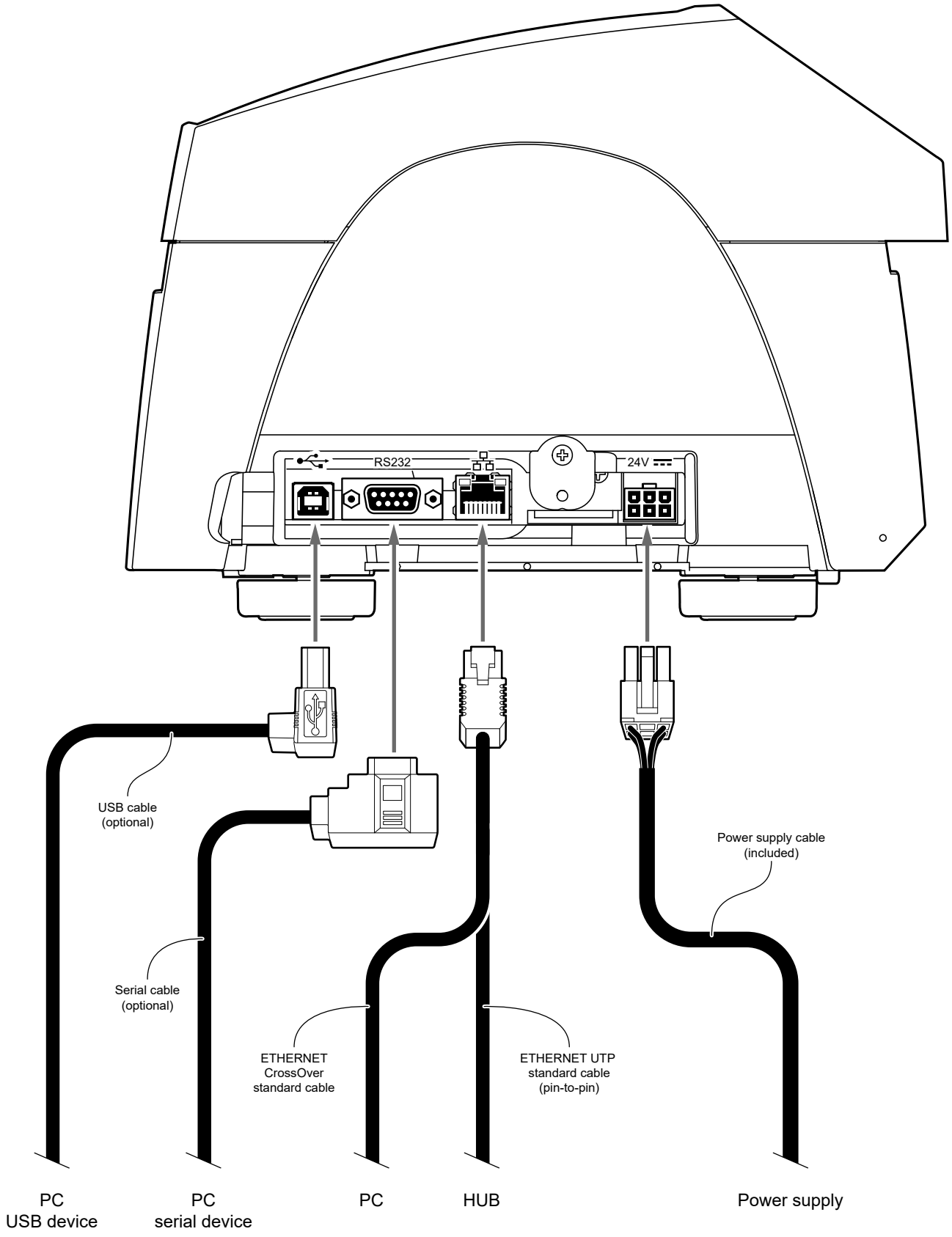
The following figure shows the possible connections for the device. When the RS232 and USB communication cables are connected to the printer at the same time, communication takes place via the USB port.
For ease of reference, for some models it is represented only the printer group without the triple feeder.

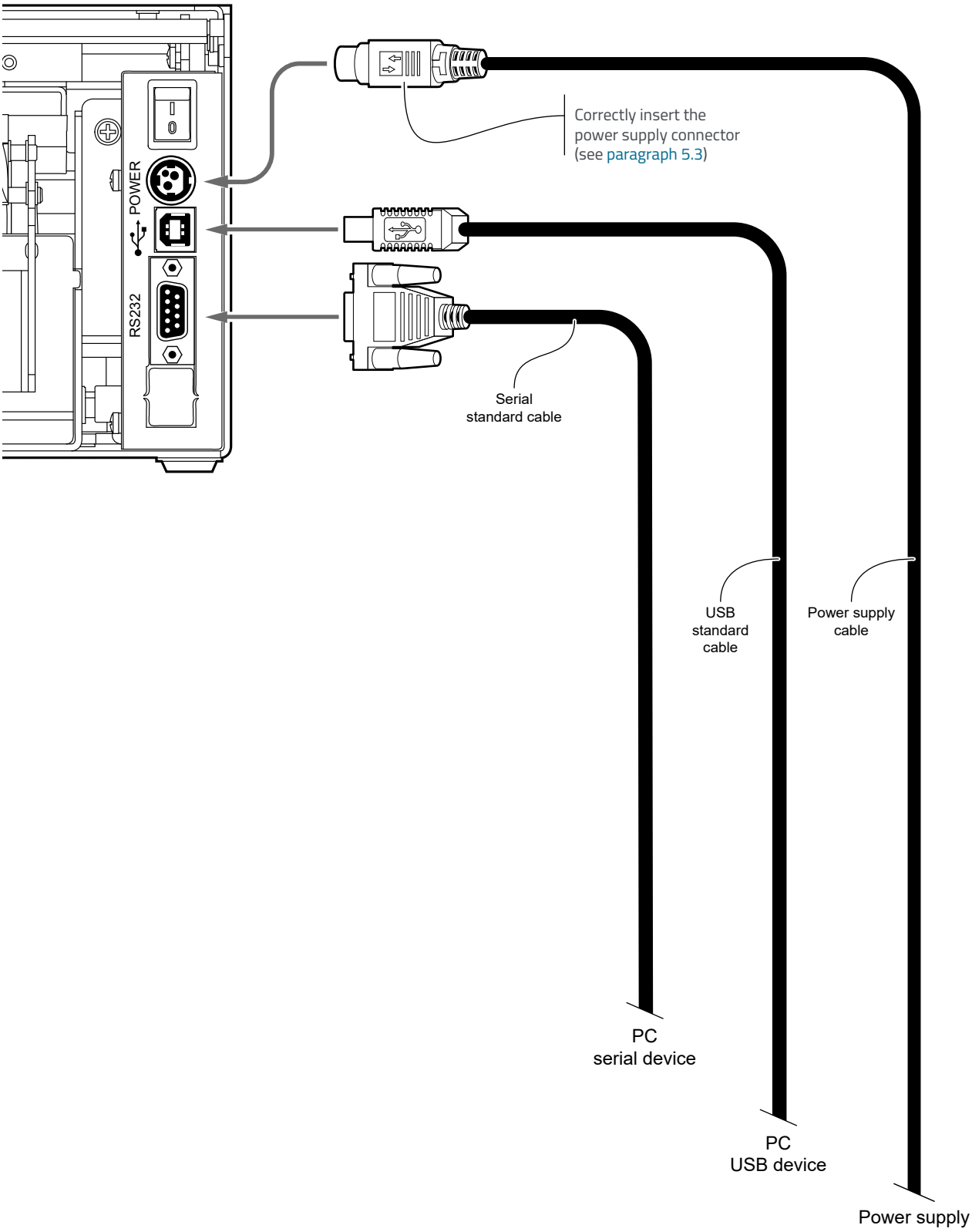
ATTENTION: In some using conditions, we recommend the installation of a ferrite core on the power supply cable.

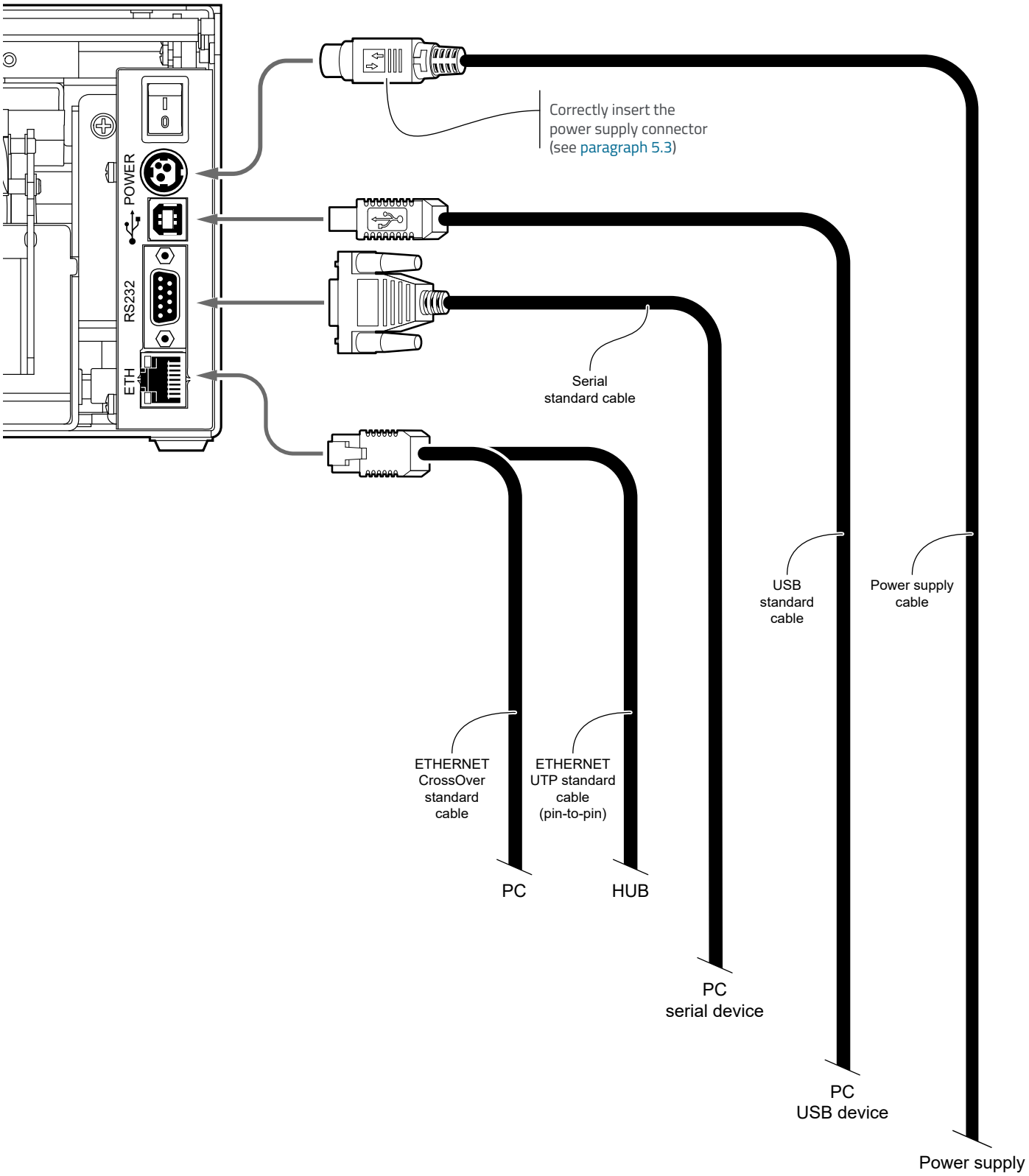
KPM302III, KPM302III TF



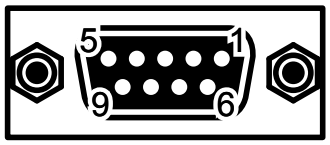

RS232
24V
USB cable
(optional)
Serial cable
(optional)
Power supply cable
(included)
PC
USB device
PC
serial device
Power supply


RS232
24V
USB cable
(optional)
Serial cable
(optional)
ETHERNET
CrossOver
standard cable
ETHERNET UTP
standard cable
(pin-to-pin)
Power supply cable
(included)
PC
USB device
PC
serial device
PC
HUB
Power supply


POWER
RS232
Correctly insert the
power supply connector
(see paragraph 5.3)
Serial
standard cable
USB
standard
cable
Power supply
cable
PC
serial device
PC
USB device
Power supply


POWER
RS232
ETH
Correctly insert the power supply connector (see paragraph 5.3)
Serial standard cable
USB standard cable
Power supply cable
ETHERNET CrossOver standard cable
ETHERNET UTP standard cable (pin-to-pin)
PC
HUB
PC serial device
PC USB device
Power supply

4.7 Pinout

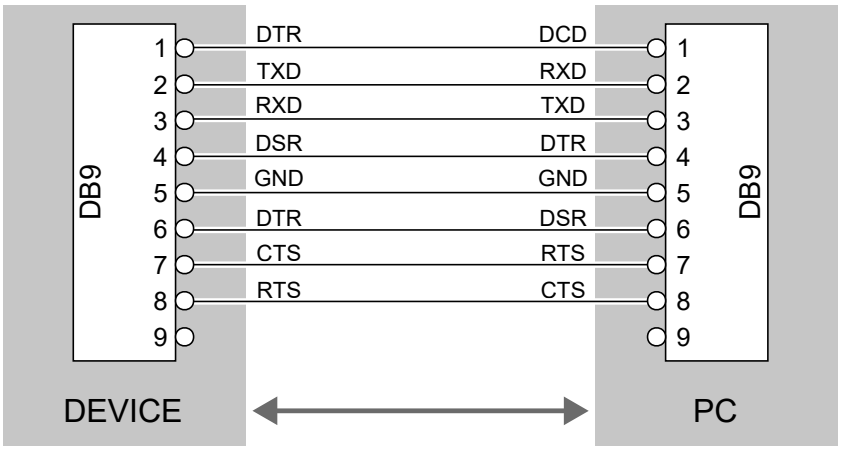


RS232 SERIAL INTERFACE
Female DB9 connector

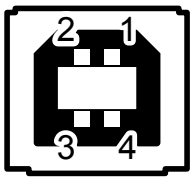
J1	1	DCD	
	2	TX	During transmission, takes the values -VRS232 and + VRS232 depending on data
	3	RX	During reception, takes the values -VRS232 and +VRS232 depending on data
	4	DSR	
	5	GND	
	6	DTR	When +VRS232, device is power on
	7	CTS	
	8	RTS	When +VRS232, device is ready to receive data
	9	n.c.	

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.

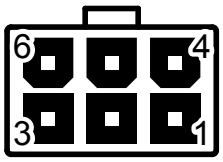


USB INTERFACE

Female USB type B connector

J13	1	USB-VBUS	(out)
	2	PD -0	
	3	PD +0	
	4	GND	

KPM302III, KPM302III TF
TK202III PLAS, TK302III PLAS, TK302III PLAS TF, TK302III PLAS EJ-vSTK

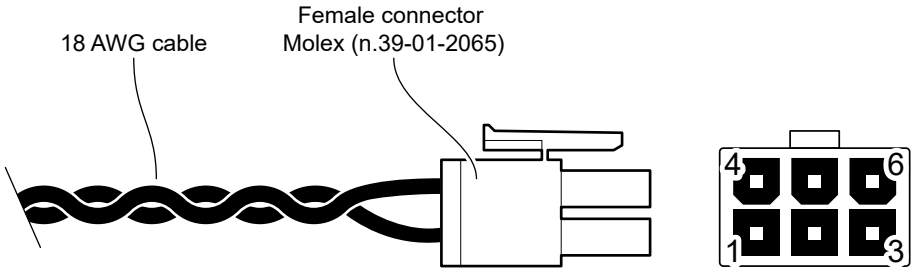


POWER SUPPLY

Male Molex connector vertical (no. 39-30-0060)

J26	1	+24 Vdc
	2	+24 Vdc
	3	+24 Vdc
	4	GND
	5	GND
	6	GND

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



PIN	Cable color	Signal
1	Red	+24V
2	not connected	+24V
3	Red	+24V
4	Black	GND
5	not connected	GND
6	Black	GND

ATTENTION:
Respect power supply polarity.

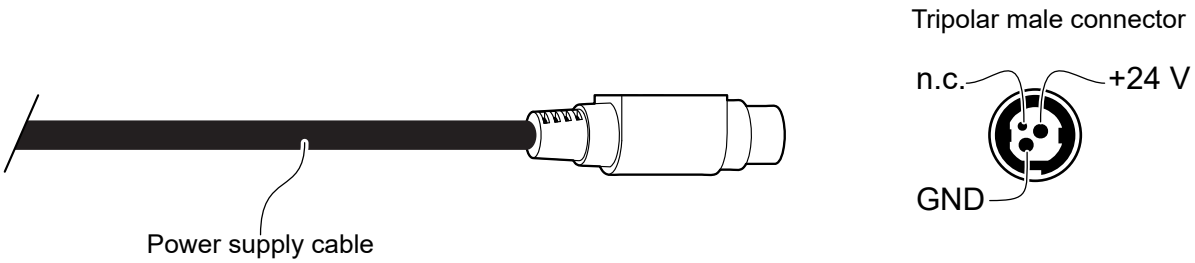


POWER SUPPLY

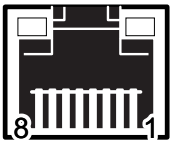
Tripolar female connector

J1	1	GND
	2	+24 Vdc
	3	GND
	4	Frame GND

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



ATTENTION:
Respect power supply polarity.



ETHERNET INTERFACE

Female RJ45 connector

J16	1	TPOUT +
	2	TPOUT -
	3	TPIN +
	4	GND
	5	GND
	6	TPIN -
	7	n.c
	8	n.c
	9	+3.3 V
	10	LED-LAN
	11	+3.3 V
	12	LED-LNK
	13	Shield
	14	Shield

The functionality of two LEDs are specified in following tables:

- For 10Base-T connection:

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).
The pinout shown in table represents the input signals to component J1 before the isolation voltage transformer (through-hole pin).

4.8 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 (32/64bit)	
	Driver for Windows 7 (32/64bit)	
	Driver for Windows 8 (32/64bit)	
	Driver for Windows 8.1 (32/64bit)	
	Driver for Windows 10 (32/64bit)	
	Driver for Virtual COM (32/64 bit) with or without silent installation (see paragraph 6.6)	
	Driver for OPOS	
Linux	Driver for Linux (32/64bit)	Follow the instruction get back on the README.TXT file. You can find it in the software package downloaded in advance.
Android	SDK for CustomAndroidAPI	Extract the zipped folder to the destination path desired. Follow the instructions present in the software package that you downloaded on how to install and use the SDK.
iOS	SDK for CustomiOSApi	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.

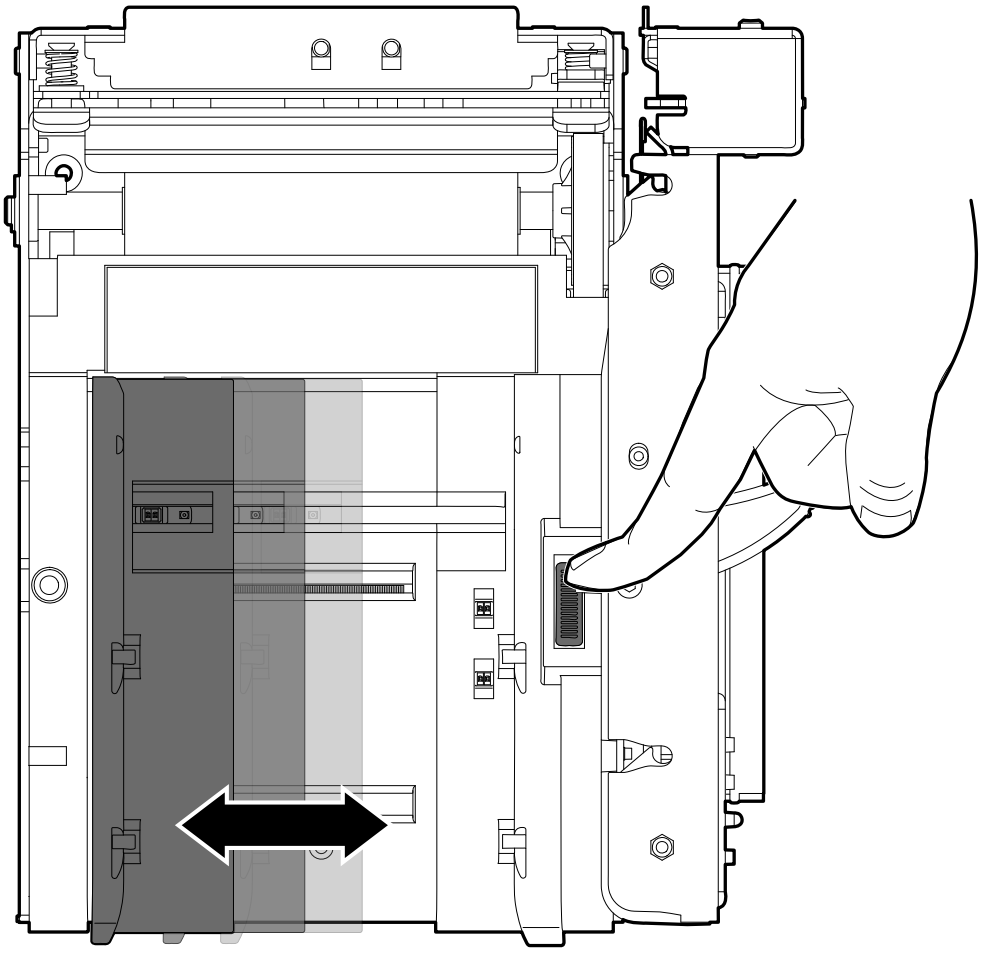
5 OPERATION

5.1 Adjusting paper width

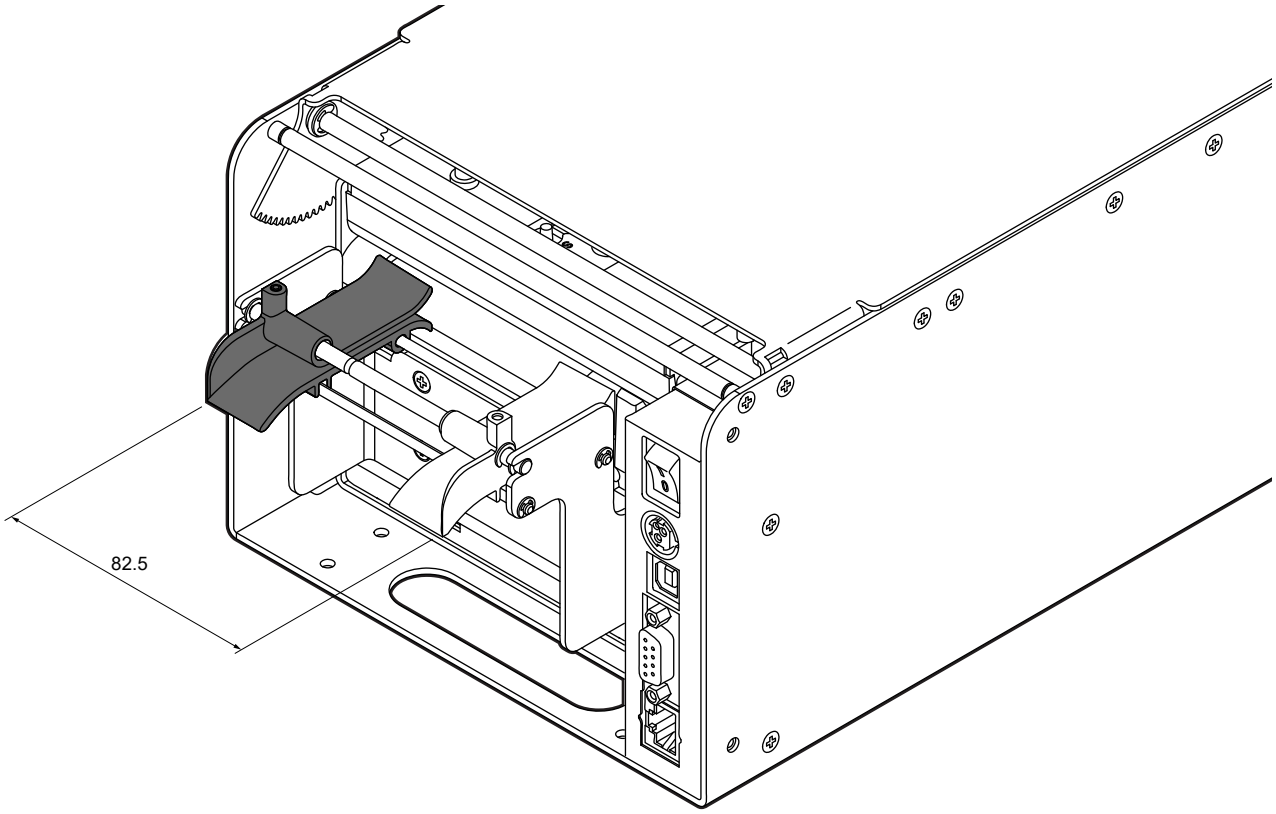
KPM302III
TK202III PLAS, TK302III PLAS, TK302III PLAS EJ-vSTK
TK202III MET, TK302III MET EJ

Paper width may be adjusted from 54 mm to 82.5 mm by pressing the unlocking button and moving the adjustable paper guide as shown in the figure.

If you are using TK202III MET or TK302III MET EJ it is advisable to proceed with the adjustment of the external cusors first (see next page).

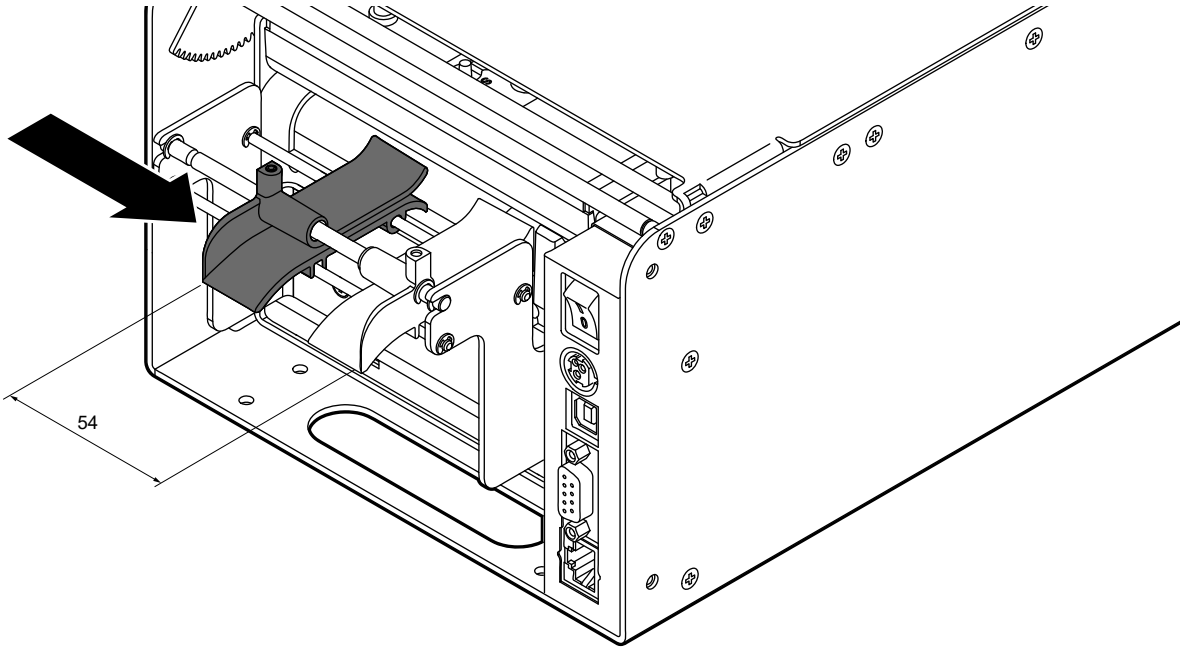


1



To manage paper width of 82.5 mm,
leave the left slider in the outer position.

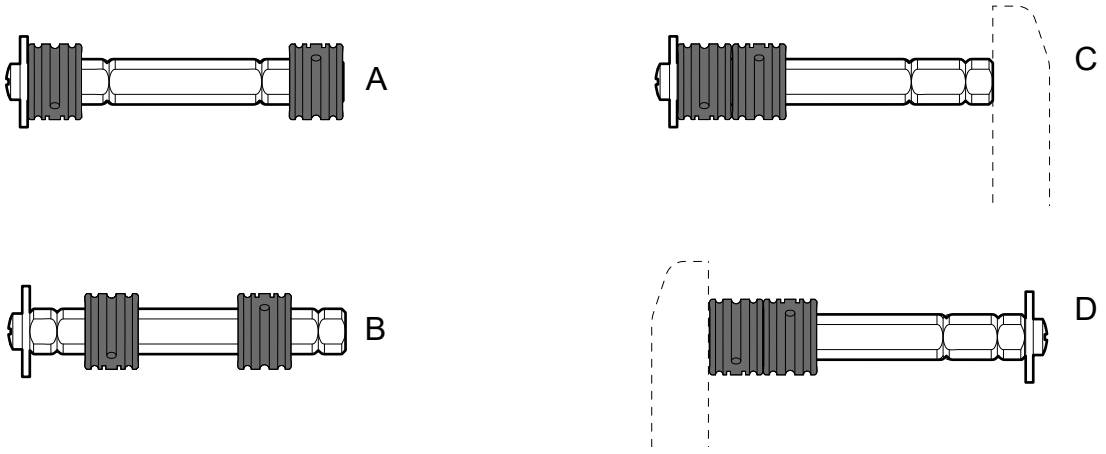
2



To manage paper width of 54 mm, push the left slider
moving it to the internal position.

If you use the device with the paper roll holder cod.974BB060000010 provided as an accessory (see chapter 10), adjust the two bushing on the roll holder pin by placing them on the notches on the spindle according to the paper width and the position of the bracket frame as follows (see also the figure):

- For 82.5 mm paper width, place both the bushings on the external notches (position A) or on the internal notches (position B).
- For 54 mm paper width, place the bushings on the two adjacent notches located on the same side of the mobile paper guide of the device, according to the assembling side of the frame (right or left).

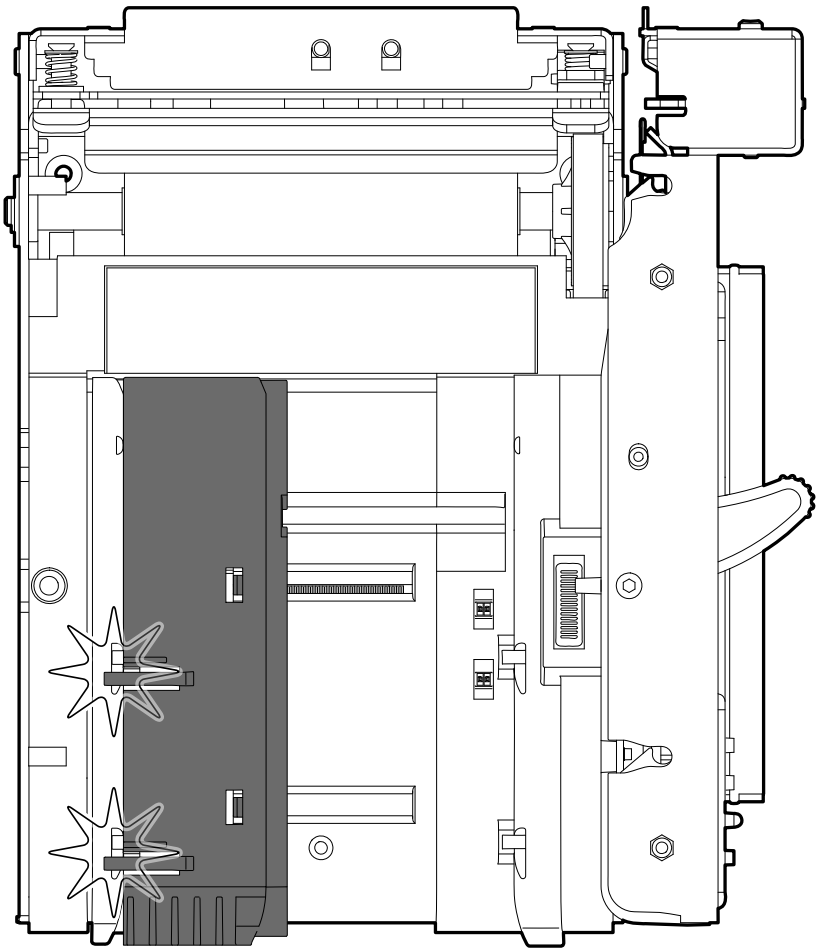


82.5 mm paper width

54 mm paper width

KPM302III
TK202III PLAS, TK302III PLAS, TK302III PLAS EJ-vSTK

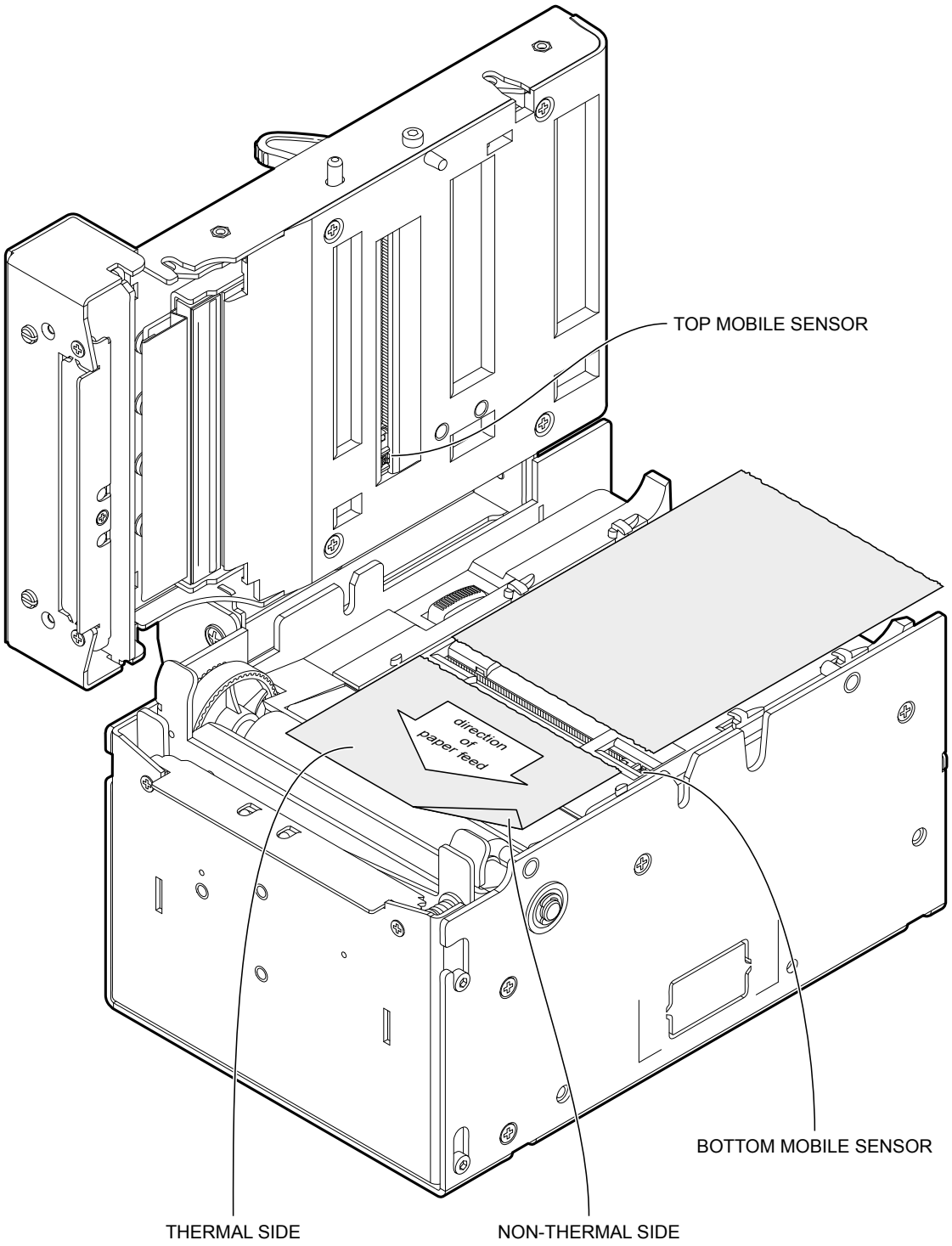
To manage paper width from 20 mm to 40 mm, apply the spacer provided with the device on the adjustable paper guide (see following figure), then adjust the paper width.
For ease of reference, for some models it is represented only the internal printer without external chassis.



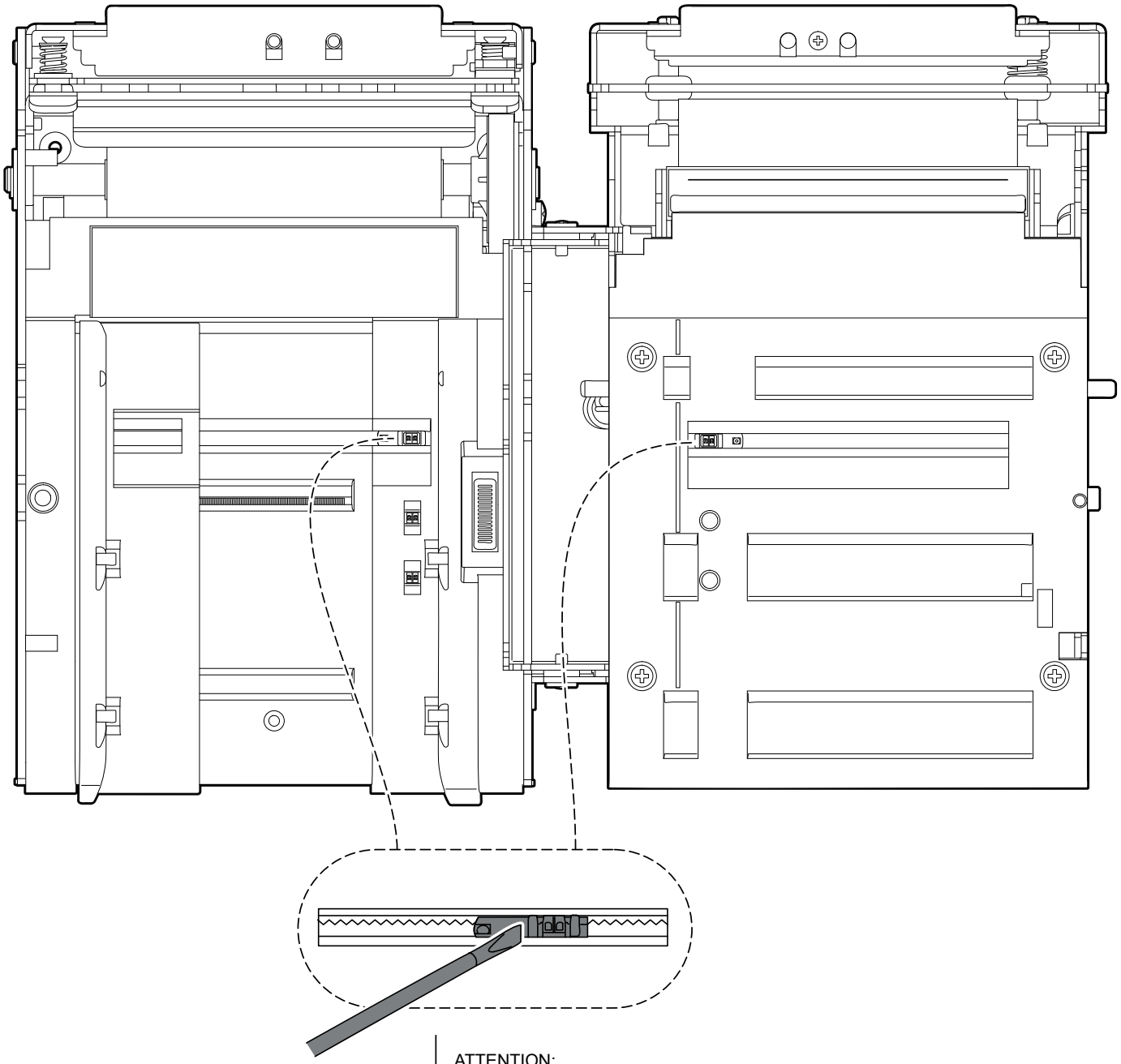
5.2 Adjusting the alignment sensors

The device is equipped with two mobile sensors for the detection of the alignment black mark placed both on the thermal side and on the non-thermal side of paper as shown in the following figure.
The device user will need to manually move these mobile sensors according to the position and the type of the black mark on the paper. To use these sensors, you must set the “Black mark position” parameter on the correct value (see chapter 6).

For ease of reference, the image shows the two flats represented in the same plane and, for some models, only the internal printer group is represented without external chassis or triple feeder.



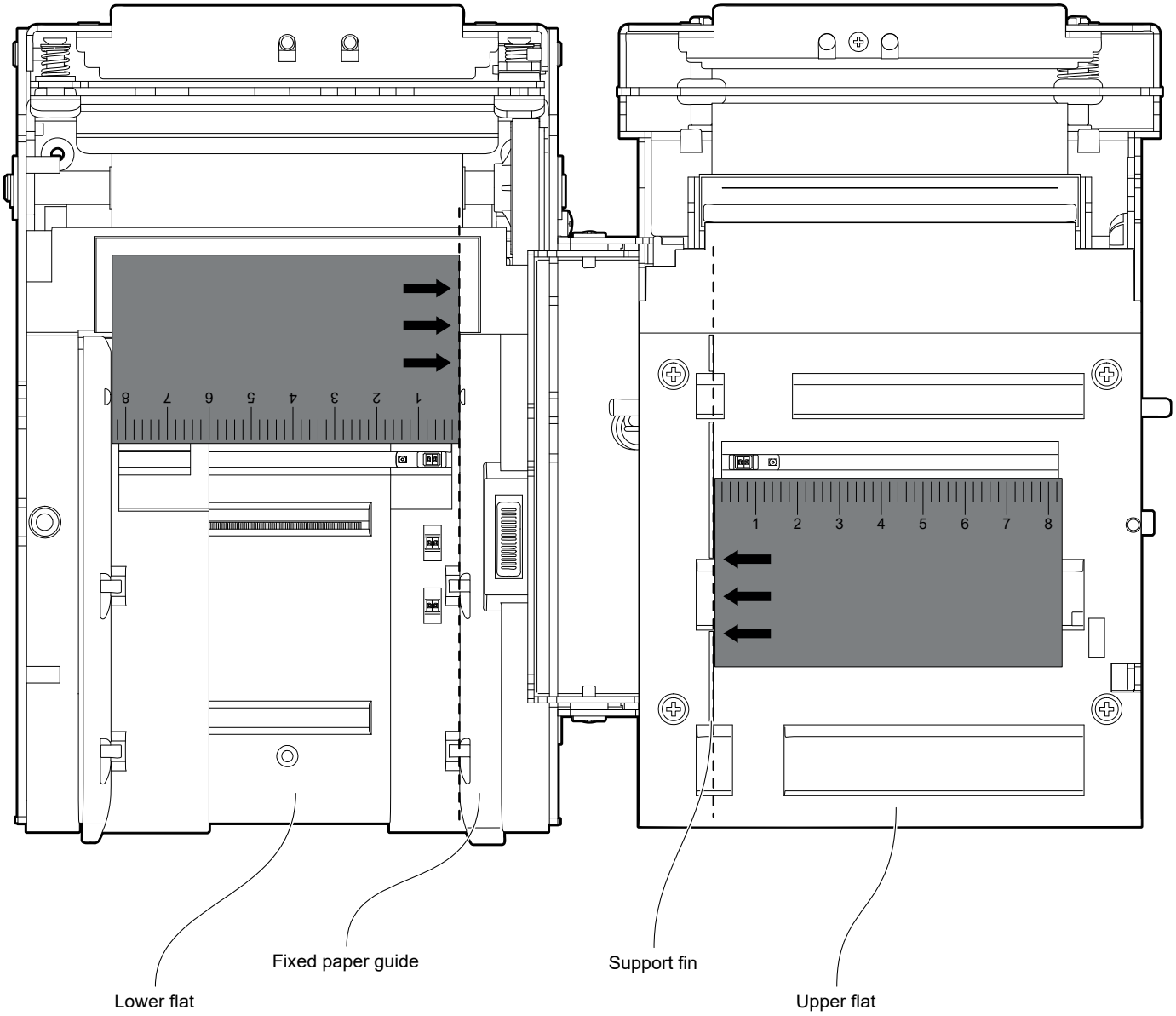
To adjust the mobile sensors position according to the black mark position and the type on paper, open the device cover and move the sensors to the desired position using a small screwdriver or a pointed object.



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

If necessary, you can use the ruler provided with some device models for a more accurate positioning. Refer to the following figure for the correct use of the ruler.

For the positioning of the bottom mobile sensor, place the ruler on the lower flat to the end point against the fixed paper guide. For the positioning of the top mobile sensor, place the ruler to the end point against the support fin on the upper flat.

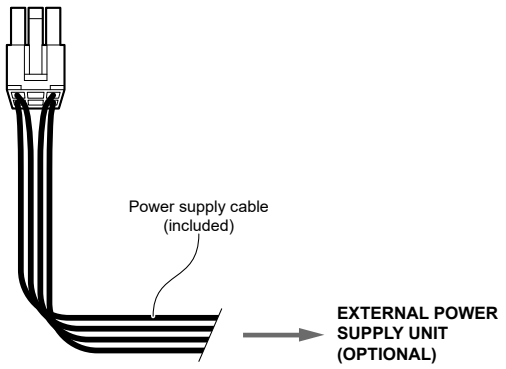


5.3 Switch the device on

For ease of reference, for some models it is represented only the printer group without triple feeder.

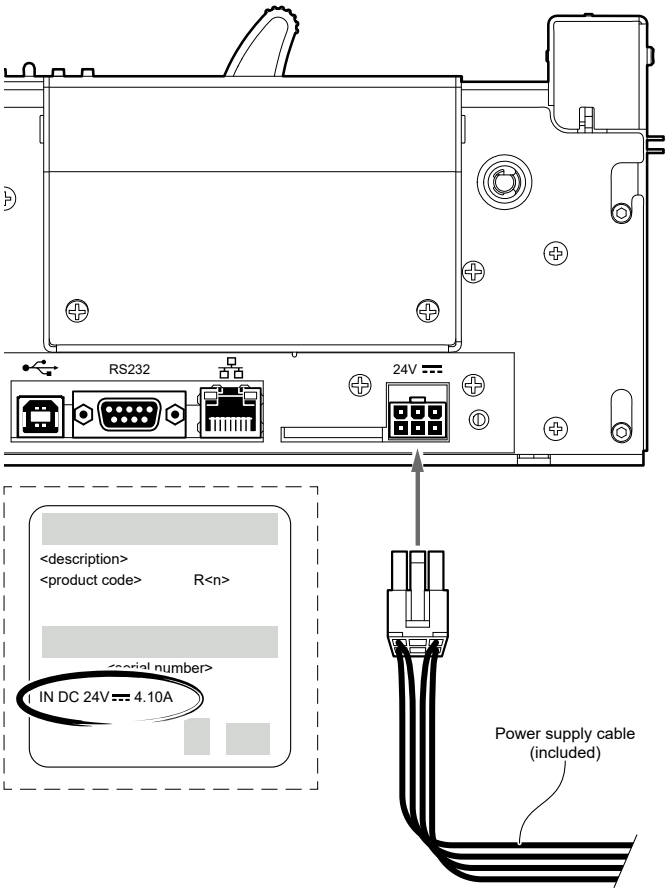
KPM302III, KPM302III TF

1



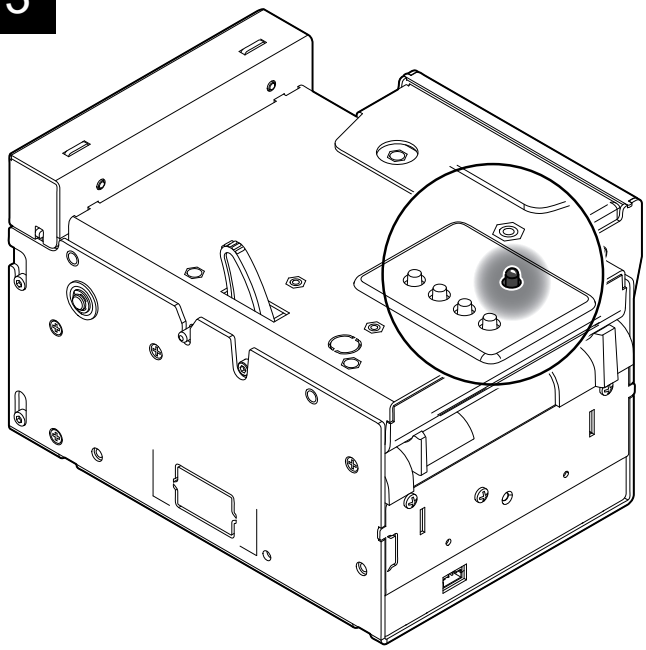
Connect the power supply cable
to an external power supply unit.

2



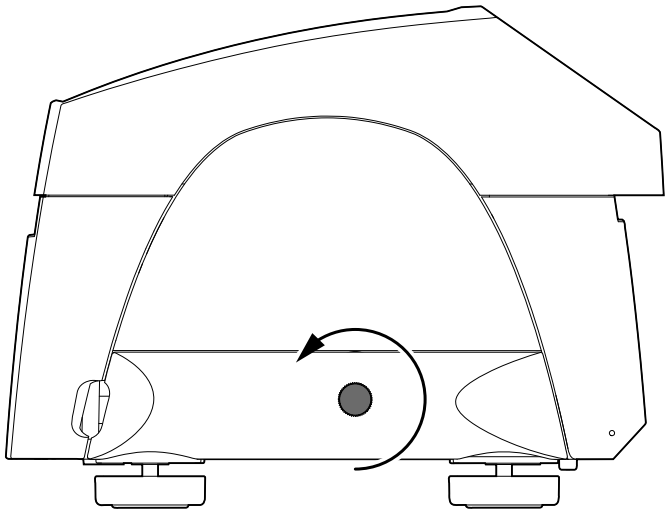
Connect the power supply cable to the device.
Use the type of electrical power supply
indicated on the label.

3



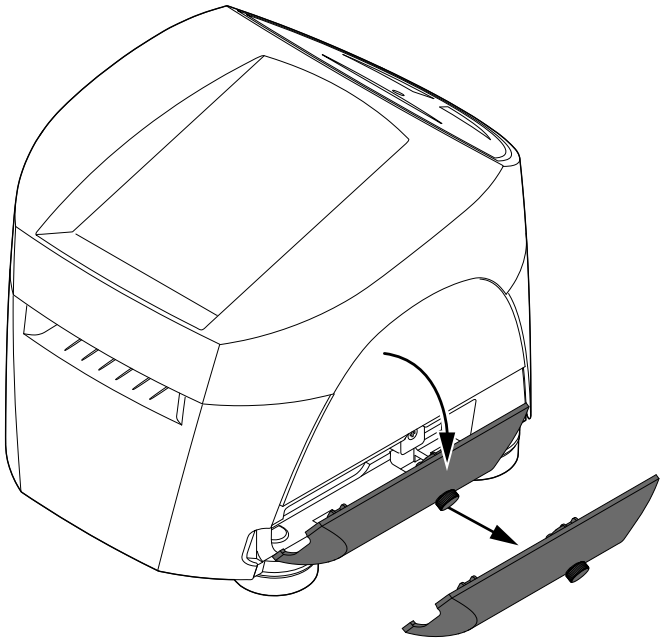
The green LED turn on
and the device is ready.

1



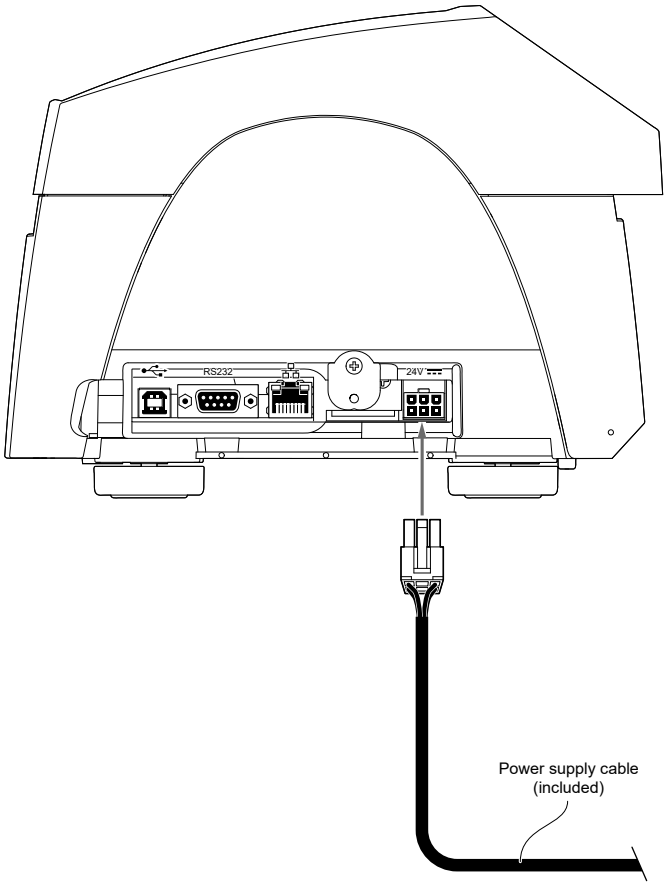
Rotate the captive knob to unlock the connectors cover.

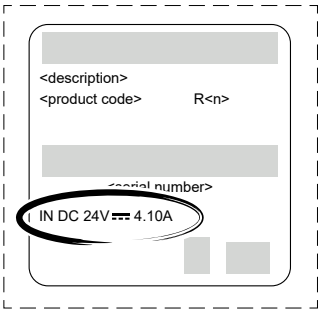
2



Remove the connectors cover.

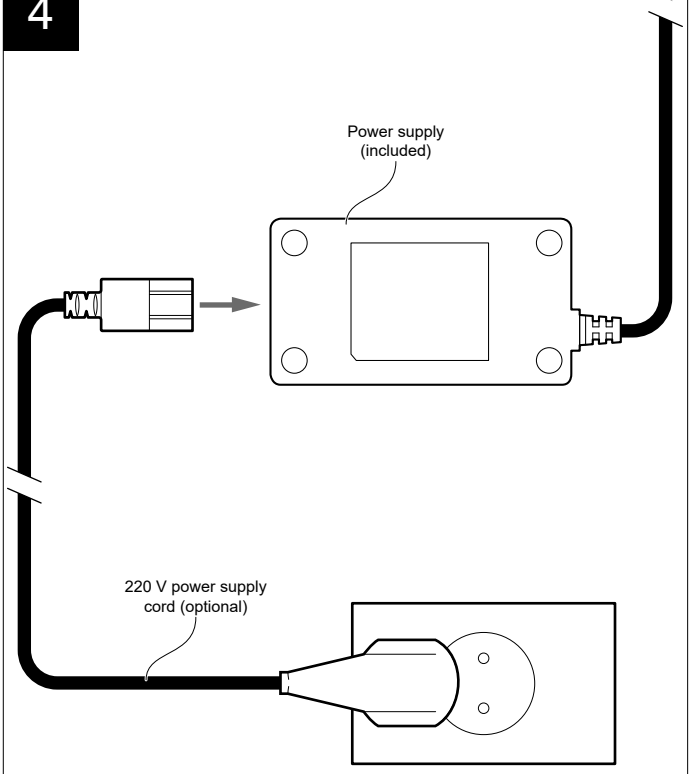
3





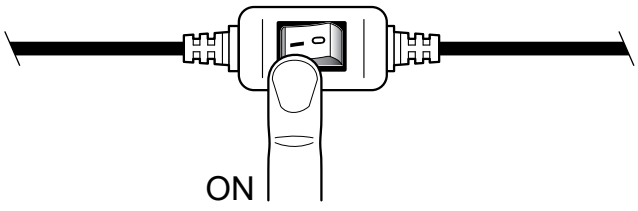
Connect the power supply cable to the device. Use the type of electrical power supply indicated on the label.

4



Connect the 220 V power supply cable
to the power supply unit and to outlet.

5



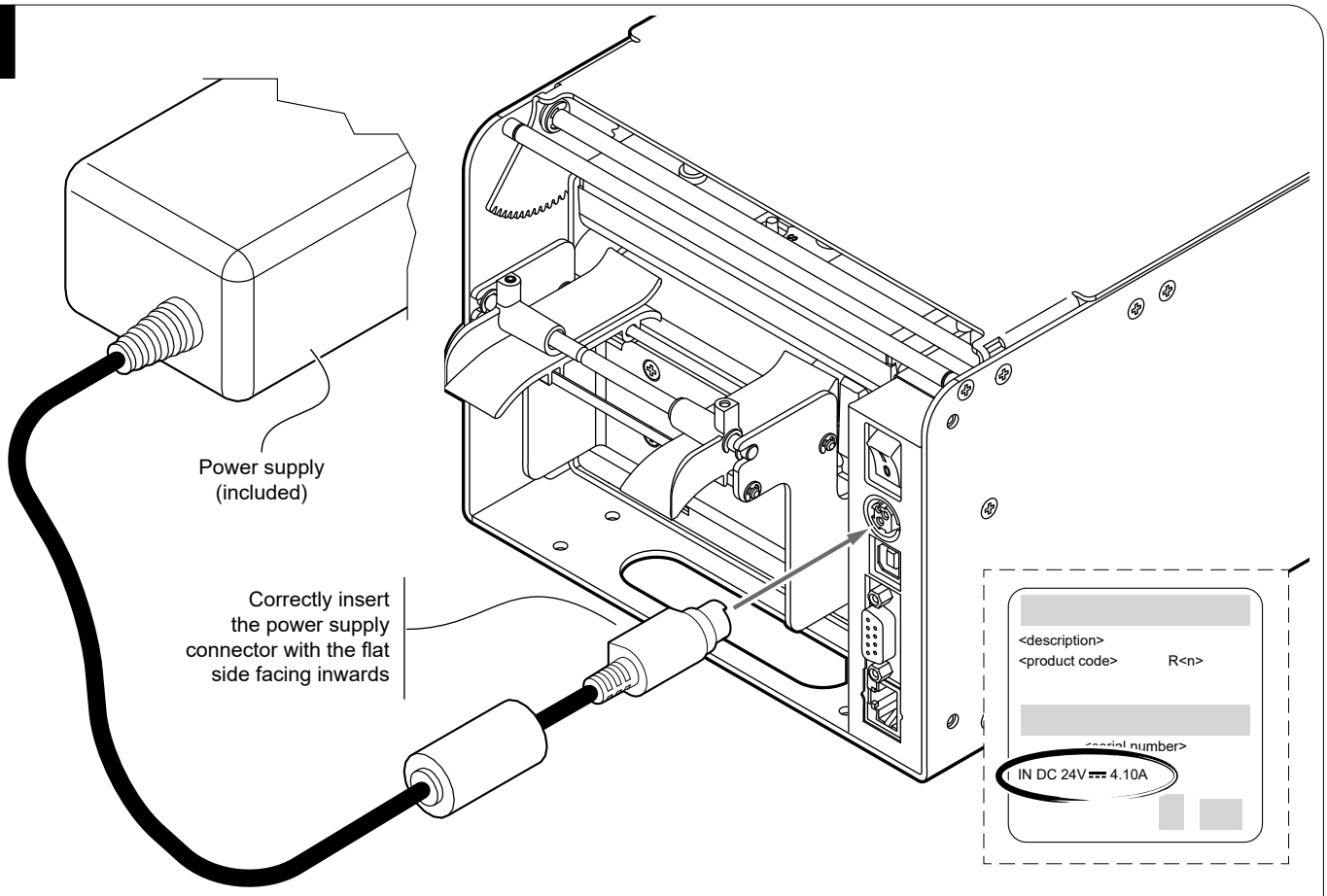
Switch the device on by pressing the ON/OFF key
on the power supply cable.

6



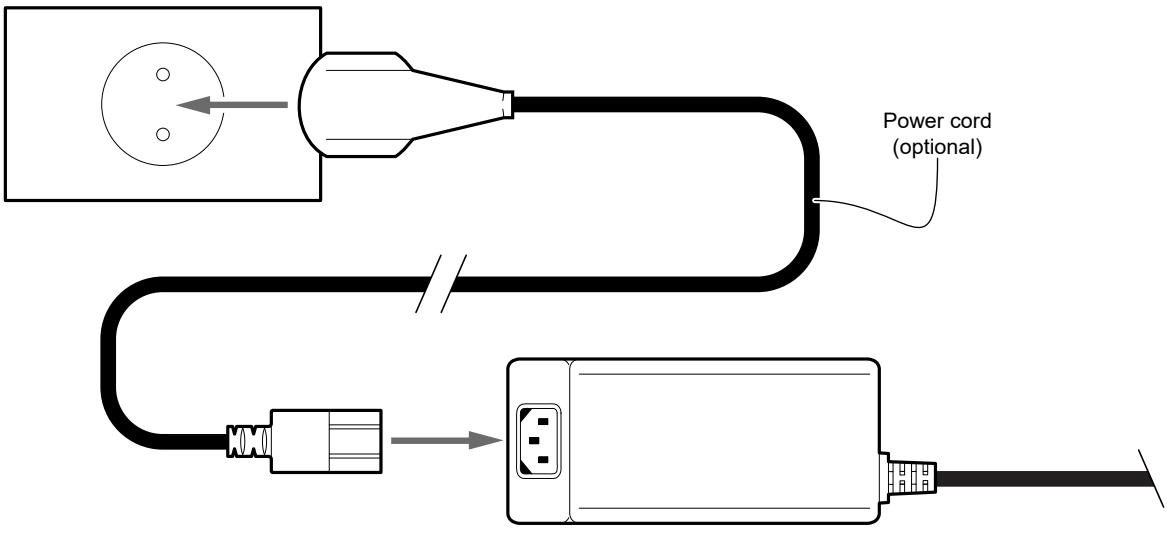
The display turns on with the standby message.
The device is ready.

1



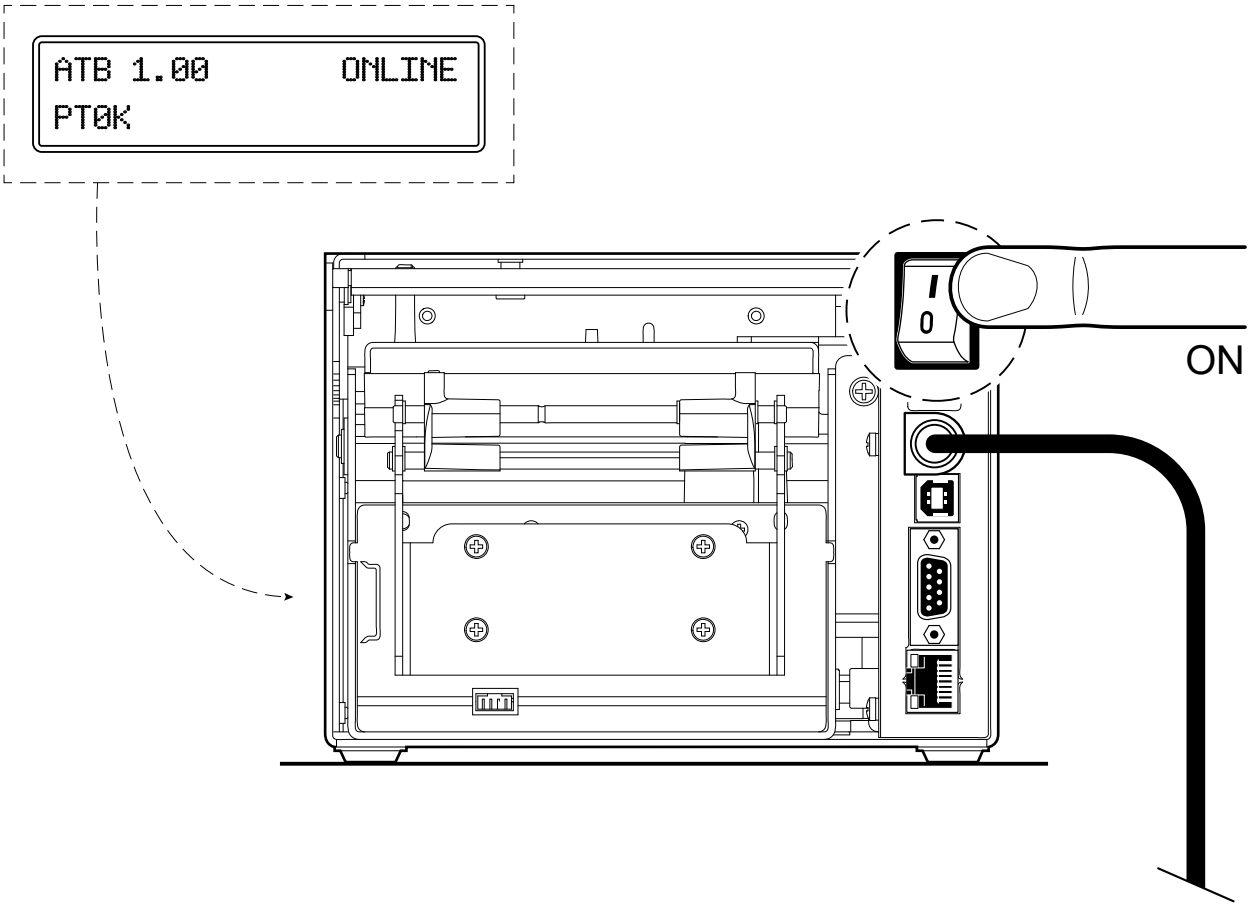
Connect the power adapter to the device.
Use the type of electrical power supply indicated on the label.

2



Connect the power cord (optional) to the
power supply and to the mains outlet.

3



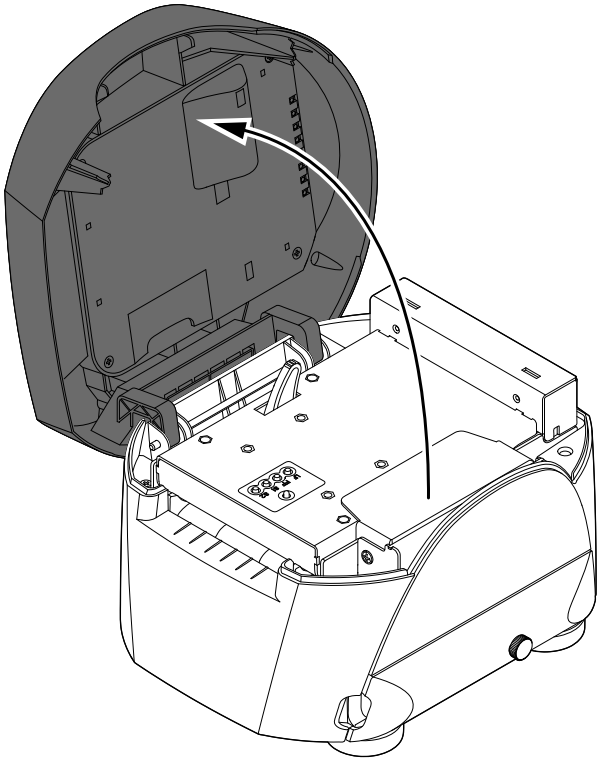
Switch device on pressing the ON/OFF key.
The display turns on and shows the message in figure.

5.4 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.

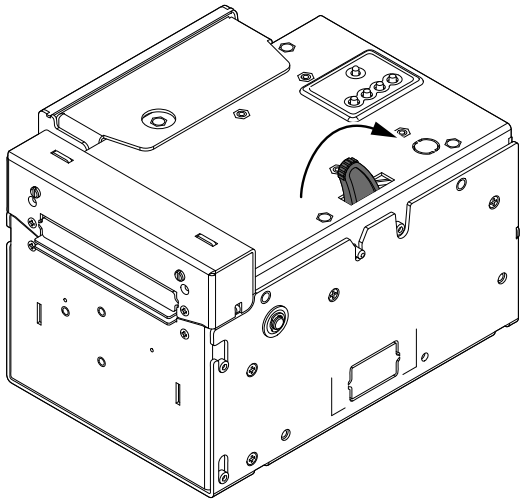
KPM302III, TK202III PLAS, TK302III PLAS, TK302III PLAS EJ-vSTK

1 **TK202III PLAS**
TK302III PLAS, TK302III PLAS EJ-vSTK



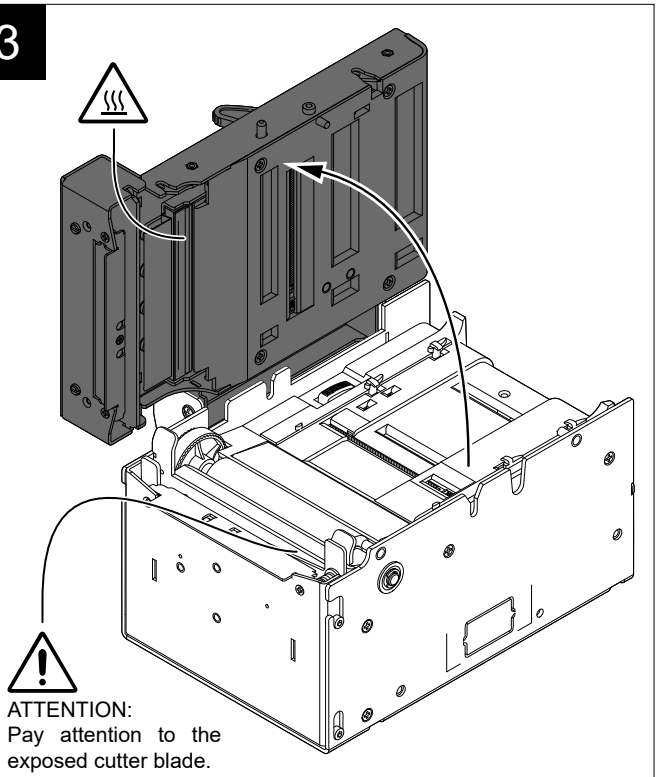
Open the
upper plastic cover.

2



Push the opening lever
in the direction shown in the figure.

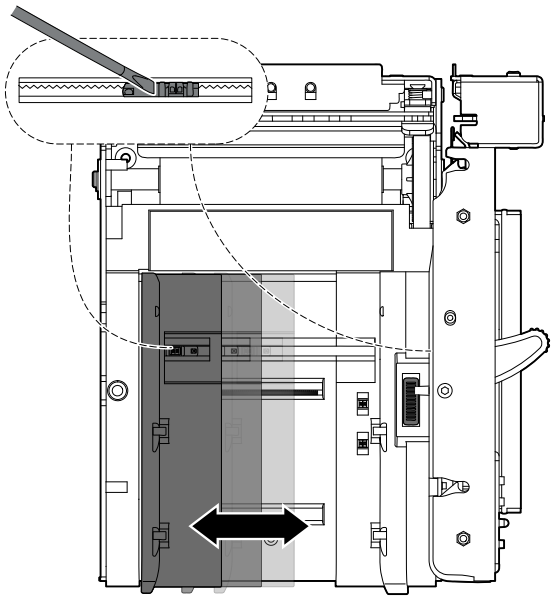
3



ATTENTION:
Pay attention to the exposed cutter blade.

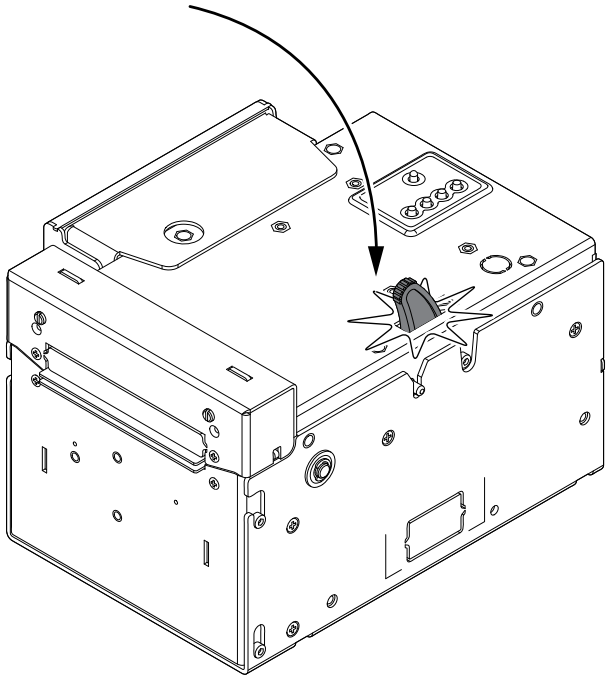
Open the upper cover
of the device.

4



Adjust the paper width and the position of
the black mark sensors
(see paragraph 5.1 and paragraph 5.2).

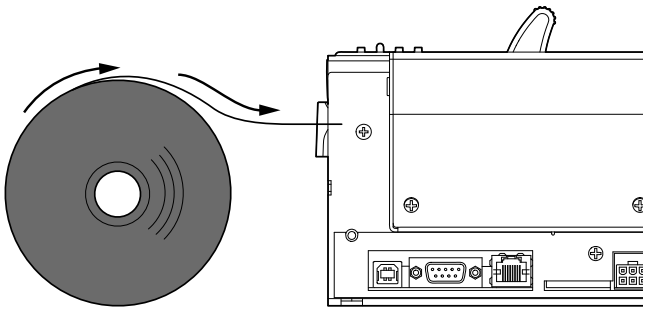
5



Close the upper cover
of the device.

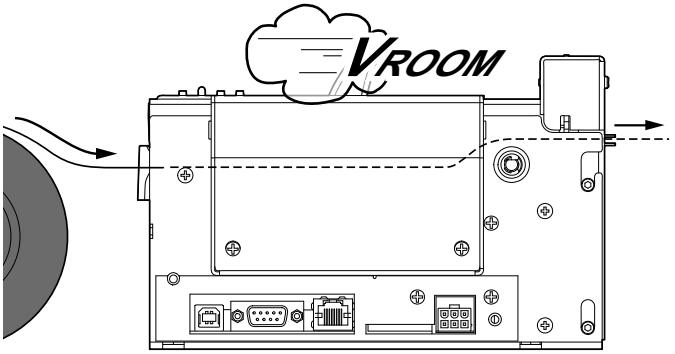
6





Insert the paper into the input mouth so that it unrolls
correctly. Be sure that the paper is
correctly positioned into paper guides.

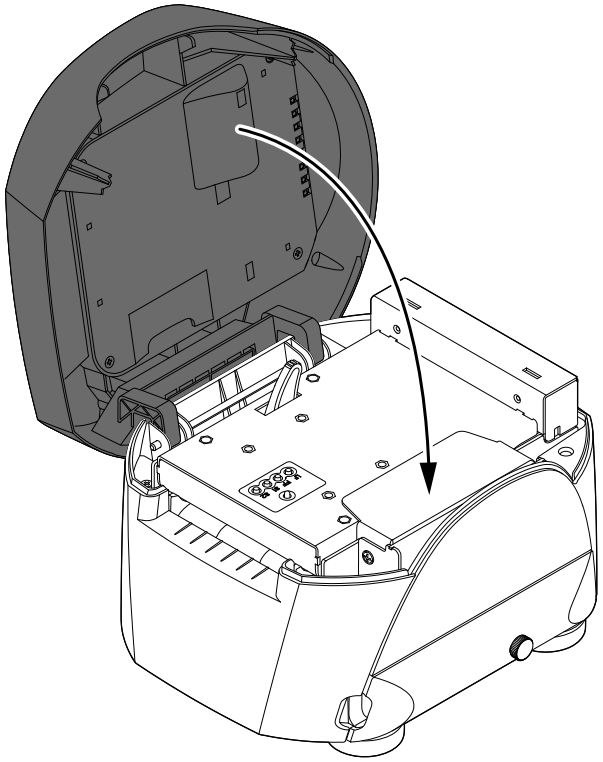
7



Wait until the paper is
automatically loaded.

8

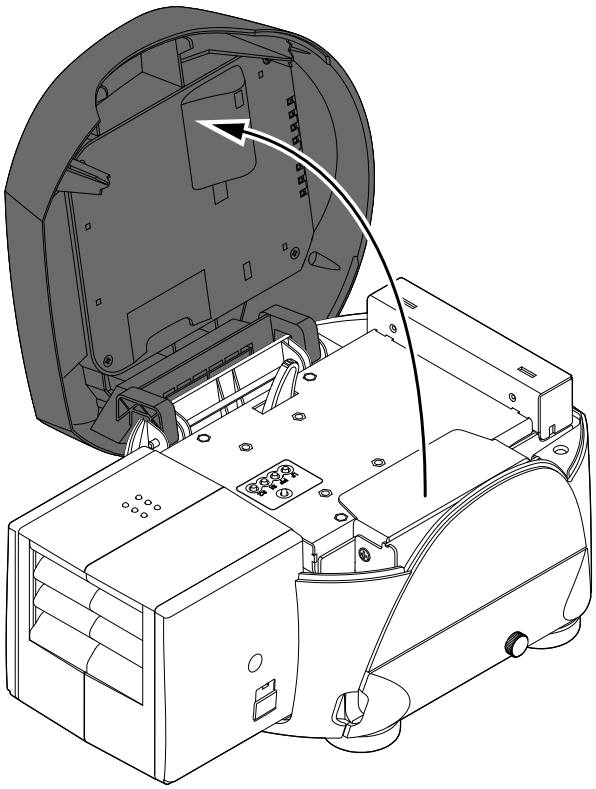
TK202III PLAS
TK302III PLAS, TK302III PLAS EJ-vSTK



Close the
upper plastic cover.

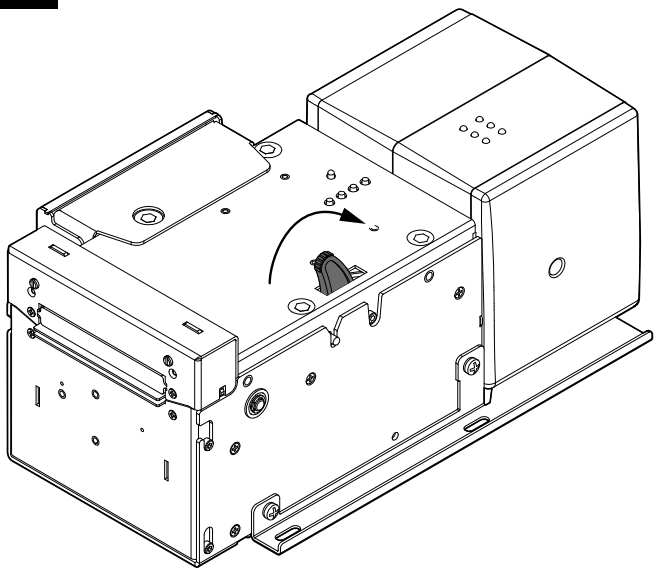
1

TK302III PLAS TF



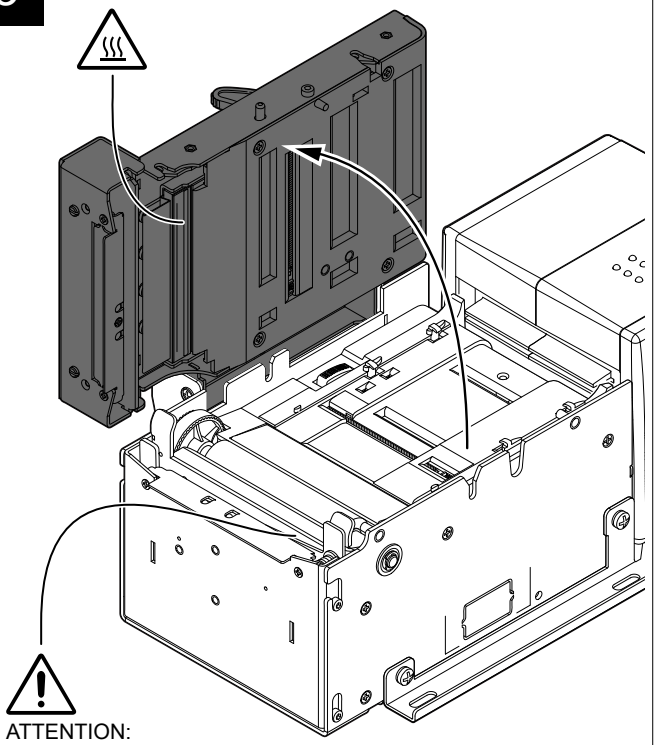
Open the
upper plastic cover.

2



Push the opening lever
in the direction shown in the figure.

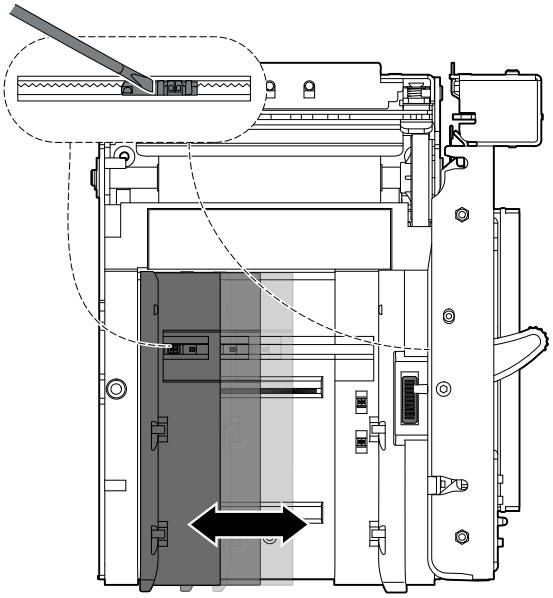
3



ATTENTION:
Pay attention to the exposed cutter blade.

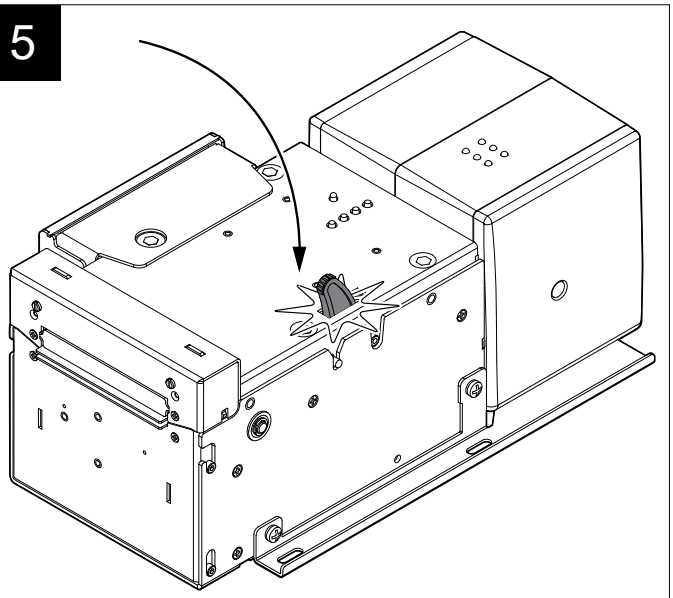
Open the upper cover
of the device.

4



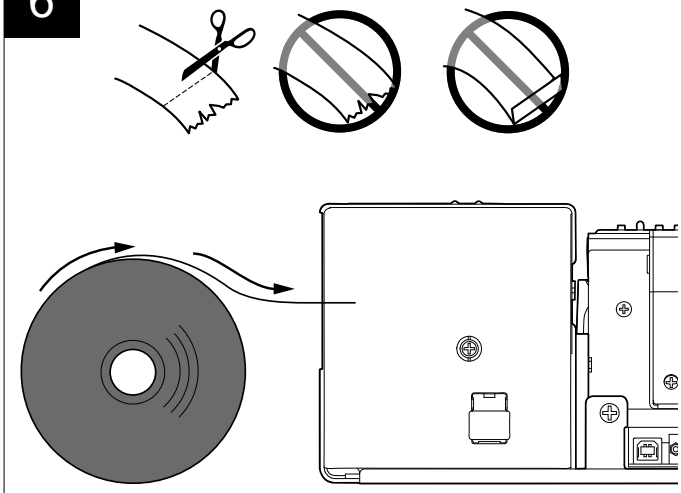
Adjust the paper width and the position of
the black mark sensors
(see paragraph 5.1 and paragraph 5.2).

5



Close the upper cover
of the device.

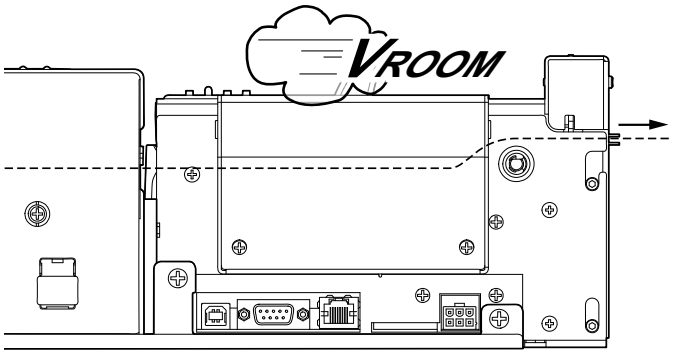
6



ATTENTION:
In case of ticket with TAG RFID, is recommended to insert the ticket into the central feeder (paper input feeder 2). The use of paper inputs 1 and 3 causes a slight bending of paper and therefore the integrity of the TAG RFID is not guaranteed. Before proceeding, check with a sample ticket.

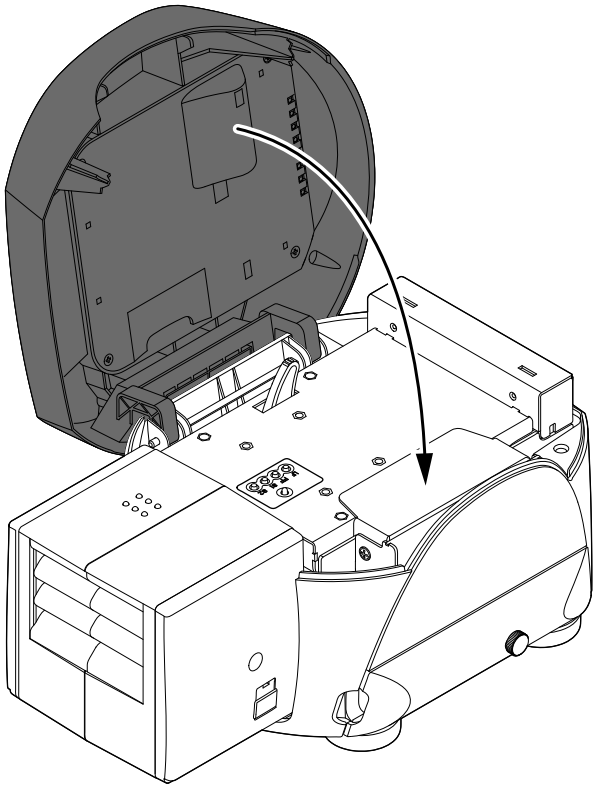
Insert the paper into on of the input feeder so that it unrolls correctly. Be sure that the paper is correctly positioned into paper guides.

7



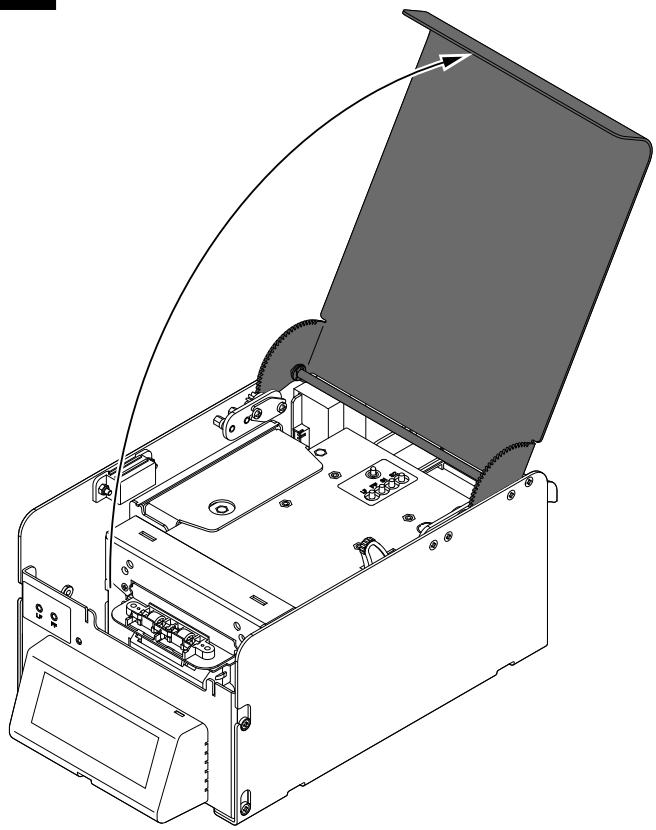
Wait until the paper is
automatically loaded.

8 **TK302III PLAS TF**



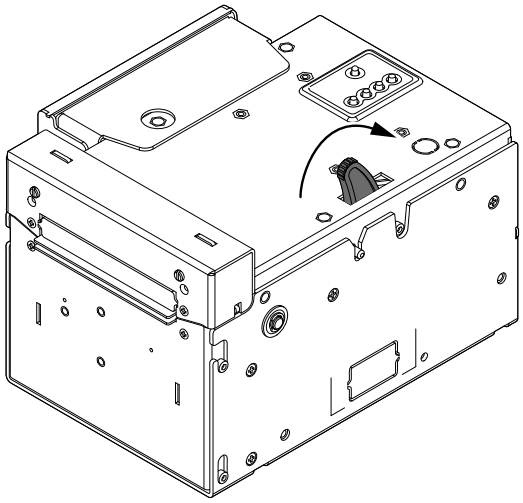
Close the
upper plastic cover.

1



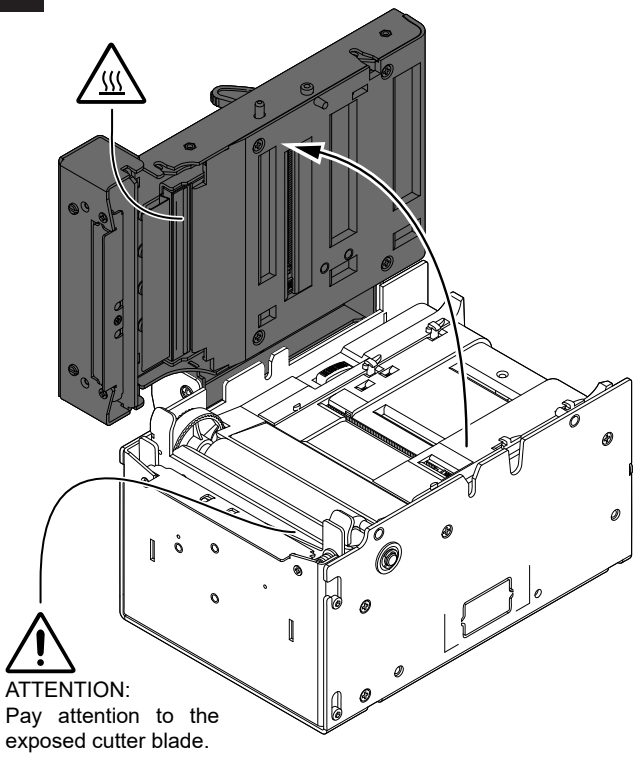
Open the
upper metal cover.

2



Push the opening lever
in the direction shown in the figure.

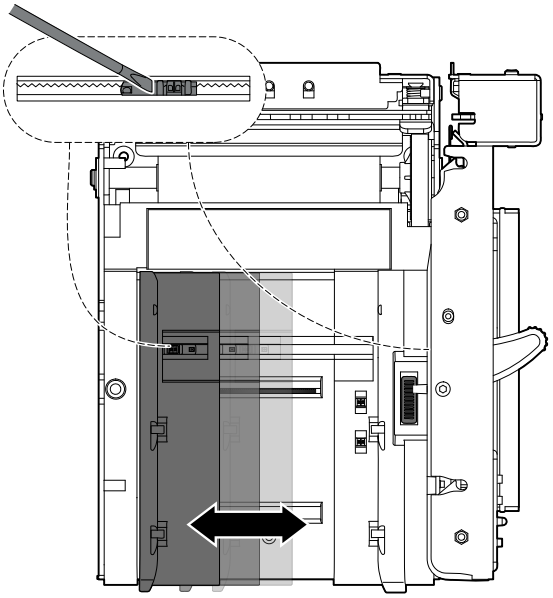
3



ATTENTION:
Pay attention to the exposed cutter blade.

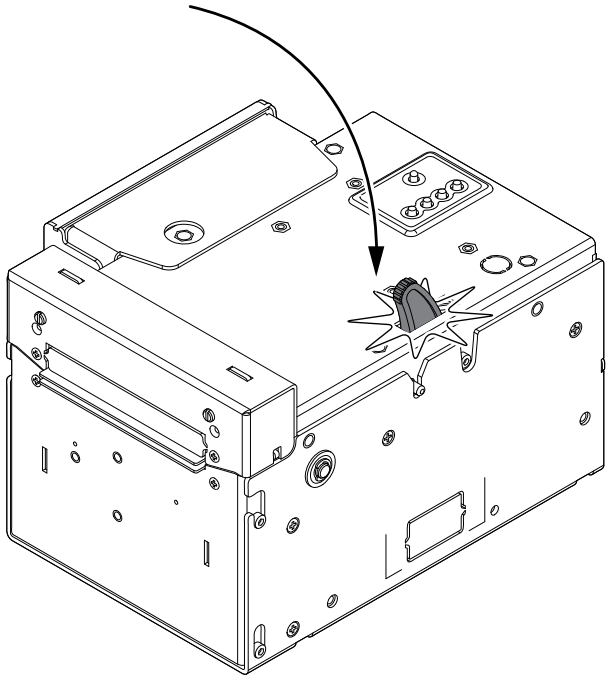
Open the upper cover
of the device.

4



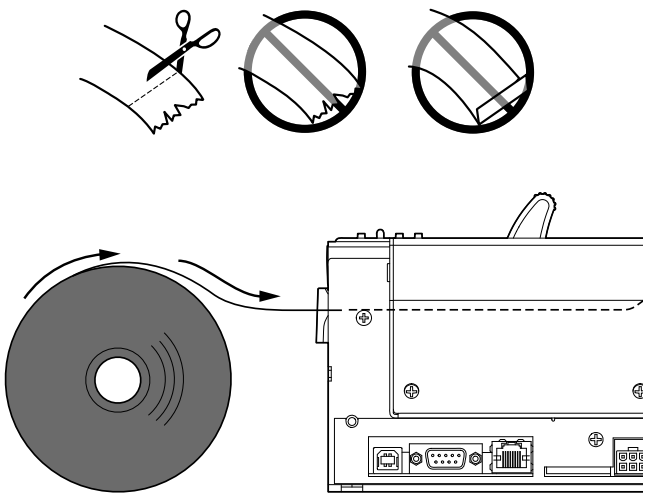
Adjust the paper width and the position of
the black mark sensors
(see paragraph 5.1 and paragraph 5.2).

5



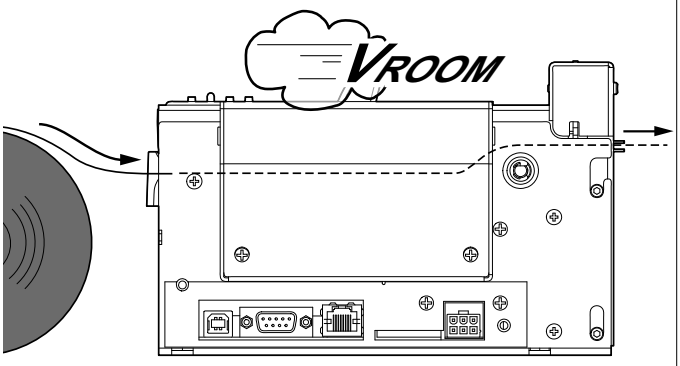
Close the upper cover
of the device.

6



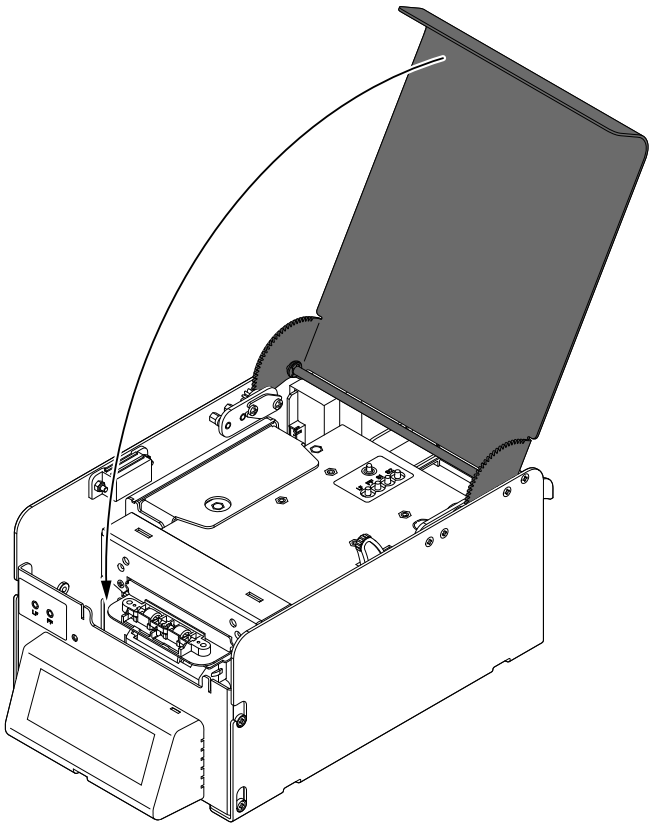
Insert the paper into the input mouth so that it unrolls
correctly. Be sure that the paper is
correctly positioned into paper guides.

7



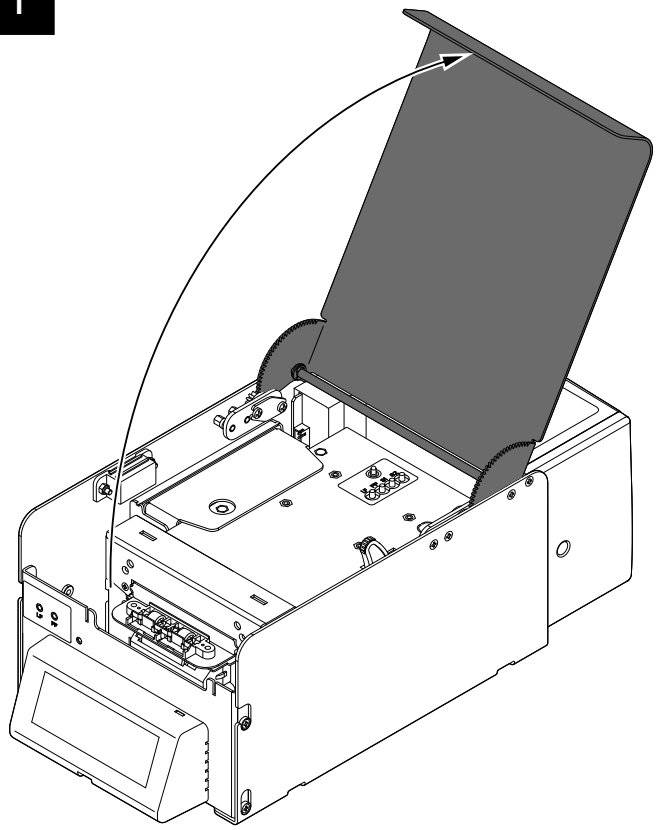
Wait until the paper is
automatically loaded.

8



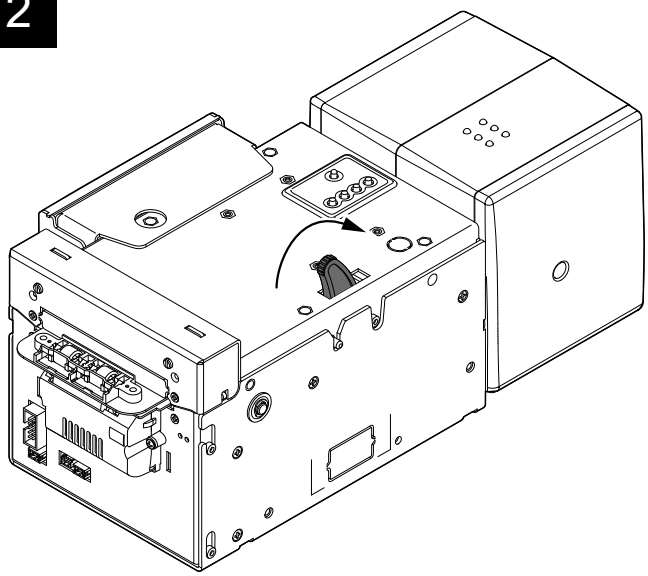
Close the
upper metal cover.

1



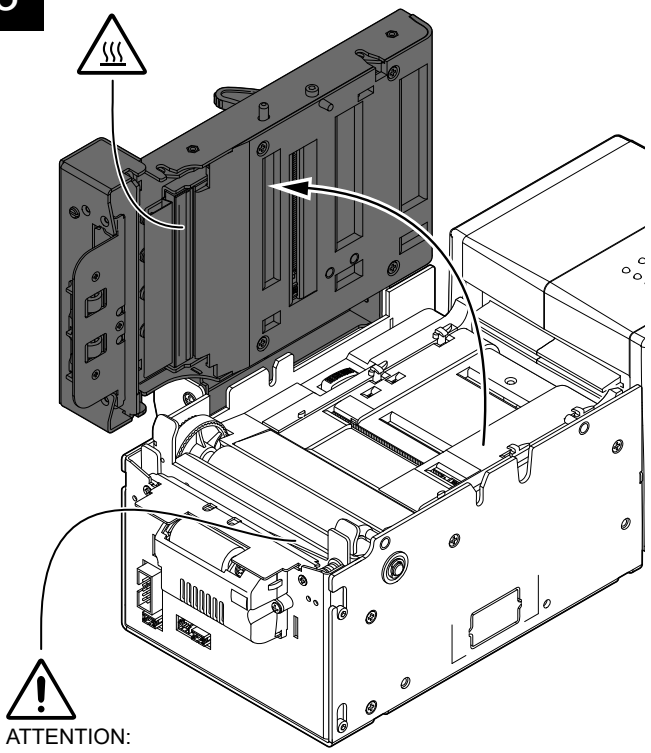
Open the
upper metal cover.

2



Push the opening lever
in the direction shown in the figure.

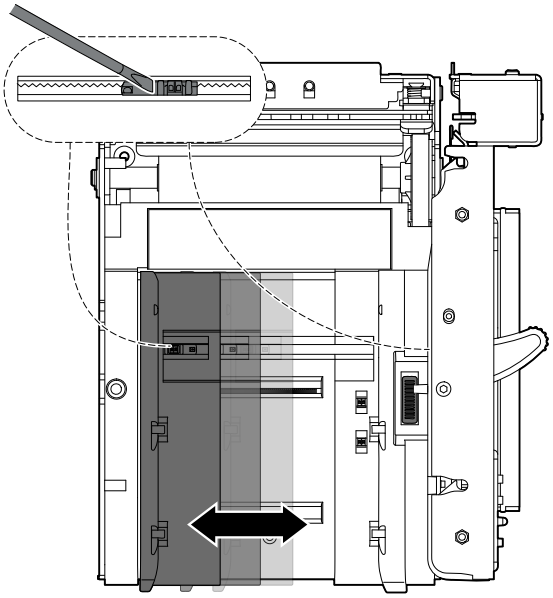
3



ATTENTION:
Pay attention to the exposed cutter blade.

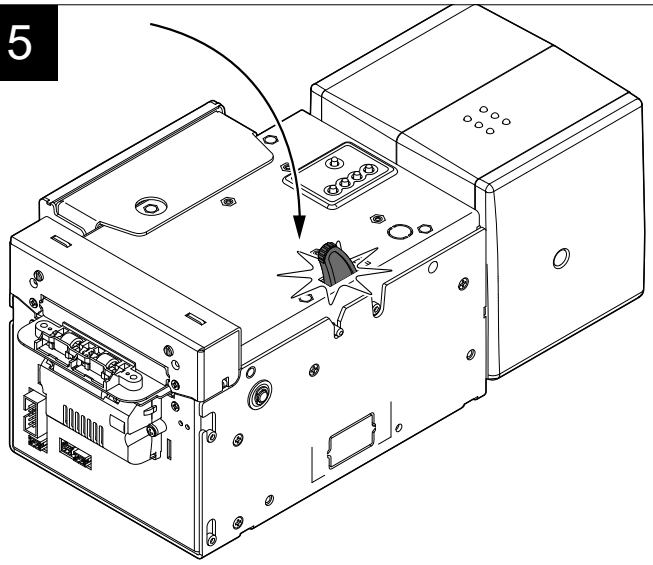
Open the upper cover
of the device.

4



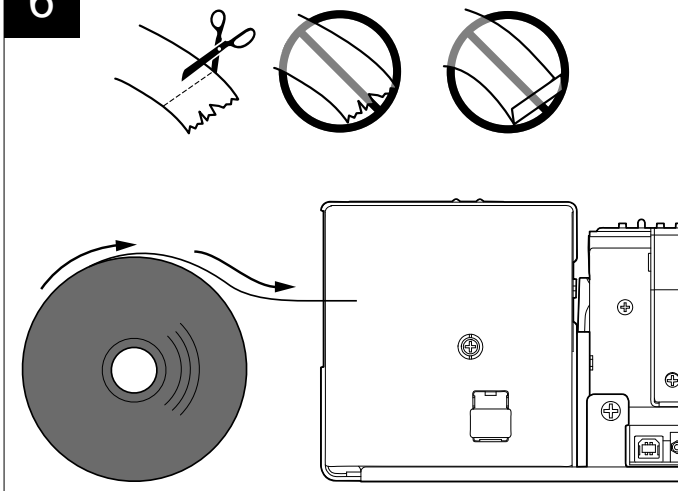
Adjust the paper width and the position of
the black mark sensors
(see paragraph 5.1 and paragraph 5.2).

5



Close the upper cover
of the device.

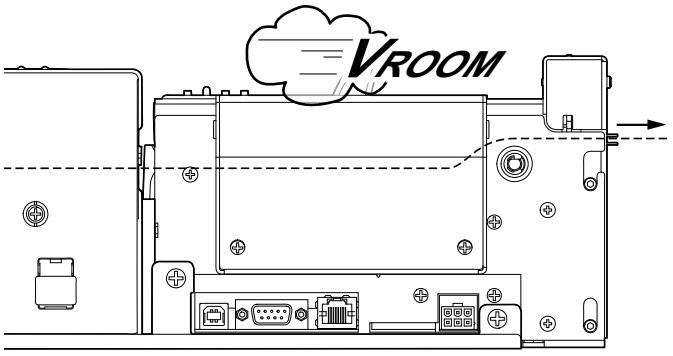
6



ATTENTION:
In case of ticket with TAG RFID, is recommended to insert the ticket into the central feeder (paper input feeder 2). The use of paper inputs 1 and 3 causes a slight bending of paper and therefore the integrity of the TAG RFID is not guaranteed. Before proceeding, check with a sample ticket.

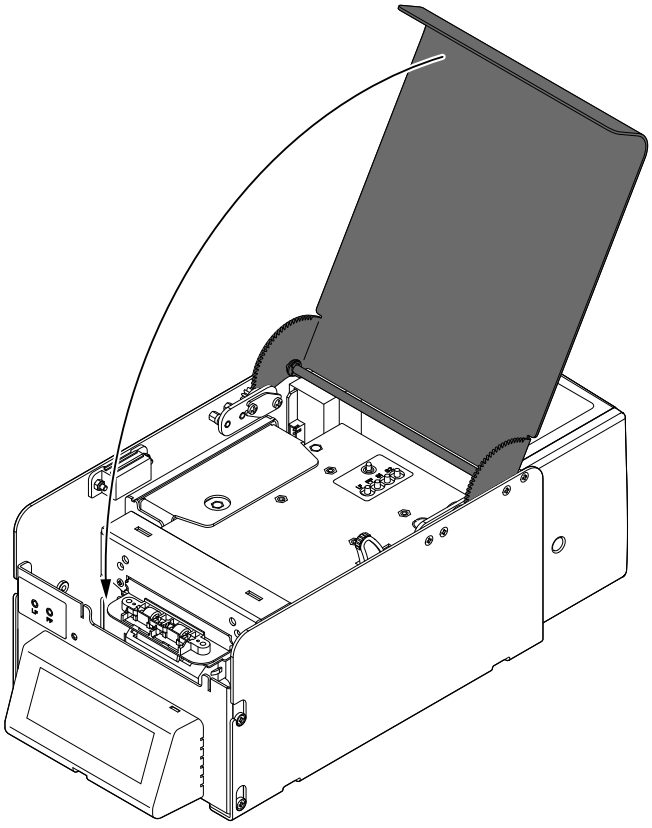
Insert the paper into on of the input feeder so that it unrolls correctly. Be sure that the paper is correctly positioned into paper guides.

7



Wait until the paper is
automatically loaded.

8



Close the
upper metal cover.

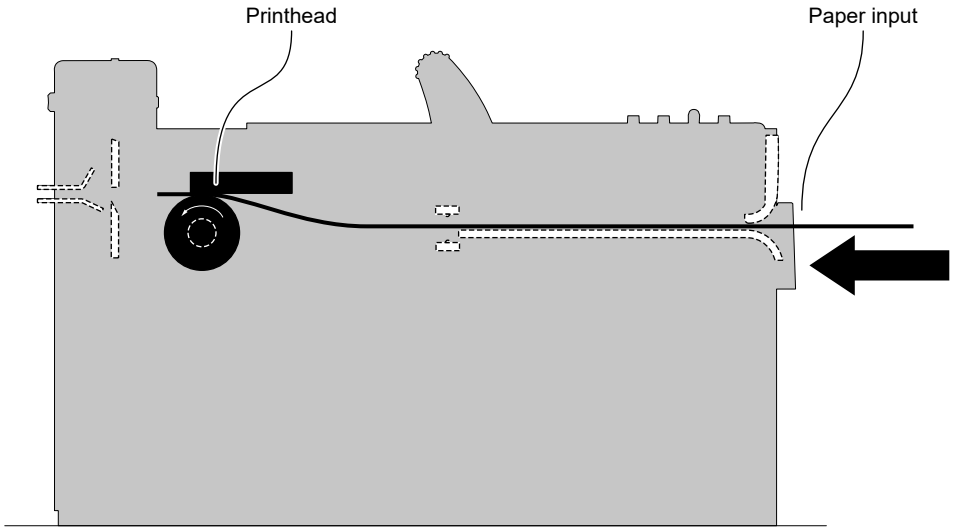
NOTE:
For ease of reference, in some figure is represented only the internal printer without external chassis.

5.5 Issuing ticket

The device allows you to choose between different operating modes for the issuance of printed tickets.
The operating modes shown in following images, depend on the settings of configuration parameters and commands sent to the device.
For ease of reference, for some models it is represented only the internal printer group without external chassis or triple feeder.

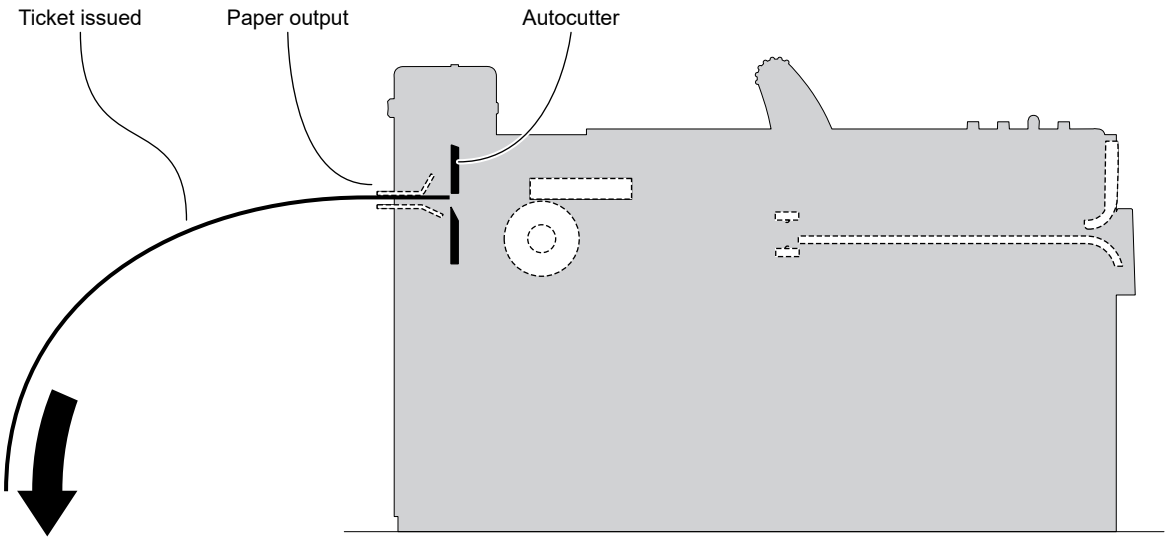
Standard mode
(KPM302III, KPM302III TF
TK302III PLAS, TK302III PLAS TF, TK302III PLAS EJ-vSTK
TK302III MET EJ, TK302III MET TF-EJ)

1



The device starts the ticket printing.

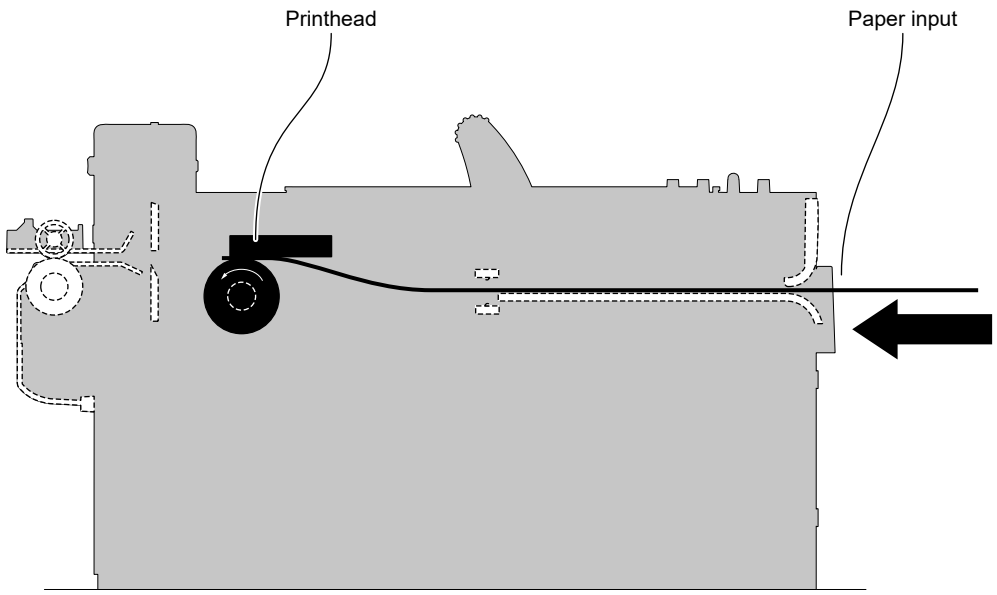
2



When printing ends, the device cuts the ticket printed that is issued from the paper output.

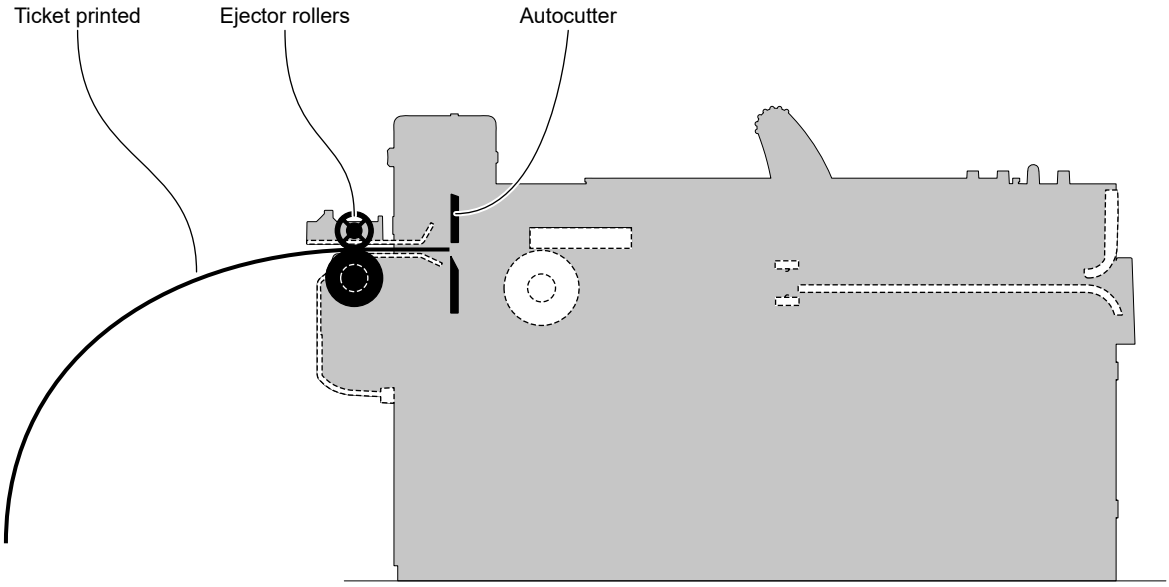
“Cut&Hold” mode (models with ejector device)

1



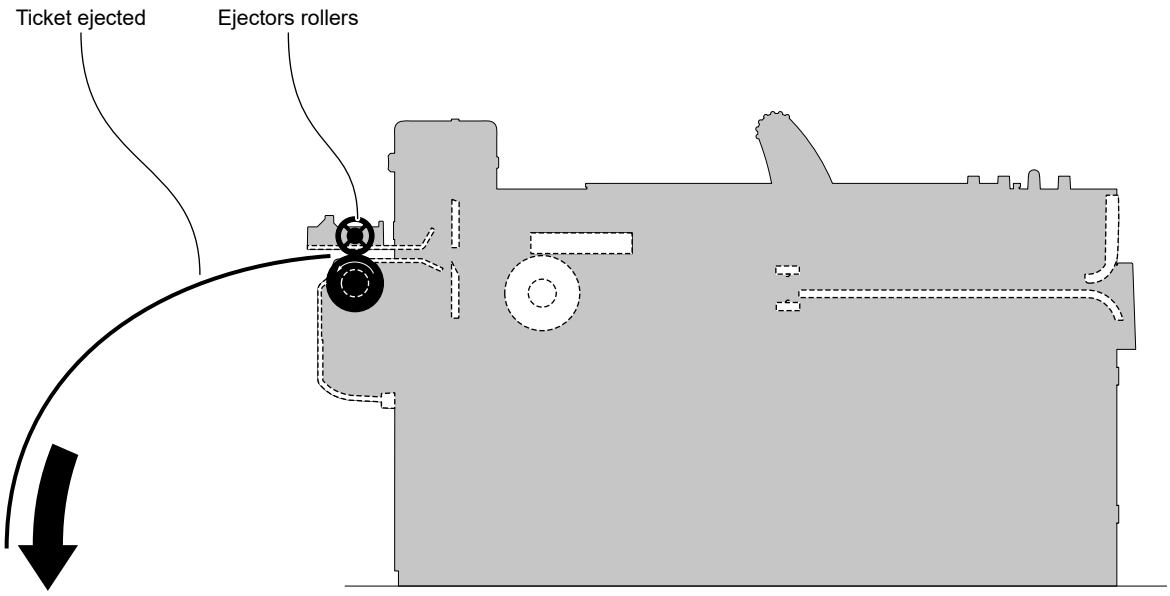
The device starts the ticket printing.

2



When printing ends, the device cuts the ticket printed
and hold it between the ejector rollers.

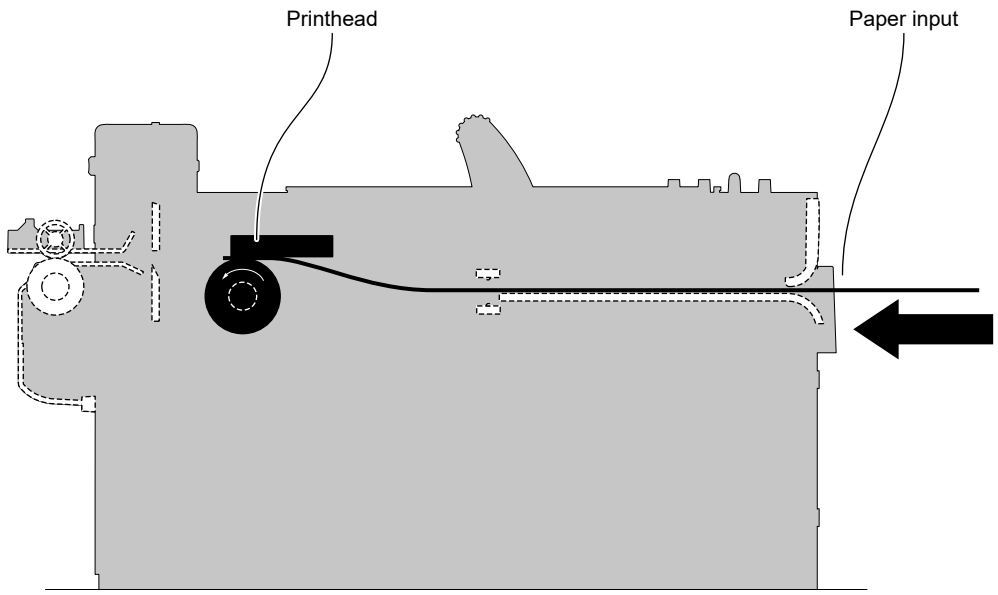
3



The device ejects the ticket printed.

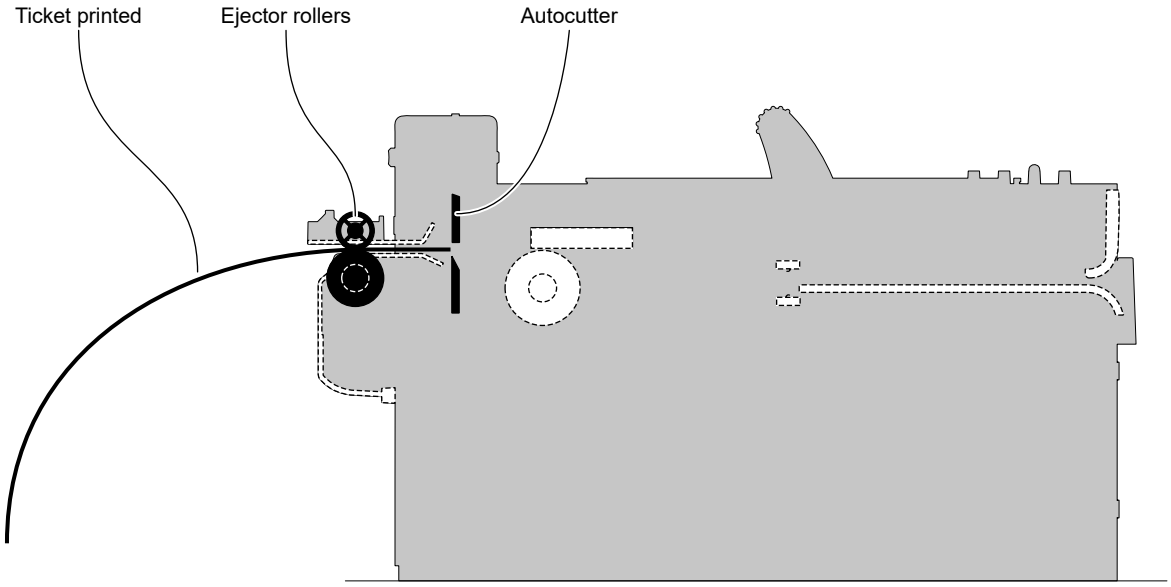
"EJECT" mode (models with ejector device)

1



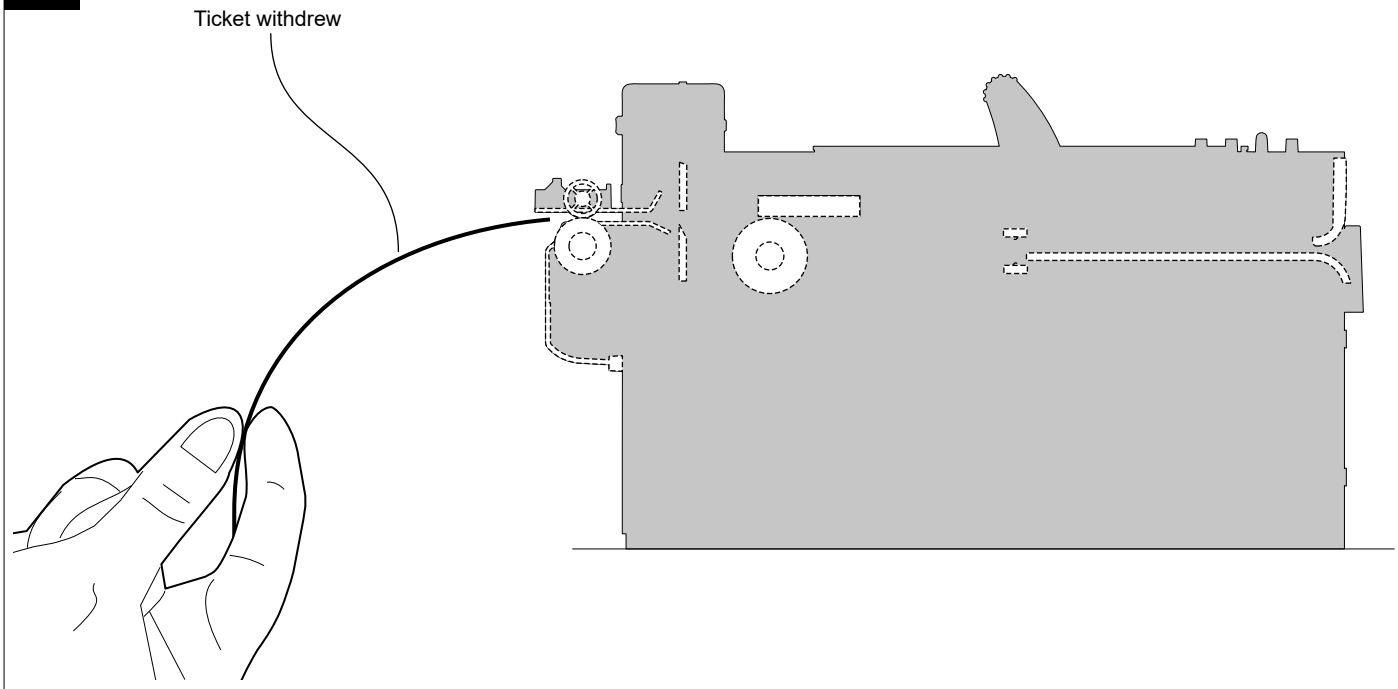
The device starts the ticket printing.

2



When printing ends, the device cuts the ticket printed
and hold it between the ejector rollers.

3



The user withdraws the ticket printed.

NOTE: The ejector device is provided as an accessory (see chapter 10).

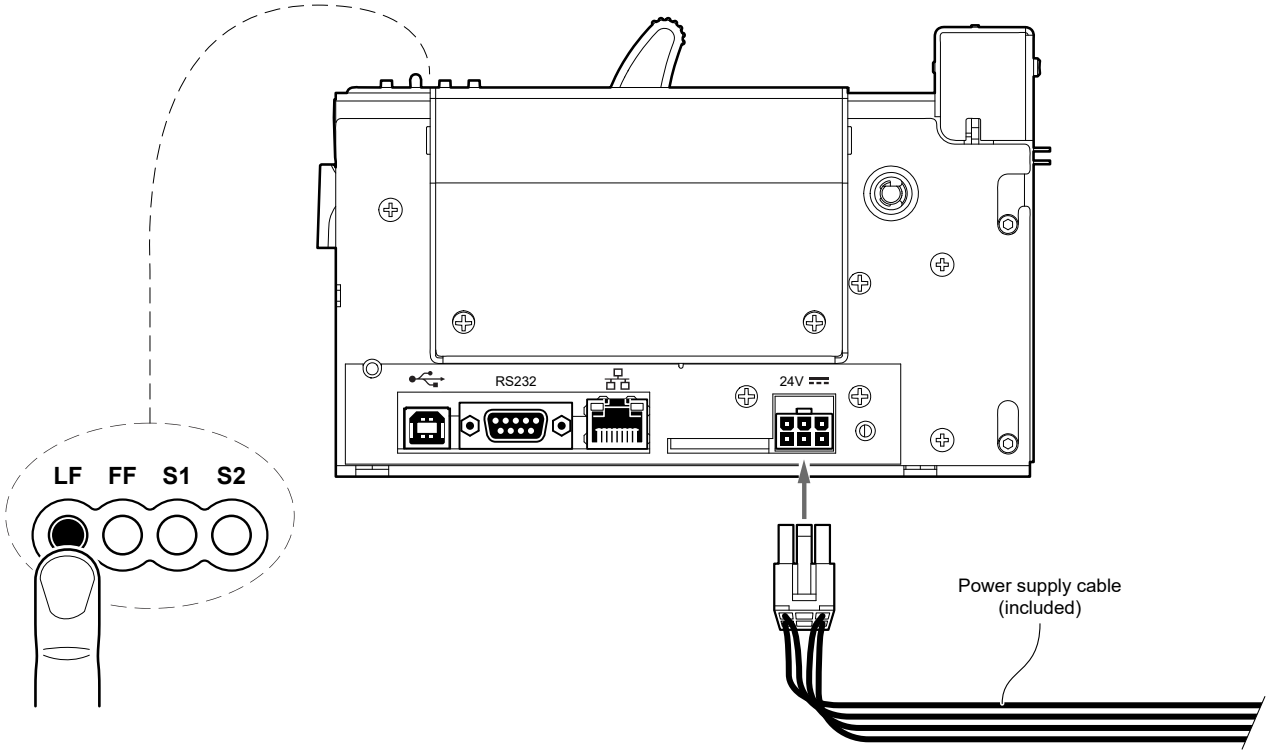
6 CONFIGURATION

6.1 Configuration by keys

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

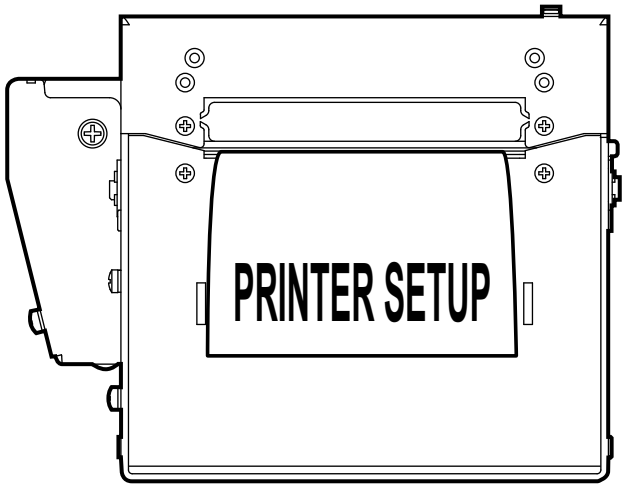
KPM302III, KPM302III TF

1



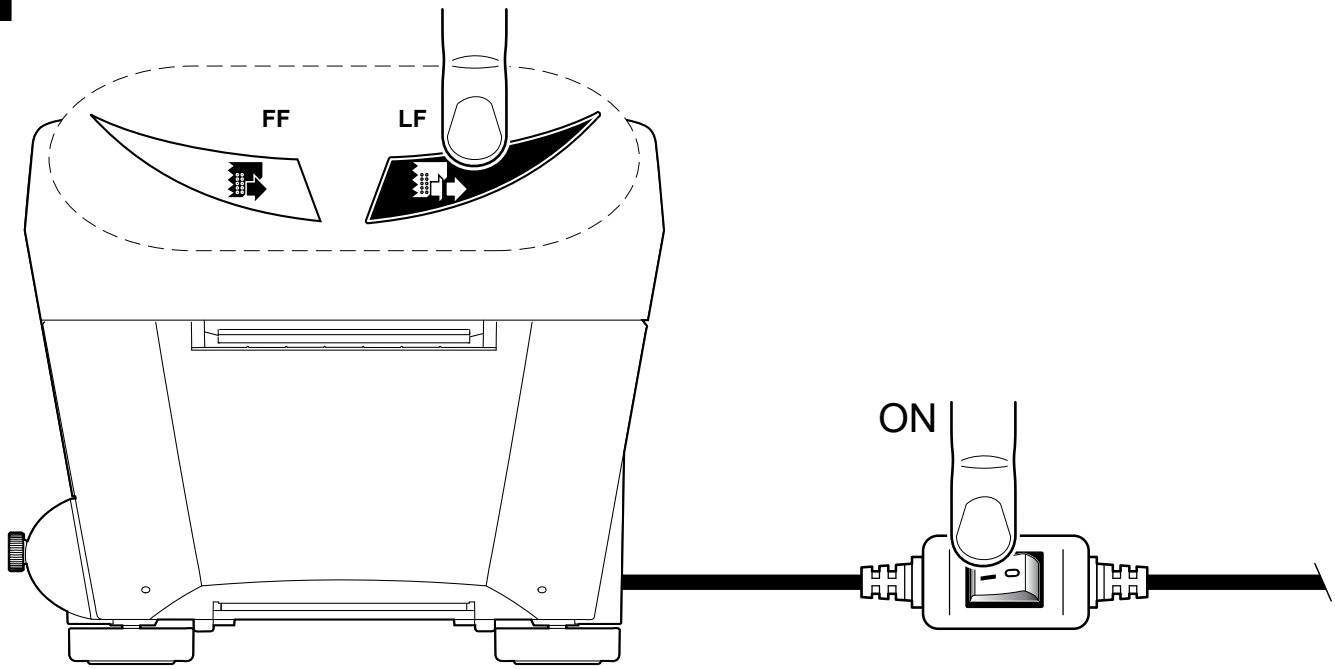
While pressing the LF key, switch on the device
by connecting the power supply cable.

2



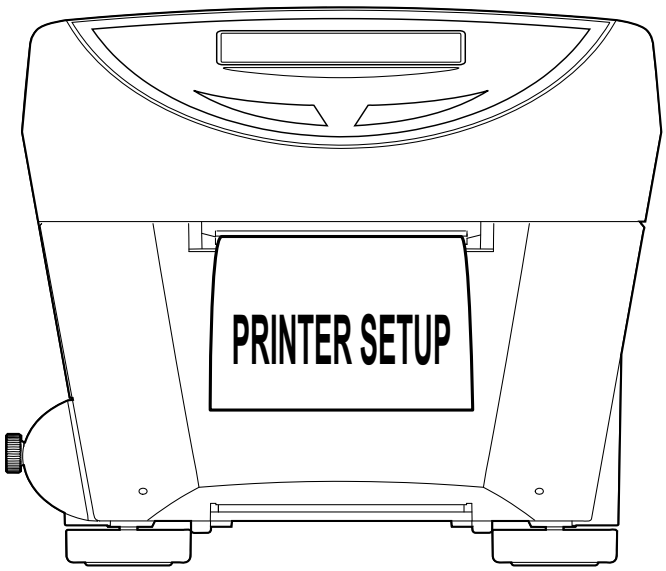
The device prints the report with the settings parameters. Follow the instruction printed on the paper
or shown on display to proceed with configuration procedure.

1



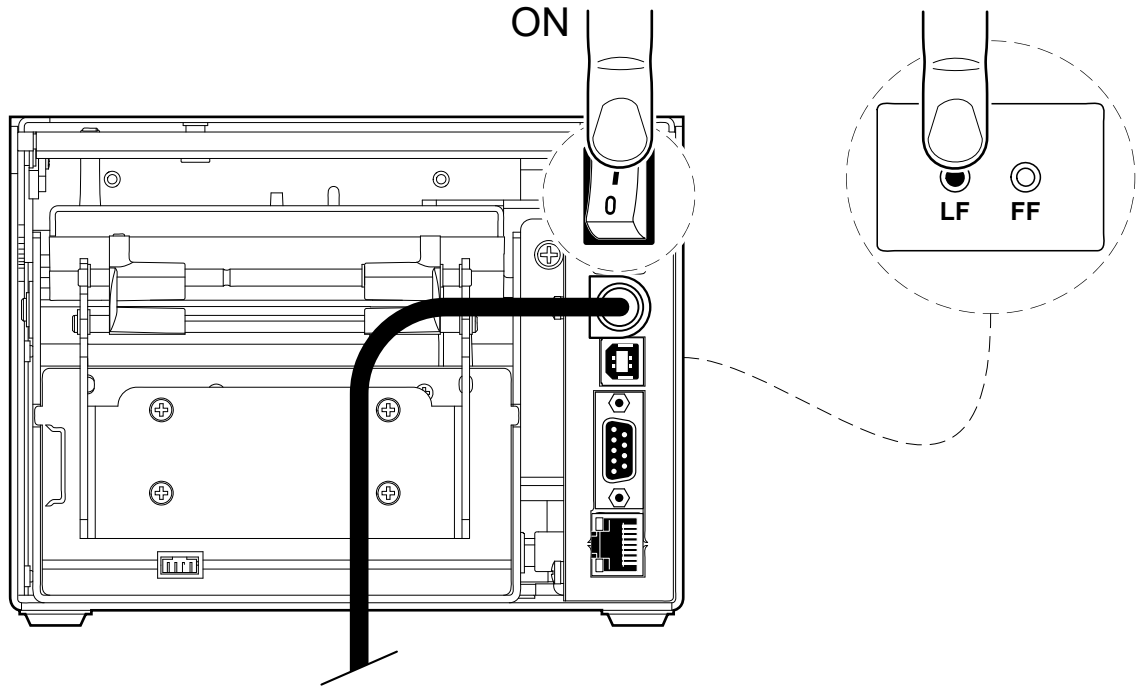
While pressing the LF key, switch on the device
by pressing the ON/OFF key on the power supply cable.

2



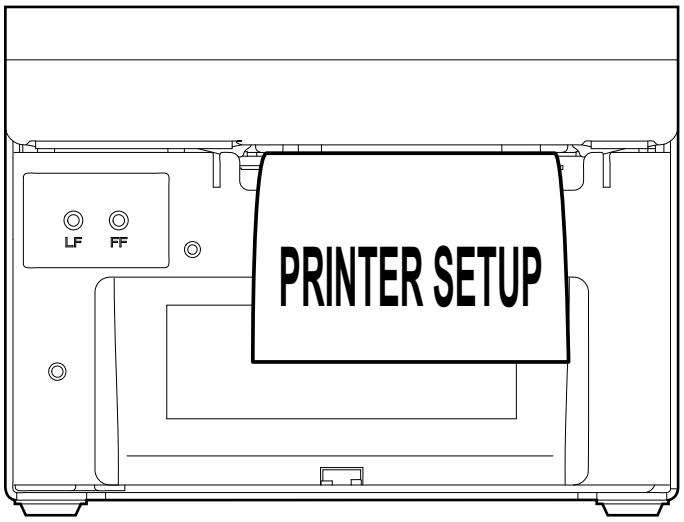
The device prints the report with the settings parameters. Follow the instruction printed on the paper
or shown on display to proceed with configuration procedure.

1



While pressing the LF key,
switch on the device by pressing the ON/OFF.

2



The device prints the report with the settings parameters. Follow the instruction printed on the paper or shown on display to proceed with configuration procedure.

The following figures show the setup reports of the device. The shown values for parameters are sample values; for the list and the description of device parameters see the following paragraphs.

PRINTER NAME and FIRMWARE MODULES RELEASE

PRINTER STATUS

PRINTER PARAMETERS

KEYS FUNCTIONS

<device name>

SCODE: <code> - rel 1.00
FCODE: <code> - rel 1.00

S/N: <serial number>

PRINTER SETTINGS

PRINTER TYPE			<device model>
RFID module			Not Present
Barcode Reader			Not Present
PRINTHEAD TYPE			<head model>
INTERFACE			RS232
PROGRAM MEMORY TEST			OK
DYNAMIC RAM TEST			OK
CUTTER TEST			OK
HEAD VOLTAGE	[V]	=	24.29
HEAD TEMPERATURE	[°C]	=	30
POWER ON COUNTER		=	3
PAPER PRINTED	[cm]	=	10
CUT COUNTER		=	5507
DATE - TIME		=	<date-time>

Printer Emulation	**SERVICE**
RS232 Baud Rate	**115200 bps**
RS232 Data Length	**8 bits/chr**
RS232 Parity	**None**
USB Class	**Printer**
USB Address Number	**0**
Print Mode	**Normal**
ATB Print Quality	**High Quality**
Paper Threshold	**60%**
Black mark position	**Transparent**
Black mark threshold	**30%**
Black mark distance [mm]	**0.0**
Black mark Min.Width	**0**
Alignment type	**Autocentering**
Barcode ID 4	**DataMatrix**
Vertical Scale [%]	**+00.0**
Presenter Offset [mm]	**+00**
Recovery Mode	**Auto Check**
ATB RePrint after ERRS	**Disabled**
ATB ticket length	**Auto**
ERRS StockType Unknown	**Enabled**
RFID Module Baud Rate	**115200 bps**
RFID Encoding	**AEA Standard**
RFID Region	**Europe**
RFID MIN Power	**0%**
RFID MAX Power	**100%**
Low Paper	**Disabled**
Ejecter Type	**Disabled**
Ejector Speed	**100%**
Busy Paper End	**Disabled**
AEA Prot. ACK TOut[ms]	**250**
Virtual COM Link Down	**Port Status**

[LF] enter Printer Setup
[FF] enter Ethernet Setup
[S1] enter Clock Setup
[S2] skip Setup

KEYS FUNCTIONS

[LF] enter Printer Setup
[FF] enter Ethernet Setup
[S1] enter Clock Setup
[S2] skip Setup

ETHERNET PARAMETERS

NETWORK PRINTER NAME = <printer name>

DHCP Client ..... : **Disabled**

IP Address ..... : **192.168. 0. 1**
Subnet Mask ..... : **255.255.255. 0**
Default Gateway..... : **192.168. 0. 5**
Primary DNS Server..... : **0. 0. 0. 0**
Secondary DNS Server..... : **0. 0. 0. 0**
TCP Printer Port ..... : **9100**

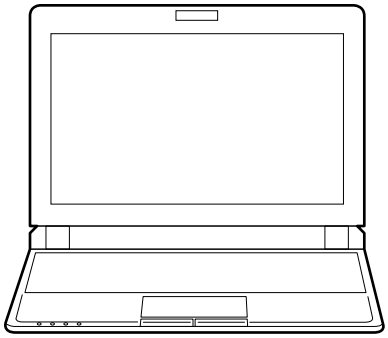
MAC Address ..... : **00:0E:E2:00:00:00**

For advanced printer setup please connect to the site
http://192.168.0.1

6.2 Configuration by software

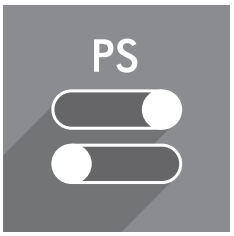
The configuration parameters can be set by the "PrinterSet" software tool available on www.custom4u.it. For a detailed description of operating parameters for the device, see the following paragraphs.
To set the device by software, proceed as follows.

1



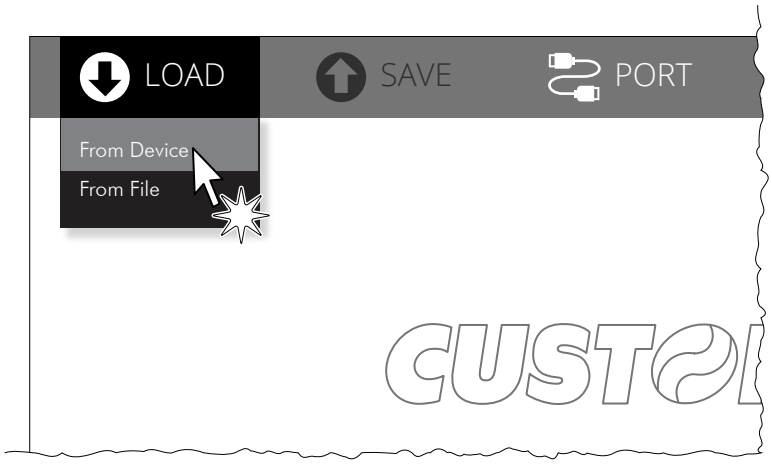
Connect the device to a PC directly (see paragraph 4.6), without using HUB devices.

2



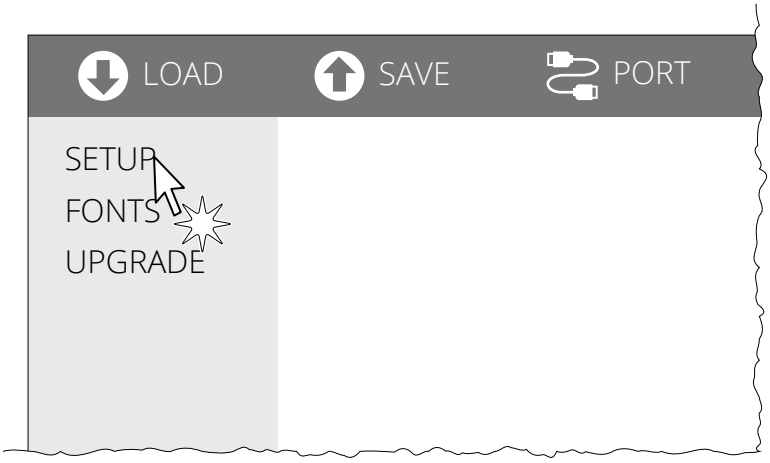
Start “PrinterSet” software tool.

3



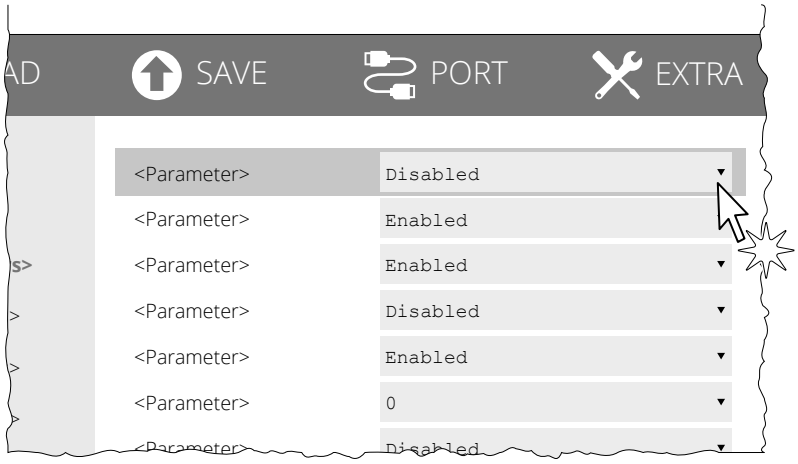
Click on LOAD > FROM DEVICE and select the device connected to the PC.

4



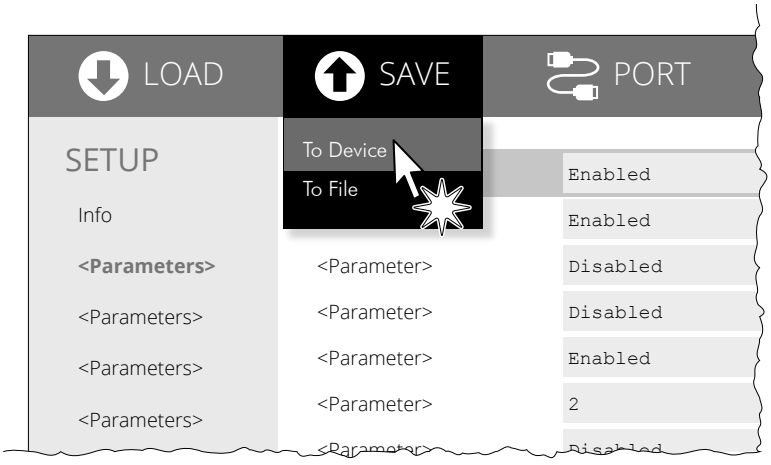
Click on SETUP to access the operating parameteres of the device to be configured.

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 advised against disconnecting the communication cable or to remove the power supply of PC or device.

6.3 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
RFID MODULE	presence of the RFID reader/writer
BARCODE READER	presence of the barcode reader
PRINTHEAD 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
CUTTER TEST (1)	OK appears if functioning and NOT OK if faulty
HEAD VOLTAGE	voltage of the head
HEAD TEMPERATURE	temperature of the head
POWER ON COUNTER	number of power-ups made
PAPER PRINTED	centimetres of paper printed
CUT COUNTER (1)	number of cuts made
DATE - TIME	date and time

NOTE:
(1) Only for models with autocutter.

6.4 Communication parameters

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.

115200 [D]	9600
57600	4800
38400	2400
19200	1200

This parameter is valid only with serial interface.

RS232 DATA LENGTH

Number of bit used for characters encoding.

7 bits/car
8 bits/car [D]

This parameter is valid only with serial interface.

RS232 PARITY

Bit for the parity control of the serial interface.

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

This parameter is valid only with serial interface.

USB CLASS

USB communication class definition.

Printer [D]	=	setting the printer function
Virtual COM	=	setting the USB port as a virtual serial port

To use the value "Virtual COM", it is necessary to install an additional driver (see paragraph 4.8)

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	10
1	3	5	7	9	None

If the parameter is set on "None", the device is identified by the physical USB port to which it is connected.

NETWORK PRINTER NAME

This is the number, provided by the constructor, that identifies the device:

KPM300HIII

This parameter is not modifiable during the setup procedure.

DHCP CLIENT	Setting of the DHCP protocol: Disabled [D] = protocol disabled Enabled = protocol enabled This parameter can be modified only by software (see paragraph 6.2).
IP ADDRESS	This is the IP address of device, assigned by the network administrator. This parameter can be modified only by software (see paragraph 6.2).
SUBNET MASK	This parameter identifies the local network address. This parameter can be modified only by software (see paragraph 6.2).
DEFAULT GATEWAY	This parameter identifies the Gateway IP address used to send applications to the external network. This parameter can be modified only by software (see paragraph 6.2).
PRIMARY DNS SERVER	This parameter identifies the primary DNS server (Domain Name System). It can be modified only by software (see paragraph 6.2).
SECONDARY DNS SERVER	This parameter identifies the secondary DNS server (Domain Name System). It can be modified only by software (see paragraph 6.2).
TCP PRINTER PORT	This parameter sets the TCP port number. It can be modified only by software (see paragraph 6.2).
MAC ADDRESS	This is the number, provided by the constructor, that identifies the device; this number is univocal. This parameter is not modifiable during the setup procedure.
RFID MODULE BAUD RATE	Communication speed of the RFID module. 115200 [D] 9600 57600 4800 38400 2400 19200 1200 If the RFID module is not recognized in the printer status (“RFID module = Not Present”), set this parameter on the correct value.

ATTENTION:
Any changes to network parameters will interrupt browser connection. If the server not responding you must reconnect to the new IP address set.

6.5 Operation parameters

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.

SERVICE [D] = used only for upgrade
BTP = used for management of baggages ticket
ATB = used for management of boarding ticket

CUTTER

Setting of the autocutter at the hardware level:

Disabled = autocutter disabled
Enabled [D] = autocutter enabled

For the device described in this document, keep this parameter set on "Enabled", as the default value.

EXTERNAL KEYS

TK202III PLAS, TK302III PLAS, TK302III PLAS TF, TK302III PLAS EJ-vSTK
TK202III MET, TK302III MET EJ, TK302III MET TF-EJ

Setting of the external keys

Disabled = external keys disabled
Enabled [D] = external keys enabled

LOW PAPER

Setting of the low paper detection:

Disabled [D] = detection disabled
Enabled = detection enabled

PRINT MODE

Printing mode.

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

ATB PRINT QUALITY

Setting of speed and printing quality.

High Quality [D]
Normal
High Speed

PAPER THRESHOLD

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

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

EJECTOR SPEED	Setting of the speed of the ejector front: 25% 75% 50% 100% [D] This parameter is valid only for models with the ejector device available as accessory (see chapter 10).
EJECTER TYPE	Management of the ejector device: Disabled [D] = ejector disabled Presenter = after the printing end, the device cuts the ticket and holds it between the ejector rollers in a "cut & hold" mode waiting for the user withdrawal Ejecter = after the printing end, the device cut the ticket and eject it The "cut & hold" mode (see paragraph 5.5) must be enabled by protocol. Otherwise, the device performs an eject even if this parameter is set on "Presenter" value. This parameter is valid only for models with the ejector device available as accessory (see chapter 10).

6.6 Alignment parameters

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 me.

BLACK MARK POSITION

Position of the alignment black mark and choice of appropriate black mark sensor (see chapter 7):

Disabled	=	the black mark alignment is not performed
Top	=	the black mark position is detected by the top sensor (reflection)
Bottom	=	the black mark position is detected by the bottom sensor (reflection)
Transparent [D]	=	the black mark is detected by the bottom sensor and the top sensor placed in front of (transparence)

BLACK MARK THRESHOLD

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

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

If parameter "Black mark position" is set on "Disabled", this parameter has no effect on device configuration and it is not printed on setup report.

BLACK MARK DISTANCE

"Black mark distance" is the minimum distance (in millimetres) between the upper edge of ticket and the black mark (see chapter 7).

The numeric value of the distance is made up with the following four parameters for the setting of three digits (two for the integer part of the number, one for the decimal part and of the sign):

BLACK MARK DISTANCE SIGN

Sign setting:

+ [D] =	positive distance
- =	negative distance

BLACK MARK DISTANCE [mm x 10]

Setting the digit for tens:

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

BLACK MARK DISTANCE [mm x 1]

Setting the digit for units:

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

BLACK MARK DISTANCE [mm x .1]

Setting the digit for decimals:

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

The parameter is printed on setup report only if "Alignment type" parameter is set on "Edge" and the “Black mark position” parameter is set on a value other than "Disabled".

BLACK MARK MIN. WIDTH

This parameter set the minimum length of the black mark in order to avoid that other graphics present on the ticket can be detected as a black mark.

0 mm [D]	6 mm	12 mm	18 mm
1 mm	7 mm	13 mm	19 mm
2 mm	8 mm	14 mm	20 mm
3 mm	9 mm	15 mm	
4 mm	10 mm	16 mm	
5 mm	11 mm	17 mm	

The parameter is printed on setup report only if "Alignment type" parameter is set on "Edge" and the “Black mark position” parameter is set on a value other than "Disabled".

ALIGNMENT TYPE

This parameter defines the point for the black mark alignment:

Autocentering [D] = the point for the black mark alignment is the center of black mark
Edge = the point for the black mark alignment is the frontal edge of black mark
DETLTYPE = black mark sensor is set by command

6.7 Aero parameters

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 me.

DOT FAIL TEST	Setting of the automatic check of damaged dots: Disabled [D] = automatic check disabled Enabled = the printer performs automatic check of damaged dots and reports them as per AEA specifications
USB LINK DOWN	Select method to display LINK DOWN /ONLINE when printer is connected with USB: Port Status = use virtual DTR [D] Plug = use usb plug
AEA PROTOCOL STX	Value of the start byte of protocol (up to three bytes, expressed in hexadecimal). If '00' value is set, this parameter is disabled. This parameter is not printed on setup report. You can set this parameter only by software (see paragraph 6.2). Moreover, it may not be available for some models.
AEA PROTOCOL ETX	Value of the end byte of protocol (up to three bytes, expressed in hexadecimal). This parameter can not be disabled, unlike the "AEA PROTOCOL STX". This parameter is not printed on setup report. You can set this parameter only by software (see paragraph 6.2). Moreover, it may not be available for some models.
AEA PROTOCOL CHECKSUM	Set type of checksum for AEA protocol: NONE LRC DRC LRC+DRC CRC16 This parameter is not printed on setup report. You can set this parameter only by software (see paragraph 6.2). Moreover, it may not be available for firmware versions.
BUFFERED PRINT	When enabled disable support for ERR7 management (see IATA ITPS specfications for ERR7 description).
LEGACY COMMANDS	Enables support for legacy commands.
AEA PROT. ACK TOUT [MS]	Set the timeout (expressed in milliseconds) to wait for Ack from host: from 0 ms to 9999 ms This parameter is ignored if "AEA protocol checsum" is set to "None" value.

BUSY PAPER END	Activation mode for busy signal on serial interface: Disabled [D] = busy signal is not activated in case of paper end Enabled = busy signal is activated in case of paper end
BARCODE ID 4	Setting of the barcode format associated with ID 4 (see AEA specifications): Code128 = sets the Code128 format DataMatrix [D] = sets the DataMatrix format If parameter "Printer emulation" is set on "Service", this parameter has no effect on device configuration and it is not printed on setup report.
VERTICAL SCALE [%]	Adjust of the printing positions by adding the percentage value to the coordinates of elements (in the direction of the length of the ticket). If parameter "Printer emulation" is set on "Service", this parameter has no effect on device configuration and it is not printed on setup report.
PRESENTER OFFSET [mm]	Setting of the presentation distance of ticket in case of presentation mode enabled (paper cut disabled). If parameter "Printer emulation" is set on "Service", this parameter has no effect on device configuration and it is not printed on setup report.
ATB TICKET LENGTH	This parameter defines the detection mode of the ticket length: Auto [D] = at the paper autoload, the device automatically calculates the ticket length by detecting two consecutive black marks and then recover the first ticket used for detection Auto No Recovery = at the paper autoload, the device automatically calculates the ticket length by detecting two consecutive black marks. The ticket used for detection is not recovered. 8" Fixed = the ticket length is set to 8" 7" 3/8 Fixed = the ticket length is set to 7" 3/8 If parameter "Printer emulation" is set on "Service" or "BTP", this parameter has no effect on device configuration and it is not printed on setup report.
ATB REPRINT AFTER ERRS	This parameter enables/disables the automatic reprint of a ticket stopped due to a paper jam or a paper end Disabled [D] = reprint disabled Enabled = reprint enabled If parameter "Printer emulation" is set on "Service" or "BTP", this parameter has no effect on device configuration and it is not printed on setup report.
ERRS STOCKTYPE UNKNOWN	This parameter enables/disables the management of the ERRS: Disabled = ERRS management disabled Enabled [D] = ERRS management enabled

RECOVERY MODE	Setting of recovery mode for paper portion on output mouth after a ticket presentation and withdrawal: Auto Check = device automatically detect paper presence on output sensor and then recovers a fixed portion of paper Fixed [D] = device recovers a fixed portion of paper (set by command) The parameter is printed on setup report only if the "Printer emulation" parameter is set on value "ATB" or "BTP" and only with cut disabled by commands (refer to the command manual of the device).
CR LF ACCEPT	Selects if accept pectables with elements separated with additional CR LF: Disabled [D] CR LF LF

6.8 RFID parameters

Models with RFID reader/writer

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 me.

RFID ENCODING

Setting of the coding system used for the writing of the RFID chip:

AEA2007
RP1740C [D]

The parameter is printed on setup report only if the "Printer emulation" parameter is set on value "ATB" or "BTP".

RFID REGION

Set working frequency for RFID module:

Europe	856-867 MHz
FCC	902-927 MHz
Japan	952-953 MHz
Japan T106	916-920 MHz
Japan T107	916-923 MHz
Korean	917-920 MHz
China	840-844 MHz
China	920-924 MHz
Canada	902-927 MHz

RFID MIN POWER

Set minimum working power range for RFID module:

0% [D]	30%	60%	90%
10%	40%	70%	100%
20%	50%	80%	

RFID MAX POWER

Set maximum working power range for RFID module:

0%	30%	60%	90%
10%	40%	70%	100% [D]
20%	50%	80%	

RFID INVENTORY MULTI

When disabled, printer will VOID tag if two or more tags are found before encoding.

RFID REWRITE TAG

When disabled, printer will VOID tag if tag found is already encoded according to IATA RP1740c.

RFID USER BANK SIZE

Setting of the RFID chip size:

TID [D]	=	use value reported in TID area of RFID chip
Autocheck	=	verify the size of RFID chip user when loading paper (ignore value reported by TID).

MODE

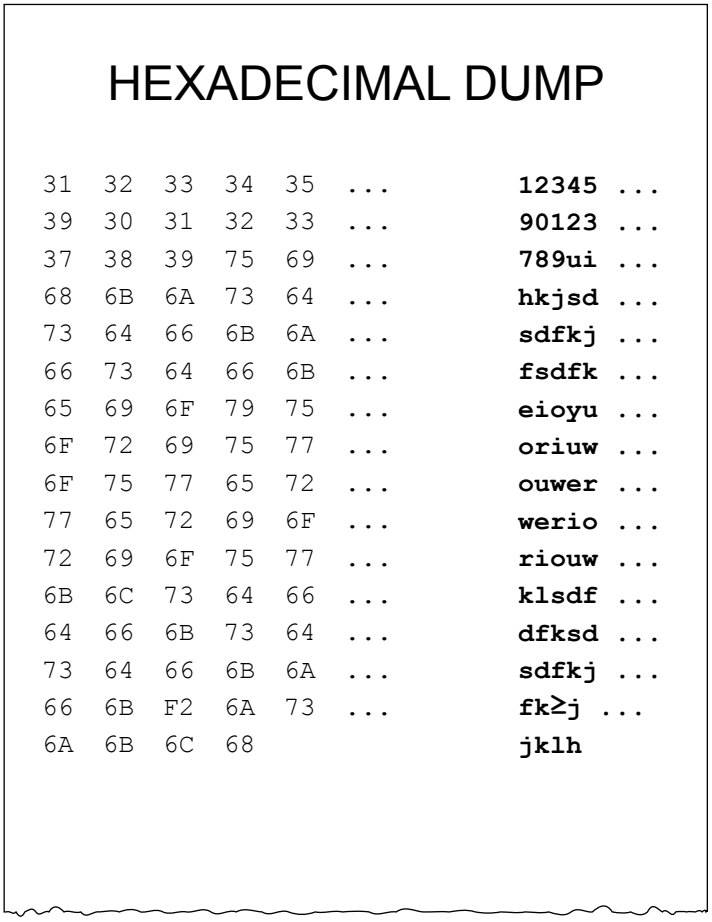
See IATA ITPS specifications.

VERIFY	See IATA ITPS specifications.
DATE ANSWER	See IATA ITPS specifications.
LICENSE PLATE ANSWER	See IATA ITPS specifications.
AFI	See IATA ITPS specifications.
ENCODE RETRY	See IATA ITPS specifications.
VOID RETRY	See IATA ITPS specifications.
USER DATA AREA	Encode fixed value in RFID chip user area. Values in Ascii Hex (e.g.AA30FF3C7F...).

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


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
```

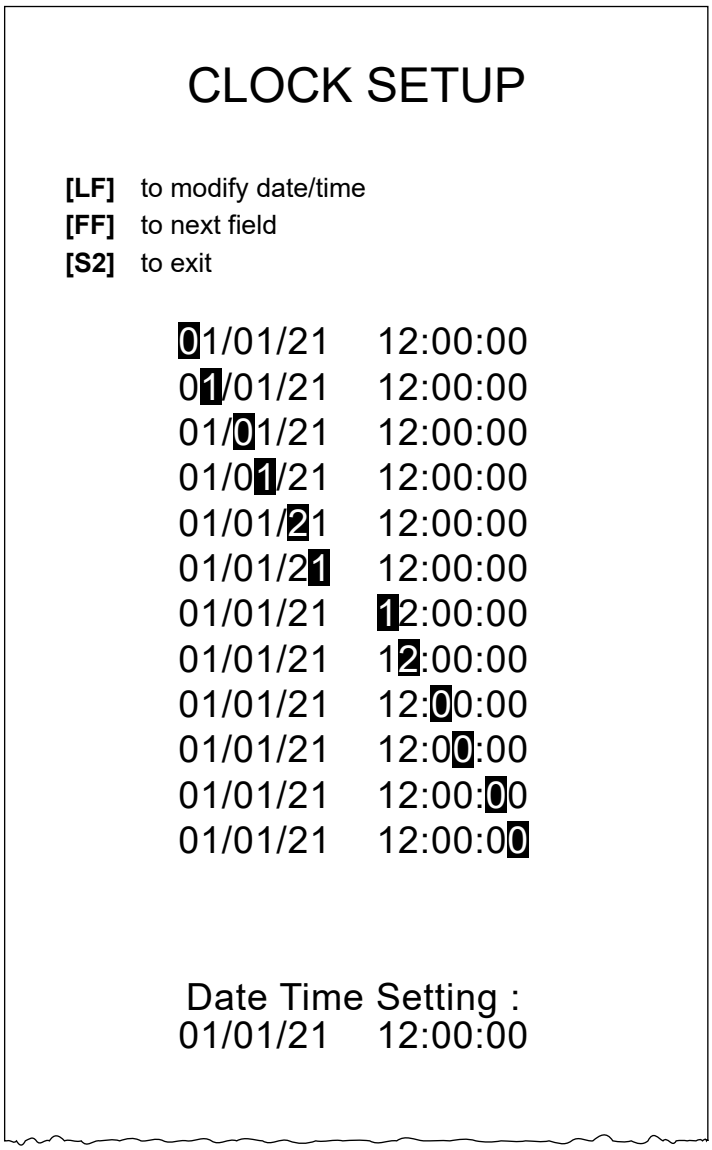
6.10 Calendar clock

KPM302III, KPM302III TF

The device is equipped with a Real Time Clock. During power-up, held down the LF key to enter in the device configuration mode.
Press the S1 key to enter in the clock configuration (see following figure).
Press the LF key to modify date/time; the device will print the updated date and time.

Follow the instructions printed on the paper for the key functionality. The highlighted digit (the number is written in negative mode) indicates the digit to be modified. Press the LF key to modify the value of the highlighted digit; every single LF key pressure increases of 1 his value. Once the value 9 is reached the counting starts again from 0.

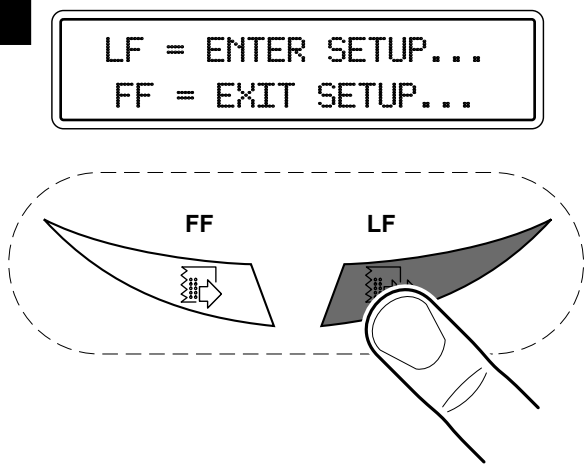
Press the FF key to move the cursor on the next digit; if the cursor position is on the latest digit you can proceed to next parameter by pressing the FF again.
Press the S2 key to exit and terminate the setting procedure.



TK202III PLAS, TK302III PLAS, TK302III PLAS TF, TK302III PLAS EJ-vSTK

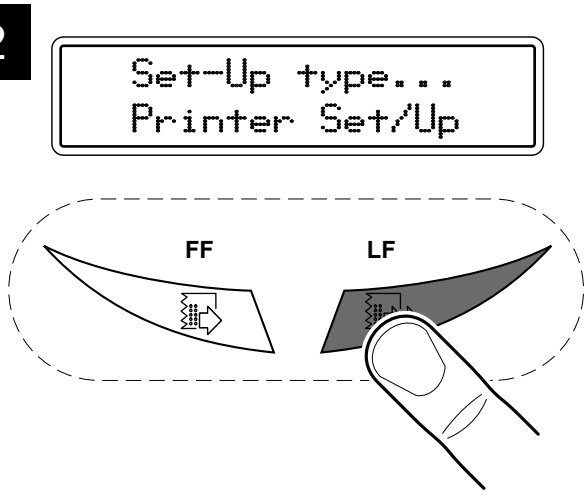
The device is equipped with a Real Time Clock. Proceed as follows to perform the clock configuration.

1



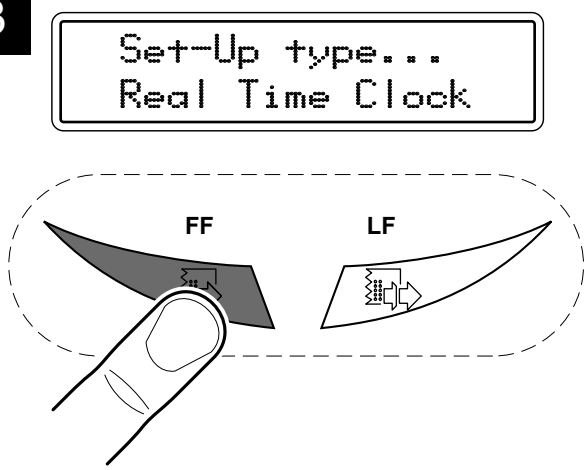
During power-up, press the LF key
to enter the setup configuration.

2



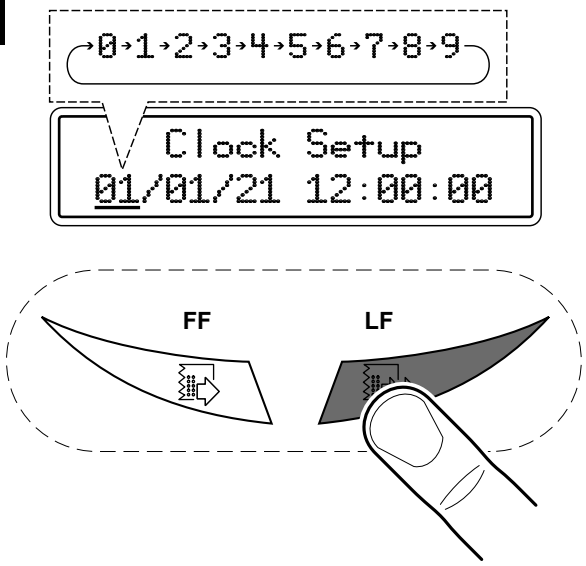
Press the LF key to select
the Real Time Clock settings.

3



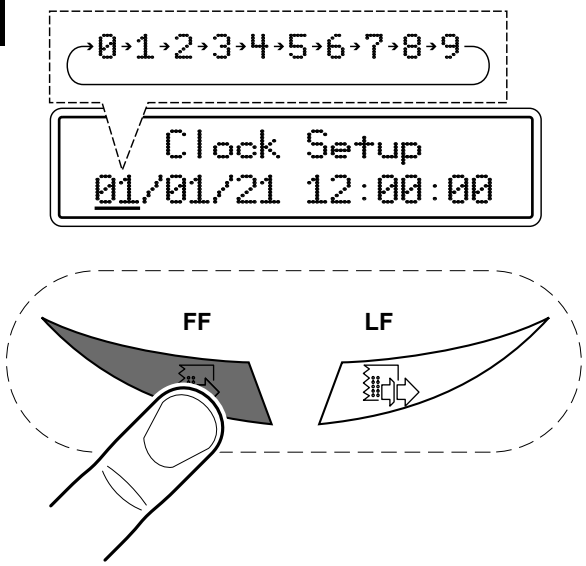
Press the FF key to confirm the selection.
The date/time values will be displayed.
Follow the instructions printed on the paper.

4



The digit to be modified is highlighted.
Press the LF key to modify the value;
every press on the button increases the value by one.
Once the max selectionable value is reached the
counting starts again from 0.

5

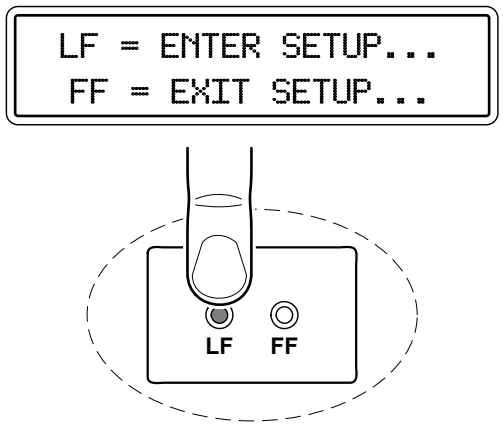


Use the FF key to move the cursor
on the next digit; if the cursor position is
on the latest digit, press the FF key
to exit and save the date/time entered.
Then the device is ready.

TK202III MET, TK302III MET EJ, TK302III MET TF-EJ

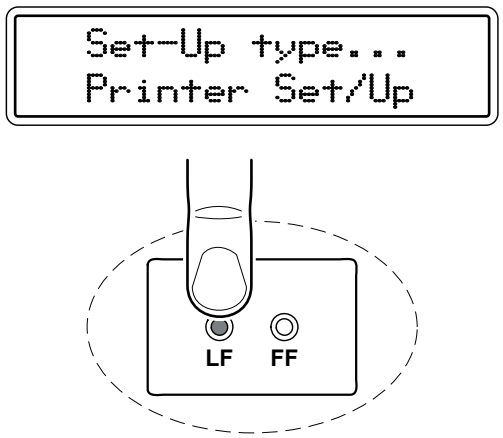
The device is equipped with a Real Time Clock. Proceed as follows to perform the clock configuration.

1



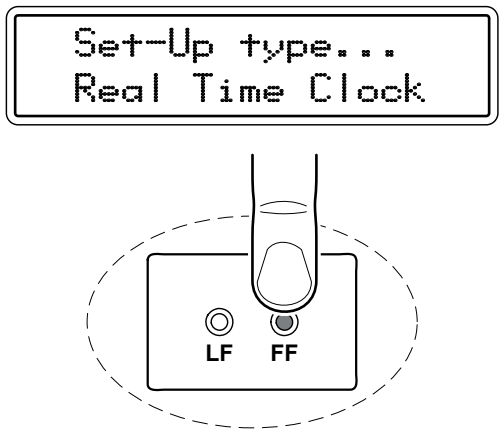
During power-up, press the LF key
to enter the setup configuration.

2



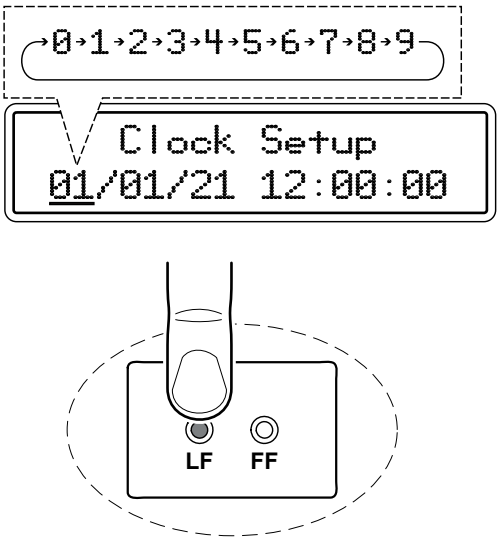
Press the LF key to select
the Real Time Clock settings.

3



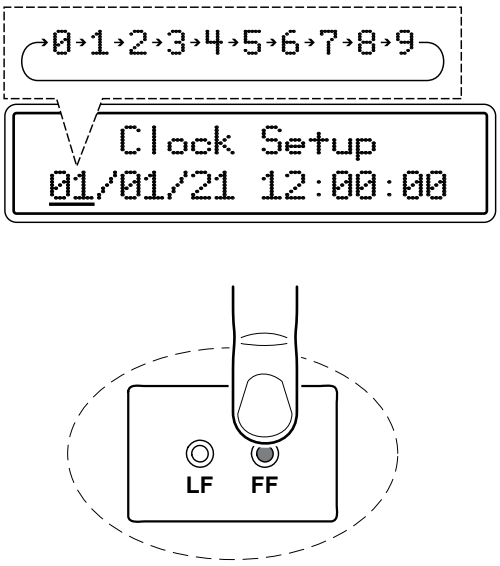
Press the FF key to confirm the selection.
The date/time values will be displayed.
Follow the instructions printed on the paper.

4



The digit to be modified is highlighted.
Press the LF key to modify the value;
every press on the button increases the value by one.
Once the max selectionable value is reached the
counting starts again from 0.

5



Use the FF key to move the cursor
on the next digit; if the cursor position is
on the latest digit, press the FF key
to exit and save the date/time entered.
Then the device is ready.

7 ALIGNMENT

The device is provided with sensors for the use of alignment black mark in order to handle:
- roll of tickets with pre-printed fields and a fixed length;
- fan-fold module of tickets with pre-printed fields and a fixed length.

The alignment black mark may be formed by
- a black mark printed on the paper;
- a hole between two tickets;
- a gap between two labels.

All alignment sensors are “reflection” sensors: this kind of sensor emits a band of light and detects the quantity of light reflected to it. The presence of the black mark is therefore detected by the amount of light that returns to the sensor, considering that the light is reflected by the white paper and absorbed by the black mark.

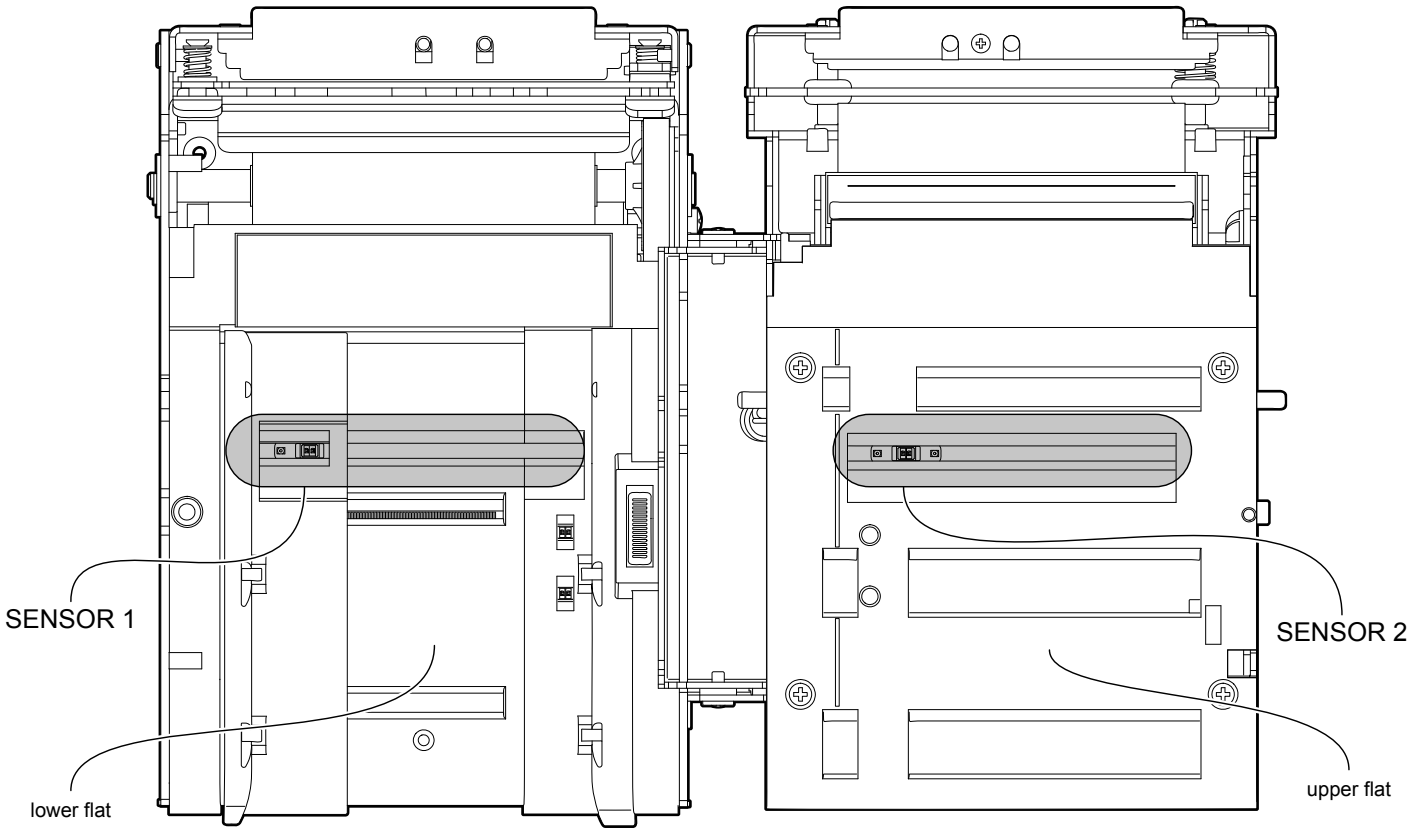
To use tickets with holes or labels with gap, it is possible to use the same sensors as “transparence” sensors, coupled two by two: a beam of light is emitted by the transmitter sensor and the quantity of light which reaches the opposite receiver sensor is detected. The presence of a hole or a gap is detected evaluating the amount of light that arrives to the opposite sensor, considering that the paper doesn’t allow the beam of light to reach the receiver, whereas a gap or a hole lets the light to reach the receiver.

The following paragraphs show how to correctly set the configuration parameters of device in order to assure the alignment.

7.1 Enable alignment

The device is provided with the two following sensors for alignment (see figure):

- SENSOR 1, a mobile sensor placed on the lower flat,
- SENSOR 2, a mobile sensor placed on the upper flat.



To guarantee the alignment, it is necessary to correctly choose the sensor to use for the black mark detection depending on the type of black mark and its location on the ticket.
To do this, you must enable the parameter "Black mark position" during the setup procedure (see chapter 6) and set the correct value of this parameter as described in the following table.

SENSOR USED	VALUE OF THE "BLACK MARK POSITION" PARAMETER	USING MODE OF SENSORS	BLACK MARK TYPE
-	Disabled	-	Alignment disabled
1	Bottom	Reflection	Black mark printed on the non-thermal side of paper
2	Top	Reflection	Black mark printed on the thermal side of paper
1 + 2	Transparent	Transparence	Hole between tickets or gap between labels

7.2 Calibration

The sensor calibration occurs automatically and consists in adjusting the quantity of light emitted to match the degree of whiteness of the paper used and the degree of black of the mark printed on paper.

The device automatically performs the self-calibration during the setup procedure only if the “Black mark position” parameter is set to a value other than “Disabled” (see chapter 6). Otherwise, the self-calibration can be started manually by pressing the S1 key during power-up.

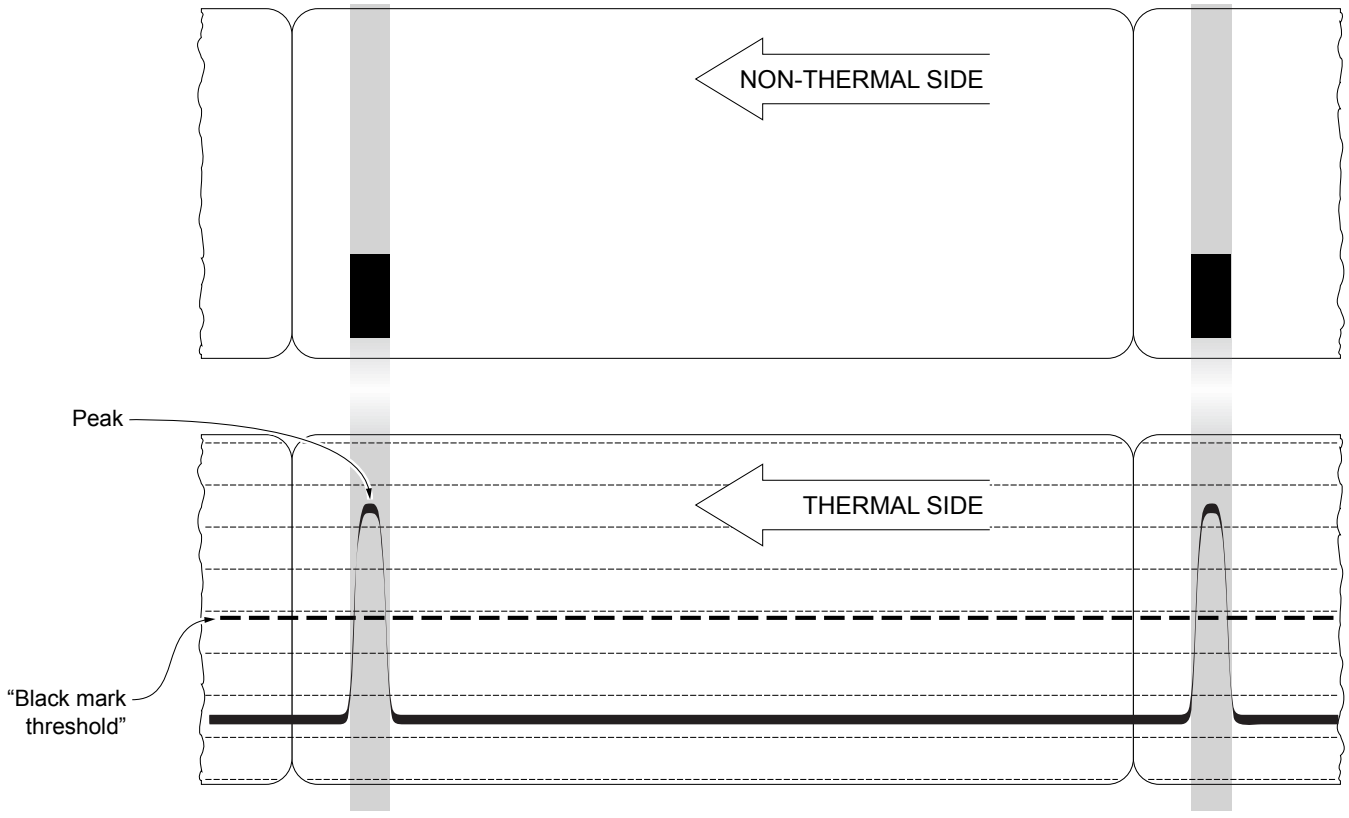
When self-calibration starts, the device performs some paper feeds and then it prints the calibration result and the value of the PWM duty-cicle of the alignment sensor driver so that it can be perform an optimal black mark detection:

```
Autosetting black mark  : OK
PWM Duty Cycle : 85.3%
```

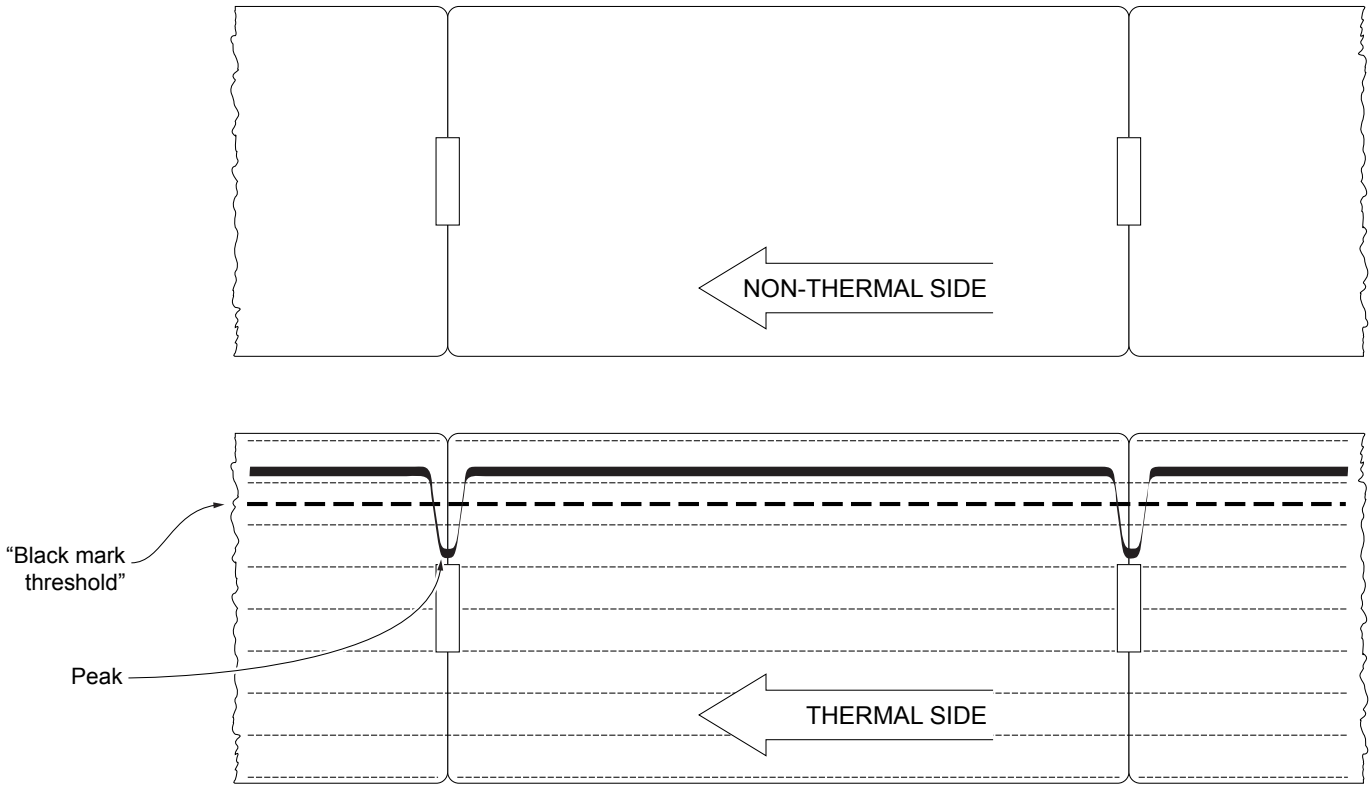
The “Autosetting black mark” parameter indicates the result of the self-calibration procedure; OK will appear if it has been successful, NOT OK will appear if the procedure has failed.

After the printing of the procedure result, the device offers the execution of the function of paper characterization “Characterize Paper” and the change of the “Black mark threshold” parameter which represents the detection threshold of the black mark.
Choosing the “Yes” value for the “Characterize Paper” parameter, the device prints a graphic representation (see following figures) of the outgoing voltage of the alignment sensor (expressed as a percentage) and the “Black mark threshold” value.
This graphic representation is useful to set the most suitable value to assign to the “Black mark threshold” parameter and then to better identify the optimal threshold value which takes into account the variations of the signal and the small oscillations around zero.

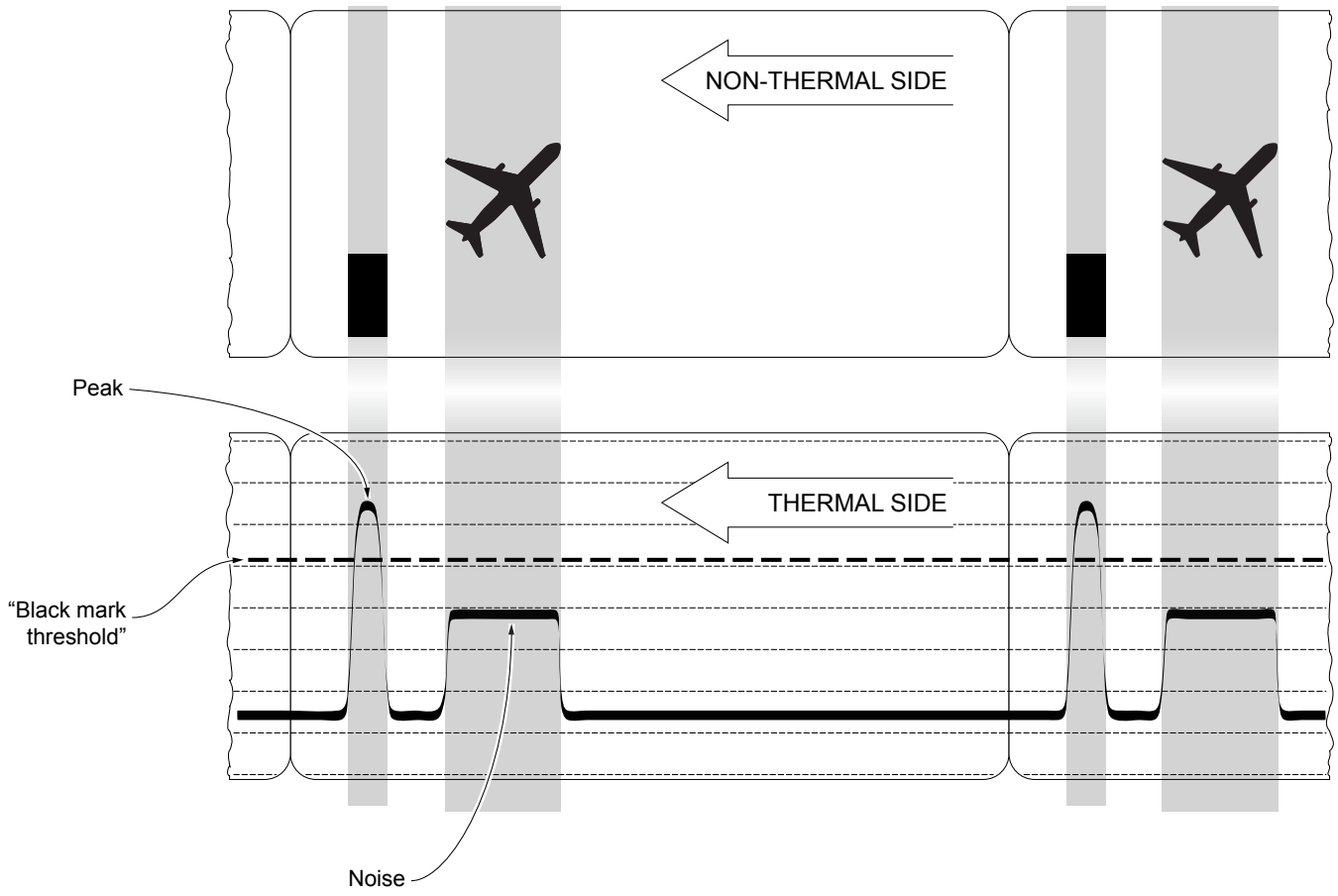
The following figure shows an example of paper with the non-thermal paper printed with black marks: the outgoing voltage is constant while passing the white paper between two black marks and presents a peak at each black mark.
In this case, the optimal value for the “Black mark threshold” parameter is placed about half of the peak.



The following figure shows an example of paper with holes: the outgoing voltage is constant while passing the paper between two holes and presents a variation at each hole. In this case, the optimal value for the “Black mark threshold” parameter is placed about half of the variation.



The following figure shows an example of paper with the non-thermal paper printed with black marks and other graphics: the outgoing voltage is constant while passing the white paper between two black marks, presents a peak at each black mark and presents some “noise” at each graphic.
In this case, the optimal value for the “Notch/B.Mark Threshold” parameter is located about halfway between the peak value and the maximum value of the “noise” (as shown in figure):

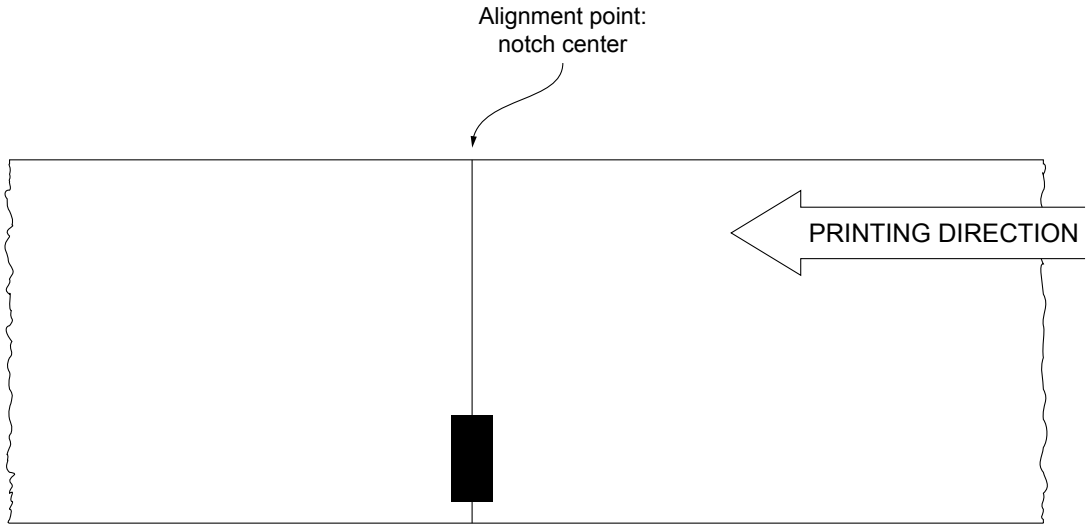


If the maximum value of “noise” read by the sensor is very close to the peak value, it might be difficult to place the value of the “Notch/B.Mark Threshold” at an intermediate point. In these cases, it is mandatory that the portion of paper between the point of printing end and the front notch is completely white (no graphics). In this way, the only next graphic detected by the sensor for alignment after the printing end will be the notch.

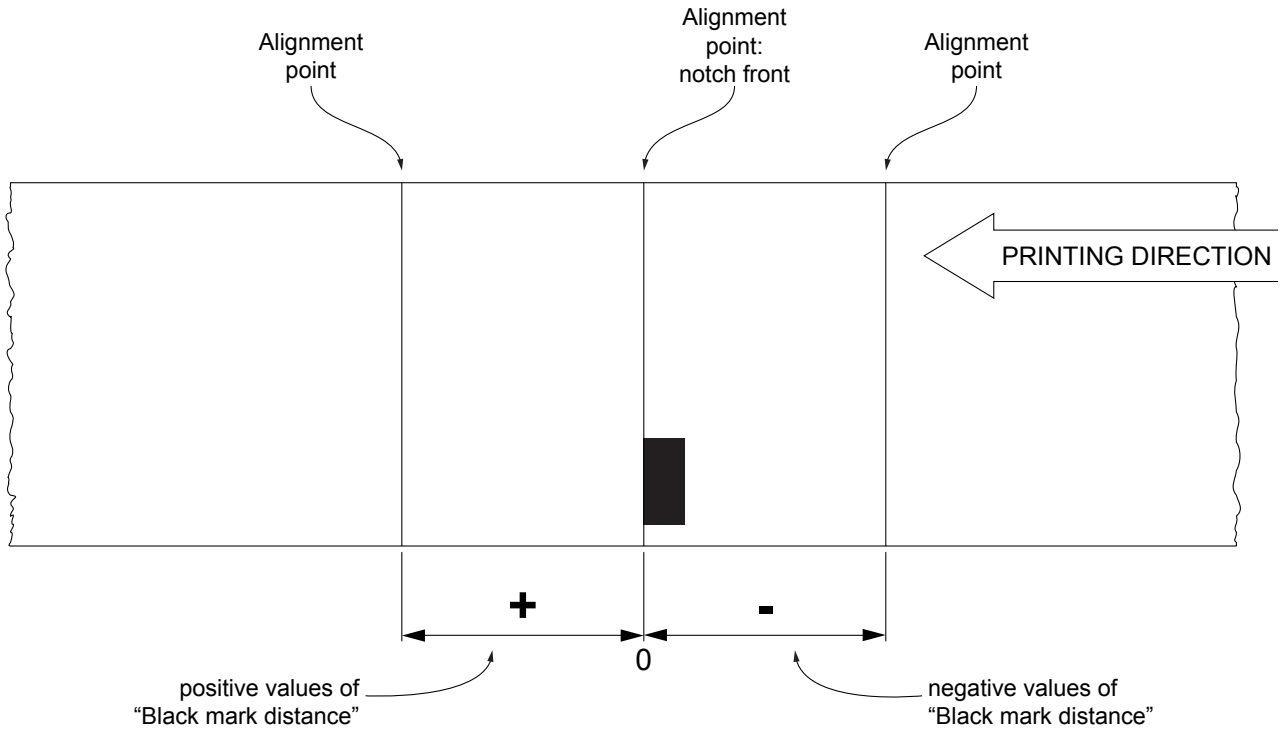
7.3 Alignment parameters

The “alignment point” is defined as the position inside the ticket to use for the black mark alignment. The distance between the black mark edge and the alignment point is defined as “black mark distance”.
The value of “black mark distance” varies from a minimum value of -5 mm to a maximum value of 66 mm.

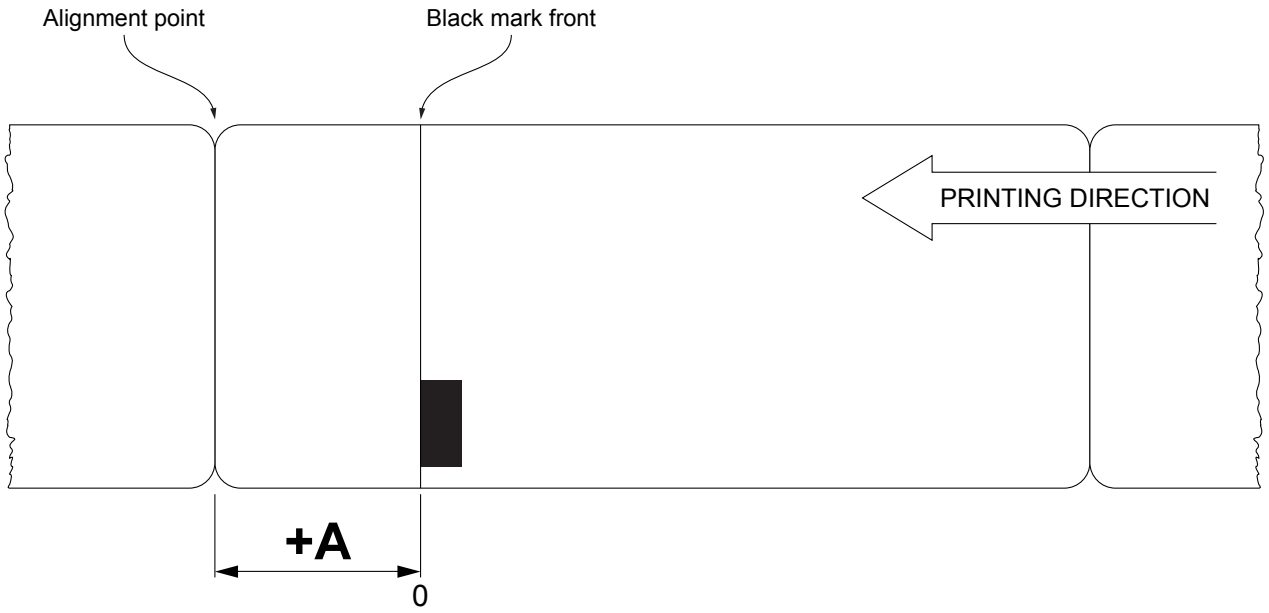
If the setup parameter "Alignment type" is set on "Autocentering" value, the alignment point is automatically set at the center of the black mark (see following figure) and the parameter "Black mark distance" is ignored.



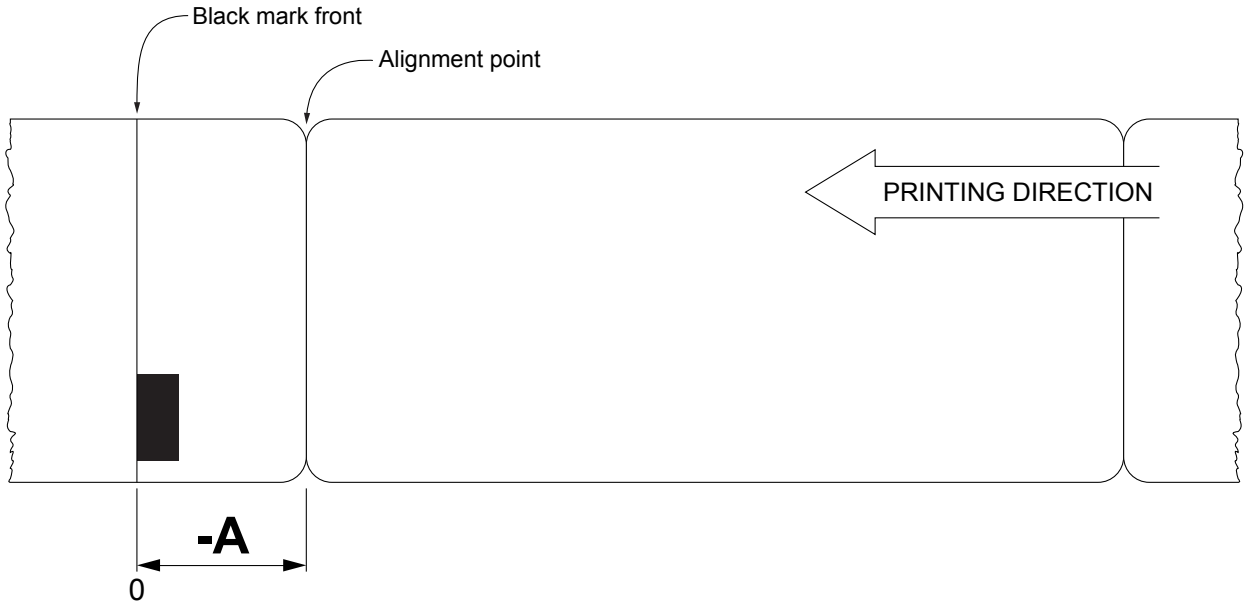
If the setup parameter "Alignment type" is set on "Edge" value and the parameter "Black mark distance" is set to 0, the alignment point is set at the beginning of the black mark (see following figure).



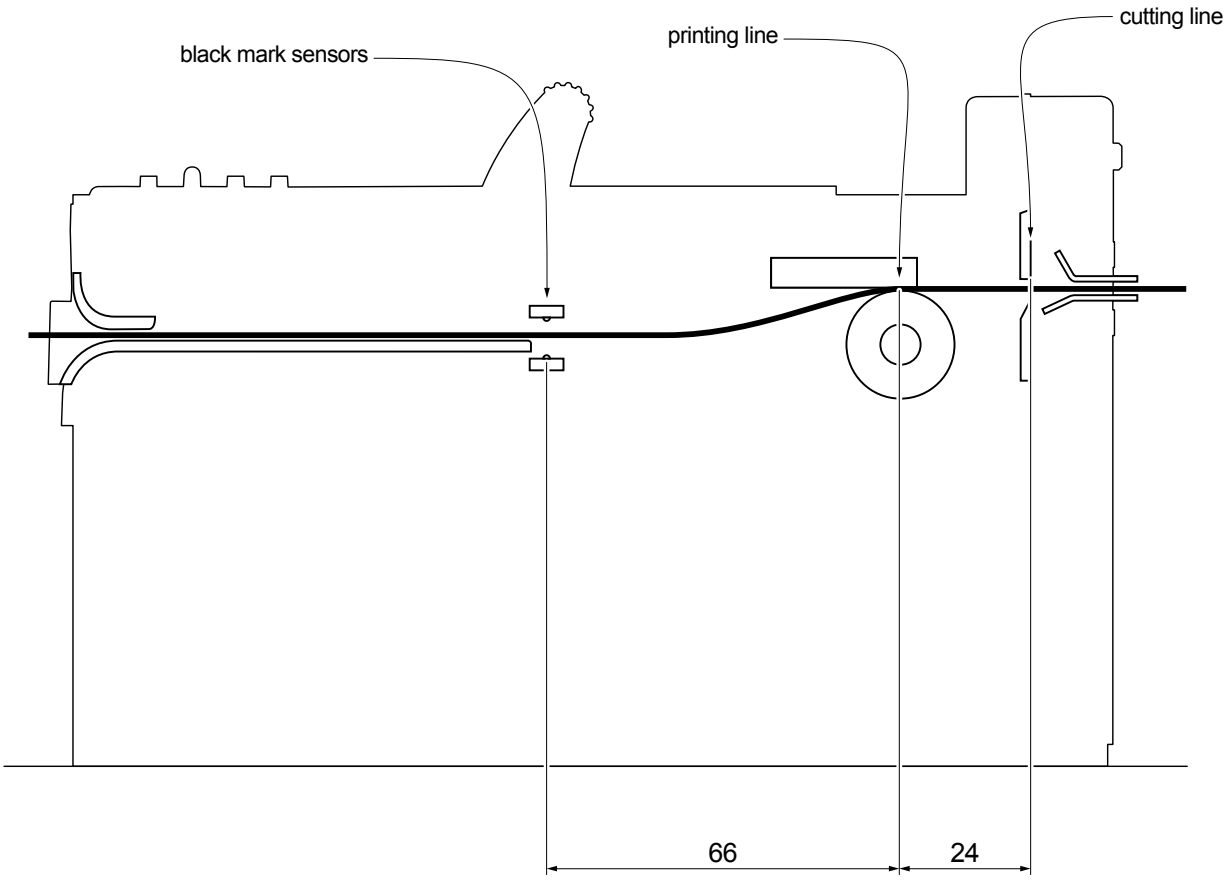
The following figure shows an example of paper with alignment point set by a positive value of “Black mark distance” (“Black mark distance” = + A).



The following figure shows an example of paper with alignment point set by a negative value of “Black mark distance” (“Black mark distance” = - A).



The following figure shows a simplified section of the device with the paper path and the distances (in millimetres) between the alignment sensors, the print head and the cutter (cutting line).



To define the alignment point you need to set the setup parameters that compose the numerical value of the parameter “Black mark distance” (see chapter 6).
For example, to set a notch distance of 15 mm, the parameters must be set on the following values:

Black mark distance sign : +
Black mark distance [mm x 10] : 1
Black mark distance [mm x 1] : 5
Black mark distance [mm x .1] : 0

The “Black mark distance” parameter, may be modified as follows:
- during the setup procedure of the device (see chapter 6);
- by commands;
- by software (see paragraph 6.2).

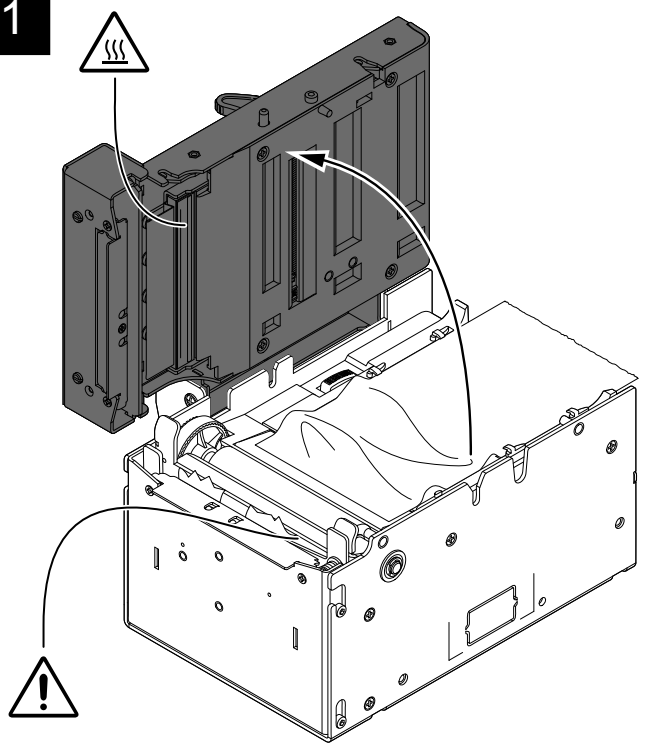
8 MAINTENANCE

8.1 Printer paper jam

In the following sequence of images, the procedure for solving the paper jam inside the printer is described. For some models, only the internal printer group is represented.

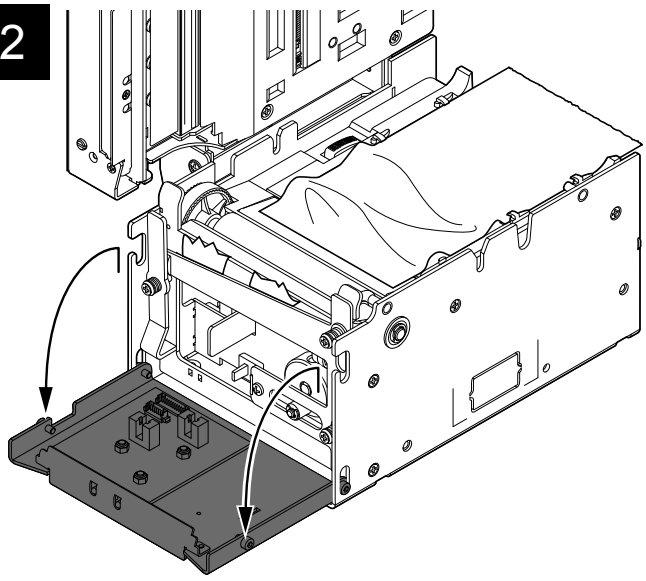
KPM302III, KPM302III TF

1



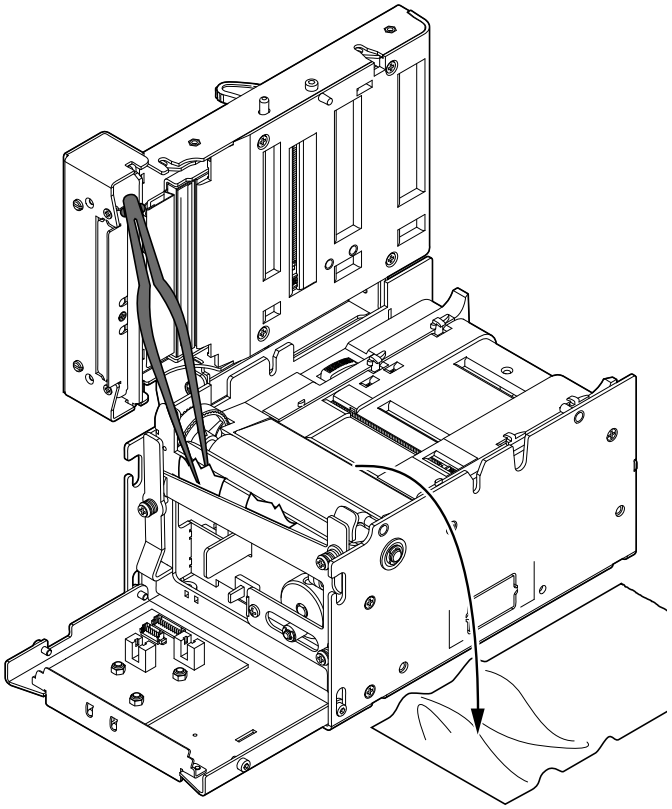
Open the upper covers of the device (see previous paragraphs).

2



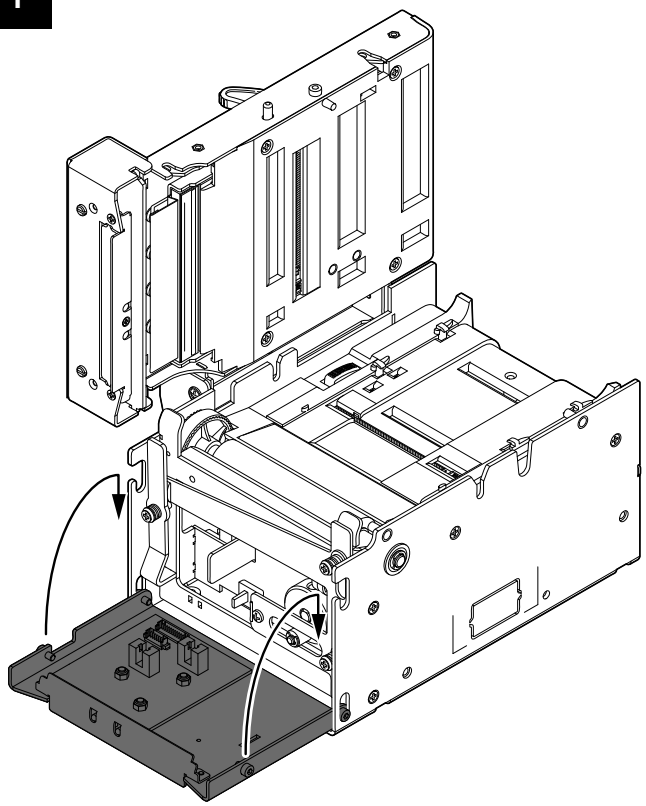
Open the front cover of the device.

3



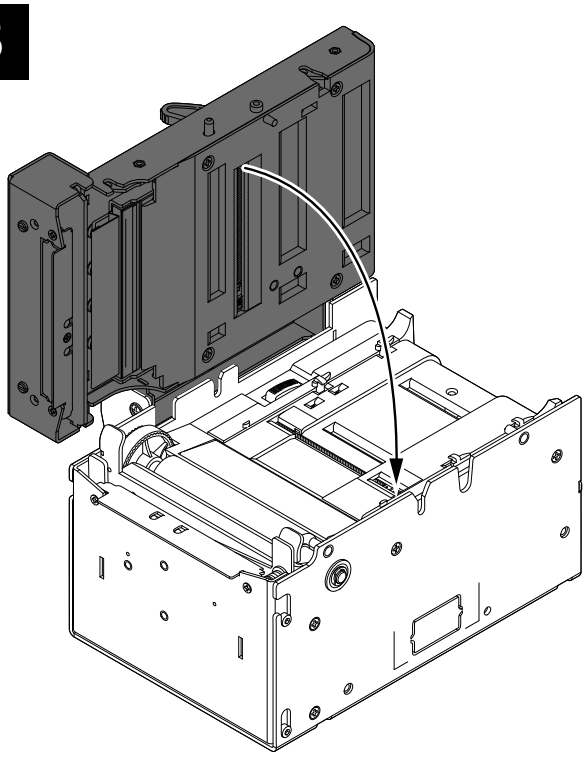
Remove the damaged paper and check the presence for paper scraps inside the device. Carefully remove all paper scraps. If necessary use tweezers.

4



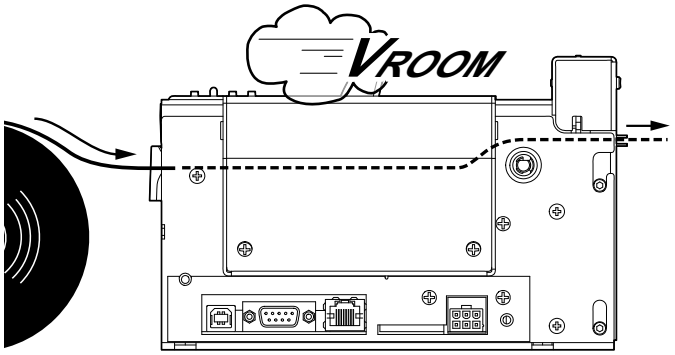
Close the front cover
of the device.

5



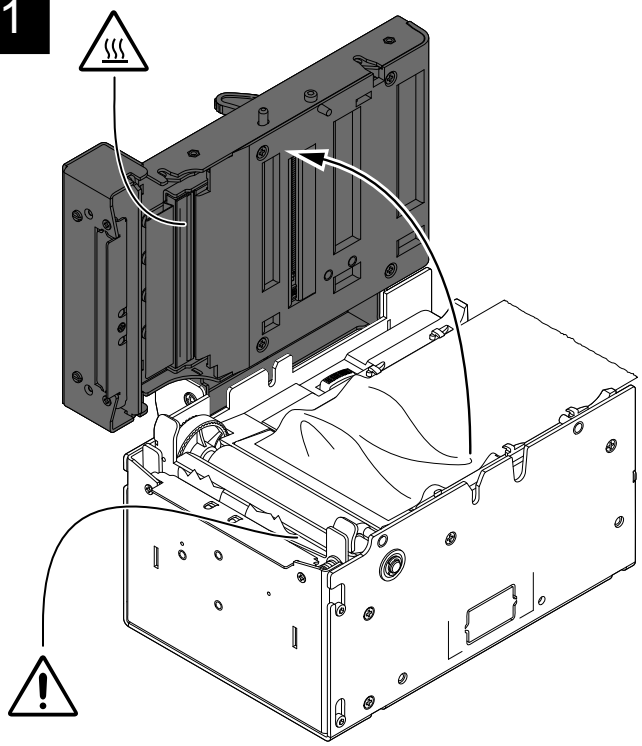
Close the upper covers of the device
(see previous paragraphs).

6



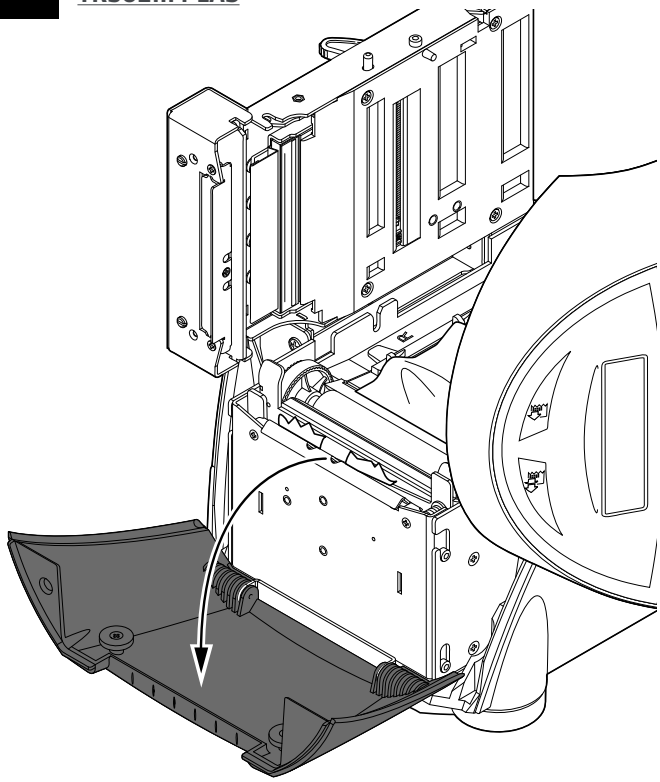
Insert the paper
(see previous paragraphs).

1



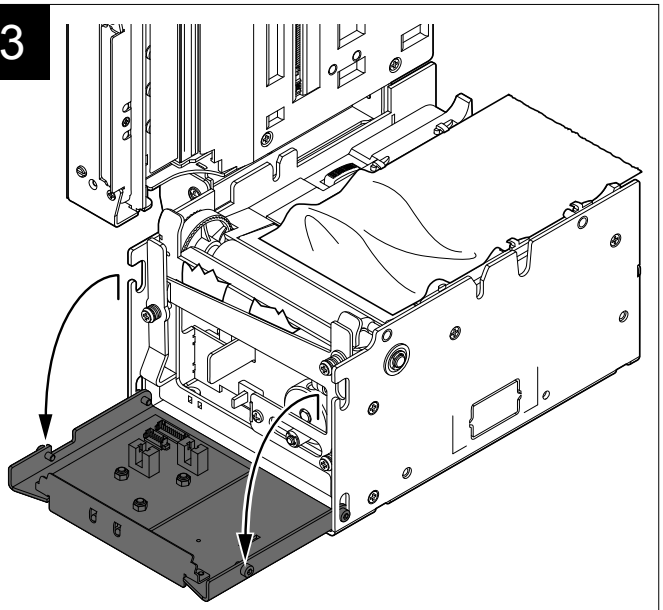
Open the upper covers of the device
(see previous paragraphs).

2 **TK302III PLAS**



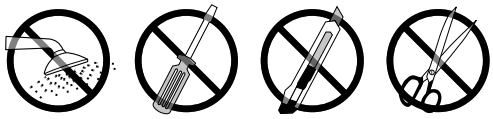
Open the plastic
front cover.

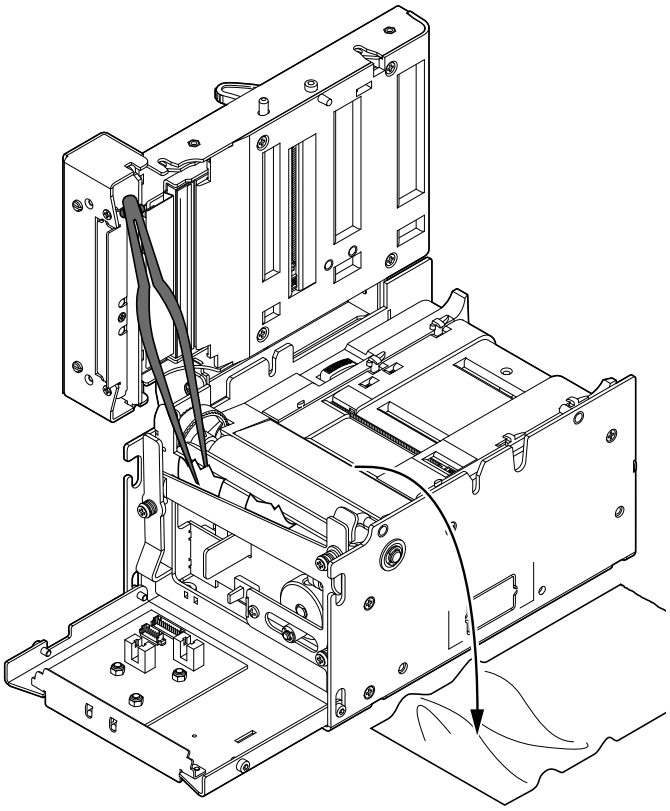
3



Open the front cover
of the device.

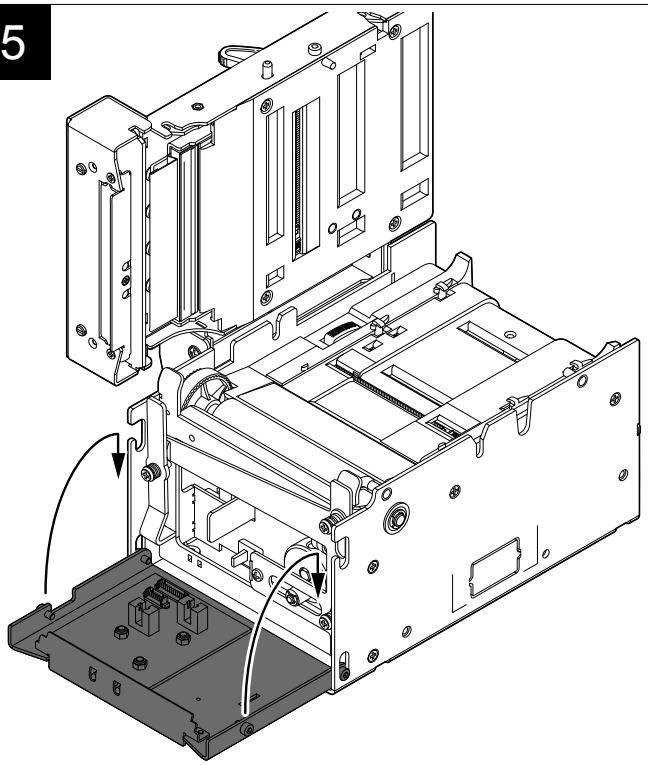
4





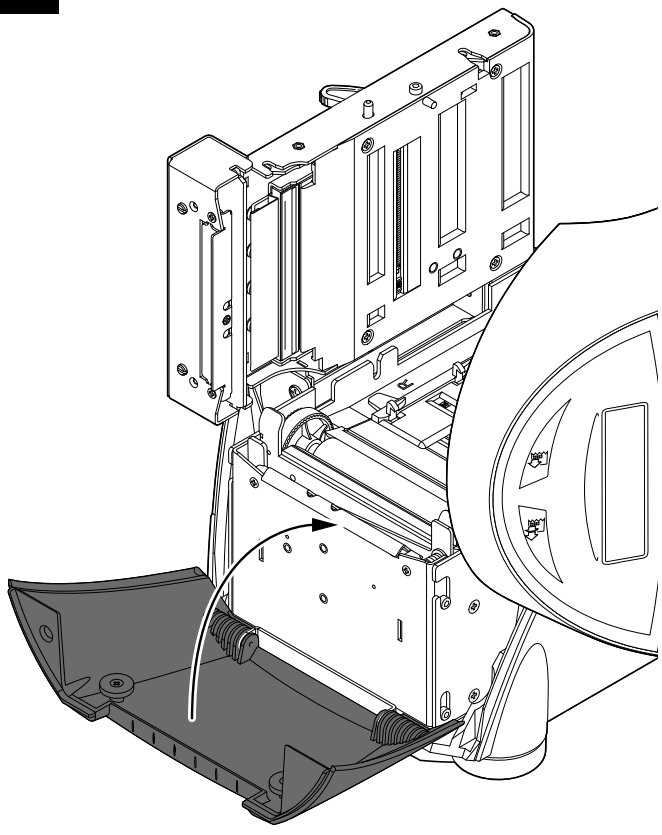
Remove the damaged paper and check the presence for paper scraps inside the device. Carefully remove all paper scraps. If necessary use tweezers.

5



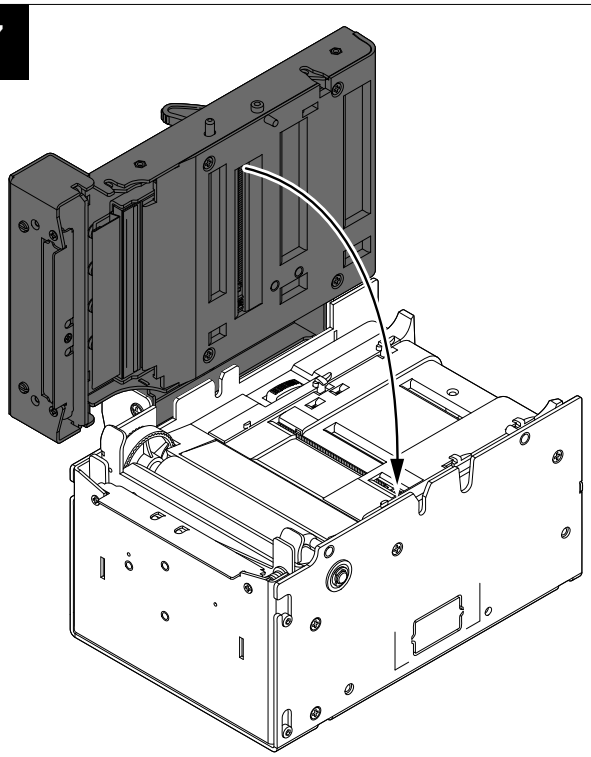
Close the front cover
of the device.

6 **TK302III PLAS**



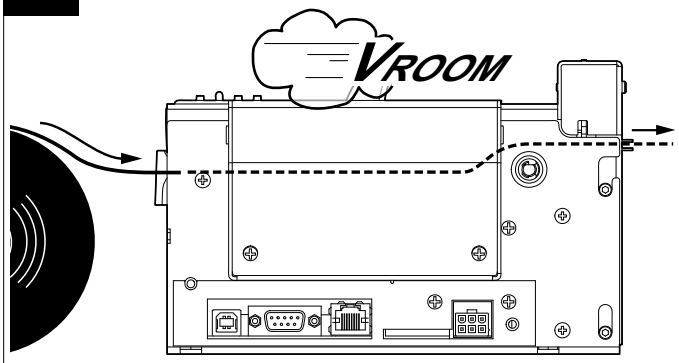
Close the plastic
front cover.

7



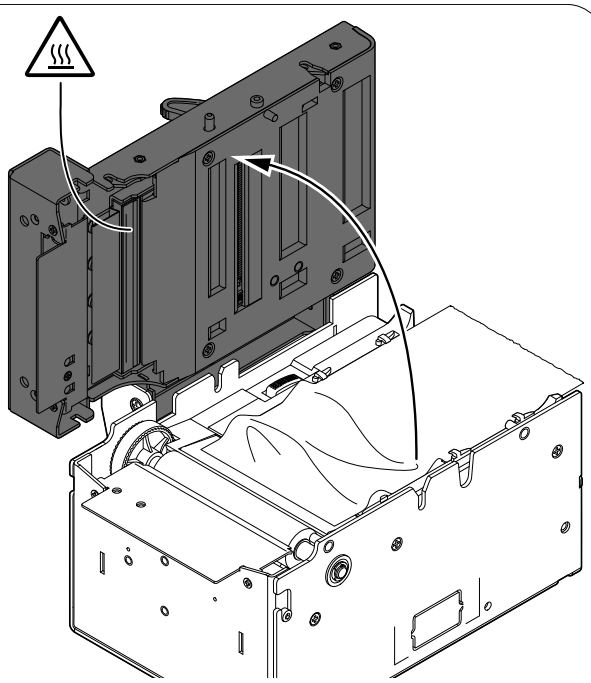
Close the upper covers of the device
(see previous paragraphs).

8



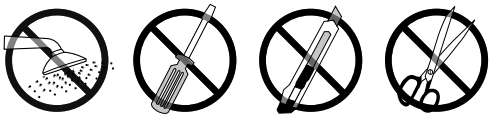
Insert the paper
(see previous paragraphs).

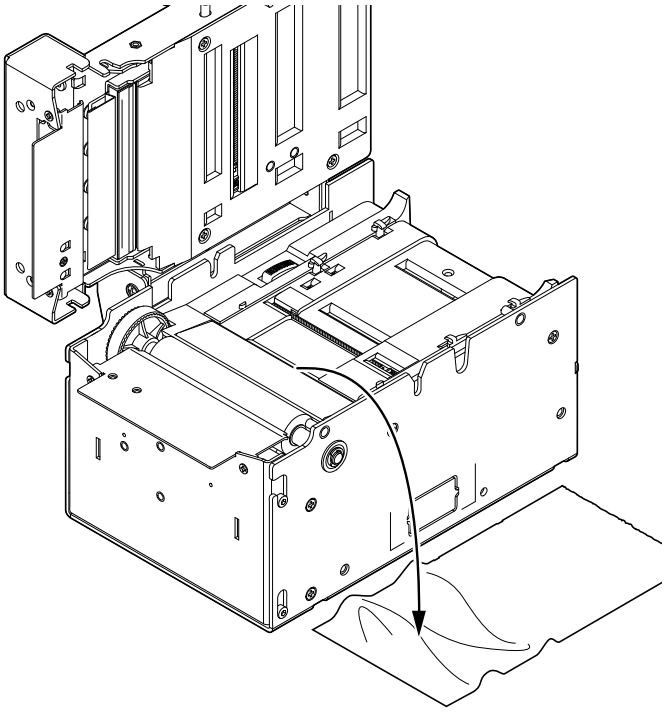
1



Open the upper covers of the device
(see previous paragraphs).

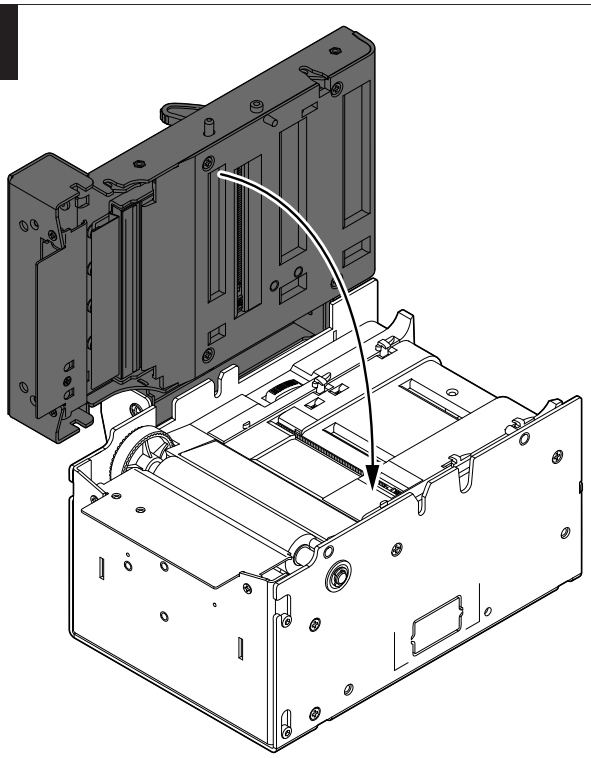
2





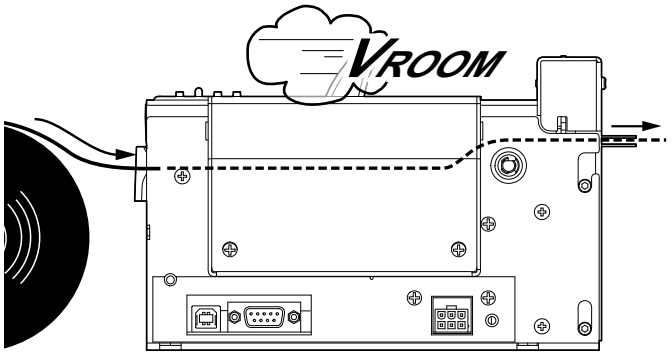
Remove the damaged paper and check the presence for paper scraps inside the device. Carefully remove all paper scraps. If necessary use tweezers.

3



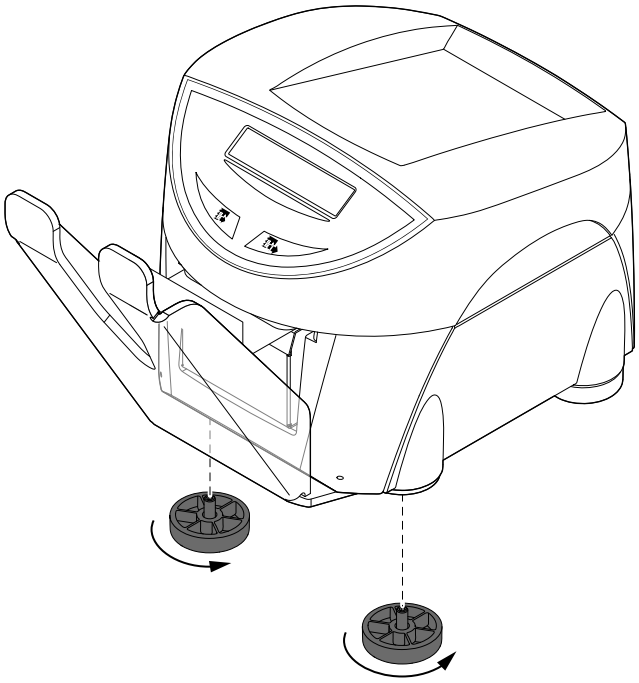
Close the upper covers of the device
(see previous paragraphs).

4



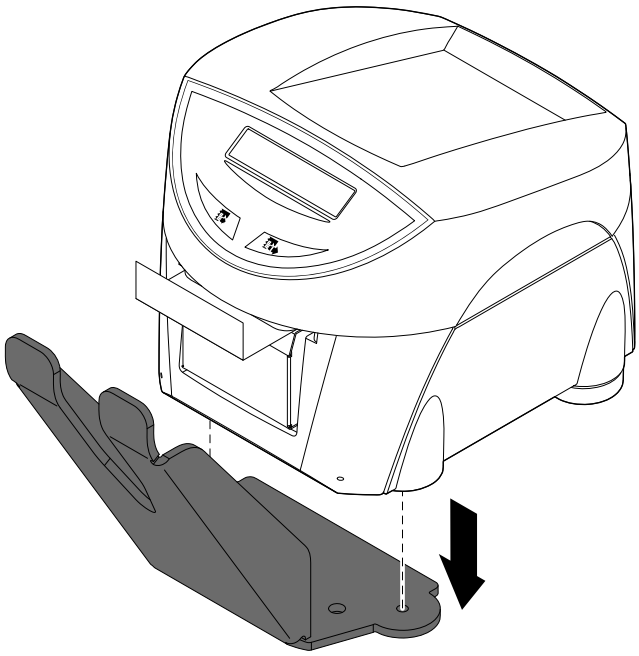
Insert the paper
(see previous paragraphs).

1



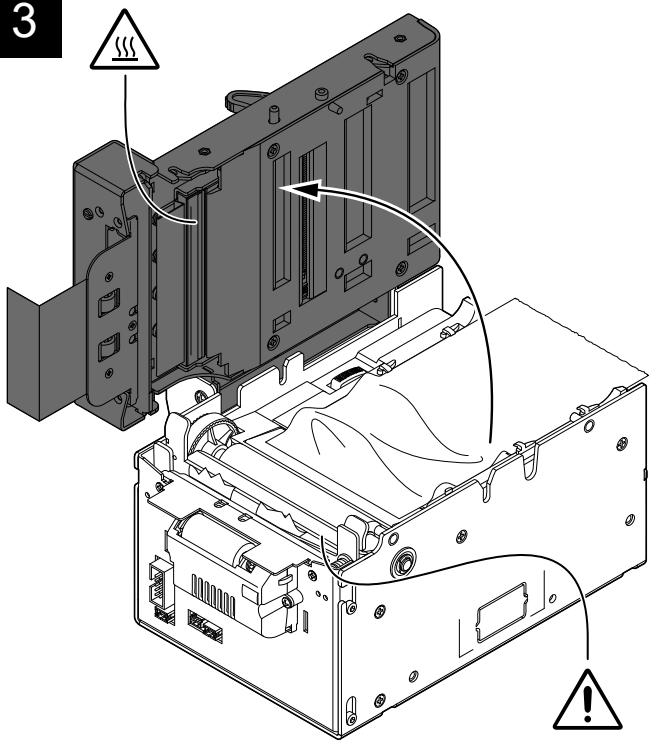
Unscrew and remove
the two front feet of the device.

2



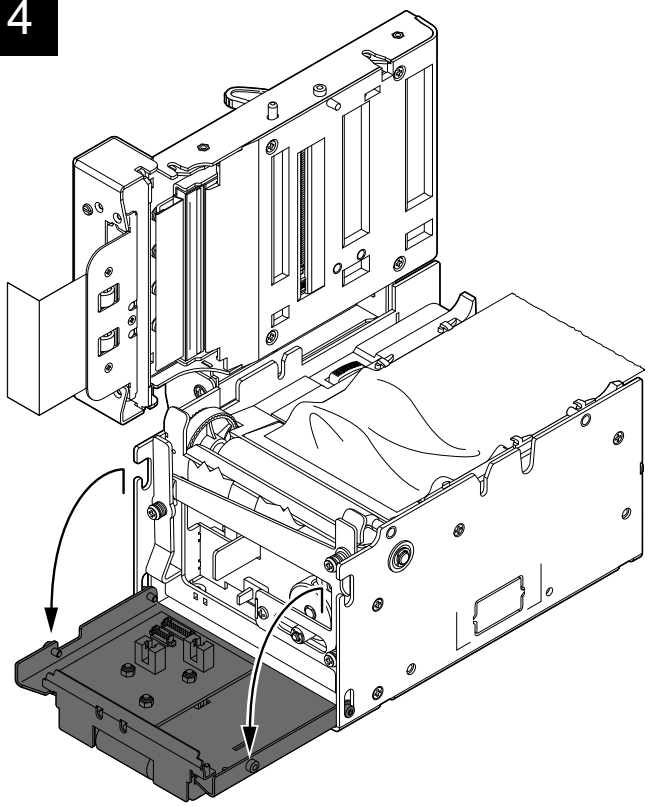
Remove the vertical stacker.

3



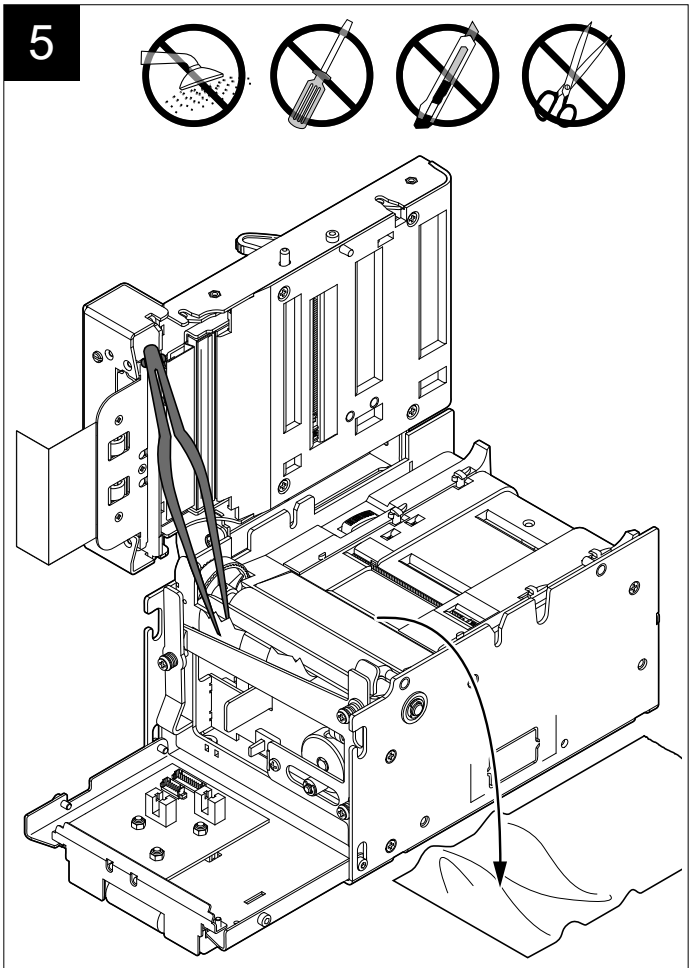
Open the two upper covers
of the device.

4



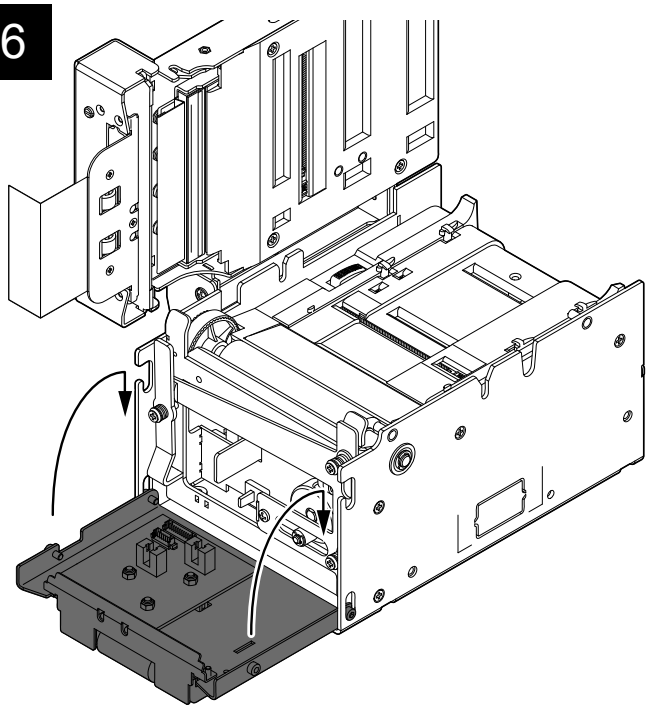
Open the two front covers
of the device.

5



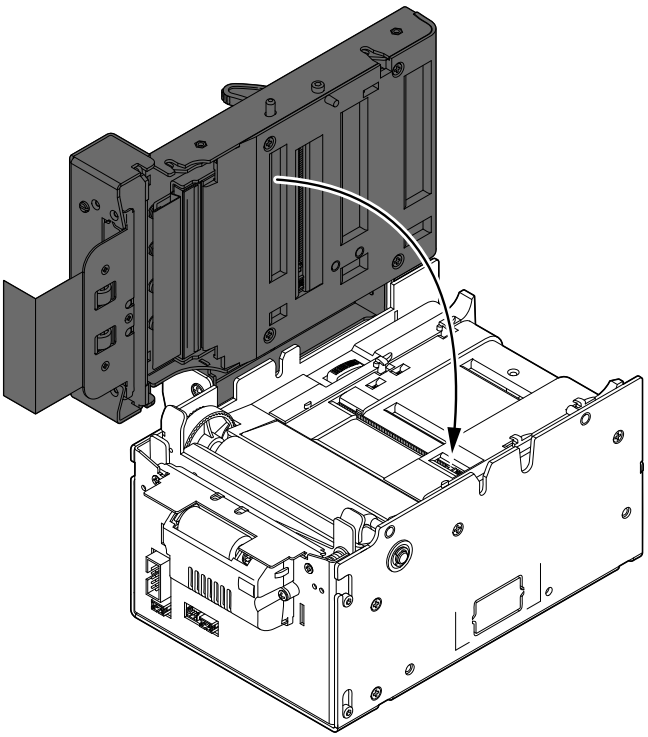
Remove the damaged paper and check the presence for paper scraps inside the device. Carefully remove all paper scraps. If necessary use tweezers.

6



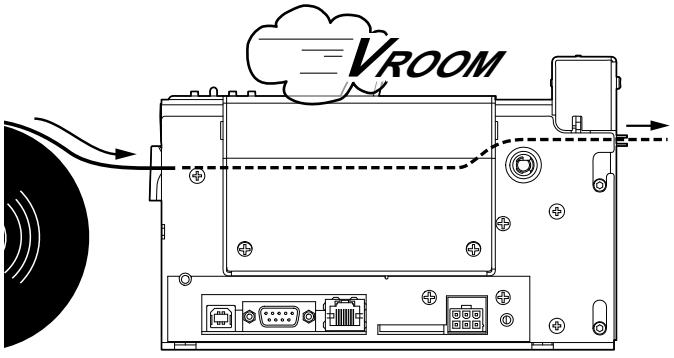
Close the two front covers of the device.

7



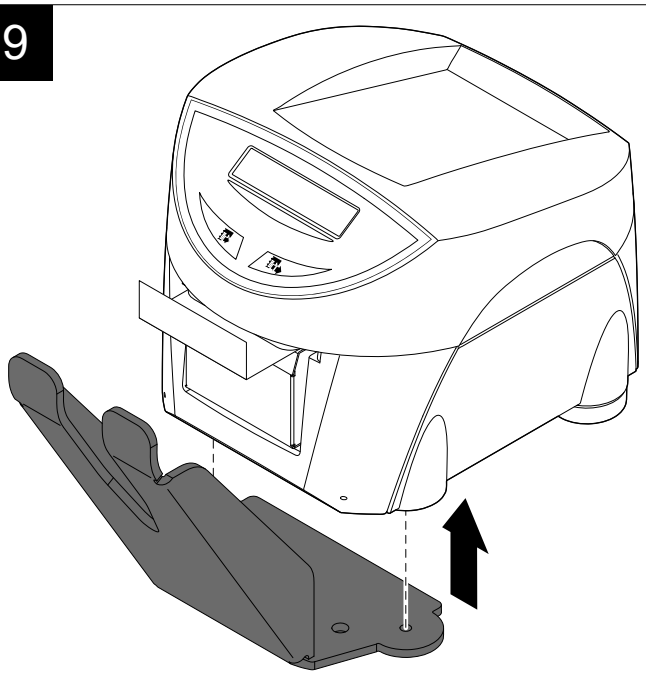
Close the two upper covers of the device.

8



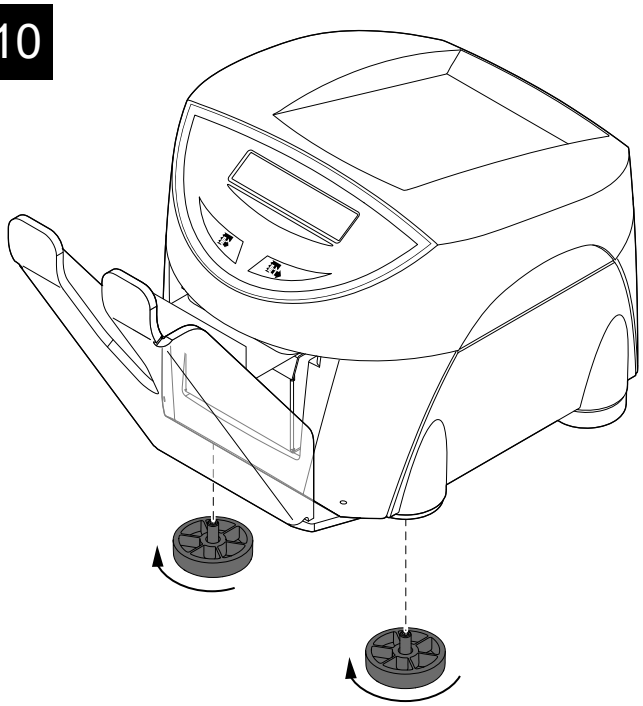
Insert the paper (see previous paragraphs).

9



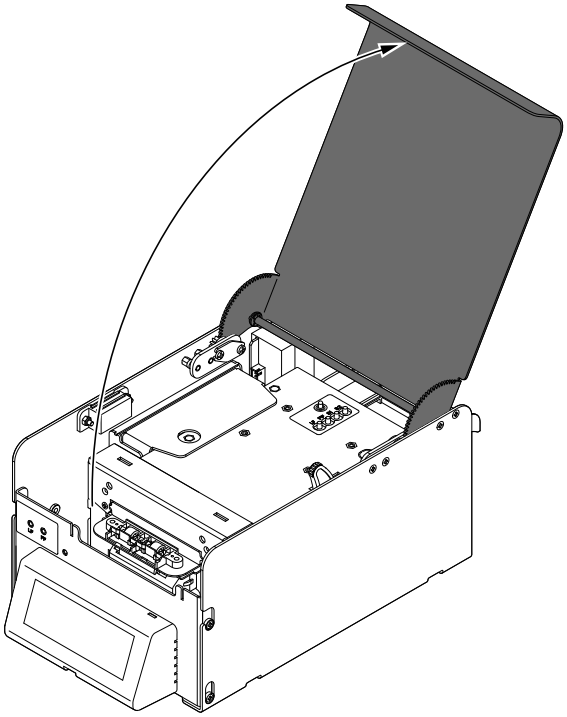
Place the vertical stacker
in the position shown in figure.

10



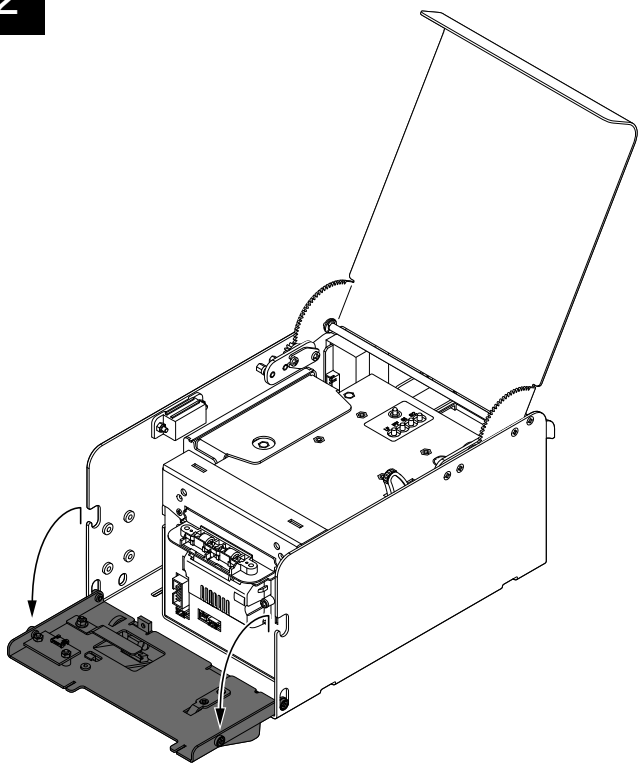
Fix the vertical stacker to the device
by screwing the two feet previously removed.

1



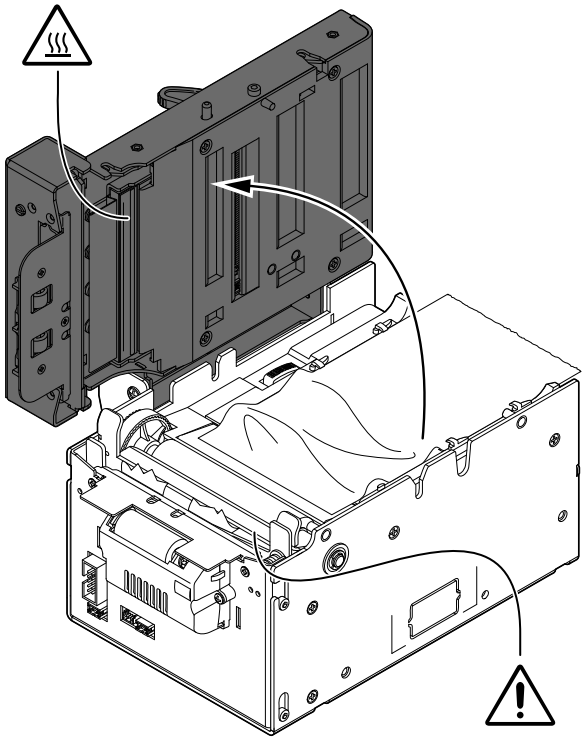
Open the
upper metal cover.

2



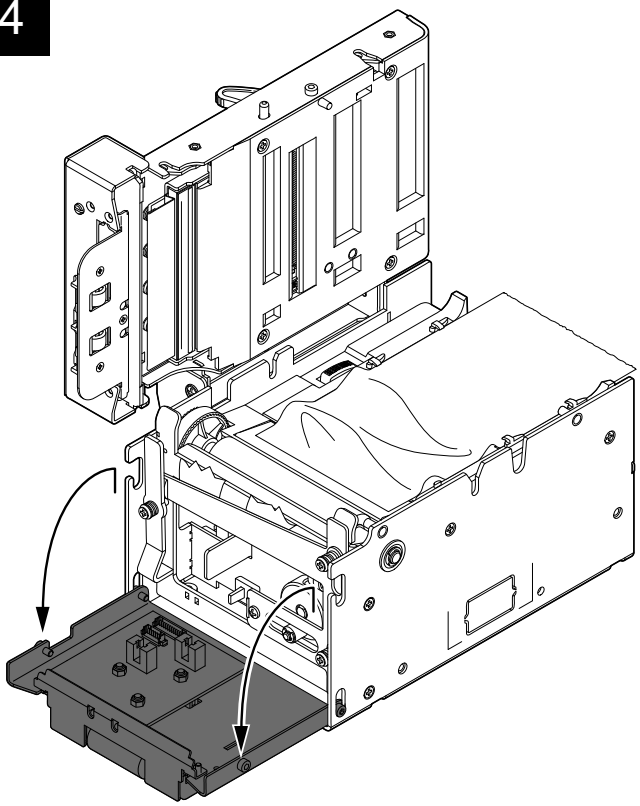
Open the
front metal cover.

3



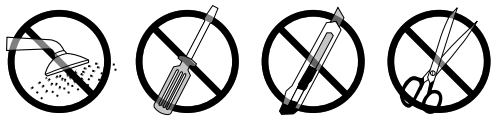
Open the upper cover
of the device.

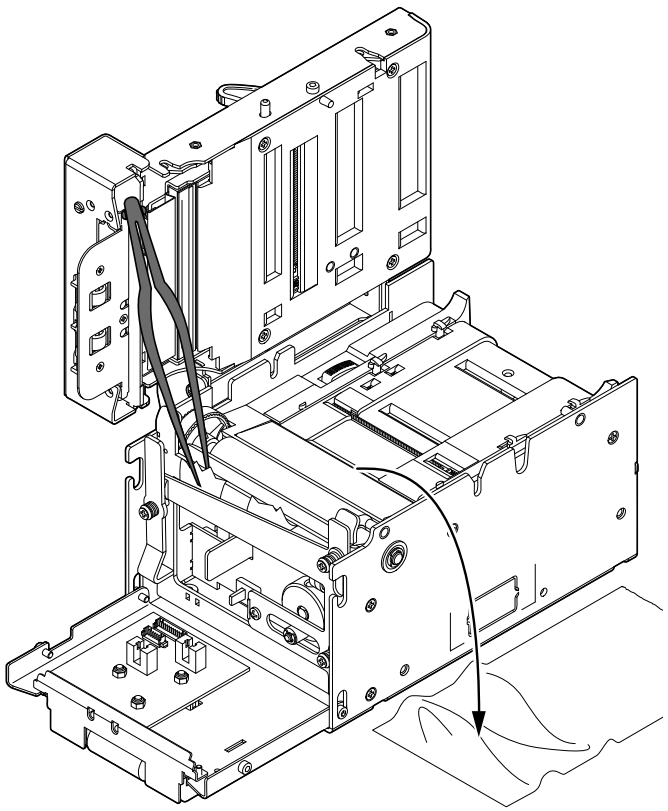
4



Open the front covers
of the device.

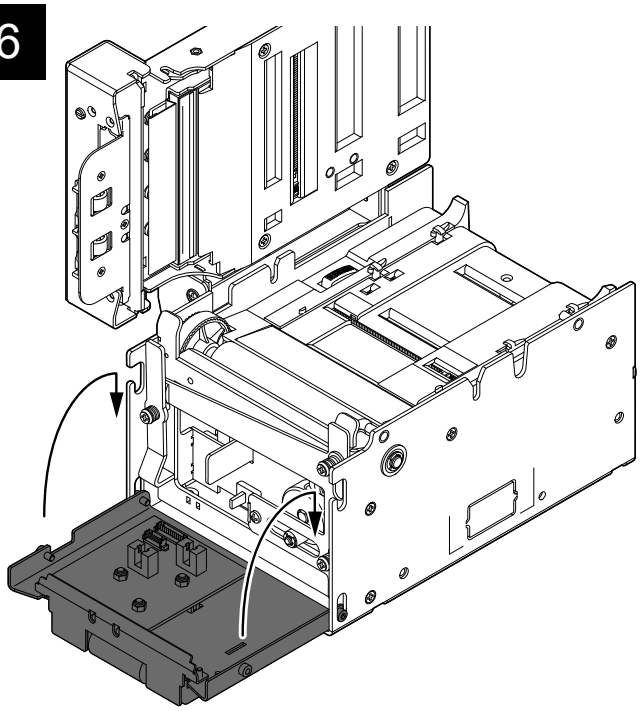
5





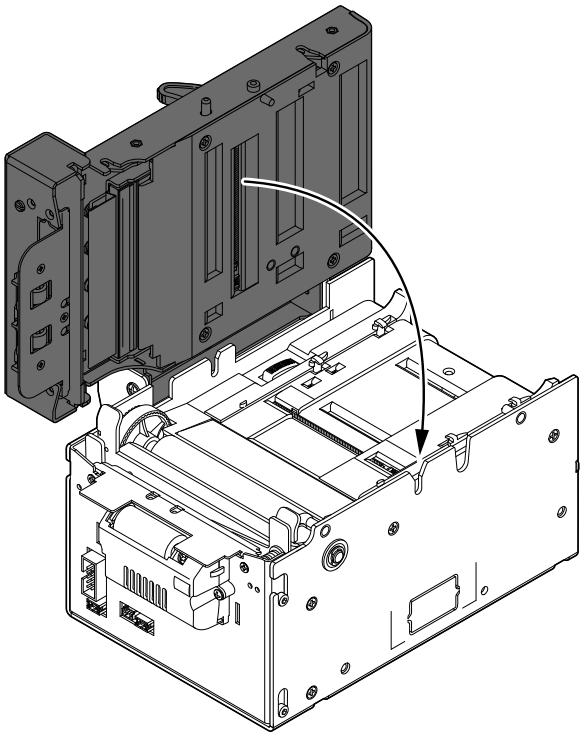
Remove the damaged paper and check the presence for paper scraps inside the device. Carefully remove all paper scraps. If necessary use tweezers.

6



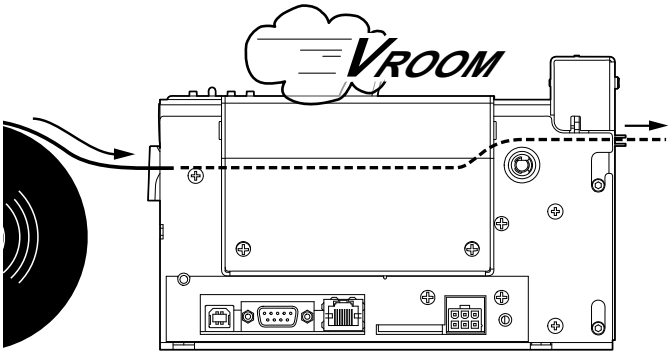
Close the two front covers of the device.

7



Close the two upper covers of the device.

8



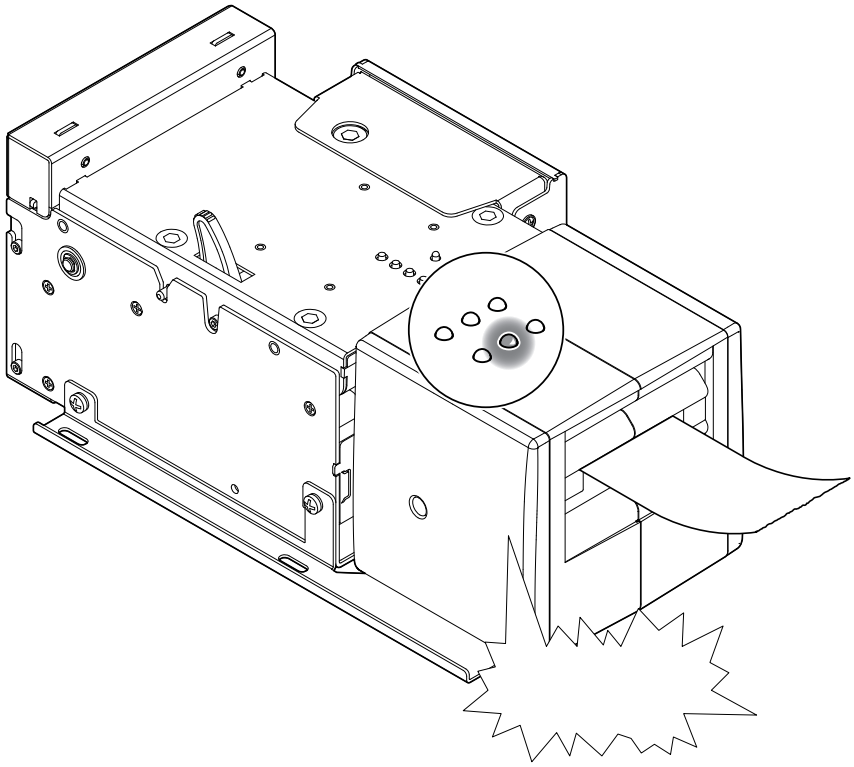
Insert the paper (see previous paragraphs).

8.2 Triple feeder paper jam

KPM302III TF, TK302III PLAS TF, TK302III MET TF-EJ

In case of paper jam inside the triple feeder, the green led that corresponds to the input paper jammed flashes quickly. In this case, contact the customer service.
For ease of reference, in some figure is represented only the internal printer without the external chassis.

1



The green LED for
the feeder jammed flashes quickly.

2

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Contact the customer service
(see chapter 11).

8.3 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 cleaning operations.

For specific procedures, see paragraph 8.4. For ease of reference, for some models is represented only the printer group without external chassis or triple feeder.

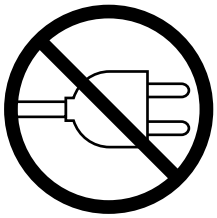
EVERY PAPER CHANGE	
Printhead	Use isopropyl alcohol
Platen roller	Use isopropyl alcohol
EVERY 5 PAPER CHANGES	
Autocutter (only if present)	Use compressed air
Paper path	Use compressed air or tweezers
Sensors	Use compressed air
Triple feeder (only if present)	Use the dedicated cleaning kit. Contact the customer service (see chapter 11).
EVERY 6 MONTHS OR AS NEEDED	
Display (only if present)	Use compressed air or a soft cloth Don't use any ammonia-based product.
Case	Use compressed air or a soft cloth

8.4 Cleaning

For periodic cleaning of the device, see the instructions below (for some models is represented only the printer group without external chassis or triple feeder.)

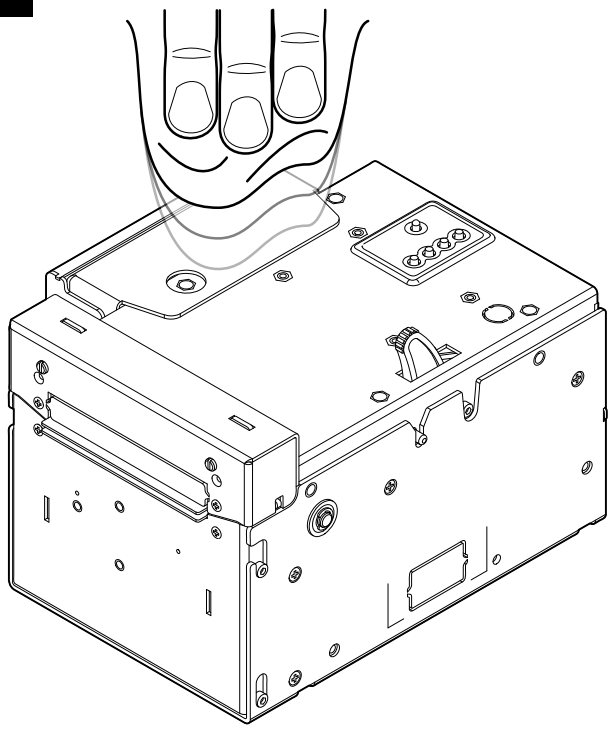
Case

1

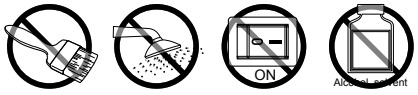


Disconnect the power supply cable.

2



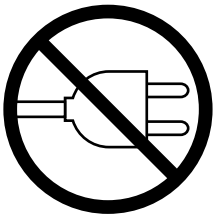
ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the device.



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

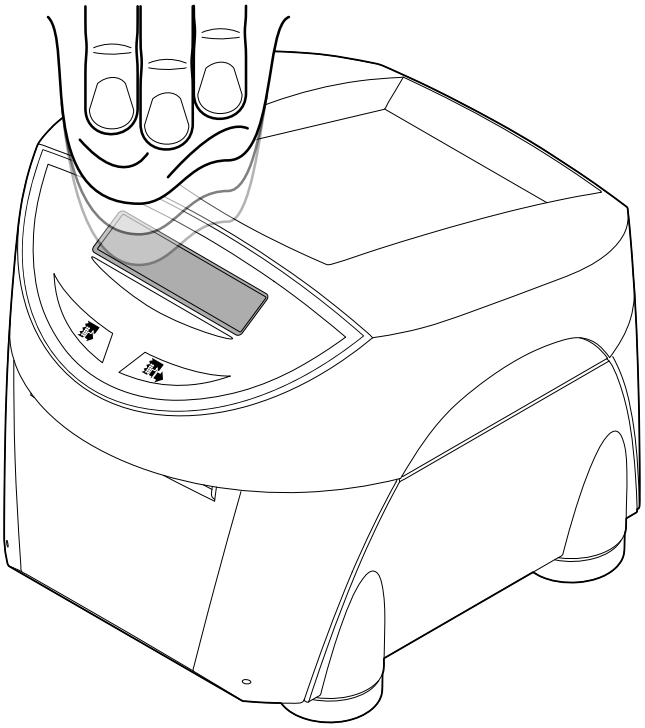
Display

1



Disconnect the power supply cable.

2



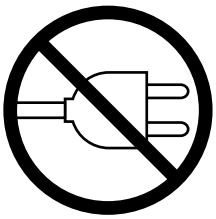
ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
Do not use ammonia-based products .



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

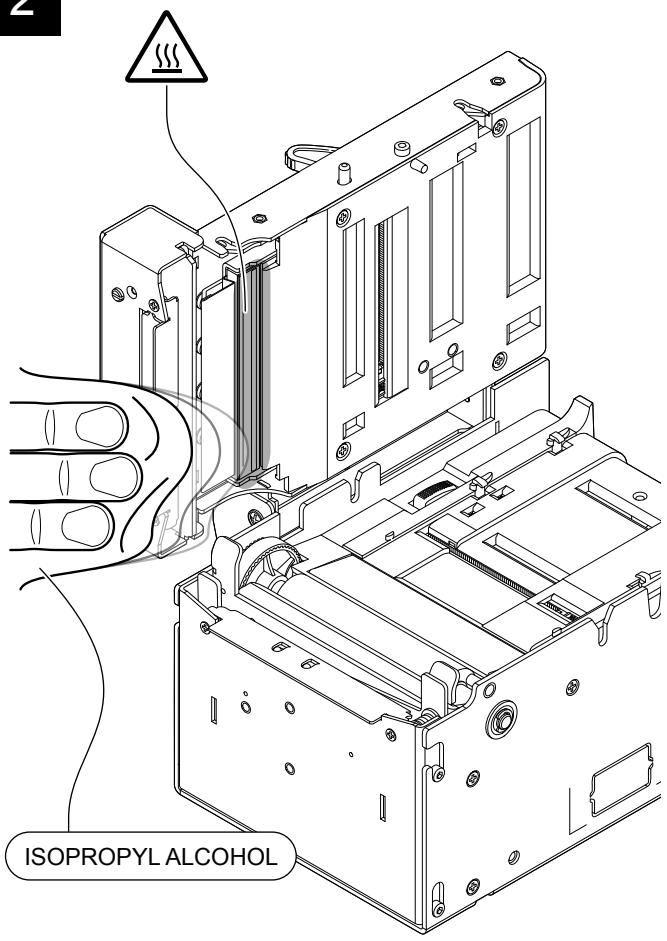
Printhead

1



Disconnect the power supply cable and
open the device covers (see previous paragraphs).

2



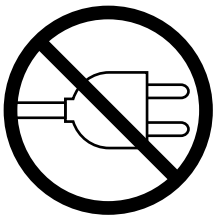
ATTENTION:
Do not use solvents, or hard brushes.
Do not let water or other liquids get inside the machine.



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

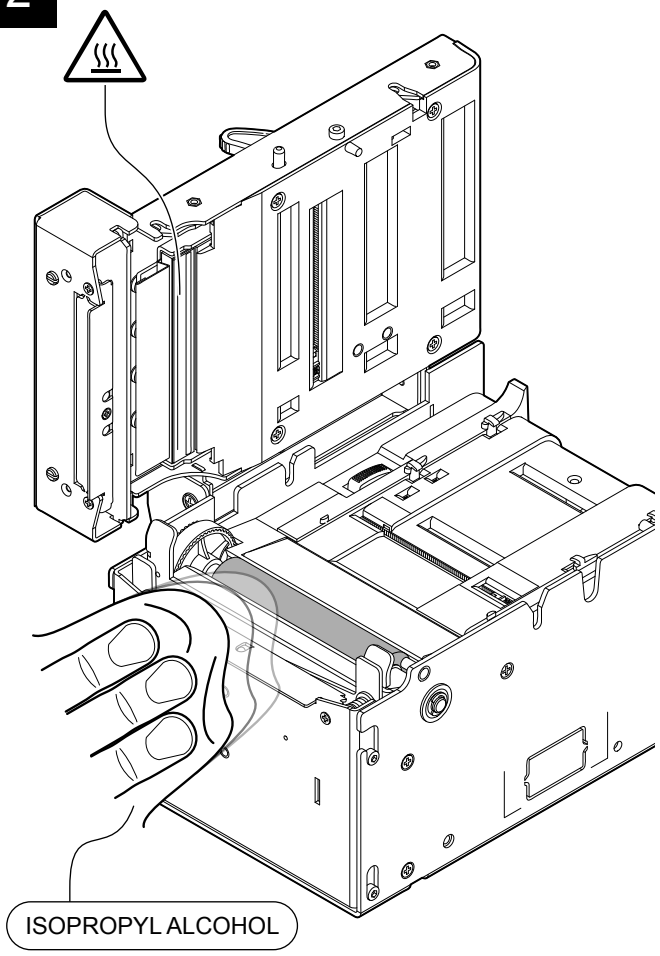
Platen roller

1



Disconnect the power supply cable and
open the device covers (see previous paragraphs).

2



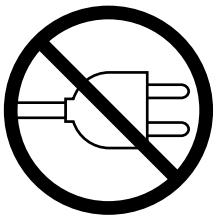
ATTENTION:
Do not use solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.



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

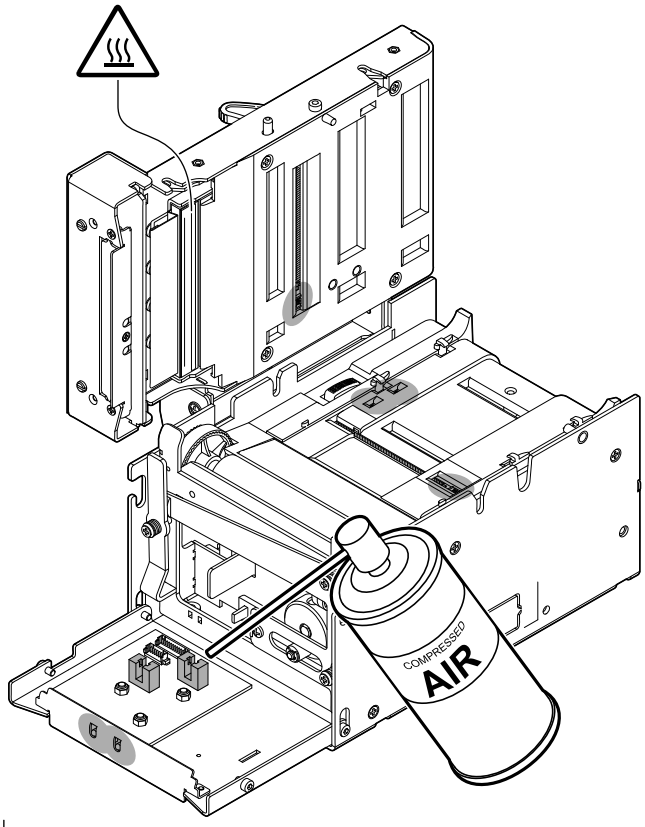
Sensors

1

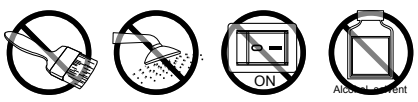


Disconnect the power supply cable and
open the device covers (see previous paragraphs).

2



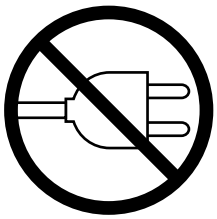
ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.



Clean the device sensors
by using compressed air.

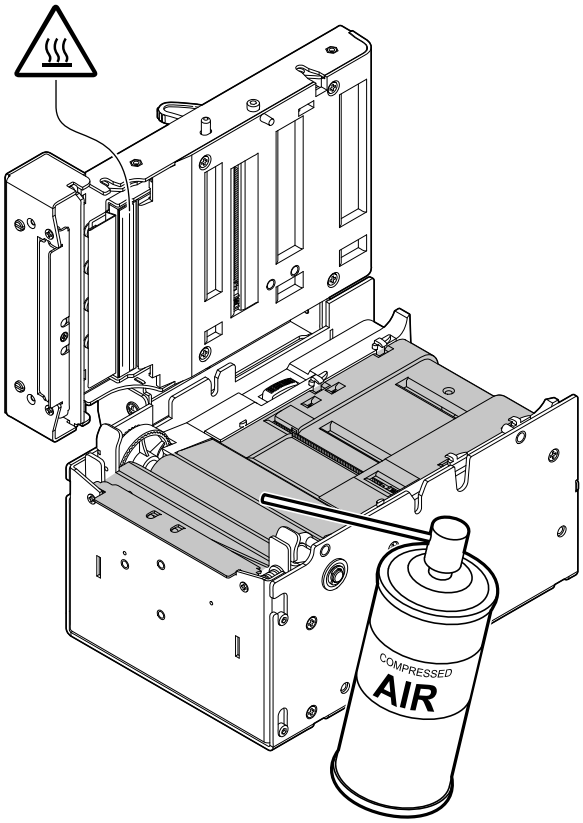
Paper path

1

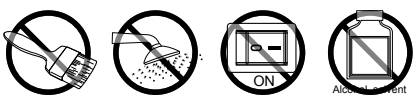


Disconnect the power supply cable and
open the device covers (see previous paragraphs).

2

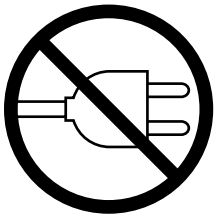


ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.



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

1



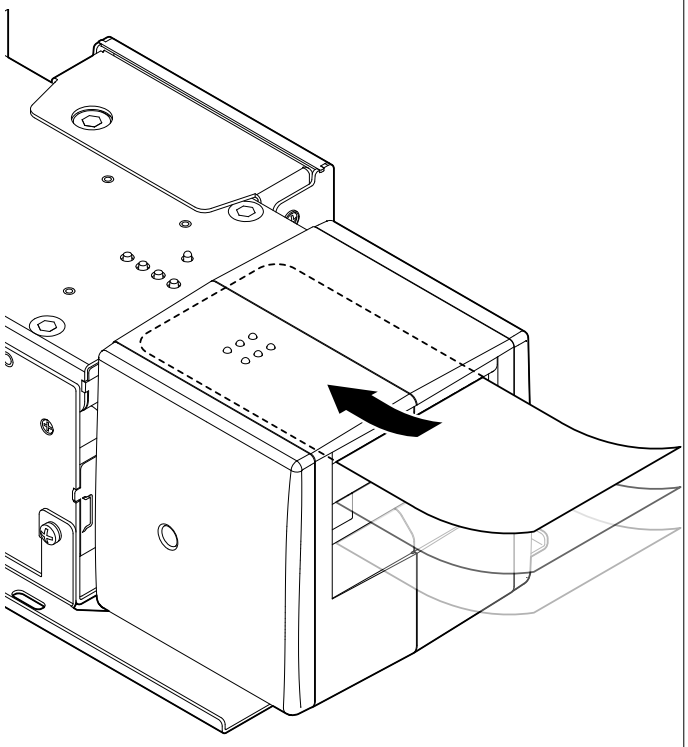
Disconnect the power supply cable and
open the device covers (see previous paragraphs).

2

www.CUSTOM4U.it

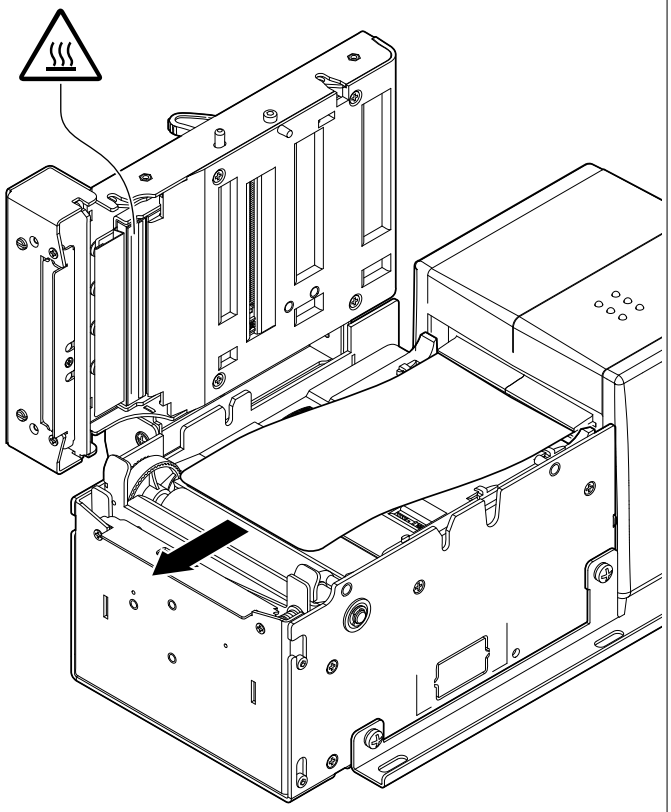
Contact the customer service (see chapter 11)
to request the kit for the triple feeder.

3

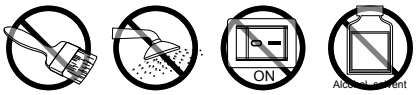


Insert the edge with the rounded corners of the ticket of the cleaning kit in each of the three feeders until it comes out from the triple feeder a few of centimeters.

4

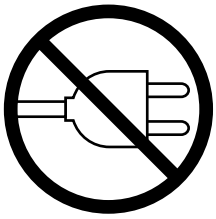


ATTENTION:
Do not use alcohol, solvents, or hard brushes.
Do not let water or other liquids get inside the machine.
To remove paper scraps, use tweezers or compressed air.



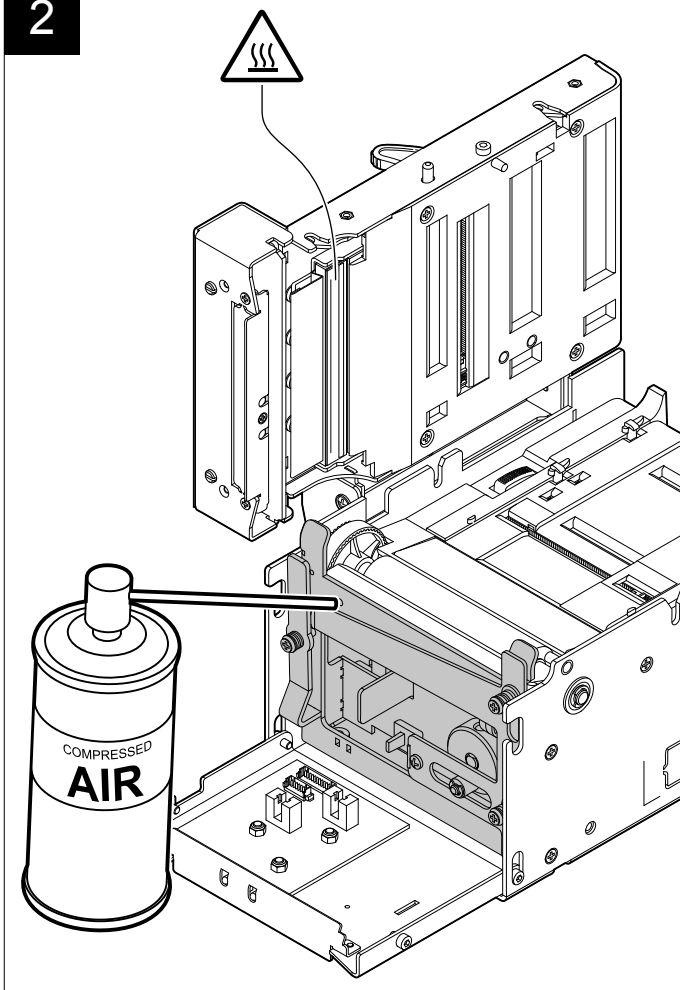
Pull out the ticket of the cleaning kit
by sliding it into the triple feeder.

1

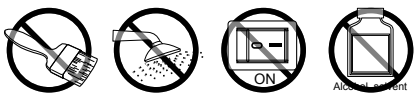


Disconnect the power supply cable and
open the device covers (see previous paragraphs).

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.

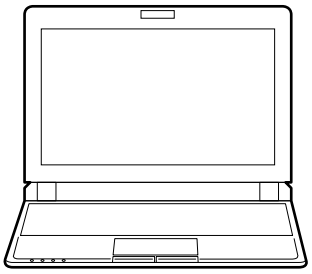
8.5 Upgrade firmware

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

1

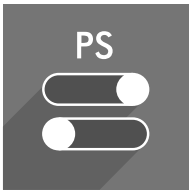
Login to the website www.custom4u.it, type in the product code of the device and download the latest firmware release available.

2



Connect the device to a PC directly
(see paragraph 4.6), without using HUB devices.

3



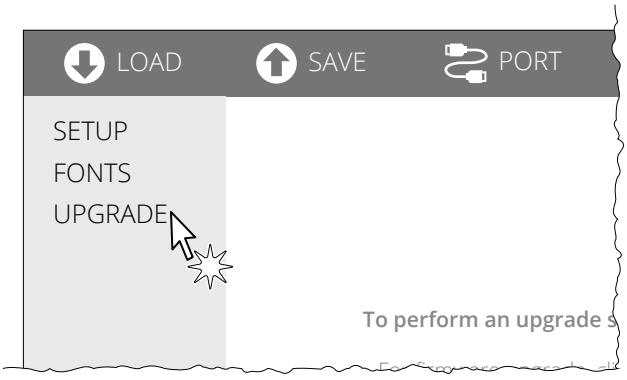
Start the “PrinterSet” software tool.

4



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

5



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

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

9 SPECIFICATION

9.1 Hardware specification

GENERAL	
Sensors	Ticket presence, head temperature, ticket presence on output, mobile detectors of black mark or translucent gap/hole (setting by software), cutter position, front and upper cover open, external low paper
MTBF (1)	84080 hours
Emulations	SERVICE, ATB, BTP
INTERFACES	
USB port	480 Mbit/s
RS232 serial port	from 1200 bps to 115200 bps
ETHERNET port (only for models with Ethernet port)	10 Mbit/s, 100 Mbit/s
MEMORIES	
Receive buffer	64 Kbytes
Flash memory	16 Mbytes
RAM memory	512 Kbytes internal + 16 Mbytes external
Memory card SD (only for models with slot for SD card)	Capacity = max 2 Gbytes
PRINTER	
Resolution	203 dpi (8 dot/mm)
Printing method	Thermal, fixed head

Head life [2]	
Abrasion resistance [3]	100 Km (with recommended paper, 12.5% duty cycle)
Pulse durability	100 M (referred to each dot)
Printable barcode	UPCA, UPCE, EAN13, EAN8, CODE39, ITF, CODABAR, CODE93, CODE128, CODE32, PDF417, DATAMATRIX, AZTEC, QRCODE
Printing speed [2] [4]	High quality = 110 mm/s Normal = 170 mm/s High speed = 200 mm/s
PAPER	
Type of paper	Thermal rolls, heat-sensitive side on outside of roll Thermal fan-fold module
Paper width	54 mm (according to IATA BTP specifications - resolution 740) 82.5 mm (according to IATA ATB specifications - resolution 722e)
Paper weight	according to IATA specifications
Paper thickness	according to IATA specifications
External roll diameter [5]	max. 300 mm
Internal roll core diameter	25 mm (+ 1 mm)
Core thickness	2 mm (+1 mm)
Core type	Cardboard or plastic
Paper end	Not attached to roll core
AUTOCUTTER (only for models with autocutter)	
Paper cut	Total cut
Estimated life [2]	1500000 cuts (with paper thickness 280 µm, ambient temperature)
TRANSPONDER SPECIFICATIONS (only for models with RFID reader/writer)	

Supported transponders	
UHF ultra high frequency RFID (for models with UHF reader/writer)	UHF EPC Gen2
DEVICES ELECTRICAL SPECIFICATIONS	
Power supply	24 Vdc ±10%
Medium consumption [6]	4.10 A
Typical consumption [4]	
KPM302III TK202III PLAS TK302III PLAS TK302III PLAS EJ-vSTK TK202III MET TK302III MET EJ	0.8 A
KPM302III TF TK302III PLAS TF TK302III MET TF-EJ	1 A
Standby consumption	0.14 A
POWER SUPPLY ELECTRICAL SPECIFICATIONS code 963GE020000112 (OPTIONAL for KPM302III, KPM302III TF INCLUDED with TK202III PLAS, TK302III PLAS, TK302III PLAS TF, TK302III PLAS EJ-vSTK)	
Power supply voltage	Auto Range, 90-132 VAC & 190-264 VAC
Frequency	from 47 Hz to 63 Hz
Output	24V, 4.17 A
Power	100 W

POWER SUPPLY ELECTRICAL SPECIFICATIONS code 963GE020000106 (INCLUDED with TK202III MET, TK302III MET EJ, TK302III MET TF-EJ)	
Power supply voltage	Auto Range, 90-132 VAC & 190-264 VAC
Frequency	from 47 Hz to 63 Hz
Output	24V, 4.17 A
Power	100 W
ENVIRONMENTAL CONDITIONS	
Operating temperature	
KPM302III KPM302III TF	from 0°C to +50°C [7]
TK202III PLAS TK302III PLAS TK302III PLAS TF TK302III PLAS EJ-vSTK TK202III MET TK302III MET EJ TK302III MET TF-EJ	from 0°C to +40°C
Relative humidity (RH)	
KPM302III KPM302III TF	from 10% to 80% (w/o condensation)
TK202III PLAS TK302III PLAS TK302III PLAS TF TK302III PLAS EJ-vSTK TK202III MET TK302III MET EJ TK302III MET TF-EJ	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)

NOTES:
(1) : Control board.
(2) : Respecting the regular schedule of cleaning for the device components.
(3) : Damages caused by scratches, ESD and electromigration are excluded.
(4) : Referred to a standard CUSTOM receipt (L=10 cm, Density = 12.5% dots on).
(5) : For external rolls diameter higher to Ø100 mm it's recommended to use a paper pretensioning device.
(6) : Referred to the UL measurements (Speed/Quality = Normal, ticket length = 203 mm, 50% dots on, loop = 10 s).
(7) : If you use the device with the power supply code 963GE020000112 or code 963GE020000106, supplied with device or as accessory, the operating temperature range is from 0 °C to +40 °C.

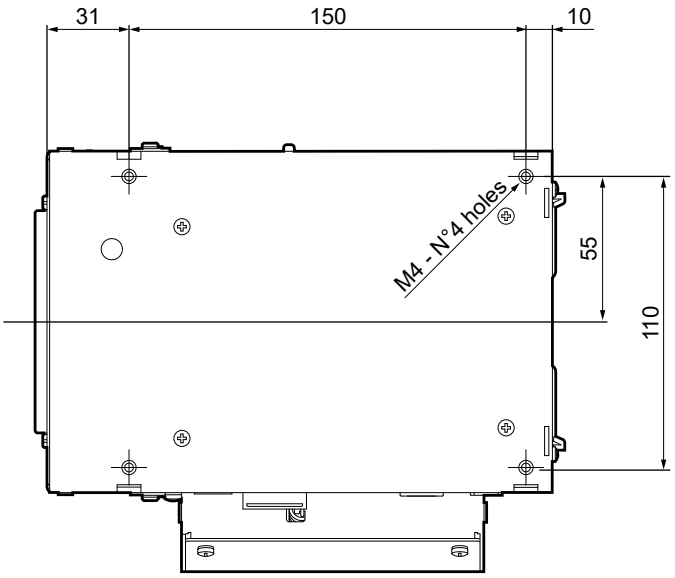
9.2 Device dimensions

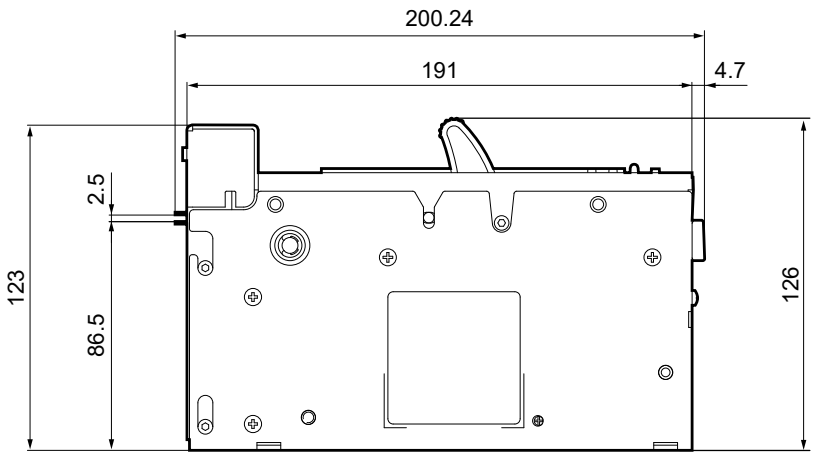
All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed.

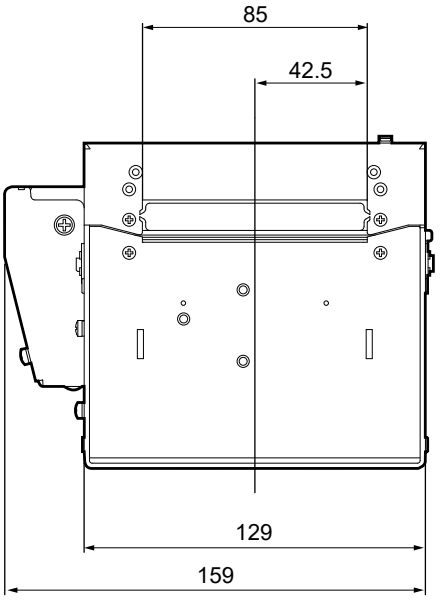
KPM302III, KPM302III TF

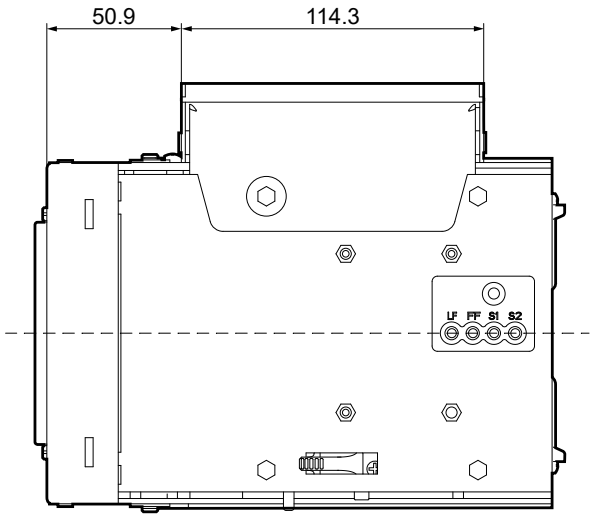
Length	
KPM302III	191 mm
KPM302III TF	307.5 mm
Height	123 mm
Width	
KPM302III	160 mm
KPM302III TF	168 mm
Weight	
KPM302III	3500 g
KPM302III TF	5200 g

KPM302III (standard configuration)

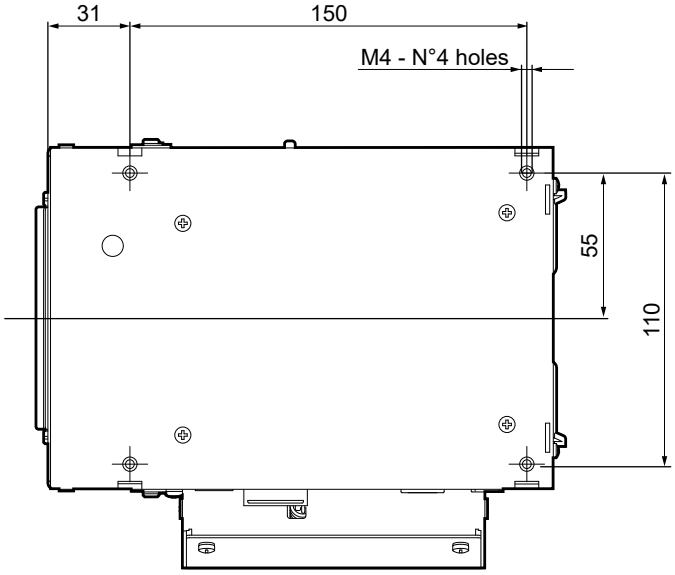


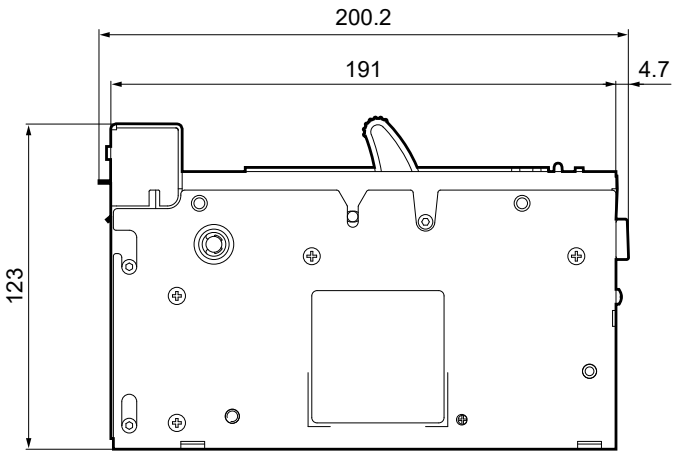


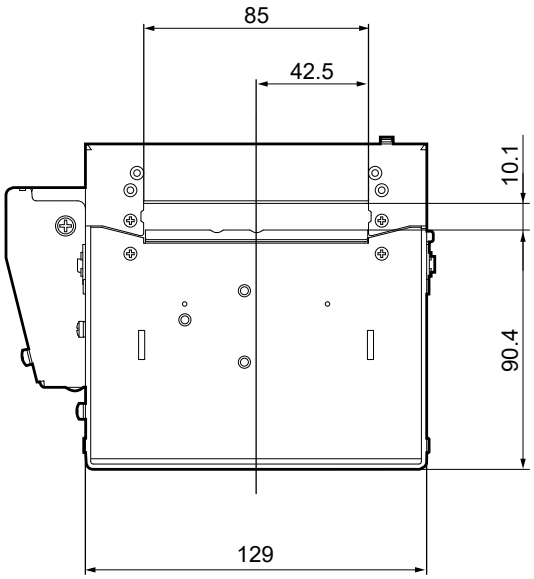


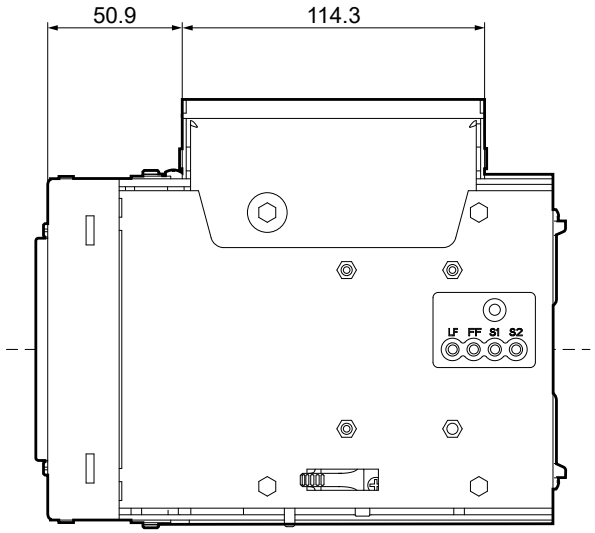


KPM302III (Cut&Drop configuration)

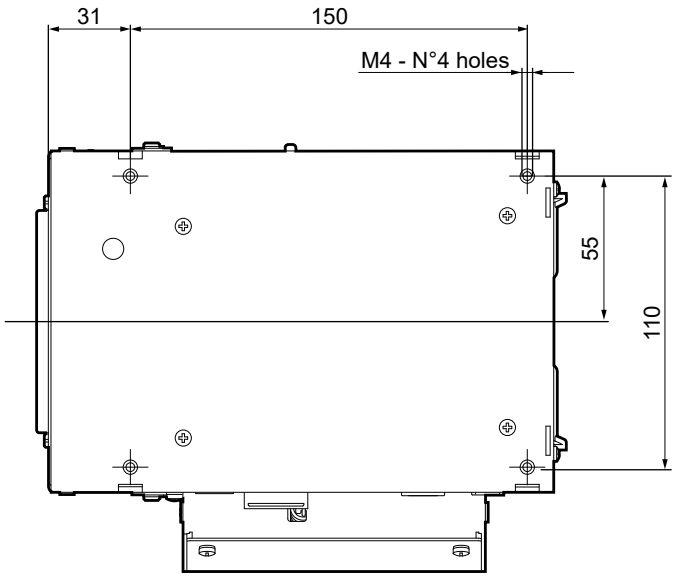


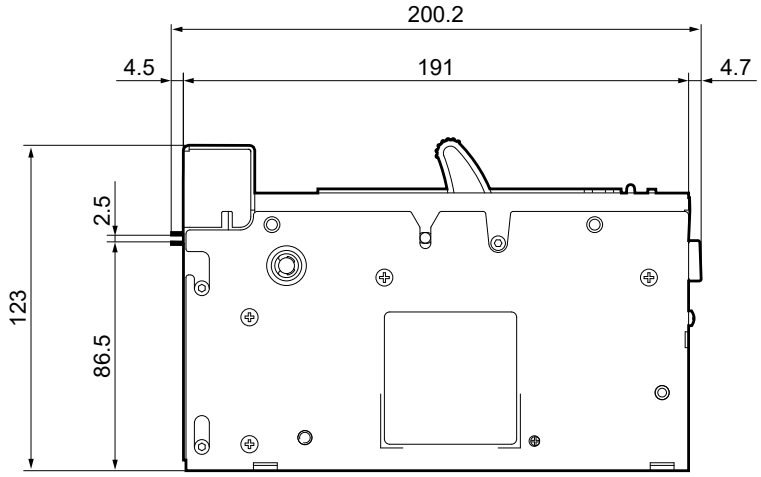


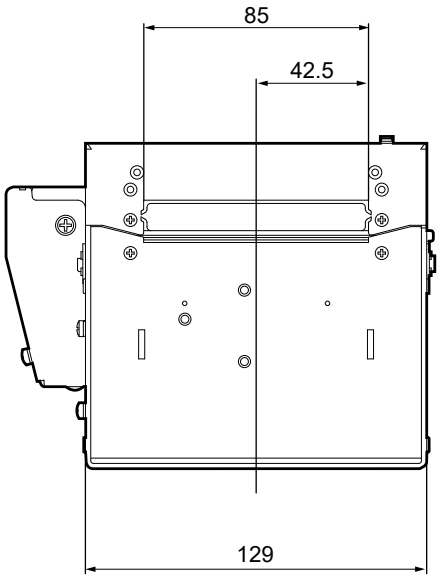


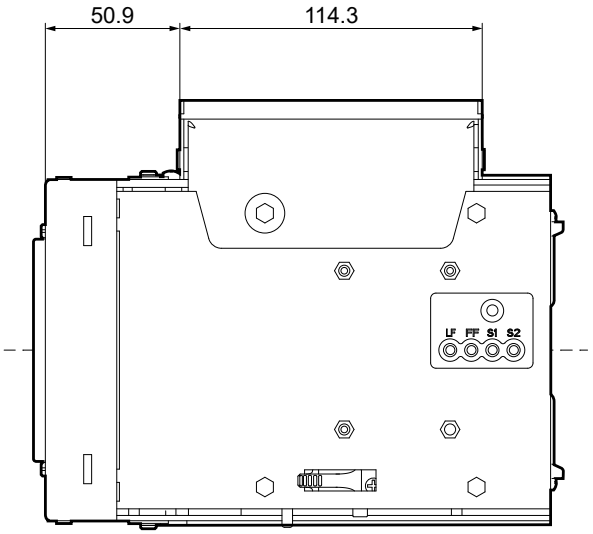


KPM302III (Burster configuration)

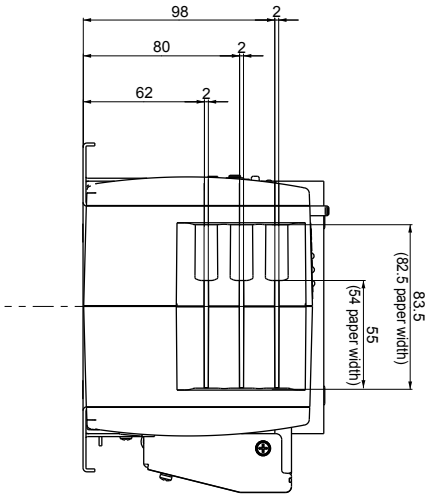


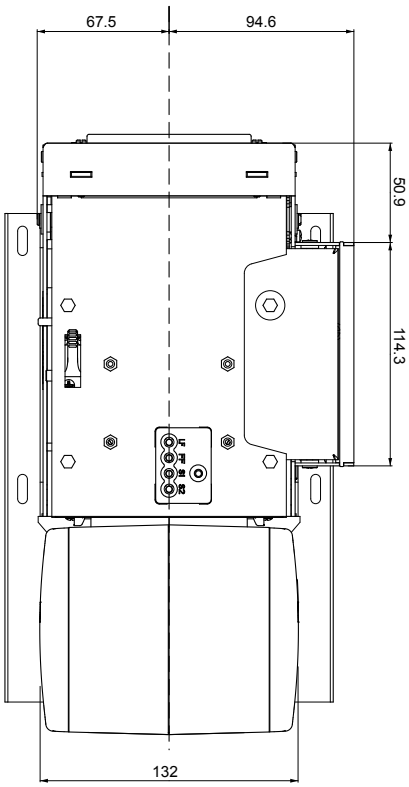


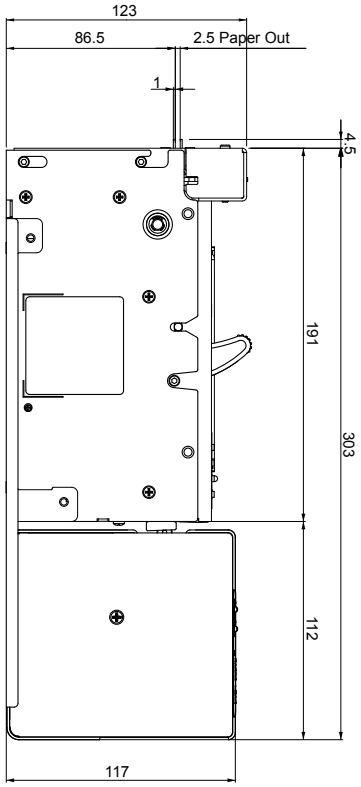


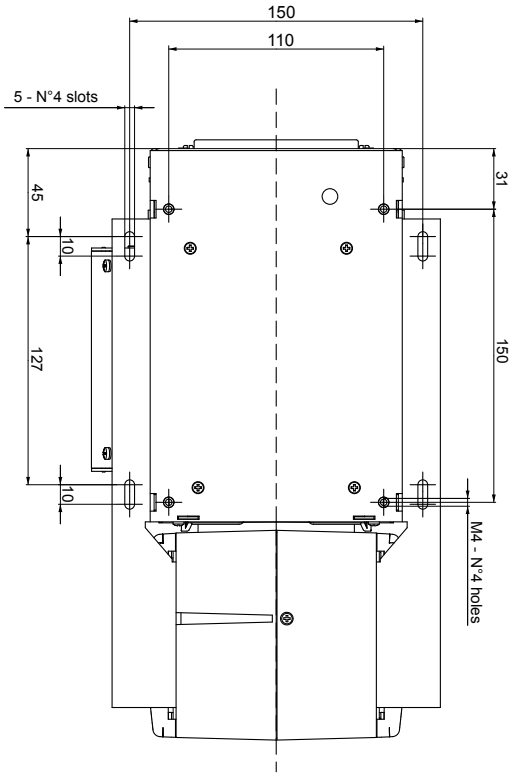


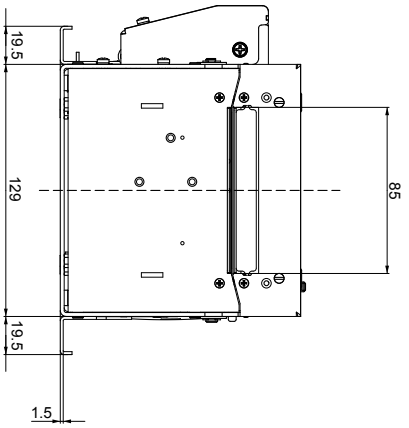
KPM302III TF (standard configuration)



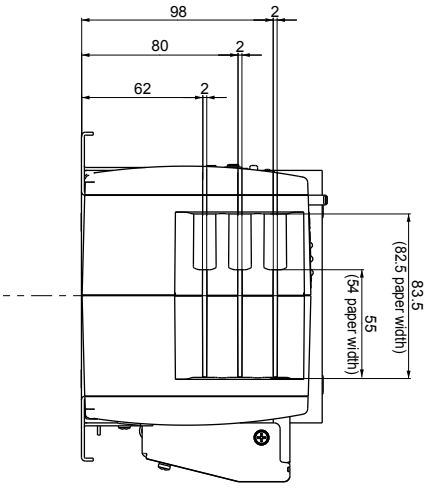


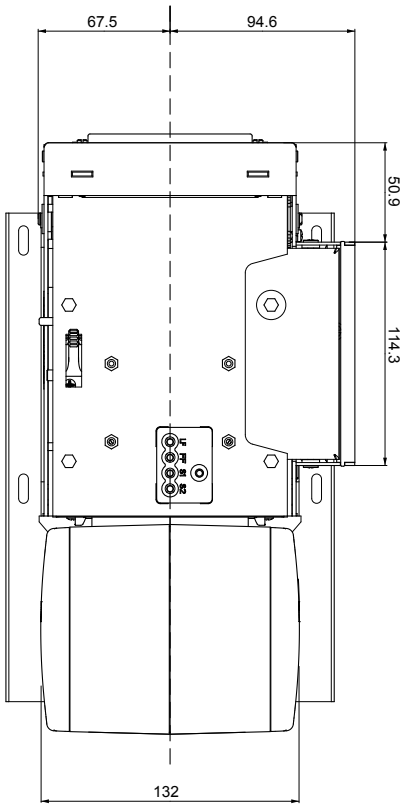


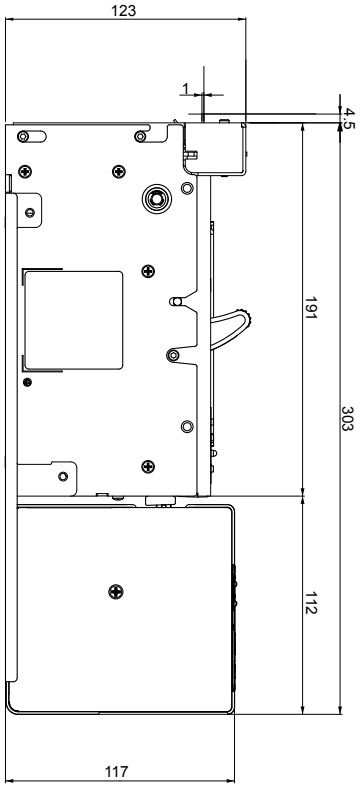


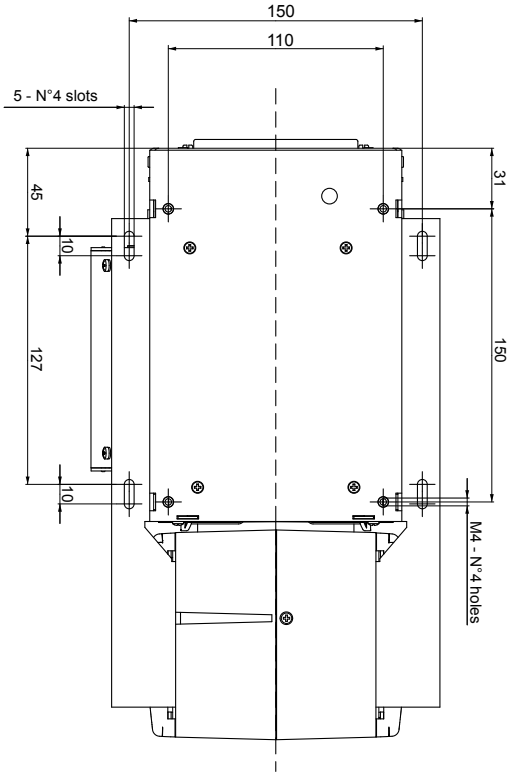


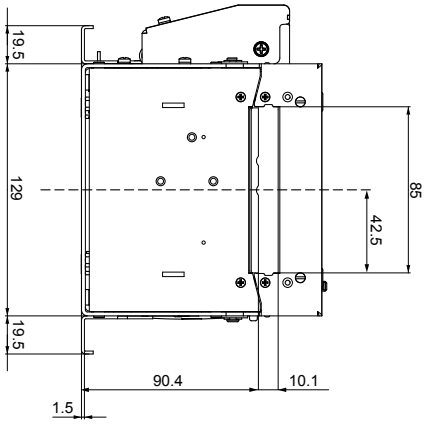
KPM302III TF (Cut&Drop configuration)



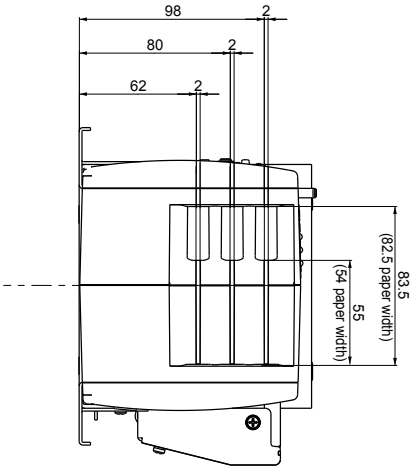


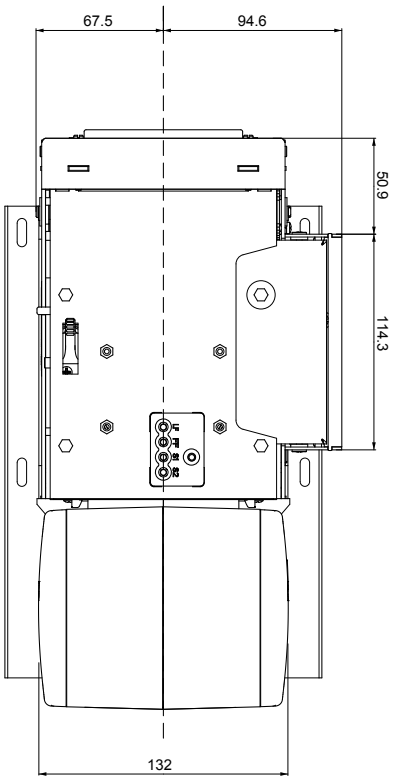


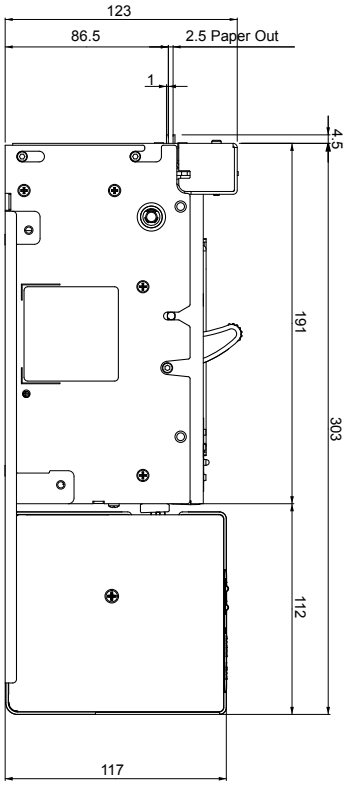


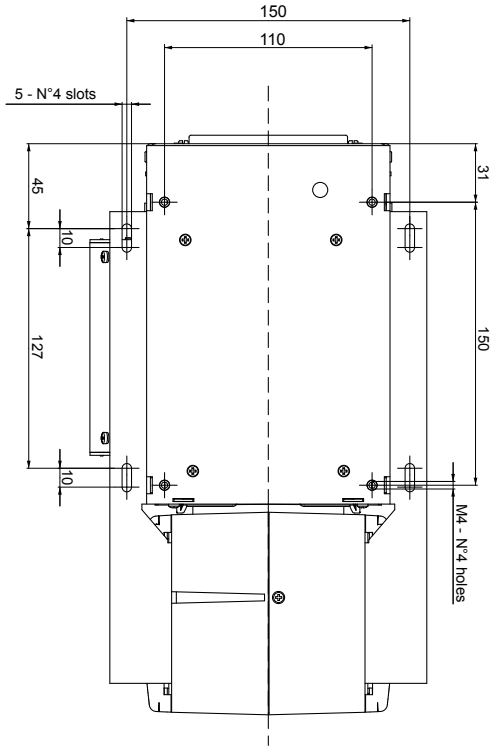


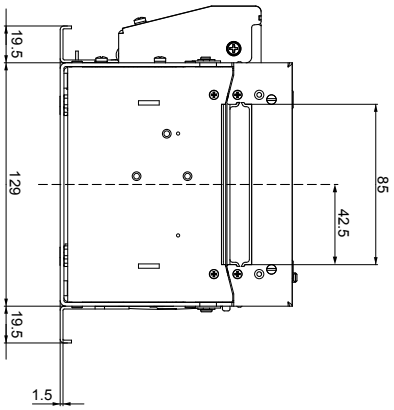
KPM302III TF (Burster configuration)







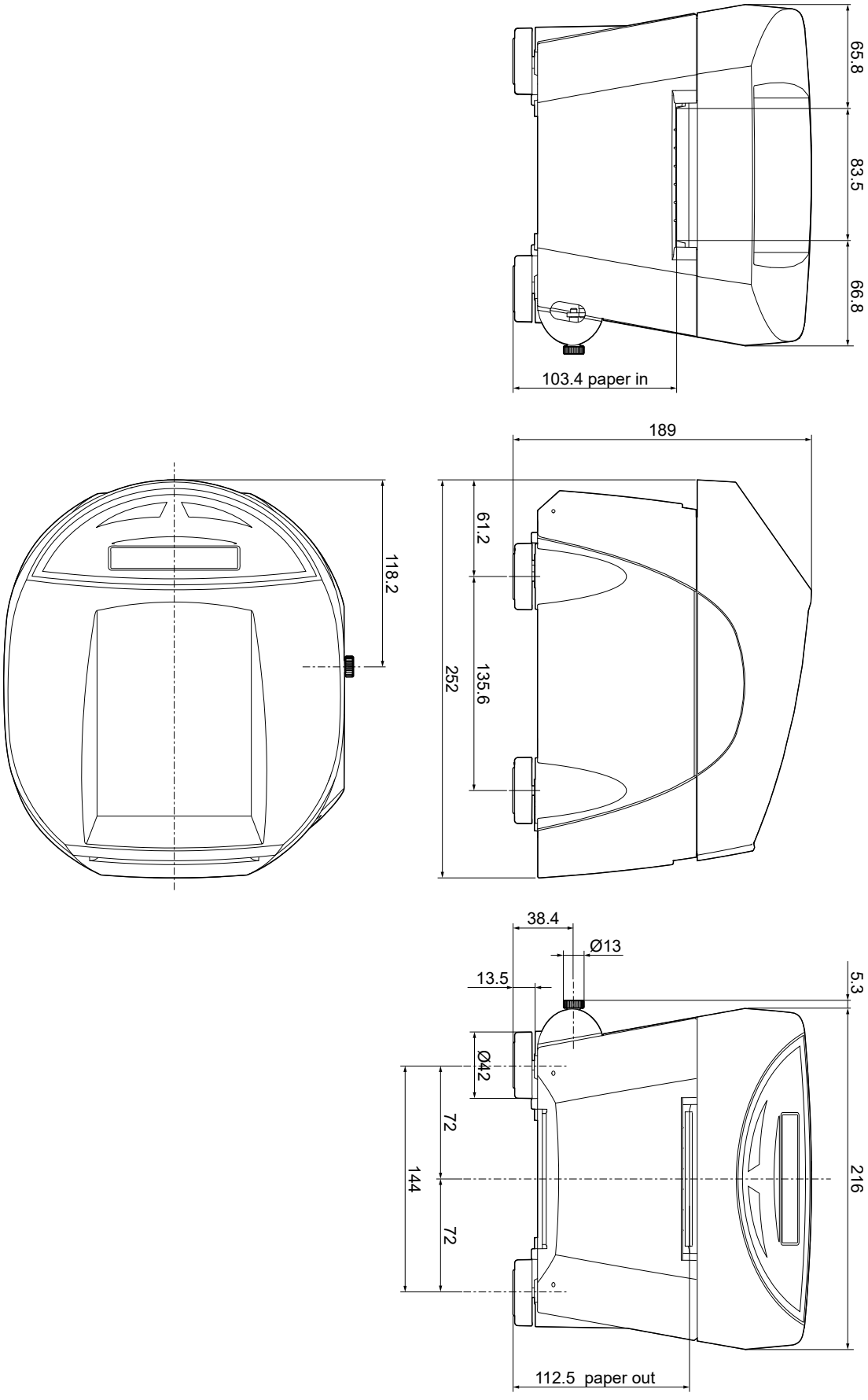




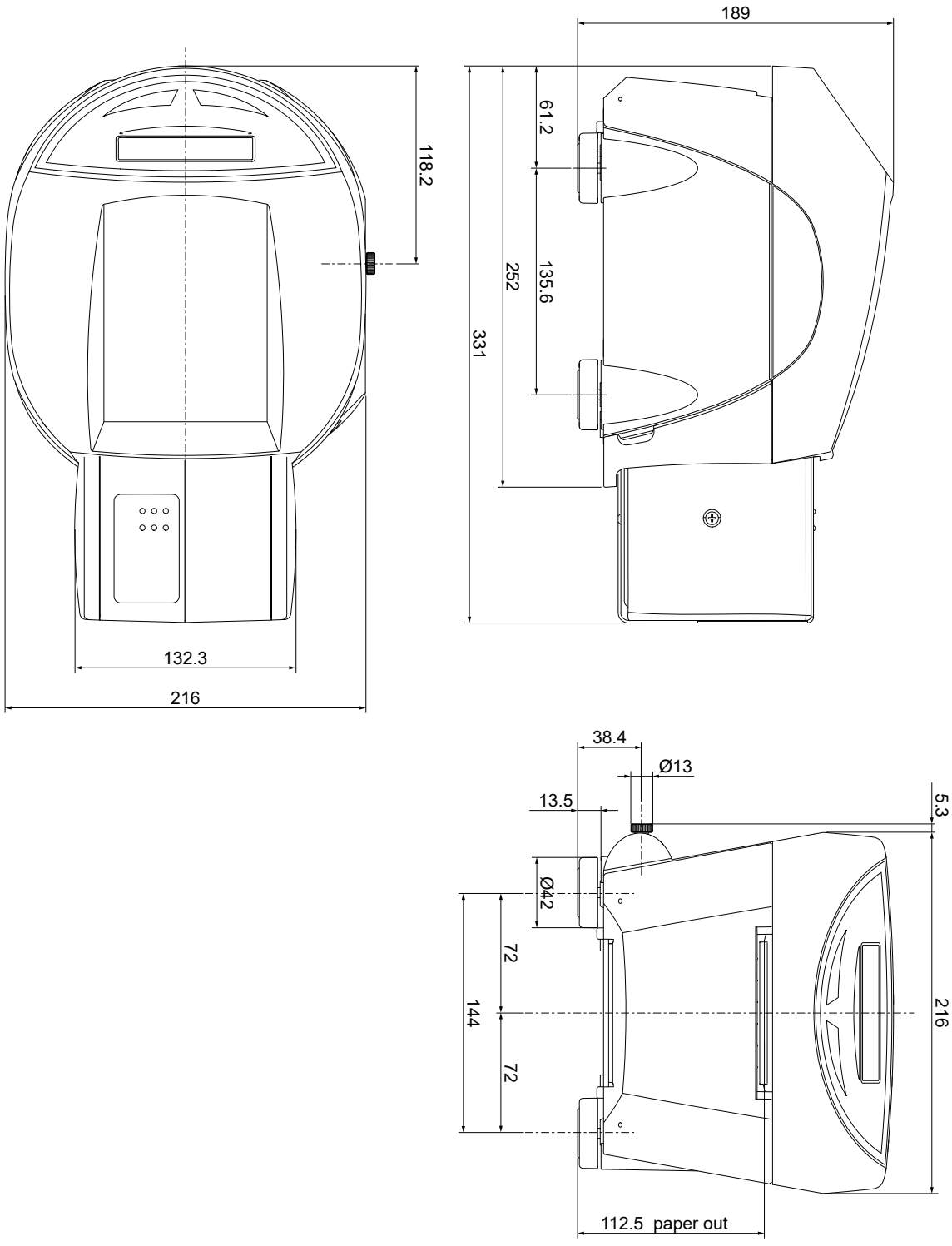
TK202III PLAS, TK302III PLAS
TK302III PLAS TF, TK302III PLAS EJ-vSTK

Length	
TK202III PLAS TK302III PLAS	252.1 mm
TK302III PLAS TF	331 mm
TK302III PLAS EJ-vSTK	362.9 mm
Height	
TK202III PLAS TK302III PLAS TK302III PLAS TF	192.6 mm
TK302III PLAS EJ-vSTK	218.5 mm
Width	216 mm
Weight	
TK202III PLAS TK302III PLAS	4000 g
TK302III PLAS TF	4950 g
TK302III PLAS EJ-vSTK	4270 g

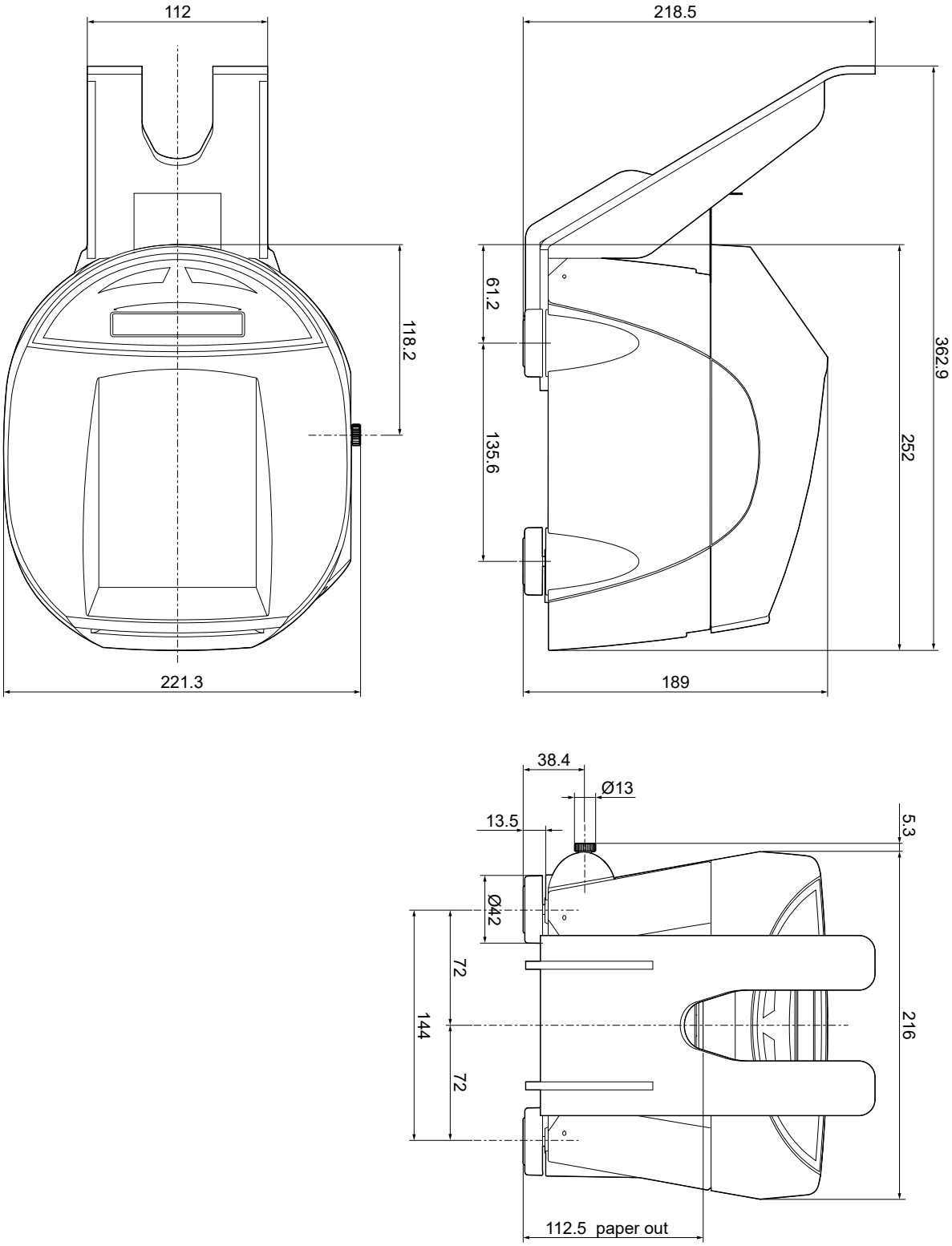
TK202III PLAS, TK302III PLAS



TK302III PLAS TF



TK302III PLAS EJ-vSTK

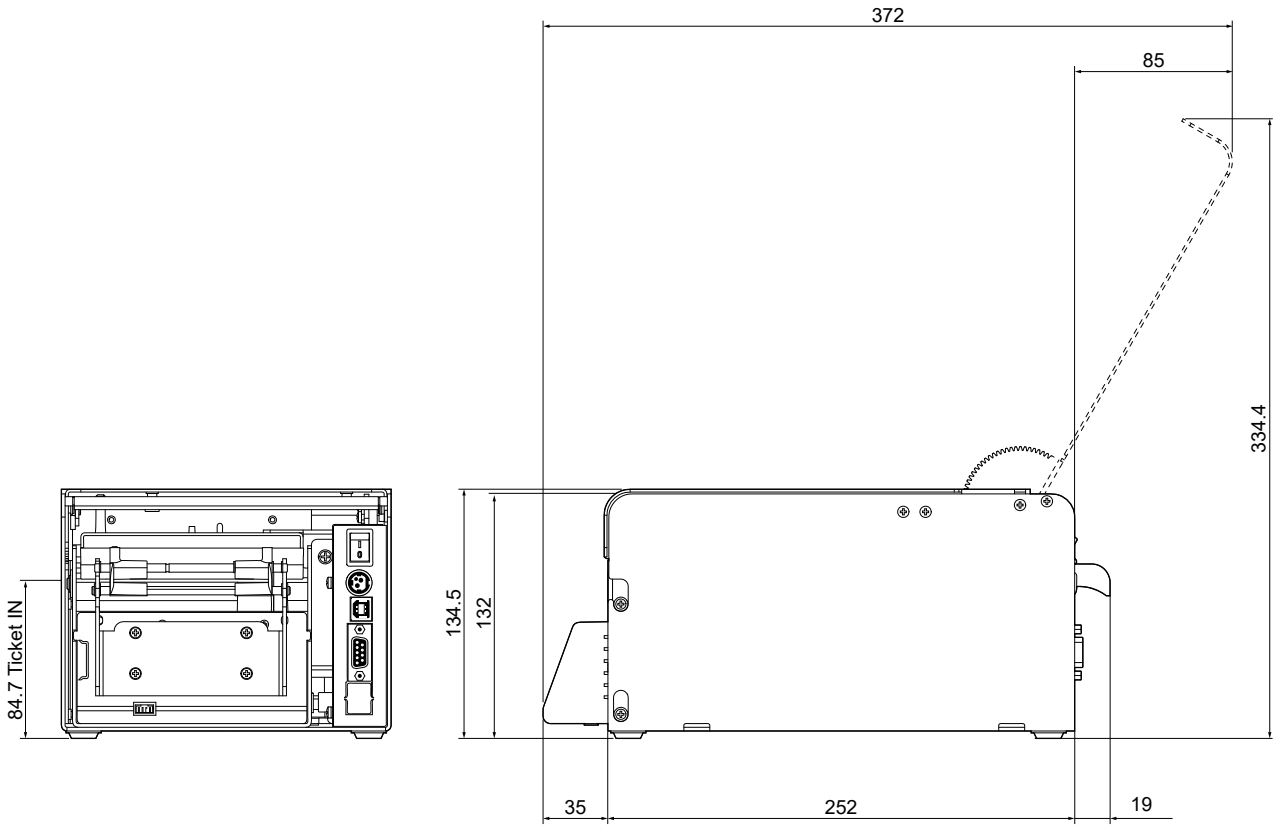


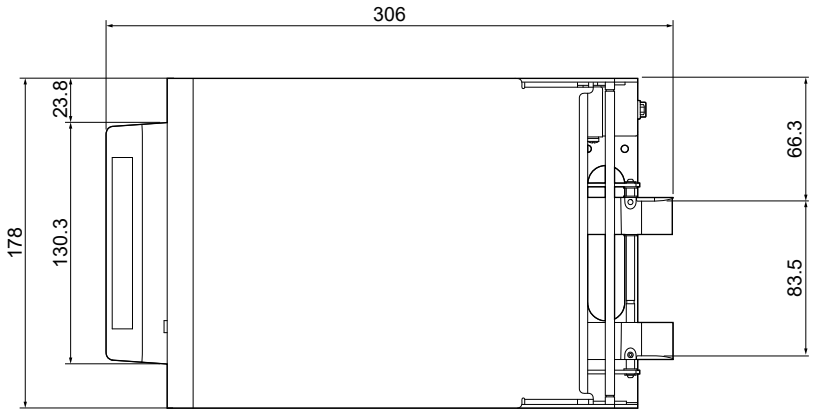
CUSTOM

TK202III MET, TK302III MET EJ, TK302III MET TF-EJ

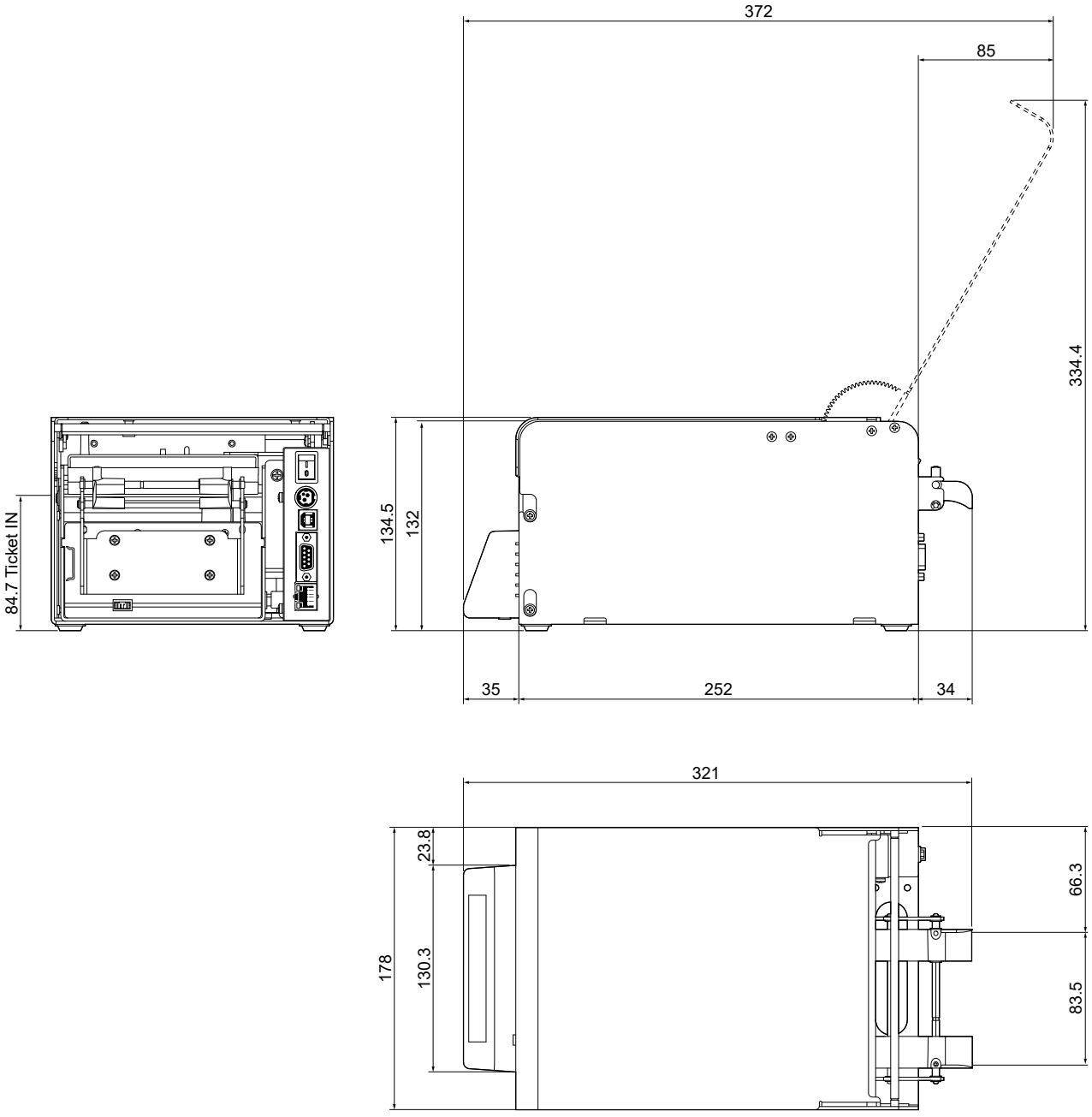
Length	
TK202III MET	306 mm
TK302III MET EJ	321 mm
TK302III MET TF-EJ	367.2 mm
Height	134.5 mm
Width	178 mm
Weight	
TK202III MET TK302III MET EJ	6500 g
TK302III MET TF-EJ	8200 g

TK202III MET

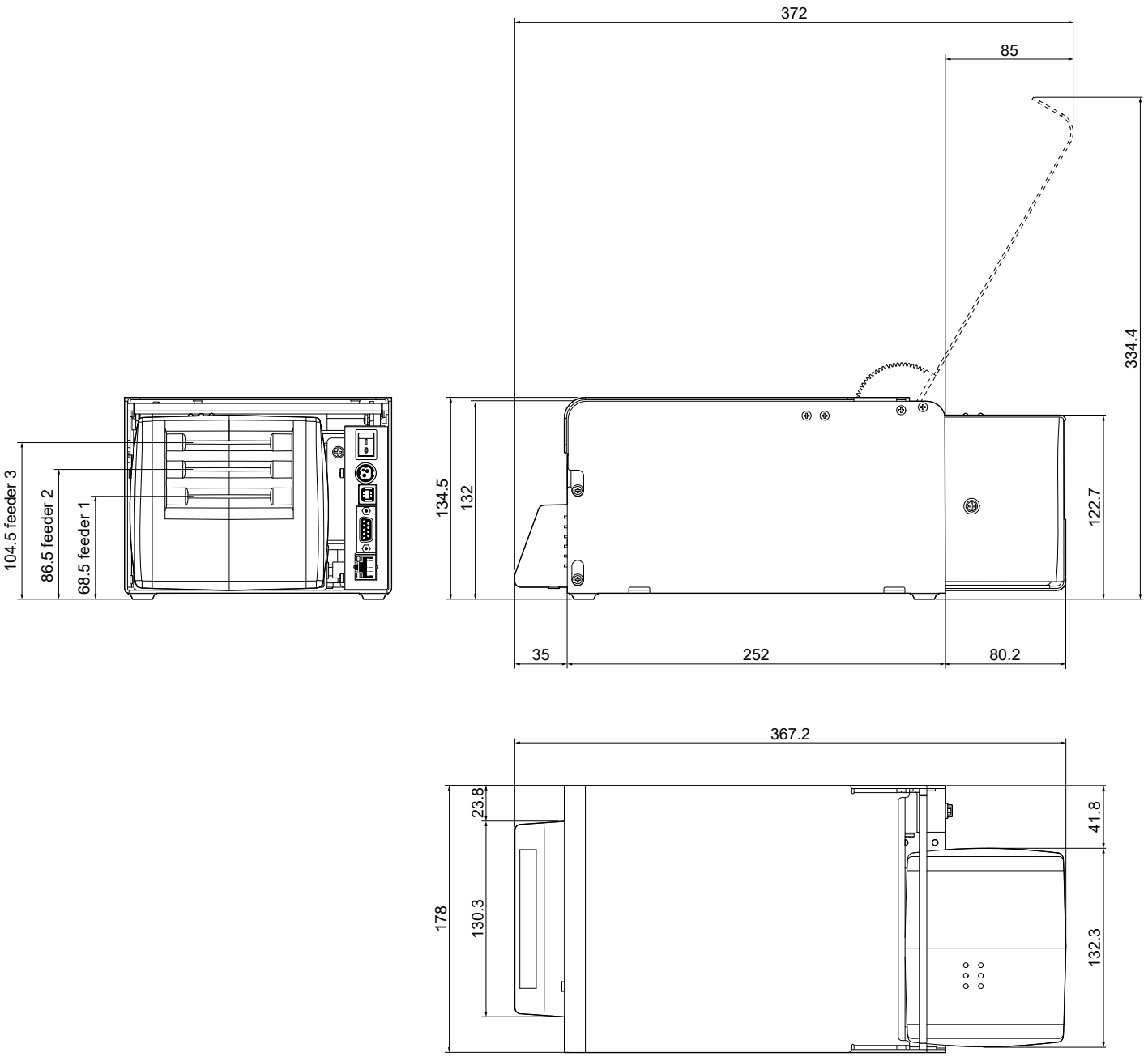




TK302III MET EJ



TK302III MET TF-EJ

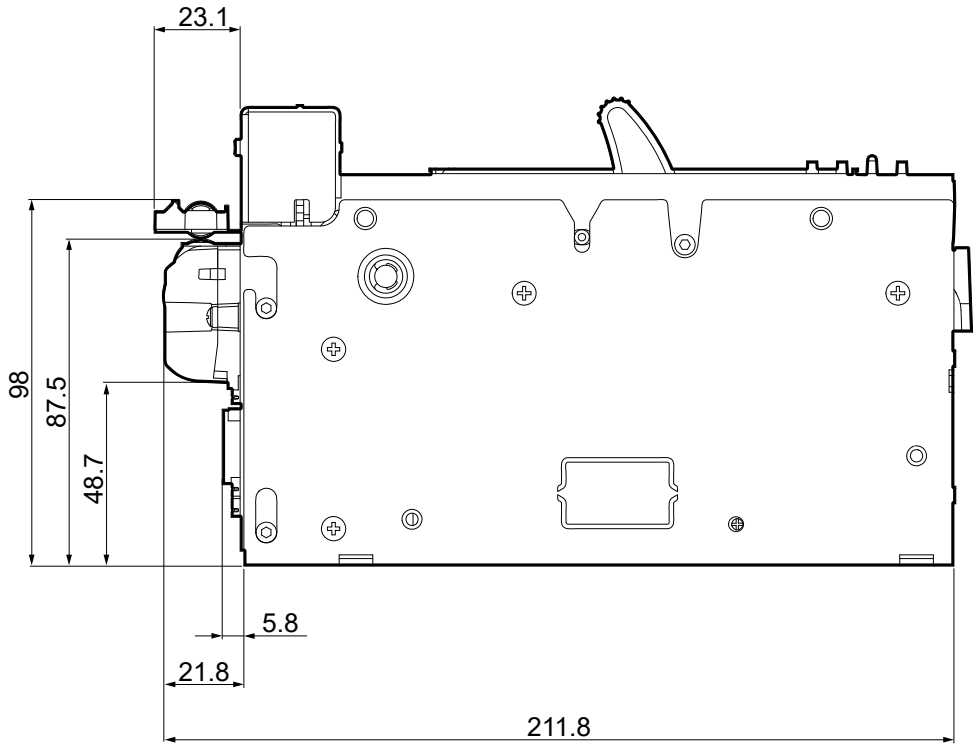


9.3 Device dimensions with ejector device code 976AV2110000001 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed.

KPM302III

Length	212.7 mm
Height	123 mm
Width	160 mm
Weight	3500 g

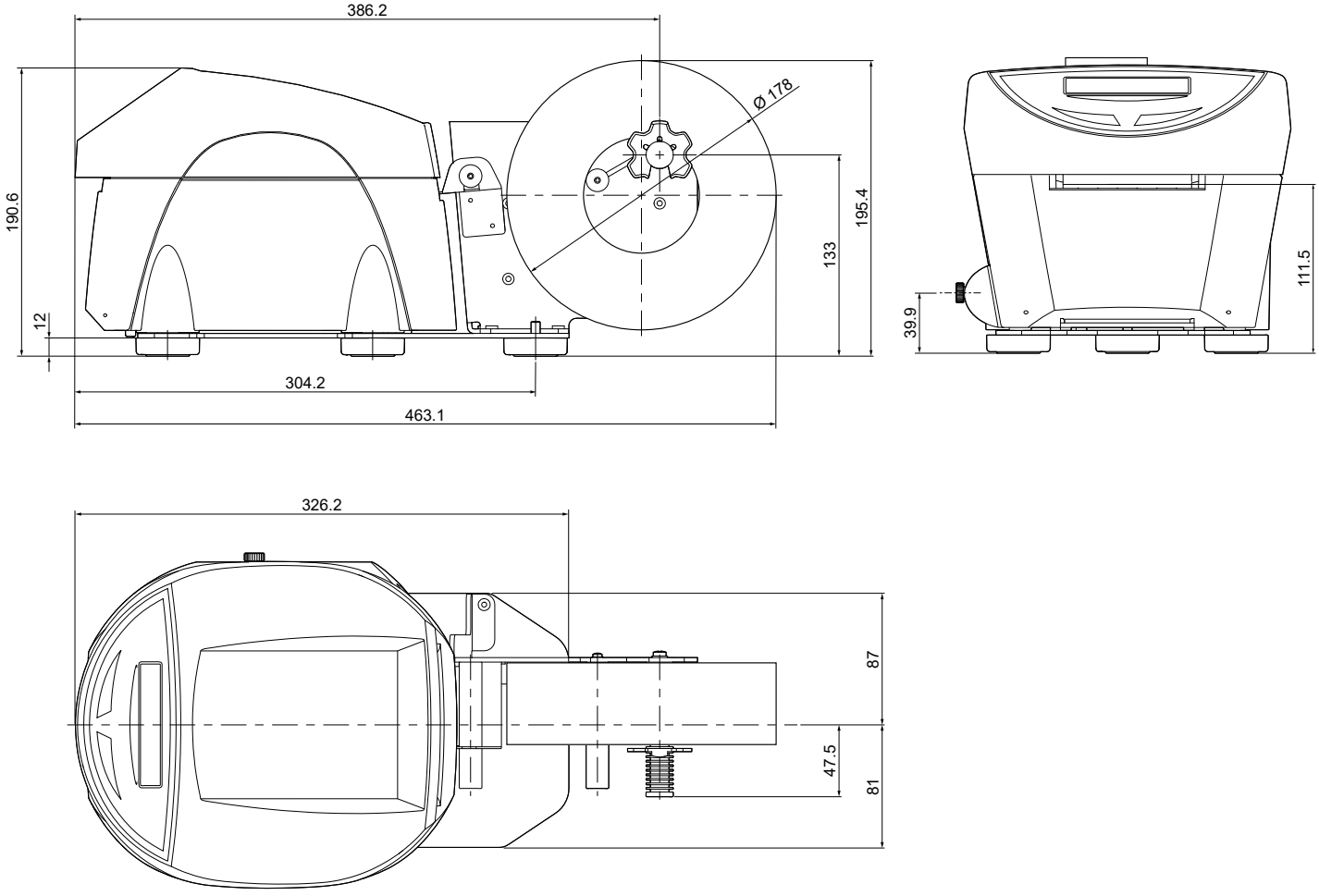


9.4 Device dimensions with paper roll holder code 974BA010000001 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed and with Ø178 mm paper roll.

TK202III PLAS, TK302III PLAS, TK302III PLAS EJ-vSTK

Length	463.1 mm
Height	195.4 mm
Width	216 mm



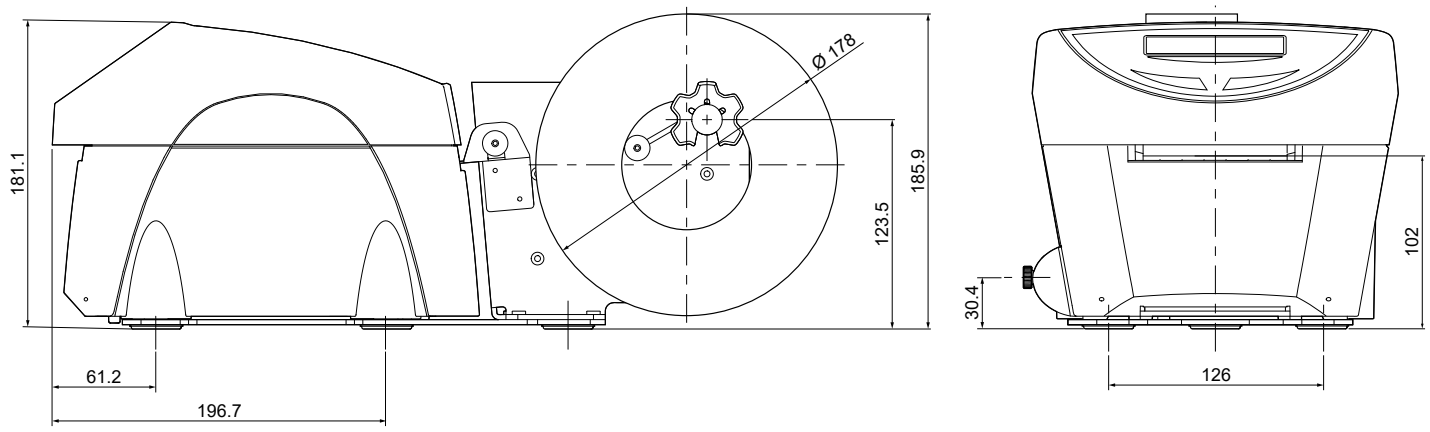
NOTES: When the paper roll holder is mounted on TK302III PLAS EJ-vSTK, it is necessary to properly levelling the rear feet of the device.

9.5 Device dimensions with height reduction kit code 976BB010000014 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed and with Ø178 mm paper roll.

Models with paper roll holder (code 974BA010000001 - optional)

Length	463.1 mm
Height	185.9 mm
Width	216 mm

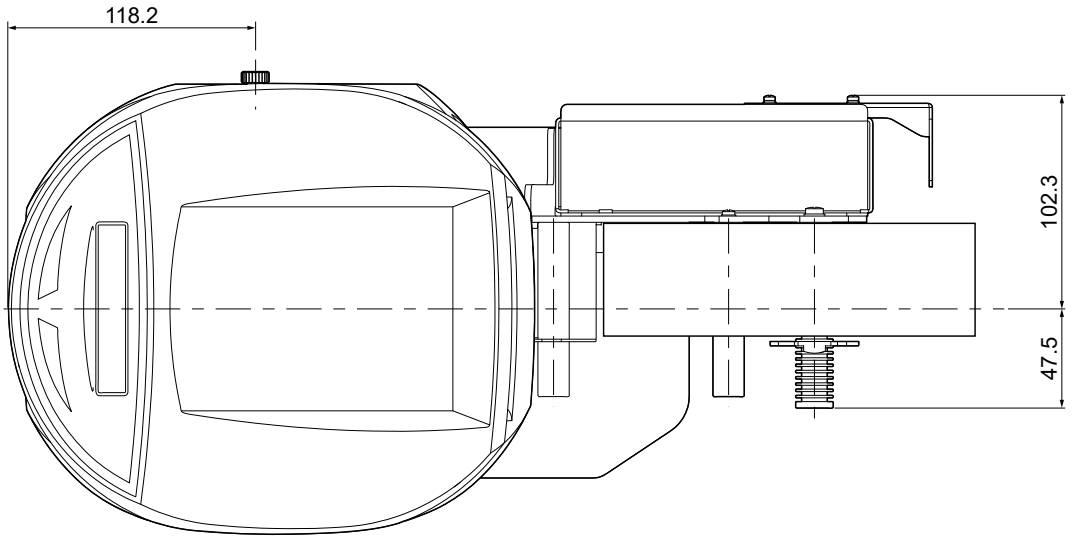


9.6 Device dimensions with power supply container code 974BB010000001 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed and with Ø178 mm paper roll.

models with paper roll holder (code 974BA010000001 - optional)

Length	463.1 mm
Height	195.4 mm
Width	216 mm

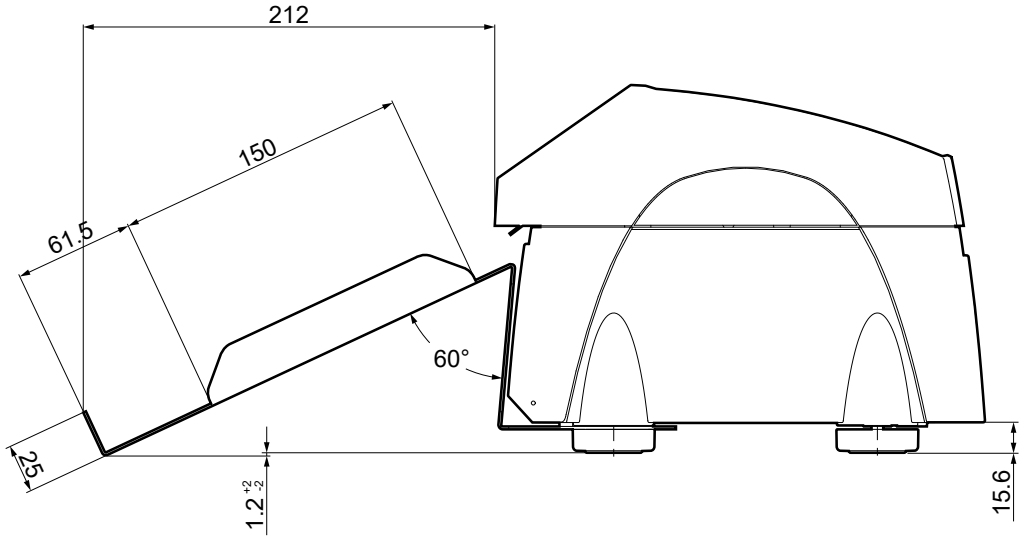


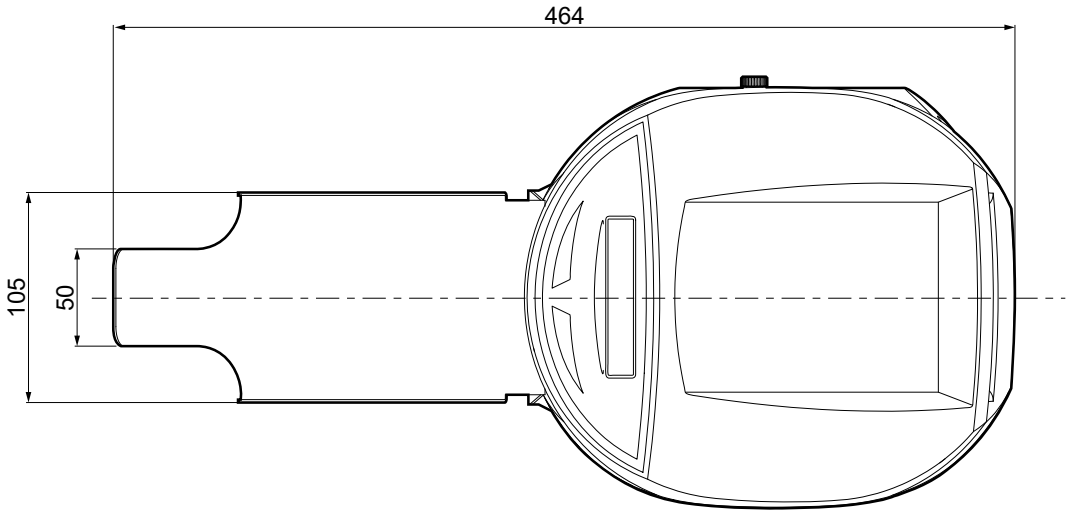
9.7 Device dimensions with metallic ticket tray code 976BB010000003 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed

TK302III PLAS, TK302III PLAS TF

Length	464 mm
Height	189 mm
Width	216 mm



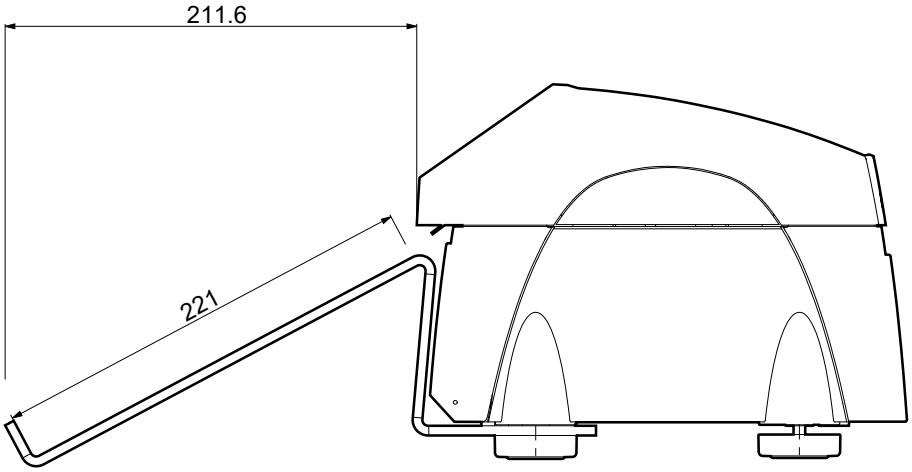


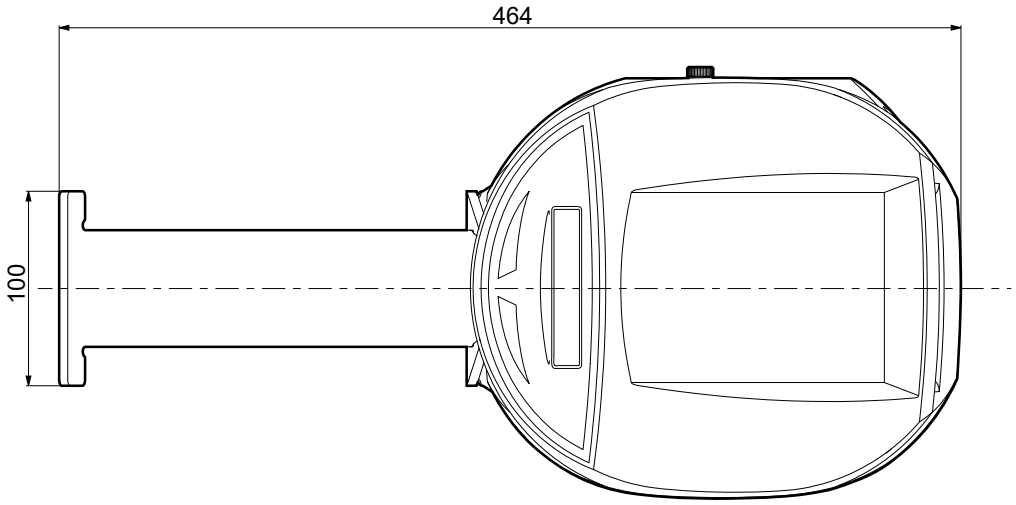
9.8 Device dimensions with plastic ticket tray code 976BD010000001 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed

TK302III PLAS, TK302III PLAS TF

Length	464 mm
Height	192.6 mm
Width	216 mm



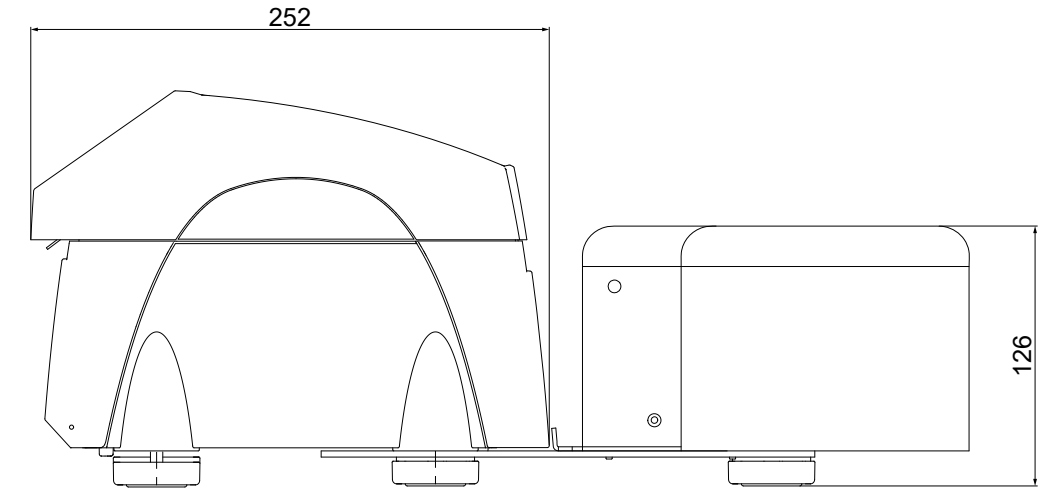


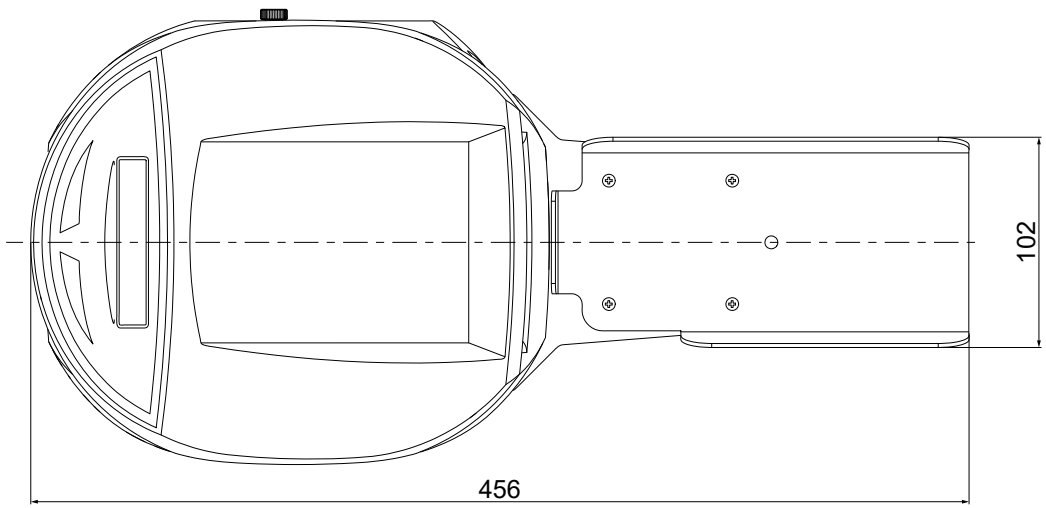
9.9 Device dimensions with ticket tray code 976BB010000004 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed

TK202III PLAS, TK302III PLAS, TK302III PLAS EJ-vSTK

Length	456 mm
Height	190.6 mm
Width	216 mm



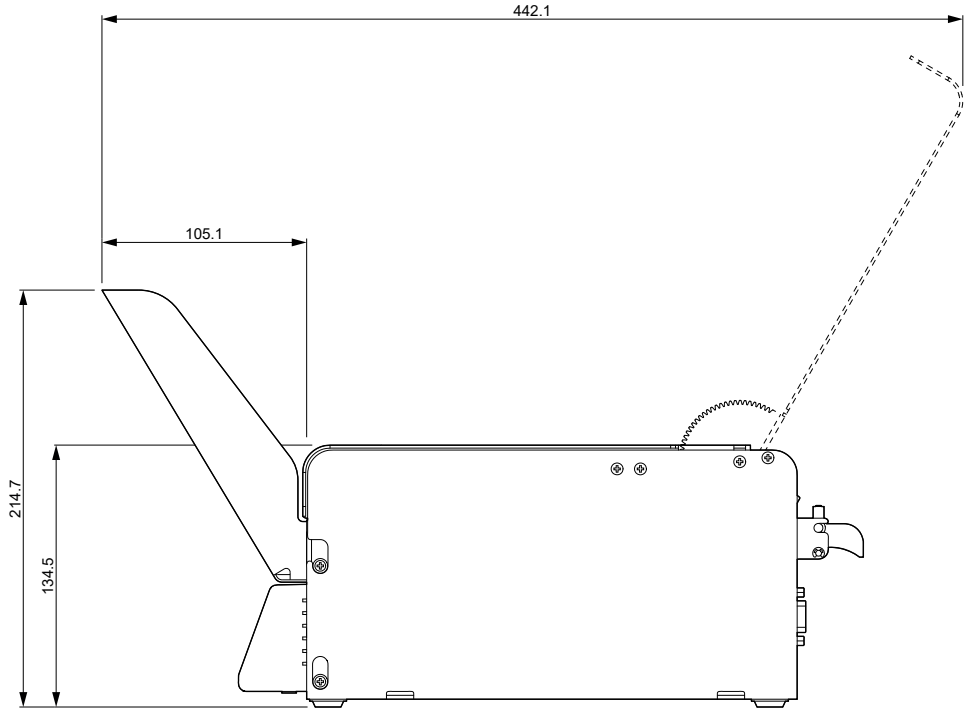


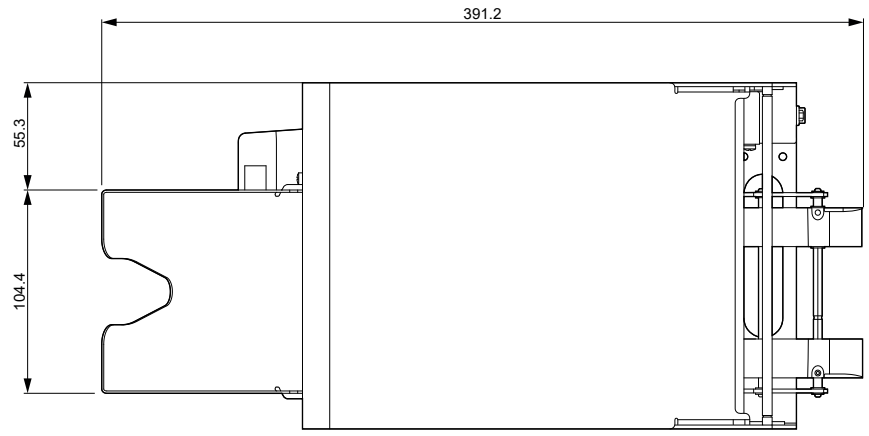
9.10 Device dimensions with metallic ticket tray code 974BB060000003 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed.

TK302III MET EJ

Length	391.2 mm
Height	214.7 mm
Width	184.1 mm



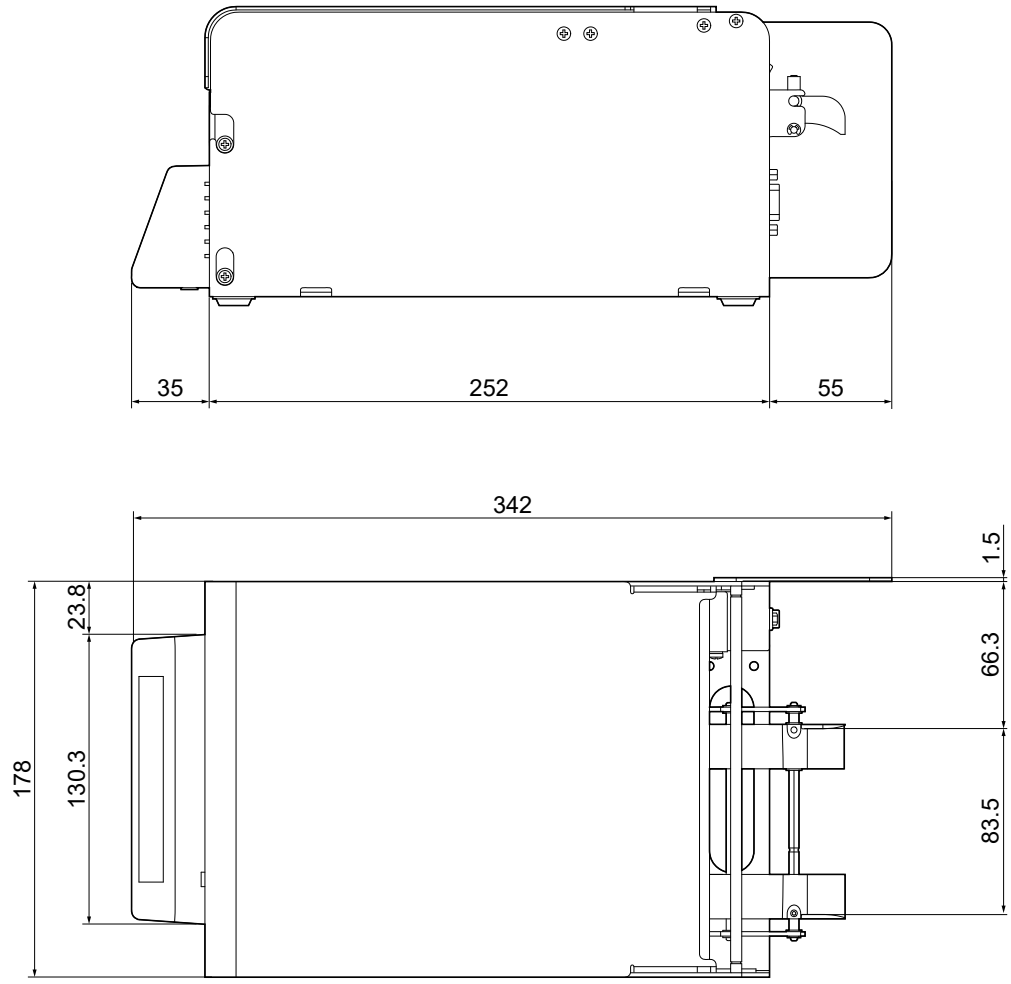


9.11 Device dimensions with connectors protection code 974BB060000009 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed.

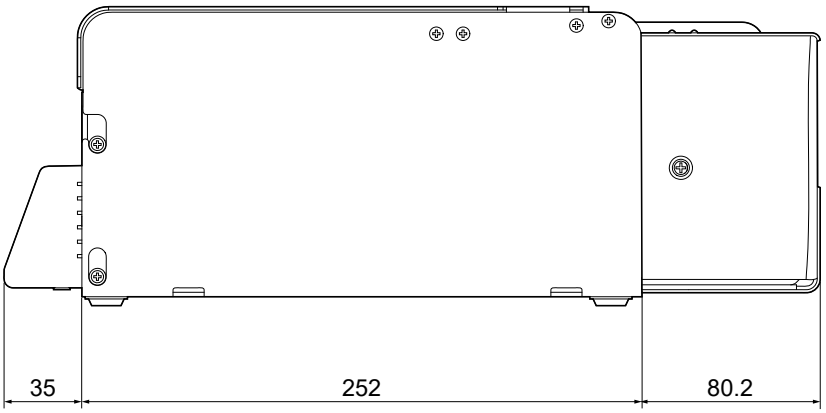
TK202III MET, TK302III MET EJ

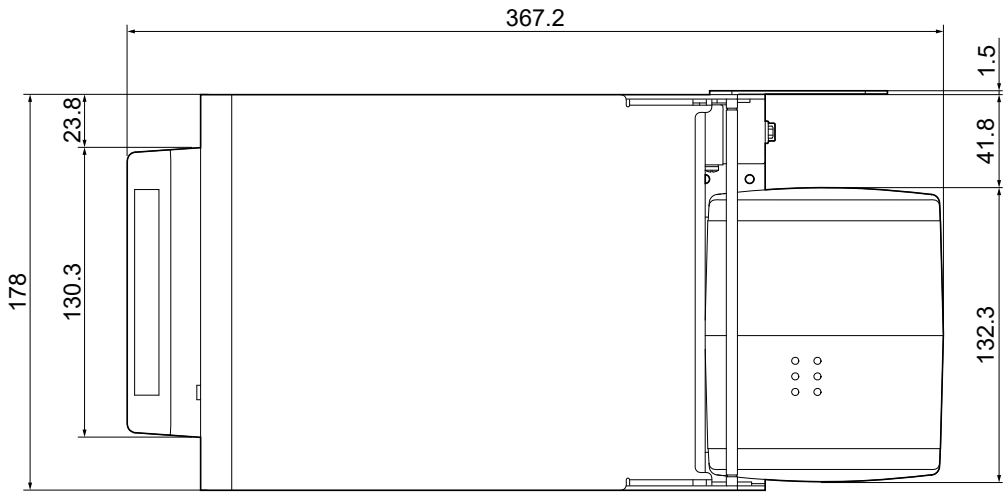
Length	342 mm
Height	134.5 mm
Width	179.5 mm



TK302III MET TF-EJ

Length	367.2 mm
Height	134.5 mm
Width	179.5 mm



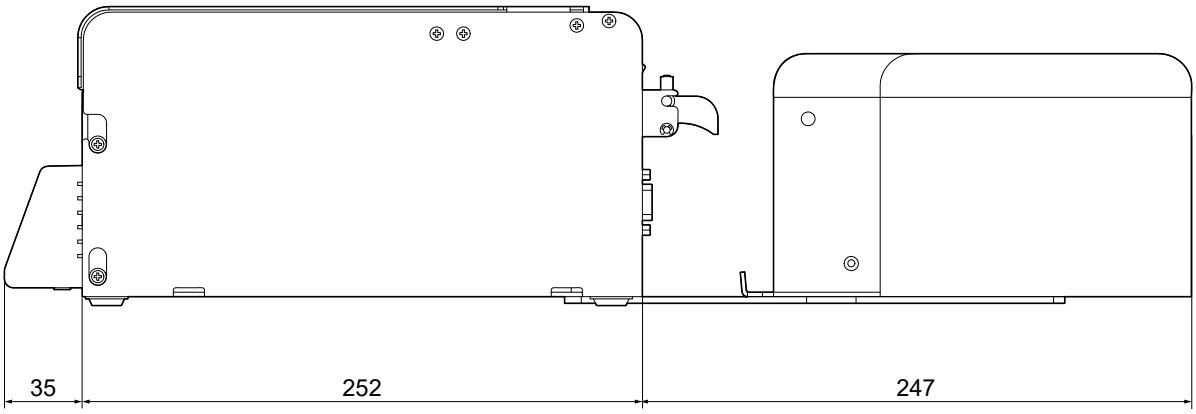


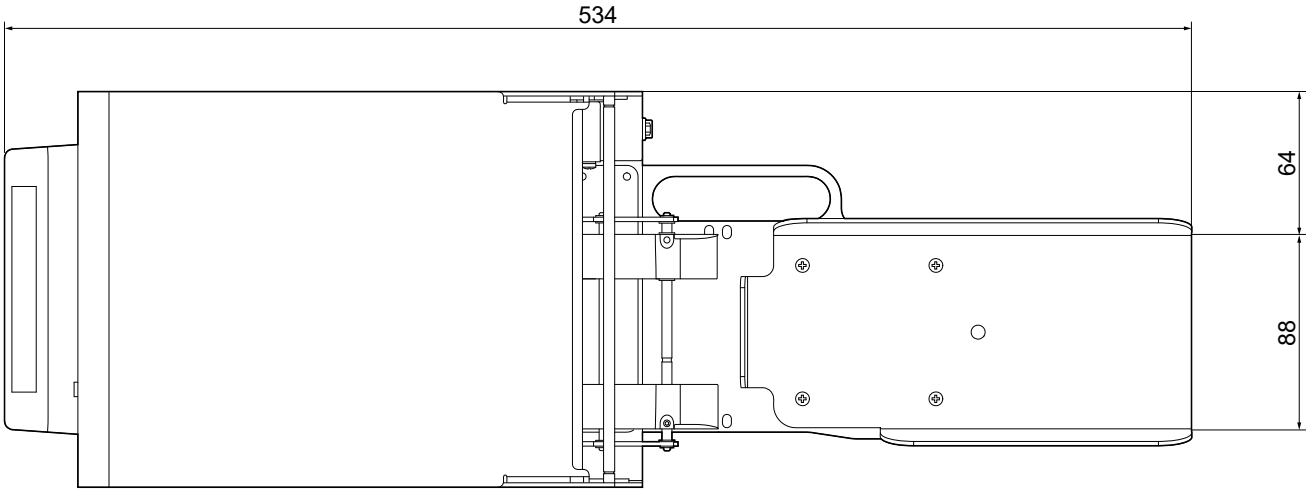
9.12 Device dimensions with ticket tray code 974BB060000005 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed.

TK202III MET, TK302III MET EJ

Length	509 mm
Height	134.5 mm
Width	184.1 mm



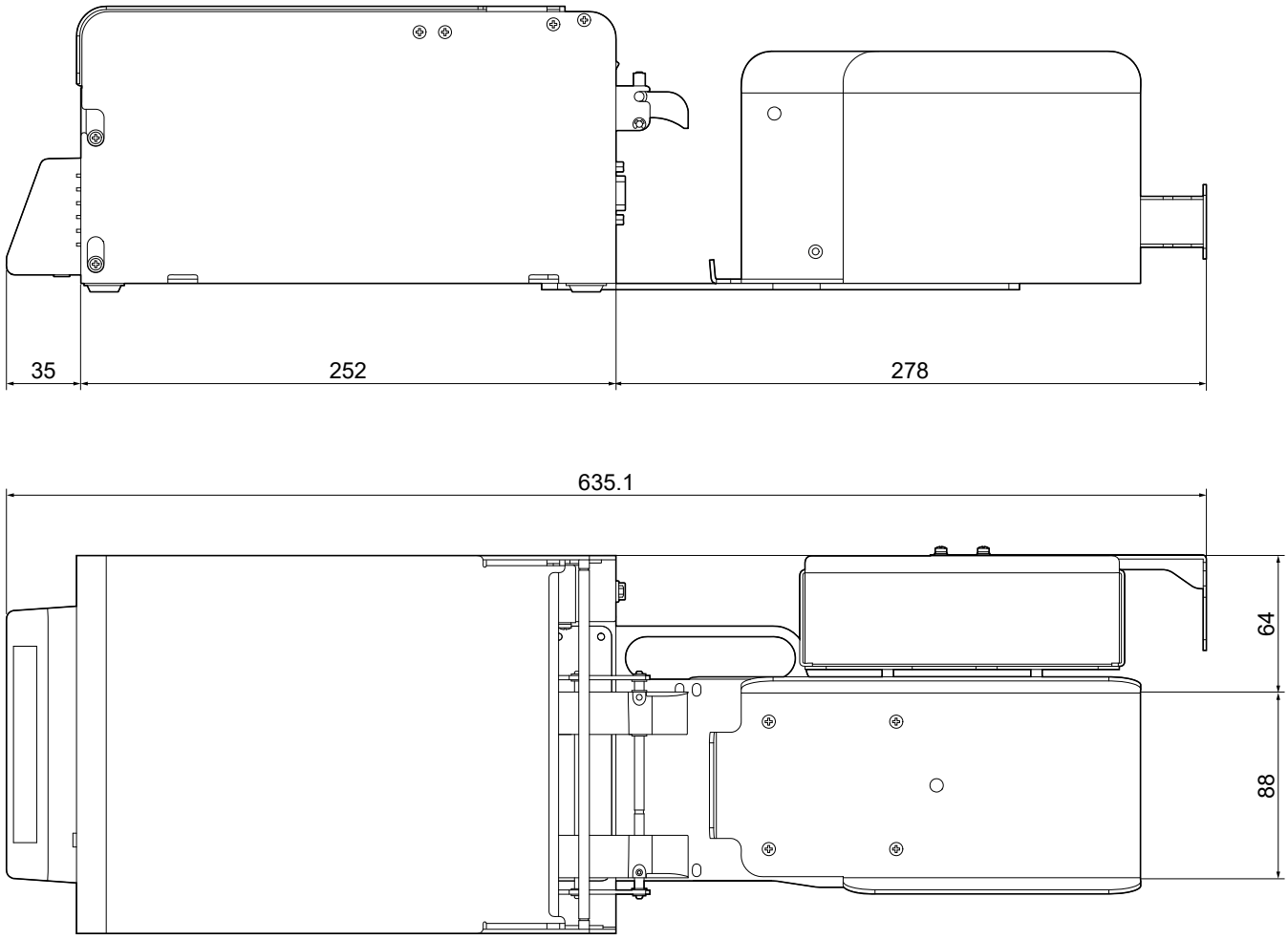


9.13 Device dimensions with power supply container code 974BB010000006 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed.

Models with ticket tray (code 974BA010000005 - optional)

Length	635.1 mm
Height	134.5 mm
Width	184.1 mm

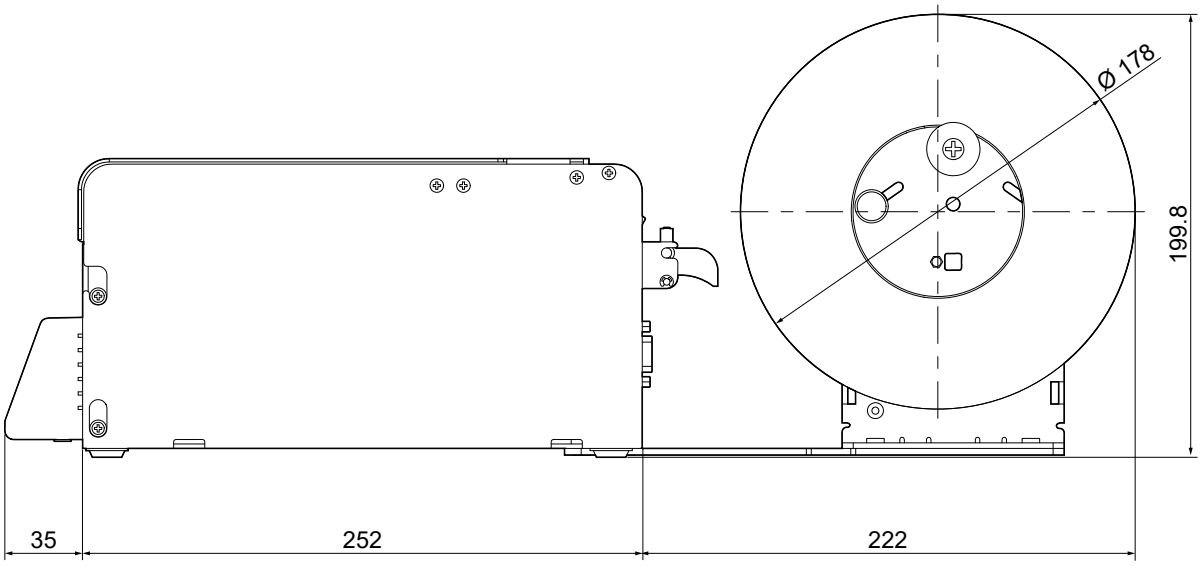


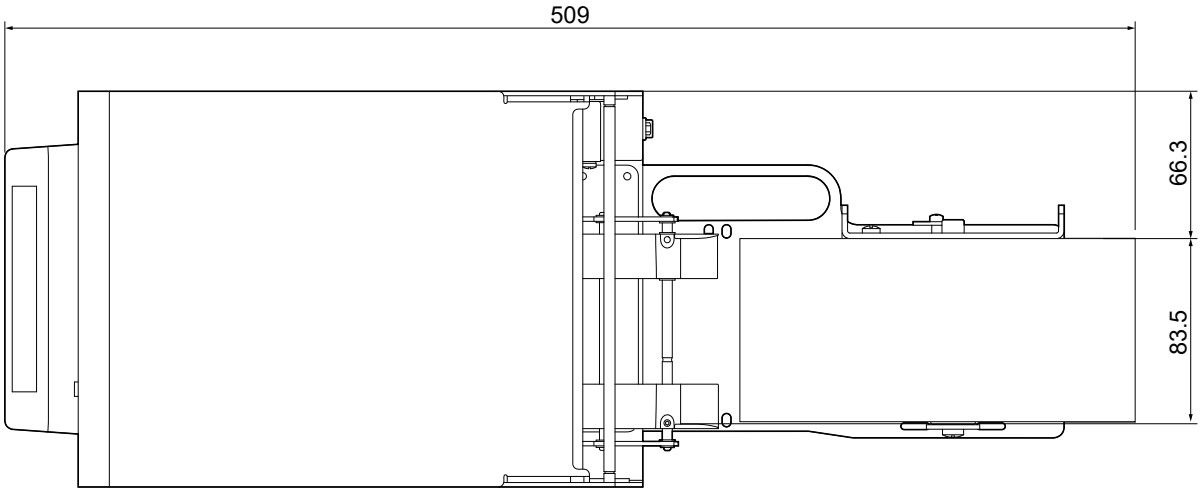
9.14 Device dimensions with paper roll holder code 974BB060000010 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed and with Ø178 mm paper roll.

TK202III MET, TK302III MET EJ

Length	509 mm
Height	199.8 mm
Width	184.1 mm



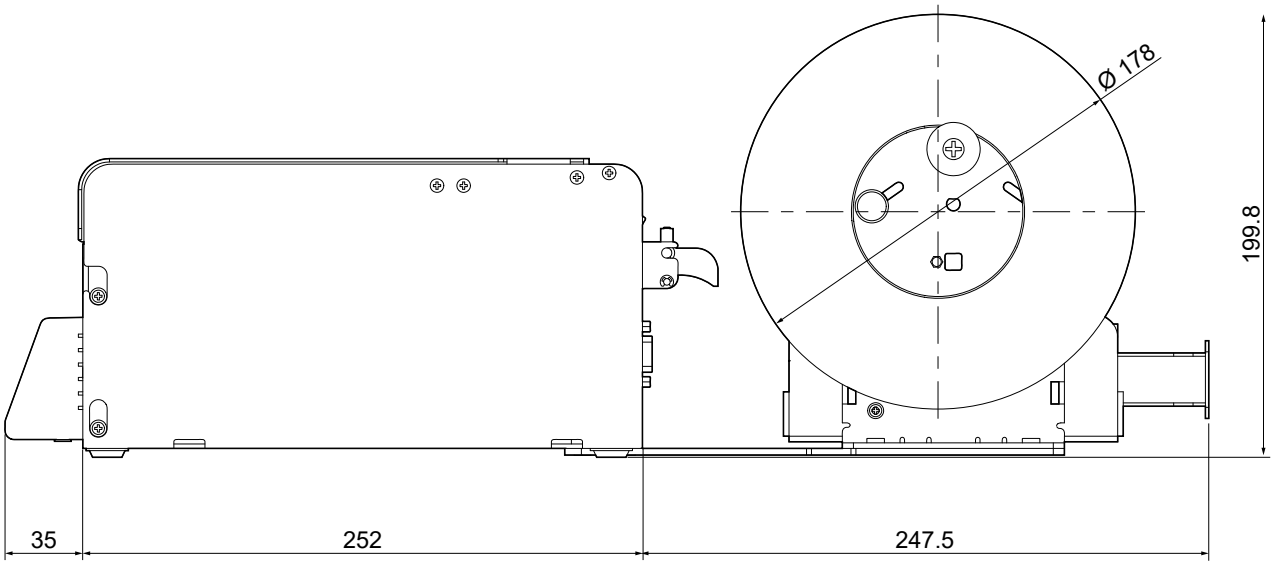


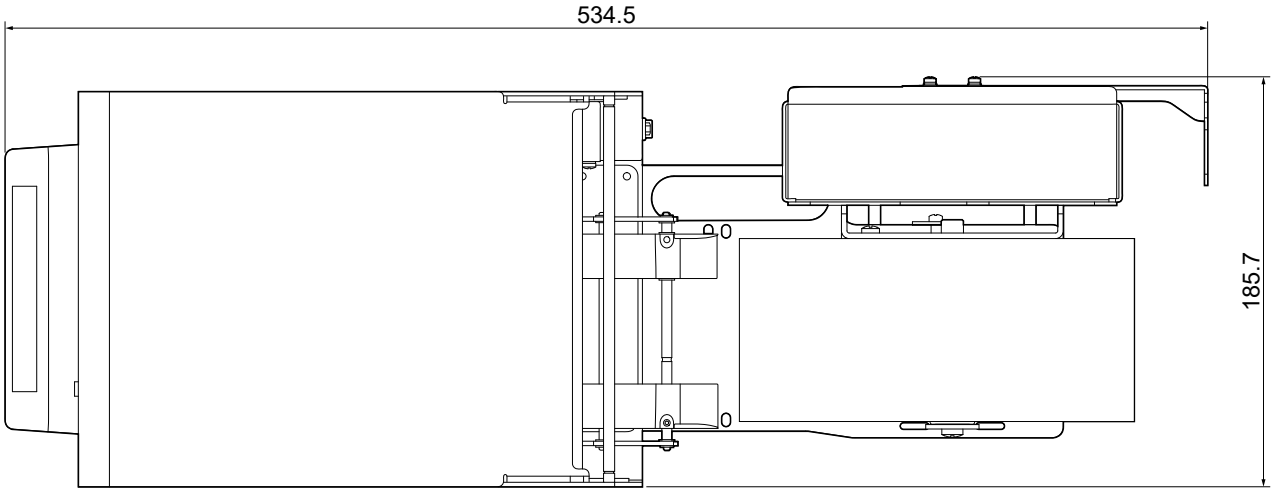
9.15 Device dimensions with power supply container code 974BB010000004 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed and with Ø178 mm paper roll.

models with paper roll holder (code 974BA010000010 - optional)

Length	534.5 mm
Height	199.8 mm
Width	185.7 mm



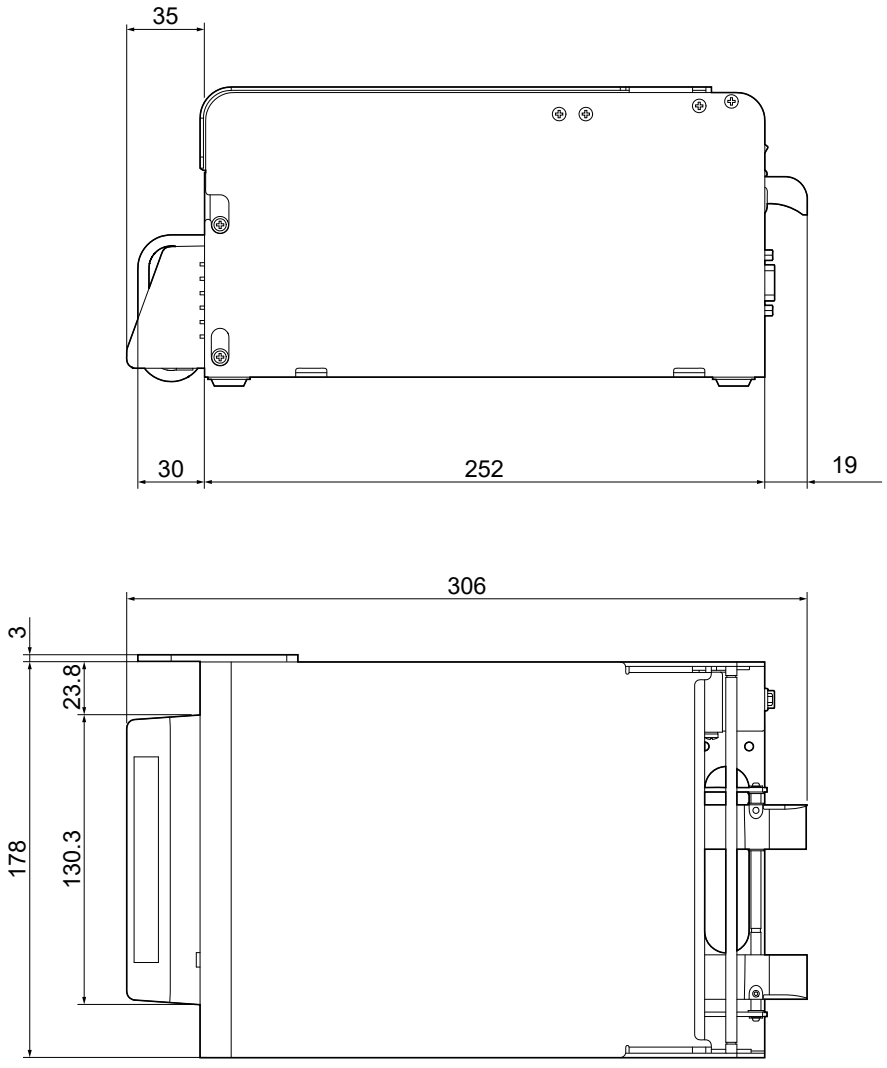


9.16 Device dimensions with front handle code 974BB060000008 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed.

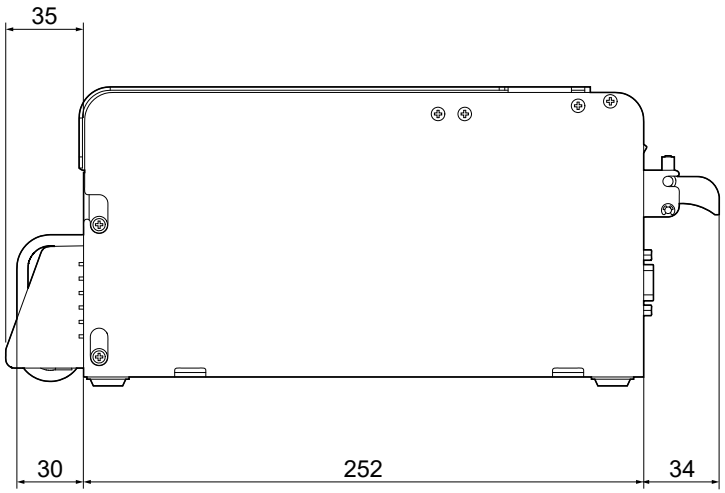
TK202III MET

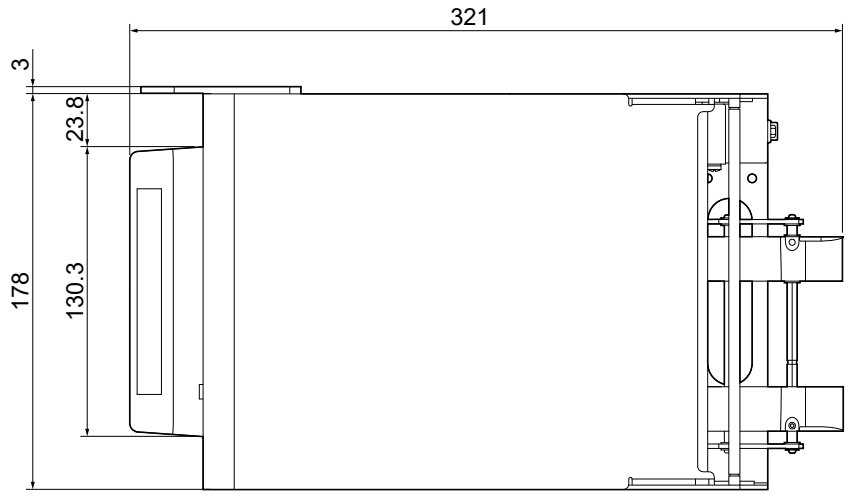
Length	306 mm
Height	134.5 mm
Width	181 mm



TK302III MET EJ

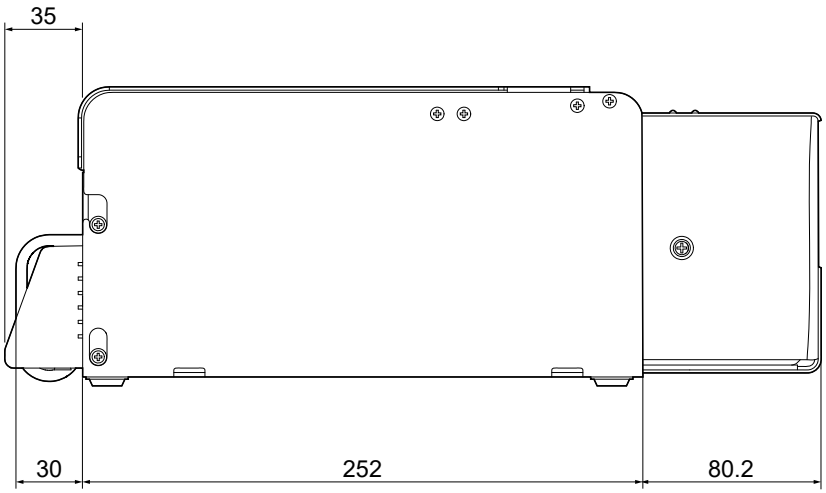
Length	321 mm
Height	134.5 mm
Width	181 mm

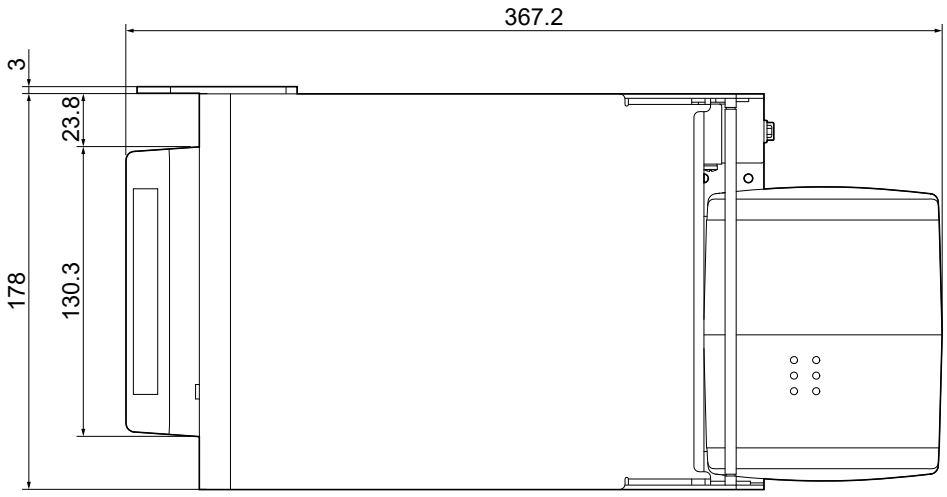




TK302III MET TF-EJ

Length	367.2 mm
Height	134.5 mm
Width	181 mm



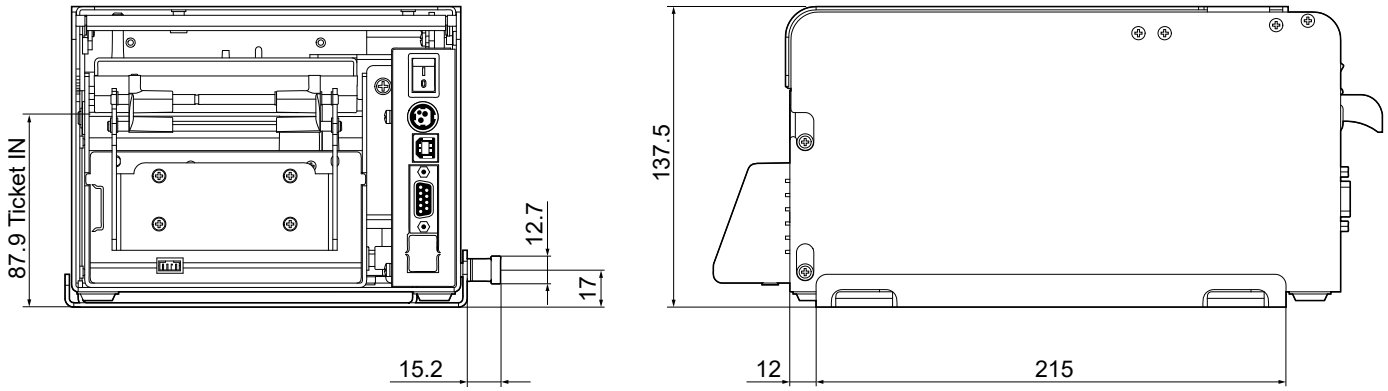


9.17 Device dimensions with fixing plate code 974BB060000007 (optional)

All the dimensions shown in the following figure are in millimetres and referred to devices with covers closed.

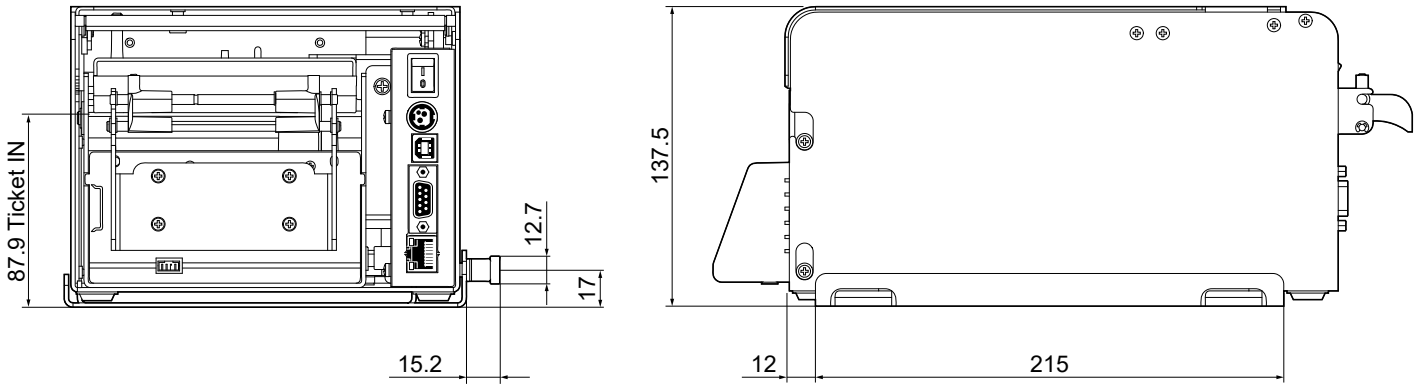
TK202III MET

Length	306 mm
Height	137.5 mm
Width	184 mm



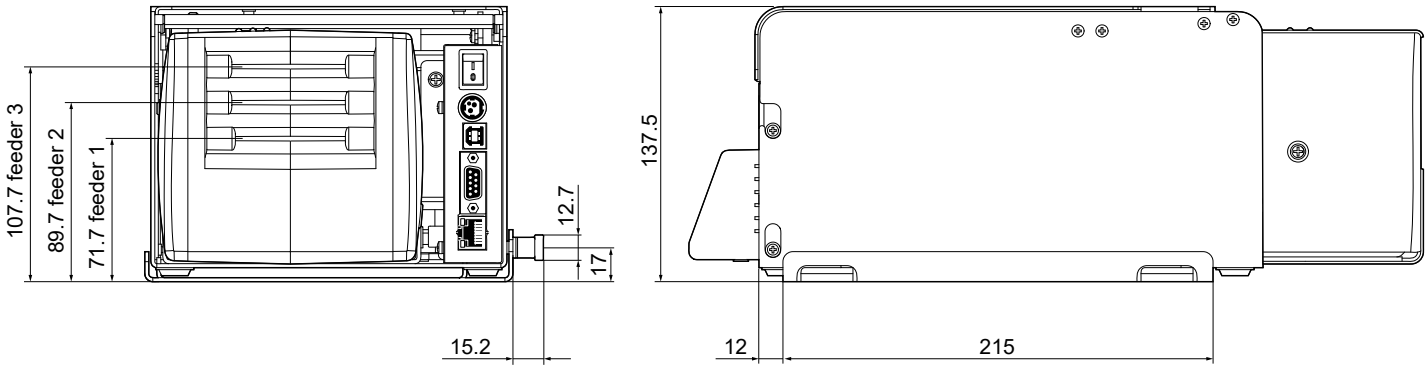
TK302III MET EJ

Length	321 mm
Height	137.5 mm
Width	184 mm



TK302III MET TF-EJ

Length	367.2 mm
Height	134.5 mm
Width	178 mm



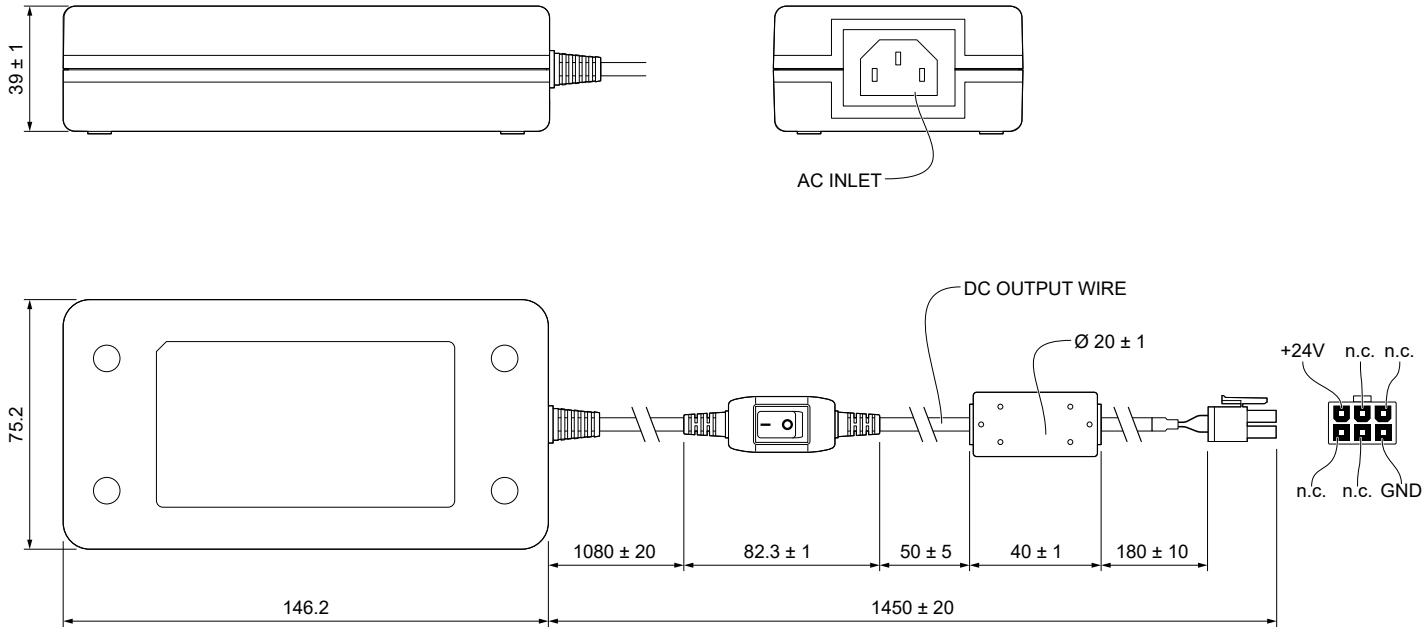
9.18 Dimensions of power supply and power cord

The following table shows the dimensions of power supply unit and power cords available for the device.

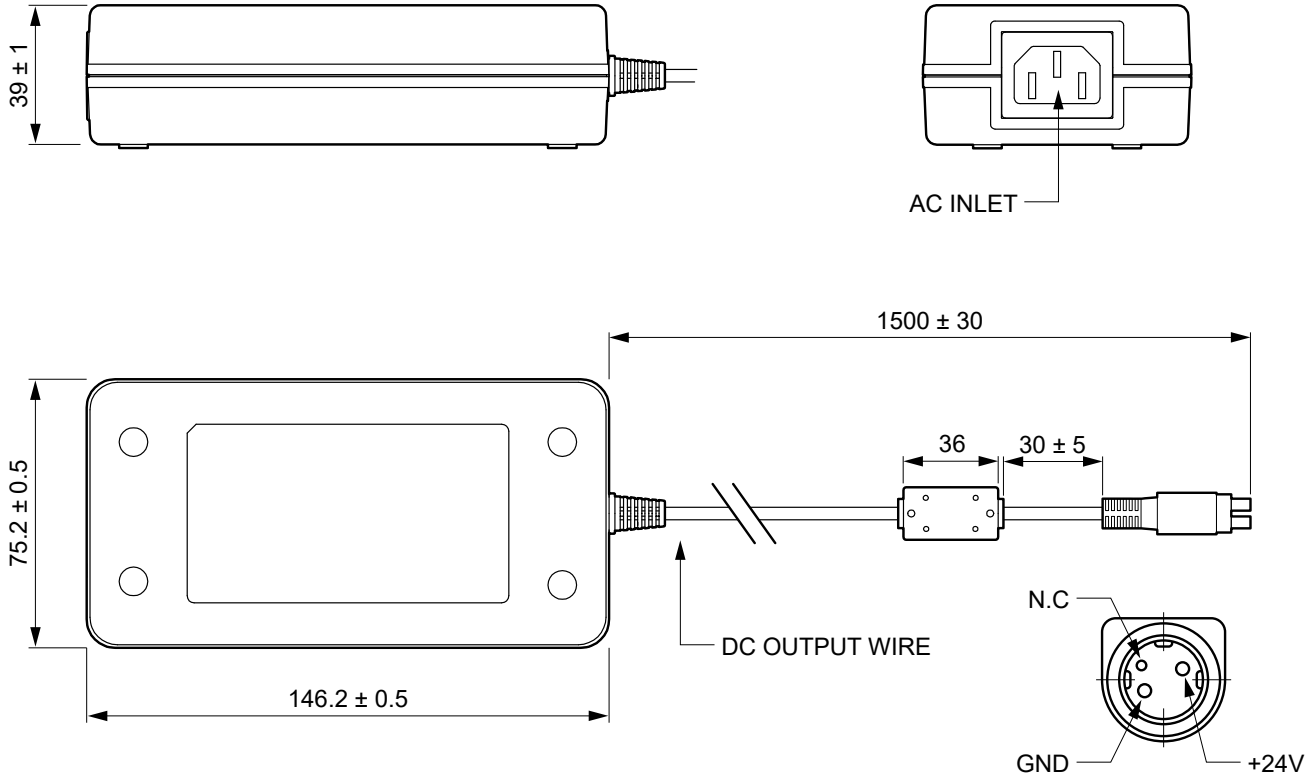
POWER SUPPLY ELECTRICAL SPECIFICATIONS code 963GE020000112 (OPTIONAL for KPM302III, KPM302III TF INCLUDED with TK202III PLAS, TK302III PLAS, TK302III PLAS TF, TK302III PLAS EJ-vSTK)	
Length	146.2 mm
Height	39 mm
Width	75.2 mm
POWER SUPPLY ELECTRICAL SPECIFICATIONS code 963GE020000116 INCLUDED with TK202III MET, TK302III MET EJ, TK302III MET TF-EJ)	
Length	146.2 mm
Height	39 mm
Width	75.2 mm
POWER CORD WITH SHUKO PLUG code 26100000000311 (optional for every model)	
Length	2000 mm
POWER CORD WITH UK PLUG code 26100000000313 (optional for every model)	
Length	2000 mm

All the dimensions shown in following figures are in millimetres.

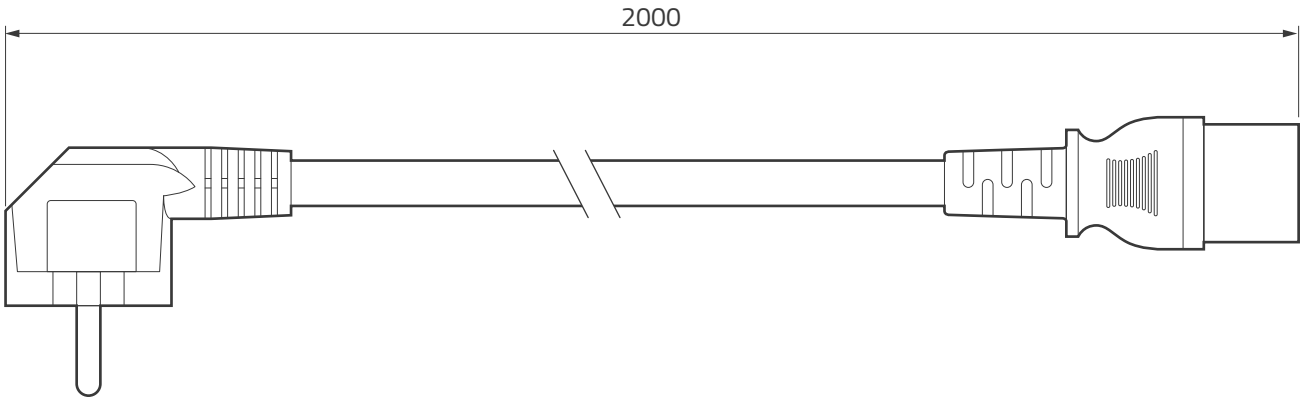
POWER SUPPLY code 963GE020000112



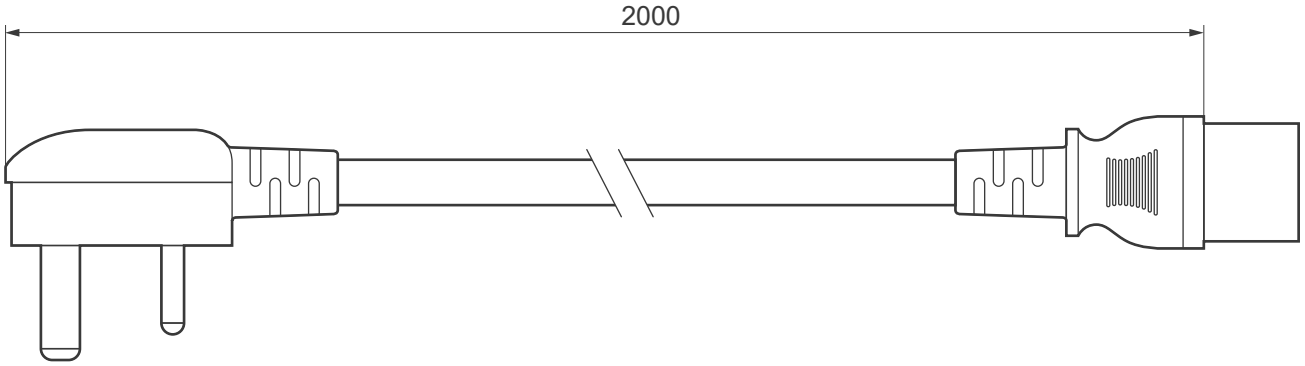
POWER SUPPLY code 963GE020000106



POWER CORD code 26100000000311



POWER CORD code 26100000000313

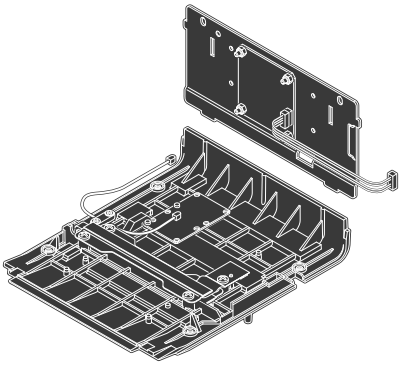


10 ACCESSORIES

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

918BB030200000

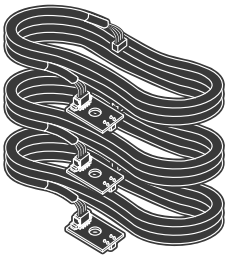
KIT UHF RFID
(for technical specifications, see paragraph 9.1)



KPM302III TF, TK302III MET TF-EJ, TK302III PLAS TF

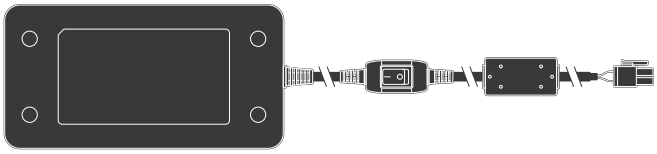
26300000000453

WIRINGS KIT WITH LOW PAPER SENSORS
length = 2 m
(see paragraph 10.2)



963GE020000112

POWER SUPPLY
(for technical specifications, see paragraph 9.1)



26100000000311

MAINS CABLE SHUKO PLUG
length = 2 m



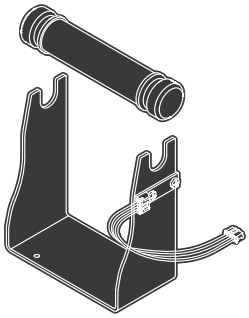
26100000000313

MAINS CABLE UK PLUG
length = 2 m



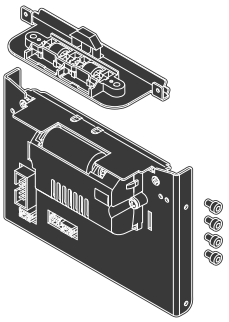
974AU010000305

PAPER ROLL HOLDER
with cable length = 0.33 m
(see paragraph 10.1)



976AV210000001

EJECTOR DEVICE



26500000000357

USB CABLE
with 90 degree connector
length = 1.8 m



26500000000048

USB CABLE
with 90 degree connector
length = 3 m



26500000000331

SERIAL CABLE
with 90 degree connector
length = 1.8 m



26500000000043

SERIAL CABLE
with 90 degree connector
length = 3 m



26100000000311

MAINS CABLE SHUKO PLUG
length = 2 m



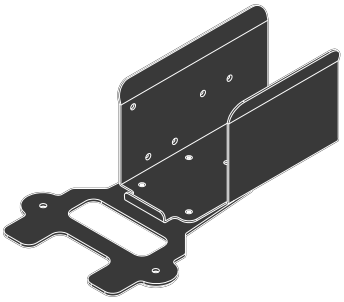
26100000000313

MAINS CABLE UK PLUG
length = 2 m



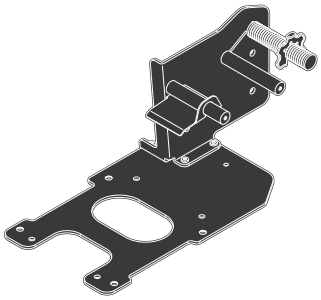
976BB010000004

TICKET TRAY



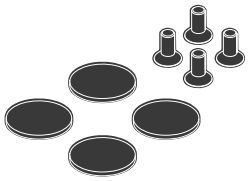
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PAPER ROLL HOLDER



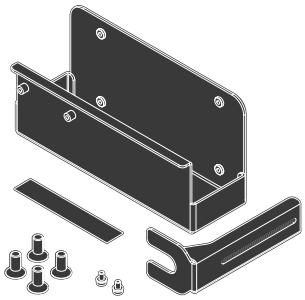
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KIT FOR HEIGHT REDUCTION
(only for models with paper roll holder
code 974BA010000001)



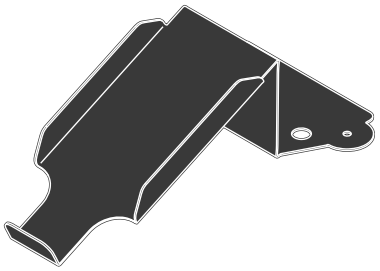
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KIT FOR POWER SUPPLY CONTAINER
(only for models with paper roll holder
code 974BA010000001)



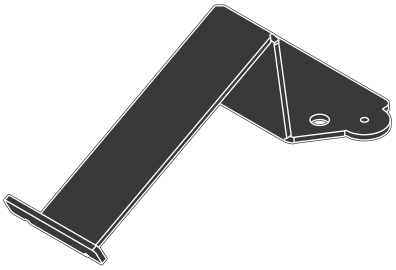
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METAL TICKET TRAY



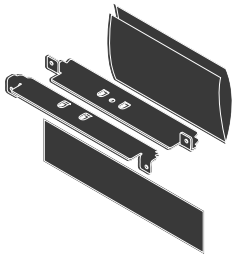
976BD010000001

PLASTIC TICKET TRAY



976BA010000323

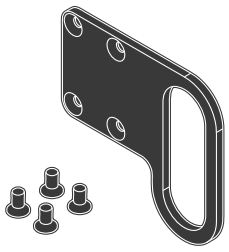
KIT FOR BURSTER CONFIGURATION



TK202III MET, TK302III MET EJ, TK302III MET TF-EJ

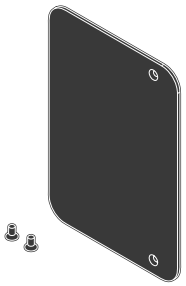
974BB060000008

FRONT HANDLE



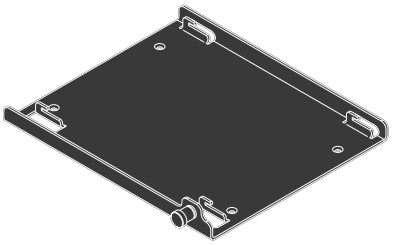
974BB060000009

CONNECTORS PROTECTION



974BB060000007

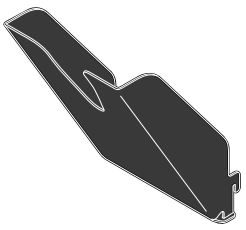
FIXING PLATE



TK302III MET EJ

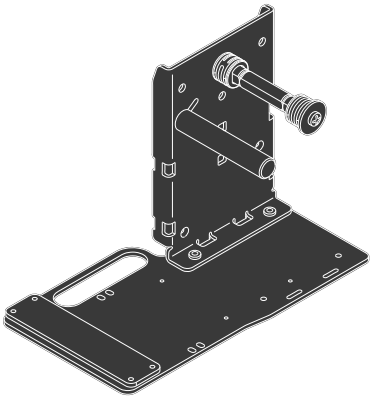
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METAL TICKET TRAY



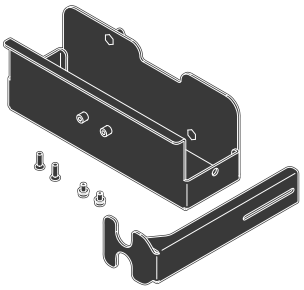
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PAPER ROLL HOLDER



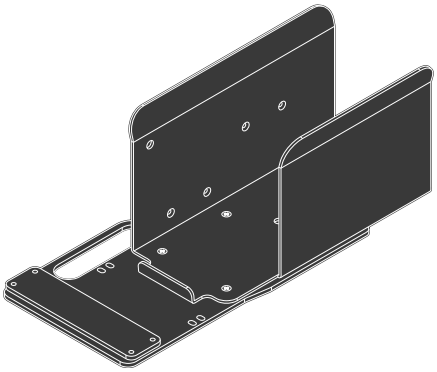
974BB060000004

KIT FOR POWER SUPPLY CONTAINER
(only for models with paper roll holder
code 974BB060000002)



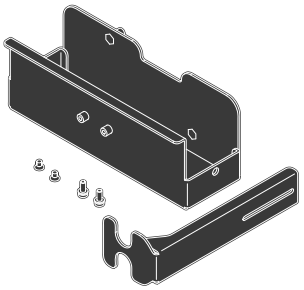
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TICKET TRAY



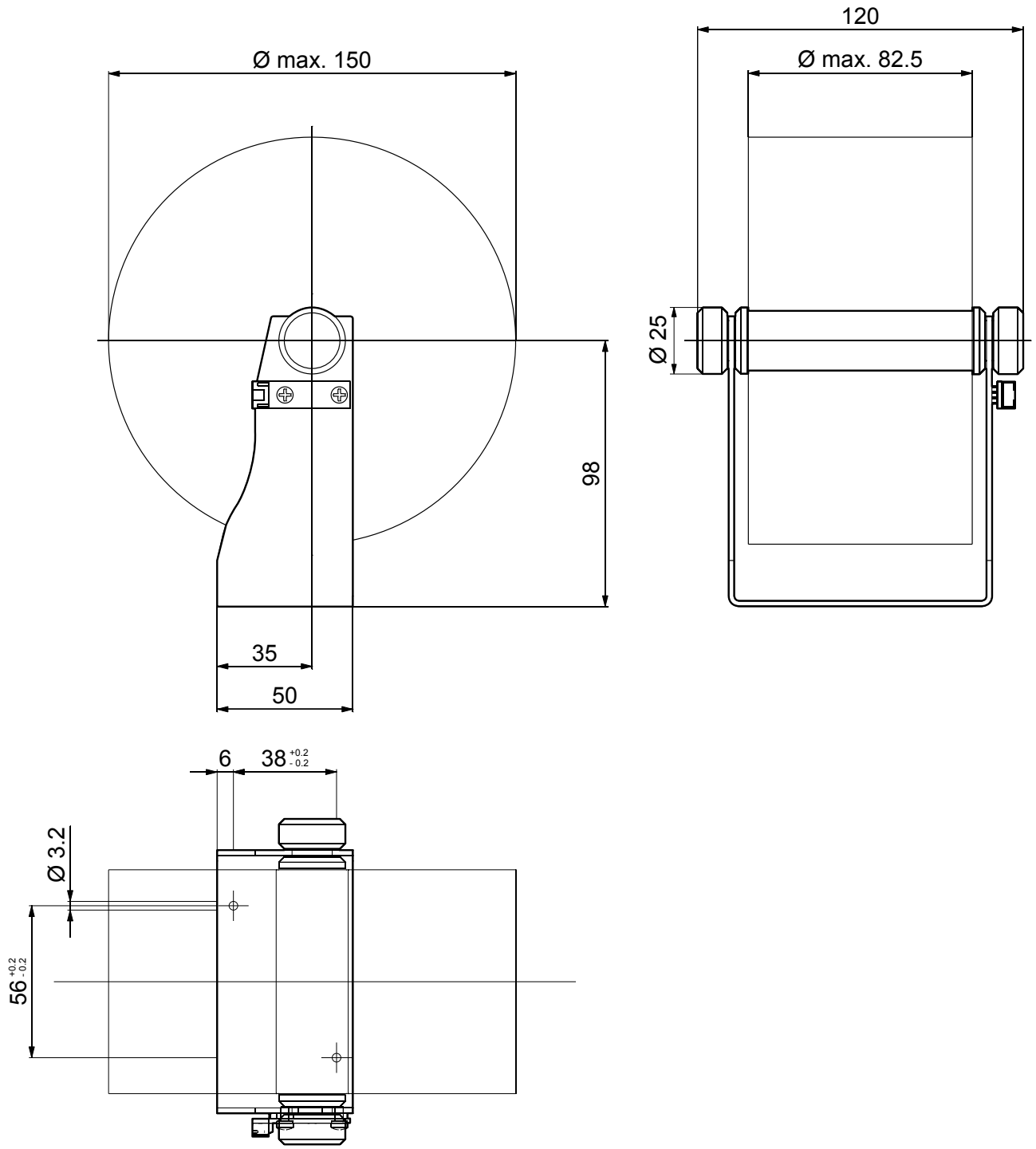
974BB060000006

KIT FOR POWER SUPPLY CONTAINER
(only for models with ATB ticket tray
code 974BB060000002)



10.1 Paper roll holder code 974AU010000305 (optional)

For the device is available an external paper roll holder kit, supplied as accessory. The kit makes it possible to use paper rolls with larger diameter (up to 150 mm).
The following figure shows the dimensions for holder support and paper roll pin (all the dimensions in figure are in millimetres).

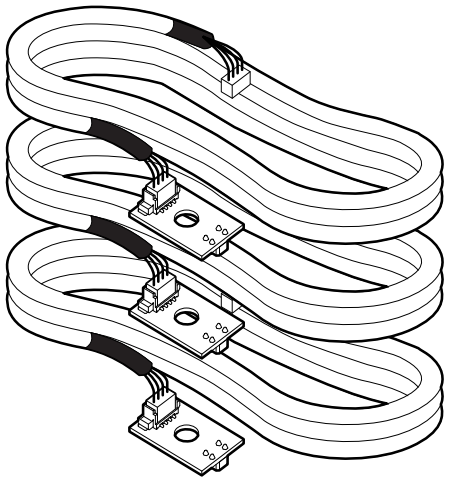


NOTE:
For external rolls diameter higher to 100 mm it's recommended to use a paper pre-tensioning device.

10.2 Wirings kit with low paper sensor boards code 26300000000453 (optional)

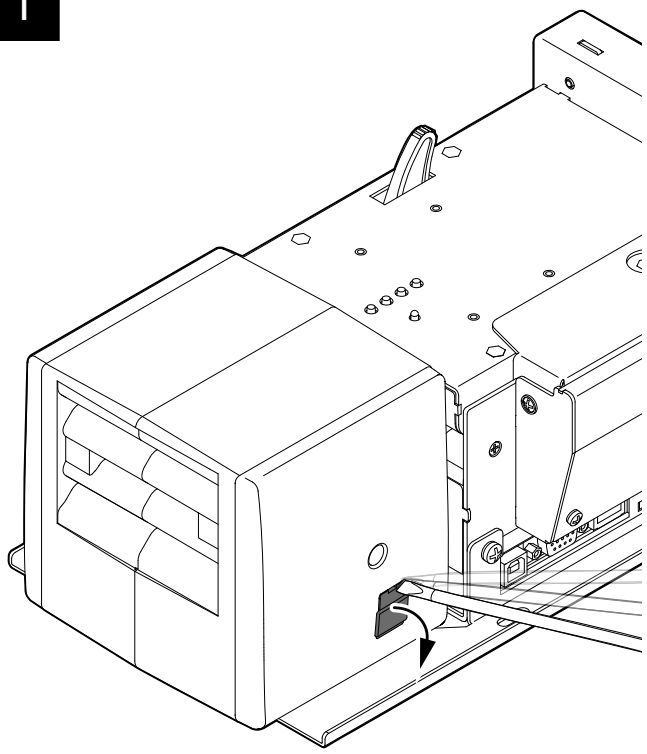
For the device is available a kit of wirings with low paper sensor, supplied as accessory. The kit makes it possible the connection between triple feeder and low paper sensors.

The kit includes three wirings assembled with three low paper sensors boards, as shown in following figure.



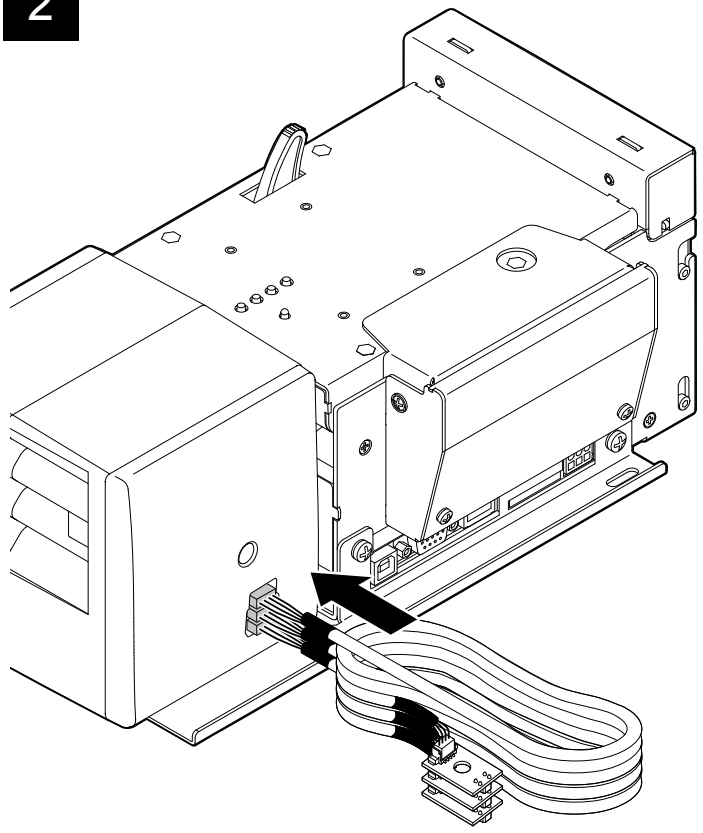
For the assembly procedure, proceed as follows:

1



Remove the cover for the triple feeder connectors by levering with a small slotted head screwdriver.

2



Connect the three wirings to the connectors of triple feeder.

11 TECHNICAL SERVICE

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

The product code, the serial number, the hardware release number and the firmware type can be found on the two product labels (see paragraph 3.5).

The firmware release number (SCODE) can be found:
- on the setup report (see paragraph 6.1),
- connecting the device to a PC and starting the “PrinterSet” tool (see paragraph 6.2).

Code : 76200000009900 Rev.1.50

CUSTOM S.p.A.
World Headquarters
Via Isaac Newton 4
43010 Fontevivo (PR)
Italy
Tel. +39 0521 680111 - Fax +39 0521 610701
info@custom.biz - www.custom.biz

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