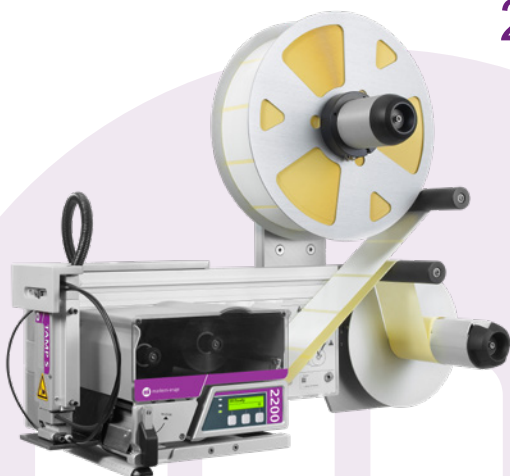


Instruction manual

2200



**Printer overview -
Interface overview**



Starting/shutting down the printer



Selecting and printing a job



**Replacing consumables -
Adjustments**



Maintenance



Troubleshooting



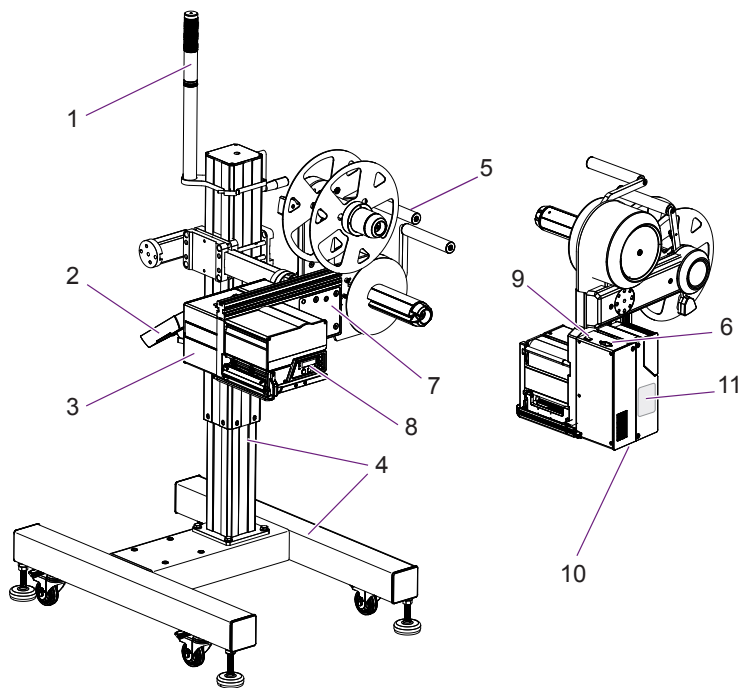
**Technical Specifications -
Information**



markem·imaje

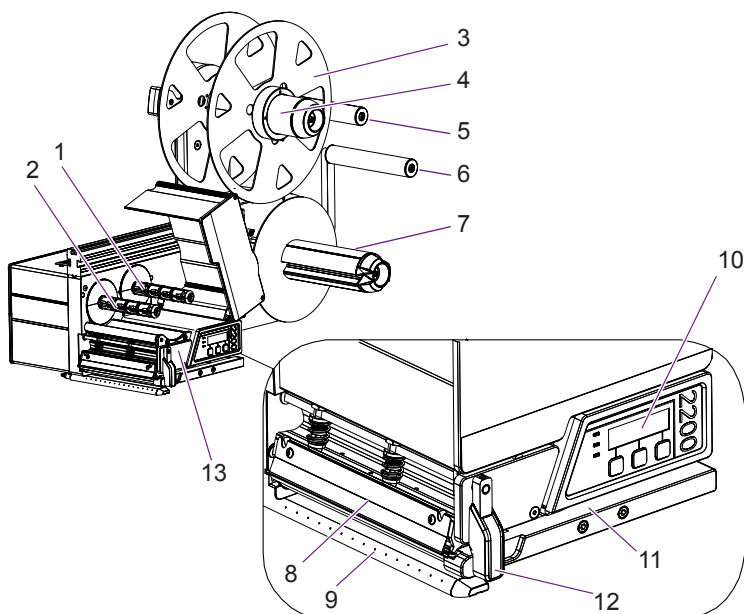
a **DOVER** company

System 2200 overview



- 1 Status beacon
- 2 Standalone terminal (optional)
- 3 Print module
- 4 Adjustable stand
- 5 Label module
- 6 Electrical power supply connection
- 7 Printer positioning screw
- 8 Interface with LCD screen
- 9 Power switch
- 10 CPU
- 11 Manufacturer's plate

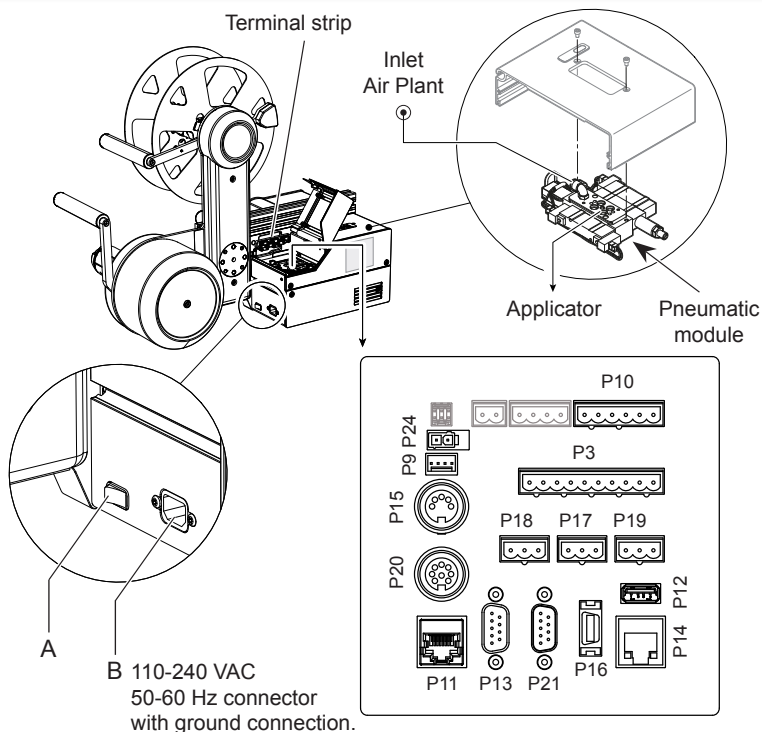




- | | |
|---------------------------------|--|
| 1 Ribbon supply spindle | 8 Print head |
| 2 Ribbon rewind spindle | 9 Blow bar |
| 3 Label roll guide | 10 Status screen, LEDs and control buttons |
| 4 Label supply spindle | 11 Label path |
| 5 Label compensator arm | 12 Print head lever |
| 6 Backing paper compensator arm | 13 Ink ribbon compartment |
| 7 Backing paper rewind spindle | |

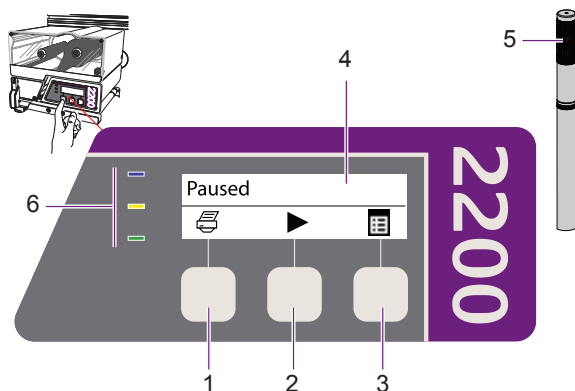


Connections



A	Power switch	P15	Beacon
B	Electrical power supply	P16	LVDS
P3	Relay outputs	P17	Pre Trig photocell
P9	LHM (communication)	P18	Input Main Trig photocell
P10	Opto input	P19	Input Return Sensor photocell
P11	Port Série 1 (RJ45)	P20	Applicator connection
P12	USB port	P21	Barcode reader
P13	Serial port 2 (DE-9)	P24	LHM (power)
P14	Ethernet LAN		





- 1 Print control button
- 2 Starting up
- 3 Simple User Interface (SUI) mode
- 4 Status screen
- 5 Beacons
(same meanings as the LEDs, No. 6)
- 6 LEDs:

■ Green: System is OK

■ Orange and green: System is OK, warnings present

■ Orange: Printer paused

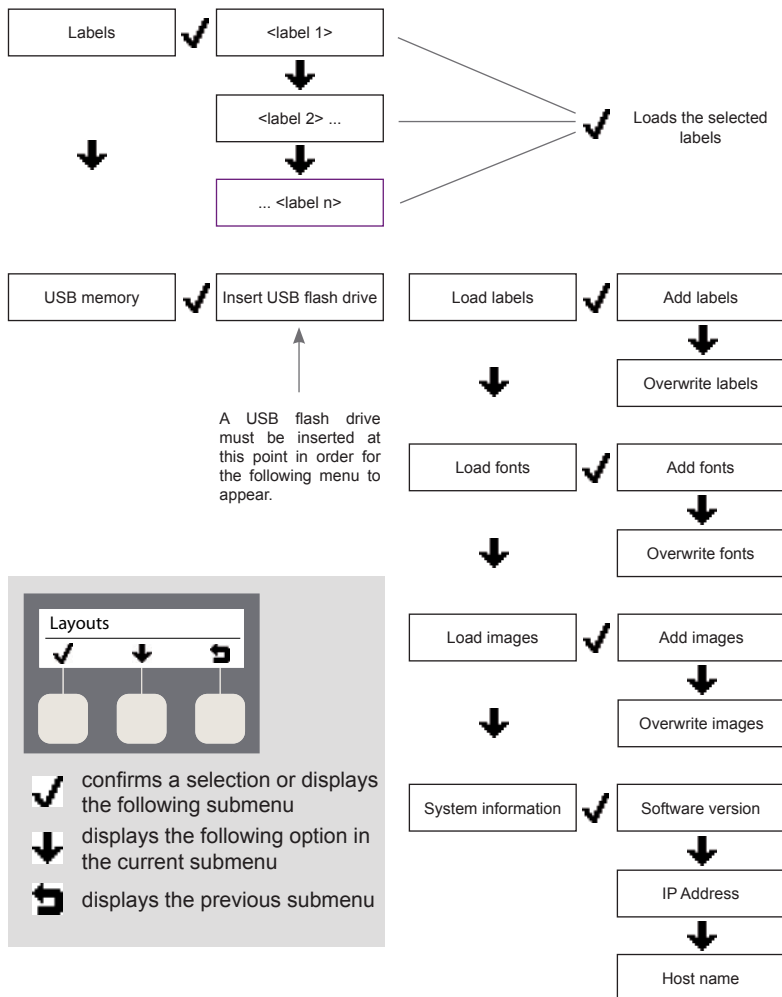
■ Blue: System error or cover open

■ Blue, orange and green: Test pattern mode

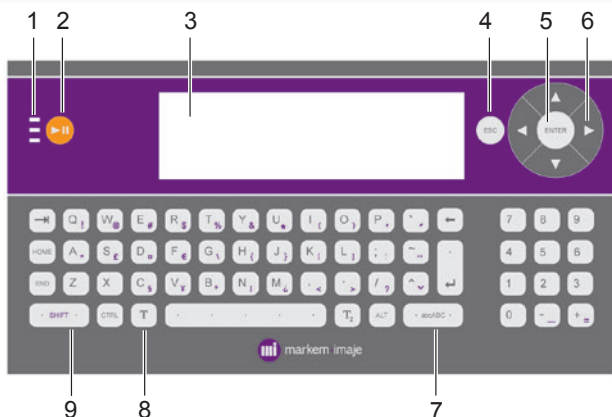


User Interface

Pressing the  button shifts the printer to Simple User Interface (SUI) mode. The operation of SUI mode is detailed in the diagram below:



Standalone terminal (optional)



1 Status led

- Connection OK, error, print engine/not at production page (blue)
- Connection OK, warning, print engine (orange)
- Online (green)

Off No connection with print module (Allowed time elapsed).

2 Resumes printing or confirms the warnings and faults.

3 Message field.

4 Exits current menu level and goes back one level.

5 Confirms a menu selection or operation.

6 Navigation key: moves the cursor in the menus and message field.

7 Shifts between upper and lower case letters.

8 Accesses a list of local and Unicode characters.

9 Shifts to the red characters in the bottom right corner of the keys.



Standalone terminal (optional)



Production settings



Counter management



Reset counters



Set start value



Production parameters



Edit the configuration requests



System settings



Applicator settings



Printer settings



Control panel



Port settings



Terminal – Printer connection



Data input device



Settings
Time/Date



Set display language



Set display contrast



Password management

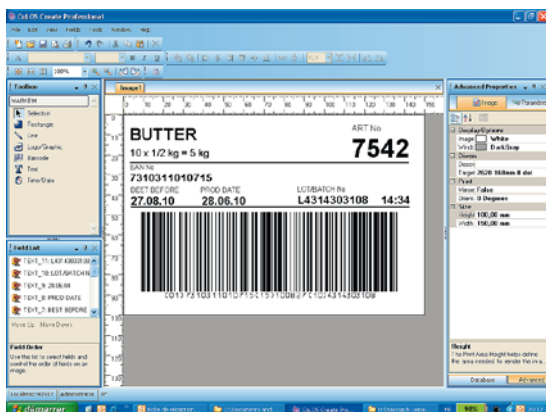


Servicing Window

For more information, refer to the terminal user manual.



CoLOS Create Pro (optional)



CoLOS® Create Professional is a particularly functional graphic design software that allows you to easily create and manage complex labels and codes.

CoLOS® Create Professional allows you to:

- define the location and format of information to be printed, including default or fixed information, using image templates,
- preview images before loading them,
- upload one or more images to all compatible devices, including CimComms, SmartLase, Small Character Ink Jet and NextGen models,
- send images to a local or network desktop printer.



CoLOS Create Pro (optional)

Supported fields and styles:

- barcodes (1D & 2D) - line fields - box fields - logo fields - fixed text - user entry text - Time - Date, particularly Offset	- Dates (BBE) and Shift Codes - Merged text - Calculated text - Math text - Printer setting text - Variable text (information from database or external data)
---	---

The 2200 printer comes with 10 default TrueType fonts.
Further fonts may be added to the printer's memory.
UTF-8 Unicode is supported.

Example of an image template:

MARKENA-MALJE S.A.S S. rue Gaspard Bourge 28501 Bourg-la-Vallée	Date : 17.12.2010	
Designation: A41195 2200 WIPE SYSTEM 2620		
Code article/Part. No (1P) Indice/Revision (2P)  1PA411952P00 S/N : FR10504092  SFR10504092		
Enclosed Options PLATE/PAD :325961 STAND :372152 CORD :000554 MANUAL :A40465		

For more information, refer to the CoLOS Create Pro user manual.



■ Starting up



≈ 10 seconds



Ready for label data

■ Shutting down



≈ 3 seconds



Selecting a job - Using the standalone terminal

Either option depending on your configuration.

ENTER



Enter ProductID
12345
12346
12347
13478
29875

or

Enter Layout Name
Layout1
Layout2
Layout3



Enter ProductID
12345
12346
12347
13478
29875

Enter Layout Name
Layout1
Layout2
Layout3

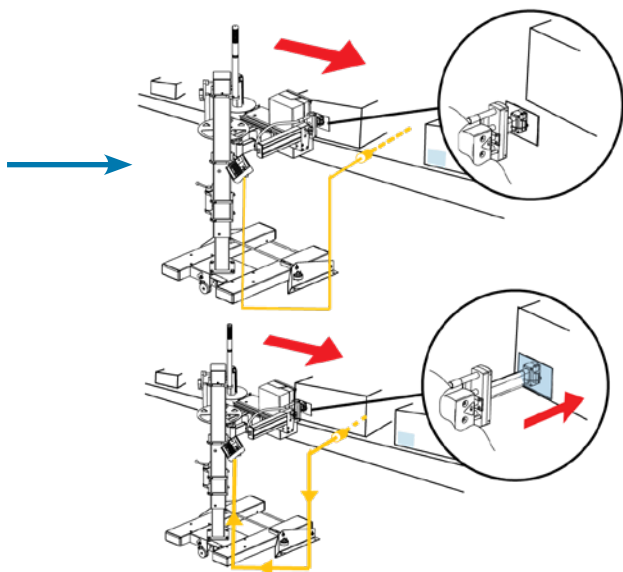
ENTER



2008-02-20 16:45	Printer Status: System ok
Product Count: 00000	
ProductID: 12345	
Actual weight=23	
Line=1	
Name=APPLES	

For more information, refer to the terminal user manual.

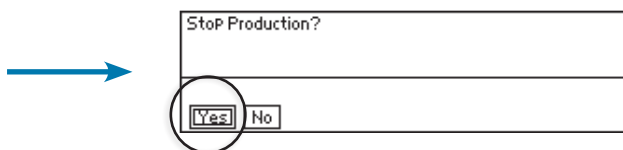




Pause printing - On printer

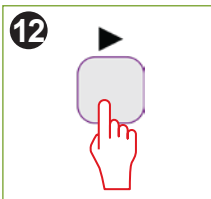
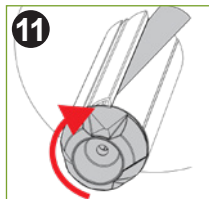
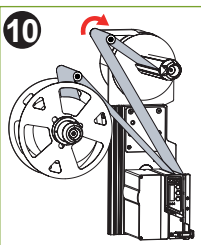
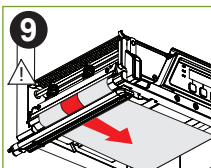
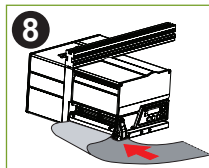
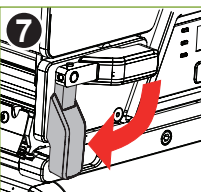
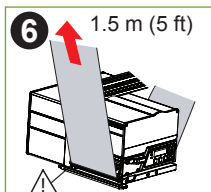
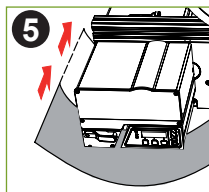
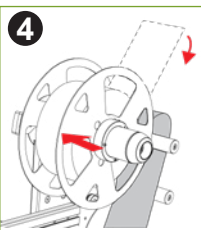
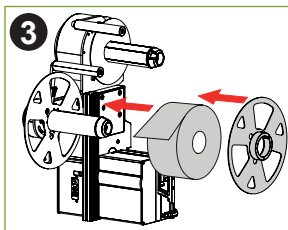
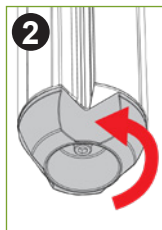
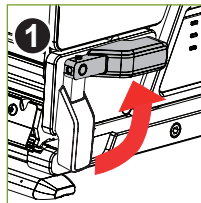
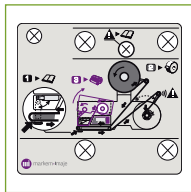
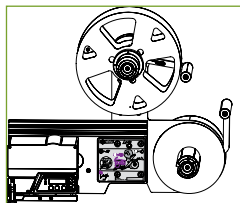


Stop printing - On standalone terminal

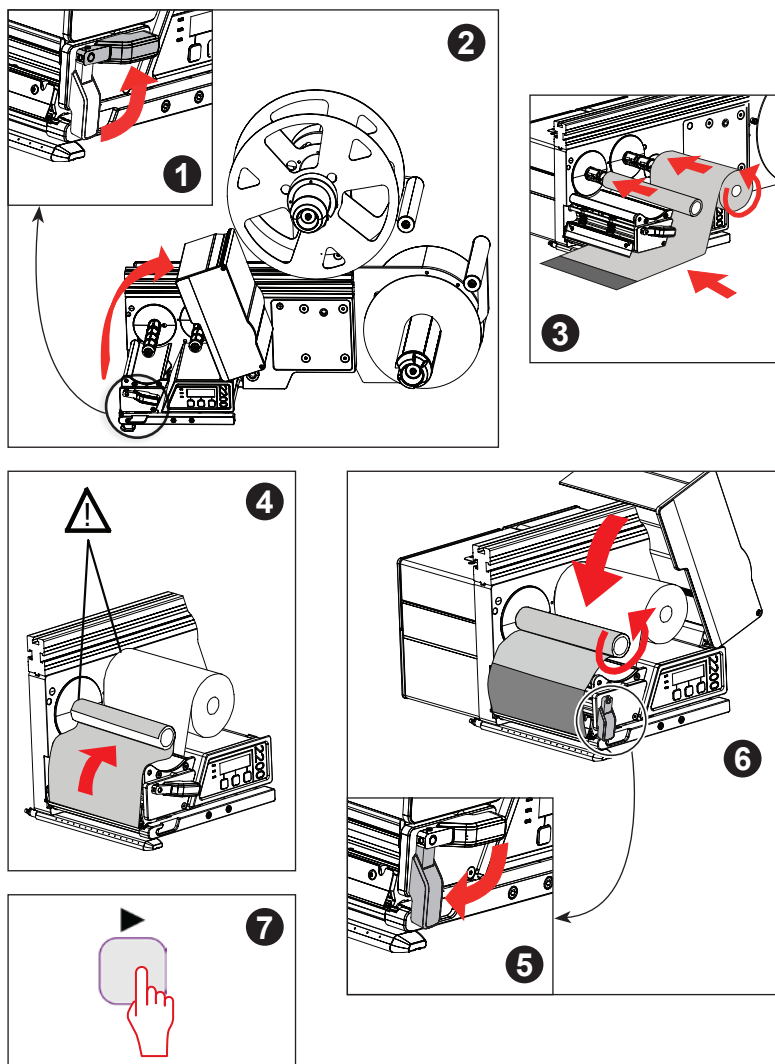


Loading labels

■ Outside wound roll



Loading the ribbon



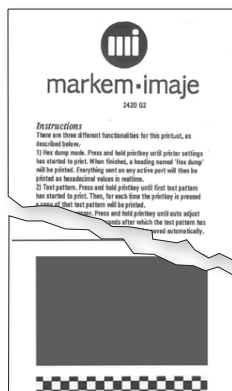
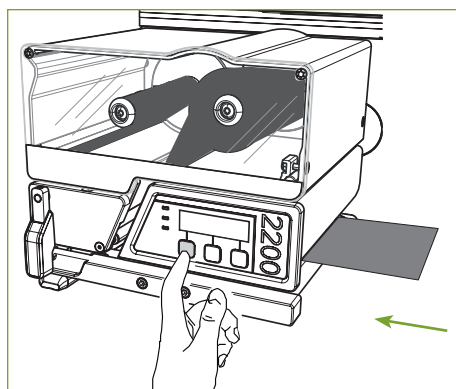
Adjustments

■ Test pattern

The test pattern displays the printer configuration and must resemble the example.

Feed a continuous roll of paper in the printer before running a test pattern.

- 1 - Turn off the printer for approx. 15 seconds.
- 2 - Turn the printer back on while pressing the Print key.
- 3 - Hold the key depressed until the grey test target is printed.

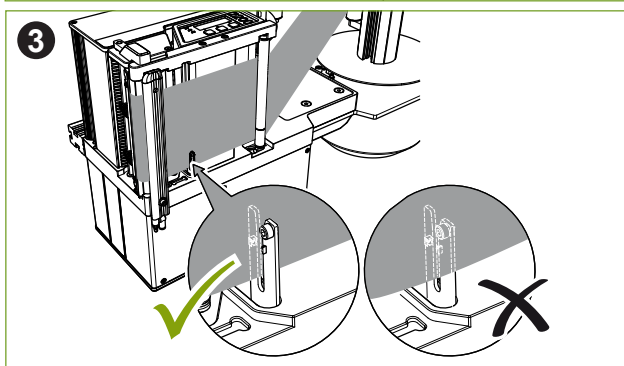
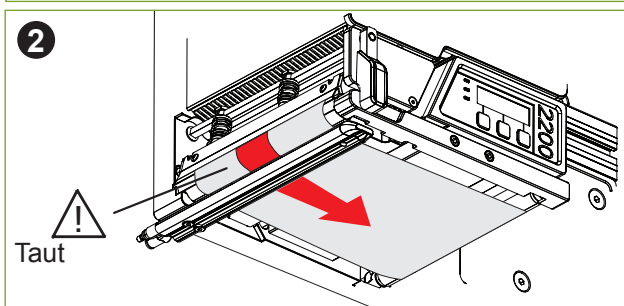
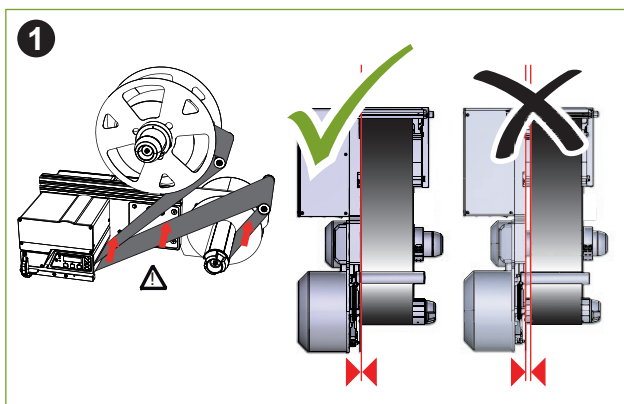


To return to normal operation, turn the printer off then back on.

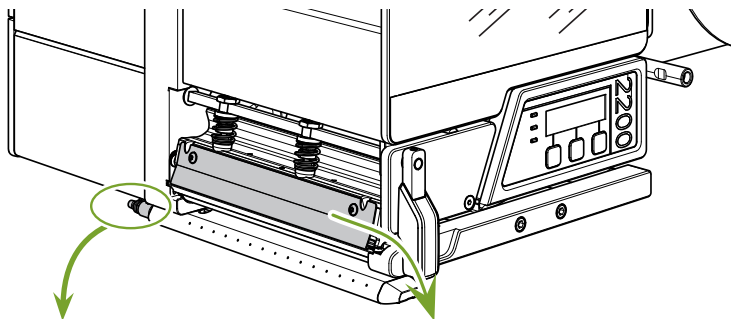
■ Automatic adjustment of the Media Position Sensor (MPS)

- 4 - Press and hold the key for 7 seconds after printing the grey test target.
- 5 - The automatic control starts and white labels are fed through the printer.
- 6 - The automatic adjustment of the MPS is finished when the printer stops.

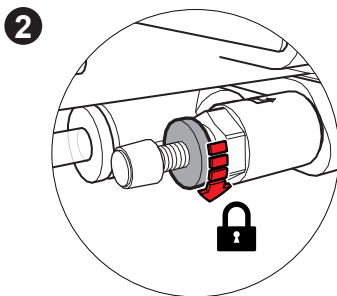
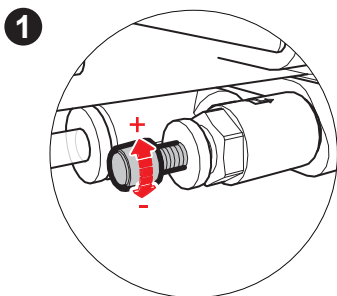




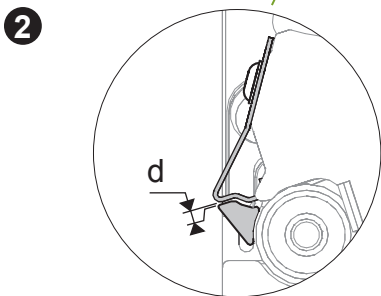
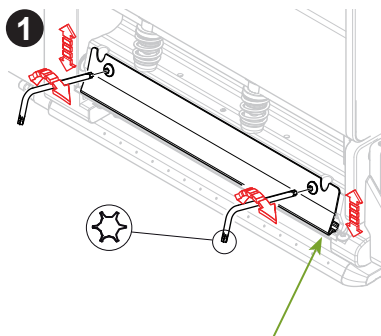
Adjusting the outfeed



■ Adjusting the air flow



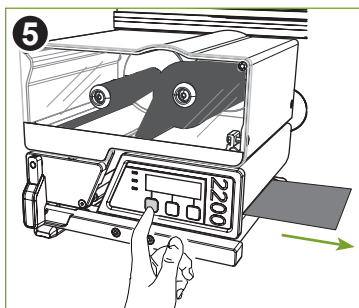
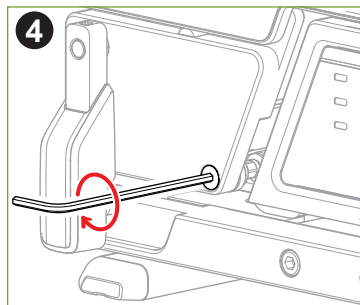
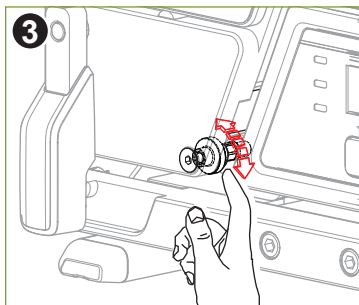
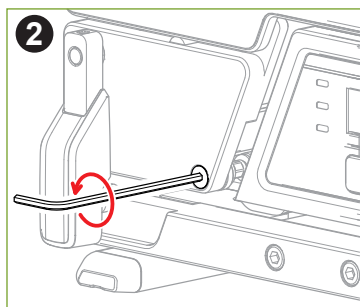
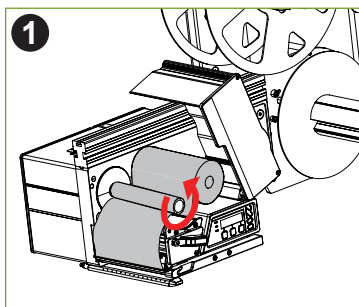
■ Adjusting the outfeed plate



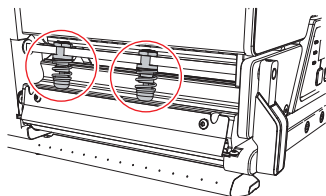
$d = 0.4 \text{ mm}$ () and //.



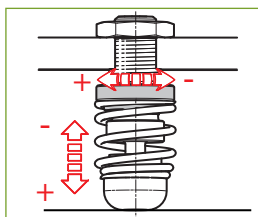
Adjusting a creased ribbon



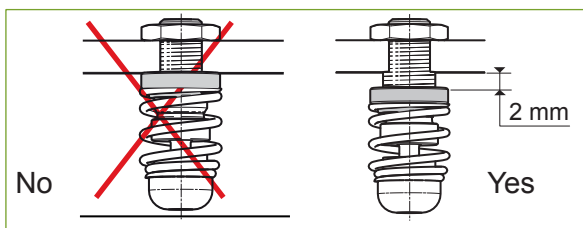
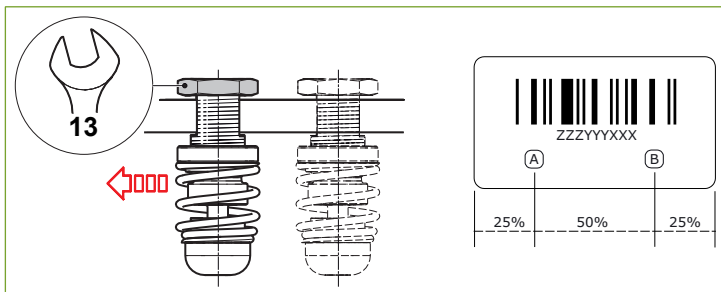
Adjusting the printing



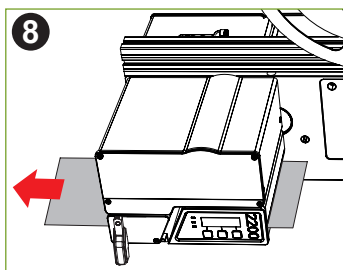
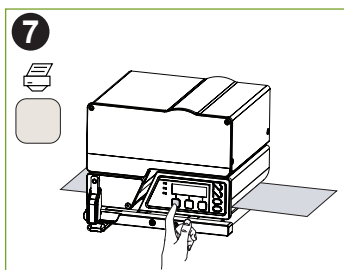
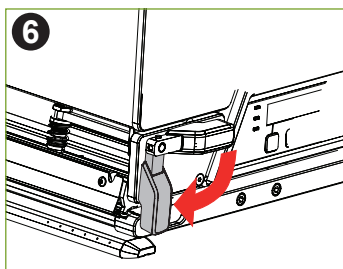
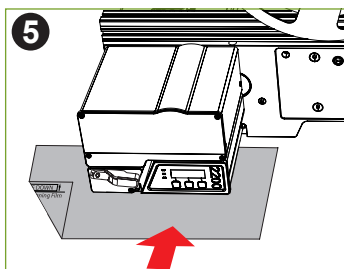
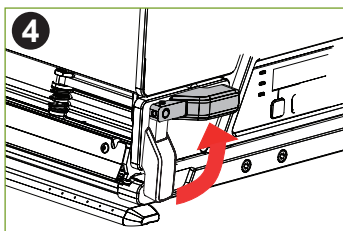
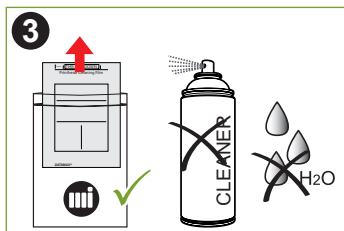
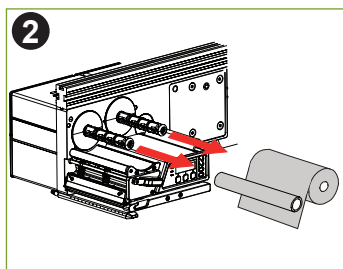
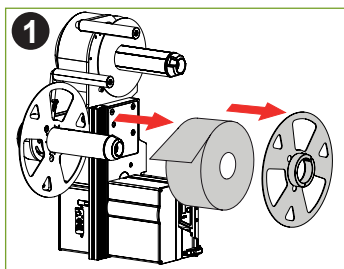
■ Adjusting the pressure



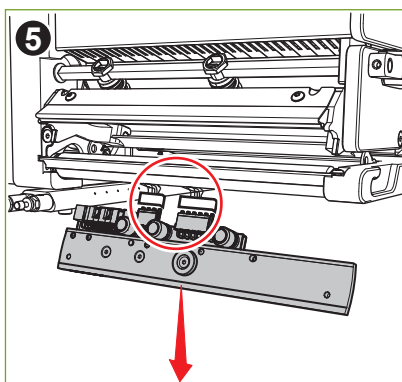
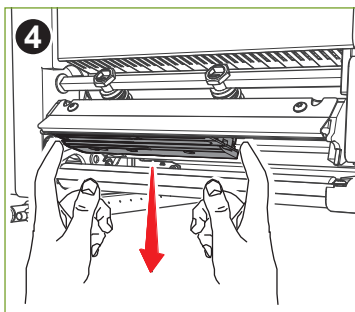
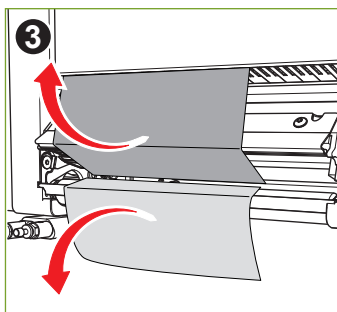
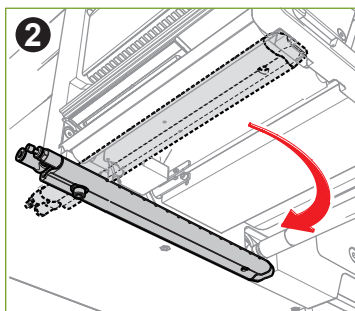
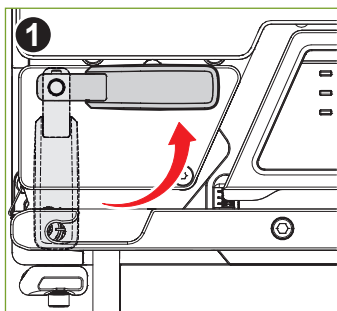
■ Adjusting the position



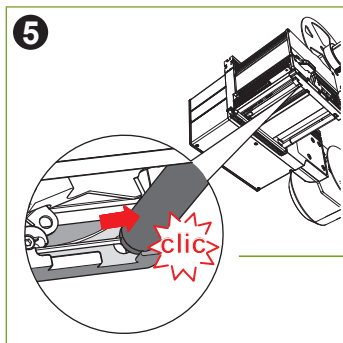
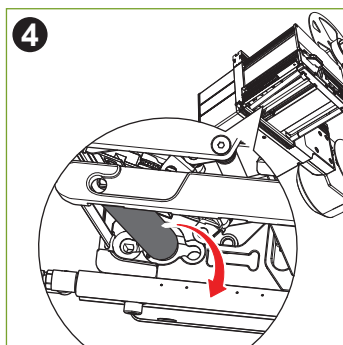
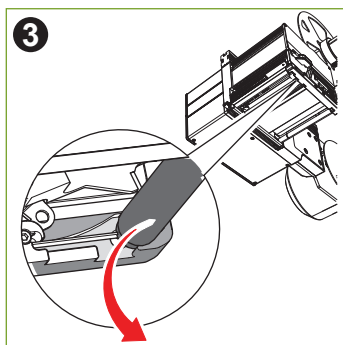
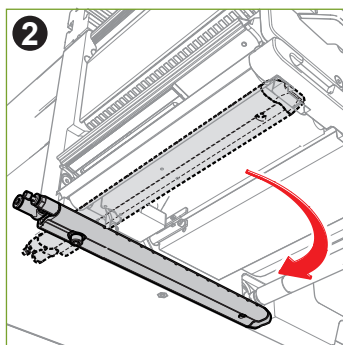
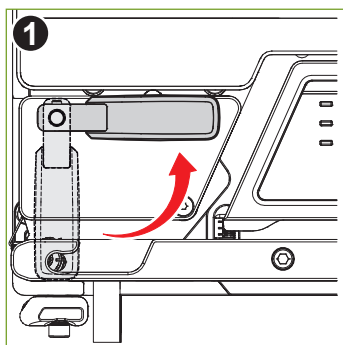
Cleaning the print head



Replacing the print head



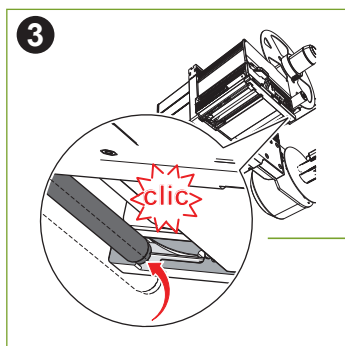
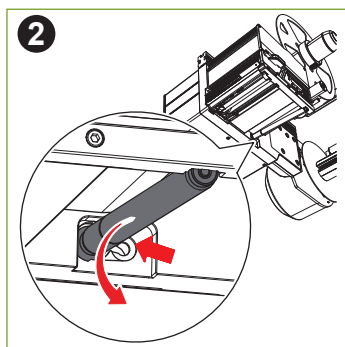
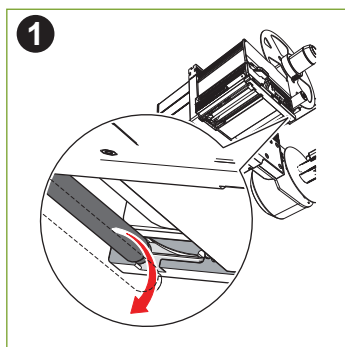
Changing the print roll



Make sure that the roll properly locks in place when reassembling.

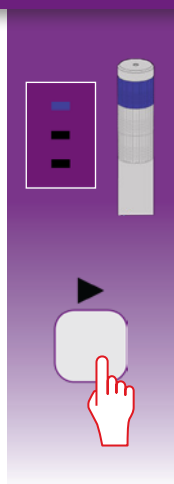


Changing the supply roll



Make sure that the roll properly locks in place when reassembling.





Alarm condition.
Alarm acknowledgment
(if error/warning corrected)



Information message	Meaning
01 - Ready	The system is ready and the trigger is enabled (online).
02 - Available	Send through a label to be printed to make the system ready (online).
03 - Paused	Press the Start button to make the system enter Ready mode.
System update	Wait for the update to finish.
Press the Start button	Press the Start button to make the system ready.
System Info	Restart the printer to place the system offline.
Test pattern	Restart the printer to place the system offline.
Hex Dump	Restart the printer to place the system offline.
MPS auto adjustment	Restart the printer to place the system offline.

Troubleshooting

Error message	What to do
40 - Application time too short	Raise the application time in the Setup menu. It should be longer than the print time.
42 - Readback error	The barcode reader needs to be adjusted or the print quality needs to be improved.
50 - Out of paper	Insert a new roll of paper. Make sure that the roll is positioned properly.
51 - Out of ribbon	Insert a new roll of ribbon. Make sure that the roll is positioned properly.
60 - No label in position	Check whether: 1. The label has fallen or is too short to be detected. 2. The label is outfed.
61 - Label in position	Check whether: 1. A label has already been placed on the pad of the applicator. 2. The sensor is dirty.
63 - Arm not in initial position.	Something is preventing the applicator arm from reaching its resting position. Check whether: 1. The applicator arm is bent. 2. The resting sensor is operating.
70 - Head raised	Lower the print head lever. Check whether the microswitch is defective then recalibrate the printer.
71 - Cover open	Close the cover then recalibrate the printer.
72 - Overheating	Check the cooling fans. Make sure that the ambient temperature is correct.
75 - No air pressure	Check the air lever and the air connections. Check the pressure sensor; adjust it if necessary. Check the air control.

For other errors, please contact Markem-Imaje support.



■ Standard specifications

Print methods	Thermal transfer or direct thermal transfer
Clock	Real-time
Counters	10 individual programmable counters
Graphic display	Printer status in different languages

■ Print resolutions

200 dpi (8 dots per mm) or 300 dpi (12 dots per mm)

■ Maximum print speed

Up to 12 ips (300 mm per second)

■ Media specifications

Medium	die-cut self-adhesive labels
Maximum label roll	350 mm (13.8")
Inner core	76 mm (3")
Label size	W 30 mm x H 230 mm (W 1.2" x H 9"), depending on applicator model
Ribbon type	inside wound ribbon (coated side in)
Markem-Imaje recommends using ribbon having a width at least that of the medium being used	
Maximum ribbon roll size	OD 86 mm (3.9") x length 560 m (1837 ft)
Inner core	25.4 mm (1")
Ribbon width	min. 60 mm (2.4") – max. 176 mm (6.9")

Technical specifications

■ Programming language

Communication	printable ASCII characters
File management	macros and graphics
Field rotation	0°, 90°, 180°, 270°

■ Operating characteristics

- Environment

Operating temperature range	+5°C to + 45°C
Humidity	20% to 85% non-condensing (using Markem-Imaje brand media)

- Power requirements

100–240 V AC; 50–60 Hz; 3 A

Total current for connectors

. 3, 4, 6, 7 and 8	limited to 1.5 A
. 5, 9 and 10	limited to 1 A
. The printer and accessories use a total current of 0.5 A.	

Device	Consumption
. Printer with accessories	0.5 A
. Terminal	0.2 A
. Status beacon (3 lights)	0.1 A

- Approvals

CE, GS, cULus, FCC, EN60950

CE marking



■ Communication interface

High-speed RS232	300–115,200 bps
10/100 Fast Ethernet,	the following protocols are supported: TELNET, FTP, HTTP, LPD (Line Printer Daemon) and RAW TCP

RAW TCP printing used for transparent communication between a client and a print device. The TCP port is 9100 by default. RAW TCP is the default print protocol for most print devices.

Web server

I/O signals: 2 x In via opto, 5 x Out via relay (24 VDC)

May be controlled via an external emergency shutdown circuit

Barcode reader input

- Air consumption

Air supply	6-9 bar, filtered and dry
Air consumption	23-85 l/min., depending on the applicator model used and the application speed.

	6 labels per minute	25 labels per minute	50 labels per minute	120 labels per minute
Blow	X	25	35	85
Wipe	X	40	50	60
Small tamp	X	45	55	70
Large tamp	X	50	65	X
Pallet	23	X	X	X

Average air consumption (l/min.) with air jet at 50%

■ Fonts, graphics and symbologies

- Fonts

Standard fonts	10 smooth scalable fonts (Univers Medium, Bold, Condensed, Condensed Bold, CG Times, Italic, Bold, Bold Italic, Letter Gothic, Bold, Coronet, etc.)
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TrueType download	
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Field rotation	0°, 90°, 180°, 270°
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- Graphic features

Supports the most common formats	BMP, WMF, PCX, PNG, ICO, GIF, TIFF, JPEG
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- Barcode symbologies

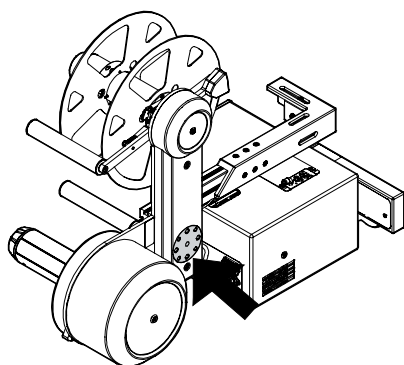
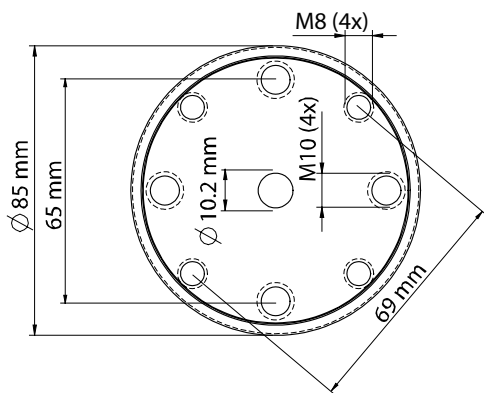
Linear barcodes	Interleaved 2/5, Code 39, USS Codabar, UPC-A, UPC-E, EAN 8, EAN 13, EAN 128, EAN/UPC extension code, Code 128, ITF 14, RSS-14, RSS-14 Truncated, RSS Limited, RSS Expanded, Code 2 of 5
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2D barcodes	PDF417, LEB, KIX, RM4SCC, QR Code M1, M2, Maxi Code M2, M3, M4, M5, Datamatrix
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■ Mount

NOTE: Does not apply to the pallet applicator.

The multi-position mount allows the printer applicator to be mounted on a non-Markem-Image stand.

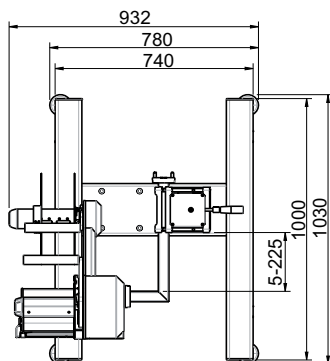
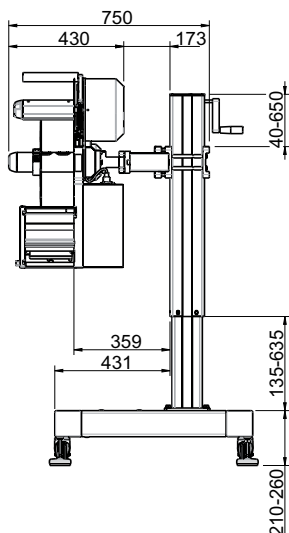
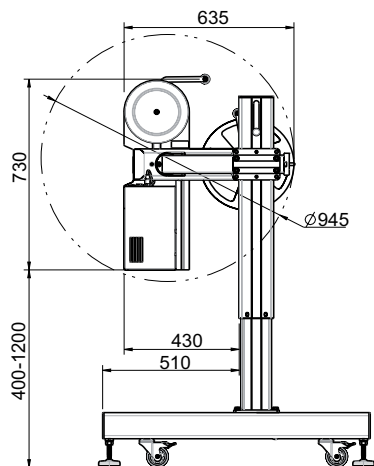


Markem-Image assumes no liability if a non-Markem-Image stand is used.

Technical specifications

■ Dimensions (adjustable stand and H-base)

Given the many assembly possibilities, please contact Markem-Imaje to obtain additional dimension drawings.





S/N: Serial number

Media



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- Corner Wrap
- Flex SE

- User Documentation -

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