HellermannTyton



Operating Instructions Betriebsanleitung

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1 User information

Thank you for purchasing a product from HellermannTyton GmbH. Before the device is used, all operators who will be using the device must have carefully read and understood the operating instructions.

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1.1 Field of application

The operating instructions are directed towards the operator and their personnel. The operating instructions only apply for the following M-BOSS Compact stainless steel embossing system, called "device" in the following:

ТУРЕ	Article no.
M-BOSS Compact (Embossing system with drawer insert)	544-20000
M-BOSS Compact modified (M-BOSS Compact with special characters)	544-20500
M-BOSS Compact and Organiser (Embossing system with organiser unit)	544-21000
M-BOSS Compact and Organiser modified (M-BOSS Compact and Organiser with special characters)	544-21500

The type can be read from the rating plate. The rating plate with the 7-digit serial number can be found on the rear of the device.

HellermannTyton

M-BOSS Compact 544-21000

Serial-No.: 1234567

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Input: AC 110V - 240V 45 / 65Hz / 1,5A - 3A







Example of a rating plate.

1.2 Used labels and symbols

In these instructions, different labels and symbols are used in the text. These are explained in the following:

- · Symbol for an enumeration
- Symbol for an instruction
- **1** First step
- 2 Following steps
- ✓ Outcome

Display text/screen text

→ Cross reference



Messages with this symbol contain information about the environment and how you can help protect it.



Texts with this symbol contain additional information.

1.3 Safekeeping of documents and validity

- Keep these instructions as well as all other supplied documents in a safe place, so that they are available at any time.
- ► Hand over the complete documentation to the next owner.
- ▶ Please note:

Due to the continuous development of the devices, there may be deviations between the documentation and the device. The current edition can be found at www.HellermannTyton.de/downloads.

1.4 EC conformity

The device fulfills the requirements in accordance with:

- Machinery Directive 2006/42/EC
- Low Voltage Directive 2006/95/EC
- Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment 2011/65/EU

2 Safety information

The device was manufactured according to the current state of technology and the recognised safety regulations. Nonetheless, use of the device can result in hazards to the life and limb of the user or third persons, or in damage to the device and other material property.

These operating instructions contain information on safety.

Always follow all of the instructions to prevent personal injury, material damage or environmental damage.

2.1 Representation and layout of warning instructions

The warning instructions relate to actions and are structured as follows:



DANGER

Type and source of danger!

Explanations on the type and source of danger.

► Measures to prevent danger.

2.2 Danger grading of warning instructions

The warning instructions are graded according to the severity of their danger. In the following, the danger grading is explained with the corresponding signal words and warning symbols.



DANGER

Immediate risk of lethal or serious injuries.

WARNING

Possible risk of lethal or serious injuries.



CAUTION

Possible slight injuries.

NOTE

Damage to the device or the surroundings.

2.3 Intended use

The M-BOSS Compact stainless steel embossing system serves to automatically emboss HellermannTyton stainless steel markers with permanently legible and raised letters and characters. The device has been developed for industrial use. The device is only suitable for indoor use. The device may not be operated in potentially explosive environments.

The device may only be used for the purposes described in these operating instructions.

Markers made of other materials or from other manufacturers may not be used.

The device may only be used in technically perfect condition in accordance with its intended use and the operating instructions, and only by safety-conscious persons who are fully aware of the risks involved in operating the device.

The device may only be repaired or serviced by the manufacturer or a qualified technician using genuine spare parts.

2.4 Misuse

Any use that is not listed in chapter "Intended use" on page 5 is considered to be improper. The operator of the M-Boss Compact bears sole liability for any resulting damage.

In particular, the following use is not permitted:

- Use of markers made of other materials or from other manufacturers
- Outdoor use
- Use in potentially explosive environments
- Unauthorised changes and modifications of the M-BOSS Compact and its accessories without approval by HellermannTyton

2.5 Safety devices

The device has a folding cover with a safety switch. When opening the folding cover during operation, the drives are de-energised.

2.6 Basic safety instructions

The following safety instructions apply generally when handling the device.

Danger of electric shock

A faulty or incorrectly installed power supply line can lead to lethal injuries.

- Connect the device to a properly installed socket with grounding.
- Check the voltage (110 V to 240 V AC).
- The socket must be easily accessible, so that the device can be switched off if necessary.
- If not used, in event of repairs or maintenance, switch off the device using the main switch and pull out the pluq.

Risk of injury

There is a possible risk of injury from rotating components or crushing of limbs when handling the device.

- Make sure that clothing, hair, jewellery etc. do not come into contact with open rotating components of the device.
- ▶ When closing, only grasp the folding cover by the handle or from the outside.
- Do not grasp into the swivelling range of the folding cover.

Danger of material damage

Opening the folding cover during operation can cause an undefined standstill of the device.

Avoid opening the folding cover during operation.

2.7 Limitations of use

- Observe the following requirements for the operational environment:
- The device may only be operated in a dry and low-dust indoor environment at +10 °C to +25 °C.
- Do not operate the device in potentially explosive environments.

2.8 Personnel qualification

The device may only be operated and serviced by people who have been suitably instructed and authorised by the operator, and who have read and understood the operating instructions.

Work on the electrical supply and on live components may only be performed by a trained electrician.

2.9 Operator obligations

The operator must observe and comply with the respectively applicable national legal regulations and accident prevention regulations.

The operator must keep the device in proper condition by performing maintenance measures at regular intervals.

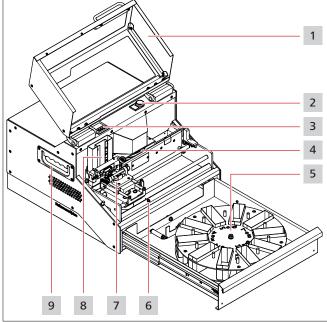
3 Transport and storage

For transport, all of the moving components of the device must be secured. The device may only be transported in the supplied original packaging.

The device must be protected from humidity, direct sunlight and extreme heat. The device may only be stored in dry places that are not exposed to spray water.

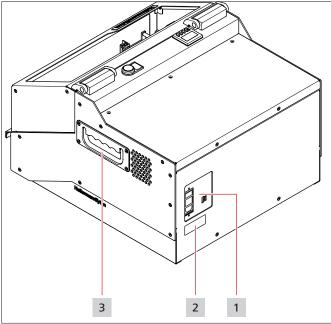
4 Layout and function

4.1 Layout



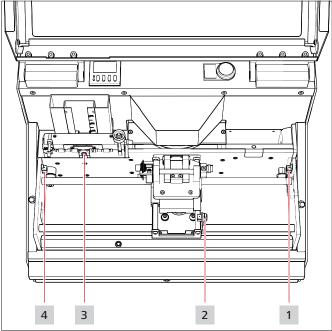
Front view of the device.

- 1 Folding cover
- 2 Reset button (Device article no. 544-21000)
- 3 Counter (Device article no. 544-21000)
- 4 Embossing drum
- 5 Organiser unit (Device article no. 544-21000)
- 6 Pilot lamp (Device article no. 544-21000)
- 7 Gripper
- 8 Magazine
- 9 Folding handle



Rear view of the device.

- 1 Connection plate
- 2 Rating plate
- 3 Folding handle
- The upper housing of the device is suitable for setting up a notebook for operating the device.

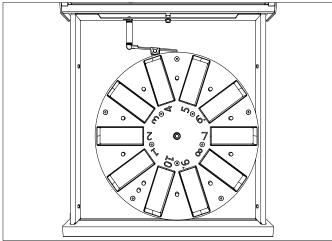


Overview of the sensors.

- 1 X-End
- 2 Y-Home
- 3 Marker light sensor
- 4 X-Home

4.2 Organiser unit (Device article no. 544-21000)

The organiser unit is used to store embossed markers and has ten numbered boxes. The number of markers per box can be determined using a counter.

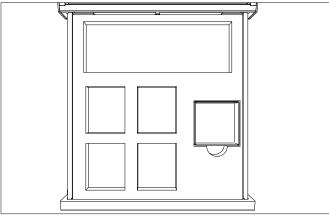


Organiser unit (Device article no. 544-21000).

To prevent overfilling of the organiser unit, the number of embossed markers may not exceed 40 pieces per box.

4.3 Drawer insert (Device article no. 544-20000)

The drawer insert under the embossing mechanism contains a box for holding embossed markers as well as several boxes for holding magazines or materials that are not being used.

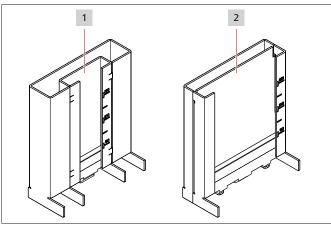


Drawer insert (Device article no. 544-20000).

To prevent overfilling of the drawer, the number of embossed markers may not exceed 100 pieces.

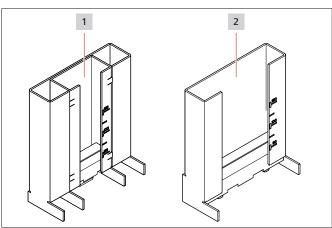
4.4 Magazines

Each magazine has a maximum capacity of approx. 150 non-embossed stainless steel markers. The following magazines are available:



Magazine 10 mm marker incl. weight.

- 1 Size 10 x 45 for marker MBML10X45
- 2 Size 10 x 90 for marker MBML10X90



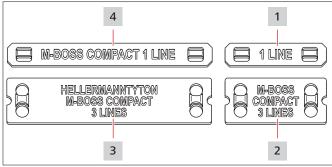
Magazine 20 mm marker incl. weight.

- 1 Size 20 x 45 for marker MBML20X45
- 2 Size 20 x 90 for marker MBML20X90

4.5 Stainless steel marker (marker)

The M-BOSS stainless steel markers (simply called "markers" in the following) are made of stainless steel of type SS316 (SS316) and guarantee good legibility of the characters even under the influence of dust, dirt, grease and oil. The markers are suitable for operating temperatures from -80 °C to +538 °C.

The following markers are available:



Stainless steel marker (marker).

- 1 MBML10X45
- 2 MBML20X45
- 3 MBML20X90
- 4 MBML10X90

TYPE	Size (mm)	Max. number of lines	Max. number of characters per line	Article no.
MBML10X45	10 x 45	1	8	544-80101
MBML10X90	10 x 90	1	23	544-80102
MBML20X45	20 x 45	3	8	544-80201
MBML20X90	20 x 90	3	23	544-80202

4.6 Control elements

4.6.1 Metal Printer Monitor

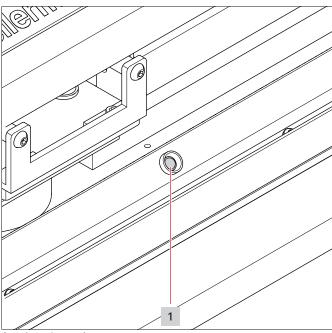
The device can be operated on a PC or notebook using the function fields of the Metal Printer Monitor software. The display fields shown the status of the device.

Function field	Meaning	
Pause	Pause the device and embossing job	
Continue	Resume the embossing job	
Del_Job	Delete the current embossing job (embossed marker will be provided in the discharge chute; continue with "Restore")	
Restore	Move to the basic position	

Display field	Meaning	
Counter	Job counter / unit counter	
Ready	The device is ready to create an embossing job	
Loading Card	Load the marker	
Load complete	Marker is loaded	
Personalizing Card	Execution of embossing	
Ejecting Card	Eject the marker	
Eject complete	Marker in the discharge chute	
Restoring	Restoring the starting position	
Restore complete	Starting position restored	

4.6.2 Organiser unit status lamp

The status lamp indicates the status of the organiser unit.



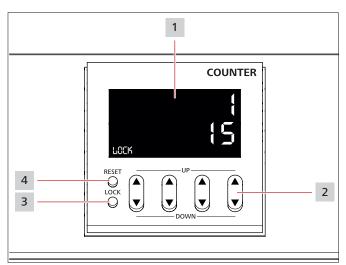
Organiser unit status lamp.

1 Status lamp

Colour	Meaning
green	Ready for operation
Red-green flashing alternately	Box 9 is being filled
Red flashing slowly	Box 10 is being filled
Red flashing rapidly	Organiser unit is in movement or the organiser unit is blocked
red	Box 10 is full

4.6.3 Organiser unit counter

The counter is used to determine the number of markers to be embossed in each box of the organiser unit.



Organiser unit counter

- 1 Counter
- 2 Up/down button
- 3 Lock button
- 4 Reset button

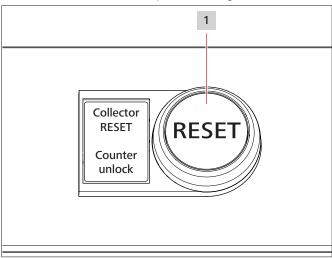
Line	Meaning
Top line (red)	Actual display of markers per box
Bottom line (yellow)	Target display of markers per box

Button	Meaning	
Up/down button	Changing of the target number of markers per	
Reset button	Resetting the actual number of markers per bo	

The counter can only be operated when pressing the reset

4.6.4 Organiser unit reset button

The reset button is used to operate the organiser unit.



Organiser unit reset button

1 Reset button

Function	Meaning	Operation
Collector reset	Basic position of the organiser unit	Press the reset button 2x within 1 s
Counter unlock	Deactivate the counter button lock	Press and hold the reset button

4.7 Function

The stainless steel markers are designed with the TagPrint Pro software.

The device is controlled by a computer, and takes a blank marker from the magazine and embosses it with up to 69 characters. When the embossing is complete, the device deposits the embossed markers in a drawer.

The stainless steel markers are attached with 4.6 mm wide MBT metal cable ties and the MK9SST application tool.

5 Initial operation

The following tools are required for the start-up of the device:

- PC or notebook with Windows 7[®]/10[®]
- Microsoft Office Excel® / TagPrint Pro software

Carry out the start-up in the prescribed sequence:

- 1. Place the device.
- 2. Connect the device.
- 3. Install the device software.
- 4. Install the TagPrint Pro software.
- → Section 5.1-5.4

5.1 Device placement

NOTE

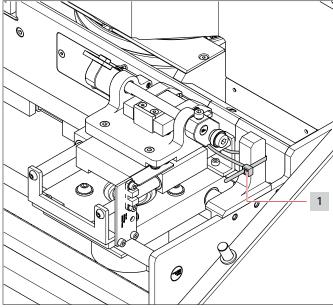
Material damage caused by false environmental conditions!

The device and the materials can be damaged by humidity and dust.

► Set up the device only in dry places that are not exposed to spray water or dust.

Proceed as follows:

- 1 Lift the device carefully out of the packaging using the folding handles on the sides.
- Place the device on a level and stable surface. (To avoid closing off the ventilation openings, you must keep a clearance of at least 10 cm on all sides of the device.)
- **3** Remove the transport securing devices (cable ties).



1 Transport securing device

4 Check the device for transport damage.

- **5** Check the delivery for completeness:
- M-BOSS compact stainless steel embossing system
- Magazine 10 x 45 incl. weight
- Magazine 10 x 90 incl. weight
- Magazine 20 x 45 incl. weight
- Magazine 20 x 90 incl. weight
- Power cable
- USB cable
- Download link: https://www.hellermanntyton.de/downloads/software
- Keep the original packaging for later transport.
- If transport damage has been found or if the scope of delivery was incomplete, please contact Customer Service at HellermannTyton.
- ☑ The device has been setup correctly.

5.2 Connect the device.

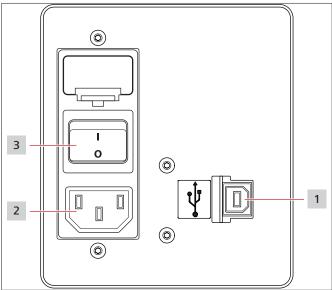
DANGER

Danger of lethal electric shock!

There is a risk of lethal injury when touching live components.

- ► Only connect the device to a properly installed and standardised socket with grounding.
- ► Check the voltage-level and current requirements.
- ▶ Do not touch any of the live components.

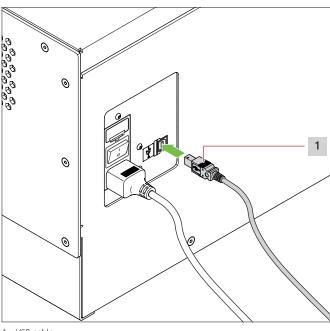
Proceed as follows:



Connect the device.

- 1 USB port
- 2 Power supply
- 3 Main switch
- 1 Connect the power cable to the device.
- **2** Connect the USB cable to the device.





- USB cable
- Connect the USB cable of the device to the PC or notebook.
- Connect the power cable of the device to a power socket.
- Switch on the device using the main switch.
- ☑ The device is connected.

5.3 Installing the device software



The screen displays shown serve for orientation. The designation of the buttons and menus is explained in the instruction texts.

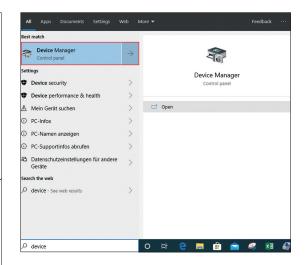
Proceed as follows:

- 1 Download the required files (https://www.hellermanntyton.de/downloads/software).
- Create a folder on the desktop or in a suitable location.
- If necessary, unzip the files with a suitable program.

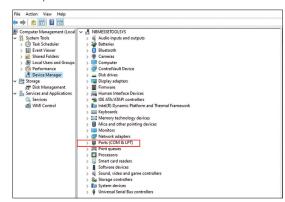
5.3.1 Installing the drivers

Proceed as follows:

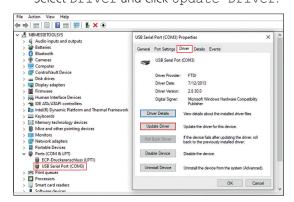
- Connect the device to a PC or notebook with a USB
- Open the device manager.



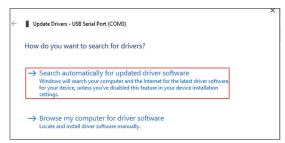
3 Open the Ports (COM & LPT) tab.



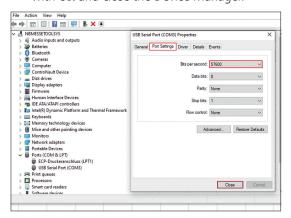
4 Double-click on USB Serial Port (in this case COM3). Select Driver and click Update Driver.



5 Select Search automatically for updated driver software (if the right driver is not installed).



6 Select Port Settings. Change the Bits per second to 57600. Confirm with OK and close the Device Manager.



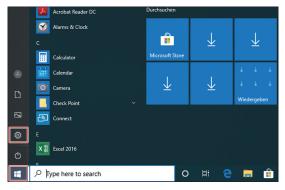
☑ The communication interface is installed.

5.3.2 Installing the device in the operating system

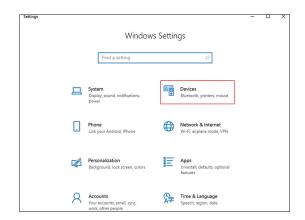
The M-BOSS Compact must be installed and set up in the PC or notebook operating system.

Proceed as follows:

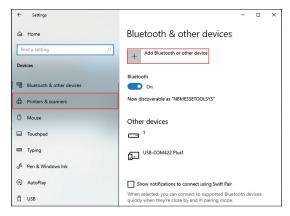
1 Click on the Windows icon and select Settings.



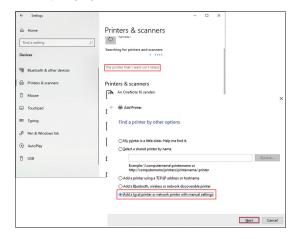
2 In the settings, select Devices.



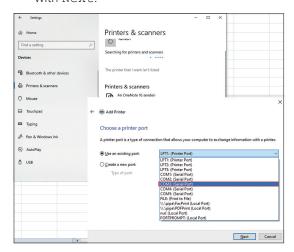
- **3** Open the Printers & scanners menu.
- 4 Select Add a printer or scanner.



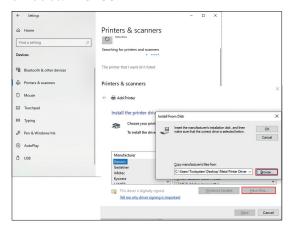
- 5 Select the entry The printer that I want isn't listed.
- 6 Select Add a local printer or network printer with manual settings and confirm with Next.



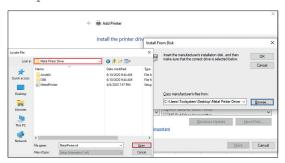
Expand the LPT: (Printer Port) field and select the port from chapter 5.3.1 (in this case COM3). Confirm with Next.



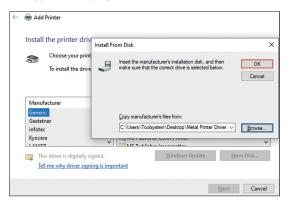
- Select Disk.
- Select Browse.



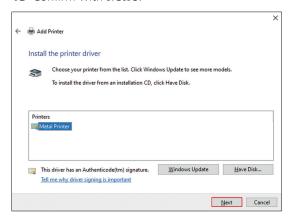
- 10 Open the created folder with the downloaded M-BOSS files (in this case the "M-BOSS files" folder).
- 11 Double-click on the "Printer Driver" folder and click on Open.



12 Confirm with OK.



13 Confirm with Next.



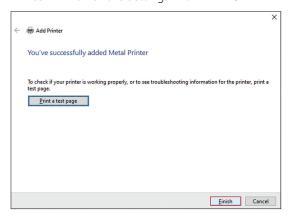
14 Type in the printer name and confirm with Next.

			X
←	Add Printer		
	Type a printer nan	ne	
	Printer name:	Metal Printer	
	This printer will be insta	lled with the Metal Printer driver.	
		<u>N</u> ext Cancel	

15 Select the printer sharing and confirm with Next.



16 If necessary, define the device as the default printer and confirm all of the settings with Finish.

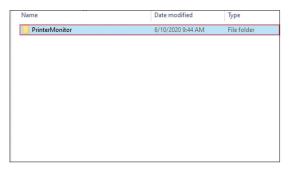


☑ The device is installed and set up in the operating system.

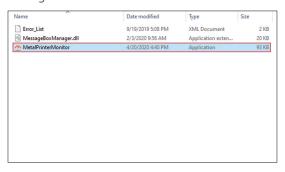
5.3.3 Installing the Metal Printer Monitor

Proceed as follows:

- 1 Open the created folder with the downloaded M-BOSS files (in this case the "M-BOSS files" folder).
- 2 Double-click on the "Printer Monitor" folder.



3 Right-click on the MetalPrinterMonitor icon.



4 Select Create link.



5 Left-click on the link, hold it and drag to the desktop.

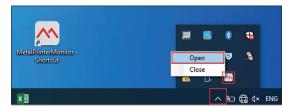


- **6** Make sure that the M-BOSS is connected to the power supply and is switched on.
- **7** Double-click on the link.
- ☑ The MetalPrinterMonitor icon is located on the right in the task bar or in an expansion field that can be opened using the arrow.



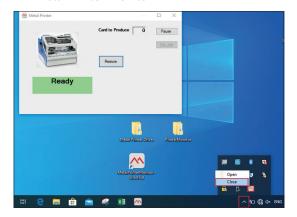


8 Select the arrow. Right-click on the icon and open the Metal Printer Monitor.



☑ The Metal Printer Monitor is opened and ready for operation.

9 Select the arrow. Right-click on the icon and close the Metal Printer Monitor.



☑ The Metal Printer Monitor is installed.

5.4 Installing the TagPrint Pro software



The screen displays shown serve for orientation. The designation of the buttons and menus is explained in the instruction texts.

Proceed as follows:

- **1** Call up the download link: https://www.hellermanntyton.de/downloads/software.
- 2 Install TagPrint Pro.



☑ TagPrint Pro has been installed and can be used.

6 Operation

The markers are designed with the TagPrint Pro software and embossed with the M-BOSS Compact.

The following 42 characters can be used for labelling:

Letters	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
Numbers	0123456789
Symbols	&-/.,'
Special charac- ters	Available upon request (Device article no. 544-20500 and 544-21500)

Ī

The letter O and the number 0 have the same character for labelling.

Operation is carried out in the prescribed sequence:

- 1. Switch on the device.
- 2. Fill and insert the magazine.
- 3. Connect the device.
- 4. Perform single or serial embossing.
- 5. Remove the marker.
- → Section 6.1-6.5

6.1 Switch on the device

Proceed as follows:

- **1** Switch on the device with the main switch.
- **2** Start the Metal Printer Monitor.
- **3** Select the "Restore" function field.
- ☑ The device moves to its basic position and the status message READY appears on the Metal Printer Monitor.

6.2 Filling and inserting the magazine

NOTE

Possible malfunction!

The device operation is stopped and the embossing is interrupted when the folding cover is opened.

 Only open the folding cover when the device is at a standstill.

NOTE

Material damage caused by false markers!

The device can be damaged by using the wrong markers.

▶ Only use stainless steels markers from HellermannTyton.

The magazine must be filled with markers and inserted. Proceed as follows:

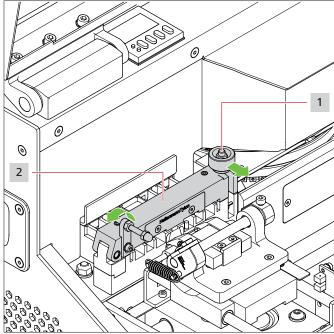
1 Open the folding cover.

Insert the markers into the magazine with the fixing strap to the top.



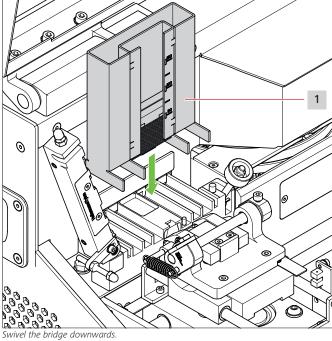
Insert the markers.

- 1 Fixing strap
- Insert the weight. 3
- Loosen the knurled nut and swivel the locking device
- Swivel the bridge upwards.

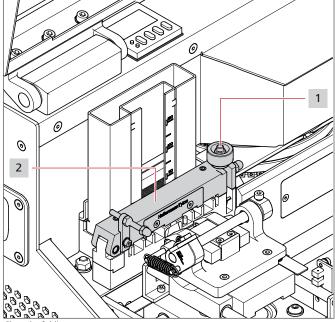


Swivel the bridge upwards.

- 1 Knurled nut
- 2 Bridge
- Insert the magazine and push it up against the rear stop.



- 1 Magazine
- 7 Swivel the bridge back down.
- 8 Swivel the locking device back and tighten the knurled nut by hand.



Close the folding cover.

- 1 Knurled nut
- Bridge
- Close the folding cover.
- $oxdim \Box$ The magazine has been filled and inserted.

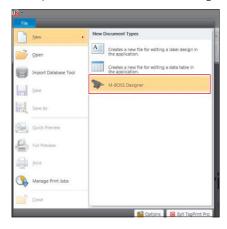
6.3 Performing a single embossing

The screen displays shown serve for orientation. The designation of the buttons and menus is explained in the instruction texts.

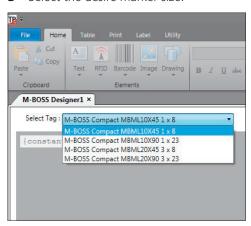
The markers are designed using the TagPrint Pro software.

Proceed as follows:

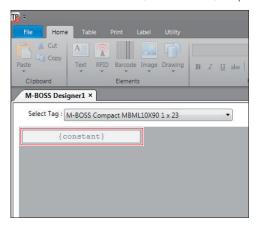
- Start the TagPrint Pro software on the PC or notebook.
- 2 Open a new file in M-BOSS Designer.



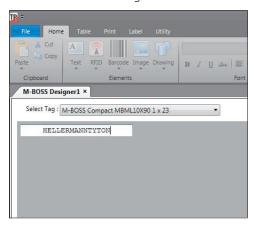
3 Select the desire marker size.



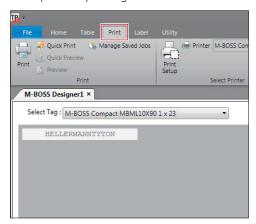
Double-click in the {constant} input area.



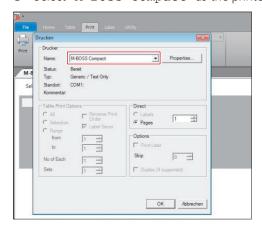
5 Enter the embossing text.



- Confirm the embossing text by clicking outside of the input area.
- Open the printing menu.



Select "M-Boss Compact" as the printer.



Select the number of copies (Pages) and confirm with OK.



 \square The embossing process starts.

6.4 Performing serial embossing

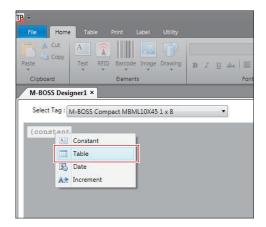
i

The screen displays shown serve for orientation. The designation of the buttons and menus is explained in the instruction texts.

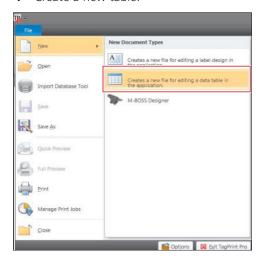
The markers are designed using the TagPrint Pro software.

Proceed as follows:

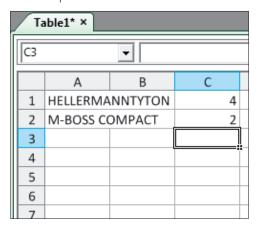
- **1** Start the TagPrint Pro software on the PC or notebook.
- 2 Open a new file in M-BOSS Designer.
- **3** Right-click on the {constant} input area and select Table.



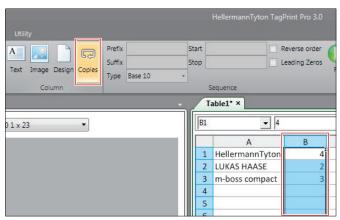
4 Create a new table.



5 Enter the embossing text in Column A and the number of copies in Column B.

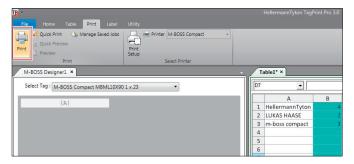


6 Mark Column B and activate Copies in the menu bar.

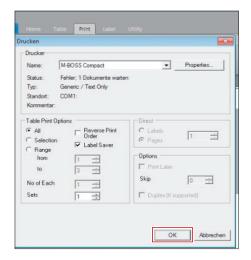


Column B remains marked.

Activate Print in the menu bar.

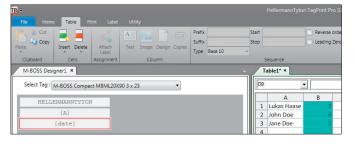


Select "M-Boss Compact" as the printer and confirm with OK.



☑ The serial embossing process starts.

With serial embossing, you can also enter other information and combinations in the table (e.g., date).



6.5 Removing the marker

- Remove the embossed marker by opening the drawer and taking the box and emptying it.
- Pay attention to the version of the device.

6.5.1 Emptying the drawer (Device article no. 544-20000)

The drawer should not be opened during operation.

Proceed as follows:

- Wait until it comes to a standstill or select the "Pause" function field in the Metal Printer Monitor.
- Carefully pull out the drawer. 2
- Empty the drawer.
- Reinsert the drawer.
- Select the "Continue" function field in the Metal Printer Monitor.
- ☑ Operation will be resumed.

6.5.2 Emptying the organiser unit (Device article no. 544-21000)

The drawer can be pulled out and emptied during operation.

Proceed as follows:

- Carefully pull out the drawer.
- ☑ The device goes into "PAUSE" operating mode.
- Empty the drawer. 2
- 3 Reinsert the drawer.
- ✓ Operation will be resumed.

7 Troubleshooting

The following tables help to find possible errors and causes as well as measures to perform troubleshooting.

7.1 Marker errors

Error	Cause	Remedy		
Inversed embossing on the marker	Markers not properly inserted in the magazine	Check the magazine filling		
Single marker blockage	ngle marker blockage Marker is bent or twisted Replace the marker			
Markers upright in the magazine	Low number of pieces, markers run without weight	Refill the magazine, insert weight		
Abnormal type face on the marker	Wrong pairing of the embossing job and markers	Check the pairing of the embossing job and markers		

7.2 Device errors

Error	Cause	Remedy			
Crooked embossing	The markers are crooked in the gripper, marker hard to pull out, gripper does not close properly	Check the marker for damage, adjust the gripper, rotate the material by 180° or change it if necessary			
Cover open	The folding cover is not closed properly	Close the folding cover			
Feeder empty	Magazine empty, the movement of the pusher in the singling unit is restricted	Fill the magazine, open the singling unit, remove any foreign objects or bent markers			
Feeder home	Sensor feeder basic position malfunction	Check the sensor for foreign objects / soiling, clean with a dry brush or compressed air if necessary, check the sensor connection, execute "Restore"			
Machine no answer	Connection error	Execute "Restore", restart the Metal Printer Monitor, PC / Notebook and M-BOSS Compact if necessary			
Personalizing Card	Connection error	Execute "Restore"			
Plate Misfeed	The marker was not pulled out of the singling unit	Remove the marker from the singling unit, execute "Restore"			
Punch	Restricted punching drive	Relieve the embossing drum (execute "Restore") or close the opened folding cover			
Unknown	Unknown	Check device, execute "Restore"			
Write port	Connection error	Check configuration, check connection to the device			
X-End	X-sensor discharge chute malfunction	Check the sensor for foreign objects / soiling, clean with a dry brush or compressed air if necessary, check the sensor / sensor connection, execute "Restore"			
X-Home	X-sensor magazine malfunction	Check the sensor for foreign objects / soiling, clean with a dry brush or compressed air if necessary, check the sensor / sensor connection, execute "Restore"			
X-Move	Carriage is blocked towards the ejector or during embossing	Open the working area, remove any foreign objects, remove any incorrectly embossed markers, check sensor / sensor connection, execute "Restore"			
Y-End	Restricted movement of the embossing drum, sensor XY malfunction	Open the working area, check the embossing drum and relieve if necessary, check the sensor / sensor connection, execute "Restore"			
Y-End/Home during embossing	The Y-carriage is blocked or malfunction of the Y-carriage sensor	Remove the blockage, check the sensor for foreign objects / soiling, clean with a dry brush or compressed air if necessary, check the sensor / sensor connection, execute "Restore"			
X-End/Home during embossing	The X-carriage is blocked or malfunction of the Y-carriage sensor	Remove the blockage, check the sensor for foreign objects / soiling, clean with a dry brush or compressed air if necessary, check the sensor / sensor connection, execute "Restore"			
Drum Home during embossing	The embossing drum is blocked or malfunction of the embossing drum sensor	Remove blockage; check the sensor for foreign objects / soiling, clean with a dry brush or compressed air if necessary, check the sensor / sensor connection, execute "Restore"			



7.3 Software errors

Error	Cause	Remedy	
Shifted type face	Incorrect embossing coordinates	Check the embossing coordinates and correct if necessary	
Wrong embossed text on the marker	Wrong link to the Excel table	Check and re-link the Excel table	

7.4 Organiser unit errors

Error	Cause	Remedy		
The device stops or does not start up	Open the organiser unit	Close the organiser unit		
Red status lamp flashing rapidly	Organiser unit is blocked	Open the organiser unit, remove the blockage, close the organiser unit		
The device stops without finishing the embossing job, the status lamp is red	The organiser unit was not reset before the embossing job	Open the organiser unit, empty any filled boxes, close the organiser unit		

8 Servicing

The following warning instructions apply for all servicing work.

M DANGER

Danger of lethal electric shock!

There is a risk of lethal injury when touching live components.

- ► Switch off the device before servicing work.
- ▶ Pull the power plug out of the socket.

CAUTION

Risk of injury through improper work!

Safe working on the device requires specialised knowledge. Improperly performed servicing work can cause injuries.

- Perform servicing work professionally.
- ► If necessary, have the servicing work performed by an authorised specialised technician.

NOTE

Material damage caused by improper work!

Safe working on the device requires specialised knowledge. Improperly performed servicing work can cause damage to the device.

- ▶ Perform servicing work professionally.
- ► If necessary, have the servicing work performed by an authorised specialised technician.

Servicing ensures to preserve operational readiness and to prevent premature wear.

Servicing is divided into:

- · Maintenance and cleaning
- Repair

8.1 Preparation and follow-up tasks

For all servicing work, proceed as follows:

- **1** Switch off the device using the main switch.
- 2 Pull the power plug out of the socket.
- ☑ The device is without current.
- **3** Perform the required servicing work.
- 4 Insert the mains plug into the socket.
- **5** Switch on the device using the main switch.
- ☑ The device is ready for operation.

8.2 Maintenance and cleaning

8.2.1 Regular maintenance work

To ensure proper operational status of the device, defined maintenance work must be performed at the prescribed intervals.

► With daily use, perform the following regular maintenance work.

Interval	Maintenance work		
	Check the working area for severe soiling.		
Weekly	Check the bolts and cable connections for tightness.		
	Clean the light sensors and light barriers.		
Monthly	Clean and lubricate the guide rods.		
	Clean the working area and drawer.		
Voarly	Clean the exterior housing.		
Yearly	Clean the inside of the folding cover.		

8.2.2 Cleaning agents and materials

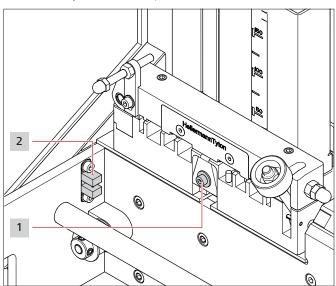
The following cleaning agents and materials are required for maintaining the device:

- Mild cleaning agents
- Lint-free cloth
- Dry brush
- CRC 5-56 Multifunction oil (Article-No. 935-10018)

8.2.3 Cleaning the marker light sensor and light barriers

Proceed as follows:

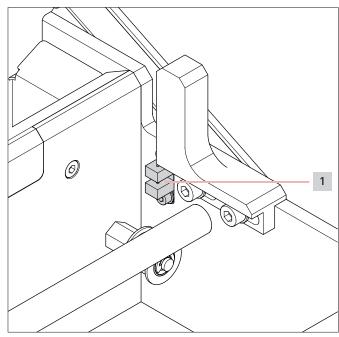
- 1 Open the folding cover.
- **2** Swivel the bridge upwards.
- 3 Clean the marker light sensor and X-Home light barrier with a dry brush or compressed air.



- 1 Marker light sensor
- 2 X-Home light barrier

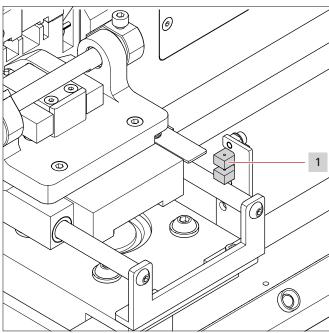


4 Clean the X-End light barrier with a dry brush.



1 X-End light barrier

5 Clean the Y-Home light barrier with a dry brush.



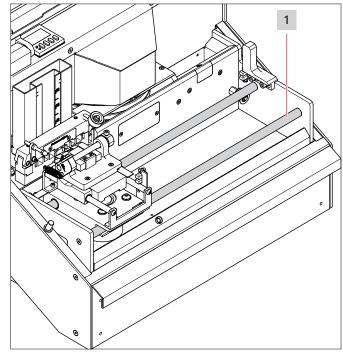
1 Y-Home light barrier

- **6** Swivel the bridge back down.
- **7** Close the folding cover.
- $\ oxdot$ The marker light sensor and light barriers are clean.

8.2.4 Cleaning and lubricating the guide rods

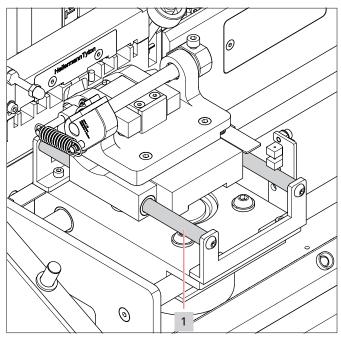
Proceed as follows:

- 1 Open the folding cover.
- The X- and Y-carriages can be slowly moved by hand.
- **2** Clean the X-carriage guide rod with a lint-free cloth.



1 X-carriage guide rod

3 Clean the Y-carriage guide rod with a lint-free cloth.



1 Y-carriage guide rod

- Using a lint-free cloth, apply a thin coat of multifunction oil on the guide rods of the X- and Y-carriages.
- **5** Swivel the bridge back.
- Close the folding cover. 6
- ☑ The guide rods are clean and lubricated.

8.2.5 Cleaning the working area and drawer

Proceed as follows:

- Open the folding cover.
- Clean the working area with a lint-free cloth and a mild cleaning agent.
- Close the folding cover. 3
- Open the drawer.
- Clean the drawer with a lint-free cloth and a mild cleaning agent.
- Close the drawer. 6
- Insert the mains plug into the socket.
- Switch the device on again using the main switch.
- \square The working area and drawer are clean.

8.2.6 Cleaning the exterior housing

Proceed as follows:

- Clean the exterior housing of the device with a lint-free cloth and a mild cleaning agent.
- ☑ The housing exterior is clean.

8.2.7 Cleaning the inside of the folding cover

Proceed as follows:

- Open the folding cover.
- 2 Clean the inside of the folding cover with a lint-free cloth and water or a mild cleaning agent.
- Close the folding cover.
- Insert the mains plug into the socket.
- Switch the device on again using the main switch.
- \square The inside of the folding cover is clean.

8.3 Repair

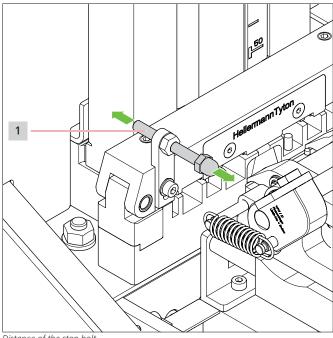
Servicing includes the repair and replacement of components. It is only necessary when components have been misaligned or damaged by external influences.

8.3.1 Adjusting the gripper

If the marker is not correctly positioned in the gripper, the closing of the gripper can be adjusted using the stop bolt.

Proceed as follows:

- Open the folding cover.
- 2 Increase or decrease the distance of the stop bolt in small increments.



Distance of the stop bolt

1 Stop bolt

- Small distance: the gripper closes later
- Large distance: the gripper closes earlier
- Close the folding cover.
- ☑ The gripper closes properly again.

8.3.2 Relieving the embossing drum

In case of unintentional opening of the folding cover, power outages or blockage of the embossing drum, the embossing process can stop unexpectedly.

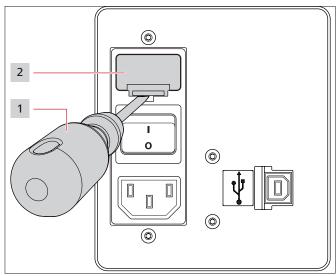
Proceed as follows:

- Switch off the device using the main switch.
- 2 Open the folding cover.
- Perform a visual check for foreign objects. 3
- Remove any foreign objects.
- Close the folding cover.
- Switch on the device with the main switch.
- Select the "Restore" function field in the Metal Printer Monitor.
- ☑ The device moves to its basic position.

8.3.3 Replacing the power input fuse

Proceed as follows:

1 Pull out defective power input fuses with a flat-bladed screwdriver.



Replacing the power input fuse.

- 1 Flat screwdriver
- 2 Power input fuse
- 2 Insert the corresponding replacement fuse (3G, 3A slow-blow, 250 Volt, 6.3x32).
- ☑ The device can be switched on again.

9 Decommissioning

DANGER

Danger of lethal electric shock!

There is a risk of lethal injury when touching live components.

- ► Switch off the device before servicing work.
- ▶ Pull the power plug out of the socket.

9.1 Decommissioning the device

Proceed as follows:

- **1** Switch off the device using the main switch.
- **2** Pull the power plug of the device out of the socket.
- **3** Shut down the PC or notebook.
- **4** Disconnect the USB cable from the PC or notebook.
- **5** Disconnect the USB cable from the device.
- **6** Disconnect the power cable from the device.
- ☑ The device is stopped.

9.2 Putting the device back into operation

Proceed as follows:

- **1** Start the PC or notebook.
- **2** Connect the power cable to the device.
- **3** Connect the USB cable to the device.
- **4** Connect the USB cable of the device to the PC or notebook.
- **5** Connect the power cable of the device to a power socket.
- **6** Switch on the device using the main switch.
- ☑ The device is ready for operation.

10 Disposal

After termination of use, the purchaser or the operator must properly dispose of the device including the accessories.

The purchaser or the operator releases HellermannTyton GmbH from the obligations according to Section 10 (2) of the German Electrical and Electronic Equipment Act (Return obligation of the manufacturer) and from any associated third-party claims.



This device was manufactured according to the current environmental protection standards. The materials can be separated and recycled.

- ▶ Observe the national regulations for the disposal of recyclable fractions, electronic parts and batteries.
- ▶ Do not dispose of the device as domestic waste.
- ▶ Bring the device to a local collection point or recycling centre.
- ▶ If necessary, contact your local environmental office.

11 Technical data

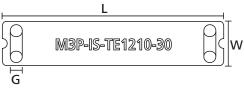
11.1 M-BOSS Compact

ТҮРЕ	Content	Article no.
M-BOSS Compact	1	544-20000
M-BOSS Compact modified	1	544-20500
M-BOSS Compact and Organiser	1	544-21000
M-BOSS Compact and Organiser modified	1	544-21500

Printing method	Relief
Cycle time	1 second per character
Power supply	230 V 50/60 Hz
Rated input voltage	110 - 240 V AC
Maximum rated input power	240 W
Input fuse	T6.3 A/250 V AC
Operating time	8 - 10 h
Operating temperature	+10 °C to +25 °C
Noise/noise level	64 dB
Interfaces	USB 2.0
System requirements	MS Windows 7/10
Dimensions (W x H x D)	480 x 360 x 570 mm
Folding cover open	490-670 mm
Drawer pulled out	1,000 mm
Weight	41 kg
Specification	CE
Circuit breaker: Mechanical service life	10 ⁶ switching cycles (one switching cycle contains one opening and one closing)

11.2 Stainless steel marker

Material	Stainless steel, type SS316 (SS316)		
Operating temperature	-80 °C to +538 °C		



Dimensions of the stainless steel markers

12 Customer service and spare parts

If you have any questions or suggestions, please contact the HellermannTyton GmbH in Germany. The contact data is listed at the end of this documentation.

Only use genuine spare parts or spare parts approved by HellermannTyton GmbH in Germany. Contact Customer Services to order the spare parts.

Spare part	Article no.
Power supply SDR-240-24	544-14015
Embossing motor, complete	544-14305
Embossing drum stepper motor	544-14205
X- and Y-drive stepper motor	544-14900
X-carriage sensor	544-12010
Y-carriage light barrier	544-14403
Marker sensor	544-12011
Motor for pusher	544-12012
Power cable 1.8 metres 230 Volt	123-90040
USB cable 1.8 metres	123-90028
Magazine for marker MBML10x45	544-12201
Weight for magazine 10x45	544-12301
Magazine for marker MBML20x45	544-12202
Weight for magazine 20x45	544-12302
Magazine for marker MBML10x90	544-12203
Weight for magazine 10x90	544-12303
Magazine for marker MBML20x90	544-12204
Weight for magazine 20x90	544-12304
Drawer insert box	544-15007
Safety hinge switch	123-90008
Pullout for drawer	544-13103
Device base	544-13105

TYPE	Max. strap width (G)	Number of lines	Number of charac- ters per line	Number of characters	Width (W)	Length (L)	Content	Article no.
MBML10X45	4.6	1	8	8	10.0	45.0	1,000	544-80101
MBML10X90	4.6	1	23	23	10.0	90.0	500	544-80102
MBML20X45	4.6	3	8	24	20.0	45.0	1,000	544-80201
MBML20X90	4.6	3	23	69	20.0	90.0	500	544-80202

All dimensions in mm. We reserve the right to make technical changes without notice. Minimum order quantities (MOQ) can deviate from the package contents.

