



Original operating instructions

for software version 4.02.xx

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1 Introduction

1.1 Preface

First of all we would like to thank you for purchasing this sealing device. In these instructions you will find information about using the device, servicing and care as well as process validation.

The sealing device is a microprocessor controlled rotary sealer with a printer for packaging sealable transparent pouches and reels (SBS = sterile barrier system). The sealing device meets the requirements of DIN 58953-7, DIN EN ISO 11607-2 and the resulting DGSV (German Society for Sterile Supply) guideline for validating the sealing process.



Please read these operating instructions carefully before commissioning so that you are familiar with the capabilities of the device and you can make optimum use of its functions.



Always keep these instructions close to the device.

1.2 Important notice



In accordance with the intended use, the CE marking is displayed based on the following EU directives: 2006/42/EC, 2014/30/EU and 2011/65/EU.

Medical device directive 93/42/EEC is not applicable to sealing devices.

The limit values of IEC 60601-1 must not be applied in repeated electrical inspections.

The manufacturer accepts no liability whatsoever for damage caused by tests in accordance with standards not listed in the declaration of conformity.



Note

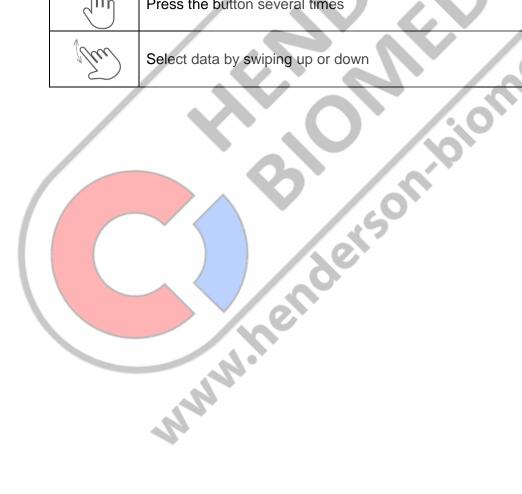
We are constantly improving our products, therefore we reserve the right to modify these operating instructions and the functions described in them.

These operating instructions apply to products from software version V4.02.00 onwards

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1.3 Legend

<u></u>	The exclamation mark in the triangle draws your attention to important notes in the operating instructions, which must absolutely be observed.
	This warning sign refers to measures that could result in danger to human health if they are not observed. It is compulsory to observe it.
P	A hand symbol indicates important information.
	Select function
Jhn .	Press the button
	Press and hold down the button
€	Press the button several times
Tu	Select data by swiping up or down



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1.4 Safety instructions



Our products are in a flawless condition in terms of safety technology when they leave the plant.

To maintain this condition, the contents of these safety instructions as well as type plates, labelling and safety instructions attached to the device must be observed while handling the device (transport, storage, installation, commissioning, operation and maintenance).

This device is suitable for processing laminated films in the heat-sealing process. See also chapter 1.6 "Intended use".

Please check the packaging, and lodge a complaint for any damage with the carrier or parcel service immediately, before installing the device.

Before commissioning, ensure that the device does not show any evidence of damage. In case of doubt, contact the manufacturer or a service partner authorised by the manufacturer.

Do not operate the device if the power cable or the power plug is damaged. Do not use the device if it does not operate correctly or it is damaged in any way. If the mains cable or the device have been damaged, the device must be repaired by the manufacturer or by one of the manufacturer's authorised service partners.

The device must be connected using the mains cable included in the scope of delivery to a protective contact socket with a stable voltage. Operation on IT networks is not permitted.

Place the device on a stable base.

The device must not be installed or operated in potentially explosive areas.

If the sealing device is brought directly from a cold environment into a warm environment, condensation may form. Wait until temperature equalisation has taken place.

Repairs and the replacement of spare parts must be performed only by the manufacturer or by one of the manufacturer's authorised service partners.

Switch off the device when it is not in use, or remove the power plug from the socket.



Do not insert pointed or flat items into the import slot of the device. This can result in damage to the device and instruments.

Do not insert items into the louvres of the device. You might receive an electric shock or the device could be damaged.

Do not use the device if you have any doubts about its safety.

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The device must not be installed or operated by persons under 16 years of age.

The device must not be operated unsupervised.

It is forbidden to operate the device under the influence of drugs or alcohol.



Keep hair, clothing and gloves away from moving parts. Loose clothing, jewellery or long hair can be caught by moving parts.



The device contains valuable materials that can be recycled and reused. The device should therefore be disposed of at a public disposal facility near you.

The device has been labelled in accordance with Directive 2012/19/EU (WEEE) on waste electrical and electronic equipment.

This directive governs the return and recycling of scrap equipment within the EU.

1.5 Cleaning

Before cleaning, disconnect the mains plug from the socket and disconnect the device from the power supply with the plug.

Clean the device only with a dry or damp soft cloth and a mild cleaning agent.

(E.g.: isopropanol, spirit, etc.)

Do not allow any water to find its way into the device.

Caution! Never wet clean the device!



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1.6 Correct use

The device is intended only for commercial and industrial use, and must be used only for the intended purpose and with the following sealable materials.

SEALING MATERIALS

Sealable paper pouches in accordance with EN ISO 11607-1/EN 868-4	Х
Sealable pouches and reels in accordance with EN ISO 11607-	X
1/EN 868-5 of film and paper according EN 868-3	
Sealable pouches and reels according ISO 11607/EN 868-5 of	x (approval and/or tests necessary)
film and uncoated nonwoven materials of polyolefines according	
EN 868-9 ¹	
Aluminium-laminate film	x (approval and/or tests necessary)
Sealable PA/PE on request	on request

NON - SEALABLE MATERIALS

Polyethylene films	Soft PVC films
Hard PVC films	Polyamide films
Polypropylene films	Coated HDPE

The correct sealing temperature for the packaging materials being used must be identified by means of test sealing's (DIN 58953-7).

The device output depends on the condition of the sealing material used.

¹Not applicable for sealable pouches and reels according EN ISO 11607-1/EN 868-5 of plastic and uncoated nonwoven materials of polyolefins according EN 868-10.



ENGLISH

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2 Commissioning

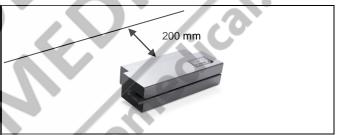
Commissioning the sealing device

2.1.1 Step 1 Inspection of the device

After opening the packaging and the air- conditioning bag, check the device and its accessories for damage and completeness.	Sealing device Power supply
	Power cable
	Operating instructions
	Test report(s)
	Replacement ink ribbon
2.1.2 Step 2 Setting up the device	(1/2/0)

Setting up the device 2.1.2 Step 2

Set up the device on a flat surface and make sure that there is at least a 200 mm spacing between the device and the wall.





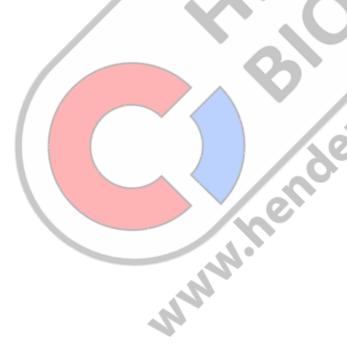
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2.1.3 Step 3 Connecting the device

Insert the 24V cable of the power supply **1** into the device

Insert the power cable **②** into the power supply **③** and insert the mains plug **④** into the socket





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2.1.4 Step 4 Turning on the device

Press the Power button The colour changes from red to green.

The device operating system is loaded.

When the device is turned on for the first time, the date, time, date format and languages can be reset.





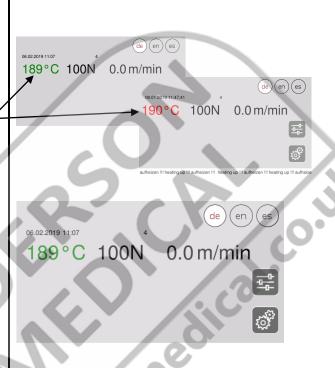
hm 950 / NanoPak Commissioning Chapter 2	hm 950 / NanoPak	Commissioning Chapter 2
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2.1.5 Step 5 Checking of the sealing parameter sensors

After switch-on, the device heats up to the default sealing temperature of 190°C. The sealing parameters temperature, contact pressure and throughput speed are checked.

If their safe function is guaranteed, the main menu is displayed and the device heats up to the default set value. This is also indicated by an alternating display in the temperature display.

Once the sealing temperature has been reached, the device is ready for operation.





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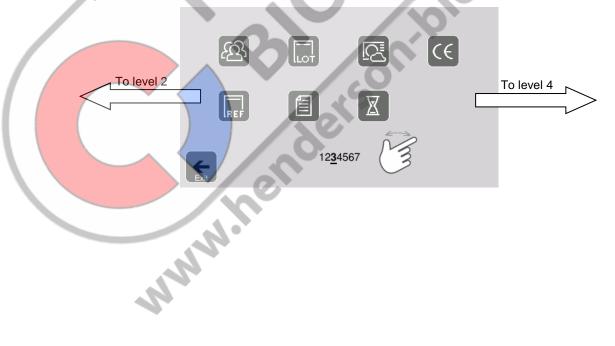
2.1.6 Step 6 Displays and functions of the main menu



Symbol	Function	Note
189°c	Displays the current sealing temperature	
100 N	Displays the current pressing force	
0.0 m/min	Displays the current throughput speed	Value > 0 only when motor is running
£\$\$	Settings	Y . C / . o .
	Control center	Checking the functions of heating, DMS – module and motor as well as the device informations
de en es	Display of the preselected languages	For better operation, the device can be switched to different languages using the three buttons during operation. A change is possible at any time via the Settings / System configuration / Language level. (See data input Chapter 3)
4	Displays the current counter / the adjusted counter	

2.1.7 Step 7 Change menu level 1 till 7 by "Swiping"

To change to another menu level, swipe across the display in the desired direction.



hm 050 / None Poly Commissioning Chanter 2			
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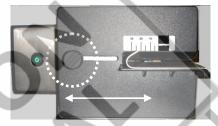
2.1.8 Step 8 The first sealing process

The default sealing temperature is 190°C and the throughput speed is 10 m/min. This ensures pouches and reels are sealed in accordance with EN 868-5 and EN ISO 11607-1. The internal printer is "active" in delivery mode, but without print data.



The material to be sealed must be sealed according to the manufacturer's instructions. Sealable pouches and reels must only be filled to ¾ full (DIN 58953-7). The limited filling prevents too great a load being placed on the sealing seams.

Setting the peel edge





After releasing the locking device, the peel edge can be steplessly adjusted by between 0 mm and 35 mm by moving the infeed section.

A sufficient overhang must be present between the sealing seam and the reel interface on the extraction side (in accordance with DIN 58953-7 min. 10 mm).

Sterilisation packaging must be inserted from the left-hand side, always with the side to be printed face down. The drive is switched on automatically.

Remove the sealed sterilisation packaging and leave briefly to cool.



The correct sealing temperature must be identified by means of test sealings. (DIN 58953-7).

Sealing must be performed in such a way that the sealing seam meets the quality characteristics required in EN ISO 11607-2, even with varying material thicknesses. The following quality characteristics must be met:

- Intact sealing across the entire sealing seam width
- No channels or open seals
- No punctures or tears

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No delamination or material separation

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2.1.9 The individual levels of the device

2.1.9.1 Level 1 General

Symbol	Function	Note	
[PO]	Seal Check	Performing a routine test (see Chapter 2.2.1) SealCheck, InkTest or peel test	
£23.	Login	User login/logoff	
	TraceLog	Recording of all process-related data, changes, errors and settings made during operation	
	Packaging List	Selecting packaging lists that have already been created	
<u> </u>	Counter	Setting the counter for counting up/down	
	Printer	Switching the internal printer on/off	
	External printer	Switching the external printer on/off	

2.1.9.2 Level 2 Printer

Symbol	Function	Note
	Edit Packaging Lists	Creation of packaging lists
abc	Prefixes	Changing data names for print data
(I) (ext	External Printer Configuration	Creating, editing and deleting formulas for external printer data

2.1.9.3 Level 3 Print Data

Symbol	Function	Note
(23)	ID-List	Creating, editing and deleting ID lists
LOT	LOT	Creating and deleting LOT numbers
	Sterilizer	Creating, editing and deleting steriliser data
(E	CE-List	Creating, editing and deleting CE lists
REF	Reference-List	Creating, editing and deleting reference numbers
	Info-List	Creating, editing and deleting stored information
X	Expiry-Date	Adjust the expiry date

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2.1.9.4 Level 4 Standby

Symbol	Function	Note
stby	Standby	After the selected time, the device reduces the heat output and cools down to 80°C.
(ES) stby	ID-Standby	After a selected time, a logged-in user is logged off automatically.

2.1.9.5 Level 5 Monitoring

Symbol	Function	Note
(7)	Test-Intervals	Setting different intervals for Seal Check, InkTest and peel test.
	DataMatic	Selection of individual DataMatic data. Fixed data: Date/time, temperature, contact pressure, speed, counter total and serial number

2.1.9.6 Level 6 Special Features

Symbol	Function	Note
Á	Scanner Data	Assign the scanned data to other functions. The scanner data is assigned to the batch number by default (see Chapter 7.2.2)
\odot	ValiUp	Determining the ideal sealing temperature for the material used by means of an aid Not activated until unlock
(a)	Key lock	Locks the settings on the home screen so that data can only be selected but not deleted or edited.
	UDI	Creating, editing and deleting UDI data Not activated without special dongle

2.1.9.7 Level 7 System Configuration

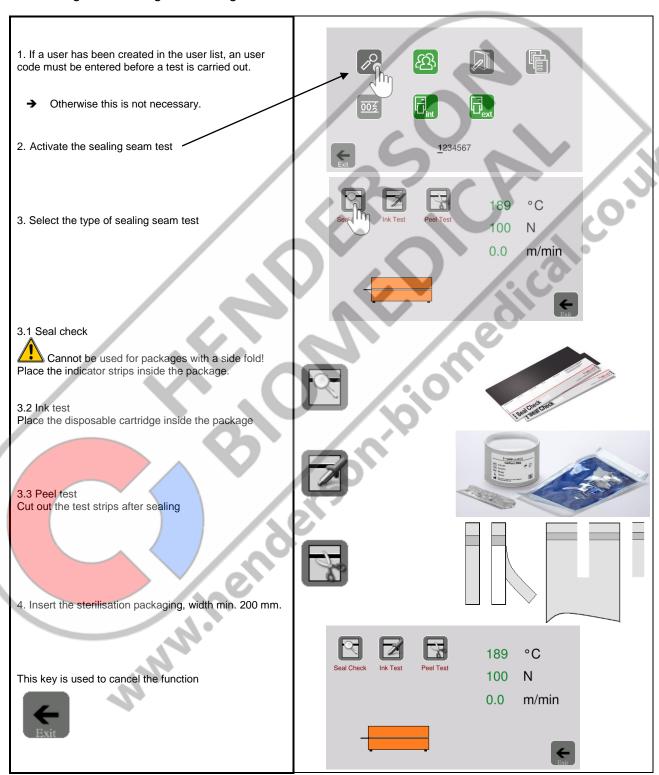
Symbol	Function	Note
	Date/time	Setting the current date and time
	Date formats	Changing date formats dd.mm.yyyy● mm.dd.yyyy● yyyy.mm● mm.yyyy● yyyy● Month.dd.yyyy
liiilii 1234	Measurement Unit	Conversion of the units of measurement from si $T[^{\circ}C] \bullet F[N] \bullet v[m/min]$ fps $T[^{\circ}F] \bullet F[lbf] \bullet v[ft/min]$
	Default	Resetting the device to default settings (Password-protected settings)
	Language	Setting the three languages that can be preselected via the start menu The printout of country-specific characters is only possible with a 24 stylus print head! (special equipment)
_SN □	IP	Password-protected menu level for setting the IP address
18 N	Config	Password-protected menu level for service purposes
	Update	Performing software updates via USB stick (for more details see technical data)

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2.2 The sealing seam test

Testing of the critical process parameters temperature, contact pressure and sealing time by means of the sealing seam test. This test should be performed and documented before and after the daily work process and/or before/after each lot (EN ISO 11607-2). The sealing parameters are displayed during the tests.

Activating and starting the sealing seam test

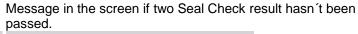


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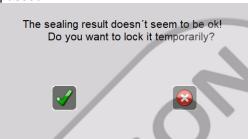
2.2.1 Locked machine due to failed Seal Check

As soon as the Seal Check has been done twice without passed result, the machine asked for lock function.

Seal Check result confirmation







If the screen is locked due to failed Seal Check, you can unlock it by using the lock password. (see technical information on page 60)

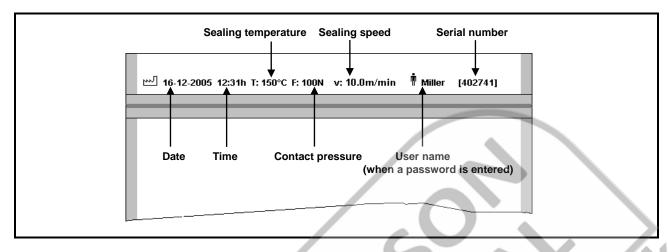
The machine has been blocked due to a failed seal check. Please contact your service or enter the lock password.



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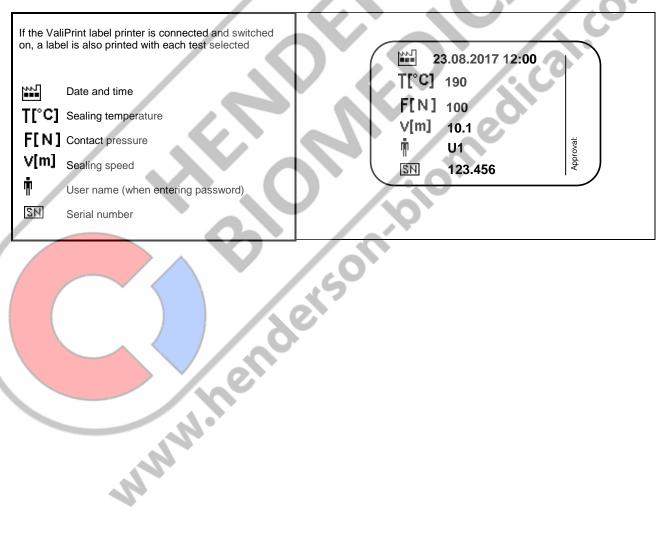
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2.2.2 Printing of the test parameters on a package



2.2.3 Printing of the test parameters on a label

ONLY with the label printer connected!



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3 Data input

3.1 Creating data for different languages

When entering data, it should be noted that lists, names and all freely editable texts are only printed correctly after a packaging list has been selected if they have been created in the selected language.

The corresponding language in the start menu must also be selected.

This means that a text created in Japanese, for example, can only be printed correctly in a packing list if the language in the start screen has been changed to Japanese and the Japanese keyboard has been used to enter the text.

The same applies to all other languages.

3.2 The ID-List

The names and passwords of users who will be operating the device are entered into the user list. The users on the list can/must log in to the device before starting their task via the password entered into the list, i.e. they can also log out when their task is complete.

If the **User standby** function was activated in the **Settings menu**, the user is automatically logged out after a set time after which no sealing process has taken placed.



A logged in user name is automatically printed on the packaging when using the "Test' function.

It is possible to record the user name with each sealing process using the **DataMatic** function. You can activate the printout of a logged in user name on the packaging in a packaging list.

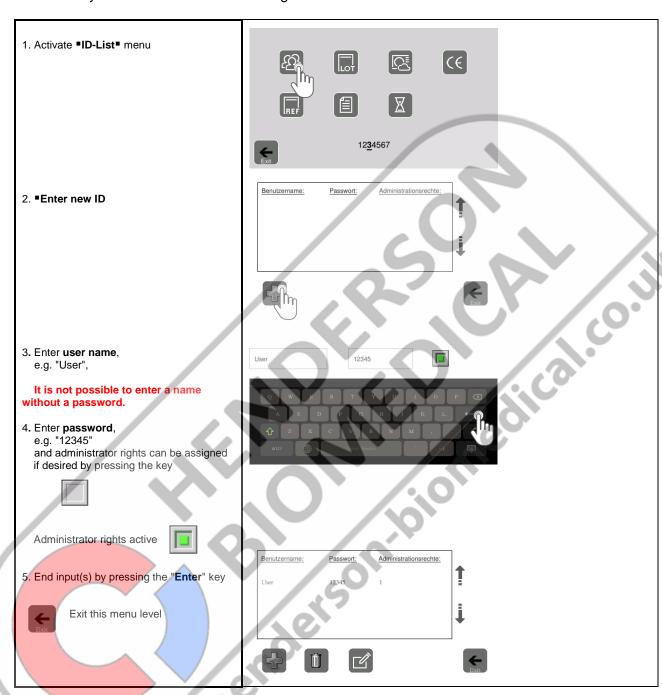
3.2.1 The menu



Key	Function	Note
Î	Delete an entry	Only visible when the user has already been created.
7	Re-enter an entry	Length of user name: max. 8 alphanumeric characters Length of a password: max. 5 digits Number of user names: max. 50, individual entry or one after another
	Activate or deactivate administrator right	A so-called administrator right can be assigned to one or more users. This authorises him/her to block or release certain functions.
Exit	Exit menu level	
	Edit created user data	Only visible when the user has already been created.

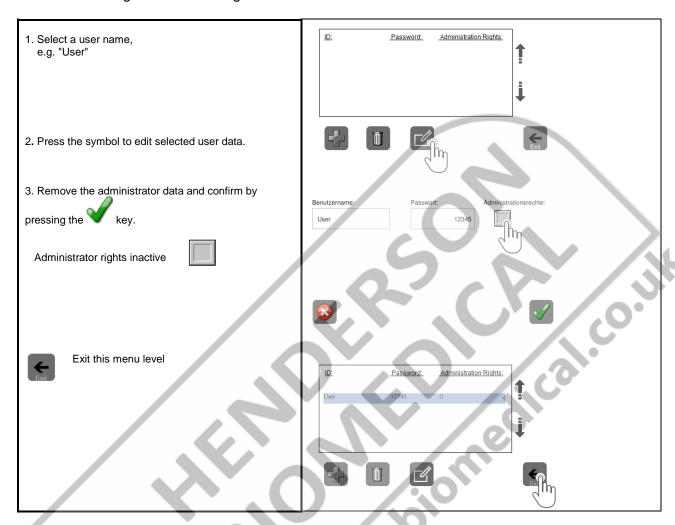
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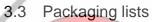
3.2.2 Entry of user data/administrator rights



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3.2.3 Removing administrator rights







Key	Function	Note
	Select the packaging list menu	
Exit	Exit menu level	back to the home screen

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3.3.1 The settings of a packaging list

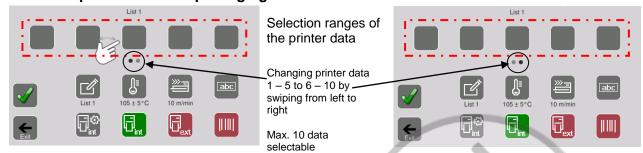
A max. of twenty lists can be created for different types of packaging. These correspond to various "formulas" with different settings from the following table.



Key	Function	Note
	Entering the packaging designation Selection of additional colour identification	alphanumeric text, max. 20 characters Colours: grey, violet, red, blue, green, white, yellow
	Selection of the sealing temperature and deactivation tolerance	[°C] 80 - 220 or [°F] 176- 428 [°C] ± 2 - ±5 or [°F] ±36 - ±41
	Selection of the throughput speed	5.0 m/min – 13.0 m/min
icon	Selection of data designation	Data description (prefix) Symbol: or Text: Date
	Configuration of the internal printer	 Automatic character width (FontMatic) or manually adjustable character width Manually adjustable character spacing Distance from start of printing to page margin 1 mm - 100 mm Illustration of the print data, relative to the upper packaging edge, rotated by 180
	Activate printer activity by pressing and holding the key	Switch the label printer for the selected packaging list on or off and adjust print out information → Press button: → Press and hold button printer on/off
	Configuration of the internal printer	 Automatic character width (FontMatic) or manually adjustable character width Manually adjustable character spacing Distance from start of printing to page margin 1 mm - 100 mm Illustration of the print data, relative to the upper packaging edge, rotated by 180
Gint Gint	Printer activity	Switch the internal printer for the selected packaging list on or off
	Selection of text or barcode	The selected data are printed as a barcode → Press selected data if the button is green to set the printout as barcode or not.
icon	Selection of data designation	Data description (prefix) Symbol: or Text: Date
Exit	Exit menu level	

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3.3.2 The printer data of a packaging list



Key	Data	Note
7	Date	Formatting depends on the selected configuration
	Expiry-Date	Months 1 ● 3 ● 6 ● 9 ● 12 ● 24 ● 60 ● fixed date • 1 - 365 days
	ID	Only with previously setup list (how to create described in 3.1)
LOT LOT	LOT	Only with previously setup list (how to create described in 3.3)
	INFO	Only with previously setup list (how to create described in 3.3)
< <u> < </u> < € < < < < < < < < < < < < < < < <	CE	Only with previously setup list (how to create described in 3.3)
<u> </u>	cntr.	
005	cntr. TOTAL	counter total since the first sealing
\bigcirc	Time	
G G	Process	STEAM● EO● FORM● VH2O2● IRRAD● DRY
	Sterilizer	Only with previously setup list (how to create described in 3.3)
Σ	Quantity	1 - 10
_SN	S/N	Printout of the current device serial number
	temp.	Printout of the actual values used during the sealing process
Ů¥	Press.	Printout of the actual values used during the sealing process
	Speed/dwell	Printout of the actual values used during the sealing process
2	reuse	
	Note	
REF REF	Reference	Only with previously setup list (how to create described in 3.3)
	No Selection	No printout in the print sequence

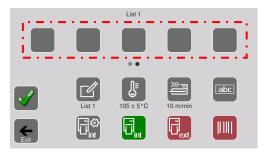
A red symbol means <u>variable</u> data such as sterile product storage period

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3.3.3 Printer data selection

The individual printer data can be printed by pressing the desired free fields several times 1-5 or 6-10 can be set in the selection ranges.

→ Selectable data is shown and explained in Chapter 3.3.3.



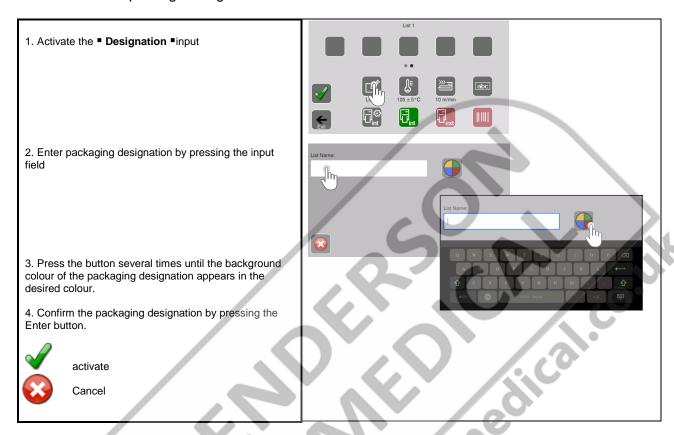
3.3.4 Example of creating a packaging list

Packaging parameters	Param	eter data
Packaging designation Colour identification Sealing temperature Switch-off tolerance Sealing time	"Pouch" Blue 180°C ±5°C 10.0 m/min Representation of print data	as text
Print data of the internal printer 5 print data on one line	Date Expiry period Operator Time Type of sterilisation	Day's date 3 months Miller Current time STEAM
Configuration of the internal printer	Character width Distance of the start of printing from the edge of the page Relative to the upper packaging edge Printer activity Selection of text or barcode	automatic, FontMatic 10 mm 0° int. printer "ON" ext. printer "OFF" text

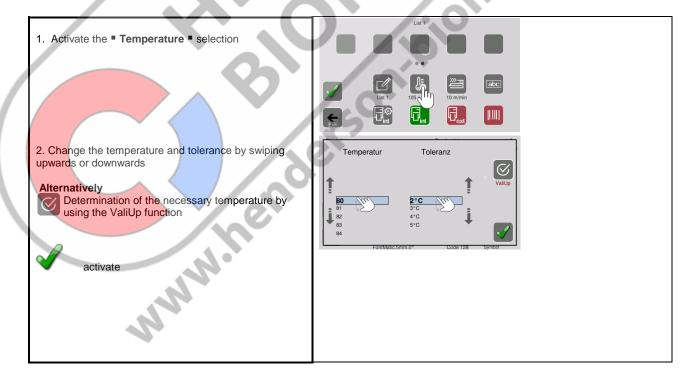


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3.3.4.1 Enter the package designation and determine an identification colour



3.3.4.2 Select the sealing temperature



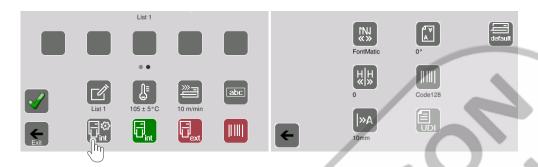
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3.3.4.3 The settings of the internal printer



The internal printer can be set individually for each packaging list.

3.3.4.3.1.1 The menu



Key	Function	Note
«»	Character width	● FontMatic, ● character width 1, ● character width 2, ● character width 3
HH	Character pitch	Only active when FontMatic is not active ■ character spacing 1, ■ character spacing e 3
[»A	Print start	Spacing of the print line from the side edge of the packaging adjustable 1 mm – 100 mm (default setting 5 mm)
	Print direction	Representation of the print image to the upper edge of the packaging 0° or flipped 180° (default setting 0°)
	Barcode type	Data marked in the print sequence with the barcode character is optionally printed with ■ code 128, ■ code 39, ■ code 93, ■ code 2/5 (default setting code 128)
	Print UDI	Print HIBC data Primary code (UDI-DI) and secondary code (UDI-PI) separately as rectangular data matrix (DMRE according to DIN 16578) format 12x26 and 12x36 ONLY active for device hm 950 DC-VI and with plugged-in coding key!
default	Default settings	Character width FontMatic Character spacing 0 Print direction 0° Start of printing 5 mm Barcode Code 128 Print UDI Not active
Exit	Exit menu level	
	WWW.he	

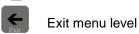
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3.3.4.3.2 The settings of the external label printer

The external label printer can be set individually for each packaging list!







→ The external printer is activated by pressing and holding the symbol.

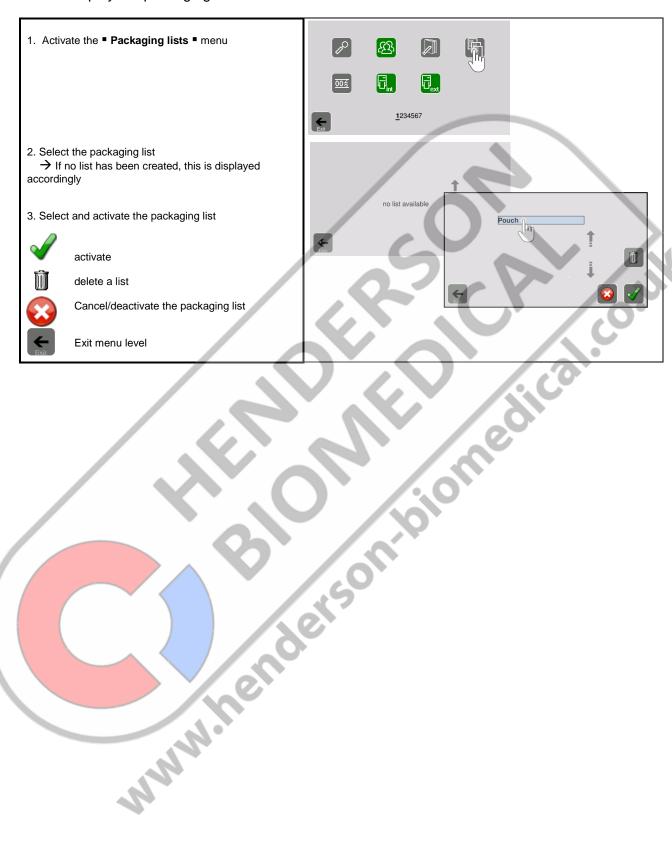


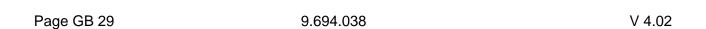
CAU		
Key	Function	Note
1>2	Print mode	 Manual label printing Label printing after each sealing (default setting) Label printing after every second seal
E	Label size	● 55 x 33 mm Number of lines of print without HIBC data: 5 with HIBC data: 4 ● 60 x 44 mm Number of lines of print without HIBC data: 7 with HIBC data: 5
(%)	Character width	1 Text2 Text (default setting)
123	Label quantity	Selection 1 - 10, number of printed labels
«»	Width of the barcode	• 1 (default setting) • 2
E UDI	Print UDI	Print HIBC data Primary code (UDI-DI) and secondary code (UDI-PI) in one DataMatrix code Not activated without special dongle
default	Default settings	Print mode Every seal Label size 55 x 33 mm Character width 2 Label number 1 Barcode character width 1 Print UDI Not active
Exit	Exit menu level	

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3.3.4.4 Display the packaging list





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3.4 Data lists

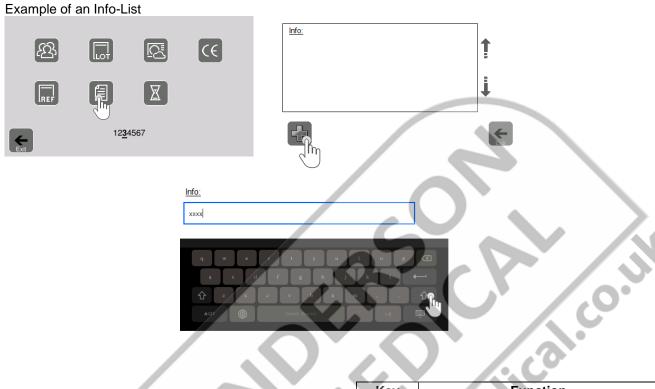
3.4.1 The selection menu

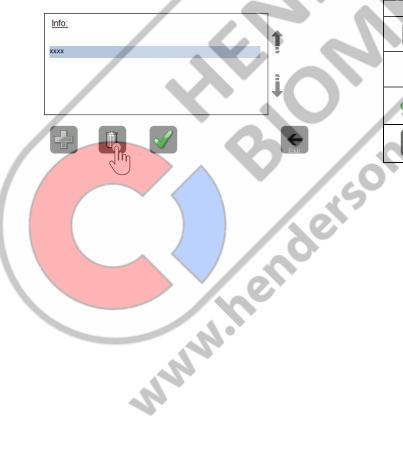


Key	Function	Example	Note
(E)	List with user data	Example	Length of user data: Name: 20 alphanumeric characters Password: 5 numbers Number of user entries: 50, individual entry or one after another
D T	List with LOT data	Lot names, lot numbers	Number would be overwritten after every input
	List with sterilizer data	Steriliser designation or serial number	Length of list texts: 20 alphanumeric characters Number of list texts:
C€	List with CE data	EN 980	500, individual entry or one after another
REF	List with reference data	Article number, serial number	0.0
	List with texts	Device designations, department names	
X	Set expiry date	() ' / (0	
Exit	Exit menu level	//0.	
Exit menu level			

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3.4.2 The Processing menu





	Key	Function
	+	Re-enter a list text Delete a list text
•	Ü	Delete a list text
		Confirm/activate
9	Exit	Exit menu level
ь.		

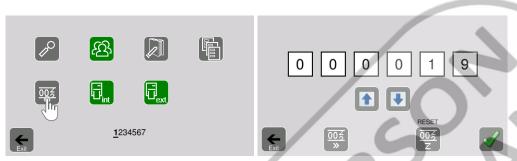
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Device configuration

4.1.1 Counter

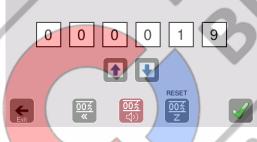
4.1.1.1 Counter functions

Counting forwards



Key	Function	Note		
	000019	Displays the current value		
<u>003</u>	Switches the counter to forwards counting			
$\left[\frac{\overline{00}}{Z}\right]$	Sets the counter to 000000			
	Confirms the settings			
Counting	Counting backwards			
0	000019			
Exit	005 (d) 005 2	deis		
Key	Function	Note		

Counting backwards



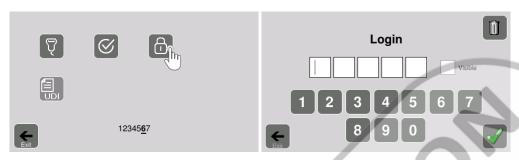
	Key	Function	Note	
		000019	Displays the current value	
000010		000010	Select the individual digits of the counter; the respective number is highlighted in blue and the desired quantity can be set using the ♠ and ✔ arrow keys (e.g.: 10 items)	
	* \$\frac{\sqrt{200}}{200}	Switches the counter to forwards counting	With a counter status of 0, the drive is blocked.	
	(中) (中) (中) (中)	Sound on/off if the counter limit is reached		
		Confirms the settings		

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4.1.2 **Key lock**



You can only lock the keys if a user list was created in which at least one person in the list has the administrator right! Selecting or scanning data is not affected.



Key	Function	Note
8	Lock deleting and editing settings.	All symbols stored on the home screen can be selected by users, but not deleted or edited. An administrator is required for this. The lock can be deactivated by entering the password of someone in the user list who has the administrator right



inactive



active

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The screen is locked for non-administration users as soon as an administrator itself is configured in the ID-List.

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5 Data recording

5.1 DataMatic

If any formatted USB stick is plugged into a free USB slot and the stick is detected, a message will appear on the display indicating that the DataMatic has been activated, if it is confirmed with "yes".

If you confirm this prompt with "no", no data will be written to the USB stick. However, the activation can still be carried out later in the menu/DataMatic.

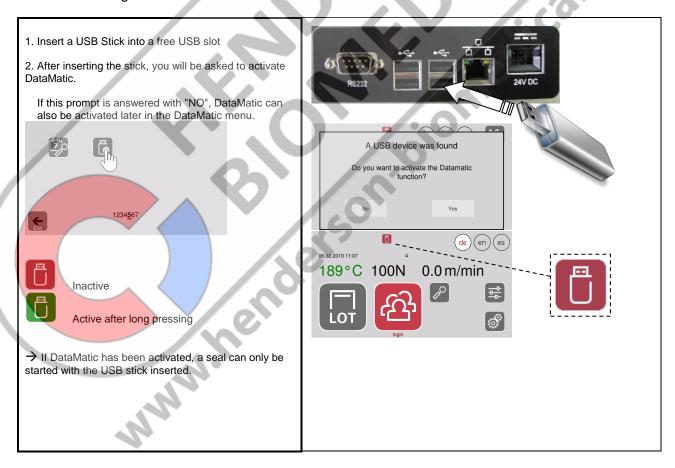
The data is written in *.csv format to the USB stick, and can be displayed in the device display, using a text editor such as the Windows Text Editor or Windows WordPad, or using a spreadsheet program such as Windows Excel.

If the DataMatic function is activated, a sealing process can only be started if a USB stick is also plugged in!

The DataMatic data are output automatically via the RS 232 and Ethernet interfaces with each seal, even if the USB stick is not plugged in!

5.1.1 Activating DataMatic

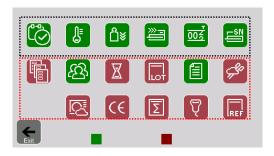
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5.1.2 Configuring DataMatic data

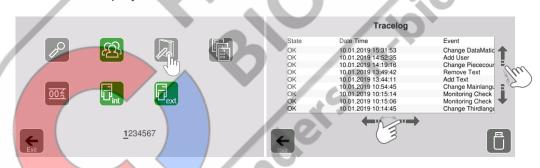


Keys	Data	Note
	Date and time Sealing temperature Contact pressure Throughput speed Unit counter TOTAL Device serial number	Fixed recording data
	Selected packaging ID Expiry date LOT Info Process	Optional recording data
	Sterilizer data CE data Package content quantity Data of the barcode scanner Reference data	

5.1.3 Show the DataMatic data on the device display

Only possible with a contacted USB stick containing recorded data!

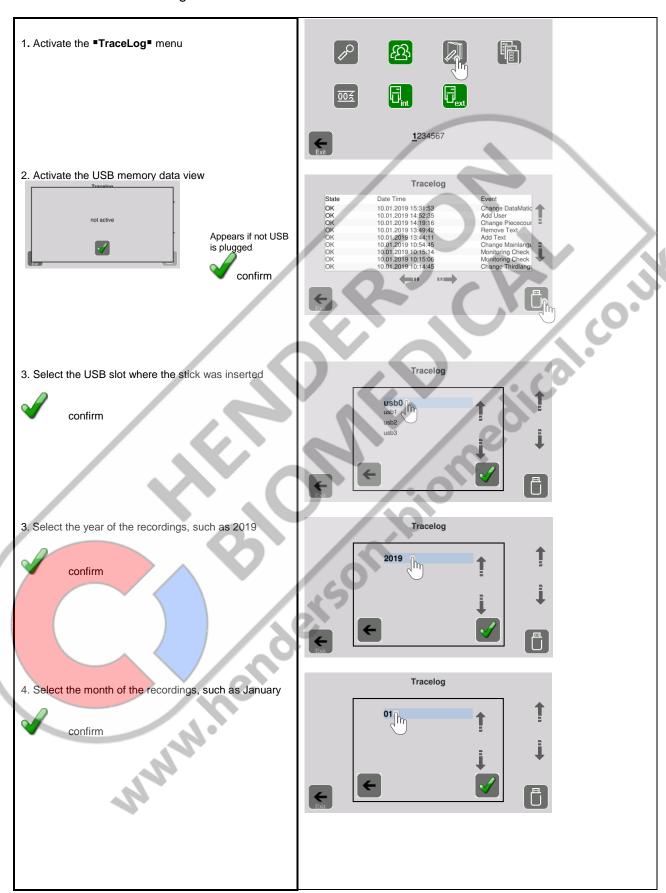
5.1.3.1 The display menu



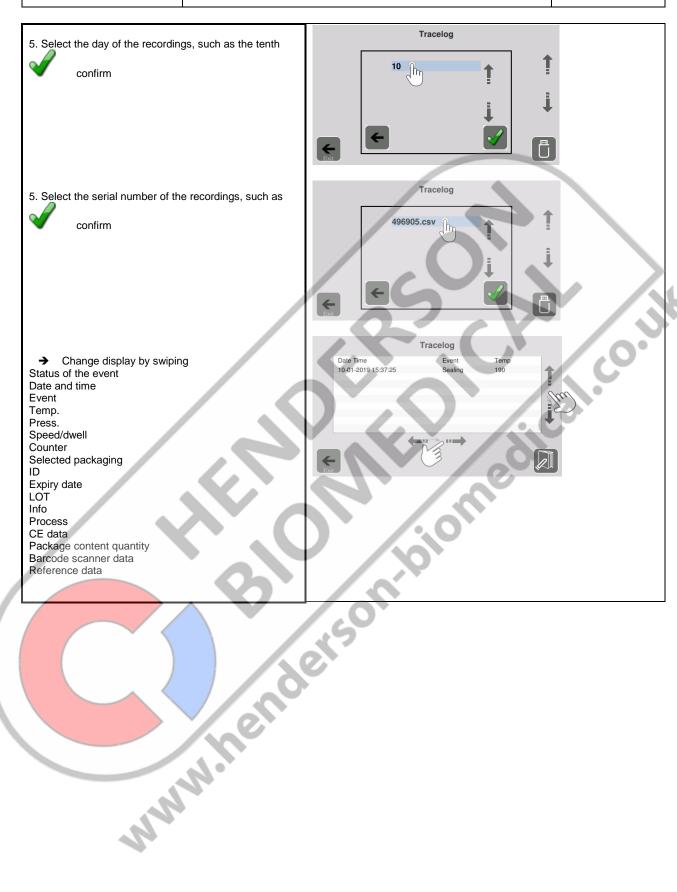
Key	Function	Display	Function
	Recorded TraceLog (logbook) data	10/01/2019	Date of the recording
Tu	Scroll up and down	0 – 9	Data counter
Em .	Scroll left and right		
Exit	Exit menu level		
	Read the DataMatic data		

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5.1.3.2 View the recordings on the USB stick



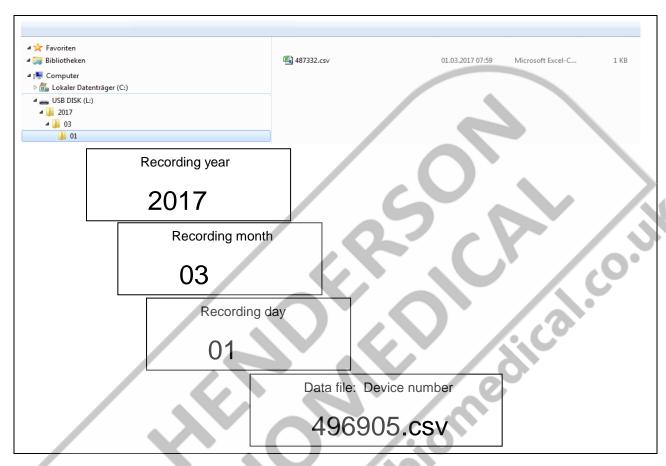
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Show the DataMatic data on a PC

USB stick directory with the recording data (for example: PC with Windows 7)



Display of a standard DataMatic recording, e.g. using Windows Excel



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5.2 TraceLog (logbook)

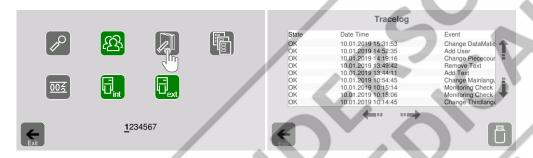
This logbook contains the temporary recording of various completed actions, events and faults that have occurred on the device.

These recordings are only viewable while the device is switched on, however if a USB stick is connected for the DataMatic function, the data are stored as an add-on to the DataMatic data on it in the event of a date change and during the switch-off process.

For reliable data transfer, the device must switch itself off after pressing the Power off button and once the shut-down period of one minute has elapsed.

No "EMERGENCY STOP" must be carried out by holding the Power off button.

5.2.1.1 The display menu



5.2.1.2 Interpretation of entries

State	Date and time	Event	T	F	v
ОК	10.01.2019 15:31:53	Change DataMatic	Sealing temperature at this time	Contact pressure at this time	Throughput speed at this time
OK	10/01/2019 14:52:35	Add User			
OK	10/01/2019 14:19:16	Change Piece Counter			
OK	10/01/2019 13:49:42	Remove Text			
OK	10/01/2019 13:44:11	Add Text			
OK	10/01/2019 10:54:45	Change Mains Language			

5.3 Data readout via Ethernet

MININE

If an address is assigned to the device in the Settings / System Configuration / IP menu, the corresponding CSV file of DataMatic can be read out via network connection and saved on the PC.

Caution: A direct connection between the device and PC is not possible. The device needs to be on a computer network for this.

hm 950 / NanoPak	Changes	Chapter 5	
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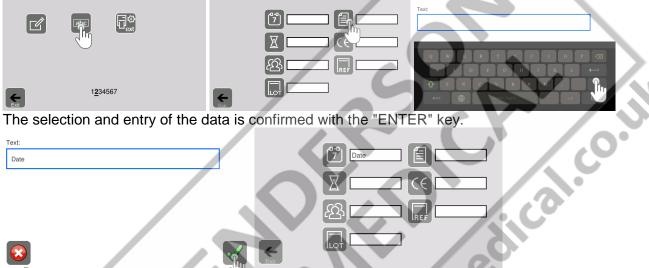
5.4 Data designator (prefix) - Symbol or text

A text as a data designator is only possible for the internal printer!

The data designator for different print data can be a symbol or text. If the text is selected as the data designator, this must be created beforehand

The prefix is defined in the individual packaging lists See Chapter 3.3.2

Using the packaging date as an example:



The S	election and	entry or the	e data is co	oniimea v	with the	ENTER	key.
Text:				_ <	7 Date		
					X C		
					图	REF	
				Exit			
	confirm			- DXII	7.		
Ň	COMMITT					16	

	Key	Function	Example	Replaces the symbol
	7	Text date	Packaged:	22
	X	Text for sterile product storage period	Use by:	©<3
A STREET, SQUARE, SWITCH, SWIT	(<u>j</u>	Text for user name	Mr./Mrs./Miss/Ms.	·E
		Text for lot data	Lot:	LOT
		Text for texts	Instrument:	A
	C€	Text for CE data	CE EN:	CE
	REF	Text for reference data	Art. No.:	REF
	Exit	Exit menu level		

hm 950 / NanoPak	Changes	Chapter 5	
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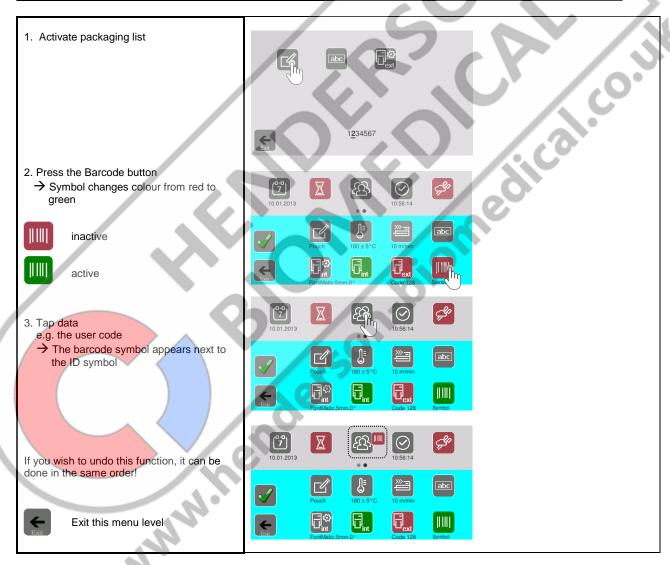
5.5 Print data as a barcode

The printing of data as a barcode is only possible if the language German or English has been set!

This applies for the internal printer and the label printer!

The following data are NOT printed as a barcode:

	Data		Data
\bigcirc	Time	(2)	reuse
	Temperature		Note
దిక	Contact pressure		
**	Speed/dwell		

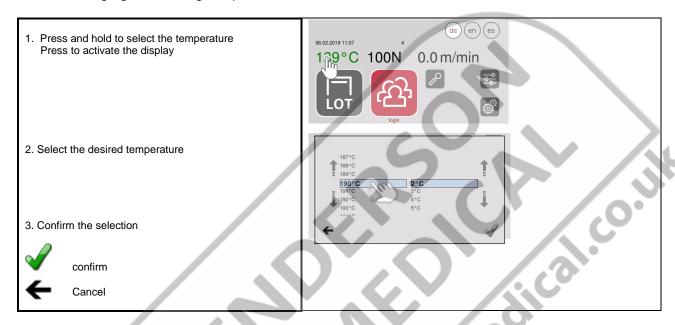


hm 950 / NanoPak	Changes	Chapter 5
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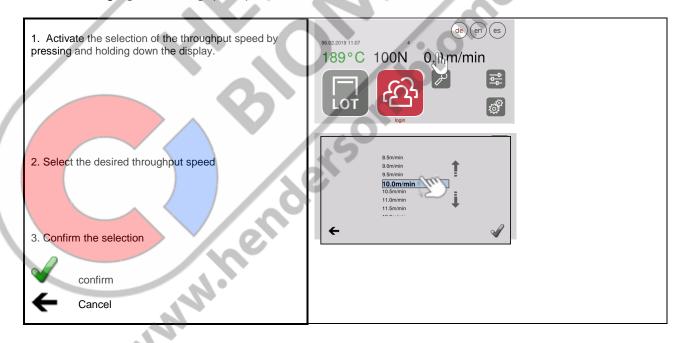
5.6 Direct change of the process parameters of a selected packaging

The sealing temperature or throughput speed of the packaging currently selected can be changed directly without calling up any menus.

5.6.1 Changing the sealing temperature



5.6.2 Changing the throughput speed





hm 950 / NanoPak	Changes	Chapter 5

5.7 UDI marking

The marking is made using the HIBC coding system in accordance with the ANSI standard "ANS HIBC 2.5" embedded in the ISO standards for product and packaging marking ISO 22742. ISO 28219.

If the UDI marking is created and active, the primary code (UDI-DI) and secondary code (UDI-PI) are printed as separate, rectangular Data Matrices (DMRE) on the packaging and if the label printer is connected as a standard, square DataMatrix on one label.

To create or activate a UDI marking, the coding key (Art. No.: 1.561.007) must be inserted in one of the USB sockets!

5.7.1 The Processing menu



Function is not activated without special dongle

Key	Function	Note
	Enter the product code	Entry according to listing in the GUDID (USA) or EUDAMED (Europe) databases
		System identifier "+" is inserted automatically
	Enter data identifiers	Only use data identifiers compliant with the definitions in ASC MH 10 ISO/IEC 15418! The "/" separator is added automatically
Bxft	Exit menu level	

Example for entering the UDI header

Select the header symbol and enter the corresponding names using the keypad. Confirm with the ENTER key and finally activate with the checkmark.





hm 950 / NanoPak	Changes	Chapter 5
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5.8 External keyboard for data entry

A country-specific, external keyboard can be connected to enter packaging designations and the data for the various lists

Insert the keyboard into a free USB slot



5.9 Display

5.9.1 Standby

Stand by is active, the sealing temperature decreases to the ambient temperature

The display is darker and the device cools down to the default set temperature of $80^{\circ}\text{C}.$

Reactivate device function

5.9.2 Counter status 0

If the counter was configured to count backwards and the quantity reaches 000000, a message appears, and alternative a signal tone sounds and the drive is inactive.

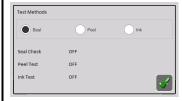
For further use, the counter can be stopped or set to another value.



5.9.3 Display of the set test interval

This symbol only appears if a test interval was selected

An individual date can be set for each test interval. See level 4 "Test intervals".



hm 950 / NanoPak	Changes	Chapter 5	
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5.9.4 Maintenance indicator

This symbol appears 30 days before the set maintenance cycle with information about the remaining days until the maintenance deadline or the days already exceeded after the maintenance deadline.



Default setting: 12 months.

Customer setting via the Service menu (see device technical manual)

5.9.5 RS 232 data interface active display

This symbol appears if an external PC has made contact with the sealing device via the RS 232 data interface



5.9.6 Display of password startup interlock

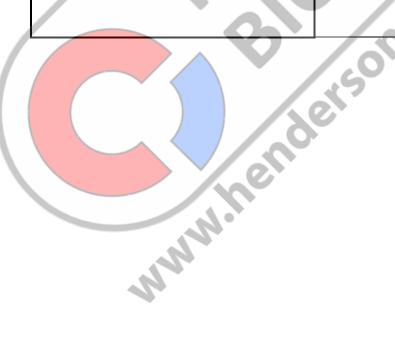
The symbol appears if the password startup interlock is active

This means that the motor will only start if a previously listed password has been entered

This function can only be activated or deactivated in service mode!

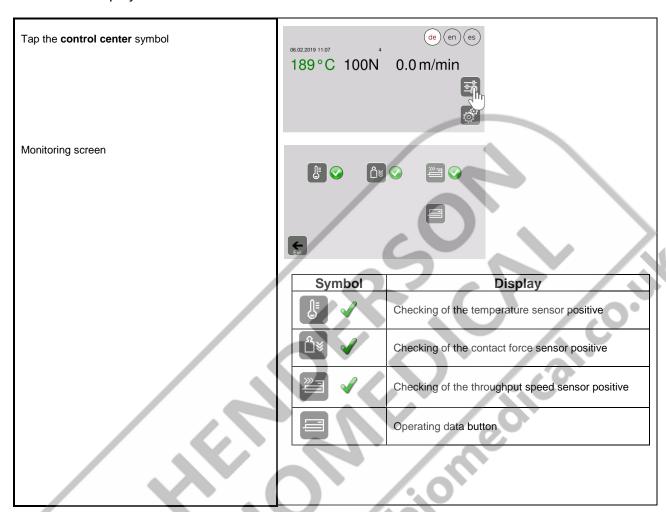
(see device technical manual)

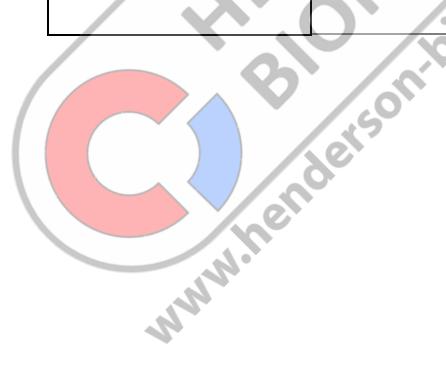




hm 950 / NanoPak Changes	Chapter 5
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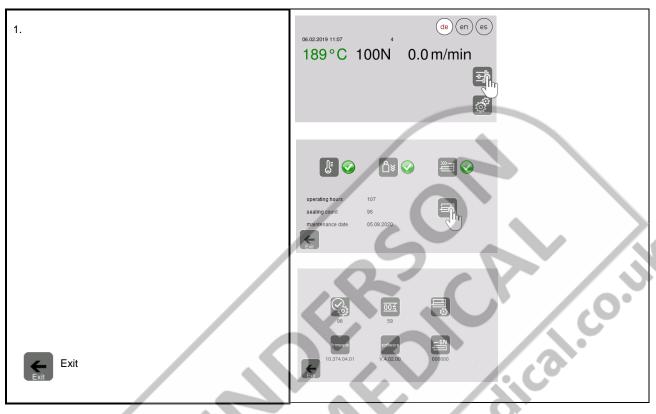
5.9.7 The display of control center





hm 950 / NanoPak	Changes	Chapter 5
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5.9.8 Display of operating data

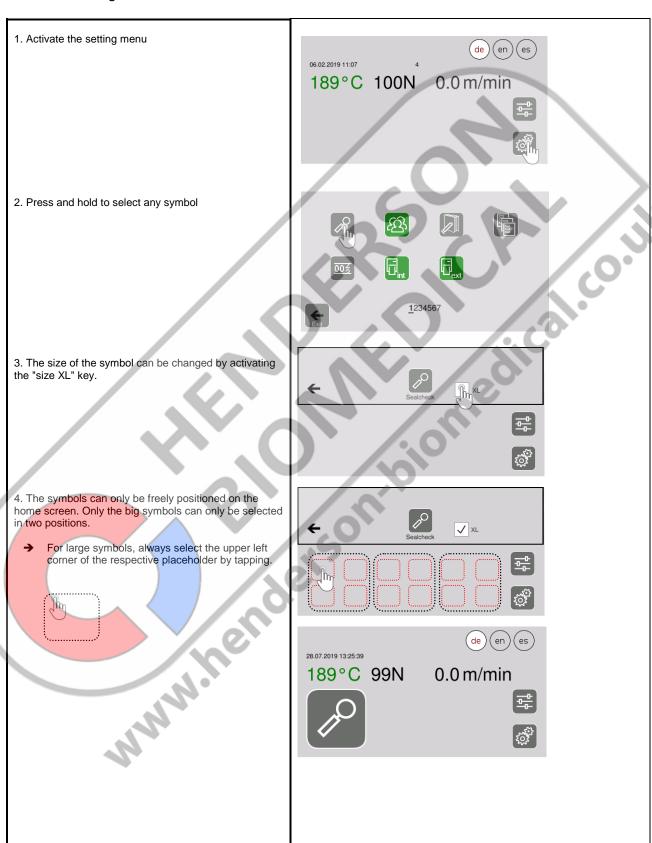


Sv	mbol	Display
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Device operating hours
s	oftware	Device software version
1	-sn	Device serial number
1	00종	Unit counter TOTAL
fir	mware	Firmware version of the CPU PC board
	**	Date of the next maintenance
		100,
		111.
		12

hm 950 / NanoPak	Special functions	Chapter 6	

6 Special functions

Individual setting of the home screen



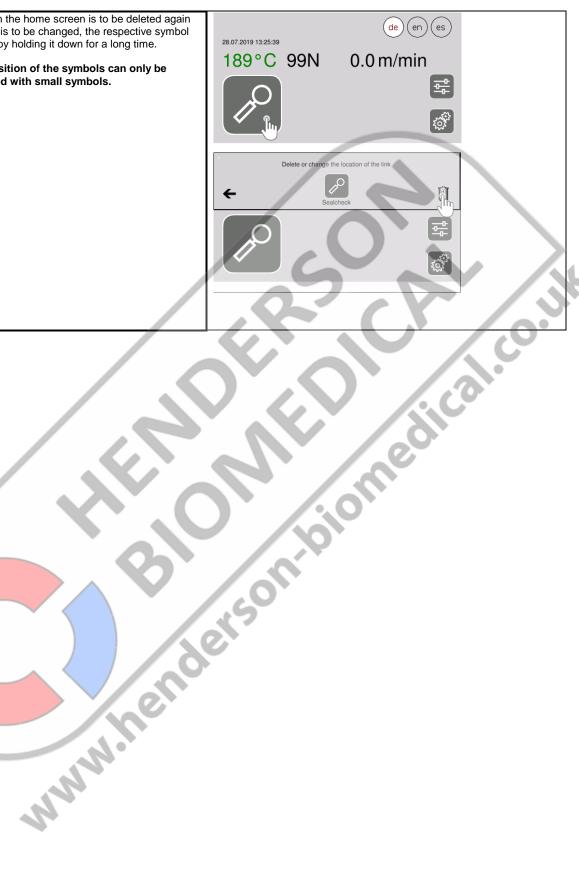
hm 950 / NanoPak

Special functions

Chapter 6

If the symbol in the home screen is to be deleted again or the position is to be changed, the respective symbol can be edited by holding it down for a long time.

The position of the symbols can only be changed with small symbols.





hm 950 / NanoPak	Barcode scanner	Chapter 7
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7 The barcode scanner (1.490.029)

The barcode scanner is an optional accessory and not part of the sealing device scope of delivery! A connected barcode scanner that has not been approved by the device manufacturer can cause the device to fail!

7.1 Commissioning the barcode scanner

7.1.1 Step 1 Unpacking the barcode scanner

Open the packaging	Barcode scanner with USB connection ca Art. No.: 1.490.029
Check to ensure that all parts are there and undamaged.	
	CD Art. No.: 1.490.028

MININ Remodels

hm 950 / NanoPak	Barcode scanner	Chapter 7
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7.1.2 Step 2 Connecting the device



hm 950 / NanoPak Barcode scanner Chapter	7
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7.2 Recording data using the barcode scanner

F

The capture of data with a barcode scanner is only possible if the language German or English has been set!

7.2.1 Data of a created barcode list

Only the print data of the internal printer of an activated packaging list can also be changed with a barcode scanner, provided they are activated in their print sequence.

The data are read in via a scan list that has been created with the hs 980 BR software (Art. No.: 1.490.028).

The data read in with the scanner are not saved. They are only current while the device is switched on!

	Print data	Data source	Note
<u> </u>	ID data	Scan list with user names	/ \ . >
	Info	Scan list with texts	Assignment of general barcode data possible
LOT	LOT	Scan list with LOT data	Assignment of general barcode data possible
	Sterilizer data	Scan list with sterilizer data	Assignment of general barcode data possible
C€	CE data	Scan list with CE data	Assignment of general barcode data possible
REF	Reference data	Scan list with reference data	Assignment of general barcode data possible

7.2.2 General barcode data

	Data	Data source	Note
Q (General data	All alphanumerically readable data	If not changed, they are always read in as a LOT number.

7.2.2.1 Assignment of general barcode data

All data collected by the scanner is assigned to the previously selected function.

This means that data captured by the scanner can be scanned and updated independently of editing the packaging list.

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hm 950 / NanoPak

External printer

Chapter 8

8 The external printer

- 1. Connect the external printer according to the instructions supplied with the printer and connect it to one of the USB slots on the back of the device.
- 2. Only then switch on the device
- 3. Open menu level 2 "Printer" and select the symbol for the external printer

4. Configure the external printer and save it under the desired formula name using the save function.

For the creation of formulas and their function see also Chapters 3.3.2 and 3.3.3



	Key	Function	Note	
		Name of the external printer formulas		
	1>2	Print mode	● Manual ● Each seal ● Every 2nd seal	
	123	Label quantity	Freely selectable from 1-10	
		Label size	55 x 33mm60 x 44mm	
The second second	«»	Width of the barcode	• 1 (default setting) • 2	
1	rni «»	Character width	1. Text 2 Text (default setting)	
		Print HIBC data Primary code (UDI-DI) and secondary code (UDI-PI) separately as rectangula data matrix (DMRE according to DIN 16578) format 12x26 and 12x36 ONLY active for device hm 950 DC-VI and with plugged-in coding k		
		Barcode type	Data marked in the print sequence with the barcode character is optionally printed with ■ code 128, ■ code 39, ■ code 93, ■ code 2/5 (default setting code 128)	
	default	Default settings	Print UDI Not active	
	Exit	Exit menu level		

hm 950 / NanoPak	Switch off the device	Chapter 9	

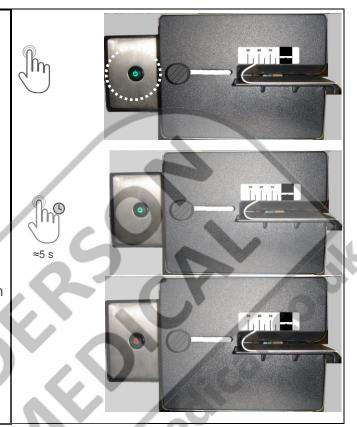
9 Switch off the device

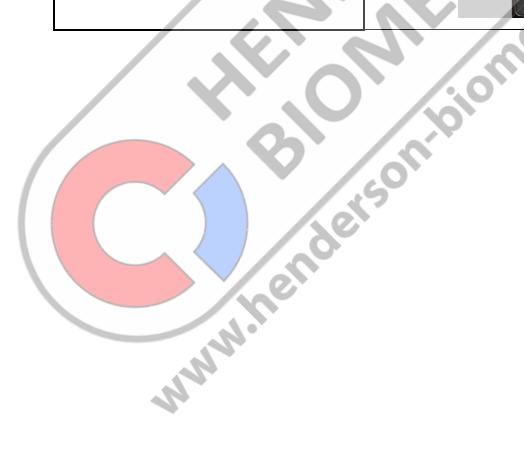
Short press the Power button

The device is switched off directly by holding the Power button

Do not use if a USB stick is connected! Data loss!

The colour of the Power button changes from green to red





hm 950 / NanoPak	Troubleshooting and maintenance	Chapter 10

10 Troubleshooting and maintenance

10.1 Troubleshooting checklist



The malfunction corrections highlighted in grey may only be performed by authorised service technicians!

Malfunction	Possible display	Possible cause	Possible malfunction correction
Open the front flap		Front flap open display	Close front flap
		Front flap sensor defective	Replace defective component
			Inform Service
monitoring function check The sealing temperature is	monitoring function check	Temperature sensor defective Control card defective	Replace defective component
not reached after switch-on or it is outside of the set tolerance limit	₽. =	Heating cartridge defective	Inform Service
monitoring function check After switch-on the contact	monitoring function check	DMS module defective Control card defective	Replace defective component
pressure is outside of the set tolerance limit	₽		Inform Service
monitoring function check After switch-on the throughput	monitoring function check	Optical sensor "Engine start" defective	Replace defective component
speed is outside of the set tolerance limit	■	Control card defective Motor defective	Inform Service



hm 950 / NanoPak Troubleshooting and maintenance	Chapter 10

10.2 Maintenance

Like all technical devices, your device is subject to technical wear.

In order to guarantee continuous operational readiness, your device should be inspected regularly by a competent person and cleaned, serviced and calibrated at least once per year by the manufacturer or by one of the manufacturer's authorised service partners.

10.3 Service



Your hawo customer service is available from Mon-Fri 8:00 to 17:00 at the following number: +49 (0)6261-9770-0.

10.4 Spare parts service



Conveniently order parts via e-mail service@hawo.com

+49(0)6261 9770 45

Simply copy the order form on the following page and enter the following information:



Address, e-mail address or fax number

Enter order number Enter device type Enter serial number Mark articles required Enter quantity required

Sign order Send order



То:			Sender:	
E-mail: Fax no.:	-			
Your orde	er No.:		Date:	
Device ty	pe:		Serial number:	
	Designation		Art. No	Qty.
	Device printer ink ribbo	n	6.813.104	
	Device printer ink ribbo	n, red	6.813.224	
		/ 6		
				Co.
		7	/ /00	
			(30)	
Signature		8 /	0.1	

hm 950 / NanoPak	Troubleshooting and maintenance	Chapter 10
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10.5 Replacing the sealing device ink ribbon cassette



Switch off the device and DISCONNECT THE POWER SUPPLY

Step 1 Sliding the infeed section forward and opening the front flap

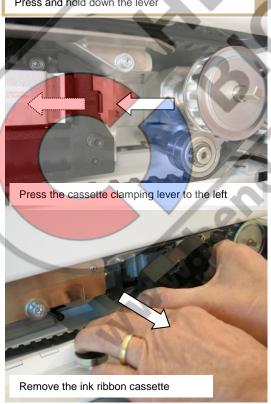




Step 2 Removing the ink ribbon cassette



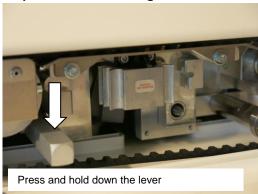
Press and hold down the lever





hm 950 / NanoPak	Troubleshooting and maintenance	Chapter 10
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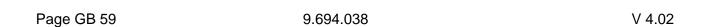
Step 3 Installing a new ink ribbon cassette











hm 950 / NanoPak	Technical data	Chapter 11
		1

11 Technical data

11.1 Specifications

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CUI		UЦ	vii	uala

Mains connection	[V]	100 - 240
Mains frequency	[Hz]	50 / 60
Power consumption max.	[W]	200
Mechanical system		
Dimensions Length	[mm]	560
Including Width		250
Infeed section Height		145
Housing cover		Stainless steel AISI 304, powder-coated
Housing bottom		Metal, powder-coated
Weight	[kg]	14
Seal distance from edge	[mm]	0 – 35
Sealing seam width	[mm]	12
Sealing system		hawoflex™
Sealing seam length	[mm]	Unlimited
Distance from medical product	[mm]	>30
		(as per DIN 58953-7)
Process parameters/sealing parameter	ers	
Sealing temperature max.	[°C]	220
Tolerance for sealing temperature	[°C]	± 2 – ±5
		(adjustable)
Contact pressure	[N]	100
Contact pressure deactivation tolerance	[%]	±20
Throughput speed	[m / min]	5 -13
Switch-off tolerance		±10
Throughput speed	[%]	
Temperature ranges		1
Temperature standard tolerance	[%]	±2
Electronics and communication syste	ems	
System		Microprocessor
		RS-232
Interfaces		USB A
		Ethernet (LAN)
Transfer speed (baud rate)	[Bd]	9,600-115,200
Serial RS-232 interfaces and Ethernet	/ 47	
Electrical protection class		1

Environmental parameters

Ambient temperature	[°C]	5-25
Heat output	[kJ/s]	0.1
Relative humidity	[%]	30-80 non-condensing
Noise intensity acc. to Machinery Dire	ective	<70
2006/42/EC Appendix I 1.7.4.2 u.)	[dB/ A]	<10

Passwords

	Passwords for lock function due to failed Seal Check	29815
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hm 950 / NanoPak

Declarations of conformity

Chapter 12

12 Declarations of conformity

12.1 CE declaration of conformity for sealing device



Konformitätserklärung – Declaration of Conformity Déclaration "CE" de Conformité Declaracción de conformidad de la C.E. Dichiarazione di conformità - Declaração de conformidade

9.694.038C

20.06.2017 Gültig ab: Valid from:

Seite

Version 1.01

Hiermit erklären wir, daß die Folienschweissmaschinen:

Herewith we declare that the Foil sealing unit:

Par la présente, nous déclarons que la gamme de Soudeuse de films plastique;

Por la presente certificamos que las máquinas embolsadoras modelos:

Dichiariamo con la presente che le macchine per saldatura di fogli:

Por este meio se declara que as máquinas de selagem de folhas de plástico:

NanoPak hm 950 DC-V / hm 950 DC-VI

2006/42/EG

2014/30/EU

2012/19/EU

2011/65/EG

Officalicality folgenden einschlägigen Bestimmungen und harmonisierten Normen entsprechen: complies with the requirements of the following regulations and harmonised standards: corresponde aux dispositions sulvantes et standards harmonise: objeto de esta Declaración cumpie con las siguientes disposiciones:

Sono conformi alle seguenti dieposizioni in materia nonche alle seguentie norme armonizzate corespondem às seguintes determinações e normas harmonizadas:

EG - Maschinenrichtlinie

Machinery directive

Directive "CE" rel. aux machines

Directiva de Maquinaria de la CE Direttiva CE sulle maccine nella versione

Directiva da UE relativa a maquinaria

EMV-Richtlinie Directive CEM Direttiva CEM

EMC-directive Directiva da CEM

Directiva CEM

WEEE-Richtlinie

Directive WEEE Directtiva WEEE

RoHS-Richtlinie Directive RoHS

Direttiva RoHS

Harmonisierte Normen Standard harmonise Norme armonizzate

RoHS-directive Directiva de RoHS

WEEE-directive

Directiva WEEE

Directiva da WEEE

Directiva RoHS

Harmonized standards Las normas armonizadas Normas harmonzidadas

EN ISO 12100/2010-11 EN ISO 13857:2008-06

EN 60204-1/A1:2009:02 EN 61000-6-2/2005-08 EN 61000-6-3/A1:2011-03

Verantwortliche Person für die Technischen Unterlagen siehe unten Responsible person for technical documentation see below

La personne responsable pour la documentation technique est mentionnée au-dessous

Torsten Ehrhardt

Prokurist / authorized officer

hawo GmbH, Obere Au 2, D-74847 Obrigheim, Germany

nawo GmbH 74847 Obrigheim / Germany T + 49 (0) 6261 / 9770-0 F + 49 (0) 6261 / 9770-69 info@hawo.com www.hawo.com

Amtsgeright Mannheim: HRB 441011 Geschäftsführer: Christian Wolf Firmensitz: Obrigheim

hm 950 / NanoPak

Declarations of conformity

Chapter 12

12.2 DIN EN ISO 11607-2 / DIN 58953-7 declaration of conformity of sealing device

74847 Obrigheim / Germ

Konformitätserklärung - Declaration of Conformity Déclaration de Conformité Declaracción de conformidad Dichlarazione di conformità - Declaração de conformidade

9.694.038D

Seife

Gültig ab: Valid from:

01.02.2019

Version

Nomedica

KRINKO / BfArM

ISO 11607-2:2019

DIN 58953-7:2010

55:1244-1310

Bundesgesundheitsblatt 2012

1.02

co.uk

Hiermit erklären wir, daß die Folienschweissmaschinen:

Herewith we declare that the Foil sealing unit:

Par la présente, nous déclarons que la gamme de Soudeuse de films plastique:

Por la presente certificamos que las máquinas embolsadoras modelos

Dichiariamo con la presente che le macchine per saldatura di fogli

Por este meio se declara que as máquinas de selagem de folhas de plástico:

NanoPak hm 950 DC-VI hm 950 DC-VI

folgenden einschlägigen Bestimmungen und harmonisierten Normen entsprechen: complies with the requirements of the following regulations and harmonised standards: corresponde aux dispositions suivantes et standards harmonise:

objeto de esta Declaración cumpie con las siguientes disposiciones:

Sono conformi alle seguenti dieposizioni in materia nonché alle seguentie norme armonizzate:

corespondem às sequintes determinações e normas harmonizadas:

Anforderungen an die Hygiene bei der Aufbereitung von Medizinprodukten.

Empfehlung der Kommission für Krankenhaushygiene und Infektionsprävention(KRINKO) beim Robert Koch-Institut(RKI) und des Bundesinstitutes für Arzneimittel und Medizinprodukte(BfArM)

Verpackungen für in der Endverpackung zu sterilisierende

Medizinprodukte – Teil 2: Validierungsanforderungen an Prozesse der Formgebung, Siegelung und des Zusammenstellens

Packaging for terminally sterilized medical devoies - Part 2: Validation requirements for forming, sealing and assembly

Emballages des dispositifis médicaux stérilisés au stade terminal - Partie 2:

Exigences relatives aux procédes de mise en forme, de fermeture et dàssemblage

Sterilisation - Sterilgutversorgung - Teil 7

Anwendungstechnik von Sterllisationspapier, Vliesstoffen, gewebten textilen Materialien, Papierbeuteln und siegelfähigen

Klarsichtbeuteln und -schläuchen

Sterilization - Sterile supply - Part 7:

Use of sterilizaiton paper, nonwoven wrapping material, textile materials, paper bags and sealable pouches and reels

Stérilisation - Approvisionnement en produits stériles - Partie 7:

Utilisation de papier pour sterilisation, de matériaux d'enveloppe en non-tissé, matériaux textiles tissés, de sacs en

papier, de sachets et gaines scellables

Torsten Ehrhardt Prokurist / authorized officer

hawo GmbH, Obere Au 2, D-74847 Obrigheim, Germany

hawo GmbH Obere Au 2-4 74847 Obrigheim / Germany T + 49 (0) 6261 / 9770-0 F + 49 (0) 6261 / 9770-69 ww.hawo.com

Amtsgericht Mannheim: HRB 441011 Geschäftsführer: Christian Wolf Firmensitz: Obrigheim

hm 950 / NanoPak Declarations of conformity Chapter 12

12.3 CE declaration of conformity for barcode scanner

♥DATALOGIC

DECLARATION OF CONFORMITY

CE 09

EC-053 Rev.: 1 Pag.: 1 di 1

Datalogic Scanning Group Srl Via S. Vitalino, 13 Lippo di Calderara di Reno (BO) 40012 Italy

dichiara che declares that the déclare que le bescheinigt, daß das Gerät declare que el

Gryphon D41xx Black and Gryphon D41xx White

e tutti i suoi modelli and all its models et tous ses modèles und seine Modelle y todos sus modelos

sono conformi alle Direttive del Consiglio Europeo sottoelencate: are in conformity with the requirements of the European Council Directives listed below: sont conformes aux spécifications des Directives de l'Union Européenne ci-dessous: den nachstehenden angeführten Direktiven des Europäischen Rats: cumple con los requisitos de las Directivas del Consejo Europeo, según la lista siguiente:

2004/108/EC EMC Directive

Basate sulle legislazioni degli Stati membri in relazione alla compatibilità elettromagnetica ed alla sicurezza dei prodotti. On the approximation of the laws of Member States relating to electromagnetic compatibility and product safety. Basée sur la législation des Etats membres relative à la compatibilité électromagnétique et à la sécurité des produits. Über die Annaherung der Gesetze der Mitgliedsstaaten in bezug auf elektromagnétische Verträglichkeit und Produktsicherheit entsprechen.

Basado en la aproximación de las leyes de los Países Miembros respecto a la compatibilidad electromagnética y las Medidas de seguridad relativas al producto.

Questa dichiarazione è basata sulla conformità dei producti alle norme seguenti: This declaration is based upon compliance of the products to the following standards: Cette déclaration repose sur la conformité des produits aux normes suivantes: Diese Erklärung basiert darauf, daß das Produkt den folgenden Normen entspricht: Esta declaración se basa en el cumplimiento de los productos con las siguientes normas:

EN 55022 (CLASS BITE), SEPTEMBER 1998: AMENDMENT A1 (CLASS BITE), OCTOBER 2000: LIMITS AND METHODS OF MEASUREMENTS OF RADIO DISTURBANCE CHARACTERISTICS OF INFORMATION TECHNOLOGY EQUIPMENTS

EN 55024, SEPTEMBER 1998:

INFORMATION TECHNOLOGY EQUIPMENT IMMUNITY CHARACTERISTICS LIMITS AND METHODS OF MEASUREMENT

Lippo di Calderara, July 7th, 2009

Ruggero Cacioppo Quality Assurance Manager

Ruggers Bacioffs

hm 950 / NanoPak Declarations of conformity Chapter 12

12.4 CE declaration of conformity for label printer

MANUFACTURERS DECLARATION OF CONFORMITY

Product identification Product:

Thermal Printer

Type:

CG2

Grouping Model:

CG208 DT, CG212 DT CG208 TT, CG212 TT

Means of conformity

The product is in conformity with the EMC Directive 89/336/EEC, 92/31/EEC and 93/68/EEC based on test results using harmonised standards.

EMC standards used:

EN 55024:1998 + A1:2001 + A2:2003

EN 61000-4-2:1995 + A1:1998 + A2:2001

EN 61000-4-3:2006 EN 61000-4-4:2004 EN 61000-4-5:2006

EN 61000-4-6:1996 + A1:2001 EN 61000-4-8:1993 + A1:2001

EN 61000-4-11:2004

Test report N°:

S68427

Emission Test report:

EN 55022:2006 (Class B)

EN 61000-3-2:2006

EN 61000-3-3:1995 + A1:2001 + A2:2005

Test report N°:

E68427-1

Test carried out by:

Cosmos Corporation; 3571-2, Ohnogi, Watarai.cho, Mieken 516 2102, Japan

Issued:

July 17, 2008

The product is in conformity with Low Voltage Directive 73/23/EEC based on test results using harmonised standards.

standards used:

IEC 60950-1:2005 (2nd Edition) and/or

EN 60950-1:2006

Test carried out by: Certificate No: Nemko GmbH&Co. KG; 76318 Pfinztal, Germany

105311

Date:

July, 18th, 2008

Manufacturer:

SATO Malaysia Electronics Manufacturing Sdn. Bhd.

Lot 20, Jalan 223, 46100 Petaling Jaya

Selangor Darul Ehsan, Malaysia

EC Representative:

SATO International Europe NV;

Leuvensesteenweg 369 1932 Sint-Stevens-Woluwe

Belgium

Function:

Managing Director

Date:

01.09.2009

Signature:

Dave Joyce

DHR



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