

User Manual

MELAprint 80

Universal printer



EN

CE

Dear customer,

We thank you for your confidence demonstrated by the purchase of this MELAG product. As an owner-run and operated family concern founded in 1951, we have a long history of successful specialization in hygiene products for practice-based use. Our focus on innovation, quality and the highest standards of operational reliability has established MELAG as the world's leading manufacturer in the instrument reprocessing and hygiene field.

You, our customer are justified in your demand for the best products, quality and reliability. Providing **“competence in hygiene”** and **“Quality – made in Germany”**, we guarantee that these demands will be met. Our certified quality management system is subject to close monitoring: one instrument to this end is our annual multi-day audit conducted in accordance with EN ISO 13485. This guarantees that all MELAG products are manufactured and tested in accordance with strict quality criteria.

The MELAG management and team.

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1 General guidelines

Please read this User Manual carefully before commissioning the device. The manual includes important safety instructions. Failure to comply with the safety instructions can result in injury and/or damage to the product. Use the product only for the purpose specified in these instructions. Make sure that you always have access to digital or printed version of the User Manual. It represents a component of the product.



Should the manual no longer be legible, is damaged or has been lost, you can download a new copy from MELAG download centre at www.melag.com.

The device type can be found on the type plate on the underside of the device.

Symbols used

Symbol	Description
	Draws your attention to a situation, which if not avoided, could result in damage to the practice fittings or the device.
	Draws your attention to important information.

Formatting rules

Example	Description
Settings	Reference to a menu command, window title or a button.
see Chapter 2	Reference to another text section within this document.
	Information for safe handling.
	Prerequisites for the following handling instruction.

Symbols on the device

Type plate



Do not dispose of product in household waste



CE marking

Warning symbols



The marked area becomes hot during operation. Contact with it during or shortly after operation can pose the danger of burns.

Symbols on the power switch



Switching on device



Switching off device

Disposal

MELAG devices are synonymous with high quality and a long life-span. When you eventually need to decommission your MELAG device, the required disposal of the device can take place with MELAG in Berlin. Simply contact your stockist.

Dispose of accessories and consumption media which you no longer require in the appropriate manner. Comply with all relevant disposal specification in terms of possibly contaminated waste.

The packaging protects the device against transport damage. The packaging materials have been selected for their environmentally-friendly disposability and can be recycled. Returning the packaging to the material flow reduces the amount of waste and saves raw materials.

2 Safety



When operating the device, comply with the following safety instructions as well as those contained in subsequent chapters.

Power cable and power plug

- Only the power cable included in the scope of delivery may be connected to the device.
- The power cable may not be replaced by a cable determined to be insufficient.
- Disconnect the device from the mains during long downtimes.
- Only connect the device to those products intended for operation with this device.
- Only connect the device to a suitable power source.

Danger of short circuit

- Liquids may not be permitted to reach the interior of the device. This could result in an electrical shock or short circuiting.

Installation location and storage

- Setup the device on a stable, level surface.
- Setup the device in such a way that it is protected against strong direct sunlight and heat.
- Do not place the device directly on the steam sterilizer. The steam sterilizer will become hot upon operation. Non-compliance could result in restricted function and damage to the device.
- Set-up the device protected against blows or vibrations.
- Store and operate the device only in a dust-free environment protected against heat and damp.
- Store printed logs and printed labels protected from direct sunlight to ensure their long-term legibility.

Daily operation

- Always check whether a material roll has been inserted before printing. Otherwise, the print head and printer roller could suffer damage.
- Never touch the blade of the device.
- Never touch the print head during or shortly after operation, as this can be very hot.
- The print head of the device is a sensitive component. To avoid damage, do not touch the print head.

Opening the housing

- Never open the device housing. Incorrect opening and repair can compromise electrical safety and pose a danger to the user. The device may only be opened by an authorised technician who must be a qualified electrician.

3 Description of the device

Scope of delivery

Please check the scope of delivery before setting up and connecting the device.

- MELAprint 80
- User manual
- Power cable
- Power supply
- Ethernet cable 1:1 (RJ45)
- USB cable
- Label roll, double-sided

Intended use

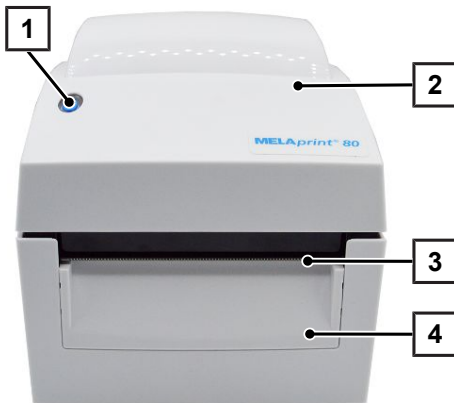
The MELAprint 80 universal printer serves the direct output of labels and logs for MELAG devices or via the documentation and approval software MELAtrace; it may only be used by trained practice or IT personnel. The labels for sterilization wrapping can then be read-out with a barcode scanner (not included in the scope of delivery).

Compatibility with MELAG products

Category	Device class	Device type
Software	Documentation and approval software	MELAtrace
Combination devices	Combination steam sterilizers	Careclave 618 ¹⁾
Steam sterilizers	Premium Line	Vacuclave 550 ¹⁾
	Pro Line	Vacuclave 105 ⁴⁾
		Vacuclave 118 ²⁾
		Vacuclave 123 ²⁾
	Prime Line	Vacuclave 305
		Vacuclave 318 ²⁾
		Vacuclave 323 ²⁾
	SteriHero Line	SteriHero Beauty ²⁾
		SteriHero Vet, Vet 23, Vet 23 S ²⁾
		SteriHero Podo 18, Podo 18 S
SteriHero Speed+		
Pro-Class	Vacuklav 23 B+ ³⁾	
	Vacuklav 31 B+ ³⁾	
	Vacuklav 24 B+ ³⁾	
	Vacuklav 24 BL+ ³⁾	
	Vacuklav 30 B+ ³⁾	
Vacuvet	Vacuvet 23 B+ ³⁾	
DAC	DAC Professional ³⁾	
Euroklav	Euroklav 29 VS+ ³⁾	
	Euroklav 23 VS+ ³⁾	
	Euroklav 23 S+ ³⁾	
MELAtronic EN/EN+	MELAtronic 23 EN ³⁾	
	MELAtronic 15 EN+ ³⁾	
MELAquick	MELAquick 12+/12+ p ³⁾	
Sealing devices	MELAseal	MELAseal 300 ⁴⁾
¹⁾ Label printing only - direct connection only possible via USB ²⁾ Log printing from software version v2.6.1 ³⁾ Log printing only; from software version v5.21 ⁴⁾ Log printing only		

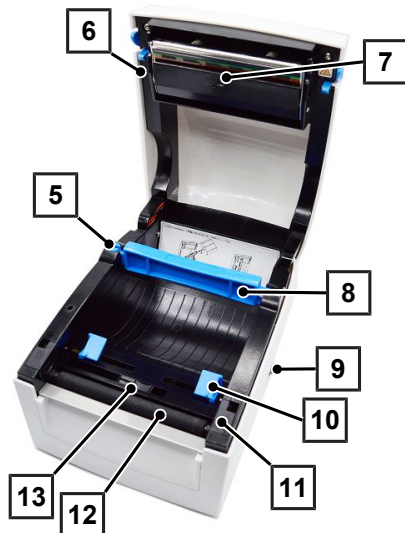
Views of the device

View from the front



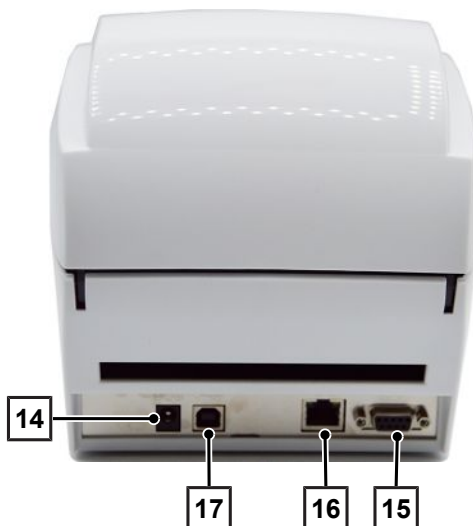
- 1 FEED button with LED
- 2 Housing cover
- 3 Tear-off edge
- 4 Front cover

View from inside



- 5 Reel dispenser
- 6 Print head lever
- 7 Print head
- 8 Roll core
- 9 Power switch (ON/OFF)
- 10 Material guidance
- 11 Roller cover
- 12 Printer roller
- 13 Sensor

View from rear



- 14 Power cable connection
- 15 Serial interface (RS-232)
- 16 Ethernet interface (RJ45)
- 17 USB interface

FEED button

Label print

After pressing the FEED button, the printer moves the label to the specified stop position. If the label does not stop at the correct position, the label material must be calibrated, see [Detecting the material length and the test print](#) [▶ Page 15].



Log printing

When printing with continuous media, pressing the FEED button will advance the material until you release the FEED button.

LED

There is an LED on the FEED button that indicates the operating status of the printer.

The following statuses are possible:

LED		Status	Description
	Green	Standby mode	Printer is ready for operation
	Red (flashing)	Error mode	Printer has an error

4 Commissioning

Comply with the following for safe handling:

- Check the device after unpacking for any damage suffered during transport.
- The device is not suitable for operation in explosive atmospheres.
- Install and operate the device in a frost-free environment.
- The device is intended for use outside the patient treatment area. The device should be located a minimum of 1.5 m radius away from the treatment area.

Loading printing material



PLEASE NOTE

Only use original MELAG accessories to achieve optimum printing results and maximise the life of the printer.

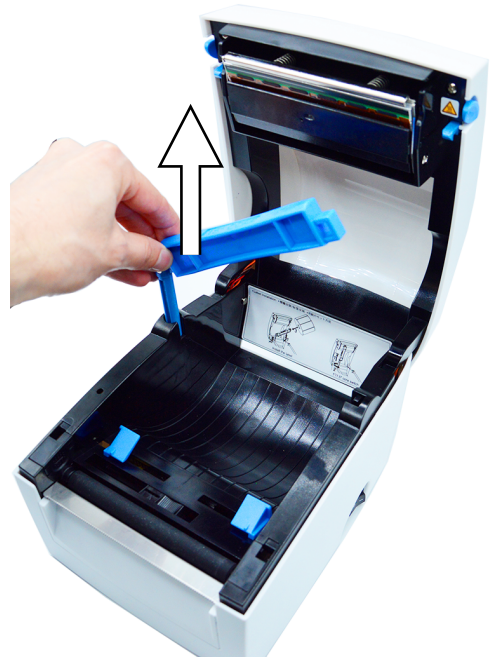
1. Open the housing cover by lightly pressing the two buttons (pos. a) on the right and left side of the housing cover.



2. Unlock the roll holder (pos. b) by pulling it out of the housing holder on the right-hand side.

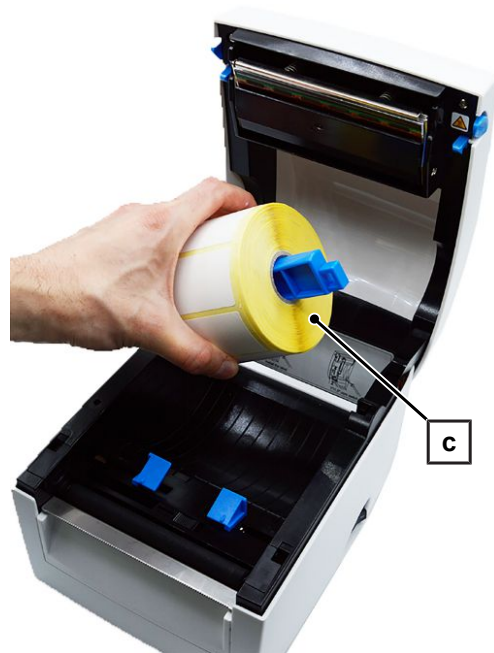


3. Lift the roll holder on the left-hand side and pull it out as far as it will go.

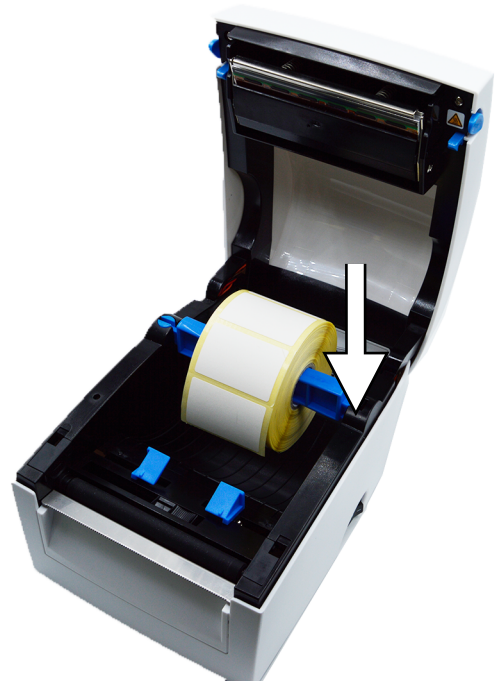


4. Slide the material roll (pos. c) onto the roll holder.

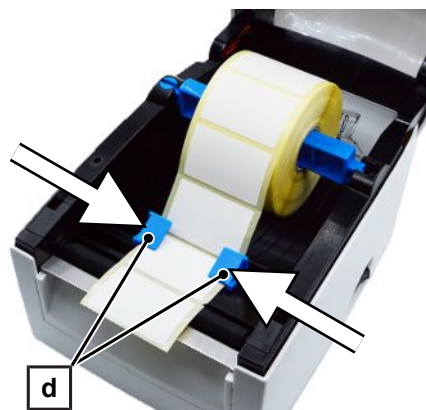
Example view with one label roll!



5. Press down the roll holder and lock it in place.



6. Position the sensor, see [Adjusting the sensor](#) [► Page 14].
7. Slide the printing material under the material guide (pos. d) and pull it forward.
Then slide the material guide up to the edge of the printing material.



8. Close the housing cover so that it engages audibly and noticeably.

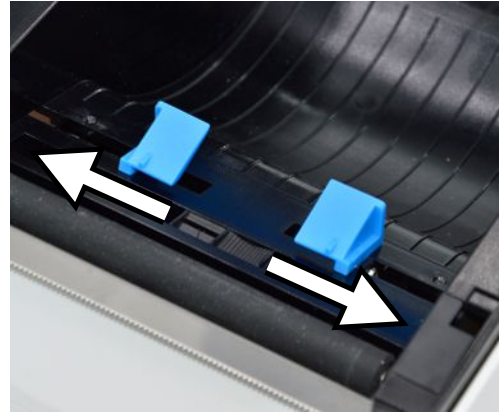


Adjusting the sensor

The sensor must be correctly adjusted for optimum material feed.

Proceed as follows:

1. Open the housing cover.
2. Slide the sensor to the centre of the material.



3. Close the housing cover again and run a test print, see [Detecting the material length and the test print](#) [▶ Page 15].

Switching on the printer

Comply with the following for safe handling:

- In daily operation, first switch on the printer and then the steam sterilizer or sealing device. This ensures that the printer is immediately recognized as an output medium.
- The printer should remain switched on during device operation to ensure proper communication between the device and printer. This avoids repeated calibration after switching on.

The following must be fulfilled or present:

- ✓ The printing material is loaded correctly, see [Loading printing material](#) [▶ Page 11].
- ✓ The power cable is connected.

1. Switch on the printer at the power switch (pos. a) at the lower right-hand side. The LED on the FEED button lights up red for 5 s and then changes to green.

PLEASE NOTE: During initial commissioning, carry out a test print, see [Detecting the material length and the test print](#) [▶ Page 15].



2. Press the FEED button (pos. b) to activate the material feed if required.



Detecting the material length and the test print

The printer automatically detects and saves the material length. This means that the material length does not have to be transmitted from the computer.

The following must be fulfilled or present:

- ✓ The printing material is loaded correctly, see [Loading printing material](#) [▶ Page 11].
 - ✓ The sensor for the material feed is in the correct position, see [Adjusting the sensor](#) [▶ Page 14].
1. Switch off the printer.
 2. Press the FEED button while switching on the printer.
 3. Press and hold the FEED button until the LED flashes red.
 4. Release the FEED button.
- ➔ The printer measures the printing material and saves the material length.
 - ➔ If the printing material was measured successfully, a test print with the printer configuration is output.

<pre>MP80_V1.3 USB S/N: 2207006C Serial port: 96, N, 8, 1 MAC: 00 1D 9A 0A 15 39 IP 192.168.56.144 [DHCP_100IP] Gateway 192.168.0.244 Sub-mask 255.255.255.0 Card status: Not detected [00] Network: LAN ON-LINE PORT State L S E U B 1 1 1 1 1 ##### 0000 FORM(S) IN MEMORY 0000 GRAPHIC(S) IN MEMORY 000 FONT(S) IN MEMORY 000 ASIAN FONT(S) IN MEMORY 000 DATABASE(S) IN MEMORY 000TTF(S) IN MEMORY 4073 KB FREE MEMORY ^S4 ^H8 ^R000 ~R200 ~Q+2 ^W102 ^Q100,3 ^E18 Option: ^D0 ^O0 ^AD See.: 2.0 3.1 2.6 [1.1_26] Code page: 850</pre>	<pre>Model & version USB ID setting Serial port setting MAC address IP address Gateway setting Netmask setting CF card status Network connection Interface status ##### Number of saved forms Number of saved graphics Number of saved fonts Number of saved Asian fonts Number of saved databases Number of stored scalable fonts Free memory Speed, temperature, reference point, print orientation Label width, label length, stop position Cutter, dispenser, print mode Sensor setting Code page</pre>
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Connecting the printer to the device

Variant 1: Direct connection via USB cable

Example explanation using the Careclave 618 and Vacuclave 550



PLEASE NOTE

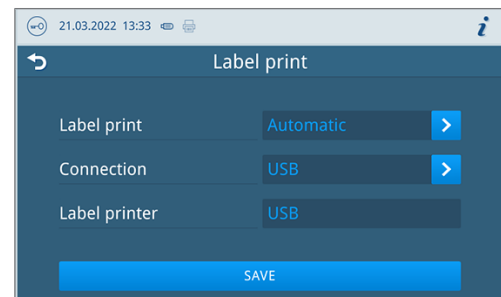
Further information is provided in the device User Manual.

The following must be fulfilled or present:

- ✓ The printer is ready for operation
- ✓ The USB cable of the printer is connected with the steam sterilizer.

1. Switch on the printer at the power switch.
2. Switch on the steam sterilizer at the power switch.
3. On the steam sterilizer, press the **Label print** button in the **Settings** menu.

4. Press  to make changes.



5. Activate or deactivate the desired setting by selecting or deselecting it.
 - ↳ For the option **Automatic** a dialogue follows for the definition for which programs the automatic label print should take place.
6. Confirm the changes with **OK**.
7. Press **SAVE** to accept the changes.

Variant 2: Direct connection via serial cable

Example explanation using the Vacuclave 24 B+



PLEASE NOTE

Further information is provided in the device User Manual.

The following must be fulfilled or present:

- ✓ The printer is ready for operation
 - ✓ The serial cable of the printer is connected with the steam sterilizer.
1. Switch on the printer at the power switch.
 2. Switch on the steam sterilizer at the power switch.
 3. Set the immediate output to **YES** in the **Function: Log output** menu of the steam sterilizer.

Variant 3: Indirect connection via MELAtrace

Comply with the following for safe handling:

- Integrate the printer into a network with the help of the IT company that services your practice.
- The integration of the printer into a local network is not supported for the devices Careclave 618 and Vacuclave 550.
- The various methods of network configuration mean that MELAG can only provide support for the direct connection of the printer to the steam sterilizer.

To enable the printer to be found in the search by MELAtrace, the printer must be available in the same subnetwork as the computer on which MELAtrace is installed.

The following options for integration into the (practice) network are available:

- [Automatic connection with DHCP server](#) [▶ Page 17]
- [Manual connection to the \(practice\) network](#) [▶ Page 17]

Automatic connection with DHCP server

The Dynamic Host Configuration Protocol (DHCP) communication protocol is activated in the printer at the factory. This allows the network configuration to be automatically assigned to the printer by a DHCP server.

The following must be fulfilled or present:

- ✓ The printer is ready for operation
 - ✓ An appropriately configured DHCP server is available in the (practice) network.
1. Connect the Ethernet cable on the back of the printer. Connect the printer to the existing network.
 2. Switch on the printer at the power switch.
 - ↳ The network configuration is automatically assigned to the printer.
 3. Open MELAtrace and connect to the printer.

Manual connection to the (practice) network

If there is no DHCP server in the network, you must determine the network situation of the computer on which MELAtrace is installed and then assign a free IP address to the printer.



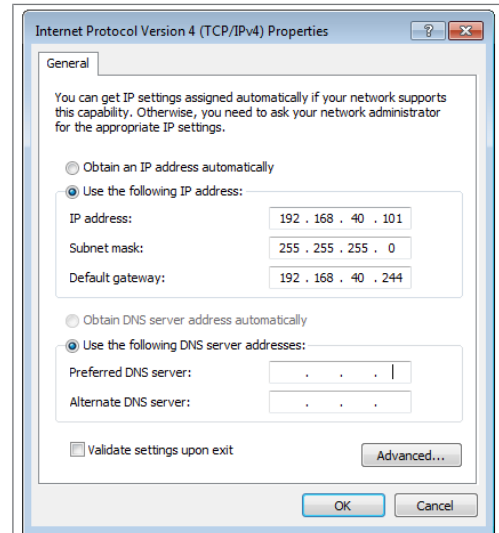
PLEASE NOTE

The following instructions apply to the procedure for a Windows operating system. Should a different operating system be installed on your computer, change the IP address manually in accordance with the relevant instructions.

Determining the network situation

1. Open on the computer via **Start > Control panel > Network and Internet > Network and Sharing Center**.
2. Select **Local Area Connection** and open the **Properties** window.

3. Select **Internet Protocol Version 4 (TCP/IPv4)** from the list and select **Properties**.



→ The current network configuration is displayed.

Assigning the IP address to the printer

The following must be fulfilled or present:

- ✓ The printer is ready for operation
- ✓ The GoConfig software is installed on your computer.

PLEASE NOTE: The software can be downloaded from the download centre at www.melag.com.

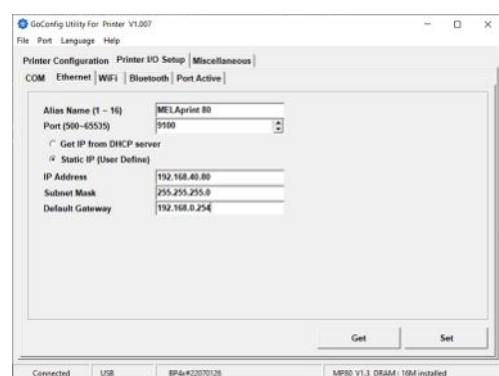
1. Connect the USB cable to the USB port of the printer and connect the other end with the computer.
2. Switch on the printer.
3. Start the GoConfig program.
4. Open the network settings via the **Printer I/O Setup** > **Ethernet** tab.

→ The factory settings of the printer are displayed.

5. Activate the option **Static IP**.

Fill in the entry mask according to your network configuration.

Example view of a network configuration.



6. Confirm the entry with **Set**.
 - The printer confirms that the settings have been accepted with a signal tone.
7. Unplug the USB cable from the printer and the computer.
8. Connect the printer to the network using the Ethernet cable supplied.

- Open MELAtrace and connect to the printer.

PLEASE NOTE: For more information on setting up the printer in MELAtrace, see the MELAtrace User Manual.

Control of printer integration into the practice network

Open the website of the printer

- ✓ Printer and computer are in the same network.

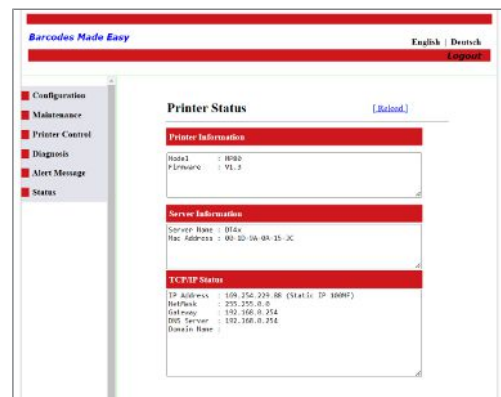
 - Make a test print, see [Detecting the material length and the test print](#) [▶ Page 15].
 - Open a web browser and enter the IP address of the printer in the address bar to access the web page.
 - Log in.

PLEASE NOTE: The default user name is *admin* and the default password is *1111*.

Please Input Login Account	
Account	<input type="text"/>
Password	<input type="password"/>
Login	Cancel

Checking the IP address

- Working in the left-hand navigation bar, select the **Configuration** menu.



- Working in the left-hand navigation bar, select the **TCP/IP** and check the IP address.

PLEASE NOTE: You can also make changes to the network settings on the printer web page.

5 Troubleshooting

General malfunctions

Event	What you can do
The printer is switched on but the LEDs are not lit.	Check the power supply.
The LED lights up red after printing.	<p>Check if there are any errors in the software setting or the print commands.</p> <p>Check if you are using suitable printing material.</p> <p>Check if there is a material jam.</p> <p>Check whether the printing material has been used up.</p> <p>Check if the print head is closed correctly.</p> <p>Check if the sensor for the material feed is blocked.</p>
The printing process runs without executing the print.	<p>Load suitable printing material correctly.</p> <p>Select the correct printer driver.</p> <p>Select the correct printing material and print mode.</p>
Printing material is jammed during printing.	Remove the jammed media. If printing material is stuck on the thermal print head, remove it and clean the head using a soft cloth moistened with alcohol.
The printing process only prints partially and the printout is not complete.	<p>Check if printing material is stuck on the thermal print head.</p> <p>Check the application software.</p> <p>Check the start position setting.</p> <p>Check the power supply.</p>
During printing, part of the printing material is not printed completely.	<p>Check if the thermal print head is dusty or otherwise dirty.</p> <p>Use the internal command “~T” to check if the thermal print head performs a complete print operation.</p> <p>Check the quality of the print material.</p>
The positioning of the print is incorrect.	<p>Check if the sensor for the material feed is covered or dusty.</p> <p>Check if the label liner is suitable.</p> <p>Check the setting of the guide, see Loading printing material [▶ Page 11].</p>
A label is skipped during printing.	<p>Check the label length setting.</p> <p>Check if the sensor for the material feed is dusty.</p>
The printout is unclear.	<p>Check the light/dark setting.</p> <p>Check if the print head is soiled with glue or otherwise dirty.</p>

LED status

LED	Signal tone	Event	What you can do
Red	2 x 2 signal tones	Print head is not closed properly	Open the print head and close it again.
Red (flashing)	--	High temperature at the print head	When the temperature drops to normal, the printer automatically returns to standby mode.
Red	2 x 2 signal tones	Material not recognized	Check the position of the sensor, see Adjusting the sensor [▶ Page 14]. If the sensor technology still does not detect the material, run the Detecting the material length and the test print [▶ Page 15] again.
		Material used up	Insert a new material roll.
Red	2 x 2 signal tones	Unusual material feed	The printing material has wrapped around the rubber rollers, the sensor cannot detect the label gap or the "black mark". There is no more material. Readjust the sensor, see Adjusting the sensor [▶ Page 14].
Red	2 x 2 signal tones	Memory is full; the printer prints: "Memory full"	Delete superfluous data or install a memory extension.
Red	2 x 2 signal tones	The file is not found; the printer prints: "Filename cannot be found."	Use the "~X4" command to print all the files. Check if the files exist and the names are correct.
Red	2 x 2 signal tones	The filename is repeated; the printer prints: "Filename is repeated."	Change the file name and reload the file.

6 Equipment servicing

Comply with the following for safe handling:

- Switch off the printer and pull the power plug before cleaning and/or maintenance.
- Do not use any solvents such as benzine or acetone for cleaning.
- Allow the device to dry completely after cleaning before closing the housing cover.

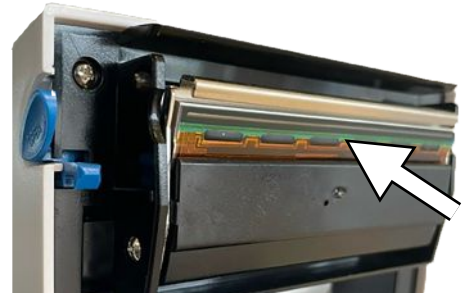
Routine maintenance

Carry out routine maintenance on a weekly basis.

Print head and printer roller

Clean the print head and printer roller as follows.

1. Open the upper housing cover.
2. Use a soft, lint-free cotton cloth to remove soiling such as dust and stains from the print head or printer roller.

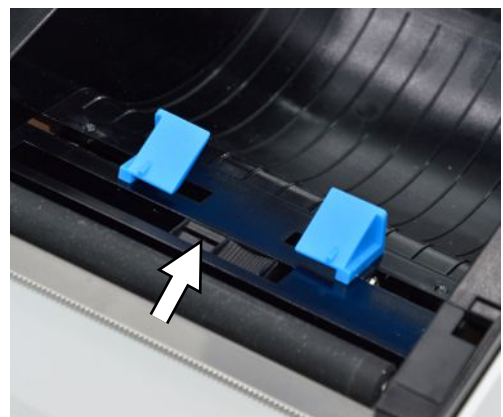


3. Close the housing cover.

Sensor

Clean the sensor as follows:

1. Open the upper housing cover.
2. Use a soft, lint-free cotton cloth to remove soiling such as dust and stains from the sensor.



3. Wait until the alcohol has evaporated completely and then close the housing cover.

Checking the print head position

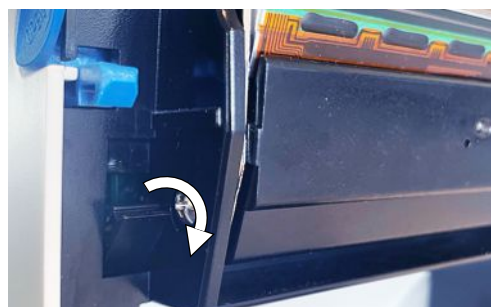


PLEASE NOTE

Only execute the following steps if a malfunction message indicates that the print head is not closed properly.

The following must be fulfilled or present:

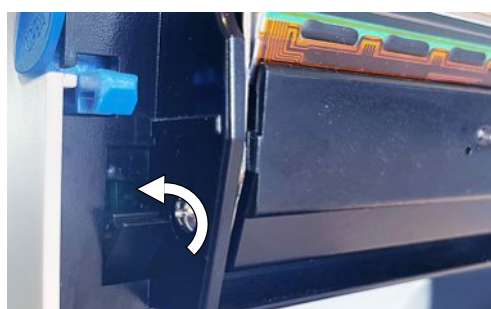
- ✓ The printer is switched off.
- ✓ The print head has cooled down.
- 1. Open the housing cover.
- 2. Pull the print head lever forwards.



- 3. Fold down the print head.



- 4. Check the correct positioning of the print head and correct it if necessary.
- 5. Fold in the print head and then push the print head lever back into its guide.



- 6. Close the housing cover and check the print result.

7 Technical data

Type name	MELAprint 80
Device dimensions (H x W x D)	16.6 x 16.8 x 21.8 cm
Weight	1.5 kg (without consumables)
Electrical connection	AC 100-240V ±10 %, 50/60 Hz
Temperature	Operation: 5-40 °C Storage: - 20-50 °C
Relative humidity	Operation: 30-85 %, non-condensing Storage: 10-90 %, non-condensing
Printing method	Thermal printing
Print resolution	203 dpi
Printing speed	102 mm/s
Print span	max. 108 mm
Storage life of the label printer	See the product data sheet ¹⁾
Manufacturer ²⁾	GODEX INTERNATIONAL Co., Ltd. 13F, No.168, Jian-Kang Road, Zhonghe Dist, New Taipei City 235 Taiwan

¹⁾ The original manufacturer's operating instructions are available from MELAG on request.

²⁾ The original manufacturer's operating instructions are available from MELAG on request.

8 Accessories

All articles listed can be obtained from stockists.

Article	Art. no.
Serial connection cable, MELAprint 80	ME15823
MELAprint 60/80 labels (double adhesive) 6 rolls, 1,000 labels each	ME41942
MELAprint 60/80 labels (single adhesive) 6 rolls, 1,000 labels each	ME41943
Printer paper MELAprint 80 (2 rolls, 50 m each)	ME41946



Distributor:

MELAG Medizintechnik GmbH & Co. KG

Geneststraße 6-10
10829 Berlin
Germany

Email: info@melag.com
Web: www.melag.com



Manufacturer:

GODEX INTERNATIONAL Co., Ltd.

13F, No. 168, Jian-Kang Road, Zhonghe Dist,
New Taipei City 235 Taiwan



Responsible for content: MELAG Medizintechnik GmbH & Co. KG
We reserve the right to technical alterations

Your stockist