

## Operating Manual

### CF Card Printer

#### *MELAflash*



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Dear doctor:

Thank you very much for the trust you have demonstrated by purchasing this unit.

More than 55 years ago, MELAG began as a medium-sized family-run enterprise to specialise in the manufacture of sterilization equipment for medical practices. In the meantime our company has grown into one of the world's leading producers of sterilization equipment. Verification of its success has been the sale of more than 400,000 MELAG units worldwide, attesting to the high quality of our sterilizers, which are exclusively made in Germany.

Please read this Operating Manual before you start operation of the CF Card Printer. The instructions contain important information and safety precautions.

MELAG - General Management and employees



## Safety instructions

To operate the CF Card Reader, pay attention to the safety instructions given below and in the individual chapters of this Operating Manual.

- Do not open the housing of the CF Card Printer. Improper opening and repair could impair the electrical safety and pose danger to the user.
- Only connect devices to the CF Card Printer which were intended for use with this printer.
- Only operate the CF Card Printer with the plug-in power supply unit included in the scope of delivery.
- No fluids may get into the interior of the CF Card Printer. Electrical shocks or a short circuit could result.
- Do not place the CF Card Printer directly on the autoclave. The autoclave becomes hot during operation. Non-compliance could impair the function and lead to damage of the plastic housing of the CF Card Printer.

## To these instructions

<i>Symbol</i>	<i>Meaning</i>	<i>Explanation</i>
	Be sure to observe	Indicates situations which might lead to damage of the MELAnet Box if not complied.
	Important information	Indicates important information.

<i>Example of font type</i>	<i>Meaning</i>	<i>Explanation</i>
<b>Batch output</b>	Software citation	Words or phrases appearing on the ?display of the autoclave are marked as software citations.
<b>Chapter 6 – Logging</b>	Cross-reference	Reference to another text section within this Operating Manual.
<b>Figure 1/(5)</b>	Cross-reference	Reference to a detail in a figure – in the example, to Part No. 5 in Figure 1.

## Symbols on the unit



The symbol of the struck out trashcan identifies a device that may not be disposed with domestic waste. An appropriate and competent disposal must be carried out by the marketing party.

With the designation of an apparatus with this symbol, the manufacturer furthermore declares that he satisfies all requirements of the law concerning the release, withdrawal and environmentally compatible disposal of electric and electronic appliances.

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## Scope of delivery

- MELA*flash* CF Card Printer
- MELA*flash* CF Card
- MELA*flash* Card Reader
- Operating Manual
- Plug-in power supply with 5 Volt

# Chapter 1 – Performance Description

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## Proper use

The MELAflash CF Card Printer serves for storage of sterilization logs on the MELAflash CF card, which can be read out over the standard accessory MELAflash Card Reader on the practice computer.

## You can connect the following autoclaves to the MELAflash CF Card Printer

- Vacuklav<sup>®</sup>23 B+/ 24 B+/ 24 B/L+/ 30 B+/ 31 B+ as of software version 3.34
- Euroklav<sup>®</sup>23 VS+/ 29 VS+ as of software version 3.34
- Vacuklav<sup>®</sup>23-B/ 24-B /24-B/L/ 30-B/ 31-B as of software version 3.16
- Euroklav<sup>®</sup>23V-S/ 29V-S/ 23-S/ 29-S as of software version 3.16
- Kliniklav<sup>®</sup>25 as of software version 3.16
- MELAtronic<sup>®</sup>15EN/17EN/23EN as of software version 3.22

# Chapter 2 – Device Description

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## MELAflash CF Card Printer Views

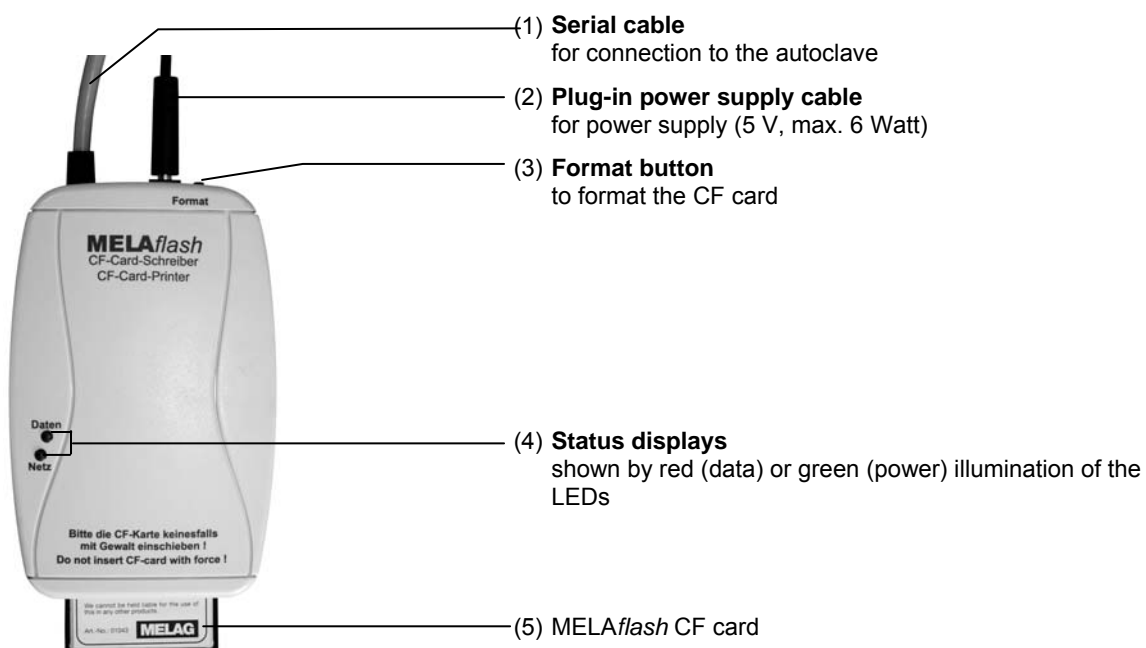


Fig. 1: Device views

## LED Status Displays

	<b>Power green LED</b>	<b>Data red LED</b>	<b>Status</b>	<b>Measures</b>
	●	●		
01	● lights up		CF Card Printer ready for operation	Insert CF card
02	●	●	Access to the CF card (batch output, formatting)	Do NOT remove the CF card (otherwise loss of data!)
03	⚙ blinks		CF card is almost full	Have new CF card ready, or copy the data from the CF card to the practice computer and then delete the data from the CF card after copying.
04	⚙	⚙	CF card is full	Have new CF card ready or copy data on this CF card to another data medium
05	●	⚙	Ready for formatting (only 5 seconds)	Insert CF card within 5 seconds and only remove when red LED goes out!
06	⚙	⚙	incorrect log	press the format button briefly
07		⚙	incorrect CF card (e.g. wrong format) or defective CF card	format or exchange CF card  exchange CF card

## CF card capacity



- Despite the high memory capacity of the CF card, we recommend that you regularly back up the logs at least once a week on the computer.

### **CF card almost full**

If the CF card can only save less than three more 300 sterilization logs, the green power LED begins to blink with brief interruptions.

- As soon as possible, save the sterilization logs on the CF card by copying them to your computer with the delivered card reader device.

You can continue to save sterilization logs on the CF card until reaching the maximum number of logs which can be stored on the card.

### **CF card full**

If the CF card is full, no more sterilization logs can be saved on it. In this case, the green power LED and the red data LED blink together with brief interruptions.

- Save the sterilization logs stored on the CF card by copying them to your computer with the delivered card reader device.

# Chapter 3 – Initial start-up

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## Connect MELAflash

- For the power supply, connect the cable of the delivered plug-in power supply unit to the right-hand socket (see 4, Fig. 1/(1) , of the CF Card Printer.
- Plug the power plug into the socket.  
The power LED lights up green.
- Connect the RS232 interface of the serial cable to the serial data connection of the autoclave.  
We recommend you to tightly screw both the knurled screws on the serial connection to avoid them from getting loose or inadvertently being pulled out.



### Notice!

For more detailed information about connecting the serial cable, consult the Operating Manual.

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## Insert the MELAflash CF card

- Insert the delivered MELAflash CF card into the slot on the front of the MELAflash CF Card Printer.



Warning!

Make sure the card is facing the right direction and do not use force to insert it into the slot.  
If you do not observe this precaution, the CF card or the CF Card Printer can be damaged.



Warning!

Only remove the MELAflash CF card from the CF Card Printer when the red data LED is not lit up.  
If you pull the CF card out of the CF Card Printer while the red data LED is still lit up, data saved on the card can be lost.

## Format MELAflash CF card

At delivery the CF card is already formatted, i.e. you can use it immediately.

If it should nevertheless ever be necessary to format the CF card, always do so with the CF Card Printer. It formats the CF card in the format the device requires (FAT16).

- Insert the CF card into the slot as far as you can before it makes contact with the limit stop, but is faced in the right direction in the slot.
- Keep the "format" button pressed down (about 7 sec) until the red data LED begins to blink repeatedly.  
This signifies that the CF Card Printer is in formatting mode for a short time (about 5 sec).

- While the red data LED is blinking, insert the MELAflash CF card completely into the slot of the MELAflash CF Card Printer until the limit stop.  
The CF card will now be formatted. The red data LED lights up steadily during the formatting process.  
When the formatting is completed, the red data LED goes out.



Warning!

All saved data on the CF card is deleted during formatting.

## Initialise the MELAflash CF Card Printer on the autoclave

In order to be able to save sterilization logs on the MELAflash CF Card via the CF Card Printer, you have to set the MELAflash CF Card Printer as output medium on the autoclave.

The settings you make depend on which device software is installed on your autoclave.

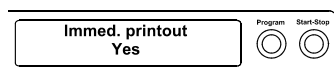
### Settings for the autoclave software version up to V3.34



- Switch on the power at the autoclave and wait until the display shows the initial state.
- Select the setup menu **Function** by simultaneously briefly pressing the (+) and (-) KEYS.  
The display shows **Function: Print**.
- Press the (P) KEY to select the submenu **Print - Data transfer**.
- Again press the (P) KEY. The display shows **Data transfer - no printer**, if a printer has not yet been set.
- Navigate with the (+) KEY until the display shows **Data transfer - external PC**.
- Press the (P) KEY to confirm the selection. The display returns to the menu **Print - Data transfer**.
- Press the (S) KEY twice to exit the menu and return to the initial state.

In order to save the sterilization logs on the CF card directly after the end of a sterilization program, you must activate the option on the autoclave for immediate printout.

### Set immediate printout of the logs

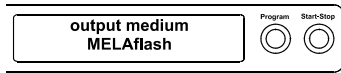


- Select the Setup Menu **Function** by short simultaneous pressing of the (+) and (-) KEY. The display shows **Function: Print**.
- Press the (P) KEY. The menu **Print - Data transfer** is displayed.
- Navigate with the (+) or (-) KEY until the submenu displays **Immediate printout Yes/ No**.  
If the option is set to **NO**, press the (P) KEY to switch from **Immediate Print NO** to **YES**.
- In order to exit the menu, likewise press the (S) KEY.

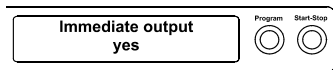
The MELAflash CF Card Printer is now ready for operation and sterilization logs can be saved on the CF card.

### Settings for the autoclave software version as of V4.06

- Switch the autoclave on with the power switch.
- Select the Setup Menu **Function** by short simultaneous pressing of the (+) and (-) KEYS. The display shows **Function: Last Batch No**.
- Navigate with the (+) or (-) KEY in the Menu **Function**, until the display



**Set immediate output of the logs**



shows **Function: Batch Output**.

- Press (P) to select the submenu **Batch output – Output medium**
- Press the (P) KEY again. The display shows **Output medium – No output medium**, in case no out medium was yet selected.
- Navigate with the (+) or (-) KEY to where **MELAflash** is displayed as output medium.
- For confirmation press (P). The display changes back to the menu **Batch output – output medium**.
- Press the (S) KEY twice to exit the menu and return to the initial state.

In order for sterilization logs to be stored on the CF card directly after the sterilization program is completed, you have to activate the option for immediate output on the autoclave.

- Select the SETUP Menu **Function** by short simultaneous pressing of the (+) and (-) KEYS. The display shows the function: **Last Batch No.**
- Navigate with the (+) or (-) KEY to where the display shows **Function: Batch Output** as output medium and press the (P) KEY.
- Navigate with the (+) or (-) KEY until the submenu displays **Immediate printout NO/ YES**.  
If the option is set to **NO**, press the (P) KEY to switch from **Immediate Print NO** to **YES**.
- In order to exit the menu, press the (S) KEY twice.

The MELAflash CF Card Printer is now ready for operation and sterilization logs can be saved on the CF card.



# Chapter 4 – Logging



Follow the following instructions for using a CF card:

- Never insert the CF card into the card slot with force.
- Never draw the CF card out from the card slot during a write and read access procedure. The red LED lights up during the write and read access procedure.

Non-observance can result in data loss, damage to the CF card and/or the autoclave and/or the CF Card Printer. The card can become unusable.

## Subsequent log output

You also have the option of outputting the logs subsequently to the CF card and independent of the time when the program ends. You can choose whether selected or all stored logs (up to 40 logs) should be outputted.

### *Output selected logs*

You can access these functions over the Setup Menu **Function**\*.

You can choose between:

- **Print / last cycle output**
- **Print / output stored cycles**

\*For more detailed information on the operating menu, consult the Operating Manual of your autoclave.

## Filing structure and filenames

### *Folder structure*

The storage of files on the CF card as well as the created folder structure is organised as follows:

The folder name of the uppermost level consists of 5 characters and contains encoded in the name: the year of manufacture, the type of unit and the autoclave's Manufacturing Number. On the level below, the folders are named by month and year.

If necessary, an additional folder **ERROR** and/or **UNKNOWN** is created. Here the faulty logs (**ERROR**) or non-recognised logs (**UNKNOWN**) are stored separately.

### *Filename structure*

The first five characters of the file names of the saved logs correspond to the folder name of the uppermost level.

The characters 6 - 8 of the filename consist of the day and the day batch of the corresponding log:

The day of the year can take values from 1 to 366. The day batch can take values from 1 to 127.

Thus every log receives a unique filename within the time period of one calendar year. Logs of different calendar years can receive the identical file names but are stored in separate directories.

**Meaning of the file extensions of the sterilization logs**

PRO	Logfile (successful)	STA	Status log
STR	Malfunction log	LEG	legend log
STB	Standby malfunction log	DEM	Demo log
LOG	System log	DES	Demo malfunction



**RECOMMENDATION**

To avoid inadvertent data loss, we recommend the regular backup of the sterilization logs on the CF card onto the medical practice PC (e.g. weekly).

**MELAview 2.0 for displaying, editing and printing log files**

## Open logs with MELAview

The program MELAview 2.0 is for simple viewing, editing, and printing of MELAG sterilization logs. This program is a kind of log browser.

You can also display log lists with MELAview. You can sort the sterilization logs in ascending or descending order, filter over selection fields and print the logs direct from MELAview. You can purchase MELAview 2.0 from your MELAG dealer.

**MELAview 2.0 Demo version**

Before you decide to purchase MELAview 2.0, MELAG offers you the opportunity of testing the program without charge.

On the delivered CF Card there is a demo version of MELAview so that you can look at the functions of MELAview using fictive sterilization logs as examples. Please notice that the program will be deleted in case of formatting the CF card.

Your MELAG dealer can also provide you with a demo version on CD ROM.

**Save preferred path**

In order to rapidly open preferred folders for sterilization logs, it is possible to save the respective path as a favourite.

## Open and save logs with standard programs on the PC

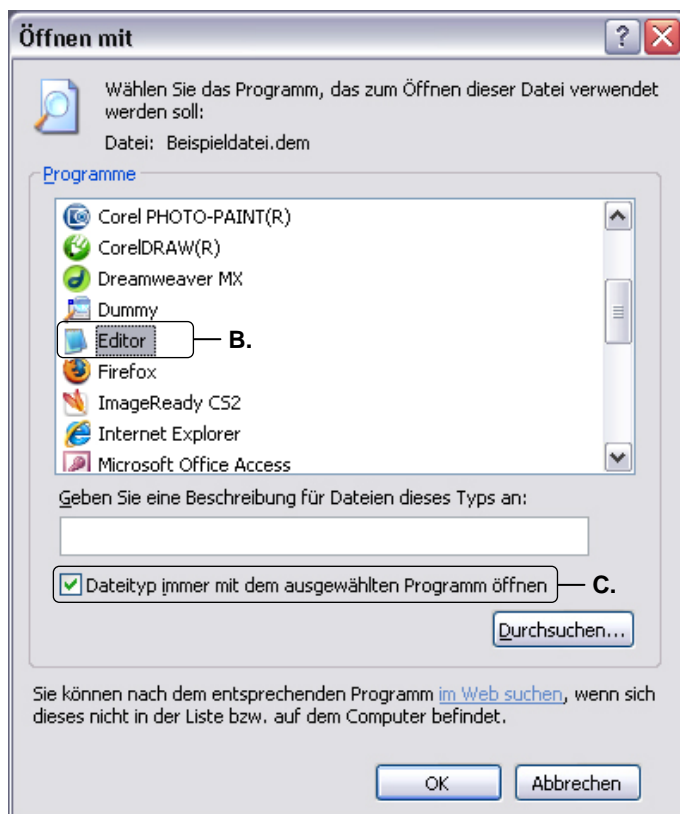
The sterilization logs are in ASCII format and can be read with simple text editors or other standard programs of any operating system. The extensions of the logfiles which you copy to the PC with the Card Reader make it initially impossible for a PC to open such files the first time you attempt to do so.

You must first once allocate every possible file extension e.g. to the Text Editor of Windows as program. Subsequently you can open the sterilization logs simply by double-clicking on the file with the left mouse button.

In order to open the log Text Editor of Windows, proceed as follows:



- Open the directory on your PC where the logfiles are stored.
- Double-click on the logfile.
- If the respective file extension is unknown, the dialog window depicted on the left opens up:
- Choose **"Select program from a list"** and confirm with **OK (A)**.



- A separate dialogue window opens up.
- Look for the Editor (B) in the listed programs and select it. Make sure that the checkmark is set to "Always open this file type with the selected program" (C). That is important so that the Editor can recognise future logfiles with the same file extension.
- Confirm with **OK**. From now on you can always open the logfiles simply by double-clicking.

## Chapter 5 – Error conditions

<b>Unknown log file</b>	<p>Before saving the data, the MELAflash CF Card Printer verifies the log data transferred from the autoclave.</p>
	<p>If a log file is not recognised, the system creates a directory <b>UNKNOWN</b> on the CF card.</p>
	<p>Moreover, the red data LED and the green power LED steadily blink alternately (see Table, row 06 on p. 5, LED Status Displays).</p>
	<p>To reset the error condition, press briefly on the "Format" button on the top of the MELAflash CF Card Printer (see p. 4, Fig. 1/(3)).</p>
<b>Faulty log file</b>	<p>If there is an error in the data transmission from the autoclave to the CF Card Printer, i.e. while a logfile is being saved on the CF card, the system creates the directory <b>ERROR</b>.</p>
	<p>Here the red data LED and the green power LED also steadily blink alternately (see Table, row 06 on p. 5, LED Status Displays).</p>
	<p>To reset the error condition, press briefly on the "Format" button on the top of the MELAflash CF Card Printer (see 4, Fig. 1/(3)).</p>
<b>CF card incorrectly formatted</b>	<p>If the CF card is incorrectly formatted, this is indicated by a steady red blinking of the red data LED (see Table, row 07 on p. 5, LED Status Displays).</p>
	<ul style="list-style-type: none"> <li>▪ Reformat the CF card in the CF Card Printer (see 6, Format MELAflash CF card).</li> </ul>
<b>CF card defect</b>	<p>If the CF Card Printer detects a defect in the inserted CF card, this is indicated by a steady red blinking of the red data LED (see Table, row 07 on p. 5, LED Status Displays).</p>
	<ul style="list-style-type: none"> <li>▪ In this case replace the defect CF card with a new one.</li> </ul>

## Appendix – Accessories

<b>Article</b>	<b>Order No.</b>
plug-in power supply for MELAflash CF Card Printer	30403
MELAflash Card Reader	01048
MELAflash CF Card	01043

Further information on the documentation and release is provided in the download area of the MELAG website under the key term Laws & Ordinances.