

# LightMat

## User Guide



by Weber Medical

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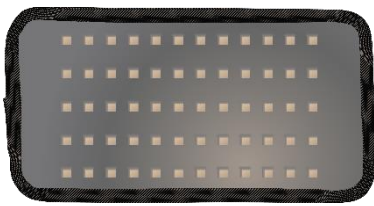
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# 1. General information

## Your LightMat

Attention: Take a moment to carefully read all the important information in these instructions, especially the "Safety" chapter.

## Accessories



LightMat (Front)



LightMat (Back)



Elastic fixation band (Velcro®)



Controller

USB Type-A plug (top)  
and jack adapter (bottom)



Power cable

USB Type-A plug (left) and  
USB-A port (right)



Power adapter plug

Europe: 220VAC to 5V 1A or  
USA: 110VAC to 5V 1A

## Intended Use

The LightMat is a tethered device that is based on the principles of light therapy. It can be attached to several parts of the body for a duration of 20-30 min/day.

The LightMat has 60 combi LED diodes (arranged as 5x12). Each diode can emit two wavelengths: 660 nm (red) and/or 810 nm (near-infrared).

The diodes irradiate the desired body areas with the selected wavelength of light, different intensities, and frequencies, depending on the user settings.

The LightMat is intended for private use only and not for industrial/commercial use. According to the Product Safety Act, the LightMat is not a medical product but a wellness product. Its intended use is for the improvement of general well-being and was not designed to diagnose, cure, alleviate, or treat any disease, symptoms, or other medical problems.

Please note that in the event of improper use, liability is void.

## Contraindications

Use in infants and children under 16 years of age, pregnant women and in case of pre-existing conditions only after consultation with a doctor.

## 2. Safety

### Signal words and warning symbols



A WARNING message contains special safety emphasis and must be observed at all times. Failure to observe a WARNING message could result in serious personal injury.



Failure to observe a CAUTION associated with use could result in minor injury.



Please observe the following instructions carefully to avoid property damage.



ADVICE: Please observe the information of this user guide. Do not use the LightMat without reading this guide.



Electrical voltage warning



LightMat not for general waste.

### General



Some basic safety precautions must be taken into consideration when using electrical equipment. Failure to take precautions outlined in this section could result in fire, electric shock, other injuries, damage to the LightMat or other property. Please read the following safety instructions carefully before use.

This information relates to the LightMat, the power cable, the wired controller, and all accessories.

Always keep these operating instructions on hand and store them in a safe place so that you can pass them on to the new owner in the event of a sale.

Safe use of the LightMat is the primary responsibility of the user. If it appears to be operating incorrectly, please refer to the troubleshooting guide. Contact us if the problem persists.

## Safety instructions

### CAUTION

**This hazard warning indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.**

#### Skin reactions

Using the LightMat can cause skin irritation or allergic reactions. To avoid this, you should always keep the device clean and dry. Please do not wear it too tight around your body.

If the irritation persists, stop using the LightMat, and contact your doctor if the symptoms persist for more than 3 days.

If you experience pain, numbness, or a burning or tingling sensation while or after using the device, remove it immediately.

Due to properties of infrared light, it is normal that the LightMat generates heat (approx. 40 degrees Celsius or 104 degrees Fahrenheit).

If the LightMat becomes uncomfortably hot while it is being used, or if it produces unusual noises or smoke, immediately remove it from your body and unplug it from the socket.

#### Physical discomfort

Consult your doctor and temporarily stop using the device if you experience physical symptoms such as seizures, fainting, or eye aches or headaches that you suspect may be caused using the LightMat.

#### Product damage

If your LightMat has been damaged, do not use it anymore.

To avoid injury, do not try to open or disassemble the LightMat yourself.

#### Handling

Handle your LightMat with care. Do not drop it or expose it to an open flame.

Do not use accessories or detachable parts not described in this user guide.

Do not interconnect the LightMat with other equipment not described in this user guide or modify it in any way.

### WARNING

**This WARNING message contains valuable safety information, and it must be taken seriously at all times. Failure to observe this WARNING message could result in serious personal injury.**

Never look directly into the diodes – visible and invisible light radiation may be harmful to the eye.

The use of controls, adjustments, or performance of procedures other than those specified in this user guide may result in exposure to hazardous light radiation.



Suitable for mains supply voltages 110-240 V/AC.

### Authorized and non-authorized users

The LightMat may be used by children under 16 years and persons with limited physical, sensory or motor skills and inexperienced/untrained individuals, provided they are supervised or instructed by a responsible adult regarding the safe use of the device and are aware of the possible risks. Use in children under 16 years only after consultation with a doctor.

Cleaning and care must not be carried out by children without supervision.

The LightMat must not be used as a toy. If the device is used by children or in their vicinity, carefully supervise the situation. Children cannot always correctly recognize possible dangers.

Keep the LightMat away from babies, infants, and young children. Packaging materials or components that come loose can pose a choking hazard.

The power cable poses a strangulation risk. Store appropriately when not in use.



**ADVICE: This notice indicates possible damage to property, which may occur if the safety measures are not followed.**

ATTENTION! Please observe the following instructions to avoid damage to property:

Do not try to open or disassemble the LightMat yourself to repair it. Disregarding this can lead to void guarantee and overheating. Always contact customer service representatives in case your LightMat requires repair or maintenance.

The LightMat offers no special protection from water (IP Class IP0X). So please be careful that it does not get damp or wet. Do not use it if moisture has penetrated.

Do not expose the LightMat to extreme temperatures or direct sunlight. It is designed for ambient temperatures and storage temperatures between 0°C and 30°C (32°F and 86°F). Operating or storing outside of these temperatures can damage the LightMat. Do not expose it to direct sunlight or sudden changes in air temperature or humidity (permissible relative humidity: 8 % – 90 %).

Maximum operating altitude is 3,000 m above sea level, without pressure compensation

Avoid contact with dust or sand.

Never use force when connecting a cable or plug as this may cause damage that is not under guarantee. Make sure that you are only using the accessories provided and that the ports are free from debris.

To prevent the cables from breaking, roll them up after use instead of folding the cables.

### Disposal



When the LightMat has reached the end of life, do not dispose of in general waste, take it to an e-waste recycler.

## 3. Your LightMat

### Material

The fabric of the LightMat is made from neoprene and loop velvet.

Other materials used are plastic and PVC.

All materials are nickel-free.

### Diodes

The LightMat uses combi LED diodes that can emit both, either red or infrared light.



Warning: Please never look directly into the light and do not shine the light into anyone else's eyes, as this can lead to serious eye damage.

### Controller

The LightMat features a controller with a display to select wavelength, intensity and frequency.

## 4. Setup

### Connect your LightMat

Connect the jack adapter of the controller to the port on the LightMat then connect the USB Type-A plug of the controller to the USB-A port of the power cable.

Connect the USB Type-A plug of the power cable to the power adapter plug. Plug the adapter into a socket. Alternatively, plug the Type-A end into a power bank (5V 2A) or the USB port on a computer.

The display will show "OFF".



Graphic 1: Connection (Simplified representation)






## Position the LightMat

Place the LightMat onto the body area you want to irradiate and fix it with the elastic Velcro® band if necessary.

The LightMat should rest comfortably on your body. It must not be too tight so as not to hinder blood circulation (tight, but not constricting). The diodes should have direct skin contact with no clothes between.

## Function overview



	Frequency and On/Off
	Time
	Intensity
	
	Wavelength

Graphic 2: Controller buttons

### Select frequency

Press the On/Off button to select a frequency (ALL, 10 Hz, 40 Hz, H).

ALL = Continuous mode (light stays on all the time)

10 Hz = In a time interval of 1 second the diodes go on/off 10 times.

40 Hz = In a time interval of 1 second the diodes go on/off 40 times.

H = Light slowly fades in and out

### Select duration

Press the Time button to select the desired duration (5-10-15-20-25-30 minutes). When you select "All" the LightMat will stay on until you turn it off.

### Select intensity

Press the Intensity button to set the intensity (L0-L1-L2-L3-L4)

L0 = Power output of 1.6 W

L1 = Power output of 3.2 W

L2 = Power output of 4.8 W

L3 = Power output of 6.4 W

L4 = Power output of 8 W



### Select wavelength

Press the Wavelength button to select the desired wavelength(s) (660-810-ALL).

660 = Red (660 nm)

810 = Infrared (810 nm)

ALL = Both wavelengths simultaneously

Once you have made your settings the display will show the remaining time until the diodes switch off.

### Turn off

You can end the session early by pressing the On/Off button until the display shows OFF.

Unplug the LightMat from the socket, disconnect all cables and store the device and its accessories properly.

## 5. Recommendations for use

Use your LightMat whenever you want it to support you in everyday life. We recommend 1-2 sessions/day with 20-30 minutes per session.

At the beginning, start with low intensity (L0 or L1) and/or shorter duration (10 minutes) and observe your reaction. You can then gradually increase intensity and duration from session to session depending on how you feel.

## 6. Storage and cleaning

Store your LightMat properly when not in use to prevent dust and debris getting inside the device.

Do not fold the LightMat when not in use as this may cause product damage that is not covered by guarantee.



Graphic 3: Proper storage

Perspiration can develop during the session. We recommend wiping the surfaces after use. Alternatively, you can use an abrasion-resistant, lint-free cloth for cleaning. You can use water or

cleaning alcohol (such as isopropanol 70 %) to moisten the cloth. First spray this onto the cloth and not directly onto the device. Make sure that the cloth is only damp and not wet.

Never spray cleaner directly on the device. Damage due to the ingress of liquids or solvents will void the manufacturer's guarantee. Use of other cleaning products may damage your LightMat.

The LightMat should only be cleaned when it is turned off.



**CAUTION:** Do not use cleaning products that contain ammonium chloride. These chemicals may cause destruction of the material.

## 7. Product durability

The LightMat is designed to be durable under typical use.

The expected safe service life for the device is 50,000 hours.

The device is equipped with parts that are subject to natural wear and tear (e.g., the fabric). The service life of these parts depends either on their frequency of use or is limited in time. These parts can possibly be replaced by our service team.

## 8. Troubleshooting

<b>Problem</b>	<b>Possible cause</b>	<b>Solution</b>
The LightMat ... does not turn on	The diodes are in infrared mode (810 nm). The LightMat is on but the light is not visible to the human eye.	No action required.
	The cables are not properly connected.	Make sure to follow the instructions on page 7 and try again.
	One of the cables is defective.	Contact customer service to have it replaced.
gets very hot (a slight warming is normal)	Device is overheated.	Unplug the LightMat from the power supply. Turn it off and only turn it on again once it has cooled down completely.
does not respond to button presses	Controller is defective	Unplug the LightMat from the power supply and disconnect all cables. Then connect all cables again and connect to the socket to try again.

If troubleshooting does not solve the problem, please contact customer service.

## 9. Warranty and guarantee

### **Warranty**

We grant you a 24-month warranty. This covers manufacturing defects in your LightMat from the date of purchase that were already present at the time of purchase.

### **Guarantee**

#### What is covered by the guarantee?

The guarantee period for material and manufacturing defects under normal use is one year and begins from the date of purchase. This applies to both the LightMat and any accessories.

No new guarantee period begins after repairs or replacements.

#### What is not covered?

We do not guarantee the repair or replacement of a product if the defect is due to:

- Accidental damage caused by improper care or misuse, as well as careless use or operation which is not in conformity with this user guide.
- Use of the product beyond "normal use", which corresponds to more than 1 hour a day.
- Use of parts that have not been assembled or installed in accordance with the manufacturer's guidelines.
- Use of parts and accessories from other manufacturers.
- Repairs or changes that have not been made by the manufacturer or its authorized partners.
- Incorrect setup
- Normal wear and tear

Please contact our service team if you are unsure which cases are covered by your guarantee.

#### Replacement or repair of defective devices within the guarantee period

During the guarantee period defective devices or device parts can be sent to one of our service addresses. Repair or replacement of the LightMat is at the discretion of the manufacturer.

Before returning a device, please contact us and have your purchase receipt or delivery note ready. Therefore, please keep the invoice and delivery note carefully as proof of purchase. Without these documents, you will be charged for the costs of all work involved.

We will then inform you about the further procedure.

#### Replacement or repair of defective devices outside of the guarantee period

Even after the guarantee period has expired, you can send the defective device for repair. Please contact us first before sending in the device.

Repairs or replacements that occur after the guarantee period are subject to a charge.

## 10. Manufacturer and service contact details

**Manufacturer address:**

Weber Medical GmbH

Sohnreistr. 4

37697 Lauenförde

Germany

Website: [www.webermedical.com](http://www.webermedical.com)

**Service address for USA:**

Weber Laser Systems

Attn: Repairs

1926 Bonus Drive

San Diego CA 92110

USA

**General service address for all other countries:**

W Medical Systems GmbH

Sohnreistr. 4

37697 Lauenförde

Germany

Tel.: +49 5273 3894506

Email: [info@wmedicalsistemas.com](mailto:info@wmedicalsistemas.com)

Website: [www.wmedicalsistemas.com](http://www.wmedicalsistemas.com)

If you require any help with the set-up, use or maintenance of your LightMat, or to report unexpected operation or events, please contact the **general service address**: [info@wmedicalsistemas.com](mailto:info@wmedicalsistemas.com)

## 11. Product specifications

<b>Diode color</b>	<b>Diode type</b>	<b>Quantity</b>	<b>Wavelengths</b>
Red/Infrared	LED	60	660/810 nm

<b>Max. total output power</b>	8 W
<b>Power density</b>	100 mW/cm <sup>2</sup>
<b>Frequency</b>	Continuous, 10 Hz, 40 Hz, fading in/out
<b>Input voltage</b>	110V AC
<b>Output voltage</b>	5V DC
<b>Output current</b>	0.55-0.58 A
<b>Duration per session</b>	20-30 minutes
<b>Timer</b>	5-10-15-20-25-30 minutes, or continuous
<b>Permissible environment temperature</b>	0°C - 30°C (32°F - 86°F)
<b>Permissible relative humidity</b>	8 % - 90 %
<b>Dimensions</b>	255 x 133 x 5 mm
<b>Weight</b>	0.36 kg