

## OPERATING INSTRUCTIONS

# dermalight<sup>®</sup> 1000

## uv-b 311nm narrowband

Art.-No. 501001 / 502001  
Art.-No. 501003 / 502003



**Before putting the unit into operation and starting the treatment, read these operating instructions carefully!**

## SCOPE OF DELIVERY

Please check the content for completeness!

- **dermalight® 1000** therapy unit
- UV safety goggles
- LCD timer
- Operating instructions with patient diary

## CONTENT

<b>1.</b>	<b>SAFETY INFORMATION</b> .....	<b>3</b>
1.1.	Symbols .....	3
<b>2.</b>	<b>DESCRIPTION</b> .....	<b>4</b>
<b>3.</b>	<b>OPERATION</b> .....	<b>7</b>
3.1.	Electromagnetic compatibility .....	7
<b>4.</b>	<b>FIELDS OF APPLICATION AND THERAPY INFORMATION</b> .....	<b>8</b>
4.1.	Fields of application.....	8
4.2.	Therapy information .....	8
4.3.	Therapy Examples.....	9
<b>5.</b>	<b>MAINTENANCE</b> .....	<b>10</b>
5.1.	Lamp Replacement .....	11
5.2.	Cleaning .....	11
5.3.	Spare Parts and Accessories .....	11
<b>6.</b>	<b>REPAIR AND SPARE PARTS SERVICE</b> .....	<b>11</b>
<b>7.</b>	<b>WARRANTY AND LIABILITY</b> .....	<b>12</b>
<b>8.</b>	<b>TECHNICAL DATA</b> .....	<b>12</b>

Attachment: Patient diary

## 1. SAFETY INFORMATION



**Symbol for important safety instructions.**

**Please follow these instructions carefully to prevent health risks and damage to property.**



**dermalight® 1000 emits intense UV-radiation which can lead to health damages like sunburn/skin burns, conjunctivitis and keratitis (retina damage), if used improperly, especially when overdosed.**

**Never operate without UV safety goggles!**

**Perform therapy only as described in the operating instructions or as recommended by a doctor.**

**Please note any side reactions in your patient diary and consult your doctor for eventual changes of the therapy plan.**

**The irradiation must not be carried out after photosensitizing of the skin by cosmetics or medicaments (possibility of higher photo-sensibility of your skin – ask your doctor). Please do not use any perfumes, lotions, aftershave lotions or cosmetics before the therapy.**

**The unit has to be protected against chemical vapours and never is to be used in humid or hazardous locations!**

### Proper use

**dermalight® 1000** is a UV-irradiation unit for the treatment of skin diseases. Any other use of the equipment going beyond this shall be deemed improper and may be hazardous.

The operator undertakes to observe the prescribed schedule for inspection and maintenance work and the replacement of wear parts (e.g. lamps) this work entails.

The observance of the safety instructions and regulations in this operating instructions and the accident-prevention rules and regulations prevailing at the place of use belong to the proper use of the unit.

The company Dr. K. Hönle Medizintechnik GmbH shall not be liable for any damage caused by the improper use of the equipment.

### 1.1. SYMBOLS

Description of the symbols on the unit:

Unit of protection class I



Wear UV safety goggles



See operation instructions



Alternating current



Application part type B

#### Environmental protection



Not-ionized irradiation



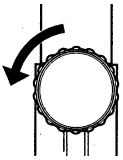
Used lamps and electronic equipment may not be disposed of via the household rubbish. Please contact your local distributor

## 2. DESCRIPTION

**dermalight® 1000** is a modern UV-therapy unit. The emission spectrum is UVB 311nm. It contains a small, innocuous part of visible radiation.

**dermalight® 1000** is delivered with a mobile tripod. The unit is therefore easy to handle and can be moved to any place where the therapy is carried out. The irradiation unit is swivelling. This enables a treatment in standing, lying or sitting position.

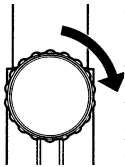
### Height regulation:



Open the height regulation knob loosely with some rotary motions anticlockwise, in order to move the telescope rod (a pneumatic spring keeps the rod in the desired position).



The height can be adjusted by moving the rod upwards or downwards. For a easy operation, push the irradiation unit lightly to the tripod and move it **slowly** upwards or downwards.



After having chosen the correct height, fix the height adjustment knob clockwise, in order to fix the telescope rod.

### Treatment in standing position:

Move the irradiation unit in vertical position and – if necessary – adjust the height. Take care to keep the correct distance.

### Treatment in sitting position:

Put a chair in front of the **dermalight® 1000**. Move the irradiation unit, until it has the optimum position. If necessary, adjust the height.

### Treatment in lying position:

Put the **dermalight® 1000** besides a bed or a daybed. Move the irradiation unit to a horizontal position and move the unit above the bed. Adjust the correct height of the unit. If the distance between the lamps and the body shall be 60 cm, the distance between lamps and daybed must be minimum 80 cm. Take care that the lamps are directly above you.



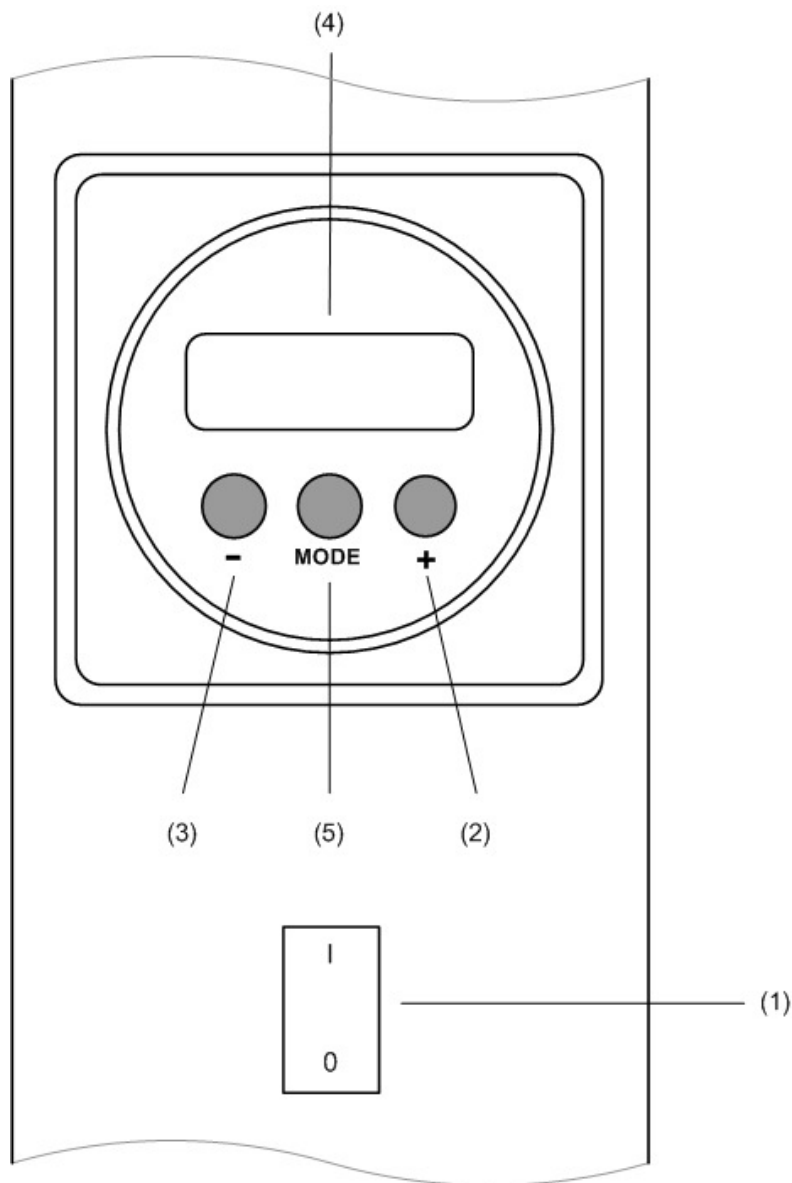
**Loosen the regulation knob before displacing the irradiation unit anticlockwise. After chosen the correct height, fix the height adjustment knob (clockwise).**

Adjustment of the therapy time:

(see also picture 1):

- Connect the mains plug with the properly installed socket outlet.
- Switch on the mains plug (1) – switch lights green.
- Adjust the treatment time with the buttons + (2) or – (3).  
(By pressing the +-button the time is increased, by pressing the –-button the time is decreased. By pressing the buttons + or – longer, the time is counting up or down faster.)
- The adjusted time is displayed (4) in minutes and seconds. For safety reasons the maximum time is limited to 10 min. If you want to treat longer, adjust 10 minutes and after that adjust the remaining therapy time.
- For safety reasons, adjust the time also on the external timer.
- **Don't look in the lamps without protection; wear the UV-protective goggles!**
- Press the **MODE** button (5) to start the treatment, the UV lamps will be switched on and the treatment time counts down.
- Start the external timer at the same time (the external timer is necessary for additional control of the integrated timer and should always be started at the same time).
- By pressing the **MODE** button (start-stop) (5) during the treatment, the treatment is interrupted, the remaining time is stored and indicated at the display. By pressing the **MODE** button (6) again, the treatment can be continued.
- The end of the treatment is indicated by a signal, the UV lamps are switched off automatically.
- If you want to carry out another treatment, f. ex. on another part of the body with the same treatment time, it is possible to adjust the same time again by pressing the **MODE** button (5) again; the treatment starts as described above.
- Switch off the unit on the main switch at the end of the treatment.
- Disconnect the mains plug from the socket outlet.

Picture 1: Electronic timer



- (1) Main switch
- (2) Button + for the time adjustment
- (3) Button – for the time adjustment
- (4) Display; indicates the treatment time
- (5) **MODE**-button to start and stop the treatment

**Formatiert:** Nummerierung und Aufzählungszeichen

**Gelöscht:** Main switch

**Gelöscht:**

**Gelöscht:** 0

### 3. OPERATION

Connect the mains plug of the **dermalight® 1000** to the socket outlet (230 V / 50 Hz). Only use the **dermalight® 1000** on properly installed socket outlets.

After each use switch off the device and disconnect the mains plug from the socket outlet.



**The slight inclination of the unit in vertical position is due to constructional reasons because of the own weight of the irradiation unit.**

#### 3.1. ELECTROMAGNETIC COMPATIBILITY

**dermalight® 1000** uses high frequency energy exclusively for its internal function. Therefore its HF-emission is very low and it is unlikely that surrounding electronic devices are disturbed. (HF-emissions acc. to CISPR 11, group 1)

**dermalight® 1000** is determined for the use in all facilities, including residential areas and such facilities connected directly to an official supply network, which also supplies buildings and residential buildings. (HF-emissions acc. to CISPR 11, class B)

Portable and mobile radios should not be used at a lower distance to the **dermalight® 1000** including cables than the recommended security distance acc. To the table below:

Nominal capacity of the transmitter	Security distance depending on the transmitter frequency m		
	150 kHz – 80 MHz	80 MHz – 800 MHz	800 MHz – 2,5 GHz
0,01	0,03 m	0,03 m	0,07 m
0,1	0,11 m	0,11 m	0,22 m
1	0,35 m	0,35 m	0,70 m
10	1,11 m	1,11 m	2,21 m
100	3,50 m	3,50 m	7,00 m

## 4. FIELDS OF APPLICATION AND THERAPY INFORMATION

### 4.1. FIELDS OF APPLICATION

**Indications:** (given the latest findings in photodermatology)

- Psoriasis
- Vitiligo

**Contra-indications:**

- Hyperthyroidism
- Lupus erythematosus
- Tumorous skin changes
- Diseased hyperphotosensitivity (e.g. Xeroderma pigmentosa)
- Porphyrin disease
- Floride tuberculosis or other floride processes
- Accompanying medical treatment with potential skin damage or intensified photosensitivity
- Because there are no experiences in the case of pregnancy, you should carry out a UV-therapy only after consulting your doctor in charge

### 4.2. THERAPY INFORMATION



**Wear UV safety goggles!**  
**Attend on distance of irradiation! (60 cm)**

**Cover parts of you body you don't want to treat with towels or other UV-impermeable material.**



**In case of overdose (noticeable and visible sunburn or pronounced reddening of the skin) the treatment time has to be decreased or the treatment has to be discontinued.**

**For your additional safety please use always the external timer together with the integrated timer.**

The therapy examples in chapter 4.3 contain standard values for treatment times dependent on the treatment distance and the skin type. A classification of your skin type is carried out by your doctor.

The patient is standing, sitting or lying at a distance of 60 cm in front of the **dermalight® 1000** (please see also chapter 2. DESCRIPTION).

### 4.3. THERAPY EXAMPLES

#### **Example 1: Therapy of psoriasis**

(Standard values for treatment times per side of the body, dependend on the skin type.)

**Treatment distance:** 60 cm

**Treatment frequency:** ca. 4 - 5 times per week (for a period of 3-5 weeks)

**Pre-treatment of the skin:** For the treatment of psoriasis it is absolutely necessary to pre-treat the skin, i. e. you have to remove the plaques from the skin in order to achieve good therapy results.

Session	Skin type 1 - 2		Skin type 3 - 4	
	Dose [mJ/cm <sup>2</sup> ]	time [min:sec]	Dose [mJ/cm <sup>2</sup> ]	time [min:sec]
1	200	01 : 05	300	01 : 40
2	300	01 : 40	400	02 : 10
3	400	02 : 10	500	02 : 45
4	500	02 : 45	600	03 : 20
5	600	03 : 20	700	03 : 50
6	700	03 : 50	800	04 : 25
7	800	04 : 25	900	05 : 00
8	900	05 : 00	1000	05 : 30
9	1000	05 : 30	1100	06 : 05
10	1000	05 : 30	1200	06 : 40
11	1000	05 : 30	1300	07 : 10
12	1000	05 : 30	1400	07 : 45
13	1000	05 : 30	1500	08 : 20
14	1000	05 : 30	1600	08 : 50
15	1000	05 : 30	1700	09 : 25
16	1000	05 : 30	1800	10 : 00
17	1000	05 : 30	1900	10 : 30
18	1000	05 : 30	2000	11 : 05
19	1000	05 : 30	2100	11 : 40
20	1000	05 : 30	2200	12 : 10



**In case of overdose (noticeable and visible sunburn or pronounce reddening of the skin), decrease the irradiation time of the following treatment about 1-2 minutes. Only increase the time after two further treatments.**

**Example 2: Therapy of Vitiligo**

(Standard values for treatment times per side of the body, for all skin types)

**Therapy distance:** 60 cm**Therapy frequency:** 3 times per week

Session	Dose [mJ/cm <sup>2</sup> ]	time [min:sec]
1	65	00 : 22
2	130	00 : 43
3	195	01 : 05
4	260	01 : 27
5	325	01 : 48
6	390	02 : 10
7	455	02 : 06
8	520	02 : 32
9	585	03 : 15
10	650	03 : 37
11	715	03 : 58
12	780	04 : 20
13	845	04 : 42
14	910	05 : 03
15	975	05 : 25
16	1000	05 : 33

**Maximum treatment time:** 5 minutes, 33 seconds

In case of skin irritations (for example pronounce reddening of skin), reduce the treatment time for the next treatment by 15 to 30 seconds and increase the time only after 2 further treatments.

**5. MAINTENANCE**

The manufacturer recommends a regular maintenance by our Customer Service or a technician authorized by us for commercial users every 2 years. Nevertheless we generally recommend the same procedure also for private users.

## 5.1. LAMP REPLACEMENT

Please see also chapter 6. REPAIR AND SPARE PARTS SERVICE. After approx. 400 operating hours, the UV-lamps should be exchanged completely with the starters. This is necessary to have always a high irradiation intensity..

All lamps of the **dermalight® 1000** are exchanged at the same time. If you replace only one lamp, this can lead to different intensities on different parts of the body.

## 5.2. CLEANING



**Disconnect the mains plug from the socket outlet.**

**Let the device cool down!**

Clean the device with a humid cloth, only if necessary.

**Take care, that no water can trickle inside the housing.**

**Do not use scouring powder and solvent like alcohol, acetone or petrol.**

## 5.3. SPARE PARTS AND ACCESSORIES

- |  |                 |
|--|-----------------|
| • UVB 311nm-lamps (100W – length: 1,80m) | Art.-No. 995600 |
| • UVB 311nm-lamps (100W – length: 2,00m) | Art.-No. 995605 |
| • Starter                                | Art.-No. 995610 |
| • UV-protective goggles „doctor“         | Art.-No. 995001 |
| • UV-protective goggles „patient“        | Art.-No. 995000 |
| • External timer                         | Art.-No. 995100 |

## 6. REPAIR AND SPARE PARTS SERVICE

For inquiries, warranty claims, repair and spare parts service please contact:

Your distributor

or




**Dr. K. Hönle Medizintechnik GmbH**  
**Viktor-Frankl-Straße 20**  
**D-86916 Kaufering**  
**Tel.: 0049 8191-30555-0**  
**E-Mail: [medizin@drhoenle.de](mailto:medizin@drhoenle.de)**

## 7. WARRANTY AND LIABILITY

In principle, the General Terms of Sales and Delivery of Dr. K. Hönle Medizintechnik GmbH shall apply. These shall be submitted to the operator upon the signing of contract at the very latest. The warranty for the unit is 12 months (not for lamps). There shall be no warranty or liability claims in the event of personal injury or damage to property if these are attributable to one or more of the following causes:

- the use of the **dermalight® 1000** for a purpose other than that for which it was intended
- unauthorized structural modifications of the **dermalight® 1000**
- inadequate checking of wear parts
- repairs performed by persons who are not authorized by Dr. Hönle Medizintechnik
- catastrophes caused by foreign bodies or acts of God

## 8. TECHNICAL DATA

<b>Typ</b>	<b>dermalight® 1000 uvb 311nm Schmalband</b>	
<b>Art.No.</b>	501001 / 501003 (version with 1,80 m lamps) 502001 / 502003 (version with 2,00 m lamps)	
<b>Power supply</b>	230 VAC / 50 Hz	
<b>Fuse protection</b>	F= 2 x 6,3 A/T	
<b>Capacity</b>	800 Watt (version with 1,80 m lamps) 950 Watt (version with 2,00 m lamps)	
<b>Dimensions (W x D x H)</b>	720 x 850 x 2005 mm (version with 1,80 m lamps) 720 x 850 x 2205 mm (version with 2,00 m lamps)	
<b>Weight (with tripod)</b>	ca. 70 kg (version with 1,80 m lamps) ca. 75 kg (version with 2,00 m lamps)	
<b>UV-Lamps</b>	7 medical UVB 311nm-lamps	
<b>Operation temperature</b>	5 - 45 °C	
<b>MDD-class</b>	Ila	
<b>Protection class</b>	I	
<b>CE-mark</b>		
<b>Manufacturer</b>	A.L.T. Lichttherapietechnik GmbH Thura Mark 10 D - 06780 Zörbig	
<b>Exclusive sales</b>	Dr. K. Hönle Medizintechnik GmbH Viktor-Frankl-Str. 20 D - 86916 Kaufering Tel.: 0049 8191-30555-0 Fax: 0049 8191-30555-50	

(Subject to technical alterations)