

Instructions for use

UV-Therapy device

medisun 250

Version / Lamp configuration:
4 x 40 W (60 cm)

UVB-311nm

UVA

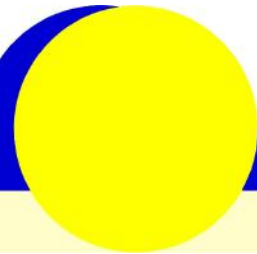


Manufacturer:

Schulze & Böhm GmbH
Hermülheimer Str. 10
D-50321 Brühl
Germany

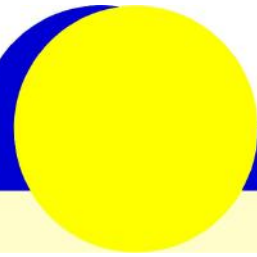
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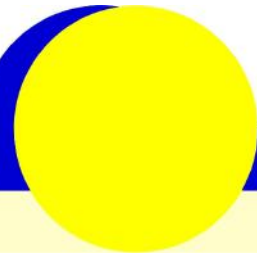


1. General Information

- Immediately on delivery, inspect your unit for any shipping damage which may have occurred. Should you find damage, please contact your dealer and provide him with the shipping documents and / or purchase receipt.
- Please read these instructions carefully prior to installing or operating your unit. Check all screws and nuts regularly to ensure they are secure.
- **Always unplug the unit from the mains power outlet during maintenance and cleaning, as well as when the unit is not in use.**
- Repairs may only be performed by an approved and authorized service facility.
- Use a moist cloth and a mild (not aggressive) household detergent to clean the unit's exterior surfaces. Make sure no water enters the unit during cleaning. Do not use disinfectants or similar agents with more than 50% alcohol portion. Use an antistatic cloth to occasionally clean the UV lamps.

2. Important Information

- The unit may only be set up in a dry room and must be protected against spraying or dripping water. At a maximum permissible ambient temperature of 28°C, the relative humidity in the room may not exceed 70%. A higher room temperature will also result in a higher temperature under the unit.
- Structural measures must ensure that no saline humidity or condensation water can enter the irradiation area, as this would result in corrosion.
- Certain objects and materials which can fade under the influence of UV light (e.g., paintings) should not be exposed to the unit's UV radiation for extended periods of time.
- Children may only be treated under adult supervision and with the express instructions of their physician.
- Do not drape towels or other items on the unit



3. Warnings

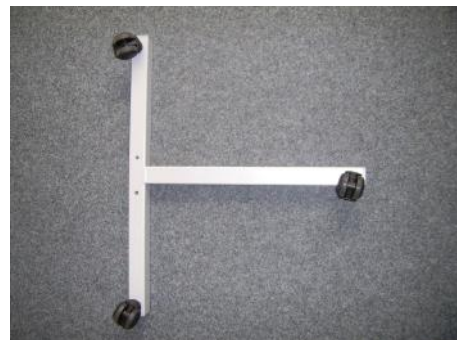
- Prior to each use, examine the protective screens and the UV lamps for any damage. Never operate the unit if the lamps are faulty or the protective screens are damaged!
- In case of faults or damage, immediately take the unit out of service and contact the responsible customer service representative.
- The protective glasses (art.-no. 2274) provided must be worn during any exposure.
- Prior to commencing a series of therapeutic treatments, a test exposure on a small area of skin should be carried out in order to detect any possible incompatibilities or adverse reactions (e.g., polymorphous light dermatosis).
- Patients with implanted electronic devices (e.g., pacemakers) may not undergo treatment and may not remain in the immediate proximity of the unit while it is operating.
- UV treatments may only be carried out under the supervision of a dermatologist. Prior to the start of treatment, the dermatologist must determine the indicated UV spectrum and proper treatment dosage for the individual series.
- Severe reactions to UV treatment may occur in patients with certain illnesses or those who are taking certain medications such as antibiotics, psycho-pharmaceuticals, diuretics, etc. Always consult your physician in cases of uncertainty.
- Never attempt to treat problems or illnesses with UV radiation yourself.
- Intensive or extensive exposure to radiation can result in acute and/or chronic eye and skin damage.
- During exposure, always protect your eyes with the provided safety glasses.
- Excessive exposure can result in premature aging of the skin as well as an increased risk of skin tumors.
- Immediately contact your physician if you develop a severe sunburn, persistent swelling, sores, or pigmented moles on your skin.
- Cosmetics can increase the skin's light sensitivity and also result in allergic reactions. Therefore, always remove all cosmetics prior to treatment.
- Do not use any type of sun protection.
- The UV cabinet may only be operated with OEM spare or replacement components. Components not provided by the manufacturer may only be installed with the manufacturer's express, written authorization. If third-party components are installed without the manufacturer's knowledge or consent, the manufacturer is released from any and all liabilities and warranties for any faults or consequential damages.

4. Scope of delivery:

1x Lamp module
medisun 250 (4 UV-lamps)



1x mobile stand foot

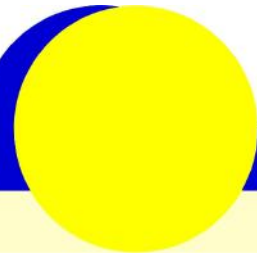


1x mobile stand tube including gas spring



2x UV-protection goggles
1x Power cable 1,8 m
2x Fixing screws M8x60 for stand tube
2x Nut M8, 2x Federring, 4x washer
2x Box spanner
1x Fixing screw M10
1x Large diameter washer M10
4x plastic cap
1x Instructions for use





5. Assembly instructions

First position the premounted stand tube on the stand foot as shown in the picture. Fix it now with 2 screws M8x60 and 2 washers

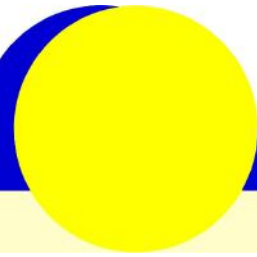
Achtung! Unbedingt darauf achten, dass die Feststellschraube in die richtige Richtung zeigt, wie in der Abbildung unten dargestellt



Please fix the screws with one nut with washer.

Put the plastic caps on the screws and nuts.



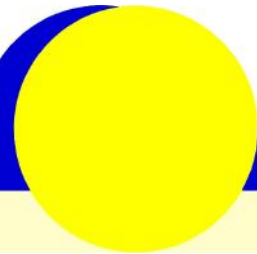


Complete assembled mobile stand!



Now position the lamp module deep into the mounting hole of the mobile stand.





Tighten the lamp module with fixing screw.



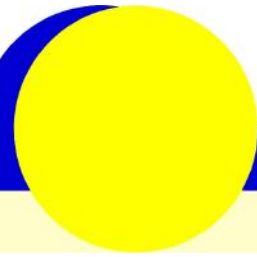
With the fixing screw you can fix the lamp module in the target position.



Put the plug connector (15) into the plug-socket on the down side of the lamp module (look at picture)

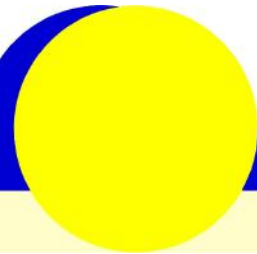
You can switch ON and OFF the device with the main switch (look at arrow)





Now the device is complete assembled.



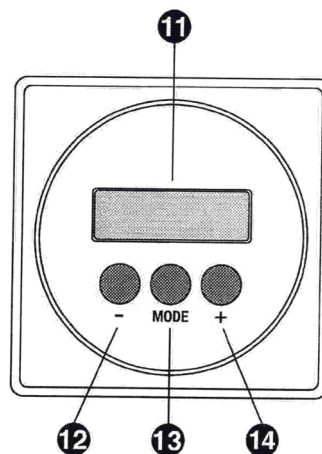


6. Commissioning

The flood lamp is delivered ready for connection to a separately fused, grounded, 230 V, 50Hz, 16 A wall outlet. For commissioning, plug the power cord into the wall outlet, set the timer to the desired number of minutes and seconds, and assume the exposure position. The exposure distance should be approximately **20 cm**. The flood lamp switches itself off automatically at the end of the pre-selected exposure time. You can, however, cancel exposure at any time by pressing the mode switch. **Always wear the included protective glasses and close your eyes during exposure.** Always unplug the unit from the wall outlet when it is not in use.

6. Electronic Timer Operation

The electronic timer allows the UV flood lamp to be operated with a precision down to the second.



Setting the time:

Briefly press the “+” key (14).

The time is set in 1-second intervals each time you press the key.

Press and hold down the “+” key for more than three seconds. This starts a continuous and rapid increase in the displayed time value. Once the display indicates the desired time, simply release the “+” key. If you accidentally set too long an exposure time by this method, you can reduce the selected time by pressing the “-” key (12).

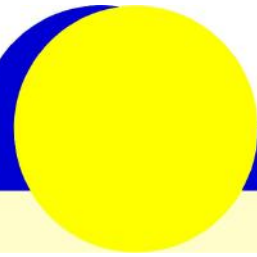
Starting the timer

Press the “MODE” key (13). The lamps are switched on and the time display begins running down. The colon separator character on the timer display begins flashing.

The end of exposure

Once the pre-selected exposure time has expired, the timer switches the lamps off and emits a brief series of audible signals (for a maximum of 15 seconds). The display stops at 0:00, and the colon separator character no longer flashes.

Press the “MODE” key to switch the audible signal off. The previously selected exposure time reappears on the display (this is a repeat function). If you press the “MODE” key again, the exposure time begins running again.



8. Maintenance

In order to ensure safety and a problem-free operation, the UV flood lamp should undergo regular service by a customer service facility authorized by ourselves. Aside from inspecting the technical equipment, the lamp intensity is also calibrated and a new exposure chart is created. This maintenance should be performed at least every two years or after every 400 hours of operation, whichever comes first.

9. Lamp replacement

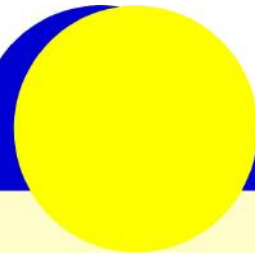
Lamps may only be replaced by a trained service technician.

Always unplug the unit from the wall outlet prior to beginning any maintenance tasks!

To replace the lamps, the protective screens must first be unscrewed. Only OEM lamps and lamp starter ballasts may be used in order to maintain the unit's operating specifications. The UV cabinet must be recalibrated after every lamp replacement. The UVA or UVB tubes are inserted into their sockets and secured by giving them a quarter-turn. When replacing a lamp, replace the starter ballast as well.

Important safety information:

Care must be taken to ensure that the UVA and UVB lamps are not interchanged, as exposure at an incorrect spectrum could result in the patient being burned!



10. Warranty


The agreement reached with your supplier applies with respect to the warranty. As a rule, consumables, e.g., the UV lamps are not covered by the warranty.

Liability on the part of the manufacturer

The manufacturer is only liable for the safety, reliability, and performance of the unit if:

- The installation, any alterations, repairs, and other necessary measures are performed by the manufacturer or an individual authorized by the manufacturer to perform these tasks.
- The unit is operated and handled by specialist personnel or by the manufacturer or by authorized personnel trained by the manufacturer, and the unit is employed in compliance with the operating instructions and with the accessory equipment recommended by the manufacturer.
- The electrical installation in the room in which the unit is set up complies with the requirements in accordance with VDE / IEC.
- No alterations which would void the EC Conformity Declaration have been carried out.

11. Technical data:

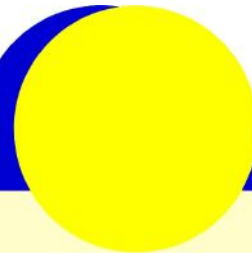
Capacity	160 W
Lamp configuration	4 UVB-311-lamps 20/36 W each or 4 UVA-lamps 40 W each
Spectral range	UVB-311: 310-315 nm or UVA: 315 – 400 nm
Exposure time	Max. 9 min:59 sec (UVB-311) or 30 min (UVA)
Weight	18 Kg
Power supply	230 V – 50 Hz
Fuse protection	2 x 5 A
Power cable	H0 5 VV-F 3G 0,75 mm ²
Dimensions:	B = 56 cm, T = 65 cm, H = 130 – 163 cm (vertical position)
Protection class	Protection class I
	Sign of conformity

12. Notes on recycling:

Products marked with the WEEE disposal symbol require professional disposal and are not to be disposed of in residual waste. Please dispose of all WEEE marked products at local waste facilities that are set up to handle the return and collection of electric and electronic equipment.

More information is available at your public waste disposal authority.





13. Notes on Exposure Times / Dosage

The treating physician is responsible for determining the individually required exposure times/intensities (dosage). The following is merely intended to provide you with some information and an example of a therapeutic treatment plan. Deviations are, however, permitted at your discretion. The basic dosage should always be selected so that exposure remains below the erythematic limit (sunburn limit). It is for this reason that – particularly with regard to UVB treatment – we recommend performing a series of exposures on a small area of skin (approx. 1.5 x 1.5 cm) in order to determine the dosage at which the patient's erythematic limit is reached. For this test, adjacent areas of skin are shielded with an appropriate cover. The patient's tolerance of the selected dosage can then be determined by the reaction of the exposed area after 24 hours. The 311 nm lamps provide good to excellent effectiveness starting at between 60 % to 100 % of the MED (Minimal Erythema Dosage), so that dosages up to the erythematic limit are not required. Prior to the start of every exposure, the patient's tolerance of the previous treatment must be examined. If skin reddening is still apparent after 24 hours, neither the intensity nor the exposure time may be increased under any circumstances. If the patient tolerated the treatment well and there are no signs of reddening, we recommend increasing the dosage by one level in accordance with the chart. Prior to treatment, patients should request their treating physician provide them with information regarding the safety measures and possible side-effects. Incorrect or negligent behavior can result in sunburn.

Dosage examples:

UVA-Phototherapy		(J = Joule/cm²)
skintype 1 and 2	skintype 3 and 4	
1. Tag 0,5 J	1. Tag 1,0 J	
2. Tag 1,0 J	2. Tag 2,0 J	
3. Tag 1,5 J	3. Tag 3,0 J	
4. Tag 2,0 J	4. Tag 4,0 J	
5. Tag 2,5 J	5. Tag 5,0 J	
6. Tag 3,0 J	6. Tag 6,0 J	
7. Tag 3,5 J	7. Tag 7,0 J	
bis max. 10 J/cm²	max. bis 10 J/cm²	
further increase only if well tolerated	further increase only if well tolerated	

UVB-311-Phototherapy		(mJ = milli-Joule/cm²)
skintype 1 and 2	skintype 3 and 4	
1. Tag 100 mJ	1. Tag 200 mJ	
2. Tag 200 mJ	2. Tag 300 mJ	
3. Tag 300 mJ	3. Tag 400 mJ	
4. Tag 400 mJ	4. Tag 500 mJ	
5. Tag 500 mJ	5. Tag 600 mJ	
6. Tag 600 mJ	6. Tag 700 mJ	
7. Tag 700 mJ	7. Tag 800 mJ	
8. Tag 800 mJ	8. Tag 900 mJ	
further increase only if well tolerated	further increase only if well tolerated	