



# **SPEED LABOLIGHT**

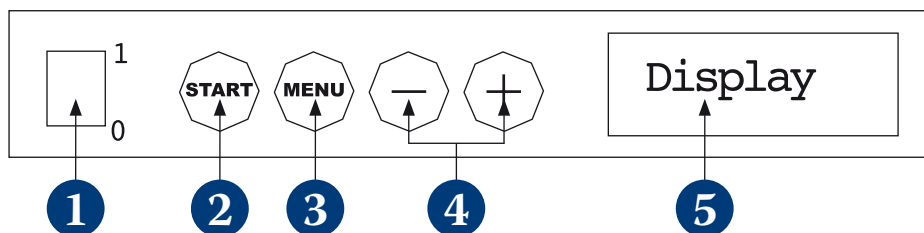
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Instruction Manual  
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## 1. Description of the Device:

Polymerization of any commercial material can be done with the universal light polymerization device Speed Labolight. Overheating in case of long term operation is prevented by a cooling device on the back of Speed-Labolight. The polymerization temperature of 40 °C is not exceeded. Eight lamps, arranged around the turntables, as well as a halogen lamp transport the polymerization light to every spot of the object. These lamps belong to the standard equipment and make emission of ultraviolet rays and white light possible thus covering the range of all photo active materials between 320 – 550 nm. The lamps have to be replaced after 1,000 working hours. A meter indicates the total working time. The control unit on the front desk controls the polymerization time from 1 second to 99 minutes. A continuous acoustic signal (30 seconds) indicates the end of the polymerization process.

## 2. Installation and Start:

Speed Labolight has to be set up on a plain surface in such a way that the cooling grid on the back does not obstruct the device. The distance between Speed Labolight and walls or other equipments should be min. 15 cm in order to guarantee a sufficient ventilation. Remove the cover between the halogen lamp and the disc. The lamps T 1 (white light) and T8 S (black light) are plugged alternately T1 - T8 - T1 - T8, etc. (s. picture 1). Possibly use the halogen lamp according to picture 2. Put the refractory disc in the special ring onto the turntable. At first, connect the safety plug of the feed line to the device, then plug it in. Adjust the main switch to "1".



- (1) Main switch
- (2) Button START: by pushing it when the device is ON, the polymerization process will start. By pushing it during the process the cycle will come to a halt.
- (3) Button MENU: by pushing it, you can change the process parameters, that is: the time (in minutes) of the polymerization process, the time of the final cooling, the possibility to perform a polymerization process either with the HALOGEN LAMP or not.
- (4) These buttons are used to modify the values during the polymerization process setting.
- (5) Display LCD

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### 3. Putting into Operation:

- Adjust main switch to position 1 (on).
  - Open the device by lifting the door.
  - Place the object to be polymerized onto the turntable. If necessary, use special holder. Make sure that the object is set up vertically near the lamps.
  - Close the door.
  - Push the button 3 (MENU) and select:
    - 1: the polymerization time in minutes. To modify the selected value, push the buttons 4. When the chosen value is visualized, push the button 3 (MENU) again to confirm and move on to the following phase.
    - 2: the final cooling time in minutes. That is how long the cooling fan should stay on at the end of the process (minimum 1 minute). Select the desired time with the buttons 4 and push button 3 (MENU) again to confirm and move on to the following phase.
    - 3: if you want to select a process with or without the HALOGEN lamp. (1=NO , 2=YES to move from 1 to 2 use buttons 4). Push button 3 (MENU) again to exit programming.
- At this point, the device is ready to perform the polymerization process.
- Press button 2 (START)
  - Make sure that the object doesn't get in touch with the lamp group
  - Wait for the end of the polymerization process and also for final pre-set cooling time.
  - Open the door and remove the object.
  - In case you need to remove the object during the polymerization process, press button 2 (START) and open the door manually.
  - If the door is opened during a polymerization process without following the above instructions, the process will come to a halt, but the device will execute the final pre-set cooling time.

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#### **4. The lifetime of the lamps and replacement**

1. The lifetime of the lamps is about 1000 working hours. The device is provided with a time meter, which calculates and adds the hours and minutes of work. To visualize the time meter and check the total of working hours up to that moment, proceed as follows:
  - Turn off the device
  - Turn on the device keeping the button + pushed: on the display the total amount of the working time of the lamps will appear (in hours and minutes)
  - Turn off the device before performing new processes.
2. When the lamps have reached the lifetime of 1000 working hours, they must be replaced. After having replaced them, the time meter must be re-set, proceed as follows:
  - Switch off the unit.
  - Press the “+” button and keep it pressed during the whole resetting process.
  - Switch on the unit.
  - Now, while still holding the “+” button, simultaneously press the “2” (Start) and “-” buttons until a zero appears (ca. 30 sec.)
  - Switch off the unit again

#### **5. Maintenance and Service:**

The current supply has to be interrupted prior to each maintenance. The cleanliness of the lamps has to be checked regularly. Replace the fuse according to picture 3. In case of technical defects, please contact your dental dealer or Hager & Werken.

#### **6. Warranty:**

The producer ensures that the product is free of defects and that it shows all guaranteed features and/or all characteristics agreed upon. The warranty starts with the day of delivery of the product and is valid for twelve months. Excluded from the warranty are faults, careless use of the product, connection to unsuitable power supply, operation with the wrong voltage, acts of God, such as fire, lightning, humidity, etc. In case of justified complaints the producer has the right to repair, to deliver spare parts or to decrease the sales price. Cancellation of the sales contract can only be claimed by the customer after two repairs have been done without success.

## 7. Technical Data:

Current consumption: 225 W

Current supply: 230 V, 50 Hz

Fuse: 1 x 2,5 A

Lamps:

8 x White light:

Osram Dulux S 9 W/71

or optionally:

Philips PLS – 9 W/52

4 x Black light:

Osram Dulux S 9 W/78

or optionally:

Philips PLS – 9 W/10

1 x halogen lamp 15 V – 150 W HLX

Measurements: 25 x 29 x 24 cm

## 8. Spare Parts:

Lampe S 9 W/71 or PLS 9 W/52

Art.-Nr. 901 002

White light

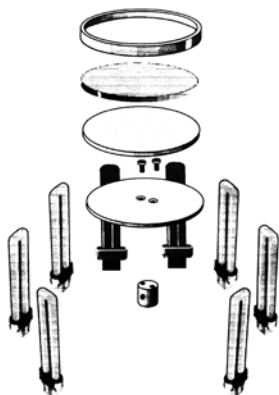
Lampe S9 W/78 or PLS 9 W/10

Art.-Nr. 901 003

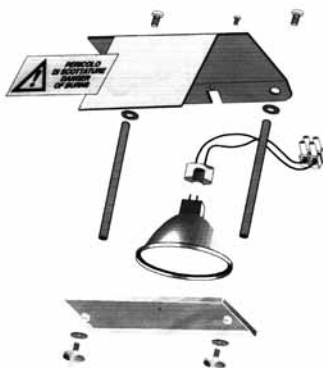
Black light

Halogen lamp HLX

Art.-Nr. 901 004



Pic. 1



Pic. 2



Pic. 3

9. Examples for Polymerization Time:

Polymerization times for Vita VM LC:

In order to achieve hardening appropriate for the material involved, the object to be polymerized on the 40 mm special rings on the slide has to be placed in the centre of the turntable within the light cone of the halogen lamp. Make sure combined dentures with a plaster model get polymerized from all sides and do not exceed the turntable's inner radius of 6 cm.

PRE OPAQUE OPAQUE PASTE	Polymeri- zation OPAQUE powder	Interimpoly- merization up to max. 1,5 mm (fixing)	Final poly- merization and pontic of max. 2 mm	Note
3 minutes	5 minutes	5 minutes	10 minutes	Main energy source is the halo- gen lamp in the device, it must not be switched off. Re-expose shade areas!  <b>Lamps:</b> 8 x Osram Dulux S 9W/71 1 x Halogen Osram HLX 15V / 150W

A final polymerization has always to be done once a layer thickness of 2 mm has been obtained!

### Polymerization times for SOLIDEX:

In order to achieve a hardening time meeting the requirements of the material, the object to be polymerized on the 40 mm special rings has to be placed on the small object carrier in the center of the turntable. For combination works with plaster models, please verify that polymerization is done from all sides and that the 6 cm inner radius of the rotary disc is not exceeded.

Material	Thickness of Layer (mm)	Speed-Labolight (min.)
SHOFU Solidex „Opaque Paste“	≤ 0,15	approx. 8 - 10
SHOFU Solidex „Base Paste“	≤ 2	approx. 3
SHOFU Solidex „Cervical Paste“	≤ 1	approx. 3
SHOFU Solidex „Body Paste“	≤ 2	approx. 3
SHOFU Solidex „Enamel Paste“	≤ 2	approx. 3
SHOFU Solidex „Translucent Paste“	≤ 2	approx. 3
SHOFU Solidex „Effect Paste“	≤ 2	approx. 3
SHOFU Solidex „Stains“	≤ 0,15	approx. 3
SHOFU Solidex „Stain color“		approx. 7
SHOFU Solidex „Endpolymerisation“		approx. 8 - 10

### Polymerization times for LICUPLAST:

In order to achieve a hardening time meeting the requirements of the material, the object to be polymerized on the 40 mm special rings has to be placed on the small object carrier in the center of the turntable.

Material	Thickness of Layer (mm)	Speed-Labolight (min.)
LICUPLAST Opaker	≤ 0,2	approx. 5
LICUPLAST Basic Masses	up to max. 5,0	approx. 5
LICUPLAST Cervical Masses	up to max. 1	approx. 3
Interim Polymerization (Fixing)	> 2	approx. 5
Tempering (Final Polymerization)	up to max. 2	approx. 5
LICUPLAST dentine, transpa and gingival masses	up to max. 1,5	approx. 3
Interim Polymerization (Fixing)	> 2,5	approx. 5
Tempering (Final Polymerization)	up to max. 2,5	approx. 1
LICUPLAST Stain Colors	≤ 0,2	approx. 1

**NOTE! When working with SOLIDEX and LICUPLAST, the SPEED-LABOLIGHT has to be equipped with 8 lamps T1 and 1 halogen lamp.**

REF 401 125



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