

Taal: engels



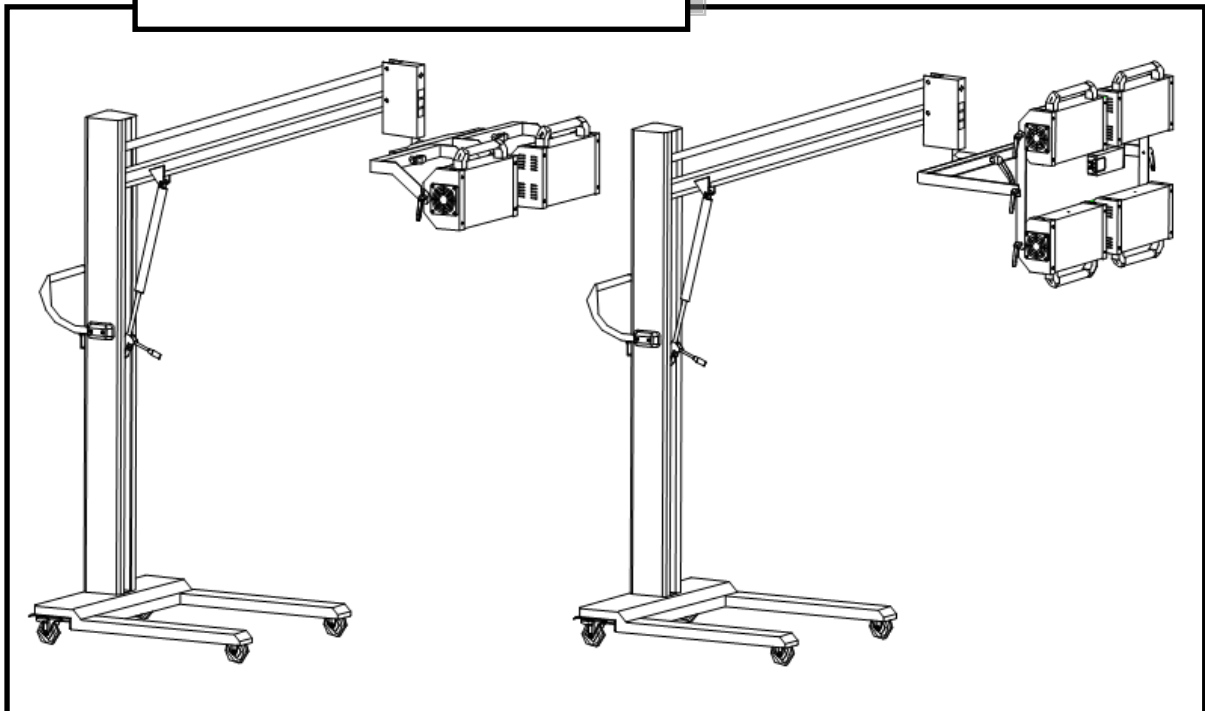
Handleiding

B TEC UV droger 2 en 4 lamps
BT UV-02-L/BT UV-04-L

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**UV-Emitter
UV-02 L / UV-04 L**



User Manual for Short Wave Ultra Violet Paint Curing Equipment

Declaration of Conformity According to DIN EN 45014



Manufacturer: B-TEC GmbH
Zunftweg 6-8
D-31303 Burgdorf / Ehlershausen

Herewith, we declare that the machines and marketed models described in the following conform in conception and in design to the relevant fundamental safety and health requirements of the applicable EU directives.

All of our manufactured or assembled parts conform to the listed regulations.

If you change the machine without our explicit agreement, this declaration will be herewith invalidated.

Product type: Painting- and drying equipment (paint dryer)

Type designation: UV-

Serial-No.: **Construction year: 2016**

Parameters:		<u>UV-02 L</u>	<u>UV-04 L</u>
	Rated Voltage:	230 V	230 V
	Rated Current:	10 A	10 A
	Rated Frequency:	50 Hz	50 Hz
	Rated Power Input:	2 x 400 W	4 x 400 W
	Protection Class:	I	I
	Degree of Protection:	IPX0	IPX0

Tested according to: EN 60335-1/A2:2006
EN 60335-2-30/A2:2007
EN 50366/A1:2006

This EC-Attestation of Conformity is issued on a voluntary basis according to the Low Voltage Directive 2006/95/EC relating to electrical equipment designed for use within certain voltage limits. It confirms that the listed equipment complies with the principal protection requirements of the directive. As from 20.04.2016 directive 2006/95/EC is going to be replaced and conforms the directive 2014/35/EU.

Responsibility for technical documents: Hans-Joachim Bödrich, Michael Bellroth
Address: Refer to manufacturer's address

Location/Date/Manufacturer's signature
Function of the signer: Managing director


Hannover, 02.01.2016 

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1. Important Information



We thank you for your trust you gave to us by buying the UV-emitter. At the rating plate at your device you will find the exact name and serial-number of your infrared emitter for an uncomplicated service and shipment of spare parts.

The short-wave UV paint dryer is specialised in curing UV automotive paint, which is featured with high penetrability, short baking time, long service life, high cost efficiency, convenient and flexible use without site limit.

The B-TEC device has been built under highest quality standards for high reliability. Because of certain procedures there are places and parts that can't be protected without compromising the usability and function. Therefore we ask you to read this document carefully before using the machine to reach maximum life and reliable operation.



Read this document carefully before commissioning and keep it for future reference!

The B-TEC devices and machines are only allowed to be used for the purpose explicitly described below. Any other use is in contrast with the regulations. The manufacturer cannot be held liable for damages resulting from such non-regulations use.

Improper use can endanger the health of the operator and of others and cause damage to the machine itself or to other materials and assets.



**The B-TEC machines are only to be used for purpose explicitly described below!
Improper use can endanger the health of the operator!**



The manufacturer is not liable for damages caused by changes of the machine that have not been specifically authorized by the manufacturer. The removal or alteration of safety devices immediately voids the warranty and is an infringement of European safety standards.

2. Safety Regulations and Maintenance Advices

The B-TEC GmbH machines are operationally safe and are constructed according to the state of the art. Due to the nature of the processes there are processes and parts that cannot be protected without impairing operability and functionality. Improper use can endanger the health of operator and of other and cause damage to the device itself or to other materials and assets. B-TEC GmbH is not liable for any damages resulting from improper or incorrect use.



Read and follow this Instruction manual and the safety instructions carefully before commissioning!

There is no liability for damages or injuries resulting of the following situations:

- Oblivion of the instructions given in this manual
- Changes of technical product specifications
- Change or break the safety device

2.1 Work Area

- It is not allowed to use this machine in an explosive or combustible environment; otherwise it may lead to fire.
- The device produces Ozone. Therefore, a proper ventilation or suction is necessary!
- If the device is used in a spray booth, the in-house air has to be purified first.
- Be careful on uneven floor when moving the machine to avoid any overturn.
- Avoid any accident caused by improper placement and dark lights. Please keep the site clean and ensure sufficient lighting conditions.
- Do not use this machine when it is rainy or damp. Water coming into the machine may lead to electric shock or damage of the machine.
- For outdoor use, please use the outdoor-specific cables marked with “W- A” or “W” for avoidance of electric shock.
- Do not use this device in the immediate surroundings of a bath. Keep the work area dry.
- keep the working area clean and free of any obstructions, oil, waste article or other broken parts.
- The machine should be well grounded for safety. The grounding device should be connected to the proper output port under correct direction. Unauthorized alteration or change of output port is strictly prohibited. Use of any outlet converter is also disallowed. For any uncertainty, please find a professional electrician to check whether the grounding is correct. Please make sure the machine is well grounded to avoid the electric shock.

2.2 Use

- The device produces UV light. Please wear UV protective glasses and clothes.
- The operator is not allowed to operate the machine when he gets drunk or takes drugs, otherwise miss- operation of this machine may lead to serious injury and even death.
- The device should only be operated by persons with sufficient experience. Other operators with a lack of experience have to be supervised or guided by a responsible person.
- Proper Dressing: It is not allowed to wear too loose clothes and accessories. Please bind your hair if it is too long.
- Avoidance of Accidents: Ensure that the power switch is switched off when connecting the device with the power supply. If the switch is in on-position, it may lead to accidents.
- When the machine runs, wrenches or any other adjusting tools should not touch any live part of

the machine, in order to avoid electric shocks.

- Any unconscious start of this machine should be avoided.
- When you leave the work area or the work is done, make sure the power is shut down and the wire is unplugged.
- It is not allowed to knock or crash the equipment.
- It is not allowed to insert any hard object into the emitter.
- Before using remove any part of the packaging.
- Remove all objects in front of the emitter before starting.
- Any person should keep away from the painting place for at least 4 meters.
- This device should not be pointed at persons or highly flammable substances.
- Do not move the machine during operations. It can lead to premature failure of the emitter.
- In order to avoid overheating, do not cover the heater. The instructions shall state that the heater must not be located immediately below a socket-outlet. The instructions for stationary visibly glowing radiant heaters shall warn about the possible danger of installation close to curtains and other combustible materials.
- Ensure that no visitors, children or other people approach the running machine. If necessary, provide protection devices.
- Don't use the emitter, if there is no paint to be cured. Avoid emitters pointing at each other when working.
- Don't misuse the electric wire. It is not allowed to drag the machine with the power wire or pull the power plug. Please keep the power wire away from hot, oily or sharp or movable objects. Please replace damaged cables and wires immediately for avoidance of electric shocks.

2.3 Electroshock Hazards



Electroshocks can cause serious injuries and death!

Please read, understand and follow the safety instructions below, in order to reduce the risk of injuries and death due to electroshocks. In addition, ensure that every operator of the device follows the safety instructions.

- Do not come into physical contact with electric current!
- Do not use in a damp area or come in contact with a moist or wet surface.
- Do not use the device if any part of clothing or body is wet!
- Avoid contact of the machine with water or moisture. If device is wet, don't plug into the power supply!
- Do not modify the power wire or plug in any way.
- Do not attempt to plug the heating equipment into the power supply if the grounding prong on power wire plug is bent over, broken off, or missing.
- Do not modify any wiring, ground connections, switches, or fuses in this heating equipment.
- Keep all liquid containers far enough away from the heating equipment and work area so that if spilled, the liquid cannot possibly come in contact with any part of the equipment or electrical circuit.
- Replace any cracked or damaged parts that are insulated or act as insulators, such as power wire, IMMEDIATELY!

2.4 Fire and Explosion Hazards



Fire can cause serious injuries, death and damage of properties!

Please read, understand and follow the safety instructions below, in order to reduce the risk of injuries, death and damage of properties due to fire. In addition, ensure that every operator of the device follows the safety instructions.

- Do not wear gloves or other clothing that contains oil, grease, or other flammable substances.
- Do not wear flammable hair preparations.
- Do not use in an area until it is checked and cleared of combustible and/or flammable materials. Never point the heating equipment towards flammable material.
- Do not use in an area where the air may contain flammable dust (such as grain dust), gas, or liquid vapors (such as gasoline).
- Have fire extinguishing equipment handy for immediate use! A portable chemical fire extinguisher, type ABC, is recommended.
- Make sure work area has a good, solid, safe floor, preferably concrete or masonry, not tiled, carpeted, or made of any other flammable material.



Explosions can cause serious injuries, death and damage of properties!

- Never point the heating equipment towards compressed gas, air cylinder or other pressure vessel.

2.5 UV Radiation Hazards



UV radiation can cause serious injuries, death and damage of properties!

Please read, understand and follow the safety instructions below, in order to reduce the risk of injuries, death and damage of properties due to UV radiation. In addition, ensure that every operator of the device follows the safety instructions.

- Do not look directly into the light!
- Always wear eye protection, gloves and protection clothing. UV-radiation may result in severe burns or long-term injury to the eyes if not properly protected against the radiation.
- Safety goggles with application of sun-screen with high sun-protection factor (>15) against UV-A and UV-B may provide some protection.
- Use of UV skin blocks is considered inadequate for protection against the high irradiance of man-made UV radiation sources.
- If a person works around UV radiation while on medications, the medication should be checked to see if it would make the person more photosensitive.

2.6 Maintenance and Care

- Regular cleaning of tubes and reflector panel should be done by using a piece of soft cloth or cotton with alcohol (Note: cleaning must be conducted after the machine is disconnected with the power and cooled down). You are not allowed to start the lamp tube until the alcohol becomes volatile, otherwise it may lead to explosion.
- The device has to be protected by a 10-Ampere-fuse.
- The machine should be well grounded for safety. The grounding device should be connected to the proper output port under correct direction. Unauthorized alteration or change of output port is strictly prohibited. Use of any outlet converter is also disallowed. For any uncertainty, please find a professional electrician to check whether the grounding is correct. Please make sure the machine is well grounded to avoid the electric shock.
- If the wire is damaged, contact the manufacturer, service provider or a professional to replace it in order to avoid injuries and accidents. Please replace damaged wires and power lines as soon as possible to avoid electric shocks.
- For replacement of lamp tube, ask the repair service centre or a technician to do so.
- Do not handle hot light tubes with bare hands.
- Do not heat any body parts (hands, face, etc.) with the UV-emitter.

2.7 Further Information

- If any lamp tube fails to work after starting, it may result from the loosened outlet socket. In such case, just switch off the machine and lock the socket on the arm box.

3. Technical Description of the Device

The short-wave UV paint dryer is specialised in curing UV automotive paint, which is featured with high penetrability, short baking time at low process temperatures, long service life, high cost efficiency, convenient and flexible use without site limit.

1. The lamp cassette is rotatable until a certain angle.
2. The height and distance of the emitter are adjustable freely, it can be adjustable from 20 cm to 220 cm (UV-02 L) or 240 cm (UV-04 L).
3. The desired drying time can be chosen by using an electronic timer.
4. Both lamp cassette and main unit are cooled by fans.
5. Different beep sounds to remind the operator of different situation of machine.

Accessory: UV-protective glasses



Dustproof cover

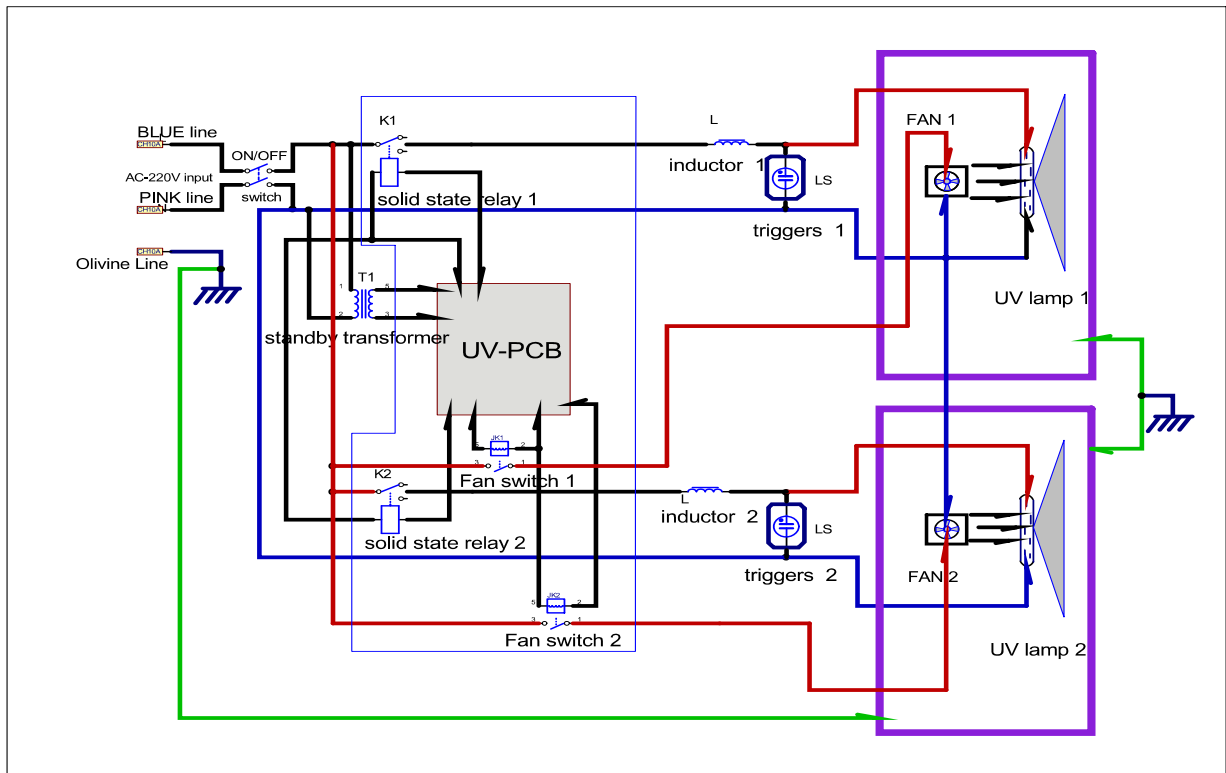


3.1 Technical Data

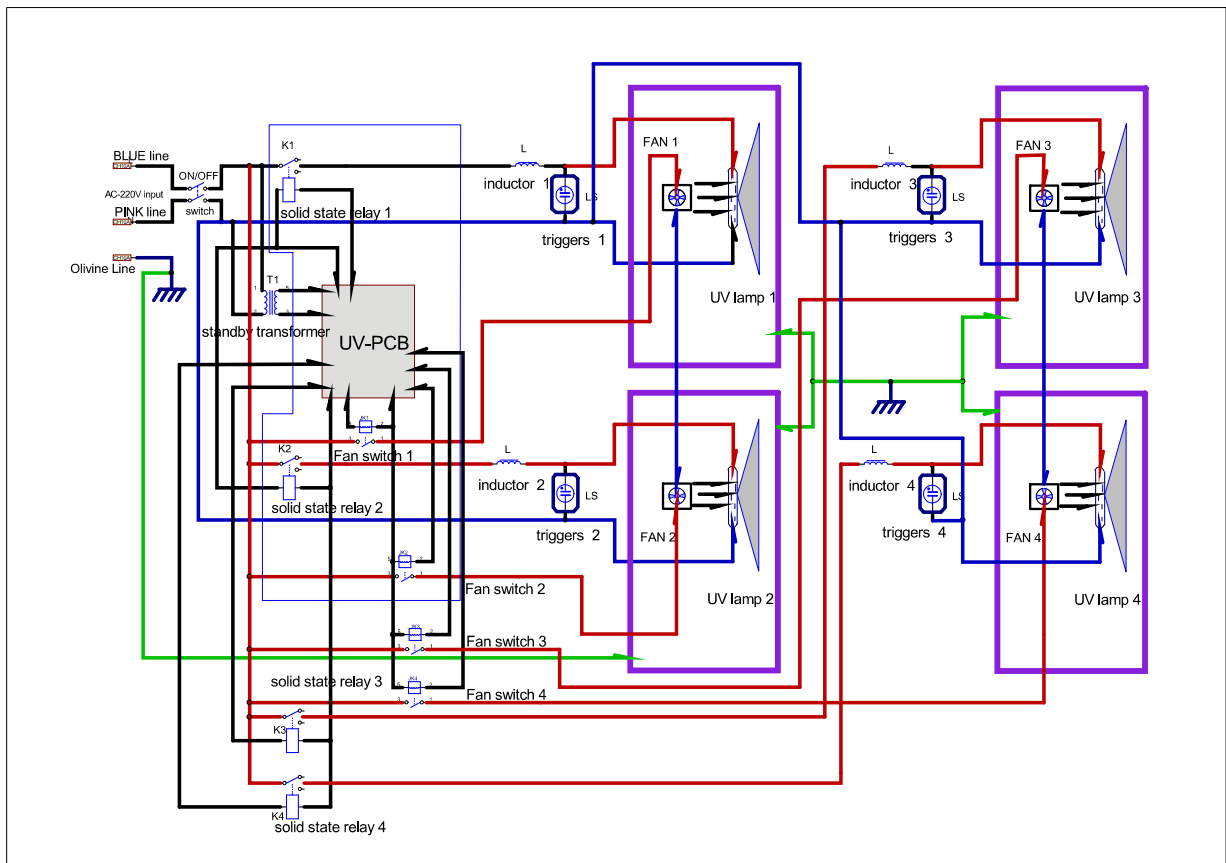
Model	UV-02 L	UV-04 L
Input Voltage (50/60 Hz)	230 V	230 V
Emitter Power	400 W	4 x 400 W
Max. Power	850 W	1650 W
Timing Range	199 s	199 s
Drying Distance	8 - 21 cm	80 x 120 cm
Baking Area	80 x 60 cm	8 - 21 cm
Length of Power Wire	2 m	2 m
Net Weight	35 kg	38 kg

3.2 Wiring Diagram

UV-02 L



UV-04

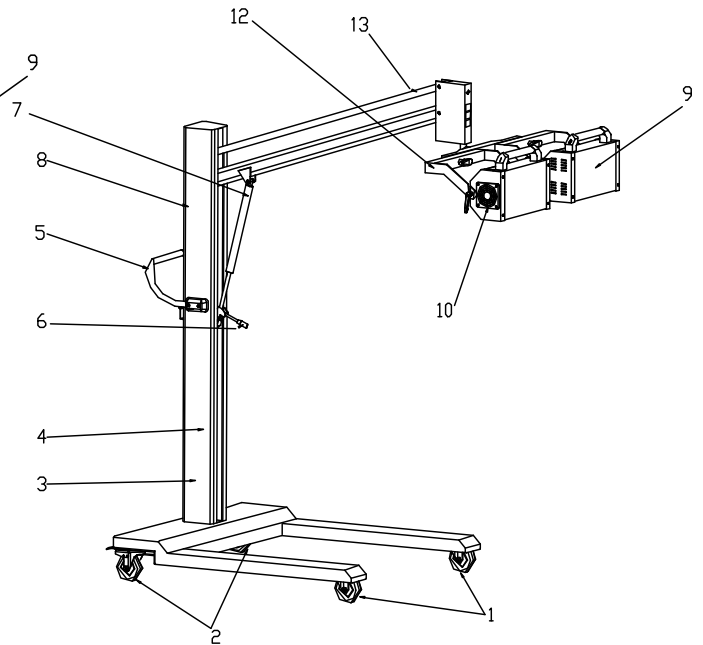
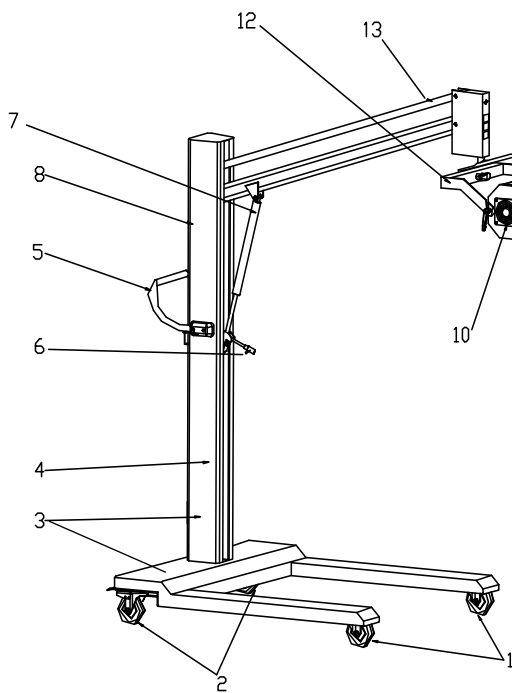


- Technical changes and errors reserved. All pictures similar -

3.3 Spare Parts List

UV-02 L

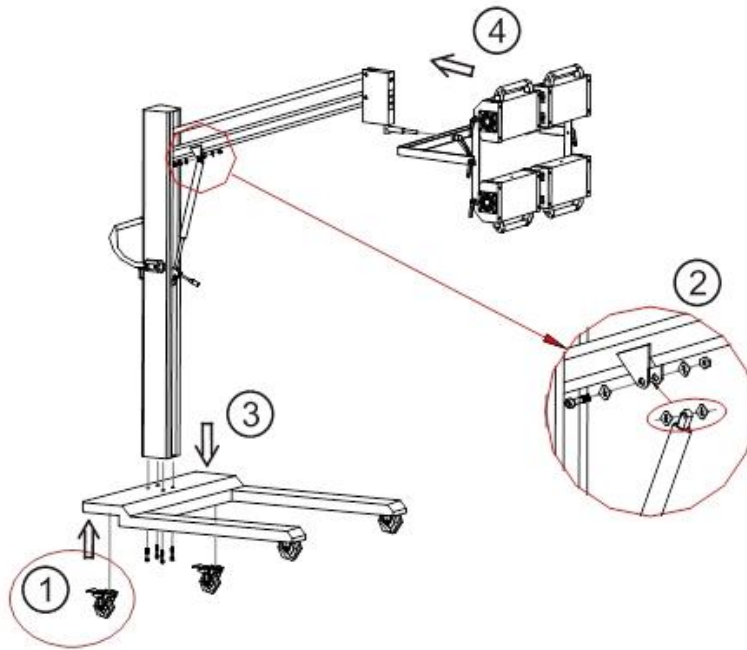
UV-04 L

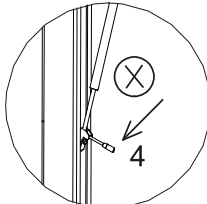


UV-02 L / UV-04 L					
No	Beschreibung	Art-No.:	No	Beschreibung	Art-No.:
1	Front Wheels without Break		8	Control Panel	
2	Rear Wheels with Break		9	Protective Glass	
3	Pedestal		10	Lamp cassette	
4	Column		11	Cable Hook	
5	Handle		12	U-shaoed Support	
6	Adjustable Handle		13	Cross Arm	
7	Pneumatic Cylinder				


- Technical changes and errors reserved. All pictures similar -

4. Installation





Caution! When installing, do not press the handle off the pneumatic cylinder, otherwise it may cause injury due to the rapid lifting of the cross arm!

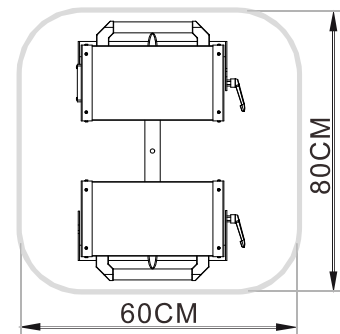


UV-02 L

The angle of the emitter cassette can be adjusted:



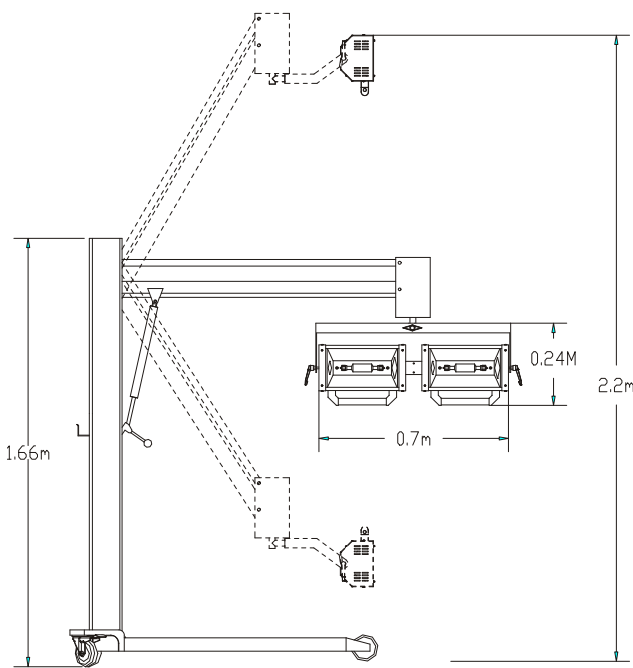
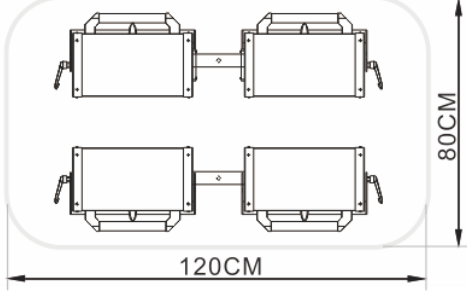
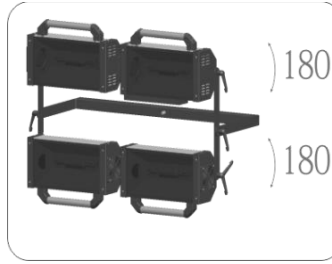
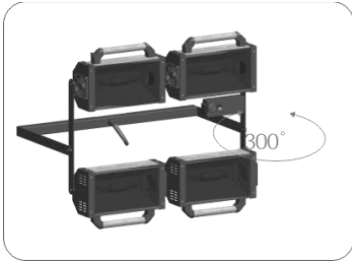
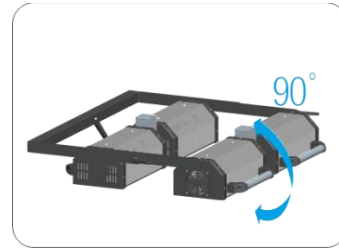
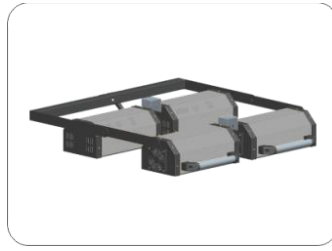
Baking Area:



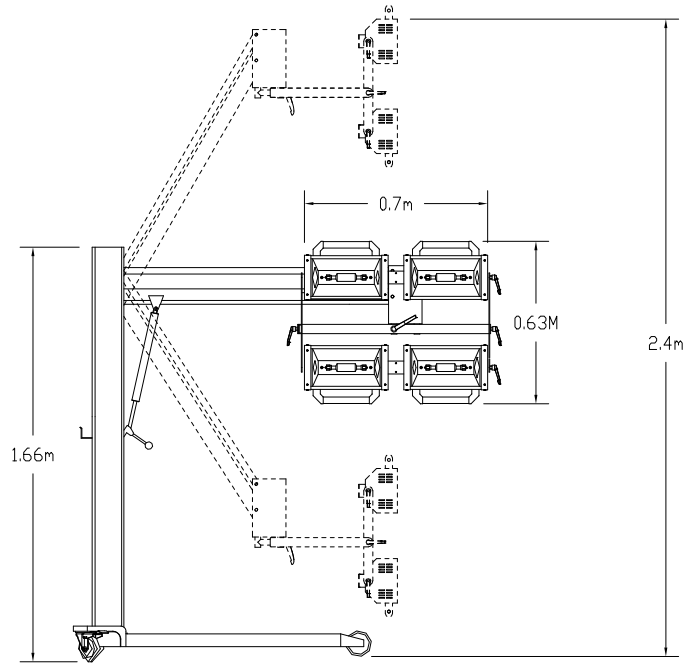
- Technical changes and errors reserved. All pictures similar -

UV-04 L

The angle of the emitter cassette can be adjusted:



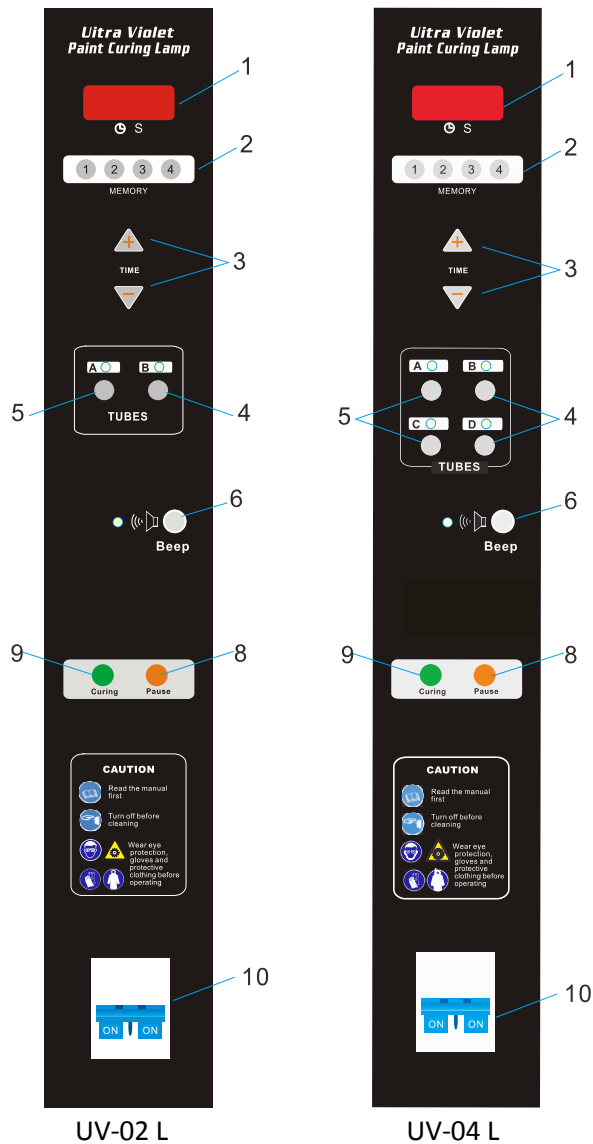
UV-02 L



UV-04 L

- Technical changes and errors reserved. All pictures similar -

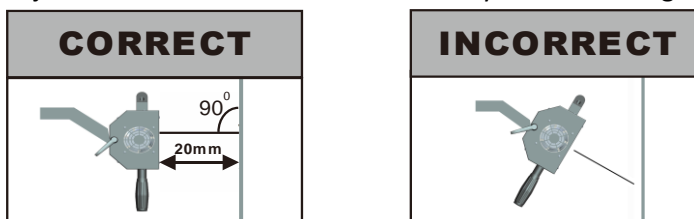
5. Operation





- (1) Time Window
- (2) Memory Keys
- (3) Time Adjust Key
- (4) Key for Emitter-Tube
- (5) Key for Emitter-Tube
- (6) Beep Sound Switch
- (8) Pause/off key (press once to pause and twice to stop).
- (9) Start Key
- (10) Power Key

Operation / Workflow

1. Move the device and choose the optimal distance between emitter and car body. The optimal distance is about 20 cm.
2. Hold the air pressure handle to adjust the height of the emitter tube and the surface to be cured.
3. Adjust the direction of the emitters. They have to be aligned parallel to the car body.



4. Press down the brake of the rear wheel to avoid any accident caused by the movement of the machine.
5. Connect the power supply and turn on the power switch (10).

6. Set curing time. There are 3 ways in order to set the curing time:
 - a. Use default time.
 - b. Adjust curing time by using the buttons  and .
 - c. Use a time of the memory (2).
7. Select emitter cassettes (4, 5). All emitters can be operated separately.
8. Press the start key (9) and the emitter lamp will start working.
9. Press pause key (8) once to pause the machine, repress the start key (10) to restart the lamp.
If you want to shut down the lamp, just press key (8) twice.
10. A sound will occur when the time is up.
11. For further work reset curing time.

After time is up, the fan in the lamp cassette will keep working for 1 minute to cool down and ozone blowing.



The beep sound switch has to be set permanently to "on"-position. Only in case of maintenance work it is allowed to switch it off.

Memory Operation

The desired drying time can be set by using the corresponding buttons (2). By using the memory buttons, the set time can be saved as follows:

1. Set the desired drying time (3).
2. Press the wished memory button (2) for about 2 seconds until the timer screen (1) flashes.
3. The set time is now saved in the button.
4. In order to overwrite the memory, just repeat the steps above.
5. In order to use a saved time, just press the wished button (2). The saved time will then be displayed on the timer screen (1).

6. Replacement of Emitter Lamp Tube

Interrupt the power supply, before replacing the emitter tube!

1. Remove the side panel ①.
2. Release the radiating panel ②.
3. Loosen the two leads in the lamp and remove them.
4. Take out the defect tube and fix the new tube with same model number and wire the tube properly.
5. Install the protective glass, radiating panel and the side panel.

Use a piece of soft cloth or cotton to clean the reflector panel and the tube with alcohol. Cleaning must be conducted after the machine is disconnected with the power and cooled down. You are not allowed to start the lamp tube until the alcohol becomes volatile, otherwise it may lead to explosion!

