

Electro-Lite Corporation

ELC-4001
UV Curing System

Operations Manual

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LED- Multi-Pole Instruction Manual

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PRECAUTIONS

- 1) The light bulb generates a large amount of heat and portions of the lamp module will get hot during operations. **Never touch a light bulb, even if the unit is off, unless it has been allowed to cool for at least 30 minutes. Avoid touching the lamp module during operation.**
- 2) **All operators of this system as well as anyone within 10 feet of the UV light output MUST WEAR UV PROTECTIVE EYEWEAR.** UV eyewear must be certified to meet the requirements of ANSI Z287.1 to safely use this equipment. The eyewear included with the system meets these requirements. Users should not expose bare skin in the curing area. Suitable clothing, lab coats, and UV-blocking gloves should be used as protection in this case.
- 3) User modification of this system may result in severe bodily injury or death. If you desire changes to the functionality of this system then please contact Electro-Lite Customer Service and we will be pleased to work with you to properly engineer the customization of your unit to meet the requirements you may have.

WARRANTY

Electro-Lite Corporation warrants this product for defective parts or workmanship for a period of one year from the date of shipment. During this time Electro-Lite will repair or replace, free of charge, any defective unit or parts where such defects arise during normal use. This warranty does not apply to units which have been damaged from careless handling or accidents or which have been used in a manner inconsistent with the operating instructions contained in this manual.

This warranty is **VOID** if the owner performs any modifications to any part of the system.

 **SAFETY WARNINGS** 



Read Operations Manual before installing or operating.



Ultraviolet light is emitted from this product.



Avoid eye and skin exposure to unshielded light. Always wear UV protective eyewear. Use UV-blocking gloves and protective clothing to avoid skin exposure.



Hot surfaces. Do not touch surfaces without allowing adequate time for cooling.



Electrical shock hazard. Do not remove covers. Do not modify system.

INTRODUCTION

Congratulations on your purchase of the Electro-Cure 4001 UV Curing System. This new system has been engineered for flexibility and long life. It is designed for applications where a large area of floodlight exposure is required for proper adhesive curing. It can be used as a stand alone unit or in combination with other units for exposure of larger areas or in assembly line operations.

We strongly recommend that you read this manual thoroughly before attempting to install or operate the unit. Please pay particular attention to the operating and safety instructions. An understanding of proper operating procedures will greatly enhance the utilization of your unit.

If you should need any assistance after reading this manual, please feel free to telephone, email or write to the customer service department for further information.

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SHIPPING/UNPACKING

Visually inspect the shipping carton for any physical damage. Any damaged shipping cartons should immediately be reported to Electro-Lite customer service and to the shipping carrier. Electro-Lite does not insure shipments unless requested by the customer (at its own expense). All goods are shipped FOB Bethel CT, USA unless otherwise agreed to in advance. Electro-Lite customer service will assist you in any claims required to be made with respect to in transit shipping damage.

Any damaged units or accessories found in damaged condition should be immediately reported to Electro-Lite customer service.

You should find the following ELC-4001 System components in your shipment:

- (1) Power Supply
- (2) Light Module with bulb installed.
- (3) AC Line Cord
- (4) One Pair UV Protective Eyewear

GETTING STARTED

1. Connect the ELC 4001 light module to the 5-pin connector located on the Power Supply marked "Lamp."
2. Attach the female end of the AC power cord to the connector located on the back of the power supply.
3. Insert the male end of the AC power cord into an appropriate AC receptacle.
4. Be sure there is adequate ventilation around both components. Do not place light module directly on top of or over the power supply. See "Operational Guidelines."

SPECIFICATIONS **ELC-4001 UV CURING SYSTEM**

Input Power:	115-120V or 220-240V 50/60 Hz
Exposure Area:	7.5" x 9"
Lamp Power:	400W Normal 200W Standby
Power Supply:	10"W x 9"D x 4"H
Light Module:	8.5W x 9"D x 10.5H
Light Module Cable:	12'
Output Settings:	Normal and Standby (50%)
Current Consumption:	115/120 VAC 6.3A 220/240 VAC 3.15A
Inrush Current(max):	30A
Operating Temp.:	40°F to 100°F 5°C to 40°C
Operating Humidity:	0-95% (non-condensing)

ACCESSORIES AND PARTS

- 82039—Optional Curing Frame w/ Safety Shield
- 82011—UVA Replacement Lamp
- 82058—UVB Replacement Lamp
- 82038—Visible Replacement Lamp
- 82532—Replacement Ballast
- 82675—Replacement DC Power Supply
- 83505—Replacement Lamp Ignitor

OPERATIONAL GUIDELINES (cont.)

4. Be sure that any wiring or other electrical equipment (such as a switch) that the ELC-4001 will be attached to are rated highly enough to handle the power requirements.
5. It is important that the lamp be allowed to cool for at least 15 minutes after a shutdown before any attempt is made to restart. Failure to do so will result in feedback into the power supply that will damage it.
6. Be sure that there is no obstruction of the fan exhausts for the power supply and the lamp head. There should be at least 3 feet of clearance around the components and the units should not be placed in an enclosure which limits the flow of exhausted hot air.

OPERATIONS

1. Ignite the ELC 4001 light module by activating the on/off switch located on the power supply. Set mode switch to normal for full power. Setting to standby reduces output to 50% of normal.
2. Allow three minutes after ignition to allow the lamp to reach its full output. Please note ignition may last as long as thirty seconds at normal room temperature, longer at room temperatures below 65 degrees.
3. Always operate the ELC 4001 module so that the lamp is in a horizontal position. The consequences of an operation in the vertical position is a shorter lamp life.
4. **Avoid** unnecessary switching on and off of the unit. Each switching operation diminishes the life time of the lamp.
5. If it is necessary to turn the lamp off, **wait at least 15 minutes prior to re-ignition** to avoid potential damage to the power supply and bulb.
6. The glass lens covering the reflector is an important safety feature. Do not operate the unit with the glass removed or damaged. Do not touch glass, reflector lamp head frame, or bulb unless unit is off and completely cooled down.
Replacement glass—P/N 80001
7. Allow a distance of at least three inches from the filter glass to the object being cured. A closer distance will expedite the cure time but may cause heat damage to the object being cured.

OPERATIONS (cont.)

8. Bulb Replacement: Allow the bulb to cool for at least 30 minutes. Disconnect the AC power cord from the outlet. Loosen the two captive screws located at the front of the lamp module and swing open the hinged filter frame. With gloves or a clean cloth, position the bulb to the left or right depressing the spring tension of the lamp socket and remove bulb. Replace the new bulb in the opposite order. **Never handle the bulb with bare hands.**

Available replacement lamps:

UVA—P/N 82011

UVB—P/N 82058

Visible—P/N 82038

OPERATIONAL GUIDELINES

The ELC-4001 is equipped with a high pressure metal halide bulb powered by a matching high voltage ballast and ignition system which requires a significant draw of electrical current for proper operation. The unit draws 6.3 amps at 120V, which is comparable to a microwave oven or refrigerator. The ignition of the lamp also requires a temporary surge draw. It is therefore very important to take into account the electrical current needs of these units when planning for the connection of the ELC-4001 to the main power source. The following are important considerations and guidelines which should be taken into account when using the ELC-4001, especially where multiple units will be used:

1. Be sure that the circuit to which the ELC-4001's will be connected is adequate to not only provide the full current needed by the ELC-4001's but also any other electrical equipment in the system on the same power circuit.
2. Multiple ELC-4001's should not be connected to a single on/off switch or connected in a way which allows for multiple units to be put into ignition mode at the same time. The stress of a simultaneous surge in this situation can cause significant and permanent damage to the power supplies.
3. We do not recommend that transformers or current splitters be placed between the power source and the ELC-4001 units. In many cases these types of systems will not be adequate to handle the requirements of the ELC-4001.