

Power Supply's Model:
SAM1041

Irradiator's Model:
SAM1042

Operations Manual

AUV/LESCO

A DIVISION OF AMERICAN ULTRAVIOLET COMPANY

WWW.LESCOUV.COM

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*****WARNING*****

Before assembling, please do not connect any A.C. power source to main power supply; model UV LITE 350A SAM1041 (.4~1.8KW).

1. Part List per System

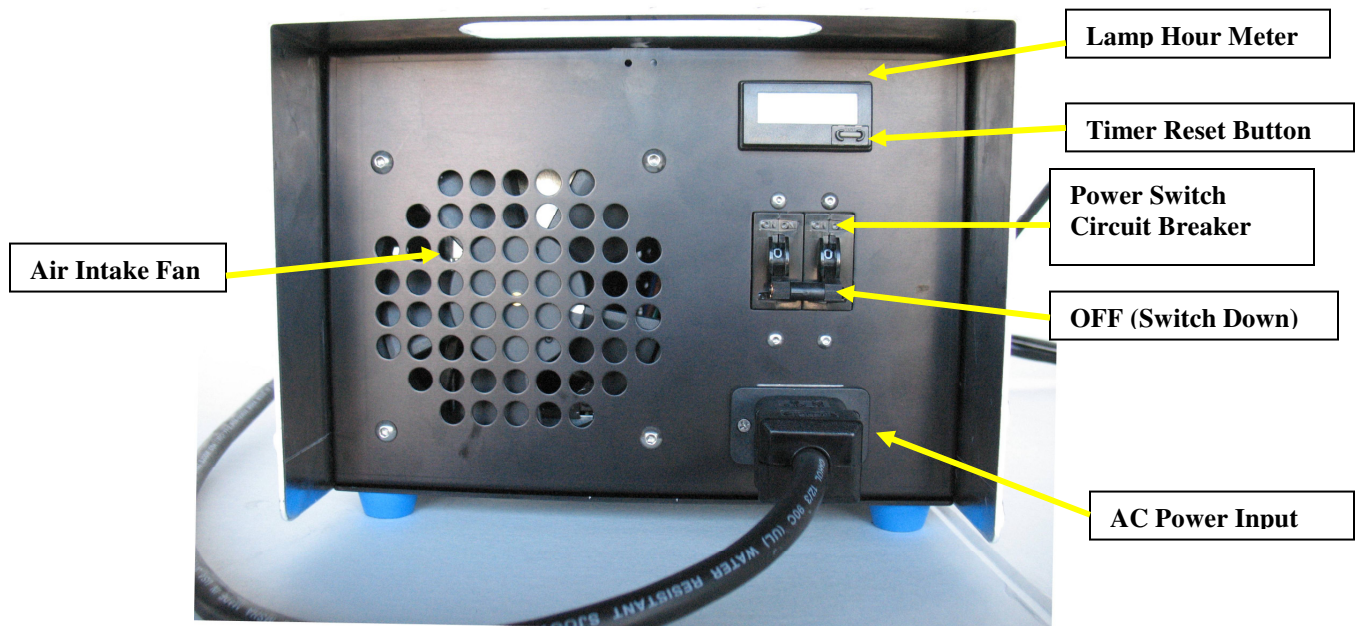
- a) Power supply, .4~1.8 KW model UV LITE 350A SAM1041 (.4~1.8KW).**
- b) Irradiator, hand held, 5-1/4 inch, model SAM1042.**
- c) Irradiator cable, 10 meters.**
- d) U.V. safety glasses.**
- e) 100-120VAC Power Cord.**



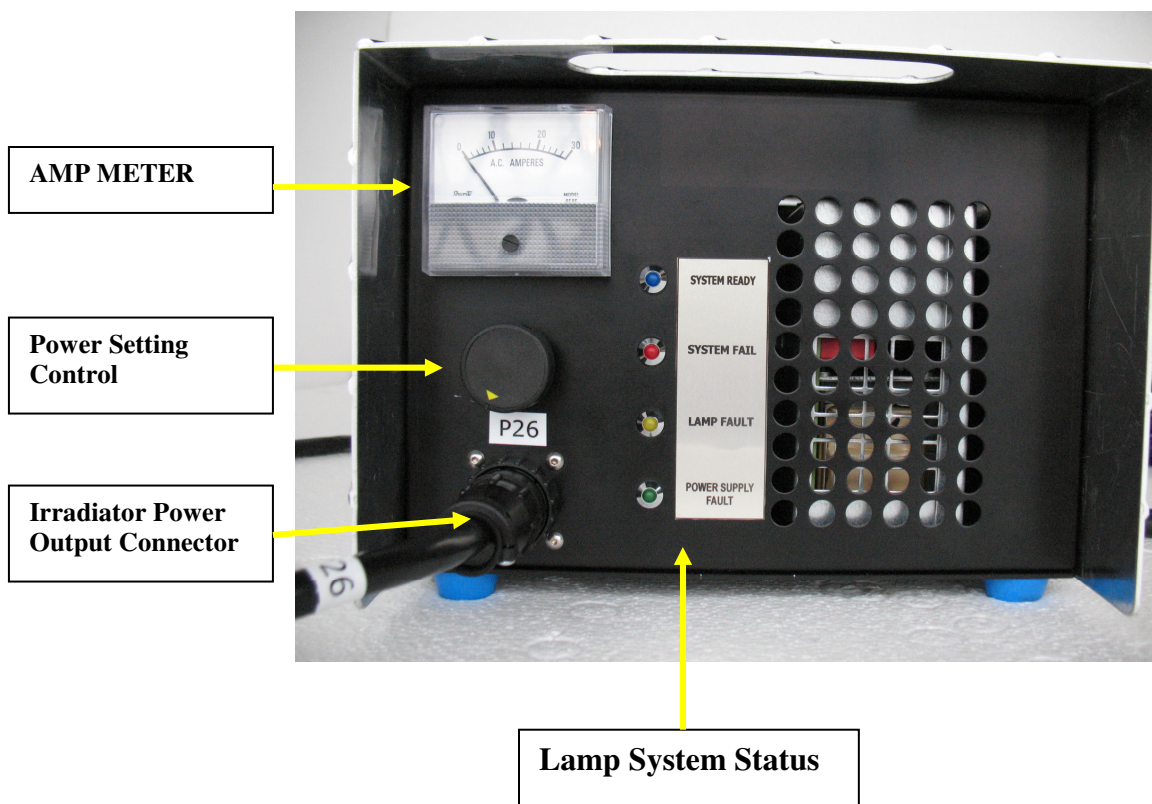
2. Controls for the Power Supply model UV LITE 350A SAM1041 (.4~1.8KW)

- a) **Power Switch is a 20 Amp circuit breaker. If circuit breaker is “tripped”, find fault of electrical overload and correct. Allow combination switch / circuit breaker to cool before attempting to switch power to ON again.**

- b) **Pressing RESET button on LAMP HOUR meter will erase accumulated lamp hours value. (LAMP HOUR meter will only record actual lamp usage time.)**



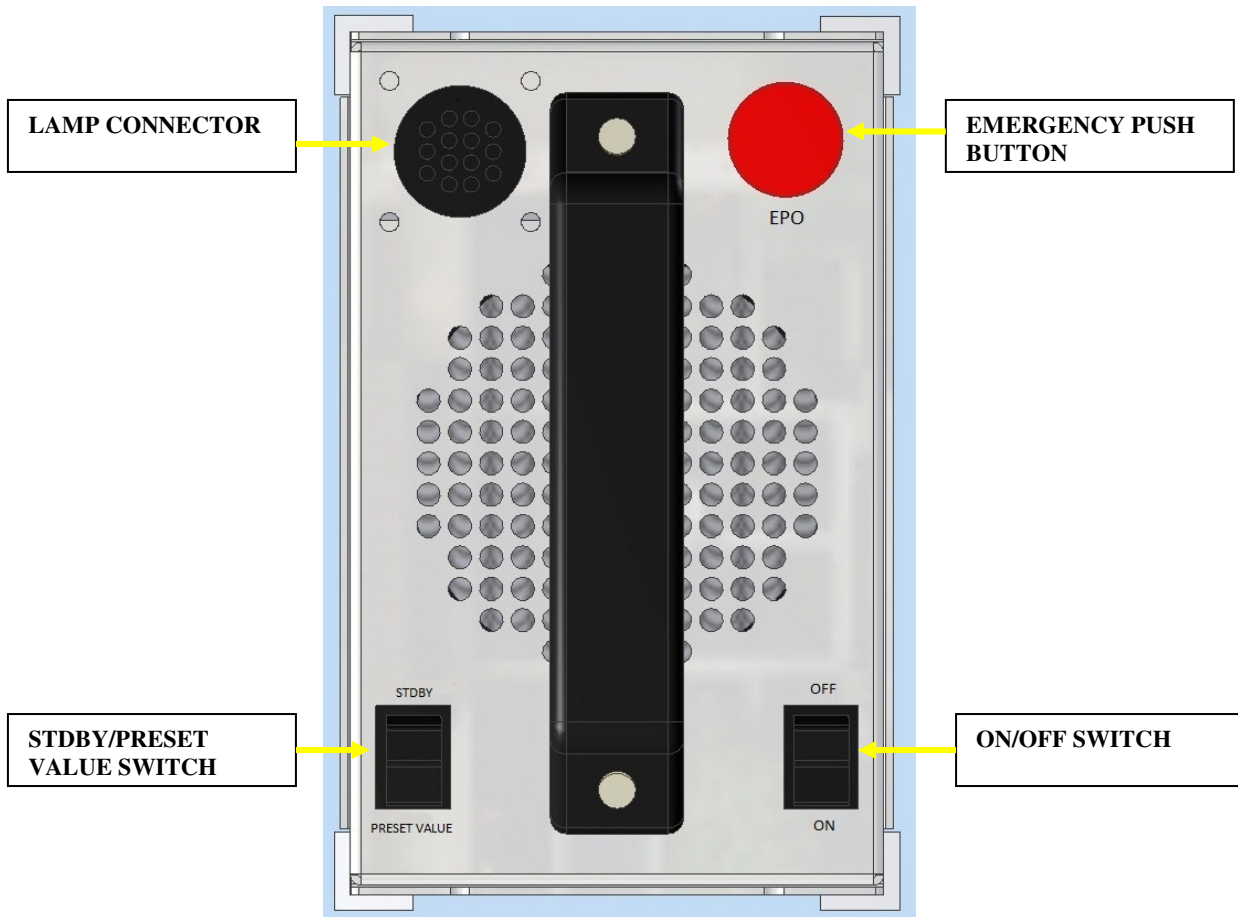
- c) Turning the Power Setting control clockwise increase the power level from .4KW to 1.8KW (on the Amp meter .4KW= 4 to 5A, 1.8KW=19A)
- d) The amp meter is an Output Power Level indicator.
- e) The Lamp System Status is being monitored by four LEDs:
 - 1) Green Light indicates a power supply fault.
 - 2) Yellow Light indicates a Lamp fault.
 - 3) Red Light indicates System Failure.
 - 4) Blue Light indicates System Ready for use.



3. Controls for model SAM1042

- a) Standby mode will put lamp in a lower standby energy state. Press **STDBY/PRESET VALUE** switch to **STANDBY**.
- b) **PRESET VALUE** mode for curing from .4KW to 1.8KW

c) EMERGENCY push button, when pushed downward will disconnect power to lamp. Use this button only to turn off lamp quickly. Lamp will extinguish but cooling fans will be running.

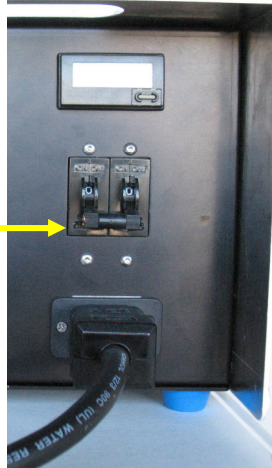


4. Assembly Instructions

*****IMPORTANT*****

- a) Set ON/OFF switch on model UV LITE 350A SAM1041 (.4~1.8KW) power supply to the “OFF” position.

Switch is in the OFF position.
(No power applied)

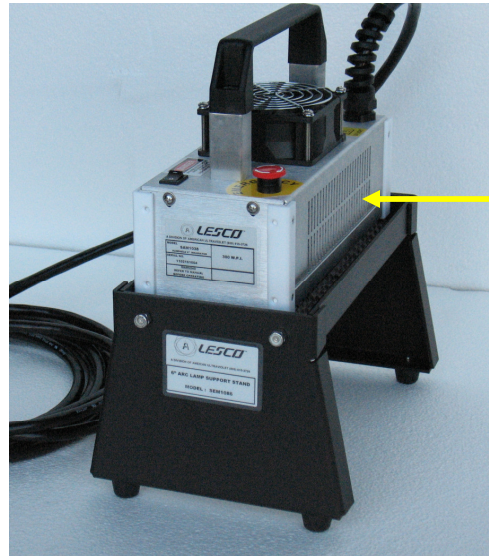


- b) Attach the irradiator cable to the power supply model UV LITE 350A SAM1041 (.4~1.8KW) output receptacle. (Note: The supplied irradiator cable has a number to match with the number on the power supply.)

Irradiator Cable
connected to the Power
Supply

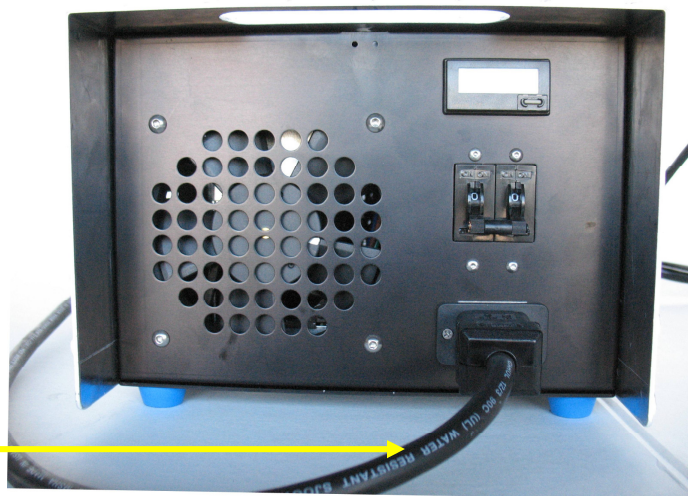


- c) Place model SAM1042 on a safety place.
The Hand Held Stand show in the picture is optional.**



SAM1042

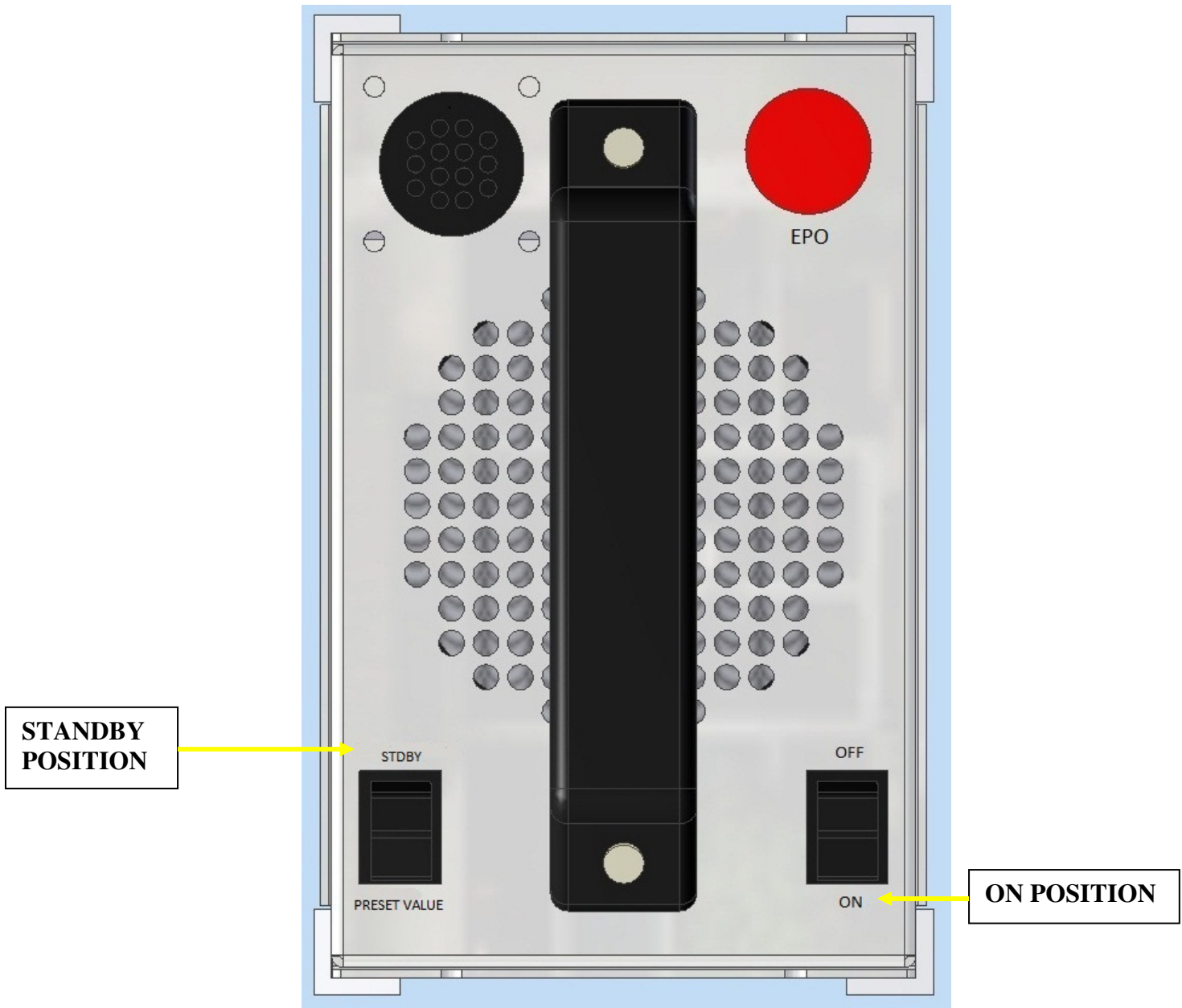
- d) Connect A.C. power cord to model UV LITE 350A SAM1041 (.4~1.8KW)
A.C. input receptacle. (Do not connect to A.C. source at this time.)**



AC POWER CORD

5. Operation Procedure

- a) **Wear U.V. protective glasses**
- b) **Set the STDBY/PRESET VALUE switch to the STDBY position.**
- c) **Set the ON/OFF switch to ON position.**



- d) Check the EMERGENCY button position. The EMERGENCY button in the “up” position is the correct setting. The “down” position will remove power from the lamp. To reset the EMERGENCY button, simply twist the red button GENTLY until it “pops” up.**

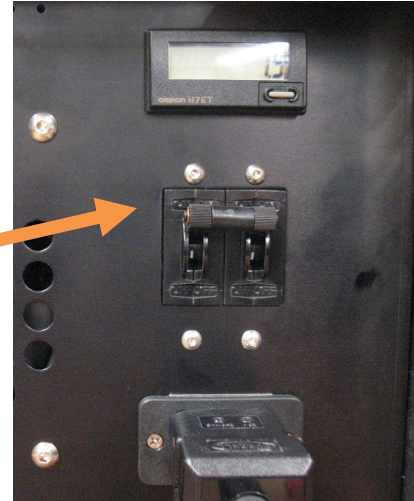


- e) Connect A.C. line cord to A.C. main source**
f) Turn the power setting Control counterclockwise until stop.



g) Turn power switch on model UV LITE 350A SAM1041 (.4~1.8KW) to the ON position. The Amp meter will go approximately 15 Amps for 100v.

Switch is in the ON position
(Power applied)



h) Allow unit to warm-up for 5 minutes before use. After this period of time the BLUE LED lights up indicating the System is ready to be used.



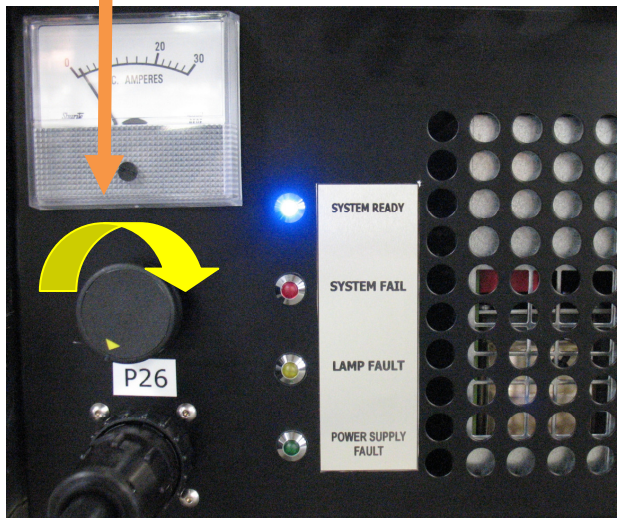
NOTES:

- 1. Power Supply has built-in warm-up Mode while applies full power (1800w) to the lamp. Approximately after 5 minutes Power Supply reverts to stand-by (400W) or Preset Value (.4~1.8KW)**

2. If lamp does not illuminate, wait 3 minutes, the power supply is going to re-strike the lamp in this period of time. If the lamp does not strike the YELLOW LED will lights up (see trouble shooting page).

i) To start operation, set the standby/preset value switch from standby position to preset value position.

j) Turning the Power Setting control clockwise increase the power level from .4KW to 1.8KW.



k) To turn the System OFF, first turn the Lamp OFF with the ON/OFF Switch. The red, yellow and green led will light up. Allow the Lamp to cool-down at least 5 minutes before shutting OFF the Power Supply or trying to restart.



Lamp OFF

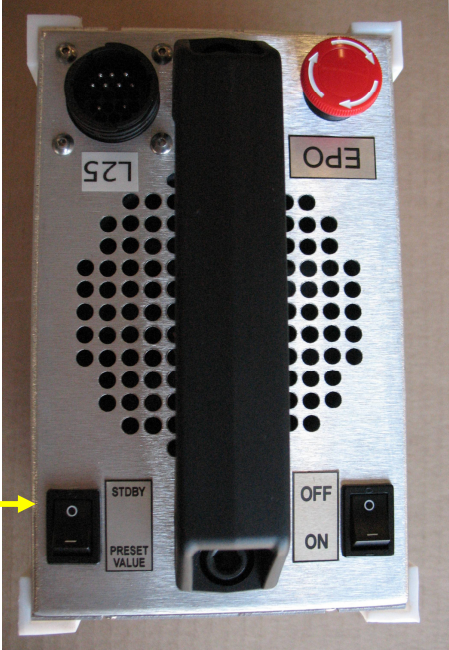


With Lamp OFF condition: Red, Yellow & Green LED will light up

6. Operation Notes and Precautions

- a) Be sure the Lamp and reflector are clean: use alcohol and wipe with a clean cloth daily before each use.**
- b) Never touch the Lamp with bare hands as the skin oils will damage the Lamp. If touched, clean as mentioned above.**
- c) The focal point is 2.1" (53.34mm) from the face of the Lamp Housing. This is the point at which the most energy is delivered to the surface being irradiated.**
- d) Never set Lamp flat on any surface while in operation.**
- e) When starting the Lamp, switch it to the Standby Mode. The Power Supply has about 5 minutes of full power Start Mode which overrides any setting until finished. If in the Standby Mode, a visual drop in the intensity will tell you when it is ready.**
- f) Allow at least five minutes for the power setting to stabilize.**
- g) If Lamp does not start immediately, wait 180 seconds the power supply is going to re-strike the lamp in this period of time.**
- h) Always switch Lamp to Standby Mode when on the Stand to avoid Lamp overheating.**
- i) In case of an emergency push the EPO button to turn the Lamp OFF. The red, yellow and green led will light up.**
- j) Keep the unit in standby position if you are not going to use for a while.**

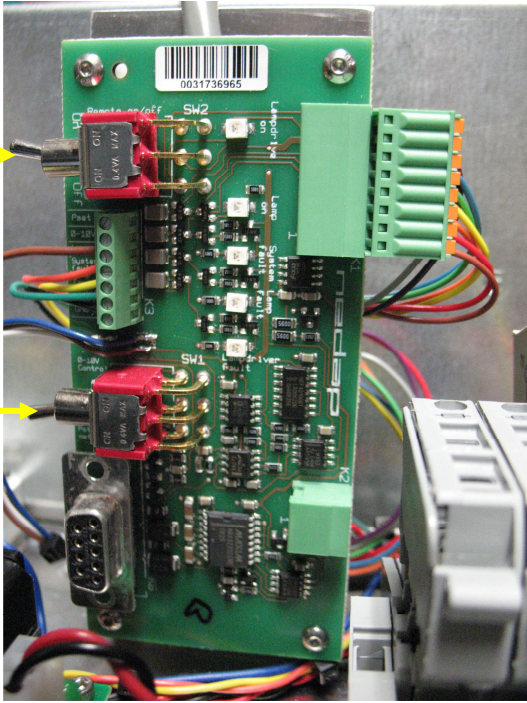
**STANDBY
POSITION**



k) Be sure the internal switches are in the right position as show in the picture below

**Top Switch
Up Position**

**Bottom Switch
Down Position**



7. Trouble Shooting Guide

Problem	Probable Causes
<p>Lamp does not turn on. (Blue LED OFF)</p>	<p>1.) Verify EMERGENCY button is not in the down position.</p> <p>2.) Allow a minimum of 5 minutes cooling period with fan running after using irradiator.</p> <p>3.) Check irradiator and A.C. power cables; make sure they are tightened and plugged securely into connectors.</p> <p>4.) Circuit breaker may have “tripped”; find and correct electrical overload.</p> <p>5.) Yellow LED ON indicates a lamp fault. Lamp may be beyond service life. Replaced the lamp.</p> <p>6.) Green LED ON indicates a Power supply fault. Return the Power supply to the Factory.</p> <p>7.) Red LED ON indicates System failure. Return the system to the Factory.</p>
<p>Curing problems</p>	<p>1.) Check STDBY/PRESET VALUE switch on irradiator. Set switch to PRESET VALUE for curing. STDBY for standby usage.</p> <p>2.) Lamp may be weak. Inspect the lamp. Clean it if it’s necessary or replace the lamp.</p>

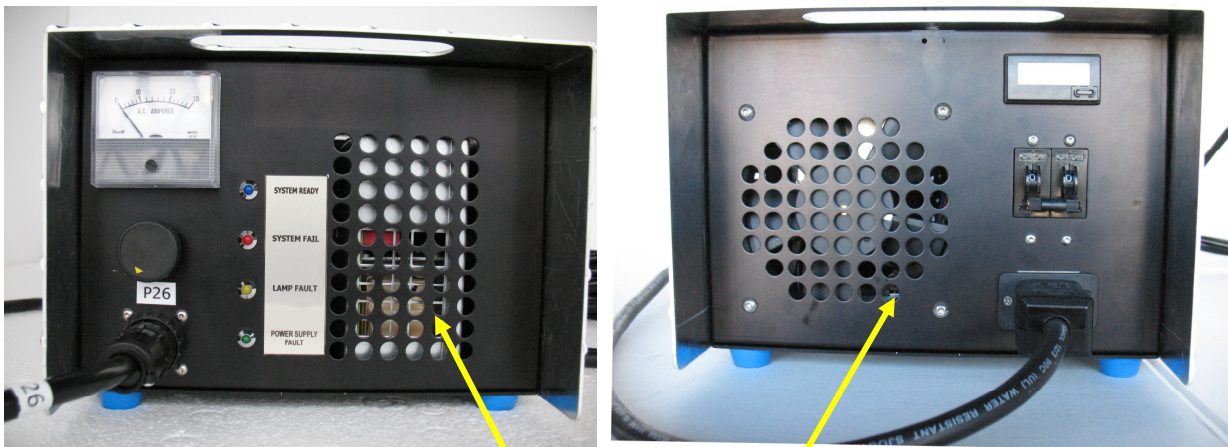
8. Power Consumption Specifications:

- a) **.4 – 1.8 Kilo Watt total system consumption**
- b) **Wide range input power supply 90 – 264 VAC**
- c) **20 Amps @ 90 VAC, 50/60 Hz**
- d) **18 Amps @ 100 VAC 50/60 Hz**
- e) **15 Amps @ 120 VAC 50/60 Hz**
- f) **8 Amps @ 220 VAC 50/60 Hz**

NOTE:

- **Current is limited to 20Amps.**
- **Efficiency: 94%**
- **Electrical characteristics are in the following page.**

9. Precautions



**Air Intake & Exhaust Port
DO NOT Restrict Air Flow**

10. MAINTENANCE

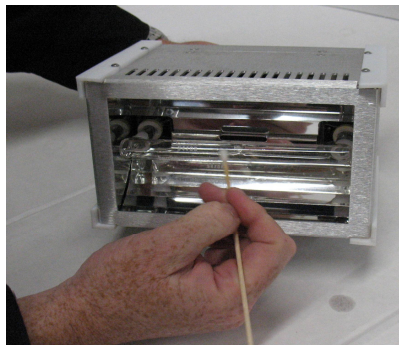
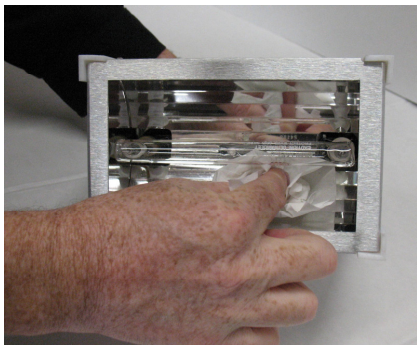
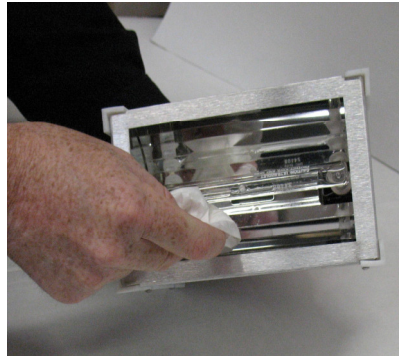
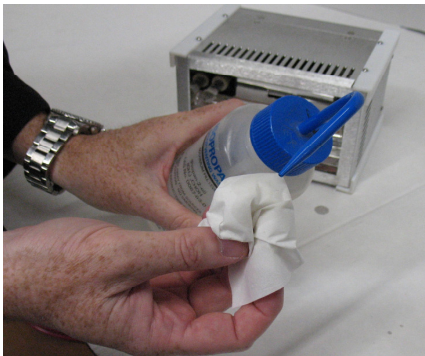
- a) The Handheld Arc Lamp is a simple, rugged unit and does not require complicated routine maintenance. Routine maintenance consists of keeping the unit clean.
- b) Cleaning

****WARNING****

Make sure the main power switch is turned off and the power cord is unplugged before cleaning the unit.

To clean, unplug the unit and wipe down outer surfaces with a damp, clean cloth.

- c) The reflectors are a highly important component of the “optical train” since it collects all of the light output from the bulb. When the reflector is new, it has a very high efficiency, but with time and temperature, it slowly decays to lower levels. Always inspect the reflector when replacing bulbs. A discoloration or lack of clear shiny surface indicates a worn out reflector. LESCO recommends replacing the reflector assembly every 6-12 bulb changes or earlier if required. Many factors influence its performance, such as air humidity, room temperature, and potential corrosives/particulates content within the ambient air.
- d) Inspect the bulb regularly. Be careful not to touch the bulb with your bare fingers. Use alcohol to clean it if necessary.



- e) The power supply-lamp interconnect cable is very important in this Lamp System. Be careful at the moment to use. Do not pull the cable at the ends.

11. Spare Parts

POWER SUPPLY

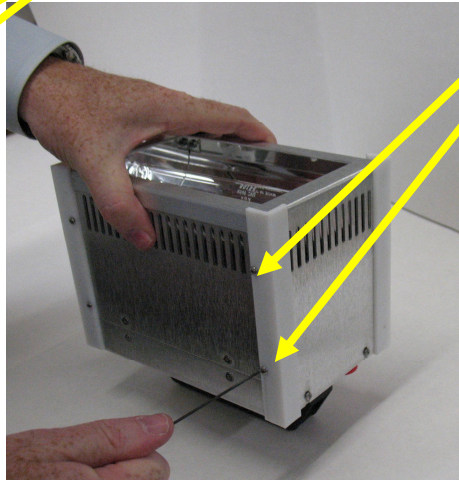
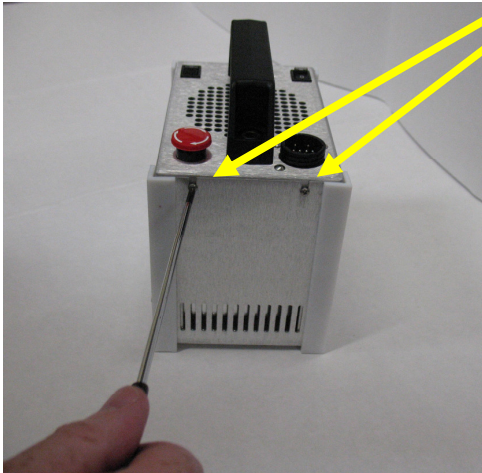
PART NUMBER	DESCRIPTION
E5B1048	POWER SUPPLY 1.8KW
EMB1002	HOUR METER
EPB10XX	FAN 24VDC
E5B1041	POWER SUPPLY 24VDC
EYB1024	CIRCUIT BREAKER 20A

IRRADIATOR

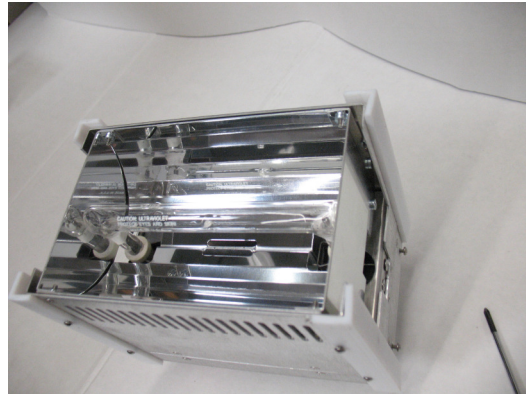
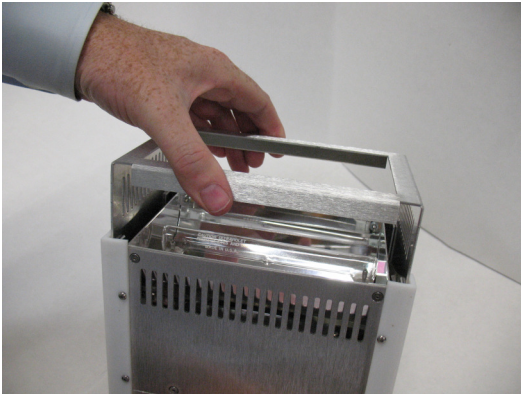
PART NUMBER	DESCRIPTION
LLB3034	BULB ARC 5-1/4" 350WPI Hg
EPB1097	FAN 24V, 60CFM
OGB1040	REFLECTOR EDGE SIDE
NPB1613	REFLECTOR PLATE END
SEM1086	6" ARC LAMP SUPPORT STAND

12. Instructions Arc Bulb Replacement

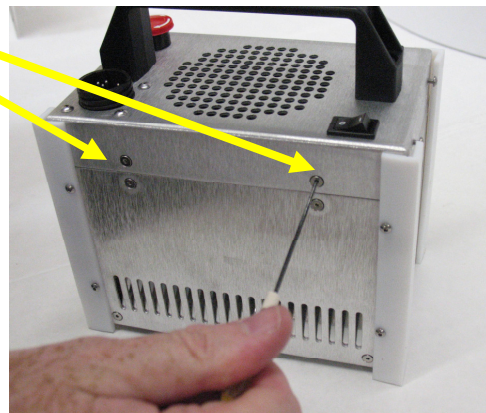
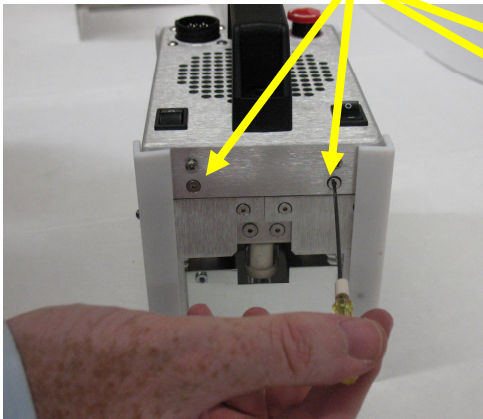
1. Unscrew to loosen the four Phillip head screws on side of the Irradiator and the eight screws on the protective guard edge.



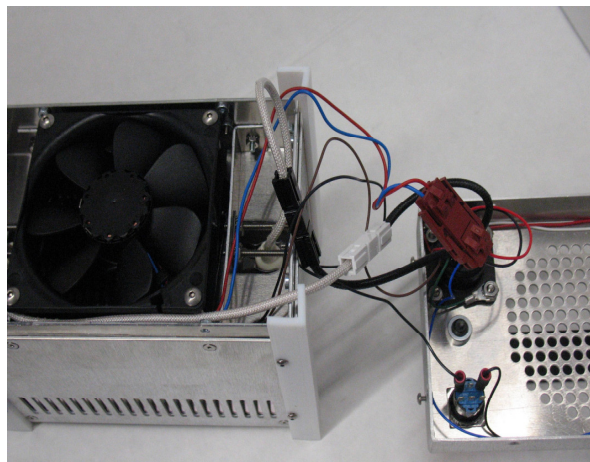
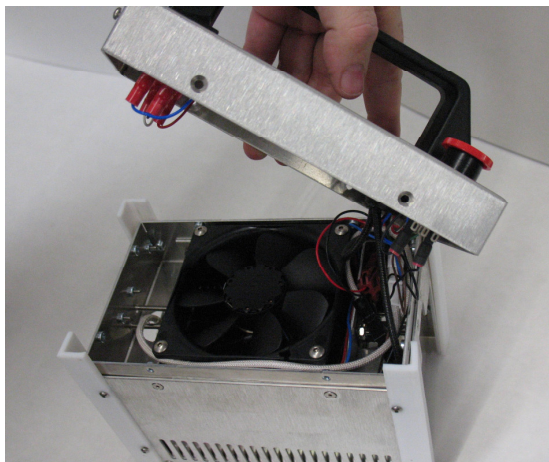
2. Remove the Irradiator cover.



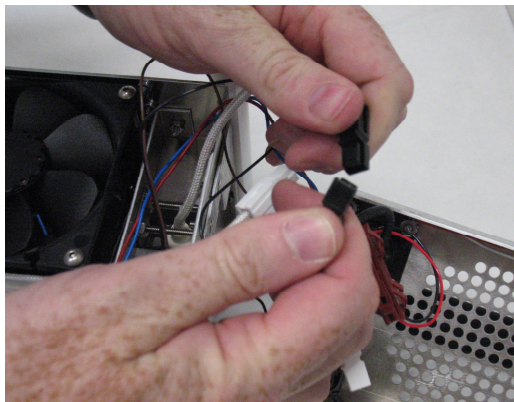
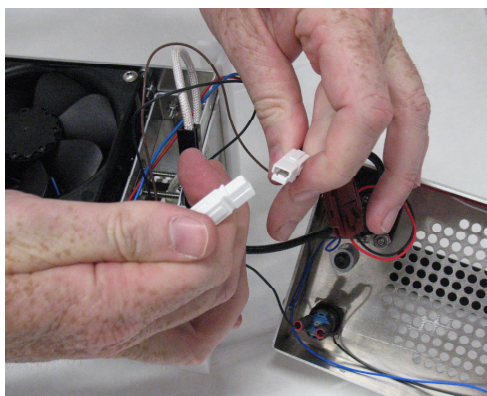
3. Remove the eight screws from the top cover assembly.



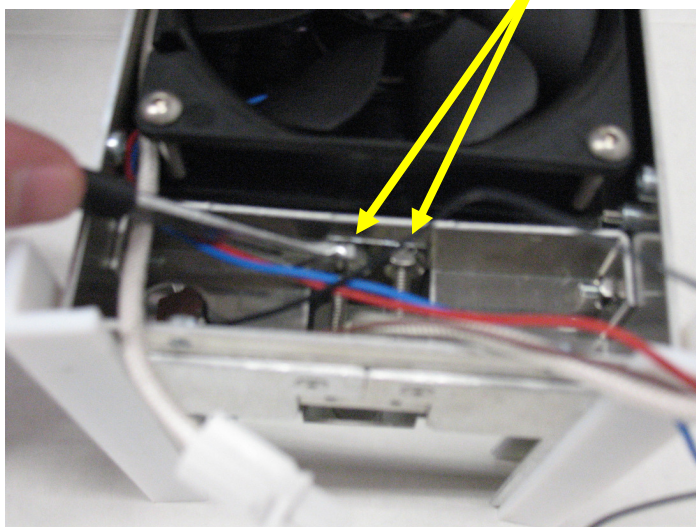
4. Remove the top cover assembly



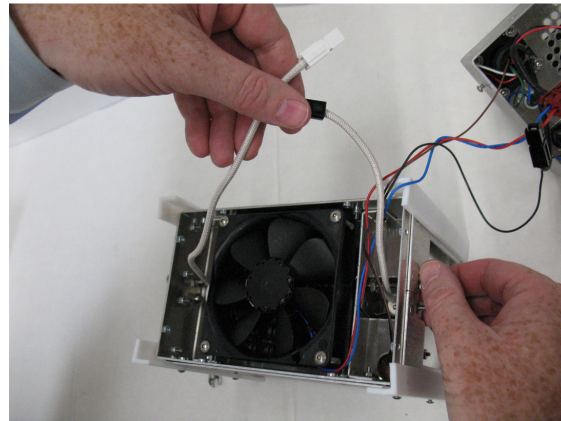
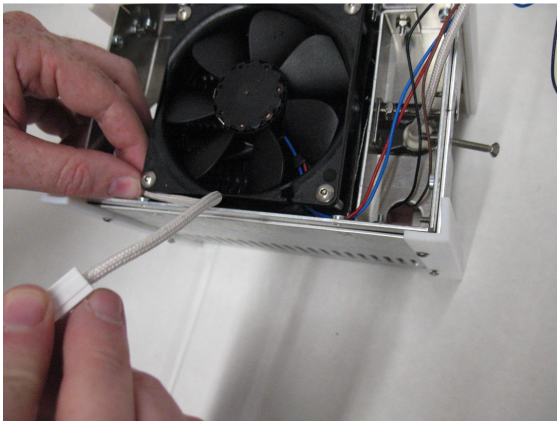
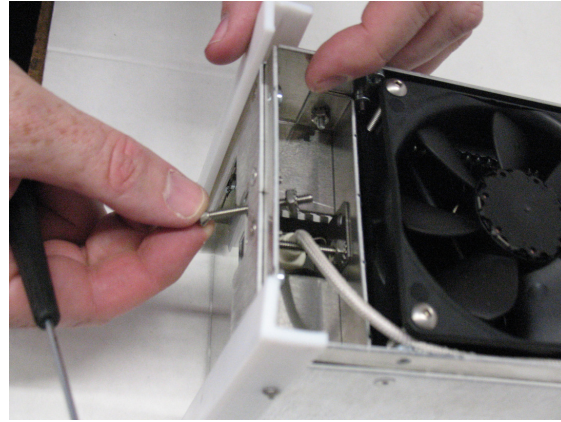
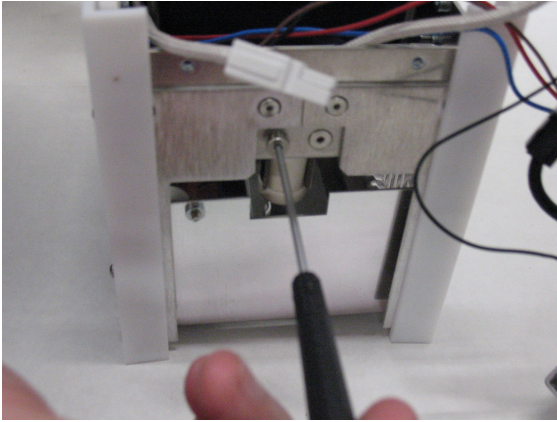
5. Unplug the white and black connectors from the lamp



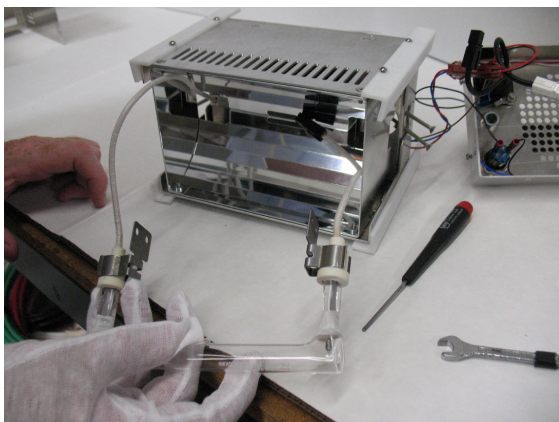
6. Unscrew to loosen the four screw retaining nuts



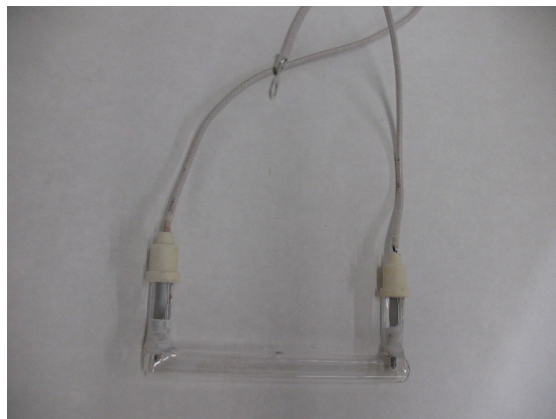
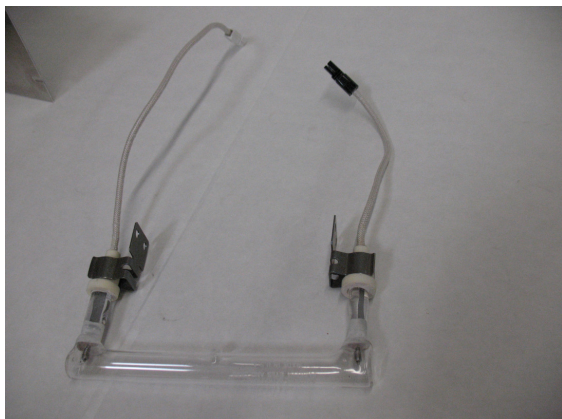
7. Unscrew to loosen the four screws that hold the Arc Bulb Holder. Hold the bulb from the wires to prevent to drop and break it.



8. Gently remove the Arc bulb from the Irradiator.



9. Remove the bulb from the bulb Holders and properly dispose it.



10. Carefully slide in the new Arc bulb and do the reverse operation to secure the bulb and the cover.

*****CAUTION*****

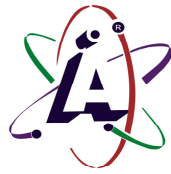
Do not touch the quartz (glass) portion of the bulb with bare hands or fingers.

Skin oils can cause premature lamp failure or explosion.

If hand oils accidentally contact the bulb, wipe clean with Isopropyl alcohol

CAUTION!

To prevent premature failure,
wear cotton or latex gloves to handle new bulb and reflector.



American Ultraviolet™

UV is all we do SINCE 1960

WARRANTY AUV/LESCO EQUIPMENT POLICY

UV STANDARD PRODUCT WARRANTY:

All ultraviolet equipment manufactured by American Ultraviolet West/LESCO (AUV West/LESCO) is warranted to be free from defects in material and workmanship under normal and proper use for one (1) full year from the date of original shipment. As of October 9, 2008 normal use is based on an 8-hour work day, 5 days a week (8*5*52=2080Hrs). AUV West/LESCO will repair or replace at its option any defective parts (**excluding consumables listed below**) when returned to AUV/LESCO by the purchaser within the warranty period using a Return Material Authorization (RMA) number provided by AUV West/LESCO. The purchaser is responsible for all transportation charges for shipping the equipment to and from AUV West/LESCO. Equipment may not be returned, whether for warranty or other purposes, without an RMA number. Any equipment that is received without obtaining an RMA number will be refused and returned to the purchaser at their expense. AUV West/LESCO assumes no expense or liability for repairs made outside its plant without the written consent of an authorized AUV West/LESCO representative, or for any labor costs which are so incurred. AUV West/LESCO will not be liable for any consequential costs or damages of any kind.

If it is not feasible for the purchaser to return the equipment to AUV West/LESCO for repair, then by mutual consent the purchaser will cover the expenses for an authorized AUV West/LESCO service representative to travel to the equipment's location to perform a diagnostic evaluation and any necessary repairs. Warranty period for any and all equipment which is repaired while under original equipment warranty will remain one (1) full year from date of original shipment. Any repairs made after the original equipment warranty period has expired are warranted for ninety (90) days from the date the repaired equipment is shipped back to the purchaser. After all warranties have expired, the diagnostic evaluation fee for all non-warranty equipment is \$150.00.

PARTS AND ACCESSORIES WARRANTY:

AUV West/LESCO warrants all spare parts and accessories which are purchased separately from UV equipment to be free from defects in material and workmanship under normal and proper use for a period of 60 days. **Consumable items not covered under the warranty include Bulbs, I.R. Filters, Fan Filters, Reflectors, and Light guides.**

CONDITIONS OF WARRANTY:

For above warranty on AUV West/LESCO equipment to be enforceable, the purchaser must:

1. Be the original owner and provide proof of purchase. All warranties are non-transferable.
2. Obtain pre-authorization by calling AUV West/LESCO for RMA number at 310-784-2930.
3. Return any items suspected of being defective to AUV West/LESCO for diagnostic evaluation and possible repair. All returns must be correctly packaged and shipped via an appropriate courier. AUV West/LESCO is not liable for any damage or charges incurred as a result of improper packaging and shipping by the purchaser.
4. Keep accurate records of the time elapsed from installation to removal in sufficient detail to determine the running time and environment of equipment in question. The purchaser will allow AUV West/LESCO to verify such records if necessary.

EXCLUSIONS:

The following will void all AUV West/LESCO warranties stated above:

- Defects resulting from improper installation or use
- Unauthorized service
- Tampering with equipment
- Lack of preventative maintenance
- Acts of God, or other circumstances beyond the control of AUV West/LESCO

There are no warranties, expressed or implied, except as stated above or provided in writing by an authorized AUV/LESCO representative.



American Ultraviolet™

UV is all we do SINCE 1960

Warranty AUV/LESCO Arc Bulb Policy

BULB WARRANTY:

American Ultraviolet West/LESCO (AUV West/LESCO) warrants its new Arc bulbs to be free from defects in material and workmanship under normal and proper use for seven hundred and fifty (750) hours of operation within AUV WEST/LESCO standard operating guidelines. These hours are based on eight (8) hours work day and **ONLY** three (3) on/off cycles per day.

AUV WEST/LESCO designs and manufactures the Arc bulbs for exceptionally long service life at higher than conventional intensities. However, there are no performance guarantees beyond that the bulb will successfully ignite and maintain power; system specifications are only estimates. Bulb performance is also dependent upon the extent of degradation in the Reflector, so this component must be checked prior to concluding a defect exists in the bulb. Only bulbs supplied by AUV West/LESCO and specifically used in well-maintained AUV West/LESCO Arc Lamp System are covered by this warranty.

CONDITIONS OF WARRANTY:

For above warranty on AUV West/LESCO Arc bulb to be enforceable, the purchaser must:

1. Obtain pre-authorization by calling AUV West/LESCO for RMA number at 310-784-2930. Bulbs received without an RMA number will be returned at the purchaser's expense.
2. All returns must be correctly packaged and shipped via an appropriate courier. AUV West/LESCO is not liable for any damage or charges incurred as a result of improper packaging and shipping by the purchaser. All transportation charges to and from AUV West/LESCO are the responsibility of the purchaser.
3. All bulbs are warranted to successfully ignite and maintain power (no flickering) for the first 200 hours at full replacement.
4. Warranty period for 201 through 750 hours is pro-rated. Providing an authorized AUV West/LESCO representative has determined a bulb is defective, the purchaser will be credited against the replacement price of the warranted bulb starting at 90% credit (@ 201 hours) pro-rated through 0% credit (@ 750 hours).
5. There are no performance guarantees, expressed or implied, by AUV West/LESCO for Arc bulbs; the above conditions for replacement and pro-rating are based solely on manufacturing defects, not performance. System specifications for performance are estimates only.
6. AUV West/LESCO is not liable for costs or damages of any kind due to unauthorized repairs.

EXCLUSIONS:

1. Excessive lamp start/restart operations (>2 starts/day)
2. Failure due to mechanical damage, breakage, mishandling, or dropping the system
3. Contamination of quartz bulb envelope by oils, foreign material or other contaminants
4. Damage resulting from corrosive or caustic environments
5. Failure resulting from tampering with functions not intended for operator access such as polarity reversal, internal voltage, or control assemblies
6. Neglect, damage by acts of God, or any other uncontrollable circumstances
7. Any damage resulting from overheating or cooling of the bulb, like sputtering or vitrification of the quartz.

This warranty applies to the bulb only and supersedes all previous warranties. There are no warranties, expressed or implied, except as stated above.