

OPERATING MANUAL

CURE ZONE (#A001-052)

UV FLOOD CURING SYSTEM



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CURE ZONE UV FLOOD CURING SYSTEM OPERATING MANUAL

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GENERAL DESCRIPTION

The Cure Zone is a medium intensity flood light source which illuminates an 8" x 8" cure area with long wave (UVA), ultra violet light. The Cure Zone consists of a power supply housing, a reflector housing, UV shielding, an adjustable work surface, a connector cord and a power cord.

The work surface can be adjusted up or down to accommodate various-sized parts. Curing time will be minimized when the coating or bonding section of the part to be cured is positioned 1-2" from the lower edge of the reflector housing. Increasing the distance from the reflector housing will result in slower cure speeds.

A glass filter substantially reduces any short and medium wave UV output. Operation of the Cure Zone without the glass filter may cure some materials quicker and more tack free, however, extra UV protection may be required. *Refer to the section on UV SAFETY.*

UNPACKING AND INSPECTION

Unpack the system and inspect it for shipping damage or missing components. Report damages, if any, to freight carrier. Save packaging for safe storage or future shipping.

INSTALLATION AND SETUP

The CURE ZONE will arrive completely assembled. All that is required is to plug in the connector and power cords. The system should be positioned to allow at least 6 inches of clearance in each direction for adequate ventilation. If the Cure Zone is being used on a conveyor system, place the housing into the conveyor carrier.

Adjust the work surface so the material to be cured is 1-2" below the lower edge of the reflector housing. Not included in systems when used in conjunction with a conveyor.

To energize the system turn the power switch on. Be sure UV eye protection is being worn at all times when operating this and other UV equipment. Wait 5 minutes for the lamp to reach full power. The unit is now ready to use. When used with a conveyor, refer to start up instructions of the conveyor manual.

After turning system off, allow 10 minutes for system to cool before relighting the lamp. Lamp life will be greatly enhanced if lamp cycling is kept to a minimum. Leave lamp on through breaks. During work shifts do not light lamp for less than 15 minutes.

The reflector housing with lamp may be located remotely from the power supply. However, be sure to allow adequate ventilation and UV shielding. *Refer to section on UV SAFETY.*

SPECIFICATIONS

Power input:	90-1-2 VAC, 50/60 Hz single Phase, 8 amps max. 180-265 VAC optional
Ultraviolet output:	80 mw/cm ² of long wave, (UVA), ultraviolet energy illuminating an 8" x 8" cure area.

Note: Intensity measured 2" below reflector housing with a probe style radiometer, peak response at 365nm.

Lamp Type:	400 Watt Metal Halide
Power Supply Dimensions:	11.5"x 10.0"x 3.5"
Reflector Housing Dimensions:	9.5" x 8.25" x 7.25"
Total Weight:	17 Pounds

MAINTENANCE

The CURE ZONE was designed to operate with minimum maintenance. Follow the schedule below to keep the CURE ZONE in peak operating condition:

- Clean glass filter, if used, every 2 months or as required. Use isopropyl alcohol and a clean cloth. A hardly visible thin film of cured material can coat the glass filter, reducing transmittance by as much as 30%.
- Clean reflector every 4 months or as required. Use isopropyl alcohol or glass cleaner and clean cloth.
- Inspect lamp sockets for corrosion when replacing lamp.
- Replace lamp sockets if corroded. Heat generated by a poor connection can cause premature lamp failure.
- Replace lamp every 1000 hours or as required to maintain adequate intensity for curing process.

SPARE PARTS

- * 5185 Fuse, 8 amp Fast Acting
- * 5157 Lamp Socket
- * 5077 Lamp, Type AF Standard Lamp
- t* 5478 Lamp, Type AH Special Lamp
- 5050 Power Switch
- 5159 Ignitor
- 5579 6 Ft. Connector Cord
- 5183 Work Surface Replacement Pad

*=RECOMMENDED SPARE PART

t=Systems with non standard (Special) Lamps carry a sticker on the Reflector Housing which designates its type and part number (P.N.).

TROUBLESHOOTING

LAMP DOES NOT LIGHT, POWER SWITCH DOES NOT ILLUMINATE, FANS DO NOT START:

- check that power cord is plugged in
- check fuse in power plug receptacle at the rear of the unit

LAMP DOES NOT LIGHT, POWER SWITCH IS ILLUMINATED, FANS RUN

- check lamp to be sure it is seated properly in lamp sockets
- lamp at end of life & must be replaced
- check that connector cord is properly plugged in at both ends
- inspect lamp sockets for evidence of excessive heat or arcing, lead wires may be burnt off

UV OUTPUT LOW (READING FROM RADIOMETER):

- glass filter is dirty
- lamp is aged or defective
- reflector is dirty
- radiometer defective or out of calibration

ADHESIVE OR COATING DOES NOT CURE COMPLETELY:

- UV output low (see above)
- adhesive or coating does not cure with long wave UV light
- adhesive or coating needs higher intensity LTV light to cure tack free
- adhesive or coating defective

WARRANTY

UV PROCESS SUPPLY warrants that the CURE ZONE will perform in accordance with the performance specifications set forth in the Specification section of this manual. UV PROCESS SUPPLY will repair or replace any defective part(s) at no charge, excluding lamps, for a period of one year from date of purchase.

UV PROCESS SUPPLY must perform any repairs or modifications needed during the warranty period for warranty to be valid.

The lamp is warranted for 500 hours for failure to ignite. The lamp is also warranted to produce 60% of initial UV, output at 500 hours.

RADIOMETERS

A radiometer is a tool used to measure the output intensity of a light source. The intensity values listed in this manual were measured with a probe style radiometer with a 365nm probe. Intensity readings taken with a different radiometer should not be compared directly with the values in this manual. Radiometers from two different manufacturers can give readings that vary by more than 100%. Radiometers can be used to track lamp life and to determine acceptable intensities to ensure full cure within the curing process time frame.

Radiometers are sold by:
UV PROCESS SUPPLY
1229 W CORTLAND
CHICAGO, IL 60614-4805
Tel: (773) 248-0099
Fax: (773) 880-6647

UV SAFETY

The CURE ZONE is a safe UV curing system when used properly. The system incorporates UV shielding and a non-reflective work surface.

The guidelines below should be closely followed to ensure protection from the ultraviolet light:

UV Protective glasses with side shields should be worn at all times.

Potentially exposed skin should be covered. Long sleeve shirts and gloves should be worn when placing arms and hands under the UV light.

Never look directly at the output from a UV lamp.

WARNING: UV Energy is transmitted from the reflector housing. Protective eyewear equipped with side shields are required which meets ANSI Z80.3 certification.

UV safety is the responsibility of the user especially when operating the CURE ZONE in a non-standard configuration. When in doubt about UV Safety, call UV PROCESS SUPPLY Technical Service before proceeding (773-248-0099)

UV safety products and radiometers are sold by UV Process Supply. Contact us for recommendations or visit our website at www.uvprocess.com.