

Operator's Manual



UV Light Box Circulation-Free Enclosure

MYSTAIRE®

Creedmoor, NC 27522



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Cautions and Precautions

Definitions of WARNINGS and CAUTIONS found throughout the manual:

 Warning	Indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.
 Caution	Indicates a potentially hazardous situation; which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices or potential equipment damage.

General CAUTIONS for this piece of equipment:

	Always use a properly grounded line cord and receptacle.
	Always replace fuses with those specified.
	These instructions must be placed in an easily seen location.
	DO NOT use this system until it has been properly installed.
	DO NOT operate this unit if the power cord appears damaged or frayed in any way.
	DO NOT attempt to access non-user serviceable components of system.

Technical Specifications

110V UV Light Box

General Specifications		
Construction Material	Work Surface	<i>Polypropylene</i>
	Chamber	<i>Polypropylene</i>
	Front Sash	<i>Clear Polycarbonate</i>
	Head Assembly	<i>Polypropylene</i>
Controls		<i>Micro-processor Controller</i>
UV Lighting		<i>254-nm Shortwave UV</i>
UV Monitoring Package		<i>Audible / Visible Alarm</i>
UV Safety Switch		<i>Included</i>
Automatic UV Timer		<i>User Defined Timed Irradiation</i>
Lab Event Timer		<i>Adjustable Audible / Visible Timer</i>

Unit Dimensions*								
Product #	External Dimensions			Internal Dimensions			Door Dimensions	
	Width	Depth	Height	Width	Depth	Height	Width	Height
MY-DB24C	24"	24"	15"	22"	23"	7"	23"	9"
MY-DB42C	42"	24"	15"	40"	23"	7"	41"	9"

*All dimensions are nominal within +/- 0.5"

Technical Specifications			
Product #	Electrical		Unit Weight**
	Voltage	Power	
MY-DB24C	110 V	70 W	150 lbs.
MY-DB42C	110 V	90 W	195 lbs.

**All weights are an approximation

Overview

The UV Light Box is designed for the irradiation of potentially contaminated surfaces to aid in disinfection. This is accomplished using intense UVC radiation to destroy potentially hazardous microorganisms.

To begin your irradiation period, place the items to be processed inside the chamber and close the chamber door. On the microprocessor controller, press the button labeled UV Light. The UV Light will engage for the programmed duration (1-59 minutes). The safety interlock switch automatically controls the UV light. If the sash is raised while the UV timer is running, the UV light will automatically turn off. The safety interlock switch is located on the right hand side of the door.

The door of the unit is made from polycarbonate, which is UV resistant. The base and sides of the unit are made from structural polypropylene, which is also UV resistant.

The UV light is an integral part of the irradiation process and must be handled with care. Scheduled maintenance and change-out is required for optimal performance. The microprocessor controller will automatically monitor the bulb lifetime. After 1000 irradiation cycles, an audible/visual alarm will notify the UV bulbs require replacement. Proper cleaning of the chamber is recommended between uses. See page 6 for details on cleaning.

Operating Instructions

Changing UV Timer



Ultraviolet radiation can be a useful tool in minimizing microorganism contamination on surfaces. The microprocessor controller allows you to adjust your irradiation time following these steps:

1. Switch the "MODE" by pressing the up or down key to select the screen showing UV auto time.
2. Use the "SELECT" up or down button to select the timer value you wish to

change, indicated by the blinking digit at the bottom right.

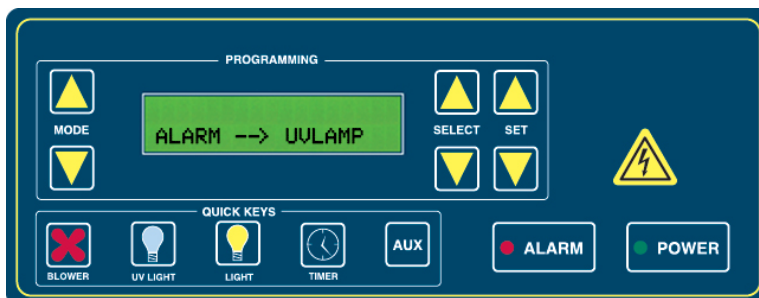
3. Once you have selected the appropriate number you wish to adjust, use the "SET" button to increase or decrease the value.
4. After changing the appropriate value(s) press the "MODE" up or down button. The microprocessor controller will automatically save the values you have adjusted.

Operating UV Light



1. Ensure the main power is activated by flipping the switch at the power inlet on the back right of the unit.
2. Press the "POWER" button on the controller, the green LED should be illuminated indicating power is supplied.
3. Close the sash on the unit and press the "UV LIGHT" button on the controller. The programmed timer countdown should be displayed on the controller screen. Verify each bulb is illuminated.
4. Clean the workstation regularly see *Maintenance instructions on page 6*.
5. Close the front sash of the unit when not in use.

Microprocessor Alarms

ALARM→UV LAMP – After initializing 1000 UV irradiation cycles at factory settings, the UV bulb may still glow purple, but the UV radiation will likely be ineffective. Replacement of the UV bulb is required. The UV light alarm will activate when 10% of the irradiation life remains (the irradiation life remaining for initializing the alarm is approximately 100 UV irradiation cycles).



Maintenance

 Caution	Disconnect the power cord from the power entry module prior to proceeding.
 Caution	LAMP CONTAINS MERCURY, handle with care. Wear gloves when handling broken lamps. Manage in accord with disposal laws. See www.lamprecycle.org or 1-800-555-0050.

UV Bulb

Each UV Light Box contains three UV bulbs. Each UV bulb has a life expectancy of 1000 bulb hours. Each time the UV bulb is illuminated, a minimum of one hour will be used. The microprocessor controller will automatically monitor the UV bulb status and notify the end user when the bulb lifetime is nearly ended so replacements can be purchased.

To Replace the UV Bulb:

1. Disconnect the power supply to the workstation.
2. Completely open the folding front sash and carefully rest it against the head assembly of the workstation.
3. Using both hands, turn the bulb towards the front of the workstation $\frac{1}{4}$ of a turn and remove from the light socket.
4. Install new bulb by sliding into the light socket and turning towards the rear of the workstation $\frac{1}{4}$ of a turn until the bulb locks into place.
5. Reconnect power supply.

Cleaning

Clean using a soft cloth to avoid scratching or damaging. For best disinfection we recommend a 10% Clorox/water solution or Solucide® Hard Surface Disinfectant. Solucide® is an EPA registered disinfectant suitable for emerging pathogens including SARS-CoV-2 the cause of COVID-19.

UV Irradiation Time

The following data is the required UV irradiation time for a reduction of 99.99% for the listed bacteria and viruses. Environmental factors including placement of object, humidity, and material all may impact stated times. For best results, place objects directly under UV bulbs to maximize UV radiation intensity.

Bacteria	Minutes
Bacillus (vegetative)	1
Bac. anthracis	1
Bac. Megatherium	1
Bac. paratyphosus	1
Bac. subtilis	1
Bacillus (spore)	2
Bac. Megatherium	1
Bac. subtilis	3
Bac. anthracis	1
Bac. subtilis (ATCC6633)	7
Bacillus subtilis	1
Bac. subt. spore ATCC6633	3
Campylobacter jejuni	1
Clostridium tetani	3
Coryneb. diphtheria	1
Citrob. freundii (ATCC8090)	1
Enterob. cloaca (ATCC13047)	2
Escherichia coli:	1
Escherichia coli	1
Escherichia coli (in air)	1
Escherichia coli (in water)	1
Escherichia coli ATCC 11229	1
Escherichia coli ATCC 25922	1
Escherichia coli K 12 AB 1157	1
Escherichia coli ATCC 12407	1
Klebsi. pneumon. ATCC4352	1
Legionella	1
Legionella dumoffi	1
Legionella gormanii	1

Bacteria Continued	Minutes
Legionella micdadei	1
Legionella longbeachae 1	1
Legionella longbeachae 2	1
Legionella oakridgensis	1
Legionella micdadei	1
Legionella jordanis	1
Legionella wadsworthii	1
Legionella pneumophila	1
Legionella bozemanii	1
Leptospira	1
Leptospira biflexa	1
Leptospira illini	1
Leptospira interrogans	1
Micrococcus	2
Micrococcus candidus	2
Microc. sphaeroides	2
Neisseria catarrhalis	1
Pseudomonas aerug.	1
Pseudomonas aeruginosa	1
Salmonella	1
Salm. typhimurium	2
Salm. enteritidis	1
Salmonella typhi	1
Serratia marcescens	1
Shigella paradysenteriae	1
Staph	1
Staph. albus	1
Staph. aureus	1
Staph. epidermis	2

Bacteria Continued	Minutes
Legionella micdadei	1
Legionella longbeachae 1	1
Legionella oakridgensis	1
Legionella micdadei	1
Legionella jordanis	1
Legionella wadsworthii	1
Legionella pneumophila	1
Legionella bozemanii	1
Leptospira	1
Leptospira biflexa	1
Leptospira illini	1
Leptospira interrogans	1
Micrococcus	2
Micrococcus candidus	2
Microc. sphaeroides	2
Neisseria catarrhalis	1
Pseudomonas aerug.	1
Pseudomonas aeruginosa	1
Salmonella	1
Salm. typhimurium	2
Salm. enteritidis	1
Salmonella typhi	1
Serratia marcescens	1
Shigella paradysenteriae	1
Staph	1
Staph. albus	1
Staph. aureus	1
Staph. epidermis	2
Strep.	1
Strep. hemolyticus	1
Strep. lactis	2
Strep. viridans	1
Strep. faecalis	1
Strep. pyogenes	1
Strep. albus	1
Vibrio	1

DNA-Virus	Minutes
Parvovirus	1
Bov. parvovirus	1
Kilham rat virus	1
HCC (Dog hepat. Adenov)	5
Herpes virus	1
Pseudorabies virus	2
Herpes simplex MP str.	2
Herpes simplex MP str.	1
Herpes simplex, type 1	3
Vaccinia	1
RNA-Virus	Minutes
Picornavirus	2
Poliovirus	2
Poliov type 1 Mahoney	2
Poliov	3
Poliov type 1	1
Poliov Mahoney	1
ECBO	2
Coxsackiev	4
Reovirus	2
Reovirus type 1	1
Reov type 1 (Lang str)	3
Rotav	3
Rotav SA11	2
Paramyxovirus	1
SARS-CoV-2	1
Sindbis virus	1
Newcastle Disease	1
Orthomyxovirus	1
Influenza	1
HIV (Lentiv)	26
HIV (HTLVIII)	11
HIV (Sup T1)	26
HIV (H9)	45
HIV (PHA-stim. PBL)	23

Warranty

Mystaire® is committed to providing our customers with quality equipment and service after the sale. We, therefore, request that you take a moment to complete our online Warranty Registration. The registration can be found at <http://www.mystaire.com/contact/warranty>. Once you complete your warranty details your information will be used solely by Mystaire® to advise you of product updates and promotions that may benefit you.

Mystaire® provides a warranty on all parts and factory workmanship. The warranty includes areas of defective material and workmanship, provided such defect results from normal and proper use of the equipment.

The warranty for all Mystaire® products will expire one year from date of shipment. This limited warranty covers parts and labor, but not transportation and insurance charges. In the event of a warranty claim, contact Mystaire® or the dealer who sold you the product. If the cause is determined to be a manufacturing fault, the dealer or Mystaire® will repair or replace all defective parts to restore the unit to operation. Under no circumstances shall Mystaire® be liable for indirect, consequential, or special damages of any kind. No individual has authorization to alter the provisions of this warranty policy or its amendments. Damage due to accidental breakage is also not covered. Lamps and filters are not covered by this warranty. **HOWEVER, THE FAILURE TO USE FILTERS OTHER THAN THOSE MANUFACTURED BY MYSTAIRES® AUTOMATICALLY VOIDS ALL WARRANTIES AND MAY RESULT IN SERIOUS INJURY TO THE OPERATOR. ADDITIONALLY, OUR FILTERS ARE MANUFACTURED TO ENSURE THE PROPER OPERATION OF THE EQUIPMENT. ANY EQUIPMENT FAILURE USING FILTERS NOT MANUFACTURED BY Mystaire® WILL ALSO VOID SERVICE AGREEMENTS ON THE EQUIPMENT.**

NOTE: Do not return any materials without authorization from Mystaire®. Products returned without prior authorization will not be accepted. Mystaire® and its dealers are not responsible for shipping damage. The recipient must file claims directly with the freight carrier. If authorization has been received to return this product, by accepting this approval, the user assumes all responsibility and liability for biological and chemical decontamination and cleansing. Mystaire® reserves the right to refuse delivery of any products which do not appear to have been properly cleaned and/or decontaminated prior to return.

Product Warranty Registration

Please complete your warranty registration online:
www.mystaire.com/contact/warranty.htm

Our goal is to provide you with the best possible safety product along with the best service in the industry. You can help us by completing the online warranty registration form. Your information will only be used by our staff to keep you informed of product and service related events that may affect you.

Thank you for your purchase!

Return Policy

In the event a customer wishes to return any Mystaire® Inc. product an RMA must first be issued by Mystaire® Inc. All standard product will be assessed a 35% restocking fee. For custom or special order items the restocking fee is 75% of the purchase value. Issuance of the RMA is not a guarantee for a full refund but rather an approval by Mystaire® Inc. for the return of the product for inspection and review. Upon return Mystaire® Inc. will inspect the item and determine the fair market value of the item(s).

The customer is responsible for all charges related to the return and should provide insurance on the shipment in the event of loss of damage to the item(s), during movement.

By receiving authorization to make the return and by accepting this approval, the user assumes all responsibility and liability for biological and chemical decontamination and cleansing. Mystaire® Inc. reserves the right to refuse delivery of any products which do not appear to have been properly cleaned and/or decontaminated prior to return.

NOTE: Do not return any materials without authorization from Mystaire® Inc. Products returned without prior authorization will not be accepted. Mystaire® Inc. and its dealers are not responsible for shipping damage. If a shipment is received with visible damage, Mystaire® Inc. will notate the damage on the delivering carrier's receipt and inform customer so a claim can be filed with the carrier. If concealed damage or pilferage is discovered, Mystaire® Inc. will notify customer immediately and retain the entire shipment for inspection by carrier. All insurance claims are the responsibility of the customer and should be handled with the carrier directly.

Contact Information

If you have any questions that are not addressed in this manual, or if you need technical assistance, please contact Mystaire® Inc. at 919-229-8511 between the hours of 8:00 a.m. and 6:00 p.m. EST

Mystaire® mailing address: PO Box 825 Creedmoor, NC 27522

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Email Mystaire® at: service@mystaire.com

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