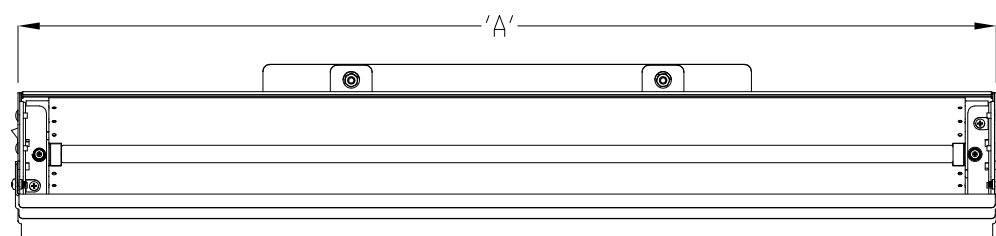
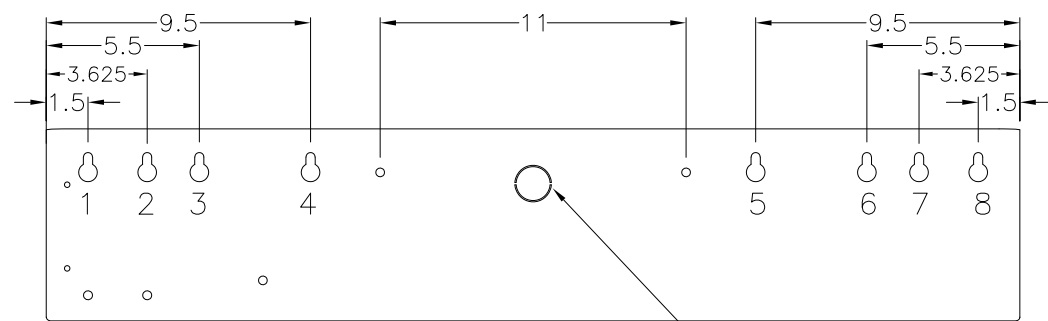


TOP VIEW



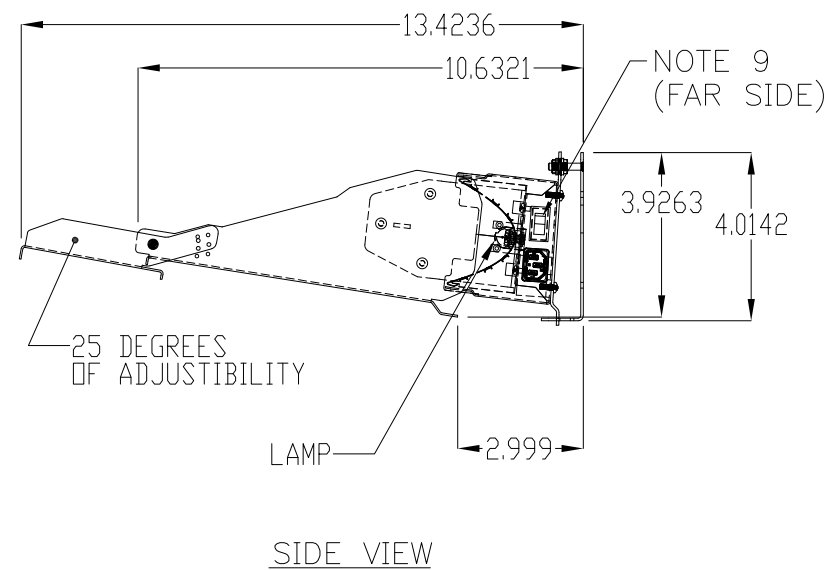
FRONT VIEW



REAR VIEW  
(MOUNTING HOLES FOR ALL MODELS - SEE CHART)

NOTE 4

NOTE 4

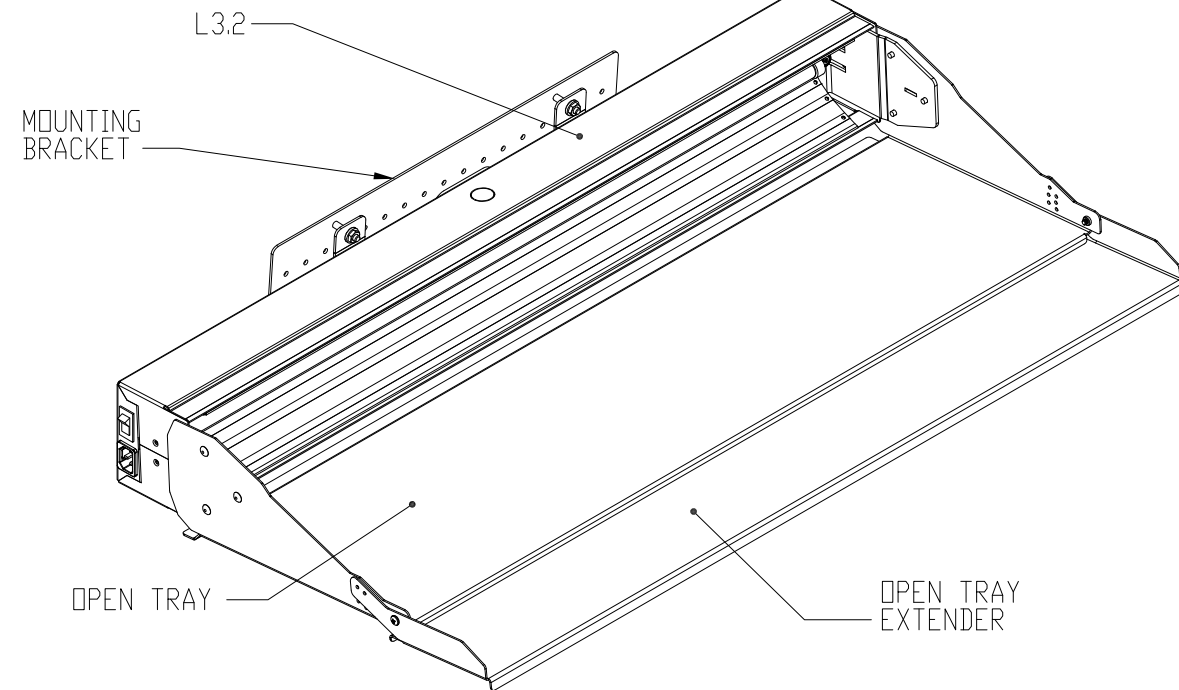


SIDE VIEW

NOTE 9  
(FAR SIDE)

25 DEGREES  
OF ADJUSTIBILITY

LAMP



ISOMETRIC VIEW

L3.2

MOUNTING  
BRACKET

OPEN TRAY

OPEN TRAY  
EXTENDER

MODEL	A	W [LBS]	WALL MOUNTING HOLE	MOUNTING BRACKET	MIN. MOUNTING HEIGHT
GLO-900-OF	23.25"	8	1,2,7,8	11" CENTERED	10'-3"
GLO-1500-OF	35"	10	3,4,5,6	11" CENTERED	11'-6"

NOTES:

1. ALL ALUMINUM CONSTRUCTION.
2. COMPUTER DESIGNED REFLECTOR.
3. HOSPITAL GRADE U-GROUND POWER CORD.
4. 2 - 1/2" KNOCKOUTS FOR HARDWARE OPTIONS.
5. MOUNTING KEY HOLES.
6. 120-277V POWER SUPPLY.
7. WARNING LABELS INCLUDED.
8. HIGH POWER UV-C LAMP.
9. ON/OFF POWER SWITCH.

OTHER:

1. REFER TO PRODUCT IOM FOR INSTALLATION DETAILS.
2. FIXTURE MUST BE MOUNTED AT MINIMUM HEIGHT SHOWN IN TABLE.
3. CAUTION: DO NOT LOOK INTO A LIT FIXTURE AT ANY TIME.
4. CAUTION: TURN OFF FIXTURE WHEN SERVICING.
5. CAUTION: WEAR GOGGLES AND A FULL FACE MASK WHEN WORKING AROUND THIS UNIT.
6. CAUTION: DO NOT LET ANY LIGHT STRIKE YOUR EYES WHEN DE-ENERGIZING.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		
FRACTIONS	DECIMALS	ANGLES
+/-	.X+/- .060	+/- 1
	.XX+/- .030	
	.XXX+/- .010	

Rev	Date	Description
<b>UVR</b> UV RESOURCES		
Description: GLO™- UPPER AIR UV-C OPEN FIXTURE		
PN: 41825002, 41825000		
Rev: 0	Date: 6/29/22	Dwg No. 91825000
		1 of 1



# Installation, Operation and Maintenance Manual: GLO OF/OF-BR™ Upper-Room Germicidal UV Fixture

Models GLO 900/1500 OF/OF-BR

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## Trademarks

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## Scope

This document describes the installation, operation, and maintenance of the UV Resources OF/OF-BR Upper-Room Germicidal UV Fixture for Models GLO 900/1500 OF/OF-BR. For information outside the scope of this manual, contact UV Resources.

## Inspection

UV Resources carefully packaged your equipment to prevent damage during shipping. It is your responsibility to inspect this equipment before installing it and to notify us of any damages. Do not install equipment that is damaged. Also, before discarding the packaging materials, carefully inspect them to prevent the loss of accessories, mounting hardware, spare parts, or instructions. Follow all instructions on any labels or tags.

## User Responsibility and Disclaimer

The information and recommendations in this manual are based upon data collected by **UV Resources** and are believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. Specifications and information are subject to change without notice.

The user is responsible for determining and validating the suitability of this equipment for the user's own system or process. The user is also responsible for periodically inspecting, cleaning as necessary, and confirming the continued presence and good legibility of the product safety labels.

The manufacturer does not make any warranty or representation with respect to the suitability or performance of this equipment, or to the results that may be expected from its use. If any of the safety labels are missing or illegible, contact AeroMed Technologies, LLC (AeroMed) at the location listed on this manual's front cover.

# 1. Installation, Operation, and Safety Instructions

## 1.1 IMPORTANT SAFEGUARDS

When using electrical equipment, always follow basic safety precautions. These include the following:

### READ AND FOLLOW ALL SAFETY INSTRUCTIONS

### SAVE THESE INSTRUCTIONS

- a) This equipment is designed for use with germicidal UV radiation sources and must be installed in compliance with competent technical directions to prevent risk of personal injury from UV radiation.
- b) UV radiation can pose a risk of personal injury. Over exposure can result in damage to eyes and bare skin. To reduce the risk of overexposure, this equipment must be installed in accordance with the manufacturer's site planning recommendations. This may include instructions on the relative location of each germicidal system component, the minimum distances between UV-generating devices and other objects or surfaces, and protection from line-of-sight exposure to UV radiation in occupied spaces located above the equipment mounting area (e.g., upper-floor balconies, open staircases, etc.).
- c) UV and optical radiation can be reflected by surrounding surfaces such as ceilings and walls. Since the reflective properties of surfaces can vary widely, it should be considered as part of site planning. Follow the manufacturer's recommendations for selecting appropriate ceiling and wall finishes.
- d) IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT PERSONS WILL NOT BE EXPOSED TO EXCESSIVE UV OR OPTICAL RADIATION DURING EQUIPMENT OPERATION. THIS WILL REQUIRE THE INSTALLER TO CONDUCT AN ASSESSMENT OF IRRADIANCE OR ILLUMINANCE LEVELS IN THE SURROUNDING OCCUPIED SPACES PRIOR TO OCCUPANCY.
- e) Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- f) Maintenance and servicing of this UV generating equipment shall be performed by authorized personnel. Service personnel must wear appropriate Personal Protective Equipment (PPE) if the equipment will be in operation during the maintenance or servicing work. Contact the equipment manufacturer for PPE recommendations and guidance.
- g) When replacing lamps, replace them only with the lamps for which the equipment is marked and intended.
- h) The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- i) Do not use this equipment for other than intended use.
- j) This equipment is intended for indoor use only.
- k) Do not operate this equipment without proper electrical ground.

- l) Do not operate this equipment if there is visible or suspected damage to the GLO OPEN, or there is damage to the cord and/or plug (if applicable)
- m) The utility power that is supplied to this equipment must match the power requirements that are listed on the GLO OPEN unit's label.

**⚠ WARNING** Follow all OSHA guidelines for your industry.

## 1.2 Safety Labeling and Cautionary Markings

Refer to all safety labels attached to this product. The text of these cautionary markings appears below. In some cases, both English and French are provided.

The following notes appear directly on the product in the proper locations and sizes as required.

- a) SUITABLE FOR DAMP LOCATIONS | CONVIENT AUX EMPLACEMENTS HUMIDES
- b) BALLAST DISCONNECT
- c) MOUNT **GLO 900 OF** AT LEAST 123 INCHES [3.12M], **GLO 900 OF-BR** 138 INCHES [3.5M], **GLO 1500 OF** 126 INCHES [3.2M], **GLO 1500 OF-BR** 154 INCHES [3.91M] ABOVE THE FLOOR OR IN ACCORDANCE WITH SPECIFIC GUIDANCE PROVIDED IN THIS MANUAL
- d) GLO 900 OF/OF-BR: USE ONLY TUV 25W LAMP
- e) GLO 1500 OF/OF-BR: USE ONLY TUV 36W LAMP
- f) Read instructions before use | Lire les instructions avant utilisation
- g) CAUTION – RISK OF PERSONAL INJURY | ATTENTION – RISQUE DE BLESSURE
- h) WARNING – UV emitted from this product | AVERTISSEMENT – UV émis par ce produit
- i) EYE DAMAGE MAY RESULT FROM DIRECTLY VIEWING THE LIGHT PRODUCED BY THE LAMP IN THIS EQUIPMENT. ALWAYS TURN OFF THE LAMP BEFORE SERVICING | DES LÉSIONS OCULAIRES PEUVENT RÉsulTER DE VOIR DIRECTEMENT LA LUMIÈRE PRODUIT PAR LA LAMPE DANS CE ÉQUIPEMENT. ÉTEIGNEZ TOUJOURS LA LAMPE AVANT L'ENTRETIEN
- j) THIS EQUIPMENT IS DESIGNED FOR USE WITH GERMICIDAL LAMPS OR UV SOURCES AND MUST BE INSTALLED IN COMPLIANCE WITH COMPETENT TECHNICAL DIRECTIONS TO PREVENT THE USER'S EYE AND BARE SKIN FROM EXPOSURE TO HARMFUL UV OR OPTICAL RADIATION | CET ÉQUIPEMENT EST CONÇU POUR UNE UTILISATION AVEC DES LAMPES GERMICIDALES OU UV SOURCES ET DOIVENT ÊTRE INSTALLÉES DANS CONFORMITÉ AVEC COMPÉTENT DIRECTIVES TECHNIQUES POUR ÉVITER LES YEUX ET LA PEAU NUE DE L'UTILISATEUR EN CAS D'EXPOSITION À DES RAYONS UV OU OPTIQUES NOCIFS"
- k) DO NOT INSTALL THIS EQUIPMENT IN A DWELLING | N'INSTALLEZ PAS CET ÉQUIPEMENT DANS UN HABITATION

### 1.3 GLO OF/OF-BR Certification and Testing

The GLO OF family is certified to the standards described in the sections below.

#### 1.3.1 Electrical Testing

The GLO OF family has passed Intertek electrical safety testing to UL and CSA Standards.

- Luminaires [UL 1598:2018 Ed.4]
- Luminaires [CSA C22.2#250.0:2018 Ed.4]

The GLO OF/OF-BR have also been classified as Risk Level “EXEMPT”, based on Intertek Photobiological Testing (UL 1598 Certification Requirement Decision Ed. 4 – August 28, 2018 Germicidal Equipment – ANNEX L (SL4)7, when installed in accordance with these installation instructions.

#### 1.3.2 Ozone Testing

The GLO OF/OF-BR have been tested, investigated, and found to comply with the requirements of the following Standard(s):

- Electrostatic Air Cleaners, UL 867, Section 40, Fifth Edition, August 4, 2011 revision: August 7, 2018
- CSA 22-2 No. 187-15, Section 7, February 2015, April 2016 Revision

The equipment identified in this report has been found to meet the criteria for emittance of ozone not exceeding a concentration of 0.050 parts per million (ppm). Furthermore, a second sample was not required to be tested, according to UL 867, as the first sample’s maximum emissions were less than 0.030 ppm, which satisfies the exception in the Section 40.1.1.

#### 1.3.3 Output Testing

The GLO OPEN have been tested for output by an independent lab to the following standards.

- IESNA LM-41-2014: Photometric Testing of Indoor Fluorescent Luminaires
- IESNA LM-58-2013: Spectroradiometric Measurement Methods for Light Sources
- IESNA LM-54-2012: IES Guide to Lamp Seasoning
- IESNA LM-9-2009: Electrical and Photometric Measurements Of Fluorescent Lamps

## 2. Product Application

### 2.1 Principle of Operation

- a) The GLO OF family is specially designed for larger spaces and higher ceiling applications. It uses ultraviolet-C (UV-C) to irradiate air that may contain infectious pathogens. The GLO OF/OF-BR are recommended for 24/7 use, including when a room is occupied. It allows for the continuous treatment of air into which pathogens are released.
- b) UV-C is a form of germicidal ultraviolet (GUV) radiant energy that inactivates pathogens so that bacteria and viruses are unable to replicate.
- c) The GLO OF/OF-BR deliver disinfecting UV-C radiation in dosages that are a function of exposure time and intensity. Exposure time is the total amount of time, in seconds, that pathogens present in the room remain in the ultraviolet field produced by the germicidal ultraviolet lamp(s).

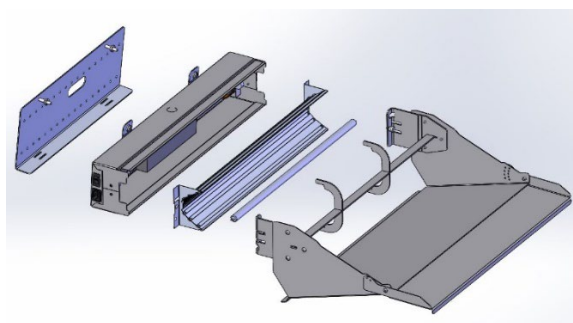
- d) Duration of exposure is closely related to the air circulation in a room. Moderate air mixing through natural or mechanical ventilation, or the use of mixing fans, creates the ideal environment for maximum effectiveness.
- e) If the movement of air is too fast, pathogens pass through the zone too quickly to be treated.
- f) If the movement is too slow, pathogens may not be moved to the Upper-Room to be treated.
- g) Intensity is the amount of UV-C that reaches any given point in space, and the GLO OF family delivers up to 5 times greater UV intensity than the standard GLO fixtures. It is usually given in microwatts or milliwatts per square centimeter.
- h) The World Health Organization (WHO) recommended the use of Upper-Room GUV for tuberculosis infection prevention control in its 2019 guidelines. In addition to tuberculosis, GLO OF fixtures have been used to mitigate the airborne spread of influenza, measles, and SARS (coronavirus).
- i) Locations where GLO OF/OF-BR fixtures can be deployed include gymnasiums, cafeterias, auditoriums, lecture halls, warehouses, tennis clubs, fitness centers, and more. The GLO OPEN family is specifically designed to add protection in these large spaces with higher ceilings.

## 2.2 Limitations of Use

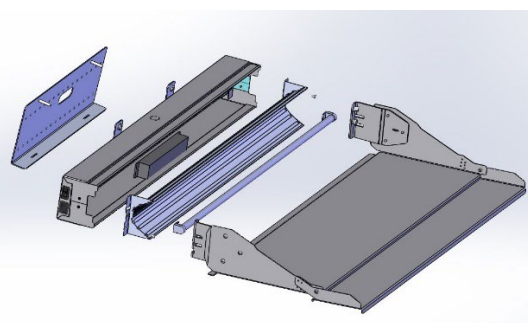
- a) **Important:** GLO OF/OF-BR Upper-Room Germicidal UV fixtures should be installed by a certified technician in accordance with the information provided in this document. Any power requirements or additional wiring must comply with applicable local and national electrical codes so that the GLO OPEN installation meets the safety guidelines described in Chapter 1.
- b) The location, installation, and adjustment of GLO OF/OF-BR fixtures require proper planning and execution to avoid exceeding the threshold limit value (TLV) for ultraviolet radiant exposure set by the American Conference of Governmental Industrial Hygienists (ACGIH).

## 2.3 Construction

Image: The main parts of a GLO OF fixture.



GLO OF-BR



GLO OF

- a) GLO OF/OF-BR fixtures are indirect-type GUV fixtures that use GUV lamp(s), a specially designed parabolic reflector, and an extended tray that redirects UV-C rays which are not focused toward the Upper-Room. The UV-C rays that reach the Upper-Room will inactivate viruses and bacteria so that pathogens are unable to replicate.

- b) GLO OF/OF-BR fixtures combine industry-leading UV-C output with a sleek, attractive, and highly efficient design. They are easy to install and support efficient safety commissioning.

## 2.4 Parts List

- a) GLO OF/OF-BR 900/1500 Models fixtures include these parts:

- GLO OF Series Fixture with lamp installed
- Installation Bracket and Adjustment Fasteners (1/4-20 flange nuts)
- U.S. Hospital Grade C13 Power Cord
- Warning Label for Upper-Room Safety
- Operating Instructions

- b) You will also need the following items, which are not included.

- Four (4) 8-32 x 0.5" pan head screws
- Level
- Drill
- Wall Anchors
- Ladder

**⚠ WARNING** Follow all OSHA guidelines for your industry.

## 3. Installation

A successful installation requires a thorough site assessment, an educated selection of the size and quantity of fixtures appropriate for the space, well-planned fixture placements, proper installation, and proper adjustment – all before verifying the room is safe for occupancy.

### 3.1 Assessment

Measure the room or refer to accurate plans (if available). Then perform a visual review of the room or facility. A few well-chosen photos can be enough with accurate dimensions, but an in-person visit is always recommended.

Consider the following during the assessment:

- door/window locations
- obstructions
- room shape
- reflective surfaces
- stairs/stages
- any elevation change
- intended uses
- other factors

### 3.2 Selection and Placement

A trained technician from UV Resources or one of its distributors can use this information to calculate the amount of UV-C dosage necessary and recommend the type and quantity of GLO

OF fixtures at your facility. Fully understanding the space also allows the technician to suggest the placement of these fixtures to help achieve optimal results.

### 3.3 Important Installation Information

**⚠ WARNING** Read this section before beginning the installation.

**⚠ CAUTION** Wear eye protection and skin protection if there is a risk of exposure to the high-intensity UV zone (approximately 6-1/2 feet above the floor) when a GLO OF/OF-BR is in use. Personal protection equipment (PPE) includes gloves and ultraviolet resistant face shield. In addition, wear a long sleeved shirt and cover any gaps between the cuffs and protective gloves.

- a) Always use caution near UV fixtures. Because UV-C energy is hazardous, exposure to bare skin or the eyes can be harmful.
- b) Before starting the installation, unplug and power-off all fixtures.
- c) Power-down all fixtures whenever the Upper-Room must be occupied, such as when replacing lamps, performing ceiling or ventilation work, or updating signage.

### 3.4 Wiring

- a) All GLO OF model fixtures come pre-wired for use with a standard grounded power cord (provided).
- b) If there is a three-pronged grounded outlet nearby, you can plug one end of the power cord into the GLO OF/OF-BR and the other end into the wall outlet.
- c) The GLO OF/OF-BR can be hard-wired and controlled with a remote switch, but additional precautions must be taken. Consult **UV Resources** about hard wiring.
- d) All wiring should be performed by a certified electrician.
- e) All wiring should conform to state and local electrical codes as well as the current National Electric Code (NEC).

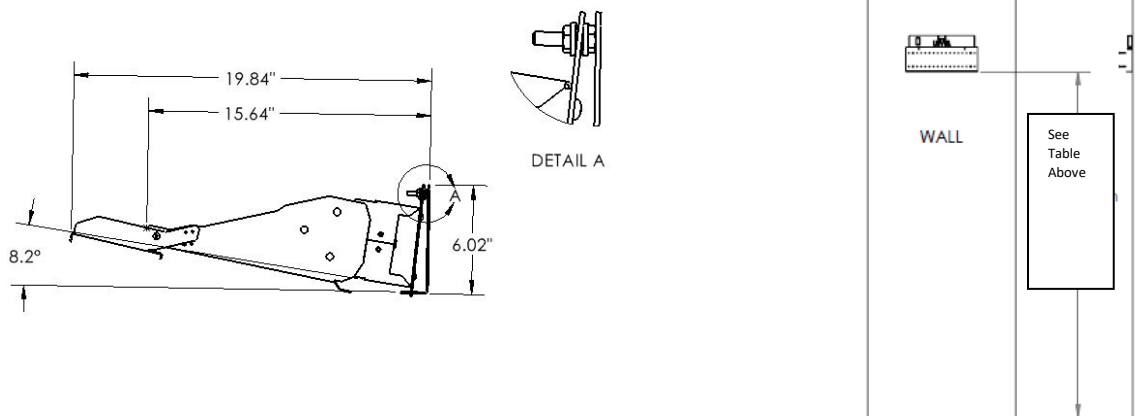
### 3.5 Installation Steps

- a) Identify and un-box the installation bracket, mounting fingers, and bracket hardware.
- b) Fasten the two (2) mounting fingers with the tabs facing down to the backside of the GLO OF/OF-BR Upper-Room UV fixture using the four (4) 8-32 x 0.5" pan head screws.
- c) Select the installation location. Listed below are the absolute minimum installation heights and angles for each size fixture.

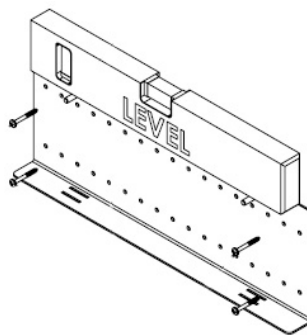
Model	Min. Height	Fixture Angle
GLO 900 OF	10'3" [3.12M]	MAX
GLO 900 OF-BR	11'6" [3.5M]	MAX
GLO 1500 OF	10'6" [3.2M]	MAX
GLO 1500 OF-BR	12'10" [3.91M]	MAX



- d) Fixtures may be installed at heights or angles greater than the minimum required parameters established above.



- e) Level and secure the wall mounting bracket to the wall. Any of the holes may be used to secure the bracket to the wall, but it is recommended that at least two (2) points from each row of holes be secured (see the drawing below). It is also recommended that one pair of the fasteners be installed to a stud, if possible. If a stud cannot be located, wall anchors and an additional anchor point should be used.



- f) Place one of the 1/4-20 flanged nuts over each stud of the bracket with the flanged side facing out. Then spin the flanged nut all the way down each stud.
- g) The “fingers” attached to the fixture can now be dropped into the outermost slots on the bottom of the bracket. The fixture can then be rotated back so the hole in the “fingers” slides over the stud. The other two (2) 1/4-20 flanged nuts should be added, and hand tightened.
- h) The optimal Installation angle is one that meets the minimums referenced previously, but that also allows as much of the UV light as is possible to remain in the Upper-Room and not on the ceiling.
- i) Once the angle is achieved, tighten the two (2) flanged nuts together on each stud, sandwiching the “finger” between them.

### 3.6 Operation – Turning On the GLO OF/OF-BR After Installation

**⚠ WARNING** To avoid UV-C exposure, make sure you are below the irradiance zone when energizing the system.

- a) Once the GLO OF/OF-BR is connected to a power source, turn the ON/OFF switch to the ON position.
- b) When the GLO OF/OF-BR is ON, a visible blue light will emanate from the fixture.

### 3.7 Important Safety Testing Information

- a) UV Resources recommends that all fixtures and installations be safety tested. These results should be discussed with, then provided to, the owner or authorized representative, and also kept on file by the installer/distributor.
- b) When testing for safety, it is important that the level of UV-C in the occupied space remains below accepted levels as readings are taken throughout the room. The only way to capture such readings is with a properly calibrated light meter with a UV-C specific detector and with adequate accuracy (precision and bias) to measure levels  $< 0.40 \mu\text{W}/\text{cm}^2$ . As such, AeroMed requires that all approved distributors and installers own, or have access to, and understand the operation of these devices.
- c) Consult UV Resources for specifics regarding safety testing procedures, values and limits. At a minimum, readings should be taken at 3, 6, 9, and 12 feet from the face of the fixture, perpendicular to the installation and at 5 feet, 6 inches above the floor (average eye level).
- d) In settings where occupants will spend significant time in a room while not standing (e.g., sitting at a desk, laying in a patient bed, etc.), safety level measurements should also be taken at those locations.
- e) The facility name, room number or name, fixture serial number and location, date of testing and technician name (at a minimum) should also be recorded.
- f) Adjustments to the angle of the fixtures should be made as required to achieve both safe eye-level readings and to ensure as much UV-C irradiance as possible remains in the Upper-Room (as opposed to being absorbed by walls and ceilings). Reflection of UV-C into the lower-room and loss of UV-C output can occur if the fixture is not adjusted properly.
- g) Test to achieve the desired UV safety levels throughout the room and be sure the installation meets the required minimum installation standards. Then tighten the two flanged nuts together securely on the stud to lock in the angle, sandwiching the tab between them. You may need to tighten the front and back nuts so that you don't alter the angle, and then re-test to confirm that the safety level has not changed.
- h) For rooms with multiple fixtures, it is recommended to create a small table of safety readings along centerline from the fixture (both facing toward and away) showing the results at eye-level. Systematically check for hotspots where output is likely to overlap and where occupants are likely to spend more time. Consult UV Resources for specifics regarding safety testing procedures, values and limits. Additional adjustment of the fixtures may be required to achieve this when multiple GLO OF/OF-BR fixtures are located within one room or space.
- i) The installer should complete a final walkthrough with the owner or authorized representative highlighting the safety of the installation and stressing the importance of powering-off all fixtures before anyone is allowed to enter the Upper-Room for any reason. The GLO OF/OF-

BR Upper-Room GUV Manual should be reviewed, and the safety recommendations should be reinforced.

## 4. Maintenance

### 4.1 Warnings and Cautions

**⚠ WARNING** Always disconnect power to the fixture before performing any service or maintenance. Additionally, the GLO OF/OF-BR is equipped with a safety interlock switch that will shut down the germicidal ultraviolet lamp when the protective tray is removed.

**⚠ CAUTION** Do not override the safety interlock switch. Operating the fixture when the interlock switch is overridden and protective tray removed will expose personnel to direct or strongly reflected germicidal ultraviolet rays, which are harmful to the eyes and skin.

**⚠ CAUTION** Wear eye protection and skin protection if there is a risk of exposure to the high-intensity UV zone (approximately 6-1/2 feet above the floor) when the GLO OF/OF-BR is in use. Personal protection equipment (PPE) includes gloves and ultraviolet resistant face shield. In addition, wear a long sleeved shirt and cover any gaps between the cuffs and gloves.

### 4.2 Important Information

- a) The GLO OF/OF-BR are designed to operate with a minimal amount of maintenance. Occasional ultraviolet measurements **MUST** be made to ensure that germicidal ultraviolet intensities in the treated areas remain at effective levels, while readings in the occupied spaces remain within allowable exposure limits.
- b) A routine cleaning schedule of the germicidal ultraviolet lamp, reflector, and tray should be established based on visual inspection and experience. The frequency of cleaning will vary with the conditions surrounding each installation. It is recommended that the germicidal lamp, reflector and tray section be cleaned at least once every 6 months.
- c) The germicidal ultraviolet lamp used has a manufacturer's rated average effective life of 10,000 hours. The lamp may operate longer than the rated effective life, but the reduction in ultraviolet output will make it ineffective to use past the lamp manufacturer's rated life. For maximum efficiency, lamp replacement is recommended every 10,000 hours of operation or after about one (1) year of continuous use.
- d) Refer to Appendix A for a suggested maintenance log for the GLO OF series fixtures.

### 4.3 Installing, Cleaning, and Replacing Lamps

**⚠ WARNING** Before performing any service or maintenance, turn-off power to the GLO OF/OF-BR fixture and disconnect it from the utility power source.

- a) In addition to eye and skin protection, wear gloves to protect the lamp and reflector. You will need the following tools for lamp maintenance:
  - lint-free cloth
  - isopropyl alcohol
  - ladder

**⚠ WARNING** Follow the OSHA guidelines for your industry.

- b) Remove the germicidal ultraviolet lamp by rotating it a quarter-turn and then pulling it straight away from the fixture.

**⚠ CAUTION** The lamp is easily damaged and may cause injury if broken. Exercise care when handling. See the lettered items below and section 4.4 for more information.

- c) Wipe down the outer surface of the lamp. Moisten a clean, lint-free cloth with isopropyl alcohol and wipe down carefully. Set the lamp safely aside.
- d) Remove any loose dust or dirt from the interior of the fixture with a soft dry cloth, or vacuum.
- e) Gently remove any dust, dirt, fingerprints, smears, etc., from the reflective surfaces of the reflector. Moisten a clean, lint-free cloth with isopropyl alcohol and wipe down the reflector. Then use a soft, dry cloth to buff out any streaks that remain from cleaning.
- f) Note: The reflector is constructed from specular aluminum, a highly reflective mirror-like material used to maximize ultraviolet output.
- g) Re-install or replace the lamp. Align the lamp pins with the openings of the lamp holders, insert the lamp fully, and make a quarter-turn of the lamp in either direction. This quarter-turn will lock the lamp contacts in place.
- h) Verify that the lamp is properly seated by gently wiggling the lamp with a small amount of outward force.
- i) Reconnect the fixture to utility power and then restart the GLO OF/OF-BR.

**⚠ WARNING** Avoid exposure to direct or strongly reflected germicidal ultraviolet rays, which are harmful to the eyes and skin.

- j) Anytime a GLO OF/OF-BR fixture is handled, a repeat of basic safety testing should be conducted. If there are safety concerns, consult the appropriate sections of this manual for adjustment instructions. If the fixture is not working properly, see Chapter 5: Troubleshooting.

#### 4.4 Handling Broken Lamps

**⚠ CAUTION** Broken quartz is sharp and can cause injuries.

- a) Wear protective gloves when handling a broken germicidal ultraviolet lamp.
- b) DO NOT use a household vacuum cleaner to pick up fragments of the lamp.
- c) Sweep the debris into a dustpan or similar device, and then empty into a plastic bag.

#### 4.5 Disposing of Germicidal Ultraviolet Lamps

**⚠ WARNING** Germicidal ultraviolet lamps contain small amounts of mercury. Dispose of these lamps according to local, state or federal regulations.

- a) Do not put mercury-added lamps in the trash.
- b) For further information about the disposal and recycling of lamps containing mercury, along with federal and state requirements, visit [LampRecycle.org](http://LampRecycle.org).

## 5. Troubleshooting

Always disconnect power to the GLO OF/OF-BR before performing any service or maintenance.

Wear personal protective equipment for eye protection and skin protection.

**IMPORTANT:** This GLO OF/OF-BR is to be serviced **ONLY** by qualified, and appropriately trained and/or licensed personnel.

Table 1 – Troubleshooting		
Problem	Possible Cause	Corrective Action
GLO OF/OF-BR not operating.	No electrical power.	Verify the GLO OF/OF-BR is connected to a live power source.
	Power connections to fixtures are loose or disconnected.	Verify power connections to fixture are fully engaged.
Germicidal ultraviolet lamp not operating.	Lamp not installed.	Install lamp.
	Interlock switch open.	Confirm interlock switch is engaged
	Lamp not properly seated.	Confirm connection of lamp and lampholder. Make sure connection is tight and lamp is making full contact with lampholder.
	Lamp faulty.	Swap suspect lamp with known good lamp. If known good lamp does not operate, visually inspect all wire connections.

If the above measures fail to correct the problem(s), contact our Application Specialists.

## 6. Technical Specifications

Model	GLO 900 OF/OF-BR	GLO 1500 OF/OF-BR
Height:	4.62"	4.62"
Width:	23.25"	34.9"
Depth:	7.43"	7.43"
Weight:	7 lbs.	9 lbs.
Height:	OF10'3"/OF-BR 11'6"	OF 10'6"/OF-BR12'10"
Fixture Angle:	MAX	MAX
Electrical @120V	25W / 0.22A	43W / 0.34A
UV Lamp:	GLO 900 OF/OF-BR-UVL	GLO 1500 OF/OF-BR-UVL
Variable Input Ballast:	GLO OF 900-BAL	GLO OF 1500-BAL
UV Output*:	0.84 watts	1.37 watts

\*Intertek Testing to UL Standard (UL 1598 Certification Requirement Decision Ed.4 – August 28, 2018 Germicidal Equipment – ANNEX L (SL4)7. User Assistance

UV Resources makes every effort to ensure that GLO OF/OF-BR Upper-Room Germicidal UV Fixtures are products of superior quality and workmanship. This manual describes the installation, operation, and maintenance of the GLO OF Series Fixtures.

Please read and become familiar with the contents of this manual before installing or using the GLO OF/OF-BR. If after reading the manual you still have questions or concerns regarding the

installation or use of the GLO OF/OF-BR, contact our offices, weekdays between 8:00 am and 5:00 pm Pacific at:

UV Resources  
P.O. Box 800380, Santa Clarita, CA 91380  
T: 877-884-4822  
Email: [UVR.Info@uvresources.com](mailto:UVR.Info@uvresources.com)

## 7. Warranty

### 7.1 Limited Warranty

This Limited Warranty is only available to the original owner of the product. It is not transferable.

### 7.2 General

Manufacturer warrants this product to be free from defects in material and workmanship for one (1) year from the latest date among the following: the original invoice date, the date of shipment, or the arrival date at installation location. Shipping and handling fees are to be paid for by the owner. Manufacturer agrees, at its option, during the warranty period, to repair or replace a defective product. Repair or replacement is subject to verification of the defect and acceptable proof of purchase, or in the case of a warranty claim made within one (1) year from the date of installation, proof of purchase and acceptable proof of installation. Please keep documented proof in the event of a claim.

To make a warranty claim, you must call Customer Service at 877-884-4822. You must provide the model and serial number of the defective product, proof of purchase, and in the case of a warranty claim made within one (1) year after the date of installation, you must also provide documentary proof of the installation date, such as a copy of invoice received from a qualified technician.

You will be advised of proper procedures to return any defective product.

### 7.3 Exclusive Warranty – Limitation of Liability

This Limited Warranty is the only Warranty for this product given by manufacturer. No one is authorized to make any other warranties on behalf of manufacturer. ANY IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE ONE (1) YEAR WARRANTY PERIOD. MANUFACTURER'S SOLE LIABILITY, WITH RESPECT TO ANY DEFECT, SHALL BE AS SET FORTH IN THIS LIMITED WARRANTY, AND ANY CLAIMS FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARE EXCLUDED. Some states do not allow limitations on how long an implied warranty lasts, or for the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply.

### 7.4 Warranty Exclusions

This Limited Warranty does **not** cover: (i) Damages, defects, or failures resulting from improper installation or failure to install, operate, maintain, and care for the product in accordance with manufacturer's instructions; (ii) Damages, defects, or failures caused by modifications, alterations, additions, or unapproved parts installed; (iii) Damages, defects, or failures caused by accident, abuse, misuse, or negligent use of the product, fire, flood, freeze, lightning, acts of God, and the like; (iv) product installed outside the fifty states (and the District of Columbia) of the United States of America; or (v) product that has any certification label removed. A product that does not have a certification label should not be operated without first contacting manufacturer.

[P.O. Box 800370, Santa Clarita, CA 91380 • T: 877-884-4822](mailto:UVR.Info@uvresources.com)  
[UVResources.com](http://UVResources.com)

