



# Lexus™

Upper-Room Germicidal UV (GUV)  
Installation, Operation, and Maintenance Manual



## Models

Lexus L1.1, Lexus L2.1, Lexus L3.1

Read all instructions before assembly and use of product. Keep instructions  
for future use

EPA Establishment  
Number 96253-MO-2



Made in  
USA

[info@aeromed.com](mailto:info@aeromed.com) | T: +1 816.492.7020 | F: +1 816.817.8641  
[www.faruv.com](http://www.faruv.com) | 7208 Wornall Rd. #210, Kansas City MO 64114

## Preface

### Copyright:

Copyright © AeroMed Technologies, LLC 2021. All rights reserved.

You may not extract or copy part or all of the contents of this manual, or disseminate it in any form, without the express authorization of AeroMed.

### Trademarks:

AeroMed® is a registered trademark and LEXUS™ is a trademark of AeroMed Technologies. Do not assign the same or similar trademarked names to other products.

### Scope:

This document describes the installation, operation, and maintenance of the AeroMed Lexus Upper-Room Germicidal UV Fixture for Models Lexus L1.1, Lexus L2.1, and Lexus L3.1. For information outside the scope of this manual, contact AeroMed at the contact information listed on the manual's front cover.

### Inspection:

AeroMed 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.

### Disclaimer:

The information and recommendations in this manual are based upon data collected by AeroMed 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.

## Table of Contents

Preface	
Copyright .....	2
Trademarks .....	2
Scope .....	2
Inspection .....	2
Disclaimer .....	2
1. Installation, Operation, and Safety Instructions .....	5
1.1 IMPORTANT SAFEGUARDS .....	5
1.2 Safety Labeling and Cautionary Markings .....	6
1.3 LEXUS Certification and Testing .....	7
1.3.1 Electrical Testing .....	7
1.3.2 Ozone Testing .....	7
1.3.3 Output Testing .....	7
1.4 User Responsibility and Disclaimer .....	8
2. Product Application .....	9
2.1 Principle of Operation .....	9
2.2 Limitations of Use .....	10
2.3 Construction .....	11
2.4 Parts List .....	12
3. Installation .....	13
3.1 Assessment .....	13
3.2 Selection and Placement .....	13
3.3 Important Installation Information .....	13
3.4 Wiring .....	14
3.5 Installing the Wall Bracket .....	16
3.6 Installing the LEXUS .....	19
3.7 Operation - Turning On the LEXUS After Installation .....	20
3.8 Important Safety Testing Information .....	20
4. Maintenance .....	22
4.1 Warnings and Cautions .....	22
4.2 Important Information .....	22
4.3 Installing, Cleaning, and Replacing Lamps .....	23
4.4 Handling Broken Lamps .....	24
4.5 Disposing of Germicidal Ultraviolet Lamps .....	25

5. Troubleshooting .....	26
6. Technical Specifications .....	27
7. User Assistance .....	28
8. Warranty .....	29
8.1 Limited Warranty .....	29
8.2 General .....	29
8.3 Exclusive Warranty - Limitation of Liability .....	29
8.4 Warranty Exclusions .....	30
Appendix A: Maintenance Log .....	31

# 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

- 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.
- UV radiation can pose a risk of personal injury. Overexposure 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.).
- 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.
- 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.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- 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.
- When replacing lamps, replace them only with the lamps for which the equipment is marked and intended.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.

- Do not use this equipment for other than intended use.
- This equipment is intended for indoor use only.
- Do not operate this equipment without proper electrical ground.
- Do not operate this equipment if there is visible or suspected damage to the Lexus, or there is damage to the cord and/or plug (if applicable)
- Do not operate this equipment without the baffle section in place.
- The utility power that is supplied to this equipment must match the power requirements that are listed on the Lexus unit's label.

## 1.2 Safety Labeling and Cautionary Markings

Refer to all safety labels attached to this product. The text of these cautionary markings appears below. The following notes appear directly on the product in the proper locations and sizes as required.

- Suitable for damp locations
- Ballast disconnect
- Wall mount only
- Mount this equipment at least (8 feet) above the floor or in accordance with specific guidelines provided in this document
- LEXUS L1.1: USE ONLY TUV 8W LAMP

Note: Peak irradiance at 500 millimeters (mm) is 390 microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ).

- LEXUS L2.1: USE ONLY TUV 25W LAMP

Note: Peak irradiance at 500 mm is  $837 \mu\text{W}/\text{cm}^2$ .

- LEXUS L3.1: USE ONLY TUV 36W LAMP

Note: Peak irradiance at 500 mm is  $1370 \mu\text{W}/\text{cm}^2$

- Read instructions before use
- CAUTION – RISK OF PERSONAL INJURY
- WARNING – UV emitted from this product
- EYE DAMAGE MAY RESULT FROM DIRECTLY VIEWING THE LIGHT PRODUCED BY THE LAMP IN THIS EQUIPMENT. ALWAYS TURN OFF THE LAMP BEFORE SERVICING
- THIS EQUIPMENT IS DESIGNED FOR USE WITH GERMIDICAL 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
- Do not install this equipment in a dwelling

### **1.3 Lexus Certification and Testing**

The Lexus is certified to the standards described in the sections below.

#### **1.3.1 Electrical Testing**

The Lexus has passed Intertek electrical safety testing to UL and CSA Standards.

- Luminaires [UL 1598:2021 Ed.5]
- Luminaires [CSA C22.2#250.0:2021 Ed.5]

The Lexus has also been classified as Risk Level “EXEMPT”, based on Intertek Photobiological Testing (UL 1598 Certification Requirement Decision Ed. 5 – March 26, 2021 Germicidal Equipment – ANNEX L (SL4.8)), when installed in accordance with these installation instructions.

#### **1.3.2 Ozone Testing**

The LEXUS has 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 LEXUS 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

#### **1.4 User Responsibility and Disclaimer**

- The user is responsible for determining and validating the suitability of this equipment for the user's own system or process.
- The user is responsible for periodically inspecting, cleaning as necessary, and confirming the continued presence and good legibility of the product safety labels. If any of the safety labels are missing or illegible, contact AeroMed, LLC (AeroMed) at the location listed on this manual's front cover.
- 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.



## 2. Product Application

Image: Sample Lexus Application



### 2.1 Principles of Operation

- The Lexus is designed for occupied spaces and uses ultraviolet-C (UV-C) to irradiate air that may contain infectious pathogens.
- UV-C is a form of germicidal ultraviolet (GUV) radiant energy that inactivates pathogens so that bacteria and viruses are unable to replicate.
- The LEXUS is recommended for 24/7 use and especially when a room is occupied. It allows for the continuous treatment of air into which pathogens are released.
- The LEXUS delivers 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).
- 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.
  - If the movement of air is too fast, pathogens pass through the zone too quickly to be treated.
  - If the movement is too slow, pathogens may not be moved to the upper-room to be treated.
- Intensity is the amount of UV-C that reaches any given point in space. It is usually given in microwatts or milliwatts per square centimeter.
- LEXUS fixtures project a concentrated, horizontal beam of UV-C rays into the upper-room, where bacteria and viruses are carried on convection currents or through mechanical air circulation.

Image: AeroMed Upper-room GUV Fixtures units in use.



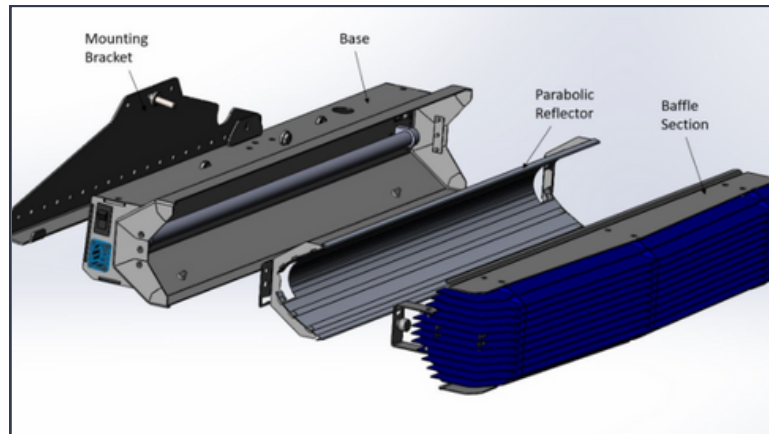
- The World Health Organization (WHO) recommended the use of upper-room GUV for tuberculosis infection prevention control in its 2019 guidelines.
- In addition to tuberculosis, LEXUS fixtures have been used to mitigate the airborne spread of influenza, measles, and SARS (coronavirus).
- Facilities where LEXUS fixtures can be deployed include:
  - Healthcare
  - Consumer
  - Foundations
  - Venues
  - Office
  - Livestock
  - Department of Defense
  - Worship
  - Schools
  - Transport
  - Government
  - Retail

## 2.2 Limitations of Use

- Important: LEXUS 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 LEXUS installation meets the safety guidelines described in Chapter 1.
- The location, installation, and adjustment of LEXUS fixtures requires 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).

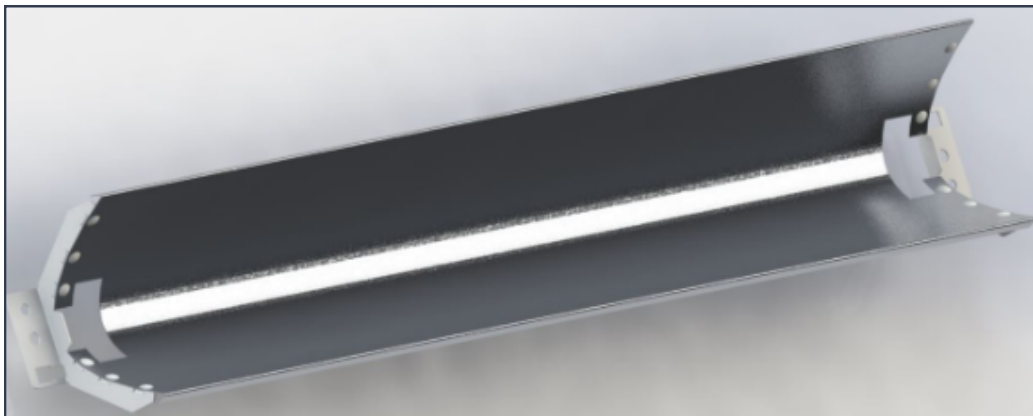
## 2.3 Construction

Image: The main parts of a LEXUS fixture.



- LEXUS fixtures are indirect-type GUV fixtures that use GUV lamp(s), a specially designed parabolic reflector, and a protective baffle section that absorbs 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.
- LEXUS 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.
- The geometry of a parabolic reflector is such that all of the energy from a UV lamp that is correctly located in the focal point is emitted from the LEXUS fixture as parallel or collimated light. Adjustable wall-mount brackets facilitate installation and adjustment for safety commissioning.

Image: Parabolic reflector for LEXUS L2.1 (L2) represented.



## 2.4 Parts List

- LEXUS Models L1.1, L2.1, and L3.1 fixtures include these parts:
  - LEXUS Series Fixture with lamp installed
  - Installation Bracket and Two (2) Adjustment Fasteners (1/4-20 flange nuts).
  - U.S. Hospital Grade C13 Power Cord
  - Warning Label for Upper-Room Safety
  - Operating Instructions
- LEXUS Models L1.1, L2.1, and L3.1 fixtures include these parts:
  - Four (4) Fasteners
  - Level
  - Phillips Screwdriver with a #2 Tip and 6 Inches (or Longer) Blade.  
Note: There is a captive Phillips head screw inside the baffle section.
  - Drill
  - Wall Anchors
  - Ladder

### 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 AeroMed 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 LEXUS 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

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

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 LEXUS 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.

- Always use caution near UV fixtures. Because UV-C energy is hazardous, exposure to bare skin or the eyes can be harmful.
- Before starting the installation, unplug and power-off all fixtures
- 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

Image: Power inlet is shown



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

Image: Wiring diagram for LEXUS L1.1.

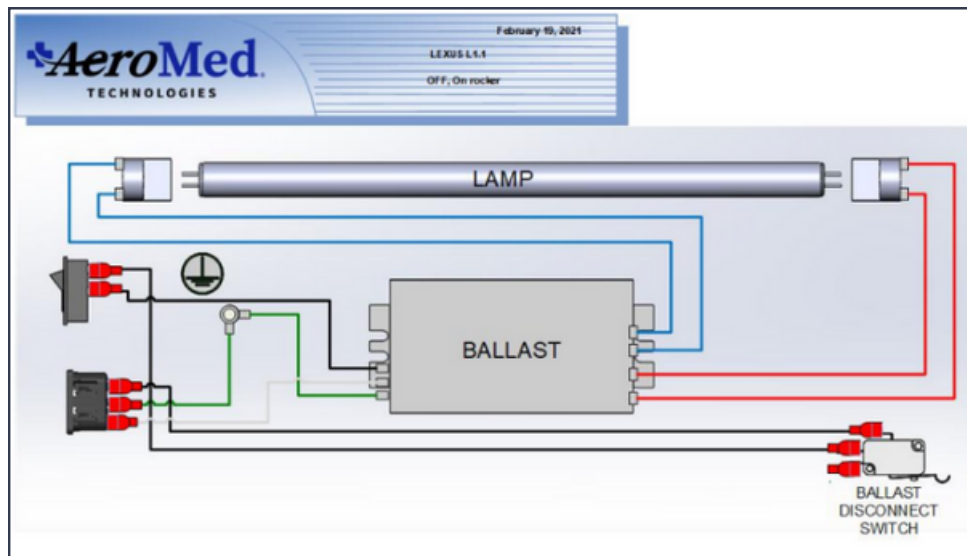


Image: Wiring diagram for LEXUS L2.1.

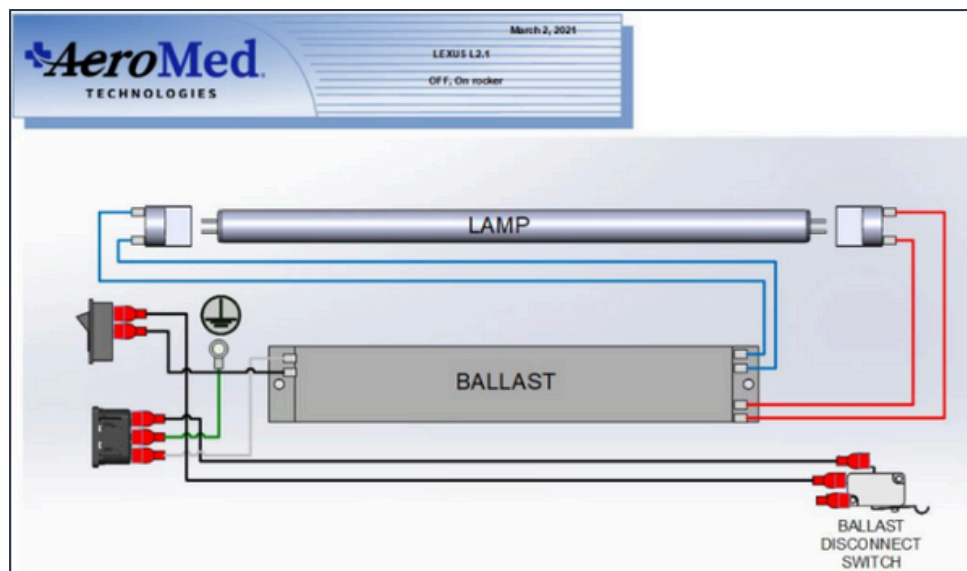
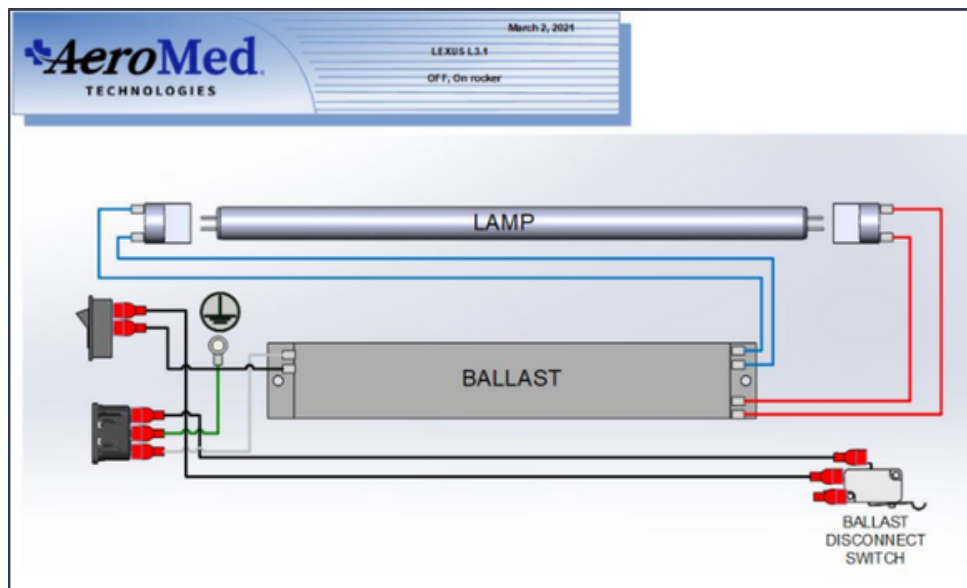




Image: Wiring diagram for LEXUS L3.1.



### 3.5 Installing the Wall Bracket

There are two sizes of brackets. The appropriate size was shipped with your LEXUS and is pre-installed.

Note: The bracket for the LEXUS L1.1 is smaller and narrower than the larger, wider bracket that is used with the LEXUS L2.1 and LEXUS L3.1.

Image: Smaller Wall Bracket for LEXUS L1.1.

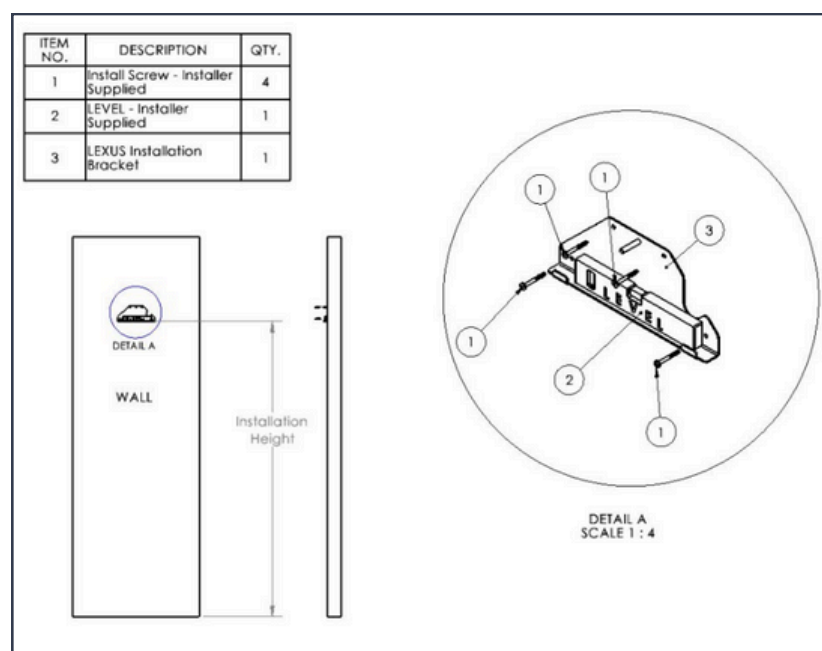
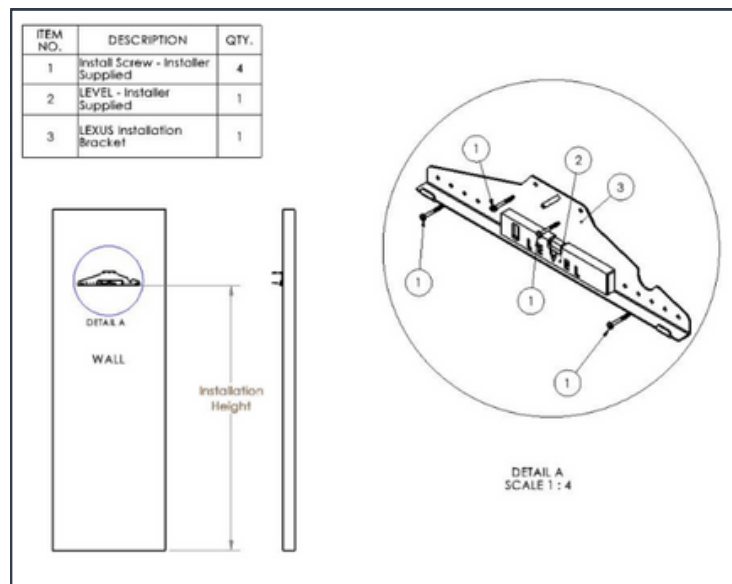




Image: Larger Wall Bracket for LEXUS 2.1 and LEXUS 3.1.



- Find the installation bracket and loosen the flanged nut that secures it to the LEXUS. Then remove the wall bracket from the LEXUS.
- Select the installation location. Use the minimum installation heights and angles referenced below. Height is given in feet (') and inches (").

Model	Height	Fixture Angle
LEXUS L1 (L1.1)	8'0"	+2.1°
LEXUS L2 (L2.1)	8'0"	+2.5°
LEXUS L2 (L2.1)	8'3"	+2.1°
LEXUS L3 (L3.1)	9'0"	+2.1°

- Fixtures may be installed at heights or angles greater than the minimum required parameters. The optimal installation angle is one that meets the minimums referenced above, but also allows as much of the UV light as possible to remain in the upper-room and not on the ceiling.

Image: The basic installation angle for all LEXUS units is 2.1°.

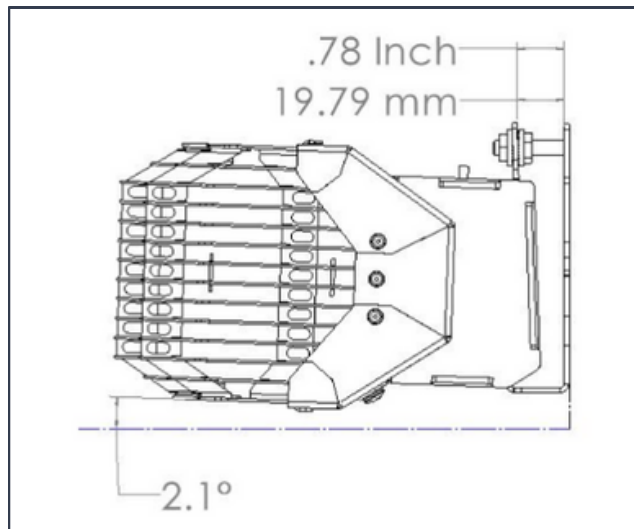
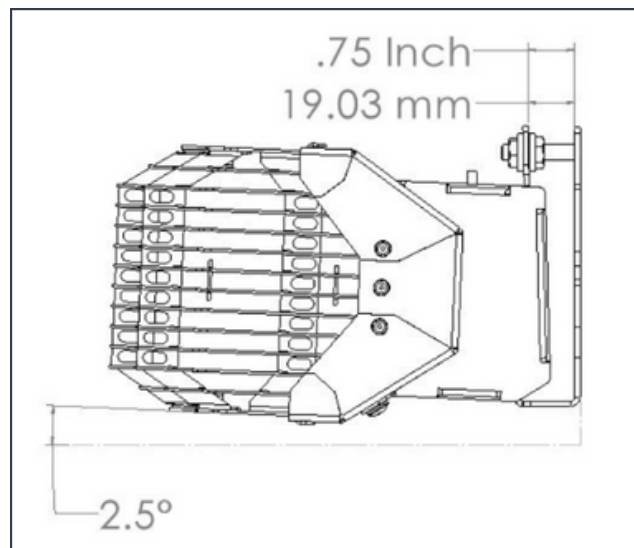


Image: For the LEXUS L2.1, an installation angle of 2.5° allows a fixture height of 8'0" instead of 8'3".



- Level and secure the bracket to the wall. Any of the holes may be used to secure the bracket, but it is recommended that both top holes and at least two holes in the lower row be secured.
- It is also recommended that one of the fasteners for the top hole be installed to a stud, if possible. If a stud cannot be located, wall anchors and an additional anchor point should be used.

### 3.6 Installing the LEXUS

Image: A completed installation. Two LEXUS units are shown.



- Place one of the 1/4-20 flanged nuts over the stud of the bracket with the flanged side facing out. Spin the flanged nut all the way down the stud, to allow room for the tab to easily slide over the bracket stud.
- The slots in the LEXUS can now be dropped onto the tabs on the bottom of the bracket. The LEXUS is then rotated back so the hole on the top tab slides over the stud.

Image: Top tab shown. For the LEXUS L2.1 installed at 8'0", the distance between the surfaces of the bracket and tab is .75".



- The other 1/4-20 flanged nut should be added, and then hand tightened.
- Tightening the flanged nut to different degrees should allow for fine adjustment.
- Connect the power cord provided.

### **3.7 Operation – Turning On the LEXUS After Installation**

To avoid UV-C exposure, make sure you are below the irradiance zone (below the baffle section) when energizing the system.

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

### **3.8 Important Safety Testing Information**

- AeroMed 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.
- 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.

- Consult AeroMed 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).
- 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.
- 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. Appendix A: Maintenance Log has a form you can use.
- Adjustments to the angle of the fixtures should be made as required (see Chapter 6: Technical Specifications) 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.
- Achieve the desired safety level at an angle greater than the required minimum. 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.
- 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 AeroMed for specifics regarding safety testing procedures, values and limits. Additional adjustment of the fixtures may be required to achieve this when multiple LEXUS fixtures are located within one room or space.
- 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 AeroMed Upper-Room GUV Manual should be reviewed and the safety recommendations should be reinforced.

## 4. Maintenance

### 4.1 Warnings and Cautions

Always disconnect power to the fixture before performing any service or maintenance. Additionally, the LEXUS is equipped with a safety interlock switch that will shut down the germicidal ultraviolet lamp when the baffle section is removed.

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

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 LEXUS 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

- The LEXUS is 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 within the allowable exposure limits and above minimum levels.
- A routine cleaning the germicidal ultraviolet lamp, reflector, and baffle section 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 baffle section be cleaned at least once every 6 months.
- 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 impractical 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.
- Refer to Appendix A for a suggested maintenance log for the LEXUS series fixtures.



### 4.3 Installing, Cleaning, and Replacing Lamps

Before performing any service or maintenance, turn-off power to the LEXUS fixture and disconnect it from the utility power source.

- In addition to eye and skin protection, wear gloves to protect the lamp and reflector.
- You will need the following tools for lamp maintenance :
  - Phillips #1 or #2 screwdriver with 6-inch blade (or longer)
  - lint-free cloth
  - isopropyl alcohol
  - ladder

Follow all of the OSHA guidelines for your industry.

- Remove the baffle section. Insert the screwdriver into the guide holes near each end of the baffle section and loosen the captive screws. Once the second screw has been loosened, the baffle section can be removed. Set the baffle section safely aside.

Image: Baffle Section and Guide Holes



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

The lamp is easily damaged and may cause injury if broken. Exercise care when handling. See sections 4.3 and 4.4 below for more information.

- 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.
- Remove any loose dust or dirt from the interior of the fixture with a soft dry cloth, or vacuum.
- 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.

Note: The reflector is constructed from specular aluminum, a highly reflective mirror-like material used to maximize ultraviolet output. Take great care to not scratch or damage the reflector during these steps!

- 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.
- Verify that the lamp is properly seated by gently wiggling the lamp with a small amount of outward force.
- Reattach the baffle section. Align the base of the LEXUS and secure the unit by fastening the captive screws. Use the guide holes for screwdriver placement.
- Reconnect the fixture to utility power and then restart the LEXUS.

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

- Anytime a LEXUS 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**

Broken quartz is sharp and can cause injuries.



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

#### **4.5 Disposing of Germicidal Ultraviolet Lamps**

Germicidal ultraviolet lamps contain small amounts of mercury.

Dispose of these lamps according to local, state or federal regulations.

- Do not put mercury-added lamps in the trash.
- 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 LEXUS before performing any service or maintenance.

Wear personal protective equipment for eye protection and skin protection.

IMPORTANT: This LEXUS is to be serviced ONLY by qualified, and appropriately trained and/or licensed personnel.

Table 1 – Troubleshooting		
Problem	Possible Cause	Corrective Action
LEXUS not operating.	No electrical power.	Verify the LEXUS 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 baffle section is attached and secured.
	Lamp not properly seated.	Confirm connection of lamp and lamp holder. Make sure connection is tight and lamp is making full contact with lamp holder.
	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. Contact options can be found in Chapter 7: User Assistance.

## 6. Technical Specifications

Table 2 – Specifications				
Model:	LEXUS L1.1	LEXUS L2.1		LEXUS L3.1
Height:	4.62"	4.62"	4.62"	4.62"
Width:	14.25"	23.25"	23.25"	34.9"
Depth:	7.43"	7.43"	7.43"	7.43"
Weight:	4.5 lbs.	7 lbs.	7 lbs.	9 lbs.
Height:	8'0"	8'0"	8'3"	9'0"
Fixture Angle:	+2.1°	+2.5°	+2.1°	+2.1°
Electrical @120V	12.2W / 0.1A	26.2W / 0.22A	26.2W / 0.22A	40.6W / 0.34A
UV Lamp:	AM-LEXUS L1.1-UVL	AM-LEXUS L2.1-UVL	AM-LEXUS L2.1-UVL	AM-LEXUS L3.1-UVL
Variable Input Ballast:	AM-LEXUS L1.1-BAL	AM-LEXUS L2.1-BAL	AM-LEXUS L2.1-BAL	AM-LEXUS L3.1-BAL
UV Output*:	0.39 watts	0.84 watts	0.84 watts	1.37 watts

\*Intertek Testing to UL Standard (UL 1598 Certification Requirement Decision Ed.5 – March 26, 2021 Germicidal Equipment – ANNEX L (SL4))

## 7. User Assistance

- AeroMed, LLC makes every effort to ensure that LEXUS Upper-room Germicidal UV Fixtures are products of superior quality and workmanship. This manual describes the installation, operation, and maintenance of the LEXUS Series Fixtures.
- Please read and become familiar with the contents of this manual before installing or using the LEXUS. If after reading the manual you still have questions or concerns regarding the installation or use of the LEXUS, contact our offices, weekdays between 8:00 am and 4:30 pm Eastern at:
  - AeroMed, LLC
  - 1821 Broad Street Utica, NY 13501
  - T: 518.843.3500
  - F: 315.732.4238
  - E-mail: [info@aeromed.com](mailto:info@aeromed.com)
  - [www.aeromed.com](http://www.aeromed.com)

## **8. Warranty**

### **8.1 Limited Warranty**

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

### **8.2 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 518.843.3500. 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.

### **8.3 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.

## **8.4 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.

## Appendix A: Maintenance Log

Maintenance Log Upper-room Germicidal UV Fixtures		
Facility Name: _____	Bldg: _____	
Unit Location: _____	Floor: _____	
Unit Model: _____	Serial No. _____	
Date Installed: _____		
DATE	DATE CLEANED UV LAMP AND REFLECTOR	REPLACED UV LAMP