



# UV-MAX ROOM AIR DISINFECTION UNIT

## USER GUIDE



Models:

RAD-AS3000

# MAXASSURE, INC.

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## ADVISORIES

### Purpose

The MaxAssure Room Air Disinfector system has been designed to offer filtration and disinfection exposure to ambient room air. The system design allows for microbial disinfection control.

The MaxAssure Room Air Disinfector system was developed as a cleaning device utilizing Ultraviolet Light (UV) for direct exposure disinfection.

### Contents

This manual will serve as your reference guide for installation, operation, and service of your MaxAssure device. Reference to all parts, warranty, and support are included.

This manual covers the system/equipment/products listed below:

- Part #: RAD-AS3000  
(mounted room air unit)

### Safety Note Regarding Ultraviolet Light (UV-C)

This device contains lamps which produce Ultraviolet Light (UV-C). Design of this device protects room occupants from exposure to UV-C light. Although blue colored light is visible through the filter media, no harmful UV-C rays are able to pass through this material.

It is possible to view internal lamps by looking through the top exhaust vent. This exposure has been measure by radio meter to equal 1/5 the UV-C given of by regular sunlight. Do not look into exhaust vent while the device is plugged in to a power source.

Zero exposure to UV-C light is advised. Personnel should wear appropriate Personal Protective Equipment when operating the device. Operators should take precautions to direct the device away from room occupants, therefore, reducing risk of UV-C exposure.

### Safety Observation:

It is required for the person(s) responsible for the installation of this equipment, operators of this equipment, and operation personnel managers to review and understand this manual.

USE OF LISTED SYSTEM / EQUIPMENT MUST COMPLY WITH INSTRUCTIONS AND SAFETY REQUIREMENTS.

# SAFE OPERATION

## Safety

1. You should never look directly at a UV lamp in operation without wearing approved safety glasses. Safety glasses should be made of any material other than Quartz or Teflon.
2. Ideally, the space should be vacant and closed prior to device operation.

## Disposal of Mercury Added Lamps

Germicidal ultraviolet lamps, like standard fluorescent lamps contain small amounts of mercury. Mercury added lamps should not be placed in the trash. Dispose of properly. For further information regarding the disposal and recycling of lamps containing mercury, along with Federal and State requirements visit [LampRecycle.org](http://LampRecycle.org).

## Safety Guidelines

Long term exposure to ultraviolet light is dangerous. UV-C can produce eye injuries and skin irritation similar to a sun burn over prolonged exposure. These effects are considered transient. UV-C may also be carcinogenic but since it has very limited penetrating ability it is unlikely to cause damage to anything besides the outer layer of skin or other exposed surfaces.

The MaxAssure UV-MAX MRAD-AS3000 is designed for zero user exposure to UV-C; however, we will review safety factors regarding UV-C for better knowledge and understanding.

## Protective Clothing and Eye-wear

It is not recommended that any personnel be subject to direct UV-C exposure. In the event such exposure is probable, personnel should wear PPE providing full coverage of exposed skin and appropriate eye protection.

UV-C safety glasses designed to filter UV-C and those of the wrap-around type are recommended. Safety glasses should be made of any material other than Quartz or Teflon.

## OSHA Guidelines for Ultraviolet Exposure

OSHA provides technical guidance regarding protecting employees from ultraviolet light with respect to laser hazards only.

OSHA has two standards that cover employee exposure to radiation: Nonionizing Radiation (29 CFR 1910.97) and Ionizing Radiation (29 CFR 1910.1096). You may access a copy of the OSHA radiation standards from their website at <http://www.osha.gov>.

The non-ionizing radiation standard only covers the radio frequency region, including microwaves. The ionizing radiation standard covers alpha, beta, gamma, and X-rays; neutrons; high-speed electrons and protons; and other atomic particles; but does not include sound or radio waves, or visible, infrared, or ultraviolet light. Therefore, there are no OSHA-mandated employee exposure limits to ultraviolet radiation.

## SYSTEM DESCRIPTION

The MaxAssure UV-MAX MRAD-AS3000 is designed for maximum disinfection through the shortest exposure time. More UV-C wattage allows shorter exposure times. Exposure times vary based on furthest distance from the UV-C source. The system design provides the optimum in:

- UV dose applied
- Rugged design build
- Ease of use controls
- User safety protection

- INDUSTRIAL STRENGTH FRAME AND STRUCTURE
- CORROSION PROOF CONSTRUCTION
- 3/4 HP VACUUM BLOWER
- 4" INDUSTRIAL CASTERS
- HIGH OUTPUT PRE-HEAT LAMPS FOR LONG RUN TIME LENGTH
- INDIVIDUAL LAMP FAILURE INDICATOR BALLAST LED'S
- BUILT TO IP56 WATER AND DUST STANDARDS
- UL® LISTED CONTROL
- 254 nm UV-C DISINFECTION



## SYSTEM DELIVERY

When you receive your UV-MAX device you will need to unpack and inspect the system. Please perform the following procedure:

1. Unpack your new system and stand upright
2. Inspect fully for damage.  
(If damage present, contact MaxAssure prior to use at 1-239-643-2778)
3. Do not activate unit without reading and adhering to instructions below.

# OPERATION OVERVIEW

## Description of Room Air Disinfector Operation

For safe operation, your new Room Air Disinfector has a UL® listed control.

The Air Scrubber utilizes one 3/4 HP vacuum blower to draw the air past a filter media of 200 microns.

The filter media is made of flat bonded polyester and is specifically designed to collect air contaminants and dust particles created by textile handling operation.

When turned on, the machine suctions air-borne particulates onto the media. When optimum air flow is limited by buildup on the filter media, media is advanced by a push button labeled "Manual Advance" located on the device control panel.

The exhaust from the Room Air Disinfector is directed vertically to assist in cleaning pipes, lights, and other devices overhead. Vertical exhaust will prevent the hot air from equipment from being exhausted toward personnel.

The included 2-rolls of filter media will last approximately 6 months in normal textile plant operation. It is important to have a spare roll ready for immediate replacement.

Proper operation is noted when the green light is illuminated. During media advance the yellow light will also illuminate.

If the unit is close to unsecured objects, the draw maybe strong enough to lift them. In this case, the machine should be mounted higher or objects should be moved away from the unit.

The device is designed to operate in the following manner:

## Start Sequence

1. Position unit in unoccupied space,  
centralized for operation
2. Ensure you are wearing recommended safety equipment.
3. Plug system into power supply
4. Press power switch up or down to turn on blower fan
5. Evacuate space or direct device away from room  
occupants

## OPERATION SETTINGS

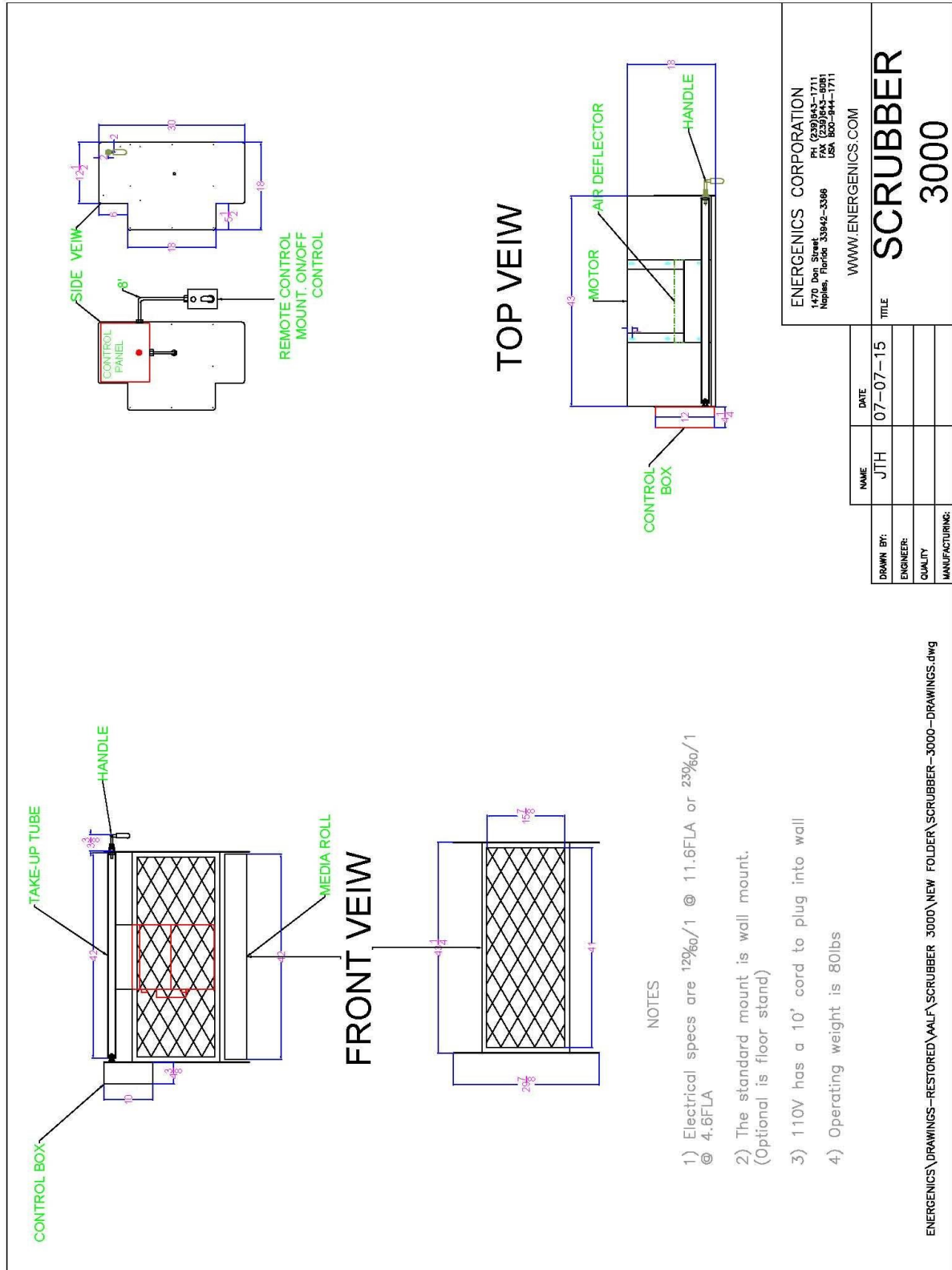
UV-C lamps will turn on upon providing power to the unit. Turn the Room Air Disinfector fan on by pressing the power switch up. To advance the media depress the Manual Advance button. The button is a momentary switch and will only activate when depressed. The advance will stop when the button is released.

### Important Installation Considerations AS3000

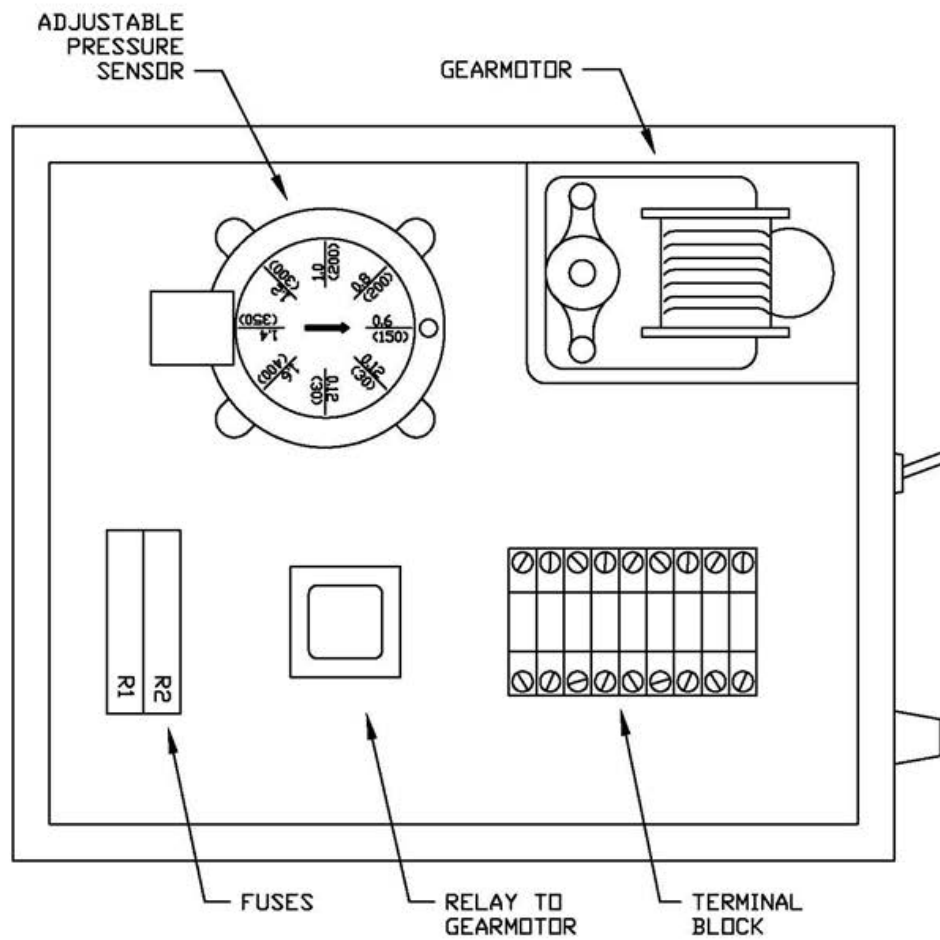
1. This device effectively filters airborne particulates to a radius of 15 feet. For mounted units, place on wall using supplied wall mount bracket in an area where this consideration is most effective. Folding table and dryer discharge areas are most effective in OPL environments. If a small piece folder is used place as close to the discharge end of this machine.
2. Machine weight is 110lbs. It runs on 110/120V and draws 14.0 Amps.
3. Turn the filter on and operate. Proper operation is indicated with the green light illuminated. During media advance the yellow light will illuminate.



# DRAWINGS



# DRAWINGS



UL® CONTROL  
 AMBIENT AIR LINT  
 FILTER CONTROL BOX

			ENERGENICS CORPORATION	
	NAME	DATE	1470 Don Street Naples Florida 34104	
DRAWN BY:	RON	10/08	PH (239)643-1711 FAX (239)643-6081 USA (800)944-1711	
REVISED	RON	05/11	TITLE AALF CONTROL	
QUALITY:				
SCALE:	1/2	Cad File: Z:\DRAW\AALF\AALF (CONTROL)		

## SYSTEM CARE

The MaxAssure UV-MAX system is designed for repeat performance with consistent results. Based on system designs, minimal maintenance is required. Adherence to the following regular service of your system should provide years of disinfection.

### Each Duty Cycle

1. Inspect the system interior, exterior for clean conditions
2. Clean as needed

### Monthly

1. Inspect the system interior, exterior, and lamps for clean conditions
2. Clean as needed  
(If lint or dust build-up is present on lamps, it is recommended that lamps be wiped down with isopropyl or rubbing alcohol. This will remove any debris that may have accumulated on the lamps.)

**Note:** The above steps are listed as the basic level of care, should the system be utilized in a heavy work environment, further care may be required.

## CHANGING MEDIA FILTER

**CAUTION: FAILURE TO REPLACE SOILED MEDIA WITH NEW MEDIA MAY RESULT IN GEAR MOTOR FAILURE!**

### **When to Change Media Roll**

1. You have reached the end of usable media filter on the attached roll.
2. The soiled media blanket being rolled up by the take-up tube is too large and rubs against the top of the machine inhibiting further advancement of the roll.

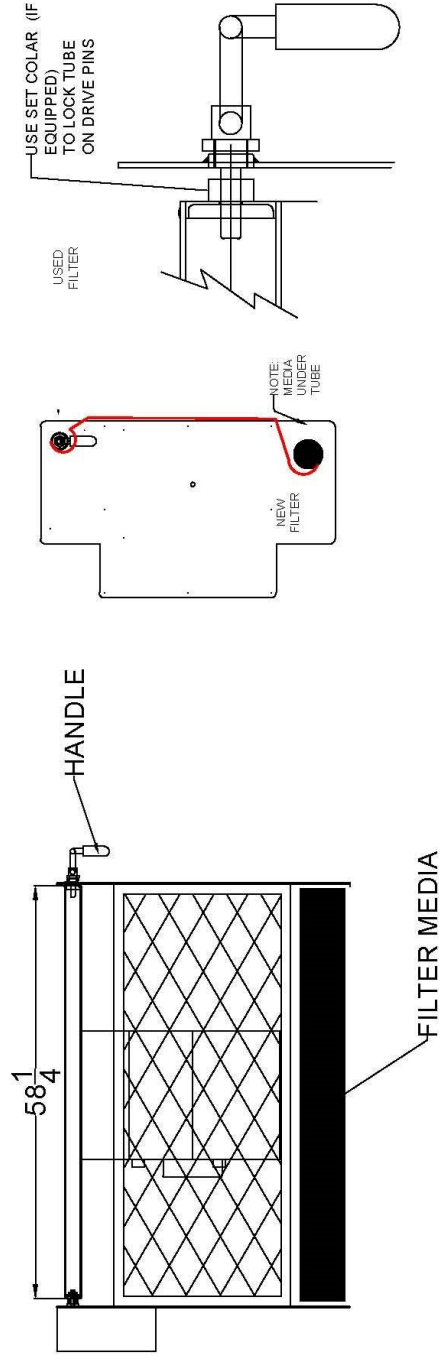
(Cut the media along the clean part for reattachment or supply a new filter media roll.)

### **To Change the Media Roll:**

1. Open the red handle, pulling the pin out of the roll.
2. Slide the roll toward the red handle end and off the drive. Discard the full take-up roll in an environmentally acceptable manner.
3. Put the new empty take up roll in place of the discarded roll. Slide onto the pin drive end. Align the other end with the red handle pin and insert in the roll.
4. If the take up roll was too large and discarded before all the clean media was expended, re-attach the clean media to the two-sided tape on the take-up roll.
5. Attach the material to the double-sided tape on media roll as shown in the following 3 pages of examples depending on your model.
6. Manually advance the media until tight.

**CAUTION: FAILURE TO REPLACE FULLY SOILED MEDIA TAKEUP ROLL WITH NEW TAKE-UP ROLL MAY RESULT IN GEAR MOTOR FAILURE!**

## LINT SCRUBBER 3000



**FRONT VIEW** **END VIEW**



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