



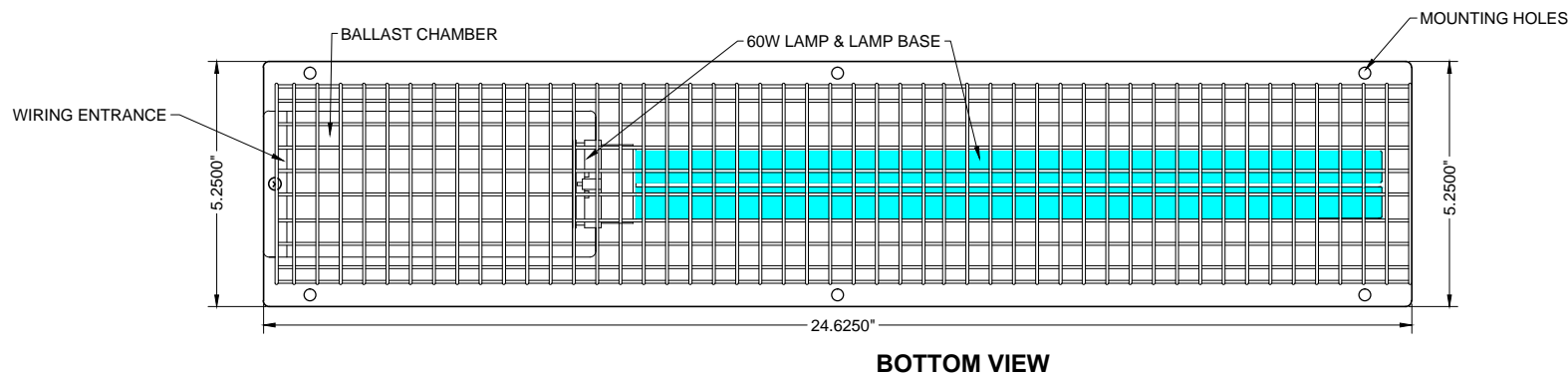
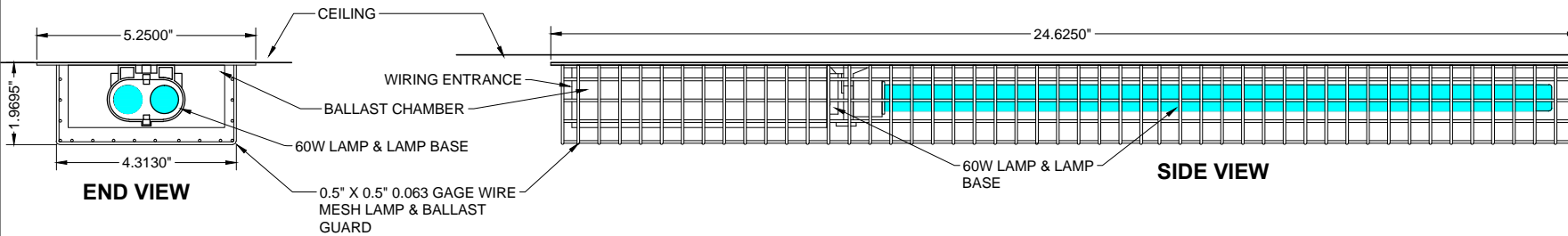
**Maintenance • Service • Safety
Recommendations • Installation Instructions For
EvergreenUV Air & Surface Disinfector ADU-160**



1931 Thomas Rd.; Memphis, TN 38133
901-800-1709 email@evergreenuv.com



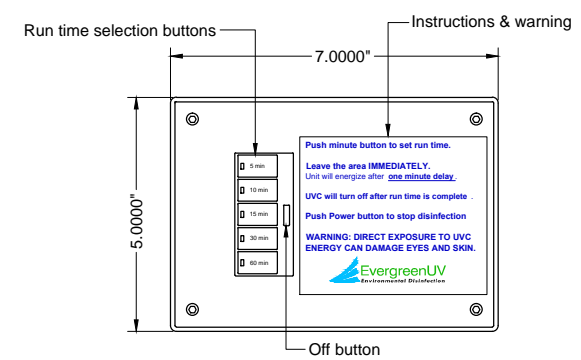
EPA # 91347-TN-001



ADU-136

ELECTRICAL REQUIREMENT: 120V/0.5A ONLY; 50-60Hz

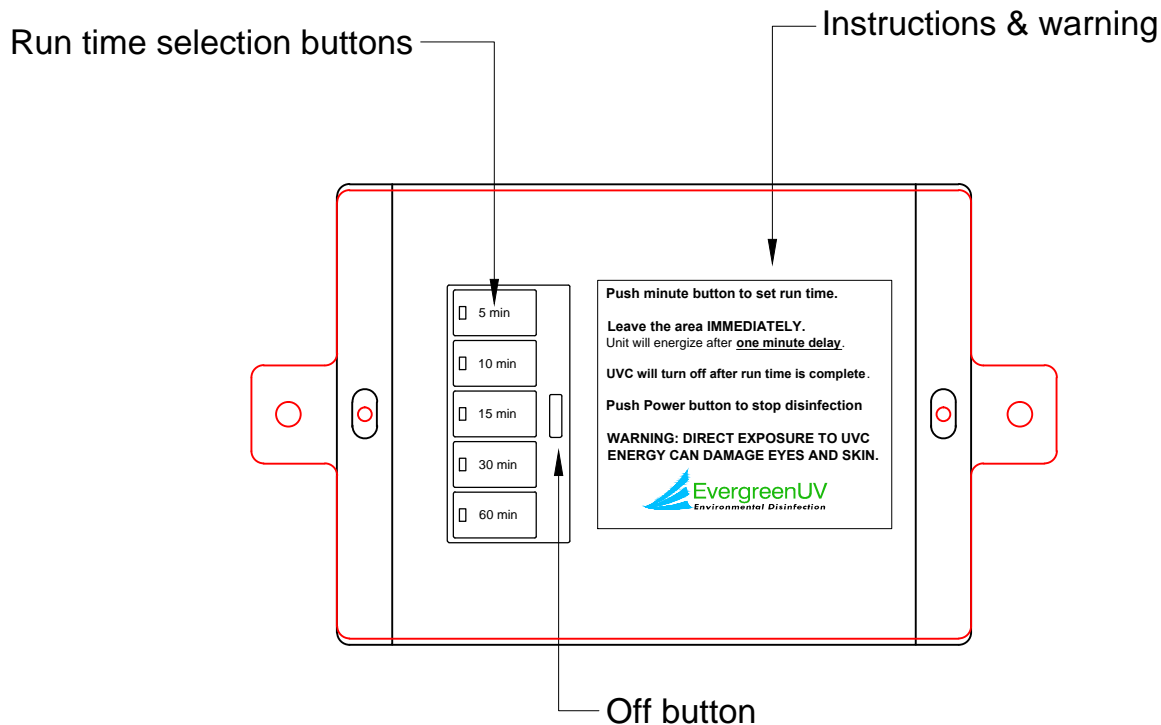
LAMPS: 36WTUVHO; 36 NOMINAL WATTS; 5,814 $\mu\text{W}/\text{cm}^2$



**CONTROL BOX MOUNTED
OUTSIDE OF UV EXPOSURE AREA**

SUBMITTAL DRAWING

EvergreenUV
 Environmental Disinfection
 1931 Thomas Rd. Memphis, TN 38134
 901-800-1709 email@evergreenUV.com
 EPA ESTABLISHMENT NO. 91347-TN-001



Mount control box **outside** of patient area and route wiring from there. Remove control box cover to access mounting holes.

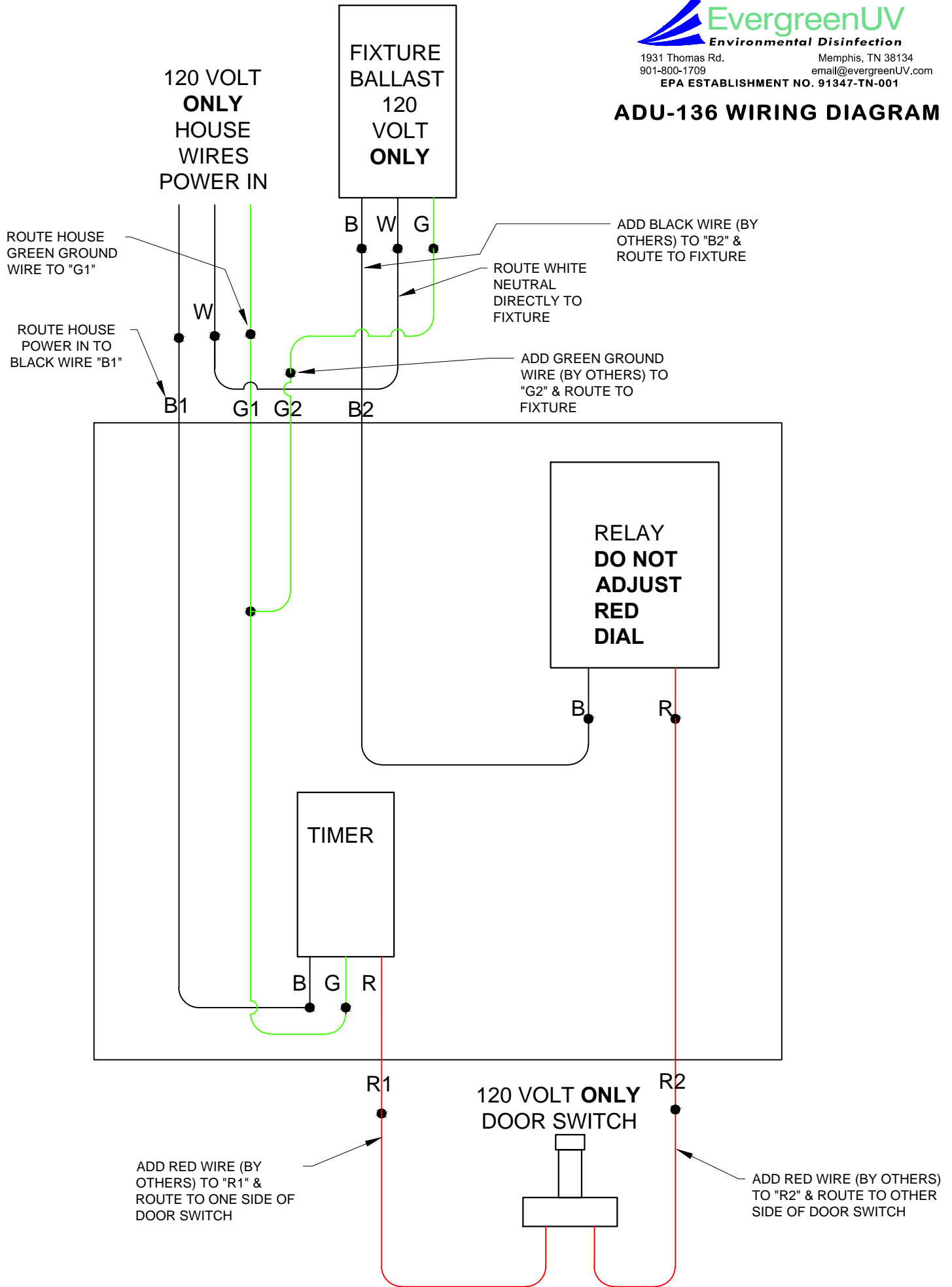
With the green light on the timer on/off button lit, select one of the run time buttons (left side of timer itself), 5 minutes, 10 minutes, 15 minutes, 30 minutes, or 60 minutes. Ensure that the exposure area is vacant and push that button.

The 1-minute delay starts **NOW**. Make sure that the entry door(s) is closed, and the UV exposure area is vacant.

If it's necessary to enter the UV exposure area before the UV disinfection process times out, the UV lamp will de-energize when a door is opened. There is a 7-second delay in the timer to power down. If the door(s) is closed again within this 7-second time, the UV will instantly **energize again**. **Wait 7 seconds before closing the door again.**

When the area is vacated again, reset the timer by pushing the run time as before, the **1-minute delay will start**, and the selected run time will start over. The process will not start without a reset like this.

ADU-136 WIRING DIAGRAM





**UV LIGHT
DO NOT ENTER
WHEN ENERGIZED**

This placard/decal will be visible on ambulance exterior at every UV-C area window.

INFECTION CONTROL

The ADU will disinfect only illuminated air and surfaces. (Shaded areas, such as under the stretcher, will not be effectively disinfected.) You'll need to integrate safety systems with the operation of the UV-C to prevent inappropriate exposures. Brief exposure is not considered harmful but is not recommended because it may cause skin and eye irritation. Prolonged exposure to UV-C is considered harmful to humans.

All patient compartment doors must be closed during the "on" phase, which is controlled by a timer switch mounted out of the way so it won't be confused for an interior light switch.

The patient compartment is "treated" at least once per shift, and after any call with potentially infected patients. It runs for five to 10 minutes with the stretcher in place and reusable items as BP cuffs and pulse oximeter probes on the bench so they're treated also. The UV-C is then run again with the stretcher removed to capture any previously shaded areas.

The UV-C light doesn't replace any current cleaning practices.

MATERIAL SAFETY DATA SHEET

S06-03001
Revised: 12/2012

PRODUCT: TUV Germicidal Lamps

SECTION 1: MANUFACTURER

Manufacturer's Name and Address: Philips Lighting Company
A Division of Philips Electronics
North America Corporation
200 Franklin Square Drive
Somerset, NJ 08873-4186

Emergency Telephone No: (800) 424-9300 CHEMTREC
(800) 555-0050 Philips Lighting Technical Information

SECTION 2: HAZARDOUS INGREDIENTS

	OSHA (PEL) mg/m ³	ACGIH (TLV) mg/m ³ TWA	% by Wt.
Inert Ingredients (Glass, Metal, etc.)			~ 99
Mercury (7439-97-6)	.1	.025	~0.1

Mercury is inside the lamp, breakage may result in exposure.

SECTION 3: PHYSICAL CHEMICAL CHARACTERISTICS

This item is a glass light bulb. The mercury is inside the bulb, chemical characteristics of the bulb are not applicable. This bulb can crack if hit with a heavy object.

SECTION 4: FIRE AND EXPLOSION DATA

Glass is not a combustible, melting point is over 900°F. Fire and explosion data are not applicable. Under extreme heat, the bulb might crack or melt.

SECTION 5: REACTIVITY DATA

Stability: Lamp is stable.

Incompatibility: Glass can be attacked by hydrofluoric acid.

Polymerization: Not Applicable.

SECTION 6: HEALTH EFFECTS

DANGER: These lamps emit ULTRAVIOLET RADIATION (UVC). Avoid exposure. Ultraviolet radiation is harmful to the skin and the eyes and can cause serious skin burns and eye injury either from direct or reflected radiation. To reduce the risk of personal injury, install only in fixtures which provide adequate protection to area occupants. Should not be used for illumination purposes.

SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

Consult the fixture manufacturer regarding the suitability of the fixture for this lamp. Operate with proper auxiliary equipment. Turn off lamps before installing, replacing, cleaning or performing any maintenance work near fixtures.

Handle lamps carefully to avoid breakage. Broken glass can cause cuts.

Waste Disposal Method: At the end of rated life, when this lamp is removed from service, it will be subjected to the current Toxic Characteristic Leaching Procedure (TCLP) prescribed by the Environmental Protection Agency. This test is used to determine whether an item is a hazardous waste or a non-hazardous waste under current EPA definitions. These lamps would fail the TCLP test and would be considered hazardous under the Universal Waste Rules. Generators should evaluate all of the disposal options, which may be available in the particular state in which the generator's facility is located. The generator should check with federal, state and local officials for their guidance. Philips encourages recycling of its products by qualified recyclers.

SECTION 8: CONTROL MEASURES

Do not operate under these lamps without personal protective equipment. (Goggles, glove, skin protection)

Respiratory protection: If large numbers of these lamps are being broken an appropriate respirator should be considered. Note: Crushing of lamps on site may require a permit from state or federal authorities. We recommend recycling as the preferred disposal option.

Ventilation: Avoid inhalation of airborne dust

Hand and eye protection should be worn when handling broken glass.

SECTION 9: REGULATORY INFORMATION

As a product these mercury-containing lamps, when shipped in the manufacturer's original packaging, are not regulated for ground or ocean shipment.

This material safety data sheet does not constitute "knowledge of the waste" in certain jurisdictions.

08/2005
Revised: 12/2012

S06-03001



1931 Thomas Road ~ Memphis, TN 38134 ~ 901-800-1709 ~ www.EvergreenUV.com

Product Limited Warranty

SCOPE of WARRANTY:

Evergreen UV LLC manufactures all Evergreen UVC Air and Surface Disinfection Products in our Memphis, Tennessee, USA, factory. Evergreen UV LLC warrants that all Evergreen products (the "Product") will be free from defects in materials and workmanship during the **Applicable Warranty Periods of five years from the Date of Professional Installation**. If the Product fails in normal use and service within the Stated Warranty Period due to a defective part, Evergreen UV will, at its option, repair or replace the defective part. The replacement part will be warranted for only the unexpired portion of the original Applicable Warranty Period. If a part of the Product fails and an exact replacement is not available, Evergreen UV reserves the right to provide a substitute of equal or greater value, or provide a credit in the amount of the original cost of the defective part towards the purchase of a new Evergreen product similar in function and features to your Product. **Replacement parts are NOT pro-rated**, meaning that any part or component that fails during the warranty period will **be replaced or credited** (if replacement is no longer available) **at original purchase cost**.

EFFECTIVE DATE of LIMITED WARRANTY COVERAGE:

The Effective Warranty Date is the date of the Product's first installation, if properly documented; otherwise it is the date of purchase plus one (1) month.

APPLICABLE WARRANTY PERIODS for VARIOUS PARTS:

- UV Fixture: Product parts and components are warranted for an Applicable Warranty Period of Five (5) years after the Effective Date.
- UV Lamps: UV lamps are warranted for an Applicable Warranty Period of two (2) years after the Effective Date.
- Fans: Fans used in certain UV fixtures are warranted for an Applicable Warranty Period of one (1) year after the Effective Date.

STANDARD PROVISIONS and CONDITIONS:

EXCLUSIONS – THIS LIMITED WARRANTY WILL NOT APPLY:

- (a) To damages, malfunctions or failures resulting from failure to properly install, operate or maintain the Product in accordance with the manufacturer's instructions;
- (b) To damages, malfunctions or failures resulting from abuse, accident, fire, flood and the like;
- (c) To parts used in connection with normal maintenance, such as cleaning or replacing air filters;
- (d) To Products that are not installed in accordance with applicable local codes, ordinances, facility requirements, and good trade practices;

- (e) To damages, malfunctions or failures caused by the use of any attachment, accessory or component, or to any modifications not authorized by the manufacturer;
- (f) To damages, malfunctions, or failures caused by misuse, accident, contaminated or corrosive atmosphere, vandalism, freight damages, fire, flood, freeze, lightning, acts of war, acts of God and the like.

SHIPPING COSTS:

This Limited Warranty does NOT cover shipping costs. You, or your installing contractor, will be responsible for the cost of shipping warranty replacement parts from our factory to the location of your product. You also are responsible for any shipping cost of returning the failed part to Evergreen UV, and for incidental costs incurred locally, including handling charges.

LABOR COSTS:

This Limited Warranty does NOT cover any labor expenses for service, or for removing or reinstalling Products. All such expenses are your responsibility, unless a labor service agreement exists between you and your installing contractor.

HOW TO OBTAIN WARRANTY CLAIMS ASSISTANCE:

You must promptly report any failure covered by this Limited Warranty to the installing contractor. Normally, the installing contractor from whom the unit was purchased will be able to take the necessary corrective action by obtaining any replacement parts. If the contractor is not available, please contact any other local contractor handling Evergreen products. If necessary, the following office can advise you of the nearest distributor:

1931 Thomas Road, Memphis, TN 38134, 901-800-1709

REPLACEMENTS ARE MADE SUBJECT TO VALIDATION BY EVERGREEN UV OF WARRANTY COVERAGE. Any part to be replaced must be made available in exchange for the replacement.

EXCLUSIVE WARRANTY – LIMITATION OF LIABILITY:

This Limited Warranty is the ONLY warranty for the Product given by Evergreen UV LLC. No one is authorized to make any warranties on behalf of Evergreen UV LLC. ANY IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE APPLICABLE WARRANTY PERIODS SPECIFIED ABOVE. EVERGREEN UV LLC'S SOLE LIABILITY WITH RESPECT TO DEFECTIVE PARTS OR FAILURES SHALL BE AS SET FORTH IN THIS LIMITED WARRANTY, AND ANY CLAIMS FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARE EXPRESSLY 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 limitation or exclusion may not apply to you. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**Evergreen UV LLC
1931 Thomas Road
Memphis, TN 38134**

In the spirit of continuous improvement, we reserve the right to make changes without notice.