

UVC Radiometer Installation/ Operation Guide

Installation

This device is used to monitor the microwatt UVC intensity ($\mu\text{w}/\text{cm}^2$) of a Fresh-Aire UV lamp (or multiple lamp installation) at start up and throughout the useful life of the lamp(s). UVC intensity is expected to decrease by 40% after one year for TUVCL-100 (9000 hours total lamp life) a decrease of 40% intensity is expected after two years for TUVCL-200 (17,000 hours total lamp life).

Install the sensor and monitor after the Fresh-Aire UV lamps are mounted. Locate the monitor outside the AHU or duct for easy readability and within 6' of a 120 VAC outlet (for the power supply cord). Place the sensor in direct UV light exposure between 4" to 40" from lamp axis.

- Power supply cord length – 6'
- Sensor cord – 18'
- Alarm signal cord – 14"

Setup

Calibrate the UVC Radiometer and set the operating parameters when the UVC lamps are first started up.

- Mode button: Switches between **elapsed time, UVC output, and UVC output percentage**
- Hold down 100% Set Button: Hold for 5 seconds to **set maximum output reading**
- Press 100% Set Button: To reference **maximum output reading**
- Hour counter starts when powered

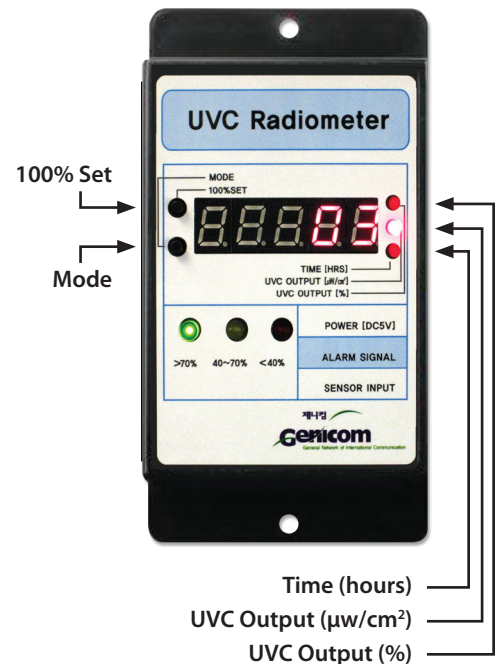
Operation

When new Fresh-Aire UV lamps are installed use the UVC radiometer to measure maximum UVC output (the reading will vary depending on sensor distance and other local environmental factors). Hold the **Set 100% Button** for 5 seconds to set the **maximum output reading** (it is a good idea to write down this reading in case the unit loses power). Use **Mode Button** to set the unit to **UVC output percentage**. When UVC output has decreased to 60% it is time to change the lamp(s). Alternately, use the **Mode Button** to set the unit to **Time** mode, replace TUVCL-1** lamps when the counter reaches 900 hours, for TUVCL2** lamps replace after 17,000 hours.

Reference

Fresh-Aire UV lamp UVC output measured at 1 meter:

| | |
|-------------|-------------------------------|
| TUVCL-100 | 150 $\mu\text{w}/\text{cm}^2$ |
| TUVCL-200 | 150 $\mu\text{w}/\text{cm}^2$ |
| TUVCL-100HO | 330 $\mu\text{w}/\text{cm}^2$ |
| TUVCL-160 | 280 $\mu\text{w}/\text{cm}^2$ |
| TUVCL-260 | 280 $\mu\text{w}/\text{cm}^2$ |



WWW.FRESHAIREUV.COM
sales@freshaireuv.com

