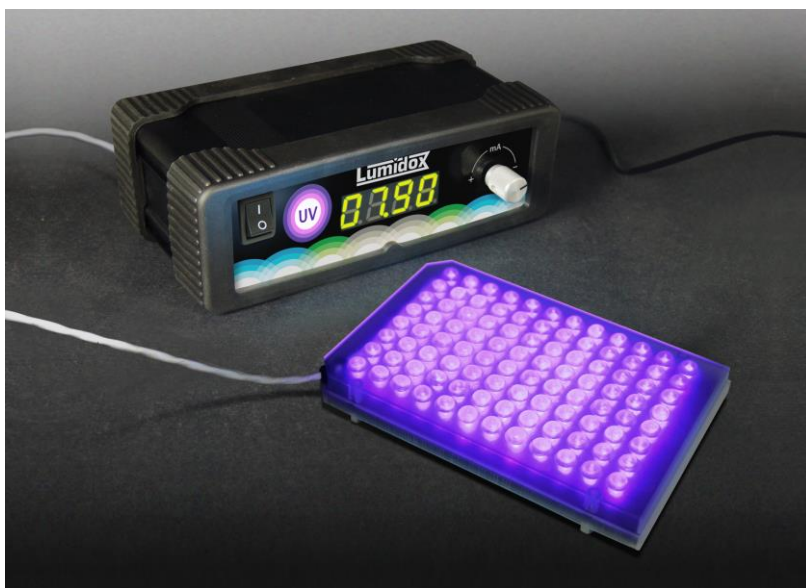


Lumidox™ UV



Operations Manual

Thank you for purchasing Analytical Sales and Services **Lumidox™ UV** LED Photon Generator for Photoredox Applications. This manual will guide you through setup and operation of your new device.

Safety Warnings:

All LED systems are designed for use by properly trained individuals following Good Laboratory Practices (**GMP**) who have read and understand this entire manual.

CAUTION: Lumidox devices are finely tuned instruments. The LED array is a sensitive and delicate device that when used correctly will offer you years of reliable service. **LED array devices must NOT be bent backward or flexed in any direction.** Doing so could possibly break the thin wires imbedded within the device.

CAUTION: This device will produce intense LED photon output, do not look directly into the emitting LED array when operating. Consideration should be given when running at full intensity of 20mA. Unwanted heat is possible over extended periods of time without deploying heat reducing methods.



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Manufactured by Analytical Sales and Services, Inc.

Product Specifications

Power Requirements: 90-264 VAC, External Conversion to 9 VDC
UV LED Array variable output between 0-20mA

Environmental

Operating temperature: 32° to 122° F ambient (0° to 50° C)
Operating humidity: No greater than 75% relative humidity (non-condensing)

This manual covers the following LumiDox devices:

- LUMCON-UV LED controller
- LUM96-365 Ultraviolet and LUM96-415 Violet LED arrays

General Inspection

Unpacking and Inspection

Verify that the package contains products as ordered and as noted within the packing slip.

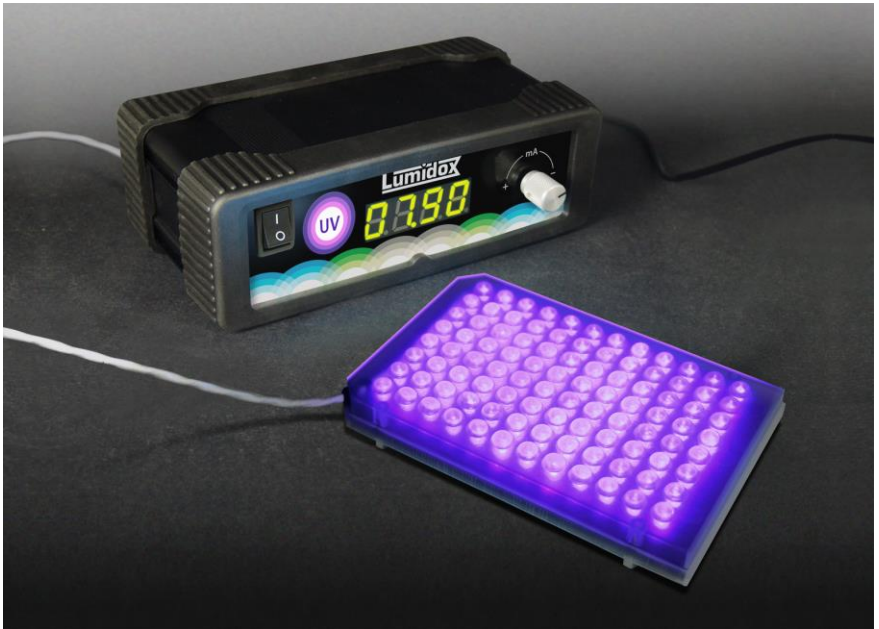
Please notify Technical Service if the LED device has any missing or damaged parts. Contact numbers: 973-616-0700, Fax 973-616-0133.

LUMCON-UV LED controller is warranted for one year.

System Setup

The LUMCON-UV controller is used in applications which require intelligent autosensing LED control for 96 well photoredox applications. Use in conjunction with the **LUM96-365 or LUM96-415 UV arrays ONLY**. The device uses a non-magnetic base, chemical resistant LED cover, PTFE coated cabling, and precise repeatability of milliamp selection for photon intensity.

Note: Due to the nature of UV LED's, the chemical resistant LED cover is slightly compromised in well locations.



Lumidox UV Controller and **Ultraviolet** LED Array

The front panel controls the intensity of LED photon output by simply turning the mA up (+) or down (-) and monitoring the milliamp output on the LED display. The LED array is turned on and off by means of the power switch located on the left side of the front panel.



The rear panel has inputs for the power in from the 9VDC universal power supply, device fuse, and LED output plug from LED array.



The UV LED arrays may be either 365nm or 415nm format. All LED array blocks will look similar when not powered up. The **LUM96-365** and **LUM96-415** arrays both emit dangerous ultraviolet light and should not be looked at without proper eye protection.



Operational

Plug in the UV LED array to the rear panel of the LUMCON-UV controller marked LED Output. *Turn the milliamp intensity knob fully clockwise before powering up the controller.*

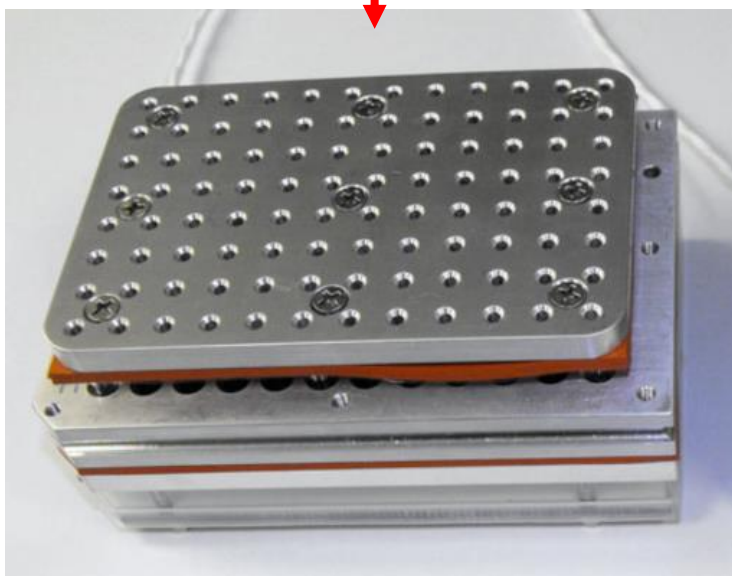
Plug in the mains plug to the rear of the controller marked DC power and the other end from the power supply in to your wall receptacle. This will immediately bring power to the controller. Insure that the milliamp intensity is turned down (-) or that the LED array is turned away from your viewing.

The controller may display "OPEN" on the LED display while the controller is in the LED balancing mode. Adjusting the mA intensity will clear the notification.

Use and Care

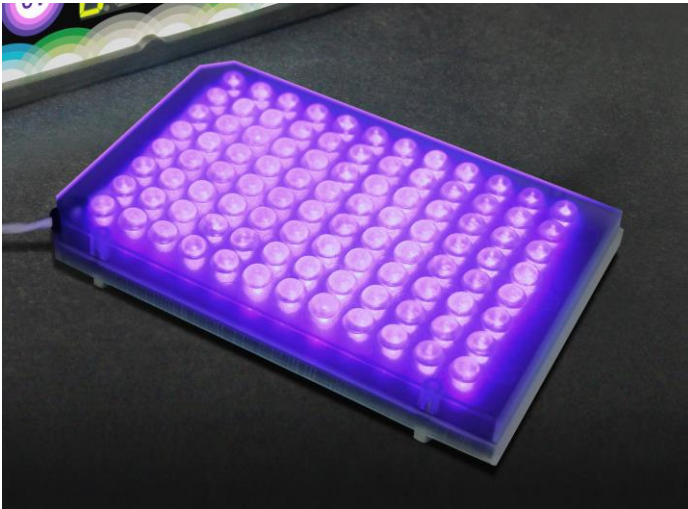
To use the device, add your 96-well block device to receive LED photons to the LED array. Your block will rest on top of the LED bumps.

96-well photoredox block positioned
on top of the 96-well UV LED array



Turn up (+) the LED intensity on the front of the controller by turning the knob counter-clockwise to the desired intensity. Record your milliamp intensity for repeatability operations.

LUM96-365 Ultraviolet and LUM96-415 Violet Arrays



Ultraviolet glow in picture is simulated.

Always wear protective eyewear when using Lumidox UV arrays.

DECLARATION OF CONFORMITY

Analytical Sales and Services, Inc. hereby declares that the product(s) listed below conform to the European Union directives and standards identified in this declaration.

Analytical Sales and Services, Inc. erklärt, daß die aufgeführten Produkt(e) in Übereinstimmung sind mit den Bestimmungen der angegebenen EU-Richtlinien und mit den aufgeführten normative Dokumenten.

Analytical Sales and Services, Inc. dichiara con la presente, che l prodotto(l) sottomenzionati sono in conformità con le direttive e norme Europee, specificate in questa dichiarazione.

Analytical Sales and Services, Inc. déclare par la présente, que les produit(s) sous-mentionnés, sont conformes aux directives et normes Européennes identifiées dans cette déclaration.

Analytical Sales and Services, Inc. declara por la presente que los producto(s) abajo mencionados, están conformes con las directivas y normas Europeas identificadas en esta declaración.

Products(s) / Produkt(e) / Prodotto(l) / Produit(s) / Producto(s):

LUMIDOX UV LED CONTROLLER AND UV LED ARRAY

EU Directive(s) / EU-Richtlinien / Direttiva(e) Europee / Directives Européenne(s) / Directiva(s) Europeas:

Low Voltage (73/23/EEC, 93/68/EEC)

Standard(s) / Norm(en) / Norma(e) / Norme(s) / Norma(s):

EN55011:1998 ENN61000-3:1995+A1:1998+A2:1998+A14:2000
EN61326: 1997 +A1: 1998 +A2:2000 EN61000-3-3:1995

EN61010-1:2001

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