

OPTI RGB

POWERFUL LED FIXTURE



User Instructions

©Elation Professional®
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Opti RGB

Introduction

Unpacking: Thank you for purchasing the Opti RGB by Elation Professional®. Every Opti RGB has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your fixture for any damage and be sure all accessories necessary to operate the unit has arrived intact. In the case damage has been found or parts are missing, please contact our customer support number for further instructions. Do not return this unit to your dealer without first contacting customer support.

Introduction: The Opti RGB is part of ©Elation Professionals® continuing pursuit for creating high quality affordable intelligent fixtures. The Opti RGB is a powerful DMX intelligent LED wash. This wash is light weight and compact which makes it a great piece for mobile DJ's and clubs. This unit can be used as a stand alone, or a sound-active mode. The unit can also be controlled via DMX controller.

Customer Support: ©Elation® provides a customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at www.elationlighting.com for any comments or suggestions. Service Hours are Monday through Friday 9:00 a.m. to 5:00 p.m. Pacific Standard Time.

Voice: (323) 582-3322
Fax: (323) 582-3108
E-mail: support@elationlighting.com

Warning! To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

Caution! There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, doing so will void your manufactures warranty. In the unlikely event your unit may require service please contact ©Elation customer support.

PLEASE recycle the shipping carton when ever possible.

Opti RGB

General Instructions

To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit. These instructions contain important safety information regarding the use and maintenance of this unit. Please keep this manual with the unit, for future reference.

Opti RGB

Features

- Multi-Colors
- Color Strobe
- Electronic Dimming 0-100%
- Built in Microphone
- DMX-512 protocol
- Uses seven DMX Channels
- Daisy Chain Units Together in DMX Mode

Opti RGB

Warranty Registration

The Opti RGB carries a two year limited warranty. Please fill out the enclosed warranty card to validate your purchase. All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper included in the shipping carton. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. You may obtain a R.A. number by contacting our customer support team on our customer support number. All packages returned to the service department not displaying a R.A. number on the outside of the package will be returned to the shipper.

Opti RGB

Safety Precautions

- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture
- Do not spill water or other liquids into or on to your unit.
- Be sure that the local power outlet match that of the required voltage for your unit.
- Do not attempt to operate this unit if the power cord has been frayed or broken. Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short.
- Disconnect from main power before making any type of connection.
- Do not remove the cover under any conditions. There are no user serviceable parts inside.
- Never operate this unit when it's cover is removed.
- Never plug this unit in to a dimmer pack
- Always be sure to mount this unit in an area that will allow proper ventilation. Allow about 6" (15cm) between this device and a wall.
- Do not attempt to operate this unit, if it becomes damaged.
- This unit is intended for indoor use only, use of this product outdoors voids all warranties.
- During long periods of non-use, disconnect the unit's main power.
- Always mount this unit in safe and stable matter.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the point they exit from the unit.
- Cleaning -The fixture should be cleaned only as recommended by the manufacturer. See page 10 for cleaning details.
- Heat -The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- The fixture should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the appliance.
 - C. The appliance has been exposed to rain or water.
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance.

Power Supply: Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your Elation Opti RGB. The Elation Opti RGB is available in a 120v and 220v version. Because line voltage may vary from venue to venue, you should be sure your unit voltages matches the wall outlet voltage before attempting to operate you fixture.

DMX-512: DMX is short for Digital Multiplex. This is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA “IN” and DATA “OUT” XLR terminals located on all DMX fixtures (most controllers only have a DATA “OUT” terminal).

DMX Linking: DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

Data Cable (DMX Cable) Requirements (For DMX Operation):

The Opti RGB can be controlled via DMX-512 protocol. The Opti RGB is a six channel DMX unit. The DMX address is set on the back panel of the Opti RGB. Your unit and your DMX controller require a standard 3-pin XLR connector for data input and data output (Figure 1). If you are making your own cables, be sure to use standard two conductor shielded cable (This cable may be purchased at almost all pro sound and lighting stores). Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and can not be split.



Figure 1

Notice: Be sure to follow figures two and three when making your own cables. Do not use the ground lug on the XLR connector. Do not connect the cable’s shield conductor to the ground lug or allow the shield conductor to come in contact with the XLR’s outer casing. Grounding the shield could cause a short circuit and erratic behavior.

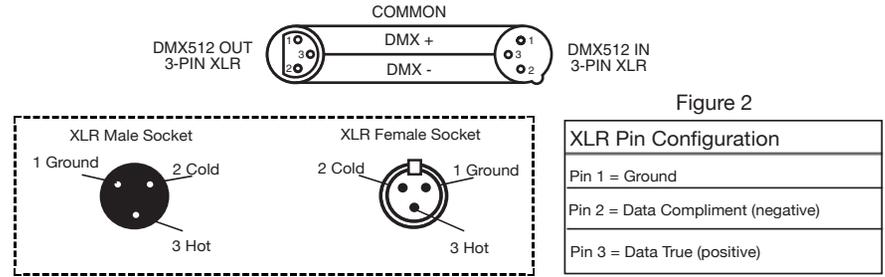


Figure 2



Figure 3

Special Note: Line Termination. When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behavior. A terminator is a 90-120 ohm 1/4 watt resistor which is connected between pins 2 and 3 of a male XLR connector (DATA + and DATA -). This unit is inserted in the female XLR connector of the last unit in your daisy chain to terminate the line. Using a cable terminator (ADJ part number Z-DMX/T) will decrease the possibilities of erratic behavior.



Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

Figure 4

5-Pin XLR DMX Connectors. Some manufactures use 5-pin XLR connectors for DATA transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used, these adaptors are readily available at most electric stores. The chart below details a proper cable conversion.

Conductor	3-Pin XLR Female (Out)	5-Pin XLR Male (In)
Ground/Shield	Pin 1	Pin 1
Data Compliment (- signal)	Pin 2	Pin 2
Data True (+ signal)	Pin 3	Pin 3
Not Used		Do Not Use
Not Used		Do Not Use

Operating Modes:

You can use the Opti RGB in four ways:

- Sound-Active mode - The unit will react to sound, chasing through the built in programs.
- Auto Mode - The unit will automatically chase through the different colors.
- RGB Mode - Choose a single color or colors to stay static.
- DMX control mode - This function will allow you to control each individual fixtures traits with a standard DMX 512 controller such as the Elation® Show Designer™.

Master-Slave Operation:

This function will allow you to link units together to run in a Master-Slave mode. In Master-Slave operation one unit will act as the controlling unit and the others will react to the controlling units built-in programs. Any unit can act as a Master or as a Slave however, only one unit can be programmed to act as the “Master.”

Master-Slave Connections and Settings:

1. Daisy chain your units via the XLR connector on the rear of the unit. Use standard XLR microphone cables to link your units together. Remember that the Male XLR connector is the input and the Female XLR connector is the output. The first unit in the chain (master) will use the female XLR connector only. The last unit in the chain will use the male XLR connector only.
2. Set dipswitch #10 to the “ON” position, on the “Master” unit. Then on the ‘Master’ unit, set the dipswitches for the mode you want to run.

Example: On the “Master” unit set dipswitch #10 to the “ON” position, and then set dipswitch #9 to the “ON” position to run the Master/Slave configuration in Auto Mode.

3. For the “Slave” unit(s), dipswitch #10 must remain in the “Off” position, other than that you may set the dipswitch(es) at any setting.
4. Connect the “Slave” unit or units and they will automatically start to follow the “Master.”

Sound Active Mode:

In this mode the Opti RGB will react to sound, and chase through the different colors.

1. Plug the fixture in and put dipswitch #10 in the “ON” position.
2. The fixture will now change via sound.

Auto Mode:

1. Plug the fixture in and put dipswitches # 9 and 10 in the “ON” position.
2. Adjust the speed by adjusting dipswitches 1-7. Dipswitch #7 in the “On” position will make the color mix speed the slowest. To make the color mix faster put dipswitch #6 in the “On” position. So that now you have dipswitches #7 and #6 in the “On” position. To speed up the color mix even more continue to put dipswitches into the “On” position. i.e. Dipswitch #5, then dipswitch #4, then #3.....

When you have dipswitches 1-7 in the “ON” position the color mix will run the fastest.

RGB Mode:

1. Plug the fixture in and put dipswitches #8, 9, and 10 in the “ON” position.
2. Dipswitch #1 alone will project Red at 25% intensity, dipswitch #2 alone will project Red at 50% intensity. Combine dipswitches 1 & 2 and Red will be projected at 100% intensity.

Dipswitch #3 alone will project Green at 25% intensity, dipswitch #4 alone will project Green at 50% intensity. Combine dipswitches 3 & 4 and Green will be projected at 100% intensity.

Dipswitch #5 alone will project Blue at 25% intensity, dipswitch #6 alone will project Blue at 50% intensity. Combine dipswitches 5 & 6 and Blue will be projected at 100% intensity.

DMX Mode:

Operating through a DMX controller gives the user the freedom to create their own programs tailored to their own individual needs. This function also allows you to use your fixtures as spot lights.

1. This function will allow you to control each individual fixture’s traits with a standard DMX 512 controller such as the Elation® Show Designer™ or the Elation® DMX Operator™.
2. The Opti RGB uses seven DMX channels to operate see page 9 for the DMX traits.
3. To run your fixture in DMX mode, plug in the fixture via the XLR connections to any standard DMX controller. Use dipswitches #1-9 to set your desired DMX address. - Follow the set-up specifications that come with your DMX controller. **NOTE: In DMX mode, dip-switch #10 must be in the “OFF” position.**

Opti RGB		DMX Values and Functions
Channel	Value	Function
1	0 - 255	RED 0% → 100%
2	0 - 255	GREEN 0% → 100%
3	0 - 255	BLUE 0% → 100%
4	16 - 255	COLOR MACRO
5	0 - 15 16 - 255	NOTHING STROBING/SPEED CONTROL
6	0 - 31 32 - 63 64 - 95 96 - 127 128 - 159 160 - 191 192 - 223 224 - 255	NOTHING DIMMING CONTROL DIM → BRIGHT BRIGHT → DIM DIM → BRIGHT → DIM COLOR MIXING 3 COLOR CHANGE 7 COLOR CHANGE SOUND ACTIVE
7	0 - 255	DIMMING 0% → 100%

Channel 1, 2, and 3 will not work, when Channel 4 is being used. When units are daisy chained together in DMX Mode, channels 1, 2, and 3 must be **“OFF”** for units to sync together when using Channel 4.

When the value of Channel 6 is between 32 and 127, you must be using Channels 1, 2, 3, or all three combined.

When using Channel 6, Channel 5 will control the speed of the color changing.

Opti RGB	Cleaning
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Due to fog residue, smoke, and dust cleaning the internal and external optical lenses must be carried out periodically to optimize light output.

1. Use normal glass cleaner and a soft cloth to wipe down the outside casing.
2. Clean the external optics with glass cleaner and a soft cloth every 20 days.
3. Always be sure to dry all parts completely before plugging the unit back in.

Cleaning frequency depends on the environment in which the fixture operates (i.e. smoke, fog residue, dust, dew).

Opti RGB	Trouble Shooting
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Listed below are a few common problems the user may encounter, with solutions.

Unit not responding to DMX:

1. Check that the DMX cables are connected properly and are wired correctly (pin 3 is “hot”; on some other DMX devices pin 2 may be ‘hot’). Also, check that all cables are connected to the right connectors; it does matter which way the inputs and outputs are connected.

Unit does not respond to sound:

1. Quiet or high pitched sounds will not activate the unit.

2-YEAR LIMITED WARRANTY

A. Elation Professionals® hereby warrants, to the original purchaser, Elation Professionals® products to be free of manufacturing defects in material and workmanship for a period of two years (730 days) from the date of purchase. This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service, send the product only to the Elation Professionals® factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Elation Professionals® will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, Elation Professionals® shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof.

C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which Elation Professionals® concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Elation Professionals® factory unless prior written authorization was issued to purchaser by Elation Professionals®; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up. During the period specified above, Elation Professionals® will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Elation Professionals® under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Elation Professionals®. All products covered by this warranty were manufactured after January 1, 1990, and bear identifying marks to that effect.

E. Elation Professionals® reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.

F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by Elation Professionals® in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The consumer's and or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall Elation Professionals® be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

G. This warranty is the only written warranty applicable to Elation Professionals® Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

Model: Opti RGBSPECIFICATIONS:

Working Position:	Any safe working position
Voltage:	120V / 230V
Power Draw:	0.2 Amps
Power Consumption:	45W
Weight:	8.6lbs./ 3.9Kgs.
Dimensions:	9.8" (L) x 9.8" (W) x 13.7" (H)
Colors:	RGB Color Mixing
DMX Channels:	7
Warranty:	2 Year (730 days)

Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

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