

# ELED B48



## User Instructions

©Elation Professional®  
4295 Charter Street  
Los Angeles CA. 90058  
[www.elationlighting.com](http://www.elationlighting.com)

### ELED B48

### Introduction

**Unpacking:** Thank you for purchasing the ELED B48 by Elation Professionals®. Every ELED B48 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 toll free customer support number for further instructions. Do not return this unit to your dealer without first contacting customer support.

**Introduction:** The Elation Professional® ELED B48 is part of a continuing pursuit to create high quality intelligent lighting. The ELED B48 is a DMX intelligent, high powered LED color wash. This wash can be used in a stand alone mode or connected in a Master/Slave configuration. The unit can also be controlled via DMX controller. This wash has four operating modes: Sound Active mode, Auto mode, RGB mode, and DMX control mode.

**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](http://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](mailto: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.

**PLEASE recycle the shipping carton when ever possible.**

## ELED B48

## 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.

## ELED B48

## Features

- Multicolors
- Color Strobe
- Electronic Dimming 0-100%
- Built in Microphone
- DMX-512 protocol
- Seven DMX Channel Mode or Twelve DMX Channel Mode
- FC Pad (Optional Foot Controller Not Included)

## ELED B48

## Warranty Registration

The ELED B48 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.

## ELED B48

## 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 12 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 ELED B48. The Elation ELED B48 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 ELED B48 can be controlled via DMX-512 protocol. The ELED B48 can be a seven channel or a twelve channel DMX unit. The DMX address is set on the back panel of the ELED B48. 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.

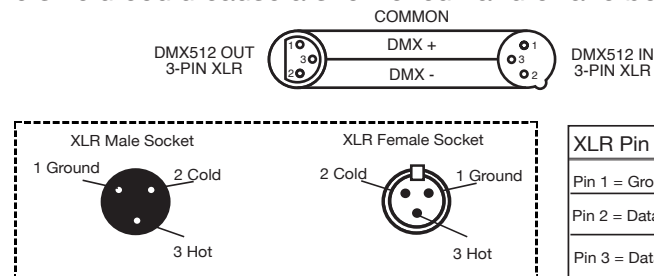


Figure 3

**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.

3-Pin XLR to 5-Pin XLR 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 ELED B48 in either a stand alone mode or a master/slave configuration, there are 4 modes to choose from:

- 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.
- Static Color Mode - Choose a single color 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 as the Elation® Show Designer™. Choose between a 7 DMX channel mode or 12 DMX channel mode.

### Master-Slave Operation:

This function will allows 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 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. You will also have to link the power cords to each other, as you did with the XLR cables.
3. Using the Master unit, choose your desired mode and connect the “Slave” unit or units.
4. Set the “Slave” unit(s) to the first address mode. So all “Slave” units display “1001”. They will now follow the “Master” unit.

### Sound Active Mode:

In this mode the ELED B48 will react to sound, and chase through the different colors. There are two sound active modes to choose from.

1. Plug the fixture in and press the left (MODE) button until “3-So” is displayed.

2. The fixture will now change color via sound.
3. You can also press the left (MODE) button until “5-00” is displayed. “5-00” is another sound active mode, but mode 5 must remain “5-00”. **Do not press the middle (UP) button or right (DOWN) button while in this Sound Active mode or you will enter Auto Mode. Please see Auto Mode below.**
4. With mode 5 in sound active mode, press the left (MODE) button once so that “6-01” is displayed. You may now select your desired program in mode 6 by pressing either the middle (UP) or right (DOWN) buttons. The program you select will now run in Sound Active mode. There are 40 programs to choose from.

### Auto Mode:

There are two auto modes to choose from.

1. Plug the fixture in and press the left (MODE) button until “6-01” is displayed. When “5-00” is displayed this is actually a Sound Active mode, you must adjust mode 5 so that is not in sound active. Anything between “5-01” and “5-15” is now Auto Mode.
2. Select your desired program in mode 6 by pressing either the middle (UP) or right (DOWN) buttons. There are 40 programs to choose from.
3. Adjust the speed of mode 6 by using mode 5. Adjust the speed by pressing either the middle (UP) or right (DOWN) buttons. The speed can be adjusted from “5-01” the slowest, to “5-15” the fastest.

### Static Color Mode:

Choose one of 36 colors to remain static.

1. Plug the fixture in and press the left (MODE) button until “4-00” is displayed.
2. Now by pressing either the middle (UP) button or right (DOWN) button you can scroll through and choose which color you want to project. **Remember the color you choose will remain static.**

### DMX Mode:

There are two DMX Modes to choose from. One mode is a 7 Channel Mode, and the other is a 12 Channel Mode. Operating through a DMX controller give 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.



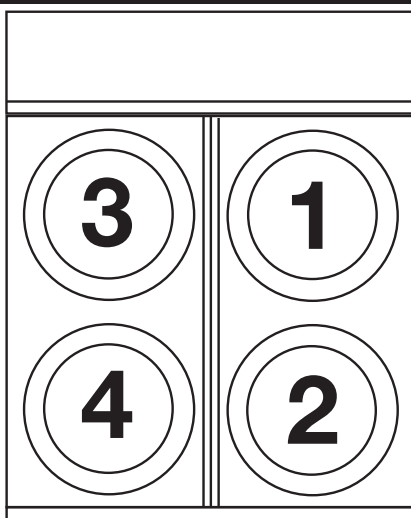
**ELED B48****Operating Instructions**

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 ELED B48 uses either a seven DMX channel mode or 12 DMX channel mode to operate.
3. To run your fixture in DMX mode, plug in the fixture via the XLR connections to any standard DMX controller.
4. To run the 12 Channel Mode, press the left (MODE) button until "1001" is displayed. This is the DMX addressing for the 12 Channel Mode.
5. To run the 7 Channel Mode, press the left (MODE) button until "2001" is displayed. This is the DMX addressing for the 7 Channel Mode.
6. Please see pages 10-11 for DMX values and traits.

**OPTIONAL FC PAD (Foot Controller):**

This is a simple foot controller that is sold separately.

1. Plug the foot controller into the LED Bar via the 1/4" jack.
2. Plug the fixture in and press the left (MODE) button until "3-So" is displayed. You can now control the LED Bar using the foot controller. Please refer to the FC Pad user instructions to operate.

**ELED B48****ELED B48 Diagram****ELED B48****7 Channel 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	0 - 13 14 - 255	NOTHING COLOR MACRO
5	0 - 15 16 - 255	<u>STROBING/SPEED CONTROL</u> STATIC STROBING SLOW → FAST
6 ↓	0 - 7 8 - 15 16 - 47 48 - 245 246 - 251 252 - 255	<u>AUTO MODE</u> NO EFFECT AUTO COLOR MIX AUTO MIX USING CHANNELS 1, 2, & 3 24 AUTO MODE PROGRAMS SOUND ACTIVE FLASH SOUND ACTIVE
7	0 - 255	<u>DIMMING</u> 0% - 100%

Channel 1, 2, and 3 will not work, when Channel 4 is being used.

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

ELED B48 12 Channel DMX Values and Functions		
Channel	Value	Function
1	0 - 255	RED 1 0% → 100%
2	0 - 255	GREEN 1 0% → 100%
3	0 - 255	BLUE 1 0% → 100%
4	0 - 255	RED 2 0% → 100%
5	0 - 255	GREEN 2 0% → 100%
6	0 - 255	BLUE 2 0% → 100%
7	0 - 255	RED 3 0% → 100%
8	0 - 255	GREEN 3 0% → 100%
9	0 - 255	BLUE 3 0% → 100%
10	0 - 255	RED 4 0% → 100%
11	0 - 255	GREEN 4 0% → 100%
12	0 - 255	BLUE 4 0% → 100%

**Note:** Red/Green/Blue 1, Red/Green/Blue 2, Red/Green/Blue 3, and Red/Green/Blue 4, refer to sections of the ELED B48. Please see page 9 for the diagram.

## ELED B48 Trouble Shooting

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.

## ELED B48 Cleaning

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. Use a brush to wipe down the fan grill.
3. Clean the external optics with glass cleaner and a soft cloth every 20 days.
4. 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).

**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: ELED B48™**SPECIFICATIONS:

Working Position:	Any safe working position
Voltage:	120V or 230V
Power Consumption:	60W
Power Draw:	0.6 Amps
Weight:	24lbs./ 10Kgs.
Dimensions:	22.75" (L) x 7.75" (W) x 21.25" (H) 578 x 197 x 540mm
Colors:	RGB Color Mixing
LEDs:	1 Watt
DMX Channels:	7 or 12 DMX Channels
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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A Division of the AmericanDJ® Group of Companies

World Headquarters:

4295 Charter Street Los Angeles, CA 90058 USA

Tel: 323-582-3322 Fax: 323-582-3311

Web: [www.elationlighting.com](http://www.elationlighting.com) E-mail: [info@elationlighting.com](mailto:info@elationlighting.com)