# PᴙᴏCOLOR™

## ELATION Professional ®



# User Instructions

Elation Professional®
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## ProColor™

## Introduction

**Introduction:** Thank you for purchasing the Elation Professional® ProColor™. To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit. The ProColor™ is a high output intelligent color changer with a built-in frost.

**Unpacking:** Every ProColor™ 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 equipment necessary to operate the system 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.

**Customer Support:** Elation Professional® provides a toll free 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:    (800) 322-6337
    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 your nearest Elation Professional dealer.
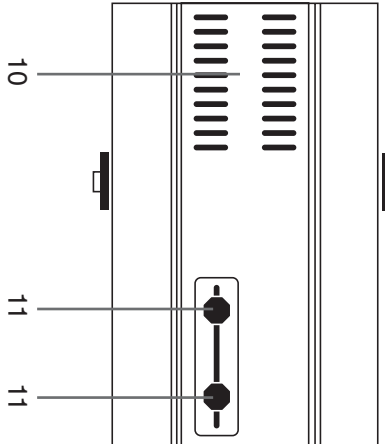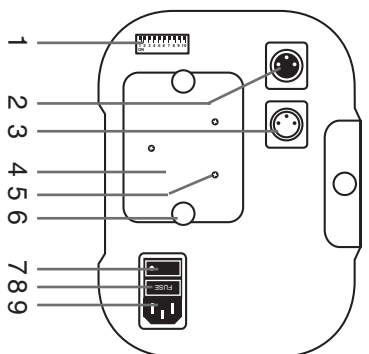
**Safety Issues:** This unit may blow a fuse if the maximum allotted load of 7 amps is reached. If the fuse needs replacement, always replace the fuse with same exact type that was remove, unless otherwise instructed by an authorized Elation Professional® service technician. Use of a different type fuse from that which is recommended may cause fire or electric shock and will void the manufactures warranty.

# Contents

*Introduction.....*

## 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.

## Features

- Ten Vibrant Dichroic Colored Filters Plus White
- Long Life (9000 hours) SC-150 Discharge Lamp
- Mechanical Focus and Zoom for Variable Radiation-Angles (10°-19°)
- Micro-Stepping Motors for Smooth Color Transitions
- DMX-512 Protocol Compatible
- Two DMX Channels
- Split Color Capable
- Fan Cooled
- Color Scroll
- Mechanical Dimmer with Frost Filter
- 0-100% Mechanical Dimmer
- Heavy Duty Mounting Yoke
- Mounts Horizontally or Vertically
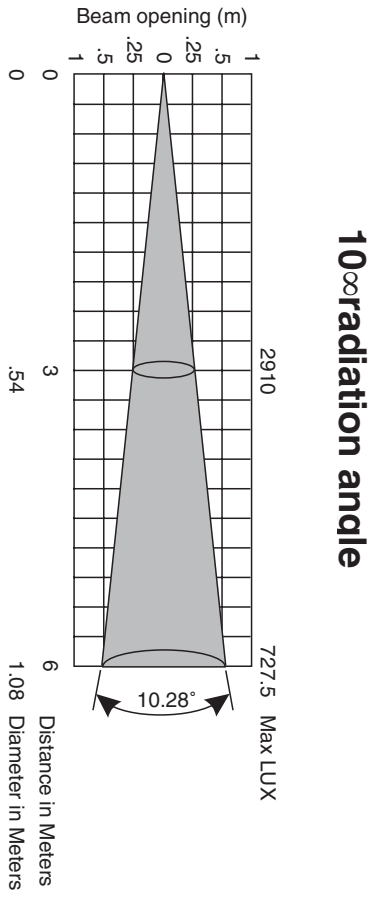
## Safety Precautions

- This unit may blow a fuse if the maximum allotted load of 10 amps (220v = 5 amps) is reached. If the fuse needs replacement, always replace the fuse with same exact type that was remove. Use of a different type fuse from that which is recommended may cause fire or electric shock and will void the manufactures warranty
- 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 cords should be routed so they are not likely to be walked on, pinched by items placed upon or against them.
- 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 unit.
  C. The unit has been exposed to rain or water.

1. Dip Switches - These switches are used to set the DMX address. Each switch corresponds to a specific value based on binary code. See page 6 for a detailed explanation of DMX binary code.

2. XLR Input Jack - This jack is used to accept an incoming DMX signal.

3. XLR Output Jack - This jack is used to send the incoming DMX signal to another DMX fixture.

4. Lamp Socket Assembly Plate - This plate accesses the lamp socket assembly.

5. Lamp Optimization Screws - These three screws are spring loaded and are used to optimize the lamp. Use these three screws to center the lamp in the reflector.

6. Thumb Screw - These two thumb screw hold the assembly plate into place.

7. Main Power Switch - this switch control main power to the unit.

8. Fuse Holder - This houses the safety fuse. Be sure to always replace with the exact same type, unless otherwise instructed by authorized American DJ service technician.

9. Power Input- This male I.E.C. jack is used to feed main power to the fixture. Use the Supplied I.E.C. cord to supply main power to your fixture. Be sure the main power matches that of the required power of your fixture.

10. Fan Vent - Keep these cooling vent clean and never block them.

11. Focussing Adjustments - Use these adjustments to adjust both the sharpness and diameter of the beam.

**Universal DMX Control:** This function will allow you to control each fixtures DMX traits with a standard DMX 512 controller such as the Elation Professional® Show Designer™ or DMX Operator.™ Operating through a DMX controller allows the freedom to create unique programs tailored to one's individual needs.

1. The ProColor™ uses two DMX channel. Channel one controls the color change operation and channel two control all other functions such as shutter and frost. Please refer to page 14 for a detailed description of the DMX traits.

2. To control your fixture in DMX mode, follow the unit set-up procedures beginning on page 8 as well as the set-up specifications that are included with your DMX controller.

3. Use the controller's faders to control the various DMX fixture traits.

4. This will allow you to create custom programs.

5. When using a DMX controller and setting up for DMX operation follow the dip switch settings on page 14.

6. For help operating in DMX operation consult the manual included with your DMX controller.

7. For longer cable runs (more than a 100 feet) use a terminator on the last fixture in you DMX chain.

This illustration represents the approximate intensity associated with a specific distance and beam diameter.
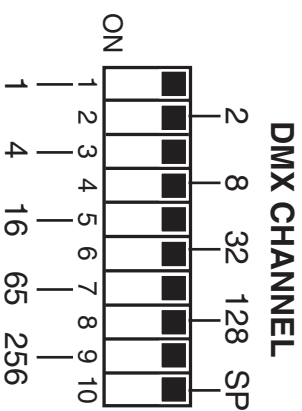
## 10°radiation angle



| Beam opening (m) | | |
|---|---|---|
| 0 | | |
| .25 | 2910 | 727.5   Max LUX |
| .5 | | |
| 1 | | |

| 10.28° | | |
|---|---|---|
| 0 | 3 | 6   Distance in Meters |
| 0 | .54 | 1.08   Diameter in Meters |

**Power Supply:** Before plugging your unit in, be sure the source voltage in your area matches the required voltage for your Elation Professional® ProColor.™ The Elation Professional® ProColor™ 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.

*Dip-switches in DMX mode:* This unit uses dip switches to assign a DMX address. Each dip switch represents a binary value.

Dip Switch 1 address equals 1
Dip Switch 2 address equals 2
Dip Switch 3 address equals 4
Dip Switch 4 address equals 8
Dip Switch 5 address equals 16
Dip Switch 6 adress equals 32
Dip Switch 7 address equals 64
Dip Switch 8 address equals 128
Dip Switch 9 address equals 256

**DMX CHANNEL**

ON

2  8  32  128  SP
1  4  16  65  256
1  2  3  4  5  6  7  8  9  10

Each dip switch has a preset value. A specific DMX address is set by combining the dip switches that sum your desired value. For example: To achieve a DMX address of 21, combine dip switches 1, 3, and 5. Sense dip switch 1 has a value of 1, dip switch 3 has a value of 4, and dip switch 5 has a value of 16, the combination of the create a DMX value of 21.

Set DMX address 21:
Dip-switches # 1 = 1
      3 = 4
      5 = 16
      = 21

Set DMX address 201:
Dip-switches # 1 = 1
      4 = 8
      7 = 64
      8 = 128
      = 201

**Data Cable (DMX Cable) Requirements (For DMX and Master/Slave Operation):** The ProColor can be controlled via DMX-512 protocol. The Elation Professional® ProColor™ is a three channel DMX unit. The DMX address is set on the front panel of the ProColor. 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.
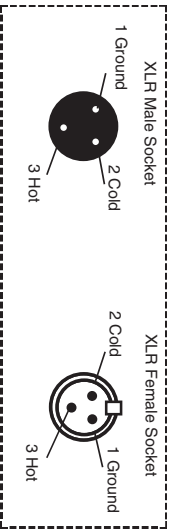
DMX512 OUT
3-PIN XLR

DMX512 IN
3-PIN XLR

COMMON
DMX +
DMX -

Figure 2

**Figure 3**

XLR Male Socket
1 Ground
2 Cold
3 Hot

XLR Female Socket
2 Cold
1 Ground
3 Hot

| XLR Pin Configuration |
| --- |
| Pin 1 = Ground |
| Pin 2 = Data Compliment (negative) |
| Pin 3 = Data True (positive) |

behavior.

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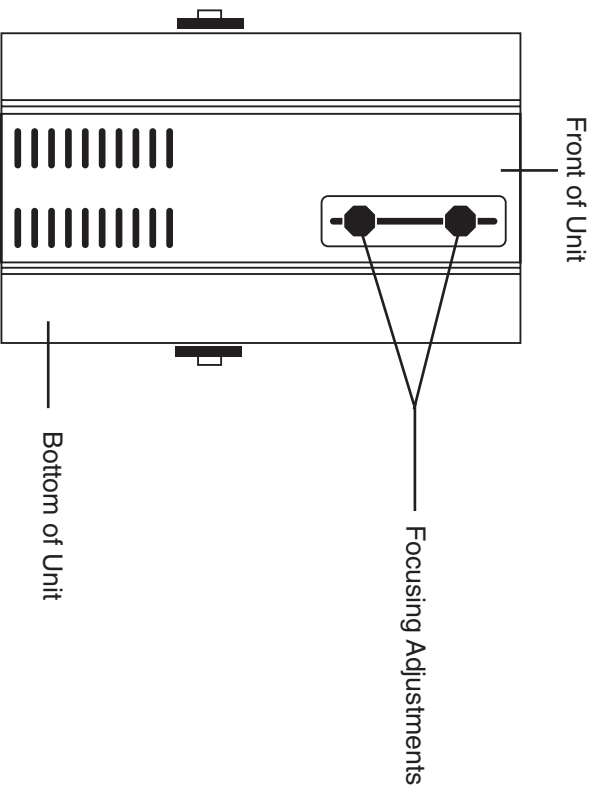
Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

1
3
2

**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 |

The ProColor™ comes with two different focusing adjustments. Both focusing adjustments are located on the bottom of the unit. Use the lens in conjunction with each other to adjust both the diameter of the beam and sharpness of the beam. Experiment with the different adjustment to achieve both the diameter of the beam and sharpness of the beam you require. Use the adjustment closet to the rear of the unit achieve a different beam diameter. Use the adjuster closet to the front of the unit to achieve a sharp focus. For best results lock the output on white and use the adjuster closer to the front of the unit to achieve a sharp clear image.
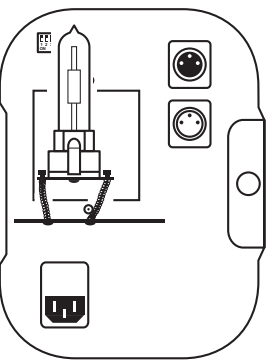
Front of Unit

Focusing Adjustments

Bottom of Unit

*Caution:* *Always replace with the exact same type lamp and fuse, unless otherwise specified by an authorized Elation® technician. Replacing with anything other than the specified part can damage the unit and will void the manufactures warranty.*

*Warning:* *If after replacing the lamp or fuse either one continues to blow, STOP using the unit. Contact customer support for further instructions, you may have to return the unit for servicing. Continuing to use the unit may cause serious damage.*
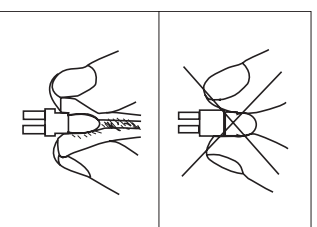
**Fuse Replacement:** Disconnect the unit's main power supply. Use a flat head screw driver in to turn the holder in a counter-clockwise, unlocking the fuse holder. Remove the fuse holder to expose the fuse. Remove the old fuse and discard it. Replace the fuse with the same type. Insert the fuse holder back into it's housing and turn it in clockwise direction to lock the holder in place.

**Lamp Replacement:** Caution! Never attempt to change the lamp while the fixture is plugged in. Always disconnect the main power and allow the unit ample time to cool before attempting to replace the lamp. Exercise caution when opening the unit, discharge lamps may explode occasionally due to the extreme heat associated with them.

1. Be sure to follow the proper handling procedures that deal with discharge lamps.
2. Remove the two thumb screws located under the DMX jacks on the rear of the unit.
3. Gently pull back the lamp cover plate, be sure to take care when removing the plate as the lamp socket is mounted to the plate.
4. Carefully remove the old lamp and discard it in the trash.
5. Replace the lamp with an exact match and reassemble.

Removing the lamp cover will expose the lamp socket assembly as shown here.

*Discharge Lamp Warning:* This fixture is fitted with a discharge lamp which is highly susceptible to damage if improperly handled. Never touch the lamp with your bare fingers as the oil from your hands will shorten the lamp life. Never install, mount, or place this fixture in areas prone to heavy vibration. Also, never move the fixture until the lamp has had ample time to cool. Remember, lamps are not covered under warranty conditions. Never remove the lamp socket assembly when the fixture is on.

**Trouble Shooting:** Listed below are a few common problems that you may encounter, with solutions.

**No light output from the unit;**
1. Be sure you have connected your unit into a standard 120V (or 220v depending on the models voltage requirements) wall outlet.
2. Be sure the external fuse has not blown. The fuse is located on the rear panel of the unit.
3. Remove the lamp cover and be sure the lamp is seated in its socket properly. Occasionally lamps become loose during shipping be sure the lamp is push in to its socket all the way. Remember not to touch the lamp with your bare fingers.
4. Be sure the fuse holder is completely and properly seated.

**Fixture Cleaning:** Due to fog residue, smoke, and dust cleaning the internal and external optical lenses should be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates (I.e. smoke, fog residue, dust, dew). In heavy club use we recommend cleaning on a monthly basis. Periodic cleaning will ensure longevity, and crisp output.
1. Use normal glass cleaner and a soft cloth to wipe down the outside casing.

2.  Use a brush to wipe down the cooling vents and fan grill.
3.  Clean the external lens with glass cleaner and a soft cloth every 20 days.
4.  Clean the internal lens with glass cleaner and a soft cloth every 30-60 days.
5.  Always be sure to dry all parts completely before plugging the unit back in.

## ProColor™    Product Registration

The ProColor ™ carries a two year (730 days) limited warranty. We recommend you 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. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. Please contact Elation Professional® customer support for a R.A. number.

## ProColor™    DMX Traits

**Channel 1:**

| DMX Value: | Color: |
| --- | --- |
| 0-7 | Blackout |
| 16-23 | White |
| 32-39 | Red |
| 47-55 | Blue |
| 64-71 | Green |
| 80-87 | Yellow |
| 96-103 | Orange |
| 112-119 | Magenta |
| 128-135 | Light Blue |
| 144-151 | Dark Green |
| 160-167 | Pink |
| 176-183 | UV |
| 192-199 | Blackout |
| 200-247 | Color Scroll |
| 248-255 | White |

**Channel 2:**

| DMX Value: | Trait: |
| --- | --- |
| 0 | Full Intensity |
| 1-100 | Dimmer |
| 101-140 | Blackout |
| 141-254 | Frost Dimmer |
| 255 | Frost Full Intensity |

The ProColor has split color capabilities between to adjacent color on the color wheel.

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This chart list the DMX dip switch setting for DMX address 1 through 511. Follow the instructions below to configure fixture dip switches with your desired DMX address.

### DMX Address Quick Reference Chart

DIP SWITCHES

DMX DIP Switch Settings
X = OFF
0 = ON

Dip Switch Position: #1 #2 #3 #4 #5 / #6 #7 #8 #9



DMX Address

The center numbers of this chart (1-511) represent a DMX address. The "X"s and "O"s along the top and side of the chart represent dip switch poistion ("X" for off and "O" for on). Find your desired DMX address from the center chart. Identify the position for dip switches 1-5 from the chart on the top and dip switches 6-9 from the chart on the left and dip switches on your fixture to match the position settings of the chart. For fixtures with 10 dip switches; dip switch 10 is reserved for special functions.

## 2-YEAR LIMITED WARRANTY

A. Elation Professional® hereby warrants, to the original purchaser, Elation Professional® products to be free of manufacturing defects in material and workmanship for a period of 2 Year (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 Professional® 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 Professional® 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 Professional® 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 Professional® concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Elation Professional® factory unless prior written authorization was issued to purchaser by Elation Professional®; 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 Professional® 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 Professional® under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Elation Professional®. All products covered by this warranty were manufactured after January 1, 1990, and bear identifying marks to that effect.

E. Elation Professional® 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 Professional® 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 Professional® 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 Professional® Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

H. Lamps are not covered under this or any other warranty, either written or implied.

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## SPECIFICATIONS:

| | |
|---|---|
| **MODEL:** | **PROCOLOR™** |
| **VOLTAGE*:** | 120V~60HZ / 220V~50HZ |
| | SC-150 120V/150W |
| **LAMP:** | 9000 HOUR LAMP LIFE |
| **DIMENSIONS:** | 9.5" H X 7" W X 15.5" D |
| | (241 X 178 X 394MM) WITH |
| | YOKE EXTENDED |
| **WEIGHT:** | 29 LBS / 13.5 KGS. |
| **FUSE:** | 7 AMP GMA |
| **WORKING POSITION:** | ANY SAFE POSITION |
| **COOLING:** | FAN COOLED |
| **DUTY CYCLE:** | NONE |
| **GOBOS:** | NONE |
| **COLORS:** | 10 DICHROIC PLUS WHITE - |
| | SPLIT COLOR CAPABLE |
| **DMX CHANNELS:** | 2 |
| **SOUND ACTIVE:** | NO |
| **WARRANTY:** | 2 YEAR (730 DAYS) |

* Operating voltage is preset at the factory.

*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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