

ELATION[®] PROFESSIONAL

Protron color



User Instructions

©Elation Professional[®]
4295 Charter Street
Los Angeles Ca. 90058
www.elationlighting.com

Protron Color™

Introduction

Unpacking: Thank you for purchasing the Protron Color™ by Elation Professional[®]. Every Protron Color™ 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 unit for damage and be sure all accessories necessary to operate the unit have arrived intact. In the event damage has been found or parts are missing, please contact our customer support number for further instructions. Please do not return this unit to your dealer without first contacting customer support at the number listed below.

Introduction: To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit. The Protron Color™ is a 750 watt strobe, with a color wheel for colorful strobing. Up to 16 units may be linked together and controlled by single controller. The units' intensity, flash rate, and flash duration can be manually adjusted using the dip-switches. For remote control operation an optional remote control is available from Elation Professional[®].

Customer Support: Elation Professional[®] 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. For service related issue please contact Elation Professional[®]. 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.

Please do not discard the shipping carton in the trash. Please recycle when ever possible.

Protron Color™

Features

- Bright 750 Watt Lamp
- Adjustable Flash Rate, Intensity Rate, and Flash Duration
- Colorful Strobing
- Large coverage area
- Thermostat Protection
- Easy lamp Replacement
- Link Up To 16 Units Together
- Built-In Adjustable Hanging Yoke

Protron Color™

Warranty Registration

The Protron Color™ carries a two year (730 days) 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 and included in the shipping container. 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 customer support at (323) 582-3322.

Protron Color™

Cleaning Instructions

Due to fog residue, smoke, and dust cleaning the fixture should be carried out periodically to optimize light output.

1. Use normal glass cleaner and a soft cloth to wipe down the outside casing every 20 days.
2. Use normal glass cleaner with a soft cloth to wipe down the inside reflector and lens every 30-60 days.
3. Always be sure to dry all parts completely before plugging the unit back in.
4. Frequent cleaning the unit will extend lamp life and ensure the fixtures reliability.

Cleaning frequency depends on the environment in which the fixture operates (i.e. smoke, fog residue, dust, dew). In heavy use we recommend cleaning on a monthly basis. Periodic cleaning will ensure longevity, and crisp beam output.

Protron Color™

Safety Warnings

Safety Issues: This unit may blow a fuse if the maximum allotted load of 20 amps (10 amps 220v version) 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.

- 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.
- 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. Do not attempt to operate this unit if the power cord has been frayed or broken.
- 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.
- 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 3 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.
 - D. The unit 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® Protron Color.™ The Elation® Protron Color.™ is 120v only. 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.*

Dipswitches in DMX mode: This unit uses dipswitches to assign a DMX address. Each dipswitch represents a binary value.

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

Dipswitch 10 - Some units omit dipswitch 10. When a unit does include dipswitch #10, it is usually used for special functions such as

sound activation.

Assigning DMX Address: Each dipswitch has a preset value. A specific DMX address is set by combining the dipswitches that sum your desired value. For example: To achieve a DMX address of 7, combine dipswitches 1, 2, and 3. Since dipswitch 1 has a value of 1, dipswitch 2 has a value of 2, and dipswitch 3 has a value of 4, the combination of the three create a DMX value of 7. (See example below).

Set DMX address 1:	Set DMX address 7:		
Dip-switches #	1 = 1	Dip-switches #	1 = 1
			2 = 2
			3 = 4
			= 7

Data Cable (DMX Cable) Requirements (For DMX and Master/Slave Operation):

The Protron Color™ can be controlled via DMX-512 protocol. The Protron Color™ is a five channel DMX unit. The DMX address is set on the side panel of the Protron Color™ 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.

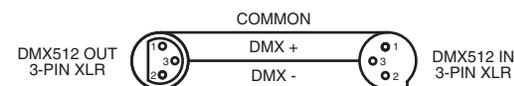


Figure 2

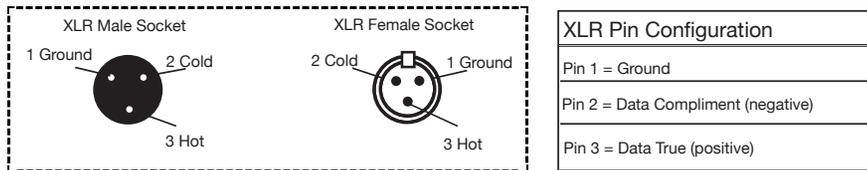


Figure 3

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 socket 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		Pin 4 - Do Not Use
Not Used		Pin 5 - Do Not Use

Power Supply: This unit is available only in 120v. Before plugging your unit in be sure the source voltage in your area matches the required voltage for your Elation® Protron Color.™

General Operation: This fixture is designed to operate as a stand alone unit, or in a Master/Slave configuration. It can also operate via DMX controller. The Protron Color™ is ready to be plugged in out of the box.

Duty Cycle:

Because the Protron Color™ can be used for continuous output (ie while simulating lightning), it can build up intense heat. Due to the build up of intense heat the unit should not run for 15 minutes continuously. After 15 minutes of continuous use, allow the unit to cool for about fifteen minutes, this will greatly increase the lamp life and insure product longevity.

Operating Modes:

Stand Alone:

In stand alone the unit will function as a normal strobe light. Rate (speed), Intensity (brightness), and duration (length between flashes) are set directly on the unit. Note that these settings are made using the dipswitches on the back of the unit. Once the settings are made they can only be changed by physically adjusting the dipswitches on the unit. Be aware of this if you plan on installing your strobe in a permanent application, if your are not satisfied with your settings you will have to physically remove the unit and adjust the dipswitches. Please see the dipswitch traits below. “Flip” the dipswitches to the “on” position to activate.

Dipswitch Traits (Manual Mode):

1. Dipswitches 1-3 control the speed of the strobe. Dipswitch #1 being the slowest strobe, and dipswitch #3 being the fastest strobe.
2. Dipswitches 4-6 control the brightness of the strobe. Dipswitch #4 being the dimmest, dipswitch #6 being the brightest.
3. If you want the strobe to be set to one color only (no rotation), leave dipswitch #9 in the off postion, and follow the small chart on page 9.
4. If you want the strobe to color change, “flip” dipswitch #9 to the

“on” position. Dipswitch #7 will control the speed of the rotating gel wheel. If dipswitch #7 is in the “on” position, the gel wheel will be on high speed, if the dipswitch #7 is in the “off” position the wheel will be on low speed.

- If you “flip” dipswitch #8 to the “on” position the gel wheel will rotate counter-clockwise. If you leave dipswitch #8 in the “off” position the gel wheel will rotate clockwise.

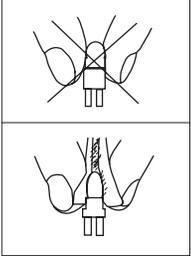
COLOR	WHITE	RED	YELLOW	BLUE
DIPSWITCH #7	OFF	ON	OFF	ON
DIPSWITCH #8	OFF	OFF	ON	ON

Universal DMX Control: This mode allows you to use a universal DMX-512 controller such as the Elation® DMX Operator™ or Show Designer.™

- To control your fixture in DMX mode, follow the set-up procedures on pages 5-7 as well as the set-up procedures included with your DMX controller.
- For longer cable runs (more than a 100 feet) use a terminator on the last fixture.
- Assign your desired address to the unit, and “flip” dipswitch #10 to the “on” position.
- The Protron Color™ uses five DMX channels. Use your DMX controller to activate the various built-in patterns. See page 11 for a list of DMX traits.
- For help operating in DMX mode consult the manual included with your DMX controller.

NOTE: If running in Master/Slave address configuration while using a DMX controller, follow the DMX address settings on page 14.

Channel	Value	Function
1	0 - 255	<u>FLASH SPEED</u> SLOW → FAST
2	0 - 255	<u>FLASH DIMMER</u> BLACKOUT → FULL INTENSITY
3	0 - 255	<u>FLASH DURATION</u> 0 - 16
4	0 - 255 0 - 15 16 - 31 32 - 47 48 - 63 64 - 79 80 - 95 96 - 111 112 - 127 128 - 144 145 - 159 160 - 175 176 - 191 192 - 207 208 - 255	<u>COLOR</u> WHITE WHITE + RED RED RED + YELLOW YELLOW YELLOW + BLUE BLUE BLUE + WHITE NO FUNCTION COUNTER-CLOCKWISE ROTATION OF THE GEL WHEEL NO FUNCTION CLOCKWISE ROTATION OF THE GEL WHEEL NO FUNCTION INTERNAL PROGRAM
5	0 - 255	GEL WHEEL ROTATION SPEED SLOW → FAST



Halogen Lamp Warning! This fixture is fitted with halogen lamps which are highly susceptible to damage if improperly handled. Never touch the lamps with your bare fingers as the oil from your hands will shorten lamp life. Also, never move the fixture until the lamps have had ample time to cool. Remember, lamps are not covered under warranty conditions.

Warning! Allow the lamp to discharge all current. Allow the unit 24hrs. to discharge before changing the lamp. Stored current can cause a very severe shock.

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

Warning: If after you have replaced the lamp or fuse and you continue to blow either one, 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. Insert a standard flat head screw driver in to the fuse holder housing (located on the rear of the unit). Turn the screwdriver in a counter-clockwise direction to remove the fuse holder. 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 in a clockwise direction to secure the holder in place.

Lamp Replacement: Caution! Never open the unit when in use. Always disconnect the main power and allow the fixture ample time to cool before attempting to replace the lamp. Lamp replacement has been made simple by incorporating a remove tray that is retained by a single thumb screws. Again, please remember to always replace with the exact same type lamp.

1. Be sure to follow the proper procedures when handling halogen lamps. Never touch the new lamp with your bare fingers.
2. Unscrew the two thumb screws located on the glass cover in the top corners of the unit.
3. Loosen the small phillips screw located to the right of the reflector

(diagram 1).

4. Gently rotate the reflector by hand so that the back of the reflector is now in the front (diagram 2 & 3).
5. Located at the back of the reflector is a white ceramic wire connection block (diagram 4).
3. The ceramic block has six wires connected to it, three on each side. The three wires on the left side are the lamp wires, they are secured by a flat head screw.
4. **NOTICE:** When you disconnect the lamp wires to replace the lamp, you will have to remember which wire went where. They must be reconnected the same way.
4. Replace the lamp with an exact match. Connect the three wires to the ceramic block as they were when you disconnected them.
5. Reassemble in reverse order.

Diagram 1

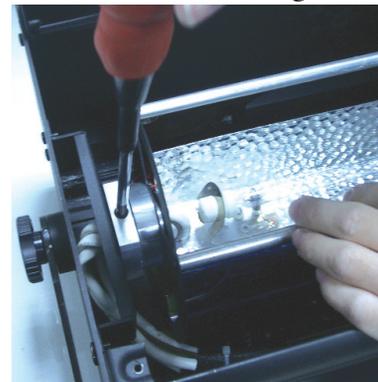


Diagram 2

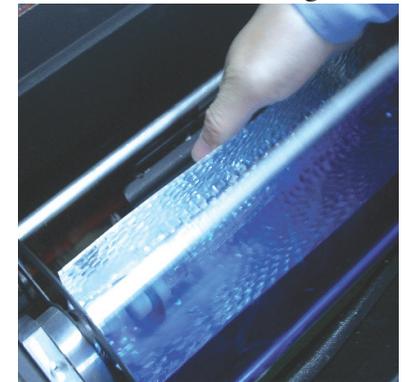


Diagram 3

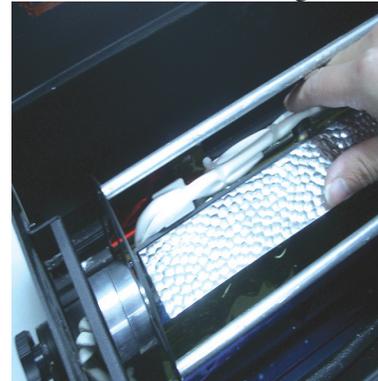


Diagram 4



Model: Protron Color™

Voltage*:	120v~60Hz
Lamp:	ZB-300 750 Strobe lamp
Fuse:	20A 250v
Dimensions:	10" (L) x 22" (W) x 9.6" (H)
Weight:	24 Lbs.
Colors:	3 Plus White
Duty Cycle:	15 minutes on/off
Ventilation:	Fan Cooled
Warranty:	2 Year (730 Days)

**Voltage is preset at the factory and can not be changed by the user.*

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

©Elation Professional®

Elation World Headquarters:

4295 Charter Street Los Angeles, CA 90058 USA

Tel: 323-582-3322 / Fax: 323-582-3108

Web: www.elationlighting.com / E-mail: info@elationlighting.com