



OPTI QA PAR



User Instructions

Opti QA Par

Introduction

Unpacking: Thank you for purchasing the Opti QA Par by Elation Professional®. Every Opti QA Par 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 QA Par is part of Elation Professionals® continuing pursuit for creating high quality affordable intelligent fixtures. The Opti QA Par is a powerful DMX intelligent 4-in-1 RGBA LED wash. This wash has five operating modes; Sound Active mode, Macro mode, Program mode, RGBA mode, and DMX Control. This unit can be used as a stand alone, or a sound-active 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 for any comments or suggestions. Service Hours are Monday through Friday 9:00 a.m. to 4:30 p.m. Pacific Standard Time.

Voice: (323) 582-3322
Fax: (323) 832-9142
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 QA Par

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 QA Par

Features

- Multi-Colors
- 4 LEDs Per Lens
- Built in Microphone
- Five Operating Modes
- DMX-512 protocol
- Six DMX Modes: 1 Channel Mode, 2 Channel Mode, 4 Channel Mode, 5 Channel Mode, 7 Channel Mode, & 8 Channel Mode
- Dimming 0-100% in 2 Channel Mode, 5 Channel Mode, 7 Channel Mode, & 8 Channel Mode.
- Daisy Chain Units Together in DMX Mode

Opti QA Par

Warranty Registration

The Opti QA Par 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 QA Par

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 15 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: The Elation Opti QA Par contains a automatic voltage switch, which will auto sense the voltage when it is plugged into the power source. With this switch there is no need to worry about the correct power voltage, this unit can be plugged in anywhere.

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 QA Par can be controlled via DMX-512 protocol. The Opti QA Par has 6 DMX Modes. The DMX address is set electronically using the controls on the rear panel of the unit. Your unit and your DMX controller require a approved DMX-512 110 Ohm Data cable for data input and data output. We recommend Accu-Cable DMX cables. If you are making your own cables, be sure to use standard 110-120 Ohm shielded cable (This cable may be purchased at almost all professional 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 cannot be split.

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.

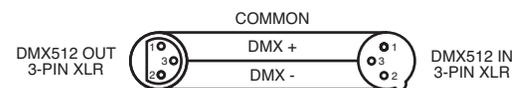


Figure 2

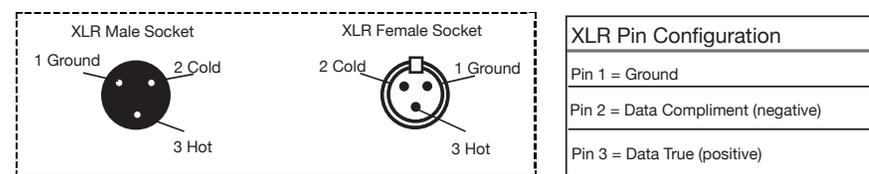


Figure 3

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 DMX-512 data cables for DATA transmission in place of 3-pin. 5-pin DMX fixtures may be implemented in a 3-pin DMX line. When inserting standard 5-pin data cables 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

LED Display On/Off:

To set the LED display to turn off after 10 seconds, press the MODE button until DispPerm ON is displayed, press the UP button to display DispPerm Off. Now the display will disappear after 10s. Press any button for at least 3secs. to turn the display on again. Be advised though that the display will turn off automatically after 10 seconds.

DispPerm ON = LCD display on at all times.

DispPerm Off = LCD display shuts off after 10 seconds.

Operating Modes:

You can use the Opti QA Par in five ways:

- Sound-Active mode - The unit will react to sound, chasing through the built in programs. This mode is located under PROGRAM MODE.
- Macro Mode - There are 32 color macros (color temperatures) to choose from.
- Program Mode - There are 9 built in programs to choose from.
- RGBA mode - Control the intensity of all four colors adjusting the intensity to your desire.
- 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 data 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 the “Master” unit to your desired mode or operation.
3. For the “Slave” unit(s), set the display to DMX mode 3, or 4 Channel mode. The display should read “3000” or any variables, i.e “3001”, “3002 etc..

4. Connect the “Slave” unit or units and they will automatically start to follow the “Master.”

Macro Mode:

In this mode you can choose a desired color to remain static.

1. Plug the fixture in and press the MODE button until “ColMacro Macro XX” is displayed. “XX” = 0-32.
2. Press the UP or DOWN buttons to scroll through the preset colors and find your desired color.

Program Mode:

In this mode the Opti QA Par will change through the different colors.

1. Plug the fixture in and press the MODE button until “ColProgr Progr XX” is displayed. “XX” = 01-9 & All. There are 9 different preset programs to choose from. You can also set it to “All” in which all 9 programs will run.
2. Press the UP or DOWN buttons to find your desired program.
3. When you have found your desired program press the MODE button, “ColSpeed Speed XX” should be displayed. In this menu you can adjust the running speed of the program, “XX” = 1-16. 1 is the slowest speed, 16 the fastest speed.
4. You can also run the program in sound active mode. Press the UP or DOWN buttons until “ColSpeed Speed so” is displayed. You are now running the program in Sound Active mode.

RGBA Mode:

In this mode you can select either red, green, blue, or amber or adjust the colors to make a your own desired color, which will remain static. See page 14 for a list of macro colors and RGBA settings.

1. Plug the fixture in and press the MODE button until either “ColSet Red”, “ColSet Green”, “ColSet Blue”, or “ColSet Amber” is displayed.
2. You can press the UP or DOWN buttons to adjust the intensity of the displayed color. When you have adjusted your desired color press MODE to move to the next color.

DMX Mode:

Operating through a DMX controller gives the user the freedom to create their own programs tailored to their own individual needs. This func-

tion also allows you to use your fixtures as spot lights. The Opti QA Par has 6 DMX modes: 1 Channel mode, 2 Channel mode, 4 Channel mode, 5 Channel mode, 7 Channel mode, and a 8 Channel mode. See pages 11-14 for each modes’ DMX traits.

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. To run your fixture in DMX mode, plug in the fixture via the XLR connections to any standard DMX controller. Select your desired DMX mode, and then press the UP or DOWN buttons to adjust the DMX address. **XXX = DMX Address**
3. To run the 1 Channel Mode, press the MODE button until “1XXX” is displayed. This is the DMX addressing for the 1 Channel Mode.
 - To run the 2 Channel Mode, press the MODE button until “2XXX” is displayed. This is the DMX addressing for the 2 Channel Mode.
 - To run the 4 Channel Mode, press the MODE button until “3XXX” is displayed. This is the DMX addressing for the 4 Channel Mode.
 - To run the 5 Channel Mode, press the MODE button until “4XXX” is displayed. This is the DMX addressing for the 5 Channel Mode.
 - To run the 7 Channel Mode, press the MODE button until “5XXX” is displayed. This is the DMX addressing for the 7 Channel Mode.
 - To run the 8 Channel Mode, press the MODE button until “6XXX” is displayed. This is the DMX addressing for the 8 Channel Mode.
9. Please see pages 11-14 for DMX values and traits

With this feature you can connect the fixtures to one another using the IEC input and output sockets. The quantity that can be connected is 10 fixtures maximum. After 10 fixtures you will need to use a new power outlet. They must be the same fixtures. DO NOT mix fixtures.

Opti QA Par 1 Channel Mode - Values and Functions

Channel	Value	Function
1	0	<u>COLOR MACROS</u> OFF
	1 - 7	BASTARD AMBER
	8 - 15	MEDIUM AMBER
	16 - 23	PALE AMBER GOLD
	24 - 31	GALLO GOLD
	32 - 39	GOLDEN AMBER
	40 - 47	LIGHT RED
	48 - 55	MEDIUM RED
	56 - 63	MEDIUM PINK
	64 - 71	BROADWAY PINK
	72 - 79	FOLLIES PINK
	80 - 87	LIGHT LAVENDER
	88 - 95	SPECIAL LAVENDER
	96 - 103	LAVENDER
	104 - 111	INDIGO
	112 - 119	HEMSLEY BLUE
	120 - 127	TIPTON BLUE
	128 - 135	LIGHT STEEL BLUE
	136 - 143	LIGHT SKY BLUE
	144 - 151	SKY BLUE
	152 - 159	BRILLIANT BLUE
	160 - 167	LIGHT GREEN BLUE
	168 - 175	BRIGHT BLUE
	176 - 183	PRIMARY BLUE
	184 - 191	CONGO BLUE
	192 - 199	PALE YELLOW GREEN
	200 - 207	MOSS GREEN
	208 - 215	PRIMARY GREEN
	216 - 223	DOUBLE CTB
	224 - 231	FULL CTB
	232 - 239	HALF CTB
	240 - 247	DARK BLUE
	248 - 255	WHITE

Opti QA Par 2 Channel Mode - Values and Functions

Channel	Value	Function
1	1 - 255	COLOR MACROS PLEASE SEE 1 CHANNEL MODE
2	0 - 255	DIMMER 0% - 100%

Opti QA Par 4 Channel Mode - Values and Functions

Channel	Value	Function
1	1 - 255	RED 0% - 100%
2	1 - 255	GREEN 0% - 100%
3	1 - 255	BLUE 0% - 100%
4	1 - 255	AMBER 0% - 100%

Opti QA Par 5 Channel Mode - Values and Functions

Channel	Value	Function
1	1 - 255	RED 0% - 100%
2	1 - 255	GREEN 0% - 100%
3	1 - 255	BLUE 0% - 100%
4	1 - 255	AMBER 0% - 100%
5	1 - 255	MASTER DIMMER 0% - 100%

Opti QA Par 7 Channel Mode - Values and Functions

CHANNEL	VALUE	FUNCTION
1	1 - 255	RED 0% - 100%
2	1 - 255	GREEN 0% - 100%
3	1 - 255	BLUE 0% - 100%
4	1 - 255	AMBER 0% - 100%
5	1 - 255	COLOR MACROS (See 1 Channel DMX mode for colors)
6	16 - 255	STROBING SLOW - FAST
7	1 - 255	MASTER DIMMER 0% - 100%

Channel 1, 2, 3, and 4 will not work, when Channel 5 is being used.

Opti QA Par 8 Channel Mode - Values and Functions

CHANNEL	VALUE	FUNCTION
1	1 - 255	RED 0% - 100%
2	1 - 255	GREEN 0% - 100%
3	1 - 255	BLUE 0% - 100%
4	1 - 255	AMBER 0% - 100%
5	1 - 255	COLOR MACROS (See 1 Channel DMX mode for colors)
6	0 - 15 16 - 255 1 - 255	STROBING/PROGRAM SPEED NOTHING STROBING SLOW - FAST PROGRAM SPEED SLOW - FAST
7	0 - 127 128 - 159 160 - 191 192 - 223 224 - 255	MODE COLOR ADJUSTMENT AUTO MIX 3 COLOR CHANGE 7 COLOR CHANGE SOUND ACTIVE
8	1 - 255	MASTER DIMMER 0% - 100%

Channel 1, 2, 3, and 4 will not work, when Channel 5 is being used.

When using Channel 7, Channel 6 will control the speed of the color changing.

Channels 1, 2, 3, & 4 are used with Channel 7 Values 1-127.

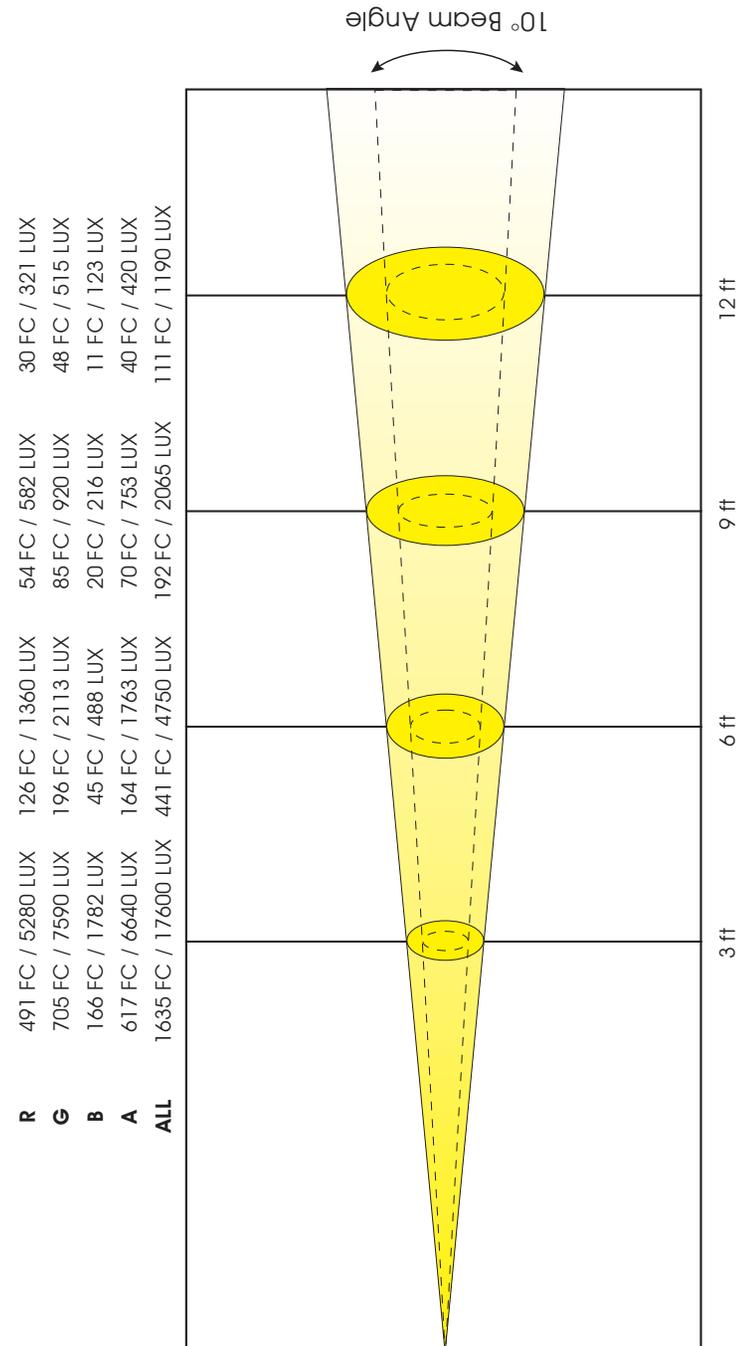
Opti QA Par

RGB Macro Chart

COLOR	RED	GREEN	BLUE
BASTARD AMBER	255	206	143
MEDIUM AMBER	254	177	153
PALE AMBER GOLD	254	192	138
GALLO GOLD	254	165	98
GOLDEN AMBER	254	121	0
LIGHT RED	176	17	0
MEDIUM RED	96	0	11
MEDIUM PINK	234	139	171
BROADWAY PINK	224	5	97
FOLLIES PINK	175	77	173
LIGHT LAVENDER	119	130	199
SPECIAL LAVENDER	147	164	212
LAVENDER	88	2	163
INDIGO	0	38	86
HEMSLEY BLUE	0	142	208
TIPTON BLUE	52	148	209
LIGHT STEEL BLUE	1	134	201
LIGHT SKY BLUE	0	145	212
SKY BLUE	0	121	192
BRILLIANT BLUE	0	129	184
LIGHT GREEN BLUE	0	83	115
BRIGHT BLUE	0	97	166
PRIMARY BLUE	1	100	167
CONGO BLUE	0	40	86
PALE YELLOW GREEN	209	219	182
MOSS GREEN	42	165	85
PRIMARY GREEN	0	46	35
DOUBLE CTB	8	107	222
FULL CTB	107	156	231
HALF CTB	165	198	247
DARK BLUE	0	0	189
WHITE	255	255	255

Opti QA Par

Photometric Chart



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).

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 QA ParSPECIFICATIONS:

Working Position:	Any safe working position
Voltage:	100V ~ 240V/47~63Hz
Power Cord Daisy Chain:	10 Fixtures Max.
LED's:	18 x 5 Watt Quad RGBA LEDs
Power Consumption:	140W
Fuse:	3.15 Amp
Beam Angle:	10 Degrees
Weight:	10.6lbs./ 4.8Kgs.
Dimensions:	11" (L) x 8.7" (W) x 14" (H) 278 x 220.6 x 358mm
IP Rating:	IP 20
Colors:	RGBA Color Mixing
DMX Channels:	6 DMX Modes: 1 Channel Mode, 2 Channel Mode, 4 Channel Mode, 5 Channel Mode, 7 Channel Mode, & 8 Channel Mode
Warranty:	2 Year (730 days)

Auto Sensing Voltage: *This fixture contains a automatic voltage switch, which will auto sense the voltage when it is plugged into the power source.*

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