



# FUZE WASH FR™

user manual

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## DOCUMENT VERSION



Due to additional product features and/or enhancements, an updated version of this document may be available online. Please scan the QR Code with your mobile device or visit [www.elationlighting.com](http://www.elationlighting.com) for the latest revision/update of this manual, before installation and/or programming.

| Date       | Document Version | SoftwareVersion ≥ | DMX Channel Modes                     | Notes  |
|------------|------------------|-------------------|---------------------------------------|--|
| 08/03/2020 | 1.0              | 1.04              | Standard, Extended, CMY, CMY Extended | Initial Release  |
| 03/04/2021 | 2.0              | N/C               | N/C                                   | Update Dim. Dwg.   |
| 03/04/2022 | 3.0              | N/C               | N/C                                   | Update format  |
| 07/21/2023 | 4.0              | N/C               | N/C                                   | Added center-to-center dimension and software updating information |
|            |                  |                   |                                       |  |
|            |                  |                   |                                       |  |

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# GENERAL INFORMATION

## INTRODUCTION

Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this device. These instructions contain important safety and use information. For professional use only.

## UNPACKING

Every device 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 is damaged, carefully inspect the device for damage, and be sure all accessories necessary to install and operate the device have arrived intact. In the event damage has been found or parts are missing, please contact our customer support team for further instructions. Please do not return this device to your dealer without first contacting customer support. Please do not discard the shipping carton in the trash. Please recycle whenever possible.

## BOX CONTENTS

Omega Brackets (x2)  
Locking Power Cable

## CUSTOMER SUPPORT

Contact ELATION Service for any product related service and support needs. Also visit [forums.elationlighting.com](http://forums.elationlighting.com) with questions, comments or suggestions.

**ELATION SERVICE USA - Monday - Friday 8:00am to 4:30pm PST**  
**323-582-3322 | Fax 323-832-9142 | [support@elationlighting.com](mailto:support@elationlighting.com)**

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**REPLACEMENT PARTS** please visit [parts.elationlighting.com](http://parts.elationlighting.com)



## IMPORTANT NOTICE!

**There are no user serviceable parts inside this unit.**

**Do not attempt any repairs yourself; doing so will void your manufactures warranty. Damages resulting from modifications to this fixture and/or the disregard of safety instructions and guidelines in this manual void the manufactures warranty and are not subject to any warranty claims and/or repairs.**

## LIMITED WARRANTY (USA ONLY)

- 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 two years (730 days), and Elation Professional product rechargeable batteries to be free of manufacturing defects in material and workmanship for a period of six months (180 days), from the original date of purchase. This warranty excludes discharge lamps and all product accessories. 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 any product is sent, it must be shipped in its original package and packaging material. No accessories should be shipped with the product. If any accessories are shipped with the product, Elation Professional shall have no liability what so ever for loss and/or damage to any such accessories, nor for the safe return thereof.
- C. This warranty is void if the product serial number and/or labels are 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 product instructions, guidelines and/or user manual.
- D. This is not a service contract, and this warranty does not include any maintenance, cleaning or periodic check-up. During the periods as 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 bare identifying marks to that effect.
- E. Elation Professional reserves the right to make changes in design and/or performance 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 the 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 periods set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said periods have 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 and/or damage, direct and/or consequential, arising out of the use of, and/or the 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.

### WARRANTY RETURNS

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. Items returned without a R.A. number clearly marked on the outside of the package will be refused and returned at customer's expense. You may obtain a R.A. number by contacting customer support.

# SAFETY GUIDELINES

This fixture is a sophisticated piece of electronic equipment. To guarantee a smooth operation, it is important to follow all instructions and guidelines in this manual. Elation Professional is not responsible for injury and/or damages resulting from the misuse of this fixture due to the disregard of the information printed in this manual. Only qualified and/or certified personnel should perform installation of this fixture and only the original rigging parts (omega brackets) included with this fixture should be used for installation. Any modifications to the fixture and/or the included mounting hardware will void the original manufacturer's warranty and increase the risk of damage and/or personal injury.



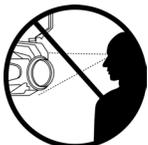
**PROTECTION CLASS 1 - FIXTURE MUST BE PROPERLY GROUNDED**



**THERE ARE NO USER SERVICEABLE PARTS INSIDE THIS UNIT.  
DO NOT ATTEMPT ANY REPAIRS YOURSELF; DOING SO WILL VOID YOUR MANUFACTURER'S WARRANTY. DAMAGES RESULTING FROM MODIFICATIONS TO THIS FIXTURE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURER'S WARRANTY AND ARE NOT SUBJECT TO ANY WARRANTY CLAIMS AND/OR REPAIRS.**



**DO NOT PLUG FIXTURE INTO A DIMMER PACK!  
NEVER OPEN THIS FIXTURE WHILE IN USE!  
UNPLUG POWER BEFORE SERVICING FIXTURE!  
NEVER TOUCH FIXTURE DURING OPERATION, AS IT MAY BE HOT!  
KEEP FLAMMABLE MATERIALS AWAY FROM FIXTURE!**



**NEVER LOOK DIRECTLY INTO THE LIGHT SOURCE!  
RETINA INJURY RISK - MAY INDUCE BLINDNESS!  
SENSITIVE PERSONS MAY SUFFER AN EPILEPTIC SHOCK!**



**INDOOR / DRY LOCATIONS USE ONLY!  
DO NOT EXPOSE FIXTURE TO RAIN AND MOISTURE!**



**MINIMUM DISTANCE TO OBJECTS/SURFACES  
MUST BE 6.6 FEET (2 METERS)  
MAXIMUM TEMP OF EXTERNAL SURFACE 185° F (85°C)  
MINIMUM DISTANCE OF INFLAMMABLE MATERIALS  
FROM THE SURFACE 1.6 FEET (0.5 METER)**

## WARNING



Minimum distance to lighted objects 15.0 meters.  
Maximum temperature of the external surface 100°C.  
Minimum distance of inflammable materials from the surface 0.5m.

# SAFETY GUIDELINES

**DONOT TOUCH** the fixture housing during operation. Turn OFF the power and allow approximately 15 minutes for the fixture to cool down before serving.

**DO NOT** shake fixture, avoid brute force when installing and/or operating fixture.

**DO NOT** operate fixture if the power cord is frayed, crimped, damaged and/or if any of the power cord connectors are damaged and do not insert into the fixture securely with ease. NEVER force a power cord connector into the fixture. If the power cord or any of its connectors are damaged, replace it immediately with a new one of similar power rating.

**DO NOT** block any air ventilation slots.

All fan and air inlets must remain clean and never blocked.

Allow approx. 6" (15cm) between fixture and other devices or a wall for proper cooling.

Always disconnect fixture from main power source before performing any type of service and/or cleaning procedure. Only handle the power cord by the plug end, never pull out the plug by tugging the wire portion of the cord.

During the initial operation of this fixture, a light smoke or smell may emit from the interior of the fixture. This is a normal process and is caused by excess paint in the interior of the casing burning off from the heat associated with the lamp and will decrease gradually over time.

Consistent operational breaks will ensure fixture will function properly for many years.

**ONLY** use the original packaging and materials to transport the fixture in for service.

# MAINTENANCE GUIDELINES



**DISCONNECT POWER BEFORE PERFORMING ANY MAINTENANCE!**

## CLEANING

Frequent cleaning is recommended to insure proper function, optimized light output, and an extended life. The frequency of cleaning depends on the environment in which the fixture operates: damp, smoky or particularly dirty environments can cause greater accumulation of dirt on the fixture's optics. Clean the external lens surface at least every 20 days with a soft cloth to avoid dirt/debris accumulation.

**NEVER** use alcohol, solvents, or ammonia-based cleaners.

## MAINTENANCE

Regular inspections are recommended to insure proper function and extended life.

There are no user serviceable parts inside this fixture, please refer all other service issues to an authorized Elation service technician. Should you need any spare parts, please order genuine parts from an authorized Elation dealer.

Please refer to the following points during routine inspections:

A detailed electric check by an approved electrical engineer every three months, to make sure the circuit contacts are in good condition and prevent overheating.

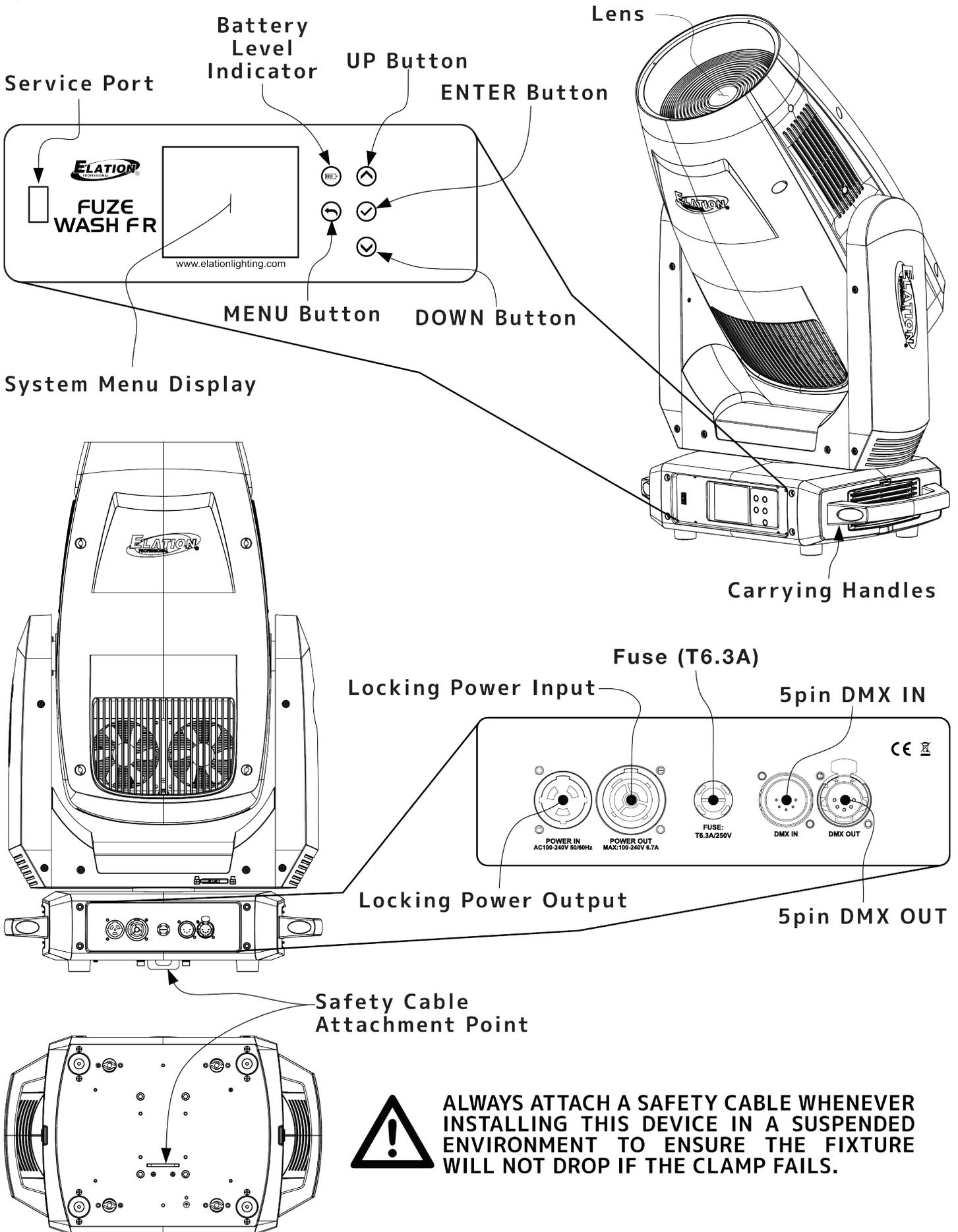
Be sure all screws and fasteners are securely tightened at all times. Loose screws may fall out during normal operation resulting in damage or injury as larger parts could fall.

Check for any deformations on the housing, color lenses, rigging hardware and rigging points (ceiling, suspension, trussing). Deformations in the housing could allow for dust to enter into the fixture. Damaged rigging points or unsecured rigging could cause the fixture to fall and seriously injure a person(s).

Electric power supply cables must not show any damage, material fatigue or sediments.

**NEVER** remove the ground prong from the power cable.

# OVERVIEW

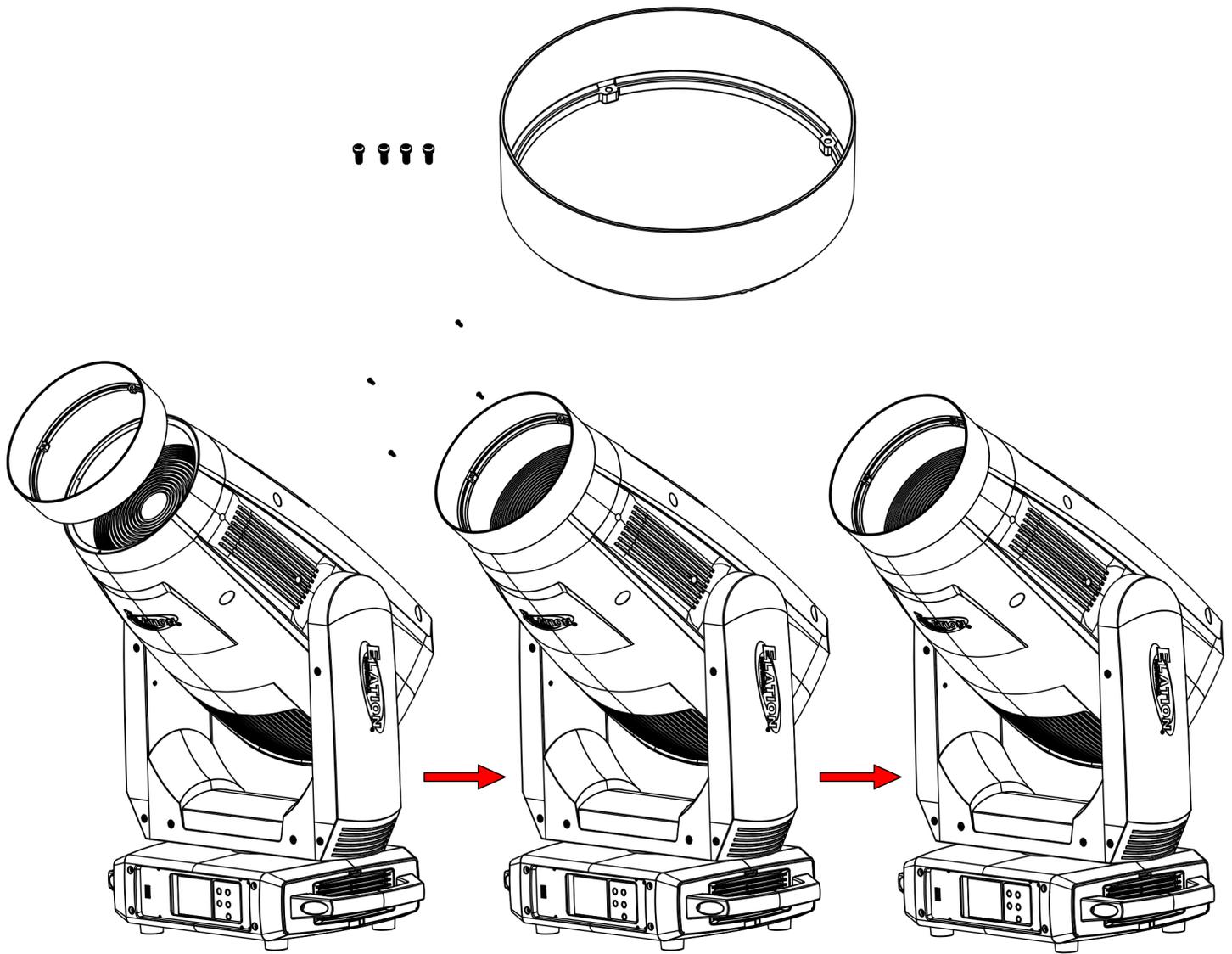


# COLORS

| Colors  | Color Temperature | Green Shift                 |
|---------|-------------------|-----------------------------|
| Cyan    | 2400K – 8500K     | Full Minus Green to Neutral |
| Magenta |                   |                             |
| Yellow  |                   |                             |
| Red     |                   | Neutral White               |
| Green   |                   |                             |
| Blue    |                   | Neutral to Full Plus Green  |
| Mint    |                   |                             |
| Amber   |                   |                             |

| VIRTUAL GEL SWATCH BOOK COLORS |               |                   |       |               |                   |       |               |                   |
|--------------------------------|---------------|-------------------|-------|---------------|-------------------|-------|---------------|-------------------|
| Value                          | Filter Number | Name              | Value | Filter Number | Name              | Value | Filter Number | Name              |
| 1                              | 7             | Pale Yellow       | 21    | 157           | Pink              | 41    | 68            | Sky Blue          |
| 2                              | 103           | Straw             | 22    | 36            | Medium Pink       | 42    | 143           | Pale Navy Blue    |
| 3                              | 151           | Gold Tint         | 23    | 111           | Dark Pink         | 43    | 131           | Marine Blue       |
| 4                              | 100           | Spring Yellow     | 24    | 128           | Bright Pink       | 44    | 115           | Peacock Blue      |
| 5                              | 10            | Medium Yellow     | 25    | 148           | Bright Rose       | 45    | 172           | Lagoon Blue       |
| 6                              | 101           | Yellow            | 26    | 332           | Special Rose Pink | 46    | 116           | Medium Blue Green |
| 7                              | 104           | Deep Amber        | 27    | 793           | Vanity Fair       | 47    | 90            | Dark Yellow Green |
| 8                              | 15            | Deep Straw        | 28    | 113           | Magenta           | 48    | 139           | Primary Green     |
| 9                              | 179           | Loving Amber      | 29    | 46            | Dark Magenta      | 49    | 122           | Fern Green        |
| 10                             | 21            | Gold Amber        | 30    | 48            | Rose Purple       | 50    | 89            | Moss Green        |
| 11                             | 105           | Orange            | 31    | 126           | Mauve             | 51    | 124           | Dark Green        |
| 12                             | 158           | Deep Orange       | 32    | 49            | Medium Purple     | 52    | 88            | Lime Green        |
| 13                             | 22            | Dark Amber        | 33    | 58            | Lavender          | 53    | 138           | Pale Green        |
| 14                             | 778           | Millennium Gold   | 34    | 199           | Palace Blue       | 54    | 203           | Quarter CT Blue   |
| 15                             | 135           | Deep Golden Amber | 35    | 119           | Dark Blue         | 55    | 202           | Half CT Blue      |
| 16                             | 24            | Scarlet           | 36    | 132           | Medium Blue       | 56    | 201           | FULL CT Blue      |
| 17                             | 106           | Primary Red       | 37    | 120           | Deep Blue         | 57    | 200           | Double CT Blue    |
| 18                             | 26            | Bright Red        | 38    | 165           | Daylight Blue     | 58    | 206           | Quarter CT Orange |
| 19                             | 27            | Medium Red        | 39    | 161           | Slate Blue        | 59    | 205           | Half CT Orange    |
| 20                             | 19            | Fire              | 40    | 118           | Light Blue        | 60    | 204           | FULL CT Orange    |

# SNOOT INSTALLATION



1. Place fixture on the stable flat surface and let cool for 15mins.
2. Align Snoot onto front lens so 4 screw holes on snoot match 4 screw holes on lens.
3. Carefully using a hand screwdriver, insert/secure included 4 screws.
4. Check Snoot to confirm it is seated properly and all 4 screws are secure.



**DO NOT OVER TIGHTEN SCREWS! DO NOT USE A POWER SCREWDRIVER!**

# FAN CONTROL AND LOW NOISE OPERATION

The Elation Fuze Wash FR is a high-performance fixture suited for multiple applications. For noise critical environments such as Theater, Opera, or Orchestral Halls, it offers various fan operation modes which remove unwanted noise distractions for the audience and performers. Fan Modes can be changed remotely via the DMX control channel, allowing the fixture to offer high output or whisper-silent operation at a moment's notice. All Fan Modes smoothly transition over a brief period, preventing unwanted attraction to the fixture.

**Auto** – The default AUTO mode ensures optimal performance of the fixture. Fans only run at the speeds needed to keep the LED engine within a safe temperature range. They will turn off if possible, for example, when the fixture is dimmed to a low intensity. Fans sense the ambient and fixture temperature, and will, always, try to keep noise levels at a minimum. The fixture output will only reduce when the LED engine cannot be cooled down to its safe operating range due to high ambient temperature. **Note: Auto is the recommend mode for daily operation of the Elation Wash FR.**

**High** – This mode is only required in very high ambient temperatures when automatic fan speed adjustments are not desired. High Fan Speed will cool the fixture most efficiently. This mode will increase wear on the fans and should only be utilized in exceptional circumstances. Fans will always run, even if the fixture is dimmed. Fixture output is kept at 100% unless the LED engine temperature is too high, at which point the fixture will reduce power carefully to ensure safe operation.

**Low** – In this mode the fixture reduces fan speeds throughout for a lower noise profile of the fixture. This mode should be sufficient for most uses where lower noise is required. The fixture output is reduced to about 80%.

## **Additional Low Noise Modes**

For very critical situations, the Fuze Wash FR offers two additional low noise modes for silent operation. The fixture output will be reduced, but as the Fuze Wash FR has such an extremely high luminous flux, it still offers outstanding performance. In low noise modes, all parameters of the Rembrandt operate quieter and with reduced speeds.

**Studio** – This mode reduces the fixture output to approximately 50%. Almost all fans inside the Rembrandt are turned off, and only run when necessary to keep the fixture at 50% LED power.

**Mute** – Running the fixture in MUTE mode reduces the fixture to about 25% output, and all fans are off. The fixture is totally silent.

# INSTALLATION GUIDELINES



## FLAMMABLE MATERIAL WARNING

Keep fixture minimum 5.0 feet (1.5m) away from flammable materials and/or pyrotechnics.



## ELECTRICAL CONNECTIONS

A qualified electrician should be used for all electrical connections and/or installations.



**USE CAUTION WHEN POWER LINKING OTHER MODEL FIXTURES AS THE POWER CONSUMPTION OF OTHER MODEL FIXTURES MAY EXCEED THE MAX POWER OUTPUT ON THIS FIXTURE. CHECK SILK SCREEN FOR MAX AMPS.**



**MINIMUM DISTANCE TO OBJECTS/SURFACES MUST BE 1 FOOT (0.3 METERS)**



**MINIMUM DISTANCE OF INFLAMMABLE MATERIALS FROM THE SURFACE 1.6 FEET (0.5 METER)**



**MAXIMUM AMBIENT TEMPERATURE 113° F (45°C)**



**DO NOT INSTALL THE FIXTURE IF YOU ARE NOT QUALIFIED TO DO SO!**

Fixture **MUST** be installed following all local, national, and country commercial electrical and construction codes and regulations.

Before rigging/mounting a single fixture or multiple fixtures to any metal truss/structure or placing the fixture(s) on any surface, a professional equipment installer **MUST** be consulted to determine if the metal truss/structure or surface is properly certified to safely hold the combined weight of the fixture(s), clamps, cables, and accessories.

Overhead rigging requires extensive experience, including amongst others calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the fixture. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.

Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas where unauthorized personnel might reach the fixture by hand.

**NEVER** stand directly below the fixture(s) when rigging, removing or servicing.

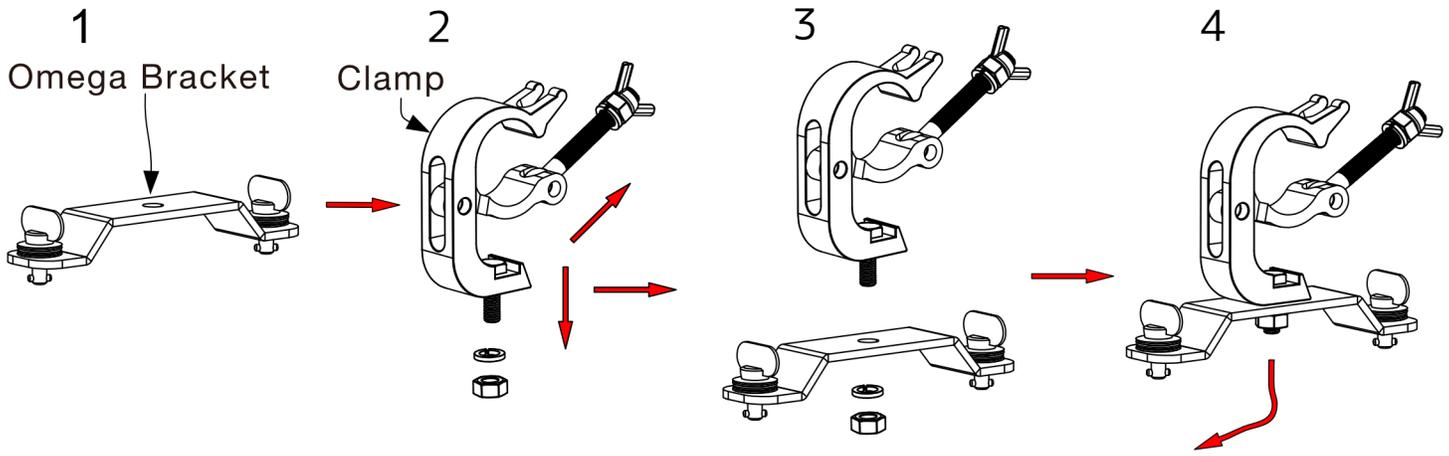
Overhead fixture installation must always be secured with a secondary safety attachment, such as an appropriately rated safety cable.

Allow approximately 15 minutes for the fixture to cool down before serving.

# INSTALLATION GUIDELINES

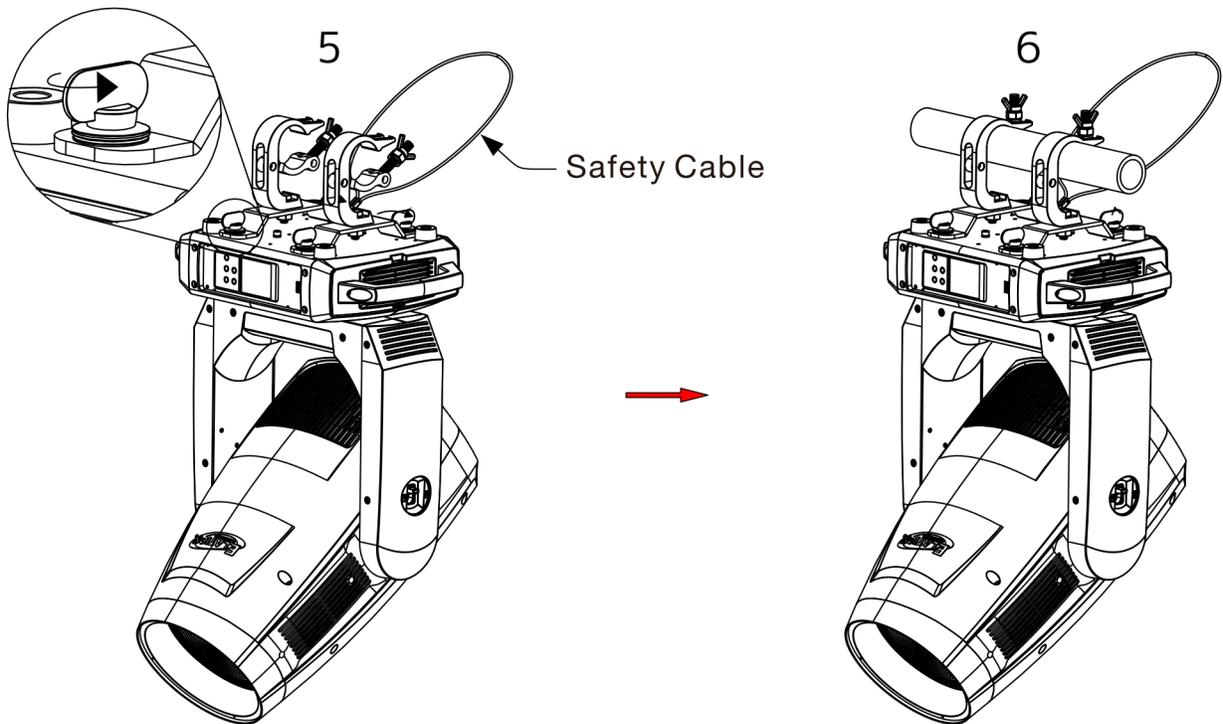
## OMEGA BRACKETS INSTALLATION

Insert the Omega Brackets into the matching holes on the bottom of the fixture. Secure the Omega Brackets to the fixture by turning each quick-lock fastener  $\frac{1}{4}$  turn clockwise; making sure the fastener is completely locked. Omega Brackets can be installed into the fixture base as illustrated below.



## SAFETY CABLE

**ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE THE FIXTURE WILL NOT FALL IF THE CLAMP FAILS.**



## CLAMP INSTALLATION

When mounting fixture to truss, be sure to secure an appropriately rated professional grade rigging clamp to the included **Omega Brackets** using an M10 screw fitted through the center hole of the **Omega Brackets**. The fixture provides built-in rigging points for a **SAFETY CABLE** (not included). Be sure to only use one of the designated rigging points for the safety cable and never secure a safety cable to a carrying handle.

## RIGGING

Overhead rigging requires extensive experience, including among others calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the fixture. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.

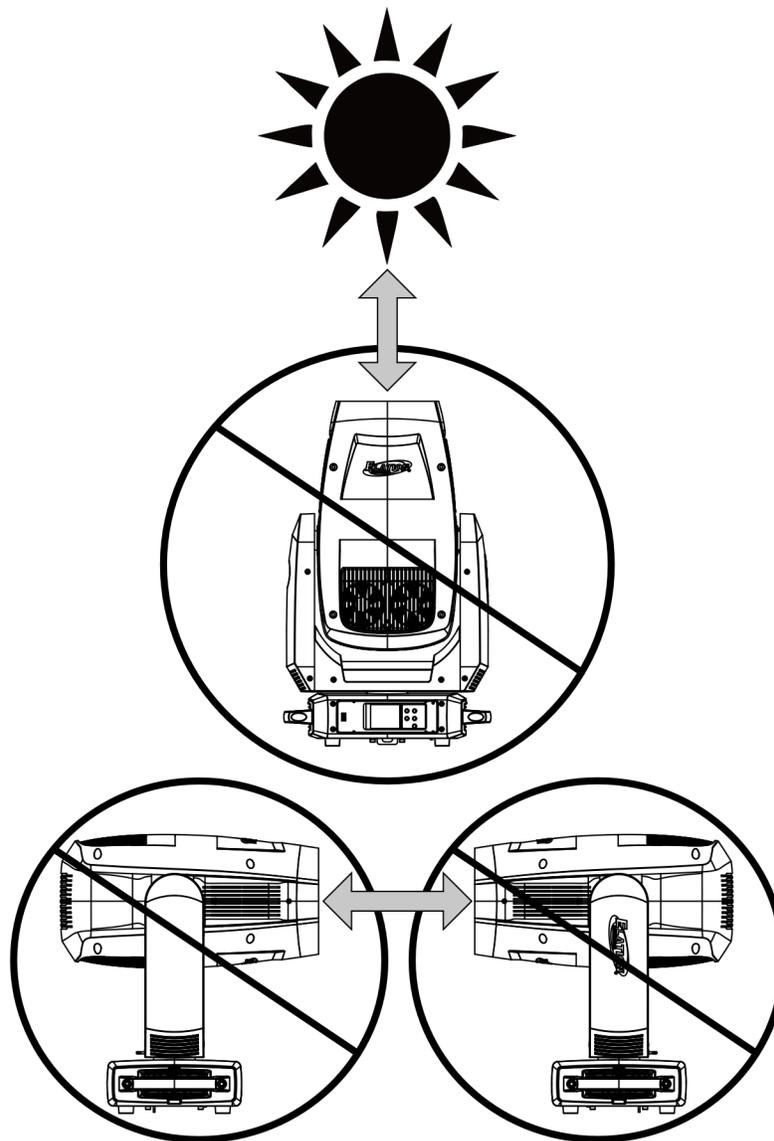
# INSTALLATION GUIDELINES

## POTENTIAL INTERNAL FIXTURE DAMAGE FROM EXTERNAL SOURCES OF LIGHT BEAMS

External sources of light beams from direct sunlight, lighting moving head fixtures, and lasers, which are focused directly towards the exterior housing and/or penetrate the front lens opening of ELATION lighting fixtures, can cause severe internal damage including burning to optics, dichroic color filters, glass and metal gobos, prisms, animation wheels, frost filters, iris, shutters, motors, belts, wiring, discharge lamps, and LEDs.

This issue is not specific only to ELATION lighting fixtures, it is a common issue with lighting fixtures from all manufacturers. Although there is no true way to fully prevent this issue from happening, the guidelines below can prevent any potential damage from occurring if followed. Contact ELATION Service for more details.

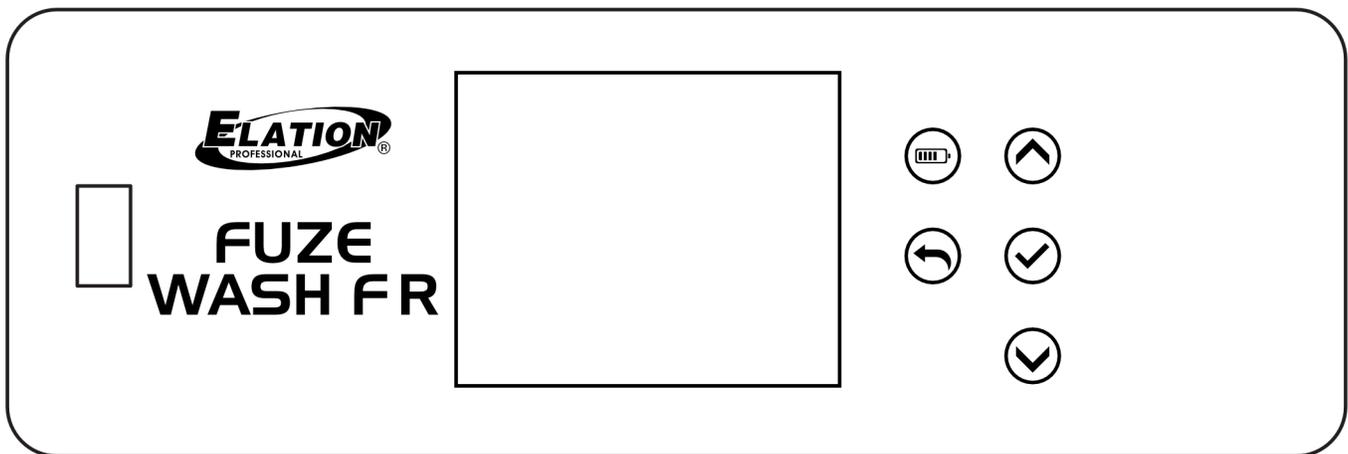
**DO NOT EXPOSE THE FIXTURE AND/OR FRONT LENS OPENING TO LIGHT BEAMS FROM DIRECT SUNLIGHT, OTHER LIGHTING MOVING HEAD FIXTURES, AND LASERS WHILE UNPACKING, INSTALLATION, USE, AND EXTENDED IDLE TIMES OUTDOORS. DO NOT FOCUS A LIGHT BEAM FROM ONE LIGHTING FIXTURE DIRECTLY TOWARDS ANOTHER.**



# SYSTEM MENU

The fixture includes an easy to navigate system menu. The LCD touch panel display located on the front of the fixture (see image below), provides access to the main system menu and is where all necessary system adjustments are made to the fixture. During normal operation, pressing the **ENTER (Check Mark)** button once will access the fixture's main menu. Once in the main menu you can navigate through the different functions and access the sub-menus with the **UP** and **DOWN** buttons. Once you reach a field that requires adjusting, press the **ENTER** button to activate that field and use the **UP** and **DOWN** buttons to adjust the field. Pressing the **ENTER** button once more will confirm your setting. You may exit the main menu at any time without making any adjustments by pressing the **ESC (Back Arrow)** button.

To access the LCD Menu Control Display via the internal battery, press and hold the **BATTERY ICON** button for 3 seconds. The LCD Menu Control Display will shut **OFF** automatically about 1 minute from the last button press.



A USB FLASH DRIVE CAN BE USED TO UPDATE THE FIXTURE TO THE LATEST SOFTWARE. Using a USB Flash Drive loaded with the latest software, insert it into the USB Service Port, then navigate to PERSONALITY/SERVICE, enter the passcode (050), and select UPDATE SOFTWARE. A copy of the latest software can be obtained by contacting Elation Support.



AN ELATION C-LOADER II CAN ALSO BE USED TO UPDATE THE FIXTURE TO THE LATEST SOFTWARE. To order this device, please contact Elation Support for further details.

Detailed instructions can be found online at [www.elationlighting.com](http://www.elationlighting.com).

ELATION SERVICE USA - Monday - Friday 8:00am to 4:30pm PST  
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# SYSTEM MENU

| ELATION FUZE MAX SPOT               |   |  |   |   |
|-------------------------------------|---|--|---|---|
| Supports Software Versions: ≥ 1.0.4 |   |  |   |   |
| MAIN MENU                           | OPTIONS / VALUES (Default Settings in <b>BOLD</b> ) |  | DESCRIPTION                                       |   |
| <b>DMX SETTINGS</b>                 | Dmx Presets   | <b>A001~AXXX</b>   |   |   |
|                                     | DMX Channel Mode                                    | <b>Standard</b> , Extend, CMY , CMY Extended   |   |   |
|                                     | No DMX Status                                       | Blackout   |   | Blackout option shall take all channels to zero (0) when signal is lost.  |
|                                     |   | <b>Hold Last</b>   |   | Hold Last shall be the default setting and unit shall hold all last channel values received from the console when signal is lost. |
| Internal Programs                   |   | Internal Programs option shall take all channels to the last set Internal Programs channel settings when signal is lost. |   |   |
| <b>Personality</b>                  | Primary   | ON/ <b>OFF</b>   |   |   |
|                                     | Secondary   | <b>ON</b> /OFF   |   |   |
|                                     | Status Settings                                     | Pan Invert   | ON/ <b>OFF</b>                                    |   |
|                                     |   | Tilt Invert  | ON/ <b>OFF</b>                                    |   |
|                                     |   | Pan/Tilt Feedback  | ON/ <b>OFF</b>                                    |   |
|                                     |   | Pan Degree   | 630/ <b>540</b>                                   |   |
|                                     |   | Pan/TiltSpeed  | <b>Speed 1~ 4</b>                                 |   |
|                                     |   | Hibernation  | OFF, 01M~99M, <b>15M</b>                          |   |
|                                     |   | Follow Spot Mode   | ON/ <b>OFF</b>                                    |   |
|                                     | Fan Settings  | <b>Auto</b> , High, Low, Studio, Mute  |   |   |
|                                     | Dim Mode  | <b>Standard</b> , Stage, TV, Architectural, Theatre, Stage 2, Dim Speed (02s-10s)  |   |   |
|                                     | Dim Curves  | Linear, Square, Square Inverse, S-Curve  |   |   |
|                                     | LED Refresh Rate                                    | 900, 910, 920, 930, 940..., <b>1200</b> , 1210, 1220, 1230..., 1500, 2500, 4000, 5000, 10K, 15K, 20K, 25KHZ              |   |   |
|                                     | Reset Motors  | Reset All Motors   | YES / <b>NO</b>                                   |   |
|                                     |   | Pan/Tilt Reset   | YES / <b>NO</b>                                   |   |
|                                     |   | Focus and Zoom reset   | YES / <b>NO</b>                                   |   |
|                                     |   | Other motor reset  | YES / <b>NO</b>                                   |   |
|                                     | Display   | Screen Saver Delay   | <b>01M</b> ~ 10M/OFF                              |   |
|                                     |   | Touch Screen Lock  | <b>OFF</b> / ON                                   |   |
|                                     |   | Rotate Display 180°  | YES / <b>NO</b>                                   |   |
| Temp Unit                           | C/ <b>F</b>   |  |   |   |
| Service                             | Passcode  | Calibration  | Pan 000-255<br>Tilt 000-255<br>Red 000-255<br>... |   |
|                                     |   | USB Software Update  | YES/ <b>NO</b>                                    |   |
|                                     |   | Factory Restore  | YES/ <b>NO</b>                                    |   |

| MAIN MENU                | OPTIONS / VALUES (Default Settings in <b>BOLD</b> )    |                          | DESCRIPTION  |             |
|--------------------------|--|--------------------------|--|-------------|
| <b>Manual</b>            | Pan, Tilt, Red, Green, Blue, Mint, Amber, ..., Control | 000-255                  | Set Manual Control values remain set when no DMX signal is present, including through a power cycle. |             |
|                          | Tilt   | 000-255                  |  |             |
|                          | Red  | 000-255                  |  |             |
|                          | Green  | 000-255                  |  |             |
|                          | Blue   | 000-255                  |  |             |
|                          | Mint   | 000-255                  |  |             |
|                          | Amber  | 000-255                  |  |             |
|                          | ...  | ...                      |  |             |
| <b>Internal Programs</b> | Program 0  | Speed                    | 000-255  |             |
|                          |  | Fade                     | 000-255  |             |
|                          | Program 1  | Speed                    | 000-255  |             |
|                          |  | Fade                     | 000-255  |             |
|                          | Program 2  | Speed                    | 000-255  |             |
|                          |  | Fade                     | 000-255  |             |
|                          | Program 3  | Speed                    | 000-255  |             |
|                          |  | Fade                     | 000-255  |             |
|                          | ...  |                          |  |             |
|                          | Program 16   | Speed                    | 000-255  |             |
| Fade                     |  | 000-255                  |  |             |
| <b>Information</b>       | Fixture Life Time                                      | Power On Time            | xxxxxx Hours   |             |
|                          | Fixture Last Run Time                                  | Power On Resettable Time | xxxxxx Hours   |             |
|                          |  | Power On Time Reset      | Passcode   <b>YES/NO</b>   |             |
|                          | Fixture Temperatures                                   | LEDs                     | Current  | xxx°F/xxx°C |
|                          |  |                          | Max Resettable   | xxx°F/xxx°C |
|                          |  |                          | Max Not Resettable   | xxx°F/xxx°C |
|                          |  | Reset LED Temp           | Passcode   <b>YES/NO</b>   |             |
|                          | Fan Info.  | LED_fan RPM              | 1_fan xxxx   |             |
|                          |  |                          | 2_fan xxxx   |             |
|                          |  |                          | 3_fan xxxx   |             |
|                          |  |                          | 4_fan xxxx   |             |
|                          |  | Base_fan RPM             | Base_fan xxxx  |             |
|                          |  | Blade_fan xxxx           | Blade_fan xxxx   |             |
|                          | DMX Values   | Pan, Tilt, ..., Zoom     |  |             |
|                          | Product IDs  | RDM UID                  |  |             |
|                          | Error Logs   | Fixture Errors           |  |             |
| Reset Error Log          |  | Passcode   <b>YES/NO</b> |  |             |
| Software Version         | 1U:V1.04   |                          |  |             |
|                          | 2U:V1.04   |                          |  |             |
|                          | 3U:V1.04   |                          |  |             |
|                          | 4U:V1.04   |                          |  |             |
|                          | 5U:V1.04   |                          |  |             |

# COLOR LED PROGRAMMING GUIDELINES

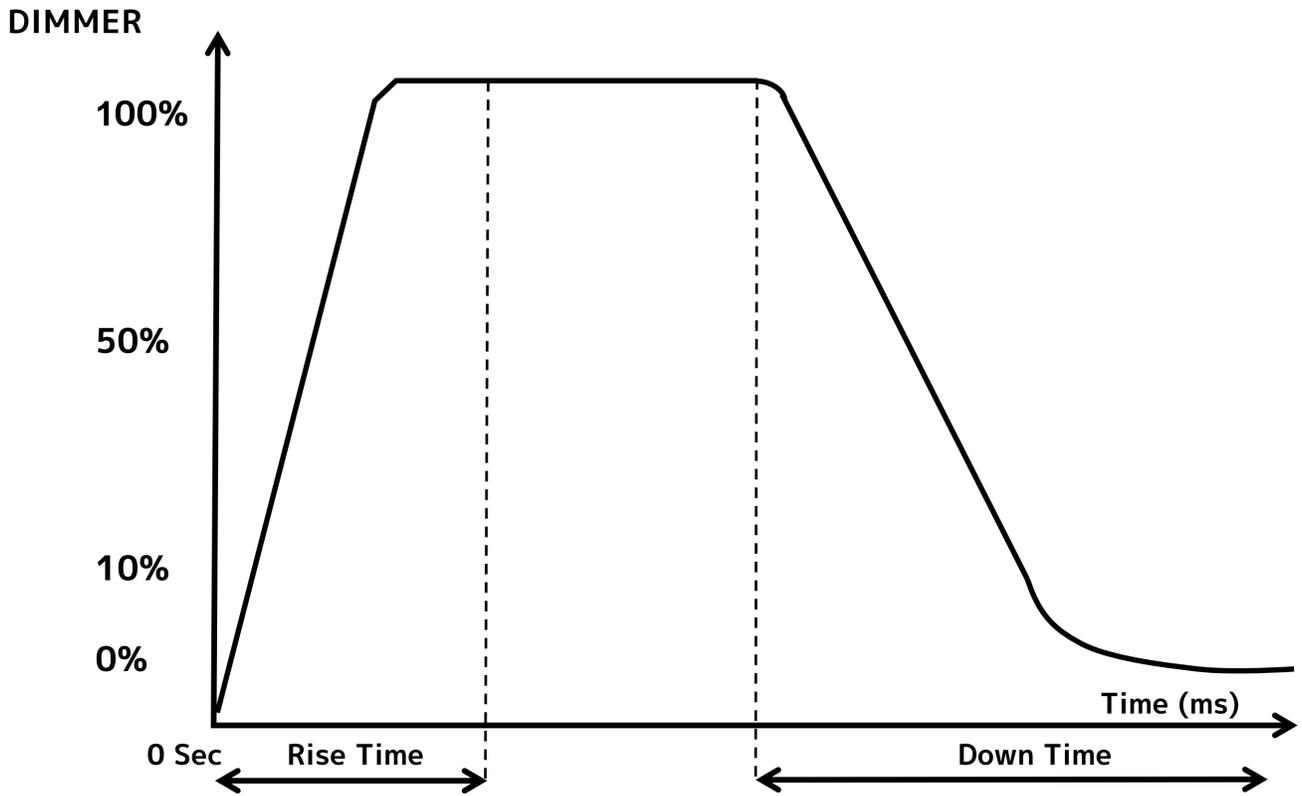
The fixture utilizes an advanced additive LED light engine that contains Red, Green, Blue, Mint and Amber LED which when combined, provides a brilliant high CRI White. Using a 5-color LED engine allows the fixture to have a wide color gamut which offers robust saturated colors as well as a wide range of pastel and theatrical colors.

Programming a 5-color LED engine is a bit more time consuming than the more common 3-color CMY (Cyan, Yellow, Magenta) or RGB (Red, Blue Green) systems. To help ensure optimal performance of the fixture, it is highly suggested to try out the multiple DMX control modes to understand specifically how they work with color before programming a full show. A couple of suggested modes are listed below.

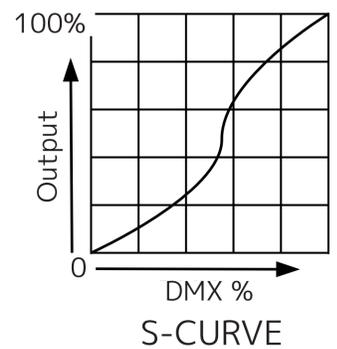
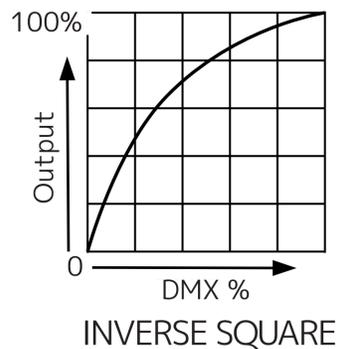
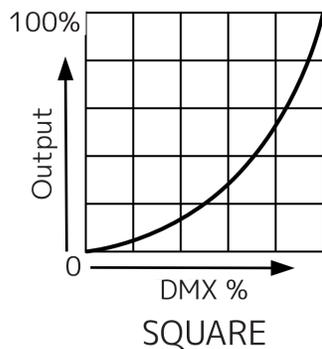
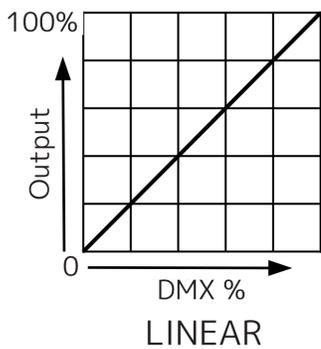
The **CMY Extended** DMX control mode provides a “natural” color mix which is compatible with color pickers of most lighting consoles and includes 16-bit color control.

The **Extended RGBMA** (Red, Green, Blue, Mint, Amber) DMX control mode provides slightly higher precision color mixes but may require additional time to find the right values for all 5-color LEDs to achieve a specific desired color.

# DIMMER MODES & CURVES



| Dimming Curve<br>Ramp Effect | 0 sec Fade Time |                | 1 sec Fade Time |                |
|------------------------------|-----------------|----------------|-----------------|----------------|
|                              | Rise Time (ms)  | Down Time (ms) | Rise Time (ms)  | Down Time (ms) |
| Standard (default)           | 0               | 0              | 0               | 0              |
| Stage                        | 780             | 1100           | 1540            | 1660           |
| TV                           | 1180            | 1520           | 1860            | 1940           |
| Architectural-               | 1380            | 1730           | 2040            | 2120           |
| Theatre                      | 1580            | 1940           | 2230            | 2280           |
| Stage 2                      | 0               | 1100           | 0               | 1660           |



# DMX TRAITS

| Supports Software Versions: $\geq 1.0.4$  |          |     |              |            |  |         |      |
|---|----------|-----|--------------|------------|--|---------|------|
| Features subject to change without notice |          |     |              |            |  |         |      |
| MODE/CHANNEL                              |          |     |              | VALUE      | FUNCTION                               | DEFAULT | SNAP |
| Standard                                  | Extended | CMY | CMY Extended |            |  |         |      |
| 1   | 1        | 1   | 1            |            | <b>PAN Movement 8bit:</b>              | 127     |      |
|   |          |     |              | 000-255    | Pan Movement                           |         |      |
| 2   | 2        | 2   | 2            |            | <b>Pan Fine 16bit:</b>                 | 127     |      |
|   |          |     |              | 000-255    | Fine control of Pan movement           |         |      |
| 3   | 3        | 3   | 3            |            | <b>TILT Movement 8bit:</b>             | 127     |      |
|   |          |     |              | 000-255    | Tilt Movement                          |         |      |
| 4   | 4        | 4   | 4            |            | <b>Tilt Fine 16bit:</b>                | 127     |      |
|   |          |     |              | 000-255    | Fine control of Tilt movement          |         |      |
|   |          | 5   | 5            |            | <b>Cyan:</b>                           | 0       |      |
|   |          |     |              | 000-255    | Cyan (0-100% Cyan)                     |         |      |
|   |          |     | 6            |            | <b>Cyan Fine:</b>                      | 0       |      |
|   |          |     |              | 000-255    | Cyan Fine                              |         |      |
|   |          | 6   | 7            |            | <b>Magenta</b>                         | 0       |      |
|   |          |     |              | 000-255    | Magenta (0-100% Magenta)               |         |      |
|   |          |     | 8            |            | <b>Magenta Fine:</b>                   | 0       |      |
|   |          |     |              | 000-255    | Magenta Fine                           |         |      |
|   |          | 7   | 9            |            | <b>Yellow:</b>                         | 0       |      |
|   |          |     |              | 000-255    | Yellow (0-100% Yellow)                 |         |      |
|   |          |     | 10           |            | <b>Yellow Fine:</b>                    | 0       |      |
|   |          |     |              | 000-255    | Yellow Fine                            |         |      |
| 5   | 5        |     |              |            | <b>Red:</b>                            | 255     |      |
|   |          |     |              | 000-255    | Red (0-100% Red)                       |         |      |
|   | 6        |     |              |            | <b>Red Fine:</b>                       | 255     |      |
|   |          |     | 000-255      | Red Fine   |  |         |      |
| 6   | 7        |     |              |            | <b>Green:</b>                          | 255     |      |
|   |          |     |              | 000-255    | Green (0-100% Green)                   |         |      |
|   | 8        |     |              |            | <b>Green Fine:</b>                     | 255     |      |
|   |          |     | 000-255      | Green Fine |  |         |      |
| 7   | 9        |     |              |            | <b>Blue:</b>                           | 255     |      |
|   |          |     |              | 000-255    | Blue (0-100% Blue)                     |         |      |
|   | 10       |     |              |            | <b>Blue Fine:</b>                      | 255     |      |
|   |          |     | 000-255      | Blue Fine  |  |         |      |
| 8   | 11       |     |              |            | <b>Mint:</b>                           | 255     |      |
|   |          |     |              | 000-255    | Mint (0-100% Mint)                     |         |      |
|   | 12       |     |              |            | <b>Mint Fine:</b>                      | 255     |      |
|   |          |     | 00-255       | Mint Fine  |  |         |      |
| 9   | 13       |     |              |            | <b>Amber:</b>                          | 255     |      |
|   |          |     |              | 000-255    | Amber (0-100% Amber)                   |         |      |
|   | 14       |     |              |            | <b>Amber Fine:</b>                     | 255     |      |
|   |          |     | 000-255      | Amber Fine |  |         |      |
| 10  | 15       | 8   | 11           |            | <b>CTC:</b>                            | 0       |      |
|   |          |     |              | 000-023    | Open                                   |         |      |
|   |          |     |              | 024 -085   | CTO 2400K - 8500K (see separate sheet) |         |      |
|   |          |     |              | 086-255    | 8500K                                  |         |      |

# DMX TRAITS

| Supports Software Versions: $\geq 1.0.4$  |                            |     |              |         |   |         |      |
|---|----------------------------|-----|--------------|---------|---|---------|------|
| Features subject to change without notice |                            |     |              |         |   |         |      |
| MODE/CHANNEL                              |                            |     |              | VALUE   | FUNCTION                                  | DEFAULT | SNAP |
| Standard                                  | Extended                   | CMY | CMY Extended |         |   |         |      |
| 11  | 16                         | 9   | 12           |         | <b>Color Wheel:</b>                       | 0       |      |
|   |                            |     |              | 000     | Open                                      |         |      |
|   |                            |     |              | 001-060 | Virtual Swatch Book (see separate sheet)  |         |      |
|   |                            |     |              | 061-179 | Open                                      |         |      |
|   |                            |     |              |         | <b>Color Scroll</b>                       |         |      |
|   |                            |     |              | 180-201 | Clockwise,fast $\rightarrow$ slow         |         |      |
|   |                            |     |              | 202-207 | Stop                                      |         |      |
|   |                            |     |              | 208-229 | Counter-clockwise,slow $\rightarrow$ fast |         |      |
|   |                            |     |              | 230-234 | Open                                      |         |      |
|   |                            |     |              |         | <b>Random Slots</b>                       |         |      |
|   |                            |     |              | 235-239 | Fast                                      |         |      |
|   |                            |     |              | 240-244 | Medium                                    |         |      |
|   |                            |     |              | 245-249 | Slow                                      |         |      |
| 250-255                                   | Open                       |     |              |         |   |         |      |
|   | 17                         |     | 13           |         | <b>Green Shift:</b>                       | 0       |      |
|   |                            |     |              | 000     | Idle                                      |         |      |
|   |                            |     |              | 001-127 | Full Minus Green to Neutral               |         |      |
|   |                            |     |              | 128     | Neutral White                             |         |      |
|   |                            |     |              | 129-255 | Neutral to Full Plus Green                |         |      |
| 12  | 18                         | 10  | 14           |         | <b>Focus:</b>                             | 127     |      |
|   |                            |     |              | 000-255 | Continuous adjustment from near to far    |         |      |
| 13  | 19                         | 11  | 15           |         | <b>Zoom:</b>                              | 127     |      |
|   |                            |     |              | 000-255 | Zoom adjustment from small to big         |         |      |
| 14  | 20                         | 12  | 16           |         | <b>Shutter, strobe</b>                    | 50      |      |
|   |                            |     |              | 000-031 | Shutter closed                            |         |      |
|   |                            |     |              | 032-063 | No function (shutter open)                |         |      |
|   |                            |     |              | 064-095 | Strobe effect slow to fast                |         |      |
|   |                            |     |              | 096-127 | No function (shutter open)                |         |      |
|   |                            |     |              | 128-159 | Pulse-effect in sequences                 |         |      |
|   |                            |     |              | 160-191 | No function (shutter open)                |         |      |
|   |                            |     |              | 192-223 | Random strobe effect slow to fast         |         |      |
| 224-255                                   | No function (shutter open) |     |              |         |   |         |      |
| 15  | 21                         | 13  | 17           |         | <b>Dimmer:</b>                            | 0       |      |
|   |                            |     |              | 000-255 | Intensity 0 to 100%                       |         |      |
| 16  | 22                         | 14  | 18           |         | <b>Dimmer Fine:</b>                       | 0       |      |
|   |                            |     |              | 000-255 | Dimmer fine                               |         |      |

# DMX TRAITS

| Supports Software Versions: $\geq 1.0.0$  |          |     |              |           |                         |         |      |
|---|----------|-----|--------------|-----------|-------------------------|---------|------|
| Features subject to change without notice |          |     |              |           |                         |         |      |
| MODE/CHANNEL                              |          |     |              | VALUE     | FUNCTION                | DEFAULT | SNAP |
| Standard                                  | Extended | CMY | CMY Extended |           |                         |         |      |
|   |          |     |              |           | <b>Dim Modes</b>        |         |      |
|   |          |     |              | 000-200   | Standard                |         |      |
|   |          |     |              | 021-040   | Stage                   |         |      |
|   |          |     |              | 041-060   | TV                      |         |      |
|   |          |     |              | 061-080   | Architectural           |         |      |
|   |          |     |              | 081-100   | Theatre                 |         |      |
|   |          |     |              | 101- 120  | Stage 2                 |         |      |
|   |          |     |              |           | <b>Dimmer Delay Tim</b> |         |      |
|   |          |     |              | 121       | 0s                      |         |      |
|   |          |     |              | 122       | 0.1s                    |         |      |
|   |          |     |              | 123       | 0.2s                    |         |      |
|   |          |     |              | 124       | 0.3s                    |         |      |
|   |          |     |              | 125       | 0.4s                    |         |      |
|   |          |     |              | 126       | 0.5s                    |         |      |
|   |          |     |              | 127       | 0.6s                    |         |      |
|   |          |     |              | 128       | 0.7s                    |         |      |
|   |          |     |              | 129       | 0.8s                    |         |      |
|   |          |     |              | 130       | 0.9s                    |         |      |
|   |          |     |              | 131       | 1.0s                    |         |      |
|   |          |     |              | 132       | 1.5s                    |         |      |
|   |          |     |              | 133       | 2.0s                    |         |      |
|   |          |     |              | 134       | 3.0s                    |         |      |
|   |          |     |              | 135       | 4.0s                    |         |      |
|   |          |     |              | 136       | 5.0s                    |         |      |
|   |          |     |              | 137       | 6.0s                    |         |      |
|   |          |     |              | 138       | 7.0s                    |         |      |
|   |          |     |              | 139       | 8.0s                    |         |      |
|   |          |     |              | 140       | 9.0s                    |         |      |
|   |          |     |              | 141       | 10s                     |         |      |
|   |          |     |              | 142 - 255 | Idle                    |         |      |
|   | 23       |     | 19           |           |                         | 0       | X    |

# DMX TRAITS

| Supports Software Versions: $\geq 1.0.0$  |          |         |              |                    |                                |         |      |
|---|----------|---------|--------------|--------------------|--------------------------------|---------|------|
| Features subject to change without notice |          |         |              |                    |                                |         |      |
| MODE/CHANNEL                              |          |         |              | VALUE              | FUNCTION                       | DEFAULT | SNAP |
| Standard                                  | Extended | CMY     | CMY Extended |                    |                                |         |      |
| 17  | 24       | 15      | 20           |                    | Iris:                          | 0       |      |
|   |          |         |              | 000-191            | Max. diameter to Min. diameter |         |      |
|   |          |         |              | 192-223            | Pulse opening fast to slow     |         |      |
|   |          |         |              | 224-255            | Pulse closing slow to fast     |         |      |
| 18  | 25       | 16      | 21           |                    | <b>Frost Light</b>             | 0       |      |
|   |          |         |              | 000-255            | Open to Full Frost             |         |      |
| 19  | 26       | 17      | 22           |                    | <b>Frost Medium</b>            | 0       |      |
|   |          |         |              | 000-255            | Open to Full Frost             |         |      |
| 20  | 27       | 18      | 23           |                    | <b>Blade 1A</b>                | 0       |      |
|   |          |         |              | 000-255            | Open to Close                  |         |      |
|   | 28       |         | 24           |                    | <b>Blade 1A Fine</b>           | 0       |      |
|   |          | 000-255 |              | Open to Close Fine |                                |         |      |
| 21  | 29       | 19      | 25           |                    | <b>Blade 1B</b>                | 0       |      |
|   |          |         |              | 000-255            | Open to Close                  |         |      |
|   | 30       |         | 26           |                    | <b>Blade 1B Fine</b>           | 0       |      |
|   |          | 000-255 |              | Open to Close Fine |                                |         |      |
| 22  | 31       | 20      | 27           |                    | <b>Blade 2A</b>                | 0       |      |
|   |          |         |              | 000-255            | Open to Close                  |         |      |
|   | 32       |         | 28           |                    | <b>Blade 2A Fine</b>           | 0       |      |
|   |          | 000-255 |              | Open to Close Fine |                                |         |      |
| 23  | 33       | 21      | 29           |                    | <b>Blade 2B</b>                | 0       |      |
|   |          |         |              | 000-255            | Open to Close                  |         |      |
|   | 34       |         | 30           |                    | <b>Blade 2B Fine</b>           |         |      |
|   |          | 000-255 |              | Open to Close Fine |                                |         |      |
| 24  | 35       | 22      | 31           |                    | <b>Blade 3A</b>                | 0       |      |
|   |          |         |              | 000-255            | Open to Close                  |         |      |
|   | 36       |         | 32           |                    | <b>Blade 3A Fine</b>           | 0       |      |
|   |          | 000-255 |              | Open to Close Fine |                                |         |      |
| 25  | 37       | 23      | 33           |                    | <b>Blade 3B</b>                | 0       |      |
|   |          |         |              | 000-255            | Open to Close                  |         |      |
|   | 38       |         | 34           |                    | <b>Blade 3B Fine</b>           | 0       |      |
|   |          | 000-255 |              | Open to Close Fine |                                |         |      |
| 26  | 39       | 24      | 35           |                    | <b>Blade 4A</b>                | 0       |      |
|   |          |         |              | 000-255            | Open to Close                  |         |      |
|   | 40       |         | 36           |                    | <b>Blade 4A Fine</b>           | 0       |      |
|   |          | 000-255 |              | Open to Close Fine |                                |         |      |
| 27  | 41       | 25      | 37           |                    | <b>Blade 4B</b>                | 0       |      |
|   |          |         |              | 000-255            | Open to Close                  |         |      |
|   | 42       |         | 38           |                    | <b>Blade 4B Fine</b>           | 0       |      |
|   |          | 000-255 |              | Open to Close Fine |                                |         |      |
| 28  | 43       | 26      | 39           |                    | <b>Framing Rotation:</b>       | 127     |      |
|   |          |         |              | 000-126            | Min (-60 degrees)              |         |      |
|   |          |         |              | 127-128            | Parallel (0 degrees)           |         |      |
|   |          |         |              | 129-255            | Max (+60 degrees)              |         |      |
|   | 44       |         | 40           |                    | <b>Framing Speed:</b>          | 0       |      |
|   |          | 000-255 |              | Speed Max -> Min   |                                |         |      |

# DMX TRAITS

| Supports Software Versions: $\geq$ 1.0.0  |                      |         |              |                                |                                     |         |      |
|---|----------------------|---------|--------------|--------------------------------|-------------------------------------|---------|------|
| Features subject to change without notice |                      |         |              |                                |                                     |         |      |
| MODE/CHANNEL                              |                      |         |              | VALUE                          | FUNCTION                            | DEFAULT | SNAP |
| Standard                                  | Extended             | CMY     | CMY Extended |                                |                                     |         |      |
|   | 45                   |         | 41           |                                | <b>Framing Macro:</b>               | 0       |      |
|   |                      | OFF     |              |                                |                                     |         |      |
|   |                      | Macro1  |              |                                |                                     |         |      |
|   |                      | Macro2  |              |                                |                                     |         |      |
|   |                      | Macro3  |              |                                |                                     |         |      |
|   |                      | Macro4  |              |                                |                                     |         |      |
|   |                      | Macro5  |              |                                |                                     |         |      |
|   |                      | Macro6  |              |                                |                                     |         |      |
|   |                      | Macro7  |              |                                |                                     |         |      |
|   |                      | Macro8  |              |                                |                                     |         |      |
|   |                      | Macro9  |              |                                |                                     |         |      |
|   |                      | Macro10 |              |                                |                                     |         |      |
|   |                      | Macro11 |              |                                |                                     |         |      |
|   |                      | Macro12 |              |                                |                                     |         |      |
|   |                      | Macro13 |              |                                |                                     |         |      |
|   |                      | Macro14 |              |                                |                                     |         |      |
|   |                      | Macro15 |              |                                |                                     |         |      |
|   |                      | Macro16 |              |                                |                                     |         |      |
|   |                      | Macro17 |              |                                |                                     |         |      |
|   |                      | Macro18 |              |                                |                                     |         |      |
|   |                      | Macro19 |              |                                |                                     |         |      |
|   |                      | Macro20 |              |                                |                                     |         |      |
|   |                      | Macro21 |              |                                |                                     |         |      |
|   |                      | Macro22 |              |                                |                                     |         |      |
|   |                      | Macro23 |              |                                |                                     |         |      |
|   |                      | Macro24 |              |                                |                                     |         |      |
|   |                      | Macro25 |              |                                |                                     |         |      |
|   |                      | Macro26 |              |                                |                                     |         |      |
|   |                      | Macro27 |              |                                |                                     |         |      |
|   |                      | Macro28 |              |                                |                                     |         |      |
|   |                      | Macro29 |              |                                |                                     |         |      |
|   |                      | Macro30 |              |                                |                                     |         |      |
|   | Macro31              |         |              |                                |                                     |         |      |
|   | 46                   |         | 42           |                                | <b>Pan/Tilt and Color Speed:</b>    | 0       |      |
|   |                      | 0-225   |              | Max to min speed               |                                     |         |      |
|   |                      | 226-235 |              | Blackout by movement           |                                     |         |      |
|   |                      | 236-245 |              | Blackout by all wheel changing |                                     |         |      |
|   |                      | 246-255 |              | No function                    |                                     |         |      |
| 29  | 47                   | 27      | 43           |                                | <b>Control</b>                      | 0       | X    |
|   |                      |         |              | 0-19                           | Color change normal                 |         |      |
|   |                      |         |              | 20-29                          | Color change to any position        |         |      |
|   |                      |         |              | 30-39                          | Color & gobo change to any position |         |      |
|   |                      |         |              | 40-44                          | Low Noise - Mute                    |         |      |
|   |                      |         |              | 45-49                          | Low Noise - Studio                  |         |      |
|   |                      |         |              | 50-59                          | Fan Control - Low                   |         |      |
|   |                      |         |              | 60-69                          | Fan Control - High                  |         |      |
|   |                      |         |              | 70-79                          | Fan Control - Auto (Default)        |         |      |
|   |                      |         |              | 80-84                          | All motor reset                     |         |      |
|   |                      |         |              | 85-87                          | Pan / Tilt reset                    |         |      |
|   |                      |         |              | 88-93                          | Idle                                |         |      |
| 94-96                                     | Focus and Zoom reset |         |              |                                |                                     |         |      |
| 97-99                                     | Other motor reset    |         |              |                                |                                     |         |      |

# DMX TRAITS

| Supports Software Versions: $\geq 1.0.0$  |          |     |              |         |                          |         |      |
|---|----------|-----|--------------|---------|--------------------------|---------|------|
| Features subject to change without notice |          |     |              |         |                          |         |      |
| MODE/CHANNEL                              |          |     |              | VALUE   | FUNCTION                 | DEFAULT | SNAP |
| Standard                                  | Extended | CMY | CMY Extended |         |                          |         |      |
|   |          |     |              | 100-168 | <b>Refresh Rate (Hz)</b> |         |      |
|   |          |     |              | 100     | 900                      |         |      |
|   |          |     |              | 101     | 910                      |         |      |
|   |          |     |              | 102     | 920                      |         |      |
|   |          |     |              | 103     | 930                      |         |      |
|   |          |     |              | 104     | 940                      |         |      |
|   |          |     |              | 105     | 950                      |         |      |
|   |          |     |              | 106     | 960                      |         |      |
|   |          |     |              | 107     | 970                      |         |      |
|   |          |     |              | 108     | 980                      |         |      |
|   |          |     |              | 109     | 990                      |         |      |
|   |          |     |              | 110     | 1000                     |         |      |
|   |          |     |              | 111     | 1010                     |         |      |
|   |          |     |              | 112     | 1020                     |         |      |
|   |          |     |              | 113     | 1030                     |         |      |
|   |          |     |              | 114     | 1040                     |         |      |
|   |          |     |              | 115     | 1050                     |         |      |
|   |          |     |              | 116     | 1060                     |         |      |
|   |          |     |              | 117     | 1070                     |         |      |
|   |          |     |              | 118     | 1080                     |         |      |
|   |          |     |              | 119     | 1090                     |         |      |
|   |          |     |              | 120     | 1100                     |         |      |
|   |          |     |              | 121     | 1110                     |         |      |
|   | 45       |     | 41           | 122     | 1120                     | 0       | X    |
|   |          |     |              | 123     | 1130                     |         |      |
|   |          |     |              | 124     | 1140                     |         |      |
|   |          |     |              | 125     | 1150                     |         |      |
|   |          |     |              | 126     | 1160                     |         |      |
|   |          |     |              | 127     | 1170                     |         |      |
|   |          |     |              | 128     | 1180                     |         |      |
|   |          |     |              | 129     | 1190                     |         |      |
|   |          |     |              | 130     | 1200                     |         |      |
|   |          |     |              | 131     | 1210                     |         |      |
|   |          |     |              | 132     | 1220                     |         |      |
|   |          |     |              | 133     | 1230                     |         |      |
|   |          |     |              | 134     | 1240                     |         |      |
|   |          |     |              | 135     | 1250                     |         |      |
|   |          |     |              | 136     | 1260                     |         |      |
|   |          |     |              | 137     | 1270                     |         |      |
|   |          |     |              | 138     | 1280                     |         |      |
|   |          |     |              | 139     | 1290                     |         |      |
|   |          |     |              | 140     | 1300                     |         |      |
|   |          |     |              | 141     | 1310                     |         |      |
|   |          |     |              | 142     | 1320                     |         |      |
|   |          |     |              | 143     | 1330                     |         |      |
|   |          |     |              | 144     | 1340                     |         |      |
|   |          |     |              | 145     | 1350                     |         |      |

# DMX TRAITS

| Supports Software Versions: $\geq$ 1.0.0  |                                  |     |              |         |                                  |         |      |
|---|----------------------------------|-----|--------------|---------|----------------------------------|---------|------|
| Features subject to change without notice |                                  |     |              |         |                                  |         |      |
| MODE/CHANNEL                              |                                  |     |              | VALUE   | FUNCTION                         | DEFAULT | SNAP |
| Standard                                  | Extended                         | CMY | CMY Extended |         |                                  |         |      |
| 29  | 47                               | 27  | 43           | 146     | 1360                             | 0       | X    |
|   |                                  |     |              | 147     | 1370                             |         |      |
|   |                                  |     |              | 148     | 1380                             |         |      |
|   |                                  |     |              | 149     | 1390                             |         |      |
|   |                                  |     |              | 150     | 1400                             |         |      |
|   |                                  |     |              | 151     | 1410                             |         |      |
|   |                                  |     |              | 152     | 1420                             |         |      |
|   |                                  |     |              | 153     | 1430                             |         |      |
|   |                                  |     |              | 154     | 1440                             |         |      |
|   |                                  |     |              | 155     | 1450                             |         |      |
|   |                                  |     |              | 156     | 1460                             |         |      |
|   |                                  |     |              | 157     | 1470                             |         |      |
|   |                                  |     |              | 158     | 1480                             |         |      |
|   |                                  |     |              | 159     | 1490                             |         |      |
|   |                                  |     |              | 160     | 1500                             |         |      |
|   |                                  |     |              | 161     | 2500                             |         |      |
|   |                                  |     |              | 162     | 4000                             |         |      |
|   |                                  |     |              | 163     | 5000                             |         |      |
|   |                                  |     |              | 164     | 6000                             |         |      |
|   |                                  |     |              | 165     | 10000                            |         |      |
|   |                                  |     |              | 166     | 15000                            |         |      |
|   |                                  |     |              | 167     | 20000                            |         |      |
|   |                                  |     |              | 168     | 25000                            |         |      |
|   |                                  |     |              | 169-200 | Idle                             |         |      |
|   |                                  |     |              | 201-210 | Dimmer Curve Linear (default)    |         |      |
|   |                                  |     |              | 211-220 | Dimmer Curve Square              |         |      |
|   |                                  |     |              | 221-230 | Dimmer Curve Inverse Square      |         |      |
|   |                                  |     |              | 231-240 | Dimmer Curve S-Curve             |         |      |
|   |                                  |     |              | 241     | Internal program 1 (Scene 1-8)   |         |      |
|   |                                  |     |              | 242     | Internal program 2 (Scene 9-16)  |         |      |
|   |                                  |     |              | 243     | Internal program 3 (Scene 17-24) |         |      |
|   |                                  |     |              | 244     | Internal program 4 (Scene 25-32) |         |      |
| 245                                       | Internal program 5 (Scene 33-40) |     |              |         |                                  |         |      |
| 246                                       | Internal program 6 (Scene 41-48) |     |              |         |                                  |         |      |
| 247                                       | Internal program 7 (Scene 49-56) |     |              |         |                                  |         |      |
| 248-255                                   | Idle                             |     |              |         |                                  |         |      |

# REMOTE DEVICE MANAGEMENT (RDM)

**NOTE: In order for RDM to work properly, RDM enabled equipment must be used throughout the entire system, including DMX data splitters and wireless systems.**

Remote Device Management (RDM) is a protocol that sits on top of the DMX512 data standard for lighting, allowing the DMX systems of the device to be managed, modified, and monitored remotely (hence, remote device management). This protocol is ideal for fixtures installed in locations that are not easily accessible.

With RDM, the DMX512 system becomes bi-directional, allowing a compatible RDM enabled controller to send out a signal to devices on the wire, as well as allowing the fixture to respond (known as a GET command). The controller can then use it's SET command to modify settings that would typically have to be changed or viewed directly via the unit's display screen, including the DMX Address, DMX Channel Mode, and Temperature Sensors.

## FIXTURE RDM INFORMATION:

| RDM Code | Device ID | Device Model ID | Personality ID  |
|----------|-----------|-----------------|---|
| 0x22A6   | 0000-FFFF | 0003            | 01(Standard)<br>02(Extended)<br>03(CMY)<br>04(Extended CMY) |

**Please be aware that not all RDM devices support all RDM features**, and therefore it is important to check beforehand to ensure that the equipment that you are considering includes all of the features that you require.

The following parameters are accessible in RDM on this device:

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| [0x0011] Proxied Device Count        | [0x0405] Device Power Cycles         |
| [0x0200] Sensor Definition           | [0x0600] Pan Invert                  |
| [0x0201] Sensor Value                | [0x0601] Tilt Invert                 |
| [0x0080] Device Model Description    | [0x0602] Pan Tilt Swap               |
| [0x0081] Manufacturer Label          | [0x0500] Display Invert              |
| [0x0082] Device Label                | [0x0501] Display Level               |
| [0x00E0] DMX Personality             | [0x0603] Realtime Clock              |
| [0x00E1] DMX Personality Description | [0x1010] Power State                 |
| [0x0400] Device Hours                | [0x1031] Preset Playback             |
| [0x0015] Comms Status                | [0x0122] Default Slot Value          |
| [0x0031] Status ID Description       | [0x00B0] Language                    |
| [0x0032] Clear Status ID             | [0x00A0] Language Capabilities       |
| [0x0401] Lamp Hours                  | [0x00C2] Boot Software Version Label |
| [0x0402] Lamp Strikes                | [0x00C1] Boot Software Version ID    |
| [0x0403] Lamp State                  | [0x0070] Product Detail ID List      |
| [0x0404] Lamp Mode                   | [0x0030] Status Messages             |

# COLOR TEMPERATURE

Colors shown are an approximate representation.

| DMX VALUE | COLOR TEMPERATURE (K) | DMX VALUE | COLOR TEMPERATURE (K) |
|-----------|-----------------------|-----------|-----------------------|
| 24        | 2400                  | 63        | 6300                  |
| 25        | 2500                  | 64        | 6400                  |
| 26        | 2600                  | 65        | 6500                  |
| 27        | 2700                  | 66        | 6600                  |
| 28        | 2800                  | 67        | 6700                  |
| 29        | 2900                  | 68        | 6800                  |
| 30        | 3000                  | 69        | 6900                  |
| 31        | 3100                  | 70        | 7000                  |
| 32        | 3200                  | 71        | 7100                  |
| 33        | 3300                  | 72        | 7200                  |
| 34        | 3400                  | 73        | 7300                  |
| 35        | 3500                  | 74        | 7400                  |
| 36        | 3600                  | 75        | 7500                  |
| 37        | 3700                  | 76        | 7600                  |
| 38        | 3800                  | 77        | 7700                  |
| 39        | 3900                  | 78        | 7800                  |
| 40        | 4000                  | 79        | 7900                  |
| 41        | 4100                  | 80        | 8000                  |
| 42        | 4200                  | 81        | 8100                  |
| 43        | 4300                  | 82        | 8200                  |
| 44        | 4400                  | 83        | 8300                  |
| 45        | 4500                  | 84        | 8400                  |
| 46        | 4600                  | 85        | 8500                  |
| 47        | 4700                  | 86        | 8600                  |
| 48        | 4800                  | 87        | 8700                  |
| 49        | 4900                  | 88        | 8800                  |
| 50        | 5000                  | 89        | 8900                  |
| 51        | 5100                  | 90        | 9000                  |
| 52        | 5200                  | 91        | 9100                  |
| 53        | 5300                  | 92        | 9200                  |
| 54        | 5400                  | 93        | 9300                  |
| 55        | 5500                  | 94        | 9400                  |
| 56        | 5600                  | 95        | 9500                  |
| 57        | 5700                  | 96        | 9600                  |
| 58        | 5800                  | 97        | 9700                  |
| 59        | 5900                  | 98        | 9800                  |
| 60        | 6000                  | 99        | 9900                  |
| 61        | 6100                  | 100       | 10000                 |
| 62        | 6200                  |           |                       |

# VIRTUAL GEL SWATCH BOOK COLORS

| Value | Filter Number | Name              | Value | Filter Number | Name              | Value | Filter Number | Name              |
|-------|---------------|-------------------|-------|---------------|-------------------|-------|---------------|-------------------|
| 1     | 7             | Pale Yellow       | 21    | 157           | Pink              | 41    | 68            | Sky Blue          |
| 2     | 103           | Straw             | 22    | 36            | Medium Pink       | 42    | 143           | Pale Navy Blue    |
| 3     | 151           | Gold Tint         | 23    | 111           | Dark Pink         | 43    | 131           | Marine Blue       |
| 4     | 100           | Spring Yellow     | 24    | 128           | Bright Pink       | 44    | 115           | Peacock Blue      |
| 5     | 10            | Medium Yellow     | 25    | 148           | Bright Rose       | 45    | 172           | Lagoon Blue       |
| 6     | 101           | Yellow            | 26    | 332           | Special Rose Pink | 46    | 116           | Medium Blue Green |
| 7     | 104           | Deep Amber        | 27    | 793           | Vanity Fair       | 47    | 90            | Dark Yellow Green |
| 8     | 15            | Deep Straw        | 28    | 113           | Magenta           | 48    | 139           | Primary Green     |
| 9     | 179           | Loving Amber      | 29    | 46            | Dark Magenta      | 49    | 122           | Fern Green        |
| 10    | 21            | Gold Amber        | 30    | 48            | Rose Purple       | 50    | 89            | Moss Green        |
| 11    | 105           | Orange            | 31    | 126           | Mauve             | 51    | 124           | Dark Green        |
| 12    | 158           | Deep Orange       | 32    | 49            | Medium Purple     | 52    | 88            | Lime Green        |
| 13    | 22            | Dark Amber        | 33    | 58            | Lavender          | 53    | 138           | Pale Green        |
| 14    | 778           | Millennium Gold   | 34    | 199           | Palace Blue       | 54    | 203           | Quarter CT Blue   |
| 15    | 135           | Deep Golden Amber | 35    | 119           | Dark Blue         | 55    | 202           | Half CT Blue      |
| 16    | 24            | Scarlet           | 36    | 132           | Medium Blue       | 56    | 201           | FULL CT Blue      |
| 17    | 106           | Primary Red       | 37    | 120           | Deep Blue         | 57    | 200           | Double CT Blue    |
| 18    | 26            | Bright Red        | 38    | 165           | Daylight Blue     | 58    | 206           | Quarter CT Orange |
| 19    | 27            | Medium Red        | 39    | 161           | Slate Blue        | 59    | 205           | Half CT Orange    |
| 20    | 19            | Fire              | 40    | 118           | Light Blue        | 60    | 204           | FULL CT Orange    |

# ERROR CODES

| Error Codes subject to change without notice |  |  |
|--|--|--|
| ERROR CODES                                  | DESCRIPTION  |  |
| PAN  | Movement is not located in the default position after the reset.   |  |
| Tilt   | These messages will appear after a fixture reset if the magnetic-indexing circuit malfunctions (sensor failed, or magnet is missing) or there is a motor failure (defective motor or a defective motor IC drive on the main PCB). This error may also be displayed if the head/yoke was blocked during a reset function. |  |
| Zoom   |  |  |
| Focus  | Movement is not located in the default position after the reset. These messages will appear after a fixture reset if the magnetic-indexing circuit malfunctions (sensor failed, or magnet is missing) or there is a motor failure (defective motor or a defective motor IC drive on the main PCB).                       |  |
| Blade  |  |  |
| Blade Fan                                    |  |  |
| Cool Fan1                                    | These messages will appear if there is a temperature and/or fan malfunction.   |  |
| Cool Fan2                                    |  |  |
| Cool Fan3                                    |  |  |
| Cool Fan4                                    |  |  |
| Base Fan1                                    |  |  |
| Base Fan2                                    |  |  |
| HighLEDTemp                                  |  |  |
| High Base                                    |  |  |
|  |  |  |
|  |  |  |

# SPECIFICATIONS

## SOURCE

480W 6,500K RGBMA (Red, Green, Blue, Mint, Amber) LED Engine  
30,000 Hour Average LED Life\*

\*Test lab conditions. May vary depending on several factors including but not limited to:  
Environmental Conditions, Power/Voltage, Usage Patterns (On-Off Cycling), Control, and Dimming.

## PHOTOMETRIC DATA

15,000 Total Lumen Fixture Output

CRI 92

Zoom Range 9° - 60°

Beam Angle 8.2° - 50.3°

Field Angle 13° - 62.4°

## EFFECTS

Motorized Zoom

4 Rotating Full Blackout Framing Blades, +/- 60 Index

Variable Frost Filter

Iris

Variable 16-bit Dimming Curve Modes

High Speed Electronic Shutter and Strobe

Pan Angle: 540° / 630°

Tilt Angle: 270°

## COLOR

RGBMA Color Array

CMY Emulation

Variable CCT 2400K - 8500K

Green/Magenta Shift

Virtual Gel Swatch Book

## CONTROL / CONNECTIONS

4 DMX Channel Modes (RGBMA 29 / 47) (CMY 27 / 43)

16-bit Pan, Tilt, and Dimming Control

DMX Adjustable LED Frequency

DMX, RDM Protocol Support

4 Button Touch Control Panel

Full Color 180° Reversible LCD Menu Display

Locking 5pin XLR Connector In/Out

Locking IP65 Power Connector Power In/Out

USB Connection (Firmware Updates)

With Wired Digital Communication Network

## SIZE / WEIGHT

Length: 16.06" (408mm)

Width: 10.08" (256mm)

Vertical Height: 26.74" (679mm)

Center-to-Center: 25.0" (635.3mm)

Weight: 62 lbs. (28.1kg)

## ELECTRICAL / THERMAL

AC 100-240V - 50/60Hz

Max Power Consumption 631W

14°F to 113°F (-10°C to 45°C)

BTU/hr (+/- 10%) 2151.71

## APPROVALS / RATINGS

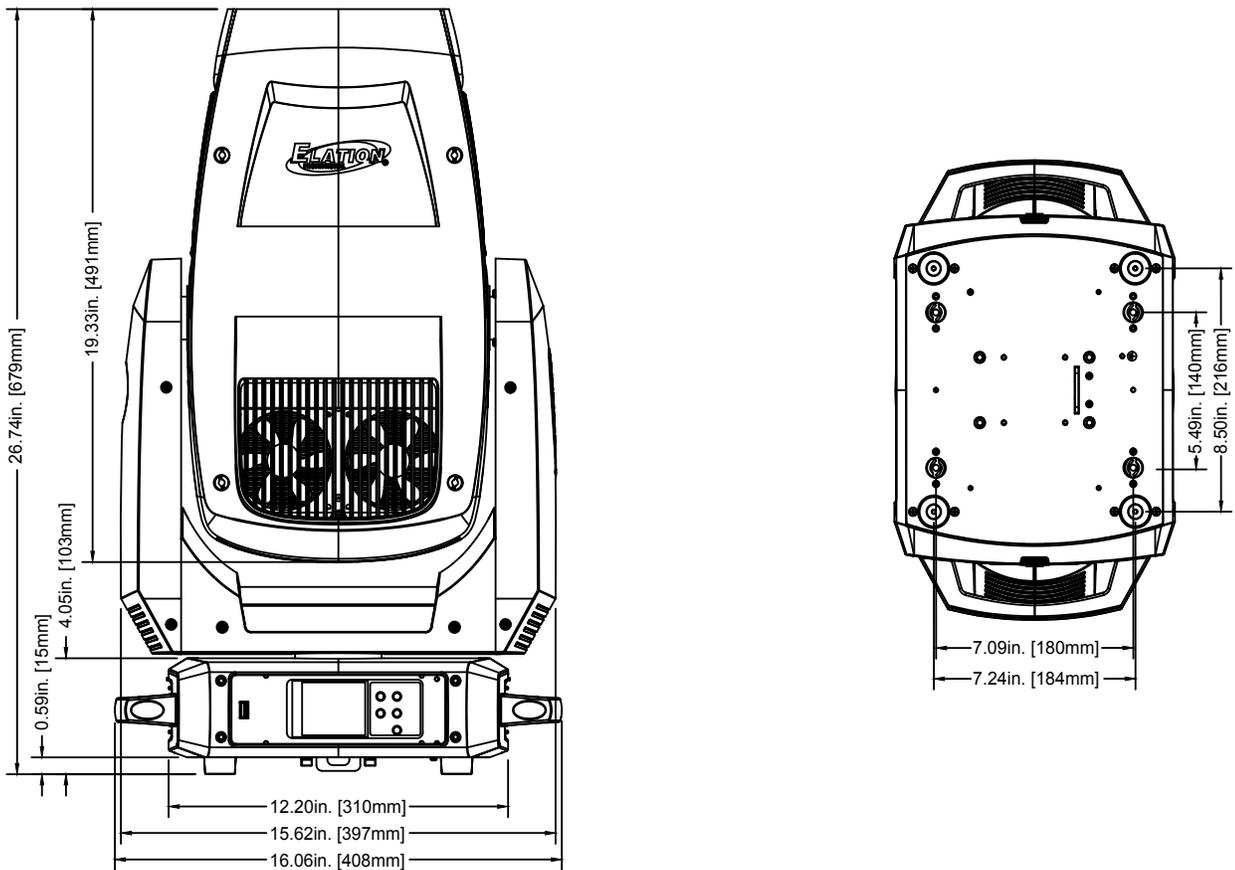
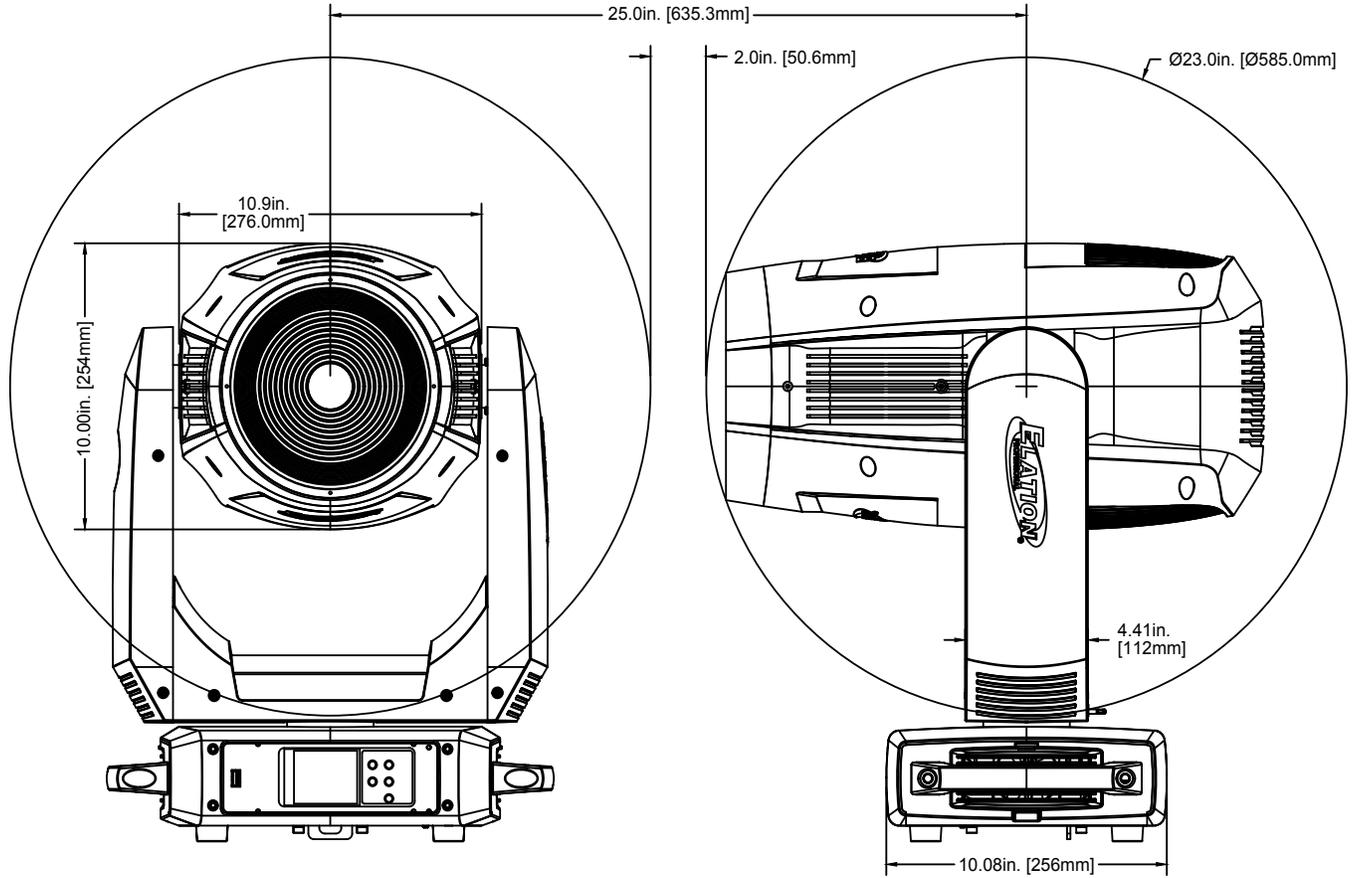
CE | cETLus | IP20



Specifications and documentation subject to change without notice.

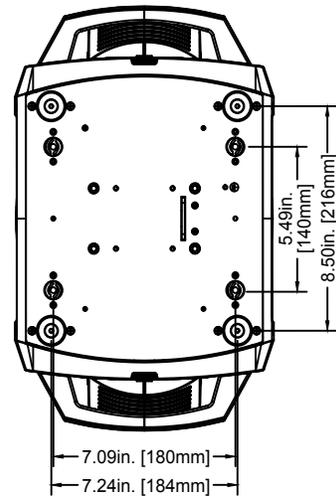
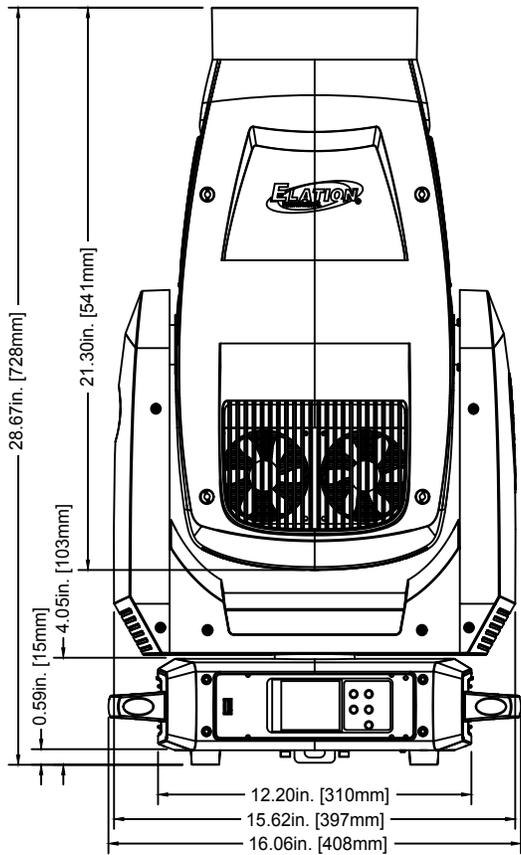
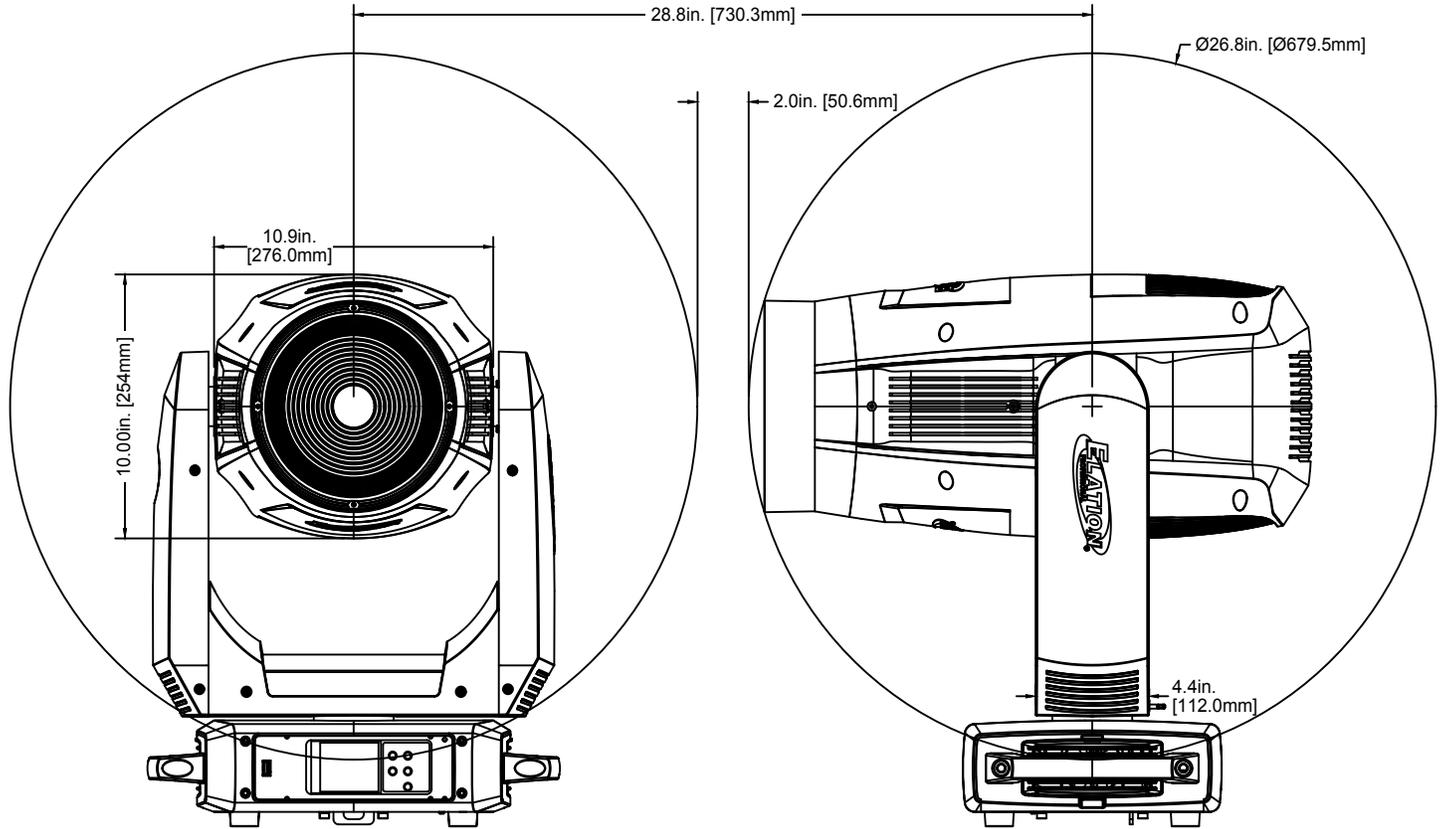
# DIMENSIONS

\*Drawings not to scale. Specifications and improvements in the design of this unit and this manual are subject to change without notice.



# DIMENSIONS - WITH SNOOT

\*Drawings not to scale. Specifications and improvements in the design of this unit and this manual are subject to change without notice.



## OPTIONAL ACCESSORIES

| ORDER CODE    | ITEM  |
|---------------|---|
| TRIGGER CLAMP | Heavy Duty Wrap Around Hook Style Clamp       |
| SIP126        | 5 ft. (1.5m) IP65 Twist Lock Power Link Cable |
| AC5PDMX5PRO   | 5 ft. (1.5m) 5pin PRO DMX Cable               |
|               | Additional Cable Lengths Available            |

## SNOOT, GEL FRAME, & GEL FRAME HOLDER

Snoot is included. Gel Frame Holder and Gel Frame are optional.



Snoot (included) + Gel Frame Holder (optional) + Gel Frame (Optional)



### FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### FCC RADIO FREQUENCY INTERFERENCE WARNINGS & INSTRUCTIONS

This product has been tested and found to comply with the limits as per Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device uses and can radiate radio frequency energy and, if not installed and used in accordance with the included instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following methods:

- Reorient or relocate the device.
- Increase the separation between the device and the receiver.
- Connect the device to an electrical outlet on a circuit different from which the radio receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### Energy Saving Matters (EuP 2009/125/EC)

Saving electric energy is a key to help protecting the environment. Please turn off all electrical products when they are not in use. To avoid power consumption in idle mode, disconnect all electrical equipment from power when not in use. Thank you!

