



# 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 $\geq$	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.

# CONTENTS

<b>General Information</b>	<b>4</b>
<b>Warranty Returns (USA Only)</b>	<b>5</b>
<b>Safety Guidelines</b>	<b>6</b>
<b>Maintenance Guidelines</b>	<b>8</b>
<b>Fixture Overview</b>	<b>9</b>
<b>Colors</b>	<b>10</b>
<b>Snoot Installation</b>	<b>11</b>
<b>Installation Guidelines</b>	<b>12</b>
<b>System Menu</b>	<b>15</b>
<b>LED Color Programming Guidelines</b>	<b>18</b>
<b>DMX Channel Functions and Values</b>	<b>19</b>
<b>Color Temperature Table</b>	<b>26</b>
<b>Virtual Gel Swatch Book Table</b>	<b>27</b>
<b>Error Codes</b>	<b>28</b>
<b>Specifications</b>	<b>29</b>
<b>Optional Accessories</b>	<b>31</b>

# 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.

## 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)



## **I M P O R T A N T   N O T I C E !**

**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.**

## **WARRANTY RETURNS (USA ONLY)**

To obtain warranty service, a Return Materials Authorization (RMA) number must first be obtained from ELATION. It is the Customer's responsibility to provide product proof of purchase and serial number by acceptable evidence such as an invoice copy or an approved ELATION Extended Warranty Certificate ("EWC") and any relevant maintenance records at the time warranty service is sought. Failure to provide acceptable evidence of product proof of purchase or EWC and any relevant maintenance records may be cause for denial of warranty service.

Products returned for warranty service must be sent without any accessories (i.e., power, data, and safety cables, brackets, clamps, rigging hardware, frost filters, gel frames, barn doors, lens, hoses, nozzles, rack mounting hardware, etc.), must be boxed using the original and/or suitable packaging materials (double-box and foam) that provides ample product protection for ground and/or air freight transit, and must be shipped freight pre-paid and insured to ELATION in Los Angeles, CA or an ELATION Authorized Service Center. The RMA number must be clearly written on the outside of the return box, and a brief description of the problem and the RMA number must be documented and included in the box.

Products returned for warranty service without an RMA number clearly marked on the outside of the package will be refused and returned to the shipper at the Customer's expense. Products returned for warranty service, which are received damaged due to inadequate and/or improper packaging and/or due to damage caused by shipping carrier, may incur additional repair charges before warranty service begins and/or may void this warranty. If any product accessories (included and/or optional) are shipped with the product, ELATION and/or the ELATION Authorized Service Center shall have no liability what so ever for the loss and/or damage to any such accessories, nor the safe return thereof. If the requested warranty repairs or service (including parts replacement) are within the terms of this warranty, ELATION will pay return ground transportation shipping charges to a single designated point within the United States.

# SAFETY GUIDELINES

This fixture is a sophisticated piece of electronic equipment. To guarantee smooth operation, it is important to follow all instructions and guidelines in this manual. ADJ PRODUCTS, LLC 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 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 MANUFACTURE'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

**DO NOT 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.

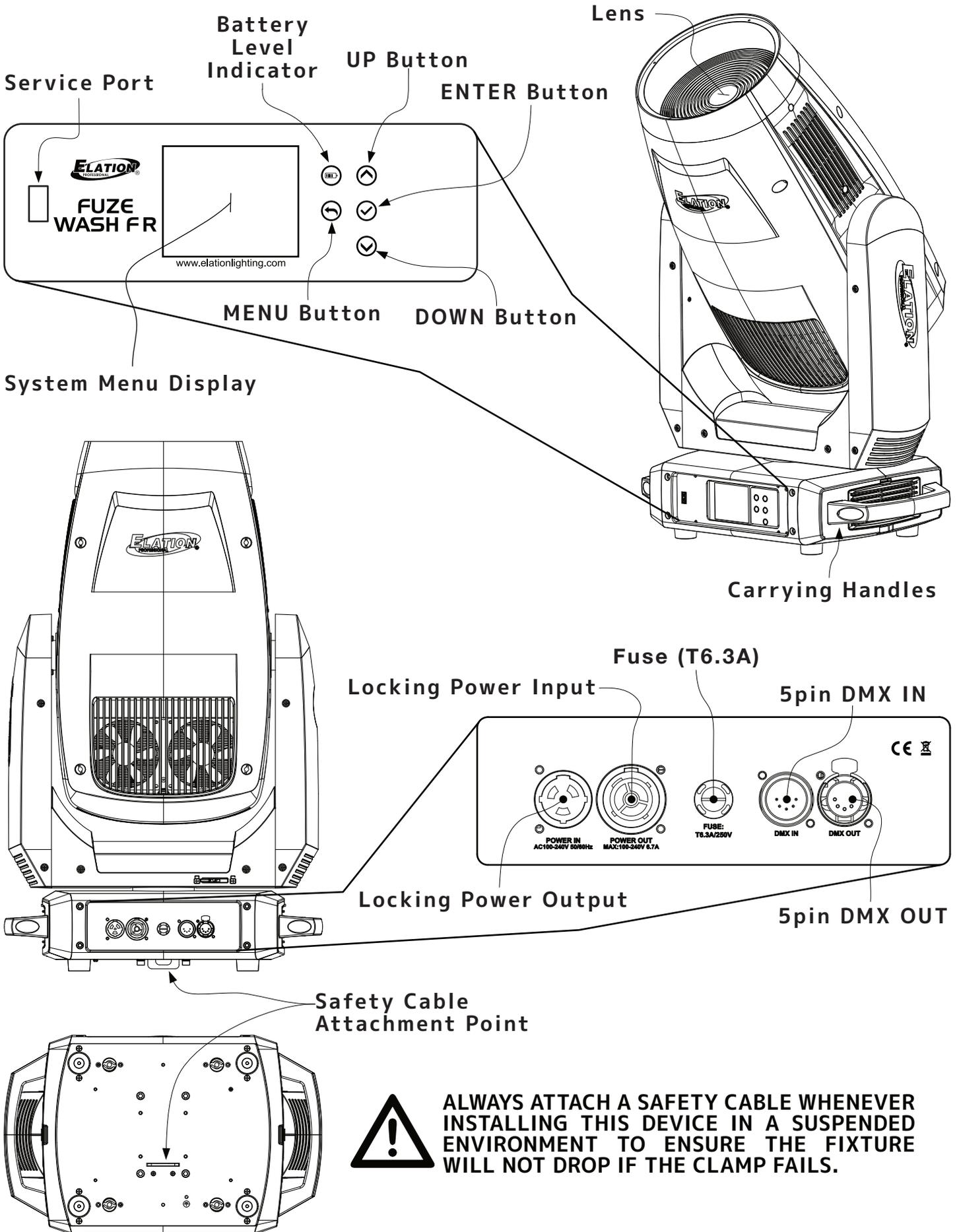
Be sure all screws and fasteners are securely tightened at all times. Loose screws may fall out during normal operation resulting in damage or injury as larger parts could fall.

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.

# FIXTURE OVERVIEW

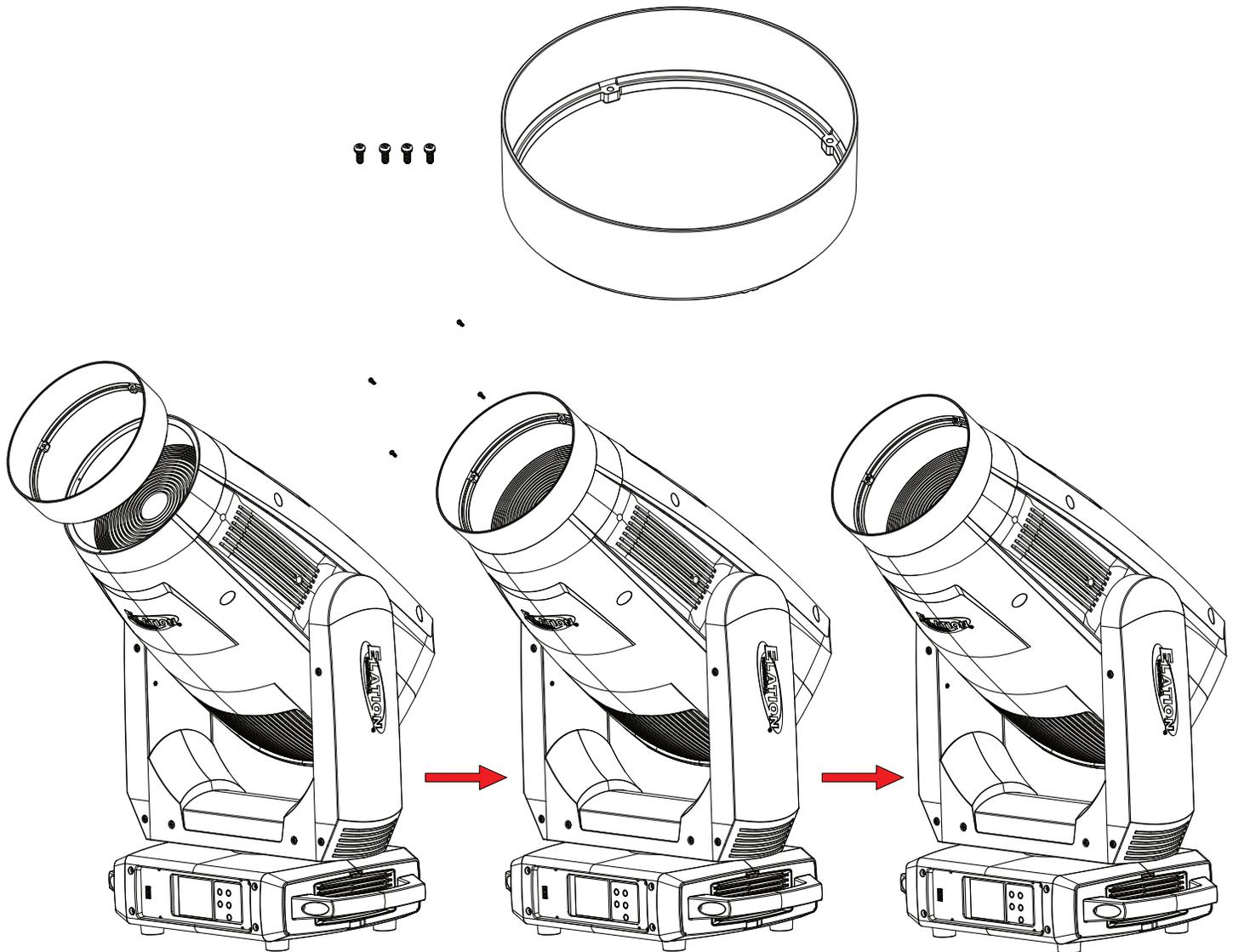


# COLORS

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					
7	Pale Yellow	157	Pink	68	Sky Blue
103	Straw	36	Medium Pink	143	Pale Navy Blue
151	Gold Tint	111	Dark Pink	131	Marine Blue
100	Spring Yellow	128	Bright Pink	115	Peacock Blue
10	Medium Yellow	148	Bright Rose	172	Lagoon Blue
101	Yellow	332	Special Rose Pink	116	Medium Blue Green
104	Deep Amber	793	Vanity Fair	90	Dark Yellow Green
15	Deep Straw	113	Magenta	139	Primary Green
179	Loving Amber	46	Dark Magenta	122	Fern Green
21	Gold Amber	48	Rose Purple	89	Moss Green
105	Orange	126	Mauve	124	Dark Green
158	Deep Orange	49	Medium Purple	88	Lime Green
22	Dark Amber	58	Lavender	138	Pale Green
778	Millennium Gold	199	Palace Blue	203	Quarter CT Blue
135	Deep Golden Amber	119	Dark Blue	202	Half CT Blue
24	Scarlet	132	Medium Blue	201	FULL CT Blue
106	Primary Red	120	Deep Blue	200	Double CT Blue
26	Bright Red	165	Daylight Blue	206	Quarter CT Orange
27	Medium Red	161	Slate Blue	205	Half CT Orange
19	Fire	118	Light Blue	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!**

# 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.

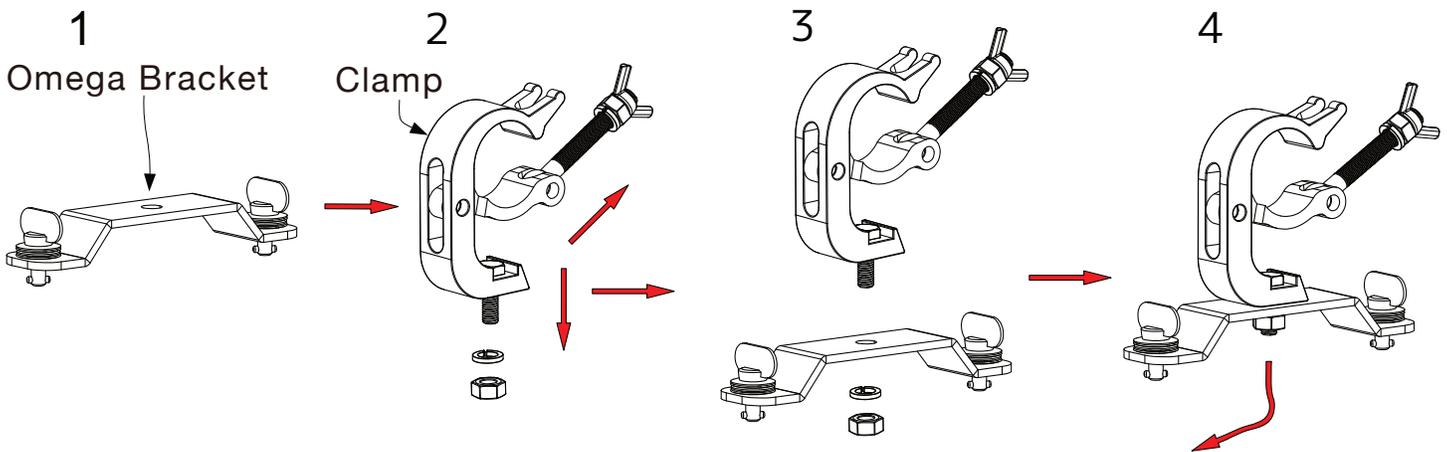
Overhead fixture installation must always be secured with a secondary safety attachment, such as an appropriately rated safety cable.

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

# INSTALLATION GUIDELINES

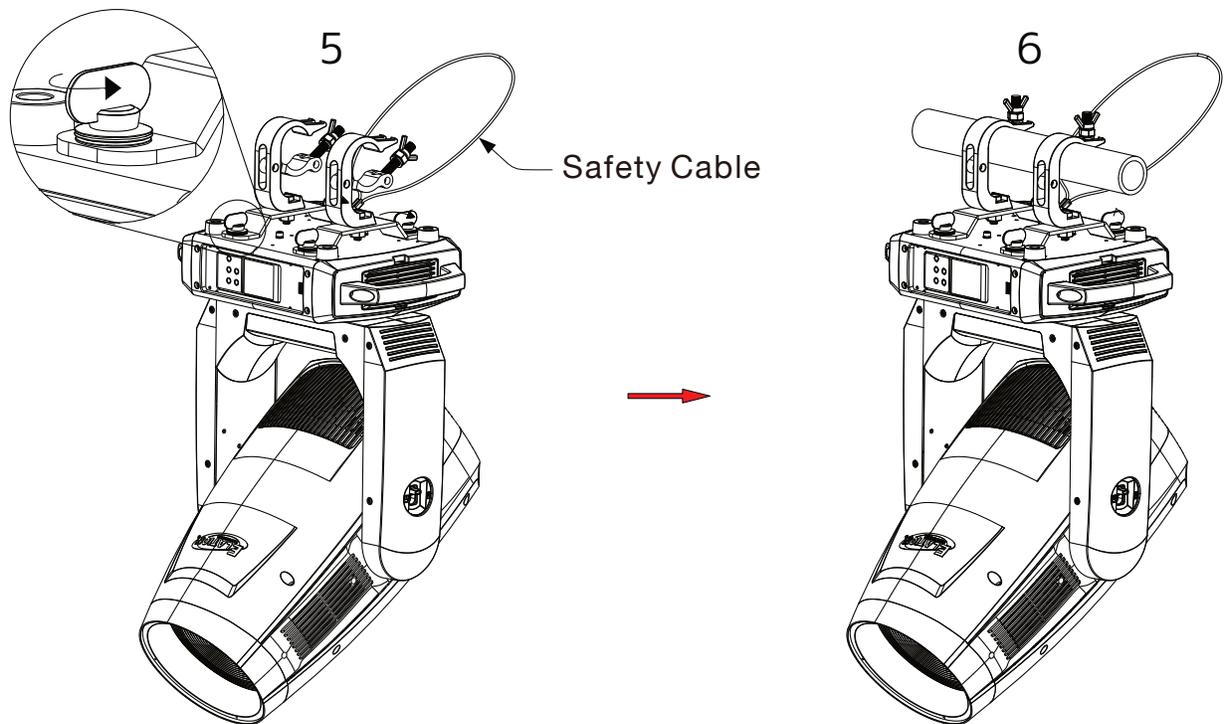
## OMEGA BRACKETS INSTALLATION

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 ¼ 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 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.

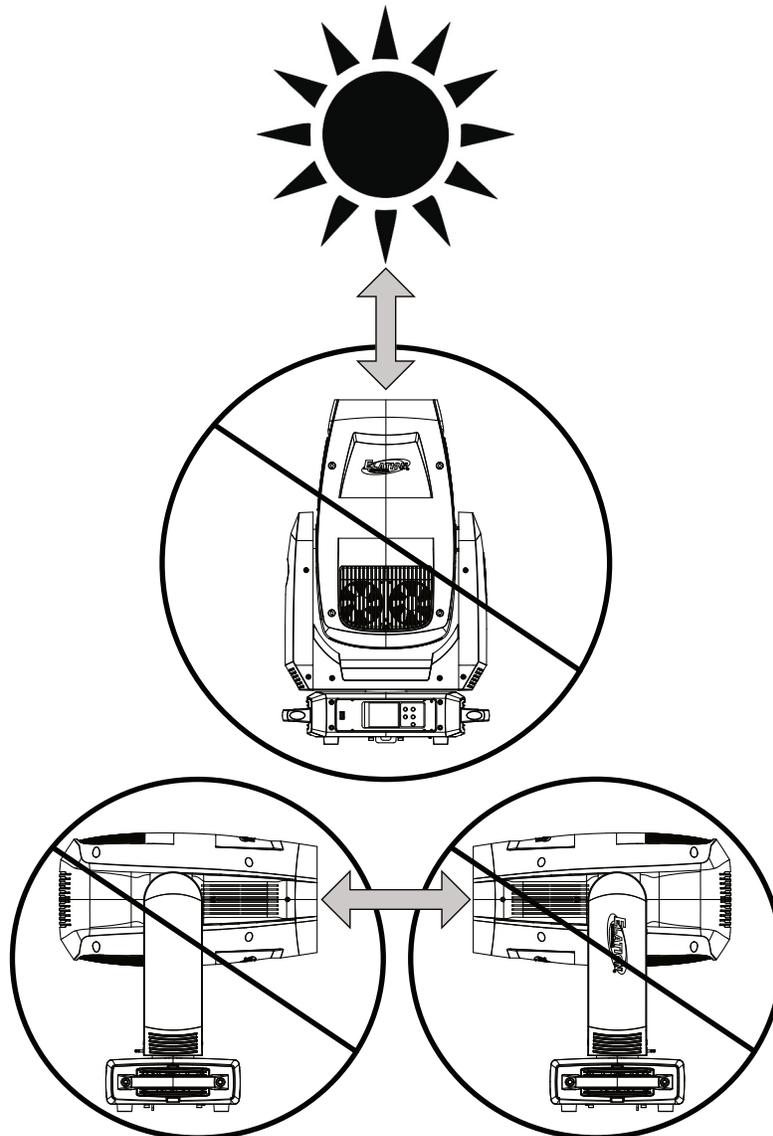
# INSTALLATION GUIDELINES

## 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.

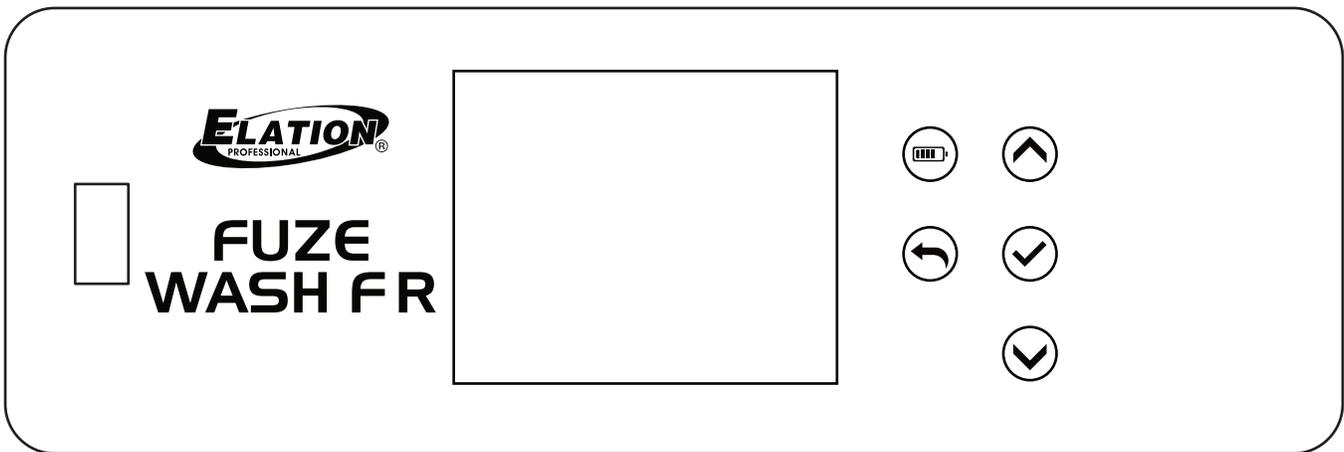
**DO NOT EXPOSE THE FIXTURE AND/OR FRONT LENS OPENING TO LIGHT BEAMS FROM DIRECT SUNLIGHT, OTHER LIGHTING MOVING HEAD FIXTURES, AND LASERS WHILE UNPACKING, INSTALLATION, USE, AND EXTENDED IDLE TIMES OUTDOORS. DO NOT FOCUS A LIGHT BEAM FROM ONE LIGHTING FIXTURE DIRECTLY TOWARDS ANOTHER.**



# 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.



# SYSTEM MENU

ELATION FUZE WASH FR						
Default setting shown in bold						
Supports Software Versions: ≥ 1.04						
MAIN MENU	OPTIONS / VALUES (Default Settings in <b>BOLD</b> )			DESCRIPTION		
<b>DMX Setting</b>	DMX Presets	<b>A001</b> ~AXXX			Used to set the units desired DMX mode.	
	DMX Channel Mode	<b>Standard</b> , Extended, CMY, CMY Extended			Used to set the units desired DMX mode.	
	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	<b>ON/OFF</b>				
	Secondary	<b>ON/OFF</b>				
	Status Settings	Pan Invert	<b>ON/OFF</b>			
		Tilt Invert	<b>ON/OFF</b>			
		Pan/Tilt Feedback	<b>ON/OFF</b>			
		Pan Degree	<b>630/540</b>			
		Pan/Tilt Speed	<b>Speed 1~4</b>			
		Hibernation	OFF, 01M~99M, <b>15M</b>			When DMX signal is not present for the set time, the unit shall go into standby mode after the set time. When set to OFF, unit shall never go into hibernation mode. The unit should have 01M to 99M options... so 01M, 02M, 03M... 99M (M=Minutes). 15M should be default.
	Fan Settings	<b>Auto</b>				
		High				
		Low				
		Studio				
	Dim Mode	Mute				
		<b>Standard</b>				
		Stage				
		TV				
		Architectural				
		Theatre				
	Dim Curves	Stage 2				
		Dim Speed			0S~10S	
		Linear				
		Square				
	LED Refresh Rate	Square Inverse				
S-Curve						
Reset Motors	900, 910, 920, 930, 940..., <b>1200</b> , 1210, 1220, 1230..., 1500, 2500, 4000, 5000, 10K, 15K, 20K, 25KHZ					
	Reset All Motors			YES/ <b>NO</b>		
	Pan/Tilt Reset			YES/ <b>NO</b>		
	Focus and Zoom reset			YES/ <b>NO</b>		
Display	Other motor reset			YES/ <b>NO</b>		
	Screen Saver Delay			<b>01M</b> ~10M/OFF		
	Touch Screen Lock			<b>OFF</b> /ON		
	Rotate Display 180°			YES/ <b>NO</b>		
Service	Temp Unit			<b>C/F</b>		
	Passcode	Calibration		Pan 000-255 Tilt 000-255 Red 000-255 ...		
		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		Fixing running total time
	Fixture Last Run Time	Power On Resettable Time	xxxxxx Hours		Fixture last running time
		Power On Time Reset	Passcode	<b>YES/NO</b>	Clear fixture total running time
	Fixture Temperatures	LEDs	Current		xxxF/xxxC
			Max Resettable		xxxF/xxxC
			Max Not Resettable		xxxF/xxxC
		Reset LED Temp	Passcode	<b>YES/NO</b>	
		Base Temp	Current		xxxF/xxxC
	Fan Info.	LED_fan RPM	1_fan xxxx		
			2_fan xxxx		
			3_fan xxxx		
			4_fan xxxx		
	DMX Values	Base_fan RPM	Base_fan xxxx		
		Blade_fan RPM	Blade_fan xxxx		
		Pan			
	Product IDs	Tilt			
		...			
Zoom					
Error Logs	RDM UID				
	Fixture Errors				
Software Version	Reset Error Log	Passcode	<b>YES/NO</b>		
	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 be require additional time to find the right values for all 5-color LEDs to achieve a specific desired color.

# DMX TRAITS: CHANNEL FUNCTIONS & VALUES

ELATION FUZE WASH FR							
DMX Channel Values / Functions							
Supports Software Versions: ≥ 1.04							
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	6		<b>Cyan Fine:</b>	0	
				000-255	Cyan Fine		
		6	7		<b>Magenta:</b>	0	
				000-255	Magenta (0-100% Magenta)		
		8	8		<b>Magenta Fine:</b>	0	
				000-255	Magenta Fine		
		7	9		<b>Yellow:</b>	0	
				000-255	Yellow (0-100% Yellow)		
		10	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	
				000-255	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>CTO:</b>	0	
				0-23	Open		
				24 -85	CTO 2400K - 8500K (see separate sheet)		
				86-255	8500K		

MODE/CHANNEL				VALUE	FUNCTION	DEFAULT	SNAP
Standard	Extended	CMY	CMY Extended				
11	16	9	12		<b>Color Wheel:</b>	0	
				0	Open		
				1-60	Virtual Swatch Book (see separate sheet)		
				61-179	Open		
					<b>Color Scroll</b>		
				180-201	Clockwise, fast → slow		
				202-207	Stop		
				208-229	Counter-clockwise, slow → 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	
				0	Idle		
				1-127	Full Minus Green to Neutral		
				128	Neutral White		
				129-255	Neutral to Full Plus Green		
12	18	10	14		<b>Focus:</b>	127	
				0-255	Continuous adjustment from near to far		
13	19	11	15		<b>Zoom:</b>	127	
				0-255	Zoom adjustment from small to big		
14	20	12	16		<b>Shutter, strobe</b>	50	X
				0-31	Shutter closed		
				32-63	No function (shutter open)		
				64-95	Strobe effect slow to fast		
				96-127	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	
				0-255	Intensity 0 to 100%		
16	22	14	18		<b>Dimmer Fine:</b>	0	
				0-255	Dimmer fine		

MODE/CHANNEL				VALUE	FUNCTION	DEFAULT	SNAP
Standard	Extended	CMY	CMY Extended				
					<b>Dim Modes</b>		
				0-20	Standard		
				21-40	Stage		
				41-60	TV		
				61-80	Architectural		
				81-100	Theatre		
				101- 120	Stage 2		
					<b>Dimmer Delay Time</b>		
				121	0s		
				122	0.1s		
				123	0.2s		
				124	0.3s		
				125	0.4s		
				126	0.5s		
	23		19	127	0.6s	0	X
				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		

MODE/CHANNEL				VALUE	FUNCTION	DEFAULT	SNAP
Standard	Extended	CMY	CMY Extended				
17	24	15	20		<b>Iris:</b>	0	
				0-191	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	
				0-255	Open to Full Frost		
19	26	17	22		<b>Frost Medium</b>	0	
				0-255	Open to Full Frost		
20	27	18	23		<b>Blade 1A</b>	0	
				0-255	Open to Close		
	28		24		<b>Blade 1A Fine</b>		
				0-255	Open to Close Fine		
21	29	19	25		<b>Blade 1B</b>		
				0-255	Open to Close		
	30		26		<b>Blade 1B Fine</b>		
				0-255	Open to Close Fine		
22	31	20	27		<b>Blade 2A</b>	0	
				0-255	Open to Close		
	32		28		<b>Blade 2A Fine</b>		
				0-255	Open to Close Fine		
23	33	21	29		<b>Blade 2B</b>		
				0-255	Open to Close		
	34		30		<b>Blade 2B Fine</b>		
				0-255	Open to Close Fine		
24	35	22	31		<b>Blade 3A</b>	0	
				0-255	Open to Close		
	36		32		<b>Blade 3A Fine</b>		
				0-255	Open to Close Fine		
25	37	23	33		<b>Blade 3B</b>		
				0-255	Open to Close		
	38		34		<b>Blade 3B Fine</b>		
				0-255	Open to Close Fine		
26	39	24	35		<b>Blade 4A</b>	0	
				0-255	Open to Close		
	40		36		<b>Blade 4A Fine</b>		
				0-255	Open to Close Fine		
27	41	25	37		<b>Blade 4B</b>		
				0-255	Open to Close		
	42		38		<b>Blade 4B Fine</b>		
				0-255	Open to Close Fine		
28	43	26	39		<b>Framing Rotation:</b>	127	
				0-126	Min (-60 degrees)		
				127-128	Parallel (0 degrees)		
				129-255	Max (+60 degrees)		
	44		40		<b>Framing Speed:</b>	0	
				0-255	Speed Max →Min		

MODE/CHANNEL				VALUE	FUNCTION	DEFAULT	SNAP
Standard	Extended	CMY	CMY Extended				
	45		41		<b>Framing Macro:</b>	0	
				0-7	OFF		
				8-15	Macro1		
				16-23	Macro2		
				24-31	Macro3		
				32-39	Macro4		
				40-47	Macro5		
				48-55	Macro6		
				56-63	Macro7		
				64-71	Macro8		
				72-79	Macro9		
				80-87	Macro10		
				88-95	Macro11		
				96-103	Macro12		
				104-111	Macro13		
				112-119	Macro14		
				120-127	Macro15		
				128-135	Macro16		
				136-143	Macro17		
				144-151	Macro18		
				152-159	Macro19		
				160-167	Macro20		
				168-175	Macro21		
				176-183	Macro22		
				184-191	Macro23		
				192-199	Macro24		
				200-207	Macro25		
				208-215	Macro26		
				216-223	Macro27		
				224-231	Macro28		
				232-239	Macro29		
240-247	Macro30						
248-255	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						

MODE/CHANNEL				VALUE	FUNCTION	DEFAULT	SNAP
Standard	Extended	CMY	CMY Extended				
29	47	27	43	100-168	<b>Refresh Rate (Hz)</b>	0	X
				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		
				122	1120		
				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						

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						

# COLOR TEMPERATURE

VALUE	COLOR TEMPERATURE (K)	VALUE	COLOR TEMPERATURE (K)
24	2400	55	5500
25	2500	56	5600
26	2600	57	5700
27	2700	58	5800
28	2800	59	5900
29	2900	60	6000
30	3000	61	6100
31	3100	62	6200
32	3200	63	6300
33	3300	64	6400
34	3400	65	6500
35	3500	66	6600
36	3600	67	6700
37	3700	68	6800
38	3800	69	6900
39	3900	70	7000
40	4000	71	7100
41	4100	72	7200
42	4200	73	7300
43	4300	74	7400
44	4400	75	7500
45	4500	76	7600
46	4600	77	7700
47	4700	78	7800
48	4800	79	7900
49	4900	80	8000
50	5000	81	8100
51	5100	82	8200
52	5200	83	8300
53	5300	84	8400
54	5400	85	8500

# VIRTUAL GEL SWATCH BOOK

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

# **S P E C I F I C A T I O N S**

## **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

## **COLOR**

RGBMA Color Array

CMY Emulation

Virtual Color Correction

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)

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

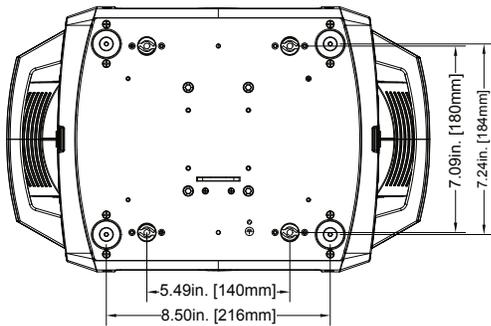
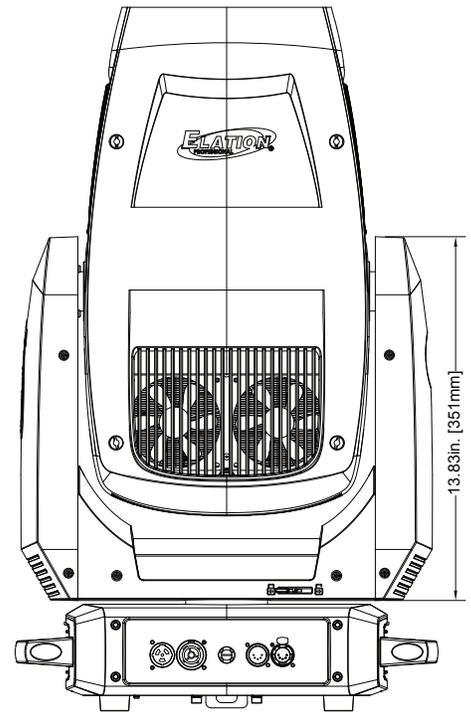
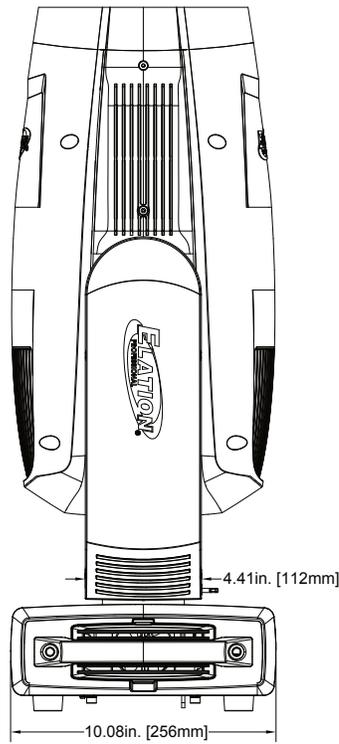
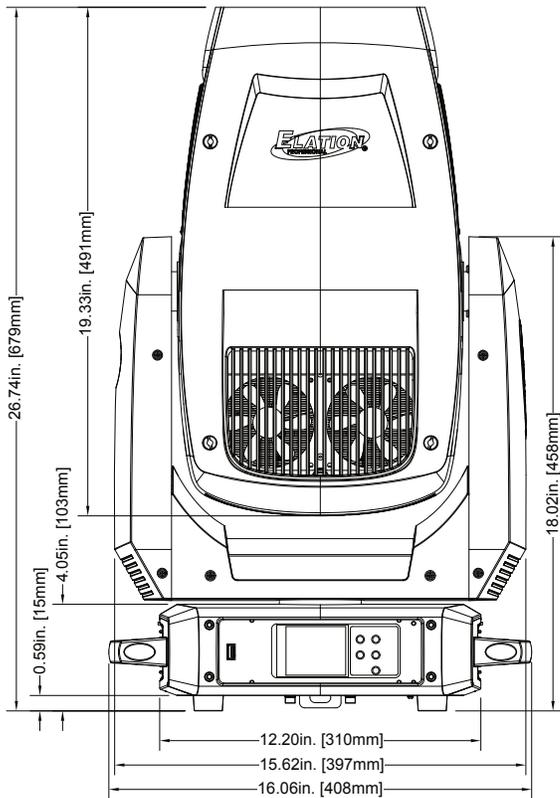
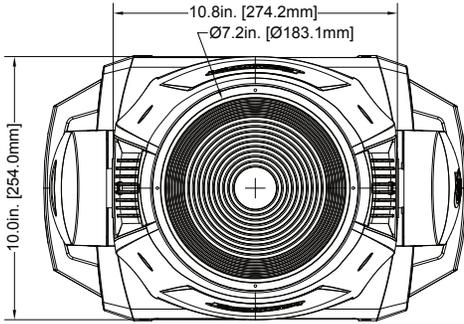
## **APPROVALS / RATINGS**

CE | cETLus pending | 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.



# 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

### Class A content (correct info):

Please note that changes or modifications of this product is not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### 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!

