



# **FUZE SFX**

user manual

©2020 ELATION PROFESSIONAL all rights reserved. Information, specifications, diagrams, images, and instructions herein are subject to change without notice. ELATION PROFESSIONAL logo and identifying product names and numbers herein are trademarks of ELATION PROFESSIONAL. Copyright protection claimed includes all forms and matters of copyrightable materials and information now allowed by statutory or judicial law or hereinafter granted. Product names used in this document may be trademarks or registered trademarks of their respective companies and are hereby acknowledged. All non-ELATION brands and product names are trademarks or registered trademarks of their respective companies.

**ELATION PROFESSIONAL** and all affiliated companies hereby disclaim any and all liabilities for property, equipment, building, and electrical damages, injuries to any persons, and direct or indirect economic loss associated with the use or reliance of any information contained within this document, and/or as a result of the improper, unsafe, insufficient and negligent assembly, installation, rigging, and operation of this product.

**Elation Professional USA** | 6122 S. Eastern Ave. | Los Angeles, CA. 90040 323-582-3322 | 323-832-9142 fax | www.elationlighting.com | info@elationlighting.com

**Elation Professional B.V.** | Junostraat 2 | 6468 EW Kerkrade, The Netherlands +31 45 546 85 66 | +31 45 546 85 96 fax | www.elationlighting.eu | info@elationlighting.eu

**Elation Professional Mexico** | AV Santa Ana 30 | Parque Industrial Lerma, Lerma, Mexico 52000 +52 (728) 282-7070

#### 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 for the latest revision/update of this manual, before installation and/or programming.

Date	Document Version	Software Version ≥	DMX Channel Modes	Notes
03/11/20	1.0	1.06	31 Channel	Initial release.

## CONTENTS

General Information	4
Warranty Returns (USA Only)	5
Safety Guidelines	6
Maintenance Guidelines	8
Fixture Overview	9
Color Wheel	10
Gobo Wheels	11
Custom Gobos	12
Gobo Installation	13
Installation Guidelines	17
System Menu	20
DMX Channel Functions and Values	27
Color Combination Table	35
Error Codes	36
Specifications	37
Dimensional Drawings	38
FCC Statement	39

## **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 that 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**

Fixture (x1)
Omega Brackets (x2)
Locking Power Cable (X1)

#### **CUSTOMER SUPPORT**

Contact **ELATION Service** for any product related service and support needs. Also visit 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

ELATION SERVICE EUROPE - Monday - Friday 08:30 to 17:00 CET +31 45 546 85 63 | Fax +31 45 546 85 96 | support@elationlighting.eu

**REPLACEMENT PARTS** please visit parts.elationlighting.com



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.

## 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 whatsoever 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 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 IS 1.6 FEET (0.5 METER)
MINIMUM DISTANCE OF INFLAMMABLE MATERIALS FROM THE
SURFACE IS 1.6 FEET (0.5 METER)
MAXIMUM AMBIENT OPERATING TEMPERATURE 113°F (45°C)

### 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 servicing.

**DO NOT** shake fixture, and 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 must never be 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. Only handle the power cord by the plug end, and 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 for service.

### MAINTENANCE GUIDELINES



## **DISCONNECT POWER BEFORE PERFORMING ANY MAINTENANCE!**

#### **CLEANING**

Frequent cleaning is recommended to ensure 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 periodically with a soft cloth to avoid dirt/debris accumulation.

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

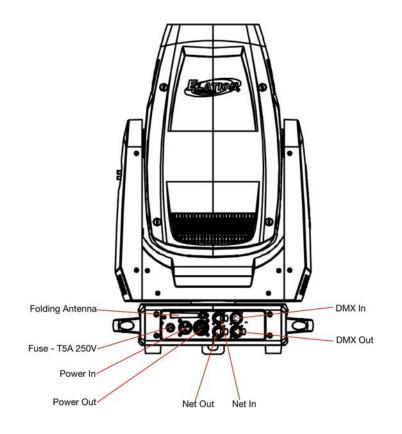
#### **MAINTENANCE**

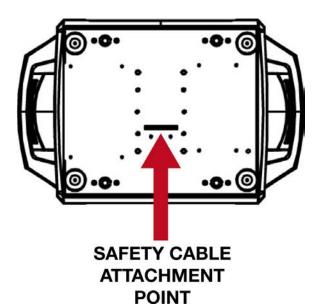
Regular inspections are recommended to ensure proper function and extended life. There are no user serviceable parts inside this fixture. Please refer all other service issues to an authorized Elation service technician. Should you need any spare parts, please order genuine parts from an authorized Elation dealer.

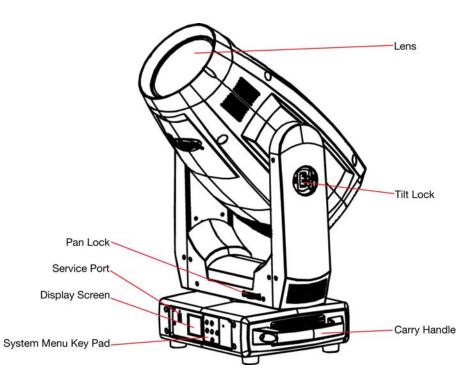
Please refer to the following points during routine inspections:

- A detailed electrical 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

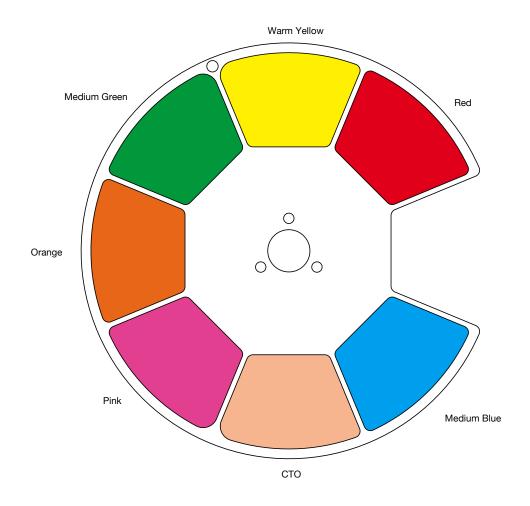






ALWAYS ATTACH A
SAFETY CABLE
WHENEVER INSTALLING
THIS DEVICE IN A
SUSPENDED
ENVIRONMENT TO
ENSURE THE FIXTURE
WILL NOT DROP IF THE
CLAMP FAILS.

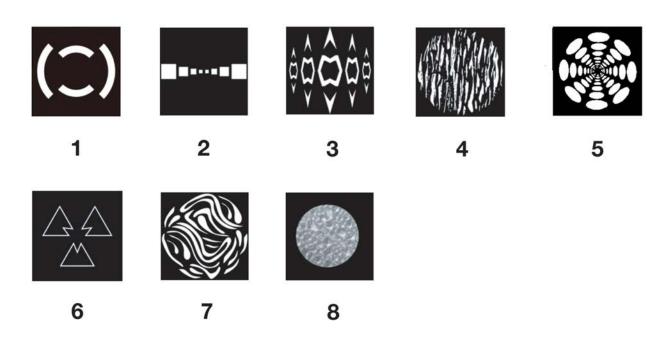
## COLOR WHEEL



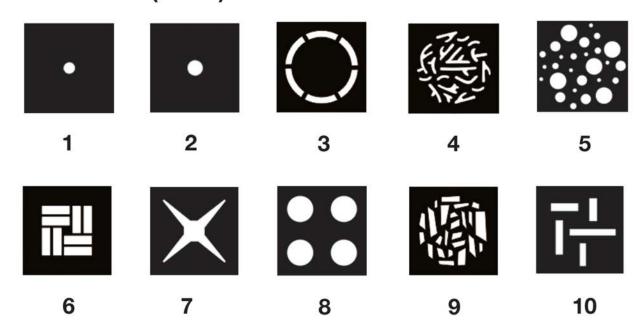
Slot Number	Color
1	Red
2	Warm Yellow
3	Medium Green
4	Orange
5	Pink
6	СТО
7	Medium Blue

## GOBO WHEELS

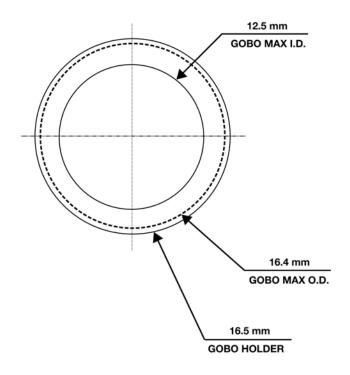
## **Gobo Wheel 1 (Rotating)**



## Gobo Wheel 2 (Static)



### **CUSTOM GOBOS**



FUZE SFX ROTATING GLASS GOBOS - WHEEL 1 ONLY			
Gobo O.D. (Max. Outer Diameter)	Ф16.4mm		
Gobo I.D. (Max. Image Diameter)	Ф12.5mm		
Gobo Holder Diameter	Ф16.5mm		
Gobo Material	Borofloat Glass		

#### \* \* \* IMPORTANT NOTICE REGARDING CUSTOM GOBOS \* \* \*

Due to the high temperature optical system, special material as listed above is required for custom gobos. Due to varying manufacturing processes and tolerances, it is highly recommended to provide a gobo sample and holder from the fixture to the custom gobo vendor for accurate sizing. Extended testing of custom gobo designs is highly recommended prior to use. Contact ELATION SERVICE for further information.

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

ELATION SERVICE EUROPE - Monday - Friday 08:30 to 17:00 CET +31 45 546 85 63 | Fax +31 45 546 85 96 | support@elationlighting.eu



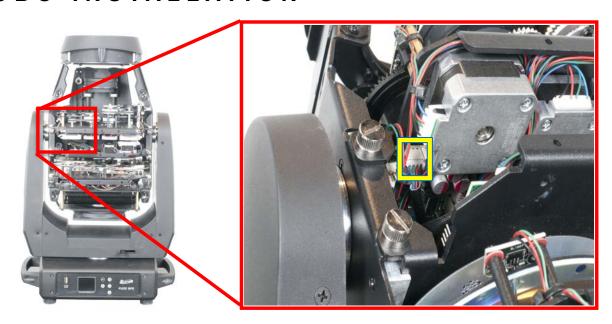


1. Place the fixture on a stable flat surface in a DUST-FREE, INDOOR location, and ensure that the unit has been disconnected from power and given at least 15 minutes to cool down after powering down. Engage both the Pan Lock (location shown at above left) and the Tilt Lock (location shown at above right). For the purposes of this procedure, we will assume that the head has been fixed in an upright position with the lens oriented upwards.



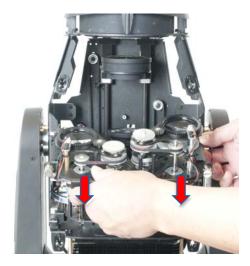


2. Use a Phillips head screwdriver to loosen the four (4) fasteners on each of the covers. Please note that these fasteners are of the twist-lock variety, and do not come free of the covers. Remove the safety cable clips securing each cover to the fixture.

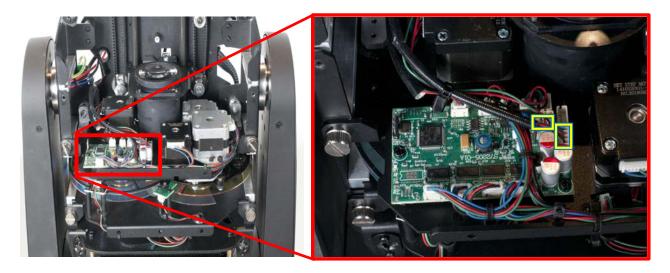


3. Optional. This step may be performed to help improve access to the gobo wheel module. On the prism module, find the 4-pin connector (denoted by the yellow box, above right) in the that is located behind the left-most electric motor, just beside the thumb screw on the left hand side of the prism module. Disconnect this connector.





4. Optional. This step may be performed to help improve access to the gobo wheel module. Loosen the thumb screws for the prism module, and carefully slide the prism module out of its mounting slots. Set the prism module aside for later reinstallation.



5. On the gobo wheel module, locate the circuit board on the left hand side of the gobo wheel module, directly above the static gobo wheel. On this circuit board, find the 3-pin connector and the 4-pin connector (denoted by the yellow boxes, above right) located just behind a bank of three (3) capacitors, and disconnect both of these connectors.





6. Loosen the thumb screws for the gobo wheel module, and carefully slide the gobo wheel module out of its mounting slots. Place the module on a flat, stable surface in a **DUST-FREE, INDOOR** location.





7. Locate the rotating gobo that will be replaced. Grip the edges of the geared gobo holder and gently lift (pictured at left) until the gobo holder clears the surface of the gobo wheel. Then pull the gobo holder out and away (pictured at right).







- 8. Place the gobo holder on a flat, level surface with the geared side down. Locate the tab of the spring, and use a precision pick (or similar tool) to push the spring tab inward. Remove the retaining spring and carefully separate the gobo from the gobo holder. **Exercise caution to avoid scratching the gobo.**
- 9. Install the new gobo and reassemble the fixture by following the steps above in reverse order.

## **GOBO INSTALLATION COMPLETE!**

### 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 IS 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, understanding of the 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 were unauthorized personnel might reach the fixture by hand.

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

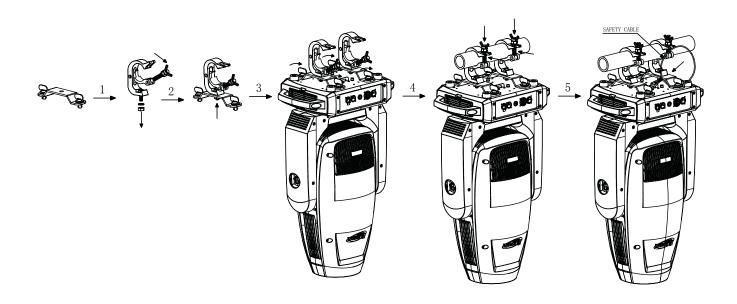
Overhead fixture installation must always be secured with a secondary safety attachment, such as an appropriately rated safety cable.

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

### 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 ½ turn clockwise; making sure the fastener is completely locked. Omega Brackets can be installed into the fixture base as illustrated below.



### **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 a built-in rigging points for a **SAFETY CABLE**. 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 calculating working load limits, understanding of the installation material being used, and periodic safety inspection of all installation material and the fixture, among other things. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.



ALWAYS ATTACH AN APPROPRIATELY RATED SAFETY CABLE (NOT INCLUDED)
THAT MEETS ALL LOCAL, NATIONAL, AND COUNTRY CODES AND REGULATIONS
WHENEVER INSTALLING FIXTURE IN A SUSPENDED ENVIRONMENT!

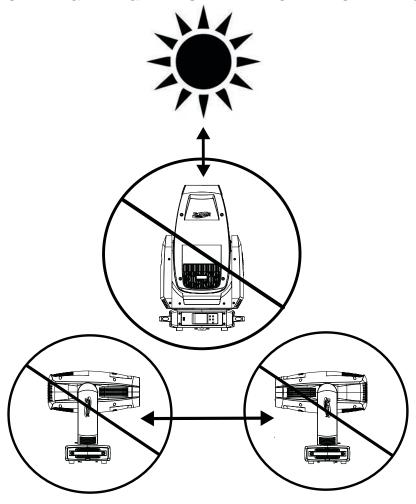
### INSTALLATION GUIDELINES

#### 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 to ELATION lighting fixtures; rather, it is a common issue with lighting fixtures from all manufacturers. Although there is no true way to fully prevent this issue from occurring, the guidelines below can help minimize the risk of potential damage if followed. Contact ELATION Service for more details.

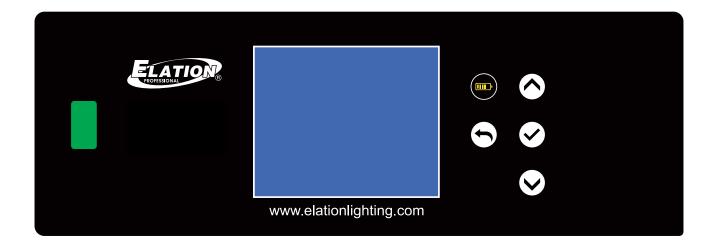
DO NOT EXPOSE THE FIXTURE AND/OR FRONT LENS OPENING TO LIGHT BEAMS FROM DIRECT SUNLIGHT, OTHER LIGHTING MOVING HEAD FIXTURES, AND LASERS DURING UNPACKING, INSTALLATION, USE, AND EXTENDED IDLE TIMES OUTDOORS. DO NOT FOCUS A LIGHT BEAM FROM ONE LIGHTING FIXTURE DIRECTLY TOWARDS ANOTHER.



## 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 submenus 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

**Note:** Default settings are shown in **bold**.

	ELATION FU	ZE SFX SYSTEM MENU	J		
Supports Software Versions: ≥ 1.06					
	DMX Address	A <b>001</b> ~ A512			
DMX SETTINGS		Hold Last			
DIVIX SETTINGS	No DMX Status	Blackout			
		Internal Programs			
	Master	On / Off			
	Slave	On / Off			
		Pan Invert	On / Off		
		Tilt Invert	On / Off		
		Pan / Tilt Feedback	On / Off		
		Pan Degree	540		
	Status Settings	Fair Degree	630		
	Otatus Gettings	Pan / Tilt Speed	Speed 1		
		Tan Till Opeed	Speed 2		
PERSONALITY			OFF		
		Hibernation	01 min – 99 min		
			15 min		
		Service Pin	Password = XXX (default		
		GOLVIGO I III	password: 050)		
	Fixture ID	Universe	000 – 255		
		UnitlPAddr			
		Mask Addr			
	Protocol Set	ArtNet			
		sACN			
	Net Switch	On / Off			
	CONTIN	UED ON NEXT PAGE			

		Auto		
		High		
	Fan Settings	Low		
		Studio		
		Mute		
	Diva Ma da a			
	Dim Modes			
		Standard           Stage           TV           Architecture           Theatre           Stage 2           Dim Speed         0 s - 10 s           Linear           Square           Inverse Square           S-Curve           900Hz - 1500Hz           (default 1200Hz)           1500 Hz           4000 Hz           5000 Hz           6000 Hz           10 KHz		
		Dim Speed	0 s – 10 s	
		Linear	03-103	
PERSONALITY	Dim Curves	Square		
(continued from prev	Biiii Gai vee	Inverse Square		
page)		S-Curve		
		900Hz – 1500Hz		
		(default <b>1200Hz</b> )		
		1500 Hz		
		2500 Hz		
		4000 Hz		
	LED Refresh Rate	5000 Hz		
		6000 Hz		
		10 KHz		
		15 KHz		
		20 KHz		
		25 KHz		
	E-FLY	On / <b>Off</b>		
	E-FLY CH	CH 00 – CH 14		
	CONTINU	IED ON NEXT PAGE	1	

		Reset All Motors	No / Yes		
	Reset Motors	Pan / Tilt Reset	No / Yes		
		Color Reset	No / Yes		
		Gobo Reset	No / Yes		
		Focus Reset	No / Yes		
		Other Reset	No / Yes Off 1 min – 10 min (default 1 min) On / Off		
			Off		
		Screen Saver Delay	1 min – 10 min		
	Display	Gobo Reset			
		No / Yes			
		Rotate Display 180°	On / <b>Off</b>		
	Temp Unit	C/ <b>F</b>			
			Pan		
PERSONALITY			Tilt		
(continued from prev			Cyan Wheel		
page)			Magenta Wheel		
			Yellow Wheel		
			Color Wheel		
			Gobo Wheel		
	Service (Password:		Gobo Rot. Wheel 1		
	050)	Calibration	Gobo Rot. Wheel 2		
			Gobo Rot. Wheel 3		
			Gobo Rot. Wheel 4		
			Gobo Rot. Wheel 5		
			Gobo Rot. Wheel 6		
			Gobo Rot. Wheel 7		
			Gobo Rot. Wheel 8		
			Fixed Gobo Wheel		
			Prism 1		
	CONTINUE	ED ON NEXT PAGE			

		T	
			Prism 2
	Service	Calibration (continued	Prism 2 Rot.
PERSONALITY	(Password: 050)	from prev page)	Focus
(continued from prev	(continued from		Zoom
page)	prev page)		Iris
	prev page)		Frost
		USB Update	On / Off
		Calibration (continued from prev page)  Calibration (continued from prev page)  Prism 2 Rot.  Focus  Zoom  Iris  Frost  USB Update On / Off  Factory Reset No / Yes  Tilt Fine, Cyan, Cyan Fine, Magenta, Magenta F, CMC Mix Mode, Color Wheel, Rotate Gobo, Gerine, Fixed Gobo Wheel, SFX, Prism 1 Rot., Prism Fine, Zoom, Zoom Fine, Strobe, Dimmer, Dimmentost, Pan/Tilt Speed, Control  Speed  Fade  Speed  Fade  Speed  Fade  Power On Time  Power On Time Since  Last Reset  Time Reset  Current  Max Resettable	No / Yes
	Pan, Pan Fine, Tilt, T	Filt Fine, Cyan, Cyan Fine,	Magenta, Magenta Fine,
	Yellow, Yellow Fine,	CMC Mix Mode, Color Wh	neel, Rotate Gobo, Gobo
MANUAL CONTROL	Index, Gobo Index F	Fine, Fixed Gobo Wheel, SI	FX, Prism 1 Rot., Prism 2
	Rot., Focus, Focus F	Fine, Zoom, Zoom Fine, St	robe, Dimmer, Dimmer Fine,
	Dim Modes, Iris, Fro	st, Pan/Tilt Speed, Contro	I
	Program 1	Speed	
	Fiogram	Fade	
	Program 2	Speed	
INTERNAL	1 Togram 2	Fade	
PROGRAMS	Program 3	Speed	
PHOGNAMO	i rogram s	Fade	
	Dragues 16	Speed	
	Program 16	Fade	
	Fixture Life Time	Power On Time	
		Power On Time Since	
	Fixture Last Time	Last Reset	
		Time Reset	
INFORMATION			Current
		LEDs	Max Resettable
	Fixture Temps		Max Not Resettable
		Reset LED Temp	
		Base Temp	
	CONTINU	ED ON NEXT PAGE	<u> </u>

	Fixture Temps Fan Info (RPM)	LEDs  Reset LED Temp  Base Temp  LED Fan RPM  Base Fan RPM	Current  Max Resettable  Max Not Resettable  Fan 1  Fan 2  Fan 1  Fan 2
	DMX Values	Pan, Pan Fine, Tilt	
	Product IDs	RDM UID	
			Error 1 – 10
			Pan
INFORMATION			Tilt
(continued from prev			Cyan Wheel
page)			Magenta Wheel
			Yellow Wheel
			Color Wheel
			Gobo Wheel
	Error Logs	Fixture Errors	Gobo Rot. Wheel
			Fixed Gobo Wheel
			Prism 1
			Prism 1 Rot.
			Prism 2
			Prism 2 Rot.
			Focus
			Zoom
			Iris
			Head Fan 1
	CONTINUE	ED ON NEXT PAGE	

INFORMATION (continued from prev page)	Error Logs (continued from prev page)	Fixture Errors (continued from prev page)	Head Fan 2  Base Fan 1  Base Fan 2  Head Temp  Base Temp
		Reset Error Log	No / Yes
	Software Version	1.06	

## DMX CHANNEL FUNCTIONS AND VALUES

	FUZE SFX DMX C	hannel Values / Functions (31 DMX	( Channels)		
	Sup	ports Software Versions: ≥ 1.06			
	Features subje	ct to change without any prior writter	n notice.		
CHANNEL	VALUE	FUNCTION	DEFAULT	SNAP	HOLD
1	000 – 255	Pan Movement	127		
2	000 – 255	Pan Movement Fine	127		
3	000 – 255	Tilt Movement	127		
4	000 – 255	Tilt Movement Fine	127		
		Cyan			
		Full			
	000 – 255	Cyan (0 – 100%)			
		SFX			
5	000 – 170	Cyan (0 – 100%)	n		
	171 – 189	Cyan (100% - Open)	]		
	190 – 221	Scroll Clockwise Fast to Slow	0		
	222 – 223	Stop			
	224 – 255	Scroll Counter-Clockwise Slow to Fast			
6	000 – 255	Cyan Fine Control	0		
		Magenta	-		
		Full (2 1000)			
	000 – 255	Magenta (0 – 100%)	1		
	200 470	SFX (2 (222))	-		
7	000 – 170	Magenta (0 – 100%)	0		
	171 – 189	Magenta (100% - Open)	-		
	190 – 221	Scroll Clockwise Fast to Slow	-		
	222 – 223	Stop	1		
	224 – 255	Scroll Counter-Clockwise Slow to			
8	000 – 255	Fast Maganta Fine Control	0		
0	000 – 255	Magenta Fine Control	U		
		<b>Yellow</b> Full	1		
	000 – 255	Yellow (0 – 100%)	-		
	000 – 233	SFX	-		
	000 – 170	Yellow (0 – 100%)	-		
9	171 – 189	Yellow (100% - Open)	0		
	190 – 221	Scroll Clockwise Fast to Slow	-		
	222 – 223	Stop	-		
		Scroll Counter-Clockwise Slow to	1		
	224 – 255	Fast			
10	000 – 255	Yellow Fine Control	0		
		CMY Mix Mode			
11	000 – 127	Full	0	X	
	128 – 255	SFX	1	^	
1	.28 288	1 Six	1	X	1

CHANNEL	VALUE	FUNCTION	DEFAULT	SNAP	HOLD
		Color Wheel			
	000 – 005	Open			
	006 – 010	White/Red Split			
	011 – 015	Red			
	016 – 020	Red/Yellow Split			
	021 – 025	Yellow			
	026 – 030	Yellow/Green Split			
	031 – 035	Green			
	036 – 040	Green/Orange Split			
	041 – 045	Orange			
	046 – 050	Orange/Pink Split			
	051 – 055	Pink			
	056 – 060	Pink/CTO Split			
	061 – 065	СТО			
	066 – 070	High CRI			
	071 – 075	CTO/High CRI Split			
	076 – 080	CTO/Blue Split			
	081 – 085	Medium Blue			
12	086 – 090	Blue/White Split	0		
	091 – 100	Open			
	Combinations	s (see Combination Sheet for			
		reference)			
	101	Combo 1			
	102	Combo 2			
	103	Combo 3			
	104	Combo 4			
	105	Combo 5			
	106	Combo 6			
	107	Combo 7			
	108	Combo 8			
	109	Combo 9			
	110	Combo 10			
	111 – 127	Reserved			
	128 – 189	Scroll Clockwise Fast to Slow			
	190 – 193	Stop			
	194 – 255	Scroll Counter-Clockwise Slow to			
	104 200	Fast			

CHANNEL	VALUE	DEFAULT	SNAP	HOLD	
	Rotating Gobo				
	000 – 005	Open			
	006 – 012	Rotating Gobo 1			
	013 – 019	Rotating Gobo 2			
	020 – 026	Rotating Gobo 3			
	027 – 033	Rotating Gobo 4			
	034 – 040	Rotating Gobo 5			
	041 – 047	Rotating Gobo 6			
	048 – 054	Rotating Gobo 7			
	055 – 061	Rotating Gobo 8			
	062 – 077	Rotating Gobo 1 Shake, Slow to Fast			
	078 – 093	Rotating Gobo 2 Shake, Slow to Fast			
13	094 – 109	Rotating Gobo 3 Shake, Slow to Fast	0	Х	
	110 – 125	Rotating Gobo 4 Shake, Slow to Fast			
	126 – 141	Rotating Gobo 5 Shake, Slow to Fast			
	142 – 157	Rotating Gobo 6 Shake, Slow to Fast			
	158 – 173	Rotating Gobo 7 Shake, Slow to Fast			
	174 – 189	Rotating Gobo 8 Shake, Slow to Fast			
	190 – 221	Scroll Clockwise, Fast to Slow			
	222 – 223	Stop			
	224 – 255	Scroll Counter-Clockwise, Slow to Fast			
	Rotatii	ng Gobo Rotation Index			
14	000 – 127	Gobo Indexing			
	128 – 189	Clockwise Gobo Scroll, Fast to Slow	63		
	190 – 193	No Rotation			
	194 – 255	Counter-Clockwise Gobo Scroll, Slow to Fast			
15	000 – 255	Rotating Gobo Fine Indexing	0		

CHANNEL	VALUE	FUNCTION	DEFAULT	SNAP	HOLD
		Fixed Gobo			
	000 - 005	Open			
	006 – 014	Fixed Gobo 1			
	015 – 023	Fixed Gobo 2			
	024 - 032	Fixed Gobo 3			
	033 – 041	Fixed Gobo 4			
	042 – 050	Fixed Gobo 5			
	051 – 059	Fixed Gobo 6			
	060 – 068	Fixed Gobo 7			
	069 – 077	Fixed Gobo 8			
	078 – 086	Fixed Gobo 9			
	087 – 095	Fixed Gobo 10			
	096 – 104	Fixed Gobo 1 Shake, Slow to Fast			
16	105 – 113	Fixed Gobo 2 Shake, Slow to Fast	0	X	
	114 – 122	Fixed Gobo 3 Shake, Slow to Fast			
	123 – 131	Fixed Gobo 4 Shake, Slow to Fast			
	132 – 140	Fixed Gobo 5 Shake, Slow to Fast			
	141 – 149	Fixed Gobo 6 Shake, Slow to Fast			
	150 – 158	Fixed Gobo 7 Shake, Slow to Fast			
	159 – 167	Fixed Gobo 8 Shake, Slow to Fast			
	168 – 176	Fixed Gobo 9 Shake, Slow to Fast			
	177 – 185	Fixed Gobo 10 Shake, Slow to			
	186 – 217	Fast Scroll Clockwise, Fast to Slow			
	218 – 223	Stop			
	210 - 220	Scroll Counter-Clockwise, Slow to			
	224 – 255	Fast			
		SFX			
	000 – 020	Open			
	021 – 040	Prism 1			
	041 – 060	Prism 2			
	061 – 080	Prism 1 + 2			
17	081 – 100	ldle	0	X	
	101	SFX 1			
	102	SFX 2			
	200	SFX 100			
	201 – 255	Idle			
	000 – 127	lex / Rotation / SFX Speed Prism Indexing			
		Clockwise Prism Rotation, Fast to			
18	128 – 189	Slow	0		
	190 – 193	No Rotation			
	194 – 255	Counter-Clockwise Prism			
	194 - 200	Rotation, Slow to Fast			

CHANNEL	VALUE	FUNCTION	DEFAULT	SNAP	HOLD
	Prisi	m 2 Index / Rotation			
	000 – 127	Prism Indexing			
19	128 – 189	Clockwise Prism Rotation, Fast to			
	128 - 189	Slow	0		
	190 – 193	No Rotation			
	194 – 255	Counter-Clockwise Prism			
	194 - 200	Rotation, Slow to Fast			
20	000 – 255	Continuous Focus Adjustment,	127		
20	000 200	Near to Far	127		
21	000 – 255	Continuous Fine Focus	0		
		Adjustment			
22	000 – 255	Zoom Adjustment, Out to In	127		
23	000 – 255	Fine Zoom Adjustment	0		
	000 – 031	Off (Shutter Closed)			
	032 – 063	No Function (Shutter Open)			
	064 – 095	Strobe Effect, Slow to Fast			
24	096 – 127	No Function (Shutter Open)	50	Х	
24	128 – 159	Pulse Effect in Sequences	50 X	^	
	160 – 191	No Function (Shutter Open)			
	192 – 223	Random Strobe Effect, Slow to			
	192 – 223	Fast			
	224 – 255	No Function (Shutter Open)			
25	000 – 255	Dimmer Intensity, 0 to 100%	0		
26	000 – 255	Dimmer Fine	0		

CHANNEL	VALUE	FUNCTION	DEFAULT	SNAP	HOLD
	Dim	nmer Configuration			
		Dim Modes			
	000 – 020	Standard			
	021 – 040	Stage			
	041 – 060	TV			
	061 – 080	Architectural			
	081 – 100	Theatre			
	101 – 120	Stage 2			
	D	immer Delay Time			
	121	0.0s			
	122	0.1s			
	123	0.2s			
	124	0.3s			
	125	0.4s			
	126	0.5s			
27	127	0.6s	0	Χ	
	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	10.0s			
	142 – 255	Idle			
		Iris			
	000 – 191	Iris Diameter, Maximum to			
28	000 - 191	Minimum	0		
	192 – 223	Pulse Opening, Fast to Slow			
	224 – 255	Pulse Closing, Slow to Fast			
29	000 – 255	Frost, Open to Full	0		
	Pan /	Tilt and Color Speed			
	000 – 225	Speed, Maximum to Minimum			
30	226 – 235	Blackout by Movement	0	Χ	
	236 – 245	Blackout by All Wheel Changing			
	246 – 255	No Function			

Control           000 - 009         Color Change Snap           010 - 019         Color Change to Any Position           020 - 029         Color & Gobo Change to Any Position           030 - 034         Color Correct Gobo Disabled           035 - 039         Color Correct Gobo Enabled           040 - 044         Low Noise - Mute           045 - 049         Low Noise - Studio           050 - 059         Fan Control - Low           060 - 069         Fan Control - High           070 - 079         Fan Control - Auto (Default)           080 - 084         Reset All Motors           085 - 087         Pan / Tilt Reset	3 s
010 - 019         Color Change to Any Position           020 - 029         Color & Gobo Change to Any Position           030 - 034         Color Correct Gobo Disabled           035 - 039         Color Correct Gobo Enabled           040 - 044         Low Noise - Mute           045 - 049         Low Noise - Studio           050 - 059         Fan Control - Low           060 - 069         Fan Control - High           070 - 079         Fan Control - Auto (Default)           080 - 084         Reset All Motors	3 s
020 - 029         Color & Gobo Change to Any Position           030 - 034         Color Correct Gobo Disabled           035 - 039         Color Correct Gobo Enabled           040 - 044         Low Noise - Mute           045 - 049         Low Noise - Studio           050 - 059         Fan Control - Low           060 - 069         Fan Control - High           070 - 079         Fan Control - Auto (Default)           080 - 084         Reset All Motors	3 s
Document	3 s
Position	3 s
035 - 039         Color Correct Gobo Enabled           040 - 044         Low Noise - Mute           045 - 049         Low Noise - Studio           050 - 059         Fan Control - Low           060 - 069         Fan Control - High           070 - 079         Fan Control - Auto (Default)           080 - 084         Reset All Motors	3 s
040 - 044       Low Noise - Mute         045 - 049       Low Noise - Studio         050 - 059       Fan Control - Low         060 - 069       Fan Control - High         070 - 079       Fan Control - Auto (Default)         080 - 084       Reset All Motors	3 s
045 - 049       Low Noise - Studio         050 - 059       Fan Control - Low         060 - 069       Fan Control - High         070 - 079       Fan Control - Auto (Default)         080 - 084       Reset All Motors	3 s
050 – 059       Fan Control – Low         060 – 069       Fan Control – High         070 – 079       Fan Control – Auto (Default)         080 – 084       Reset All Motors	3 s
060 - 069         Fan Control - High           070 - 079         Fan Control - Auto (Default)           080 - 084         Reset All Motors	3 s
070 – 079 Fan Control – Auto (Default) 080 – 084 Reset All Motors	
080 – 084 Reset All Motors	
085 - 087   Pan / Hit Reset	
088 – 090 Color Reset	
091 – 093 Gobo Reset	
094 – 096 Focus and Zoom Reset 097 – 099 Reset Other Motors	
Refresh Rate	
100 900 Hz	
100 900 Hz	
101 910 Hz	
102 320 Hz	
104 940 Hz	
31 105 950 Hz 0 X	
106 960 Hz	
107 970 Hz	
108 980 Hz	
109 990 Hz	
110 1000 Hz	
111 1010 Hz	
112 1020 Hz	
113 1030 Hz	
114 1040 Hz	1 s
115 1050 Hz	
116 1060 Hz	
117 1070 Hz	
118 1080 Hz	
119 1090 Hz	
120 1100 Hz	
121 1110 Hz	
122 1120 Hz	
123 1130 Hz	
124 1140 Hz	
125 1150 Hz	
126 1160 Hz	
127 1170 Hz	
128 1180 Hz 129 1190 Hz	
CONTINUED ON NEXT PAGE	

CHANNEL	VALUE	FUNCTION	DEFAULT	SNAP	HOLD
	Refre	esh Rate (continued)			
	130	1200 Hz			
	131	1210 Hz			
	132	1220 Hz			
	133	1230 Hz			
	134	1240 Hz			
	135	1250 Hz			
	136	1260 Hz			
	137	1270 Hz			
	138	1280 Hz			
	139	1290 Hz			
	140	1300 Hz			
	141	1310 Hz			
	142	1320 Hz			
	143	1330 Hz			
	144	1340 Hz			
	145	1350 Hz			
	146	1360 Hz			
	147	1370 Hz			
	148	1380 Hz	_		
	149	1390 Hz	0	Х	1 s
	150	1400 Hz			
	151	1410 Hz			
	152	1420 Hz			
31	153	1430 Hz			
(continued)	154	1440 Hz			
	155	1450 Hz			
	156	1460 Hz			
	157	1470 Hz			
	158	1480 Hz			
	159	1490 Hz			
	160	1500 Hz			
	161	2500 Hz			
	162	4000 Hz			
	163	5000 Hz			
	164	6000 Hz			
	165	10000 Hz			
	166	15000 Hz			
	167	20000 Hz			
	168	25000 Hz			
	169 – 190	Idle			
	191 – 195	Hibernation OFF	<del> </del>		
	196 – 200	Hibernation ON			
	190 - 200	Dimmer Curve	<del> </del>		
	201 – 210	Linear (Default)	0	Х	3 s
	211 – 220			^	38
		Square			
	221 – 230	Inverse Square	_		
	231 – 240	S-Curve			
	241 – 255	Idle			

## COLOR COMBINATION TABLE

COLOR COMBINATIONS					
COMBINATION	IMAGE	CYAN	MAGENTA	YELLOW	COLOR WHEEL
1		50% split	50% split	0%	Open
2	×	100%	50% split	0%	Open
3		50% split	100%	0%	Open
4		33% split	33% split	0%	Open
5		0%	50% split	50% split	Open
6		0%	50% split	100%	Open
7		0%	100%	50% split	Open
8		0%	33% split	33% split	Open
9		50% split	50% split	50% split	Open
10		33% split	33% split	0%	Yellow

## ERROR CODES

Error Codes subject to change without notice.				
ERROR CODES	DESCRIPTION			
PAN Er	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)			
TILT Er	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.			
RotGobo				
RotGobo2				
Iris				
RotGobolndex				
RotGobo2Index	Movement is not located in the default position after the reset.			
Animation	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 of drive on the main PCB).			
Anima.Index				
Zoom				
Focus				
Frost				
Prism				
PrismIndex				
HeadTemp				
CoolFan1				
CoolFan2	These manages will appear if there is a terror exeture and to fee			
CoolFan3	These messages will appear if there is a temperature and/or fan malfunction.			
CoolFan4	mananoni.			
BaseTemp				
BaseFan				

### SPECIFICATIONS

#### **SOURCE**

300W 6,600K Bright White LED Engine 20,000 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

12,135 Total Lumen Output CRI 68

#### **EFFECTS**

4.5° - 38° Motorized Zoom Remote Focus Variable Frost Filter Dual Independent Prisms for Layering Motorized Iris Variable 16-bit Dimming Curve Modes High Speed Electronic Shutter and Strobe

#### **COLOR**

CMY Variable Color Mix 7 Position Color Wheel

#### **GOBOS**

2 Gobo Wheels Wheel #1 with 8 Rotating / Interchangeable Glass Gobos Wheel #2 with 10 Static Gobos

#### **CONTROL / CONNECTIONS**

31 DMX Channels
16-bit Pan, Tilt, and Dimming Control
DMX Adjustable LED Frequency
DMX, RDM, E-FLY Wireless, Art-Net, sACN Protocol Support
4 Button Touch Control Panel
Full Color 180° Reversible LCD Menu Display
Locking 5pin XLR Connector In/Out
Locking RJ45 Ethernet Connector In/Out
IP65 Locking Power Connector In/Out
USB Connection (Firmware Updates)
With Wired Digital Communication Network

#### SIZE / WEIGHT

Length: 14.6" (370mm) Width: 10.1" (230mm)

Vertical Height: 23.41" (594.5mm)

Weight: 46.3 lbs. (19.3kg)

#### **ELECTRICAL / THERMAL**

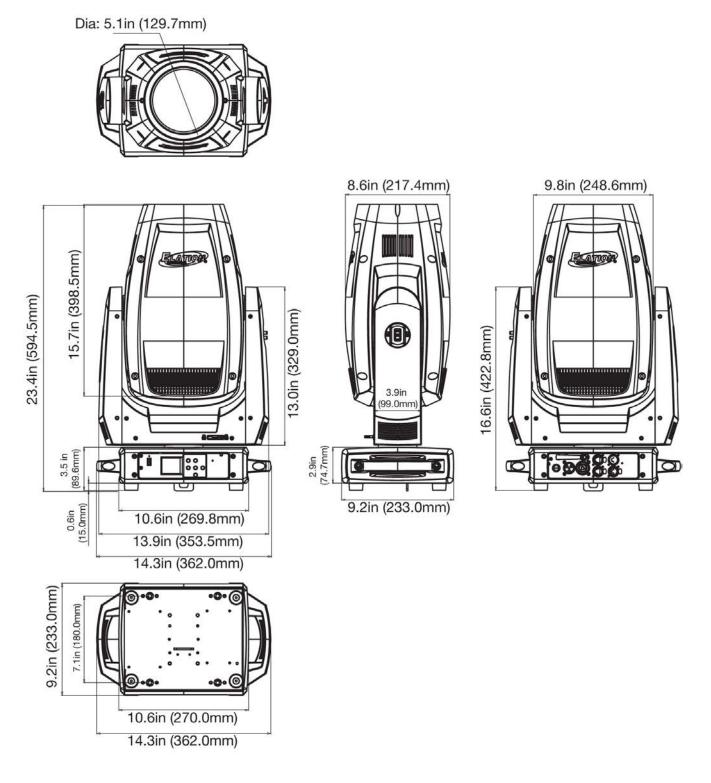
AC 100-240V - 50/60Hz 432W Max Power Consumption 14°F to 113°F (-10°C to 45°C)

#### **APPROVALS / RATINGS**

CE | cETLus pending | IP20

Specifications and documentation subject to change without notice.

## DIMENSIONAL DRAWINGS



Dimensional Drawings not to scale.

Specifications and improvements in the design of this unit and this manual are subject to change without notice.

### 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.

Europe Energy Saving Notice

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.

SKU: FUZ406

EU: 1237000223 UPC: 810008260852