FUZE SFX
FUZE SFX WH
user manual

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.
05/22/20	1.1	NC	No Change	Updated Installation Guide-lines.
07/14/20	1.2	NC	No Change	Updated Thermal
08/25/20	1.3	1.07	No Change	Updated primary / secondary
10/14/20	1.4	NC	No Change	Updated specifications
05/22/21	1.5	NC	No Change	Updated FCC statement
03/28/22	1.6	NC	No Change	Updated Cover
07/19/22	1.7	NC	No Change	Updated Format

CONTENTS

GENERAL INFORMATION

This product is intended for professionally use only, not suitable for private use.

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
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

⚠ **IMPORTANT NOTICE!**

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.

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 and mounting hardware included with this fixture or available optional accessories should be used for installation. Any modifications to the fixture and/or the included and optional rigging and 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!
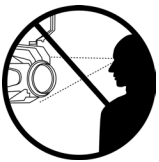
NEVER LOOK DIRECTLY INTO THE LIGHT SOURCE!
RETINA INJURY RISK - MAY INDUCE BLINDNESS!
SENSITIVE PERSONS MAY SUFFER AN EPILEPTIC SHOCK!

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

MINIMUM DISTANCE TO OBJECTS/SURFACES
IS 1.0 FOOT (0.3 METER)
MINIMUM DISTANCE OF FLAMMABLE MATERIALS
FROM THE SURFACE IS 1.6 FEET (0.5 METER)
MAXIMUM AMBIENT OPERATING TEMPERATURE IS 113°F (45°C)

SAFETY GUIDELINES

DO NOT TOUCH the fixture housing during operation.

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 or do not fit 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.

TURN OFF the power and allow approximately 15 minutes for the fixture to cool down before serving.

ALWAYS disconnect fixture from power before performing any service and/or cleaning procedure.

ONLY handle power cord by the plug end, never pull plug out 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 LED 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 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 your local 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. Lose 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

Tilt Lock

Pan Lock

Carrying Handle

Battery Indicator

Up Arrow

www.elationlighting.com

SERVICE PORT

WIRELESS INDICATOR

ELATION
PROFESSIONAL

FUZE SFX

Safety Cable
Attachment Point

Display Screen   Menu/Back   Down Arrow   Enter

Wireless Indicator

FUSE
T5A / 250V

NET IN

DMX IN

NET OUT

DMX OUT

POWER IN
AC 100-240V,50/60Hz

POWER OUT
MAX:100-240V 8A

CE
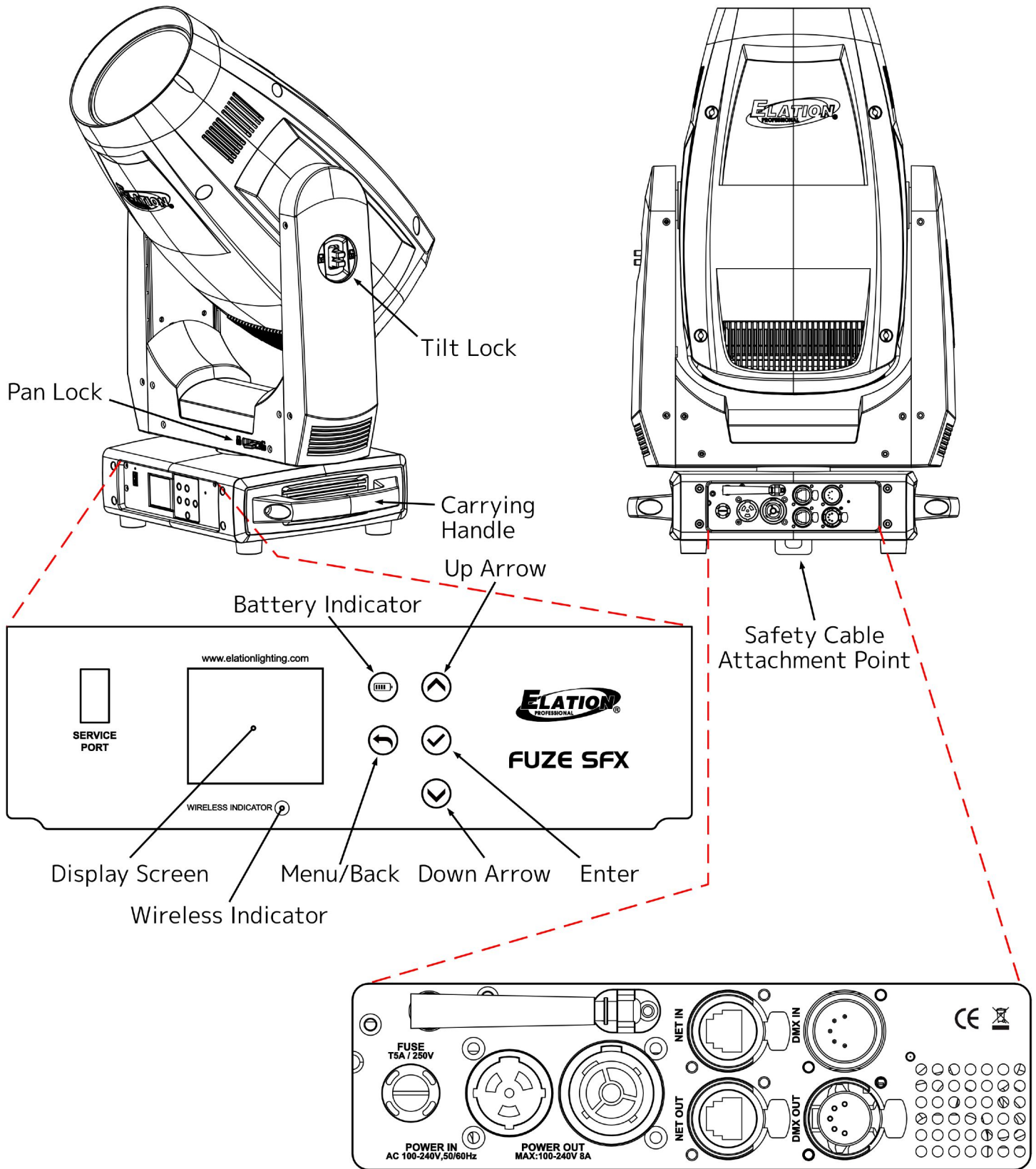
COLOR WHEEL

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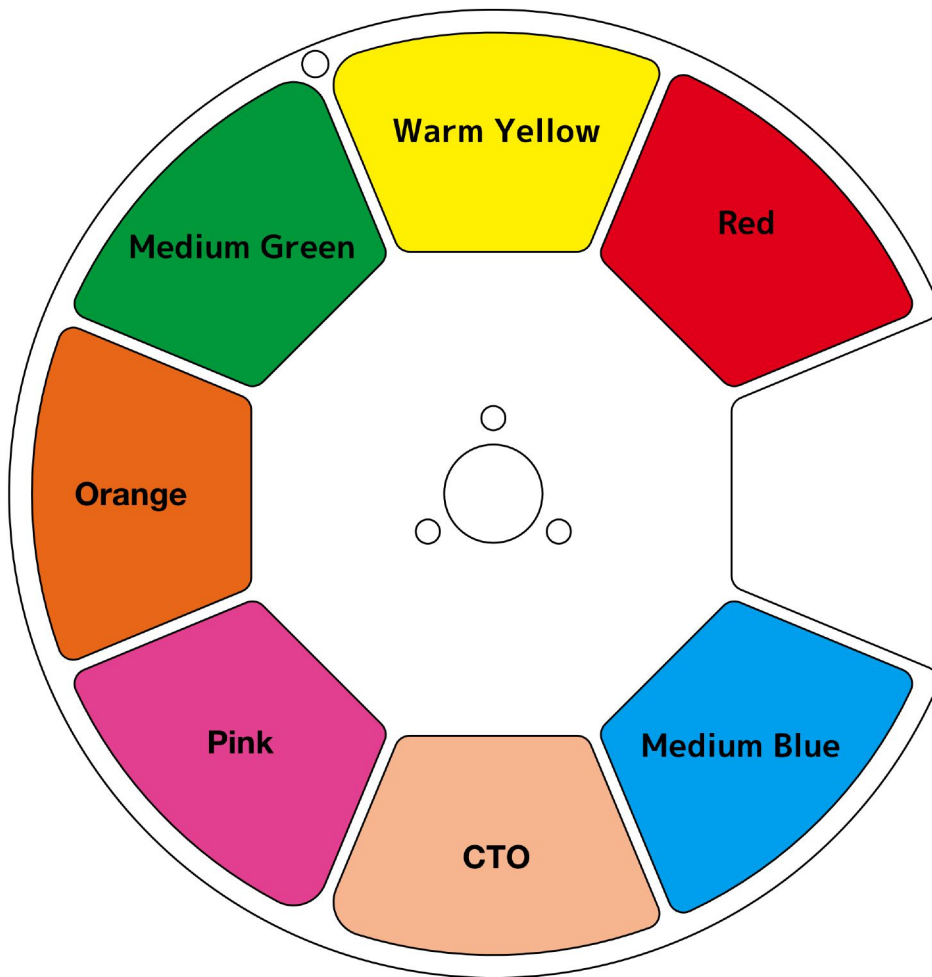
GOBO WHEELS

Gobo Wheel 1 (Rotating)
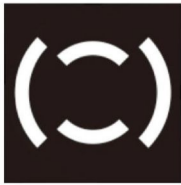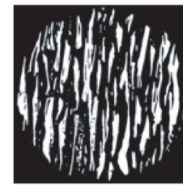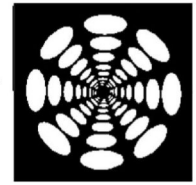
1	2	3	4	5
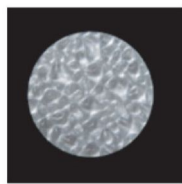
6	7	8

Gobo Wheel 2 (Static)

1	2	3	4	5
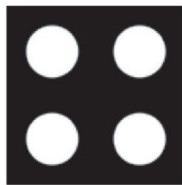
6	7	8	9	10

CUSTOM GOBOS
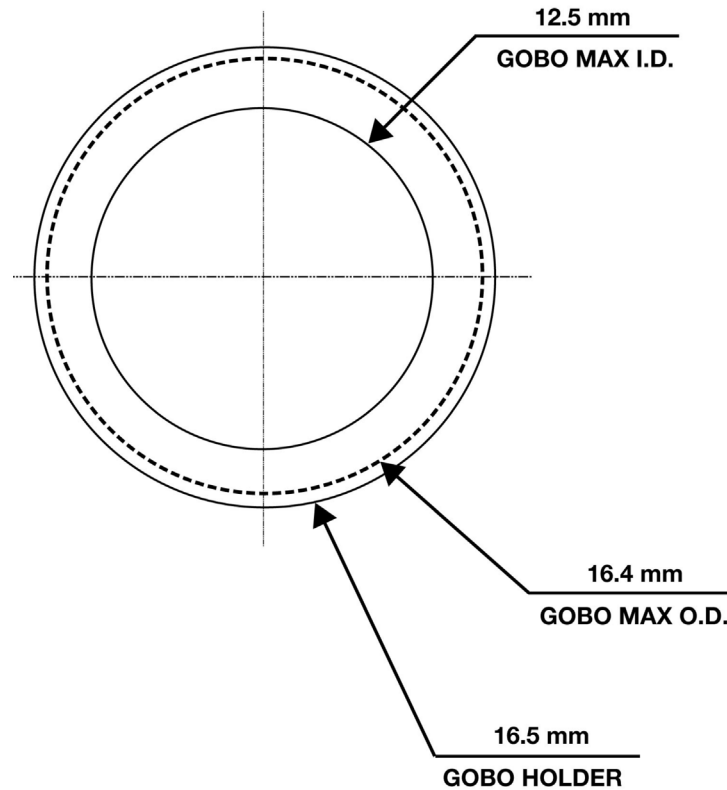
FUZE SFX ROTATING GLASS GOBOS - WHEEL 1 ONLY	
Gobo O.D. (Max. Outer Diameter)	ø16.4mm
Gobo I.D. (Max. Image Diameter)	ø12.5mm
Gobo Holder Diameter	ø16.5mm
Gobo Material	Borofloat Glass

* * * 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

GOBO INSTALLATION

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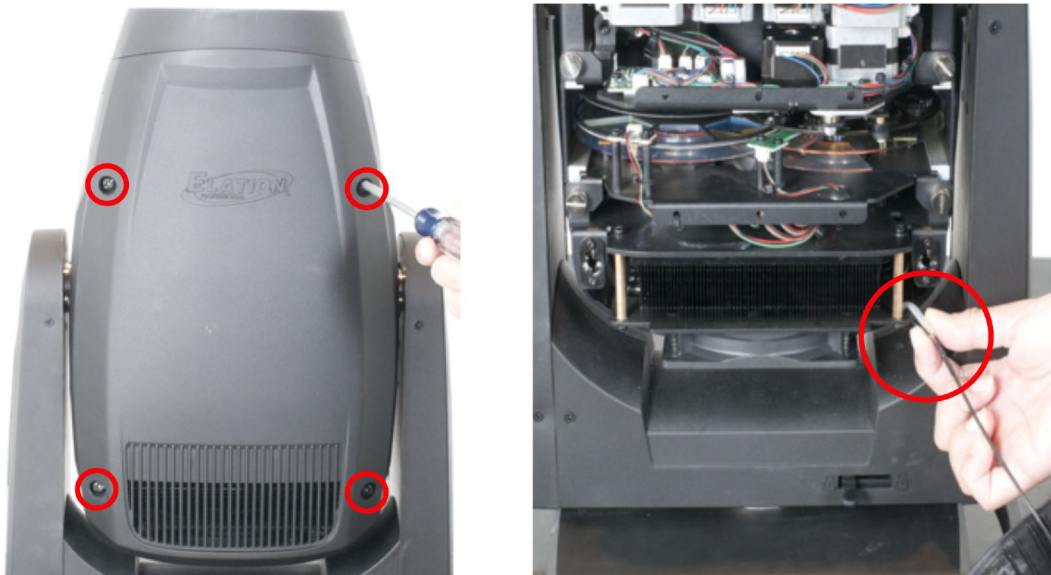
2. Use a Phillips head screwdriver to loosen the four (4) fasteners on each of the covers. **Please note that these fasteners are of the twist-lock variety, and do not come free of the covers**. Remove the safety cable clips securing each cover to the fixture.

GOBO INSTALLATION
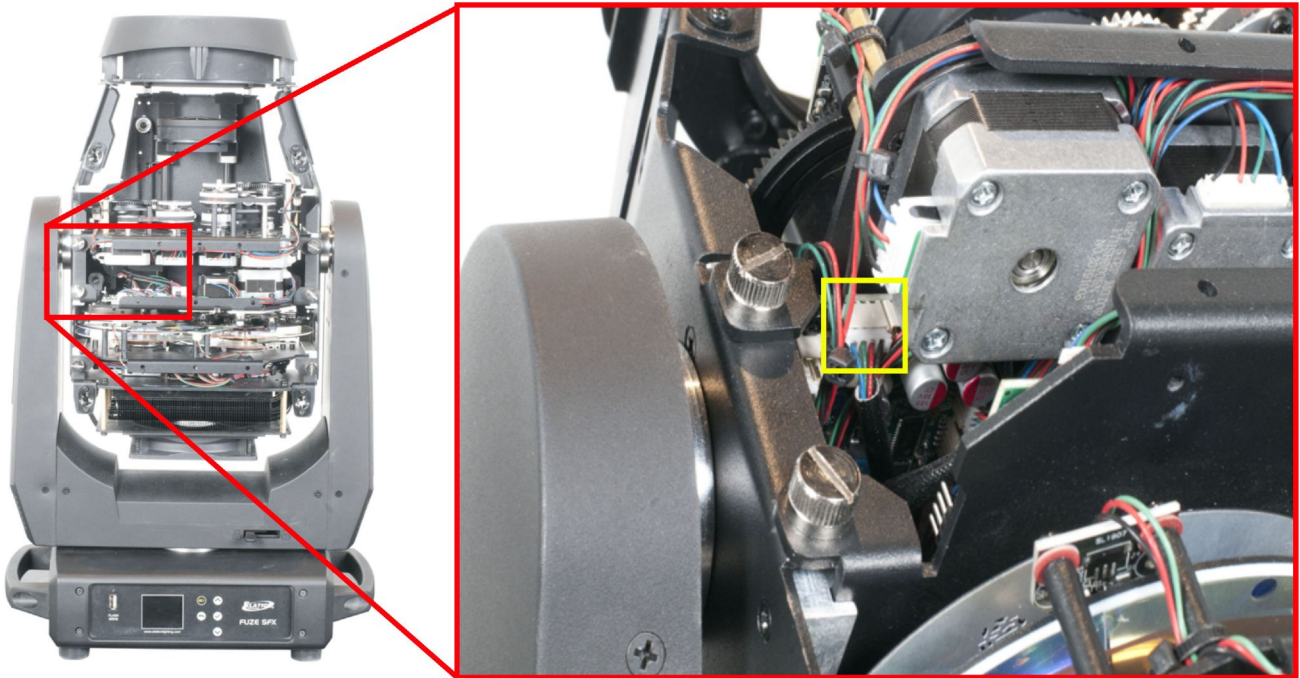
3. **Optional**. This step may be performed to help improve access to the gobo wheel module. On the prism module, find the 4-pin connector (denoted by the yellow box, above right) that is located behind the left-most electric motor, just beside the thumb screw on the left hand side of the prism module. Disconnect this connector.
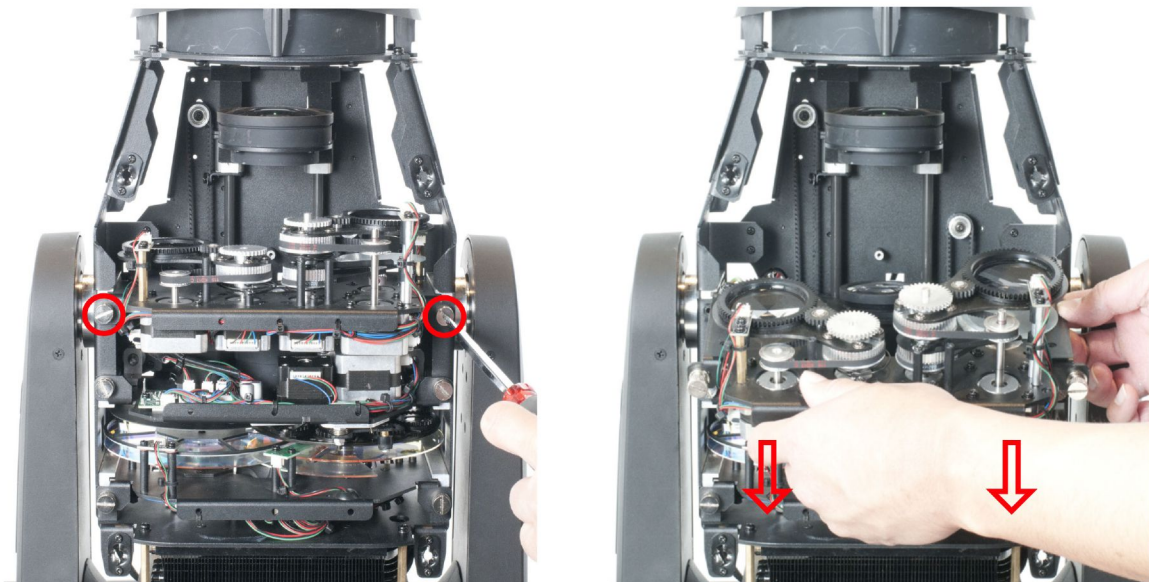
4. **Optional**. This step may be performed to help improve access to the gobo wheel module. Loosen the thumb screws for the prism module, and carefully slide the prism module out of its mounting slots. Set the prism module aside for later reinstallation.

GOBO INSTALLATION
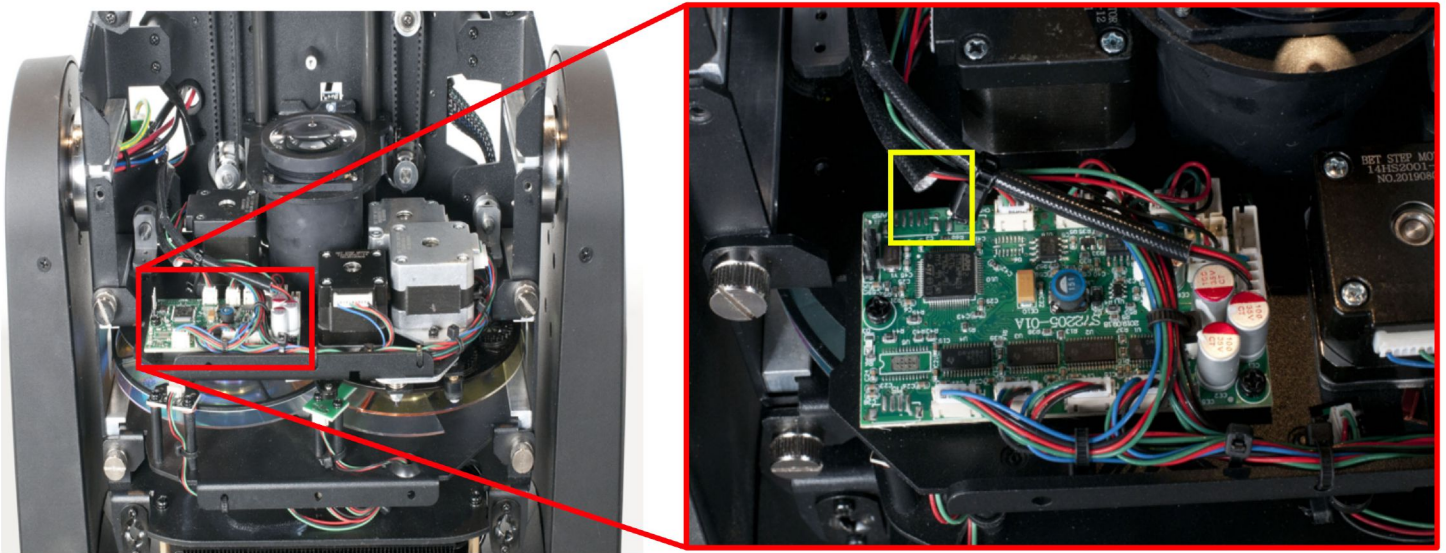
5. On the gobo wheel module, locate the circuit board on the left-hand side of the gobo wheel module, directly above the static gobo wheel. On this circuit board, find the 3-pin connector and the 4-pin connector (denoted by the yellow boxes, above right) located just behind a bank of three (3) capacitors, and disconnect both of these connectors.
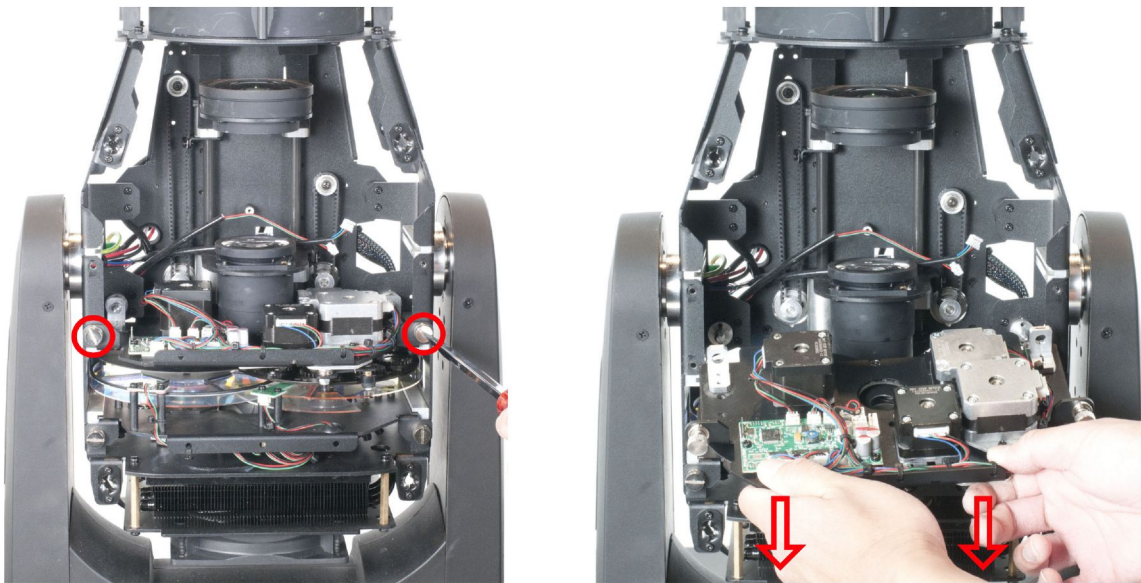
6. Loosen the thumb screws for the gobo wheel module, and carefully slide the gobo wheel module out of its mounting slots. Place the module on a flat, stable surface in a DUST-FREE, INDOOR location.

GOBO INSTALLATION
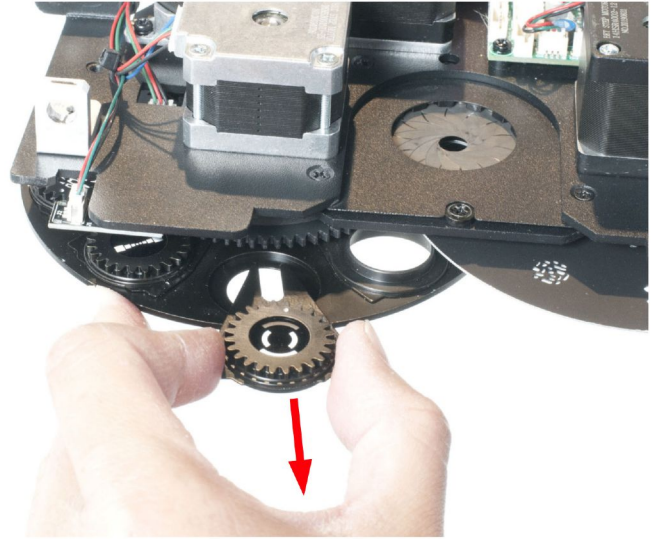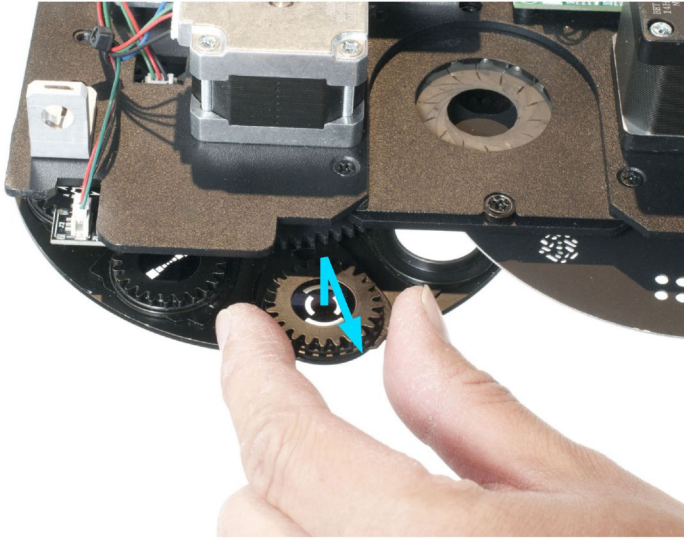
7. Locate the rotating gobo that will be replaced. Grip the edges of the geared gobo holder and gently lift (pictured at left) until the gobo holder clears the surface of the gobo wheel. Then pull the gobo holder out and away (pictured at right).
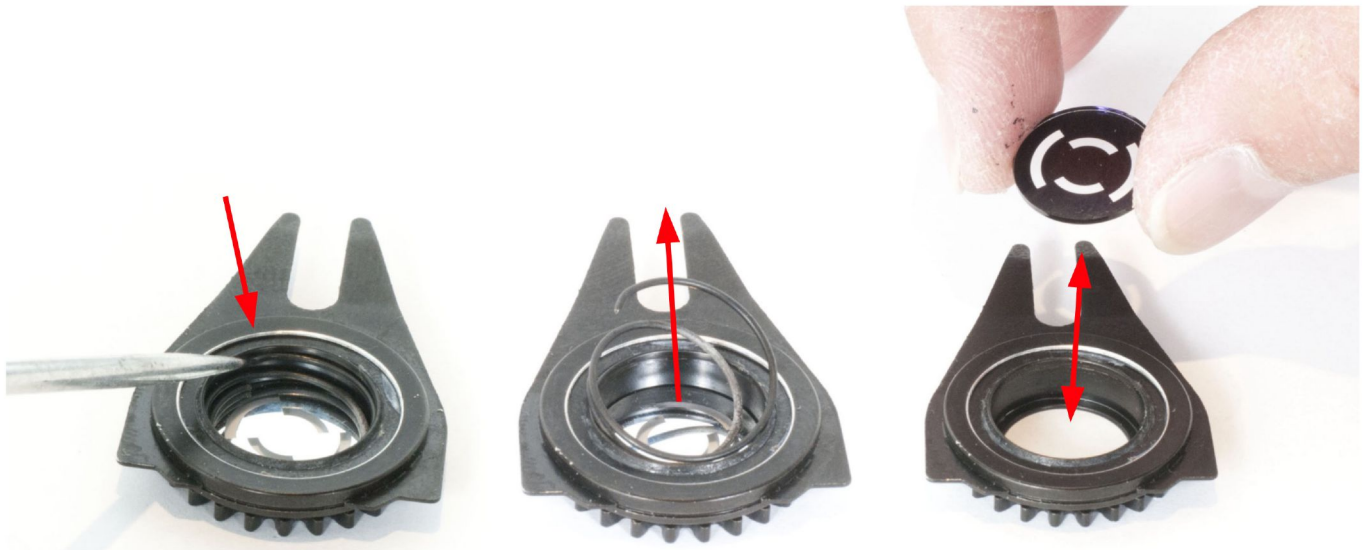
8. Place the gobo holder on a flat, level surface with the geared side down. Locate the tab of the spring, and use a precision pick (or similar tool) to push the spring tab inward. Remove the retaining spring and carefully separate the gobo from the gobo holder. **Exercise caution to avoid scratching 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 ¼ turn clockwise; making sure the fastener is completely locked. Omega Brackets can be installed into the fixture base as illustrated below.
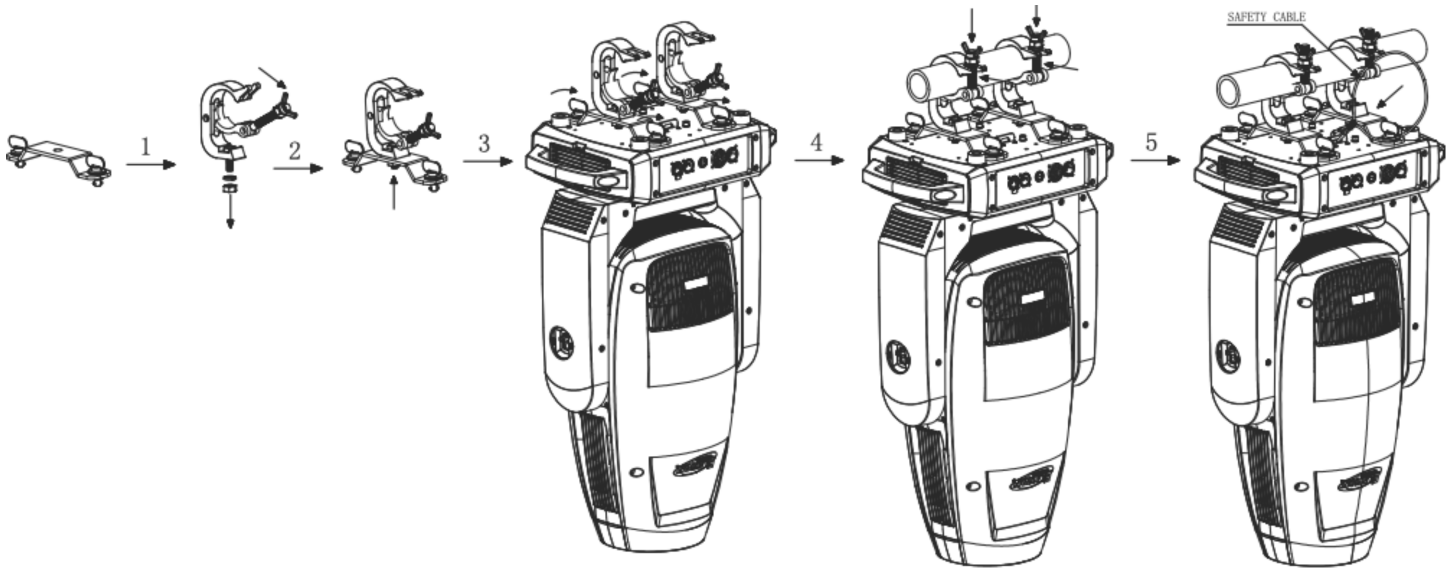
SAFETY CABLE
ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE FIXTURE WILL NOT DROP IF MOUNTING / RIGGING HARDWARE FAILS

CLAMP INSTALLATION (NOT INCLUDED)

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 point 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 the Pendant or Yoke Brackets.

RIGGING

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 is fully operational in the specific mounting positions illustrated below.

INSTALLATION GUIDELINES

When installing the unit, the trussing or area of installation must be able to hold 10 times the weight of the fixture without any deformation. When installing, the unit must be secured with a secondary safety attachment, e.g. and appropriate safety cable. Never stand directly below the unit when mounting, removing, or servicing the unit.

Overhead mounting requires extensive experience, including calculating working load limits, installation material being used, and periodic safety inspection of all installation material and unit. If you lack these qualifications, do not attempt the installation yourself.

NOTE: These installations should be checked by a skilled person once a year.

Do NOT install the fixture in a sideways position, or in any position in which the base of the fixture is oriented vertically or at an angle. The fixture may be strictly mounted in a horizontal position. Acceptable positions include standing the fixture upright, or hanging the fixture upside-down.

⚠

*SAFETY CABLE

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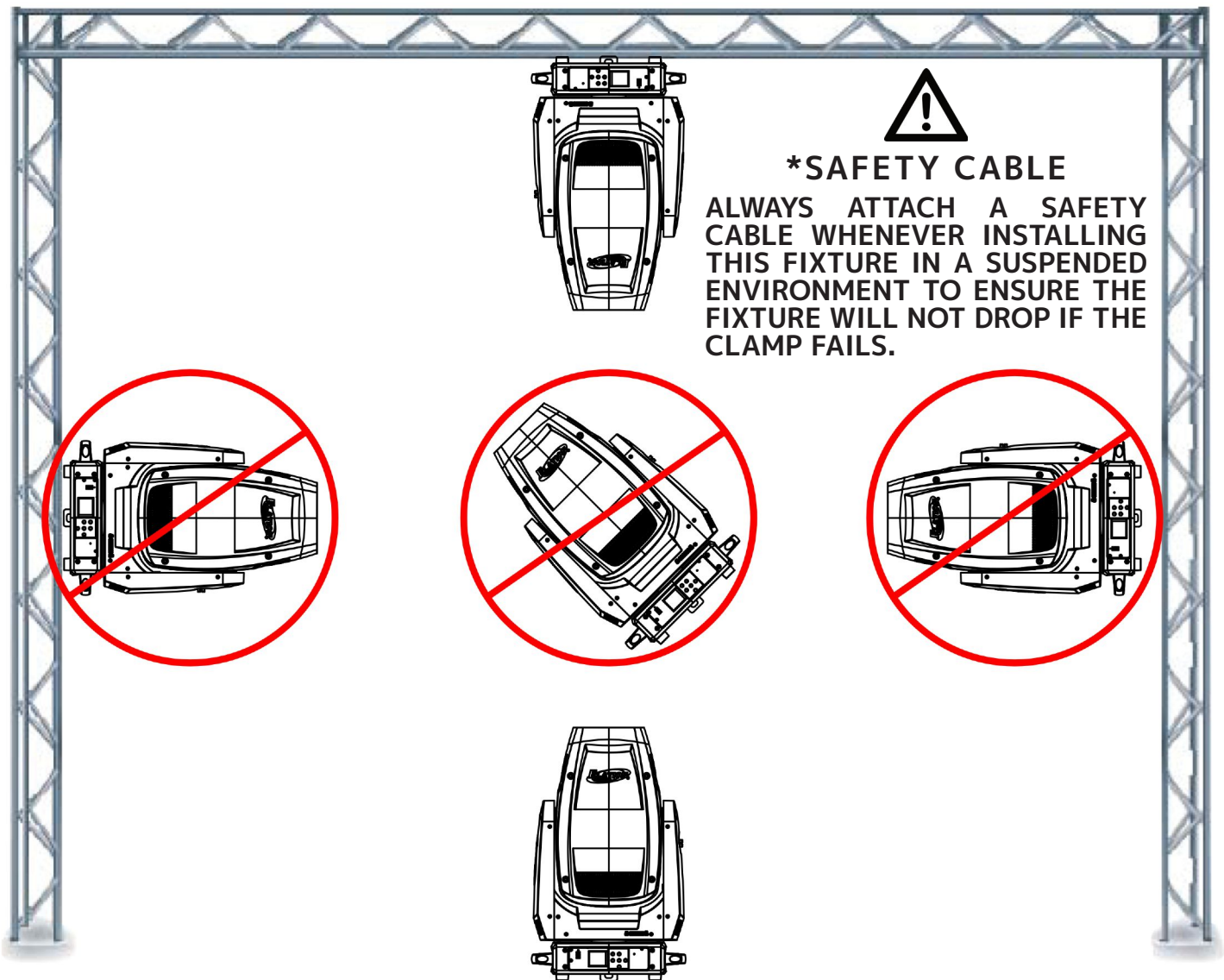
INSTALLATION GUIDELINES

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; 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.
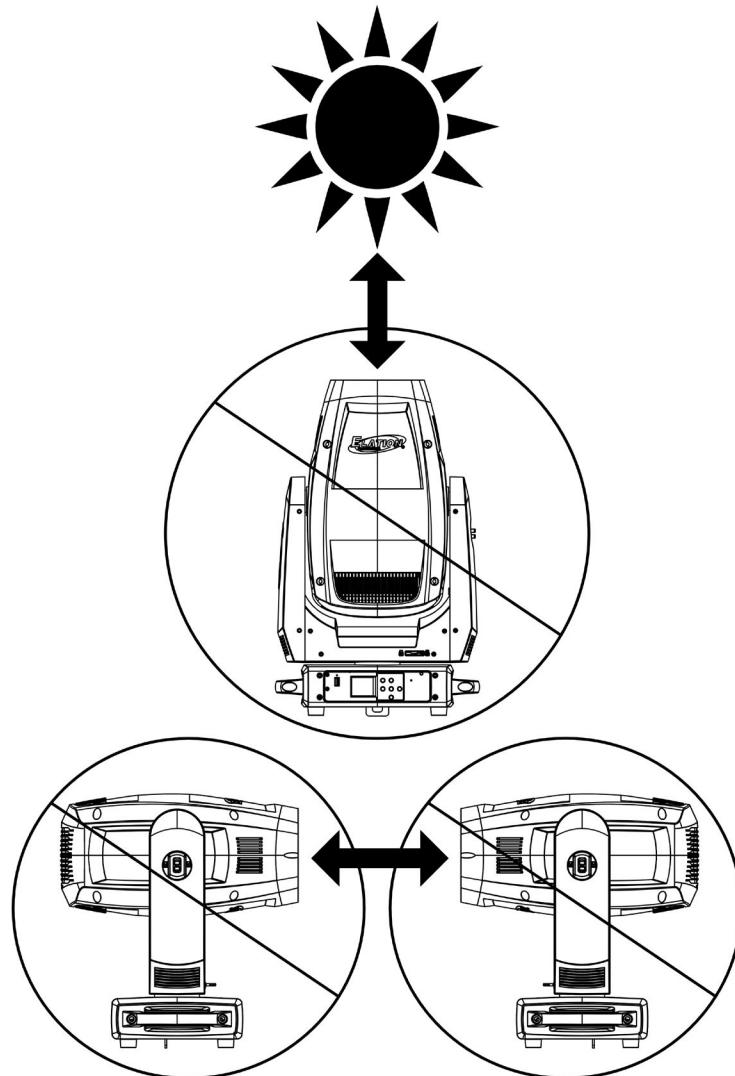
SYSTEM MENU

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 navi-gate 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.
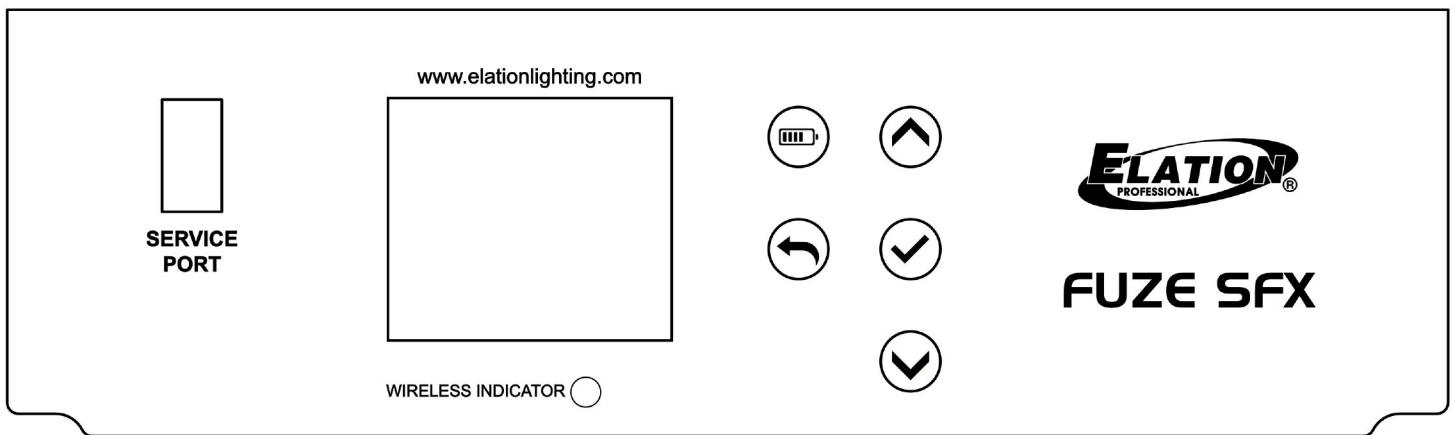
Note: An Elation C-Loader II can be used to update fixture software. Contact Elation Service for more information @ 323-582-3322 | Fax 323-832-9142 | support@elationlighting.com

To update software using a USB Flash Drive, please see page 25.

SYSTEM MENU

MAIN MENU	SUB MENU	OPTIONS / VALUES (Default Settings in **BOLD**)		DESCRIPTION
DMX Settings	DMX Address	**A001** - A512		
	No DMX Status	**Hold Last**		
		Blackout		
		Internal Programs		
PERSONALITY	Primary	On / **Off**		
	Secondary	**On** / Off		
	Status Settings	Pan Invert	On / **Off**	
		Tilt Invert	On / **Off**	
		Pan / Tilt Feedback	**On** / Off	
		Pan Degree	**540**	
			630	
		Pan / Tilt Speed	**Speed 1**	
			Speed 2	
		Hibernation	OFF	
			01 min – 99 min	
			15 min	
	Fixture ID	Service Pin	Password = XXX (default password: 050)	
		Universe	000 – 255	
		UnitIPAddr		
		Mask Addr		
	Protocol Set	**ArtNet**		
		sACN		
	Net Switch	On / Off		
	Fan Settings	**Auto**		
		High		
		Low		
		Studio		
		Mute		
	Dim Modes	**Standard**		
		Stage		
		TV		
		Architecture		
		Theatre		
		Stage 2		
		Dim Speed	0 s – 10 s	
	Dim Curves	**Linear**		
		Square		
		Inverse Square		
		S-Curve		

SYSTEM MENU

MAIN MENU	SUB MENU	OPTIONS / VALUES (Default Settings in **BOLD**)		DESCRIPTION
PERSONALITY	LED Refresh Rate	900Hz – 1500Hz (default **1200Hz**)		
		1500 Hz		
		2500 Hz		
		4000 Hz		
		5000 Hz		
		6000 Hz		
		10 KHz		
		15 KHz		
		20 KHz		
		25 KHz		
	E-FLY	On / **Off**		
	E-FLY CH	CH 00 – CH 14		
	Reset Motors	Pan / Tilt Reset	**No** / Yes	
		Color Reset	**No** / Yes	
		Gobo Reset	**No** / Yes	
		Focus Reset	**No** / Yes	
		Other Reset	**No** / Yes	
	Display	Screen Saver Delay	Off	
			1 min – 10 min (default **1 min**)	
		Screen Lock	On / **Off**	
		Rotate Display 180°	On / **Off**	
	Temp Unit	C / **F**		
	Service (Password: **050**)	Calibration	Pan	
			Tilt	
			Cyan Wheel	
			Magenta Wheel	
			Yellow Wheel	
			Color Wheel	
			Gobo Wheel	
			Gobo Rot. Wheel 1	
			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	
			Prism 1 Rot.	
			Prism 2	
			Prism 2 Rot.	
			Focus	
			Zoom	
			Iris	
			Frost	
			On / **Off**	
			No / Yes	

SYSTEM MENU

MAIN MENU	SUB MENU	OPTIONS / VALUES (Default Settings in **BOLD**)		DESCRIPTION
MANUAL CONTROL	Pan, Pan Fine, Tilt, Tilt Fine, Cyan, Cyan Fine, Magenta, Magenta Fine, Yellow, Yellow Fine, CMC Mix Mode, Color Wheel, Rotate Gobo, Gobo Index, Gobo Index Fine, Fixed Gobo Wheel, SFX, Prism 1 Rot., Prism 2 Rot., Focus, Focus Fine, Zoom, Zoom Fine, Strobe, Dimmer, Dimmer Fine, Dim Modes, Iris, Frost, Pan/Tilt Speed, Control			
INTERNAL PROGRAMS	Program 1	Speed		
		Fade		
	Program 2	Speed		
		Fade		
	Program 3	Speed		
		Fade		
	...			
	Program 4	Speed		
		Fade		
INFORMATION	Fixture Life Time	Power On Time		
	Fixture Last Time	Power On Time Since Last Reset		
		Time Reset		
	Fixture Temps	LEDs	Current	
			Max Resettable	
			Max Not Resettable	
		Reset LED Temp		
		Base Temp		
	Fan Info (RPM)	LED Fan RPM	Fan 1	
			Fan 2	
		Base Fan RPM	Fan 1	
			Fan 2	
	DMX Values	Pan, Pan Fine, Tilt···		
	Product IDs	RDM UID		
	Error Logs	Fixture Errors	Error 1 – 10	
			Pan	
			Tilt	
			Cyan Wheel	
			Magenta Wheel	
			Yellow Wheel	
			Color Wheel	
			Gobo Wheel	
			Gobo Rot. Wheel	
			Fixed Gobo Wheel	
			Prism 1	
			Prism 1 Rot.	
			Prism 2	
			Prism 2 Rot.	
			Focus	
			Zoom	
			Iris	
			Head Fan 1	
			Head Fan 2	
			Base Fan 1	
			Base Fan 2	
			Head Temp	
			Base Temp	
		Reset Error Log	No / Yes	
	Software Version	X.XX		

SOFTWARE UPDATE

Software Update Via USB for Single-Fixture or Multiple Linked Fixtures.

Contact Elation Service for updated software:
@323-582-3322 | Fax 323-832-9142 | support@elationlighting.com

Copy the latest software to a USB Flash Drive. With the software loaded on the USB Flash Drive, insert it into the USB Service Port.

With the USB Flash Drive inserted, select **MENU Personality** and press **ENTER**.

Select **Service**, and then enter the passcode, **050**, and press **ENTER**.

Select **Update Software**, and press **ENTER**, then select **YES**, and press **ENTER**.

Use the **UP** and **DOWN** buttons to select software, and press **ENTER**, then select **ON**, and press **ENTER**, at which time the software will begin loading.

Do not interrupt the process as it is loading.

Do not unplug the USB Flash Drive from the fixture as it is loading. Once it finished loading, the fixture will automatically enter a reset status. If the process of loading software is interrupted, the fixture will not run.
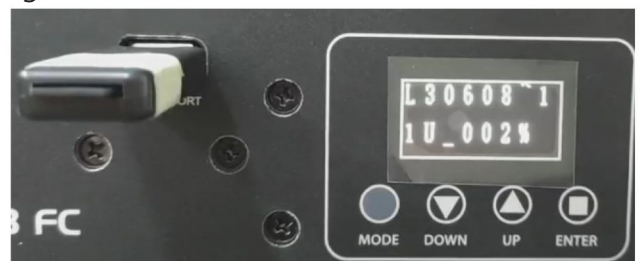
SOFTWARE UPDATE

Software Update Via USB for Single-Fixture Only.

Contact Elation Service for updated software:
@323-582-3322 | Fax 323-832-9142 | support@elationlighting.com

Copy the latest software to a USB Flash Drive. Ensure the fixture is turned off. With the fixture powered off, insert the USB Flash Drive into the USB Service Port, then power the fixture on. Select the desired software using the **UP** and **DOWN** buttons, and press **ENTER**.

Select **ON**, and press **ENTER**, at which time the software will begin loading.

Do not interrupt the process as it is loading.

Do not unplug the USB Flash Drive from the fixture as it is loading. Once it finished loading, the fixture will automatically enter a reset status. If the process of loading software is interrupted, the fixture will not run.

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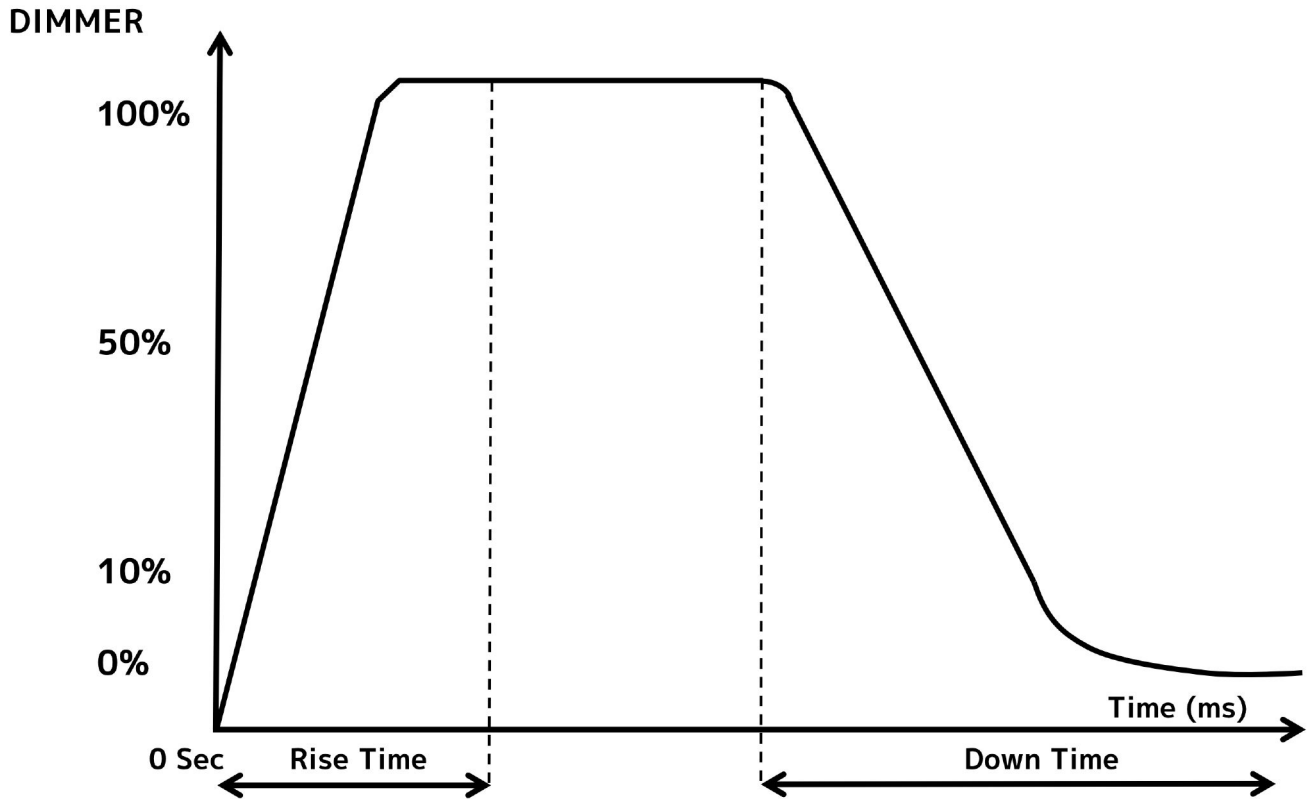
	0 sec Fade Time		1 sec Fade Time	
Dimming Curve Ramp Effect				
	Rise Time (ms)	Down Time (ms)	Rise Time (ms)	Down Time (ms)
Standard (default)	0	0	0	0
Stage	780	1100	1540	1660
TV	1180	1520	1860	1940
Architectural	1380	1730	2040	2120
Theatre	1580	1940	2230	2280

LINEAR

SQUARE

INVERSE SQUARE

S-CURVE
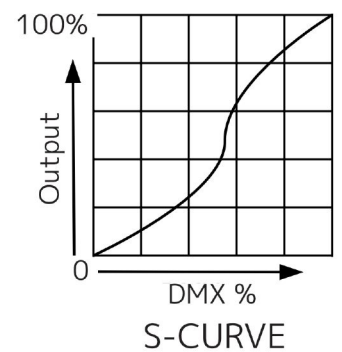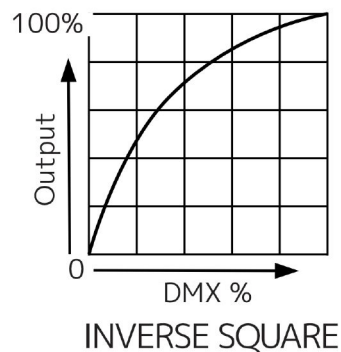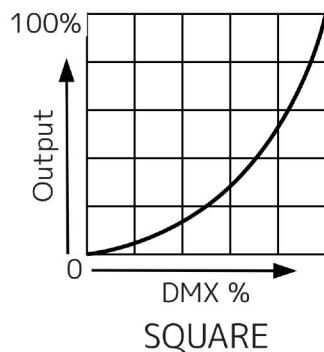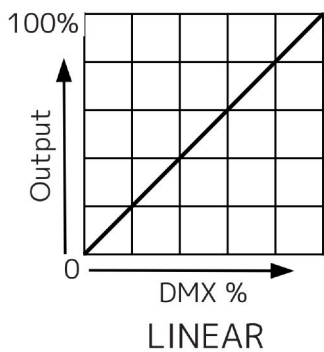
DMX TRAITS: CHANNEL FUNCTIONS AND VALUES

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		
5		**Cyan**	0		
		Full			
	000 – 255	Cyan (0 – 100%)			
	SFX				
	000 – 170	Magenta (0 – 100%)			
	171 – 189	Magenta (100% - Open)			
	190 – 221	Scroll Clockwise Fast to Slow			
	222 – 223	Stop			
	224 – 255	Scroll Counter-Clockwise Slow to Fast			
6	000 – 255	**Magenta Fine Control**	0		
7		**Magenta**	**0**		
		Full			
	000 – 255	Magenta (0 – 100%)			
		SFX			
		Full			
	000 – 170	Cyan (0 – 100%)			
	171 – 189	Cyan (100% - Open)			
	190 – 221	Scroll Clockwise Fast to Slow			
	222 – 223	Stop			
	224 – 255	Scroll Counter-Clockwise Slow to Fast			
8	000 – 255	Magenta Fine Control	-		
9		**Yellow**	-		
		Full			
	000 – 255	Yellow (0 – 100%)			
	000 – 170	Yellow (0 – 100%)			
	171 – 189	**Yellow (100% - Open)**			
	190 – 221	Scroll Clockwise Fast to Slow			
	222 – 223	Stop			
	224 – 255	Scroll Counter-Clockwise Slow to Fast			
10	000 – 255	**Yellow Fine Control**	-		
11		**CMY Mix Mode**	-	X	
	000 – 127	Full			
	128 – 255	SFX			

DMX TRAITS: CHANNEL FUNCTIONS AND VALUES

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	CTO			
	066 – 070	High CRI			
	071 – 075	CTO/High CRI Split			
	076 – 080	CTO/Blue Split			
12	081 – 085	Medium Blue	0		
	086 – 090	Blue/White Split			
	091 – 100	Open			
	Combinations (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 Fast**			

DMX TRAITS: CHANNEL FUNCTIONS AND VALUES

CHANNEL	VALUE	FUNCTION	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			
13	062 – 077	Rotating Gobo 1 Shake, Slow to Fast	0	X	
	078 – 093	Rotating Gobo 2 Shake, Slow to Fast			
	094 – 109	Rotating Gobo 3 Shake, Slow to Fast			
	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			
		Rotating Gobo Rotation Index			
	000 – 127	Gobo Indexing			
14	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		
		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			
16	096 – 104	Fixed Gobo 1 Shake, Slow to Fast	0	X	
	105 – 113	Fixed Gobo 2 Shake, Slow to Fast			
	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 Fast			
	186 – 217	Scroll Clockwise, Fast to Slow			
	218 – 223	Stop			
	224 – 255	Scroll Counter-Clockwise, Slow to Fast			

DMX TRAITS: CHANNEL FUNCTIONS AND VALUES

CHANNEL	VALUE	FUNCTION	DEFAULT	SNAP	HOLD
17		**SFX**	0	X	
	000 – 020	Open			
	021 – 040	Prism 1			
	041 – 060	Prism 2			
	061 – 080	Prism 1 + 2			
	081 – 100	Idle			
	101	SFX 1			
	102	SFX 2			
	...	...			
	200	SFX 100			
	201 – 255	Idle			
18		**Prism 1 Index / Rotation / SFX Speed**	0		
	000 – 127	Prism Indexing			
	128 – 189	Clockwise Prism Rotation, Fast to Slow			
	190 – 193	No Rotation			
	194 – 255	Counter-Clockwise Prism Rotation, Slow to Fast			
19		**Prism 2 Index / Rotation**	0		
	000 – 127	Prism Indexing			
	128 – 189	Clockwise Prism Rotation, Fast to Slow			
	190 – 193	No Rotation			
	194 – 255	Counter-Clockwise Prism Rotation, Slow to Fast			
20	000 – 255	Continuous Focus Adjustment, Near to Far	127		
21	000 – 255	Continuous Fine Focus Adjustment	0		
22	000 – 255	Zoom Adjustment, Out to In	127		
23	000 – 255	Fine Zoom Adjustment	0		
24		**Strobe**	50	X	
	000 – 031	Off (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)			
25	000 – 255	**Dimmer Intensity, 0 to 100%**			
26	000 – 255	**Dimmer Fine**			

DMX TRAITS: CHANNEL FUNCTIONS AND VALUES

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

DMX TRAITS: CHANNEL FUNCTIONS AND VALUES

CHANNEL	VALUE	FUNCTION	DEFAULT	SNAP	HOLD
		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			3s
	060 – 069	Fan Control – High			
	070 – 079	Fan Control – Auto (Default)			
	080 – 084	Reset All Motors			
	085 – 087	Pan / Tilt 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			
31	101	910 Hz	0	X	
	102	920 Hz			
	103	930 Hz			
	104	940 Hz			
	105	950 Hz			
	106	960 Hz			
	107	970 Hz			
	108	980 Hz			
	109	990 Hz			
	110	1000 Hz			
	111	1010 Hz			1s
	112	1020 Hz			
	113	1030 Hz			
	114	1040 Hz			
	115	1050 Hz			
	116	1060 Hz			
	117	1070 Hz			
	118	1080 Hz			
	119	1090 Hz			
	120	1100 Hz			

CHANNEL	VALUE	FUNCTION	DEFAULT	SNAP	HOLD
	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			3s
	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			
31	141	1310 Hz	0	X	
	142	1320 Hz			
	143	1330 Hz			
	144	1340 Hz			
	145	1350 Hz			
	146	1360 Hz			
	147	1370 Hz			
	148	1380 Hz			
	149	1390 Hz			1s
	150	1400 Hz			
	151	1410 Hz			
	152	1420 Hz			
	153	1430 Hz			
	154	1440 Hz			
	155	1450 Hz			
	156	1460 Hz			
	157	1470 Hz			
	158	1480 Hz			
	159	1490 Hz			
	160	1500 Hz			

DMX TRAITS: CHANNEL FUNCTIONS AND VALUES

CHANNEL	VALUE	FUNCTION	DEFAULT	SNAP	HOLD
31	161	2500 Hz	0	X	1s
	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			
	196 – 200	Hibernation ON			3s
		DIMMER CURVE			
	201 – 210	Linear (Default)			
	211 – 220	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%	100% split	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

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	0004-FFFF	4436	001 Extended (31)

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:

[0x0200] Sensor Definition
[0x0201] Sensor Value
[0x0080] Device Model Description
[0x0081] Manufacturer Label
[0x0082] Device Label
[0x00E0] DMX Personality
[0x00E1] DMX Personality Description
[0x0400] Device Hours
[0x0015] Comms Status
[0x0031] Status ID Description
[0x0032] Clear Status ID
[0x0405] Device Power Cycles
[0x0600] Pan Invert
[0x0601] Tilt Invert
[0x0602] Pan Tilt Swap
[0x0500] Display Invert
[0x0501] Display Level
[0x0603] Realtime Clock
[0x1010] Power State
[0x1031] Preset Playback
[0x0120] Slot Information
[0x0121] Slot Description
[0x0122] Default Slot Value
[0x00B0] Language
[0x00A0] Language Capabilities
[0x00C2] Boot Software Version Label
[0x00C1] Boot Software Version ID
[0x0070] Product Detail ID List
[0x0030] Status Messages
[0x000C] Undefined PID [0x000C, (12)]

ERROR CODES

ERROR CODES	DESCRIPTION
	Error Codes subject to change without notice
PAN Er **TILT 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) 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** **RotGoboIndex** **RotGobo2Index** **Animation** **Anima.Index** **Zoom** **Focus** **Frost** **Prism** **PrismIndex**	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).
HeadTemp **CoolFan1** **CoolFan2** **CoolFan3** **CoolFan4** **BaseTemp** **BaseFan**	These messages will appear if there is a temperature and/or fan malfunction.

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+
Zoom Range 4.5° - 38°
Beam Angle 4.6° - 38.2°
Field Angle 5.6° - 42.2°

EFFECTS
Motorized Zoom
Remote Focus
Variable Frost Filter
Dual Independent Prisms (6 Facet linear & 6 Facet round)
Motorized Iris
Variable 16-bit Dimming Curve Modes
High Speed Electronic Shutter and Strobe

COLOR
CMY Variable Color Mix
7 Position Color Wheel
High CRI Filter, CRI 84
CTO Filter, 3200K, CRI 77

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: 14.3" (362mm)
Width: 9.2" (233mm)
Vertical Height: 23.4" (595mm)
Weight: 46.3 lbs. (19.3kg)

ELECTRICAL / THERMAL
AC 100-240V - 50/60Hz
432W Max Power Consumption
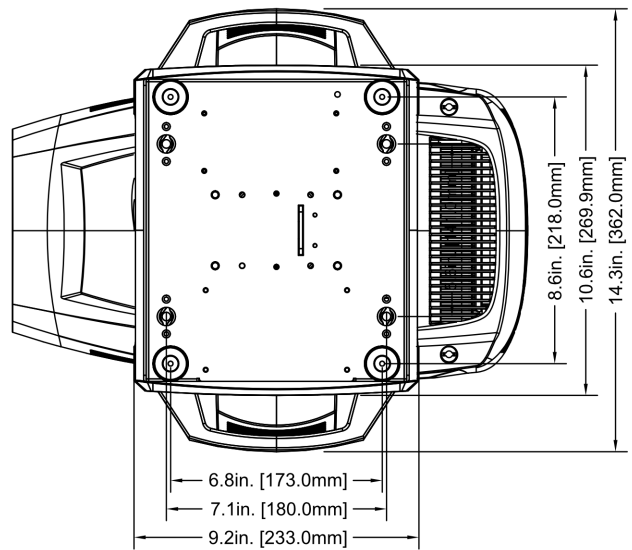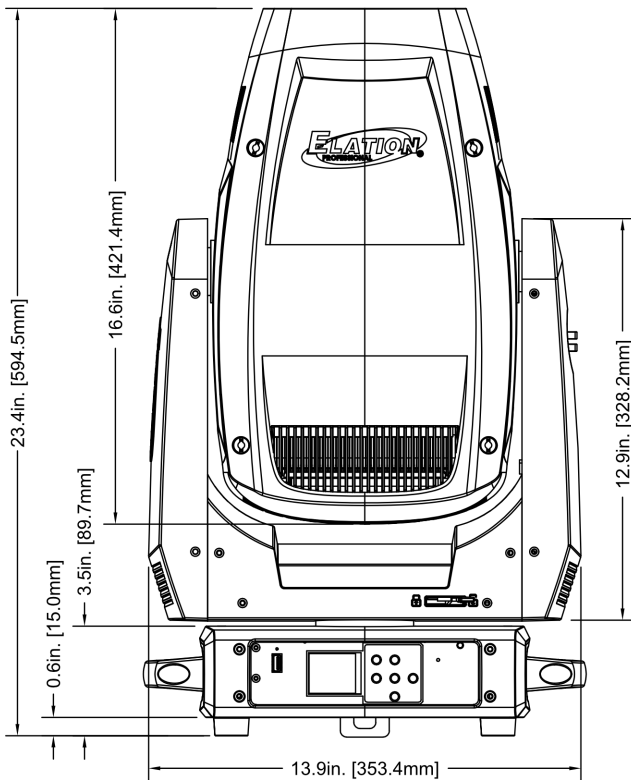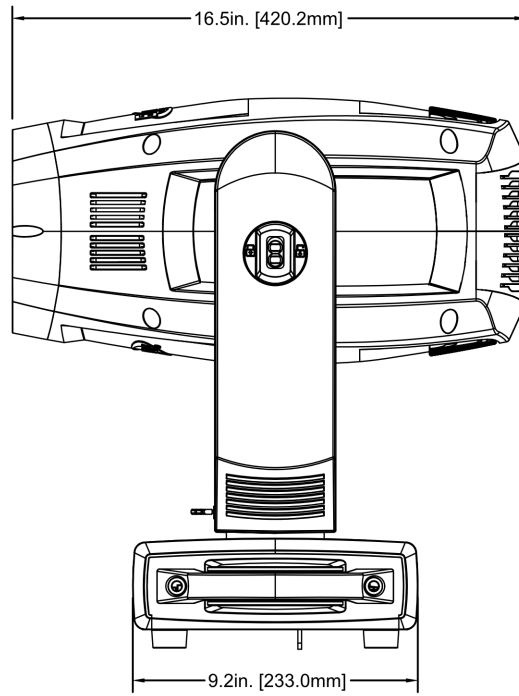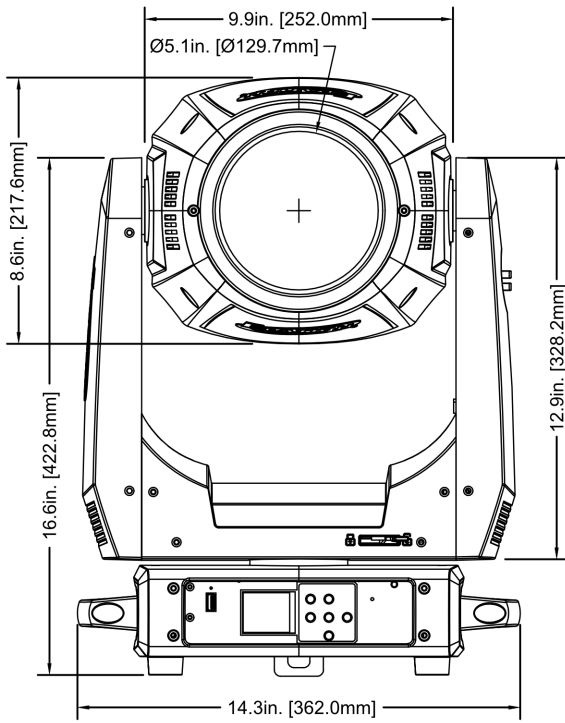14°F to 113°F (-10°C to 45°C)
BTU/hr (+/- 10%) 1473.12

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.

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.