ELATION
PROFESSIONAL

KL FRESNEL 4
User Manual

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 Channels	Notes
11/30/2017	1	1.02	1/2/3/4	Initial release
01/31/2018	1.2	N/C	No Change	Added manual dimming control instructions
11/27/2018	1.4	1.06	1/2/2-2/3/2-3/4	Added 2-2 Ch and 2-3 Ch DMX modes, gamma 1.0 brightness, and Stage 2 dimming curve mode
03/02/2019	1.6	1.07	1/2/3/4/5	Updated DMX channels and system menu
08/20/2020	1.8	1.09	No Change	Update primary/secondary, box contents
10/08/2020	2.0	N/C	No Change	Updated refresh frequency
10/21/2020	2.2	N/C	No Change	Updated specifications
06/17/2021	2.4	N/C	No Change	Add standalone mode statement to system menu section
08/12/2021	2.6	N/C	No Change	Updated manual dimming control
12/06/2022	2.8	N/C	No Change	Updated manual dimming control; added RDM
06/07/2023	3.0	N/C	No Change	Added Fan Modes & Software Update Instructions

CONTENTS

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. **This device is intended for use by trained personnel only, and is not suitable for private use.**

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

Barn Door (x1)
Gel Frame (x1)
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.

It is strongly recommended to power the fixture down completely when not in use. Doing so will reduce wear on the fixture due to sustained or extended operational periods, thereby maximizing its operational lifespan.

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 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 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 DEVICE 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 THIS UNIT INTO A DIMMER PACK
DO NOT REMOVE THE COVER UNDER ANY CONDITIONS
NEVER OPERATE THIS UNIT WITH THE CASING REMOVED
UNPLUG FROM POWER DURING LONG PERIODS OF NON-USE
DISCONNECT POWER BEFORE PERFORMING MAINTENANCE**

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

DO NOT EXPOSE THIS UNIT TO RAIN AND/OR MOISTURE! THIS FIXTURE IS INTENDED FOR USE IN DRY, INDOOR ENVIRONMENTS ONLY!

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** expose the fixture to rain or moisture, or spill liquids into or onto the fixture! The fixture is intended for use in dry, indoor environments only!
- **DO NOT** shake fixture, and avoid using brute force when installing and/or operating the fixture.
- **DO NOT** operate the fixture if the power cord is frayed, crimped, damaged, and/or if any of the power cord connectors are damaged and do not plug 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 the same power rating.
- **DO NOT** block any air ventilation slots.
- All fan and air inlets must remain clean and never blocked.
- Leave approx. 6" (15cm) between the fixture and other devices or a wall in order to allow for proper cooling.
- When installing fixture in a suspended environment, always use mounting hardware that is no less than M10 x 25 mm, and always install fixture with an appropriately rated safety cable.
- Always disconnect the fixture from the main power source before performing any type of service and/or cleaning procedure.
- Only handle the power cord by the plug end. Never pull out the plug by tugging on 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. This 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.
- **It is strongly recommended to power the fixture down completely when not in use. Doing so will reduce wear on the fixture due to sustained or extended operational periods, thereby maximizing its operational lifespan.**

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. Periodically clean the external lens surface 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 your local 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 or moisture 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
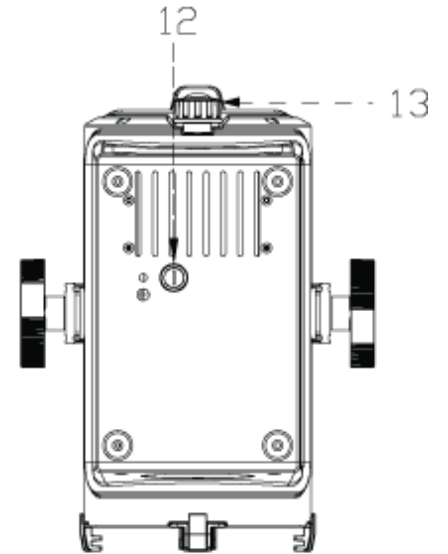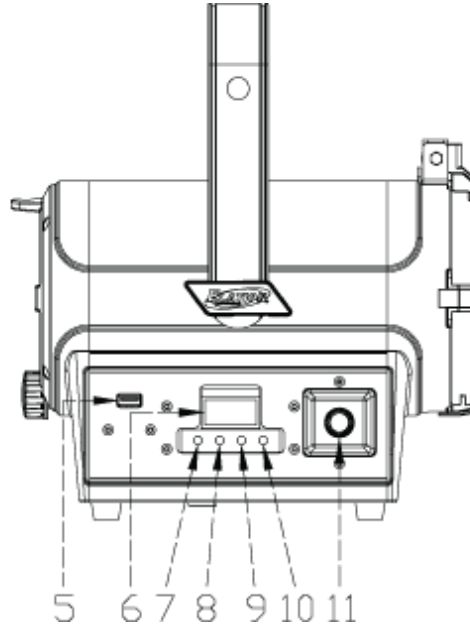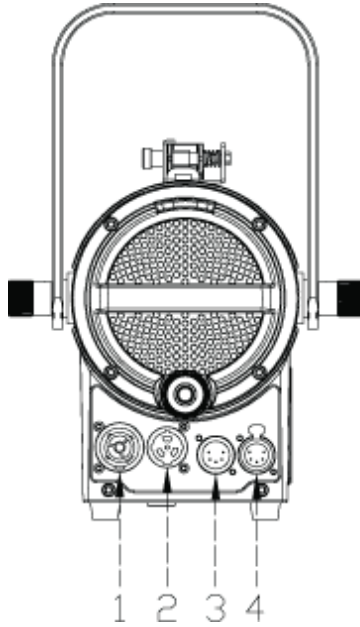
1. Power Out
2. Power In
3. 5pin DMX In
4. 5pin DMX Out
5. USB Software Update Port
6. OLED Control Menu Display
7. Mode Button
8. Up Button
9. Down Button
10. Enter Button
11. Manual Dimming Control Knob
12. Fuse
13. Manual Zoom Control Knob

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.

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.

Ambient operating temperature range for this fixture is **14°F to 113°F (-10°C to 45°C).** Do not operate the fixture when the ambient temperature falls outside of this range.

Fixture(s) should be installed away from walking paths, seating areas, or 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 that meets all local, national, and country codes and regulations.

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

INSTALLATION GUIDELINES

GEL FRAME AND BARN DOOR INSTALLATION

The fixture has 2 slots on the front to hold the GEL FRAME and BARN DOOR. The first smaller slot is for the GEL FRAME and the second larger slot is for the BARN DOOR. The fixture also has a top lock that secures these accessories to the fixture.

LOCK OPEN

1

2

LOCK CLOSED

3

ATTACH BARN DOOR SAFETY CABLE HERE

4

Insert Gel Frame into smaller slot
Insert Barn Door into larger slot
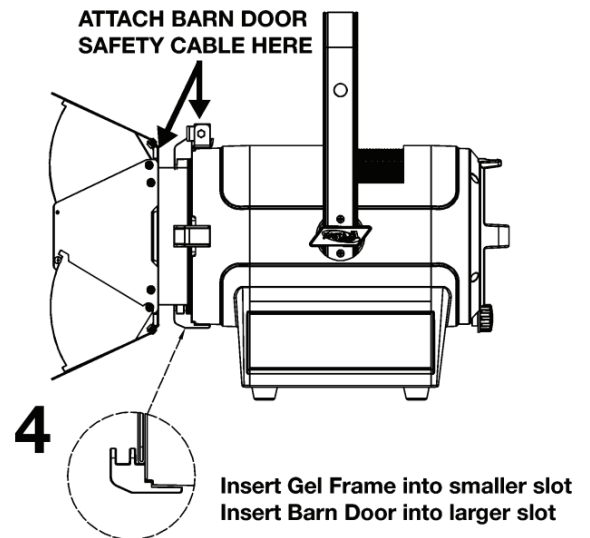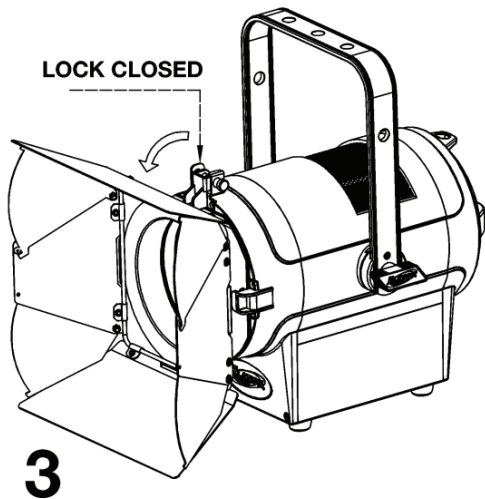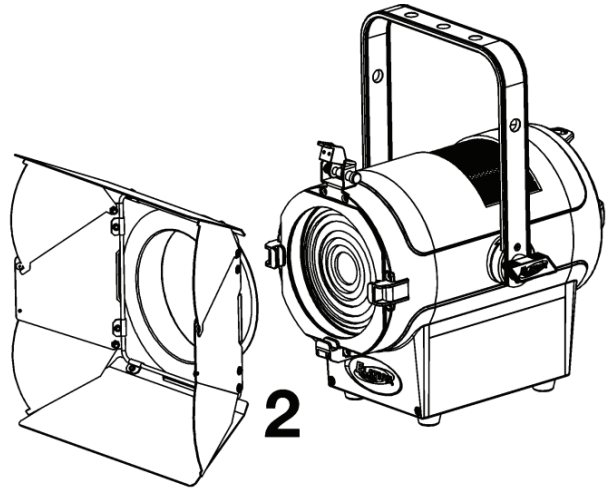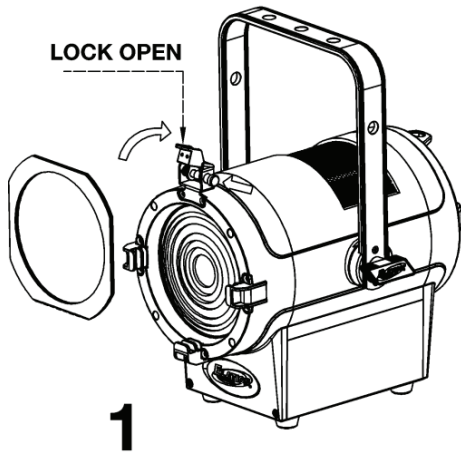
⚠️ **SECURE A MINI SAFETY CABLE TO THE BARN DOOR AND THE TOP LOCK!**

1. Lift the lock on top of the fixture and insert the GEL FRAME into the first slot (closest to fixture's lens).
2. Insert BARN DOOR into the second slot.
3. Close the lock on top of the fixture to secure both the GEL FRAME and BARN DOOR in place.
4. Secure the mini SAFETY CABLE to the BARN DOOR and top lock.

INSTALLATION GUIDELINES

CLAMP INSTALLATION

When mounting the fixture to truss, be sure to secure an appropriately rated professional grade rigging clamp to the fixture using an M10 screw fitted through one of the 3 holes of the yoke bracket. The fixture provides a built-in rigging point for a SAFETY CABLE. Be sure to only use the designated rigging point for the safety cable and **never use a carrying handle to secure a safety cable.**

SAFETY CABLE
RIGGING POINT
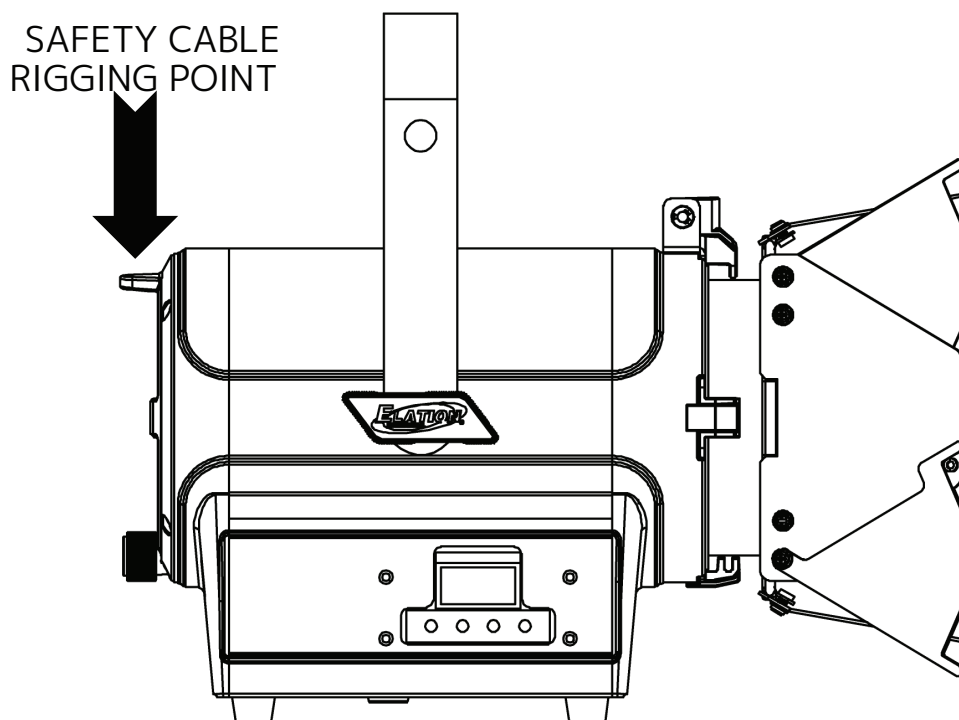
INSTALLATION GUIDELINES

RIGGING

Overhead rigging requires extensive experience, including calculating working load limits, knowledge of installation material being used, and periodic safety inspection of all installation material and the fixture, among other skills. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury. The fixture is fully operational in the specific mounting positions illustrated below.
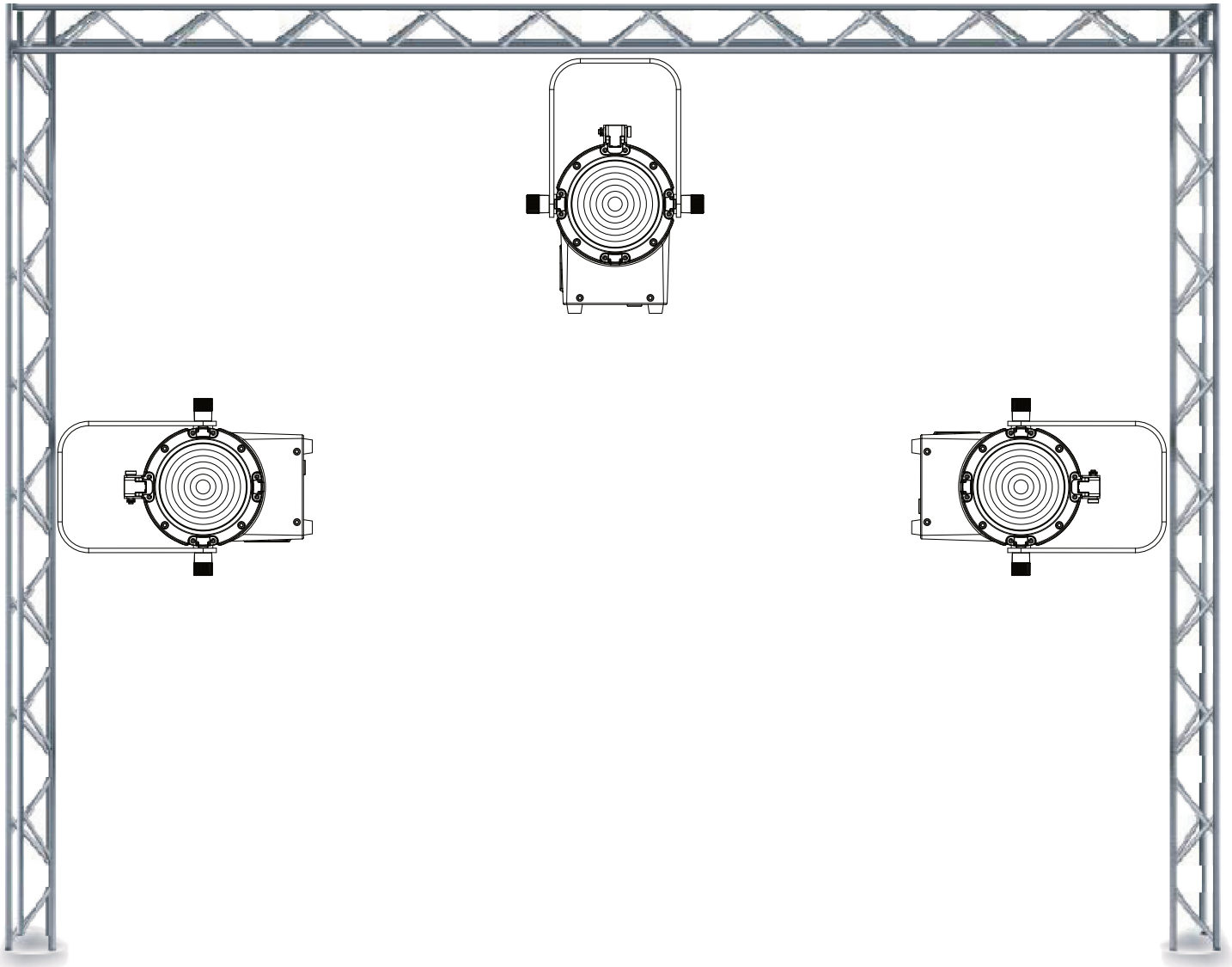
⚠ **FALLING FIXTURES CAN CAUSE SEVERE INJURY OR SERIOUS EQUIPMENT DAMAGE! FOR THIS REASON, FIXTURES SHOULD BE INSTALLED AND INSPECTED ONLY BY QUALIFIED PERSONNEL. DO NOT INSTALL THE UNIT IF YOU LACK THE QUALIFICATIONS TO DO SO, OR IF YOU HAVE DOUBTS ABOUT THE SAFETY AND SECURITY OF THE INSTALLATION SETUP OR LOCATION!**

⚠ **ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE THE FIXTURE WILL NOT FALL 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 only to ELATION lighting fixtures, it is a common issue with lighting fixtures from all manufacturers. Although there is no true way to fully prevent this issue from happening, the guidelines below can prevent any potential damage from occurring if followed. Contact ELATION Service for more details.

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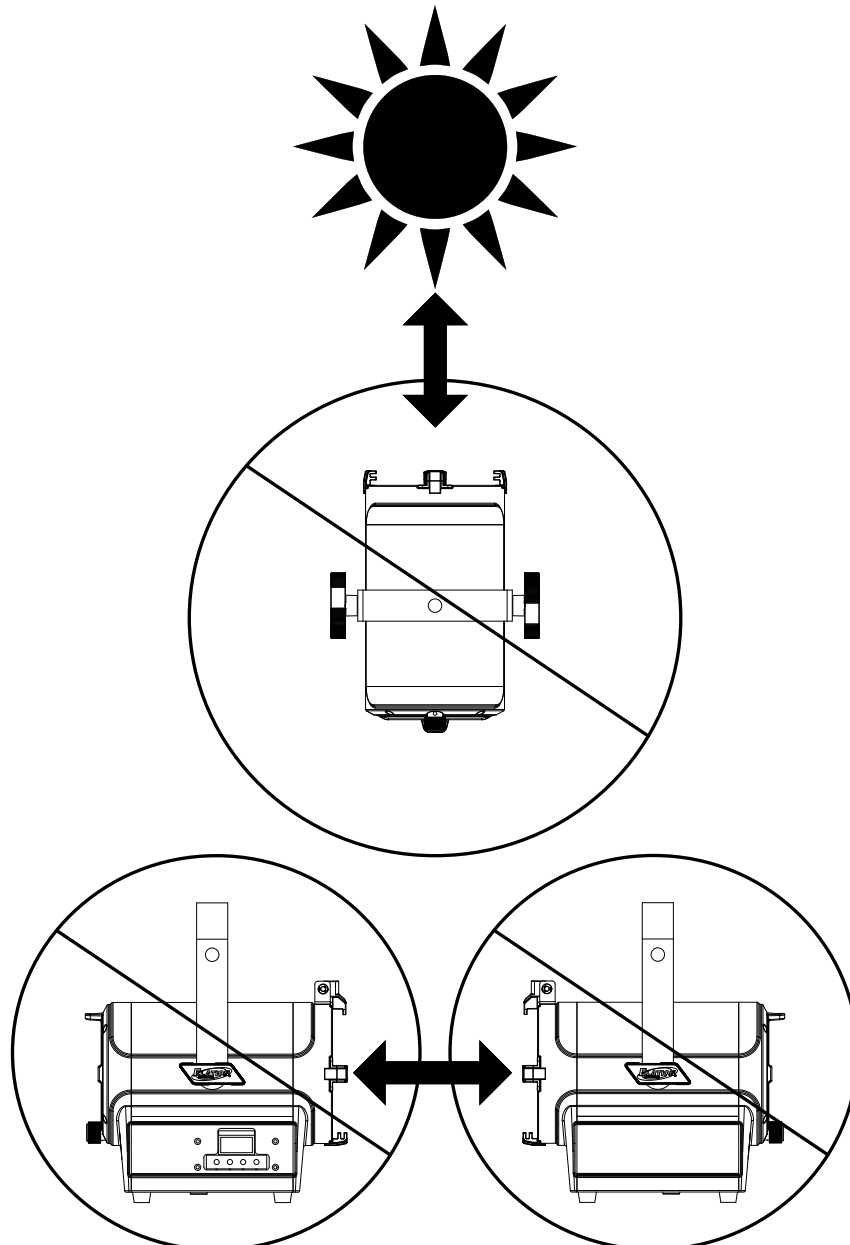
FAN CONTROL AND LOW NOISE OPERATION

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

Mode	dbA at 1m LED off	dbA at 1m Dimmer 100%
Fan Control - Auto (Default)	39	46
Fan Control - High	50	59
Fan Control - Low	38	40

Auto (Default) – Fans only run at the speeds needed to keep the LED engine within a safe temperature range, and ensures optimal performance of the fixture. They will turn off if possible; for example, when the fixture is dimmed to a low intensity. Fans sense the ambient and fixture temperature and will, at all times, try to keep noise levels at a minimum. The fixture output will only be reduced when the LED engine cannot be cooled to its safe operating range due to a high ambient temperature.

NOTE: This mode is recommended for daily operation.

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

Low - For very critical noise environments, the fixture offers this mode, and two additional Low Noise Modes for silent operation: Studio and Muste. In Low mode, the fixture output will be reduced, yet due to the extremely high luminous flux, the fixture still offers outstanding performance. In Low Noise Mode, all parameters of the fixture operate more quietly with reduced fan speeds.

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 fixtures to be modified and monitored remotely. This protocol is ideal for instances in which a unit is installed in a location that is 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 its 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
22A6	0000-FFFF	0735	001 Dimmer 002 16Bit 003 3Ch 004 Standard 005 Extended

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 available on this device:

Sensor Definition	Pan Tilt Swap
Sensor Value	Display Invert
Device Model Description	Display Level
Manufacturer Label	Real Time Clock
Device Label	Power State
DMX Personality	Preset Playback
DMX Personality Description	Default Slot Value
Device Hours	Language
Comms Status	Language Capabilities
Status ID Description	Boot Software Version Label
Clear Status ID	Boot Software Version ID
Lamp Hours	Product Detail ID List
Lamp On Mode	Status Messages
Device Power Cycles	Reset Device

SYSTEM MENU

The fixture includes an easy to navigate system menu. The control panel (see image below) is located on the side of the fixture and provides access to the main system menu, where all necessary system adjustments canbe made.

During normal operation, pressing MODE button once will access the fixture's main menu. Once in the main menu, you can navigate through the different functions and access the sub-menus with the UP and DOWN buttons. Once you reach a field that requires adjusting, press the ENTER button to activate that field, then 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 MODE button.

NOTE: The display screen will automatically shut off after approximately 1 minute of inactivity. To re-activate the display screen, press and hold the MODE button for 3 seconds.
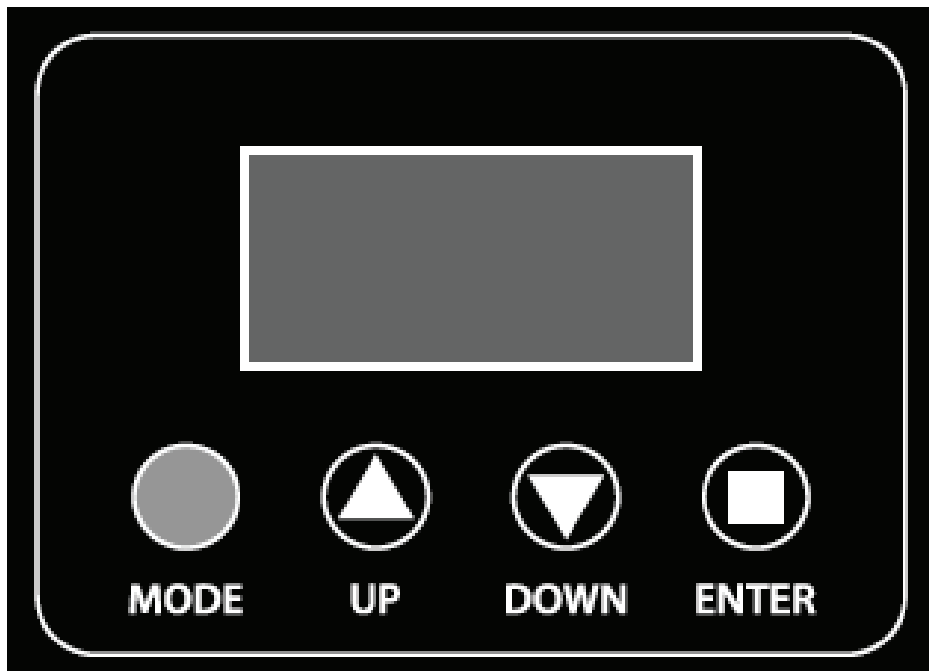
STANDALONE

Press the MODE button to access the fixture's main menu. Use the UP and DOWN buttons to navigate to DMX Settings and press the ENTER button. Navigate to No DMX Status and press the ENTER button. Navigate to Standalone and press the ENTER button.

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

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

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

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SYSTEM MENU

SYSTEM MENU WITH SOFTWARE VERSION 1.06 AND UP				
Default settings listed in **bold.**				
MAIN MENU	**SUB MENU**	**OPTIONS / VALUES**		**DESCRIPTION**
ADDRESS	Address	**001** - xxx		Set DMX address
USERMODE	User Mode	1CH		Set DMX channel mode
		2CH		
		3CH		
		4CH		
FUNCTION	Status	Lost DMX	**Hold** / Black	Function if DMX connection is interrupted
		Display	**On** / Off	Display screen saved mode; when switched on, screen saver activates after 30s of inactivity; functions only when DMX is connected
	LCD Set	Key Lock	**On** / Off	Control key lock
		Flash	**On** / Off	Display flashes when DMX not connected
		Invert	**Off** / On	Flip display 180 degrees
	Temp C / F	**F** / C		Temperature display units
	Dim Curve	**Standard**		Select dimmer curve mode
		Stage		
		TV		
		Architec		
		Theatre		
	Disp Set	**ADDR**		Select info to display on screen when idle
		Disp Ch		
		Secondry		
	Fan Set	LED Fan	**Auto**	Set LED fan speed
			High	
			Low	
	Gamma	**2.0**		Set gamma brightness
		2.2		
		2.4		
		2.8		
	Frequen	**900 Hz,** 1000 Hz, 1100 Hz, 1200 Hz, 1300 Hz, 1400 Hz, 1500 Hz, 2500 Hz, 4000 Hz, 5000 Hz, 10 KHz, 15 KHz, 20 KHz, 25 KHz		Set LED refresh frequency
	USB Update	**Off** / On		Software update port - contact service for assistance
	DFSE	**Off** / On		Restore to factory settings
INFO	Time Info	Current	xxx Hours	Fixture run time from power on
		Total	xxx Hours	Fixture total run time
		Last	xxx Hours	Clear fixture last run time
		Password	PIN = 050	Enter PIN to access clear last menu
		Clear	On / **Off**	Reset fixture last run time
	Temp Info	LED Temp	**xxx F** / xxx C	Temperature of LED
	Err Info	Error Record 1 - 10		Display last 10 error messages
	Model Inf	KLF4		Display model name
	Software	Software	Vx.xx	Software version
TEST	Man Ctrl	Dimmer, Strobe		Test functions

SYSTEM MENU

MAIN MENU	SUB MENU	OPTIONS / VALUES	DESCRIPTION
SYSTEM MENU UPDATE WITH SOFTWARE VERSION 1.06 AND UP			
Default settings listed in **bold.**			
FUNCTION	User Mode	1CH	Set DMX channel mode
		2CH	
		2-2CH	
		3CH	
		2-3CH	
		4CH	
	Gamma	1.0	Set gamma brightness
		2.0	
		2.2	
		2.4	
		2.8	
	Dim Curve	**Standard**	Select dimmer curve mode
		Stage	
		TV	
		Architec	
		Theatre	
		Stage 2	

SYSTEM MENU

MAIN MENU	SUB MENU	OPTIONS / VALUES		DESCRIPTION
SYSTEM MENU UPDATE WITH SOFTWARE VERSION 1.07 AND UP
Default settings listed in **bold.**
ADDRESS	Address	**001** - xxx		Set DMX address
USER MODE	User Mode	Dimmer		Set DMX channel mode
		Dimmer 16bit		
		3CH		
		Standard		
		Extended		
FUNCTION	Status	Lost DMX	**Hold** / Black	Function if no DMX detected
	LCD Set	Display	**On** / Off	Display screen saver mode; when switched on, screen saver activates after 30s of inactivity; only functions when DMX is connected
		Key Lock	**On** / Off	Lock control panel buttons
		Flash	**On** / Off	Display flashes when no DMX connected
		Invert	On / **Off**	Flip display 180 degrees
	Temp C/F	C / **F**		Temperature display units
	Dim Mode	**Standard**		Set dimmer mode and delay time
		Stage		
		TV		
		Architec		
		Theatre		
		Stage 2		
		0s, 0.1s, 0.2s, 0.3s, 0.4s, 0.5s, 0.6s, 0.7s, 0.8s, 0.9s, 1.0s, 1.5s, 2.0s, 3.0s, 4.0s, 5.0s, 6.0s, 7.0s 8.0s, 9.0s, 10.0s		
	Disp Set	**ADDR**		Set information to display on idle screen
		Disp Ch		
		Secondry		
	Fan Set	LED Fan	**Auto**	Set LED fan speed
			High	
			Low	
	Dim Curve	**Linear**		Select dimmer curve mode
		Square		
		Inv Square		
		S Curve		
	Frequen	900 Hz, 1000 Hz, 1100 Hz, **1200 Hz,** 1300 Hz, 1400 Hz, 1500 Hz, 2500 Hz, 4000 Hz, 5000 Hz, 10 KHz, 15 KHz, 20 KHz, 25 KHz		Set LED refresh frequency
	USB Data	On / **Off**		Software update port - contact service for assistance
	Primary	On / **Off**		
	DFSE	On / **Off**		Restore to factory settings
INFO	Time Info	Current	xxx Hours	Fixture run time from power on
		Total	xxx Hours	Fixture total run time
		Last	xxx Hours	Clear fixture last run time
		Password	PIN = 050	Enter PIN to access clear last menu
		Clear	On / **Off**	Reset fixture last run time
	Temp Info	LED Temp	xxx C / **xxx F**	Temperature of LED
	Err Info	Error Record 1 - 10		Display 10 last error messages
	Model Inf	KL F4		Display model name
	Software	Software	Vx.xx	Software version
TEST	Man Ctrl	Dimmer	**000** - 255	Manual control functions
		Strobe	000 - **255**	

DIMMER MODES & CURVES

Select desired DIMMER MODE (Standard, Stage, TV, Architectural, Theatre, Stage2).

Note: STAGE 2 DIMMING CURVE MODE ADDED WITH SOFTWARE UPDATE VERSION ≥1.06.
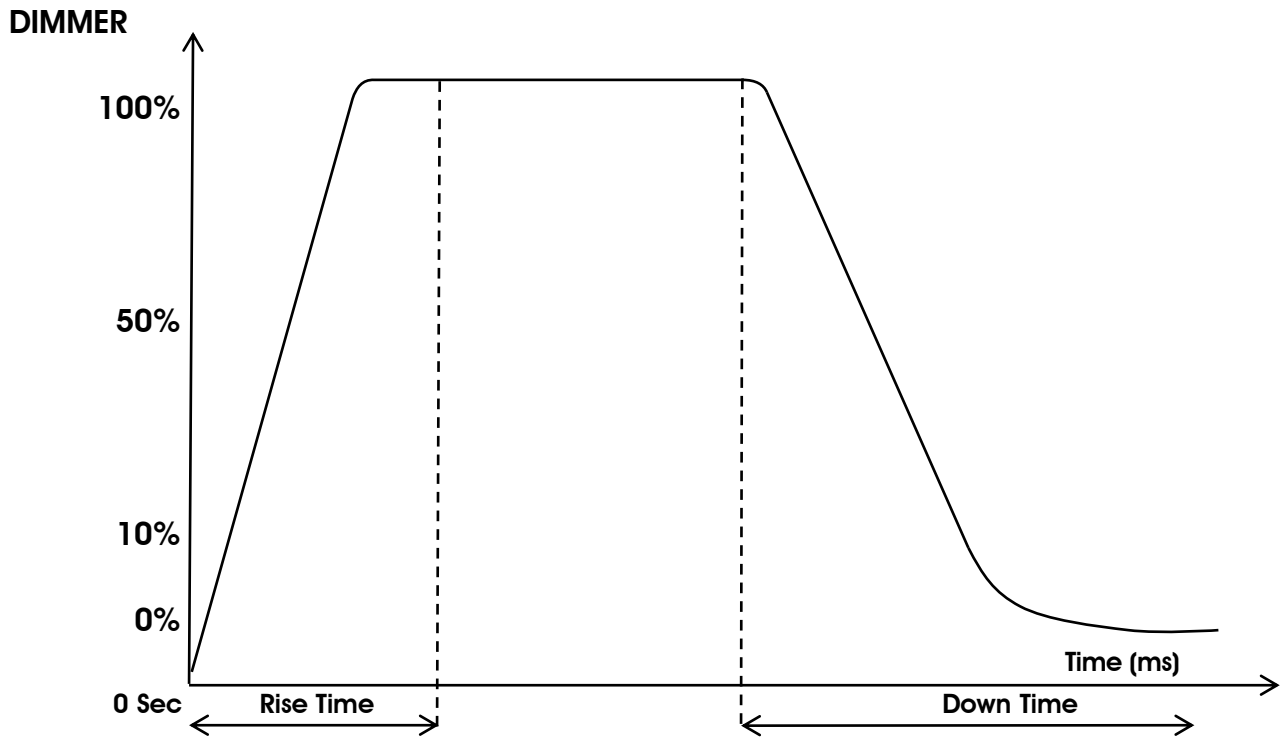
	0 sec Fade Time		1 sec Fade Time	
Dimming Curve Ramp Effect				
	Rise Time (ms)	Down Time (ms)	Rise Time (ms)	Down Time (ms)
Standard (default)	0	0	0	0
Stage	780	1100	1540	1660
TV	1180	1520	1860	1940
Architectural	1380	1730	2040	2120
Theatre	1580	1940	2230	2280
Stage 2	0	1100	0	1660

DMX VALUES	DIMMER MODES
0-20	Standard
21-40	Stage
41-60	TV
61-80	Architectural
81-100	Theatre
101-255	Default to Setting on Fixture

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MANUAL DIMMING CONTROL

⚠️ **FEATURE IS DISABLED WHEN DMX INPUT CABLE IS CONNECTED TO FIXTURE! TO USE MANUAL DIMMING KNOB, DISCONNECT DMX CABLE IF CONNECTED.**

Follow steps below to enable manual DIMMING control knob.

1. Access fixture system menu navigating to Test menu then access ManCtrl sub menu.

TEST	Man Ctrl	Dimmer	Manual Control Functions
		Strobe	

NOTE: To access the LCD Menu Control Display when locked/OFF, press and hold the MODE button for 3 seconds.

2. Select the Stobe menu, and set to value of 255 (LED ON). Exit fixture system menu.
3. Push DIMMING knob to unlock, rotate to desired level, and push knob again to lock. Repeat this process each time a dimmer adjustment is desired.

LCD DISPLAY

DMX CABLE CONNECTED   **NO DMX CABLE CONNECTED**

Additionally, the user can press and hold the encoder knob for 10 seconds to activate full output for 1 minute. This feature can be used to aid in aiming and/or positioning the fixture, and overrides any DMX-controlled operations.

DMX TRAITS

DMX TRAITS WITH SOFTWARE VERSION 1.02 AND UP					
Features subject to change without notice.					
CHANNEL				DMX VALUES	FUNCTION
1CH	2CH	3CH	4CH		
1	1	1	1	000 - 255	**Dimmer Intensity,** 0% to 100%
			2	000 - 255	**Dimmer Intensity Fine**
	2	2	3		**Shutter, Strobe**
				000 - 031	LED Off
				032 - 063	LED On
				064 - 095	Strobe Effect, slow to fast
				096 - 127	LED On
				128 - 159	Pulse Effect in Sequences
				160 - 191	LED On
				192 - 223	Random Strobe Effect, slow to fast
				224 - 255	LED On
		3	4		**Dimmer Modes**
				000 - 020	Standard
				021 - 040	Stage
				041 - 060	TV
				061 - 080	Architectural
				081 - 100	Theatre
				101 - 255	Default to factory setting

DMX TRAITS

DMX TRAITS UPDATE WITH SOFTWARE VERSION 1.06							
Features subject to change without notice.							
CHANNEL						DMX VALUES	FUNCTION
1CH	2CH	2-2CH	3CH	2-3CH	4CH		
1	1	1	1	1	1	000 - 255	**Dimmer Intensity,** 0% to 100%
		2		2	2	000 - 255	**Dimmer Intensity Fine**
2	2	2	2		3		**Shutter, Strobe**
						000 - 031	LED Off
						032 - 063	LED On
						064 - 095	Strobe Effect, slow to fast
						096 - 127	LED On
						128 - 159	Pulse Effect in Sequences
						160 - 191	LED On
						192 - 223	Random Strobe Effect, slow to fast
						224 - 255	LED On
			3	3	4		**Dimmer Modes**
						000 - 020	Standard
						021 - 040	Stage
						041 - 060	TV
						061 - 080	Architectural
						081 - 100	Theatre
						101 - 120	Stage 2
						121 - 255	Default to factory setting

DMX TRAITS

CHANNEL					DMX VALUES	FUNCTION
DMX TRAITS UPDATE WITH SOFTWARE VERSION 1.07						
Features subject to change without notice.						
Dimmer	Dimmer 16bit	3CH	Std	Ext		
1	1	1	1	1	000 - 255	**Dimmer Intensity,** 0% to 100%
	2		2	2	000 - 255	**Dimmer Intensity Fine**
						Shutter, Strobe
					000 - 031	LED Off
					032 - 063	LED On
		2	3	3	064 - 095	Strobe Effect, slow to fast
					096 - 127	LED On
					128 - 159	Pulse Effect in Sequences
					160 - 191	LED On
					192 - 223	Random Strobe Effect, slow to fast
					224 - 255	LED On
						Dimmer Modes
					000 - 020	Standard
					021 - 040	Stage
					041 - 060	TV
					061 - 080	Architectural
					081 - 100	Theatre
					101 - 120	Stage 2
						Dimmer Delay Times
					121	0s
					122	0.1s
					123	0.2s
					124	0.3s
					125	0.4s
					126	0.5s
					127	0.6s
		3	4	4	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
						Dimmer Delay Times (continued)
					138	7.0s
					139	8.0s
					140	9.0s
					141	10.0s
					142 - 255	Default

DMX TRAITS

DMX TRAITS UPDATE WITH SOFTWARE VERSION 1.07						
CHANNEL					DMX VALUES	FUNCTION
Dimmer	Dimmer 16bit	3CH	Std	Ext		
				5		**LED Refresh Rate (hold values for 5 sec to set LED refresh rate)**
					000 - 100	Idle
					101 - 105	900 Hz
					106 - 110	1000 Hz
					111 - 115	1100 Hz
					116 - 120	1200 Hz
					121 - 125	1300 Hz
					126 - 130	1400 Hz
					131 - 135	1500 Hz
					136 - 140	2500 Hz
					141 - 145	4000 Hz
					146 - 150	5000 Hz
					151 - 155	10,000 Hz
					156 - 160	15,000 Hz
					161 - 165	20,000 Hz
					166 - 170	25,000 Hz
					171 - 200	Idle
						Dimmer Curves
					201 - 210	Linear (default)
					211 - 220	Square
					221 - 230	Inverse Square
					231 - 240	S-Curve
					241 - 255	Idle

SPECIFICATIONS

SOURCE
50W 97CRI 3,000K Warm White LED
50,000 Hour Average LED Life*
*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
1,900+ Total Lumen Output
6,837 LUX 635 FC @6.6' (2m) (Min Zoom / Full ON)
1,791 LUX 166 FC @6.6' (2m) (Max Zoom / Full ON)
Zoom Range 14° - 30°
Beam Angle 14.2° - 29.7°
Field Angle 23.2° - 48°

EFFECTS
Manual Zoom
Electronic Dimmer and Strobe
Variable 16-bit Dimming Modes and Curves

COLOR
Warm White 3,000K

CONTROL / CONNECTIONS
Manual and DMX Controlled Dimmer and Shutter
Dimmer Rotary Dial
(5) DMX Channel Modes (1 / 2 / 3 / 4 / 5)
4 Button Control Panel LCD Menu Display
RDM (Remote Device Management)
5pin DMX and IP65 Locking Cable In/Out
With Wired Digital Communication Network

SIZE / WEIGHT
Length: 13.6" (345mm)
Width: 7.9" (201mm)
Vertical Height: 11.4" (289mm)
Weight: 9.0 lbs. (4.08 kg)

ELECTRICAL / THERMAL
AC 100-240V - 50/60Hz
50W Max Power Consumption
5°F to 113°F (-15°C to 45°C)
Power Linking: 12Pcs @ 110V / 27Pcs @240V

INCLUDED ITEMS
Gel Frame and Rotating Barn Doors
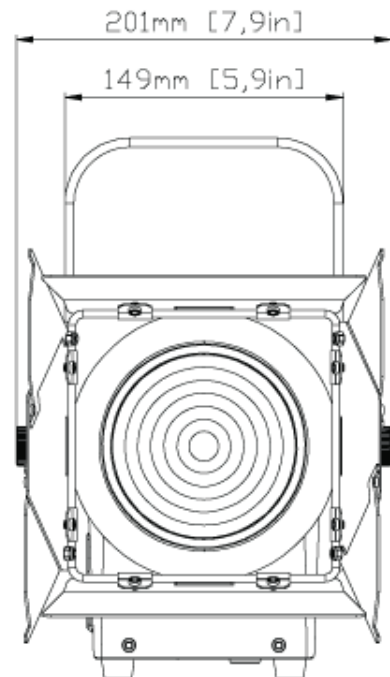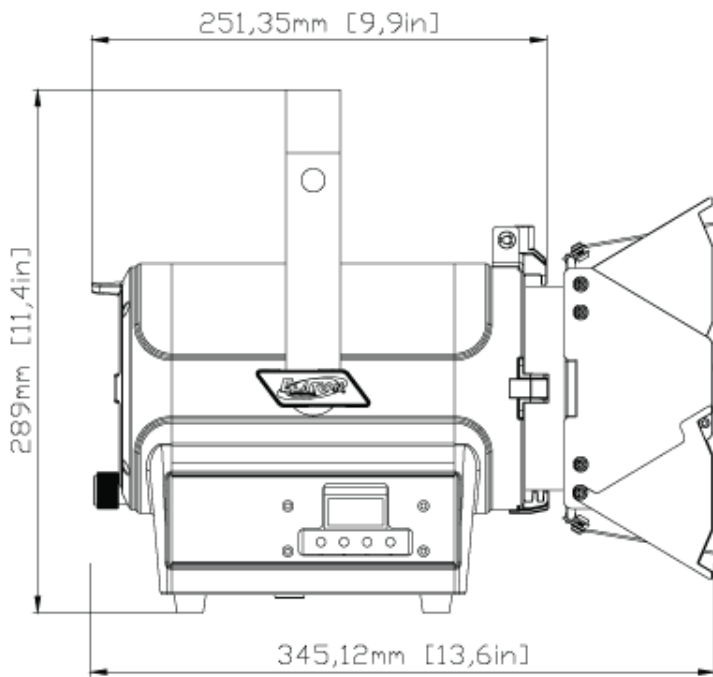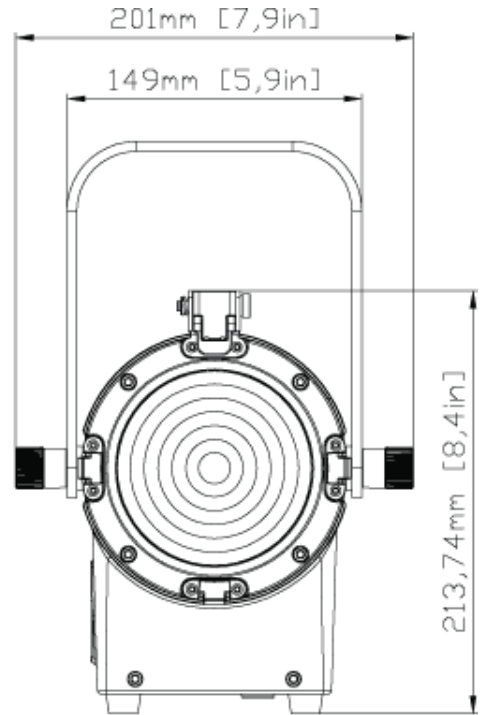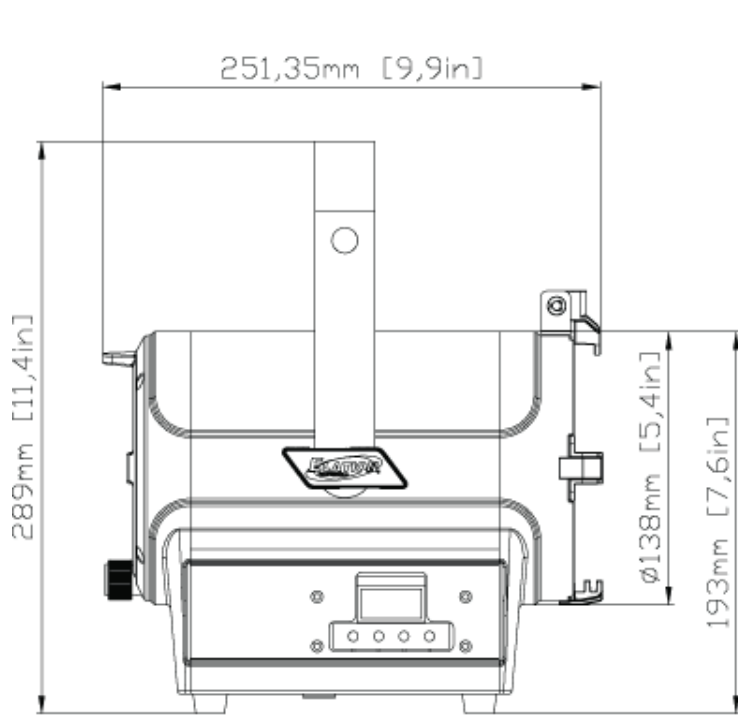IP65 Locking Power Cable
Barn Doors

APPROVALS / RATINGS
CE | cETLus | IP30

CE

ETL
c LISTED us
Intertek
4010765

Specifications and documentation subject to change without notice.

DIMENSIONAL DRAWINGS

Drawings not to scale.

ORDERING INFORMATION

ORDER CODE	ITEM
QUICK RIG CLAMP	Low Profile Quick Release Clamp
AC5PDMX5PRO	5 ft (1.5m) 5pin DMX Cable
NEU088	3 ft (1m) Power Cable

Please note that additional DMX cable and power cable lengths are available.

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 deter- mined 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.
* •ncrease the separation between the device and the receiver.
* Connect the device to an electrical outlet on a circuit different from which the radio receiver is connected.
* Consult the dealer or an experienced radio/TV technician for help.

Energy Saving Matters (EuP 2009/125/EC)
Saving electric energy is a key to help protecting the environment. Please turn off all electrical products when they are not in use. To avoid power consumption in idle mode, disconnect all electrical equipment from power when not in use. Thank you!