ELATION
PROFESSIONAL

KL FRESNEL 8 FC
User Manual

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DOCUMENT VERSION

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

Date	Document Version	Software Version ≥	DMX Channel Modes	Notes
2/8/21	1	1.02	1/7/12/18/10/14	Initial release
4/4/21	1.5	1.02	1/7/12/19/10/15	Updated Specs.
7/14/21	2.0	N/C	No Change	Updated Specifications and System Menu.
2/15/22	2.5	N/C	No Change	Added Optional Accessories.
6/21/22	3.0	N/C	No Change	Removed E-Fly mentions
4/27/23	3.5	N/C	No Change	Added Software Updates; updated Overview and Installation Guidelines
12/17/24	4.0	1.10	1/5/7/11/12/19/20/ 10/15/16/14	Updated System Menu, Encoder Mode, DMX Traits, RDM, Specifications; Added Colour-Tune Technology

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 product is intended to be used by professionally 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
Gel Frame
Power Cable

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

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REPLACEMENT PARTS please visit parts.elationlighting.com

LIMITED WARRANTY (USA ONLY)

A. Elation Professional hereby warrants, to the original purchaser, Elation Professional products to be free of manufacturing defects in material and workmanship for a period of two years (730 days), and Elation Professional product rechargeable batteries to be free of manufacturing defects in material and workmanship for a period of six months (180 days), from the original date of purchase. This warranty excludes discharge lamps and all product accessories. This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service, send the product only to the Elation Professional factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Elation Professional will pay return shipping charges only to a designated point within the United States. If any product is sent, it must be shipped in its original package and packaging material. No accessories should be shipped with the product. If any accessories are shipped with the product, Elation Professional shall have no liability what so ever for loss and/or damage to any such accessories, nor for the safe return thereof.

C. This warranty is void if the product serial number and/or labels are altered or removed; if the product is modified in any manner which Elation Professional concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Elation Professional factory unless prior written authorization was issued to purchaser by Elation Professional; if the product is damaged because not properly maintained as set forth in the product instructions, guidelines and/or user manual.

D. This is not a service contract, and this warranty does not include any maintenance, cleaning or periodic check-up. During the periods as specified above, Elation Professional will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Elation Professional under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Elation Professional. All products covered by this warranty were manufactured after January 1, 1990, and bare identifying marks to that effect.

E. Elation Professional reserves the right to make changes in design and/or performance improvements upon its products without any obligation to include these changes in any products theretofore manufactured.

F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with the products described above. Except to the extent prohibited by applicable law, all implied warranties made by Elation Professional in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty periods set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said periods have expired. The consumer's and/or dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall Elation Professional be liable for any loss and/or damage, direct and/or consequential, arising out of the use of, and/or the inability to use, this product.

G. This warranty is the only written warranty applicable to Elation Professional products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

WARRANTY RETURNS

All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper and included in the shipping container. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. Items returned without a R.A. number clearly marked on the outside of the package will be refused and returned at customer's expense. You may obtain a R.A. number by contacting customer support.

SAFETY GUIDELINES

This fixture is a sophisticated piece of electronic equipment. To guarantee a smooth operation, it is important to follow all instructions and guidelines in this manual. Elation Professional is not responsible for injury and/or damages resulting from the misuse of this fixture due to the disregard of the information printed in this manual. Only qualified and/or certified personnel should perform installation of this fixture and only the original rigging parts (omega brackets) included with this fixture should be used for installation. Any modifications to the fixture and/or the included mounting hardware will void the original manufactures 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 MANUFACTURES WARRANTY. DAMAGES RESULTING FROM MODIFICATIONS TO THIS FIXTURE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURES WARRANTY AND ARE NOT SUBJECT TO ANY WARRANTY CLAIMS AND/OR REPAIRS.

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!

SAFETY GUIDELINES

DO NOT TOUCH the fixture housing during operation. Turn OFF the power and allow approximately 15 minutes for the fixture to cool down before serving.

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

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

DO NOT block any air ventilation slots.

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

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

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

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

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

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

MAINTENANCE GUIDELINES

DISCONNECT POWER BEFORE PERFORMING ANY MAINTENANCE!

CLEANING
Frequent cleaning is recommended to insure proper function, optimized light output, and an extended life. The frequency of cleaning depends on the environment in which the fixture operates: damp, smoky or particularly dirty environments can cause greater accumulation of dirt on the fixture's optics. Clean the external lens surface at least every 20 days with a soft cloth to avoid dirt/debris accumulation. **NEVER use alcohol, solvents, or ammonia-based cleaners.**

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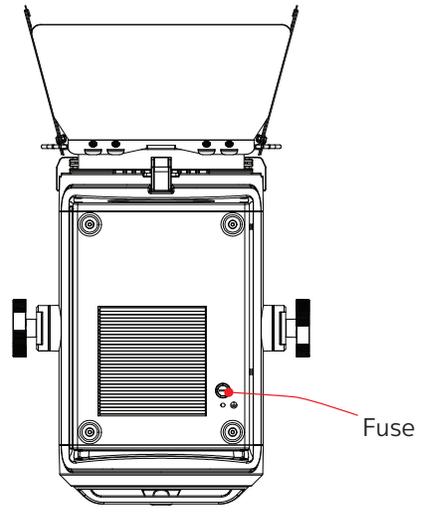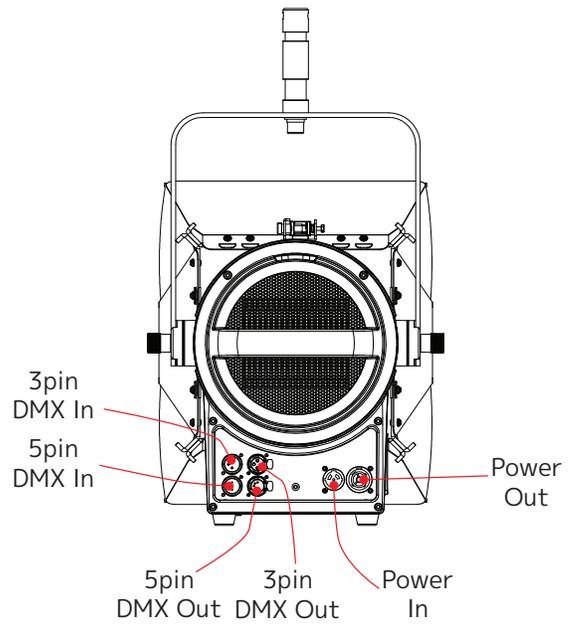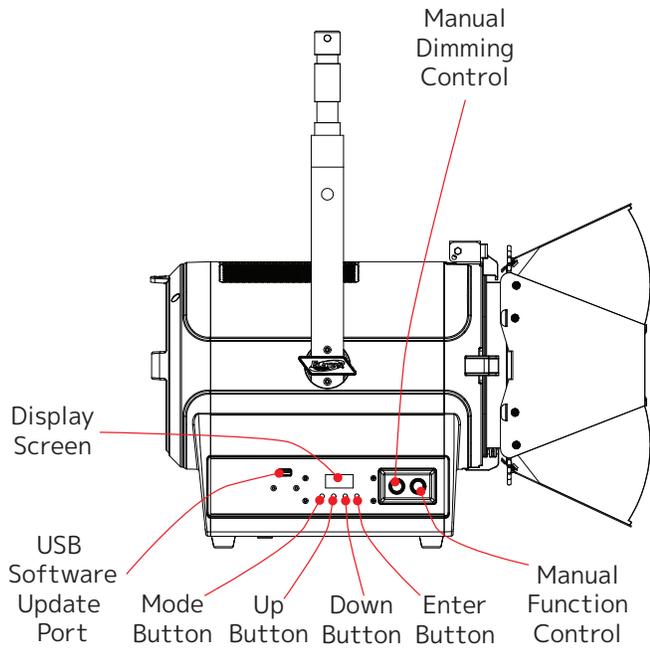Regular inspections are recommended to insure proper function and extended life.
There are no user serviceable parts inside this fixture, please refer all other service issues to an authorized Elation service technician. Should you need any spare parts, please order genuine parts from your local Elation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

FIXTURE OVERVIEW

Manual
Dimming
Control

Display
Screen

USB
Software
Update
Port

Mode
Button

Up
Button

Down
Button

Enter
Button

Manual
Function
Control

3pin
DMX In

5pin
DMX In

Power
Out

5pin
DMX Out

3pin
DMX Out

Power
In

Fuse

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 interconnected fixtures for custom matrix designs 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.

Fixture ambient operating temperature range is **14° to 113°F. (-10° to 45°C)**
Do not use the fixture under or above this temperature.

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 that meets all local, national, and country codes and regulations. Allow approximately 15 minutes for the fixture to cool down before servicing.
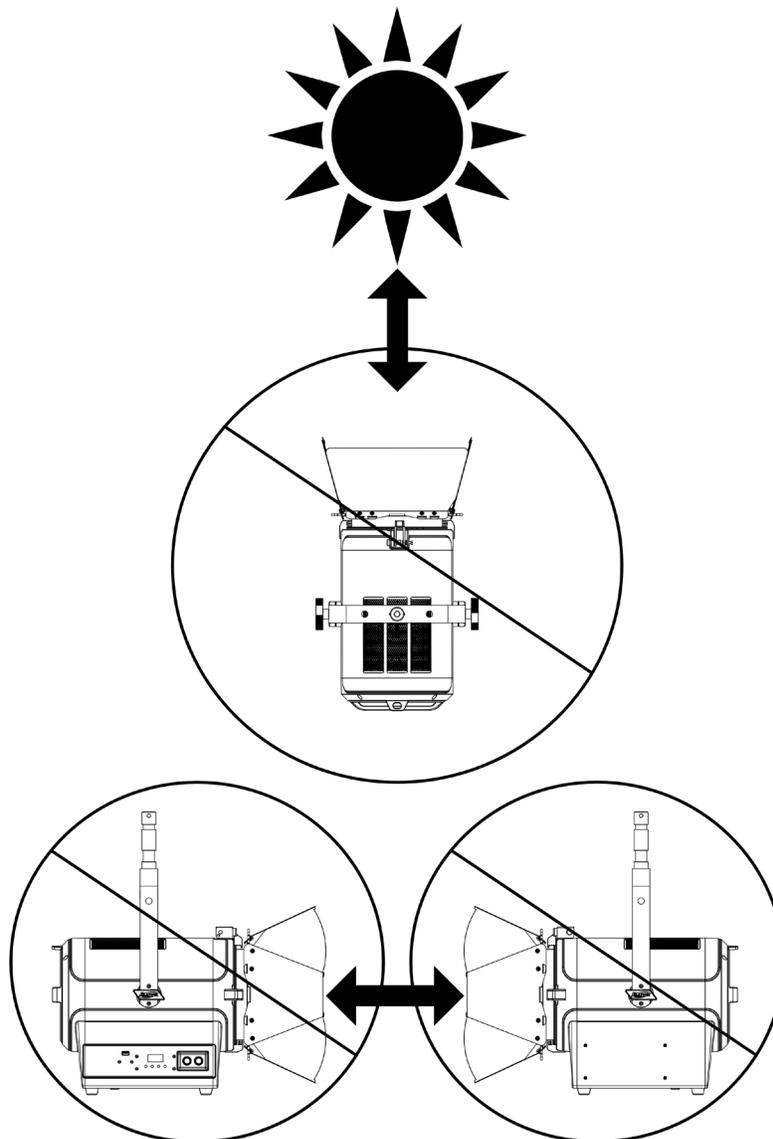
INSTALLATION GUIDELINES

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.

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.

1
LOCK OPEN

2

3 ⚠
LOCK CLOSED

4
ATTACH BARN DOOR SAFETY
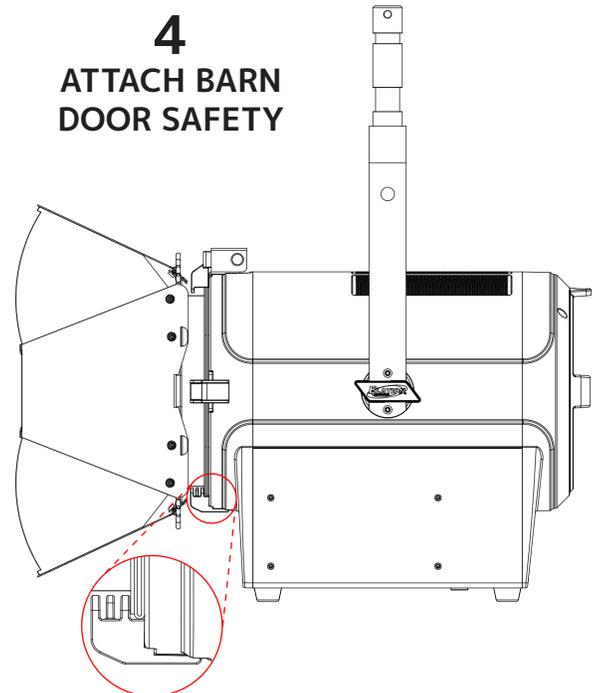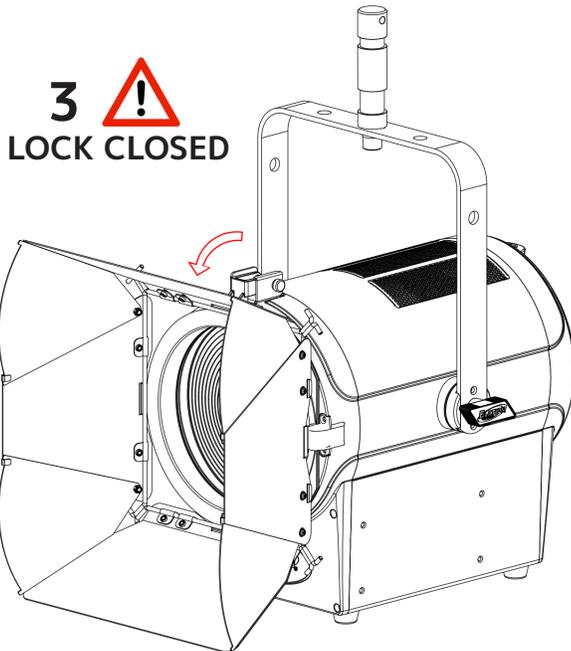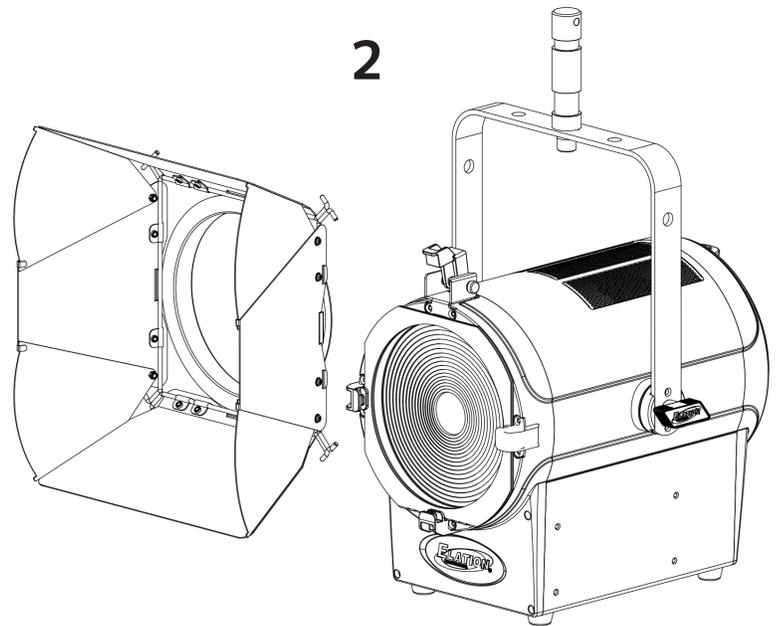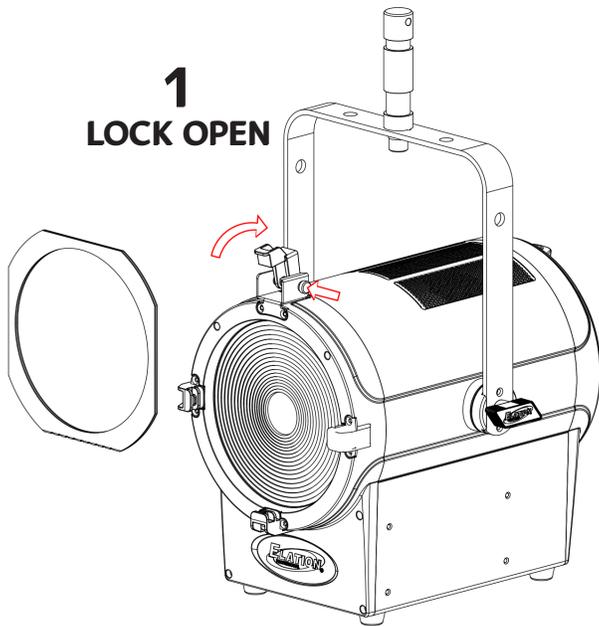
Insert Gel Frame into smaller slot
Insert Barn Doors into larger slot

Secure the included mini SAFETY CABLE to the BARN DOOR and the top lock.

1. Lift up lock on top of fixture and insert **GEL FRAME** into the first slot closest to fixture.

2. Insert **BARN DOOR** into the second slot.

3. Lower the lock on top of the fixture to secure both the **GEL FRAME** and **BARN DOOR**.

4. Secure the included mini **SAFETY CABLE** to the **BARN DOOR** and top lock.

INSTALLATION GUIDELINES

JUNIOR PIN INSTALLATION (INCLUDED)

This fixture includes an adjustable dual mounting yoke and safety cable rigging point attached to the fixture. When using the included 28mm Junior Pin, attach the pin with the included bolt using a 10mm Hex Key, and attach a SAFETY CABLE to the safety cable rigging point.

CLAMP INSTALLATION (NOT INCLUDED)

This fixture includes an adjustable dual mounting yoke and safety cable rigging point attached to the fixture. When mounting this fixture to truss, be sure to secure an appropriately rated clamp (not included) to the yoke using at minimum a M10 screw, and attach a SAFETY CABLE to the safety cable rigging point.
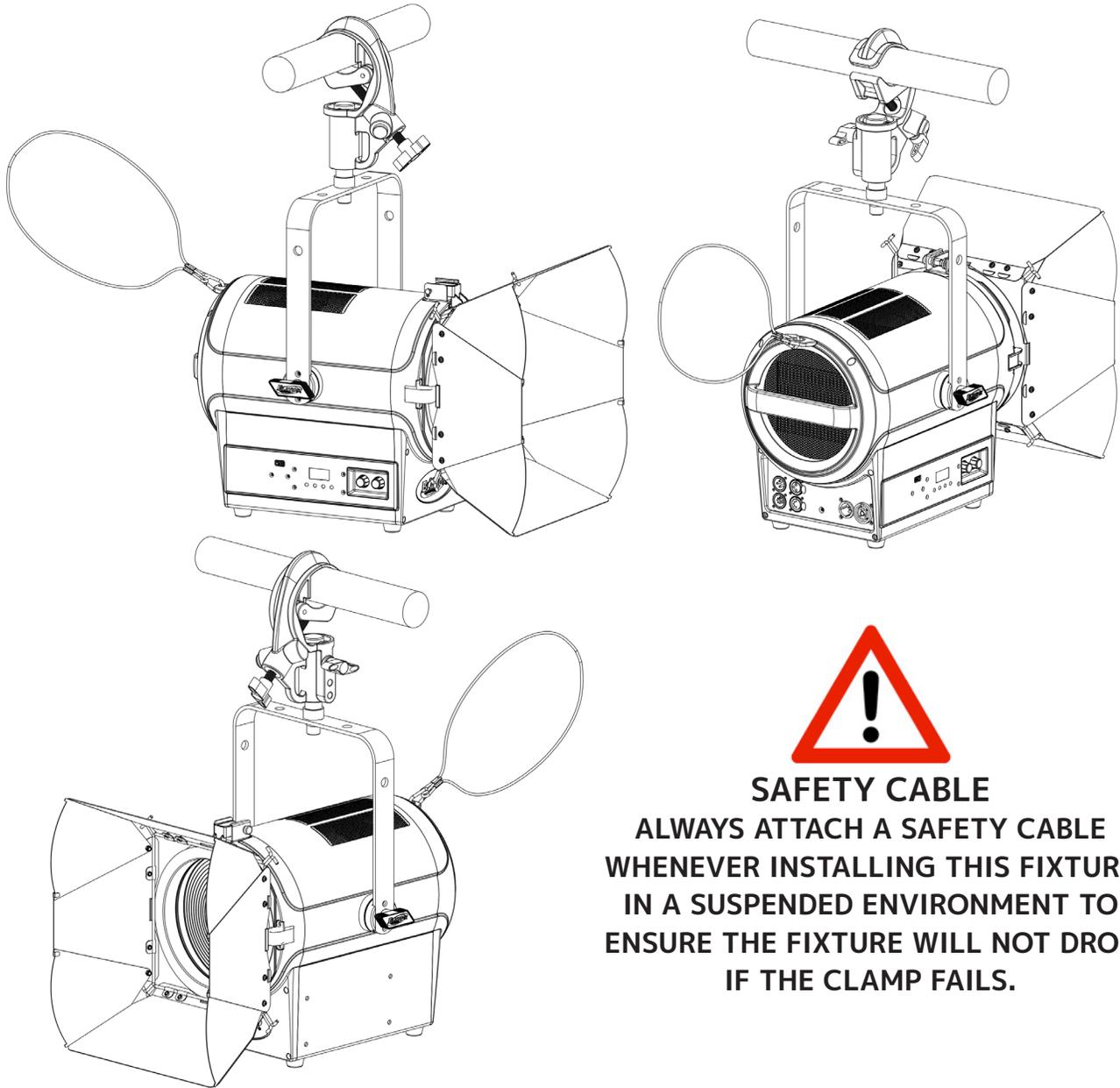
SAFETY CABLE
ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE THE FIXTURE WILL NOT DROP IF THE CLAMP FAILS.

INSTALLATION GUIDELINES

RIGGING

This fixture can be mounted suspended upside down from a truss, mounted to a vertical truss, or standing upright on a stable, level surface. Refer to the illustration below.
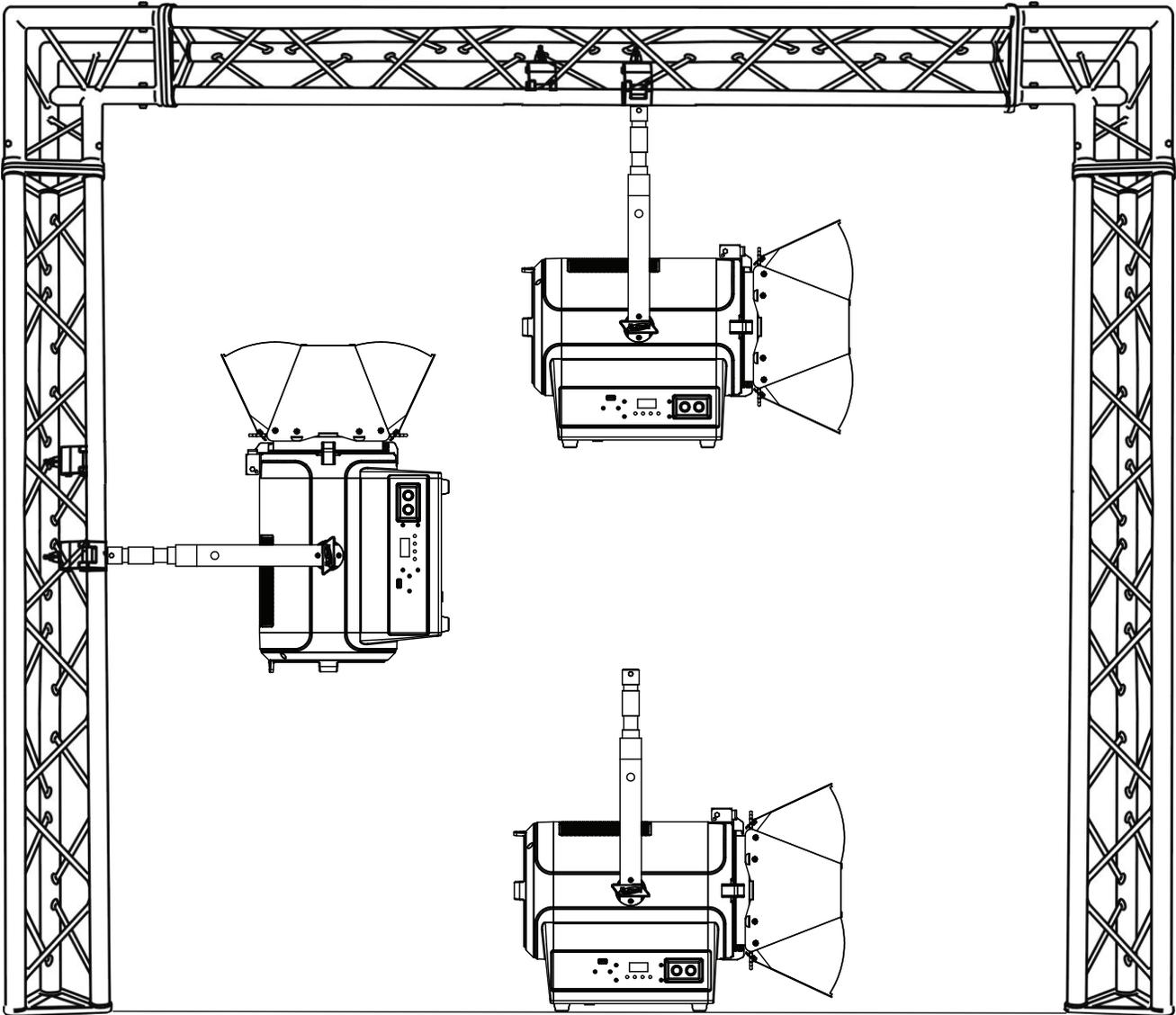
CAUTION: Falling fixtures can cause severe injury or serious equipment damage! For this reason, fixtures should be installed and inspected only by qualified personnel. Do not install the unit if you lack the qualifications to do so, or if you have doubts about the safety and security of the installation setup or location!

COLOURTUNE TECHNOLOGY

The **KL FRESNEL 8 FC** features our latest advanced fixture software, **ColourTune Technology**. This innovative software offers various features to enhance the control and precision of the fixture and the light it creates.

COLOR TUNING
This feature allows users to select between Highest Output, Highest Fidelity, or a blend of both. When Highest Output is chosen, the fixture prioritizes intensity by producing the selected CCT and color settings at maximum output while maintaining the best color fidelity possible. When Highest Fidelity is selected, the fixture prioritizes light quality by generating the selected CCT and color settings at the highest fidelity possible while offering the best intensity it can. The difference between fidelity and output changes varies depending on the CCT and color settings. Selecting Balanced Output and Fidelity equally prioritizes fidelity and output to produce the selected CCT and color settings with balanced fidelity and output.

OUTPUT BALANCE
Output Balance settings allow users to choose between Bright and Uniform (Elation Full Spectrum Match). This setting enables color tone balancing across multiple fixture models that also use Elation's Full Spectrum Engine. Selecting the Uniform setting reduces the intensity of some primary colors to ensure all mixed colors match across multiple fixture models. The Uniform setting also ensures color temperature and output levels are closely matched across fixtures of the same model.

16-BIT CCT CONTROL
In a DMX mode with 16-bit CCT control, fully variable CCT values are available, and adjustments of 1 degree Kelvin are achievable.

DIM TO WARM
With this feature activated, the fixture emulates a tungsten lamp by decreasing the color temperature as it dims. This works with any set CCT value, and only affects the output if a base CCT is established.

WHITE POINT ADJUSTMENT
The White Point Adjustment feature allows users to set a desired CCT value, and then mix color from that white set point. This color can be mixed manually through adjusting the primary color channels, or by selecting a color in the virtual swatch book.

VIRTUAL SWATCH BOOK FADE
The ability to fade between two virtual swatch book color selections has been added. Users can select a fade time using the Dimmer Delay Time setting in the Dim Mode Control Channel. Changing between colors in the swatch book will then utilize the chosen timing.

SYSTEM MENU

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

NOTE: To access the LCD Menu Control Display when locked, press and hold the **MODE** button for 3 seconds. The LCD Menu Control Display will shut **OFF** automatically about 1 minute from the last button press.
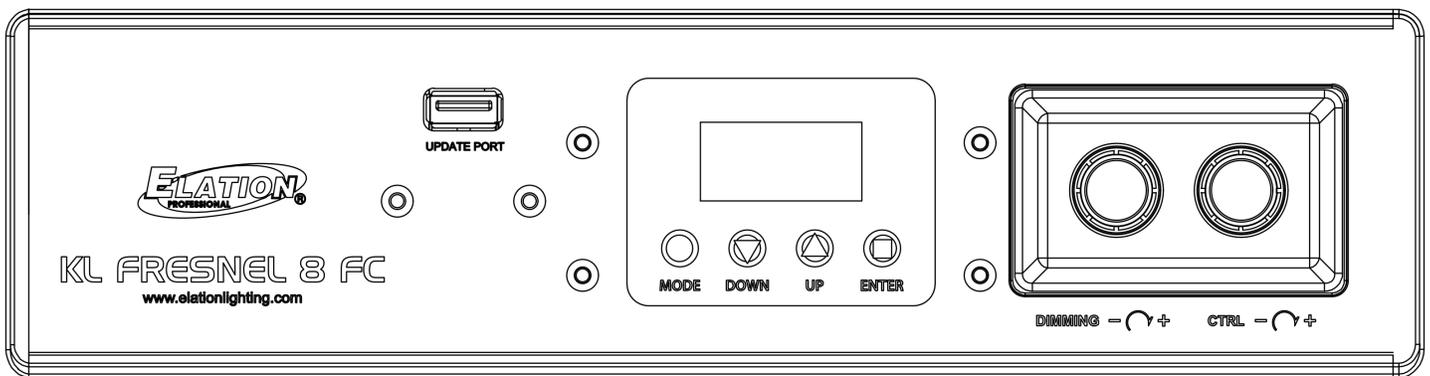
STANDALONE
Press the MODE button to access the fixture's main menu. Use the UP and DOWN buttons to navigate to DMX Settings and press the ENTER button. Navigate to No DMX Status and press the ENTER button. Navigate to Standalone and press the ENTER button.

SERVICE PORT
This device features a service port on the control panel that can be used to perform software updates. Please refer to the Software Updates section of this manual for detailed information.

SYSTEM MENU

ENCODER MODE	Disabled (Use when running DMX control)		Refer to **Encoder Mode** section
	Int CCT GRN Zoom		
	Int Color Sat Zoom		
	Int xy Zoom		
	Manual Control		
DMX	DMX Address	**001** - 512	
	DMX Modes	**1 Ch Dimmer**	
		5 Ch Dimmer/CCT	
		7 Ch Dim/CCT/Clr	
		11 Ch RGBMA	
		12 Ch Standard	
		19 Ch Legacy Extended	
		20 Ch Extended	
		10 Ch CMY	
		15 Ch CMY Legacy Extended	
		16 Ch CMY Extended	
		14 Ch xy Extended	
	No DMX Status	**Hold Last**	
		Fade to Black	
		Standalone	
CONTROL	Dimmer	000% - **100%**	
	Manual Control	Red	0 - **255**
		Green	0 - **255**
		Blue	0 - **255**
		Mint	0 - **255**
		Amber	0 - **255**
		CCT	2400K - 8500K (Default = **6000K**)
		Green Shift	-100% ~ +100% (Default = **0%**)
		Virtual Colors	See **Color Macros**
	Primary	On / **Off**	
	Secondary	On / **Off**	
	Self Test	All	
		Dimmer	
		Color	
		Zoom	

SYSTEM MENU

SETTINGS	Dim Modes	**Standard**	
		Stage	
		TV	
		Architectural	
		Theatre	
		Stage 2	
		Dim Speed	0s - 10s (Default = **0.1s**)
	Dim to Warm	On / **Off**	
	Dim Curves	Linear	
		Square	
		Square Inverse	
		S-Curve	
	LED Refresh Rate	900Hz - 1500Hz, 2500Hz, 4000Hz, 5000Hz, 6000Hz, 10KHz, 15KHz, 20KHz, 25KHz (Default = **1200Hz**)	
	Color Tuning	Highest Fidelity	
		Balanced Output and Fidelity	
		Highest Output	
	Output Balance	**Bright (Highest Output)**	
		Uniform (Elation Full Spectrum Match)	
	LED Power Limit	50%	
		60%	
		70%	
		80%	
		90%	
		100%	
	Fan Mode	**Auto**	
		High	
		Silent	
		Mute	
	Display	Screen Delay	10s - 5min (Default = **1min**)
		Screen Lock	**Off**, 10s - 5min
		Rotate Display	Yes
			No
			Auto
	Reset Defaults	Yes / **No**	

SYSTEM MENU

INFORMATION	Time	Current Run Time	
		Total Run Time	
		Last Run Time	
	Temperature	Current	
		Max Resettable	
	DMX Values	Red	
		Green	
		...	
	Product IDs	RDM UID	
	Error Logs	Fixture Errors	
	Software Version	Vx.x	
SERVICE (Passcode = 050)	Update Firmware	On / Off	
	Calibration	Red	000 - 255
		Green	000 - 255
		Blue	000 - 255
		Mint	000 - 255
		Amber	000 - 255
	Reset Last Run	Yes / No	
	Reset Error Logs	Yes / No	

ERROR CODES

Error Codes subject to change without notice	
ERROR CODES	**DESCRIPTION**
Temperature Error	Temperature Error appears when fixture overheats.

DIMMER MODES - DIM CURVE
Select desired DIMMER MODE (Standard, Stage, TV, Architectural, Theatre, Stage2).
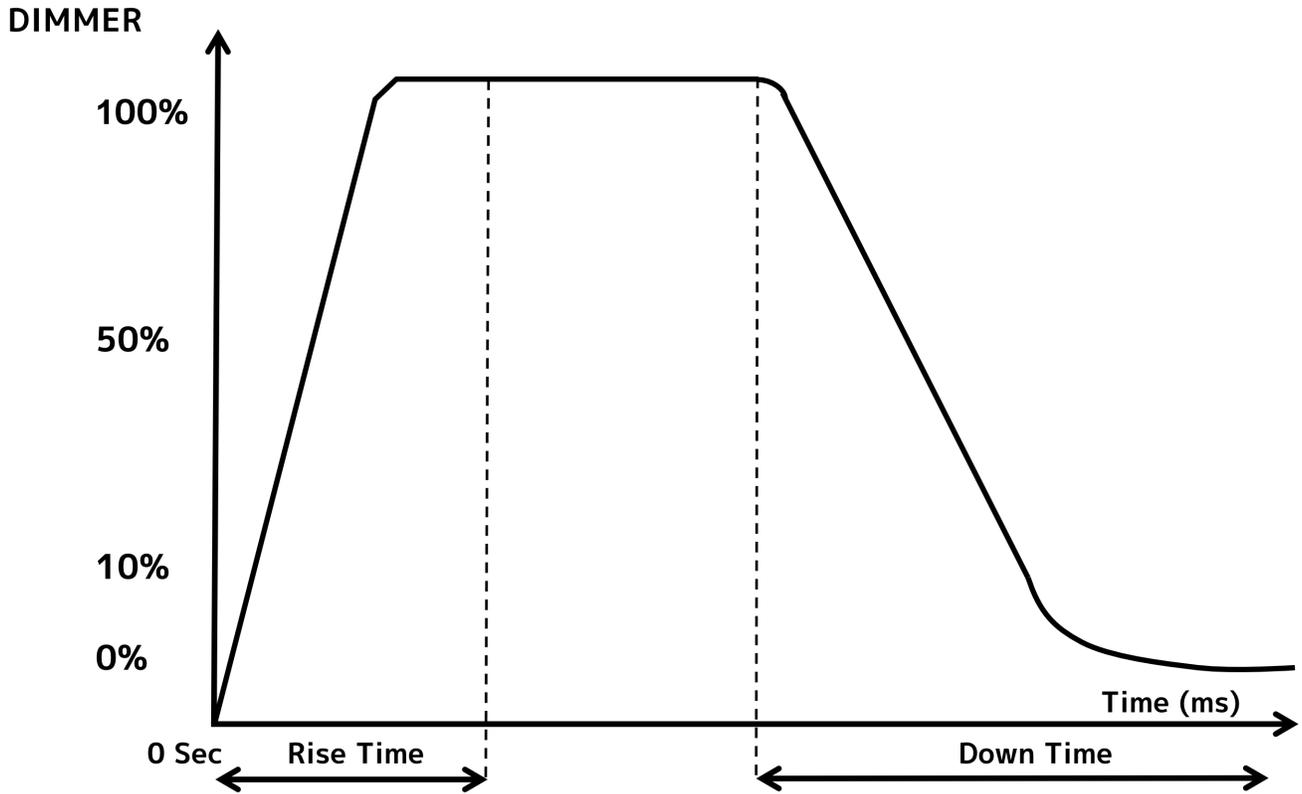
	0 sec Fade Time		1 sec Fade Time	
Dimming Curve Ramp Effect	255		255	
	Rise Time (ms)	Down Time (ms)	Rise Time (ms)	Down Time (ms)
Standard (default)	0	0	0	0
Stage	780	1100	1540	1660
TV	1180	1520	1860	1940
Architectural	1380	1730	2040	2120
Theatre	1580	1940	2230	2280

LINEAR

SQUARE

INVERSE SQUARE

S-CURVE
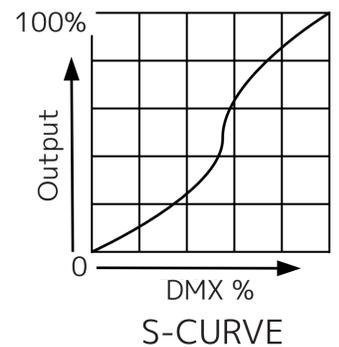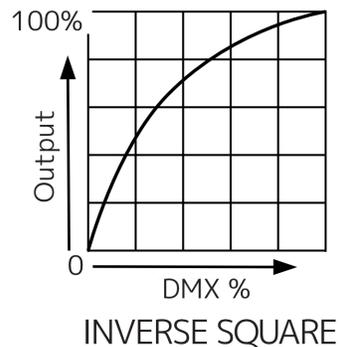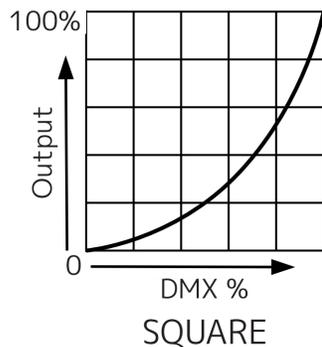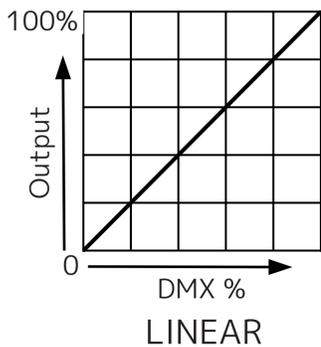
ENCODER MODE

Use the two encoder knobs for manual DIMMING and FUNCTION control. Press the CTRL knob to step/cycle through available sub-menu selections.
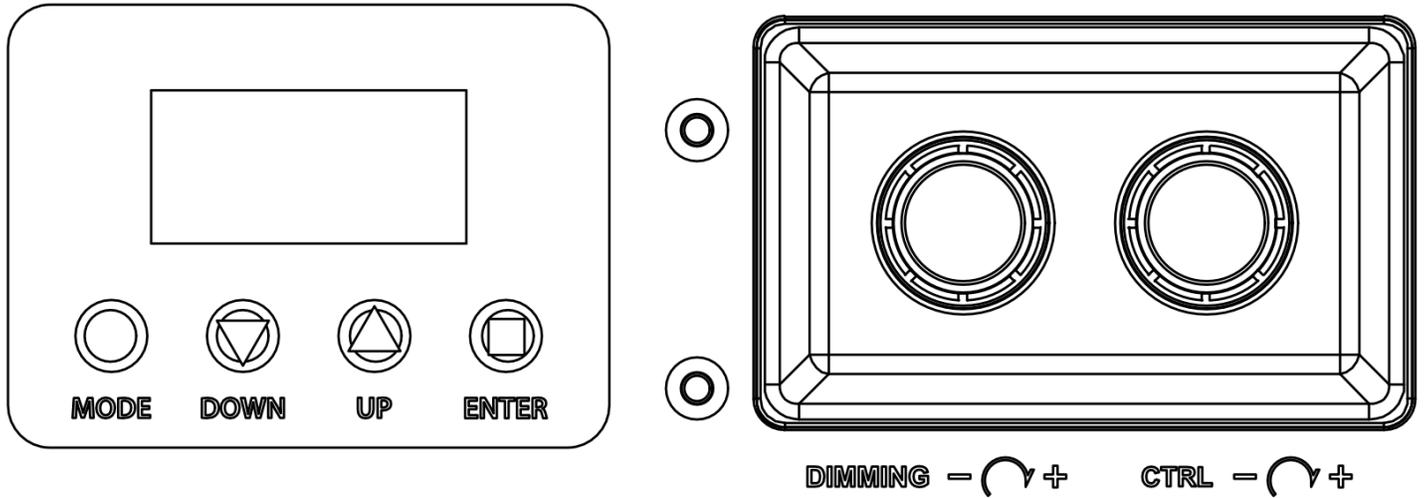
X,Y MODE				
ENCODER KNOB	SUB MENU	DISPLAY	RESOLUTION / STEPS	DEFAULT
DIMMER	Intensity	Intensity 0-100%	1%	0%
CTRL	X Coordinate	X 0-100	1%	0%
	Y Coordinate	Y 0-100	1%	0%
	Zoom	Zoom 0-100%	1%	0%

INT CCT GRN (INTENSITY, COLOR TEMPERATURE, GREEN SHIFT)				
ENCODER KNOB	SUB MENU	DISPLAY	RESOLUTION / STEPS	DEFAULT
DIMMER	Intensity	Intensity 0-100%	1%	0%
CTRL	Color Temperature	CCT 2400 - 8500K	100K	6000K
	Green Shift	GRN -100% to +100%	1%	Neutral
	Zoom	Zoom 0-100%	1%	50%

INT COL SAT MODE (INTENSITY, COLOR, SATURATION)				
ENCODER KNOB	SUB MENU	DISPLAY	RESOLUTION / STEPS	DEFAULT
DIMMER	Intensity	Intensity 0-100%	1%	0%
CTRL	Color	Virtual Color 1, 2, 3, 4···	Single Color	
	Saturation	Sat 0-100%	1%	100%
	Zoom	Zoom 0-100%	1%	50%

MANUAL CONTROL MODE				
ENCODER KNOB	SUB MENU	DISPLAY	RESOLUTION / STEPS	DEFAULT
DIMMER	Intensity	Intensity 0-100%	1%	0%
CTRL	Selection	[Setting Name] 0-100%	Zoom / Strobe / Red / Green / Blue / Amber / Mint	Strobe
	Adjustment	[Value] 0-100%	1%	0%

DMX TRAITS

1 Ch	5 Ch	7 Ch	11 Ch	12 Ch	19 Ch	20 Ch	10 Ch	15 Ch	16 Ch	14 Ch	DMX Values	Function	Snap	Def Value
1	1	1		1	1	1	1	1	1	1		**Dimmer**		0
											0 - 255	Intensity 0 →100%		
	2	2		2	2	2	2	2	2	2		**Dimmer Fine**		0
											0 - 255	Fine Intensity Control		
		3		3	3	3	3	3	3	3		**Shutter / Strobe**		50
											0 - 31	Shutter closed		
											32 - 63	No function (shutter open)		
											64 - 95	Strobe effect, slow to fast		
											96 - 127	No function (shutter open)		
											128 - 159	Pulse effect in sequences		
											160 - 191	No function (shutter open)		
											192 - 223	Random strobe effect, slow to fast		
											224 - 255	No function (shutter open)		
			1	4	4	4						**Red**		
											0 - 255	0 →100%		
			2		5	5						**Red Fine**		
											0 - 255	Fine Adjustment		
			3	5	6	6						**Green**		
											0 - 255	0 →100%		
			4		7	7						**Green Fine**		
											0 - 255	Fine Adjustment		
			5	6	8	8						**Blue**		
											0 - 255	0 →100%		
			6		9	9						**Blue Fine**		
											0 - 255	Fine Adjustment		
			7	7	10	10						**Mint**		
											0 - 255	0 →100%		
			8		11	11						**Mint Fine**		
											0 - 255	Fine Adjustment		
			9	8	12	12						**Amber**		
											0 - 255	0 →100%		
			10		13	13						**Amber Fine**		
											0 - 255	Fine Adjustment		
							4	4	4				**Cyan**		
											0 - 255	0 →100%		
								5	5				**Cyan Fine**		
											0 - 255	Fine Adjustment		
							5	6	6				**Magenta**		
											0 - 255	0 →100%		
								7	7				**Magenta Fine**		
											0 - 255	Fine Adjustment		

DMX TRAITS

1 Ch	5 Ch	7 Ch	11 Ch	12 Ch	19 Ch	20 Ch	10 Ch	15 Ch	16 Ch	14 Ch	DMX Values	Function	Snap	Def Value
						6	8	8				**Yellow**		
											0 - 255	0 →100%		
							9	9				**Yellow Fine**		
											0 - 255	Fine Adjustment		
									4			**x Coordinate**		
											0 - 255	0 →100%		
									5			**x Coordinate Fine**		
											0 - 255	Fine Adjustment		
									6			**y Coordinate**		
											0 - 255	0 →100%		
									7			**y Coordinate Fine**		
											0 - 255	Fine Adjustment		
		4		9	14			7	10			**CCT Presets**	X	
											0 - 23	Open		
											24 - 85	2400K → 8500K (See Color Temperature Table)		
											86 - 255	8500K		
	3				14				10	8		**Variable CCT**		
											0 - 23	Open		
											24 - 255	2400K → 8500K		
	4				15				11	9		**Variable CCT Fine**		
											0 - 255	Fine Adjustment		
					15	16		11	12	10		**Green Shift**		
											0	Idle		
											1 - 127	Full Minus Green to Neutral		
											128	Neutral White		
											129 - 255	Neutral to Full Plus Green		
		5		10	16	17	8	12	13	11		**Color**		
											0	Open		
											1 - 179	Virtual Swatch Book (see Virtual Gel Swatch Book Color)		
												Color Scroll		
											180 - 201	Clockwise, fast to slow		
											202 - 207	Stop		
											208 - 229	Counter-clockwise, slow to fast		
											230 - 234	Open		
												Random Slots		
											235 - 239	Fast		
											240 - 244	Medium		
											245 - 249	Slow		
											250 - 255	Open		

DMX TRAITS

1 Ch	5 Ch	7 Ch	11 Ch	12 Ch	19 Ch	20 Ch	10 Ch	15 Ch	16 Ch	14 Ch	DMX Values	Function	Snap	Def Value
	5	6	11	11	17	18	9	13	14	12		**Zoom**		127
											0 - 255	Narrow → Wide		
					18	19		14	15	13		**Dim Modes**	X	0
											0 - 20	Standard		
											21 - 40	Stage		
											41 - 60	TV		
											61 - 80	Architectural		
											81 - 100	Theatre		
											101 - 120	Stage 2		
												Dimmer Delay Time		
											121	0s		
											122	0.1s		
											123	0.2s		
											124	0.3s		
											125	0.4s		
											126	0.5s		
											127	0.6s		
											128	0.7s		
											129	0.8s		
											130	0.9s		
											131	1.0s		
											132	1.5s		
											133	2.0s		
											134	3.0s		
											135	4.0s		
											136	5.0s		
											137	6.0s		
											138	7.0s		
											139	8.0s		
											140	9.0s		
											141	10.0s		
											142 - 149	Idle		
												Dim to Warm		
											150 - 154	DTW On		
											155 - 159	DTW Off		
											160 - 255	Idle		

DMX TRAITS

1 Ch	5 Ch	7 Ch	11 Ch	12 Ch	19 Ch	20 Ch	10 Ch	15 Ch	16 Ch	14 Ch	DMX Values	Function	Snap	Def Value
												Control		
											0 - 29	Idle		
											30 - 39	Fan Mode Auto		
											40 - 49	Fan Mode Mute		
											50 - 59	Fan Mode Silent		
											60 - 69	Fan Mode High		
											70 - 99	Idle		
												Refresh Rate (Hz)		
											100	900		
											101	910		
											102	920		
											103	930		
											104	940		
											105	950		
											106	960		
											107	970		
											108	980		
											109	990		
											110	1000		
											111	1010		
		7		12	19	20	10	15	16	14	112	1020	X	0
											113	1030		
											114	1040		
											115	1050		
											116	1060		
											117	1070		
											118	1080		
											119	1090		
											120	1100		
											121	1110		
											122	1120		
											123	1130		
											124	1140		
											125	1150		
											126	1160		
											127	1170		
											128	1180		
											129	1190		
											130	1200		
											131	1210		
											132	1220		

DMX TRAITS

1 Ch	5 Ch	7 Ch	11 Ch	12 Ch	19 Ch	20 Ch	10 Ch	15 Ch	16 Ch	14 Ch	DMX Values	Function	Snap	Def Value
												Refresh Rate (Hz) (continued)		
											133	1230		
											134	1240		
											135	1250		
											136	1260		
											137	1270		
											138	1280		
											139	1290		
											140	1300		
											141	1310		
											142	1320		
											143	1330		
											144	1340		
											145	1350		
											146	1360		
											147	1370		
											148	1380		
											149	1390		
		7		12	19	20	10	15	16	14	150	1400	X	0
											151	1410		
											152	1420		
											153	1430		
											154	1440		
											155	1450		
											156	1460		
											157	1470		
											158	1480		
											159	1490		
											160	1500		
											161	2500		
											162	4000		
											163	5000		
											164	10000		
											165	15000		
											166	20000		
											167	25000		
											169 - 174	Idle		

DMX TRAITS

1 Ch	5 Ch	7 Ch	11 Ch	12 Ch	19 Ch	20 Ch	10 Ch	15 Ch	16 Ch	14 Ch	DMX Values	Function	Snap	Def Value
												Color Tuning		
											175 - 176	Highest Fidelity		
											177 - 178	Balanced Output and Fidelity		
											179 - 180	Highest Output (Default)		
												Output Balance		
											181 - 182	Bright (Highest Output) (Default)		
		7		12	19	20	10	15	16	14	183 - 184	Uniform (Elation Full Spectrum Match)	X	0
											185 - 200	Idle		
												Dimmer Curves		
											201 - 210	Linear		
											211 - 220	Square		
											221 - 230	Inverse Square		
											231 - 240	S-Curve (default)		
											241 - 255	Idle		

COLORS

Colors	Color Temperature	Green Shift
Cyan		
Magenta		Full Minus Green to Neutral
Yellow		
Red	2700K – 8500K	Neutral White
Green		
Blue		
Mint		Neutral to Full Plus Green
Amber		

VIRTUAL GEL SWATCH BOOK COLOR

1	7	pale yellow	28	113	magenta
2	103	straw	29	46	dark magenta
3	151	gold tint	30	48	rose purple
4	100	spring yellow	31	126	mauve
5	10	medium yellow	32	49	medium purple
6	101	yellow	33	58	lavender
7	104	deep amber	34	199	palace blue
8	15	deep straw	35	119	dark blue
9	179	loving amber	36	132	medium blue
10	21	gold amber	37	120	deep blue
11	105	orange	38	165	daylight blue
12	158	deep orange	39	161	slate blue
13	22	dark amber	40	118	light blue
14	778	millennium gold	41	68	sky blue
15	135	deep golden amber	42	143	pale navy blue
16	24	scarlet	43	131	marine blue
17	106	primary red	44	115	peacock blue
18	26	bright red	45	172	lagoon blue
19	27	medium red	46	116	medium blue green
20	19	fire	47	90	dark yellow green
21	157	pink	48	139	primary green
22	36	medium pink	49	122	fern green
23	111	dark pink	50	89	moss green
24	128	bright pink	51	124	dark green
25	148	bright rose	52	88	lime green
26	332	special rose pink	53	138	pale green
27	793	vanity fair	54-179		No function

COLOR TEMPERATURE

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

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.

Model	RDM Code	Device ID	Device Model ID	Personality ID
KL FRESNEL 8FC	0x22A6	0012	18	1Ch, 5Ch, 7Ch, 11Ch, 12Ch, 19Ch, 20Ch, 10Ch, 15Ch, 16Ch, 14Ch

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

The following parameters are accessible in RDM on this device:

[0x0011] Proxied Device Count	[0x0600] Pan Invert
[0x0200] Sensor Definition	[0x0601] Tilt Invert
[0x0201] Sensor Value	[0x0602] Pan Tilt Swap
[0x0080] Device Model Description	[0x0500] Display Invert
[0x0081] Manufacturer Label	[0x0501] Display Level
[0x0082] Device Label	[0x0603] Realtime Clock
[0x00E0] DMX Personality	[0x1010] Power State
[0x00E1] DMX Personality Description	[0x1031] Preset Playback
[0x0400] Device Hours	[0x0122] Default Slot Value
[0x0015] Comms Status	[0x00B0] Language
[0x0031] Status ID Description	[0x00A0] Language Capabilities
[0x0032] Clear Status ID	[0x00C2] Boot Software Version Label
[0x0401] Lamp Hours	[0x00C1] Boot Software Version ID
[0x0402] Lamp Strikes	[0x0070] Product Detail ID List
[0x0403] Lamp State	[0x0030] Status Messages
[0x0404] Lamp Mode	[0x0000] Undefined PID [0x0000, (0)]
[0x0405] Device Power Cycles	

SOFTWARE UPDATES

ONLY QUALIFIED TECHNICIANS SHOULD PERFORM THIS FUNCTION!
NOTE ALL MENU SETTINGS BEFORE UPDATING SOFTWARE!
FIXTURE SOFTWARE CAN NOT BE DOWNGRADED!
DOWNLOAD FIXTURE SOFTWARE TO PC ONLY! (NO MAC SUPPORT)
PLEASE CONTACT ELATION SERVICE FOR FURTHER INFORMATION.

PERSONALITY – Service Setting – USB Update
To update the fixture software via the UPDATE/SERVICE PORT, follow steps below.

1. Copy fixture software update file from a PC computer to a compatible USB flash drive. Make sure only the fixture software update file is stored on the USB flash drive.
2. Disconnect DMX, Art-Net, and E-FLY connections and power the fixture ON.
3. Insert USB flash drive into the UPDATE/SERVICE PORT on the rear connection panel.
4. Navigate to the Personality > Service, then input the service passcode. Select the Update Software option.
5. Select the software file name on the menu display and press ENTER.
6. Select YES to begin update process. Updating···% will show on the menu display.
7. After file is uploaded, the fixture will check the software, which may take some time.
8. The fixture will perform a reset process when the software update process is complete.
9. Remove the USB flash drive and make necessary system menu setting adjustments.

C-LOADER II
Alternately, an Elation C-Loader II can be used to update the fixture to the latest software. Please visit the C-Loader II product page at the Elation web site and download the product manual for step by step instructions.

https://www.elationlighting.com/c-loader-software-uploader

To order the C-Loader II uploader and the updated software for your fixture, please contact Elation support for details.

SPECIFICATIONS

SOURCE
6000K RGBMA LED Engine
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
18,000 Total Lumen Output
CRI 94.5
TLCI 94
Zoom Range 10° - 50°
Beam Angle 10.4° - 50.8°
Field Angle 20.6° - 66.1°

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

COLOR
High Brightness and High Fidelity Output
Options
RGBMA Color Array
CMY Emulation
16bit Fully Variable CCT 2400K - 8500K
Green/Magenta Shift
Dim-to-Warm Fade
Virtual Gel Swatch Book

CONTROL / CONNECTIONS
11 DMX Channel Modes (1, 5, 7, 11, 12, 19,
20, 10, 15, 16, & 14 channels)
Manual and DMX Controlled Dimmer, Color
and Zoom
Dual Rotary Dials
4 Button Control Panel, LED Display
RDM (Remote Device Management)
3/5pin DMX and IP65 Locking Power In/Out
Connection

SIZE / WEIGHT
Length: 15.1" (382.5mm)
Width: 12.9" (326.5mm)
Vertical Height: 17.9" (455mm)
Weight: 23.15 lbs. (10.5kg)

ELECTRICAL / THERMAL
AC 100-240V - 50/60Hz
514W Max Power Consumption
Power Thru Capacity: 6A (1 unit @ 110V; 2
units @ 240V)
5°F to 113°F (-15°C to 45°C)
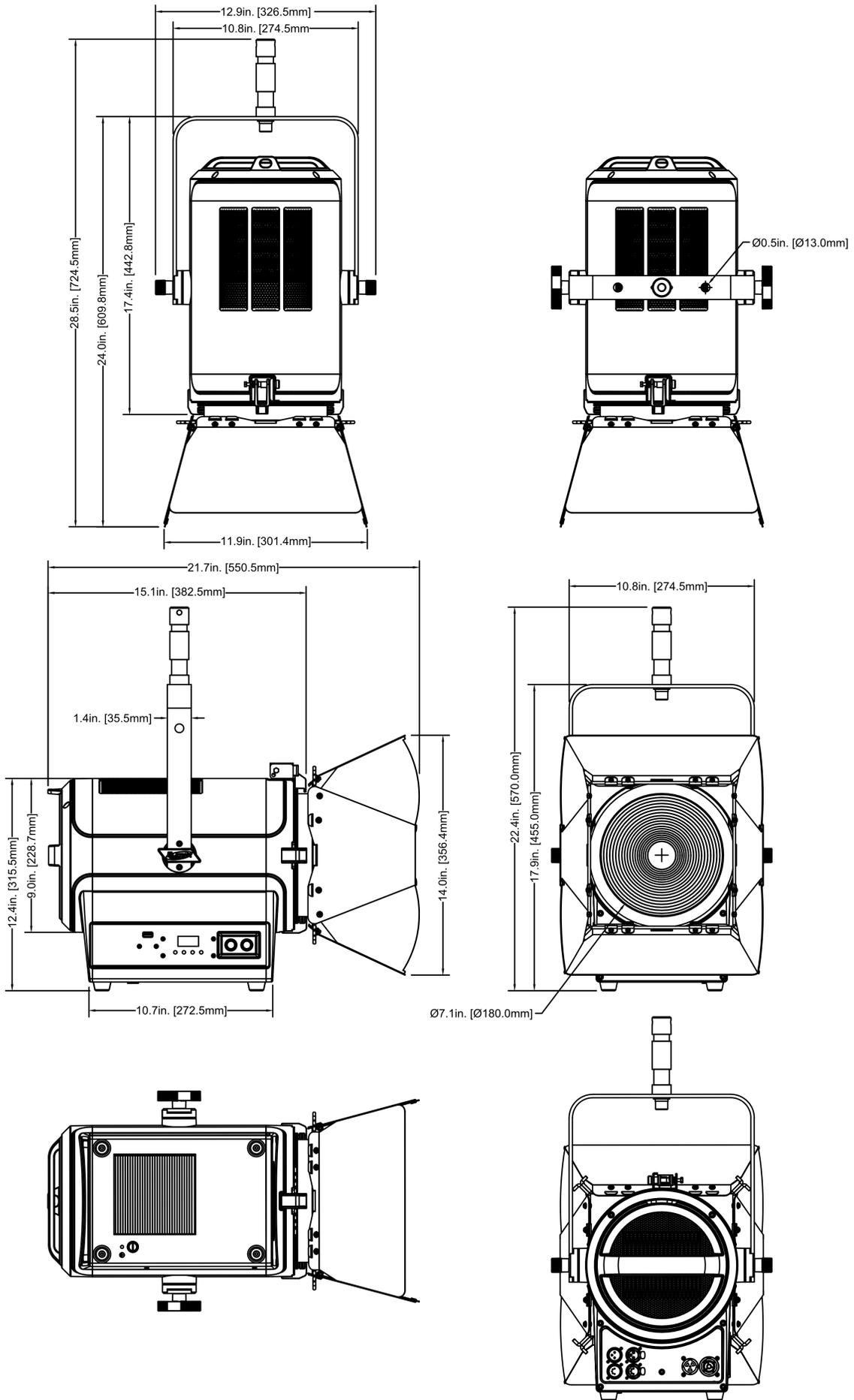BTU/hr (+/- 10%) 1752.74

INCLUDED ITEMS
Gel Frame and Rotating 8-leaf Barn Doors
Junior Pin (1 1/8" - 28mm)
IP65 Locking Power Cable

APPROVALS / RATINGS
CE | cETLus | IP20

Specifications and documentation subject to change without notice.

DIMENSIONS

12.9in. [326.5mm]
10.8in. [274.5mm]
28.5in. [724.5mm]
24.0in. [609.8mm]
17.4in. [442.8mm]
11.9in. [301.4mm]

Ø0.5in. [Ø13.0mm]

21.7in. [550.5mm]
15.1in. [382.5mm]
1.4in. [35.5mm]
12.4in. [315.5mm]
9.0in. [228.7mm]
10.7in. [272.5mm]
14.0in. [356.4mm]

10.8in. [274.5mm]
22.4in. [570.0mm]
17.9in. [455.0mm]
Ø7.1in. [Ø180.0mm]

OPTIONAL ACCESSORIES

SKU NUMBER	DESCRIPTION
SIP139	IP65 Rated Twist Lock Power Cable, 10ft (3m)*
AC5PDMX3PRO	5-pin Pro DMX Cable, 3 ft (0.9m)*
TRIGGER CLAMP	Heavy Duty Hook Style Clamp
KLF135	Universal Snap Bag

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.