



# 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](http://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

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# 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](http://forums.elationlighting.com) with questions, comments or suggestions.

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

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**REPLACEMENT PARTS** please visit [parts.elationlighting.com](http://parts.elationlighting.com)

## 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 electric check by an approved electrical engineer every three months, to make sure the circuit contacts are in good condition and prevent overheating.

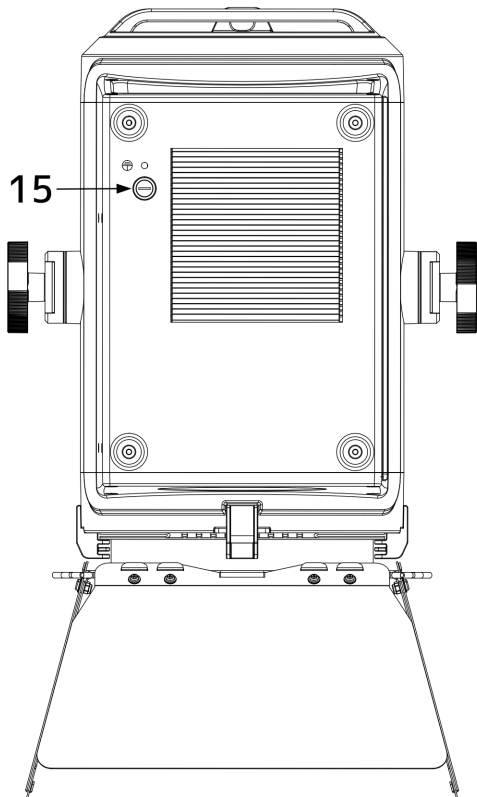
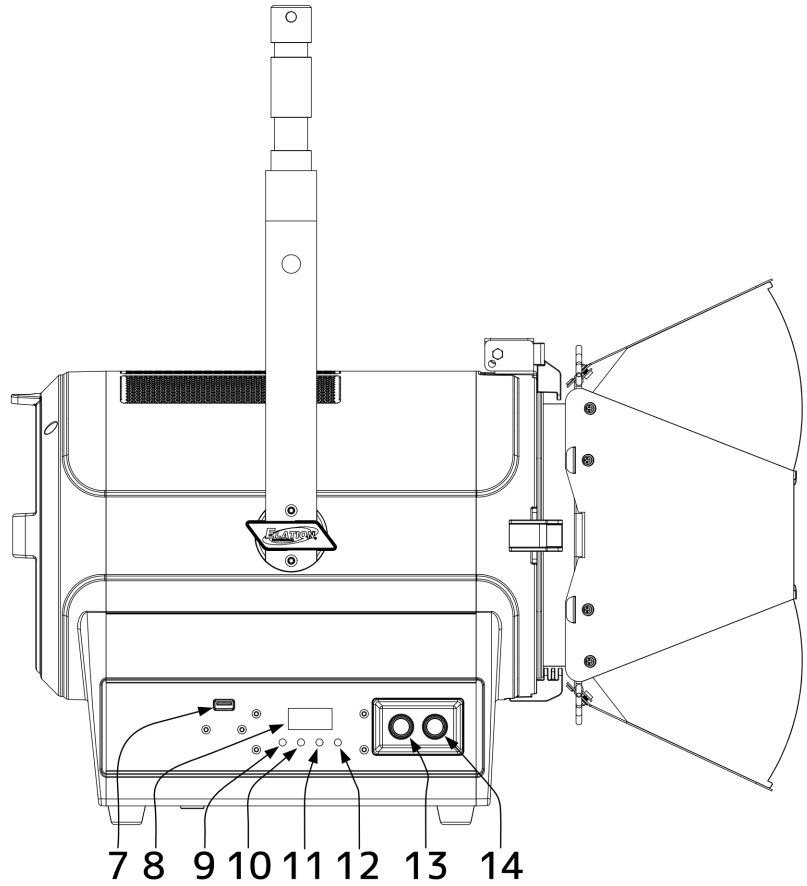
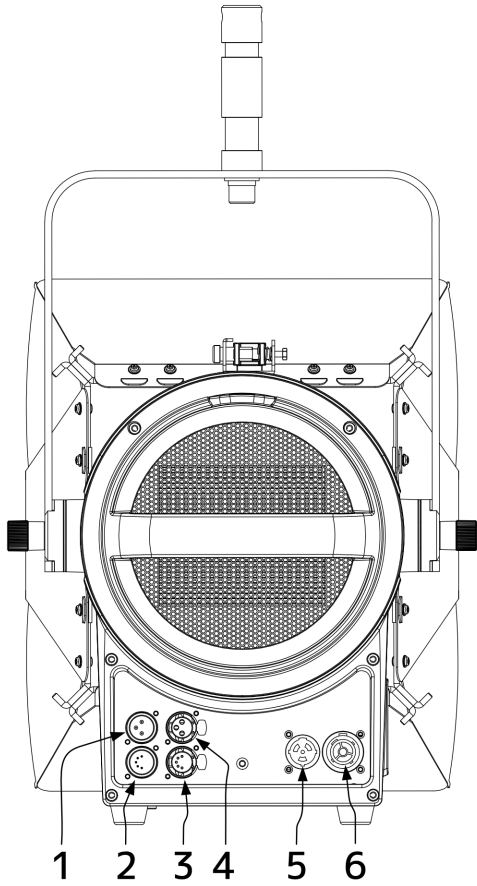
Be sure all screws and fasteners are securely tightened at all times. Loose screws may fall out during normal operation resulting in damage or injury as larger parts could fall.

Check for any deformations on the housing, color lenses, rigging hardware and rigging points (ceiling, suspension, trussing). Deformations in the housing could allow for dust to enter into the fixture. Damaged rigging points or unsecured rigging could cause the fixture to fall and seriously injure a person(s).

Electric power supply cables must not show any damage, material fatigue or sediments. **NEVER** remove the ground prong from the power cable.



# FIXTURE OVERVIEW



1. 3pin DMX In
2. 5pin DMX In
3. 5pin DMX Out
4. 3pin DMX Out
5. Power In
6. Power Out
7. USB Software Update Port
8. OLED Control Menu Display
9. MODE Button
10. UP Button
11. DOWN Button
12. ENTER Button
13. Manual Dimming Control
14. Manual Function Control
15. 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 where unauthorized personnel might reach the fixture by hand.

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

Overhead fixture installation must always be secured with a secondary safety attachment, such as an appropriately rated safety cable that meets all local, national, and country codes and regulations. Allow approximately 15 minutes for the fixture to cool down before serving.

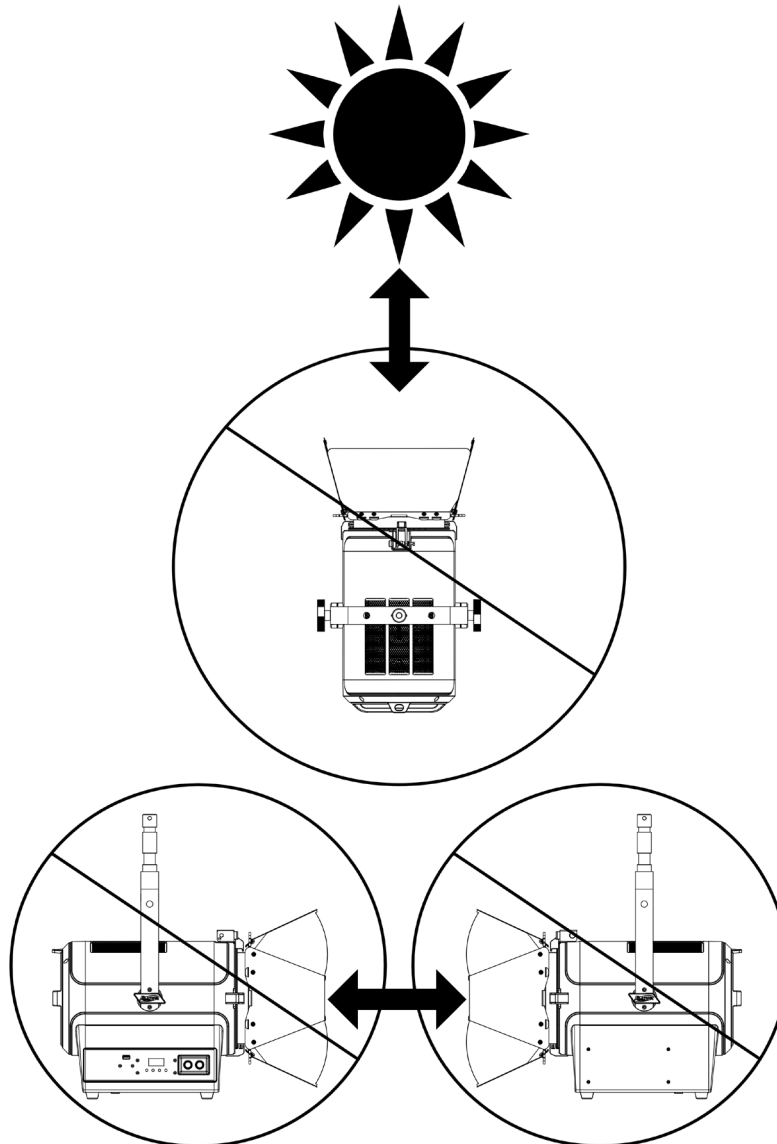
# INSTALLATION GUIDELINES

## 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.

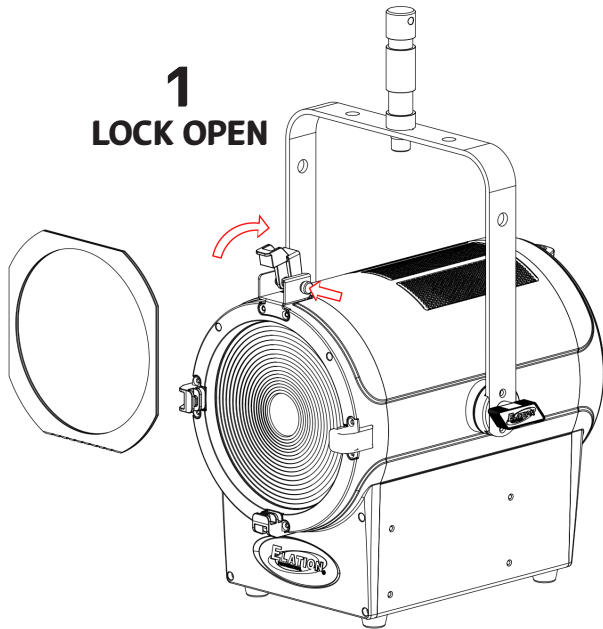
**DO NOT EXPOSE THE FIXTURE AND/OR FRONT LENS OPENING TO LIGHT BEAMS FROM DIRECT SUNLIGHT, OTHER LIGHTING MOVING HEAD FIXTURES, AND LASERS WHILE UNPACKING, INSTALLATION, USE, AND EXTENDED IDLE TIMES OUTDOORS. DO NOT FOCUS A LIGHT BEAM FROM ONE LIGHTING FIXTURE DIRECTLY TOWARDS ANOTHER.**



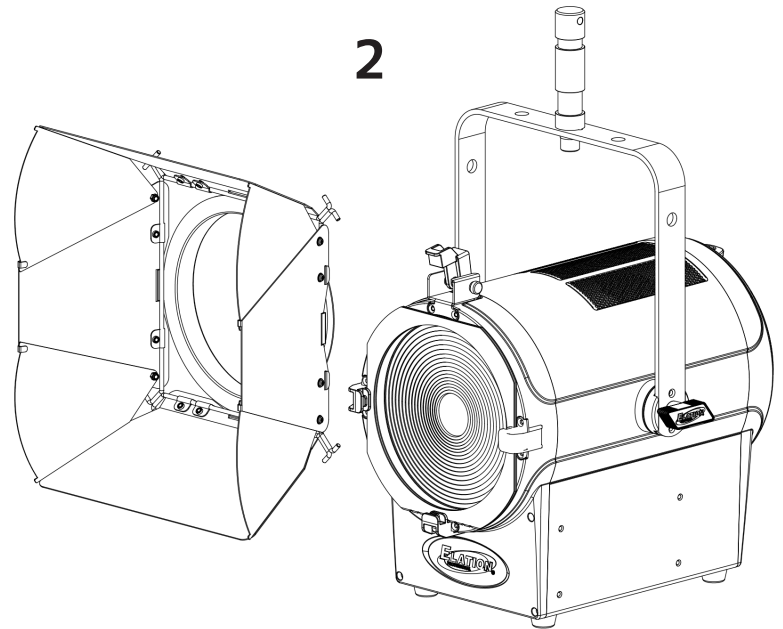
# INSTALLATION GUIDELINES

## GEL FRAME AND BARN DOOR INSTALLATION

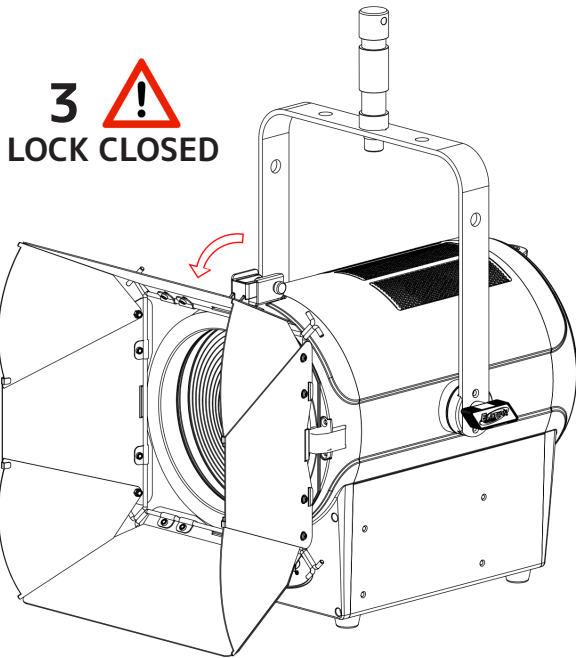
The fixture has 2 slots on the front to hold the GEL FRAME and BARN DOOR. The first smaller slot is for the GEL FRAME and the second larger slot is for the BARN DOOR. The fixture also has a top lock that secures these accessories to the fixture.



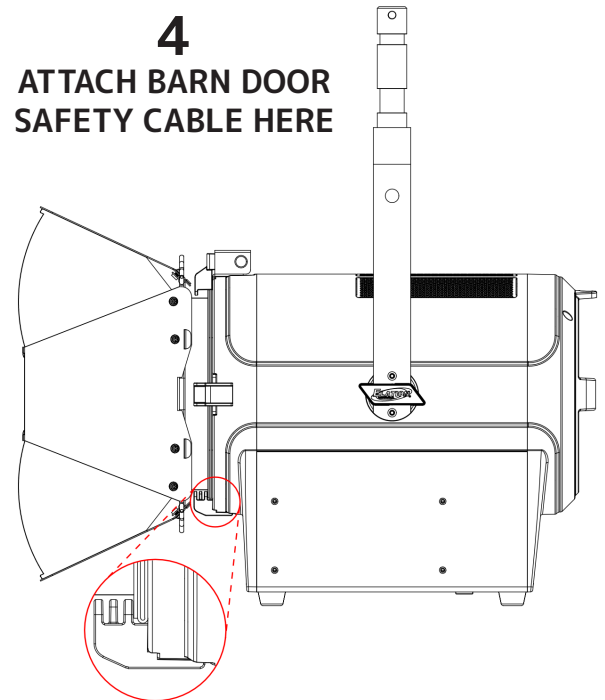
**1**  
**LOCK OPEN**



**2**



**3**   
**LOCK CLOSED**



**4**  
**ATTACH BARN DOOR**  
**SAFETY CABLE HERE**

**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.

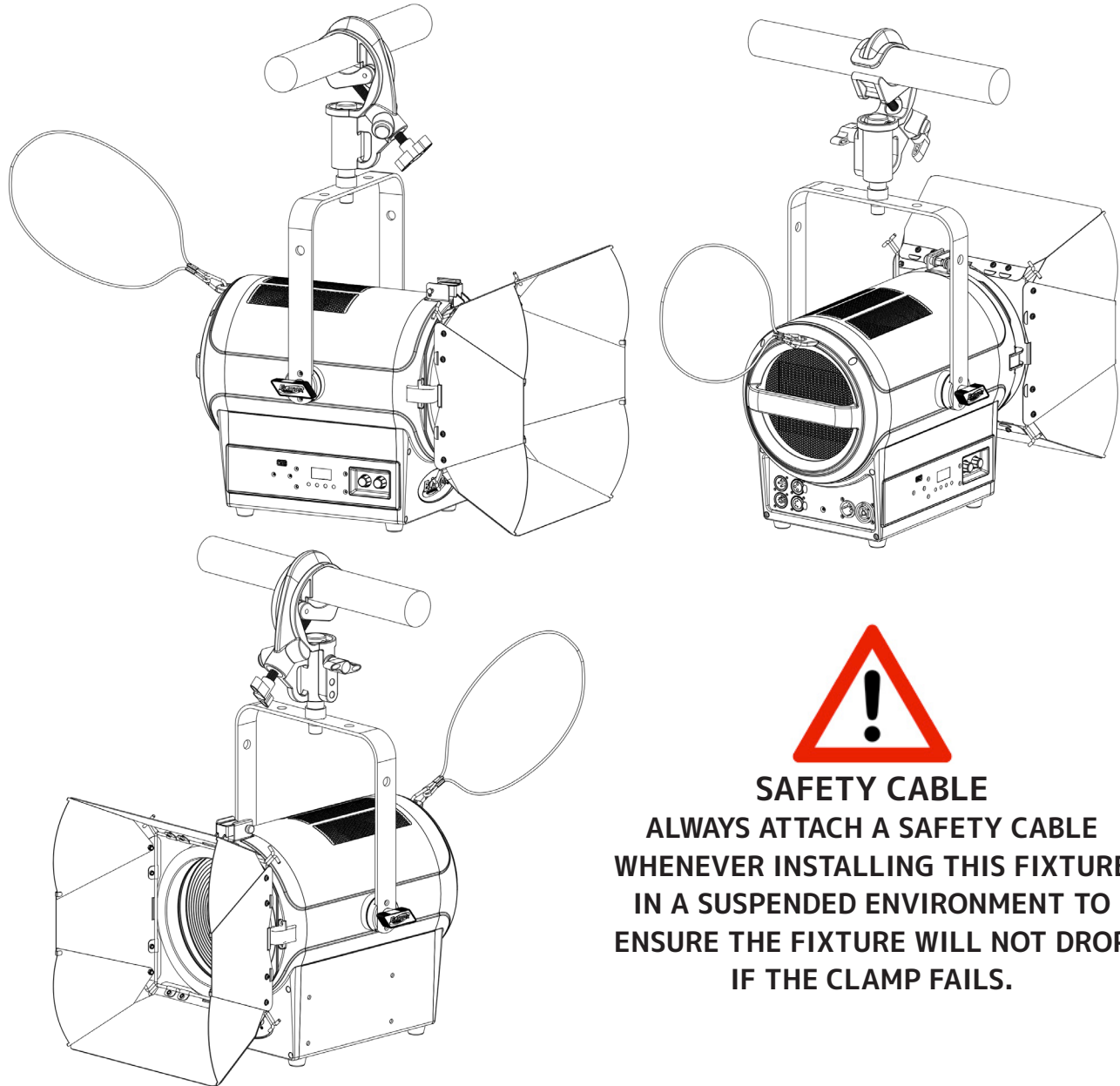
# INSTALLATION GUIDELINES

## 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.**

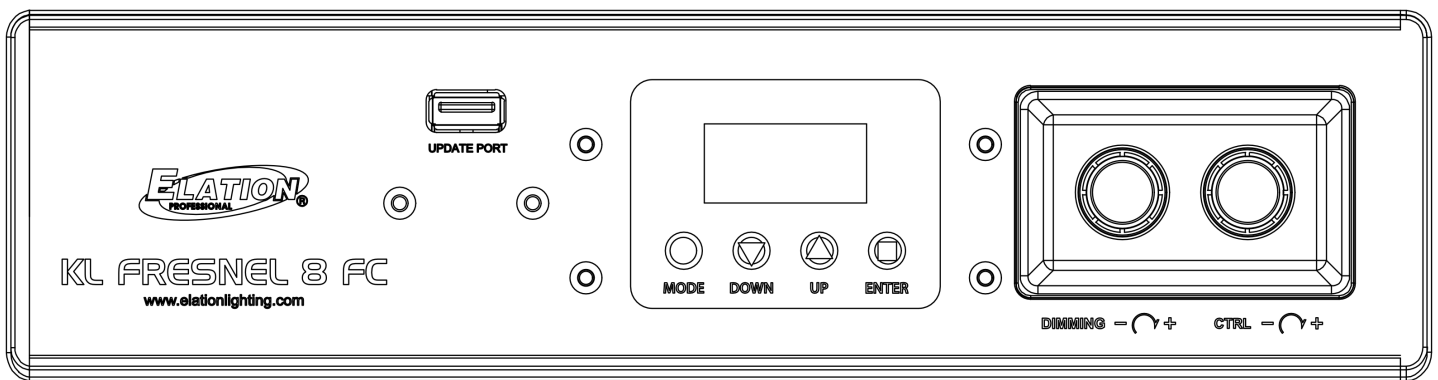
## RIGGING

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.

# 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.

# SYSTEM MENU

Features subject to change without notice				
MAIN MENU	SUB MENU	OPTIONS / VALUES (Default Settings in BOLD)		DESCRIPTION
<b>MANUAL MODE</b>	Disabled, Dimmer, Int CCT Grn, Int Color Sat, Manual Control	See <b>Manual Mode</b> section for details		
<b>DMX SETTINGS</b>	DMX Address	001 – 512		Depends on DMX Mode
	DMX Mode	<b>1-CH Dimmer</b> , 7-CH Dimmer Color, 12-CH Standard, 19-CH Extended, 10-CH CMY, 15-CH CMY Extended		
	No DMX Status	<b>Hold Last</b>		
		Fade to Black		
Standalone				
<b>STANDALONE</b>	Dimmer	<b>0</b> – 100%		
	CCT	2400 – 8500K ( <b>6000K</b> )		
	Green Shift	-100% ~ +100%		
	Virtual Color	<b>Color01</b> , Color02, ..., Color60		See Color Table / Uses Color Names
	ZOOM	0-100% ( <b>50%</b> )		
<b>PERSONALITY</b>	Primary	ON / <b>OFF</b>		
	Secondary	ON / <b>OFF</b>		
	Dim Mode	Standard, Stage, TV, Architectural, Theatre, Stage, Stage 2, Dim Speed (0.0s~ <b>0.1S</b> ~10.0s)		
	Dim Curves	<b>Linear</b> , Square, Square Inverse, S-Curve		
	LED Refresh Rate	900 – <b>1200Hz</b> - 1500 Hz, 2500 Hz, 4000 Hz, 5000 Hz, 6000 Hz, 10 KHz, 15 KHz, 20 KHz, 25 KHz		
	LED Power Limit	50%, 60%, 70%, 80%, 90%, <b>100%</b>		
	Fan Mode	<b>Auto</b> , Silent, High		
	Display	Screen Delay	00:10S~05:00mins <b>(01:00mins)</b>	Display defaults to home page after 30-seconds.
		Screen Lock	<b>OFF</b> /00:100-05:00	<b>Note: To unlock screen, press and hold MODE button for 3 seconds.</b>
		Rotate Display 180°	YES/ <b>NO</b> /AUTO	
	Service (Passcode: <b>050</b> )	Calibration	Red: 50 – 255	
			Green: 50 – 255	
			Blue: 50 – 255	
			Amber: 50 – 255	
			Mint: 50 – 255	
		Update Software	YES / <b>NO</b>	
Factory Restore		YES / <b>NO</b>		
Edit RDM UID	XXXXXX			

# SYSTEM MENU

Features subject to change without notice				
MAIN MENU	SUB MENU	OPTIONS / VALUES (Default Settings in BOLD)		DESCRIPTION
INFORMATION	Life Time	xxxxxx h		
	Last Run Time	xxxxxx h		
	Time Reset	Reset (Passcode: <b>038</b> )		
	Temperatures	Current		
		Max Resettable		
		Max Unresettable		
		Reset (Passcode: <b>038</b> )		
	DMX Values	R:000, G:000, G:000, ...		
	Product ID's	Mac Address		
	RDM UID	RDM UID		
	Error Logs	Fixture Errors	None	
Reset Error Log (Passcode: <b>050</b> )		YES / NO		
Software Version	V1.0.2			

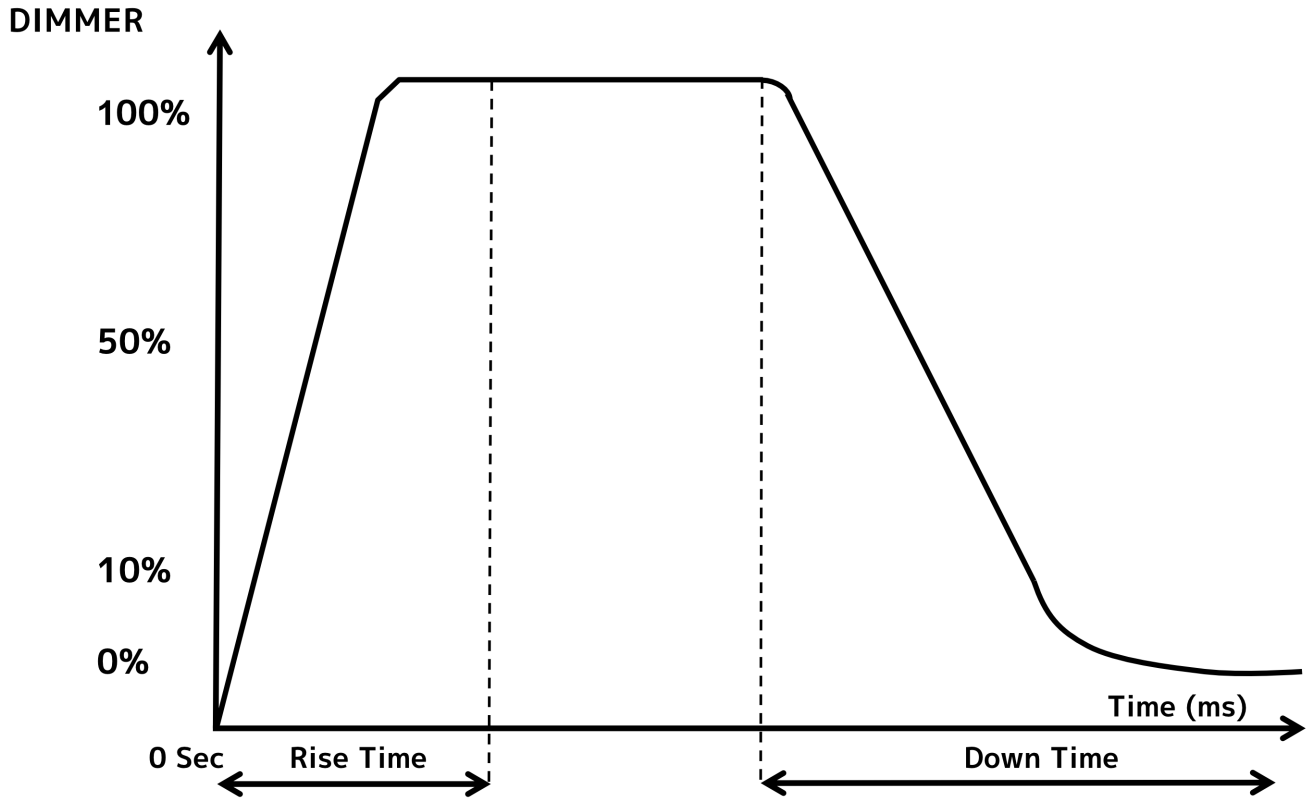
# ERROR CODES

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

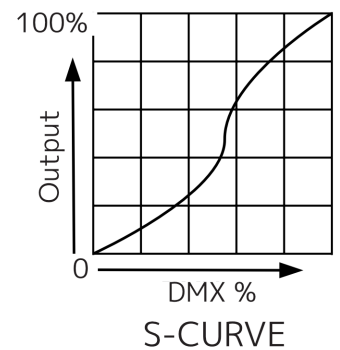
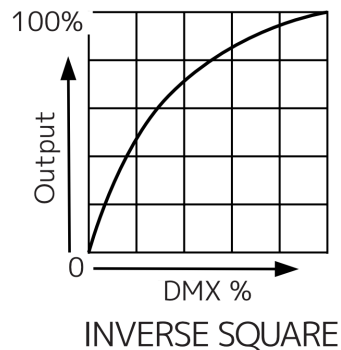
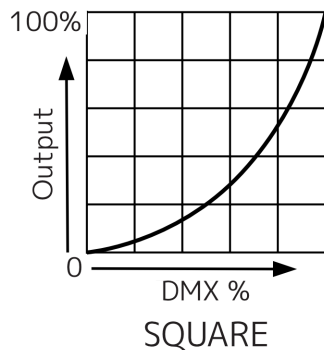
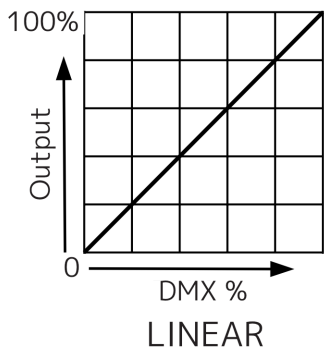


# DIMMER MODES - DIM CURVE

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

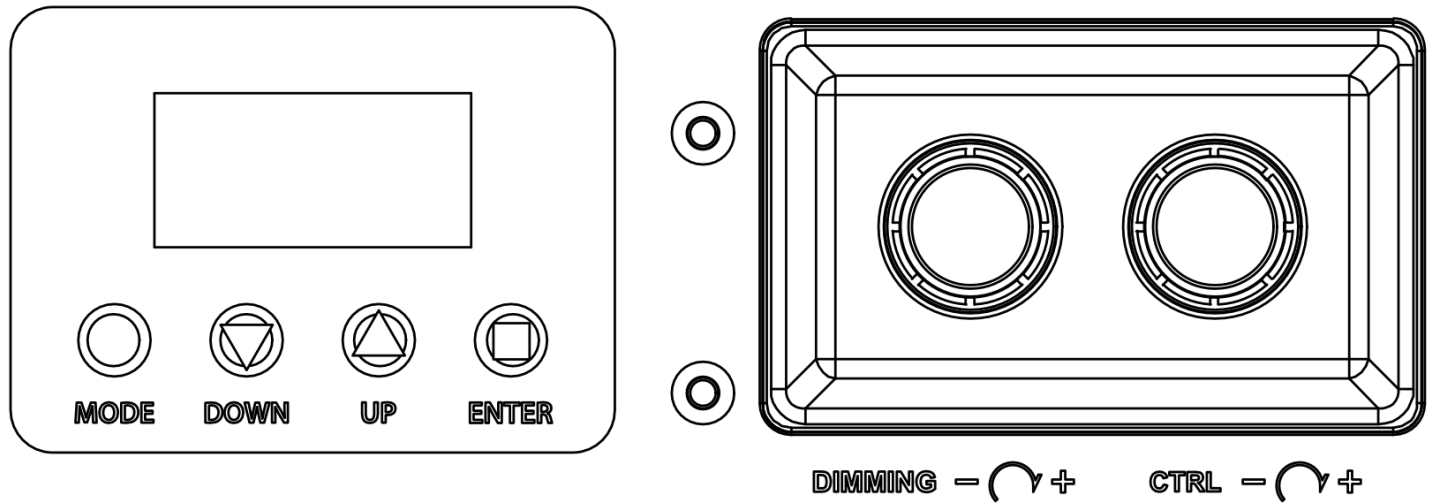


Dimming Curve Ramp Effect	0 sec Fade Time		1 sec Fade Time	
	Rise Time (ms)	Down Time (ms)	Rise Time (ms)	Down Time (ms)
Standard (default)	0	0	0	0
Stage	780	1100	1540	1660
TV	1180	1520	1860	1940
Architectural	1380	1730	2040	2120
Theatre	1580	1940	2230	2280



# MANUAL DIMMING AND FUNCTION CONTROL

Use the two encoder knobs for manual DIMMING and FUNCTION control. Press the CTRL knob to step/cycle through available sub-menu selections.



DIMMER MODE				
ENCODER KNOB	SUB MENU	DISPLAY	RESOLUTION / STEPS	DEFAULT
DIMMER	Intensity	Intensity 0-100%	1%	0%
CTRL	Zoom	Zoom 0-100%	1%	50%

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: CHANNEL FUNCTIONS AND VALUES

Supports Software Versions:  $\geq$  V1.0.2

Dimmer	Dimmer Color	Standard	Extended	CMY	CMY Extended	Value	Function	Default	Snap
1	1	1	1	1	1		<b>Dimmer:</b>	0	
						0-255	Intensity 0 to 100%		
	2	2	2	2	2		<b>Dimmer Fine:</b>	0	
						0-255	Dimmer fine		
	3	3	3	3	3		<b>Shutter, strobe:</b>	50	X
						0-31	Shutter closed		
						32-63	No function (shutter open)		
						64-95	Strobe effect slow to fast		
						96-127	No function (shutter open)		
						128-159	Pulse-effect in sequences		
						160-191	No function (shutter open)		
						192-223	Random strobe effect slow to fast		
224-255	No function (shutter open)								
				4	4		<b>Cyan:</b>	0	
						0-255	Cyan (0-100% Cyan)		
					5		<b>Cyan Fine:</b>	0	
						0-255	Cyan Fine		
				5	6		<b>Magenta:</b>	0	
						0-255	Magenta (0-100% Magenta)		
					7		<b>Magenta Fine:</b>	0	
						0-255	Magenta Fine		
				6	8		<b>Yellow:</b>	0	
						0-255	Yellow (0-100% Yellow)		
					9		<b>Yellow Fine:</b>	0	
						0-255	Yellow Fine		
		4	4				<b>Red:</b>	255	
						0-255	Red (0-100% Red)		
			5				<b>Red Fine:</b>	255	
						0-255	Red Fine		
		5	6				<b>Green:</b>	255	
						0-255	Green (0-100% Green)		
			7				<b>Green Fine:</b>	255	
						0-255	Green Fine		
		6	8				<b>Blue:</b>	255	
						0-255	Blue (0-100% Blue)		
			9				<b>Blue Fine:</b>	255	
						0-255	Blue Fine		
		7	10				<b>Mint:</b>	255	
						0-255	Mint (0-100% Mint)		
			11				<b>Mint Fine:</b>	255	
						0-255	Mint Fine		
		8	12				<b>Amber:</b>	255	
						0-255	Amber(0-100% Amber)		
			13				<b>Amber Fine:</b>	255	
						0-255	Amber Fine		

# DMX TRAITS: CHANNEL FUNCTIONS AND VALUES

Supports Software Versions: ≥ V1.0.2

Dimmer	Dimmer Color	Standard	Extended	CMY	CMY Extended	Value	Function	Default	Snap
	4	9	14	7	10		<b>CTO:</b>	0	
						0-23	Open		
						24 -85	CTO 2400K - 8500K (see separate sheet)		
						86-255	8500K		
	5	10	15	8	11		<b>Color Wheel:</b>	0	
						0	Open		
						1-179	Virtual Swatch Book (see separate sheet)		
							<b>Color Scroll</b>		
						180-201	Clockwise,fast → slow		
						202-207	Stop		
						208-229	Counter-clockwise,slow → fast		
						230-234	Open		
							<b>Random Slots</b>		
						235-239	Fast		
						240-244	Medium		
						245-249	Slow		
250 - 255	Open								
			16		12		<b>Green Shift:</b>	0	
						0	Idle		
						1-127	Full Minus Green to Neutral		
						128	Neutral White		
	6	11	17	9	13		<b>Zoom:</b>	127	
						0 - 255	Zoom adjustment from small to big		
			18		14		<b>Dim Modes</b>	0	X
						0-20	Standard		
						21-40	Stage		
						41-60	TV		
						61-80	Architectural		
						81-100	Theatre		
						101- 120	Stage 2		
							<b>Dimmer Delay Time</b>		
						121	0s		
						122	0.1s		
						123	0.2s		
						124	0.3s		
						125	0.4s		
						126	0.5s		
						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	10s								
142 - 255	Idle								

# DMX TRAITS: CHANNEL FUNCTIONS AND VALUES

Supports Software Versions:  $\geq$  V1.0.2

Dimmer	Dimmer Color	Standard	Extended	CMY	CMY Extended	Value	Function	Default	Snap
7		12	19	10	15		<b>Control:</b>	0	X
						0-29	Idle		
						30-39	Fan Mode Auto		
						40-49	Fan Mode Silent		
						50-59	Fan Mode High		
						80-99	Idle		
						100-168	<b>Refresh Rate (Hz)</b>		
						100	900		
						101	910		
						102	920		
						103	930		
						104	940		
						105	950		
						106	960		
						107	970		
						108	980		
						109	990		
						110	1000		
						111	1010		
						112	1020		
						113	1030		
						114	1040		
						115	1050		
						116	1060		
						117	1070		
						118	1080		
						119	1090		
						120	1100		
						121	1110		
						122	1120		
						123	1130		
						124	1140		
						125	1150		
126	1160								
127	1170								
128	1180								
129	1190								
130	1200								
131	1210								
132	1220								
133	1230								

# DMX TRAITS: CHANNEL FUNCTIONS AND VALUES

Supports Software Versions:  $\geq$  V1.0.2

Dimmer	Dimmer Color	Standard	Extended	CMY	CMY Extended	Value	Function	Default	Snap
						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		
						150	1400		
						151	1410		
						152	1420		
						153	1430		
	7	12	19	10	15	154	1440	0	X
						155	1450		
						156	1460		
						157	1470		
						158	1480		
						159	1490		
						160	1500		
						161	2500		
						162	4000		
						163	5000		
						164	6000		
						165	10000		
						166	15000		
						167	20000		
						168	25000		
						169-200	Idle		
						201-210	Dimmer Curve Linear (default)		
						211-220	Dimmer Curve Square		
						221-230	Dimmer Curve Inverse Square		
						231-240	Dimmer Curve S-Curve		
						241-255	Idle		

# COLORS

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

# COLORS 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	001 1CH Dimmer 002 7CH Dimmer Color 003 12CH Standard 004 19CH Extended 005 10CH CMY 006 15CH CMY 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 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	

# SPECIFICATIONS

## SOURCE

6500K 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

RGBMA Color Array

CMY Emulation

Variable CCT 2,400K - 8,500K

Green/Magenta Shift

Virtual Gel Swatch Book

## CONTROL / CONNECTIONS

6 DMX Channel Modes (1 to 18 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

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)

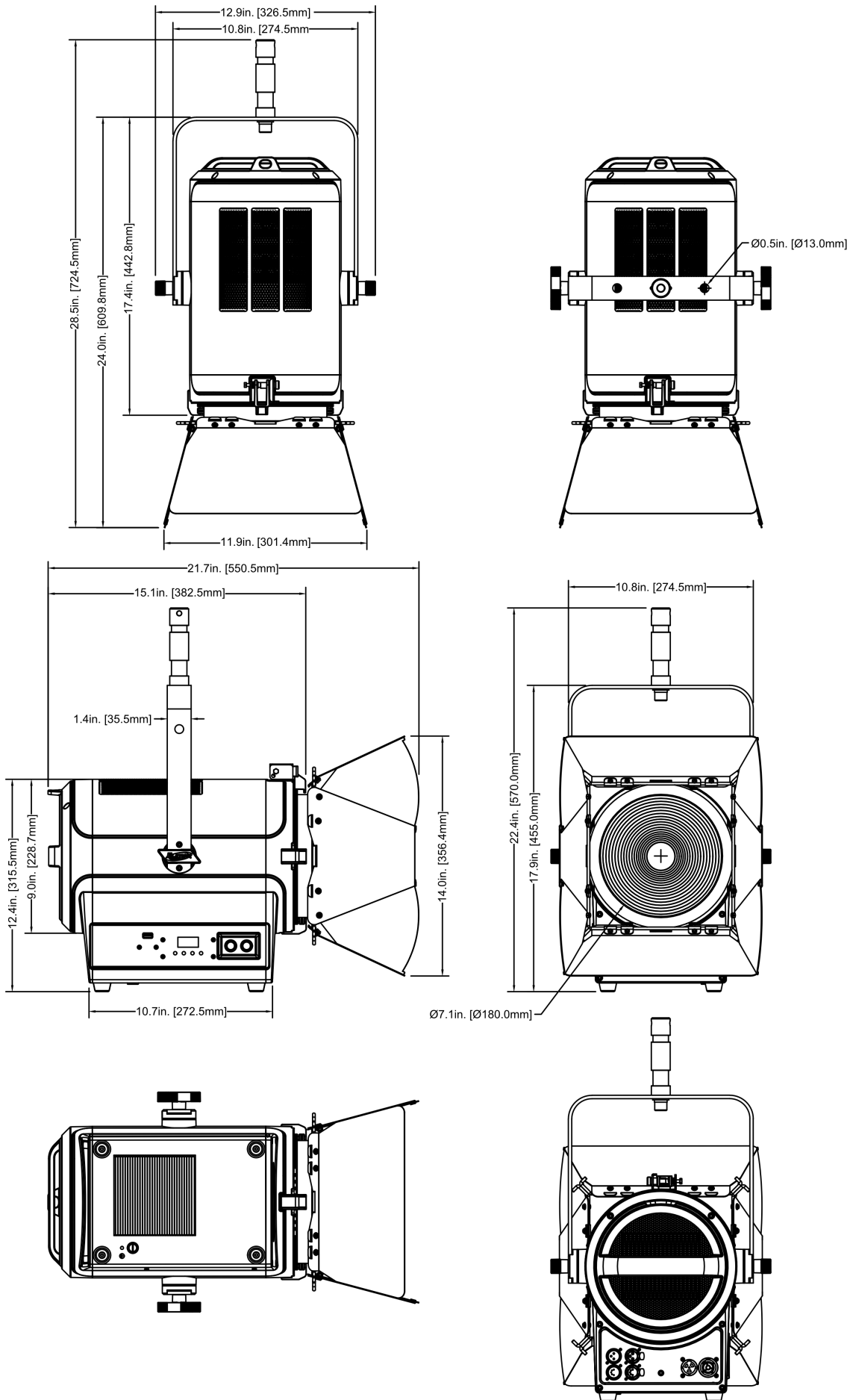
IP65 Locking Power Cable

## APPROVALS / RATINGS

CE | cETLus | IP20

Specifications and documentation subject to change without notice.

# DIMENSIONS



## 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.





