

# **KL FRESNEL 6 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.eu for the latest revision/update of this manual, before installation and/or programming.

Date	Document Version	Software Version	DMX Channel Mode	Notes
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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 device is intended for use by professionals 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 that damage has been found or parts are missing, please contact our customer support team for further instructions. Please do not return this device to your dealer without first contacting customer support. Please do not discard the shipping carton in the trash. Please recycle whenever possible.

#### **BOX CONTENTS**

Power Cable (x1) Gel Filter (x1) Barndoor (x1)

#### **IP RATING**

An IP rated lighting fixture has been designed with an enclosure that effectively protects the ingress (entry) of external foreign objects such as dust and/or water. The Ingress Protection (IP) rating system is commonly expressed as "IP" followed by two numbers (i.e. IP20), where the numbers define the degree of protection. The first digit (Foreign Bodies Protection) indicates the extent of protection against particles entering the fixture and the second digit (Water Protection) indicates the extent of protection against water entering the fixture. **An IP20 rated lighting fixture, such as this one, has been designed and tested to pro** 

tect against the ingress of solids as small as the size of an adult finger (approximately 12.5mm), but is NOT protected against liquid intrusion of any kind.

**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

THERE ARE NO USER SERVICEABLE PARTS INSIDE THIS UNIT. DO NOT ATTEMPT ANY REPAIRS YOURSELF, AS DOING SO WILL VOID YOUR MANUFACTURER'S WARRANTY. DAMAGES RESULTING FROM MODIFICATIONS TO THIS FIXTURE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURER'S WARRANTY AND ARE NOT SUBJECT TO ANY WARRANTY CLAIMS AND/ OR REPAIRS.

# LIMITED WARRANTY

- 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 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 accompanied by 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 an R.A. number clearly marked on the outside of the package will be refused and returned at customer's expense. You may obtain an 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, AS 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! NEVER OPERATE THIS UNIT WITH THE CASING REMOVED! DISCONNECT POWER BEFORE PERFORMING MAINTENANCE! NEVER TOUCH DURING OPERATION, AS FIXTURE SURFACES 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!



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



THIS FIXTURE IS IP20 RATED, AND HAS BEEN DESIGNED AND TESTED TO PRO-TECT AGAINST THE INGRESS OF SOLIDS AS SMALL AS THE SIZE OF AN ADULT FINGER (APPROXIMATELY 12.5MM), BUT IS NOT PROTECTED AGAINST LIQUID INTRUSION OF ANY KIND.



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

# SAFETY GUIDELINES

**DO NOT TOUCH** the fixture housing during operation.

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

**DO NOT** operate fixture if the power cord is frayed, crimped, damaged and/or if any of the power cord connectors are damaged or do not fit into the fixture securely with ease.

**NEVER** force a power cord connector into the fixture. If the power cord or any of its connectors are damaged, replace it immediately with a new one of the same power rating.

**DO NOT** block any air ventilation slots. All fan and air inlets must remain clean and never blocked. Allow approx. 6" (15cm) between fixture and other devices or a wall for proper cooling.

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

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

**ONLY** handle power cord by the plug end. Never pull plug out by tugging the wire portion of the cord.

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

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

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

# MAINTENANCE GUIDELINES

#### DISCONNECT POWER BEFORE PERFORMING ANY MAINTENANCE!

#### CLEANING

Frequent cleaning is recommended to ensure proper function, optimized light output, and an extended life. The frequency of cleaning depends on the environment in which the fixture operates: damp, smoky, or particularly dirty environments can cause greater accumulation of dirt on the fixture's optics. Clean periodically with a soft cloth to avoid dirt/debris accumulation.

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

#### MAINTENANCE

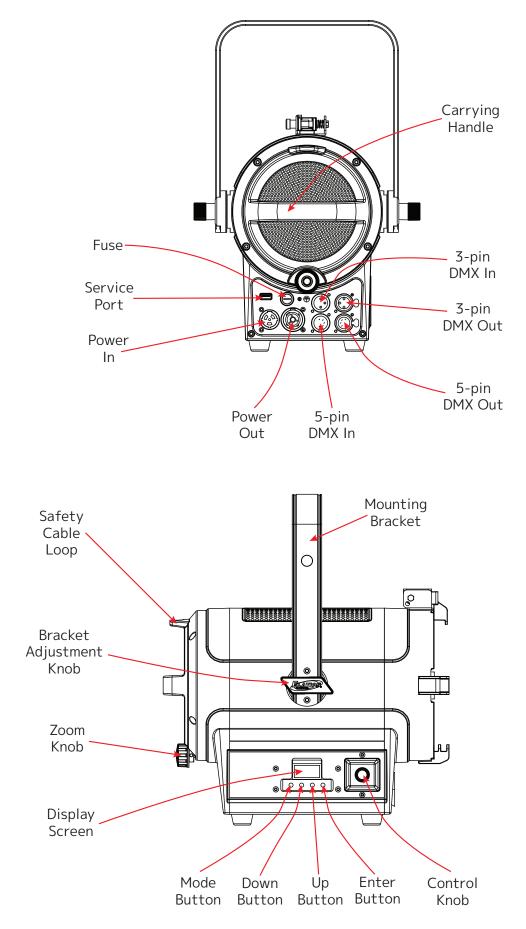
Regular inspections are recommended to ensure proper function and extended life. There are no user serviceable parts inside this fixture. Please refer all service issues to an authorized Elation service technician. Should you need any spare parts, please order genuine parts from an authorized Elation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

Please refer to the following points during routine inspections:

- A detailed electrical check by an approved electrical engineer every three months, to make sure the circuit contacts are in good condition and prevent overheating.
- Be sure all screws and fasteners are securely tightened at all times. Loose screws may fall out during normal operation, resulting in damage or injury as larger parts could fall.
- Check for any deformations on the housing, color lenses, rigging hardware, and rigging points (ceiling, suspension, trussing). Deformations in the housing could allow for dust to enter into the fixture. Damaged rigging points or unsecured rigging could cause the fixture to fall and seriously injure a person(s).
- Electric power supply cables must not show any damage, material fatigue, or sediments.

**NEVER** remove the ground prong from the power cable.

### **OVERVIEW**



# INSTALLATION INSTRUCTIONS



#### 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.

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MINIMUM DISTANCE TO OBJECTS/SURFACES IS 1 FOOT (0.3 METERS) MINIMUM DISTANCE TO FLAMMABLE MATERIALS IS 1.6 FEET (0.5 METERS) MAXIMUM AMBIENT OPERATING TEMPERATURE IS 113° F (45° C)



INDOOR USE ONLY! THIS DEVICE IS NOT INTENDED FOR OUTDOOR USAGE, OR EXPOSURE TO RAIN OR MOISTURE! USE OF THIS DEVICE OUTDOORS VOIDS YOUR MANUFACTURER'S WARRANTY!



# DO NOT PERFORM THE INSTALLATION YOURSELF 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.

Maximum fixture ambient operating temperature is **113°F (45°C).** Do not operate this fixture when ambient temperature exceeds this rating.

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. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.

Fixture(s) should be installed in areas outside walking paths, seating areas, or 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.

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

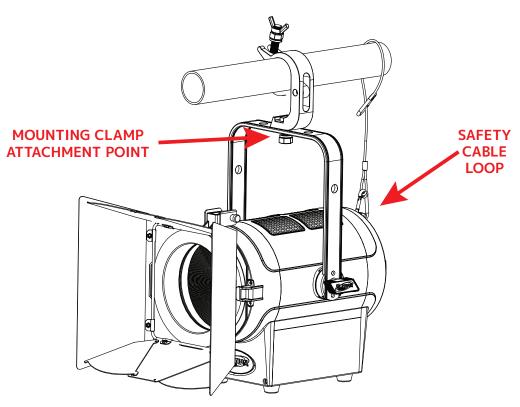
# INSTALLATION

#### 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 things. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.

#### **CLAMP INSTALLATION**

The included yoke bracket features a built-in attachment point for a mounting clamp. The fixture itself also features a safety cable loop, located near the top of the rear panel, as shown in the illustration below. Please note that the designated safety cable loop is the only safe location to attach a safety cable! Never attach a safety cable to the mounting clamp bracket!



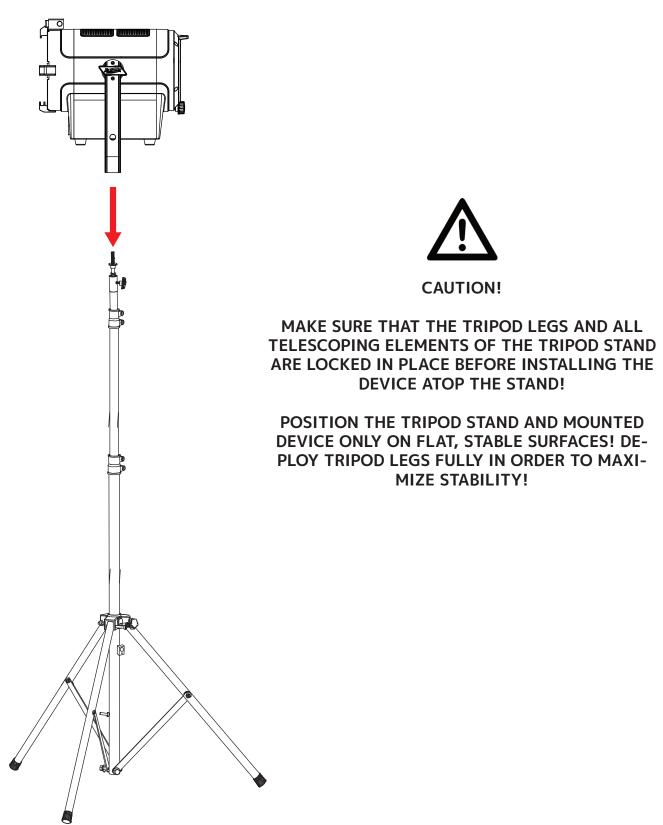


ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE THAT THE FIXTURE WILL NOT FALL IF THE CLAMP FAILS.

# INSTALLATION

#### STAND MOUNTING

This unit can also be installed atop a tripod stand. Simply insert the threaded bolt on the top of the tripod stand through the hole in the top of the mounting yoke. Tighten the nut onto the threaded bolt to secure the mounted device in place.



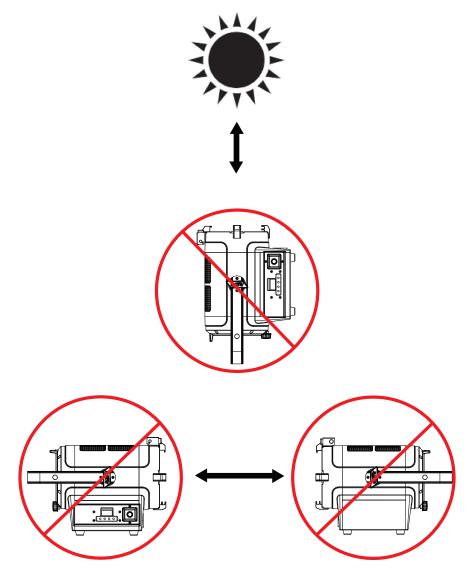
# INSTALLATION

#### POTENTIAL INTERNAL FIXTURE DAMAGE FROM EXTERNAL SOURCES OF LIGHT BEAMS

External sources of light beams from direct sunlight, moving head lighting 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 of optics, dichroic color filters, glass and metal gobos, prisms, animation wheels, frost filters, irises, shutters, motors, belts, wiring, discharge lamps, and LEDs.

This issue is not unique to Elation lighting fixtures, but rather it is a common issue with lighting fixtures from all manufacturers. Although there is no true way to completely prevent this issue from occurring, the guidelines below can reduce the risk of any potential damage if followed. Contact Elation Service for more details.

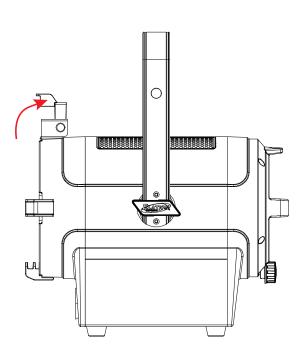
DO NOT EXPOSE THE FIXTURE AND/OR FRONT LENS OPENING TO LIGHT BEAMS FROM DIRECT SUNLIGHT, OTHER LIGHTING OR MOVING HEAD FIXTURES, AND LASERS DURING UNPACKING, INSTALLATION, USE, AND EXTENDED IDLE TIMES OUTDOORS. DO NOT FOCUS A LIGHT BEAM FROM ONE LIGHTING FIXTURE DIRECTLY TOWARDS ANOTHER.

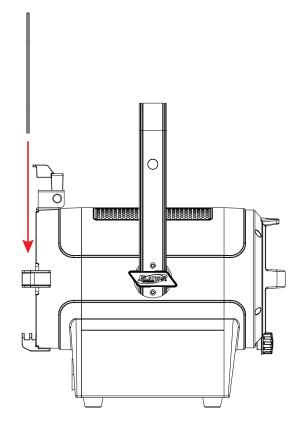


# ACCESSORY INSTALLATION

#### **GEL FILTER**

This unit includes a gel filter accessory that can be installed or removed. To install, find the lens frame latch positioned at the top of the lens, press the locking mechanism to unlock the latch, and swing the latch upwards (below left). Then simply slide the gel frame into the lens frame (below right), making sure to use the frame slot that is closest to the lens. Flip the lens frame latch back down to secure the gel frame in place.

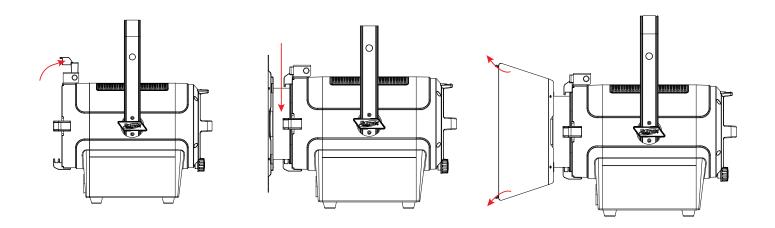




# ACCESSORY INSTALLATION

#### BARNDOORS

This unit includes a barndoor accessory that can be installed or removed. To install, first find the lens frame latch located at the top of the lens frame. Press the locking mechanism to unlock the latch, then swing the latch upwards (below left). Slide the barndoor into an open lens frame slot (below middle). Flip the lens frame latch back down to secure the barndoor in place, then open the barndoor by pulling outward on the panels (below right).



# **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.

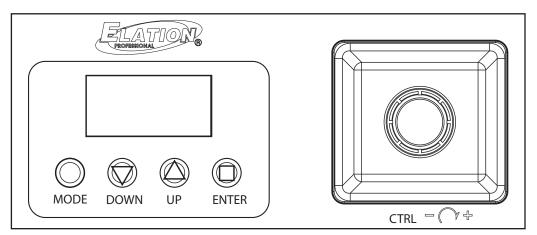
**Please be aware that not all RDM devices support all RDM features,** and therefore it is important to check beforehand to ensure that the equipment that you are considering includes all of the features that you require.

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

The following parameters are accessible in RDM on this device:

The fixture includes an easy to navigate system menu. The control panel display located on the side of the fixture (illustrated below) provides access to the main system menu where all necessary system adjustments are made to the fixture.

- During normal operation, pressing the 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 DOWN and UP buttons.
- Once you reach a field that requires adjusting, press the ENTER button to activate that field and use the DOWN and UP buttons to adjust the field.
- Pressing the ENTER button once more will confirm the setting.
- Exit the main menu at any time without making any adjustments by pressing the MODE button.



#### SCREEN LOCK

The screen will lock after a certain period of inactivity. The length of this time period is configurable in the System Menu, under Personality > Display > Display Screen Lock. To unlock the screen, press and hold the MODE button for 3 seconds.

#### WHITE BALANCE

The white balance menu can be accessed by pressing and holding the MODE, DOWN, and UP buttons simultaneously for 3 seconds. Please note that in this mode, the Color menu will be disabled, and the ColorTemp menu adjusts the color temperature white balance.

#### CONTROL KNOB

This device features an encoder knob located to the right of the display screen, which is labeled "CTRL." This encoder knob can be used to manually adjust dimming, CCT green shift, color saturation, or manual control. Twisting the knob will scroll through modes and sub-modes, or adjust the value of the select sub-mode, while pressing the button confirms the selection. Please see the **Encoder Knobs** section of this manual for detailed information.

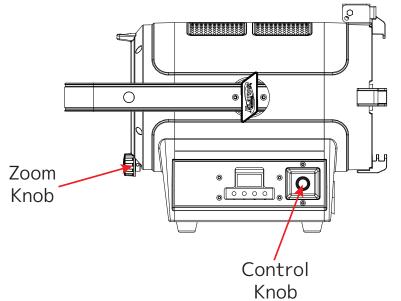
	Disabled			
	Dimmer			
ENCODER MODE	Int CCT Grn			
MODE	Int Color Sat			
	Manual Contro			
	DMX Address	001 - 512		
		1ch Dimmer		
		6ch Dimmer Co	olor	
		11ch Standard		
DMX	DMX Mode	18ch Extendec		
SETTINGS		9ch CMY		
		14ch CMY Exte	ended	
		Hold Last		Defines reac-
	No DMX	Fade to Black		tion to loss or
	Status	Standalone		interruption of DMX signal
	Dimmer	<b>0%</b> - 100%		
			_	Default =
	ССТ	2400K - 8500k		6000K
	Green Shift	-100% - 100%		Default = <b>0%</b>
STANDALONE	Virtual Color	Color01 - Colo	Built in color program, see <b>Virtual Col-</b> <b>ors</b> section of this manual	
	Primary	On / <b>Off</b>		
	Secondary	On / Off		
	, , , , , , , , , , , , , , , , , , , ,	Standard		
		Stage		
		TV	,	
		Architectural		
PERSONAL-	Dim Mode	Theatre		
ΙΤΥ		Stage 2		
		Dim Speed	0.0s - 10s	Default = <b>0.1s</b>
		Linear		
	Dim Curves	Square		
		Square Inverse		
		S-Curve		
		CONTINUED	ON NEXT PAGE	

	LED Refresh Rate	900-1500Hz, 2 6000Hz, 10KH	Default = <b>1200Hz</b>							
		50%								
		60%								
	LED Power	70%								
	Limit	80%								
		90%								
		100%								
		Auto								
	Fan Mode	Silent								
		High								
PERSONAL-		Screen Delay	t 10s - 5min i		Screen re- turns to home page after a period of inactivity; default = <b>1min</b>					
ITY (continued)		Screen Lock								
(continued)	Display		Yes							
			No							
		Rotate Display	Auto		Screen au- tomatically rotates to keep display oriented up- right					
				Red 50-255						
			Caliburati	Green 50-255						
			Calibration	Blue 50-255						
		Passcode =								
	Service	050	Update Soft- ware	Yes / No						
			Factory Re- store	Yes / No						
			Edit RDM UID	XXXXXX						
		CONTINUED	ON NEXT PAGE							

	Life Time	xxxxxx h		Total run hours. Not resettable			
	Last Run Time	xxxxxx h	Run hours since last reset				
	Time Reset	Passcode = 03		Reset run hours			
		Current			Current temp reading		
INFORMA-	Temperature	Max Resettable	Max Resettable				
TION		Reset	Reset max temp				
		R: xxx					
	DMX Values	G: xxx					
	DI IX Values	B: xxx					
	Product IDs	RDM UID	XXXXXX	_			
		Fixture Errors	(display one by one)				
	Error Logs	Reset Error Log	No / Yes	Passcode = 050			
	Software Version	Vx.x.x					

# ENCODER KNOBS

This device features two encoder knobs that enable quick, convenient adjustment of various parameters. Please note that any DMX signal will override the encoder knob inputs. The locations of the two encoder knobs are illustrated below:



**ZOOM KNOB:** Manually adjust the zoom of the fixture in and out.

**CONTROL KNOB:** Manually adjust dimming, CCT green, color saturation, or manual control as described in the table below.

MODE	PARAMETER	DISPLAY	RESOLUTION/ STEPS	DEFAULT	
Dimmer	Intensity	Intensity 0-100%	1%	0%	
	Intensity	Intensity 0-100%	1%	0%	
Int CCT Grn	Color Temperature	CCT 2400-8500K	100K	6000K	
	Green Shift	GRN -100% to +100%	1%	Neutral	
	Intensity	Intensity 0-100%	1%	0%	
Int Color Sat	Color	Virtual Color 1-53	Single Color	-	
	Saturation	Sat 0-100%	1%	100%	
			Intensity		
			Strobe		
			Red		
Manual Control	Select Parameter	[Parameter Name] 0 - 100	Green	Strobe	
Manual Control		0 - 100	Blue		
			Amber		
			Mint		
	Dimmer	0-100%	1%	0%	

		CHAI	NNEL				
1ch Dim.	6ch Dim. Color	11ch St.	18ch Ext.	9ch CMY	14ch CMY Ext.	DMX VALUES	FUNCTION
1	1	1	1	1	1	000 - 255	<b>Dimmer,</b> 0% to 100%
	2	2	2	2	0	000 - 255	Dimmer Fine
							Shutter, strobe
						000 - 031	Shutter closed
						032 - 063	No function (shutter open)
						064 - 095	Strobe effect, slow to fast
	3	3	3	3	3	096 - 127	No function (shutter open)
						128 - 159	Pulse effect in sequences
						160 - 191	No function (shutter open)
				192 - 223	Random strobe effect, slow to fast		
						224 - 255	No function (shutter open)
				4	4	000 - 255	<b>Cyan,</b> 0% to 100%
					5	000 - 255	Cyan Fine
				5	6	000 - 255	Magenta, 0% to 100%
					7	000 - 255	Magenta Fine
				6	8	000 - 255	Yellow, 0% to 100%
					9	000 - 255	Yellow Fine
		4	4			000 - 255	<b>Red,</b> 0% to 100%
			5			000 - 255	Red Fine
		5	6			000 - 255	<b>Green,</b> 0% to 100%
			7			000 - 255	Green Fine
		6	8			000 - 255	Blue, 0% to 100%
			9			000 - 255	Blue Fine
		7	10			000 - 255	Mint, 0% to 100%
			11			000 - 255	Mint Fine
		8	12			000 - 255	<b>Amber,</b> 0% to 100%
			13			000 - 255	Amber Fine
							сто
						000 - 023	Open
	4	9	9 14	7	10	024 - 085	CTO, 2400K - 8500K (see <b>Color Temperature</b> section of this manual)
						086 - 255	8500K

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		CHA	NNEL				
1ch Dim.	6ch Dim. Color	11ch St.	18ch Ext.	9ch CMY	14ch CMY Ext.	DMX VALUES	FUNCTION
							Color Wheel
						000	Open
						001 - 179	Virtual Swatch Book (see <b>Virtual Colors</b> section of this manual)
							Color Scroll
						180 - 201	Clockwise, fast to slow
	_	10	45			202 - 207	Stop
	5	10	15	8	11	208 - 229	Counter-clockwise, slow to fast
						230 - 234	Open
							Random Slots
						235 - 239	Fast
					1 F	240 - 244	Medium
						245 - 249	Slow
						250 - 255	Open
							Green Shift
						000	Idle
			16		12	001 - 127	Full Minus Green to Neutral
						128	Neutral White
						129 - 255	Neutral to Full Plus Green
							Dim Modes
						000 - 020	Standard
						021 - 040	-
						041 - 060	TV
						061 - 080	Architectural
						081 - 100	Theatre
						101 - 120	Stage 2
			17		13		Dimmer Delay Time
			.,		10	121	Os
						122	0.1s
						123	0.2s
						124	0.3s
						125	0.4s
						126	0.5s
						127	0.6s
						128	0.7s
					CON	ITINUED ON	NEXT PAGE

		CHAI	NNEL				
1ch Dim.	6ch Dim. Color	11ch St.	18ch Ext.	9ch CMY	14ch CMY Ext.	DMX VALUES	FUNCTION
							Dimmer Delay time (continued)
						129	0.8s
					130	0.9s	
						131	1.0s
						132	1.5s
						133	2.0s
						134	3.0s
			17		13	135	4.0s
						136	5.0s
						137	6.0s
						138	7.0s
						139	8.0s
						140	9.0s
						141	10s
						142 - 255	Idle
							Control
						000 - 029	Idle
						030 - 039	Fan Mode Auto
							Fan Mode Silent
						050 - 059	Fan Mode High
						060 - 099	Idle
							Refresh Rate
						100	900 Hz
						101	910 Hz
	6	11	18	9	14	102	920 Hz
						103	930 Hz
						104	940 Hz
						105	950 Hz
						106	960 Hz
						107	970 Hz
						108	980 Hz
						109	990 Hz
						110	1000 Hz
						111	1010 Hz
					CON	ITINUED ON	NEXT PAGE

	CHANNEL						
1ch Dim.	6ch Dim. Color	11ch St.	18ch Ext.	9ch CMY	14ch CMY Ext.	DMX VALUES	FUNCTION
							Refresh Rates (continued)
						112	1020 Hz
						113	1030 Hz
						114	1040 Hz
						115	1050 Hz
						116	1060 Hz
						117	1070 Hz
						118	1080 Hz
						119	1090 Hz
						120	1100 Hz
						121	1110 Hz
						122	1120 Hz
						123	1130 Hz
						124	1140 Hz
						125	1150 Hz
						126	1160 Hz
	6	11	18	9	11	127	1170 Hz
	0		18	9	14	128	1180 Hz
						129	1190 Hz
						130	1200 Hz
						131	1210 Hz
						132	1220 Hz
						133	1230 Hz
						134	1240 Hz
						135	1250 Hz
						136	1260 Hz
						137	1270 Hz
						138	1280 Hz
						139	1290 Hz
						140	1300 Hz
						141	1310 Hz
						142	1320 Hz
						143	1330 Hz
						144	1340 Hz
					CON	ITINUED ON	I NEXT PAGE

	CHANNEL									
1ch Dim.	6ch Dim. Color	11ch St.	18ch Ext.	9ch CMY	14ch CMY Ext.	DMX VALUES	FUNCTION			
							Refresh Rates (continued)			
						145	1350 Hz			
						146	1360 Hz			
						147	1370 Hz			
						148	1380 Hz			
						149	1390 Hz			
						150	1400 Hz			
						151	1410 Hz			
						152	1420 Hz			
	153 1430 Hz	1430 Hz								
						154	1440 Hz			
						155	1450 Hz			
						156	1460 Hz			
						157	1470 Hz			
						158	1480 Hz			
	6	11	18	9	14	159	1490 Hz			
	0	11	10	9	14	160	1500 Hz			
									161	2500 Hz
						162	4000 Hz			
						163	5000 Hz			
						164	6000 Hz			
						165	10,000 Hz			
						166	15,000 Hz			
						167	20,000 Hz			
						168	25,000 Hz			
						169 - 200	Idle			
							Dimmer Curve			
						201 - 210	Linear			
						211 - 220	Square			
						221 - 230	Inverse Square			
						231 - 240	S-Curve			
						241 - 255	Idle			

# COLOR TEMPERATURE TABLE

DMX VALUE	COLOR TEMP (K)	DMX VALUE	COLOR TEMP (K)
024	2400	055	5500
025	2500	056	5600
026	2600	057	5700
027	2700	058	5800
028	2800	059	5900
029	2900	060	6000
030	3000	061	6100
031	3100	062	6200
032	3200	063	6300
033	3300	064	6400
034	3400	065	6500
035	3500	066	6600
036	3600	067	6700
037	3700	068	6800
038	3800	069	6900
039	3900	070	7000
040	4000	071	7100
041	4100	072	7200
042	4200	073	7300
043	4300	074	7400
044	4400	075	7500
045	4500	076	7600
046	4600	077	7700
047	4700	078	7800
048	4800	079	7900
049	4900	080	8000
050	5000	081	8100
051	5100	082	8200
052	5200	083	8300
053	5300	084	8400
054	5400	085	8500

# VIRTUAL COLORS

VALUE	FILTER#	COLOR	VALUE	FILTER#	COLOR
1	7	Pale Yellow	31	126	Mauve
2	103	Straw	32	49	Medium Purple
3	151	Gold Tint	33	58	Lavender
4	100	Spring Yellow	34	199	Palace Blue
5	10	Medium Yellow	35	119	Dark Blue
6	101	Yellow	36	132	Medium Blue
7	104	Deep Amber	37	120	Deep Blue
8	15	Deep Straw	38	165	Daylight Blue
9	179	Loving Amber	39	161	Slate Blue
10	21	Gold Amber	40	118	Light Blue
11	105	Orange	41	68	Sky Blue
12	158	Deep Orange	42	143	Pale Navy Blue
13	22	Dark Amber	43	131	Marine Blue
14	778	Millennium Gold	44	115	Peacock Blue
15	135	Deep Golden Amber	45	172	Lagoon Blue
16	24	Scarlet	46	116	Medium Blue Green
17	106	Primary Red	47	90	Dark Yellow Green
18	26	Bright Red	48	139	Primary Green
19	27	Medium Red	49	122	Fern Green
20	19	Fire	50	89	Moss Green
21	157	Pink	51	124	Dark Green
22	36	Medium Pink	52	88	Lime Green
23	111	Dark Pink	53	138	Pale Green
24	128	Bright Pink	54-179		No function
25	148	Bright Rose			
26	332	Special Rose Pink			
27	793	Vanity Fair	_		
28	113	Magenta	_		
29	46	Dark Magenta	_		
30	48	Rose Purple			

# SPECIFICATIONS

#### SOURCE

220W 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

8,000 Total Lumen Output CRI 92.2 Zoom Range 10° - 32° Beam Angle 9.7° - 32.2° Field Angle 18.7° - 49.3°

#### 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 Direct Access Encoder 4 Button Control Panel, LED Display RDM (Remote Device Management) 3/5pin DMX and IP65 Locking Power In/Out Connection

#### SIZE / WEIGHT

Length: 13.5" (344mm) Width: 10.7" (272mm) Vertical Height: 15.6" (398mm) Weight: 15.9 Ibs. (7.2kg)

#### **ELECTRICAL / THERMAL**

AC 100-240V - 50/60Hz 219W Max Power Consumption 5°F to 113°F (-15°C to 45°C)

#### **INCLUDED ITEMS**

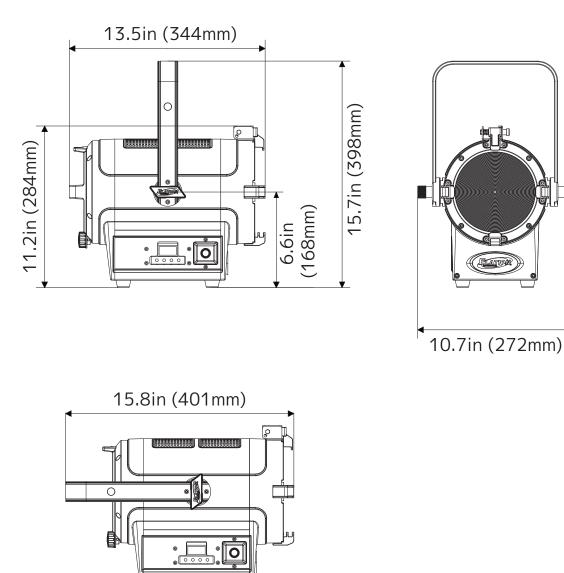
Gel Frame Rotating 8-leaf Barn Doors Locking Power Cable

APPROVALS / RATINGS (pending) CE | cETLus | IP20

Specifications and documentation are subject to change without notice.

# **DIMENSIONAL DRAWINGS**

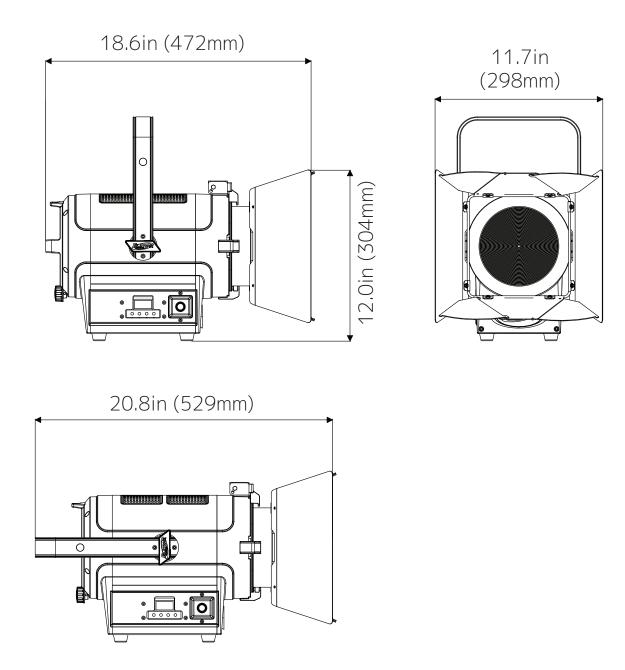
#### FIXTURE ONLY



Dimensions not drawn to scale.

# DIMENSIONAL DRAWINGS

#### BARNDOOR ATTACHED (same as shown on previous page except where noted)



Dimensions not drawn to scale.