KL FRESNEL 6 CW PO

User Manual

DOCUMENT VERSION

Due to additional product features and/or enhancements, an updated version of this document may be available online.
Please check www.elationlighting.com for the latest revision/update of this manual before beginning installation and/or programming.

Date	Document Version	Software Version	DMX Channels	Notes
06/26/2020	1.0	1.03	1/2/3/4/5 ch.	Initial Release
10/26/2022	1.1	1.04	No change	Added RDM; updated Installation Instructions, System Menu, Encoder Knob, DMX Traits

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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 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 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
Rotating Barn Doors (x1)
Junior Pin (x1)
Gel Frame (x1)
Locking Power Cable (x1)

CUSTOMER SUPPORT
Contact ELATION Service for any product related service and support needs.
Also visit forums.elationlighting.com with questions, comments or suggestions.

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

ELATION SERVICE EUROPE - Monday - Friday 08:30 to 17:00 CET
+31 45 546 85 63 | Fax +31 45 546 85 96 | support@elationlighting.eu

REPLACEMENT PARTS - please visit parts.elationlighting.com

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 (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 war-ranty 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 packag-ing 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 prod-uct 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 war-ranty 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 improve-ments upon its products without any obligation to include these changes in any products thereto-fore manu-factured.

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 war-ranties made by Elation Professional in connection with this product, including warranties of mer-chantability or fitness, are limited in duration to the warranty periods set forth above. And no war-ranties, 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 super-sedes 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 writ-ten 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 out-side 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 a smooth operation, it is important to follow all instructions and guidelines in this manual. Elation Professional is not responsible for injuries 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 FIXTURE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURER'S WARRANTY AND ARE NOT SUBJECT TO ANY WARRANTY CLAIMS AND/OR REPAIRS.

DO NOT PLUG FIXTURE INTO A DIMMER PACK!
NEVER OPEN THIS FIXTURE WHILE IN USE!
UNPLUG POWER BEFORE SERVICING FIXTURE!
NEVER TOUCH FIXTURE DURING OPERATION, AS IT MAY BE HOT!
KEEP FLAMMABLE MATERIALS AWAY FROM FIXTURE!

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

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

SAFETY GUIDELINES

- DO NOT TOUCH the fixture housing during operation. Turn OFF the power and allow approximately 15 minutes for the fixture to cool down before servicing.
- DO NOT expose the fixture to rain or moisture, or spill liquids into or onto the fixture! The fixture is intended for use in dry, indoor environments only!
- DO NOT shake fixture, and avoid using brute force when installing and/or operating the fixture.
- DO NOT operate the fixture if the power cord is frayed, crimped, damaged, and/or if any of the power cord connectors are damaged and do not plug into the fixture securely with ease.
- NEVER force a power cord connector into the fixture. If the power cord or any of its connectors are damaged, replace it immediately with a new one of the same power rating.
- DO NOT block any air ventilation slots.
- All fan and air inlets must remain clean and never blocked.
- Leave approx. 6" (15cm) between the fixture and other devices or a wall in order to allow for proper cooling.
- When installing fixture in a suspended environment, always use mounting hardware that is no less than M10 x 25 mm, and always install fixture with an appropriately rated safety cable.
- Always disconnect the fixture from the main power source before performing any type of service and/or cleaning procedure.
- Only handle the power cord by the plug end. Never pull out the plug by tugging on the wire portion of the cord.
- During the initial operation of this fixture, a light smoke or smell may emit from the interior of the fixture. This is a normal process and is caused by excess paint in the interior of the casing burning off from the heat associated with the lamp. This will decrease gradually over time.
- Consistent operational breaks will ensure fixture will function properly for many years.
- ONLY use the original packaging and materials to transport the fixture for service.

MAINTENANCE GUIDELINES

⚠ **DISCONNECT POWER BEFORE PERFORMING ANY MAINTENANCE!**

CLEANING

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

MAINTENANCE

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

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

NEVER remove the ground prong from the power cable.

OVERVIEW
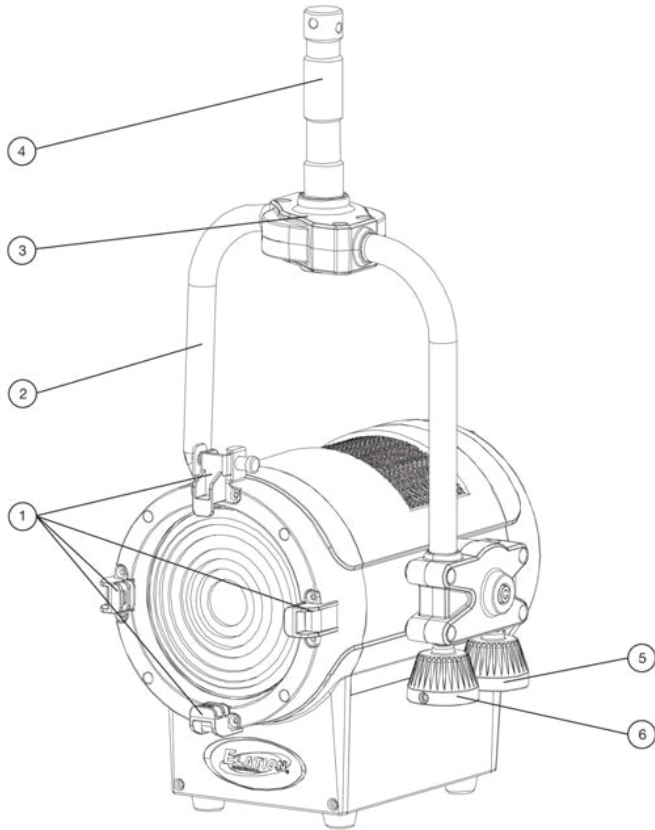
1. Barn Door Installation Slots
2. Mounting Yoke
3. Clamp Mounting Point
4. Junior Pin (installed)
5. Tilt Adjustment Knob
6. Pan Adjustment Knob
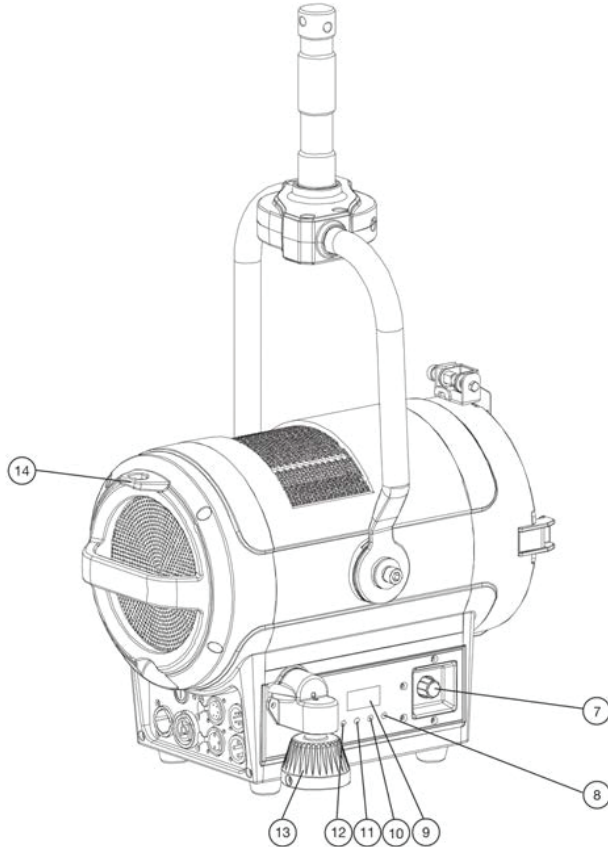
7. Dimmer Adjustment Knob
8. Enter Button
9. Display Screen
10. Down Button
11. Up Button
12. Mode Button
13. Zoom Adjustment Knob
14. Safety Cable Rigging Point

OVERVIEW
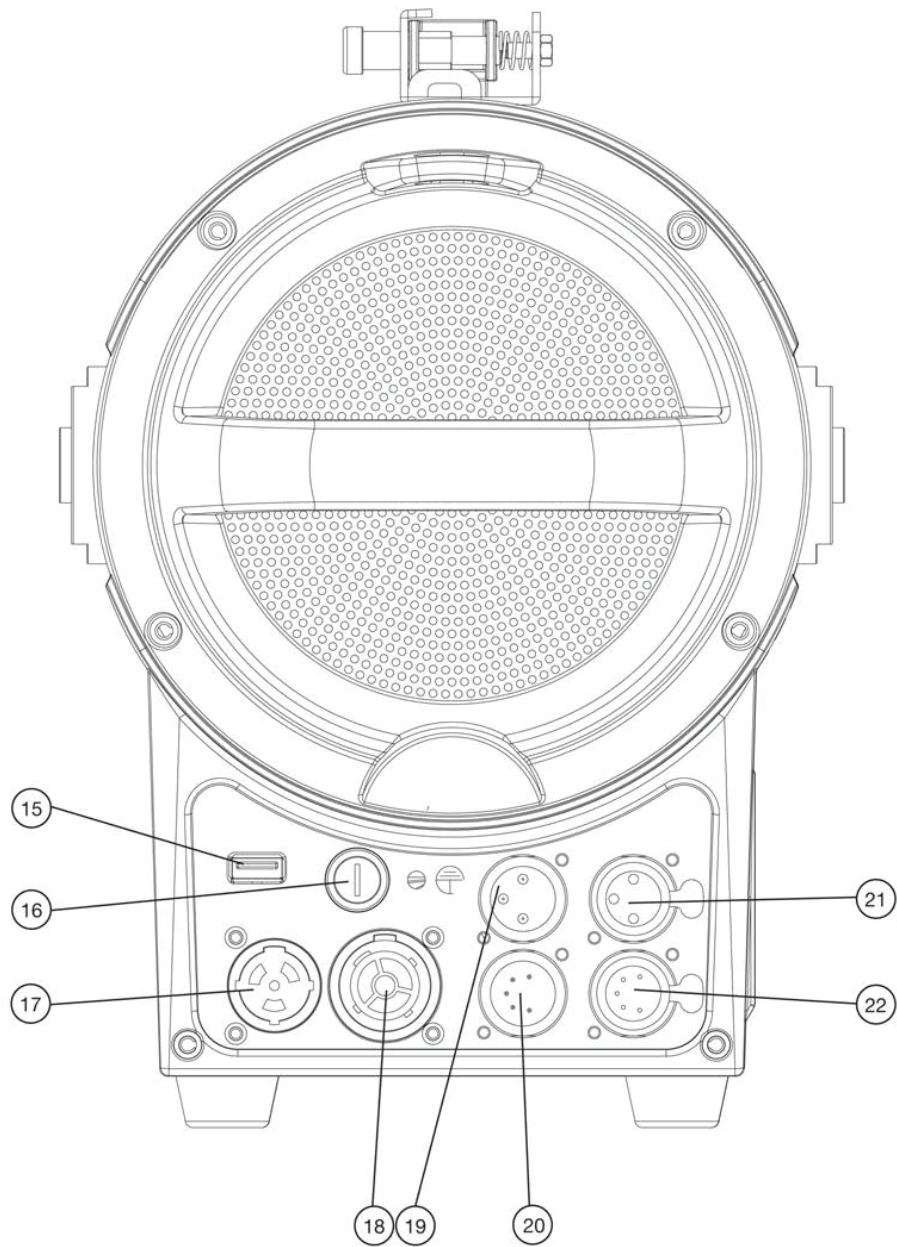
15. Service Port
16. Fuse - T3A / 250V
17. Power In
18. Power Out
19. 3-pin DMX In
20. 5-pin DMX In
21. 3-pin DMX Out
22. 5-pin DMX Out

INSTALLATION GUIDELINES

⚠️ **FLAMMABLE MATERIAL WARNING**
Keep fixture minimum 5.0 feet (1.5m) away from flammable materials and/or pyro-technics.

⚠️ **ELECTRICAL CONNECTIONS**
A qualified electrician should be used for all electrical connections and/or installations.

⚠️ **USE CAUTION WHEN POWER LINKING OTHER MODEL FIXTURES, AS THE POWER CONSUMPTION OF OTHER MODEL FIXTURES MAY EXCEED THE MAX POWER OUTPUT ON THIS FIXTURE. CHECK SILK SCREEN FOR MAX AMPS.**

⚠️ **DO NOT INSTALL THE FIXTURE IF YOU ARE NOT QUALIFIED TO DO SO!**

Fixture **MUST** be installed following all local, national, and country commercial electrical and construction codes and regulations.

Before rigging/mounting a single fixture or multiple fixtures to any metal truss/structure or placing the fixture(s) on any surface, a professional equipment installer **MUST** be consulted to determine if the metal truss/structure or surface is properly certified to safely hold the combined weight of the fixture(s), clamps, cables, and accessories.

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

Fixture(s) should be installed away from walking paths, seating areas, or areas were unauthorized personnel might reach the fixture by hand.

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

Overhead fixture installation must always be secured with a secondary safety attachment, such as an appropriately rated safety cable that meets all local, national, and country codes and regulations.

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

INSTALLATION GUIDELINES

CLAMP INSTALLATION

This fixture includes an adjustable mounting yoke with an integrated clamp mounting point, as well as an additional safety cable rigging point attached to the body of the fixture (see the illustration below). When mounting this fixture to truss, be sure to secure an appropriately rated clamp (not included) to the clamp mounting point on the yoke and attach a separate SAFETY CABLE of the appropriate rating (not included) to the safety cable rigging point on the fixture.

Safety Cable Rigging Point

Clamp Mounting Point

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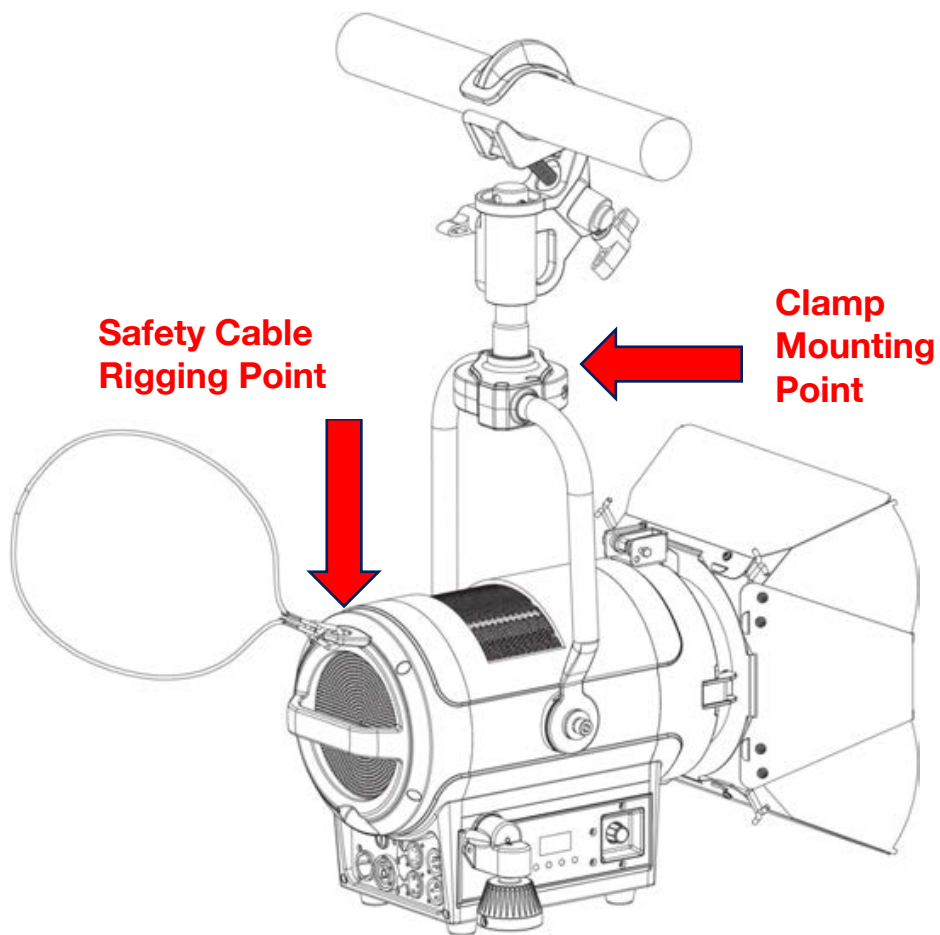
SAFETY CABLE:
ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE THAT THE FIXTURE WILL NOT FALL IF THE CLAMP FAILS.

INSTALLATION GUIDELINES

RIGGING

Overhead rigging requires extensive experience, including calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the fixture, among other skills. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.

The fixture is fully operational in the following positions: hanging from a horizontal truss, suspended sideways from a vertical truss, or standing upright on a flat, level surface. See the illustration below for reference.
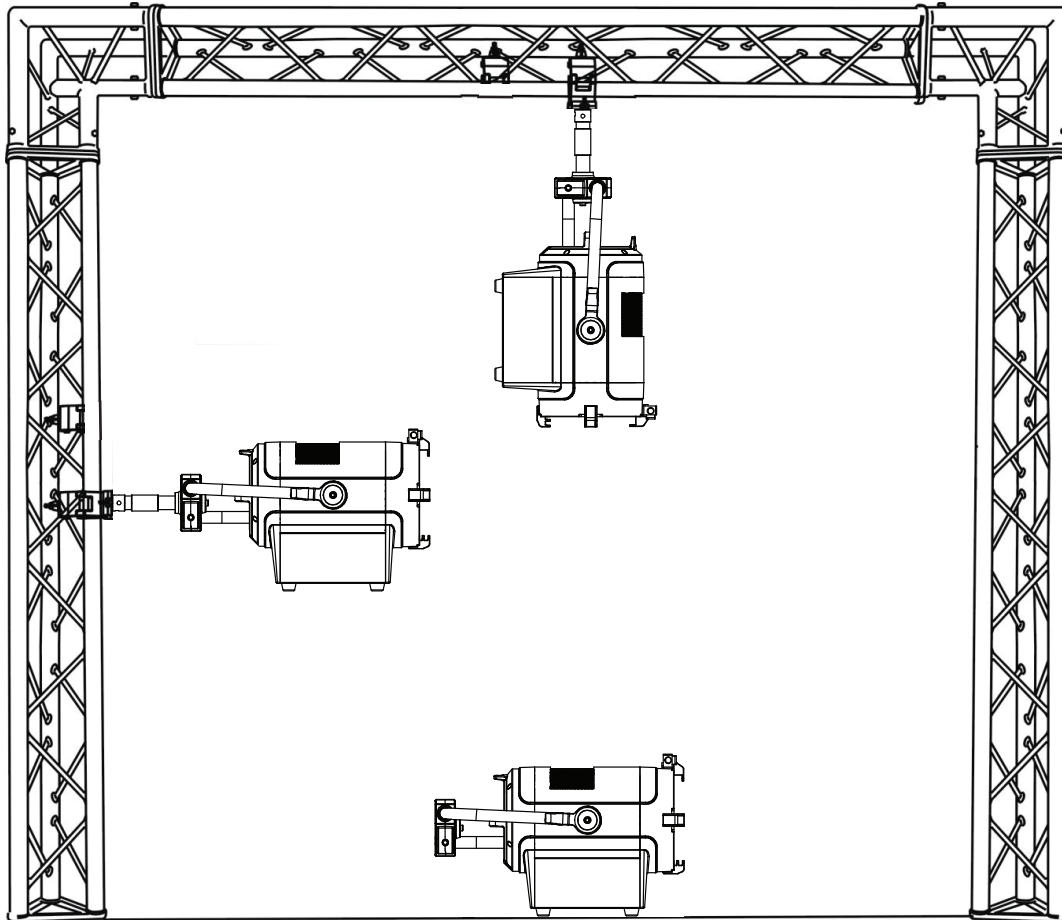
INSTALLATION INSTRUCTIONS

POTENTIAL INTERNAL FIXTURE DAMAGE FROM EXTERNAL SOURCES OF LIGHT BEAMS

External sources of light beams from direct sunlight, lighting and 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 of 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, but rather 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 reduce the risk of potential damage. 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.
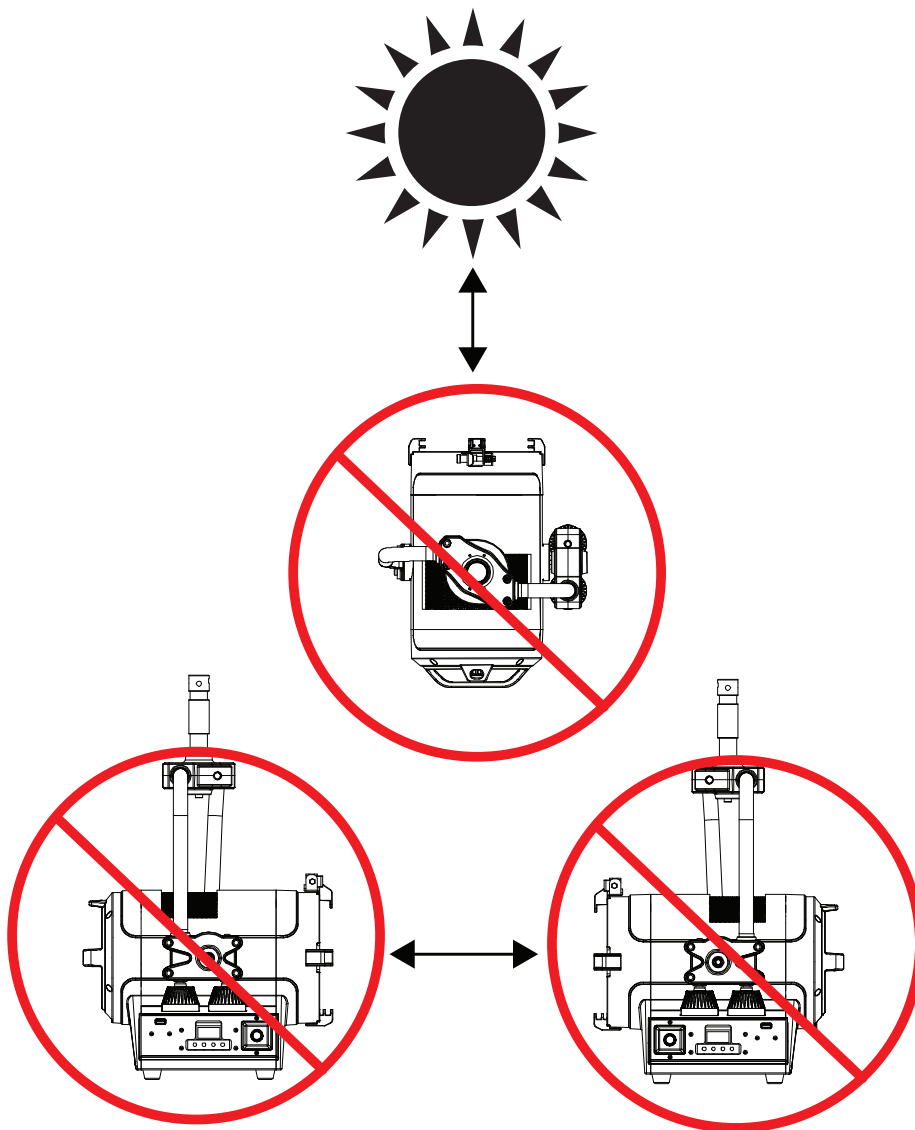
ACCESSORY INSTALLATION

GEL FRAME

This fixture includes a removable gel frame, which can be installed by following the steps shown below.

1. Release the lock on the lens frame latch, and flip the latch upward.

2. Slide the gel frame into place in the slot in front of the fixture lens.
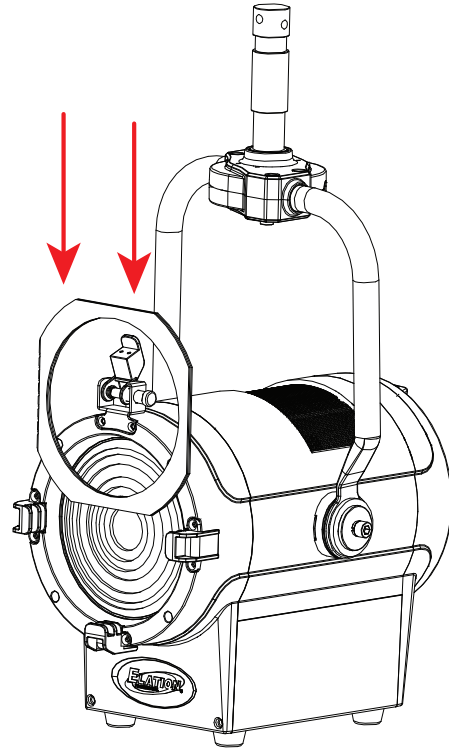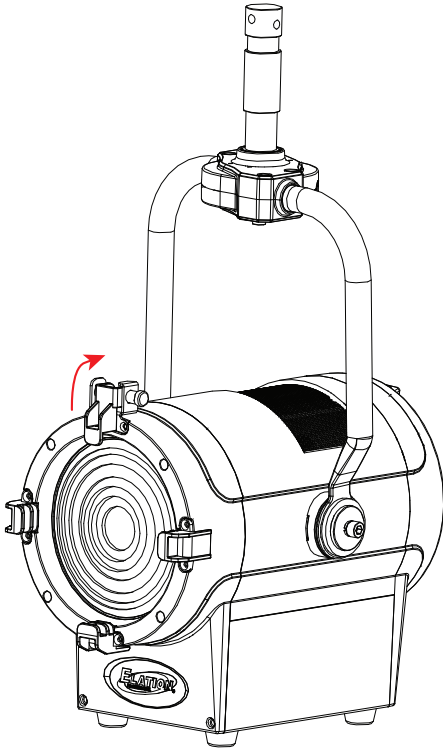
3. Flip the lens frame latch back down, making sure it clicks securely into place.
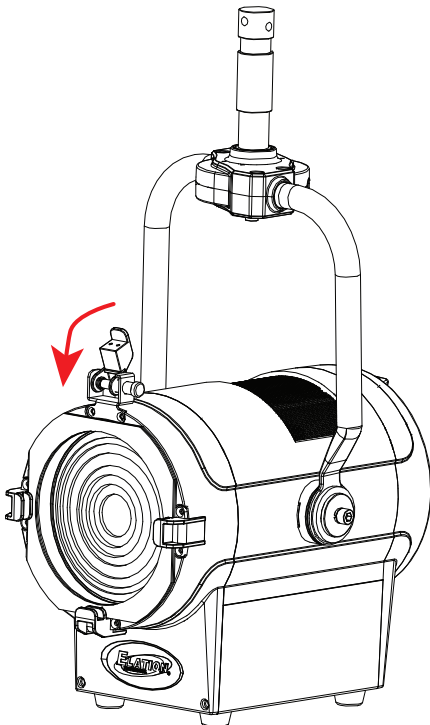
ACCESSORY INSTALLATION

BARNDOORS

This fixture includes removable set of barndoors, which can be installed by following the steps shown below.

1. Release the lock on the lens frame latch, and flip the latch upward.

2. Slide the barndoors into place in the slot in front of the fixture lens and gel frame.
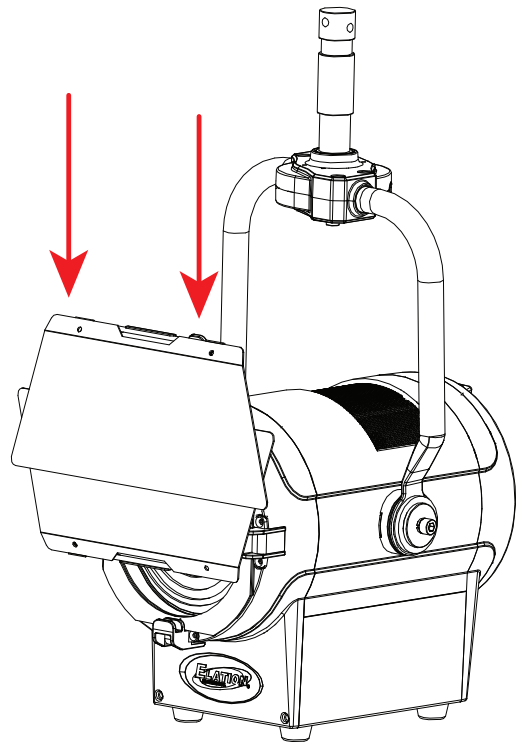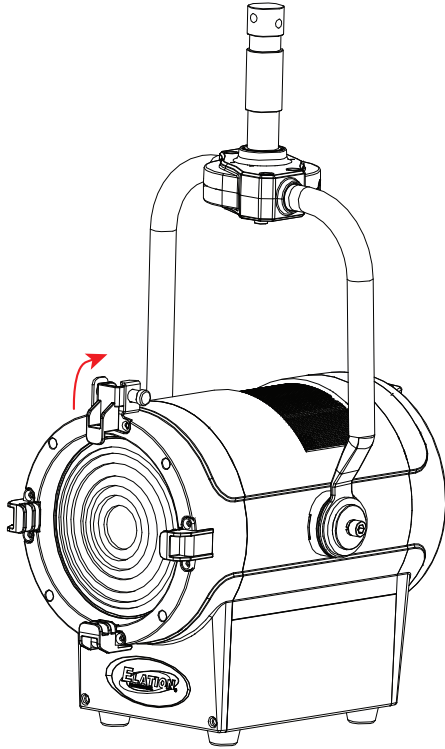
3. Flip the lens frame latch back down, making sure it clicks securely into place.

4. Unfold the barndoors by carefully pulling the panels outwards.
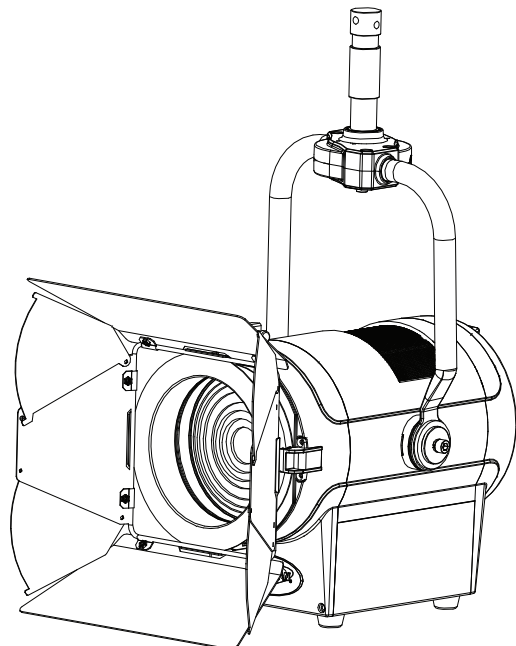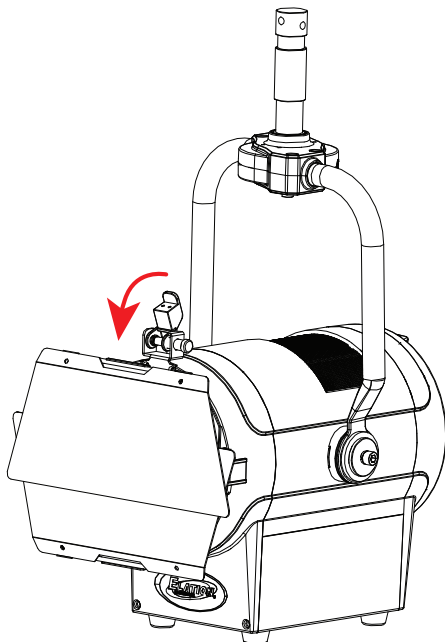
REMOTE DEVICE MANAGEMENT (RDM)

NOTE: In order for RDM to work properly, RDM enabled equipment must be used throughout the entire system, including DMX data splitters and wireless systems.

Remote Device Management (RDM) is a protocol that sits on top of the DMX512 data standard for lighting, allowing the DMX systems of the fixtures to be modified and monitored remotely. This protocol is ideal for instances in which a unit is installed in a location that is not easily accessible.

With RDM, the DMX512 system becomes bi-directional, allowing a compatible RDM enabled controller to send out a signal to devices on the wire, as well as allowing the fixture to respond (known as a GET command). The controller can then use its SET command to modify settings that would typically have to be changed or viewed directly via the unit's display screen, including the DMX Address, DMX Channel Mode, and Temperature Sensors.

FIXTURE RDM INFORMATION:

| RDM Code	Device ID	Device Model ID	Personality ID
22A6	0000-FFFF	1035	001 Dimmer 002 16Bot 003 3Ch 004 Standard 005 Extended

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

The following parameters are available on this device:

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

CONTROL PANEL

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, where all necessary system adjustments can be made. During normal operation, pressing the MODE button once will access the fixture's main menu. From the main menu, you can navigate through the different functions and access the sub-menus with the UP and DOWN buttons. Once you reach a field that requires adjusting, press the ENTER button to activate that field, then use the UP and DOWN buttons to adjust the field. Pressing the ENTER button once more will confirm your setting. You may exit the main menu at any time without making any adjustments by pressing the MODE button.

The display screen will automatically turn off after 30 seconds of inactivity.
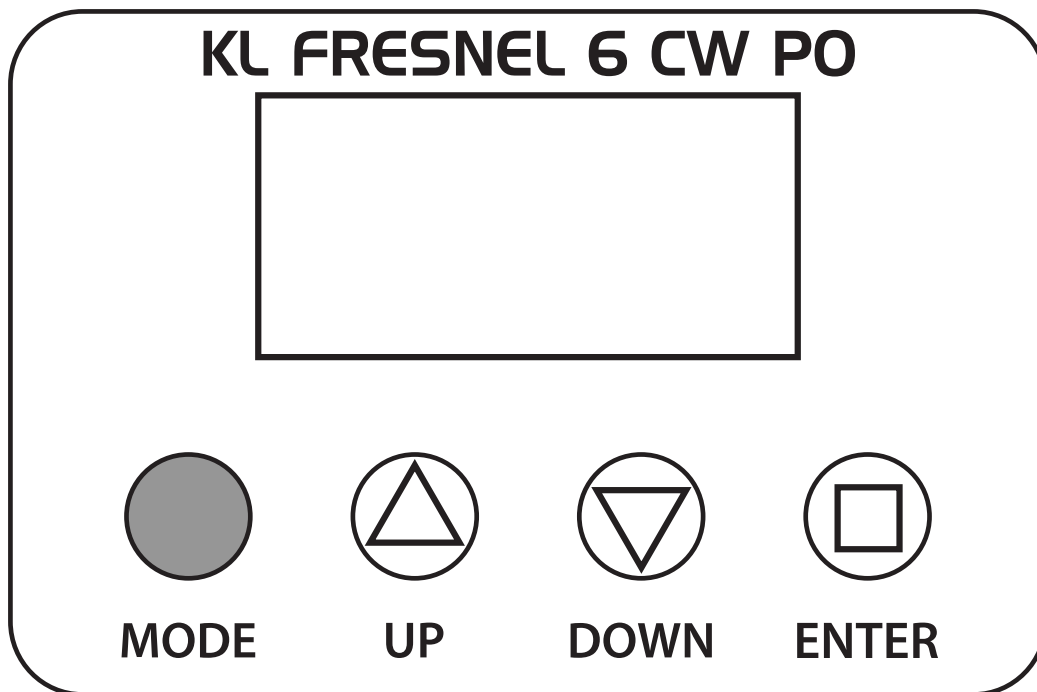
SYSTEM MENU

	ELATION KL FRESNEL 6 CW PO			
	SYSTEM MENU			
	Supports Software Versions: 1.04			
	Features subject to change without notice. Rotation direction (clockwise/counter-clockwise) and control of effects depend on head orientation and pan/tilt settings. Default settings listed in **bold.**			
MAIN MENU	**SUB MENU**	**OPTIONS / VALUES**		**DESCRIPTION**
ADDRESS	Address: xxx	**001** - 511		Set DMX address
USER MODE	Dimmer			
	Dimmer 16bit			
	3CH			
	Standard			
	Extended			
FUNCTION	Status	Lost DMX	Black / **Hold**	
	LCD Set	Display	**On** / Off	30s screen saver setting
		Key Lock	**On** / Off	Display menu button lock
		Flash	**On** / Off	Display flashes when no signal is detected
		Invert	On / **Off**	Flip screen display 180 deg
	Temp C / F	C / **F**		Set temperature units
	Dim Mode	**Standard**		
		Stage		
		TV		
		Architec		
		Theatre		
		Stage 2		
		0.0s		
		0.1s		
		...		
		10s		
	Disp Set	ADDR		
		Disp Ch		
		Secondry		
	Fan Set	LED Fan	**Auto**	
			High	
			Low	
	Dim Curve	**Linear**		
		Square		
		Inv Square		
		S Curve		
	Frequen	900 Hz, 1000 Hz, 1100 Hz, **1200 Hz,** 1300 Hz, 1400 Hz, 1500 Hz, 2500 Hz, 4000 Hz, 5000 Hz, 10 KHz, 15 KHz, 20 KHz, 25 KHz		
	CONTINUED ON NEXT PAGE			

SYSTEM MENU

MAIN MENU	SUB MENU	OPTIONS / VALUES		DESCRIPTION
FUNCTION (continued)	USB Data	On / **Off**		Power on USB port to update device
	Primary	On / **Off**		Primary mode switch
	DFSE	On / **Off**		Reset to default settings
INFO	Time Info	Current		Current run time (hours)
		Total		Fixture total run time (hours)
		Last		Run time since last cleared (hours)
		Clear	On / **Off**	Password = 050/60
	Temp Info	LED Temp	xxx C / xxx F	
	Err Info	None, ...		
	Model Inf	KL F6 CW PO		
	Software	Vx.xx		
TEST	Man Ctrl	Dimmer	**000** - 255	
		Strobe	000 - **255**	

FAN CONTROL

The KL Fresnel 6 CW PO is a high-performance fixture suited for multiple applications. For noise critical environments such as Theater, Opera, or Orchestral Halls, it offers various fan operation modes which remove unwanted noise distractions for the audience and performers. Fan Modes can be changed remotely via the DMX control channel, allowing the fixture to offer high output or whisper-silent operation at a moment's notice. All Fan Modes smoothly transition over a brief period, preventing unwanted attraction to the fixture.

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

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

Low - For very critical noise environments, the fixture offers two additional Low Noise Modes for silent operation. The fixture output will be reduced, yet due to the extremely high luminous flux, the fixture still offers outstanding performance. All parameters of the fixture operate more quietly with reduced fan speeds. Almost all fixture fans are turned off, and only run when absolutely necessary. The fixture LED power output is reduced to 50%.

ENCODER KNOB
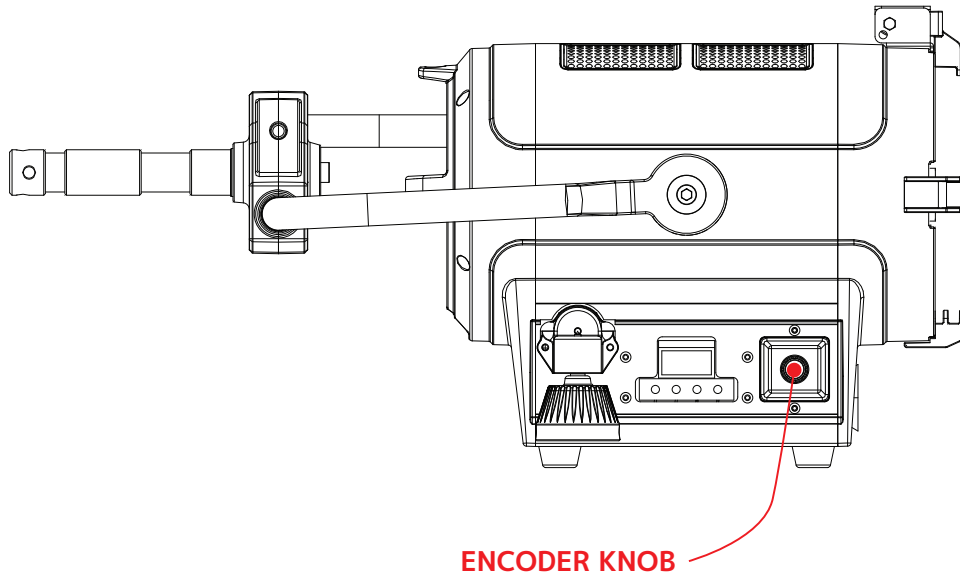
ENCODER KNOB

This device features an encoder knob located on the side panel beside the display screen, as shown in the illustration above.

This knob allows the user to quickly enter Manual Dimmer Mode by pressing on the knob. The dimming can then be adjusted by turning the knob. To exit Manual Dimmer Mode, use the display screen control buttons to navigate to "User Mode" in the main system menu, and change the user mode to another mode.

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

DMX TRAITS

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DMX CHANNEL TRAITS</td></tr>
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Rotation direction (clockwise/counter-clockwise) and control of effects depends on head orientation and pan/tilt settings.</td></tr>
<tr><td colspan="5">CHANNEL</td><td rowspan="2">DMX VALUES</td><td rowspan="2">FUNCTION</td></tr>
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<tr><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>000 - 255</td><td>Dimmer Intensity, 0% to 100%</td></tr>
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<tr><td>021 - 040</td><td>Stage</td></tr>
<tr><td>041 - 060</td><td>TV</td></tr>
<tr><td>061 - 080</td><td>Architectural</td></tr>
<tr><td>081 - 100</td><td>Theatre</td></tr>
<tr><td>101 - 120</td><td>Stage 2</td></tr>
<tr><td></td><td>Dimmer Delay Time</td></tr>
<tr><td>121</td><td>0.0s</td></tr>
<tr><td>122</td><td>0.1s</td></tr>
<tr><td>123</td><td>0.2s</td></tr>
<tr><td>124</td><td>0.3s</td></tr>
<tr><td>125</td><td>0.4s</td></tr>
<tr><td>126</td><td>0.5s</td></tr>
<tr><td>127</td><td>0.6s</td></tr>
<tr><td>128</td><td>0.7s</td></tr>
<tr><td>129</td><td>0.8s</td></tr>
<tr><td>130</td><td>0.9s</td></tr>
<tr><td>131</td><td>1.0s</td></tr>
<tr><td>132</td><td>1.5s</td></tr>
<tr><td>133</td><td>2.0s</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td>134</td><td>3.0s</td></tr>
<tr><td colspan="7">CONTINUED ON NEXT PAGE</td></tr>
</table>

DMX TRAITS

CHANNEL					DMX VALUES	FUNCTION
Dimmer	Dimmer 16bit	3CH	Standard	Extended		
		3	4	4		**Dimmer Delay Time (continued)**
					135	4.0s
					136	5.0s
					137	6.0s
					138	7.0s
					139	8.0s
					140	9.0s
					141	10.0s
					142 - 255	Default
				5		**Control (hold for 3s)**
					000 - 100	Idle
						Refresh Rate
					101 - 105	900 Hz
					106 - 110	1000 Hz
					111 - 115	1100 Hz
					116 - 120	1200 Hz (default)
					121 - 125	1300 Hz
					126 - 130	1400 Hz
					131 - 135	1500 Hz
					136 - 140	2500 Hz
					141 - 145	4000 Hz
					146 - 150	5000 Hz
					151 - 155	10,000 Hz
					156 - 160	15,000 Hz
					161 - 165	20,000 Hz
					166 - 170	25,000 Hz
					171 - 200	Idle
						Dimmer Curves
					201 - 210	Linear (default)
					211 - 220	Square
					221 - 230	Inverse Square
					231 - 240	S-Curve
					241 - 255	Idle

DIMMER CURVES

DIMMER

100%

50%

10%

0%

Time (ms)

0 Sec | Rise Time | Down Time
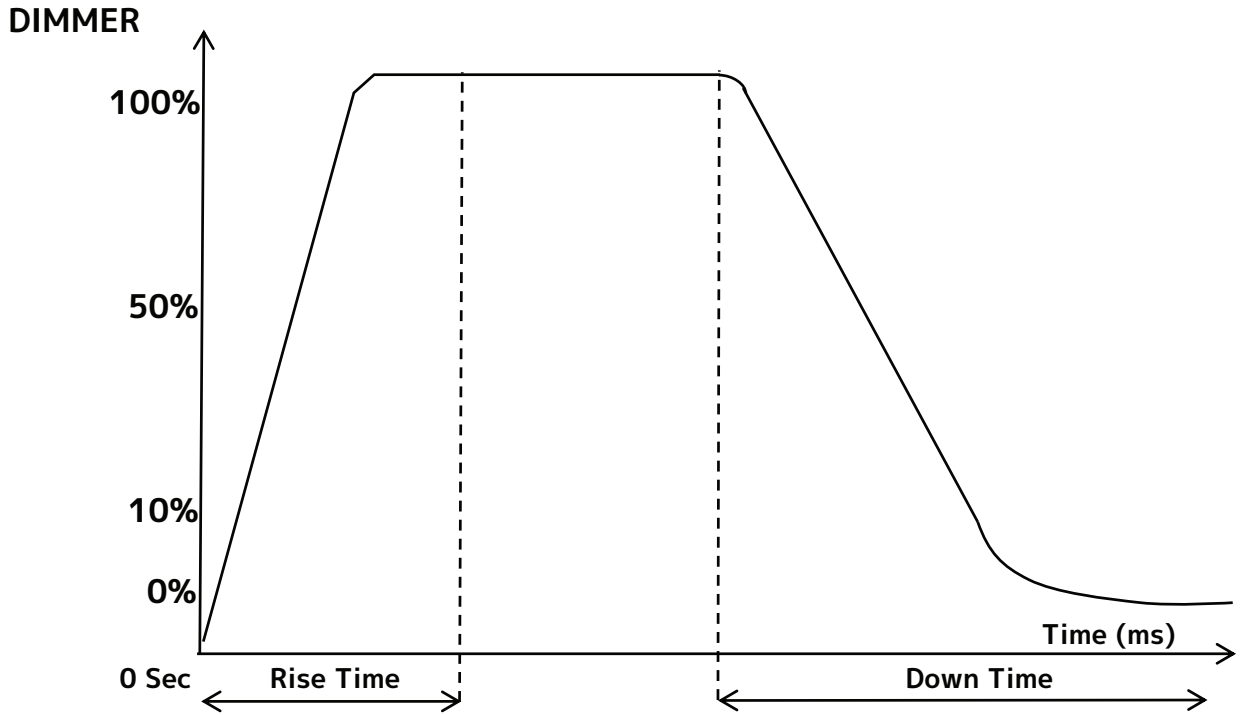
Dimming Curve Ramp Effect	0 sec Fade Time		1 sec Fade Time	
	255		255	
	0		0	
	Rise Time (ms)	Down Time (ms)	Rise Time (ms)	Down Time (ms)
Standard (default)	0	0	0	0
Stage	780	1100	1540	1660
TV	1180	1520	1860	1940
Architectural	1380	1730	2040	2120
Theatre	1580	1940	2230	2280
Stage 2	0	1100	0	1660

LINEAR

SQUARE

INVERSE SQUARE

S-CURVE
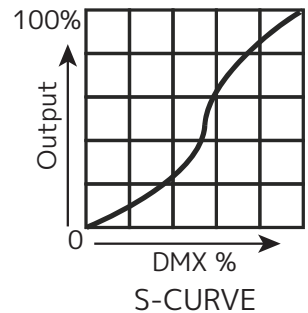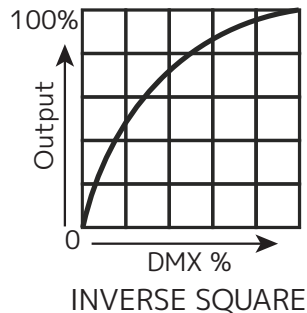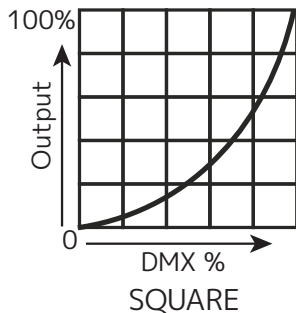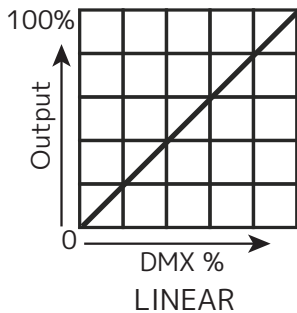
SOFTWARE UPDATES

⚠ **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.

ELATION C-LOADER
An Elation C-Loader can be used to update the fixture to the latest software. Please visit the C-Loader 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 uploader and the updated software for your fixture, please contact Elation support for details.

STANDARD SERVICE PORT METHOD
1. Copy the updated software onto a USB memory stick.
2. Reset the fixture(s), then insert the USB memory stick directly into the service port of the fixture.
3. In the main menu, navigate to "Personality", then press ENTER.
4. Navigate to the "Service" sub-menu, then press ENTER.
5. Key in "050" for the password, then press ENTER again.
6. Scroll to the "Yes" option, and press ENTER.
7. Scroll to the desired software file and press ENTER.
8. Select "On" and press ENTER again. The software should now begin copying.

Note: Do NOT interrupt this process, and do NOT remove the USB memory stick until the update has been completed and the fixture has automatically reset and returned to the default menu. Failure to follow these guidelines may render your fixture inoperable.

AUTOMATIC SERVICE PORT METHOD - This method can be used when updating software for a single fixture. Does NOT work for updating multiple linked fixtures.
1. Copy updated software onto a USB memory stick.
2. Switch off power on the fixture, then plug the USB memory stick into the service port.
3. Power the fixture on. The data on the memory stick should automatically be detected.
4. Use the UP and DOWN buttons to select the desired software file and press ENTER.
5. Select "On" and press ENTER. The software should now begin copying.

Note: Do NOT interrupt this process, and do NOT remove the USB memory stick until the update has been completed and the fixture has automatically reset and returned to the default menu. Failure to follow these guidelines may render your fixture inoperable.

SPECIFICATIONS

SOURCE
150W Cool White LED Engine, 5,600K, 97CRI
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
8,500+ Total Lumen Output
9,269 LUX 861 FC @ 9.8' (3m) (Min. Zoom)
2,334 LUX 217 FC @ 9.8' (3m) (Max. Zoom)
Zoom Range 16° - 39°
Beam Angle 16.1° - 38°
Field Angle 39.1° - 53.9°

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

COLOR
5,600K Cool White LED

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

SIZE / WEIGHT
Length: 13.5" (344mm)
Width: 10.75" (273mm)
Vertical Height: 15.47" (393mm)
Weight: 18.5 lbs. (8.4kg)

ELECTRICAL / THERMAL
AC 100-240V - 50/60Hz
180W Max Power Consumption
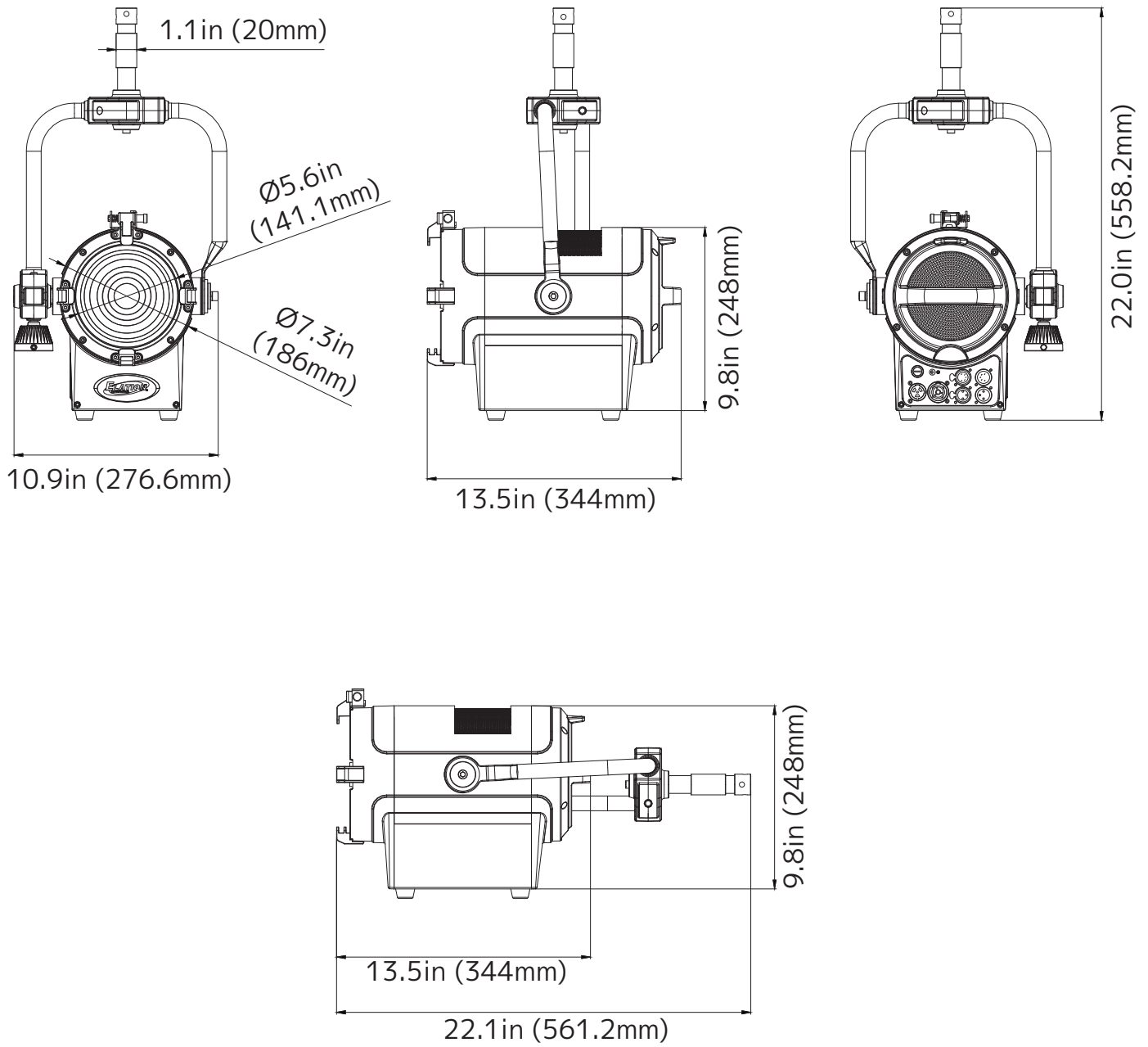5°F to 113°F (-15°C to 45°C)
Power Linking: 6Pcs @ 110V / 14Pcs @ 240V
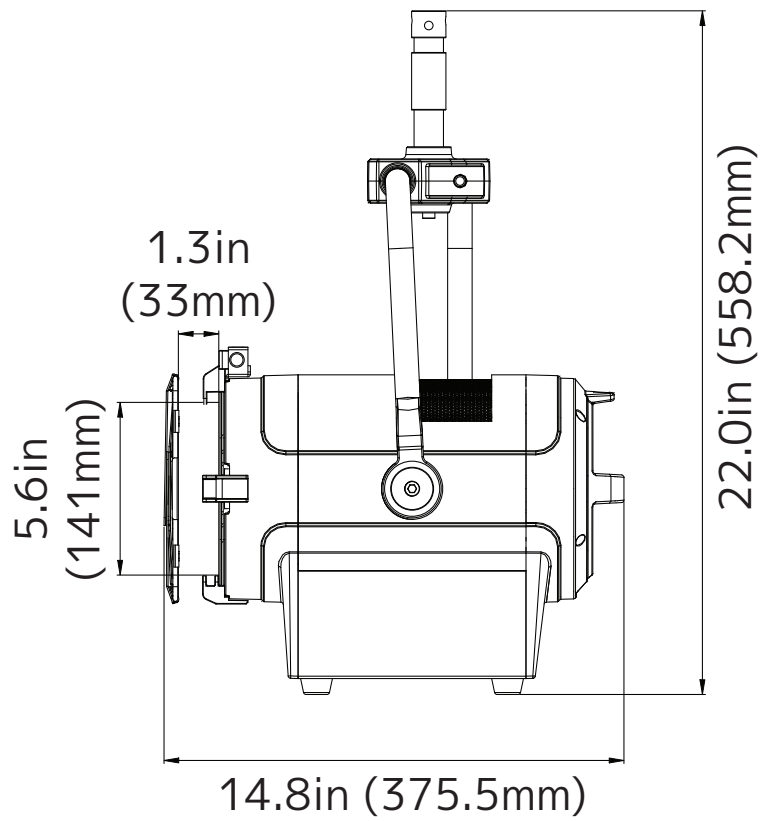
APPROVALS / RATINGS
CE | cETLus | IP30

C E

ETL
c LISTED us
Intertek
4010765

DIMENSIONAL DRAWINGS

FIXTURE WITH JUNIOR PIN INSTALLED

1.1in (20mm)

Ø5.6in (141.1mm)

Ø7.3in (186mm)

10.9in (276.6mm)

9.8in (248mm)

13.5in (344mm)

22.0in (558.2mm)

9.8in (248mm)

13.5in (344mm)

22.1in (561.2mm)

DIMENSIONAL DRAWINGS

BARN DOOR AND JUNIOR PIN INSTALLED

1.3in
(33mm)

5.6in
(141mm)

22.0in (558.2mm)

14.8in (375.5mm)

ERROR CODES

When the unit is powered on, it will automatically enter a "Reset/Test" mode, in which the unit runs a brief self-evaluation. If an internal problem is detected, an error code will flash in the be displayed. These codes are listed in the table below.

ERROR CODES	
Error codes are subject to change without any prior written notice.	
ERROR CODE	**DESCRIPTION**
Temp error	Error with LED temperature.