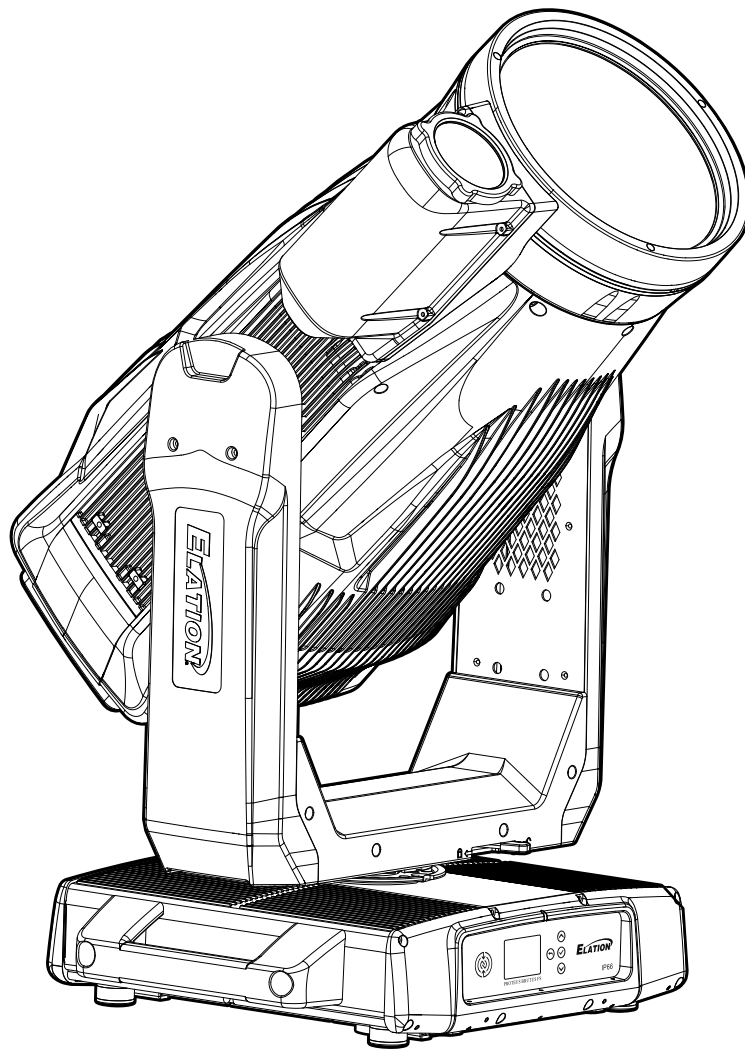


# **ELATION®**



**PROTEUS  
BRUTUS FS**  
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	SoftwareVersion ≥	DMX Channel Modes	Notes
11/04/24	1	V1.6.0	27 / 36	Initial Release

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# GENERAL INFORMATION

## FOR PROFESSIONAL USE ONLY

### 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.

### COOLING

After usage, the lamp may be switched off, but the fixture should remain connected to power in order to allow the fan time to cool down the fixture.

### 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

(2x) Omega Brackets

(1x) IP65 Rated Locking Power Cable

### CUSTOMER SUPPORT

Contact ELATION Service for any product related service and support needs.

Also visit [forums.elationlighting.com](https://forums.elationlighting.com) with questions, comments or suggestions.

**ELATION SERVICE USA - Monday - Friday 8:00am to 4:30pm PST**

**323-582-3322** | [support@elationlighting.com](mailto:support@elationlighting.com)

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

# IP66 RATED

**The International Protection (IP)** rating system is commonly expressed as “IP” (Ingress Protection) followed by two numbers (i.e. IP66), 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 **IP66** rated lighting fixture is designed and tested to protect against the ingress of dust (**6**), and high-pressure water jets from any direction (**6**).

**Maritime/Coastal Environment Installations:** A coastal environment is seaside adjacent, and caustic to electronics through exposure to atomized salt-water and humidity, whereas maritime is anywhere within 5-miles of a coastal environment.

Maritime installations require additional preparation, and additional service intervals may be needed given the maritime use. In general, IP ratings presuppose freshwater conditions VS maritime conditions, which are typically more “caustic” to IP fixtures (both internally and externally). A duty-cycle may also be needed when units are not in use. During times of high humidity and colder temperatures, condensation may occur internally so the fixture may require a duty-cycle to bring it up to running temperature, allowing any accumulation of moisture to be expelled via the vent valve. Recommendations can change based on installation environmental circumstances.

**NOTE: NOT ALL FEATURES LISTED ARE AVAILABLE ON ALL FIXTURES; THE FOLLOWING INSTRUCTIONS MAY NOT APPLY. CONTACT SUPPORT FOR ADDITIONAL DETAILS.**

**Exterior Maintenance:** Inspect the exterior every 30-days. The unit must be powered off/disconnected. The chassis should be inspected for any signs of contaminants. Inspect optics to determine if the lens is obstructed, then clean optics and chassis accordingly. Based on initial finding, schedule maintenance accordingly, keeping in mind that exterior maintenance will be required. Even if the luminaires are NOT in use, maintenance will still be needed given its location (exterior use). The use of a durable type of wax on the chassis is recommended since it will help prevent contaminant build up. Inspect both power and data lines for any signs of contaminants or corrosion. Periodically reapplying di-electric grease, especially in coastal environments. If any signs of corrosion/contaminants are present, clean thoroughly, and/or replace connectors, then reapply di-electric grease. Typically, this should be done annually, or any time an opportunity presents itself. As a preventive measure, annual replacement of both vent valves is recommended. The vent valve membrane can become contaminated and/or clogged causing improper venting of humidity within the luminaire. Inspect all mounting hardware as a precaution.

**Interior Maintenance:** Inspect the interior every 30-days. The unit must be powered off/disconnected.

- Inspect zoom/focus mechanism, clean optics, lubricate linear bearings (Krytox oil) as needed, inspect belts for wear
- Inspect all rotating effect wheels, manually rotate them, note any resistance
- Inspect all remaining rotating belts for any wear
- Inspect all fans, clean as needed, check rotation, check connections
- Inspect CMY module, manually move flags and check for signs of resistance, and if needed, clean guide rods first, then reapply a thin layer of grease (moly lube)
- Clean interior with low-volume compressed air, then clean optics prior to reassembly of head covers

Although the base has limited moving parts, the pan belt should also be inspected for wear. Remember to always perform an IP test anytime a cover is removed.

There is no specific time frame regarding the routine replacement of parts such as belts/stepper motors, PCBs, or LEDs. These items should only be replaced on an as needed bases, except for cooling fans, which should be replaced once the luminaries reach 10,000-hours. This is a prophylactic measure intended to keep the unit running as cool as possible, insuring proper function of all internal components. A complete service breakdown is available, please contact [service@elationlighting.com](mailto:service@elationlighting.com) for any needed parts or manuals.

## 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 manufacturer's warranty and increase the risk of damage and/or personal injury.



**PROTECTION CLASS 1 - FIXTURE MUST BE PROPERLY GROUNDED.**



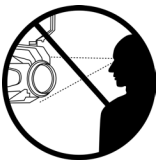
**THERE ARE NO USER SERVICEABLE PARTS INSIDE THIS UNIT. DO NOT ATTEMPT ANY REPAIRS YOURSELF; DOING SO WILL VOID YOUR MANUFACTURER'S WARRANTY. DAMAGES RESULTING FROM MODIFICATIONS TO THIS FIXTURE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURER'S WARRANTY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



**ENSURE ALL CONNECTIONS AND END CAPS ARE PROPERLY SEALED WITH A DIELECTRIC GREASE (AVAILABLE AT MOST ELECTRICAL SUPPLIERS) TO PREVENT WATER CORROSION AND/OR ELECTRICAL SHORT CIRCUIT.**



**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!**



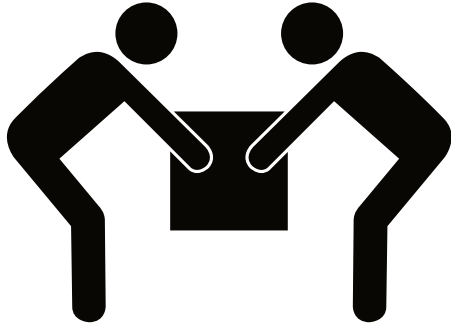
**MINIMUM DISTANCE TO OBJECTS/SURFACES  
MUST BE 1.6 FEET (0.5 METERS)  
MAXIMUM TEMPERATURE OF EXTERNAL SURFACE 176°F (80°C)**



**IT IS STRONGLY RECOMMENDED TO POWER THE FIXTURE DOWN COMPLETELY WHEN NOT IN USE. DOING SO WILL REDUCE WEAR ON THE FIXTURE DUE TO SUSTAINED OR EXTENDED OPERATIONAL PERIODS, THEREBY MAXIMIZING ITS OPERATIONAL LIFESPAN.**



# SAFETY GUIDELINES



117.7 lbs. (53.4 kg)

## WARNING

### TWO PERSON LIFT REQUIRED

## ! CAUTION

### HIGH INTENSITY ULTRAVIOLET LIGHT



AVOID DIRECT EYE & SKIN EXPOSURE.  
WEAR PROPER EYE & SKIN PROTECTION.  
SEE MANUAL FOR SAFETY INSTRUCTIONS.

RISK GROUP 3 - RISK OF EXPOSURE TO ULTRAVIOLET UV RADIATION! FIXTURE EMITS HIGH INTENSITY WAVELENGTH OF ULTRAVIOLET UV LIGHT FROM THE UV COLOR FILTER. WEAR PROPER EYE AND SKIN PROTECTION. AVOID PROLONGED PERIODS OF EXPOSURE TO UV COLOR FILTER. AVOID WEARING WHITE COLOR CLOTHING AND/OR USING UV PAINTS ON SKIN. AVOID DIRECT EYE AND/OR SKIN EXPOSURE AT DISTANCES LESS THAN 65.6 feet (20m). DO NOT OPERATE FIXTURE WITH DAMAGED/MISSING EXTERNAL COVERS. DO NOT LOOK DIRECTLY INTO THE UV LIGHT AND/OR VIEW UV LIGHT DIRECTLY WITH OPTICAL INSTRUMENTS THAT MAY CONCENTRATE THE LIGHT/RADIATION OUTPUT. INDIVIDUALS SUFFERING FROM A RANGE OF EYE CONDITIONS, SUNLIGHT

EXPOSURE DISORDERS, OR INDIVIDUALS USING PHOTSENSITIVE MEDICATION, MAY RECEIVE DISCOMFORT IF EXPOSED TO THE ULTRAVIOLET UV LIGHT EMITTED FROM THE UV LED.

- **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. 16.4-feet (5.0m) between fixture and other devices or a wall for proper cooling.
- 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 an authorized 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.

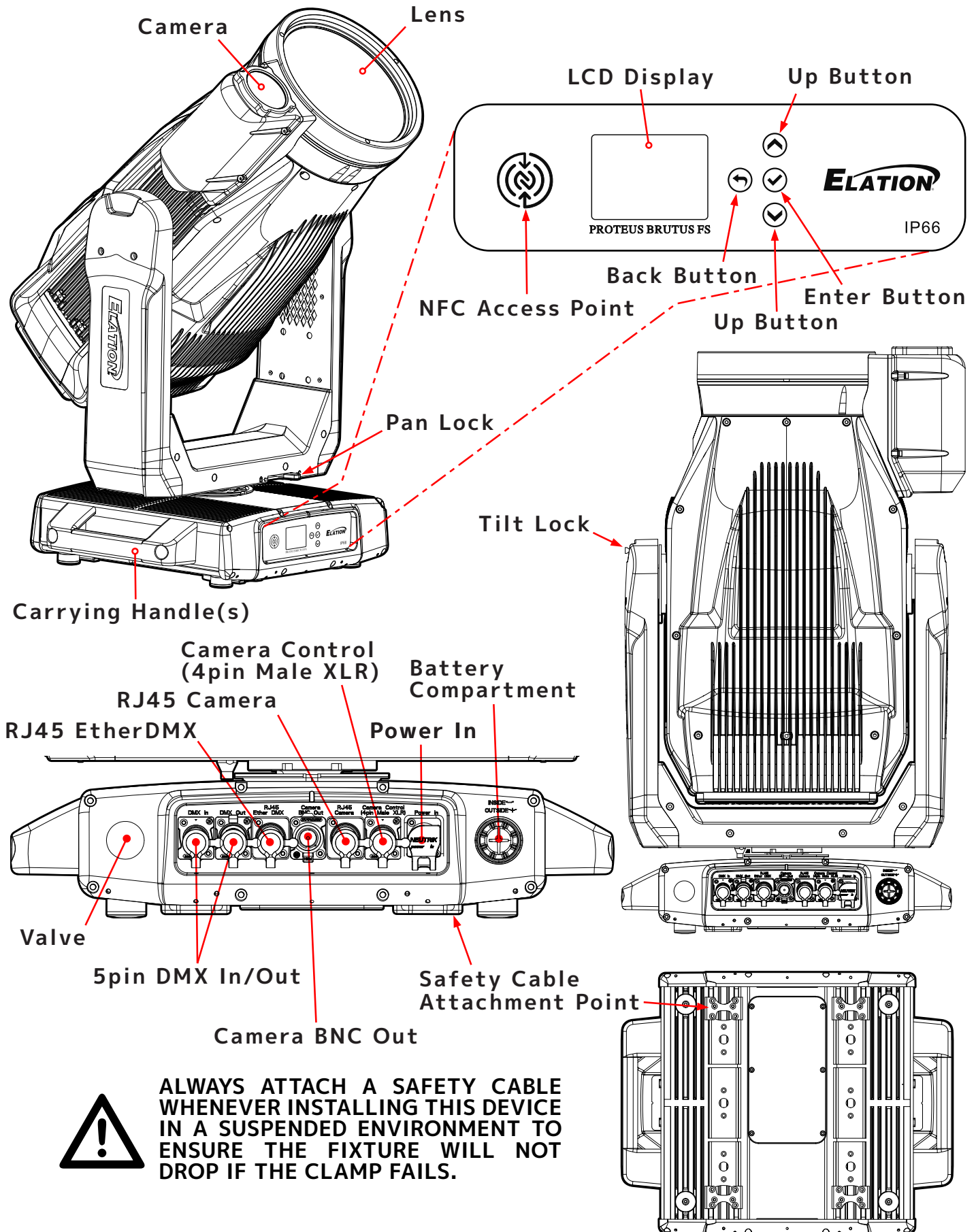
NEVER remove the ground prong from the power cable.

### FIXTURE DISASSEMBLY

The following points should be observed after performing any maintenance procedure that requires disassembly of the unit:

- After the unit has been reassembled, open the valve, and allow the light to run for approximately 2 hours in order to dry out any moisture that has been trapped inside the fixture. The process should continue until indicated humidity drops below 15% for the head and 30% for the base.
- Once this has been achieved, the light can be switched off, but the unit should remain connected to power so that the cooling fan can cool down the unit. Please note that allowing cool down time should ALWAYS be done after lamp operation.
- Some units may require partial disassembly in order to gain access to the valve. Please contact Elation service for information regarding the location and access procedure for the valve on your specific unit model.

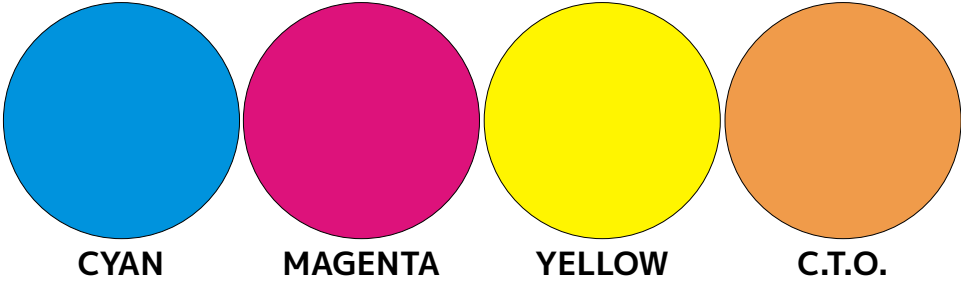
# OVERVIEW



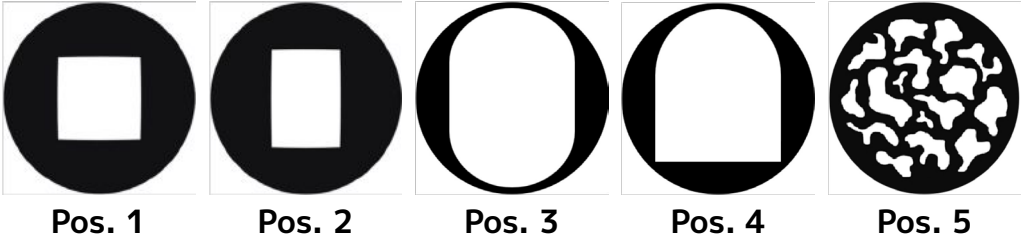
**ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS DEVICE IN A SUSPENDED ENVIRONMENT TO ENSURE THE FIXTURE WILL NOT DROP IF THE CLAMP FAILS.**

# COLORS AND GOBOS

## COLOR FLAGS



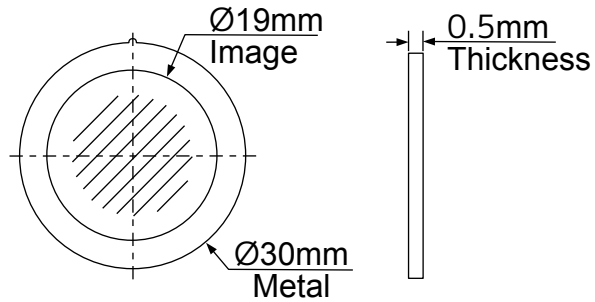
## INTERCHANGEABLE-ROTATING GOBO WHEEL



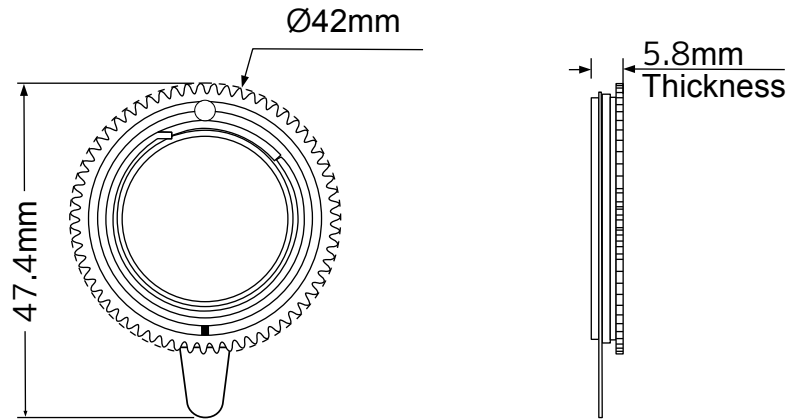
# COLORS AND GOBOS: CUSTOM GOBOS

ROTATING WHEEL GOBOS	
Gobo O.D. (Max. Outer Diameter)	ø30mm
Gobo O.D. (Max. Image Diameter)	ø19mm
Gobo Thickness	.5mm
Gobo Material	METAL

Rotating Gobo:

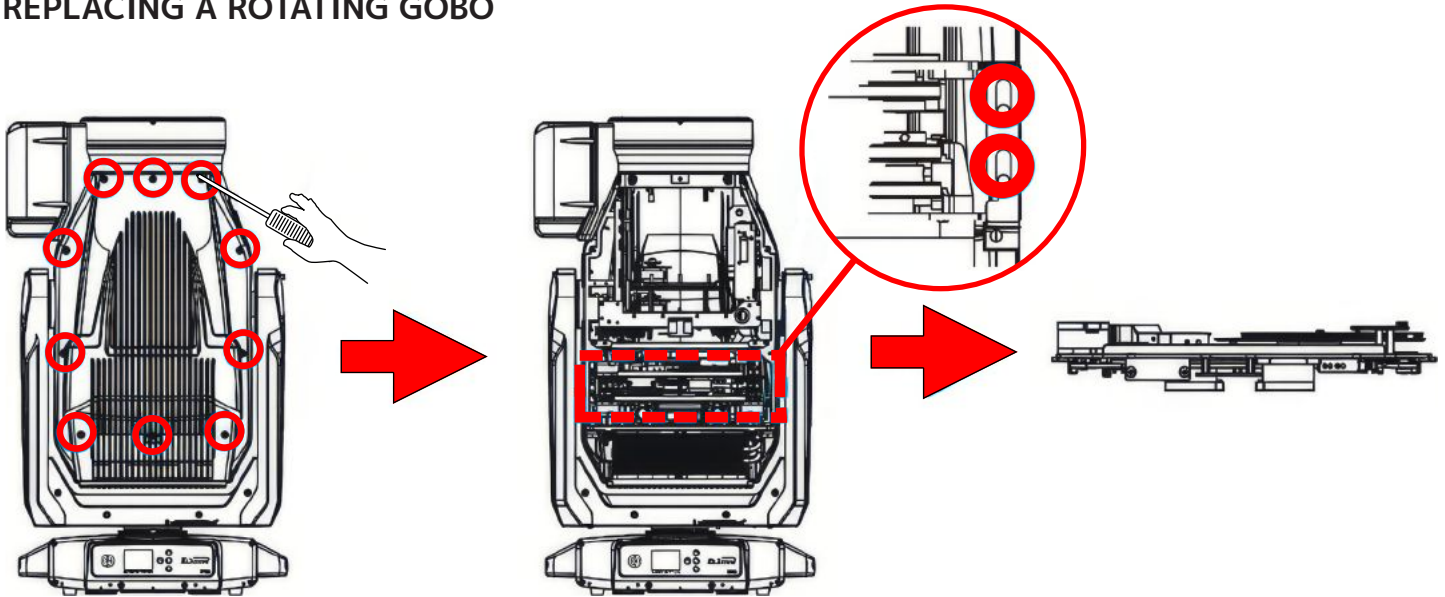


Rotating Gobo Wheel

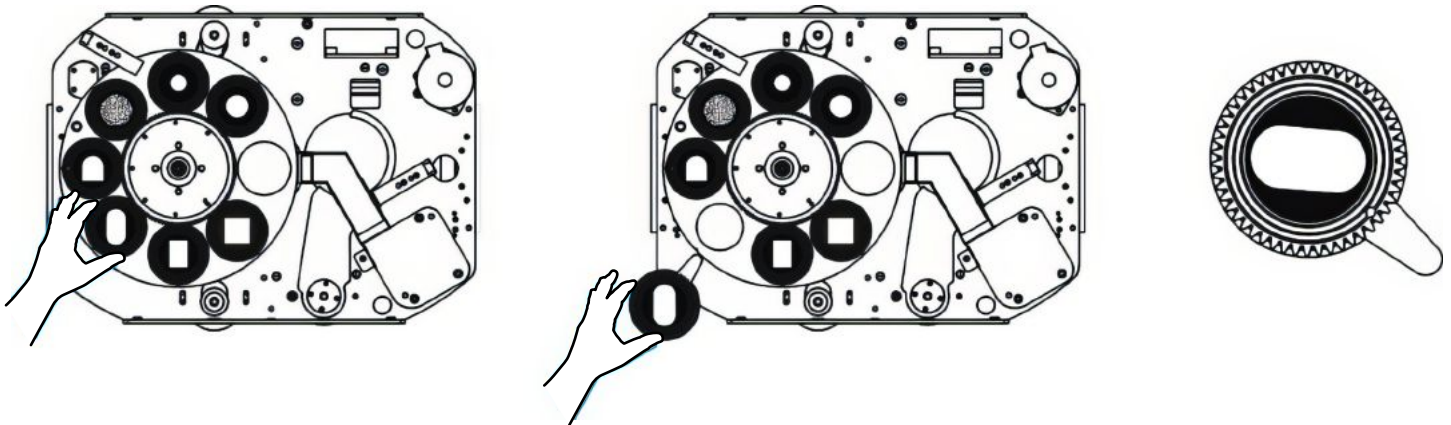


# GOBO INSTALLATION

## REPLACING A ROTATING GOBO



Place the Elation Proteus Brutus FS fixture on a firm flat surface. Locate the (10x) screws on the side of the moving head and remove them. With the panel set aside, locate the Gobo Module Assembly and remove the (4x) screws that secure it to the internal housing frame.



Locate the specific Rotating Gobo to replace. Carefully grip the Gobo using your thumb and index finger, gently lift it slightly, and then pull it out and away until it fully clears the Gobo Wheel.

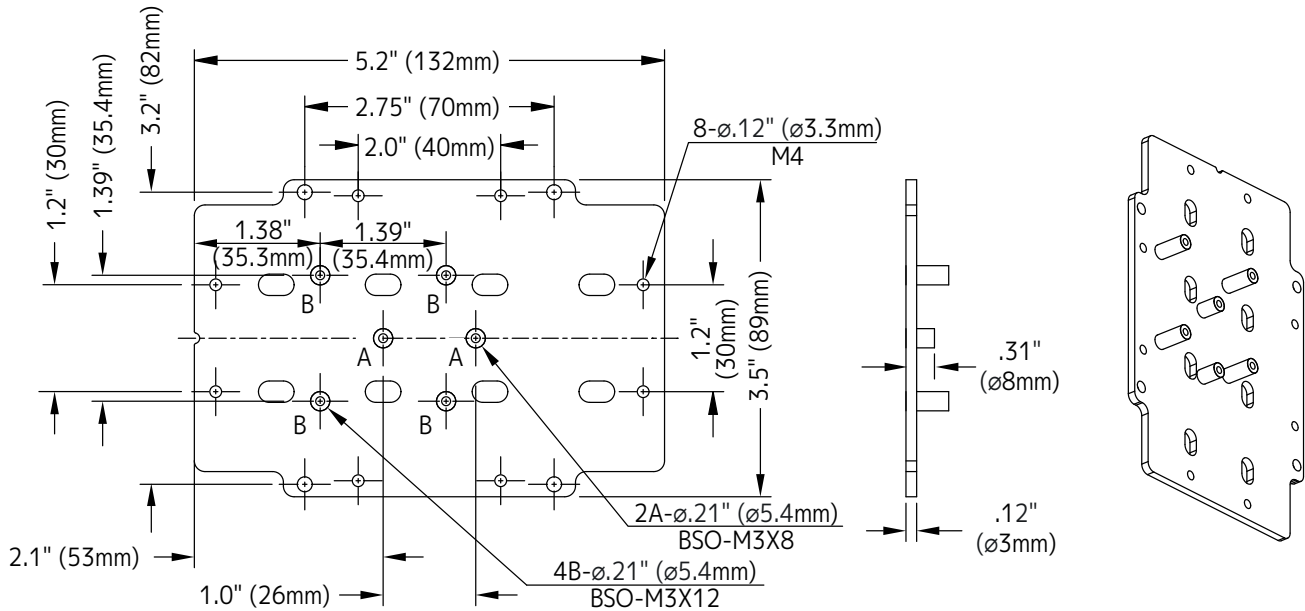


Locate the tab of the spring, and with a precision pick (or similar tool), carefully press the retaining spring inward to relieve the tension. Remove the retaining spring and carefully separate the GOBO from the GOBO Holder. Lastly, remove the flat washer attached to the removed GOBO and attach it to the desired replacement GOBO. Install the replacement Rotating GOBO following the steps above in reverse order.

**CAUTION: TAKE CARE NOT TO SCRATCH GOBO OR GOBO HOLDER**

# CAMERA COMPATABILITY AND INSTALLATION

The fixture's camera chassis is engineered to support an array of camera models used across various follow spot tracking systems. While it may be compatible with additional cameras, it is incumbent upon the user to verify this compatibility. For camera integration, the fixture includes a straightforward mounting plate. Users are advised to contemplate the creation of custom mounting plates tailored to their specific requirements. For those needing precise dimensions or design assistance, CAD files for the mounting system are accessible on the product page of the fixture.



## CAMERA WIRING

The fixture is prewired to allow simple power and data integration. Connections will differ per camera model, refer to the camera or follow spot tracking systems documentation for details.

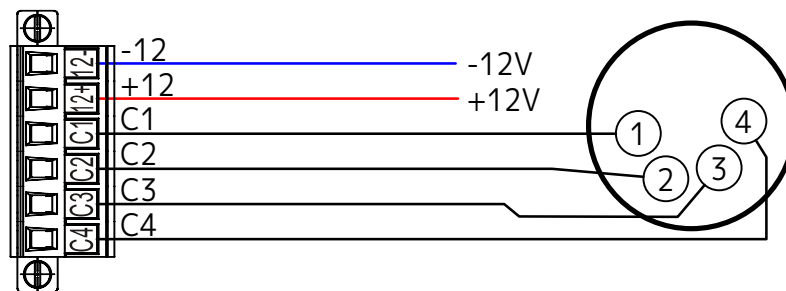
Control Wiring:

- IP65 BNC for HD-SDI
- IP65 RJ45 for Gigabit Ethernet. The fixture provides 15W POE Power (IEEE 802.3af) inside the camera chassis.
- Phoenix Connector for 12V DC Power, camera RS422 or RS485 control
- IP65 XLR 4pin for Camera Control Input

## CAMERA CONTROL PINOUT WIRING DIAGRAM

6pin Green Phoenix Plug

4pin Male XLR Connector





# CAMERA COMPATABILITY AND INSTALLATION

## SUPPORTED CAMERAS

- Marshall Electronics CV355-10X Compact 10X Camera (3GSDI & HDMI)
- Marshall Electronics CV350-10XB / 10X, Compact 10X Camera (Full-HD)
- Marshall Electronics CV506 Miniature Full-HD Camera (3G/HDSDI and HDMI)
- AIDA Imaging HD-NDI-200
- AIDA Imaging UHD-NDI3-300
- Hanwha Vision SNZ 6320
- Hanwha Vision SNZ 6320a
- Bird Dog PF120

## FOLLOW SPOT TRACKING SYSTEMS

The Proteus Brutus FS is compatible with various follow spot tracking systems available on the market, which transmit DMX, sACN, or Art-Net signals to the fixture. Additionally, it can be operated using any standard lighting control console.

Integration of the fixture into these specialized systems is handled by the manufacturers themselves. For specifics on how to integrate and operate the Proteus Brutus FS within their systems, please contact the respective manufacturer's representatives.

Supported tracking systems include:

- [BLACKTRAX](#)
- [Follow-Me](#)
- [Macula](#)
- [PRG Groundcontrol](#)
- [SPOTRACK](#)
- [zactrack](#)

For any inquiries regarding the integration of the Proteus Brutus FS into a follow spot tracking system, please reach out to Elation Sales:

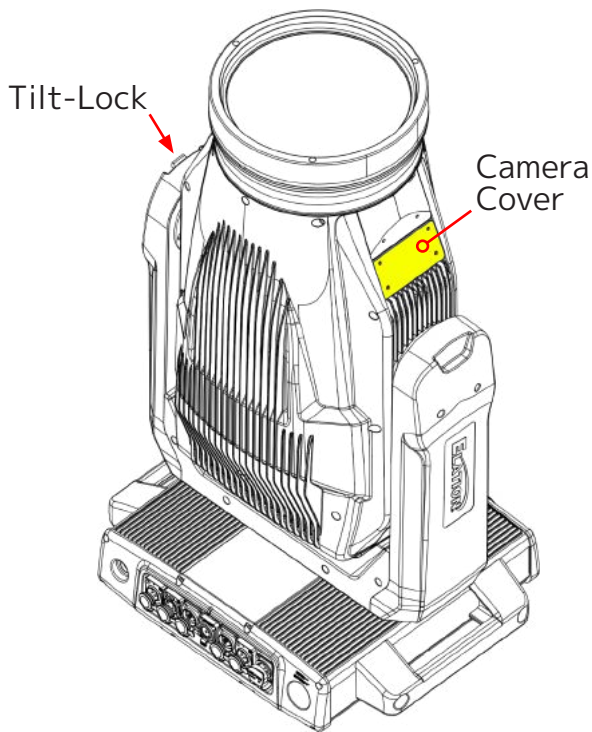
**ELATION SERVICE USA - Monday - Friday 8:00am to 4:30pm PST**  
**323-582-3322 | [sales@elationlighting.com](mailto:sales@elationlighting.com)**

**ELATION SERVICE EUROPE - Monday - Friday 08:30 to 17:00 CET**  
**+31 45 546 85 63 | [sales@elationlighting.eu](mailto:sales@elationlighting.eu)**

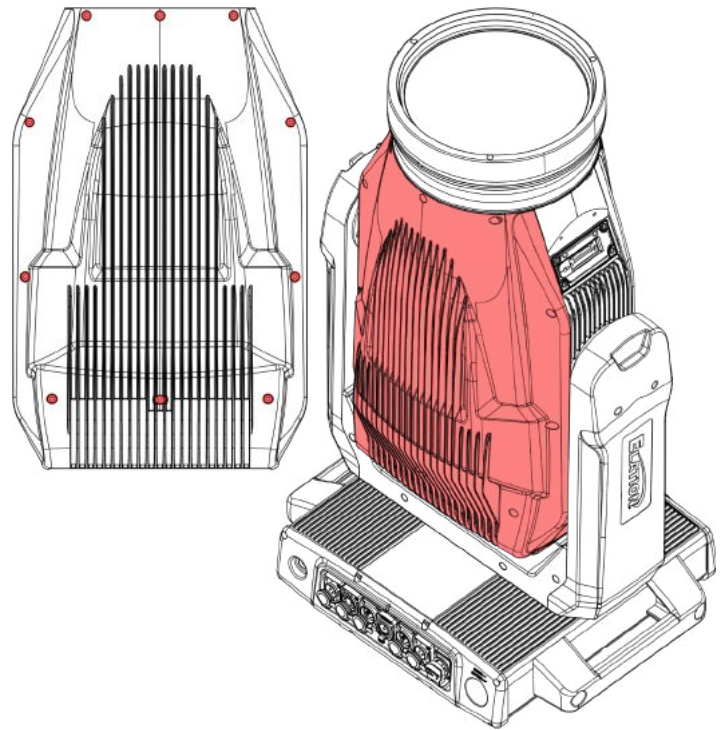


# CAMERA COMPATABILITY AND INSTALLATION

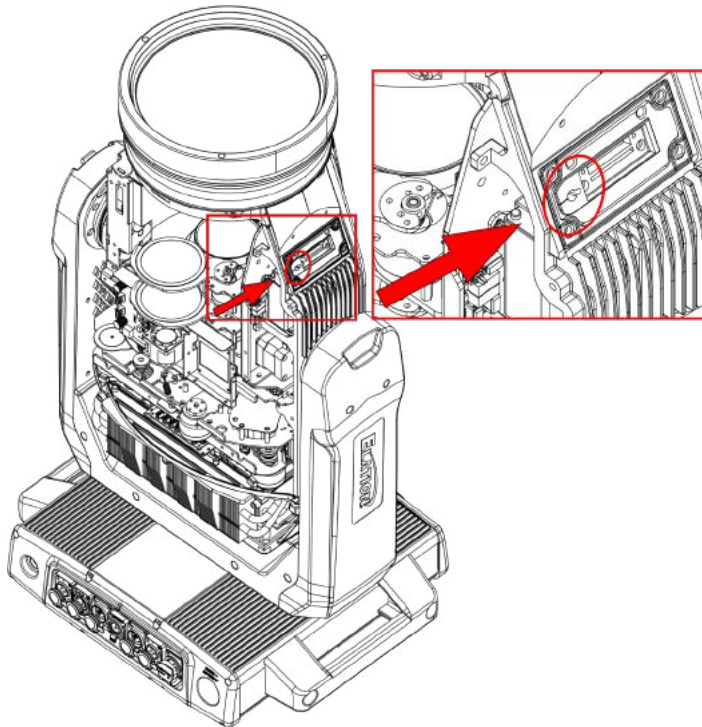
1. Remove (4x) screws and remove camera cover as indicated in the diagram below.



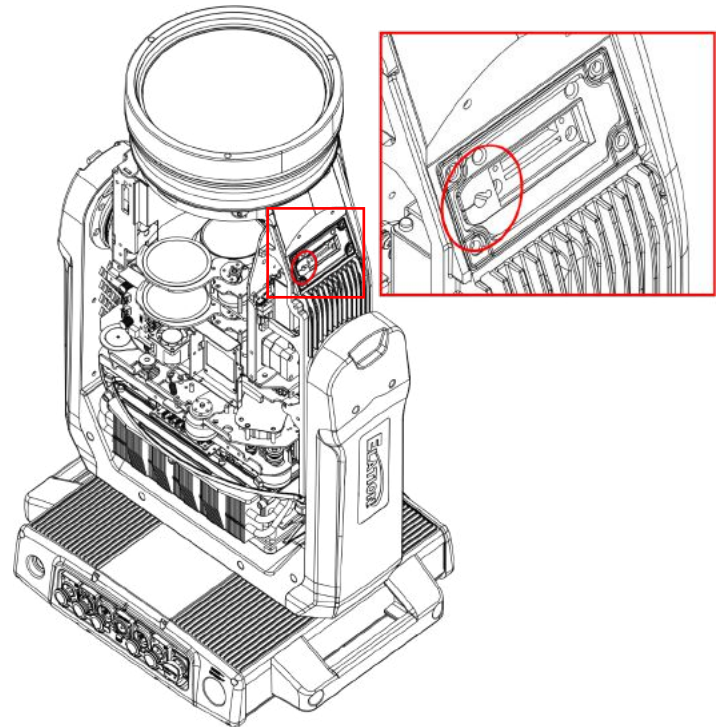
2. Remove (10x) screws indicated in the diagram below from the cover, or proper orientation, note the location of the camera cover, which is opposite of the Tilt-Lock.



3. Insert your finger at the point indicated by the arrow, then press and push out to flip the rubber stopper. You can then rotate the network cable interface and BNC interface through the opening and gently pull them out.

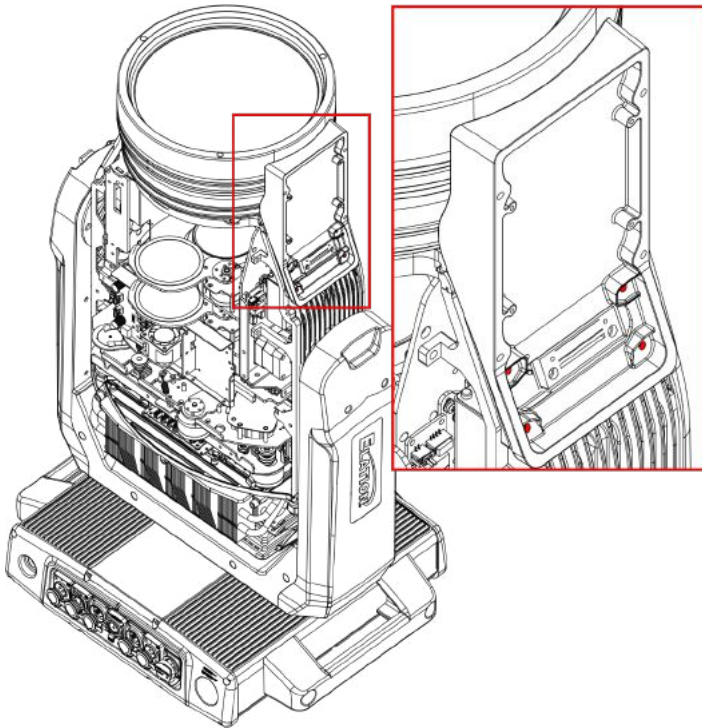


4. Insert the network cable and BNC cable into the designated holes, then flip the reversible rubber stopper back to its original position to secure the cables.

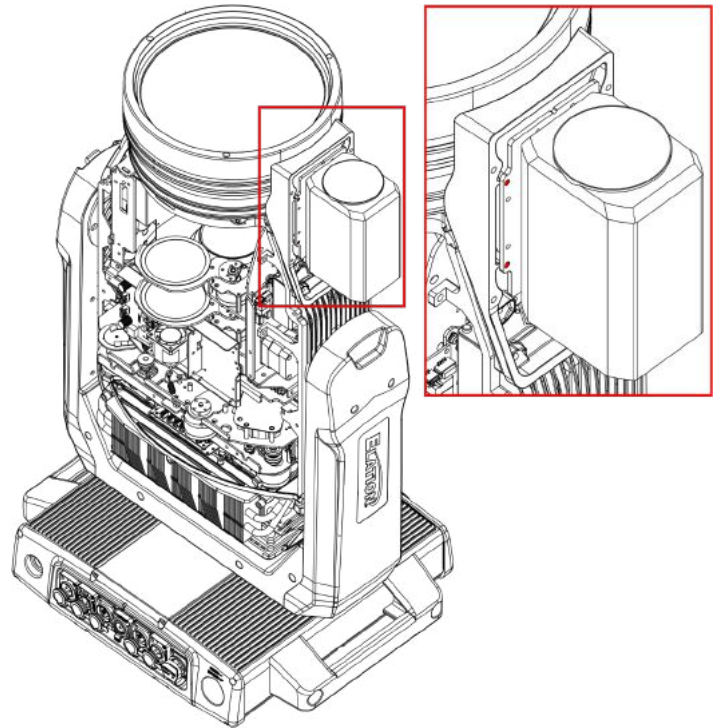


# CAMERA COMPATABILITY AND INSTALLATION

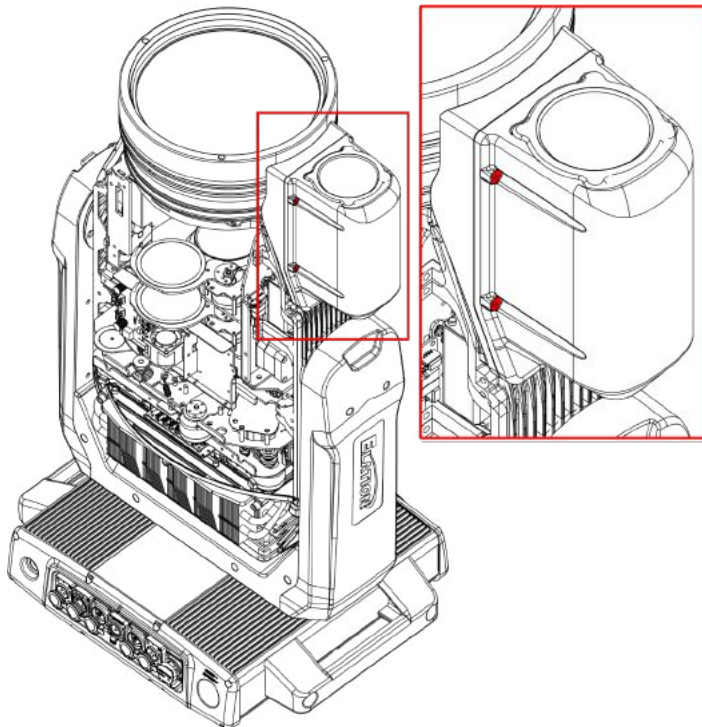
5. Attach the camera base using the original camera cover screws to secure it.



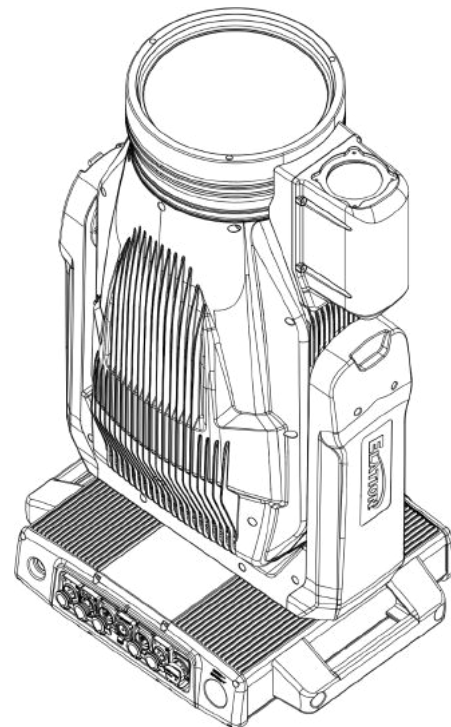
6. Attach the camera to the top of the camera mounting bracket. Secure the camera mounting bracket using four screws on both sides, then connect the network port and BNC interface.



7. Attach the camera cover with (4x) screws on both sides to secure it.



8. Attach the front light cover with screws to secure it and complete the camera installation.





# TORQUE SETTINGS FOR SCREWS

The hex-head screws holding either the panels or the base **MUST** be tightened with a torque wrench (not included).

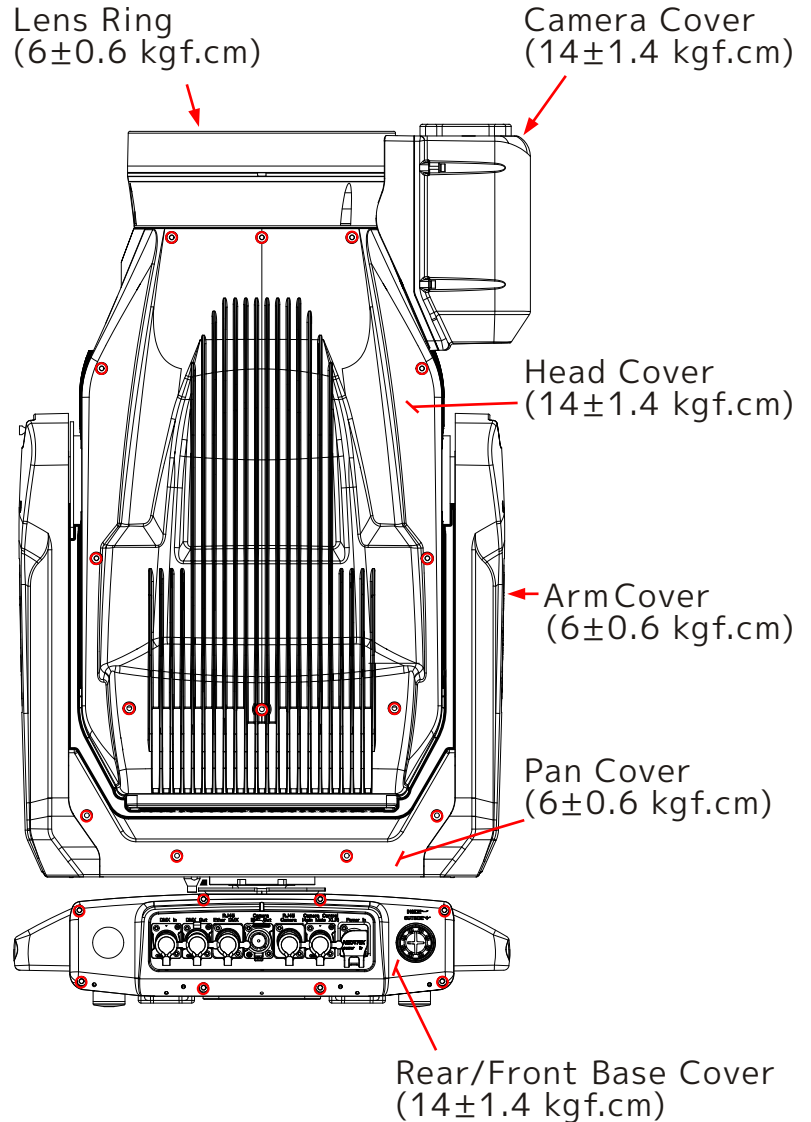


**CAUTION! DO NOT OVER TORQUE SCREWS AS THIS CAN CAUSE LEAKAGE ISSUES!**

**TO CONFIRM THE IP66 INTEGRITY AFTER A LAMP REPLACEMENT, TEST FIXTURE USING THE ELATION IP TESTER. CONTACT ELATION SERVICE FOR MORE DETAILS.**



**CAUTION! THE USE OF PROTECTIVE GLOVES AND SAFETY GOGGLES IS STRONGLY RECOMMENDED WHILE PERFORMING THE IP PRESSURE TEST! AVOID PLACING YOUR FACE, EYES, HANDS, ETC IN CLOSE PROXIMITY TO THE FIXTURE'S LENS WHILE PERFORMING THE TEST!**



# IP TEST PARAMETERS

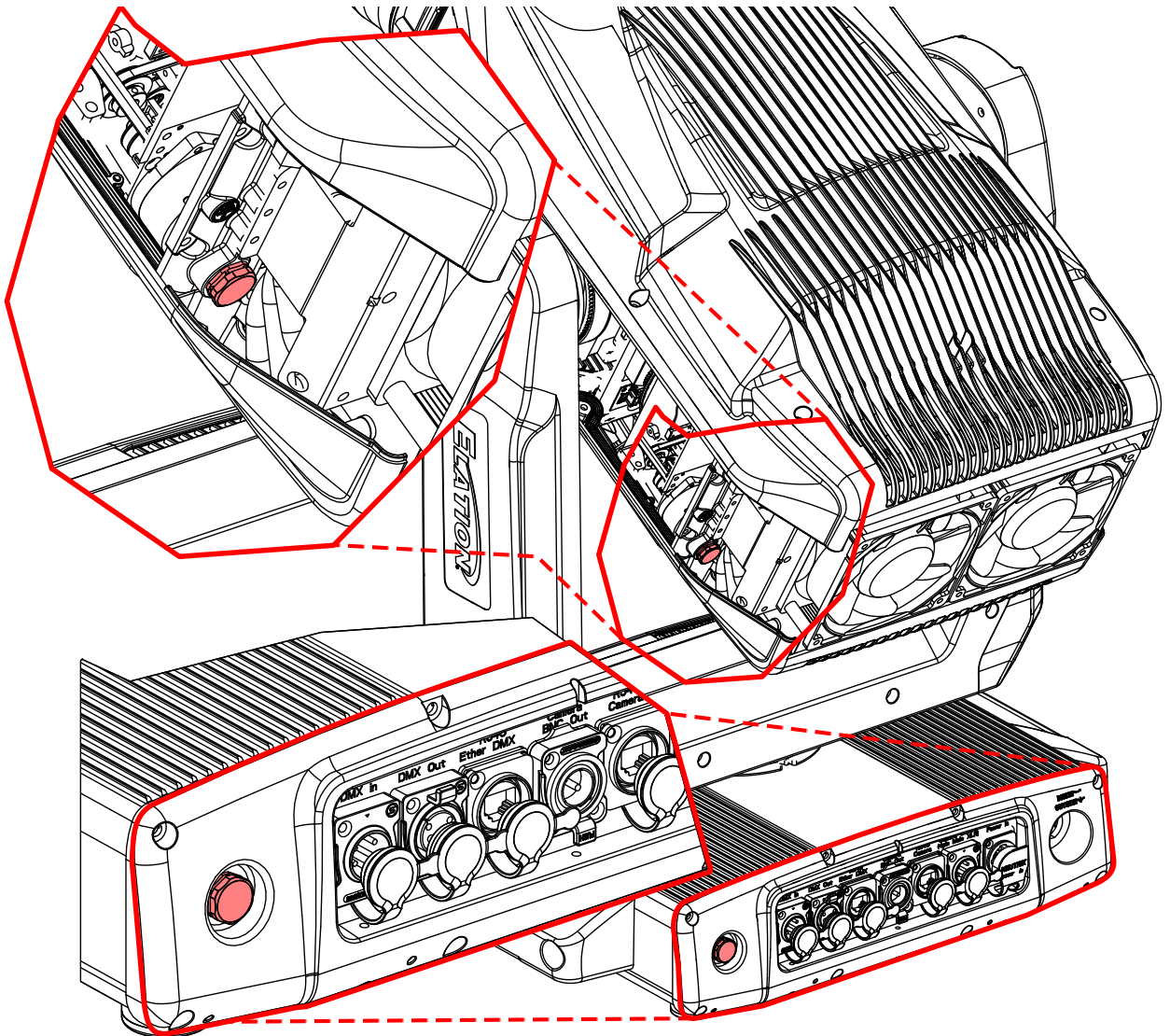
Following any repair or maintenance procedure that requires disassembly of the fixture, use Elation's IP Tester to confirm the IP integrity of the fixture. Please contact Elation Service for information regarding the Elation IP Tester, or visit the product information page online at: <https://www.elationlighting.com/ip-tester>



**CAUTION! THE USE OF PROTECTIVE GLOVES AND SAFETY GOGGLES IS STRONGLY RECOMMENDED WHILE PERFORMING THE IP PRESSURE TEST! AVOID PLACING YOUR FACE, EYES, HANDS, ETC IN PROXIMITY TO THE LENS OF THE FIXTURE WHILE PERFORMING THE TEST!**

**DE-HUMIDIFICATION:** IP66 fixtures operating in high-humidity environments may experience residual fogging or condensation. Such fogging will not affect the fixture, and can be removed using the following procedure: position the unit with the air valve pointing upwards, then open the air valve and run the unit for 1-2 hours after reaching operating temperature. Then, while the fixture is still hot, re-install the air valve and allow the unit to cool down. Please note: this procedure should be performed in a dry, climate-controlled environment. Avoid additional fogging by drying the fixture completely before placing into a road case.

**Note:** the Proteus Brutus FS has 2 air valves. One is located inside the yoke arm as seen below. To access the valve hidden on the Yoke Arm, remove Side Arm Cover.



**Note:** The second Valve is located on the left side of rear connector panel.

IP PRESSURE TESTING PARAMETERS			
Test Type	Low Pressure Limit	High Pressure Limit	Hold Time
Vacuum Test	-4.35psi (-30.00 KPa)	-5.08 psi (-35.00 KPa)	10s
Pressure Test	3.62 psi (25.00 KPa)	4.35 psi (30.00 KPa)	10s

# FAN MODES AND LOW NOISE OPERATION

The Proteus brutus FS 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 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 Noise Modes:**

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

**Low/Studio** – Fan speeds are reduced throughout the fixture for a lower noise profile. The fixture output is also reduced. This mode should be sufficient for most uses where lower noise is required.

**Mute** – All but one fixture fan is turned off for whisper-quiet operation. The fixture LED power is reduced to further.

# INSTALLATION GUIDELINES



## **FLAMMABLE MATERIAL WARNING**

Keep fixture minimum 19.5 feet (6.0m) 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.**



**MINIMUM DISTANCE TO OBJECTS/SURFACES MUST BE 1.6 FOOT (0.5 METERS)**



**MINIMUM DISTANCE OF INFLAMMABLE MATERIALS FROM THE SURFACE 0.3 FEET (0.1 METERS)**



**MAXIMUM AMBIENT TEMPERATURE 194° F (90°C)**



**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 the fixture to any metal truss/structure or placing the fixture 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, clamps, cables, and accessories.

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 ambient operating temperature range is **-4° to 113°F. (-20° to 45°C)**.

Do not use the fixture under or above this temperature.

Fixture 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 when rigging, removing or servicing.

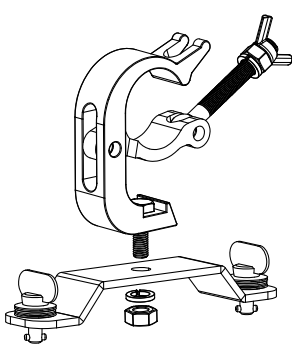
Overhead fixture installation must always be secured with a secondary safety attachment, such as an appropriately rated safety cable.

Allow approximately 10 minutes for the fixture to cool down before serving.

# INSTALLATION GUIDELINES

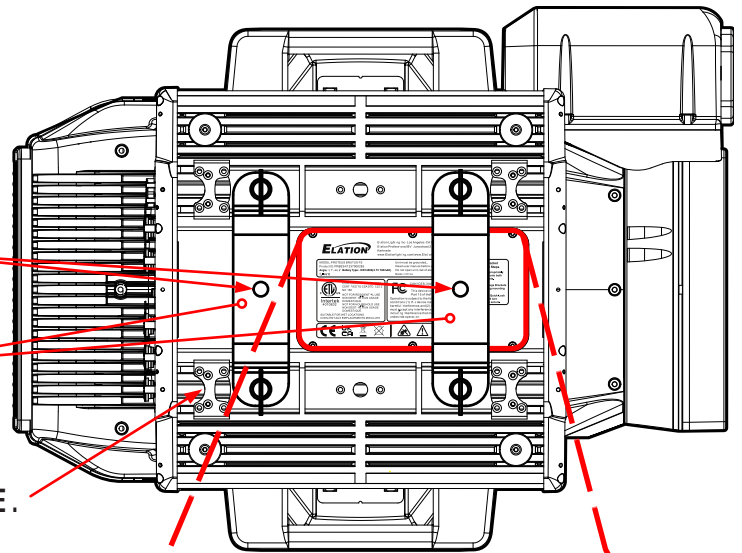
## OMEGA BRACKETS WITH CLAMP INSTALLATION

Insert the Omega Brackets into the matching holes on the bottom of the fixture. Secure the Omega Brackets to the fixture by turning each quick-lock fastener ¼ turn clockwise; making sure the fastener is completely locked. Omega Brackets can be installed into the fixture base as illustrated below.




Mount each Truss Clamp to an Omega Bracket with an M10 or M12 screw fitted through the enter hole of Omega Bracket

Omega Brackets



The fixture also provides a built-in attachment point for a **SAFETY CABLE**. Be sure to only use the designated attachment point for the safety cable, and never secure a safety cable to a carrying handle.




Elation Lighting Inc- Los Angeles-CA 90040 USA  
 Elation Professional BV- Junostraat 2 -NL-6468EW  
 Kerkrade  
[www.Elationlighting.com/www.Elationlighting.eu](http://www.Elationlighting.com/www.Elationlighting.eu)


**FRONT** →

MODEL:PROTEUS BRUTUS FS  
 Product ID:PRB234/1237000283  
 Angle: 3.7°~46.6° Battery Type: ICR14500(3.7V 700MAH)  
 t<sub>a</sub>=45°C

Unit must be grounded.  
 Read user manual before use.  
 Do not open unit,risk of electric shock.  
 Made in China



CONFORMS TO UL STD. 1573  
 CERTIFIED TO CSA STD. C22.2  
 NO:166  
 NOT FOR RESIDENTIAL USE  
 NON DESTINÉ À UN USAGE  
 DOMESTIQUE  
 NOT FOR HOUSEHOLD USE  
 NON DESTINÉ À UN USAGE  
 DOMESTIQUE  
 SUITABLE FOR WET LOCATIONS  
 CONVIENT AUX EMPLACEMENTS MOUILLES




CAN ICES-3(A)/NMB-3(A)  
 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  
 undesirde operation.






**Omega Bracket Installation Steps**

1. Attached appropriately rated clamps onto both Omega Brackets.
2. Insert Omega Brackets into matching mounting holes.
3. Turn both Quick-Lock Fasteners 1/4 turn clockwise to secure.

Attach Safety Cable Here!



Minimum Requirements:  
 12-Fold Weight Quick Link  
 Shackles with Hook

## MOUNTING THE FIXTURE ON A TRUSS USING CLAMPS WITH OMEGA BRACKETS

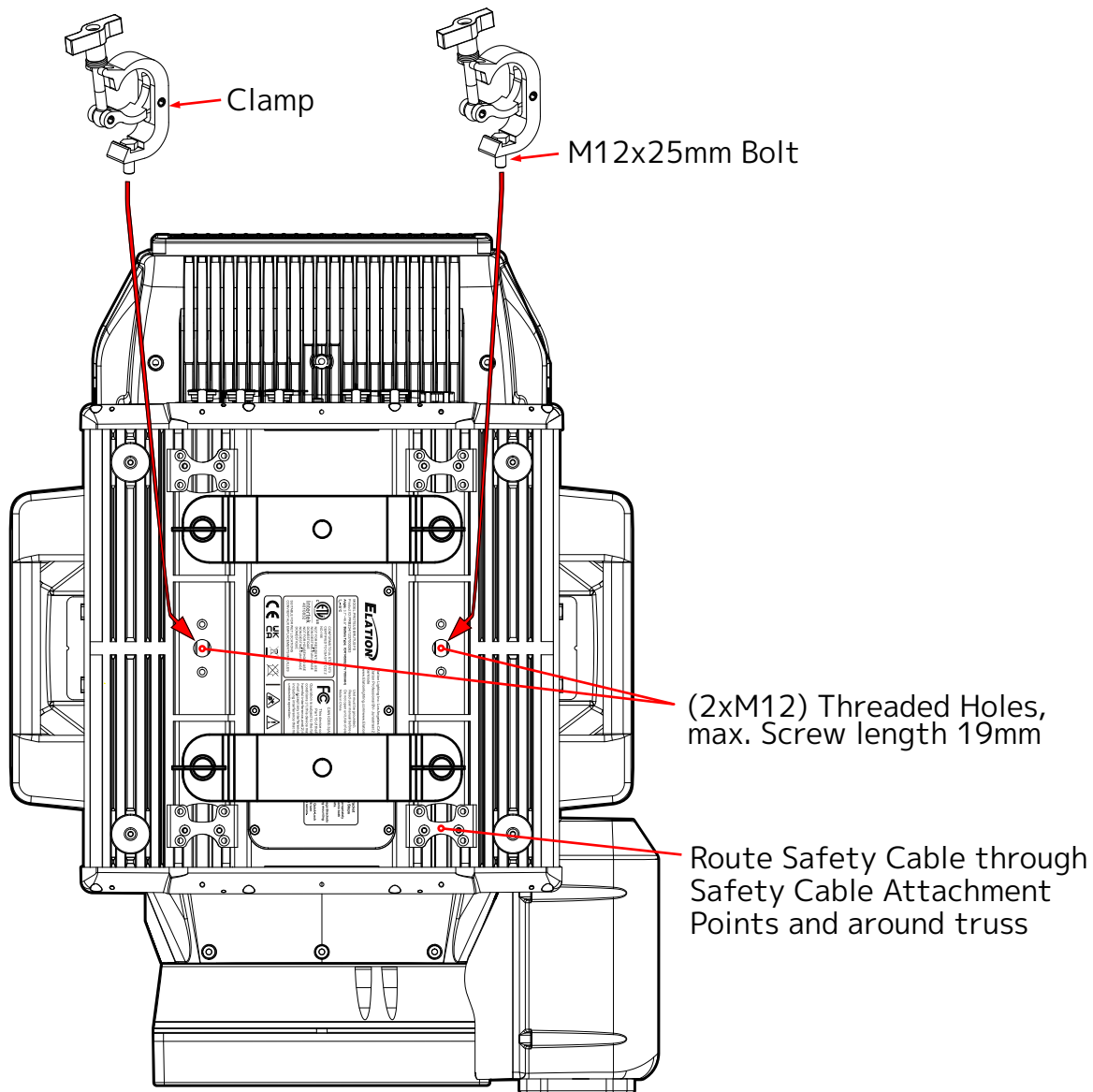
When mounting the fixture to a truss, be sure to secure an appropriately rated professional grade rigging clamp to the included **Omega Brackets** using (2x) minimum 8.8 steel M10 or M12 bolts fitted through the center hole of the **Omega Brackets**. The fixture provides built-in rigging points for a **SAFETY CABLE** (not included). Be sure to only use one of the designated rigging points for the safety cable and never secure a safety cable to a carrying handle.



# INSTALLATION GUIDELINES

## CLAMP INSTALLATION

Insert (2x) minimum grade 8.8 steel M12x25mm bolts (not included) through the respective mounting hole of the clamp (not included), and then thread it into the matching 12M holes on the bottom of the fixture base. Both bolts must be threaded at least 18mm (0.7ins) into the fixture base.



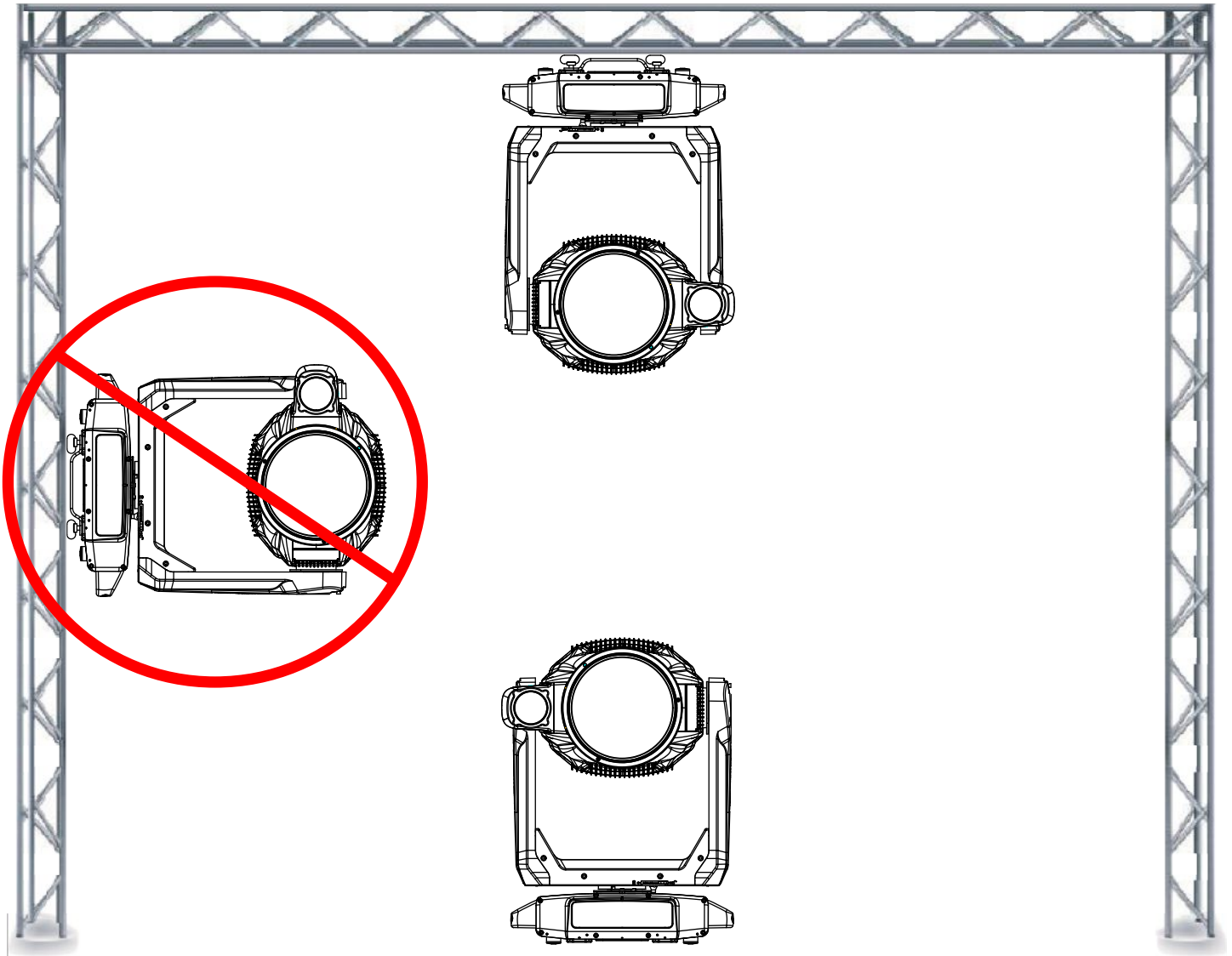
## MOUNTING THE FIXTURE ON A TRUSS USING CLAMPS

When mounting the fixture to a truss, be sure to secure an appropriately rated professional grade rigging clamp to the bottom of the fixture using (2x) minimum grade 8.8 steel (2x) M12x25mm bolts fitted through the mounting hole of the Clamp. The fixture provides built-in rigging points for a SAFETY CABLE (not included). Be sure to only use one of the designated rigging points for the safety cable and never secure a safety cable to a carrying handle.

# INSTALLATION GUIDELINES

## RIGGING

Overhead rigging requires extensive experience, including among 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.



**FALLING FIXTURES CAN CAUSE SEVERE INJURY OR SERIOUS EQUIPMENT DAMAGE! FOR THIS REASON, FIXTURES SHOULD BE INSTALLED AND INSPECTED ONLY BY QUALIFIED PERSONNEL. DO NOT INSTALL THE UNIT IF YOU LACK THE QUALIFICATIONS TO DO SO, OR IF YOU HAVE DOUBTS ABOUT THE SAFETY AND SECURITY OF THE INSTALLATION SETUP OR LOCATION!**



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

# INSTALLATION GUIDELINES

## ART-NET | sACN CONNECTION

When connecting fixture to a network switch to control multiple devices, a **Gigabit Ethernet Switch** that supports **IGMP (Internet Group Management Protocol)** is required. Using a **Gigabit Ethernet Switch** that does not support **IGMP** can cause erratic behavior of all connected devices to the switch. Click link below for more information about IGMP.

[https://en.wikipedia.org/wiki/Internet\\_Group\\_Management\\_Protocol](https://en.wikipedia.org/wiki/Internet_Group_Management_Protocol)

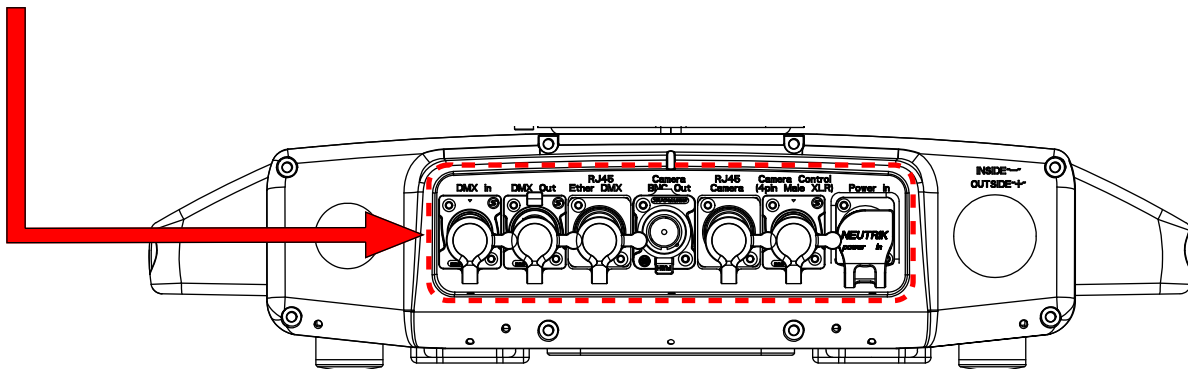
## POWER AND DATA CABLES



**ENSURE ALL CONNECTIONS AND END-CAPS ARE PROPERLY SEALED WITH DIELECTRIC GREASE (AVAILABLE AT MOST ELECTRICAL SUPPLIERS) TO PREVENT WATER CORROSION AND/OR ELECTRICAL SHORT CIRCUIT.**



**TO MAINTAIN THE IP66 RATING INTEGRITY OF THE FIXTURE AND PREVENT WATER FROM ENTERING THE FIXTURE, SEAL ALL UNUSED CONNECTION RUBBER CAPS, AND ALL CABLES MUST BE RUN TOWARDS THE GROUND TO PREVENT WATER ACCUMULATION AROUND THE CONNECTIONS.**



# INSTALLATION GUIDELINES

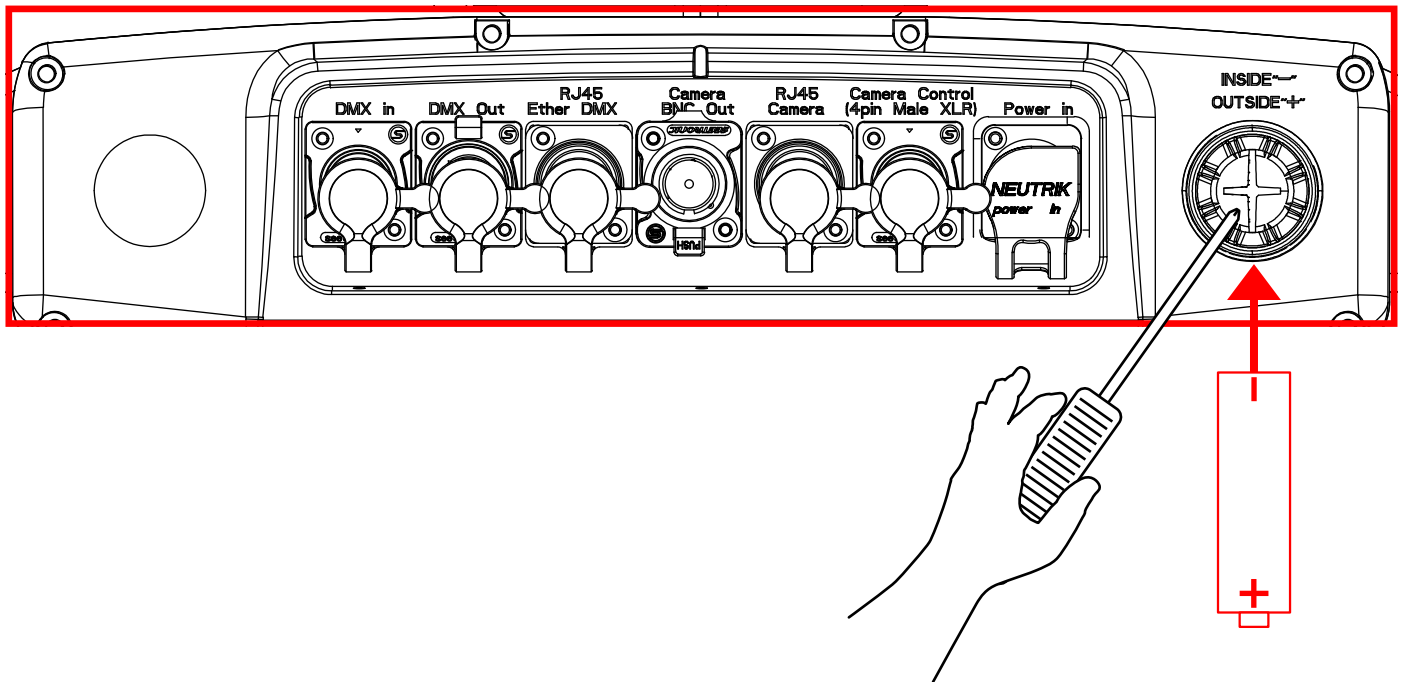
## BATTERY REPLACEMENT



Installing the battery incorrectly, in the wrong orientation, where the Plus (+) is inside and Negative (-) is outside, will lead to internal electronics and battery damage. A qualified electrician should be used for all electrical connections and/or installations.

1. Loosen the screw cap for the battery compartment.
2. Remove old battery and replace (inside "-", and outside "+").

**NOTE:** Replace the battery only with an Li-ion battery (IRC14500/700mAh), which can be ordered from the Elation Parts Website <https://parts.elationlighting.com>. Replace and tighten screw cap for the battery compartment.



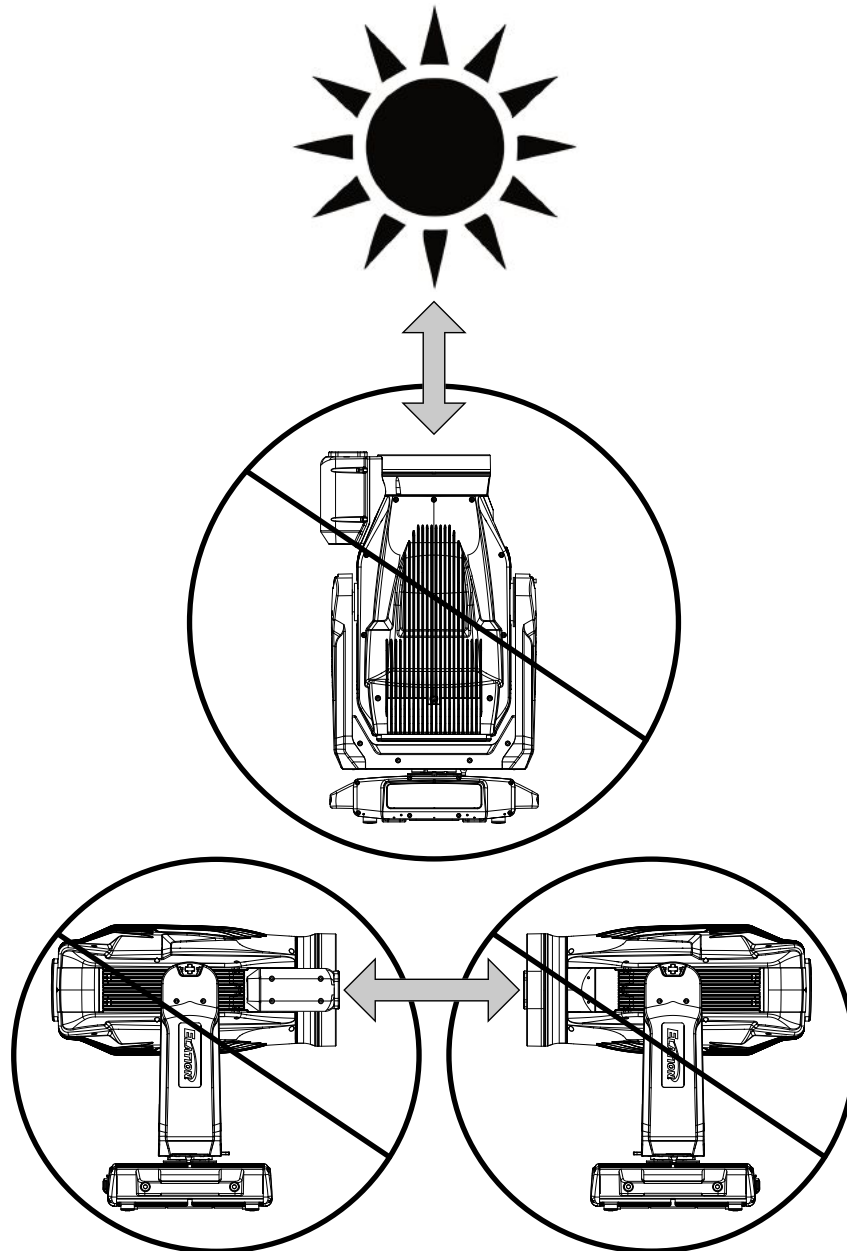
# INSTALLATION GUIDELINES

## 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.**



# SUN PROTECTION MODE

The fixture incorporates an automatic protection from harmful sunlight, which can damage a fixture's internal components from extended exposure. Fixtures use an internal sensor to determine their physical orientation, then reorient the fixture towards the ground to prevent sunlight from entering the lens.

This automatic feature only works when the fixture is powered. If the fixture is unpowered during setup, it is necessary to manually reorient the lenses away from the sun, and aim them towards the ground. Even a few minutes of sun exposure can cause damage inside the fixture.

The Sun Protection setting is accessed via the "No DMX Status" menu.

The automatic sun protection positioning is activated under the following conditions:

1. Power on without DMX signal: the fixture always starts in sun protection mode.
2. No DMX Status "Sun Protection": the fixture enters sun protection mode after approximately 3 minutes.
3. Remote DMX control: the sun protection position can be **temporarily** activated from the lighting console without the need to create a custom position preset. The fixture senses the correct ground orientation. This means that fixtures already facing the ground may not move their heads.

Hold "Sun Protect Position" for 3s to set the fixture to the sun protection position.

Sun protection status displays as "**Sun Protection: Active**".

The sun protection position deactivates under the following conditions:

1. Connect DMX signal.
2. Remote DMX control: Hold "Sun Protection Off" for 3s.

To avoid harsh or jarring movements, the sun protection position always uses a 5-second fade time when it is activated or deactivated.

# HIBERNATION MODE

To reduce wear on the fixture and its components, this mode disables motors and most electronics. Set the hibernation mode countdown time in the Display Menu: "Status Settings / Personality / Hibernation". Hibernation can be fully disabled.

The hibernation mode activates under the following conditions:

1. Loss of DMX: the fixture enters hibernation after the timeout expires. Default is 15 minutes.
2. Remote DMX control: Hold "Hibernate Fixture" for 3s

The hibernation mode deactivates under the following conditions:

1. Connect DMX Signal
2. Remote DMX control: Hold "Hibernate Off" for 3s

The fixture will perform a full calibration cycle, then assume the current DMX status.

Please note that the Hibernation does not change the PT position of the fixtures, allowing the user to set the desired position and then issue the Hibernate command.

To ensure the fixture is protected from harmful sunrays it is recommended to either leave the "No DMX Status" in "Sun Protection" (so the fixture is already in the correct position after 3 minutes of DMX loss) or set the fixture to a safe Tilt position manually first before hibernation.

**Burn and heat damage to the fixture's interior components due to external light sources (sun or other fixtures shining into the lens) is never covered under the manufacturers warranty.**

# SYSTEM MENU

The fixture includes an easy to navigate system menu. The control panel (see image below) located on the front 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 **ENTER** 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 **ENTER** button.

## Display Shortcuts:

**Power Off:** Long press the **ENTER** button for 3s, activate battery mode.

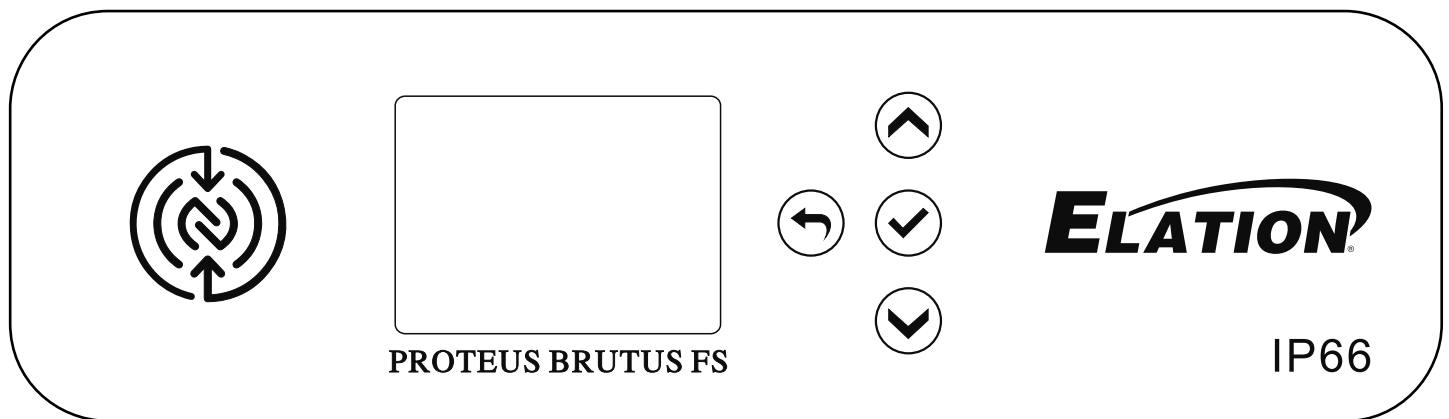
**Power On:** Long press the **ENTER** button for 10s, unlock display, show 10s countdown

Long press the **UP** button and the **DOWN** button for 3s, disable Pan Tilt

Long press the **BACK** button and the **ENTER** button for 5s, Countdown 10 sec or Reset to Default

**NOTE:** To access the LCD Menu Control Display via the internal battery, press and hold the **MODE/ESC** button for 10 seconds. The LCD Menu Control Display will shut **OFF** automatically about 1 minute from the last button press.

**NOTE:** The unit comes with a battery so that the menu options can be changed or setup without the need to plug the unit into power.



**AN ELATION E-LOADER III CAN BE USED TO UPDATE THE FIXTURE TO THE LATEST SOFTWARE. TO ORDER THIS DEVICE, PLEASE CONTACT ELATION SUPPORT FOR FURTHER DETAILS.**

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

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



# SYSTEM MENU

MAIN MENU	OPTIONS / VALUES (Default Settings in <b>BOLD</b> )		
<b>DMX</b>	DMX Address	001 - 512	
	DMX Mode	Standard	
		Extended	
	No DMX Status	<b>Hold Last</b>	
		Fade to Black	
		Sun Protection	
		Hibernation	Off, 1-99M ( <b>Default = 15 Min</b> )
	Protocol	Select Signal	<b>DMX / Art-Net / sACN / DMX &amp; VISCA</b>
		Universe	<b>1</b>
		DHCP	<b>Off/On</b>
		IP Address	2.x.x.x
		Subnet Mask	<b>255.0.0.0</b>
		Ethernet DMX Out	<b>Off/On</b>
<b>Control</b>	Manual Control	Dimmer 0% - <b>100%</b>	
		Pan	
		Tilt	
		...	
	Reset	All	
		Pan Tilt	
		Color	
		<b>Gobo</b>	
		Focus Zoom	
		Others	
	Self Test	All	
		Dimmer	
		Movement	
		Color Mix	
		<b>Gobo</b>	
		Beam	

# SYSTEM MENU

MAIN MENU	OPTIONS / VALUES (Default Settings in <b>BOLD</b> )		
<b>Settings</b>	Movement	Pan Invert	<b>Off/On</b>
		Tilt Invert	<b>Off/On</b>
		Pan Tilt Speed	Smooth/ <b>Fast</b>
		Pan Tilt Brake	Smooth/ <b>Fast</b>
		Pan Tilt Feedback	<b>Off/On</b>
		FollowSpot Mode	<b>Off/On</b>
	Color	CMY Speed	Smooth/ <b>Fast</b>
	Fans Control	<b>Auto</b>	
		High	
		Low	
		Studio	
	Dimmer Curve	Mute	
		Linear	
		Square	
		Square Inverse	
Display	<b>S-Curve</b>		
	Screen Delay	10s - 5min (Default = <b>1 min</b> )	
	Screen Lock	<b>Off</b> , 10s - 5 min	
Reset Defaults	Auto Rotate	<b>Off/On</b>	
	Yes / No		
<b>Information</b>	Time	Current Time	
		Total Run Time	
		Last Run Time	
	Temperature	Head	
		Base	
		Lamp	
	Humidity	Head	
		Base	
	Fan	Fan 1U (Position)	
		Fan 1U (Position)	
	DMX Values	Pan	
		Tilt	
		...	
	Product IDs	RDM UID	
	Error Logs	Fixture Errors	
	Software	Vx.x	
	Calibration	Dimmer	
		Pan	
Tilt			
...			
Reset Last Run	Yes / No		
Reset Error Logs	Yes / No		

## DISPLAY SHORTCUTS

<b>Power Off</b>	
ENTER (3s)	activate battery mode

## **Power On**

Enter (10s)	unlock display, show 10s countdown
Up+Down (3s)	disable Pan Tilt
Back + Enter (5s)	countdown 10 sec
	Reset to Default (no/yes)

# SYSTEM MENU

## PERSONALITY - Service Settings - Password (050)

**NOTE:** The Service Password **MUST** be entered in order to access the following menus:  
**Clear Err. Info.**

## PERSONALITY - Display Setting - Key Lock

When **ON**, Control Panel buttons lock automatically after exiting main menu for 15 seconds. To unlock, keep **MODE/ESC** button pressed for 3 seconds.

## PERSONALITY - Dimmer Curve

Select dimming curve (Linear, Square, InverseSquare, S-Curve).

## PERSONALITY - Reset Default (011)



**ONLY QUALIFIED TECHNICIANS SHOULD PERFORM THIS FUNCTION!**  
**NOTE: SAVED WHITE BALANCE IS ERASED AFTER A RESET IS PERFORMED!**

This function restores all fixture settings to the factory default settings. The password is 011 and must be entered each time a reset is performed.

## EFFECT ADJUST - Test Channel

Auto test each individual channel function independently from the DMX control board.

## EFFECT ADJUST - Manual Control

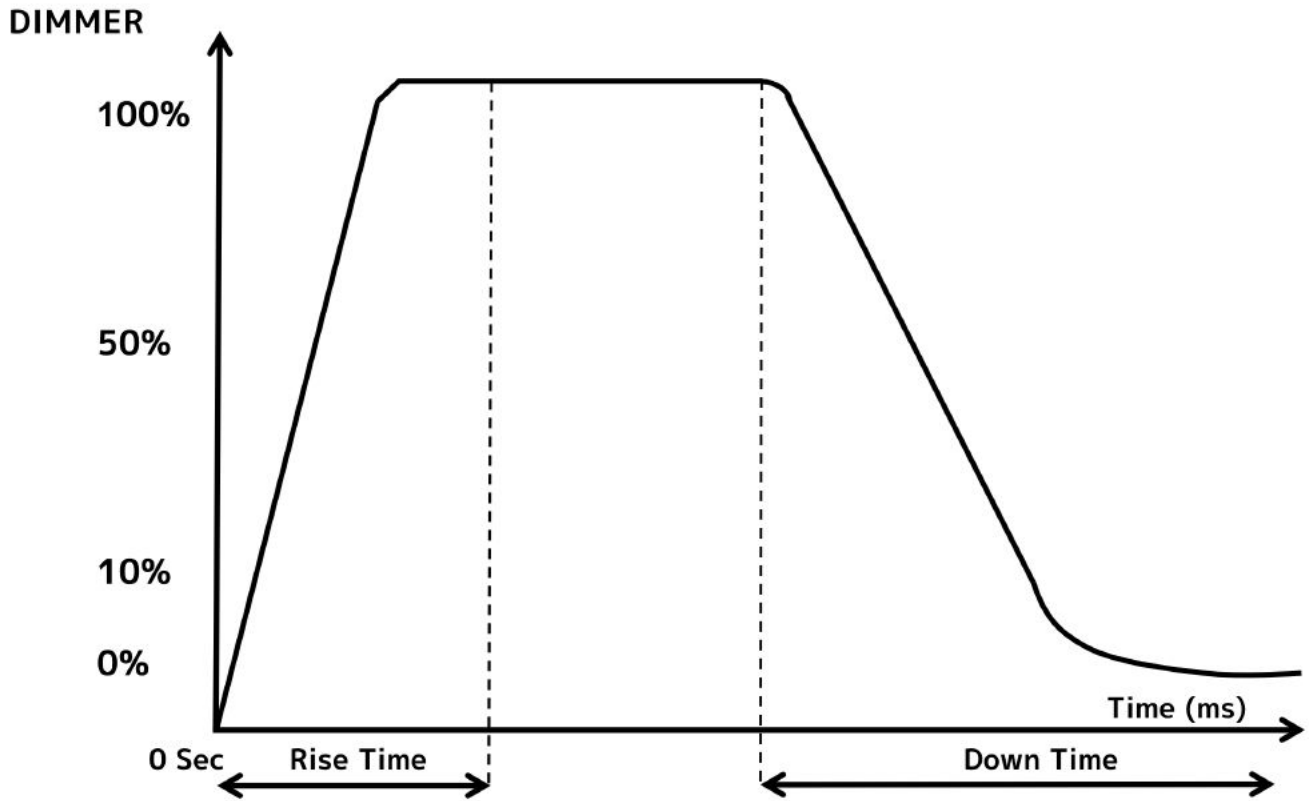
Select and manually test and fine adjust each individual channel function Independently from DMX control board. This function will center PAN and TILT motors and set dimmer to 100%. PAN and TILT functions will still operate if the fixture needs to be positioned to a flat clear surface. With the individual functions, you can focus the light on a flat surface (wall) and perform fine adjustments.



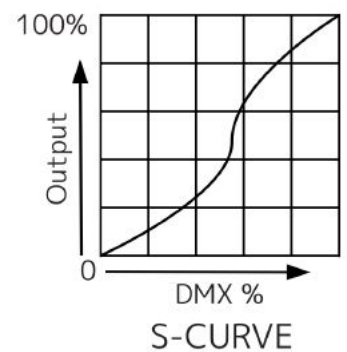
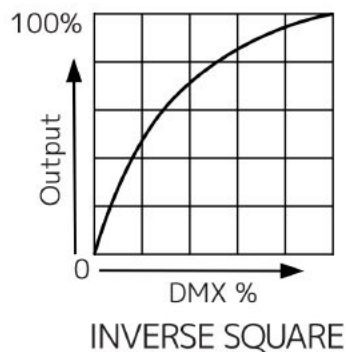
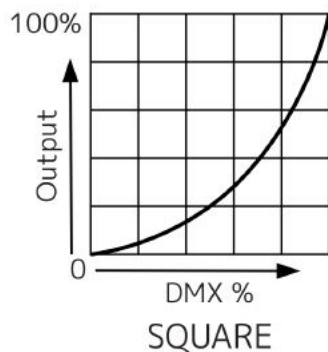
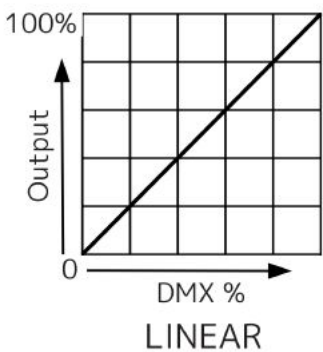
**EFFECT ADJUST - Calibration**  
**ONLY QUALIFIED TECHNICIANS SHOULD PERFORM THIS FUNCTION.**

This function allows small adjustments to be made to the Pan, Tilt, and Zoom movements to compensate for wear or in the event a sensor has been knocked slightly out of place. Because improper use of this function can result in undesired operation this function has been password protected. The password is 050 and must be entered each time the calibration menu function is entered. Because calibration is an extremely delicate procedure, instructions on performing this action are left out of this manual. For a first-time calibrator, please contact our customer support team for step-by-step instructions.

# DIMMER MODE



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
Stage 2	0	1100	0	1660



# MOVEMENT AND CONTROL SETTINGS

The fixture is equipped with a range of settings that allow users to fine-tune its movement characteristics.

Within the **Settings Menu**, the **Pan Tilt Speed** setting adjusts how quickly the fixture responds to changes in pan and tilt commands. A faster setting might introduce some jitteriness, whereas a slower setting results in smoother transitions but can introduce a slight delay when changing direction.

The **Pan Tilt Break** setting controls the deceleration aggressiveness when the fixture stops moving after DMX values cease to change. A fast setting might cause the fixture to bounce or jitter upon stopping, while a smooth setting ensures a gentle halt, though it might slightly delay the stop.

**Pan Tilt Feedback** can be toggled to determine if the fixture should automatically return to its DMX-defined position if manually moved. Disabling this feature, often for safety reasons, prevents the fixture from swinging back, which could be hazardous to nearby individuals.

In **Follow Spot Mode**, found in the Settings Menu, the pan and tilt motors are disabled, allowing for manual operation via optional handlebars or custom user-provided attachments. It's important to note that when this mode is deactivated, the fixture undergoes a full movement reset, which should not be performed with any external handles attached.

For applications involving **DMX Control of Pan or Tilt Acceleration**, the fixture allows for the remote adjustment of motor speed and torque. The default fast setting provides maximum torque but might result in a bouncy stop. Conversely, the slow setting offers smoother movements at the cost of some hysteresis and delay. These adjustments enable the fixture to be optimized for specific applications, including the distance and angle to the stage, as well as compatibility with various tracking systems.

# GOBO WHEEL AND BEAM MODES

The Proteus Brutus FS features a 5-position gobo wheel, which comes pre-equipped with four distinct beam shapes and one breakup pattern. These beam shapes offer versatility in modifying the beam's oval projection, for instance, preventing a circular pattern from forming at the stage's base.

When it comes to projecting over very long distances, the Brutus FS is equipped with various beam reducers. These components enable the fixture to adapt for different long-throw applications. It's advisable to experiment with these settings to ascertain which beam reducer offers the optimal zoom range for the specific distance to the stage. However, it should be noted that engaging the beam reducers will render the gobo wheel inoperative.

# DYNAMIC POWER IRIS OPTIMIZATION

The **Proteus Brutus** is a robust high-intensity lighting fixture where the Iris plays a crucial role in follow spot operations.

To maintain the Iris diaphragm's longevity, the fixture's engine power is automatically adjusted downward when the Iris is engaged. This power reduction varies according to the Iris's aperture size and is smoothly transitioned over a period of 5 seconds following any change in the aperture. This adjustment ensures that the fixture's light intensity remains consistent over extended periods.

<b>Iris DMX Value</b>	<b>Engine Power</b>
0	1600W
1-200	1450W
201-239	1100W
240-255	900W

# DMX TRAITS: CHANNEL FUNCTIONS & VALUES

Features subject to change without notice						
MODE/CHANNEL		VALUE	FUNCTION	FADE STATUS	DEFAULT VALUE	
STANDARD (27)	EXTENDED (36)					
1	1	0-255	<b>Pan</b>		127	
			Left → Right			
2	2	0-255	<b>Pan Fine</b>		127	
			Fine Position			
3	3	0-255	<b>Tilt</b>		127	
			Forward → Backward			
4	4	0-255	<b>Tilt Fine</b>		127	
			Fine Position			
5	5	0-255	<b>Cyan</b>		0	
			Cyan( 0 → 100%)			
	6	0-255	<b>Cyan Fine</b>		0	
			Fine Saturation			
6	7	0-255	<b>Magenta</b>		0	
			Magenta( 0 → 100%)			
	8	0-255	<b>Magenta Fine</b>		0	
			Fine Saturation			
7	9	0-255	<b>Yellow</b>		0	
			Yellow( 0 → 100%)			
	10	0-255	<b>Yellow Fine</b>		0	
			Fine Saturation			
8	11	0-255	<b>CTO</b>		0	
			Cold → Warm			
	12	0-255	<b>CTO Fine</b>		0	
			Fine Saturation			
9	13	0-255	<b>CRI</b>		0	
			OPEN → CRI			
	14	0-255	<b>CRI Fine</b>		0	
			Fine			
10	15		<b>Rotating Gobo</b>		0	
			0-9			Open
			10-19			Gobo 1
			20-29			Gobo 2
			30-39			Gobo 3
			40-49			Gobo 4
			50-59			Gobo 5
			60-255			Idle
11	16		<b>Rotating Gobo Index/ Rotation</b>		0	
			0-127			Index Position
						<b>Rotate</b>
			128-189			Clockwise Fast → Slow
			190-193			Stop
194-255	Counter-clockwise Slow → Fast					
12	17	0-255	<b>Rotating Gobo Index/ Rotation Fine</b>		127	
			Index Position			
13	18	0-255	<b>Focus</b>		127	
			Infinity → Near			
14	19	0-255	<b>Focus Fine</b>		127	
			Fine Adjustment			



# DMX TRAITS: CHANNEL FUNCTIONS & VALUES

Features subject to change without notice

MODE/CHANNEL		VALUE	FUNCTION	FADE STATUS	DEFAULT VALUE
STANDARD (27)	EXTENDED (36)				
15	20	0-255	<b>Zoom</b> Narrow → Wide		127
16	21	0-255	<b>Zoom Fine</b> Fine Adjustment		127
	22		<b>Auto Focus</b>		0
		0-4	Auto Focus Off		
		5-9	5.0m		
		10-14	5.2m		
		15-19	5.4m		
		20-24	5.6m		
		25-29	5.8m		
		30-34	6.0m		
		35-39	6.3m		
		40-44	6.5m		
		45-49	6.8m		
		50-54	7.0m		
		55-59	7.3m		
		60-64	7.5m		
		65-69	7.7m		
		70-74	8.0m		
		75-79	8.3m		
		80-84	8.5m		
		85-89	8.7m		
		90-94	9.0m		
		95-99	9.3m		
		100-104	9.5m		
		105-109	9.8m		
		110-114	10.0m		
		115-119	10.5m		
		120-124	11.0m		
		125-129	11.5m		
	130-134	12.0m			
	135-139	12.5m			
	140-144	13.0m			
	145-149	13.5m			
	150-154	14.0m			
	155-159	14.5m			
	160-164	15.0m			
	165-169	15.5m			
	170-174	16.0m			
	175-179	16.5m			
	180-184	17.0m			
	185-189	17.5m			
	190-194	18.0m			
	195-199	18.5m			
	200-204	19.0m			
	205-209	19.5m			
	210-214	20.0m			
	215-255	Idle			
	23	0-255	<b>AutoFocus Fine</b> Fine Adjustment		

# DMX TRAITS: CHANNEL FUNCTIONS & VALUES

Features subject to change without notice

MODE/CHANNEL		VALUE	FUNCTION	FADE STATUS	DEFAULT VALUE	
STANDARD (27)	EXTENDED (36)					
17	24		<b>Shutter/Strobe</b>	X	0	
		0-31	Open			
		32-63	Closed			
		64-95	Strobe Slow → Fast			
		96-127	Open			
		128-159	Pulse-effect			
		160-191	Open			
		192-223	Random strobe Slow → Fast			
	224-255	Open				
18	25	0-255	<b>Dimmer</b> Intensity 0 → 100%			
19	26	0-255	<b>Dimmer Fine</b> Fine Adjustment			
20	27		<b>Dim Modes</b>			
		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				
21	28	0-255	<b>Iris</b> Open → Close		0	
	29	0-255	<b>Iris Fine</b> Fine Adjustment		0	
22	30	0-255	<b>Frost1</b> Open → Max		0	
23	31	0-255	<b>Flat Field</b> Open → Max		0	

# DMX TRAITS: CHANNEL FUNCTIONS & VALUES

Features subject to change without notice

MODE/CHANNEL		VALUE	FUNCTION	FADE STATUS	DEFAULT VALUE
STANDARD (27)	EXTENDED (36)				
24	32		<b>Beam Mode</b>	X	0
		0-63	Disabled		
		64-127	Long Throw		
		128-255	Ultra Long Throw		
25	33	0-255	<b>Pan Acceleration</b> Fast → Slow	X	0
26	34	0-255	<b>Tilt Acceleration</b> Fast → Slow	X	0
27	35		<b>Pan / Tilt Speed</b>	X	0
		0-225	Max → Min Speed		
		226-235	Blackout by movement		
		236-245	Blackout by wheel changes		
		246-255	No function		
	36		<b>Control</b>	X	0
		0-39	Idle		
			<b>Fan Mode</b>		
		40-44	Mute		
		45-49	Studio		
		50-59	Low		
		60-69	High		
		70-79	Auto (default)		
			<b>Reset</b>		
		80-84	Fixture		
		85-87	Pan Tilt		
		88-90	Color		
		91-93	Idle		
		94-96	Focus Zoom		
		97-99	Other Features		
			<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				

# DMX TRAITS: CHANNEL FUNCTIONS & VALUES

Features subject to change without notice

MODE/CHANNEL		VALUE	FUNCTION	FADE STATUS	DEFAULT VALUE
STANDARD (27)	EXTENDED (36)				
		121	1110		
		122	1120		
		123	1130		
		124	1140		
		125	1150		
		126	1160		
		127	1170		
		128	1180		
		129	1190		
		130	<b>1200</b> (default)		
		131	1210		
		132	1220		
		133	1230		
		134	1240		
		135	1250		
		136	1260		
		137	1270		
		138	1280		
		139	1290		
		140	1300		
		141	1310		
		142	1320		
		143	1330		
	36	144	1340		
		145	1350		
		146	1360		
		147	1370		
		148	1380		
		149	1390		
		150	1400		
		151	1410		
		152	1420		
		153	1430		
		154	1440		
		155	1450		
		156	1460		
		157	1470		
		158	1480		
		159	1490		
		160	1500		
		161	2500		
		162	4000		
		163	5000		
		164	6000		
		165	10000		
		166	15000		
		167	20000		
		168	25000		

# DMX TRAITS: CHANNEL FUNCTIONS & VALUES

Features subject to change without notice					
MODE/CHANNEL		VALUE	FUNCTION	FADE STATUS	DEFAULT VALUE
STANDARD (27)	EXTENDED (36)				
	36	169-170	Cmy Smooth	X	0
		171-172	Cmy Fast		
		173-174	Hibernation Off		
		175-176	Hibernation		
		177-178	Sun Protection On		
		179-180	Sun Protection Off		
		181-182	Pan Tilt Speed Smooth		
		183-184	Pan Tilt Speed Fast		
		185-186	Pan Tilt Break Smooth		
		187-188	Pan Tilt Break Fast		
		189-200	Idle		
			<b>Dimmer Curve</b>		
		201-210	Linear		
		211-220	Square		
		221-230	Inverse Square		
		231-240	S-Curve		
		241-249	Idle		
		250-251	Display Off		
		252-253	Display On		
		254-255	Idle		

# 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.

## FIXTURE RDM INFORMATION:

RDM Code	Device ID	Device Model ID	Personality ID
0x22A6	OPEN	0x71E	Standard Mode (1) Extended Mode (2)

**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:

LED FIXTURE	
Sensor Definition	0x0200
Sensor Value	0x0201
Device Model Description	0x0080
Manufacturer Label	0x0081
Device Label	0x0082
DMX Personality	0x00E0
DMX Personality Description	0x00E1
Device Hours	0x0400
Pan Invert	0x0600
Tilt Invert	0x0601
Display Invert	0x0500



# ERROR CODES

When power is applied, the unit will automatically enter a “Reset/Test” mode. This mode brings all the internal motors to a home position. If there is an internal problem with one or more of the motors an error code will flash in the display in the form of “XXer” where as XX will represent a function number. For example, when the display shows “0Er” it means there is some type of error with the Pan motor. If there are multiple errors during the start-up process they will all flash in the display. For example: if the fixtures has errors on **Channel 1, 2, and 5** all at the same time, you will see the error message “01Er”, “02Er”, and “05Er” flash repeated 5 times.

If an error does occur during the initial start-up procedure the fixture will self-generate a second reset signal and try to realign all the motors and correct the errors. If the error persists after a second attempt a third attempt will be made. If after a third attempt all the errors have not been corrected the fixture will make the following determinations:

- **3 or More Errors:** The fixture cannot function properly with three or more errors therefore the fixture will place itself in a stand-by mode until subsequent repairs can be made.
- **Less Than 3 Errors:** The fixture has less than 3 errors; therefore, most other functions will work properly. The fixture will attempt to operate normally until the errors can be correct by a technician. The errors in question will remain flashing in the display as a reminder of internal errors.

Error Codes subject to change without notice	
ERROR CODES	DESCRIPTION
PAN Er TILT Er	Movement is not located in the default position after the reset. This message will appear after a fixture reset if the magnetic-indexing circuit malfunctions (sensor failed, or magnet is missing) or there is a motor failure (defective motor or a defective motor IC drive on the main PCB). This error may also be displayed if the head/yoke was blocked during TILT Er a reset function.
Cyan Color Er Magenta Color Er Yellow Color Er CTO Color Er Gobo Wheel Er Gobo_Rot Er Zoom Er Iris Er Focus Er Frost Er	Movement is not located in the default position after the reset. This message will appear after a fixture reset if the magnetic-indexing circuit malfunctions (sensor failed, or magnet is missing) or there is a motor failure (defective motor or a defective motor IC drive on the main PCB).

# SOFTWARE UPDATES

You can obtain the **Elation Ethernet Updater** by contacting Elation Service:

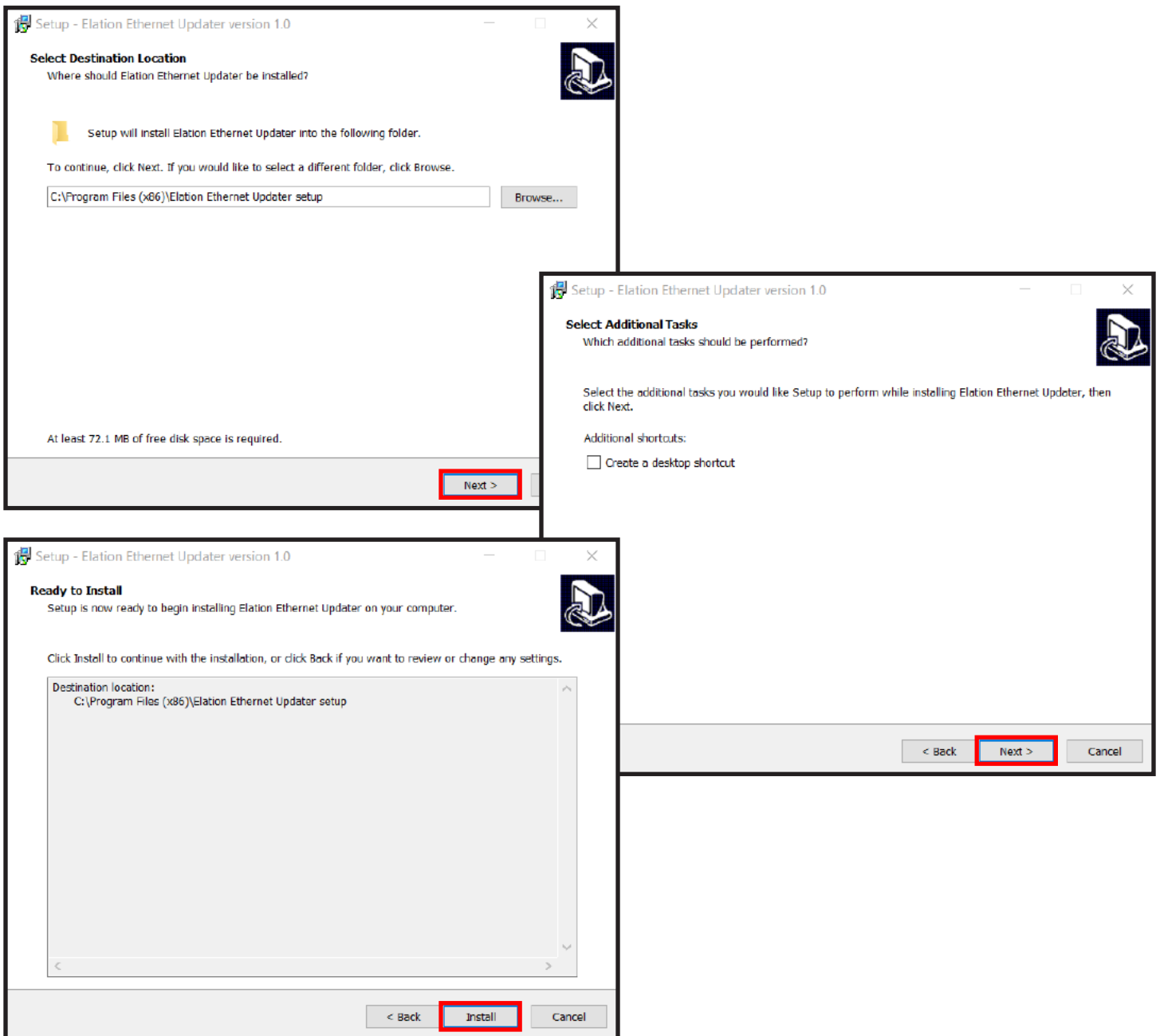
**ELATION SERVICE USA - Monday - Friday 8:00am to 4:30pm PST**  
**323-582-3322 | support@elationlighting.com**

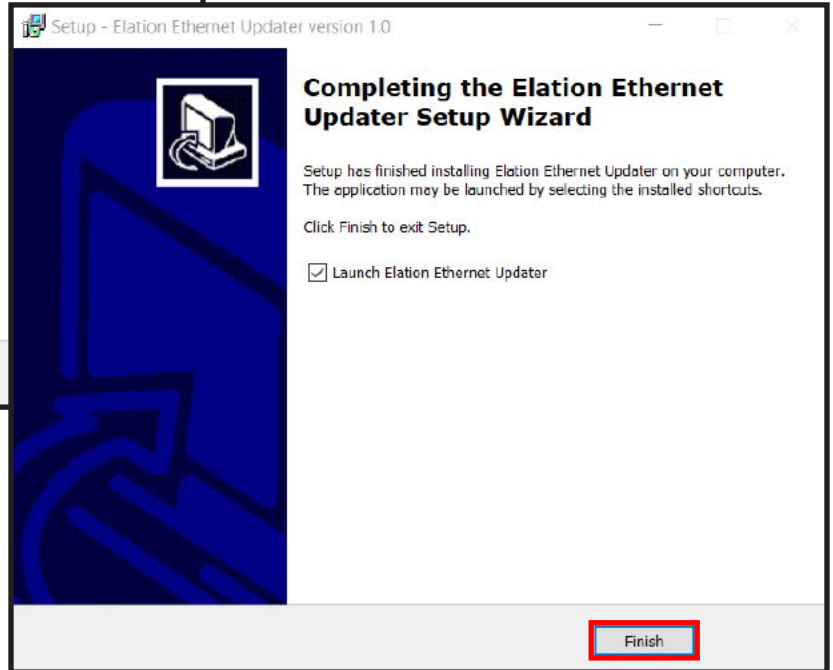
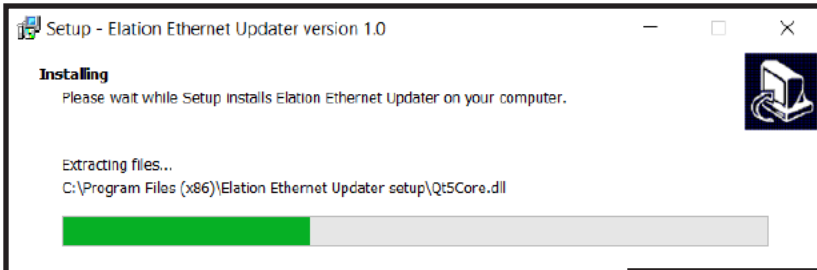
**ELATION SERVICE EUROPE - Monday - Friday 08:30 to 17:00 CET**  
**+31 45 546 85 63 | support@elationlighting.eu**

The **Elation Ethernet Updater** is an EXE file, which only works on a PC System. Once you've received the Elation Ethernet Updater RAR file from Elation Service via email, download and extract the EXE file. With the file extracted, click **Elation Ethernet Updater setupV100.exe** to launch the installation wizard.



Follow the prompts once the Elation Ethernet Updater EXE has launched the Setup Wizard.

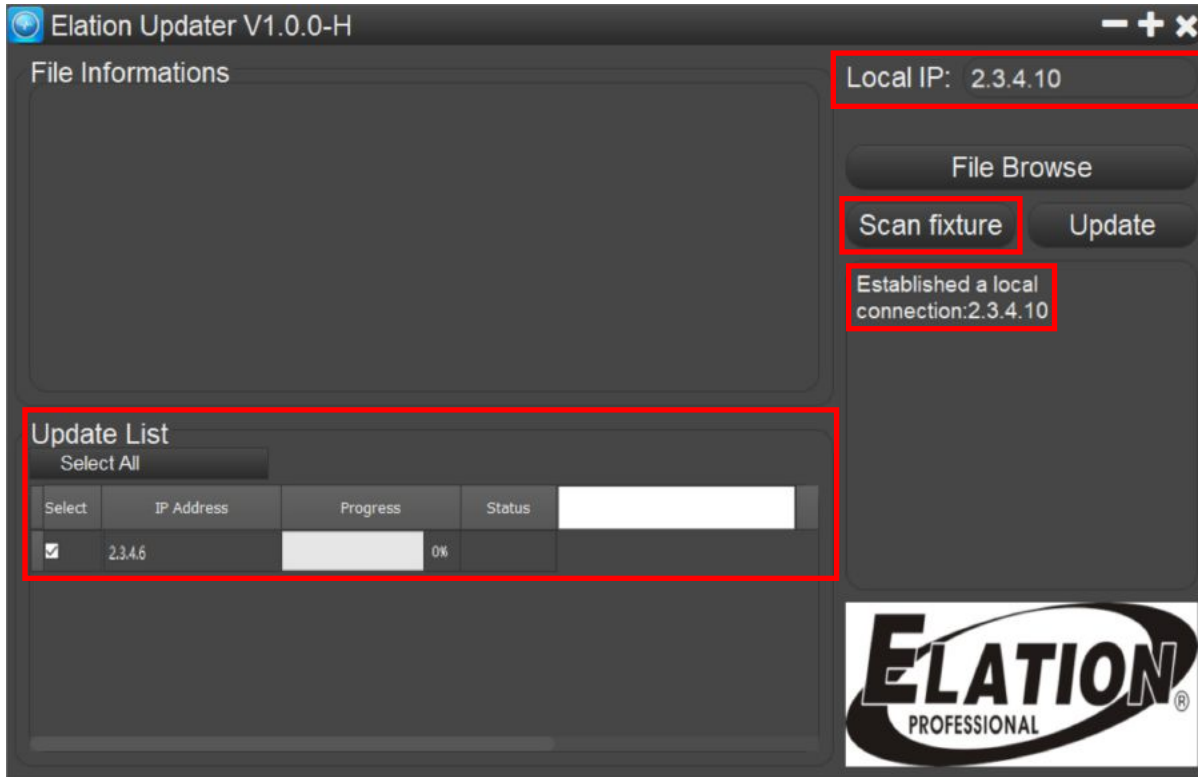




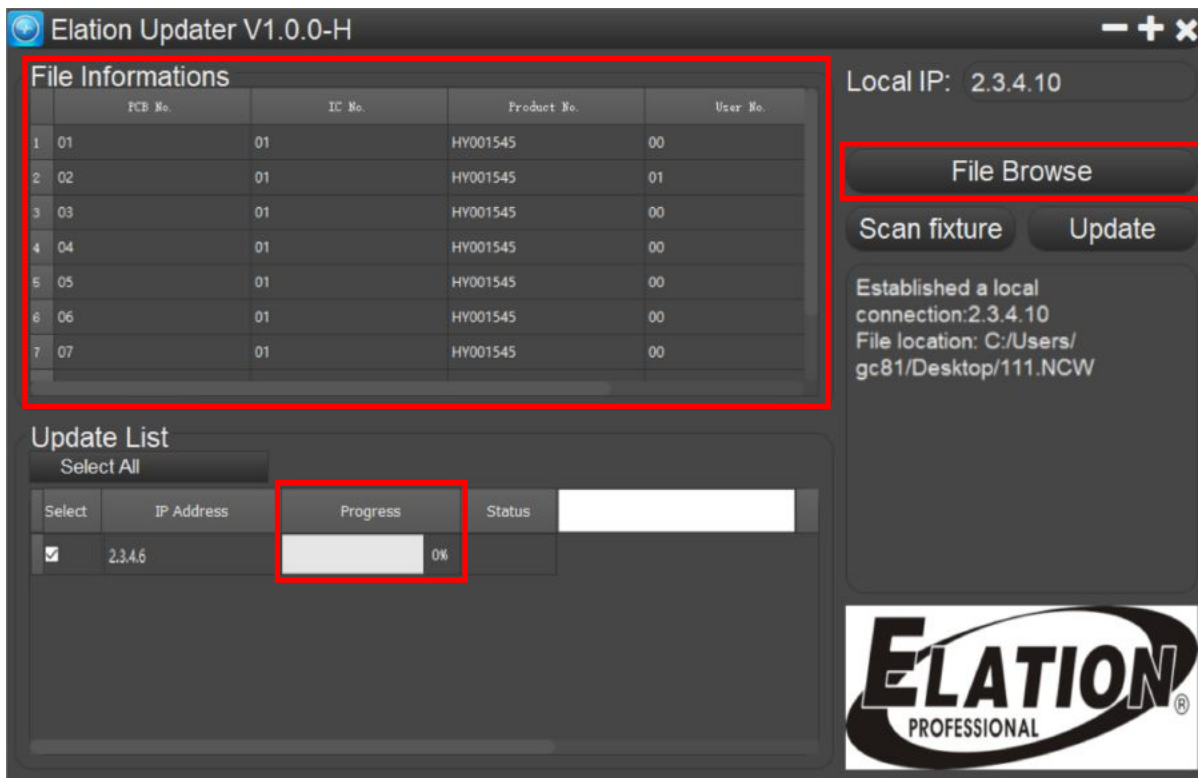
Once you have installed Elation Ethernet Updater, it will launch automatically (unless you unchecked the “Launch Elation Ethernet Updater”), or you can open it anytime by clicking on the icon.



Once opened, it will automatically identify your local IP. Click “Scan fixture” and create a connection. The fixture identity will appear in the Update List on the left side of browser. A connection will fail to establish if the fixture IP and Local IP are not in the same network segment.



Click “File Browse” to select the files you want to download. The download Progress is displayed in the File information chart as a percentage bar graph.



Click Update, then wait for the download Progress to reach 100% before closing Updater. The Elation Ethernet Updater can update up to 31 fixtures via connection to a PC.

The screenshot shows the Elation Updater V1.0.0-H application window. It features a 'File Informations' table with 7 rows of fixture data. Below it is an 'Update List' table with one entry for IP address 2.3.4.6, which has a green progress bar at 100% and a status of 'finished'. On the right side, there are buttons for 'File Browse', 'Scan fixture', and 'Update' (highlighted with a red box). A status message indicates a local connection to 2.3.4.10 at a specific file location. The Elation Professional logo is visible in the bottom right corner.

	FCB No.	IC No.	Product No.	User No.
1	01	01	HY001545	00
2	02	01	HY001545	01
3	03	01	HY001545	00
4	04	01	HY001545	00
5	05	01	HY001545	00
6	06	01	HY001545	00
7	07	01	HY001545	00

Select	IP Address	Progress	Status
<input checked="" type="checkbox"/>	2.3.4.6	100%	finished

Local IP: 2.3.4.10

File location: C:/Users/gc81/Desktop/111.NCW

**EELATION**  
PROFESSIONAL

# SPECIFICATIONS

## SOURCE

1200W 7,100K±400K Bright White LED Engine  
30,000 Hour Average LED Life\*

\*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

16000lx (1470fc) @ 20m

CRI 70+ (90 with adjustable HCRI Filter)

Zoom Range 3.5° - 35°

Beam Angle 2.9° - 35°

Field Angle 3.8° - 41°

## EFFECTS

Motorized Zoom

Long Throw / Ultra Long Throw Beam Mode

Motorized Focus

Motorized Iris

Variable Frost Filter

Variable 16-bit Dimming Curve Modes

High Speed Electronic Shutter and Strobe

DMX Controllable LED Refresh Rate

Variable Pan and Tilt Motor Acceleration Control

Pan Angle: 540°

Tilt Angle: 260°

## COLOR

CMY Color Mixing

Linear CTO Color Correction

Linear CRI Adjustment CRI 70 - CRI 90

Gobo / Beam Shapes

5 Rotating / Indexing Interchangeable Metal

## CONTROL / CONNECTIONS

2 DMX Channel Modes (27/36)

16-bit Pan, Tilt and Dimming Control

DMX, RDM, Art-NET, sACN Protocol Support

(6) Button Touch Control Panel

Full Color 180° Reversible LCD Menu Display

Hibernation Mode (Power Save)

5pin XLR DMX In/Out

IP66 RJ45 Ethernet In

IP66 Locking Power Cable In

## CAMERA CONNECTIONS

NDI: IP65 RJ45 Ethernet Input, POE++ Camera Output

HD-SDI: IP65 BNC

AUX Control: IP65 4pin XLR

12V Camera Power

## CAMERA COMPATIBILITY

(customer integration / installation required)

Marshall Electronics - CV350 / CV355 / CV5056

Aida Imaging NDI 200 / NDI3-300

Hanwha Vision SNZ6320 / SNZ6320A

BirdDog PF120

## SIZE / WEIGHT

(without camera, without optional handle bars)

Length: 25.3 in (643mm)

Width: 18.4 in (468mm)

Height: 32.6 in (829mm)

Weight: 117.7 lbs. (53.4kg)

## ELECTRICAL

AC 120-240V 50/60Hz

Max Power Consumption 1,500W

-4°F to 113°F (-20°C to 45°C)

## INCLUDED ITEMS

Safety Cable

IP65 Locking Power Cable

Omega Brackets (x2)

## APPROVALS / RATINGS

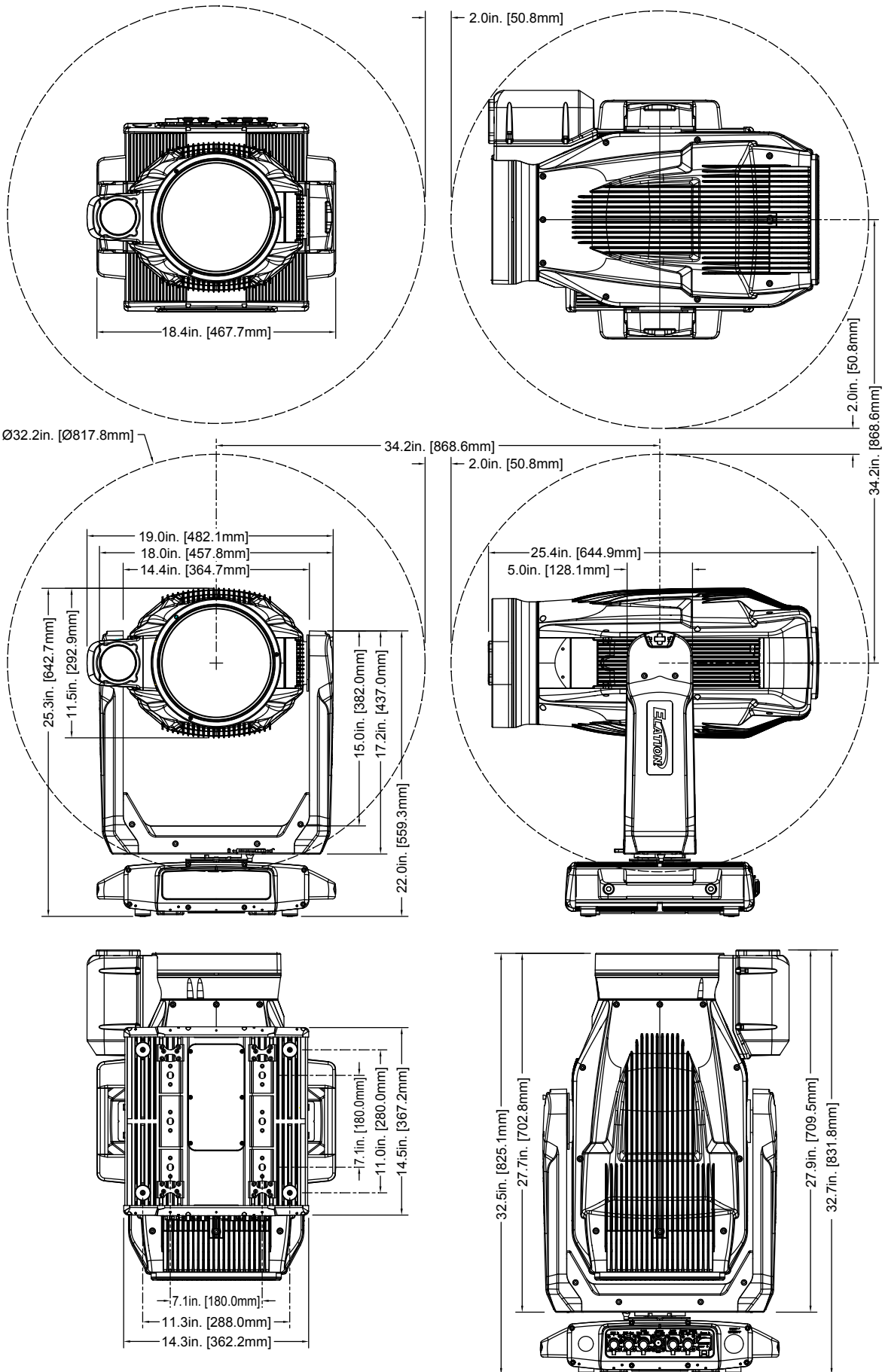
CE | cETLus | IP66 | UKCA | FCC

Specifications and documentation subject to change without notice.



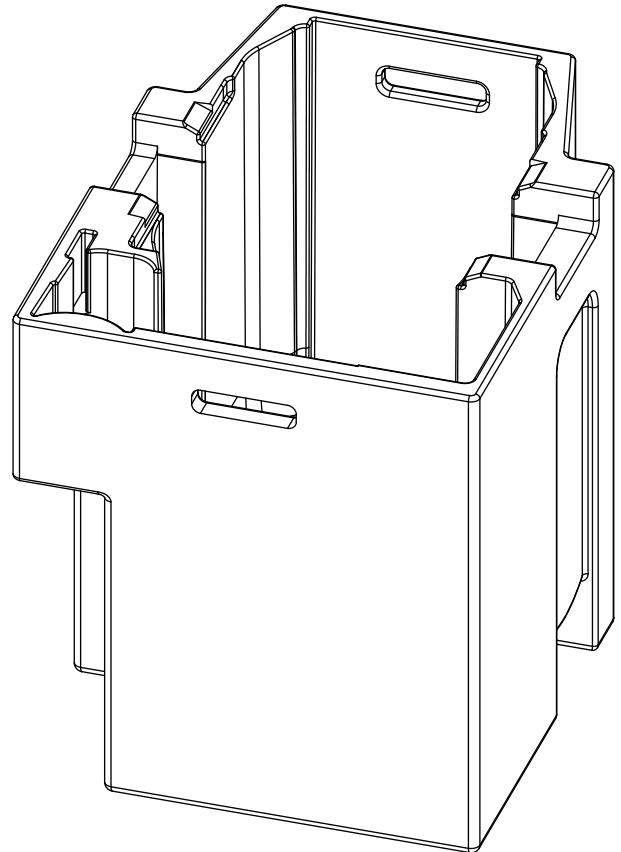
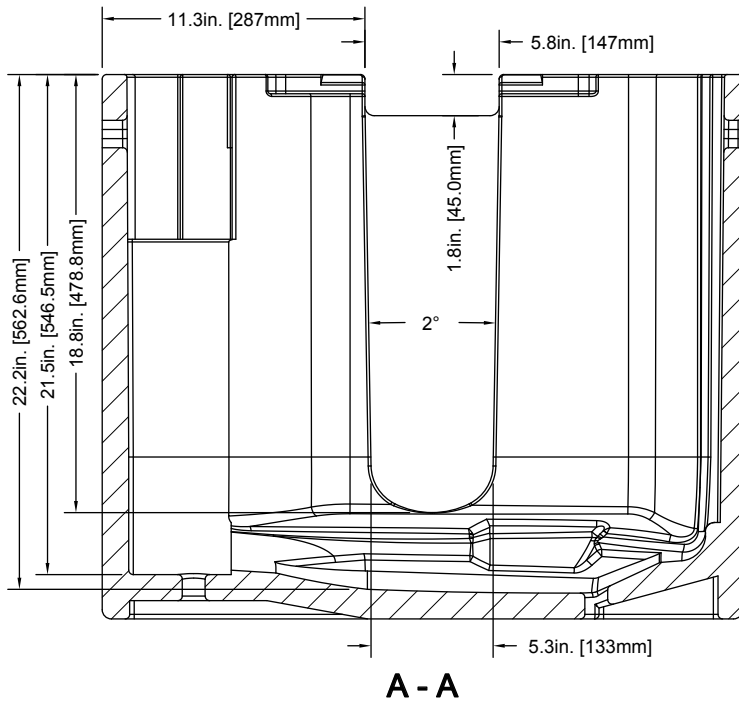
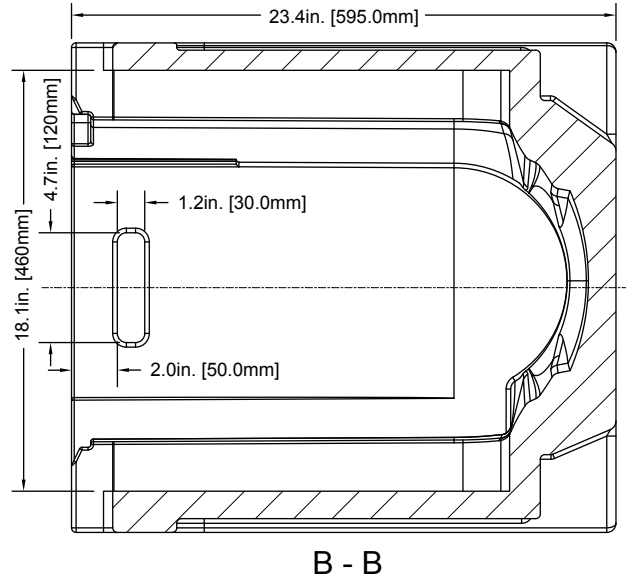
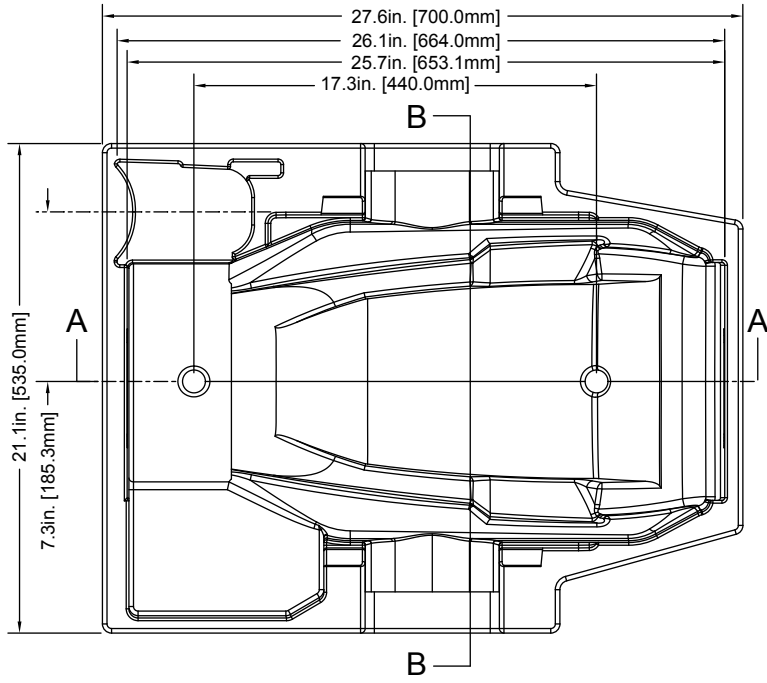
# DIMENSIONS

\*Drawings not to scale. Specifications and improvements in the design of this unit and this manual are subject to change without notice.



# DIMENSIONS

\*Drawings not to scale. Specifications and improvements in the design of this unit and this manual are subject to change without notice.



# OPTIONAL ACCESSORIES

ORDER CODE (US   EU)	ITEM
PRB234   Eu 1237000283	Proteus Brutus FS
TRIGGER CLAMP	Heavy Duty Wrap Around Hook Style Clamp
SIP126	5 ft. (1.5m) IP66 Twist Lock Power Link Cable
TOU027	TOUR LINK 5P10, Tour Grade DMX Cable
	Additional Cable Lengths Available

## FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## FCC RADIO FREQUENCY INTERFERENCE WARNINGS & INSTRUCTIONS

This product has been tested and found to comply with the limits as per Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device uses and can radiate radio frequency energy and, if not installed and used in accordance with the included instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be 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.

## Energy Saving Matters (EuP 2009/125/EC)

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



