

PROTEUS RAYZOR 1960

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 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 |
|------------|------------------|------------------|--------------------|---|
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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.

IP65 RATED

An IP rated lighting fixture is commonly installed in outdoor environments and has been designed with an enclosure that effectively protects the ingress (entry) of external foreign objects such as dust and water. The International Protection (IP) rating system is commonly expressed as "IP" followed by two numbers (i.e. IP65) where the numbers define the degree of protection. The first digit (Foreign Bodies Protection) indicates the extent of protection against particles entering the fixture, while the second digit (Water Protection) indicates the extent of protection against water entering the fixture. **An IP65 rated lighting fixture, such as this one, has been designed and tested to protect against the ingress of dust (6) and low-pressure water jets from any direction (5). This fixture is intended for temporary outdoor use only!**

BOX CONTENTS

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
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REPLACEMENT PARTS - please visit parts.elationlighting.com

INTRODUCTION

LENS POSITION FOR SHIPPING AND PACKAGING:

When re-packaging this fixture for shipping or transportation, the device must be placed securely into the form-fitting foam in-lay (FIL) that was included in the box when the fixture was first purchased. Please refer to the **Dimensional Drawings** section of this manual for detailed information about the foam in-lay.

Additionally, it is **CRITICALLY IMPORTANT** to orient the head of the fixture so that the lens is pointing toward the base of the unit, as illustrated below. **Failure to do so can result in damage to the fixture's zoom function while in transit.** Reminder notices will be stamped into the foam in-lay itself as a precautionary measure.



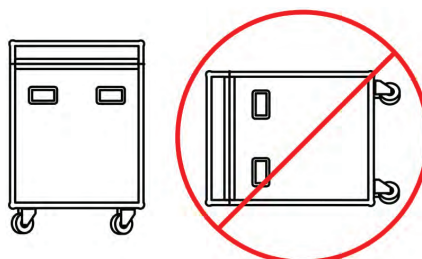
POTENTIAL INTERNAL DAMAGE FROM 'TIPPING' FIXTURE DURING TRANSPORT AND HANDLING

Note that not all features listed are available on all fixtures; the following instructions may not apply.

Depending on the model, large format fixtures may contain delicate optics and glass filters. While this product was carefully designed to be roadworthy, it must be handled carefully during transportation. If the fixture contains color flags, before transport, ensure that color flags inside the unit are placed in an OPEN position.

For superior impact protection, some fixtures are shipped in a custom fitted high-density Foam Inlay (FIL). This FIL must be used inside the road-cases for transportation.

DO NOT TIP THE CASE OVER, AND AVOID ALL SHOCKS AND ROUGH HANDLING, ESPECIALLY "TIPPING", THE PRACTICE OF TIPPING THE FIXTURE-CASE OVER TO ITS SIDE AND ONTO A HARD SURFACE. THE CASE MUST RIDE ON ITS WHEELS SO THAT THE FIXTURE-HEAD REMAINS HORIZONTAL DURING TRANSPORTATION.



IP65 RATED

The **International Protection (IP)** rating system is commonly expressed as “**IP**” (Ingress Protection) followed by two numbers (i.e. IP65), 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 **IP65** rated lighting fixture is designed and tested to protect against the ingress of dust (**6**), and low-pressure water jets from any direction (**5**).

NOTE: THIS FIXTURE IS INTENDED FOR TEMPORARY OUTDOOR USE ONLY!

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.



NOT suitable for maritime/coastal environment installations. Installing this fixture in a maritime/coastal environment may cause corrosion and/or excessive wear to the interior and/or exterior components of the fixture. Damages and/or performance issues resulting from installation in a maritime/coastal environment will void the manufactures warranty, and will NOT be subject to any warranty claims and/or repairs.

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. A waterproof dome or similar device is recommended for use in permanent outdoor installations. When using a dome, refer to manufacturer recommendations for duty-cycle.

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 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 or damage to any such accessories, nor for the safe return thereof.
- C. This warranty is void if the product serial number and/or labels are altered or removed; if the product is modified in any manner which Elation Professional concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Elation Professional factory unless prior written authorization was issued to purchaser by Elation Professional; if the product is damaged because not properly maintained as set forth in the product instructions, guidelines and/or user manual.
- D. This is not a service contract, and this warranty does not include any maintenance, cleaning or periodic check-up. During the periods as specified above, Elation Professional will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Elation Professional under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Elation Professional. All products covered by this warranty were manufactured after January 1, 1990, and bare identifying marks to that effect.
- E. Elation Professional reserves the right to make changes in design and/or performance improvements upon its products without any obligation to include these changes in any products theretofore manufactured.
- F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with the products described above. Except to the extent prohibited by applicable law, all implied warranties made by Elation Professional in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty periods set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said periods have expired. The consumer's and/or dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall Elation Professional be liable for any loss and/or damage, direct and/or consequential, arising out of the use of, and/or the inability to use, this product.
- G. This warranty is the only written warranty applicable to Elation Professional products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

WARRANTY RETURNS

All returned service items whether under warranty or not, must be freight pre-paid and accompanied by a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem, as well as the R.A. number, must also be written down on a piece of paper and included in the shipping container. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. Items returned without an R.A. number clearly marked on the 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 PRECAUTIONS

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!**



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.



**MINIMUM DISTANCE TO OBJECTS/SURFACES
MUST BE 3.3 FEET (1 METER)
MAXIMUM TEMP OF EXTERNAL SURFACE 185° F (85°C)
MINIMUM DISTANCE OF FLAMMABLE MATERIALS FROM THE SURFACE 1.6 FEET
(0.5 METER)**

SAFETY PRECAUTIONS

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

Please refer to the following points during routine inspections:

- A detailed electric check by an approved electrical engineer every three months, to make sure the circuit contacts are in good condition and prevent overheating.
- Be sure all screws and fasteners are securely tightened at all times. Loose screws may fall out during normal operation, resulting in damage or injury as larger parts could fall.
- Check for any deformations on the housing, color lenses, rigging hardware, and rigging points (ceiling, suspension, trussing). Deformations in the housing could allow for dust to enter into the fixture. Damaged rigging points or unsecured rigging could cause the fixture to fall and seriously injure a person(s).
- Electric power supply cables must not show any damage, material fatigue or sediments. **NEVER** remove the ground prong from the power cable.

FIXTURE 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 unit 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.

MAINTENANCE GUIDELINES

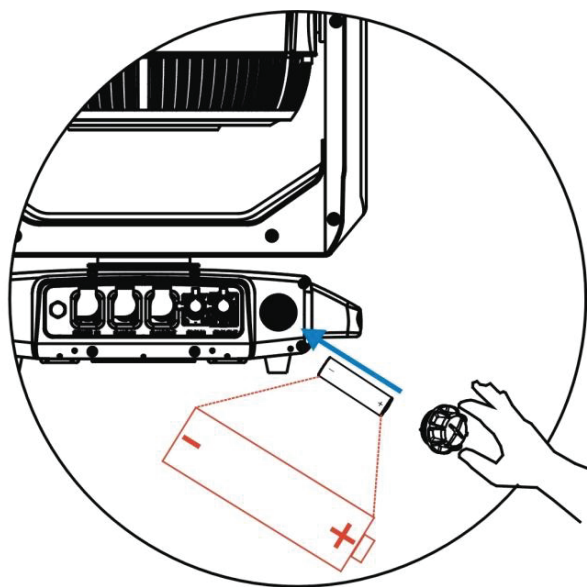
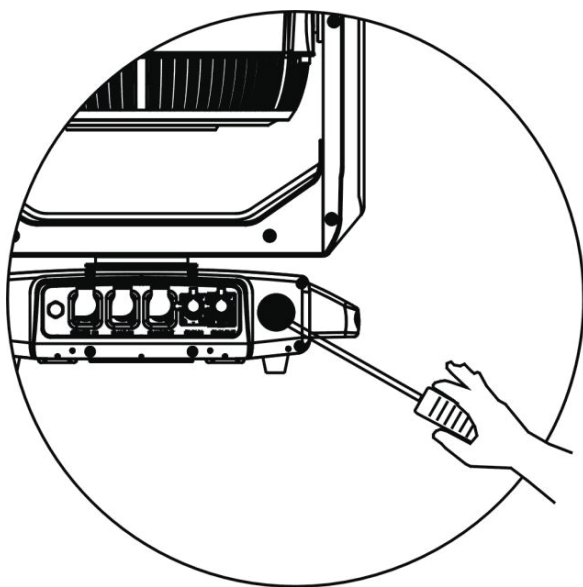
BATTERY REPLACEMENT



Installing the battery in the incorrect orientation will lead to internal electronics and battery damage. A qualified electrician should be used for all electrical connections and/or installations.

Follow the directions below to replace the battery:

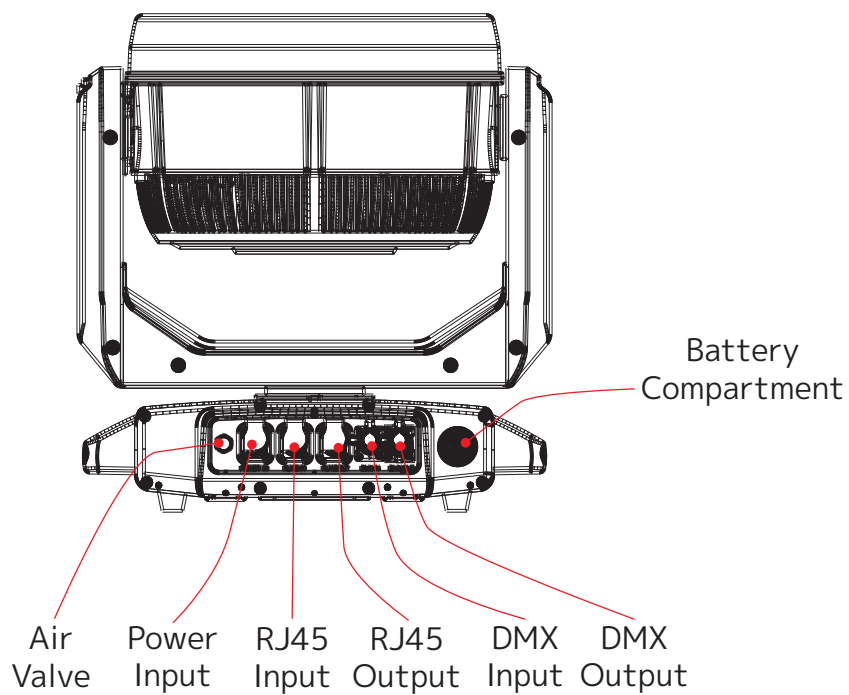
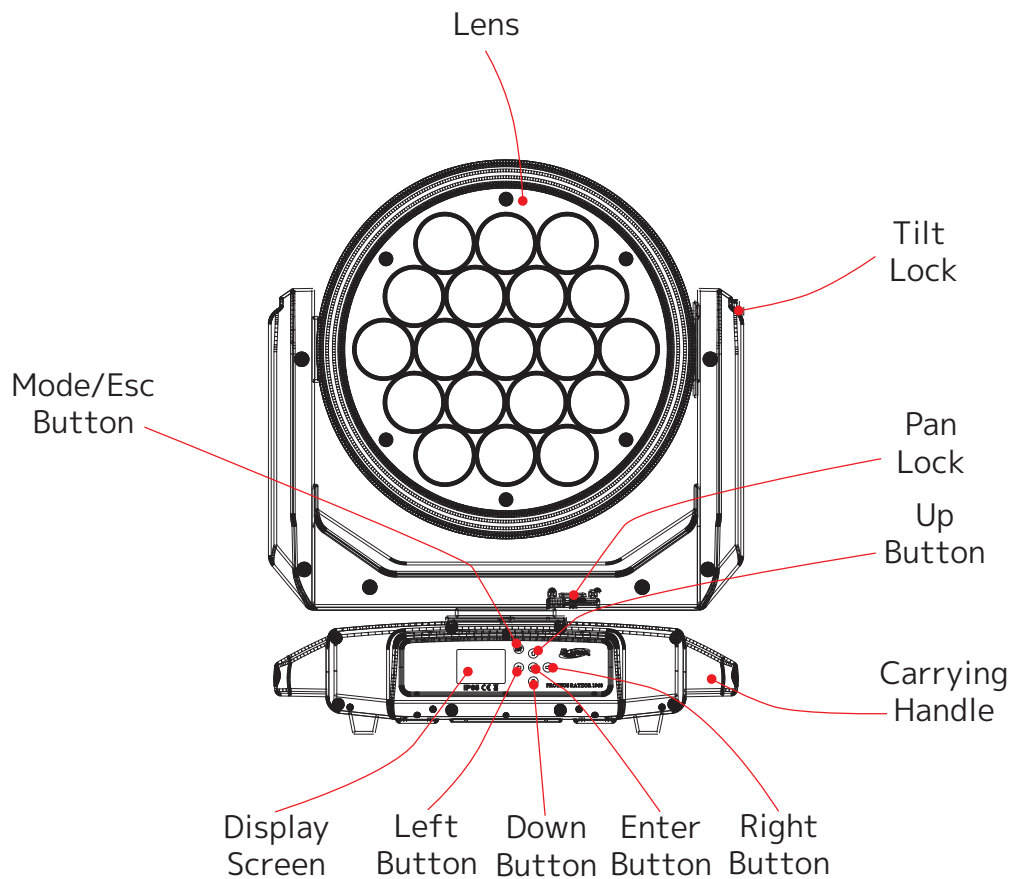
1. Loosen the screw cap for the battery compartment, as shown below to the left.
2. Remove old battery and replace. **Make sure the battery is oriented with the negative "-" terminal towards the inside and the positive "+" terminal towards the outside.** Refer to the illustration below to the right.
3. Replace and tighten screw cap to secure the battery in place.



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/catalog/product/view/id/18373/s/60420050026/category/2/>

OVERVIEW



INSTALLATION



FLAMMABLE MATERIAL WARNING

Keep fixture minimum 3.3 feet (1.0m) away from flammable materials and/or pyrotechnics.



ELECTRICAL CONNECTIONS

A qualified electrician should be used for all electrical connections and/or installations.



MINIMUM DISTANCE TO SURFACES/OBJECTS IS 3.3 FEET (1 METER).

MINIMUM DISTANCE TO FLAMMABLE MATERIALS IS 1.6 FEET (0.5 METER).

EXTERNAL SURFACE CAN REACH TEMPERATURES OF 185° F (85° 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 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.

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.

Fixture ambient operating temperature range is **-4° to 113°F (-20° 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 where unauthorized personnel might reach the fixture by hand.

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

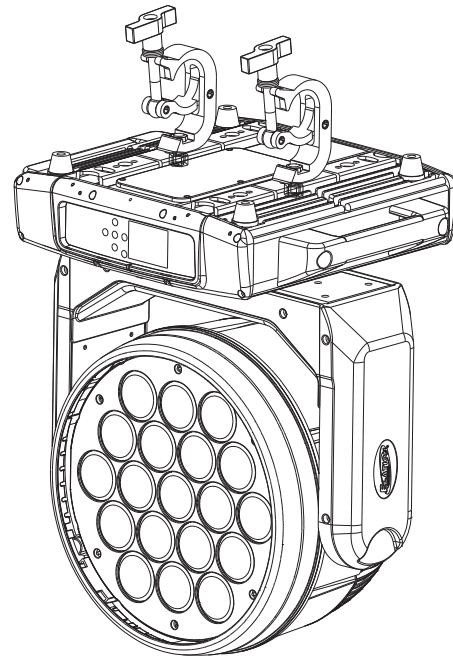
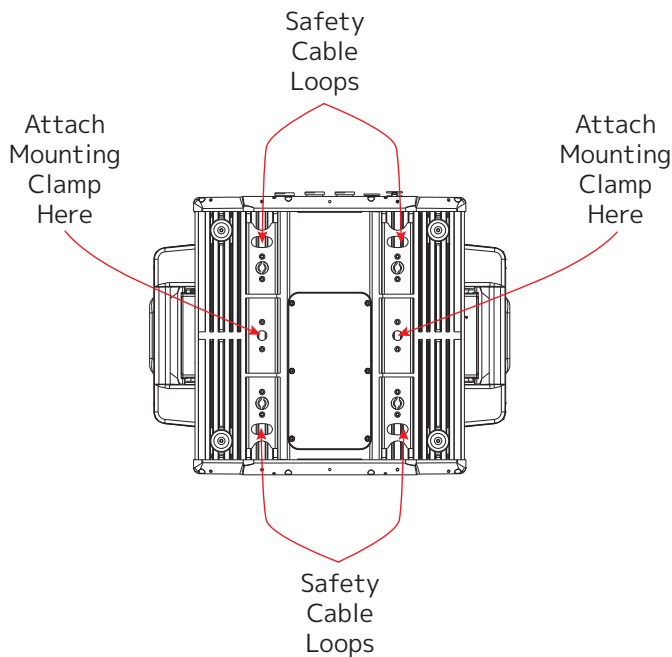
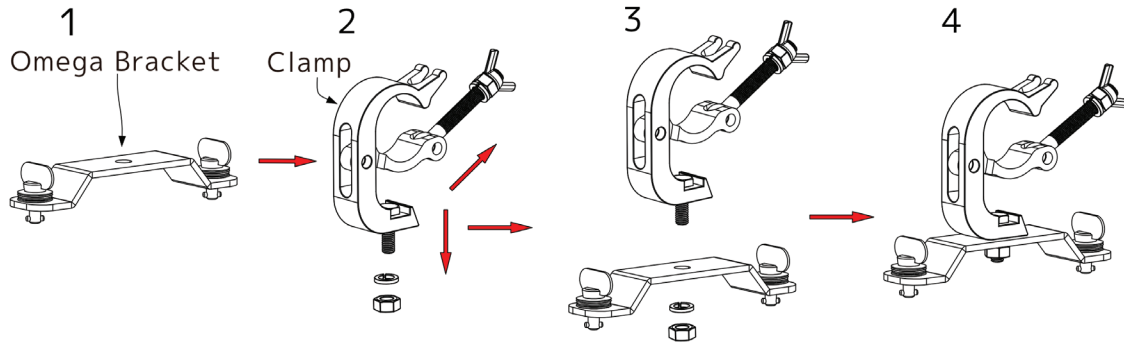
Overhead fixture installation must always be secured with a secondary safety attachment, such as an appropriately rated safety cable.

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

INSTALLATION GUIDELINES

OMEGA BRACKET INSTALLATION

When mounting the fixture to a truss using Omega brackets, first attach a mounting clamp to each Omega bracket using an M10 screw inserted through the center hole of each Omega bracket (see top illustration). Then, insert the Omega Brackets into the outer mounting holes on the underside of the fixture (see lower illustration). Secure the Omega Brackets to the fixture by turning each quick-lock fastener $\frac{1}{4}$ turn clockwise. **Always check to make sure that each fastener is completely locked.**



SAFETY CABLE:

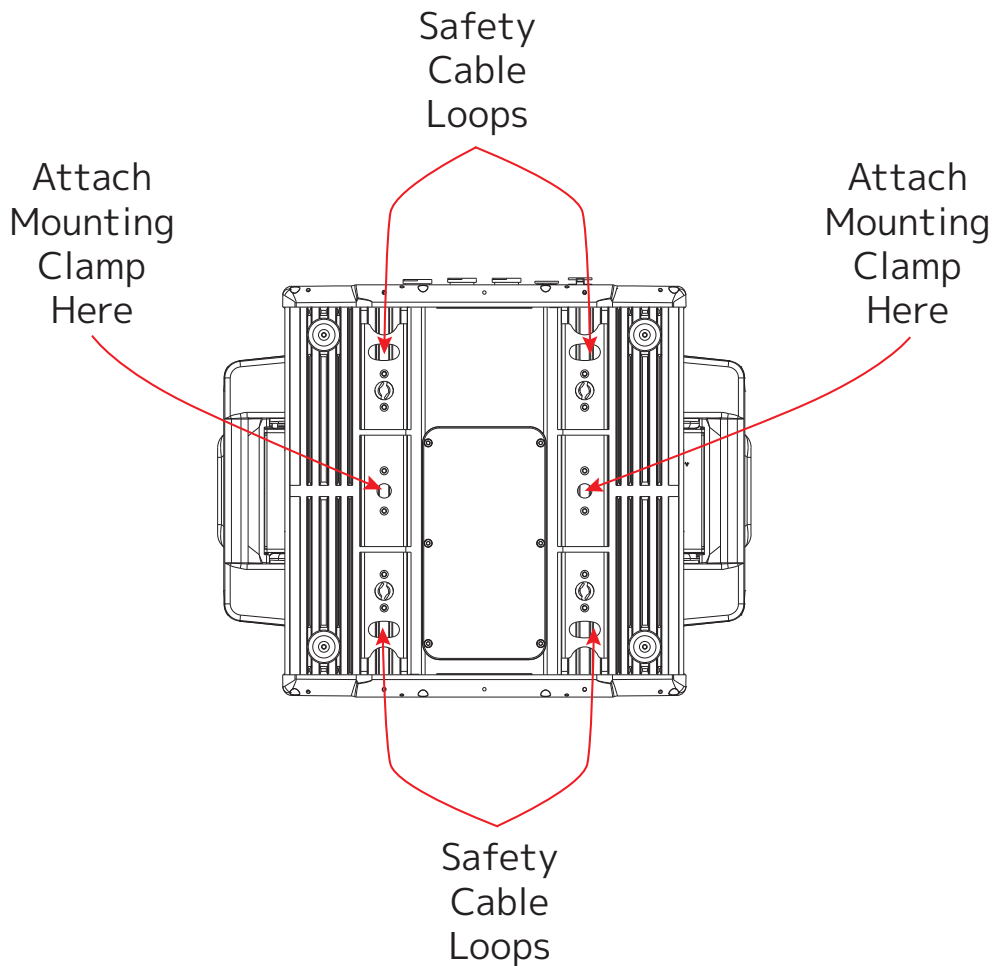
ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE THAT THE FIXTURE WILL NOT FALL IF THE CLAMP FAILS. ONLY USE DESIGNATED RIGGING POINTS FOR SAFETY CABLE, AND NEVER ATTACH A SAFELY CABLE TO A CARRYING HANDLE.



INSTALLATION GUIDELINES

CLAMP INSTALLATION

Alternately, the fixture can be mounted to a truss using mounting clamps secured directly to the fixture itself. Insert one minimum grade 8.8 steel M12x25mm bolts (not included) into the mounting hole of each mounting clamp. **Please note that TWO (2) MOUNTING CLAMPS are required to support the fixture safely and securely.** Thread each bolt into the matching 12M holes on the underside of the fixture, as shown in the illustration below. Both bolt must be threaded to a depth of at least 18mm (0.7in) into the fixture base.



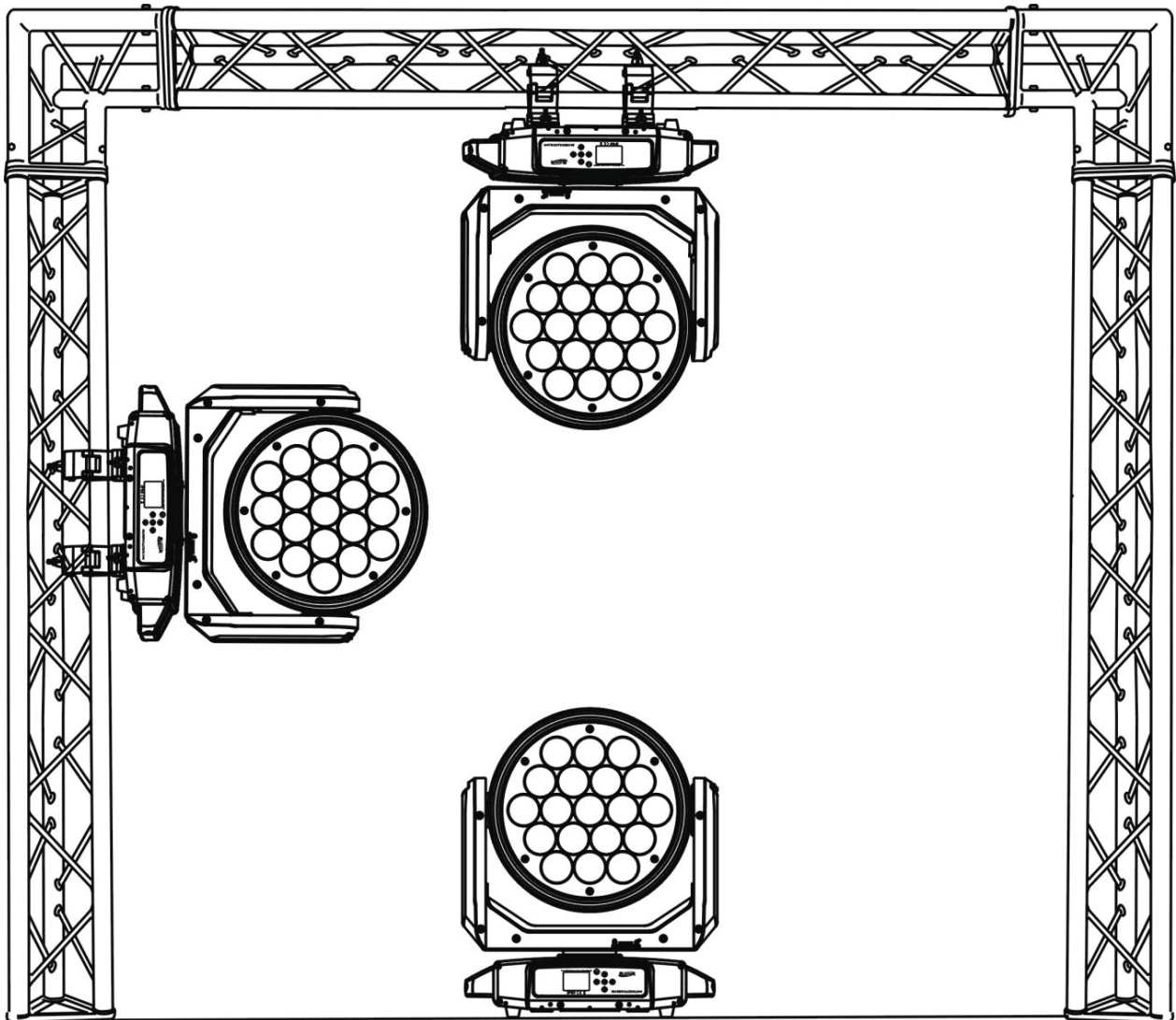
SAFETY CABLE:
ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE THAT THE FIXTURE WILL NOT FALL IF THE CLAMP FAILS. ONLY USE DESIGNATED RIGGING POINTS FOR SAFETY CABLE, AND NEVER ATTACH A SAFELY CABLE TO A CARRYING HANDLE.

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 GUIDELINES

ART-NET AND sACN CONNECTION

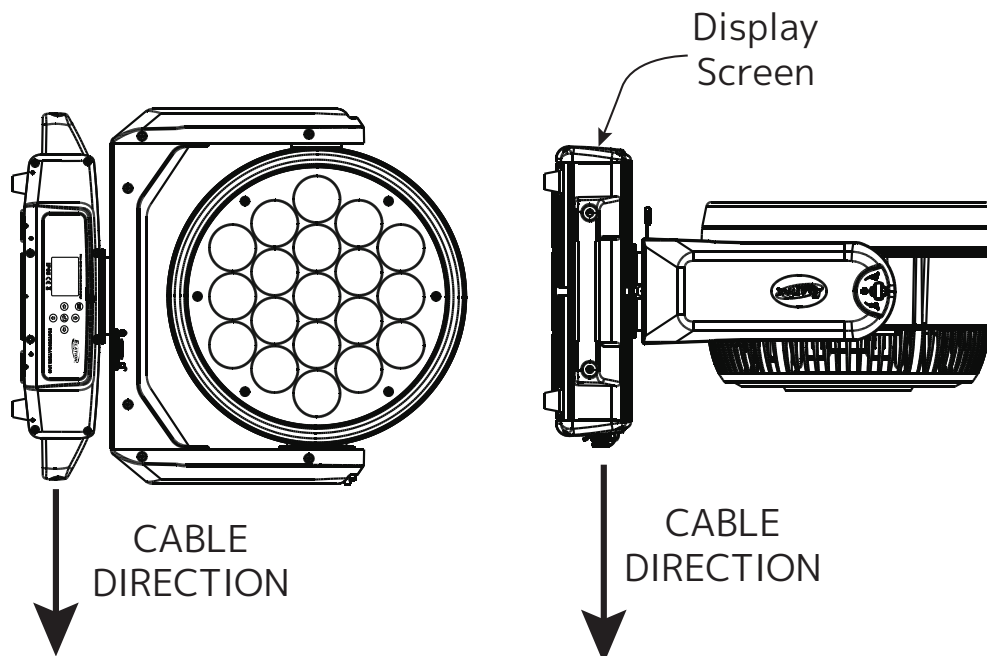
When connecting the fixture to a network switch to control multiple devices, a Gigabit Ethernet Switch that supports IGMP (Internet Group Management Protocol) is required. Using a Gigabit Ethernet Switch that does not support IGMP can cause erratic behavior of all connected devices to the switch. Visit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

https://en.wikipedia.org/wiki/Internet_Group_Management_Protocol

POWER AND DATA CABLES



TO MAINTAIN THE IP65 RATING INTEGRITY OF THE FIXTURE, ALL CABLES MUST BE RUN TOWARDS THE GROUND IN ORDER TO PREVENT WATER ACCUMULATION AROUND THE CONNECTIONS.



RJ45 DATA CABLES



THE INCLUDED RJ45 DATA CABLE IS FOR FIXTURE TO FIXTURE INTERCONNECTIONS ONLY! THE RJ45 CABLE CONNECTORS MAY NOT BE COMPATIBLE WITH OTHER RJ45 OR ETHERNET TYPE CONNECTORS.

POWER AND DATA CONNECTIONS



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



TO MAINTAIN IP65 RATING INTEGRITY AND PREVENT WATER FROM ENTERING THE FIXTURE, SEAL ALL UNUSED CONNECTION RUBBER CAPS.

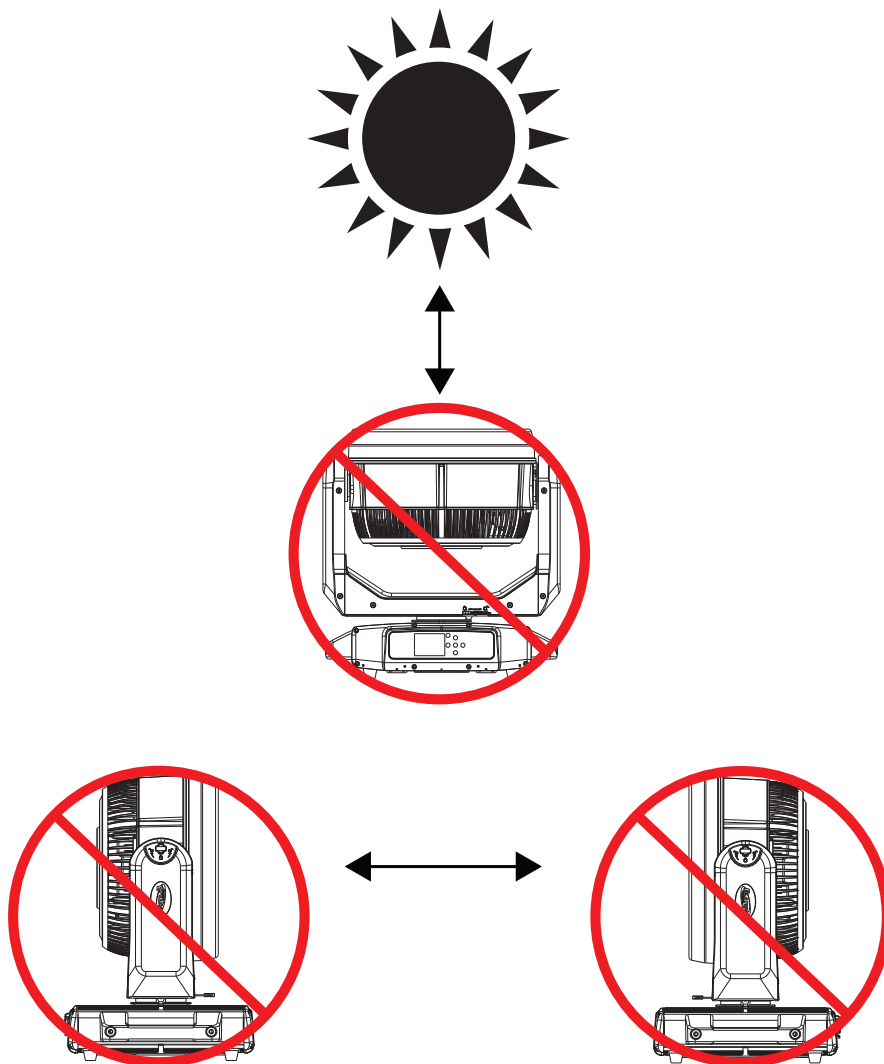
INSTALLATION

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.



INSTALLATION

SUN PROTECTION MODE

This fixture incorporates an automatic protection from harmful sun rays, which can damage the fixture’s internal components as a result of extended exposure. The fixture uses an internal sensor to determine physical orientation, then point the fixture towards the ground to prevent sunlight from entering the lens.

Please note that this feature only works when the fixture is powered on. When performing installation or maintenance with the fixture powered off, it is important to always move the lenses out of direct sunlight and/or point them manually to the ground. **Even a few minutes of sunlight exposure can cause damage to components inside the fixture.**

The Sun Protection setting is part of the “No DMX Status” menu, and can be accessed by navigating to PERSONALITY > STATUS SETTINGS > NO DMX STATUS > SUN PROTECTION. A quick reference is provided in the table below. Refer to the **System Menu** section of this manual for detailed information.

| MAIN MENU | SUB MENU | OPTIONS | |
|-------------|-----------------|---------------|--------------------------|
| Personality | Status Settings | No DMX Status | Sun Protection (default) |
| | | | Close |
| | | | Hold |
| | | | Auto Program |

The sun protection position is activated under the following conditions:

- **Power on without DMX signal:** The fixture always starts in sun protection mode.
- **No DMX Status set to “Sun Protection” option:** The fixture enters sun protection mode after approximately 3 minutes.
- **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 ability to correctly orient the lens towards the ground is built into the fixture. Note that this also means some fixtures hanging straight down may not move their heads. Hold “Sun Protect Position” for 3s to set the fixture to the sun protection position.

The display screen should display the phrase “Sun Protection: Active” to confirm that this feature has been activated.

The sun protection position is deactivated under the following conditions:

- **DMX signal is connected.**
- **Remote DMX control:** Hold “Sun Protection Off” for 3s.

The sun protection position always uses a 5 second fade time when it is activated or deactivated to avoid harsh movements of the fixture.

INSTALLATION

HIBERNATION MODE

This mode disables motors and most electronics in order to reduce wear on the fixture's internal components. The user has the ability to define the period of time that the fixture can remain inactive before it enters hibernation mode. This feature can be accessed by navigating in the main menu to PERSONALITY > STATUS SETTINGS > HIBERNATION (see the **System Menu** section of this manual for detailed information). The default setting for hibernation delay time is 15 minutes, but it can be adjusted from 1 min to 99 min, or switched off completely.

Hibernation mode is activated under the following conditions:

- **Loss of DMX signal:** the fixture enters hibernation after the timeout expires. Default is 15 minutes.
- **Remote DMX control:** Press and hold "Hibernate Fixture" for 3s.

Hibernation mode is deactivated under the following conditions:

- **DMX signal is connected.**
- **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. This allows the user to set the desired position and then issue the Hibernate command.

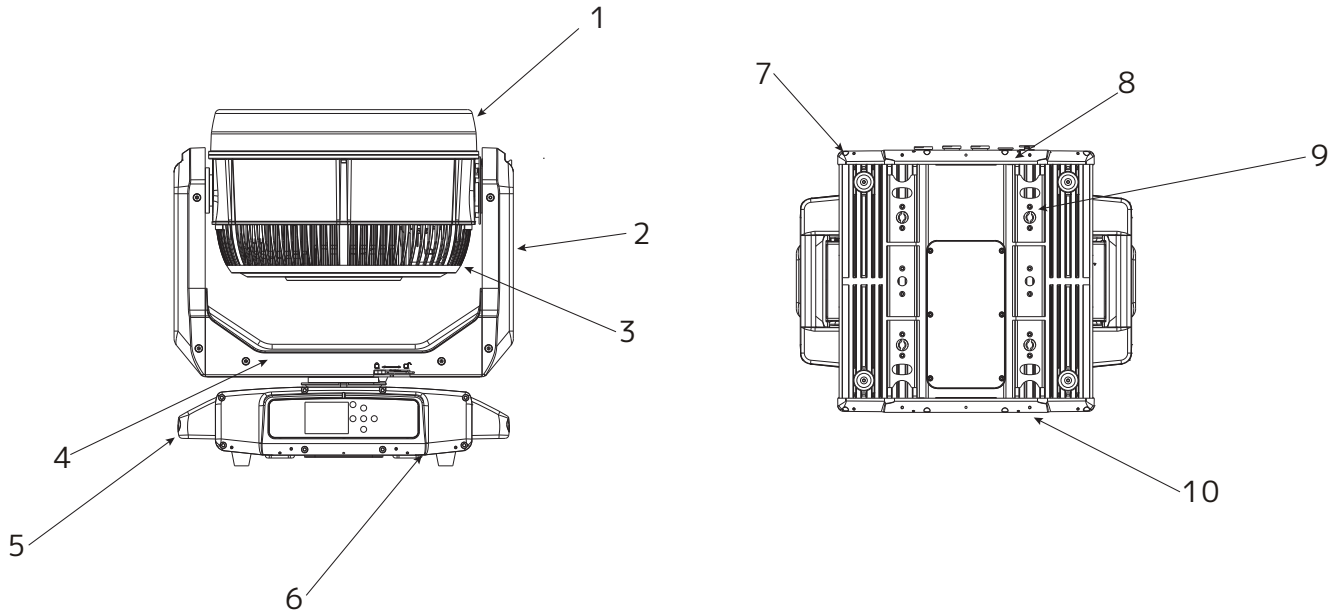
To ensure the fixture is protected from harmful sunrays, it is recommended to either leave the "No DMX Status" in "Sun Protection" mode (so that the fixture is already in the correct position after 3 minutes of DMX loss) or set the fixture to a safe Pan Tilt position manually prior to putting the fixture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

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 manufacturer's warranty.

TORQUE SETTINGS FOR SCREWS



PANEL SCREWS MUST BE TIGHTENED WITH A TORQUE WRENCH. REFER TO THE TABLE AND DIAGRAM BELOW FOR PROPER TORQUE SETTINGS.



| ITEM NO. | DESCRIPTION | TORQUE SETTING |
|----------|------------------------|------------------------------------|
| 1 | Upper Head Cover | 8.7 ± 0.9 lb-in (10 ± 1 kgf-cm) |
| 2 | Arm Cover | 8.7 ± 0.9 lb-in (10 ± 1 kgf-cm) |
| 3 | Lower Head Cover | 8.7 ± 0.9 lb-in (10 ± 1 kgf-cm) |
| 4 | Upper Arm Cover | 8.7 ± 0.9 lb-in (10 ± 1 kgf-cm) |
| 5 | Handle | 20.0 ± 2.0 lb-in (23 ± 2.3 kgf-cm) |
| 6 | Display Board | 8.7 ± 0.9 lb-in (10 ± 1 kgf-cm) |
| 7 | Machine Leg | 8.7 ± 0.9 lb-in (10 ± 1 kgf-cm) |
| 8 | Bottom Seal Plate | 5.2 ± 0.5 lb-in (6 ± 0.6 kgf-cm) |
| 9 | Quick Lock Base Holder | 8.7 ± 0.9 lb-in (10 ± 1 kgf-cm) |
| 10 | XLR Board | 8.7 ± 0.9 lb-in (10 ± 1 kgf-cm) |

TORQUE SETTINGS FOR SCREWS



CAUTION! DO NOT OVER TORQUE SCREWS AS THIS CAN CAUSE LEAKAGE ISSUES! TO CONFIRM THE IP65 INTEGRITY, TEST THE FIXTURE USING THE IP TESTER FOLLOWING ANY INSTANCE IN WHICH THE FIXTURE CASE IS OPENED OR REMOVED. 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 PRESSURE TESTING PARAMETERS | | | |
|--------------------------------|---------------------------|--------------------------|------------------|
| Test Type | Minimum Pressure | Maximum Pressure | Steady/Hold Time |
| Vacuum Test | -4.35 psi (-30.00 KPa) | 5.08 psi (-35.00 KPa) | 10 sec |
| Pressure Test | 3.62 psi (25.00 KPa) | 4.35 psi (30.00 KPa) | 10 sec |

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 |
|----------|-----------|-----------------|----------------|
| 0x61F | Open | 1567 | Open |

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.

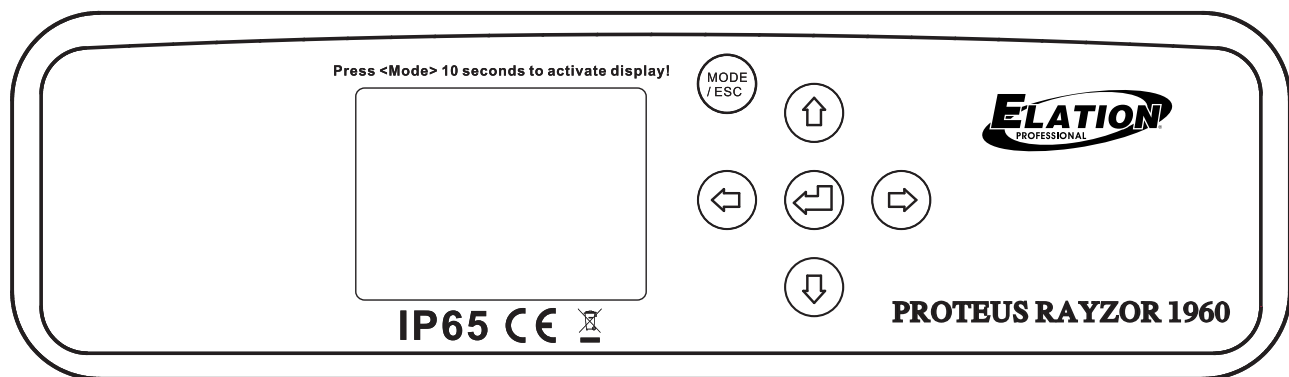
The following parameters are accessible in RDM on this device:

| |
|-----------------------------|
| Sensor Definition |
| Sensor Value |
| Device Model Description |
| Manufacturer Label |
| Device Label |
| DMX Personality |
| DMX Personality Description |
| Device Hours |
| Pan Invert |
| Tilt Invert |
| Display Invert |

CONTROL PANEL

This fixture features an easy to navigate system menu. The control panel located on the front of the fixture (see image below) provides access to the main system menu and is where all necessary system adjustments are made to the fixture. During normal operation, pressing the MODE/ESC 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, DOWN, RIGHT, and LEFT buttons. Once you reach a field that requires adjusting, press the ENTER button to select that field and use the UP and DOWN buttons to adjust the setting options for that 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/ESC button.

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.



BATTERY

This unit features a dedicated battery that can be used to power the screen display. This allows the user to configure the device's channel mode, DMX address, or any other screen-accessible features without needing to power on the device or even connect it to a power source. To activate the display on battery power, press and hold the MODE button for 3 seconds.

SYSTEM MENU

| ELATION PROTEUS RAYZOR 1960 SYSTEM MENU | | | | | |
|---|----------------------|---|------------------|--|--|
| Supports Software Versions: 2.0.0 | | | | | |
| 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 | |
| FUNCTION | Set DMX Address | A001 - Axxx | | | |
| | DMX Value | ALL... | | Displays DMX value | |
| | Secondary Mode | Secondary1 | | | |
| | | Secondary2 | | | |
| | | Secondary3 | | | |
| | Auto Program | Primary | | Auto Program | |
| Alone | | | | | |
| INFORMATION | Time Information | Current Time | xxxx hours | Power On Running Time | |
| | | Total Run Time | xxxx hours | Fixture running time | |
| | | Last Run Time | xxxx hours | Run time since last reset | |
| | | Clear Last Run Password = 038 | On / Off | Clear last run time | |
| | Temperature Info | LED Temperature | xxx °C / °F | | |
| | | Head Temperature | xxx °C / °F | | |
| | | Base Temperature | xxx °C / °F | | |
| | Humidity Info | Head Humidity | xxx % | | |
| | | Base Humidity | xxx % | | |
| | Ethernet IP | Ethernet IP xxx. xxx. xxx. xxx xxx. xxx. xxx. xxx | | | |
| | Fan Info | Head Fan 1 | xxxx RPM | | |
| | | ... | ... | | |
| | Software Info | Vx.x.x | | | |
| | Error Info | Error Record 1 | Pan... | | |
| | | ... | | | |
| Error Record 10 | | Pan... | | | |
| PERSONALITY | Status Settings | Address via DMX | On / Off | | |
| | | No DMX Status | SunProt | Select operation mode when DMX signal is lost or interrupted | |
| | | | Close | | |
| | | | Hold | | |
| | | | Auto | | |
| | | Pan Reverse | On / Off | | |
| | | Tilt Reserve | On / Off | | |
| | | Pan Degree | 360 / 540 | | |
| | | Tilt Degree | 360 / 270 | | |
| Pan Tilt Path | Shortest Path | | | | |
| | Continue Path | | | | |

CONTINUED ON NEXT PAGE

SYSTEM MENU

| ELATION PROTEUS RAYZOR 1960 SYSTEM MENU | | | | |
|--|--------------------------------|-------------------------|-----------------------------|--|
| MAIN MENU | SUB MENU | OPTIONS / VALUES | | DESCRIPTION |
| PERSONALITY (continued) | Status Settings (continued) | Zoom Speed | Fast / Normal | |
| | | Feedback | On / Off | Movement Feedback |
| | | Hibernation | Off, 01min - 99min | Default = 15min |
| | Service Setting | Password = 050 | | |
| | | Clear Err Info | On / Off | Clear Error Info |
| | Fans Control | Auto | | |
| | | High | | |
| | | Silent | | |
| | | Studio | | |
| | | Mute | | |
| | Display Setting | Shutoff Time | 02min - 60min | Default = 05min |
| | | Display Reverse | Off | Normal orientation |
| | | | On | Inverted orientation |
| | | | Auto | Automatically switch orientation to keep display upright |
| | Key Lock | On / Off | | |
| | Temperature C/F | Celsius / Fahren | | |
| | Initial Status | Pan = xxx ... | | Initial effect position |
| | Select Signal | DMX Only | | |
| | | Art-Net | | |
| | | sACN | | |
| | Klingnet | On / Off | | |
| | Ethernet IP | xxx. xxx. xxx. xxx | | |
| | Ether Mask IP | xxx. xxx. xxx. xxx | | |
| | Set Universe | 000 - 32767 | | Set Art-Net universe |
| | DHCP | On / Off | | Auto assign IP address |
| | Dimmer Mode | Standard | | |
| | | Stage | | |
| | | TV | | |
| | | Architectural | | |
| | | Theatre | | |
| | | Stage2 | | |
| | | Delay | 0s, 0.1s...10s | |
| Refresh | 900Hz - 25KHz | | Default = 1200Hz | |
| Dimmer Curve | Linear | | | |
| | Square | | | |
| | Inverse Square | | | |
| | S-Curve | | | |
| Reset Def | On | Passcode = 050 | Restore to factory settings | |
| | Off | | | |

CONTINUED ON NEXT PAGE

SYSTEM MENU

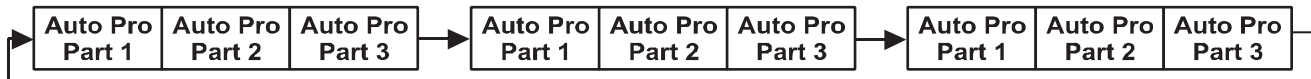
| ELATION PROTEUS RAYZOR 1960 SYSTEM MENU | | | | | |
|--|------------------|------------------------------------|---------------------------|------------------------------|--|
| MAIN MENU | SUB MENU | OPTIONS / VALUES | | DESCRIPTION | |
| RESET FUNCTION | Reset All | | | | |
| | Reset Pan & Tilt | | | | |
| | Reset Others | | | | |
| EFFECT ADJUST | Test Channel | Pan... | | | |
| | Manual Control | Pan = xxx ... | | Use for fine adjustment | |
| | Calibration | Passcode = 050 Pan = xxx ... | | Calibrate and adjust effects | |
| USER MODE SET | User Mode | Standard | | | |
| | | Pixels | | | |
| | | Extended | | | |
| EDIT PROGRAM | Select Program | Auto Pro Part 1 = Program 1 - 10 | | Default = Program 1 | |
| | | Auto Pro Part 2 = Program 1 - 10 | | Default = Program 1 | |
| | | Auto Pro Part 3 = Program 1 - 10 | | Default = Program 1 | |
| | Edit Program | Prog 1 : Prog 10 | Prog Test | | Testing Program |
| | | | Step 01 = SCxxx | | Program In Loop |
| | | | Step 64 = SCxxx | | Save and Exit |
| | Edit Scenes | Scene 001 - Scene 250 | Pan, Tilt,.... | | Save and automatically return to manual scenes edit |
| | | | -- Fade Time -- | | |
| | | | -- Scene Time -- | | |
| | | | Input by Out | | |
| Rec. Controller | xx ~ xx | | Automatic scenes recorder | | |

RECORD CONTROLLER

The fixture features an integrated DMX recorder that can be used to transmit the programmed scenes from your DMX controller to the moving head. Adjust the desired scene numbers via the encoder (from – to). When you call up the scenes with your controller, they will automatically be transmitted to the moving head.

WORKING WITH BUILT-IN PROGRAMS

A Primary unit can send up to 3 different data groups to the Secondary units. In other words, a Primary unit can operate up to 3 different Secondary units, with each Secondary unit operating a different set of programs. The Primary unit sends the 3 program parts in a continuous loop.



The Secondary unit receives data from the Primary unit according to the group that the Secondary unit was assigned to. For example, suppose we have a unit that has been assigned as a “Secondary 1” unit. Upon receiving the 3-part Auto Program from the Primary unit, the Secondary 1 unit will implement Part 1 of the Auto Program, while ignoring Part 2 and Part 3.

To start running an Auto Program, follow the directions below:

- 1. Set the Secondary unit(s) to the desired Secondary group.** In the main menu of any unit that you want to set as a Secondary, navigate to Function > Secondary Mode. Select “Secondary 1”, “Secondary 2”, or “Secondary 3” to designate the desired Secondary group. Press ENTER to confirm, and press MODE/ESC to return to the main menu,
- 2. Set the Primary unit.** In the Main Menu of the unit you want to set as the Primary, navigate to Function > Auto Program. Select “Primary” and press ENTER to confirm. Then press MODE/ESC to return to the main menu.
- 3. Program selection for each part of the Auto Program.** In the main menu of the Primary unit, navigate to Edit Program > Select Programs. Select “Auto Pro Part 1”, then select which program (1 - 10) to set as Part 1. Press ENTER to confirm. Repeat the process for “Auto Pro Part 2” and “Auto Pro Part 3”.
- 4. Program selection for edit program.** In the main menu of the Primary unit, navigate to Edit Program > Edit Program, then press ENTER. Select the desired program to edit specific scenes into a specific program, then press ENTER to confirm.
- 5. Automatic Scene Recording.** In the main menu of the Primary unit, navigate to Edit Program > Edit Scenes, then press ENTER. Select the desired scene numbers, noting that a maximum of 250 scenes can be programmed. Press ENTER to confirm.

See the following page for an example.

RECORD CONTROLLER

EXAMPLE: WORKING WITH BUILT-IN PROGRAMS

Program 2 includes scenes: 10, 11, 12, & 13

Program 4 includes scenes: 8, 9, & 10

Program 6 includes scenes: 12, 13, 14, & 15

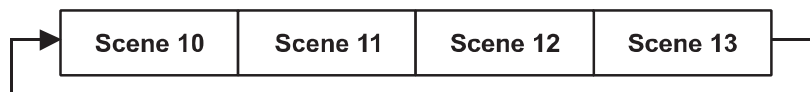
Auto Pro Part 1 is Program 2

Auto Pro Part 2 is Program 3

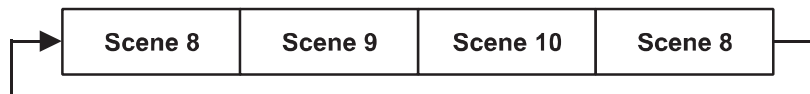
Auto Pro Part 3 is Program 6

The 3 Secondary groups run the Auto Program in certain time segments, as illustrated in the diagram below.

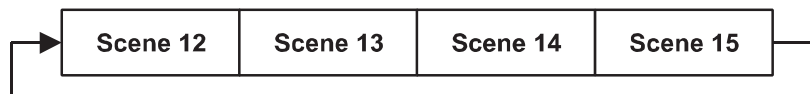
Part 1:



Part 2:



Part 3:



FAN CONTROL AND LOW NOISE OPERATION

The Proteus Rayzor 1960 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.

Silent – Fan speeds are reduced throughout the fixture for a lower noise profile. The fixture output is also reduced to approximately 80%. This mode should be sufficient for most uses where lower noise is required.

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 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. In Low Noise Modes, all parameters of the fixture operate more quietly with reduced fan speeds.

Studio – Almost all fixture fans are turned off, and only run when absolutely necessary. The fixture LED power output is reduced to 50%.

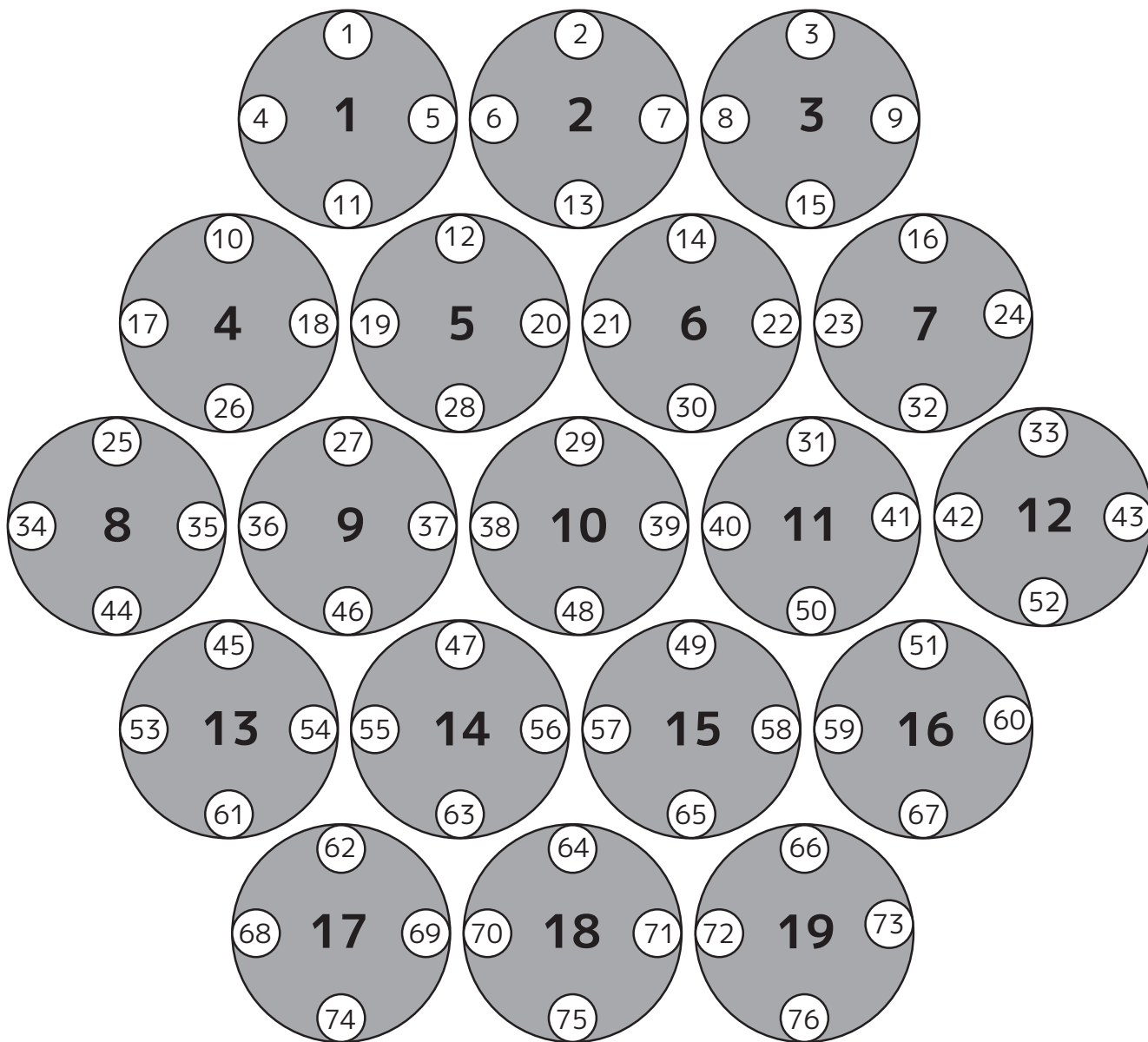
Mute – All but one fixture fan is turned off for whisper-quiet operation. The fixture LED power output is reduced to 25%.

LIGHTING CONSOLE PATCHING GUIDELINES

The PROTEUS RAYZOR 1960 is a versatile luminaire which combines two fixtures into one housing, allowing it to produce multiple unique lighting effects typically not found in a single lighting fixture. The DMX layout is designed to offer a variety of options for controlling each fixture efficiently.

The main fixture contains 19 x 60W RGBW pixel cells, while the SparkLED fixture contains 76 x 2W white LEDs. For ease of use the DMX layout is arranged to allow lighting consoles to separate the fixture into multiple segments or parts. It is especially important to arrange the fixture in such segments or parts when using the fixture in the full extended 176 channel DMX mode. For simpler programming, reduced DMX channel modes can be used. However, for easy recall of interesting pixel animations, both the RGBW and SparkLED fixtures contain two FX systems: one which controls the RGBW cells, and a second that is dedicated to the SparkLEDs.

The pixels are arranged in a grid pattern as illustrated below. (RGBW 1-19 | SparkLED 1-76)



LIGHTING CONSOLE PATCHING GUIDELINES

| CATEGORY | GROUP | PIXELS |
|--------------------|----------|---|
| RGBW Pixel Columns | Column 1 | 8 |
| | Column 2 | 4, 13 |
| | Column 3 | 1, 9, 17 |
| | Column 4 | 5, 14 |
| | Column 5 | 2, 10, 18 |
| | Column 6 | 6, 15 |
| | Column 7 | 3, 11, 19 |
| | Column 8 | 7, 16 |
| | Column 9 | 12 |
| RGBW Pixel Rows | Row 1 | 1 - 3 |
| | Row 2 | 4 - 7 |
| | Row 3 | 8 - 12 |
| | Row 4 | 13 - 16 |
| | Row 5 | 17 - 19 |
| RGBW Pixel Rings | Ring 1 | 1, 2, 3, 7, 12, 16, 19, 18, 17, 13, 8, 4 |
| | Ring 2 | 5, 6, 11, 15, 14, 9 |
| | Ring 3 | 10 |
| Spark LED Rows | Row 1 | 1 - 3 |
| | Row 2 | 4 - 9 |
| | Row 3 | 10 - 16 |
| | Row 4 | 17 - 24 |
| | Row 5 | 25 - 33 |
| | Row 6 | 34 - 43 |
| | Row 7 | 44 - 52 |
| | Row 8 | 53 - 60 |
| | Row 9 | 61 - 67 |
| | Row 10 | 68 - 73 |
| | Row 11 | 74 - 76 |
| Spark LED Rings | Ring 1 | 1, 2, 3, 9, 16, 24, 33, 43, 52, 60, 67, 73, 76, 75, 74, 68, 61, 53, 44, 34, 25, 17, 10, 4 |
| | Ring 2 | 5, 6, 7, 8, 15, 23, 32, 41+42, 51, 59, 66, 72, 71, 69, 70, 62, 54, 45, 35+36, 26, 18, 11 |
| | Ring 3 | 13, 14, 22, 31, 50, 58, 65, 64, 63, 55, 46, 27, 19, 12 |
| | Ring 4 | 20, 21, 3, 40, 49, 57, 56, 47, 37, 28, 20 |
| | Ring 5 | 29, 39, 48, 38 |

LIGHTING CONSOLE PATCHING GUIDELINES

There are also two additional parts for a primary control of the PROTEUS RAYZOR 1960, which creates four separate control areas for the fixture. It is recommended to create fixture groups on the lighting controller for each area of the fixture. (see below)

| | |
|------------------------|--|
| Main Fixture | Primary Pan, Tilt, RGBW Color, Strobe, Dimmer, Zoom, FX Controls |
| RGBW Cells 1-19 | Red, Green, Blue, White per each individual cell |
| Spark LED Main | Primary Spark LED Strobe, Dimmer |
| Spark LEDs 1-76 | Spark LED Dimmer per each individual LED |

SparkLED is not available as a mode in the fixture menu but must be provided as a console control profile for easy programming of the fixture. Use the PROTEUS RAYZOR 1960 in Extended mode and patch appropriate parts of the RGBW Pixels and SparkLED fixtures on your control system to access all 176 channels.

On the lighting controller, patch the two fixture types (RGBW and SparkLED), separating the SparkLEDs into a different ID range. (see below)

RGBW Pixels for Channels 1-98

SparkLEDs for Channels 99-176

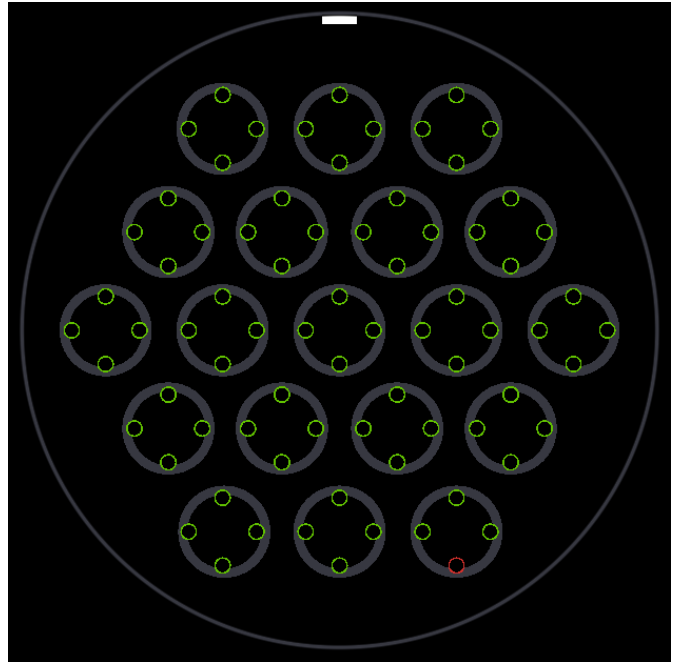
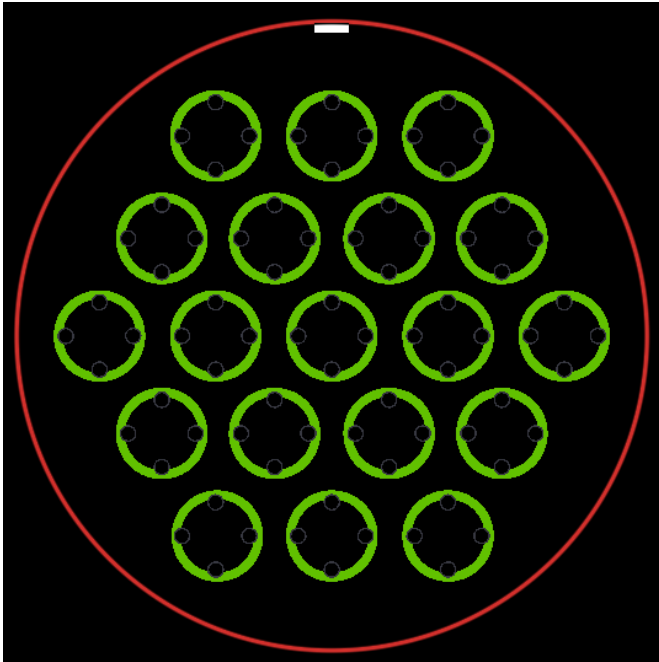
ONYX Main and Sub Fixture ID patch example below for a single PROTEUS RAYZOR 1960 fixture.

| ID | TYPE | ADDRESS |
|------|------------------|---------|
| 1.0 | RGBW Pixels Main | 1 |
| 1.1 | Pixel 1 | 22 |
| 1.2 | Pixel 2 | 26 |
| 1.3 | Pixel 3 | 30 |
| 1.4 | Pixel 4 | 34 |
| 1.5 | Pixel 5 | 38 |
| ... | ... | ... |
| 1.19 | Pixel 19 | 94 |
| 1.20 | Spark LED Main | 98 |

| | | |
|--------|--------------|-----|
| 101.1 | Spark LED 1 | 101 |
| 101.2 | Spark LED 2 | 102 |
| 101.3 | Spark LED 3 | 103 |
| 101.4 | Spark LED 4 | 104 |
| ... | ... | ... |
| 101.76 | Spark LED 76 | 176 |

LIGHTING CONSOLE PATCHING GUIDELINES

ONLYX screen shots below illustrate Main and Sub Fixture ID patch for a single PROTEUS RAYZOR 1960 fixture.



← Back

Tasks

- Patch
- Cloning
- Swap
- RDM
- Import

| ID | Name | Type | Universe | Address | Invert |
|------|------|---|----------|---------|--------|
| 1 | | Proteus Rayzor 1960 - Primary Pixels (Main) | 1 | 1 | |
| 1.1 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 1) | Auto | Auto | |
| 1.2 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 2) | Auto | Auto | |
| 1.3 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 3) | Auto | Auto | |
| 1.4 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 4) | Auto | Auto | |
| 1.5 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 5) | Auto | Auto | |
| 1.6 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 6) | Auto | Auto | |
| 1.7 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 7) | Auto | Auto | |
| 1.8 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 8) | Auto | Auto | |
| 1.9 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 9) | Auto | Auto | |
| 1.10 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 10) | Auto | Auto | |
| 1.11 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 11) | Auto | Auto | |
| 1.12 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 12) | Auto | Auto | |
| 1.13 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 13) | Auto | Auto | |
| 1.14 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 14) | Auto | Auto | |
| 1.15 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 15) | Auto | Auto | |
| 1.16 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 16) | Auto | Auto | |
| 1.17 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 17) | Auto | Auto | |
| 1.18 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 18) | Auto | Auto | |
| 1.19 | | Proteus Rayzor 1960 - Primary Pixels (RGBW 19) | Auto | Auto | |
| 1.20 | | Proteus Rayzor 1960 - Primary Pixels (SparkLED) | Auto | Auto | |

| ID | Name | Type | Universe | Address | Invert |
|--------|------|--|----------|---------|--------|
| 101 | | Proteus Rayzor 1960 - SparkLED | 1 | 101 | |
| 101.1 | | Proteus Rayzor 1960 - SparkLED (SparkLED 1) | Auto | Auto | |
| 101.2 | | Proteus Rayzor 1960 - SparkLED (SparkLED 2) | Auto | Auto | |
| 101.3 | | Proteus Rayzor 1960 - SparkLED (SparkLED 3) | Auto | Auto | |
| 101.4 | | Proteus Rayzor 1960 - SparkLED (SparkLED 4) | Auto | Auto | |
| 101.5 | | Proteus Rayzor 1960 - SparkLED (SparkLED 5) | Auto | Auto | |
| 101.6 | | Proteus Rayzor 1960 - SparkLED (SparkLED 6) | Auto | Auto | |
| 101.7 | | Proteus Rayzor 1960 - SparkLED (SparkLED 7) | Auto | Auto | |
| 101.8 | | Proteus Rayzor 1960 - SparkLED (SparkLED 8) | Auto | Auto | |
| 101.9 | | Proteus Rayzor 1960 - SparkLED (SparkLED 9) | Auto | Auto | |
| 101.10 | | Proteus Rayzor 1960 - SparkLED (SparkLED 10) | Auto | Auto | |
| 101.11 | | Proteus Rayzor 1960 - SparkLED (SparkLED 11) | Auto | Auto | |
| 101.12 | | Proteus Rayzor 1960 - SparkLED (SparkLED 12) | Auto | Auto | |
| 101.13 | | Proteus Rayzor 1960 - SparkLED (SparkLED 13) | Auto | Auto | |
| 101.14 | | Proteus Rayzor 1960 - SparkLED (SparkLED 14) | Auto | Auto | |
| 101.15 | | Proteus Rayzor 1960 - SparkLED (SparkLED 15) | Auto | Auto | |
| 101.16 | | Proteus Rayzor 1960 - SparkLED (SparkLED 16) | Auto | Auto | |

Actions

Commands

Choose Type

Universe 1

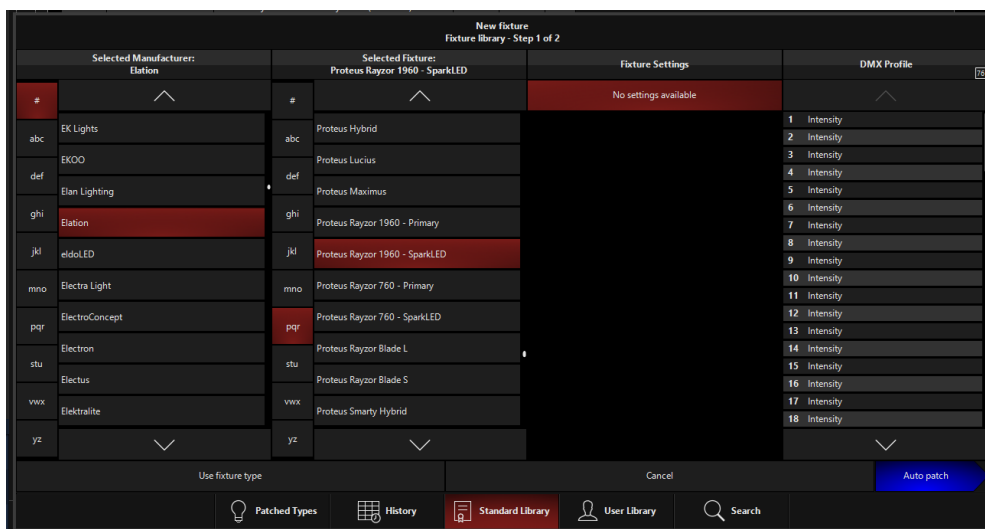
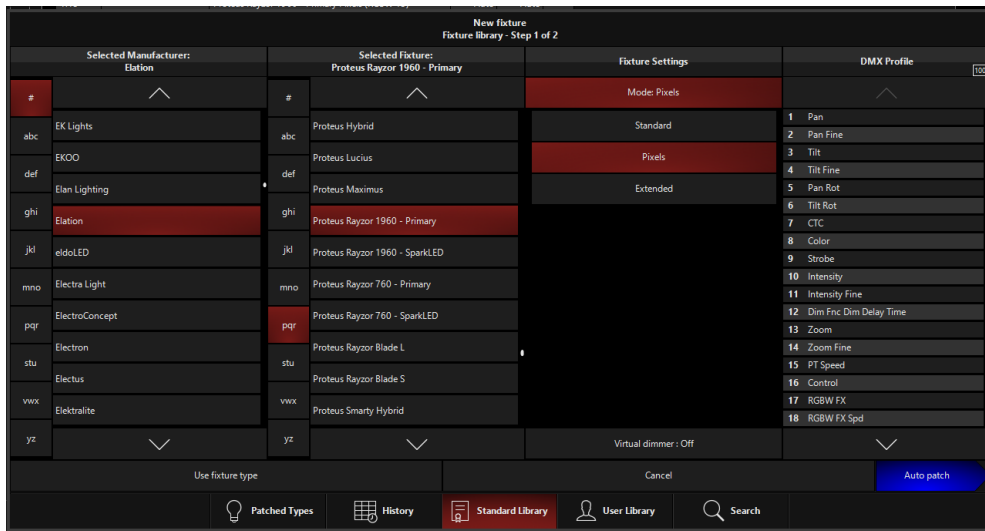
Fixtures

LIGHTING CONSOLE PATCHING GUIDELINES

ONYX groups example below for easier selection of a single PROTEUS RAYZOR 1960 fixture.

| Group Name | Group Content |
|----------------------|--------------------------|
| All RGBW Pixels Main | 1 |
| All RGBW Pixels | 1.1, 1.2, ... 1.20 |
| All Spark LEDs Main | 1.20 |
| All Spark LEDs | 101.1, 101.2, ... 101.76 |

ONYX screen shots below illustrate both Primary (top) and SparkLED (bottom) Groups for a single PROTEUS RAYZOR 1960 fixture.



DMX TRAITS

| ELATION PROTEUS RAYZOR 1960 DMX Channel Traits | | | | | | |
|--|-----------|---|------------|---|-------------|---------------|
| Supports Software Versions: 2.0.0 | | | | | | |
| Features subject to change without notice. Rotation direction (clockwise/counter-clockwise) and control of effects depends on head orientation and pan/tilt settings. | | | | | | |
| CHANNEL | | | DMX VALUES | FUNCTION | FADE STATUS | DEFAULT VALUE |
| STANDARD | PIXELS | EXTENDED | | | | |
| 1 | 1 | 1 | 000 - 255 | Pan Movement | Fade | 127 |
| 2 | 2 | 2 | 000 - 255 | Pan Fine Movement | Fade | 127 |
| 3 | 3 | 3 | 000 - 255 | Tilt Movement | Fade | 127 |
| 4 | 4 | 4 | 000 - 255 | Tilt Fine Movement | Fade | 127 |
| 5 | 5 | 5 | | Pan Rotate | Fade | 0 |
| | | | 000 - 002 | Disabled | | |
| | | | 003 - 126 | Clockwise Rotation, fast to slow | | |
| | | | 127 - 129 | No Rotation (fixture stops at current position) | | |
| | | | 130 - 253 | Counter-Clockwise Rotation, slow to fast | | |
| | 254 - 255 | No Rotation (fixture stops at current position) | | | | |
| 6 | 6 | 6 | | Tilt Rotate | Fade | 0 |
| | | | 000 - 002 | Disabled | | |
| | | | 003 - 126 | Clockwise Rotation, fast to slow | | |
| | | | 127 - 129 | No Rotation (fixture stops at current position) | | |
| | | | 130 - 253 | Counter-Clockwise Rotation, slow to fast | | |
| | 254 - 255 | No Rotation (fixture stops at current position) | | | | |
| 7 | 7 | 7 | | CTC | Fade | 0 |
| | | | 000 - 010 | Disabled | | |
| | | | 011 - 171 | Color Temperature, 100K steps from 2000K to 10,000K (see CTC Table section of this manual) | | |
| | 172 - 255 | 10,000K | | | | |
| 8 | 8 | 8 | | Color Wheel | Snap | 0 |
| | | | 000 - 009 | Open | | |
| | | | 010 - 014 | Red | | |
| | | | 015 - 019 | Red Orange | | |
| | | | 020 - 024 | Light Amber | | |
| | | | 025 - 029 | Yellow Amber | | |
| | | | 030 - 034 | Greenish Yellow | | |
| | | | 035 - 039 | Light Yellow Green | | |
| | | | 040 - 044 | Dark Yellow Green | | |
| 045 - 049 | Green | | | | | |

CONTINUED ON NEXT PAGE

DMX TRAITS

| CHANNEL | | | DMX VALUES | FUNCTION | FADE STATUS | DEFAULT VALUE |
|-----------|---------------------|----------|------------|--|-------------|---------------|
| STANDARD | PIXELS | EXTENDED | | | | |
| 8 | 8 | 8 | | Color Wheel (continued) | Snap | 0 |
| | | | 050 - 054 | Teal | | |
| | | | 055 - 059 | Cyan | | |
| | | | 060 - 064 | Light Blue | | |
| | | | 065 - 069 | Aqua | | |
| | | | 070 - 074 | Dark Aqua | | |
| | | | 075 - 079 | Green Blue | | |
| | | | 080 - 084 | Light Lavender | | |
| | | | 085 - 089 | Dark Purple | | |
| | | | 090 - 094 | Medium Purple | | |
| | | | 095 - 099 | Mid Rose | | |
| | | | 100 - 104 | Mauve | | |
| | | | 105 - 109 | Nice Magenta | | |
| | | | 110 - 114 | Warm Magenta | | |
| | | | 115 - 119 | Light Red | | |
| | | | 120 - 124 | Straw | | |
| | | | 125 - 129 | Dark CTB | | |
| | | | 130 - 134 | Light Green | | |
| | | | 135 - 139 | Purple | | |
| | | | 140 - 144 | Lighter Purple | | |
| | | | 145 - 149 | Pink | | |
| | | | 150 - 154 | Rose | | |
| | | | 155 - 159 | White | | |
| | | | 164 - 174 | No Function | | |
| | | | 175 - 179 | Open | | |
| | | | | Color Scroll | | |
| | | | 180 - 201 | Clockwise Scroll, fast to slow | | |
| | | | 202 - 207 | Stop | | |
| | | | 208 - 229 | Counter-Clockwise Scroll, slow to fast | | |
| | | | 230 - 234 | Open | | |
| | Random Slots | | | | | |
| 235 - 239 | Fast | | | | | |
| 240 - 244 | Medium | | | | | |
| 245 - 249 | Slow | | | | | |
| 250 - 255 | Open | | | | | |

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DMX TRAITS

| CHANNEL | | | DMX VALUES | FUNCTION | FADE STATUS | DEFAULT VALUE |
|----------|-----------|--------------|------------|-----------------------------|-------------|---------------|
| STANDARD | PIXELS | EXTENDED | | | | |
| 9 | 9 | 9 | | Strobe | Snap | 50 |
| | | | 000 - 031 | Shutter Closed | | |
| | | | 032 - 063 | Shutter Open | | |
| | | | 064 - 095 | Strobe, slow to fast | | |
| | | | 096 - 127 | Fast Close, Slow Open | | |
| | | | 128 - 159 | Fast Open, Slow Close | | |
| | | | 160 - 191 | Pulse Effects | | |
| | | | 192 - 223 | Random Strobe, slow to fast | | |
| | 224 - 255 | Shutter Open | | | | |
| 10 | 10 | 10 | 000 - 255 | Dimmer , 0% to 100% | Fade | 0 |
| 11 | 11 | 11 | 000 - 255 | Dimmer Fine | Fade | 0 |
| 12 | 12 | 12 | | Dim Modes | Snap | 0 |
| | | | 000 - 020 | Standard | | |
| | | | 021 - 040 | Stage | | |
| | | | 041 - 060 | TV | | |
| | | | 061 - 080 | Architectural | | |
| | | | 081 - 100 | Theatre | | |
| | | | 101 - 120 | Stage 2 | | |
| | | | | Dimmer Delay Time | | |
| | | | 121 | 0s | | |
| | | | 122 | 0.1s | | |
| | | | 123 | 0.2s | | |
| | | | 124 | 0.3s | | |
| | | | 125 | 0.4s | | |
| | | | 126 | 0.5s | | |
| | | | 127 | 0.6s | | |
| | | | 128 | 0.7s | | |
| | | | 129 | 0.8s | | |
| | | | 130 | 0.9s | | |
| | | | 131 | 1.0s | | |
| | | | 132 | 1.5s | | |
| | | | 133 | 2.0s | | |
| | | | 134 | 3.0s | | |
| | | | 135 | 4.0s | | |
| | | | 136 | 5.0s | | |
| 137 | 6.0s | | | | | |
| 138 | 7.0s | | | | | |
| 139 | 8.0s | | | | | |
| 140 | 9.0s | | | | | |
| 141 | 10.0s | | | | | |
| | 142 - 255 | Idle | | | | |

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DMX TRAITS

| CHANNEL | | | DMX VALUES | FUNCTION | FADE STATUS | DEFAULT VALUE |
|----------|--------|----------|------------|----------------------------------|-------------|---------------|
| STANDARD | PIXELS | EXTENDED | | | | |
| 13 | 13 | 13 | | Zoom | Fade | 0 |
| | | | 000 - 245 | Zoom, wide to narrow | | |
| | | | 246 - 255 | Overdrive, minimum to maximum | | |
| | 14 | 14 | 000 - 255 | Zoom Fine | Fade | 0 |
| | 15 | 15 | | Pan/Tilt Speed | Snap | 0 |
| | | | 000 - 225 | Speed, maximum to minimum | | |
| | | | 226 - 235 | Blackout when pan/tilt moves | | |
| | | | 236 - 245 | Blackout when all wheels change | | |
| | | | 246 - 255 | No function | | |
| 14 | 16 | 16 | | Control | Snap | 0 |
| | | | 000 - 010 | Idle | | |
| | | | 011 - 012 | Pan/Tilt Shortest Path | | |
| | | | 013 - 014 | Pan/Tilt Continue Path (default) | | |
| | | | 015 - 016 | Pan Range 540 (default) | | |
| | | | 017 - 018 | Pan Range 360 | | |
| | | | 019 - 020 | Tilt Range 270 (default) | | |
| | | | 021 - 022 | Tilt Range 360 | | |
| | | | 023 - 039 | Idle | | |
| | | | 040 - 044 | Fan Mode Mute | | |
| | | | 045 - 049 | Fan Mode Studio | | |
| | | | 050 - 059 | Fan Mode Silent | | |
| | | | 060 - 069 | Fan Mode High | | |
| | | | 070 - 079 | Fan Mode Auto (default) | | |
| | | | 080 - 084 | Reset All | | |
| | | | 085 - 087 | Reset Movement | | |
| | | | 088 - 091 | Reset Zoom | | |
| | | | 092 - 099 | Idle | | |
| | | | | Refresh Rate (Hz) | | |
| | | | 100 | 900 | | |
| | | | 101 | 910 | | |
| | | | 102 | 920 | | |
| | | | 103 | 930 | | |
| | | | 104 | 940 | | |
| | | | 105 | 950 | | |
| 106 | 960 | | | | | |
| 107 | 970 | | | | | |
| 108 | 980 | | | | | |
| 109 | 990 | | | | | |
| 110 | 1000 | | | | | |
| 111 | 1010 | | | | | |
| 112 | 1020 | | | | | |

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DMX TRAITS

| CHANNEL | | | DMX VALUES | FUNCTION | FADE STATUS | DEFAULT VALUE |
|----------|--------|----------|------------|--------------------------|-------------|---------------|
| STANDARD | PIXELS | EXTENDED | | | | |
| 14 | 16 | 16 | | Refresh (Hz) (continued) | Snap | 0 |
| | | | 113 | 1030 | | |
| | | | 114 | 1040 | | |
| | | | 115 | 1050 | | |
| | | | 116 | 1060 | | |
| | | | 117 | 1070 | | |
| | | | 118 | 1080 | | |
| | | | 119 | 1090 | | |
| | | | 120 | 1100 | | |
| | | | 121 | 1110 | | |
| | | | 122 | 1120 | | |
| | | | 123 | 1130 | | |
| | | | 124 | 1140 | | |
| | | | 125 | 1150 | | |
| | | | 126 | 1160 | | |
| | | | 127 | 1170 | | |
| | | | 128 | 1180 | | |
| | | | 129 | 1190 | | |
| | | | 130 | 1200 | | |
| | | | 131 | 1210 | | |
| | | | 132 | 1220 | | |
| | | | 133 | 1230 | | |
| | | | 134 | 1240 | | |
| | | | 135 | 1250 | | |
| | | | 136 | 1260 | | |
| | | | 137 | 1270 | | |
| | | | 138 | 1280 | | |
| | | | 139 | 1290 | | |
| | | | 140 | 1300 | | |
| | | | 141 | 1310 | | |
| | | | 142 | 1320 | | |
| | | | 143 | 1330 | | |
| | | | 144 | 1340 | | |
| 145 | 1350 | | | | | |
| 146 | 1360 | | | | | |
| 147 | 1370 | | | | | |
| 148 | 1380 | | | | | |
| 149 | 1390 | | | | | |
| 150 | 1400 | | | | | |
| 151 | 1410 | | | | | |
| 152 | 1420 | | | | | |

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DMX TRAITS

| CHANNEL | | | DMX VALUES | FUNCTION | FADE STATUS | DEFAULT VALUE |
|-----------|-----------------------------|----------|------------|--|-------------|---------------|
| STANDARD | PIXELS | EXTENDED | | | | |
| 14 | 16 | 16 | | Refresh (Hz) (continued) | Snap | 0 |
| | | | 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 | | |
| | | | 169 - 192 | Idle | | |
| | | | 193 - 194 | Hibernate Off | | |
| | | | 195 - 196 | Hibernate On | | |
| | | | 197 - 198 | Sun Protection On | | |
| | | | 199 - 200 | Sun Protection Off | | |
| | | | 201 - 210 | Dimmer Curve Linear (default) | | |
| | | | 211 - 220 | Dimmer Curve Square | | |
| | | | 221 - 230 | Dimmer Curve Inverse Square | | |
| | | | 231 - 240 | Dimmer Curve S-Curve | | |
| 241 - 242 | Zoom Speed - Slow | | | | | |
| 243 - 244 | Zoom Speed - Fast (default) | | | | | |
| 245 - 249 | Idle | | | | | |
| 250 - 251 | Display Off | | | | | |
| 252 - 253 | Display On | | | | | |
| 254 - 255 | Idle | | | | | |
| 15 | 17 | 17 | 000 - 255 | RGBW FX (see RGBW Pixel FX Table section of this manual) | Snap | 0 |
| 16 | 18 | 18 | | RGBW FX Speed | Fade | 160 |
| | | | 000 - 126 | Reverse, fast to slow | | |
| | | | 127 - 128 | Stop | | |
| | | | 129 - 255 | Forward, slow to fast | | |
| 17 | 19 | 19 | 000 - 255 | Spark LED FX (see Spark LED FX Table section of this manual) | Snap | 0 |

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DMX TRAITS

| CHANNEL | | | DMX VALUES | FUNCTION | FADE STATUS | DEFAULT VALUE |
|----------|--------|----------|------------|---|-------------|---------------|
| STANDARD | PIXELS | EXTENDED | | | | |
| 18 | 20 | 20 | | Spark LED FX Speed | Fade | 160 |
| | | | 000 - 126 | Reverse, fast to slow | | |
| | | | 127 - 128 | Stop | | |
| | | | 129 - 255 | Forward, slow to fast | | |
| 19 | 21 | 21 | | FX Offset | Snap | 0 |
| | | | 000 | Idle | | |
| | | | 001 - 035 | Fixture Offset, 10 degrees to 350 degrees | | |
| | | | 036 | Synchronized | | |
| | | | 037 - 100 | No Function | | |
| | | | 101 - 120 | Random Fixture Offset | | |
| | | | 121 - 140 | Random Pixel Order | | |
| | | | 141 - 255 | Random Steps | | |
| 20 | 22 | 22 | 000 - 255 | Red , 0% to 100% | Fade | 255 |
| 21 | 23 | 23 | 000 - 255 | Green , 0% to 100% | Fade | 255 |
| 22 | 24 | 24 | 000 - 255 | Blue , 0% to 100% | Fade | 255 |
| 23 | 25 | 25 | 000 - 255 | White , 0% to 100% | Fade | 255 |
| | 26 | 26 | 000 - 255 | Red 2 , 0% to 100% | Fade | 255 |
| | 27 | 27 | 000 - 255 | Green 2 , 0% to 100% | Fade | 255 |
| | 28 | 28 | 000 - 255 | Blue 2 , 0% to 100% | Fade | 255 |
| | 29 | 29 | 000 - 255 | White 2 , 0% to 100% | Fade | 255 |
| | 30 | 30 | 000 - 255 | Red 3 , 0% to 100% | Fade | 255 |
| | 31 | 31 | 000 - 255 | Green 3 , 0% to 100% | Fade | 255 |
| | 32 | 32 | 000 - 255 | Blue 3 , 0% to 100% | Fade | 255 |
| | 33 | 33 | 000 - 255 | White 3 , 0% to 100% | Fade | 255 |
| | 34 | 34 | 000 - 255 | Red 4 , 0% to 100% | Fade | 255 |
| | 35 | 35 | 000 - 255 | Green 4 , 0% to 100% | Fade | 255 |
| | 36 | 36 | 000 - 255 | Blue 4 , 0% to 100% | Fade | 255 |
| | 37 | 37 | 000 - 255 | White 4 , 0% to 100% | Fade | 255 |
| | 38 | 38 | 000 - 255 | Red 5 , 0% to 100% | Fade | 255 |
| | 39 | 39 | 000 - 255 | Green 5 , 0% to 100% | Fade | 255 |
| | 40 | 40 | 000 - 255 | Blue 5 , 0% to 100% | Fade | 255 |
| | 41 | 41 | 000 - 255 | White 5 , 0% to 100% | Fade | 255 |
| | 42 | 42 | 000 - 255 | Red 6 , 0% to 100% | Fade | 255 |
| | 43 | 43 | 000 - 255 | Green 6 , 0% to 100% | Fade | 255 |
| | 44 | 44 | 000 - 255 | Blue 6 , 0% to 100% | Fade | 255 |
| | 45 | 45 | 000 - 255 | White 6 , 0% to 100% | Fade | 255 |
| | 46 | 46 | 000 - 255 | Red 7 , 0% to 100% | Fade | 255 |
| | 47 | 47 | 000 - 255 | Green 7 , 0% to 100% | Fade | 255 |
| | 48 | 48 | 000 - 255 | Blue 7 , 0% to 100% | Fade | 255 |
| | 49 | 49 | 000 - 255 | White 7 , 0% to 100% | Fade | 255 |

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DMX TRAITS

| CHANNEL | | | DMX VALUES | FUNCTION | FADE STATUS | DEFAULT VALUE |
|----------|--------|----------|------------|------------------------------|-------------|---------------|
| STANDARD | PIXELS | EXTENDED | | | | |
| | 50 | 50 | 000 - 255 | Red 8 , 0% to 100% | Fade | 255 |
| | 51 | 51 | 000 - 255 | Green 8 , 0% to 100% | Fade | 255 |
| | 52 | 52 | 000 - 255 | Blue 8 , 0% to 100% | Fade | 255 |
| | 53 | 53 | 000 - 255 | White 8 , 0% to 100% | Fade | 255 |
| | 54 | 54 | 000 - 255 | Red 9 , 0% to 100% | Fade | 255 |
| | 55 | 55 | 000 - 255 | Green 9 , 0% to 100% | Fade | 255 |
| | 56 | 56 | 000 - 255 | Blue 9 , 0% to 100% | Fade | 255 |
| | 57 | 57 | 000 - 255 | White 9 , 0% to 100% | Fade | 255 |
| | 58 | 58 | 000 - 255 | Red 10 , 0% to 100% | Fade | 255 |
| | 59 | 59 | 000 - 255 | Green 10 , 0% to 100% | Fade | 255 |
| | 60 | 60 | 000 - 255 | Blue 10 , 0% to 100% | Fade | 255 |
| | 61 | 61 | 000 - 255 | White 10 , 0% to 100% | Fade | 255 |
| | 62 | 62 | 000 - 255 | Red 11 , 0% to 100% | Fade | 255 |
| | 63 | 63 | 000 - 255 | Green 11 , 0% to 100% | Fade | 255 |
| | 64 | 64 | 000 - 255 | Blue 11 , 0% to 100% | Fade | 255 |
| | 65 | 65 | 000 - 255 | White 11 , 0% to 100% | Fade | 255 |
| | 66 | 66 | 000 - 255 | Red 12 , 0% to 100% | Fade | 255 |
| | 67 | 67 | 000 - 255 | Green 12 , 0% to 100% | Fade | 255 |
| | 68 | 68 | 000 - 255 | Blue 12 , 0% to 100% | Fade | 255 |
| | 69 | 69 | 000 - 255 | White 12 , 0% to 100% | Fade | 255 |
| | 70 | 70 | 000 - 255 | Red 13 , 0% to 100% | Fade | 255 |
| | 71 | 71 | 000 - 255 | Green 13 , 0% to 100% | Fade | 255 |
| | 72 | 72 | 000 - 255 | Blue 13 , 0% to 100% | Fade | 255 |
| | 73 | 73 | 000 - 255 | White 13 , 0% to 100% | Fade | 255 |
| | 74 | 74 | 000 - 255 | Red 14 , 0% to 100% | Fade | 255 |
| | 75 | 75 | 000 - 255 | Green 14 , 0% to 100% | Fade | 255 |
| | 76 | 76 | 000 - 255 | Blue 14 , 0% to 100% | Fade | 255 |
| | 77 | 77 | 000 - 255 | White 14 , 0% to 100% | Fade | 255 |
| | 78 | 78 | 000 - 255 | Red 15 , 0% to 100% | Fade | 255 |
| | 79 | 79 | 000 - 255 | Green 15 , 0% to 100% | Fade | 255 |
| | 80 | 80 | 000 - 255 | Blue 15 , 0% to 100% | Fade | 255 |
| | 81 | 81 | 000 - 255 | White 15 , 0% to 100% | Fade | 255 |
| | 82 | 82 | 000 - 255 | Red 16 , 0% to 100% | Fade | 255 |
| | 83 | 83 | 000 - 255 | Green 16 , 0% to 100% | Fade | 255 |
| | 84 | 84 | 000 - 255 | Blue 16 , 0% to 100% | Fade | 255 |
| | 85 | 85 | 000 - 255 | White 16 , 0% to 100% | Fade | 255 |
| | 86 | 86 | 000 - 255 | Red 17 , 0% to 100% | Fade | 255 |
| | 87 | 87 | 000 - 255 | Green 17 , 0% to 100% | Fade | 255 |
| | 88 | 88 | 000 - 255 | Blue 17 , 0% to 100% | Fade | 255 |
| | 89 | 89 | 000 - 255 | White 17 , 0% to 100% | Fade | 255 |
| | 90 | 90 | 000 - 255 | Red 18 , 0% to 100% | Fade | 255 |

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DMX TRAITS

| CHANNEL | | | DMX VALUES | FUNCTION | FADE STATUS | DEFAULT VALUE |
|----------|-------------------------------|----------|------------|---|-------------|---------------|
| STANDARD | PIXELS | EXTENDED | | | | |
| | 91 | 91 | 000 - 255 | Green 18 , 0% to 100% | Fade | 255 |
| | 92 | 92 | 000 - 255 | Blue 18 , 0% to 100% | Fade | 255 |
| | 93 | 93 | 000 - 255 | White 18 , 0% to 100% | Fade | 255 |
| | 94 | 94 | 000 - 255 | Red 19 , 0% to 100% | Fade | 255 |
| | 95 | 95 | 000 - 255 | Green 19 , 0% to 100% | Fade | 255 |
| | 96 | 96 | 000 - 255 | Blue 19 , 0% to 100% | Fade | 255 |
| | 97 | 97 | 000 - 255 | White 19 , 0% to 100% | Fade | 255 |
| 24 | 98 | 98 | | Spark LED Strobe | Snap | 50 |
| | | | 000 - 031 | Shutter Closed | | |
| | | | 032 - 063 | Shutter Open | | |
| | | | 064 - 095 | Strobe, slow to fast | | |
| | | | 096 - 127 | Fast Close, Slow Open | | |
| | | | 128 - 159 | Fast Open, Slow Close | | |
| | | | 160 - 191 | Pulse Effects | | |
| | | | 192 - 222 | Random Strobe All, slow to fast | | |
| | | | 223 - 254 | Random Strobe Pixels, slow to fast | | |
| 255 | Sync Dim and Strobe with Main | | | | | |
| 25 | 99 | 99 | 000 - 255 | Spark LED Dimmer , 0% to 100% | Fade | 0 |
| | 100 | 100 | 000 - 255 | Spark LED Dimmer Fine | Fade | 0 |
| | | 101 | 000 - 255 | Spark LED Dimmer 1 , 0% to 100% | Fade | 255 |
| | | 102 | 000 - 255 | Spark LED Dimmer 2 , 0% to 100% | Fade | 255 |
| | | 103 | 000 - 255 | Spark LED Dimmer 3 , 0% to 100% | Fade | 255 |
| | | 104 | 000 - 255 | Spark LED Dimmer 4 , 0% to 100% | Fade | 255 |
| | | 105 | 000 - 255 | Spark LED Dimmer 5 , 0% to 100% | Fade | 255 |
| | | 106 | 000 - 255 | Spark LED Dimmer 6 , 0% to 100% | Fade | 255 |
| | | 107 | 000 - 255 | Spark LED Dimmer 7 , 0% to 100% | Fade | 255 |
| | | 108 | 000 - 255 | Spark LED Dimmer 8 , 0% to 100% | Fade | 255 |
| | | 109 | 000 - 255 | Spark LED Dimmer 9 , 0% to 100% | Fade | 255 |
| | | 110 | 000 - 255 | Spark LED Dimmer 10 , 0% to 100% | Fade | 255 |
| | | 111 | 000 - 255 | Spark LED Dimmer 11 , 0% to 100% | Fade | 255 |
| | | 112 | 000 - 255 | Spark LED Dimmer 12 , 0% to 100% | Fade | 255 |
| | | 113 | 000 - 255 | Spark LED Dimmer 13 , 0% to 100% | Fade | 255 |
| | | 114 | 000 - 255 | Spark LED Dimmer 14 , 0% to 100% | Fade | 255 |
| | | 115 | 000 - 255 | Spark LED Dimmer 15 , 0% to 100% | Fade | 255 |
| | | 116 | 000 - 255 | Spark LED Dimmer 16 , 0% to 100% | Fade | 255 |
| | | 117 | 000 - 255 | Spark LED Dimmer 17 , 0% to 100% | Fade | 255 |
| | | 118 | 000 - 255 | Spark LED Dimmer 18 , 0% to 100% | Fade | 255 |
| | | 119 | 000 - 255 | Spark LED Dimmer 19 , 0% to 100% | Fade | 255 |
| | | 120 | 000 - 255 | Spark LED Dimmer 20 , 0% to 100% | Fade | 255 |
| | | 121 | 000 - 255 | Spark LED Dimmer 21 , 0% to 100% | Fade | 255 |
| | | 122 | 000 - 255 | Spark LED Dimmer 22 , 0% to 100% | Fade | 255 |

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DMX TRAITS

| CHANNEL | | | DMX VALUES | FUNCTION | FADE STATUS | DEFAULT VALUE |
|----------|--------|----------|------------|---------------------------------|-------------|---------------|
| STANDARD | PIXELS | EXTENDED | | | | |
| | | 123 | 000 - 255 | Spark LED Dimmer 23, 0% to 100% | Fade | 255 |
| | | 124 | 000 - 255 | Spark LED Dimmer 24, 0% to 100% | Fade | 255 |
| | | 125 | 000 - 255 | Spark LED Dimmer 25, 0% to 100% | Fade | 255 |
| | | 126 | 000 - 255 | Spark LED Dimmer 26, 0% to 100% | Fade | 255 |
| | | 127 | 000 - 255 | Spark LED Dimmer 27, 0% to 100% | Fade | 255 |
| | | 128 | 000 - 255 | Spark LED Dimmer 28, 0% to 100% | Fade | 255 |
| | | 129 | 000 - 255 | Spark LED Dimmer 29, 0% to 100% | Fade | 255 |
| | | 130 | 000 - 255 | Spark LED Dimmer 30, 0% to 100% | Fade | 255 |
| | | 131 | 000 - 255 | Spark LED Dimmer 31, 0% to 100% | Fade | 255 |
| | | 132 | 000 - 255 | Spark LED Dimmer 32, 0% to 100% | Fade | 255 |
| | | 133 | 000 - 255 | Spark LED Dimmer 33, 0% to 100% | Fade | 255 |
| | | 134 | 000 - 255 | Spark LED Dimmer 34, 0% to 100% | Fade | 255 |
| | | 135 | 000 - 255 | Spark LED Dimmer 35, 0% to 100% | Fade | 255 |
| | | 136 | 000 - 255 | Spark LED Dimmer 36, 0% to 100% | Fade | 255 |
| | | 137 | 000 - 255 | Spark LED Dimmer 37, 0% to 100% | Fade | 255 |
| | | 138 | 000 - 255 | Spark LED Dimmer 38, 0% to 100% | Fade | 255 |
| | | 139 | 000 - 255 | Spark LED Dimmer 39, 0% to 100% | Fade | 255 |
| | | 140 | 000 - 255 | Spark LED Dimmer 40, 0% to 100% | Fade | 255 |
| | | 141 | 000 - 255 | Spark LED Dimmer 41, 0% to 100% | Fade | 255 |
| | | 142 | 000 - 255 | Spark LED Dimmer 42, 0% to 100% | Fade | 255 |
| | | 143 | 000 - 255 | Spark LED Dimmer 43, 0% to 100% | Fade | 255 |
| | | 144 | 000 - 255 | Spark LED Dimmer 44, 0% to 100% | Fade | 255 |
| | | 145 | 000 - 255 | Spark LED Dimmer 45, 0% to 100% | Fade | 255 |
| | | 146 | 000 - 255 | Spark LED Dimmer 46, 0% to 100% | Fade | 255 |
| | | 147 | 000 - 255 | Spark LED Dimmer 47, 0% to 100% | Fade | 255 |
| | | 148 | 000 - 255 | Spark LED Dimmer 48, 0% to 100% | Fade | 255 |
| | | 149 | 000 - 255 | Spark LED Dimmer 49, 0% to 100% | Fade | 255 |
| | | 150 | 000 - 255 | Spark LED Dimmer 50, 0% to 100% | Fade | 255 |
| | | 151 | 000 - 255 | Spark LED Dimmer 51, 0% to 100% | Fade | 255 |
| | | 152 | 000 - 255 | Spark LED Dimmer 52, 0% to 100% | Fade | 255 |
| | | 153 | 000 - 255 | Spark LED Dimmer 53, 0% to 100% | Fade | 255 |
| | | 154 | 000 - 255 | Spark LED Dimmer 54, 0% to 100% | Fade | 255 |
| | | 155 | 000 - 255 | Spark LED Dimmer 55, 0% to 100% | Fade | 255 |
| | | 156 | 000 - 255 | Spark LED Dimmer 56, 0% to 100% | Fade | 255 |
| | | 157 | 000 - 255 | Spark LED Dimmer 57, 0% to 100% | Fade | 255 |
| | | 158 | 000 - 255 | Spark LED Dimmer 58, 0% to 100% | Fade | 255 |
| | | 159 | 000 - 255 | Spark LED Dimmer 59, 0% to 100% | Fade | 255 |
| | | 160 | 000 - 255 | Spark LED Dimmer 60, 0% to 100% | Fade | 255 |
| | | 161 | 000 - 255 | Spark LED Dimmer 61, 0% to 100% | Fade | 255 |
| | | 162 | 000 - 255 | Spark LED Dimmer 62, 0% to 100% | Fade | 255 |
| | | 163 | 000 - 255 | Spark LED Dimmer 63, 0% to 100% | Fade | 255 |

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DMX TRAITS

| CHANNEL | | | DMX VALUES | FUNCTION | FADE STATUS | DEFAULT VALUE |
|----------|--------|----------|---------------|---|----------------|------------------|
| STANDARD | PIXELS | EXTENDED | | | | |
| | | 164 | 000 - 255 | Spark LED Dimmer 64 , 0% to 100% | Fade | 255 |
| | | 165 | 000 - 255 | Spark LED Dimmer 65 , 0% to 100% | Fade | 255 |
| | | 166 | 000 - 255 | Spark LED Dimmer 66 , 0% to 100% | Fade | 255 |
| | | 167 | 000 - 255 | Spark LED Dimmer 67 , 0% to 100% | Fade | 255 |
| | | 168 | 000 - 255 | Spark LED Dimmer 68 , 0% to 100% | Fade | 255 |
| | | 169 | 000 - 255 | Spark LED Dimmer 69 , 0% to 100% | Fade | 255 |
| | | 170 | 000 - 255 | Spark LED Dimmer 70 , 0% to 100% | Fade | 255 |
| | | 171 | 000 - 255 | Spark LED Dimmer 71 , 0% to 100% | Fade | 255 |
| | | 172 | 000 - 255 | Spark LED Dimmer 72 , 0% to 100% | Fade | 255 |
| | | 173 | 000 - 255 | Spark LED Dimmer 73 , 0% to 100% | Fade | 255 |
| | | 174 | 000 - 255 | Spark LED Dimmer 74 , 0% to 100% | Fade | 255 |
| | | 175 | 000 - 255 | Spark LED Dimmer 75 , 0% to 100% | Fade | 255 |
| | | 176 | 000 - 255 | Spark LED Dimmer 76 , 0% to 100% | Fade | 255 |

FX GENERATOR GUIDELINES

Selection and control of the integrated FX on the Proteus RAYzor 1960 is found in the Main Fixture section. All FX are available, even in the DMX control modes with the lowest channel count. For your convenience, these functions are summarized below. Please refer to the **DMX Traits** section of this manual for detailed information.

| DMX VALUES | FUNCTION |
|------------|--|
| 000 - 255 | RGBW FX (see RGBW Pixel FX Table section of this manual) |
| | RGBW FX Speed |
| 000 - 126 | Reverse, fast to slow |
| 127 - 128 | Stop |
| 129 - 255 | Forward, slow to fast |
| 000 - 255 | Spark LED FX (see Spark LED FX Table section of this manual) |
| | Spark LED FX Speed |
| 000 - 126 | Reverse, fast to slow |
| 127 - 128 | Stop |
| 129 - 255 | Forward, slow to fast |

FX for RGBW and Spark LED contain a selection channel to recall the desired pattern. The pattern direction and speed is then adjusted using the associated Speed channels. FX can run in forward or reverse, and can also be frozen at any time by using "Stop". The FX tables show the available patterns which are grouped for easier browsing. The first 10 DMX steps of the FX channel are used to change the type of curve for smooth or stepped FX. Once a curve is selected, it will be used for all FX recalled afterwards. When programming cues for fixtures, the user must make sure to change the curve first before selecting the pattern. The fixture defaults to the Sinewave pattern after every power cycle. See the **Waveforms** section of this manual for the available waveforms.

RGBW PIXEL FX TABLE

| FX TYPE | SLOT | DMX | FX NAME | FX ADJUSTMENT | NOTES |
|-----------|------|-----------|----------------------------|--|--|
| Off | | 000 | Off | | |
| Waveform | 1 | 001 | Sinewave - Cross (default) | | In and out fade start at the same time |
| | 2 | 002 | Sinewave - Full | | In fade completes, then out fade completes |
| | 3 | 003 | Sawtooth - Cross | | In and out fade start at the same time |
| | 4 | 004 | Sawtooth - Full | | In fade complete, then out fade completes |
| | 5 | 005 | Ramp Up | | |
| | 6 | 006 | Ramp Down | | |
| | 7 | 007 | Steps | | |
| | 8-10 | 008 - 010 | Not in use | | |
| Intensity | 11 | 011 | Single | Reverse, Stop, Forward | 1, 2, 3...19 |
| | 12 | 012 | Single Bounce | Reverse, Stop, Forward | 1, 2, 3...19, 18, 17, 16...1 |
| | 13 | 013 | Snake | Reverse, Stop, Forward | 1, 2, 3, 7, 12, 16, 19, 18, 17, 13, 8, 4, 5, 6, 11, 15, 14, 9, 10 |
| | 14 | 014 | Snake Bounce | Reverse, Stop, Forward | Snake forward once and reverses |
| | 15 | 015 | Rows | Reverse, Stop, Forward | Row1, 2, 3, 4, 5 |
| | 16 | 016 | Rows Bounce | Reverse, Stop, Forward | Rows forward once and reverses |
| | 17 | 017 | Column | Reverse, Stop, Forward | One column per step |
| | 18 | 018 | Column Bounce | Reverse, Stop, Forward | One column per step forward once and reverses |
| | 19 | 019 | Not in use | | |
| | 20 | 020 | Slash | Reverse, Stop, Forward | 1+4+8, 2+5+9+13, 3+6+10+14+17, 7+11+15+18, 12+16+19 |
| | 21 | 021 | Backslash | Reverse, Stop, Forward | 8+13+17, 4+9+14+18, 1+5+10+15+19, 2+6+11+16, 3+7+12 |
| | 22 | 022 | Slash Back | Reverse, Stop, Forward | 1+4+8, 2+5+9+13, 3+6+10+14+17, 7+11+15+18, 12+16+19, 8+13+17, 4+9+14+18, 1+5+10+15+19, 2+6+11+16, 3+7+12 |
| | 23 | 023 | <> | Reverse, Stop, Forward | 1+4+8+13+17, 3+7+12+16+19 |
| | 24 | 024 | >< | Reverse, Stop, Forward | 1+5+10+14+17, 3+6+10+15+19 |
| 25 | 025 | >> | Reverse, Stop, Forward | 8, 4+9+13, 1+5+10+14+17, 2+6+11+15+18, 3+7+12+16+19 | |
| 26 | 026 | << | Reverse, Stop, Forward | 12, 7+11+16, 3+6+10+15+19, 2+5+9+14+18, 1+4+8+13+17, | |

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RGBW PIXEL FX TABLE

| FX TYPE | SLOT | DMX | FX NAME | FX ADJUSTMENT | NOTES |
|--------------------------|--------|-----------|-------------------------|------------------------|---|
| Intensity (continued) | 27 | 027 | Rotating Bar | Reverse, Stop, Forward | 8+9+10+11+12, 13+10+7, 17+14+10+6+3, 2+10+18, 1+5+10+15+19, 4+10+16 |
| | 28 | 028 | Ring 1 Chase | Reverse, Stop, Forward | One pixel at a time in RGBW ring 1 |
| | 29 | 029 | Ring 2 Chase | Reverse, Stop, Forward | One pixel at a time in RGBW ring 2 |
| | 30-37 | 030 - 037 | Not in use | | |
| | 38 | 038 | 2 Pixels | Reverse, Stop, Forward | Any two random pixels per step |
| | 39 | 039 | 3 Pixels | Reverse, Stop, Forward | Any three random pixels per step |
| | 40 | 040 | 4 Pixels | Reverse, Stop, Forward | Any four random pixels per step |
| | 41 | 041 | 1,2,3,4 Pixels | Reverse, Stop, Forward | Randomly pick 1, then 2, then 3, then 4 pixels |
| | 42 | 042 | Ring Build | Reverse, Stop, Forward | Builds ring 1, then ring 2, then ring 3, one pixel at a time |
| | 43 | 043 | Ring Build Erase | Reverse, Stop, Forward | Builds ring 1, then ring 2, then ring 3, one pixel at a time; then erases ring 1, then ring 2, then ring 3, one pixel at a time |
| | 44 | 044 | Ring Build Erase 2 | Reverse, Stop, Forward | Builds ring 1, then ring 2, then ring 3, one pixel at a time; then erases ring 3, then ring 2, then ring 1, one pixel at a time |
| | 45-56 | 045 - 056 | Not in use | | |
| | 57 | 057 | Alternate | Reverse, Stop, Forward | Evenly alternate (tick/tock/tick/tock) between RGBW pixel at full and Spark LEDs at full; keeps all colors, strobos, and intensities as set in DMX |
| | 58 | 058 | Burst Spark LED | Reverse, Stop, Forward | Toggles between RGBW Pixel at full (long) and Spark LEDs at full (short flash); keeps all colors, strobos, and intensities as set in DMX |
| | 59 | 059 | Strobe Alternate | Reverse, Stop, Forward | Strobos between RGBW Pixel at full (short, then off) and Spark LEDs at full (short, then off); keeps all colors, strobos, and intensities as set in DMX |
| | 60 | 060 | Lens/Spark LED Alterate | Reverse, Stop, Forward | Random Lens at full, then different Random Lens SparkLEDs at full; keeps all colors, strobos, and intensities as set in DMX |
| | 61-100 | 061 - 100 | Not in use | | |

CONTINUED ON NEXT PAGE

RGBW PIXEL FX TABLE

| FX TYPE | SLOT | DMX | FX NAME | FX ADJUSTMENT | NOTES |
|------------------------|-----------|------------|-------------------|------------------------|--|
| Static Patterns | 101 | 101 | Row 1 | Disabled | |
| | 102 | 102 | Row 2 | Disabled | |
| | 103 | 103 | Row 3 | Disabled | |
| | 104 | 104 | Row 4 | Disabled | |
| | 105 | 105 | Row 5 | Disabled | |
| | 106 | 106 | Column 1 | Disabled | |
| | 107 | 107 | Column 2 | Disabled | |
| | 108 | 108 | Column 3 | Disabled | |
| | 109 | 109 | Column 4 | Disabled | |
| | 110 | 110 | Column 5 | Disabled | |
| | 111 | 111 | Column 6 | Disabled | |
| | 112 | 112 | Column 7 | Disabled | |
| | 113 | 113 | Column 8 | Disabled | |
| | 114 | 114 | Column 9 | Disabled | |
| | 115 | 115 | Ring 1 | Disabled | |
| | 116 | 116 | Ring 2 | Disabled | |
| | 117 | 117 | Ring 3 | Disabled | |
| | 118 | 118 | X | Disabled | 1, 5, 10, 15, 19, 17, 14, 6, 3 |
| | 119 | 119 | Slash | Disabled | 1, 5, 10, 15, 19 |
| | 120 | 120 | Backslash | Disabled | 3, 6, 10, 14, 17 |
| | 121 | 121 | Arrow Left | Disabled | 1, 4, 8, 13, 17, 9, 10, 11, 12 |
| | 122 | 122 | Arrow Right | Disabled | 3, 7, 12, 16, 19, 8, 9, 10, 11 |
| | 123 | 123 | < | Disabled | 1, 2, 4, 5, 8, 9, 13, 14, 17, 18 |
| | 124 | 124 | > | Disabled | 2, 3, 6, 7, 11, 12, 15, 16, 18, 19 |
| 125-130 | 125 - 130 | Not in use | | | |
| Color | 131 | 131 | RGBW Cells | Reverse, Stop, Forward | Every pixel randomly selects R, G, B, or W on each step |
| | 132 | 132 | RGBWCMY Cells | Reverse, Stop, Forward | Every pixel randomly selects R, G, B, W, C, M, or Y on each step |
| | 133 | 133 | Color Wheel Cells | Reverse, Stop, Forward | Every pixel randomly selects a color from the color wheel on each step |
| | 134 | 134 | RGBW Rows | Reverse, Stop, Forward | Every row randomly selects R, G, B, or W on each step |
| | 135 | 135 | RGBWCMY Rows | Reverse, Stop, Forward | Every row randomly selects R, G, B, W, C, M, or Y on each step |
| | 136 | 136 | Color Wheel Rows | Reverse, Stop, Forward | Every row randomly selects a color from the color wheel on each step |
| | 137 | 137 | RGBW Columns | Reverse, Stop, Forward | Every column randomly selects R, G, B, or W on each step |
| | 138 | 138 | RGBWCMY Columns | Reverse, Stop, Forward | Every column randomly selects R, G, B, W, C, M, or Y on each step |
| CONTINUED ON NEXT PAGE | | | | | |

RGBW PIXEL FX TABLE

| FX TYPE | SLOT | DMX | FX NAME | FX ADJUSTMENT | NOTES |
|----------------------|------|-------------|---------------------------|--|---|
| Color (continued) | 139 | 139 | Color Wheel Columns | Reverse, Stop, Forward | Every column randomly selects a color from the color wheel on each step |
| | 140 | 140 | RGBW Single Row | Reverse, Stop, Forward | A single row randomly selects R, G, B or W on each step |
| | 141 | 141 | RGBWCMY Single Row | Reverse, Stop, Forward | A single row randomly select R, G, B, W, C, M, or Y on each step |
| | 142 | 142 | Color Wheel Single Row | Reverse, Stop, Forward | A single row randomly selects a color from the color wheel for each step |
| | 143 | 143 | RGBW Single Column | Reverse, Stop, Forward | A single column randomly selects R, G, B, or W on each step |
| | 144 | 144 | RGBWCMY Single Column | Reverse, Stop, Forward | A single column randomly selects R, G, B, W, C, M, or Y on each step |
| | 145 | 145 | Color Wheel Single Column | Reverse, Stop, Forward | A single column randomly selects a color from the color wheel on each step |
| | 146 | 146 | RGB Rows | Reverse, Stop, Forward | Red row 1, then 1,2, then 1,2,3, then 1,2,3,4, then 1,2,3,4,5; then Green replaces row 1, then 1,2, then 1,2,3, etc |
| | 147 | 147 | RGB Columns | Reverse, Stop, Forward | Columns fill from left to right in all red, then fill all green, then fill all blue |
| | 148 | 148 | Red White Cells | Reverse, Stop, Forward | Every cell randomly picks red or white on each step |
| | 149 | 149 | Green White Cells | Reverse, Stop, Forward | Every cell randomly picks green or white on each step |
| | 150 | 150 | Blue White Cells | Reverse, Stop, Forward | Every cell randomly picks blue or white on each step |
| | 151 | 151 | Red Green Cells | Reverse, Stop, Forward | Every cell randomly picks red or green on each step |
| | 152 | 152 | Red Blue Cells | Reverse, Stop, Forward | Every cell randomly picks red or blue on each step |
| | 153 | 153 | Blue Green Cells | Reverse, Stop, Forward | Every cell randomly picks blue or green on each step |
| | 154 | 154 | Ring - Mix to Color Wheel | Reverse, Stop, Forward | Two rings chase between mixed color and color wheel, from the center of the display moving outwards |
| | 155 | 155 | Random White Cell | Reverse, Stop, Forward | White at full randomly replaces the currently mixed color one cell at a time |
| | 156 | 156 | Random White Row | Reverse, Stop, Forward | White at full randomly replaces the currently mixed color one row at a time |
| | 157 | 157 | Random White Column | Reverse, Stop, Forward | White at full randomly replaced the currently mixed color one column at a time |
| | 158 | 158 | White Flash | Reverse, Stop, Forward | White at full flashes once over the currently mixed color on all cells |
| 159 | 159 | Red Flash | Reverse, Stop, Forward | Red at full flashes once over the currently mixed color on all cells | |
| 160 | 160 | Green Flash | Reverse, Stop, Forward | Green at full flashes once over the currently mixed color on all cells | |

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RGBW PIXEL FX TABLE

| FX TYPE | SLOT | DMX | FX NAME | FX ADJUSTMENT | NOTES |
|------------------------------|-------------|-------------|-------------------|---------------------------|---|
| Color (continued) | 161 | 161 | Blue Flash | Reverse, Stop, Forward | Blue at full flashes once over the currently mixed color on all cells |
| | 162 | 162 | Color Wheel Flash | Reverse, Stop, Forward | Selected color wheel color at full flashes once over the currently mixed color on all cells |
| | 163 | 163 | Alternate Color | Reverse, Stop, Forward | Alternates between mixed color and color wheel color on all cells |
| | 164- 255 | 164- 255 | Not in use | | |

SPARK LED FX TABLE

| FX TYPE | SLOT | DMX | FX NAME | FX ADJUSTMENT | NOTES |
|------------------------|------|-----------|----------------------------|------------------------|--|
| Off | | 000 | Off | | |
| Waveform | 1 | 001 | Sinewave - Cross (default) | | In and out fade start at the same time |
| | 2 | 002 | Sinewave - Full | | In fade complete, then out fade completes |
| | 3 | 003 | Sawtooth - Cross | | In and out fade start at the same time |
| | 4 | 004 | Sawtooth - Full | | In fade completes, then out fade completes |
| | 5 | 005 | Ramp Up | | |
| | 6 | 006 | Ramp Down | | |
| | 7 | 007 | Steps | | |
| | 8-10 | 008 - 010 | No function | | |
| Spark LED FX | 11 | 011 | Starfield | Reverse, Stop, Forward | Pixels switch on and off at random for random lengths of time |
| | 12 | 012 | 1 Pixel | Reverse, Stop, Forward | Randomly lights 1 pixel per step |
| | 13 | 013 | 2 Pixels | Reverse, Stop, Forward | Randomly lights 2 pixels per step |
| | 14 | 014 | 3 Pixels | Reverse, Stop, Forward | Randomly lights 3 pixels per step |
| | 15 | 015 | 4 Pixels | Reverse, Stop, Forward | Randomly lights 4 pixels per step |
| | 16 | 016 | 5 Pixels | Reverse, Stop, Forward | Randomly lights 5 pixels per step |
| | 17 | 017 | 10 Pixels | Reverse, Stop, Forward | Randomly lights 10 pixels per step |
| | 18 | 018 | 19 Pixels | Reverse, Stop, Forward | Randomly lights 19 pixels per step |
| | 19 | 019 | 38 Pixels | Reverse, Stop, Forward | Randomly lights 38 pixels per step |
| | 20 | 020 | Single Row | Reverse, Stop, Forward | Lights a single row per step |
| | 21 | 021 | 3 Rows | Reverse, Stop, Forward | Lights 3 rows per step |
| | 22 | 022 | Single Column | Reverse, Stop, Forward | Lights a single column per step |
| | 23 | 023 | 3 Column | Reverse, Stop, Forward | Lights 3 columns per step |
| | 24 | 024 | Pixel Ring Chase | Reverse, Stop, Forward | Within each RGBW pixel, the individual Spark LEDs illuminate one at a time in ring order (e.g. in Pixel 1: Spark LEDs 1, 5, 11, 4) |
| | 25 | 025 | Pixel Row Chase | Reverse, Stop, Forward | Within each RGBW pixel, the individual Spark LEDs illuminate in row order (e.g. in Pixel 1: Spark LEDs 1, 5+4, 11) |
| CONTINUED ON NEXT PAGE | | | | | |

SPARK LED FX TABLE

| FX TYPE | SLOT | DMX | FX NAME | FX ADJUSTMENT | NOTES |
|-----------------------------|--------|---------|--------------------|------------------------|--|
| Spark LED FX (continued) | 26 | 026 | Pixel Ring Chase 2 | Reverse, Stop, Forward | Within each RGBW pixel, one Spark LED illuminates in ring order in each step |
| | 27 | 027 | Center Out | Reverse, Stop, Forward | Turns on all Spark LEDs in lens 10, then steps from the center outwards one ring at a time |
| | 28 | 028 | Fireworks | Reverse, Stop, Forward | Strobes rapidly while randomly filling Spark LEDs from the center outwards, then randomly switching Spark LEDs off from the center outwards |
| | 29 | 029 | Ring | Reverse, Stop, Forward | Single pixels in the order: ring 1, ring 2, ring 3 |
| | 30 | 030 | Row | Reverse, Stop, Forward | Single pixels in the order: row 1, 2, 3, 4, 5, 6, 7 |
| | 31 | 031 | Snake | Reverse, Stop, Forward | Single pixels in row 1, left to right; row 2, right to left; row 3, left to right; row 4 right to left; row 5, left to right; row 6, right to left; row 7, left to right |
| | 32-100 | 032-100 | No function | | |
| Full Lens Patterns | 101 | 101 | Single | Reverse, Stop, Forward | 1, 2, 3...19 |
| | 102 | 102 | Single Bounce | Reverse, Stop, Forward | 1, 2, 3...19, 18, 17, 16...1 |
| | 103 | 103 | Snake | Reverse, Stop, Forward | 1, 2, 3, 7, 12, 16, 19, 18, 17, 13, 8, 4, 5, 6, 11, 15, 14, 9, 10 |
| | 104 | 104 | Snake Bounce | Reverse, Stop, Forward | Snake forward once and reverses |
| | 105 | 105 | Rows | Reverse, Stop, Forward | Row 1, 2, 3, 4, 5 |
| | 106 | 106 | Rows Bounce | Reverse, Stop, Forward | Rows forward once and reverses |
| | 107 | 107 | Column | Reverse, Stop, Forward | One column per step |
| | 108 | 108 | Column Bounce | Reverse, Stop, Forward | One column per step forward once, then runs in reverse |
| | 109 | 109 | Not in use | | |
| | 110 | 110 | Slash | Reverse, Stop, Forward | 1+4+8, 2+5+9+13, 3+6+10+14+17, 7+11+15+18, 12+16+19 |
| | 111 | 111 | Backslash | Reverse, Stop, Forward | 8+13+17, 4+9+14+18, 1+5+10+15+19, 2+6+11+16, 3+7+12 |
| | 112 | 112 | Slash Back | Reverse, Stop, Forward | 1+4+8, 2+5+9+13, 3+6+10+14+17, 7+11+15+18, 12+16+19, 8+13+17, 4+9+14+18, 1+5+10+15+19, 2+6+11+16, 3+7+12 |
| | 113 | 113 | <> | Reverse, Stop, Forward | 1+4+8+13+17, 3+7+12+16+19 |

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SPARK LED FX TABLE

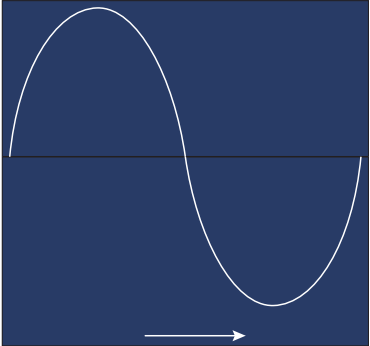
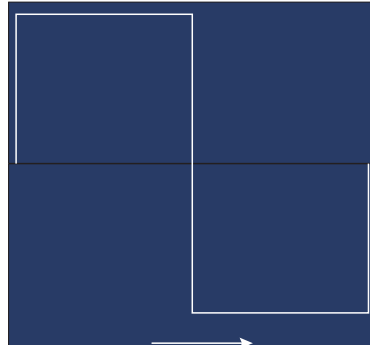
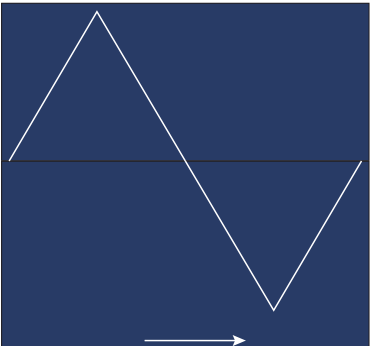
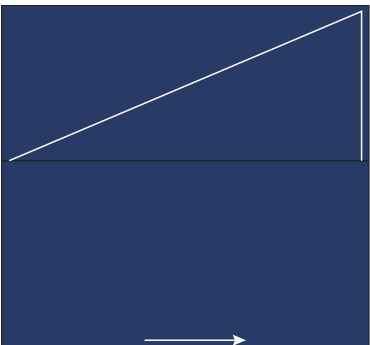
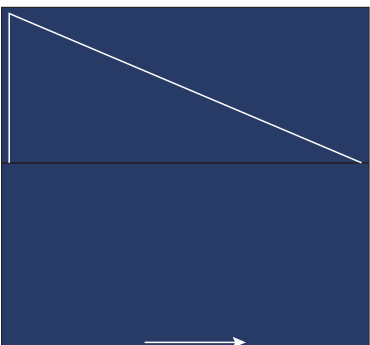
| FX TYPE | SLOT | DMX | FX NAME | FX ADJUSTMENT | NOTES |
|-----------------------------------|---------|-----------|--------------------|------------------------|---|
| Full Lens Patterns (continued) | 114 | 114 | >< | Reverse, Stop, Forward | 1+5+10+14+17, 3+6+10+15+19 |
| | 115 | 115 | >> | Reverse, Stop, Forward | 8, 4+9+13, 1+5+10+14+17, 2+6+11+15+18, 3+7+12+16+19 |
| | 116 | 116 | << | Reverse, Stop, Forward | 12, 7+11+16, 3+6+10+15+19, 2+5+9+14+18, 1+4+8+13+17 |
| | 117 | 117 | Rotating Bar | Reverse, Stop, Forward | 8+9+10+11+12, 13+10+7, 17+14+10+6+3, 2+10+18, 1+5+10+15+19, 4+10+16 |
| | 118 | 118 | Ring 1 Chase | Reverse, Stop, Forward | One pixel at a time in RGBW Ring 1 |
| | 119 | 119 | Ring 2 Chase | Reverse, Stop, Forward | One pixel at a time in RGBW Ring 2 |
| | 120-127 | 120 - 127 | No function | | |
| | 128 | 128 | 2 Pixels | Reverse, Stop, Forward | Turn on any 2 random pixels per step |
| | 129 | 129 | 3 Pixels | Reverse, Stop, Forward | Turn on any 3 random pixels per step |
| | 130 | 130 | 4 Pixels | Reverse, Stop, Forward | Turn on any 4 random pixels per step |
| | 131 | 131 | 1, 2, 3, 4 Pixels | Reverse, Stop, Forward | For the first step turn on any 1 random pixel; then 2 random pixels for the next step; then 3 random pixels; then 4 random pixels |
| | 132 | 132 | Ring Build | Reverse, Stop, Forward | Adds one pixel per step in Ring 1, then Ring 2, then Ring 3 |
| | 133 | 133 | Ring Build Erase | Reverse, Stop, Forward | Adds one pixel per step in Ring 1, then Ring 2, then Ring 3; then erases 1 pixel per step in Ring 1, then Ring 2, then Ring 3 |
| | 134 | 134 | Ring Build Erase 2 | Reverse, Stop, Forward | Adds one pixel per step in Ring 1, then Ring 2, then Ring 3; then erases 1 pixel per step in Ring 3, then Ring 2, then Ring 1 |
| | 135-200 | 135 - 200 | No function | | |
| Full Lens Static Patterns | 201 | 201 | Lens Row 1 | Disabled | All Spark LEDs in RGBW row 1 |
| | 202 | 202 | Lens Row 2 | Disabled | All Spark LEDs in RGBW row 2 |
| | 203 | 203 | Lens Row 3 | Disabled | All Spark LEDs in RGBW row 3 |
| | 204 | 204 | Lens Row 4 | Disabled | All Spark LEDs in RGBW row 4 |
| | 205 | 205 | Lens Row 5 | Disabled | All Spark LEDs in RGBW row 5 |
| | 206 | 206 | Lens Column 1 | Disabled | All Spark LEDs in RGBW column 1 |
| | 207 | 207 | Lens Column 2 | Disabled | All Spark LEDs in RGBW column 2 |
| | 208 | 208 | Lens Column 3 | Disabled | All Spark LEDs in RGBW column 3 |
| | 209 | 209 | Lens Column 4 | Disabled | All Spark LEDs in RGBW column 4 |
| | 210 | 210 | Lens Column 5 | Disabled | All Spark LEDs in RGBW column 5 |

CONTINUED ON NEXT PAGE

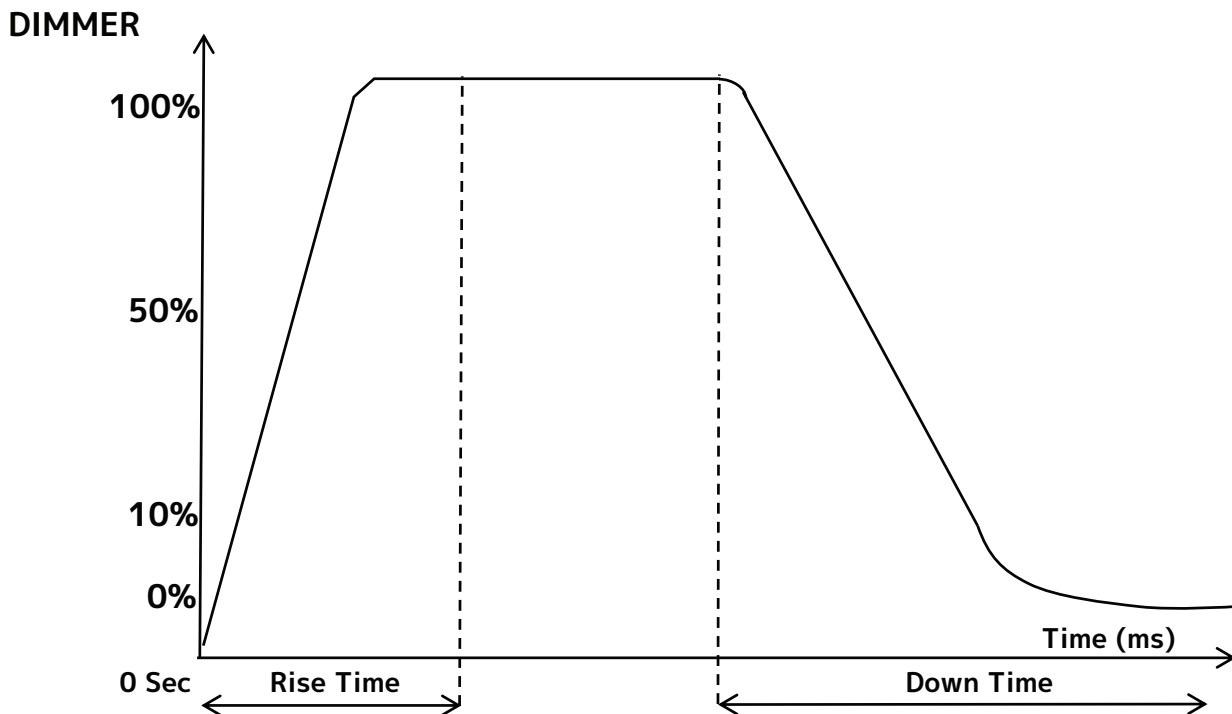
SPARK LED FX TABLE

| FX TYPE | SLOT | DMX | FX NAME | FX ADJUSTMENT | FUNCTION |
|---------------------------------------|-----------|-------------|---------------|---------------|---|
| Full Lens Static Patterns (continued) | 211 | 211 | Lens Column 6 | Disabled | All Spark LEDs in RGBW column 6 |
| | 212 | 212 | Lens Column 7 | Disabled | All Spark LEDs in RGBW column 7 |
| | 213 | 213 | Lens Column 8 | Disabled | All Spark LEDs in RGBW column 8 |
| | 214 | 214 | Lens Column 9 | Disabled | All Spark LEDs in RGBW column 9 |
| | 215 | 215 | Ring 1 | Disabled | All Spark LEDs in RGBW ring 1 |
| | 216 | 216 | Ring 2 | Disabled | All Spark LEDs in RGBW ring 2 |
| | 217 | 217 | Ring 3 | Disabled | All Spark LEDs in RGBW ring 3 |
| | 218 | 218 | X | Disabled | All Spark LEDs in lens 1, 5, 10, 15, 19, 17, 14, 6, 3 |
| | 219 | 219 | Slash | Disabled | All Spark LEDs in lens 1, 5, 10, 15, 19 |
| | 220 | 220 | Backslash | Disabled | All Spark LEDs in lens 3, 6, 10, 14, 17 |
| | 221 | 221 | Arrow Left | Disabled | All Spark LEDs in lens 1, 4, 8, 13, 17, 9, 10, 11, 12 |
| | 222 | 222 | Arrow Right | Disabled | All Spark LEDs in lens 3, 7, 12, 16, 19, 8, 9, 10, 11 |
| | 223 | 223 | < | Disabled | All Spark LEDs in lens 1, 2, 4, 5, 8, 9, 13, 14, 17, 18 |
| | 224 | 224 | > | Disabled | All Spark LEDs in lens 2, 3, 6, 7, 11, 12, 15, 16, 18, 19 |
| | 225-230 | 225 - 230 | No function | | |
| Spark LED Pattern | 231 | 231 | Row 1 | Disabled | |
| | 232 | 232 | Row 2 | Disabled | |
| | 233 | 233 | Row 3 | Disabled | |
| | 234 | 234 | Row 4 | Disabled | |
| | 235 | 235 | Row 5 | Disabled | |
| | 236 | 236 | Row 6 | Disabled | |
| | 237 | 237 | Row 7 | Disabled | |
| | 238 | 238 | Row 8 | Disabled | |
| | 239 | 239 | Row 9 | Disabled | |
| | 240 | 240 | Row 10 | Disabled | |
| | 241 | 241 | Row 11 | Disabled | |
| | 242 | 242 | Ring 1 | Disabled | |
| | 243 | 243 | Ring 2 | Disabled | |
| | 244 | 244 | Ring 3 | Disabled | |
| | 245 | 245 | Ring 4 | Disabled | |
| 246 | 246 | Ring 5 | Disabled | | |
| 247-255 | 247 - 255 | No function | | | |

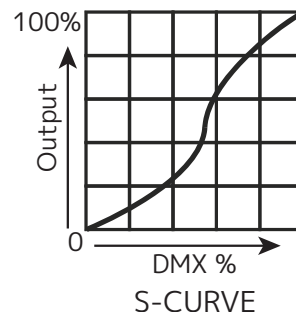
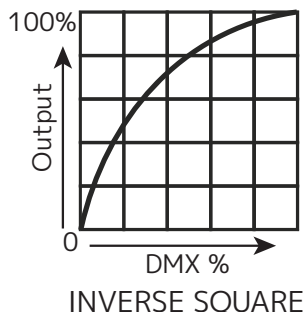
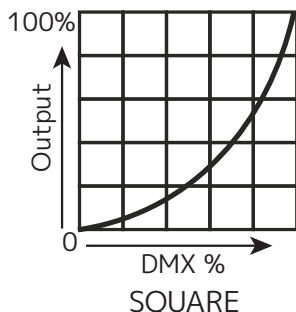
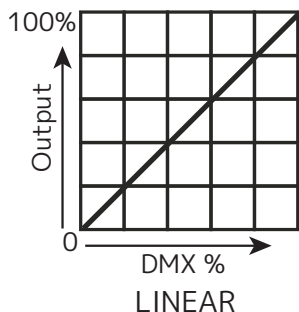
WAVEFORMS

| | |
|-----------|---|
| Sinewave |  A white sine wave oscillating above and below a horizontal center line. A small white arrow at the bottom indicates the direction of time. |
| Step |  A white step function that starts at a high level, drops vertically to a low level, and remains constant. A small white arrow at the bottom indicates the direction of time. |
| Sawtooth |  A white sawtooth wave that ramps up linearly to a peak, then drops vertically to a trough, and ramps up again. A small white arrow at the bottom indicates the direction of time. |
| Ramp Up |  A white line that ramps up linearly from a low level to a high level. A small white arrow at the bottom indicates the direction of time. |
| Ramp Down |  A white line that ramps down linearly from a high level to a low level. A small white arrow at the bottom indicates the direction of time. |

DIMMER CURVES



| 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 |



COLOR TEMPERATURE TABLE

| COLOR TEMPERATURE (K) | DMX VALUE |
|-----------------------|-----------|
| 2000 | 011 |
| 2050 | 012 |
| 2100 | 013 |
| 2150 | 014 |
| 2200 | 015 |
| 2250 | 016 |
| 2300 | 017 |
| 2350 | 018 |
| 2400 | 019 |
| 2450 | 020 |
| 2500 | 021 |
| 2550 | 022 |
| 2600 | 023 |
| 2650 | 024 |
| 2700 | 025 |
| 2750 | 026 |
| 2800 | 027 |
| 2850 | 028 |
| 2900 | 029 |
| 2950 | 030 |
| 3000 | 031 |
| 3050 | 032 |
| 3100 | 033 |
| 3150 | 034 |
| 3200 | 035 |
| 3250 | 036 |
| 3300 | 037 |
| 3350 | 038 |
| 3400 | 039 |
| 3450 | 040 |
| 3500 | 041 |
| 3550 | 042 |
| 3600 | 043 |
| 3650 | 044 |
| 3700 | 045 |
| 3750 | 046 |
| 3800 | 047 |
| 3850 | 048 |
| 3900 | 049 |
| 3950 | 050 |
| 4000 | 051 |
| 4050 | 052 |
| 4100 | 053 |

| COLOR TEMPERATURE (K) | DMX VALUE |
|-----------------------|-----------|
| 4150 | 054 |
| 4200 | 055 |
| 4250 | 056 |
| 4300 | 057 |
| 4350 | 058 |
| 4400 | 059 |
| 4450 | 060 |
| 4500 | 061 |
| 4550 | 062 |
| 4600 | 063 |
| 4650 | 064 |
| 4700 | 065 |
| 4750 | 066 |
| 4800 | 067 |
| 4850 | 068 |
| 4900 | 069 |
| 4950 | 070 |
| 5000 | 071 |
| 5050 | 072 |
| 5100 | 073 |
| 5150 | 074 |
| 5200 | 075 |
| 5250 | 076 |
| 5300 | 077 |
| 5350 | 078 |
| 5400 | 079 |
| 5450 | 080 |
| 5500 | 081 |
| 5550 | 082 |
| 5600 | 083 |
| 5650 | 084 |
| 5700 | 085 |
| 5750 | 086 |
| 5800 | 087 |
| 5850 | 088 |
| 5900 | 089 |
| 5950 | 090 |
| 6000 | 091 |
| 6050 | 092 |
| 6100 | 093 |
| 6150 | 094 |
| 6200 | 095 |
| 6250 | 096 |

COLOR TEMPERATURE TABLE

| COLOR TEMPERATURE (K) | DMX VALUE |
|-----------------------|-----------|
| 6300 | 097 |
| 6350 | 098 |
| 6400 | 099 |
| 6450 | 100 |
| 6500 | 101 |
| 6550 | 102 |
| 6600 | 103 |
| 6650 | 104 |
| 6700 | 105 |
| 6750 | 106 |
| 6800 | 107 |
| 6850 | 108 |
| 6900 | 109 |
| 6950 | 110 |
| 7000 | 111 |
| 7050 | 112 |
| 7100 | 113 |
| 7150 | 114 |
| 7200 | 115 |
| 7250 | 116 |
| 7300 | 117 |
| 7350 | 118 |
| 7400 | 119 |
| 7450 | 120 |
| 7500 | 121 |
| 7550 | 122 |
| 7600 | 123 |
| 7650 | 124 |
| 7700 | 125 |
| 7750 | 126 |
| 7800 | 127 |
| 7850 | 128 |
| 7900 | 129 |
| 7950 | 130 |
| 8000 | 131 |
| 8050 | 132 |
| 8100 | 133 |
| 8150 | 134 |
| 8200 | 135 |
| 8250 | 136 |
| 8300 | 137 |
| 8350 | 138 |
| 8400 | 139 |

| COLOR TEMPERATURE (K) | DMX VALUE |
|-----------------------|-----------|
| 8450 | 140 |
| 8500 | 141 |
| 8550 | 142 |
| 8600 | 143 |
| 8650 | 144 |
| 8700 | 145 |
| 8750 | 146 |
| 8800 | 147 |
| 8850 | 148 |
| 8900 | 149 |
| 8950 | 150 |
| 9000 | 151 |
| 9050 | 152 |
| 9100 | 153 |
| 9150 | 154 |
| 9200 | 155 |
| 9250 | 156 |
| 9300 | 157 |
| 9350 | 158 |
| 9400 | 159 |
| 9450 | 160 |
| 9500 | 161 |
| 9550 | 162 |
| 9600 | 163 |
| 9650 | 164 |
| 9700 | 165 |
| 9750 | 166 |
| 9800 | 167 |
| 9850 | 168 |
| 9900 | 169 |
| 9950 | 170 |
| 10000 | 171 |

PRIMARY-SECONDARY SET UP

This function allows you to link units together to run in a Primary-Secondary set-up, in which one unit will act as the controlling unit and the others will react to the controlling unit's built-in programs. Any unit can be configured to act as a Primary or as a Secondary, but only one unit in a given system can be programmed to act as the Primary.

PRIMARY-SECONDARY CONNECTIONS AND SETTINGS:

1. Daisy chain your units via the XLR connectors on the rear panels of each unit. Use standard XLR data cables to link your units together. Remember that the male XLR connector is the input and the female XLR connector is the output. The first unit in the chain (primary) will use the female XLR connector only, while the last unit in the chain will use the male XLR connector only.
2. On the primary unit, use the display screen and control panel to navigate to Function > Auto Program, then use scroll to "Primary" and press ENTER.
3. On the secondary unit(s), use the display screen and control panel to navigate to Function > Secondary Mode, and select one of the three available secondary groupings. Please refer to the **Record Controller** section of this manual for more information regarding secondary mode groupings.
4. Repeat Step 3 for each secondary unit in the system. Make sure that only one unit is designated as the Primary, while all other units are designated as Secondaries.
5. The secondary units will now follow the behavior of the primary unit.

ERROR CODES

When the unit is powered on, it will automatically enter a "Reset/Test" mode, which brings all the internal motors to a home position. If an internal problem with one or more of the motors is detected, an error code will flash in the display in the form of "XXEr" where XX will represent a code associated with the detected error. These codes are listed in the table below.

For example, when the display shows "PAN Er" 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 related to pan, tilt, and zoom all at the same time, you will see the error message "PAN Er", "TILT Er", and "Zoom Er" flash and repeat 5 times.

If an error is detected 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, and therefore the fixture will place itself in stand-by mode until subsequent repairs can be made.
- **Less Than 3 Errors:** The fixture has less than 3 errors. Most other functions will work properly. The fixture will attempt to operate normally until the errors can be corrected by a technician. The errors in question will remain flashing in the display as a reminder of internal errors.

| ERROR CODES | |
|---|---|
| Error codes are subject to change without any prior written notice. | |
| ERROR CODE | DESCRIPTION |
| PAN 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. |
| TILT Er | |
| Zoom 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 UPDATE



**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.**

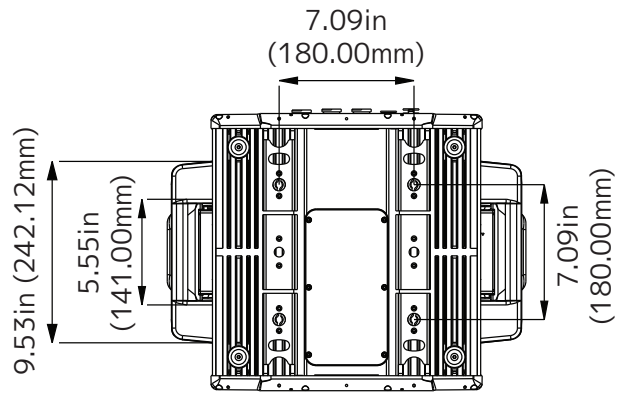
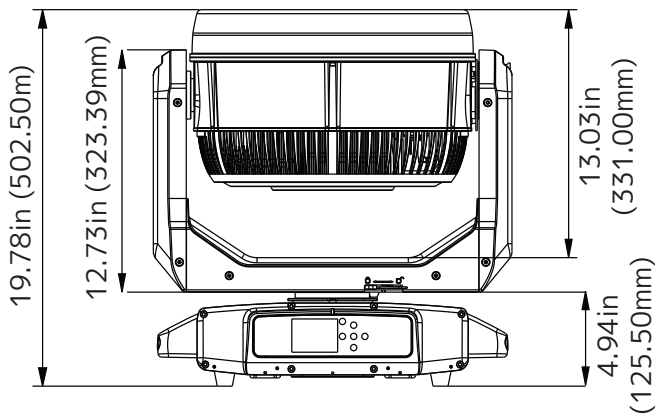
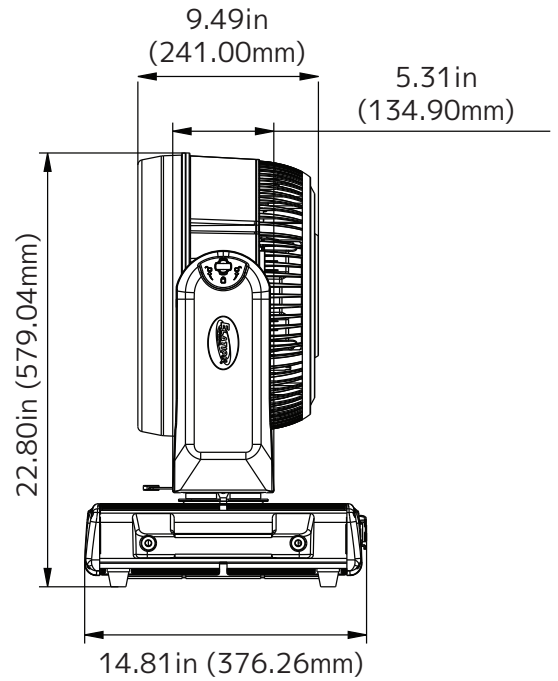
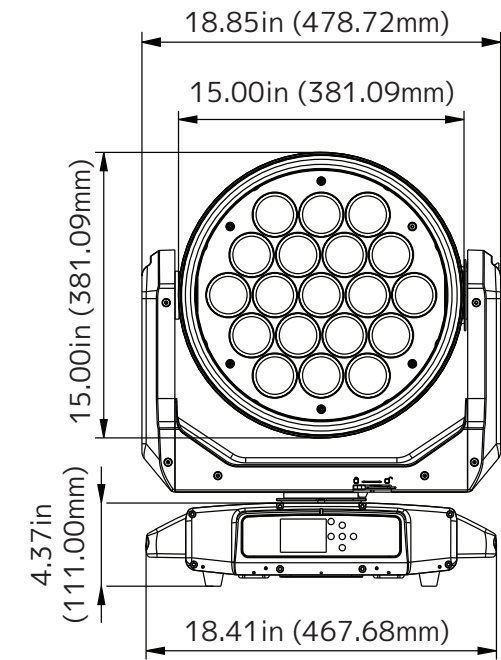
An Elation E-Loader III can be used to update the fixture to the latest software. Please visit the E-Loader III product page at the Elation web site and download the product manual for step by step instructions.

<https://www.elationlighting.com/e-loader-iii-software-uploader>

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

DIMENSIONAL DRAWINGS

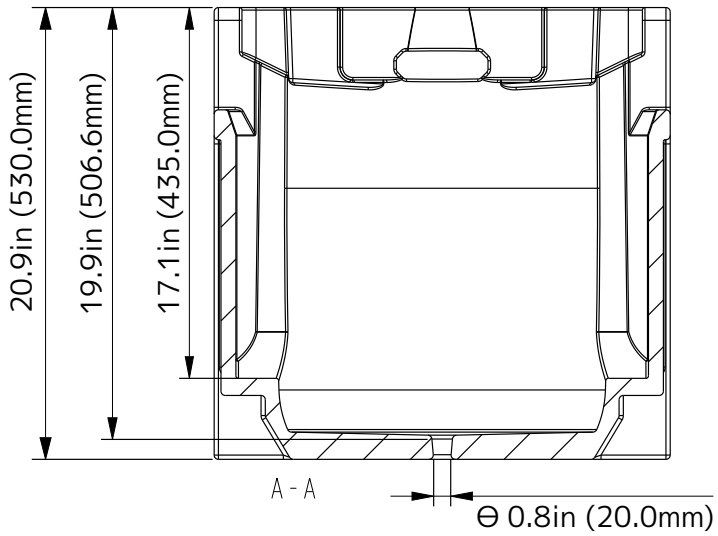
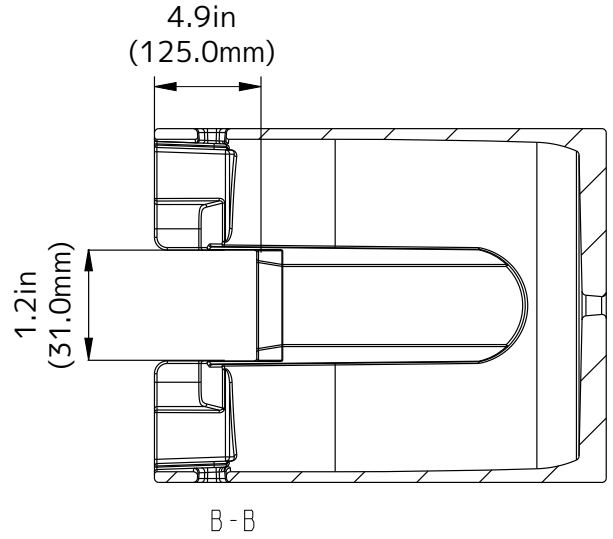
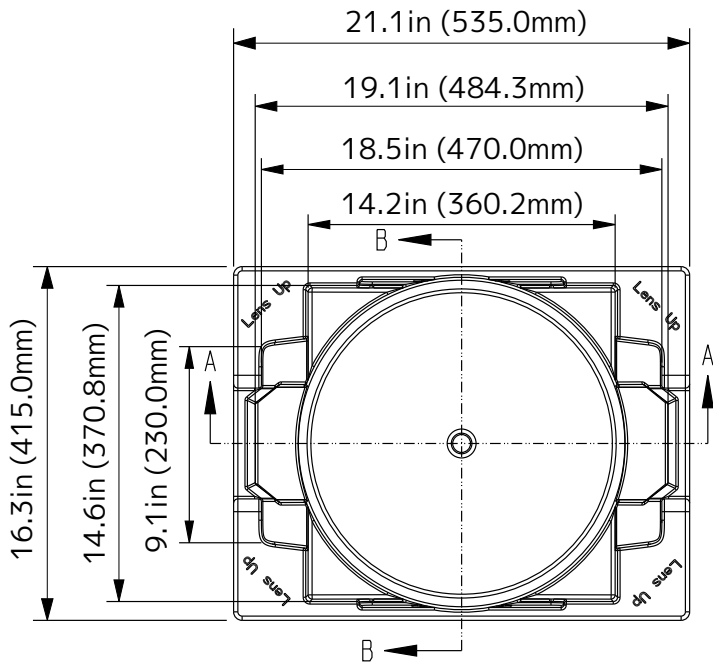
FIXTURE



Drawings not shown to scale.

DIMENSIONAL DRAWINGS

FOAM IN-LAY



Drawings not shown to scale.

SPECIFICATIONS

SOURCE

(19) 60W Osram RGBW LEDs

(76) 2W White SparkLED™

50,000 Hour Average LED Life*

*Test lab conditions. May vary depending on several factors including but not limited to: Environmental Conditions, Power/Voltage, Usage Patterns (On-Off Cycling), Control, and Dimming.

PHOTOMETRIC DATA

18.100 Total Lumen Output

CRI 80

Zoom Range 5° - 55°

Beam Angle 5.6° - 53.6°

Field Angle 7.8° - 71.1°

EFFECTS

Motorized Zoom

Linear Color Temperature Presets (2700-8000K)

RGBW Color Mixing and Pixel Control

White SparkLED Lens Effect

Color Presets and Macros

Electronic Strobe and Variable Dimming Curves

16-bit Dimming

Pan Angle: 360° (continuous rotation) / 540°

Tilt Angle: 360° (continuous rotation) / 270°

CONTROL / CONNECTIONS

3 DMX Channel Modes (25 / 100 / 176 channels)

360° Continuous Pan and Tilt Movement

DMX Adjustable Refresh Rate (900 -25000 Hz)

(6) Button Touch Panel

Full Color 180° Reversible LCD Menu Display

RDM Support

IP65 5pin XLR DMX In/Out

IP65 RJ45 Ethernet In/Out (Art-Net, sACN)

IP65 Locking Power Cable In

SIZE / WEIGHT

Length: 14.81 in (376.26mm)

Width: 18.41 in (467.68mm)

Height: 22.80 in (579.04mm)

Weight: 73.0 lbs. (33.1kg)

ELECTRICAL / THERMAL

AC 100-240V 50/60Hz

1600W Max Power Consumption

APPROVALS / RATINGS

CE | cETLus | IP65 | UKCA



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 equipment has been tested and found to comply with the limits for a class B digital device, pursuant to 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 that device.
- Increase the separation between the device and the receiver.
- Connect the device and the radio receiver to electrical outlets on separate circuits.
- Consult the dealer or an experienced radio/TV technician for help.

Please note that the changes or modifications of this product that are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



