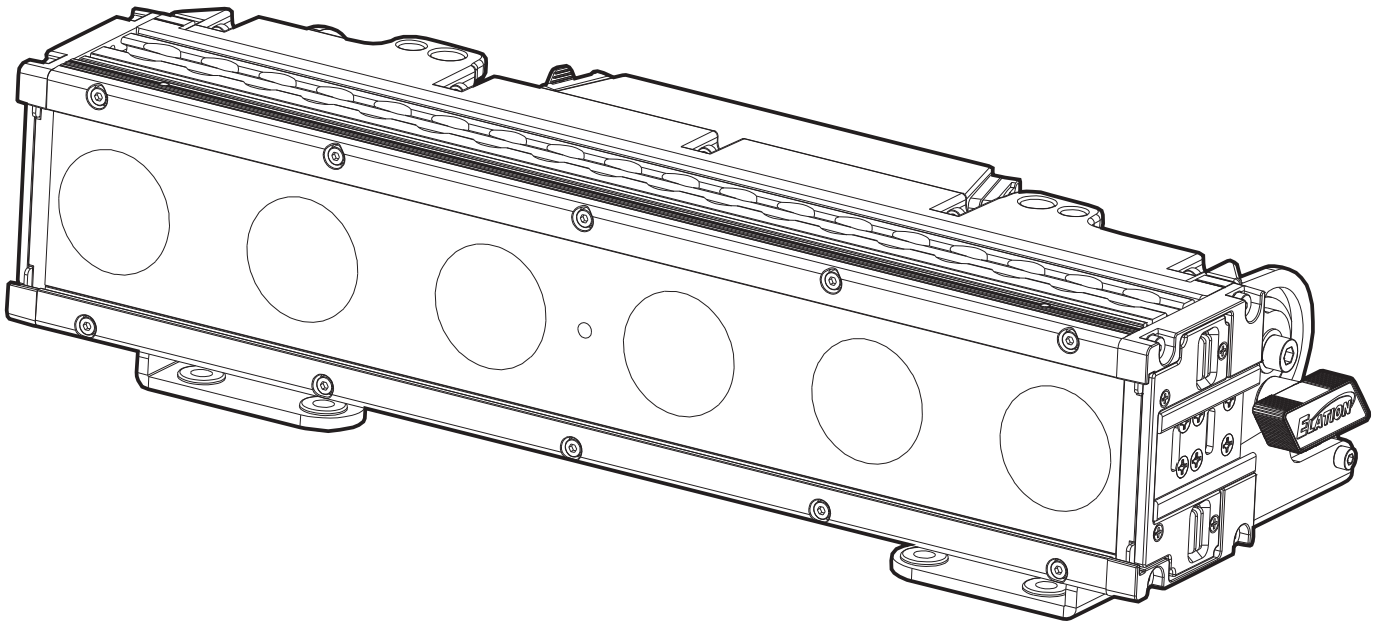
ELATION®



VOLT+ BAR S

user manual

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DOCUMENT VERSION

Due to additional product features and/or enhancements, an updated version of this document may be available online. Please scan the QR Code with your mobile device or visit www.elationlighting.com for the latest revision/update of this manual, before installation and/or programming.

Date	Document Version	Software Version	DMX Channels	Notes
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GENERAL INFORMATION

INTRODUCTION
Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this device. These instructions contain important safety and use information. **This device is intended for professional use only.**

UNPACKING
Every device has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton is damaged, carefully inspect the device for damage, and be sure all accessories necessary to install and operate the device have arrived intact. In the event damage has been found or parts are missing, please contact our customer support team for further instructions. Please do not return this device to your dealer without first contacting customer support. Please do not discard the shipping carton in the trash. Please recycle whenever possible.

BOX CONTENTS
Safety Cable
IP65 Locking Power Cable
Frost Filter
Glare Shield
Fixture Interconnect Splice

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 | support@elationlighting.com

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

REPLACEMENT PARTS please visit parts.elationlighting.com

LIMITED WARRANTY
For up-to-date warranty information regarding your device, please visit Elation's warranty information page online or scan the QR codes below.

USA: https://www.elationlighting.com/warranty-information

EU: https://www.elationlighting.eu/terms_and_conditions

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.

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/Seaside Environment Installations: A maritime/seaside environment is adjacent to the sea and caustic to electronics through exposure to atomized salt water and humidity, whereas a coastal environment extends 5 miles inland.

NOT suitable for maritime/seaside environment installations. Installing this fixture in a maritime/seaside 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/seaside environment will void the manufacturer's 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

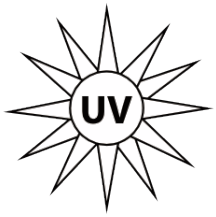
Although the base has limited moving parts, the pan belt should also be inspected for wear. Remember to always perform an IP test anytime a cover is removed.

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.

SAFETY GUIDELINES

⚠CAUTION

HIGH INTENSITY ULTRAVIOLET LIGHT



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

RISK GROUP 3 - RISK OF EXPOSURE TO ULTRAVIOLET UV RADIATION!

FIXTURE EMITS HIGH INTENSITY WAVELENGTH OF ULTRAVIOLET UV LIGHT FROM THE UV COLOR FILTER.

WEAR PROPER EYE AND SKIN PROTECTION. AVOID PROLONGED PERIODS OF EXPOSURE TO UV COLOR FILTER.

AVOID WEARING WHITE COLOR CLOTHING AND/OR USING UV PAINTS ON SKIN. AVOID DIRECT EYE AND/OR SKIN EXPOSURE AT DISTANCES LESS THAN 11 feet (3.3m).

DO NOT OPERATE FIXTURE WITH DAMAGED/MISSING EXTERNAL COVERS.

DO NOT LOOK DIRECTLY INTO THE UV LIGHT AND/OR VIEW UV LIGHT DIRECTLY WITH OPTICAL INSTRUMENTS THAT MAY CONCENTRATE THE LIGHT/RADIATION OUTPUT.

INDIVIDUALS SUFFERING FROM A RANGE OF EYE CONDITIONS, SUNLIGHT EXPOSURE DISORDERS, OR INDIVIDUALS USING PHOTOSENSITIVE MEDICATION, MAY RECEIVE DISCOMFORT IF EXPOSED TO THE ULTRAVIOLET UV LIGHT EMITTED FROM THE UV LED.

SAFETY GUIDELINES

This fixture is a sophisticated piece of electronic equipment. To guarantee a smooth operation, it is important to follow all instructions and guidelines in this manual. Elation Professional is not responsible for injury and/or damages resulting from the misuse of this fixture due to the disregard of the information printed in this manual. Only qualified and/or certified personnel should perform installation of this fixture and only the original rigging parts (omega brackets) included with this fixture should be used for installation. Any modifications to the fixture and/or the included mounting hardware will void the original manufactures warranty and increase the risk of damage and/or personal injury.

PROTECTION CLASS 1 - FIXTURE MUST BE PROPERLY GROUNDED.

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

MINIMUM DISTANCE TO OBJECTS/SURFACES MUST BE 1 FOOT (0.3 METERS)
MINIMUM DISTANCE OF FLAMMABLE MATERIALS FROM THE SURFACE 1.6 FEET (0.5 METER)
MINIMUM DISTANCE TO LIGHTED OBJECTS IS 1 METER (3.2 FEET)
AMBIENT OPERATING TEMPERATURE RANGE IS 5°F TO 113°F (-15°C TO 45°C)

SAFETY GUIDELINES

- **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.
- The luminaire is intended for professional use only.
- The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or similar qualified person.

BATTERY WARNINGS

HANDLING PRECAUTIONS

Do not short circuit the battery. Avoid subjecting the battery to a short circuit, as doing so generates a very high current, resulting in overheating, electrolyte gel leakage, harmful fumes, explosion risk, or other damage to the battery.

Mechanical shock. Dropping, impacting, striking, or bending the unit, or subjecting the unit to any other types of mechanical shock may cause failure or shortend life of the battery.

Do not disassemble the batteries. Never disassemble the batteries, as doing so may result in an internal short circuit in the battery, leading to fire, explosion, release of harmful fumes, or other hazards. Electrolyte gel is harmful, and contact should be avoided whenever possible. Should the electrolyte gel come into contact with the skin or eyes, flush the area of contact immediately with fresh water and seek medical attention immediately.

Do not expose battery to heat or fire. Never incinerate or dispose of the batteries in fire, as this could result in an explosion.

Do not exposure the battery to water or liquids. Never expose or immerse the batteries in liquids of any type, including water, seawater, soft drinks, juices, coffee, or other beverages.

Battery Replacement. For battery replacement please contact customer support.

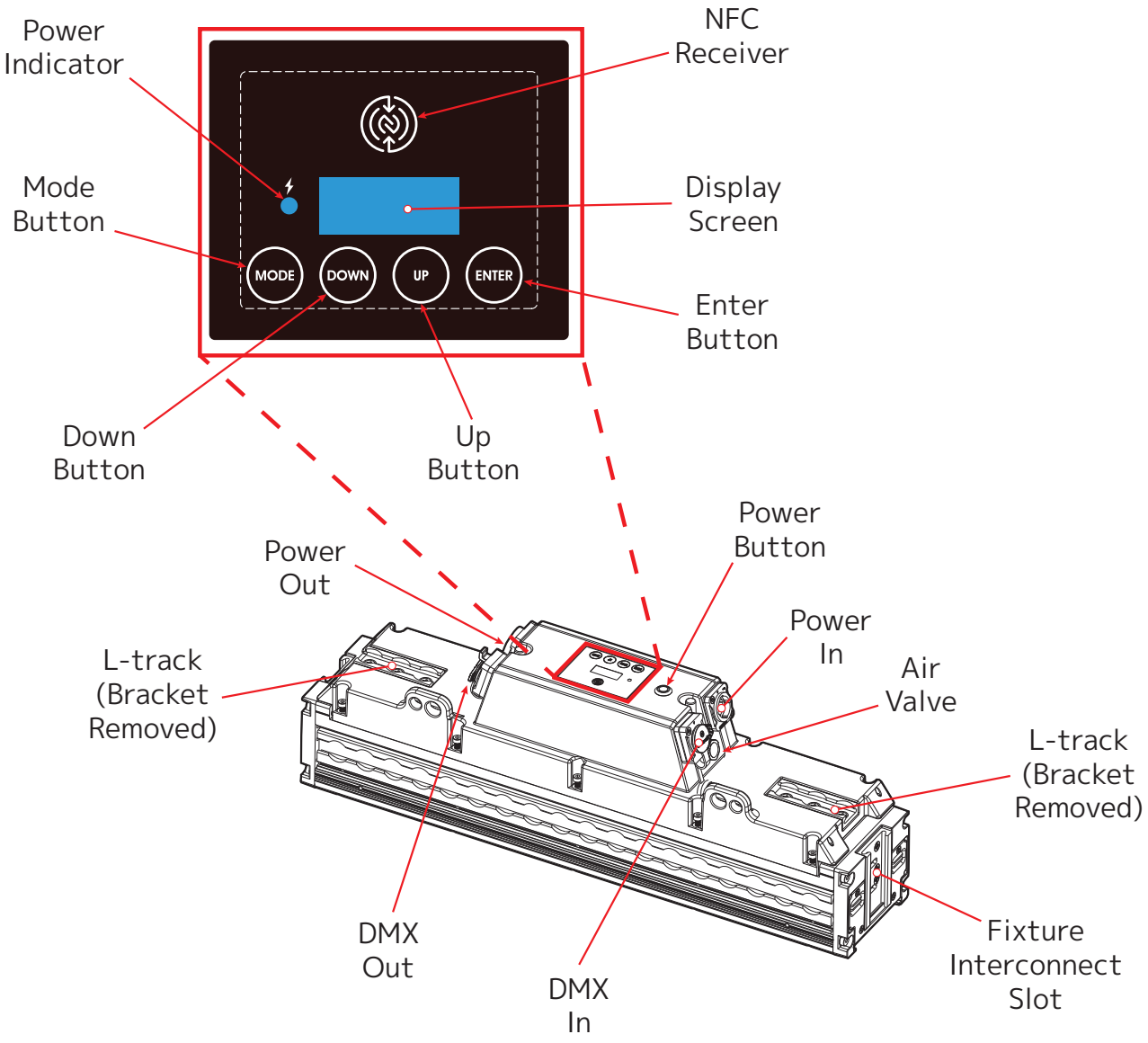
Never use a damaged battery. Shipping carries a risk of damage to the battery. Should damage be observed, including damage to the plastic casing of the battery, deformation of the battery package, chemical or electrolyte odor, or leakage of the electrolyte gel, or any other miscellaneous damage, **DO NOT** use the battery. A battery with a odor of electrolyte or a gel leakage should be placed away from fire to avoid risk of fire or explosion.

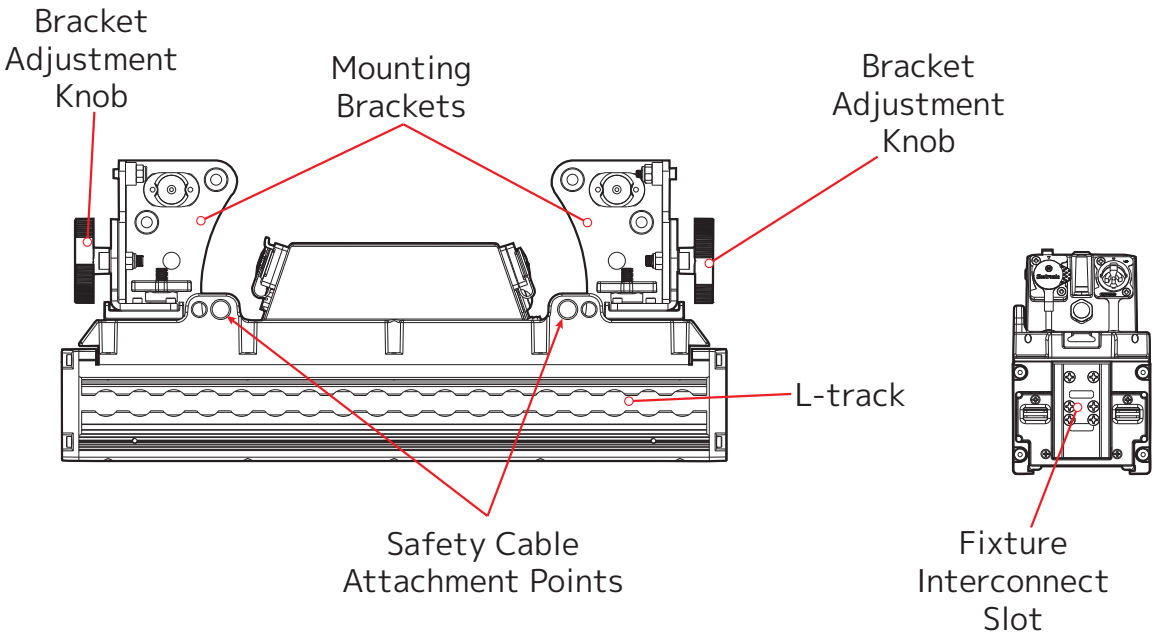
Battery Storage. The battery should be stored at room temperature, with a charge of at least 50%. During long periods of storage, it is recommended that the battery be charged every 6 months. Doing so will prolong the life of the battery and will also make sure that the battery charge does not fall below the 30% mark.

Other Chemical Reactions. Because batteries rely on a chemical reaction to work, battery performance will deteriorate over time, even if stored for a long period of time without being used. In addition, if various usage conditions (such as charge, discharge, ambient temperature, etc.) are not maintained within the specified ranges, the life expectancy of the battery maybe shortened or the device in which the battery is used may be damaged by electrolyte gel leakage. If the batteries cannot maintain a charge for long periods of time, even when they are charged correctly, this may indicate the need to replace the battery.

Battery Disposal. Please dispose of battery according to local regulations.

OVERVIEW


Power Indicator
NFC Receiver
Mode Button
Display Screen
MODE
DOWN
UP
ENTER
Enter Button
Down Button
Up Button
Power Out
Power Button
Power In
Air Valve
L-track (Bracket Removed)
L-track (Bracket Removed)
DMX Out
DMX In
Fixture Interconnect Slot


Bracket Adjustment Knob
Mounting Brackets
Bracket Adjustment Knob
L-track
Safety Cable Attachment Points
Fixture Interconnect Slot

INSTALLATION GUIDELINES

FLAMMABLE MATERIAL WARNING
Keep fixture minimum 1.6 feet (0.5m) 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 1 FOOT (0.3 METER).
MINIMUM DISTANCE TO FLAMMABLE MATERIALS IS 1.6 FEET (0.5 METER).
MINIMUM DISTANCE TO LIGHTED OBJECTS IS 3.2 FEET (1 METER).
AMBIENT OPERATING TEMPERATURE RANGE IS 5°F TO 113° F (-15°C TO 45° C).

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

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

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

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

Ambient operating temperature range is **5°F to 113°F (-15°C to 45°C).** Do not operate the fixture when the ambient temperature falls outside 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.

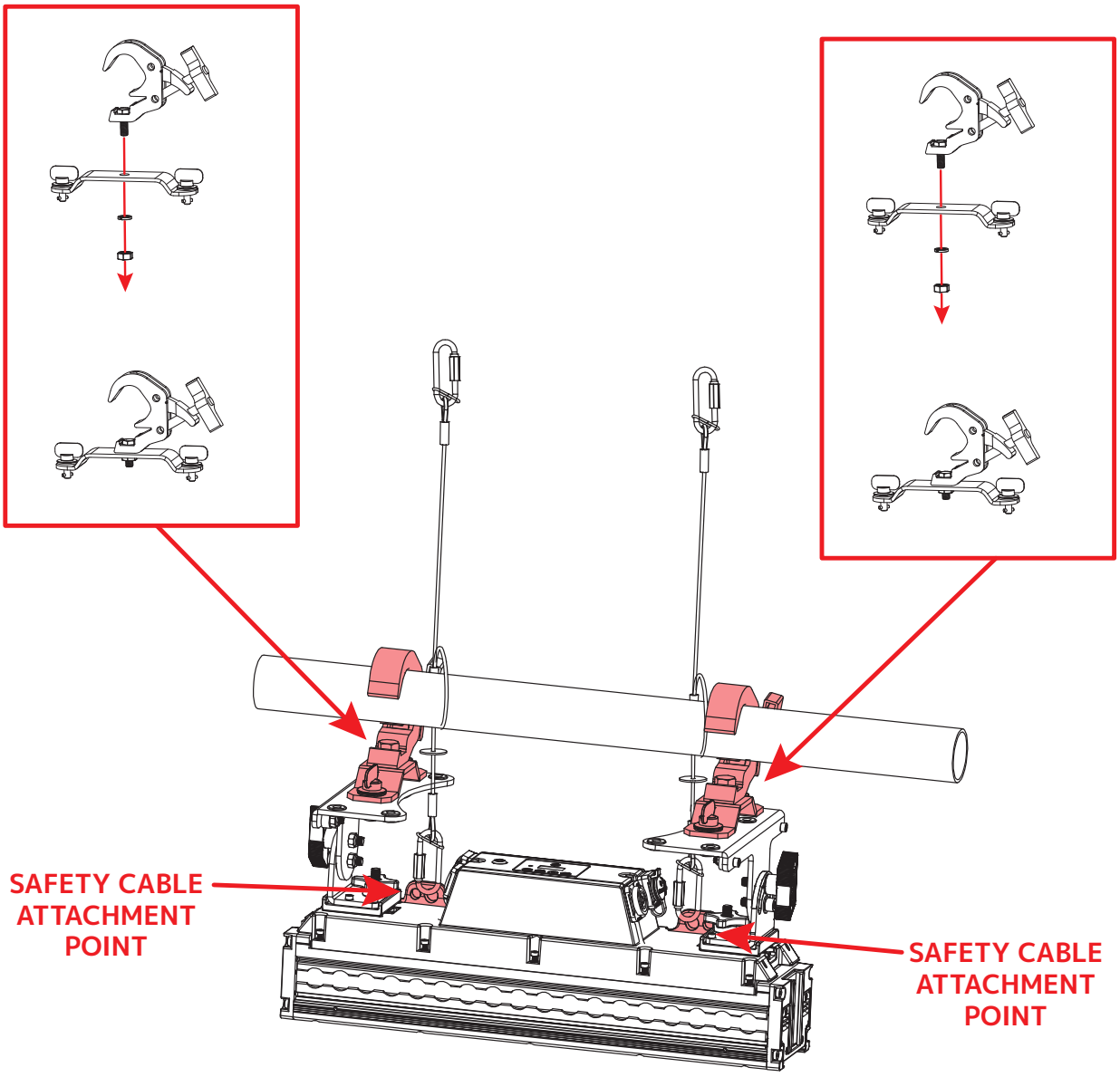
Allow approximately 15 minutes for the fixture to cool down before servicing.

Powering down the fixture when not in use is strongly recommended.

INSTALLATION GUIDELINES

CLAMP INSTALLATION: Insert a bolt of appropriate size and rating for the desired clamp through the mounting hole of the clamp, and then insert it into the center hole on the Omega bracket. The bolt should pass through both the clamp and the Omega bracket. Thread a matching washer and locking nut onto the shaft of the bolt that extends out from the underside of the Omega bracket. Then, insert the two Omega bracket twist-lock fasteners into the mounting holes on the fixture's mounting brackets, and twist to secure in place. **Please note that two mounting clamps are required to safety and securely install this fixture.**

SAFETY CABLE: The fixture provides a built-in rigging points for a Safety Cable on the rear of the fixture, near the power and DMX ports. Be sure to only use the designated rigging points for the safety cable, and never rely on any other location on the fixture to secure the safety cable.



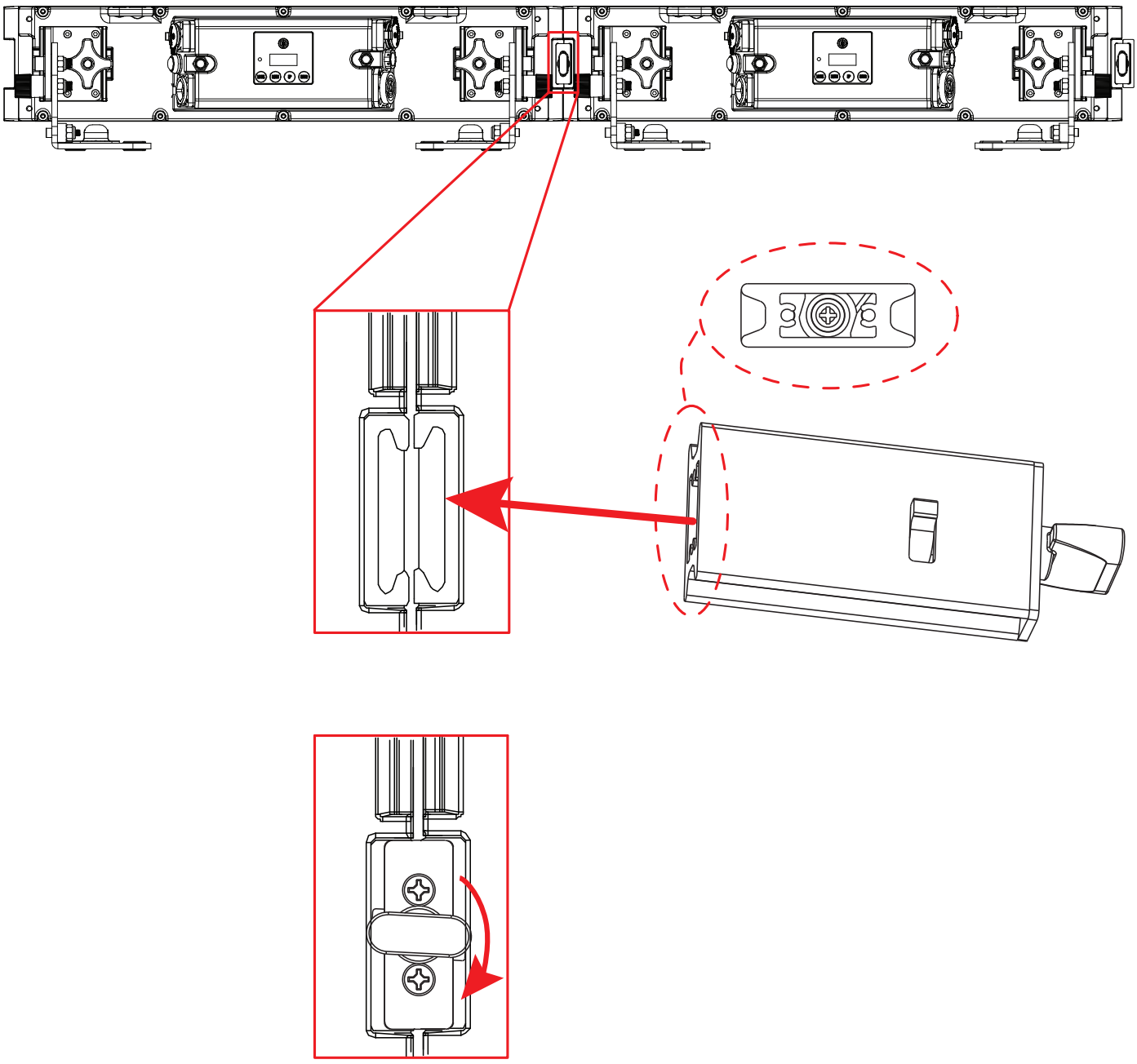
ALWAYS ATTACH A SAFETY CABLE WHENEVER INSTALLING THIS FIXTURE IN A SUSPENDED ENVIRONMENT TO ENSURE THAT THE FIXTURE WILL NOT FALL IF THE CLAMP FAILS. ONLY USE DESIGNATED RIGGING POINTS FOR SAFETY CABLE, AND NEVER ATTACH A SAFELY CABLE TO A CARRYING HANDLE.

INSTALLATION GUIDELINES

FIXTURE INTERCONNECT SPLICE

Individual fixtures can be physically linked together using the Fixture Interconnect Slots located along the sides of the fixture, in conjunction with included Fixture Interconnect Splices.

Begin by positioning the fixtures so that the Fixture Interconnect Slots are placed side by side. Insert the Fixture Interconnect Splice into the aperture created by the two Fixture Interconnect Slots, with one half of the Fixture Interconnect Splice inserted into each Fixture Interconnect Slot. Turn the knob on the Fixture Interconnect Splice to lock in place. Please refer to the illustrations below.

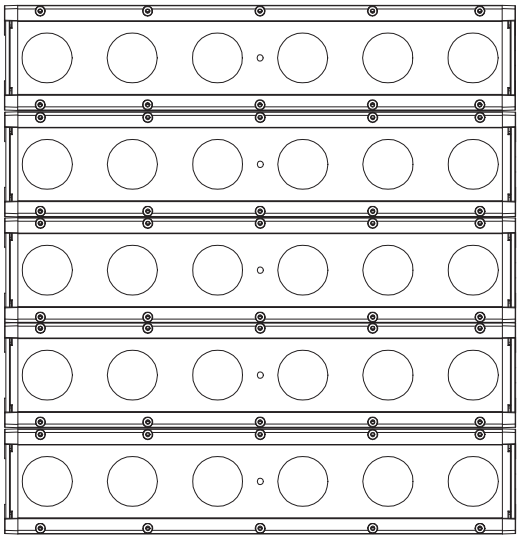


INSTALLATION GUIDELINES

RIGGING LIMITS

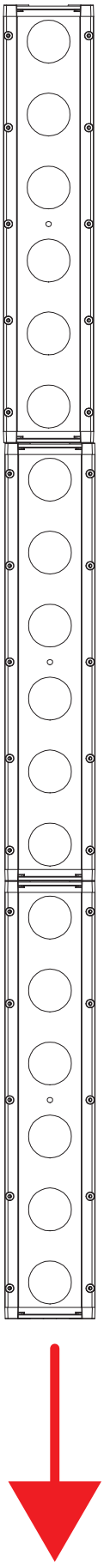
HORIZONTAL SUSPENSION

When utilizing the provided Trunnions for rigging in a horizontal array orientation, the maximum capacity is 5 fixtures, or 96 lbs (43.54 kg). However, if employing the L-Track for rigging in the same orientation, the maximum capacity increases to 9 fixtures, or 187 lbs (84.82 kg).



VERTICAL SUSPENSION

When rigging vertically with Interconnect Splices to connect fixtures, the maximum capacity is 9 fixtures, or 187 lbs (84.82 kg).



ATTENTION! It is crucial to ensure that any arrangement consisting of multiple interconnected fixtures, whether in a vertical, horizontal, or shaped configuration, is securely and properly supported and fixed to prevent any movement that may arise from lateral forces, such as wind or physical contact with a person or other object.

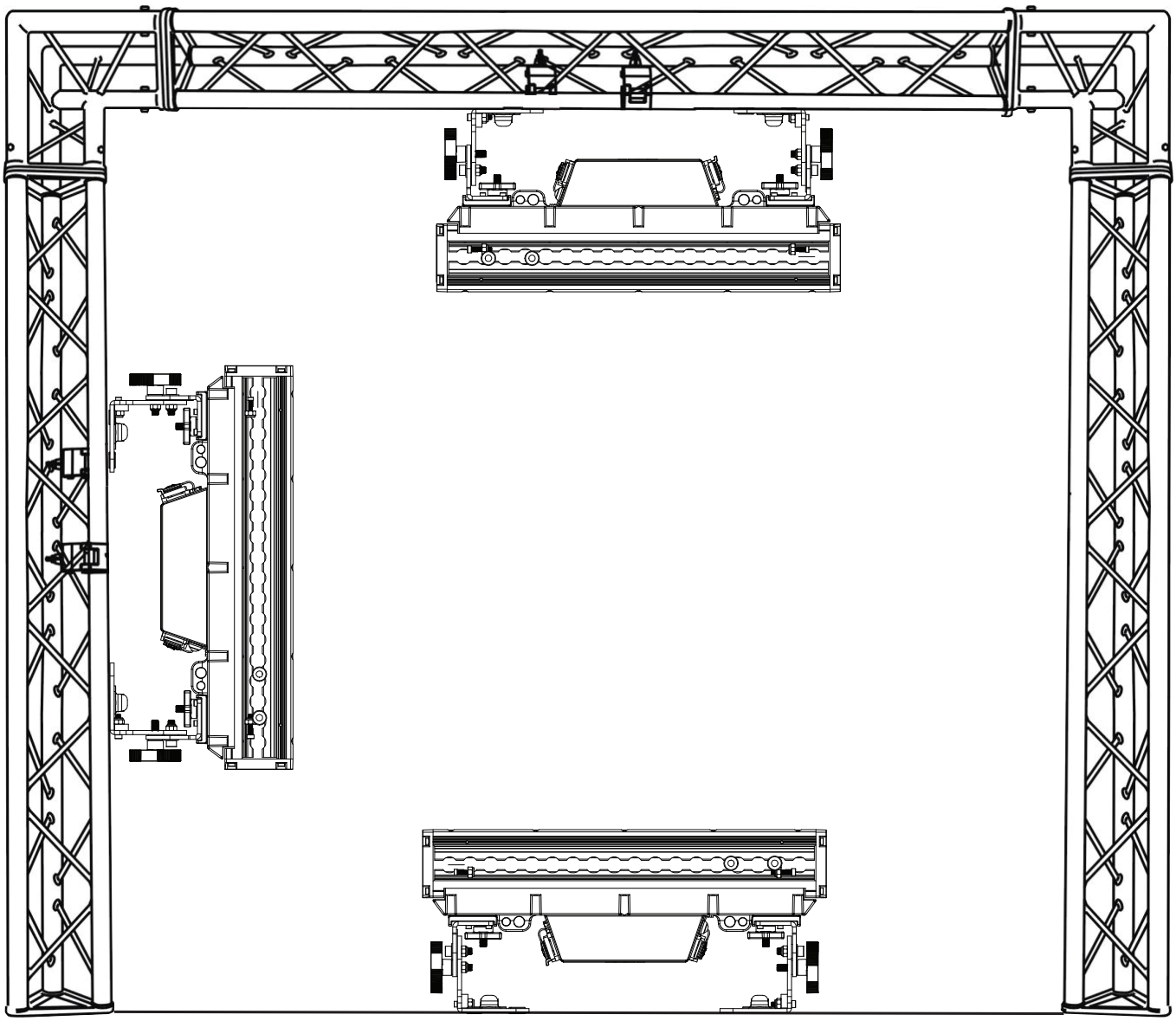
IF THE FIXTURES ARE PART OF A LARGER ARRAY, ATTACH A SAFETY CABLE TO THE SAFETY CABLE ATTACHMENT POINT ON THE BACK OF EACH FIXTURE. FOR RIGGING PURPOSES, SECURE THE TOP SAFETY CABLE TO A FIXED POINT AND LOOP EACH SUBSEQUENT SAFETY CABLE THROUGH THE ONE ABOVE IT.

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.



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.

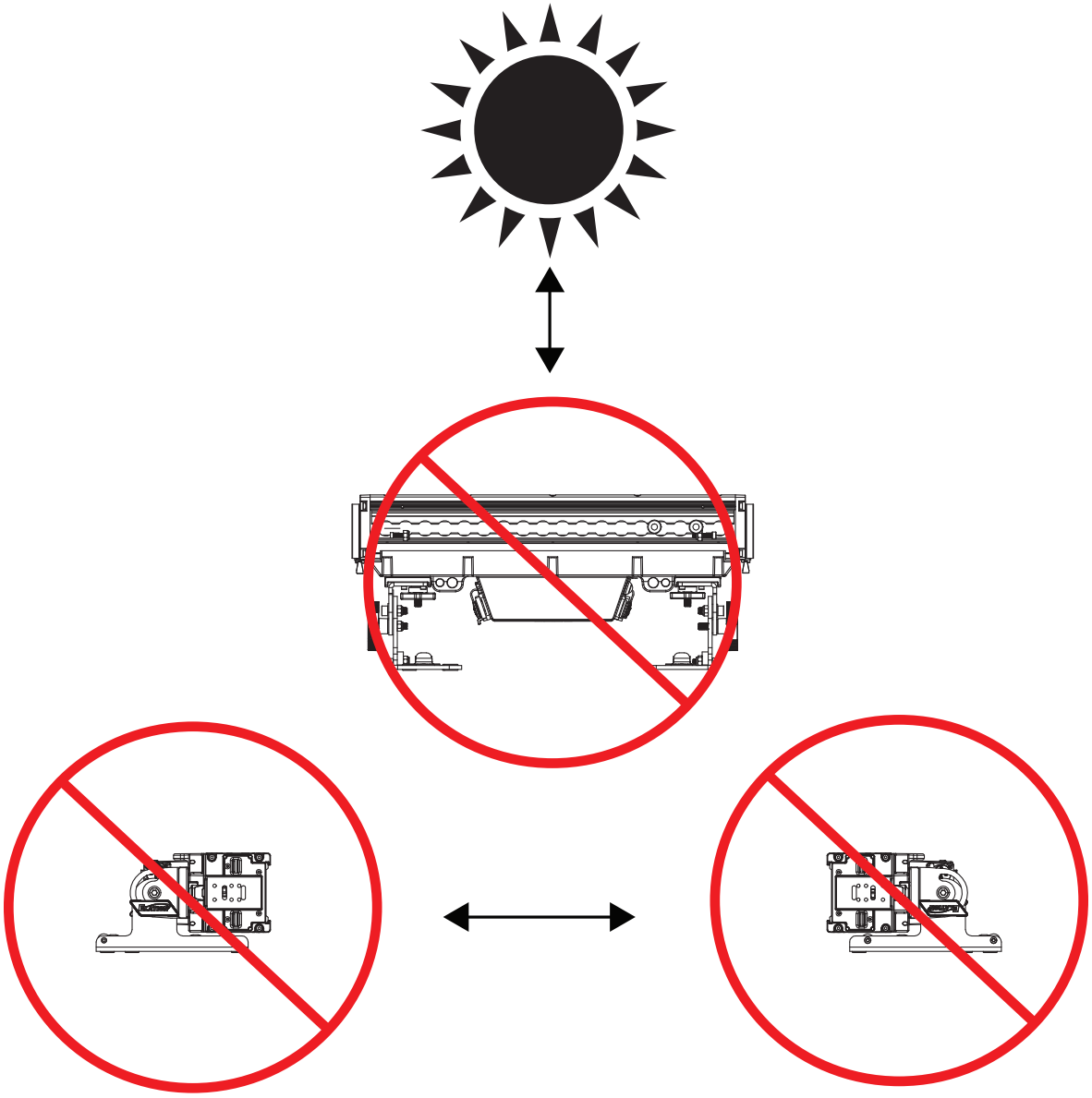
INSTALLATION GUIDELINES

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.

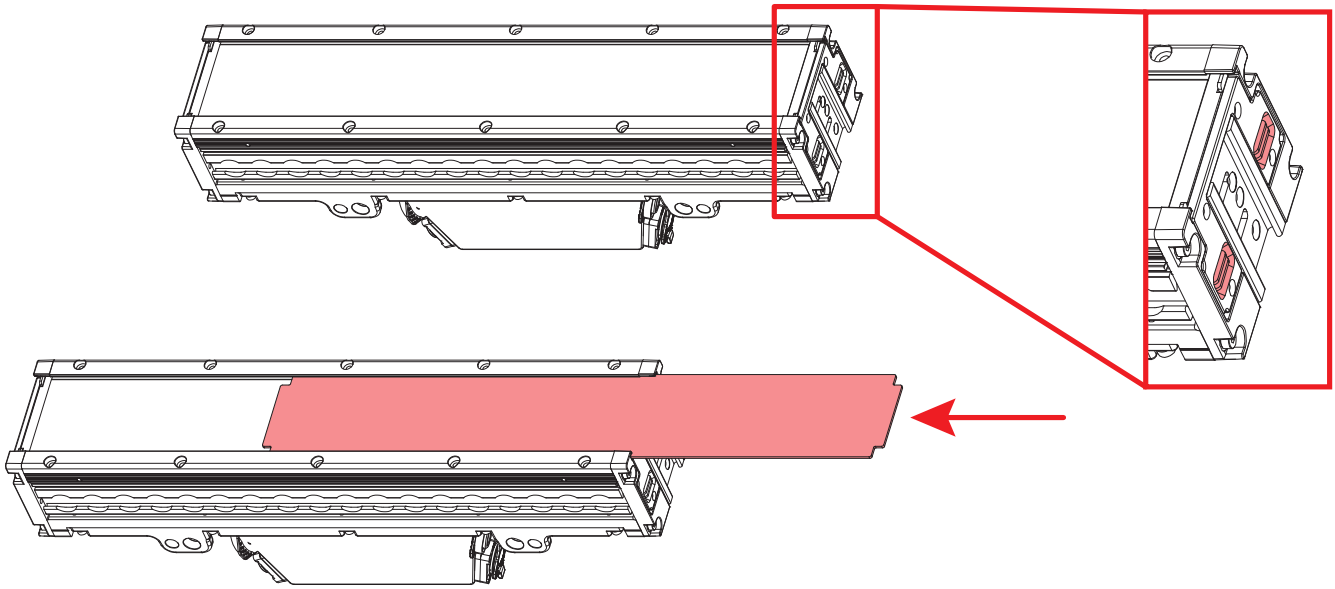
DO NOT EXPOSE THE FIXTURE AND/OR FRONT LENS OPENING TO LIGHT BEAMS FROM DIRECT SUNLIGHT, OTHER FIXTURES, OR LASERS UNDER ANY CIRCUMSTANCES. PLEASE NOTE THAT THIS INCLUDES EXTENDED PERIODS OF NON-USE, AS DAMAGE CAN OCCUR EVEN WHEN THE FIXTURE IS OFF. NEVER FOCUS A LIGHT BEAM FROM ONE LIGHTING FIXTURE DIRECTLY TOWARDS ANOTHER.



ACCESSORY INSTALLATION

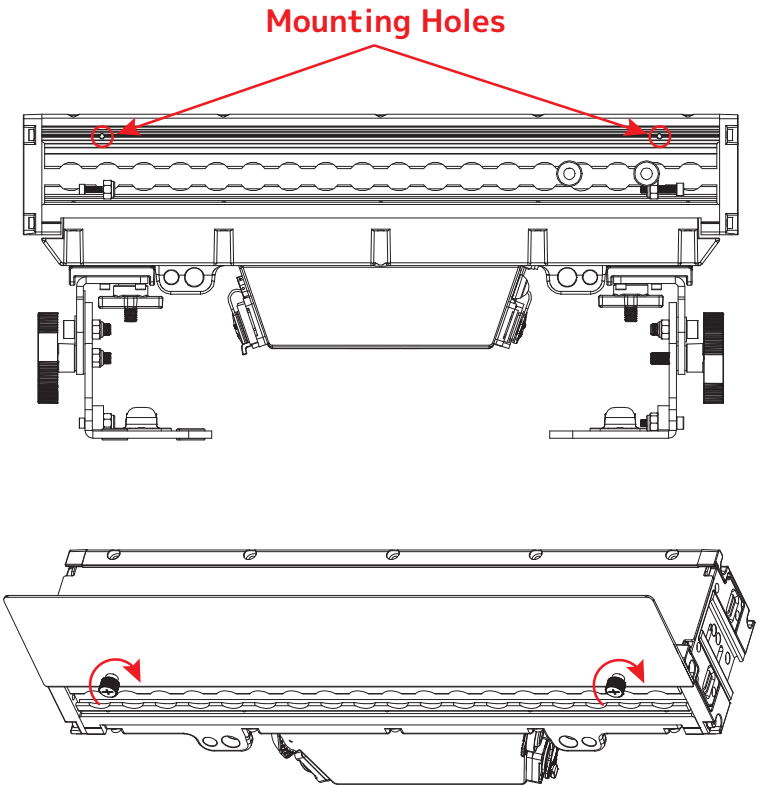
FROST FILTER

To install the optional frost filter, pull down on the lock tabs on the side of the unit, then slide the frost filter into place in the fixture's frame. Push the lock tab back up to secure the frost filter in place.



GLARE SHIELD

To install the optional glare shield, locate the two mounting holes on the side of the fixture, just below the edge of the lens frame. Align the mounting holes on the glare shield with the mounting holes on the fixture, then insert the screws and tighten to secure in place.

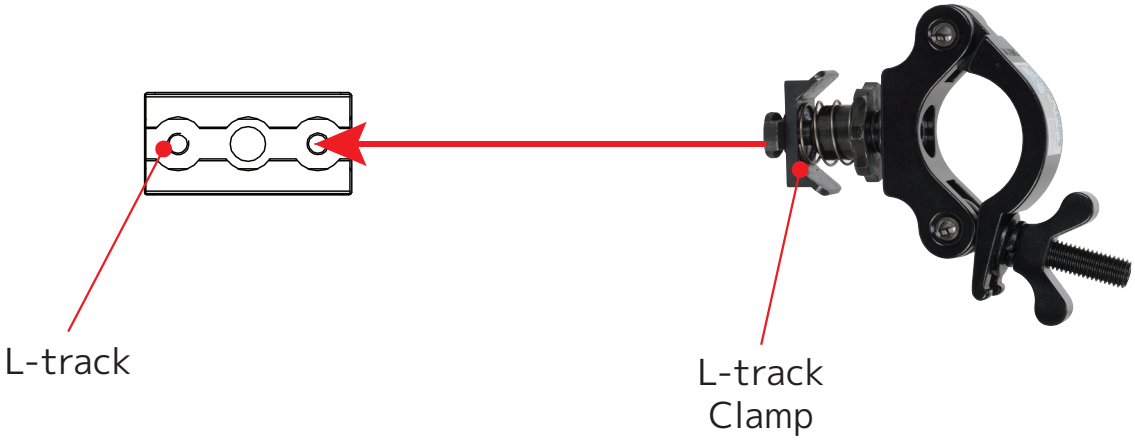


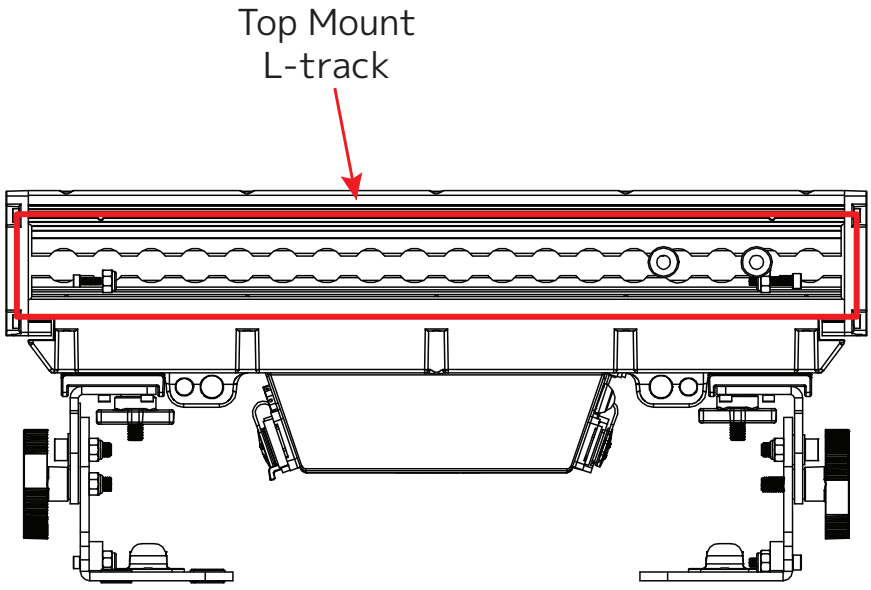
ACCESSORY INSTALLATION

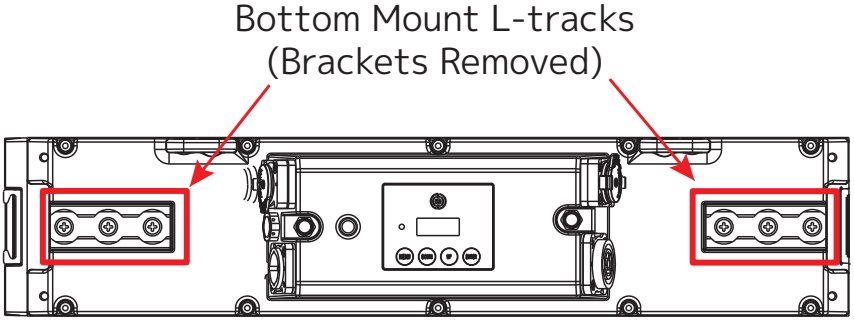
L-TRACK MOUNTING

Alternately, this unit's L-track mounting system allows the user to slide the mounting clamps along the tracks and lock them down in the desired position. The L-tracks are located along the long sides of the unit's body, as well as on the underside where the mounting brackets attach. Special L-track mounting clamps, which incorporate an L-track attachment rail in place of a mounting bolt hole, are available in both regular and extended lengths. Similarly, L-track adapters are also available which can be fitted to any standard mounting clamp.

To attach an L-track clamp or adapter, simply insert the attachment rail into the matching track on the fixture, slide to its desired location, and tighten the fastener knob on the attachment to secure in place.

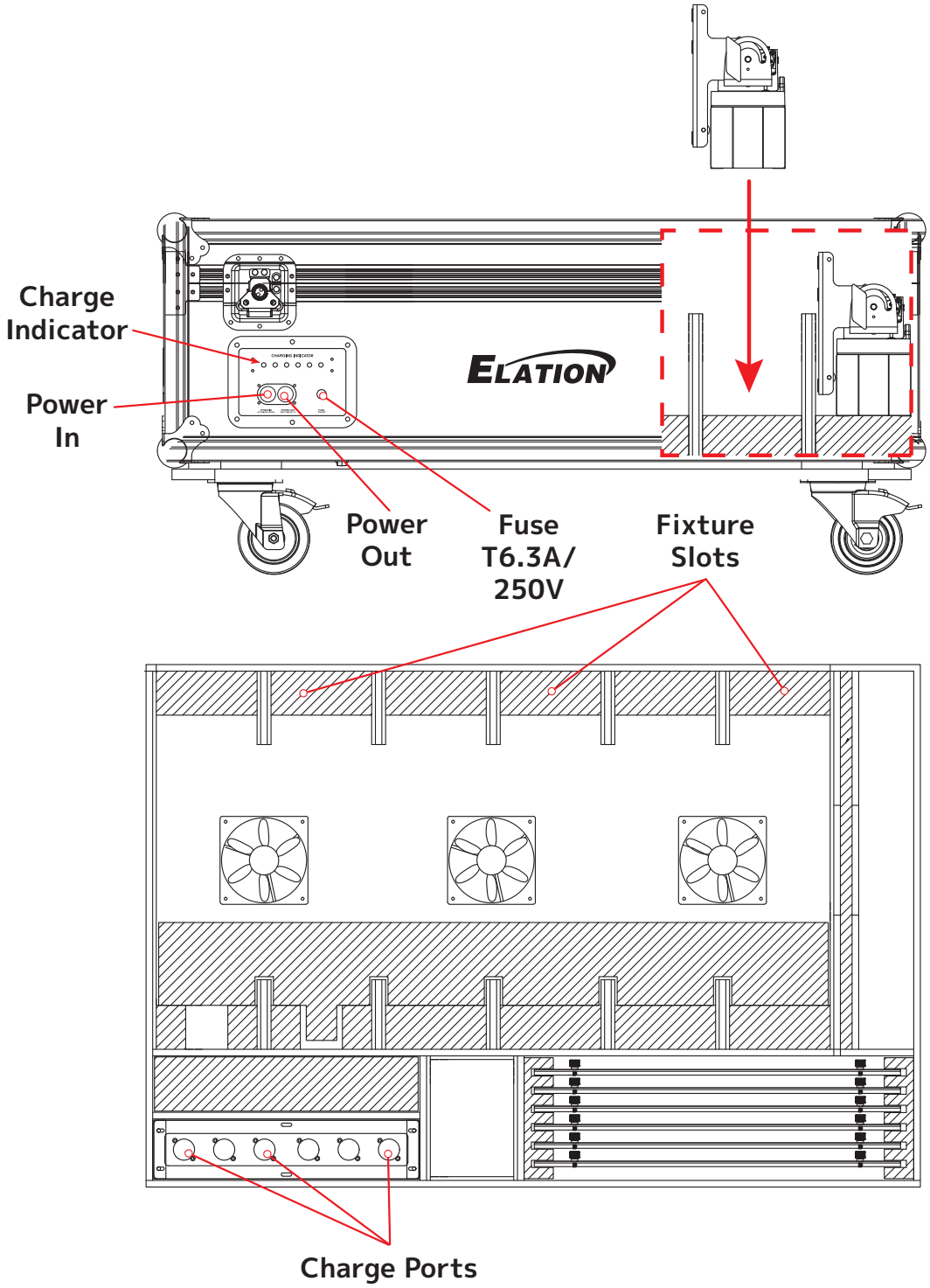






ROAD CASE CHARGING

Elation's optional road case allows charging of up to six Volt+ Bar S fixtures. To use the road case to charge fixtures, connect the case's Power In port to the power source. If desired, the Power Out port can be used to link to a second road case. **Up to 2 fully loaded road cases may be daisy chained together in this manner, allowing simultaneous charging of up to 12 fixtures.** On the fixture itself, fold the mounting brackets and slot the fixture into one of the six available slots, as shown below. Then use one of the included charging cables to connect the fixture's Power In port to one of the case's interior charge ports. The road case features a set of charge indicator LEDs located near the exterior power ports which illuminate to indicate the charge status of the fixtures inside.



NEAR FIELD COMMUNICATION (NFC)

Near Field Communication (NFC) is a short-range wireless technology, operating at 13.56 MHz, that enables secure data exchange between devices within a proximity of 6-inches. With NFC, one can use an Android or iOS device to configure an NFC compatible fixture. NFC has three modes of operation: Reader/Writer Mode, which allows an NFC device to read or write data to an NFC tag; Peer-to-Peer Mode, enabling data exchange between two NFC devices; and Card Emulation Mode, which lets an NFC device emulate a contactless smart card. The technology is built on RFID standards, including ISO/IEC 14443 and ISO/IEC 18092, ensuring compatibility between NFC devices. Despite its lower data transfer rates compared to Wi-Fi or Bluetooth, ranging from 106 kbps to 424 kbps, NFC incorporates encryption and authentication protocols. NFC tags on lighting fixtures simplify setup and adjustments, and aid in tracking and maintenance when integrated into lighting equipment.

NFC Setup and Usage

- Enable NFC: Activate NFC on both the control device and the fixture.
- Physical Proximity: Bring the control device near the designated NFC area of the fixture indicated by the NFC directional mark shown here.

- Initiate Connection: The NFC-enabled device should automatically detect the fixture, prompting a connection notification.
- Confirmation: Accept the connection request to establish a link between the control device and the fixture.
- Configuration Options: Adjust lighting settings, presets, and modes via the control device, depending on fixture capabilities.
- Data Exchange: Use NFC to transfer presets, scenes, and firmware updates between devices, simplifying data sharing.

Tips for Successful NFC Interaction

- Proximity: Maintain a short-range distance, within 6-inches, between the control device and the indicated NFC area of the fixture.
- Device Compatibility: Ensure your device supports NFC, and has the necessary apps for interaction.
- Interference: Avoid obstacles between the devices, like metal objects, to ensure smooth communication.
- Security: Disable NFC when not in use for added security against unauthorized access.

FREQUENCY & WIRELESS LOCATION GUIDELINES

2.4GHZ Versus Sub-Gig (GHz) Frequencies:

Sub-GHz frequencies provide superior reliability and range compared to higher frequencies, making them perfect for consistent communication across vast distances or in difficult conditions. Devices operating in the sub-GHz range, which refers to frequencies below 1 GHz, can transmit signals over significant distances and can penetrate physical barriers such as walls and buildings more effectively. Additionally, these frequencies experience less interference compared to those in the heavily congested 2.4-GHz band, which is commonly used by wireless devices.

In the United States, the 900 MHz band is a versatile frequency range that is utilized by various services, with the FCC overseeing its allocation and regulation.

In the European Union, the 868 MHz frequency is designated by ETSI as the Sub-Gig frequency.

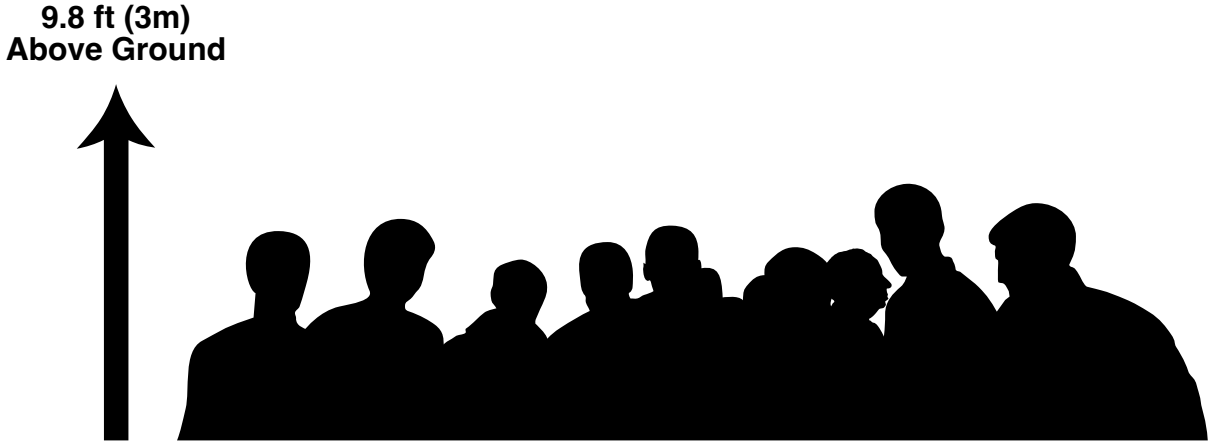
In summary, if an application demands high data rates and more bandwidth in urban or densely populated areas where interference management is feasible, the 2.4 GHz frequency is a suitable choice. On the other hand, for applications requiring long-range communication and better obstacle penetration, particularly in rural or industrial settings with fewer regulatory constraints, a sub-GHz frequency (<1 GHz) is a better option.

Installation Recommendations:

With the many factors that affect and/or interrupt a wireless signal such as walls, glass, metal, objects, and people, it is highly recommended to:

- Install devices a minimum of 9.8 ft. (3m) above audiences and/or ground level where practical.
- Adjust the wireless antenna in a vertical upright position
- Position devices in direct line of sight of the controlling device

Careful planning and testing of the selected installation location is critical to ensure optimum and reliable wireless operation.



ARIA SETUP GUIDELINES

GENERAL INFORMATION

The Aria Bluetooth app has the ability to connect wirelessly to any device that has Aria wireless DMX installed and has Bluetooth enabled.

Before installing the fixture in a remote location, double check that the fixture's main power is switched on, and that the Bluetooth function has been enabled in the fixture's system menu. Certain fixtures may have Bluetooth disabled by default. If this function is disabled, then the fixture cannot be configured remotely using the Aria app, and will have to be configured directly from the fixture's control screen.

Additionally, the user should consider setting the fixture's No DMX setting to "Hold Last". This will allow the fixture to continue running using the current settings, even if the Aria app device moves out of range, the app is closed, or the signal is otherwise interrupted, minimizing disruption in the operation of the fixtures.

LEGACY DEVICES

Please note that legacy connected devices, such as those using Wifly, E-Fly, or Magfly, are not compatible with this app. For such legacy devices, the use of a bridge is recommended, as the bridge can communicate with these devices via its SM220 protocol.

The Aria X2 BLE app is currently available from the Apple app store.

FIXTURE IDENTIFICATION

Aria compatible devices can be identified and connected via the Fixtures tab in the app. This tab displays a field of twenty-four buttons that can be assigned to Aria compatible devices that are within range, and the buttons will automatically be assigned to devices in the order in which they are discovered. If more than twenty-four units are within range, it may be necessary to use the filter feature to search for the desired fixture. Button location can be edited by selecting the configuration key, then the user can drag and drop the buttons to the desired location and hit save to keep changes. Once a device is known to the app, it can also be assigned to a particular button. From that point forward, the assigned device will always be assigned to that button location.

IMPORTANT NOTE: For version 0.65 or higher, a shared system password is required to connect to any device.

Unlike wireless DMX, Bluetooth is a connect first protocol. To connect to a device or fixture, tap the assigned button in the Fixtures tab. If the connection is successful, a green frame will appear around the button, indicating that the app was able to retrieve the current channel values from the fixture. The app must be connected to a fixture in order to use its channel controls or view and change settings. Please note that not all Aria devices have channel controls.

Additionally, each fixture can only be connected to one device with the app at any given time. Once a fixture is connected to the app installed on one device, any other devices will be blocked from connecting. As a result, when setting up a new fixture for the first time, best practice is to have only a single user with the app open within range, in order to ensure that the fixture pairs to the intended user's device.

ARIA SETUP GUIDELINES

DETECTED DEVICES

The second table section shows all Aria devices detected in range. A checkmark indicates the device is currently assigned to a button. If more than 24 devices are within range, the user may remove or add devices to the buttons list by tapping a row to check or uncheck a device. If all buttons are full, it will be necessary to uncheck a device before adding another.

Filter: The user can filter which Aria devices get button assignments by tapping “filter” at the top of the view. A popup will appear where the user can enter text to filter devices by username, model name, or manufacturer. **Please note that these searches are case sensitive.**

Note: If a device shows an asterisk (*) it means that there is no fixture profile currently available, and therefore there will be limited support available for that device. The user will still be able to connect and adjust channels if the device supports that feature, but the user will not be able to view how many channels the device has or the channel names.

SECURITY

Each fixture must have a password saved to be secure. When a new fixture is installed for the first time, its password will automatically be set to the app’s system password on first connection. Once the password has been entered, the user will need to exit out to the main page containing the fixture buttons, then de-select and re-select the fixture to lock in the password. From that point forward only, controlling devices that use the correct password can connect to this fixture. **This security is now required by law in most jurisdictions.**

The app will detect any Aria capable fixture within range, even if the app does not have the password to that fixture and therefore cannot access that fixture. If that fixture is selected in the app, the green frame will momentarily appear around that fixture’s button, but then disappear. This indicates that the fixture is visible but inaccessible.

REMOTE DEVICE MANAGEMENT (RDM)

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

Remote Device Management (RDM) is a protocol that sits on top of the DMX512 data standard for lighting, allowing the DMX systems of the device to be managed, modified, and monitored remotely (hence, remote device management). This protocol is ideal for fixtures installed in locations that are not easily accessible.

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

FIXTURE RDM INFORMATION:

RDM Code	Device ID	Device Model ID	Personality ID
0x22A6	0x0059 xxxx	0x0059	1ch, 3ch, 6ch, 9ch, 14ch, 17ch-A, 17ch-B, 23ch-A, 23ch-B, 35ch, 47ch, 83ch, 36ch

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.

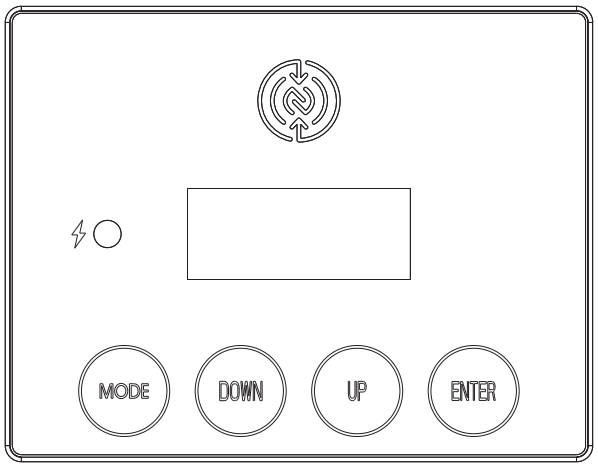
The following parameters are accessible in RDM on this device:

Preset Playback	Device Hours
Default Slot Value	**Comms Status**
Boot Software Version Label	Status ID Description
Boot Software Version ID	Clear Status ID
Product Detail ID List	Lamp Hours
Status Messages	Lamp Strikes
Proxied Device Count	Lamp State
Sensor Definition	Lamp On Mode
Sensor Value	Device Power Cycles
Device Model Description	Display Invert
Manufacturer Label	Display Level
Device Label	Real Time Clock
DMX Personality	Power State
DMX Personality Description	Queued Message

CONTROL PANEL

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

- During normal operation, pressing the **MODE** button once will access the fixture's main menu.
- Once in the main menu you can navigate through the different functions and access the sub-menus with the **DOWN** and **UP** buttons.
- Once you reach a field that requires adjusting, press the **ENTER** button to activate that field and use the **DOWN** and **UP** buttons to adjust the field.
- Pressing the **ENTER** button once more will confirm the setting.
- Exit the main menu at any time without making any adjustments by pressing the **MODE** button.



KEY LOCK

The control keys can be configured to lock after a pre-set period of inactivity. The keys are locked by default, but this setting can also be disabled or set activate after a period of inactivity ranging from 10 seconds and 5 minutes. To change this setting, use the control panel keys to navigate to Settings > Display > Screen Lock in the system menu, then use the UP and DOWN keys to select your desired value. Press the ENTER button to confirm your selection. **To unlock the controls, press UP, DOWN, UP, DOWN, ENTER.**

ARIA

This fixture is equipped with Aria X2. Please note that Aria's wireless functions are switched off by default. Activate Aria X2 and Bluetooth in the system menu to take advantage of the fixture's wireless feature set for wireless connectivity and over the air software updates.

SYSTEM MENU

MAIN MENU	OPTIONS / VALUES (Default Settings in **BOLD**)		
DMX	DMX Address	**001** - 512	
	DMX Mode	1ch Dimmer	
		3ch RGB	
		6ch Color	
		9ch Color & Dimmer	
		14ch CMY	
		17ch CMY Extended	
		17ch Standard	
		23ch Extended	
		23ch 2-Cell Standard	
		35ch 2-Cell Extended	
		47ch 6-Cell Standard	
		83ch 6-Cell Extended	
		36ch Raw 6-Cell	
	No DMX Status	**Hold Last**	
		Fade to Black	
		Standalone	
	Protocol	Select Signal	**DMX**
			Aria In - DMX Out
			DMX In - Aria Out
	Aria	Enable Aria	**Off** / On
		Frequ-ency	**2.4 GHz**
			Sub Gig US
			Sub Gig EU
		2.4 GHz Chan	**00** - 15
		Sub Gig Chan	**00** - 09
		Enable Mesh	**Off** / On
		Enable Bluetooth	**Off** / On

SYSTEM MENU

MAIN MENU	OPTIONS / VALUES (Default Settings in **BOLD**)		
CONTROL	Program	Program 1	
		Program 2	
		Program 3	
		Program 4	
		Edit Program (see Edit Program Menu section)	
	Manual Control	Dimmer	000% - **100%**
		Red	0 - **255**
		Green	0 - **255**
		Blue	0 - **255**
		Lime	0 - **255**
		Amber	0 - **255**
		UV	**0** - 255
		CCT	2400K - 8500K (Default = **6000K**)
		Virtual Color	See Color Macros
	Primary	On / **Off**	
	Secondary	On / **Off**	
	Self Test	All	
		Dimmer	
		Color	
SETTINGS	Dim Modes	**Standard**	
		Stage	
		TV	
		Architectural	
		Theatre	
		Stage 2	
		Dim Speed	0s - 10s (Default = **0.1s**)
	Dim to Warm	On / **Off**	
	Dim Curves	Linear	
		Square	
		Square Inverse	
		S-Curve	
	LED Refresh Rate	900Hz - 1500Hz, 2500Hz, 4000Hz, 5000Hz, 6000Hz, 10KHz, 15KHz, 20KHz, 25KHz (Default = **1200Hz**)	
	LED Power Limit	50%	
		60%	
		70%	
		80%	
		90%	
		100%	
	Pixel Flip	Yes / **No**	

SYSTEM MENU

MAIN MENU	OPTIONS / VALUES (Default Settings in **BOLD**)		
SETTINGS (continued)	Display	Screen Delay	10s - 5min (Default = **1min**)
		Screen Lock	Off, 10s - 5min, **Key Lock**
		Rotate Display	Yes / **No** / Auto
	IR Active	**Off** / On	
	Charging Indicator LED	**On** / Off	
	Runtime Mode	**2 Hours**	
		4 Hours	
		8 Hours	
		12 Hours	
	Reset Defaults	Yes / **No**	
INFOR-MATION	Battery	Charge	
		Charge Time	
	Time	Current Run Time	
		Total Run Time	
		Last Run Time	
	Temperature	Current	
		PSU Temp	
		Battery Temp	
		Max Resettable	
		Max PSU Temp	
		Max Battery Temp	
	Humidity	Current	
	DMX Values	Red	
		Green	
		...	
	Product IDs	RDM UID	
	Error Logs	Fixture Errors	
	Software Version	Vx.x	

SYSTEM MENU

MAIN MENU	OPTIONS / VALUES (Default Settings in **BOLD**)	
SERVICE	Calibration	All Red 0 - 255
		All Green 0 - 255
		All Blue 0 - 255
		All Lime 0 - 255
		All Amber 0 - 255
		All UV 0 - 255
		Red1 0 - 255
		Green1 0 - 255
		Blue1 0 - 255
		Lime1 0 - 255
		Amber1 0 - 255
		UV1 0 - 255
		...
		Red6 0 - 255
		Green6 0 - 255
		Blue6 0 - 255
		Lime6 0 - 255
		Amber6 0 - 255
		UV6 0 - 255
	Reset Last Run	Yes / No
	Reset Error Logs	Yes / No
	Reset Max Temp	Yes / No

EDIT PROGRAM MENU

	RGB			
	CMY			
	Random Color			
	Dimmer Wave	Red	Dim Wave Intensity	Max% to Min%
		Green		
		Blue		
		Amber		
		UV		
		Magenta		
		Cyan		
		Yellow		
		Cool White		
		Warm White		
		Virtual Color 1 - 60		
	Speed	1 sec - 10 min		
	Fade Time	0 sec - 1 min		
	Pixel Count	1		
		2		
		6		
	Fixture Offset	Synchronized		
		2		
		3		
		...		
		10		
		Random		

EDIT PROGRAM MENU

CUSTOM	Number of Steps	1, 2, 3...10				
	Step Effect	Step 1	Red		Intensity	1 - 100%
			Green			
			Blue			
			Amber			
			UV			
			Magenta			
			Cyan			
			Yellow			
			Cool White			
			Warm White			
			Virtual Color	1 - 60		
		...	..	...	...	...
		Step 10	Red		Intensity	1 - 100%
			Green			
			Blue			
			Amber			
			UV			
			Magenta			
			Cyan			
			Yellow			
			Cool White			
			Warm White			
			Virtual Color	1 - 60		
	Step Hold Time	1 sec - 5 min				
	Fade Time	0 sec - 1 min				
	Step Order	Linear				
		Random				
	Pixel Count	1				
		2				
		6				
	Fixture Offset	Synchronized				
		2				
		3				
		...				
		10				
		Random				

DMX TRAITS

Features subject to change without notice														
MODE/CHANNEL													**DMX VALUES**	**FUNCTION**
1 ch	**3 ch**	**6 ch**	**9 ch**	**14 ch**	**17 ch-A**	**17 ch-B**	**23 ch-A**	**23 ch-B**	**35 ch**	**47 ch**	**83 ch**	**36 ch**		
1			1	1	1	1	1	1	1	1	1			**Dimmer**
													0-255	Intensity 0 → 100
			2	2	2	2	2	2	2	2	2			**Dimmer Fine**
													0-255	Fine Intensity Control
			3	3	3	3	3	3	3	3	3			**Shutter/Strobe**
													0-31	Shutter Closed
													32-63	No function (shutter open)
													64-95	Strobe effect, slow to fast
													96-127	No function (shutter open)
													128-159	Pulse effect in sequences
													160-191	No function (shutter open)
													192-223	Random strobe effect, slow to fast
													224-255	No function (shutter open)
	1	1	4			4	4	4	4	4	4	1		**Red**
													0-255	0 → 100%
							5		5		5			**Red Fine**
													0-255	Fine adjustment
	2	2	5			5	6	5	6	5	6	2		**Green**
													0-255	0 → 100%
							7		7		7			**Green Fine**
													0-255	Fine adjustment
	3	3	6			6	8	6	8	6	8	3		**Blue**
													0-255	0 → 100%
							9		9		9			**Blue Fine**
													0-255	Fine adjustment
		4	7			7	10	7	10	7	10	4		**Lime**
													0-255	0 → 100%
							11		11		11			**Lime Fine**
													0-255	Fine adjustment
		5	8			8	12	8	12	8	12	5		**Amber**
													0-255	0 → 100%
							13		13		13			**Amber Fine**
													0-255	Fine adjustment

DMX TRAITS

Features subject to change without notice														
MODE/CHANNEL													**DMX VALUES**	**FUNCTION**
1 ch	**3 ch**	**6 ch**	**9 ch**	**14 ch**	**17 ch-A**	**17 ch-B**	**23 ch-A**	**23 ch-B**	**35 ch**	**47 ch**	**83 ch**	**36 ch**		
		6	9			9	14	9	14	9	14	6		**UV**
													0-255	0 → 100%
							15		15		15			**UV Fine**
													0-255	Fine adjustment
								10	16	10	16	7		**Red 2**
													0-255	0 → 100%
									17		17			**Red 2 Fine**
													0-255	Fine adjustment
								11	18	11	18	8		**Green 2**
													0-255	0 → 100%
									19		19			**Green 2 Fine**
													0-255	Fine adjustment
								12	20	12	20	9		**Blue 2**
													0-255	0 → 100%
									21		21			**Blue 2 Fine**
													0-255	Fine adjustment
								13	22	13	22	10		**Lime 2**
													0-255	0 → 100%
									23		23			**Lime 2 Fine**
													0-255	Fine adjustment
								14	24	14	24	11		**Amber 2**
													0-255	0 → 100%
									25		25			**Amber 2 Fine**
													0-255	Fine adjustment
								15	26	15	26	12		**UV 2**
													0-255	0 → 100%
									27		27			**UV 2 Fine**
													0-255	Fine adjustment
										16	28	13		**Red 3**
													0-255	0 → 100%
											29			**Red 3 Fine**
													0-255	Fine adjustment
										17	30	14		**Green 3**
													0-255	0 → 100%
											31			**Green 3 Fine**
													0-255	Fine adjustment
										18	32	15		**Blue 3**
													0-255	0 → 100%

DMX TRAITS

Features subject to change without notice

MODE/CHANNEL													DMX VALUES	FUNCTION
1 ch	3 ch	6 ch	9 ch	14 ch	17 ch-A	17 ch-B	23 ch-A	23 ch-B	35 ch	47 ch	83 ch	36 ch		
											33			**Blue 3 Fine**
													0-255	Fine adjustment
										19	34	16		**Lime 3**
													0-255	0 → 100%
											35			**Lime 3 Fine**
													0-255	Fine adjustment
										20	36	17		**Amber 3**
													0-255	0 → 100%
											37			**Amber 3 Fine**
													0-255	Fine adjustment
										21	38	18		**UV 3**
													0-255	0 → 100%
											39			**UV 3 Fine**
													0-255	Fine adjustment
										22	40	19		**Red 4**
													0-255	0 → 100%
											41			**Red 4 Fine**
													0-255	Fine adjustment
										23	42	20		**Green 4**
													0-255	0 → 100%
											43			**Green 4 Fine**
													0-255	Fine adjustment
										24	44	21		**Blue 4**
													0-255	0 → 100%
											45			**Blue 4 Fine**
													0-255	Fine adjustment
										25	46	22		**Lime 4**
													0-255	0 → 100%
											47			**Lime 4 Fine**
													0-255	Fine adjustment
										26	48	23		**Amber 4**
													0-255	0 → 100%
											49			**Amber 4 Fine**
													0-255	Fine adjustment
										27	50	24		**UV 4**
													0-255	0 → 100%
											51			**UV 4 Fine**
													0-255	Fine adjustment

DMX TRAITS

Features subject to change without notice														
MODE/CHANNEL													**DMX VALUES**	**FUNCTION**
1 ch	**3 ch**	**6 ch**	**9 ch**	**14 ch**	**17 ch-A**	**17 ch-B**	**23 ch-A**	**23 ch-B**	**35 ch**	**47 ch**	**83 ch**	**36 ch**		
										28	52	25		**Red 5**
													0-255	0 → 100%
											53			**Red 5 Fine**
													0-255	Fine adjustment
										29	54	26		**Green 5**
													0-255	0 → 100%
											55			**Green 5 Fine**
													0-255	Fine adjustment
										30	56	27		**Blue 5**
													0-255	0 → 100%
											57			**Blue 5 Fine**
													0-255	Fine adjustment
										31	58	28		**Lime 5**
													0-255	0 → 100%
											59			**Lime 5 Fine**
													0-255	Fine adjustment
										32	60	29		**Amber 5**
													0-255	0 → 100%
											61			**Amber 5 Fine**
													0-255	Fine adjustment
										33	62	30		**UV 5**
													0-255	0 → 100%
											63			**UV 5 Fine**
													0-255	Fine adjustment
										34	64	31		**Red 6**
													0-255	0 → 100%
											65			**Red 6 Fine**
													0-255	Fine adjustment
										35	66	32		**Green 6**
													0-255	0 → 100%
											67			**Green 6 Fine**
													0-255	Fine adjustment
										36	68	33		**Blue 6**
													0-255	0 → 100%
											69			**Blue 6 Fine**
													0-255	Fine adjustment
										37	70	34		**Lime 6**
													0-255	0 → 100%

DMX TRAITS

Features subject to change without notice														
MODE/CHANNEL													**DMX VALUES**	**FUNCTION**
1 ch	**3 ch**	**6 ch**	**9 ch**	**14 ch**	**17 ch-A**	**17 ch-B**	**23 ch-A**	**23 ch-B**	**35 ch**	**47 ch**	**83 ch**	**36 ch**		
											71			**Lime 6 Fine**
													0-255	Fine adjustment
										38	72	35		**Amber 6**
													0-255	0 → 100%
											73			**Amber 6 Fine**
													0-255	Fine adjustment
										39	74	36		**UV 6**
													0-255	0 → 100%
											75			**UV 6 Fine**
													0-255	Fine adjustment
				4	4									**Cyan**
													0-255	0 → 100%
					5									**Cyan Fine**
													0-255	Fine adjustment
				5	6									**Magenta**
													0-255	0 → 100%
					7									**Magenta Fine**
													0-255	Fine adjustment
				6	8									**Yellow**
													0-255	0 → 100%
					9									**Yellow Fine**
													0-255	Fine adjustment
				7	10	10	16	16	28	40	76			**Variable CCT**
													0-23	Open
													24-85	2400K → 8500K
													86-255	8500K
				8	11	11	17	17	29	41	77			**CCT Cross Fade**
													0	CCT
													1-254	Idle
													255	Color Mix

DMX TRAITS

Features subject to change without notice

MODE/CHANNEL													DMX VALUES	FUNCTION
1 ch	3 ch	6 ch	9 ch	14 ch	17 ch-A	17 ch-B	23 ch-A	23 ch-B	35 ch	47 ch	83 ch	36 ch		
				9	12	12	18	18	30	42	78			**Color Wheel**
													0	Open
													1-179	Color Macros (see table)
														Color Scroll
													180-201	Clockwise, fast → slow
													202-207	Stop
													208-229	Counter-clockwise, slow → fast
													230-234	Open
				9	12	12	18	18	30	42	78			**Random Slots**
													235-239	Fast
													240-244	Medium
													245-249	Slow
													250-255	Open
				10	13	13	19	19	31	43	79			**Effect Selection**
													0	Idle
													1	Built-in Program 1
													2	Built-in Program 2
													3	Built-in Program 3
													4	Built-in Program 4
													5	Built-in Program 5
													6	Built-in Program 6
													7	Built-in Program 7
													8	Built-in Program 8
													9-255	Idle
				11	14	14	20	20	32	44	80			**Effect Speed**
													0-126	Fast → Slow
													127-128	Stop
													129-255	Slow → Fast

DMX TRAITS

Features subject to change without notice

MODE/CHANNEL													DMX VALUES	FUNCTION
1 ch	3 ch	6 ch	9 ch	14 ch	17 ch-A	17 ch-B	23 ch-A	23 ch-B	35 ch	47 ch	83 ch	36 ch		
														Effect Offset
													0	Idle
													1-35	Fixture Offset, 10 degrees to 350 degrees
													36	Synchronized
													37-49	Random Fixture Offset
													50-59	Random Pixel Order
													60-69	Random Steps
				12	15	15	21	21	33	45	81		70-79	Idle
														Effect Fade
													80-89	Ramp (Crossover)
													90-99	Ramp (Complete)
													100-109	Sine (Cross)
													110-119	Sine (Complete)
													120-129	Slow Up
													130-139	Slow Off
													140-149	Square Wave
													150-255	Idle
														Dim Modes
													0-20	Standard
													21-40	Stage
													41-60	TV
													61-80	Architectural
													81-100	Theatre
													101-120	Stage 2
														Dimmer Delay Time
				13	16	16	22	22	34	46	82		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

DMX TRAITS

Features subject to change without notice

MODE/CHANNEL													DMX VALUES	FUNCTION
1 ch	3 ch	6 ch	9 ch	14 ch	17 ch-A	17 ch-B	23 ch-A	23 ch-B	35 ch	47 ch	83 ch	36 ch		
				13	16	16	22	22	34	46	82			**Dimmer Delay Time (continued)**
													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
													142-149	Idle
														DTW
													150-154	DTW On
													155-159	DTW Off
													160-255	Idle
				14	17	17	23	23	35	47	83			**Control**
													0-59	Idle
													60-69	Flip Pixel Order
													70-79	Default Pixel Order
													80-99	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
													113	1030
													114	1040

DMX TRAITS

Features subject to change without notice

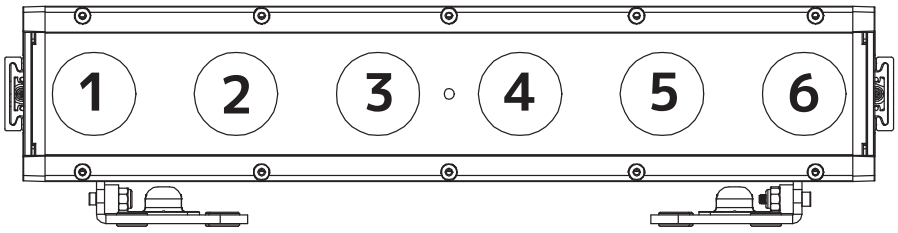
MODE/CHANNEL													DMX VALUES	FUNCTION
1 ch	3 ch	6 ch	9 ch	14 ch	17 ch-A	17 ch-B	23 ch-A	23 ch-B	35 ch	47 ch	83 ch	36 ch		**Refresh Rate (Hz) (continued)**
													115	1050
													116	1060
													117	1070
													118	1080
													119	1090
													120	1100
													121	1110
													122	1120
													123	1130
													124	1140
													125	1150
													126	1160
													127	1170
													128	1180
													129	1190
													130	1200
													131	1210
				14	17	17	23	23	35	47	83		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

DMX TRAITS

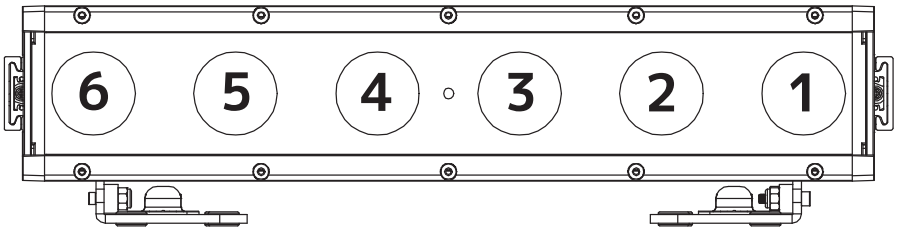
Features subject to change without notice														
MODE/CHANNEL													**DMX VALUES**	**FUNCTION**
1 ch	**3 ch**	**6 ch**	**9 ch**	**14 ch**	**17 ch-A**	**17 ch-B**	**23 ch-A**	**23 ch-B**	**35 ch**	**47 ch**	**83 ch**	**36 ch**		
														Refresh Rate (Hz) (continued)
													152	1420
													153	1430
													154	1440
													155	1450
													156	1460
													157	1470
													158	1480
													159	1490
													160	1500
													161	2500
													162	4000
				14	17	17	23	23	35	47	83		163	5000
													164	6000
													165	10000
													166	15000
													167	20000
													168	25000
													169-200	Idle
														Dimmer Curves
													201-210	Linear (Default)
													211-220	Square
													221-230	Inverse Square
													231-240	S-Curve
													241-255	Idle

PIXEL GROUPING

DEFAULT PIXEL GROUPING



FLIPPED PIXEL GROUPING



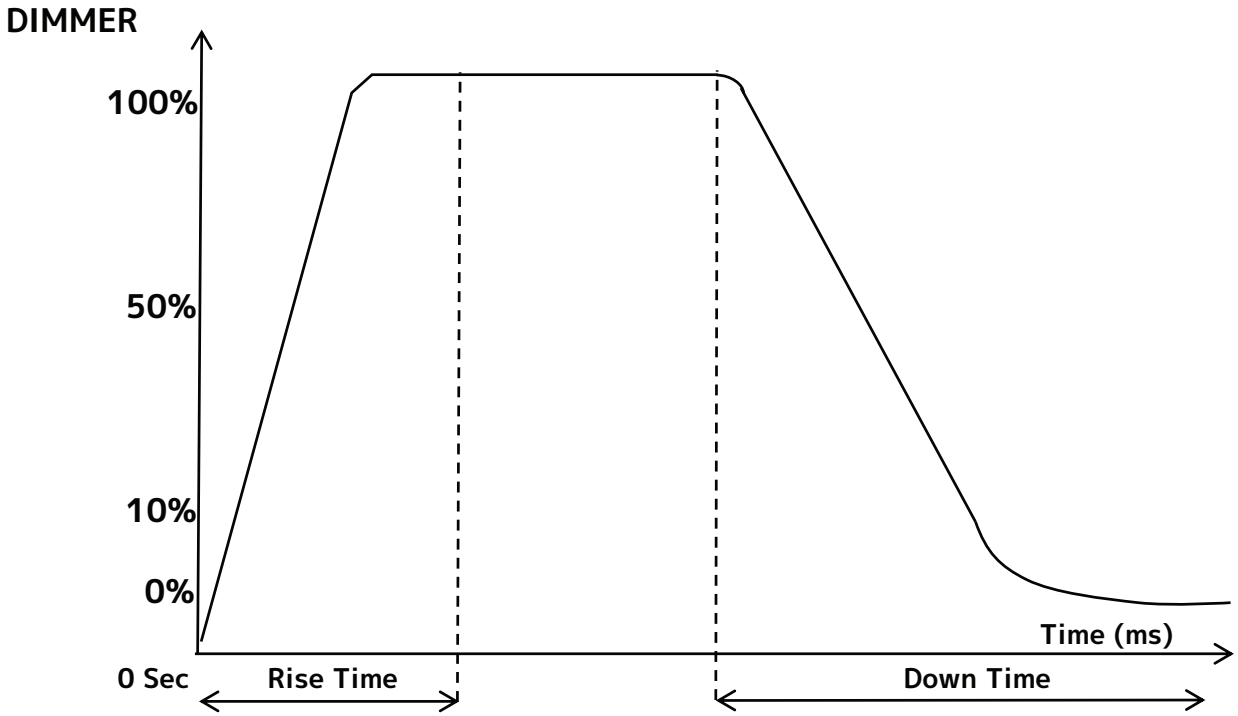
COLOR TEMPERATURE TABLE

DMX VALUE	COLOR TEMPERATURE (K)	DMX VALUE	COLOR TEMPERATURE (K)
24	2400	55	5500
25	2500	56	5600
26	2600	57	5700
27	2700	58	5800
28	2800	59	5900
29	2900	60	6000
30	3000	61	6100
31	3100	62	6200
32	3200	63	6300
33	3300	64	6400
34	3400	65	6500
35	3500	66	6600
36	3600	67	6700
37	3700	68	6800
38	3800	69	6900
39	3900	70	7000
40	4000	71	7100
41	4100	72	7200
42	4200	73	7300
43	4300	74	7400
44	4400	75	7500
45	4500	76	7600
46	4600	77	7700
47	4700	78	7800
48	4800	79	7900
49	4900	80	8000
50	5000	81	8100
51	5100	82	8200
52	5200	83	8300
53	5300	84	8400
54	5400	85	8500

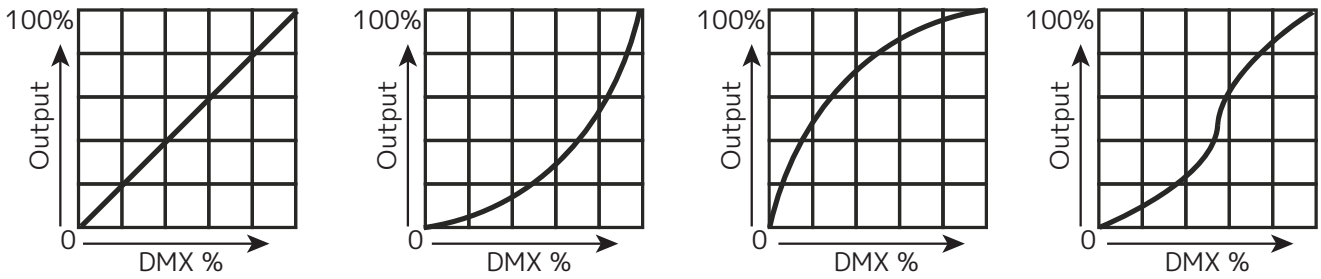
COLOR MACROS

VALUE	FILTER #	COLOR	VALUE	FILTER #	COLOR
1	7	Pale Yellow	32	49	Medium Purple
2	103	Straw	33	58	Lavender
3	151	Gold Tint	34	199	Palace Blue
4	100	Spring Yellow	35	119	Dark Blue
5	10	Medium Yellow	36	132	Medium Blue
6	101	Yellow	37	120	Deep Blue
7	104	Deep Amber	38	165	Daylight Blue
8	15	Deep Straw	39	161	Slate Blue
9	179	Loving Amber	40	118	Light Blue
10	21	Gold Amber	41	68	Sky Blue
11	105	Orange	42	143	Pale Navy Blue
12	158	Deep Orange	43	131	Marine Blue
13	22	Dark Amber	44	115	Peacock Blue
14	778	Millennium Gold	45	172	Lagoon Blue
15	135	Deep Golden Amber	46	116	Medium Blue Green
16	24	Scarlet	47	90	Dark Yellow Green
17	106	Primary Red	48	139	Primary Green
18	26	Bright Red	49	122	Fern Green
19	27	Medium Red	50	89	Moss Green
20	19	Fire	51	124	Dark Green
21	157	Pink	52	88	Lime Green
22	36	Medium Pink	53	138	Pale Green
23	111	Dark Pink	54	203	Quarter CT Blue
24	128	Bright Pink	55	202	Half CT Blue
25	148	Bright Rose	56	201	Full CT Blue
26	332	Special Rose Pink	57	200	Double CT Blue
27	793	Vanity Fair	58	206	Quarter CT Orange
28	113	Magenta	59	205	Half CT Orange
29	46	Dark Magenta	60	204	Full CT Orange
30	48	Rose Purple	61-179	-	No Function
31	126	Mauve			

DIMMER CURVES



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



REMOTE CONTROL

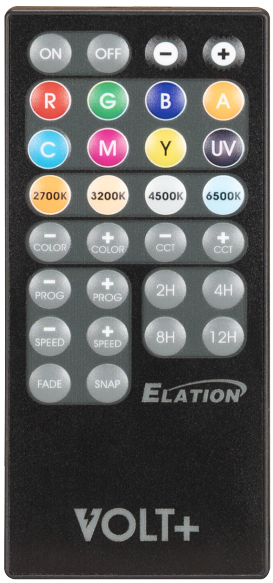
This unit can be operated using the Elation IR remote control. This capability can be enabled in the System Menu by navigating to Settings > IR Active. When using the IR remote to control multiple units that are operating in primary/secondary mode, follow these steps to set up the units:

1. Power on the unit, and press MODE to scroll to the “Control” menu, then press ENTER.
2. Use the UP and DOWN buttons to scroll to either “Primary” or “Secondary” sub-menu, depending on what status will be assigned to this unit. Press ENTER, then use the UP and DOWN buttons to toggle the setting to “On”. Press ENTER to confirm.
3. Press MODE to navigate to the “DMX” menu, and press ENTER to confirm.
4. Use UP and DOWN to scroll to “Aria Settings” sub-menu and press ENTER.
5. Use the UP and DOWN buttons select either “2.4GHz Chan” or “Sub Gig Chan”, depending on which frequency setting the unit has been set to. Press ENTER, then use UP and DOWN to set the unit to the desired wireless channel.
6. Repeat these steps for each unit. Please note that all units should be set to the same wireless channel.

NOTES:

- Only one unit should be configured as the primary, while all the other units should be configured as secondaries.
- All units in the system should be set to the same wireless channel. If all units are set to the same wireless channel, and the units do not sync up and/or respond to commands, try using a different channel.
- All units should be set to the same DMX channel mode.
- If fixtures fail to sync, verify that all settings mentioned above are the same, then power all devices off, then switch them on again to re-establish the link.

CONTROLS



- **ON** and **OFF:** Turns LED output on or off.
- **+** and **-** buttons: These buttons are used to adjust brightness. 11 levels are available.
- **R/G/B/A/C/M/Y/UV:** Press to enable or disable the color indicated on each button.
- **2700K/3200K/4500K/6500K:** Press to enable or disable the color temperature setting indicated on each button.
- **-COLOR/+COLOR:** Activate color wheel, and rotate color wheel forward or backward.
- **-CCT/+CCT:** Activate color temperature, and decrease or increase the color temperature by increments of 100K.
- **-PROG/+PROG:** Activate internal programs, and cycle through programs in forward to backwards order.
- **-SPEED/+SPEED:** Decrease or increase the speed of the selected program.
- **FADE:** Set the internal program transitions to fade.
- **SNAP:** Set the internal program transitions to snap.
- **2H/4H/8H/12H:** Event run time settings - use to adjust output for extended battery life.

MAINTENANCE GUIDELINES

DISCONNECT POWER BEFORE PERFORING 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.

ERROR CODES

CODE	DESCRIPTION
Temp Error	Temperature Error

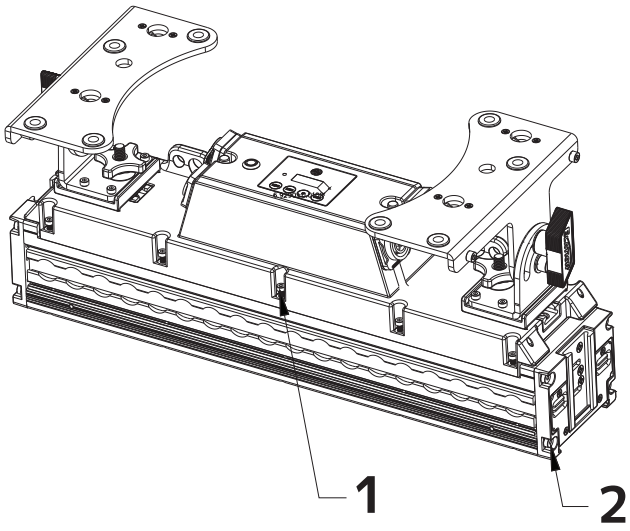
TORQUE SETTINGS FOR SCREWS

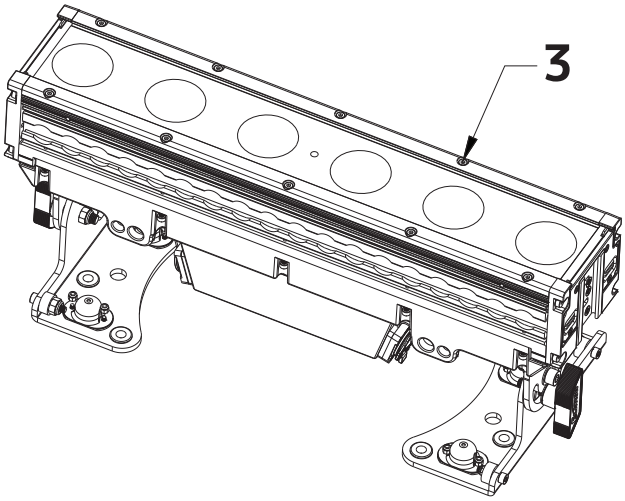
IN ORDER TO MAINTAIN THE IP65 RATING ON THE LIGHTING FIXTURES, ALL SCREWS MUST BE TIGHTENED TO THE FOLLOWING TORQUE SPECIFICATION USING A TORQUE DRIVER.

Refer to the table and diagram below for torque specifications.

TORQUE DRIVERS (Recommended): UTICA TS-30 (shown)
ALTERNATE DRIVERS:
- Proto J6107A
- Wiha 28887

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

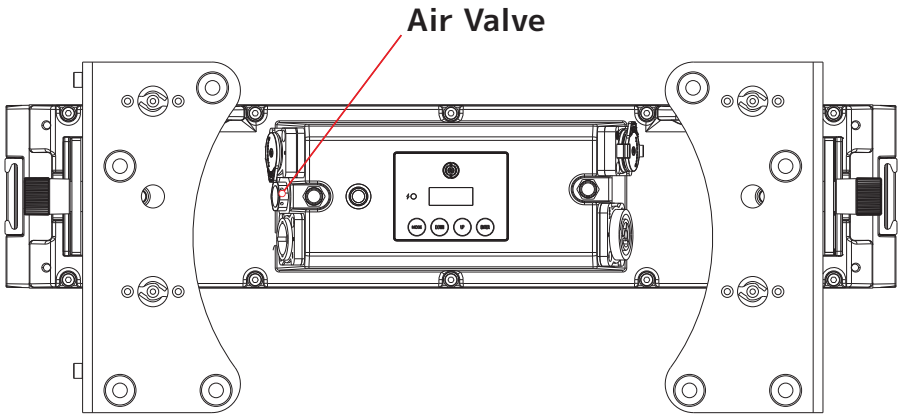




NO.	LOCATION	QTY.	TORQUE
1	Rear Cover	10	11.3 ± 0.4 lb-in (13.0 ± 0.5 Kg-cm)
2	Side Cover	8	11.3 ± 0.4 lb-in (13.0 ± 0.5 Kg-cm)
3	Lens Frame	10	11.3 ± 0.4 lb-in (13.0 ± 0.5 Kg-cm)

IP TEST PARAMETERS

Following any repair or maintenance procedure that requires disassembly of the fixture, use Elation's IP Tester to confirm the IP integrity of the fixture. This fixture features two air valves: one of the front of the unit beside the lens, as well as one on the rear panel beside the control panel. Air valve locations are shown in the diagram below. Please contact Elation Service for information regarding the Elation IP Tester, or visit the product information page online at: **https://www.elationlighting.com/ip-tester**



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

DE-HUMIDIFICATION: IP65 fixtures operating in high-humidity environments may experience residual fogging or condensation. Such fogging will not affect the fixture, and can be removed using the following procedure: position the unit with the air valve pointing upwards, then open the air valves and run the unit for 1-2 hours after reaching operating temperature. Then, while the fixture is still hot, re-install the air valve and allow the unit to cool down. Please note: this procedure should be performed in a dry, climate-controlled environment. Avoid additional fogging by drying the fixture completely before placing into a road case.

IP PRESSURE TESTING PARAMETERS			
Test Type	**Low Pressure Limit**	**High Pressure Limit**	**Detection Time**
Pressure Test	2.901 psi (20.0 KPa)	3.336 psi (23.0 KPa)	15 sec
Vacuum Test	N/A	N/A	N/A

SOFTWARE UPDATES

ONLY QUALIFIED TECHNICIANS SHOULD PERFORM THIS FUNCTION!
NOTE ALL MENU SETTINGS BEFORE UPDATING SOFTWARE!
FIXTURE SOFTWARE CAN NOT BE DOWNGRADED!
DOWNLOAD FIXTURE SOFTWARE TO PC ONLY! (NO MAC SUPPORT)
PLEASE CONTACT ELATION SERVICE FOR FURTHER INFORMATION.

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

https://www.elationlighting.com/c-loader-software-uploader

ARIA
Alternately, updates can be performed over the Aria connection. Please contact Elation service for details.

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

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

ORDERING INFORMATION

SKU (US)	SKU (EU)	DESCRIPTION
VOL405	1237000393	Volt+ Bar S
TBD	TBD	6 Unit Charging Case
BLS021	1223200117	BAR S NSP Lens
BLS061	1223200108	BAR S WFL Lens
BLS101	1223200116	BAR S XFL Lens
BLS141	1223200115	BAR S L140 Lens
BLS161	1223200114	BAR S L1060 Lens
8050000053	N/A	Omega Bracket
FISP06	1236300110	Fixture Interconnect Split Package
LTR001	1744000021	L-Track to M10 Adapter, 70mm
LTR008	N/A	L-Track to M10 Adapter, 44.5mm
LTR100	N/A	L-Track C-Clamp & Adapter Assembly, 70mm
LTR112	N/A	L-Track C-Clamp & Adapter Assembly, 44.5mm
FICA01	N/A	Interconnect Clamp Adapter

SPECIFICATIONS

SOURCE
(6) x 20W RGBLA+ UV LEDs
30,000 Hour Average LED Life*
*May vary depending on several factors including but not limited to: Environmental Conditions, Power/Voltage, Usage Patterns (On-Off Cycling), Control and Dimming.

PHOTOMETRIC DATA
Total Lumen Output:
5,020 (Integrating Sphere)
CRI- 90.9
TLCI- 80
No Lens
- Beam Angle: 20°
- Field Angle: 33°

Included Frost
- Beam Angle: 30°
- Field Angle: 60°

EFFECTS
Prebuilt & Custom Standalone Effect Sequences
Full Pixel Control
Electronic Dimmer and Strobe
Variable 16-bit Dimming Modes and Curves

COLOR
RGBLA+ UV Color Array
CMY Emulation
Variable CCT 2400K - 8500K
Virtual Gel Swatch Book

CONTROL / CONNECTIONS
13 DMX Channel Modes (1ch, 3ch, 6ch, 9ch, 14ch, 17ch, 17ch, 23ch, 23ch, 35ch, 47ch, 83ch, 36ch)
4 Button Control Panel, LED Display
Aria x2 Wireless Device Management
IR Remote
NFC Configuration
RDM (Remote Device Management)
IP65 5pin XLR DMX In/Out
IP65 Locking Power Cable In/Out

SIZE / WEIGHT
Length: 19.7" (501mm)
Width: 5.1" (129mm)
Vertical Height: 8.9" (226mm)
Weight: 18.8 lbs / 8.55kg

ELECTRICAL / THERMAL
AC 100-240V - 50/60Hz
110W Max Power Consumption
Power Thru Capacity: 10A (10 units @110V; 21 units @240V)
5°F to 113°F (-15°C to 45°C)
BTU/hr (+/- 10%) 375.1

BATTERY
Lithium Ion Rechargable
Battery Capacity: 10.2 Ah
Battery Voltage: 18.5
Charge Time: 3hr
Battery Life: >12hr
Battery Recharge Cycles: >300 to 80% Capacity

APPROVALS / RATINGS
CE | cETLus | IP65 | FCC | UKCA

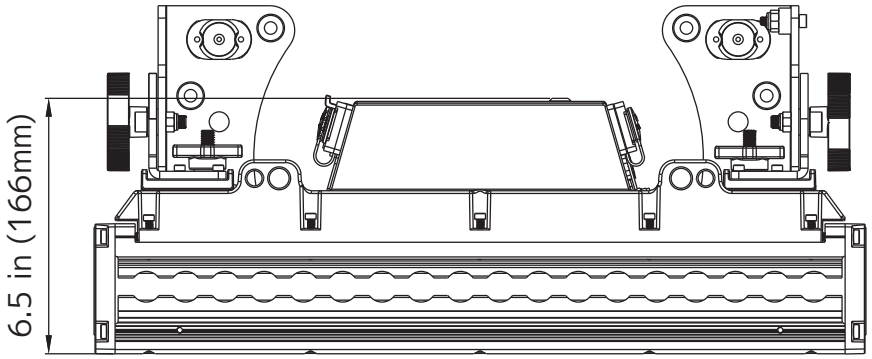
Intertek 4010765

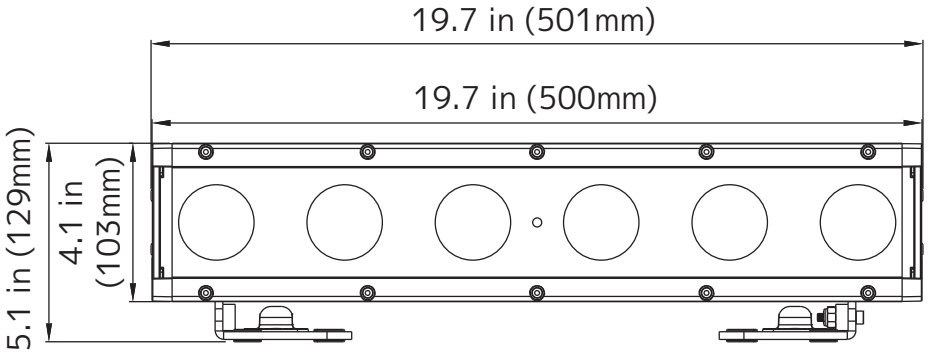
IP65

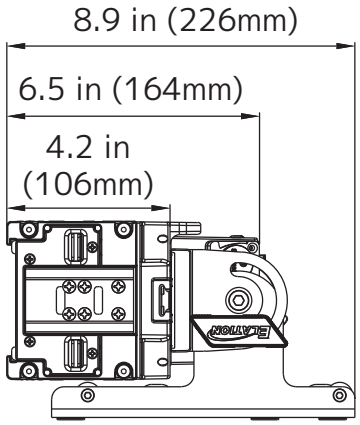
Specifications and documentation subject to change without notice.

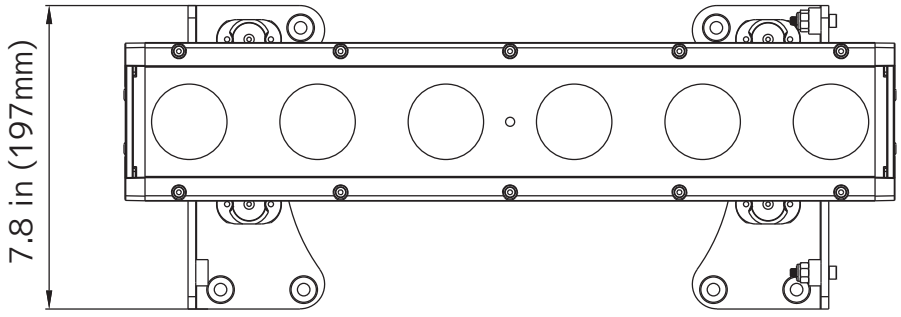
DIMENSIONAL DRAWINGS

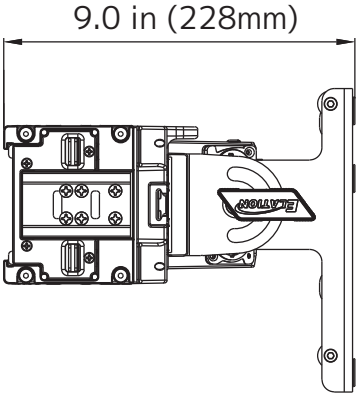
FIXTURE





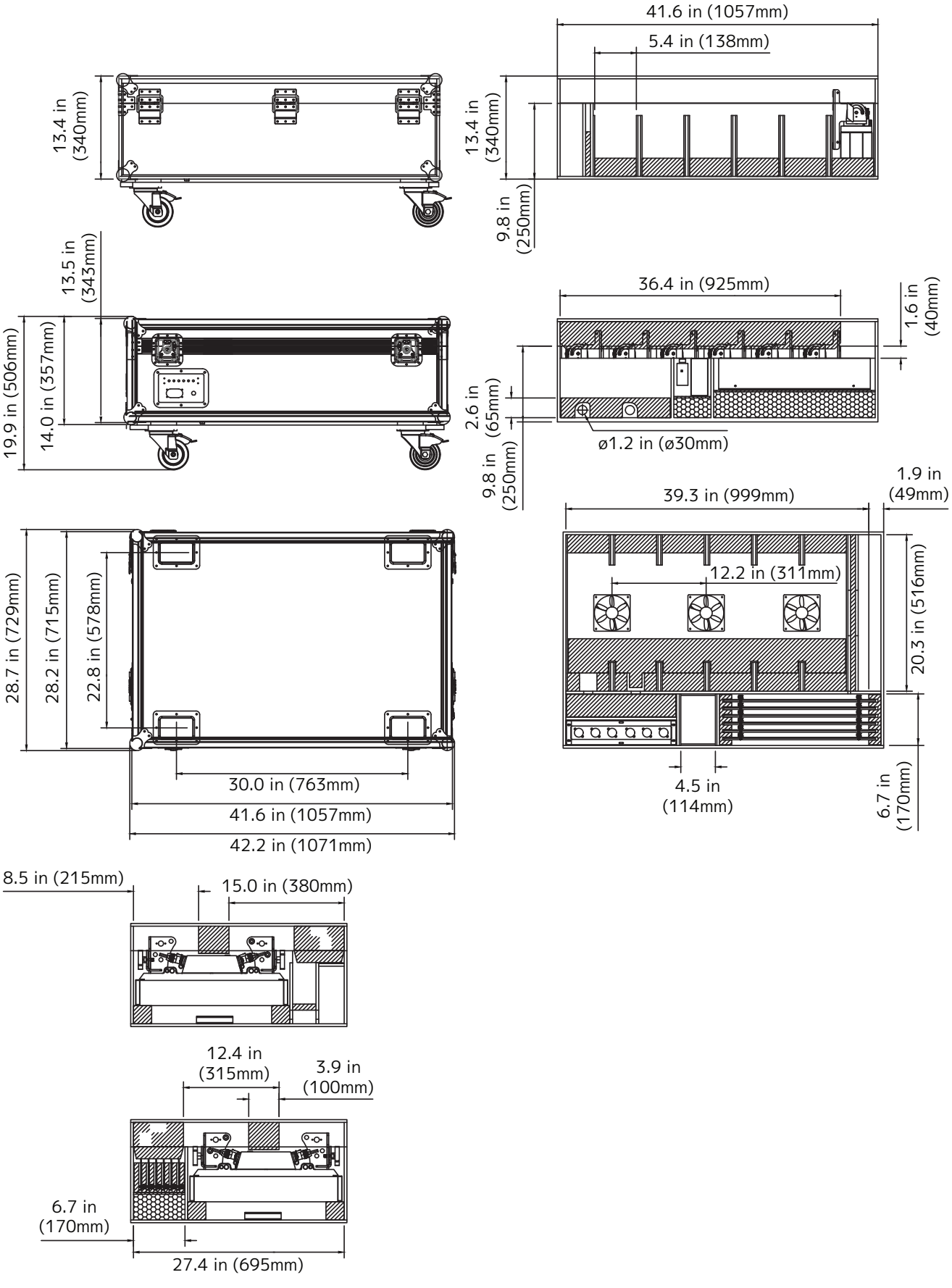






DIMENSIONAL DRAWINGS

ROAD CASE



FCC STATEMENT

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

FCC RADIO FREQUENCY INTERFERENCE WARNINGS & INSTRUCTIONS

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

- Reorient or relocate the device.
- increase the separation between the device and the receiver.
- Connect the device to an electrical outlet on a circuit different from which the radio receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Energy Saving Matters (EuP 2009/125/EC)

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