

## PIXEL AMP 200



## 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 Channel Mode	Notes
01/11/23	1.0	N/A	Not Applicable	Initial Release
05/26/23	1.1	N/A	Not Applicable	Updated Dimensional Drawing, Specifications

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## **GENERAL INFORMATION**

#### INTRODUCTION

Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this device. These instructions contain important safety and use information. This device is intended for use with the **Elation Pixel Driver** series of products, in conjunction with the related **Pixel Wash** series of fixtures, and amplifies the power and control signal from the driver to allow a single driver to control an increased number of fixtures. **This device is intended for use only by professionally trained personnel, and is not suitable for private usage.** 

#### 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 has been 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.

#### **CUSTOMER SUPPORT**

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

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

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REPLACEMENT PARTS - please visit parts.elationlighting.com

# MPORTANT NOTICE!

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/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.

**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 <a href="mailto:service@elationlighting.com">service@elationlighting.com</a> for any needed parts or manuals.

## LIMITED WARRANTY

- A. Elation Professional hereby warrants, to the original purchaser, Elation Professional products to be free of manufacturing defects in material and workmanship for a period of two years (730 days), and Elation Professional product rechargeable batteries to be free of manufacturing defects in material and workmanship for a period of six months (180 days), from the original date of purchase. This warranty excludes discharge lamps and all product accessories. This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.
- B. For warranty service, send the product only to the Elation Professional factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Elation Professional will pay return shipping charges only to a designated point within the United States. If any product is sent, it must be shipped in its original package and packaging material. No accessories should be shipped with the product. If any accessories are shipped with the product, Elation Professional shall have no liability what so ever for loss and/or or damage to any such accessories, nor for the safe return thereof.
- C. This warranty is void if the product serial number and/or labels are altered or removed; if the product is modified in any manner which Elation Professional concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Elation Professional factory unless prior written authorization was issued to purchaser by Elation Professional; if the product is damaged because not properly maintained as set forth in the product instructions, guidelines and/ or user manual.
- D. This is not a service contract, and this warranty does not include any maintenance, cleaning or periodic check-up. During the periods as specified above, Elation Professional will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Elation Professional under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Elation Professional. All products covered by this warranty were manufactured after January 1, 1990, and bare identifying marks to that effect.
- E. Elation Professional reserves the right to make changes in design and/or performance improvements upon its products without any obligation to include these changes in any products theretofore manufactured.
- F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with the products described above. Except to the extent prohibited by applicable law, all implied warranties made by Elation Professional in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty periods set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said periods have expired. The consumer's and/or dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall Elation Professional be liable for any loss and/or damage, direct and/or consequential, arising out of the use of, and/or the inability to use, this product.
- G. This warranty is the only written warranty applicable to Elation Professional products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

#### WARRANTY RETURNS

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

## SAFETY GUIDELINES

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



PROTECTION CLASS 1 - FIXTURE MUST BE PROPERLY GROUNDED.



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



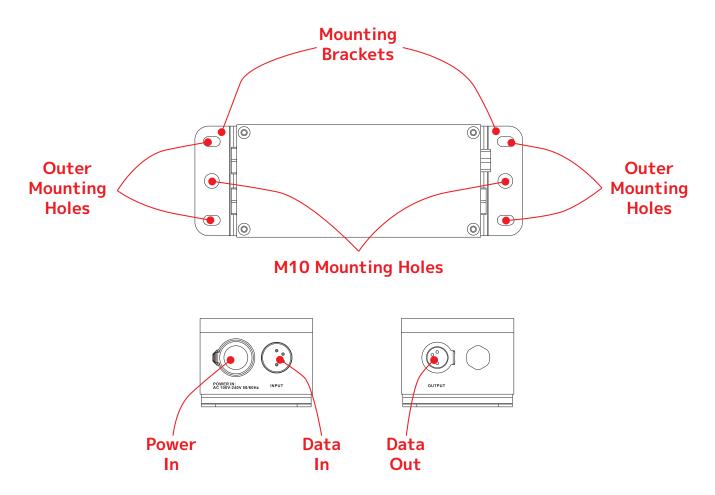
DO NOT PLUG THIS UNIT INTO A DIMMER PACK! NEVER OPERATE THIS UNIT WITH THE CASING REMOVED! DISCONNECT POWER BEFORE PERFORMING MAINTENANCE! NEVER TOUCH DURING OPERATION, AS FIXTURE SURFACES MAY BE HOT! KEEP FLAMMABLE MATERIALS AWAY FROM FIXTURE!

## SAFETY GUIDELINES

#### FOR YOUR OWN PERSONAL SAFETY, PLEASE READ AND UNDERSTAND THIS MANUAL COM-PLETELY BEFORE ATTEMPTING TO INSTALL OR OPERATE THIS UNIT!

- Be sure to save the packing carton in the unlikely event that the device may need to be returned for service.
- Be sure that the voltage of the power source matches the required voltage for the device.
- Do not open up the device for any reason. There are no user serviceable parts inside.
- Disconnect the device's main power when left unused for long periods of time.
- Never connect this device to a dimmer pack.
- Do not attempt to operate this device if it has been damaged in any way.
- Never operate this device with the cover removed.
- Do not attempt to operate this device if the power cord has been frayed or broken.
- Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short.
- Disconnect from main power before making any type of connection.
- Never block the ventilation holes. Always be sure to mount this device in an area that will allow proper ventilation. Allow about 6" (15cm) between this device and a wall.
- Always mount this unit in a safe and stable matter.
- Please route your cords out of the way of foot traffic. Cords should be routed so they are not likely to be walked on, or pinched by items placed upon or against them.
- Keep flammable materials away from this device!
- The device should be serviced by qualified service personnel when:
  A. The power-supply cord or the plug has been damaged.
  B. Objects have fallen on the device.
  - C. The device has been submerged in water or other liquids.
  - D. The appliance does not appear to operate normally or exhibits a marked change in performance.

## **OVERVIEW**



## INSTALLATION INSTRUCTIONS

#### FLAMMABLE MATERIAL WARNING!

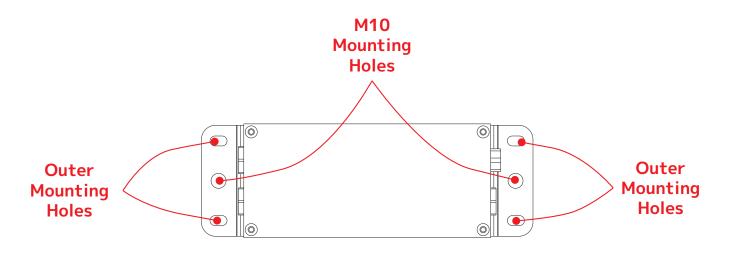
Keep drive a minimum of 5.0 feet (1.5m) away from flammable material and/or pyrotechnics.

#### DO NOT INSTALL THE DEVICE IF YOU ARE NOT QUALIFIED TO DO SO!

- The driver MUST be installed following all local, national, and country commercial electrical and construction codes and regulations.
- Before installing or mounting any device, a professional equipment installer MUST be consulted to determine whether the mounting structure or surface is properly certified to safely support the combined weight of the device and any relevant accessories.
- The device should be installed away from walking paths, seating areas, or any areas where unauthorized personnel may potentially reach the device by hand.

#### WALL MOUNTING

The driver includes mounting flanges for wall mount installations. **Before proceeding, please ensure that the mounting surface that you have selected is capable of supporting the weight of this device.** Insert the appropriately rated self-tapping hardware into either the four (4) outer mounting holes OR the two (2) central M10 holes located on the flanges, and screw them into the mounting surface. Make sure that the driver is mounted firmly and securely before proceeding to use.



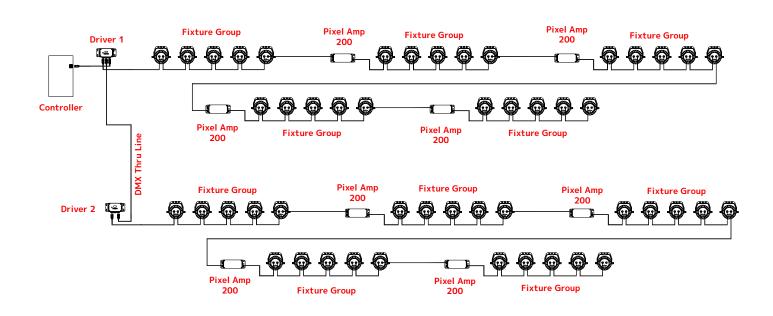
## INSTALLATION INSTRUCTIONS

#### CONNECTIONS

The Pixel Amp 200 device can be used to increase the number of Pixel Wash 40IP fixtures that can be controlled with a single driver.

- 1. Link the fixtures in groups, where **the maximum size of each group is 5 fixtures per** group when Hi Power Mode is on, or 8 fixtures per group when Hi Power mode is off.
- 2. Link the outlet port of the driver to the inlet of the first fixture of the first group.
- 3. Link the outlet of the last unit in the first group to the inlet of the Pixel Amp 200.
- 4. Link the outlet of the Pixel Amp 200 to the inlet of the first unit in the following group.
- 5. Repeat steps 3 and 4 until all the fixture groups are linked.

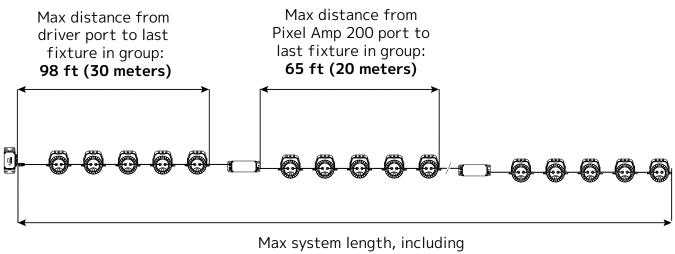
Please note that each driver can only accommodate a maximum of 5 fixture groups, regardless of whether Hi Power Mode in on or off. This translates to a maximum of 25 fixtures per driver with Hi Power Mode on (as shown below), or 40 fixtures per driver with Hi Power Mode Off. Multiple drivers can still be linked via the DMX Thru ports.



## **INSTALLATION INSTRUCTIONS**

Pixel BCx cable\* may be used to link multiple devices. Maximum allowable cable lengths are listed below.

- Max total cable length in a single chain: 360 feet (110m) including the lengths of the Pixel Wash 40IP(s)
- Max distance from Pixel Driver 170IP to last fixture in a group: 98 ft (30m) including lengths of Pixel Driver 40IPs
- Max distance from Pixel Amp 200 to last fixture in a group: 65 ft (20m) including lengths of Pixel Driver 40IPs



Max system length, including cables, fixtures, and Pixel Amp 200 devices: **360 ft (110 meters)** 

## MAINTENANCE GUIDELINES



#### DISCONNECT POWER BEFORE PERFORMING ANY MAINTENANCE!

#### MAINTENANCE

Regular inspections are recommended to ensure proper function and extended life. There are no user serviceable parts inside this device. 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.

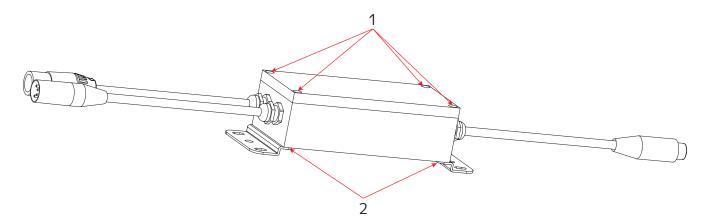
Please refer to the following points during routine inspections:

- A. A detailed electrical check by an approved electrical engineer every three months, to make sure the circuit contacts are in good condition and prevent overheating.
- B. 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.
- C. Check for any deformations on the housing, 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 device to fall and seriously injure a person(s).
- D. Electric power supply cables must not show any damage, material fatigue, or sediments.

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

## TORQUE SETTINGS FOR SCREWS

In order to maintain the IP65 rating on this device, all screws must be tightened to the following torque specification using a torque driver.



Zone Number	Description	Quantity	Torque Spec	
1	Upper Cover	4	11.3 lb-in (13 kgf-cm)	
2	Bracket	4	11.3 lb-in (13 kgf-cm)	

#### TORQUE DRIVERS (Recommended): UTICA TS-30 (Shown)

#### **TORQUE DRIVER (Alternate):**

- Proto J6107A
- Wiha 28887





CAUTION! DO NOT OVER TORQUE SCREWS AS THIS CAN RESULT IN LEAKAGE! TO CONFIRM THE IP65 INTEGRITY AFTER A LAMP REPLACEMENT, TEST THE FIXTURE USING THE ELATION IP TESTER. CONTACT ELATION SERVICE FOR MORE DETAILS.

## TORQUE SETTINGS FOR SCREWS

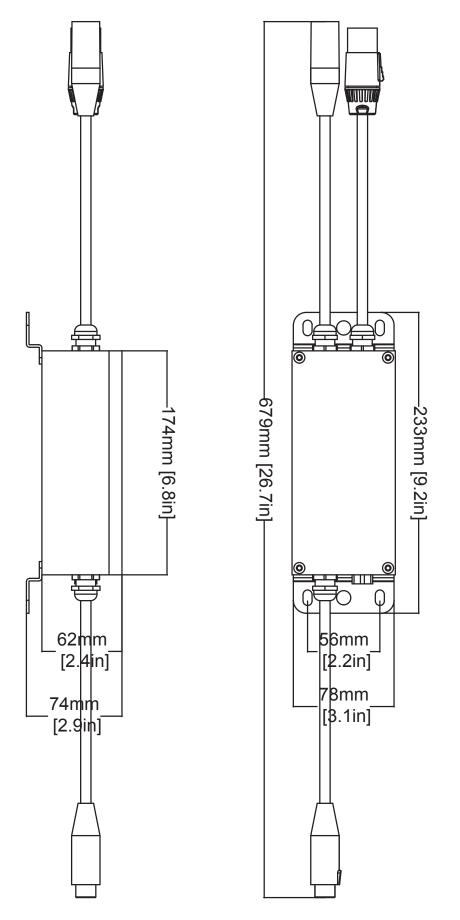


CAUTION! THE USE OF PROTECTIVE GLOVES AND SAFETY GOGGLES IS STRONG-LY RECOMMENDED WHILE PERFORMING THE IP PRESSURE TEST!



IP PRESSURE TESTING PARAMETERS						
Low Pressure Limit	High Pressure Limit	Steady/Hold Time				
1.65 psi (11.4 KPa)	1.70 psi (11.7 KPa)	3 sec				

## DIMENSIONAL DRAWINGS



## SPECIFICATIONS

#### **CONTROL / CONNECTIONS**

Art-Net | sACN | Kling-Net Protocol Support 1 4-pin Power Input 1 4-pin Data Input 1 4-pin Data Output

#### SIZE / WEIGHT

Length: 3.1" (78mm) Width: 9.2" (233mm) Height: 2.9" (74mm) Weight: 2.9 lbs (1.3kg)

#### ELECTRICAL

Power Input: 100-240v, 50/60Hz Power Output: DC24V, 8.3A Max 200W Max Power Consumption

#### APPROVALS

CE | ETL | IP65 (Temporary Outdoor Use Only)

