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H O N G K O N G N E W Y O R K P A R I S T O K Y O F R A N K F U R T B I R M I N G H A M R O T T E R D A M

1/09 V0.1

USER MANUAL

MESH RGB

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FOR YOUR OWN SAFETY AND THAT OF THE PRODUCT, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE BEGINNING SETUP AND INSTALLATION.

CAUTION: DO NOT OPEN OR HANDLE EXCEPT AT A STATIC FREE WORKSTATION OR WEARING ANTISTATIC WRIST STRAP.

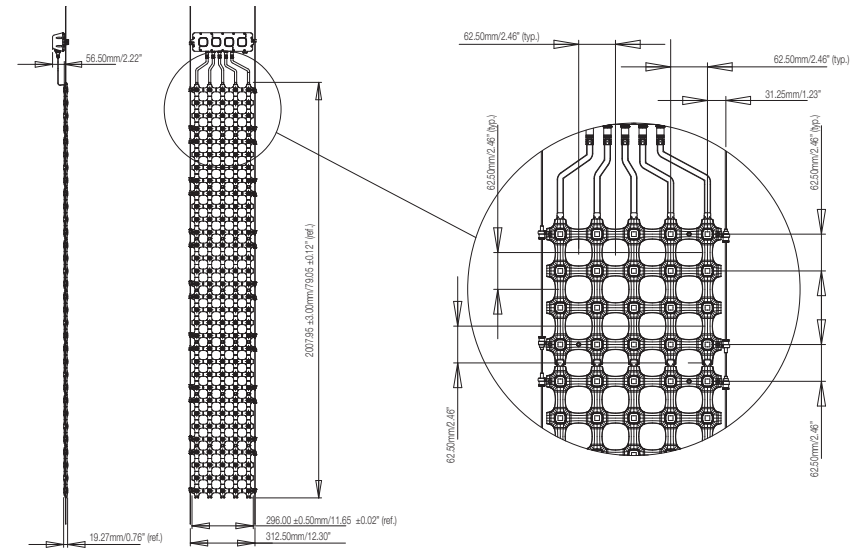
1. INTRODUCTION

MESH RGB (DO.MA.7010000)

Traxon Mesh RGB is a highly versatile, modular system of LED modules that provides the perfect all-purpose solution for challenging surfaces where unique, eye-catching decoration is desired. A low profile and easy mounting give the Traxon Mesh RGB a decisive advantage over conventional LED screens and products. Each Mesh unit comprises eight grid-elements, connected by flexible joints, giving it the ability to contour the most demanding surfaces. One Mesh comprises five strings each with 32 pixels resulting in 160 individually controllable pixels per Mesh unit. The control possibilities range from DMX to DVI. Its IP67 rated UV-resistant material makes it suitable for a variety of outdoor applications. Furthermore, the Mesh RGB can serve as a room divider by combining two units back to back with its refined and simple clipping system.

Features:

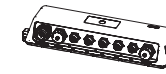
- 160 (5 x 32 matrix) Ultra Bright RGB SMD LEDs
- TX Connect™ System
- DMX Control and DVI capable
- Auto-Addressing
- SMART CHIP™ Technology
- Outdoor Applications



2. PACKING CONTENTS



1 x Mesh Unit



1 x Pixel Distributor



2 x Mounting Wire + Stoppers



2 x Mounting Brackets and Screws
for Pixel Distributor



16 x Screws for Back-to-Back Mounting

3. SAFETY AND OPERATION

CAUTION – UNPLUG THE POWER SUPPLY FROM THE MAINS POWER BEFORE CONNECTING ANY CABLES AS THIS CAN DAMAGE THE PRODUCTS.

CAUTION – AVOID LOOKING DIRECTLY INTO THE LED LIGHT SOURCE AT CLOSE RANGE FOR YOUR OWN SAFETY.

ANY PERSONS INSTALLING THIS PRODUCT SHOULD COMPLY WITH LOCAL STANDARDS AND REGULATIONS AND MUST BE QUALIFIED FOR THE HANDLING OF ELECTRICAL EQUIPMENT.

This product is designed for indoor and outdoor use.

Ensure product operate within the ambient temperature range of -20°C to 50°C (-4°F to 122°F).

If the fixture has been subjected to drastic temperature variances, for example, following transportation, do not connect the fixture until it has reached room temperature, as moisture condensation may cause electric shock and product damages.

When installing the fixtures and system power supplies, please ensure they will not be exposed to moisture and extreme heat (and direct sunlight for outdoor products). Besides, keep a clean operating environment for the fixtures and system power supplies.

Please study this User Manual thoroughly and check the latest Technical Specification Sheets available from our website [www.traxontechnologies.com] before setup.

4. MOUNTING

Plan your installation before mounting the Mesh RGB. The following should be considered for a successful installation.

- Installation distances and choose appropriate cable lengths.
- Appropriate anchor bolts where necessary to secure the fixture.
- The number of fixtures and choose appropriate power sources.
- DMX controller to be used to control the fixtures.

Use the provided stainless steel wires to mount the Mesh RGB. Secure the mounting wires at the top to a ceiling and the bottom to the floor to ensure a straight and tort installation.

FIG 1 shows the typical Mesh mounting with the Pixel Distributor mounted on the stainless steel wire, above the Mesh unit.

4.1 PIXEL DISTRIBUTOR

The Pixel Distributor receives power and control signals and distributes them to the five outputs. Each vertical line of the Mesh (32 pixels) connects to one output of the Pixel Distributor.

Pixel Distributor mounting options:

- Wire-mounted above Mesh unit (FIG 1).
- Wire-mounted behind Mesh unit (FIG 2). This method is ideal when mounting multiple Mesh units vertically to keep a consistent LED pitch.
- Bracket-mounted independently (FIG 3).

FIG 1: Typical Mounting

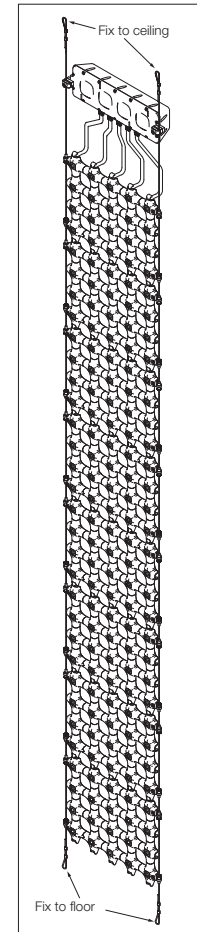


FIG 2: Pixel Distributor Alternative Mounting

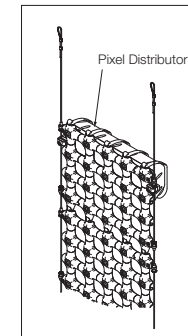
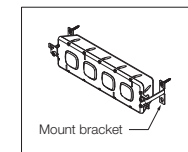


FIG 3: Pixel Distributor on Brackets



4.2 MESH GRIDS

The Mesh unit is designed to be mounted on the provided stainless steel wire. Use longer wires to mount multiple Mesh units when expanding vertically.

FIG 4 shows the suggested clearance when the Pixel Distributor is mounted above the Mesh. The clearance allows better access to cable connections.

Before mounting the Mesh, set the wire-stopper distances on the steel wires and then fix the wires from a ceiling. See FIG 5.

FIG 4: Mounting Clearance

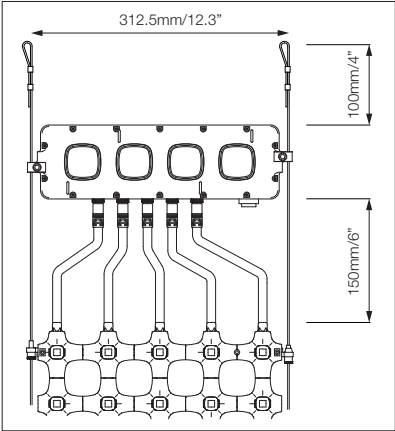
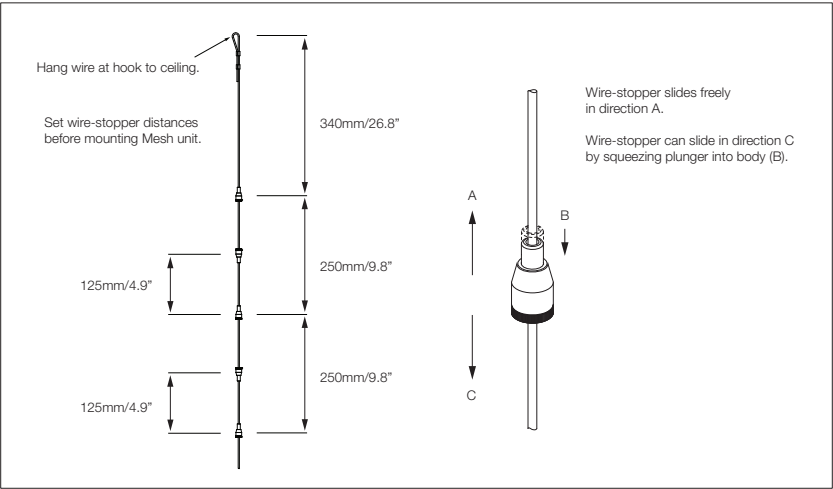


FIG 5: Preparing the Mounting Wire



Clip the Mesh grids together to form a single unit (FIG 6).

Attach the Mesh unit to the mounting wire as shown in FIG 7. Use the wire-stoppers to secure the grids to the wire on both sides.

FIG 6: Clipping together the Mesh Grids

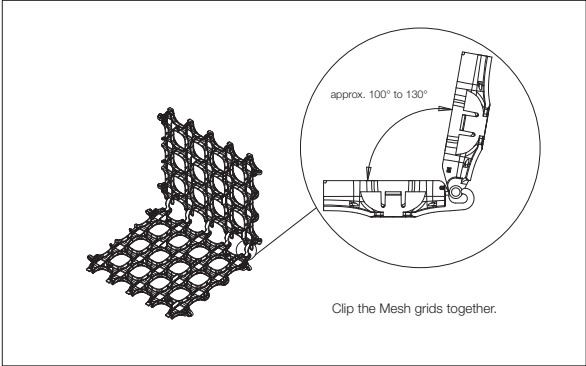
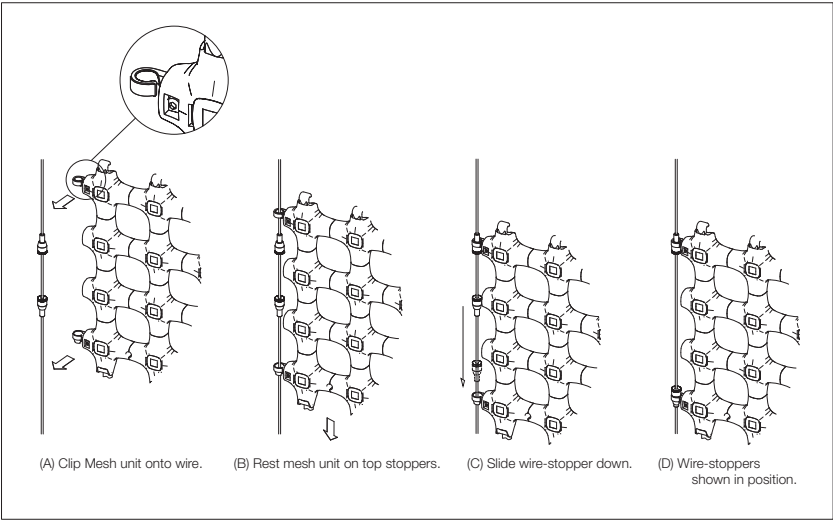


FIG 7: Attaching the Mesh unit onto the Mounting Wire



4.3 MOUNTING MORE THAN ONE MESH UNIT

The Mesh RGB is a modular system that allows multiple Mesh units to be mounted seamlessly both horizontally or vertically, keeping the 62.5mm consistent dot pitch. See FIG 8 and FIG 9.

Furthermore, Mesh units can be mounted back-to-back as shown in FIG 10. The back-to-back units are clipped together and secured using the provided screws.

FIG 8: Attaching adjacent Mesh units

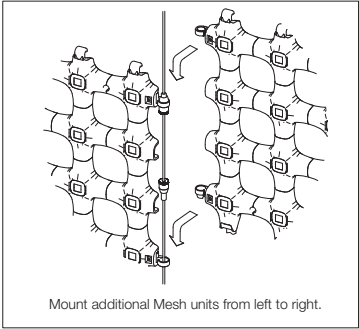


FIG 9: Side-to-Side Mounted

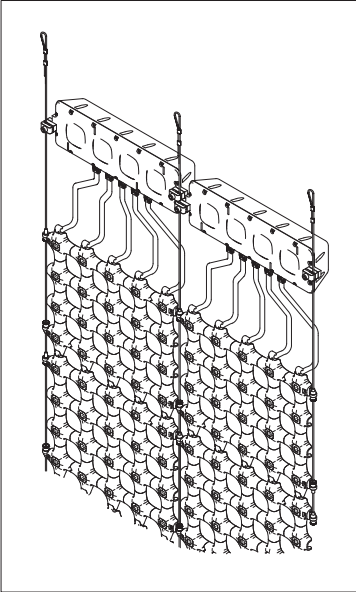
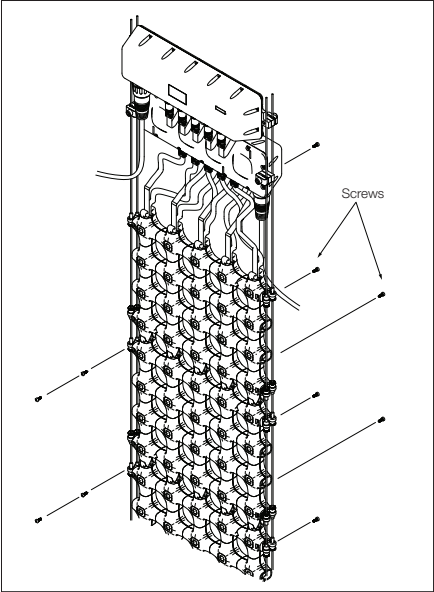


FIG 10: Back-to-Back Mounted

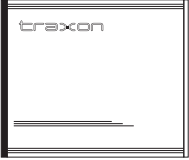


5. SYSTEM CONFIGURATION

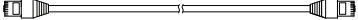
5.1 TX CONNECT SYSTEM

The Traxon TX Connect System is a interconnection system that combines power and DMX data on a single connector cable so that only one connection is required between light fixtures. FIG 11 and FIG 12 show the accessories for an indoor and outdoor system respectively.

FIG 11: TX Connect Accessories for Indoor System



Micro Server
Part No.: CS.MA.5000000



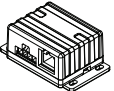
TX Connect Data Cable
Part No.:
DI.IC.0020000 0.2m DI.IC.0100000 1m
DI.IC.0300000 3m DI.IC.0500000 5m
DI.IC.1000000 10m DI.IC.2000000 20m



TX Connect Smart Indoor/Outdoor Bridge Cable
Part No.: TE.AC.0000100 (5m/16.4ft)



LED Engine Smart 150W Indoor
Part No.: PS.IC.0010000



TX Connect Smart Indoor Power/Data Injector Box
Part No.: TI.ZI.0000100

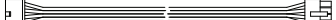
Optional:



Mesh/String Lead Extension Cable
Part No.: DO.AC.0000700 (2.5m/8.2ft)

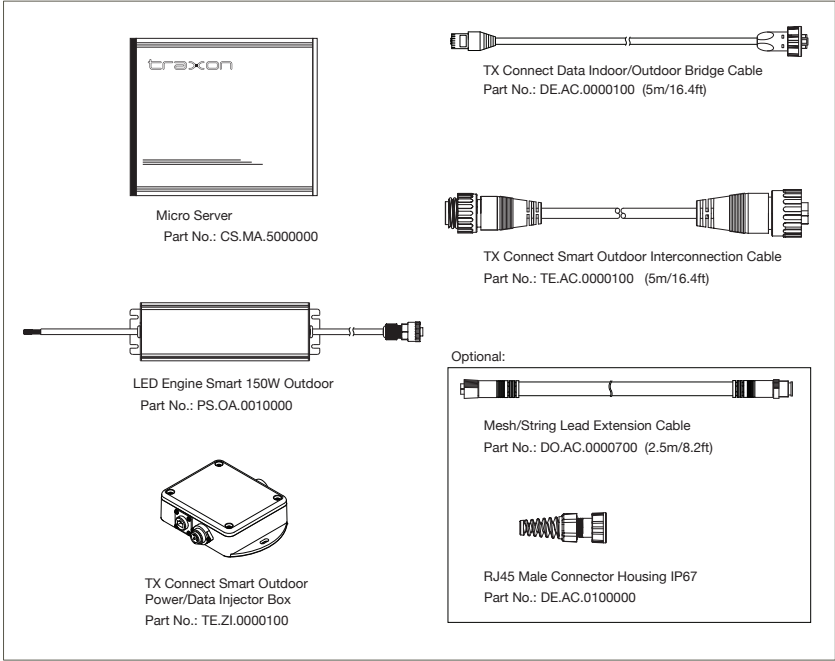


TX Connect Smart Indoor Interconnection Cable
Part No.:
TI.IC.0008000 0.08m
TI.IC.0030000 0.3m
TI.IC.0060000 0.6m



TX Connect Smart Extension Cable
Part No.:
TI.EC.0050000 0.5m TI.EC.0100000 1m
TI.EC.0300000 3m TI.EC.0500000 5m
TI.EC.1000000 10m

FIG 12: TX Connect Accessories for Outdoor System



5.2 SYSTEM CONNECTION

The Mesh RGB can be wired as an indoor or outdoor system using TX Connect components. FIG 13 shows the wiring for an indoor system. FIG 14 shows the wiring for an outdoor system.

FIG 13: Mesh RGB Indoor System Connection Example

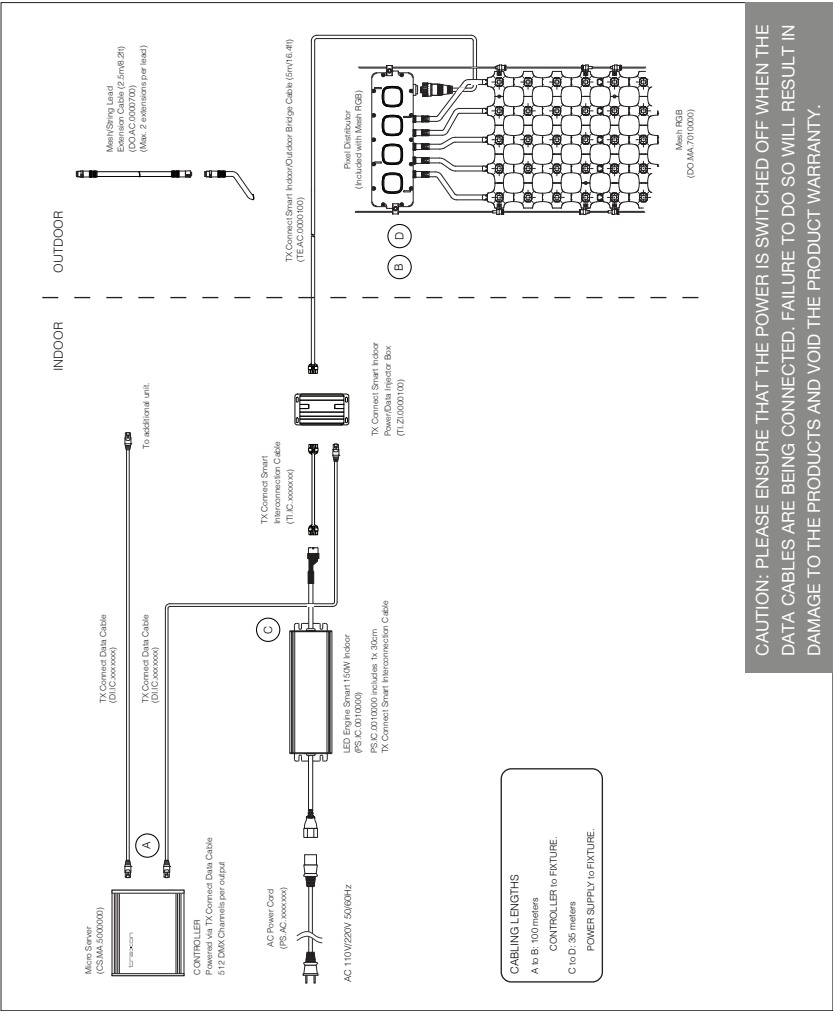
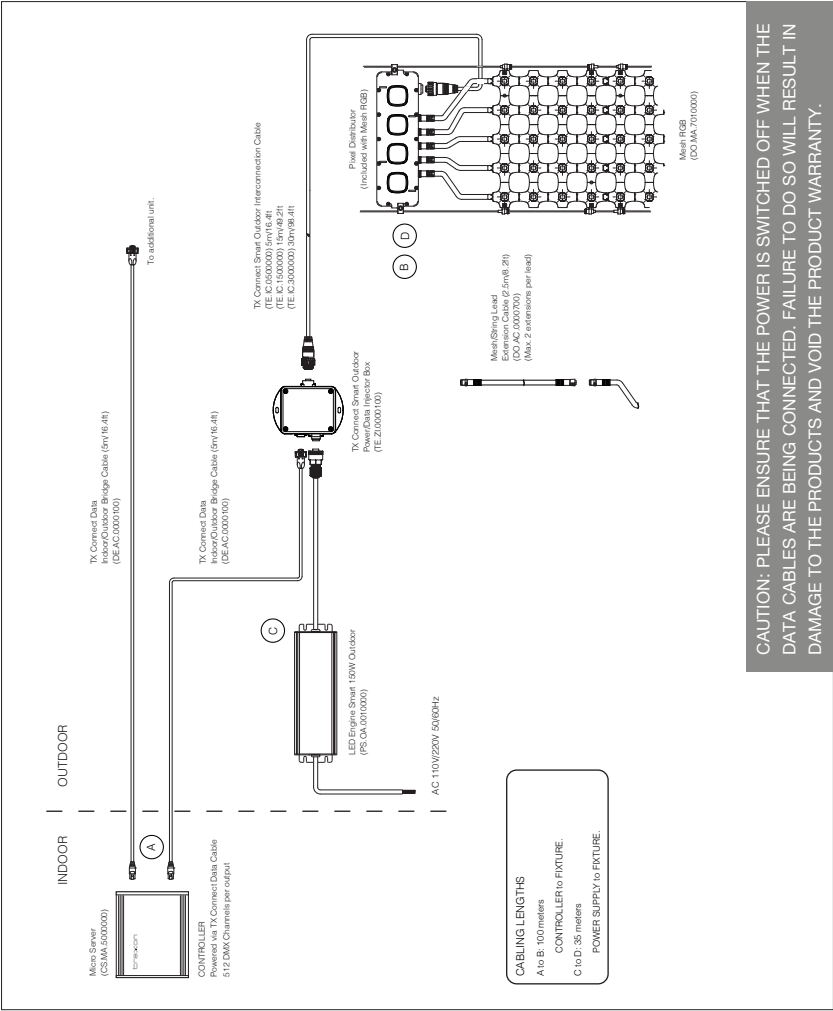


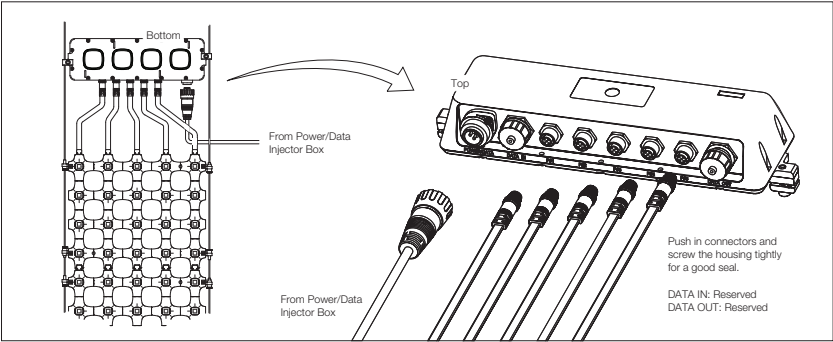
FIG 14: Mesh RGB Outdoor System Connection Example



5.3 PIXEL DISTRIBUTOR CONNECTION

Connect the lead cables from the Mesh grid to the Pixel Distributor output ports, labelled P#1 to P#5. Connect the cable from the Power/Data Injector Box to POWER/DATA port of the Pixel Distributor.

FIG 15: Connecting to the Pixel Distributor

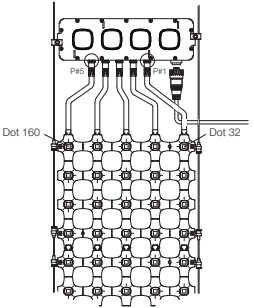


5.4 LED CONTROL

The LEDs on the Mesh RGB are controlled by DMX. The five outputs, P#1- P#5, on the Pixel Distributor provides power and control to the 160 dots (32 dots per port). The dot and DMX channel allocation is shown in the following figure and table.

PORT	LED ("dot") Number	DMX Channel Number
P#1	1 to 32	1 to 96
P#2	33 to 64	97 to 192
P#3	65 to 96	193 to 288
P#4	97 to 128	289 to 384
P#5	129 to 160	385 to 480

One port controls 32 dots. First dot of an output is the dot furthest from the connector (i.e. at the bottom). Three channels per dot (R, G, B).



6. CARE AND MAINTENANCE

Traxon™ products are of superior design and quality and should be treated with care. The recommendations below will help fulfill and warranty obligations and gain good use and longevity from the products.

- Do not attempt or use the product(s) until you read and understand the installation instructions. Failure to adhere to these instructions could result in serious injury or property damage.
- Do not use product(s) if cables are damaged.
- Do not connect cables and connectors when wet or in wet area. Moisture on bare connectors can cause electric shock and damage to product(s).
- Do not use product(s) in extreme heat environment. Ensure there is sufficient airflow and use cool air circulation if required.
- Do not drop, knock, or shake product(s). Rough handling can damage the electronics and void the warranty.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean products. Wipe with a damp cloth on housings and a dry cloth on electronics to remove dirt or dust.
- Do not attempt to service or repair the product(s) unless done by an authorized service personnel. Contact your the local Traxon™ office or distributor for details.

If the product is not working correctly, please contact your nearest authorized service centre or Traxon Technologies office for assistance.

7. TECHNICAL SPECIFICATION

Color Range:	16.7 million additive RGB colors with variable intensity
Light Source:	160 Ultra Bright RGB SMD LED
Source Life:	50,000 hours under normal operating conditions
Beam Angle:	X: 110°, Y: 90°
Power Input*:	24V DC
Power Consumption:	88W max.
Weight:	4.2kg (including mounting wires)
Operating Temperature:	-20°C to 50°C (-4°F to 122°F)

*For use with TRAXON LED Engine Smart 150W Indoor (PS.IC.0010000) or LED Engine Smart 150W Outdoor (PS.OA.0010000) power unit.

As with all electronic devices, LED output degrades over time - a term called lumen depreciation. This also explains why it is nearly impossible to expect photometric performances of two LED products with different service life spans to be the same. The rate of LED degradation is a complex function of many factors such as operating efficiency, duration of continuous operation, and operating conditions (e.g. ambient temperature).

Because LEDs are semiconductor devices, their performances are subject to inherent variability commonly found in semiconductor industry. To improve consistency in performance across the same product. LED manufacturers “sort” LEDs into bins according to different preset parameters, such as forward driving voltage, illumination, etc. Whereas binning is a sorting function, it is not a correction process. Inherent variability in the manufacturing process results always in different binning distributions according to different production lots. Traxon uses automatically binned LEDs on its products, thereby minimizing output variations within the model range.

8. WARRANTY STATEMENT

Traxon warrants its Products against material or workmanship defects for a period of two (2) years from date of purchase, provided that the purchased items are used under the conditions stated in this user manual.

Please refer to the Product Warranty section under www.traxontechnologies.com/terms for warranty terms and conditions.