



# TRAXON

## **Allegro Linear 2.1 AC**

### **INSTALLATION GUIDE**

### **V1.1**



Cover:

Allegro Linear 2.1 AC RGB

Allegro Linear 2.1 AC RGBW

Allegro Linear 2.1 AC DW

Allegro Linear 2.1 AC SW (DMX)

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# CONTENT

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SAFETY AND OPERATION	3
1. INTRODUCTION	4
2. INSTALLATION	8
3. SYSTEM CONFIGURATION	13
4. CARE AND MAINTENANCE	15
5. TECHNICAL SPECIFICATION	16
6. TROUBLESHOOTING	18
7. WARRANTY STATEMENT	18

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## SAFETY AND OPERATION



Please read through Safety and Operation before start of the installation.

1. CAUTION - Unplug the power supply from the mains power before connecting any cables as this can damage the products.
2. CAUTION - Avoid looking directly into the LED light source at close range for your own safety.
3. Persons installing this product should make sure:
  - a. The installation complies with all applicable codes, state and local laws, ordinances, standards and safety regulations.
  - b. The installation environment is carefully studied and suitable surge protection measure(s) is taken.
  - c. He or she is qualified for the handling of electrical equipment.
4. Do not attempt to install or use the product until installation instructions and safety labels are fully understood. This product is designed for indoor and outdoor use.
5. Ensure product operates within the specified temperature range. (Refer to 5. TECHNICAL SPECIFICATION for more details.)
6. Do not attempt to open the product. Not user serviceable.
7. Do not use the product if any part of it, or the power cables are damaged.
8. Only use product for specified voltage, do not exceed. (Refer to 5. TECHNICAL SPECIFICATION for more details.)
9. Always maintain connection to ensure waterproofing.
10. If the product 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.
11. When installing the products 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.
12. Please study this Installation Guide thoroughly and check the latest Technical Specification Sheets available from the Traxon website [www.traxontechnologies.com](http://www.traxontechnologies.com) before setup.
13. Any non-compliance of the Installation Guide will void the Traxon warranty.

1. INTRODUCTION

1.1 General

The Allegro Linear 2.1 AC series is a slim profile, AC line powered high brightness luminaire. The series is controllable via DMX512, and is available in four lengths. The luminaire can be simply daisy-chained to form long runs.

Model	Power Consumption (W)	Length (mm)
Allegro Linear 2.1 AC 300	15	320
Allegro Linear 2.1 AC 600	28	615
Allegro Linear 2.1 AC 900	41	915
Allegro Linear 2.1 AC 1200	55	1215

Features:

- Outdoor applications
- Protection Class IP66
- Suitable for coastal environments
- Impact rating IK07
- Salt spray test compliant to ASTM B117-16
- Vibration compliant to 3G ANSI C136.31
- Input voltage: 220-240V AC
- Integrated mounting feet with  $\pm 90^{\circ}$  adjustment on beam aiming
- DMX512
- Remote Device Management (RDM)
- CE, cETLus
- DynaMood® : BinOne · BoostOne · AddressOne

# 1.2 Dimensions

FIG.1: Allegro Linear 2.1 AC 300

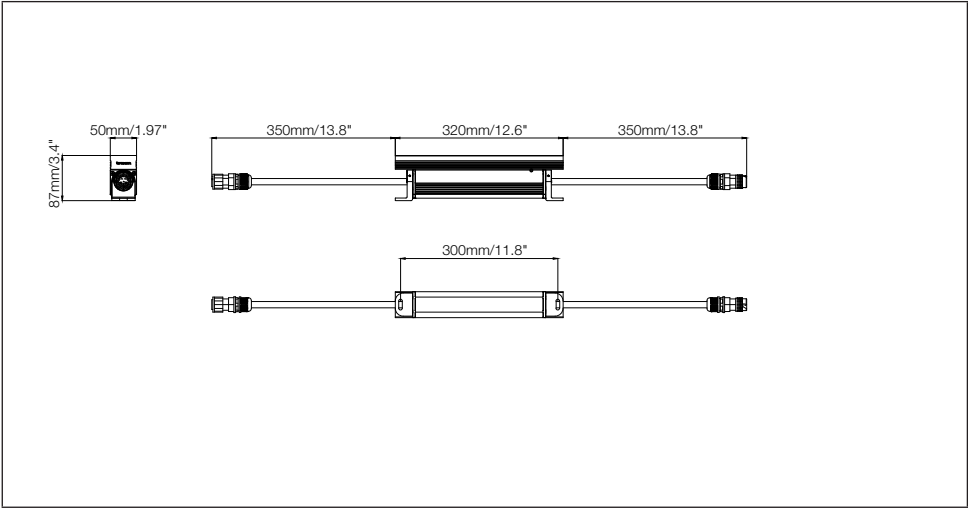


FIG.2: Allegro Linear 2.1 AC 600

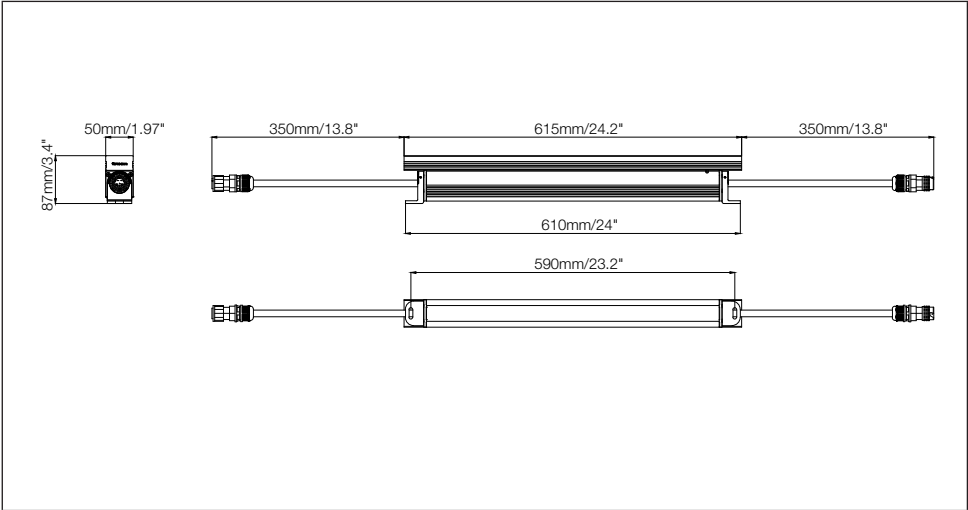


FIG.3: Allegro Linear 2.1 AC 900

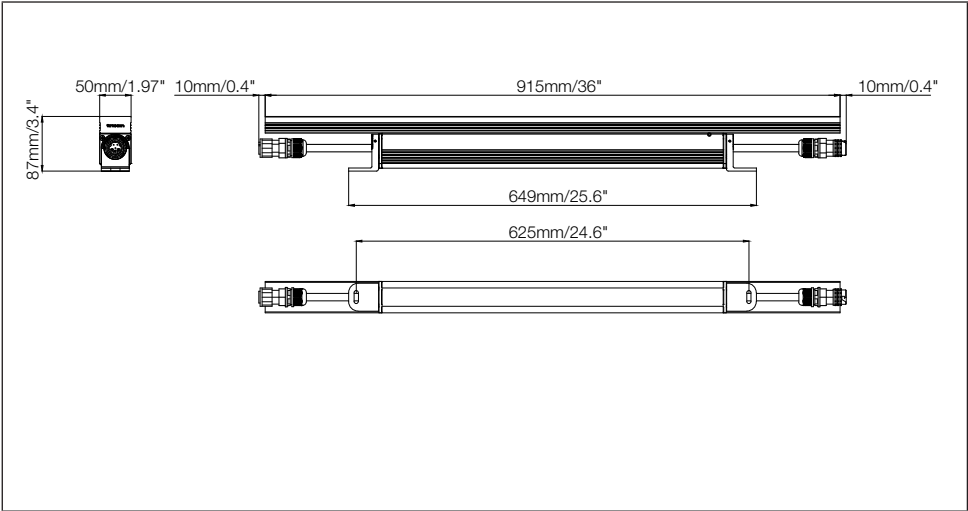
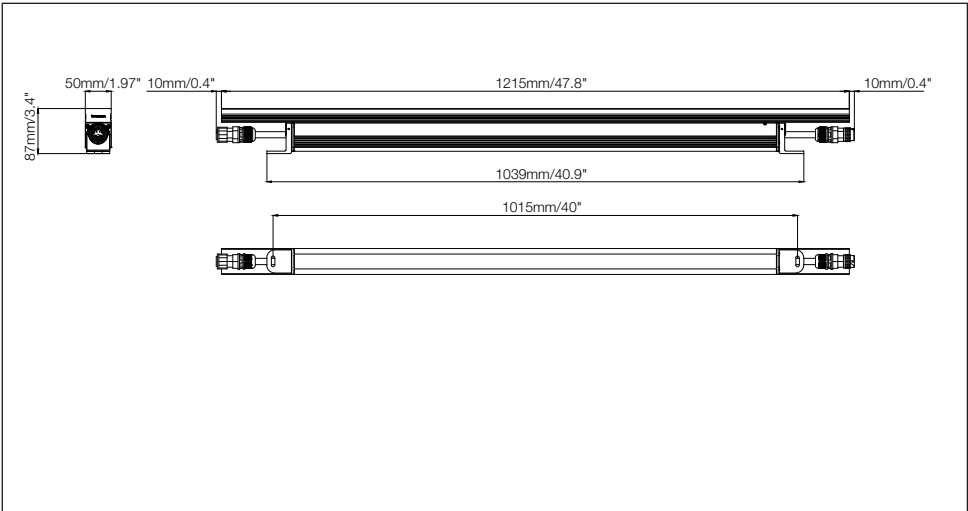
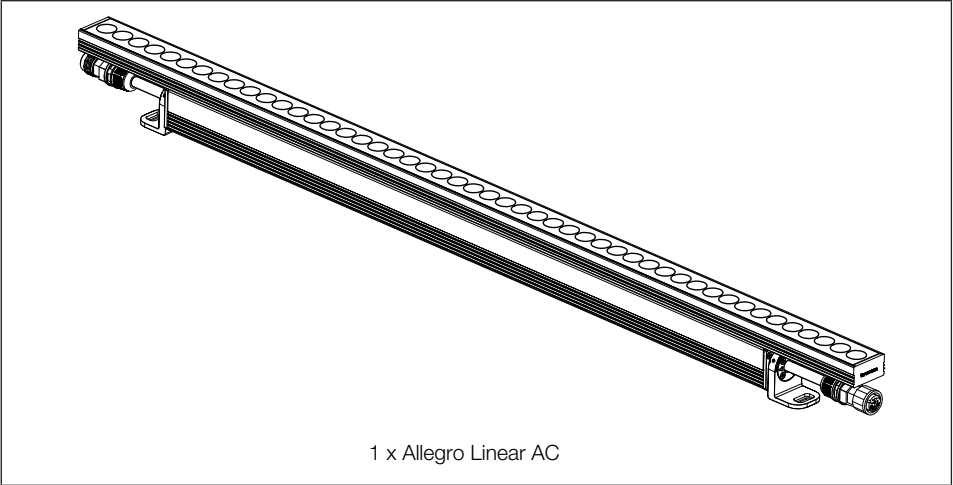


FIG.4: Allegro Linear 2.1 AC 1200



# 1.3 Packing Contents

FIG.5: Packing Contents



## 2. INSTALLATION

### 2.1 Points To Consider

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Plan your installation before mounting any Allegro Linear 2.1 AC. The following should be considered for a successful installation:

- Weather conditions and ambient temperature of installation site.
- Installation distances and appropriate cable lengths. Please consult your local Traxon™ office or authorized agent for necessary aid.
- The number of Allegro Linear 2.1 AC and appropriate power sources.
- Distance between each Allegro Linear 2.1 AC for thermal expansion.
- Proper surge protection.

#### 2.1.1 Installation Checklist

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1. Prepare cables and all necessary accessories.
2. Perform functional check of Allegro Linear 2.1 AC. Take care not to damage cables/connectors during pre-installation checks.
3. Ensure all pre-installation checks laid out below have been followed.
4. Mount the Allegro Linear 2.1 AC on-site. If the installation is to be left uncompleted overnight, place all non-connected LED Engines and Allegro Linear 2.1 AC in an indoor environment.



Ensure all the Interconnection Cables, Allegro Linear 2.1 AC and power sources are initially stored in a dry area to guarantee the complete sealing of the system from water before installation.



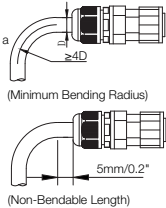
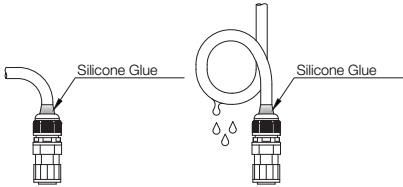
## 2.2 Pre-Installation Checks

### 2.2.1 Sequence For Cable And Connector Preparation

1. Trim Cable.
2. Plan for any possible bending of cables.
3. Fix cable ends with connectors.
4. Complete sealing of connectors by tightening screw nut with spanner/wrench.
5. Unplug Dust Caps/Waterproof End Caps and keep safe for reuse.
6. Connect luminaries with power sources and data injector boxes with connection cables in the daisy-chain manner described in the wiring diagram.
7. Open Short Test should be performed to ensure cable wires are connected correctly. Re-crimping of wires should be done if any failures occur.
8. Perform functional check on all Allegro Linear 2.1 AC.
9. Report any functional defect found to your nearest Traxon Technologies office. DO NOT attempt to install an Allegro Linear 2.1 AC with functional defects on-site.

### 2.2.2 Cable Bending

Cable must NOT be bent below the Minimum Bending Radius (4 x Cable Diameter) as specified by cable manufacturer and the Non-Bendable Length of 5cm near the connector end MUST be adhered to.

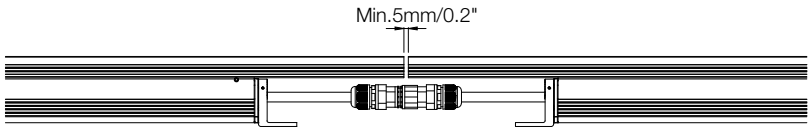
<p>Bending radius (for conductors): Note the minimum bending radius for conductors &gt; 1.5mm<sup>2</sup>. Pull forces on the contact points can be avoided by proceeding as follows: a – Bend the wire as required</p>	 <p>FIG.6: Cable Bending</p>
<p>Avoid vertical placement of the connectors. If vertical installation is unavoidable: • Add silicon glue on the surface of cable gland. • Layout the cable to have drip loop to allow water run off the wire.</p>	 <p>FIG.7: Connector vertical installation warning</p>

## 2.3 On-Site Installation



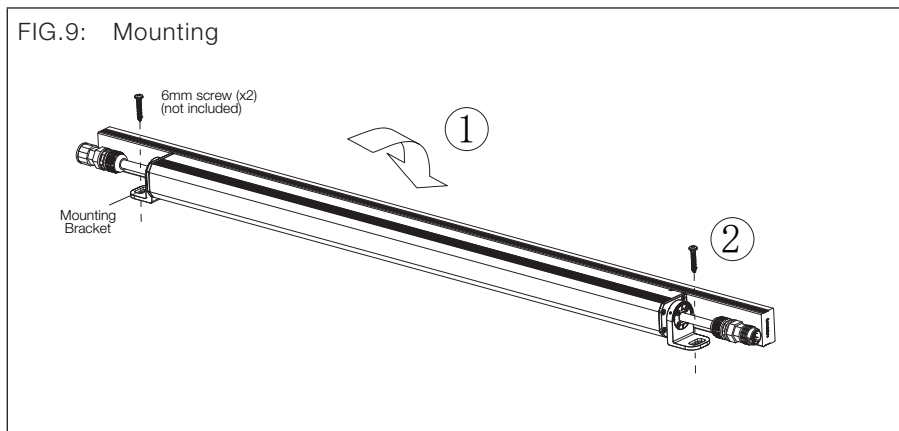
- DO NOT attempt installation in wet or severe weather conditions.
  - DO NOT leave and expose any Allegro Linear 2.1 AC or power sources unconnected under wet/raining or snowing environment.
  - IP failure induced by stressed/damaged cables during or after installation will not be under warranty by Traxon Technologies.
  - ALWAYS keep the cables protected from sharp objects and ensure no damage is generated on the cable.
  - Failure to keep Allegro Linear 2.1 AC within the operating temperature range of  $-30^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$  to  $+122^{\circ}\text{F}$ ) and storage temperature range of  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+158^{\circ}\text{F}$ ) will void the product's warranty.
1. Do not leave and expose Allegro Linear 2.1 AC without Dust Cap plugged under wet/raining or snowing environment as the Allegro Linear 2.1 AC is not IP66 compliant unless properly connected. Make sure there is a minimum spacing of 5mm/0.2" between Allegro Linear 2.1 AC for thermal expansion.

FIG.8: Min. clearance between fixtures



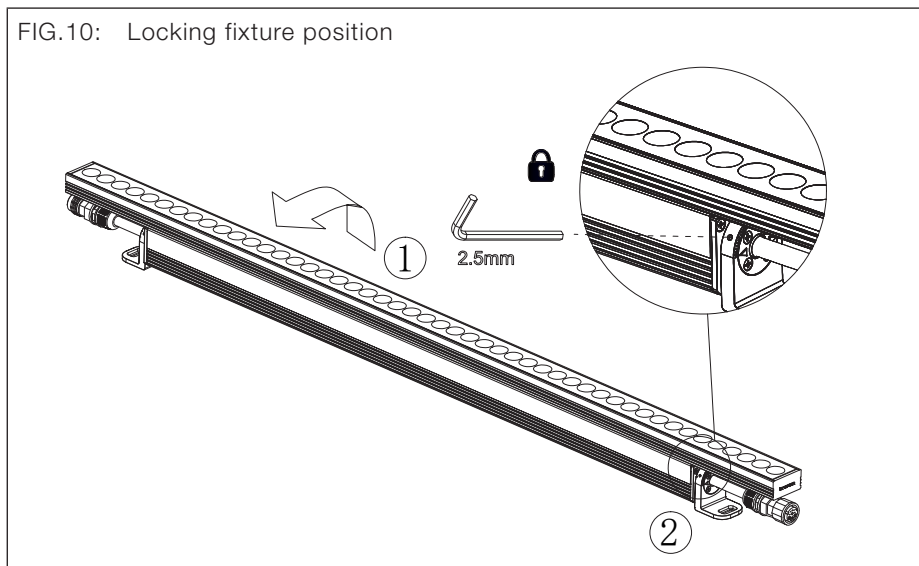
2. Rotate fixture to gain access to mounting holes.

FIG.9: Mounting



3. Fix screws to mounting brackets.
4. Tilt the Allegro Linear 2.1 AC head to the desired angle.

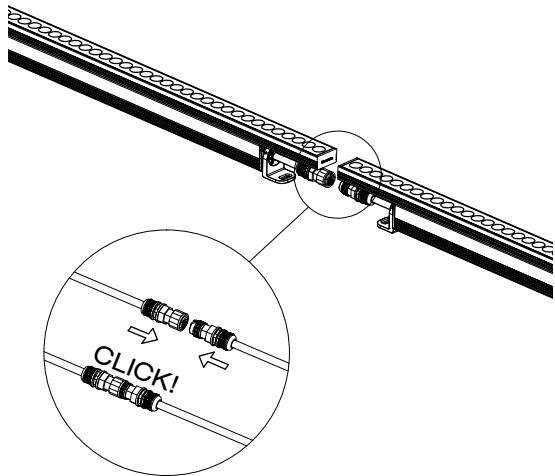
FIG.10: Locking fixture position



5. Then tighten lock screws with provided Hex Key in clockwise direction.
6. Unplug the Dust Caps/Waterproof End Caps and keep them in a container for reuse.

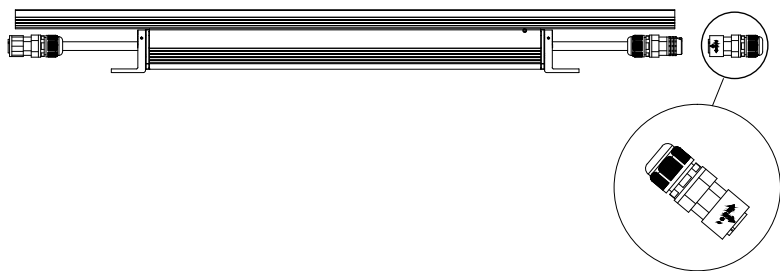
7. Fully connect all the Allegro Linear 2.1 AC with connection cables one after the other. Do not work on the other unit's connections until the first unit under installation is properly connected.

FIG.11: Interconnecting fixtures



8. Please use end cap for final fixture in connection chain.

FIG.12: Install the end cap



### 3. SYSTEM CONFIGURATION

FIG.13: System Diagram for CC

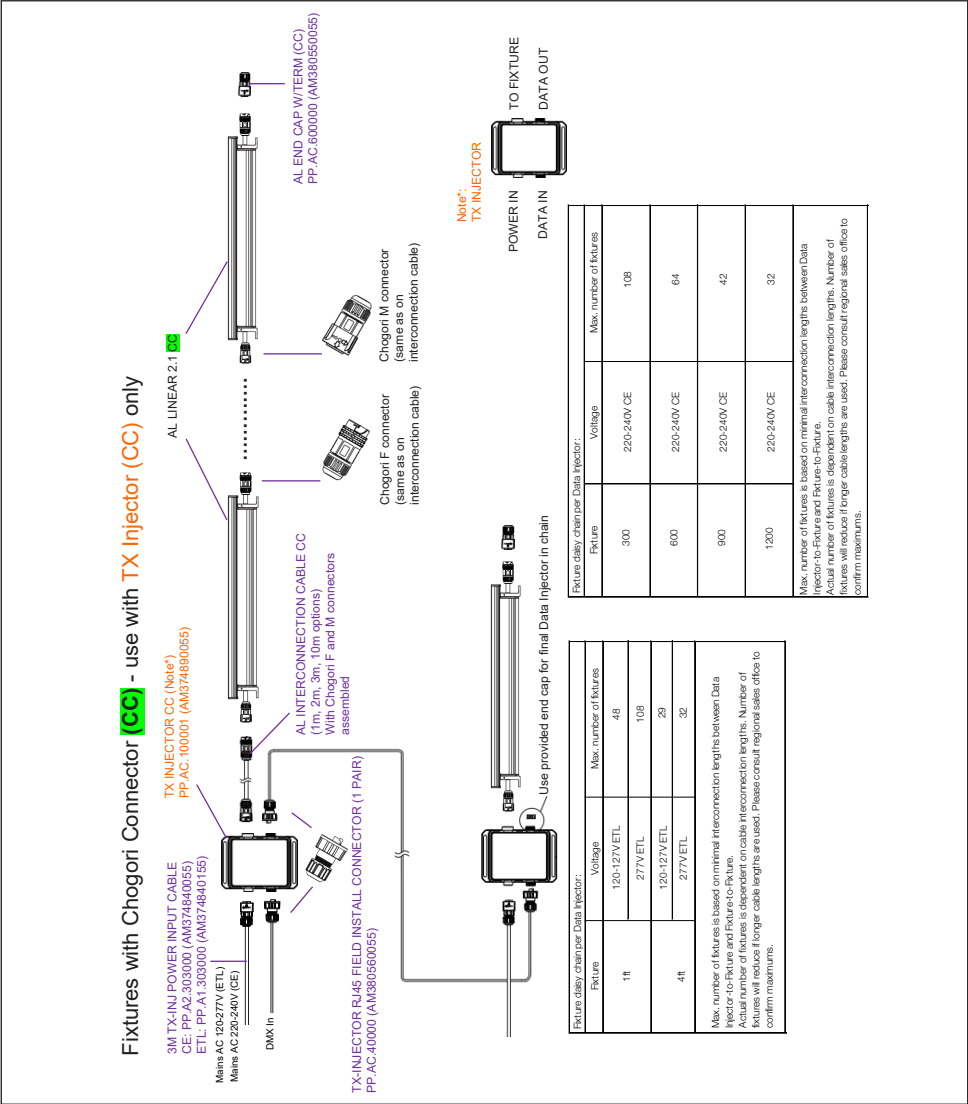
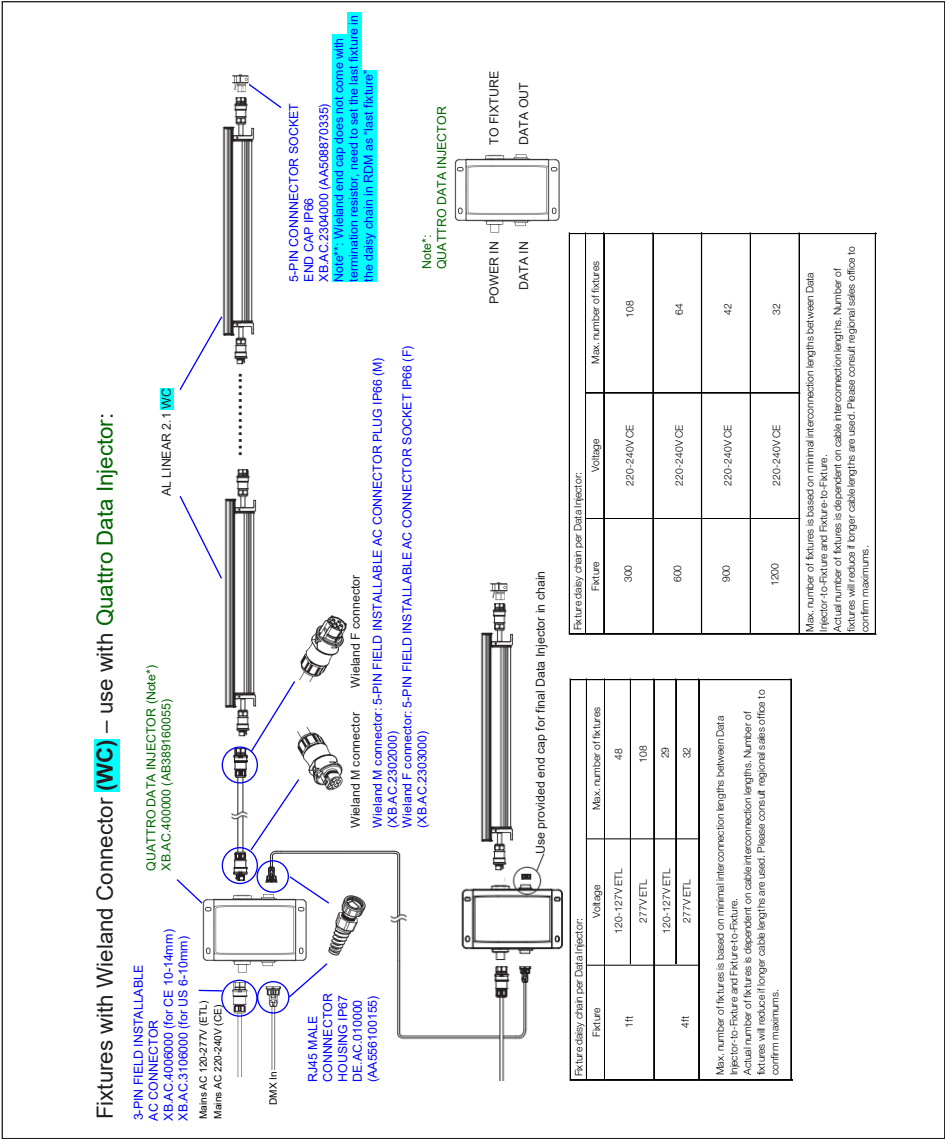


FIG.14: System Diagram for WC



## 4. CARE AND MAINTENANCE

- Traxon™ products are of superior design and quality and should be treated with care. The recommendations below will help fulfill any 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 local Traxon office or distributor for details.
- If the product is not working as specified, please contact your nearest authorized service center or Traxon Technologies office for assistance.

5. TECHNICAL SPECIFICATION

RGBW				
	300	600	900	1200
Light Source	Osram Oslon, separate LEDs			
Color Range	RGBW (White CCT: 3000K standard)			
Beam Angle	10°, 40°, 60° × 10°, 60° × 30°			
Power Input	220-240V AC			
Power Consumption	15W	28W	41W	55W
Weight	1.8kg / 3.97lb	3.06kg/4.03lb	3.6kg/7.93lb	5.02kg/11.07lb
Operating Temperature	-30°C to +50°C / -22°F to +122°F (-20°C / -4°F starting)			
Storage Temperature	-40°C to +70°C / -40°F to +158°F			

RGB				
	300	600	900	1200
Light Source	Osram Oslon, separate LEDs			
Color Range	RGB			
Beam Angle	10°, 40°, 60° × 10°, 60° × 30°			
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Storage Temperature	-40°C to +70°C / -40°F to +158°F			



DW				
	300	600	900	1200
Light Source	Osram Oslon, separate LEDs			
Color Range	Dynamic White (2700K-5700K)			
Beam Angle	10°, 40°, 60° × 10°, 60° × 30°			
Power Input	220-240V AC			
Power Consumption	15W	28W	41W	55W
Weight	1.8kg / 3.97lb	3.06kg/4.03lb	3.6kg/7.93lb	5.02kg/11.07lb
Operating Temperature	-30°C to +50°C / -22°F to +122°F (-20°C / -4°F starting)			
Storage Temperature	-40°C to +70°C / -40°F to +158°F			

SW				
	300	600	900	1200
Light Source	Osram Oslon, separate LEDs			
Color Range	2700K, 3000K, 4000K, 5700K			
Beam Angle	10°, 40°, 60° × 10°, 60° × 30°			
Power Input	220-240V AC			
Power Consumption	15W	28W	41W	55W
Weight	1.8kg / 3.97lb	3.06kg/4.03lb	3.6kg/7.93lb	5.02kg/11.07lb
Operating Temperature	-30°C to +50°C / -22°F to +122°F (-20°C / -4°F starting)			
Storage Temperature	-40°C to +70°C / -40°F to +158°F			

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 always results 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.

## 6. TROUBLESHOOTING



Caution: Ensure power supply is OFF when disconnecting / connecting cables.

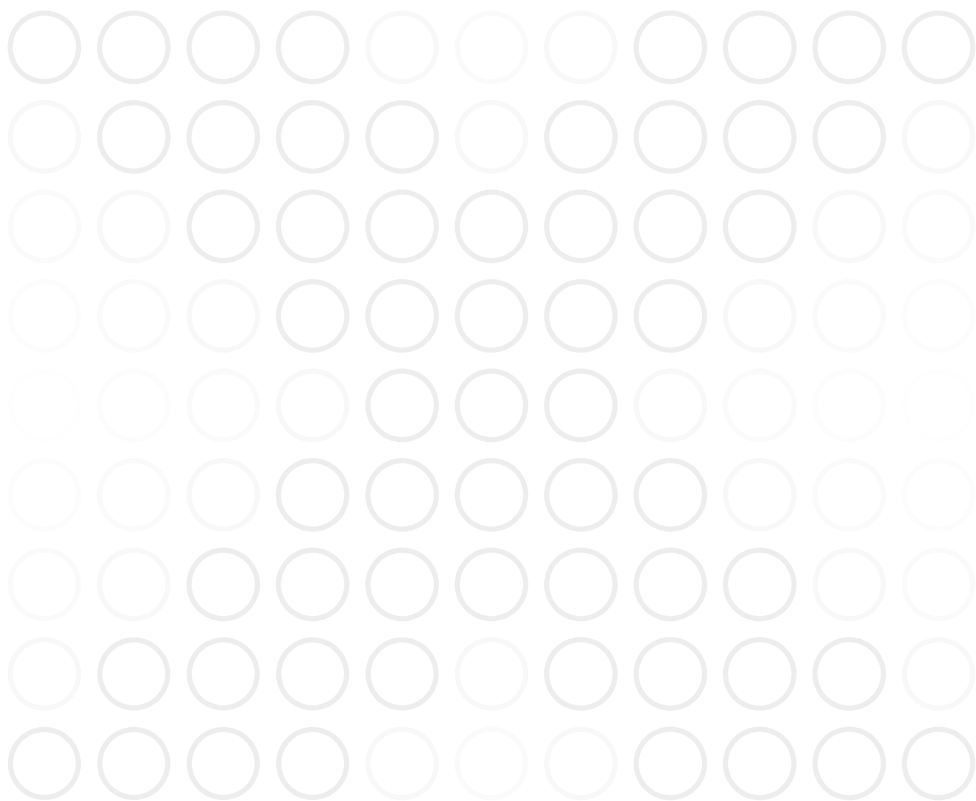
Problem	Cause	Possible Solutions
Product does NOT light up after installation	Incorrect power connection	<ul style="list-style-type: none"><li>• Check Mains Power</li><li>• Check power supply leads and wire connections</li><li>• Ensure output wires are connected with proper polarity</li></ul>
Shadowing	Light source covered	<ul style="list-style-type: none"><li>• Check for cables, wires or unwanted debris covering LED light source</li></ul>
Modules are dim	Excess products connected	<ul style="list-style-type: none"><li>• Ensure the power supplies are not overloaded due to an excess of products connected</li></ul>
Flickering	Incorrect power input/ Excess products connected	<ul style="list-style-type: none"><li>• Ensure the input voltage is correct</li><li>• Ensure the power supplies are not overloaded due to an excess of products connected</li></ul>

If problems persist or the product is not working as specified, please contact your nearest authorized service center or Traxon Technologies office for assistance.

## 7. WARRANTY STATEMENT

Traxon Technologies warrants its Products against material or workmanship defects from date of purchase, provided that the purchased items are used under the conditions stated in this user manual.

Please refer [www.traxon-ecue.com](http://www.traxon-ecue.com) for all warranty terms and conditions.



# TRAXON

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