



TRAXON

Media Pixel Ribbon DMX

INSTALLATION GUIDE

V0.4



Cover:

Media Pixel Ribbon DMX Outdoor VB
Media Pixel Ribbon DMX Outdoor HB
Media Pixel Ribbon DMX Outdoor Flat

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For your own safety and that of the product, please read this installation guide carefully before beginning setup and installation.

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. The products must only be secured using the provided brackets, and other unreliable fixation methods (e.g. quick-drying adhesive, zip tie fastening) are strictly prohibited. Any quality issues arising from the use of unauthorized fixation methods will not be covered under warranty.
13. Please study this Installation Guide thoroughly and check the latest Technical Specification Sheets available from the Traxon website www.traxon-ecue.com before setup.
14. Any non-compliance of the Installation Guide will void the Traxon warranty.

1. INTRODUCTION

1.1 General

The Traxon Media Pixel Ribbon DMX family are flexible LED strips which can be controlled directly using DMX 512. The Media Pixel Ribbon provides flexibility to fit on any curved surface. Featuring a 16.7mm LED Pitch with a 100mm Pixel pitch. The Media Pixel Ribbon can be customized for number of pixels, ribbon length, and mounting options.

Features:

- DMX512 control
- Outdoor applications
- Suitable for curve lighting and freeform applications
- Two versions with orthogonal bending directions
- Outdoor IP67

1.2 Dimensions

FIG.1: Media Pixel Ribbon DMX Outdoor Flat

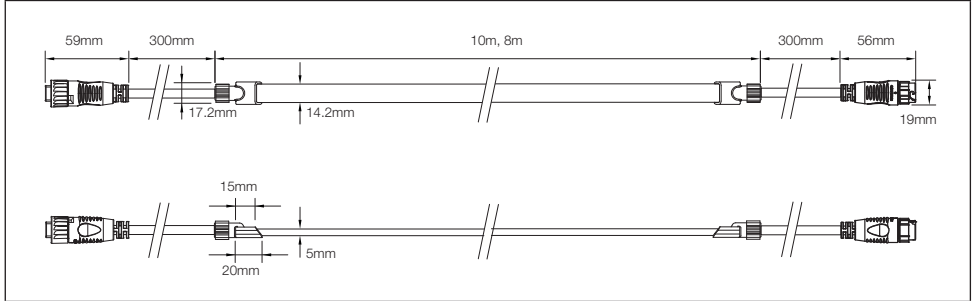


FIG.2: Media Pixel Ribbon DMX Outdoor VB

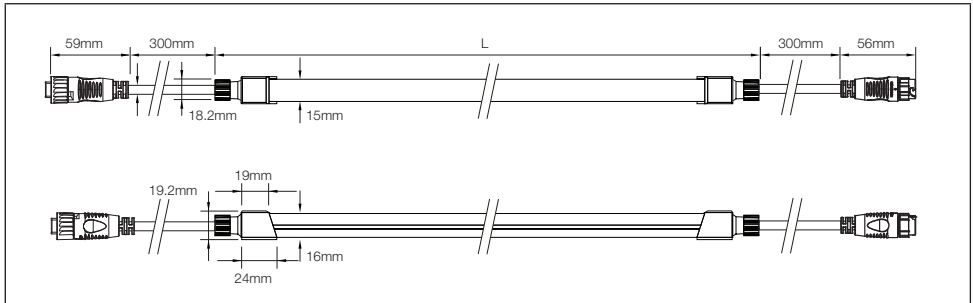
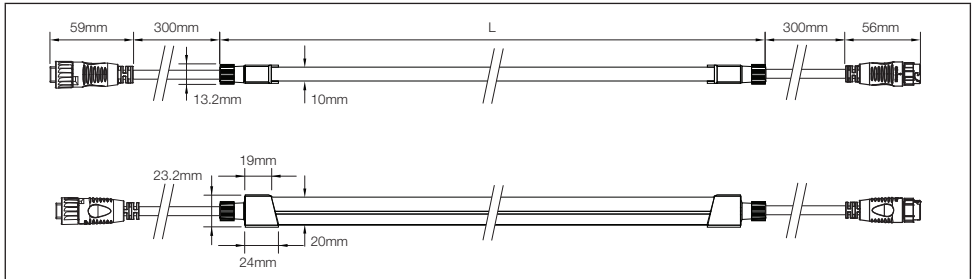


FIG.3: Media Pixel Ribbon DMX Outdoor HB



Model	Max. Ribbon length with single power feed	Actual product length with endcap at 2-ends, L
RGB+W & RGB	8000 mm	8000 + 20 mm
DW & W	10000 mm	10000 + 20 mm

2. INSTALLATION

2.1 Points To Consider

Plan your installation before mounting any luminaires. The following should be considered for a successful installation.

- Weather conditions and ambient temperature of installation site.
- Appropriate cable lengths
- Adequate space for better heat dissipation (150mm apart) of LED Engines
- Check Mounting Guide to plan for mounting details.
- The length of the Media Pixel Ribbon DMX and appropriate DMX Controllers and LED Engines.
- Controller to be used to control the Media Pixel Ribbon DMX.

2.2 Pre-Installation Checks

2.2.1 Installation Checklist

1. Prepare cables and all necessary accessories.
2. Perform functional check of the Media Pixel Ribbon DMX.
3. Ensure the DATA OUT connector on the Media Pixel Ribbon DMX are covered by the Waterproof End Cap after testing. Keep Waterproof End Caps safe for reuse.
4. Ensure all pre-installation checks laid out below have been followed.
5. Mount the Media Pixel Ribbon DMX. If the installation is to be left uncompleted overnight, place all non-connected Media Pixel Ribbon DMX, Connection Cables, DMX Controller and LED Engines in an indoor environment.

Ensure all the Media Pixel Ribbon DMX, Connection Cables, DMX Controller and LED Engines are initially stored in a dry area to guarantee the complete sealing of the system from water before installation.

2.2.2 Requirements Of Cable Bending And Twisting

Media Pixel Ribbon DMX Outdoor Flat and VB can only be bent among the vertical axis.

Media Pixel Ribbon DMX Outdoor HB can only be bent among the horizontal axis

Please take EXTRA precautions before bending Media Pixel Ribbon DMX and Connection Cables. They must be only bent in the direction specified. The Minimum Bending Radius 150mm and the Non-Bendable Length of 20mm near the connector end or near the cable overmold MUST be adhered to.

Do not twist the Media Pixel Ribbon DMX in anyway.

NOTE: Water ingress incurred due to excess cable bending/twisting will not be under warranty by Traxon Technologies.

FIG.4: Minimum Cable Bending and Non-Bendable Length Requirement (Flat and VB)

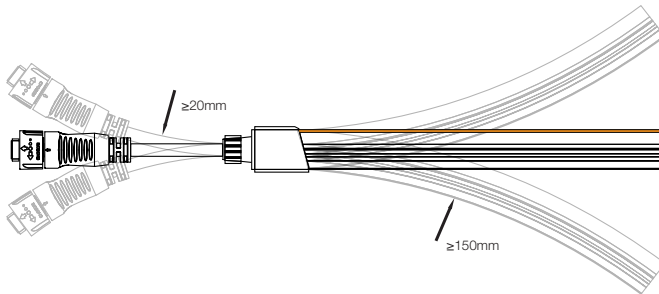
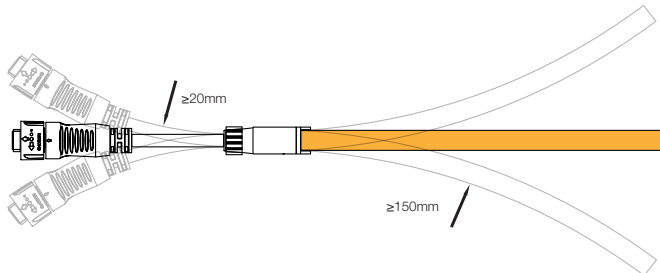


FIG.5: Minimum Cable Bending and Non-Bendable Length Requirement (HB)



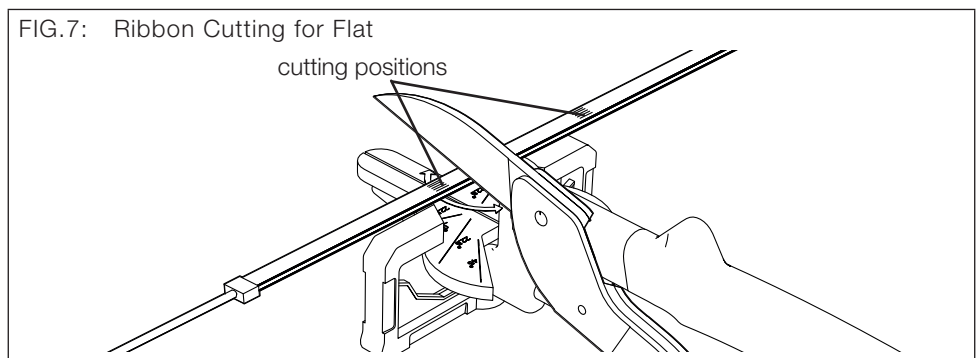
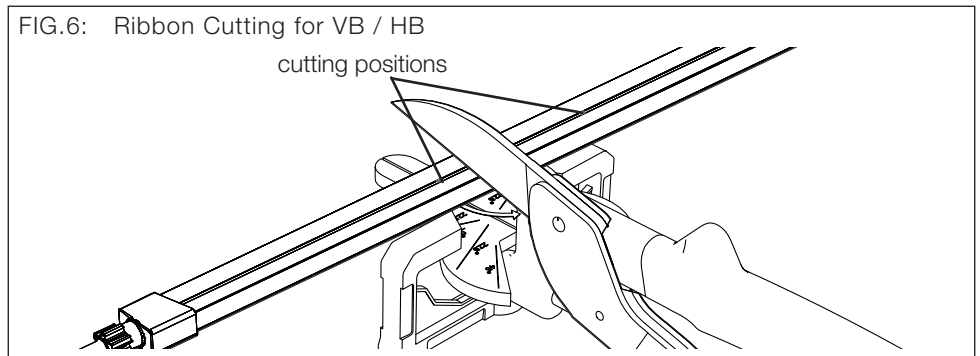
2.2.3 Cut-and-Seal of the Media Pixel Ribbon

Media Pixel Ribbon DMX Outdoor can be cut every 100mm (cutting pitch).

It is recommended to use the PX RIBBON CUTTING TOOL (AM412950055) for proper cutting.

For Ribbon Flat, look for the copper bridge every 100mm, which are the designated cutting positions.

For VB / HB, the cutting position can be revealed from the window of the silicone body. Cutting should only be done on the copper bridge position as indicated. Cutting outside the position shall void the warranty.



After cutting, the Cut End of the LED Strip should be covered with the End Cap, and sealed with RTV Silicone.

Item Code	Description
AM412960055	PX RIBBON SEALING GLUE 100ML
AM412970055	PX RIBBON VB FIELD CUT ENDCAP 20PC
AM412980055	PX RIBBON HB FIELD CUT ENDCAP 20PC
AM412990055	PX RIBBON FLAT FIELD CUT ENDCAP 20PC

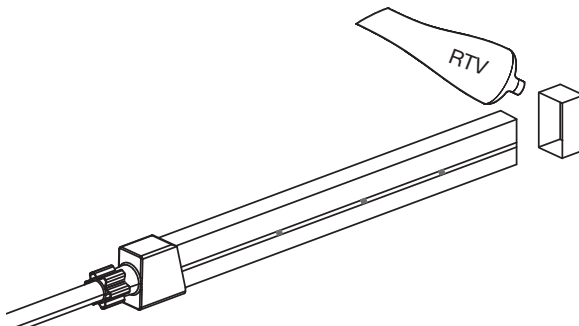
For VB / HB:

- Place the Ribbon VB / HB on the cutting tool, with the window of the body facing upward.

For Flat:

- Place the Ribbon Flat on the cutting tool, the LED should face upward.
- Avoid contact of the silicone body with the cutter edge when the cutting position is not in place to avoid damage of silicone body.
- The Ribbon should be placed perpendicular to the cutting edge to make sure the cut surface is not tilted.
- The cut surface should be flush and smooth.

FIG.8: LED Strip Sealing



- After cutting, the Field-Cut End Cap should be used with the RTV PX Ribbon Sealing Glue applied on the cut end.
- The sealing should be done at least 1-2 days at room condition (temperature 25degC & relative humidity 55%) before on-site installation to allow complete curing of silicone.

Procedure

- Fill the End Cap with Sealing Glue completely.
- Insert the Ribbon into the bottom of the End Cap.
- Clean excess silicone glue from the Ribbon.
- Let dry for at least 1 hour before any movement. Complete curing of silicone should be expect for at least 24 hours.

2.3 On-Site Installation



- DO NOT attempt installation in wet or severe weather conditions.
- DO NOT leave and expose any Media Pixel Ribbon DMX, Pixel Distributor or LED Engine unconnected under wet/raining or snowing environment.
- DO NOT pull on cable of Media Pixel Ribbon DMX. IP failure induced by stressed/damaged cables during or after installation will not be under warranty by Traxon Technologies.
- ALWAYS keep the cables and the ribbon body protected from sharp objects and ensure no damage is generated.
- Failure to keep Media Pixel Ribbon DMX within the operating temperature range of -20°C to +50°C, and storage temperature range of -40°C to +70°C will void the product's warranty.

3. 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.

4. TECHNICAL SPECIFICATION

	Vertical Bend (VB)				Horizontal Bend (HB)			
Model	RGBW	RGB	DW	W	RGBW	RGB	DW	W
Light Source	High intensity SMT RGB and White LEDs							
Color Range	16.7 Million additive RGB colors							
Beam Angle	120°							
Power Input	24V DC							
Power Consumption per m	14.4W	11W	9.6W	9.6W	14.4W	11W	9.6W	9.6W
Weight (per roll)	2.6kg	2.1kg	2.6kg	2.1kg	2.6kg	2.1kg	2.6kg	2.1kg
Operating Temperature	-20°C to +50°C							
Storage Temperature	-40°C to +70°C							

	Flat			
Model	RGBW	RGB	DW	W
Light Source	High intensity SMT RGB and White LEDs			
Color Range	16.7 Million additive RGB colors			
Beam Angle	120°			
Power Input	24V DC			
Power Consumption per m	14.4W	11W	9.6W	9.6W
Weight (per roll)	1.1kg	0.9kg	1.1kg	0.9kg
Operating Temperature	-20°C to +50°C			
Storage Temperature	-40°C to +70°C			

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.

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

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

6. WARRANTY STATEMENT

Traxon Technologies warrants its Products against material or workmanship defects for a period of five (5) years 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 for all warranty terms and conditions.



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Please check for the latest updates and changes on the Traxon website.

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