



# TRAXON

ARCHISHAPE® 2.0 Dot S/M/L

INSTALLATION GUIDE

V1.1



Cover:

ARCHISHAPE® 2.0 Dot S/M/L (Only for USA market)

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

## 1. 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 or disconnecting 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 6. 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 6. 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.osram.us/traxon](http://www.osram.us/traxon) before setup.
13. Any non-compliance of the Installation Guide will void the Traxon warranty.

## 2. Introduction

### 2.1 General

ARCHISHAPE® 2.0 Dot is a high-brightness, fully customizable media dot solution available in S, M or L with Clear or Diffused View lens to meet your project specifications. Each Dot is individually-addressable making ARCHISHAPE® 2.0 Dot a durable, scalable solution for vivid accents, graphics and video playback in installations of any size and complexity.

Features:

- DMX512 Control
- Daisy Chain System
- Auto-Addressing with optional accessory & e:cue Controls
- IP66; IK09; ANSI 3G
- Suitable for irregular surfaces, planes, and configurations

## 2.2 Dimensions

FIG.1: ARCHISHAPE® 2.0 Dot S/M/L

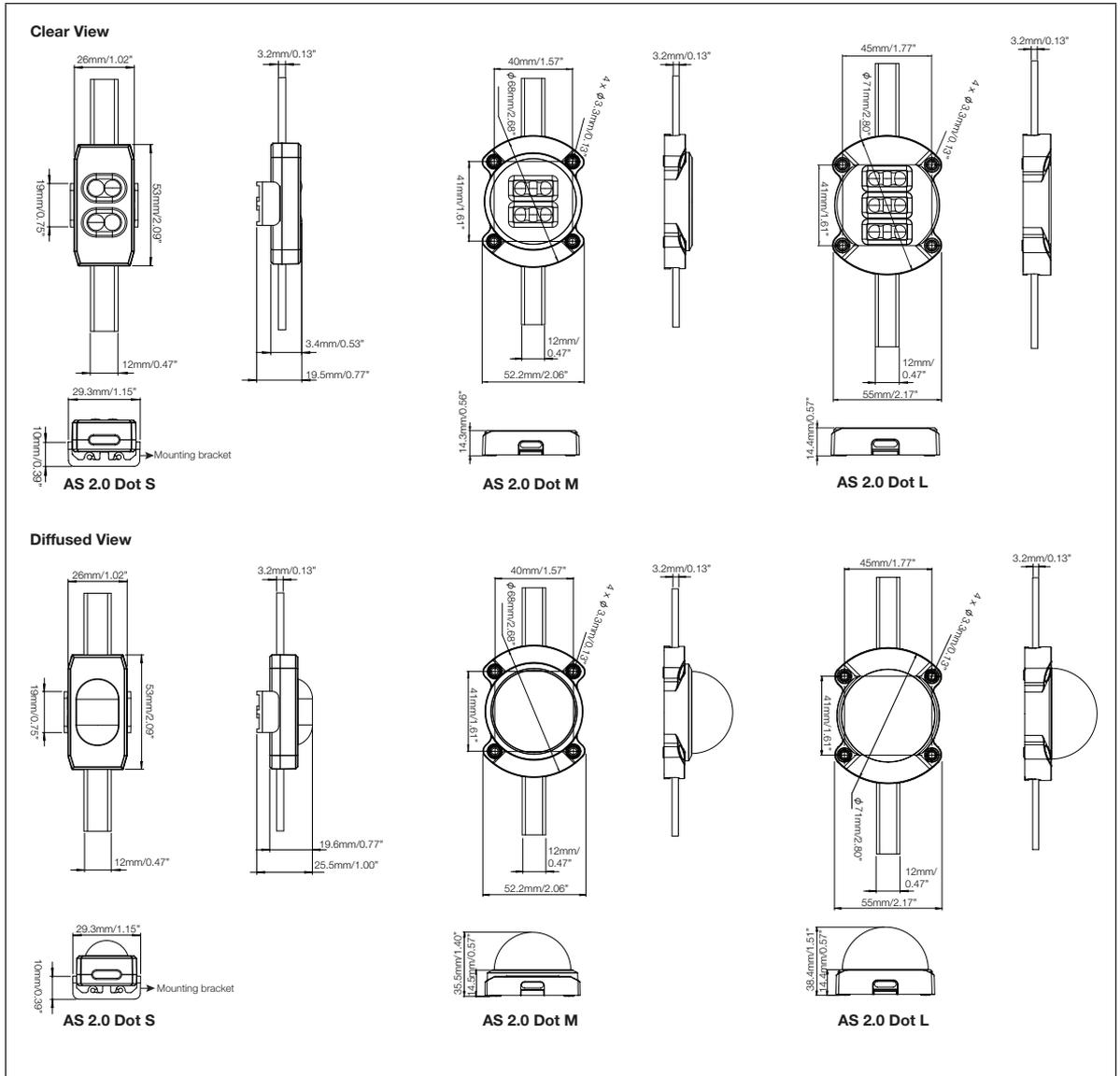
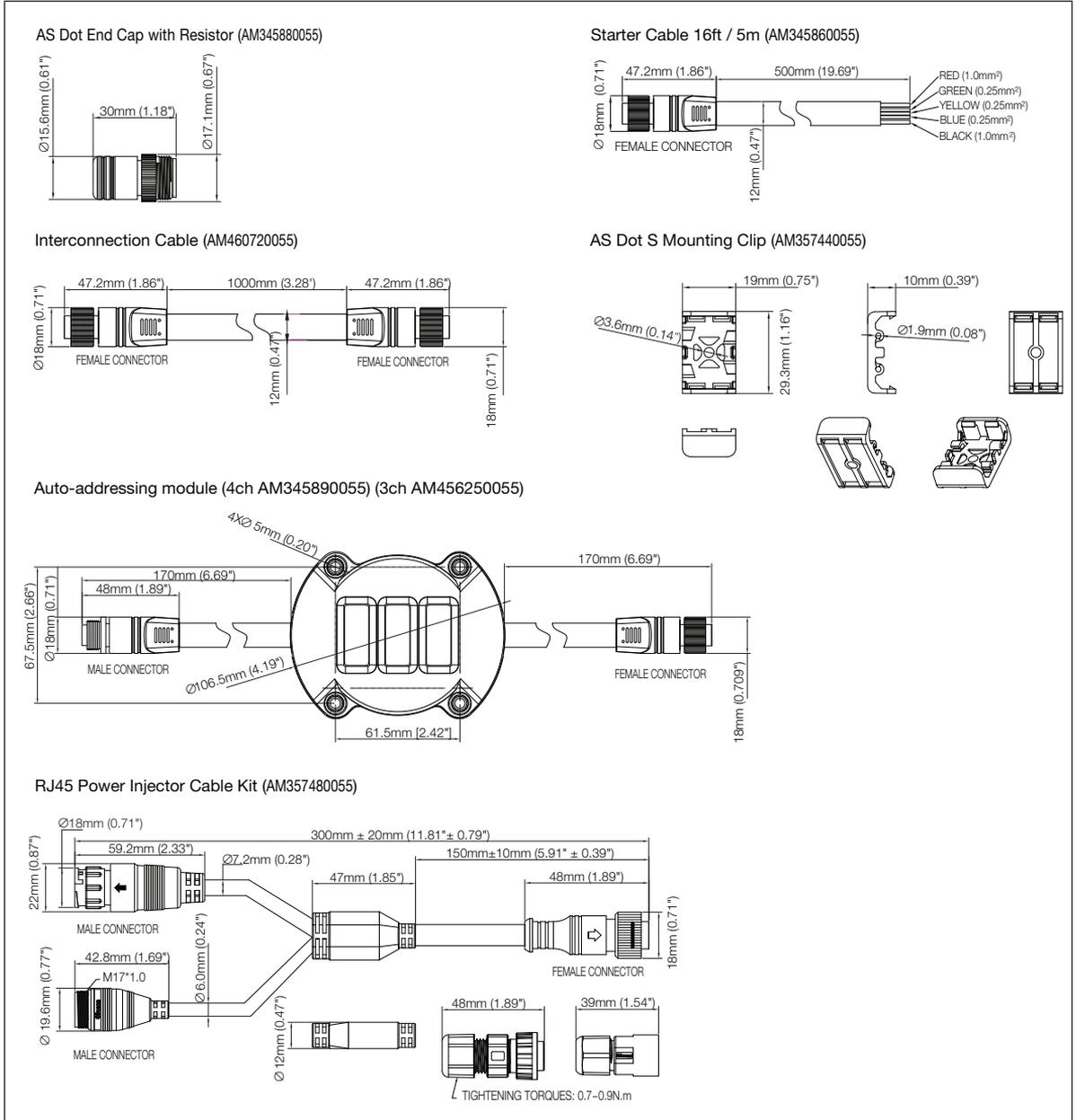


FIG.2: ARCHISHAPE® 2.0 Dot S/M/L Accessories



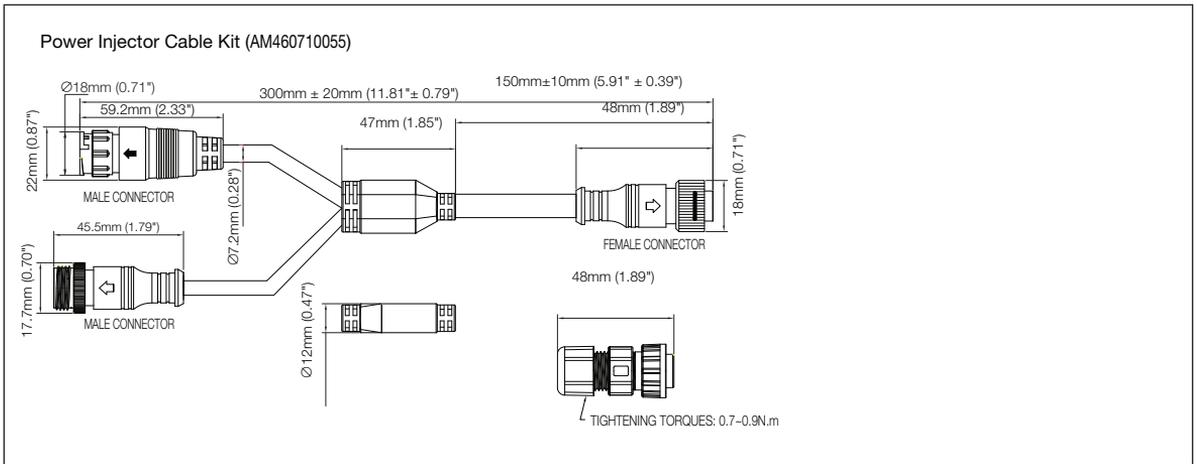
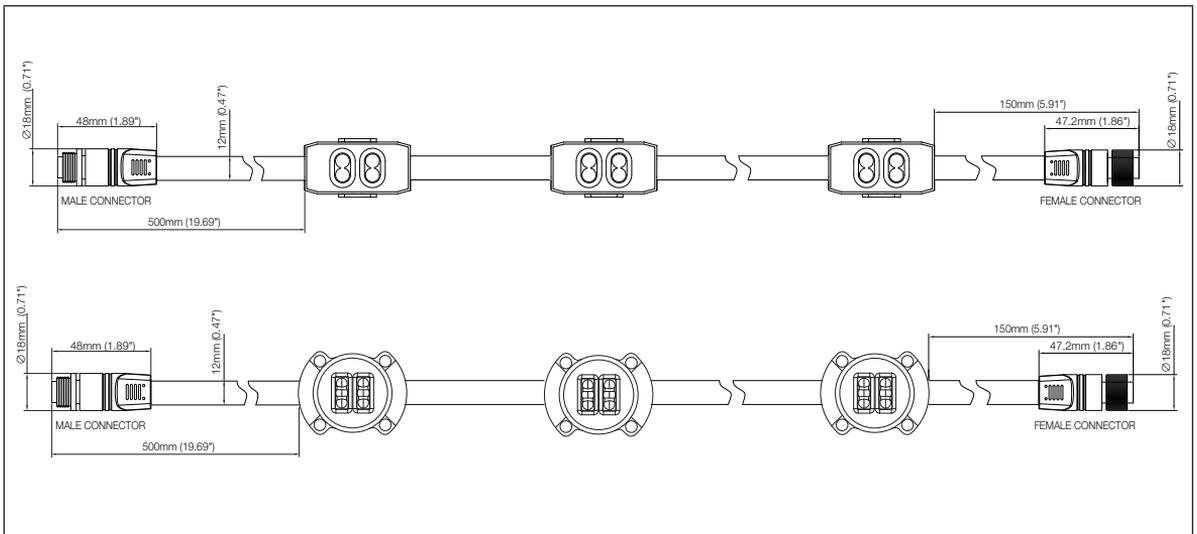


FIG.3: ARCHISHAPE® 2.0 Dot S/M/L String



## 2.3 Packing Contents

FIG.4: ARCHISHAPE® 2.0 Dot S/M/L Packing Contents

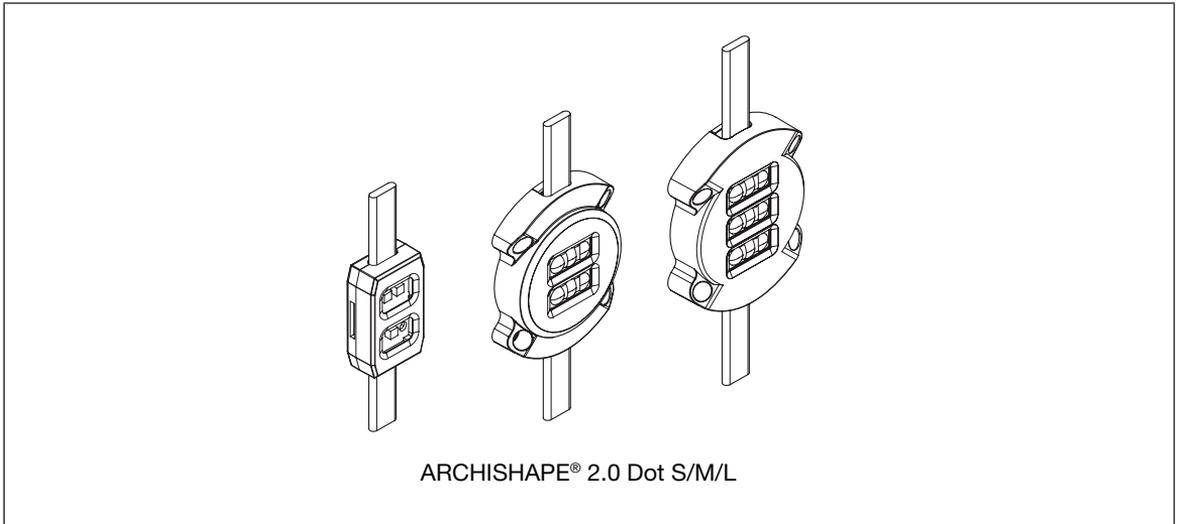
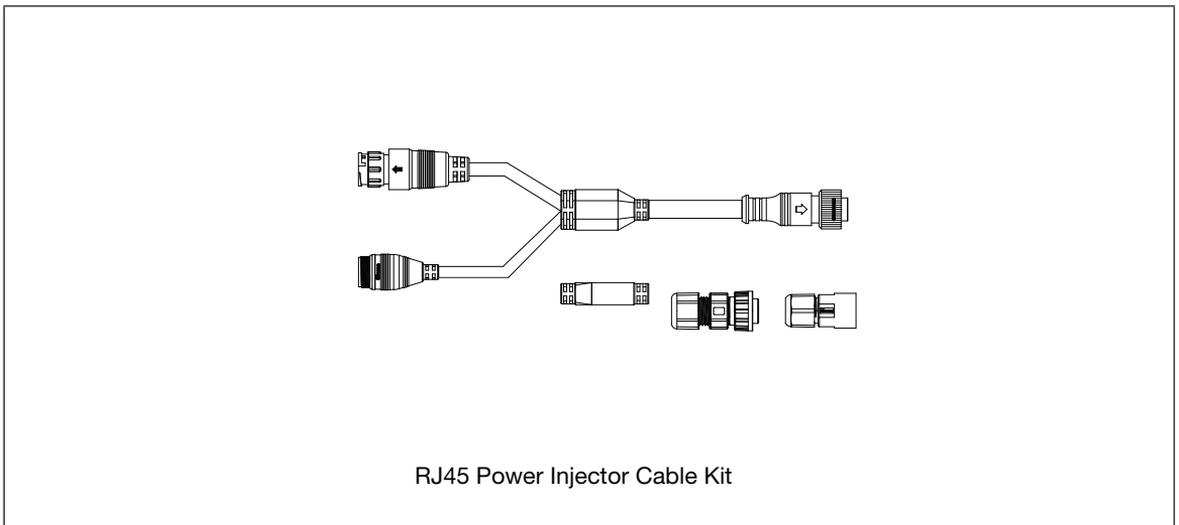


FIG.5: RJ45 Power Injector Cable Kit Contents



## 3. Installation

### 3.1 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 heat dissipation (150mm / 6" apart) of LED Engines (see "3.3 On-Site Installation" on page 12).
- Appropriate anchor bolts where necessary to secure the ARCHISHAPE® 2.0 Dot S/M/L.
- The number of ARCHISHAPE® 2.0 Dot S/M/L and LED Engines.
- Controller to be used to control the ARCHISHAPE® 2.0 Dot S/M/L.

### 3.2 Pre-Installation Checks

#### 3.2.1 Installation Checklist

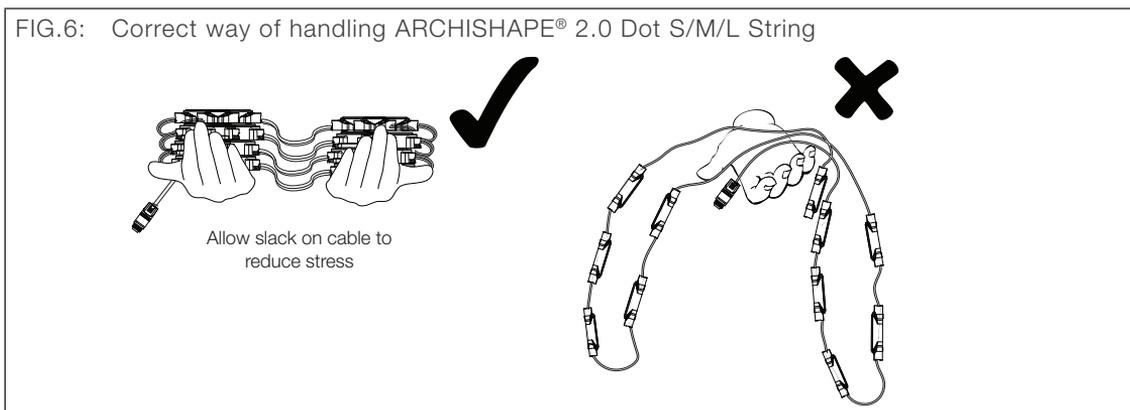
1. Prepare cables and all necessary accessories.
2. Perform functional check of ARCHISHAPE® 2.0 Dot S/M/L.
3. Ensure the connector of last dot is covered by the End Cap Resistor.
4. Ensure all pre-installation checks laid out below have been followed.
5. Mount the ARCHISHAPE® 2.0 Dot S/M/L on-site. If the installation is to be left uncompleted overnight, place all non-connected LED Engines and ARCHISHAPE® 2.0 Dot S/M/L in an indoor environment.

Ensure all the Connection Cables, ARCHISHAPE® 2.0 Dot S/M/L are initially stored in a dry area to guarantee the complete sealing of the system from water before installation.

Connector should be properly connected with cable connectors and the connector of last dot should be covered by its Waterproof End Cap to ensure IP66 rating.

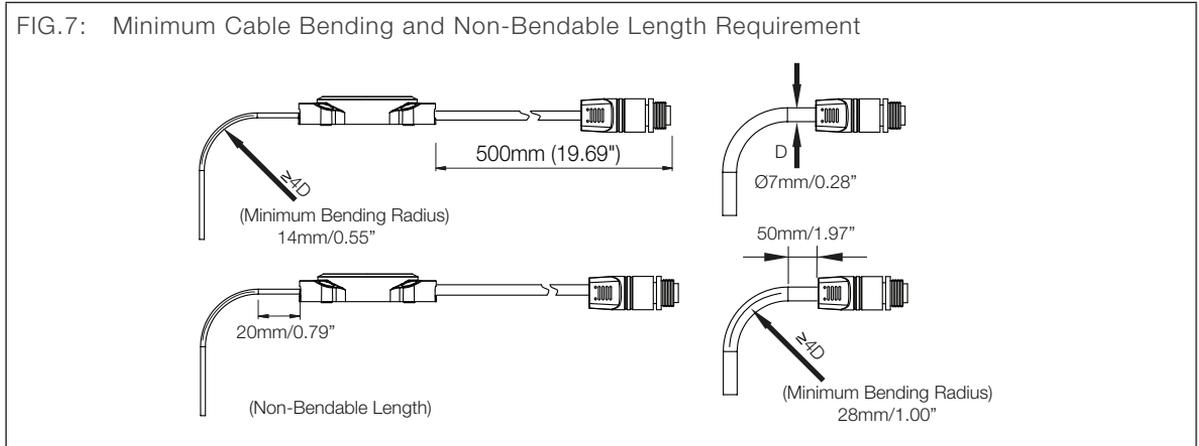
#### 3.2.2 Handling The ARCHISHAPE® 2.0 Dot S/M/L String

When transporting or preparing the ARCHISHAPE® 2.0 Dot S/M/L string, please handle with care. To reduce stress on cables, carry by the ARCHISHAPE® 2.0 Dot S/M/Ls and not the cable during transit.



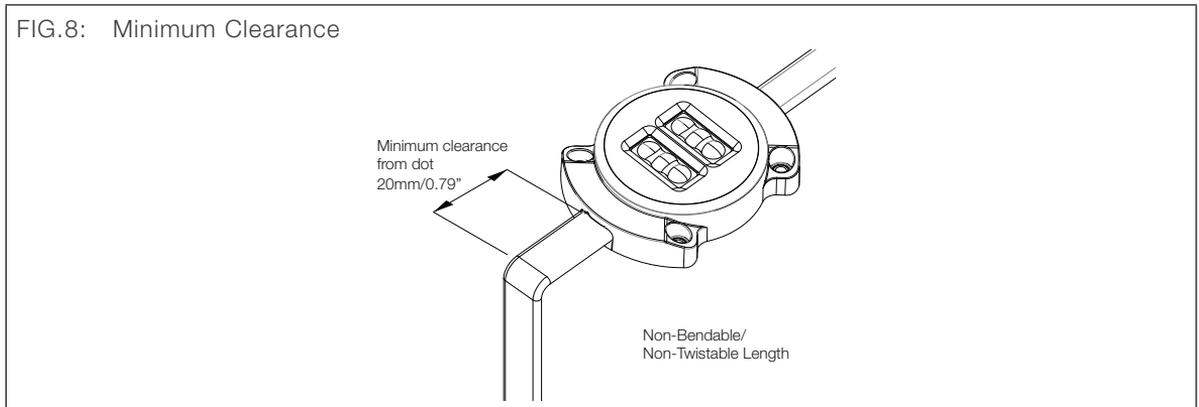
### 3.2.3 Requirements Of Cable Bending And Twisting

Please take EXTRA precautions before bending or twisting ARCHISHAPE® 2.0 Dot S/M/L cable. Lead Cable must NOT be bent below the Minimum Bending Radius (4x Cable Diameter) and the Non-Bendable Length of 50mm / 2" near the connector end or near the cable overmold MUST be adhered to.



The flat ARCHISHAPE® 2.0 Dot S/M/L Cable must NOT be bent/twisted below 20mm (0.79") from edge of ARCHISHAPE® 2.0 Dot S/M/L housing (Non-Bendable/Non-Twistable Length).

Twisting the flat cable is NOT recommended. If twisting is necessary for installation, please adhere to the Non-Twistable Length specified in Fig. 6 and ensure the mounting pitch is greater than or equal to 75% of the normal ARCHISHAPE® 2.0 Dot S/M/L to ARCHISHAPE® 2.0 Dot S/M/L pitch. The middle part of the cable must be secured to the mounting surface with a cable tie (see "3.3 On-Site Installation" on page 12 and FIG.11 on page 14). Ensure no damage is generated on the cable.



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

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## 3.2.4 Installation Sequence

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1. Plan for any possible bending of cables (refer to “3.2.3 Requirements Of Cable Bending And Twisting” on page 10 as well as Fig. 11 on page 14.).
2. Always keep the End Cap Resistor safe in a container for reuse.
3. Connect ARCHISHAPE® 2.0 Dot S/M/L with system components and LED Engines as outlined within this guide. See section 4 for System Diagrams.
4. Perform functional check on all ARCHISHAPE® 2.0 Dot S/M/L and inspect cables for any damage. Check for any abnormalities with the signal.
5. Report any functional defect found to your nearest Traxon Technologies office. DO NOT attempt to install ARCHISHAPE® 2.0 Dot S/M/L with functional defects on-site.

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### 3.3 On-Site Installation

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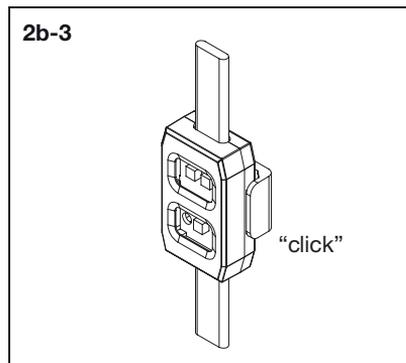
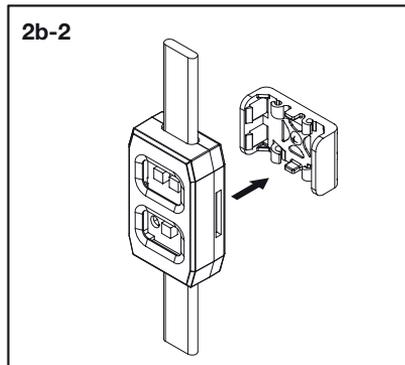
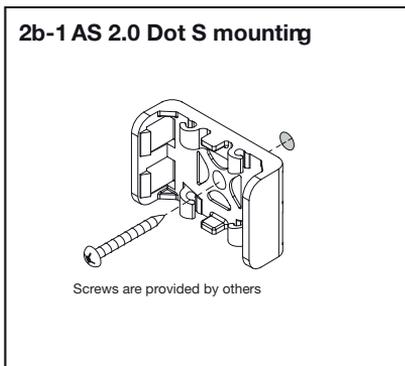
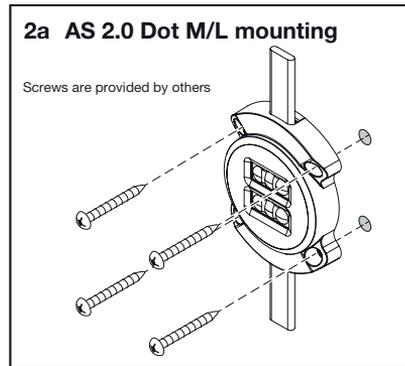
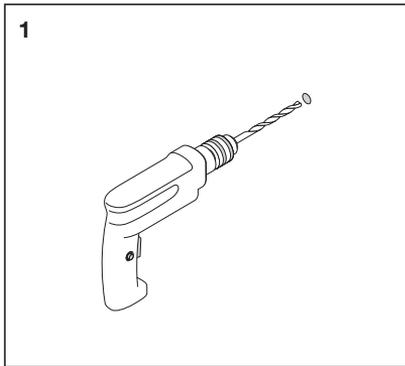


- DO NOT attempt installation in wet or severe weather conditions.
- DO NOT leave and expose any ARCHISHAPE® 2.0 Dot S/M/L, or LED Engine unconnected under wet/raining or snowing environment.
- DO NOT pull on cable of ARCHISHAPE® 2.0 Dot S/M/L. IP failure induced by stressed/damaged cables during or after installation will not be warranted by Traxon Technologies.
- ALWAYS keep the cables protected from sharp objects and ensure no damage is generated on the cable.
- Failure to keep ARCHISHAPE® 2.0 Dot S/M/L within the operating temperature range of -20°C to + 50°C/-4°F to +122°F, and storage temperature range of -40°C to + 80°C/-40°F to +176°F will void the product's warranty.

### 3.3.1 Mounting ARCHISHAPE® 2.0 Dot S/M/L

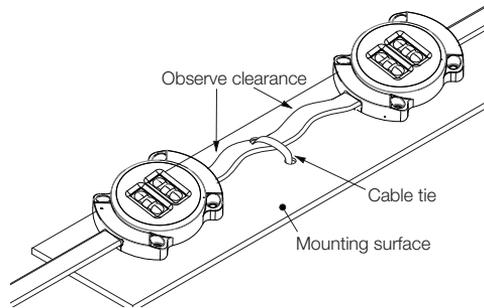
1. ARCHISHAPE® 2.0 Dot S/M/L must be mounted ensuring that no stress is placed on the cable. Follow the data provided in section 3.2.3
2. ARCHISHAPE® 2.0 Dot S/M/Ls MUST be mounted to the installation surface via the mounting holes, either by screw or cable tie.

FIG.9: Mounting the ARCHISHAPE® 2.0 Dot S/M/L



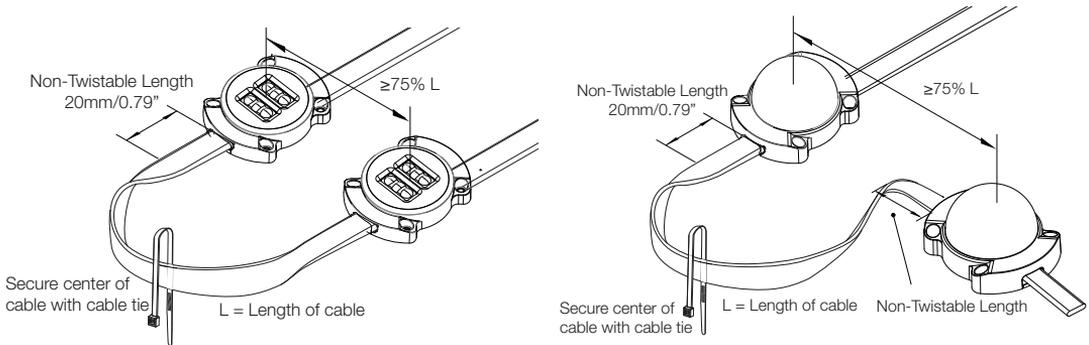
3. Cable segment must not be bent below 20mm / 0.79" from the housing of the ARCHISHAPE® 2.0 Dot S/M/L and cable overmold (Minimum Bending Length).
4. Secure the excess cable between Dots (every 500mm / 19.7", using cable tie) to ensure no damage is generated due to hanging cable.

FIG.10: Securing the cable



5. If the cable between ARCHISHAPE® 2.0 Dot S/M/L requires twisting due to a change in mounting direction, ensure the mounting pitch after-twisting is more than or equal to 75% of the normal Dot to Dot pitch.

FIG.11: Twisting requirements



## 4. System Configuration

FIG.12: System Diagram – Basic

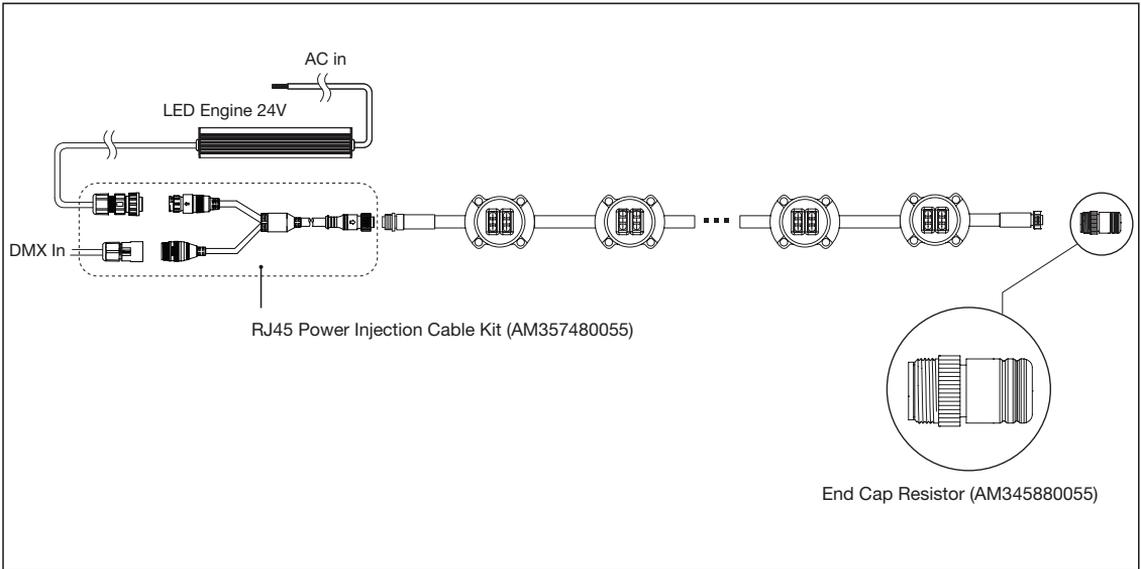


FIG.13: System Diagram – Power Injection

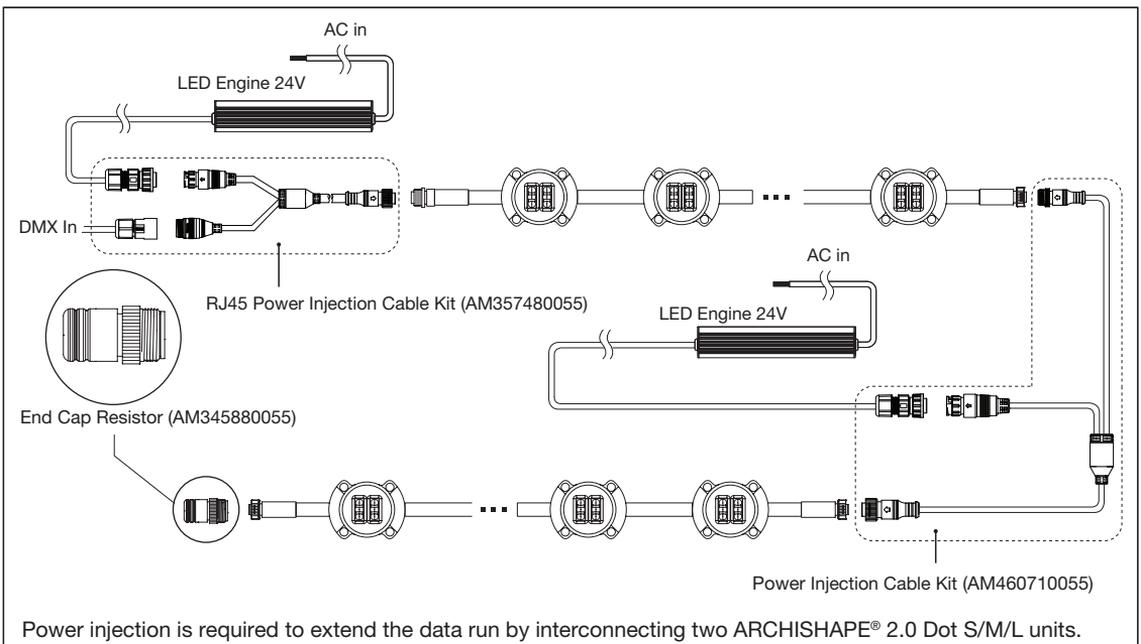


FIG.14: System Diagram – Auto-addressing Module

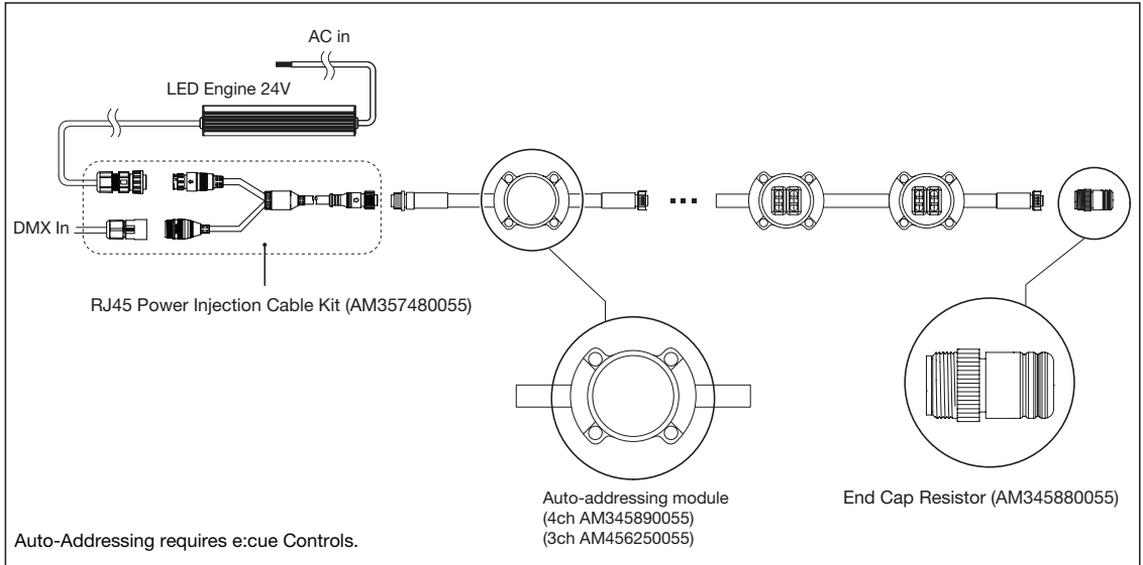
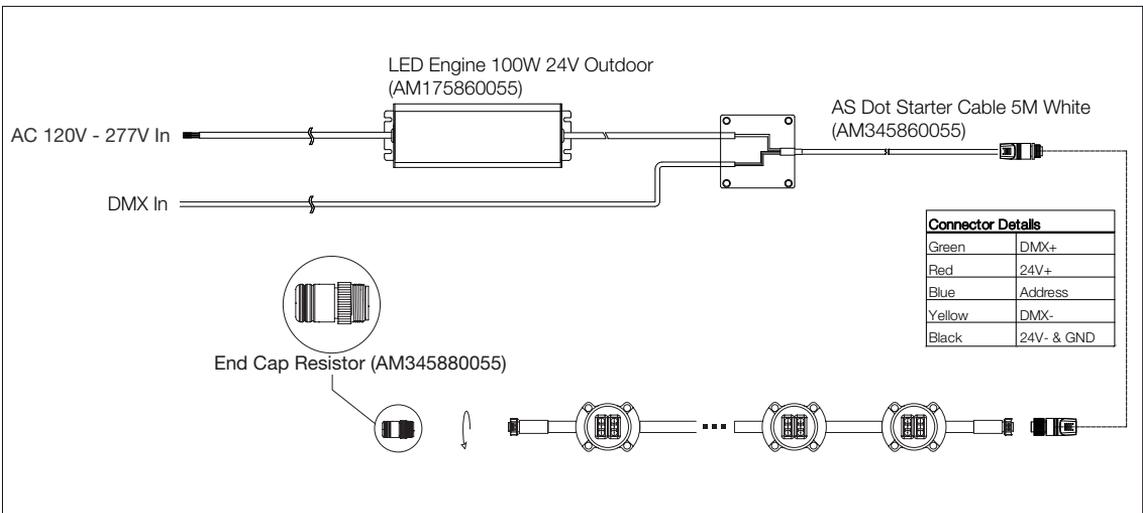


FIG.15: System Diagram – Junction box



## 5. 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 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 Traxon Technologies office for assistance.

## 6. TECHNICAL Specification

Model (Clear View)	ARCHISHAPE® 2.0 Dot S	ARCHISHAPE® 2.0 Dot M	ARCHISHAPE® 2.0 Dot L
<b>Color Range:</b>	RGB, RGBW (White CCT: 6500K)		
<b>Light Source:</b>	3RGB 3RGB + 1W	6RGB 4RGB + 2W	9RGB 6RGB + 3W
<b>Beam Angle:</b>	110°	110°	110°
<b>Power Input:</b>	24V DC		
<b>Power Consumption<sup>1</sup>:</b>	1W	2W	3W
<b>Weight (Dot):</b>	28.2g / 0.06lb	66.9g / 0.15lb	73.6g / 0.16lb
<b>Operating Temperature:</b>	-20°C to + 50°C/-4°F to +122°F		
<b>Storage Temperature:</b>	-40°C to + 80°C/-40°F to +176°F		

Model (Diffused View)	ARCHISHAPE® 2.0 Dot S	ARCHISHAPE® 2.0 Dot M	ARCHISHAPE® 2.0 Dot L
<b>Color Range:</b>	RGB, RGBW (White CCT: 6500K)		
<b>Light Source:</b>	3RGB 3RGB + 1W	6RGB 4RGB + 2W	9RGB 6RGB + 3W
<b>Beam Angle:</b>	150°	150°	150°
<b>Power Input:</b>	24V DC		
<b>Power Consumption<sup>1</sup>:</b>	1W	2W	3W
<b>Weight (Dot):</b>	28.2g / 0.06lb	66.9g / 0.15lb	73.6g / 0.16lb
<b>Operating Temperature:</b>	-20°C to + 50°C/-4°F to +122°F		
<b>Storage Temperature:</b>	-40°C to + 80°C/-40°F to +176°F		

### 1. Measurement per dot.

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.

## 7. 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>— Adjust pitch between ARCHISHAPE® 2.0 Dot S/M/L strings</li><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><li>— Ensure power supply with proper voltage (24v) is being utilized.</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 Traxon Technologies office for assistance.

## 8. 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.osram.us/traxon](http://www.osram.us/traxon) for all warranty terms and conditions.



# TRAXON

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