TRAXON

TRAXON Go↗

Media Dot Go↗

INSTALLATION GUIDE V1.0

Content

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 starting 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 "6. Technical Specification" on page 18 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" on page 18 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.traxon-ecue.com before setup.

13. Any non-compliance of the Installation Guide will void the Traxon warranty.

2.   Introduction

2.1   General

Media Dot Go is an easy, affordable way to create pixel controlled full-color effects on walls, buildings, monuments—anywhere you can imagine. Long strings of individually controlled Dots produce bright color-changing effects, messages, or even video! 3 Dot sizes mean you control the impact: long-distance viewing, creating a digital sign, or backlighting a wall can be done indoors or outdoors. Mounting ease & flexibility is guaranteed, whether directly to surface by screws, cable ties, clips or with Traxon's Mesh Mounting System.

Features:

— Customizable Pixel Pitch from 70mm / 2.75" to 2000mm / 78.75" (Dot S), 80mm / 3.15" to 2000mm / 78.75" (Dot M), 100mm / 4" to 2000mm / 78.75" (Dot L)

— Diffused View and Direct View

— DMX512

— Daisy Chain System with quick lock connectors

— Manual-Addressing with TX Smart Addresser (Addressing IC: SM19522SK)

— IP67, Suitable for Coastal Environment, IK06 and 3G Vibration Resistant
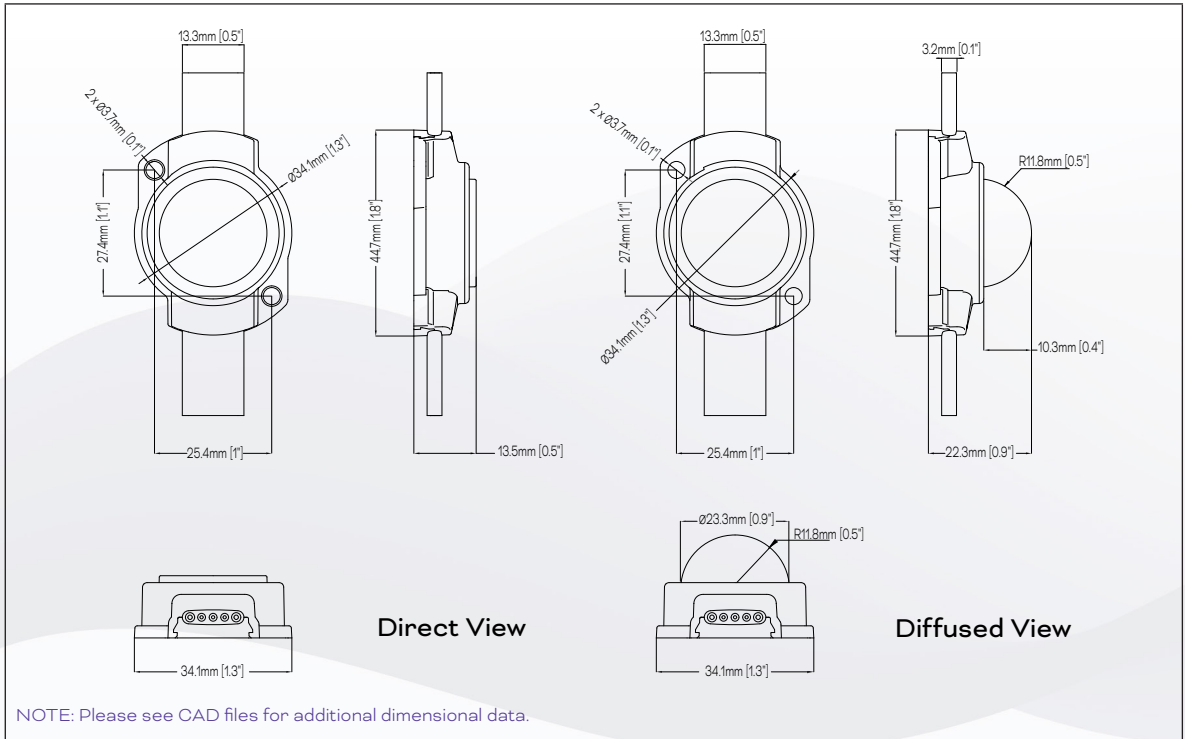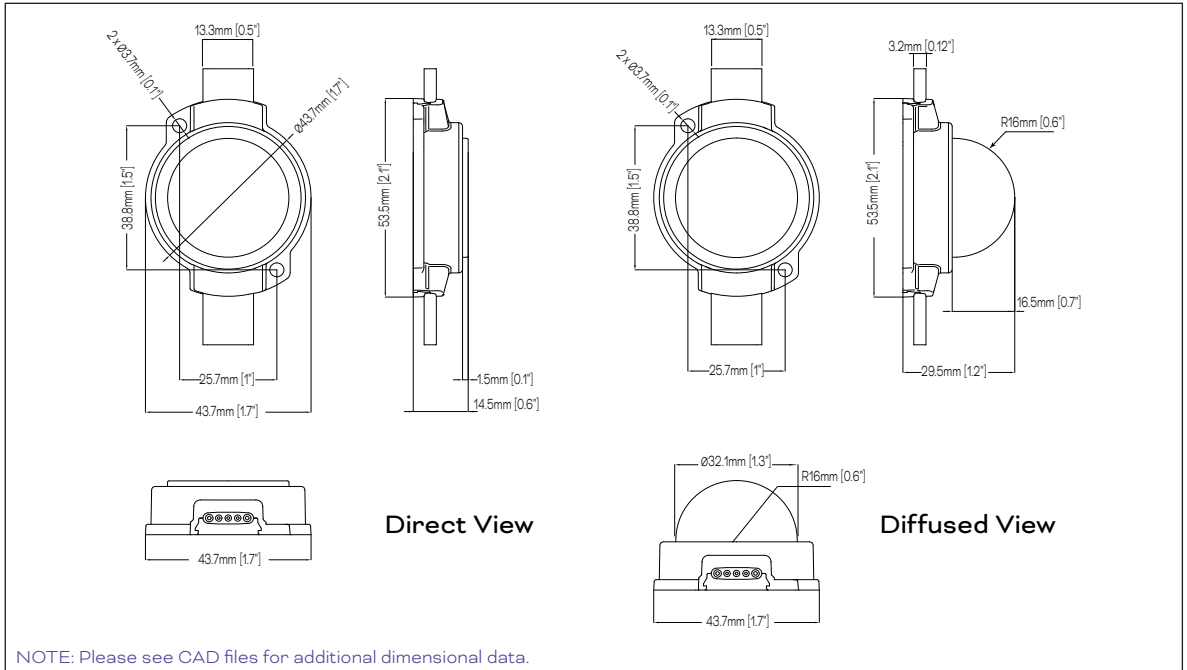
2.2   Dimensions

FIG.1:   Media Dot Go S

Direct View

Diffused View

NOTE: Please see CAD files for additional dimensional data.

FIG.2:   Media Dot Go M

Direct View

Diffused View

NOTE: Please see CAD files for additional dimensional data.

FIG.3:   Media Dot Go L

Direct View

Diffused View

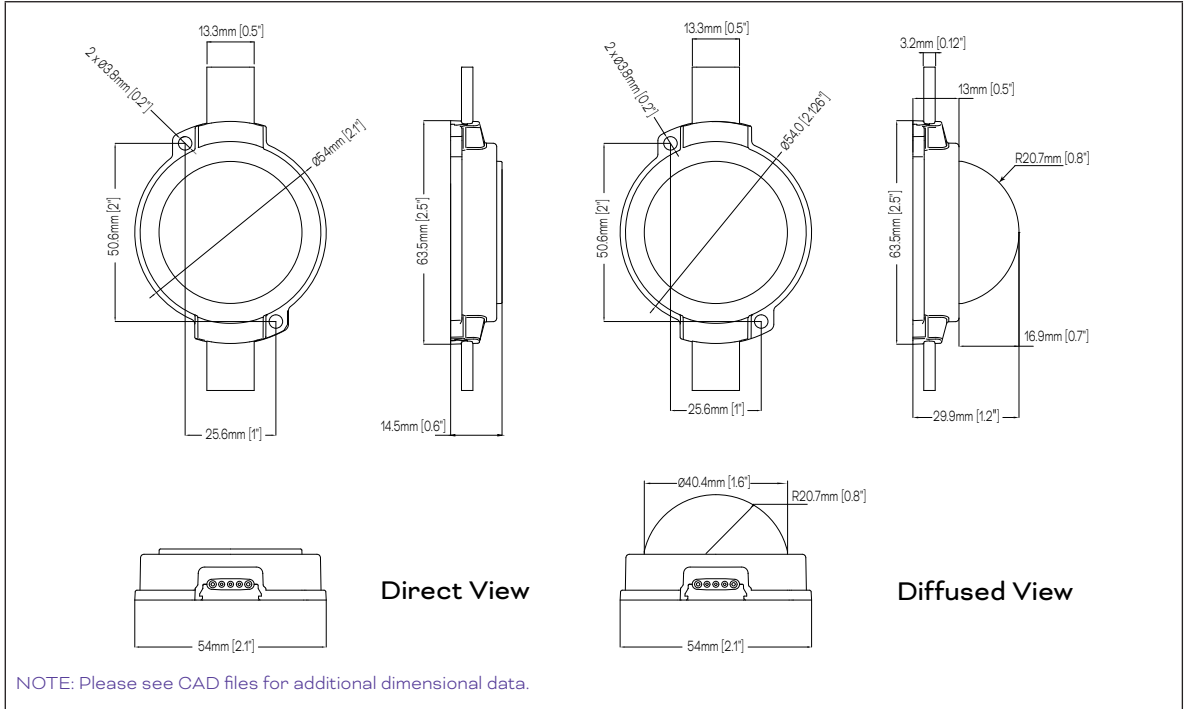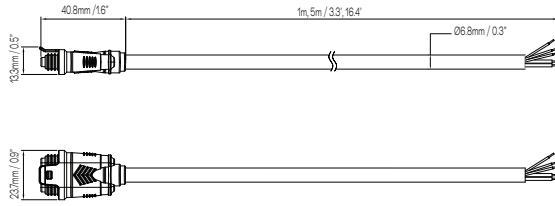NOTE: Please see CAD files for additional dimensional data.

FIG.4: Media Dot Go Accessories

Starter Cable 1m / 3.3' (DA23100131055)
Starter Cable 5m / 16.4' (DA23100131155)
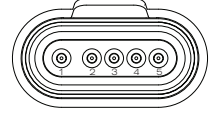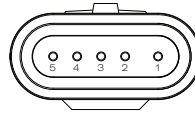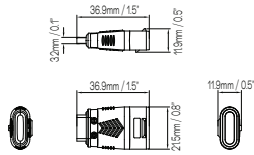
End Cap (DA23100131255)

Interconnection Cable (DA23100131355)
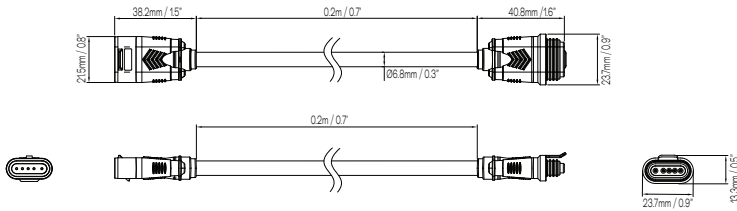
Power Injector Cable Kit (DA23100131455)
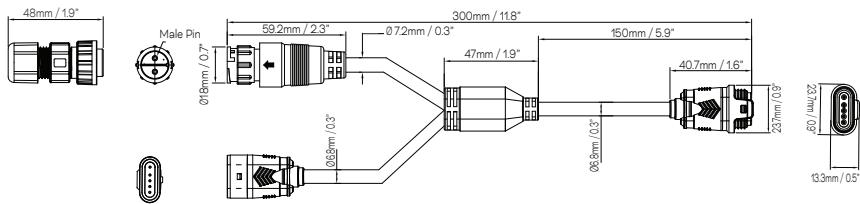
Power RJ45 Cable Kit (DA23100131555)

Connector Pin Assignment

Input | Output

Wire#	Description	Color
1	Power+	Red
2	DMX-	Yellow
3	DMX+	Blue
4	Address	Green
5	Power-	Black
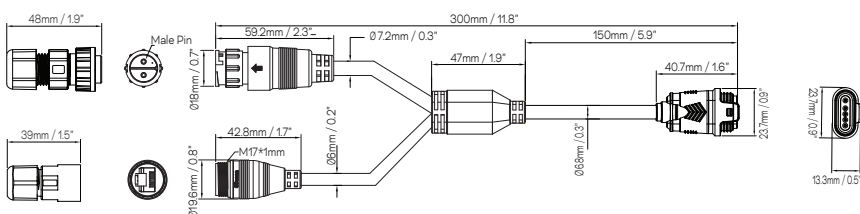
NOTE: Please see CAD files for additional dimensional data.

FIG.5:   Media Dot Go String

Media Dot	L	P
S	300mm / 11.8"	Differs by region
M	300mm / 11.8"	Differs by region
L	300mm / 11.8"	Differs by region

Please consult your local Traxon office or authorized agent for necessary aid.

NOTE: Please see CAD files for additional dimensional data.
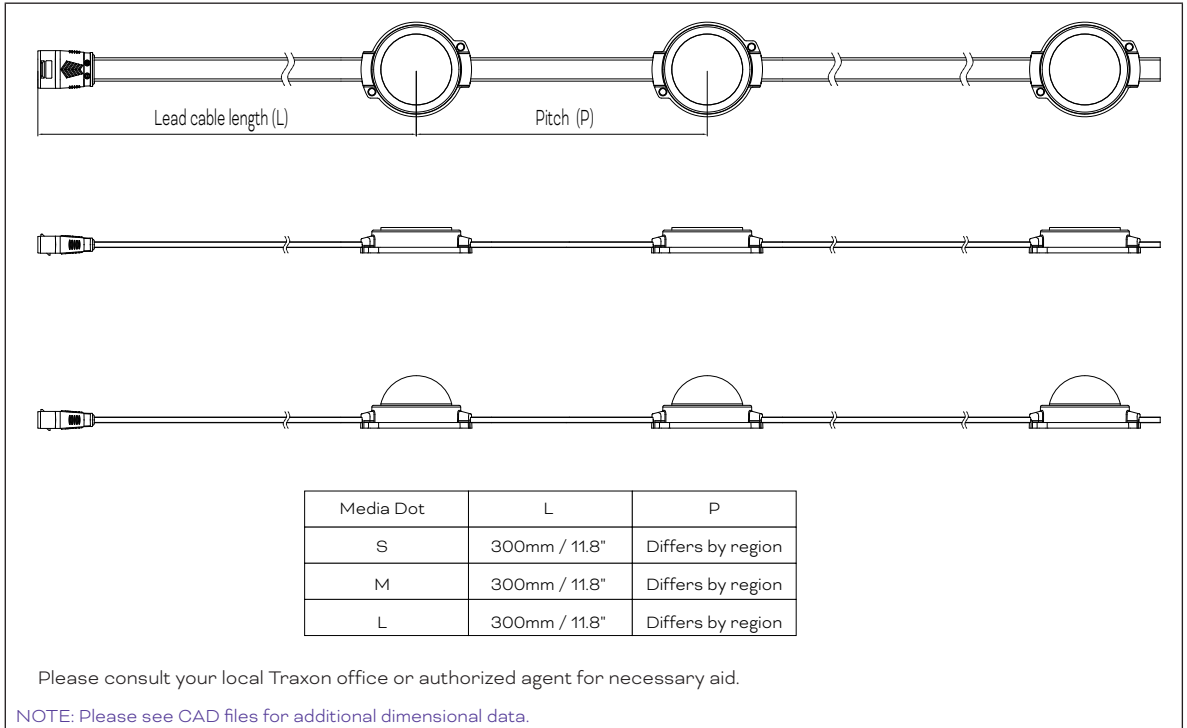
2.3   Packing Contents

FIG.6:   Media Dot Go Packing Contents

Direct View   Diffused View
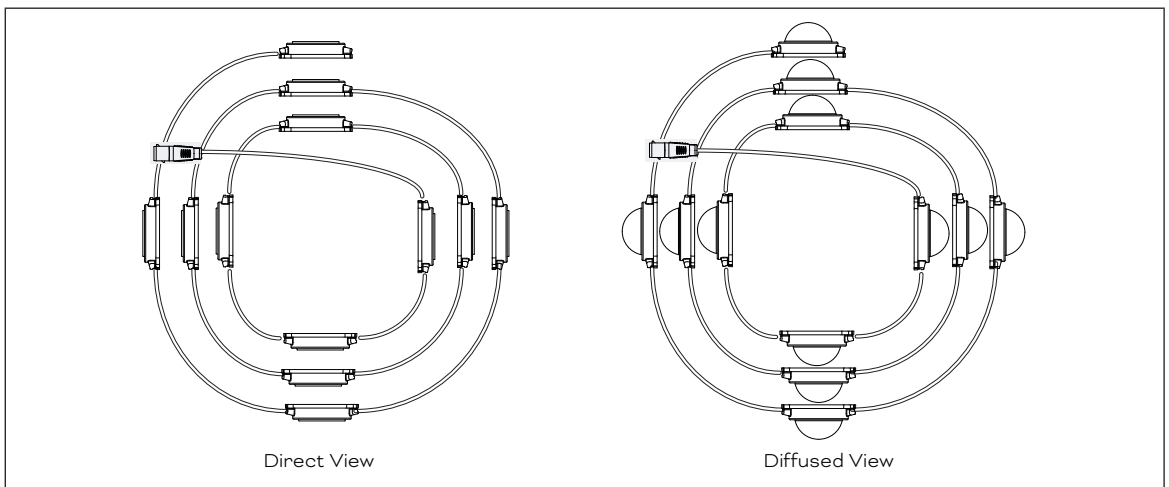
3.   Installation

3.1   Points To Consider

Plan your installation before mounting the Media Dot Go. The following should be considered for a successful installation.

— Appropriate cable lengths (cable gauges described in system diagram). Please consult your local Traxon office or authorized agent for necessary aid.

— The number of the Media Dot Go and an appropriate power supply.

— Mounting distances should be considered.

— Proper surge protection.

— Weather conditions and ambient temperature of installation site.

— Adequate space for better heat dissipation (see "3.3 On-Site Installation" on page 12).

— Appropriate anchor bolts where necessary to secure the Media Dot Go.

— Controller to be used to control the Media Dot Go.

FIG.7:   Media Dot Go Cable System
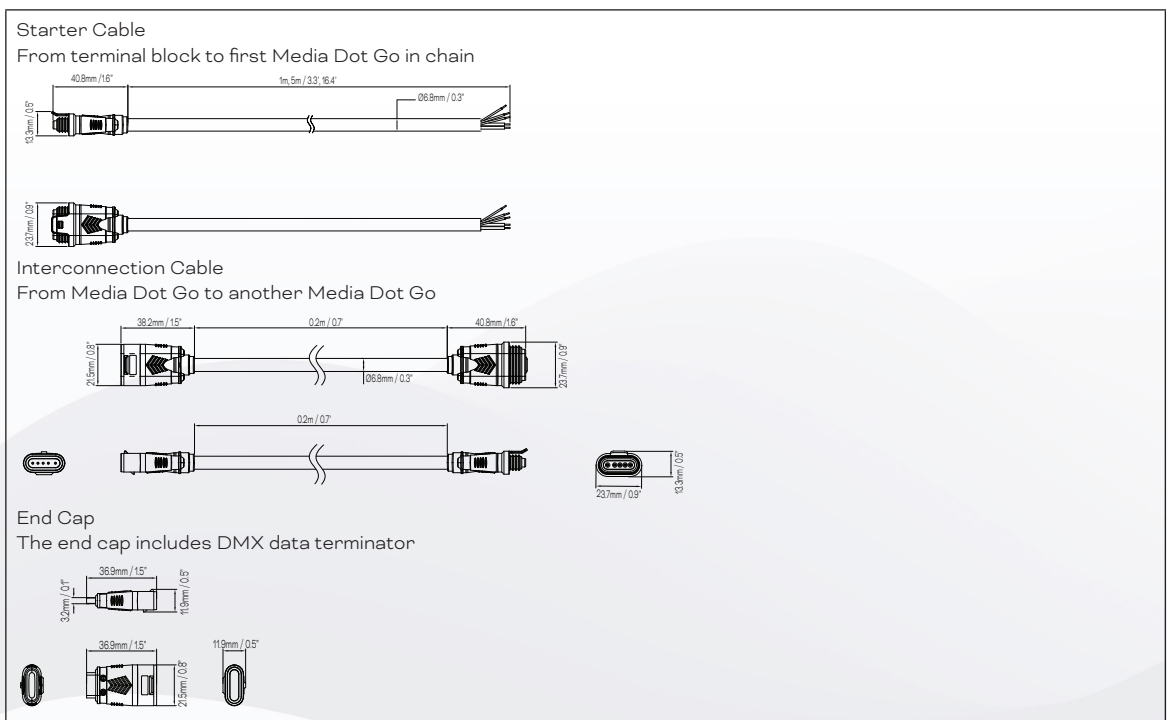
3.2 Pre-Installation Checks

3.2.1 Installation Checklist

1. Prepare cables and all necessary accessories.
2. Perform functional check of the Media Dot Go. 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 Media Dot Go on-site. If the installation is to be left uncompleted overnight, place all non-connected power supply and the Media Dot Go in an indoor environment.
5. All units must be connected or utilize end caps to protect from water ingress.

Ensure all the Interconnection Cables, Media Dot Go and power supply are initially stored in a dry area to guarantee the complete sealing of the system from water before installation.

3.2.2 Handling The Media Dot Go String

Please take care when transporting or preparing the Media Dot Go string. Carry the Media Dot Go rather than the cable during transport to reduce stress on the cable.

FIG.8:   Correct way of handling Media Dot Go String

Allow slack on cable to reduce stress
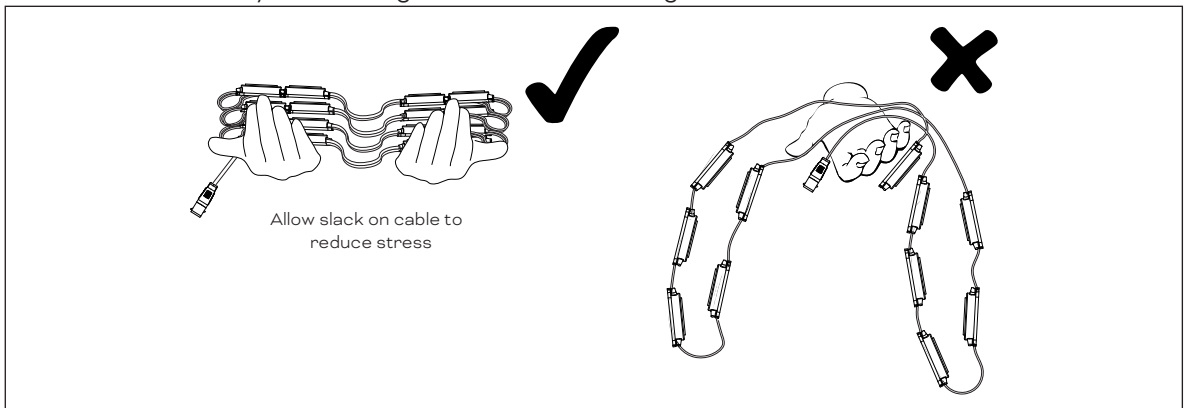
3.2.3 Requirements Of Cable Bending And Twisting

Please take **EXTRA** precautions before bending or twisting Media Dot Go cable. Quick Lock Lead Cable must NOT be bent below the Minimum Bending Radius (4 x Cable Diameter) and the Non-Bendable Length of 50mm / 2" near the connector end or near the cable over mold **MUST** be adhered to.

FIG.9: Minimum Cable Bending and Non-Bendable Length Requirement

Media Dot	L
S	300mm / 11.8"
M	300mm / 11.8"
L	300mm / 11.8"
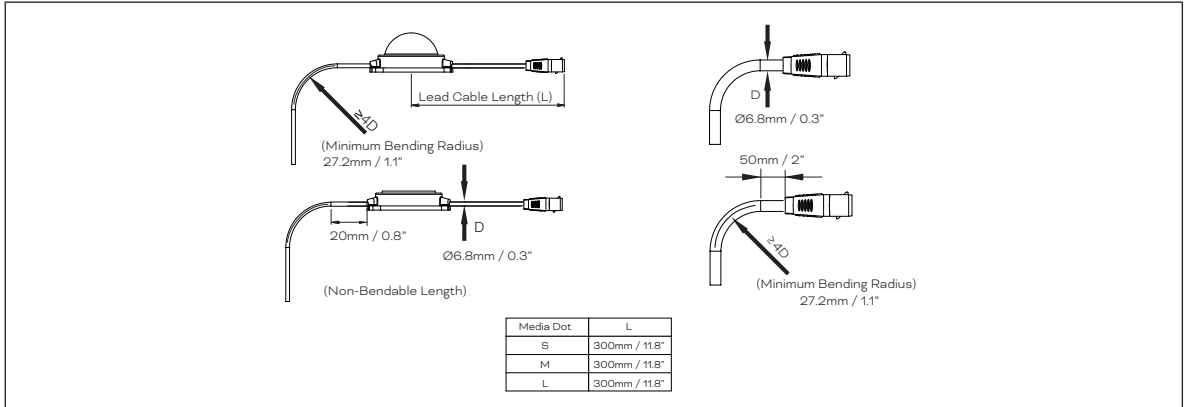
The flat Media Dot Go Cable must **NOT** be bent / twisted below 20mm (0.79") from edge of Media Dot Go housing (Non-Bendable / Non-Twistable Length).

Twisting the flat cable is **NOT** recommended. If twisting is necessary for installation, please adhere to the above Non-Twistable Length and ensure the mounting pitch is greater than or equal to 75% of the normal Media Dot Go to Media Dot Go pitch. The middle part of the cable must be secured to the mounting fixture with a cable tie (see "3.3 On-Site Installation" on page 12). Ensure no damage is generated on the cable.

FIG.10: Minimum Clearance

NOTE: Water ingress incurred due to excess cable bending/twisting will not be under warranty by Traxon.
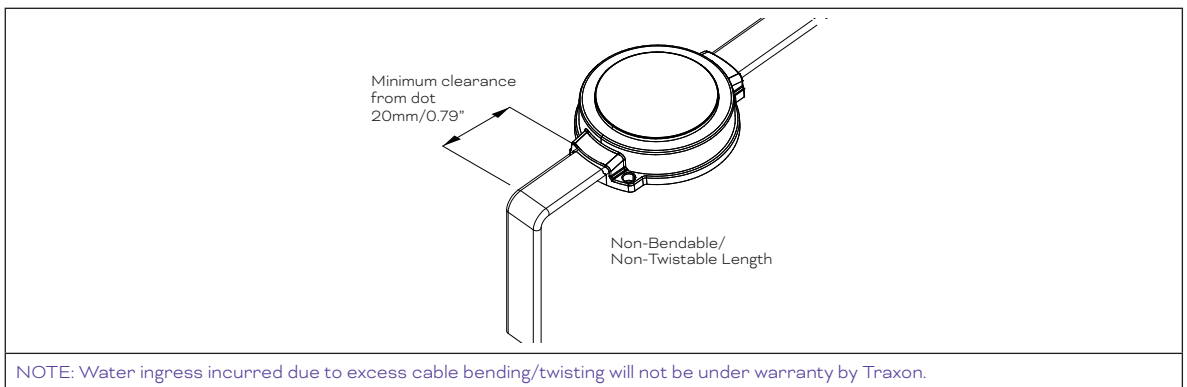
3.2.4   Optional Field-Cut End Cap

To prematurely end the length of a string of Dots, the optional Field-Cut End Cap should be used with DOW CORNING 7091 Silicone Sealant applied on open-ended cable. This should be done at least 1-2 days at Room Condition (Temperature: 22°C & Relative Humidity: 50%RH) before on-site installation to allow curing of silicone.

FIG.11:   Field-Cut Sealing Procedures

1.   Terminate cable with a straight cut.
Apply and fill 7091 silicone (not included) on open-ended cable.
(Make the glue is about 1mm higher than the height of the cable.)

2.   Insert the flat cable with glue into the bottom of the silicone sleeve.

3.   Clean excess silicone from end cap.
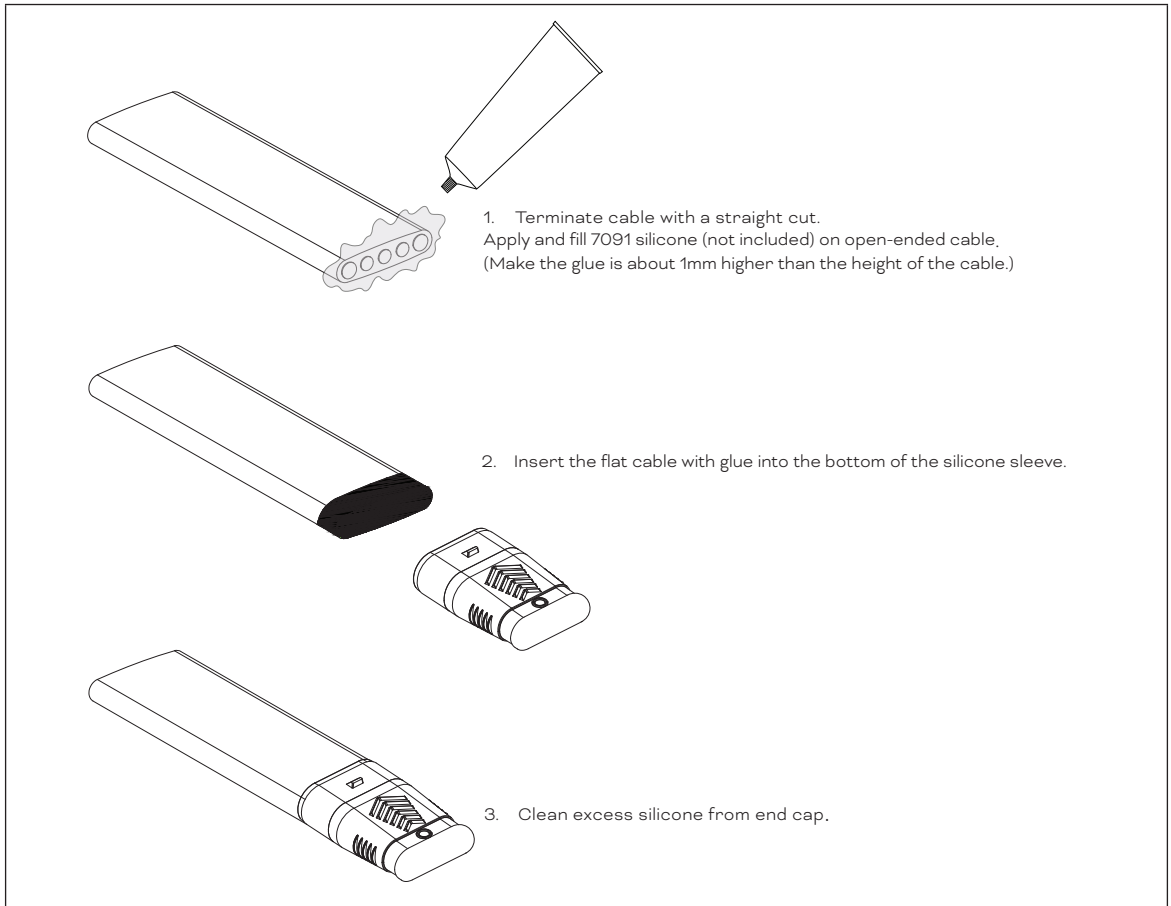
3.2.5   Installation Sequence

1.   Plan for any possible bending of cables (refer to "3.2.3 Requirements Of Cable Bending And Twisting" on page 9).

2.   Always keep the Waterproof End Cap on the chain end or keep them safe in a container for reuse.

3.   Connect Media Dot Go manner outlined in the System Diagram to form large installations.

4.   Perform functional check on all Media Dot Go and inspect cables for any damage. Check for any abnormalities with the signal.

5.   Report any functional defect found to your nearest local Traxon office. **DO NOT** attempt to install the Media Dot Go with functional defects on-site.

3.3   On-Site Installation

⚠️
— **DO NOT** attempt installation in wet or severe weather conditions.
— **DO NOT** leave and expose any Media Dot Go or power supply unconnected under wet/raining or snowing environment.
— IP failure induced by stressed/damaged cables during or after installation will not be under warranty.
— **ALWAYS** keep the cables protected from sharp objects and ensure no damage is generated on the cable.
— Failure to keep Media Dot ^{G}o within the operating temperature range of -30°C to +50°C (-22°F to +122°F) and storage temperature range of -40°C to +70°C (-40°F to +158°F) will void the product's warranty.

3.3.1   Mounting Media Dot Go

1. Media Dot Go must be mounted without any stress induced at the boundary area of the cable and Media Dot Go.
2. Media Dot Go **MUST** be mounted to the installation surface via the mounting holes, either by 3mm or 1/8" screws or cable tie.

FIG.12:   Mounting the Media Dot Go

Direct View

3mm or 1/8" screws (by others)

Diffused View

3mm or 1/8" screws (by others)
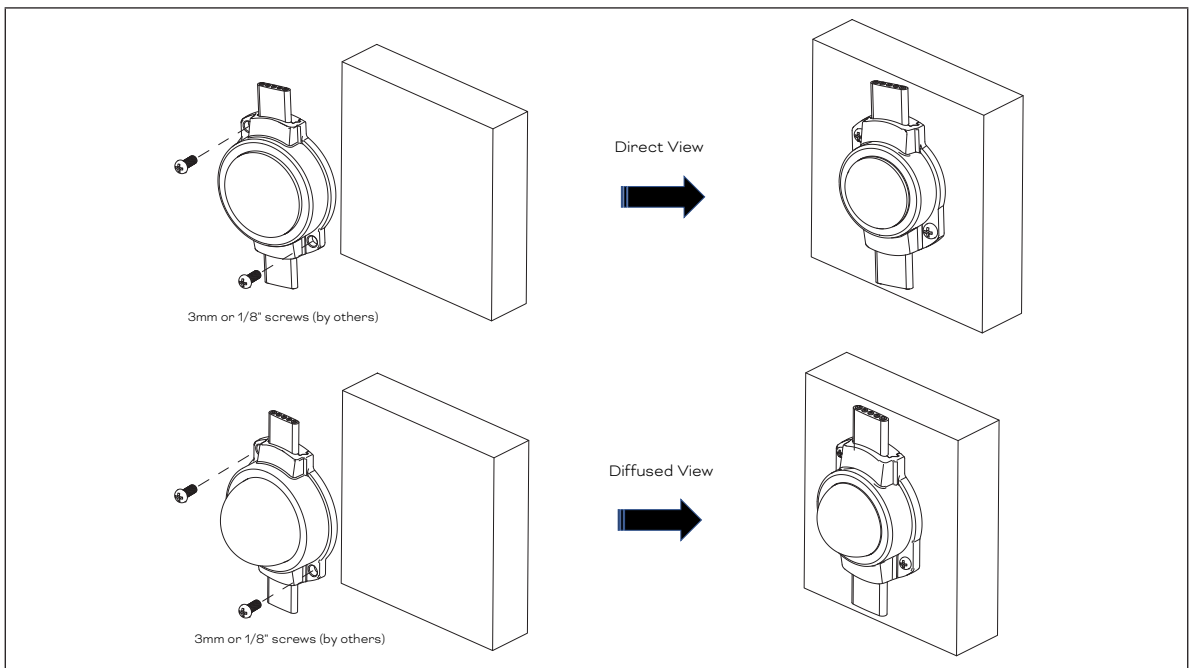
3. Cable segment must not be bent below 20mm / 0.79" from the housing of the Media Dot Go and cable overmold (Minimum Bending Length).

4. Secure the cables between Media Dot Go (every 500mm / 20", using cable tie) and create a small clearance beneath the cable (see below diagram). Ensure no damage is generated on the cable.

FIG.13: Securing the cable

Observe clearance

Cable tie

Mounting surface
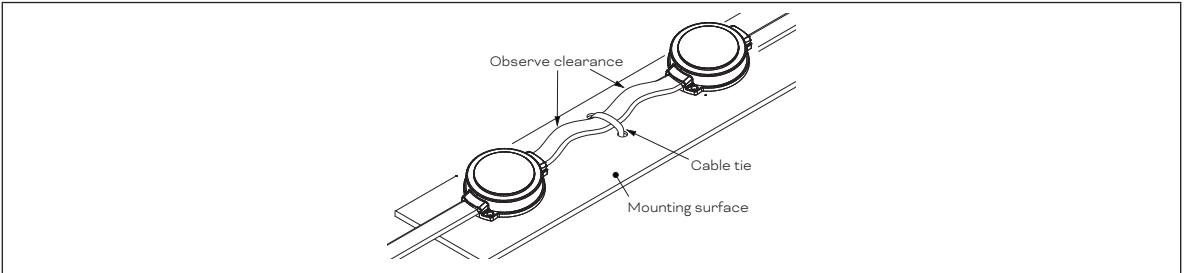
5. If the cable between Media Dot Go requires twisting due to a change in mounting direction, ensure the mounting pitch after-twisting is more than or equal to 75% of the normal Dot to Dot pitch.

FIG.14: Twisting requirements

Non-Twistable Length 20mm/0.79"

≥75% L

Secure center of cable with cable tie

L = Length of cable

Non-Twistable Length 20mm/0.79"

≥75% L

L = Length of cable

Secure center of cable with cable tie

Non-Twistable Length
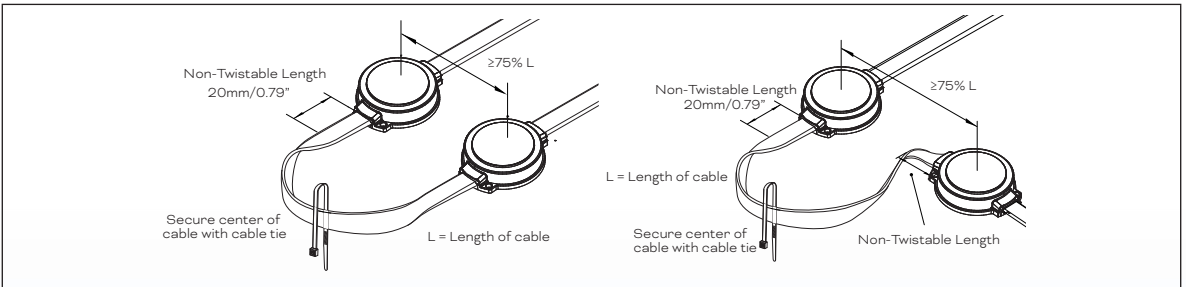
6. For the interconnection among Media Dot Go by the Quick Lock Connectors, please refer to the following picture.

FIG.15: Requirement for Mating and Un-mating of Quick Lock Connectors

If you do not hear the "click", pull connector manually to lock the connectors and ensure that they are properly mated to protect from water ingress.

"Click"

Please note the direction of connection. Do not connect in reverse.
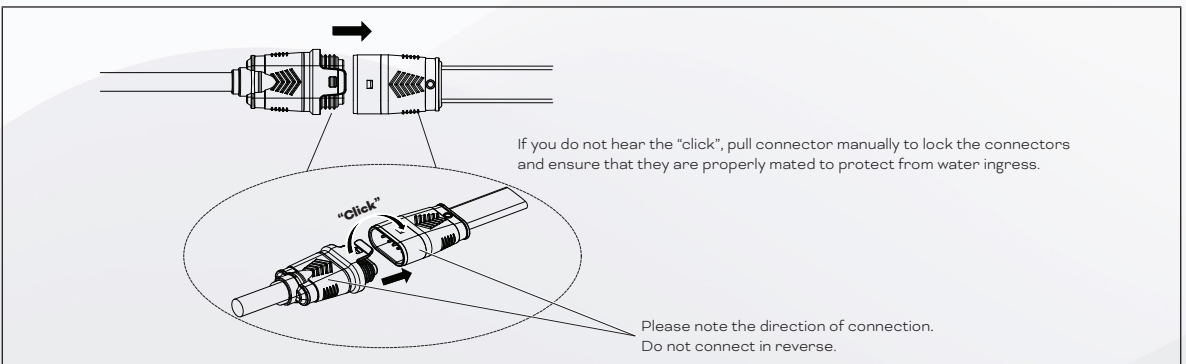
4. System Configuration

4.1 System Diagram

FIG.16:   System Diagram of Media Dot Go S
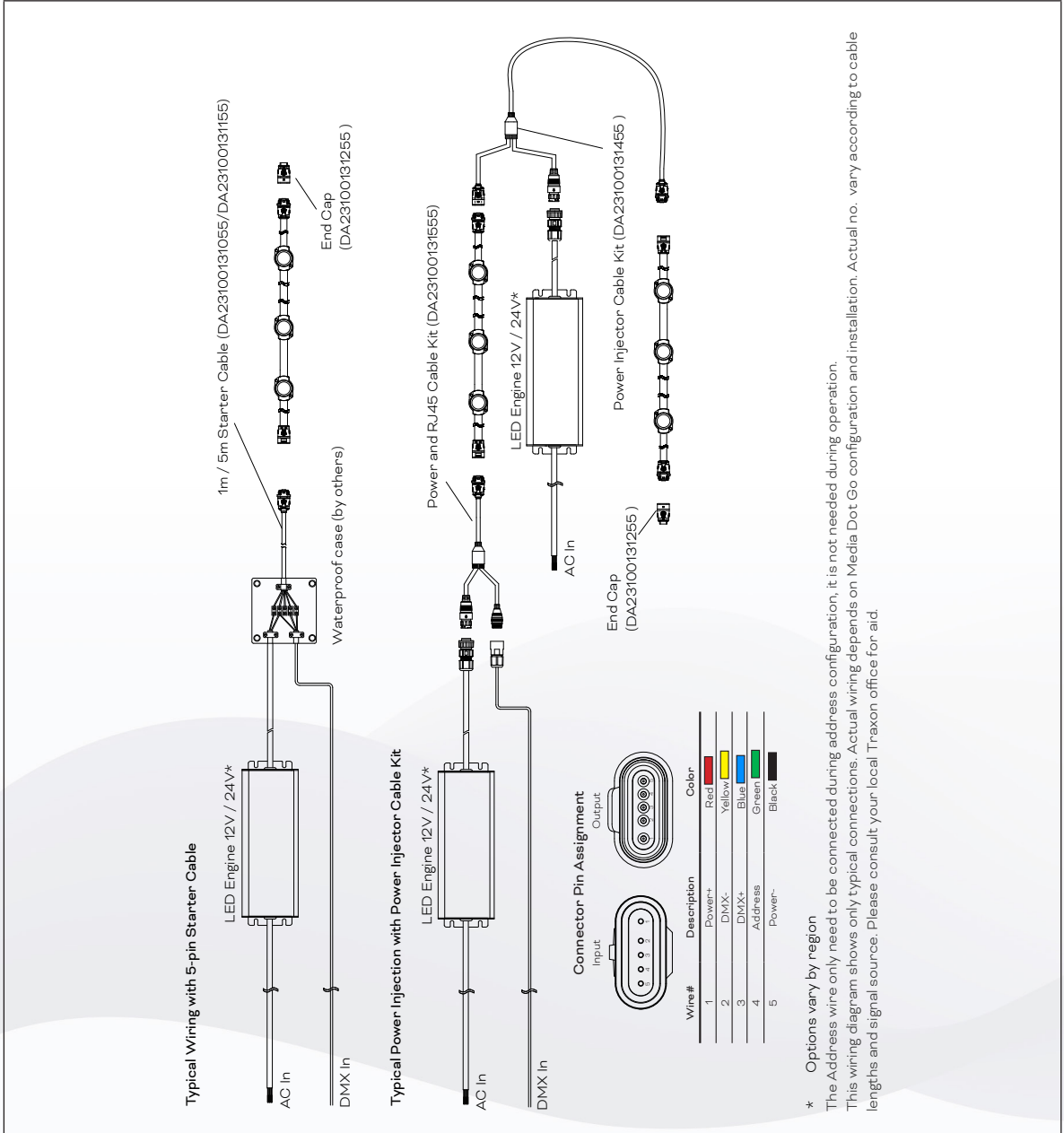
FIG.17:   System Diagram of Media Dot Go M

Typical Wiring with 5-pin Starter Cable

LED Engine 24V

AC In

DMX In

1m, 5m / 3.3', 16.4'Starter Cable

End Cap
(DA23100131255)

Waterproof case (by others)

Typical Power Injection with Power Injector Cable Kit

LED Engine 24V

AC In

DMX In

Power and RJ45 Cable Kit (DA23100131555)

LED Engine 24V

AC In

Power Injector Cable Kit (DA23100131455)

End Cap
(DA23100131255)

Connector Pin Assignment

Input

Output

Wire#	Description	Color
1	Power+	Red
2	DMX-	Yellow
3	DMX+	Blue
4	Address	Green
5	Power-	Black

The Address wire only need to be connected during address configuration, it is not needed during operation.
This wiring diagram shows only typical connections. Actual wiring depends on Media Dot Go configuration and installation. Actual no. vary according to cable lengths and signal source. Please consult your local Traxon office for aid.

FIG.18:   System Diagram of Media Dot Go L

Typical Wiring with 5-pin Starter Cable

LED Engine 24V

AC In

DMX In

1m / 5m Starter Cable

Waterproof case (by others)

End Cap
(DA2310013125S)

Typical Power Injection with Power Injector Cable Kit

LED Engine 24V

AC In

DMX In

Power and RJ45 Cable Kit (DA2310013155S)

LED Engine 24V

AC In

Power Injector Cable Kit (DA2310013145S)

End Cap
(DA2310013125S)

Connector Pin Assignment

Input   Output

Wire#	Description	Color
1	Power+	Red
2	DMX-	Yellow
3	DMX+	Blue
4	Address	Green
5	Power-	Black

The Address wire only need to be connected during address configuration, it is not needed during operation.
This wiring diagram shows only typical connections. Actual wiring depends on Media Dot Go configuration and installation. Actual no. vary according to cable lengths and signal source. Please consult your local Traxon office for aid.
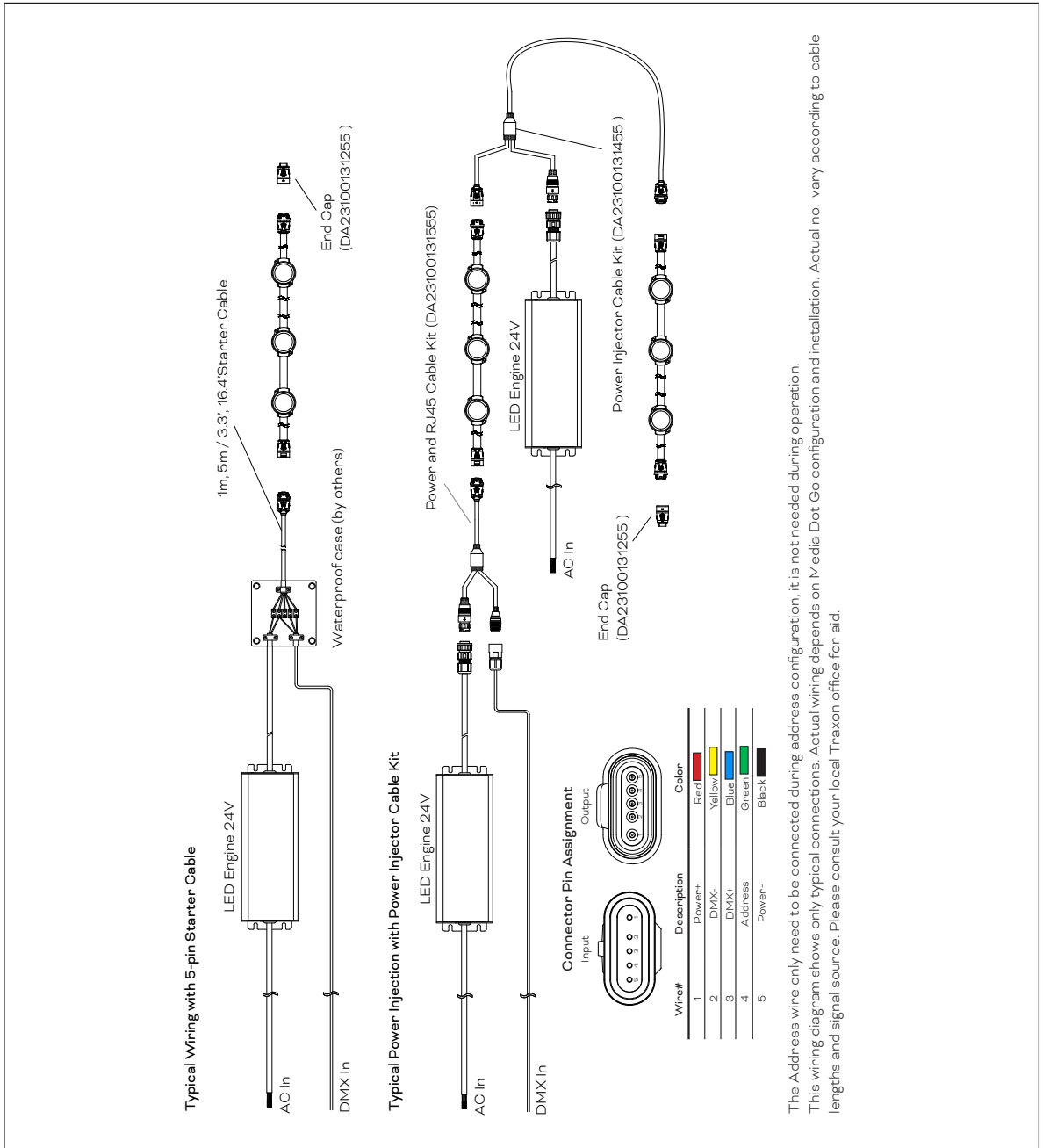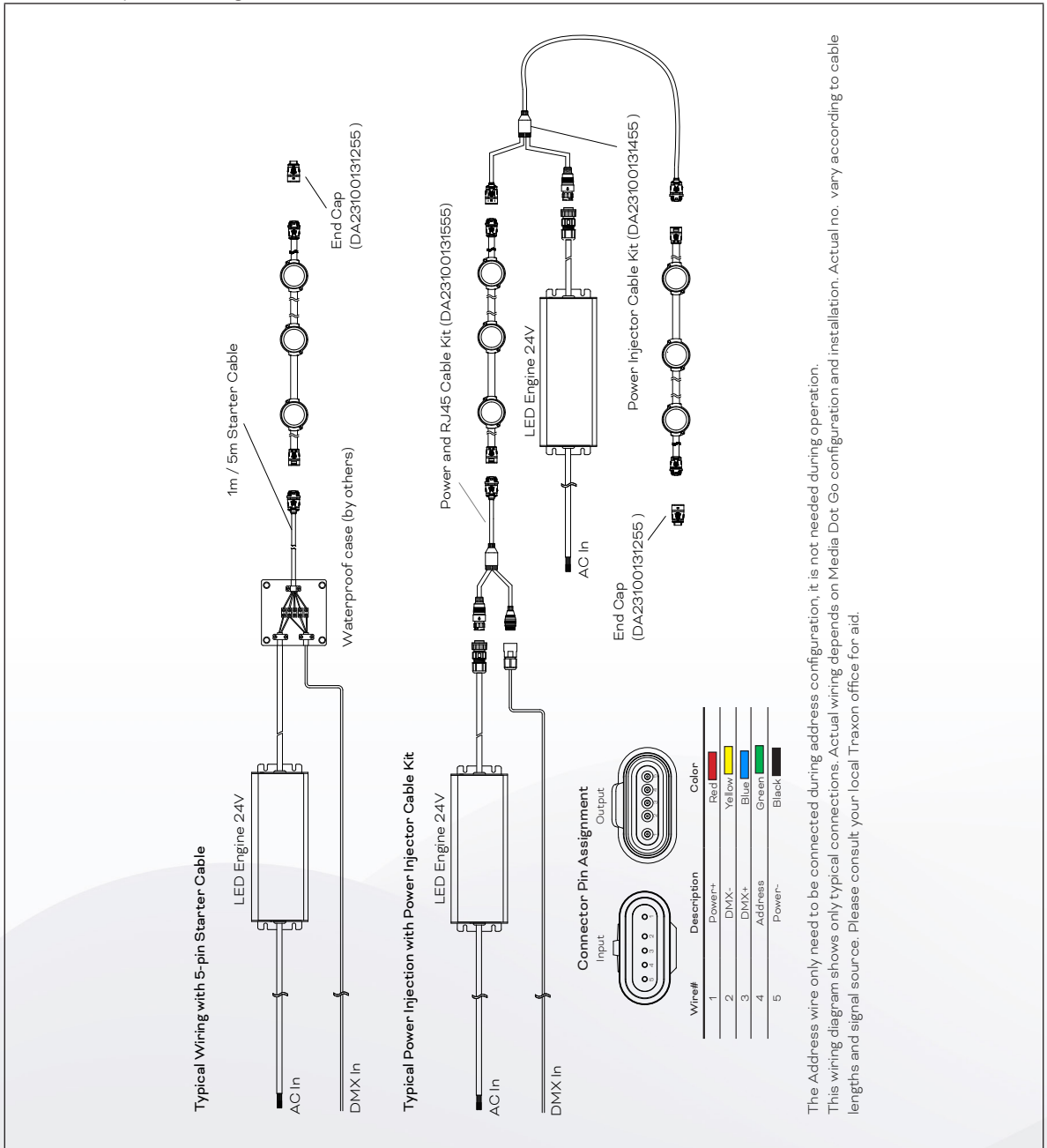
5.   Care and Maintenance

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 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.

— The light source of this luminaire is not replaceable; when the light source reaches its end of life the whole luminaire shall be replaced.

* Options vary by region

6. Technical Specification

Media Dot Go S

	Direct View			Diffused View		
	RGBW	RGB	DW	RGBW	RGB	DW
Color Range:	16.7 Million additive RGB colors, White 6500K					
Light Source:	3 RGB + 1 White	4 RGB	2 2700K + 2 6500K	3 RGB + 1 White	4 RGB	2 2700K + 2 6500K
Beam Angle:	110°			150°		
Power Input*:	12V / 24V DC*	24V DC	24V DC	12V / 24V DC*	24V DC	24V DC
Power Consumption (typ).:	1W					
Weight:	13.5g					
Operating Temperature:	-30°C to +50°C (-22°F to +122°F)					
Storage Temperature:	-40°C to +70°C (-40°F to +158°F)					
Addressing Options	Manual-Addressing with TX Smart Addresser (Addressing IC: SM19522SK)					

Media Dot Go M

	Direct View			Diffused View		
	RGBW	RGB	DW	RGBW	RGB	DW
Color Range:	16.7 Million additive RGB colors, White 6500K					
Light Source:	6 RGB + 3 White	6 RGB	3 2700K + 3 6500K	6 RGB + 3 White	6 RGB	3 2700K + 3 6500K
Beam Angle:	110°			150°		
Power Input:	24V DC					
Power Consumption (typ).:	1.8W	1.5W	2.0W	1.8W	1.5W	2.0W
Weight:	18.5g					
Operating Temperature:	-30°C to +50°C (-22°F to +122°F)					
Storage Temperature:	-40°C to +70°C (-40°F to +158°F)					
Addressing Options	Manual-Addressing with TX Smart Addresser (Addressing IC: SM19522SK)					

Media Dot Go L

	Direct View			Diffused View		
	RGBW	RGB	DW	RGBW	RGB	DW
Color Range:	16.7 Million additive RGB colors, White 6500K					
Light Source:	12 RGB + 3 White	12 RGB	6 2700K + 6 6500K	12 RGB + 3 White	12 RGB	6 2700K + 6 6500K
Beam Angle:	110°			150°		
Power Input:	24V DC					
Power Consumption (typ).:	3W					
Weight:	32.5g					
Operating Temperature:	-30°C to +50°C (-22°F to +122°F)					
Storage Temperature:	-40°C to +70°C (-40°F to +158°F)					
Addressing Options	Manual-Addressing with TX Smart Addresser (Addressing IC: SM19522SK)					

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	— Check Mains Power — Check power supply leads and wire connections — Ensure output wires are connected with proper polarity — Check if power supply's secondary output is working as specified.
Shadowing	Light source covered	— Check for cables, wires or unwanted debris covering LED light source
Modules are dim	Excess products connected	— Ensure the power supplies are not overloaded due to an excess of products connected
Flickering	Incorrect power input/Excess products connected	— 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 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 invoicing, 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.

www.traxon-ecue.com

Installation Guide   08/23 V1.0   20 of 21