BATHOLOGY

rediscover bathing

Spectrum 510

Steam Color Bathing Experience

Installation and Operation Manual

SAFETY & WARNINGS

BATHOLOGY

PLEASE READ THIS MANUAL IN ITS ENTIRETY PRIOR TO INSTALLATION!

1. All wiring must be done in accordance with national electric code and local building codes by a certified electrician.
2. All electrical components such as driver and power supply must be installed in a location protected from moisture, rain, and or inclement weather.
3. Please note the maximum temperature ratings of all components on page 4 Specifications. Components should not be installed where maximum temperature of component will be exceeded, doing so will void warranty.
4. Do not install Led lights directly above steam outlet.
5. Consider light placement carefully. Each Led light should be placed to avoid direct contact with the bathers eyes.
6. Prior to installation, consider the placement of the Light Control carefully, taking into account the location of electrical, plumbing, and other fixtures.
7. The Spectrum 510 control is designed for installation inside of the Steam Room at a maximum of 48" above the floor.
8. The control should not be installed on the same wall or within 24" of steam outlet
9. The maximum light cable distance from Driver to farthest light is 100'.
10. All system components should be tested prior to final installation.
11. Always fully disconnect power from the system prior to making or disconnecting any connections.

Electrical Requirements

Always turn off the power at the breaker box before starting any electrical work.

- A 120V AC electrical outlet is needed to power the lighting system.
- Your electrician will determine the type of electrical outlet, box, and piping to be used.
- Improper voltage or connections will damage the components and void warranty.

PACKAGE CONTENTS

BATHOLOGY

DMX Driver / Receiver
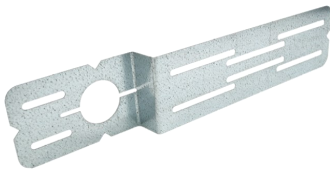(qty. 1)

RGB Control
(qty. 1)

Output Box
(qty. 1)

Brilliance LED Light
(qty. 1)

Power Supply
(qty. 1)

AC Power Cable
(qty. 1)

Led Light Mounting Template
(qty. 1)

4-Port DC Splitter
(qty. 1)

1FT CAT 6 Cable
(qty. 2)

25FT CAT 6 Cable
(qty. 2)

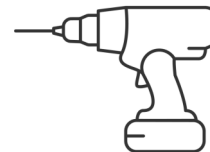**50FT DC Power Cable**
(qty. 1)

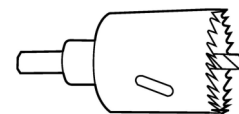## Required Tools for Installation

#2 Phillips Head Screwdriver

Power Drill

Flat Head Screwdriver

1-5/8" Hole Saw

SPECIFICATIONS

DMX Driver

Operating Voltage:	24V DC
Power Consumption:	4.2 - 12.6 watts per channel
Output Voltage:	12-36V DC
Output Current:	350mA Constant Current
Connections:	**Power In** - DC Female Barrel
	DMX In/Out - RJ45 Cat6
	Led Out - RJ45 Cat6
Zones:	1 Zone RGB
Operating Temp:	-4°F - 122°F
Dimensions:	7"L x 1.81"W x .82"H
Light Capacity:	6 (per Driver)
IP Rating:	IP20
Certifications:	UL, CE. FCC, CRUus

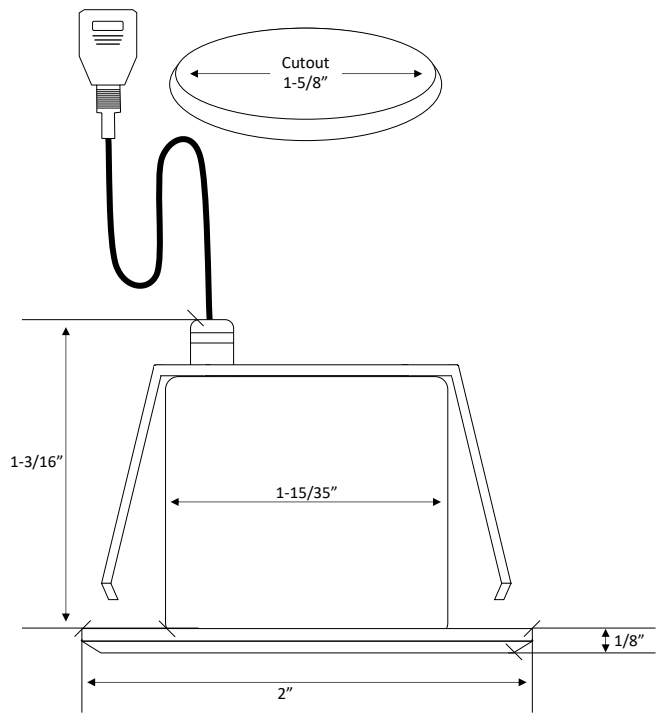### RGB Control

Output Signal:	DMX
Operating Voltage:	24VDC
Power Consumption:	500mA
Material:	Aluminum Housing / Glass Face
Connections:	**Power In** - DC Female Barrel
	DMX In - RJ45 Cat6
Mounting:	Double Sided Adhesive/Silicone
Dimensions:	4.72"L x 3"W x .59"H
Operating Temp:	32°F - 122°F
Zones:	1 Zone RGB
IP Rating:	IP67
Certifications:	CE

Power Supply

Input Voltage:	120VA C
Output Voltage:	24V DC
Rated Power:	90W
AC Current:	1.3A
DC Current:	3.75A
Operating Temp:	-22°F - 158°F
IP Rating:	IP20
Certifications:	UL, CE, FCC

Led Light

Operating Voltage:	24V DC
Power Consumption:	3 Watts
Led Type:	RGB
Lumens:	88
Trim Finish:	Stainless Steel
Housing:	Stainless Steel
Beam Angle:	120° - Frosted Lens
	35° - Clear Lens
Lens Composition:	Tempered Glass
Connection:	RJ45 Cat6
Rough-In Cutout:	1-5/8"
Trim Dimensions:	2" Diameter, 18" Profile
Body Dimensions:	1-15/35" Diameter
	1-7/8" Deep
Operating Temp:	0°F - 230°F
IP Rating:	IP68
Certifications:	CE, ROHS

CONNECTION OVERVIEW

BATHOLOGY

120VAC

POWER SUPPLY

1 - 6 Lights Setup

Not Used

DC Splitter

50' DC Cable

For 1-6 Lights Connect to Port A

INPUT 12-36VDC
DMX IN
DMX OUT
OUTPUT

0-5 0-9 0-9

Out to 2nd Driver (only used for zones)

25' Cat6 Cable

1' Cat6 Cable X1

25' Cat6 Cable

A1 A B B1
A2   B2
A3   B3
A4   B4
A5   B5
A6   B6

Control Installed Interior/Exterior Steam Room

C
P   B
S
1 2 3 4

Terminator
(see pages 8-9 for use)

Figure #1

BATHOLOGY

7 - 12 Lights Setup

- Requires purchase of second driver -

Not Used

POWER SUPPLY

DC Splitter

INPUT 12-36VDC
DMX IN DMX OUT
0-5 0-9 0-9
OUTPUT

INPUT 12-36VDC
DMX IN DMX OUT
0-5 0-9 0-9
OUTPUT

1' Cat6 Cable X2

25' Cat6 Cable

25' Cat6 Cable

25' Cat6 Cable

Control Installed Exterior Sauna Room

50' DC Cable

A1 A B B1
A2   B2
A3   B3
A4   B4
A5   B5
A6   B6
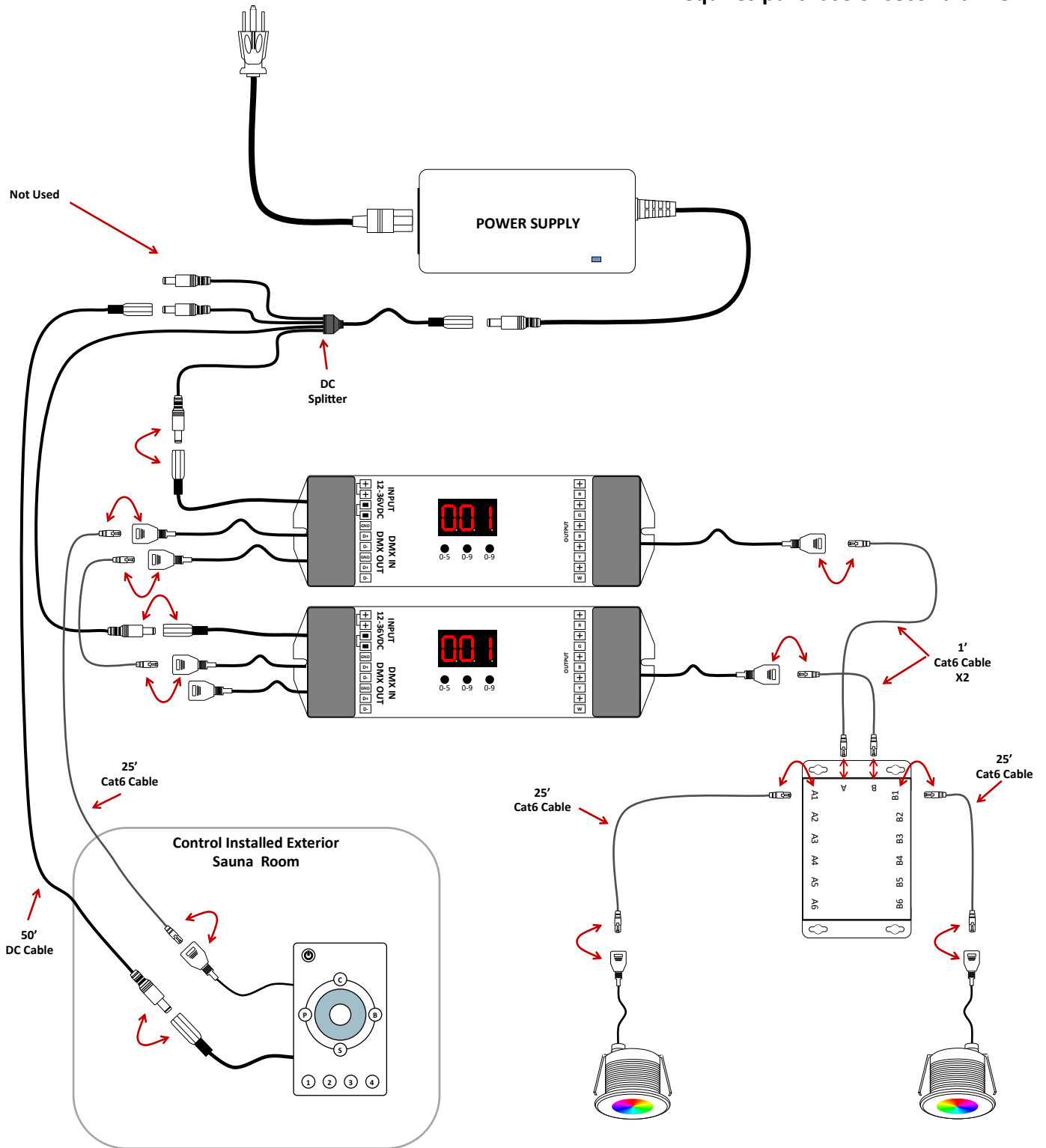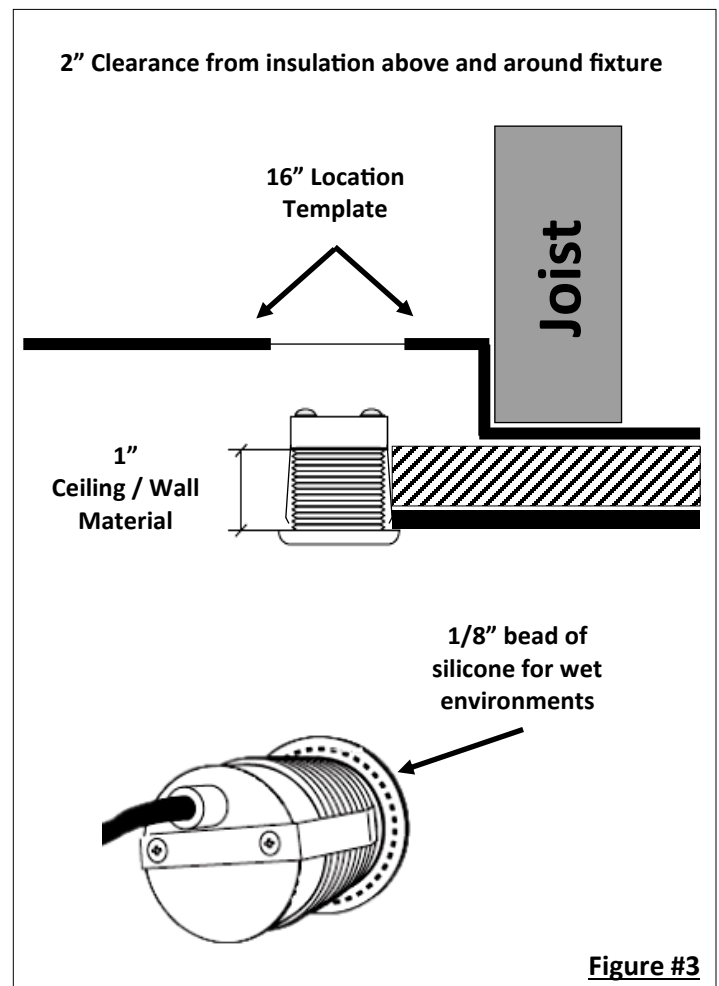
INSTALLATION

STEP 1 - DMX DRIVER

1. At determined location mount DMX driver.
   Note: DMX driver must be installed in a dry accessible location or inside a waterproof electrical enclosure.
2. Take Output box and mount next to DMX driver. See Figure 1
3. Route 50' dc power cable from DMX driver location to control location.
   Note: Male end of dc cable connects to control.
4. Route 25' CAT6 cable from DMX driver location to control location
5. At DMX driver take 25' CAT6 cable ran to control and plug into DMX in lead on DMX driver.
6. Route 25' CAT6 cable from Output box to light location. Repeat this step for each additional light.
   Note: Refer to pages 9-12 for Output Box connections.
7. Take 4 port DC splitter and connect one male end to power in on DMX driver. Connect second male end to 50' dc power cable for control.
8. Take 1' Cat6 cable and connect one end to light out lead on DMX driver and other end to in port A of Output box.
   Note: Each lead/driver handles 6 lights max. For more than 6 lights a separate driver kit must be purchased.
9. After checking and verifying all connections at driver and output box proceed to Led light installation.

STEP 2 - BRILLIANCE LED LIGHTS

1. Locate mounting plate and install at each light location by fastening plate to ceiling joist or wall stud. See figure 3
2. After finished material is installed use the 1-5/8" hole saw and power drill, drill a hole for each light.
3. After drilling hole ensure any installation is pushed to the side to maintain at least 2" clearance from top and sides of light.
4. Take female RJ45 connector from light and plug into RJ45 cable from DMX driver.
5. Run a 1/8" bead of silicone around edge of light for wet applications. See figure 3
6. Take light and push up into opening until trim is flush with surface.
7. Back at DMX driver plug Cat 6 cables from each light into 12 port splitter box.

   Note: Repeat above steps for each additional light.

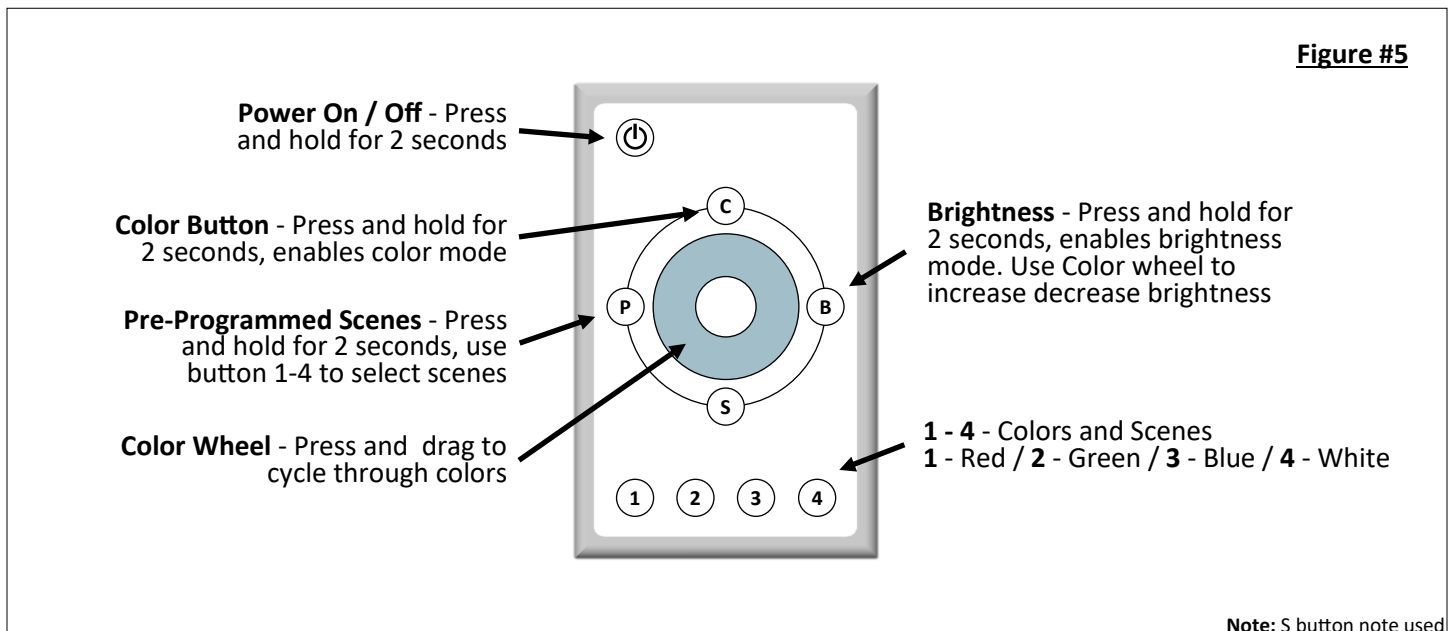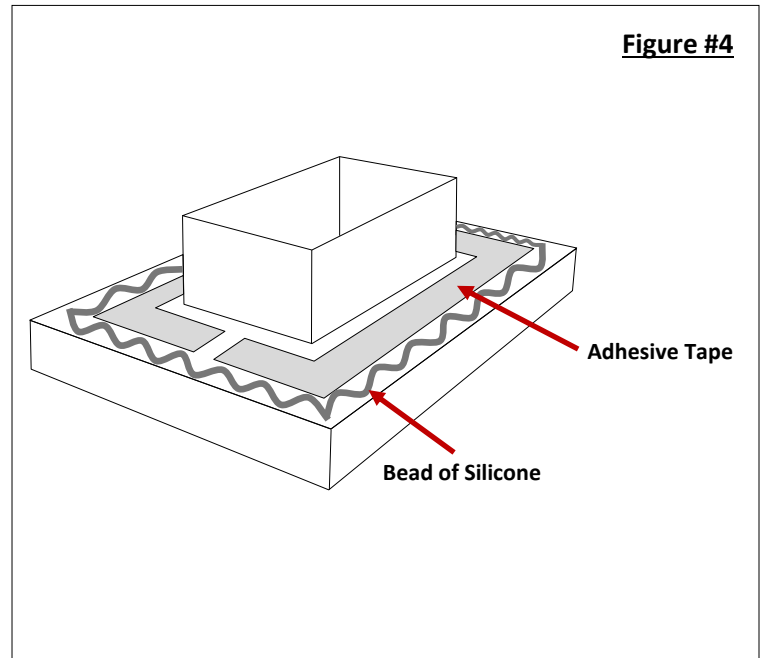   **Note:** Refer to pages 9-12 for output box connections and setup.

2" Clearance from insulation above and around fixture

16" Location Template

Joist

1" Ceiling / Wall Material

1/8" bead of silicone for wet environments

Figure #3

STEP 3 - CONTROL

1. At determined control location cut a 1-1/2" x 2-13/32 square hole to mount control.
2. Take the 25' CAT6 cable run from DMX driver and plug into RJ45 pigtail on control.
3. Take 50' DC Power Cable and plug into DC pigtail on control.
4. Remove backing off double sided adhesive.
5. Run a continuous bead of silicone on back side of control.
6. Press control onto wall ensuring level and secure. Wipe away any access silicone.

Figure #4

Adhesive Tape

Bead of Silicone

Figure #5

Power On / Off - Press and hold for 2 seconds

Color Button - Press and hold for 2 seconds, enables color mode

Pre-Programmed Scenes - Press and hold for 2 seconds, use button 1-4 to select scenes

Color Wheel - Press and drag to cycle through colors

Brightness - Press and hold for 2 seconds, enables brightness mode. Use Color wheel to increase decrease brightness

1 - 4 - Colors and Scenes
1 - Red / **2** - Green / **3** - Blue / **4** - White

Note: S button note used
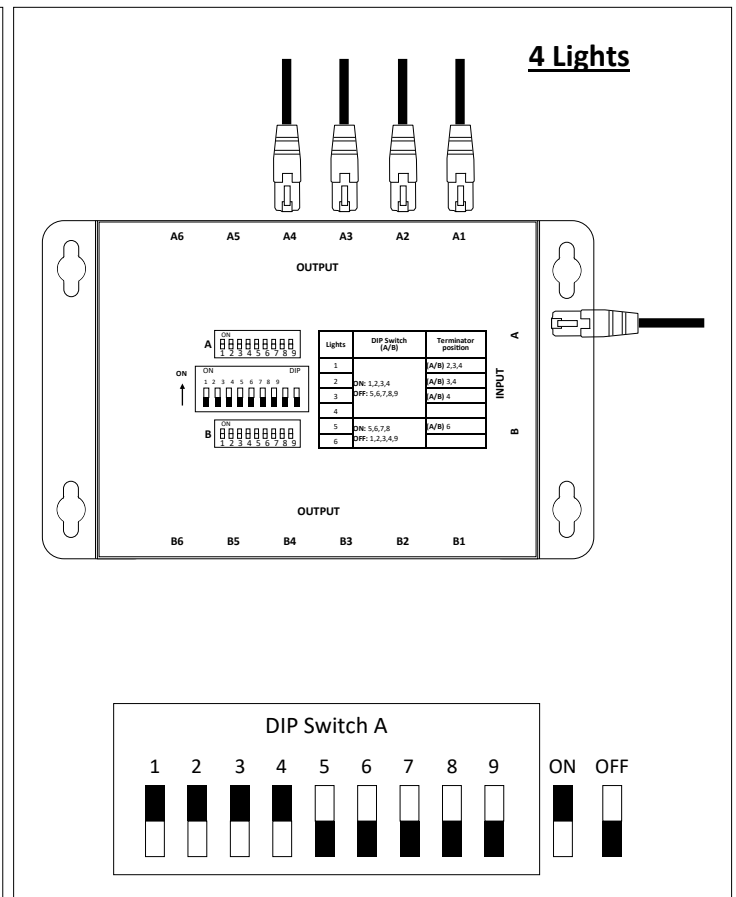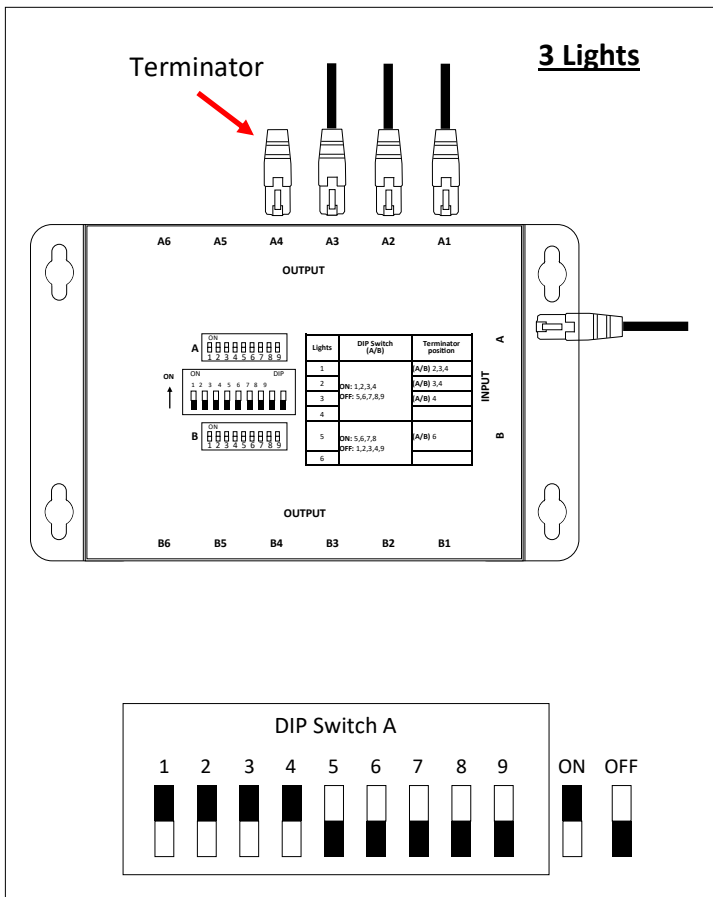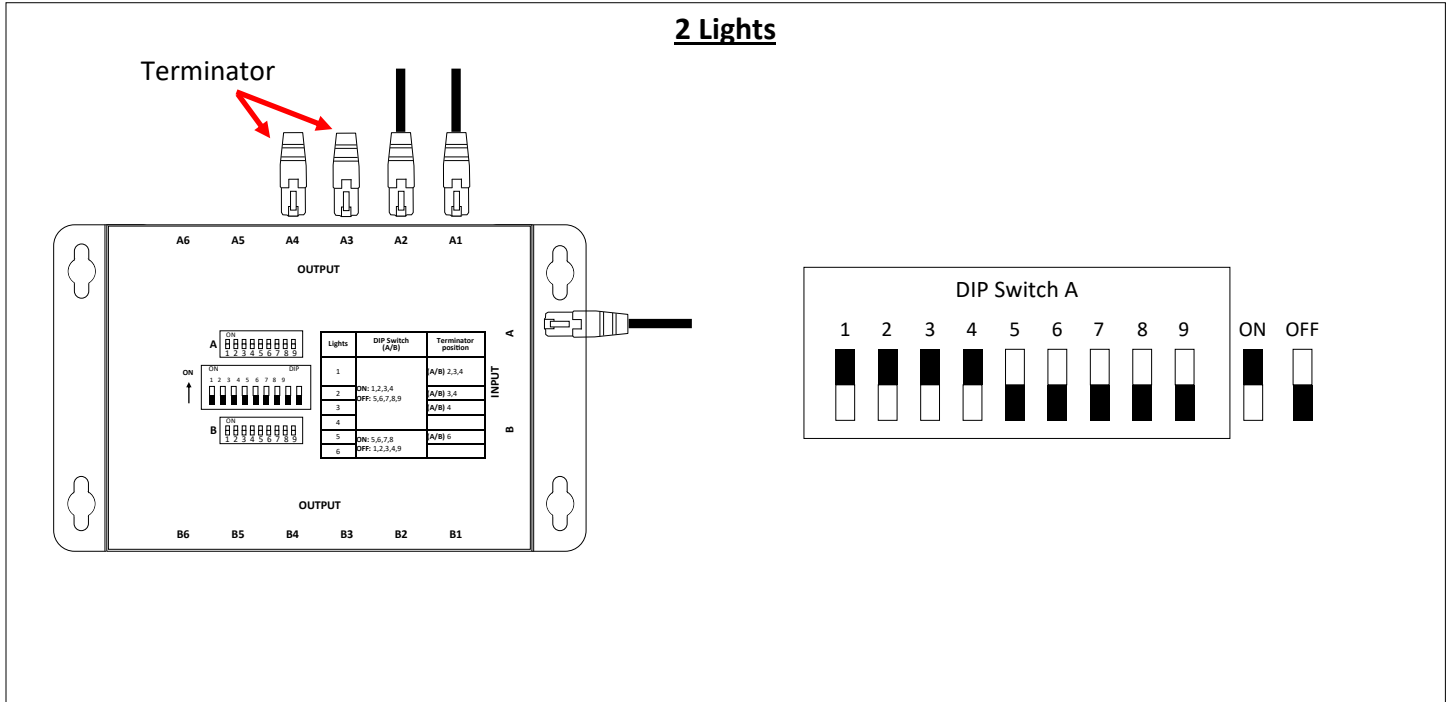
STEP 4 - STARTUP & TESTING

1. After completing all installation steps take 4 port DC splitter and plug Female end into Male end from power supply.
2. Plug power supply into 120VAC outlet.
3. Verify DMX driver lights up and screen displays 001
   Note: If driver is not displaying 001 or any other number upon applying power proceed to troubleshooting steps on page #13.
4. At control press power button to turn on lights. Verify all lights in room come on and cycle through colors.

If you encounter any issues during startup refence page # 13 for troubleshooting steps.
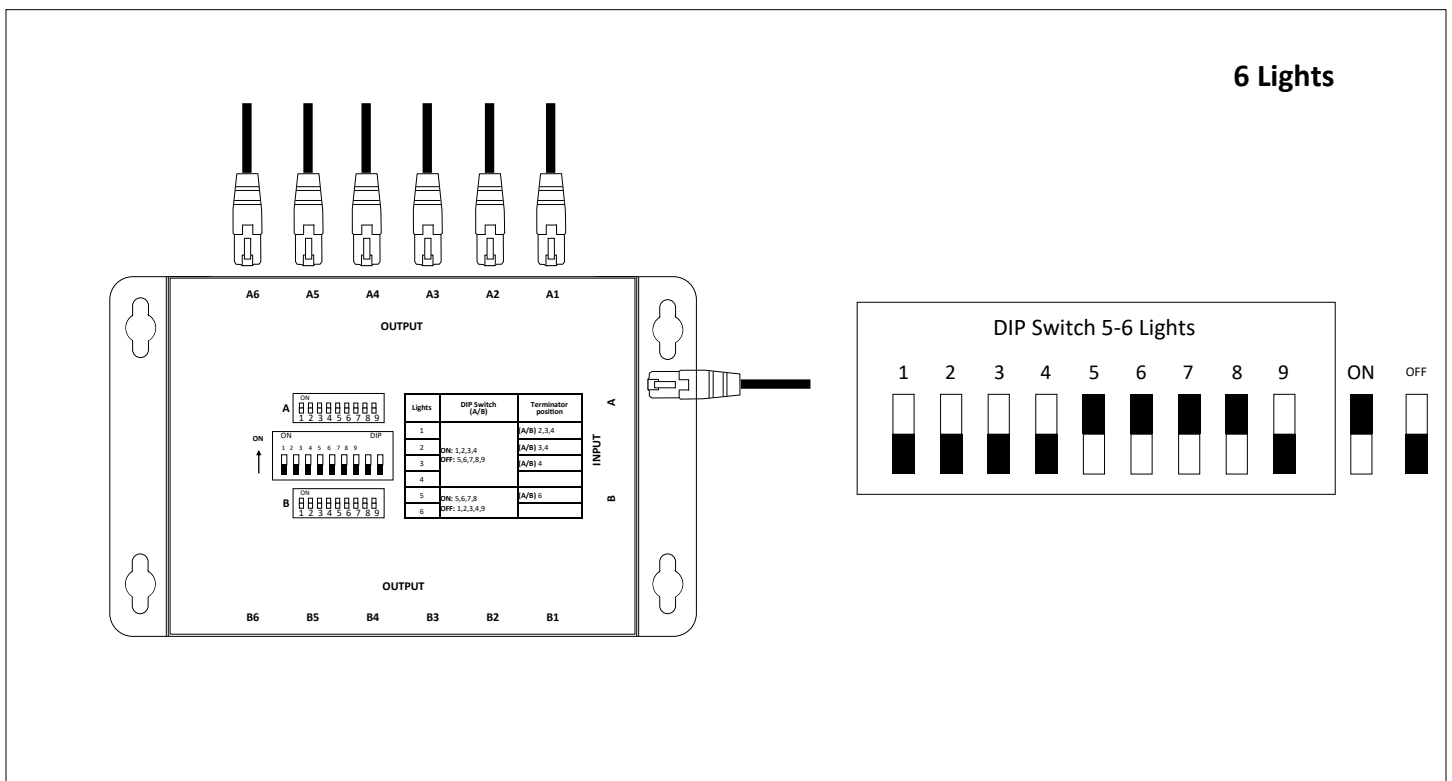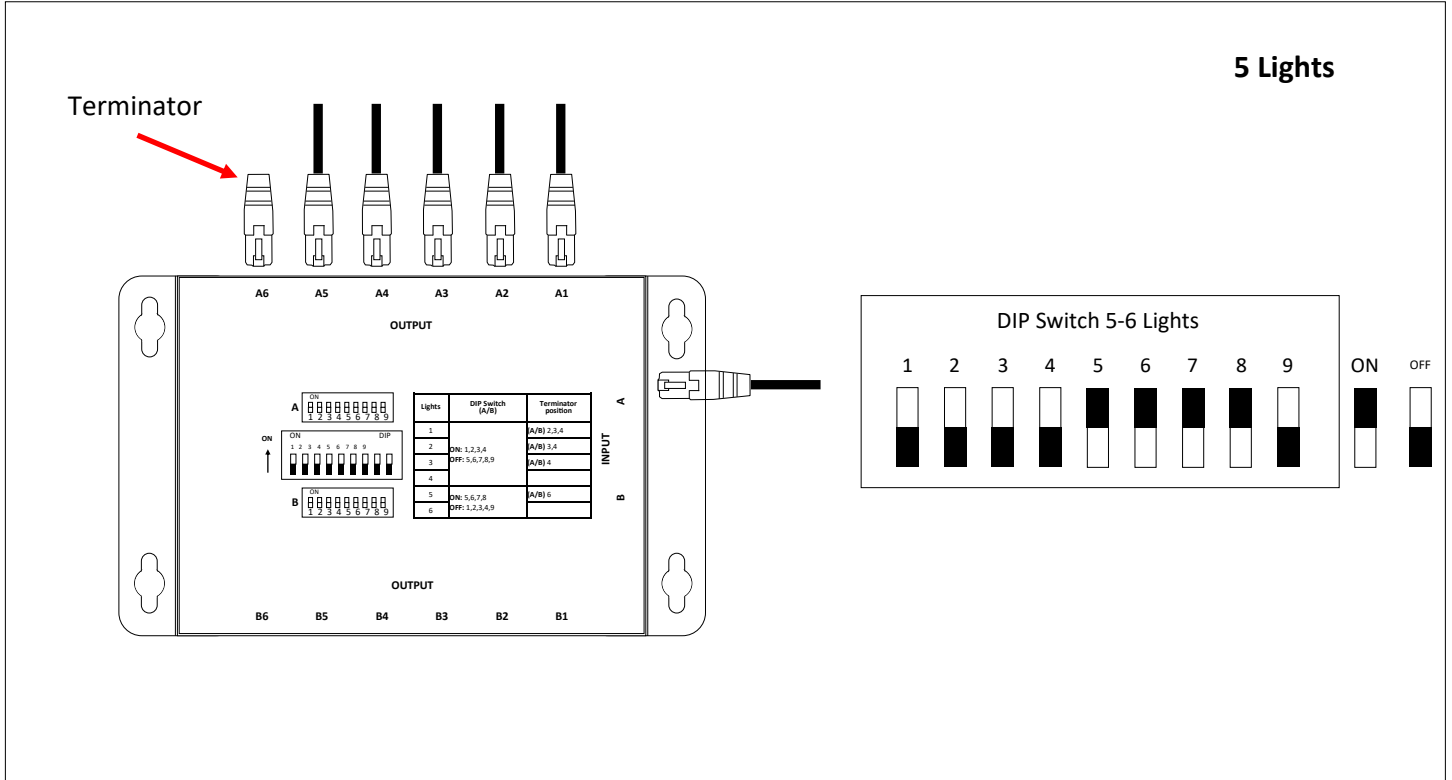
OUTPUT BOX SETTINGS

BATHOLOGY

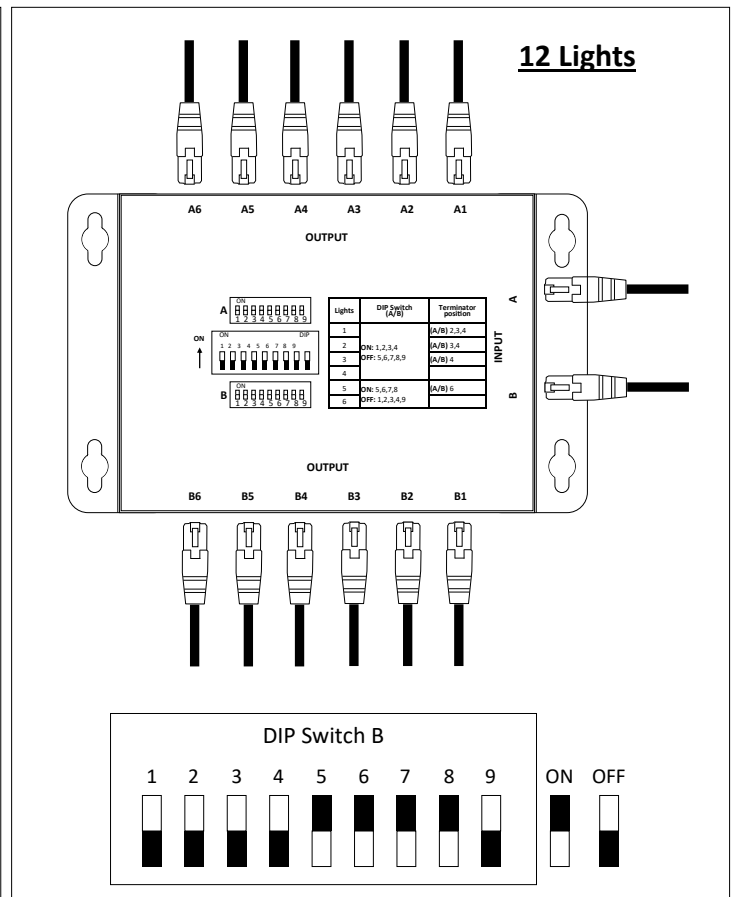**Note:** Input **A** will handle up to 6 lights.

2 Lights

Terminator

| | A6 | A5 | A4 | A3 | A2 | A1 |
| OUTPUT |

Lights	DIP Switch (A/B)	Terminator position
1		(A/B) 2,3,4
2	ON: 1,2,3,4 OFF: 5,6,7,8,9	(A/B) 3,4
3		(A/B) 4
4		
5	ON: 5,6,7,8 OFF: 1,2,3,4,9	(A/B) 6
6		

OUTPUT

| B6 | B5 | B4 | B3 | B2 | B1 |

DIP Switch A

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ON | OFF |

3 Lights

Terminator

| A6 | A5 | A4 | A3 | A2 | A1 |
| OUTPUT |

Lights	DIP Switch (A/B)	Terminator position
1		(A/B) 2,3,4
2	ON: 1,2,3,4 OFF: 5,6,7,8,9	(A/B) 3,4
3		(A/B) 4
4		
5	ON: 5,6,7,8 OFF: 1,2,3,4,9	(A/B) 6
6		

OUTPUT

| B6 | B5 | B4 | B3 | B2 | B1 |

DIP Switch A

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ON | OFF |

4 Lights

| A6 | A5 | A4 | A3 | A2 | A1 |
| OUTPUT |

Lights	DIP Switch (A/B)	Terminator position
1		(A/B) 2,3,4
2	ON: 1,2,3,4 OFF: 5,6,7,8,9	(A/B) 3,4
3		(A/B) 4
4		
5	ON: 5,6,7,8 OFF: 1,2,3,4,9	(A/B) 6
6		

OUTPUT

| B6 | B5 | B4 | B3 | B2 | B1 |

DIP Switch A

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ON | OFF |

OUTPUT BOX SETTINGS

BATHOLOGY

Note: Input **A** will handle up to 6 lights.

5 Lights

Terminator

6 Lights

OUTPUT BOX SETTINGS

BATHOLOGY

Note: Input **B** will handle up to 6 lights.

10 Lights

11 Lights

12 Lights

Terminator

Note: Input **B** will handle up to 6 lights.

7 Lights

Terminator

DIP Switch B

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ON | OFF |

8 Lights

Terminator

DIP Switch A

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ON | OFF |

9 Lights

Terminator

DIP Switch A

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ON | OFF |
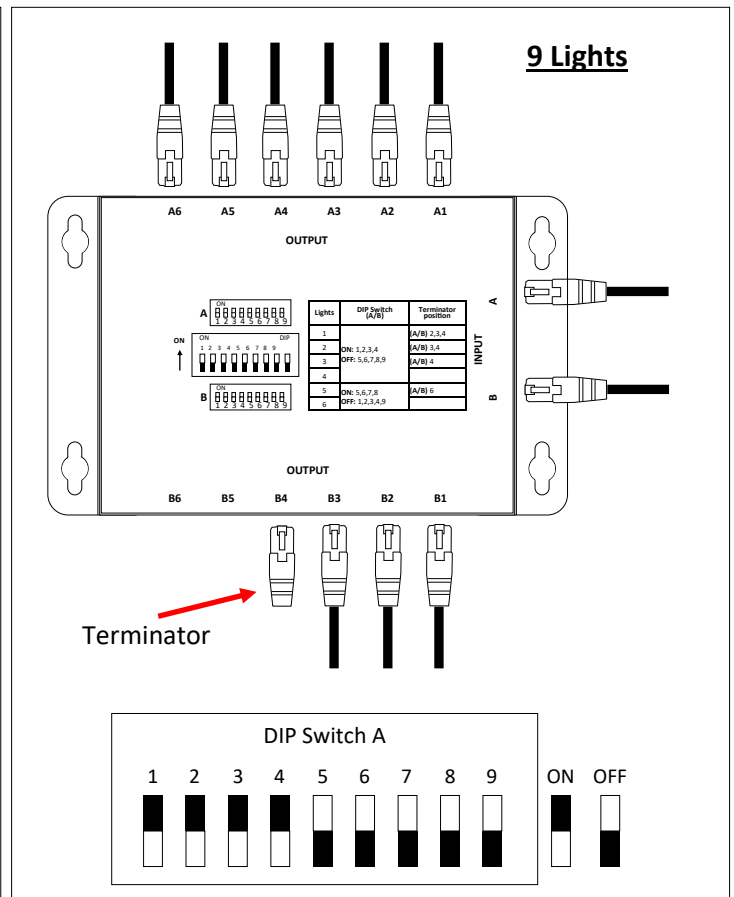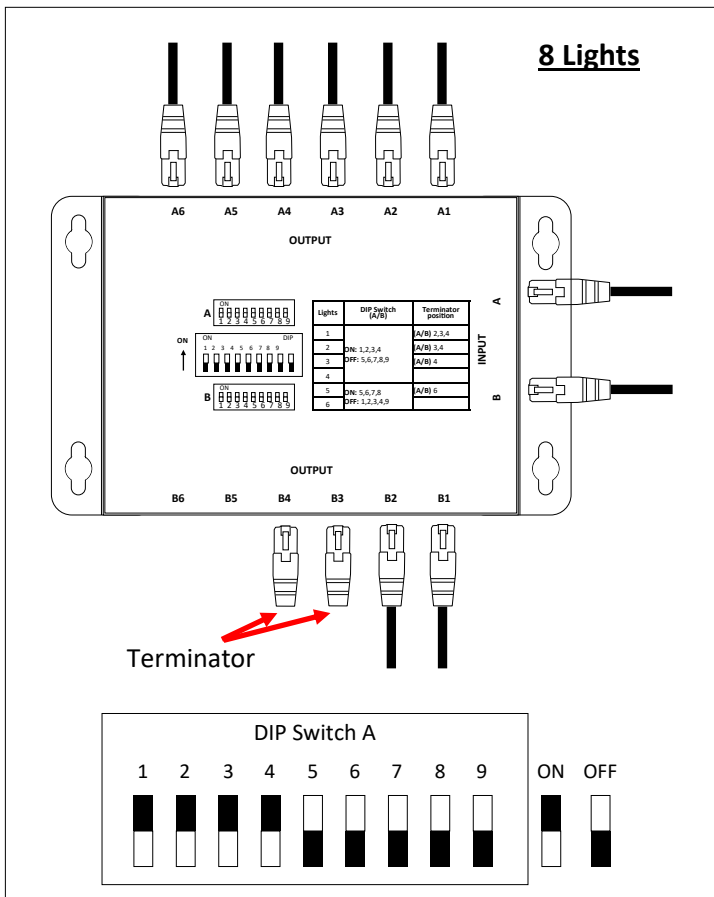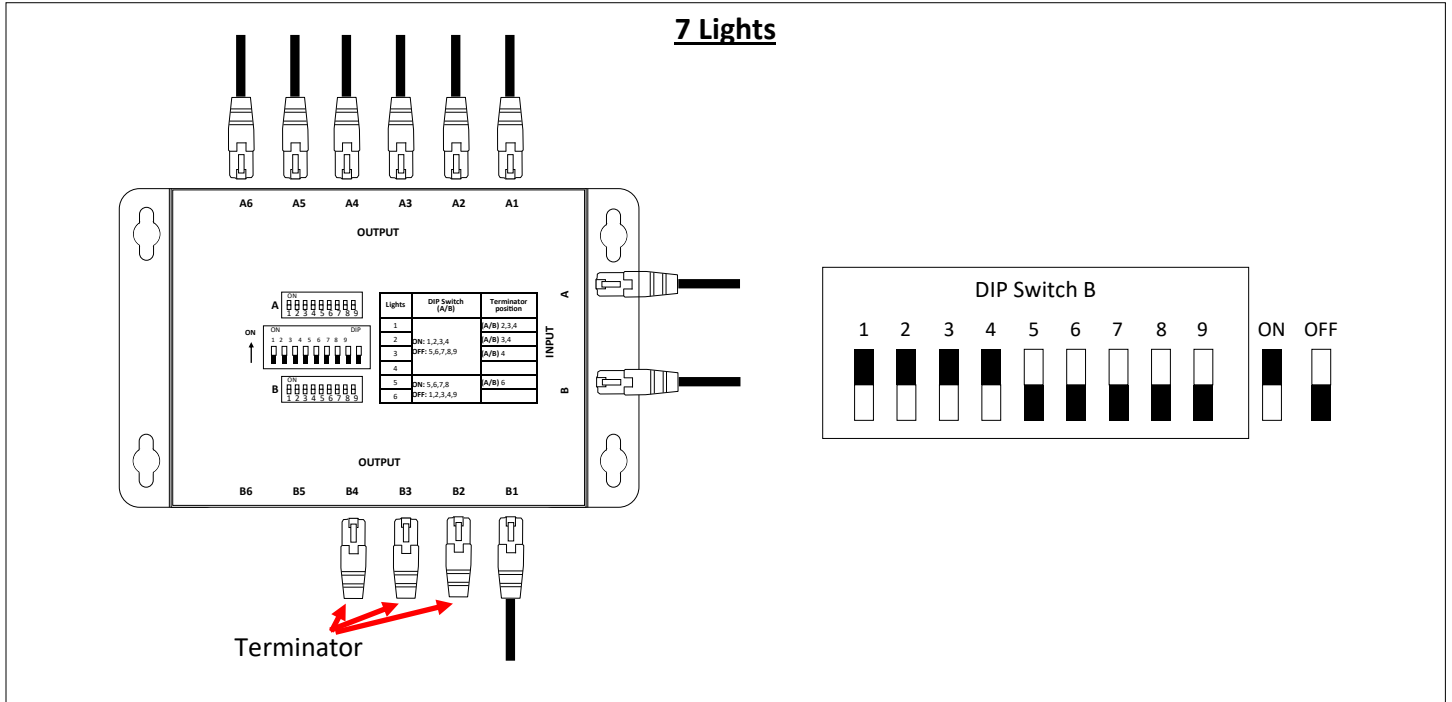
BATHOLOGY

No Power
- Verify electrical outlet has proper voltage.
- Check that connections on DC splitter secure and connected.

Power but lights not turning on
- Check DMX CAT6 cable from driver to control is secure and connected.
- Check DC power cable from driver to control is secure and connected.
- Check 1' CAT6 cable to output box is secure and connected on both ends.
- Check all 25' CAT6 cables to lights are secure and connected.
- Verify correct setup on output box for the amount of lights. **See pages 9-12**
- Verify each light functions by testing directly to driver independently.
  Note: If one light goes bad with multiple lights all lights will shut off as lights are in series.

Lights on no function from Control
- Check DMX CAT6 connections at control and driver are secure and connected.
- Check DC power cable from driver to control is secure and connected.

DMX Driver Menu Settings

To access menus to verify or troubleshoot follow steps bellow, see figure 5 for reference.

Channel Menu
1. Press and hold buttons #2 and #3 at the same time for 3-5 seconds, screen will flash.
2. Press button #1 until 1ch displays.
3. Press and hold any button for 3-5 seconds to exit and save setting.

Mode Menu
1. Press and hold buttons #1 and #2 at the same time for 3-5 seconds, screen will flash.
2. Press button #3 until ru2 displays.
3. Press and hold any button for 3-5 seconds to exit and save setting.

DMX Address Menu
1. Press and hold button #1 for 3-5 seconds, screen will flash.
2. Press button #1, #2, and #3 until 001 displays.
3. Press and hold any button for 3-5 seconds to exit and save setting.

PWM Frequency Menu
1. Press and hold button #1 and #3 for 3-5 seconds, screen will flash and display P - c.
2. Press button #1, until 2 displays. Press button #3 until 2 displays. Screen should display 2 - 2
3. Press and hold any button for 3-5 seconds to exit and save setting.

Figure #5

Channel -	1
Mode -	ru2
DMX Address -	001
PWM Frequency -	2-2

001

0-5   0-9   0-9

1   2   3
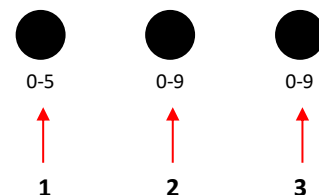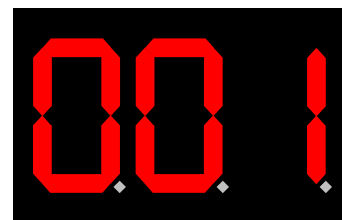
REPLACEMENT PARTS

BATHOLOGY

Description	Part Number
DMX Driver 350mA	BP031122
Touch Control RGB	SPECTRUM097
LED Light, RGB, Clear	SPECTRUM098
LED Light, RGB, Frosted	SPECTRUM099
Power Supply 90 watt	BP031137
Output Box	BP031140
AC Power Cord	BP031132
4 Port DC Splitter	BP031138
50' DC Power Cable	BP031134
RJ45 Pigtail Cable	BP031141
DC Pigtail Cable	BP031143
25' CAT 6 Cable	BP031129
1' CAT 6 Cable	BP031128
Mounting Template	SPECTRUM-68-TEMP
Driver Kit for Additional Lights 7-12 (does not come with lights)	SPECTRUM201

BATHOLOGY

rediscover bathing

Spectrum510
REV - 2.0-02/2024