

BATHOLOGY

rediscover bathing



Spectrum 511

Sauna / Bath
Color Bathing Experience

Installation and Operation Manual

PLEASE READ THIS MANUAL IN ITS ENTIRETY PRIOR TO INSTALLATION!



IMPORTANT

- **Qualified Personnel Only:** Installation of this system must be performed by a certified electrician, following all national electric code and local building code requirements.
- **Equipment Protection:** The driver, power supply, and control unit must be installed in a dry location shielded from moisture, rain, and inclement weather.
- **Light Placement:** Carefully consider the placement of your LED lights to avoid shining directly into bathers' eyes. A diffused or indirect lighting approach is recommended.
- **Light Control Placement:** Plan carefully where to install the control considering electrical wiring, plumbing, and other fixtures. Light control is not rated for installation inside Sauna.
- **Cable Length:** For proper function, ensure the distance between the driver and the furthest light does not exceed 100 feet.
- **System Testing:** Test all system components thoroughly before final installation.
- **Power Safety:** Always disconnect power entirely from the system before making or modifying any electrical connections.
- **Temperature Considerations:** Please refer to the specifications on page 4 to determine the maximum temperature rating of each component. **Do not** install any components in areas that exceed their maximum temperature limits, as this will lead to product failure and void the warranty.
- **Sauna Heater Clearance:** Maintain a safe distance between your LED lights and the sauna heater. Avoid directly installing the lights above the heater or within 20 inches of its sides.



ELECTRICAL REQUIREMENTS

Always disconnect power from the system at the circuit breaker before performing any electrical installation or maintenance.

- **Power Source:** The lighting system requires a 120VAC electrical outlet for operation.
- **Qualified Electrician:** A certified electrician should determine the appropriate electrical outlet type, box configuration, and necessary wiring to ensure compatibility and safety.
- **Electrical Safety:** Utilizing improper voltage or making incorrect electrical connections can damage system components and void the warranty.

PACKAGE CONTENTS

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Table below outlines the specific components included with different quantities of lights purchased.



DMX Driver / Receiver



RGB Control



Output Box



Power Supply



AC Power Cable



25FT CAT 6 Cable



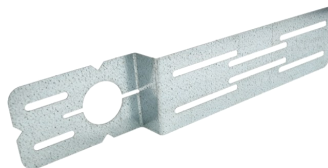
50FT DC Power Cable



1FT CAT 6 Cable



LED Light



LED Light Mounting Template



4-Port DC Splitter

	DMX Driver	Output Box	RGB Control	Power Supply	AC Power Cable	4-Port DC Splitter	50' DC Power Cable	1' CAT6	25' CAT6	Mounting Template
2 LED LIGHTS	1	1	1	1	1	1	1	2	3	2
4 LED LIGHTS	1	1	1	1	1	1	1	2	5	4
6 LED LIGHTS	1	1	1	1	1	1	1	2	7	6
8 LED LIGHTS	2	1	1	1	1	1	1	3	9	8
10 LED LIGHTS	2	1	1	1	1	1	1	3	11	10
12 LED LIGHTS	2	1	1	1	1	1	1	3	13	12

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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

Control (White or Black Finish)

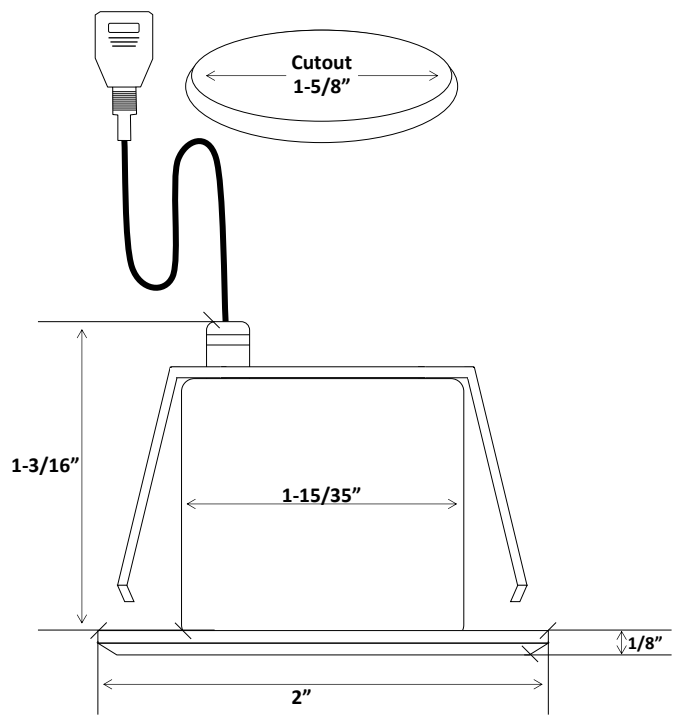
Output Signal: DMX
Operating Voltage: 24VDC
Power Consumption: 20mA
Material: Plastic Housing / Glass Face
Connections: **Power In** - DC Female Barrel
DMX In - RJ45 Cat6
Mounting: Standard Switch Box
Dimensions: 4.72" L x 2.95" W x 1.63" H
Operating Temp: -4°F - 122°F
Zones: 1 Zone RGB
IP Rating: IP20
Certifications: CE, FCC

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: Aluminum
Beam Angle: 120° - Frosted
Lens Composition: Frosted 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 DIAGRAM

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1 - 6 Lights Setup

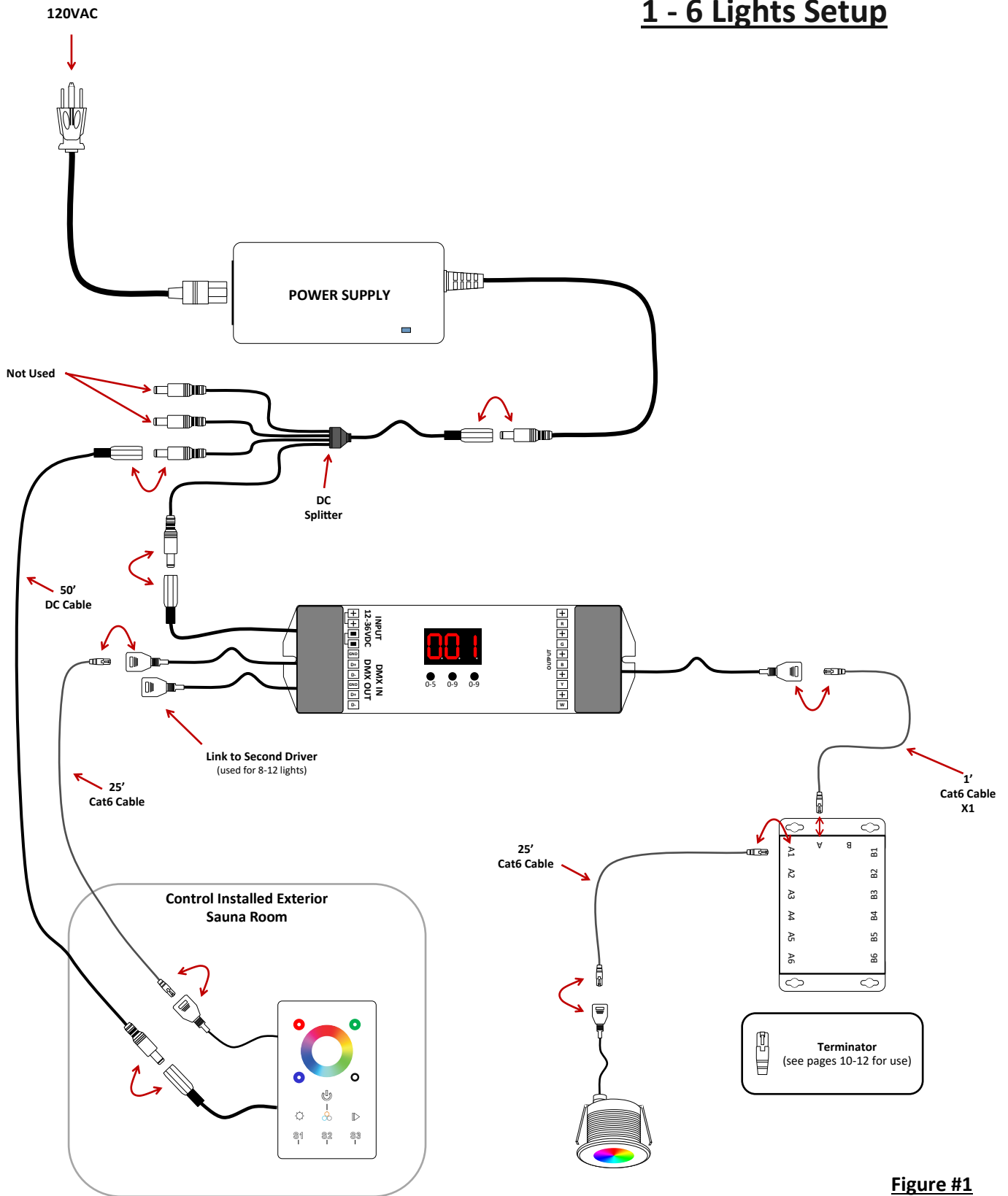
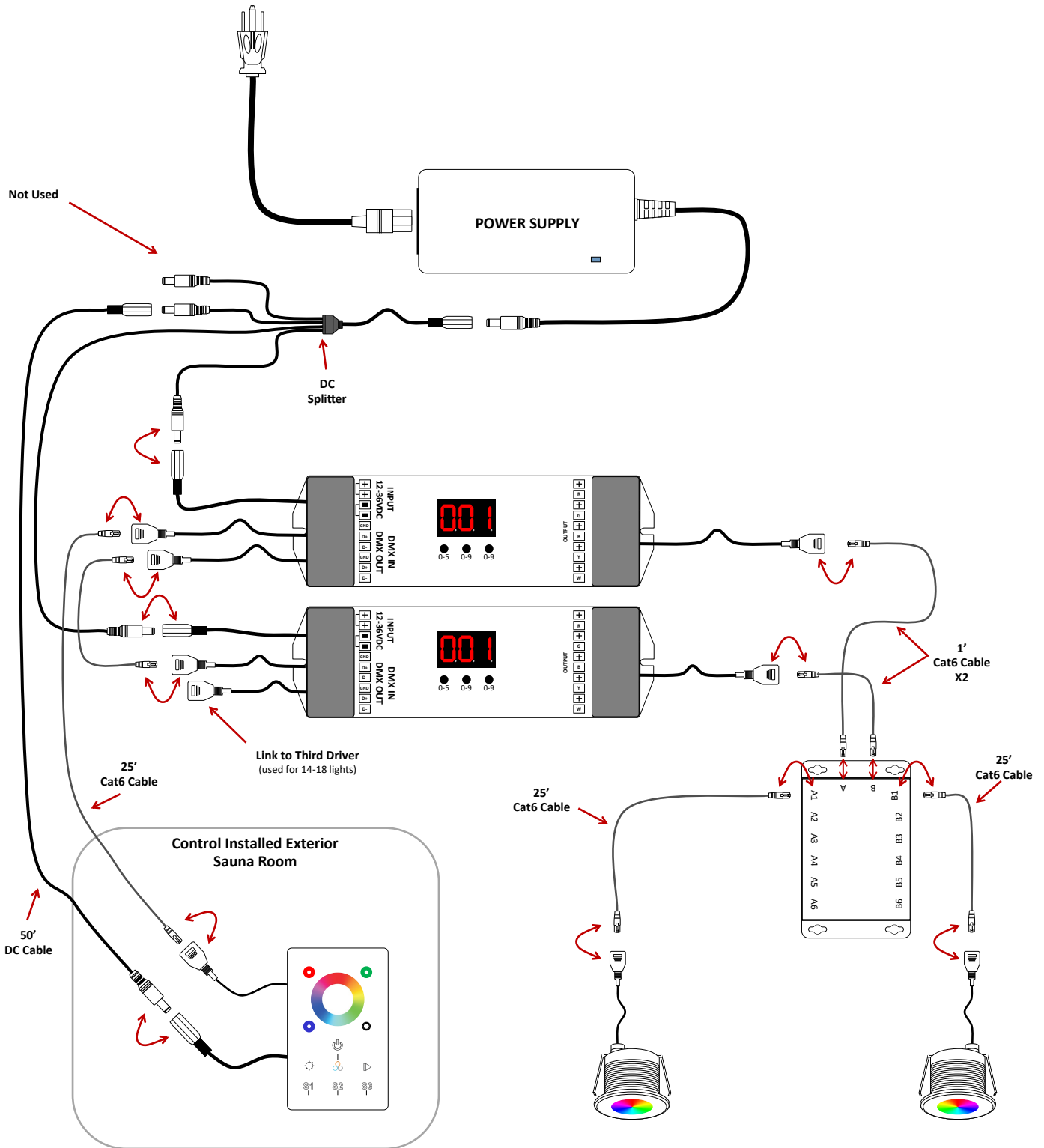


Figure #1

CONNECTION DIAGRAM

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8 - 12 Lights Setup



INSTALLATION

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STEP 1 - DMX Driver Installation

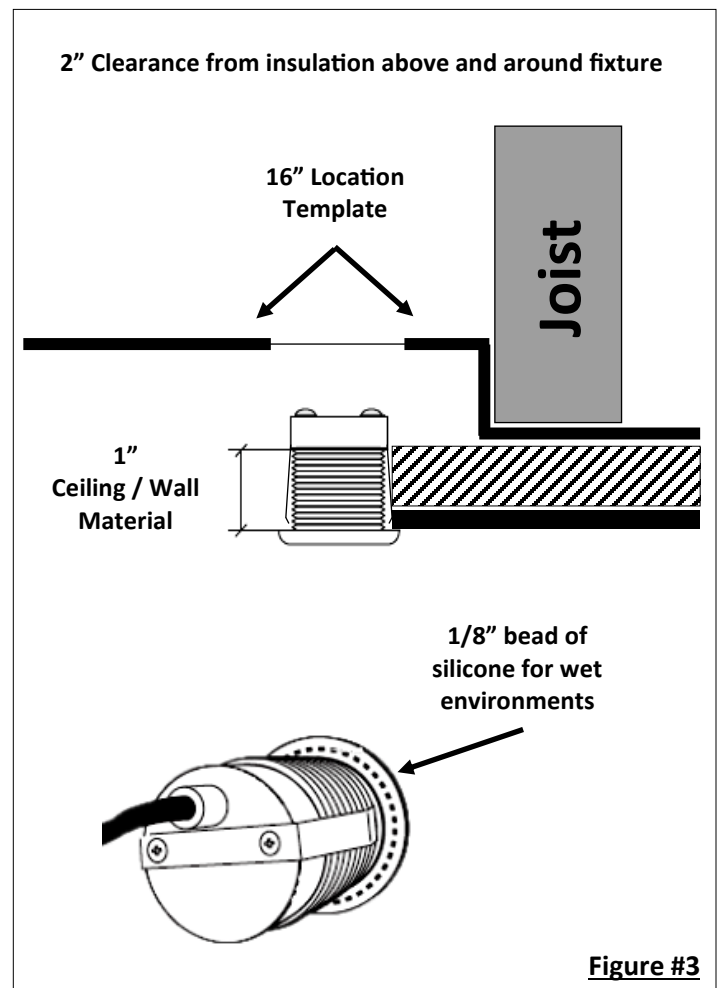
1. **DMX Driver Mounting:** Mount the DMX driver in a dry and accessible location. Alternatively, install it inside a waterproof electrical enclosure for added protection.
2. **Output Box Placement:** Mount the Output box adjacent to the DMX driver (refer to Figure 1 for reference).
3. **Cable Routing:**
 - Route the 50ft DC power cable from the DMX driver location to the control location. The male connector of this cable should connect to the control unit.
 - Route a 25ft CAT6 cable from the DMX driver location to the control location.
4. **DMX Connection:** At the DMX driver, connect the previously routed 25ft CAT6 cable to the “DMX In” port on the driver.
5. **Light Connection:** Route a 25ft CAT6 cable from the Output box to the location of the first light fixture. Repeat this step for each additional light (refer to pages 10-12 for detailed instructions on Output Box connections).
6. **Power Distribution:** Connect the 4-port DC splitter to the “Power In” port on the DMX driver. Connect a second lead to the 50ft DC power cable routed to the control unit.
7. **Output Box Connection:** Connect a 1ft CAT6 cable into the “Light Out” port on the DMX driver, plug other end into “Port A” on the Output Box.
Note: Each port on the Output box can handle a maximum of 6 lights. For 2-6 lights, use only Port A. For 8-12 lights, use Port A and Port B, connecting additional 1ft CAT6 cables between the DMX driver and the Output box.
8. **Verification:** After checking and verifying all connections, proceed to the LED light installation instructions.

STEP 2 - Brilliance LED Light Installation

1. **Mounting Plate:** Locate mounting plate for each light. Secure the plate to a ceiling joist or wall stud using appropriate fasteners (refer to Figure 3).
2. **Light Holes:** Using a 1-5/8” hole saw and a power drill, carefully create a hole for each light.
3. **Light Clearance:** After drilling the hole, ensure the installation allows for at least a 2-inch clearance from the top and sides of the light fixture.
4. **Light Connection:** Locate the female RJ45 connector in the light fixture and connect it to the RJ45 cable routed from the Output box.
5. **Light Installation:** Carefully insert the light fixture into the drilled opening, pushing it upwards until the trim ring sits flush with the surrounding surface.
Note: For wet applications apply a continuous 1/8” bead of silicone sealant around the edge of the light fixture (refer to Figure 3).

Note: Repeat above steps for each additional light.

Note: Refer to pages 10-12 for detailed instructions on output box connections and configuration.

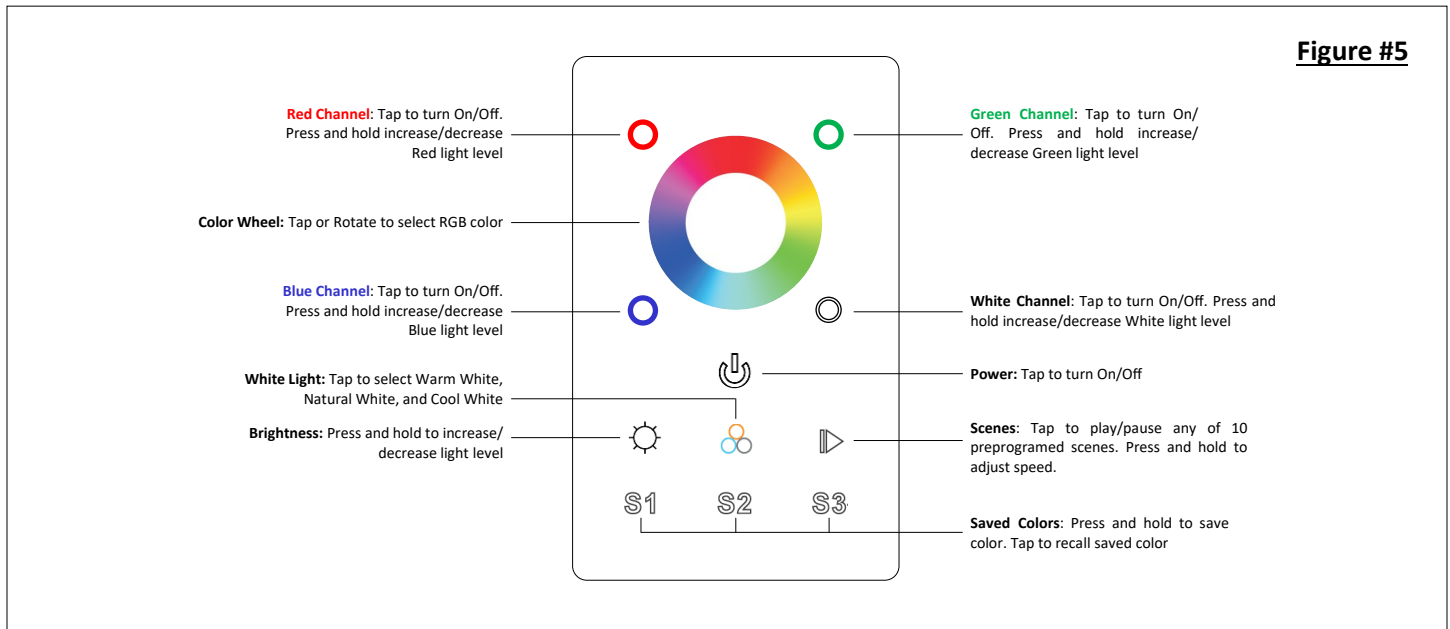
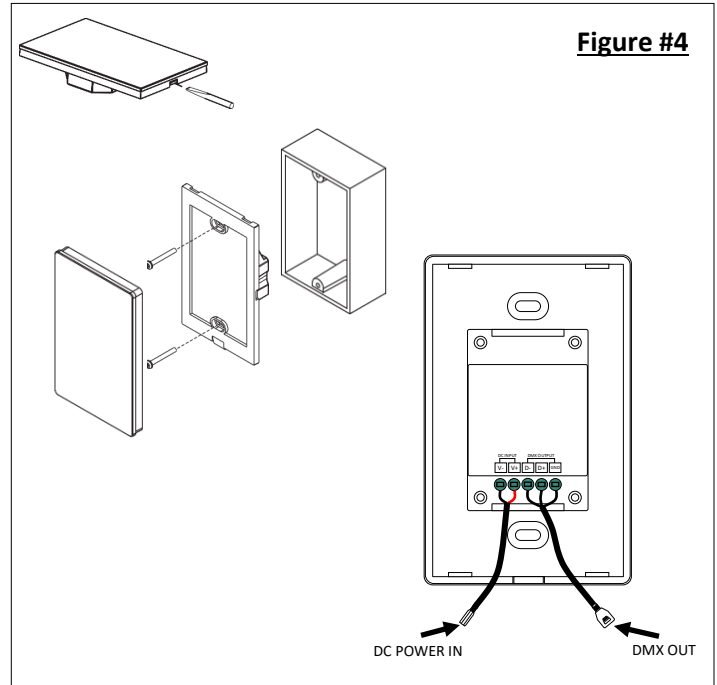


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STEP 3 - Control Unit Installation

- Control Unit Connection:**
 - At the designated control location, locate the 25ft CAT6 cable routed from the DMX driver. Connect this cable to the RJ45 pigtail on the control.
 - Locate the 50ft DC power cable and connect it to the DC pigtail on the control.
- Faceplate Removal:** Locate the small opening on the bottom of the control. Using a flat-head screwdriver, carefully insert it into this opening to separate the faceplate from the base (refer to Figure 4).
Note: If your control features a dial, remove the knob before detaching the faceplate.
- Base Mounting:** Secure the control unit base to an electrical box or wall using the provided screws.
- Faceplate Attachment:** After securing the base, align the faceplate with the base, starting from the top. Press the faceplate firmly onto the base, working your way down until it snaps securely into place.



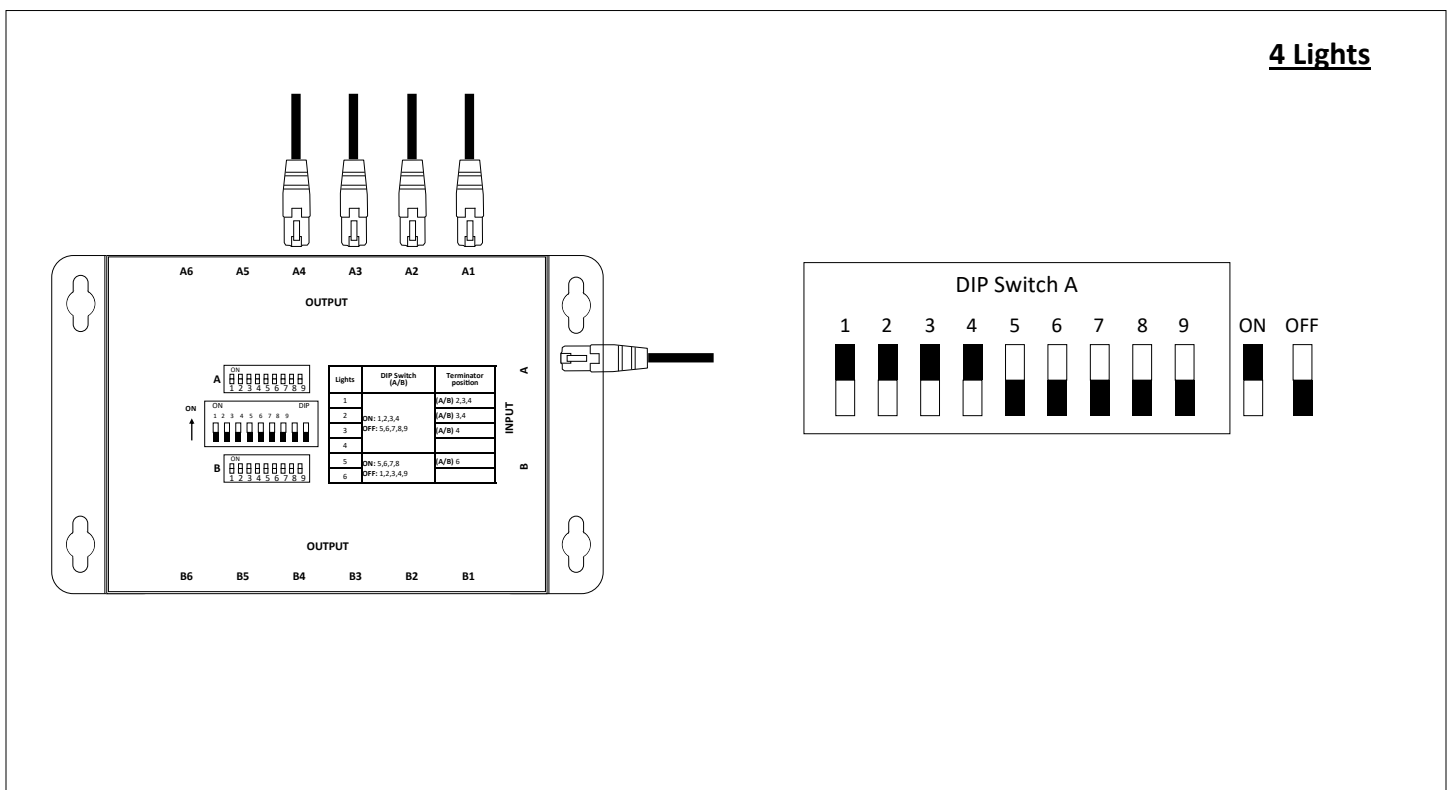
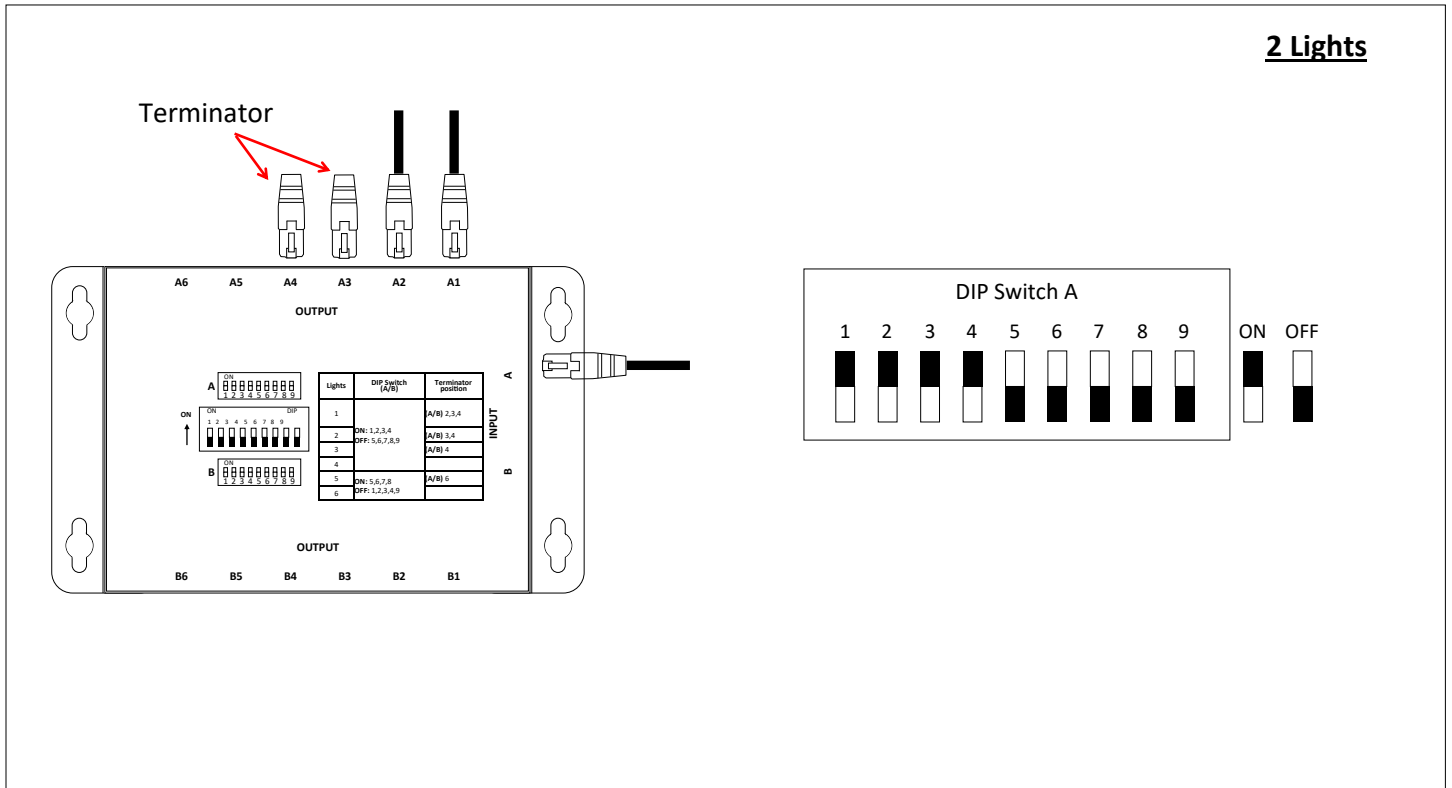
STEP 4 - Startup and Testing

- Power Connection:**
 - Once all installation steps are complete, connect the female end of the 4-port DC splitter to the male connector from the power supply.
 - Plug the power supply into the 120VAC electrical outlet.
- DMX Driver Verification:** Verify that the DMX driver illuminated and the display shows “001.”
Note: If driver is not displaying “001” or any other number after powering on, refer to troubleshooting guide on page 13.
- Light Function Test:** At the control unit, cycle through various color options to test functionality.
- Troubleshooting:** Should you encounter any issues during startup, refer to the troubleshooting guide on page 13.

OUTPUT BOX SETTINGS

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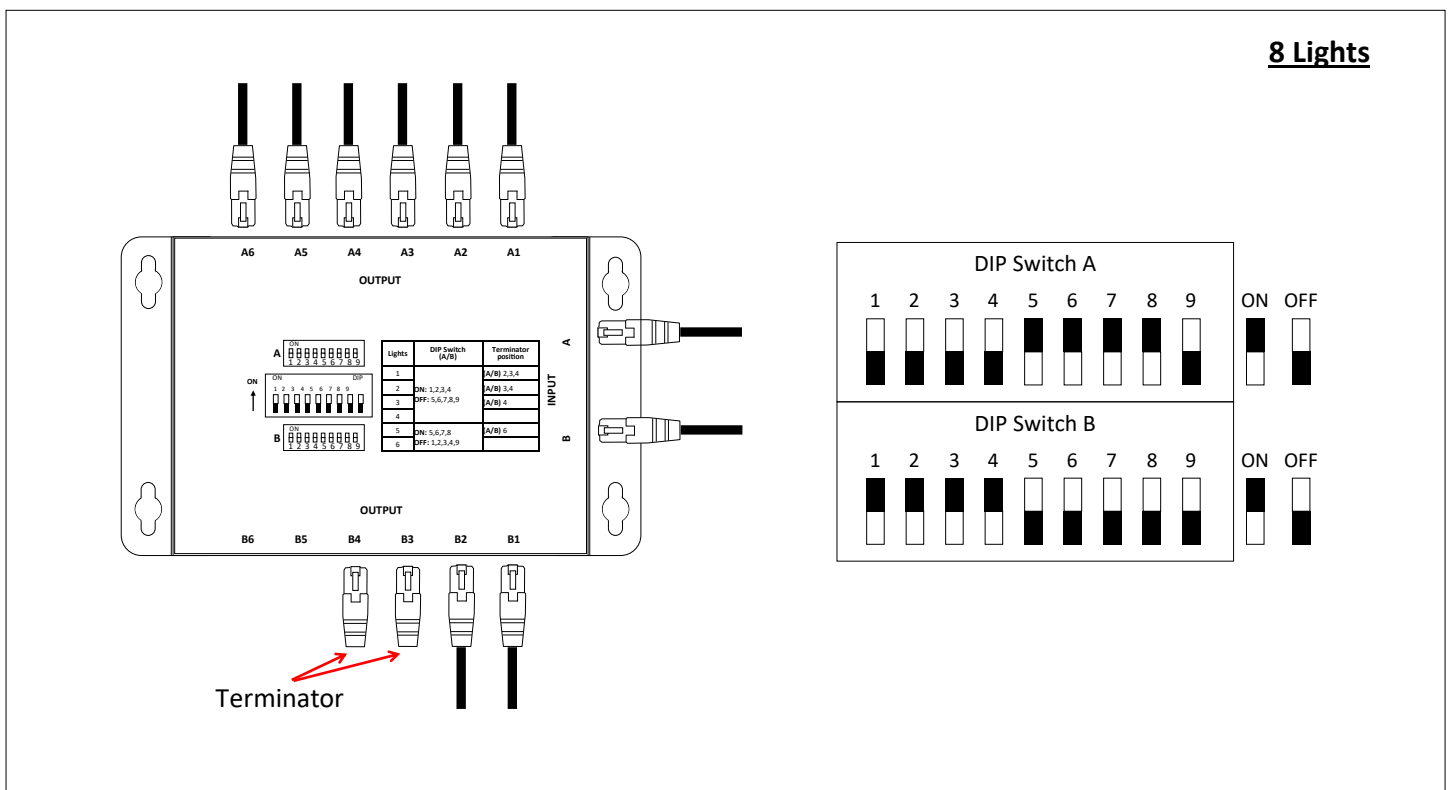
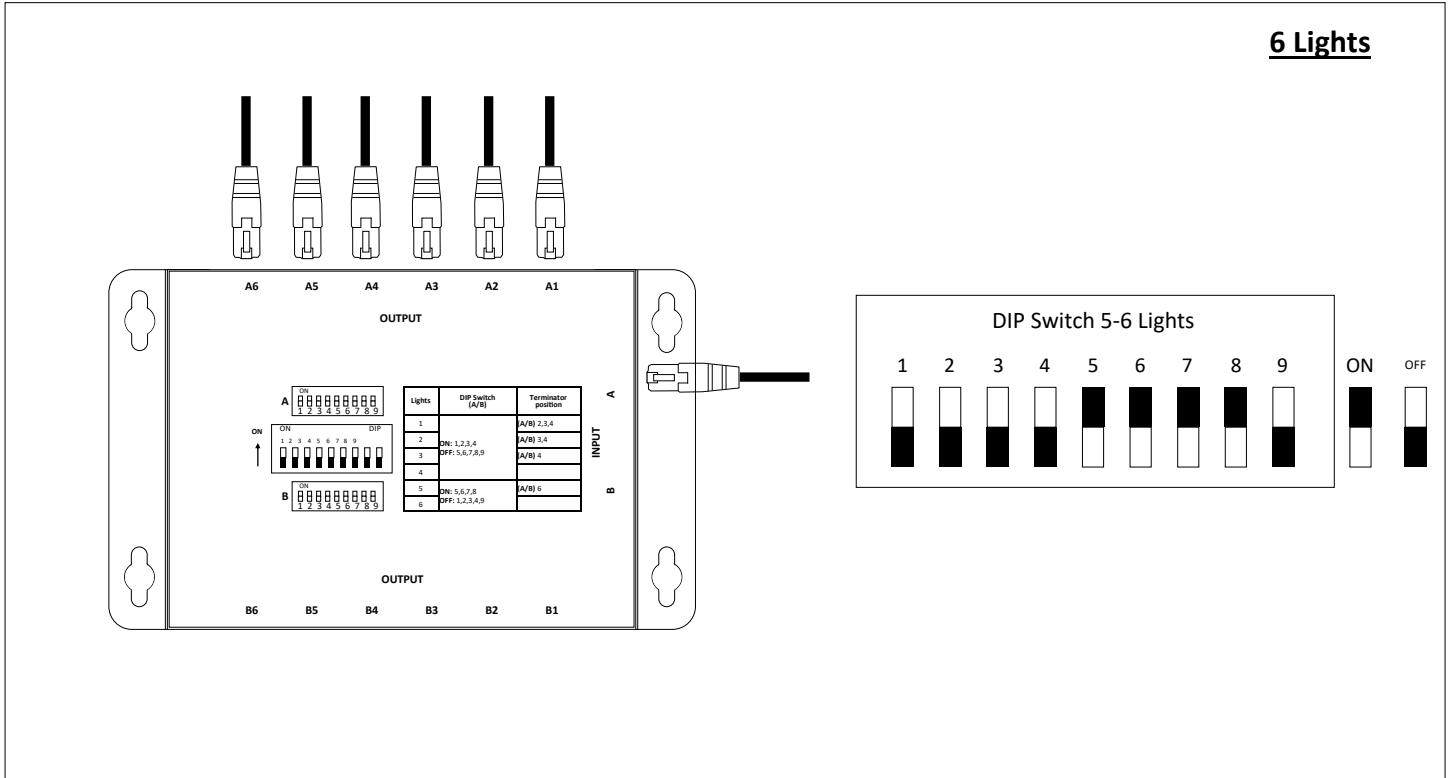
Note: Input **A** will handle up to 6 lights. If using **7-12** lights then both inputs **A** and **B** will be used.



OUTPUT BOX SETTINGS

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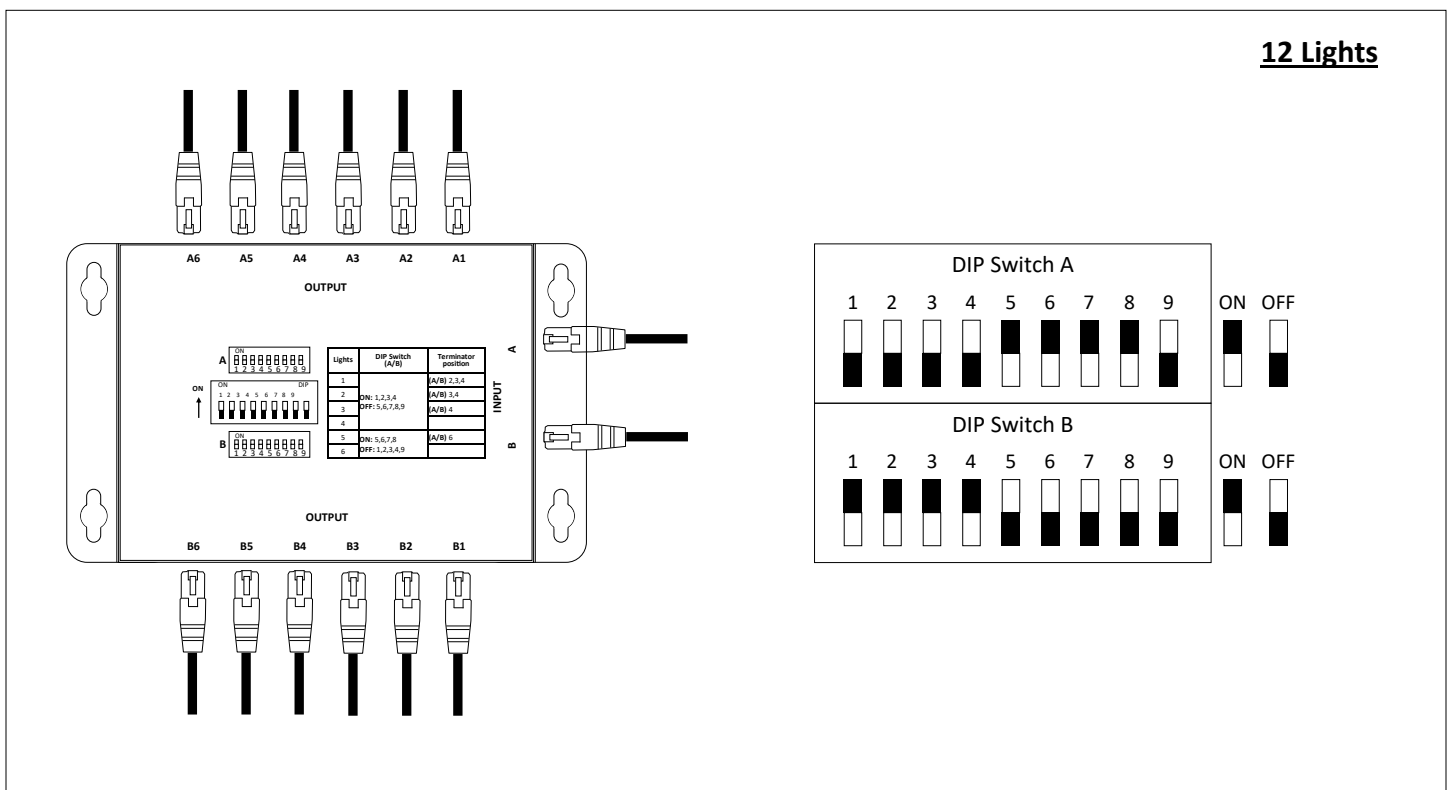
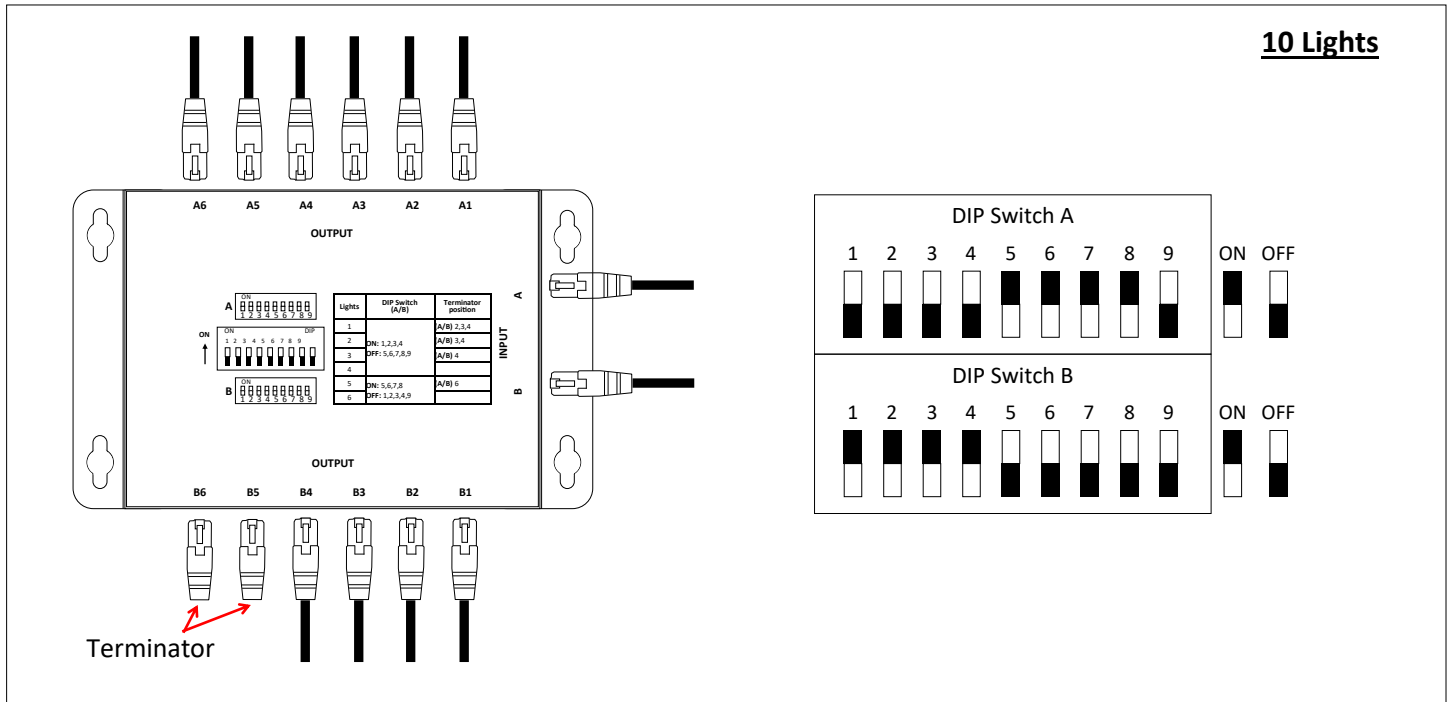
Note: Input A will handle up to 6 lights. If using 7-12 lights then both inputs A and B will be used.



OUTPUT BOX SETTINGS

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Note: Input A will handle up to 6 lights. If using 7-12 lights then both inputs A and B will be used.



No Power

- **Verify Power Source:** Ensure the electrical outlet supplying power to the system is functional and has the appropriate voltage.
- **Check DC Splitter Connections:** Inspect the connections on the DC splitter for any loose or disconnected wires. Secure all connections firmly.

Power On, But Lights Not Functioning

- **DMX Cable (CAT6):** Verify that the CAT6 cable connecting the DMX driver to the control unit is securely plugged into both ports at each end.
- **DC Power Cable:** Confirm that the DC power cable running from the DMX driver to the control unit is securely connected on both ends.
- **Output Box Connection:** Ensure the 1-foot CAT6 cable connecting the DMX driver to the output box is securely plugged into both ports.
- **Light Connections:** Inspect all 25-foot CAT6 cables running from the output box to individual lights for secure connections at both ends.
- **Output Box Configuration:** Verify the output box is configured correctly for the number of connected lights (refer to pages 10-12 for detailed instructions).
- **Individual Light Testing:** Isolate and test each light directly by connecting it to the DMX driver independently. This will help identify any malfunctioning lights.

Note: In a series circuit, if one light fails, the entire circuit will be disrupted, causing all lights to turn off.

Lights On, But No Response from Control Unit

- **DMX Cable (CAT6):** Double-check the security and connection of the CAT6 cable between the control unit and the DMX driver.
- **DC Power Cable:** Ensure the DC power cable supplying power from the driver to the control unit is securely connected on both ends.

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

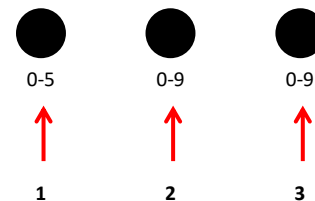
1. Press and hold button #1 for 3-5 seconds, screen will flash.
2. Press button #1, #2, and #3 until 001 displays.
3. Press and hold any button for 3-5 seconds to exit and save setting.

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

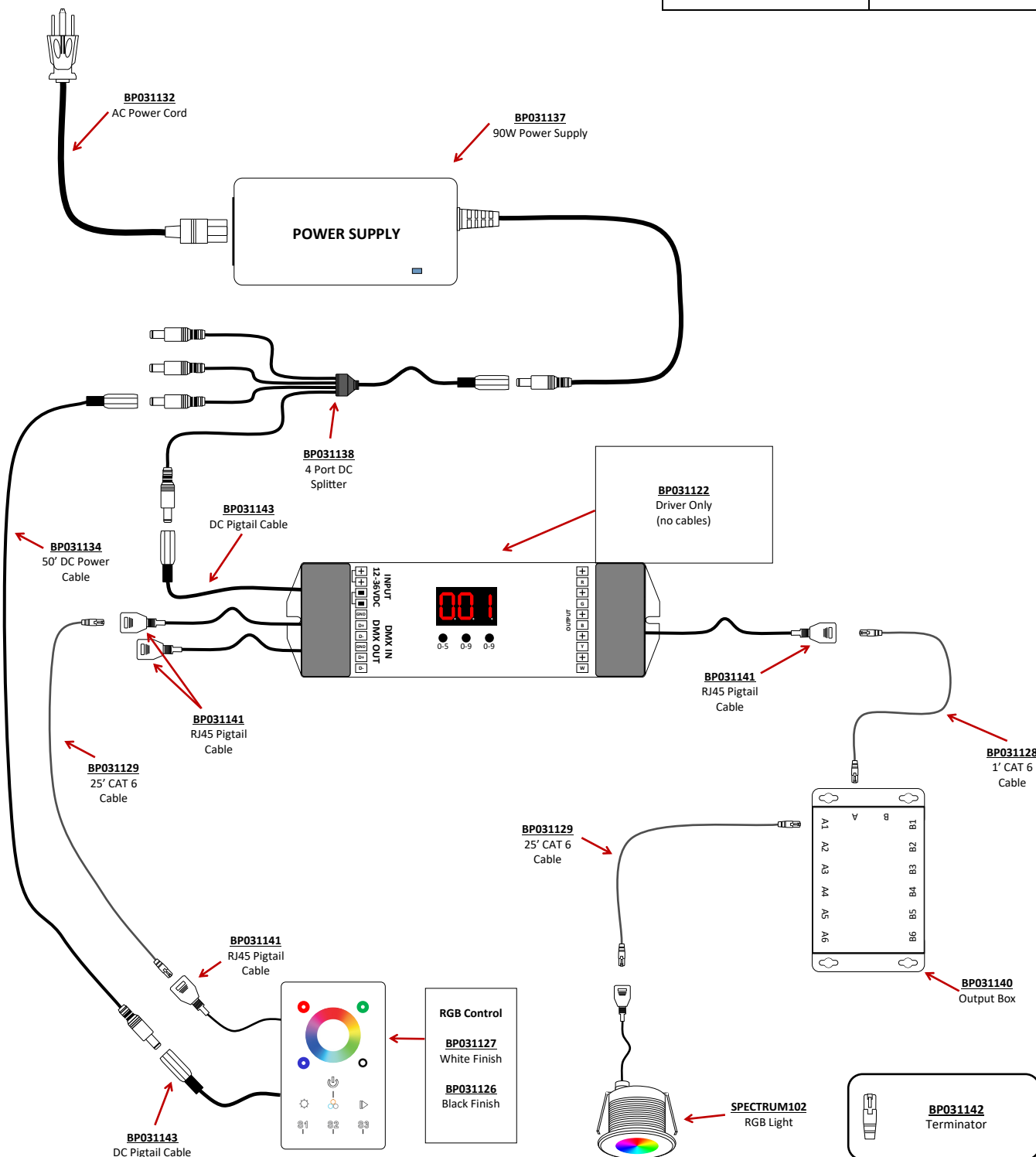
Channel - 1
Mode - ru2
DMX Address - 001
PWM Frequency - 2-2



REPLACEMENT PARTS

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Not Shown	
SPECTRUM-68-TEMP	Mounting Template



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