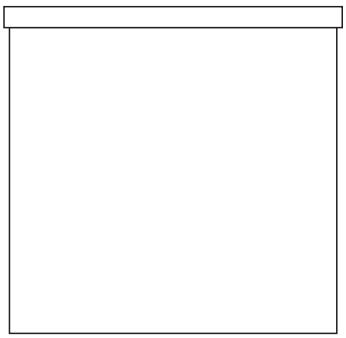
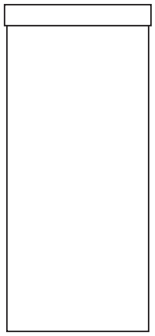
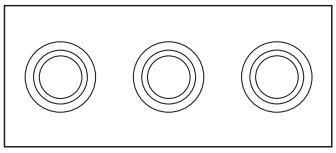
ADNM-DTV | Flicker-Free TV Studio Camera Installation Instructions

Profile Dimensions







Please verify the contents of the packages!

Please read instructions entirely before starting installation

Be sure power is turned off before installing or modifying the system

Call Tivoli, LLC tech support with questions

Caution: This Power Supply is designed to work on 120-277V AC line voltage only. Use of any other power source will cause damage, shorten the life of the fixture and will void the warranty.

Consult any and all applicable local and national codes for installation.

Do not conceal or extend exposed conductors through a building wall as per local electrical code.

Warning: With any luminaire or power supply for any application, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injuries. This power supply should be installed by a certified professional.

NOTE: Enclosure Dimension based off Power Supply and Controller Configuration.

Installation Instructions

Mounting Location Requirements

It is recommended that the enclosure be mounted with at least 10" of open space around it for proper ventilation. Do not mount next to or above heat radiating equipment. Operating under high ambient temperature may increase the internal temperature and will require a de-rating in output current. This power supply will operate efficiently between -40° C to +80° C with adequate ventilation. The enclosure is NEMA 3R rated for outdoor/wet applications.

Outdoor Installation

Step 1: Locate Power Supply enclosure (NEMA 3R rated) in a suitable outdoor location.

Step 2: Orient the box in the proper orientation for outdoor use. The solid cover must be positioned at the top to maintain water proof integrity.

Step 3: Note the spacing of the mounting holes when determining mounting location.

Step 4: Knock out access holes as needed. The 12" Box has knockouts along the bottom of the box. The 16" does not include knockouts. Cut out access holes where needed.
Caution! Be careful not to damage internal electrical components.

Step 5: Install strain reliefs (wire clamps) for ½" hole size. Input lead wires are 18AWG. Output lead wires are 14AWG.

Input Connection:

Bring external Positive (Black) and Negative (White) Power Lines through Strain Relief on the input side of the Transformer. Connect to Black and White Transformer Leads using the correct size and UL approved Wire Nuts.

Grounding: Connect the Green Ground Wire from inside the enclosure and the Green Transformer wire to incoming ground wire.

Note: The 6" X 8" box has only one Ground Wire.

Warnings and Cautions

1. Risk of electrical shock and energy hazard. All failures should be examined by a qualified technician. Do not open the case of the power supply module.

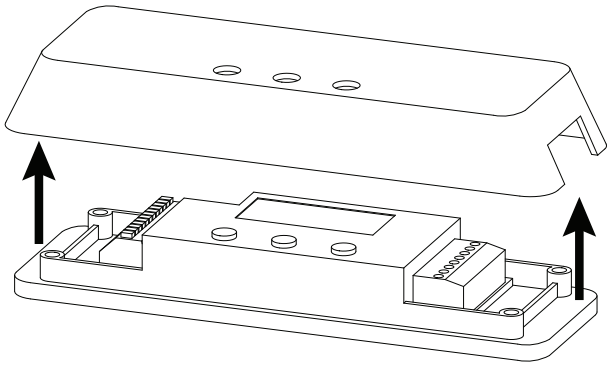
2. Do not install LED power supplies in places with high ambient temperature or close to a fire source.

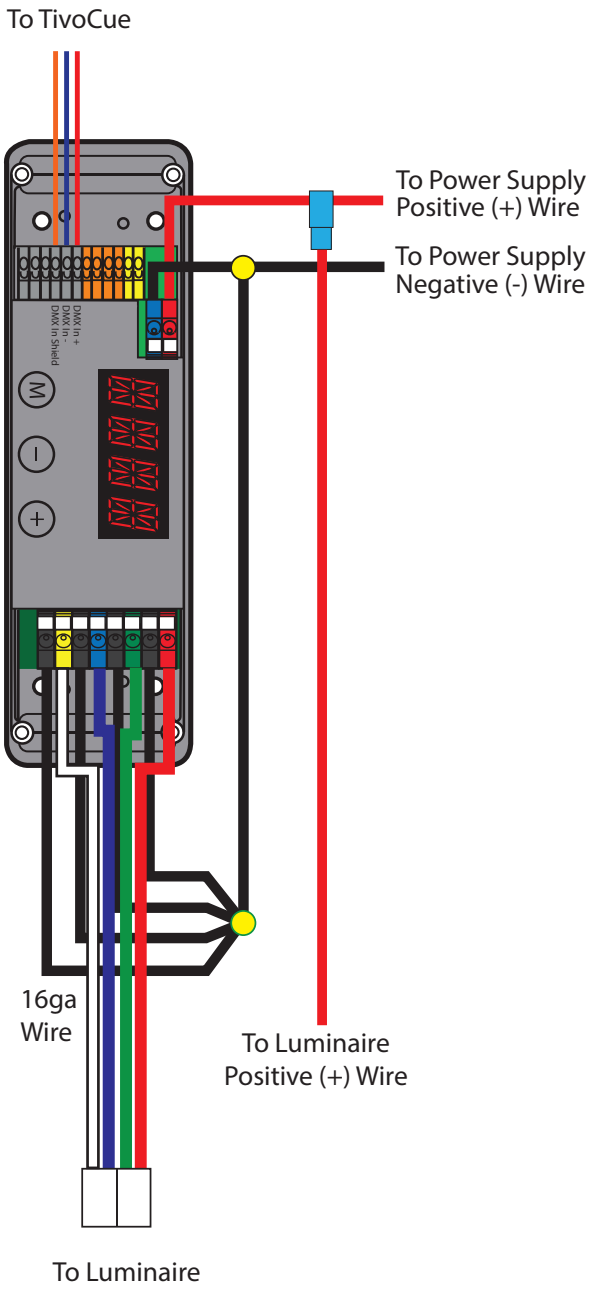
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Driver Connections





Remove DTV Controller Cover: Use a small flat blade screwdriver in the open end of the cover to release it from the base.

Connect Luminaire: Connect one luminaire linear run to eachTerminal Connector. ADNM-DTV power supplies may have from one to four circuits, depending on model. For example, the **ADNM-320-3-4-24-DTVC** can accomodate up to 3 runs of RGBW Tivotape when each run is 17' in length. **ADNM-60-1-5-12-DVT** power supply has one circuit. Installer is responsible for selecting the right size wire for run length and total wattage for each circuit. Do not exceed rated watts per circuit.

Power Supply: Connect transformer input to 120-277V AC line voltage.

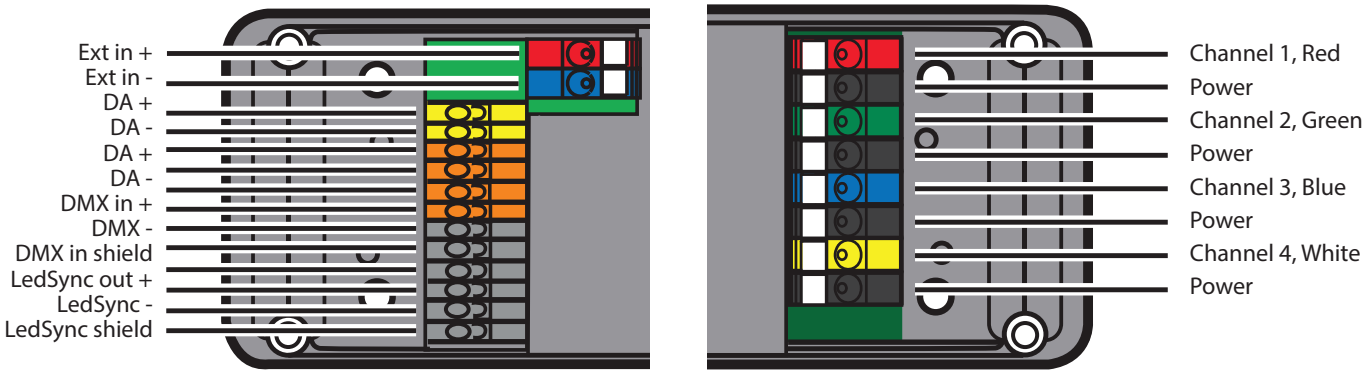
Connect DMX Controller: Connect RGB controller (DMX512 signal) to LinearDrive 720D. Connect DMX Controller to the DMX in +, DMX - and DMX in Shield connectors.

Replace Cover: Snap the Cover back down over the base of the controller.

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720D Driver Connections



12V-48V DC IN
To connect the driver to a 12-48V DC power supply, connect the power supply positive voltage supply wire to the VDC+ connector and the negative voltage supply wire to the VDC- connector. The driver and LEDs can use the same power supply.

EXT in
Connect an external control device to the driver's Ext in+ and Ext in- connectors. Configure the driver for use with as external control device over the 3-button user interface.

DA+ / DA-
Use these connectors to connect the driver to a DALI network. Always combine a DA+ and a DA- connector for either data input or data output.

DMX in/LEDSync out
Use these connectors when the driver is used in a DMX network.
For DMX in, connect the network cable's DMX+, DMX- and DMX shielding wire (the orange/white, orange and brown wire in a CAT5 cable) to the DMX in+, DMXin-, and DMX in shield connector respectively.
For LEDSync out, connect the network cable's data+, data- and shielding wire to the LEDSync out+, LEDSync out- and LEDSync shield connector respectively.

LED Lighting
Indicates the location of the connectors for your LED lighting. Red represents channel 1, Green represents channel 2, Blue represents channel 3 and White represents channel 4. The default group color allocation can be changed over the 3 button user interface.

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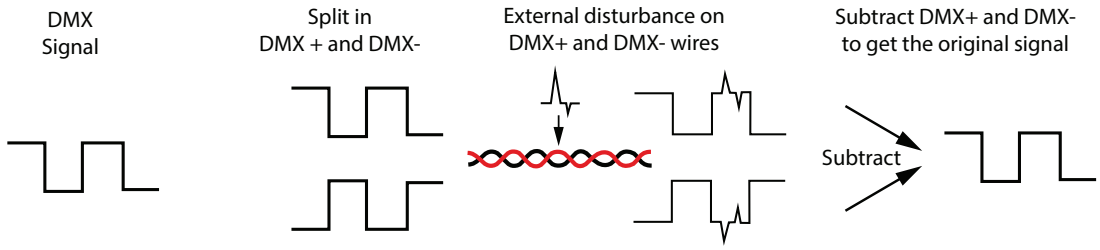
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Why Choosing The Right Cable Is Important

External disturbances

DMX is a balanced three wire system. Two wires carry the data signals and one wire acts as common reference. The advantage of a balanced system is that external disturbance signals (EMI or electromagnetic interference) can easily be reduced. Both signal lines in a balanced system carry the sam signals with opposite polarity which are subtracted from each other at the driver.

DMX cables should have twisted pair conductors. This means that each pair of wires in the cable are twisted together. This ensures that any external disturbance signal will occur equally on both signal wires (DMX in + and DMX in -). Since the driver subtracts signals on both wires, the equal disturbance signals will also be subtracted from each other and are cancelled out.

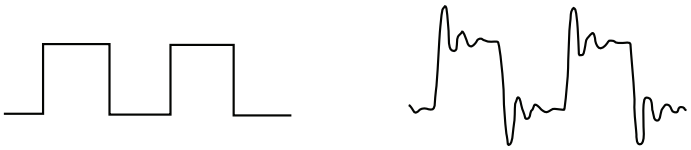


EMI reduced with balanced system

The use of a shielded cable can further reduce EMI effects. The shield prevents external disturbances from reaching the signal wires. If a shielded cable is used, do not connect the DMX shield to the mains ground.

Reflections

DMX works with high frequency signals. In an unterminated cable, thise signals will be reflected when they reach the end of the cable. These reflections can cause eratic behavior lake random flashing lights, wrong brightness levels, etc.

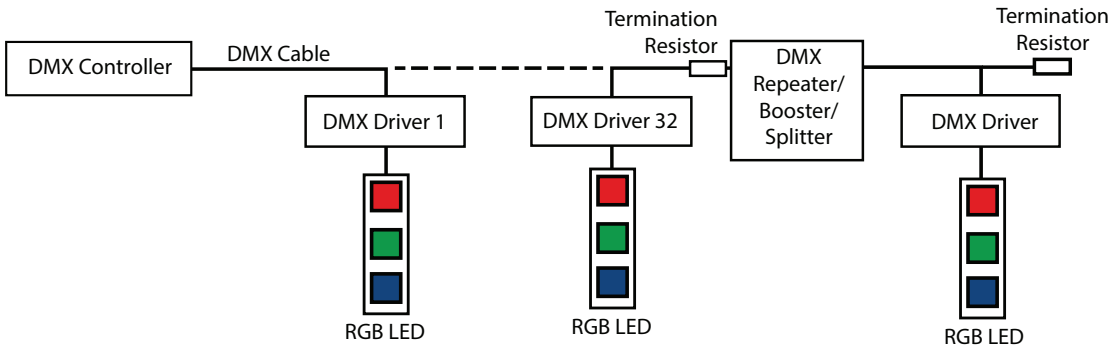


Ideal Signal

Signal With Reflections

To get the most reliable operation with minimal or no reflections. DMX cables should have an impedence of 120Ω as described in the DMX 512 standard. Cable designed specifically for DMX (or RS-485) applications is readily available and also contains a shield wire; for instance, Belden 9841 cable. In some installations Cat5 or Cat6 UTP cable can also be used. At the last driver, the cable must be terminated with a 120Ω resistor to prevent reflections. Signal loss between the controller and the last driver must be less than 328 yards.

There is also signal loss because of the loading of the connected drivers. The DMX512 standard states that a maximum of 32 unit loads can be connected to one DMX cable. One driver is one unit load. If the total unit load exceeds 32, a splitter, repeater or booster can be used. Note, however, that repeaters, boosters and splitters may also add to the total unit load.



More than 32 unit loads

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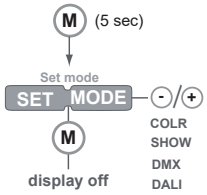
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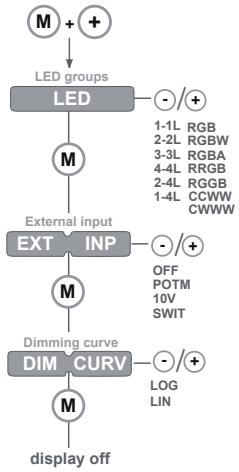
Quick Start Guide

Manual configuration

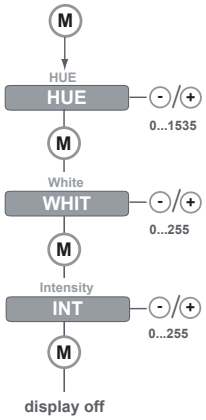
1. Select mode of operation



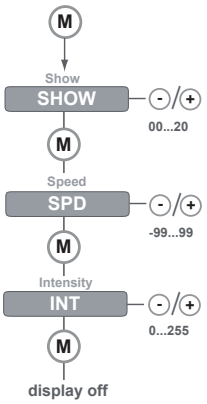
2. Set LED groups



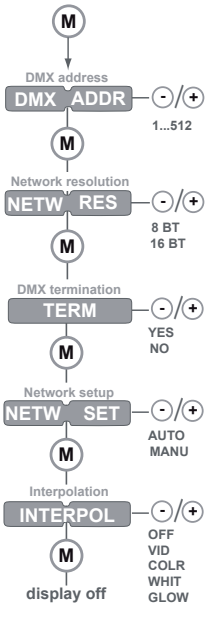
3. Standalone operation *or* - Colour*-

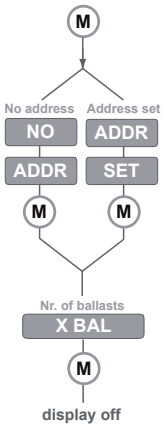


Standalone operation *or* - Show -



Networked operation - DMX or DALI -

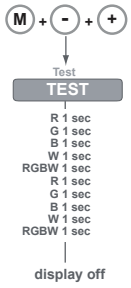




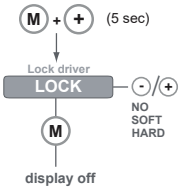
* The colour menu depends on the LED group settings you have selected in step 2.

Other features

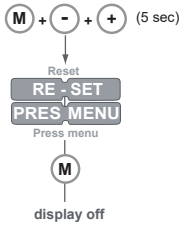
Visual test run



Locking the configuration



Reset to factory defaults



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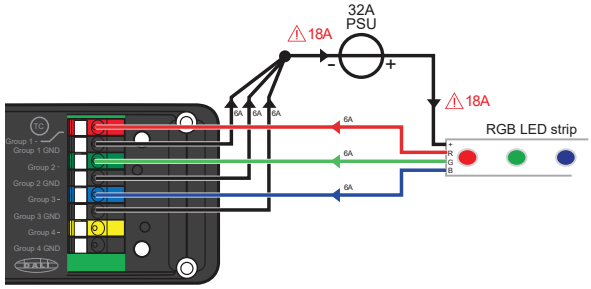
Configuration Options

Connecting an RGB LED strip

Maximum current per output: 6A

Use a star connection for the ground wires and keep the length of the wires that deal with high amperages under10 - 15cm / 3.9 - 5.9 inch.

Configuration of the LED groups:
Press M and + simultaneously, in the LED menu choose RGB and save this setting by pressing M.

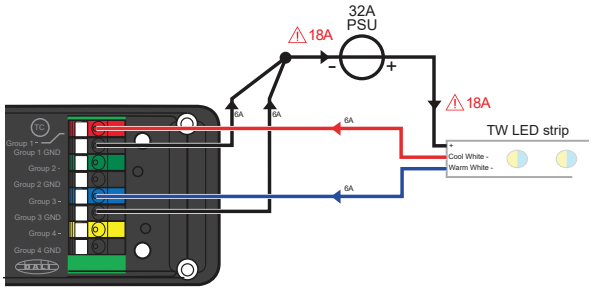


Connecting a Tunable White LED strip

Maximum current per output: 6A

Use a star connection for the ground wires and keep the length of the wires that deal with high amperages under10 - 15cm / 3.9 - 5.9 inch.

Configuration of the LED groups:
Press M and + simultaneously, in the LED menu choose CCWC and save this setting by pressing M.

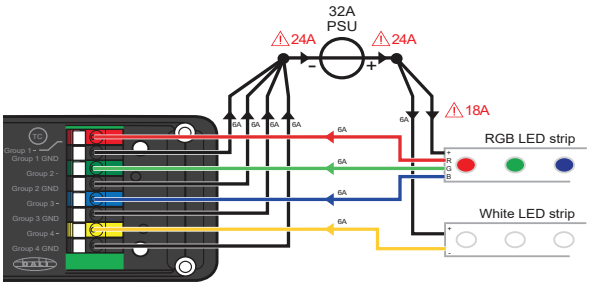


Connecting an RGB strip and a white LED strip

Maximum current per output: 6A

Use a star connection for the ground wires and keep the length of the wires that deal with high amperages under10 - 15cm / 3.9 - 5.9 inch.

Configuration of the LED groups:
Press M and + simultaneously, in the LED menu choose RGBW and save this setting by pressing M.

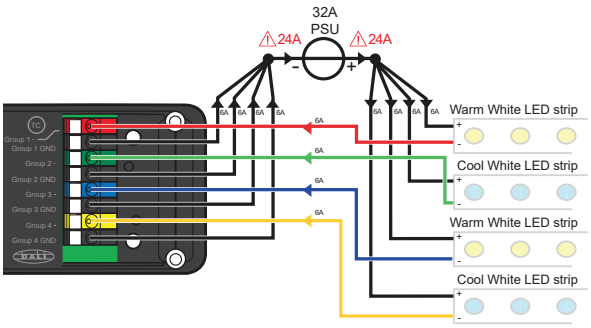


Connecting warm white and cool white LED strips

Maximum current per output: 6A

Use a star connection for the ground wires and keep the length of the wires that deal with high amperages under10 - 15cm / 3.9 - 5.9 inch.

Configuration of the LED groups:
Press M and + simultaneously, in the LED menu choose 4-4L and save this setting by pressing M.

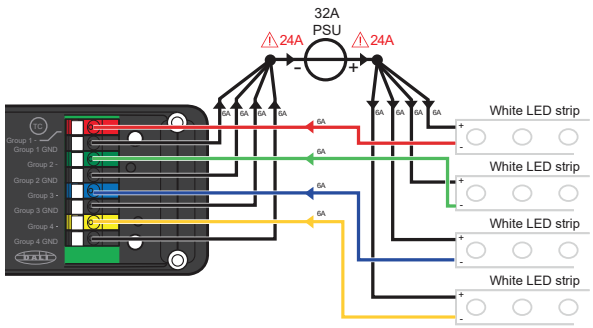


Connecting four white or self-colored LED strips

Maximum current per output: 6A

Use a star connection for the ground wires and keep the length of the wires that deal with high amperages under10 - 15cm / 3.9 - 5.9 inch.

Configuration of the LED groups:
Press M and + simultaneously, in the LED menu choose 1-4L and save this setting by pressing M.



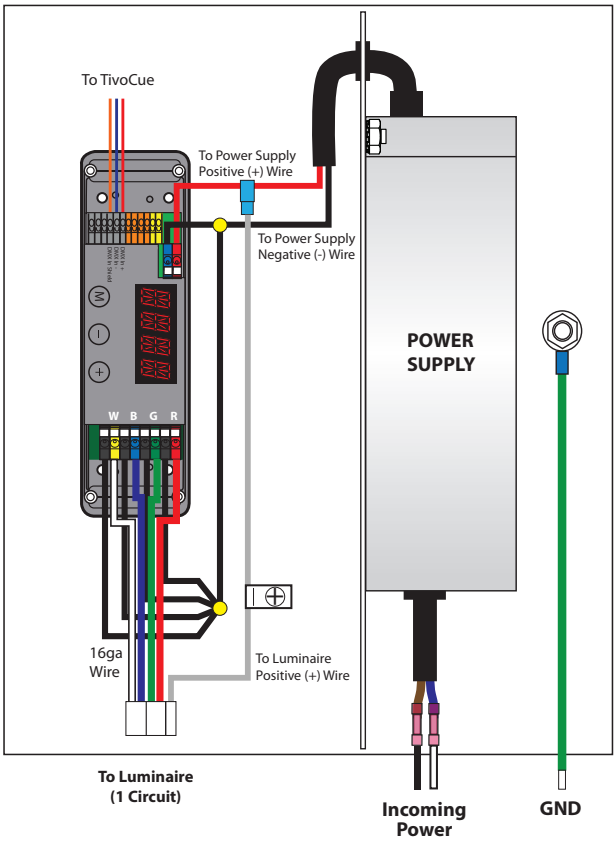
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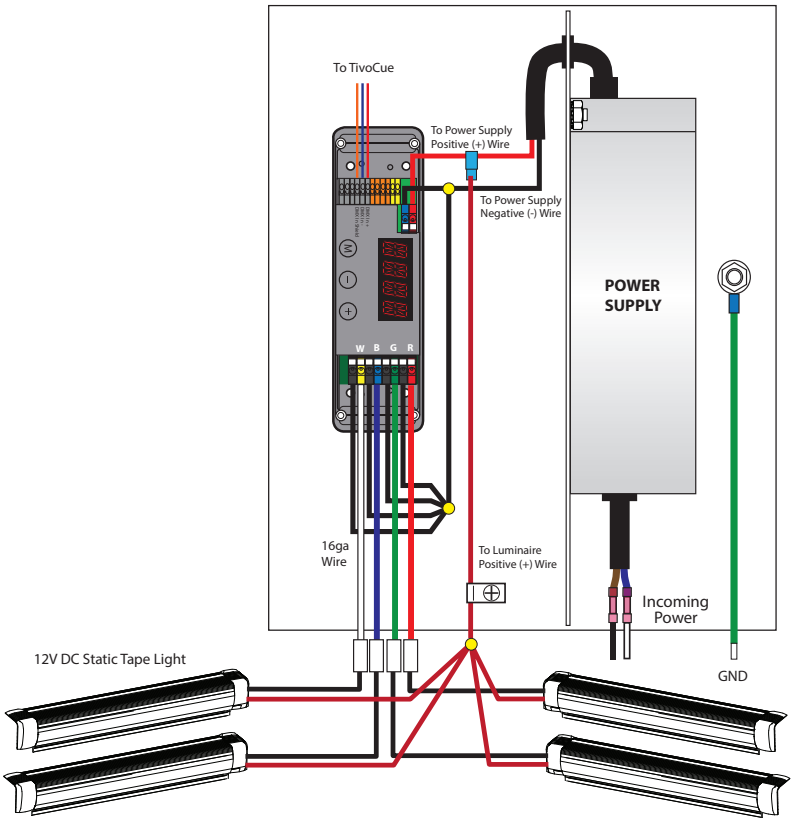
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DTV Basic Wiring Diagrams

ADNM-60-1-5-12-DTV
Outdoor (Nema 3 Rated)
60W / 1 Circuit X 5A / 1 EldoLED Control
Box Size: 10"W X 10" L X 4"D





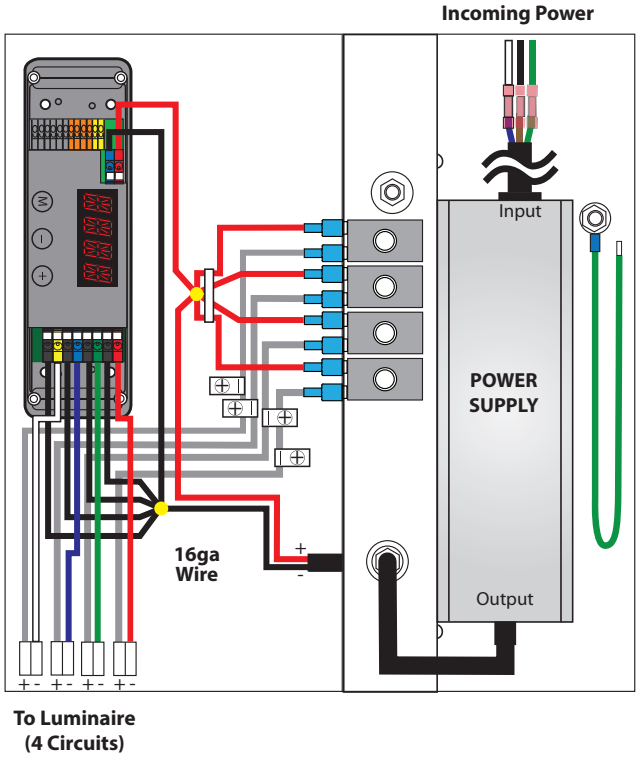
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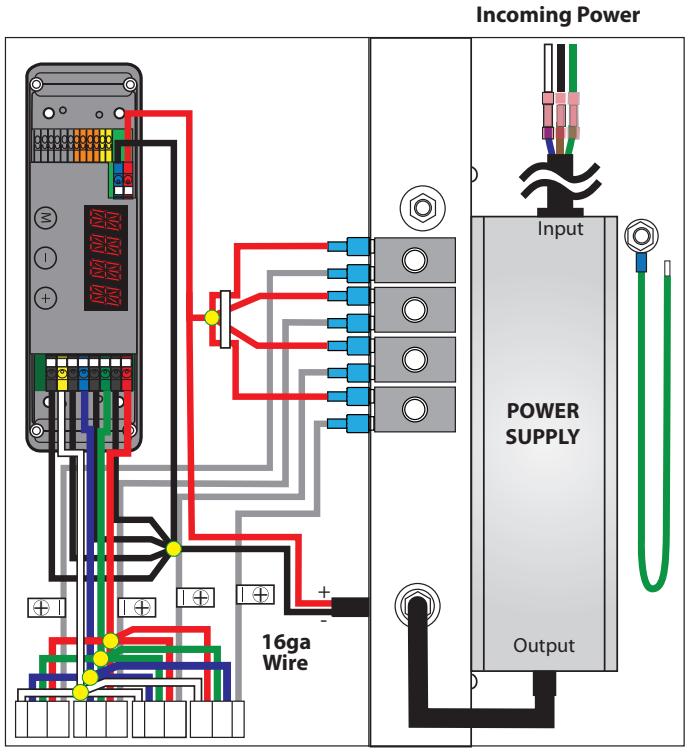
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DTV Basic Wiring Diagrams

ADNM-240-4-5-12-DTV
Outdoor (Nema 3 Rated)
240W / 4 Circuit X 5A / 1 EldoLED Controls all circuits
Box Size: 16"W X 16"W X 4D"



ADNM-320-3-4-24-DTVC
Outdoor (Nema 3 Rated)
240W / 3 Circuit X 5A / 1 EldoLED Controls all circuits for RGB/RGBW
Box Size: 16"W X 16"W X 4D"



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