LEDI

Installation Instructions

for the RGB DMX Decoder

#RGB-DMX-DECODER

RGB DMX Decoder Overview

Digital Display for DMX Channels

12-36V DC Input Terminals

Ethernet (CAT-5) Input Port

Ethernet (CAT-5) Output Port

"V+" Terminal

"R" Terminal (Red)

"G" Terminal (Green)

"B" Terminal (Blue)

"W" Terminal (White)

0-5 Channel Selection

0-9 Channel Selection

0-9 Channel Selection

• **12-36V DC Input Terminals** - Input terminals for a low voltage, electronic DC driver

• **Digital Display for DMX Channels** - Displays the current DMX channel selected

• **"V+" Terminal** - Terminal for the positive (+) wire from an RGB connector

• **"R" Terminal (Red)** - Terminal for the red wire from an RGB connector

• **"G" Terminal (Green)** - Terminal for the green wire from an RGB connector

• **"B" Terminal (Blue)** - Terminal for the blue wire from an RGB connector

• **"W" Terminal (White)** - Terminal for the wiring from a static white run of tape light

• **Ethernet (CAT-5) Input Port** - Port for receiving CAT-5 data

• **Ethernet (CAT-5) Output Port** - Port for sending CAT-5 data

• **0-5 Channel Selection (Hundreds Place)** - Cycle through values 0-5 in the hundreds place only

• **0-9 Channel Selection (Tens Place)** - Cycle through values 0-9 in the tens place only

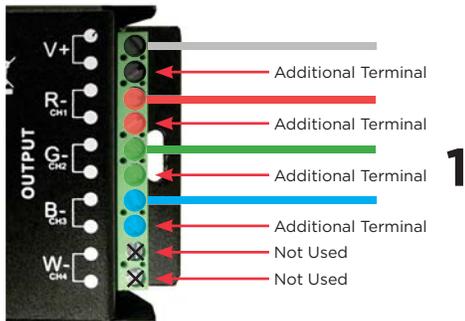• **0-9 Channel Selection (Ones Place)** - Cycle through values 0-9 in the ones place only

Installing the RGB DMX Decoder

Parts Needed	Tools Needed
x1 or More RGB DMX Decoder(s) **x1** RGB DMX Controller* **x1 or More** CAT-5 Cable(s)* **x1 or More** RGB Hardwire Connector(s)* **x1 or More** 24V DC Electronic Driver(s)* **x1 or More Run(s)** of RGB Tape Light* **x2 or More** Wire Nuts* **x1** RGB DMX Terminator**	**x1** Mini Flathead Screwdriver **x1** Wire Strippers

*Items sold separately.

**Only needed if installing three or more RGB DMX Decoders.
RGB DMX Terminators are sold separately.

IMPORTANT! ENSURE ALL AC POWER HAS BEEN SHUT OFF BEFORE PERFORMING THIS INSTALLATION!

Additional Terminal
Additional Terminal
Additional Terminal
Additional Terminal
Not Used
Not Used

1

Using an RGB Hardwire Connector, wire the stripped ends of the connector to the OUTPUT terminals of the RGB DMX Decoder. Use the "V+" terminal for the gray (or black) wire, the "R" terminal for the red wire, the "G" terminal for the green wire, and the "B" terminal for the blue wire. Screw down each terminal with a mini flathead screwdriver to secure the wire.

**Note: The "W" terminals will not be used.**

Tip: In the event you need to wire more than one RGB Hardwire Connector to the RGB DMX Decoder, you may use the additional terminal of each channel (V+, R, G, B) for any additonal RGB tape light runs . You may wire multiple runs of RGB tape light to each terminal; however, ensure the terminals allow enough space for each wire.

2
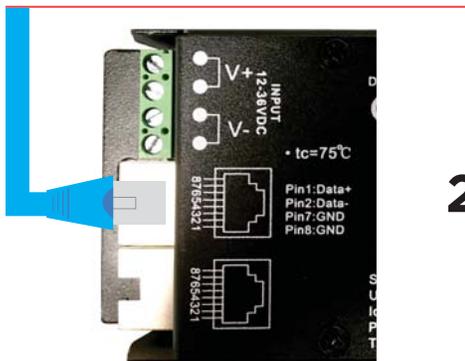
Connect the CAT-5 cable from your RGB DMX Controller to the INPUT Ethernet port.

To RGB DMX Controller

3

If wiring additional RGB DMX Decoders, connect a CAT-5 cable to the OUTPUT Ethernet port of the RGB DMX Decoder you just installed. Connect the same CAT-5 cable to the INPUT Ethernet port of your next RGB DMX Decoder. Repeat this process for any additional RGB DMX Decoders you install.

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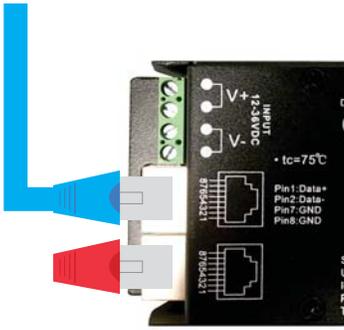
4 If installing 3 or more RGB DMX Decoders, an RGB DMX Terminator is needed to terminate the signal. Connect the RGB DMX Terminator to your last RGB DMX Decoder (opposite of your RGB DMX Controller, which is considered the first) to the OUTPUT Ethernet port.
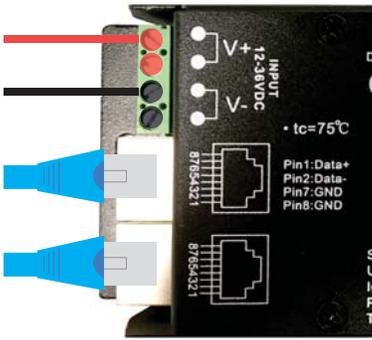
5 Wire the low voltage leads from your 24V DC Electronic Driver to the 12-36V DC INPUT terminals. Use the "V+" terminal for your positive wire, and the "V-" terminal for your negative wire. Repeat this process for each RGB DMX Decoder you've installed.
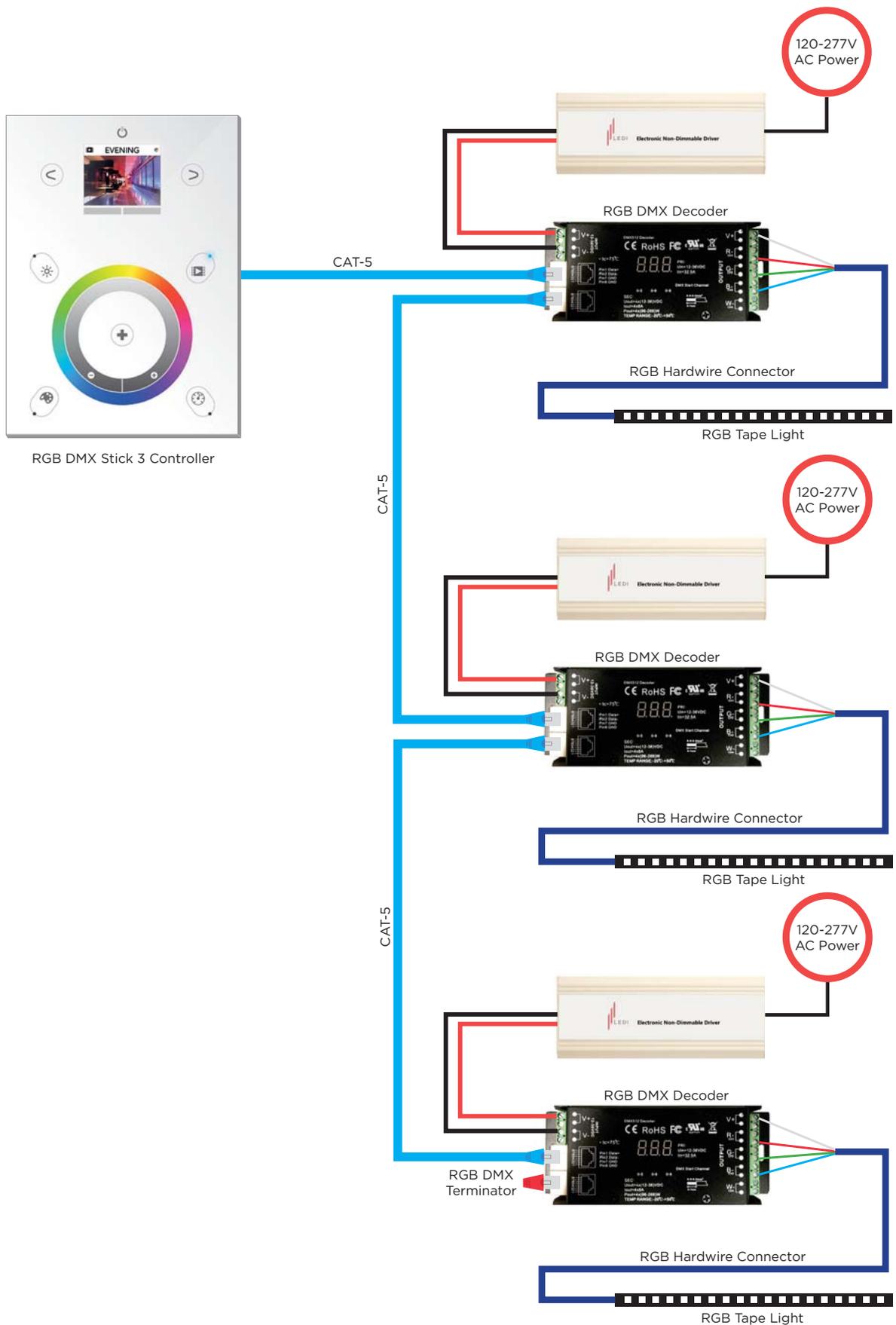
6 Wire the line voltage ends of your 24V DC Electronic Driver(s) to 120-277V AC power.

ATTENTION

1. This product should be installed and serviced by a trained professional.
2. This product is NOT waterproof and is intended for an indoor and dry environment only.
3. This product should be placed in a well-ventilated area. Excess heat and poor airflow could damage the product.
4. Please ensure all output voltages comply with the working voltage of this product.
5. Please ensure the appropriately sized wire is used from the RGB DMX Decoder to other compatible components.
6. Please do not attempt any modifications or repairs on this product. If a replacement unit is needed, please contact LEDI at (832) 717-2710.
7. This product has a 5 year limited warranty from the purchase date.

Complete System Wiring Diagram

120-277V AC Power

LEDi Electronic Non-Dimmable Driver

RGB DMX Decoder

RGB Hardwire Connector

RGB Tape Light

RGB DMX Stick 3 Controller

CAT-5

CAT-5

CAT-5

120-277V AC Power

LEDi Electronic Non-Dimmable Driver

RGB DMX Decoder

RGB Hardwire Connector

RGB Tape Light

120-277V AC Power

LEDi Electronic Non-Dimmable Driver

RGB DMX Decoder

RGB DMX Terminator

RGB Hardwire Connector

RGB Tape Light

5

RGB DMX Decoder Addressing

Introduction

The RGB DMX Decoder transfers data via the standard DMX512 protocol. There are 512 available channels, giving you the option to assign different sections of your RGB LED tape light individually. Follow the instructions below to learn how to address each section.

Digital Display & Programming Buttons

There are three programming buttons positioned below the digital display. See below for a description of each. Refer to **Figure 1A** for a visual:

"Button 1" controls the hundreds place value and can have a numeric value of 0-5.

"Button 2" controls the tens place value and can have a numeric value of 0-9.

"Button 3" controls the ones place value and can have a numeric value of 0-9.

Figure 1A

Hundreds Place Value **"Button 1"**

Ones Place Value **"Button 3"**

Tens Place Value **"Button 2"**
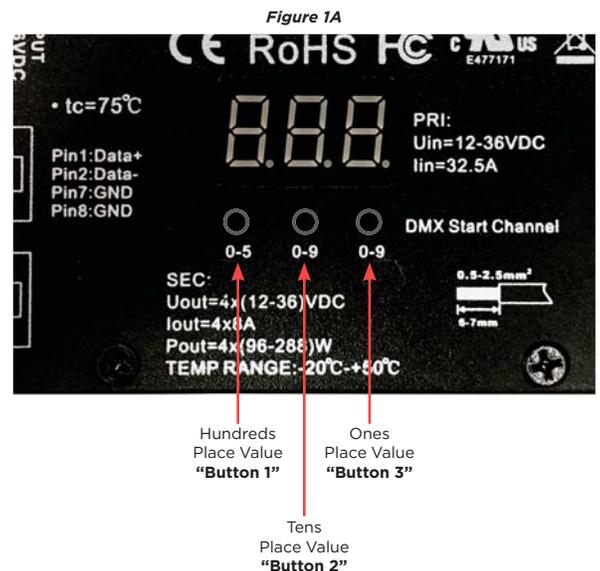
Instructions

Step 01: First, the DMX Start Channel must be set to channel 4. Press and hold "Button 2" and "Button 3" until the digital display begins to flash. While the digital display is flashing, press "Button 1" to scroll through each DMX Start Channel. When you've landed on channel 4 *(the digital display will read "4ch")*, press and hold "Button 1" to save your selection. Repeat this step for each RGB DMX Decoder.

Step 02A: Press and hold "Button 1" until the digital display begins to flash. While the digital display is flashing, press "Button 1" until the numeric value reads "0" (zero). Then, press "Button 2" until the numeric value reads "0" (zero), as well. Finally, press "Button 3" until the numeric value reads "1" (one). Press and hold "Button 1" to save your selection. The digital display should read "001". Repeat this process for each RGB DMX Decoder. Once completed, each section of RGB LED tape light will behave the same when operated by the RGB DMX Controller.

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Step 02B: First RGB DMX Decoder:

Press and hold "Button 1" until the digital display begins to flash. While the digital display is flashing, press "Button 1" until the numeric value reads "0" (zero). Then, press "Button 2" until the numeric value reads "0" (zero), as well. Finally, press "Button 3" until the numeric value reads "1" (one). Press and hold "Button 1" to save your selection. The digital display should read "001", or address 1.

Second RGB DMX Decoder:

Repeat the same process you followed for the first RGB DMX Decoder, but instead of setting the ones place value at "1" (one), set it to "2" by pressing "Button 3" until the numeric value reads "2". Press and hold "Button 1" to save your selection. The digital display should read "002", or address 2.

Any Additional RGB DMX Decoders:

Repeat the same process you followed for the second RGB DMX Decoder, setting the address differently each time and in sequential order *(ex: 003, 004, 005, etc.)*. You may adjust the tens place value and/or the hundreds place value, if need be *(ex: 010, 100, 150, etc.)*.

Step 03: Cycle through some different effects on you RGB DMX Controller to ensure each section of RGB LED tape light behaves according to how you've addressed the RGB DMX Decoders.

NOTE: If you notice sections of RGB LED tape light are cycling through effects slower than other sections even though the sections are addressed the SAME, you may need to turn off the delay setting for those RGB DMX Decoders. This can be done by simply holding "Button 1" and "Button 3" until you see "P-c" flashing on the digital display. While "P-c" is still flashing, hold down "Button 1" and "Button 3" again, until the digital display goes back to the address. Check the sections of RGB LED tape light to ensure they are synchronized.

For additional assistance, please contact LEDI's Design Department at
(832) 717-2710, or designs@ledinspirations.com.