

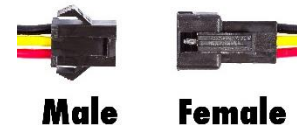
PixelControl Troubleshooting Manual

The latest in intelligent LED lighting is here, and it's amazing! Our PixelControl line combines the ability to produce millions of colors, with the technology needed to achieve individual pixel control. This new PixelControl family of LED pixel lighting gives you higher LED densities and longer lengths for building larger and brighter LED digital displays, along with the superior quality light you're accustomed to from EnvironmentalLights.com products.

This document contains helpful hints for troubleshooting your PixelControl lighting system.

Wire Colors

Many issues can be avoided by paying careful attention to the wire colors and corresponding inputs on PixelControl lights.



Red: Power

- The red wire supplies power to the PixelControl lights.
- Non-directional.
- Power can be supplied on either or both ends of lights.
- Power is defined by the required input voltage on the LED products you wish to control.
- **Before** supplying power to your lights, check if the PixelControl lights in use require 5 or 24 VDC. ****Never apply 24 VDC to 5 VDC products.** Applying 24V to strip requiring 5V will destroy the product.

Yellow: Data

- The yellow wire supplies the data signal to PixelControl lights. The data signal line supplies information to PixelControl lights, as defined by DMX input.
- Directional.
- Connect DATA channel on the DMX 512 PixelControl Decoder to the yellow wire that corresponds to Data In on PixelControl lights.

Black: Ground

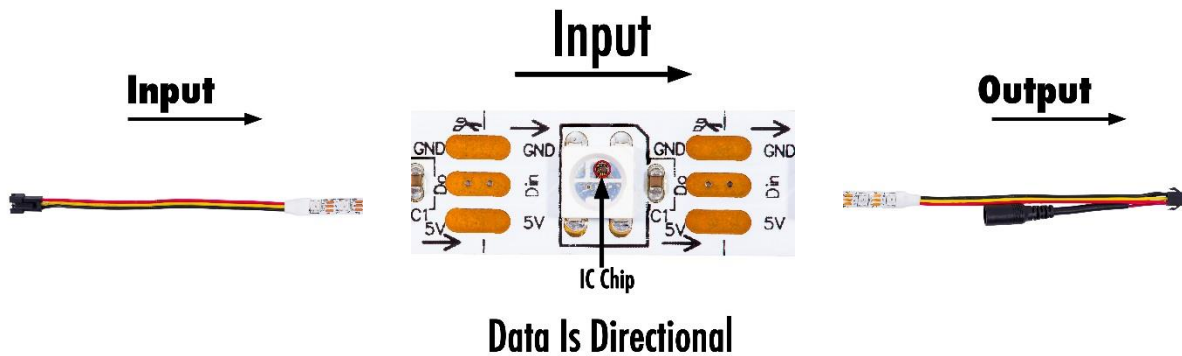
- The black wire is the common ground line for PixelControl lights.
- Non-directional.
- Ground can be connected on either or both ends.
- All ground wires in the PixelControl light system need to be connected to a common ground wire, especially when using multiple power sources.
- If all grounds are not connected, then the PixelControl lights will display erratic behavior, such as rapid flashing or flickering.

Data Input Direction

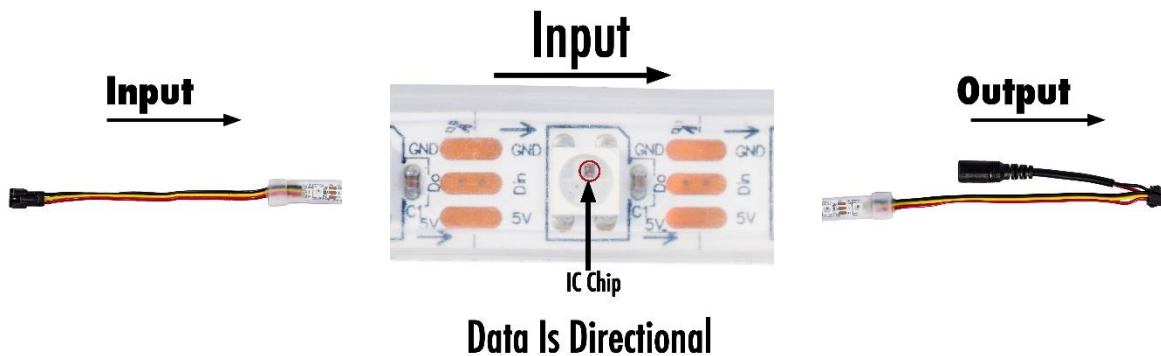
Always check to make sure that the correct input end on PixelControl lights is being used. PixelControl lights are one directional, so pay close attention to the orientation of the string. The data input direction is indicated by an arrow.

Always insert data at the female input. The LED products are labeled with arrows pointing from input to output. Data direction images are provided below for each PixelControl LED product.

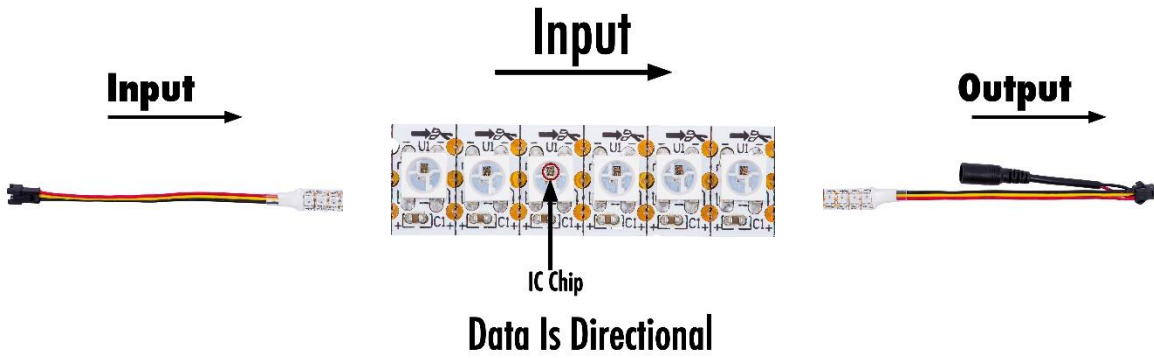
RGB PixelControl Strip Light by the 2.8-meter reel: [RGB-pixelcontrol-reel-60](#)



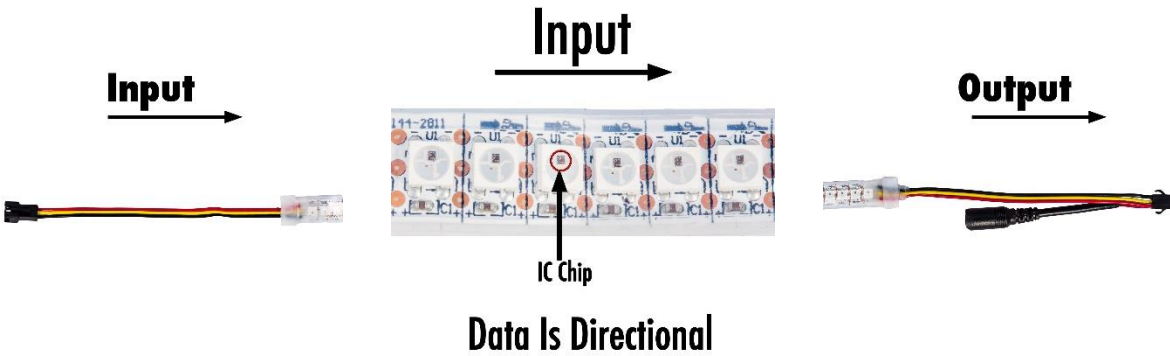
Waterproof RGB PixelControl LED Strip Light by the 2.8-meter reel: [RGB-pixelcontrol-wp-reel-60](#)



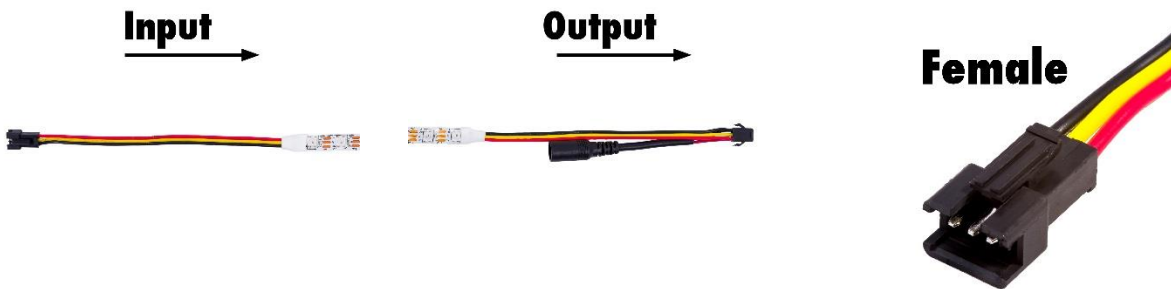
RGB PixelControl LED Strip Light by the 1.2-meter reel: [RGB-pixelcontrol-reel-144](#)



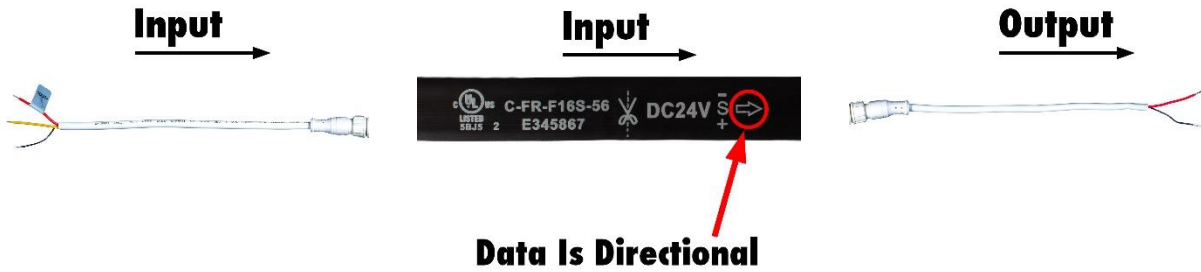
Waterproof RGB PixelControl LED Strip Light by the 1.2-meter reel: [RGB-pixelcontrol-wp-reel-144](#)



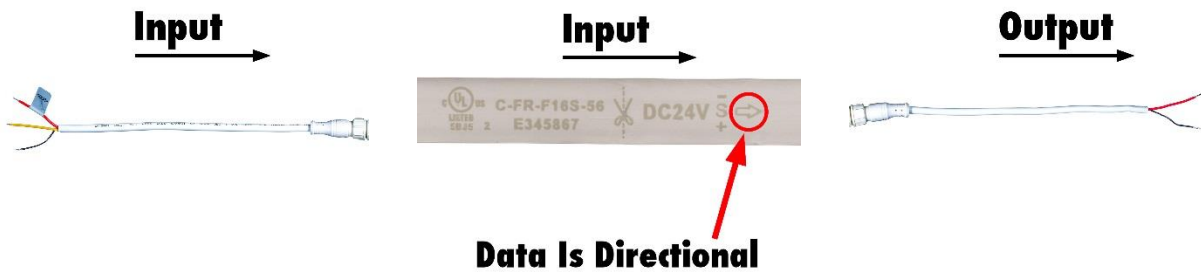
Connectors for PixelControl Strip Lights



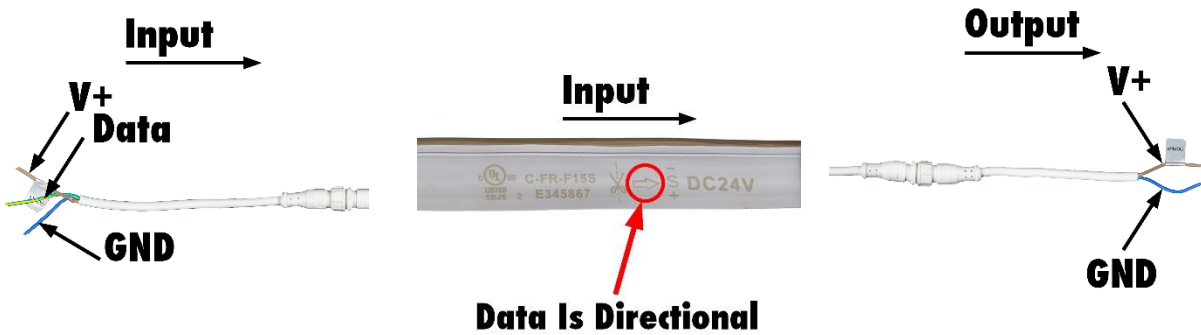
Waterproof RGB 5050 PixelControl LED Super Flat Rope, 56/m, with Black Finish, by the 20m Reel: [PSFR-RGB-B-20](#)



Waterproof RGB 5050 PixelControl LED Super Flat Rope, 56/m, with White Finish, by the 20m Reel: [PSFR-RGB-W-20](#)



Waterproof RGB PixelControl LED Neon, by the Meter: [PLN-RGB-meter](#)



Power

Always use the proper voltage for your LED products – application of incorrect voltage can permanently damage your PixelControl lights. The required voltage for PixelControl lights is either 5 or 24 VDC.

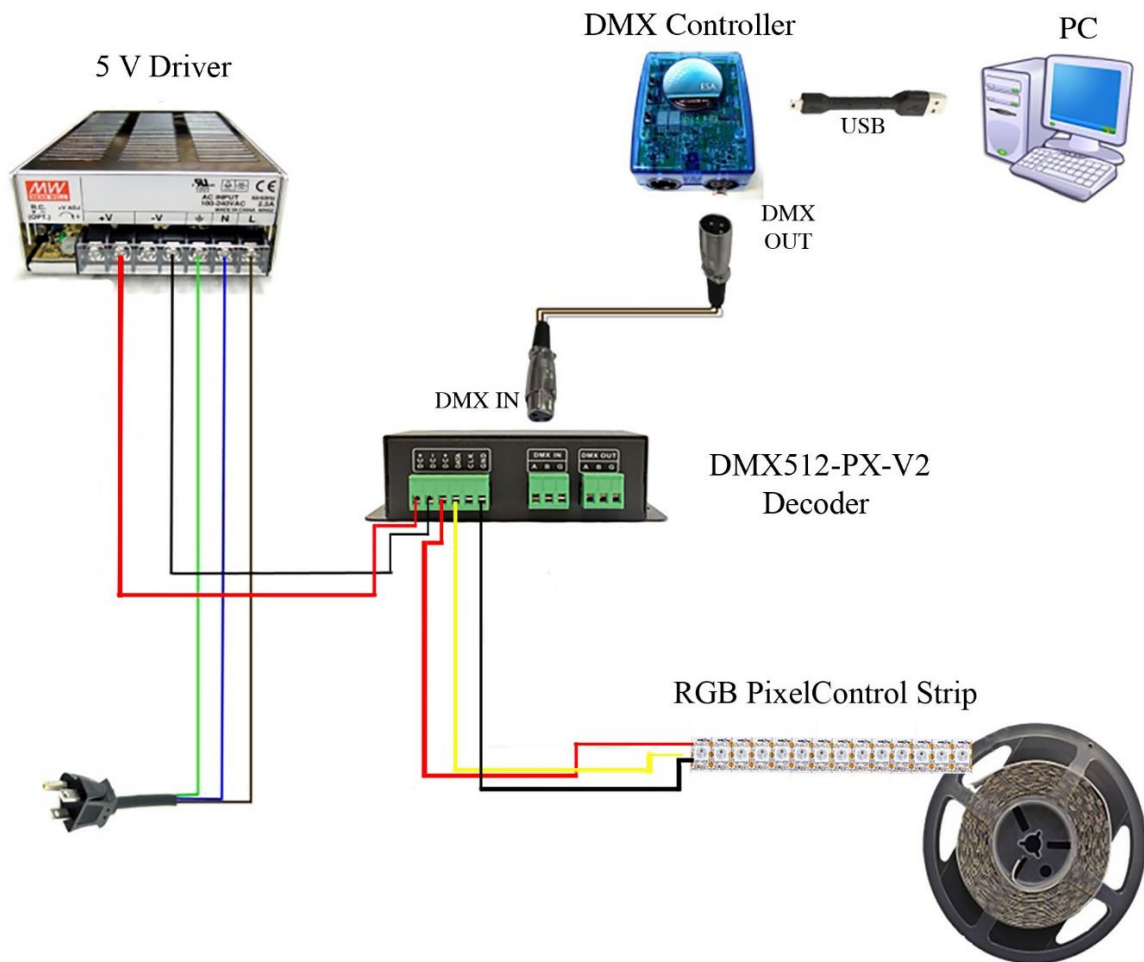
Please use the chart below to verify the required input voltage of your PixelControl lights:

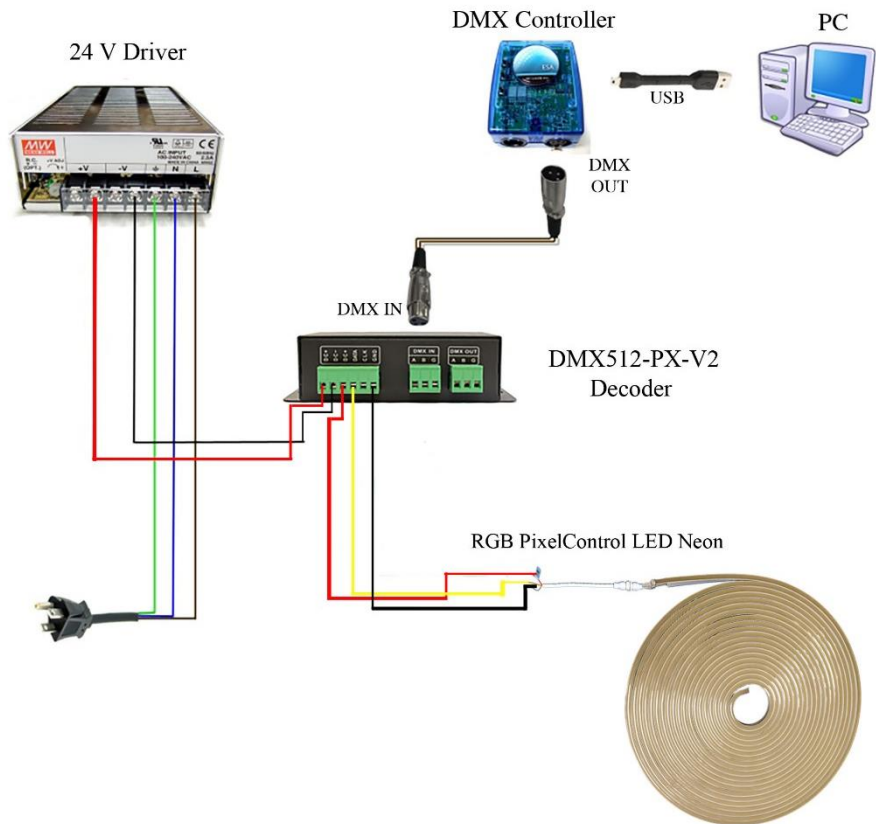
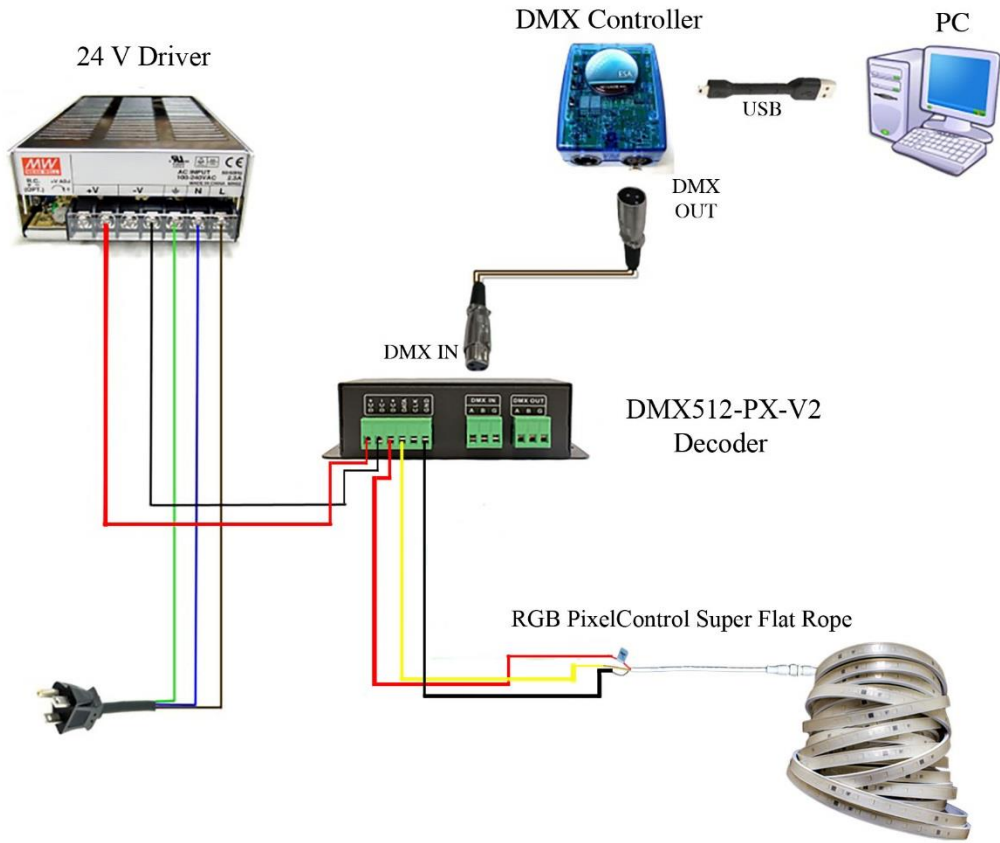
5 VDC	24 VDC
RGB PixelControl LED Strip Lights	Waterproof RGB PixelControl LED Neon
Waterproof PixelControl LED Strip Lights	Waterproof RGB 5050 PixelControl LED Super Flat Rope, 56/m

Refer to the [DMX 512 PixelControl Decoder Manual](#) for more information.

Circuit Diagram

Be sure to match the voltage of the power supply to the required voltage of the PixelControl LED product. The driver for PixelControl Strip Lights should be 5V while the driver for Super Flat Rope and Neon should be 24V.





Insert power at proper intervals to avoid voltage drop. Voltage drop will cause dimming or discoloration of LEDs further from the power source.

Product Name	Power Injection Length
RGB PixelControl LED Strip Light by the 2.8-meter reel	Every 2.8-meter reel
Waterproof RGB PixelControl LED Strip Light by the 2.8-meter reel	Every 2.8-meter reel
RGB PixelControl LED Strip Light by the 1.2-meter reel	Every 1.2-meter reel
Waterproof RGB PixelControl LED Strip Light by the 1.2-meter reel	Every 1.2-meter reel
Waterproof RGB PixelControl LED Neon, by the 20m Reel	Every 10 meters*
Waterproof RGB 5050 PixelControl LED Super Flat Rope, 56/m, by the 20m Reel	Every 10 meters*

*20m reels can be powered from both ends.

DMX 512 PixelControl Decoder: Dip Switch Settings

An address bit is set ON and has a value of one when it is in the down position. If you are having trouble controlling your lights via DMX and your lights appear to be steady on, then you may be in the functional test mode. **DIP switch 10 should always be “off” when in DMX mode.**

The DMX 512 PixelControl Decoder has built in functional test modes, which is active when DIP switch 10 is “on” in the down position. The different test modes can be accessed by setting the DIP switches. When in the Color Step and Color Fade modes, DIP switches 1-5 can be used to adjust the speed of the test modes. In either of these modes, if none of the DIP switches 1-5 are “on” the color will not change.

Dip Switch Settings	
1000000001	Red
0100000001	Green
0010000001	Blue
0001000001	Yellow
0000100001	Purple
0000010001	Cyan
0000001001	White
0000000101	Color Step
0000000011	Color Fade