

How to install an RGB controller and RGB Signal Extender when necessary

An RGB Controller is essential to any RGB LED project or system. Hooking up an RGB Controller to your common anode LED Lights is a pretty straight forward process. Incorrect wiring or over driving the controller can result in the product simply not working, flickering lights, and can ultimately damage the product. Follow these simple wiring steps in order to be sure of correct installation.

1.) Calculate the RGB Controllers Maximum Load

On all of our RGB Controller Product web pages you can find the controllers maximum wattage load. We recommend never pushing any product to the maximum load but instead leave a 10-15% cushion as to not over drive and damage any of the product. For example, this RGB Controller can handle (using all 3 channels) 144W at 12VDC and 288W at 24VDC. Subtract 10%-15% from this number for a proper cushion, leaving you with a max load of around 130W at 12VDC or 260W at 24VDC.

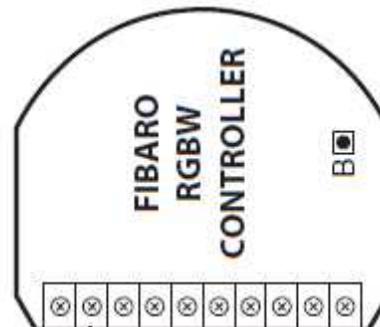
SPECIFICATIONS	
Model	Wireless Synchronized RGB Controller
Master SKU	LC-LN-RGBC-WM
Slave SKU	LC-LN-RGBC-WS
Dimensions	4.96"L x 2.56"W x 1.18"H
Operating Temp.	0°F - 125°F
Constant Voltage Input Power	12VDC-24VDC
Constant Voltage Output Power	12VDC-24VDC 4A per Channel Max
Watts	12VDC - 144W Max 24VDC - 288W max
Warranty Period	1 Year

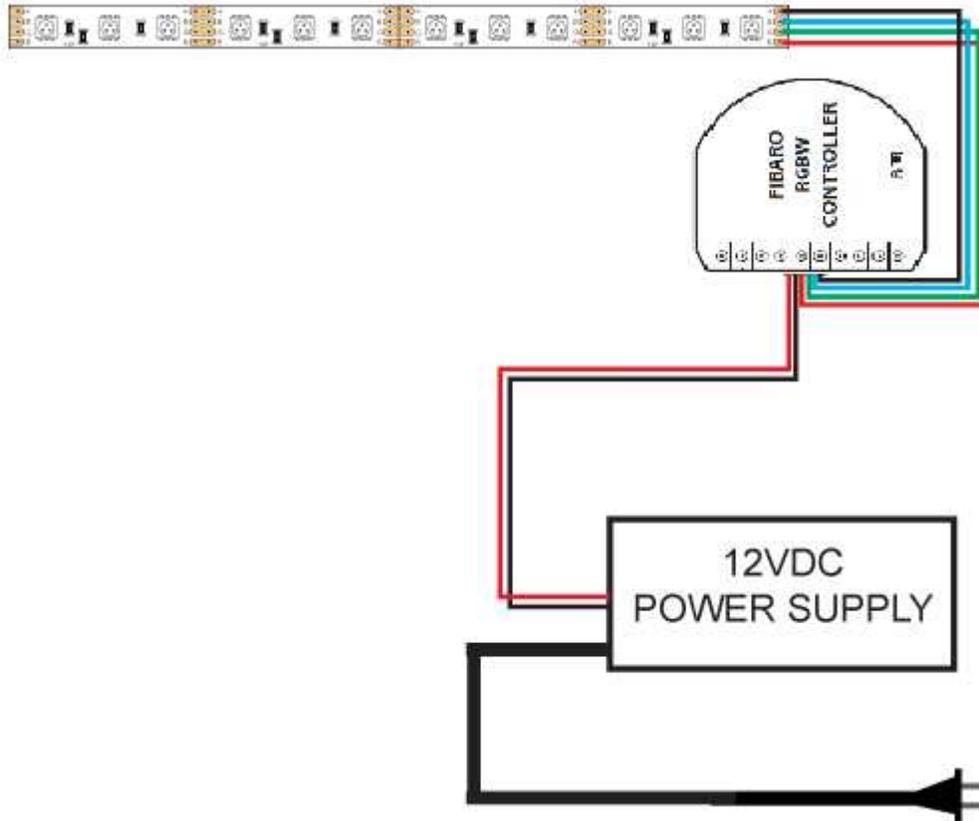
2.) Determine a Sufficient Power Supply

See our [Power Supply Tutorial](#) to further educate yourself on determining a sufficient power supply for your product. Mainly you must be certain that your power supply is large enough to handle the power load that will be coming from your RGB Controller.

3.) Hook up your RGB Controller

Once you have determined a sufficient RGB Controller and DC Power Supply you can then simply hook up your RGB Controller to your LED system. The RGB Controller will come after the power supply and will have a DC input for power in from your DC power supply and a four port terminal or four lead wire output to send a control signal to your LED Lights. See the illustration below for reference. If you would like to hook up a large amount of RGB LED Lights to your RGB Controller continue this tutorial for further instruction.

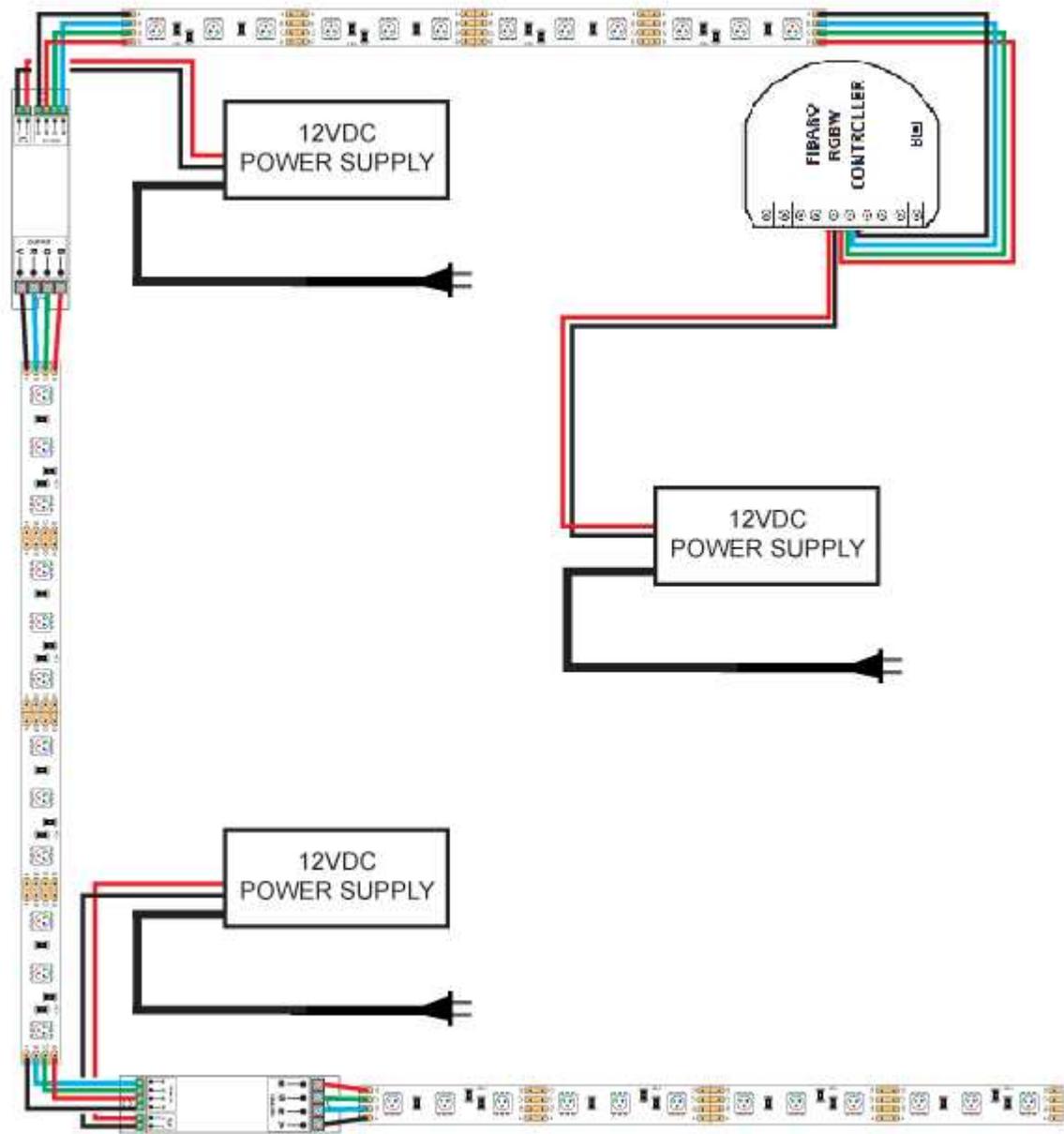




4.) Incorporating a Signal Extender

When you have a length of RGB Ribbon that has more wattage output than what your RGB Controller can handle, you must then incorporate a signal Extender. A RGB Signal Extender makes it possible to relay the RGB Control Signal as well as add additional power in the amount that the RGB Signal Extender can handle. You can add an unlimited amount of signal Extenders to your RGB LED project, Extenders can be installed in-line with your lights or at the beginning of your setup. Note: The longer your wire runs from your signal Extender, the weaker the signal will be to your lights, we recommend not running wire from either controller or RGB Signal Extender over 50ft. See the illustrations below for reference.

Example of In-Line RGB Signal Extender Installation



Example of RGB Signal Extender Installation with components at Beginning