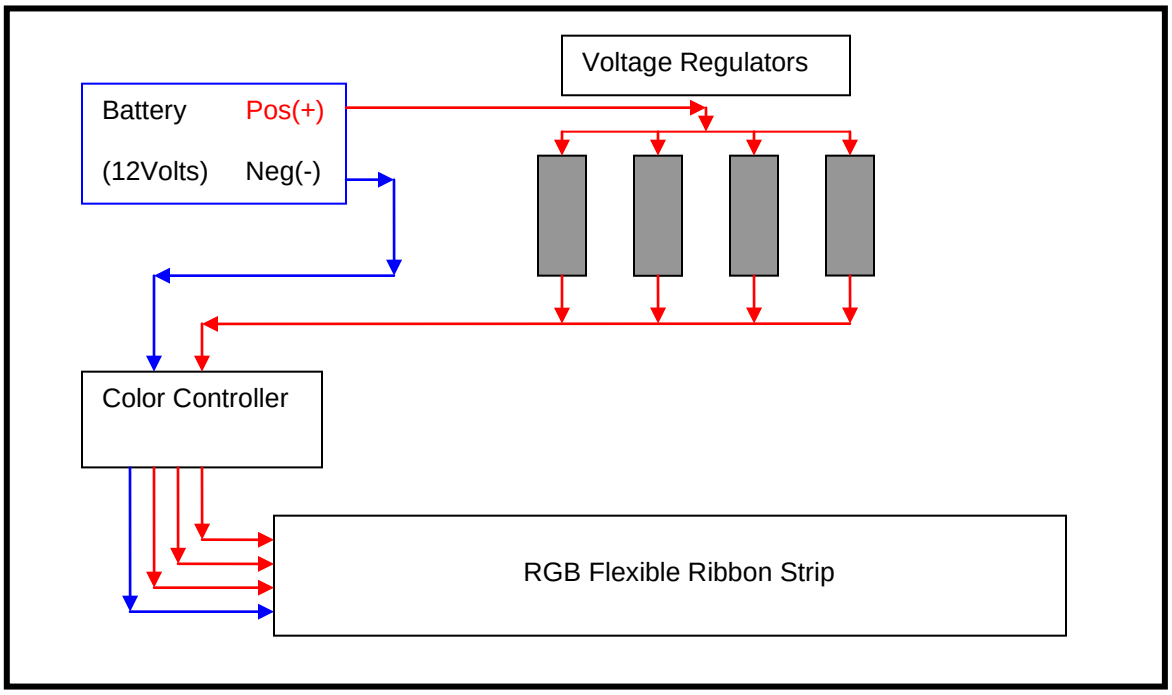
When using a solar system, automotive, motorcycle or even a marine battery, there are often more than 12 volts in the battery. LEDs can not withstand voltage beyond 12 volts unless the particular product specs state otherwise. They will be destroyed. To get around this problem you should use a voltage regulator to harness the voltage keeping it within the limits that the LEDs can withstand. A voltage regulator will hold the voltage from the battery at a safe level. Different regulators are rated for different current capacities, so you need to select the right regulator to protect your LEDs based on the LEDs total current consumption.

When planning your installation, first calculate the "Current Load" of the LEDs that you are going to use. In the diagram below we are using a generic length of flexible LED strip which consumes 600 mA of current per meter (approximately 3 feet). Let's say that there are 48 feet of flexible LED strip to be installed. That is the same as three full reels using 3,000 mA for each reel or 9000 mA total. If you have four voltage regulators and each one is capable of supporting 2300 mA that would mean you can support a total load of 9200 mA if you wired them in parallel, as shown in this diagram.



If you need help with selecting the correct voltage regulator for your installation, please contact one of our LED Specialists at 775-841-4490. Our office is open Monday through Friday, 7:30 to 4 PM Pacific Time. Please also feel free to email your request for help to Sales@TheLEDLight.com

Voltage regulators can be found here: http://www.TheLEDLight.com/voltage-regulators.html
Thank you for coming to TheLEDLight.com today. We appreciate your business!