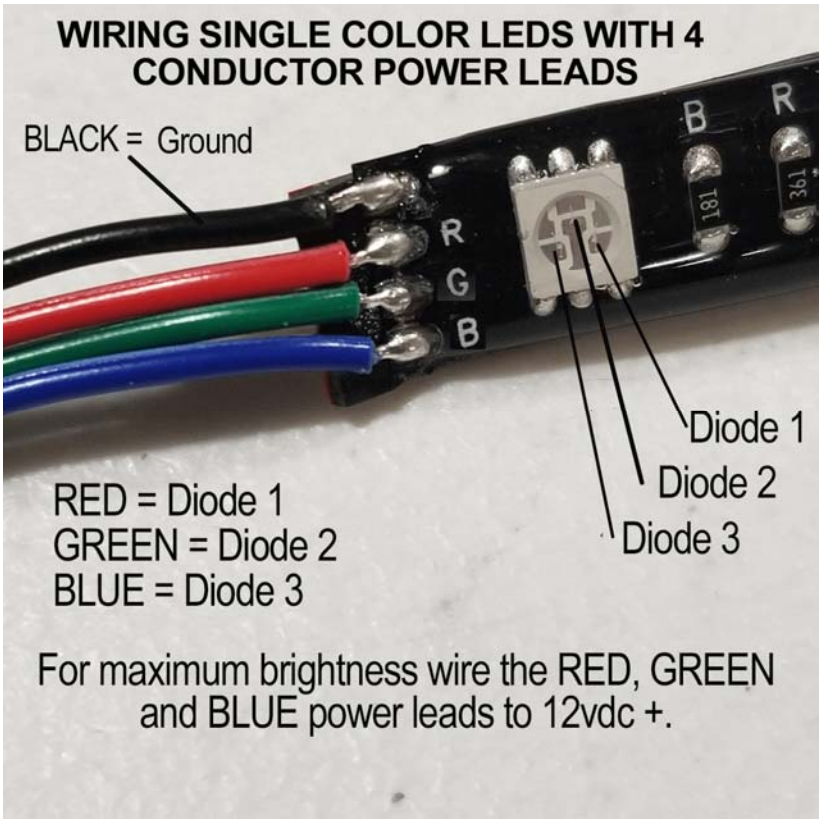
WIRING SINGLE COLOR LEDS WITH 4 CONDUCTORS

Many BOOGEY LIGHTS Single Color LED products come with four conductor power leads. This will sometimes confuse customers who are expecting a two conductor power lead (12v positive and 12v negative). To understand why we include a four conductor power lead on single color LEDs, you have to know a little more about 5050 LEDs themselves.

All 5050 LEDs are comprised of three diodes. In a multi-color (RGB) 5050 LED, those three diodes are RED, GREEN and BLUE. It's the mixing of those three colors (RGB) that creates additional colors when using an LED controller. In a single color 5050 LED, there are still three diodes. The difference is all three diodes are the same color. So for example, if your LED strip is single color red, each RED LED in that strip has three red diodes. With a four conductor power lead, three of the four conductors are connected to each diode. The fourth conductor is the ground. So in our single color RED led strip example, three power leads are connected to each one of the red diodes with the fourth conductor connected to the ground. In this scenario you have the option of lighting one, two or all three diodes in each LED. Wiring a single color LED strip this way gives you the ability to adjust the brightness of the strip based on the number of diodes you're lighting. A common use for this is if you wanted to use a single color red led strip for a brake/tail/turn signal integration, you could wire one diode to the tail light, one diode to the turn signal and two diodes to the brake. Anytime the brake is pressed, two of the three diodes will light making the strip appear brighter. Of course, if you want maximum brightness all the time, you would simply wire all three diodes to 12vdc positive. The point is that with a four conductor power lead on a single color LED strip, you have some flexibility as to controlling brightness.



With Boogey Lights Single Color LEDs that have four conductor power leads, the BLACK power lead is always the ground. This is the one wire you have to make sure you wire correctly. The remaining three power lead colors (usually red, green and blue) are wired to each diode of the LED. The color of the power lead doesn't matter since the diodes are all the same color and they are all 12vdc positive. If you want maximum brightness (lighting all three diodes), you would connect the red, green and blue power leads to your 12vdc positive power source.