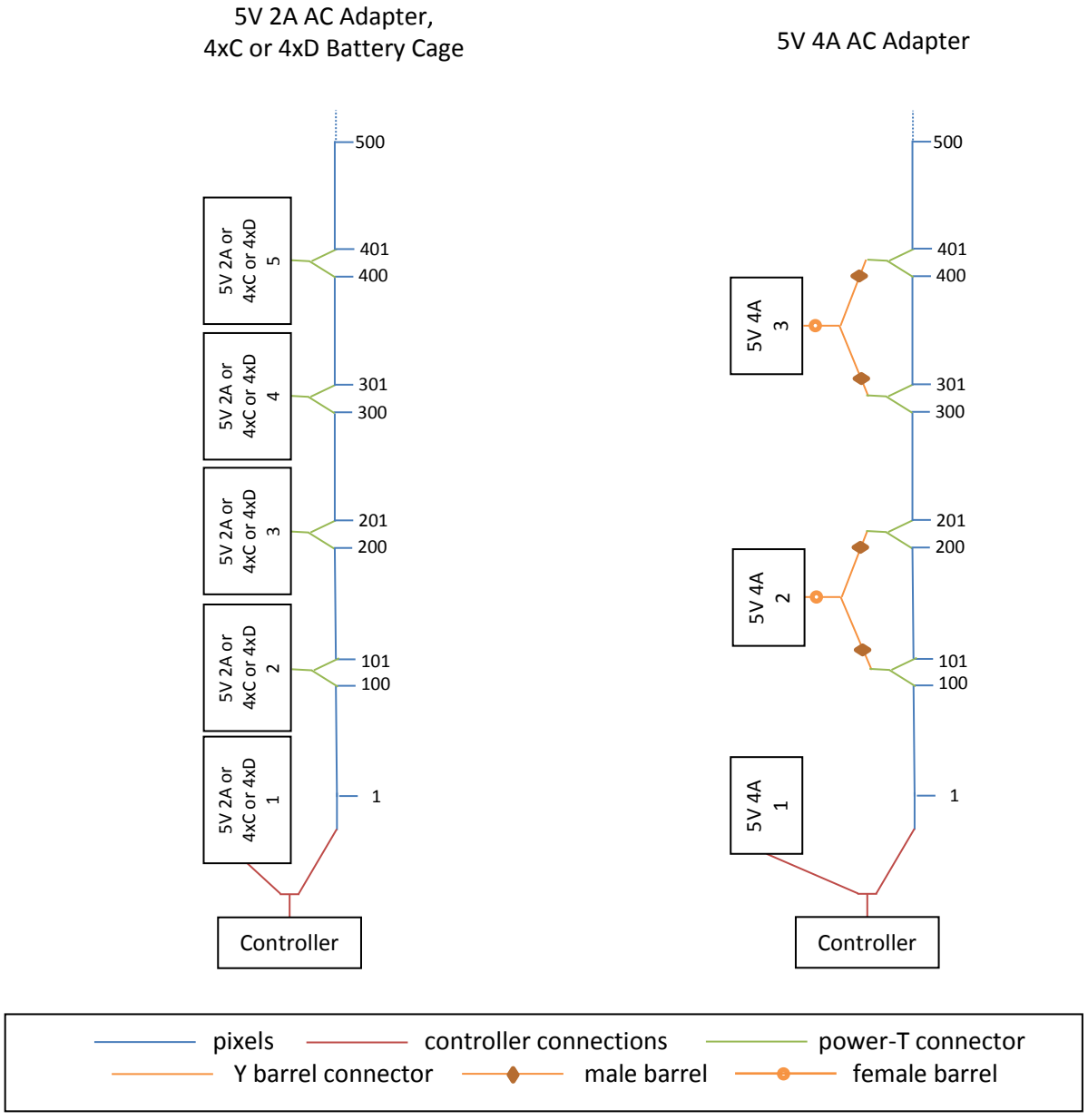
Supplying Power for Total Control Lighting

Total Control Lighting pixels run on regulated DC 5-7V. While a single controller can drive hundreds or thousands of pixels, power must be inserted every 100 pixels to keep them all consistently bright along the full range of color. With a lower amperage power supply (5V 2A House Current, 4xD battery cage, or 4xC battery cage), a power source must be inserted directly every 100 pixels: a project comprised of 1500 pixels would need fifteen 5V 2A power supplies, for example. Higher amperage power supplies give you the option of branching their power so that fewer are needed: the same 1500-pixel project would need eight 5V 4A power supplies or even just one 30A Variable Voltage adapter. The diagram below illustrates how to supply power using either a low or high amperage power source.

In the examples below, a controller is pictured running 500 pixels using a low amp power supply on the left and a higher amp one on the right. The principles of the configuration are basically the same for any controller and number of pixels you'd like to string together.



Notes:

- When branching power, make sure that you use an appropriate gauge wire.
- Inserting power will boost the brightness of the pixels both to the left and right of the insertion.
- Power consumption is 0-60 mA per pixel. To get the brightest white light, you may wish to use higher amp power supplies or insert them more frequently than the design pictured above.
- Our DC to DC Converter can be used to step down a 12V car battery or an 11.1V lithium polymer battery) to 5V.
- The 30A Variable Voltage Power Supply can be adjusted to 7V when driving TCL pixels
- Consult the specs for the controller that you're using to determine the appropriate voltage and power supply. For example, the Pro Controller requires AC power.

In our online catalog at coolneon.com, you can find AC power supplies (5V 2A, 5V 4A, and 30A Variable Voltage), DC power supplies (battery cages, 6V 7Ah sealed lead acid, 11.1V 2200mAh and 2700mAh Lithium Polymer, and DC to DC converter), Power-T Connectors, Y barrel connectors, pixels, and controllers. You can also use male and female barrel connectors to make custom-length Y barrel connectors.

Please see our catalog for detailed descriptions of each item. If you have any questions, give us a call at 510-547-5878 or email us at info@coolneon.com.