

RICHMOND CONTROLS EZLS™ LIGHTING STRIP

The EZLS™ (EZ-LITE™ Light Strip) is designed for the purchaser to build to suit the model. The main design objective was to create a low cost lighting kit that the user with modest tools and soldering skills could assemble from parts. *The user must have sufficient tools and electronic assembly experience in order to achieve satisfactory results.* The intended application is for interior lighting of cars and buildings in all scales.

The EZLS™ can be supplied as a bag of parts for assembly by the purchaser, or as a ready-to-run module. The purchaser can purchase as few or as many parts as he or she desires.

The purchaser must solder everything together with the aid of instructions provided, and attach the finished circuit where desired using double sided foam tape or screws.

The circuit board measures 23" long (58.5 cm), 1/8" wide (3.2 mm) and 1/32" thick (0.8 mm). It has pads for input power conditioning components on both ends, so it can be cut in the middle to obtain two shorter modules. Pads for LEDs are available every 1/4" (6.4 mm), but LEDs only have to be installed where they are needed. Many different component connection types are supported, including series, parallel, and series/parallel.

The completed module can work on every type of input power typically found in model applications: batteries, low voltage AC, power packs, variable DC track power, DCC, etc. It is intended for input voltages between 3 V and 24 V, and any waveform (fixed amplitude, variable amplitude, AC, variable polarity DC, DCC, etc.)

Power Input Component options:

- Bridge Rectifier - For AC or DCC inputs, or bidirectional DC.
- Input Resistor - If input current must be limited.
- Input Voltage Regulator - For controlled charging of an antiflicker capacitor.
- Input Antiflicker Capacitor - To insure continuous availability of power.
- Output Voltage Regulator - For constant brightness from a variable input voltage.

The pads are designed for the use of 603 size surface mount LEDs and resistors. LEDs can be any color and resistors can be any value. LEDs with wire terminals can be attached.

Prices are determined by adding the costs of components requested. Component pricing includes:

1. Circuit Board: \$6.00 each (23 inches or 58.5 cm long, 1/4" or 6.4 mm wide, can be cut into pieces).
2. Bridge Rectifier: \$2.00 each (100 V, 0.8 Amp).
3. Voltage Regulator: \$2.00 each (typically 3 VDC or 5 VDC).
4. Supercapacitor: \$4.00 each (several types available).
5. Surface Mount LEDs: \$1.50 for white, varies for colors (20 mA MAXIMUM current).
6. Wired surface mount LEDs: \$3.00 each for white, red, amber. Please inquire for other colors.
7. Resistors: One free with each component of another type (603 size surface mount).

To Order: Please complete the attached Specification and Quotation form and request a quotation. You can *estimate* a price from the data given above.