RGB 180 Waterproof LED Strip Light - 12VDC
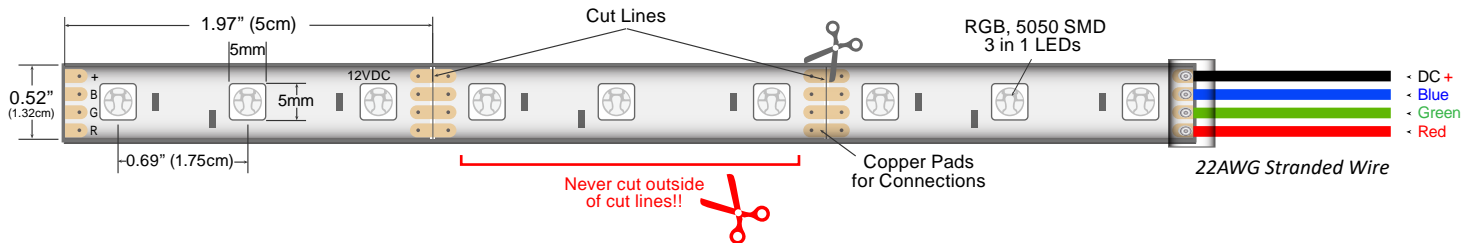## SKU: RL-SC-RS-RGB1-T-10

ECOLOCITY
LED LIGHTING SOLUTIONS

1092 Greg Street
Sparks, NV 89431
ECOLOCITYLED.COM
775-636-6060

SPECIFICATIONS

Cut Lines
1.97" (5cm)
5mm
5mm
12VDC
0.52" (1.32cm)
+
B
G
R
0.69" (1.75cm)
RGB, 5050 SMD 3 in 1 LEDs
Copper Pads for Connections
Never cut outside of cut lines!!
DC +
Blue
Green
Red
22AWG Stranded Wire

Product SKU : RL-SC-RS-RGB1-T-10
LED Size : 5050 SMD
LED Quantity : 3 LEDs per 1.97"
Input Power : 12VDC Constant Voltage
Watts : 4.30W per foot
Max Serial Connection : 20ft
Operating Temp : -4° ~ 104°F
Beam Angle : 120°
Rating : IP67 Waterproof
Warranty Period : 2 Years

Input Power: 12VDC Constant Voltage

Power supply equation

$$X * 4.30 = Y$$

X = linear strip light footage
Y = minimum transformer wattage

PRECAUTIONS

WARNING – This product should be installed, cut and connected only by a qualified professional.

12VDC Use 12VDC Input Only!

120VAC DO NOT use AC Input!

This product must be sealed properly with glue and end caps after cutting to retain IP67 waterproof rating.

NEVER cut, connect, or join wires while product is connected to a live power source.

DO NOT bend, fold or crease the strip in a manner that will damage the conductivity of the circuit board.

DO NOT use in direct sunlight.
DO NOT use in environments over 104°F.

DO NOT exceed 20ft serial connection! BE CERTAIN your 12VDC source and wire gauge is suffice for powered load.

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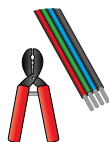# RGB 180 Waterproof LED Strip Light - 12VDC
SKU: RL-SC-RS-RGB1-T-10
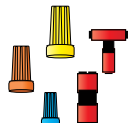
INSTALLATION

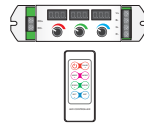### REQUIRED SUPPLIES

Cleaning Supplies or Degreaser

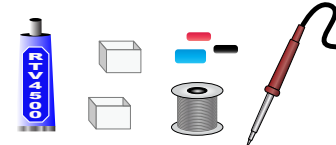Stranded Wire and Wire Strippers
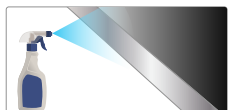
Wire Nuts or Connectors

12VDC Power Supply

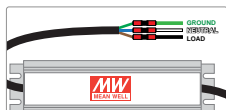RGB 3 Channel Color Controller

OPTIONAL SUPPLIES

Solder, Solder Iron, Adhesive and End Caps (Required to cut and re-connect)
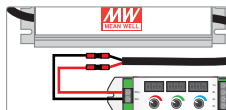
1.) Clean Mounting Surface

Use your cleaning supplies to clean your mounting surface. Please note that mounting surface must be smooth, clean and dry for the 3M tape to permanently adhere.
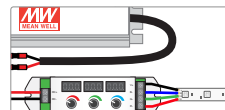
2.) Connect Transformer

WARNING – This step should be done by a qualified professional. Always disable AC power before connecting! Use wire nuts or connectors to secure your AC input to your 12V transformer.
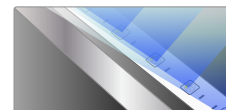
3.) Connect Controller

Always be certain power is disabled before connecting! Use a small screw driver to connect your 12VDC positive and negative wires to your 3 channel RGB controller input.

3.) Connect Strip Lights

Always be certain power is disabled before connecting! Use a screw driver to connect the 4 wires from your RGB strip light to the proper output ports of your 3 channel RGB controller.
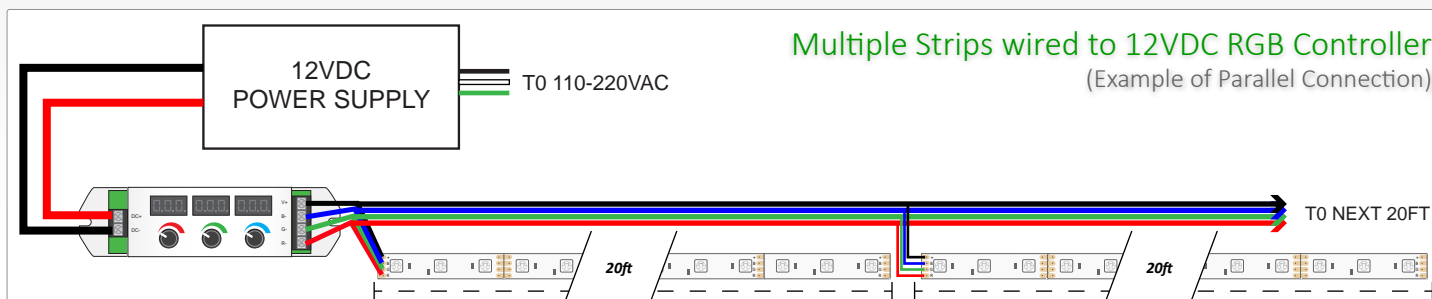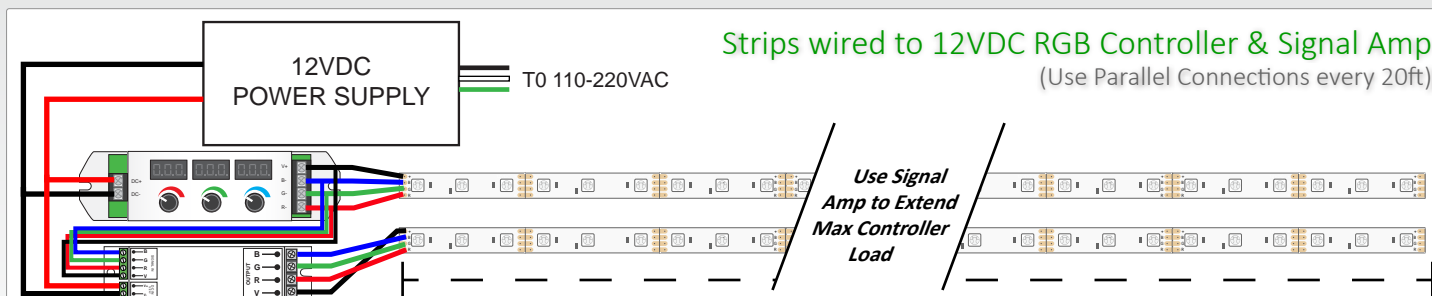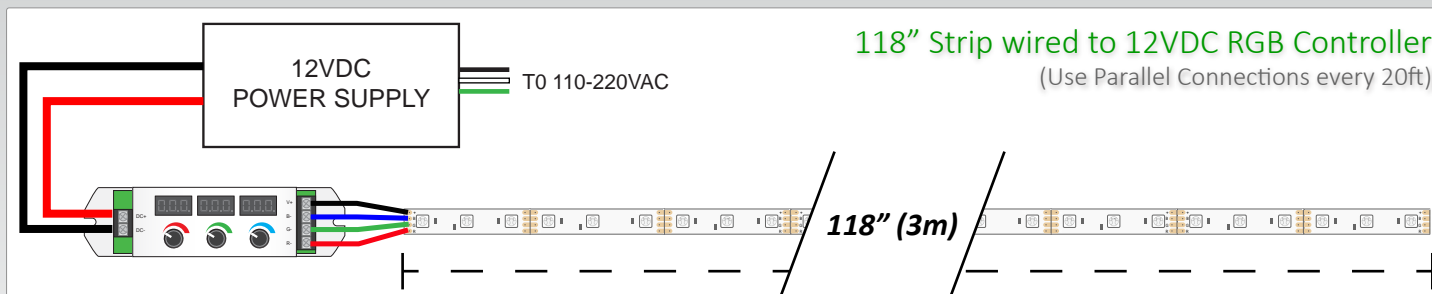
4.) Test and Mount Strips

Always test your strip lights before adhering the 3M double sided tape. Never test the strip light when rolled inside the plastic reel.

CONNECTION EXAMPLES: 4.3 Watts per foot

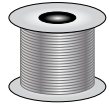**POWER SUPPLY AND CONTROLLER AMP OUTPUT RATING MUST BE GREATER THAN THE LOAD OF THE STRIP LIGHT OUTPUT.**

118" Strip wired to 12VDC RGB Controller
(Use Parallel Connections every 20ft)

12VDC POWER SUPPLY

T0 110-220VAC

118" (3m)

Strips wired to 12VDC RGB Controller & Signal Amp
(Use Parallel Connections every 20ft)

12VDC POWER SUPPLY

T0 110-220VAC

Use Signal Amp to Extend Max Controller Load

Multiple Strips wired to 12VDC RGB Controller
(Example of Parallel Connection)

12VDC POWER SUPPLY

T0 110-220VAC

T0 NEXT 20FT

20ft   *20ft*

RGB 180 Waterproof LED Strip Light - 12VDC

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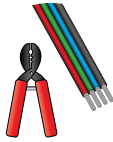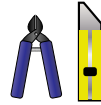## SOLDERING INSTRUCTION

REQUIRED SUPPLIES

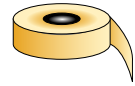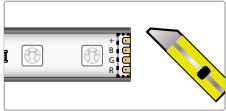| Rosin Core Electrical Solder | Electrical Soldering Iron (Preferably Temp Adjustable) | Stranded Wire and Wire Strippers | Razor Blade or Cutting Tool | Silicone Adhesive | Strip Light End Caps | Masking Tape |

1.) Cut Waterproof Coating

Cut your strip light to length on the cut line only. Then use a sharp blade or cutting tool to expose the copper pads enough for soldering.
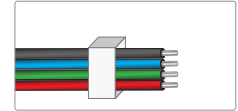
2.) Tin Strip Light Pads

Heat your soldering iron to 500-600°F. Use a piece of masking tape to secure your strip then tin each copper pad with rosin core electrical solder.
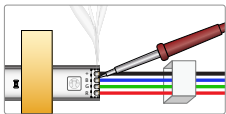
3.) Strip and Tin Wire

Strip your 2 conductor stranded wire roughly 1/8". Tin the exposed wires with rosin core solder.
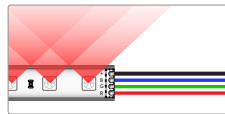
4.) Push Wires through Cap

Push your connection wires through the end cap with wire holes. Be sure to face the end cap in the right direction.
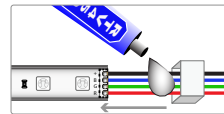
5.) Solder Wire to Strip

Mate your tinned wire to the copper pad with respective polarity. Black wire to DC+ (positive), Red wire to (R), Green to (G) and Blue to (B).
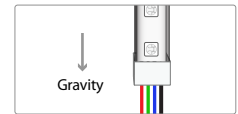
6.) Test Connection

Before permanently adhering your end cap to the strip light, it is a good idea to test your connection first.

7.) Glue End Cap

You can now glue on your end cap. We recommend using RTV 4500 Silicone type adhesive, fill the entire end cap and gum all commisures.

8.) Let Glue Set

Gravity

Our waterproof strip lights have a hollow inside. Be certain to hang the strip vertical so that the glue sets inside the mounting cap.

STRIP LIGHT ACCESSORIES:

RGB Waterproof Connectors

12VDC Power Supplies

RGB LED Controllers

Aluminum Extrusions and Covers

HELPFUL LINKS:

12VDC Power Supplies - *https://www.ecolocityled.com/category/led_power_supplies_12v*

RGB LED Controllers - *https://www.ecolocityled.com/category/rgb_led_lighting_controllers_only*

RGB Connection Wire - *https://www.ecolocityled.com/category/led_connection_wire_products*

Aluminum Extrusions - *https://www.ecolocityled.com/category/led_aluminum_extrusions*

Strip Light Soldering Guide - *https://www.ecolocityled.com/category/led_tutorials_rgb_solder*

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