

# Custom Color RGB LED Controller/Light Mixer

Model # AL-RGBDIM3A-12V

Dial in the exact light color and level of brightness desired. Precision mixing allows for a near endless range of custom colors, including shades of white.

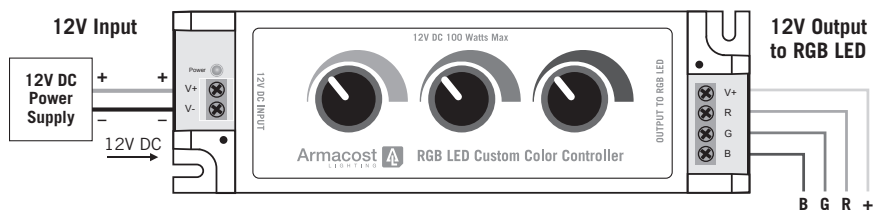
Does not provide color-changing effects.

## INSTALLATION GUIDELINES

- For dry location use only.
- For use only with 12V DC low voltage RGB LED lighting.
- Do not connect this device directly to 120V AC current.
- Suitable for RV and boat interior applications (dry location only), this device can be direct wired to an on-board 12V battery.
- Do not exceed 100 watts of lighting.
- All wiring must be in accordance with national and local electrical codes, low voltage Class 2 circuit. If you are unclear as to how to install and wire this product, contact a qualified electrician.
- Use only insulated staples or plastic ties to secure cords and wires.
- Route and secure wires so they will not be pinched or damaged.
- For wire runs inside of walls, use certified CL2 or better cabling and appropriate mounting hardware.
- Do not install Class 2 low voltage wiring in the same runs as AC main power. If AC and low voltage wires cross, keep them at 90-degree angles.
- For better brightness and color performance, keep voltage drop to a minimum.

## CONNECTIONS

*Easily connect wires to on-board terminal blocks.*



### Maintain polarity with RGB LED tape.

Use the +12V/B/R/G indicators printed on the tape light for correct color sequencing. For example, red to red, blue to blue and green to green.

**Note:** On some units color sequence may be different. Please follow polarity sequencing as printed on the case of the RGB controller.

## TROUBLESHOOTING

### Limited colors displaying?

Check to be sure all RGB connections are secure.

### Uneven brightness?

Shorten length of lighting, reduce the length of 12V RGB power wire, and/or use thicker wires or an RGB signal amplifier (see **About voltage drop**).

## About voltage drop

Voltage drop is a natural occurrence in all low voltage lighting systems. It is the gradual decrease in voltage that occurs along the length of the low voltage power wires to the lighting, and varies depending on the type and size of the LED tape light installation.

It is a function of wire length, wire thickness, and the energy or total watts used by the lighting. Voltage drop only becomes undesirable if you notice the brightness or color in one area of your lighting is objectionably different than in another area. As a practical approach, test your lighting prior to final installation.

**Excessive voltage drop = reduced brightness and color shift**

**Shorter and/or thicker wires = higher brightness and better color consistency**

**Longer LED tape = an increase in voltage drop**

For an online voltage drop calculator, visit [armacostlighting.com/installation](http://armacostlighting.com/installation).

## SPECIFICATIONS

|                                     |                         |
|-------------------------------------|-------------------------|
| Input voltage .....                 | 12V DC                  |
| Output current .....                | 9A (3A per RGB channel) |
| Max load with 12V DC lighting ..... | <100 watts              |
| Working temperature .....           | -4~140°F (-20~60°C)     |
| Listings .....                      | CE, RoHS, CSA           |

Limited 2-year warranty. This product is for dry location use only. Improper installation, improper powering, abuse, or failure to use this device for its intended purpose will void warranty. Proof of purchase is required for all returns. Questions? Email [support@armacostlighting.com](mailto:support@armacostlighting.com).