



21 Color RGB LED Lighting Controller

Model # AL-RGB4A

This low voltage DC color controller is an easy-to-use, 3-channel, preprogrammed RGB LED light mixer designed to change the colors of RibbonFlex Pro® Custom Color RGB LED Tape Lighting. It will also work with other 3-channel 12 or 24V DC RGB tape light strips and modules.

Suitable for RV and boat interior applications (dry location only), this device can be direct wired to an on-board 12-24V battery.

FEATURES

- 21 preprogrammed static colors, including shades of white
- 4 dynamic color-changing effects
- Brightness adjustable for static colors
- Speed adjustable for color-changing effects
- Built-in memory, unit will remember last color after powered off
- Remote control (infrared, must aim remote at controller)

INSTALLATION GUIDELINES

CAUTION: Do not connect to 120V AC current.

For use only with low voltage 12 or 24 volt RGB LED lighting.

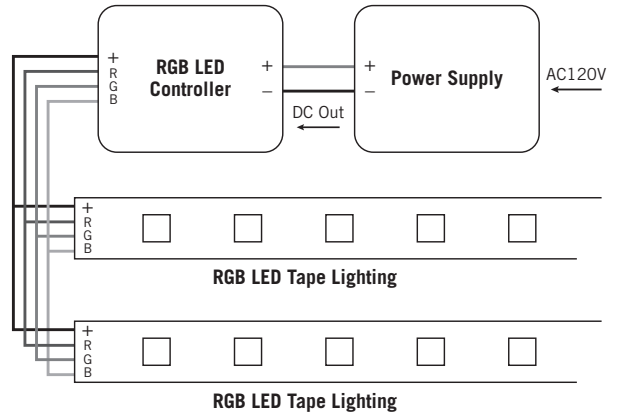
For dry location only.

IMPORTANT

Wire runs inside walls must be installed in accordance with the National Electrical Code, low voltage Class 2 circuit. Use properly certified CL2 or better cabling. Do not install low-voltage wiring in the same wire run as AC power. If AC and low-voltage wires cross, keep them at 90-degree angles. If you are unclear as to how to install and wire this device, contact a qualified electrician.

- Use only insulated staples, plastic ties or clips to secure wires.
- Route and secure wires so they will not be pinched or damaged.
- For longer life and better color-changing performance, keep voltage drop to a minimum (*see Understanding voltage drop*).
- Failure to observe polarity or shorting of wires may damage the controller and LED lights.
- Know your LED wattage requirements. Read and follow instructions for watts required and length limitations of your RGB LED lighting.

CONNECTIONS



Maintain polarity for correct color sequencing

The 2-conductor red/black wire connects to the low voltage output of your power supply. Red connects to positive, black to negative.

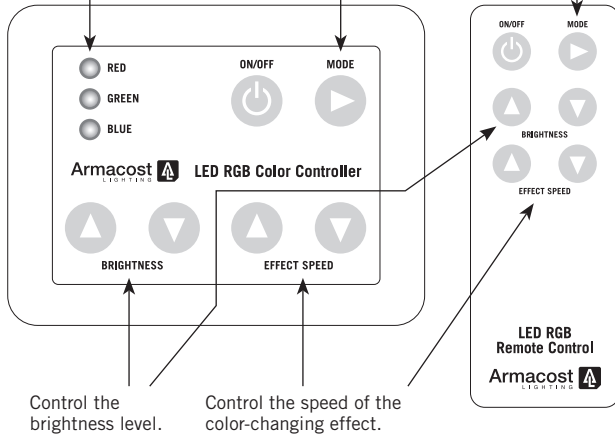
The 4-conductor RGB flat ribbon wire connects to the RGB LED lighting. Be sure red connects to red, green to green, blue to blue. The white wire from the controller always connects to the + (positive) indicator or + wire on your LED light. Note: The positive wire on your RGB LED light strip will be either a black or white wire depending on the manufacturers' configuration.

Visit armacostlighting.com for RGB LED wiring diagrams and an online voltage-drop calculator.

OPERATION

Displays the color mixture signal being delivered to the RGB LED lights.

Press MODE button to cycle to next static color (21 colors in all), then to four (4) color-changing effects.



TROUBLESHOOTING

Limited colors displaying?

Check to be sure all RGB connections are secure

No color-changing effects?

Increase effects speed on controller or cycle through mode to the effects

Uneven brightness?

Shorten length of lighting, reduce the length of RGB power wire or use thicker wires or an RGB signal amplifier (see *Understanding voltage drop*)

Remote not working?

Point remote at controller, move closer to controller or replace battery (CR2025)

Understanding 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 your DC power feed wires to your LED lighting. It is a function of wire length, wire thickness, and the total watts used by your LED lighting.

With longer lengths of RGB LED tape lighting, voltage drop also occurs within the tape light. Voltage drop only becomes undesirable if you notice the light color or brightness in one area of your lighting is objectionably different than another area.

As a practical approach to installing your RGB LED tape light, test your lighting prior to final installation. If voltage drop appears to be a concern, use shorter lengths of power feed wires, switch to a heavier gauge wire (lower AWG number), or shorten the length of your LED tape lighting.

COLORS AND EFFECTS

Colors

- Cool Bright White
- Golden White
- Red
- Blue
- Dark Purple
- Emerald Green
- Lime Green
- Ice Blue
- Orange
- Turquoise
- Arctic Blue
- Champagne White
- Yellow
- Sky Blue
- Purple
- Light Purple
- Lime Yellow
- Hot Pink
- Purple White
- Sea Foam
- Pale Blue-White

Color-Changing Effects

- Quick change flash: Red, Green, Blue
- Seven color quick change: Red, Green, Yellow, Blue, Purple, Teal, White
- Red, Green, Blue Cross Fade
- Seven color dissolve: Red, Yellow, Green, Blue, Teal, Purple, White

SPECIFICATIONS

Input voltage.....	12-24V DC
Output.....	3 channel RGB
Maximum load.....	4 amps per channel
Static power consumption	< 1 watt
Working temperature.....	-4~140°F (-20~60°C)
Infrared remote	Battery, coin style CR2025
Ratings.....	CE, RoHS, CSA

Limited 2-year warranty. This product is for dry location use only. Failure to use this device for its intended purpose or improper installation will void warranty. Questions? Email support@armacostlighting.com.

For additional RGB color controllers, RGB signal amplifiers, and LED tape lighting and accessories, visit armacostlighting.com.



Conforms to UL Standard 8750

© 2014 Armacost Lighting. All rights reserved.

REV 10.13

254684