

# Slimline Wireless RGB LED Lighting Controller

Model HHRGB14

*Professional grade, component-based RGB lighting controller*

This low voltage, easy-to-use RGB LED controller works with RibbonFlex Pro Custom Color RGB LED Tape Lighting to deliver professional, colorful lighting results. The controller blends the light from red, green and blue LEDs to create a full spectrum of 30 designer colors, from pastels to vibrant hues to five shades of white that range from very cool to very warm white color temperatures. Also includes six dynamic color-changing effects. Extremely small receiver fits almost anywhere, easily direct wire for custom installations.

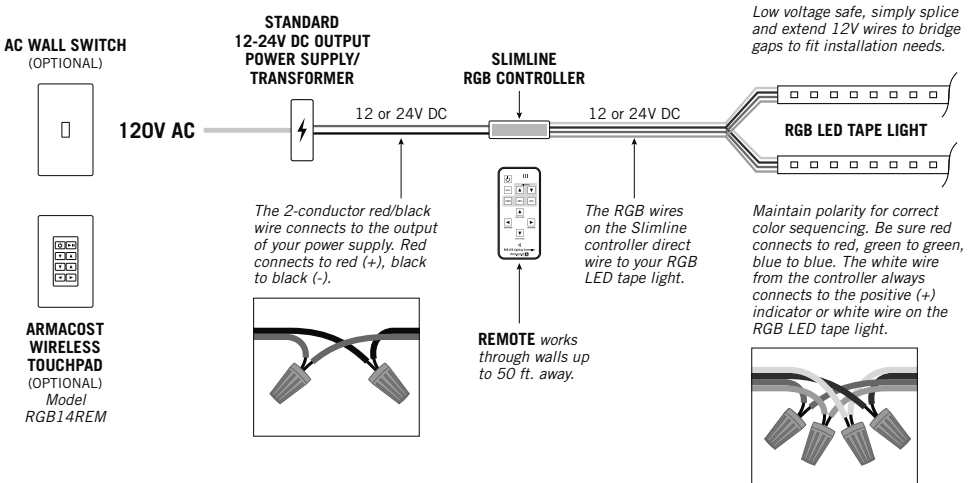
The Slimline color controller will work with other 12V or 24V DC RGB LED tape light strips and modules with 4-wire hook-up.

- Uses radio frequency (RF) technology to work through walls and doors up to 50 feet away – helps to eliminate the need to run extra wires.
- Features pairing technology for expandability and multi-zone lighting control.
- Easy to use, simply cycle through colors and color-changing effects.
- Full range dimming of static colors, or use brightness preset quick-keys.
- Speed is adjustable on color-changing effects, including ultra-slow cross-fade dissolves.

**Package contains:** Installation Guidelines, Handheld Remote with CR2025 battery, Slimline Controller and 6 twist-on wire connectors.

## CONNECTIONS

**IMPORTANT** – Read and follow the Installation Guidelines provided with your RGB LED lighting and power supply. Do not connect controller directly to 120V AC household current, 12-24V DC only. 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.



**⚠ WARNING** Disconnect power before cutting or connecting LED tape lighting. Do not allow the positive (+) white wire on the Slimline RGB controller to come in contact with the red, green or blue wire. If the white wire touches other wires while controller is energized, the unit may fail to operate.

## Important

- Maximum load is 5 amps – 60 watts when used with 12V LEDs or 120 watts when used with 24V LEDs.
- Do not connect more than one RGB color controller receiver to a power supply in the same circuit. Doing so will cause the RGB LEDs to flicker.
- 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 household power. If AC and low voltage wires cross, keep them at 90-degree angles.

## For better LED brightness, keep voltage drop to a minimum

Voltage drop is a natural occurrence in all low voltage lighting systems. It is the gradual decrease in voltage that occurs from your power supply to your LED 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 to installing LED tape lights, test your lighting prior to final installation. If voltage drop appears to be a concern, use shorter lengths of DC power feed wires or switch to a thicker gauge wire (lower AWG number).

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

## OPERATION

The Slimline color controller will remember the last setting for brightness and speed for each color and each effect you select. For instance, if one color is dimmed, the unit will maintain that setting for that particular color until changed, even if the power is turned off, goes out unexpectedly, or is disconnected from the power supply.

**Power ON/OFF key**

**Reset function key**  
Pressing the reset key will take the RGB controller to the #1 color position, which is a very warm white, and will automatically return the brightness settings of all colors to 100% full brightness. Any programmed effect speeds will return to the medium speed setting.

**Brightness arrow up or down keys**  
For dimming static colors, or use preset quick-keys (100%, 50%, 25%).

**Color/Mode key**  
Press forward arrow to advance to next static color or color-changing effect. Press back arrow to return to previous color or effect displayed.

**Effects speed**  
Controls the speed of all color-changing effects. Hold arrow down to archive ultra slow cross-fade dissolves for professional lighting results.

Remove clear pull-tab tape to activate the remote's pre-installed coin-style battery.

When you press any key, the red LED on the front of the remote will light to indicate the unit is sending an RF signal.

## Colors and effects

All colors are arranged in common color groupings for easy navigation, colors are fully dimmable. Pressing the reset key will take you to the #1 color position, which is a very warm white.

1-5	Shades of white	22-26	Shades of red	33	Red, white and green cross fade
6-12	Shades of blue	27-30	Shades of purple	34	Red, white and blue cross fade
13-17	Shades of green	31	White strobe	35	Red and white cross fade
18-21	Shades of yellow	32	Full color cross fade	36	Red, gold and green cross fade

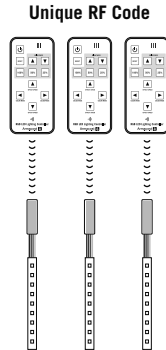
## MULTI-ZONE LIGHTING AND PAIRING

Each Slimline RGB controller comes factory set with a Unique RF Code. Multiple sets can work in the same area without interference to control multiple zones of RGB LED lighting.

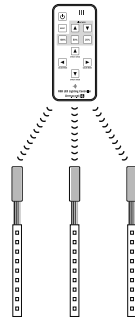
The controller features RF pairing technology which can help expand lighting. Pairing allows one remote to control multiple receivers. For best results, all receivers should be within 25 feet of each other. Pairing along with RF wireless technology can greatly reduce the need for extra wiring.

Note: When using one remote to control multiple receivers, only static colors will synchronize. Color-changing effects will not sync due to different cycling speeds. For larger RGB LED lighting installations, where colors as well as color-changing effects must synchronize, use an Armacost RGB signal repeater.

To learn more about large installations or to purchase additional RGB receiver controllers, transmitters or signal repeaters, visit [armacostlighting.com/RGB](http://armacostlighting.com/RGB). You can also call or email Armacost technical support.



Pairing one remote to control multiple receivers



## Pairing instructions

1. Connect the Slimline controller to your power supply and RGB LED lighting. Make sure everything is working properly using the remote control.
2. Remove power to the controller receiver for at least 5 seconds (unplug or turn off the AC switch to your power supply).
3. Restore power and within 2 seconds press and hold the 100% and 50% brightness touch keys simultaneously on the remote that you wish to be paired. The LED tape light will blink once to confirm successful pairing.



To pair multiple receivers to the same single remote, simply repeat the steps above with each additional receiver. The transmitter's Unique RF Code will be programmed to the additional receiver units. It is also possible to pair up to three different transmitters to control one zone of lighting.

To synchronize the colors and brightness levels of all receivers, simply press the reset key on the transmitter touchpad. All RGB LED lighting will reset to the #1 white color position.



## Important

- Never connect multiple RGB controller receivers to one power supply. Each receiver must have its own power supply.
- If you repeatedly press any of the remote keys too fast, the RGB controllers will lose their synchronization. To re-synchronize, press the reset key on the touchpad transmitter.
- For effective synchronization, all receivers must be within range of the wireless remote.

## TIPS AND TROUBLESHOOTING

### Temporarily install LED tape

Using painters or masking tape, temporarily place the RGB LED light strip into your desired mounting position. Power on the LEDs to make sure you are achieving the desired lighting effect before removing the 3M paper backing for final installation. Temporarily mounting the LED light strip allows you to experiment with tape light positioning to achieve your desired results.

### Orient LED tape strips in the same direction

RGB LED tape viewed from one side or the other will always have a color shift due to the red, green and blue chips in the LED. For better color consistency, especially when used in cove lighting, keep the LED tape strips oriented in the same direction, e.g., logo markings on each tape should always be pointed or facing the same way.

### LEDs flicker, limited or inconsistent colors

Check all connections. Confirm you have maintained correct polarity on all wire connections (white to white, red to red, etc.) when joining LED strips, as well as when connecting wires to the color controller. Press the reset key. If any other color appears other than a warm/ yellow white, there is a bad connection or polarity is not correct. Check to be sure all connections are secure. If you have a failed connector, you can solder wires to the LED tape and solder splice connections. Soldering is a good method for making reliable electrical connections. To learn about best soldering practices visit [armacostlighting.com/installation](http://armacostlighting.com/installation). Note: Always solder connections in RV and boat applications.

### The wireless remote is not working

Be sure you are in range of your receiver. The transmitter is a radio frequency (RF) device and, as such, the range is dependent on many factors.

Actual operational distance and performance may vary based on type of walls and other nearby electronic devices. Be sure your battery is good. When any key is pressed, you should see the red LED at the front of the unit light. If not, replace battery. The receiver may need to be paired again with your remote. Please revisit the pairing instructions.

### LEDs display uneven brightness or color shifts

This may be due to voltage drop or the RGB LED tape may be oriented in two different directions. To reduce voltage drop, reduce the length of 12V and RGB power wires and/or use thicker wires. Refer to your RibbonFlex Pro specific model's Installation Guidelines for options on other installation configurations that may help reduce voltage drop.

**For help with larger LED lighting installations, visit [armacostlighting.com/RGB](http://armacostlighting.com/RGB) or email [support@armacostlighting.com](mailto:support@armacostlighting.com).**

## SPECIFICATIONS

Input voltage.....	12V or 24V DC
Max lighting load.....	5 Amps
.....	(60 Watts @12V, 120 Watts @24V)
Working temperature.....	10 to 130°F (-12 to 55°C)
Wireless working frequency.....	433.92MHz
FCC ID .....	2ACFYHHRGB14
Transmitter battery type.....	Coin style CR2025
Country of origin.....	China

Limited 1-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).



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.



## OPTIONAL ACCESSORY

# Wireless Touchpad

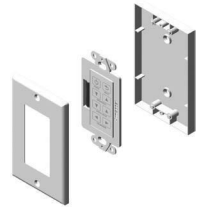
(Model RGB14REM)



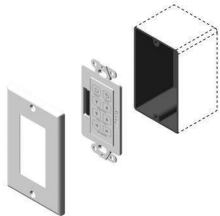
*Designer-style switch plate and all mounting screws included.*

- Beautifully blends with existing designer switches and dimming décor.
- Convenient 2-way lighting control – works in unison with your existing handheld remote as an additional RGB lighting controller.
- Full-function RGB LED controller with extended range – works up to 100 feet away through walls and doors.
- RF wireless and pairing technology offers ease of expandability without having to run extra cabling, touchpad can control multiple RGB receivers in the same area.

**Surface mount**  
Easily mount to any wall or flat surface, no hole required.



**Install in wall**  
Can be installed in wall in an electrical box.



To buy online, or to learn more, visit [armacostlighting.com/RGB14REM](http://armacostlighting.com/RGB14REM)