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<u>Multi-Zone Programmable RGB ColorPlus LED Touch Controller</u> (Remote Control) and RGB ColorPlus LED Touch Controller (Receiver)

Part numbers: RGBW-T4 RGBW-T4-5A



The Multi-Zone Programmable RGB ColorPlus LED Touch Controller is a simple and easy way to customize and control 5-wire Red-Green-Blue-White 5, 12, or 24 volt DC LED strips or other RGB ColorPlus LEDs. The RGBW-T4 remote allows you to create and store the perfect ambiance for any occasion, up to 8 custom color sequences. Choose whether to fade, step, or strobe through the color cycle, and adjust the speed and brightness. Custom colors can also be displayed in real time by simply touching the color wheel. In addition, you have independent control of the white nodes of your RGB ColorPlus strip. Simplify your RGB LED installation and eliminate wires by pairing multiple RGBW-T4-5A receivers with one remote, in up to eight distinct zones.

The remote and receiver utilize 2.4 GHz radio frequency for wireless communication and synchronization. There is an effective range of up to 30 meters (100 feet). RF communication works through solid objects, including walls. There is a mini-USB port on the remote to charge the internal battery (mini-USB to USB cable included). A single remote can control an unlimited number of receivers within the effective range, coordinating all modes and color changes.

Zones are ideal for homes, businesses, and commercial facilities where different rooms or areas in a room require different types of lighting. By controlling each zone individually you have the ability to create the perfect ambiance in multiple areas, as well as save energy by turning off the zones that are not needed.

The receiver is rated at 5 amps per channel which is 100 watts per receiver at 5 volts, 240 watts per receiver at 12 volts, or 480 watts per receiver at 24 volts. Our RGBW 5050 ColorPlus LED strip uses up to 50 watts per 5 meter reel at 12VDC. Therefore, you can control 4 reels of 5050 ColorPlus strip.

Features

- Color wheel on remote gives over 16 million color options at the touch of a finger.
- Radio frequency remote can control the receiver from up to 30 m (100 feet) away, through walls.
- Control up to 8 separate zones.
- Zones can be controlled individually or synchronously.
- Preset modes available.
- Create and store up to eight custom scenes.
- Each remote can control an unlimited number of receivers.
- Remote is charged via mini-USB port, USB to mini-USB cord included.
- Indicator lights on remote and receiver give confirmation feedback and show current color of RGB lighting.
- 4 signal outputs: Red, Green, Blue, and White. Common anode takes 5, 12, or 24 VDC.
- Power off memory function.
- -20 to 130°F operating temperature range.
- 1 year manufacturer warranty.

Applications

- Create the perfect ambiance for any home or business.
- Customize and store color scenes for sporting events, holidays, or custom displays.
- Hotels, restaurants, bars, clubs, retail stores, businesses.

Specifications

Remote

Dimensions:

Input voltage: Charge method: Working current: Working frequency: RF remote distance: Transmitting rate: Battery capacity: Standby time: Normal use time: Charge time: Number of charge cycles: Max. number receivers: 5.71" x 2.17" x 0.87" 145 mm x 55 mm x 22 mm 5 VDC built-in lithium-ion battery Mini-USB port (cable included) <30 mA 2.4 GHz 100 ft (30 m) 500 Kbps 1000 mAh 1 year 30 days <4 hours 500+ Unlimited (within effective range)



Receiver

Dimensions:

Channels: Input voltage: Max. current load: Max. output power: PWM Frequency: 6.89" x 1.73" x 1.18" 175 mm x 44 mm x 30 mm 4: Red, Green, Blue, and White 5, 12 or 24 Volts DC 5A per channel 100W/240W/480W (5V/12V/24V) 480 Hz



Operation

Charge the remote using the provided mini-USB to USB cord. If the remote is on while charging, the indicator will flash blue. A solid green light indicates that the charge is complete. If the remote is turned off while charging the indicator light will also be off.



To choose a custom static color, simply touch the desired color on the color wheel. The status indicator will change color in confirmation. Modes are listed on the next page, and can be accessed using the Mode +/- buttons.

Each time a command is made on the remote the indicator light will flash and there will be a response beep from the receiver. To turn off the default beep settings simply hold down the Mode- key and until you hear a long beep. Note that this will disable the "routine" beeps for commands such as brightness adjust or mode change, but it will not turn off the "confirmation" beeps for commands such as entering the scene function. Generally "confirmation" beeps are only emitted when you hold a given button for three or more seconds. To turn on the beep responses, hold down the Mode+ key when a long beep.

Lowered sensitivity of the touch wheel is a symptom of low battery charge. If you notice this happening, charge the remote.

The White Light Key W is the only button used to control the white nodes on RGBW strip. Pressing and releasing this button will turn the white light on or off, while pressing and holding the White Light Key will gradually dim or brighten the white light.

The brightness - and + keys $\stackrel{*}{\longrightarrow}$ can be used to dim and brighten the RGB nodes. The preset modes are listed below, and control the RGB nodes. These can be accessed using the mode – and + keys $\stackrel{\otimes}{\longrightarrow}$. The Switch Key for Mode Style $\stackrel{\otimes}{\longrightarrow}$ allows you to select whether the color change steps, fades, or strobes. For single colors, these options result in static, fade to dark, and strobe respectively. To adjust the speed of non-static modes, use the speed – and + keys $\stackrel{\otimes}{\longrightarrow}$.

How to Set Up the RGBW-T4-5A Receiver



Connect the LED load to the receiver using the R (red), G (green), B (blue), W (white) and V+ (common) sockets. Apply 5, 12, or 24 VDC, depending on the requirements of the LED strip, to the power input sockets. Multiple receivers may be connected to the same or different power sources, as long as power needs are met.

The receiver is ready to use as soon as both power and load are connected. Pair receivers to your remote as described on the following page.

| No. | Color | Press 𝘎 button to switch the 3 types | | |
|-----|-----------------------------------------------|--------------------------------------|-----------------------------|-----------------|
| | (Press 😁 ↔ 😚 Button to Switch) | Skipping | Smooth | Strobe |
| 1 | Black | | | |
| 2 | Red | Static Red | Red fade out and fade in | Red strobe |
| 3 | Green | Static Green | Green fade out and fade in | Green strobe |
| 4 | Blue | Static Blue | Blue fade out and fade in | Blue strobe |
| 5 | Yellow | Static Yellow | Yellow fade out and fade in | Yellow strobe |
| 6 | Purple | Static Purple | Purple fade out and fade in | Purple strobe |
| 7 | Cyan | Static cyan | Cyan fade out and fade in | Cyan strobe |
| 8 | White | Static white | White fade out and fade in | White strobe |
| 9 | Red, green, blue | RGB skipping | RGB color smooth | RGB strobe |
| 10 | Red, green, blue, yellow, purple, cyan, white | 7 colors skipping | Full-color smooth | 7 colors strobe |

How to Create and Use Zones

You must individually pair each receiver to your remote. When you do this, you can select one of eight zones in which to place your receiver. Each zone may be controlled individually, or you may control multiple zones simultaneously.

- 1. Press and release the ID Learning Button on the receiver. This will cause the running light next to it to stay static on.
- 2. Press and hold down the number 1-8 on the remote of the zone into which you are placing the receiver. You will hear a long beep and the indicator light will flash three times to confirm the pairing.
- 3. To clear the pairing from a receiver, hold down the ID Learning Button for ten second, until you have heard two long beeps.

Once you have created your zones, you may use them to synchronize your receivers. Be aware that the remote can operate in two programs: the Sync Program and the Zone Program. The Sync Program is discussed on the following page. To enter the Zone Program, hold down the Mode-key and the 8 key simultaneously for several seconds, until you hear a long beep.

Once in the Zone Program, you may select which zone to control simply by pressing and releasing the zone number. You will notice that the indicator light changes to match the color of the zone you have selected. In order to control multiple zones simultaneously, first make sure that you are within the Zone Program. Then press and release the number of each zone you wish to control before selecting a light color. Finally, select a light color or enter the Sync mode to choose a scene for your lights to display.



How to Create and Use Custom Color Scenes

Creating and saving custom scenes is easy with the RGBW-T4 remote. To enter the Sync Program, hold down the Mode+ key and the 8 key simultaneously for several seconds, until you hear a long beep. Within the Sync Program, pressing any number 1-8 will select the corresponding custom scene. Your receivers may arrive with sample scenes saved to each location 1-8, follow the steps below to create your own. <u>All receivers should be paired and</u> <u>powered on while programming custom scenes.</u> Custom scenes should be re-programmed if additional receivers are added at a later time.

- 1. Hold down the Programming Key P for several seconds, until you hear a long beep.
- Press 1, then use the Mode buttons wooder wooder or the touch circle to select the first color for your scene.
 - a. The mode buttons allow you to select pre-set static colors: Dark/Off, Red, Green, Blue, Yellow, Magenta, Cyan, White.
- 3. Repeat step 2 for color 2. Once you have as many colors as you would like for your function, fill in the rest of the slots with Dark/Off. The system will ignore these slots.
- 4. For example, if you wanted only red and green, you would save red to slot one, green to slot two, and dark/off to the rest of the slots.
- 5. Dark/off can also be used in a scene. If you want red and green to alternate, but with a dark period in between each, you would insert dark/off into the first slot, red into the second, dark/off into the third, green into the fourth, and dark/off into slots five through eight. Only the dark/off slots that come after the final colored slot will be ignored.
- 6. Press and release the programming key **P** to exit color selection after saving a color to each slot.
- 7. Press the Switch Key for Mode Style to select whether the colors step, fade, or strobe.
- 8. Press and hold any key 1-8 to save the entire function to that scene number.
- 9. To access your scene later, enter the Sync Program by pressing and holding the Mode+ key and 8 key simultaneously. Then press and release the number 1-8 to which you saved your scene.

Instructions

Please take the following precautions:

- 1. This equipment, like all electrical equipment, should be installed by a qualified person.
- 2. Do not expose these LEDs, dimmers or power supplies to intense electro-magnetic fields, including lightning.
- 3. The controllers and power supplies are not waterproof. Keep them dry.
- 4. Always observe proper polarity.

When installing LED lighting, it is a good idea to follow this "dry-run" procedure:

- 1. Be sure you have everything you need before you start.
- 2. Lay out your lights and power supply on the floor or table.
- 3. There is some resistance in the LED lighting. If you see any color fading or dimming at the end of a long run, you may have too many LEDs for your power supply and you might need a bigger supply or shorter runs. Use a bus structure as described in rgb_manual.pdf. Call if you need assistance with larger projects.
- 4. Connect everything and test it to be sure it works and you have it connected properly. It is unlikely, but possible, that some part of your system is defective or was damaged during shipment. If that is the case, it will be very helpful to you to know that before you do all the work involved in installing custom LED lighting systems. You will also know if you damage anything during installation, which is really helpful in trouble-shooting because manufacturing defects and installation damage typically have very different solutions.

Once you have tested the system successfully, you are ready to install it. We recommend you install LEDs, electronic controls and dimmers in such a way that you have access to them in case they fail. All electrical components can fail.