MULTICOLOR LIGHTS CONTROLLER

OPERATING INSTRUCTIONS FOR THE MULTICOLOR LIGHTS CONTROLLER

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Contents

The Multicolor Lights Controller

The multicolor lights controller controls up to twelve multicolored lights also known as RGB lights because they use combinations of red, green, and blue LEDS to create any color in the visible light spectrum.

ROUND ROBIN ANIMATION: An animation used by the controller signal that a setting has been saved. The lights will light up green in sequence starting with the first light and on to the last light. When the animation is complete the setting is saved and normal operation of the controller resumes.

Circuit Board Buttons

The **number of lights** and controller **address** may be programmed using the buttons on the circuit board if needed.

QUICK PRESS – Push the button and release quickly.
LONG PRESS – Push the button and keep it depressed for at least **THREE** seconds, then release.

Address

To adjust the address, **QUICK PRESS** the **ADDRESS** button. The first light will flash X times to signal the currently selected address. To increment the address **QUICK PRESS** the **ADDRESS** button again. The light will flash again to reflect the new setting. Continue to **QUICK PRESS** the **ADDRESS** button until your desired address is displayed. To apply the setting, **LONG PRESS** the **ADDRESS** button. The new address will play one more time followed by the round robin animation to confirm the setting was saved. After setting the address, normal operation will resume.

NOTE: The address setting will increment by one with each button push, looping back to 1 after 10 is reached. Your controller address should be configured for you so it should not be necessary to change it. Changing this setting can interfere with the proper operation of your sign.

Number of Lights

To set the number of lights, **QUICK PRESS** the **LIGHTS** button. The currently selected number of lights will light up blue. If all your lights light up, you may have the correct setting already or you may have a setting higher than the number of attached lights. Continue to **QUICK PRESS** the **LIGHTS** button until only the first light is lit. Continue to **QUICK PRESS** the **LIGHTS** button as each attached light is lit in sequence. When all the lights are lit, **LONG PRESS** the **LIGHTS** button. When released and your setting is saved and the round robin animation will play.

NOTE: Setting the current number of lights attached to the controller is important to make programming other options easier. If the setting is too low, not all of your lights will light up; if it's too high, you may have issues when configuring lights as button presses will appear to be doing nothing, when in fact they are adjusting a light you can't see.

IR Remote Control

To control the multicolor lights controller, navigate to it using the **NEXT/PREV** buttons in the **DEVICE SELECT** area of the remote. When your controller is selected it will play the round robin animation.

Address

To set the address using the remote control, make sure the sign is in normal operation. Press the **0** button, and the first light will flash X times. The number of flashes corresponds to the address setting. To adjust the setting press a **NUMBER BUTTON 1-9** on the remote control. The light will flash X times according to your selection followed by the round robin animation to let you know the setting was saved.

NOTE: Only attempt to set the address with the IR remote if the IR eye is plugged directly into the controller. If your controller is "daisy chained" for communications, adjusting the address will cause it to stop communicating. The address of your controller is set at the factory and should not need to be adjusted.

Number of Lights

To define the number of lights attached to the controller, press **ENTER**. The current setting will be displayed by lighting up the first X lights attached. Press **UP/DOWN** to change the setting. You may also press a number button on the remote to choose a setting directly. When finished press **ENTER** to save the setting.

Configure a Light

Each attached light can be configured with a color, brightness, animation mode, and speed. Below is an overview of the settings and a quick reference to how those settings map to the number pad on the remote.

Number Pad Quick Reference

	Number	COLOR		Number	MODE
COLOR	0	OFF	**MODE**	0	
	1	RED		1	SOLID
	2	GREEN		2	FLASH
	3	YELLOW		3	FADE
	4	GOLD		4	RAINBOW
	5	ORANGE		5	
	6	CYAN		6	
	7	BLUE		7	
	8	MAGENTA		8	
	9	WHITE		9	
	Number	BRIGHTNESS		Number	SPEED
BRIGHTNESS	0	OFF	**SPEED**	0	
	1	DIMMEST		1	SLOWEST
	2			2	
	3			3	
	4			4	
	5	MEDIUM		5	MEDIUM
	6			6	
	7			7	
	8			8	
	9	BRIGHTEST		9	FASTEST

Select a Light to Program

Once the controller has been selected you must then choose a light to configure. Press **PROGRAM**. The first light will light up with a solid yellow color. Keep pressing **PROGRAM** until the light you wish to program is lit. To choose the light press **RESET**. The light will cycle through the available color palette to signal that you are currently selecting a color.

Safety Cross Select Light

After pressing program, newer versions of the firmware will allow you to enter a light number using the keypad. If you have less than 10 lights press the number of the light, you wish to select, and the light chosen will light up yellow to indicate the selection. If you have more than 10 lights to control press two buttons corresponding to your light. For example, 0 then 1 for light 1 and up to 3 then 0 for light 30. Press **OK** to continue.

Color

Select a color using the **UP/DOWN** buttons or the corresponding number pad button. You can modify your selection any number of times. When your desired color is shown press **OK/RESET** to continue or **PROGRAM** to complete light setup.

Note: Refer to the number pad quick reference a list of available settings.

Pro Tip: You can exit the programming of a light by pressing **PROGRAM** at any time during the light setup. The changes you have made will be saved without affecting the later settings. For example, to quickly turn off a light, navigate to the light and push **OK** to select it. The color animation will play. Now push **0**. Then push **PROGRAM**.

Brightness

After setting the color, the selected light will cycle through each available brightness setting to signal that you are now selecting a brightness. Use the **UP/DOWN** buttons or the number pad to select your brightness setting. When your desired brightness is shown press **OK/RESET** to continue or **PROGRAM** to complete light setup.
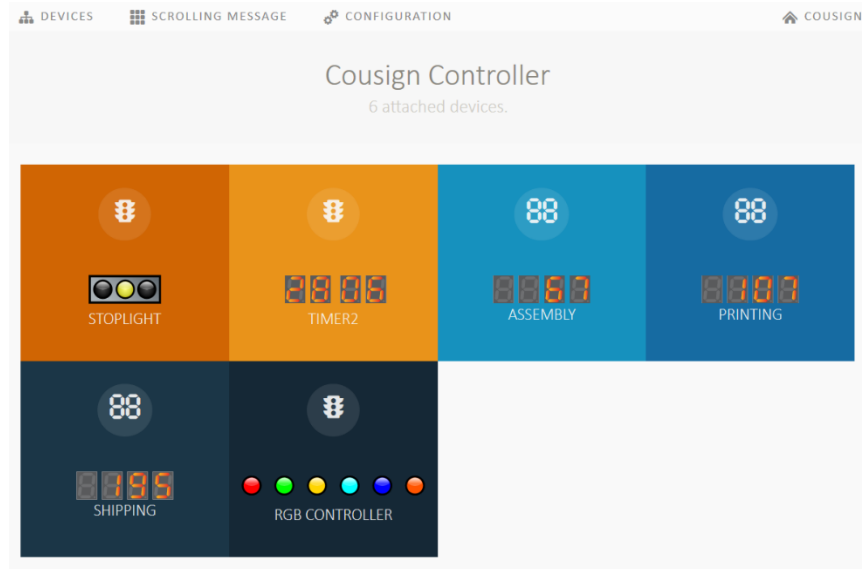
Animation Mode

After setting the brightness, the selected light will show the currently selected animation. Use the **UP/DOWN** buttons or the number pad to select your animation mode. When your desired mode is shown press **RESET** to continue. If the speed setting does not apply to your animation mode, for example a SOLID light does not have a speed, the round robin animation will play and your light is configured. Normal operation will resume. If your animation requires a speed setting your light will continue to animate.

Note: The animation will be displayed at the currently selected speed, or the default speed. For FLASH this can be rather slow so if your light appears to be solid on/off but you think it should be flashing, wait a few seconds to see if it is animating very slowly. You can speed it up in the next step.
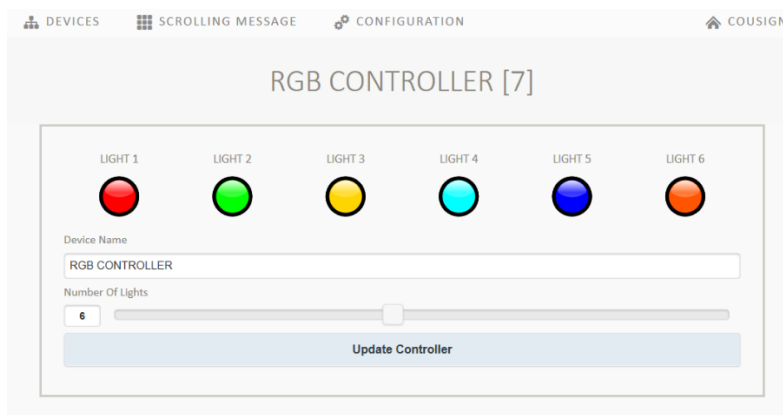
Speed

After setting the animation mode, the light will be animated according to your mode selection. Use the **UP/DOWN** buttons or the number pad to select your animation speed. When your desired speed is shown press **OK/RESET** to continue. The round robin animation will play and your light has been configured.

Network Control

If your sign is outfitted with a network controller you can make all of these changes more efficiently via the network controller webpage. Your multicolor controller will be shown in the device list. **Click** on the controller to select it.
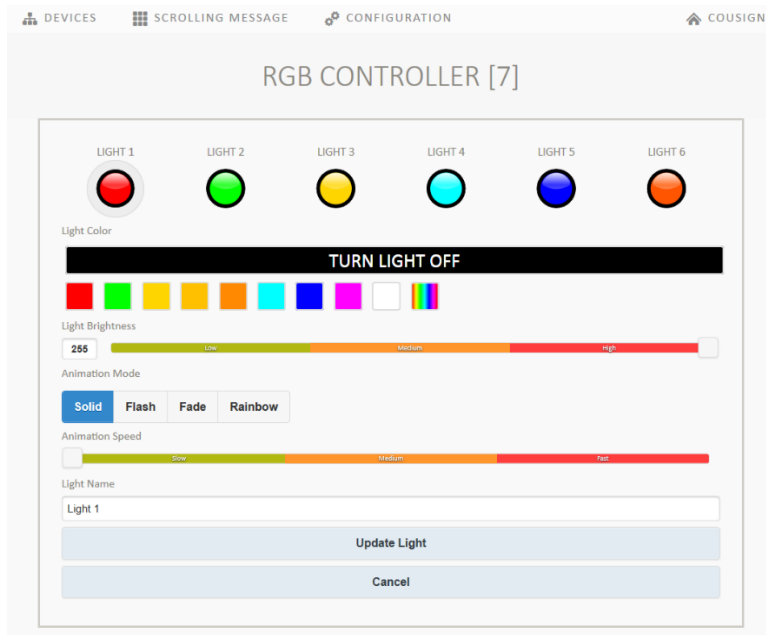

Controller Settings

The number of lights and controller name can be configured on the first page. The controller name is for your reference only and will be displayed on the device list. The number of lights setting should be set to accurately reflect the number of lights attached to the controller. Make your selections and click **Update Controller**.

Light Settings

To set the color, brightness, animation mode, and speed of a given light, click on a light icon. The following interface will be displayed.

Make your selections and choose **Update Light** to apply them. **Cancel** will return you to the controller settings.

Pro Tip: A color can be chosen from the standard palette by clicking on one of the color palette boxes, however at the far right there is a rainbow box which when clicked will display a hue slider allowing for fine grained color selection.

Safety Cross

The safety cross is a special version of the firmware for the multicolor controller that allows up to 30 lights to be controlled in a safety cross pattern. The lights can be set to a color to denote the safety status for the day or denote days of significance in the future such as a monthly or weekly safety meeting. For example, for each incident free day in the current month you can set the light to green. On any day where a near miss occurs the light can be set to yellow and if a reportable accident occurs the light for that day can be set to red. Safety meetings for the month can be denoted in blue until the end of the day at which point the light can be updated to green/yellow/red to report the safety status.

With so many lights to configure some short cuts have been added. At the end of the month instead of configuring 30 lights to off individually, press **RESET** while in normal operation mode which will automatically turn off all lights 2 to 30 and set light 1 to green.

To set subsequent days press the **RIGHT** arrow button which will copy the status of the preceding light to the next light. Use **UP/DOWN** to adjust the color. If you go too far use the **LEFT** arrow button to turn off the current light and select the previous light for control. If you need to configure more advanced settings such as intensity, mode, animation speed you can still do so using the **PROGRAM** button and set all options for the specific light.

To adjust the brightness of all lights, press the number pad keys **1** to **9** while in normal operation.