SINGLE COLOR STROBING/FLASHING LED CONTROLLER

OVERVIEW

The Boogey Lights® Single Color Strobing LED controller is a wireless RF controlled LED controller. Designed primarily for commercial, working truck applications that require the need to turn on/off, strobe and/or flash large numbers of single color LEDs this LED controller also has dual zone capability. The unique dual zone capability allows the lights to be segregated into two distinct lighting zones.

For example, zone one might be red LEDs and zone two amber LEDs. Another option could be to assign the two zones into LEDs mounted on different parts of the vehicle. Each zone can be operated independently or together. In addition to ON/OFF control, STROBING and FLASHING, there's a STEADY-ON mode that offers dimming making it ideal for recreational vehicle applications as well. All of these features are operated using the included wireless RF handheld remote.

This controller includes our Quick-Switch feature which when paired with a simple on/off switch will allow the controller to be turned on/off in the last used settings via a hard-wired switch typically mounted on the dash.

FEATURES

- Heavy Duty, Dual Zone, Single Color LED controller. For use with single color LEDs. Each zone has one 12v+ and one 12v- output to power the LEDs.
- Dual Zone capability. Each zone can be operated independently or together using the included RF wireless hand-held remote.
- Simple ON/OFF using the included RF wireless remote.
- Three operating modes: STEADY ON, STROBING, 3 BURST FLASHING. Each mode can be adjusted per zone.
- The speed of the strobing and flashing mode can be adjusted with 5 different settings.
- Brightness can be adjusted with 5 different settings.
- Boogey Lights® 'Quick Switch' feature allows the user to connect a simple on/off toggle switch to the controller (one Quick-Switch input is available per zone) to allow the lights attached to each zone to be turned on/off (comes on in the last used settings for that zone) via a switch mounted on the dash instead of using the RF remote. This feature does not have to be used if you don't want it.
- Designed for 12vdc power. 1500 tri-chip capacity per lighting zone. 20amps per zone.
- Measures 5.5" long x 3.25" wide and 1.5" high. Note that the overall length to accommodate room for wires is 10".
- Water resistant but not waterproof. Suggest mounting in a location that is dry.

Wiring and RF remote diagrams appear at the end of this document.

POWER INPUT

Amperage rating measurements for this controller assume an operating range of 12 to 13.5 vdc input. While the controller will accept up to 14.5 vdc, be aware that increasing voltage input to the LED controller will increase the amperage draw of the LEDs the controller is powering (the LEDs will glow brighter with more input voltage which means they'll draw more amperage). Be careful not to exceed the amperage ratings. Doing so may damage the controller.

The RED power input has a blade fuse and connects to the 12vdc POSITIVE pole on the battery source. It is important to insert a fuse in the blade fuse holder that matches the amperage draw of your system. Because this is a DUAL ZONE controller, it has two 20A fuses (one for each zone). The BLACK power input connects to the 12vdc NEGATIVE pole on the battery source. It's important to use appropriately sized wire gauge cable for making these battery connections. On the Dual Zone HD Controller when we know the number of LEDs attached to the system may be nearing or pushing the limit, we will use two 10AWG wires (one for each zone) each with their own fuse. It's important to take your own amperage measurements when installing your system to make sure you're within the operating limits.

MOUNTING

This controller is water resistant; not waterproof. Mount the LED controller in a location that is not exposed to water. Yes, it can get wet. No, it should not be submerged. Also, as with anything that uses electricity, heat build-up should not be over-looked. The more LEDs you connect to the controller, the more heat will build up. Mount the controller in a location that has air flow. If the controller overheats, it will shut itself down.

QUICK SWITCH FEATURE

This controller includes our unique QUICK SWITCH feature which can be triggered by applying 12vdc + to the YELLOW input wire to the LED Controller. This feature is per zone. So each zone has it's own Quick Switch yellow trigger wire.

How it Works: When 12vdc power is detected on the yellow trigger wire, the controller will turn on using the last used settings for that zone. It's zone specific. If the controller is already on using the RF remote, turning this on will do nothing HOWEVER turning off this circuit will also turn OFF the controller. The same holds true for the RF remote. If the controller is turned on using the Quick Switch trigger circuit, pressing the on/off button on the RF remote will do nothing HOWEVER pressing the on/off button a second time on the RF remote will turn off the controller.

The most common use for this feature is with wrecker applications where the operator needs the lights to turn on the same way every time (e.g. 3 burst flashing at the preferred speed). Once the controller is first setup with the RF wireless remote to use that 3 burst flashing mode, it is turned off. When the controller is turned on the next time using the Quick Switch trigger (usually wired to a toggle switch on the dash), it will come on using that last setting (3 burst flashing mode in this case). In this configuration, the RF handheld remote is only used to change the operating mode the controller first turns on in.

NOTE: You do not have to use this feature if you don't want to. If you aren't going to use it, just be sure to cap the two yellow trigger wires (one per zone).

BASIC OPERATING INFORMATION

Powering Up

When the LED controller is first connected to 12vdc power, all LEDs attached to the controller will quickly flash. You'll notice too the green light on the face of the controller will be lit. This green light stays on all the time. It's your indication the LED controller is energized; has 12vdc power connected to it. That single tiny LED draws very little power; milliamps. If you're not going to be using the lighting system for an extended period of time we suggest removing the fuse from the controller and powering it down. This is particularly true for vehicles that are often stored for months at a time. No reason to leave the controller energized in that scenario. NOTE: Merely connecting 12vdc power to the controller does nothing more than energize the controller. To turn the lights on, you need to use the RF wireless remote or Bluetooth APP.

Turning On and Using

With the green light on, your LED controller is ready to be used (assumes you have wired your LEDs to the controller). You'll need to use the RF wireless remote that comes with the controller to initially turn on the controller. When the controller is first turned on, the LEDs will display in whichever mode they were last used. This feature is particularly useful for those who want the lights to work the exact same way every time the controller is turned on (and especially if you're using the Quick-Switch feature).

RF Wireless Range

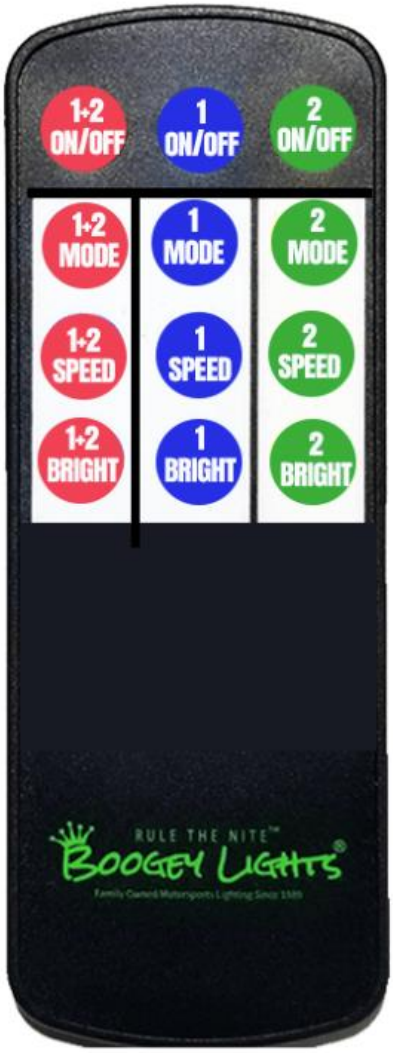
RF wireless range will vary based on the operating environment but it's not unusual to get 100'+ range with the remote. The antenna for the RF wireless communication is on the inside of the controller. Mounting the controller inside of a metal box will of course impact the effective range. When in doubt we suggest dry mounting the controller and testing the range before selecting your permanent mounting location.

Pairing Button

You'll notice there is a pairing button on the face of the controller. The pairing functionality 'pairs' or links the RF handheld remote with the LED controller. When the controller and remote are shipped, they are already paired. Typically they will stay paired. If however the RF remote and controller becomes un-paired, you need to re-pair them. Common causes for unpairing include accidental pressing of the 'Pairing' button, the battery in the remote dying or buying a new remote to replace one that was lost or damaged.

The pairing process is quick and easy. To pair the RF wireless handheld remote with the LED controller, quickly press and release the pairing button on the face of the LED controller (do not hold it down). As soon as you do, the green power indicator light will start flashing. You have 30 seconds at that point to press any button on the RF wireless remote to 'pair' the RF remote to the LED controller. If the pairing is successful, the green power indicator light will stop flashing. If you wish to pair a second RF remote, repeat the process. You can pair up to 3 RF remotes to a single led controller.

SINGLE COLOR DUAL ZONE STROBING CONTROLLER REMOTE



ON/OFF buttons

Turns ON/OFF the lighting zones as referenced on the button.

-> 1-2 turns on/off BOTH zones 1 and 2.
-> 1 turns on/off ZONE 1 only
-> 2 turns on/off ZONE 2 only

mode button

Selects between SOLID ON, 3 LIGHT BURST and STROBING for the zone indicated.

SOLID ON -> BURST -> STROBING -> SOLID ON

speed button

Adjusts the speed of the BURST and STROBING modes for the zone indicated. 5 speeds

5 > 4 > 3 > 2 > 1 > 5

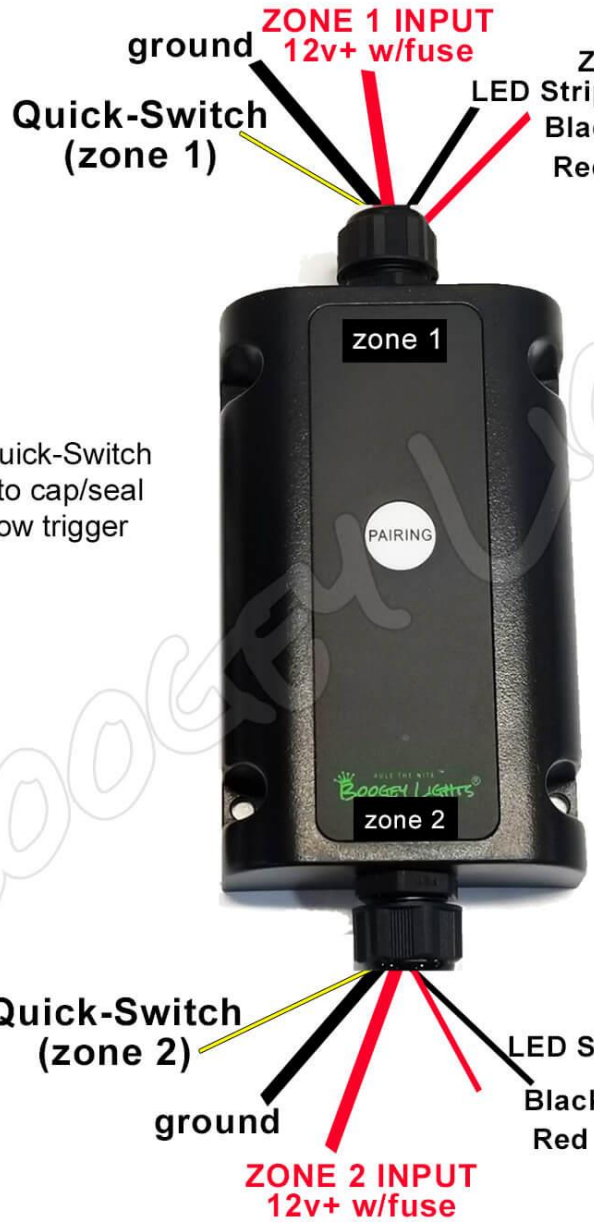
brightness button

Adjusts the brightess of the SOLID ON, BURST and STROBIG modes for the zone indicated. 5 brightness levels.

5 > 4 > 3 > 2 > 1 > 5

Reminder: The controller will power up using the last settings.

SINGLE COLOR STROBING LED CONTROLLER



If not using the Quick-Switch feature, be sure to cap/seal each of the yellow trigger wires.

Do not exceed 20amps per zone. Operating range is12vdc to 13.5vdc input. Increasing voltage input to the LED controller will increase the amperage draw of the LEDs the controller is powering. The LEDs will glow brighter with more input voltage which means they'll draw more amperage.

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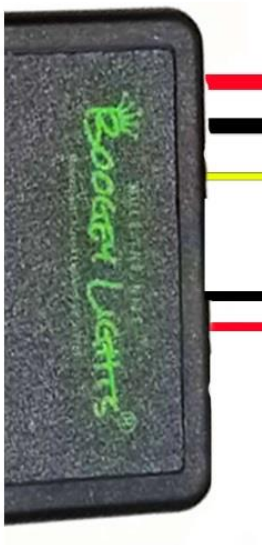
SINGLE COLOR STROBING CONTROLLER

DUAL ZONE with BOOGEY LIGHTS® Quick-Switch



POWER INPUT TO CONTROLLER

12vdc+ power (must be fused)

12vdc- ground

YELLOW Trigger Wire (12vdc+)
(Enables QUICK SWITCH Feature)

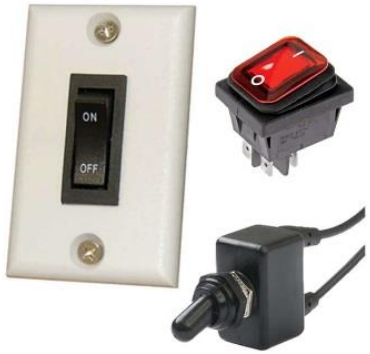
12vdc+
from switch

POWER OUT TO LED STRIPS

Black = 12V- ground on LED strip.

Red = 12V+ output to LED strip.

This is a DUAL ZONE controller. There are two sets of input and output wires. One set per zone. We only show one zone in this diagram. They are wired identically. If not using the Quick-Switch feature, cap/seal the yellow trigger wire on each zone.



12vdc power coming from a switch of some type supplies 12vdc power to the Quick Switch trigger wire to activate this feature. The switch can be any 12vdc power source: wall switch, push button switch, toggle switch, running lights, existing dash switch, etc.

When 12vdc is applied to the Quick-Switch trigger input, the controller will turn on the LEDs in the last used setting for that zone. There are two Quick-Switch trigger inputs for this controller. If you always want both zones to come on at the same time, wire both Quick-Switch trigger inputs to the same switch.

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