
LITTLE LIGHTS SIMPLE FLASHER USERS GUIDE

D5 DEM Model Smiths

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CONTROLLER OVERVIEW

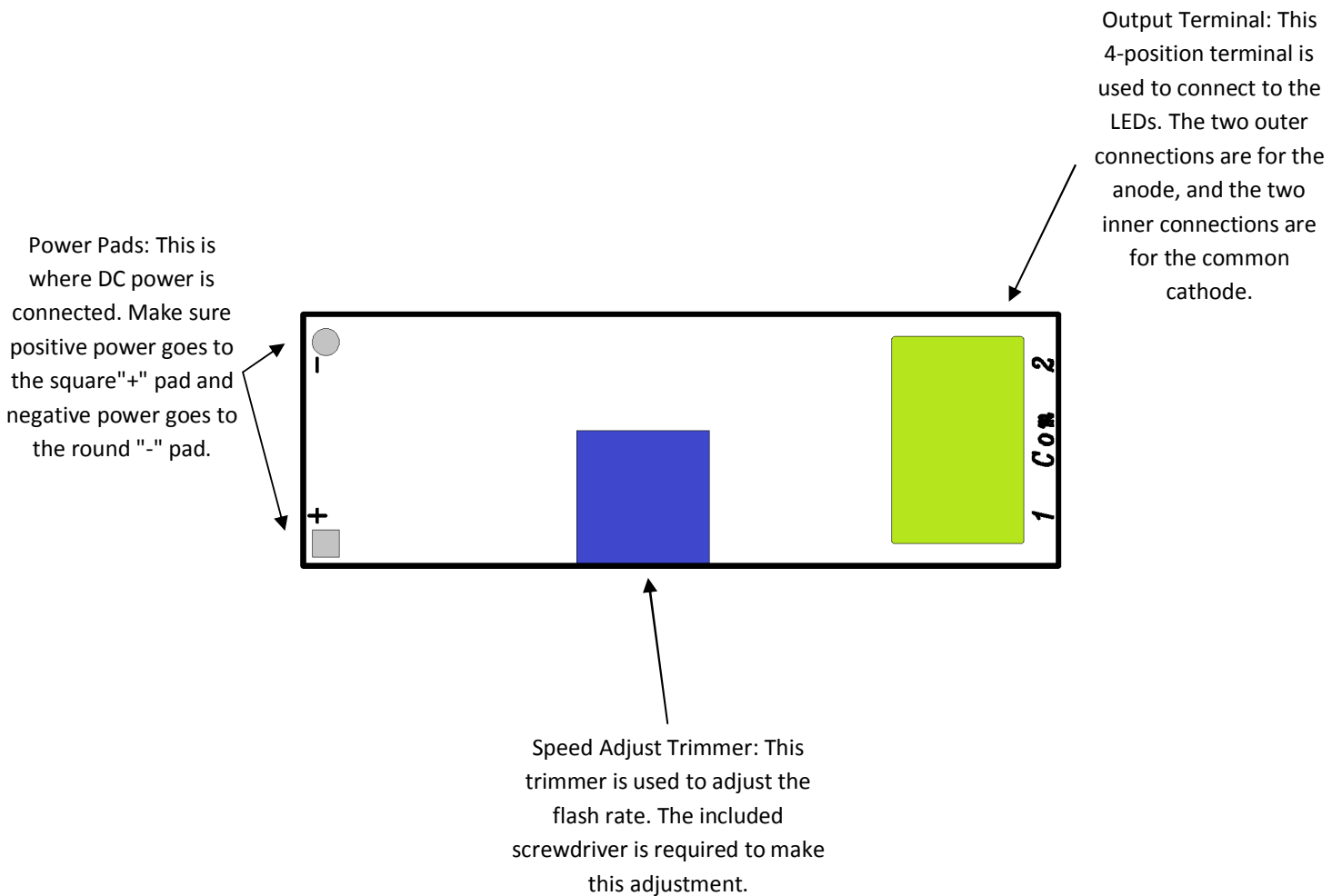
Our Little Lights Simple Flasher is a simple and cost-effective way to add flashing lights to any scale model scene! The small form factor means that this module fits in anywhere. Simply power the module with DC power ranging from 5 to 12 volts, connect up to two LEDs wired in a common cathode configuration, and adjust the flash rate with the attached trimmer. This brings new life-like effects to any model in seconds!

This flasher is designed to operate LEDs in two of three ways. This will operate two individual LEDs, each with separate positive and negative power connections. Alternatively, this will operate two LEDs wired in a common cathode configuration, meaning that the LEDs share the negative power connection. This flasher will **not** operate LEDs in a common anode configuration, where the LEDs share the positive power connection.

Alternatively, this flasher can flash a single LED, if desired.

This flasher has current-limiting resistors built right in! This means that LEDs can safely be connected directly to the module, without risk of damaging them. No extra components are necessary.

CONTROLLER DIAGRAM



CONTROLLER FEATURES

POWER PADS

The power pads are used to connect DC power to the module. Simply solder a wire to each pad, then connect the wires to a DC power source. Note that the square pad marked with a "+" must be connected to positive power, while the round pad marked with a "-" must be connected to negative power. The DC source must be in the range of 5 to 12 volts.

WARNING: Reversing the polarity of the power connections or exceeding the 12 volt limit will damage the flasher. Carefully double check all connections before powering the flasher for the first time.

SPEED ADJUST TRIMMER

The blue trimmer is used to adjust the flash rate of the lights. Use the small screwdriver provided to turn the trimmer to adjust the flash rate.

OUTPUT TERMINAL

The output terminal is used to connect up to two LEDs in a common cathode configuration. The outer connections labeled "1" and "2" are used to connect the anodes of each light, while the inner two connections labeled as "Com" are used to connect the cathodes of each light. Two "Com" connections are provided so that two individual LEDs without a common wire can be connected easily.

NOTE: This flasher is designed to operate LEDs in a common cathode configuration. This means that either the two LEDs share the same cathode (negative) connection, or they share no connections. Some models are provided in a common anode (positive) configuration. These common anode lights will NOT work with this controller.

BASIC SETUP

Setting up the Little Lights Simple Flasher is exceptionally straightforward and easy!

First, connect the anode (positive) wires from your LED lights to connections "1" and "2" on the output terminal. Next, connect the cathode lead (or leads) from your lights to the "Com" connection on the output terminal.

Once the lights are connected, connect power to the board using a DC source between 5 and 12 volts. Connect the positive power lead to the square "+" pad on the board, and connect the negative power lead to the round "-" pad on the board.

That's all there is to it!

SPEED ADJUSTMENT

Once the lights and power are connected, the speed adjustment trimmer is used to adjust the flash rate of the lights. The provided screwdriver should be used to carefully adjust the trimmer to yield an appropriate operation speed.

TROUBLESHOOTING

Below are some general troubleshooting tips for if your flasher does not operate as expected. In the event that these tips do not resolve the problem, please get in touch at service@d5dem.com and one of our staff can help resolve the issues.

1. Neither light comes on
 - a. First, check to make sure the flasher is powered. Use a volt meter to measure the voltage at the power pads. Make sure that voltage is present, and make sure the polarity is correct (positive power on the pad marked "+" and negative power at the pad marked "-").
 - b. Next, make sure the LEDs are not connected backwards. For each LED, the positive anode must be connected to one of the connections labeled "1" or "2", and the negative cathode must be attached to one of the connections labeled "Com".
2. Only one light is flashing
 - a. Make sure that both LEDs are connected with the positive anode to the connections labeled "1" and "2" and the negative cathode mounted to the "Com" connection. If only one LED is flashing, then likely the other LED is connected backwards, or one of the wires for that LED is broken.