Lighting Controller

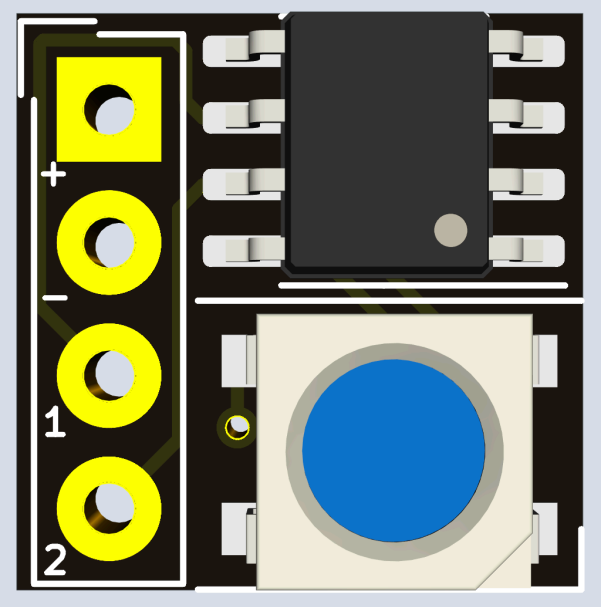
User Manual

AP087

Table of Contents

Introduction

Thank you for purchasing your Lighting Controller. This is a small board with an integrated full colour LED design to provide a multitude of lighting effects suitable for integration into model displays and other miniature applications requiring realistic lighting.



Connections

The board has four connections, with power leads already fitted to pins 1 and 2.

Pins three and four are used for setup. Push switches can be temporarily fitted to these pins between the pin input and ground. Take care not to connect to +12V, the board will be destroyed if this happens. Once the controller has been configured, the switches can be removed, the setting of the controller is retained in non-volatile memory for subsequent use.

Connection	Function	Notes
+	+12V DC	Square pad on board / red wire
-	0V	Black wire
1	Button 1	Used for setup
2	Button 2	Used for setup

Power Requirements

The module requires 12V DC at around 25mA.

Configuring The Module

Fit momentary push switches between connection - and 1 and connection - and 2. These are 'Button 1' and 'Button 2' respectively.

By pressing Button 1, the mode is selected (see Mode Reference Table in this document). The mode is confirmed by the colour of light flashing as shown in the table. Press the button repeatedly to step through the modes.

For certain modes, the type of operation can be selected by pressing Button 2. A preview of the lighting function will be seen immediately.

Storing In Memory

Simply leave the module in the displayed mode for 15 seconds and the mode will be automatically stored. This is indicated by a colour cycle flash. Removing the power resets to this previously stored mode, or Mode 0 can be selected as shown in the reference table.

Resetting To Factory Default

Press and hold button 1 while switching on power. The board will reset to Mode 3 (Medium Warm Light). The colour cycle flash confirms the board reset.

Mode Reference Table

Mode	Mode set type (button 1)	Confirmation x flash	Button 2 selects
0	Power up Cancel new setting	Purple x 2	Previous setting
1	Choose light temperature	White x 2	40W tungsten 100W tungsten Halogen Carbon arc Fluorescent mercury Sodium High pressure sodium Full white
2	Set colour red	Red x 2	Red level low to high
3	Set colour green	Green x 2	Green level low to high
4	Set colour blue	Blue x 2	Blue level low to high
5	Set brightness	Cyan x 2	Brightness low to high
6	Set soft on program	Orange x 2	Instant Fast on (0.5s) Medium on (1s) Slow on (2s)
7	Set effects program	Yellow x 2	Constant Light flicker Dodgy light bulb TV Real wood fire When an effect mode is selected, the LED flashes green 1, 2, 3, 4 or 5 times respectively to confirm selection.

Fixing Method

To affix the module into scenery / buildings etc., double sided sticky fixers can be used, epoxy resin, hot glue etc. Do not use conductive tapes or adhesives. Avoid obscuring the LED as light output will be reduced, and consider if access to configuration pins is required.

Specifications

Dimensions - W 11.0mm, H 10.8mm, D 3.0mm

Weight - 5g

Voltage - 12V DC

Current - 25mA