

brightboard

PCB V1.0

BUILDER'S MANUAL

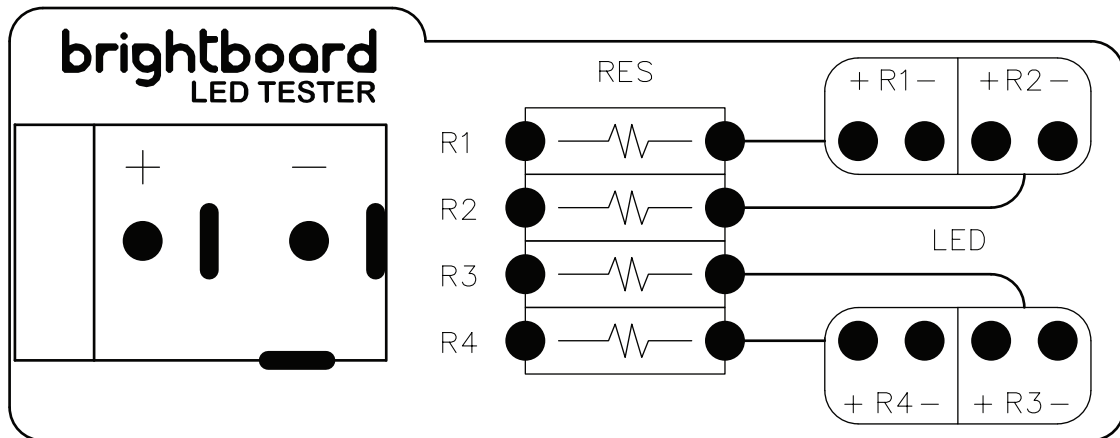


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Dimensions (W=42.55mm x H=16.51mm)

For a downloadable PDF copy of this manual, visit www.hammondtoneworks.com/support

DISCLAIMER:

All board layouts have been tested and verified. While I do offer a guarantee on the functionality of purchased PCBs, there is an understood assumption that the end user (you) have the knowledge and skill required to assemble the product and accept any risk involved with assembling the provided boards or parts. This understood skill level includes knowing how to properly solder, troubleshooting steps, etc. If you have any questions concerning any Hammond Toneworks products, feel free to send a message on the platform of purchase, or contact support at support@hammondtoneworks.com

COMMERCIAL USE:

You may use Hammond Toneworks PCBs in commercial projects as long as the completed project is not sold as a Hammond Toneworks branded pedal, and the model name of the PCB is not used on the enclosure. Crediting the use of the PCB is not required. PCBs are not be resold as an item themselves.

Hammond Toneworks PCB boards are manufactured to accomodate the following recommended components

- Resistor:** 1/4w metal film or carbon film resistors
(7.62mm lead spacing on all resistor connections)
- Film Cap (B):** Film box type capacitor
(5mm lead spacing unless otherwise noted)
- Cer Cap (M):** Monolithic ceramic capacitor
(5.08mm lead spacing, ceramic disc capacitor can be used as a substitution)
- Cer Cap (D):** Ceramic disc capacitor
(2.54mm lead spacing)
- Elec Cap:** 25V Electrolytic Capacitor recommended, unless otherwise noted (50V caps recommended if using over 9V power)
(2.54mm lead spacing)
- Transistor:** All transistor holes are spaced to 2.54mm for easier soldering
(2.54mm lead spacing)
- Diode:** 6.32mm-7.62mm lead spacing and 0.9mm hole diameter on PCB
- Pots:** Potentiometers are to be connected to the effect board directly. Common 16mm right angle pots are recommended.
(5mm lead spacing) NOTE: Potentiometer hole diameters are sized to allow pots to be connected via wire if preferred.
- Wires:** Wiring connection holes are drilled to 1mm diameter and are spaced 2.54mm apart.
Use of 24G wire is recommended for easy assembly

RECCOMENDED ASSEMBLY ORDER**1. EFFECT BOARD ASSEMBLY**

- Solder small components first (resistors, diodes, etc) then work your way up to soldering the tallest components , then potentiometers, and finally the connection wires to the 3PDT daughter board (if used) NOTE: This is the general order of assembly, if any particular board is assembled easier using a different oder, it will be noted in the respective build docs.

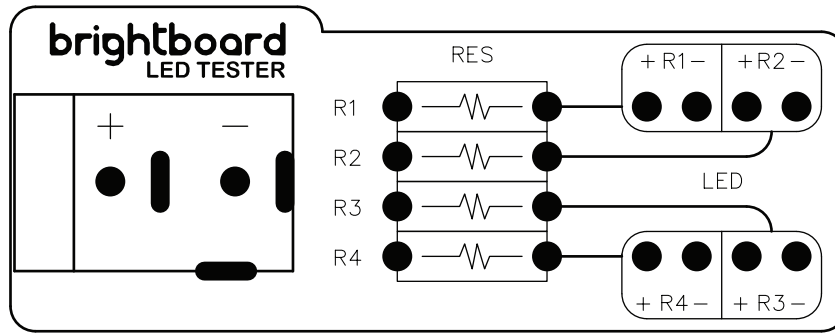
2. OFFBOARD WIRING

- Refer to the recommended offboard wiring methods on pages 8 or 9 (depending on your preference)

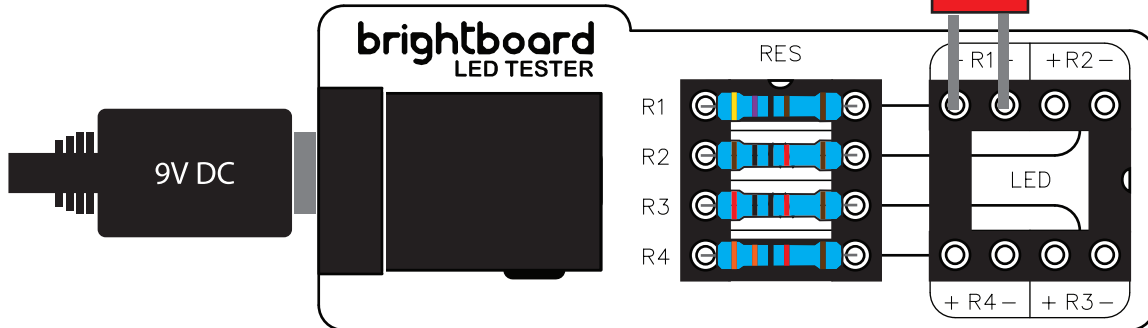
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This PCB is intended to be used as a simple standalone LED brightness testing tool. Primarily designed to allow you to test the brightness of different LEDs using different resistor values. This has proved to be useful when using different colored "water clear" LEDs. The layout allows for the use of DIP8 IC sockets because they are common and most every builder has some lying around. You may also permanently solder the resistor values if you would prefer. The DC jack section is intended to be used with the common PCB mount DC jacks, a positive and negative hole is available as well, if you would rather attach a DC jack or battery clip via wire. You can disregard the extra "+" and "-" holes if using the PCB mounted DC jack. There is no BOM for this PCB, as it is just intended for use with sockets, but the recommended parts are (1) PCB mount 2.1mm DC jack, and (2) DIP8 IC sockets

BARE



ASSEMBLED (with sockets)



The LED section indicates LED polarity, as well as a marking (R1, R2, etc.) indicating which resistor that socket corresponds to. This is to allow for hot swapping positions in the LED section to choose which resistor value you prefer for the brightness of that LED

