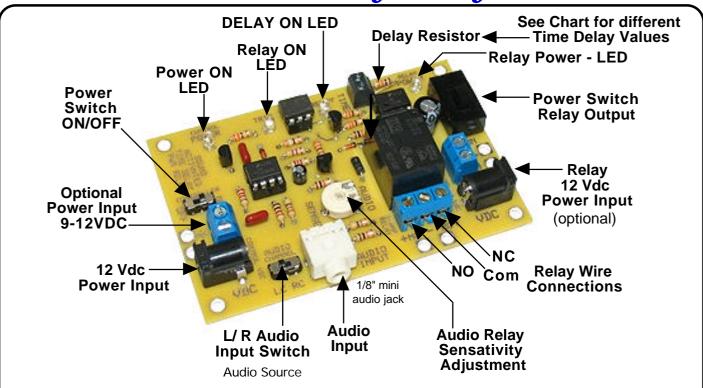
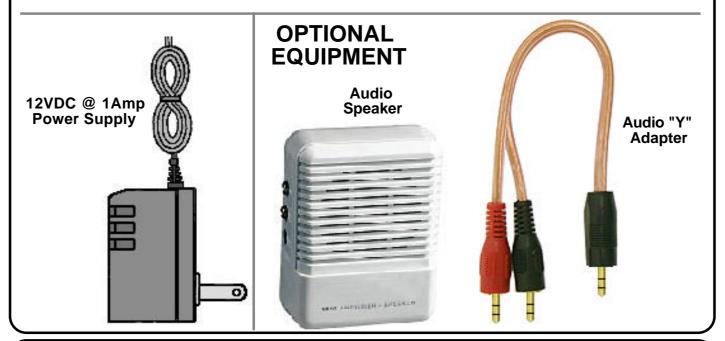




Sound Activated Delay Relay



Sound Activated Delay Relay Board allows you to control a 10A relay in response to sound from a non-amplified sound source (computer, CD player, or my Digital Sound Recorder board). Using A Time Resistor (X), the Relay will stay ON for X time once triggered then reset.



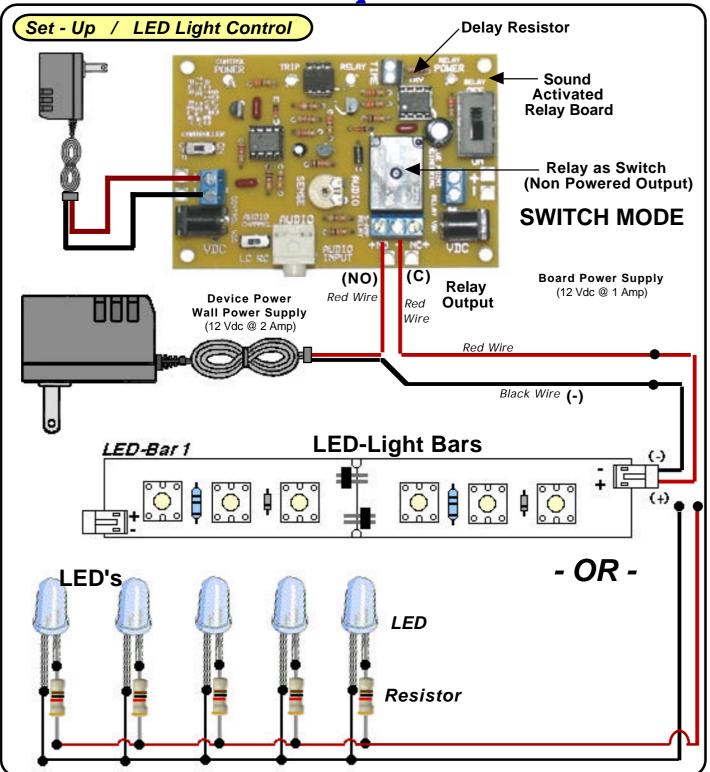
Custom Equipment, Unique Electronic Products

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Controller to LED Output



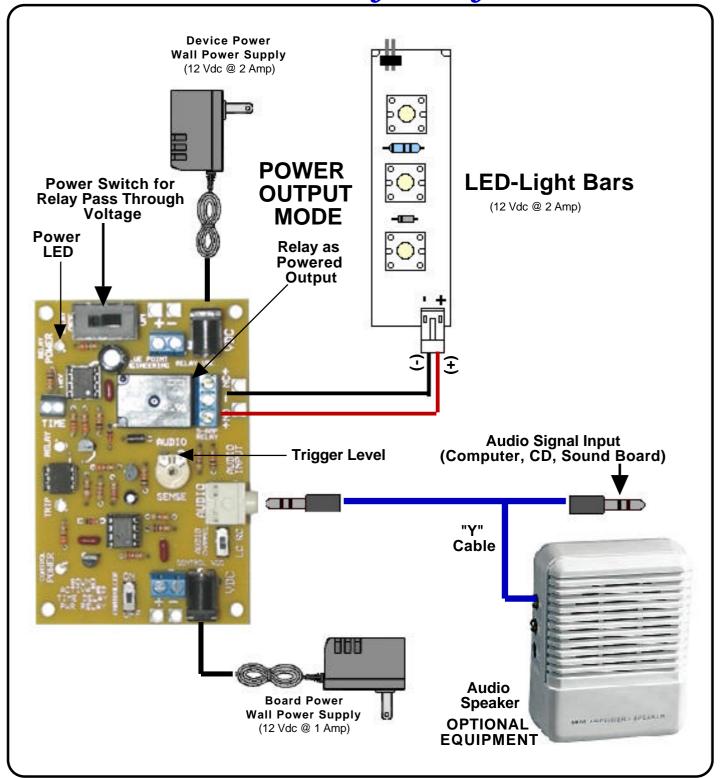
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Sound Activated Delay Relay



Custom Equipment, Unique Electronic Products

Blue Point Engineering Inc.





Sound Activated Delay Relay

When Audio triggered, this board will activate a mechanical relay for a specified period of time. This relay time ON is controlled by a "timing resistor" which is easily replaceable by the user. (See below for a table of resistor values and associated time delays) Time delays can range from less than a second to about 50 minutes.

An LED indicates when the NO (Normal Open) contacts of the relay are closed. (Switch ON) An LED indicates when the Timing Delay is active,

The relay has Normally Open (NŎ) and Normally Closed (NC), Common (COM) terminal connections. The board requires 12VDC for operation.

The Relay can be used as a Switch with (NO,COM,NC) contacts or as a Switch with Power pass through connection supply (Plus+ and Minus-).

Miscellaneous Information:

• The relay activates as soon as the Audio Sound Input trigger occurs but timing begins as soon as audio triggered.

Specifications:

· Input Power: 12 VDC

· Output: NO and NC RelayContacts Time Resistor (RELAY IS ON X Value) · Relay Rating: 10A Max **Resistor Wire Terminal Block** Resistor (1/4 Watt - ? Ohm) Bent to fit Wire Terminal Block **DELAY** (See Resistor Chart for Time Values) ON LED Relay ON LÉD X Value **Power Switch Relay Output** Relay Relay 12 Vďc **Power Input** (optional) NC Com **Relay Wire** Connections

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Sound Activated Delay Relay

Resistor Values / Time Delay Chart

Resistor Values / Time Delay Chart 1/4 watt resistors

| | Resistor | | | | | Resistor | | | |
|-------------|------------|-----------------|-------------------|------|-------|----------|----------|----------|-------|
| | Value | Seconds | | | | Value | Minutes | | |
| | (K) | 00001140 | +5% | -5% | | (K-M) | Miliates | +5% | -5% |
| | 10 K | 2.2 | 2.1 | 2.3 | | 220 K | 1.02 | 0.97 | 1.07 |
| | 11 K | 2.5 | 2.4 | 2.6 | 1 | 240 K | 1.11 | 1.06 | 1.17 |
| | 12 K | 2.8 | 2.6 | 2.9 | 1 | 270 K | 1.26 | 1.19 | 1.32 |
| | 13 K | 3.1 | 2.9 | 3.2 | 1 | 300 K | 1.40 | 1.33 | 1.47 |
| | 15 K | 3.6 | 3.4 | 3.8 | 1 | 330 K | 1.54 | 1.46 | 1.61 |
| | 16 K | 3.9 | 3.7 | 4.1 | 1 | 360 K | 1.68 | 1.59 | 1.76 |
| | 18 K | 4.5 | 4.2 | 4.7 | 1 | 390 K | 1.82 | 1.73 | 1.91 |
| Г | 20 K | 5.0 | 4.8 | 5.3 | 1 | 430 K | 2.01 | 1.91 | 2.11 |
| | 22 K | 5.6 | 5.3 | 5.9 | 1 | 470 K | 2.19 | 2.08 | 2.30 |
| | 24 K | 6.2 | 5.8 | 6.5 | 1 | 510 K | 2.38 | 2.26 | 2.50 |
| | 27 K | 7.0 | 6.6 | 7.3 | 1 | 560 K | 2.61 | 2.48 | 2.75 |
| | 30 K | 7.8 | 7.5 | 8.2 | 1 | 620 K | 2.90 | 2.75 | 3.04 |
| | 33 K | 8.7 | 8.3 | 9.1 | 1 | 680 K | 3.18 | 3.02 | 3.34 |
| | 36 K | 9.5 | 9.1 | 10.0 | 1 | 750 K | 3.51 | 3.33 | 3.68 |
| | 39 K | 10.4 | 9.9 | 10.9 | 1 | 820 K | 3.83 | 3.64 | 4.02 |
| | 43 K | 11.5 | 10.9 | 12.1 | 1 | 910 K | 4.25 | 4.04 | 4.47 |
| | 47 K | 12.6 | 12.0 | 13.3 | | 1.0 M | 4.68 | 4.44 | 4.91 |
| | 51 K | 13.7 | 13.1 | 14.4 | | 1.1 M | 5.15 | 4.89 | 5.40 |
| | 56 K | 15.2 | 14.4 | 15.9 | | 1.2 M | 5.61 | 5.33 | 5.89 |
| | 62 K | 16.8 | 16.0 | 17.7 | | 1.3 M | 6.08 | 5.78 | 6.39 |
| | 68 K | 18.5 | 17.6 | 19.5 | | 1.5 M | 7.02 | 6.67 | 7.37 |
| | 75 K | 20.5 | 19.5 | 21.5 | | 1.6 M | 7.49 | 7.11 | 7.86 |
| | 82 K | 22.5 | 21.3 | 23.6 | | 1.8 M | 8.43 | 8.00 | 8.85 |
| | 91 K | 25.0 | 23.7 | 26.2 | | 2.0 M | 9.36 | 8.90 | 9.83 |
| | 100 K | 27.5 | 26.2 | 28.9 | | 2.2 M | 10.30 | 9.79 | 10.82 |
| | 110 K | 30.3 | 28.8 | 31.9 | | 2.4 M | 11.24 | 10.68 | 11.80 |
| | 120 K | 33.2 | 31.5 | 34.8 | | 2.7 M | 12.64 | 12.01 | 13.28 |
| | 130 K | 36.0 | 34.2 | 37.8 | | 3.0 M | 14.05 | 13.35 | 4.75 |
| | 150 K | 41.6 | 39.5 | 43.7 | | 3.3 M | 15.46 | 14.68 | 16.23 |
| | 160 K | 44.4 | 42.2 | 46.6 | | 3.6 M | 16.86 | 16.02 | 7.71 |
| | 180 K | 50.0 | 47.5 | 52.5 | | 3.9 M | 18.27 | 17.35 | 19.18 |
| | 200 K | 55.6 | 52.9 | 58.4 | | 4.7 M | 22.02 | 20.92 | 23.12 |
| Tir | ne Delay | | | | | 5.1 M | 23.89 | 22.70 | 25.09 |
| Relay Board | | | | | | 5.6 M | 26.24 | 24.92 | 27.55 |
| Resistor | | | | | 6.2 M | 29.05 | 27.60 | 30.50 | |
| Resistor | | | | | | 6.8 M | 31.86 | 30.27 | 33.45 |
| | | | | | | 7.5 M | 35.14 | 33.38 | 36.90 |
| | Service of | AND THE RESERVE | The second second | | | 0 0 14 | 00 40 | 1 0 / 50 | 40 04 |

Time values are calculated and are approximate. You may have to experiment to get the exact time. Use 1/4 watt resistors – available at any electronics supply store (i.e., Radio Shack). The +/- 5% Values above show approximate range expected when using 5% resistors.

8.2 M

9.1 M

10.0 M

38.42

42.64

46.86

36.50

40.51

44.51

40.34

44.77