

LED driver

for music synthesizers.



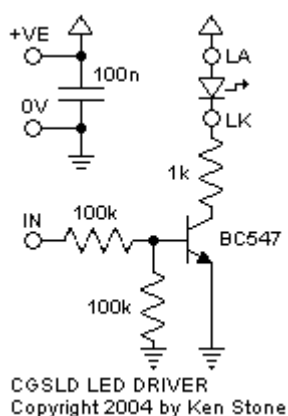
Note that this PCB is now only available in strips of 11 boards. These can easily be separated from each other, or used as is.

This is a tiny ancillary board that contains a single transistorized LED driver. It is designed to be connected to any output that puts out a voltage that ranges between 0V and over 2V. As presented in the diagrams, the module is designed for gate signals where the LED will have an ON/OFF action.

If the lower 100k resistor in the input divider is replaced with a reverse biased 1N4148 diode, the module can be used to monitor the positive excursions of bipolar CVs and audio signals.

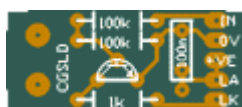
It can also be connected to some internal circuit elements to indicate how that part of the circuit is behaving.

The drive current can be adjusted for different types of LEDs. If using super bright LEDs, increase the 1k resistor to 10k.



The schematic of the LED driver.

Construction



The component overlay. Connections can be determined from the circuit diagram.

Before you start assembly, check the board for etching faults. Look for any shorts between tracks, or open circuits due to over etching. Take this opportunity to sand the edges of the board if needed, removing any splinters or rough edges.

When you are happy with the printed circuit board, construction can proceed as normal, starting with the resistors first, then moving onto the taller components.

Take particular care with the orientation of the polarized components such as diodes and transistors.

Notes:

- This will work with +/-12 volts systems too.
- **PCB info:** 0.5" x 1.2" with 3mm mounting holes 0.15" in from the edges at one end.
- Please [email me](#) if you find any errors.

Parts list

This is a guide only. Parts needed will vary with individual constructor's needs.

If anyone is interested in buying these boards, please check the [PCBs for Sale](#) page to see if I have any in stock.

Can't find the parts? See the [parts FAQ](#) to see if I've already answered the question. Also see the [CGS Synth discussion group](#).

| Part | Quantity |
|---------------------------|----------|
| Capacitors | |
| 100n | 1 |
| Resistors | |
| 1k | 1 |
| 100k | 2 |
| Semi's | |
| BC547 or similar | 1 |
| LED | 1 |
| Misc. | |
| CGSLD PCB | 1 |

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