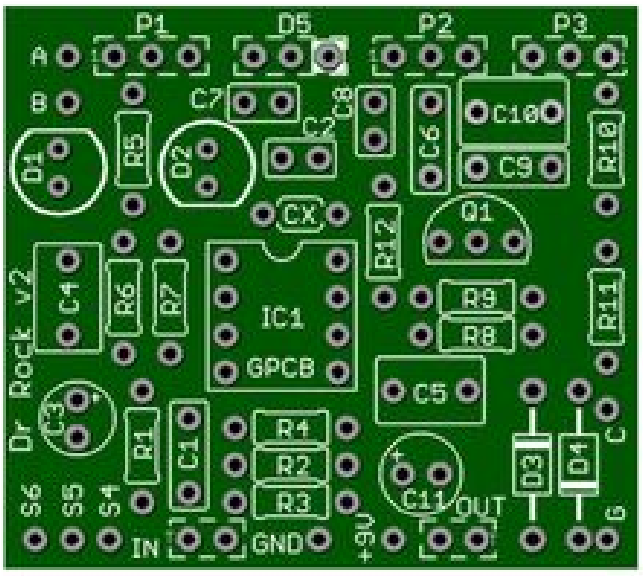
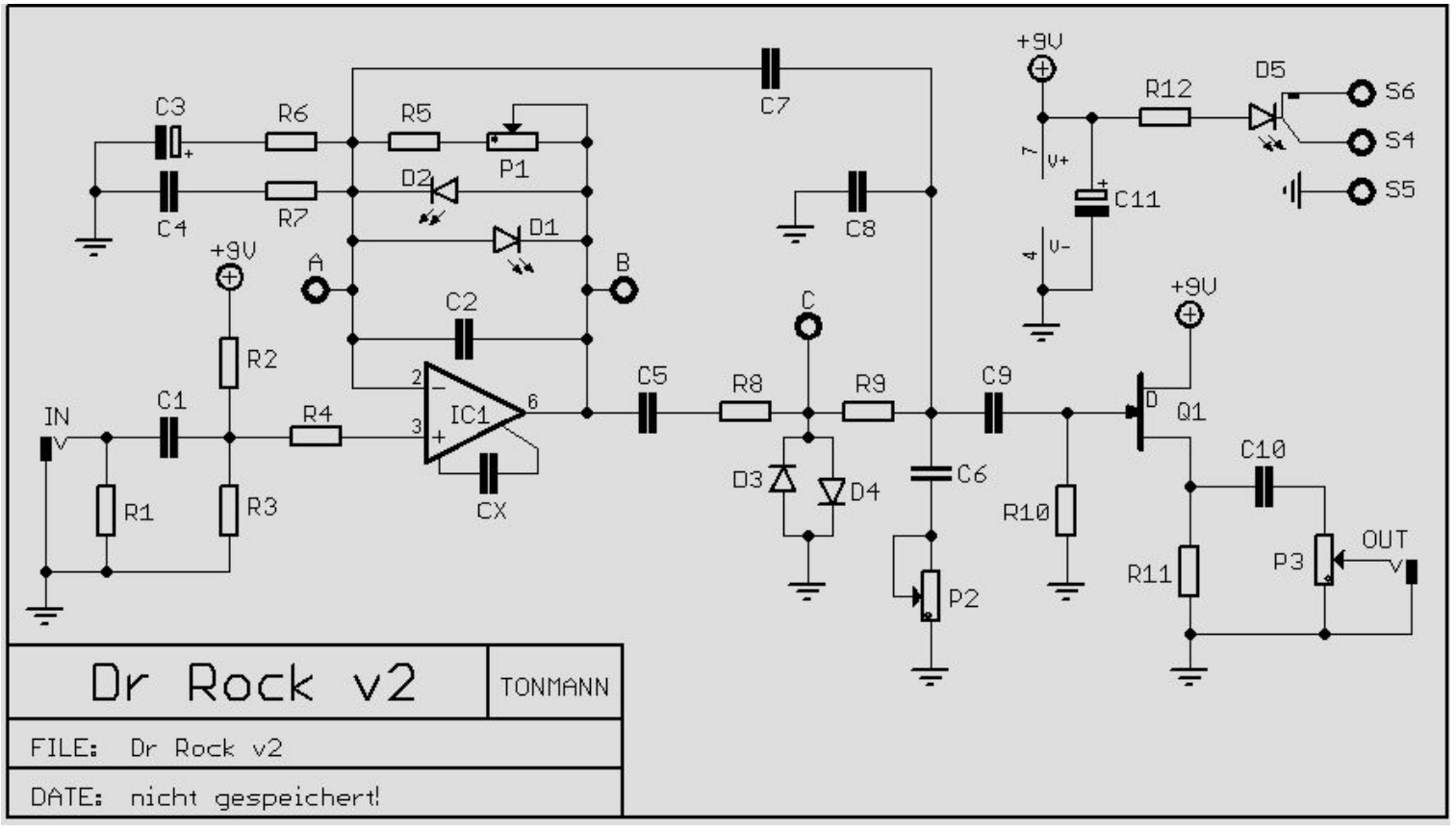
Dr Rock v2

An Articulate Full Stack Tone in a Box. Easily achieved Medium to High Gain Tones that do not change the sound of the Guitar you are using. Make your amp sound like a Marshall stack at any volume. Volume, Gain and Tone knobs let you customize your tone for blues to heavy rock!
Lots of 70's and 80's Tones in this circuit just waiting for you to Rip It Out.



Board Dimensions (W x H) 1.72” x 1.52” ca. 43.5 mm x 38.7 mm



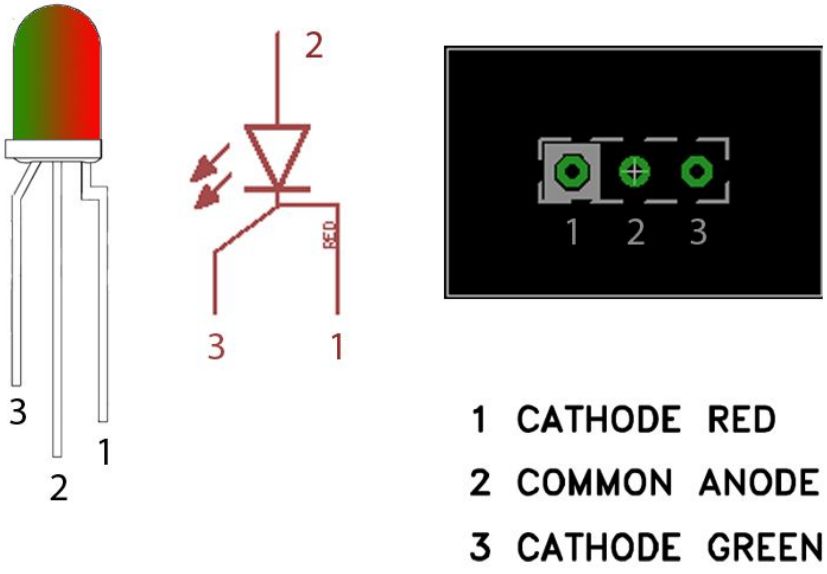
R1	1M	C1	22n	63V	IC1	TL071
R2	1M	C2	100p		Q1	2N5459
R3	1M	C3	10µ	16V		
R4	10k	C4	470n	63V	D1- D2	LED
R5	22k	C5	470n	63V	D3 – D4	1N4001
R6	6k8	C6	47n	63V	D5	CA Bi-colour LED
R7	1k	C7	100p			
R8	1k	C8	470p	63V	P1 GAIN	500k Lin
R9	3k3	C9	22n	63V	P2 TONE	50k Log
R10	1M	C10	470n	63V	P3 VOLUME	100k Log
R11	10k	C11	47µ	16V		
R12	2k2	CX	100p*			

IC1 is a standard pin-out single op amp. Although a TL071 is suggested as a good starting point, you may wish to try other single op amps. Most modern op amps do not require the CX capacitor connected between pins 1 and 8, if you are using op amps such as LM301, CA3130 etc the CX capacitor may bring benefits in terms of bandwidth or high frequency stability.

Check the data sheet for your op amp or ask on the GuitarPCB.com forum to see whether your op amp requires the CX capacitor.

STATUS LED

D5 is a common anode bi-colour LED

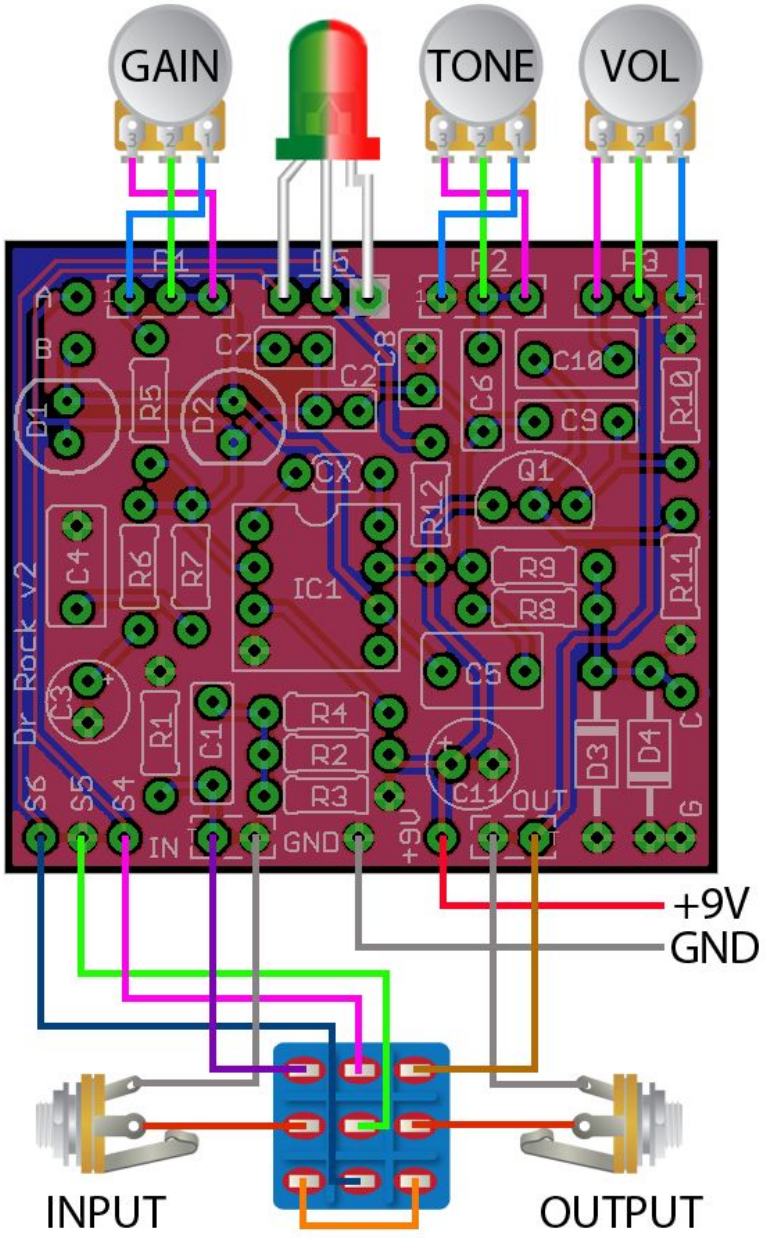


The diagram above shows the pin-out, schematic symbol and pad connection for a common anode LED.
The pin-out for the bi-colour LED is as follows:

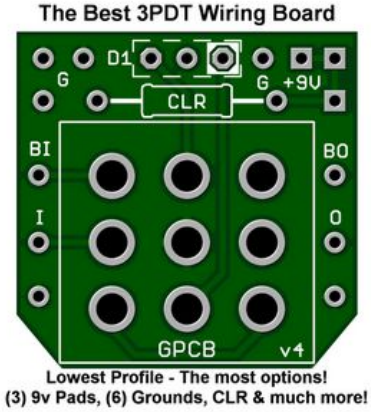
1st Colour Cathode	90 degree bend in the lead
Common Anode	Middle lead
2nd Colour Cathode	45 degree bend in the lead

The pad for lead 1 on the circuit board is marked with a white box.
When connected correctly the LED will light red when power is applied and the circuit is in bypass mode. The LED will light green when in effects mode. **If you wish to use a standard LED, connect the anode to the middle pad and the cathode to the left pad (non-white pad 3) to show the circuit in effects mode.**

WIRING

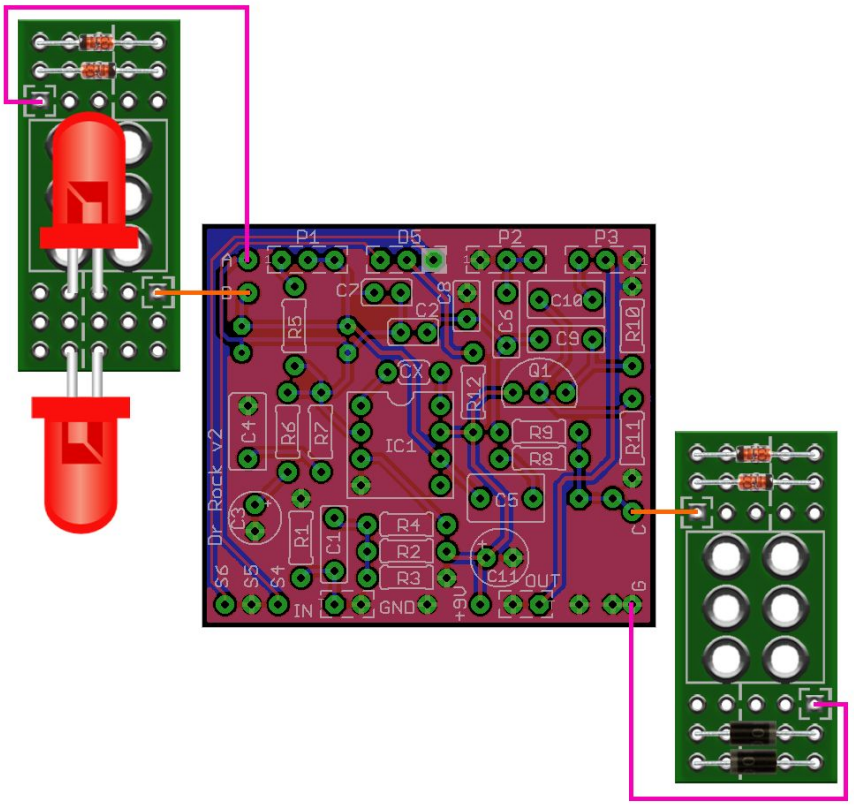


If you are using one of GuitarPCB's 3PDT Wiring Boards, pads S4, S5, S6 and D5 would be ignored and R12 would not be installed.



DIODE MODS

The ability to select different pairs of clipping diodes or even remove them from the circuit will add flexibility to the Dr Rock.
Although there are different methods (vero board, direct wiring to the switch etc) the easiest way is to use GuitarPCB's DPDT Wiring Boards.
I would suggest using sockets which will allow you to try different types of diodes.



The switches are wired to pads A & B (for D1-D2) and pads C & G (for D3-D4) rather than component pads.
Using a DPDT On-Off-On switch there are three combinations, for D1 – D2:
Switch up – lower set of diodes (LEDs)
Switch middle - no diodes selected
Switch down – upper set of diodes (Silicon) Likewise for D3 - D4.

Soldering Tutorial on Youtube

Need a kit? Check out our authorized worldwide distributors:

USA – Check out PedalPartsAndKits for all your GuitarPCB kit needs in the USA.

Europe – Das Musikding Order either boards or kits direct from Europe.

PedalPartsAustralia - Order either boards or kits direct from Australia

If they do not have a KIT listed send them a note asking if they can help you out.