



Brütalizer

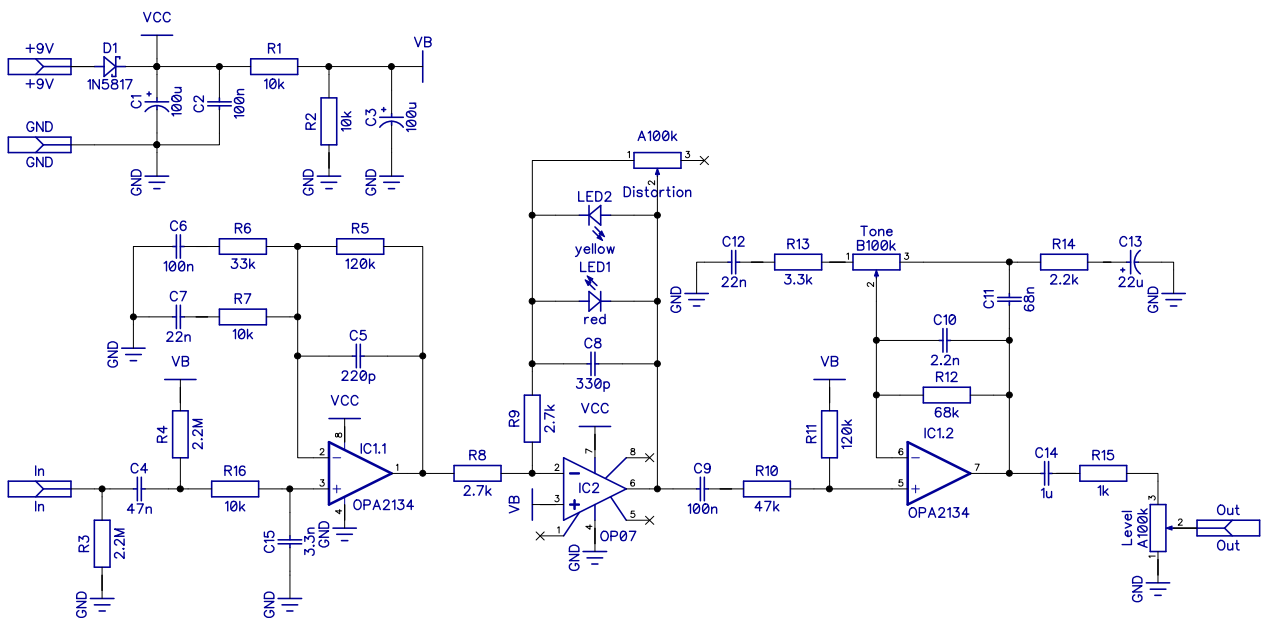
Based on God City Instruments Bass Brutalist

PCB artwork ©2021 drdFX

Release date: 2021. 12. 02.

Brütalizer is a clone of Kurt Ballou's God City Instruments Bass Brutalist. It is a nice thick and heavy overdrive designed for bass, but can also be used on guitar.

SCHEMATIC

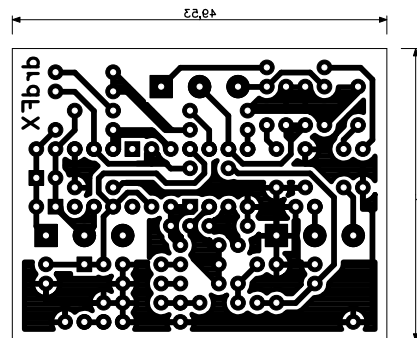
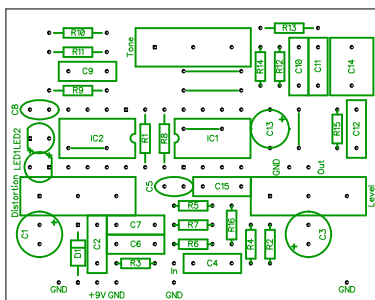


BOM

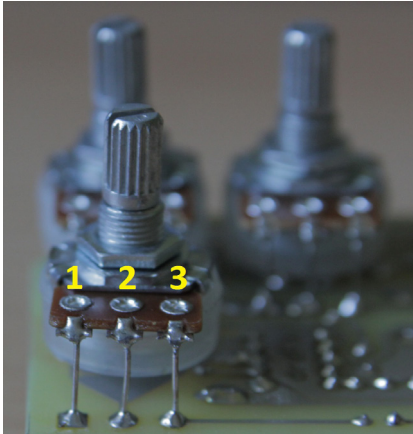
Resistors		Capacitors		Semiconductors		Others	
R1	10k	C1	100u	D1	1N5817	Distortion	A100k
R2	10k	C2	100n	LED1	red	Level	A100k
R3	2.2M	C3	100u	LED2	yellow	Tone	B100k
R4	2.2M	C4	47n	IC1	OPA2134		
R5	120k	C5	220p	IC2	OP07		
R6	33k	C6	100n				
R7	10k	C7	22n				
R8	2.7k	C8	330p				
R9	2.7k	C9	100n				
R10	47k	C10	22n				
R11	120k	C11	68n				
R12	68k	C12	22n				
R13	3.3k	C13	22u				
R14	2.2k	C14	3.3n				
R15	1k	C15					
R16	10k						

LAYOUT

Print out the PCB design without any resizing options and make sure you switch off the “fit to page” option. The design is free for personal/home use and you also may build one or two for your friends, but the PCB layout is my artwork, therefore protected by copyright and is not permitted to be used for commercial purposes. This effect can be built in 1590B or 125B size. The PCB is the same, but if you are unexperienced, then you might find the extra space available in the 125B enclosure more comforting.



NOTES



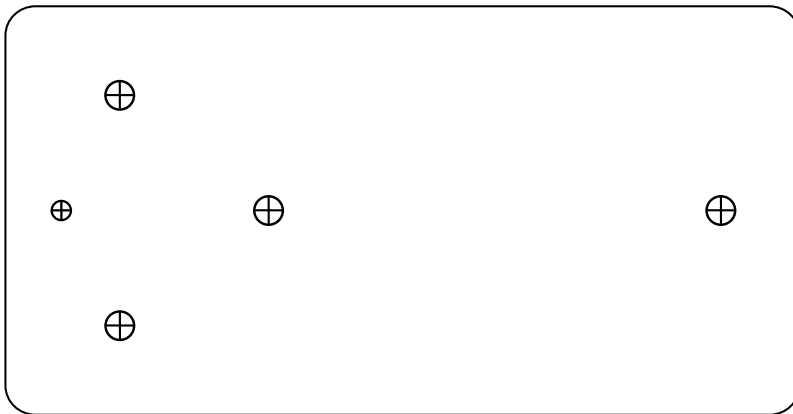
The pots are board mounted to the bottom of the board. The square pads mark the lug 1, for the numbering of the lugs see the picture.

In the documentation found on [GCI](#) there is detailed description on how the effect works, there are suggestions too for mods even for the unusual EQ section taken from the DOD FX10 effect. My only additional suggestion for mods is that I would rather use a linear pot for Distortion.

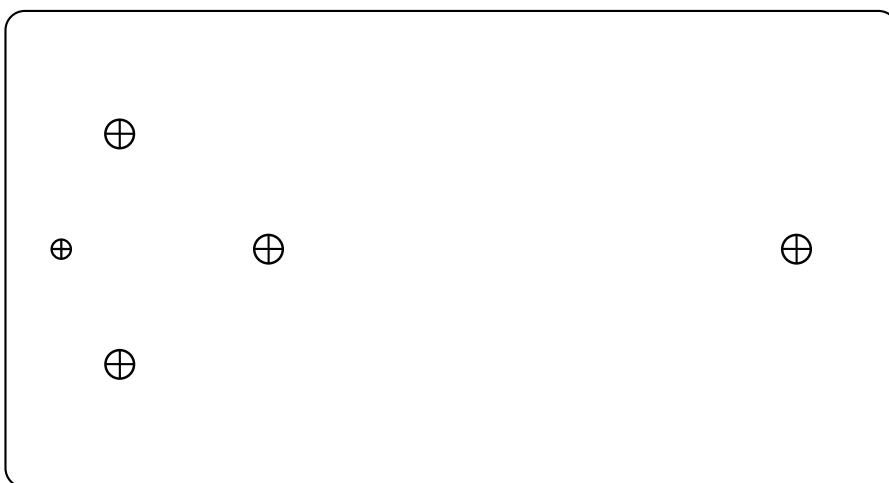
The original's logarithmic pot yields minimum change in the distortion level in the first 65-70% of the turn, and then suddenly in the last 1/3 of the turn you get all distortion bunched up. With a linear pot the distribution is not totally even either, in the last 15-20% you don't get much change, but until then the distortion grows much more evenly. The Tone pot works "backwards" similar to the Rat: when you turn it anti-clockwise you get more highs. If you don't like this you can simply swap the lugs 1 and 3 on the layout.

DRILLING TEMPLATES

This effect is meant for 1590B or if you prefer the additional space then 125B.
Here are the drilling templates for them:



1590B



125B