

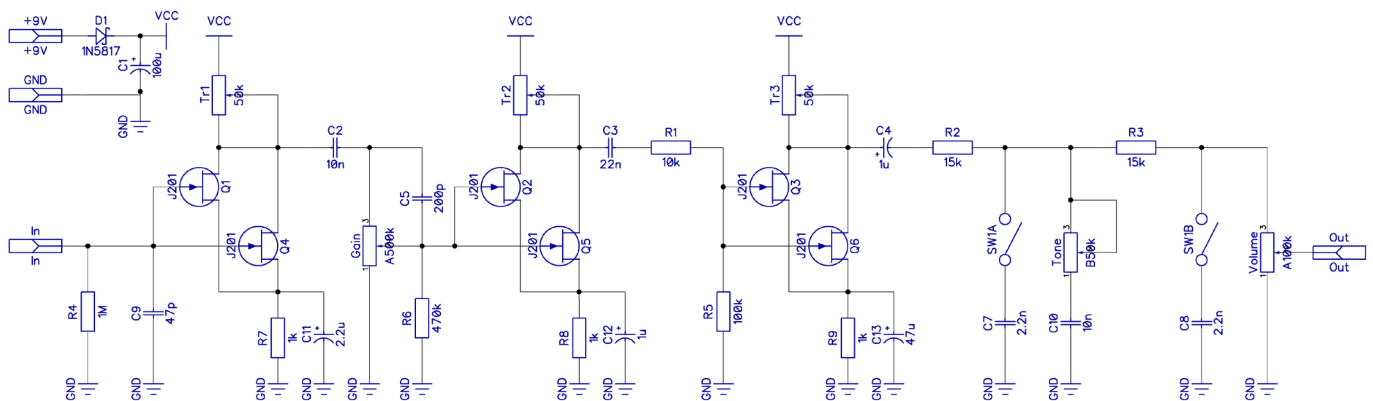


30+

Based on Wampler's Cranked AC
PCB artwork ©2015 drdFX
Release date: 2015.05.12

The 30+ is a slightly modified version of the discontinued Wampler Cranked AC. The effect emulates the voicing of a cranked VOX AC30 tube amp. The modification to the original is only the added Bright switch that adds some more top end when engaged.

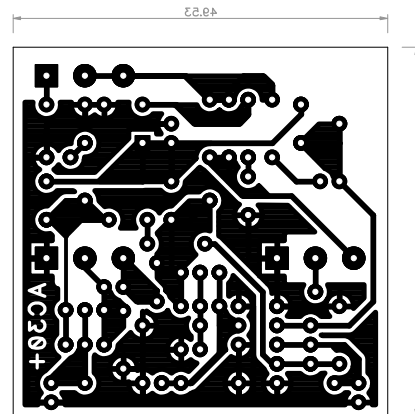
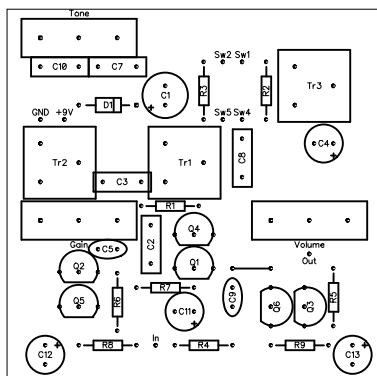
SCHEMATIC



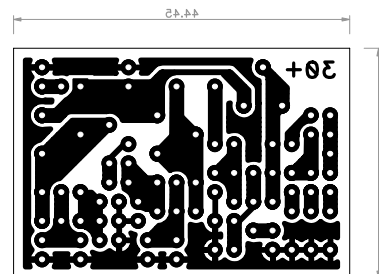
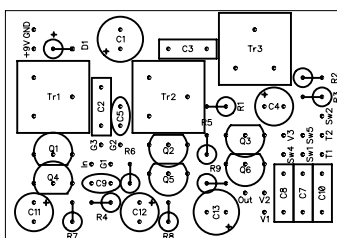
LAYOUT

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.

1590B/125B layout



1590A PCB layout



BOM							
Resistors		Capacitors		Semiconductors		Other	
R1	10k	C1	100u	D1	1N5817	Gain	A500k
R2	15k	C2	10n	Q1	J201	Tone	B50k
R3	15k	C3	22n	Q2	J201	Volume	A100k
R4	1M	C4	1u	Q3	J201	Tr1	50k
R5	100k	C5	200p	Q4	J201	Tr2	50k
R6	470k	C7	2.2n	Q5	J201	Tr3	50k
R7	1k	C8	2.2n	Q6	J201	Switch	DPDT
R8	1k	C9	47p				
R9	1k	C10	10n				
		C11	2.2u				
		C12	1u				
		C13	47u				

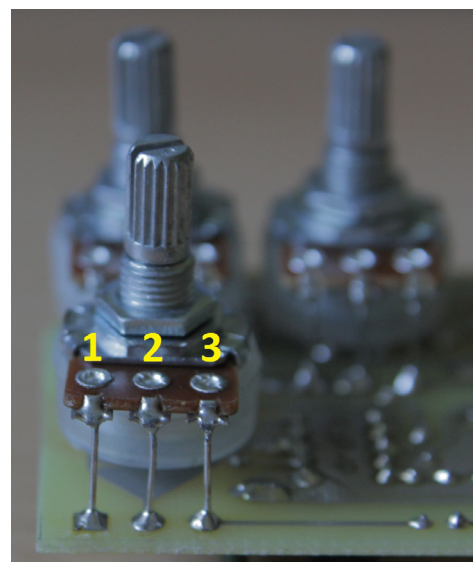
NOTES

Set the trimmers so, that the drain voltage of the fet pairs is about 4.5-5V. Fine tune by ear. The lugs of the Bright switch are numbered as follows (viewed from the bottom):

1	4
2	5
3	6

The switch is not board mounted, use some short wires to connect it to the board. You may want to clip the lugs if the board is too close to the bottom of the switch. I also use some double-sided foam to insulate the board under the switch.

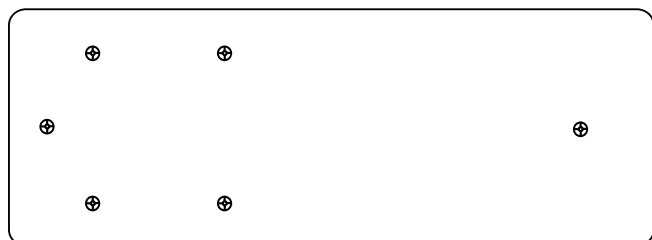
The pots are board mounted to the bottom of the board. The square pads mark the lug 1, for the numbering of the lugs see the picture below:



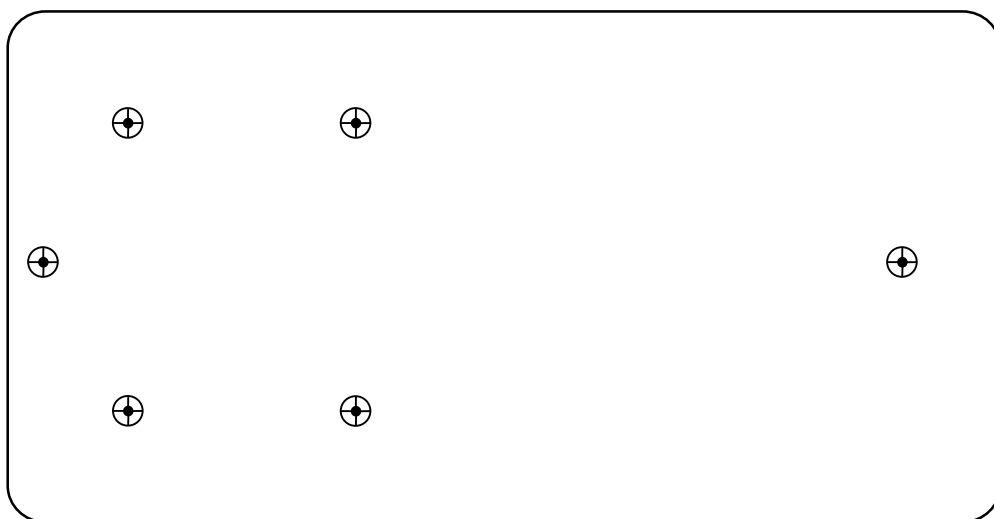
You can use either the PCB mounted pots that have long lugs or solder some stronger solid wire pieces to the lugs of the standard pots. I prefer the latter because then you can control the height of your pot better. This is nice especially if you have switches too in your design, because this way you can align the pot height with the height of the switch.

DRILLING TEMPLATES

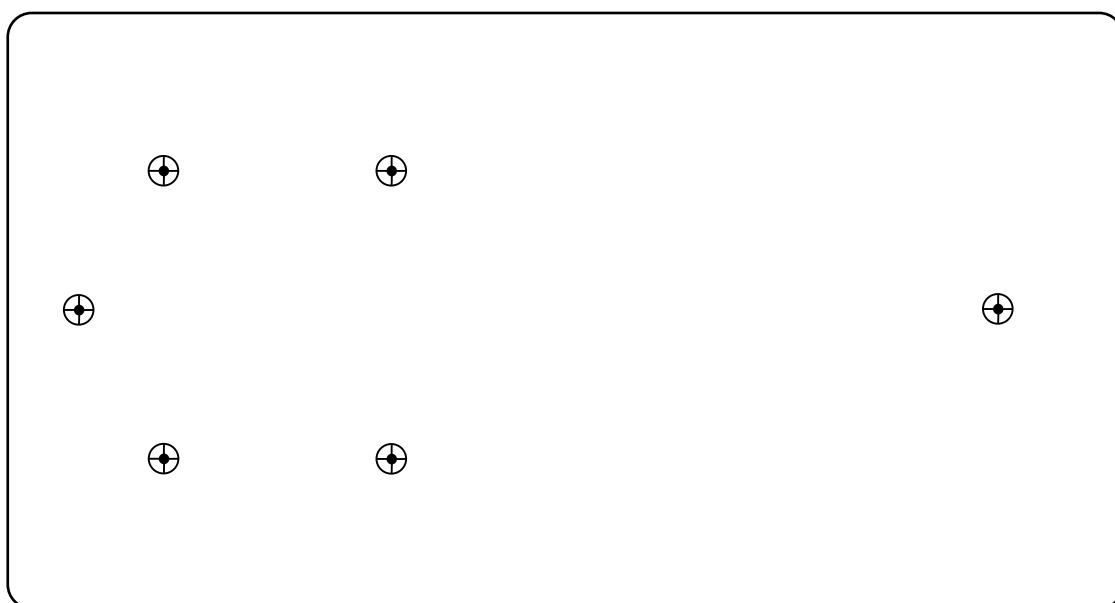
Here are three templates for the top of the box for the various box sizes. The larger design fits in both 1590B and 125B, however if you are less experienced you may find the 125B enclosure easier to work with.



1590A



1590B



125B