

### Description:

The KING TUT is based around the Black Arts Toneworks™ Pharaoh™. It is a take on the venerable Big Muff but with some cool tricks and also very versatile fuzz due to plenty of options. You can switch between different input filters with the HI/LO switch. Even better is the fact you can select either silicon/germanium/no clipping with the CLIP switch.

This is a medium level build, perhaps made a little more challenging with the two onboard switches. Getting it lined up with a drilled enclosure may be the most difficult part for some.

## King Tut v1.1

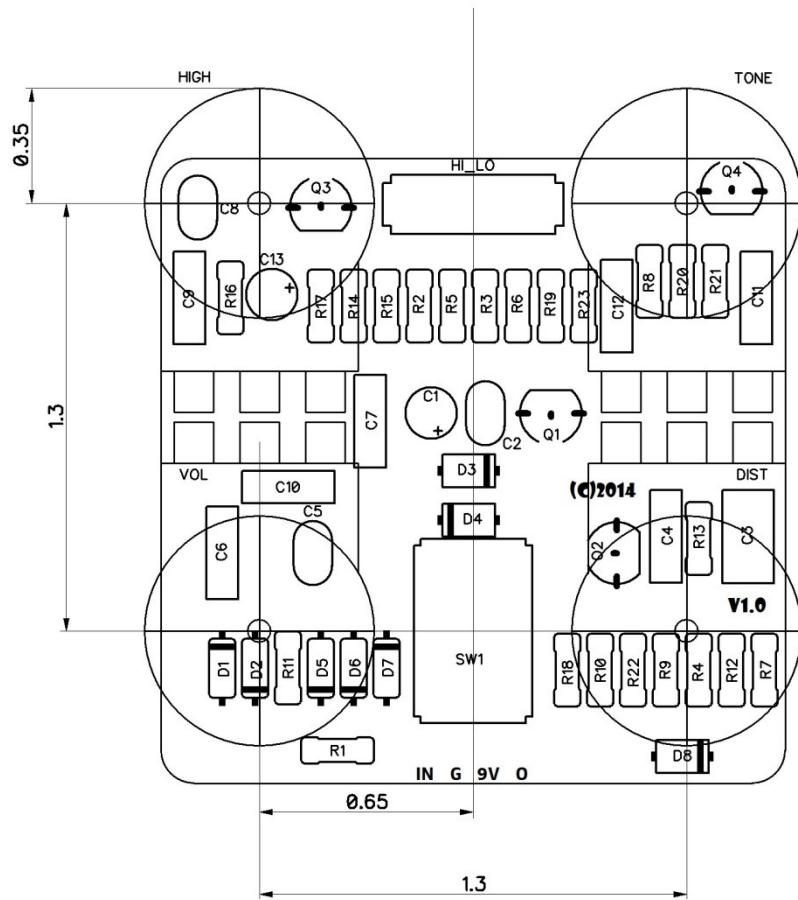
Caps		Resistors		Diodes	
Location	Value	Location	Value	Location	Type
C1	10uF tant	R1	2M	D1	1N914
C2	470pF	R2	39k	D2	1N914
C3	470n	R3	390k	D3	1N4001
C4	47n	R4	470k	D4	1N4001
C5	470pF	R5	100k	D5	1N34A
C6	47n	R6	1k	D6	1N34A
C7	47n	R7	10k	D7	1N34A
C8	470pF	R8	1k	D8	1N4001
C9	47n	R9	6k2	Pots	
C10	10n	R10	100k	DIST	100kB
C11	22n	R11	470k	HIGH	25kB
C12	47n	R12	10k	TONE	250kB
C13	10uF tant	R13	100R	VOL	100kB
		R14	6k2	Transistors	
		R15	100k	Q1	MPSA18
		R16	100R	Q2	2n5089
		R17	470k	Q3	2n5089
		R18	10k	Q4	2n5089
		R19	470k	Switches	
		R20	100k	HI_LO	SPDT
		R21	2k2	SW1	DPDT (center off*)
		R22	10k		
		R23	470k		

## Build Tips & Tricks:

- **NEW!** The **MS Excel** version of the BOM is now available on the landing page. With this you can do cool things like sort the BOM by value or possibly make notes for yourself for easier building/shopping etc.
- **Pots** are designed for 16mm Alpha Right Angle PCB mount. I normally grab these from Tayda Electronics, however Smalbear and Mammoth have them as well. I always suggest to drill holes in your enclosure first, and mount the pots and switch with the nuts **BEFORE** soldering the pots to the PCB. This ensures you won't put a lot of stress on the PCB and everything lines up nicely.
- **Clip Switch:** If you don't care to have the about having a clean boost option, you can use a standard DPDT. By using a "center off" DPDT, you will have the option of a clean boost in the center. BE forewarned....when you activate the center position, there is a massive volume boost. Either mute the pedal before switching or turn everything way down. You have been warned!
- **Diodes** used for clipping are D3/D4 (silicon) and D5/D6 (Ge). Feel free to socket these and change them out for fun variations. You will notice the Ge diode clipping will make the circuit put out less volume than the Si. You could even put in Si/Si or any other combination you want to try.
- **Tone** controls are interactive. The "TONE" control itself works like a regular tone control, however the extra "HIGH" tone control will allow you to dial in your sound even further. For example, you can roll the treble off with the regular control, and use the HIGH to get a mid-scooped type of sound.
- **IN/G/9V/OUT** pads are a direct match to Rullywow.com 3PDT and Detour Optical Bypass PCBs. Grab some of these for a "zen-like" building experience
- **Insulate** the pots from shorting on the back of the PCB. There are special pot covers (like from Smallbear or Mammoth) or you may use non-conductive tape or some other insulating material like cardboard etc.
- **Test It!** Before putting your creation into its enclosure, you should always test it! If it doesn't work outside the enclosure, it won't work inside (I promise!)
-

# PCB Dimensions

1.9" w x 1.9" h (inches)



## Drill Guide (1590B) :

Enclosures differ in size so be sure to measure before you commit to drill!

