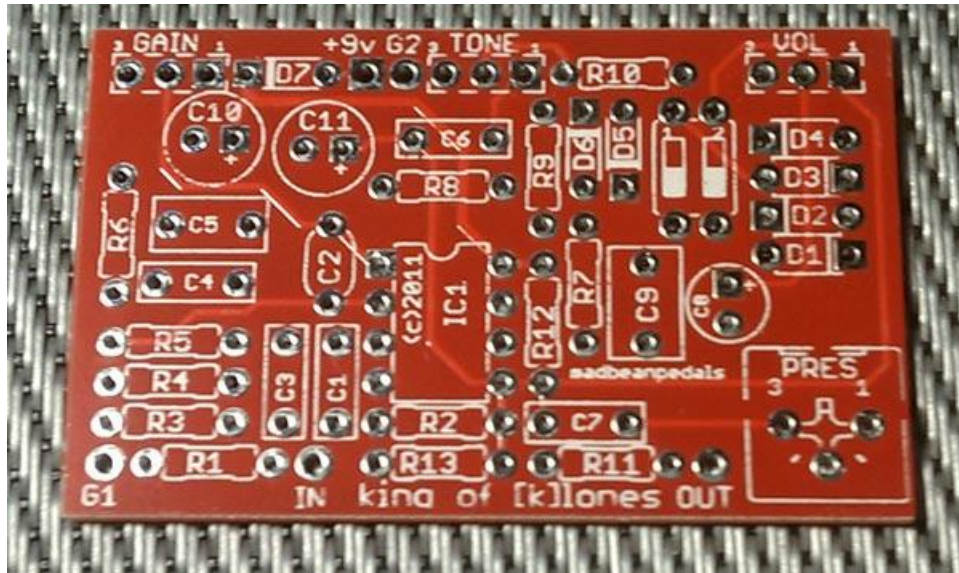


KING OF KLONES



FX TYPE: OVERDRIVE

PCB artwork ©2011 madbeanpedals

Release date: 04.03.11

The **King of Klones** is a single channel version of the [Aristocrat](#). The effect is based on a Marshall Blues Breaker with some important tweaks. In this project, you can use either an internal dip switch for diode selection, as in the Aristocrat, or follow the mod diagram below to use a single DPDT to select the clipping externally.

The controls are as follows

GAIN: The total amount of overdrive.

TONE: A simple passive attenuator.

VOL: The total output.

PRES: This trimmer lets you dial a tone control “offset”. If you have an especially dark amp, you can turn the **PRES** trimmer clockwise to move the range of the **TONE** control up for balance.

Notes

- A larger value for **C1** will add more bass into the circuit. 22n or 47n is recommended.
- The diodes in the stock version are expensive and rare (see links below). Good subs are 1N914 for the ma856 and 1N4001 for the 1S1588. Others to try: BAT41, Mosfets (connect Drain and Gate of a 2N7000 together to use as a diode), and LEDs.
- High gain mod: use 250kB for the **Gain** pot.
- You may use a 1N4001 as a sub for **D7**.

- You can make the **PRES** trimmer an external pot, if you wish. Wire it 3-2-1 as pictured in the wiring diagram for the **VOL** pot.

ma856: http://www.effectsconnection.com/oscommerce/product_info.php?cPath=38&products_id=451

1s1588:

http://www.pedalpartsplus.com/mm5/merchant.mvc?Screen=PROD&Store_Code=PPP&Product_Code=4024&Category_Code=DIO

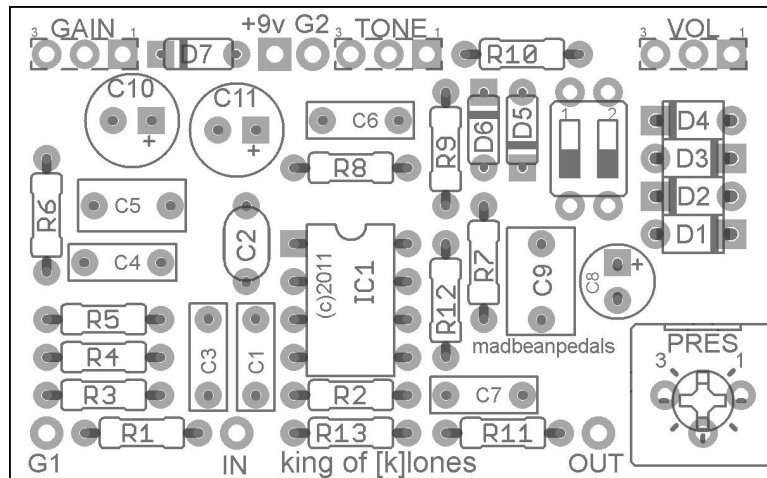
4580D IC:

<http://www.mouser.com/ProductDetail/NJR/NJM4580D/?qs=sGAEpiMZZMtCHixnSjNA6A%252b2%2fUvqazyEfkhuttGFpDc%3d>

Dip Switch:

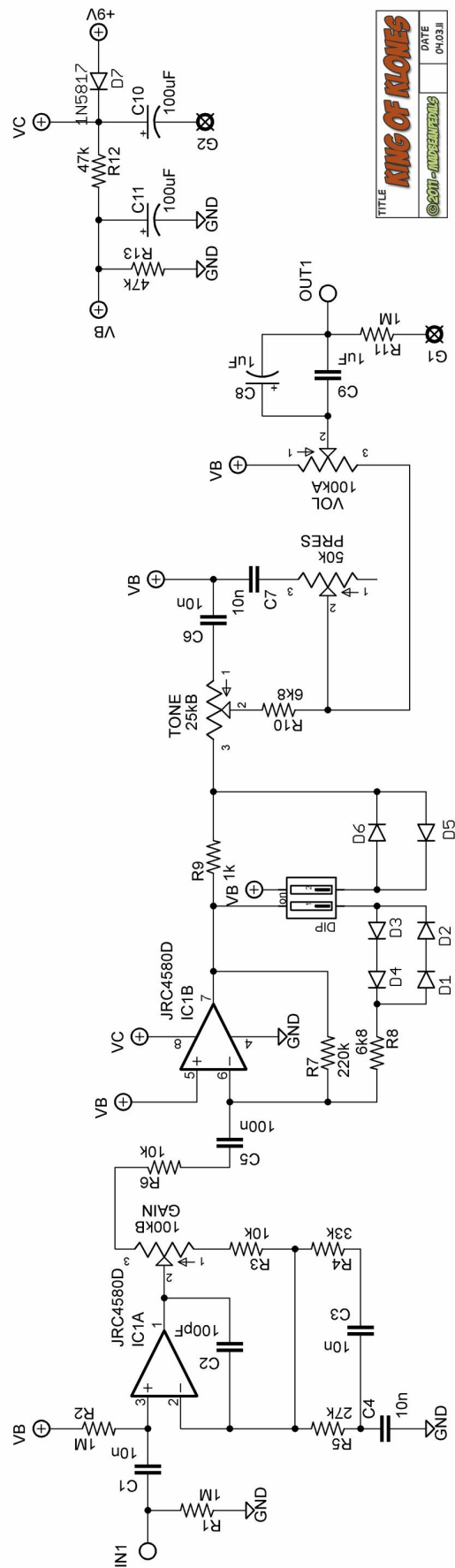
<http://www.mouser.com/Search/ProductDetail.aspx?R=A6T-2104virtualkey65300000virtualkey653-A6T-2104>

MANUFACTURED VERSION



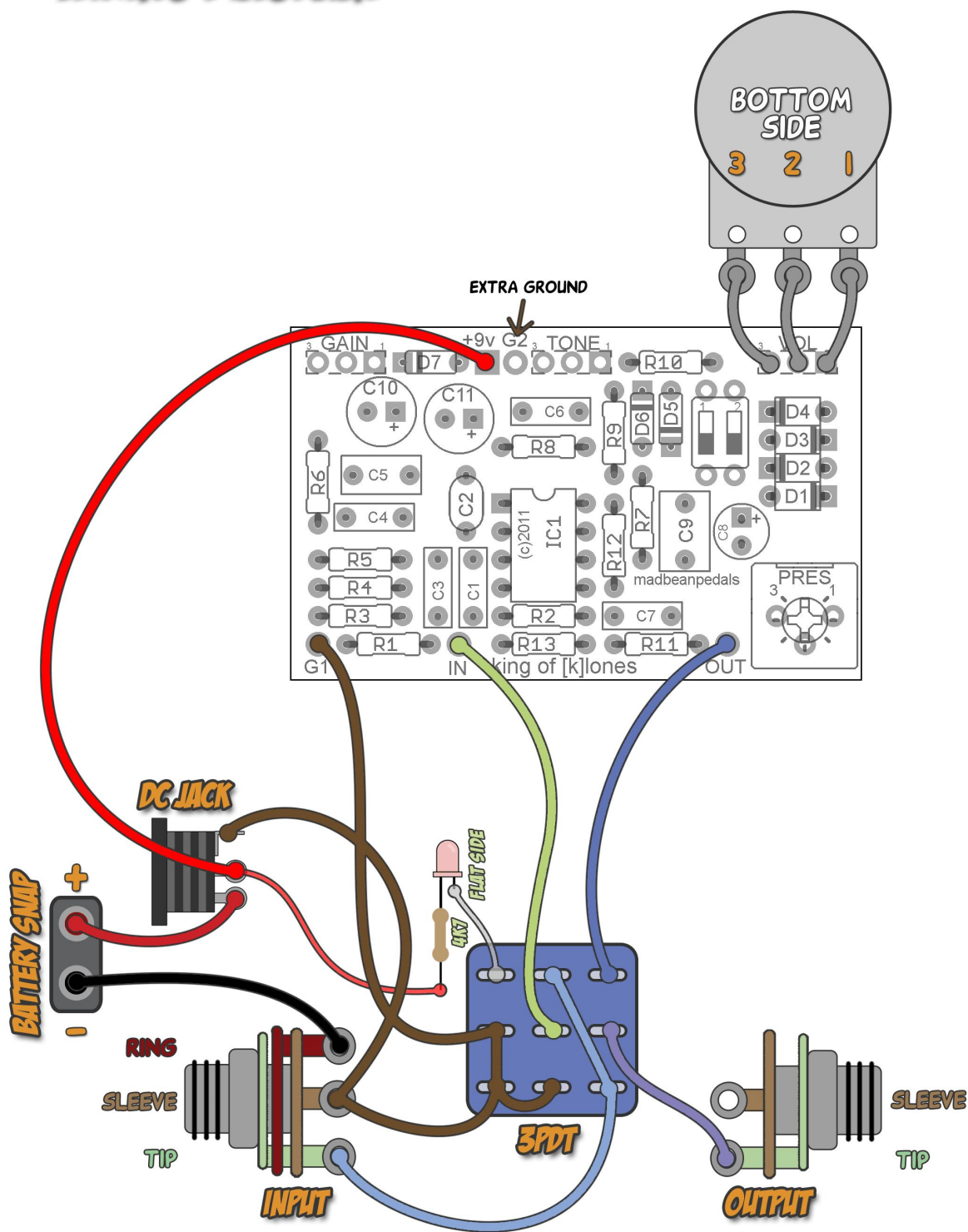
2.025"W x 1.25"H
This version will fit in a 1590B.

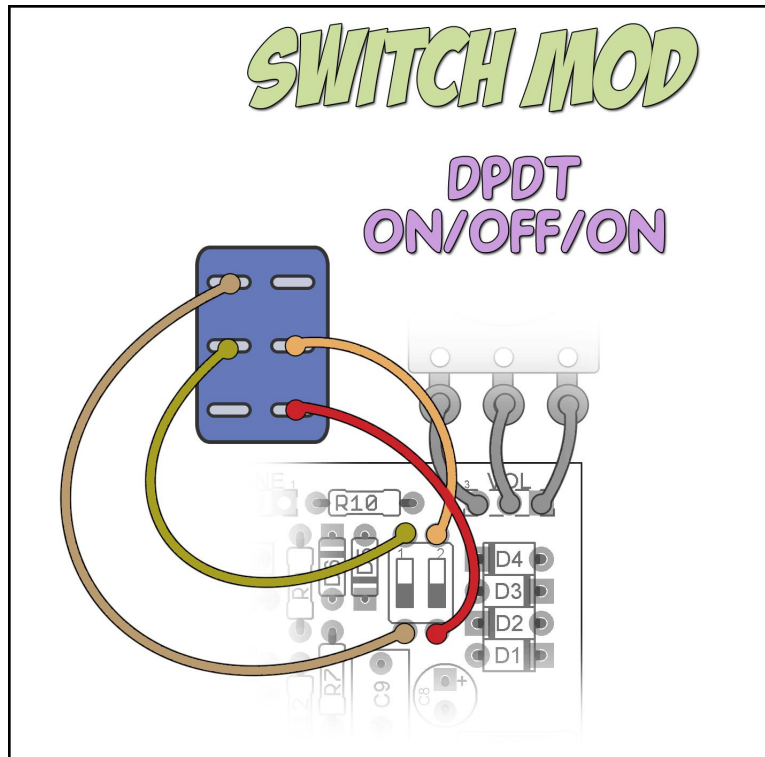
Resistor		Caps		Diodes	
R1	1M	C1	10n	D1 - D4	MA856
R2	1M	C2	100pF	D5 - D6	1S1588
R3	10k	C3	10n	D7	1N5817
R4	33k	C4	10n	IC	
R5	27k	C5	100n	IC1	JRC4580D
R6	10k	C6	10n	Switch	
R7	220k	C7	10n	DIP	DIP2
R8	6k8	C8	1uF	Trimmer	
R9	1k	C9	1uF	PRES	50k
R10	6k8	C10	100uF	Pots	
R11	1M	C11	100uF	GAIN	100k
R12	47k			TONE	25k
R13	47k			VOL	100kA



KING OF KLONES

WIRING DIAGRAM

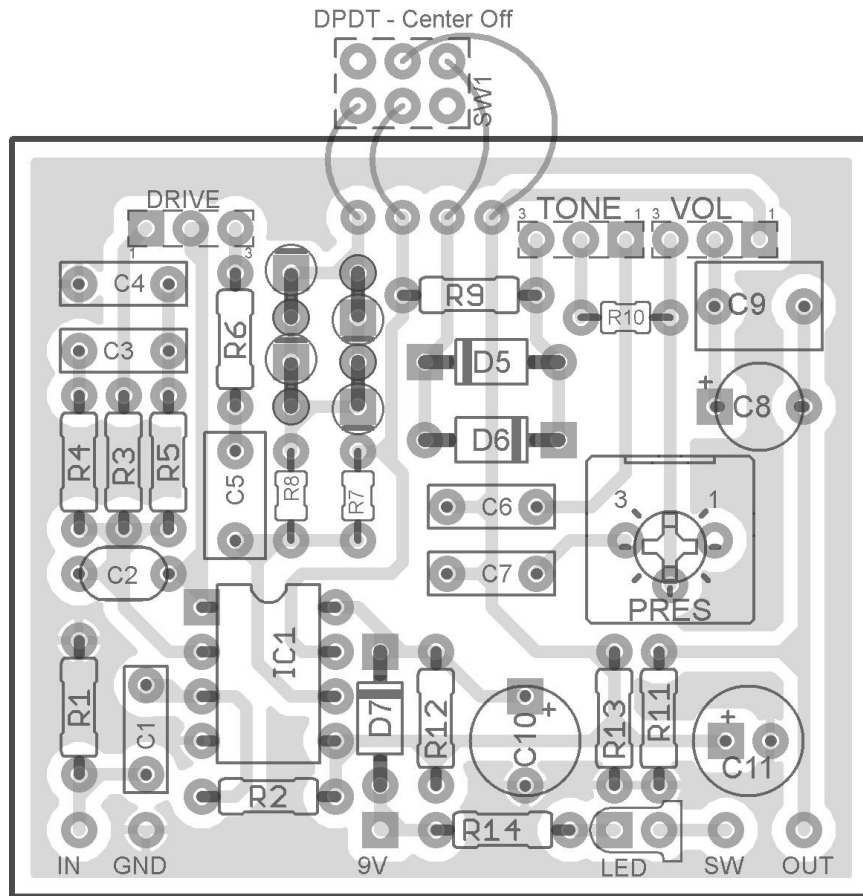




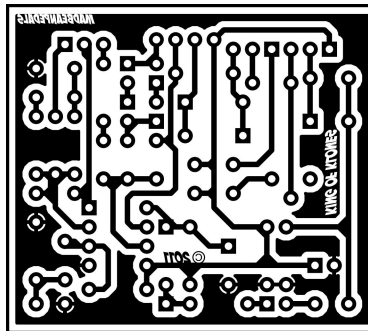
You can use a DPDT On/Off/On in place of the internal dip switch. When wired as illustrated in the above diagram, you will get the clipping on the two outside positions of the toggle switch, and a clean boost when the toggle is in the center position.

SINGLE SIDED VERSION FOR ETCHING

NOTE THE DRIVE POT IS WIRED 1-2-3
R14 IS THE CLR FOR THE LED CIRCUITRY. 4K7 IS SUGGESTED.



1.94" W x 1.72" H (including borders)



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