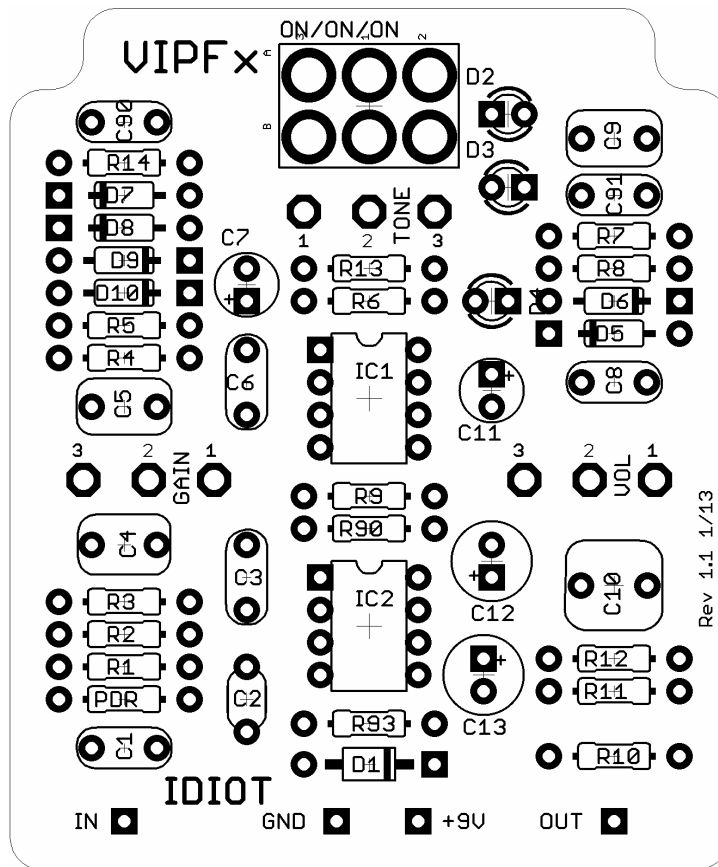


# RUCKUS/IDIOT

## DISTORTION

The Ruckus / Idiot is a distortion pedal based on the Suhr Riot and based on the schematic posted by MarkGor at Freestompboxes. This is the latest revision and includes corrections to the earlier posted schematic. All of the previous mods as shown in the Ruckus V2.1 layout have been removed and the schematic returned to the stock configuration.



### Parts Guide

Resistors: 1/4 watt metal film

Film Caps: The board is laid out for Panasonic ECQ-V caps, but any standard 5mm caps will fit.

Electrolytic Caps: 16v or better

pF Caps: Ceramic or other 5mm caps

Pots: Layout is for Alpha PCB mount pots, RV16AF-41-15R1-Value, but any pots will work.

This product is intended for DIY use only. Commercial use, including the sale of PCBs, kits or pedals utilizing this information, is strictly prohibited.

**BOM**

Resistors		Caps		Diodes	
PDR	2M	C1	22n	D1	1N4001
R1	1k	C2	33p	D2	Red Red or
R2	470k	C3	100p	D3	1N4148
R3	1k	C4	220n	D4	Blue
R4	10k	C5	100n	D5-D6	1N4148
R5	1M	C6	100p	D7-D10	1N34a
R6	470R	C7	2u2		
R7	11k5	C8	22n	<b>IC's</b>	
R8	8k25	C9	22n	IC1 & IC2	NJM4580D
R9	100k	C10	1u	<b>Switch</b>	
R10	100R	C11	10u	DPDT	On-On-On
R11	20k	C12	47u	<b>Pots</b>	
R12	20k	C13	47u	VOL	10kA
R13	220R	C90	22n	GAIN	100kB
R14	470R	C91	22n	TONE	10kC
R90	0k				
R93	100R				

**Notes****Clipping Section**

I couldn't decide which mods to the clipping section were worthy of inclusion without hearing them so I included all of the components and the builder can socket and build to taste.

Obviously you can and will do whatever you want for the diodes. And don't overlook the option to stand a diode on end in place of an LED if desired. I also included R13 and R14. Some say to include, some not. It's builders choice, but if you exclude, add the jumper.

C90 and C91 are also included in the clipping section and are also a builders choice option depending on what diodes you choose to use. If you choose to leave them off, do NOT jumper that position.

There are a lot of options for the clipping section and you can clearly tune it to whatever voice you desire. As long as you use the switch specified below, you will have 3 distinct voices to choose from.

Ruckus / Idiot

## Switch

The switch for this project is a DPDT (On-On-On) type switch. The problem with this type of switch is that there are two different varieties that are both classified as On-On-On. They are not interchangeable and one specific variety must be used here.

The flavor I picked was the switch available at Smallbear in the following part number:

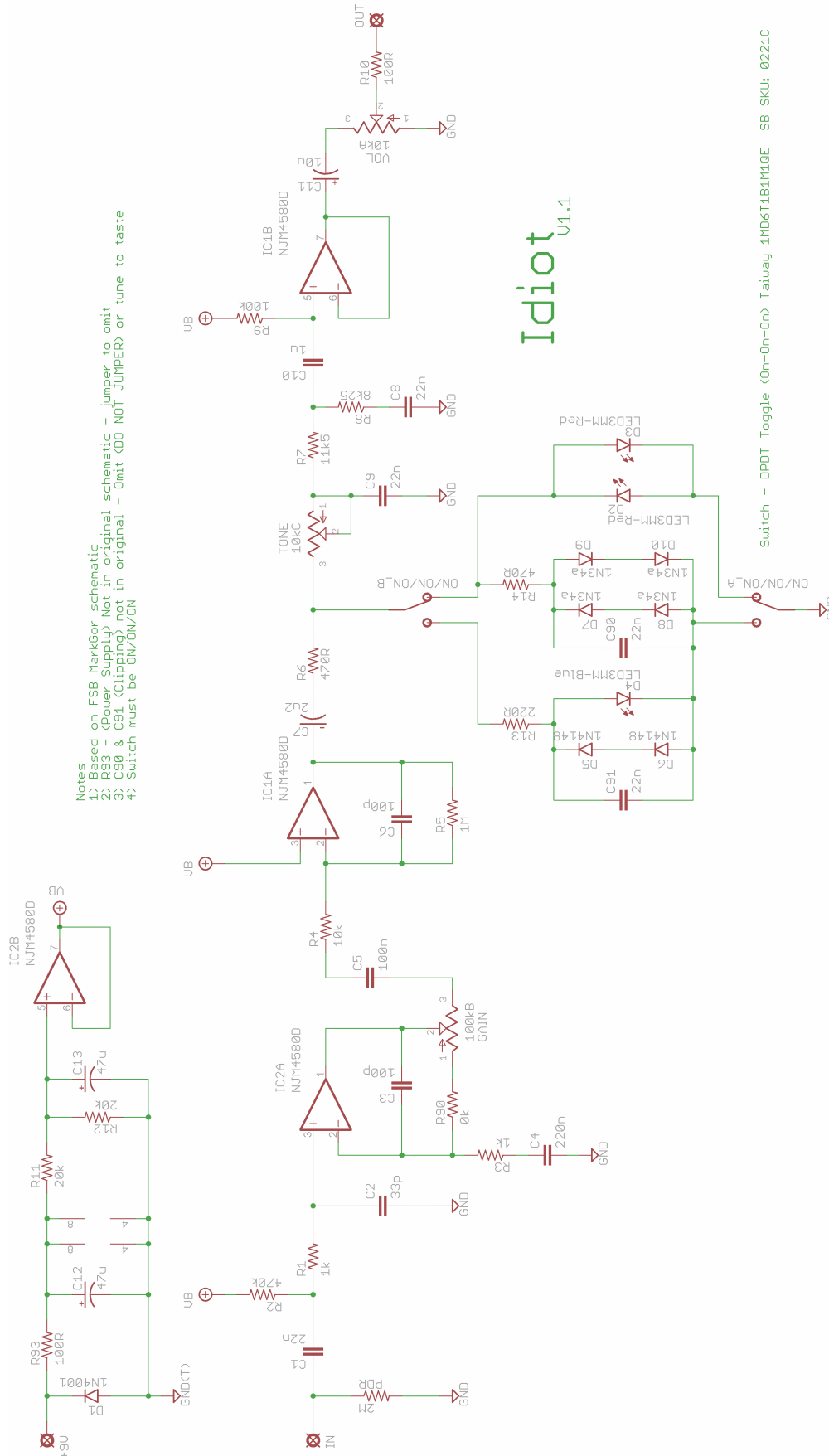
Switch - DPDT Toggle (On-On-On) Taiway 1MD6T1B1M1QE SB SKU: 0221C

The exact switch you use or where you get it doesn't matter, as long as it functions the same way and as shown in the image below. No other switch will provide the 3 positions to select the 3 different clipping sections shown in the schematic.



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Schematic

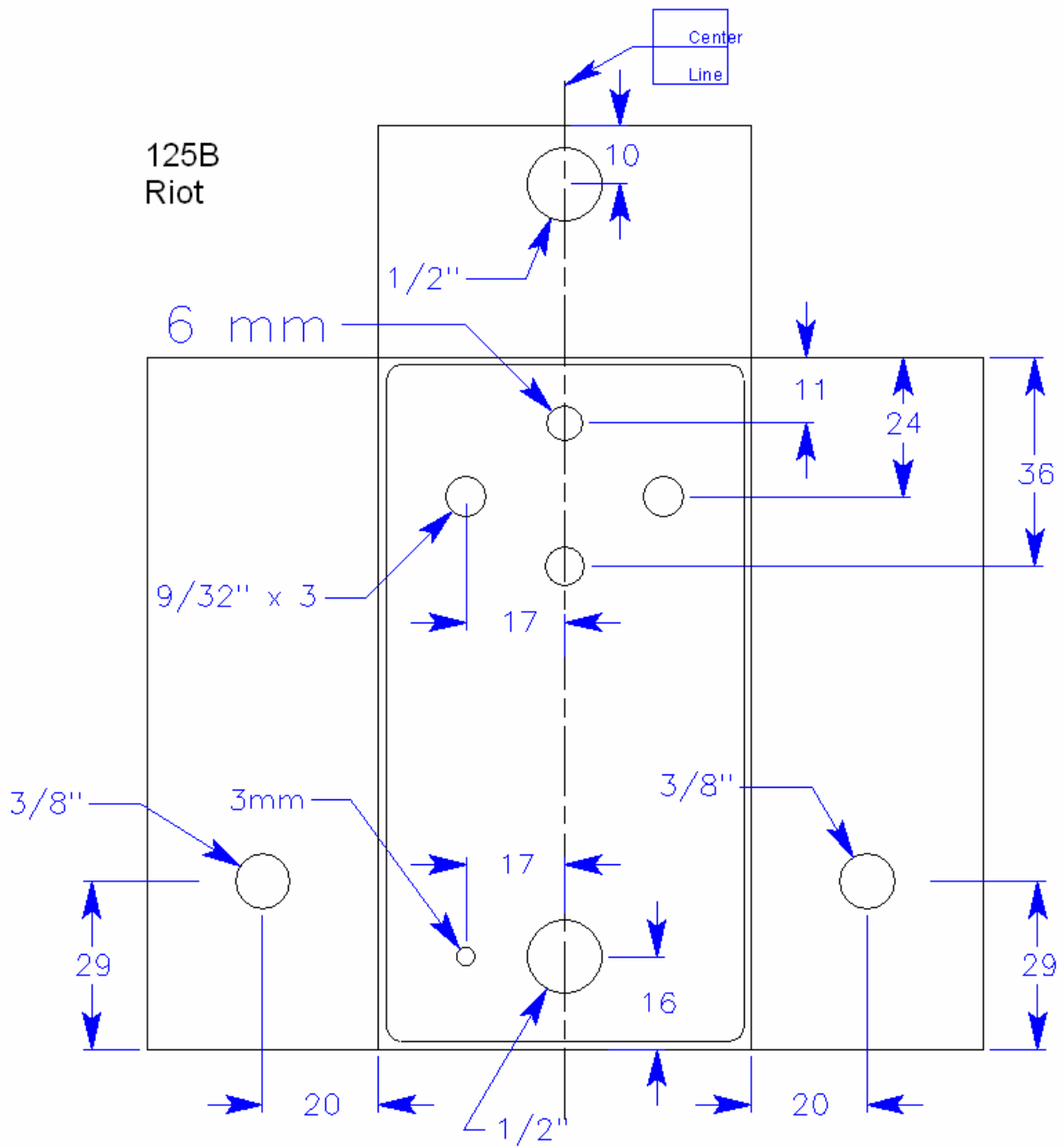


- Notes
- 1) Based on FSB MarkGor schematic
  - 2) R93 - (Power Supply) Not in original schematic - jumper to omit
  - 3) C90 & C91 (Clipping) not in original - Omit (DO NOT JUMPER) or tune to taste
  - 4) Switch must be ON/ON/ON

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### Drill Template

This is the drill template I used to order my box from Pedal Parts Plus. The box I specified was their standard 125B, code 1400.



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