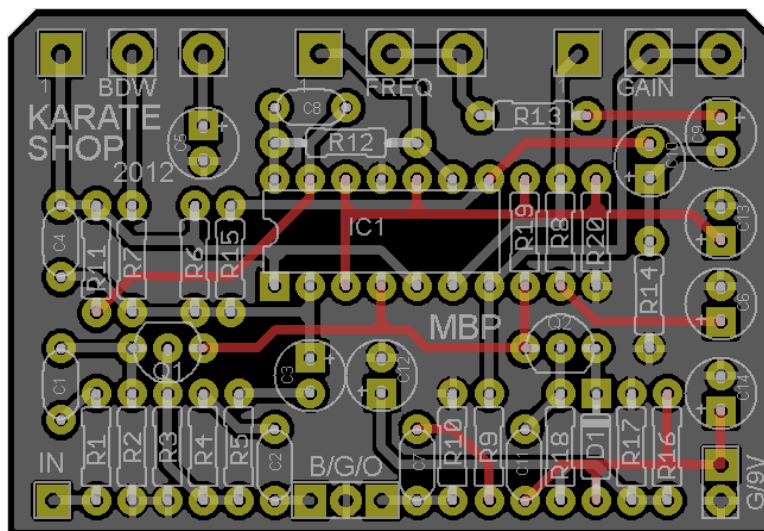
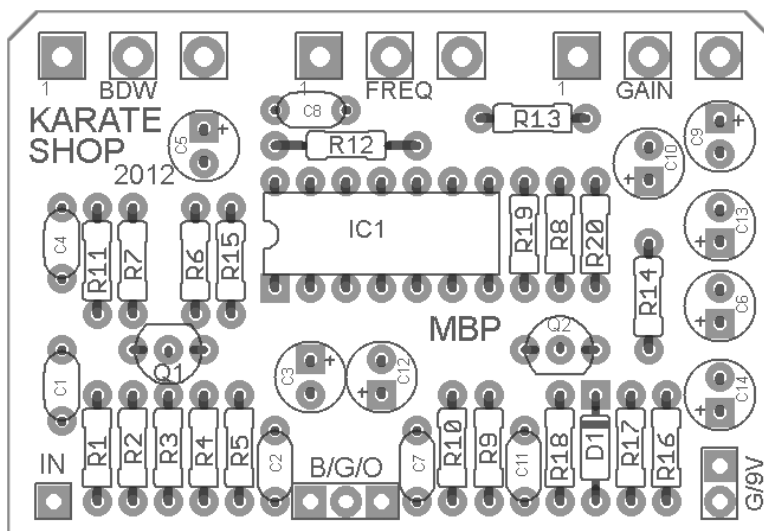


KARATE SHOP 2012

fx type: Filter

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2.16" W 1.49" H



You can download the previous version of the KarateShop here:

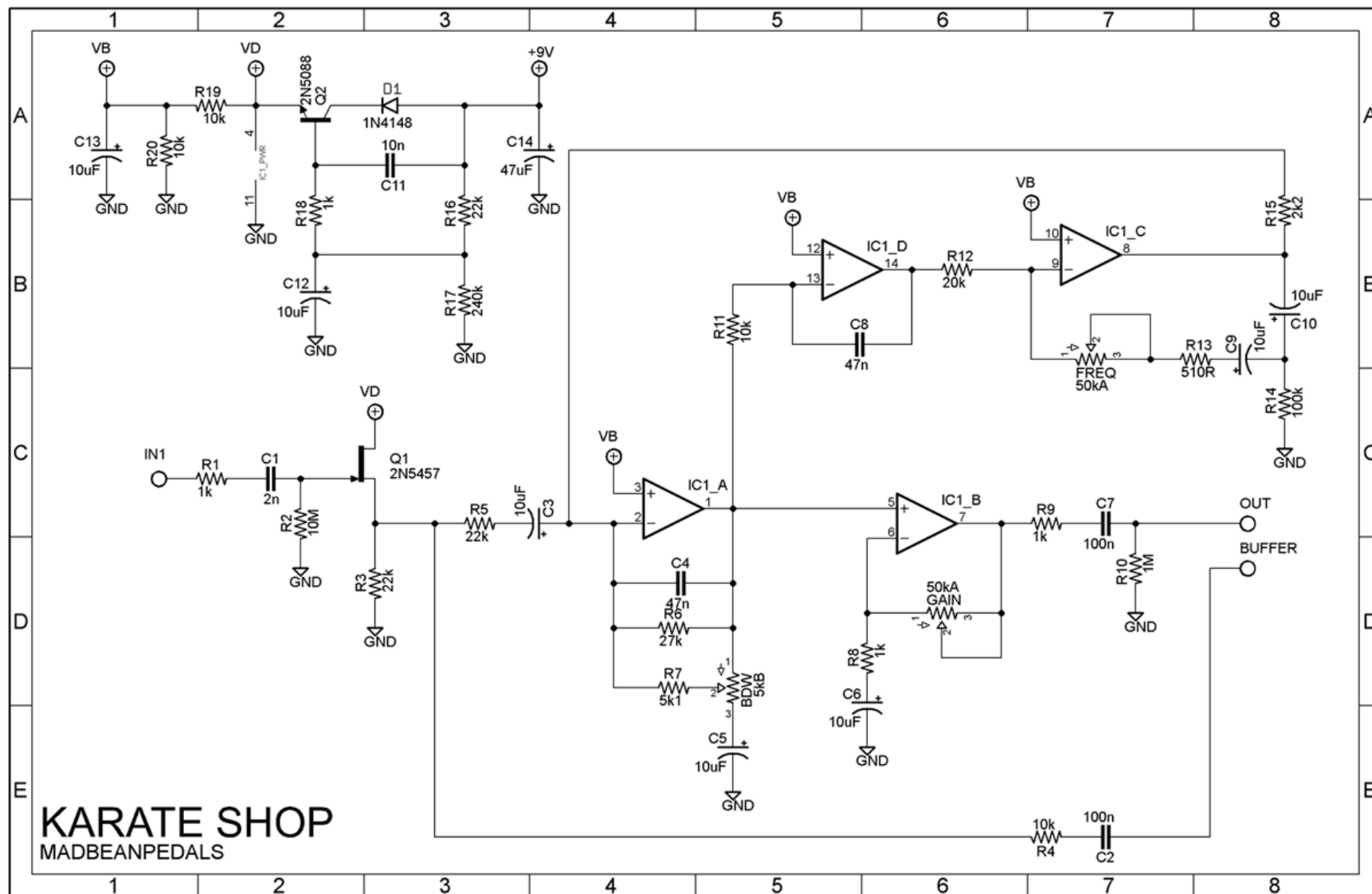
<http://www.madbeanpedals.com/projects/KarateShop/docs/KarateShop.zip>

KarateShop PCBs purchased from madbeanpedals (or etched from the included PCB artwork) may be used for small quantities of commercial pedal building (bulk discounting on PCBs is not offered). You may not, however, offer these PCBs for commercial resale (re-distribution) or as part of a "kit". Selling and trading through DIY forums is, as always, completely legit.

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Schematic



B.O.M.

Resistors		Caps		Diodes	
R1	1k	C1	2n***	D1	1N4148
R2	10M	C2	100n	Transistors	
R3	22k	C3	10uF	Q1	2N5457
R4	10k	C4	47n	Q2	2N5088
R5	22k	C5	10uF	ICs	
R6	27k	C6	10uF	IC1	TL074
R7	5k1	C7	100n	Pots	
R8	1k	C8	47n	BDW	5kB
R9	1k	C9	10uF	FREQ	50kA
R10	1M	C10	10uF	GAIN	50kA
R11	10k	C11	10n		
R12	20k	C12	10uF		
R13	510R	C13	10uF		
R14	100k	C14	47uF		
R15	2k2				
R16	22k				
R17	240k				
R18	1k		***2n2 okay		
R19	10k				
R20	10k				

Overview

The **Karate Shop** is based on the Systech® Harmonic Energizer™ which is a versatile notch filter. If you want a “stuck wah” type effect with a huge range of frequency choices and boost on tap then this is the project for you. And...it’s incredibly fun to play with! Check out “Shut Up and Play Yer Guitar” record by Frank Zappa to get an idea of the range of tones the **Karate Shop** has to offer.

Controls

BDW: The bandwidth control changes the “sharpness” of the frequency notch.

FREQ: The frequency control lets you pick which frequency to boost.

GAIN: This controls the gain applied to the selected frequency.

Notes

This is a buffered effect. You can wire the **Karate Shop** for true-bypass, if desired. See the wiring diagrams below.

The use of a 1n4148 for **D1** will cause some voltage drop from a regulated 9v supply. You can sub a 1N4001 or 1N5817 for less voltage drop, although this should not be necessary.

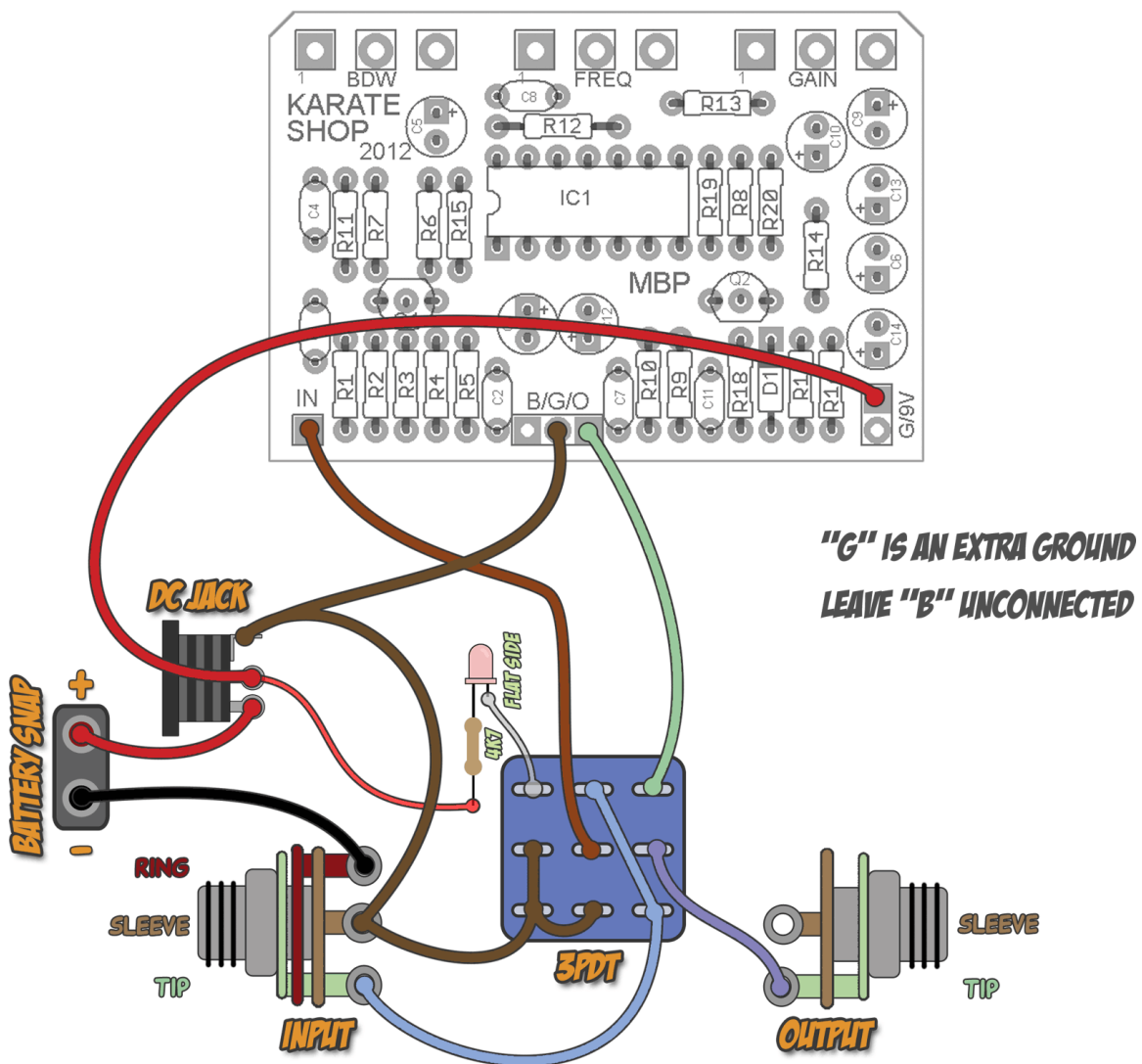
You can add a volume control by taking the effect output and connecting it lug 3 of a 100kA pot. Connect lug1 to ground and take the output from lug2 to the 3PDT switch.

The “2012” version allows for short-pin, PCB mounted 16mm pots. You can find these at smallbear.

[Systech Harmonic Energizer on Discofreq](#)

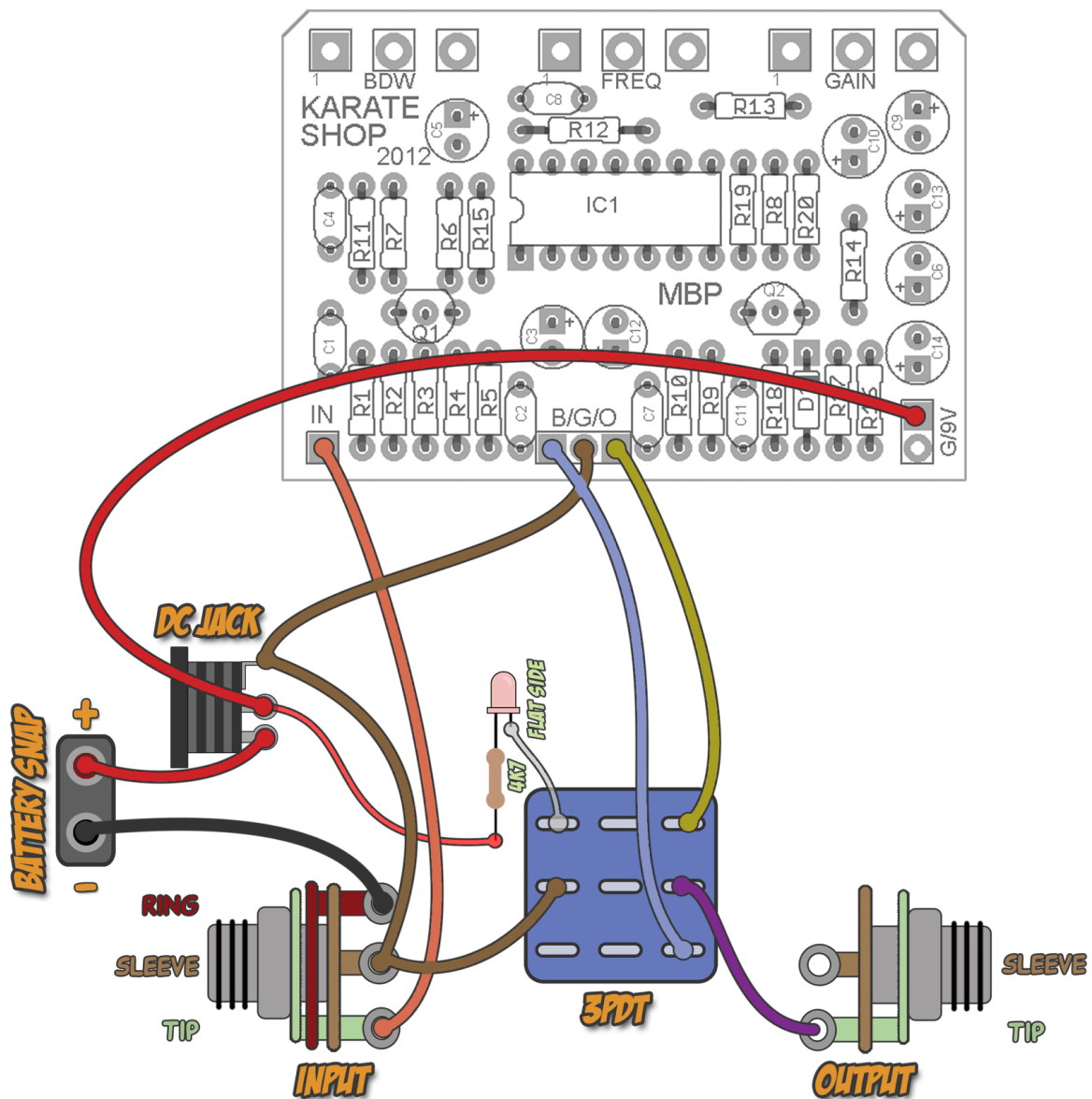
Wiring

TRUE BYPASS WIRING



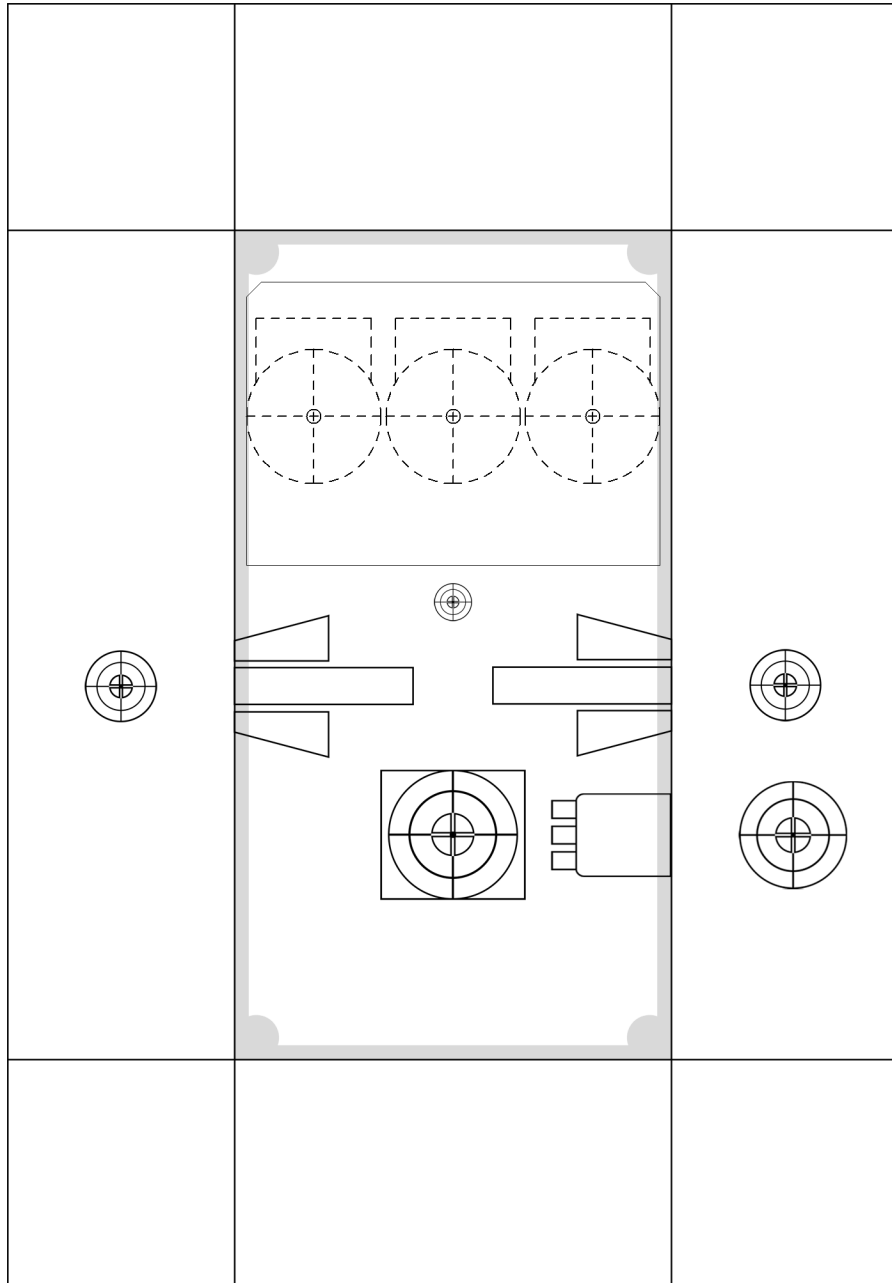
Wiring

BUFFERED WIRING

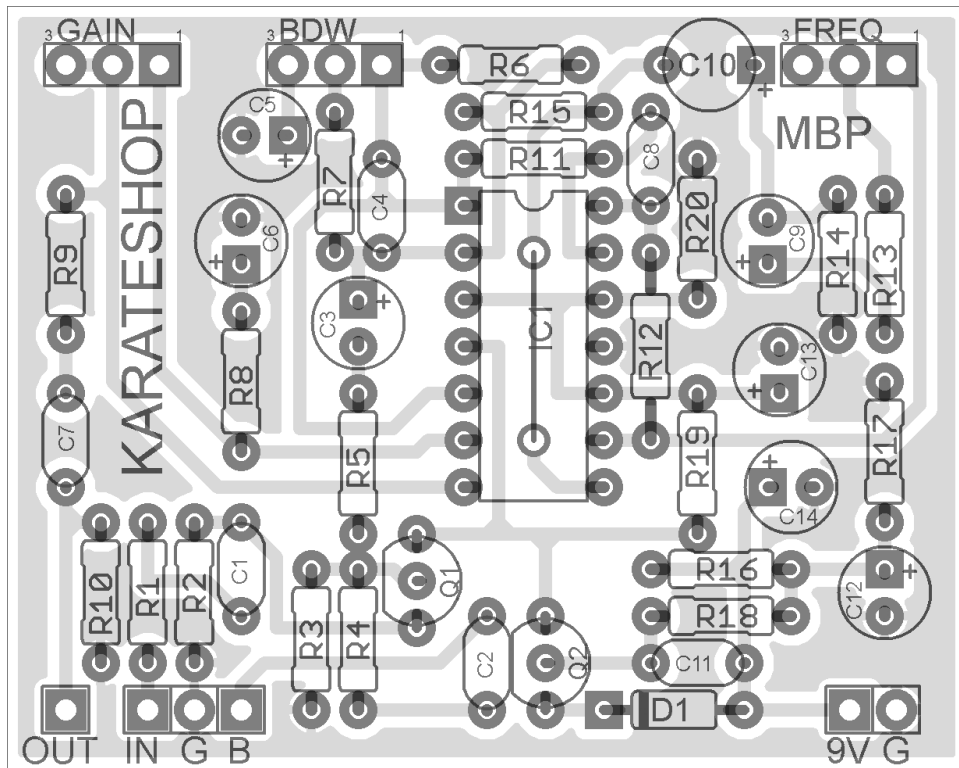


Drill Guide

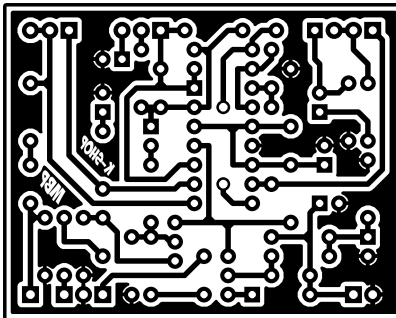
1590B Enclosure
4.64" W x 6.68" H



Single Sided Layout



2.09" W x 1.66" H (inc. borders)



Note the jumper under the IC!