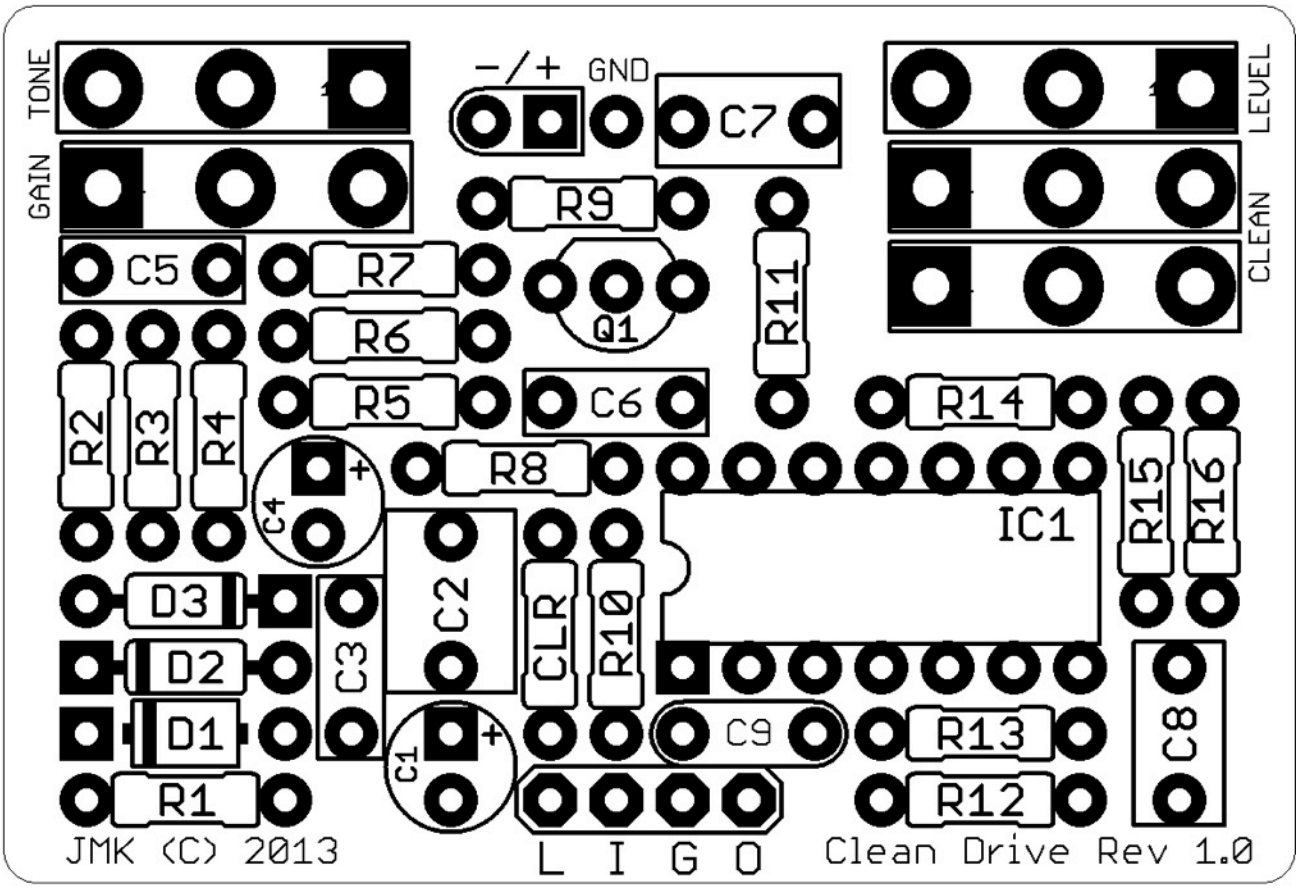
JMK PCBS PRESENTS...

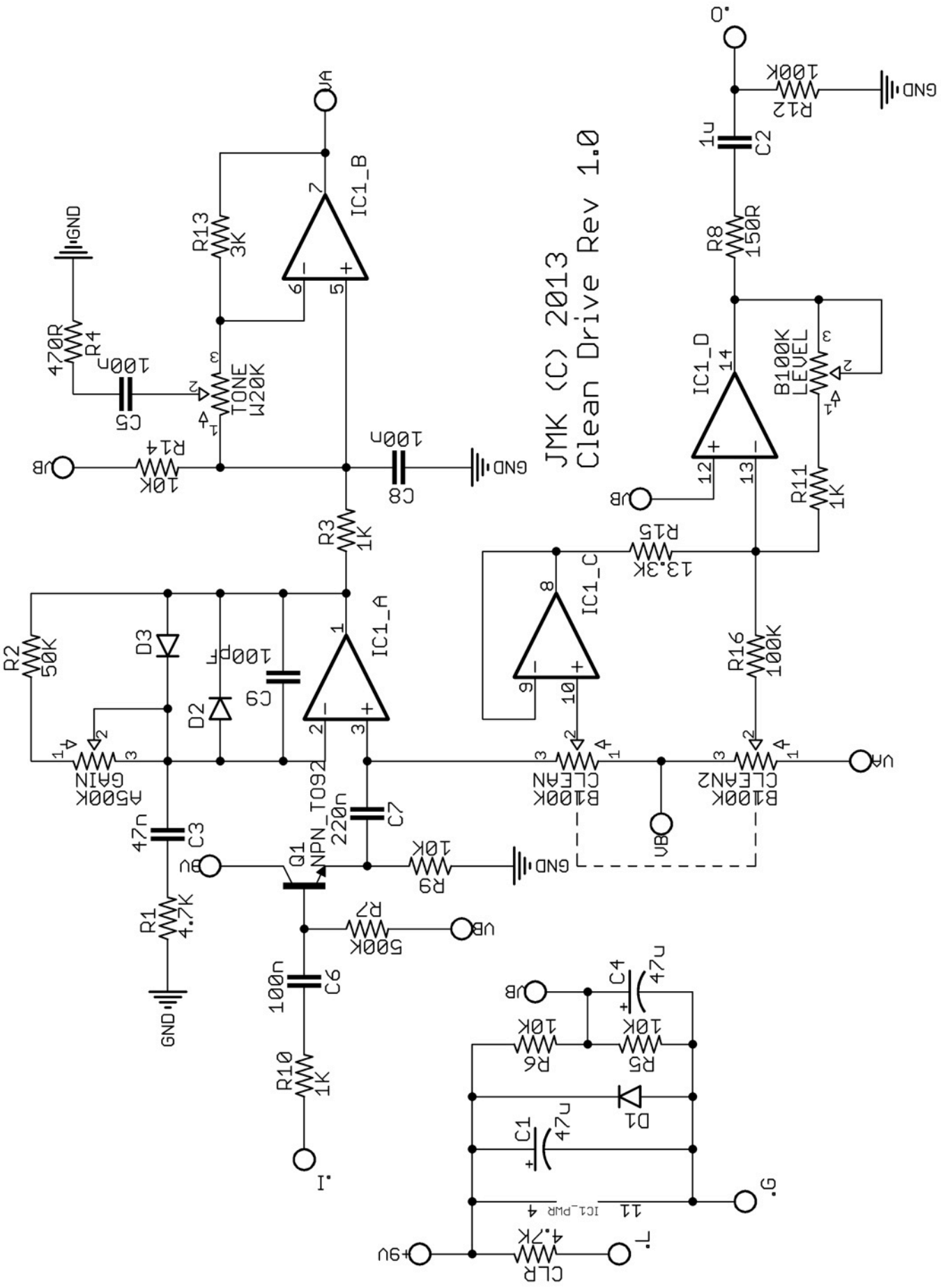
CLEAN DRIVE

PCB AND SCHEMATIC ARTWORK (C) 2013 JMK PEDALS

VERSION 1.0: 05/1/2013



Resistors						Capactitors				Semiconductors	
R1	4.7K	R7	500K	R13	3K	C1	47u	C6	100n	Q1	MPSA18
R2	50K	R8	150R	R14	10K	C2	1u	C7	220n	IC1	TL074
R3	1K	R9	10K	R15	13.3K	C3	47n	C8	100n	**Potentiometers**	
R4	470R	R10	1K	R16	100K	C4	47u	C9	100p	GAIN	A500K
R5	10K	R11	1K	CLR	4.7K	C5	100n			TONE	W20K
R6	10K	R12	100K			**Diodes**				LEVEL	B100K
						D1	1N4001			CLEAN	B100KDG
						D2, D3	1n4148				



Build Notes

• The Clean Drive is essentially a clone of the Voodoo Lab Sparkle Drive. It's very similar in many respects to a classic, dual op amp overdrive, with the added twist of a clean blend circuit. Utilizing a dual gang pot, the clean knob gently blends between a clean and a dirty sound, allowing for a fairly unique overdrive sound that retains clarity while still getting 'hairy.'

• Hooking up the PCB is pretty simple, but to clarify: L = the connection for the + end of an LED (CLR is marked); I = PCB Input; G = Ground for the Switch; O = PCB Output; + = 9V input; - = Ground for DC Jack; GND = Extra Ground for 1/4" Jack

• It should be noted that there are several odd parts in the BOM for this project. Below are some common substitutes for these parts. You can find precise parts if you would like, but in most cases the common values are going to give the same tonal response.

Part Number	Original Value	Common Substitute
R2	50K	51K, 47K
R7	500K	510K, 470K
R13	13.3K	12K, 15K
TONE	W20K	B25K

• Like with most pedals, the Transistor IC and Diodes are an integral part of the sound. Keep in mind that the pinout of the these needs to be considered when installing. **We highly recommend socketing your Semiconductors and Diodes!** Socketing allows you to switch your parts easily if you have installed them backwards, and also allows you to swap out and try other transistors to see which you like the best. Options to try for Q1 include: 2N5088, 2N5089, BC549 and others. Options to try for IC1 include: TL084, LF347, LM324, LM348 and others. Options to try for D2 and D3 include: 1N914, 1N4001, 1N34A, 1N270, 1N60A, BAT41, BAT46 and others.

• Perhaps the most ambitious mod you could try, aside from other typical DIY pedal mod ideas, would be to split up the clean controls. Instead of using a Dual Gang Pot, one could potentially use a pair of single gang pots to give the user individual control over the clean and dirty levels. This would be handy, because as it's setup the user gets only a linear control over each (i.e 25% clean with %75 dirty, 33% dirty with 67% clean). Using two pots might allow a user to find other types of useful sounds. It might not, but it's something for the adventurous to explore.

True Bypass Wiring Diagram