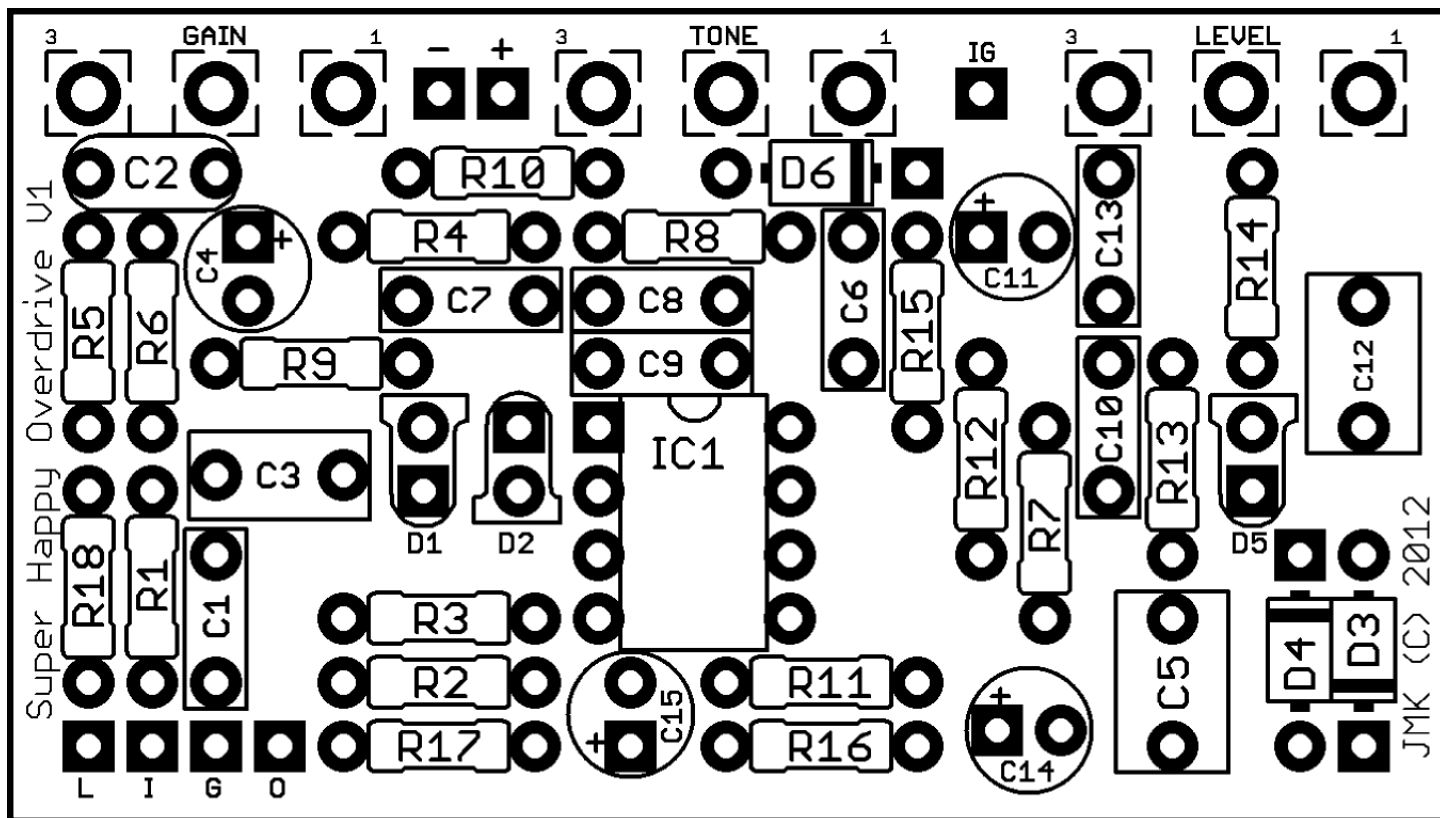


JMK PCBs PRESENTS...

SUPER HAPPY OVERDRIVE

PCB AND SCHEMATIC ARTWORK (C) 2013 JMK PEDALS

VERSION 1.0.1: 6/19/2013



Resistors				Capacitors				IC	
R1	1M	R10	13.7K	C1	4.7nF	C9	22nF	IC1	OP275
R2	360K	R11	1M	C2	100pF	C10	1nF	Potentiometers	
R3	6.8K	R12	2.61K	C3	220nF	C11	22uF	DRIVE	A500K
R4	3K	R13	5.6K	C4	22uF	C12	1uF	TONE	B50K
R5	1K	R14	47K	C5	1uF	C13	4.7nF	LEVEL	B50K
R6	5.6K	R15	47R	C6	22nF	C14	100uF	Diodes	
R7	2K	R16	47K	C7	4.7nF	C15	22uF	D1, D2, D5	3mm LED
R8	10K	R17	47K	C8	22nF			D3, D4, D6	1N4007
R9	150K	R18	4.7K						

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BUILD NOTES

- The Super Happy Overdrive is a clone of the Sweet Honey Overdrive pedal. In many ways, it's a typical Dual Op Amp based overdrive, but it features a unique tone section, and a complex clipping arrangement in both gain stages of the Op Amp and in the signal path.
- *build note* Some builders have reported a lack of bass response in their builds. Upon investigation, a BOM error was found. The original value of C8 was listed as 4.7nF, but another look saw that **C8 should be 22nF**. We can't verify that this will increase the bass response to the desired level, however, if you want to build an accurate clone, using a value of 22nF should help.
- The input capacitor on this design is fairly low at 4.7nF. It is common to increase this value to increase the bass response heading into the pedal. Try a value of 10, or even 22nF at C1 if you desire to change the Bass level input into the pedal.
- Hooking up the PCB is pretty simple, but to clarify: L = the connection for the + end of an LED (CLR is R24); I = PCB Input; G = Ground for the Switch; O = PCB Output; + = 9V input; - = Ground for DC Jack; IG = 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
R10	13.7K	12K or 15K
R12	2.61K	2.4 or 2.7K

- Like with most Dual Op Amp Overdrive circuits, the Op Amp and clipping diodes are an integral part of the sound. Pretty much any Dual Op Amp can be used. Keep in mind that the pinout of the IC needs to be considered when installing. **We highly recommend socketing your ICs and Diodes!** Socketing allows you to protect your transistors, and also allows you to swap out and try other ICs to see which you like the best. Options for ICs to try include, but are not limited to: JRC4558, JRC4580, JRC4559, TL072, TL2272, OA2134 and the LF353.

TRUE BYPASS WIRING DIAGRAM

