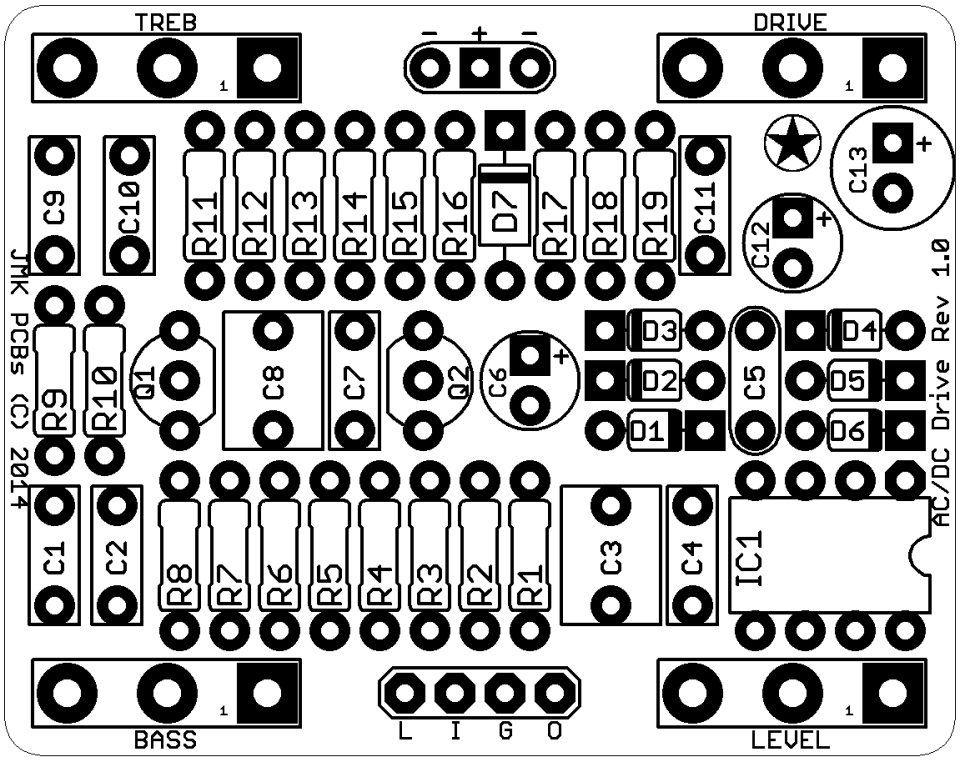
JMK PCBS PRESENTS...

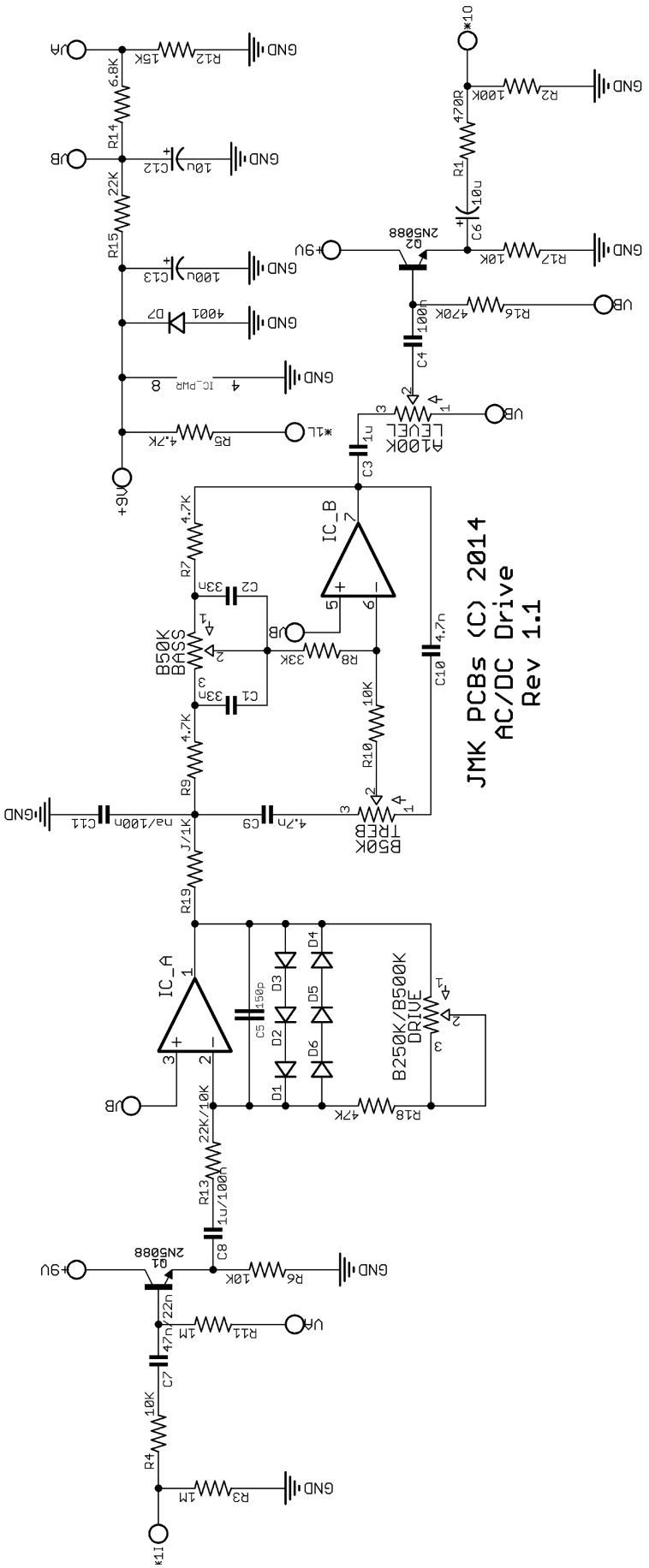
AC/DC DRIVE

PCB AND SCHEMATIC ARTWORK (C) 2015 JMK PEDALS

VERSION 1.1: 12/19/2015



Resistors				Capactitors				Semiconductors	
R1	470R	R11	1M	C1	33n	C8	see notes	IC1	Dual
R2	100K	R12	15K	C2	33n	C9	4.7n	Q1, Q2	2N5088
R3	1M	R13	see notes	C3	1u	C10	4.7n	D1-D6	see notes
R4	10K	R14	6.8K	C4	100n	C11	see notes	D7	1N4001
R5	4.7K	R15	22K	C5	150p	C12	10u	Potentiometer	
R6	10K	R16	470K	C6	10u	C13	100u	TREB	B50K
R7	4.7K	R17	10K	C7	see notes			BASS	B50K
R8	33K	R18	47K					DRIVE	see notes
R9	4.7K	R19	see notes					LEVEL	A100K
R10	10K								



Build Notes

• The AC/DC Drive is a clone of a pair of Boutique Drive/Boost pedals in one. The AC and RC boost pedals are very popular, and this PCB can be used to build either effect. Essentially, the AC/DC Drive is a Dual OpAmp overdrive, which utilizes a Baxandall tone stack rather than the typical TS style tone control. The Baxandall gives a little greater utility to the circuit, with individual controls over the Bass and Treble frequencies, rather than just a mids control.

• The original transistors used were the 2SC1815, available from Smallbear Electronics. The pinout in this PCB is for the EBC type (5088, 3904, etc.), but you can use a 2SC1815 with some leg twisting. 2SC1815 transistors use an ECB pinout, which is different than the typical EBC pinout that most DIY pedal transistors use.

• Follow the chart below to build the version of the AC/DC Drive you would prefer. Consider socketing the parts which need to be exchanged, or build one version of each to determine which you'd prefer:

Part	DC	AC
R13	22K	10K
R19	jumper	1K
C7	47n	22n
C8	1u	100n
C11	none	100n
DRIVE	B250K	B500K
D1-D6	All 1N4148	D1,2,6 = 1N4148, D3-5 = jumper

• The AC/DC Drive can also be be built for Bass Guitarists to use. To build this effect for Bass, the following changes are recommended:

Part	Standard	Bass
C7	47/22n	100n
C9, C10	4.7n	10n
C1, C2	33n	47n

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

• The Semiconductors used in this project are influential on the tone and character of the overdrive. **We highly recommend socketing your ICs and Transistors!** Socketing allows the user to swap and try various options for each position, and to also replace if one or several becomes non-functional. Keep all pinouts in mind when installing.

True Bypass Wiring Diagram