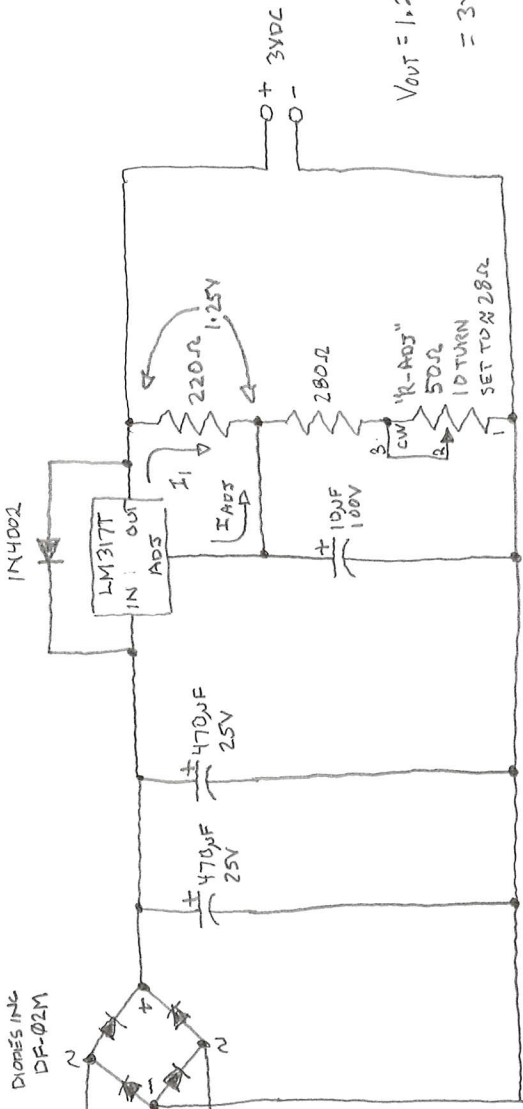
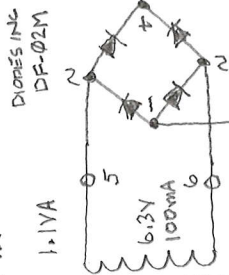
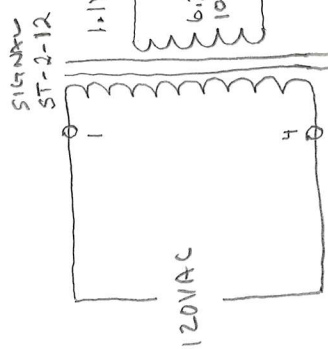
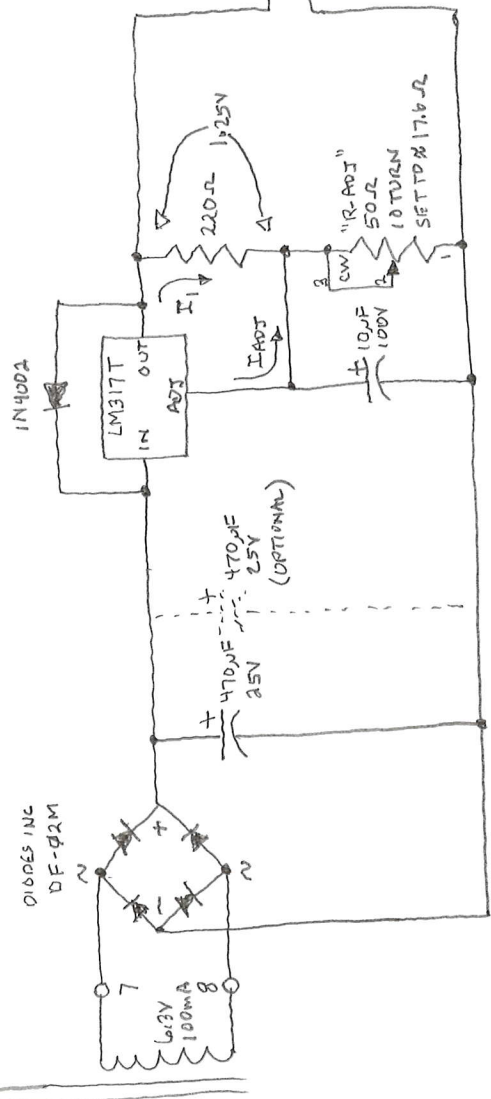


IN-25
BATTERY ELIMINATOR



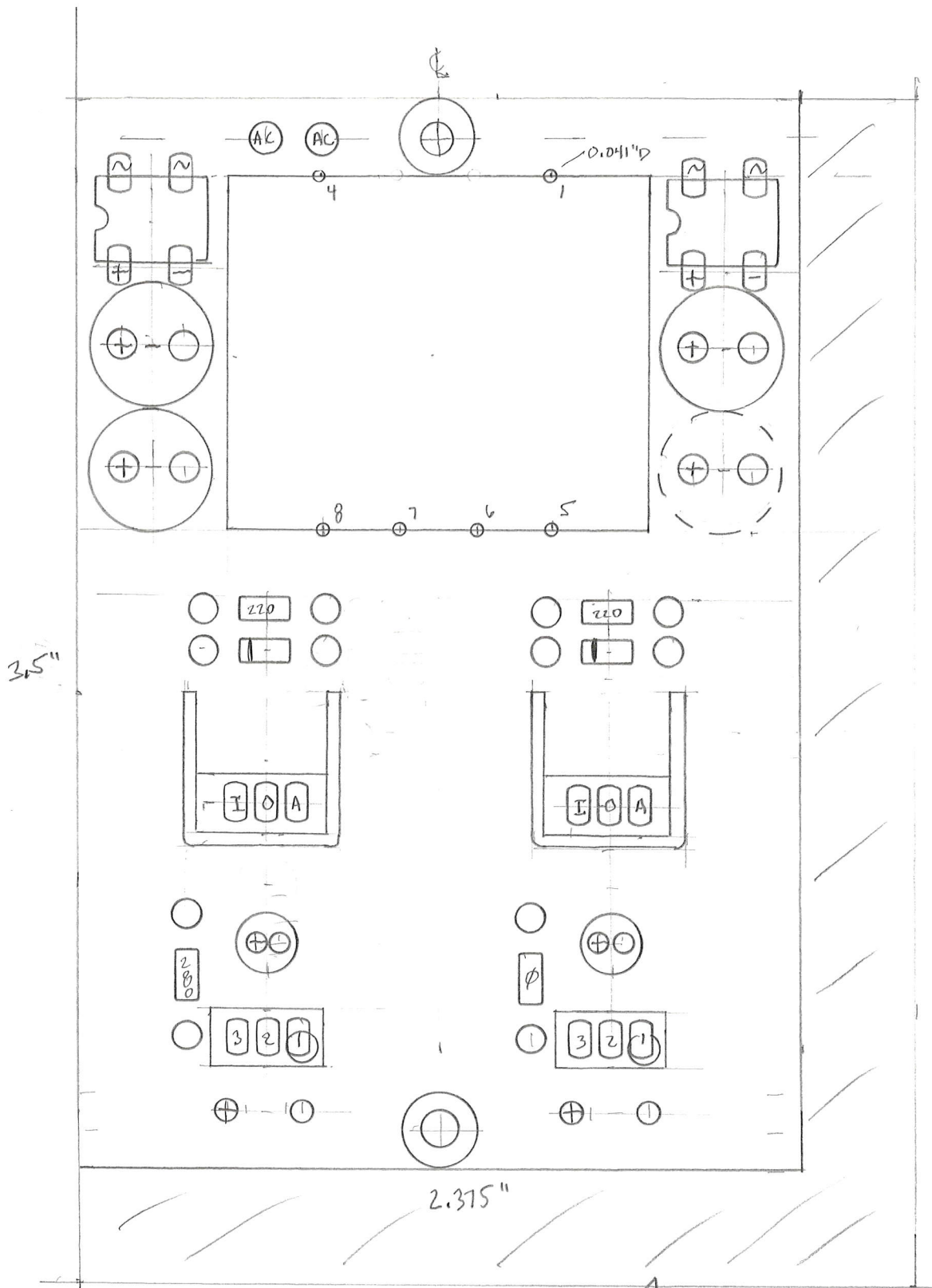
$$V_{OUT} = 1.25V \left(1 + \frac{R_{ADJ} + 180\Omega}{220\Omega} \right) = 3V$$



$$V_{OUT} = 1.25V \left(1 + \frac{R_{ADJ}}{220\Omega} \right) = 1.35V$$

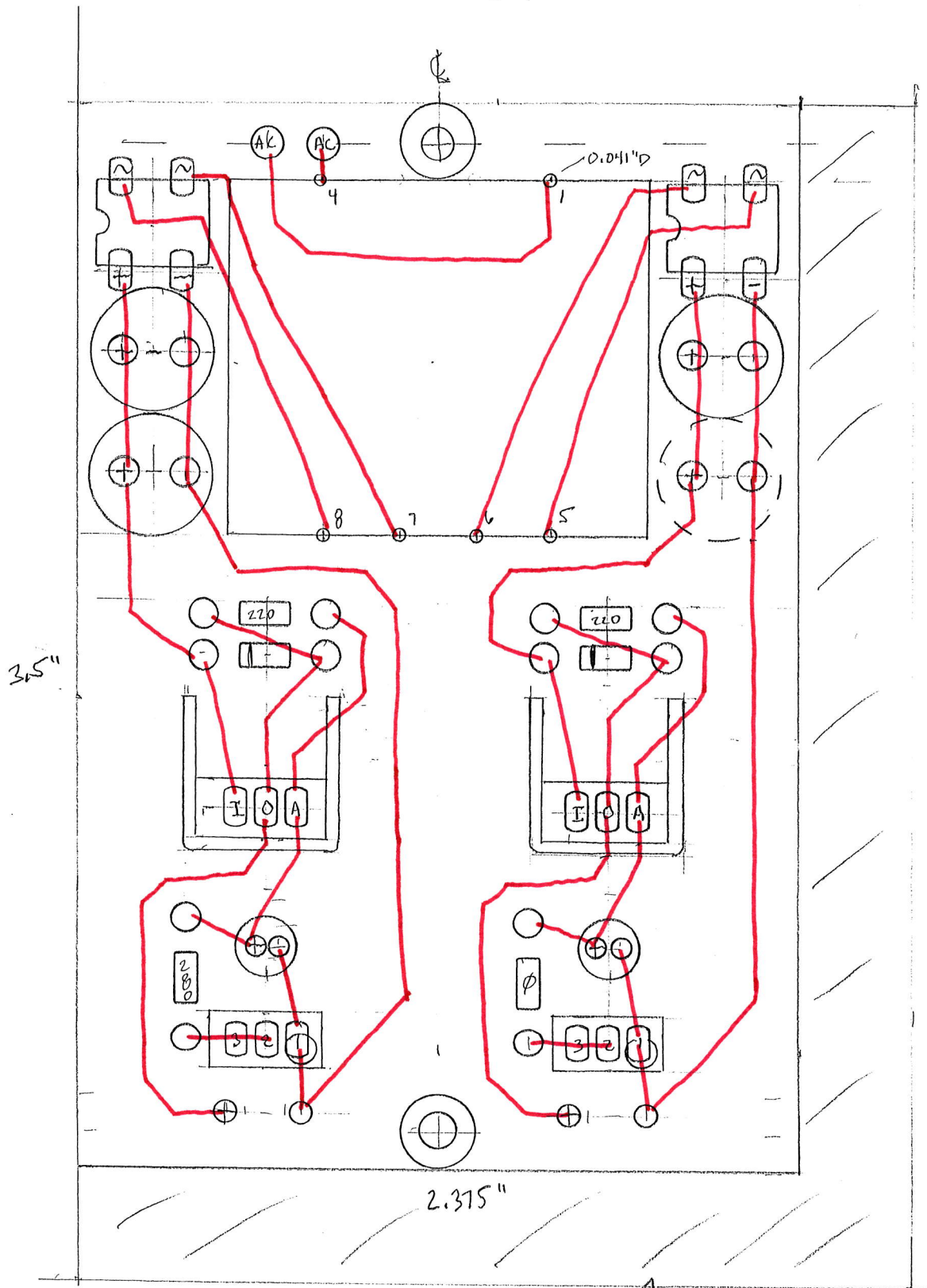
298

ZX SCALE



2918

2X SCALE



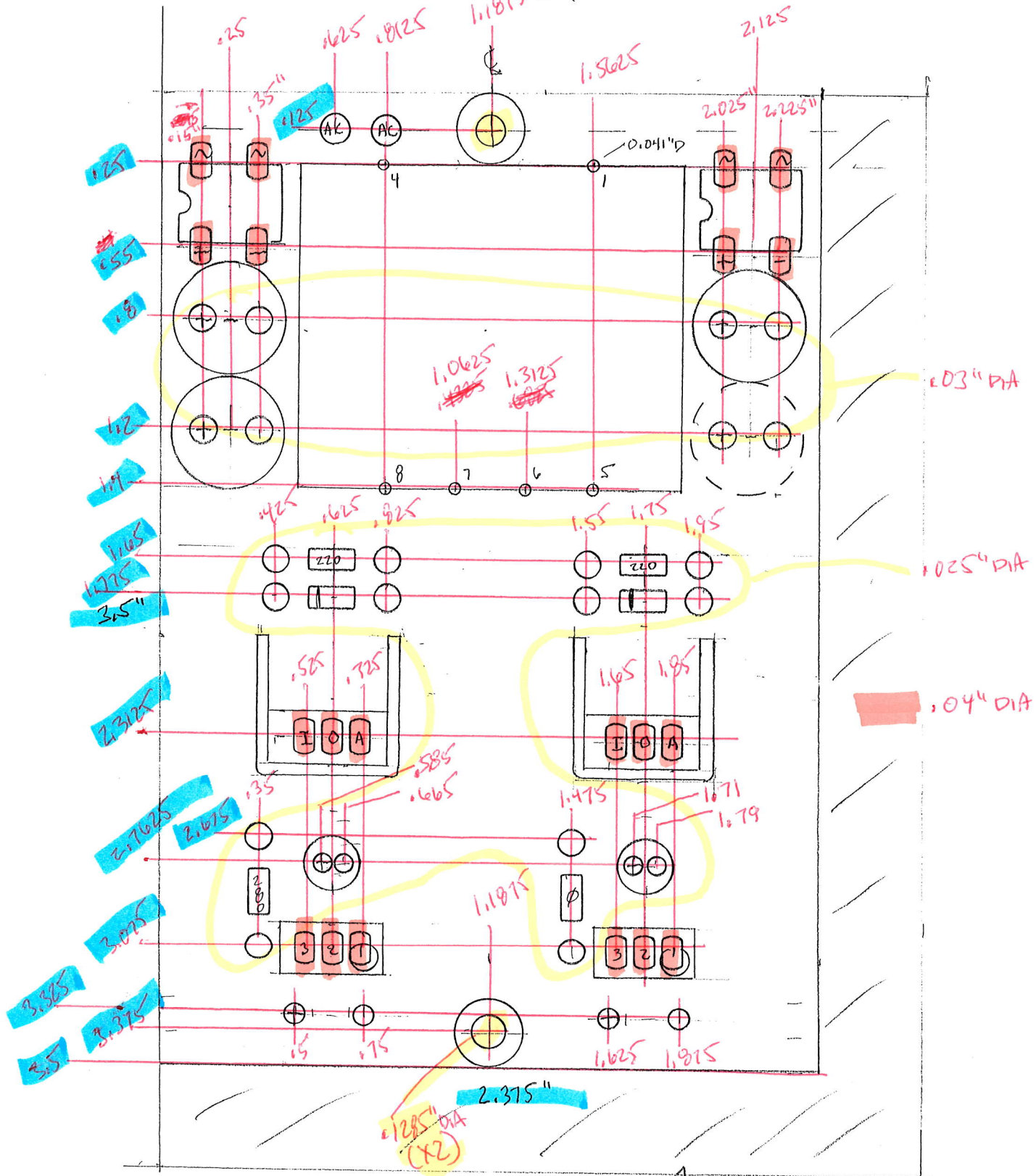
3.5"

2.375"

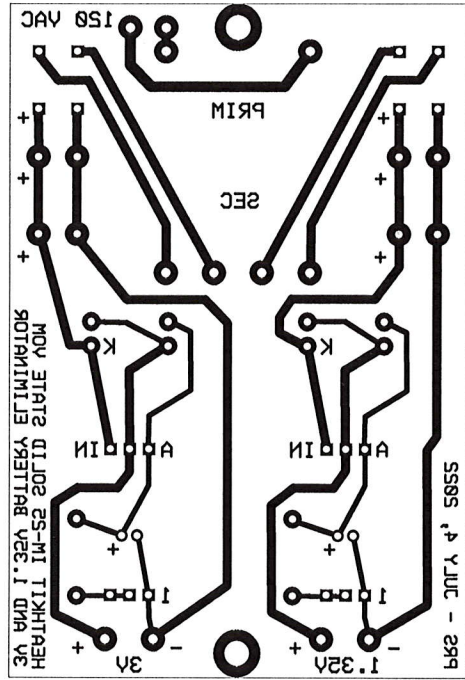
RAW PCB SIZE

2918

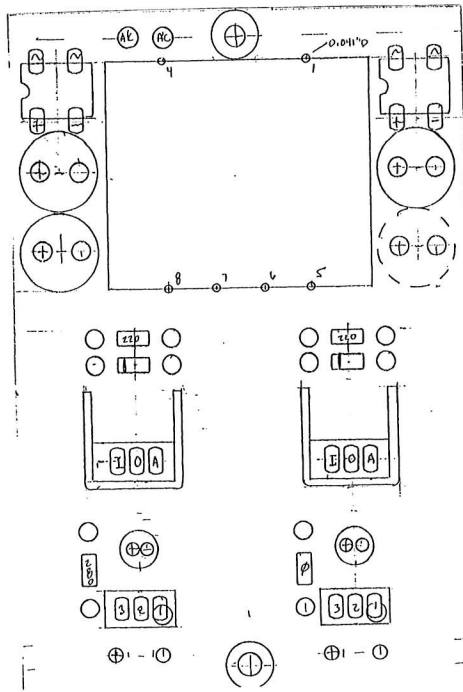
2X SCALE



RAW PCB SIZE



VIEW FROM
COMPONENT SIDE



Battery Eliminator for Heathkit IM-25 Solid-State VOM (also works with model IM-16)

Bill of Materials

QTY=1	PCB	Single sided PCB, using PDF artwork
QTY=1	Transformer	115V primary, dual 6.3V 100mA secondaries Signal ST-2-12, Digikey 595-1159-ND (or equal)
QTY=2*	Diode bridge	DIP diode bridge, 200V, 1A Diodes Inc. DF-02M, Digikey DF02MDI-ND
QTY=3*	Filter cap	470 μ F/25V radial electrolytic capacitor Nichicon UHV1E471MPD, Digikey 493-15304-ND
QTY=2*	Filter cap	10 μ F/100V radial electrolytic capacitor Nichicon UVK2A100MDD, Digikey 493-6066-ND
QTY=2*	Volt reg	LM317T linear voltage regulator, Digikey 497-1575-5-ND
QTY=2*	Heatsink	AAVID 577202B00000G, Digikey HS107-ND
QTY=2*	Hardware	3/8" 5-40 bolt and nut, for attaching regulator to heatsink
QTY=2*	Diode	1N4002 silicon general purpose diode (1N4003, 1N4004 OK) Digikey 2368-1N4002-ND (this is a very generic part)
QTY=2*	Resistor	220 Ohm 1% 1/4W carbon film resistor Yageo 25F52-220R, Digikey MFR-25F52-220R
QTY=1*	Resistor	280 Ohm 1% 1/4W carbon film resistor Yageo 25F52-280R, Digikey MFR-25F52-280R
QTY=2*	Trim Pot	50 Ohm 25 turn trim potentiometer Bournes PV36W500C01B00, Digikey 490-2886-ND

The quantities marked * will be less than shown if the reduced battery eliminator for the IM-16 is being made; only half of the circuit board is populated because only one battery needs to be replaced by the battery eliminator. See the schematic diagram.

Note that the circuit board design had places for a total of 4 filter capacitors of the 470 μ F size, but only three are required; see the schematic and circuit board layout sketches.