

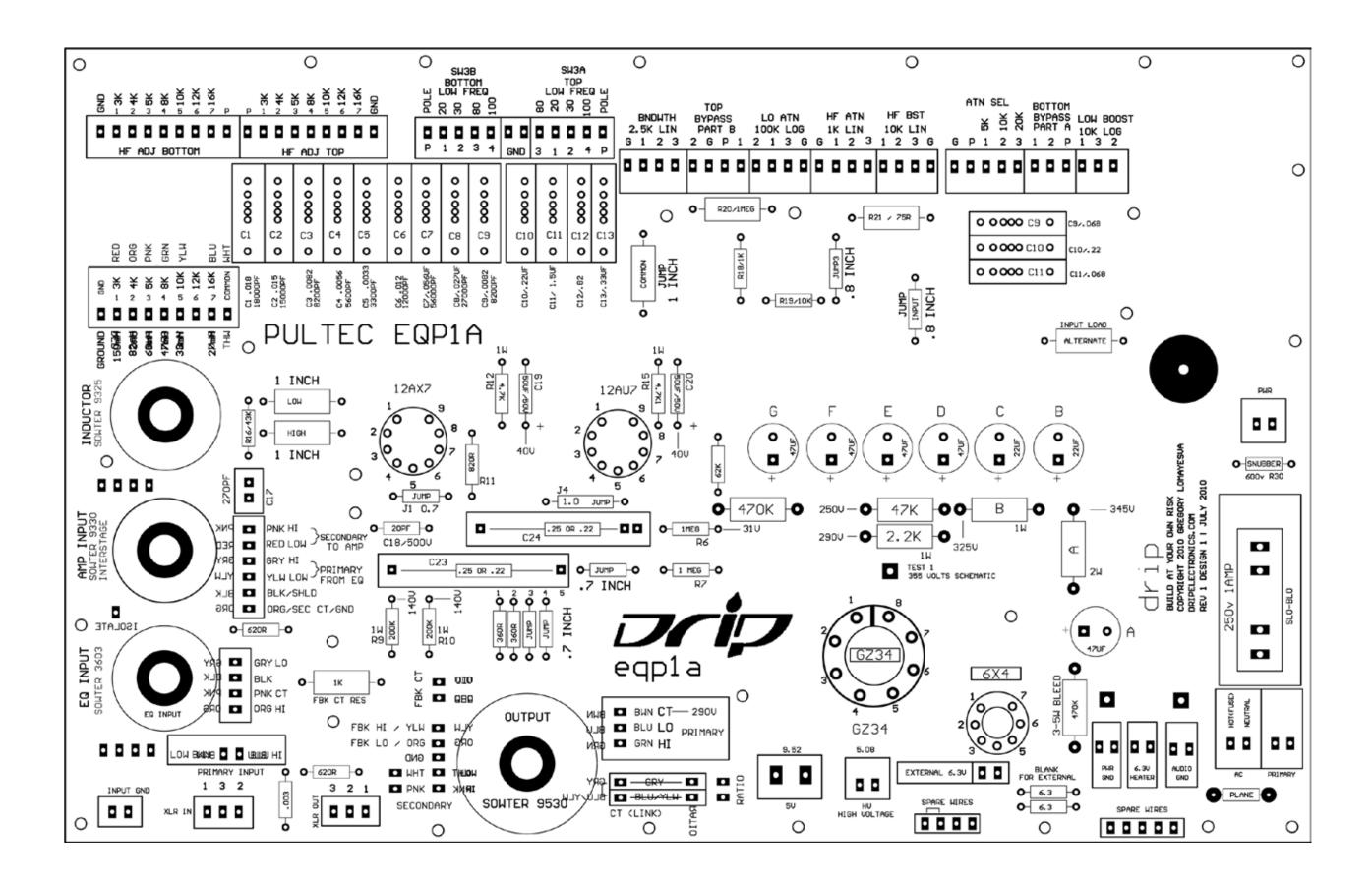
drip eqp1a build manual

COPYRIGHT LOMAYESVA 2010 BUILD AT YOUR OWN RISK

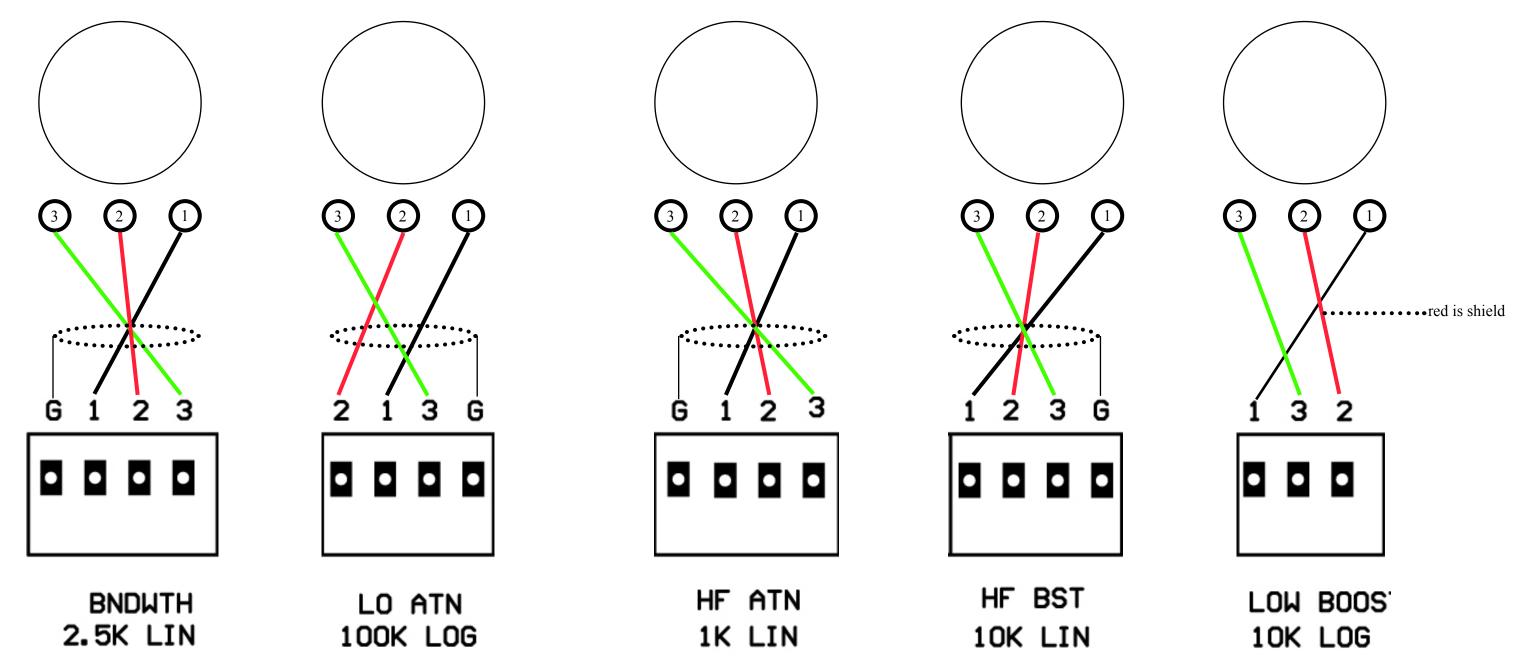
errata and notes:

filtering capacitor 'A' is labeled 47uf this should be a 10uf capacitor under most conditions

the designators for the eq capacitors c9 / c10 / c11 are repeated twice .values remain as indicated on the pcb.



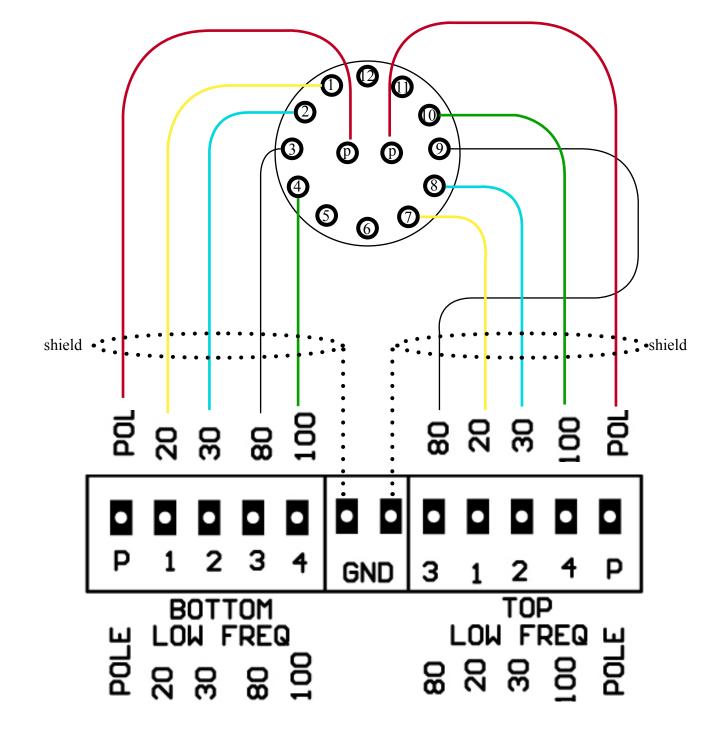
note on shielded wire: THE BARE UNINSULATED WIRE IS THE SHIELD / THIS IS ALWAYS CONNECTED TO GROUND



potentiometers

hookup is pretty straight forward, use the diagram above to guide you through this. shielded wire is not necessary, but can increase noise performance. if using shielded wire, use 3 conductor plus shield (bare drain wire)

THE POTENTIOMETERS ARE SHOW FROM THE BACK VIEW



Digi-Key Part Number GH7102-ND low frequency selector switch

the switch sections are labled "top" and "bottom" this is only to indicate one side of the switch from

the other.

for this switch one half is labled 'top' and the other half is labled 'bottom' this has no bearing on anything besides top is section 'A' and bottom is section 'B'.

for this switch you will use a 2 pole 5 position switch, alternately you may us a more readily available 2 pole 6 position switch.

greyhill is the de facto standard for this type of switch , however if on a budget , use an alpha type switch.

use this diagram to wire this up.

shielded wire is not necessary, but will ensure in an extra level of noise performance.

you would need to use 2 lengths of 6 conductor plus shield.

the ground pads are used only for the shield . clip the shield wire on the switch side of the cable .

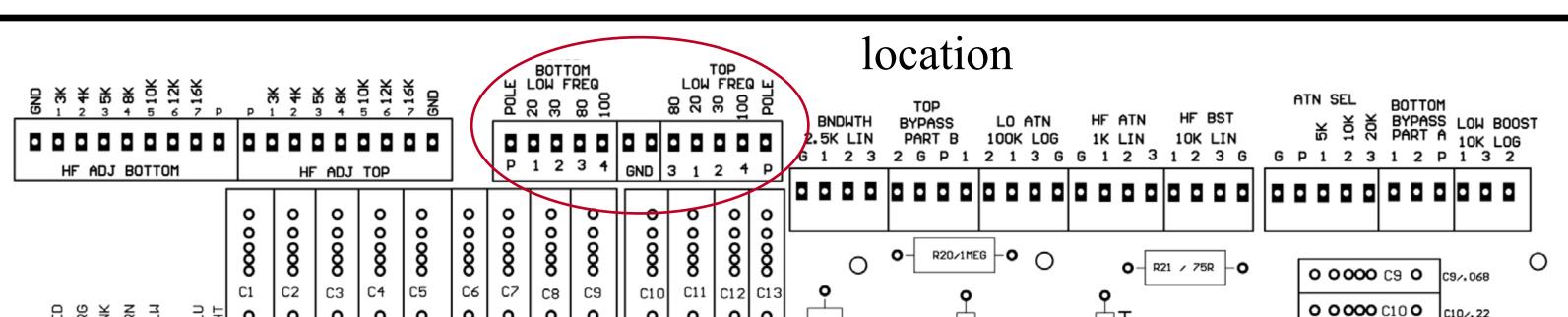
ALWAYS STRIP AND TIN EACH WIRE BEFORE INSERTING IT INTO THE HEADER ON THE PCB.

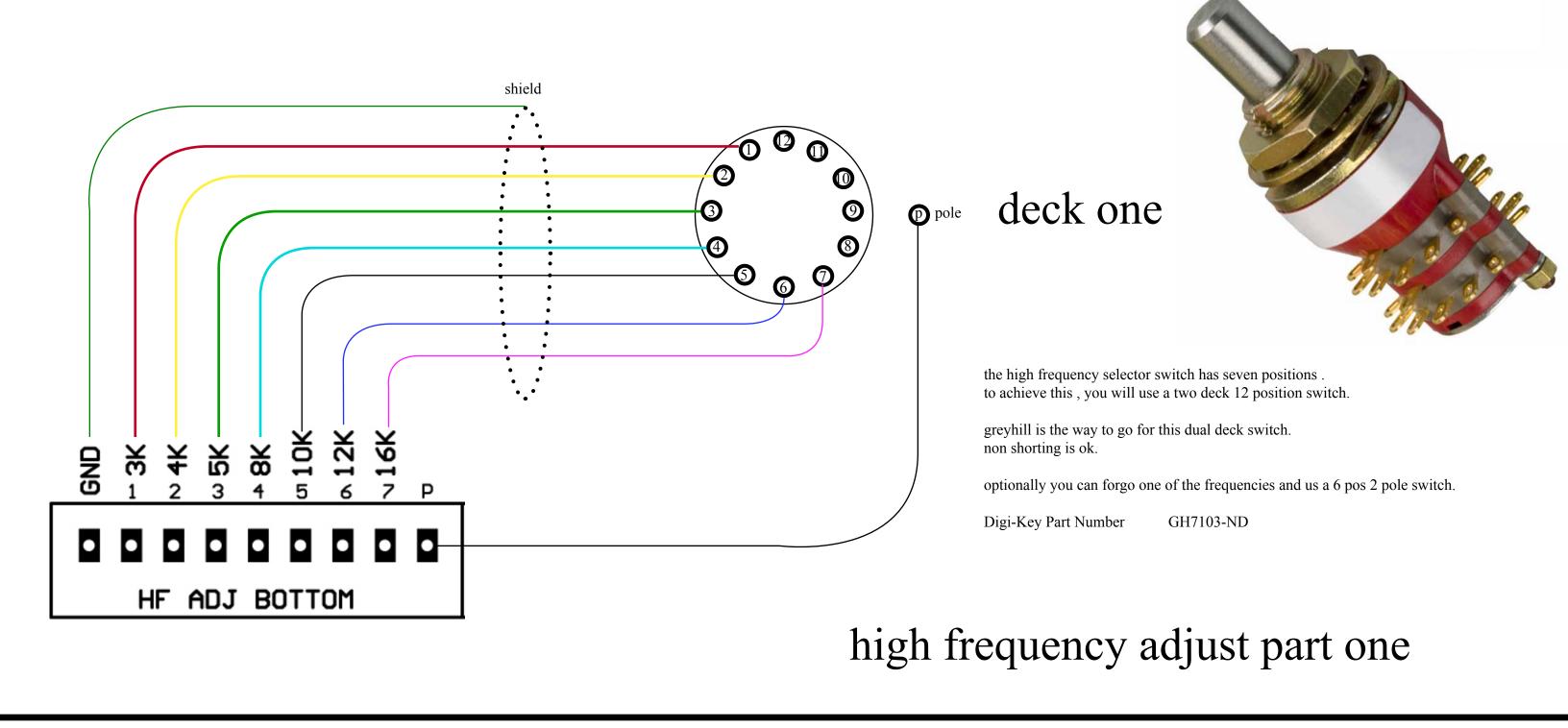
this will save you hours of troubleshooting a fine wire that is shorting out your signal.

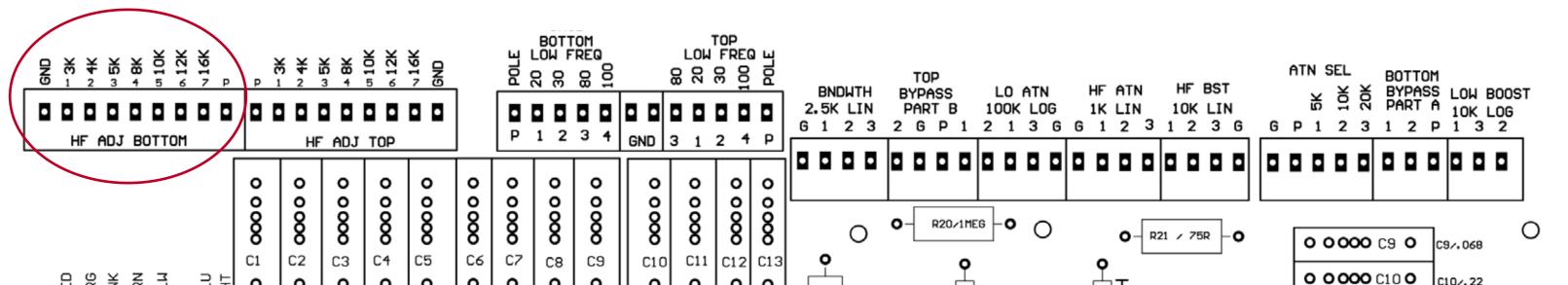
the diagram is illustrating a 12 position switch. use positions 1-4 for pcb pads "bottom" 1-4

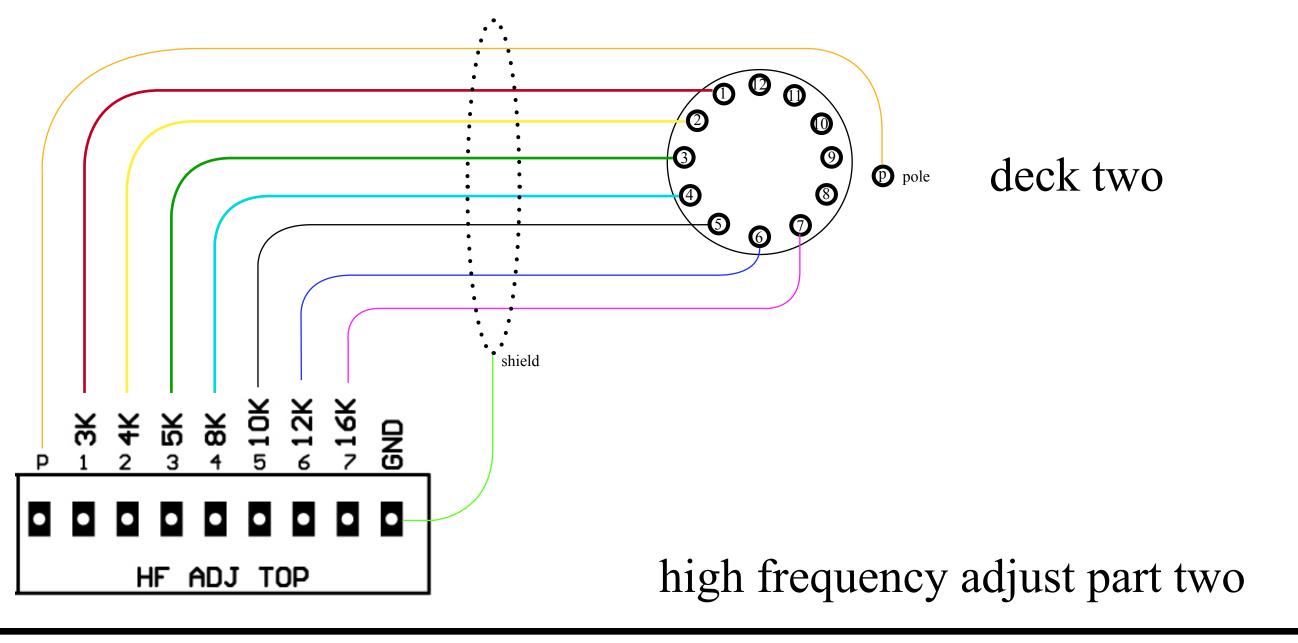
for the "top" pcb pads 1-4 you will use switch positions 7-10.

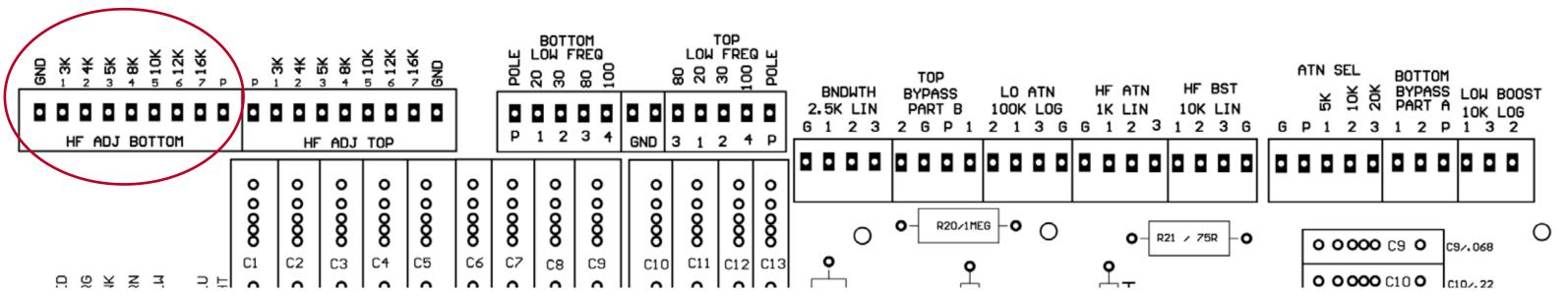
if using a 5 position switch you will use switch positions 6-9 for the "top" (make a note of that)

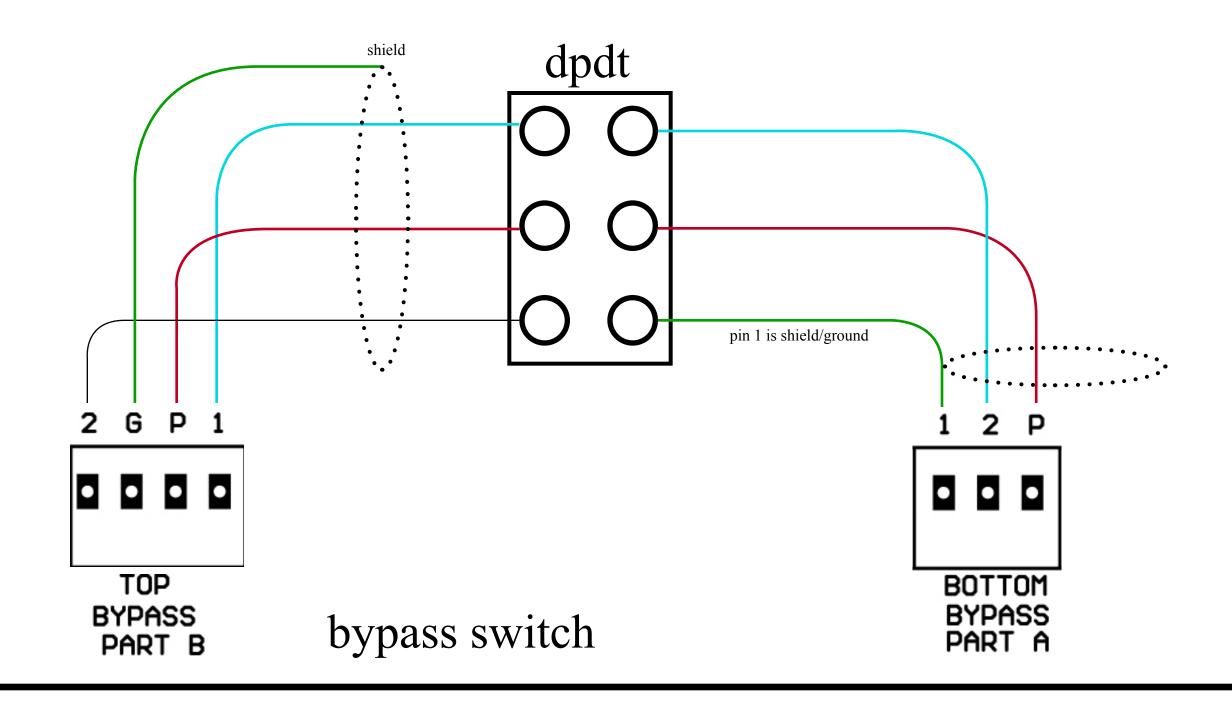


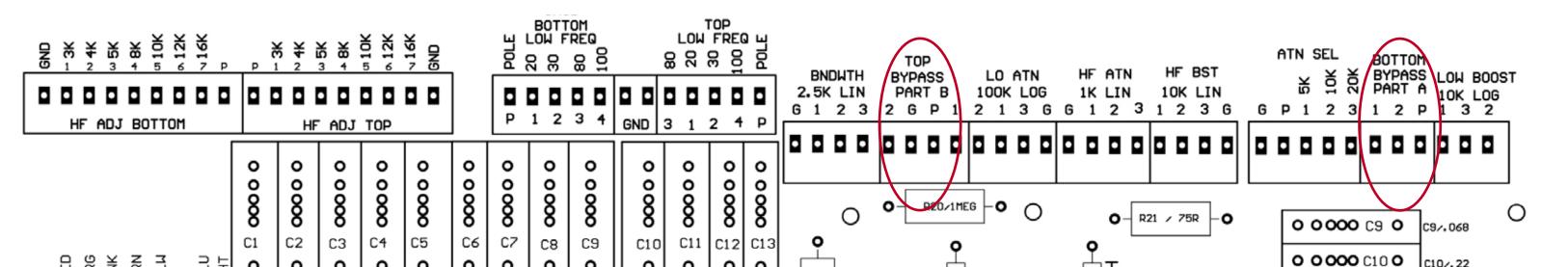






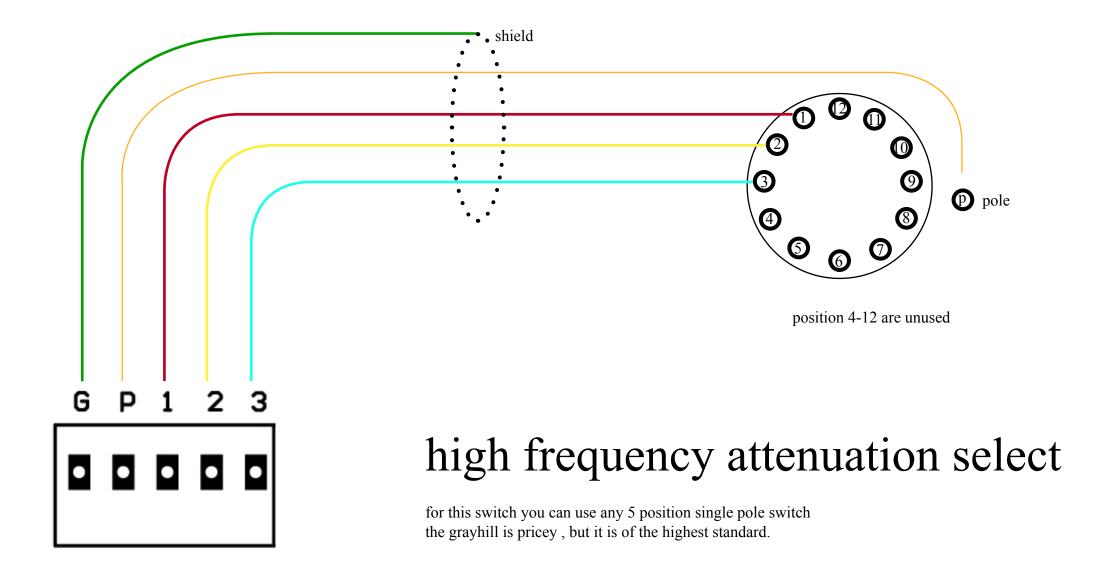


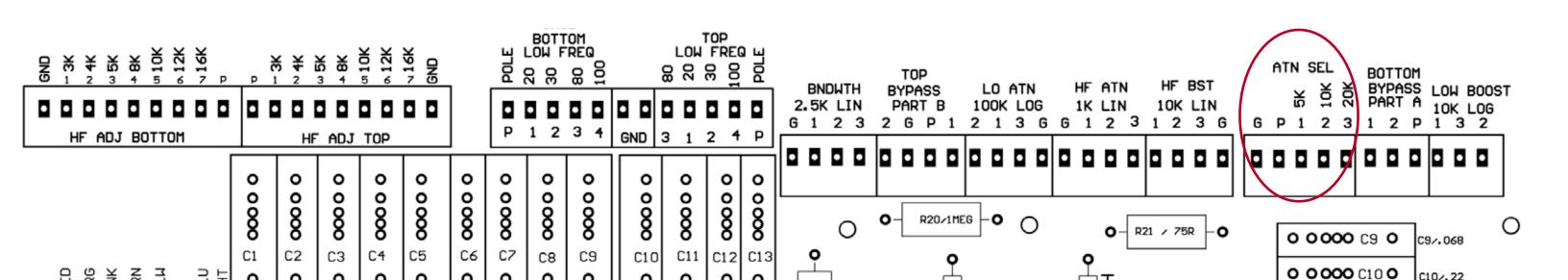




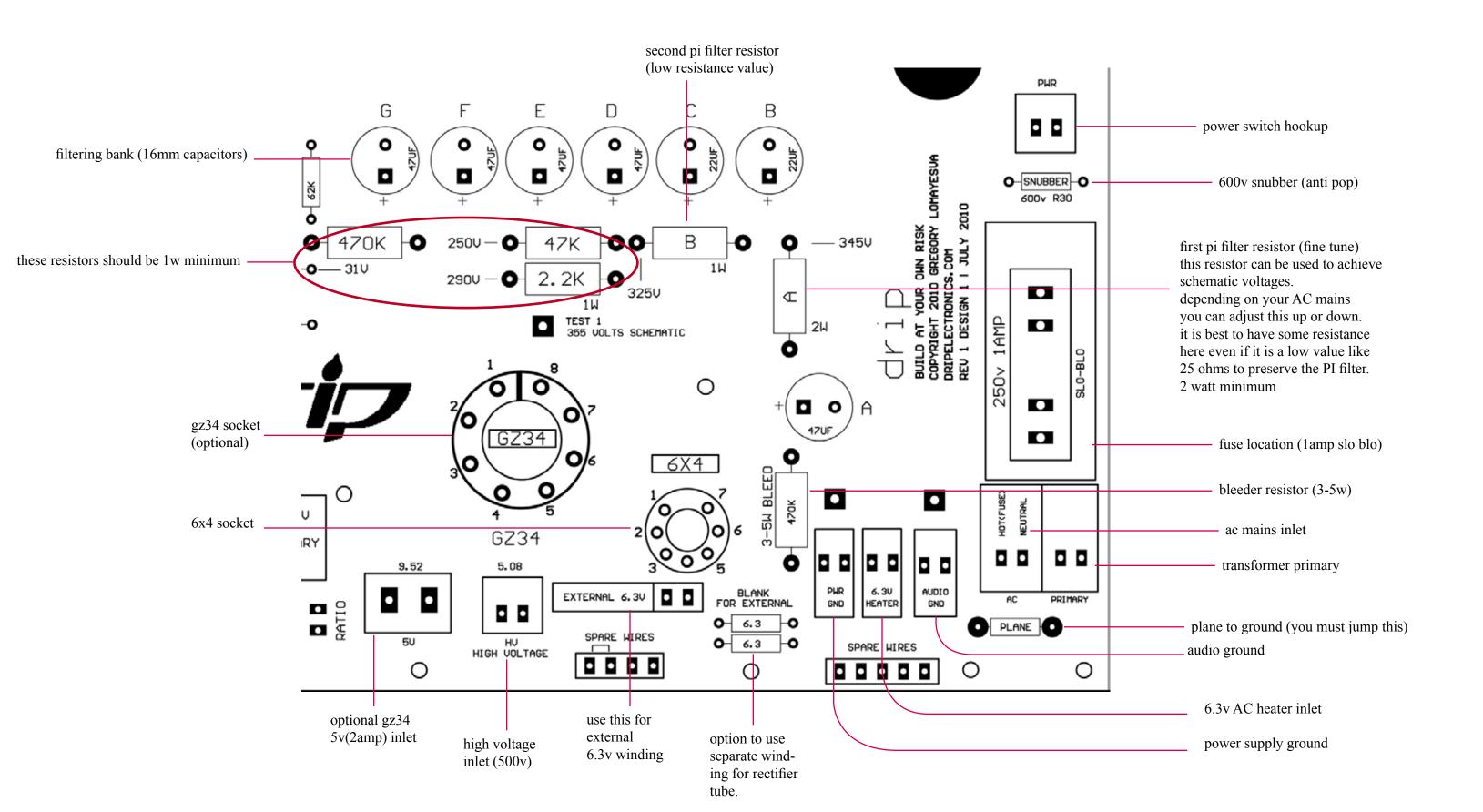


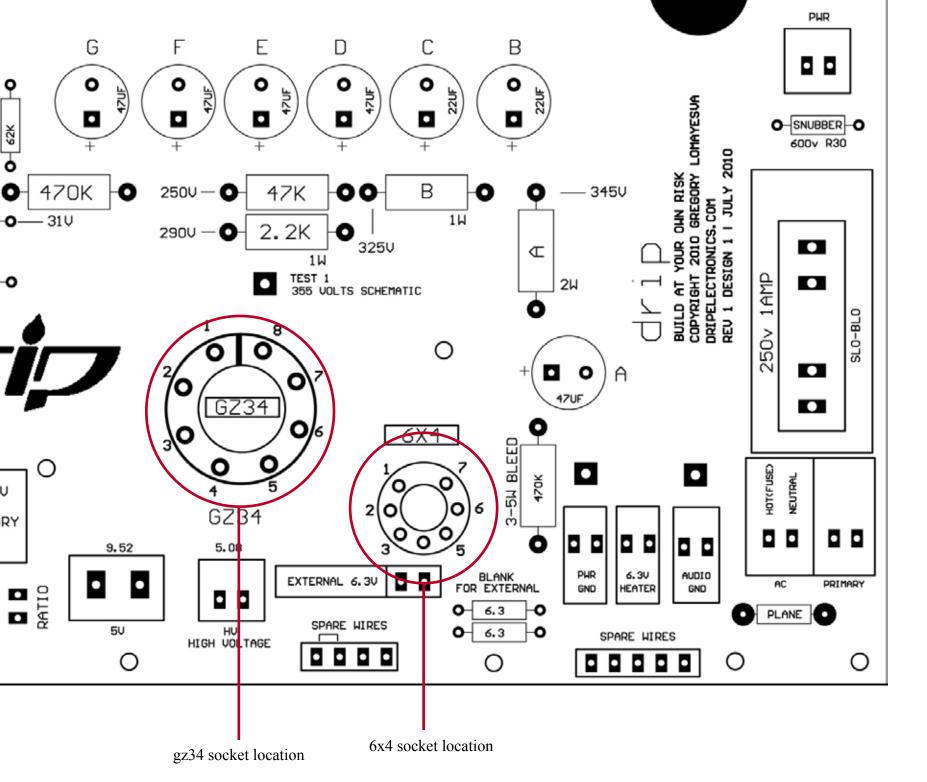
Digi-Key Part Number GH7102-ND





power supply primer/legend





rectifier tube

note: the gz34 uses a 5v heater and the 6x4 uses a 6.3v heater (do not confuse this!)

the pcb allows for the use of two different rectifier tubes. either the original 6X4 or the use of a gz34 type rectifier.

DO NOT USE BOTH.

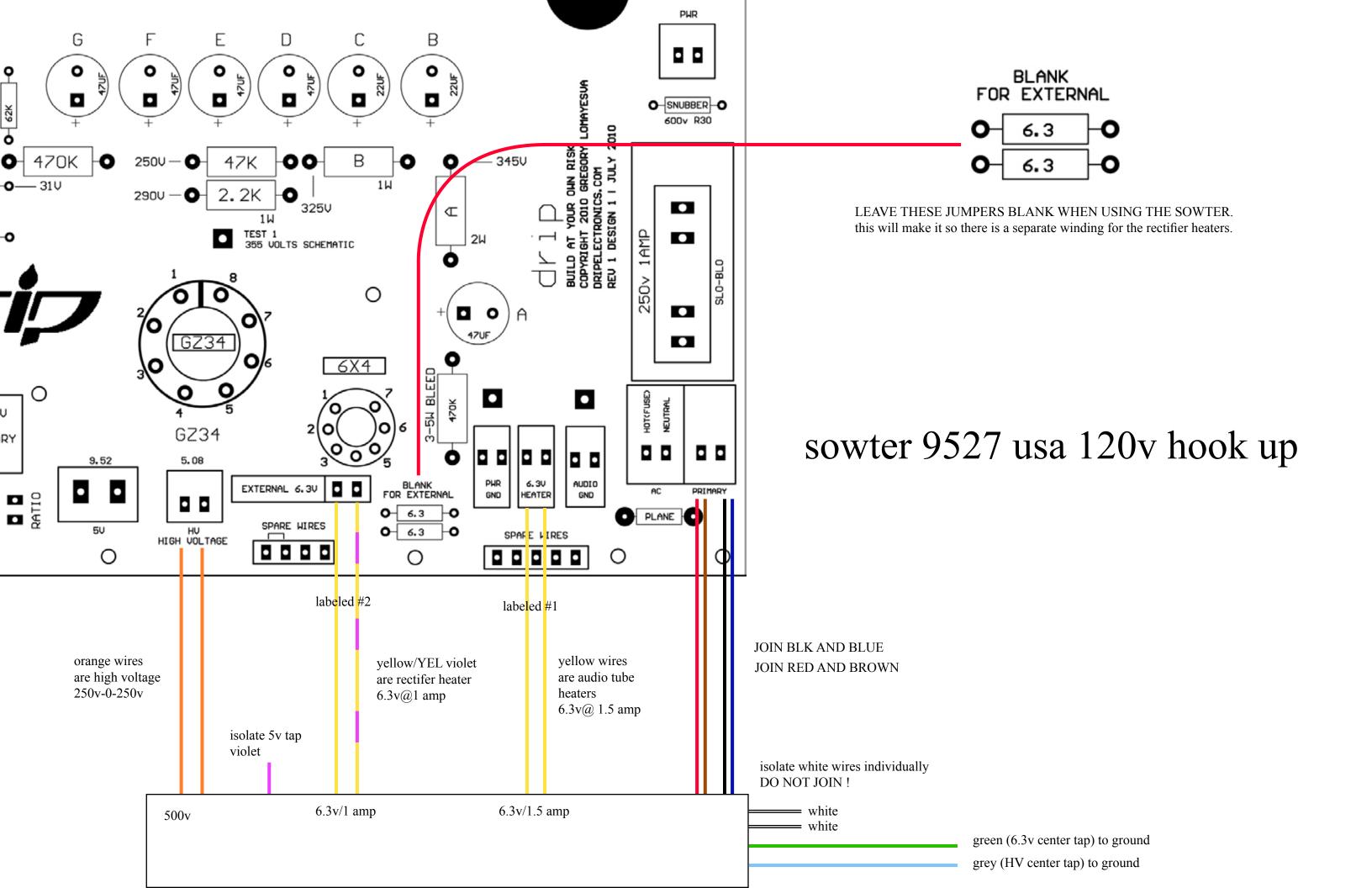
DO NOT WIRE ANYTHING TO THE 5V PCB PADS UNLESS YOU ARE USING THE GZ34!

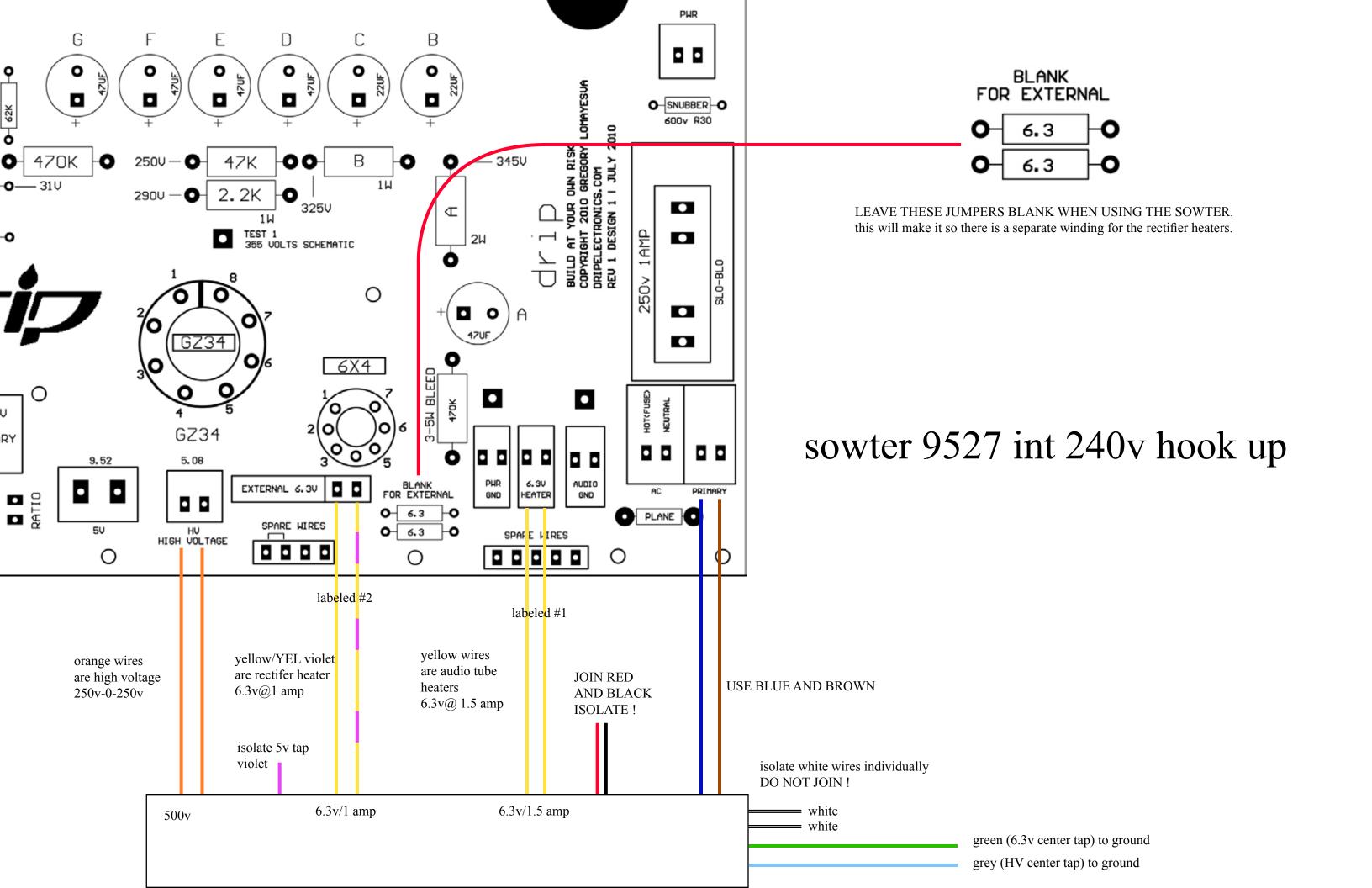
most of the transformers you will be using for this project will have a 2amp 5v winding . this is what you will use for the gz34's heater .

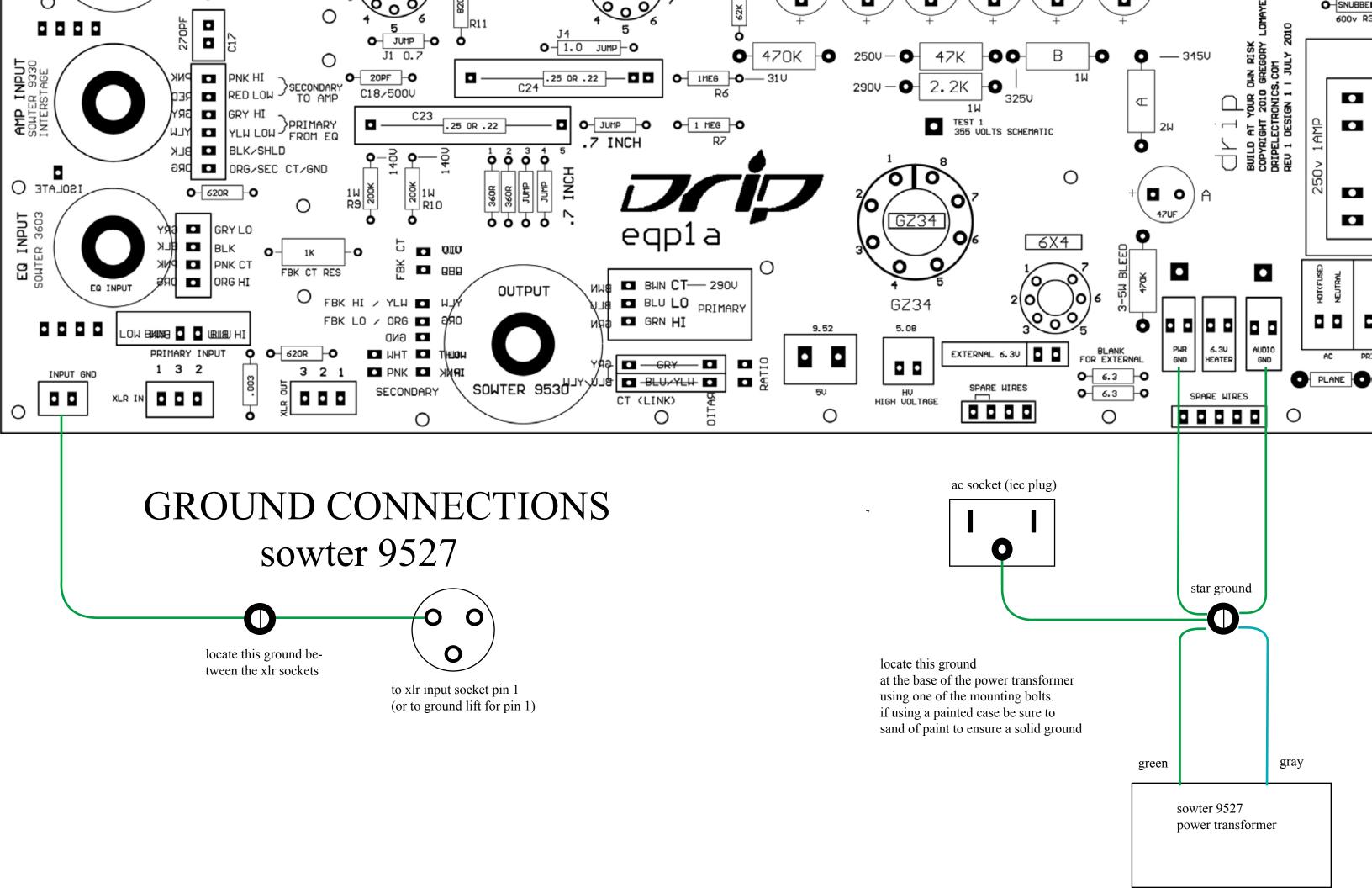
if you are using the 6x4 and NOT the gz34 YOU MUST ISOLATE each 5v lead separately (DO NOT JOIN)

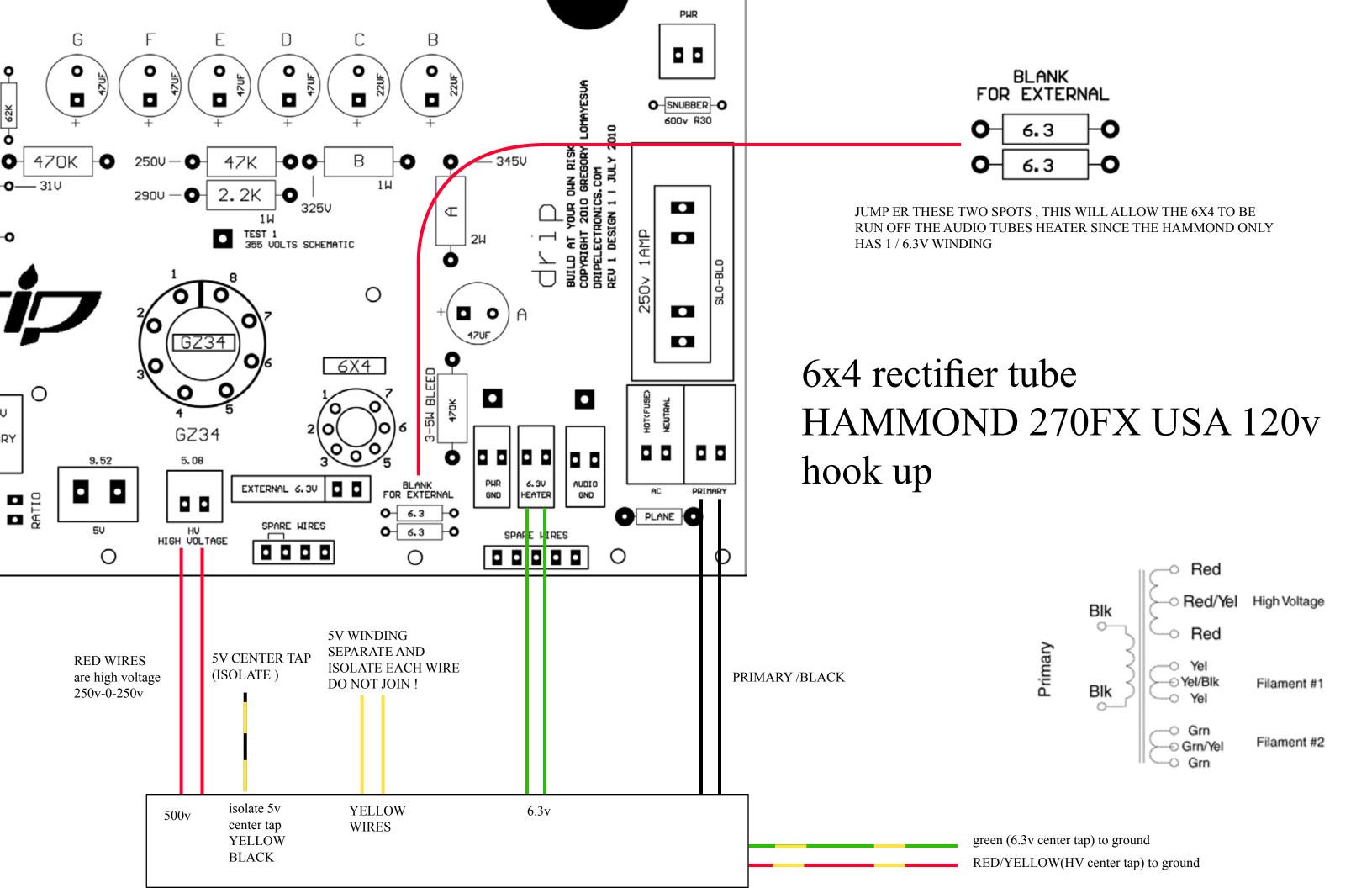
the 6x4 may run off the same winding as the audio tubes, this has been tested and is very quiet.

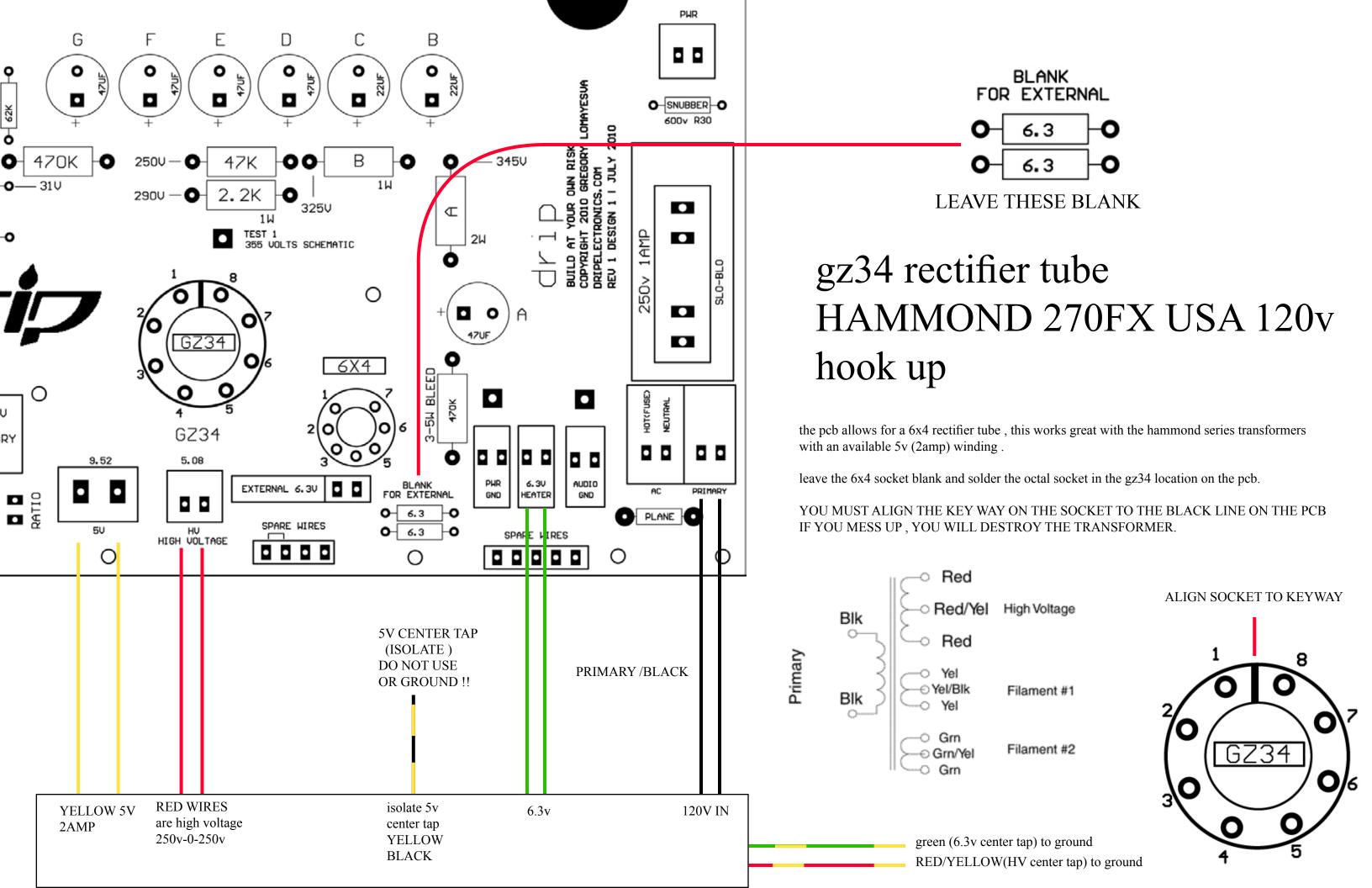
if using the sowter pultec series power transformer, this will have a separate 6.3v winding specifically for the 6x4 rectifier this winding is rated for 1 AMP.

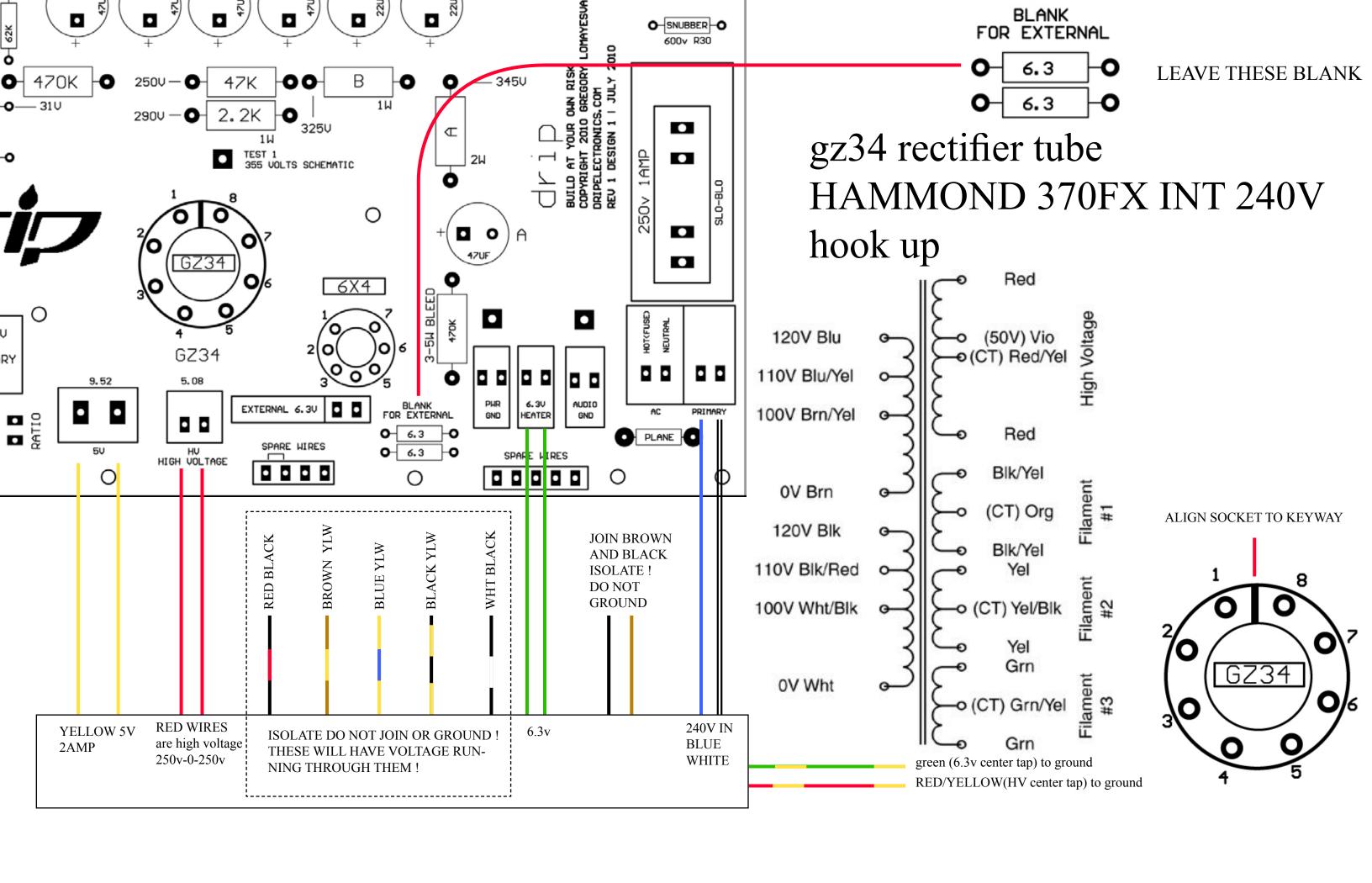


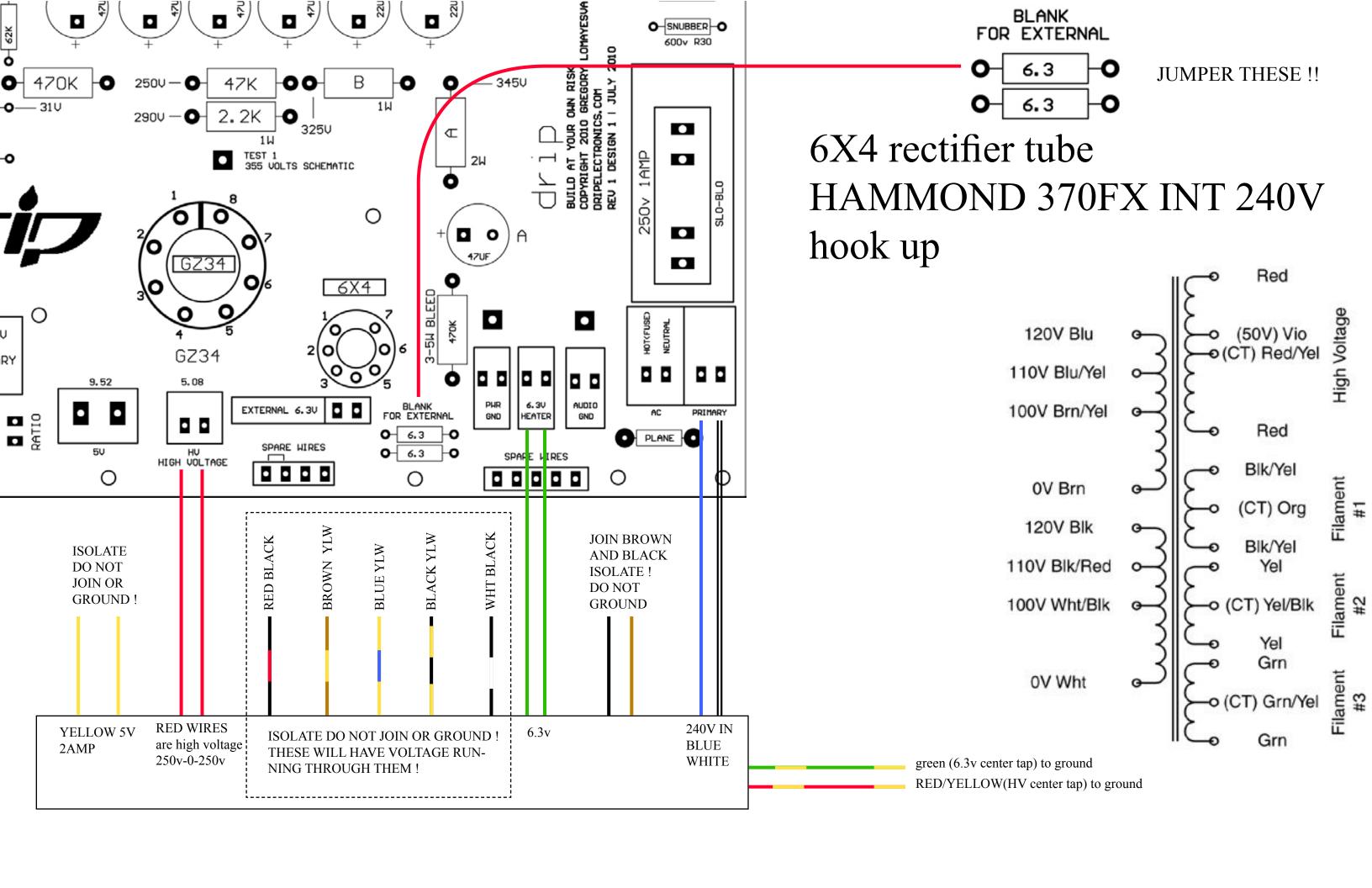


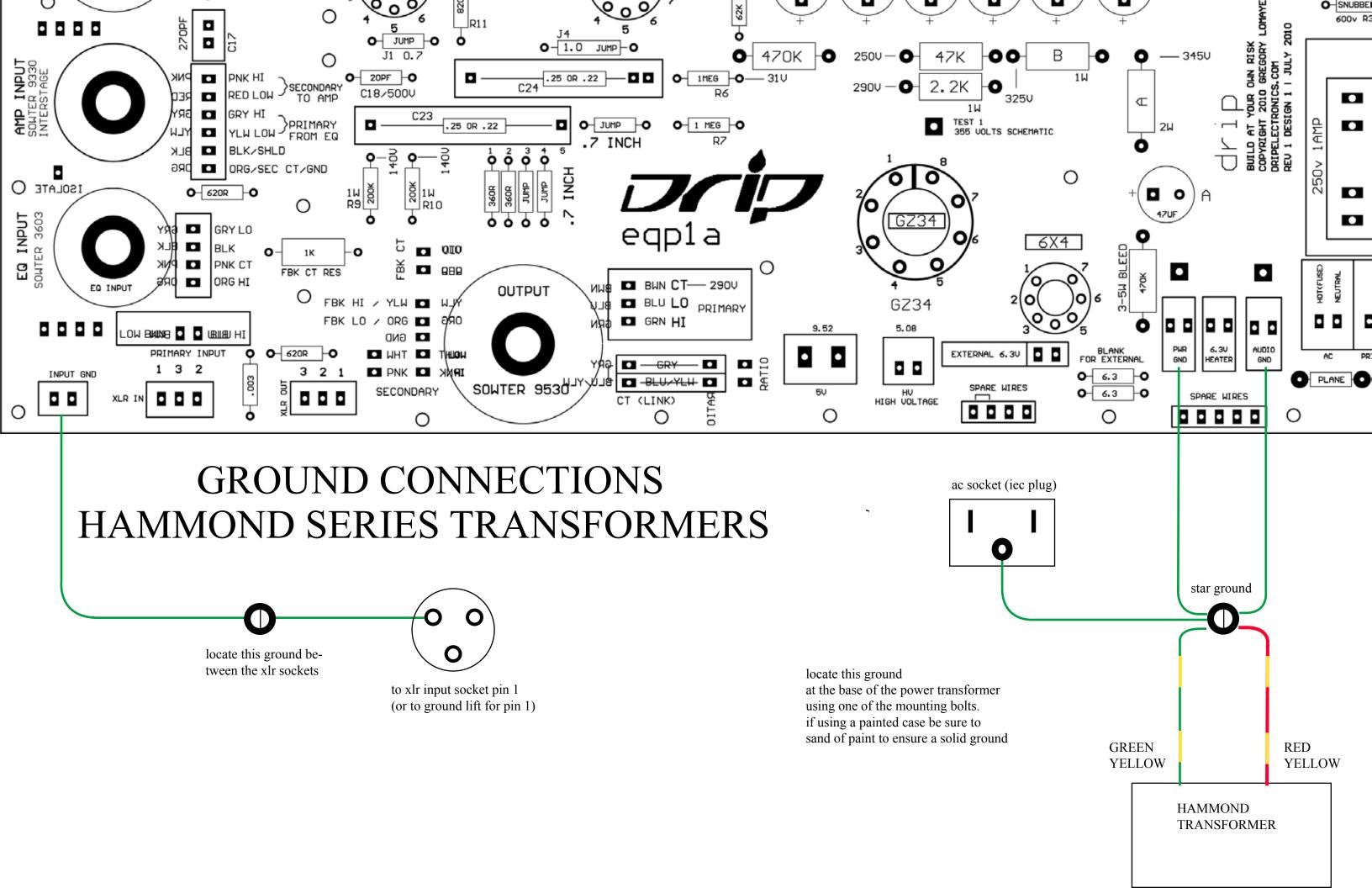


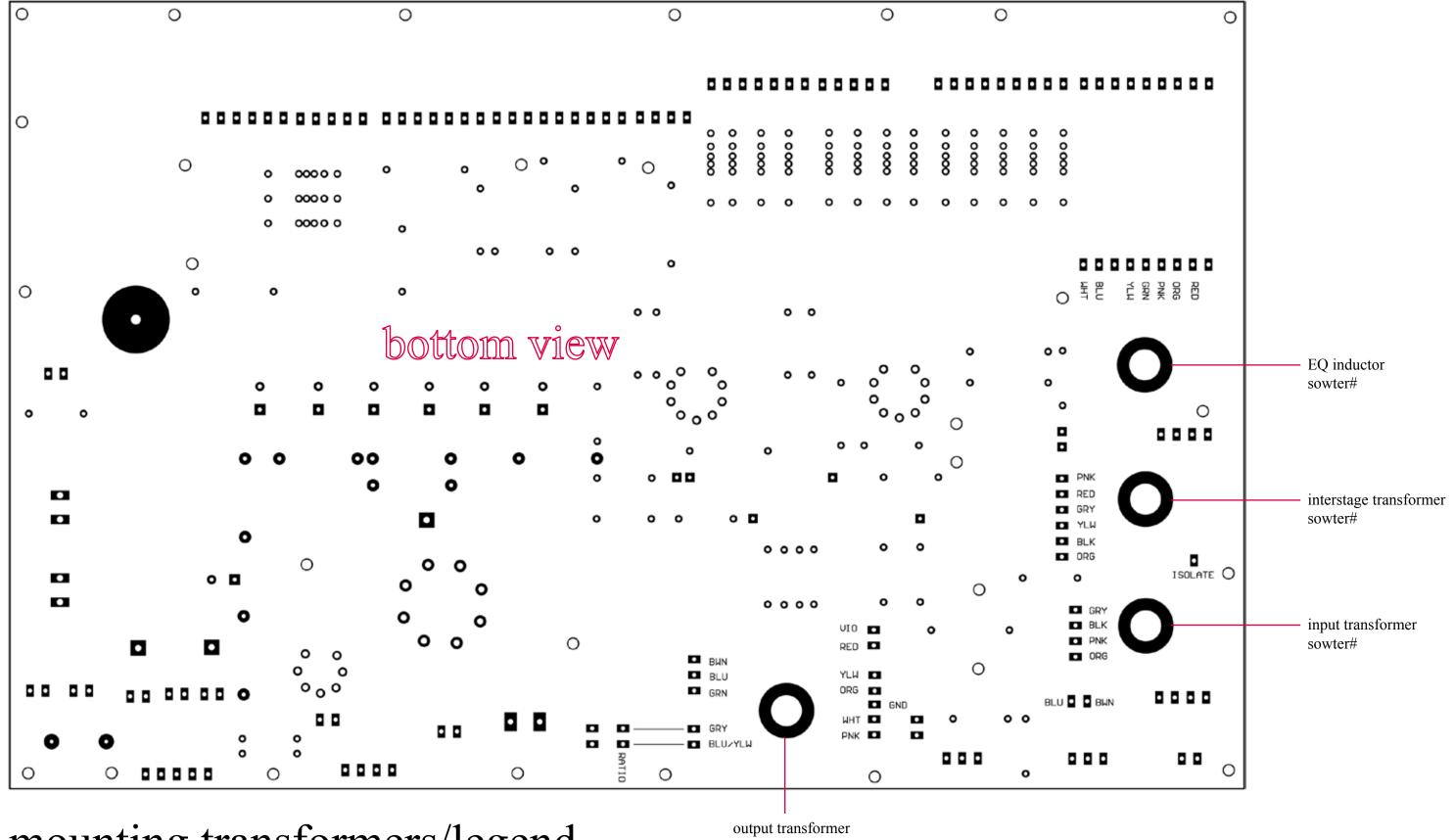






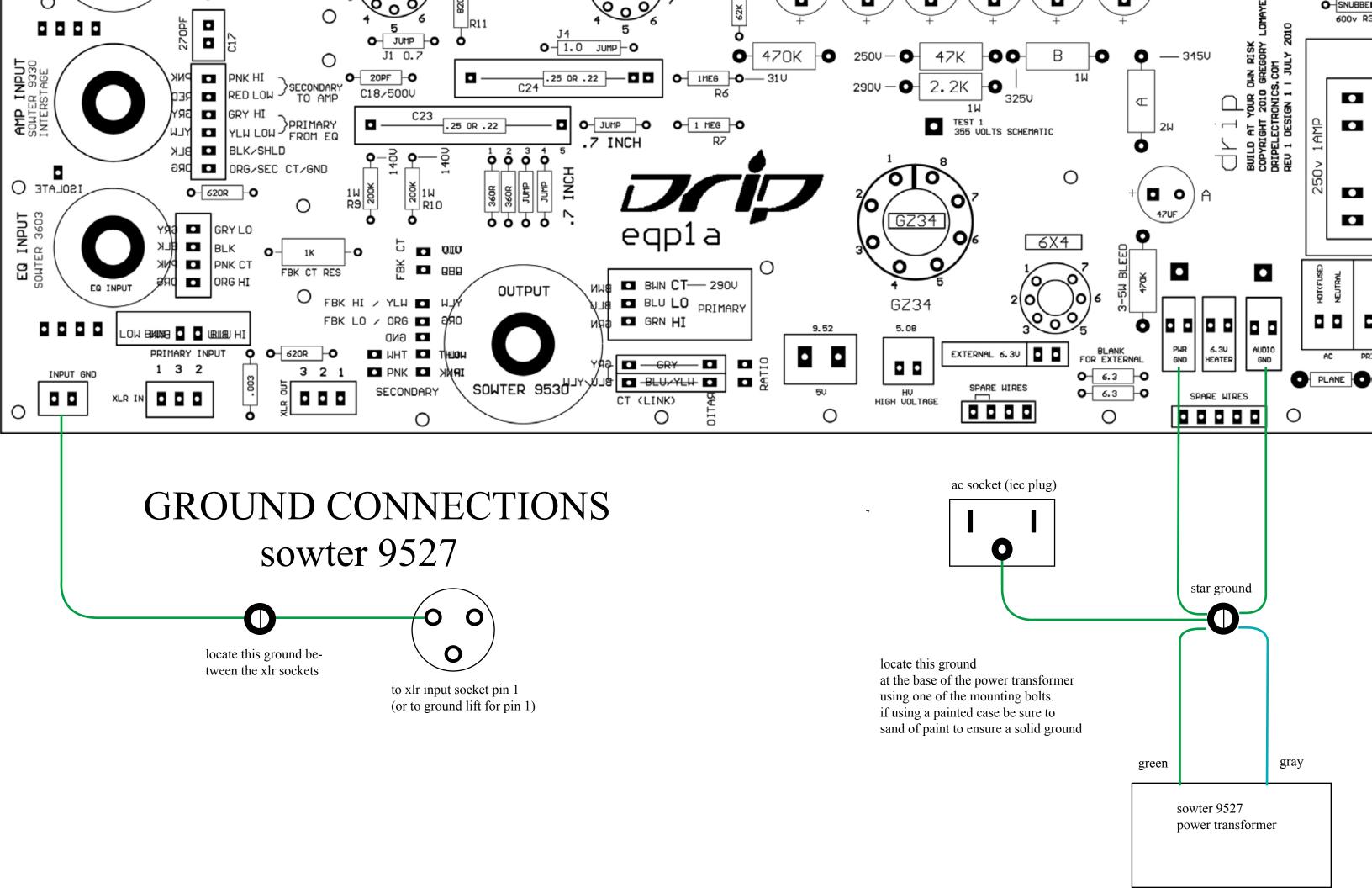






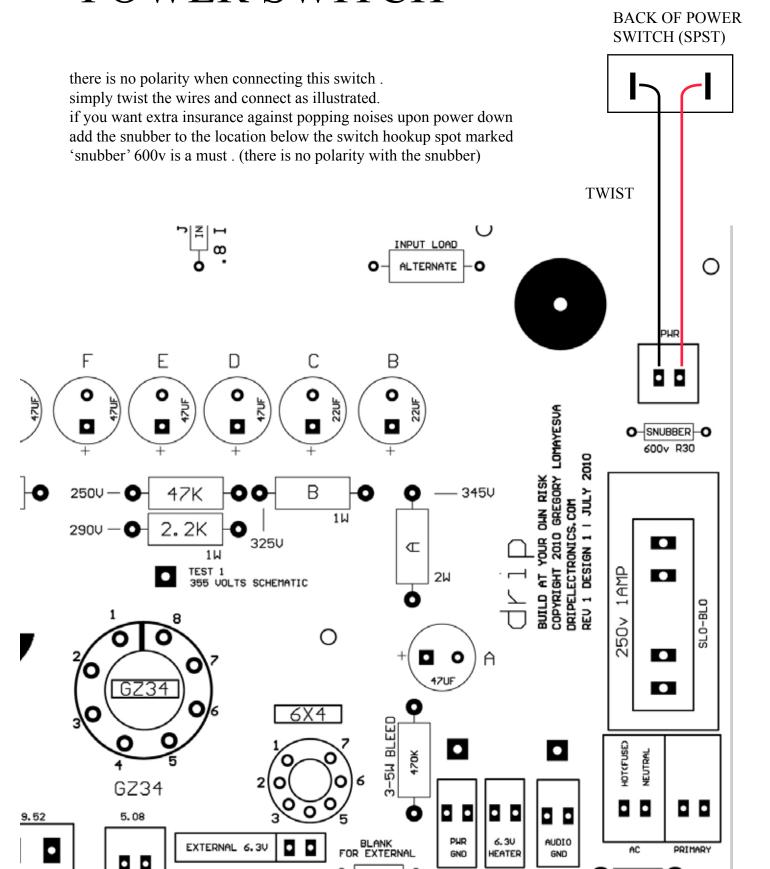
mounting transformers/legend

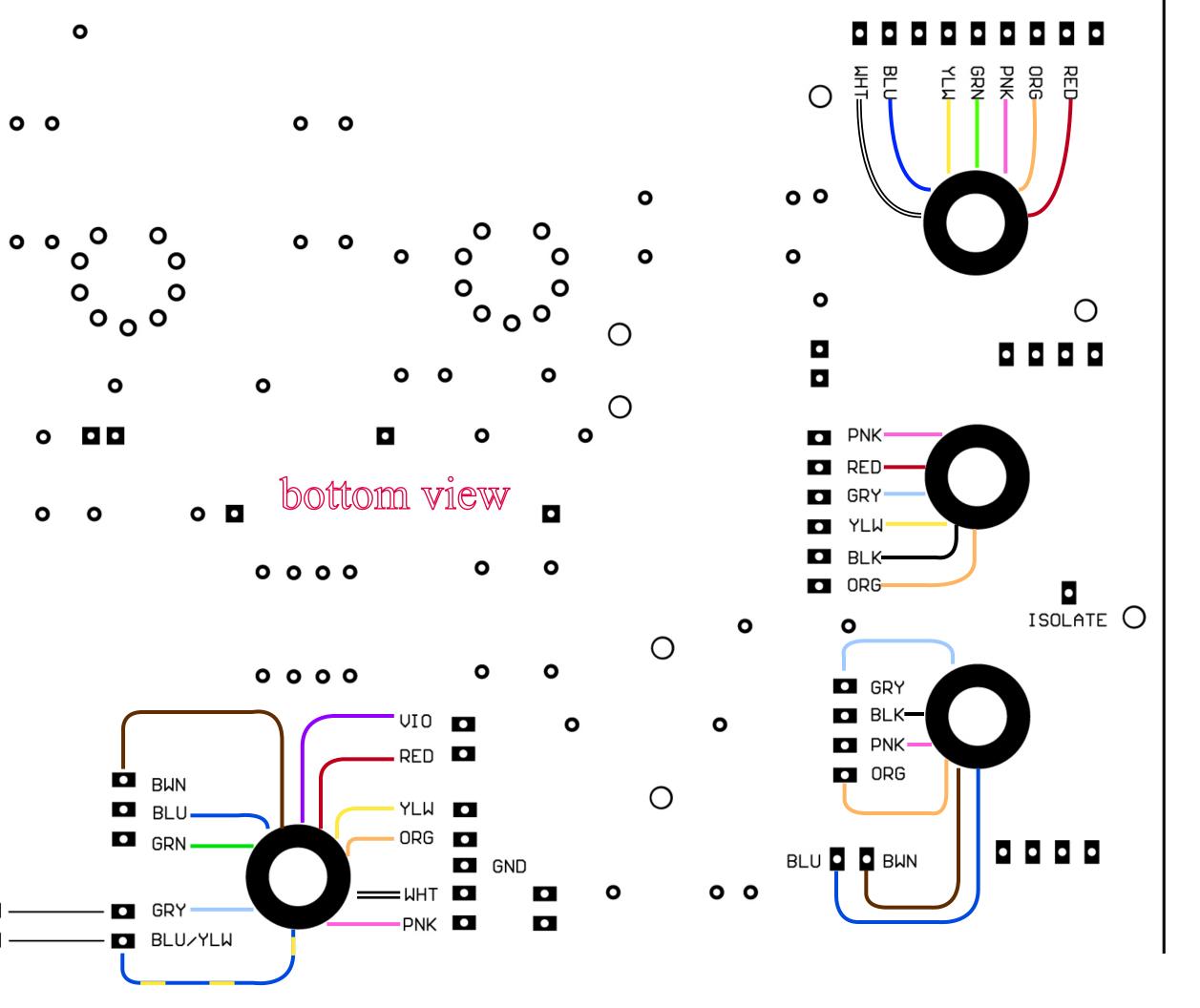
sowter #



	600v R30
2500 — 47K — B — 345U — 345U — 325U — 200 deg correction of the property of th	1AMP
2 GZ34 O6 GZ34 O6	250v 1A
GZ34 6,52 5.08 300 6 6 7 8 9 9 9 9 9 9 9 9 9 9 9 9	HOTYFUSE)
FOR EXTERNAL GND HEATER GND	PLANE
AC MAINS HOOK UP	TWIST
ac socket (iec plug) BACK VIEW	O
star ground O	

POWER SWITCH



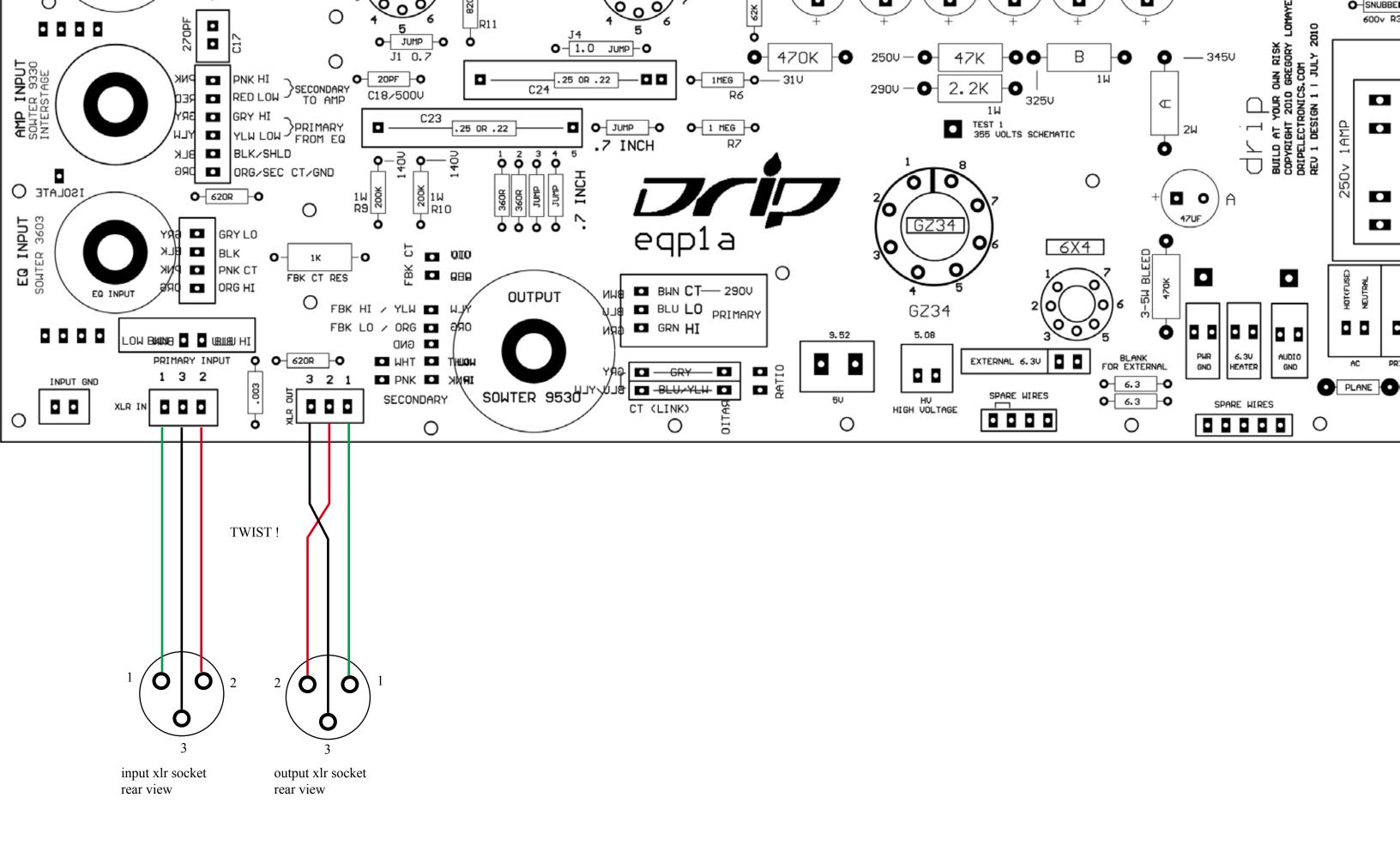


audio transformer connections.

after mounting the transformers using the 3/8 mounting nut.

follow these rules.

- 1. do not cut the wires too short, allow for 1 inch of slack. this will save you trouble if you over strip the wire.
- 2. strip and tin each wire with solder BEFORE you solder each wire to the pcb, this will keep all the very fine threads together and prevent shorts.
- 3. solder each wire to the pad corresponding to its color.
- 4. turn pcb over and clip protruding leads after you solder. this will prevent any shorts from happening .
- 5. verify your work several times. if you miswire the output transformer you could damage it since 300v flows to the center tap of it.



PLACE AS INDICATED POWER SUPPLY FILTERING CAPACITORS Ġ В THESE TWO ARE LINKED YOU MAY USE A SINGLE 47UF CAPACITOR AND LEAVE ONE BLANK • В 250V — O 470K 47K 345V 00 1 W - 31 V 2.2K 290V — O 325V **47UF** \blacksquare 1 W TEST 1 355 VOLTS SCHEMATIC 2W PAY ATTENTION TO THE + POSITIVE SYMBOL. THESE ARE ELECTROLYTIC CAPACITORS AND WILL 'POP' IF YOU PUT THEM IN BACKWARDS! first filter capacitor • 0 A IF USING 6X4 USE 10UF@450V 47UF GZ34 6X4

O O O O O O O O use any of these holes above the 000 0 0 0 0 0 0 0 0 0 0 0 capacitor designator to place 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 the other lead of the capacitor C10 C11 C C2 C5 C3 C4 C6 **C7** С9 C11 C1 C12 C13 C8 C10 Θ 0 0 place one lead of the capacitor here C5 .0033 3300PF C8/.027UF 27000PF CZ/.056UF 56000PF C11/ 1.5UF C10/. 22UF C13/. 33UF C3 .0082 8200PF C9/,0082 8200PF C4 .0056 5600PF C10/.22 C9/.068 C11/.068 C2 .015 15000PF C6.012 12000PF C12/.82

EQ SECTION CAPACITORS

the eq section capacitors are all film type . there is no polarity with these . none of these capacitors need to be above 100v however , some of these caps are microscopic at lower voltages .

it would be recommended to get these caps all in the 1kv range, except for the .33 cap (c9) this can remain in the 100v-200v range.

the footprints allow for a variety of capacitor footprints . axial and radial formats.

panasonic ECG series from digikey is probably the best for this area .

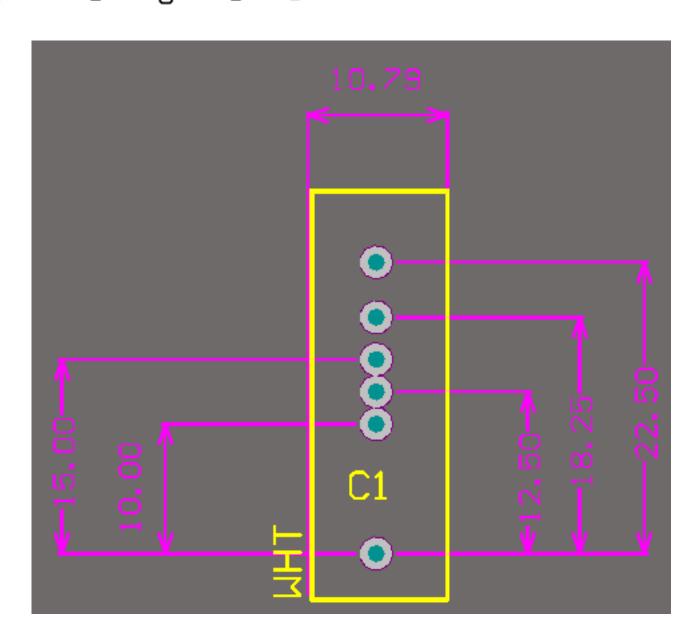
 $mylar \ / \ polypropylene \ / \ or \ polyester \ is \ fine \ . \ polypropylene \ being \ the \ highest \ performance.$

the illustration on the right shows the average footprint size available for each of these capacitors . the lead spacing is indicated in millimeters . lead spacing does not have to be exactly to these specifications .

since you may elevate the capacitor a little above the board and flex the leads to match the footprint.

the lead spacings that the holes accommodate are: 10mm / 12.5mm/15mm/18.25/22.50

most of the footprints are 10mm wide so most anything will fit up to 2kv in most cases.



2 xe4 i300 krs

Mouser Part #: 594-5093NW470K0J Manufacturer Part #: PR03000204703JAC00 Manufacturer: Vishay/BC Components

Description: Power Resistors - with Leads 3watts 470Kohms 5%

5x 1meg (2 for lifts)

Mouser Part #: 594-5093NW1M000J Manufacturer Part #: PR03000201004JAC00 Manufacturer: Vishay/BC Components

Description: Power Resistors - with Leads 3watts 1Mohms 5%

2x620r

Mouser Part #: 594-5093NW620R0J Manufacturer Part #: PR03000206200JAC00

Manufacturer: Vishay/BC Components

Description: Power Resistors - with Leads 3watts 620ohms 5%

2x200k

Mouser Part #: 594-5083NW200K0J Manufacturer Part #: PR02000202003JR500

Manufacturer: Vishay/BC Components

Description: Power Resistors - with Leads 2watts 200Kohms 5%

2x360r

Mouser Part #: 594-5093NW360R0J Manufacturer Part #: PR03000203600JAC00

Manufacturer: Vishay/BC Components

Description: Power Resistors - with Leads 3watts 360ohms 5%

1x75r

Mouser Part #: 594-5083NW75R00J Manufacturer Part #: PR02000207509JR500 Manufacturer: Vishay/BC Components

Description: Power Resistors - with Leads 2watts 750hms 5%

2x4.7k

Mouser Part #: 594-5083NW4K700J Manufacturer Part #: PR02000204701JR500 Manufacturer: Vishay/BC Components

Description: Power Resistors - with Leads 2watts 4.7Kohms 5%

NOTE:

these resistors have been chosen

for their performance,

they are all metal film power resis-

tors 5%.

they my be substituted with lower

wattage resistors.

carbon composition is the original

factory spec.

2x1k

Mouser Part #: 71-CPF3-B-1K-E3 Manufacturer Part #: CPF31K0000BHE14

Manufacturer: Vishay/Dale

Description: Power Resistors - with Leads 3watts 1Kohms 0.1%

1x820r

Mouser Part #: 594-5093NW820R0J Manufacturer Part #: PR03000208200JAC00

Manufacturer: Vishay/BC Components

Description: Power Resistors - with Leads 3watts 820ohms 5%

1x43k

Mouser Part #: 594-5093NW43K00J Manufacturer Part #: PR03000204302JAC00

Manufacturer: Vishay/BC Components

Description: Power Resistors - with Leads 3watts 43Kohms 5%

1x47k2w

Mouser Part #: 594-5093NW47K00J Manufacturer Part #: PR03000204702JAC00 Manufacturer: Vishay/BC Components

Description: Power Resistors - with Leads 3watts 47Kohms 5%

1x2.2k2w

Mouser Part #: 594-5083NW2K200J Manufacturer Part #: PR02000202201JR500

Manufacturer: Vishay/BC Components

Description: Power Resistors - with Leads 2watts 2.2Kohms 5%

1x10k

Mouser Part #: 71-CPF310K000FKE14 Manufacturer Part #: CPF310K000FKE14

Manufacturer: Vishay/Dale

Description: Power Resistors - with Leads 3watts 10Kohms 1% 100ppm

1x62k

Mouser Part #: 594-5083NW62K00J Manufacturer Part #: PR02000206202JR500 Manufacturer: Vishay/BC Components

Description: Power Resistors - with Leads 2watts 62Kohms 5%

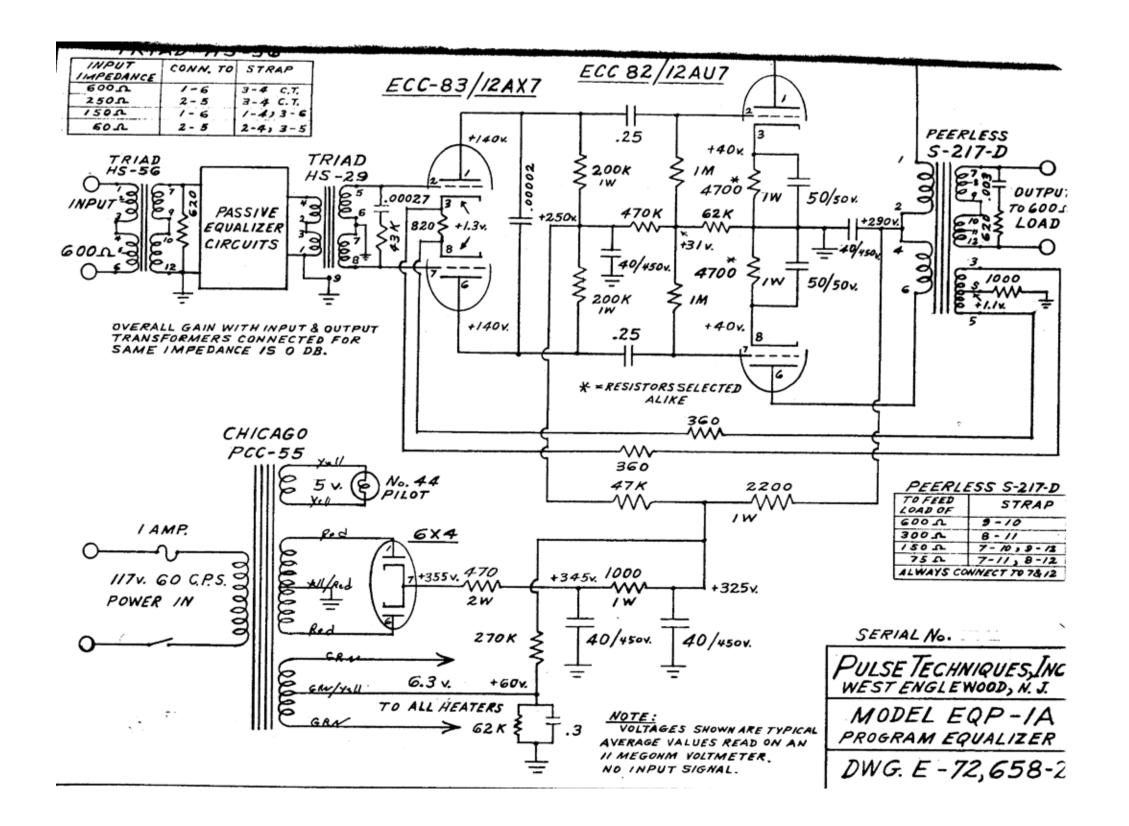
A&B / RESISTORS

power transformers.

there are two spots in the powersupply for an A and a B resistor. these are part of a PI filter, they have been added to compensate for different

if using the hammonds, us an additional 2.2k resistor and an additional 1k resistor 2 watt minimum.

if using the sowter, they might not be needed and a small value resistor should be used for both spots a 25R 2watt resistor works perfectly . this will maintain the pi network .



capacitors:

2x .25 (or .2 or .22) 600v film (best you can afford)

Mouser Part #: 539-150224J400FE Manufacturer Part #: 150224J400FE

Manufacturer: Cornell Dubilier

Description: Polyester Film Capacitors 400V .22uF 5%

2x 50uf@50v axial ((use 47uf for these)

Mouser Part #: 647-TVX1H470MAD1LS
Manufacturer Part #: TVX1H470MAD1LS

Manufacturer: Nichicon

Description: Aluminum Electrolytic Capacitors - Leaded 50volts 47uF 0.26.3x16

.003 @ 200v

Mouser Part #: 75-440LD33-R Manufacturer Part #: 440LD33-R Manufacturer: Vishay/Cera-Mite

Description: Ceramic Disc Capacitors 250V 20% 0.0033uF

20pf @ 500v

Mouser Part #: 5982-15-500V20F Manufacturer Part #: CD15ED200JO3F

Manufacturer: Cornell Dubilier

Description: Mica Capacitors 20pF 500V 5%

270pf @200v

Mouser Part #: 598-CD19FD271JO3F Manufacturer Part #: CD19FD271JO3F

Manufacturer: Cornell Dubilier

Description: Mica Capacitors 270pF 500V +/-5%

THIS CAP WILL ADJUST THE FREQUENCY RESPONSE

270 IS DARK (as on schematic) 400-500pf is brighter

Mouser Part #: 598-CD19FD271JO3F Manufacturer Part #: CD19FD271JO3F

Manufacturer: Cornell Dubilier

Description: Mica Capacitors 270pF 500V +/-5%

.1/100r @ 600v mallory quench arc snubber for power switch)

snubber / (anti pop on power down) : Mouser Part #: 539-104M06QC100 Manufacturer Part #: 104M06QC100 Manufacturer: Cornell Dubilier

NOTE:

for the eq section it is best to use high voltage polypropylene film capacitors. this allows for the footprint to accommodate the capacitor. if using any other caps 100v or above is the rating you should choose. use this list as a reference for buying other capacitors.

EQ SECTION CAPACITORS:

USE RADIAL / POLYPROPYLENE WHEN POSSIBLE / PANASONIC IS THE WAY TO GO. IF SOLD OUT USE THESE AS GUIDES TO FIND ALTERNATE RADIAL FILM CAP MYLAR WORKS GREAT TOO , GET HIGHER VOLTAGE BECAUSE SOME OF THESE ARE TOO TINY. (UP TO 1KV IN MOST POSITIONS)

DIGIKEY

C1 .018 : P3479-ND CAP .018UF 400V

C2 .015 : EF6153-ND .015UF/630VDC

C3 .0082 : P10506-ND .0082UF 1600V

C4 .0056 : P10479-ND CAP .0056UF 1250V

C5 .0033 : P10501-ND CAP .0033UF 1600V

C6 .012 : P10508-ND CAP .012UF 1600V

C7 .056UF : EF6563-ND CAP .056UF/630VDC

C8 .027UF: P10487-ND CAP .027UF 1250V

C9 .0082 : P10506-ND .0082UF 1600V

C10 .22UF: P12108-ND CAP .22UF 400V

C11 1.5UF: P14208-ND CAP 1.5UF 450V

C12/.82: P14251-ND CAP .82UF 250V

C13/.33UF: P3494-ND CAP.33UF 400V

HIGH ATTEN:

C9/.068 : EF6683-ND.068UF/630VDC

C10/.22UF: P12108-ND CAP.22UF 400V

C11/.068 : EF6683-ND .068UF/630VDC

capacitors / electrolytic

g: 47uf 16mm @ 450v radial f: 47uf 16mm @ 450v radial

e: 47uf 16mm @ 450v radial

d: 47uf 16mm @ 450v radial

c: 22uf 16mm @ 450v radial

b: 22uf 16mm @ 450v radial

a: 47uf 16mm @ 450v radial (first filter optionally 10uf 16mm @ 450v)

4:47UF @ 450V (16MM)

Mouser Part #: 647-UPT2W470MHD Manufacturer Part #: UPT2W470MHD

Manufacturer: Nichicon

Description: Aluminum Electrolytic Capacitors - Leaded 450volts 47uF 16X31.5 20%

\$1.70/3.40

2:22UF@450V (16MM)

Mouser Part #: 661-EKMGG451ELL220ML Manufacturer Part #: EKMG451ELL220ML25S

Manufacturer: United Chemi-Con

Description: Aluminum Electrolytic Capacitors - Leaded 450volts 22uF 16x25

\$1.80/1.80

(OPTIONAL FOR FIRST FILTER / RECCOMENDED)

1: 10UF@450V (16MM)

Mouser Part #: 647-UPM2W100MHD
Manufacturer Part #: UPM2W100MHD

Manufacturer: Nichicon

Description: Aluminum Electrolytic Capacitors - Leaded 450volts 10uF 16x25 20%

\$1.66 / 4.98

XLR SOCKETS

1 : xlr male socket (for output)

Mouser Part #: 568-NC3MD-LX Manufacturer Part #: NC3MD-LX

Manufacturer: Neutrik

Description: XLR Connectors 3P MALE NICKEL/SILVR DUPLEX GRD CONTACT

\$3.04

1 : xlr female socket (for input) Mouser Part #: 568-NC3FD-LX Manufacturer Part #: NC3FD-LX

Manufacturer: Neutrik

Description: XLR Connectors 3P FEM NICKEL/SILVER DUPLEX GRD CONTACT

\$3.25

terminal blocks

eq section headers (to pots and switches)

2x 9 pos 5.08 header

Mouser Part #: 651-1729199 Manufacturer Part #: 1729199 Manufacturer: Phoenix Contact

Description: Terminal

.....

5x 6 pos 5.08 header

Mouser Part #: 651-1729160 Manufacturer Part #: 1729160 Manufacturer: Phoenix Contact

Description: Terminal Blocks 6P 5.08mm 90DEG

.....

1x 8 pos 5.08 header 8pos terminal block

Mouser Part #: 651-1729186 Manufacturer Part #: 1729186 Manufacturer: Phoenix Contact

Description: Terminal Blocks 8P 5.08mm 90DEG

other headers

1x 9.52 2pos header (if using gz34 rectifier)

9.52 TERMINAL BLOCKS (HIGH VOLTAGE)

Mouser Part #: 651-1714971 Manufacturer Part #: 1714971 Manufacturer: Phoenix Contact

9x 2 pos 5.08 headers (get heavy duty if possible)

these are for mision critical connections

2 pos heavy duty terminal blocks (for power supply)

2 POS TERMINAL BLOCKS (heavy duty)

Mouser #: 651-1705469

Mfr. #: 1705472

2x 3 pos 5.08 headers (xlr in and out hook up)

3 pos terminal blocks Mouser Part #: 651-1729131 Manufacturer Part #: 1729131 Manufacturer: Phoenix Contact

Description: Terminal Blocks 3P 5.08mm 90DEG

\$1.15 EA

NOTE:

YOU MIGHT THINK THESE ARE UNNEEDED BUT THEY WILL SAVE YOU TIME AND

MONEY.

IF YOUR AN AMATEURE THEY ARE ESSENTIAL.

SOWTER 9330 SOWTER 3603 SOWTER 9325 SOWTER 9530

NOTE ON AUDIO TRANSFORMERS:

the pcb has been designed and tested for sowter eqp1a pultec transformers.

at the time of this bom it has not been tested with any other brands.

if you choose to experiment with other brands, you will do this at your own risk.

it would be suggested to create a thread in the drip forum about this.

if this is your first build and you are an amateur, stick to the sowters.

they are above and beyond the quality found in other transformers.

the pcb pads are clearly labled for theses transformers allowing for a very easy build .

allow 4-5 weeks for delivery.

power transformers:

notes:

the drip eqp1a has been designed to use a 6x4 tube as found in the original, or a gz34 tube. this has been done so since the 6x4 is a bit hard to find and at that sometimes very expensive. the gz34 works very well. you will need to use a hammond or allied transformer with a 5v @ 2A tap (this comes standard on most all the hammonds and the allied transformers)

the pcb also has a cool feature of allowing for the rectifier tube (6x4) to be run off the same 6.3v line as the audio tubes (12ax7/12au7).

it does this very well and very quietly,

this allows for the use of the hammond or allied transformers since they only have 1/6.3v tap. other wise if you choose the sowter , this transformer has 1/6.3v for the rectifier and one for the audio tubes .

the pcb can be configured to accommodate this.

since the sowter is hand build and made for you upon purchase, heres an important note:

REQUEST STRANDED WIRES / NO VARNISHED LEADS

this one thing will save you an hour of your life from dealing with stripping and sanding the varnish off the leads that seems the only way to strip it off is a crack torch / dremel / or your girlfriends nail file or some esoteric chemical stripper made by nasa.

HAMMOND 270FX (for usa and 110-120v mains) tubes andmore.com pt# p-t270fx : \$55.67 HAMMOND 370FX (for international mains 100/110/120/200/220/240V) tubes andmore.com pt # P-T370FX \$ 83.57 usa builds:

allied 6k56vg (tested)
hammond 270fx (tested)
sowter 9527 (tested)
the sowter 9527 is an amazing transformer and has been tested with the design
it is rated @ 250-0-250 @ 60mA / 6.3v @ 1.5A (for amp tubes) / 6.3v @ 1A for rectifier)

international builds:

hammond 370fx sowter 9527

you may use alternate power transformers if you choose:

use this as a guide line for selecting one.

250-0-250 @ 60mA / 6.3v @ 2.5A (if using 6x4 tube) 250-0-250 @ 60mA / 6.3v @ 1.5A /5v@2A (if using gz34 tube)

sources:

hammond 370fx:

Mouser Part #: 546-370FX Manufacturer Part #: 370FX

Manufacturer: Hammond Manufacturing

Description: Transformers 142VA ENCLOSED Plate & Filament

\$109.70 (limited stock / lead time 2 weeks)

sowter.co.uk

9527 Pulteq EQP1 Mic Pre Mains

Fully shrouded with colour coded leads. Size "J". WW Primary 120,110 V Twin winding. Electrostatic screen.

250-0-250 at 60 mA. 6.3 V CT @ 1.5 A. 6.3-5-0 V @ 1.0 A for rectifier and pilot light. Generously designed mains transformer with low loss M6 core will power 1 or 2 channels. 50/60 Hz Larger than original but still fits on chassis with minor modification

Price: £132.65 (204\$ U.S. dollars aprox)

allied electronics

http://www.alliedelec.com

TRANSFORMER, PRI:110-120V, 50/60HZ, 540VCT @120DCMA, 5V @3A, 6.3V @3.5A,

LEADS

Mfr. Part#: 6K56VG Allied Stock#: 227-0081

\$44.65

tubes and sockets:
2x 9 pin tube sockets (12ax7 size)
ceramic tube sockets (fender type fit best) tubesandmore.com # sk-9pinpcf / 2.15 each
1 x 7pin pcb mount socket (for 6x4 rectifier tube)
7 pin pc mount tube sockets tubesandmore.com: \$1.95
OPTIONAL RECTIFIER TUBE
the pcb allows for the use of a gz34 tube. either for preference or if the 6x4 tube is unavailable.
1 8pin pcb mount octal socket (if using a gz34 or 5y3gt tube) GZ34 (5AR4) rectifier tube: tubedepot.com / sovtek 5AR4: 17.95 one 8 pin pc mount octal socket: tubesandmore.com #sk-sk8pinpc: \$1.95
1 12ax7 tube 1 12au7 tube
1 6x4 tube
tubedepot.com

POTENTIOMETERS : DIGI KEY

2.5k lin: RV4N252C-ND 100k log: KA1041S28-ND 1k lin: RV4N102C-ND 10k lin: RV4N103C-ND 10k log: KA1031S28-ND

SWITCHES:

(DIGIKEY)

GH7102-ND SWITCH ROTARY 2P-6POS 1 DECK GH7102-ND SWITCH ROTARY 2P-6POS 1 DECK GH7103-ND SWITCH ROTARY 1P-12POS 2 DECK POWER: SPST (HEAVY DUTY)

Mouser Part #: 691-110-73 Manufacturer Part #: 110-73

Manufacturer: Carling Technologies

Description: Toggle Switches SPST ON-OFF

\$3.53

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EQ BYPASS (DPDT) NO MIDDLE POS

1 dpdt toggle on/on switch (no middle position)

(this is a very high quality switch / you may use alterante switches)

Mouser Part #: 691-2BL62-73 Manufacturer Part #: 2BL62-73 Manufacturer: Carling Technologies

Description: Toggle Switches DPDT ON ON

\$7.00 EACH

for USA builds you can get this pack of switches from radio shack

tested and works great for this build. 3-Pack Toggle Switch Kit radioshack.com Model: 275-322 | Catalog #: 275-322

Includes one DPDT and two SPST toggle switches. Rated 3 amps at 125VAC

\$5.49

2 : spdt switches (LIGHT DUTY)

INPUT LIFT : SPDT OUPUT LIFT : SPDT

Mouser Part #: 633-M201201-RO

Manufacturer Part #: M2012SS1W01-RO

Manufacturer: NKK Switches

Description: Toggle Switches ON-NONE-ON SPDT

\$3.50

FUSE CLIPS:

2: pcb mount fuse clips

Mouser Part #: 576-01220083H Manufacturer Part #: 01220083H

Manufacturer: Littelfuse

Description: Fuseholders, Clips, & Hardware 3AG PC Clip

\$0.44 / \$.88 TOTAL

FUSE:

2: fuse 1AMP 250V

Mouser Part #: 576-0313001.HXP Manufacturer Part #: 0313001.HXP

Manufacturer: Littelfuse

Description: Fuses 250V 1A Slo-Blo

IEC SOCKET

power socket (IEC)

Mouser Part #: 161-R30148-E Manufacturer Part #: 161-R30148-E

Manufacturer: Kobiconn

Description: Power Entry Modules IEC C14 SCREW/SOLDER

\$1.83

(for diy-racked.com cases use this) Mouser Part #: 161-PF0030/28 Manufacturer Part #: PF0030/28

Manufacturer: Bulgin

Description: Power Entry Modules PWR INLET W/FUSEHLDR (\$4.09)

power cord (usa)

Mouser Part #: 686-17742

Manufacturer Part #: 17742 10 B1

Manufacturer: Volex

Description: AC Power Cords 6' 7 18AWG SVT

\$7.00

standoffs

6 STANDOFFS (SPACERS)

Mouser Part #: 534-8401 Manufacturer Part #: 8401

Manufacturer: Keystone Electronics

Description: Circuit Board Hardware - PCB AL .500 M/F THRD

\$.68EA / \$4.08 TOTAL

9 : standoffs (to support pcb inside case)

Mouser Part #: 534-1893 Manufacturer Part #: 1893

Manufacturer: Keystone Electronics

Description: Circuit Board Hardware - PCB HEX .187X.500 ALUM

\$.35

POWER LIGHT (optional)

select 1

radioshck.com

120-Volt Neon Red Jumbo Lamp Assembly

\$2.69

Model: 272-710 Catalog #: 272-710

or

for 6.3v lamp (tubesandmore.com)

LAMP, FRONT PANEL INDICATOR LIGHT, RELAMPABLE

Lamp holder. Relampable front panel indicaors accept a variety of T-2 and T-3 1/4 miniature bayonet lamps.

11/16" chassis hole.

P-L115

INDICATOR LAMP, JEWEL, RED, REPLACEMENT FOR FENDER

 \mathbf{p}_{-10}

DIAL LAMP, #40, T-3-1/4, 6.3V, .15A, SCREW BASE

Long life general replacement lamps for dials, indicators, etc.

2 FUSE CLIPS

10 / 40-40 machine screws Mouser Part #: 534-9402 Manufacturer Part #: 9402

Manufacturer: Keystone Electronics

Description: Mounting Hardware 1/2 4-40 STEEL BND

\$.18 each / \$1.80 total 10 / 4-40 machine nuts Mouser Part #: 534-9600 Manufacturer Part #: 9600

Manufacturer: Keystone Electronics

Description: Mounting Hardware .250 4-40 Steel Hex Machine Screw Nut

\$.05 each / \$.50 total

4 / 6-32 machine screws for mounting transformer

Mouser Part #: 534-9412 Manufacturer Part #: 9412

Manufacturer: Keystone Electronics

Description: Mounting Hardware 1 6-32 STEEL BIND

\$.12 each / \$.48 total

4 / 6-32 machine nuts for mounting transformer

Mouser Part #: 534-9602 Manufacturer Part #: 9602

Manufacturer: Keystone Electronics

Description: Mounting Hardware 5/16 6-32 Steel Hex SCREW NUT

\$.05 each / \$.20 totaL

8 / 4-40 bolts .25 INCH MOUSER# 534-9400 (for stand offs)

Mouser Part #: 534-9400 Manufacturer Part #: 9400

Manufacturer: Keystone Electronics

Description: Mounting Hardware 1/4 4-40 STEEL BND

\$0.14 / \$1.12 total

8 METAL STANDOFFS .5 INCH MOUSER# 534-1893

Mouser Part #: 534-1893 Manufacturer Part #: 1893

Manufacturer: Keystone Electronics

Description: Circuit Board Hardware - PCB HEX .187X.500 ALUM

\$.35 each / \$2.80 total

dripelectronics.com