3 Channel PreAmp (modded GT Trio-Clone)

M. Dohrau, CH-8143 Stallikon
V1.4a (2007-06-20)

red coloured: this part of the circuitry is on the HV-PSU

Change log:V1.1=>1.2:
R88 inserted: V3B-1a requires R on anode. It lowers the voltage. Triode is now working

Change log V1.1=>1.2:
R80 inserted as grid resistor

Inserting grid resistor on V6A-7g (220k/100k) lowers the voltage of all anodes except on V6

To do:
- revise element numbering

Change log:V1.3=>1.4:
VR2: increased from 100k to 1M: wider range of volume control

Change log:V1.3=>1.4:
C8 / R21 are bridged => much more gain

Change log V1.3=>1.4:
Rear Input eliminated.
=> switch is now working as mute-switch

Channel 3 / Lead

K 140V R87 100k · C24 47nF/300V · C30 2.2nF · R4 470k · V3A · R1 1M · R2 2k7 · C23 680nF · GAIN · VR1 500k B · R57 1k · R6 100k · G0 · G1

J 140V R88 100k · C29 22nF/300V · V3B · R7 2k7 · C25 680nF · R8 220k · C20 250pF · RR5 1xUM · noc · C77 15uF/450V · R84 10k · C83 1nF · R10 330k · G2

I 120V R85 330k · C1 47nF/200V · V6A · R11 4k7 · R13 470k · C78 15uF/450V · C15 220pF · R14 470k · R15 1M · G3

H 120V R86 100k · C3 47nF/300V · V6B · R80 68k · R58 1k · C4A 470pF · C4 470pF · SW3 · R17 68k · C6 22nF · TREB · VR13 250k A · R18 100k · VOL · VR2 1M A · BASS · VR12 1M log · C5 22nF · MID · VR11 25k lin · G4

Channel 1 / Clean

Input Front · SW1 · RR3 2xS · RR1 2xS · RR2 2xS

C 140V R79 100k · C7 22nF/200V · C8 220pF · R21 470k · V1a · R19 1M · R22 2k7 · C9 680nF · G7

C10A 470pF · SW2 · C10 220pF · TREB · VR4 250k A · R23 100k · C11 100nF · BASS · VR7 250k A · VR8 10k lin · C12 47nF · MID · G6

C81 15uF/450V · G11 · R77 10k

B 140V R78 100k · C32 47nF · 5C13 220pF · R75 470k · V4A · R60 1k5 · C14 10uF/25V · R24 100k · C13 220pF · GAIN · VR5 1M A · VR6 1MB A · VOL · G4

A 200V · V4B · ? V · R61 68k · C33 2.2nF · R40 150k · R41 1M · R42 820 · R43 22k · C22 680nF · G4

C82 15uF/450V · G11 · B+ 200VDC · MASTER · VR6 250k A · G5 · OUT A · OUT B

Channel 2 / Crunch

G 140V R83 100k · C97 22nF/200V · C94 500pF · R96 470k · V2A · R99 1M · R92 2k7 · C99 680nF · G8

F 140V R82 100k · C17 22nF/300V · R62 68k · GAIN · VR3 1M B · R27 68k · V2B · R28 2k7 · C16 680nF · RR4 1xUM · noc · R31 330k · R32 330k · C18 470pF · R33 470k · G9 · G10

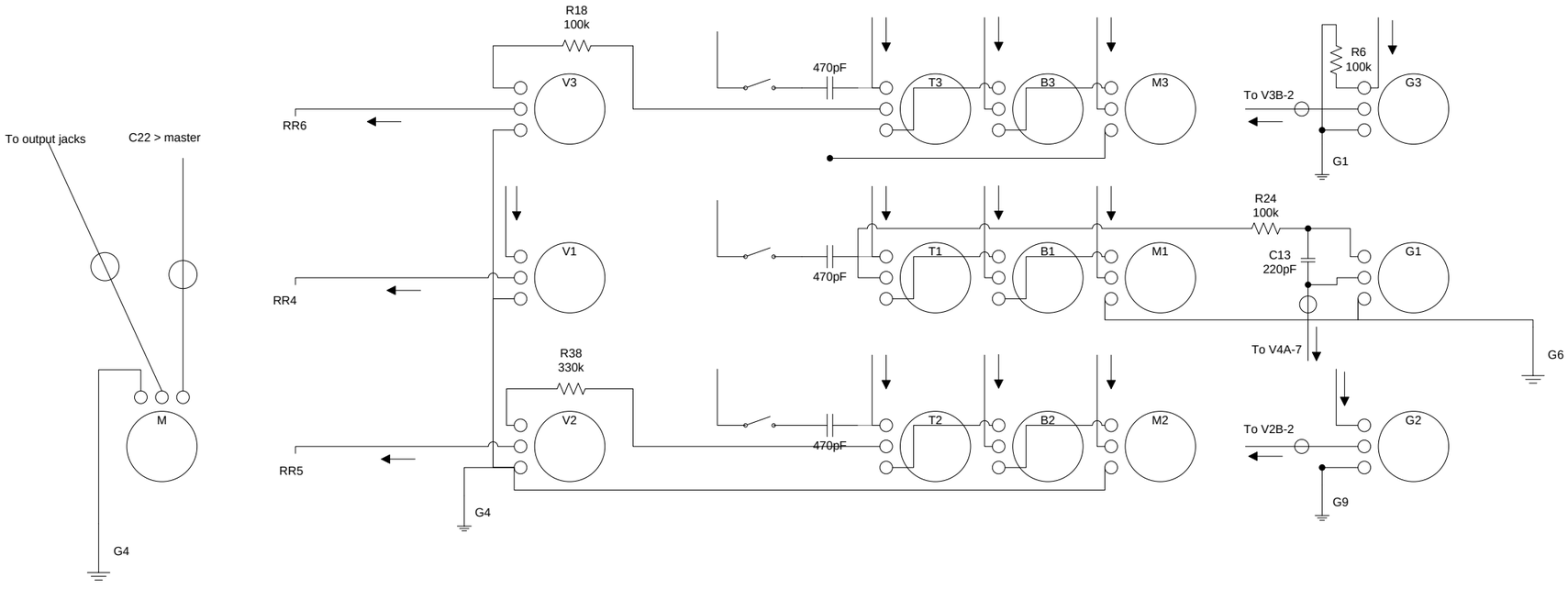
C80 15uF/450V · G11 · R80 10k

E 140V R78 100k · V5A · R34 1k · C79 15uF/450V · G11

D 200V · V5B · ? V · R36 100k · C19A 470pF · SW3 · C19 470pF · TREB · VR15 250k A · R37 68k · C20 22nF · R38 330k · VOL · VR14 1M A · R39 470k · BASS · VR9 1M log · C21 22nF · MID · VR10 25k lin · G12 · G4

Voltage measurements on anodes [VDC]

Position	specified	w/o load	w/ load
B+	200V	394V	202V
V1-6a	140V	378V	145V
V2-6a	140V	384V	140V
V2-1a	140V	384V	139V
V3-6a	140V	386V	138V
V3-1a	140V	394V	187V ???
V4-6a	140V	389V	133V ?
V4-1a	200V	393V	n.a.
V5-6a	140V	389V	n.a.
V5-1a	200V	394V	n.a.
V6-6a	120V	382V	118V
V6-1a	120V	391V	123V

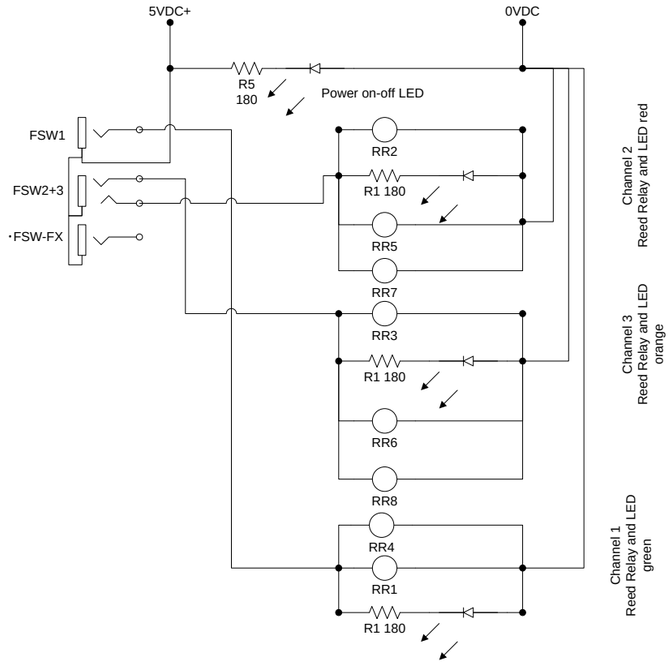


3 Channel PreAmp (modded Trio-Clone)

V1.3 (2007-06-04)

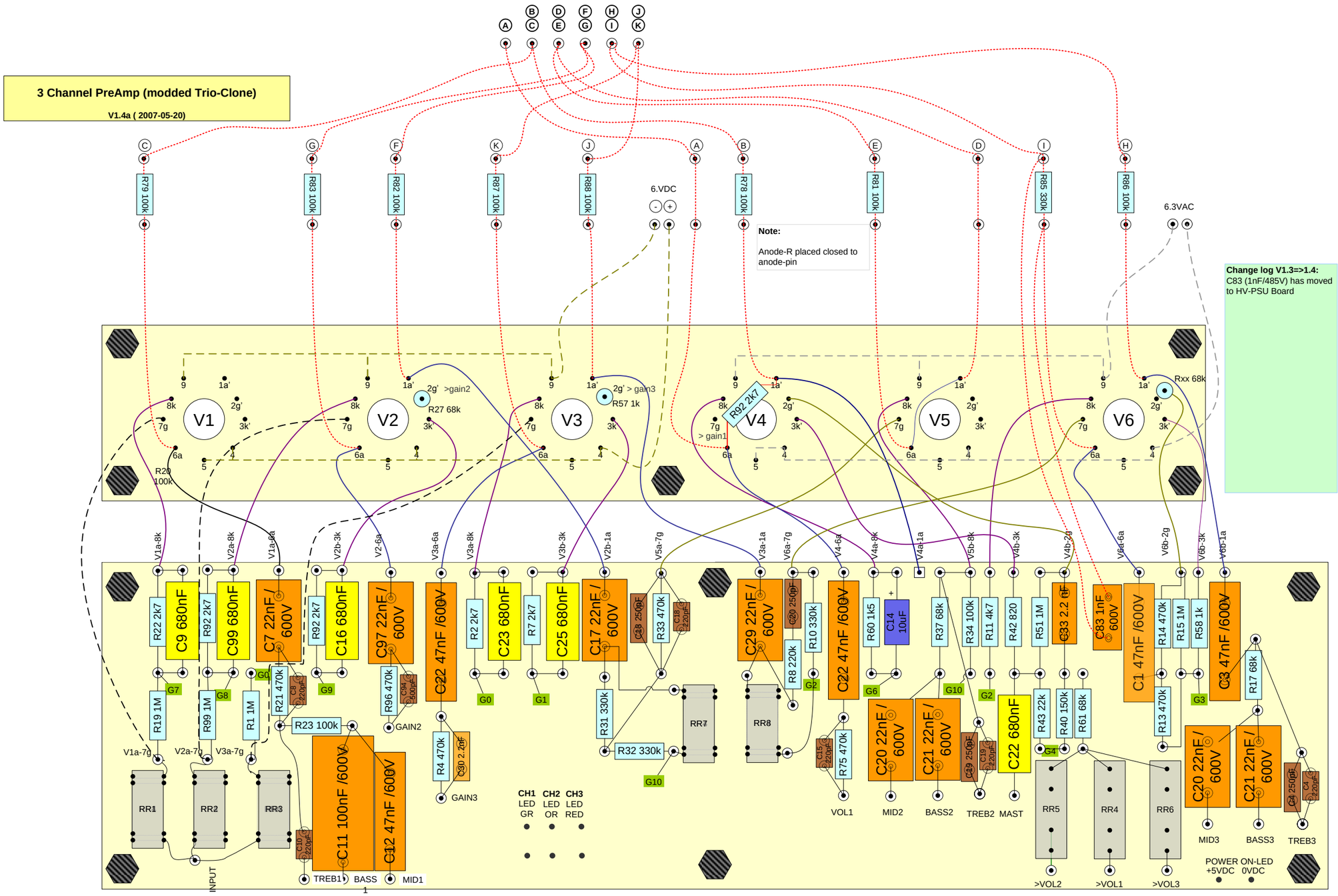
3 Channel PreAmp (modded Trio-Clone)

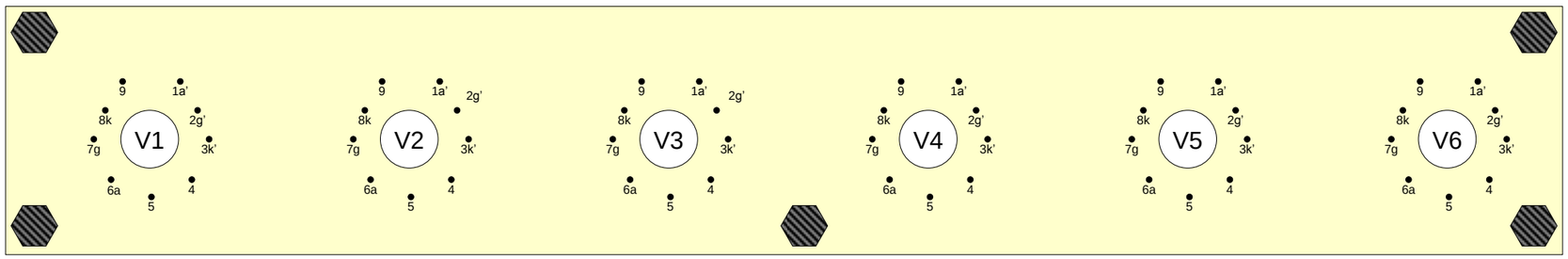
V1.2 (2007-05-10)

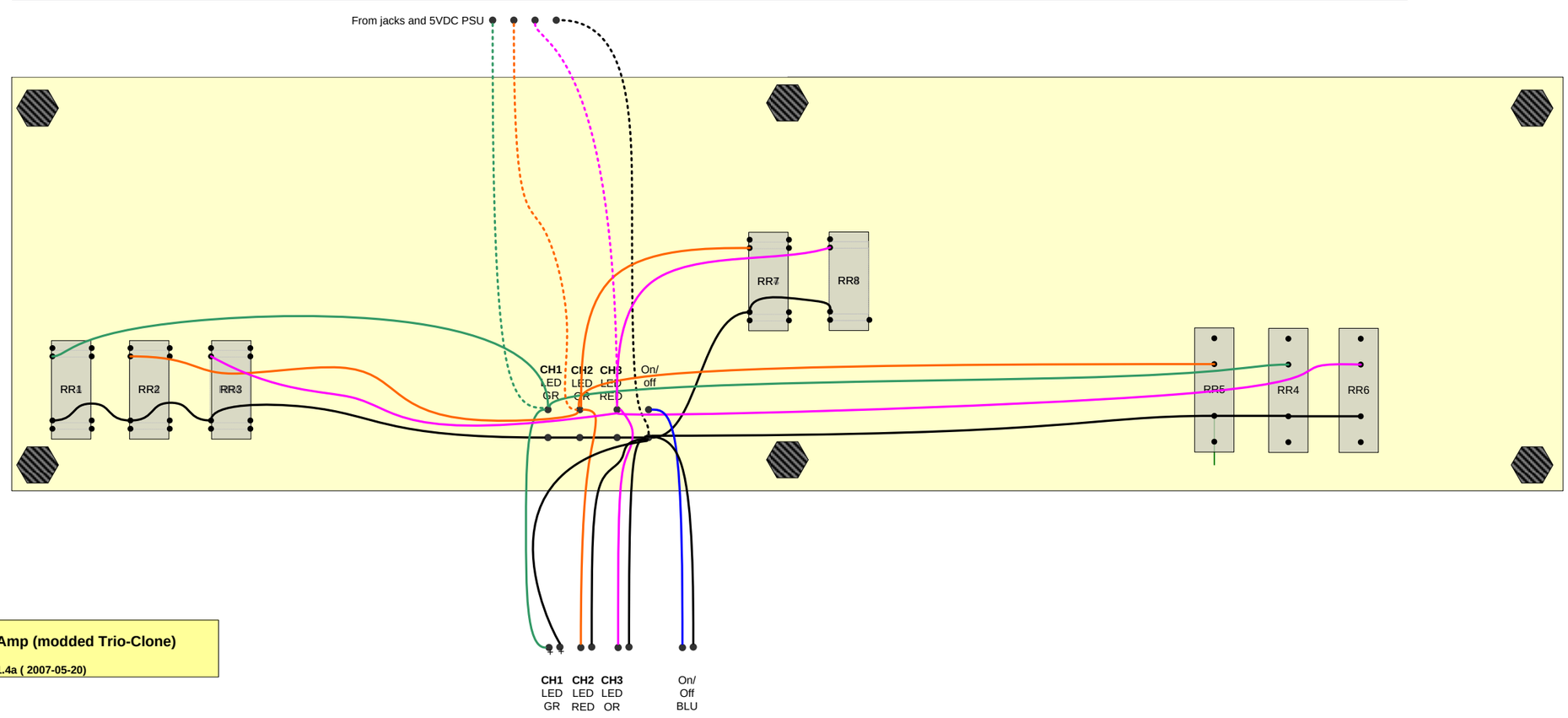


3 Channel PreAmp (modded Trio-Clone)

V1.4a (2007-05-20)







3 Channel PreAmp (modded Trio-Clone)

V1.4a (2007-05-20)

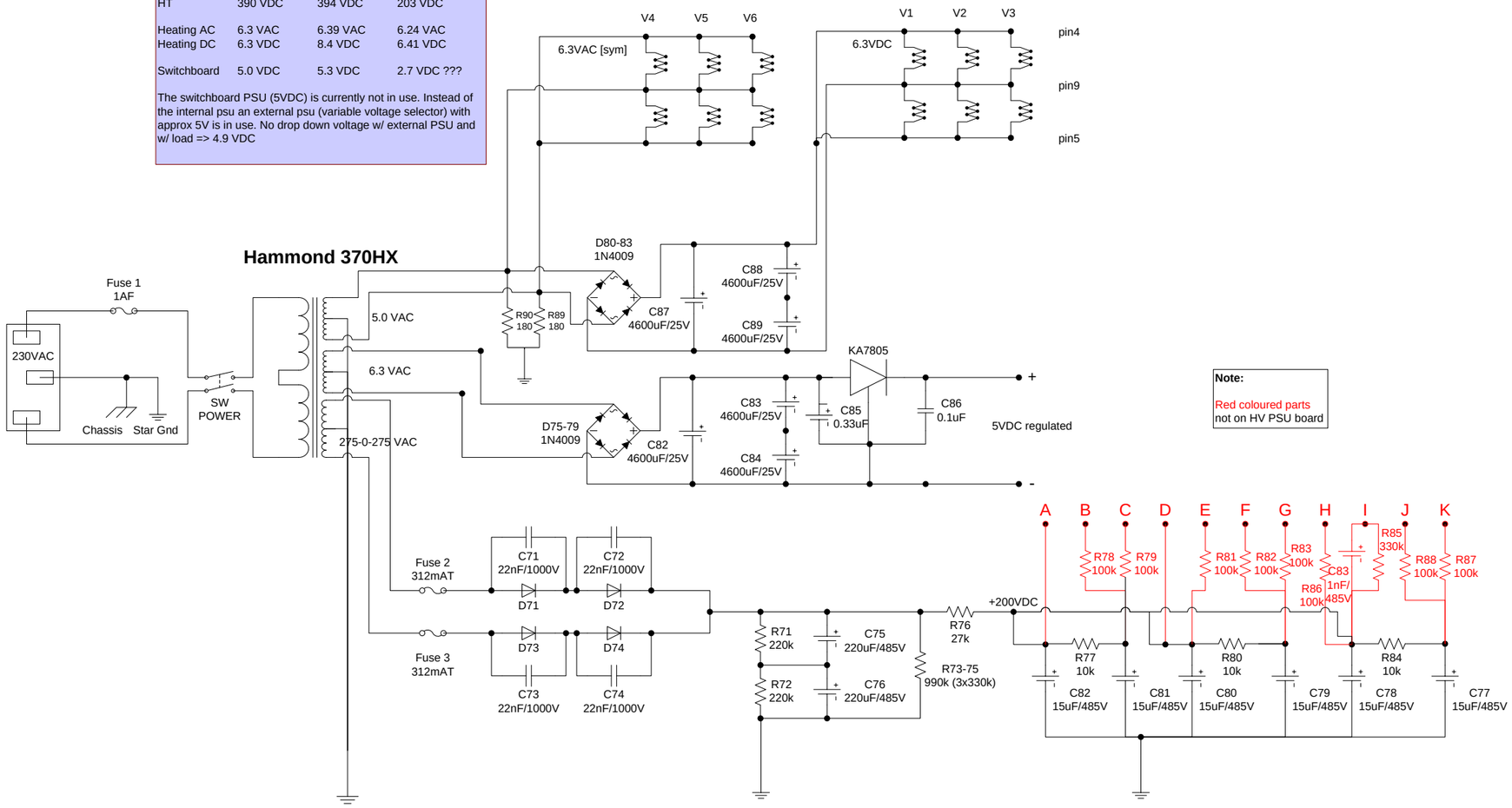
3 Channel PreAmp (modded Trio-Clone)

V1.4a (2007-06-20)

Voltage measurements

PSU	specified	w/o load	w/ load
HT	390 VDC	394 VDC	203 VDC
Heating AC	6.3 VAC	6.39 VAC	6.24 VAC
Heating DC	6.3 VDC	8.4 VDC	6.41 VDC
Switchboard	5.0 VDC	5.3 VDC	2.7 VDC ???

The switchboard PSU (5VDC) is currently not in use. Instead of the internal psu an external psu (variable voltage selector) with approx 5V is in use. No drop down voltage w/ external PSU and w/ load => 4.9 VDC



Note:

Red coloured parts
not on HV PSU board

3 Channel PreAmp (modded Trio-Clone)

V1.4a (2007-06-20)

Change log V1.3=>1.4:
Rebuild / Layout redesign due additional caps to be mounted

