MB Roadking MK II

DUAL RECTIFIER ROADKING REBUILD

MARTIN DOHRAU, CH-8143 STALLIKON

VERSION 1.0 DRAFT

SONNTAG, 15. FEBRUAR 2009

CHANGE LOG:

20081028 0.2 DRAFT	Review of schemes (parts, values, numbering) - Power Supply, Preamp, FX+REV, PowerAmp, Switch Matrix 1
20081214 0.3 DRAFT	- Channel Switch now changed to RS-Latch logic - Renumbering SwitchBoard - Relais Issue, OT, PT issues solved - Front /Rear Panel Layout
0.5 DRAFT	VSD file: Schema and Layout are now stored as separate files
1.0	- Relais renumbered - Channel Switching at HV-Level is now eliminated (RYA1, and RYA2 - Some minor Corrections

VARIANCES:

Spongy Feature	open
Cab Selection	this feature will not be realized
External Trigger	not needed, will not be realized
Power Line	power line filter, fused and switched
HT fuse	each tap is fused in front of rectifier
Channel Selection	The original channel selection circuitry based on LM3914 has beend changed to SR-Latch based circuitry.

ISSUES / TO BE DECIDED:

Mains Transformer	wuesten.de, EL150, custom made
Output Transformer	Mercury Magnet MBRK-OT
OT Reverb	Hammond 1750A
Choke	10H, Hammond
Chassis	some 70cm x 30cm, U-profile, 1.5mm-2mm Alu black (powdered paint)
Faces	engraving directly on black painted chassis
Headshell	TT or self made (no standard headshell available)

- All pots and jacks have to be isolated from chassis
- sheet of metal at the bottom of headshell as screen

Installation of PT:
- decouple PT mechanically from chassis
- signal wires: 075mm

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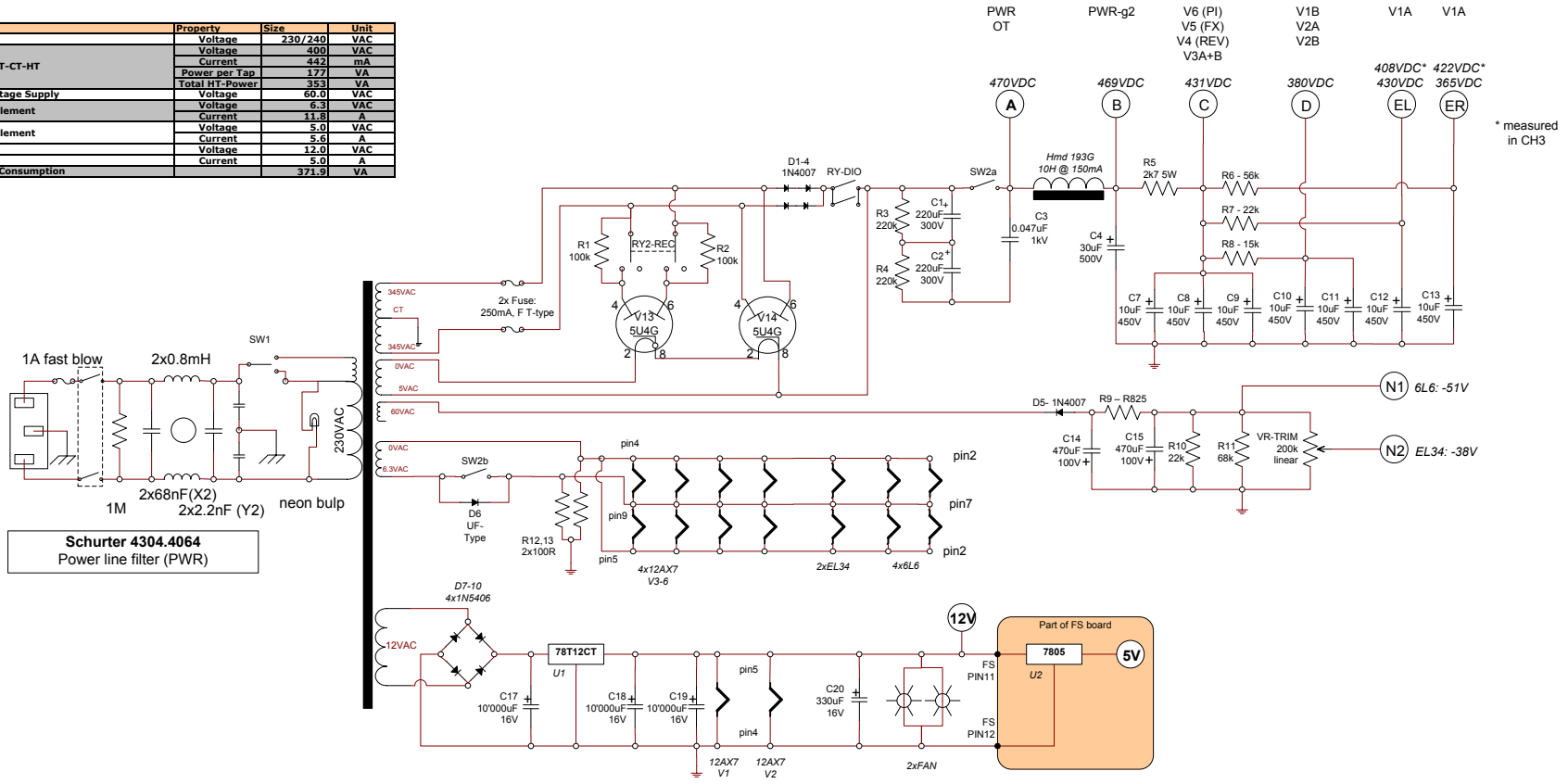
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POWER SUPPLY

Mains Transformer Specification

Winding	Property	Size	Unit
Primary	Voltage	230/240	VAC
Secundary HT-CT-HT	Voltage	400	VAC
	Current	442	mA
	Power per Tap	177	VA
	Total HT-Power	353	VA
Negative Voltage Supply	Voltage	60.0	VAC
Secundary Filement	Voltage	6.3	VAC
	Current	11.8	A
Secundary Filement	Voltage	5.0	VAC
	Current	5.6	A
12V Supply	Voltage	12.0	VAC
	Current	5.0	A
Total Power Consumption		371.9	VA



Schurter 4304.4064
Power line filter (PWR)

Issues:
- none

Variances:
- power line. Filtered w/ DPST switch, mains fuse
- HT fused in front of rectifier
- filament lowered in standby mode
- 7805 is now moved to FS board

solved issues
- power tranny: custom made by wuesten.de
according to calculations

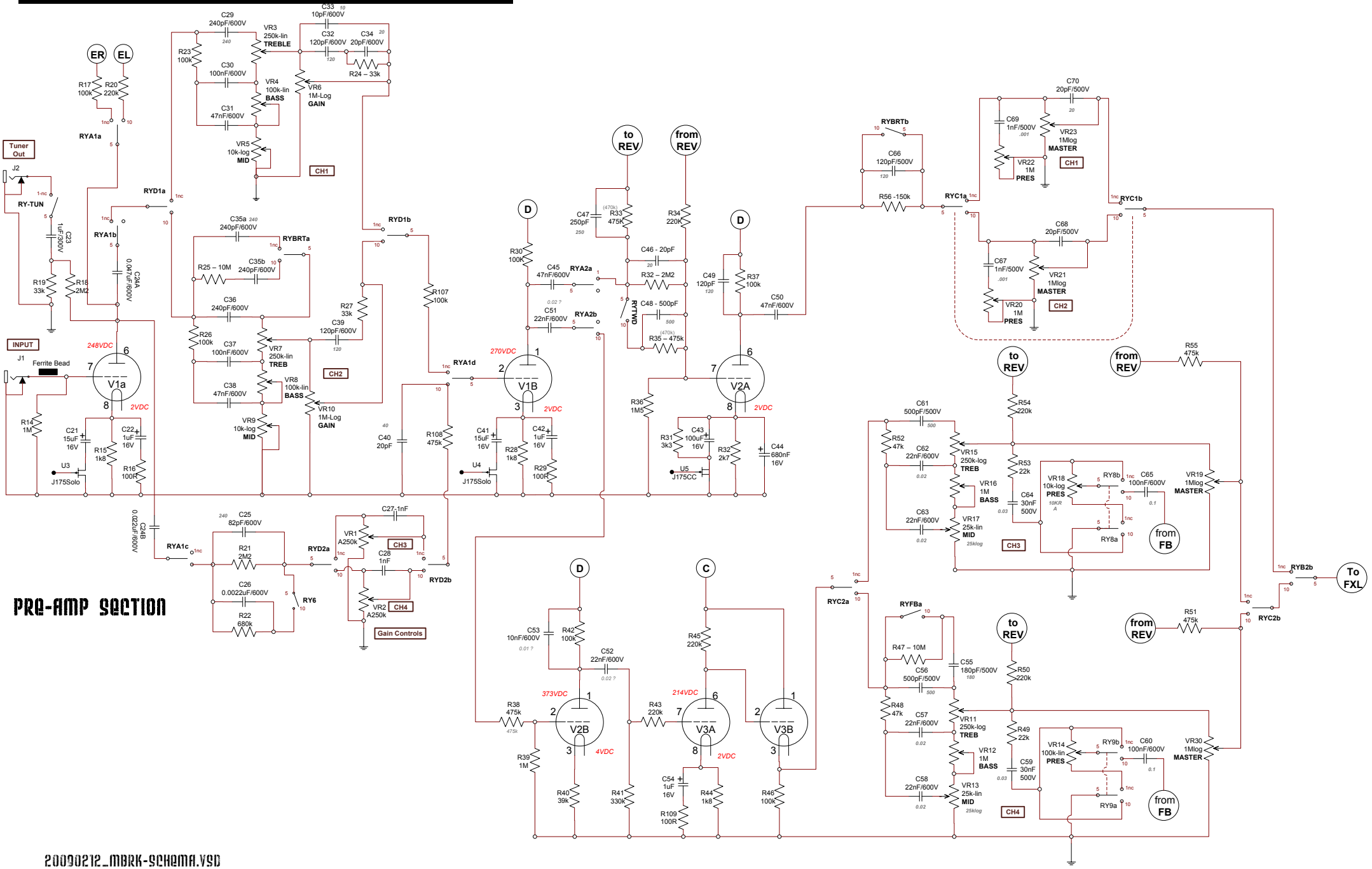
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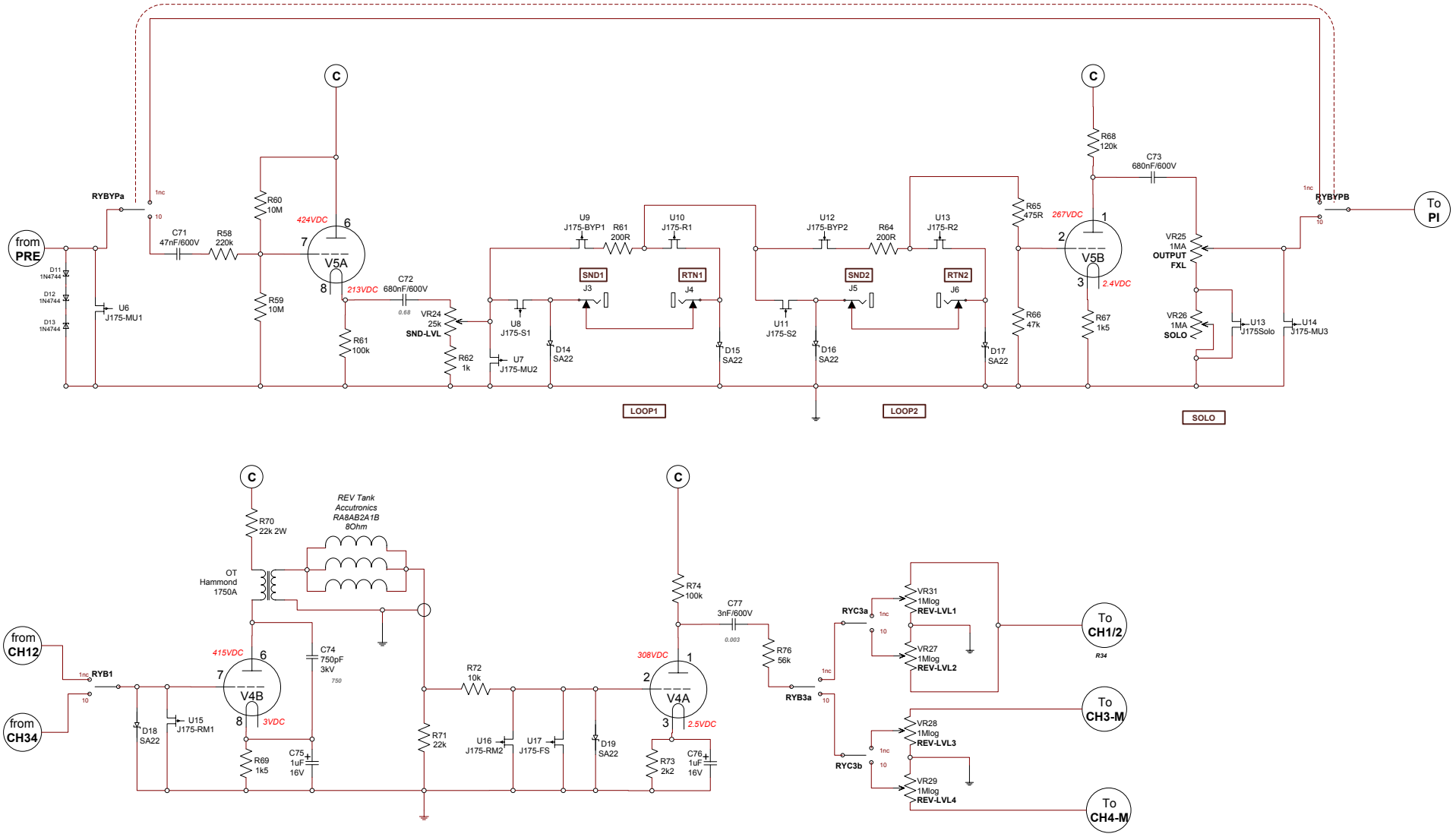
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FX-LOOP + REVERB



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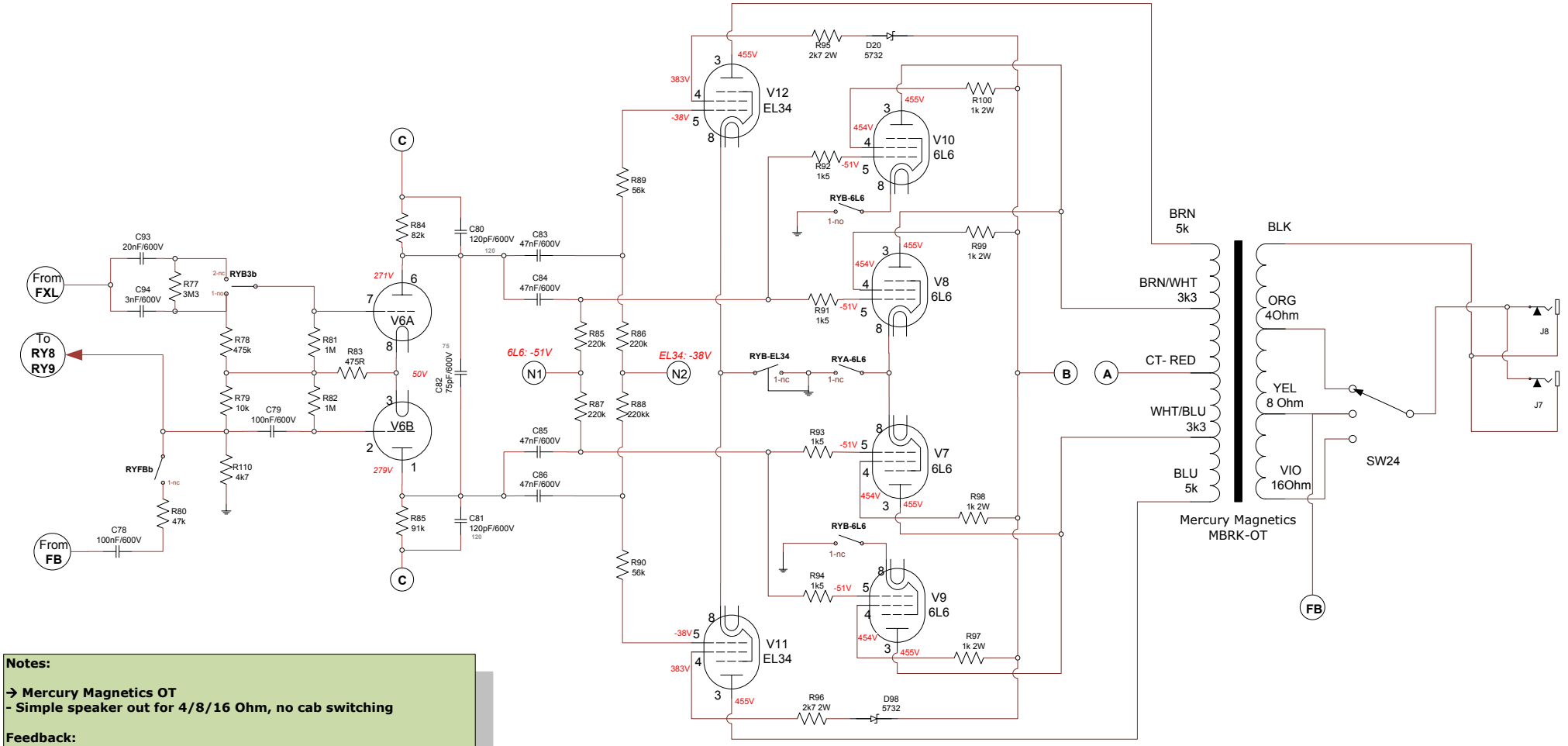
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POWER AMP SECTION



Notes:

→ Mercury Magnetics OT
- Simple speaker out for 4/8/16 Ohm, no cab switching

Feedback:
C78 – if Bass too strong /heavy → make C78 smaller (500/120pF)