Sheet: 01_Preamp

File: engl_jive30_preamp.sch

Sheet: 02_Reverb

File: engl_jive30_reverb.sch

Sheet: 03_Effect_Loop

File: engl_jive30_loop.sch

Sheet: 04_Poweramp

File: engl_jive30_poweramp.sch

Sheet: 05_Power_Supply

File: engl_jive30_powersupply.sch

Sheet: 06_Notes

File: engl_jive30_notes.sch

Revisions

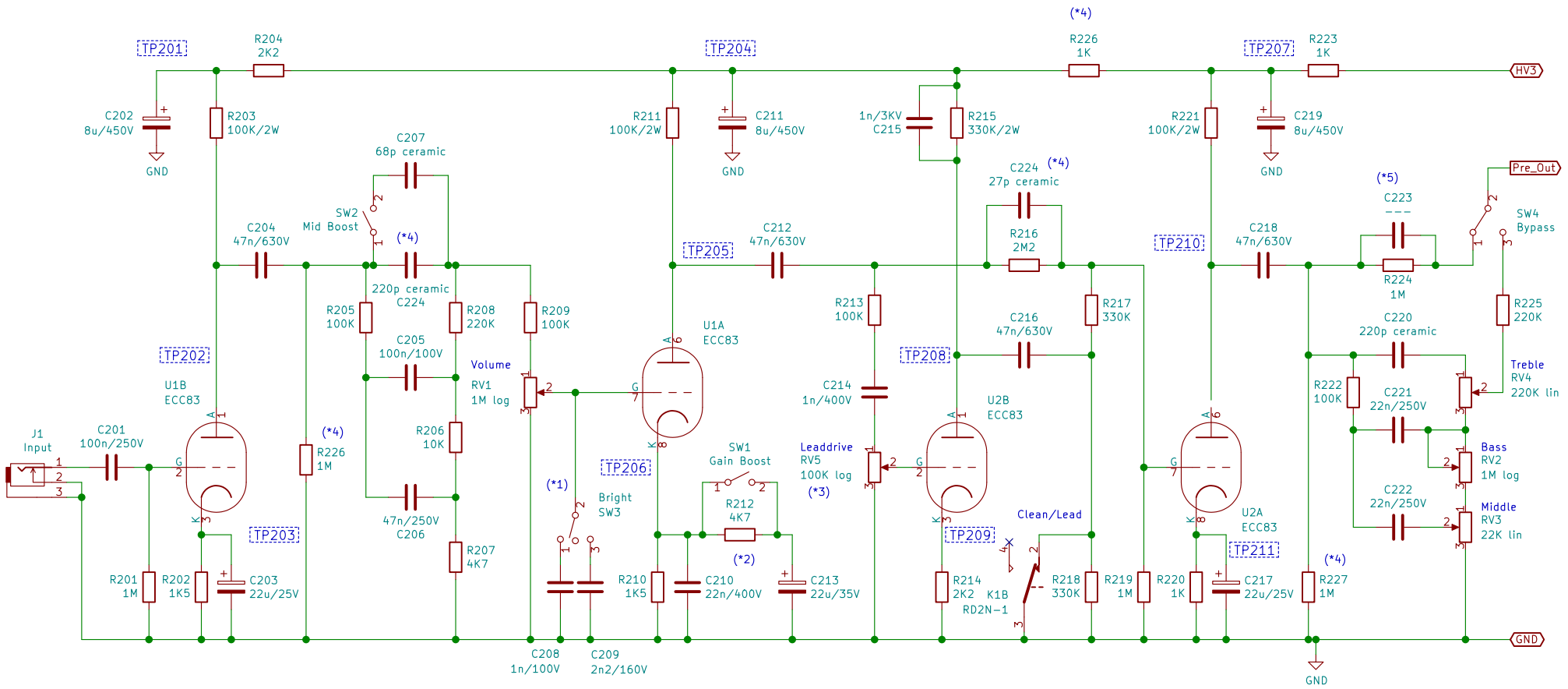
REV01 – Initial drawing based on official schematic
REV02 – Error correction after inspection of amp
REV03 – Voltage measurements after service

ENGL Jive 30 – Typ 601 – S/N 7120046

Sheet: /
File: engl_jive30.sch

Title: Overview

Size: A4	Date: 2021-02-11	**Rev: 3.0**
KiCad E.D.A.	kicad 5.1.9-73d0e3b20d88ubuntu18.04.1	Id: 1/7



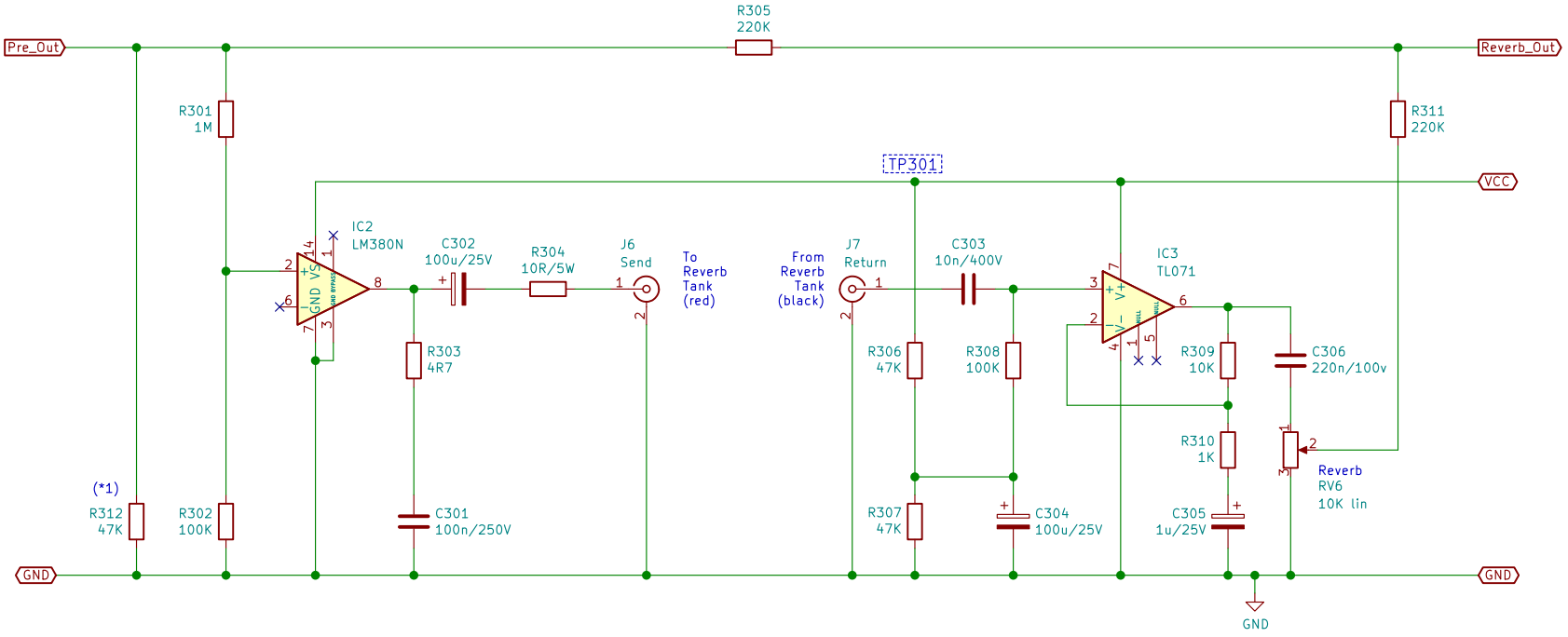
(*1) Deviation from original schematic (connection to wiper)
(*2) Deviation from original schematic (R212 in series to C213)
(*3) 1M log according to original schematic and ENGL technician, however, still not sure (see real 620 preamp and straight schematics)
(*4) Not present in original schematic
(*5) Not placed in actual amp

ENGL Jive 30 – Typ 601 – S/N 7120046

Sheet: /01_Preamp/
File: engl_jive30_preamp.sch

Title: Preamp

Size: A4	Date: 2021-02-11	**Rev: 3.0**
KiCad E.D.A.	kicad 5.1.9-73d0e3b20d88ubuntu18.04.1	Id: 2/7



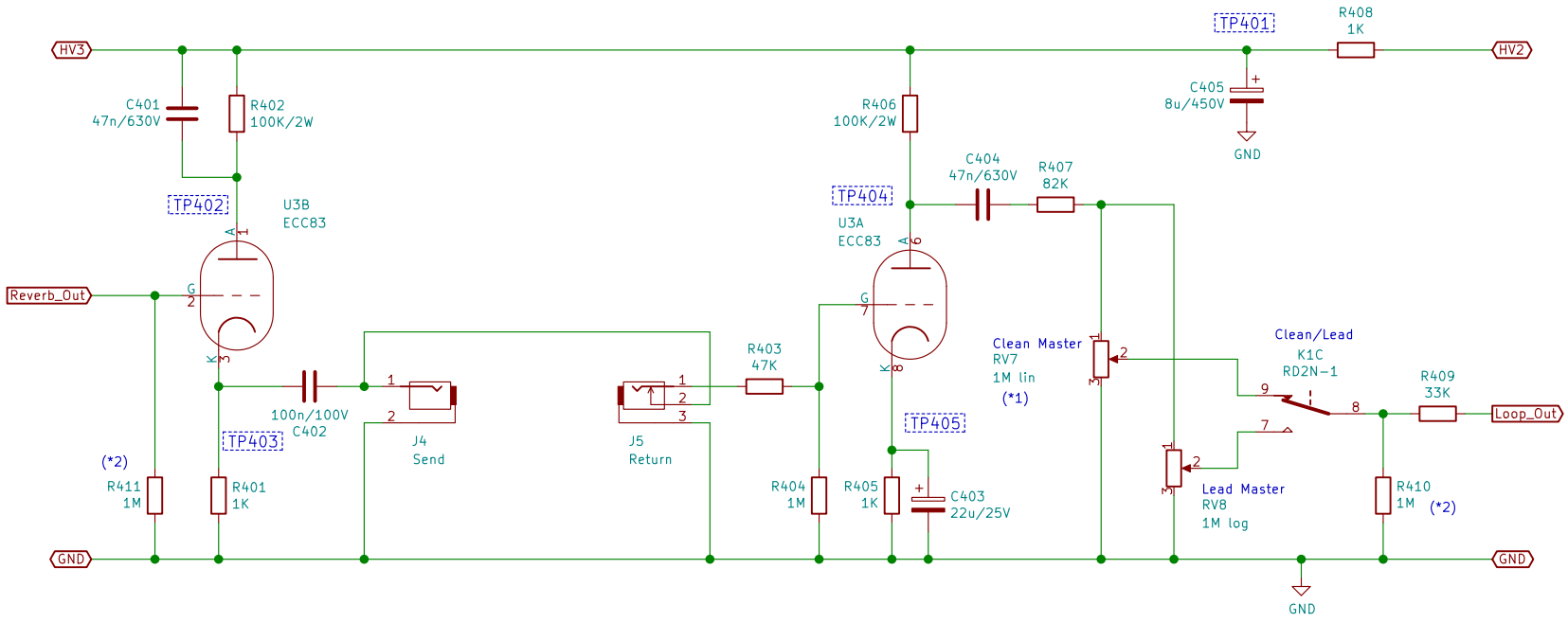
(*1) Not present in original schematic

ENGL Jive 30 – Typ 601 – S/N 7120046

Sheet: /02_Reverb/
File: engl_jive30_reverb.sch

Title: Reverb

Size: A4	Date: 2021-02-11	**Rev: 3.0**
KiCad E.D.A. kicad 5.1.9-73d0e3b20d88ubuntu18.04.1		Id: 3/7



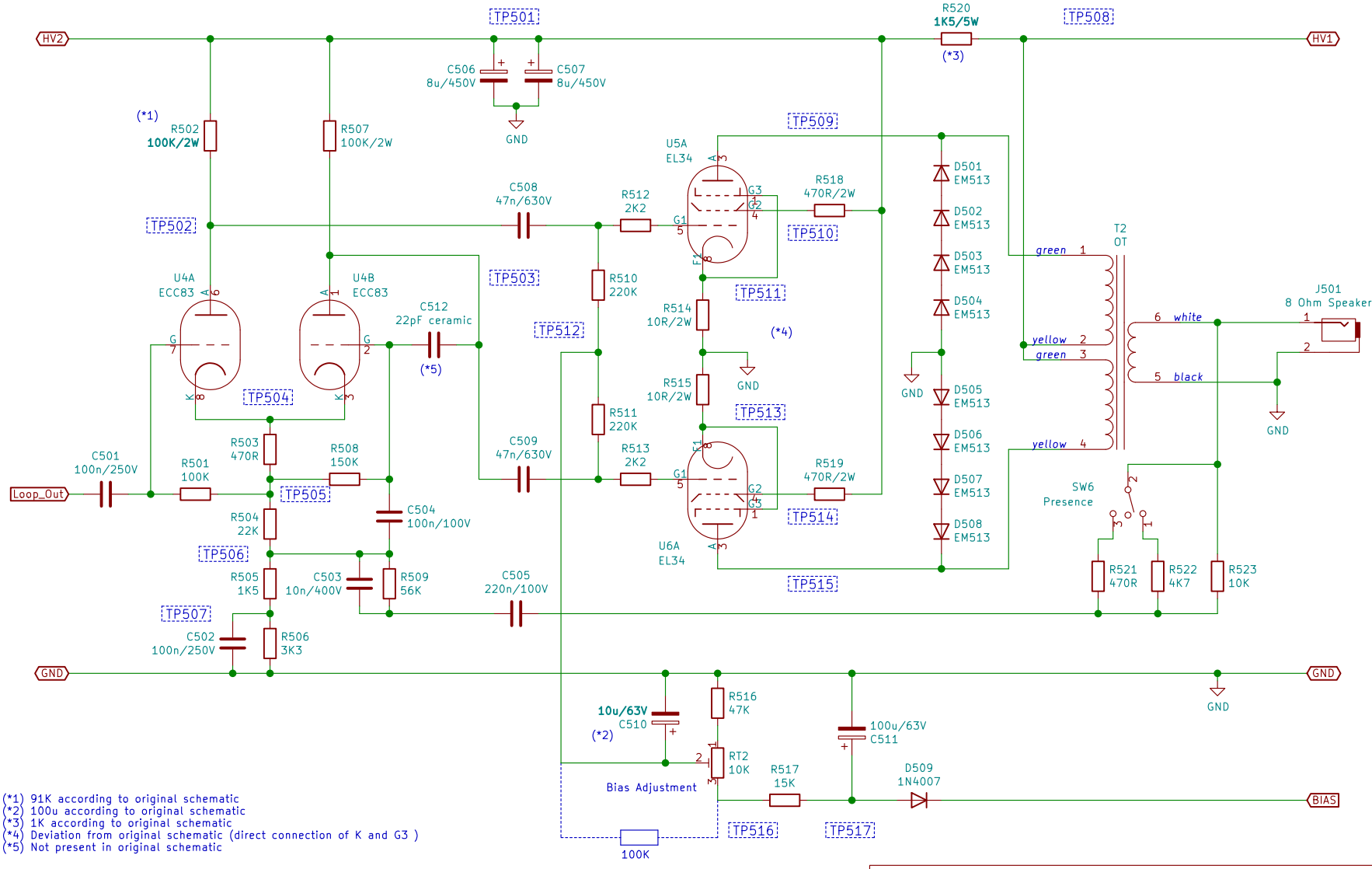
(*1) lin or log? Also lin (clean) and log (lead) in E620 preamp
(*2) Not present in original schematic

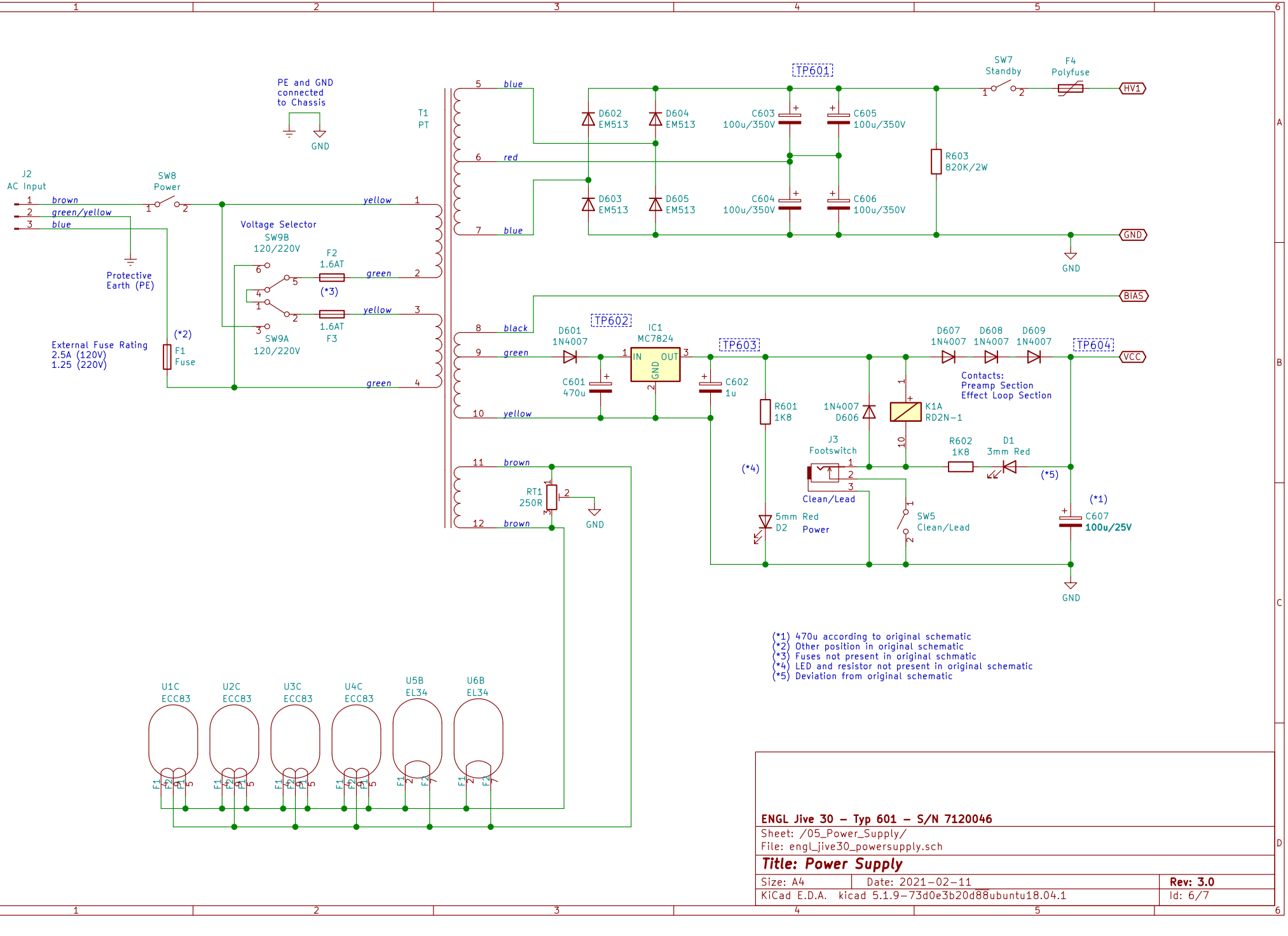
ENGL Jive 30 – Typ 601 – S/N 7120046

Sheet: /03_Effect_Loop/
File: engl_jive30_loop.sch

Title: Effect Loop

Size: A4	Date: 2021-02-11	**Rev: 3.0**
KiCad E.D.A.	kicad 5.1.9-73d0e3b20d88ubuntu18.04.1	Id: 4/7


HV2
HV1
TP501
TP508
R520
1K5/5W
(*3)
C506
8u/450V
C507
8u/450V
GND
(*1)
R502
100K/2W
R507
100K/2W
TP509
U5A
EL34
R518
470R/2W
C508
47n/630V
R512
2K2
TP502
TP510
D501
EM513
D502
EM513
D503
EM513
D504
EM513
T2
OT
green 1
yellow 2
green 3
yellow 4
6 white
5 black
J501
8 Ohm Speaker
U4A
ECC83
U4B
ECC83
C512
22pF ceramic
TP503
R510
220K
R514
10R/2W
TP511
(*4)
TP512
R515
10R/2W
GND
TP513
R511
220K
C509
47n/630V
R513
2K2
R519
470R/2W
TP514
U6A
EL34
TP515
D505
EM513
D506
EM513
D507
EM513
D508
EM513
TP504
C501
100n/250V
R501
100K
R503
470R
R508
150K
Loop_Out
TP505
R504
22K
C504
100n/100V
TP506
R505
1K5
C503
10n/400V
R509
56K
C505
220n/100V
SW6
Presence
R521
470R
R522
4K7
R523
10K
TP507
C502
100n/250V
R506
3K3
GND
GND
GND
10u/63V
C510
(*2)
R516
47K
RT2
10K
Bias Adjustment
100K
R517
15K
100u/63V
C511
D509
1N4007
BIAS
TP516
TP517
(*1) 91K according to original schematic
(*2) 100u according to original schematic
(*3) 1K according to original schematic
(*4) Deviation from original schematic (direct connection of K and G3)
(*5) Not present in original schematic
Insert Safety Resistor
to avoid risks due to
failing wiper!?
ENGL Jive 30 – Typ 601 – S/N 7120046
Sheet: /04_Poweramp/
File: engl_jive30_poweramp.sch
Title: Power Amplifier
Size: A4
Date: 2021-02-11
Rev: 3.0
KiCad E.D.A. kicad 5.1.9-73d0e3b20d88ubuntu18.04.1
Id: 5/7



(*1) 470u according to original schematic
(*2) Other position in original schematic
(*3) Fuses not present in original schmatic
(*4) LED and resistor not present in original schematic
(*5) Deviation from original schematic

ENGL Jive 30 – Typ 601 – S/N 7120046

Sheet: /05_Power_Supply/
File: engl_jive30_powersupply.sch

Title: Power Supply

Size: A4	Date: 2021-02-11	**Rev: 3.0**
KiCad E.D.A. kicad 5.1.9-73d0e3b20d88ubuntu18.04.1		Id: 6/7

DMM used: Metrix MTX3283, VDC Autorange

	Initial Values	After Service
TP	Preamp	Preamp
201	362	379
202	246	244
203	1.7	2.0
204	366	382
205	248	253
206	1.7	1.9
207	366	386
208	168	177
209	1.3	1.35
210	234	248
211	1.3	1.35
TP	Reverb	Reverb
301	21.8	21.8
TP	Effect Loop	Effect Loop
401	372	390
402	248	261
403	1.2	1.26
404	267	278
405	1.0	1.1
TP	Power Amp	Power Amp
501	379	398
502	260	271
503	254	269
504	64.5	68
505	63	66.6
506	11.4	11.9
507	7.9	8.3
508	410	415
509	403	412
510	375	397
511	0.42	0.26
512	−37	−36.3
513	0.41	0.26
514	376	397
515	402	412
516	−40.4	−41
517	−51	−52
TP	Power Supply	Power Supply
601	410	415
602	30.6	30.6
603	24	24
604	21.9	21.9

Silicone Glue: DOW Dowsil 744 RTV

Polarized Capacitors

All low voltage types with 5mm pitch on PCB!
Legs bent and bodies glued to PCB.

C202/C211 – 2x8µF/450V – F+T
C219/C405 – 2x8µF/450V – F+T
C506/C507 – 2x8µF/450V – F+T
C603/C605 – 2x100µF/350V – F+T – replace with 220µF/350V
C604/C606 – 2x100µF/350V – F+T – replace with 220µF/350V
C203 – 22µF/25V – d5x11 – replace with 22uF/35V/105° – d6x7
C213 – 22µF/35V – d6x11 – replace with 22uF/35V/105° – d6x7
C217 – 22µF/25V – d5x11 – replace with 22uF/35V/105° – d6x7
C302 – 100µF/25V – d6.5x11 – replace with 100uF/35V/105° – d6.3x11.5
C304 – 100µF/25V – d6.5x11 – replace with 10u0F/35V/105° – d6.3x11.5
C305 – 1µF/25V – d4x8 – replace with 1uF/63V/105° – d5x11
C403 – 22µF/25V – d5x11 – replace with 22uF/35V/105° – d6x7
C510 – 10µF/63V – d8.5x12.5 – replace with 10uF/63V/105° – d5x11
C511 – 100µF/63V – d10x20 – replace with 100uF/63V/105° – d10x12
C601 – 470µF/40V – d16x27 – replace with 470uF/63V/105° – d13x21
C602 – 1µF/35V – d4x8 – replace with 1uF/63V/105° – d5x11
C607 – 100µF/25V – d7x11.5 – replace with 100uF/35V/105° – d6.3x11.5

Potentiometers as found in amp
6.0mm Spindle
M10x0.75mm Bushing

Available replacement OMEG PC20BU xxx F1 CEBS

RV1 – Volume – 1Mlog – Radiohm square
RV2 – Bass – 1M log – OMEG
RV3 – Middle – 22K lin – Radiohm round
RV4 – Treble – 220K lin – Radiohm round
RV5 – Leaddrive – 100K log – OMEG
RV6 – Reverb – 10K lin – Radiohm round
RV7 – Clean Master – 1M lin – Radiohm round
RV8 – Lead Master – 1M log – Radiohm round

1x 10K lin
1x 22K lin
1x 100K log
1x 220K lin
1x 1M lin
3x 1M log

Bias (initial)
V5 I_k 42mA
V6 I_k 41mA

Bias (after Service)
V5 I_k 26mA
V6 I_k 26mA

Tubes as found in amp
V1, V2, V3, V4 – Sovtek 12AX7WXT
V5, V6 – Sovtek EL34G

Tubes replaced
V1 – TT 12AX7 Classic V1
V2 – TT 12AX7 Classic
V3 – Tesla E83CC
V5, V6 – Tungsol (Russia) EL34B

ENGL Jive 30 – Typ 601 – S/N 7120046

Sheet: /06_Notes/
File: engl_jive30_notes.sch

Title: Notes

Size: A4	Date: 2021-02-11	**Rev: 3.0**
KiCad E.D.A.	kicad 5.1.9-73d0e3b20d88ubuntu18.04.1	Id: 7/7