GD/ 17.11. 99

SERVICE DOCUMENTATION

Hughes & Kettner®
TECHNOLOGY OF TONE

Tube Factor

GD/ 17.11. 99

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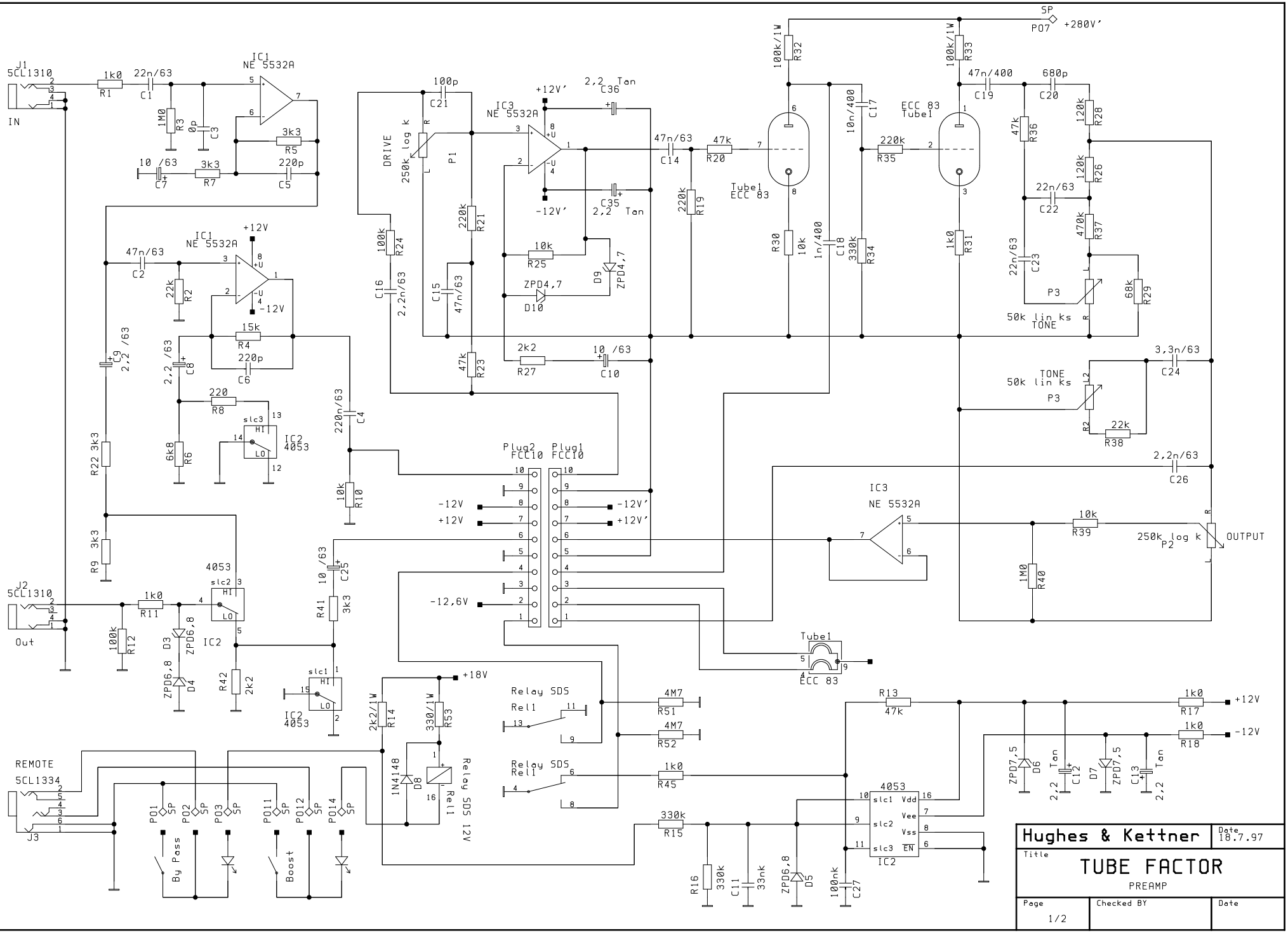
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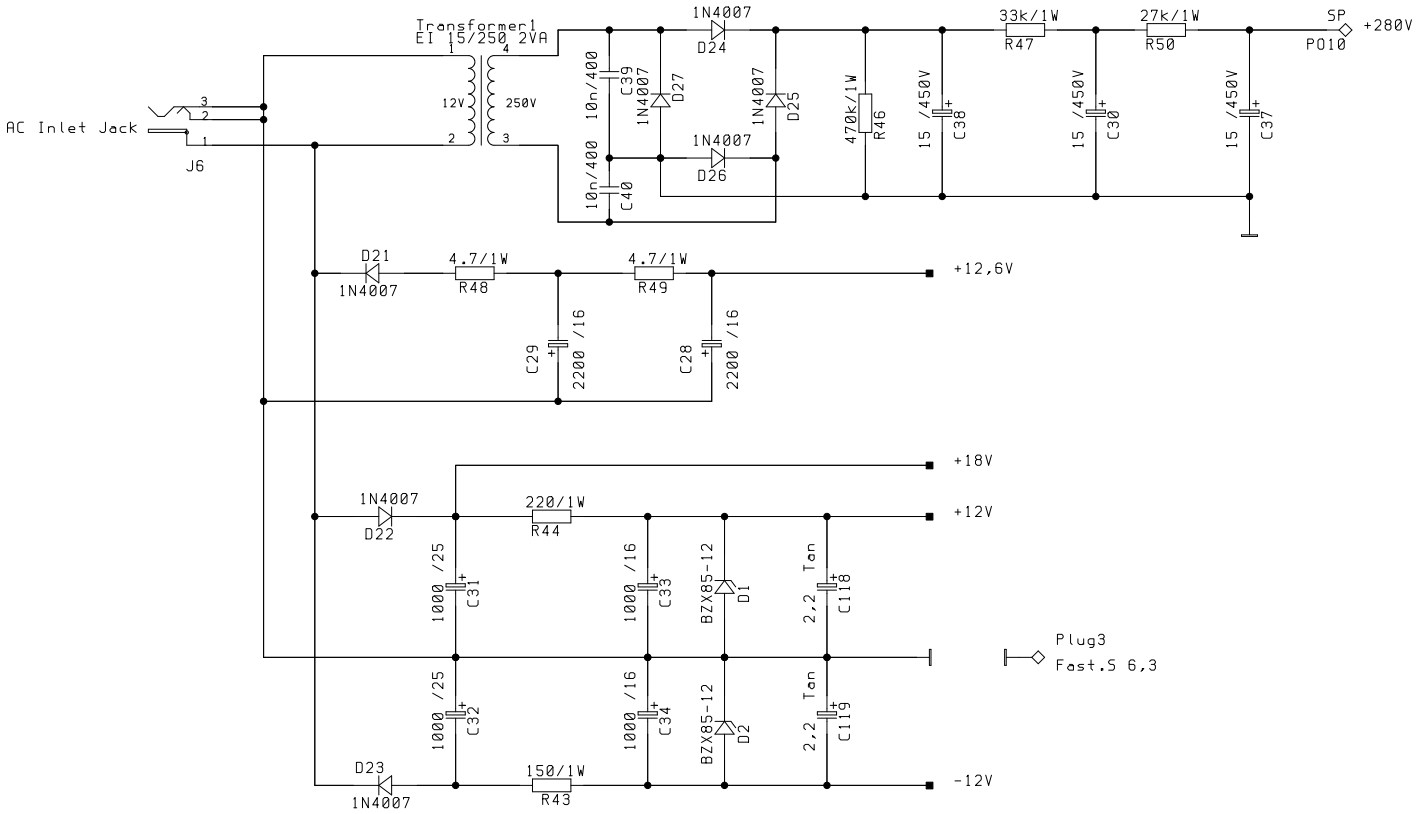
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1 Schaltpläne/ schematics

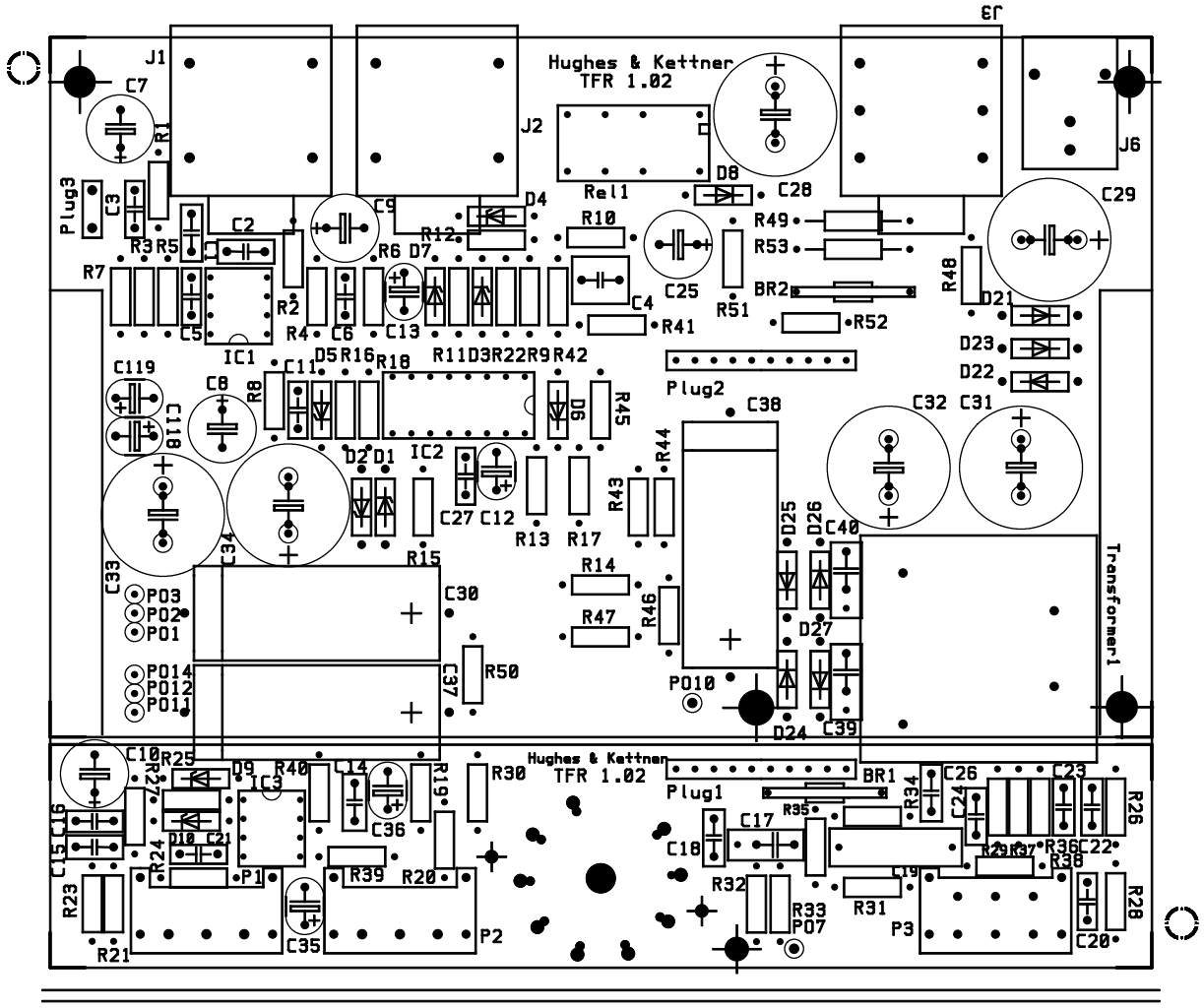


Hughes & Kettner		Date 18.7.97
Title TUBE FACTOR PREAMP		
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2 Bestückungspläne/ component parts


Hughes & Kettner
TFR 1.02
Hughes & Kettner
TFR 1.02
Rel1
Plug1
Plug2
Plug3
Transformer1
IC1
IC2
IC3
P1
P2
P3
J1
J2
J3
J6
C7
C29
C32
C31
C38
C40
C39
C119
C118
C34
C33
C30
C37
C35
C36
C10
C16
C15
C17
C18
C19
C20
C21
C22
C23
C24
C26
R1
R2
R3
R4
R5
R6
R7
R8
R10
R11
R12
R13
R14
R15
R17
R18
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R51
R52
R53
C1
C2
C3
C4
C5
C6
C8
C9
C11
C12
C13
C25
C27
C28
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D21
D22
D23
D24
D25
D26
D27
BR1
BR2
PO1
PO2
PO3
PO7
PO10
PO11
PO12
PO14

3 Bestellnummern/ order no. Tube Factor

no.	schematic position	name	specs	part no.
1	AC power pack	UK	240V	E 958 093
2	AC power pack	Europe	230V	E 958 090
3	AC power pack	USA/ CAN	117V	E 958 091
4	AC power pack	Japan	100V	E 958 092
5	transformer 1	transformer	EI 15V/ 250V/ 2VA	E 958 049
6	P1 (drive)	pot	250 KΩ log, mono	E 914 044
7	P2 (output)	pot	250 KΩ log, mono	E 914 044
8	P3 (voicing)	pot	50 KΩ lin, stereo	E 914 005
9	D21- D27	diode	1N4007	E 934 023
10	IC 1	OP Amp	NE5532A	E 940 004
11	IC 2	Multiplexer	HCF 4053	E 940 002
12	IC 3	OP Amp	NE5532A	E 940 004
13	C30	hv cap	15u/ 450V ax	E 926 006
14	C37	hv cap	15u/ 450V ax	E 926 006
15	C38	hv cap	15u/ 450V ax	E 926 006
16	Rel 1	relay	12Vdc/ 2 x um	E 946 003
17	tube 1	tube	ECC83/ 12AX7A	E 944 007
18	tube socket	socket	9pin/ pcb mount	E 944 003
19	J1- J2 (input/ output)	jack	¼“ phone jack mono	E 952 038
20	J3 (remote)	jack	¼“ phone jack stereo	E 952 041
21	J6 (ac)	jack	ac inlet	E 952 016
22	enclosure profile	alu profile	150 mm	E 970 275
23	enclosure front	front panel	steel sheet	E 970 277
24	enclosure sides	side profile	left + right plastic profile	E 970 255
25	enclosure pane	acrylglass	print: Hughes & Kettner	E 970 276
26	screws pane	M3 x 8	hexagon, vz	E 974 221
27	screws side profile	4 x 40	black	E 974 314
28	bottom foot	rubber foot	155 x 145 mm	E 972 029
29	on/ off switch	switch	CIC 01-690B	E 950 011
30	factor 1/ 2 switch	switch	CIC 01-690B	E 950 011
31	pot knob	pot knob	K7 black/ black	E 966 037

4 Bestellinformationen/ ordering informations

Bestellinformationen und Ersatzteilbestellungen

Deutschland:
Music & Sales
Leipziger Straße 3
D- 66606 St. Wendel
Service
Tel.: 06851/ 905 333
Fax: 06851/ 905 100
E-mail: service@musicandsales.com
Technische Fragen
Tel.:06851/ 905 330
E-mail: service@musicandsales.com

Sparepart orders and technical questions for all other countries:

contact your local distributor or

Hughes & Kettner
Leipzigerstr. 3
66606 St. Wendel
Germany
Tel.: +49 6851/905 210
Fax: +49 6851/905 200
Email: intlservice_handk@musicandsales.com

5 Technische Daten/ technical data

Tube Factor

Eingang/ input:

Input:	Buchse/ connection:	¼ phone jack
	Bauart Eingang/ input type:	unbalanced
	Eingangsimpedanz/ input impedance:	1 MΩ
	min.Empfindlichkeit/ min.sensitivity:	- 40 dB
	max. Eingangspegel/ max.input level:	+17 dB

Ausgänge/ outputs:

Line Out:	Buchse/ connection:	¼ phone jack
	Bauart Ausgang/ output type:	unbalanced
	Ausgangsimpedanz/ output impedance:	2 kΩ
	max. Ausgangspegel/ max.output level:	+6 dB (preamp on)
	max. Ausgangspegel/ max.output level:	+12 dB (preamp off/ bypass)
Remote:	Buchse/ connection:	¼ phone jack stereo (Tip = factor 1/2; Ring = on/ off)

Allgemeine elektrische Daten/ general electrical data:

Schutzklasse II/ protection class 2 (protectively isolated)	
verschiedene Netzteilversionen/ different AC power packs:	230V/ 117V/ 100V
max. Stromaufnahme/ max. current:	480 mA @ 13,4Vac
max. Leistungsaufnahme/ max. power consumption:	6,5 VA
Netzspannungsbereich/ mains voltage range:	+/- 10 %
Umgebungstemperaturbereich/ temperatur range:	- 10 °C bis + 60 ° C

Allgemeine mechanische Daten/ general mechanical data:

Abmessungen/ sizes: Breite/ width: 160 mm Höhe/ height: 80 mm Tiefe/ depth: 215 mm

Gewicht/ weight:	1,2 kg ohne Netzteil/ without AC power pack
	1,55 kg mit Netzteil/ with AC power pack