

# SERVICE DOCUMENTATION



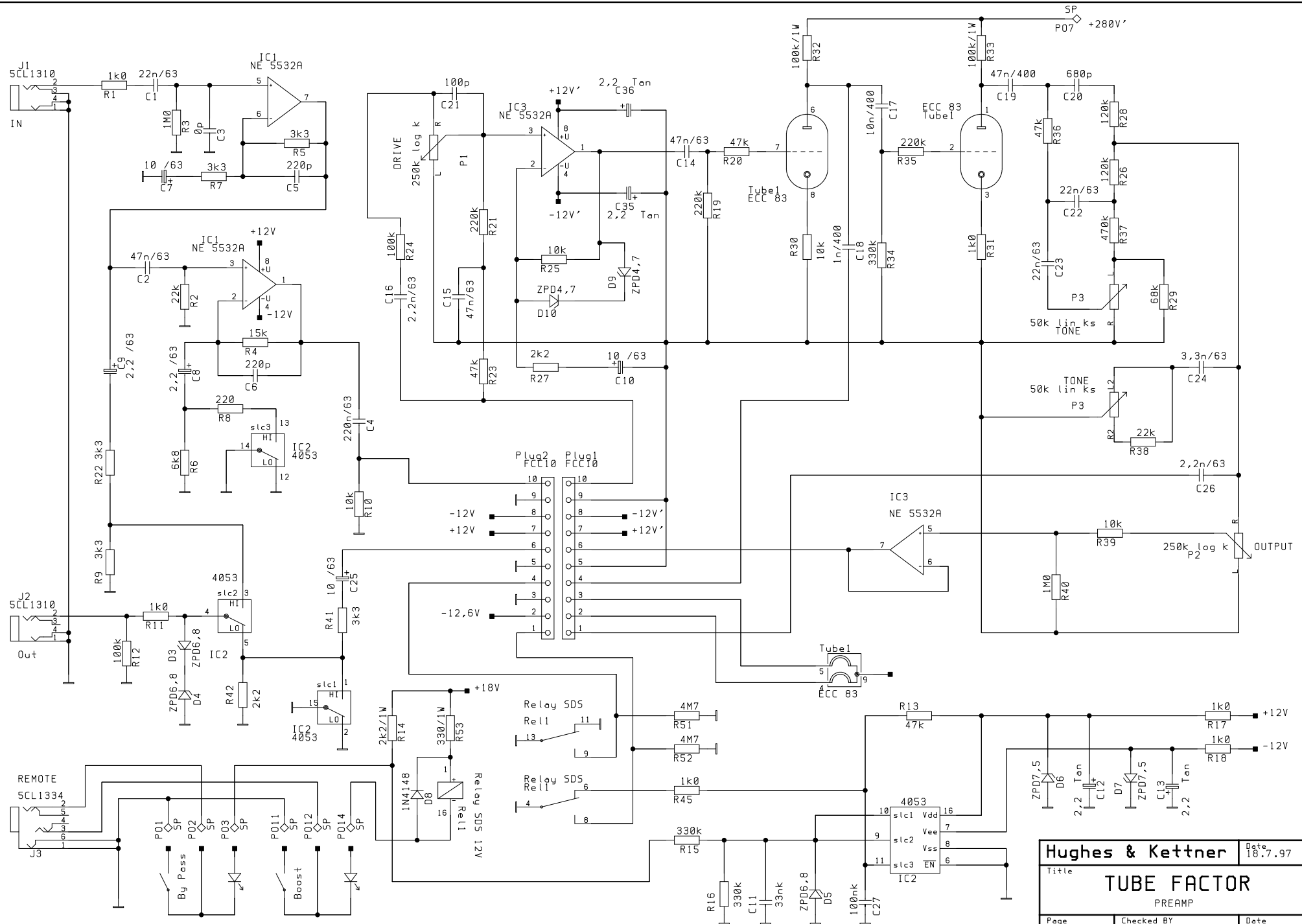
## Tube Factor

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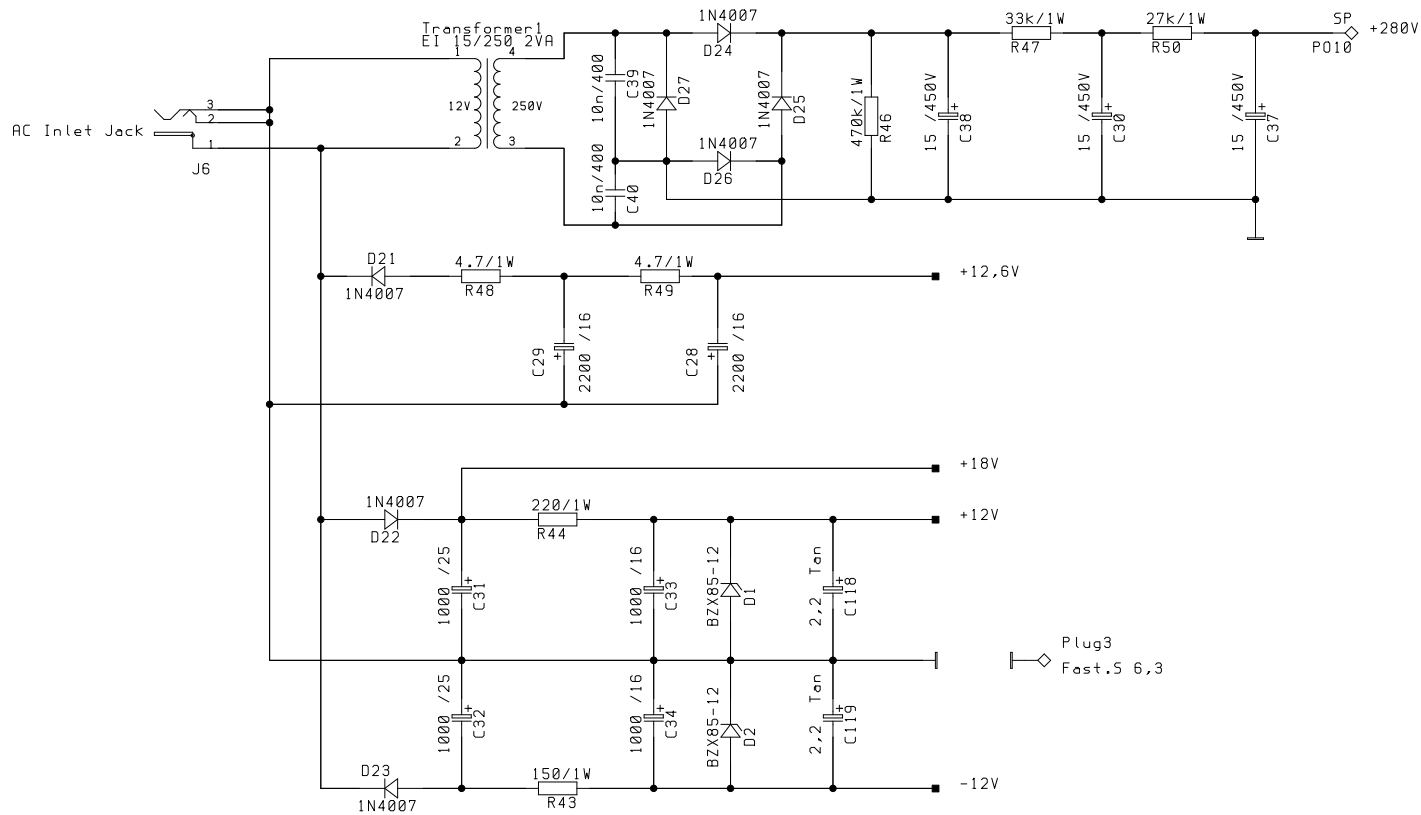
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**1 Schaltpläne/ schematics**



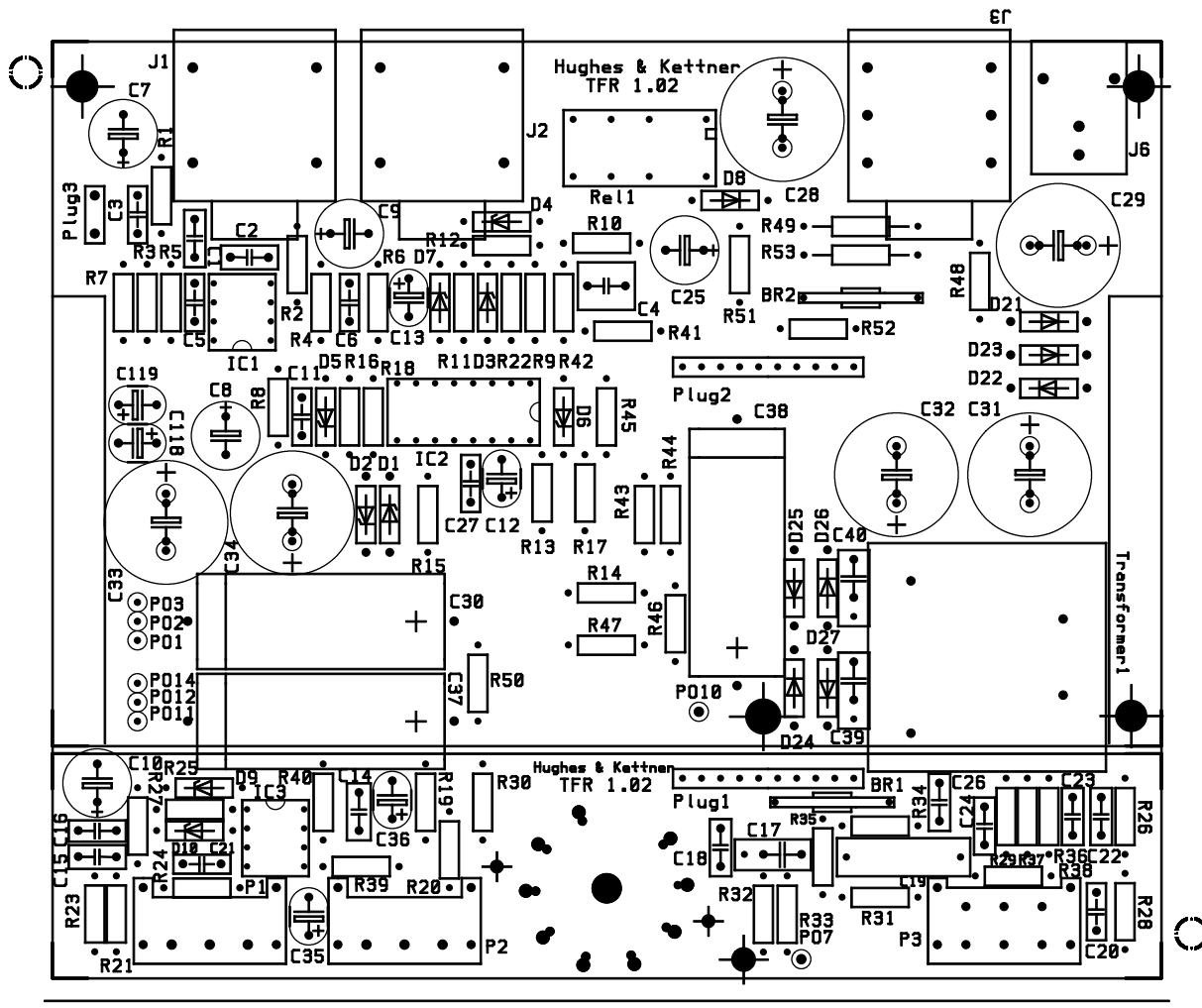
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**2 Bestückungspläne/ component parts**



## 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 K $\Omega$ log, mono	E 914 044
7	P2 (output)	pot	250 K $\Omega$ log, mono	E 914 044
8	P3 (voicing)	pot	50 K $\Omega$ 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	1/4" phone jack mono	E 952 038
20	J3 (remote)	jack	1/4" 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](mailto:service@musicandsales.com)**

**Technische Fragen**

**Tel.:06851/ 905 330**

**E-mail: [service@musicandsales.com](mailto: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](mailto: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)
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#### 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		