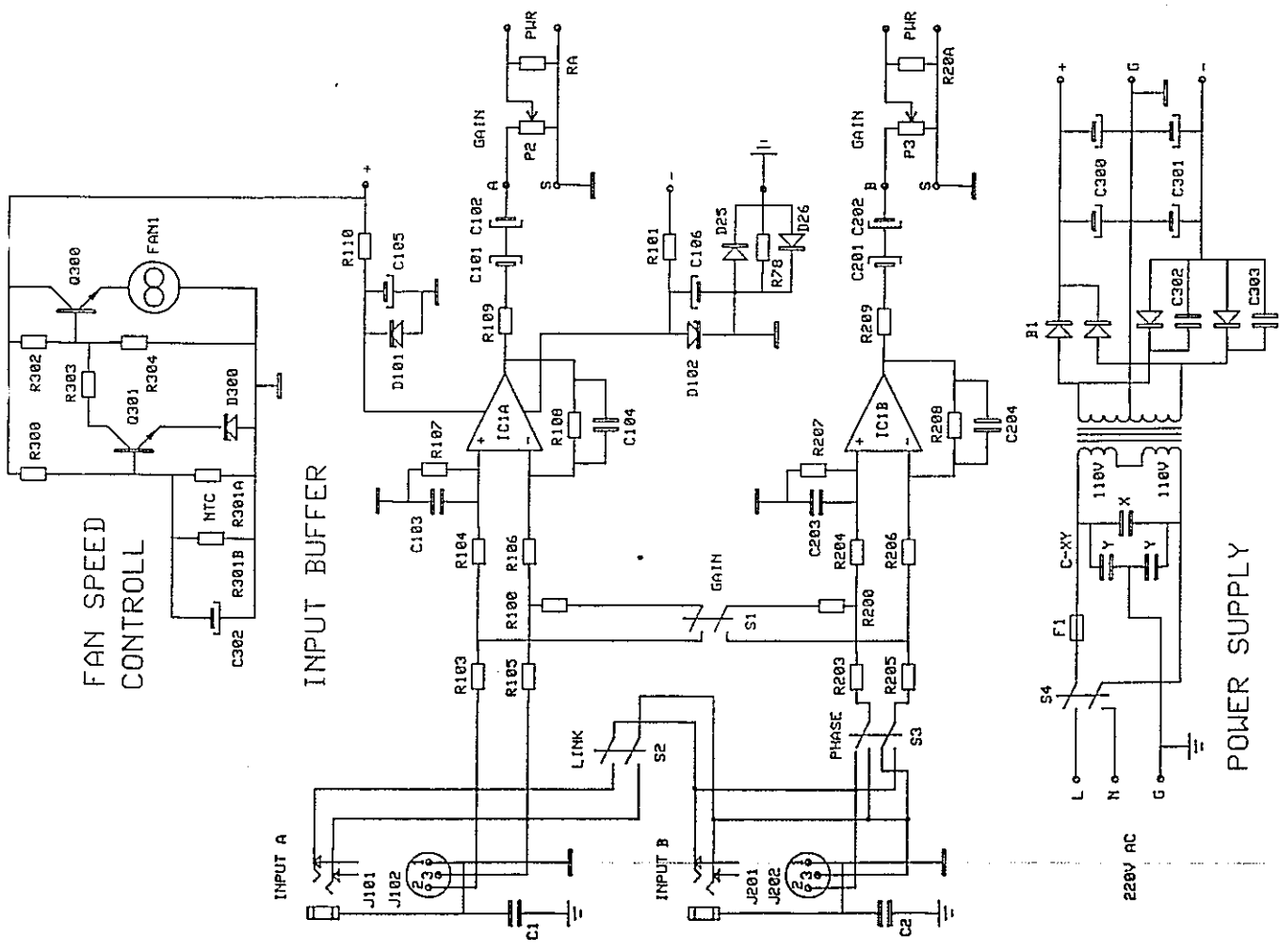


LAB 500

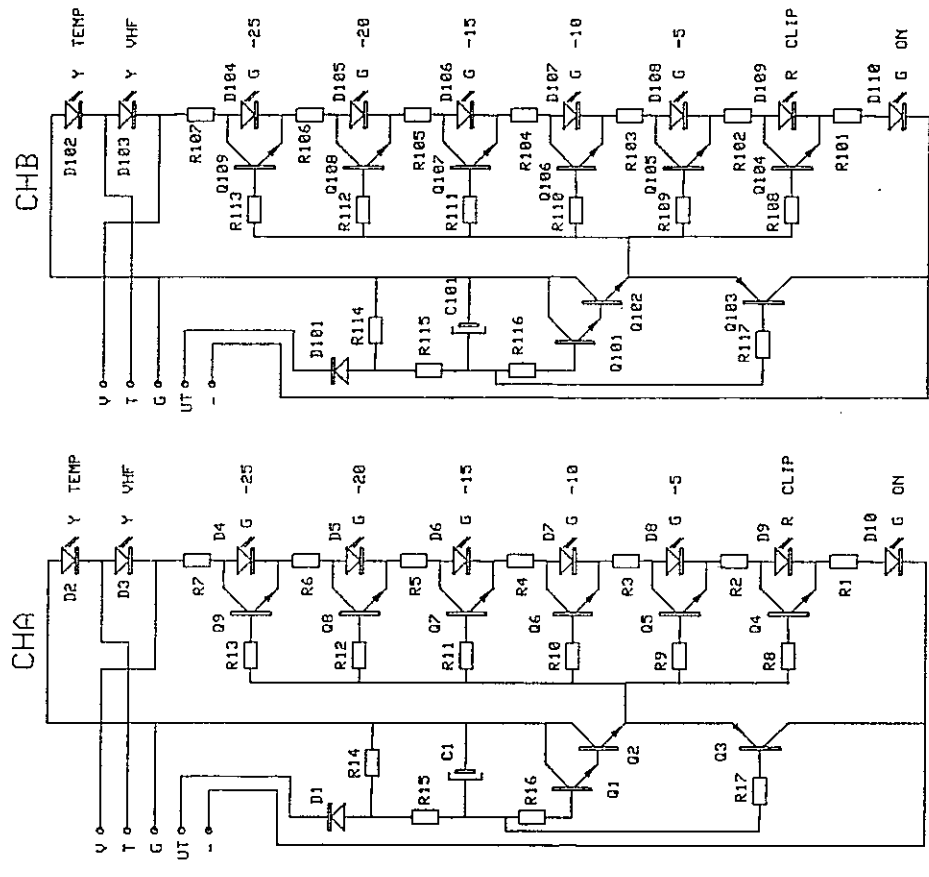
SERVICEMANUAL

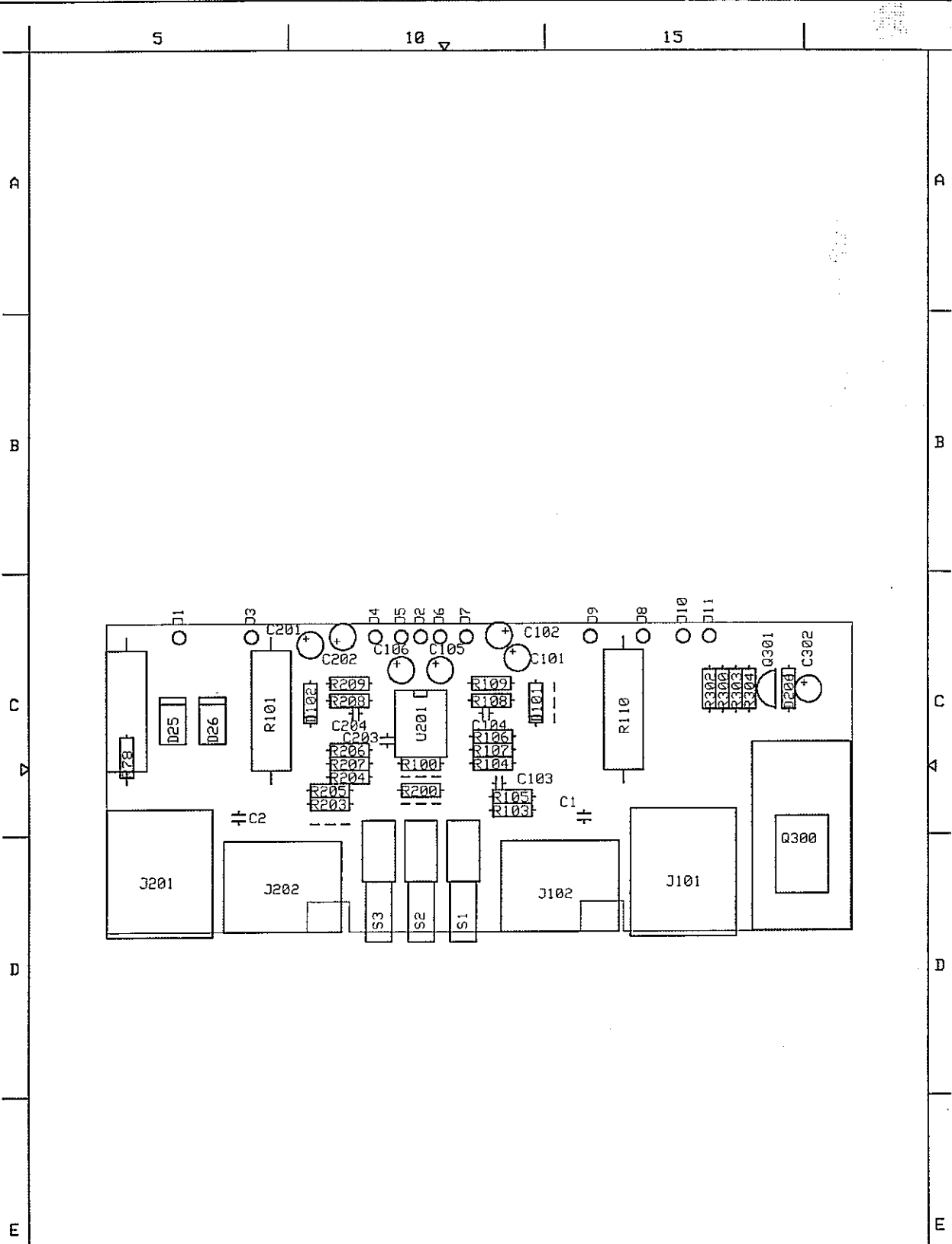
1996 EMC

<u>PAGE</u>	<u>CONTENTS</u>	<u>DRAWING SCHEMATIC</u>	<u>LAYOUT</u>
1-4.1	INPUT BUFFER & LED	L5INP	L05INP
5-7	LF-AMPLIFIER	L500	L500-P



LED





⚠	Design	Description	Included in	Machine
⚠		LAB 500 Input board	LAB 500	
⚠	Drawn		Release ECO	Release date
⚠	dB			
⚠	Checked		Replaces	Design rev.
⚠			Drawing no.	Page
⚠			L051NP	

5

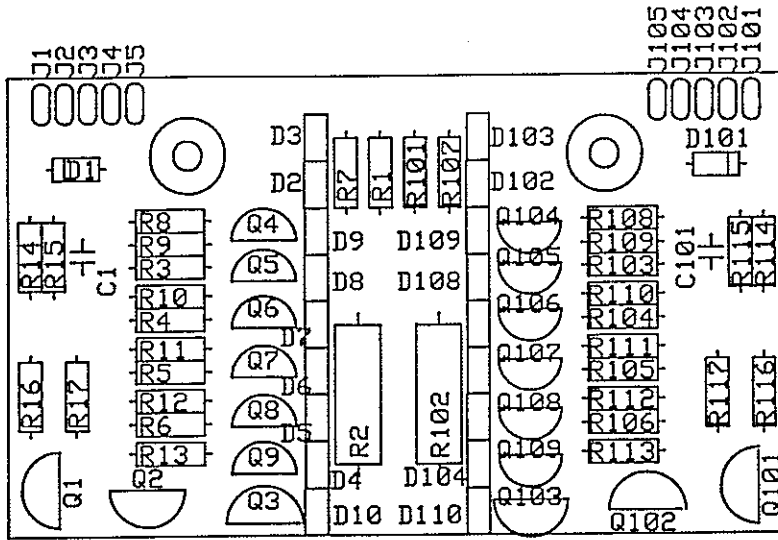
10

15

LAB.GRUPPEN

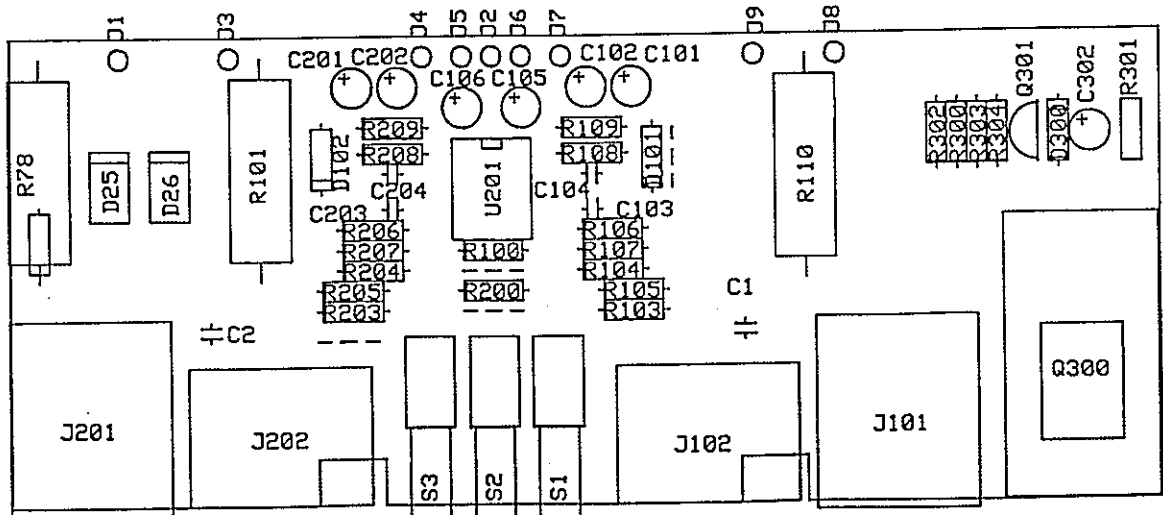
LAB 500, LAB 1000

LED DISPLAY



LAB 500, LAB 1000

INPUT BUFFER & FAN SPEED CONTROL



LAB 500

INPUT AMPLIFIER, FAN SPEED CONTROL, POWER SUPPLY

Component-list

Input amplifier

Channel A 100
Channel B 200

Resistors

R100,R200 22,3 k Ω 29 dB gain
5,5 k Ω 23dB gain
R103,R203 10 k Ω 1%
R104,R204 10 k Ω 1%
R105,R205 10 k Ω 1%
R106,R206 10 k Ω 1%
R107,R207 20 k Ω 1%
R108,R208 20 k Ω 1%
R109,R209 100 Ω
R101 4,7 K Ω 3W
R110 4,7 k Ω 3W
R78 10 Ω

Capacitors

C101,201 47 μ F 25 V
C102,202 47 μ F 25 V
C103,203 150 pF ker
C104,204 150 pF ker
C105 47 μ F 25 V
C106 47 μ F 25 V
C1 0,1 μ F 63V
C2 0,1 μ F 63V

Conectors

J102,202 3 pol XLR Neutrik
NC3 FDH BAG
J101,201 3 pol telejack Cliff
S2/BBB/PC

Diodes

D101 15V 0.4W Zener
D102 15V 0.4W Zener
D25 1N 5404
D26 1N 5404

Integrated Circuits

IC1 LF 353

Switches

S1 ALPS SPP J3
S2 ALPS SPP J3
S3 ALPS SPP J3

Potentiometers

P2 10 k Ω lin Tokos
P3 10 k Ω lin Tokos
RA 10 k Ω 1%
R20A 10 k Ω 1%

Fan speed control

Resistors

R300 330 k Ω
R301A 150 k Ω NTC
R301B 150 k Ω NTC
R302 10 k Ω 0,7W on legs
R303 1,8 k Ω
R304 10 k Ω 0,7W

Capacitors

C302 22 μ F 50V

Diodes

D300 5,6V 0,4W

Transistors

Q300 TIP 41
Q301 BC 546

Fans

Fan1

Power Supply

S4 Marquart 1832.3902
F1 T 6,3A
B1 Bridge 25A/400V
C300A 4700 μ F 100V
C300B 4700 μ F 100V
C301A 4700 μ F 100V
C301B 4700 μ F 100V
C302 0,22 μ F 250V
C303 0,22 μ F 250V
C-XY 2x2,7 μ F+0.1 μ F 250V
T1 TI-41001 2X45,5V

LAB 500 – 2000C

LED DISPLAY

Component-list

Channel A
(Ch. B add 100)

Resistors

R1 see below
 R2 2.7 k Ω 3W
 R3 1.2 k Ω 1W
 R4 680 Ω
 R5 330 Ω
 R6 120 Ω
 R7 220 Ω
 R8 33 k Ω
 R9 33 k Ω
 R10 33 k Ω
 R11 33 k Ω
 R12 33 k Ω
 R13 33 k Ω
 R14 33 k Ω
 R15 100 Ω 1%
 R16 2.7 k Ω
 R17 2.7 k Ω

Capacitors

C1 4.7 μ F 100V

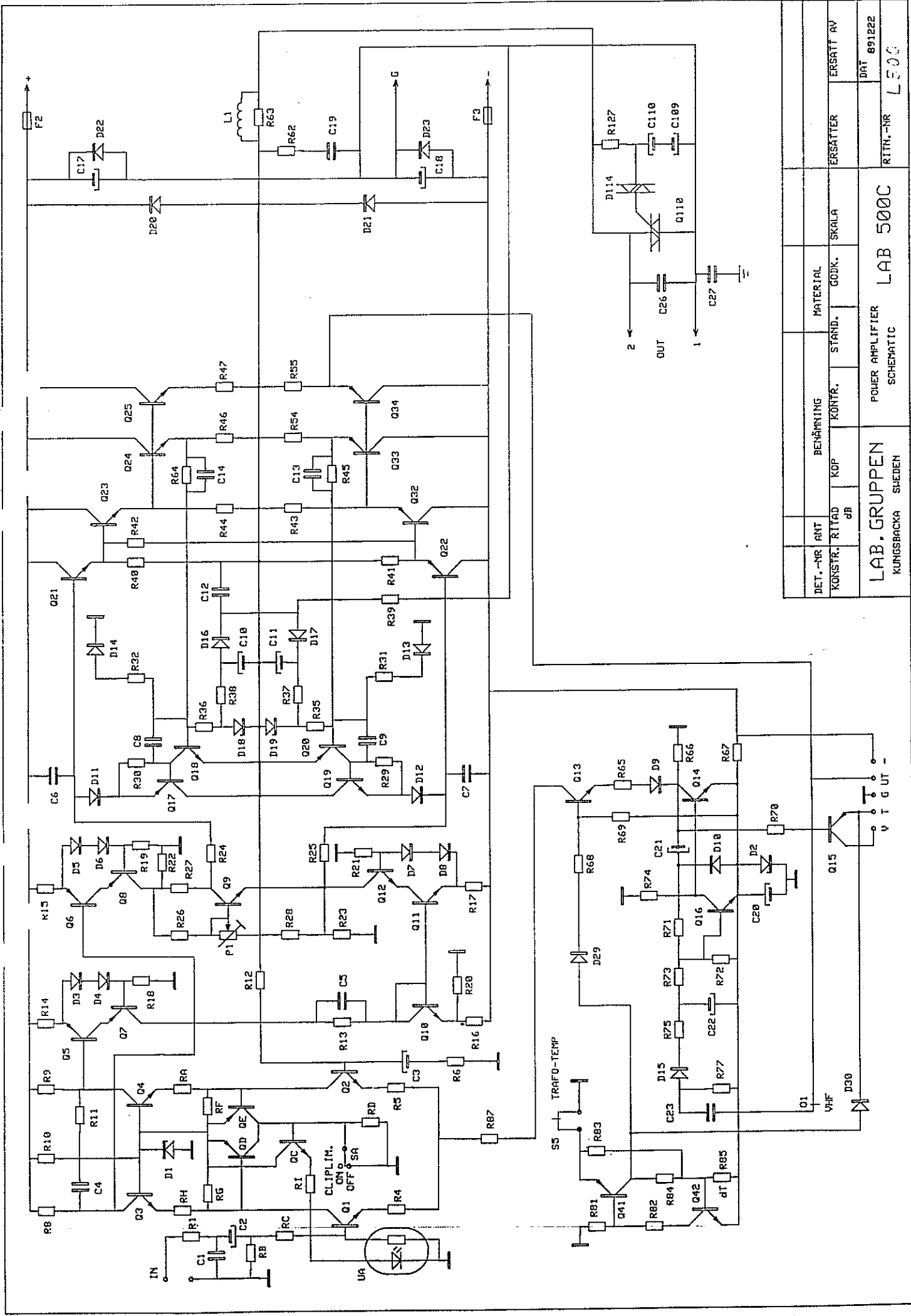
Diodes

D1 1N 4004
 D2 Led Y
 D3 Led Y
 D4 Led G
 D5 Led G
 D6 Led G
 D7 Led G
 D8 Led G
 D9 Led R
 D10 Led G

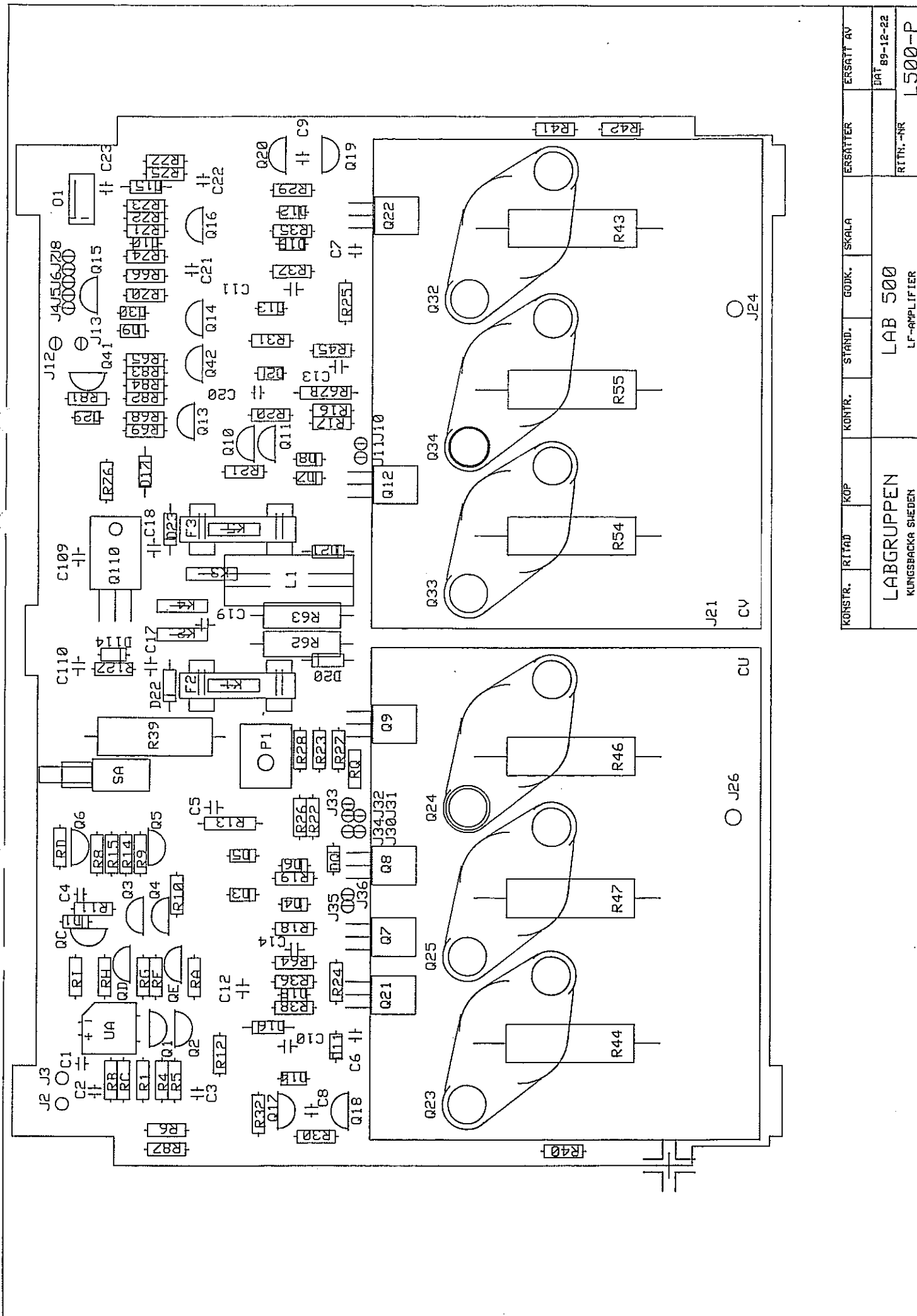
Transistors

Q1 MPSA 42
 Q2 MPSA 42
 Q3 MPSA 92
 Q4 BC 547
 Q5 BC 547
 Q6 BC 547
 Q7 BC 547
 Q8 BC 547
 Q9 BC 547

	500	1000	1300C	1600	2000
R1	1,5 k Ω	820 Ω	680 Ω	680 Ω	680 Ω 1% long legs



DET.-NR	ANT	BENÄMNING	MATERIAL	ERSÄTT AV
KONSTR.	RITAD	KÖP	STAND.	ERSÄTT
	GB	KÖP	GODK.	SKALA
LAB. GRUPPEN			LAB 500C	
KUNGSBACKA SVEDEN			POWER AMPLIFIER SCHEMATIC	
				RITN.-NR
				LAB 500C
				DAT 891222
				L500



KONSTR.	RITAD	KÖP	KONTR.	STAND.	GODK.	SKALA	ERSÄTTAR	ERSÄTT AV
LABGRUPPEN						LAB 500		
KUNGSBACKA SVEDEEN						LF-AMPLIFIER		
								DAT 89-12-22
								RITN.-NR L500-P

LAB 500

LF-AMPLIFIER

Component-list

Resistors

R1 2.2 k Ω
 R4 47 Ω
 R5 47 Ω
 R6 604 Ω 1%
 R8 1 k Ω 1%
 R9 1 k Ω 1%
 R10 10 k Ω 1%
 0.7W on legs
 R11 1.8 k Ω
 R12 33 k Ω 1%
 R13 8.2 k Ω 1W
 R14 100 Ω 1%
 R15 100 Ω 1%
 R16 100 Ω 1%
 R17 100 Ω 1%
 R18 68 k Ω
 R19 68 k Ω
 R20 68 k Ω
 R21 68 k Ω
 R22 27 k Ω 1%
 R23 27 k Ω 1%
 R24 120 Ω
 R25 220 Ω
 R26* 10 k Ω
 R27* 100 Ω 1%
 R28* 1.5 k Ω 1%
 R29 4.7 k Ω
 R30 4.7 k Ω
 R31 75 k Ω 1%
 R32 75 k Ω 1%
 R35 120 k Ω 1%
 R36 120 k Ω 1%
 R37 10 k Ω
 R38 10 k Ω
 R39 820 Ω 5W
 R40 150 Ω
 R41 150 Ω
 R42 100 Ω
 R43 4.7 Ω 5W
 R44 4.7 Ω 5W
 R45 3.9 k Ω 1%
 R46 0.33 Ω 5W
 R47 0.33 Ω 5W
 R54 0.33 Ω 5W
 R55 0.33 Ω 5W
 R62 10 Ω 3W
 R63 10 Ω 3W
 R64 3.9 k Ω 1%
 R65 1.5 k Ω 1%
 R66 56 k Ω
 R67 8.2 k Ω 1W
 R68 100 k Ω
 R69 56 k Ω

R70 33 k Ω 1%
 R71 220 k Ω
 R72 100 k Ω
 R73 220 k Ω
 R74 56 k Ω
 R75 10 k Ω
 R76 10 Ω
 R77 10 k Ω
 R81 3.3 k Ω
 R82 22 k Ω
 R83 150 k Ω
 R84 1 M Ω
 R87 1.5 k Ω 1%
 R127 75 k Ω 1%
 RA 1.5 k Ω 1%
 RB 15 k Ω
 RC 15k Ω
 RD 270 k Ω
 RF 27 k Ω 1%
 RG 27 k Ω 1%
 RH 1.5 k Ω 1%
 RI 1.5 k Ω 1%

Thermistors

R85 150 k Ω NTC

Potentiometers

P1 1 k Ω

Capacitors

C1 150 pF ker
 C2 4.7 μ F 35V
 C3 100 μ F 10V
 C4 680 pF ker
 C5 22 nF 250V
 C6 220 pF ker
 C7 150 pF ker
 C8 470 pF ker
 C9 470 pF ker
 C10 1 μ F 100V
 C11 1 μ F 100V
 C12 22 nF 250V
 C13 1 nF 400V
 C14 1 nF 400V
 C17 4.7 μ F 100V
 C18 4.7 μ F 100V
 C19 0.1 μ F 400V
 C20 220 μ F 16V
 C21 10 μ F 50V
 C22 4.7 μ F 50V

C23 39 pF ker
 C26 10 nF 400V
 C27 100 nF 100V
 C109 4.7 μ F 100V
 C110 4.7 μ F 100V

Diodes

D1 15 V Zener 0.4W
 D2 15 V Zener 0.4W
 D3 1N 4148
 D4 1N 4148
 D5 1N 4148
 D6 1N 4148
 D7 1N 4148
 D8 1N 4148
 D9 1N 4148
 D10 1N 4148
 D11 1N 4148
 D12 1N 4148
 D13 BAV 21
 D14 BAV 21
 D15 1N 4004
 D16 1N 4004
 D17 1N 4004
 D18 27 V Zener 0.4W
 D19 27 V Zener 0.4W
 D20 1N 4004
 D21 1N 4004
 D22 1N 4004
 D23 1N 4004
 D29 1N 4148
 D30 1N 4148
 D114 HS 10, diac 10V

Transistors

Q1 BC 547B selected
 Q2 BC 547B selected
 Q3 MPSA 42
 Q4 MPSA 42
 Q5 BC 557B
 Q6 BC 557B
 Q7 MJE 350
 Q8 MJE 350
 Q9* BD329
 Q10 BC 547B
 Q11 BC 547B
 Q12 MJE 340
 Q13 BC 547B
 Q14 BC 547B
 Q15 BC 557B
 Q16 BC 547B

Q17 BC 557B
 Q18 BC 547B
 Q19 BC 547B
 Q20 BC 557B
 Q21 MJE 340
 Q22 MJE 350
 Q23 MJ 15003
 Q24 MJ 15003
 Q25 MJ 15003
 Q32 MJ 15004
 Q33 MJ 15004
 Q34 MJ 15004
 Q41 BC 557B
 Q42 BC 547B
 QC BC 547
 QD BC 557
 QE BC 557

Tyristors

Q110 Q4015L5

Optoresistors

UA VTL5C4

Inductors

L1 -

Fuses

F1 T6.3A
 F2 T6.3A

Switches

SA -
 O1 A1347 Siemens

* Until 9801

R26 8.2 k Ω
 R27 10 Ω
 R28 1.8 k Ω
 Q9 MJE 340