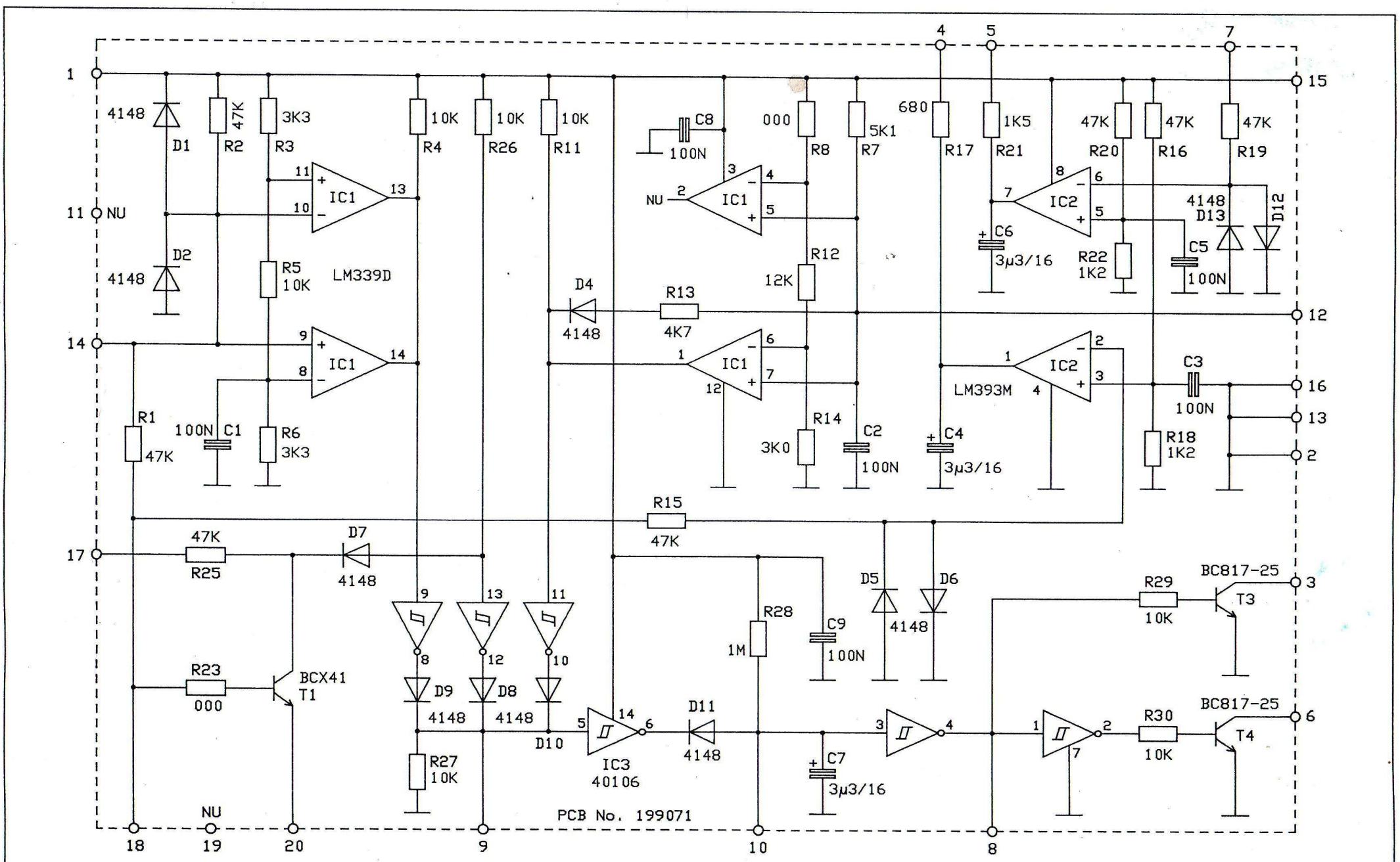
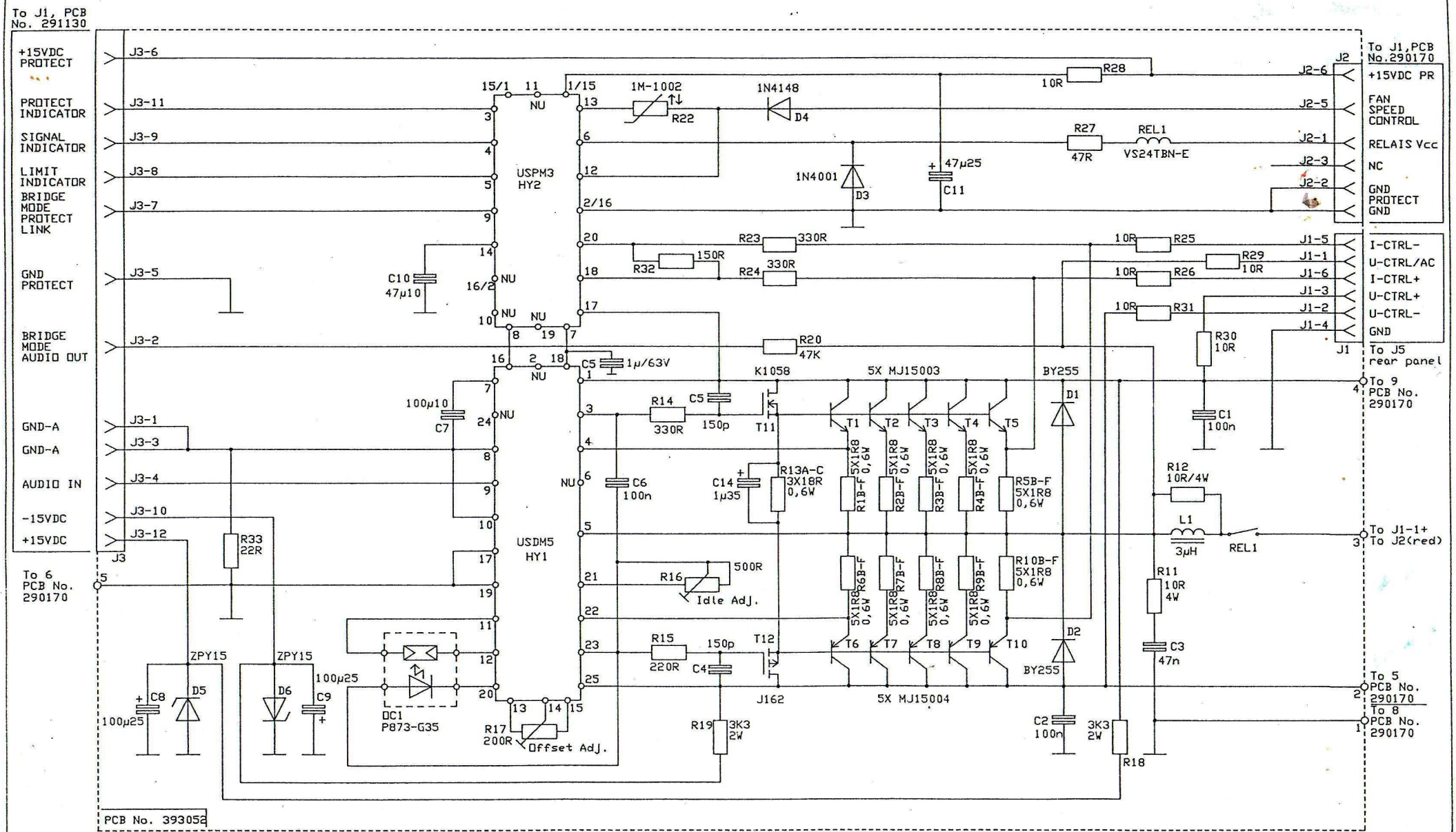


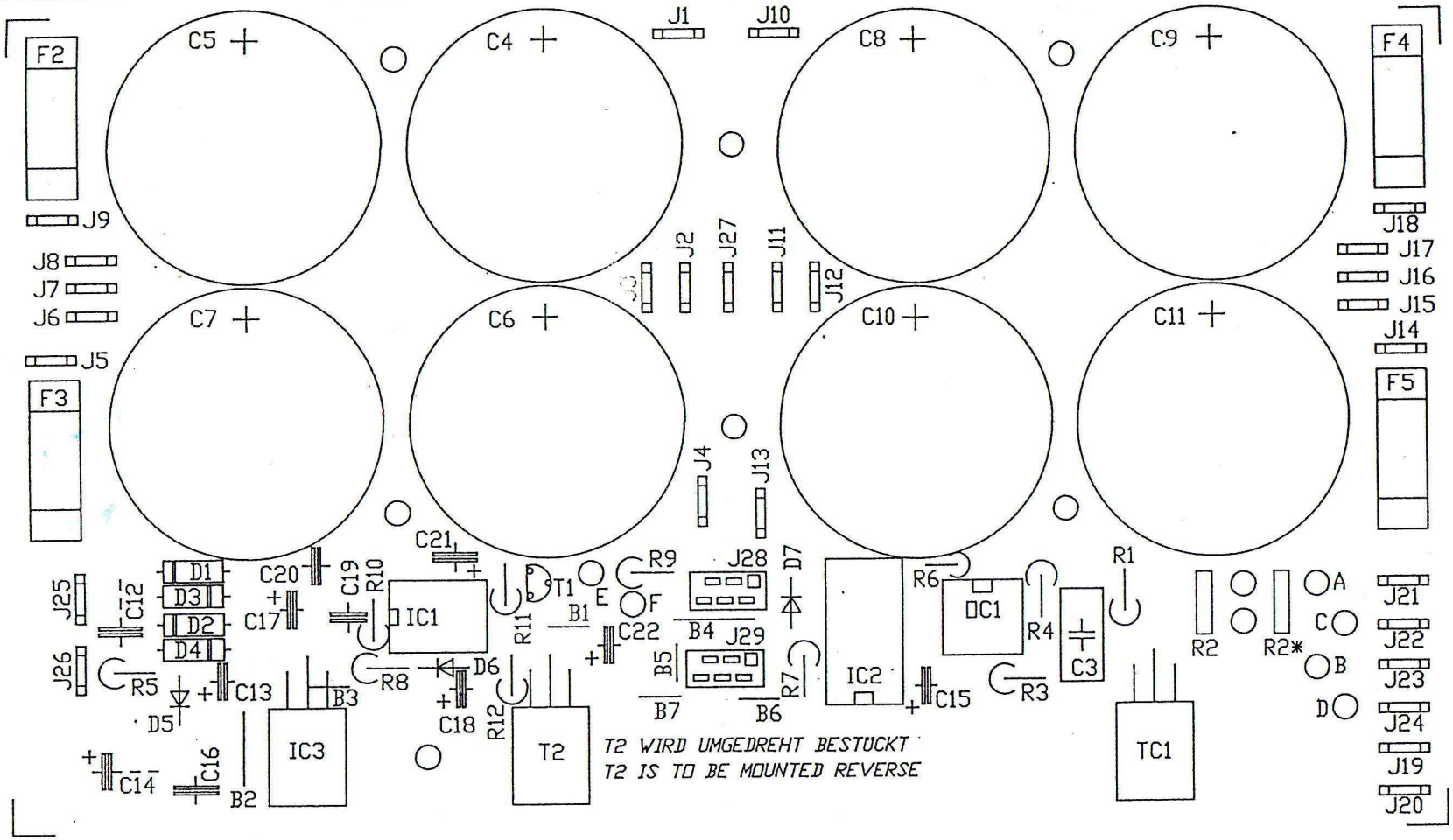
SOLTON MUSIC GmbH	USPM 3		PAGE: 03of04
8398 POCKING, GERMANY	CPA 800 / CPA 1200	PROTECT MODULE	DATE: 100593
SIGNATURE: Mueller K. / CHECK: Mueller K.	DRAW.NO.: A 03	SUBJECT TO CHANGE WITHOUT NOTICE !	



Unused parts:

R21	220R	R1A/G	2X1R8	R7A/G	2X1R8
R22*	1M1002	R2A/G	2X1R8	R8A/G	2X1R8
C15	220p	R3A/G	2X1R8	R9A/G	2X1R8
REL2	RY12W	R4A/G	2X1R8	R10A/G	2X1R8
D7	ZTE2	R5A/G	2X1R8	C12/13	100nF
D8	ZTE2	R6A/G	2X1R8		

SOLTON MUSIC GmbH		AMPLIFIER LEFT CHANNEL	PAGE: 01of05
8398 POCKING, GERMANY		SPA 1200	FILE: CPA12ALC
SIGNATURE: Mueller K.	DRAW.NO: -A1-		DATE: 220493
CHECK: Mueller K.		SUBJECT TO CHANGE WITHOUT NOTICE !	



PCB No. 290170

R1 = 1K
R2 = C840
R2*= C840
R3 = 1K
R4 = 180R
R5 = 0.22R
R6 = 1K
R7 = 100K
R8 = 47K
R9 = 75K
R10 = 240K
R11 = 10K
R12 = 2.2K

R1,R5 = Noble, RNM1/2FB, 0.5W
R2,R2* = PTC, Siemens,
Nr. B59840-C80-A70
Rest = Metallf., 1%, 0.6W

D1 = 1N4001
D2 = 1N4001
D3 = 1N4001
D4 = 1N4001
D5 = 1N4001
D6 = ZPD11
D7 = 1N4148

IC1 = TL081, DIP8, incl. Fassung, 8-polig
IC2 = 40106, DIL 14, incl. Fassung, 14-polig
IC3 = L7815CV
DC1 = MOC3041 bzw. TLP561, incl. Fassung, 6-polig
TC1 = Q4015 L5, Teccor
T1 = BC 337-25
T2 = BD 442

J1-J26 = Flachsteckkontakt RM 5.2, Osterr.
F1-F4 = Feinsicherung, 5x20, T8A incl. Sicherungsh.
J28,J29 = AMP, Micro Match, Federleiste, 6-polig, 7-215079-6
E,F = Lötnagel

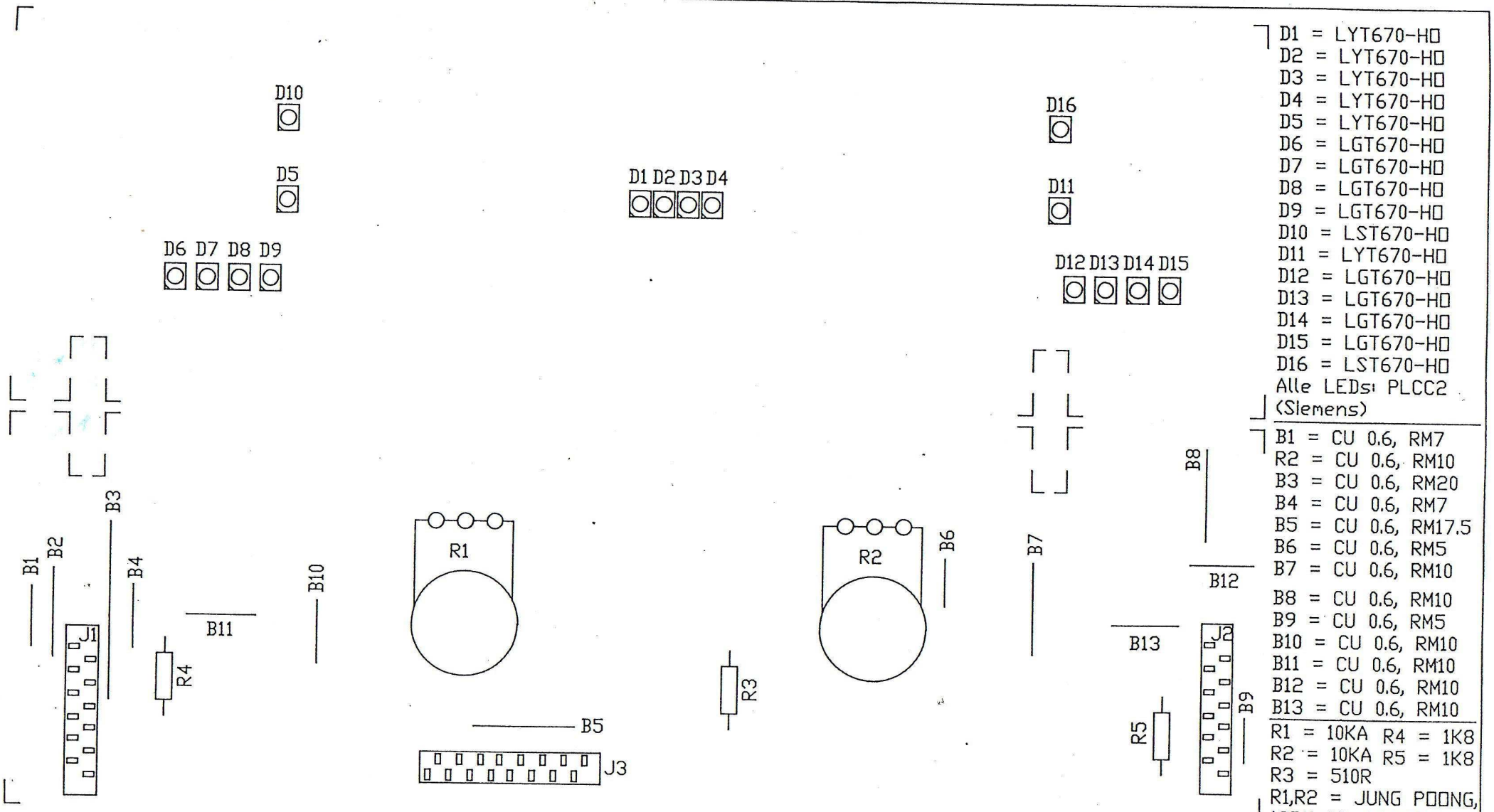
B1 = CU 0.6, RM5
B2 = CU 0.6, RM10
B3 = CU 0.6, RM5
B4 = CU 0.6, RM10
B5 = CU 0.6, RM5
B6 = CU 0.6, RM5
B7 = CU 0.5, RM5

C3 = 100NF
C4 = 6800µF/100V
C5 = 6800µF/100V
C6 = 6800µF/100V
C7 = 6800µF/100V
C8 = 6800µF/100V
C9 = 6800µF/100V
C10 = 6800µF/100V
C11 = 6800µF/100V
C12 = 100NF
C13 = 22µF/50V
C14 = 2200µF/40V
C15 = 4.7µF/63V
C16 = N.P.
C17 = 1µF/35V
C18 = 1µF/63V
C19 = 100NF
C20 = 100NF
C21 = 22µF/50V
C22 = 47µF/50V

Vermerk:
1) *PTC-Montage siehe Zeichnung Nr. (Draw. No.) G01*
2) *Kabeldefinitionen für J1-J29 siehe Zeichnung Nr. (Draw. No.) G02*
3) *Verdrahtung der Lötaugen A-D siehe Zeichnung Nr. (Draw. No.) G03*

C4,C5,C6,C7,C8,C9,C10,C11 = SMH, 30x35, Nipp.Che.
C3 = 250V AC, RM15, Siemens, Nr. B81121-C-B125
C12 = 100V, RM7.5, Siemens, Nr. B32560-D1104-J
C13,C21 = 5x11, SME, Nipp.Che.
C14 = 16x31.5, SME, Nipp.Che.
C15 = 5x11, SME, Nipp.Che.
C19,C20 = Kerko, Siemens
C17 = Tantal
C18 = 4x7, SRA, Nipp.Che.
C22 = 6.3x11, SME, Nipp.Che.

SOLTON MUSIC GmbH
94060 POCKING, GERMANY
SIGNATURE: MUSCHAWECK H.
CHECK: MUELLER K.
DRAW.NO.: B3
SPA 1200
POWER SUPPLY
PAGE: 03of05
DATE: 27.07.199
SUBJECT TO CHANGE WITHOUT NOTICE !



D1 = LYT670-HO
D2 = LYT670-HO
D3 = LYT670-HO
D4 = LYT670-HO
D5 = LYT670-HO
D6 = LGT670-HO
D7 = LGT670-HO
D8 = LGT670-HO
D9 = LGT670-HO
D10 = LST670-HO
D11 = LYT670-HO
D12 = LGT670-HO
D13 = LGT670-HO
D14 = LGT670-HO
D15 = LGT670-HO
D16 = LST670-HO
Alle LEDs: PLCC2 (Siemens)

B1 = CU 0.6, RM7
R2 = CU 0.6, RM10
B3 = CU 0.6, RM20
B4 = CU 0.6, RM7
B5 = CU 0.6, RM17.5
B6 = CU 0.6, RM5
B7 = CU 0.6, RM10
B8 = CU 0.6, RM10
B9 = CU 0.6, RM5
B10 = CU 0.6, RM10
B11 = CU 0.6, RM10
B12 = CU 0.6, RM10
B13 = CU 0.6, RM10

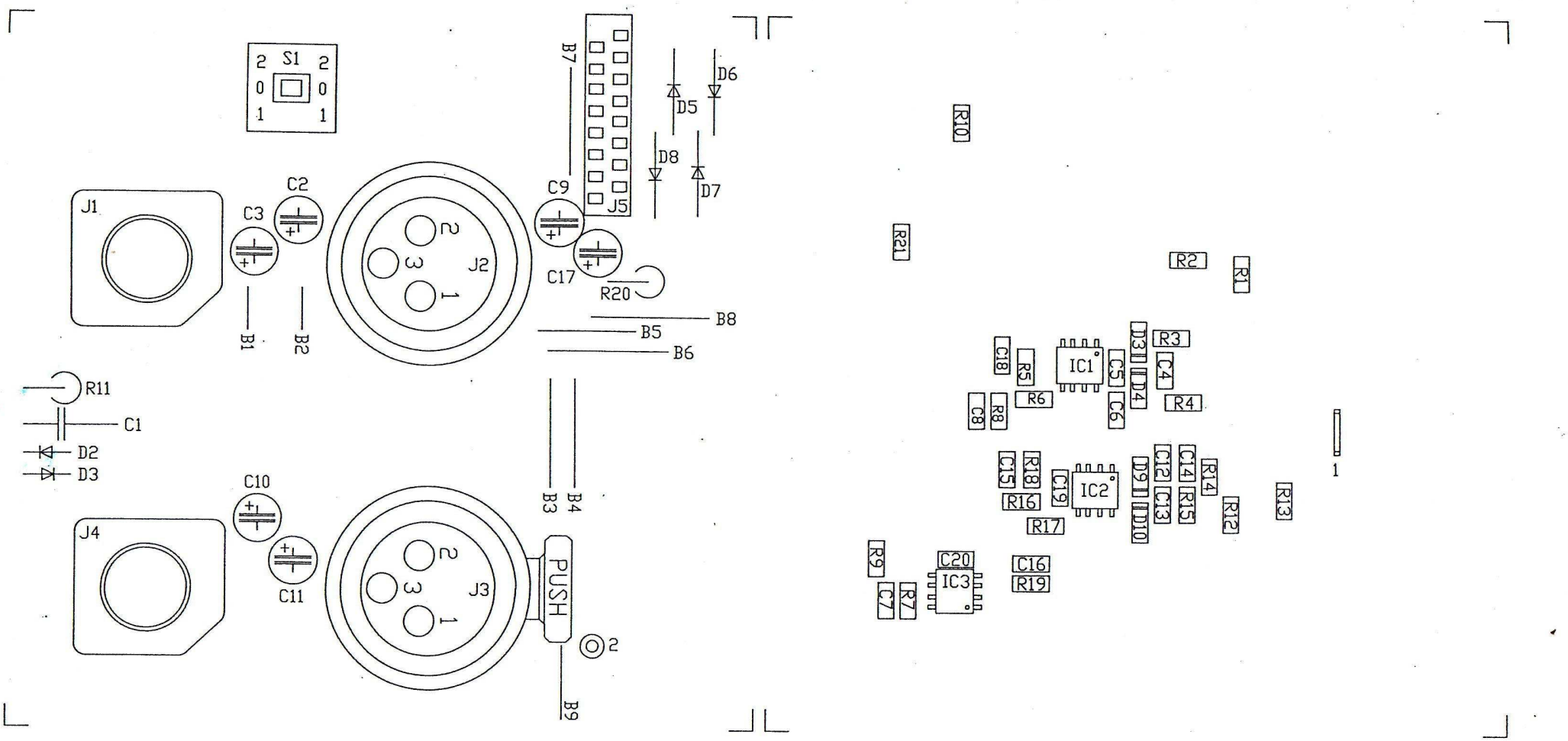
R1 = 10KA R4 = 1K8
R2 = 10KA R5 = 1K8
R3 = 510R
R1,R2 = JUNG POONG, 18PN-09, 20SK/10
REST: 0.6W, 1%, MET.

PCB No. 291130

Vermerk:
1.) Kabeldefinitionen für J1-J3 siehe Zeichnung (Draw. No.) C01

J1 = AMP, Micro Match, Einlötverbinder 12-polig, Nr. 1-215570-2
J2 = AMP, Micro Match, Einlötverbinder 12-polig, Nr. 1-215570-2
J3 = AMP, Micro Match, Einlötverbinder 16-polig, Nr. 1-215570-6

SOLTON MUSIC GmbH
94060 POCKING, GERMANY
SIGNATURE: MUSCHAWECK H.
CHECK: MUELLER K.
DRAW.NO.: B4
SPA 1200
POTI/LED-PRINT
PAGE: 04of05
DATE: 15.07.1993
SUBJECT TO CHANGE WITHOUT NOTICE !



C1 = 470NF
C2 = 10µF/40V
C3 = 10µF/40V
C4 = 100PF
C5 = 47PF
C6 = 100PF
C7 = 22PF
C8 = 22PF
C9 = 47µF/25V
C10 = 10µF/40V
C11 = 10µF/40V
C12 = 100PF
C13 = 47PF
C14 = 100PF
C15 = 22PF
C16 = 22PF
C17 = 47µF/25V
C18 = 100NF
C19 = 100NF
C20 = 100NF

C2,C3,C9,C10,C11,C17 = 5x11, SME, Nipp.Che.
C1 = Siemens, MKT, RM7.5, 100V, B32560-D1474-J
C4,C5,C6,C7,C8,C12,C13,C14,C15,C16 = SMD, C0G, 5%, 1206
C18,C19,C20 = SMD, X7R, 1206, 10%

B1 = CU,0.6, RM5
B2 = CU,0.6, RM5
B3 = CU,0.6, RM12.5
B4 = CU,0.6, RM12.5
B5 = CU,0.6, RM10
B6 = CU,0.6, RM12.5
B7 = CU,0.6, RM12.5
B8 = CU,0.6, RM12.5
B9 = CU,0.6, RM10

R1 = 22K
R2 = 22K
R3 = 2.2K
R4 = 2.2K
R5 = 4.7K
R6 = 4.7K
R7 = 4.7K
R8 = 4.7K
R9 = 220R
R10 = 47K
R11 = 10R
R12 = 22K
R13 = 22K
R14 = 2.2K
R15 = 2.2K
R16 = 4.7K
R17 = 4.7K
R18 = 4.7K
R19 = 4.7K
R20 = 220R
R21 = 47K

R11,R20 = Metallfilm, bedrahtet, 1%, 0.6 Watt
Rest = SMD, 1206, 1%, 0.25W

D1 = 1N4001
D2 = 1N4001
D3 = ZPD4.7V
D4 = ZPD4.7V
D5 = 1N4001
D6 = 1N4001
D7 = 1N4001
D8 = 1N4401
D9 = ZPD4.7V
D10 = ZPD4.7V

D3,D4,D9,D10 = SOD 80 (Minimelf)
Rest = bedrahtet

IC1 = µPC4560, SO08
IC2 = µPC4560, SO08
IC3 = M5220, SO08

J1 = Klinkenbuchse, LJ-0697A-4R
J2 = XLR-Buchse, XLR-NC3-FG-P, Sonderv.
J3 = XLR-Buchse, XLR-NC3-FG-P, Sonderv.
J4 = Klinkenbuchse, LJ-0697A-4R
J5 = AMP, Micro Match, Federleiste 12-polig, Nr. 8-215079-2
1 = Flachsteckkontakt RM5.2
2 = Lötnagel
S1 = PVA2 EE F-Stössel (L=9.5mm)

PCB No. 292130

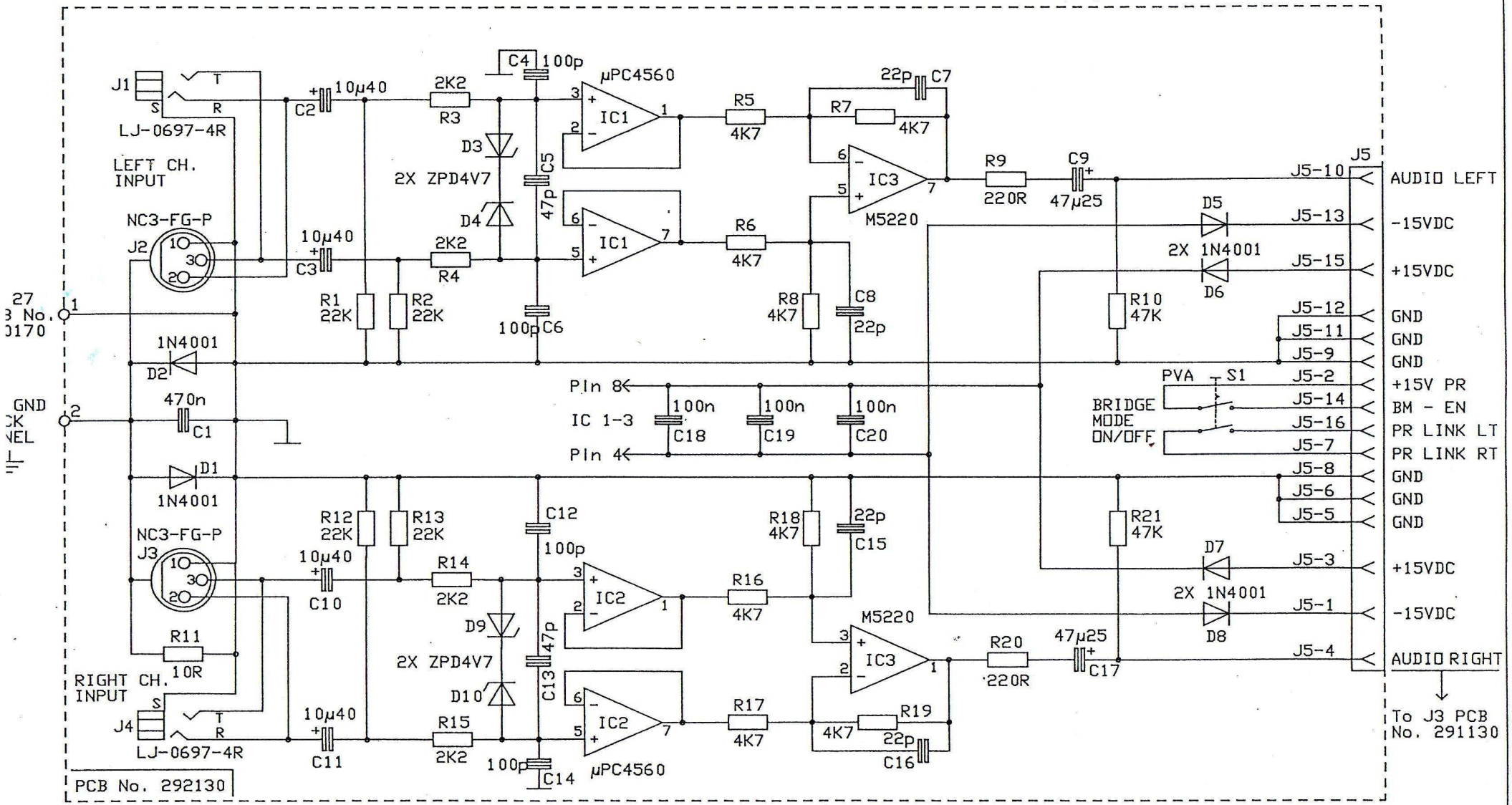
Vermerk:

1) *Die Platine wird außer den XLR-Buchsen (J2,J3) komplett bestückt und verlötet. Anschließend werden die XLR-Buchsen bestückt, aber erst verlötet, nachdem die Platine in die Mechanik integriert wurde.*
2) *Der Lötnagel (2) wird über isolierte Schaltlitze, 0.5qmm, 100mm lang, schwarz mit der XLR-Montageplatte (Part No. BP/19) verlötet.*
3) *Auf den korrekten Einbau des Schalters (S1) ist zu achten.*

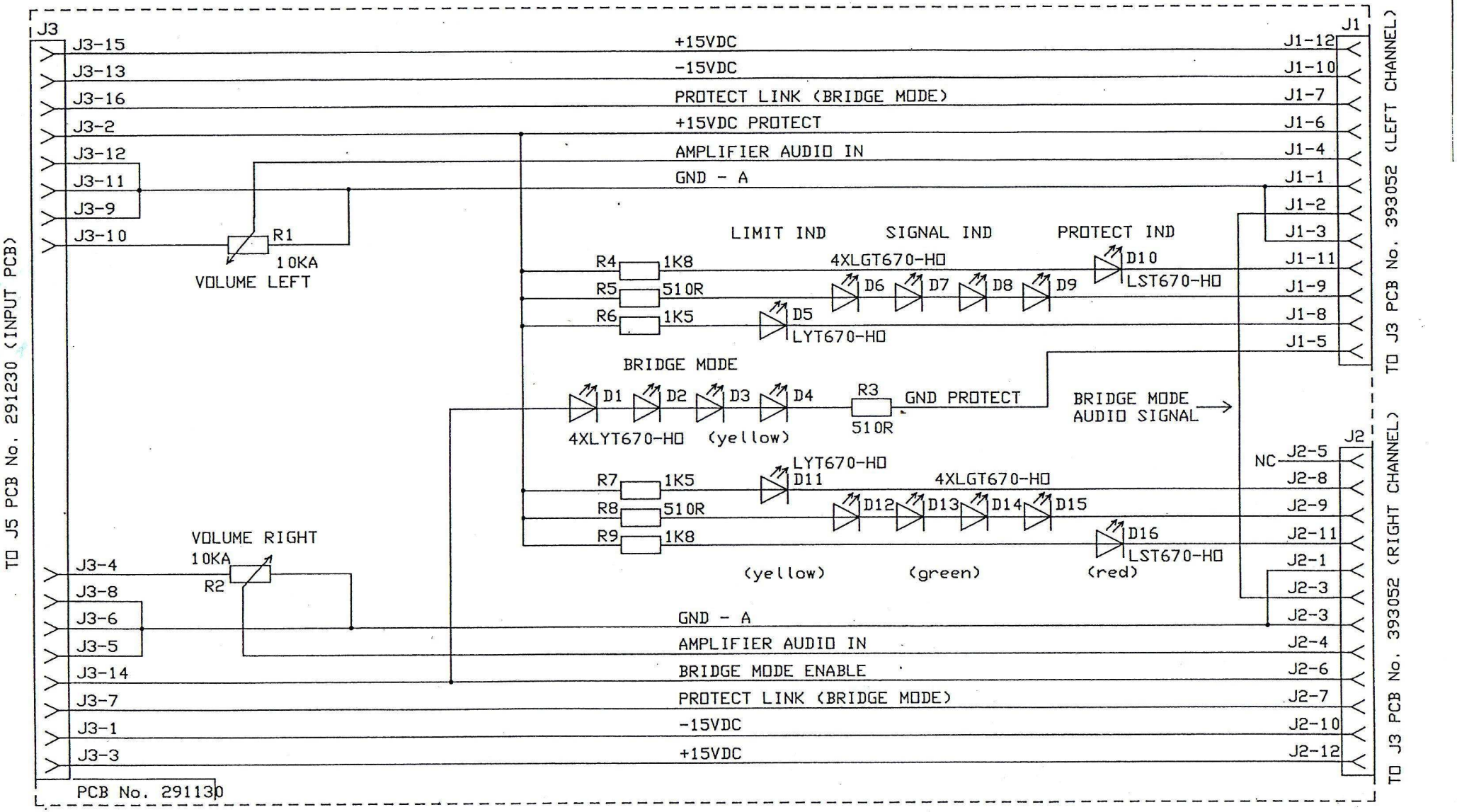
SOLTON MUSIC GmbH
94060 POCKING, GERMANY

SIGNATURE: MUSCHAVECK H.	DRAW.NO.: B5
CHECK: MUELLER K.	PAGE: 05of05
SPA 1200 INPUT PCB	DATE: 23.06.1993

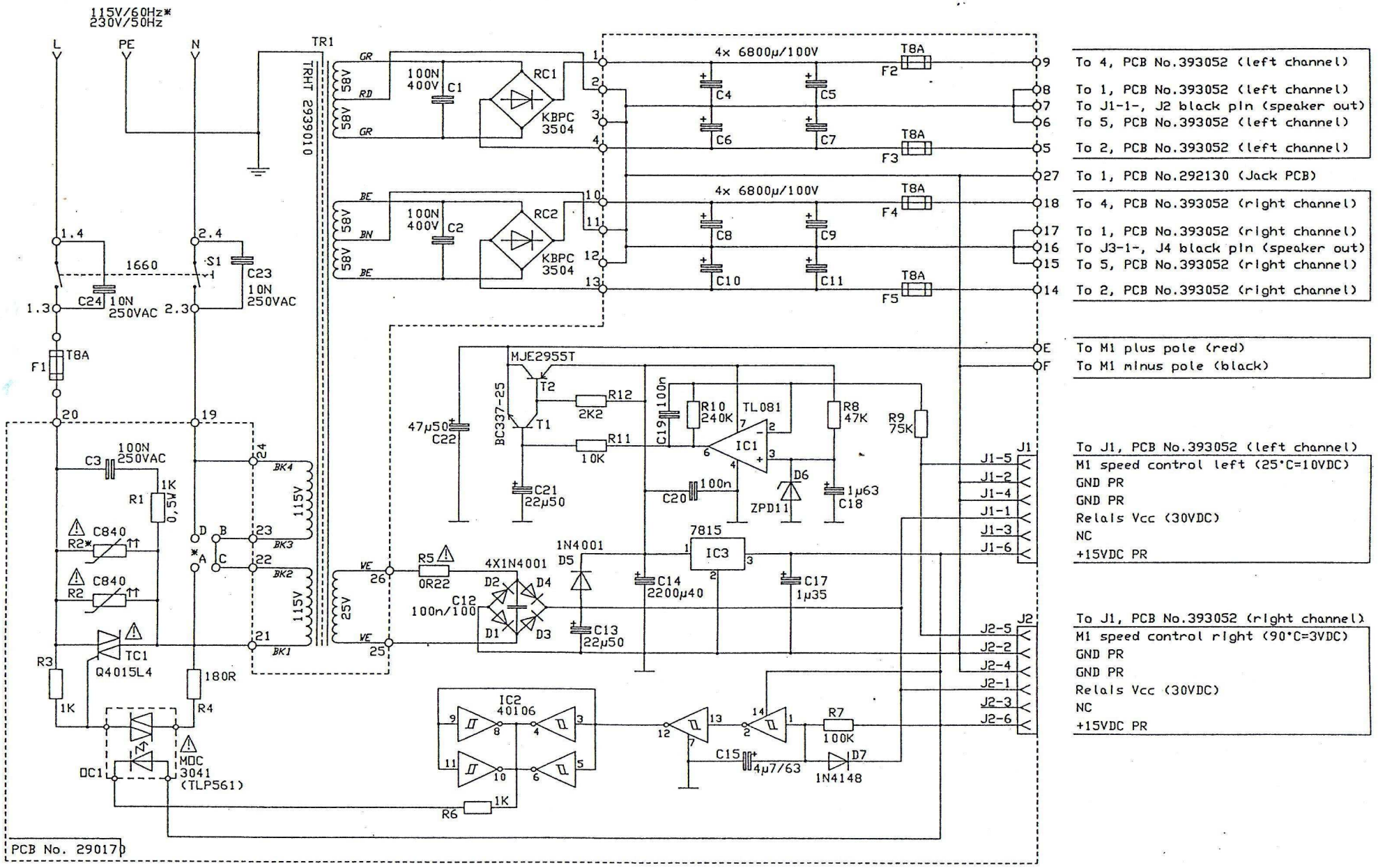
SUBJECT TO CHANGE WITHOUT NOTICE !



SOLTON MUSIC GmbH		INPUT PCB		PAGE: 05of 05
8398 POCKING, GERMANY		SPA 800 SPA 1200	FILE: CPAINPC	DATE: 140993
SIGNATURE: Mueller K.	DRAW.NO.: -A5-	SUBJECT TO CHANGE WITHOUT NOTICE !		
CHECK: Mueller K.				



SOLTON MUSIC GmbH		VOLUME/INDICATOR PCB	PAGE: 04of05
8398 POCKING, GERMANY		SPA 800 CPA 1200	FILE: CPAVLC
SIGNATURE: Mueller K.	DRAW.NO.: -A4-		DATE: 230493
CHECK: Mueller K.		SUBJECT TO CHANGE WITHOUT NOTICE !	



To 4, PCB No.393052 (left channel)
To 1, PCB No.393052 (left channel)
To J1-1-, J2 black pin (speaker out)
To 5, PCB No.393052 (left channel)
To 2, PCB No.393052 (left channel)
To 1, PCB No.292130 (Jack PCB)
To 4, PCB No.393052 (right channel)
To 1, PCB No.393052 (right channel)
To J3-1-, J4 black pin (speaker out)
To 5, PCB No.393052 (right channel)
To 2, PCB No.393052 (right channel)

To M1 plus pole (red)
To M1 minus pole (black)

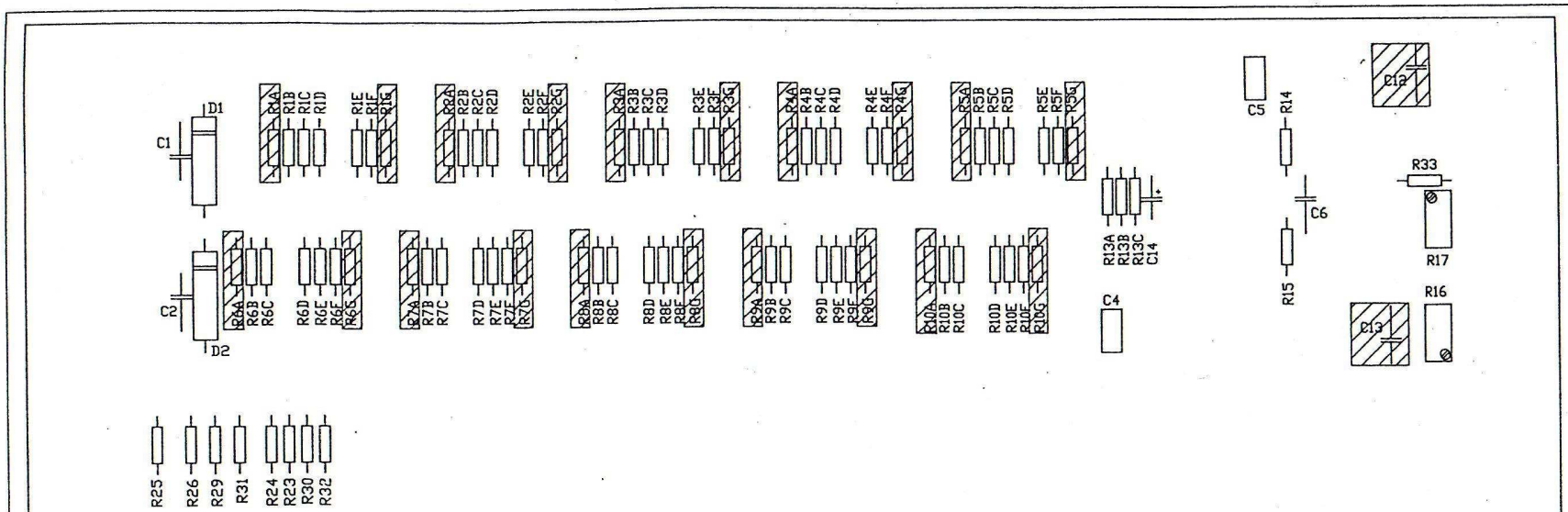
To J1, PCB No.393052 (left channel)
M1 speed control left (25°C=10VDC)
GND PR
GND PR
Relais Vcc (30VDC)
NC
+15VDC PR

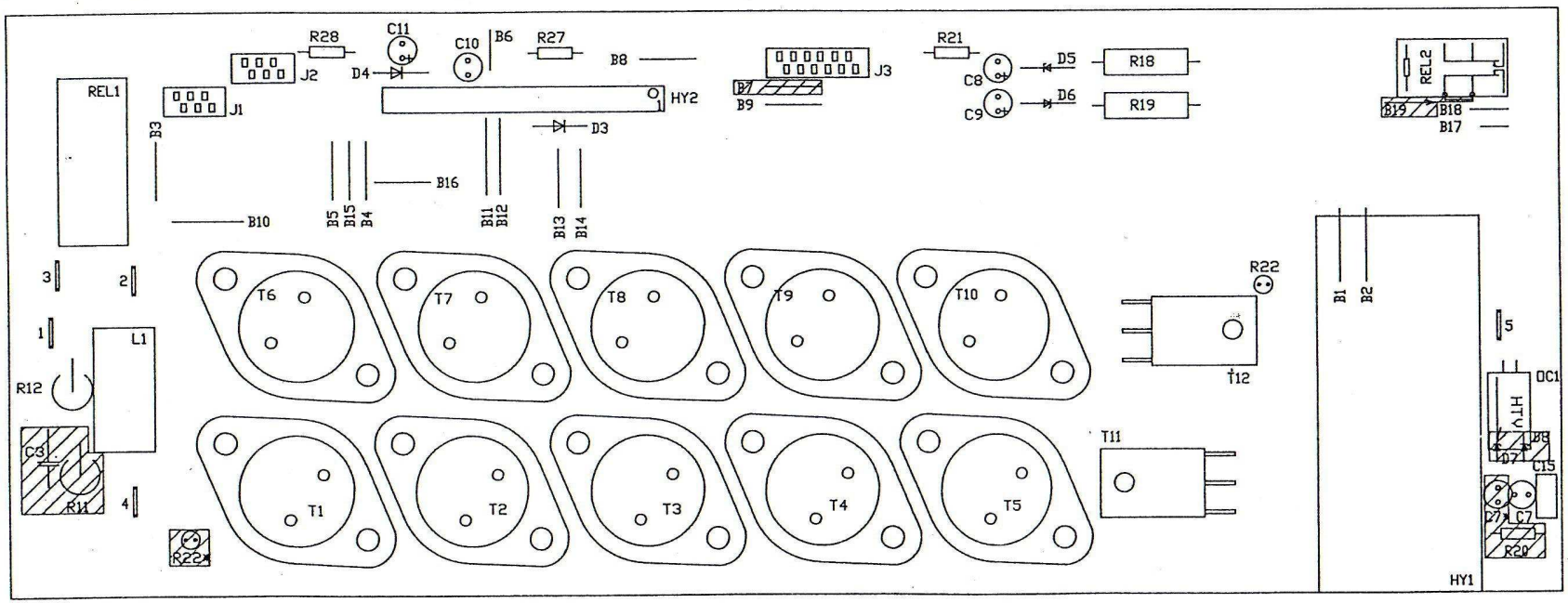
To J1, PCB No.393052 (right channel)
M1 speed control right (90°C=3VDC)
GND PR
GND PR
Relais Vcc (30VDC)
NC
+15VDC PR

* 115/220VAC setup:

For 115VAC set A-B and C-D;
For 230VAC set B-C, A/D open;

SOLTON MUSIC GmbH		Power supply	PAGE: 03of05
8398 POCKING, GERMANY		SPA 1200	FILE: CPA12PC
SIGNATURE: Mueller K.	DRAW.NO: -A3-		DATE: 200493
CHECK: Mueller K.		SUBJECT TO CHANGE WITHOUT NOTICE !	





R1B-F = 1.8R
R2B-F = 1.8R
R3B-F = 1.8R
R4B-F = 1.8R
R5P-F = 1.8R
R6B-F = 1.8R
R7B-F = 1.8R
R8B-F = 1.8R
R9B-F = 1.8R
R10B-F = 1.8R

R11 = N.P.	R18 = 3.3K	R26 = 10R
R12 = 10R	R19 = 3.3K	R27 = 47R
R13A = 18R	R20 = N.P.	R28 = 10R
R13B = 18R	R21 = 220R	R29 = 10R
R13C = 18R	R22 = NTC	R30 = 10R
R14 = 330R	R22* = N.P.	R31 = 10R
R15 = 220R	R23 = 330R	R32 = 150R
R16 = 500R	R24 = 330R	R33 = 22R
R17 = 200R	R25 = 10R	

R12 = Metalloxid-Schichtwider-
stand, 4 Watt, 5%,
Vitrohm Typ PD, 591-0
R18,R19 = Metalloxid-Schichtwider-
stand, 2 Watt, 5%,
Vitrohm Typ PD, 590-0
R22 = NTC, Dale 1M-1002
restliche R's: Metall, 0.6 Watt, 1%

C1 = 100nF	C6 = 100NF	C11 = 47µ/25
C2 = 100nF	C7 = 100µ/10	C12 = NP
C3 = NP	C7 = 100µ/10	C13 = NP
C4 = 150pF	C8 = 100µ/25	C14 = 1µ/35
C5 = 150pF	C9 = 100µ/25	C15 = 220pF
	C10 = 47µ/10	

C1,C2,C6 = Siemens, MKT, B32561-D3104-J
C8,C9 = Nipp.Che., SME, 6.3x11
C11 = Nipp.Che., SME, 5x11
C10 = Nipp.Che., SME-BP, 5x11
C7 = Nipp.Che., SME-BP, 6.3x11
C14 = Tantalperle bzw. Nipp.Che. SRA
C4,C5,C15 = WIMA FKC 3, 10%, 160V, RM7.5

T1 = MJ15003	T6 = MJ15004
T2 = MJ15003	T7 = MJ15004
T3 = MJ15003	T8 = MJ15004
T4 = MJ15003	T9 = MJ15004
T5 = MJ15003	T10 = MJ15004
T11 = 2 SK 1058	T12 = 2 SJ 162

D1 = BY 255	D4 = 1N4148	D7 = N.P.
D2 = BY 255	D5 = ZPY 15	D8 = N.P.
D3 = 1N4001	D6 = ZPY 15	

DC1 = HAMAMATSU, P873-G35

REL1 = Relais, 24V DC, 24TBN-E
REL2 = Relais, Takamisawa, 12V, RY12W

HY1 = USDM6 HY2 = USPM2

B1 = CU 0.6, RM12.5	B10 = CU 0.6, RM12.5
B2 = CU 0.6, RM12.5	B11 = CU 0.6, RM15
B3 = CU 0.6, RM10	B12 = CU 0.6, RM15
B4 = CU 0.6, RM10	B13 = CU 0.6, RM10
B5 = CU 0.6, RM10	B14 = CU 0.6, RM10
B6 = CU 0.6, RM7	B15 = CU 0.6, RM10
B7 = N.P.	B16 = CU 0.6, RM10
B8 = CU 0.6, RM10	B17 = CU 0.6, RM7
B9 = CU 0.6, RM10	B18 = CU 0.6, RM5
	B19 = N.P.

J1 = AMP, Micro Match, Federleiste,
6-polig, Nr. 7-215079-6
J2 = AMP, Micro Match, Federleiste,
6-polig, Nr. 7-215079-6
J3 = AMP, Micro Match, Federleiste,
12-polig, Nr. 8-215079-2

1,2,3,4,5 = Flachsteckkontakt, RM5.2

L1 = siehe Vermerk

SOLTON MUSIC GmbH		AMPLIFIER RIGHT CH.	PAGE: 02 OF 05
94060 POCKING, GERMANY		SPA 1200	DATE: 13.07.1993
SIGNATURE: MUSCHAWECK H.	DRAW.NO.: B2		
CHECK: MUELLER K.		SUBJECT TO CHANGE WITHOUT NOTICE !	