

"PORTAMIX"

USER MANUAL

DNR

USERS MANUAL

“PORTAMIX”

The Portamix is a high quality four channel mixer (with stereo outputs) designed for the on-location professional.

All four mic inputs and left and right outputs use high-quality transformers designed for maximum sound transfer and a minimum of isolation problems. All inputs have switchable high pass filtering, stepped gain attenuators and variable gain with a range of 20 dB.

Phantom powering of 48 volts can be switched in or out individually per channel.

The panning of mic input signals is accomplished by a three way toggle switch which gives you a choice out of left, middle, and right positioning of your sound.

The output section has a stereo compressor and a limiter, which can be switched in or out the circuit. The limiter is internally adjusted to limit at 0 dBu output level, while the compressor, with a gentle slope, will softly reduce overall dynamics.

MIC INPUTS

The Portamix has four transformer balanced inputs on XLR type connectors.

Pin 1 = ground, pin 2 = hot, and pin 3 = cold. These microphone inputs are optimized for balanced dynamic and condenser microphones. RF suppressing at the inputs avoids radio interference. Above each microphone input is a switch to power condenser microphones (48 volts) individually. Inputs three and four can be linked to form a stereo pair with one volume control (volume level on control four).

GAIN CONTROL

All four inputs have extensive individual gain controls. A stepped attenuator adjusts gain changes from 10 dB, 40dB, 60dB up to 80 dB as a maximum. The fine tuning is accomplished by using the larger gain control above the stepped smaller switch control. It is advisable to start with this fine control in the 12 o'clock position and then adjust the stepped attenuator until an acceptable reading is seen on the meters.

HIGH PASS FILTERS

Every channel has a high pass filter yielding a gentle roll off of 6dB per octave.

The -3 dB position for this switch is on 80 Hz and 160 Hz. The circuitry is laid out to allow the user to switch in or out the high pass filter without pops or clicks.

With the high pass filter switch in the up position, the filter is not active.

PAN - POT

Panning of signals is achieved via a three way switch. Right is up, centre is mid position of the switch, and left is the down position. When linking channels three and four, both pan-pot switches are inactive and channel three will be assigned left and channel four will be assigned to the right.

MAIN OUTPUTS

Each balanced outputs is on a three pin XLR type connectors.

Pin 1 = ground,

Pin 2 = hot (in phase),

Pin 3 = cold (out of phase).

The nominal level is 0 dBu when the VU scale indicates 0dB.

The output impedance is around 50 Ohms allowing for ease of interface of 600 Ohm inputs.

Higher inputs are preferable. The maximum output available is +11 dBu into 600 Ohm and +17dBu into 10kOhm. Both outputs are also wired to the "video" connector on the right side of the unit.

HEADPHONE OUTPUTS

Located on the frontpanel there is a stereo headphone output socket allowing for the use of headphones as low as 8 ohms , although higher impedances are recommended to extend battery life.

The level of the headphone output can be adjusted by the blue preset gain control below the headphone input selector. A slot screw driver or small coin will adjust the level.

The yellow input selector can be switched to listen to the right signal only, the left signal only, a mono summed signal, the stereo output signal, or the stereo tape return signal. An off position is also available.

LINK SWITCH

The link switch on the Portamix links channels three and four to one gain control, active on the gain control of channel four. When the link switch is activated, the gain control of channel three is switched off. At the same time channel three is assigned left and channel four is assigned right. These levels can be remotely controlled via the "boom remote" connector, which will be explained later.

OSCILLATOR

The internal 1 kHz oscillator is active on the main outputs when the Portamix is switched on.

POWER

The Portamix is internally powered from two 9 volt PP9 batteries, but can also be externally powered from the charge XLR connector or through the video connector if desired.

METERING

The standard meter fitted in the Portamix is an analog VU type with a range of -20dB to +3dB. Optional PPM type meters with a BBC 1-7 scale (see brochure) are available.

The attack and release times change when switching between VU and PPM settings.

A three position switch shows the status of the internal batteries in the mid position and VU or PPM ballistics in the upper or lower positions.

COMPRESSOR/LIMITER

The internal stereo compressor and limiter are individually switchable into the signal path.

The limiter has a ratio of 8:1 and the internal adjustable threshold point is set at 0 dB.

The limiter should be activated when unknown material is to be recorded.

The compressor is a soft knee type with a fixed ratio of 2 : 1 and a threshold set at -14dB below limiter threshold. The compressor and limiter have optimized attack and release times.

When the compressor or limiter is active, a led on the frontpanel will indicate its activity.

CHARGE CONNECTOR

The Portamix has a four pin XLR type of connector through which the unit can be powered, or recharge able batteries can be used or charged. Pins 1 and 4 switch the Portamix circuitry to feed the Portamix externally. If no power is connected to pins 1 and 4, the external power should be connected to pins 2 and 3, which will power both the Portamix and charge internal batteries at the same time.

(ONLY RECHARGE ABLE BATTERIES SHOULD BE RECHARGED!)

If recharge able batteries are installed, wire as follows:

Battery one +9volt to pin3, -9volt to the battery 2 + terminal

Battery two -9volt to pin2, +9volt to the battery 1 - terminal

Batteries are wired in series.

If not using batteries, wire the external power supply as follows.

+18 volt to pin 4

0 volt to pin 1

BOOM REMOTE

The boom remote connector is a 5 pin XLR type connector to allow remote control level of channel four. At this connector you can connect a microphone on pins 2 and 3 (2 = hot, 3 = cold, pin 1 = ground). Pin 5 provides a voltage which is controlled by a linear control sending a control voltage to pin 4 which in turn adjust the input level of channel 4.

This circuit is capable of adjusting the level of the boom mic while holding the boom with both hands. The remote control should be clamped on the boom to make adjustment easier.

XLR pinconfiguration

- 1 = ground mic/control pot
- 2 = mic high
- 3 = mic low
- 4 = wiper of control pot
- 5 = control pot high side

VIDEO CONNECTOR

The video/recorder connector has the following connections.

A balanced left/right output, a balanced stereo tape input, external power input (switching internal batteries off).

The output of the Portamix can easily interface with the stereo input of a professional video recorder, while the output of the videorecorder can be monitored through the Portamix at the same time. The video recorder can power the Portamix, saving batteries and avoiding loss of audio while video is still running. In this case only one cable is needed between the audio and video equipment.

SUMMARY

The previous pages should give you an overview of the Portamix.

A connector sheet follow this instruction manual to make it easy to wire up the unit.

When using the Portamix, keep spare batteries with you or use charger / power supply capable of charging and supplying 18 volts.

We hope that the Portamix will give you many hours of professional use. Its internal circuitry is of the latest technology.

In the event of a malfunction, contact the company from which the unit was purchased or call the D&R technical support centre nearest you.

We're sure that using the Portamix will allow you to put

...every sound under control...

BETACAM CONN. 12P

- A --- OUTPUT L -
- B --- OUTPUT L +
- C --- OUTPUT R +
- D --- POWER +18V dc
- E --- POWER GND
- F --- TAPE IN L +
- G --- TAPE IN L -
- H --- TAPE IN R -
- J --- OUTPUT R -
- K --- OUTPUT GND
- L --- TAPE IN R +
- M --- TAPE IN GND

INPUT 1,2,3,4

- 1 --- GND
- 2 --- INPUT +
- 3 --- INPUT -

CHARGE XLR

- 1 --- Power GND
- 2 --- Batteries GND
- 3 --- Batteries +18Vdc (Charge)
- 4 --- Power +18V dc

HEADPHONE

- 1 --- GND
- 2 --- OUTPUT R
- 3 --- OUTPUT L

BOOM REMOTE

- 1 --- +9V dc
- 2 --- CHANNEL 4 +
- 3 --- CHANNEL 4 -
- 4 --- CONTROL IN
- 5 --- +18V dc

OUTPUT L/R

- 1 --- GND
- 2 --- OUTPUT +
- 3 --- OUTPUT -



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D&R Electronica B.V.

Title: PORTABLE MIXER

Date: 16-10-1992

Rev: B

Sheet of

PRODUCT SAFETY

This product is manufactured with the highest standards and is double checked in our quality control department for reliability in the "HIGH VOLTAGE" section.

CAUTION

Never remove any panels, or open this equipment. No user servicable parts inside.

Equipment power supply must be grounded at all times.

Only use this product as described, in user manual or brochure. Do not operate this equipment in high humidity or expose it to water or other liquids.

Check the AC power supply cable to assure secure contact. Have your equipment checked yearly by a qualified dealer service center.

Hazardous electrical shock can be avoided by carefully following the above rules.

EXTRA CAUTION FOR LIVE SOUND

Ground all equipment using the ground pin in the AC power supply cable. Never remove this pin. Ground loops should be eliminated only by use of isolation transformers for all inputs and outputs. Replace any blown fuse with the same type and rating only after equipment has been disconnected from AC power. If problem persists, return equipment to qualified service technician

PLEASE READ THE FOLLOWING INFORMATION VERY CAREFULLY.

Especially in sound equipment on stage the following information is essential to know.

An electrical shock is caused by voltage and current, actually it is the current that causes the shock.

In practise the higher the voltage the higher the current will be and the higher the shock.

But there is another thing to consider and it is resistance. When the resistance in Ohms is high between two poles, the current will be low and vice versa.

All three of these; voltage, current, and resistance are important in determining the effect of an electrical shock.

However, the severity of a shock primarily determined by the amount of current flowing through a person.

A person can feel a shock because the muscles in a body respond to electrical current and because the heart is a muscle it can affect, when the current is high enough. Current can also be fatal when it

causes the chest muscles to contract and stop breathing. At what potential is current dangerous.

Well the first feeling of current is a tingle at 0,001 Amp of current. The current between 0.1 Amp and 0.2 Amp is fatal.

Imagine that your home fuses of 20 Amp can handle 200 times more current than is necessary to kill. How does resistance affect the shock a person feels. A typical resistance between one hand to the other in "dry" condition could well over 100,000 Ohm.

If you are playing on stage your body is perspiring extensively and your body resistance is lowered by more than 50%. This is a situation in which current can easily flow.

Current will flow when there is a difference in ground potential between equipment on stage and in the P.A. system. Please do check if there is any potential between the housing of the mikes and the guitarsynth amps, which will be linked by your body on stage. Imagine, a guitar in your hand and your lips close to the mike! A ground potential difference of above 10 volts is not unusual, in improperly wired buildings it can possibly be as high as 240 volts.

Although removing the ground wire sometimes cures a system hum, it will create a very hazardous situation for the performing musician.

Always earth all your equipment by the grounding pin in your mains plug.

Hum loops should be only cured by propr wiring and isolation input/output transformers.

Replace fuses always with the same type and rating after the equipment has been turned off and unplugged.

If the fuse blows again you have an equipment failure, do not use it again and return it to your dealer for repair.

And last but not least be carefull not to touch a person being shocked as you, yourself could also be shocked.

Once removed from the shock, have someone send for medical help immediately

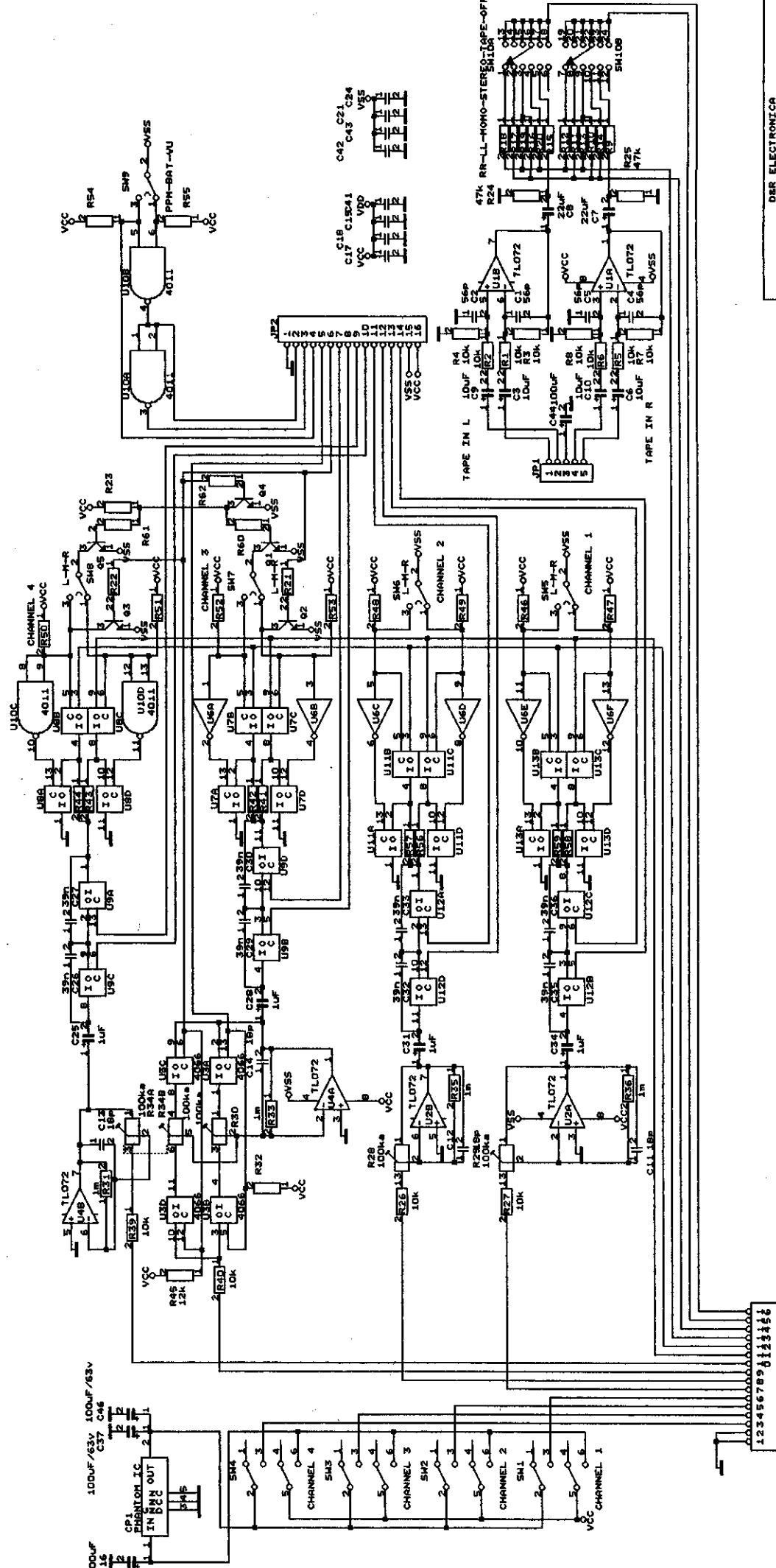
Always keep the above mentioned information in mind when using electrically powered equipment.

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"PORTAMIX"

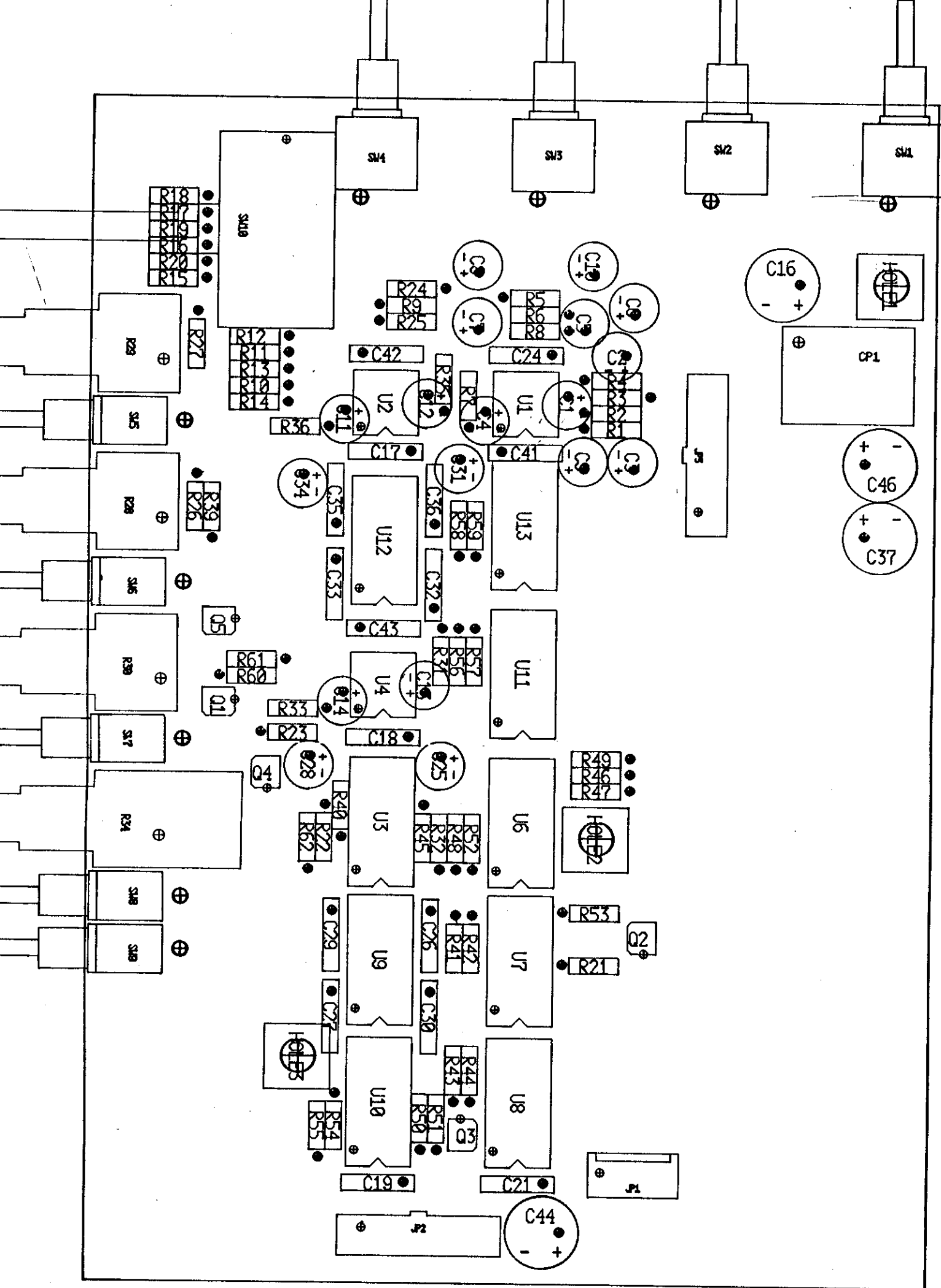
SERVICE MANUAL

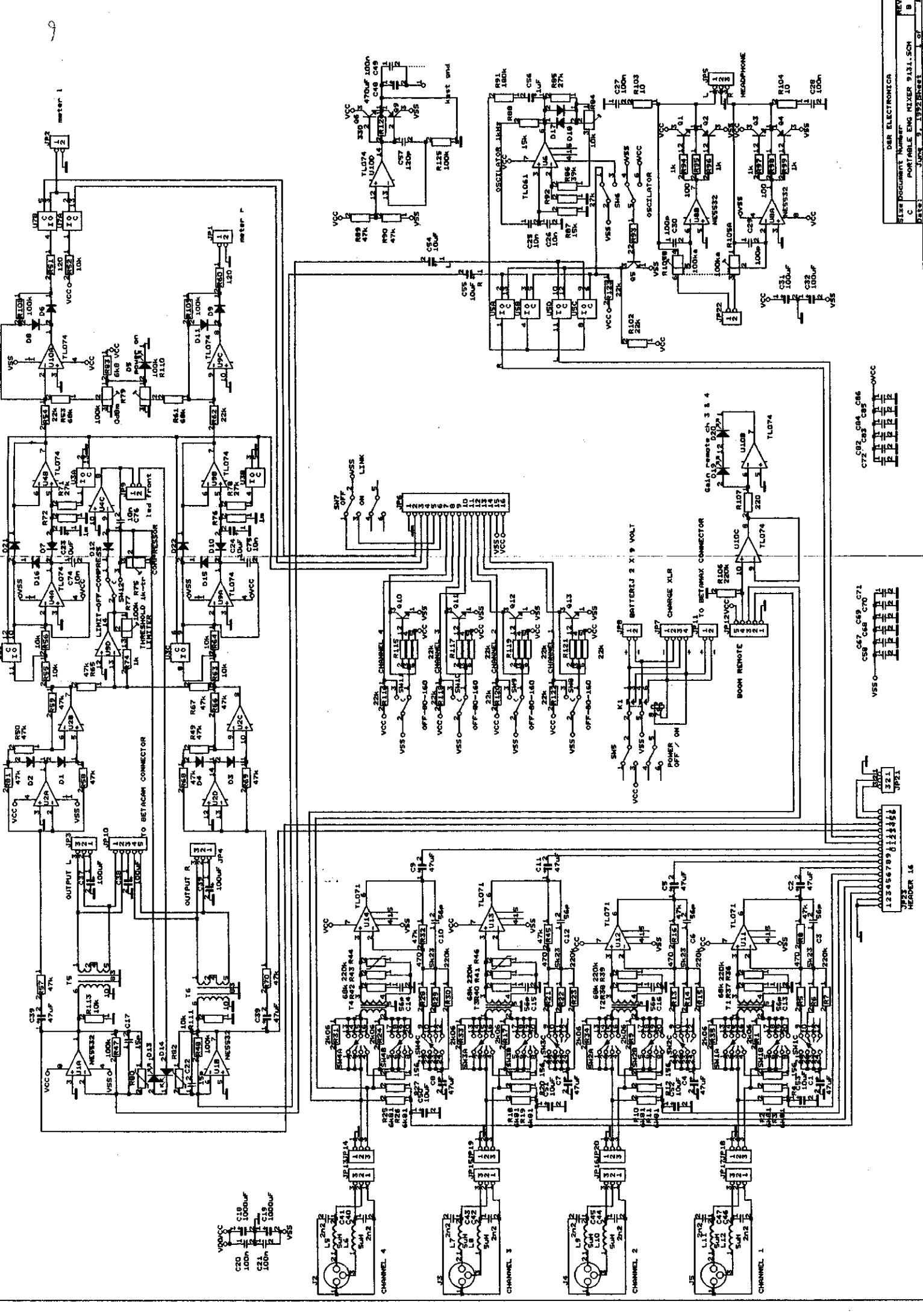
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 SIZE DOCUMENT NUMBER
 C PORTABLE ENG MIXER 9.30.5CH
 DATE: June 9, 1992 BY: JET

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C72 C85 C86 C88
C70 C71 C73 C74 C75 C76 C77 C78 C79

C67 C69 C71
C68 C70

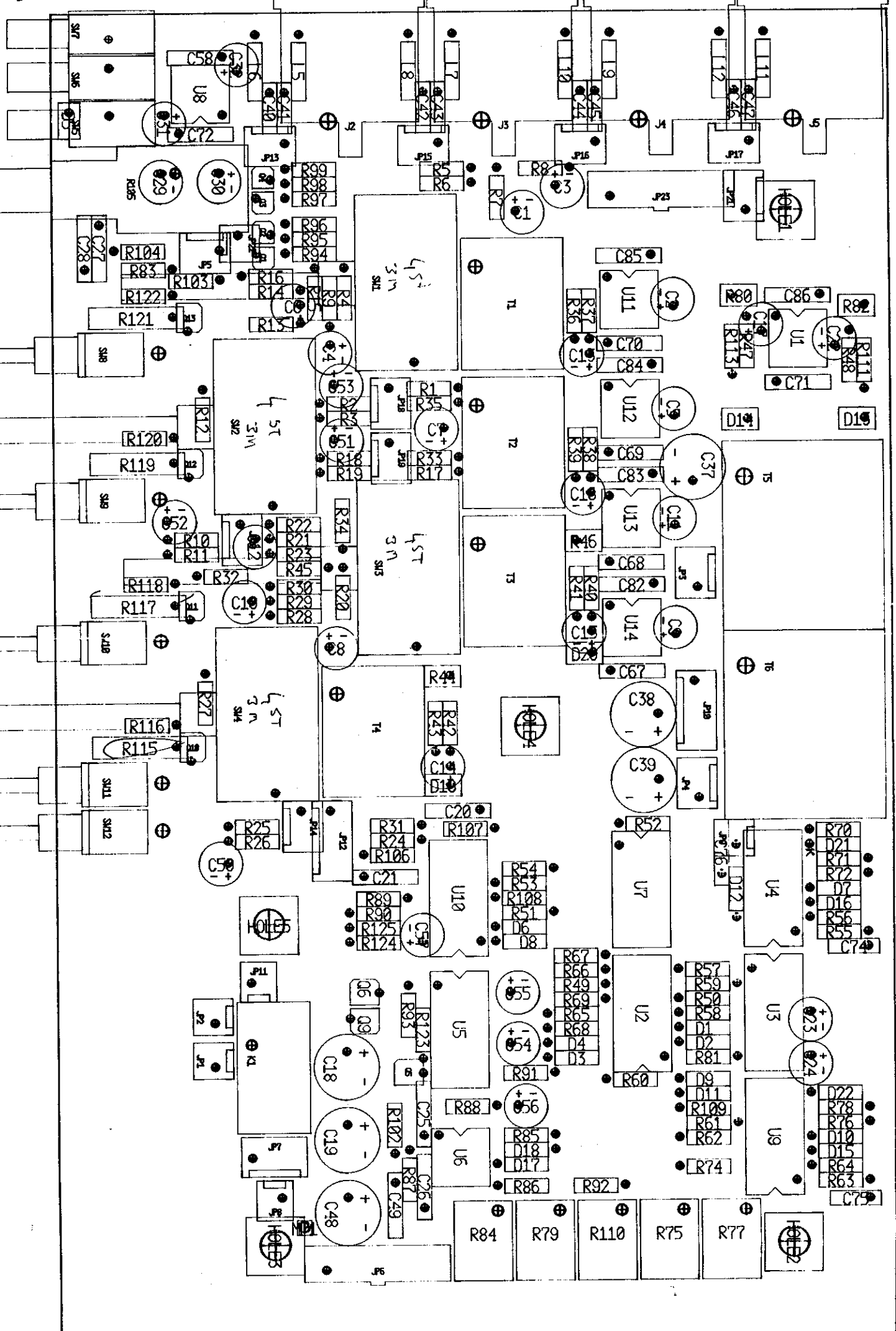
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J21 J22 J23 J24 J25 J26 J27 J28 J29 J30
J31 J32 J33 J34 J35 J36 J37 J38 J39 J40
J41 J42 J43 J44 J45 J46 J47 J48 J49 J50

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HEADER 16



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Bill Of Materials

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Item	Quantity	Reference	Part
1	36	R1,R2,R3,R4,R5,R6,R7,R8, R9,R10,R11,R12,R13,R14, R15,R16,R17,R18,R19,R20, R23,R26,R27,R32,R39,R40, R46,R47,R48,R49,R50,R51, R52,R53,R54,R55	10k
2	4	C1,C2,C4,C5	56p
3	4	C3,C6,C9,C10	10uF
4	2	C7,C8	22uF
5	13	R21,R22,R41,R42,R43,R44, R56,R57,R58,R59,R60,R61, R62	100k
6	2	R24,R25	47k
7	3	U1,U2,U4	TL072
8	3	R28,R29,R30	POT
9	4	C11,C12,C13,C14	18p
10	7	U3,U7,U8,U9,U11,U12,U13	4066
11	4	R31,R33,R35,R36	1M
12	1	R34	POTBS
13	1	JP1	HEADER 5
14	5	Q1,Q2,Q3,Q4,Q5	NPN
15	4	SW3,SW1,SW2,SW4	SW DP WISSEL
16	5	SW5,SW6,SW7,SW8,SW9	SW OOO
17	8	C17,C18,C19,C21,C24,C41, C42,C43	100n
18	1	U6	40106
19	4	C25,C28,C31,C34	1uF
20	8	C26,C27,C29,C30,C32,C33, C35,C36	39n
21	1	U10	4011
22	2	JP2,JP3	HEADER 16
23	2	C44,C16	100uF
24	1	SW10	3RSW4
25	2	C37,C46	100uF/63v
26	1	CP1	PHANTOM IC
27	1	R45	12k

Pos.	Artikelcode	Omschrijving	Netto hoeveelheid	Ehd	Ingangs datum	Verval datum	Lengte [mm]	Breedte [mm]	Aant senh	Afval [%]	Mag	Bew.	Ph.
Maakartikel :		20850040 Print bestekt Portamix-9130	Stukl. op basis van:				1 st						
2000	10400216	Condensator ker 18p R2.5	4.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
2010	10400223	Condensator ker 68p R2.5	4.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
2020	10400274	Condensator poly 39n R7.5	8.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
2030	10400261	Condensator poly 100n R7.5	8.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
2040	10400279	Elco 1uF / 63V radiaal R5.0	4.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
2050	10400284	Elco 10uF / 63V radiaal R5.0	4.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
2060	10400285	Elco 22uF / 50V radiaal R5.0	2.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
2070	10400292	Elco 100uF / 25V radiaal R5.0	2.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
2080	10400302	Elco 100uF / 63V radiaal R5.0	2.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
5080	10600514	Header banks 5p lock (R 2.54)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
5100	10600521	Header banks 16p box (R 2.54)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
5090	10600520	Header recht 16p box (R 2.54)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
4010	10250040	Ic 40106B (hex schmitt trig)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
4030	10250042	Ic 4011B (quad 2 input aand)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
4020	10250041	Ic 4066B (quad-switch)	7.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
4040	10250030	Ic CD-54 (.dc-48dc converter)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
4000	10250080	Ic PL-062 CP (dual-lowpower)	3.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
5010	10600394	Ic-voet 8 pins (vork-contact)	3.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
5020	10600395	Ic-voet 14 pins (vork-contact)	9.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
3000	10300050	Pots.10 1x100kA lin	3.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
3010	10300052	Pots.10 2x100kA lin	1.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
5000	10200040	Print Portamix-9130	1.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
5050	10550052	Schakelaar Draai-as 75 mm	1.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
5060	10550050	Schakelaar Draaigeestel 6-MCN	1.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
5070	10550055	Schakelaar Schakeldek 2rstand	1.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
5030	10550420	Schakelaar Tog. 1xom 3st pcb V	5.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
5040	10550421	Schakelaar Tog. 2xom 2st pcb V	4.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
4050	10250328	Transistor BC-546B (npn)	5.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
1000	10350741	Weerstand 5% 1/4W 10k	24.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
1040	10350742	Weerstand 5% 1/4W 12k	1.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
1010	10350749	Weerstand 5% 1/4W 47k	2.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
1020	10350753	Weerstand 5% 1/4W 100k	25.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee
1030	10350765	Weerstand 5% 1/4W 1M0	4.0000	st	12-12-91	- -	0.00	0.00	0	0	HGO	0	nee

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Item	Quantity	Reference	Part
		C54,C55	
32	1	R83	6k8
33	1	R86	39k
34	2	R87,R88	15k
35	1	K1	RELAY DPDT
36	8	Q1,Q3,Q5,Q6,Q10,Q11,Q12, Q13	NPN
37	3	Q2,Q4,Q9	PNP
38	1	R91	180k
39	1	U6	TL061
40	5	C25,C26,C74,C75,C76	10n
41	2	R95,R98	100
42	2	JP6,JP23	HEADER 16
43	2	R103,R104	10
44	1	R105	POTBS
45	2	C29,C30	100p
46	2	JP10,JP12	HEADER 5
47	5	C32,C31,C37,C38,C39	100uF
48	2	SW5,SW6	MINISDW2
49	1	SW7	SW DP WISSEL
50	1	R107	220
51	8	L5,L6,L7,L8,L9,L10,L11, L12	5uH
52	8	C40,C41,C42,C43,C44,C45, C46,C47	2n2
53	5	SW10,SW8,SW9,SW11,SW12	SW 000
54	1	C56	1uF
55	4	U11,U12,U13,U14	TL071
56	4	J5,J2,J3,J4	NC3FD-H
57	1	JP7	HEADER 4
58	1	MP1	PIN
59	1	R124	330
60	8	R1,R9,R17,R24,R31,R33, R34,R35	2k06
61	1	C48	470uF
62	1	C57	120p
63	4	R121,R115,R117,R119	SIL 3
64	8	R123,R54,R62,R102,R116, R118,R120,R122	22k
65	1	R75	1k-tr

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Item	Quantity	Reference	Part
1	10	C1,C2,C4,C5,C7,C8,C9,C11, C60,C61	47uF
2	8	R2,R3,R10,R11,R18,R19, R25,R26	6k81
3	4	R4,R12,R20,R27	156
4	4	SW1,SW2,SW3,SW4	3RSW4
5	8	C3,C6,C10,C12,C13,C14, C15,C16	56p
6	4	R5,R13,R21,R28	470
7	4	R6,R14,R22,R29	5k23
8	9	R7,R15,R23,R30,R36,R39, R41,R43,R106	220k
9	18	R8,R16,R32,R45,R49,R50, R57,R58,R59,R65,R66,R67, R68,R69,R70,R81,R89,R90	47k
10	6	R37,R38,R40,R42,R53,R61	68k
11	4	R44,R46,R80,R82	LDR
12	4	T2,T1,T3,T4	TRAFOTM3
13	2	U1,U8	NE5532
14	6	R47,R48,R93,R108,R109, R125	100k
15	2	C17,C22	15p
16	4	U2,U4,U9,U10	TL074
17	17	D1,D2,D3,D4,D6,D7,D8,D9, D10,D11,D12,D15,D16,D17, D18,D21,D22	D
18	2	C18,C19	1000uF
19	17	C20,C21,C27,C28,C49,C58, C67,C68,C69,C70,C71,C72, C82,C83,C84,C85,C86	100n
20	3	U3,U5,U7	4066
21	2	R51,R60	120
22	7	R55,R52,R56,R63,R64,R111, R113	10k
23	6	JP1,JP2,JP8,JP9,JP11, JP22	HEADER 2
24	4	R71,R78,R85,R92	27k
25	2	R72,R76	1m
26	5	R74,R94,R96,R97,R99	1k
27	2	T5,T6	TRAF0 OUTPUT
28	4	R77,R79,R84,R110	R INSTEL
29	5	D13,D5,D14,D19,D20	LED
30	12	JP3,JP4,JP5,JP13,JP14, JP15,JP16,JP17,JP18,JP19, JP20,JP21	HEADER 3
31	8	C23,C24,C50,C51,C52,C53,	10uF

Pos.	Artikelcode	Omschrijving	Netto hoeveelheid	Ehd	Ingangs datum	Verval datum	Lengte [mm]	Breedte [mm]	Aant eenh	Afval [%]	Mag	Bew.	Ph.
Maakartikel ; 20850041 Print bestekt Portamix-9131 Stukl. op basis van: 1 st													
2000	10400215	Condensator ker 15p R2.5	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2010	10400223	Condensator ker 68p R2.5	8.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2020	10400225	Condensator ker 100p R2.5	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2030	10400226	Condensator ker 120p R2.5	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2060	10401241	Condensator ker 100nF/32V R5.0	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2040	10400248	Condensator poly 2n2 R7.5	8.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2050	10400253	Condensator poly 10n R7.5	5.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2070	10400261	Condensator poly 100n R7.5	15.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
4080	10250343	Diode 1N4004 (rectifier)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
4040	10250342	Diode 1N4148 (signaal)	17.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2080	10400279	Elco 1uF / 63V radiaal R5.0	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2090	10400284	Elco 10uF / 63V radiaal R5.0	8.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2100	10400287	Elco 47uF / 25V radiaal R5.0	10.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2110	10400292	Elco 100uF / 25V radiaal R5.0	5.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2120	10400294	Elco 470uF / 25V radiaal R5.0	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
2130	10400306	Elco 1000uF / 25V radiaal R5.0	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5100	10600510	Header recht 2p lock (R 2.54)	6.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5110	10600511	Header recht 3p lock (R 2.54)	12.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5120	10600512	Header recht 4p lock (R 2.54)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5130	10600513	Header recht 5p lock (R 2.54)	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5140	10600520	Header recht 16p box (R 2.54)	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
4030	10250041	Ic 4066B (quad-switch)	3.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
4010	10250307	Ic NE-5532 AP TI (dual-opamp)	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
4000	10250881	Ic TL-061 CP (single-lowpower)	5.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
4020	10250305	Ic TL-074 CM TI (quad-opamp)	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5020	10600394	Ic-voet 8 pins (vork-contact)	7.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5030	10600395	Ic-voet 14 pins (vork-contact)	7.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
3010	10300142	Instelpot 1-turn 1k hor (V)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
3000	10300148	Instelpot 1-turn 100k hor (V)	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
4070	10250418	Led 3mm rood (low current)	5.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
3020	10300052	Potm.10 2x100kA lin	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5000	10200041	Print Portamix-9131	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5180	10550010	Relais MK62 DIP 12V (2 x om)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5090	10550414	Schakelaar Alps 2p-ns (mini)	3.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5070	10550053	Schakelaar Draai-as 100 mm	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5050	10550052	Schakelaar Draai-as 75 mm	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5060	10550050	Schakelaar Draaigestel 6-MCM	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5080	10550056	Schakelaar Schakeldek 3x4stand	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5040	10550420	Schakelaar Fog. 1xom 3st pcb V	5.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5010	10950021	Spoel 4.7uH axiaal	8.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5170	10950011	Trafo aanpassing (1:1 output)	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5160	10950016	Trafo aanpassing (1:15 mic)	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
4060	10250333	Transistor BC-327/25 (pnp)	3.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
4050	10250332	Transistor BC-337/25 (npn)	3.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
4090	10250328	Transistor BC-546B (npn)	5.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1030	10350906	Weerstand 1k 1/4W 158E	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1080	10350905	Weerstand 1k 1/4W 2k67	8.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1090	10350907	Weerstand 1k 1/4W 5k23	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1110	10350846	Weerstand 1k 1/4W 6k81	8.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1000	10350705	Weerstand 5k 1/4W 10E	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1010	10350717	Weerstand 5k 1/4W 100E	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1020	10350718	Weerstand 5k 1/4W 120E	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1040	10350721	Weerstand 5k 1/4W 220E	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1050	10350723	Weerstand 5k 1/4W 330E	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1060	10350725	Weerstand 5k 1/4W 470E	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1070	10350729	Weerstand 5k 1/4W 1k0	5.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1100	10350739	Weerstand 5k 1/4W 6k8	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee

Pos.	Artikelcode	Omschrijving	Netto hoeveelheid	Ehd	Ingangs datum	Verval datum	Lengte [mm]	Breedte [mm]	Aant. eenh.	Afval [%]	Mag	Bew.	Ph.
Masterartikel :		20850041	Print bestukt Pertagix-9131		Stukl. op basis van:			1		st			
1120	10350741	Weerstand 5% 1/4W 10k	6.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1130	10350743	Weerstand 5% 1/4W 15k	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1230	10350745	Weerstand 5% 1/4W 22k	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1140	10350746	Weerstand 5% 1/4W 27k	5.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1150	10350748	Weerstand 5% 1/4W 39k	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1160	10350749	Weerstand 5% 1/4W 47k	18.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1170	10350751	Weerstand 5% 1/4W 68k	8.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1180	10350753	Weerstand 5% 1/4W 100k	22.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1190	10350756	Weerstand 5% 1/4W 180k	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1200	10350757	Weerstand 5% 1/4W 220k	9.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1210	10350765	Weerstand 5% 1/4W 1M	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
1220	10350030	Weerstand array (3+3pins) 100k	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5150	10350001	Weerstand ldr-wr10	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
5190	10600425	HLR chassis fem 3p wt.bi ver p	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee

Pos.	Artikelcode	Omschrijving	Netto hoeveelheid	Ehd	Ingangs- datum	Verval datum	Lengte [mm]	Breedte [mm]	Aant eenh	Afval [%]	Mag	Bew.	Ph.
Maakartikel :		20850041 Print bestukt Portamix-9131			Stukl. op basis van:					1 st			
1120	10350741	Weerstand 5% 1/4W 10k	6.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
1130	10350743	Weerstand 5% 1/4W 15k	2.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
1230	10350745	Weerstand 5% 1/4W 22k	2.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
1140	10350746	Weerstand 5% 1/4W 27k	5.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
1150	10350748	Weerstand 5% 1/4W 39k	1.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
1160	10350749	Weerstand 5% 1/4W 47k	18.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
1170	10350751	Weerstand 5% 1/4W 68k	8.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
1180	10350753	Weerstand 5% 1/4W 100k	22.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
1190	10350756	Weerstand 5% 1/4W 180k	1.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
1200	10350757	Weerstand 5% 1/4W 220k	9.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
1210	10350765	Weerstand 5% 1/4W 1M0	2.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
1220	10350030	Weerstand array (3+3pins) 100k	4.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
5150	10350001	Weerstand ldr-sr10	4.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee
5190	10600425	ILR chass fem 3p wt.bl ver p	4.0000	st	12-12-91	- -	0.00	0.00	0	0	RGO	0	nee

Pos.	Artikelcode	Omschrijving	Netto hoeveelheid	Ehd	Ingangs datum	Verval datum	Langte [mm]	Breedte [mm]	Aant eenh	Afval (%)	Mag	Bew.	Ph.
Maakartikel :		41868534 Portamix	Stukl. op basis van:				1 st						
210	10650448	Bandkabel 20p (R 1.27)	25.0000	cm	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
170	10150940	Battery-vak RS50 (voor 2 x 9V)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
390	10700777	Bout M 3 x 8 verzinken zwart	31.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
50	10600160	Connector 2p (bedraad:s/r)	6.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
60	10600161	Connector 3p(2.54)	12.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
80	10600162	Connector 5p(2.54)	3.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
70	10600169	Connector 4p (bedraad:s/g/r/b)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
90	10600466	Connector bandkabel female 16p	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
150	10600052	Connector buscontact (AWG 16)	12.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
100	10600050	Connector chassis rond fem.12p	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
340	10450382	Deksel ReAn blauw (4mm)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
330	10450385	Deksel ReAn geel (4mm)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
350	10450652	Deksel ReAn grijs (4mm)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
320	10450384	Deksel ReAn rood (4mm)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
310	10450172	Deksel ReAn zwart (4mm)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
260	10450168	Deksel SiFam blauw (19mm)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
280	10450165	Deksel SiFam grijs (19mm)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
270	10450167	Deksel SiFam rood (19mm)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
290	10450164	Deksel SiFam zwart (19mm)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
40	10100065	Front Portamix	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
160	10600430	Jack chassis stereo (chroom)	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
360	10650489	Kabel 2 adurig koolstof	300.0000	cm	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
420	10600020	Kabelschoen + boortgat N6 rood	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
30	10150060	Kast Portamix	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
220	10450300	Knop Druktoets SiF. rond-grys	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
240	10450302	Knop Druktoets SiF. rond-rood	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
230	10450301	Knop Druktoets SiF. rond-wit	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
300	10450099	Knop SiFam grijs (boven 4mm)	5.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
250	10450096	Knop SiFam zwart (onder 6mm)	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
370	10500683	Krimpkoos 3,2mm (rond)	100.0000	cm	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
380	10500685	Krimpkoos 9,5mm (rond)	50.0000	cm	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
400	10700610	Hoer M 3	18.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
180	10951000	Paneelmeter [-36..+9] 1mA/600E	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
410	10700656	Plakvoet bouton zwart (10x10)	4.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
10	20850040	Print bestukt Portamix-9130	1.0000	st	12-12-91	- -	0.00	0.00	0	0	SPO	0	nee
20	20850041	Print bestukt Portamix-9131	1.0000	st	12-12-91	- -	0.00	0.00	0	0	SPO	0	nee
200	10700677	Soldeerlip klein	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
130	10600426	YLR chass mal 3p wt.bl s	2.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
140	10600427	YLR chass mal 4p wt.bl s	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
150	10600428	YLR chass mal 5p wt.bl s	1.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee
190	10700623	Zeskant tap M 3 x 30mm	6.0000	st	12-12-91	- -	0.00	0.00	0	0	EGO	0	nee