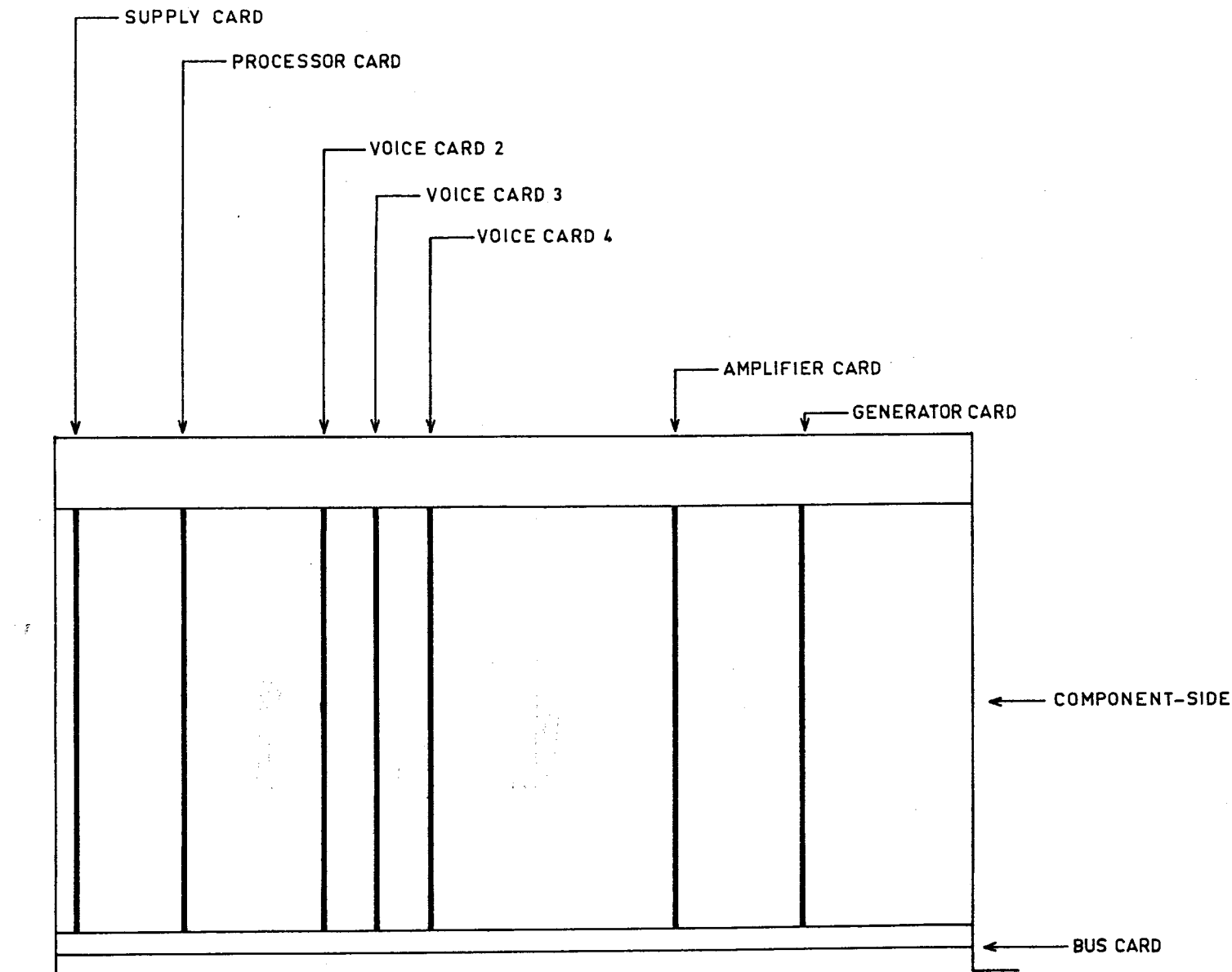


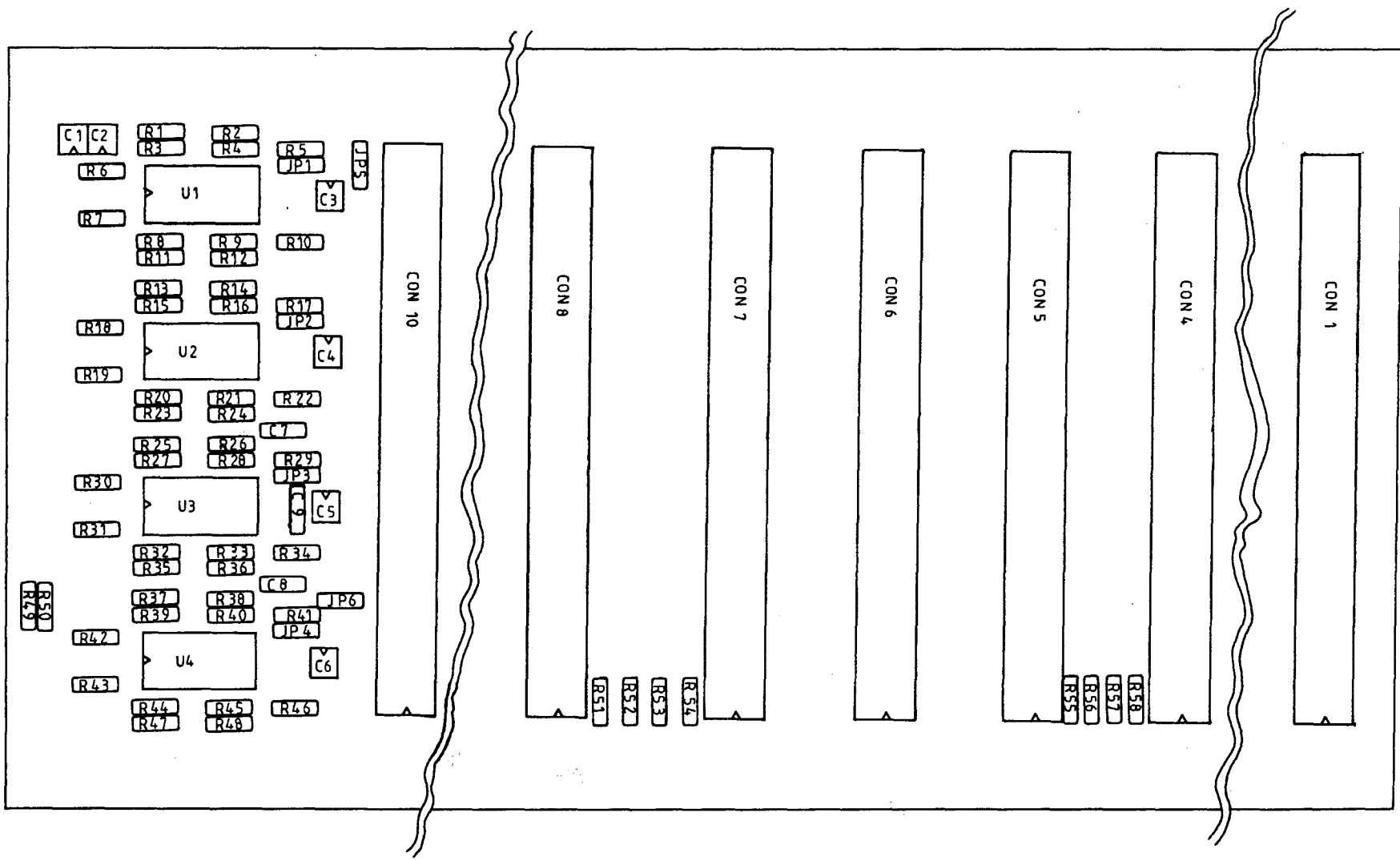
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S C H E M A T I C   D I A G R A M S
J O H A N N U S
O P U S   1 0 0 0
=====
alterations reserved
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## C O N T E N T S

1. POSITION DIAGRAM
2. COMPONENT NUMBERING BUS CARD
3. LAY OUT BUS CARD
4. COMPONENT NUMBERING SUPPLY CARD
5. LAY OUT SUPPLY CARD
6. COMPONENT NUMBERING GENERATOR CARD
7. LAY OUT GENERATOR CARD
8. COMPONENT NUMBERING PROCESSOR CARD
9. LAY OUT PROCESSOR CARD
10. COMPONENT NUMBERING VOICE CARD (3x)
11. LAY OUT VOICE CARD (3x)
12. VALUES OF INTONATION-DEPENDENT COMPONENTS ON VOICE CARDS
13. COMPONENT NUMBERING AMPLIFIER CARD
14. LAY OUT AMPLIFIER CARD
15. TRANSFORMER CONNECTIONS
16. POWER SUPPLY (supply card)
17. PINNING BUS CARD CONNECTORS
18. EXTERNAL CONTROLS and INTERFACE ECHO UNIT (generator card)
19. TREMULANT-OSCILLATORS; CHORUS-CIRCUIT and TUNING GENERATORS (generator card)
20. SCANNING KEYING; STOPS & ACCESSORIES
21. INPUTS/OUTPUTS PROCESSOR (processor card)
22. PROCESSOR (processor card)
23. VOICES and PRE-AMP'S (voice card)
24. TONE CONTROLS and INPUT/OUTPUT AMPLIFIERS (amplifier card)
25. POWER AMPLIFIER (amplifier card)
26. GENERAL INFORMATION SEMI-CONDUCTORS (I)
27. GENERAL INFORMATION SEMI-CONDUCTORS (II)



POSITION DIAGRAM CARDS			
DESIGN:	R.B/SvD/MH	01-06-89	<b>JOHANNUS</b> OPUS 1000
DRAWN:	VERSCHOOR	22-05-89	
MODIFIED:	VERSCHOOR	19-06-89	
copyright:	JOHANNUS Orgelbouw b.v. Morsestraat 28 6716AH EDE HOLLAND		page 1
Tel. 08380-37403 Tlx. 37044 Jove NL Fax. 08380-22238			

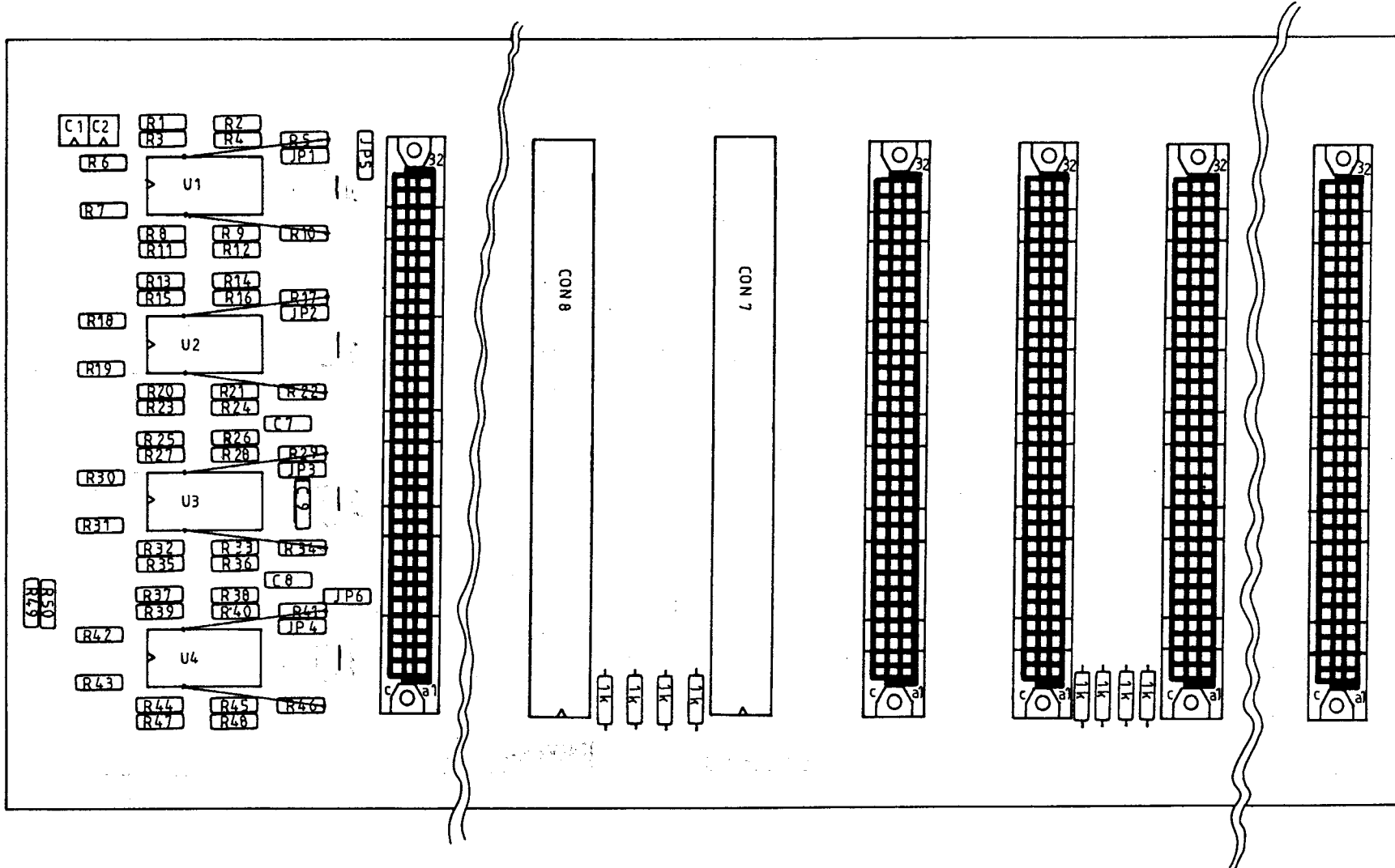


COMPONENT NUMBERING BUS CARD

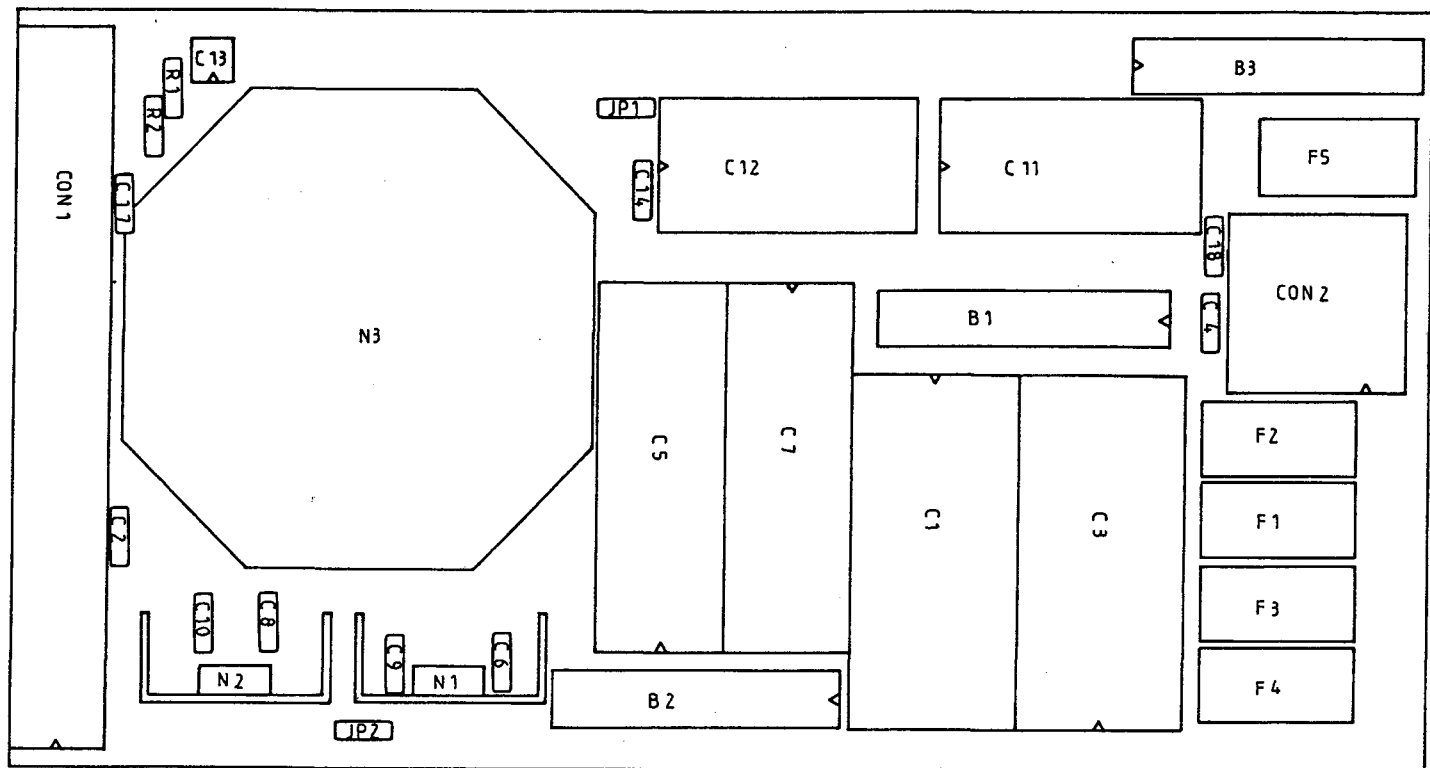
DESIGN:	RB/SvD/MH	01 - 06 - 89
DRAWN:	VERSCHOOR	02 - 06 - 89
MODIFIED:	-	-

**JOHANNUS**  
OPUS 1000

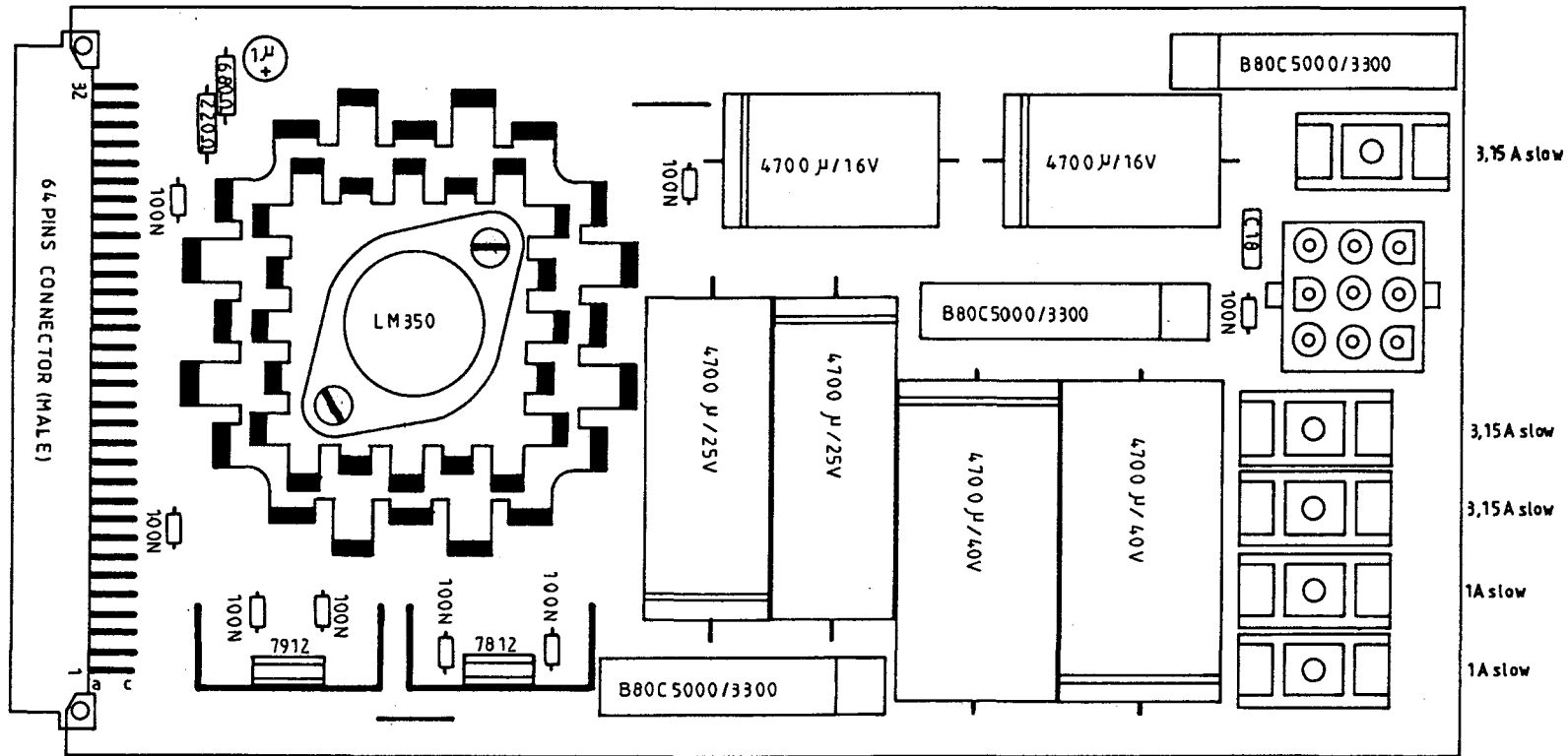
copyright: **JOHANNUS Orgelbouw b.v.**  
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Tel. 08380-37403 Tlx. 37044 Jove NL Fax. 08380-22238



<b>LAY OUT BUS CARD</b>			
DESIGN:	RB/SvD/MH	01-06-89	<b>JOHANNUS</b> OPUS 1000
DRAWN:	VERSCHOOR	02-06-89	
MODIFIED:	-	-	
copyright:	<b>JOHANNUS Orgelbouw b.v.</b> Morsestraat 28 6716 AH EDE HOLLAND Tel. 08380-37403 Tlx. 37044 Jove NL Fax. 08380-22238		page <b>3</b>

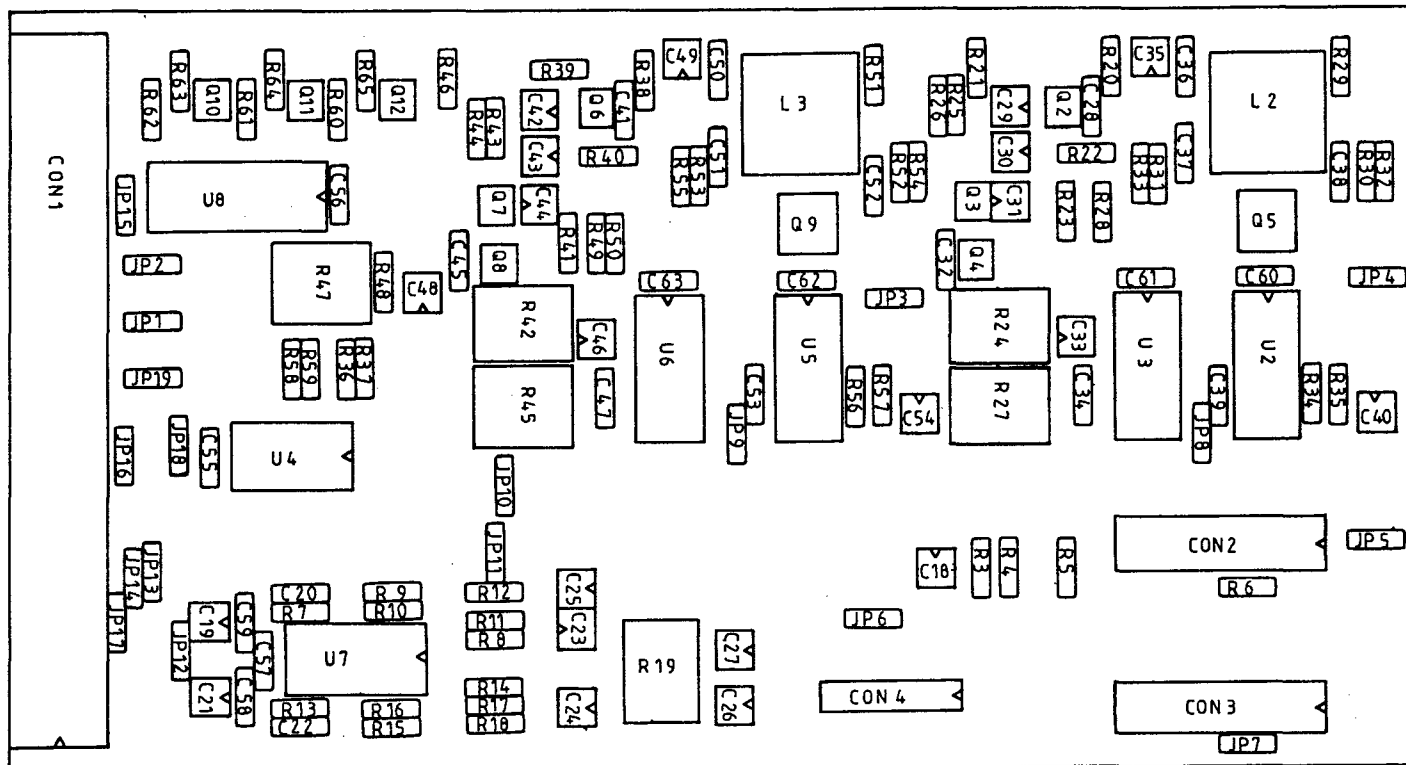


COMPONENT-NUMBERING SUPPLY CARD			
DESIGN:	RB/SvD/MH	01 - 08 - 89	<b>JOHANNUS</b> OPUS 1000
DRAWN:	VERSCHOOR	21 - 08 - 89	
MODIFIED:	-	-	
copyright: <b>JOHANNUS</b> Orgelbouw b.v. Morsestraat 28 6716AH EDE HOLLAND Tel.08380-37403 Tlx. 37044 Jove NL Fax. 08380-22238			page 4



LAY OUT SUPPLY CARD

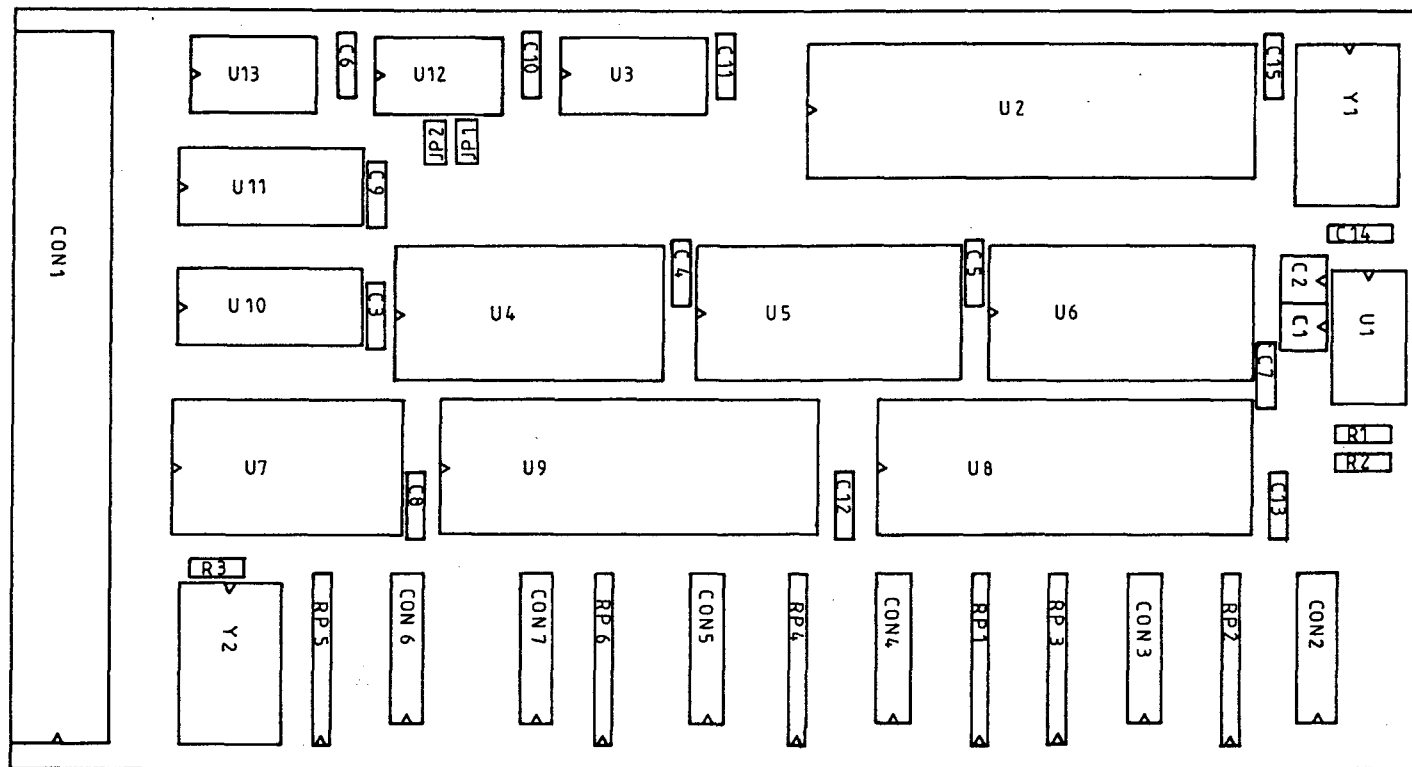
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DRAWN:	VERSCHOOR	21-08-89	
MODIFIED:	-	-	



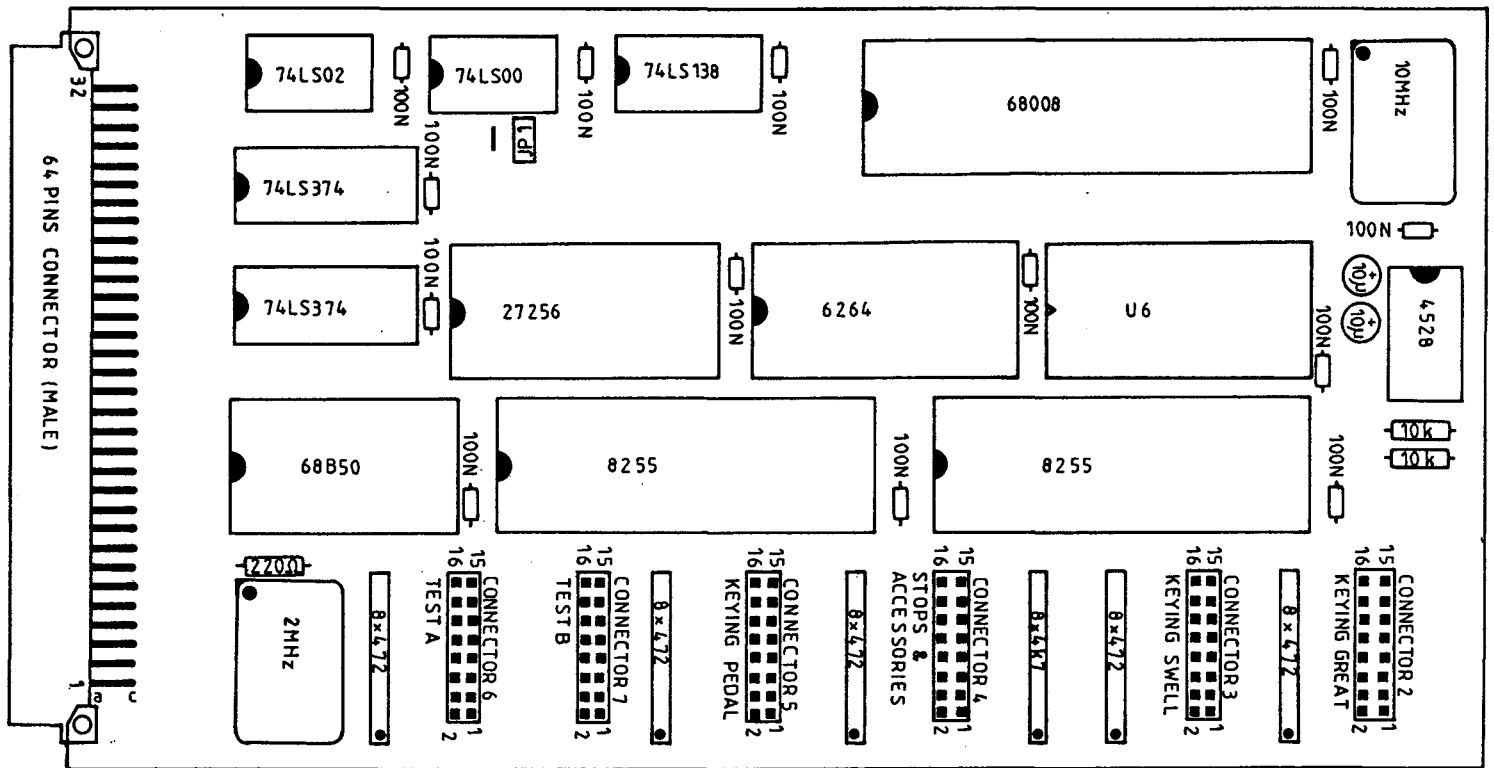
COMPONENT NUMBERING GENERATOR CARD			
DESIGN:	RB/SVD/MH	01-06-89	<b>JOHANNUS</b> OPUS 1000
DRAWN:	VERSCHOOR	22-05-89	
MODIFIED:	VERSCHOOR	21-08-89	
copyright: <b>JOHANNUS Orgelbouw b.v.</b> Morsestraat 28 6716AH EDE HOLLAND Tel.08380-37403 Tlx. 37044 Jove NL Fax. 08380-22238			page 6







COMPONENT-NUMBERING PROCESSOR-CARD		
DESIGN:	RB/SvD/MH	01-06-89
DRAWN:	VERSCHOOR	21-04-89
MODIFIED:		- -
copyright: JOHANNUS Orgelbouw b.v.		<b>JOHANNUS</b> QPUS 1000
Morsestraat 28 6716AH EDE HOLLAND		
Tel. 08380-37403 Tlx. 37044 Jove NL Fax. 08380-22238		page <b>8</b>

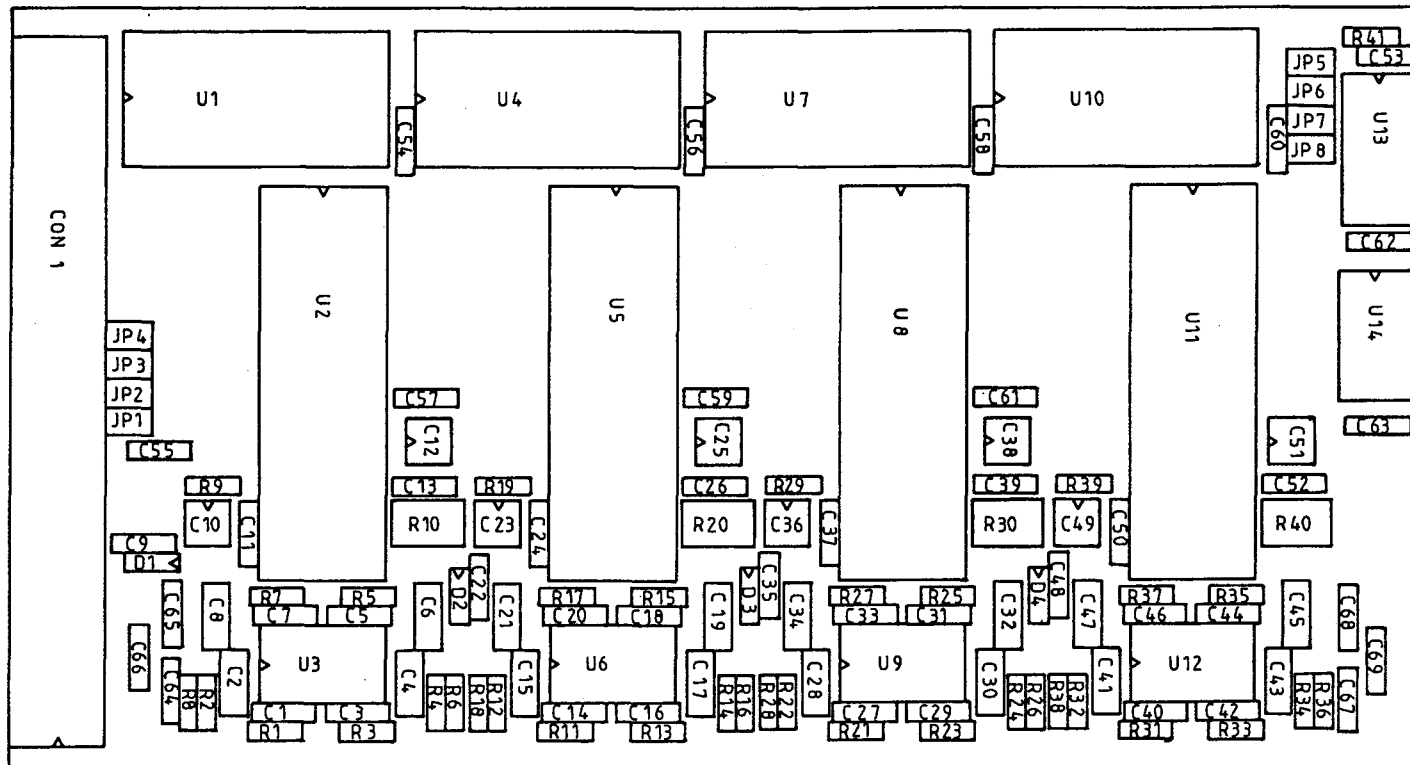


LAY OUT PROCESSOR CARD

DESIGN:	RB/SvD/MH	01-06-89
DRAWN:	VERSCHOOR	21-04-89
MODIFIED:	VERSCHOOR	17-11-89

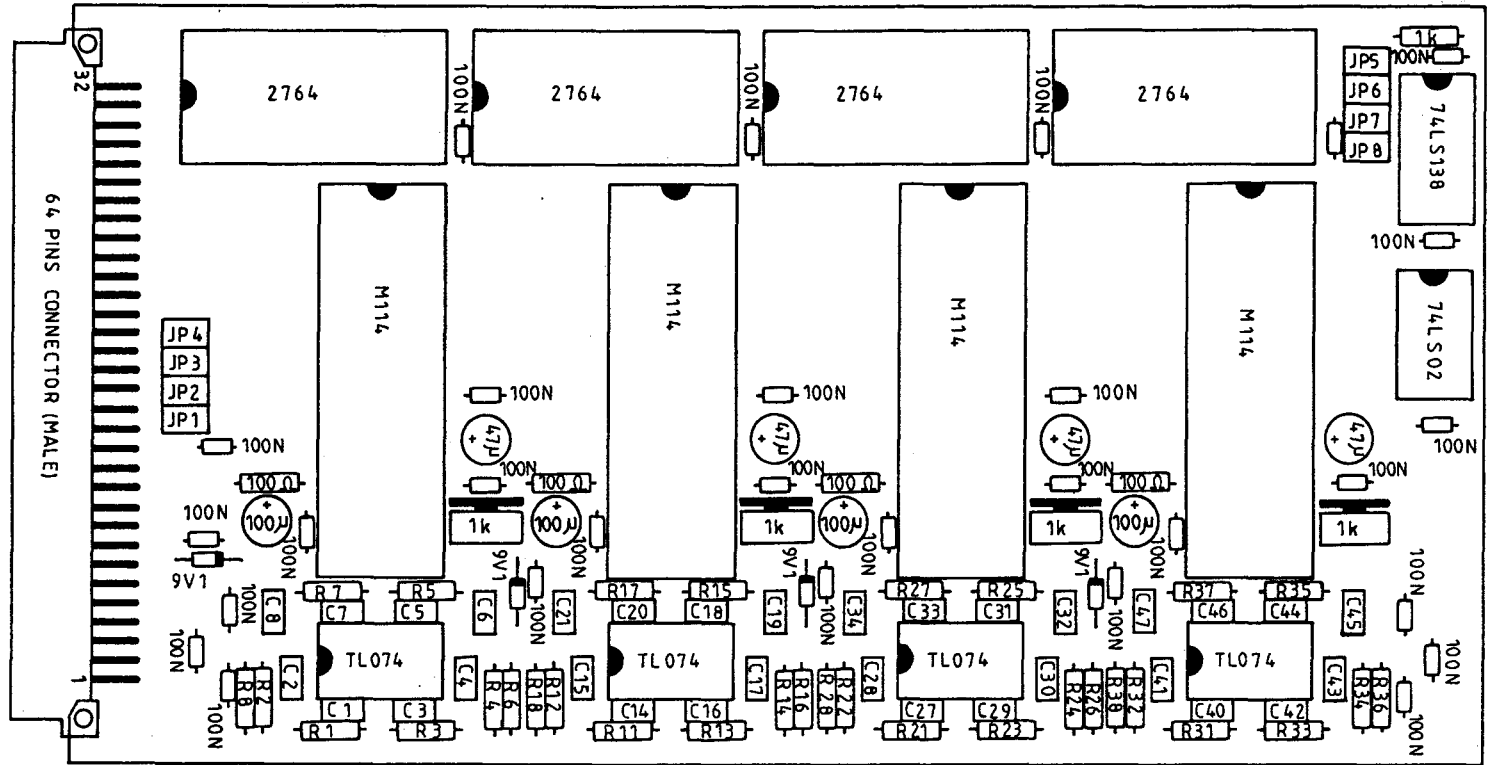
**JOHANNUS**  
OPUS 1000

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Tel. 08380-37403 Tlx. 37044 Jove NL Fax. 08380-22238



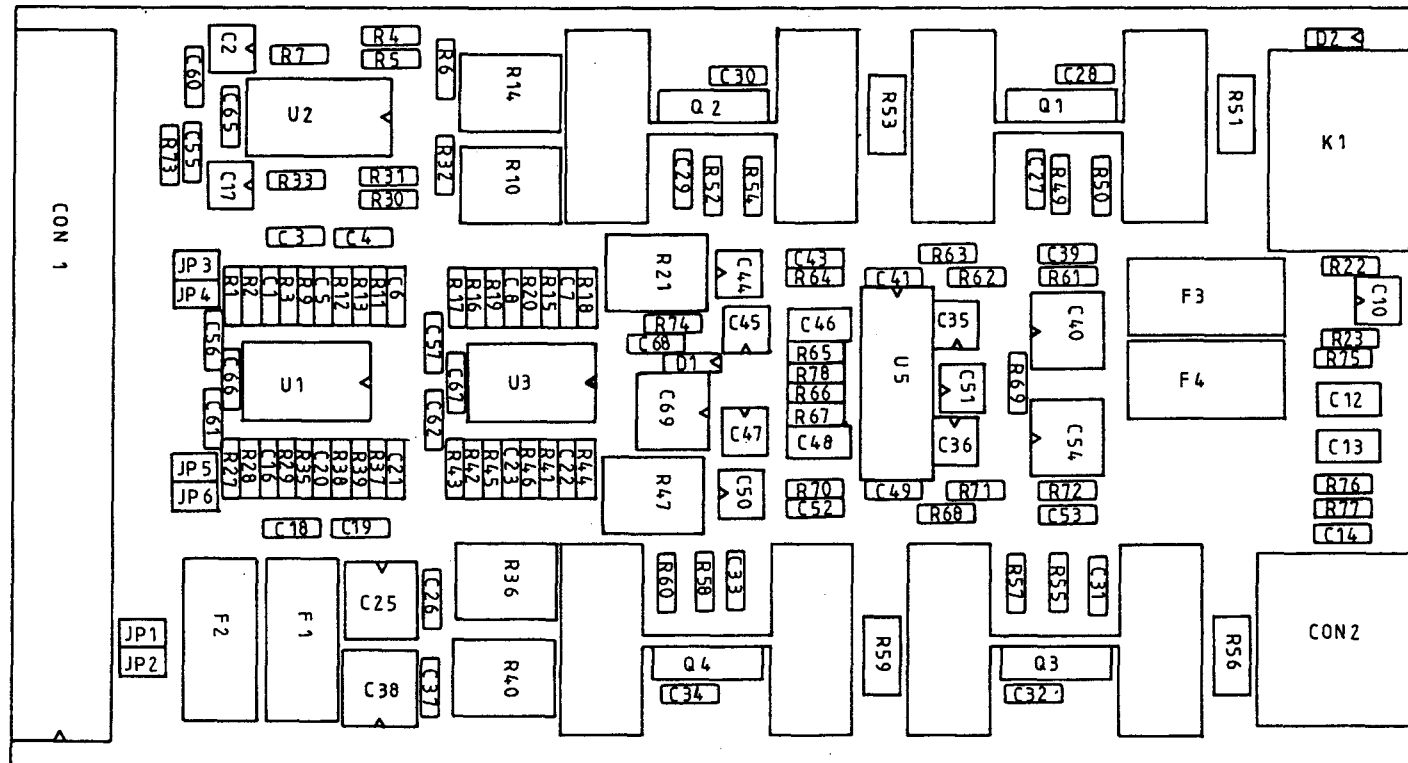
COMPONENT-NUMBERING VOICE-CARD (3x)			
DESIGN:	RB/SvD/MH	01-06-89	<b>JOHANNUS</b> OPUS 1000
DRAWN:	VERSCHOOR	21-04-89	
MODIFIED:		- -	
copyright: <b>JOHANNUS Orgelbouw b.v.</b> Morsestraat 28 6716AH EDE HOLLAND Tel. 08380-37403 Tlx. 37044 Jove NL Fax. 08380-22238			page 10

CARD 2	FLUTE 4'	CROMORNE 8'	STOPPED FLUTE 8'	GAMBA 8'	VOICES SWELL
	NASARD 1 1/3'	CELESTE 8' or FAGOTTO 16'	SESQUIALTERA II RKS	WALDFLUTE 2'	VOICES SWELL
CARD 3	TWELFTH 2 2/3'	OCTAVE 2'	CORNET IV RKS	MIXTURE V RKS	VOICES GREAT
	PRINCIPAL 8'	CONTRABASS 16'	GEDACKT 8'	SUBBASS 16'	VOICES PEDAL
CARD 4	TRUMPET 8'	PRINCIPAL 8'	ROHRFLUTE 8'	OCTAVE 4'	VOICES GREAT
	CONTRA TRUMPET 16'			OCTAVE 4'	VOICES PEDAL



LAY OUT VOICE CARD (3x)			
DESIGN:	RB/SvD/MH	01-06-89	<b>JOHANNUS</b> <b>OPUS 1000</b>
DRAWN:	VERSCHOOR	25-04-89	
MODIFIED:	VERSCHOOR	25-10-89	
copyright:	JOHANNUS Orgelbouw b.v. Morsestraat 28 6716AH EDE HOLLAND		page
	Tel. 08380-37403 Tlx. 37044 Jove NL Fax. 08380-22238		11

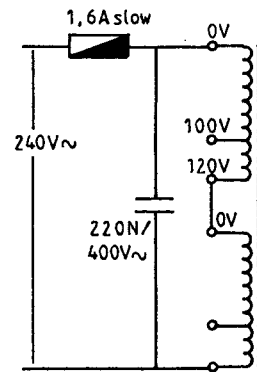
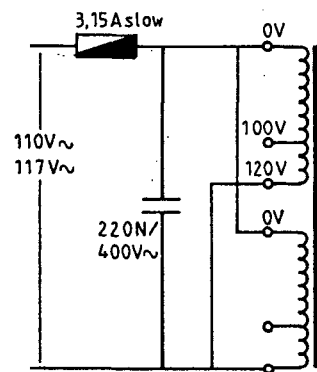
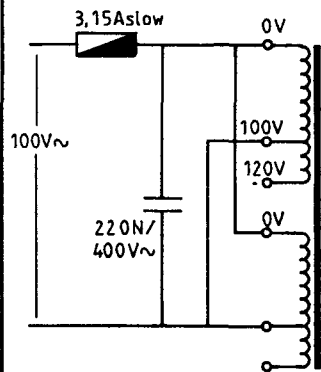
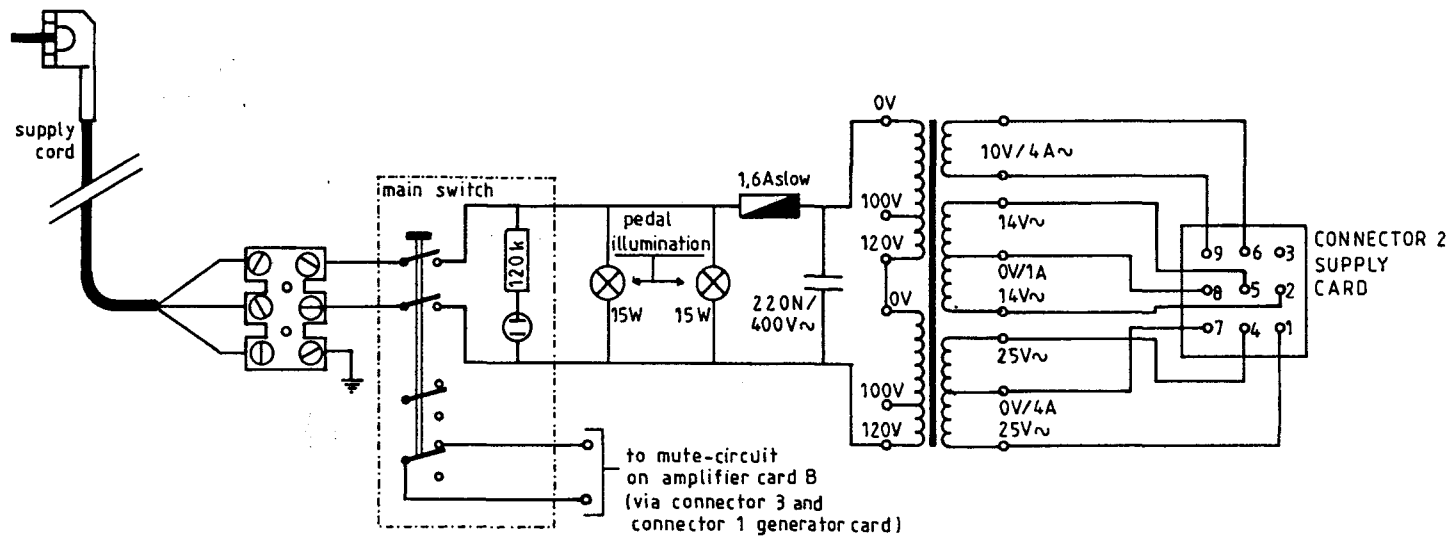




COMPONENT-NUMBERING AMPLIFIER-CARD			
DESIGN:	RB/SvD/MH	01-06-89	<b>JOHANNUS</b> OPUS 1000
DRAWN:	VERSCHOOR	25-04-89	
MODIFIED:		- -	
copyright: <b>JOHANNUS Orgelbouw b.v.</b> Morsestraat 28 6716AH EDE HOLLAND Tel.08380-37403 Tlx. 37044 Jove NL Fax. 08380-22238			page <b>13</b>







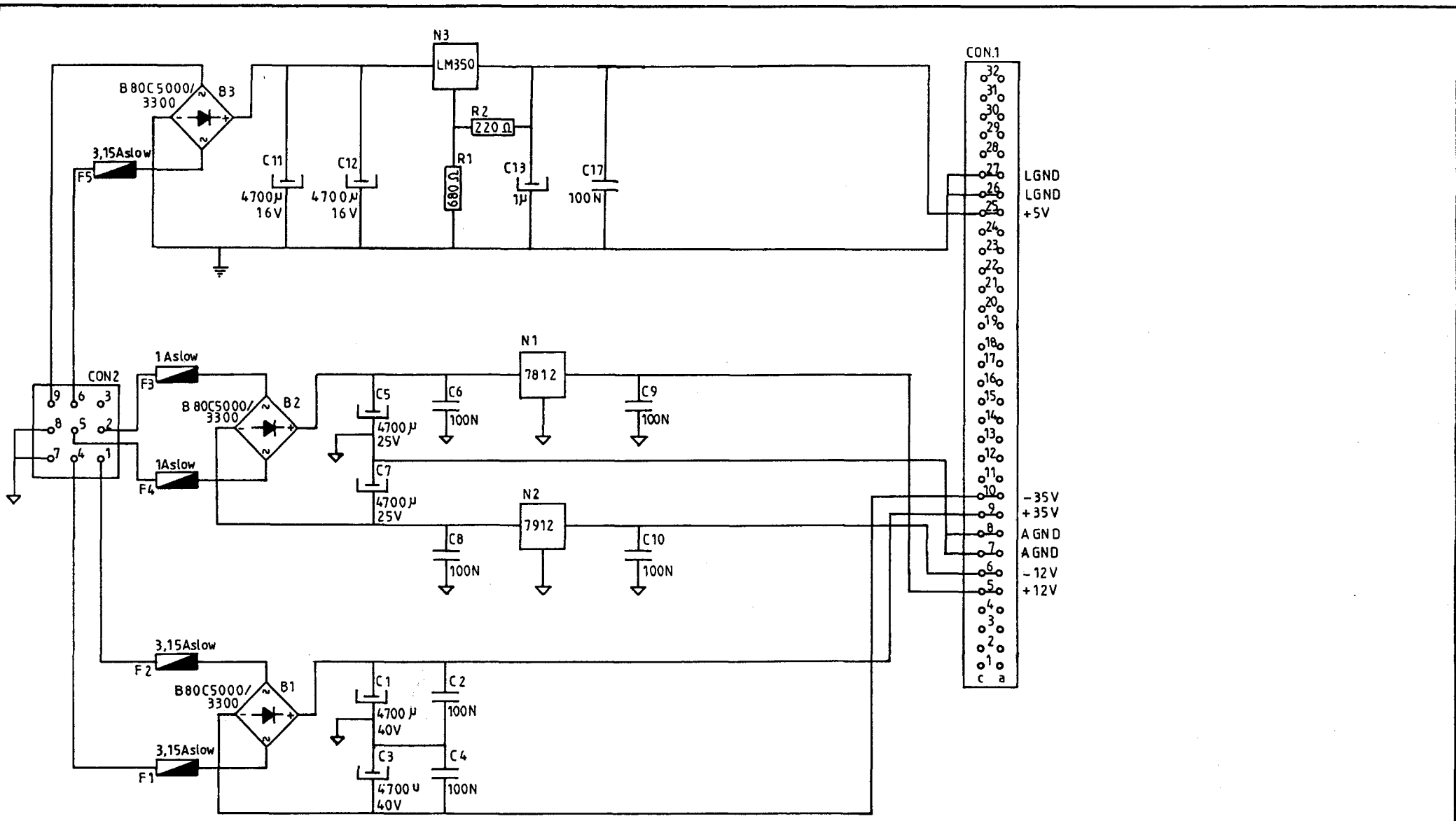
### TRANSFORMER CONNECTIONS

DESIGN:	RB/SvD/MH	01-06-89
DRAWN:	VERSCHOOR	20-06-89
MODIFIED:	-	-

**JOHANNUS**  
OPUS 1000

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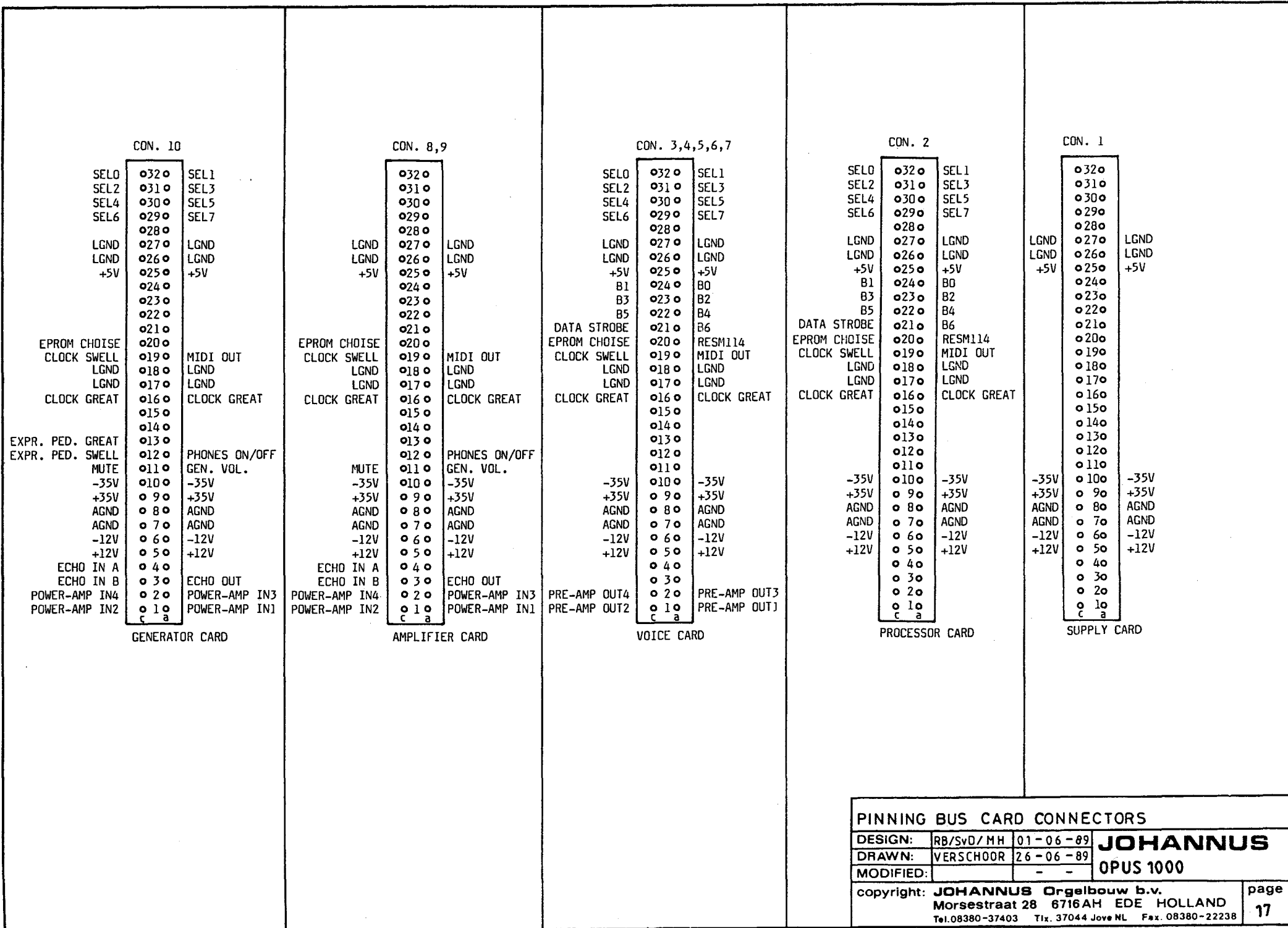
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15



**POWER SUPPLY (supply card)**

DESIGN:	RB/SvD/MH	01 - 06 - 89	<b>JOHANNUS</b> OPUS 1000
DRAWN:	VERSCHOOR	20 - 06 - 89	
MODIFIED:	VERSCHOOR	22 - 08 - 89	

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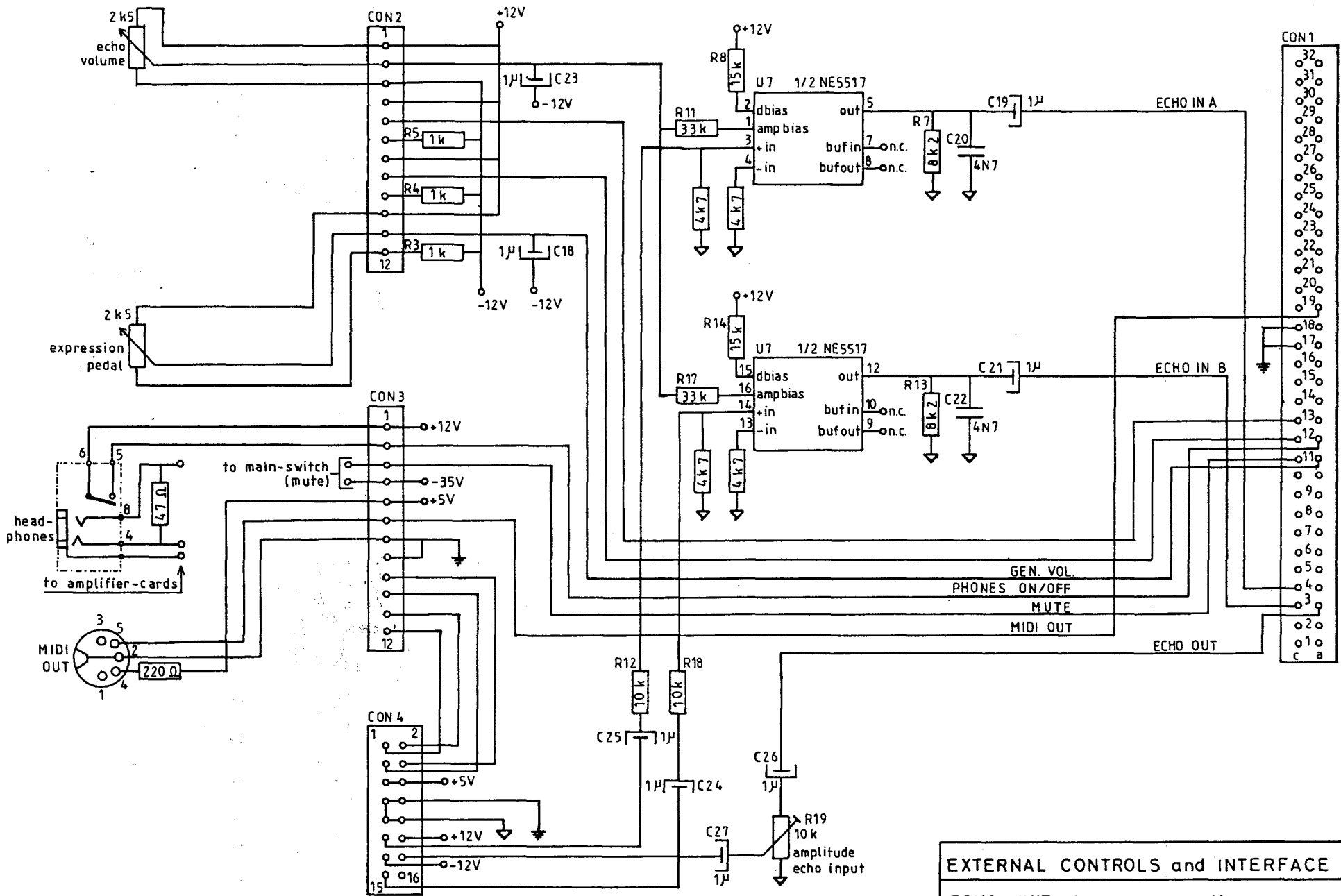


**PINNING BUS CARD CONNECTORS**

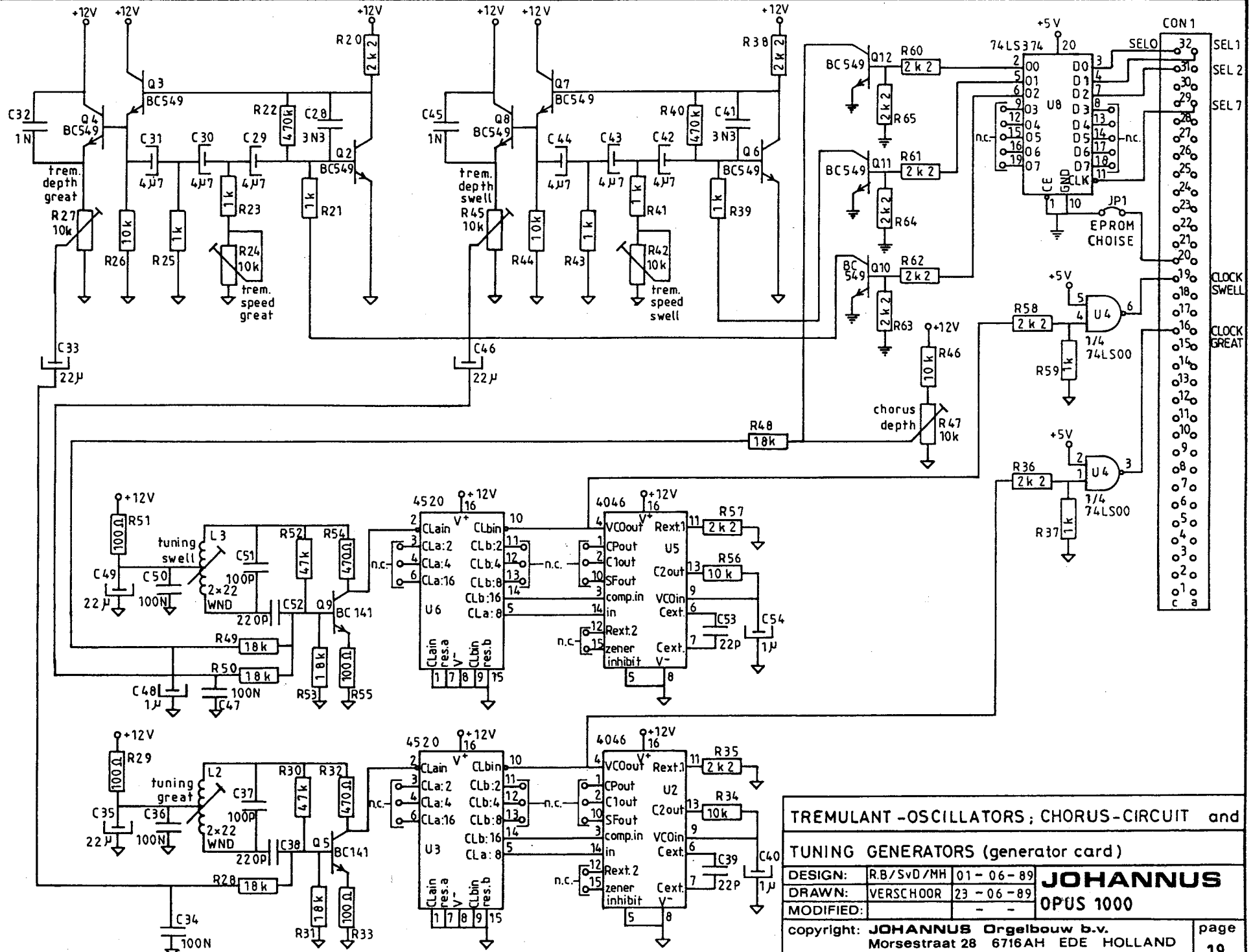
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DRAWN:	VERSCHOOR	26-06-89	
MODIFIED:	-	-	

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page **17**



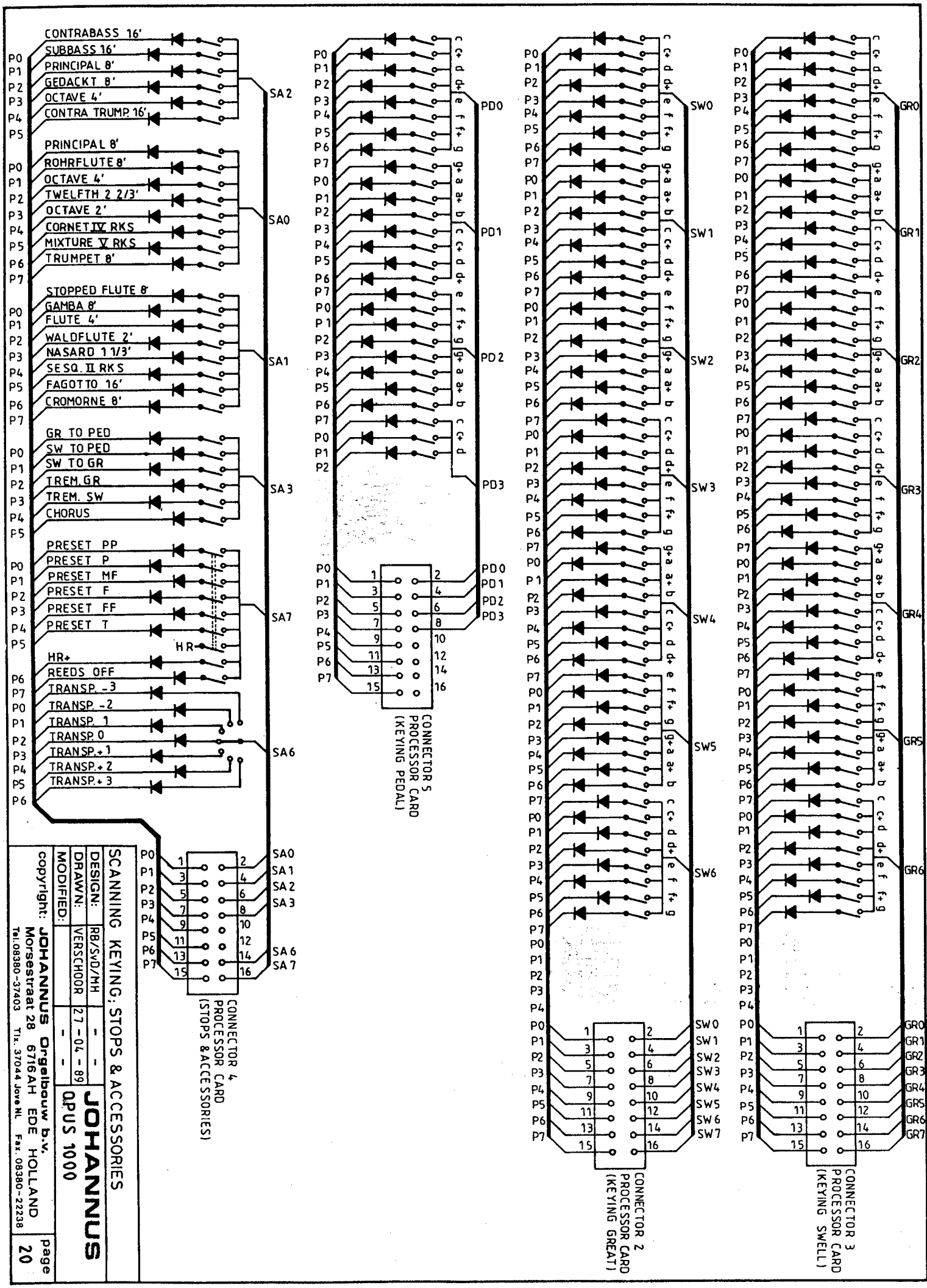
<b>EXTERNAL CONTROLS and INTERFACE</b>		
<b>ECHO UNIT (generator card)</b>		
DESIGN:	RB/SvD/MH	01-06-89
DRAWN:	VERSCHOOR	21-06-89
MODIFIED:	VERSCHOOR	14-08-89
copyright: <b>JOHANNUS Orgelbouw b.v.</b>		page
Morsestraat 28 6716AH EDE HOLLAND		18
Tel.08380-37403 Tlx. 37044 Jove NL Fax. 08380-22238		



**TREMULANT - OSCILLATORS ; CHORUS - CIRCUIT and TUNING GENERATORS (generator card)**

DESIGN:	R.B/SvD/MH	01 - 06 - 89	<b>JOHANNUS OPUS 1000</b>
DRAWN:	VERSCHOOR	23 - 06 - 89	
MODIFIED:	-	-	

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Tel.08380-37403 Tlx. 37044 Jove NL Fax. 08380-22238

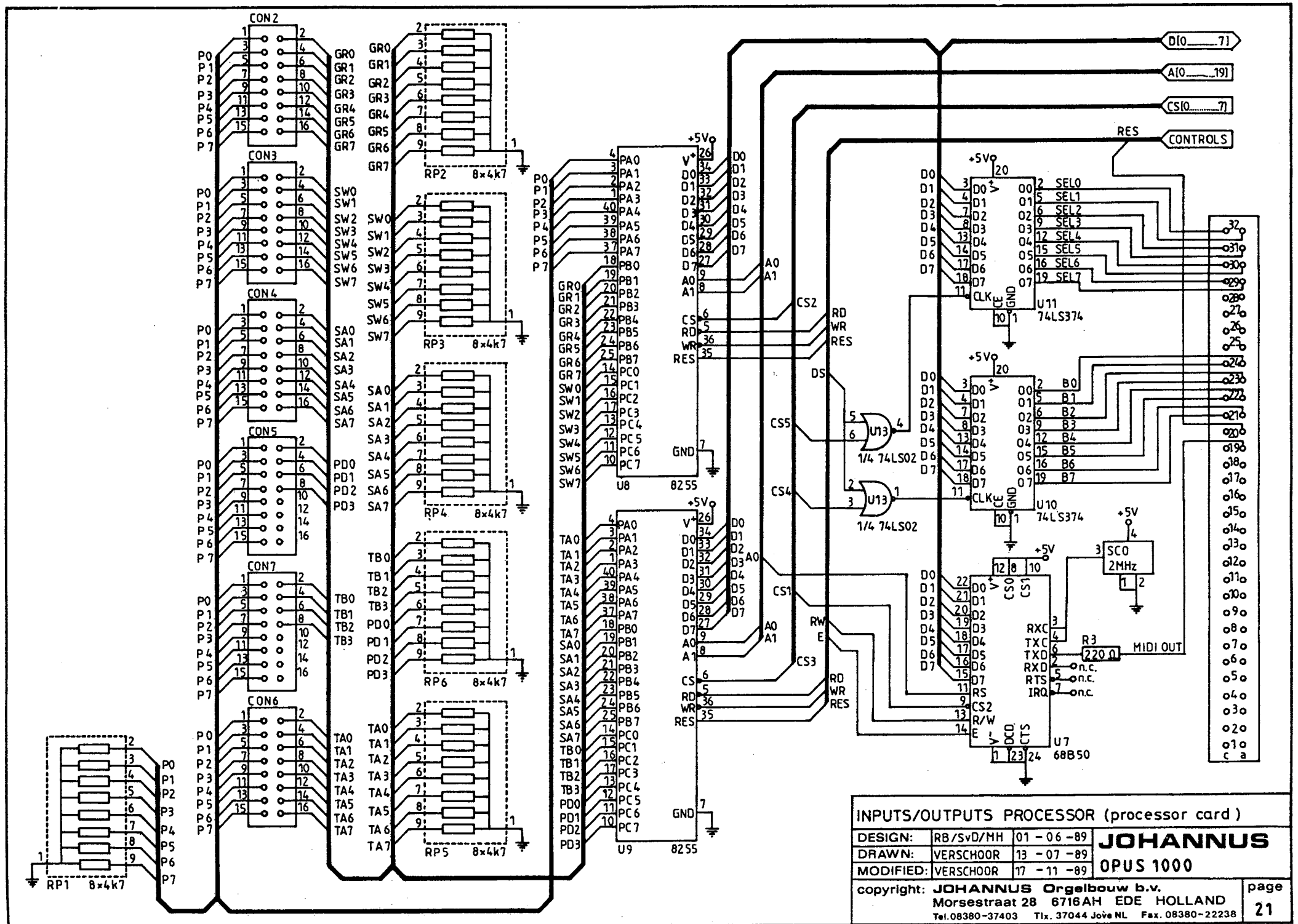


**SCANNING KEYING; STOPS & ACCESSORIES**

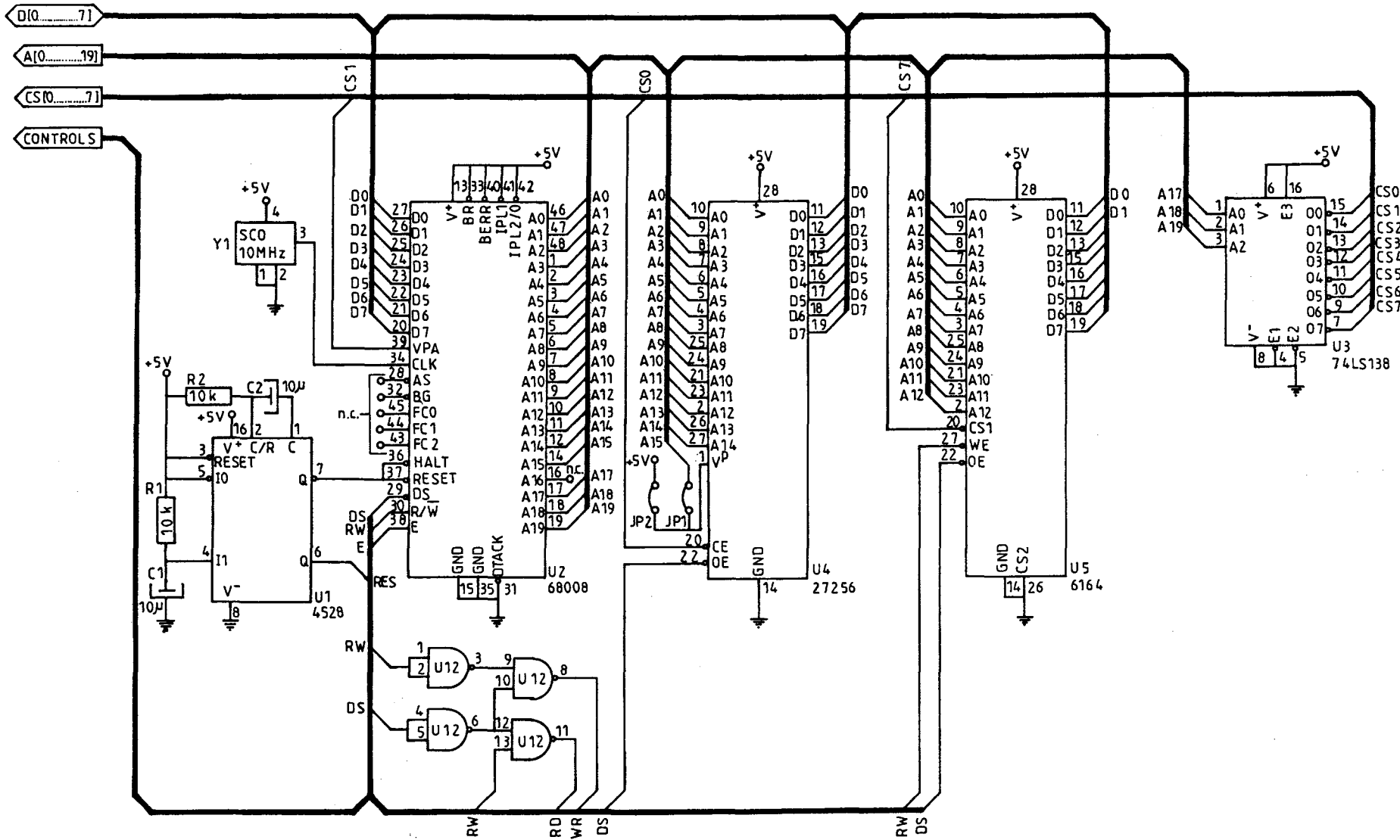
DESIGN: RB/SVD/MH  
 DRAWN: VERSCHOOR 27-04-89  
 MODIFIED: - - -

**JOHANNUS**  
 OPUS 1000

copyright: **JOHANNUS Orgelbauw b.v.**  
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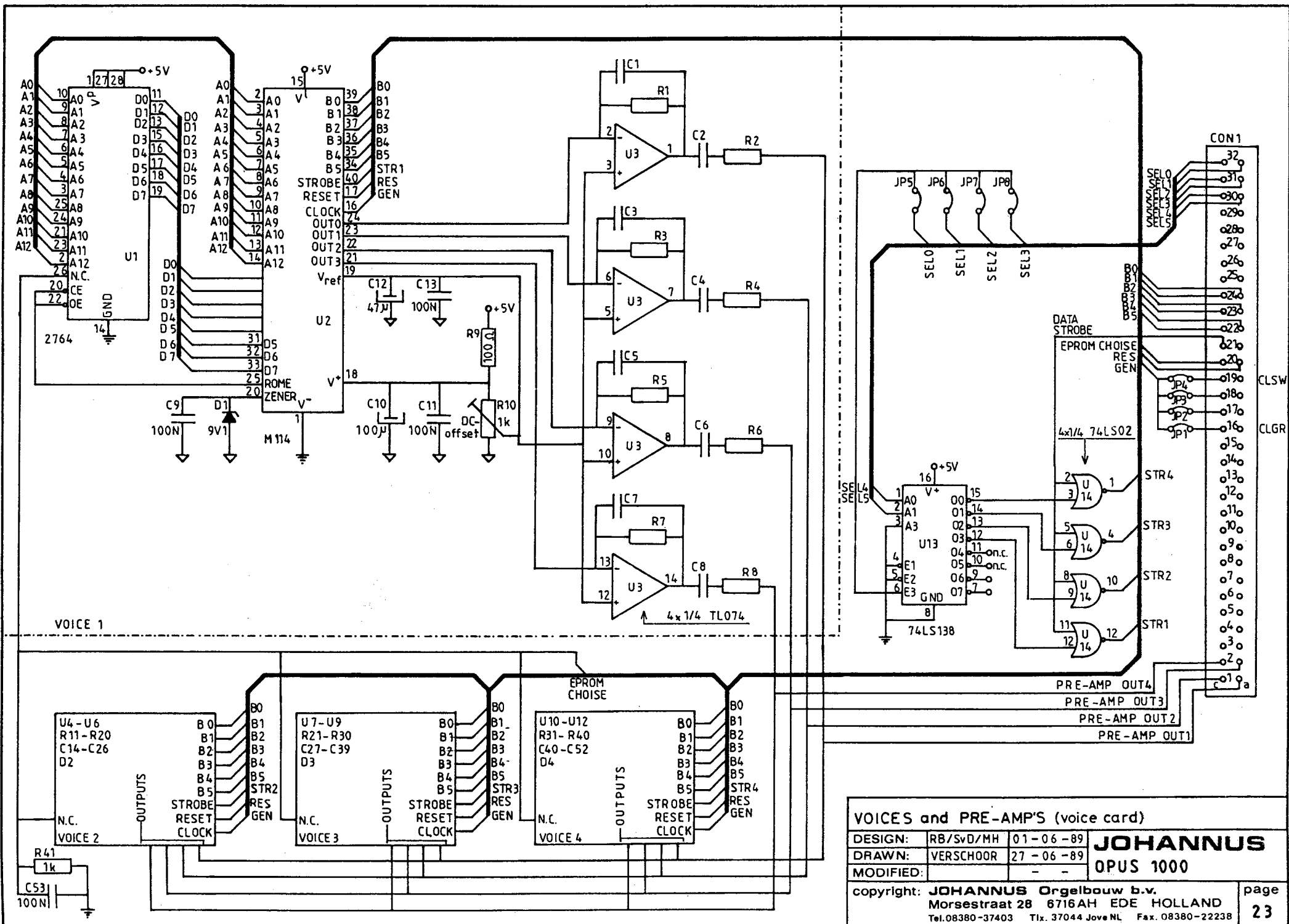
INPUTS/OUTPUTS PROCESSOR (processor card)			
DESIGN:	RB/SVD/MH	01 - 06 - 89	<b>JOHANNUS</b> <b>OPUS 1000</b>
DRAWN:	VERSCHOOR	13 - 07 - 89	
MODIFIED:	VERSCHOOR	17 - 11 - 89	
copyright: JOHANNUS Orgelbouw b.v. Morsestraat 28 6716AH EDE HOLLAND			page
Tel. 08380-37403 Tlx. 37044 JoVe NL Fax. 08380-22238			21

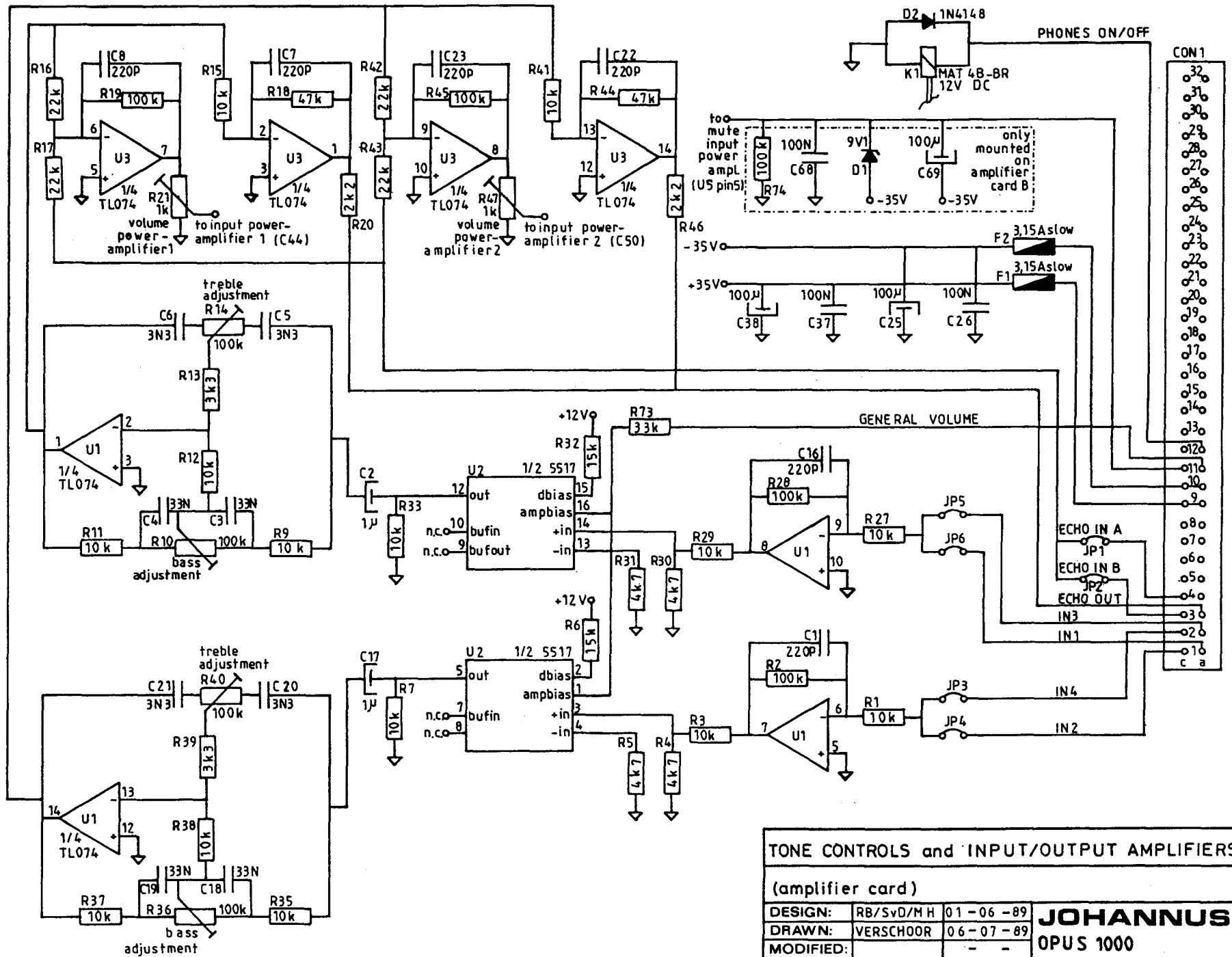


↑ ↑ 4x 1/4 74LS00

PROCESSOR (processor card)		
DESIGN:	RB/SvD/MH	01-06-89
DRAWN:	VERSCHOOR	14-07-89
MODIFIED:	-	-
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Morsestraat 28 6716AH EDE HOLLAND		22
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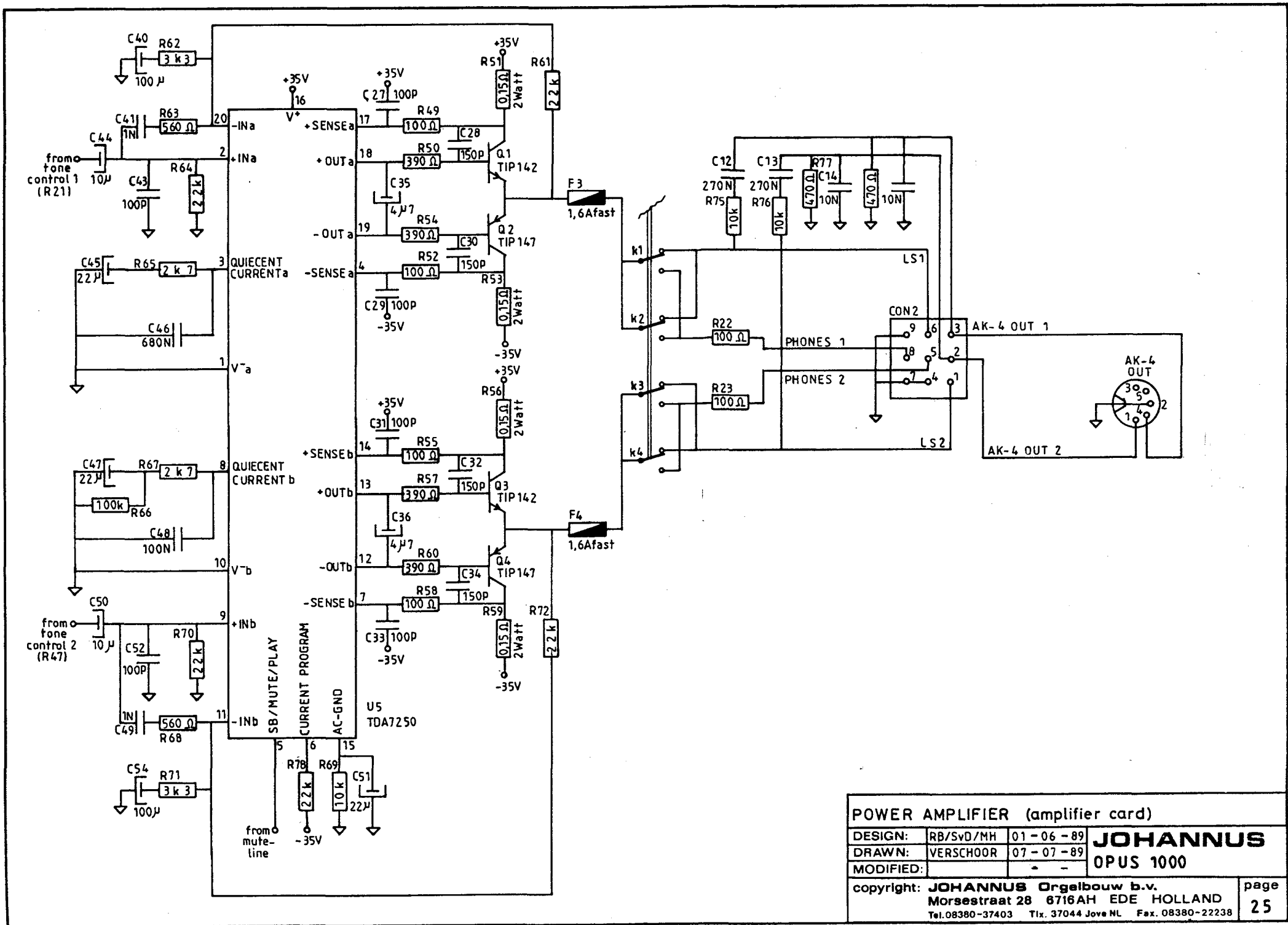
**TONE CONTROLS and INPUT/OUTPUT AMPLIFIERS**

(amplifier card)

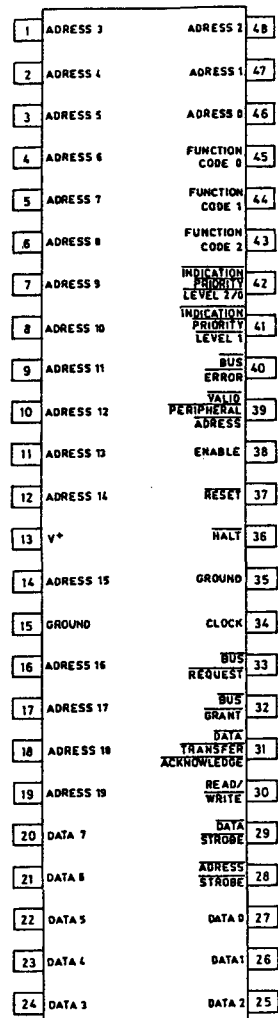
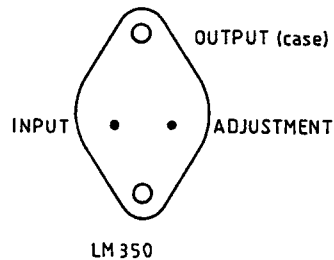
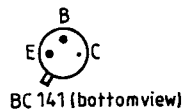
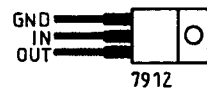
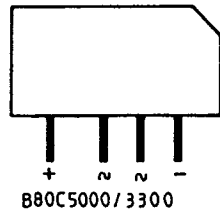
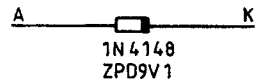
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DRAWN:	VERSCHOOR	06-07-89
MODIFIED:		

**JOHANNUS**  
OPUS 1000

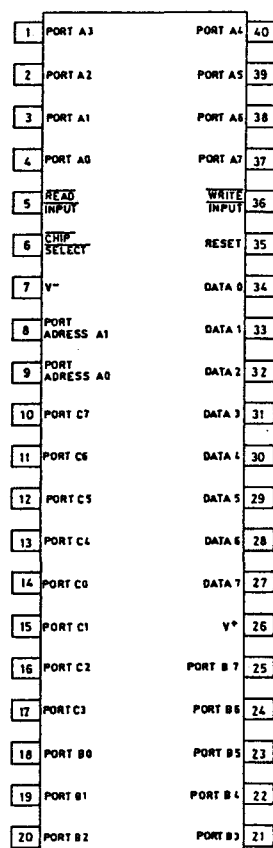
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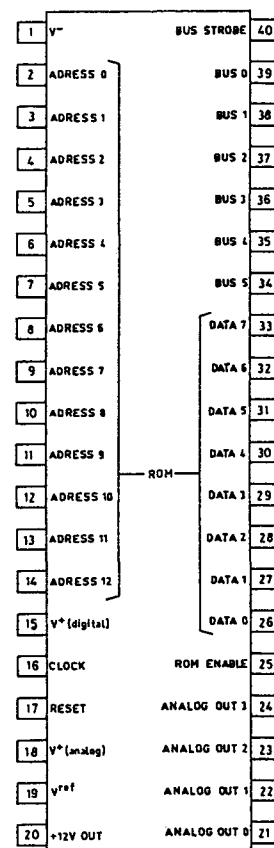
POWER AMPLIFIER (amplifier card)		
DESIGN:	RB/SVD/MH	01-06-89
DRAWN:	VERSCHOOR	07-07-89
MODIFIED:	-	-
copyright: JOHANNUS Orgelbouw b.v. Morsestraat 28 6716AH EDE HOLLAND		page
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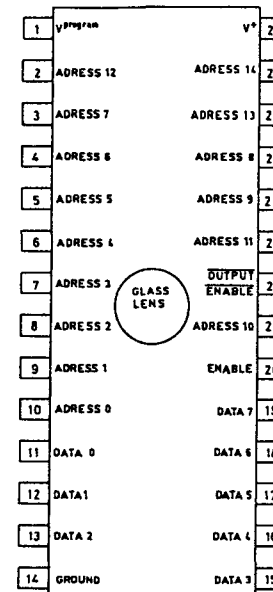
68008: 8-/32-bit micro-processor with 8-bit data bus



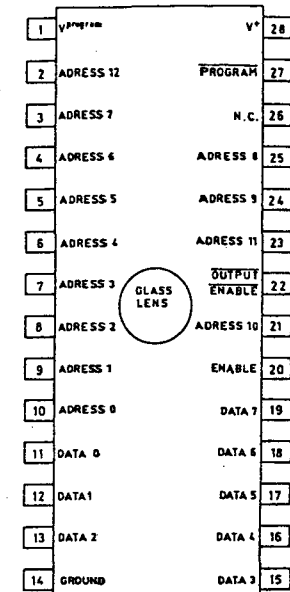
8255: programmable input/output interface



M 1145 digital sound generator



27256: 256k ultraviolet erasable programmable read only memory

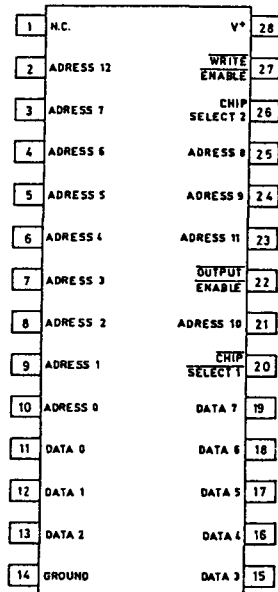


2764: 64k ultraviolet erasable programmable read only memory

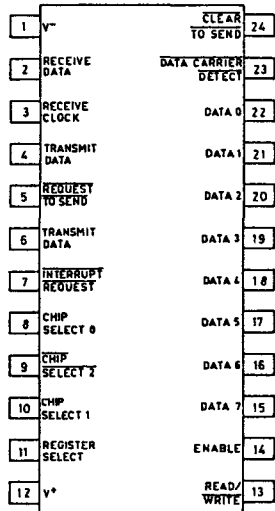
GENERAL INFORMATION SEMI-CONDUCTORS (I)

DESIGN:		- -	<b>JOHANNUS</b>
DRAWN:	VERSCHOOR	17-07-89	<b>OPUS 1000</b>
MODIFIED:	VERSCHOOR	22-08-89	

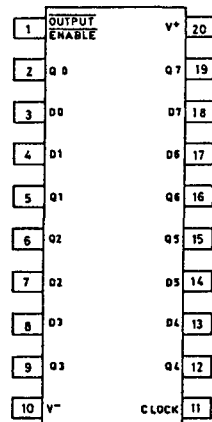
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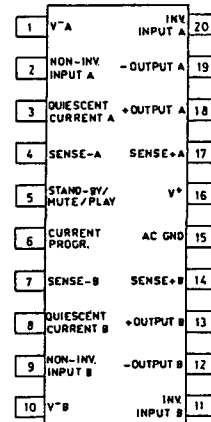
6164: 64k random access memory



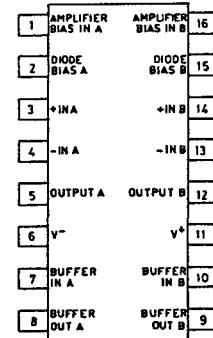
6850: asynchronous communication interface adapter



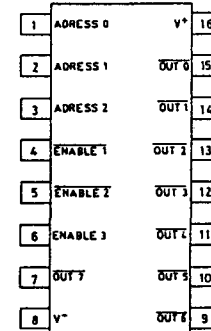
74374: octal D-flip-flop with 3-state outputs



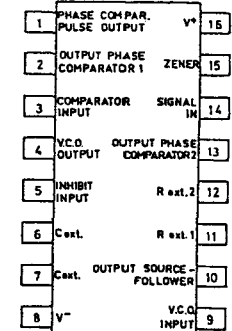
TDA7250: 60W hi-fi dual audio driver



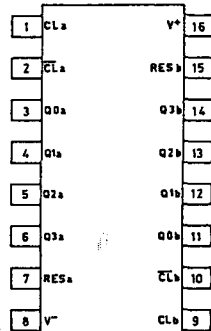
NE 5517: dual operational transconductance amplifier



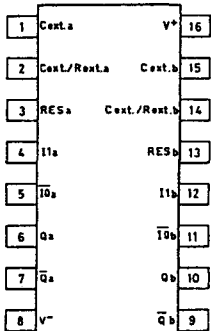
74138: 1-of-8 decoder/demultiplexer



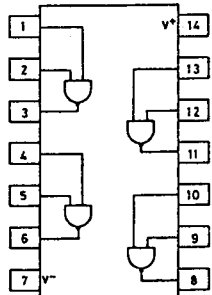
4046: phase locked loop circuit



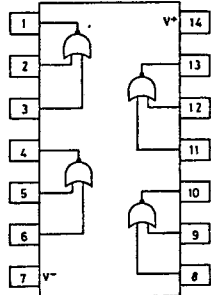
4520: dual binary counter



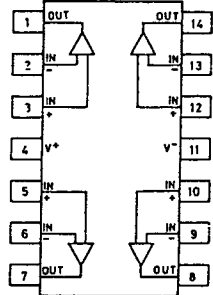
4528: dual monostable multivibrator



7400: quad nand



7402: quad nor



TL074: quad opamp

GENERAL INFORMATION SEMI CONDUCTORS (II)

DESIGN:		- -	<b>JOHANNUS</b> OPUS 1000
DRAWN:	VERSCHOOR	17-07-89	
MODIFIED:		- -	

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