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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 5 4 0
alterations reserved

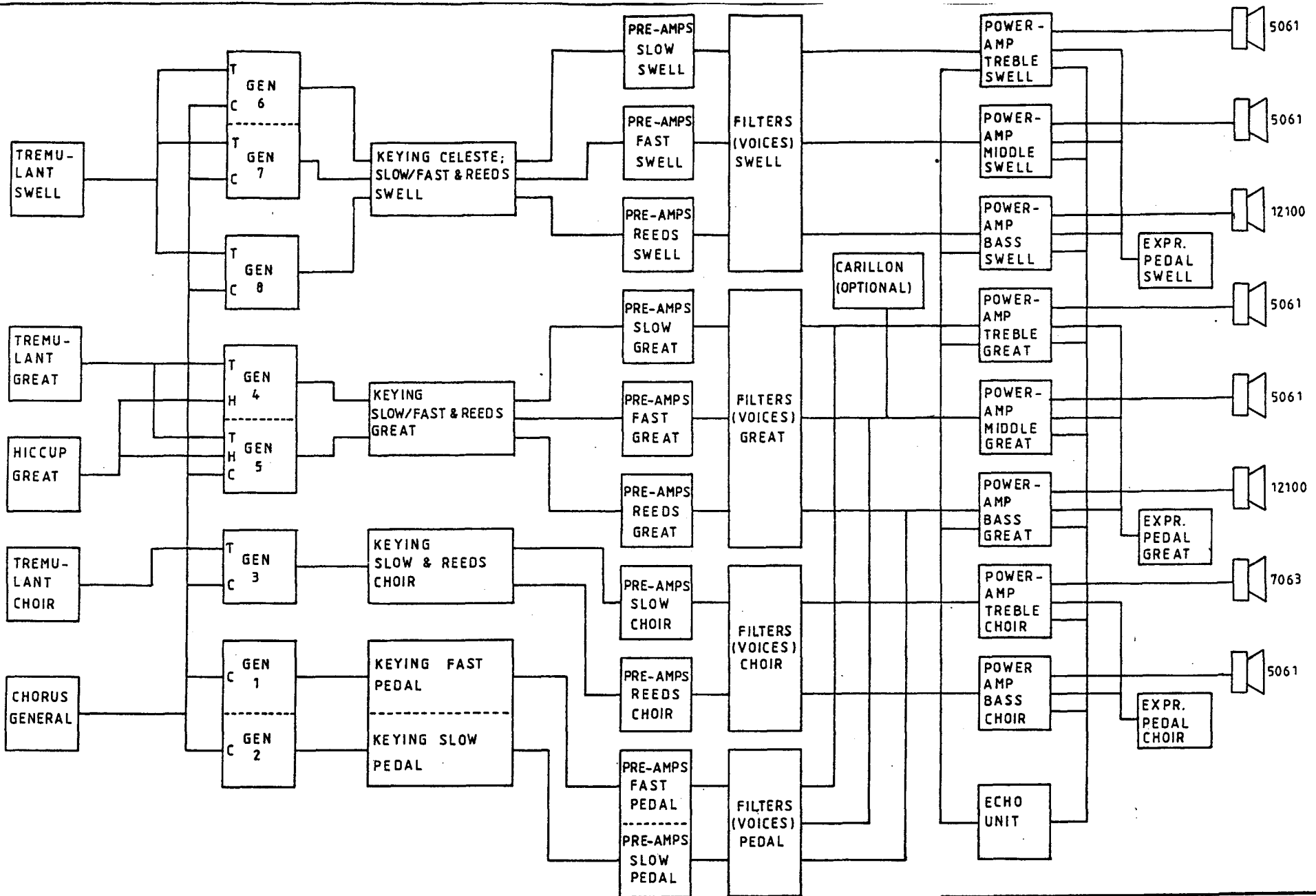
C O N T E N T S

1. SIGNAL COURSE VOICES
2. BLOCKDIAGRAM
3. POSITION GUIDE P.C.-BOARDS
4. POWER SUPPLY
5. ACCESSORIES (tremulant & coupler system)
6. GENERATOR (3) CHOIR
7. GENERATORS (4 & 5 GREAT / 6 & 7 SWELL)
8. GENERATOR (8) CELESTE SWELL
9. GENERATOR/KEYING (1) PEDAL (8'-1' fast)
10. GENERATOR/KEYING (2) PEDAL (32'-4' slow)
11. KEYING SLOW & REEDS CHOIR
12. KEYING SLOW-FAST & REEDS GREAT
13. KEYING SLOW-FAST & REEDS SWELL
14. PRE-AMP'S & SUPPLY VOLTAGES PEDAL
15. PRE-AMP'S SLOW CHOIR
16. PRE-AMP'S REEDS CHOIR
17. PRE-AMP'S SLOW GREAT
18. PRE-AMP'S FAST & CHIFF GREAT
19. PRE-AMP'S REEDS GREAT
20. PRE-AMP'S SLOW SWELL
21. PRE-AMP'S FAST & CHIFF SWELL
22. PRE-AMP'S REEDS SWELL
23. VOICES PEDAL
24. VOICES CHOIR
25. VOICES I GREAT
26. VOICES II GREAT & SWITCHSECTION PRESETS
27. VOICES I SWELL
28. VOICES II SWELL & VOICE GATES
29. POWER AMPLIFIER (universal 8x)
30. ECHO UNIT INTERN
31. GENERAL INFORMATION SEMI-CONDUCTORS

	VOICE	PRESET	GEN.	CONSISTS OF	AMPL.	SPEAKER
PEDAL	DOUBLE BASS 16'	F	2	16's + 8's + 4's	BASS	12100
	VIOLON 16'	--	2	16's + 8's + 4's	MIDDLE	5061
	SUBBASS 16'	PP	2	16's	BASS	12100
	PRINCIPAL 8'	MF	1	8'f + 4'f + 2'f + 1'f	BASS	12100
	VIOLON 8'	--	1	8's + 4's	TREBLE	5061
	GEDACKT 8'	P	2	8's	BASS	12100
	OCTAVE 4'	F	1	4'f + 2'f + 1'f	MIDDLE	5061
	MIXTURE V RKS	T	1	4'f; 2 2/3'f; 2'f; 1 1/3'f & 1'f	TREBLE	5061
	BOMBARDE 32'	--	2	32's + 16's + 8's + 4's	BASS	12100
	CONTRA TRUMPET 16'	T	2	16's + 8's + 4's	BASS	12100
TRUMPET 8'	F	1	8'f + 4'f + 2'f + 1'f	TREBLE	5061	
TRUMPET 4'	T	1	4'f + 2'f + 1'f	MIDDLE	5061	
CHOIR	QUINTATON 16'	T	3	16's	BASS	12100
	DIAPASON 8'	FF	3	8's + 4's + 2's + 1's	BASS	12100
	STOPPED FLUTE 8'	PP	3	8's	BASS	12100
	OCTAVE 4'	MF	3	4's + 2's + 1's	BASS	12100
	FLUTE 4'	P	3	4's	TREBLE	7063
	TWELFTH 2 2/3'	F	3	2 2/3's	BASS	12100
	OCTAVE 2'	F	3	2's + 1's	TREBLE	7063
	CONICAL FLUTE 2'	F	3	2's	BASS	12100
	TIERCE 1 3/5'	--	3	1 3/5's	TREBLE	7063
	NASARD 1 1/3'	FF	3	1 1/3's	TREBLE	7063
	OCTAVE 1'	FF	3	1's	TREBLE	7063
	SCHARF II RKS	T	3	1 1/3's & 1's	TREBLE	7063
	CLARINET 8'	T	3	8' reeds	TREBLE	7063
GREAT	PRINCIPAL 16'	FF	4/5	16's + 8's + 4's + 2's	BASS	12100
	PRINCIPAL 8'	MF	4/5	8's + 4'f + 2'f	BASS	12100
	GAMBA 8'	--	4/5	8' reeds	MIDDLE	5061
	STOPPED FLUTE 8'	PP	4/5	8's with 2 2/3' chiff	MIDDLE	5061
	OCTAVE 4'	MF	4/5	4's + 2'f + 1'f	MIDDLE	5061
	OPEN FLUTE 4'	P	4/5	4's with 2' chiff	TREBLE	5061
	TWELFTH 2 2/3'	F	4/5	2 2/3's + 1 1/3'f	MIDDLE	5061
	OCTAVE 2'	F	4/5	2'f + 1'f	TREBLE	5061
	CORNET IV RKS	FF	4/5	4's; 2 2/3's; 2's & 1 3/5'f	MIDDLE	5061
	TERZIAN II RKS	T	4/5	2'f + 1 3/5'f	TREBLE	5061
	MIXTURE V RKS	FF	4/5	4's; 2 2/3'f; 2'f; 1 1/3'f & 1'f	TREBLE	5061
	TRUMPET 16'	T	4/5	16' reeds	BASS	12100
	TRUMPET 8'	F	4/5	8' reeds	TREBLE	5061
CLARION 4'	T	4/5	4' reeds	MIDDLE	5061	
SWELL	BOURDON 16'	T	6/7	16's	BASS	12100
	PRINCIPAL 8'	MF	6/7	8's + 4'f + 2'f	BASS	12100
	SALICIONAL 8'	FF	6/7	8's + 4'f + 2'f	MIDDLE	5061
	CELESTE 8'	--	6/7	8's + 4'f + 2'f	TREBLE	5061
			8	8' cel (floating)	BASS	12100
	ROHRFLÖTE 8'	PP	6/7	8's with 2 2/3' chiff	MIDDLE	5061
	OCTAVE 4'	MF	6/7	4's + 2'f + 1'f	MIDDLE	5061
	GEIGEN PRINCIPAL 4'	F	6/7	4's + 2'f + 1'f	TREBLE	5061
	KOPPELFLÖTE 4'	P	6/7	4's with 2' chiff	BASS	12100
	NASARD 2 2/3'	FF	6/7	2 2/3'f + 1 1/3'f	MIDDLE	5061
	WALDFLÖTE 2'	F	6/7	2's with 1' chiff	TREBLE	5061
	SESQUIALTERA II RKS	--	6/7	2 2/3'f & 1 3/5'f	TREBLE	5061
	RAUSCHPFEIFE III rks	FF	6/7	2 2/3'f; 2'f & 1'f	TREBLE	5061
	FAGOTTO 16'	T	6/7	16' reeds	BASS	12100
	CROMORNE 8'	T	6/7	8' reeds	TREBLE	5061
	VOX HUMANA 8'	T	6/7	8' reeds	MIDDLE	5061
OBOE 8'	F	6/7	8' reeds	BASS	12100	
SCHALMEI 4'	T	6/7	4' reeds	TREBLE	5061	

SIGNAL COURSE VOICES

Drawn	Date	Modified	Date	JOHANNUS ORGAN OPUS 540
Verschoor	26-02-85			
DESIGN				
J.Versteegt				
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BLOCKDIAGRAM

Drawn	Date	Modified	Date	JOHANNUS ORGAN OPUS 540
Verschoor	06-06-84			
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(COPPERSIDE VIEW)

	POWER-AMP GREAT BASS 340-55	POWER-AMP GREAT MIDDLE 340-55	POWER-AMP GREAT TREBLE 340-55	POWER-AMP SWELL BASS 340-55	POWER-AMP SWELL MIDDLE 340-55	POWER-AMP SWELL TREBLE 340-55	POWER SUPPLY 340-45
GENERATOR CELESTE 340-47C GEN.8	FILTERS PEDAL 340-65		FILTERS GREAT 340-66		FILTERS SWELL 340-68		
KEYING: SLOW/FAST & REEDS SWELL 340-41				PRE-AMP SWELL REEDS 340-31C	PRE-AMP GREAT REEDS 340-29C		
KEYING: SLOW/FAST & REEDS GREAT 340-39				PRE-AMP SWELL FAST 340-31B	PRE-AMP GREAT FAST 340-29B		
GENERATOR SWELL (DOUBLE) 6 GEN. 7 340-47B	GENERATOR GREAT (DOUBLE) 5 GEN. 340-47B	GENERATOR / KEYING/ PRE-AMP PEDAL 340-38		PRE-AMP SWELL SLOW 340-31A	PRE-AMP SWELL SLOW 340-29A		

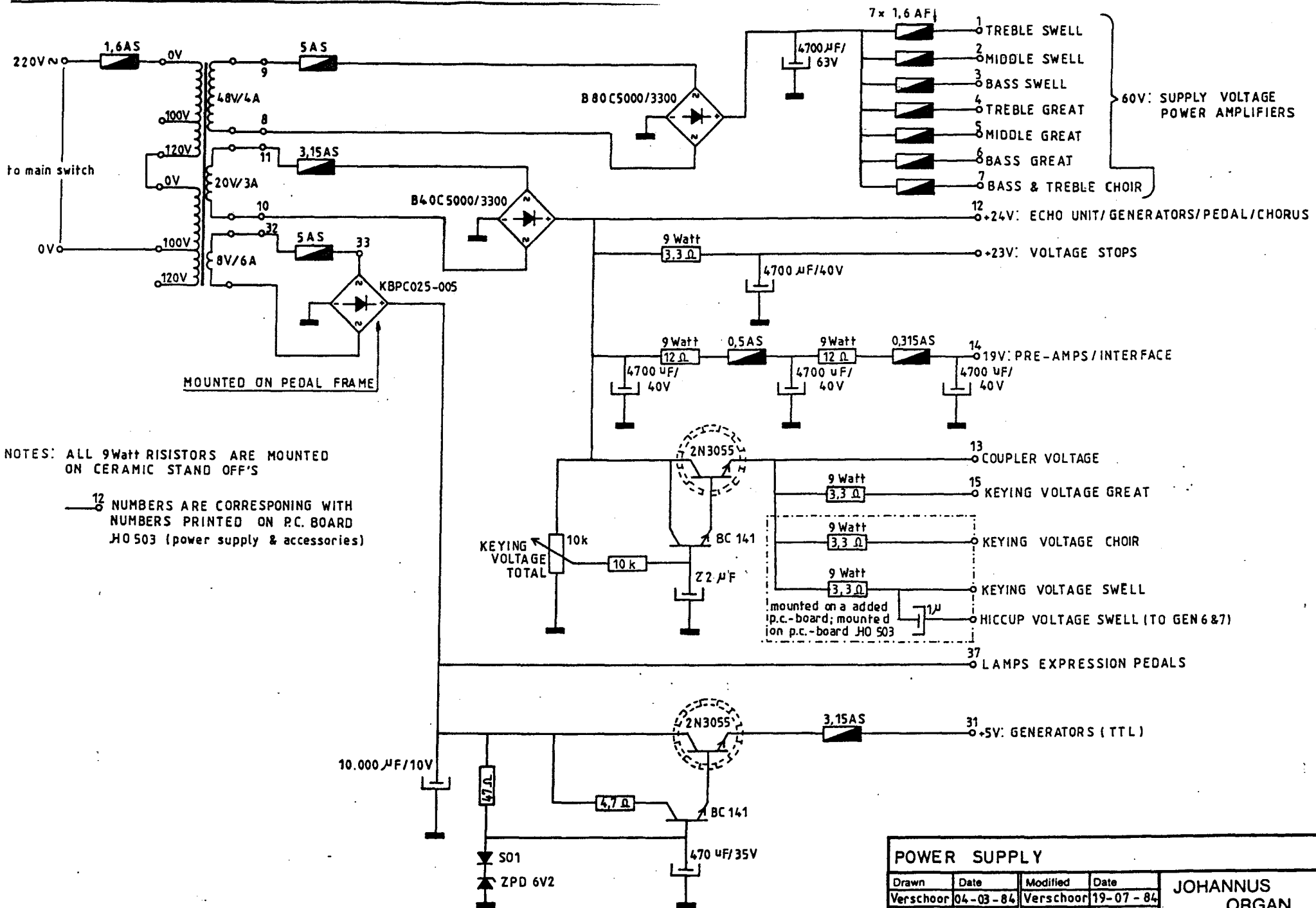
INTERFACE ELECTRONIC
REVERBERATION UNIT INT./EXT. 340-26

(COPPERSIDE VIEW)

PRE-AMP CHOIR SLOW 340-30A	PRE-AMP CHOIR REEDS 340-30C	FILTERS CHOIR 340-67	POWER-AMP CHOIR BASS 340-55	POWER-AMP CHOIR TREBLE 340-55	ELECTRONIC REVERBERA- TION UNIT 340-27		
KEYING: SLOW & REEDS CHOIR 340-40					GENERATOR CHOIR (SINGLE) GEN.3 340-47A		

POSITION GUIDE P.C.-BOARDS

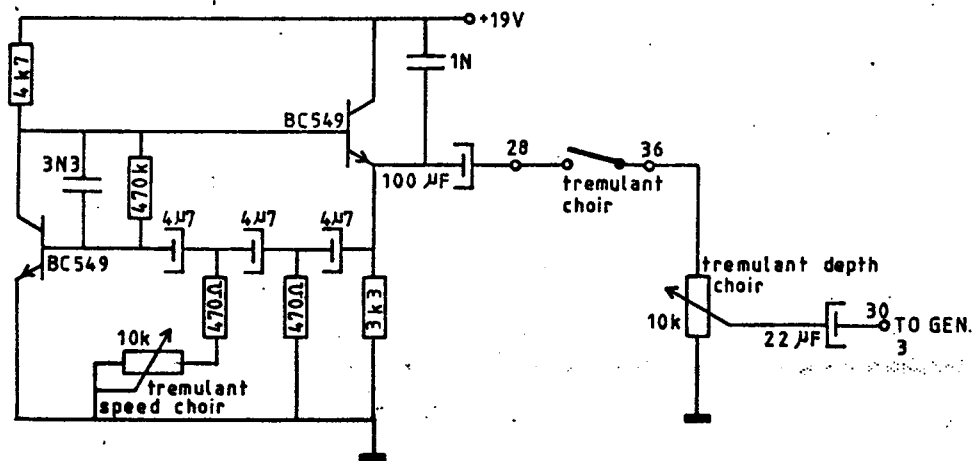
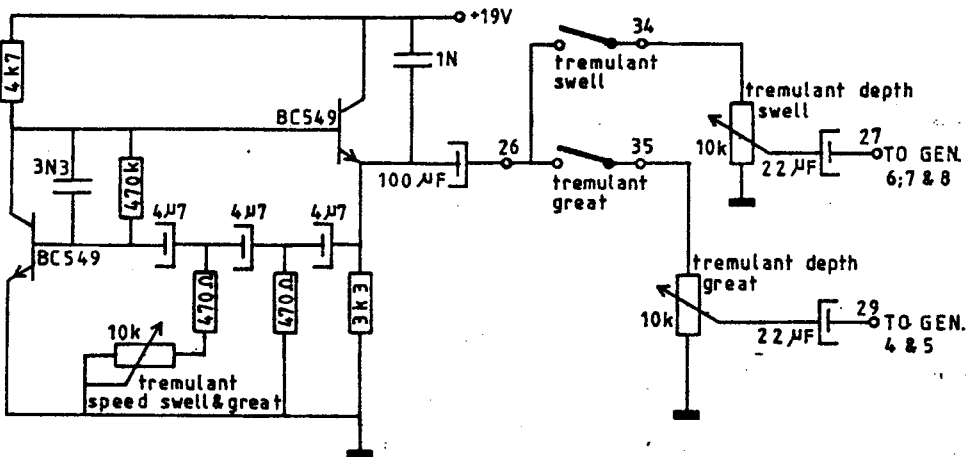
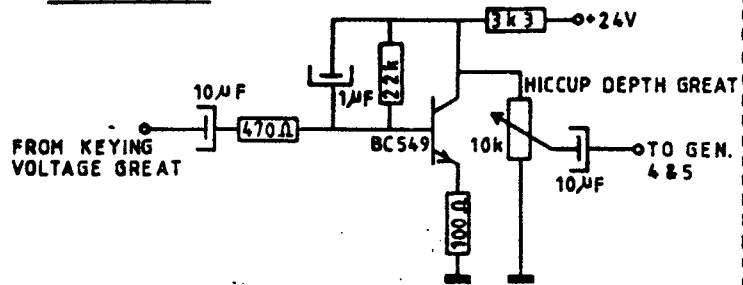
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DESIGN J.Versteegt				
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NOTES: ALL 9Watt RESISTORS ARE MOUNTED ON CERAMIC STAND OFF'S
 12 NUMBERS ARE CORRESPONDING WITH NUMBERS PRINTED ON P.C. BOARD JO 503 (power supply & accessories)

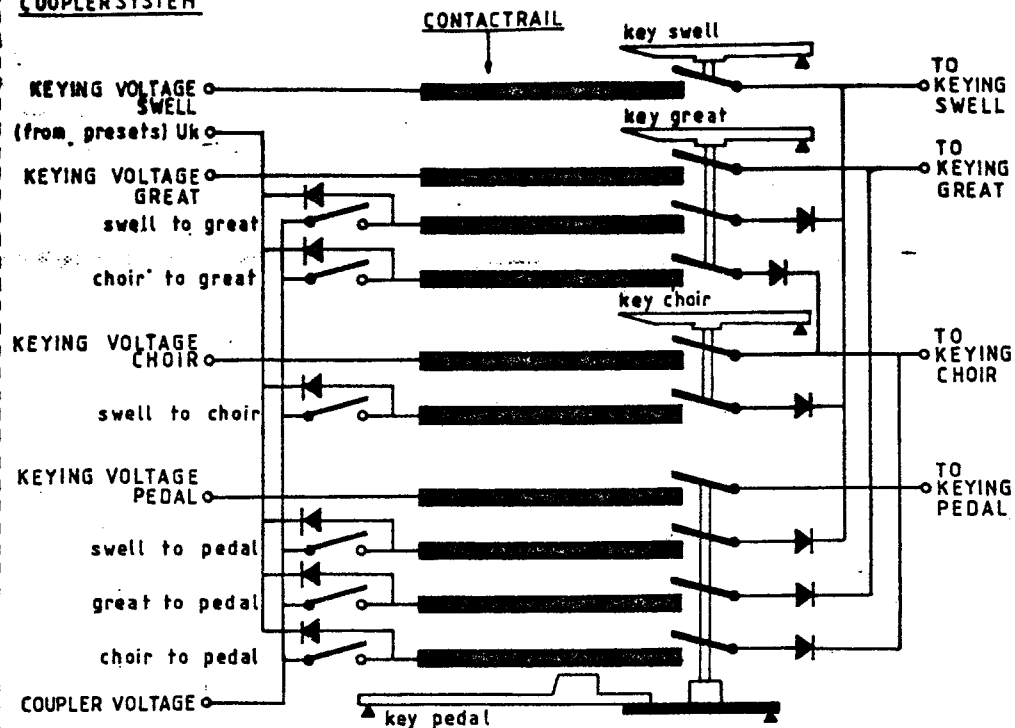
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J.Versteegt				
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				page: 4

HICCUP CIRCUIT



TREMULANT CIRCUITS

COUPLER SYSTEM



POSITION GUIDE CONTROLS ACCESSORIES

NOTE: — 34 NUMBERS ARE CORRESPONDING WITH NUMBERS PRINTED ON P.C.-BOARD JO 503 (power supply & accessories)

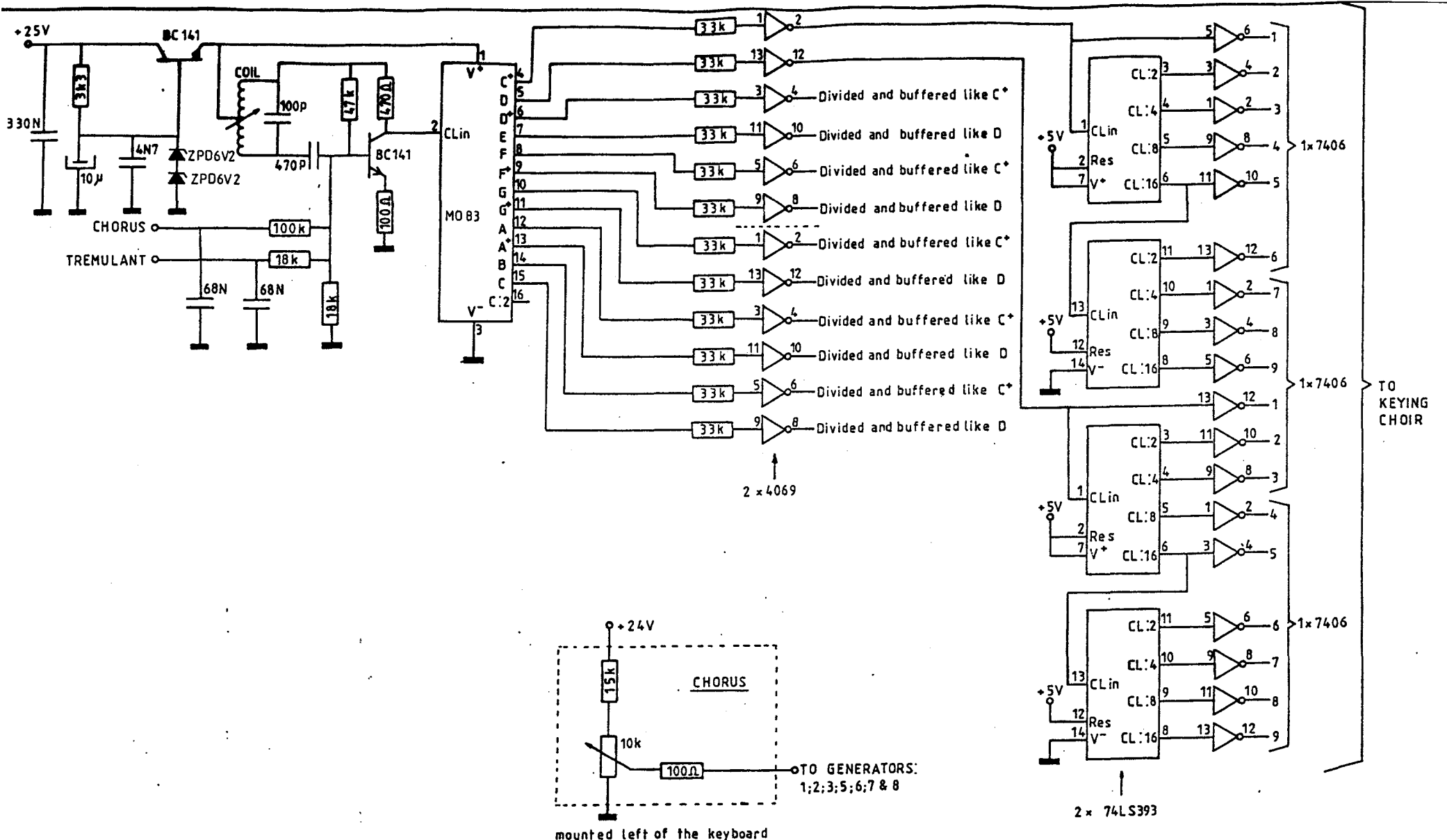
1. keying voltage total
2. hiccup depth great
3. tremulant speed great & swell
4. tremulant speed choir
5. tremulant depth swell
6. tremulant depth great
7. tremulant depth choir



€02 0M

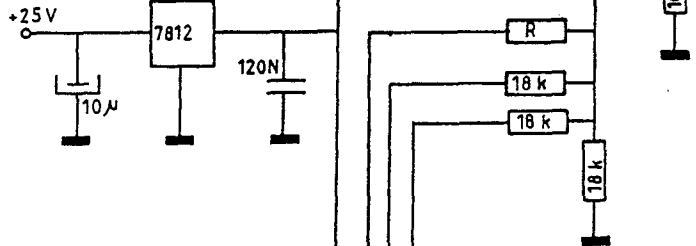
ACCESSORIES (tremulant & coupler system)

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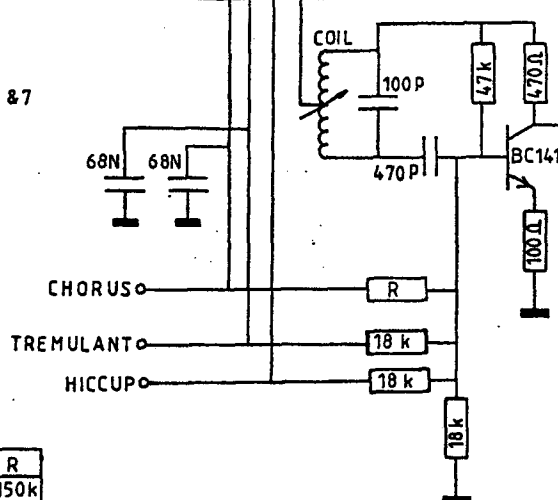


GENERATOR (3) CHOIR				JOHANNUS ORGAN OPUS 540
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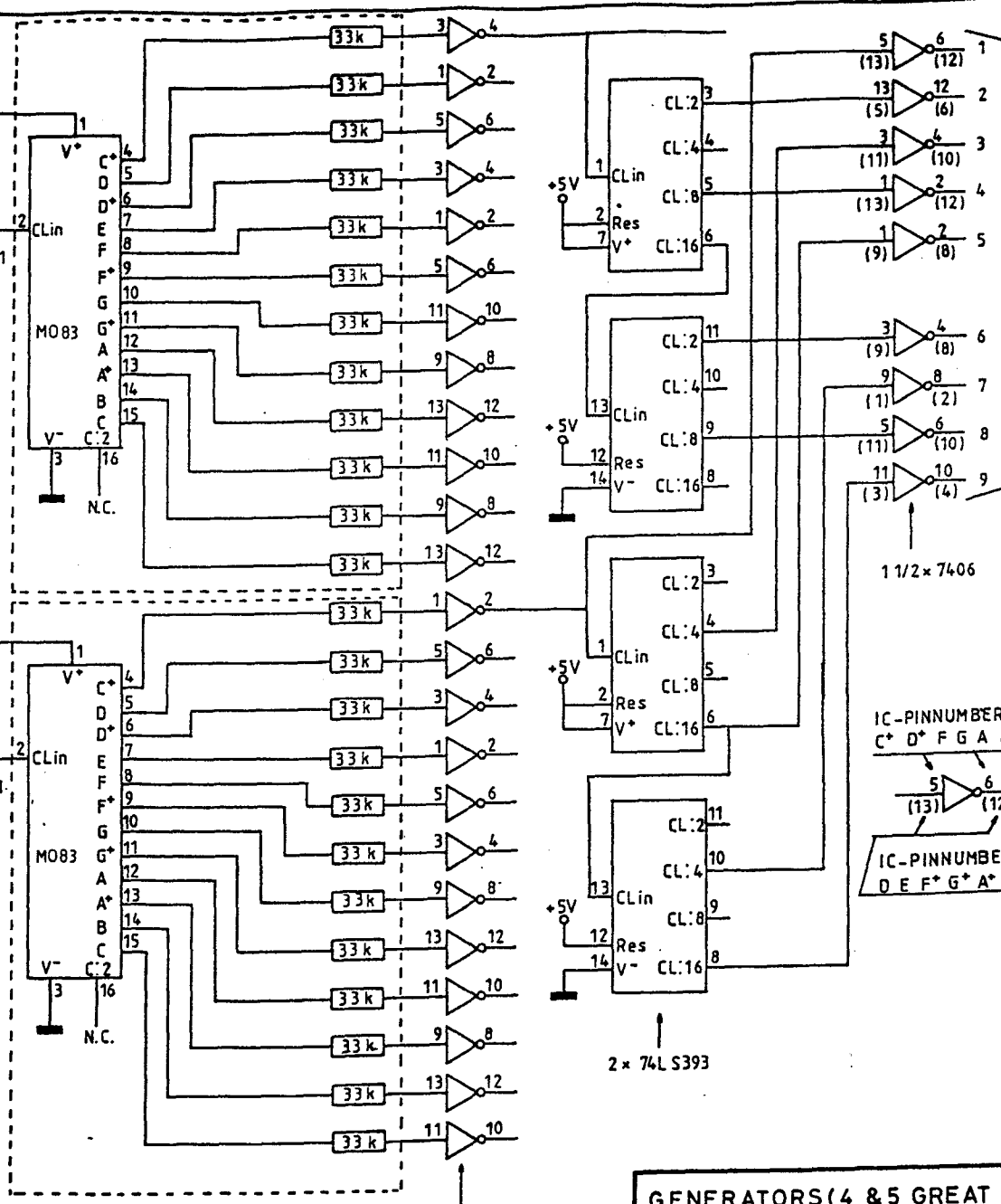
GENERATOR 4 & 6



GENERATOR 5 & 7



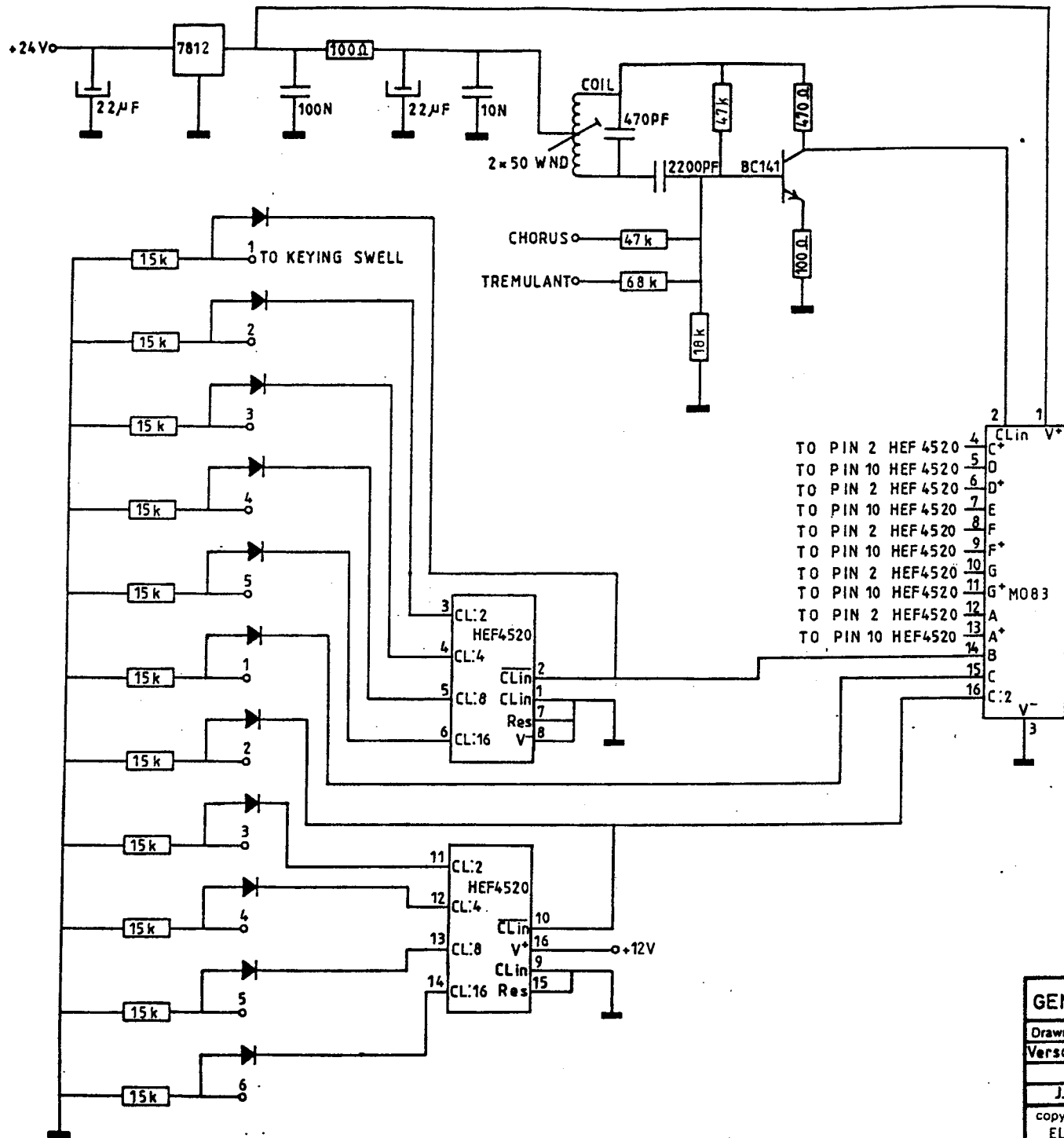
	R
GEN. 4	150k
GEN. 5	—
GEN. 6	56k
GEN. 7	82k



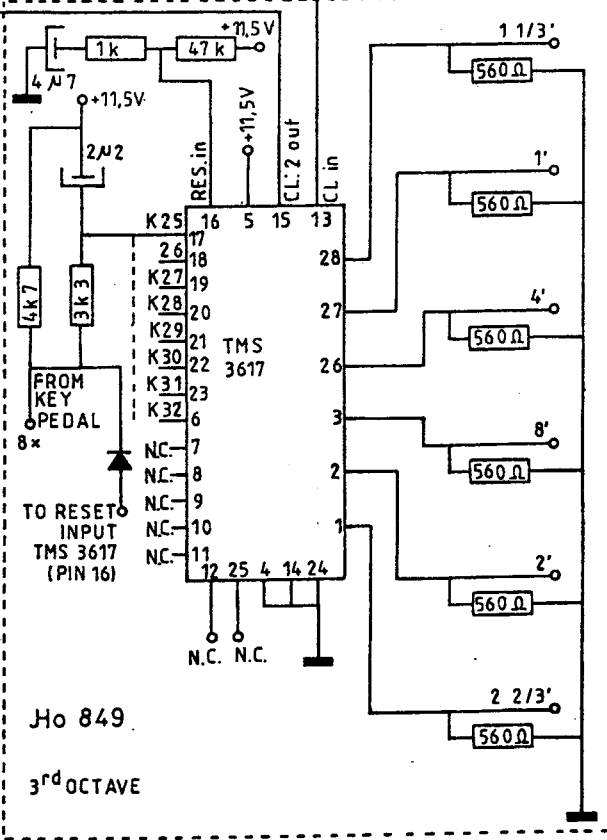
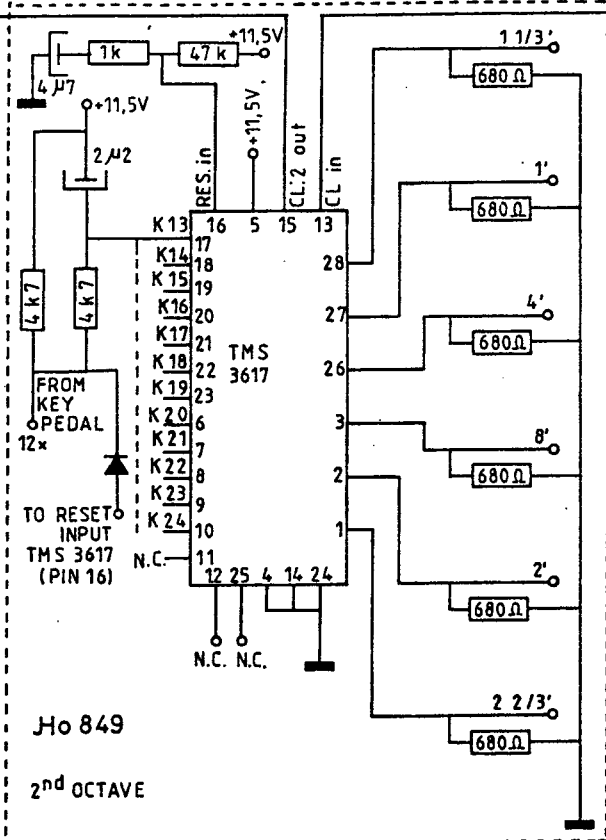
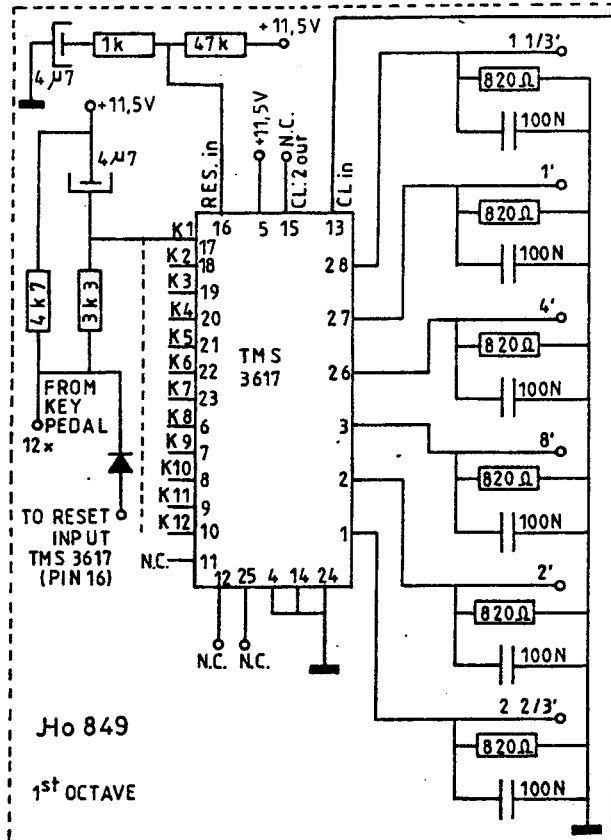
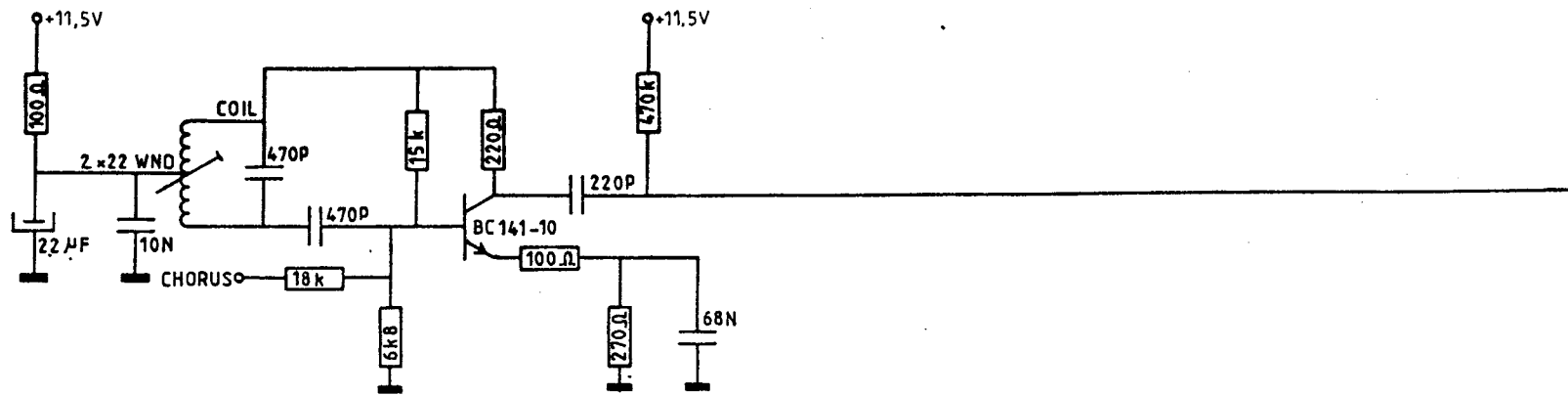
MOUNTED ON PC BOARD JO 639A (2x) 4x 74C04

GENERATORS (4 & 5 GREAT / 6 & 7 SWELL)

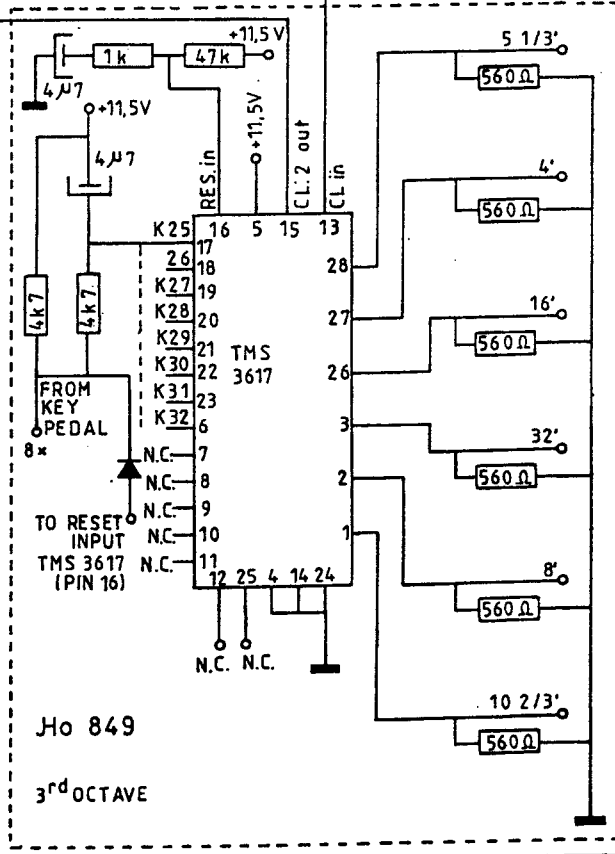
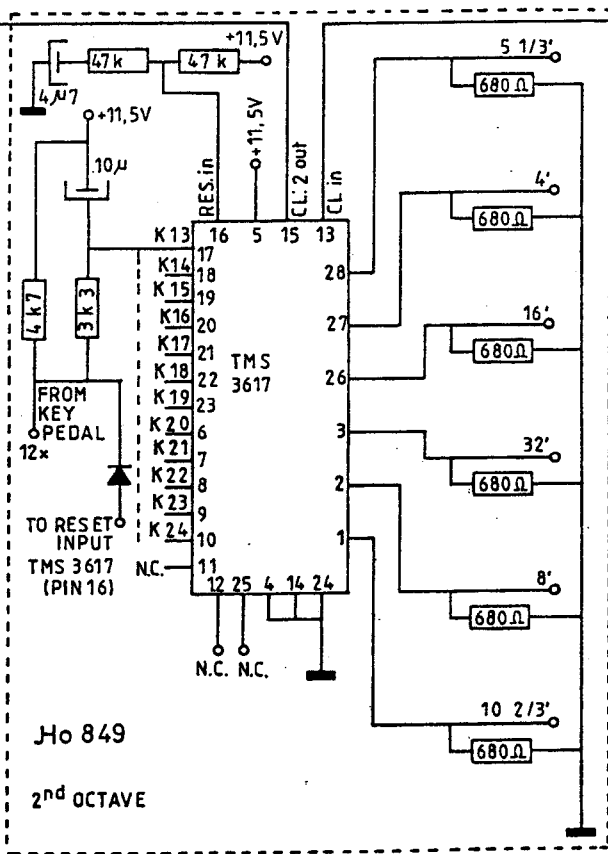
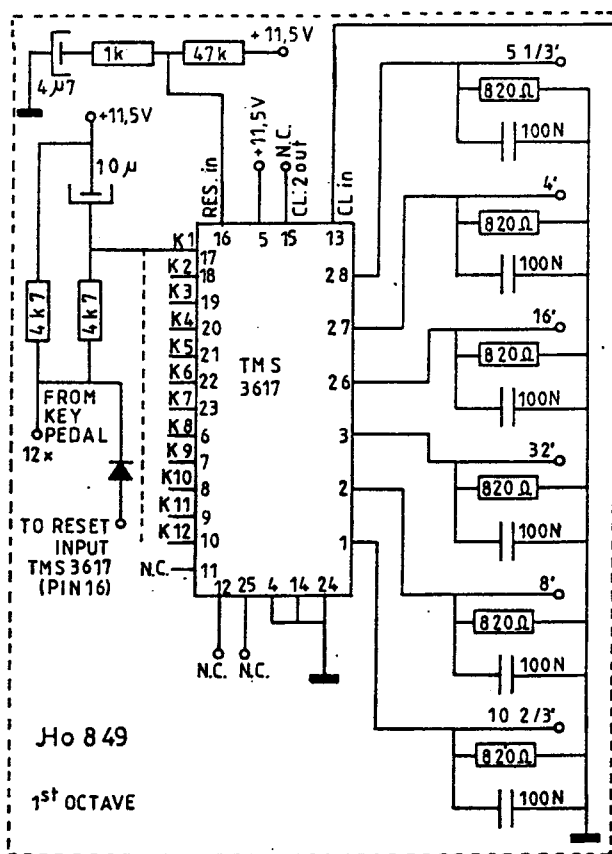
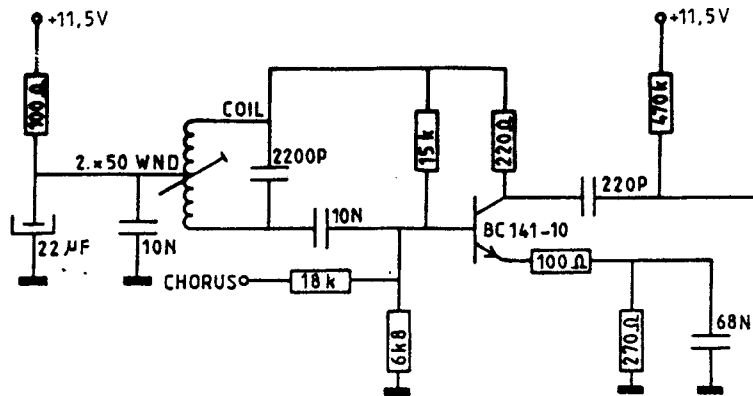
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GENERATOR (8) CELESTE SWELL			
Drawn	Date	Modified	Date
Verschoor	24-04-84	Verschoor	29-08-85
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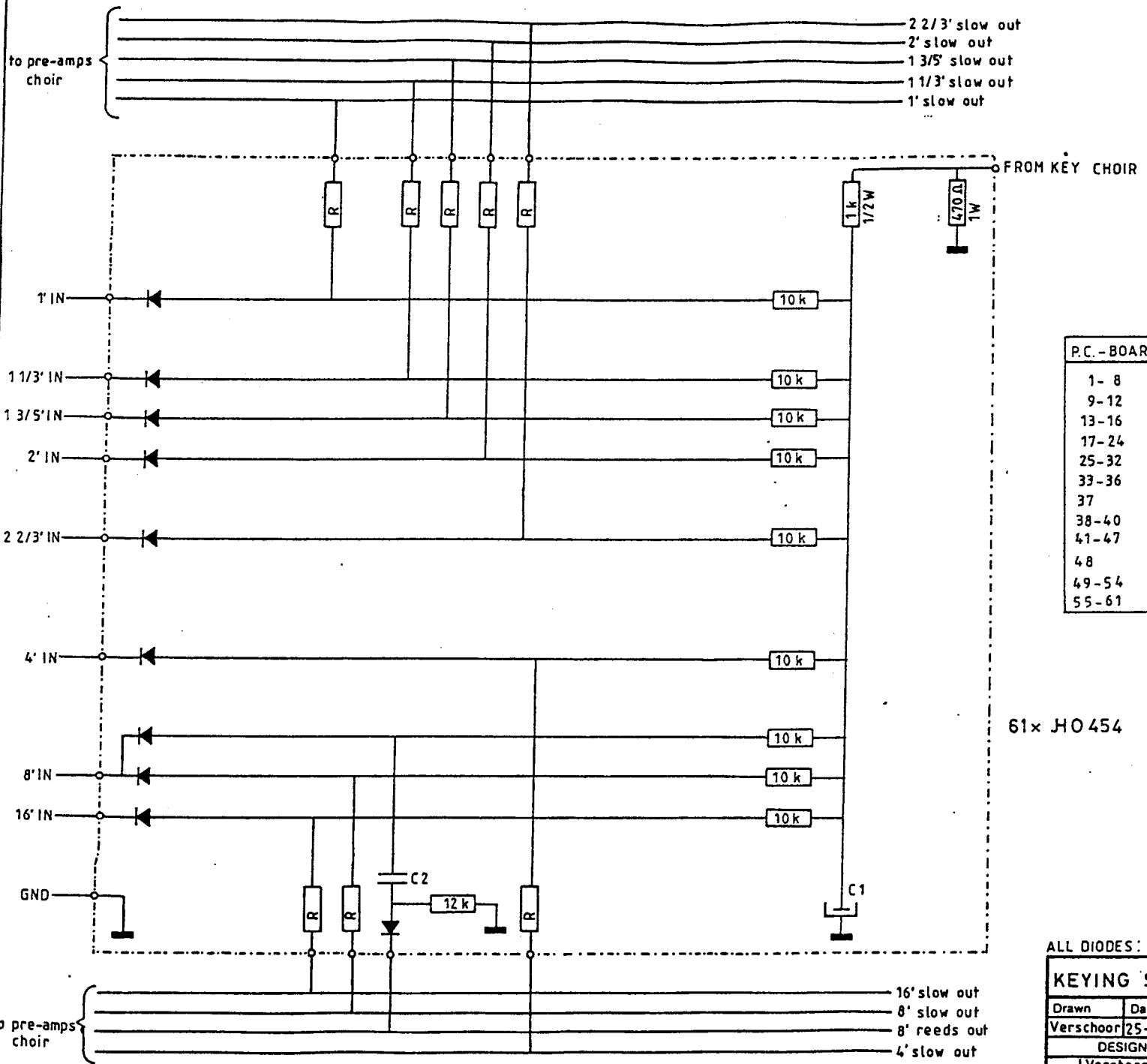


GENERATOR/KEYING (1) PEDAL (8'-1' fast)			
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Verschoor	29-08-85		
DESIGN			
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GENERATOR/KEYING(2) PEDAL (32'-4' slow)

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Verschoor	29-08-85			
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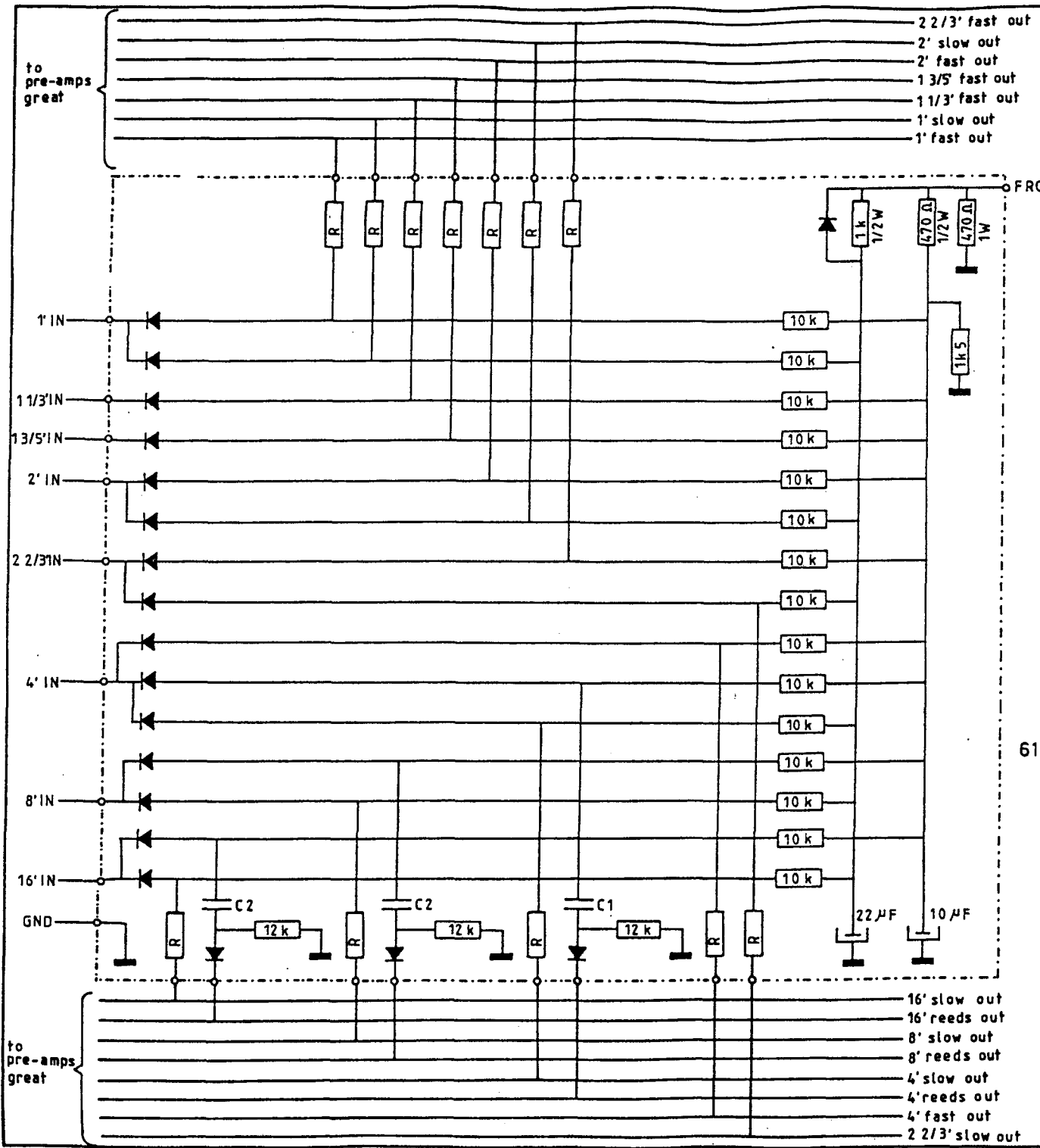
P.C. - BOARD	R	C1	C2
1- 8	68 k	22 μ	33N
9-12	56 k	22 μ	33N
13-16	56 k	22 μ	22N
17-24	47 k	22 μ	22N
25-32	39 k	22 μ	15N
33-36	33 k	22 μ	15N
37	33 k	22 μ	10N
38-40	33 k	10 μ	10N
41-47	27 k	10 μ	10N
48	22 k	4 μ7	10 N
49-54	22 k	4 μ7	6N8
55-61	18 k	4 μ7	6N8

61x JH 454

ALL DIODES : S01

KEYING SLOW & REEDS CHOIR			
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ORGAN
OPUS 540

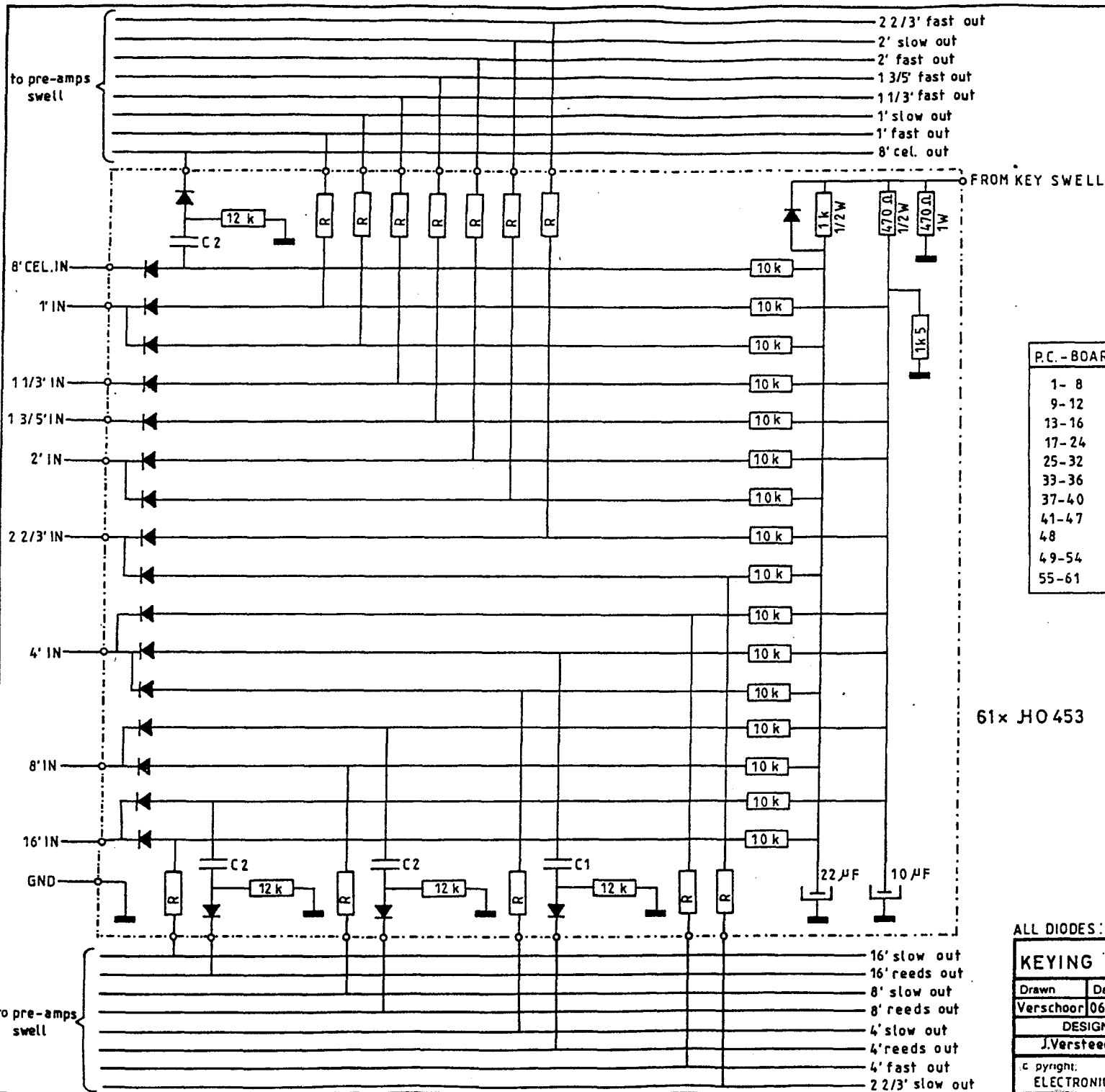


P.C. - BOARD	R	C1	C2
1- 8	68 k	22N	33N
9-12	56 k	22N	33N
13-16	56 k	15N	22N
17-24	47 k	15N	22N
25-32	39 k	10N	15N
33-36	33 k	10N	15N
37-40	33 k	4N7	10N
41-47	27 k	4N7	10N
48	22 k	4N7	10N
49-54	22 k	1N8	6N8
55-61	18 k	1N8	6N8

61x JO 453

ALL DIODES: S01

KEYING SLOW-FAST & REEDS GREAT			
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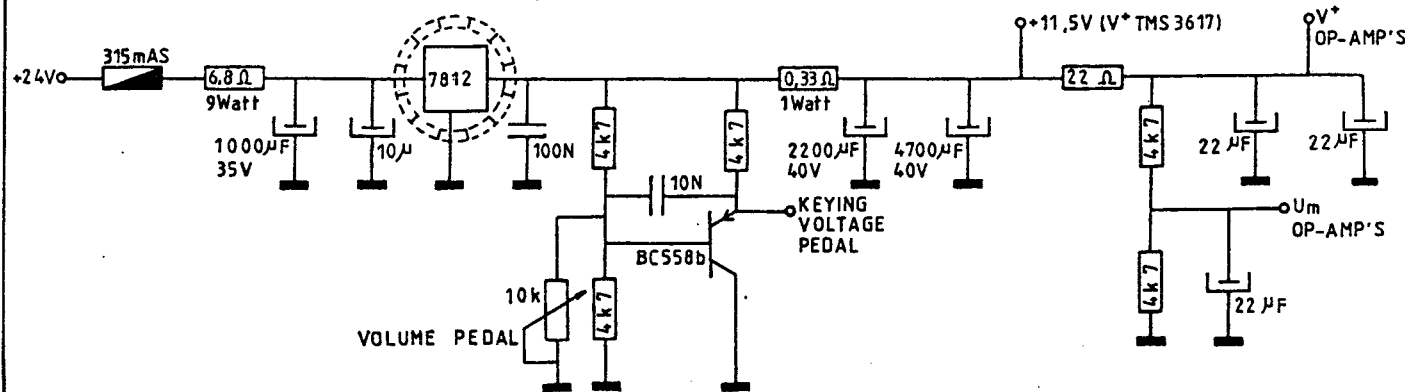
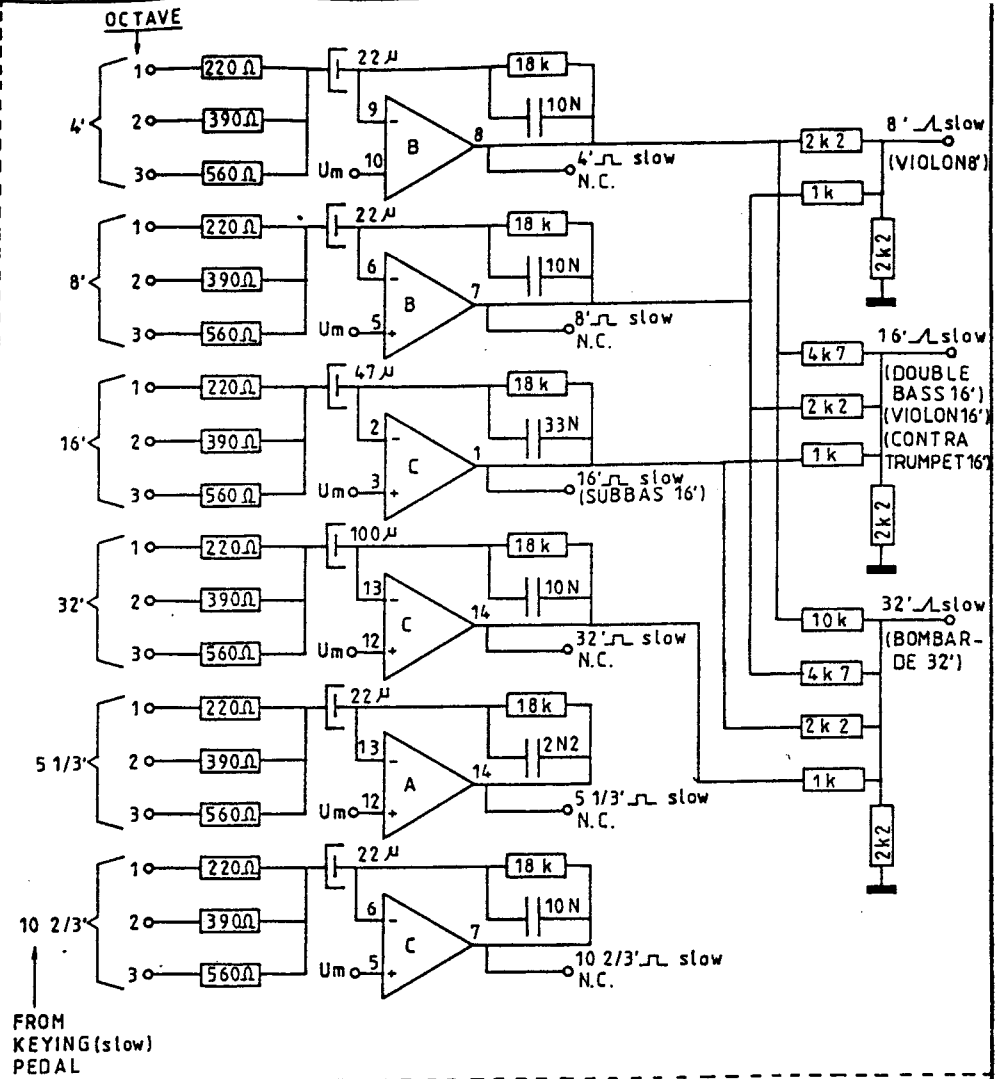
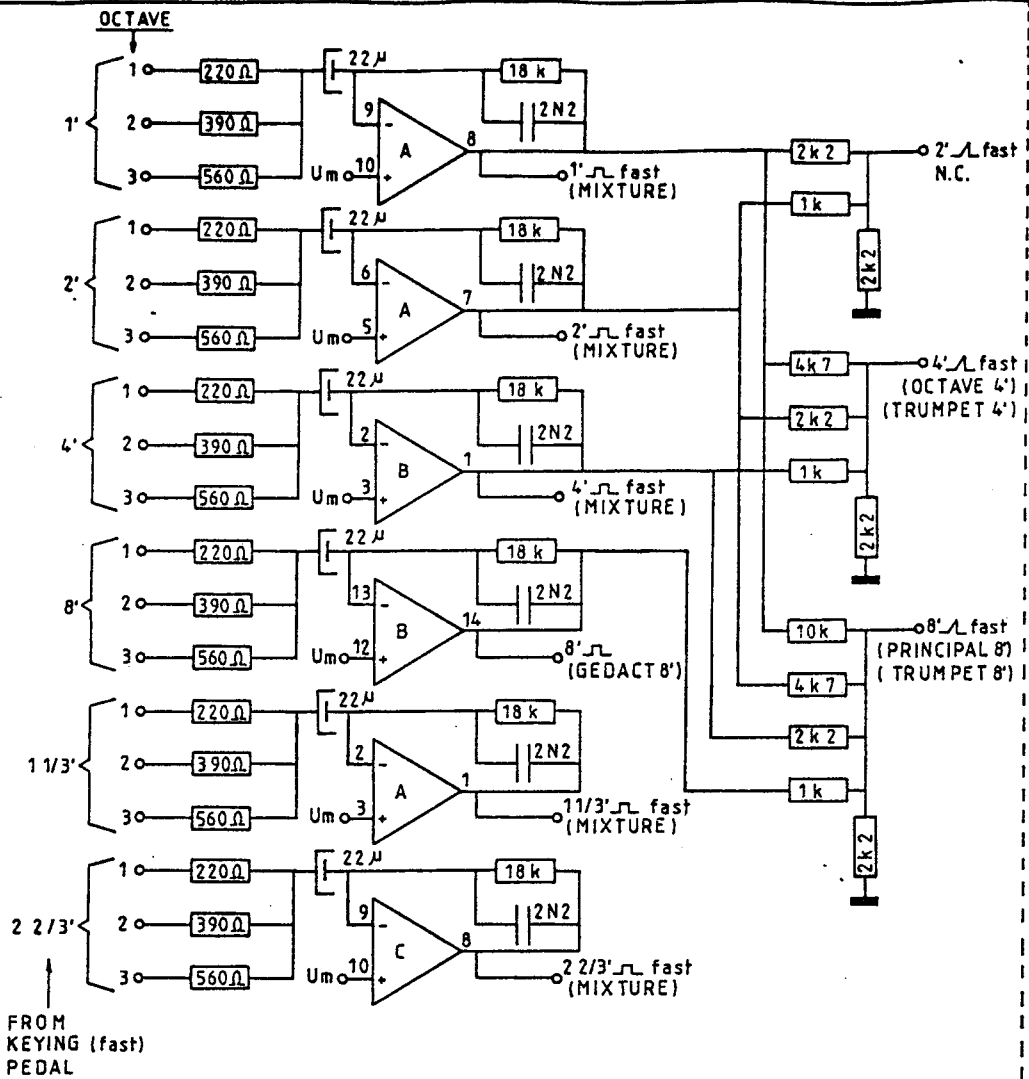


P.C. - BOARD	R	C1	C2
1- 8	68 k	22N	33N
9- 12	56 k	22N	33N
13- 16	56 k	15N	22N
17- 24	47k	15N	22N
25- 32	39k	10N	15N
33- 36	33k	10N	15N
37- 40	33k	4N7	10N
41- 47	27k	4N7	10N
48	22k	4N7	10N
49- 54	22k	1N8	6N8
55- 61	18k	1N8	6N8

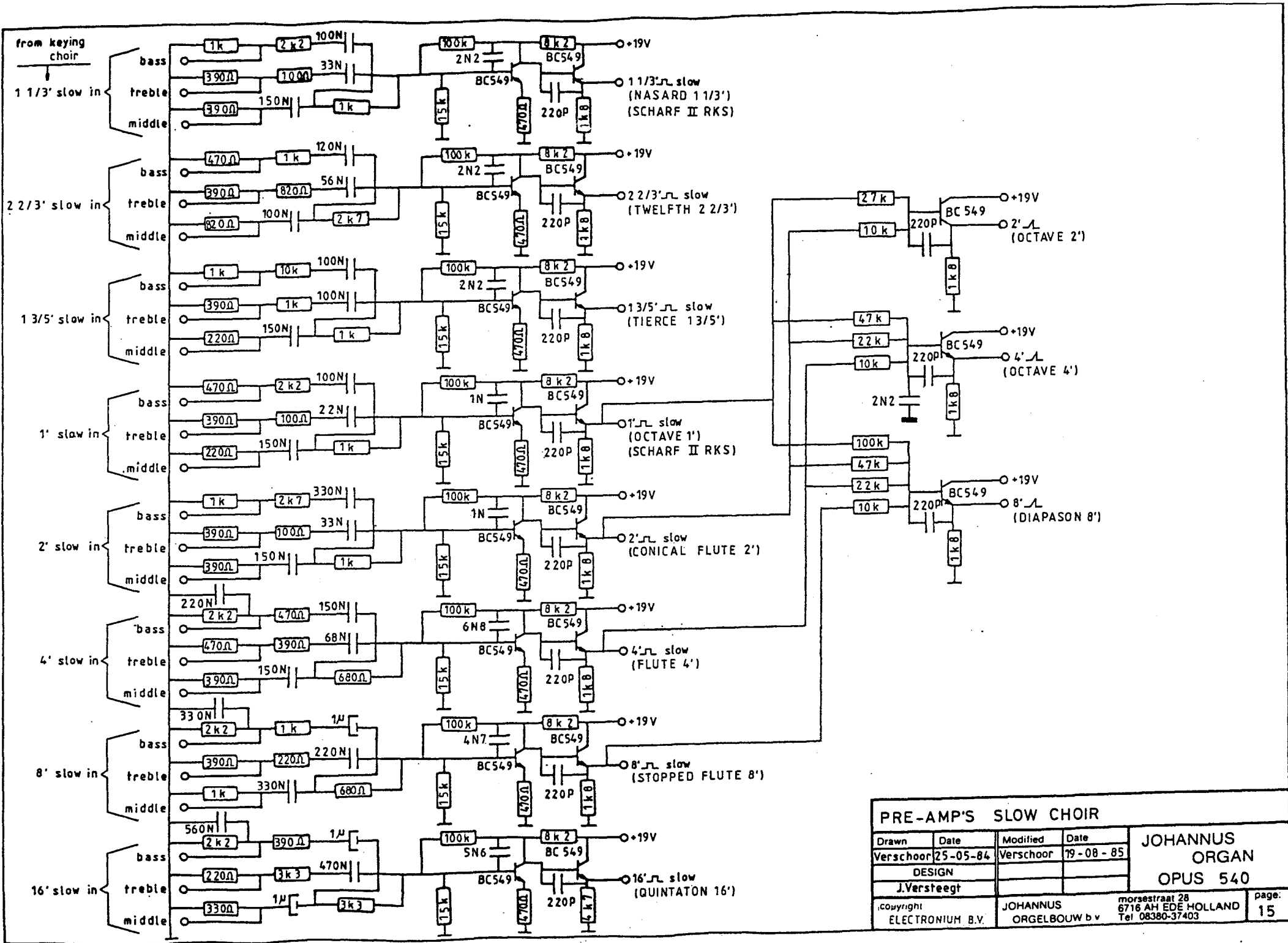
61 x JO 453

ALL DIODES: S01

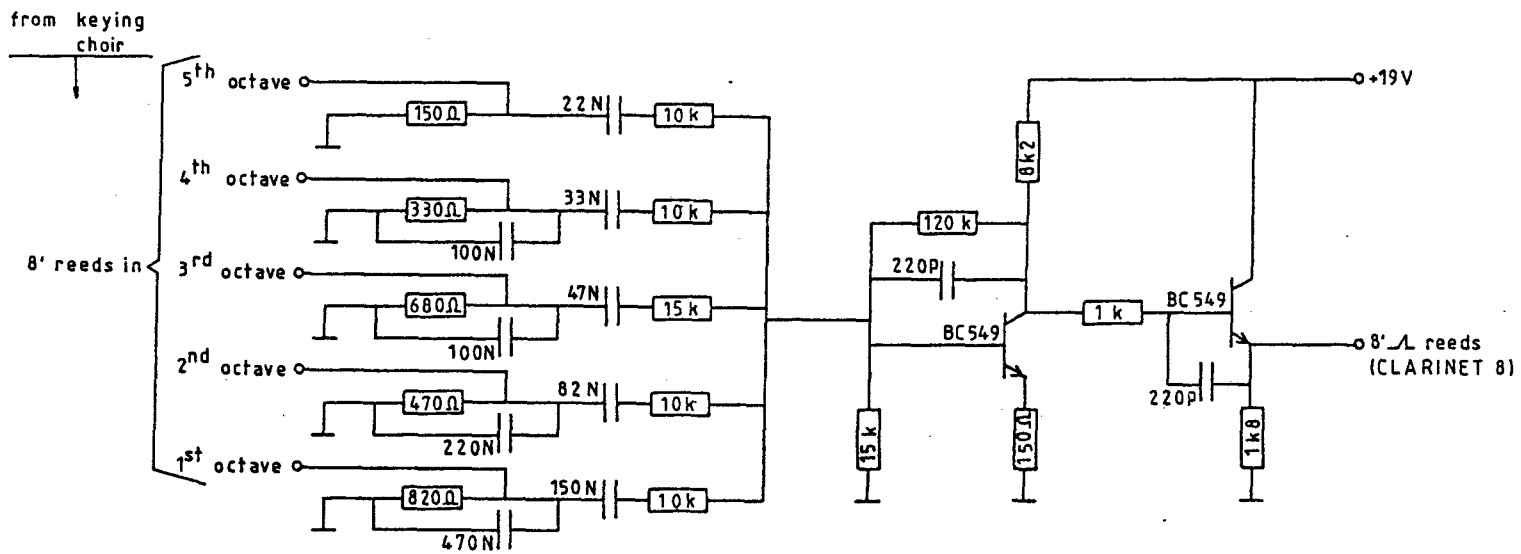
KEYING SLOW-FAST & REEDS SWELL			
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DESIGN			
J.Versteegt			
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			page: 13



PRE-AMP'S & SUPPLY VOLTAGES PEDAL			
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Verschoor	09-04-84	Verschoor	19-07-85
DESIGN		Verschoor	29-08-85
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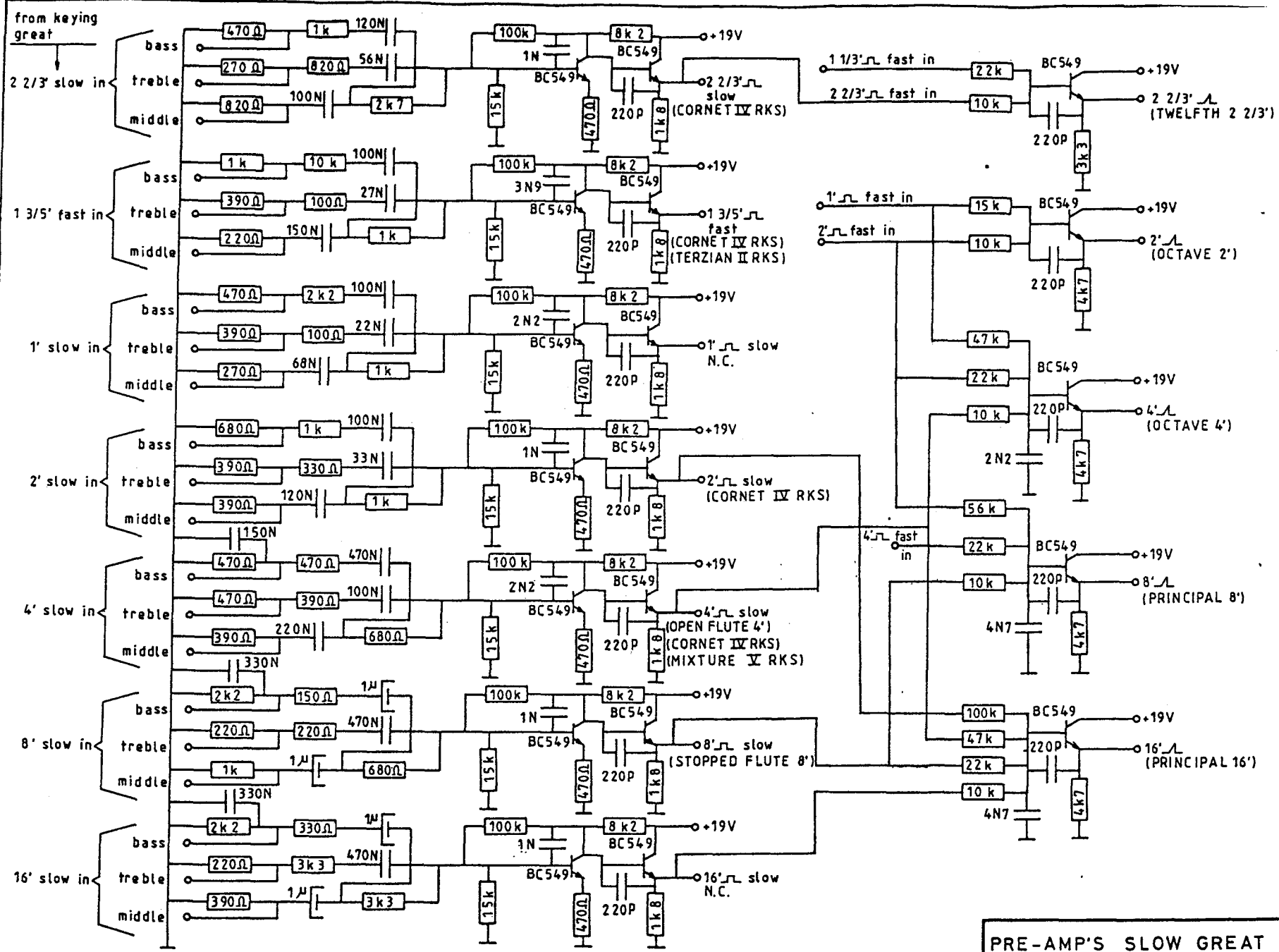


PRE-AMP'S SLOW CHOIR				JOHANNUS ORGAN OPUS 540
Drawn	Date	Modified	Date	
Verschoor	25-05-84	Verschoor	19-08-85	page: 15
DESIGN				
J.Versteegt				
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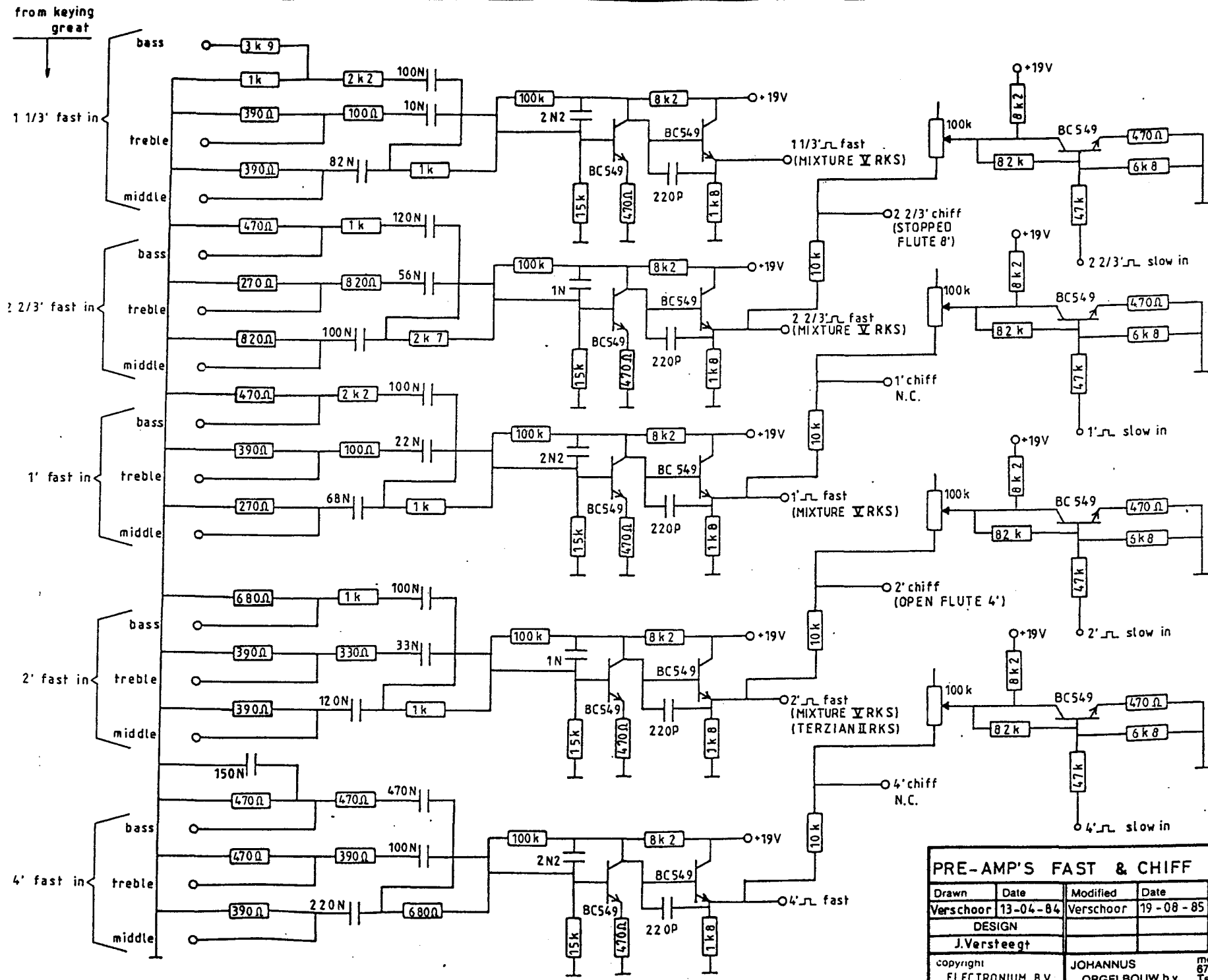


PRE-AMP'S REEDS CHOIR

Drawn	Date	Modified	Date	JOHANNUS ORGAN OPUS 540
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J.Versteegt				
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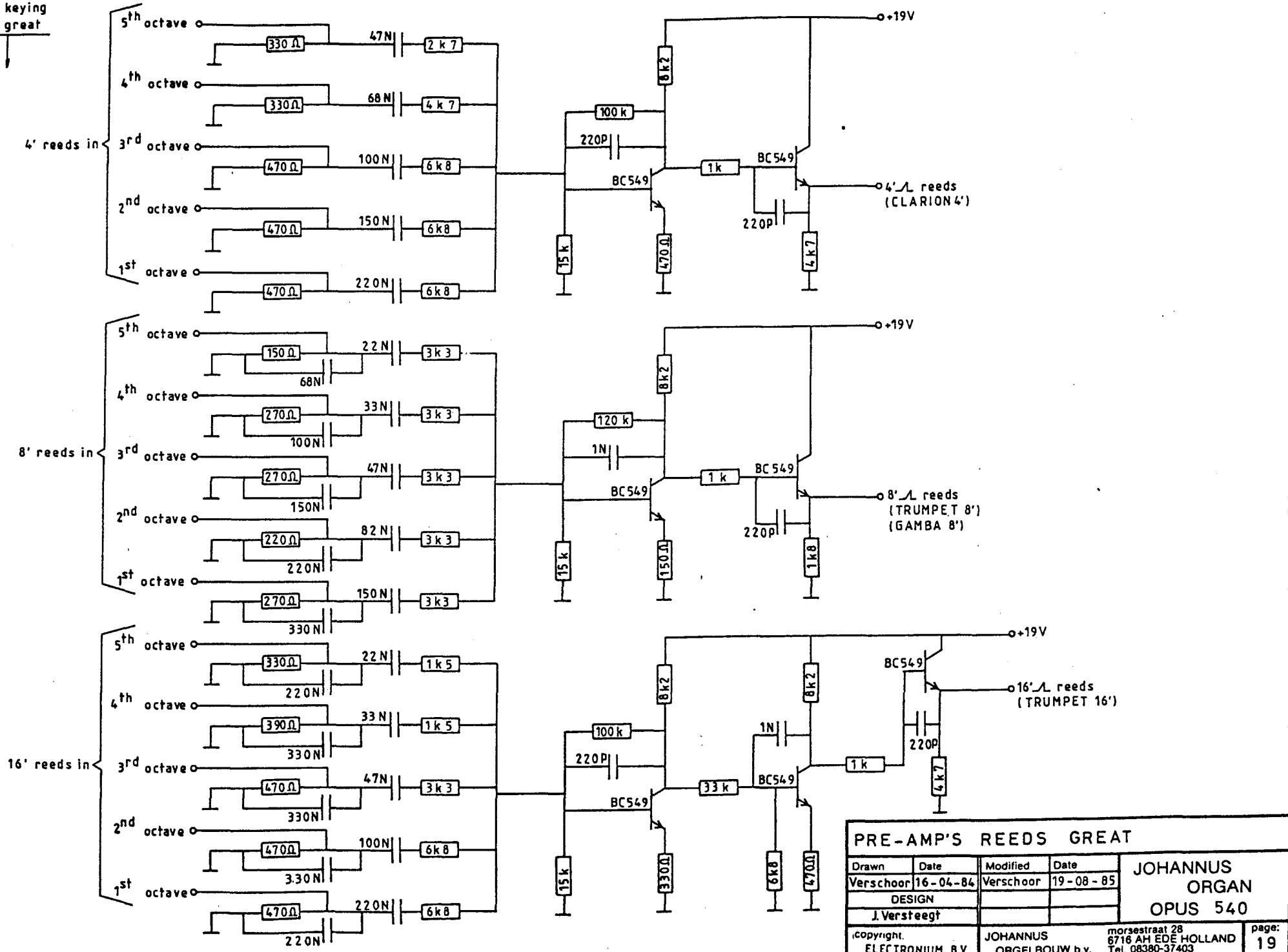


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J.Versteegt				
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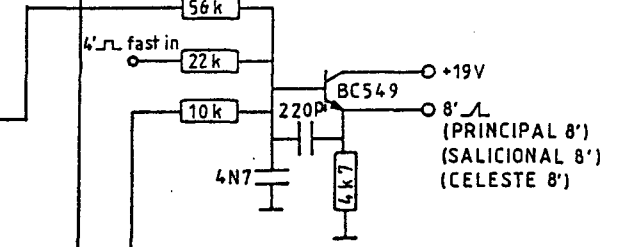
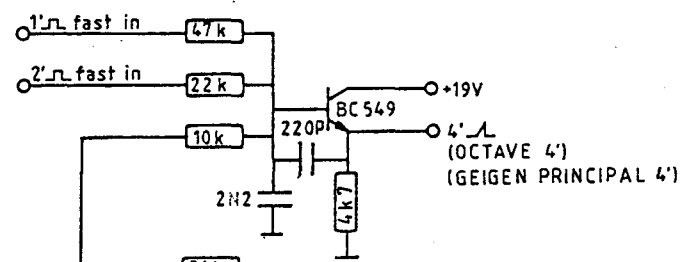
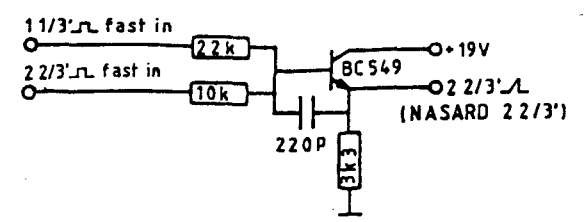
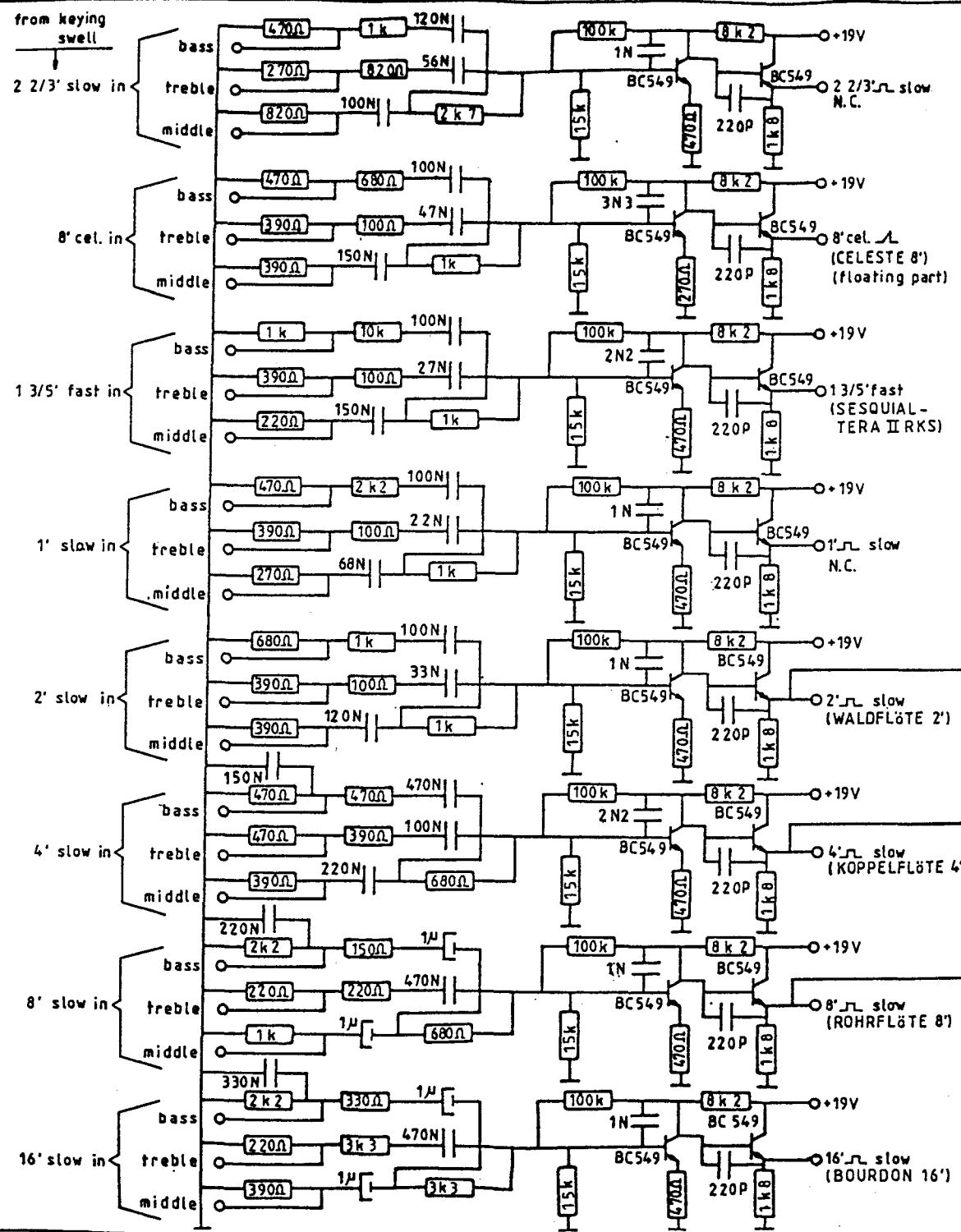


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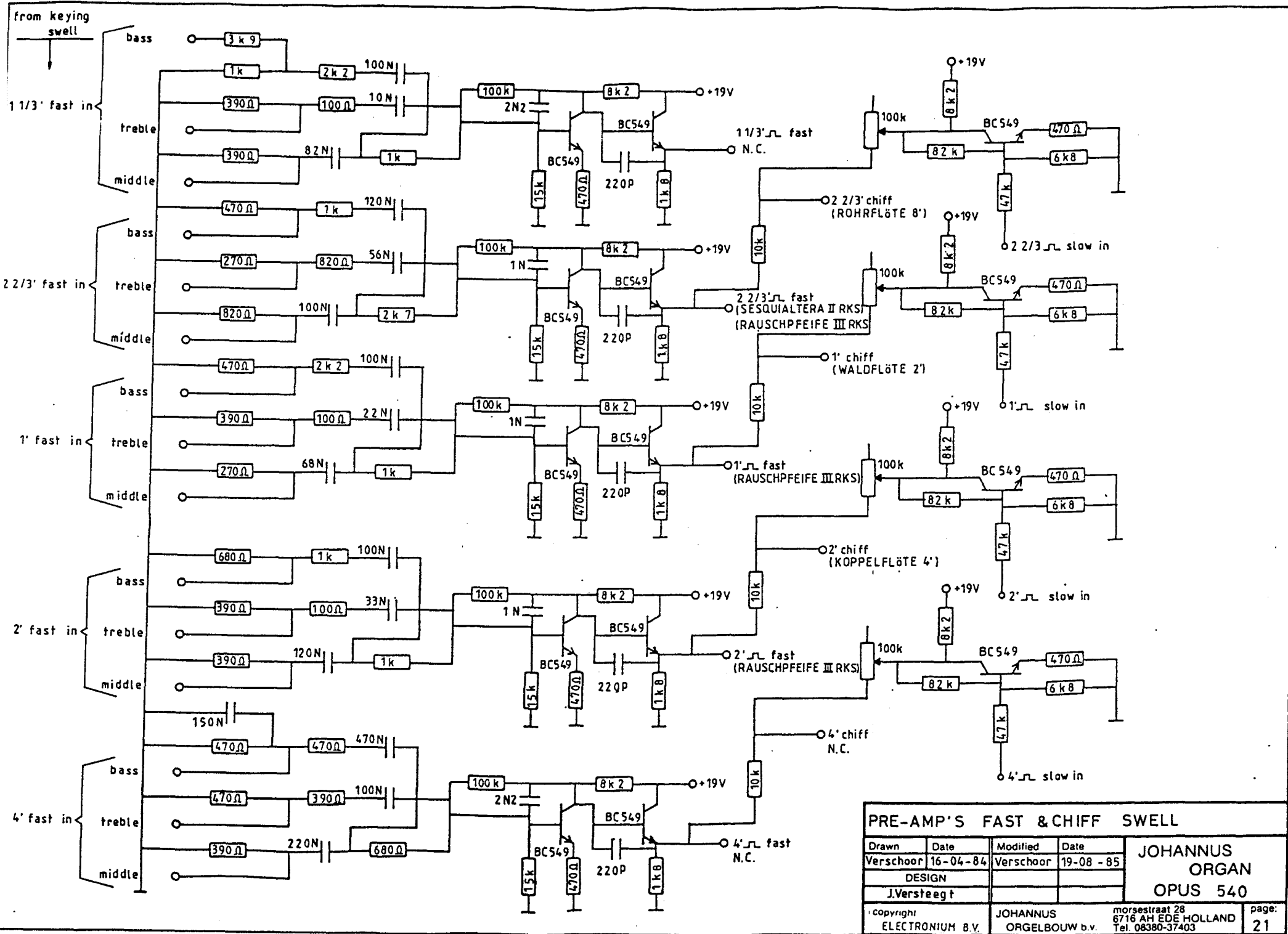
from keying
great



PRE-AMP'S REEDS GREAT			
Drawn	Date	Modified	Date
Verschoor	16-04-84	Verschoor	19-08-85
DESIGN			
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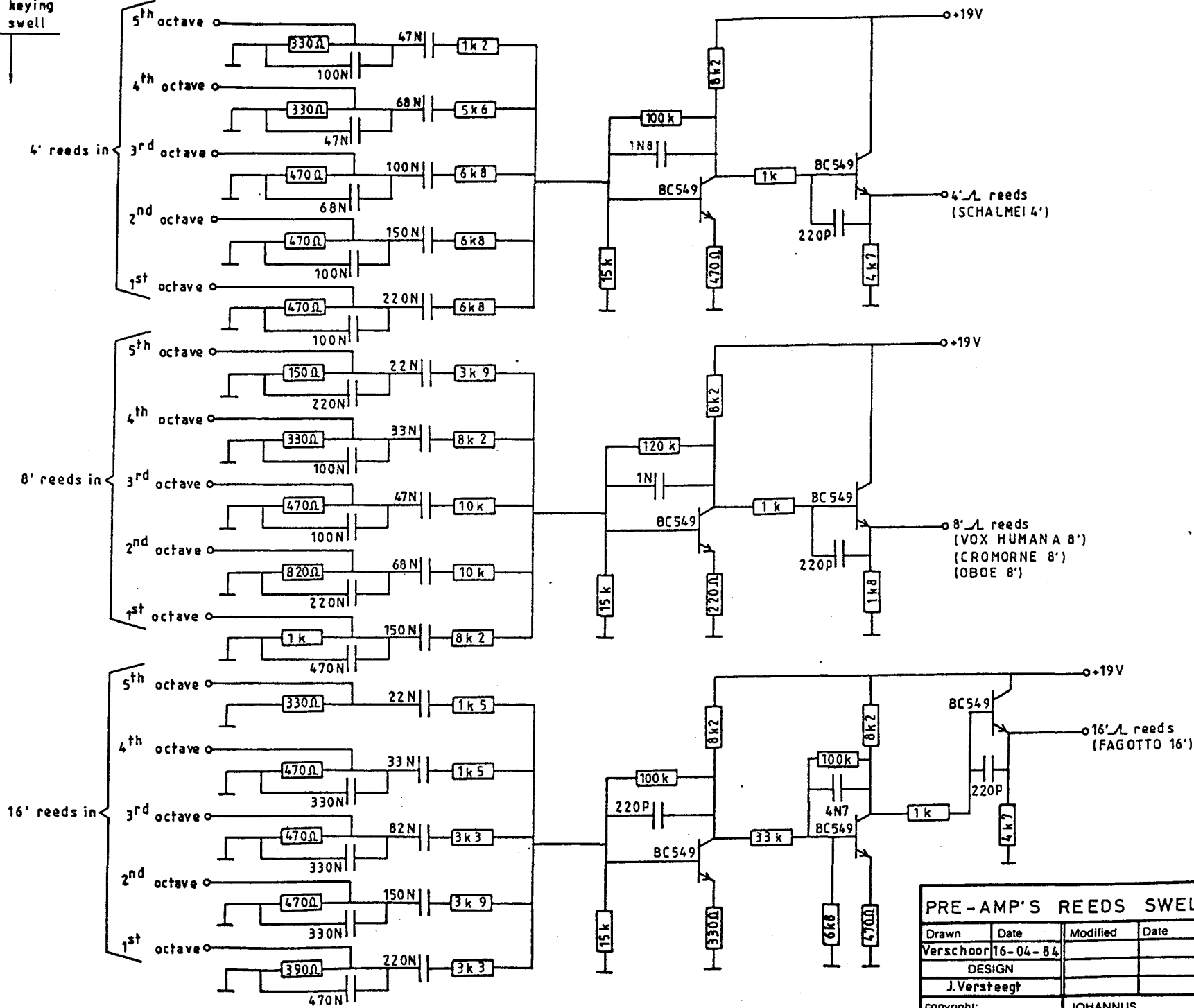


PRE-AMP'S SLOW SWELL				JOHANNUS ORGAN OPUS 540
Drawn	Date	Modified	Date	
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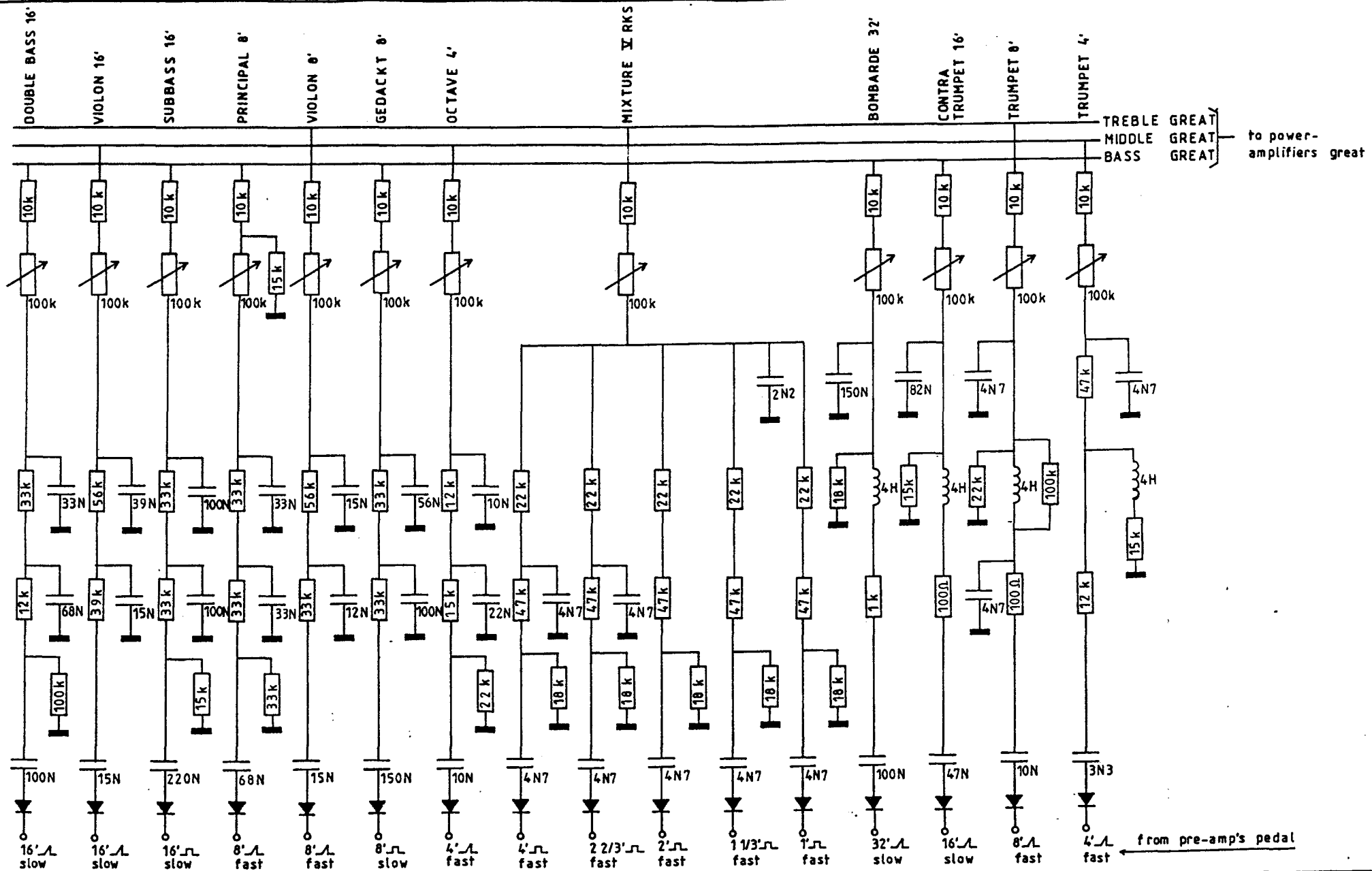


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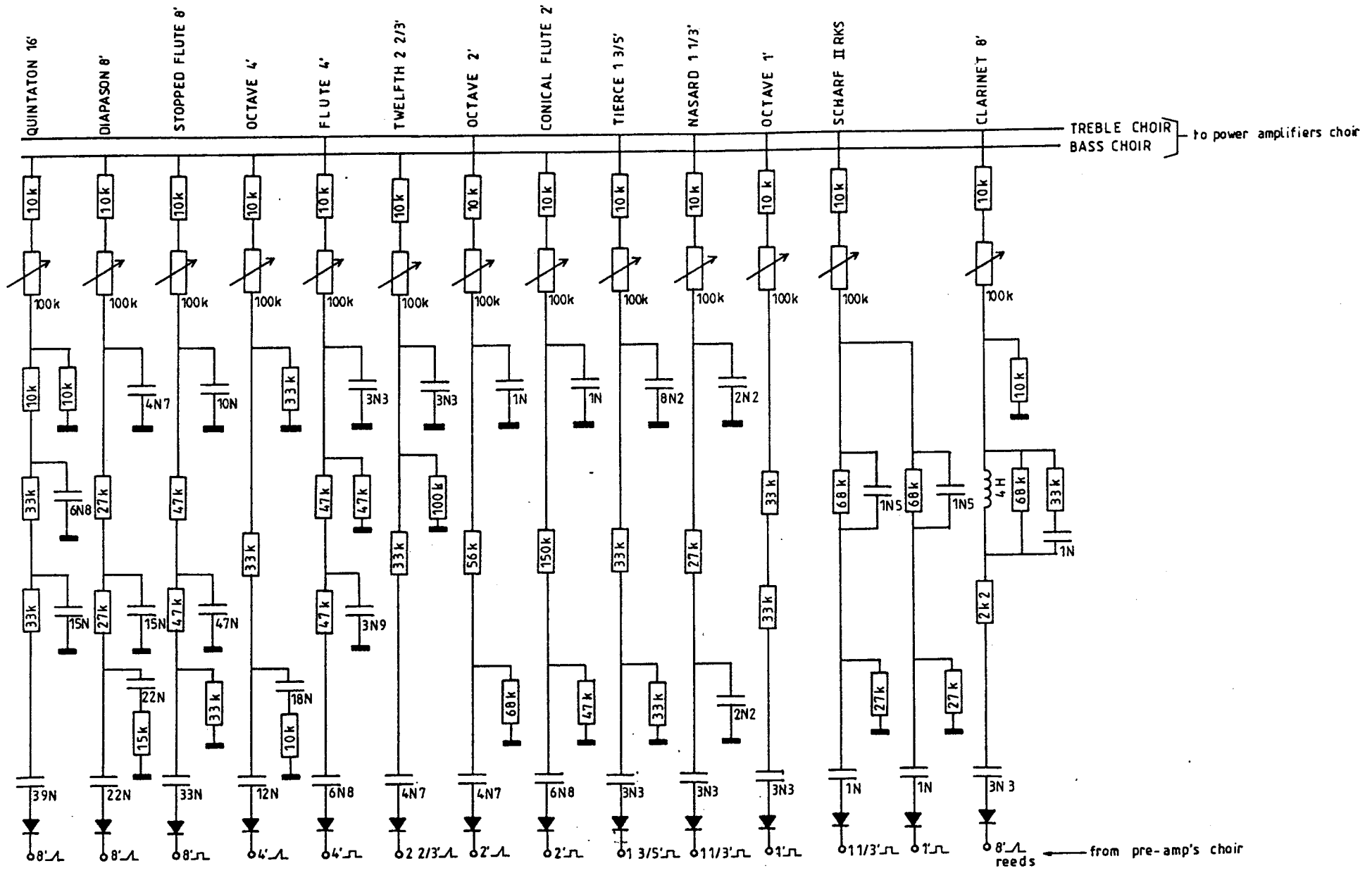


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			page: 22

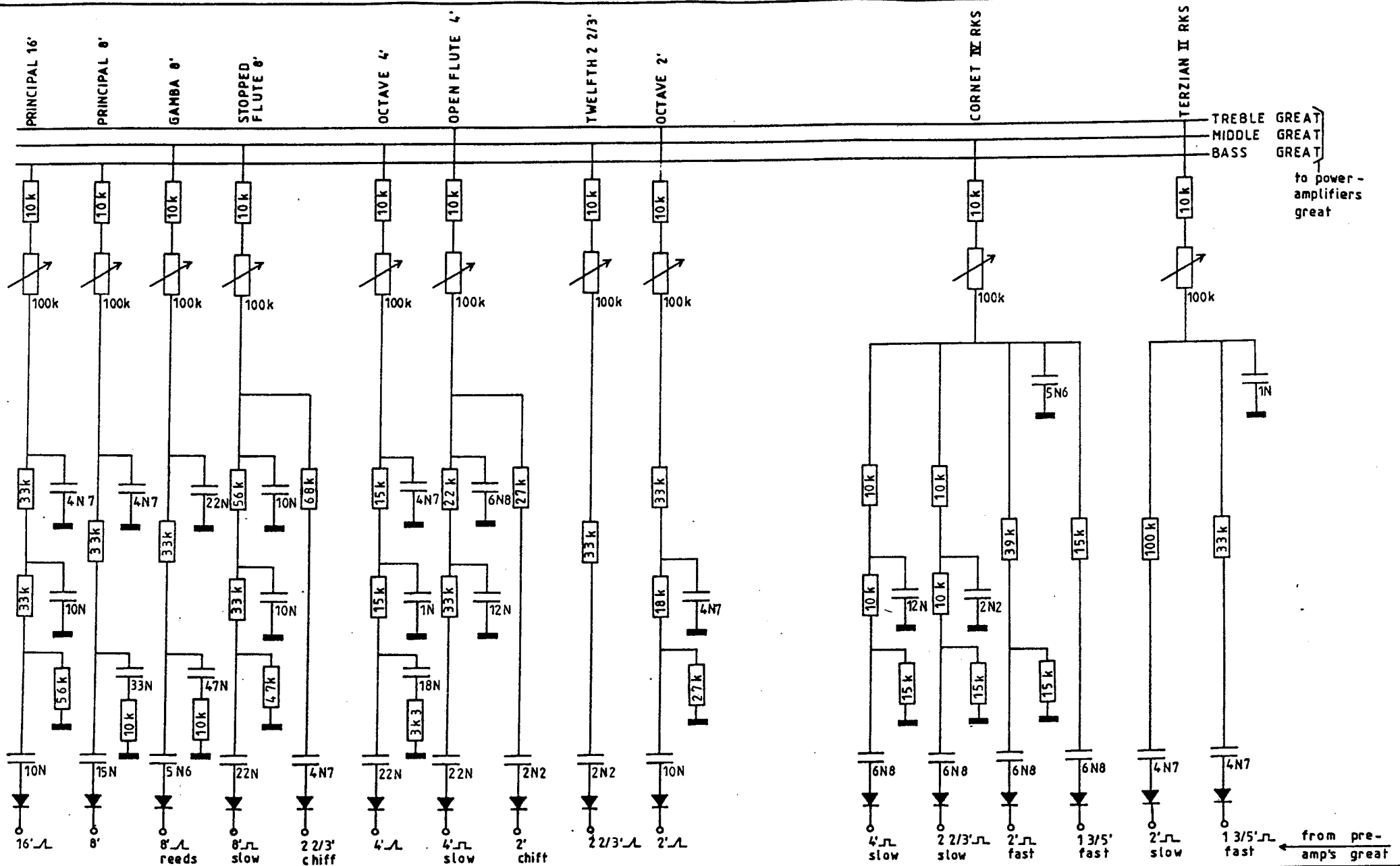


VOICES PEDAL			
Drawn	Date	Modified	Date
Verschoor	15-08-84	Verschoor	21-08-85
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			page: 23

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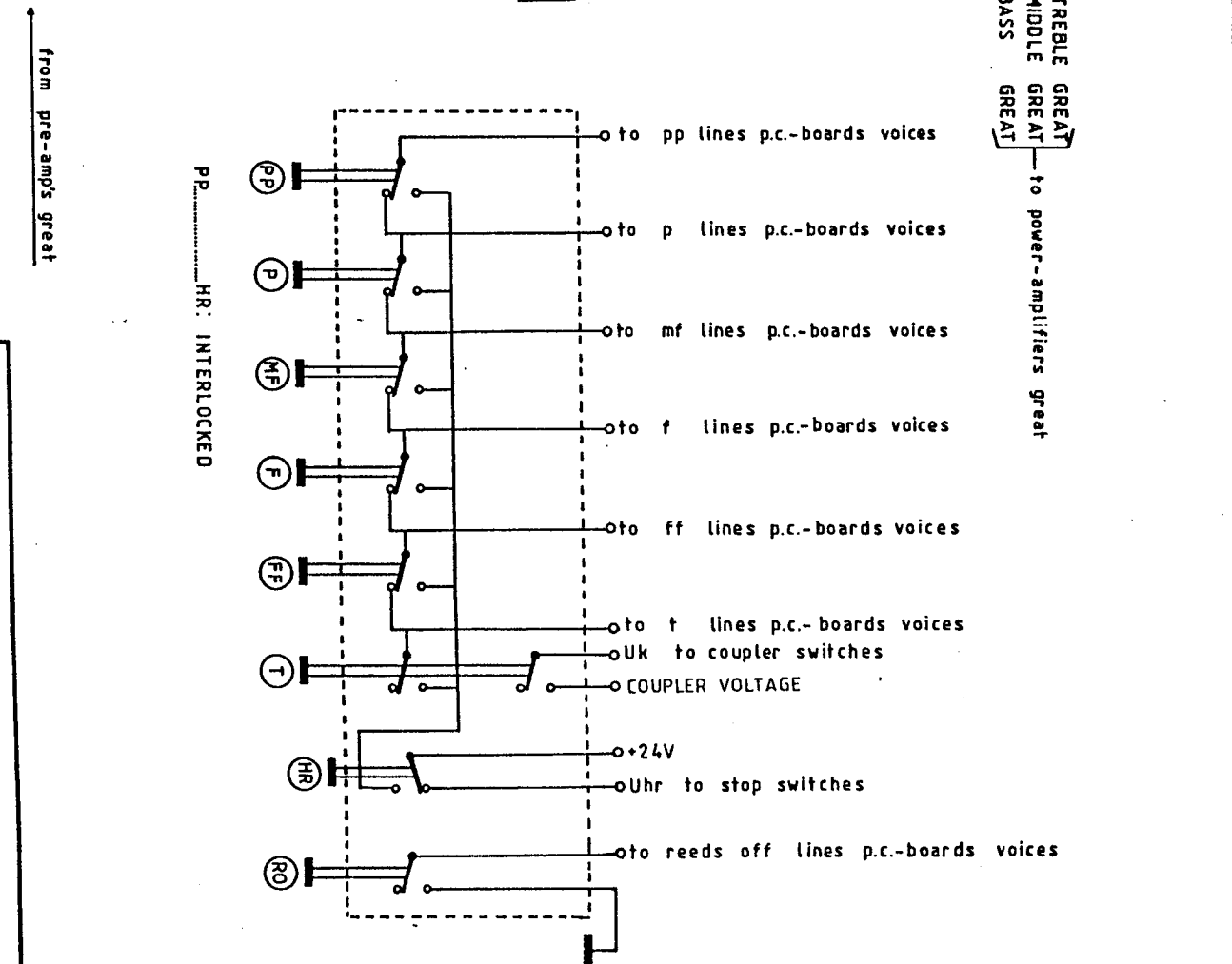
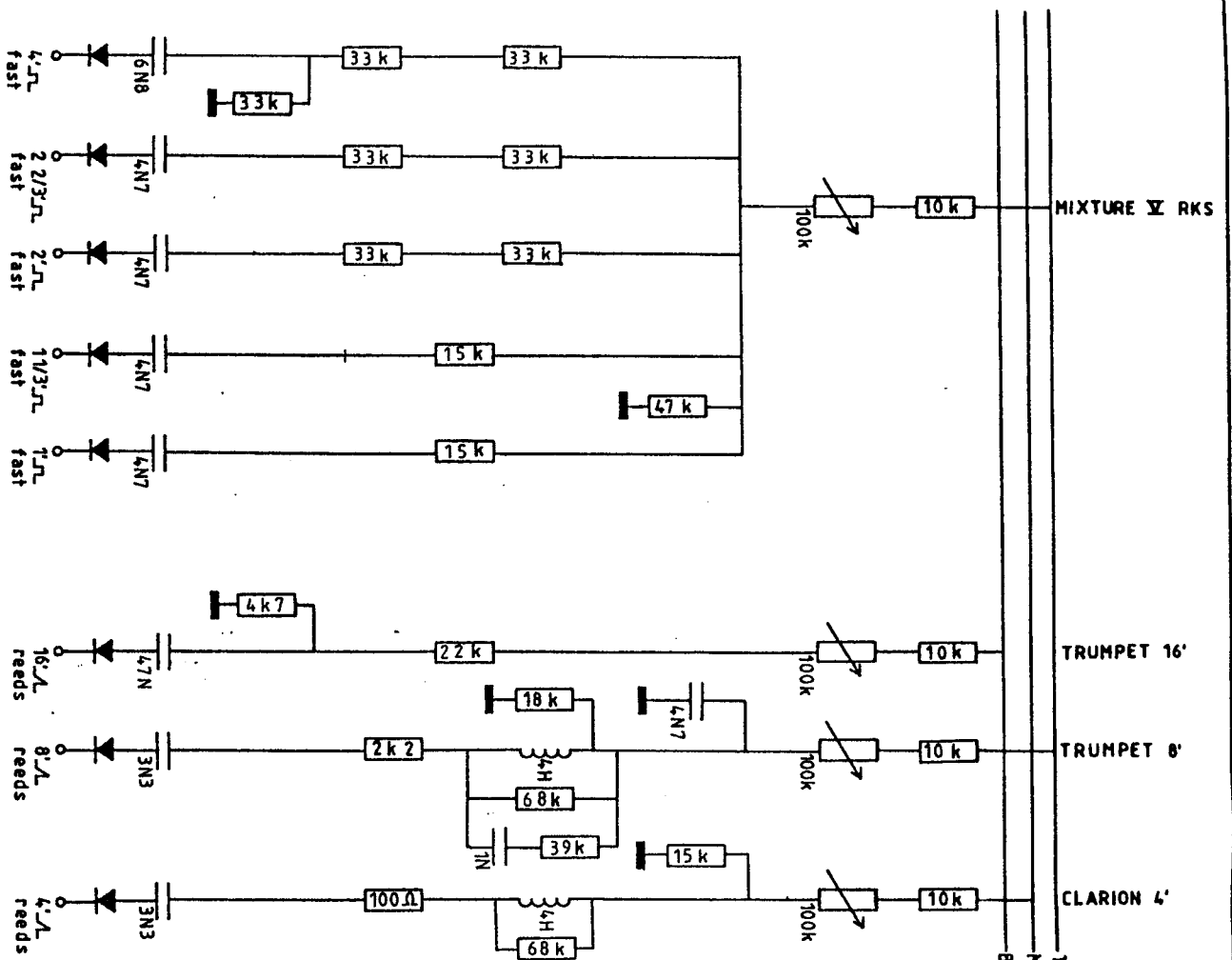
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Drawn	Date	Modified	Date
Verschoor	19-08-85		
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VOICES I GREAT

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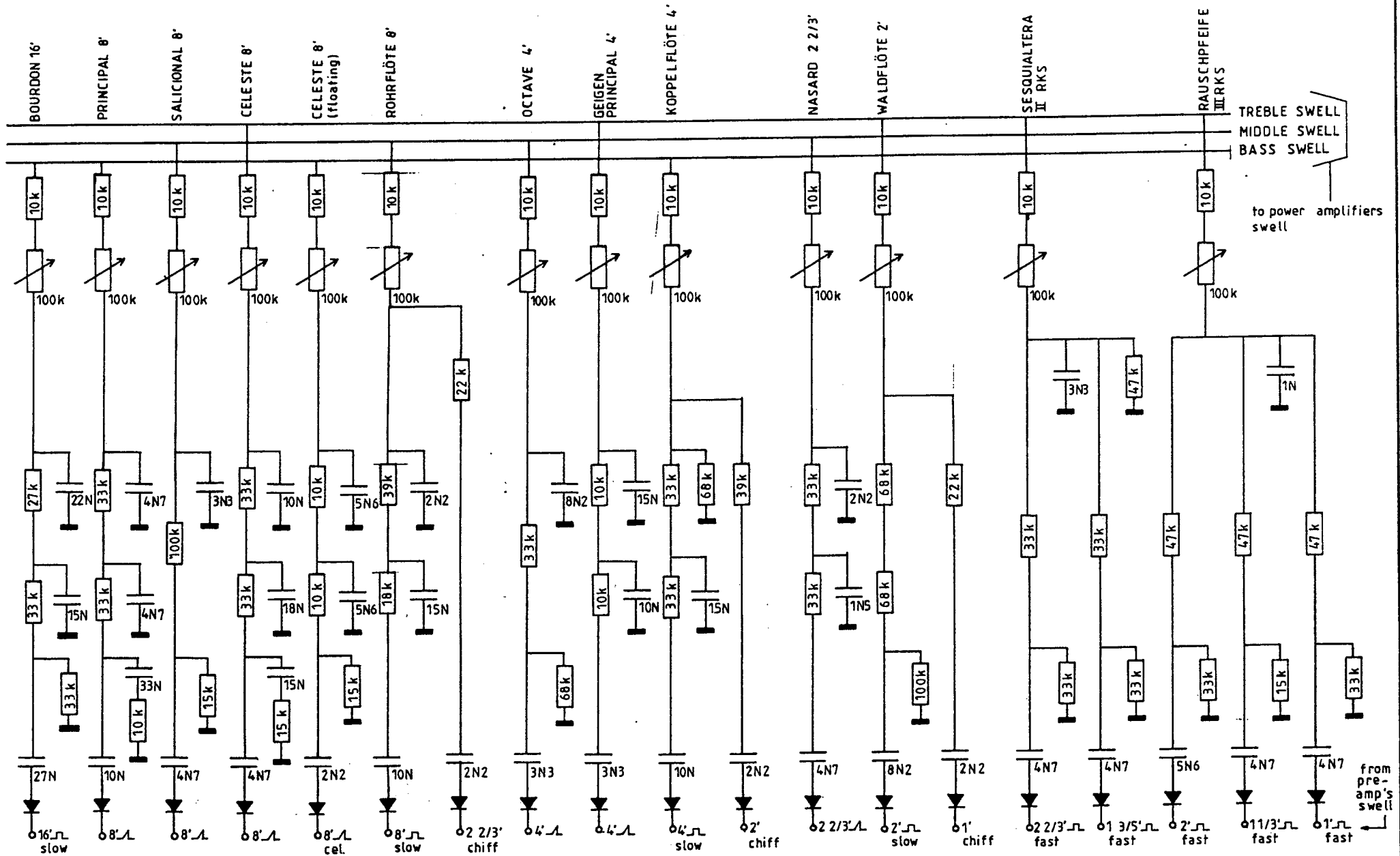
VOICES II GREAT & SWITCHSECTION PRESETS

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Verschoor	20-08-84	Verschoor	21-08-85
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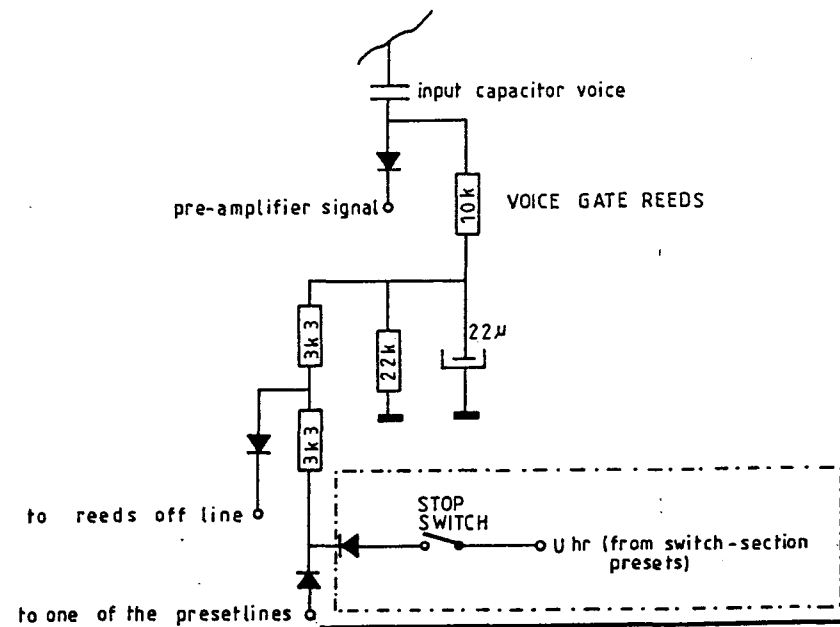
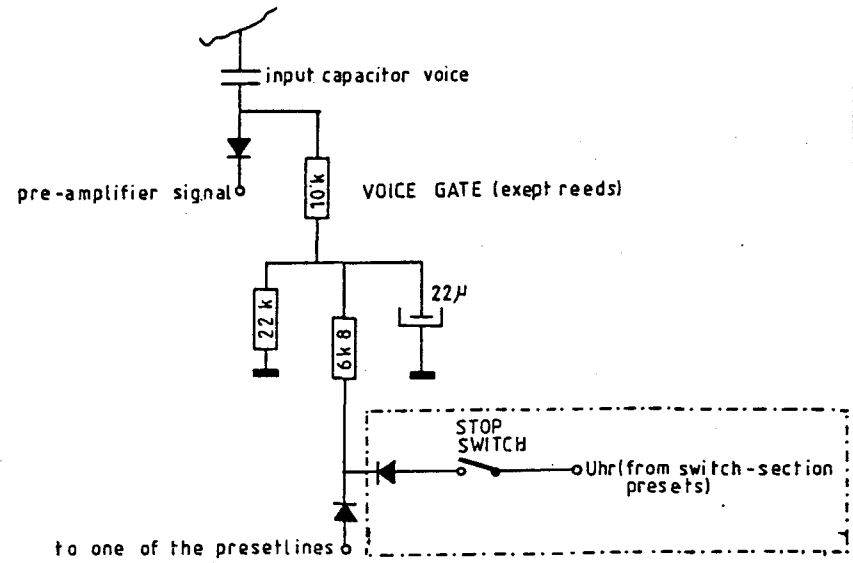
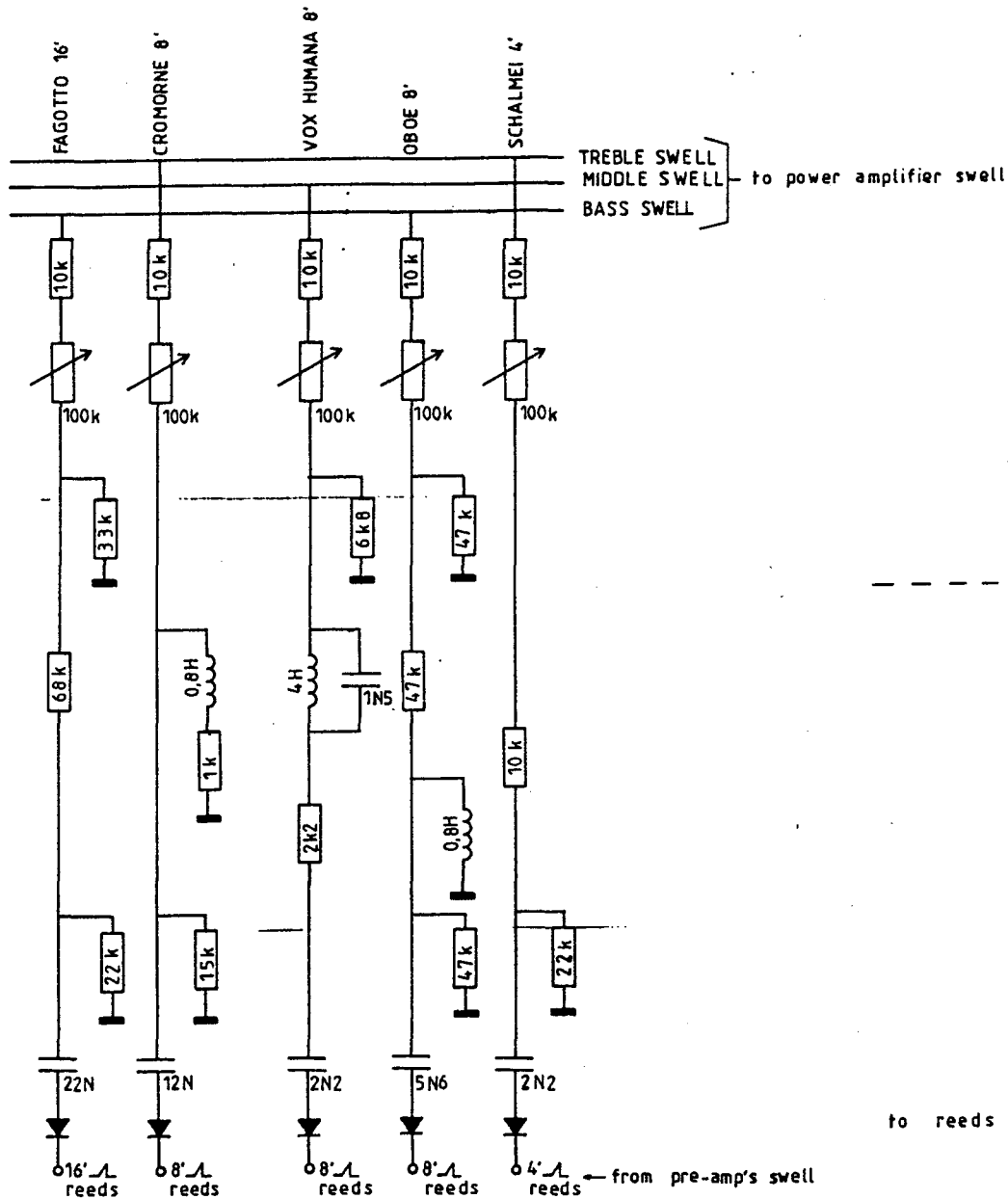
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page: 26

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VOICES I SWELL

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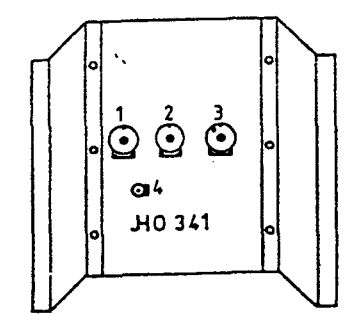
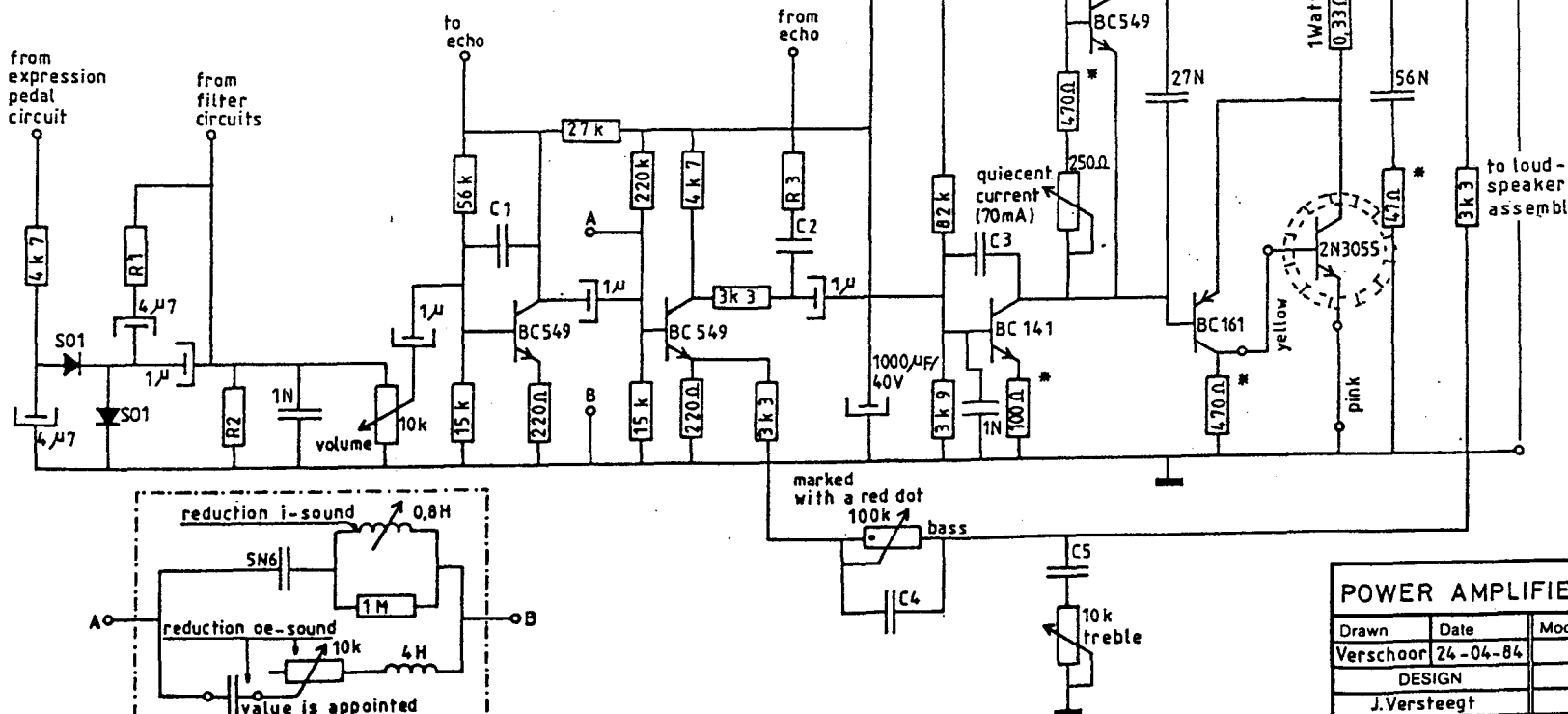
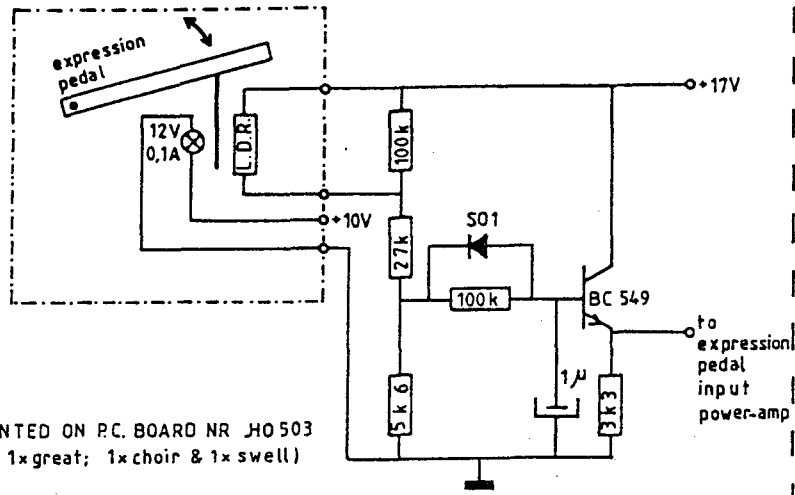


VOICES II SWELL & VOICE GATES

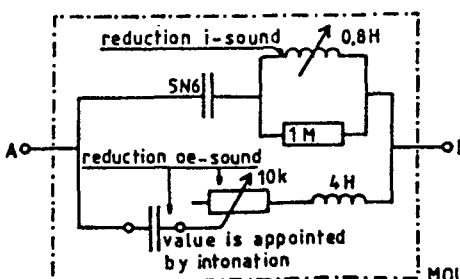
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Verschoor	20-08-85			
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NOTE:
RESISTORS MARKED WITH A * ARE MOUNTED ON CERAMIC STAND OFF'S

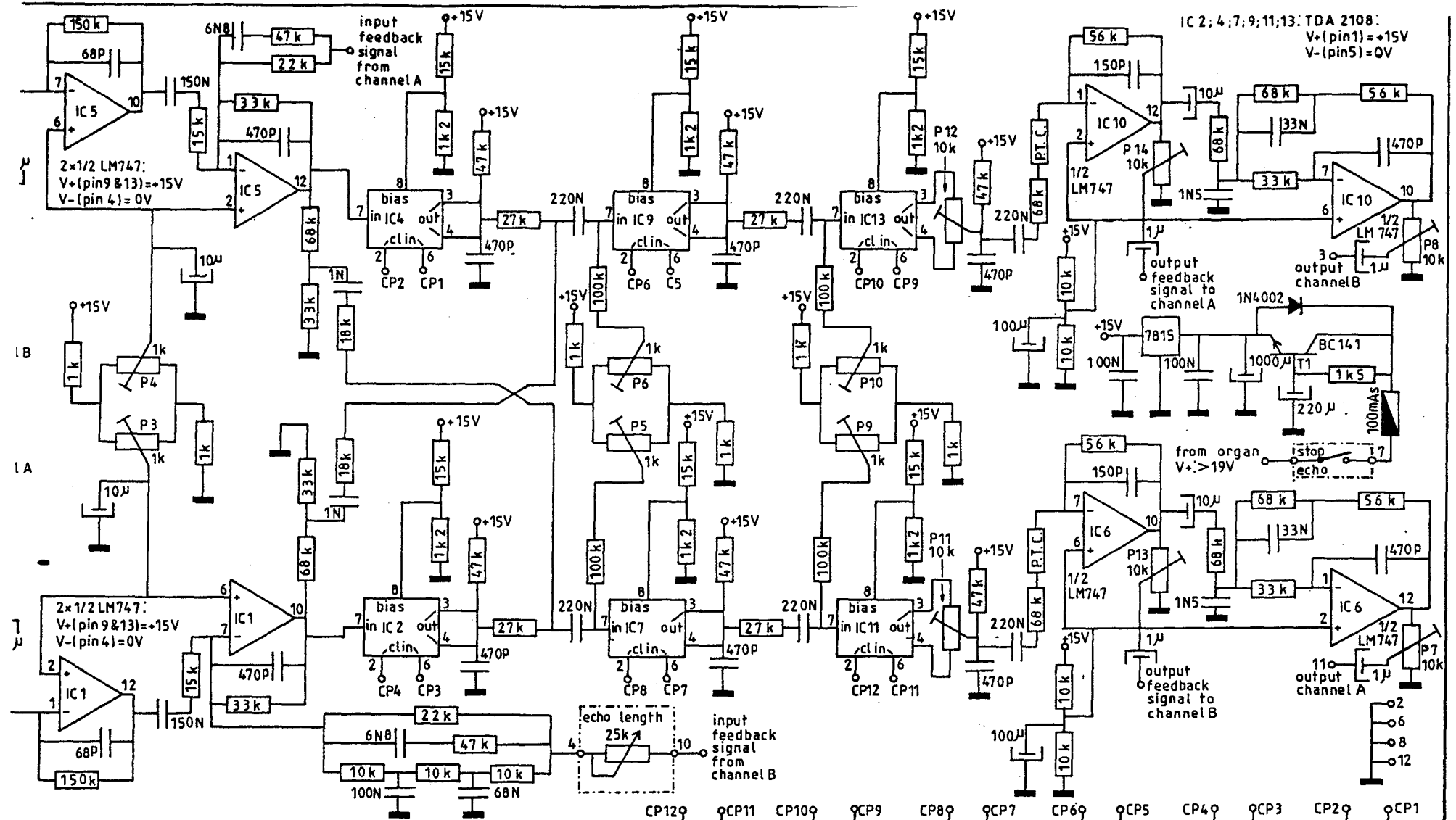
	GREAT + PEDAL			CHOIR			SWELL		
	bass	middle	treble	bass	treble	bass	middle	treble	
R1		220Ω	220Ω	220Ω	220Ω	220Ω	220Ω	220Ω	
R2	10k	4k7	4k7	4k7	4k7	10k	4k7	4k7	
R3	22k		22k			22k		22k	
C1	4N7	2N2	560P	4N7	1N	2N2	560P	560P	
C2	○		68N			○		68N	
C3	6N8	1N5	560P	4N7	470P	4N7	220P	220P	
C4	150N	150N	150N	150N	150N	150N	150N	150N	
C5	330N	100N	47N	150N	47N	150N	47N	47N	
L.S	12100	5061	5061				5061	5061	



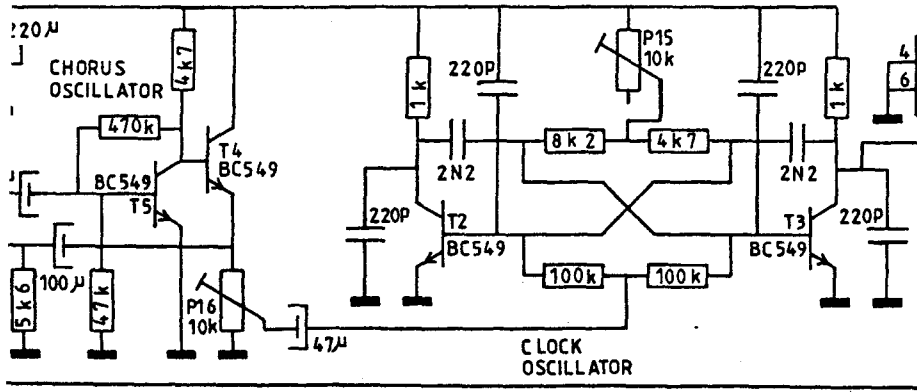
- 1. VOLUME
- 2. TREBLE
- 3. BASS (marked with a red dot)
- 4. QUIESCENT CURRENT (70mA)



POWER AMPLIFIER (universal 8 x)				JOHANNUS ORGAN OPUS 540
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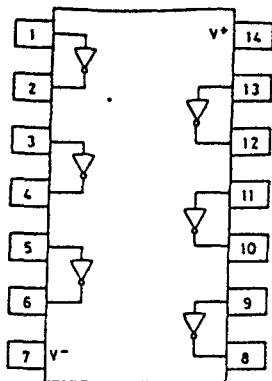
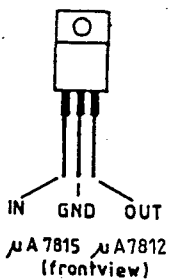
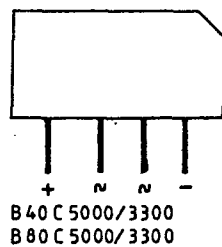
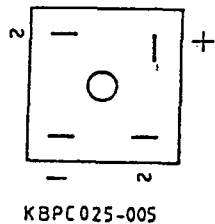
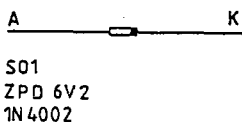
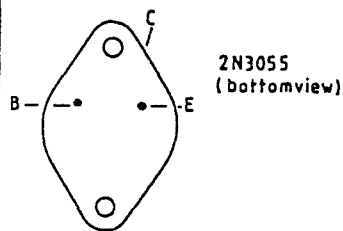
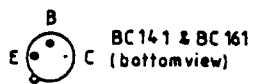
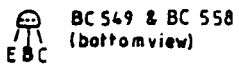
IC 2: 4; 7; 9; 11; 13: TDA 2108:
 V+(pin1)=+15V
 V-(pin5)=0V



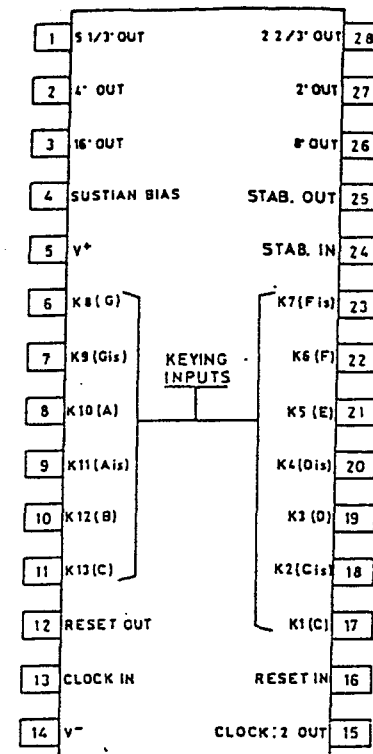
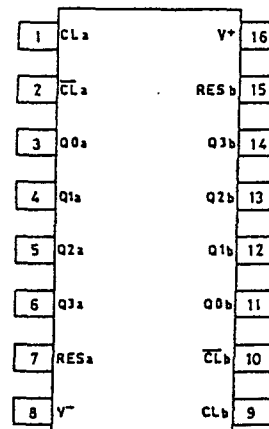
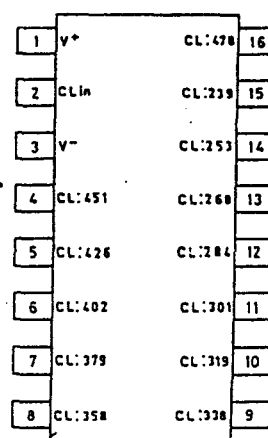
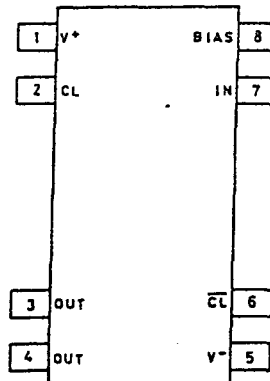
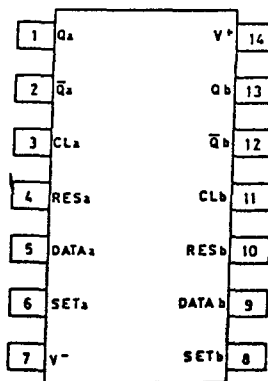
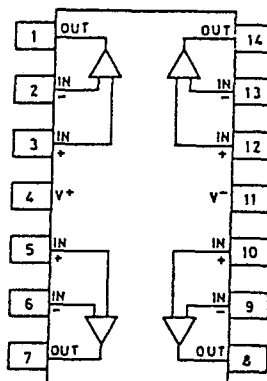
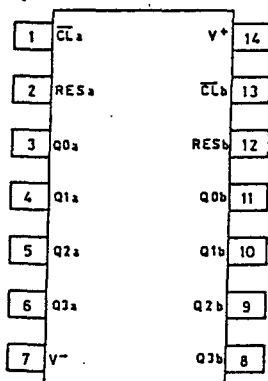
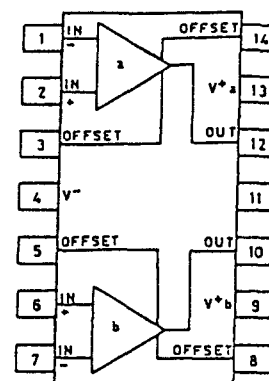
6x 1/2 HEF4013:
 V+(pin14)= +15V
 V-(pin 7)= 0V
 note: supply voltages of all 4013's
 are uncoupled by capacitors
 (10µ)

REVERBERATION UNIT			
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Verschoor	10-12-84		
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 OPUS 540



74C04: hex inverter
4069: hex inverter



GENERAL INFORMATION SEMI-CONDUCTORS			
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Verschoor	02-05-84	Verschoor	29-08-85
DESIGN			
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