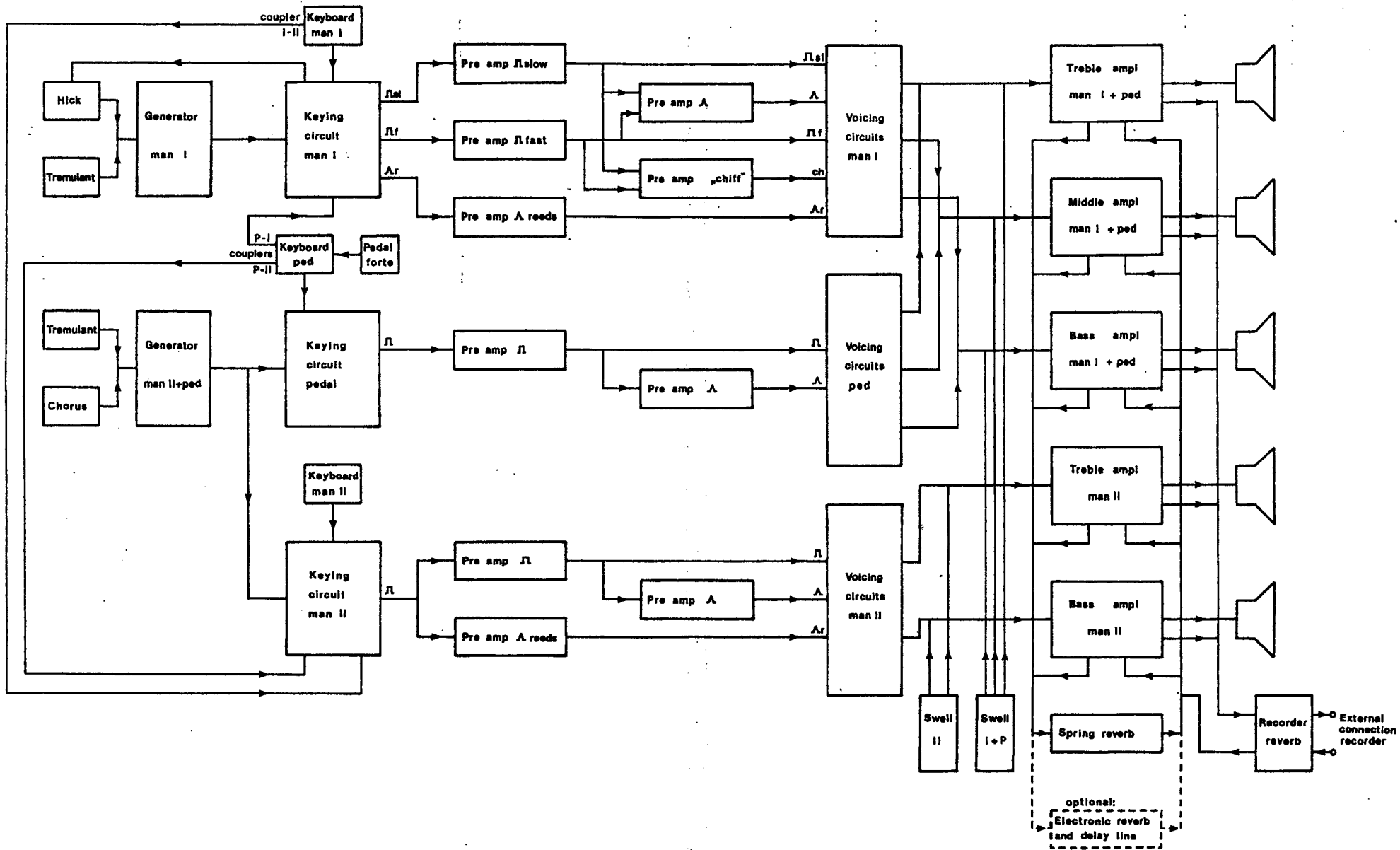


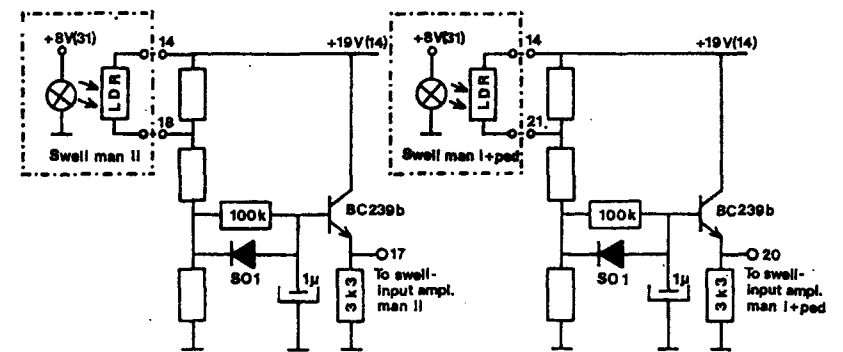
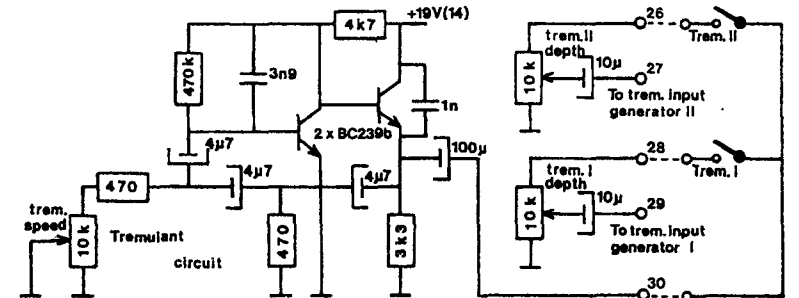
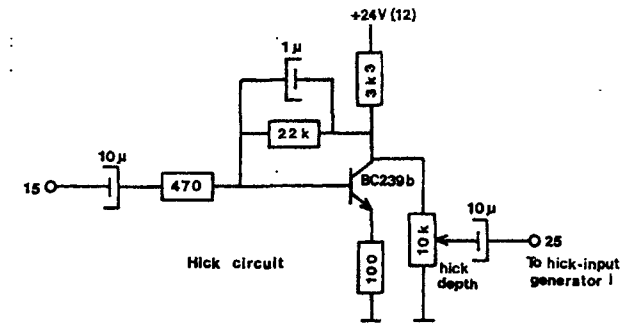
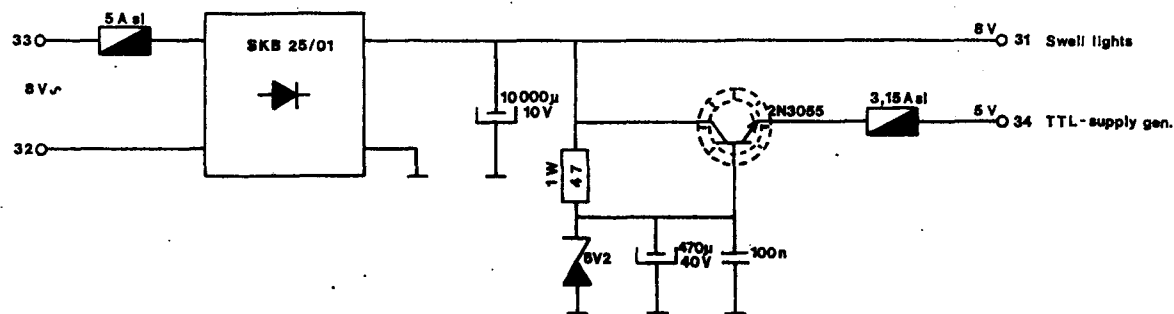
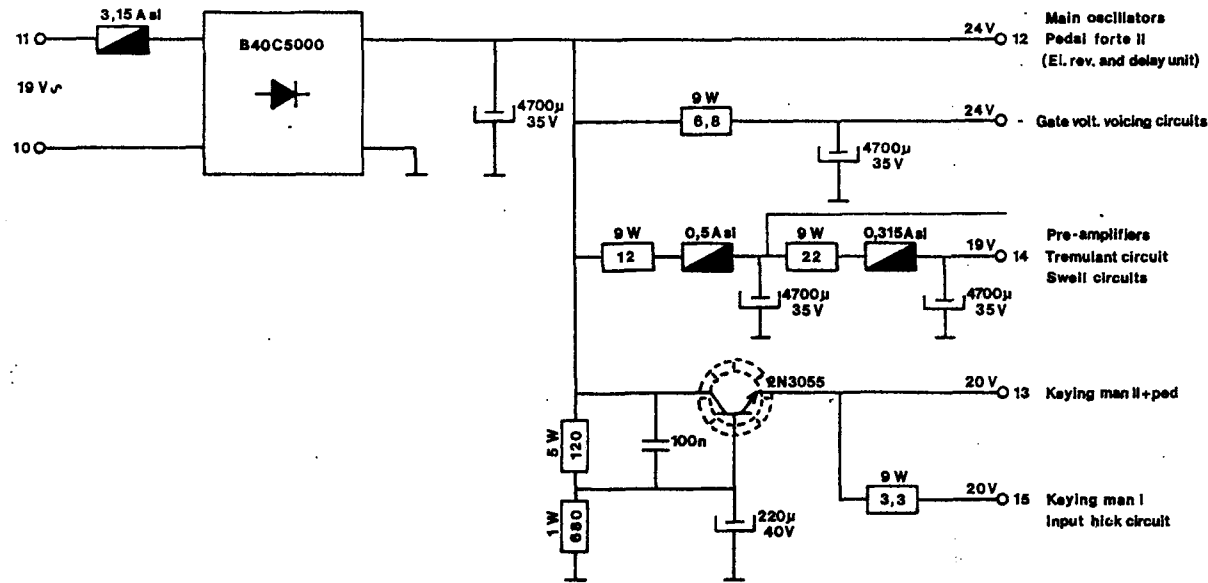
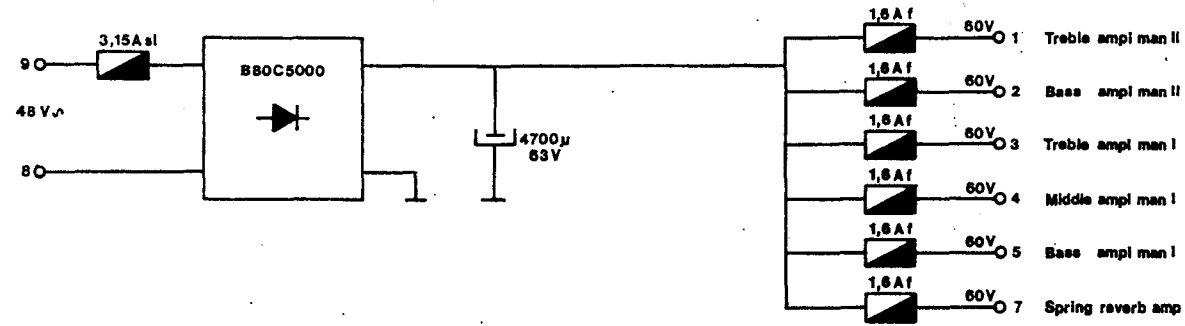
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S C H E M A T I C D I A G R A M S  
J O H A N N U S  
O P U S 2 0  
alterations reserved

O P U S 2 0

- Page 1 Signal blockdiagram
- Page 2 Power supply
- Page 3 Tone generator
- Page 4 Keying circuit man I
- Page 5 Keying circuit man II
- Page 6 Keying circuit pedal
- Page 7 Keyboard switches & coupler system
- Page 8 Pre-amplifiers slow man I
- Page 9 Pre-amplifiers fast & chiff man I
- Page 10 Pre-amplifiers reeds man I
- Page 11 Pre-amplifiers man II
- Page 12 Pre-amplifiers reeds man II
- Page 13 Pre-amplifiers pedal
- Page 14 Voicing circuits man I
- Page 15 Voicing circuits man I
- Page 16 Voicing circuits man II
- Page 17 Voicing circuits man II & presets
- Page 18 Voicing circuits pedal
- Page 19 Universal power amplifier
- Page 20 Reverberation circuit
- Page 21 Controls
- Page 22 Speakerconnection & main supply



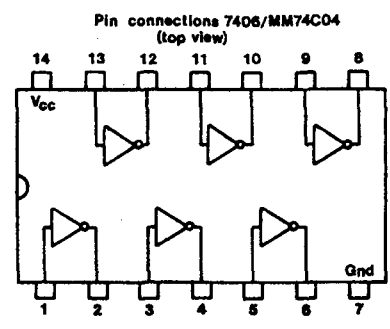
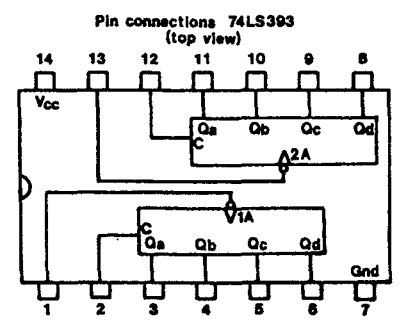
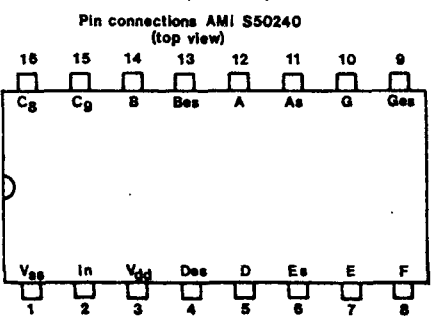
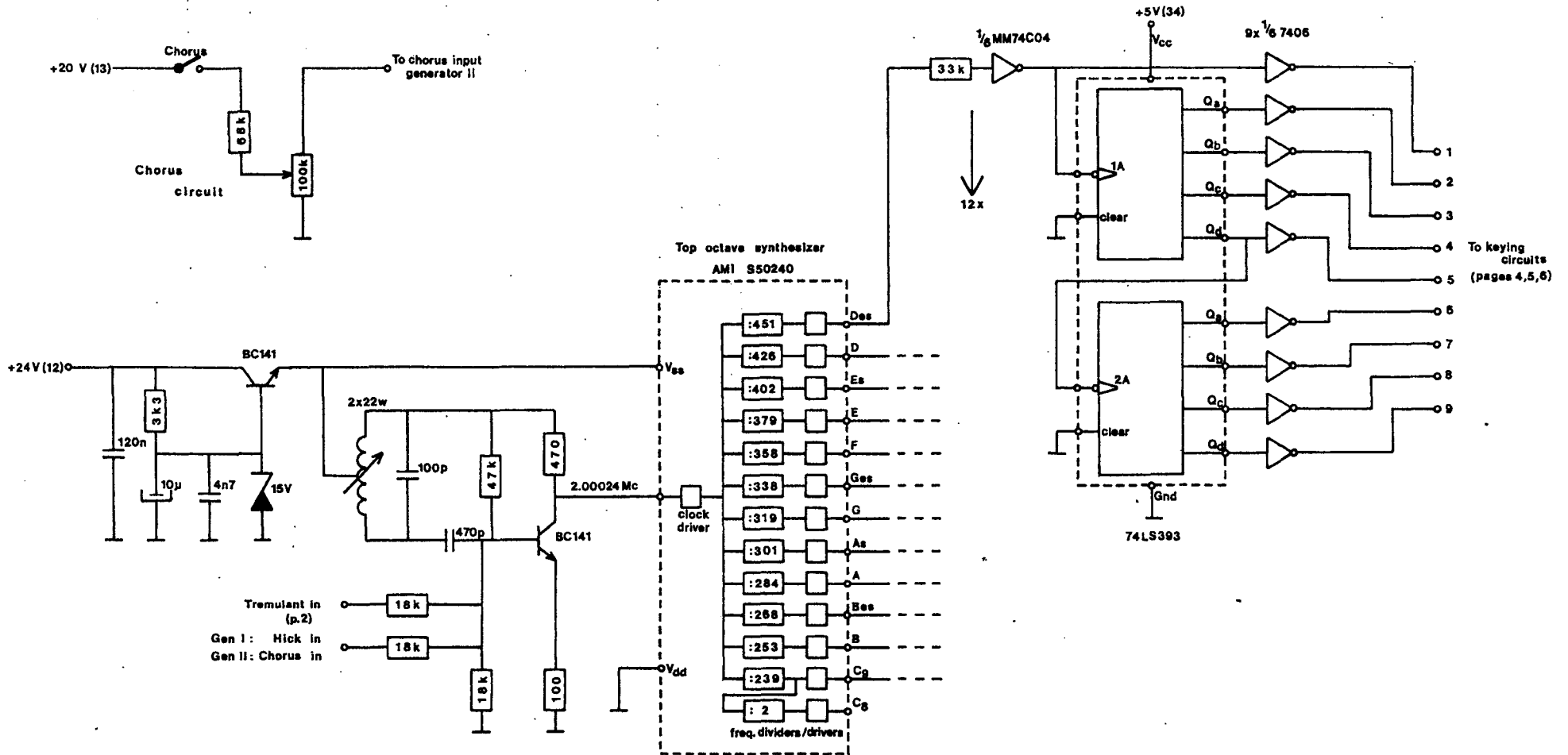
SIGNAL BLOCKDIAGRAM				
Drawn	Date	Modified	Date	JOHANNUS ORGAN OPUS 20
R.K. Bischoff	17 - 4 - '80			
DESIGN				
J. Versteeg				
copyright:	JOHANNUS		morsestraat 28	page:
J. VERSTEEG	ORGELBOUW BV		6716 AH EDE HOLLAND	1



Swell circuits

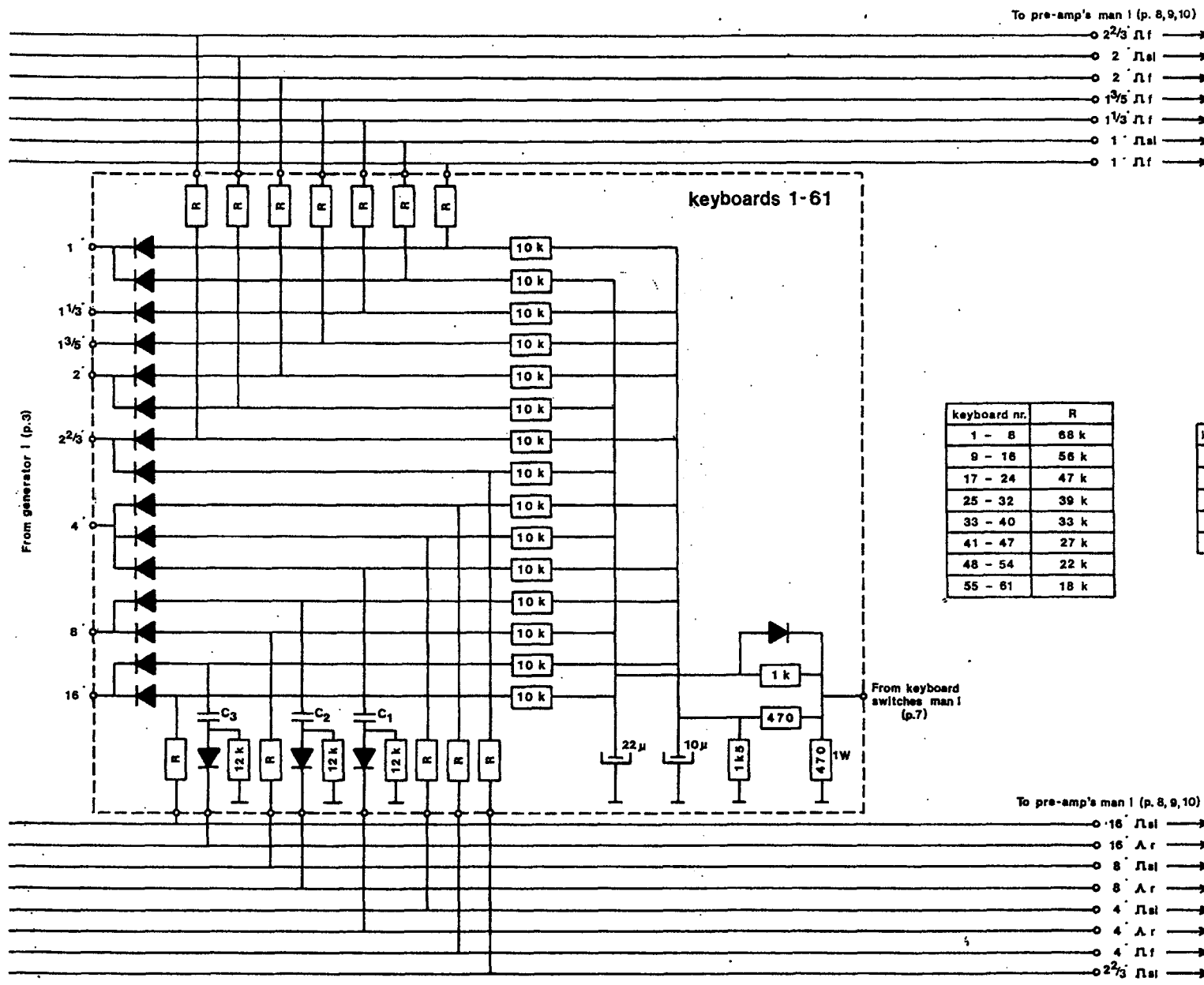
POWER SUPPLY			
Drawn	Date	Modified	Date
F.K.Bleschop	22-4-'80		
DESIGN			
J. Versteegt			
copyright:	JOHANNUS	morsestraat 28	page:
		6716 AH EDE HOLLAND	

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ORGAN  
OPUS 20



TONE GENERATOR			
Drawn	Date	Modified	Date
F.K. Blasehop	23 - 4 - '80		
DESIGN			
J. Versteeg			
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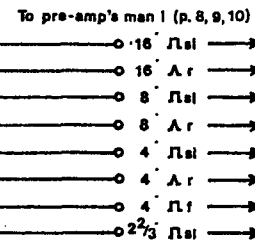
JOHANNUS  
 ORGAN  
 OPUS 20



	BASS	MIDDLE	TREBLE
2 <sup>2</sup> / <sub>3</sub> $\Omega$ f	1 - 23	24 - 45	46 - 61
2 $\Omega$ f	1 - 19	20 - 47	48 - 61
2 $\Omega$ f	1 - 19	20 - 47	48 - 61
1 <sup>3</sup> / <sub>5</sub> $\Omega$ f	1 - 17	18 - 43	44 - 61
1 <sup>1</sup> / <sub>3</sub> $\Omega$ f	1 - 19	20 - 52	53 - 61
1 $\Omega$ f	1 - 21	22 - 38	39 - 61
1 $\Omega$ f	1 - 21	22 - 38	39 - 61

keyboard nr.	R
1 - 8	68 k
9 - 16	56 k
17 - 24	47 k
25 - 32	39 k
33 - 40	33 k
41 - 47	27 k
48 - 54	22 k
55 - 61	18 k

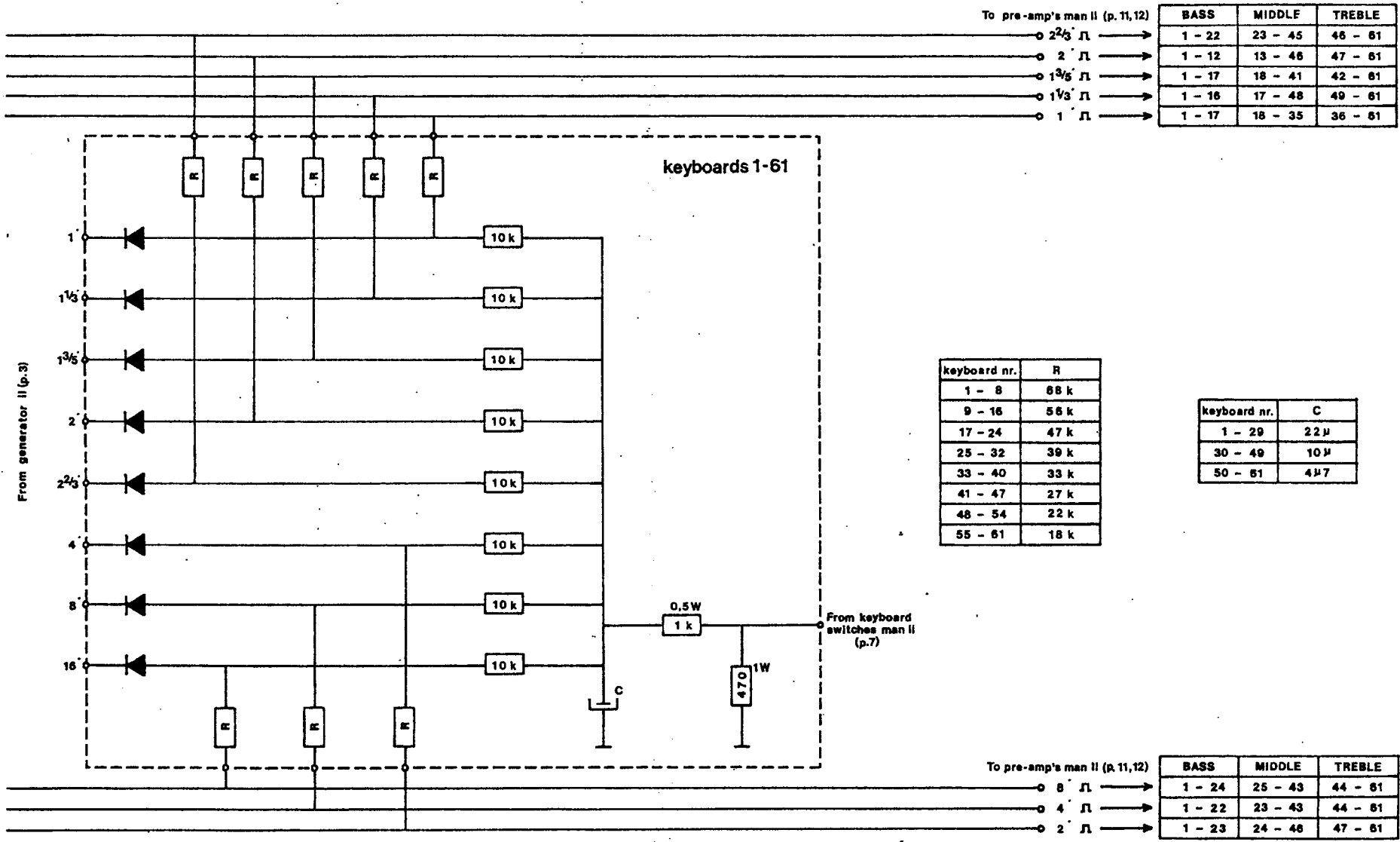
keyboard nr.	C1	C2, C3
1 - 12	22 n	33 n
13 - 24	15 n	22 n
25 - 36	10 n	15 n
37 - 48	4 n7	10 n
49 - 61	1 n8	6 n8



	BASS	MIDDLE	TREBLE
16 $\Omega$ f	1 - 24	25 - 43	44 - 61
16 $\Omega$ r	1-12	13-24	25-36 37-48 49-61
8 $\Omega$ f	1 - 21	22 - 43	44 - 61
8 $\Omega$ r	1-12	13-24	25-36 37-48 49-61
4 $\Omega$ f	1 - 23	24 - 46	47 - 61
4 $\Omega$ r	1-12	13-24	25-36 37-48 49-61
4 $\Omega$ f	1 - 23	24 - 46	47 - 61
2 <sup>2</sup> / <sub>3</sub> $\Omega$ f	1 - 23	24 - 45	46 - 61

All diodes SO1

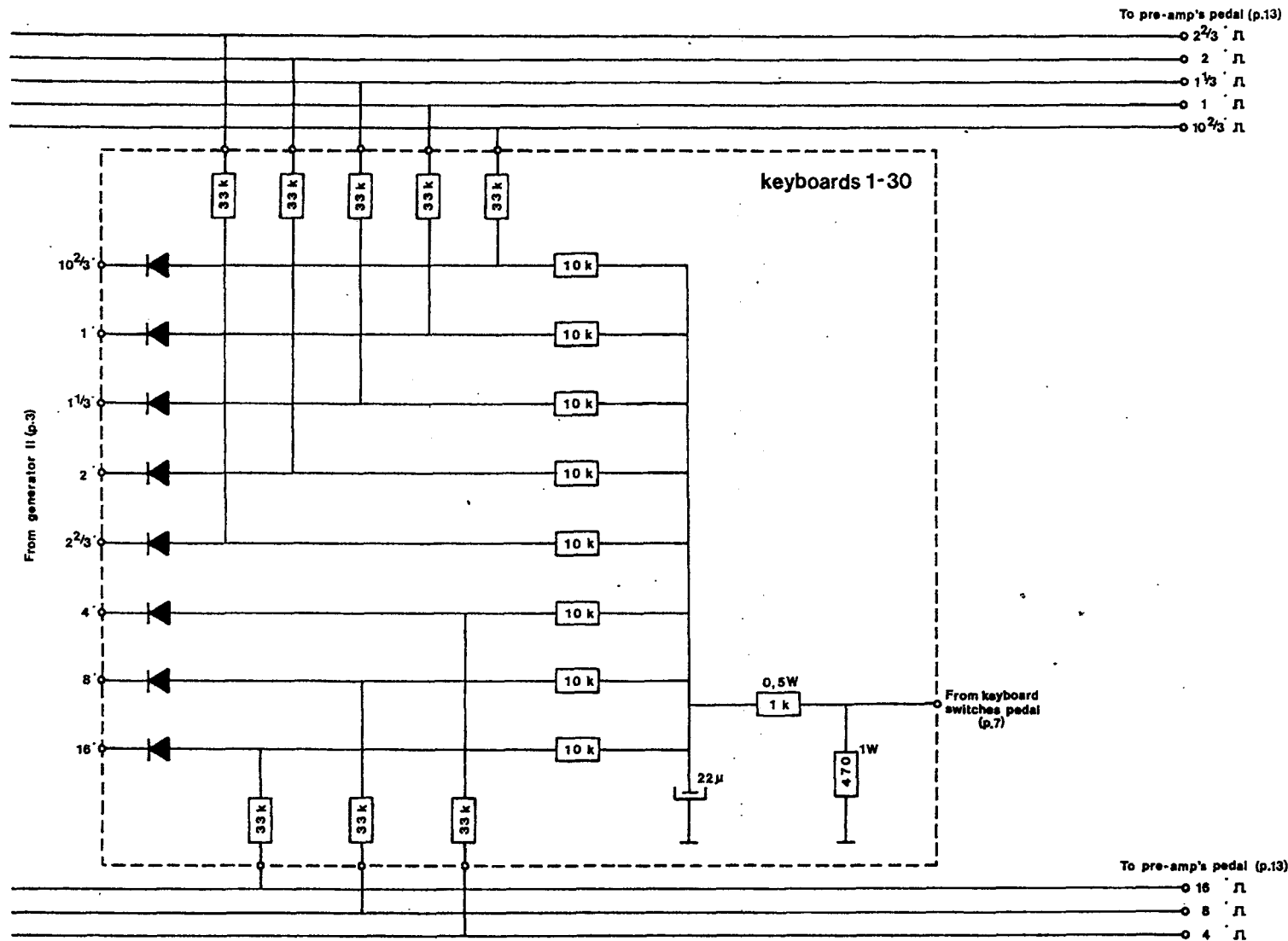
KEYING CIRCUIT MAN I			
Drawn	Date	Modified	Date
F.K.Bischoff	1-5-'80		
DESIGN			
J. Versteeg			
copyright:		JOHANNUS	
VERSTEEGT		morsestraat 28 6716 AH EDE HOLLAND	
		page: 4	



All diodes SO1

**KEYING CIRCUITS MAN II**

Drawn	Date	Modified	Date	<b>JOHANNUS ORGAN OPUS 20</b>
F.K.Bleschop	1-5-80			
DESIGN				
J. Versteegt				
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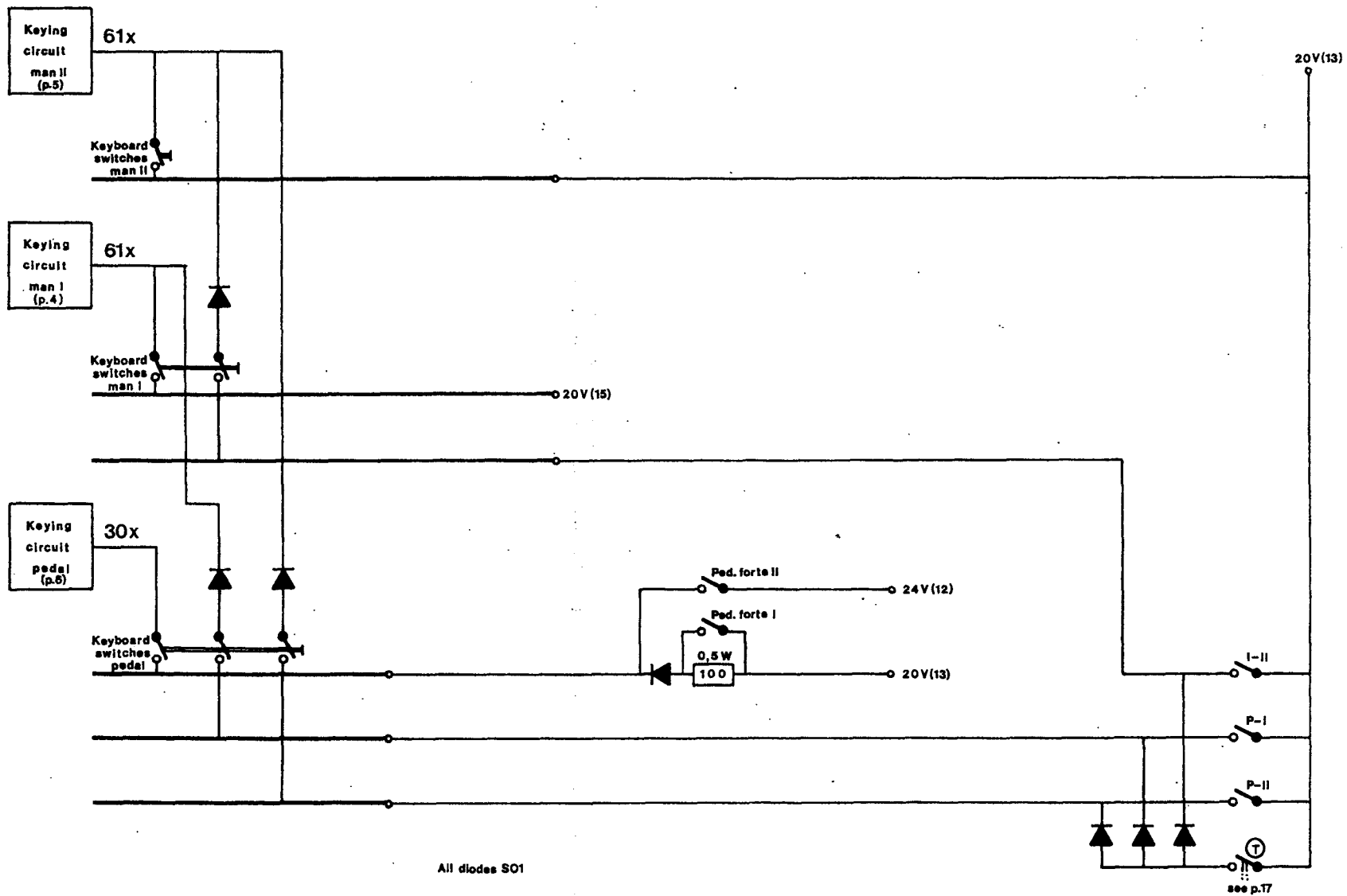


All diodes SO1

KEYING CIRCUITS PEDAL			
Drawn	Date	Modified	Date
F.K. Bischoff	1-5-80		
DESIGN			
J. Versteeg			
copyright:	JOHANNUS		page:
		morsestraat 28 6716 AH EDE HOLLAND	

JOHANNUS  
ORGAN  
OPUS 20

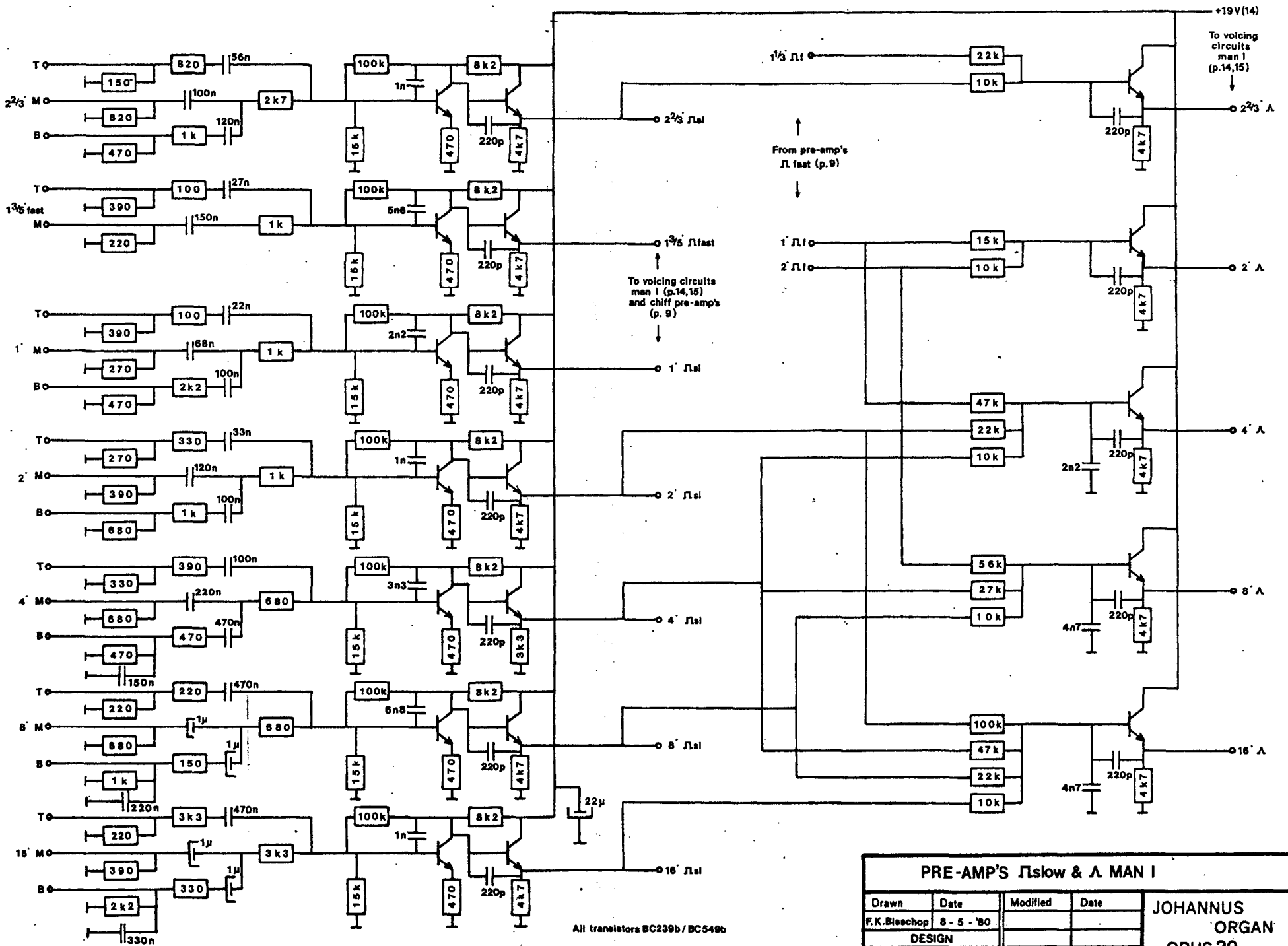




KEYBOARD SWITCHES & COUPLER SYSTEM			
Drawn	Date	Modified	Date
F.K.Blaeschoop	1-5-80		
DESIGN			
J.Versteegt			
copyright:	JOHANNUS		morsestraat 28 4716 AL ENE HOLLAND
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JOHANNUS  
ORGAN  
OPUS 20

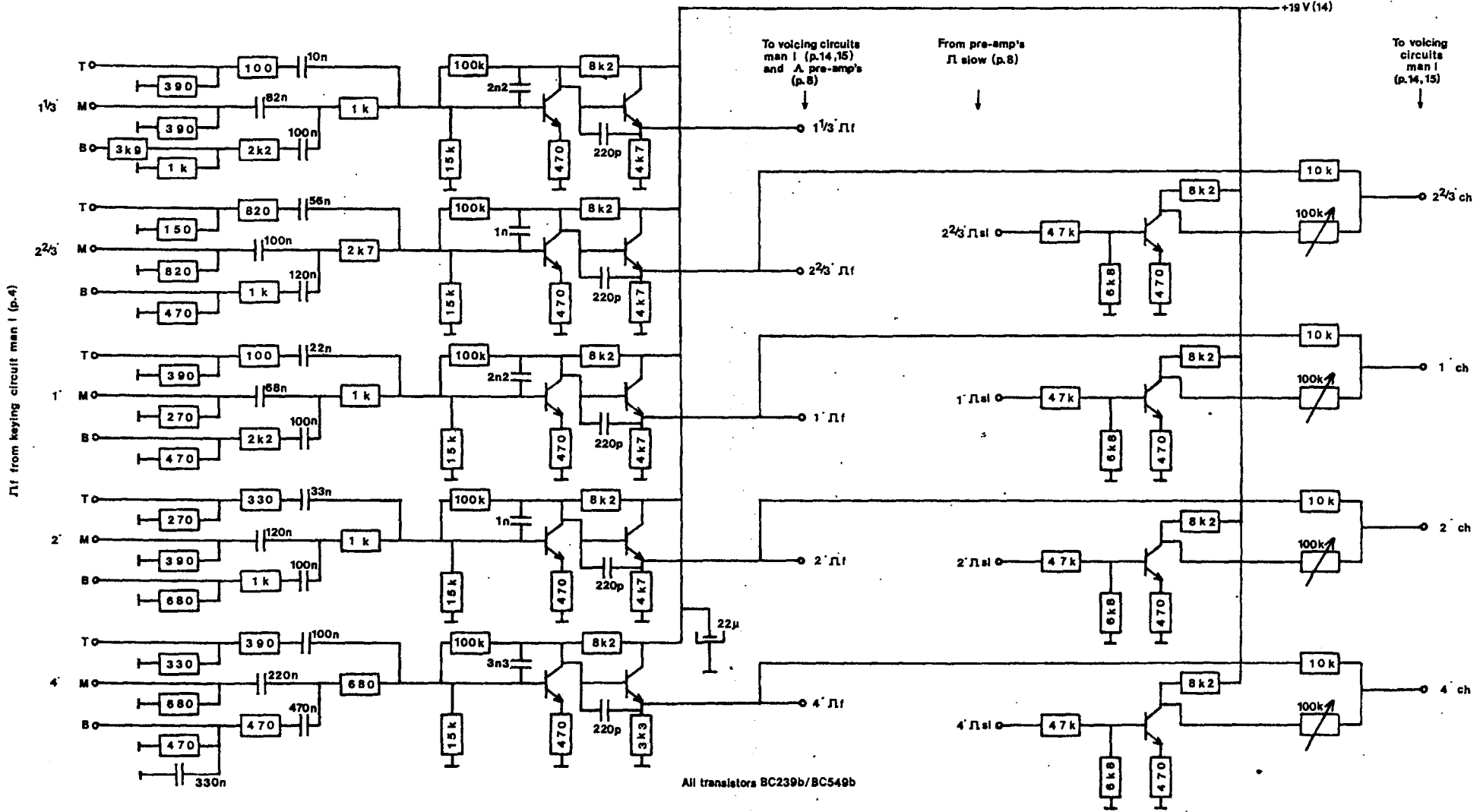
$\Gamma$ fast from keying circuit man I (p.4)



All transistors BC239b/BC549b

PRE-AMP'S $\Gamma$ slow & $\Lambda$ MAN I			
Drawn	Date	Modified	Date
F.K. Blaschop	8 - 5 - '80		
DESIGN			
J. Versteeg			
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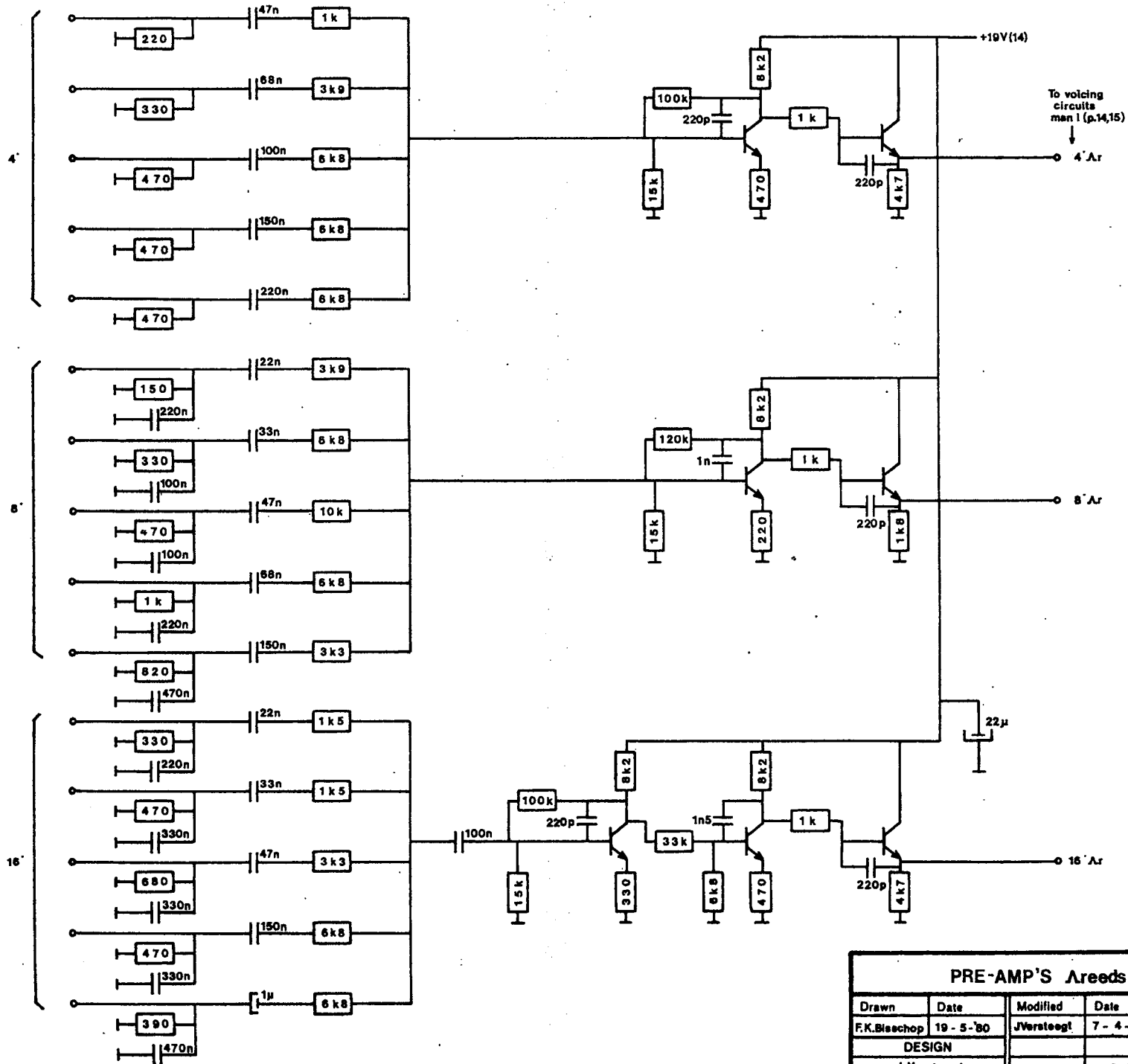


Ohm from keying circuit man I (p.4)

All transistors BC239b/BC549b

PRE-AMP'S Ohmfast & chiff MAN I			
Drawn	Date	Modified	Date
F.K. Bleschop	9-5-'80		
DESIGN			
J. Versteeg			
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J. VERSTEEGT	ORGELROUW bv	6716 AH EDE HOLLAND	1

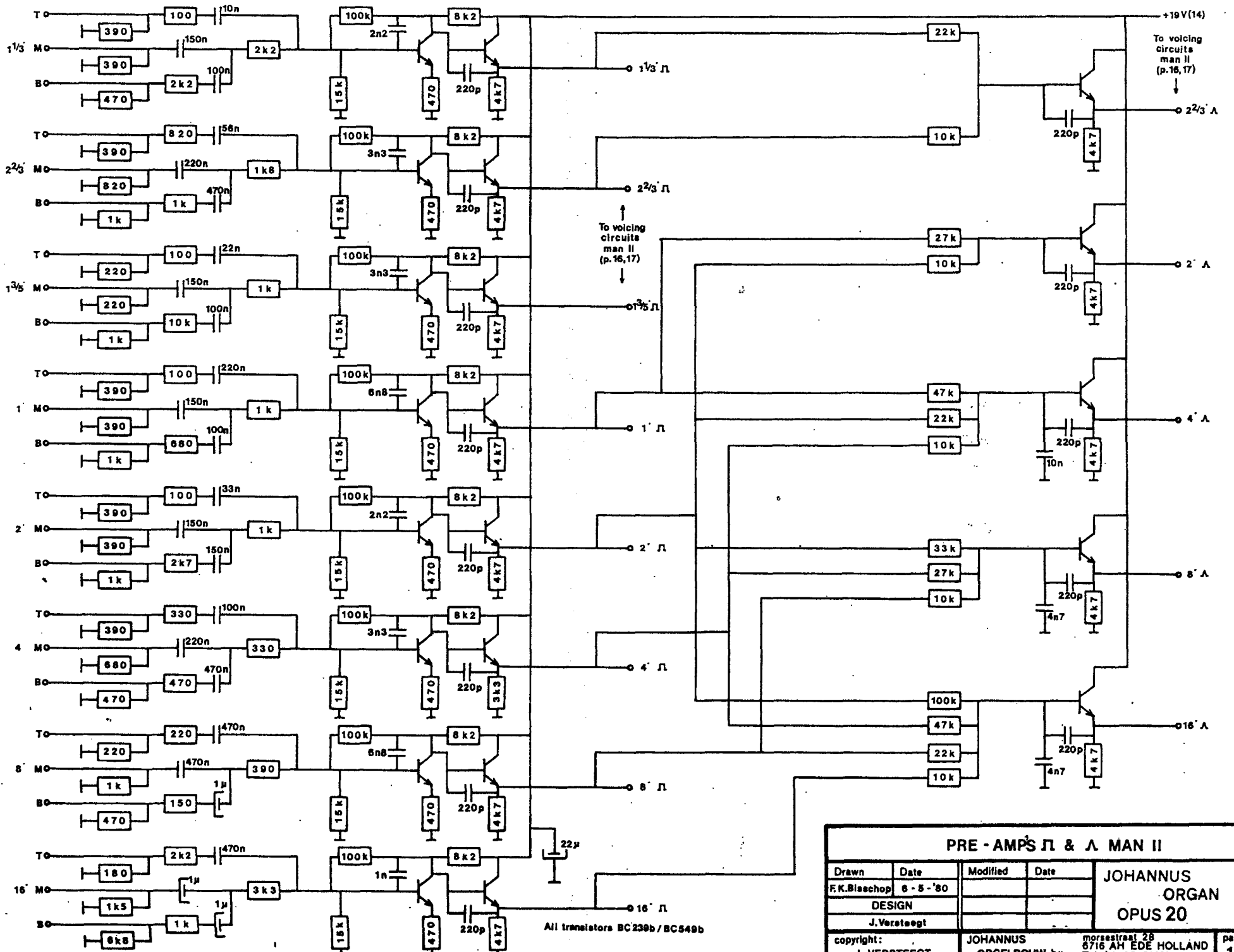
Ar from keying circuit man I (p.4)



All transistors BC239/549

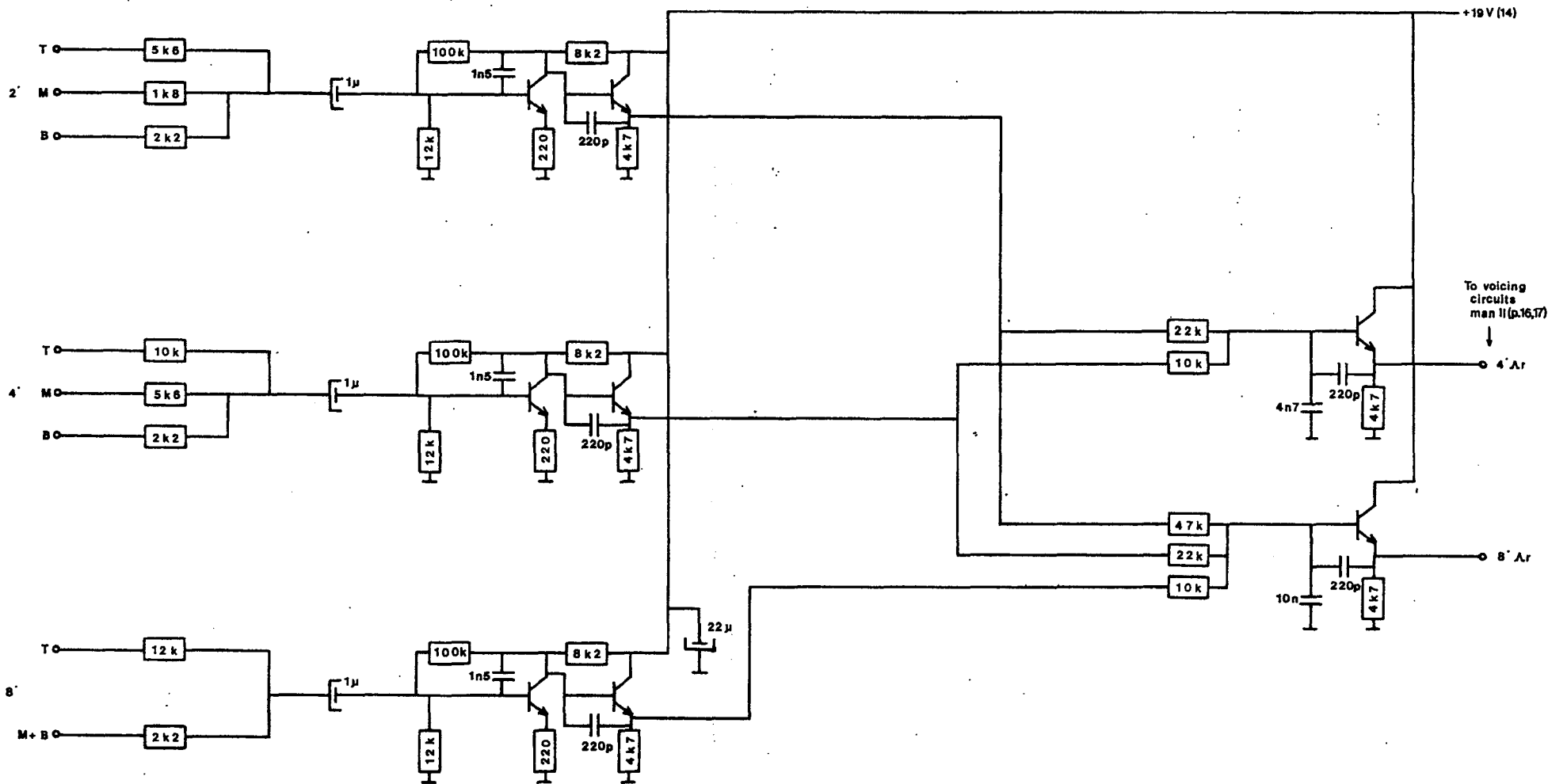
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Drawn	Date	Modified	Date
F.K.Bischoep	19-5-'80	J.Versteegt	7-4-81
DESIGN			
J.Versteegt			
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		6716 AH EDE HOLLAND	10

π from keying circuit man II (p.5)



PRE - AMPS π & Λ MAN II			
Drawn	Date	Modified	Date
F.K.Blaaschop	6 - 5 - '80		
DESIGN			
J.Versteeg			
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VERBODEN	morsestraat 28 6716 AH EDE HOLLAND		11

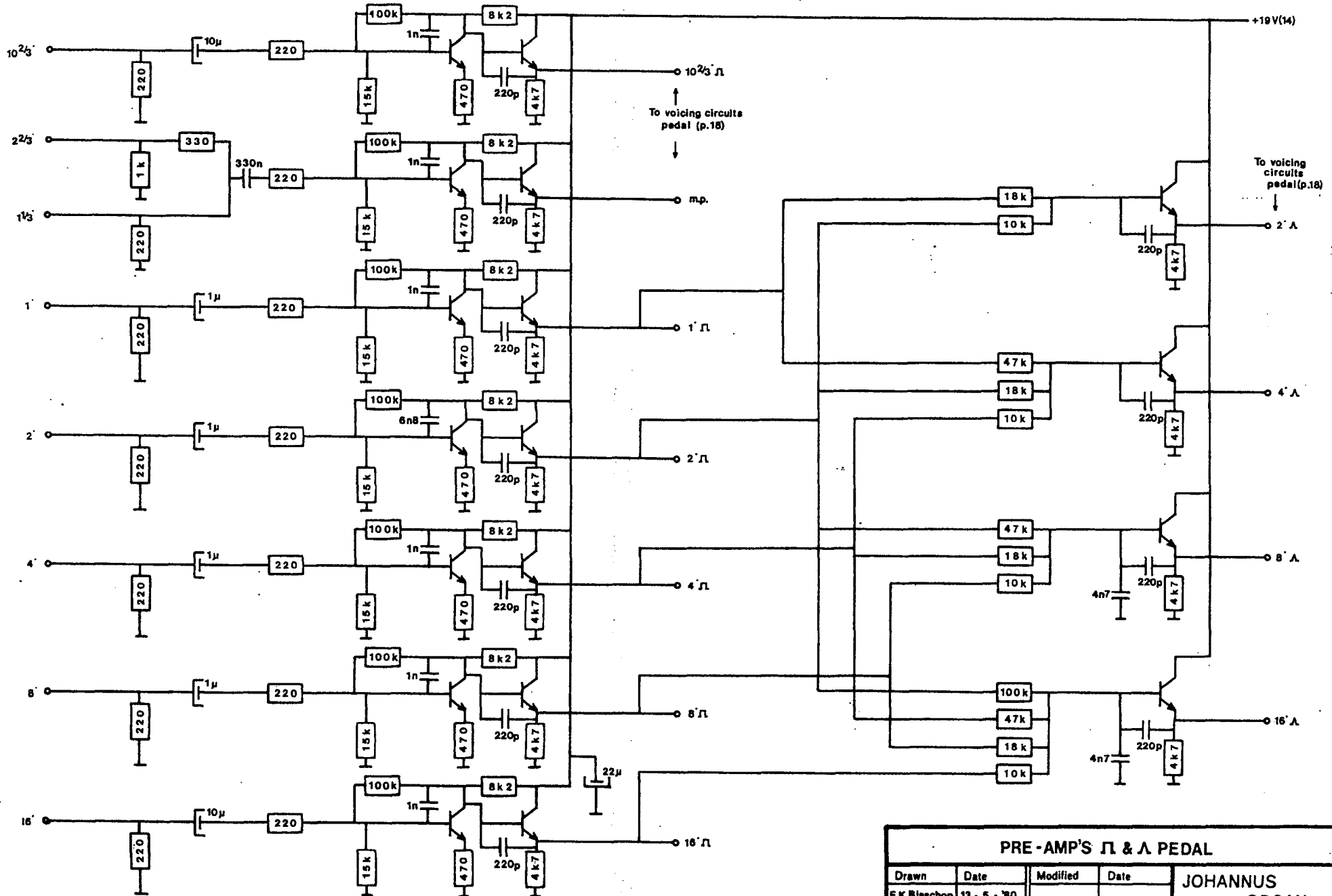
J1 from keying circuit man II (p.5)



All transistors BC 239/BC 549

PRE-AMP'S Areeds MAN II			
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F.K.Bischoep	14-5-'80		
DESIGN			
J.Versteegt			
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			page: 20

π from keying circuit pedal (p. 6)



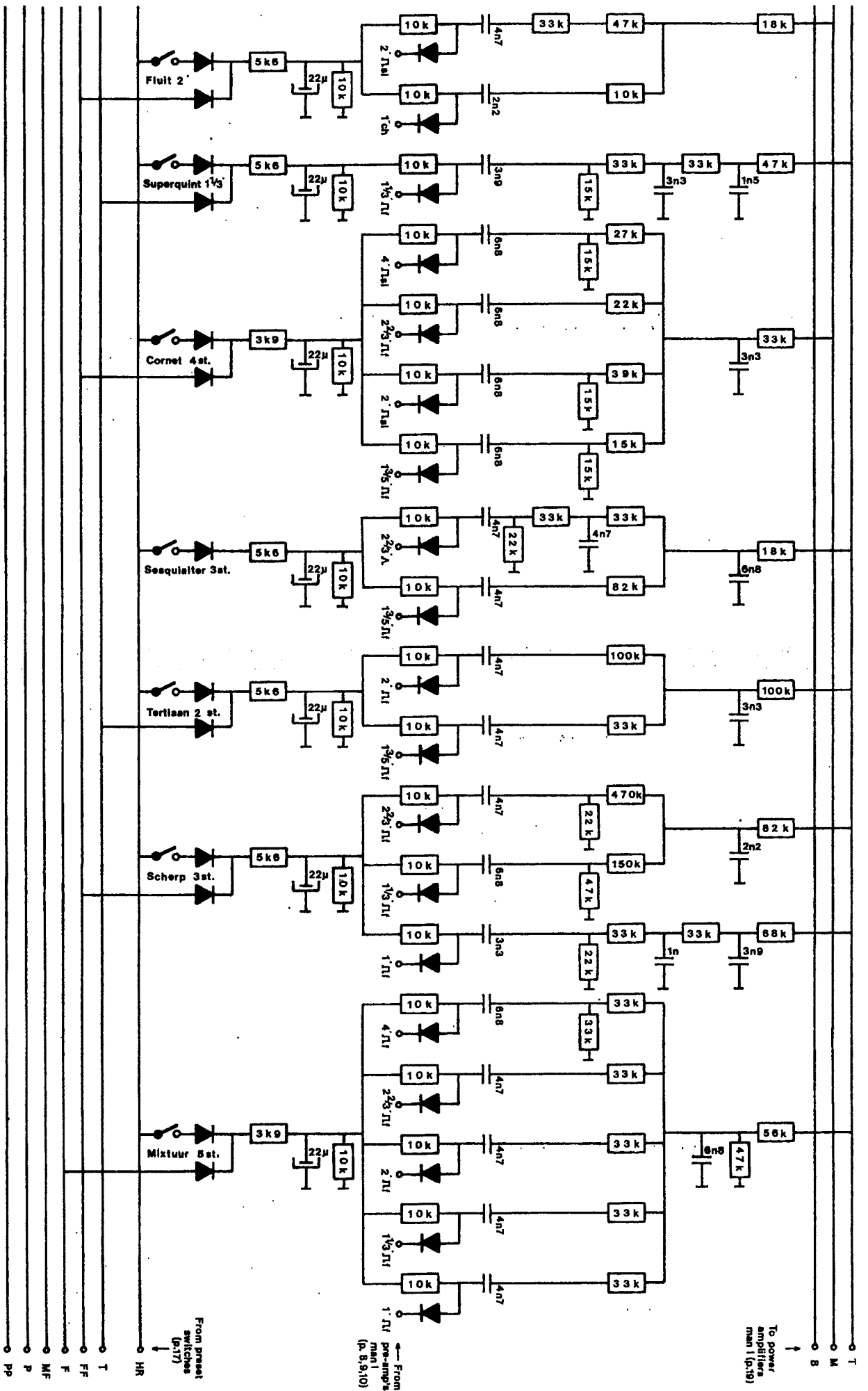
All transistors BC239b/BC549b

PRE-AMP'S π & λ PEDAL			
Drawn	Date	Modified	Date
R.K. Blaschop	13 - 5 - '80		
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J. Versteeg			
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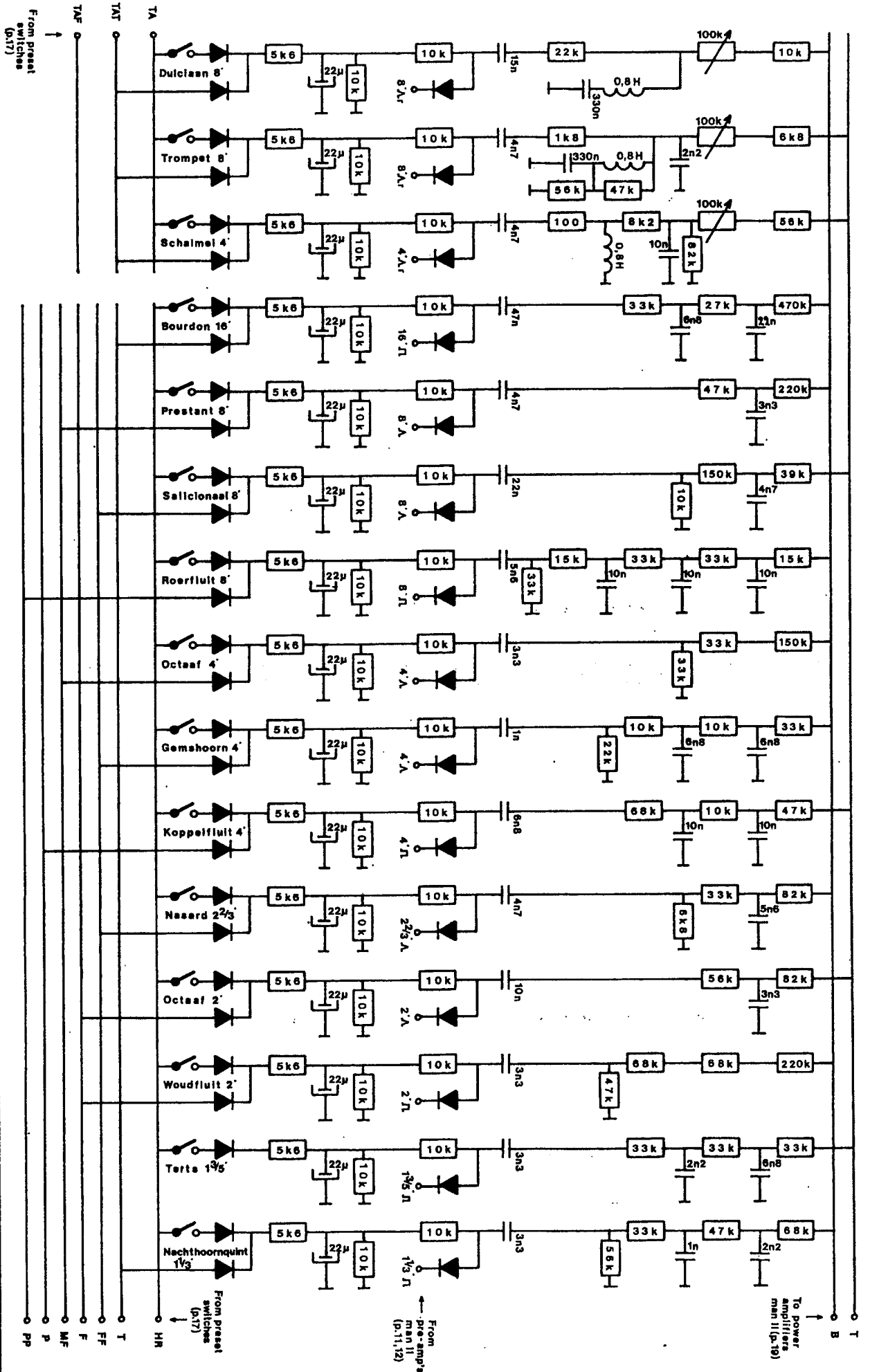




All diodes SOT

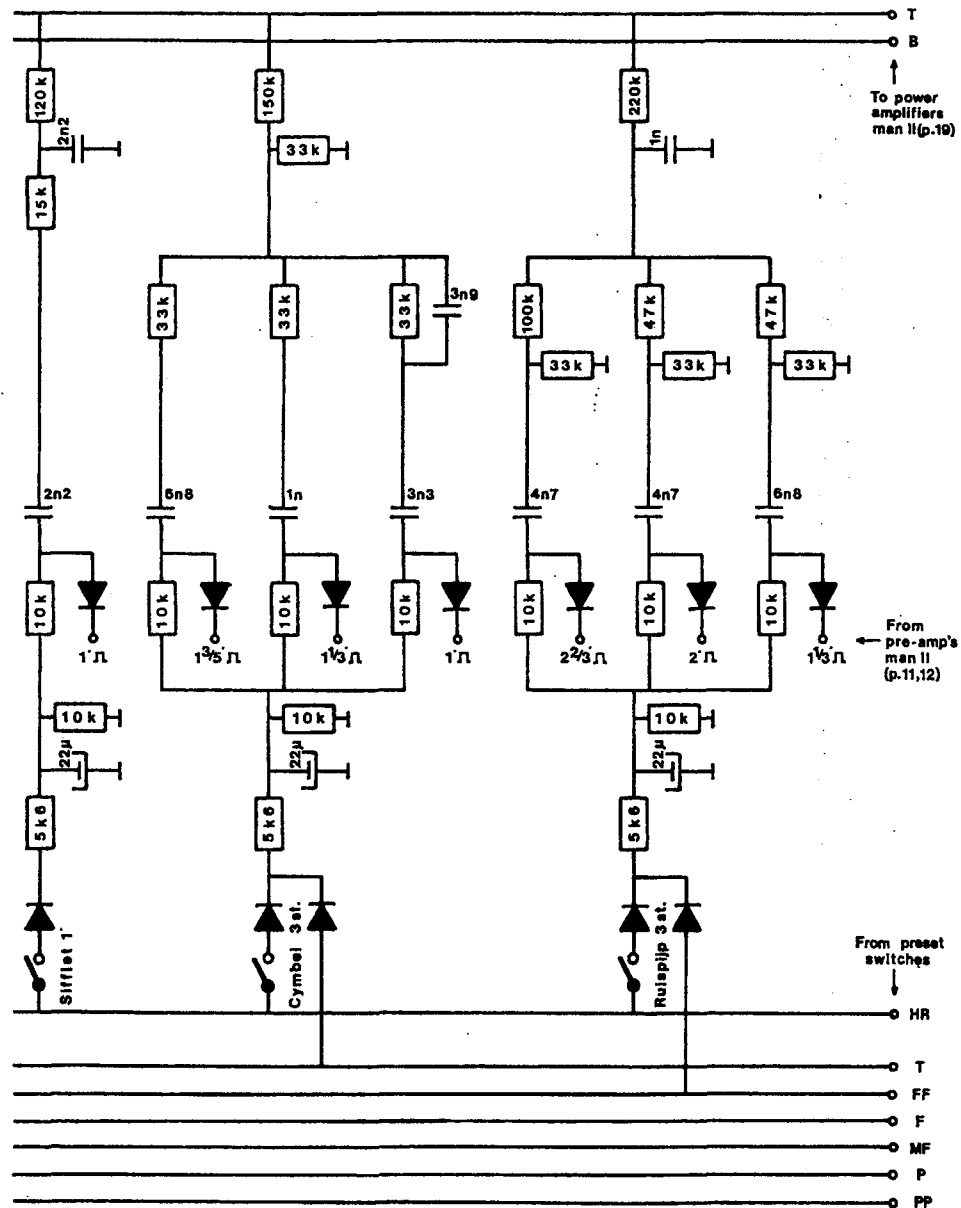
VOICING CIRCUITS MAN I

Drawn	Date	Modified	Date
E.K. Bisschop	18-5-'80		
DESIGN			
J. Versteeg			
copyright:	JOHANNUS		
	nonstop 28		
	8716 AH EDE HOLLAND		
page:	OPUS 20		
	JOHANNUS ORGAN		

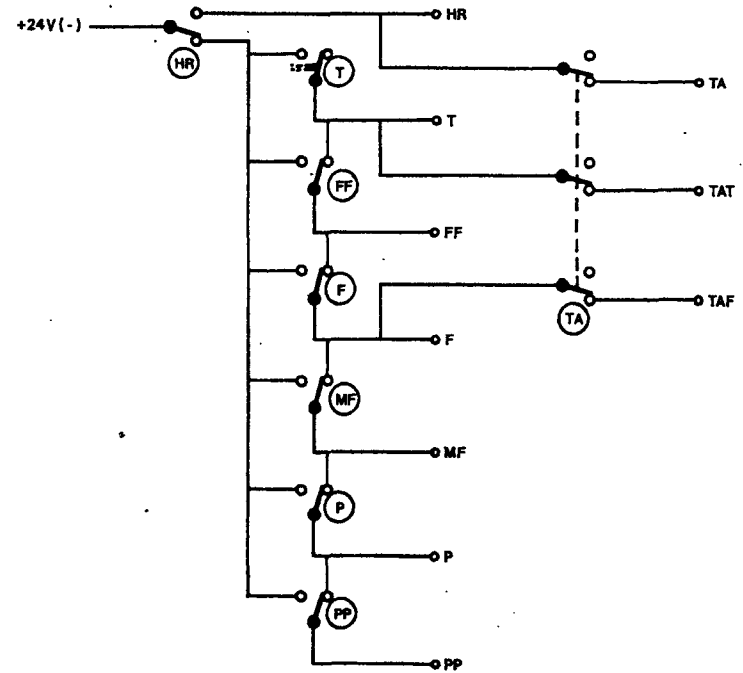


VOICING CIRCUITS MAN II

Drawn	Date	Modified	Date
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DESIGN			
J. Versteegh			
JOHANNUS		OPUS 20	
copyright: JOHANNUS			
page: 28			

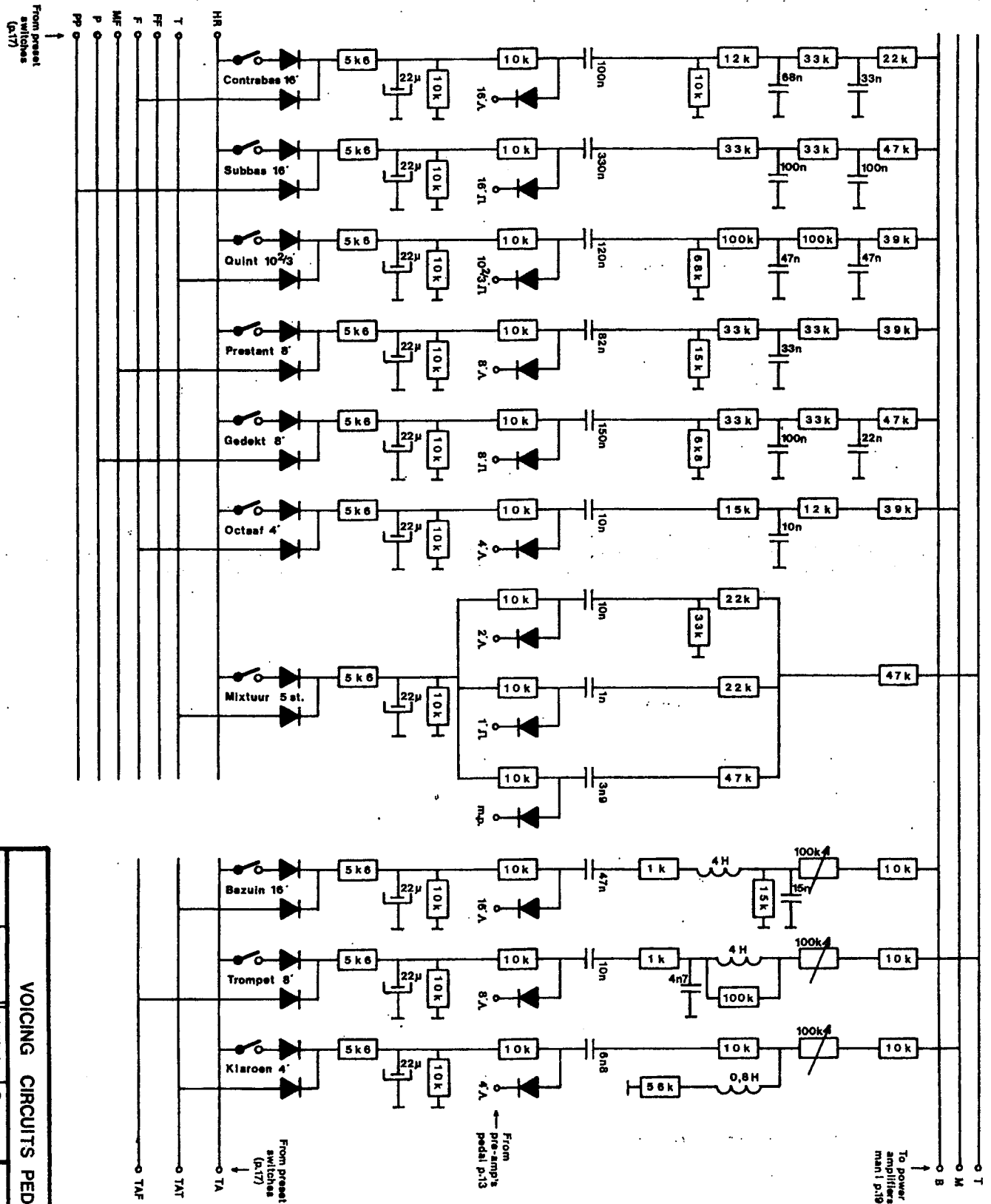


All diodes SO1



PRESET SWITCHES

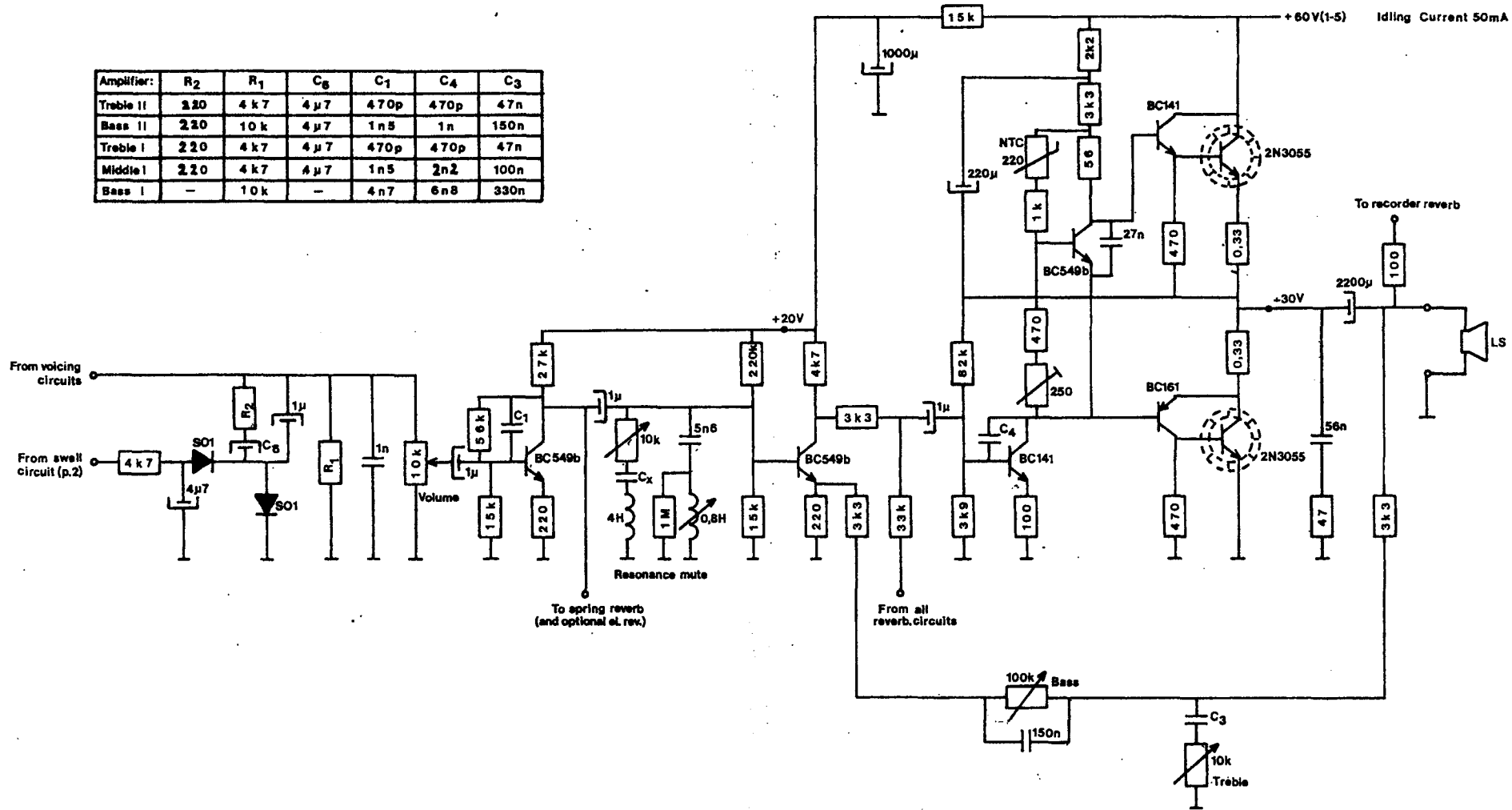
VOICING CIRCUITS MAN II + PRESETS			
Drawn	Date	Modified	Date
E.K. Bischoff	28-5-'80		
DESIGN			
J. Versteeg			
copyright:	JOHANNUS	morsestraat 28	page:
		6716 AH EDE HOLLAND	47



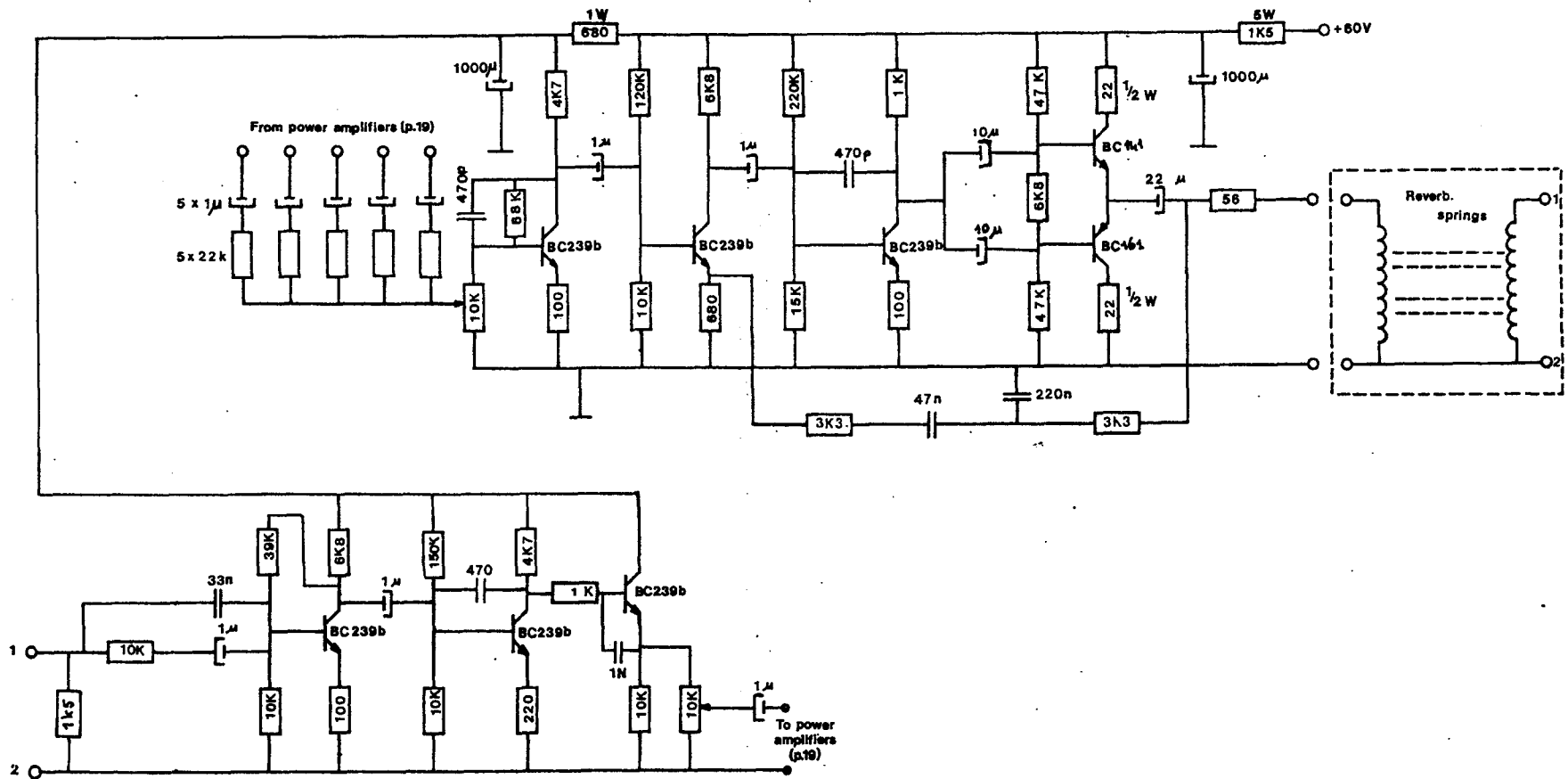
VOICING CIRCUITS PEDAL

Drawn	Date	Modified	Date
EKlischoop	28 - 5 - '90		
DESIGN			
J. Versteeg			
JOHANNUS ORGANUS			
OPUS 20			
copyright:	1 VRSPECTECT		
copyright:	JOHANNUS ORGANUS		
copyright:	OPUS 20		
copyright:	1988		
copyright:	Eindhoven, Holland		
copyright:	1988		

Amplifier:	R <sub>2</sub>	R <sub>1</sub>	C <sub>5</sub>	C <sub>1</sub>	C <sub>4</sub>	C <sub>3</sub>
Treble II	220	4 k7	4 μ7	470p	470p	47n
Bass II	220	10 k	4 μ7	1n5	1n	150n
Treble I	220	4 k7	4 μ7	470p	470p	47n
Middle I	220	4 k7	4 μ7	1n5	2n2	100n
Bass I	-	10 k	-	4n7	6n8	330n



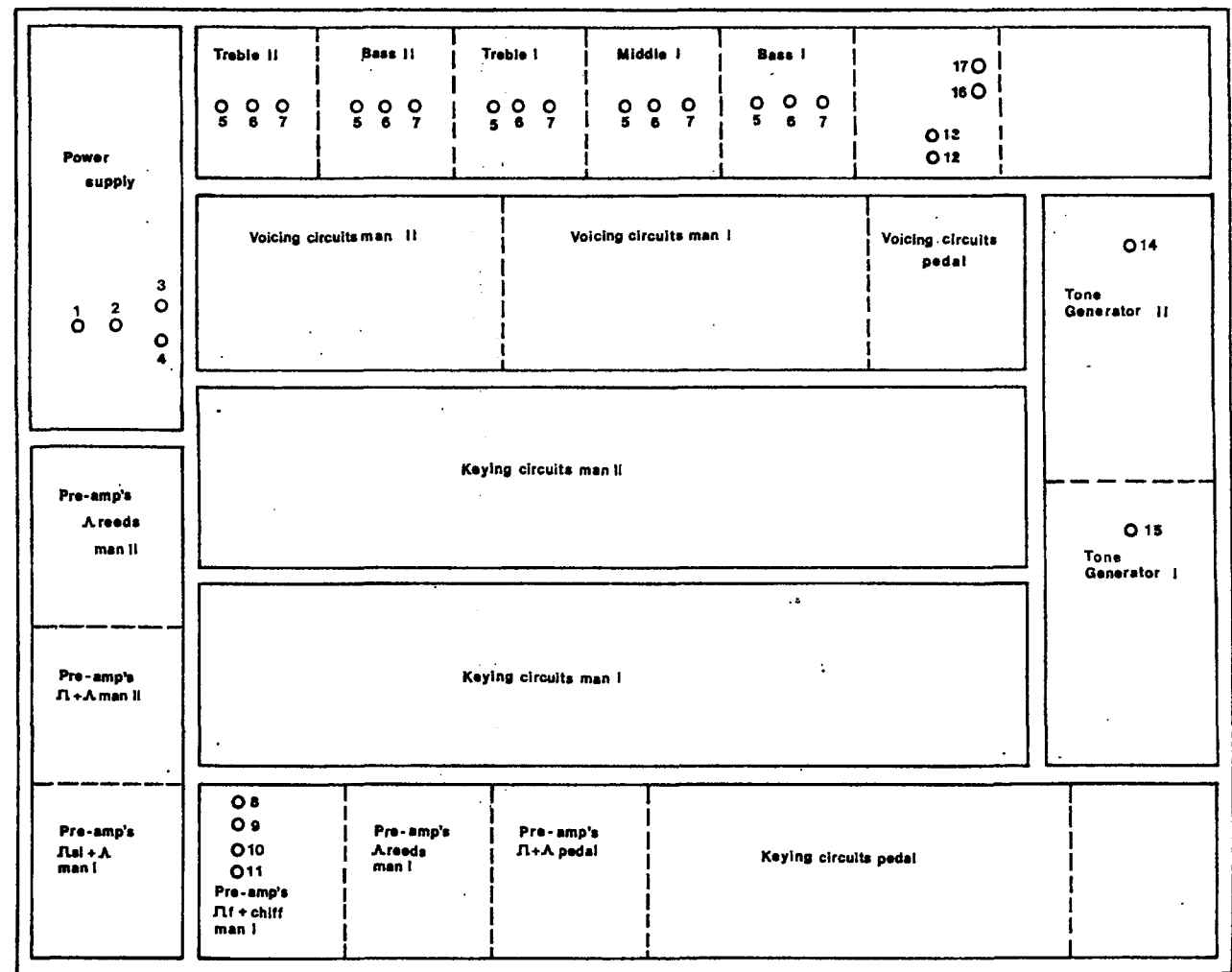
UNIVERSAL POWER AMPLIFIER				JOHANNUS ORGAN OPUS 20
Drawn	Date	Modified	Date	
E.K. Blaachop	30-5-'80			
DESIGN				
J. Versteegt				
copyright:	JOHANNUS	morsestraat 23 6716 AH EDE HOLLAND		page: 10



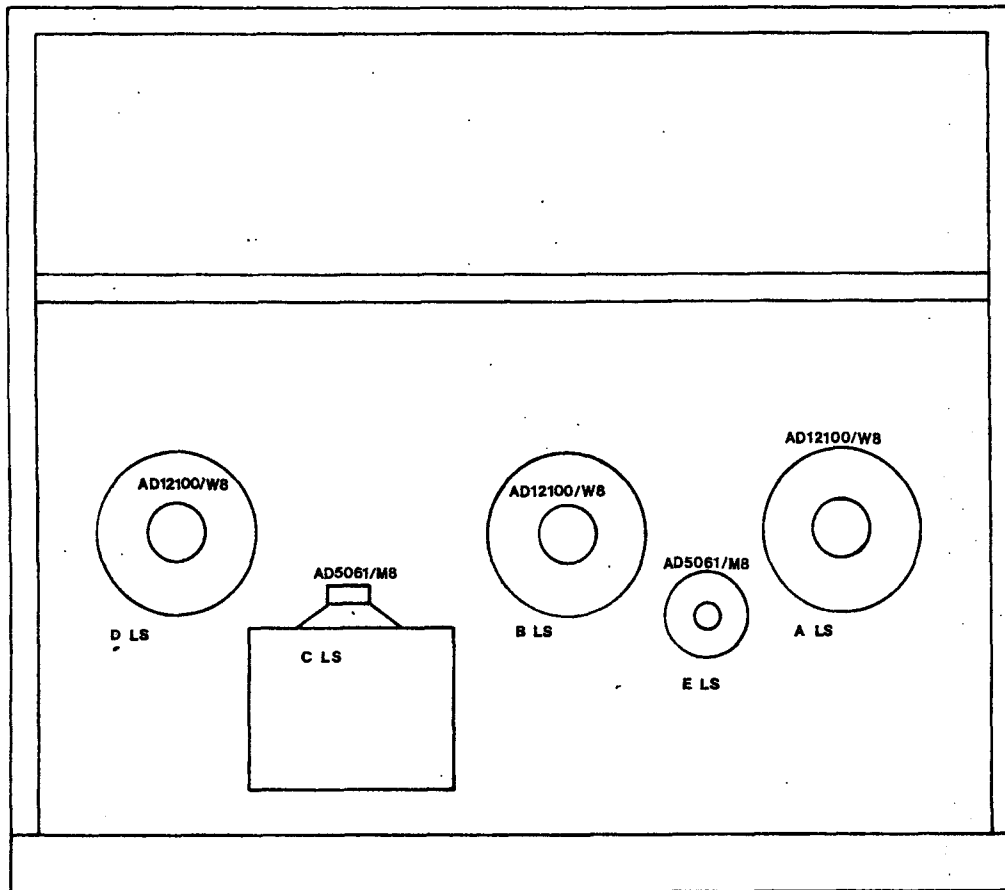
REVERBERATION CIRCUIT				JOHANNUS ORGAN OPUS 20
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g kremer	4 - 12 - 78	R.K. Bleschop	30 - 5 - '80	
DESIGN		J. Versteeg	28 - 11 - '80	
J. Versteeg				
copyright:	JOHANNUS	morsestraat 28	page:	
1 VERSTEEFT	ORGAN BOW	6716 AH EDE HOLLAND	20	

18 ○  
behind chorus switch  
voices panel

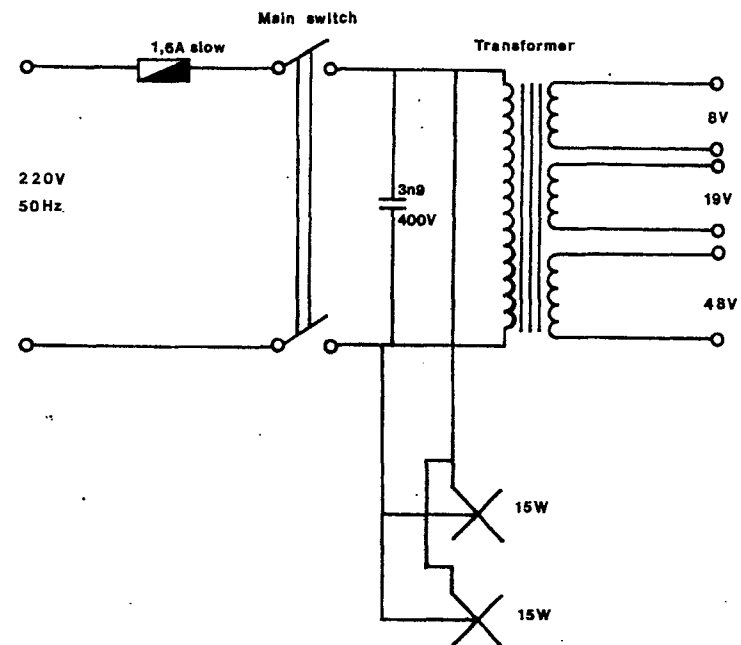
- 1 Hick Depth
- 2 Tremulant Speed
- 3 Tremulant depth II
- 4 " " I
- 5 Volume controls
- 6 Tone controls treble
- 7 Tone controls bass
- 8 2 2/3' Chiff
- 9 1' "
- 10 2' "
- 11 4' "
- 12 Input spring reverb.
- 13 Output " "
- 14 Tuning Gen I
- 15 Tuning Gen II
- 16 Input from rec. reverb., channel A
- 17 Input from rec. reverb., channel B
- 18 Chorus depth



CONTROLS			
Drawn	Date	Modified	Date
g kramer	27 10 78	EK.Blaaschop	30-5-'80
DESIGN			
J Versteeg			
copyright:	JOHANNUS	morsestraat 28	
J. VERSTEEGT	ORGEL ROUW b.v.	8716 AH EDE HOLLAND	
		Tel. 0200 01401	
		page:	21



- A Bass amplifier I
- B Middle "
- C Treble "
- D Bass " II
- E Treble "



SPEAKERCONNECTION AND MAIN SUPPLY			
Drawn	Date	Modified	Date
g kremer	30 10 78	FK.Bischoop	30-5 '80
DESIGN			
J Vanteegt			
copyright:	JOHANNUS	morsestraat 28 6716 AH EDE HOLLAND	page: 22