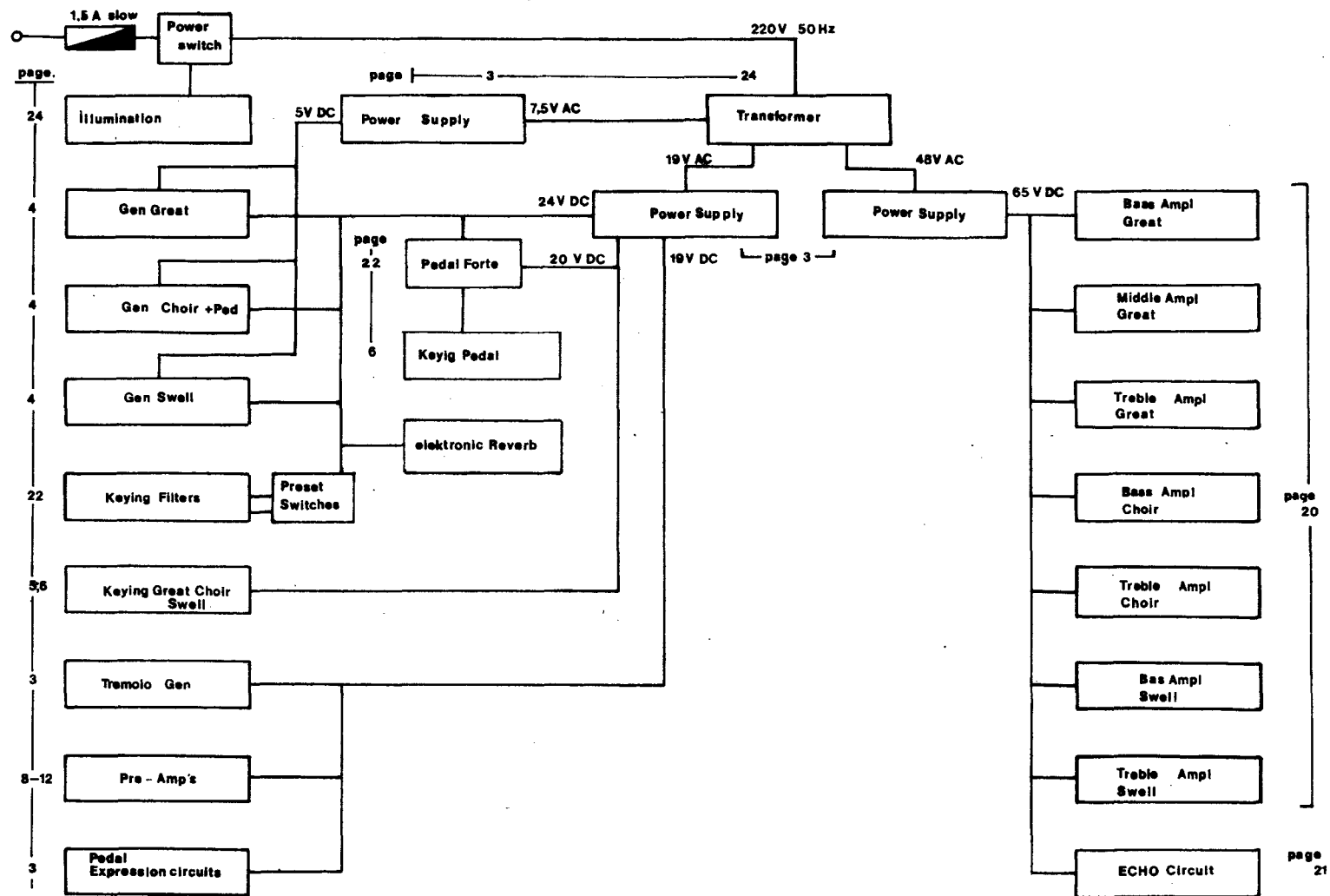


=====
= S C H E M A T I C D I A G R A M S =
= J O H A N N U S =
= O P U S 6 0 N =
= alterations reserved =

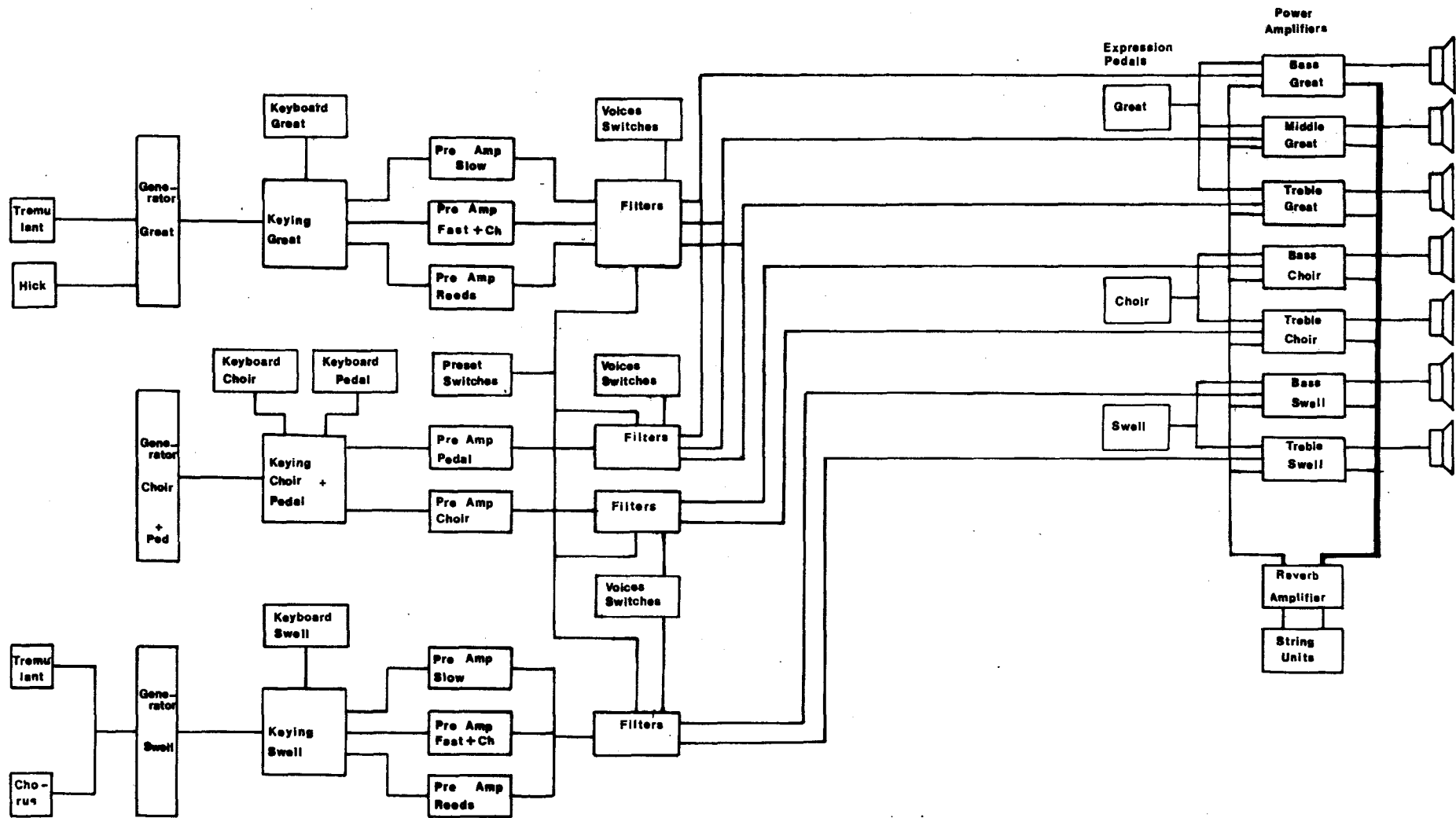
OPUS 60N

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1	Power block diagram
2	Signal block diagram
3	Power supply
4	Tone generator
5	Keying great and swell
6	Keying choir and pedal
7	Keyboard switches & coupler system
8	Pre-amplifiers great and swell
9	"Chiff" Pre-amplifier great and swell
10	Reeds pre-amplifier great and swell
11	Pre-amplifier choir
12	Pre-amplifiers pedal
13	Voices great
14	Voices great
15	Voices choir
16	Voices swell
17	Voices swell
18	Voices pedal
19	Filter-preset matrix
	Filter-amplifier connections
20	Universal ampl. circ.
21	Reverberation circuit
22	Matrix & accessories
23	Controls
24	Speaker connection and main supply
25	Headphone connection (optional)

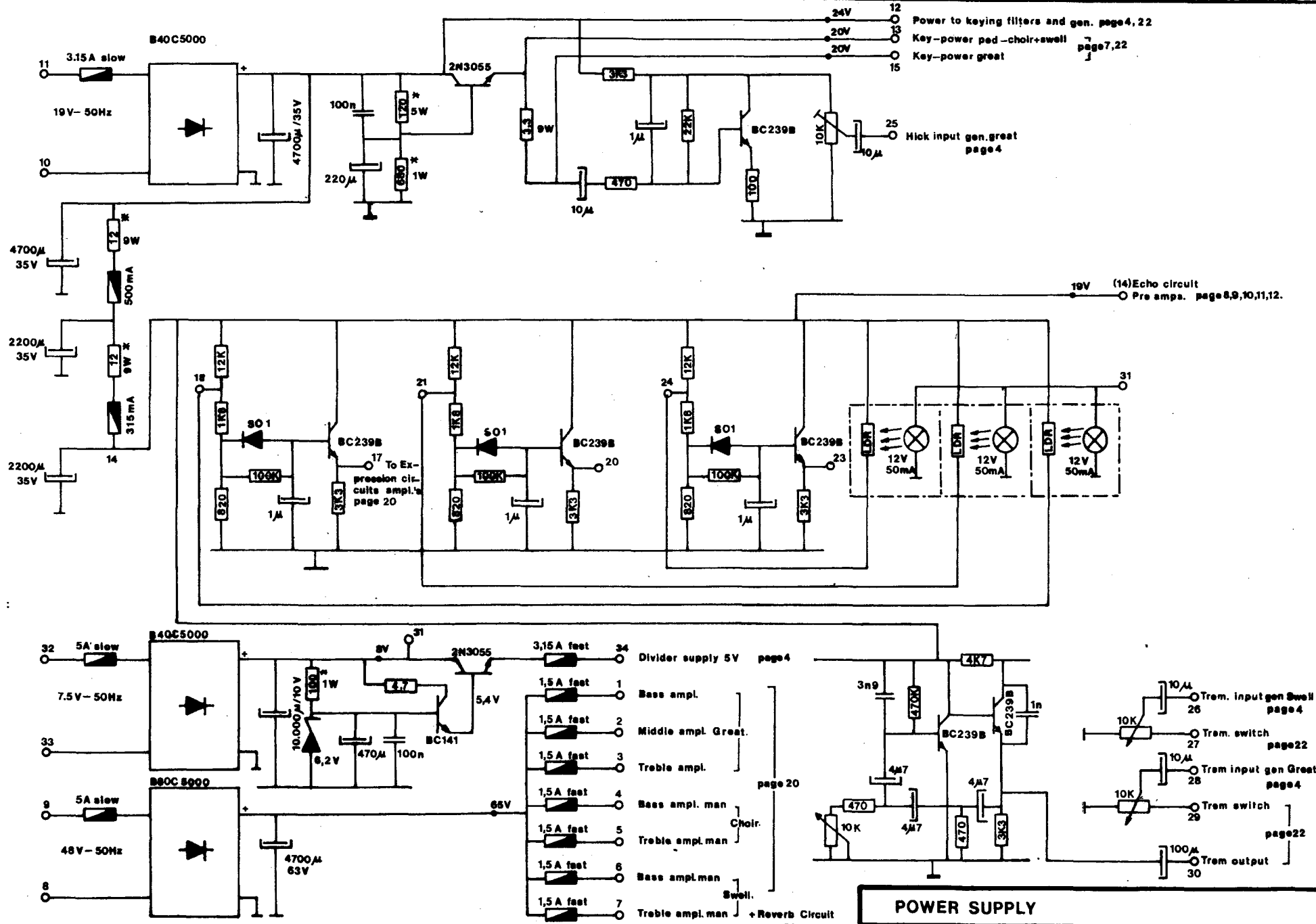


POWER BLOCK DIAGRAM			
Drawn	Date	Modified	Date
G Kremer	18-8-78		
DESIGN			
J. Versteegh			
			JOHANNUS ORGAN OPUS 60



SIGNAL BLOCK DIAGRAM			
Drawn	Date	Modified	Date
G. Kremer	16-8-78		
DESIGN			
J. Versteegt			
copyright:	J. VERSTEEGT	JOHANNUS ORGELBOUW b.v.	page: 2
		mersestraat 28 6716 AH EDE HOLLAND Tel. 08380-19148	

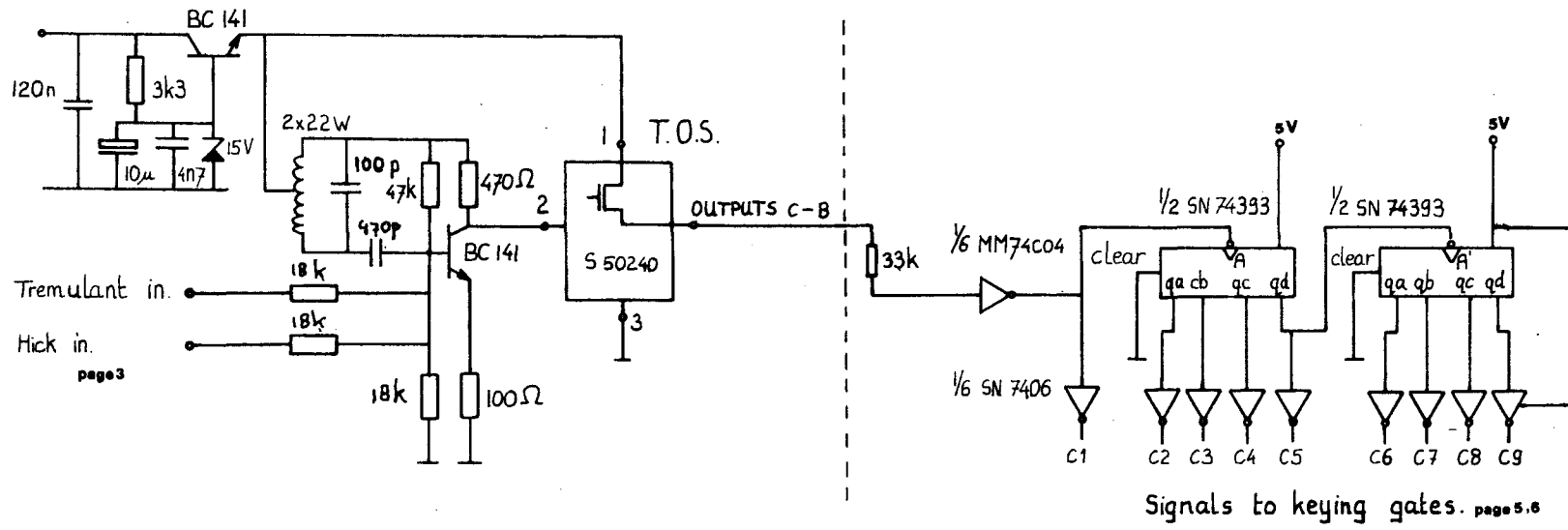
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ORGAN
OPUS 60**



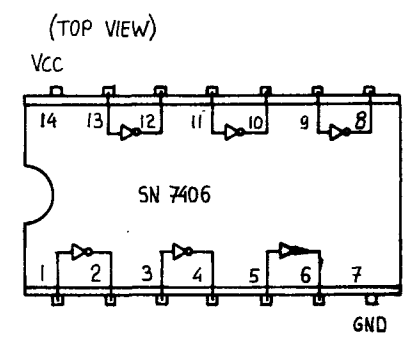
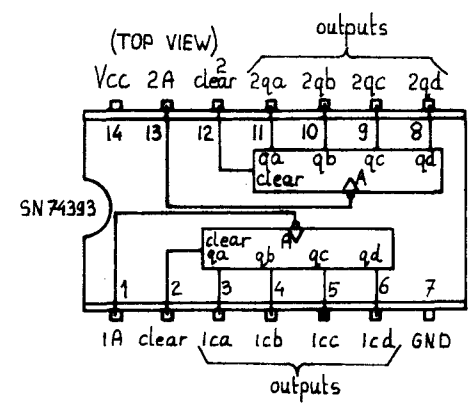
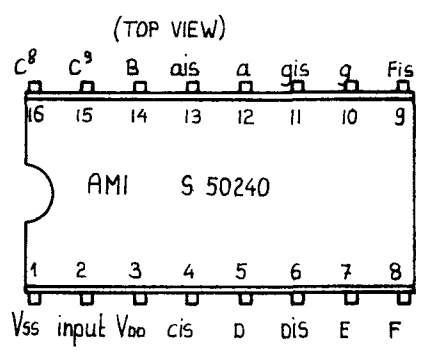
POWER SUPPLY			
Drawn	Date	Modified	Date
G.Kremer	7-8-'78	KvM	19 11 79
DESIGN			
J.Versteegt			
			JOHANNUS ORGAN OPUS 80

Trafe: 220 V / 7,5 V -
 48 V -
 19 V -
 200 VA

* On ceramic stand-off's

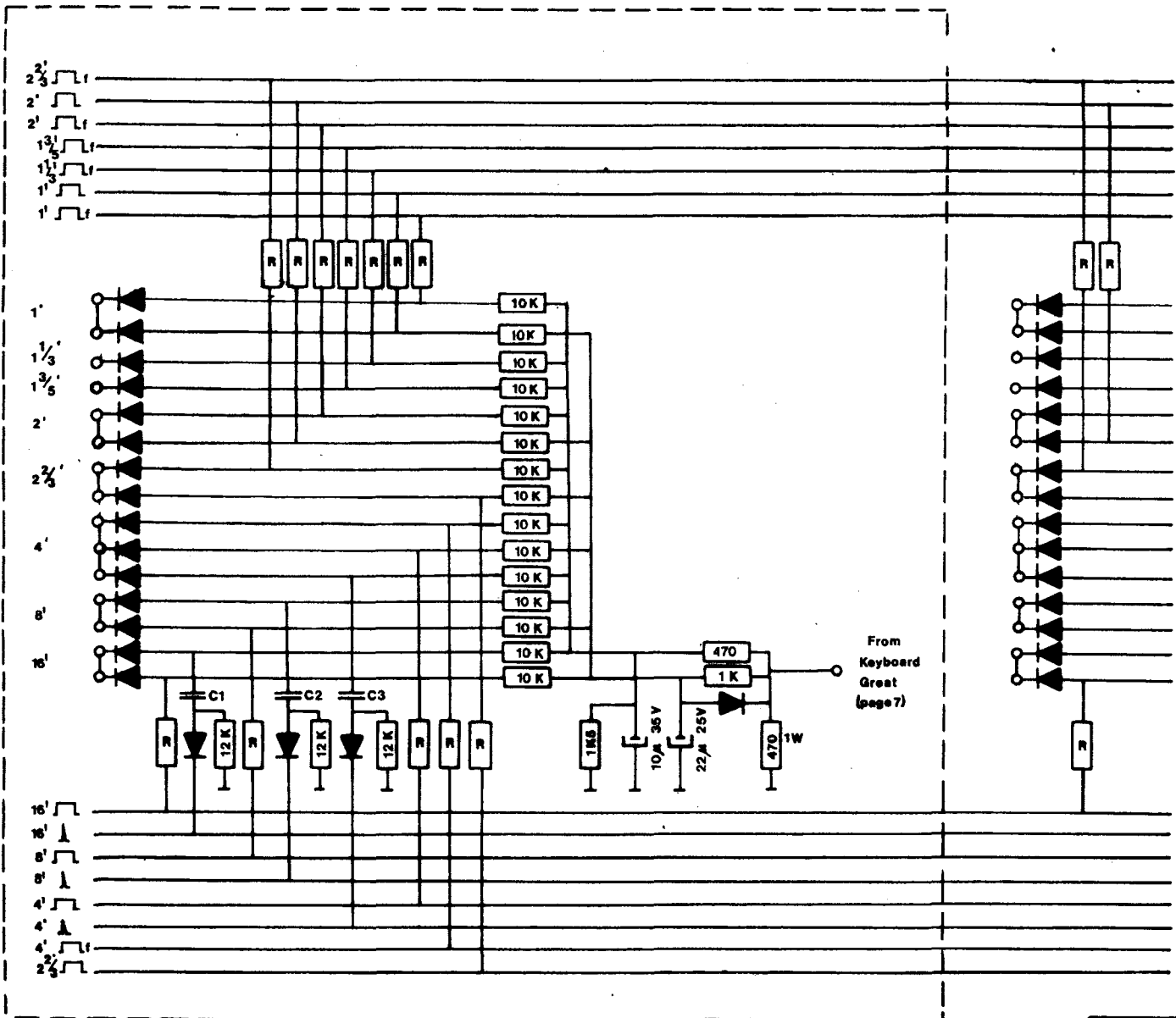


Tremulant in.
Hick in.
page 3



TONE GENERATOR				
DATE	DESIGN	DRAWN	MODIFIED	JOHANNUS ORGAN OPUS 60 ⁿ
9 12-77	J Versteeg	Tv Manen	19 11 79	
copyright			ELECTRONIUM	

From Generator page 4



To Pre-Amp's (page 8,9)

From lowest octave	C1	C2	C3
1 - 12	33n	33n	22n
13-24	22n	22n	15n
25-36	15n	15n	10n
37-48	10n	10n	4n7
49-61	6n8	6n8	1n8

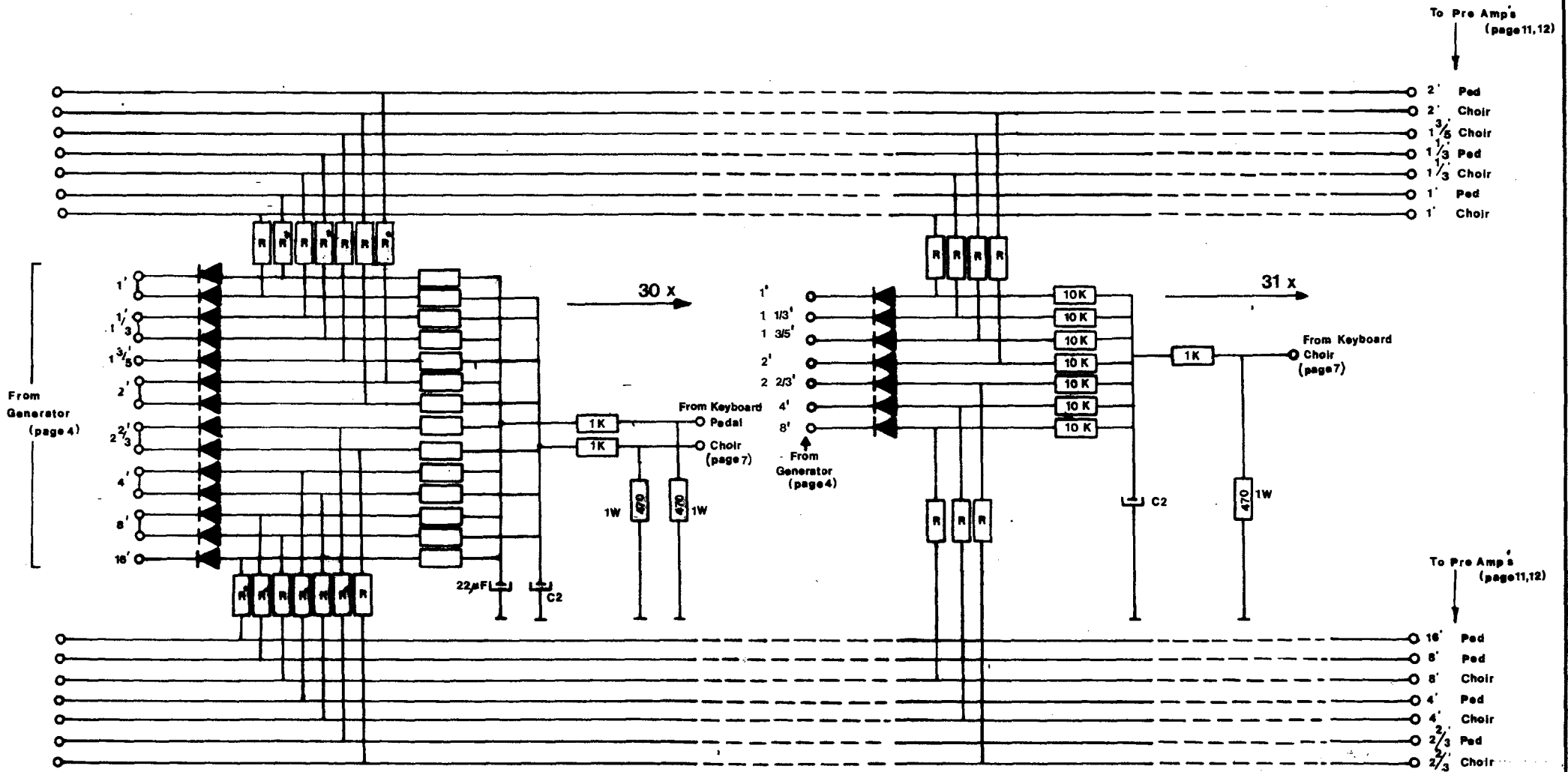
From lowest octave	R
1 - 8	68 K
9 - 16	56 K
17-24	47 K
25-32	39 K
33-40	33 K
41-47	27 K
48-54	22 K
55-61	18 K

To Pre-Amp's (page 8,9,10)

801

61 X

KEYING GREAT and SWELL			
Drawn	Date	Modified	Date
G Kremer	11-8-76		
DESIGN			
J. Vorsteep!			
copyright:	JOHANNUS	8716 AH EDE HOLLAND	page 1

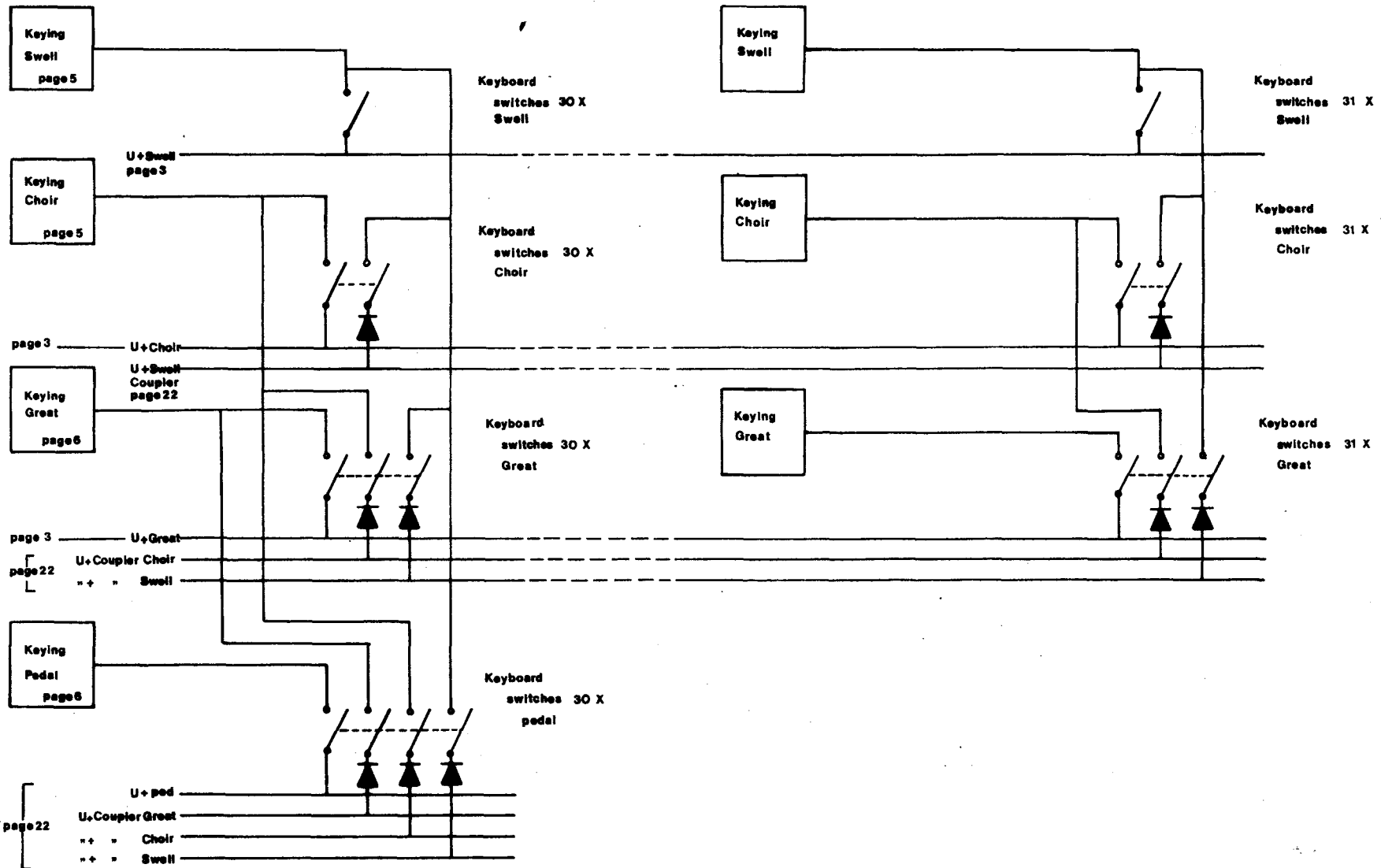


R from lowest octave: 1 - 8 : 88 K
 9 - 16 : 88 K
 17 - 24 : 47 K
 25 - 32 : 39 K
 33 - 40 : 33 K
 41 - 47 : 27 K
 48 - 54 : 22 K
 55 - 61 : 18 K

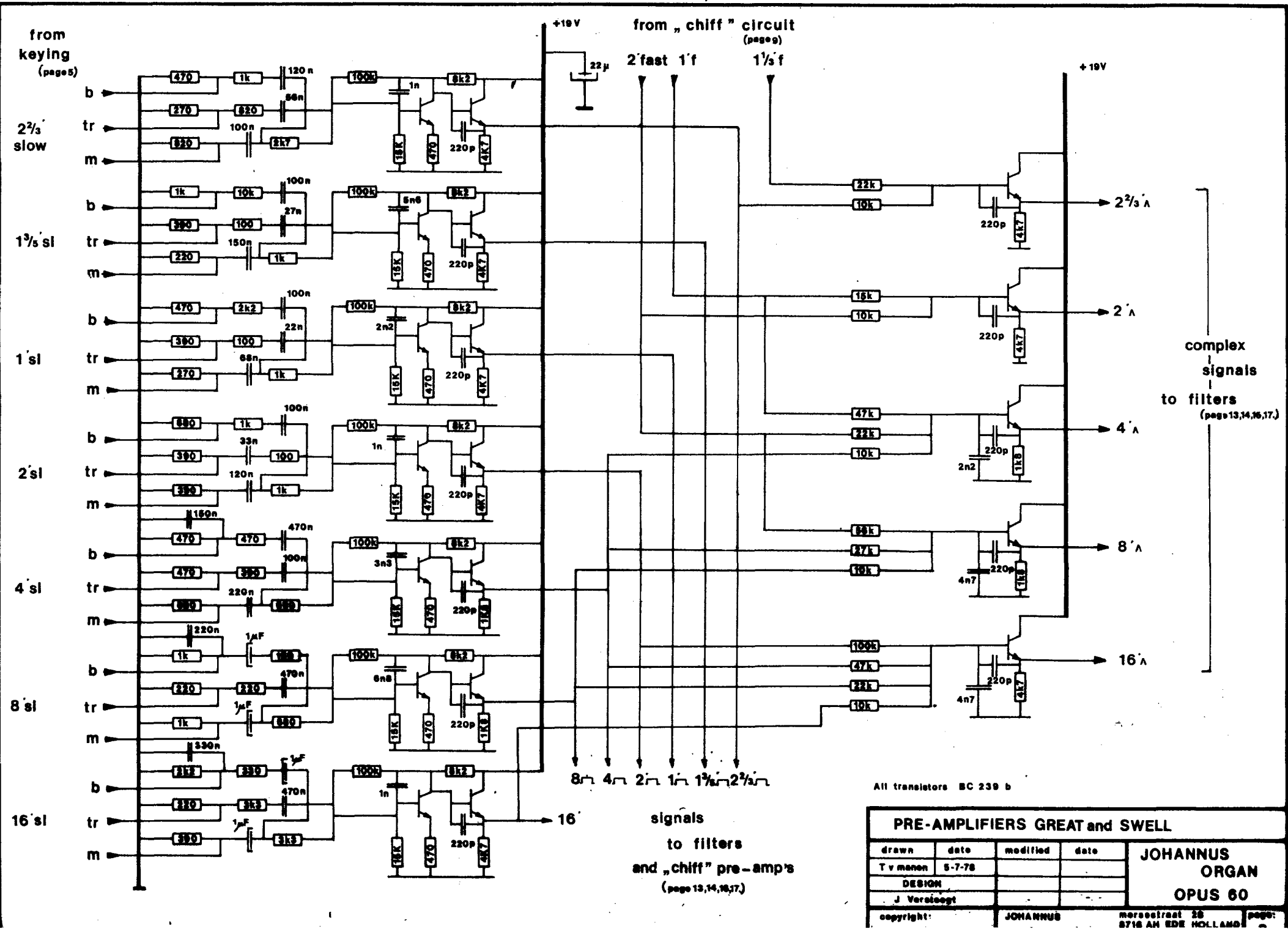
C2 From lowest octave
 1 - 31 : 22µF
 32 - 41 : 10µF
 42 - 61 : 47µF

R: 33 K

KEYING CHOIR and PEDAL			
Drawn	Date	Modified	Date
G. Kromer	24-8-'78		
DESIGN			
J. Versteegt			
copyright: J. VERSTEEGT		JOHANNUS ORGELBOUW b.v. mersestraat 23 8716 AH EDE HOLLAND Tel. 0520-610101	
			page: R

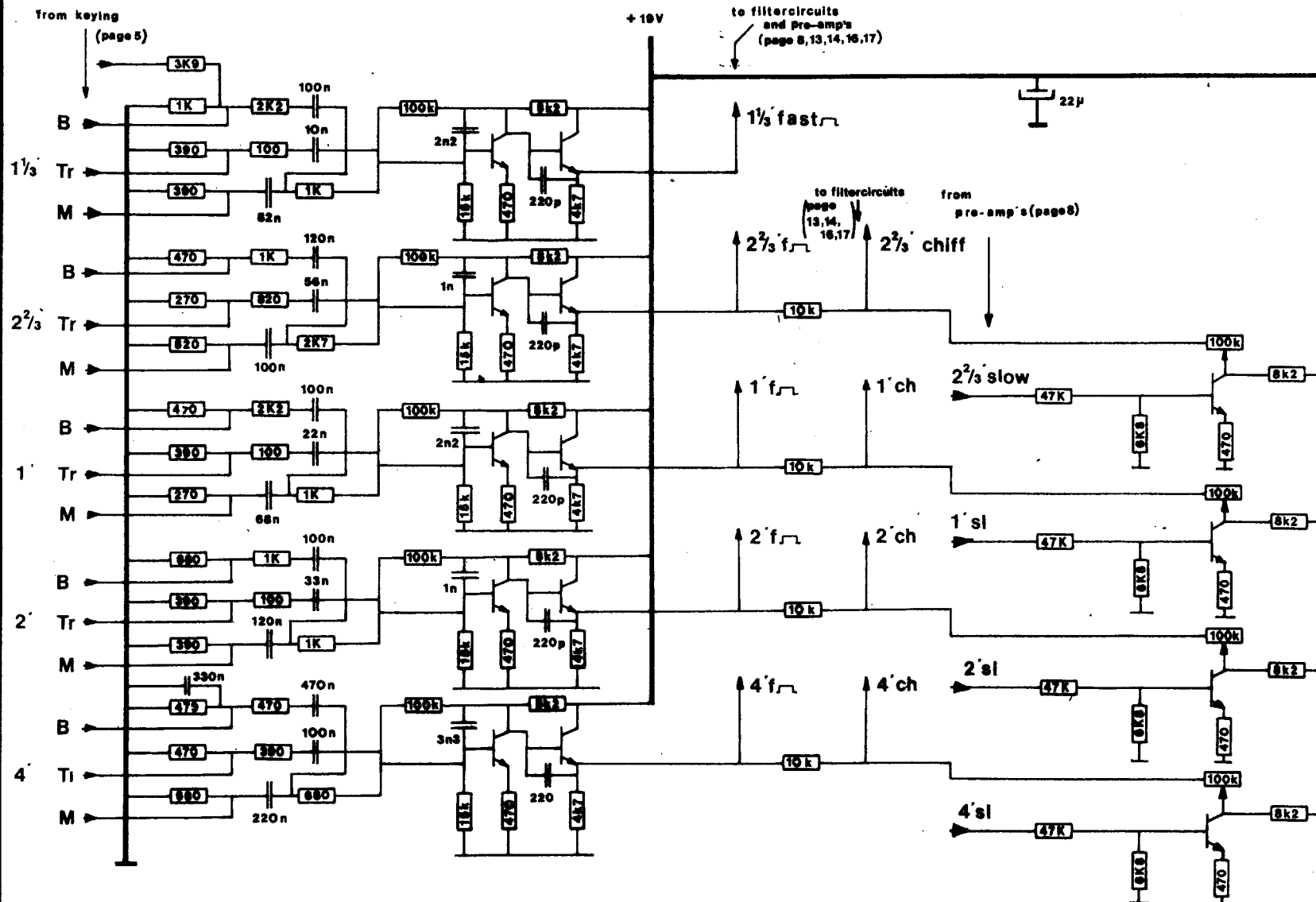


KEYBOARD SWITCHES & COUPLER SYSTEM			
Drawn	Date	Modified	Date
G. Kremer	14-8-78		
DESIGN			
J. Versteegt			
copyright:	JOHANNUS	monestraat 21	page:
1. VERSTEEGT	ORGELBANK N.V.	8716 AH EDE HOLLAND	7



All transistors BC 239 b

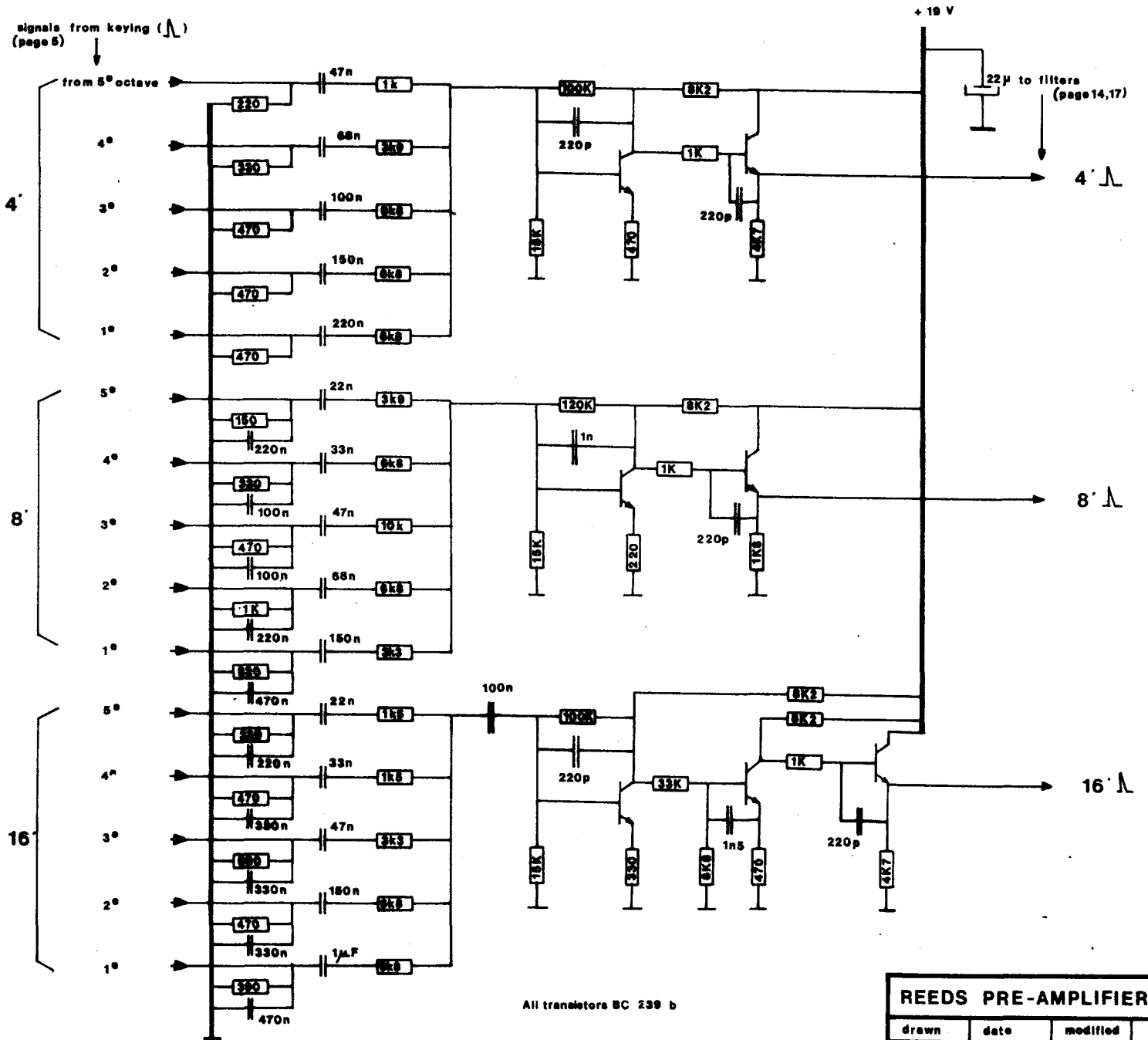
PRE-AMPLIFIERS GREAT and SWELL			
drawn	date	modified	date
T v menon	5-7-78		
DESIGN			
J Versteeg			
copyright:	JOHANNUS	mersestraat 18	page:
		8718 AH EDE HOLLAND	



All transistors BC 239 b

" CHIFF " PRE-AMPLIFIER GREAT and SWELL			
drawn	date	modified	date
T v Manen	30-8-78		
DESIGN			
J Versteegt			
copyright:	JOHANNUS ORGELBOUW b.v.		page:

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ORGAN
OPUS 60**



All transistors BC 239 b

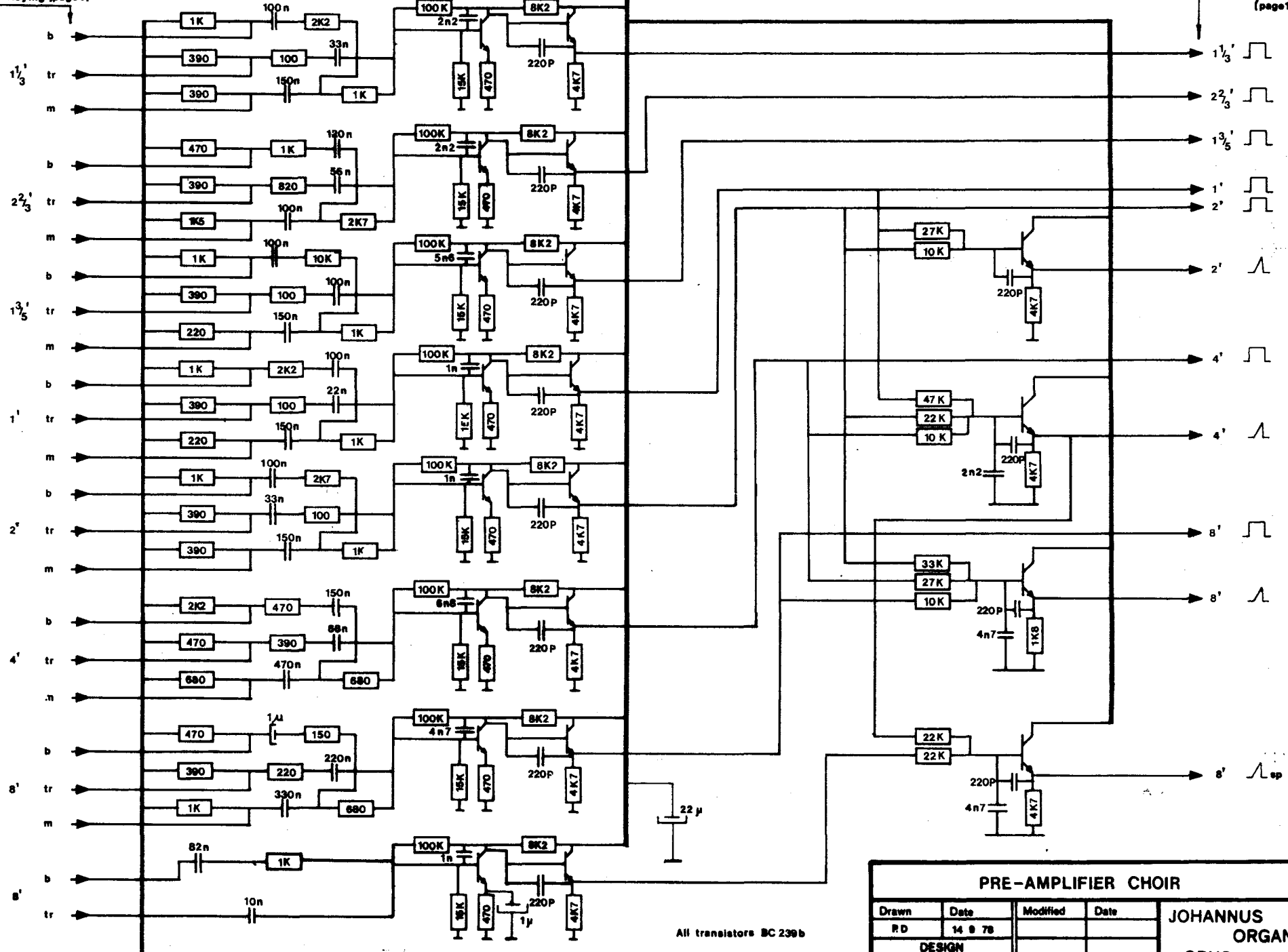
REEDS PRE-AMPLIFIER GREAT and SWELL			
drawn	date	modified	date
TvManen	30-6-78	J Versteegt	3-9-80
DESIGN		J Versteegt	7-4-81
J Versteegt			
copyright:	JOHANNUS ORGELBOUW b.v.		page 60

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OPUS 60

From Keying (page 6)

+19V

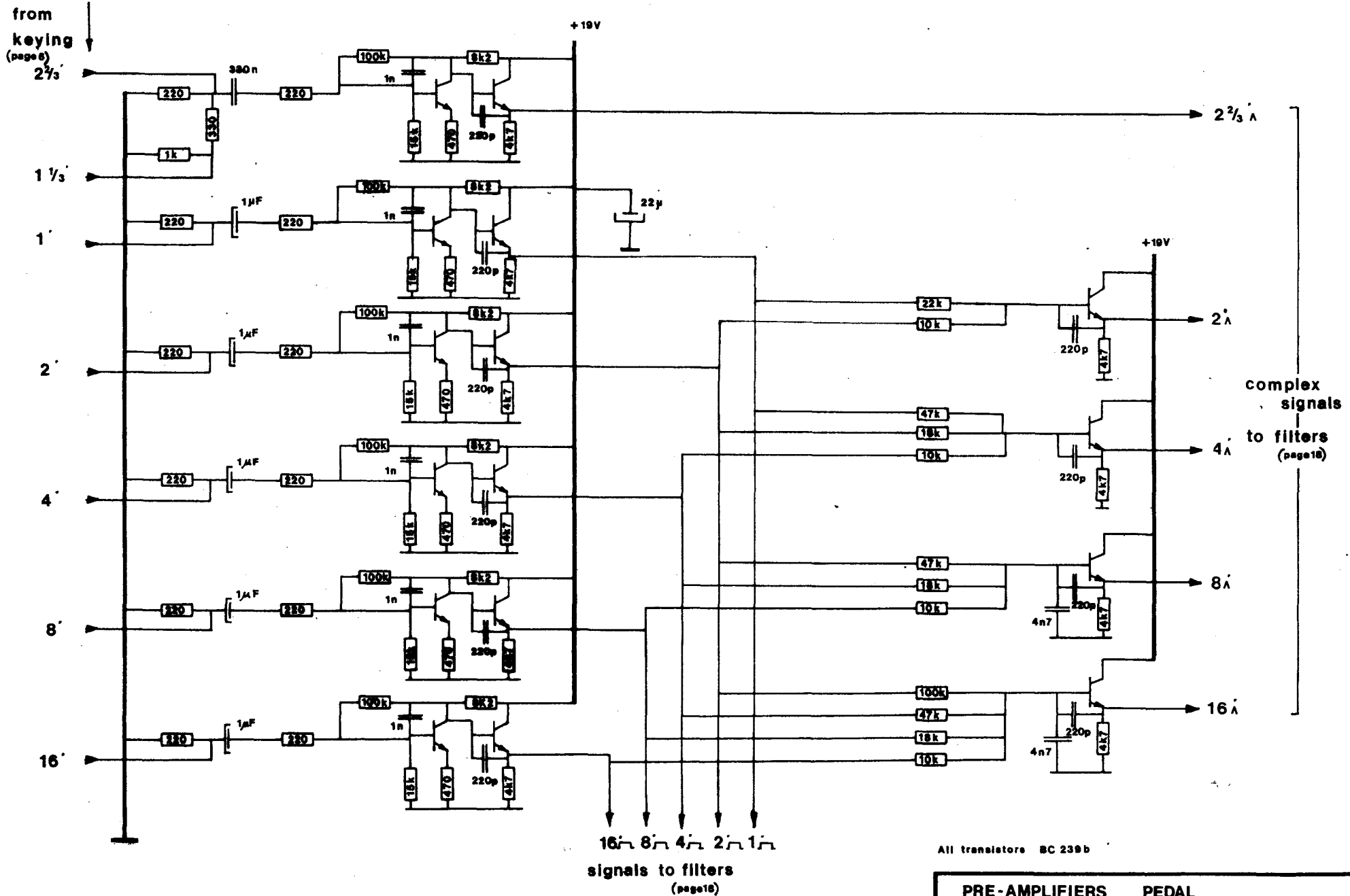
To Voicing circuit (page 6)



All transistors BC 239b

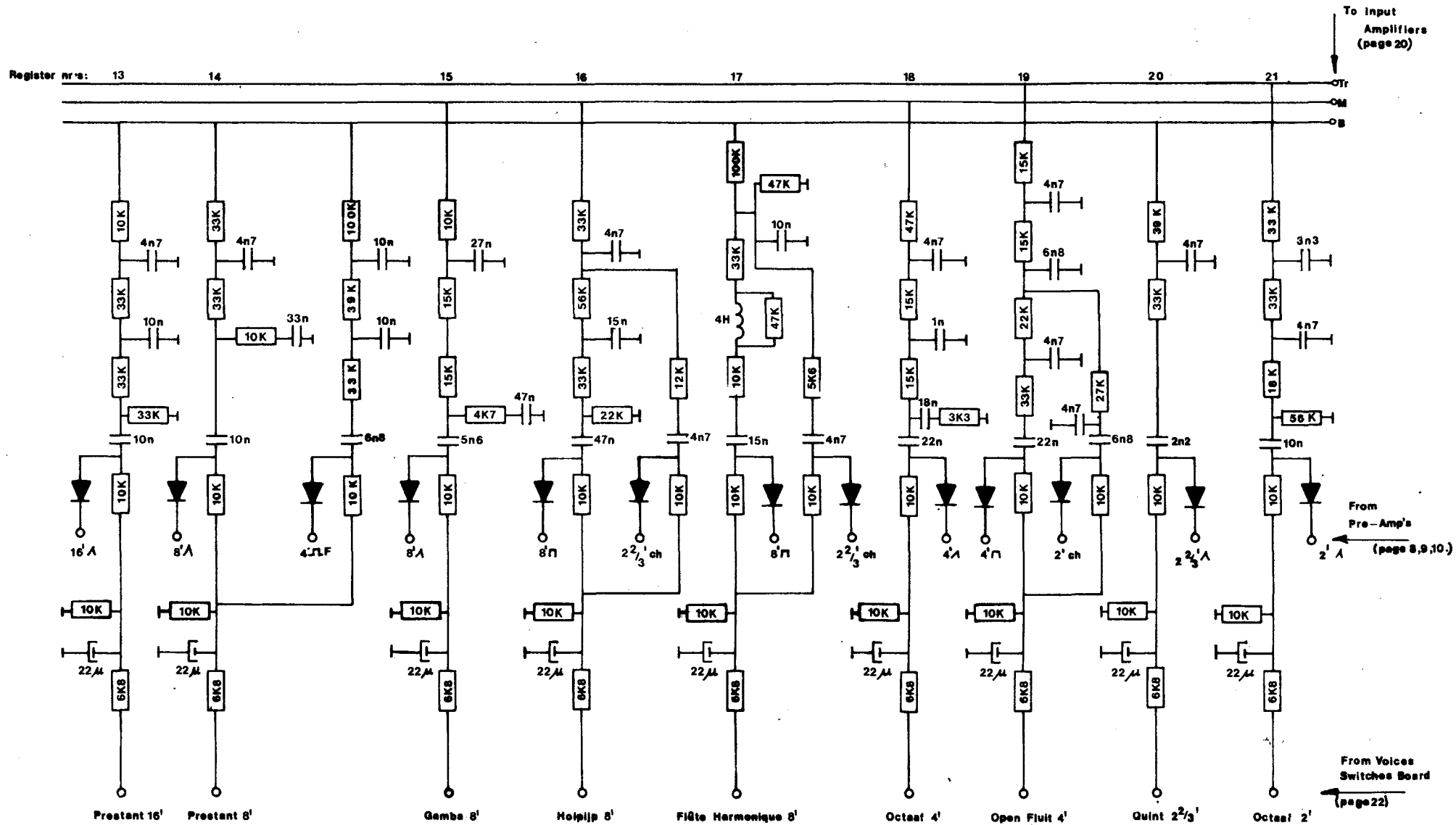
PRE-AMPLIFIER CHOIR				JOHANNUS ORGAN OPUS 60
Drawn	Date	Modified	Date	
RD	14 8 78			
DESIGN				copyright: J. VERSTEEGT
J Versteegt				
copyright: J. VERSTEEGT		JOHANNUS ORGELBOUW b.v.		page: 11

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8716 AH EDE HOLLAND
Tel. 08380-19148



All transistors BC 239b

PRE-AMPLIFIERS PEDAL				JOHANNUS ORGAN OPUS 60
drawn	date	modified	date	
T v Manen	11-7-78			
DESIGN				
J. Versteegt				



All diodes 801

VOICES GREAT			
Drawn	Date	Modified	Date
G. Kremer	9-8-'78		
DESIGN			
J Versteegt			
copyright:		JOHANNUS	
J. VERSTEEGT		ORGELBOUW b.v.	
		INGELSTRACHT 29 8716 AM EDE HOLLAND Tel. 08300.19142	
			page: 13

Register nrs: 22

23

24

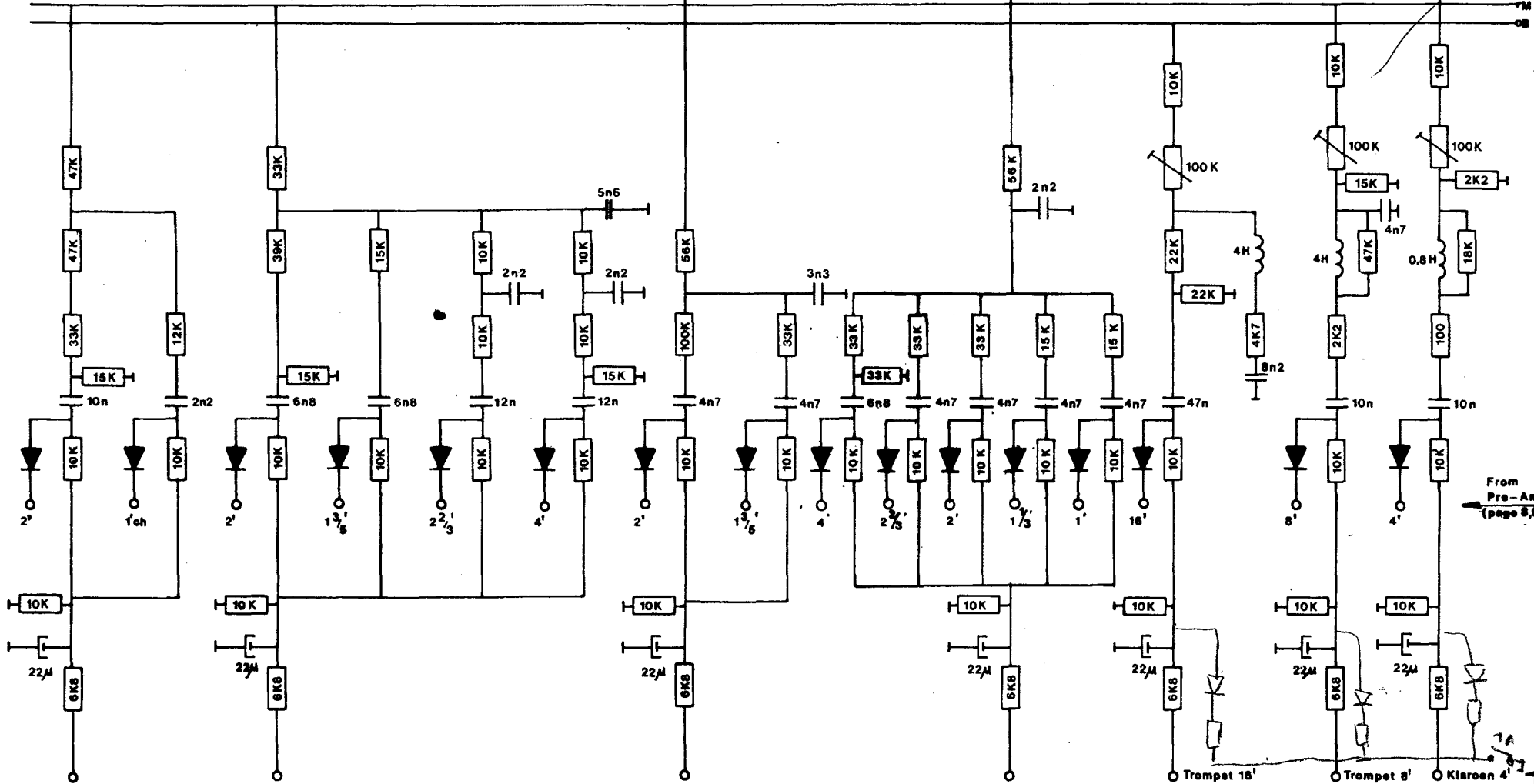
25

26

27

28

To Input Amplifiers (page 20)



Fluit 2'

Cornet 4st.

Tertsaan 2st.

Mixtuur 5st.

From Pre-Amps (page 8,9,10)

From Voices Switches Board (page 23)

All diodes 801

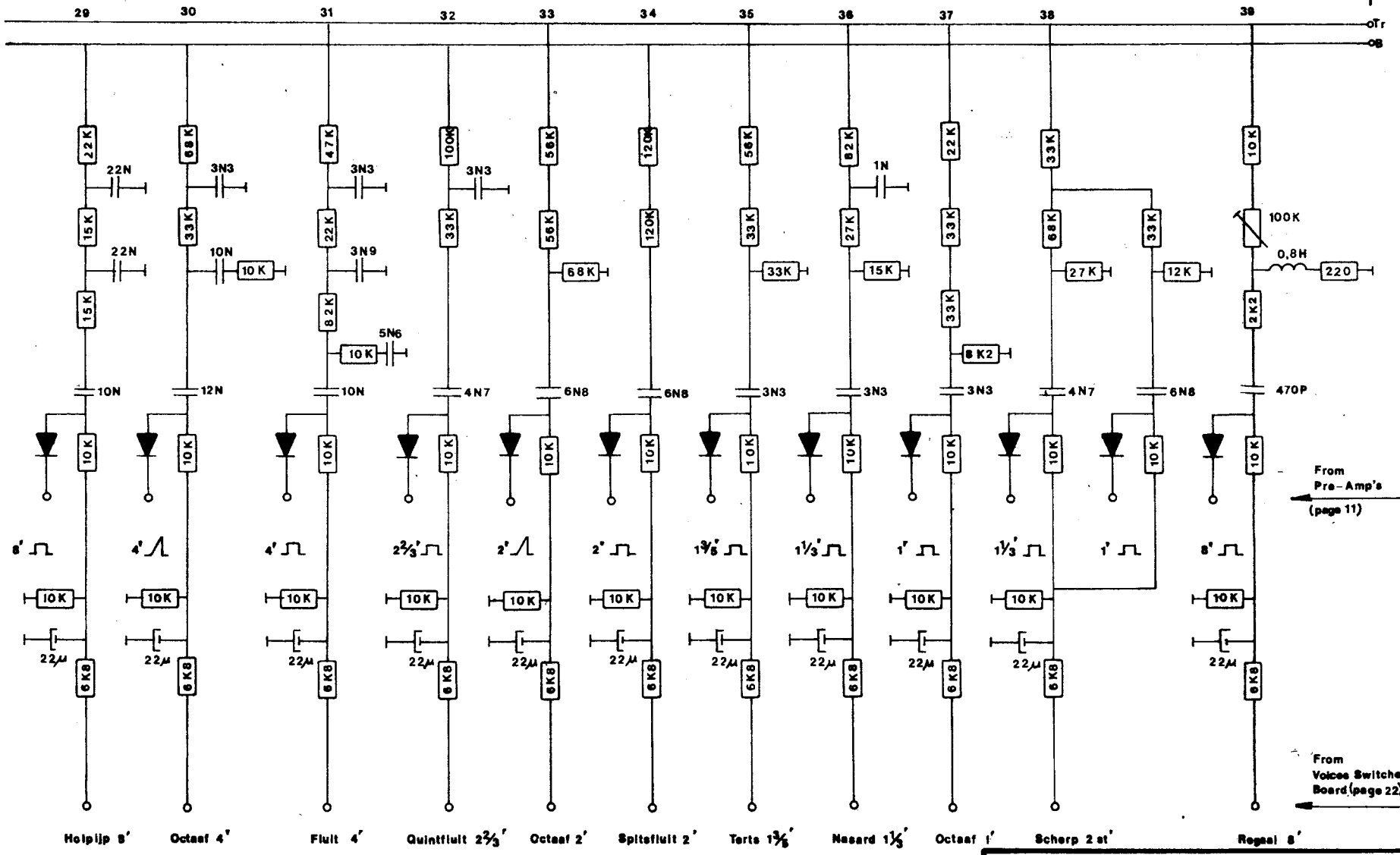
VOICES GREAT

Drawn	Date	Modified	Date
G. Kremer	10-8-78		
DESIGN			
J. Versteeg			

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To Input Amplifiers (page 20)



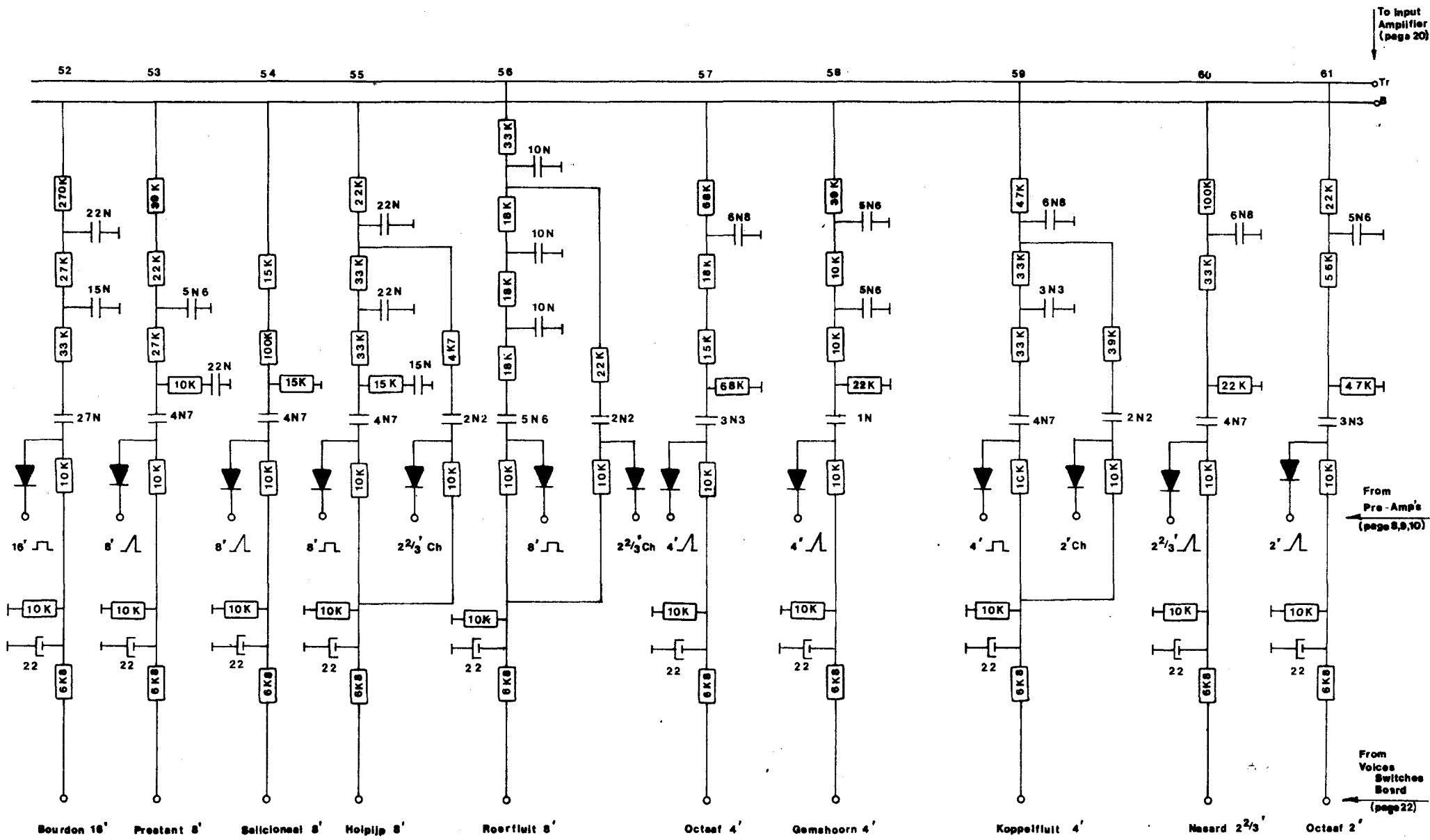
From Pre-Amp's (page 11)

From Voices Switches Board (page 22)

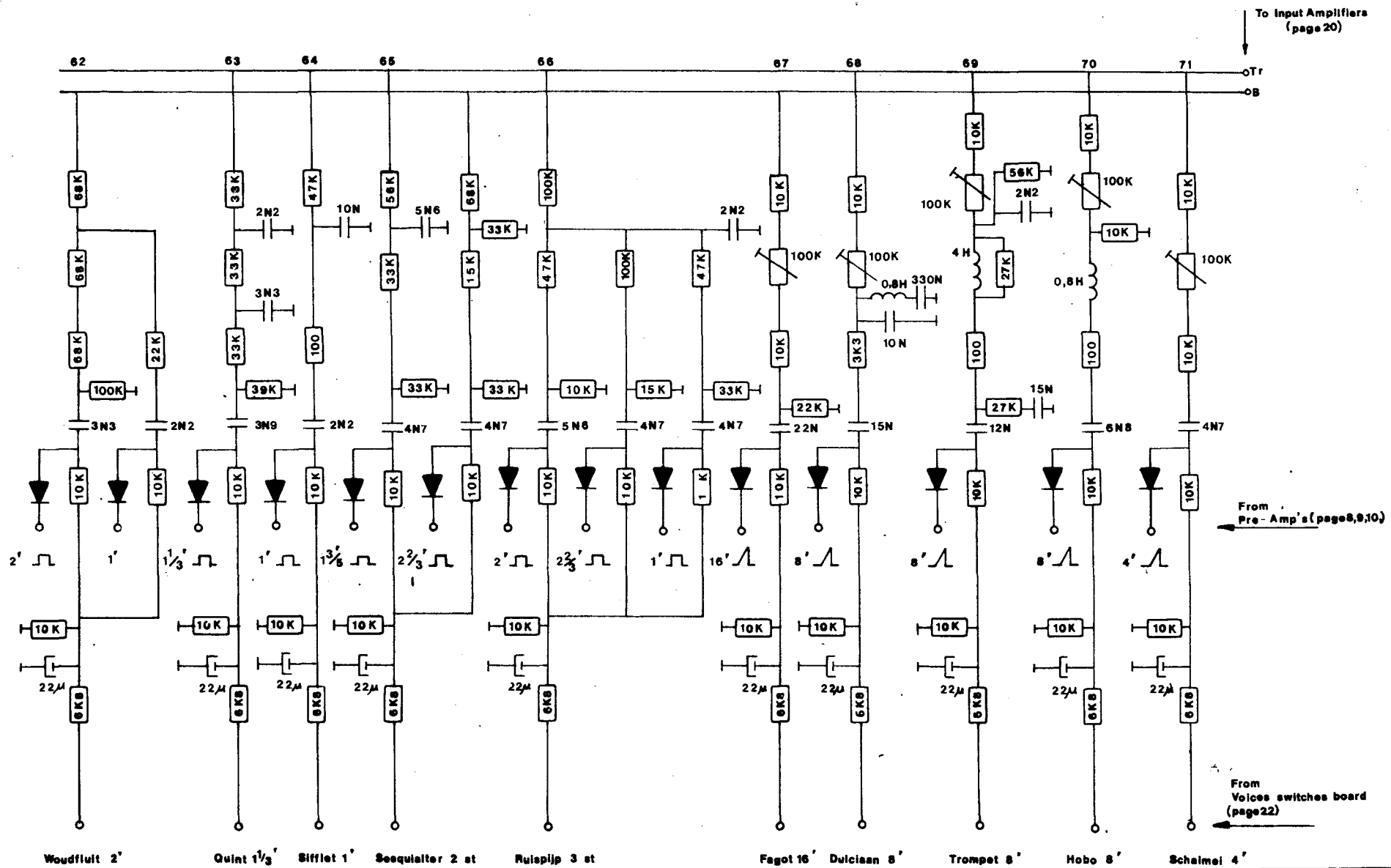
Helpfluit 8' Octaaf 4' Fluit 4' Quintfluit 2 2/3' Octaaf 2' Spilfluit 2' Terte 1 1/2' Nasard 1 1/3' Octaaf 1' Scherp 2 st' Regaal 8'

VOICES CHOIR			
Drawn	Date	Modified	Date
GK	18 11 78		
DESIGN			
copyright:		JOHANNUS	noestrup 28
			page:

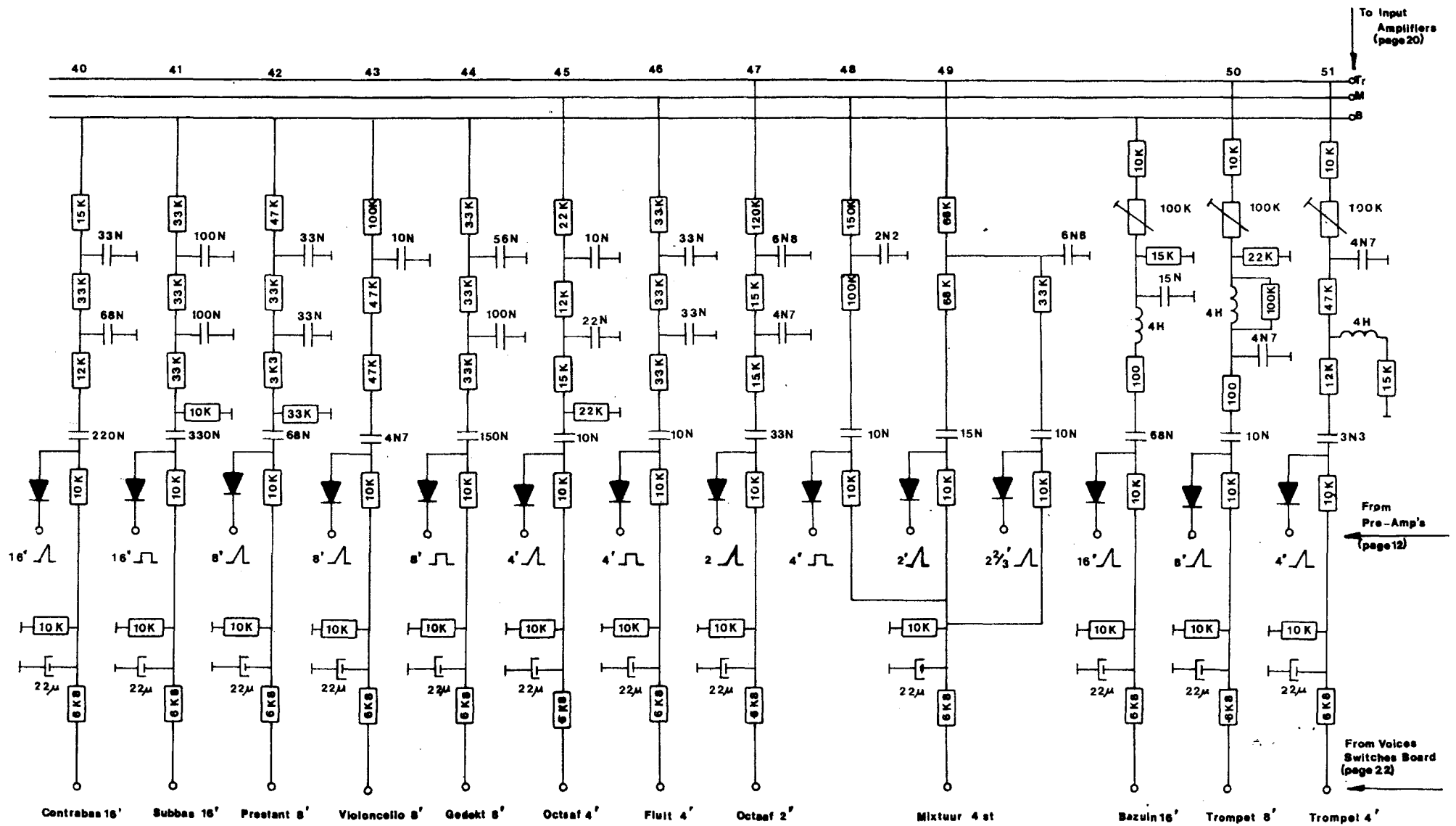
JOHANNUS
ORGAN
OPUS 60



VOICES SWELL			
Drawn	Date	Modified	Date
G K	17 11 78		
DESIGN			
copyright:		JOHANNUS	
I VERBEEFT		ORGAN	
		OPUS 60	
		mersestraat 28	
		6716 AH, EDE HOLLAND	
		page: 10	



VOICES SWELL			
Drawn	Date	Modified	Date
G K	20 11 78		
DESIGN			
JOHANNUS ORGAN OPUS 60			



VOICES PEDAL			
Drawn	Date	Modified	Date
G K	15 11 78		
DESIGN			
copyright:		JOHANNUS	page: 12

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 OPUS 60
monstraal 23
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40	41	42	43	44	45	46	47	48	49	50	51
							TI	TI		TI	TI
					MI	MI		MI			
BI	BI	BI	BI	BI					BI		
F	P	MF		PP	F	FF	FF	FF	taT	taF	taF

PEDAL

52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
				TIII			TIII		TIII		TIII	TIII	TIII	TIII		TIII	TIII	TIII	TIII
BII	BII	BII	BII		BIII	BIII		BIII		BIII			BIII		BIII				
T	FF	FF	F	PP	MF	T	P	MF	F	F	FF	T	T	FF	taT	taT	taF	taT	taT

SWELL

Stop Number

Amplifier Connection

Preset Matrix Connection

Couple II-I	III-I	III-I	P-I	P-II	P-III	Tremulant I	III	Pedestalkette I	II	Chorus	Echo
1	2	3	4	5	6	7	8	9	10	11	12
T	T	T	T	T	T						

ACCESSORIES

13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
						TI	TI	TI			TI	TI			TI
		MI	MI		MI				MI	MI				MI	
BI	BI			BI									BI		
FF	MF	T	PP	T	MF	P	F	F	FF		T	FF	taT	taF	taT

GREAT

29	30	31	32	33	34	35	36	37	38	39
		TII		TII		TII	TII	TII	TII	TII
BII	BII		BII		BII					
PP	MF	P	FF	F	F		FF	FF	T	taT

CHOIR

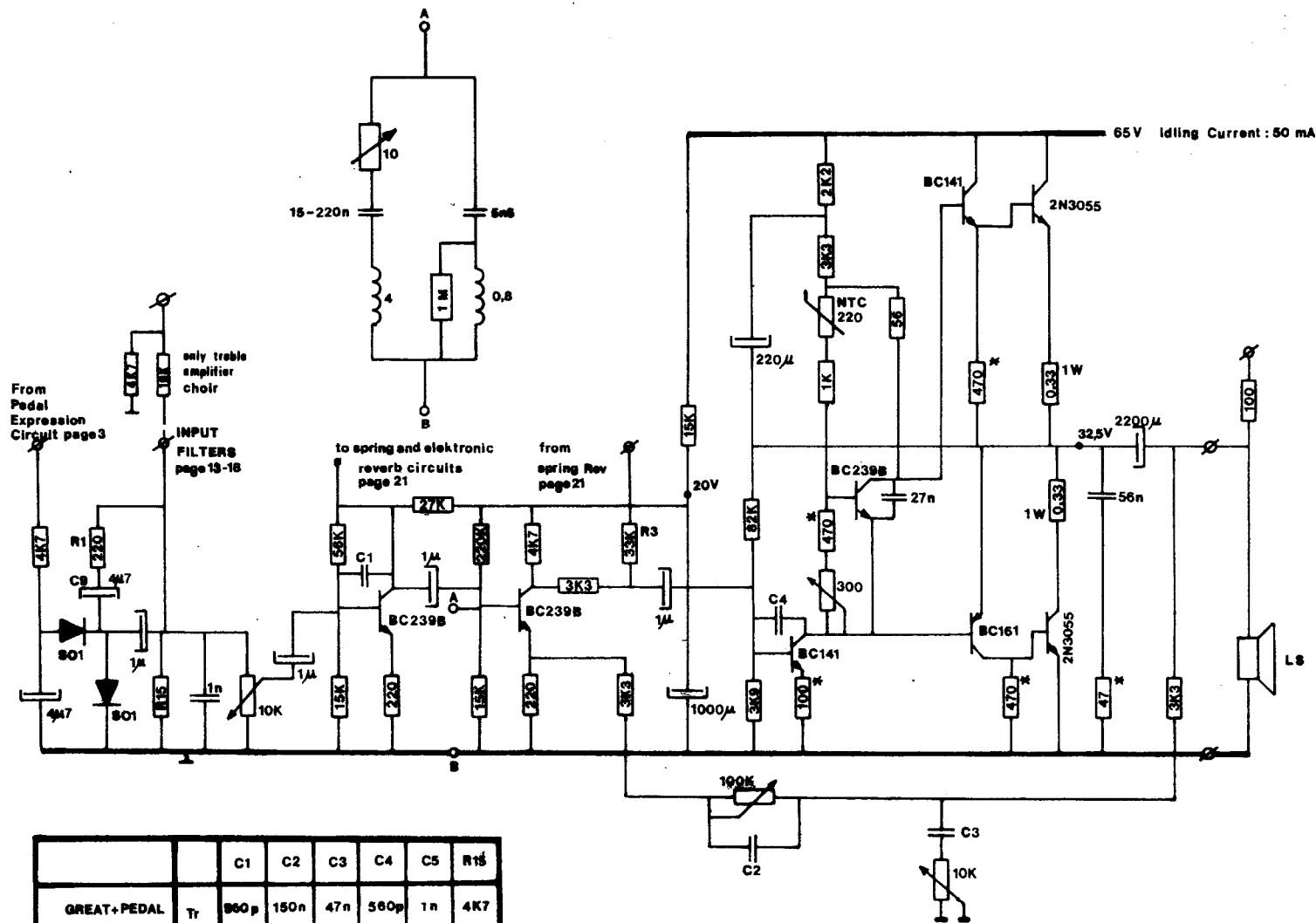
Stop Number

Amplifier Connection

Preset Matrix Connections

- BI : Bass amplifier
- MI : Middle - GREAT
- TI : Treble -
- BII : Bass - CHOIR
- TII : Treble -
- BIII : Bass - SWELL
- TIII : Treble -

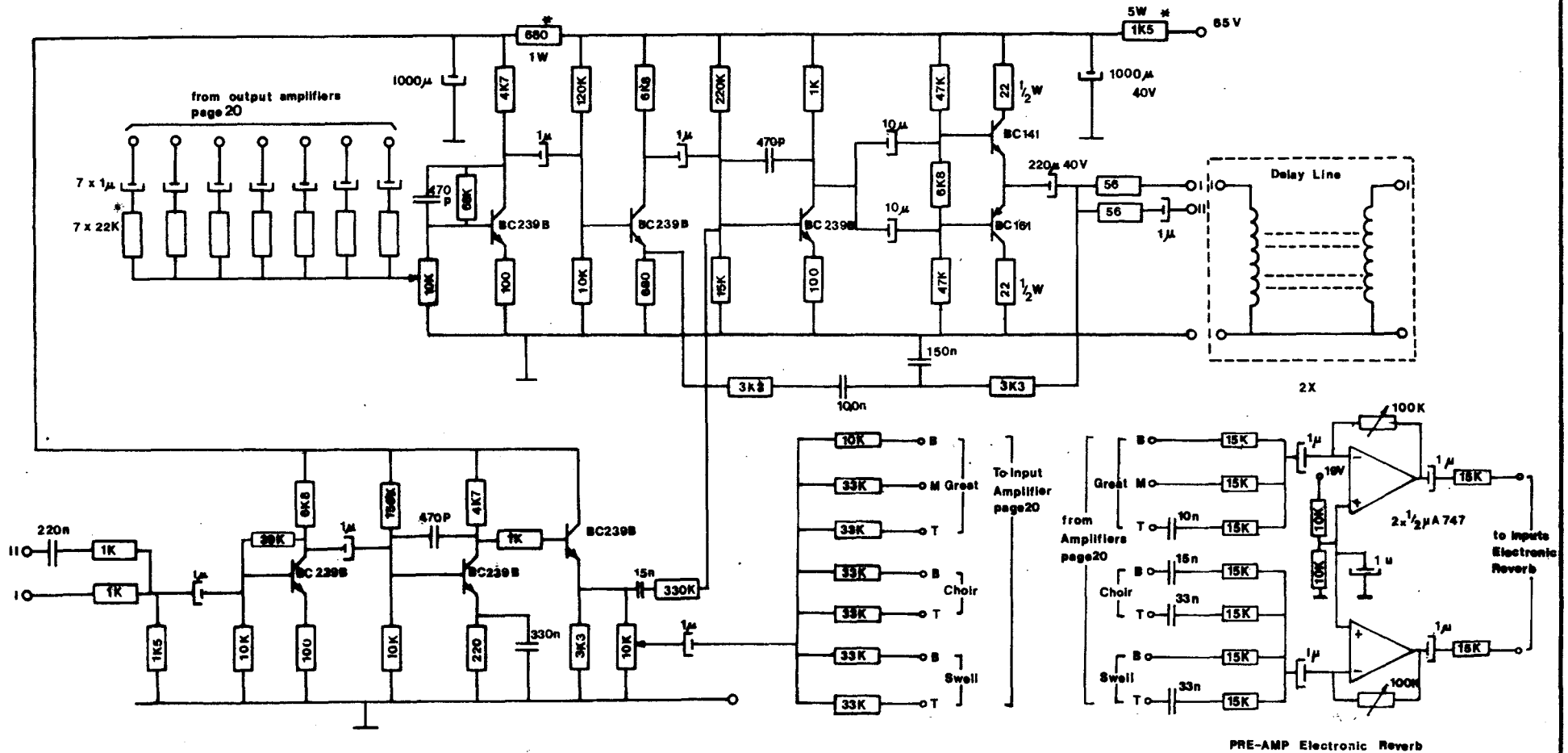
FILTER- PRESET MATRIX,			
FILTER-AMPLIFIER CONNECTIONS			
Drawn	Date	Modified	Date
G.Kremer	23-8-'78		
DESIGN			
J.Versteegt			
			JOHANNUS ORGAN OPUS 60



		C1	C2	C3	C4	C5	R15
GREAT+PEDAL	Tr	860p	150n	47n	560p	1n	4K7
"	M	2n2	150n	100n	1n6	1n	4K7
"	B	4n7	100n	330n	6n6	1n	10K
CHOIR	Tr	1n	68n	47n	470p	1n	4K7
"	B	4n7	150n	150n	4n7	1n	4K7
SWELL	Tr	880p	68n	47n	220p	1n	4K7
"	B	2n2	100n	150n	4n7	1n	10K

*On ceramic stand-off's.
 R1+C9 falls in baseamplifier
 R3: 10K Baseampl. only.

UNIVERSAL AMPL. CIRC.				JOHANNUS ORGAN OPUS 60
Drawn	Date	Modified	Date	
G. Kremer	7-8-'78			
DESIGN				
J. Versteegt.				
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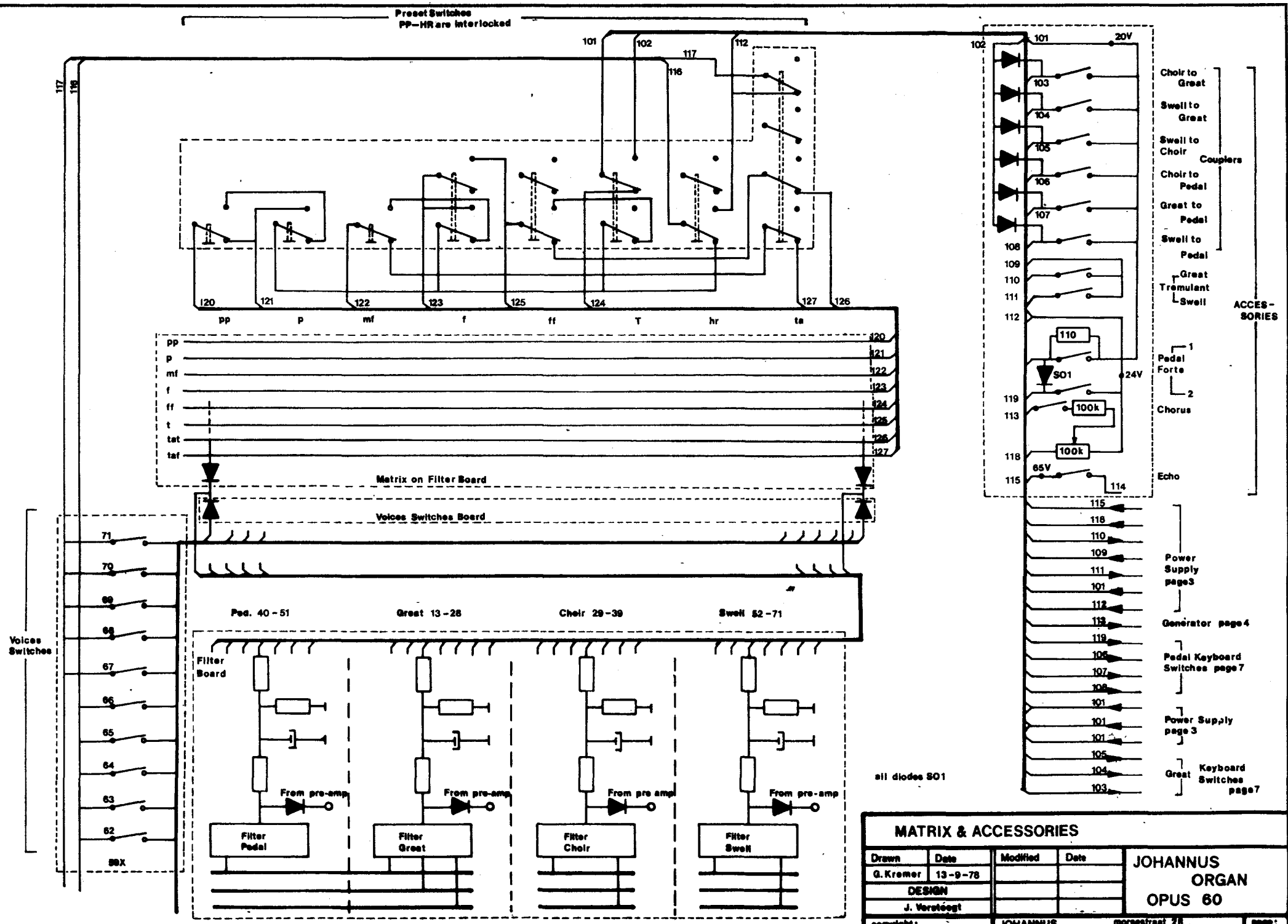


PRE-AMP Electronic Reverb

* On ceramic stand-off's

REVERBERATION CIRCUIT			
Drawn	Date	Modified	Date
G Kremer	11-d-78		
DESIGN			
J. Versteeg			
			JOHANNUS ORGAN OPUS 60

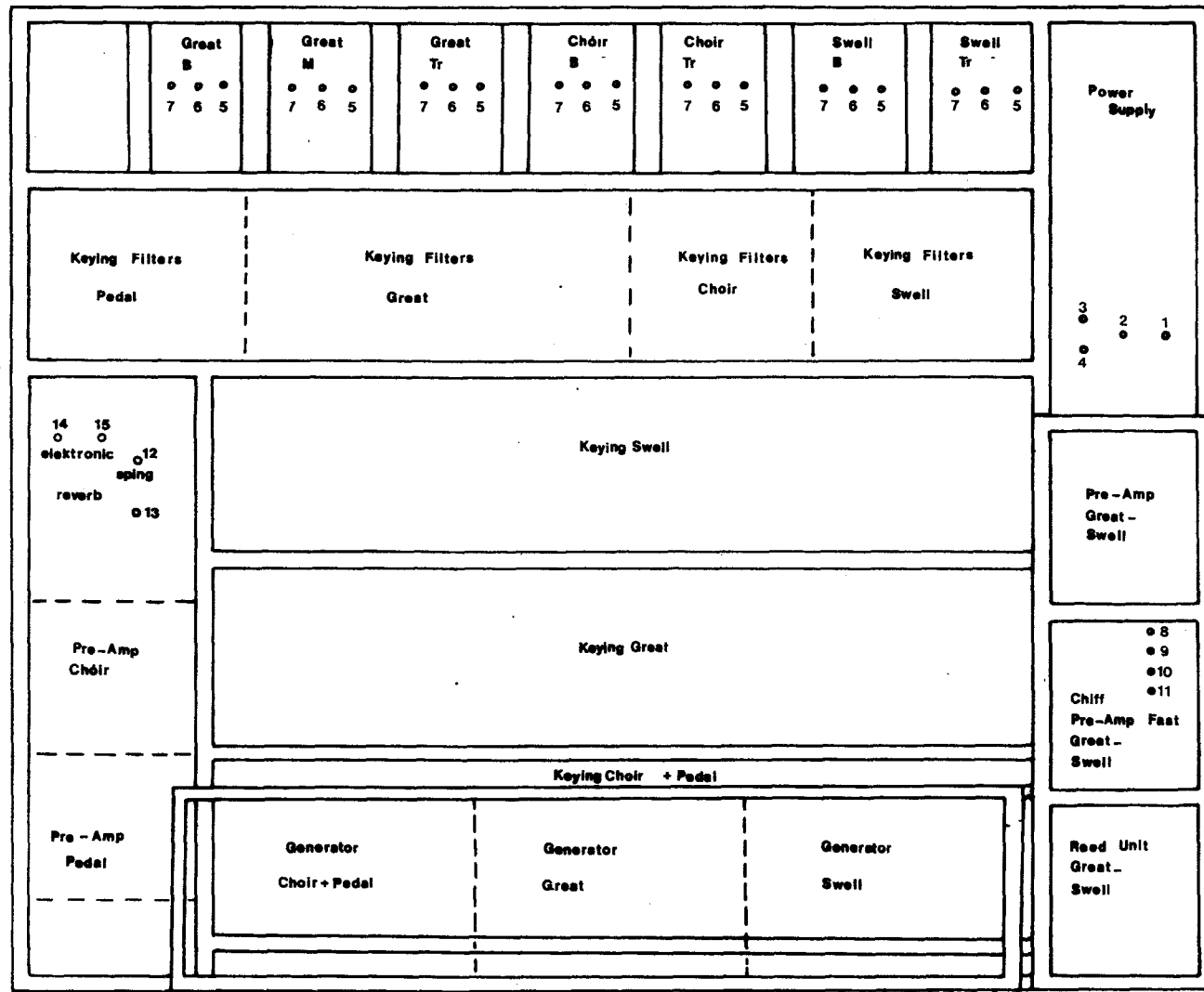
Preset Switches
PP-HR are interlocked



all diodes SO1

MATRIX & ACCESSORIES			
Drawn	Date	Modified	Date
G. Kremer	13-9-78		
DESIGN			
J. Versteeg			
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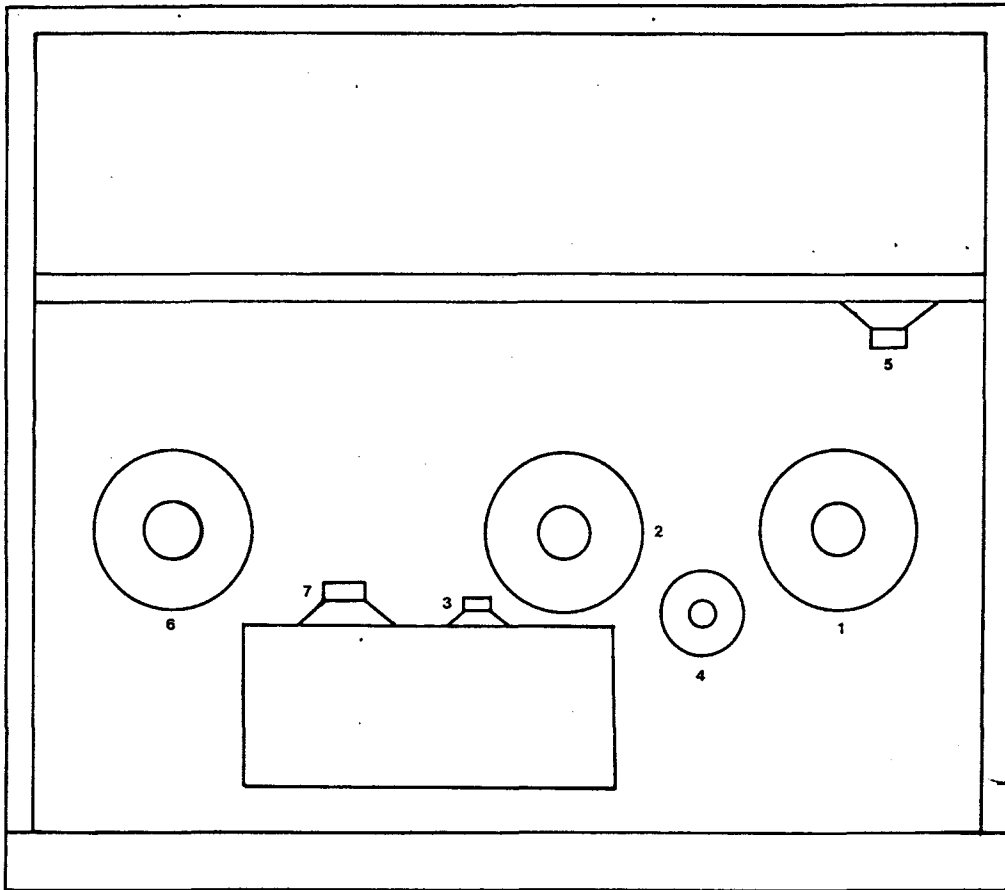


- 1 Hick depth
- 2 Tremulant speed Man I-II-III
- 3,4 Tremulant depth
- 5 Volume control
- 6 Tone control treble
- 7 Tone control bass
- 8 2 2/3 Chiff
- 9 1 -
- 10 2 -
- 11 4 -
- 12 Input echo
- 13 Output echo
- 14 Input electronic reverb A
- 15 Input electronic reverb B

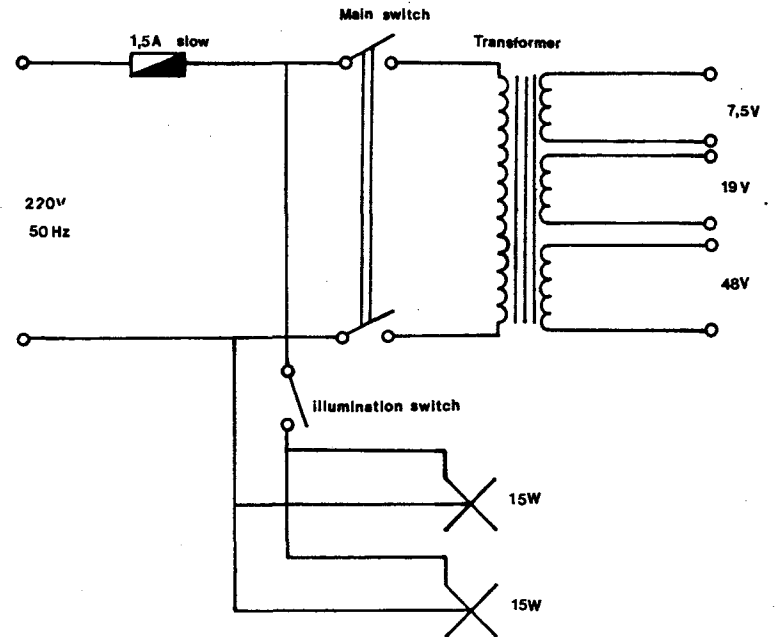
CONTROLS			
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G Kremer	14-8-'78		
DESIGN			
J. Versteeg			

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OPUS 80

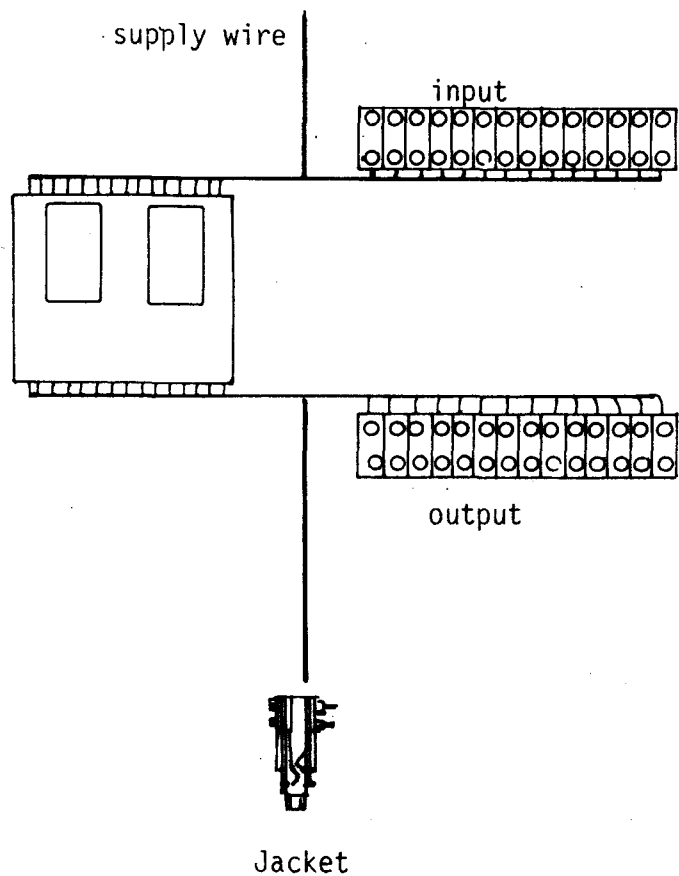
copyright: JOHANNUS morschstraat 28 name:



- | | | |
|------------|--------|---|
| 1 AD 12100 | Bass | } |
| 2 AD 12100 | Middle | |
| 3 AD 5061 | Treble | } |
| 4 AD 5061 | Bass | |
| 5 AD 7063 | Treble | } |
| 6 AD 12100 | Bass | |
| 7 AD 7063 | Treble | } |
| | | |



SPEAKERCONNECTION AND MAIN SUPPLY			
Drawn	Date	Modified	Date
G Kremer	22-8-78		
DESIGN			
J. Versteegt			
copyright:	JOHANNUS	morsestraat 28	
J. VERSTEEGT	ORGELBOUW B.V.	6716 AH EDE HOLLAND	
			page: 24



1. Cut the wires between amplifiers and loudspeakers.
2. Connect the wires from amplifiers to the innutside of the headphone-print (colour to colour)
3. Connect the wires from loudspeakers to the outputside of the headphone-print (colour to colour)
4. Instal headphone jacket
5. Connect the red/white supply wire on terminal 12 of the power supply board and connect the black wire to ground.

Headphone connection (optional)				
Drawn	Date	Mod.	Date	JOHANNUS ORGAN OPUS 60N
J.V.	17-3-81			
Design				
J. Versteegt				
Copyright		Johannus	Morsestraat 28	Page