

=====
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 4 0
alterations reserved

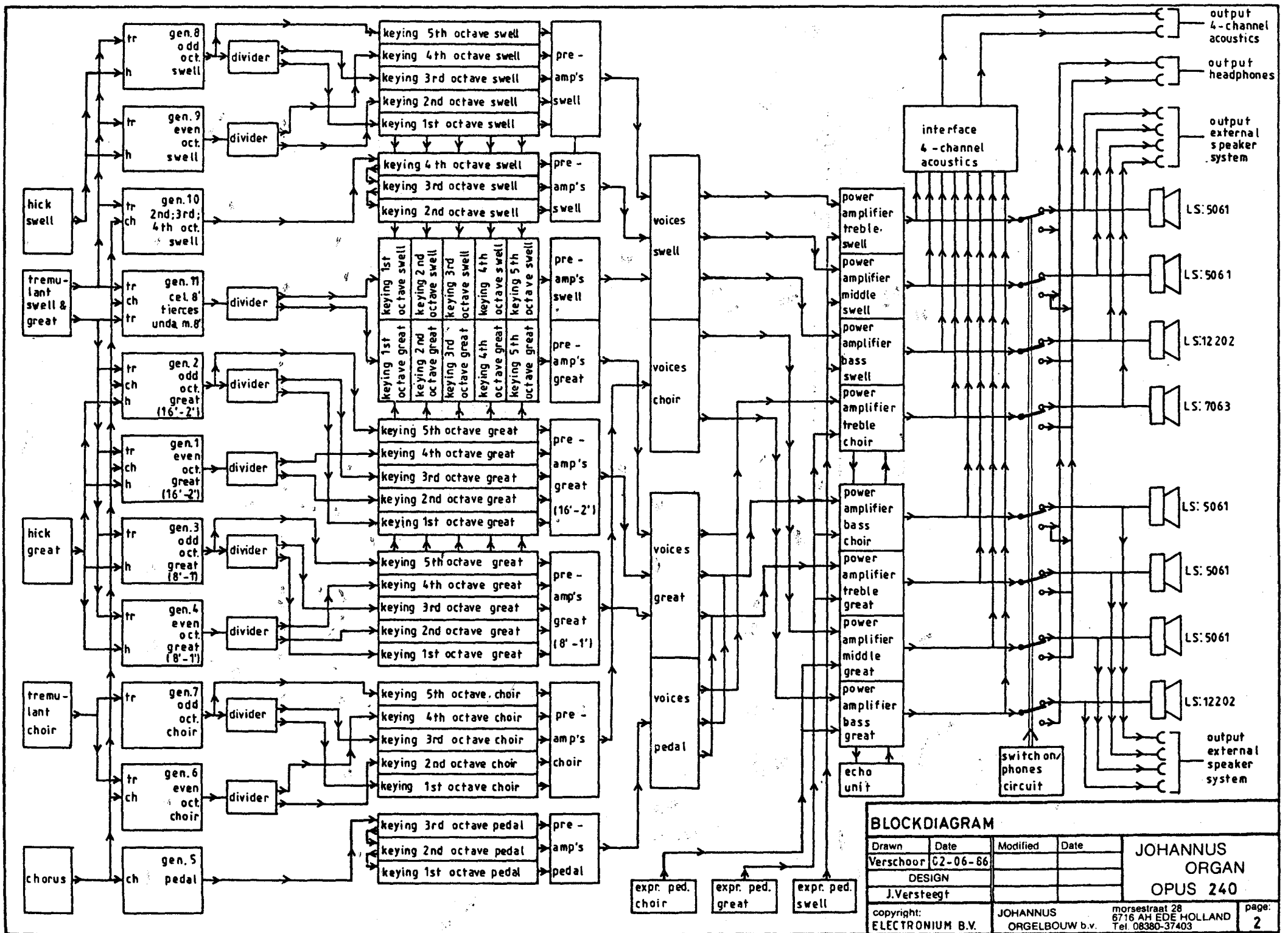
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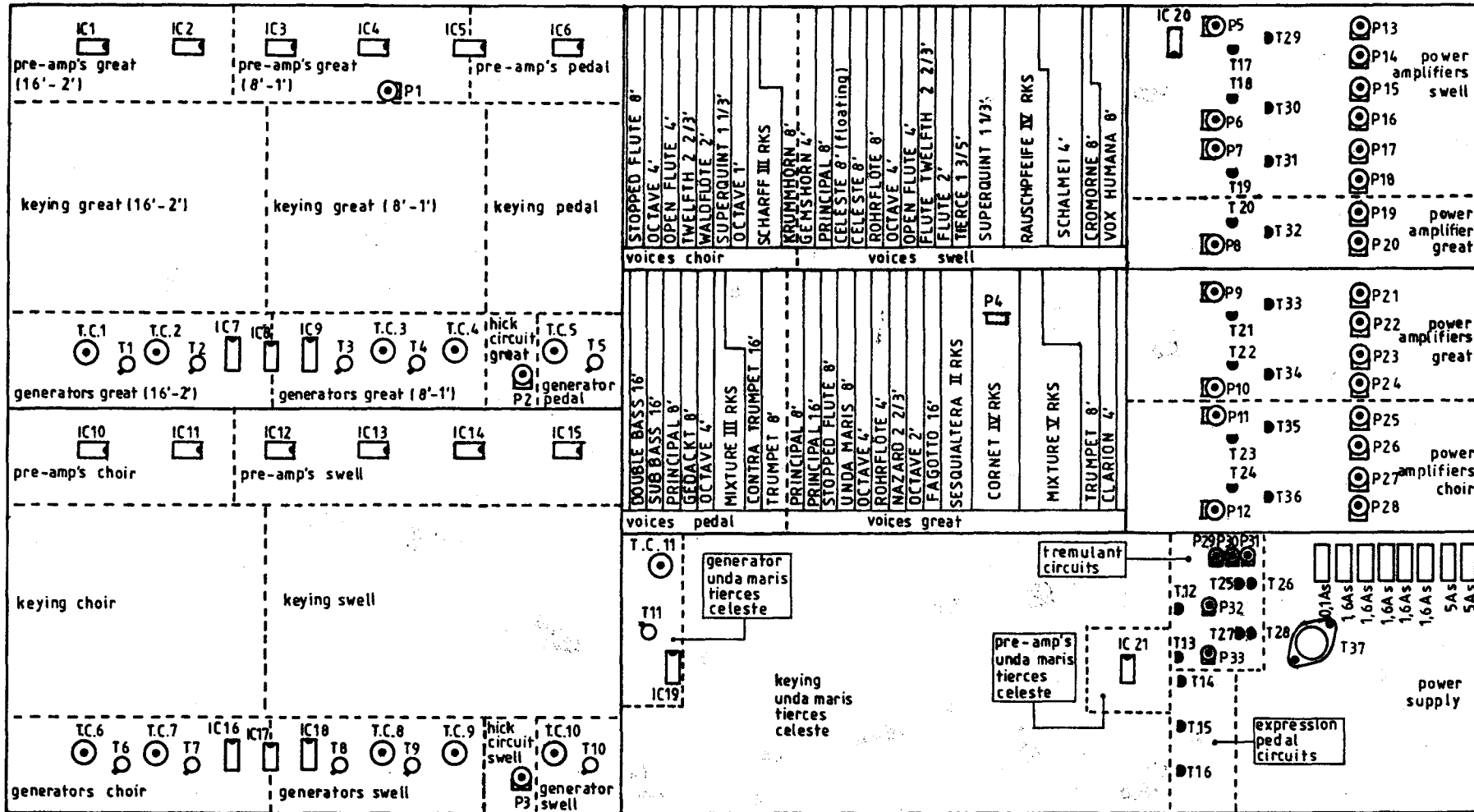
	PRESET	GEN.		AMPL.	SPEAKER
PEDAL	DOUBLE BASS 16'	FF	5	16' + 8' + 4'	BASS 12202
	SUBBASS 16'	PP	5	16'	BASS 12202
	PRINCIPAL 8'	MF	5	8' + 4' + 2'	BASS 12202
	GEDACKT 8'	P	5	8'	BASS 12202
	OCTAVE 4'	MF	5	4' + 2'	MIDDLE 5061
	MIXTURE III RKS	T	5	4'; 2 2/3' & 2'	TREBLE 5061
	CONTRA TRUMPET 16'	T	5	16' + 8' + 4'	BASS 12202
	TRUMPET 8'	F	5	8' + 4' + 2'	TREBLE 5061
CHOIR	STOPPED FLUTE 8'	PP	6/7	8'	BASS 5061
	OCTAVE 4'	MF	6/7	4' + 2' + 1'	BASS 5061
	OPEN FLUTE 4'	P	6/7	4'	TREBLE 7063
	TWELFTH 2 2/3'	F	6/7	2 2/3' + 1 1/3'	BASS 5061
	WALDFLÖTE 2'	F	6/7	2'	BASS 5061
	SUPERQUINT 1 1/3'	FF	6/7	1 1/3'	TREBLE 7063
	OCTAVE 1'	FF	6/7	1'	TREBLE 7063
	SCHARF III RKS	T	6/7	2'; 1 1/3' & 1'	TREBLE 7063
KRUMMHORN 8'	T	6/7	8'r + 4'r + 2'r	TREBLE 7063	
GREAT	PRINCIPAL 16'	T	1/2	16' + 8' + 4'	BASS 12202
	PRINCIPAL 8'	MF	3/4	8' + 4' + 2'	BASS 12202
	STOPPED FLUTE 8'	PP	1/2	8'	MIDDLE 5061
	UNDA MARIS 8'	--	11	8' u.m.	BASS 12202
	OCTAVE 4'	MF	1/2	4' + 2'	MIDDLE 5061
	ROHRFLÖTE 4'	P	3/4	4'	TREBLE 5061
	NAZARD 2 2/3'	F	3/4	2 2/3' + 1 1/3'	MIDDLE 5061
	OCTAVE 2'	F	3/4	2' + 1'	TREBLE 5061
	SESQUIALTERA II RKS	FF	3/4/11	2 2/3' + 1 3/5'	TREBLE 5061
	CORNET IV RKS	--	1/2/11	4'; 2 2/3'; 2' & 1 3/5'	MIDDLE 5061
	MIXTURE V RKS	T	3/4	4'; 2 2/3'; 2'; 1 1/3' & 1'	TREBLE 5061
	FAGOTTO 16'	FF	1/2	16'r + 8'r + 4'r	MIDDLE 5061
	TRUMPET 8'	MF	3/4	8'r + 4'r + 2'r	TREBLE 5061
CLARION 4'	T	1/2	4'r + 2'r	TREBLE 5061	
SWELL	PRINCIPAL 8'	MF	8/10	8' + 4' + 2'	BASS 12202
	ROHRFLÖTE 8'	PP	8/9	8'	MIDDLE 5061
	CELESTE 8'	--	8/10	8' + 4' + 2'	TREBLE 5061
			11	8' cel.	MIDDLE 5061
	OCTAVE 4'	MF	8/9	4' + 2' + 1'	BASS 12202
	GEMSHORN 4'	T	8/10	4' + 2' + 1'	BASS 12202
	OPEN FLUTE 4'	P	8/10	4'	MIDDLE 5061
	FLUTE TWELFTH 2 2/3'	F	8/10	2 2/3'	BASS 12202
	FLUTE 2'	F	8/9	2'	TREBLE 5061
	TIERCE 1 3/5'	--	11	1 3/5'	MIDDLE 5061
	SUPERQUINT 1 1/3'	FF	8/10	1 1/3'	TREBLE 5061
	RAUSCHPFEIFE IV RKS	T	8/9	2 2/3'; 2'; 1 1/3' & 1'	TREBLE 5061
	CROMORNE 8'	FF	8/9	8'r + 4'r + 2'r	BASS 12202
	VOX HUMANA 8'	T	8/9	8'r + 4'r + 2'r	BASS 12202
	SCHALMEI 4'	T	8/9	4'r + 2'r	MIDDLE 5061

SIGNAL COURSE VOICES

Drawn	Date	Modified	Date	JOHANNUS ORGAN OPUS 240
Verschoor	28-05-86			
DESIGN				
J.Versteegt				
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			Tel. 08380-37403	



BLOCKDIAGRAM				JOHANNUS ORGAN OPUS 240	
Drawn	Date	Modified	Date		
Verschoor	62-06-66				
DESIGN					
J.Versteegt					
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					page: 2



- T.C.1: tuning even octaves great (16'-2')
- T.C.2: tuning odd octaves great (16'-2')
- T.C.3: tuning odd octaves great (8'-1')
- T.C.4: tuning even octaves great (8'-1')
- T.C.5: tuning pedal
- T.C.6: tuning even octaves choir
- T.C.7: tuning odd octaves choir
- T.C.8: tuning odd octaves swell
- T.C.9: tuning even octaves swell
- T.C.10: tuning 2nd; 3rd & 4th octave swell
- T.C.11: tuning unda maris tierces celeste

P											1	2 3						4	5-12 29-33				13-28	
T	1 6	2 7	3 8 4 9			5 10	11					12-16 17-36				37								
IC	1 10	2 11	7-9 3	12 16-18	4 13	5 14	6 15	19				21 20												

T1-11: BC141
 T12-28: BCS49
 T29-36: J174
 T37: 2N3055

IC1-6; 10-15; 21: TL074
 IC7; 9; 16; 18: 4520
 IC8; 17: 4093
 IC19: MO 83
 IC20: LM324

P1: volume trumpet 8' great
 P2: hick depth great
 P3: hick depth swell
 P4: volume cornet II RKS
 P5: volume treble swell amplifier
 P6: volume middle swell amplifier
 P7: volume bass swell amplifier
 P8: volume treble great amplifier
 P9: volume middle great amplifier
 P10: volume bass great amplifier
 P11: volume treble choir amplifier
 P12: volume bass choir amplifier

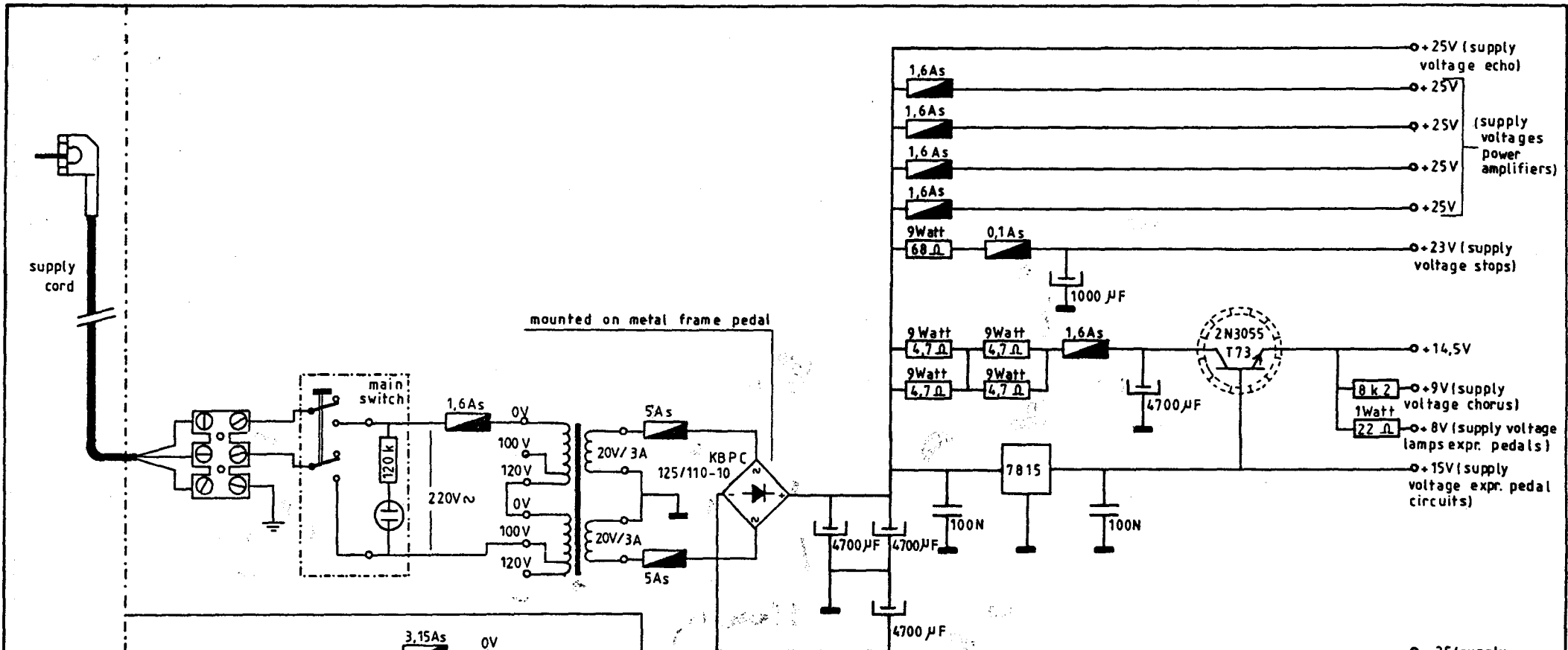
P13: treble adjustment treble swell amplifier
 P14: bass adjustment treble swell amplifier
 P15: treble adjustment middle swell amplifier
 P16: bass adjustment middle swell amplifier
 P17: treble adjustment bass swell amplifier
 P18: bass adjustment bass swell amplifier
 P19: treble adjustment treble great amplifier
 P20: bass adjustment treble great amplifier
 P21: treble adjustment middle great amplifier
 P22: bass adjustment middle great amplifier
 P23: treble adjustment bass great amplifier
 P24: bass adjustment bass great amplifier

P25: treble adjustment treble choir amplifier
 P26: bass adjustment treble choir amplifier
 P27: treble adjustment bass choir amplifier
 P28: bass adjustment bass choir amplifier

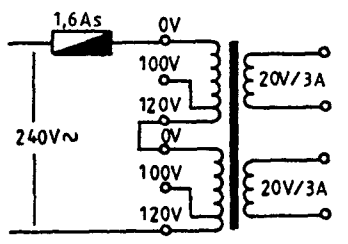
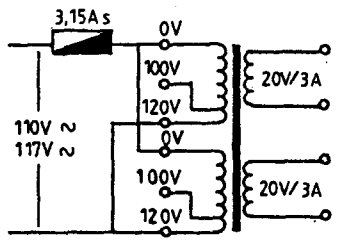
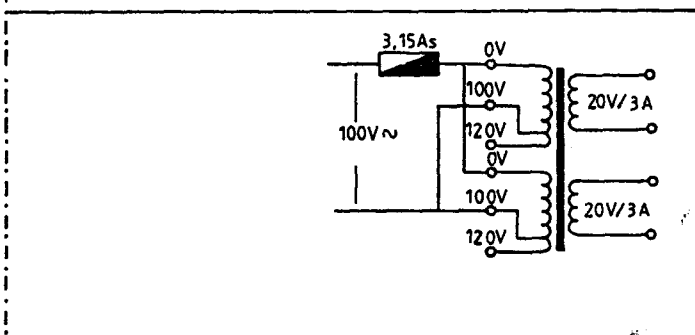
P29: tremulant depth swell
 P30: tremulant depth great
 P31: tremulant depth choir
 P32: tremulant speed great & swell
 P33: tremulant speed choir

POSITIONDIAGRAM (componentside view)

Drawn	Date	Modified	Date	JOHANNUS ORGAN OPUS 240
Verschoor	04-06-86			
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NOTE: 1 and 9 Watt resistors are mounted on ceramic stand off's (to avoid overheating p.c.-board)
 2N3055 is mounted with nuts between p.c.-board and heatsink (to avoid overheating p.c.-board)

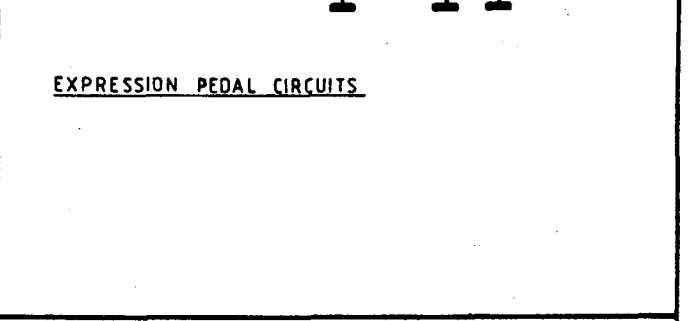
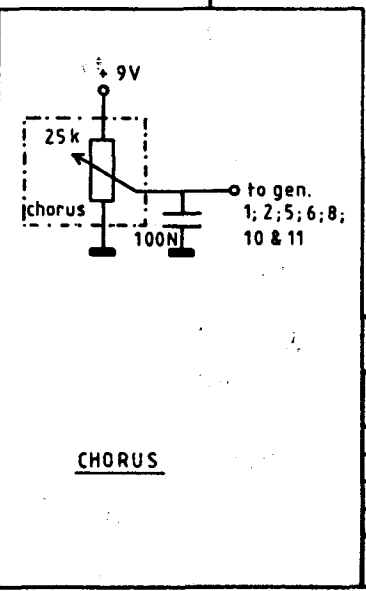
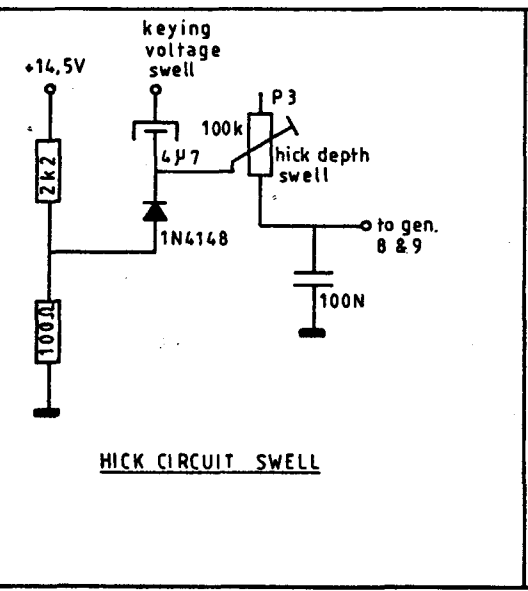
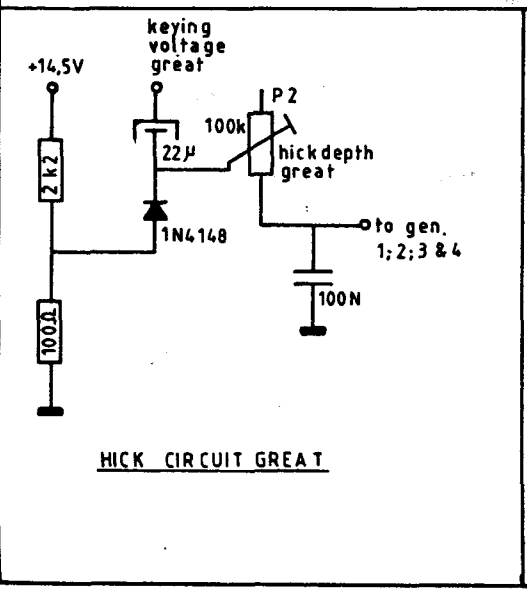
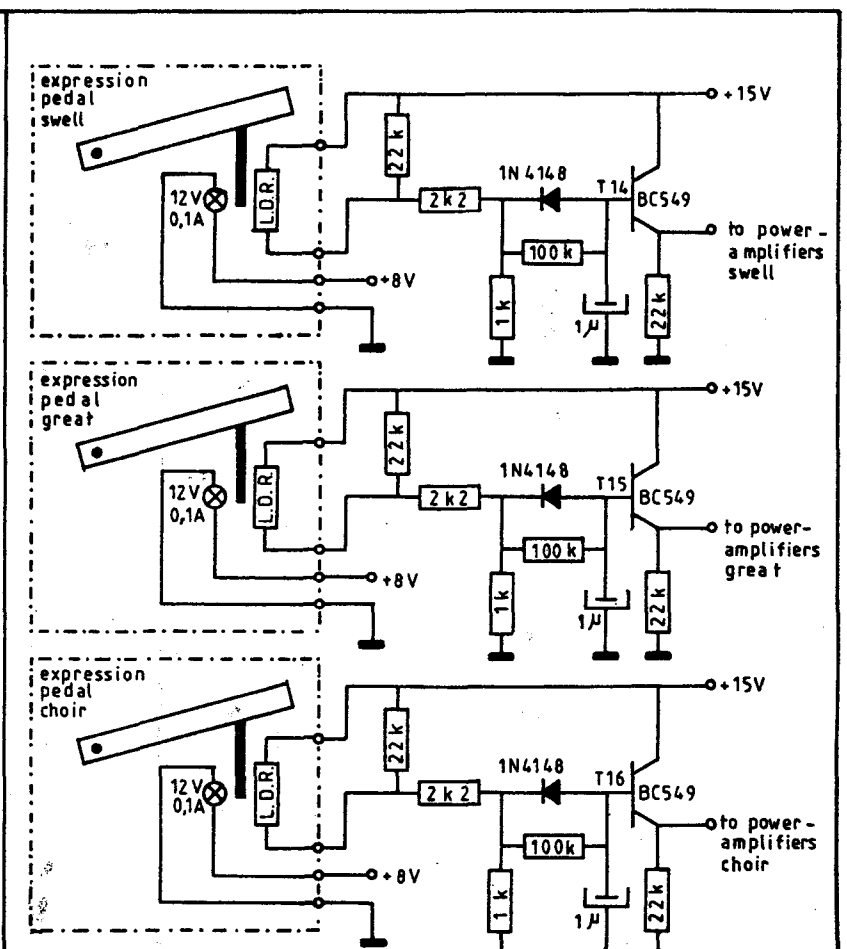
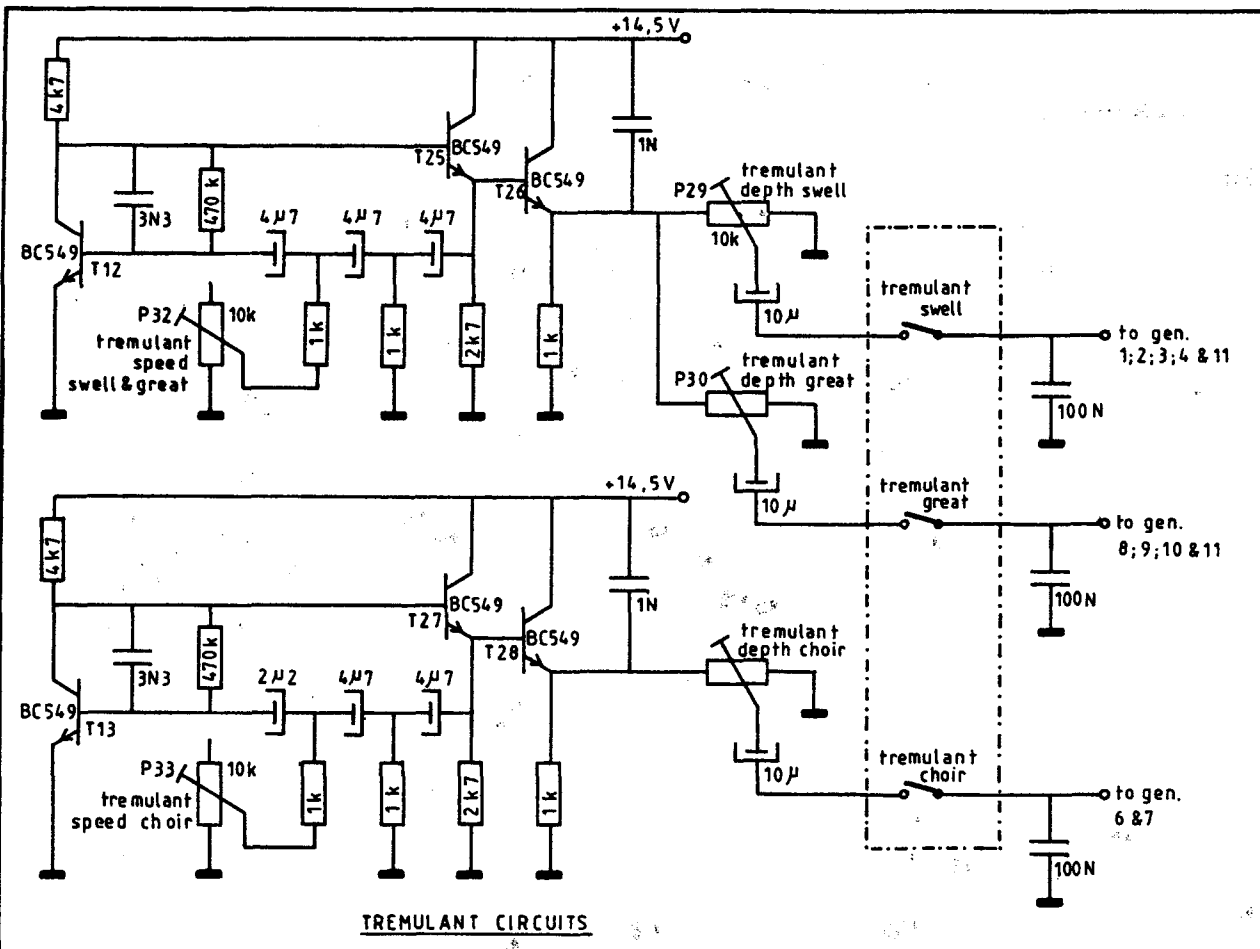


TRANSFORMER CONNECTIONS FOR COUNTRIES WITH OTHER VOLTAGES

POWER SUPPLY

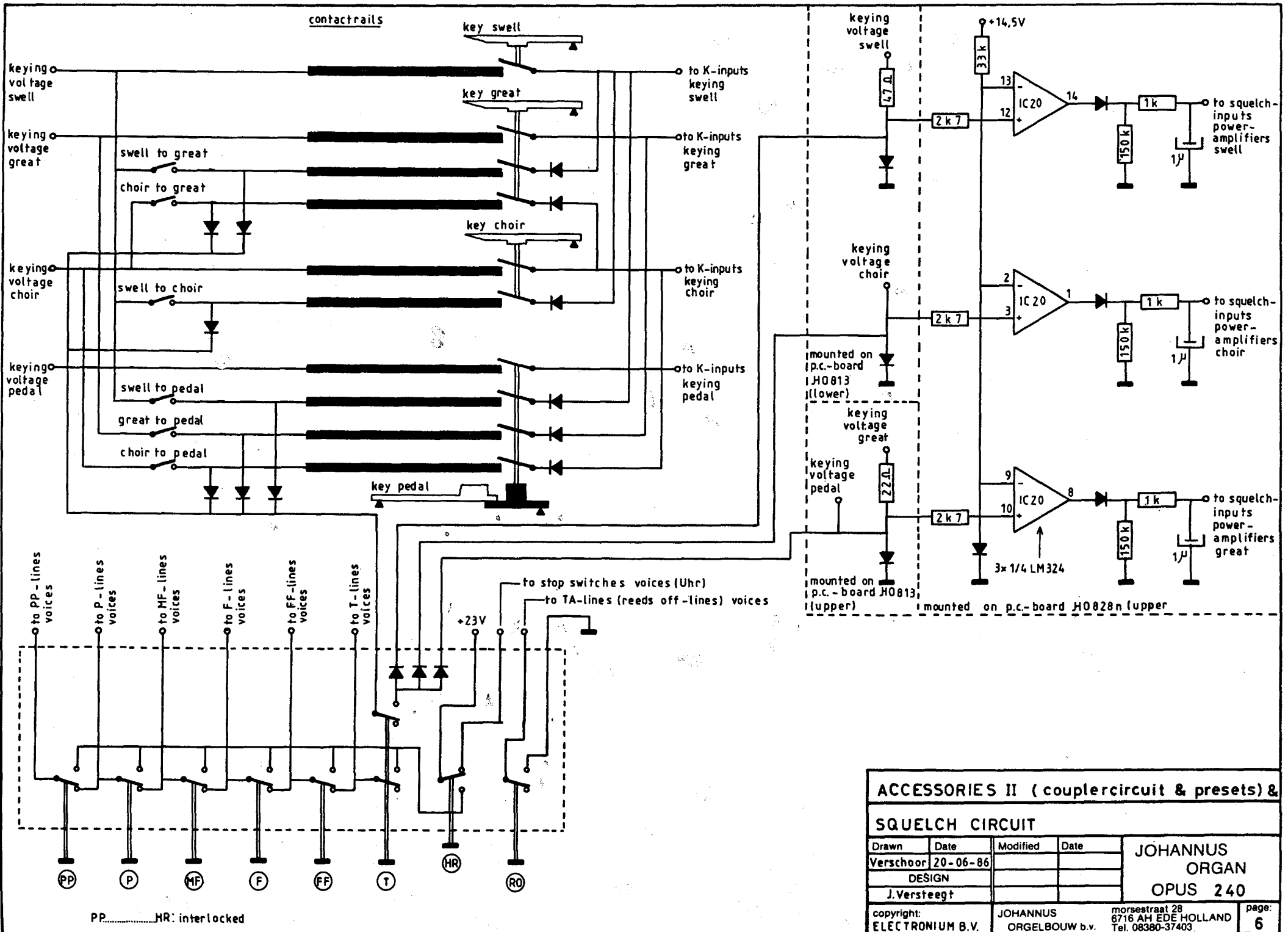
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OPUS 240



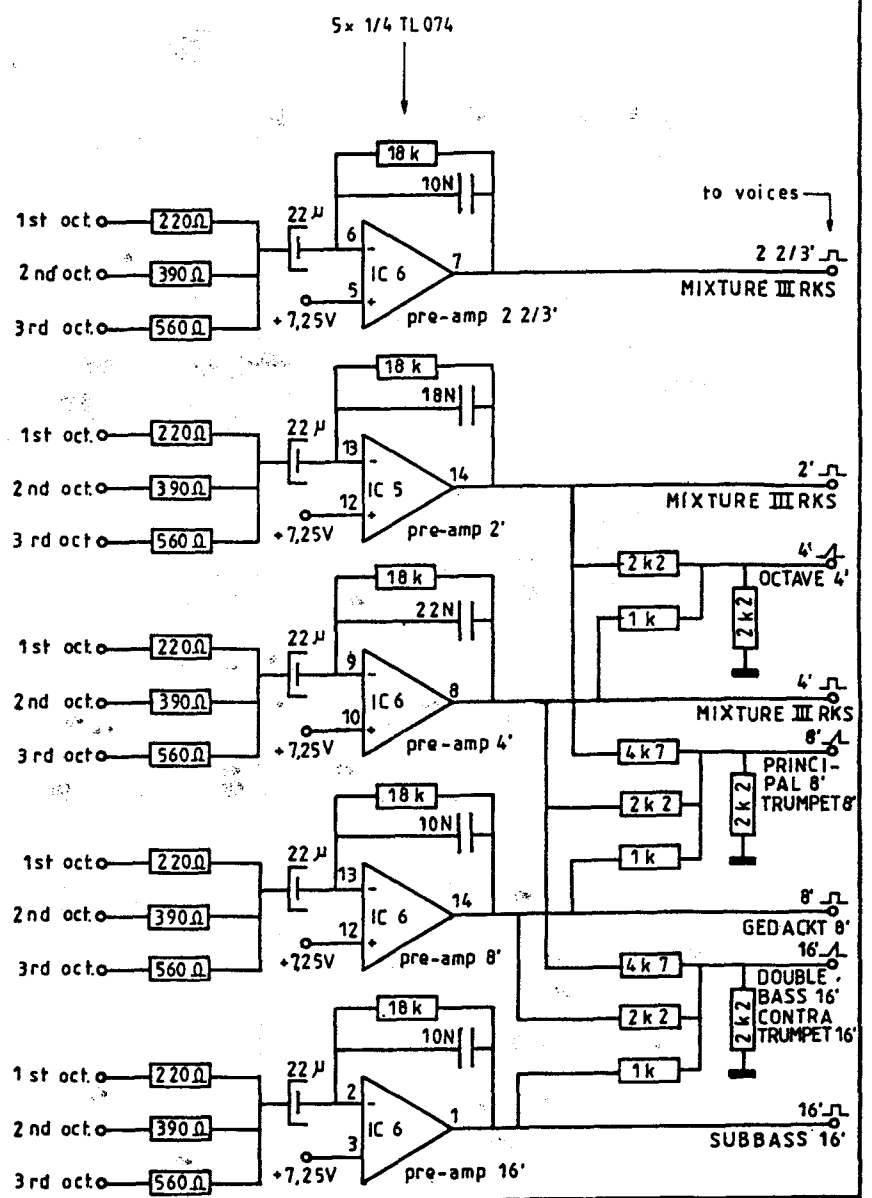
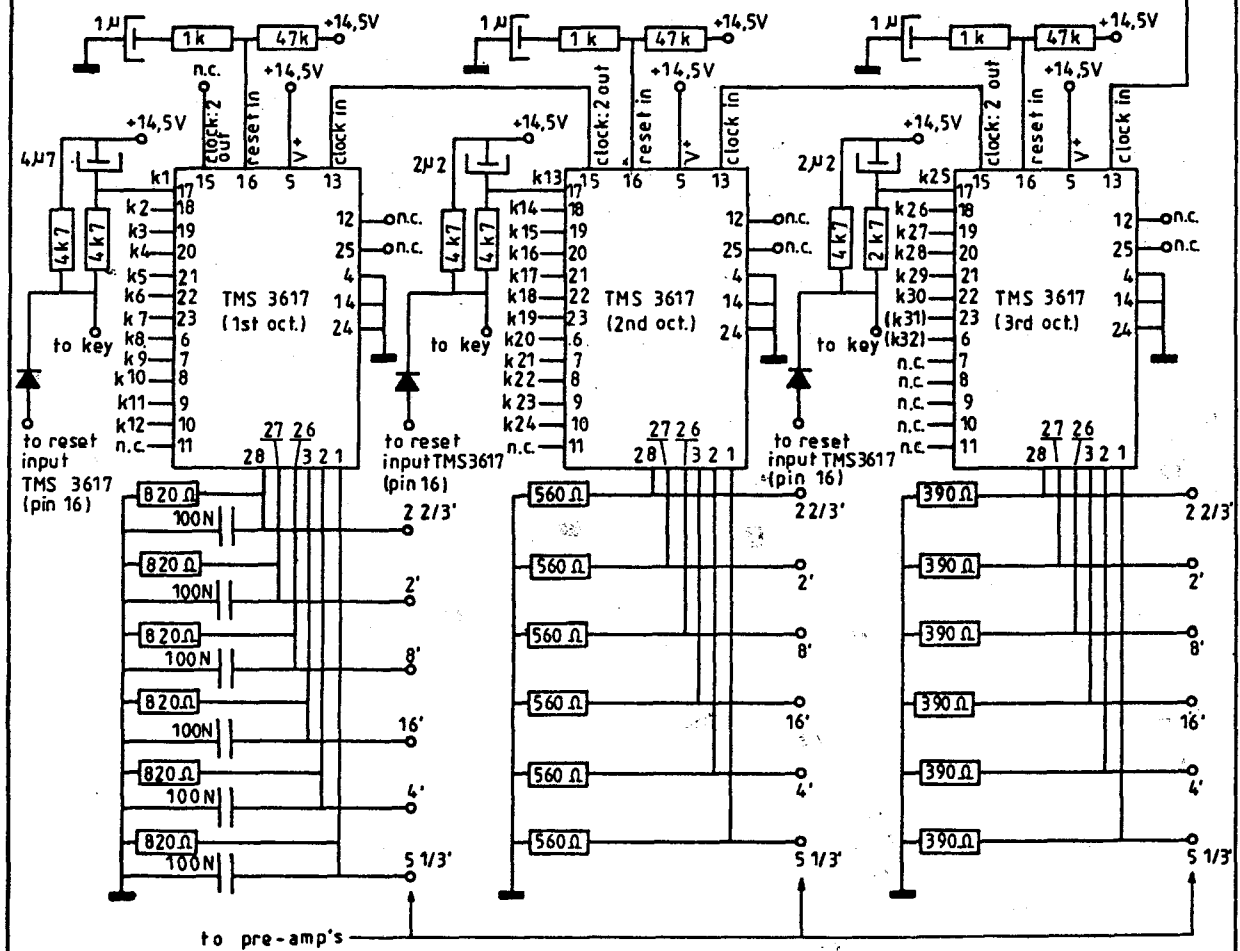
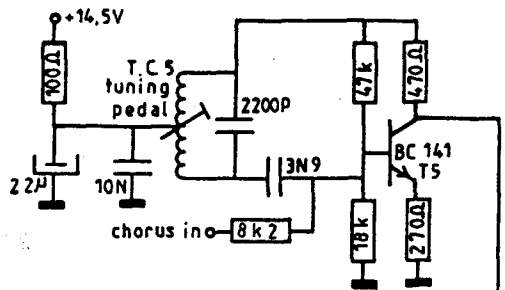
ACCESSORIES I (tremulant-, hick-, chorus- & expression pedal-circuits)

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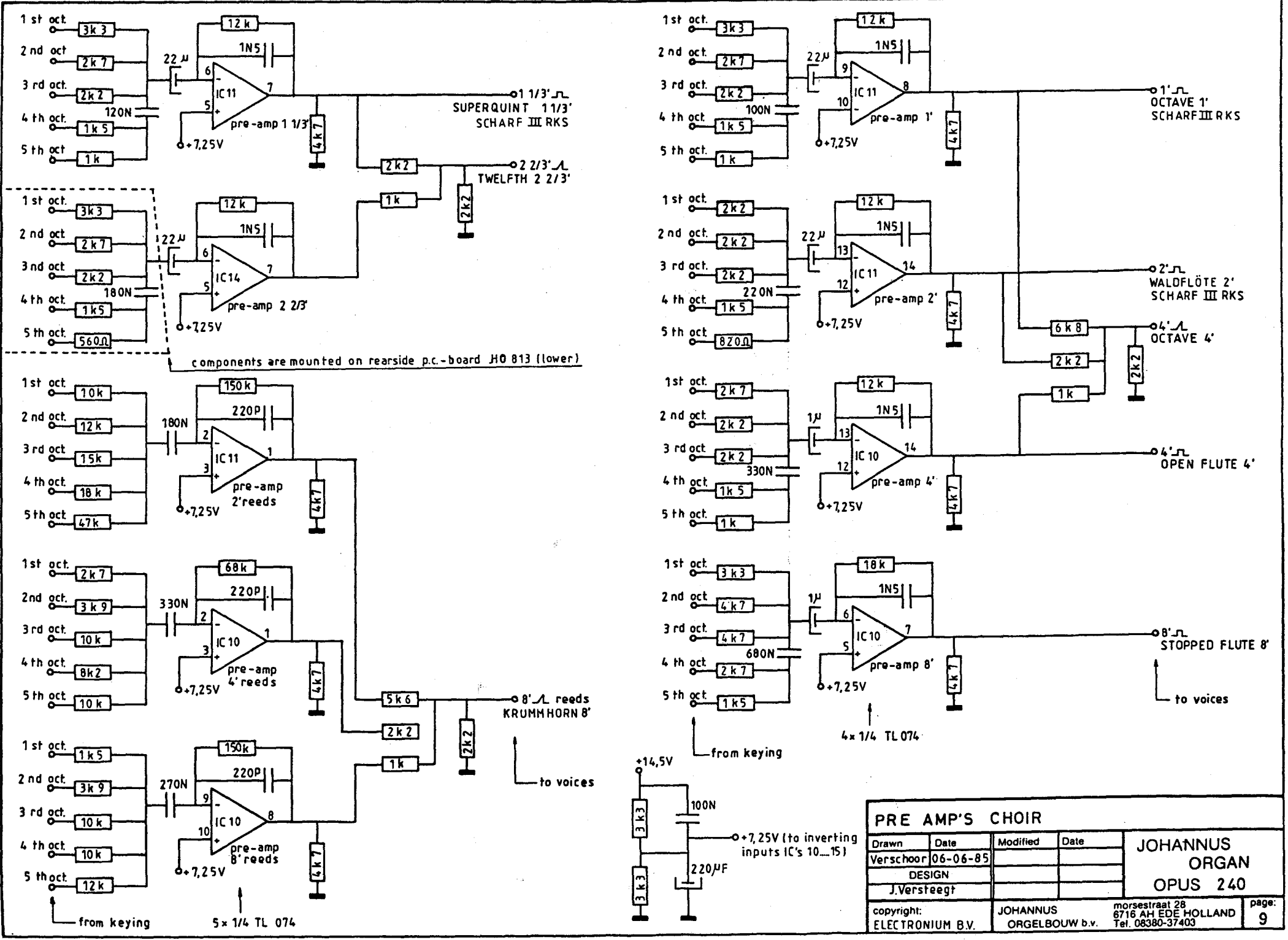
ACCESSORIES II (couplercircuit & presets) &			
SQUELCH CIRCUIT			
Drawn	Date	Modified	Date
Verschoor	20-06-86		
DESIGN			
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			page: 6

PP.....HR: interlocked

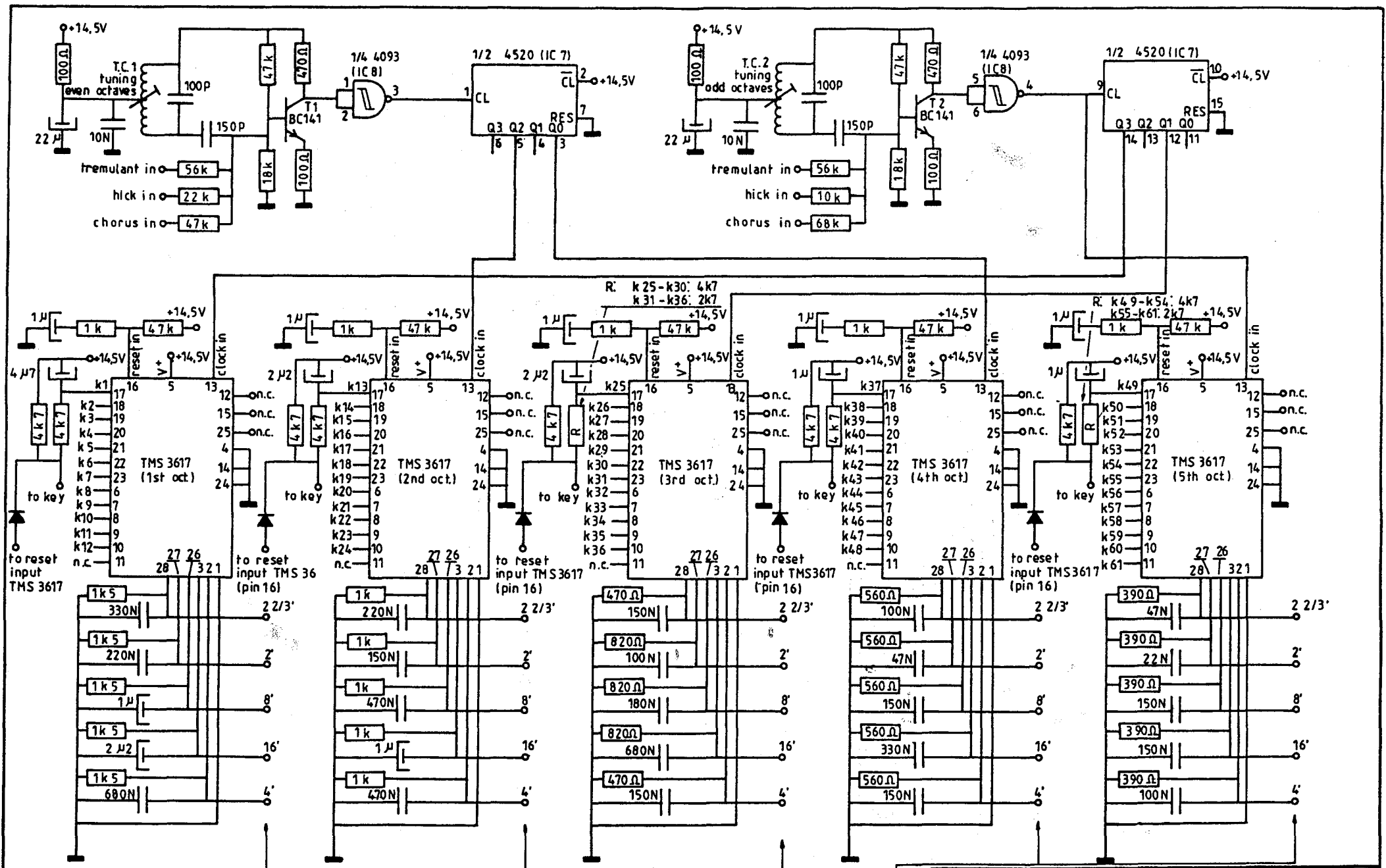


GENERATOR; KEYING & PRE-AMPS PEDAL

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DESIGN J. Versteegt				
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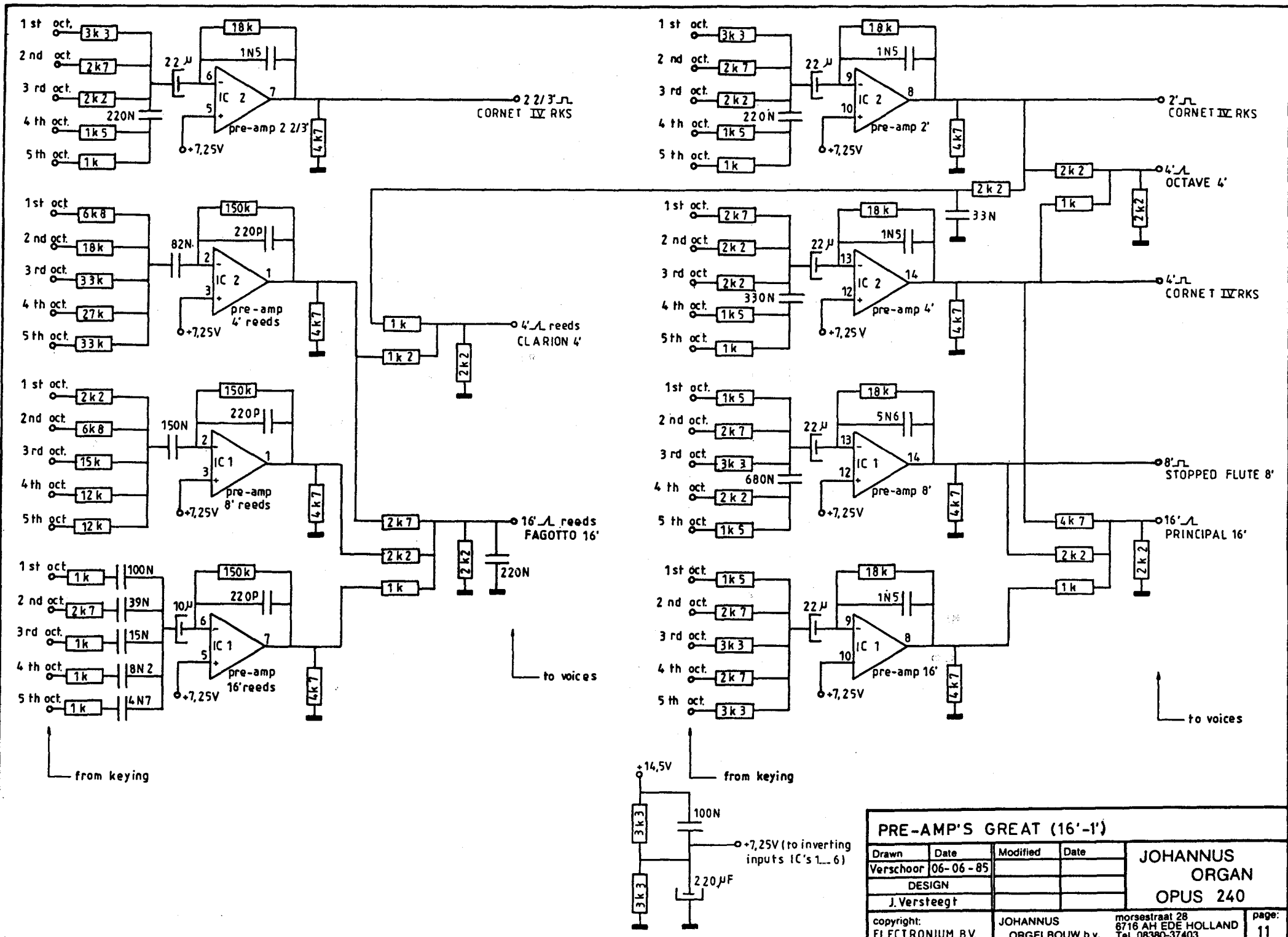


PRE AMP'S CHOIR				JOHANNUS ORGAN OPUS 240	page: 9
Drawn	Date	Modified	Date		
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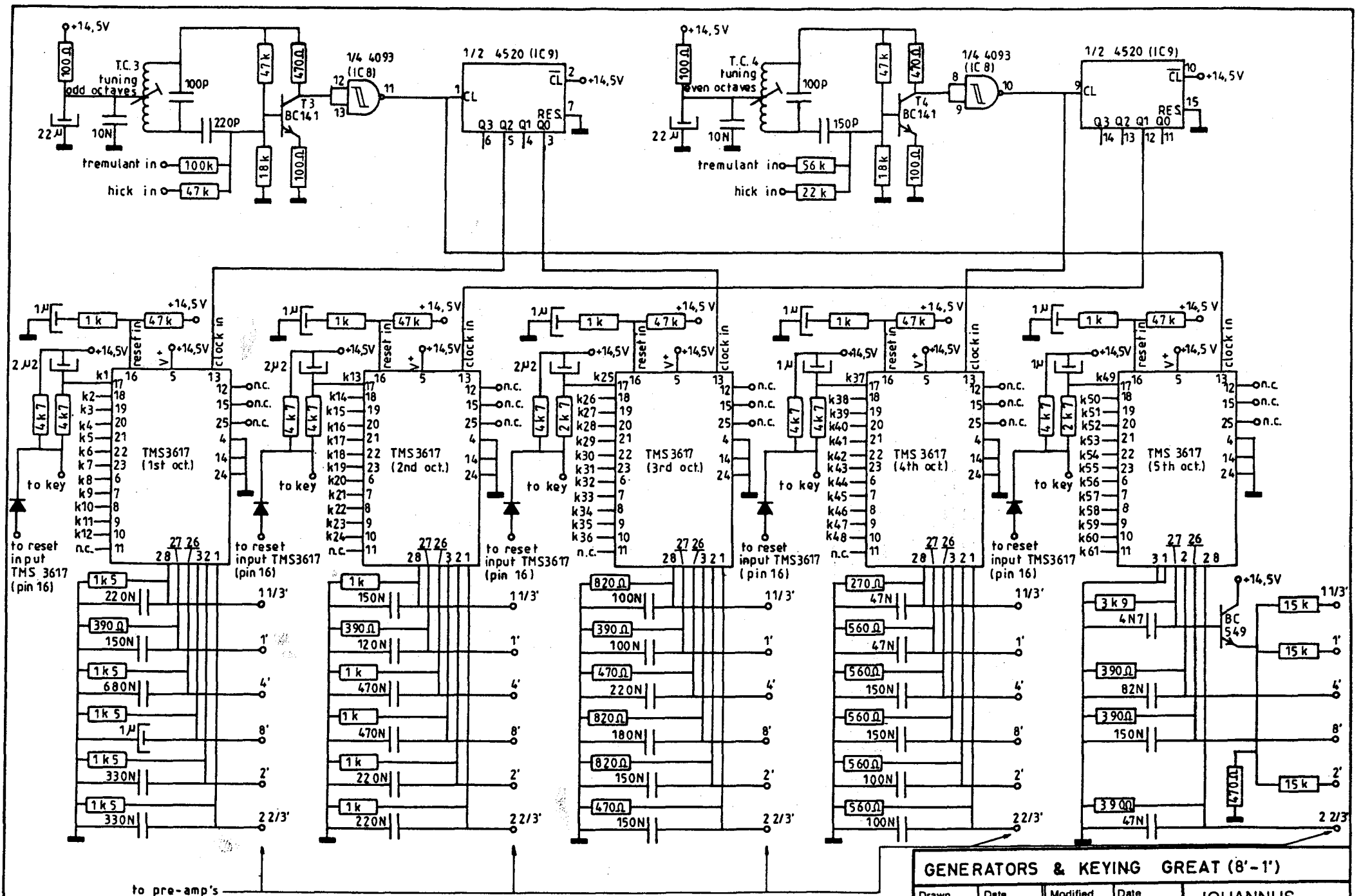


GENERATORS & KEYING GREAT (16'-2')

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PRE-AMP'S GREAT (16'-1')				JOHANNUS ORGAN	
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Verschoor	06-06-85				
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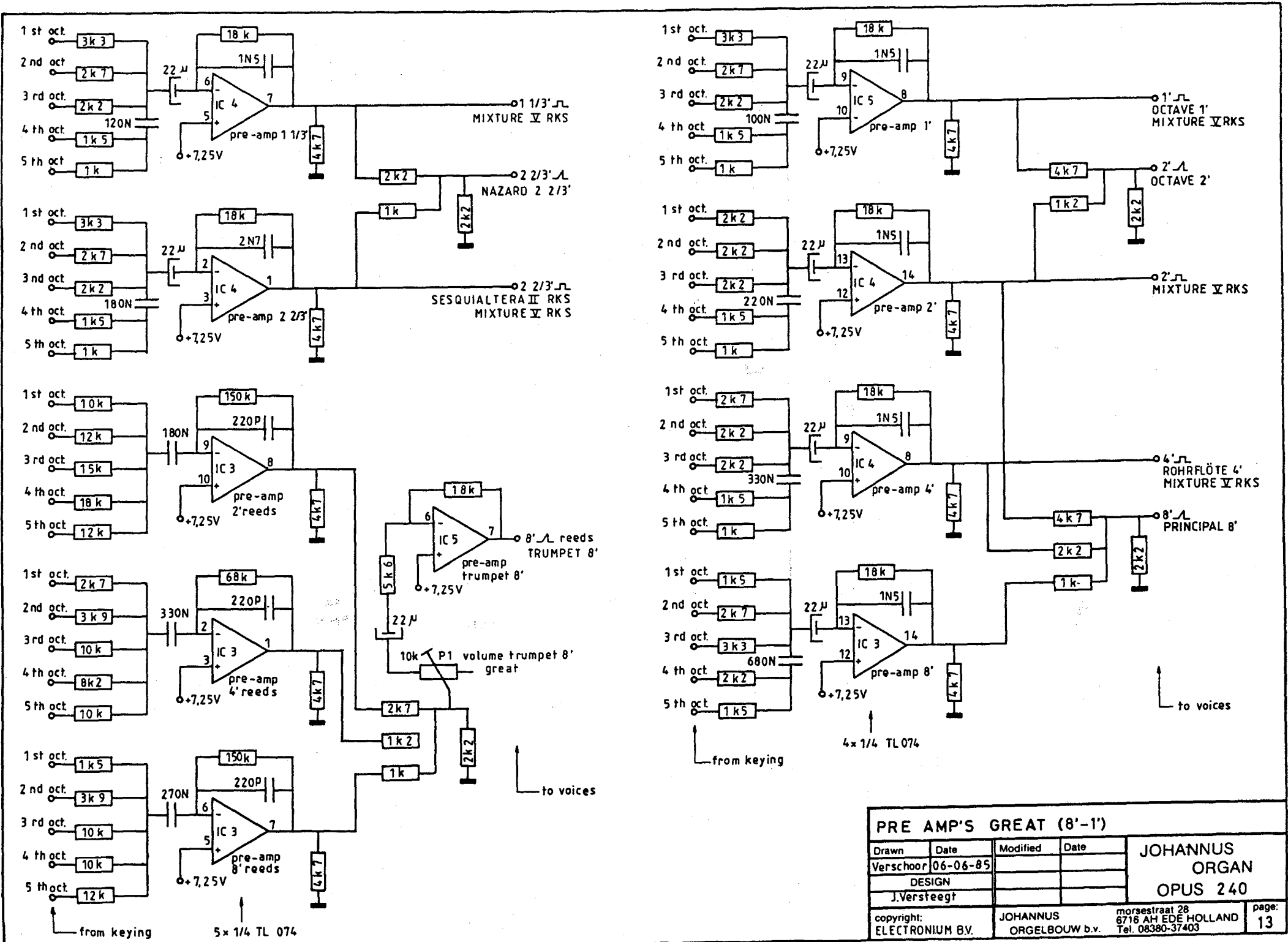


GENERATORS & KEYING GREAT (8'-1')

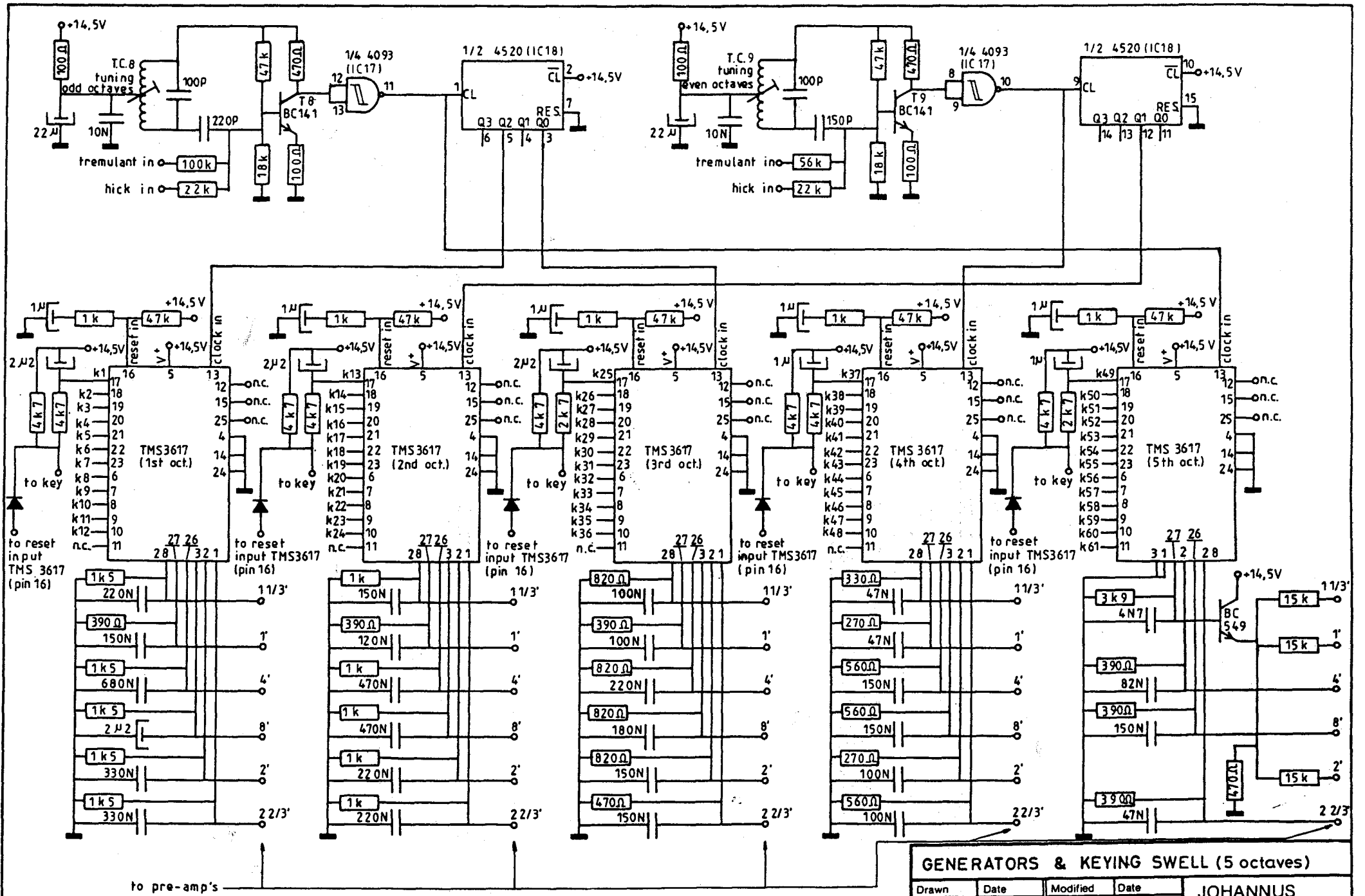
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OPUS 240**

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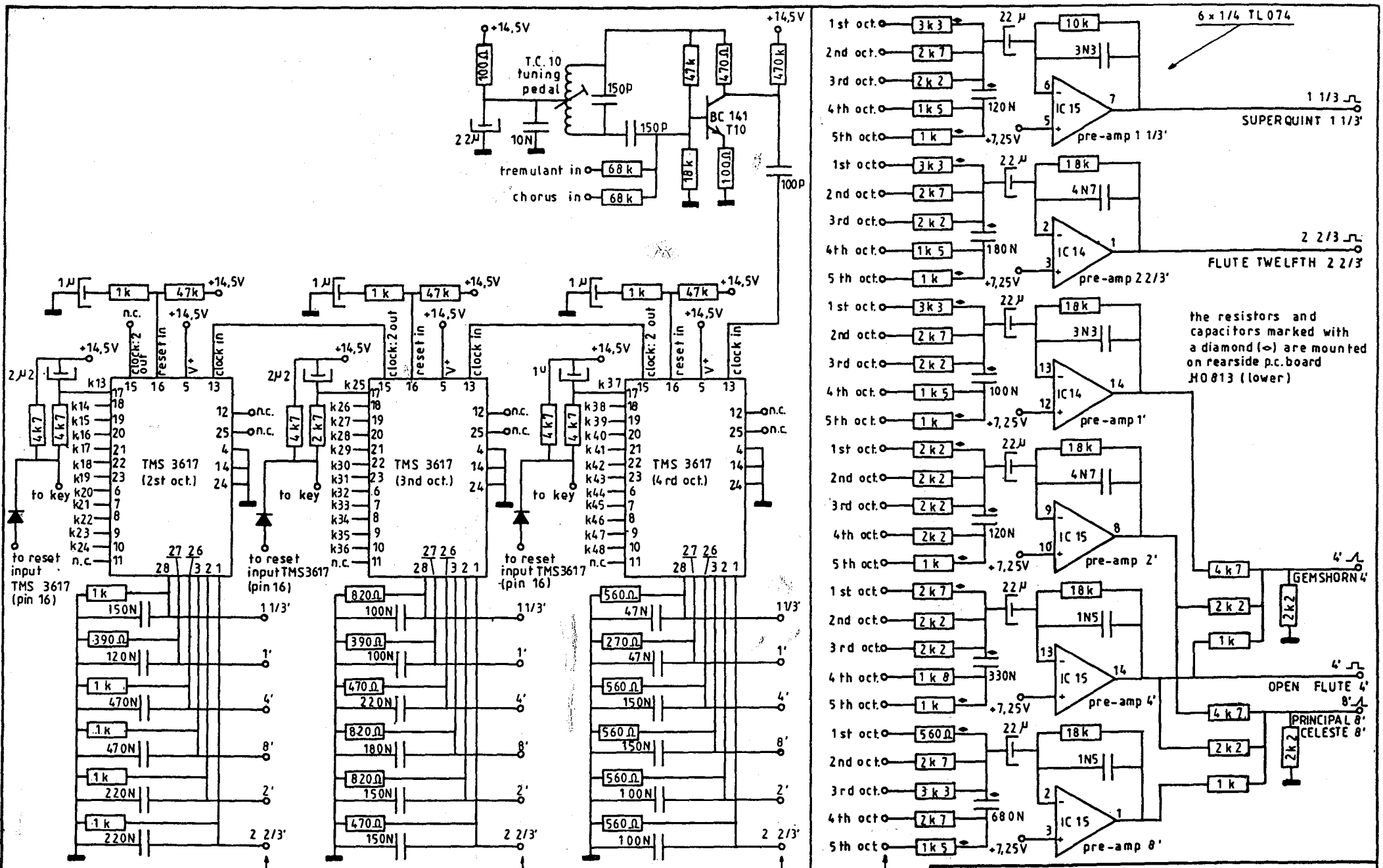


PRE AMP'S GREAT (8'-1')			
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Verschoor	06-06-85		
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			page: 13



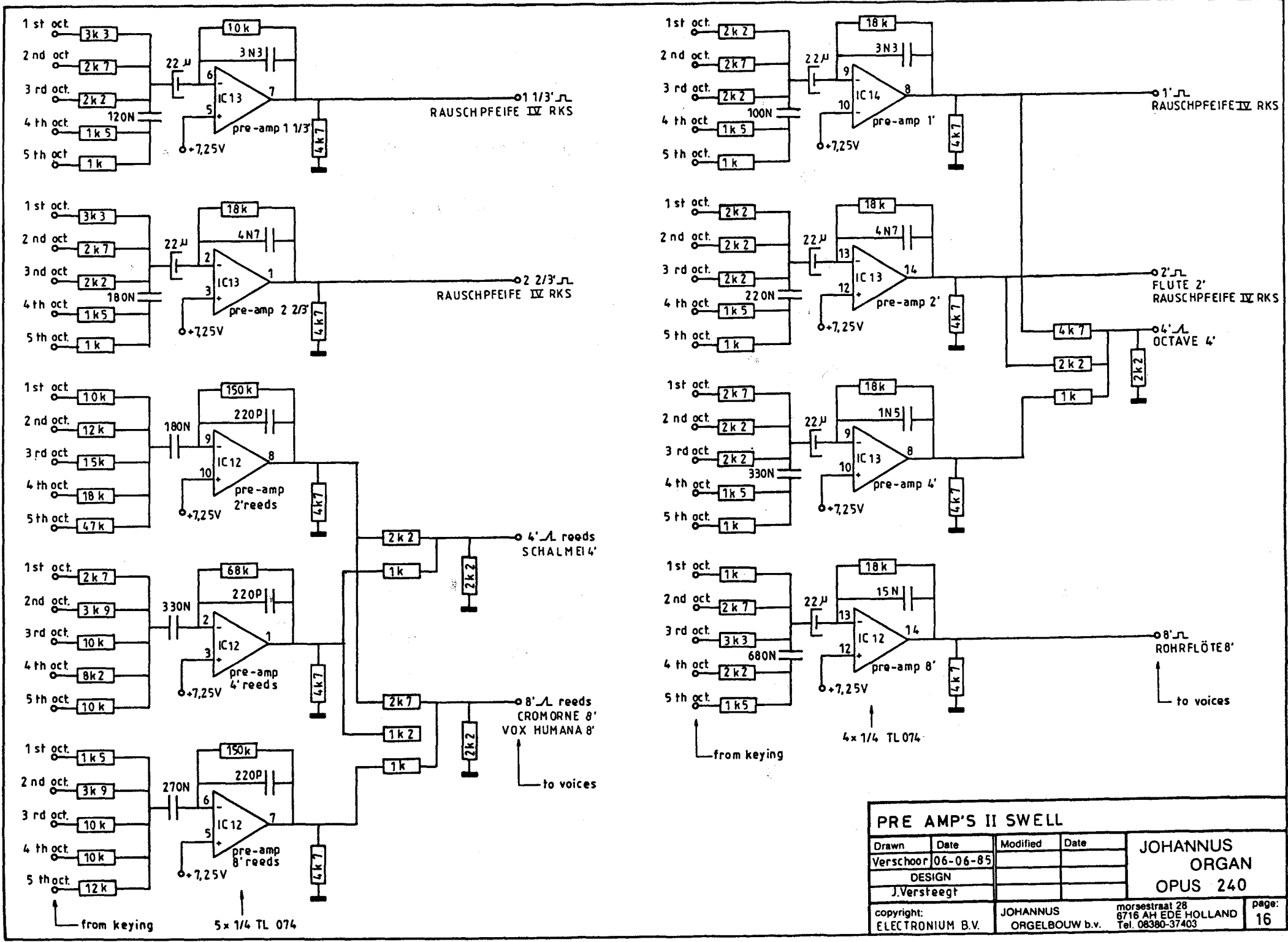
GENERATORS & KEYING SWELL (5 octaves)

Drawn	Date	Modified	Date	JOHANNUS ORGAN OPUS 240
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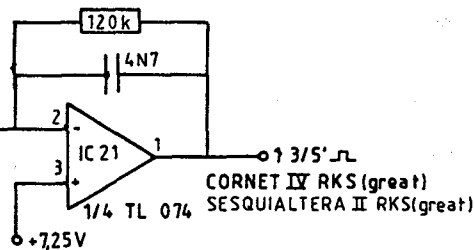
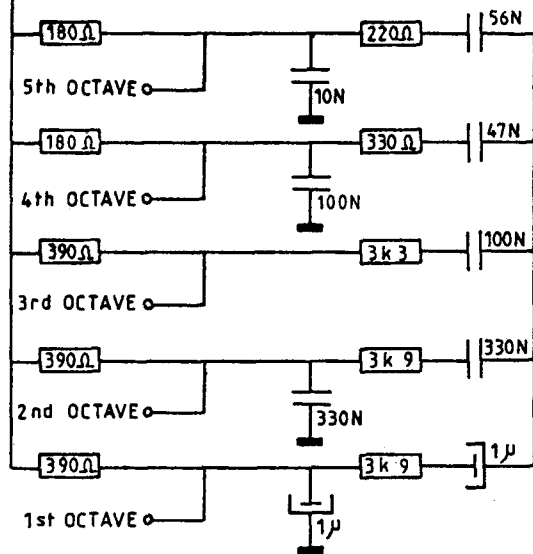
GEN./KEYING (3 octaves) & PRE AMP'S I SWELL

1st & 5th octave: from 5-octaves-keying	2nd; 3rd & 4th octave: from 3-octaves-keying	Drawn Verschoor	Date 05-06-85	Modified	Date	JOHANNUS ORGAN OPUS 240	page: 15
		DESIGN J.Versteegt					
		copyright: ELEC TRONIUM B.V.	JOHANNUS ORGELBOUW B.V.		morsestraat 28 6716 AH EDE HOLLAND Tel. 08380-37403		



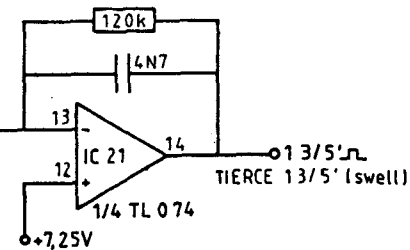
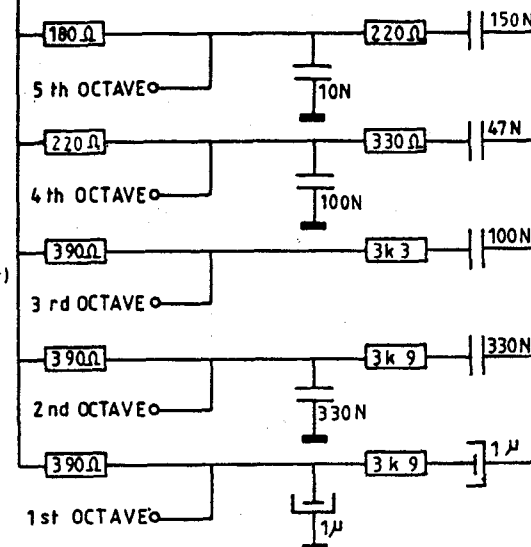
PRE AMP'S II SWELL				JOHANNUS ORGAN OPUS 240
Drawn	Date	Modified	Date	
Verschoor	06-06-85			
DESIGN				
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+13,8V (= SUPPLY VOLTAGE 4520's)



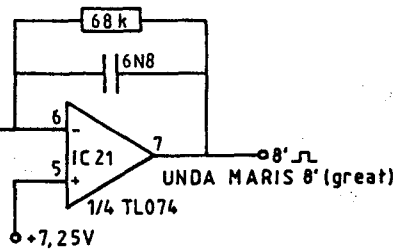
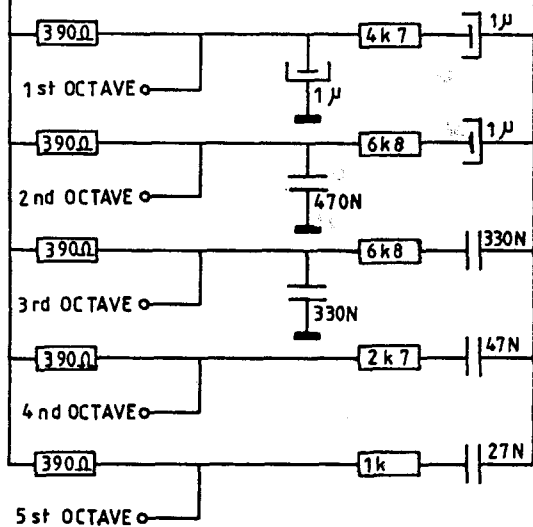
pre-amp 1 3/5' great

+13,8V (= SUPPLY VOLTAGE 4520's)



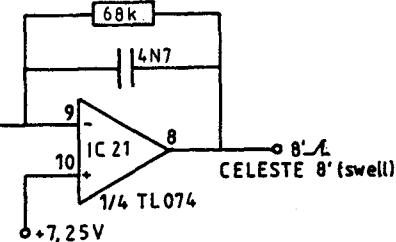
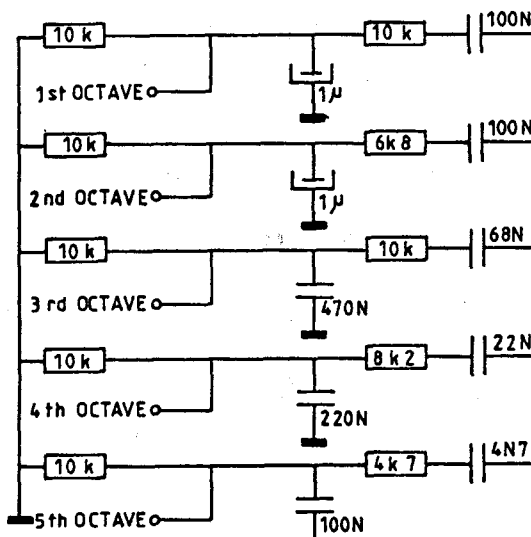
pre-amp 1 3/5' swell

+13,8V (= SUPPLY VOLTAGE 4520's)



pre-amp 8' floating great

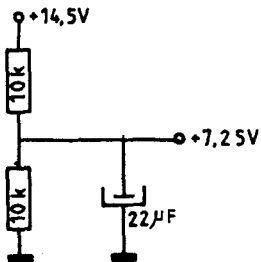
to voices



pre-amp 8' floating swell

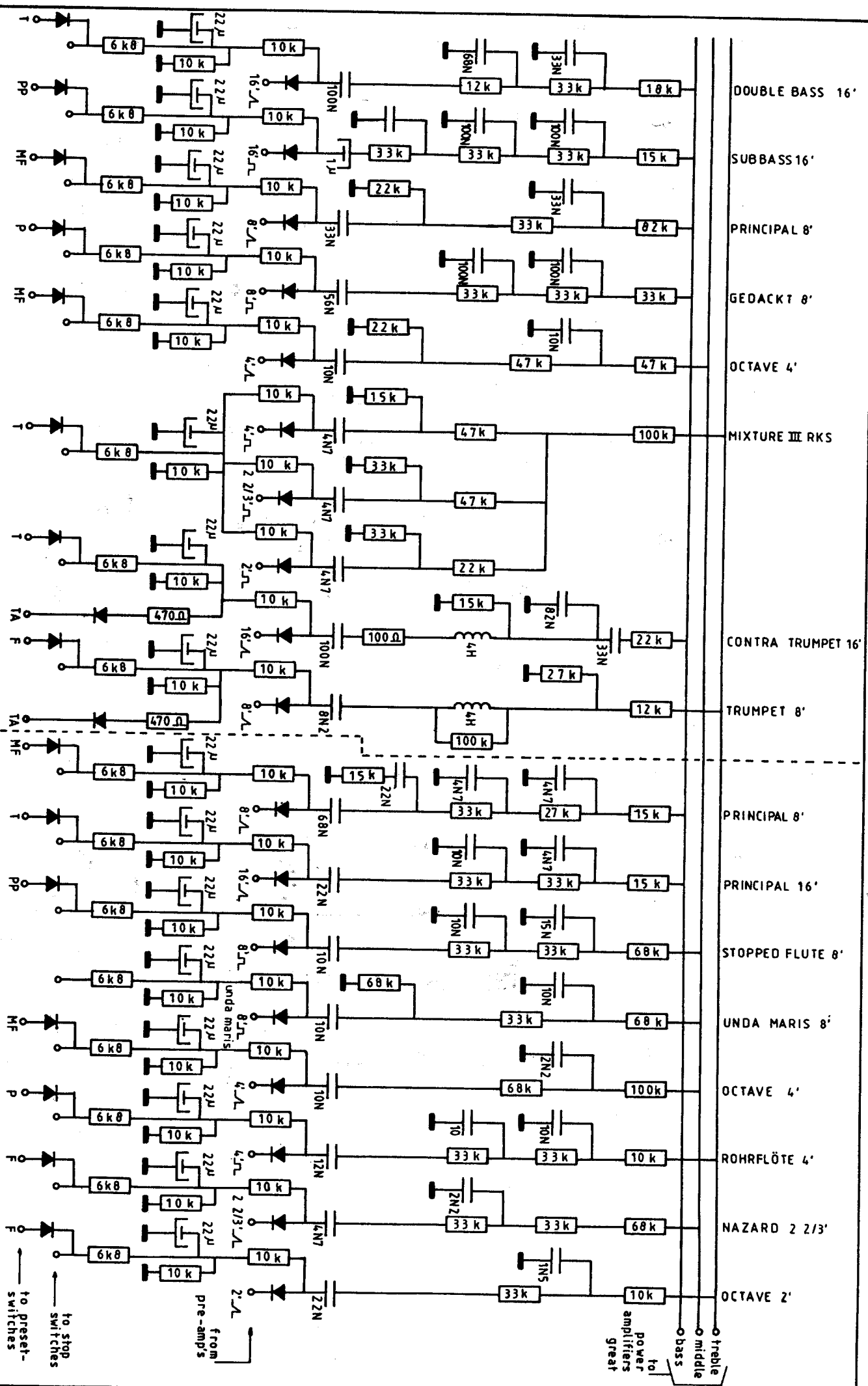
to voices

from keying
unda maris
tierce
celeste



from keying
unda maris
tierce
celeste

PRE-AMP'S UNDA MARIS; TIERCE; CELESTE				JOHANNUS ORGAN	
Drawn	Date	Modified	Date	OPUS 240	
Verschoor	03-10-85				
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PEDAL

GREAT

VOICES PEDAL & VOICES GREAT (flues)

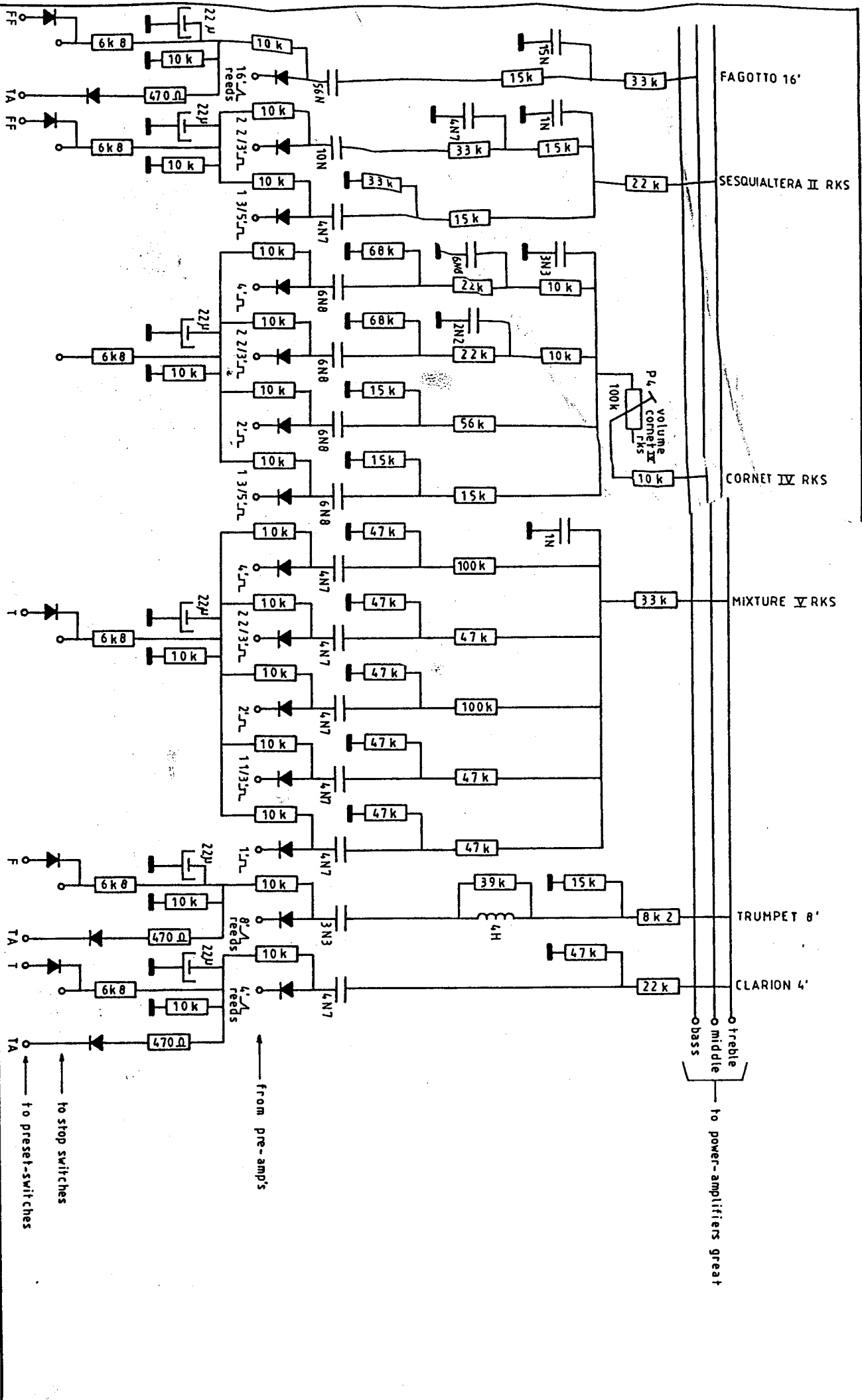
Drawn	Date	Modified	Date
Verschuur	26-06-86		
DESIGN			
J. Versteeg†			

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to stop switches
to pre-amplifiers
from pre-amplifiers
to power amplifiers
great

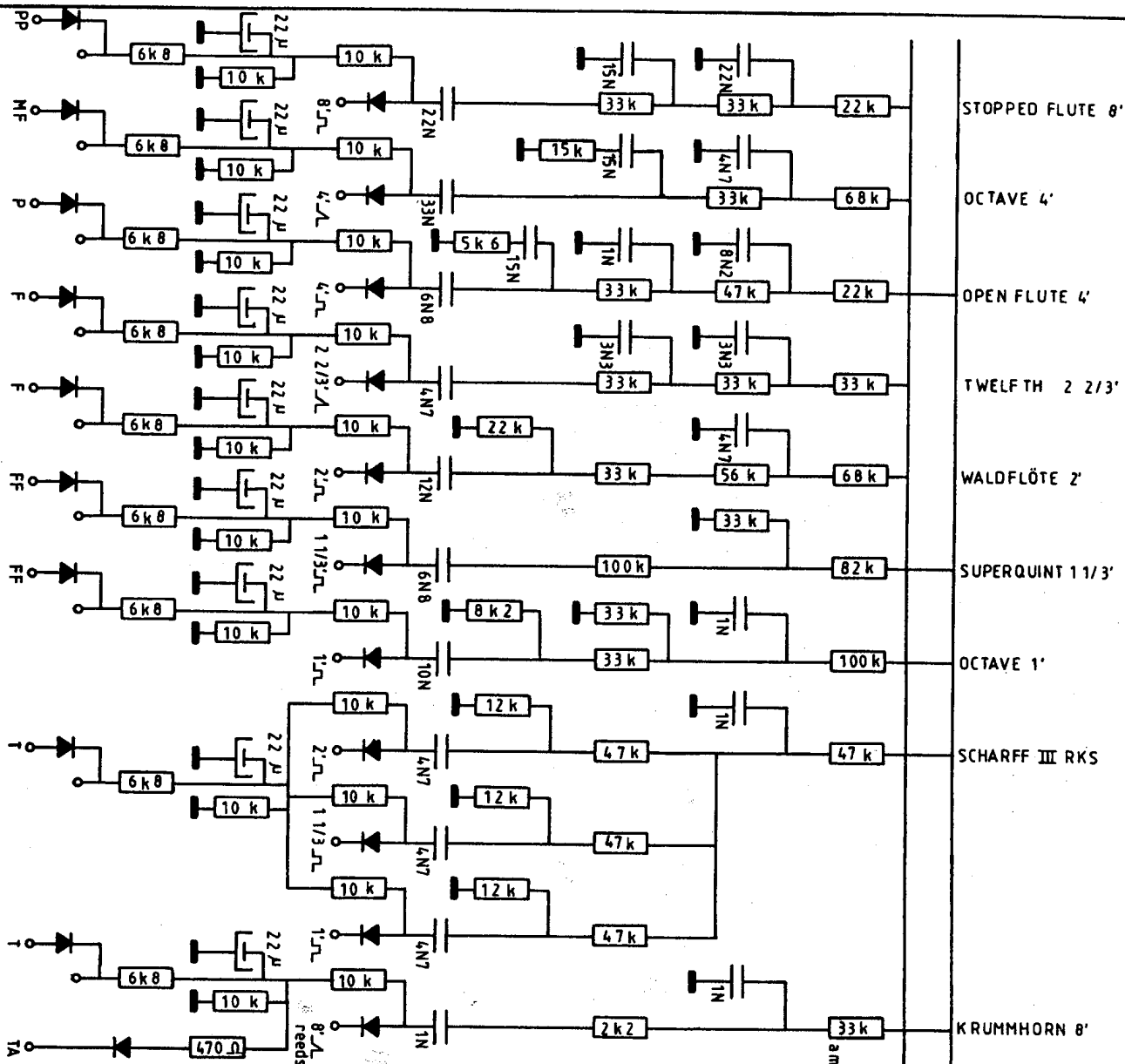
treble
middle
bass



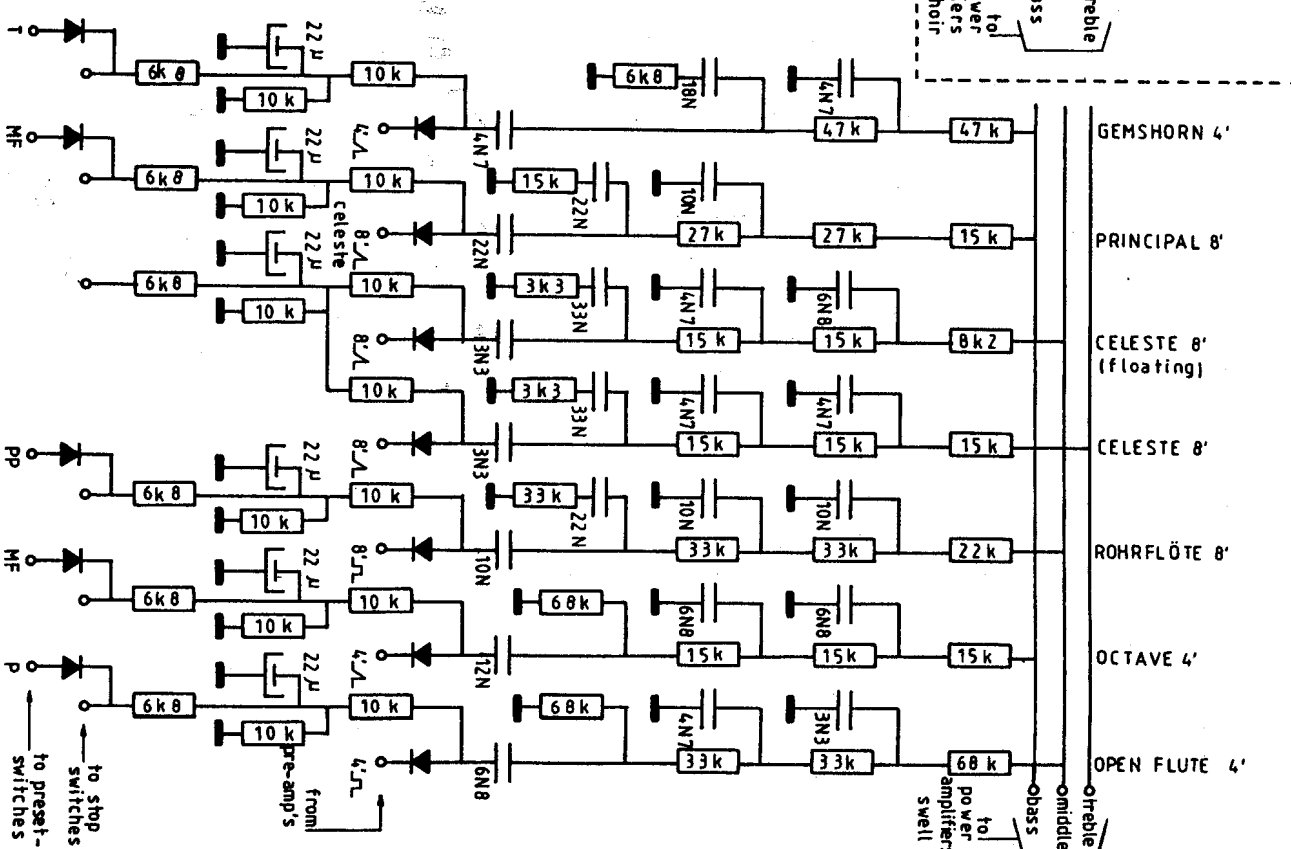
VOICES GREAT (compounds & reeds)

Drawn	Date	Modified	Date
Verschuur	27-06-86		
DESIGN			
J.Versteegh			
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CHOIR

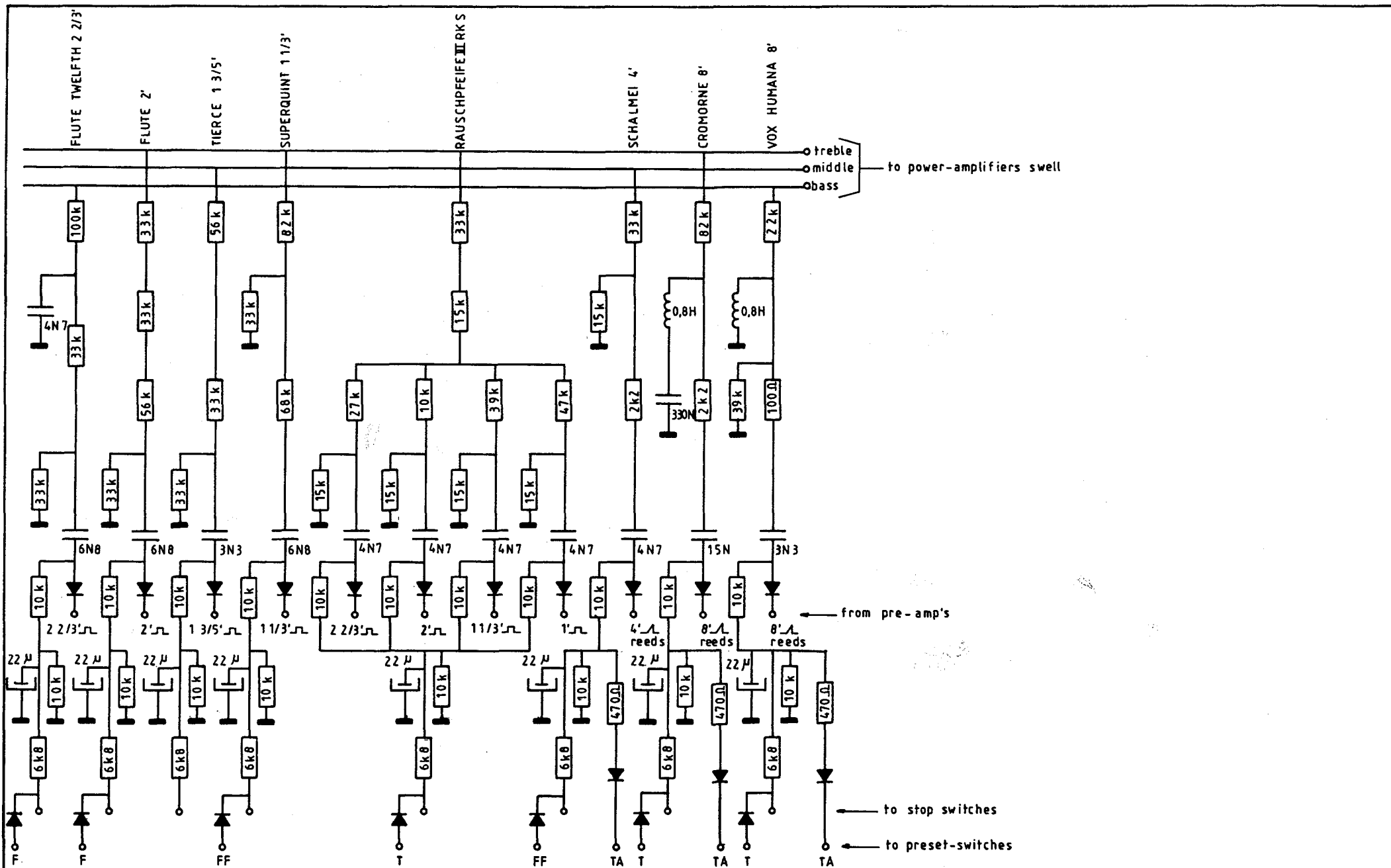


SWELL



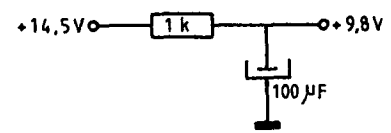
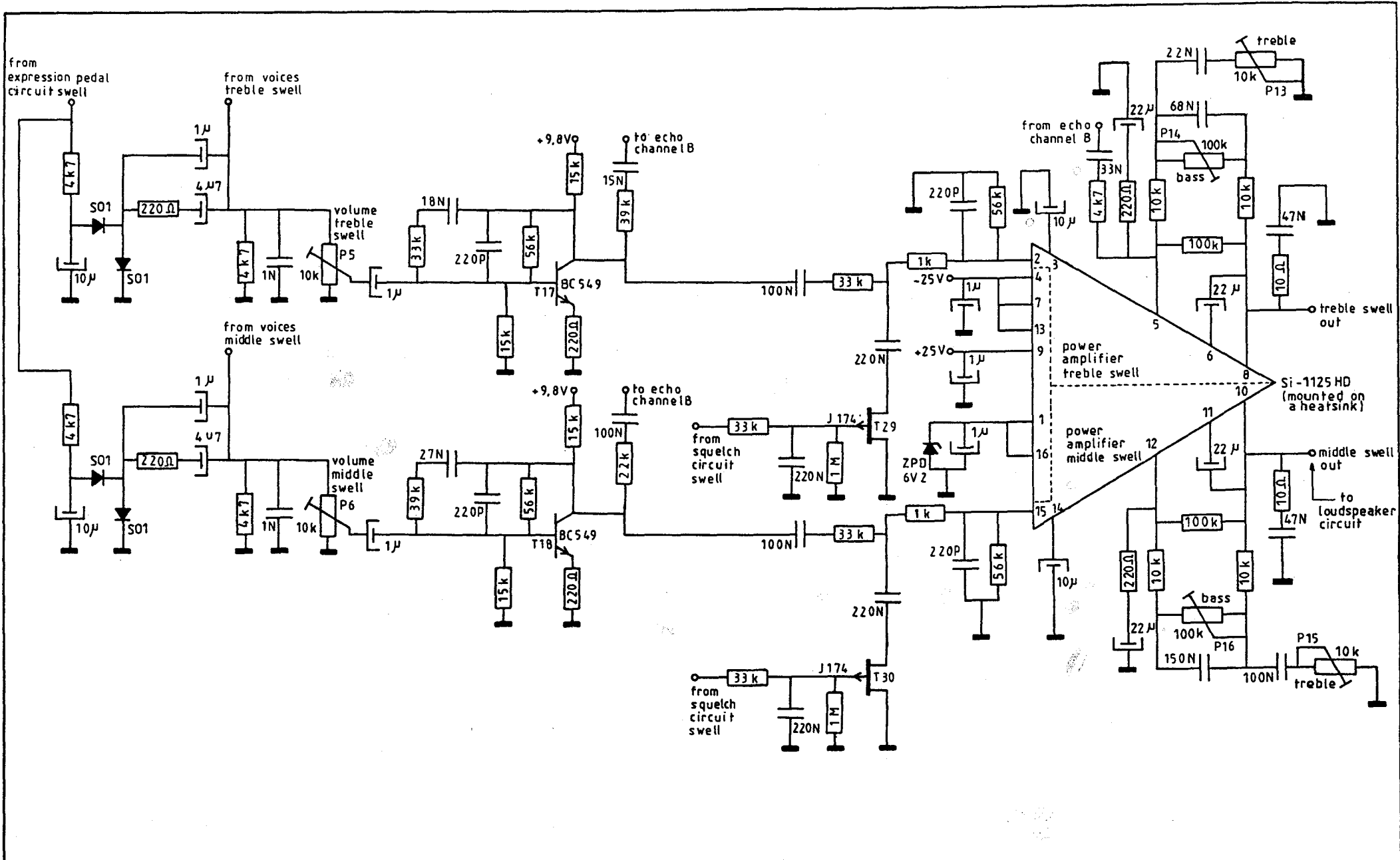
VOICES CHOIR & VOICES SWELL (flues 8' and 4')

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Verschuur	27-06-86		
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page:	21		

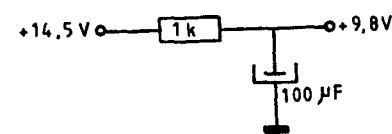
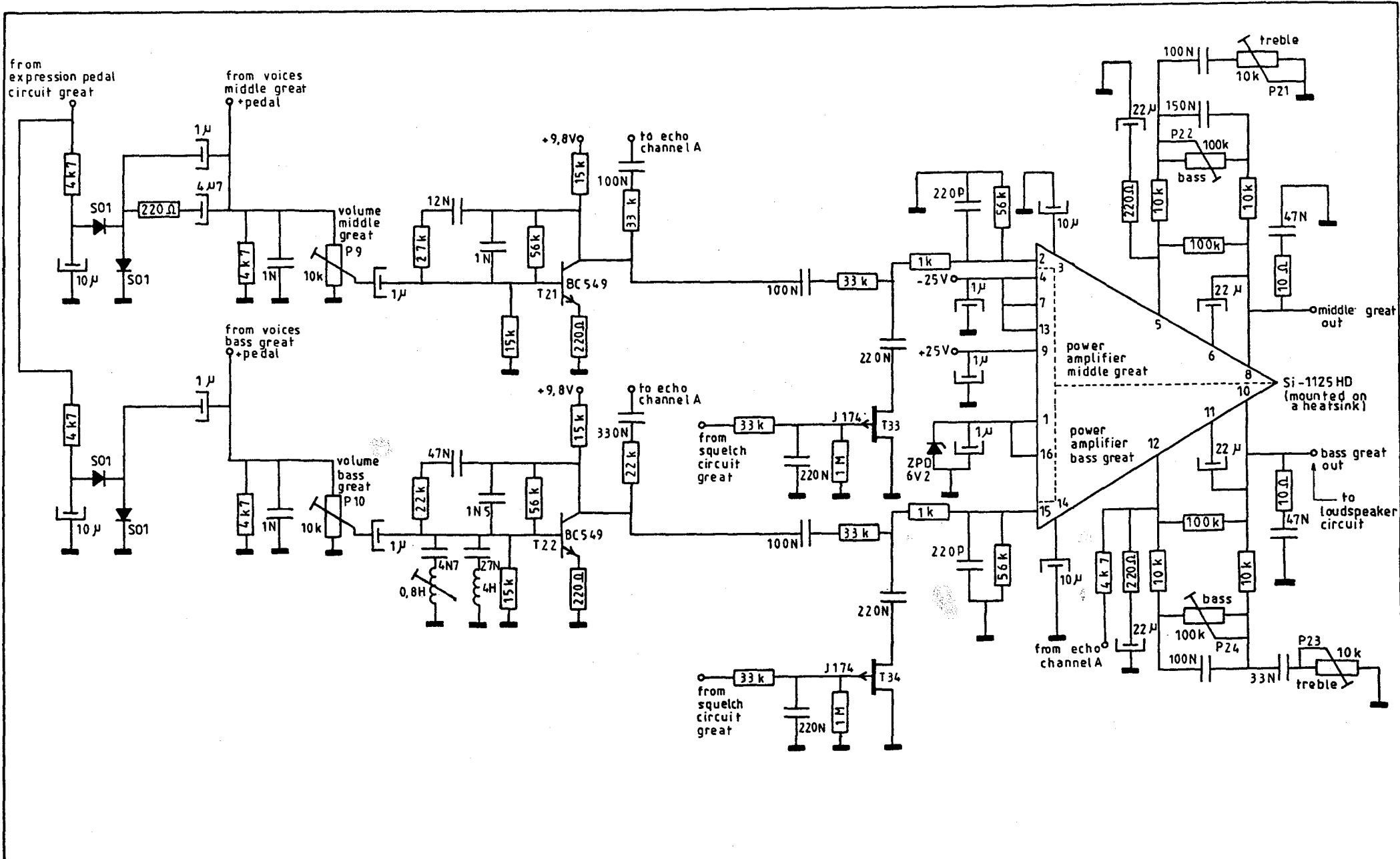


VOICES SWELL (flues 2 2/3' - 1 1/3'; compounds & reeds)

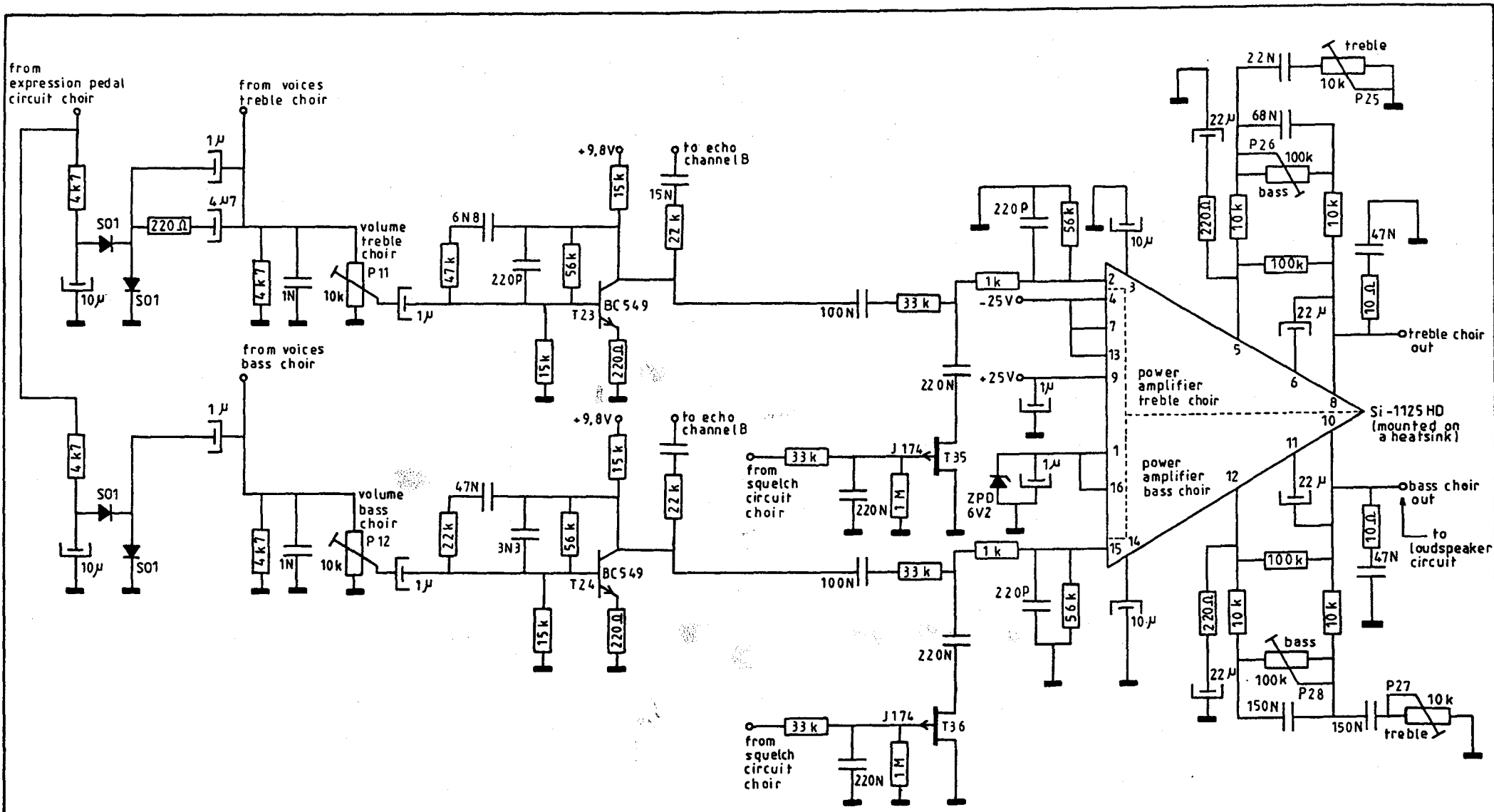
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Verschoor	30-06-86			
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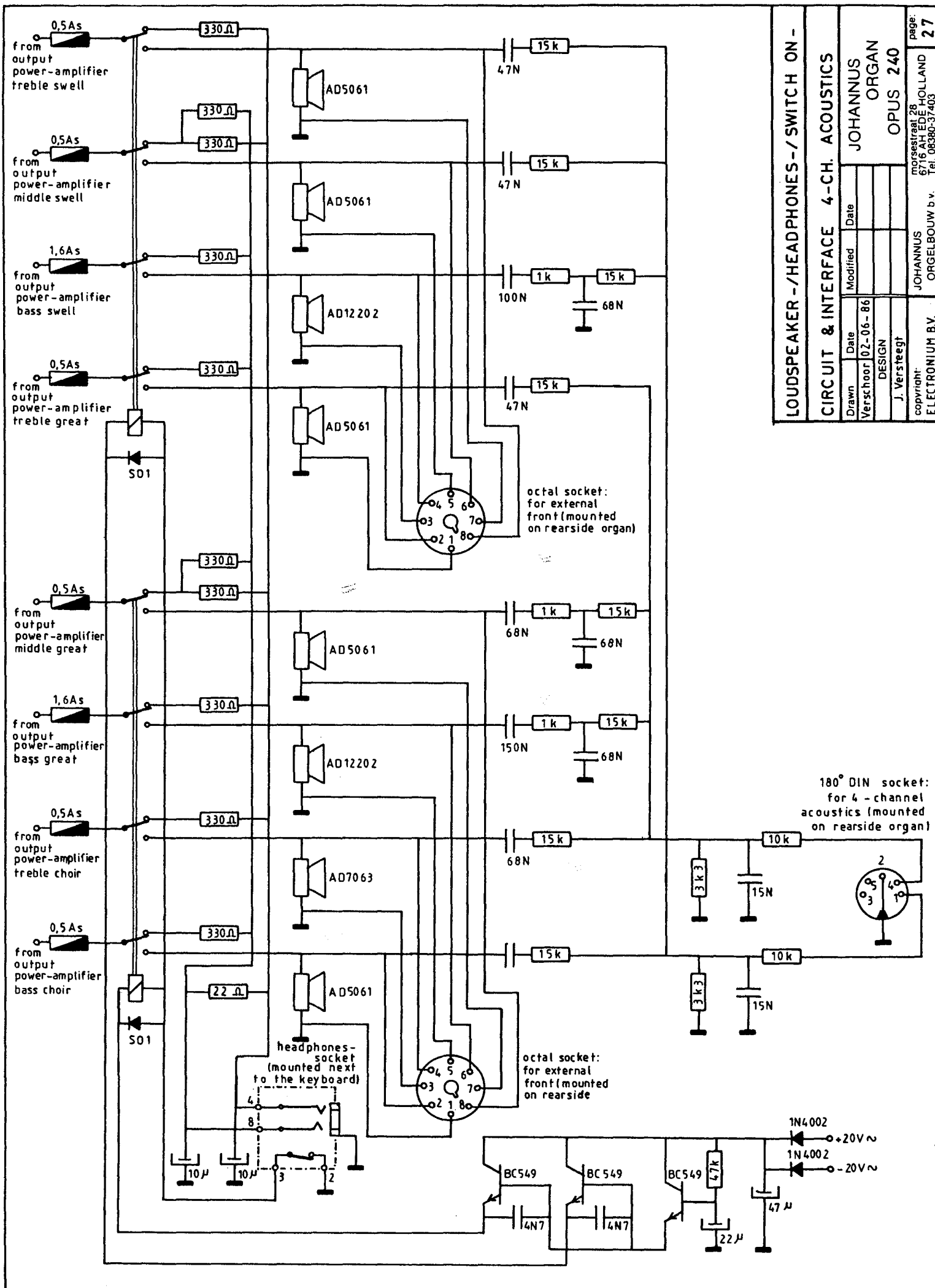
POWER AMPLIFIERS SWELL (treble & middle)			
Drawn	Date	Modified	Date
Verschoor	12-06-85		
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POWER AMPLIFIERS GREAT (middle & bass)			
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POWER AMPLIFIERS CHOIR			
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Verschoor	12-06-85		
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LOUDSPEAKER - / HEADPHONES - / SWITCH ON -

CIRCUIT & INTERFACE 4-CH. ACOUSTICS

Drawn	Date	Modified	Date
Verschuur	02-06-86		

DESIGN: J. Versteeg

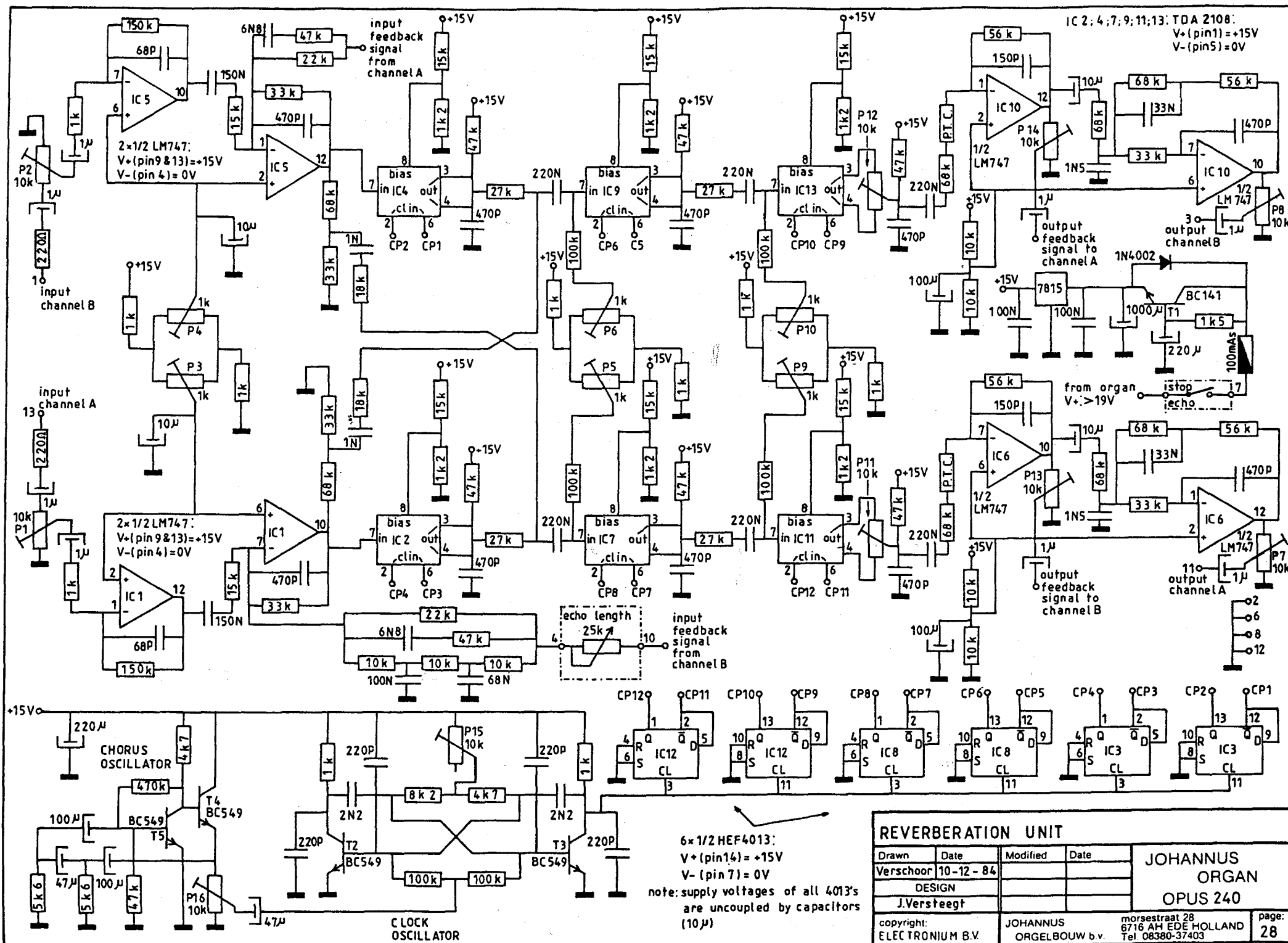
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OPUS 240

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IC 2, 4, 7, 9, 11, 13: TDA 2108:
 V+(pin1)=+15V
 V-(pin5)=0V

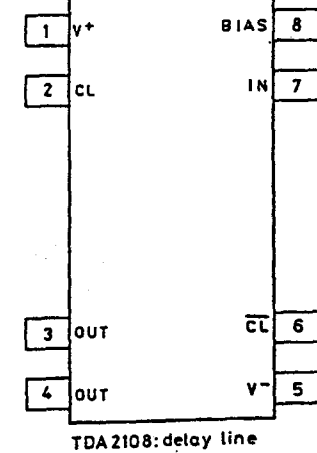
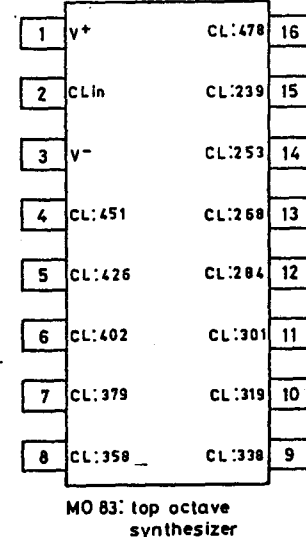
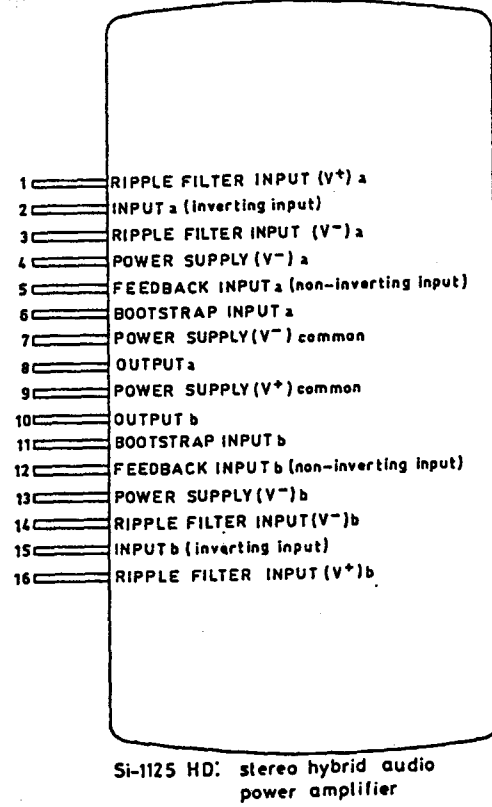
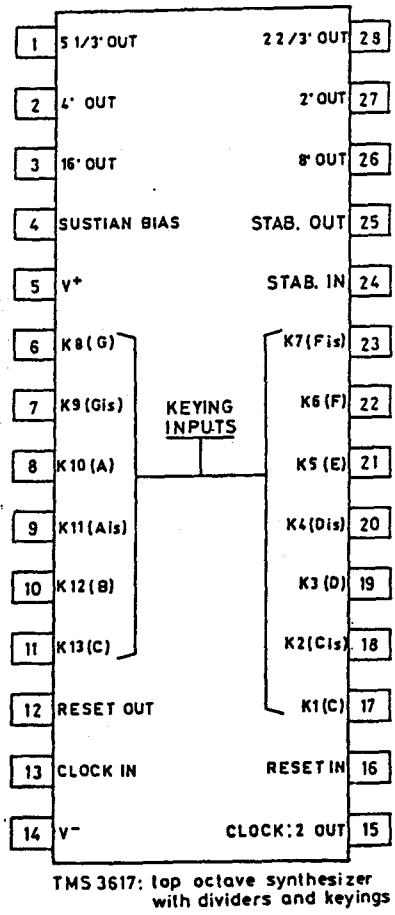
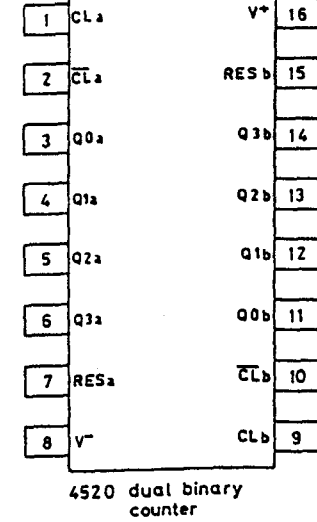
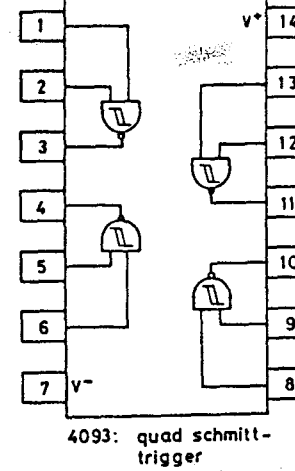
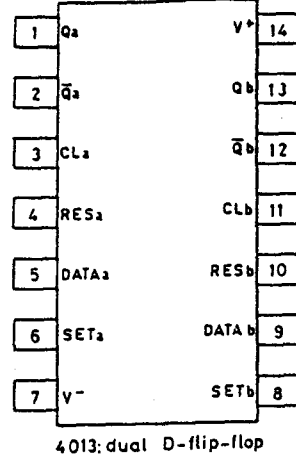
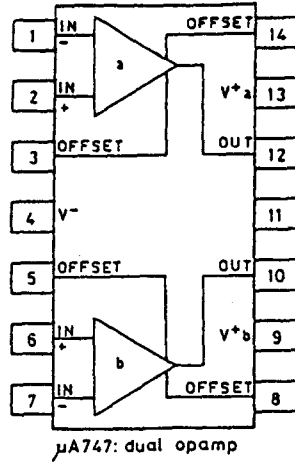
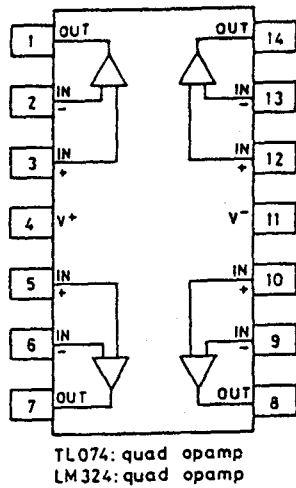
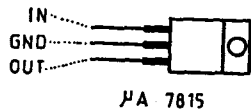
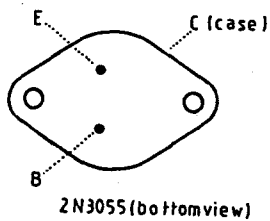
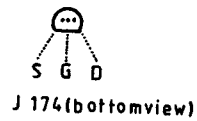
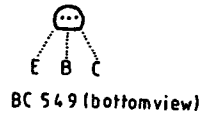
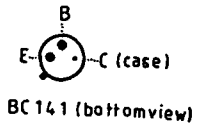
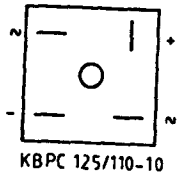
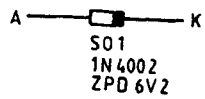
2x 1/2 LM747:
 V+(pin 9 & 13) = +15V
 V-(pin 4) = 0V

2x 1/2 LM747:
 V+(pin 9 & 13) = +15V
 V-(pin 4) = 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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GENERAL INFORMATION SEMI-CONDUCTORS			
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