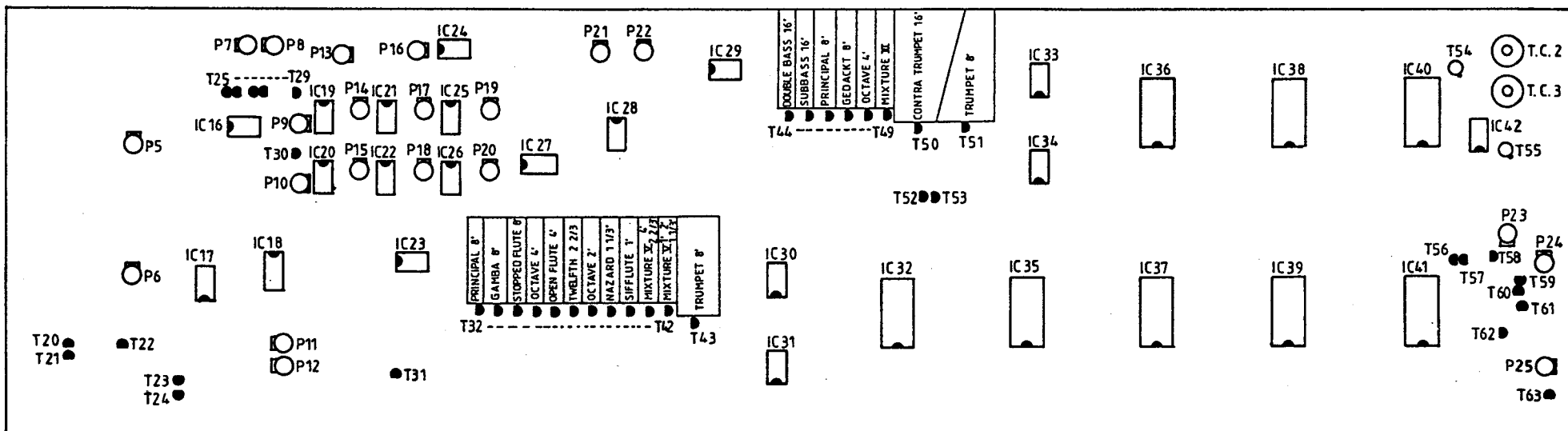
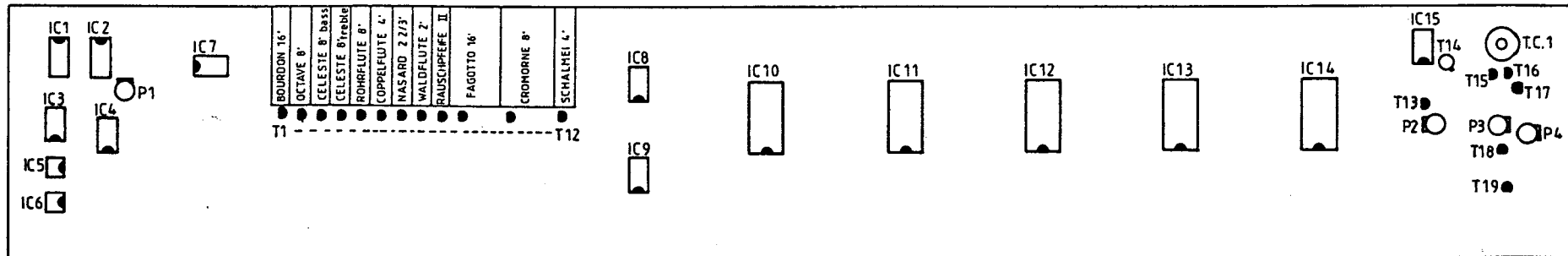


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=====
S C H E M A T I C   D I A G R A M
J O H A N N U S
O P U S   2 1 5
=====
alterations reserved
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C O N T E N T S

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2. POWER SUPPLY & GENERATORS
3. ACCESSORIES (presets; high; tremulant; expression pedal; chorus & couplers)
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5. VOICES PEDAL
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11. CELESTE CIRCUIT SWELL
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T 1-13; 15; 16; 18-24; 26; 27; 29-53; 56-58; 60-63.....BC 549

T 14; 54; 55.....BC 141

T 17; 25; 28; 59.....BC 558

IC 1; 2.....4046

IC 3.....4013

IC 4; 7-9; 17; 23; 28-31; 33; 34.....TL 074

IC 5; 6.....TDA 2107

IC 10-14; 32; 35-41.....TMS 3617

IC 15; 42.....4093

IC 16.....4011

IC 18; 27.....NE 570

IC 19-22; 25; 26.....TDA 2108

IC 24.....LM 324

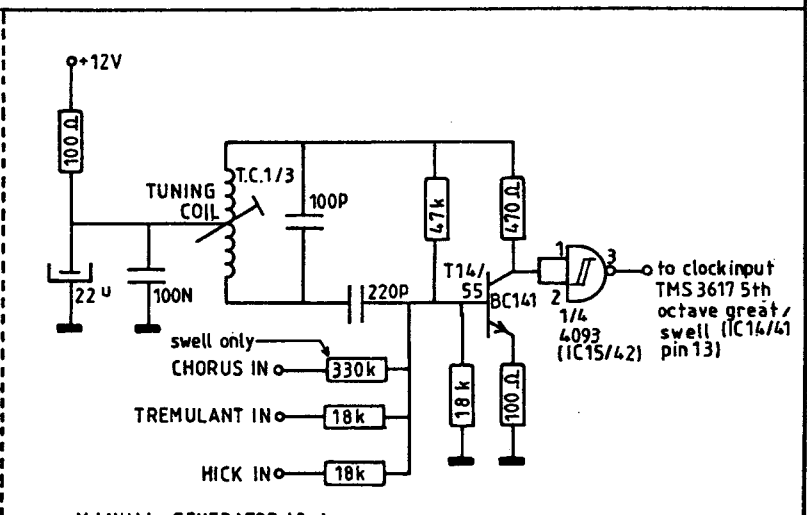
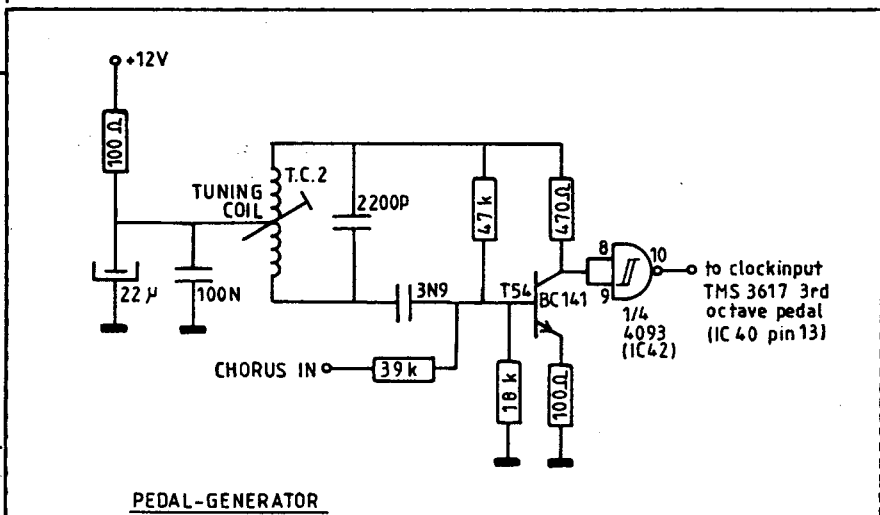
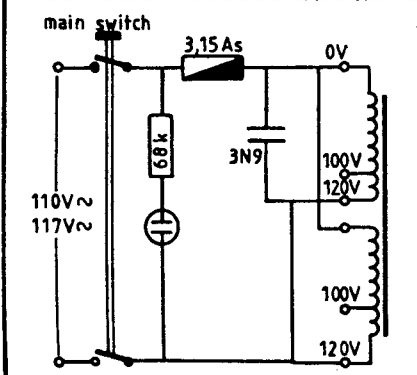
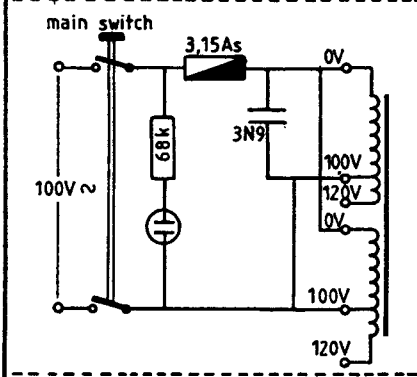
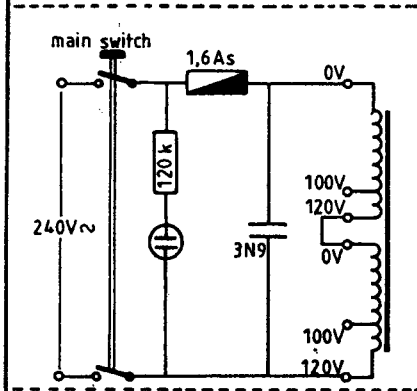
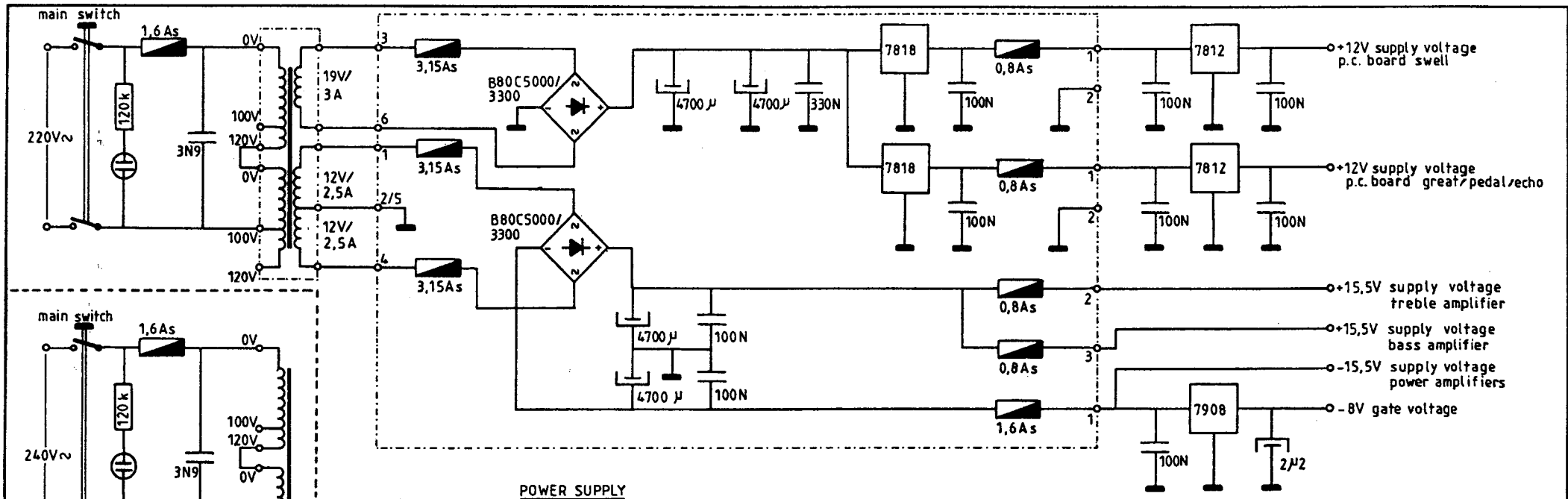
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T.C. 2 TUNING PEDAL

T.C. 3 TUNING GREAT

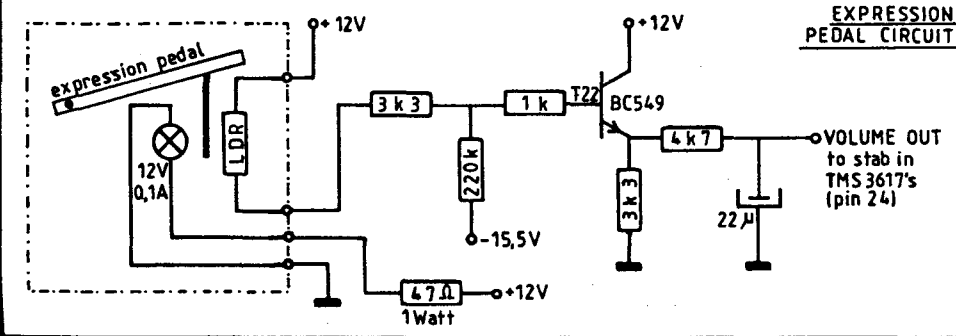
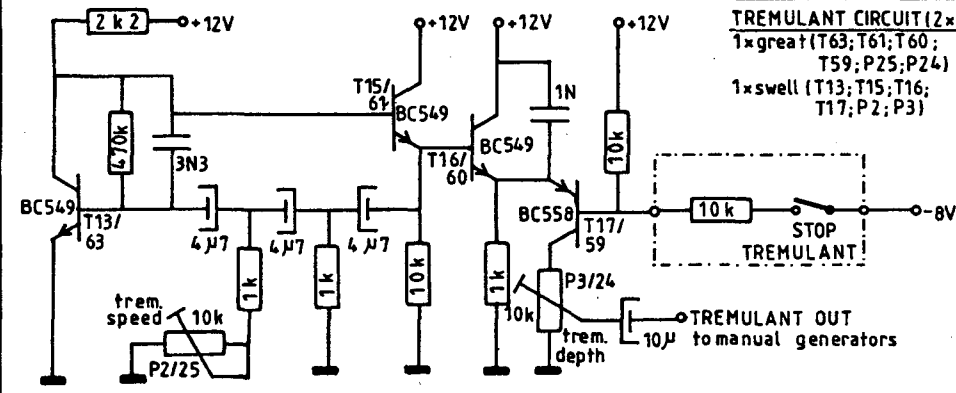
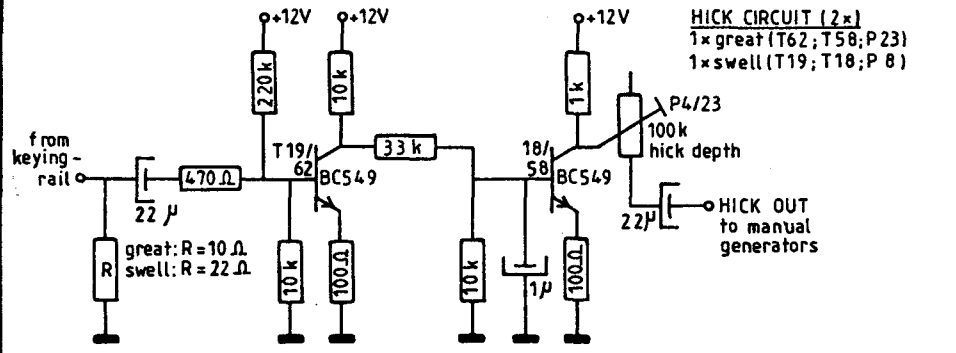
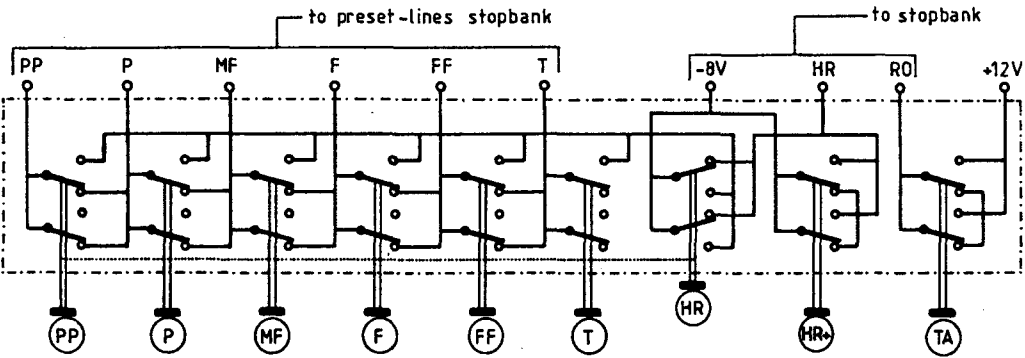
POSITION DIAGRAM

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LAB				
copyright:	JOHANNUS ORGELBOUW b.v.	morsestraat 28 6716 AH EDE HOLLAND Tel. 08380-37403	page: 1	

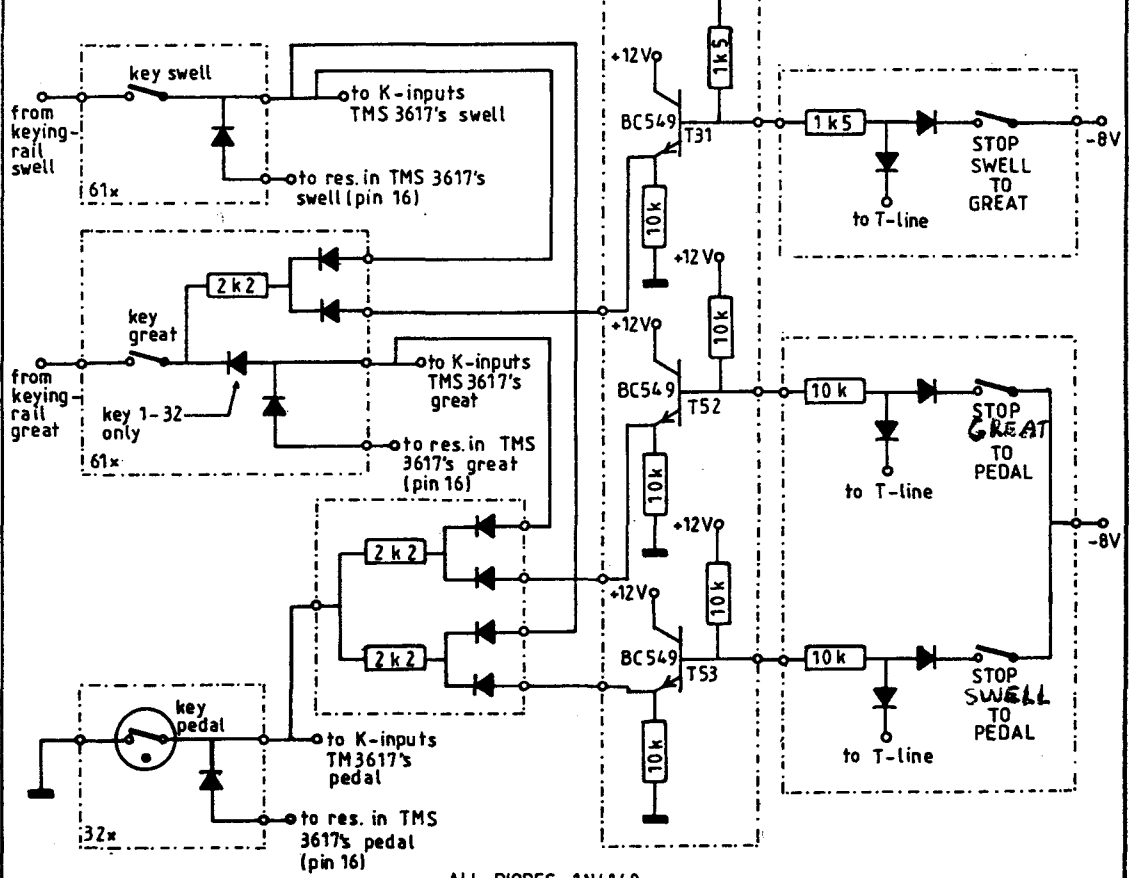


POWER SUPPLY & GENERATORS				JOHANNUS ORGAN OPUS 215
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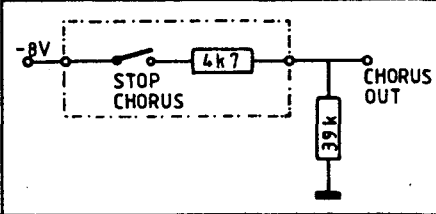
SWITCH-SECTION PRESETS



COUPLER CIRCUIT



ALL DIODES 1N4148

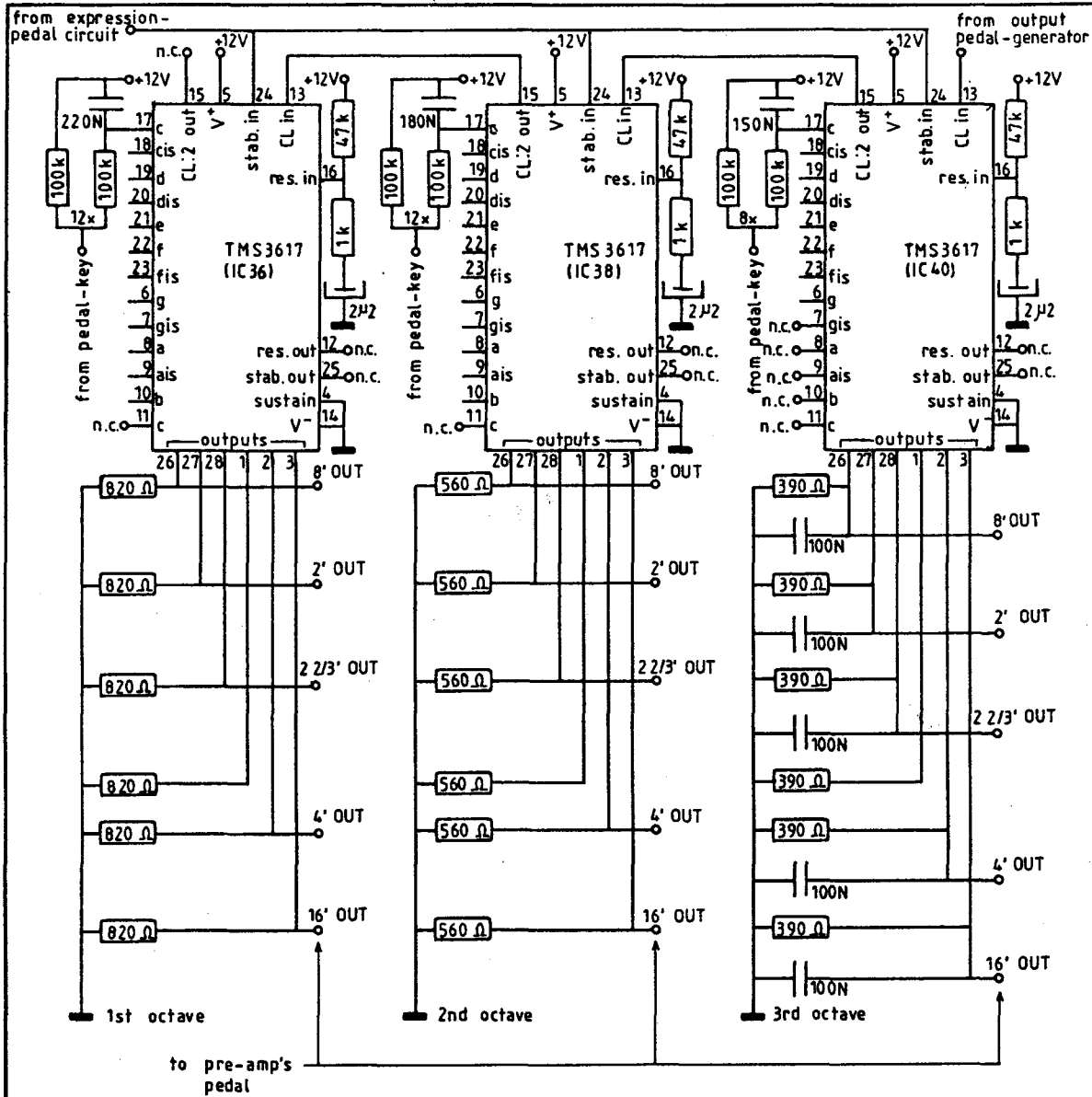


ACCESSORIES (presets; hick; tremulant; expression pedal; chorus & couplers)

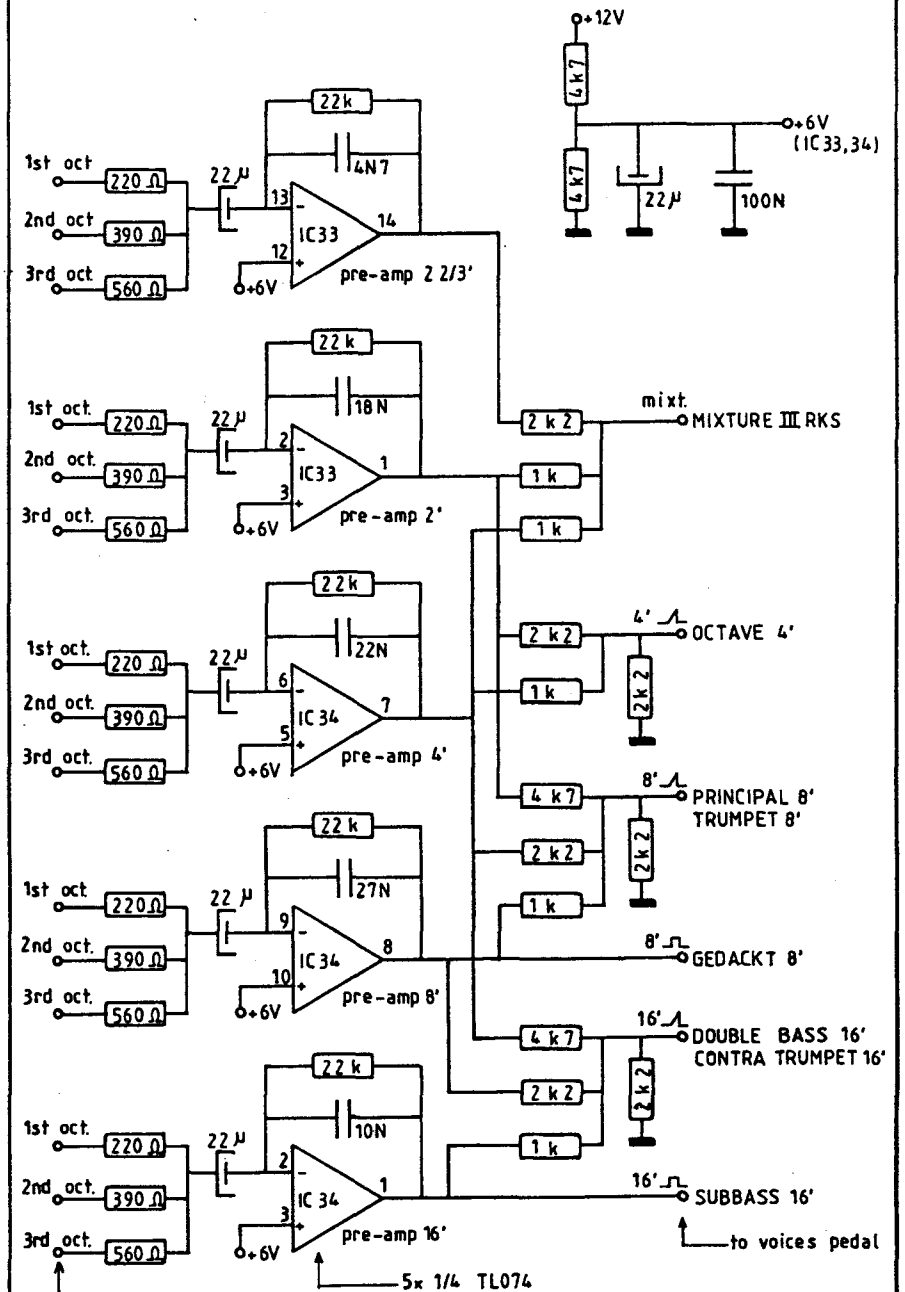
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JOHANNUS ORGAN OPUS 215

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KEYING PEDAL

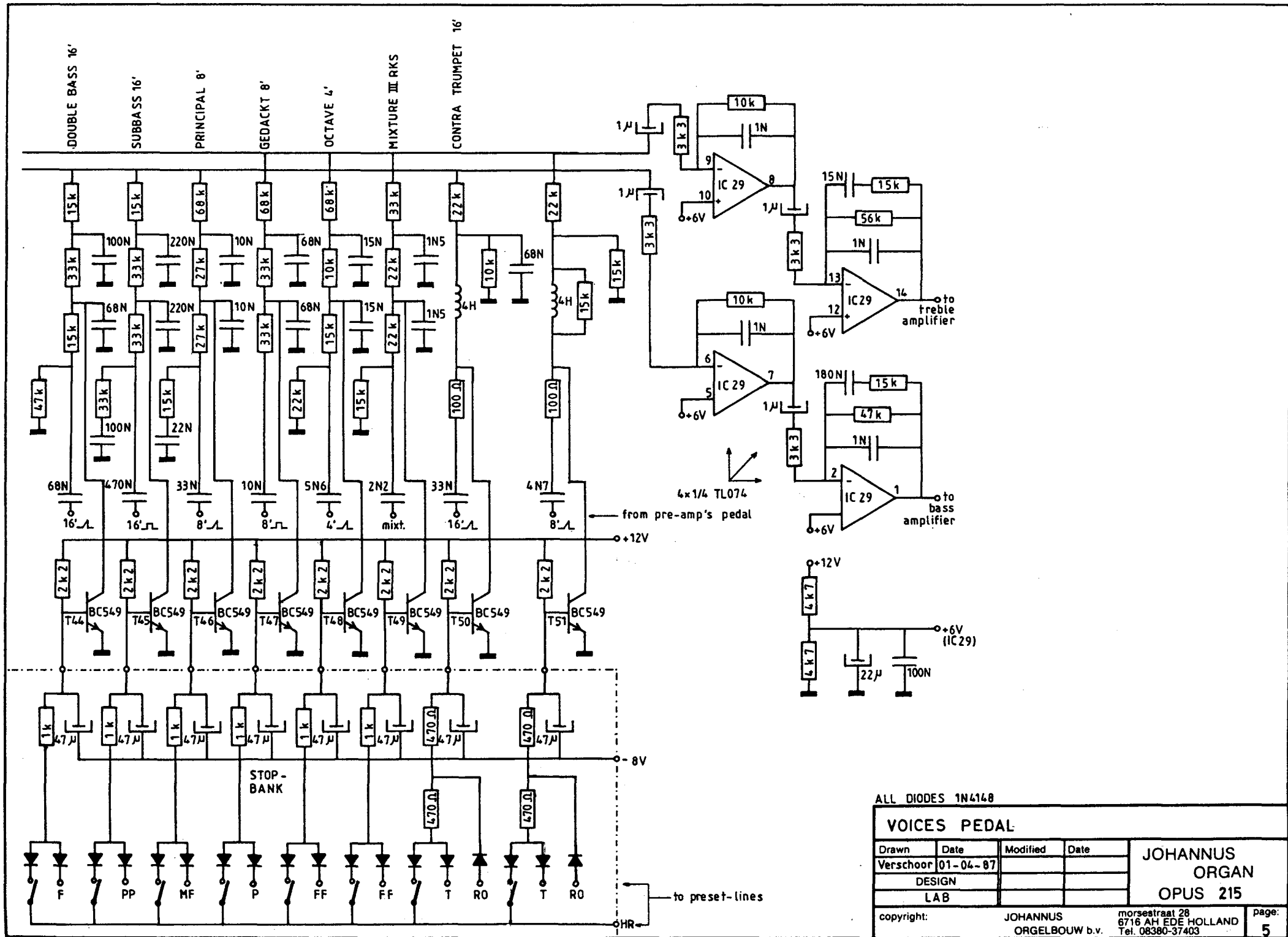


PRE-AMP'S PEDAL

KEYING & PRE-AMP'S PEDAL

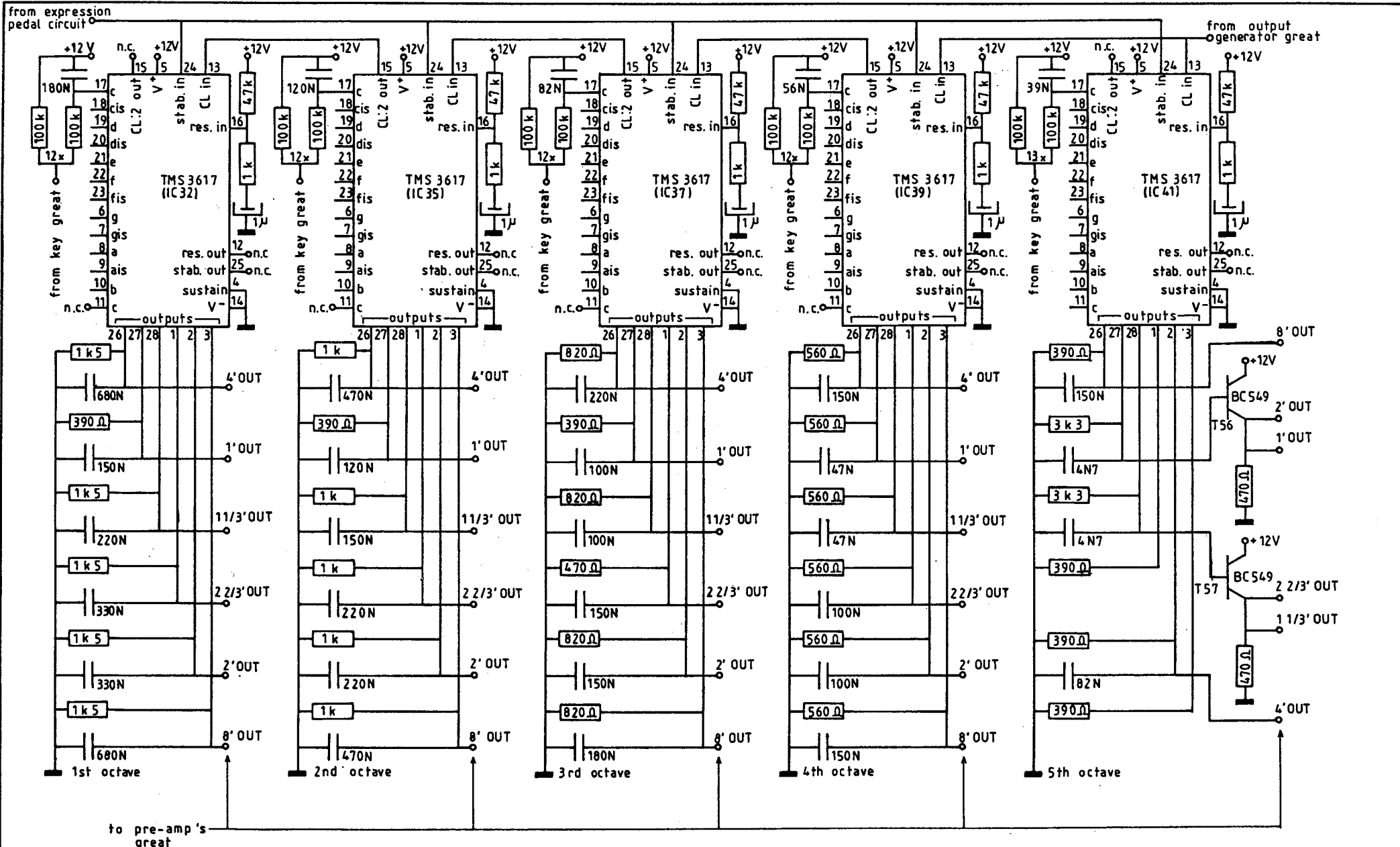
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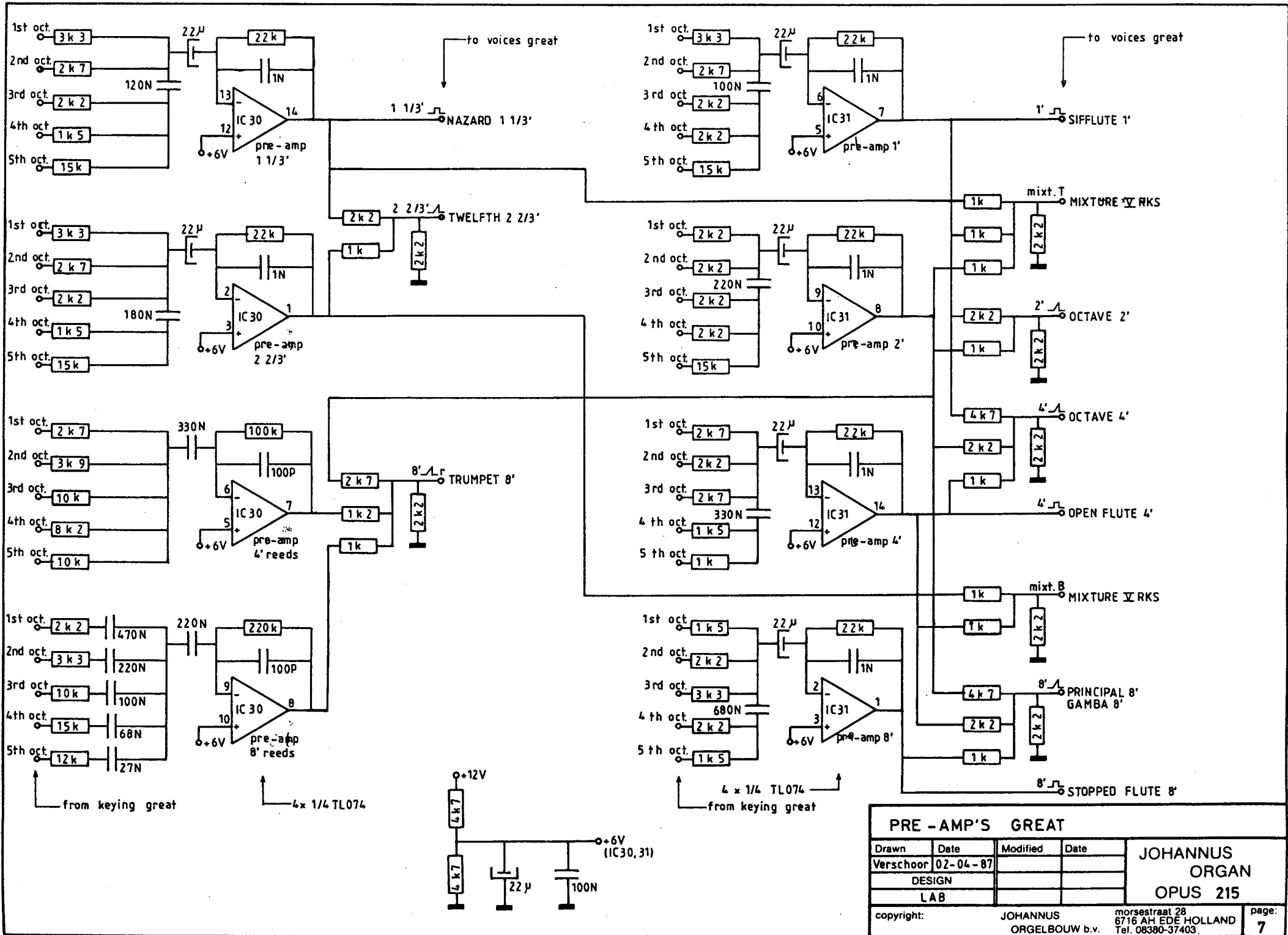
ALL DIODES 1N4148

VOICES PEDAL				JOHANNUS ORGAN OPUS 215
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DESIGN				
LAB				
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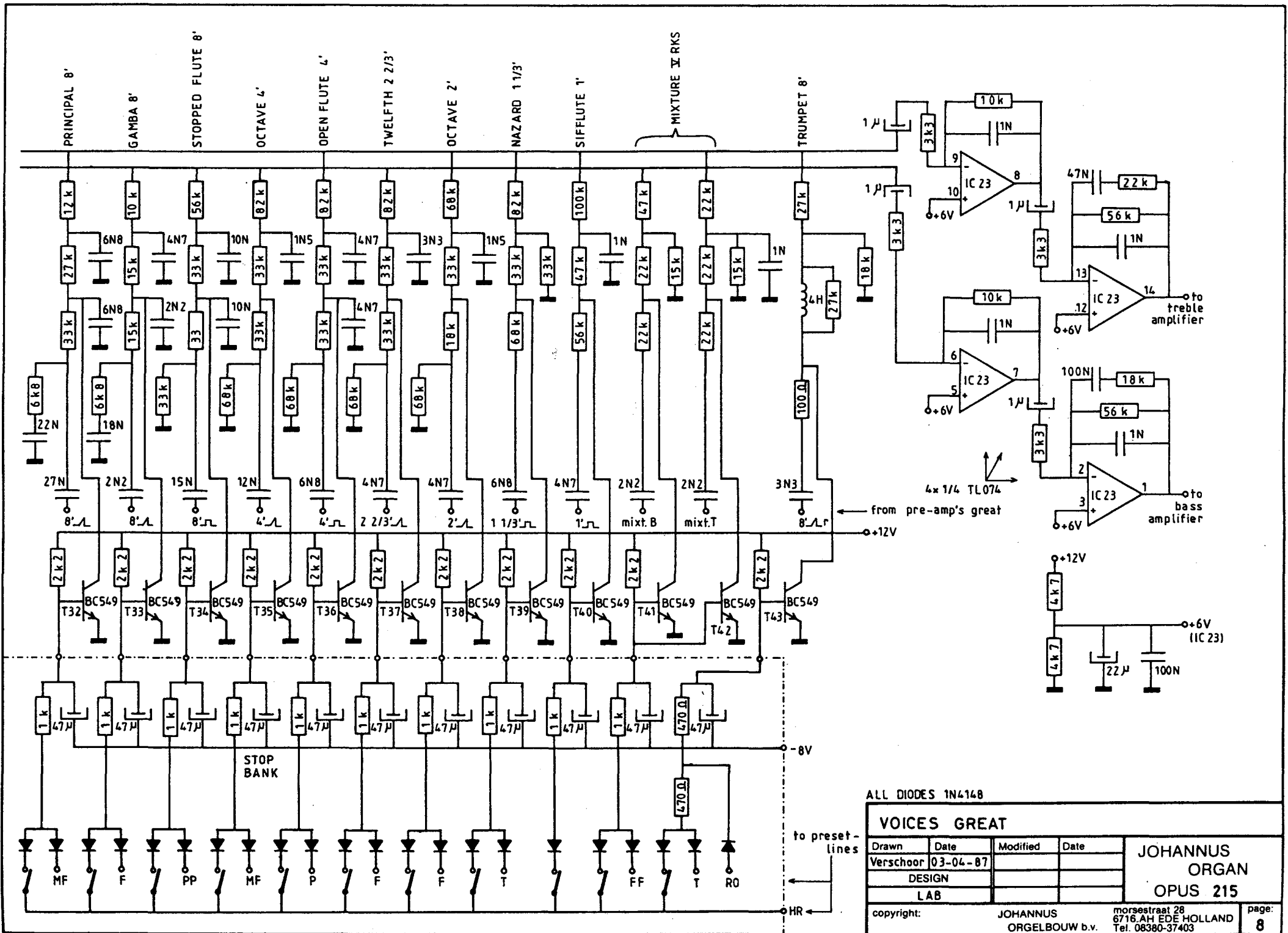
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DESIGN			
LAB			
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			page: 6

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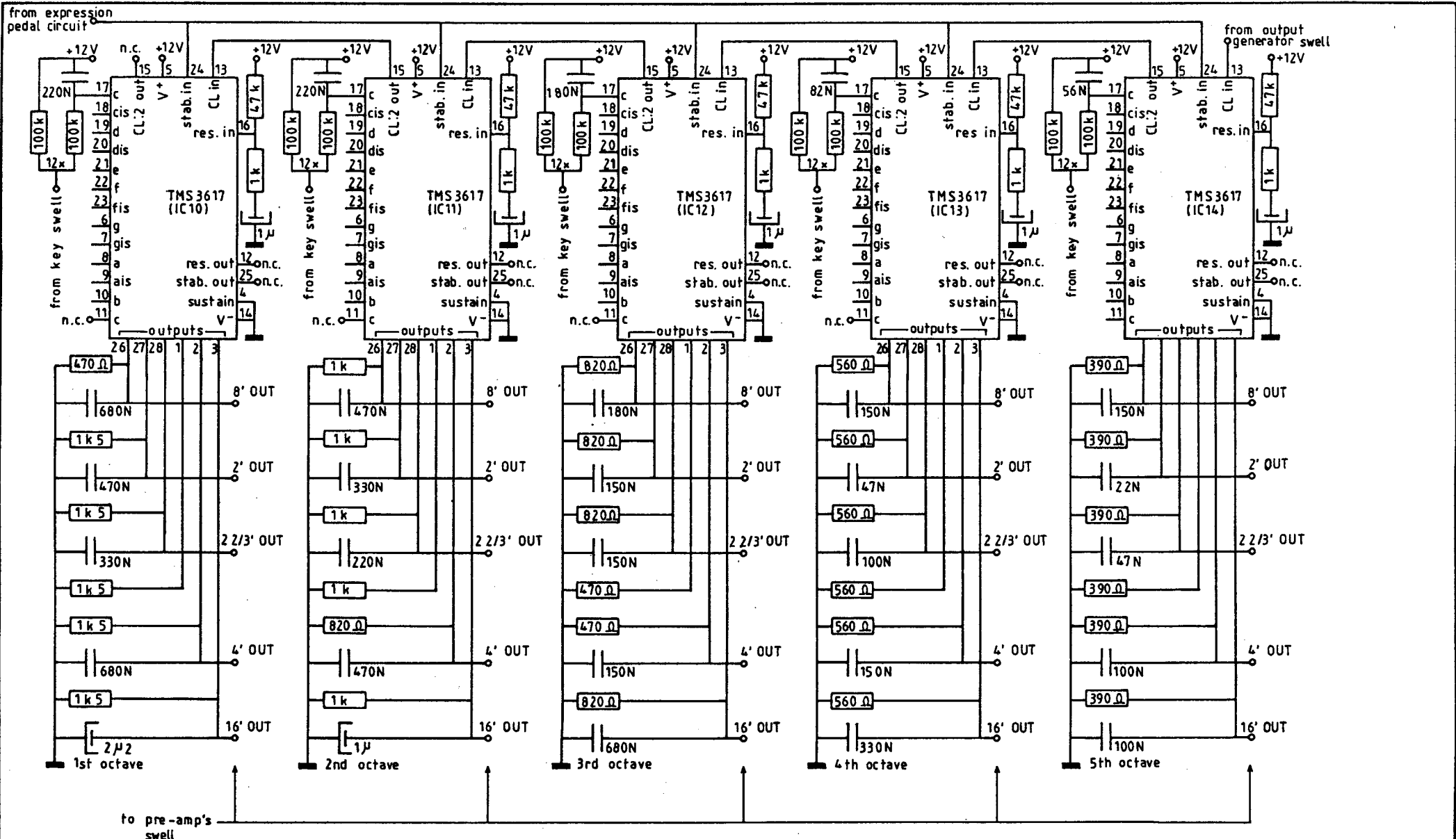
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			page: 7

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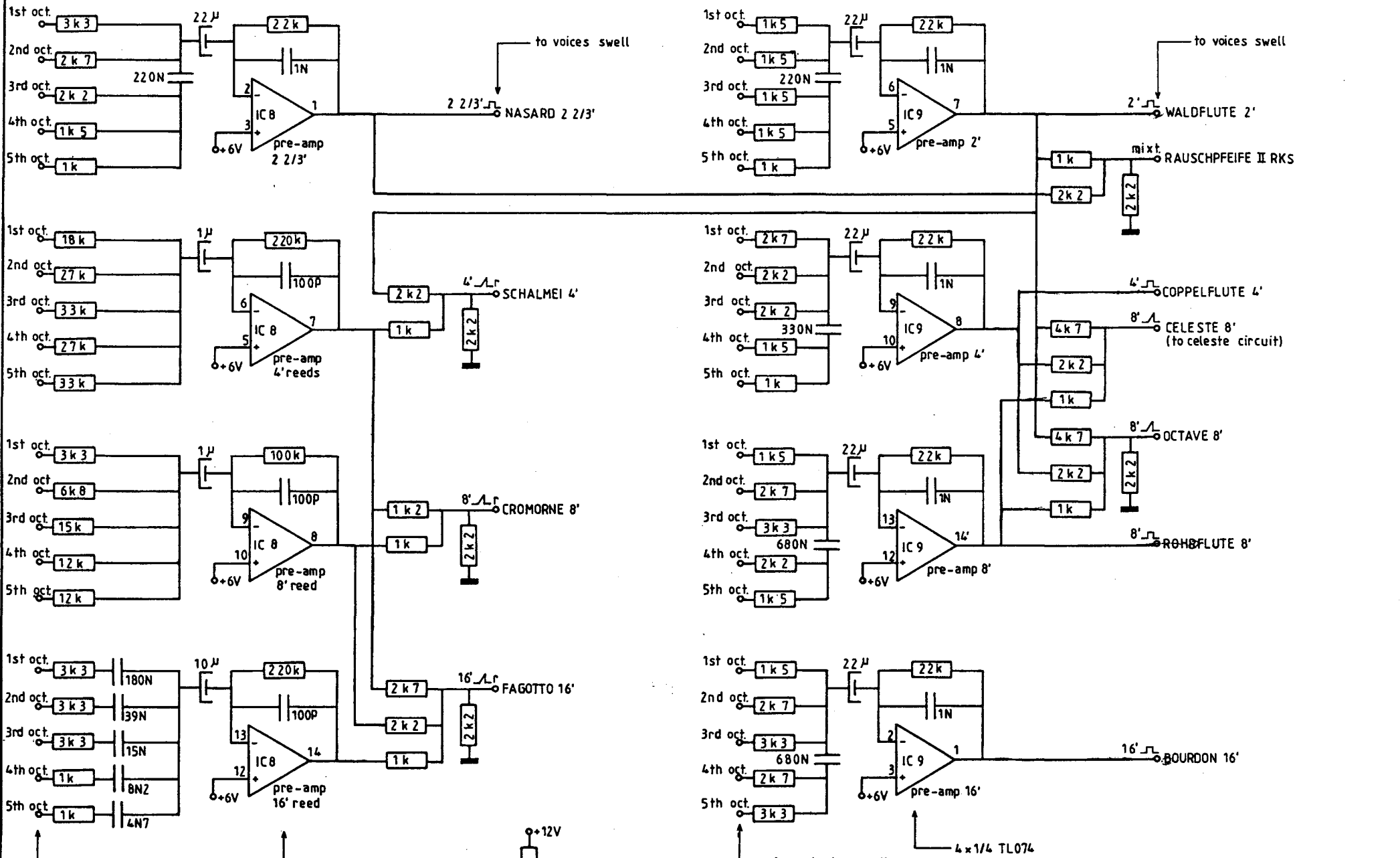
ALL DIODES 1N4148

VOICES GREAT				JOHANNUS ORGAN OPUS 215
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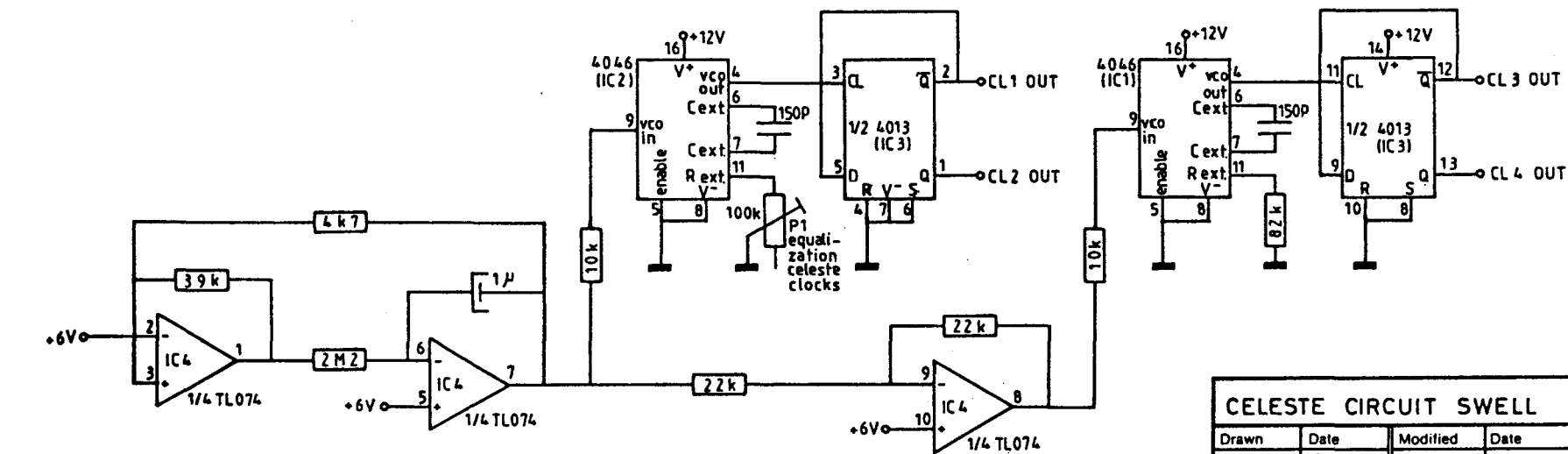
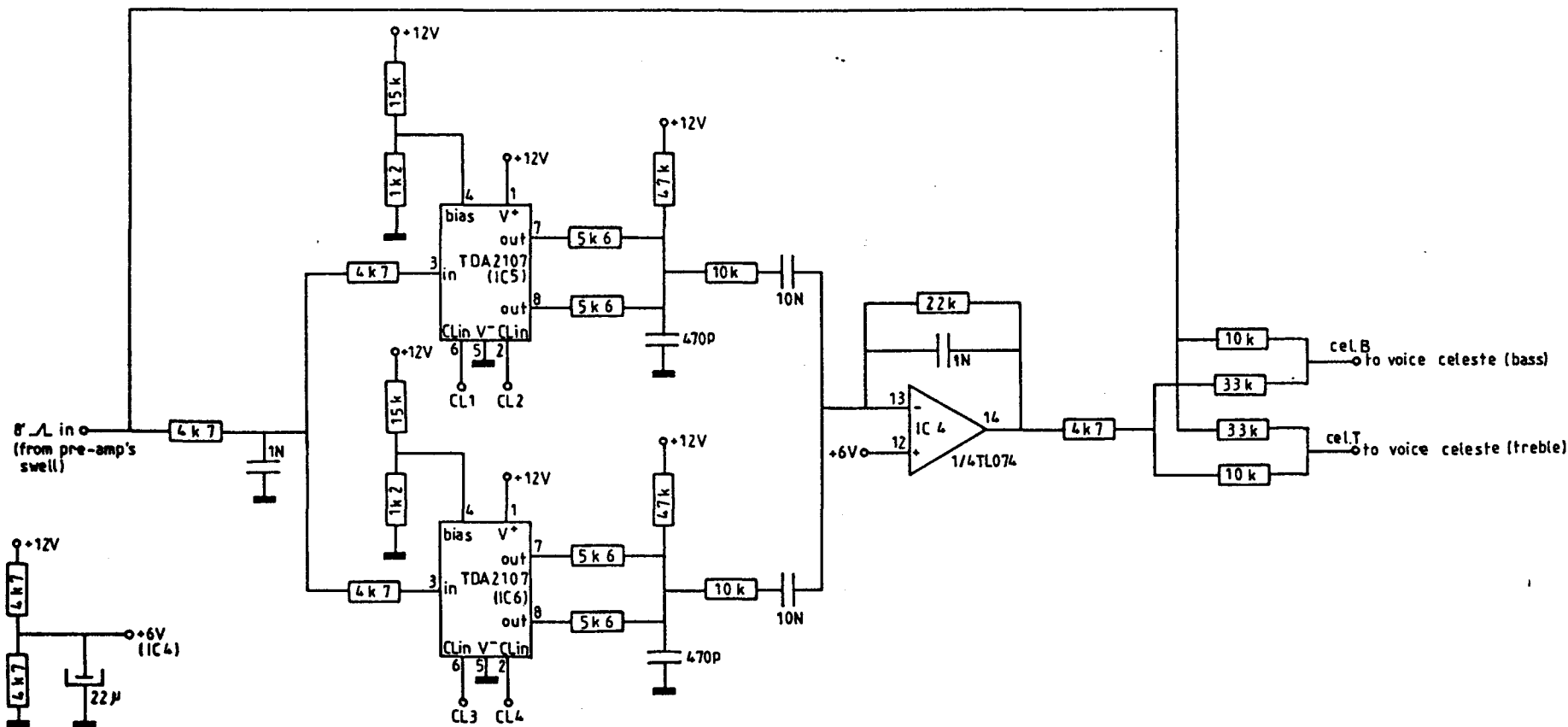


KEYING SWELL			
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DESIGN			
LAB			
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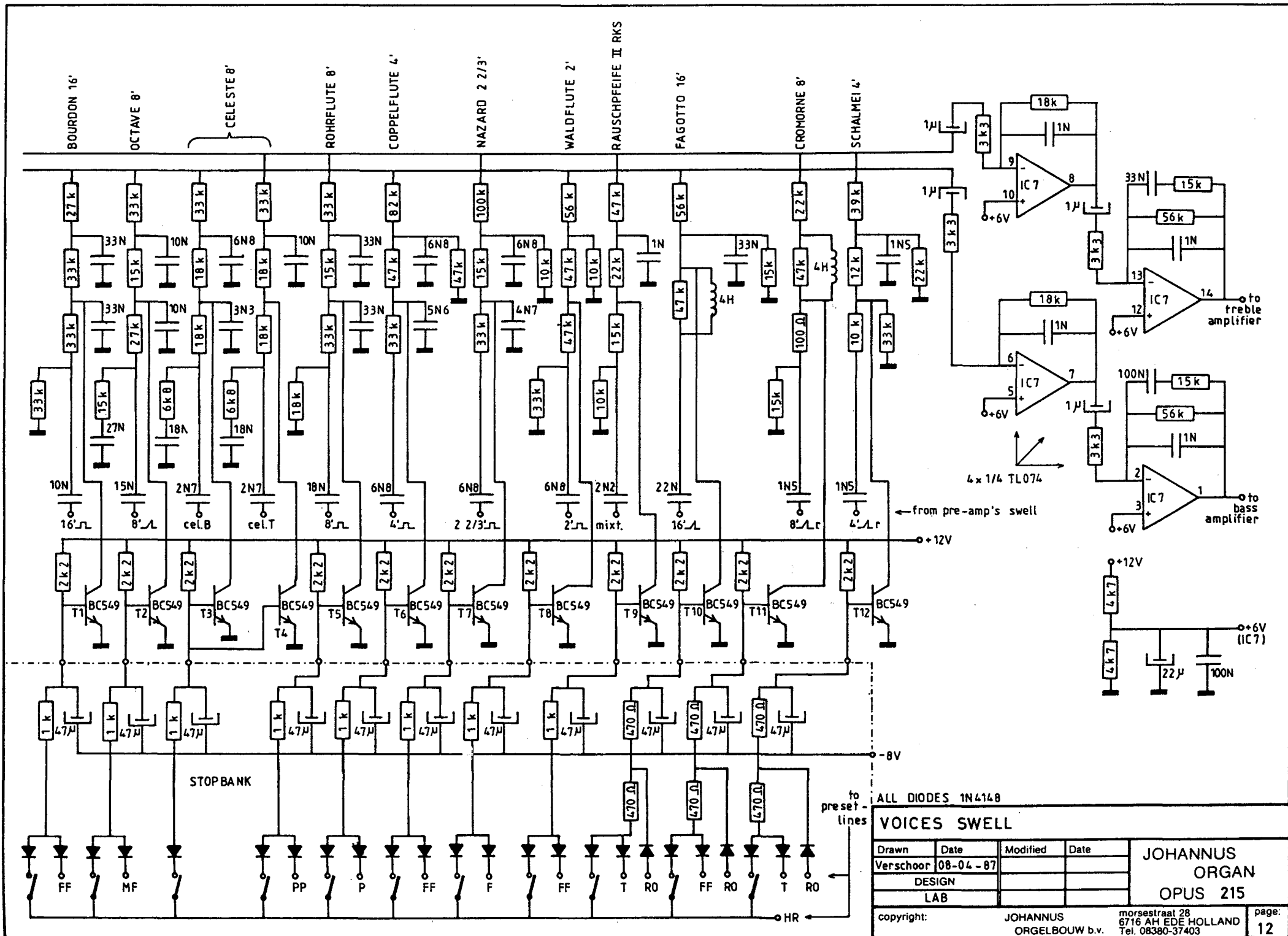


PRE - AMP'S SWELL				JOHANNUS ORGAN OPUS 215
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DESIGN				
LAB				
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CELESTE CIRCUIT SWELL

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ALL DIODES 1N4148

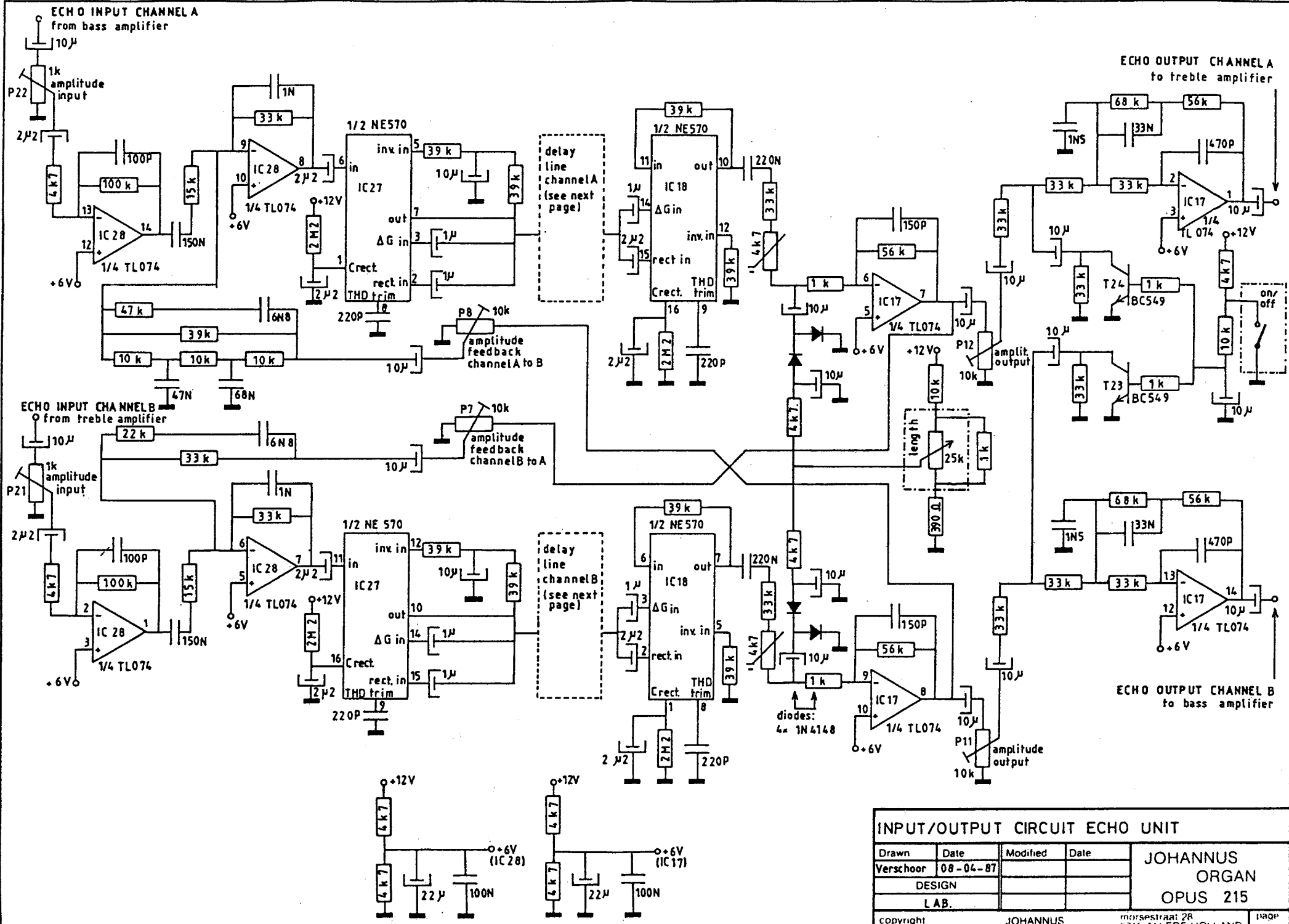
VOICES SWELL

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DESIGN			
LAB			

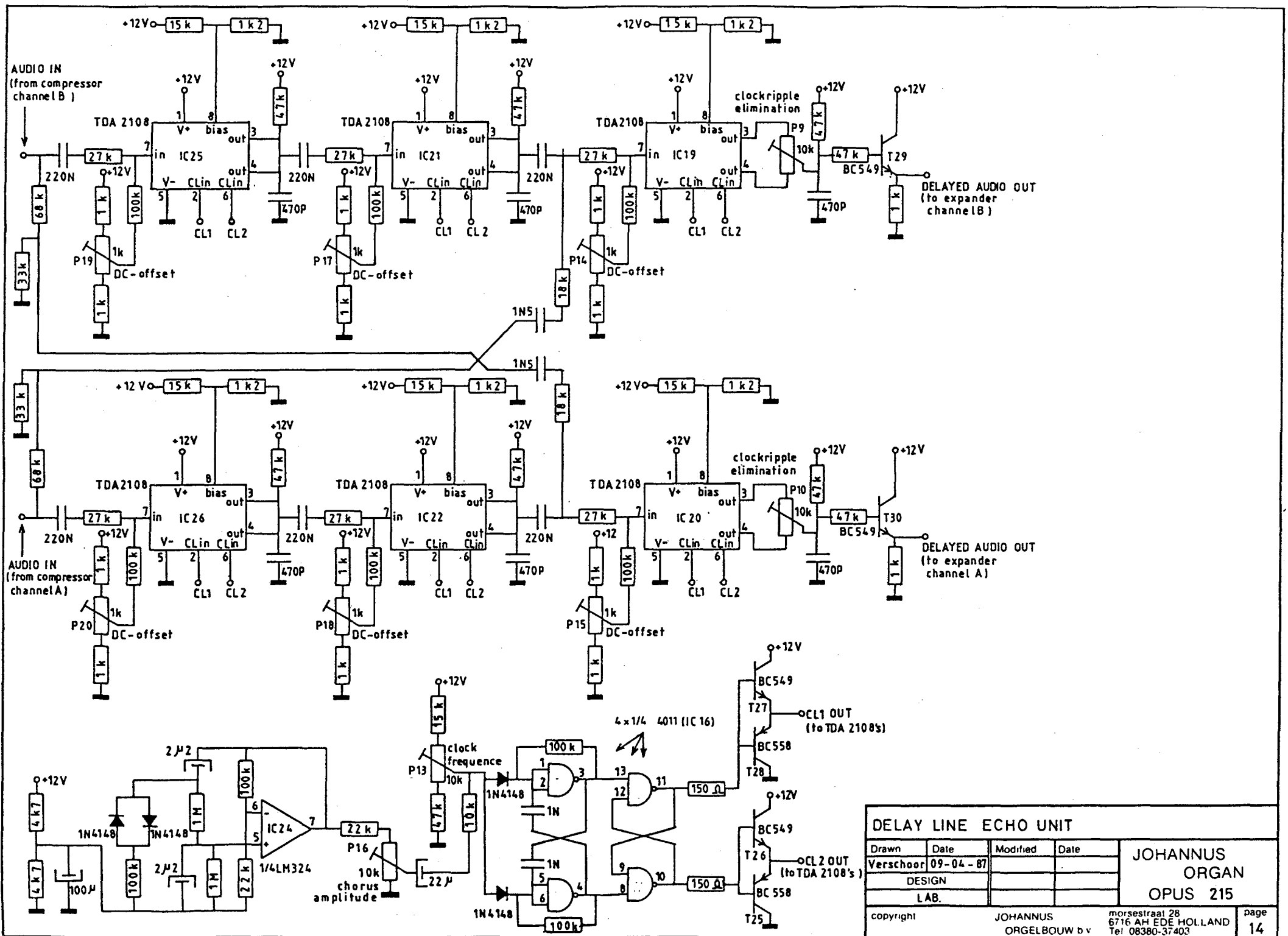
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INPUT/OUTPUT CIRCUIT ECHO UNIT			
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Verschoor	08-04-87		
DESIGN			
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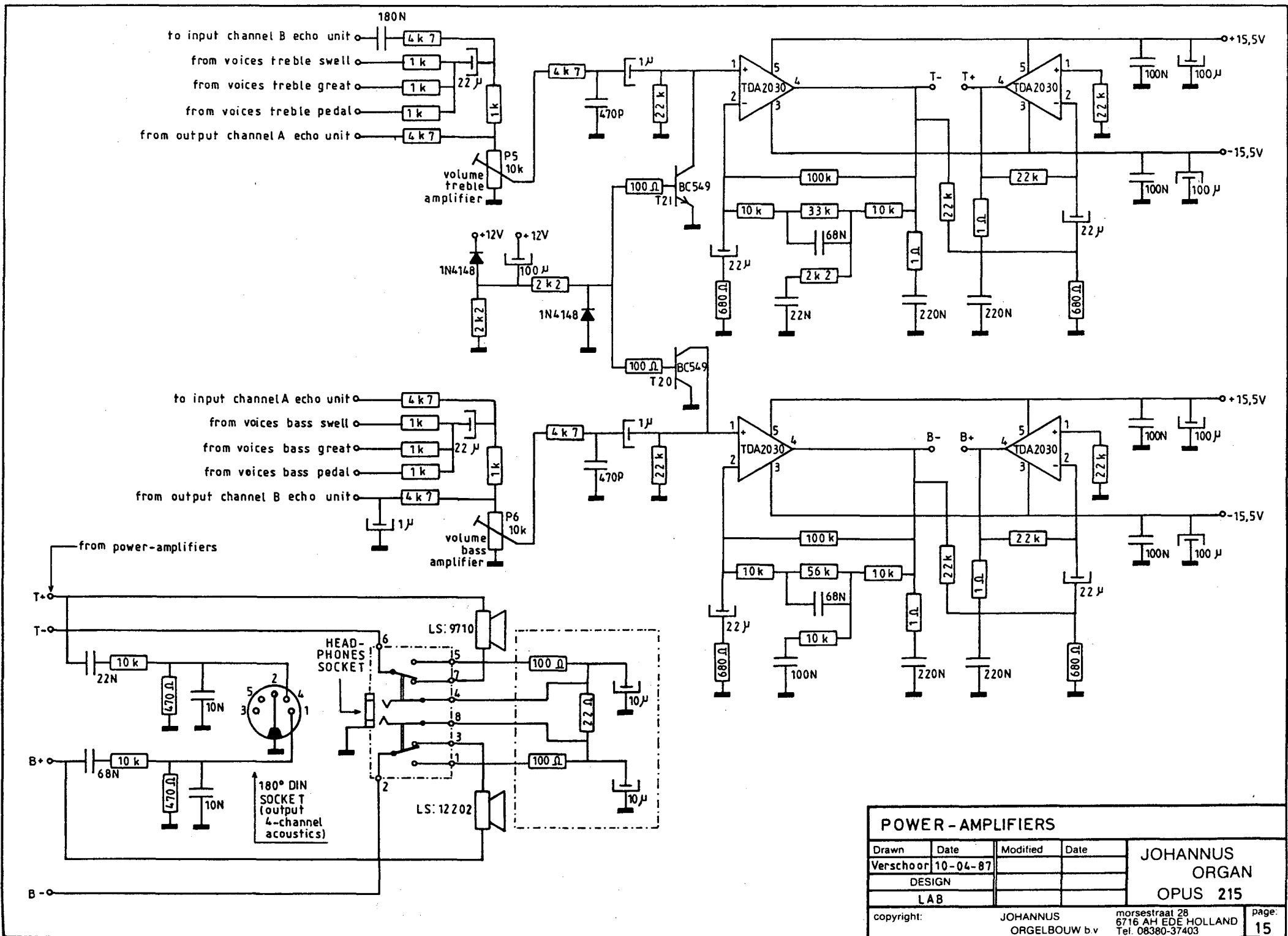
DELAY LINE ECHO UNIT

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DESIGN			
LAB.			

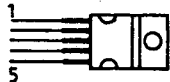
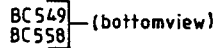
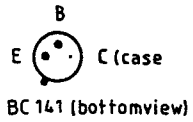
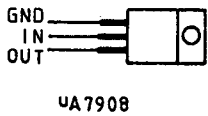
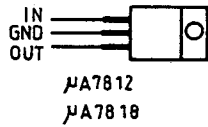
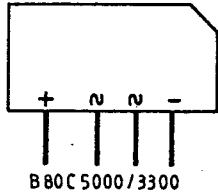
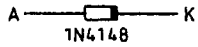
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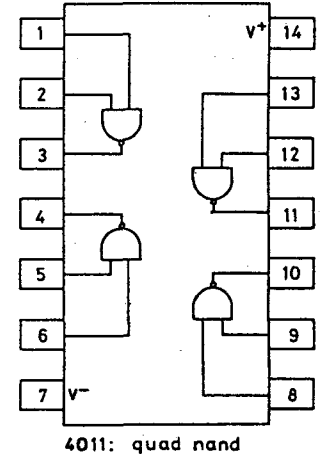
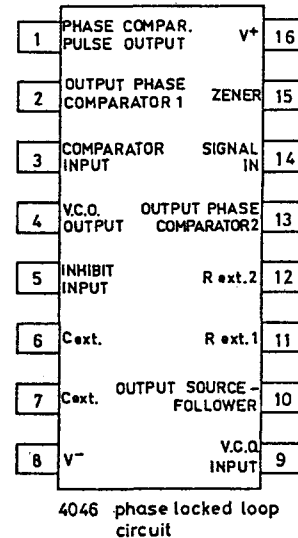
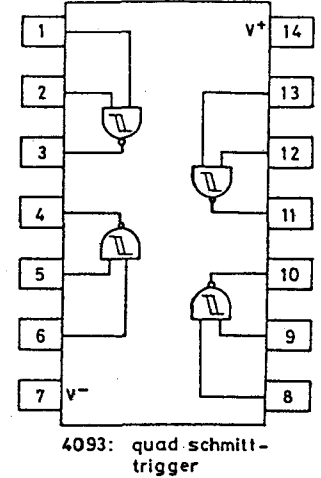
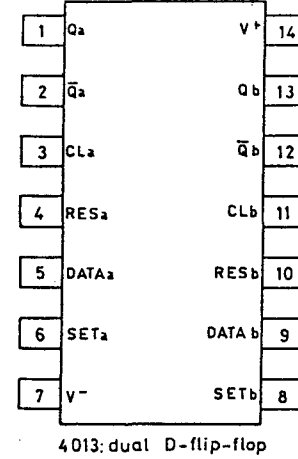
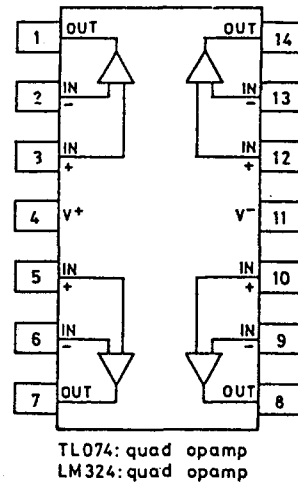
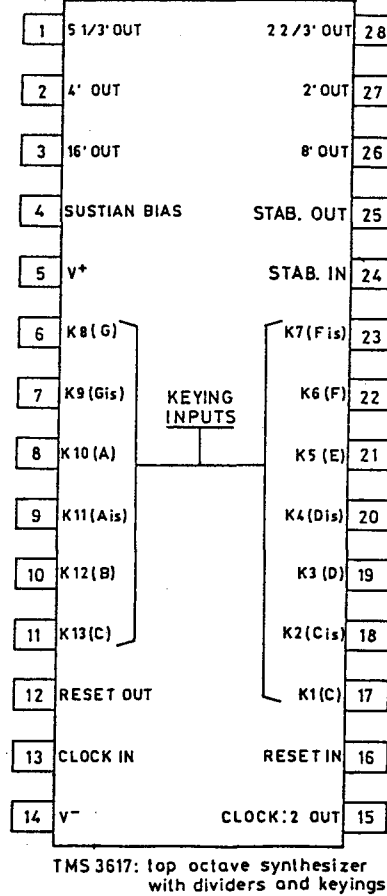
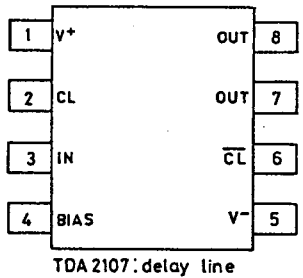
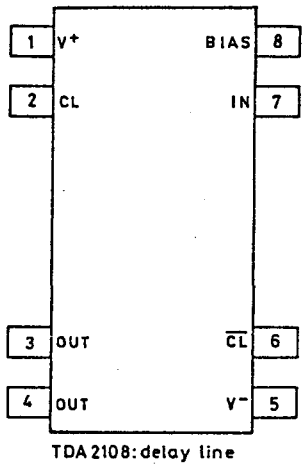
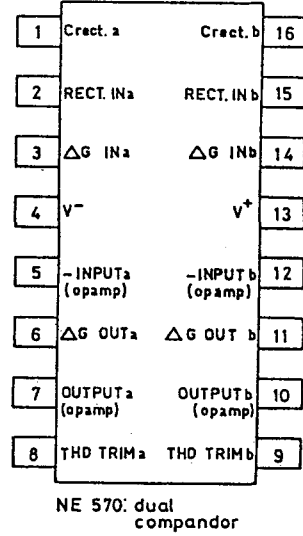
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14



POWER-AMPLIFIERS			
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DESIGN			
LAB			
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		Tel. 08380-37403	
			page: 15



1=non-inverting input
2=inverting input
3=V⁻
4=output TDA2030
5=V⁺



GENERAL INFORMATION SEMI-CONDUCTORS							
Drawn	Date	Modified	Date	JOHANNUS ORGAN OPUS 215			
Verschoor	10-04-87						
DESIGN							
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FLATCABLE CONNECTIONS NOTE: RED WIRE IS NR 1

	1st OCTAVE GREAT CABLE 1 (3 conn.)	2nd OCTAVE GREAT CABLE 2 (3 conn.)	3rd OCTAVE GREAT CABLE 3 (3 conn.)	4th OCTAVE GREAT CABLE 4 (2 conn.)	5th OCTAVE GREAT CABLE 5 (2 conn.)
1.	10th key (A)	22nd key (A)	34th key (A)	46th key (A)	58th key (A)
2.	11th key (Ais)	23rd key (Ais)	35th key (Ais)	47th key (Ais)	59th key (Ais)
3.	9th key (Gis)	21st key (Gis)	33rd key (Gis)	45th key (Gis)	57th key (Gis)
4.	12th key (B)	24th key (B)	36th key (B)	48th key (B)	60th key (B)
5.	8th key (G)	20th key (G)	32nd key (G)	44th key (G)	56th key (G)
6.	coupler sw./gr.	keyingvoltage gr.	n.c.	chorusvoltage	61st key (C)
7.	7th key (Fis)	19th key (Fis)	31st key (Fis)	43rd key (Fis)	55th key (Fis)
8.	reset 1st octave	reset 2nd octave	reset 3rd octave	reset 4th octave	reset 5th octave
9.	6th key (F)	18th key (F)	30th key (F)	42nd key (F)	54th key (F)
10.	1st key (C)	13th key (C)	25th key (C)	37th key (C)	49th key (C)
11.	5th key (E)	17th key (E)	29th key (E)	41st key (E)	53rd key (E)
12.	2nd key (Cis)	14th key (Cis)	26th key (Cis)	28th key (Cis)	50th key (Cis)
13.	4th key (Dis)	16th key (Dis)	28th key (Dis)	30th key (Dis)	52nd key (Dis)
14.	3rd key (D)	15th key (D)	27th key (D)	29th key (D)	51st key (D)
	1st OCTAVE SWELL CABLE 6 (4 conn.)	2nd OCTAVE SWELL CABLE 7 (4 conn.)	3rd OCTAVE SWELL CABLE 8 (4 conn.)	4th OCTAVE SWELL CABLE 9 (3 conn.)	5th OCTAVE SWELL CABLE 10 (3 conn.)
1.	10th key (A)	22nd key (A)	34th key (A)	46th key (A)	58th key (A)
2.	11th key (Ais)	23rd key (Ais)	35th key (Ais)	47th key (Ais)	59th key (Ais)
3.	9th key (Gis)	21st key (Gis)	33rd key (Gis)	45th key (Gis)	57th key (Gis)
4.	12th key (B)	24th key (B)	36th key (B)	48th key (B)	60th key (B)
5.	8th key (G)	20th key (G)	32nd key (G)	44th key (G)	56th key (G)
6.	n.c.	keyingvoltage sw.	n.c.	chorusvoltage	61st key (C)
7.	7th key (Fis)	19th key (Fis)	31st key (Fis)	43rd key (Fis)	55th key (Fis)
8.	reset 1st octave	reset 2nd octave	reset 3rd octave	reset 4th octave	reset 5th octave
9.	6th key (F)	18th key (F)	30th key (F)	42nd key (F)	54th key (F)
10.	1st key (C)	13th key (C)	25th key (C)	37th key (C)	49th key (C)
11.	5th key (E)	17th key (E)	29th key (E)	41th key (E)	53rd key (E)
12.	2nd key (Cis)	14th key (Cis)	26th key (Cis)	28th key (Cis)	50th key (Cis)
13.	4th key (Dis)	16th key (Dis)	28th key (Dis)	30th key (Dis)	52nd key (Dis)
14.	3rd key (D)	15th key (D)	27th key (D)	29th key (D)	51st key (D)
	1st OCTAVE PEDAL CABLE 13 (3 conn.)	2nd OCTAVE PEDAL CABLE 12 (3 conn.)	3rd OCTAVE PEDAL CABLE 11 (3 conn.)	PRESETS CABLE 14 (4 conn.)	
1.	10th key (A)	22nd key (A)	coupler sw./ped.	R0-line	
2.	11th key (Ais)	23rd key (Ais)	coupler gr./ped.	+12V	
3.	9th key (Gis)	21st key (Gis)	keyingvoltage ped. (GND)	PP-line	
4.	12th key (B)	24th key (B)	coupler sw./ped.	n.c.	
5.	8th key (G)	20th key (G)	32nd key (G)	P-line	
6.	keyingvoltage ped. (GND)	keyingvoltage ped. (GND)	keyingvoltage ped. (GND)	HR-line	
7.	7th key (Fis)	19th key (Fis)	31st key (Fis)	MF-line	
8.	reset 1st octave	reset 2nd octave	reset 3rd octave	n.c.	
9.	6th key (F)	18th key (F)	30th key (F)	F-line	
10.	1st key (C)	13th key (C)	25th key (C)	-8V	
11.	5th key (E)	17th key (E)	29th key (E)	FF-line	
12.	2nd key (Cis)	14th key (Cis)	26th key (Cis)	n.c.	
13.	4th key (Dis)	16th key (Dis)	28th key (Dis)	T-line	
14.	3rd key (D)	15th key (D)	27th key (D)	n.c.	
	STOPS SWELL CABLE 15 (2 conn.)	STOPS GREAT CABLE 16 (2 conn.)	STOPS PEDAL CABLE 17 (2 conn.)		
1.	RAUSCHPFEIFE II RKS	NAZARD 1 1/3'	TRUMPET 8'		
2.	FAGOTTO 16'	SIFFLUTE 1'	COUPLER GR./PED.		
3.	WALDFLUTE 2'	OCTAVE 2'	CONTRA TRUMPET 16'		
4.	CROMORNE 8'	MIXTURE V RKS	COUPLER SW./PED.		
5.	NAZARD 2 2/3'	TWELFTH 2 2/3'	MIXTURE III RKS		
6.	SCHALMEI 4'	TRUMPET 8'	n.c.		
7.	COPPELFLUTE 4'	OPEN FLUTE 4'	OCTAVE 4'		
8.	TREMULANT SW.	TREMULANT GR.	n.c.		
9.	ROHRFLUTE 8'	OCTAVE 4'	GEDACKT 8'		
10.	n.c.	COUPLER SW./GR.	n.c.		
11.	CELESTE 8'	STOPPED FLUTE 8'	PRINCIPAL 8'		
12.	n.c.	CHORUS	+12V		
13.	OCTAVE 8'	GAMBA 8'	SUBBASS 16'		
14.	n.c.	n.c.	n.c.		
15.	BOURDON 16'	PRINCIPAL 8'	DOUBLE BASS 16'		
16.	-8V	-8V	-8V		

FLATCABLE CONNECTIONS

Drawn _____ Date _____ Modified _____ Date _____

Verschoof 13-04-87

DESIGN

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