

# JOHANNUS

## *SCHEMATIC DIAGRAMS*

### *OPUS 1000*

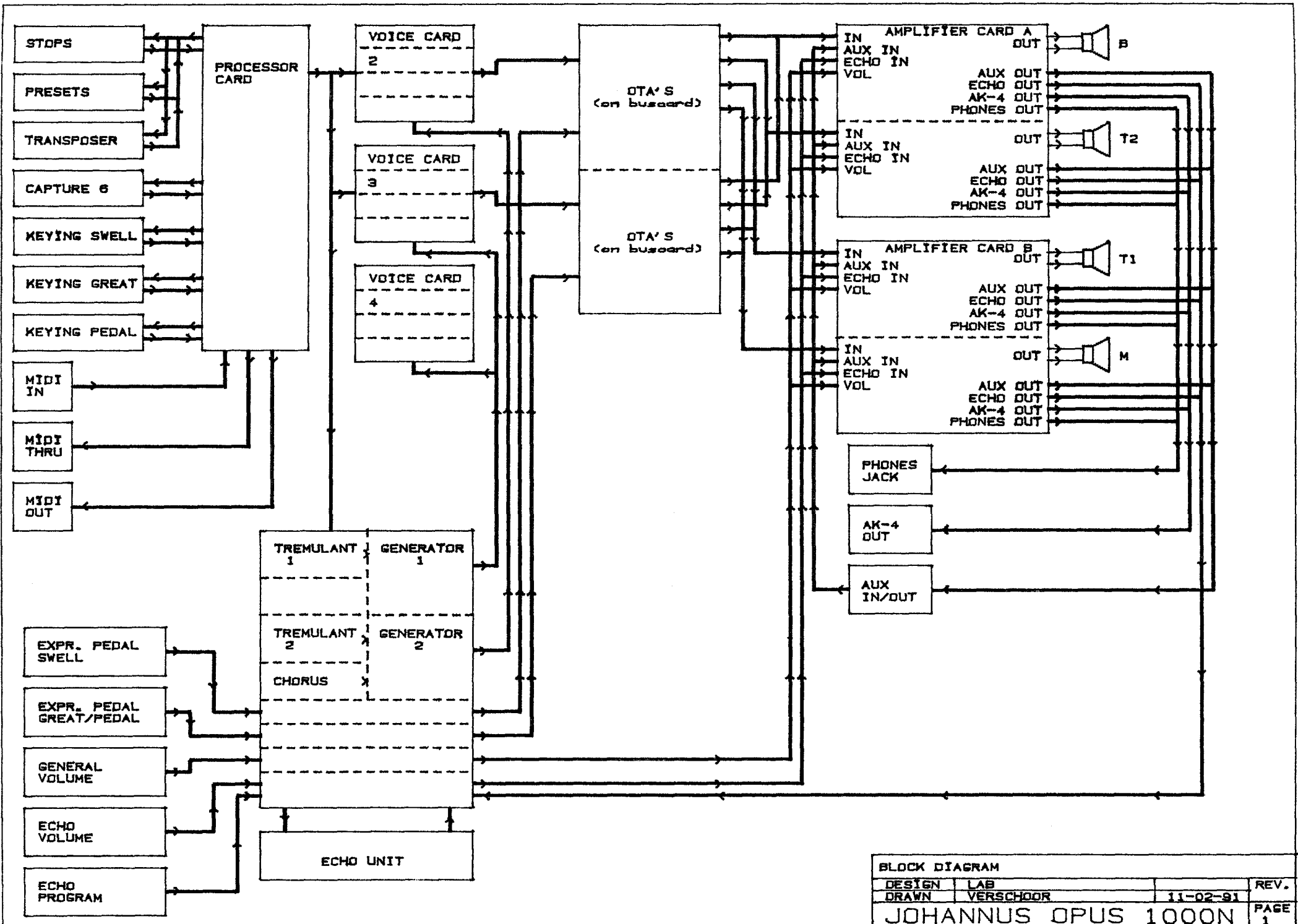
ALTERATIONS RESERVED

**JOHANNUS Orgelbouw b.v.**

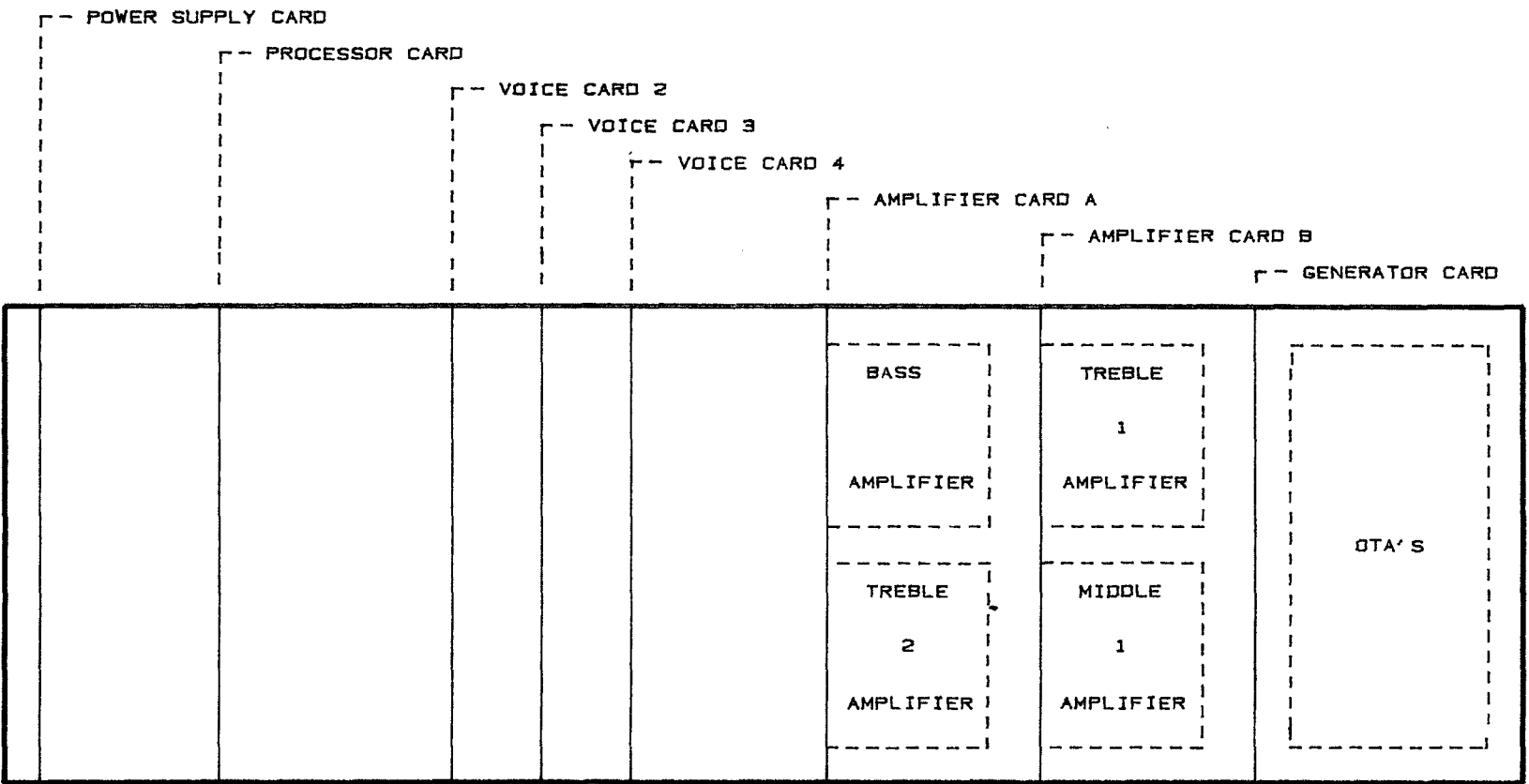
Morsstraat 28 - 6716 AH Ede - Tel. (08380) 37403 - Fax (08380) 22238

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BLOCK DIAGRAM			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	11-02-91	PAGE
JOHANNUS OPUS 1000N			1



POSITION DIAGRAM CARDS (TOPVIEW)			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	12-02-91	PAGE
JOHANNUS OPUS 1000N			2

CON1

010	
020	
030	
040	
+12V 050	+12V
-12V 080	-12V
AGND 070	AGND
AGND 080	AGND
+35V 090	+35V
-35V 0100	-35V
0110	
0120	
0130	
0140	
0150	
0160	
0170	
0180	
0190	
0200	
0210	
0220	
0230	
0240	
+5V 0250	+5V
LGND 0260	LGND
LGND 0270	LGND
0280	
0290	
0300	
0310	
0320	

POWER SUPPLY CARD

CON2

010		
020		
030		
040		
+12V 050	+12V	
-12V 080	-12V	
AGND 070	AGND	
AGND 080	AGND	
+35V 090	+35V	
-35V 0100	-35V	
0110		
0120		
0130		
0140		
0150		
0160	GEN1	GEN1
0170	LGND	LGND
0180	LGND	LGND
0190	GEN2	GEN2
0200	RES M114	EPROM CHOISE
0210	B6	DATA STROBE
0220	B4	
0230	B2	B3
0240	B0	B1
+5V 0250	+5V	
LGND 0260	LGND	LGND
LGND 0270	LGND	LGND
0280		
0290	SEL7	SEL8
0300	SEL5	SEL4
0310	SEL3	SEL2
0320	SEL1	SEL0

PROCESSOR CARD

CON4-6

PRE-AMP1 010	PRE-AMP2
PRE-AMP3 020	PRE-AMP4
030	
040	
+12V 050	+12V
-12V 080	-12V
AGND 070	AGND
AGND 080	AGND
+35V 090	+35V
-35V 0100	-35V
0110	
0120	
0130	
0140	
0150	
0160	GEN1
0170	LGND
0180	LGND
0190	GEN2
0200	RES M114
0210	DATA STROBE
0220	B5
0230	B3
0240	B1
+5V 0250	+5V
LGND 0260	LGND
LGND 0270	LGND
0280	
0290	SEL8
0300	SEL4
0310	SEL2
0320	SEL0

VOICE CARD 2-4

CON8-9

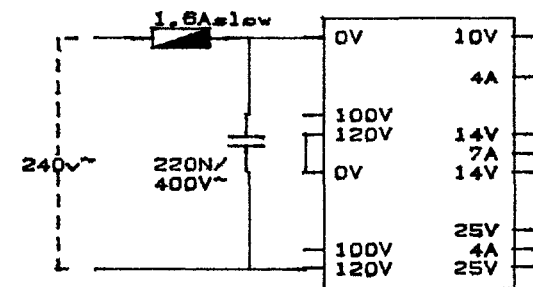
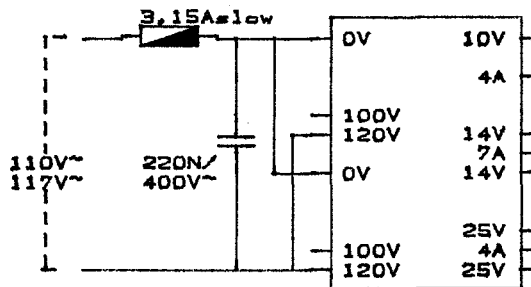
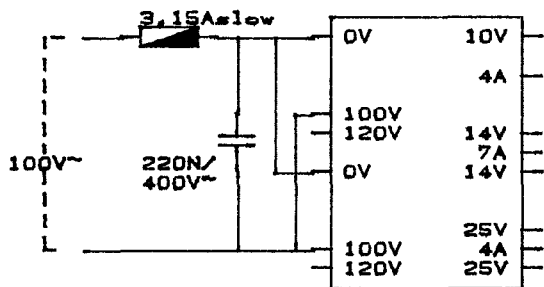
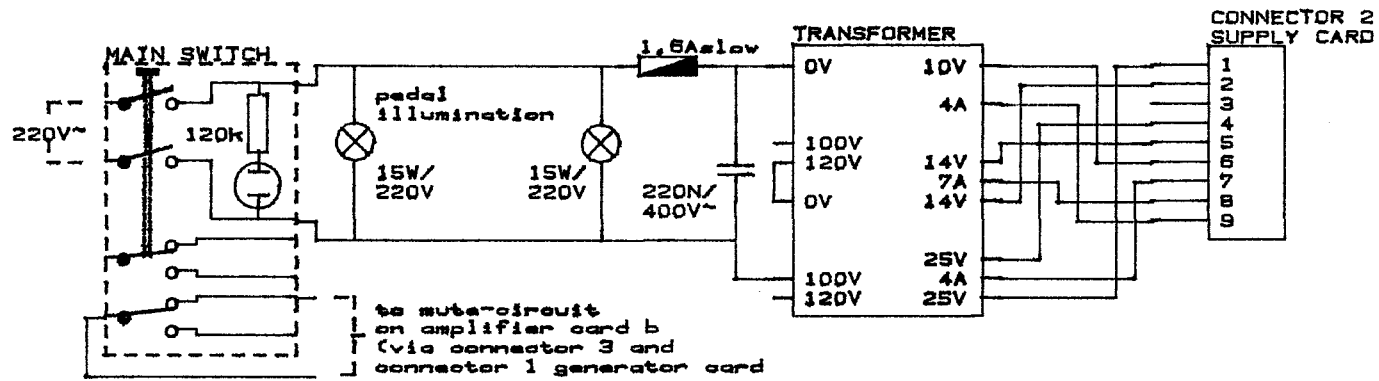
POWER-AMP1 010	POWER-AMP2
POWER-AMP3 020	POWER-AMP4
TO ECHO 030	FROM ECHO B
040	FROM ECHO A
+12V 050	+12V
-12V 080	-12V
AGND 070	AGND
AGND 080	AGND
+35V 090	+35V
-35V 0100	-35V
0110	MUTE
VOLUME 0120	
PHONES 0130	
0140	
0150	
0160	GEN1
0170	LGND
0180	LGND
0190	GEN2
0200	EPROM CHOISE
0210	
0220	B5
0230	B3
0240	B1
+5V 0250	+5V
LGND 0260	LGND
LGND 0270	LGND
0280	
0290	
0300	
0310	
0320	

AMPLIFIER CARD A & B

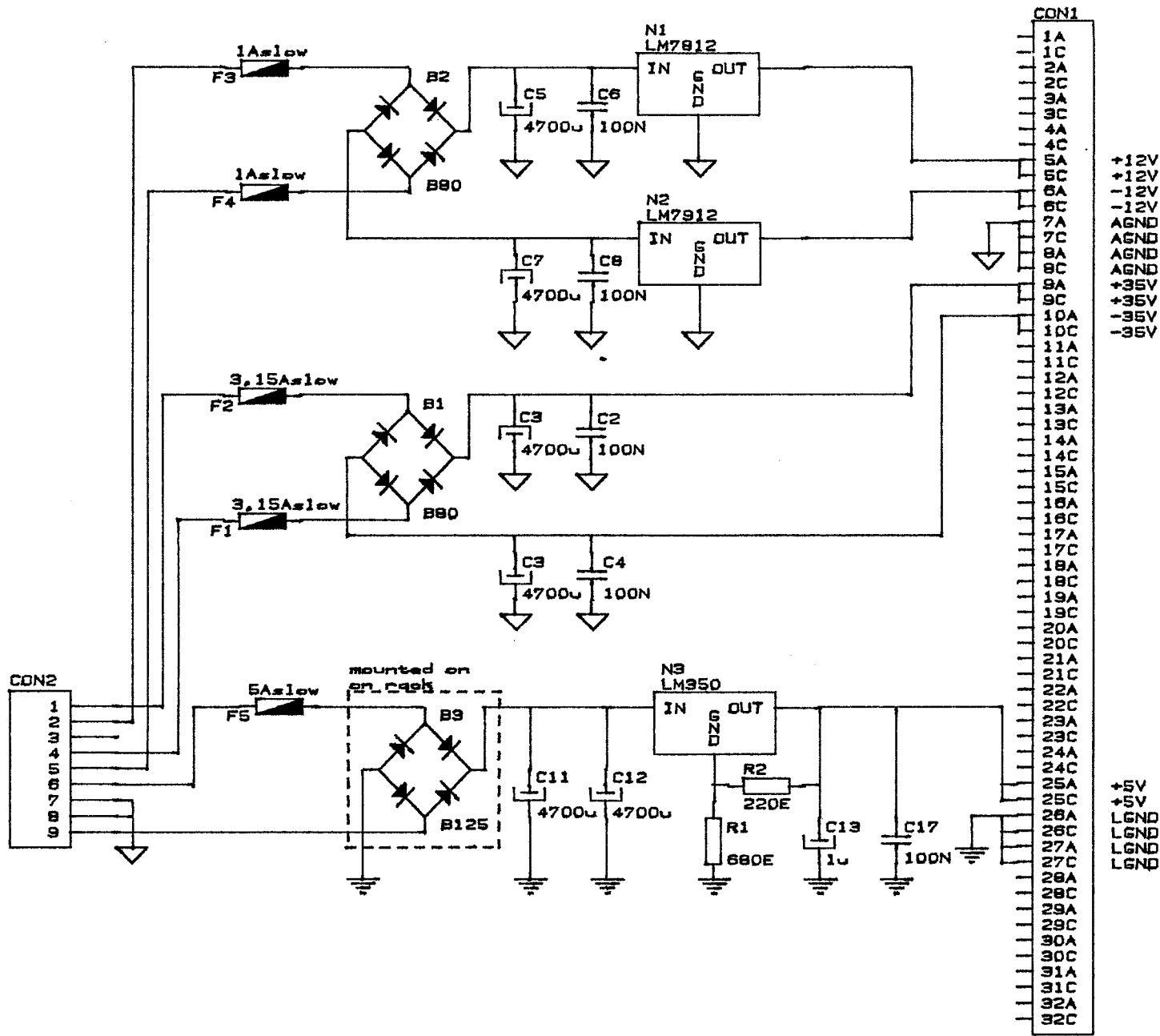
CON10

POWER-AMP1 010	POWER-AMP2
POWER-AMP3 020	POWER-AMP4
TO ECHO 030	FROM ECHO B
040	FROM ECHO A
+12V 050	+12V
-12V 080	-12V
AGND 070	AGND
AGND 080	AGND
+35V 090	+35V
-35V 0100	-35V
0110	MUTE
VOLUME 0120	EXPR. PED SWELL
PHONES 0130	EXPR. PED GREAT
0140	
0150	
0160	GEN1
0170	LGND
0180	LGND
0190	GEN2
0200	EPROM CHOISE
0210	
0220	
0230	
0240	
+5V 0250	+5V
LGND 0260	LGND
LGND 0270	LGND
0280	
0290	SEL8
0300	SEL4
0310	SEL2
0320	SEL0

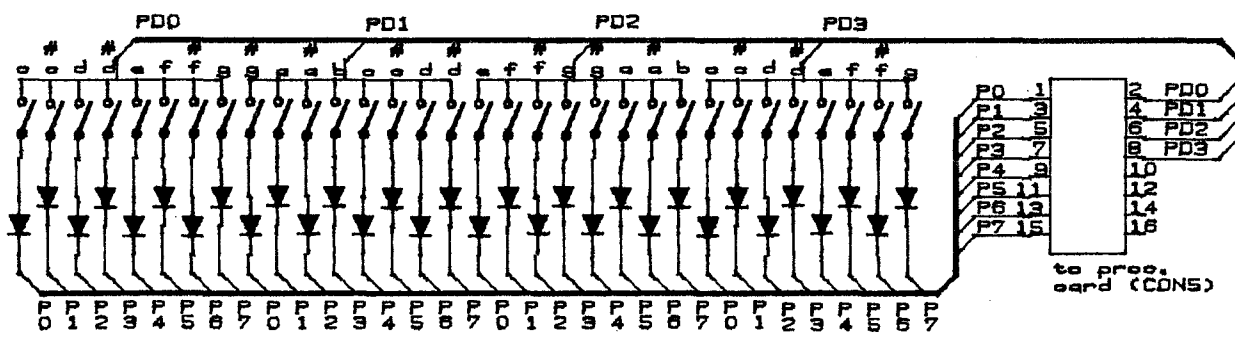
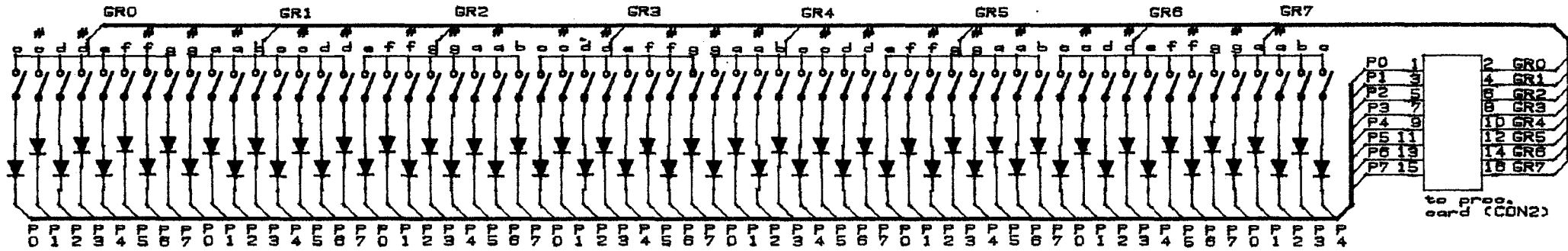
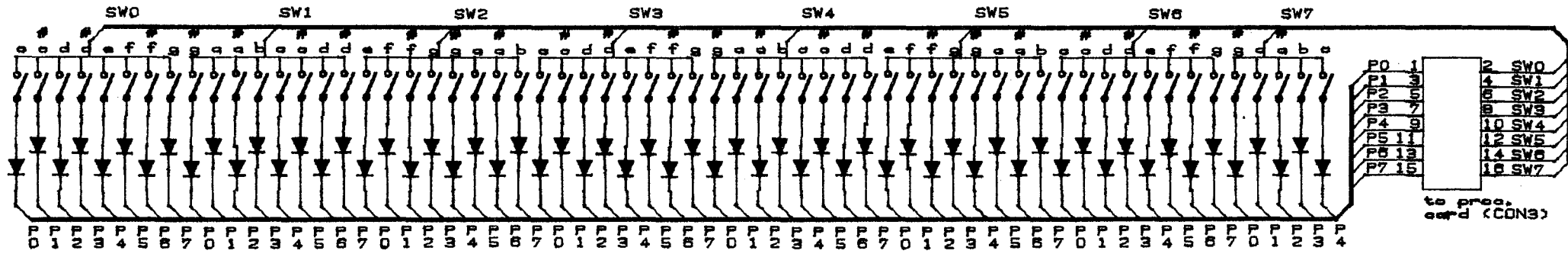
GENERATOR CARD



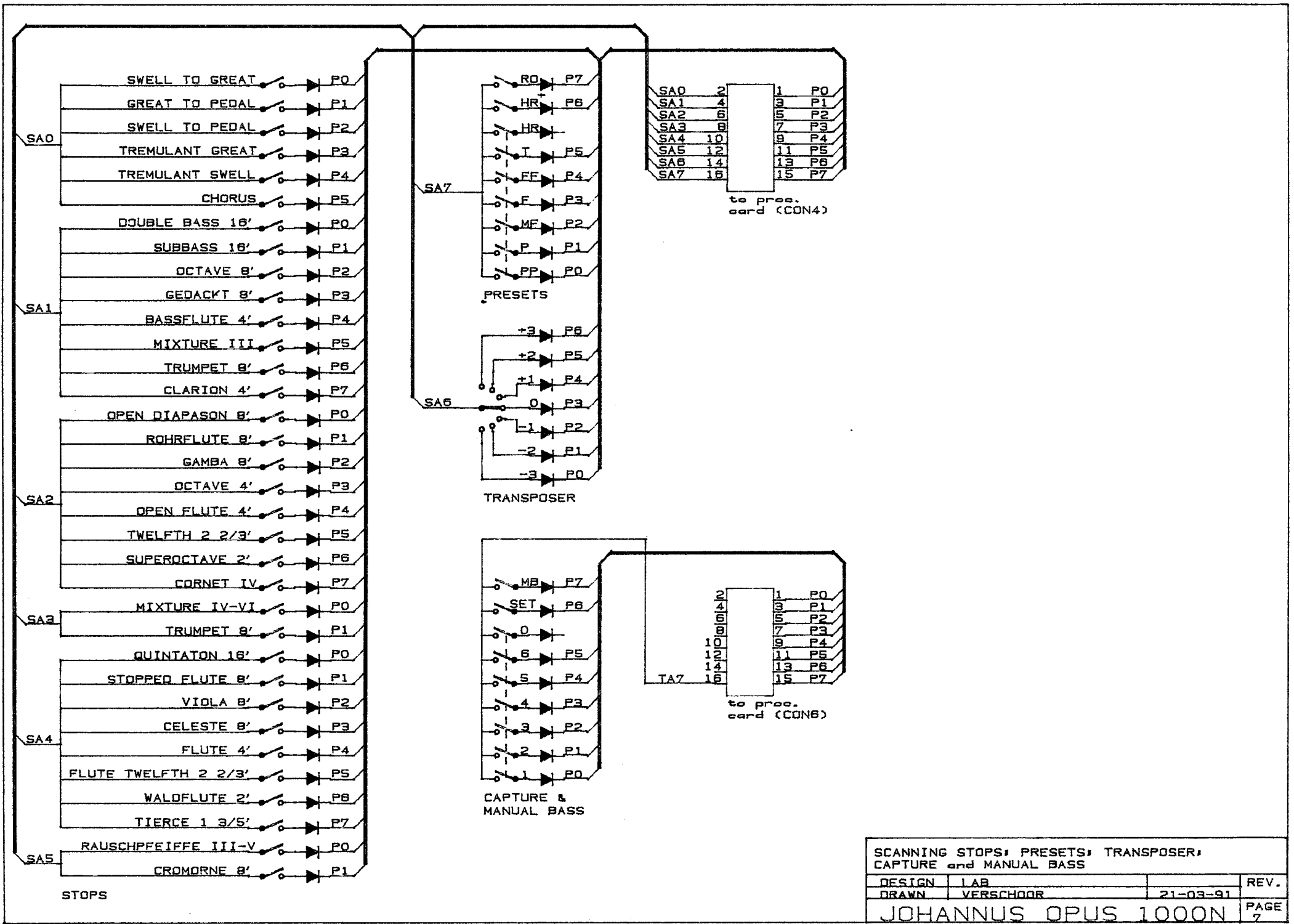
TRANSFORMER CONNECTIONS			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	14-02-91	PAGE
JOHANNUS OPUS 1000N			4



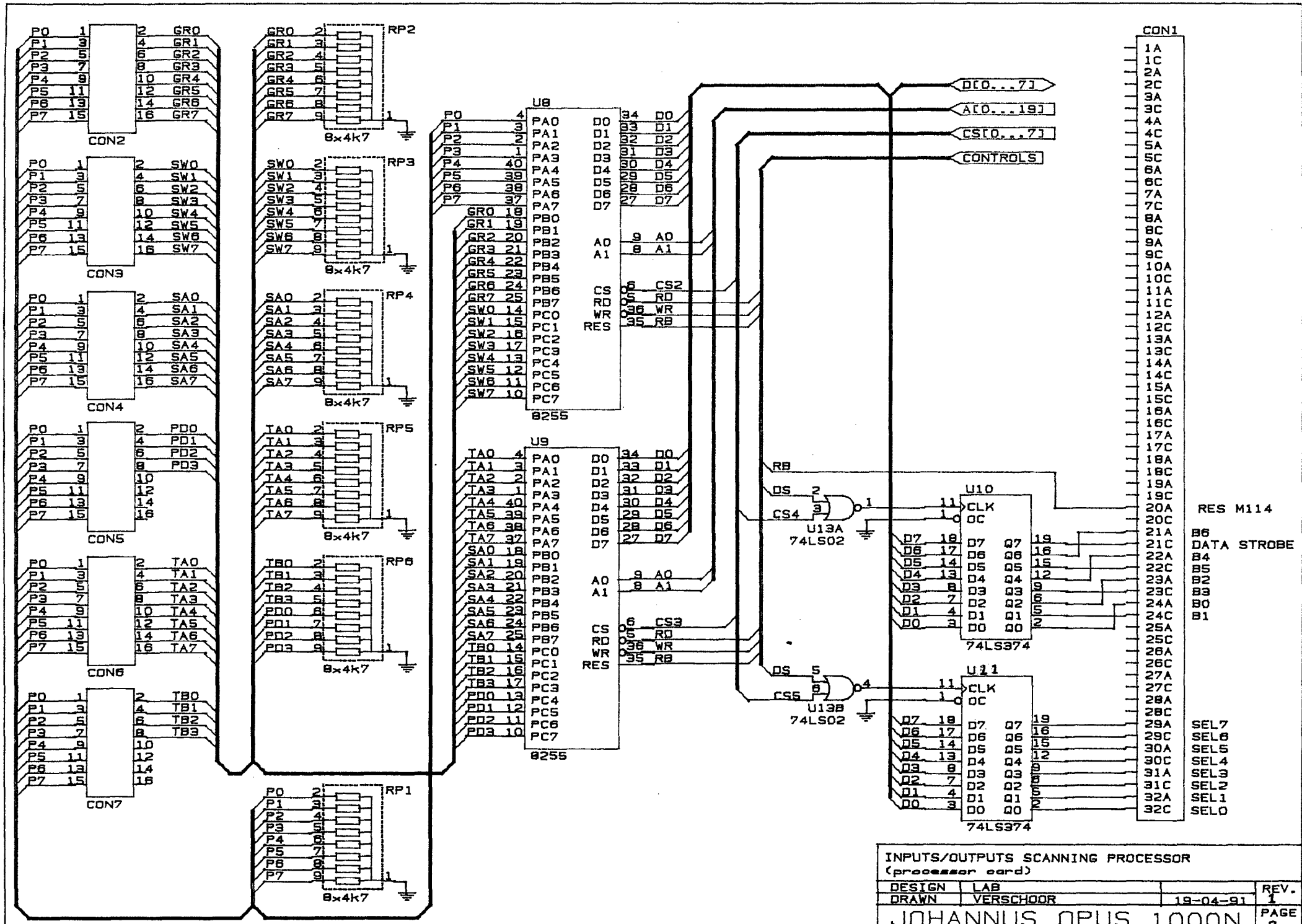
POWER SUPPLY (power supply card)			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	14-02-91	PAGE
JOHANNUS OPUS 1000N			5



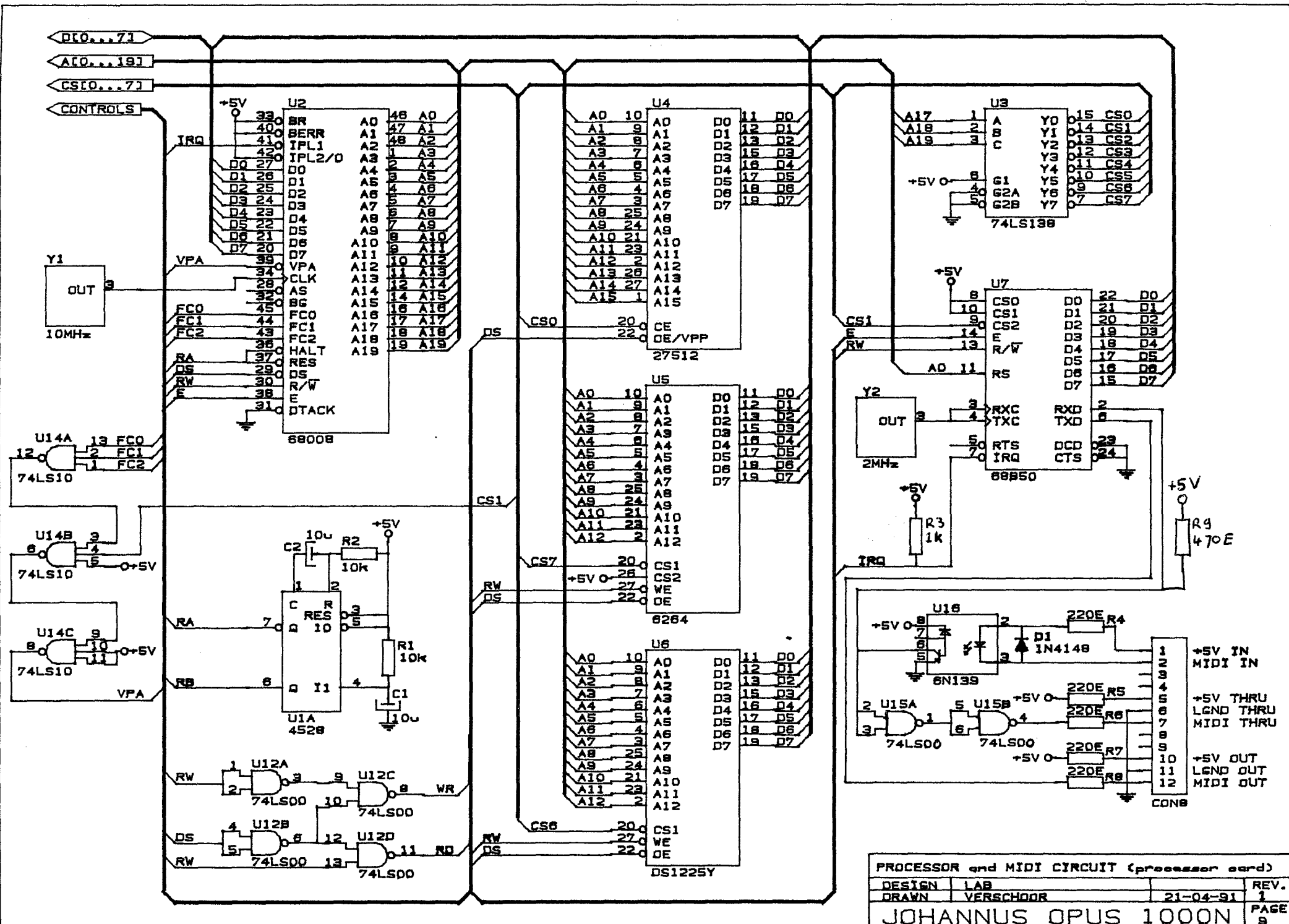




SCANNING STOPS; PRESETS; TRANSPOSER; CAPTURE and MANUAL BASS			
DESIGN	IAR		REV.
DRAWN	VERSCHOOR	21-03-91	PAGE
JOHANNUS OPUS 1000N			7

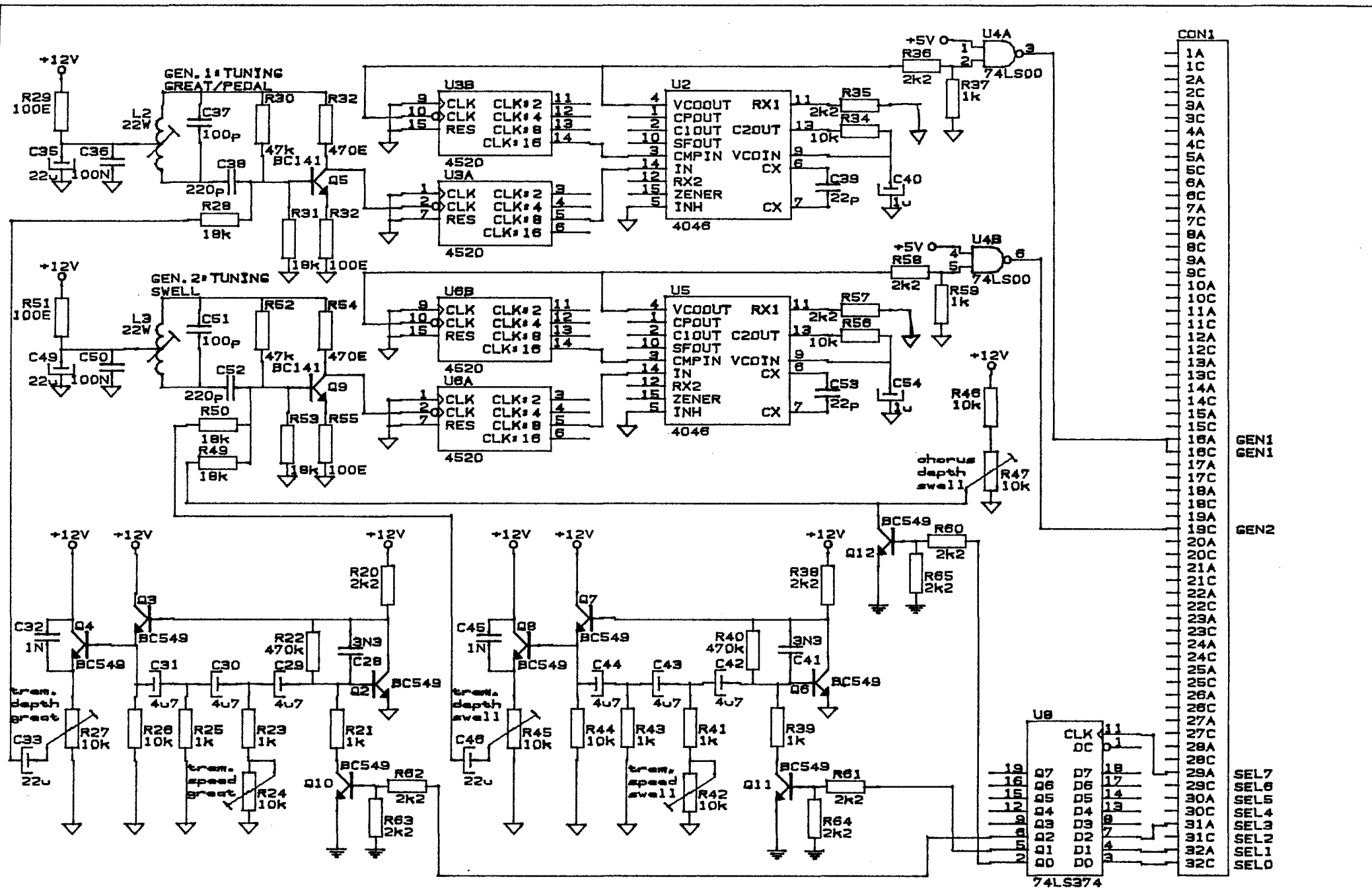


INPUTS/OUTPUTS SCANNING PROCESSOR (processor card)			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	18-04-91	1
JOHANNUS OPUS 1000N			PAGE
			8

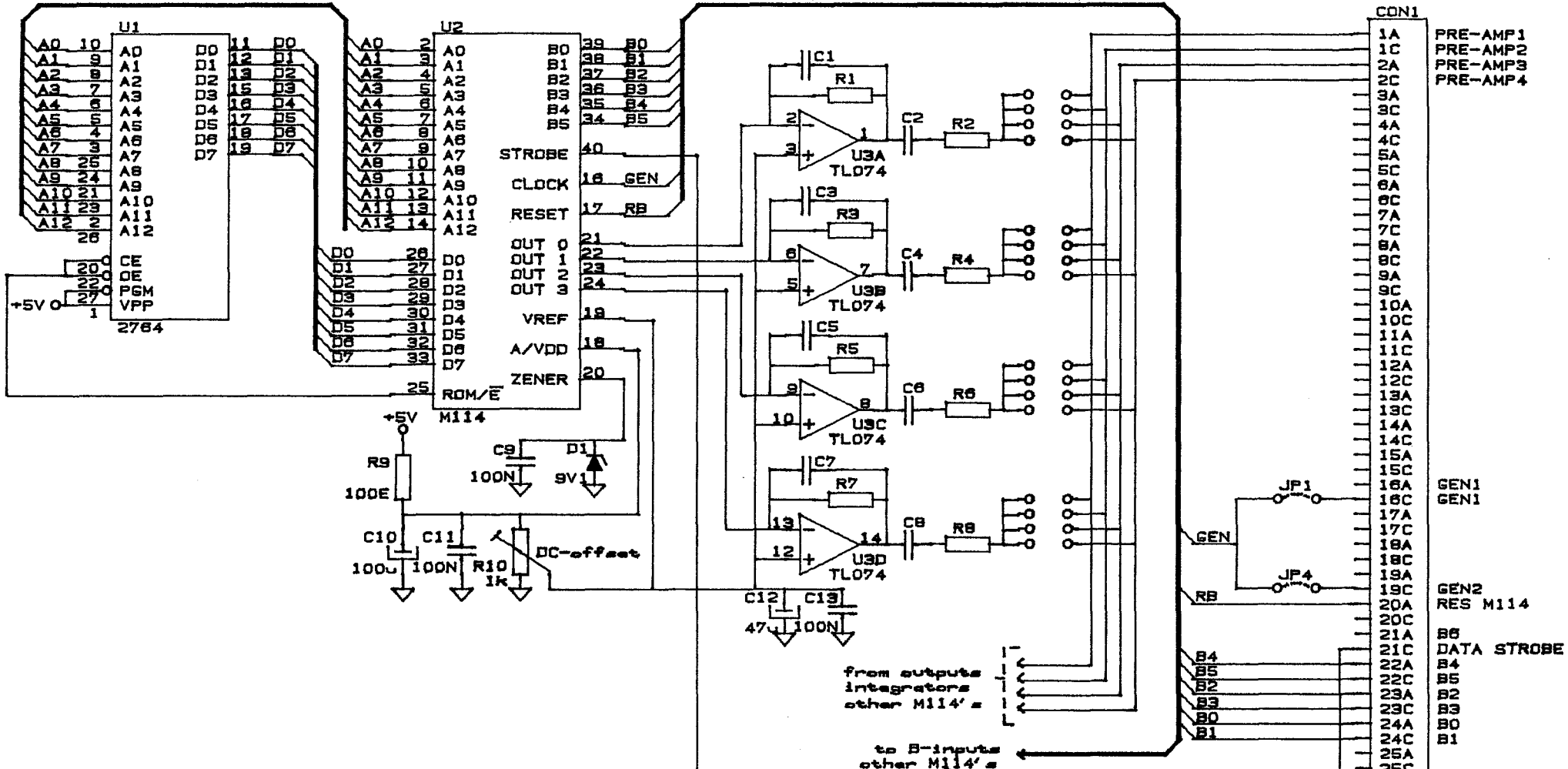


PROCESSOR and MIDI CIRCUIT (processor card)

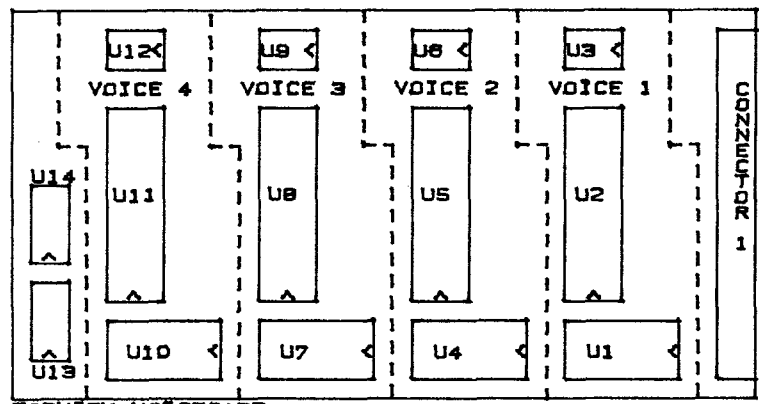
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	21-04-91	1
JOHANNUS OPUS 1000N			PAGE 9



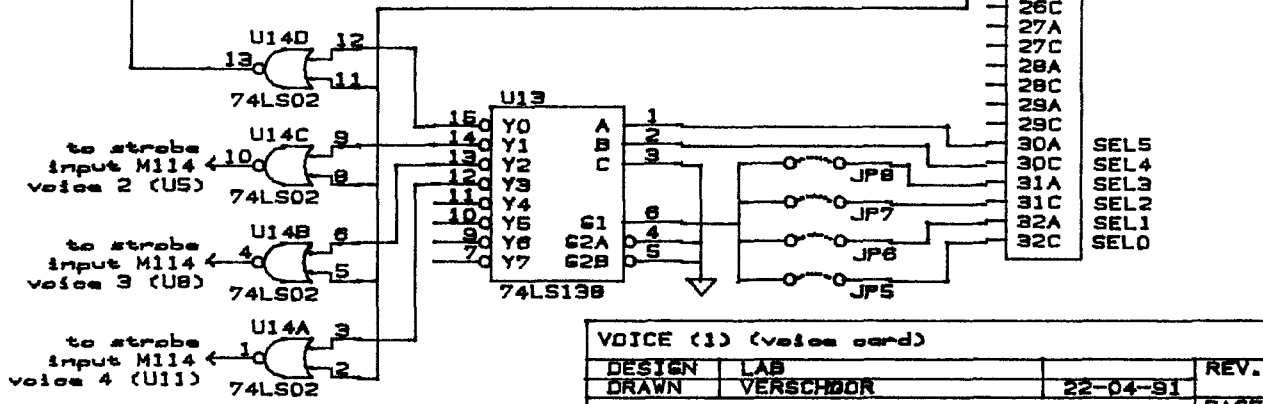
TUNING GENERATORS: CHORUS and TREMULANTS (generator card)			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	22-04-91	1
JOHANNUS OPUS 1000N			PAGE
			10



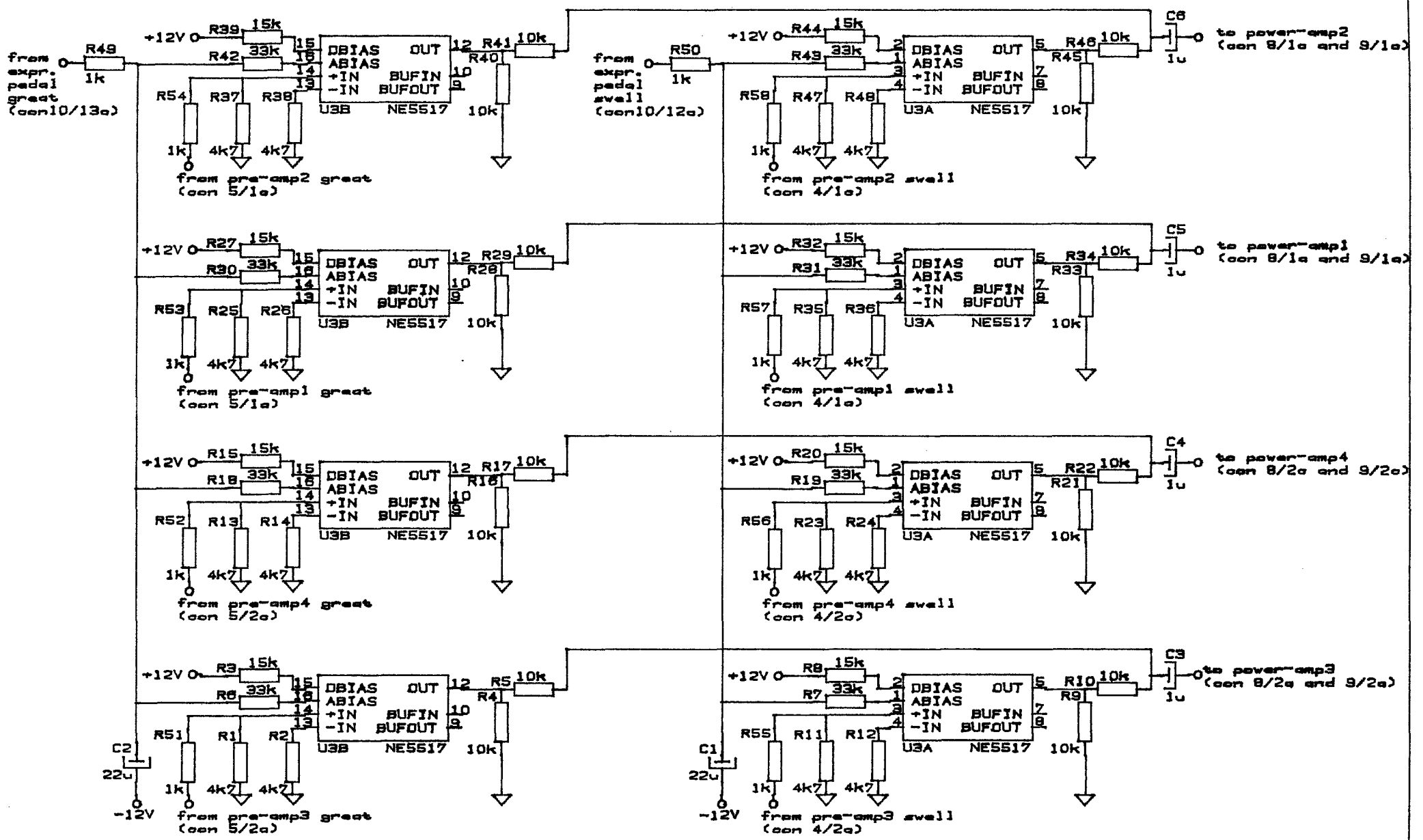
- 1A PRE-AMP1
- 1C PRE-AMP2
- 2A PRE-AMP3
- 2C PRE-AMP4
- 3A
- 3C
- 4A
- 4C
- 5A
- 5C
- 6A
- 6C
- 7A
- 7C
- 8A
- 8C
- 9A
- 9C
- 10A
- 10C
- 11A
- 11C
- 12A
- 12C
- 13A
- 13C
- 14A
- 14C
- 15A
- 15C
- 16A GEN1
- 16C GEN1
- 17A
- 17C
- 18A
- 18C
- 19A GEN2
- 19C RES M114
- 20A
- 20C
- 21A B6
- 21C DATA STROBE
- 22A B4
- 22C B5
- 23A B2
- 23C B3
- 24A B0
- 24C B1
- 25A
- 25C
- 26A
- 26C
- 27A
- 27C
- 28A
- 28C
- 29A
- 29C
- 30A SEL5
- 30C SEL4
- 31A SEL3
- 31C SEL2
- 32A SEL1
- 32C SEL0



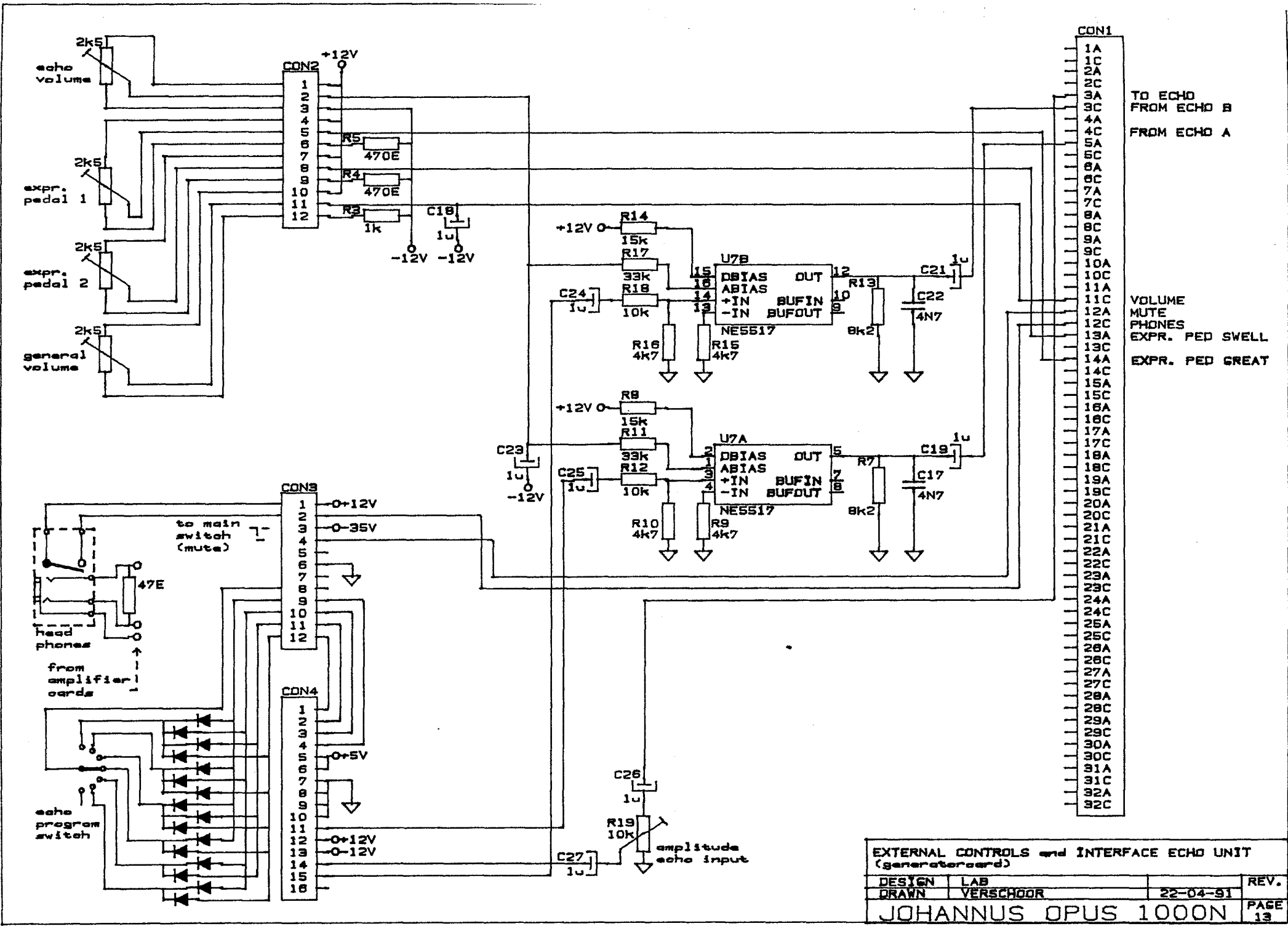
TOPVIEW VOICECARD



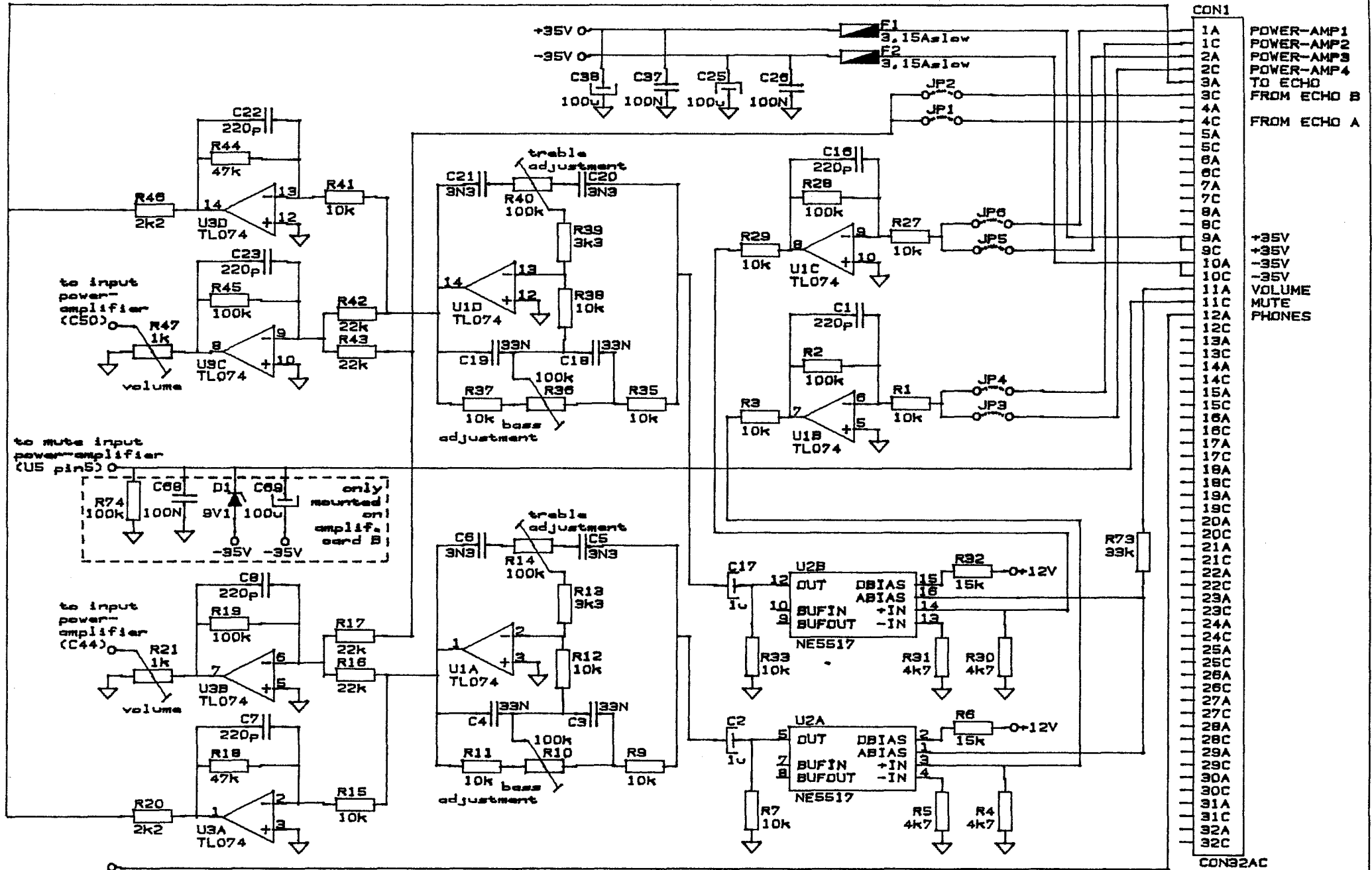
VOICE (1) (voice card)			REV.
DESIGN	LAB		
DRAWN	VERSCHOOR	22-04-91	PAGE 11
JOHANNUS OPUS 1000N			



EXPRESSION PEDAL CIRCUIT (bussard)			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	22-04-91	
JOHANNUS OPUS 1000N			PAGE 12



EXTERNAL CONTROLS and INTERFACE ECHO UNIT (generator card)			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	22-04-91	PAGE
JOHANNUS OPUS 1000N			13

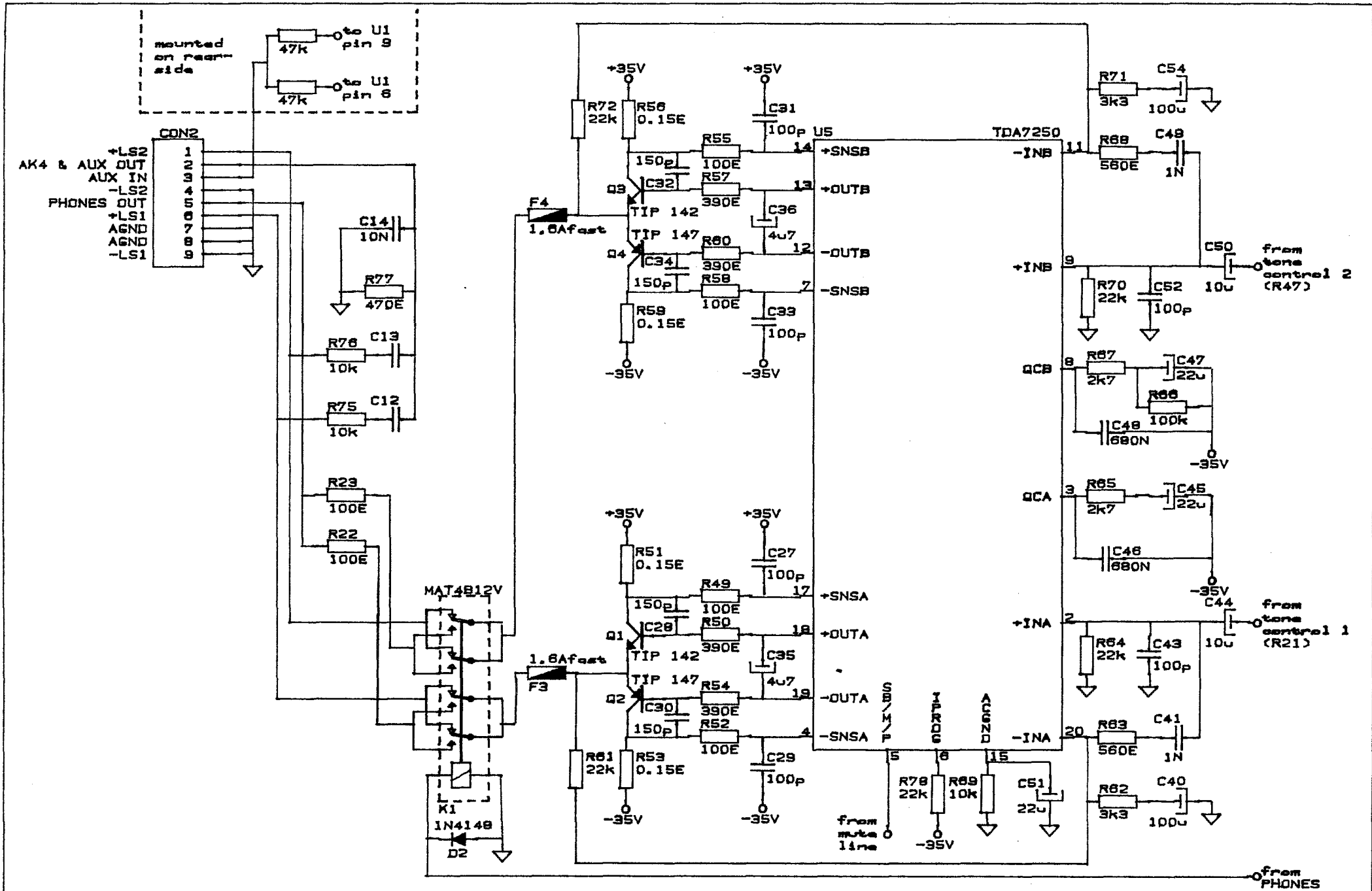


- CON1
- 1A POWER-AMP1
  - 1C POWER-AMP2
  - 2A POWER-AMP3
  - 2C POWER-AMP4
  - 3A TO ECHO
  - 3C FROM ECHO B
  - 4A FROM ECHO A
  - 4C
  - 5A
  - 5C
  - 6A
  - 6C
  - 7A
  - 7C
  - 8A
  - 8C
  - 9A +35V
  - 9C +35V
  - 10C -35V
  - 10A -35V
  - 11A VOLUME
  - 11C MUTE
  - 12A PHONES
  - 12C
  - 13A
  - 13C
  - 14A
  - 14C
  - 15A
  - 15C
  - 16A
  - 16C
  - 17A
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  - 25C
  - 26A
  - 26C
  - 27A
  - 27C
  - 28A
  - 28C
  - 29A
  - 29C
  - 30A
  - 30C
  - 31A
  - 31C
  - 32A
  - 32C
- CON32AC

PRE-AMPLIFIERS and TONE CONTROLS  
(amplifier card)

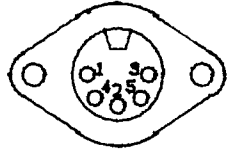
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	22-04-91	
JOHANNUS OPUS 1000N			PAGE 14





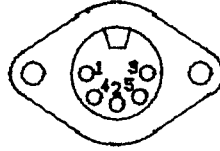
POWER AMPLIFIER (amplifier card)			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	22-04-91	
JOHANNUS OPUS 1000N			PAGE 15

1. NOT CONNECTED
2. NOT CONNECTED
3. NOT CONNECTED
4. +5V MIDI IN
5. MIDI IN



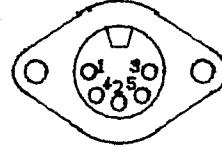
MIDI  
IN

1. NOT CONNECTED
2. NOT CONNECTED
3. NOT CONNECTED
4. +5V MIDI THRU
5. MIDI THRU



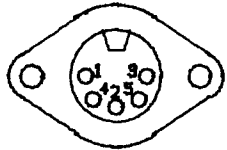
MIDI  
THRU

1. NOT CONNECTED
2. NOT CONNECTED
3. NOT CONNECTED
4. +5V MIDI OUT
5. MIDI OUT



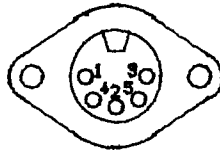
MIDI  
OUT

1. AK-4 OUT CHANNEL A
2. GROUND
3. NOT CONNECTED
4. AK-4 OUT CHANNEL B
5. NOT CONNECTED



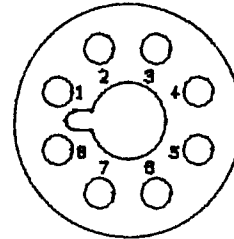
AK-4  
OUT

1. AUX OUT CHANNEL A
2. GROUND
3. AUX IN CHANNEL A
4. AUX OUT CHANNEL B
5. AUX IN CHANNEL B



AUX  
IN/OUT

1. - BASS AMPLIFIER
2. + BASS AMPLIFIER
3. - MIDDLE AMPLIFIER
4. + MIDDLE AMPLIFIER
5. - TREBLE I AMPLIFIER
6. + TREBLE I AMPLIFIER
7. - TREBLE II AMPLIFIER
8. + TREBLE II AMPLIFIER



LS OUT A

(OPTIONAL)

EXTERNAL CONNECTIONS (mounted on the  
rear side of the organ) SOLDERING SIDE VIEW

DESIGN	LAB		REV.
DRAWN	VERSCHOOR	22-04-91	
JOHANNUS OPUS 1000N			PAGE 16