

JOHANNUS

SCHEMATIC DIAGRAMS

OPUS 810

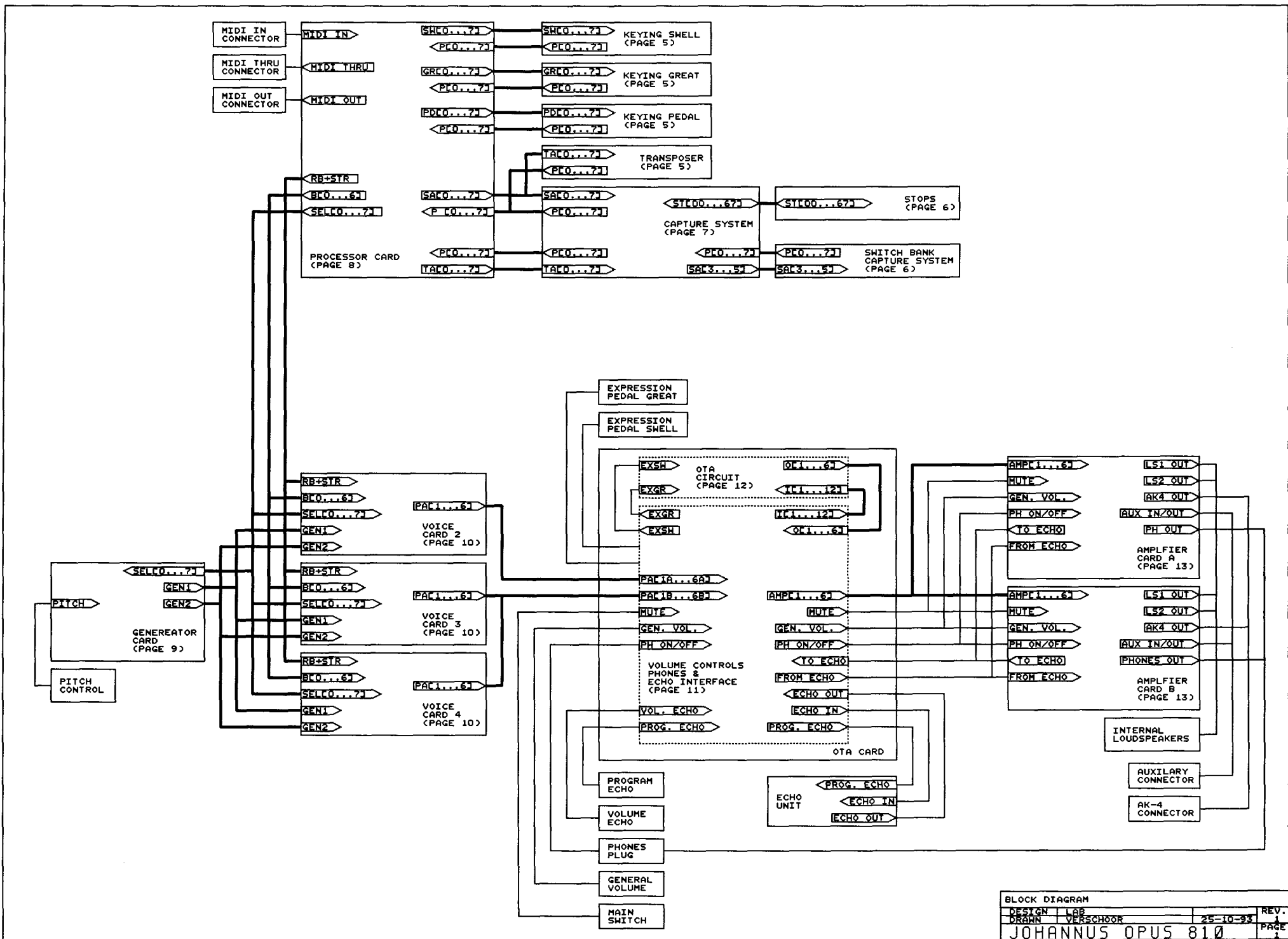
ALTERATIONS RESERVED

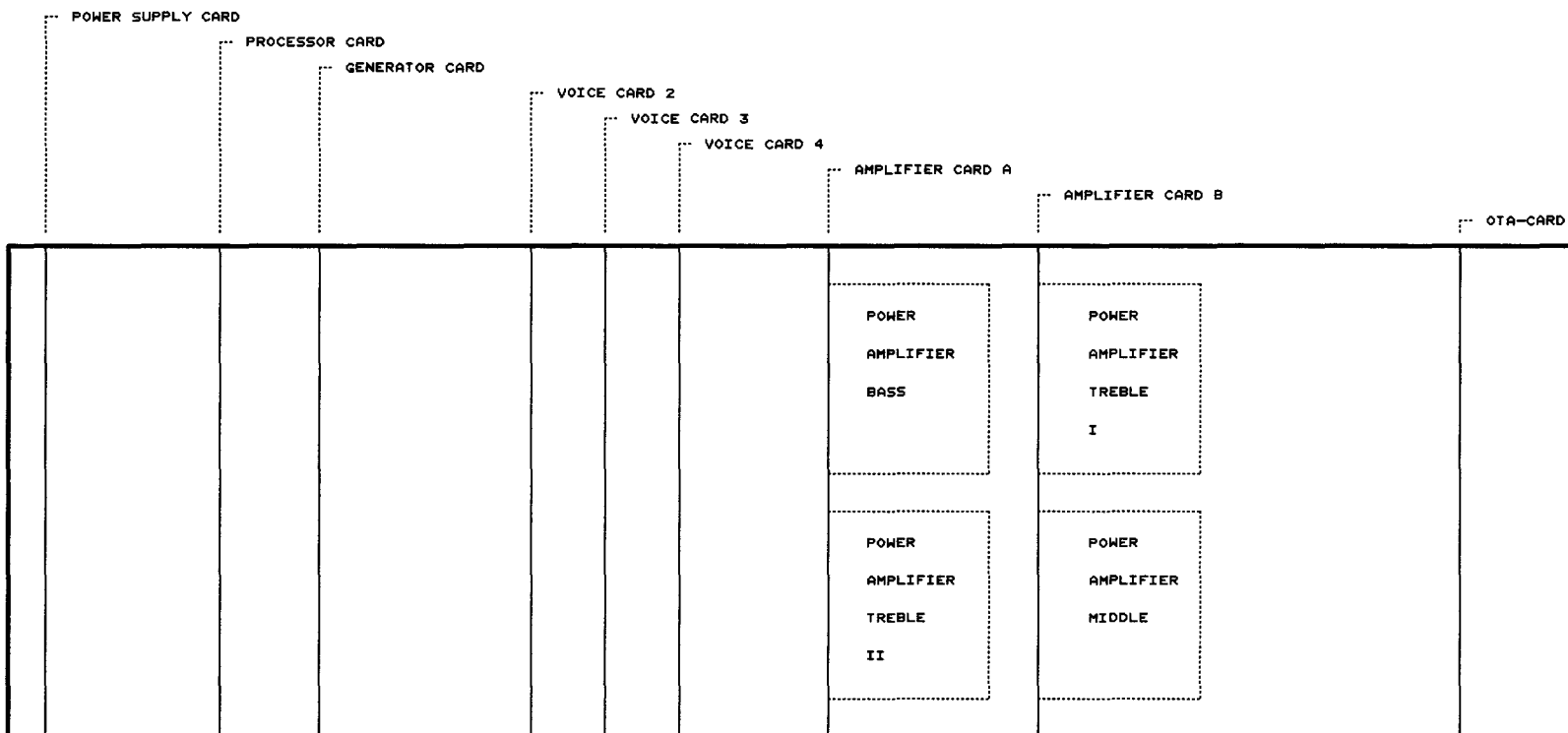
JOHANNUS Orgelbouw b.v.

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

C O N T E N T S

1. BLOCK DIAGRAM
2. POSITION DIAGRAM CARDS (TOPVIEW) &
EXTERNAL CONNECTIONS (mounted on the
rearside of the organ)
3. PINNING BUS CARD CONNECTORS
4. TRANSFORMER CONNECTIONS & POWER SUPPLY
5. SCANNING KEYING & TRANSPOSER
6. STOP-BANK & SWITCH-BANK CAPTURE SYSTEM
7. CAPTURE SYSTEM
8. PROCESSOR CARD
9. GENERATOR CARD
10. VOICE CARD
11. VOLUMECONTROLS; HEADPHONES CONNECTIONS &
ECHO INTERFACE (ota card)
12. EXPRESSION PEDAL CIRCUIT (ota card)
13. AMPLIFIER CARD
14. POSITION DIAGRAM ADJUSTMENTS
INTERNAL POTENTIOMETERS





- 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

SOLDERSIDE VIEW

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



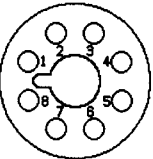
AK-4 OUT

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



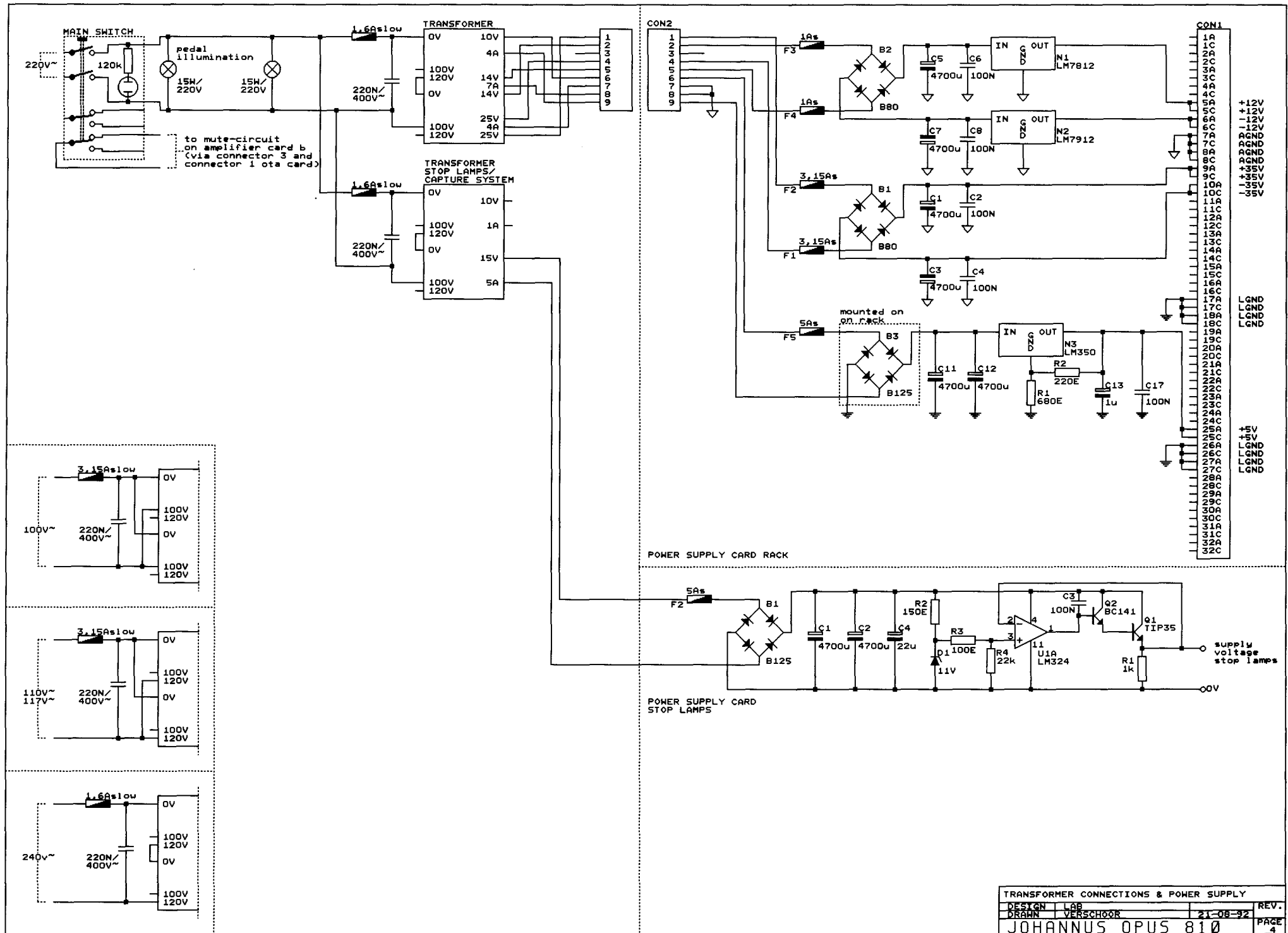
AUX IN/OUT

- 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

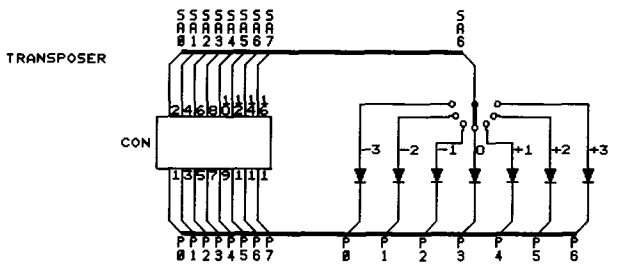
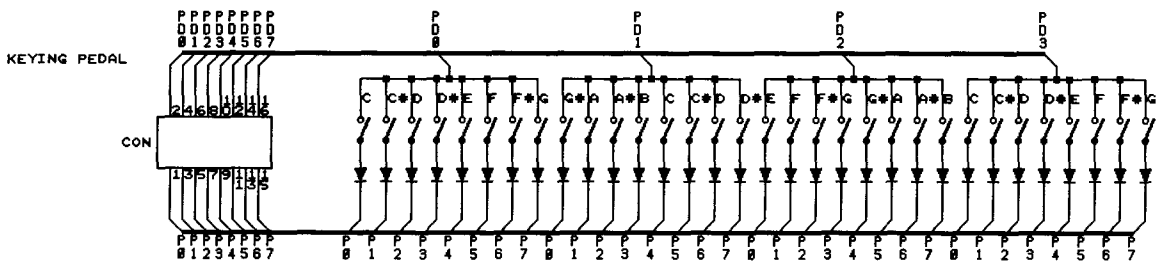
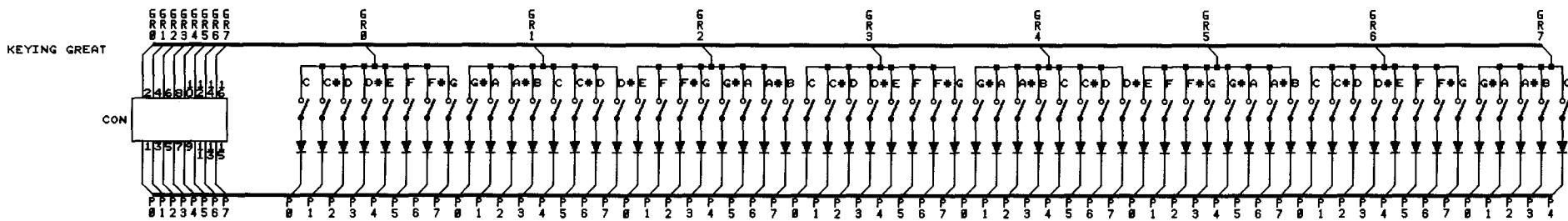
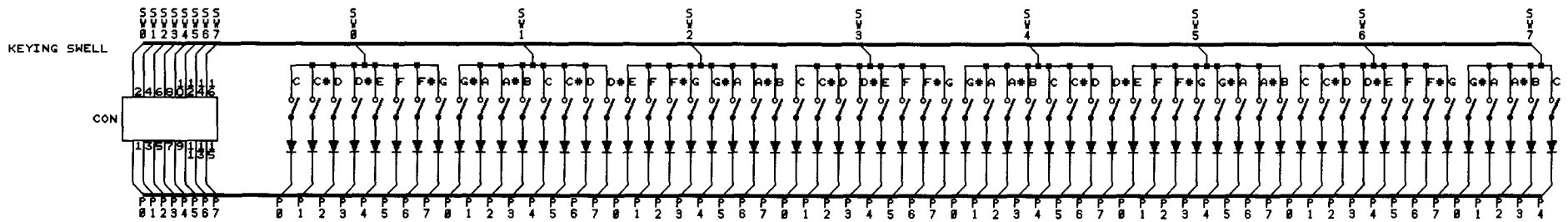


(OPTIONAL)

CON1	CON2	CON3	CON4-5	CON6-8	CON9-10	CON11	CON12
010	010	010	010	010	010	010	010
020	020	020	020	020	020	020	020
030	030	030	030	030	030	030	030
040	040	040	040	040	040	040	040
+12V 050	+12V 050	+12V 050	+12V 050	+12V 050	+12V 050	+12V 050	+12V 050
-12V 060	-12V 060	-12V 060	-12V 060	-12V 060	-12V 060	-12V 060	-12V 060
AGND 070	AGND 070	AGND 070	AGND 070	AGND 070	AGND 070	AGND 070	AGND 070
AGND 080	AGND 080	AGND 080	AGND 080	AGND 080	AGND 080	AGND 080	AGND 080
+35V 090	+35V 090	+35V 090	+35V 090	+35V 090	+35V 090	+35V 090	+35V 090
-35V 100	-35V 100	-35V 100	-35V 100	-35V 100	-35V 100	-35V 100	-35V 100
0110	0110	0110	0110	0110	0110	0110	0110
0120	0120	0120	0120	0120	0120	0120	0120
0130	0130	0130	0130	0130	0130	0130	0130
0140	0140	0140	0140	0140	0140	0140	0140
0150	0150	0150	0150	0150	0150	0150	0150
0160	0160	0160	0160	0160	0160	0160	0160
0170	0170	0170	0170	0170	0170	0170	0170
0180	0180	0180	0180	0180	0180	0180	0180
0190	0190	0190	0190	0190	0190	0190	0190
0200	0200	0200	0200	0200	0200	0200	0200
0210	0210	0210	0210	0210	0210	0210	0210
0220	0220	0220	0220	0220	0220	0220	0220
0230	0230	0230	0230	0230	0230	0230	0230
0240	0240	0240	0240	0240	0240	0240	0240
0250	0250	0250	0250	0250	0250	0250	0250
0260	0260	0260	0260	0260	0260	0260	0260
0270	0270	0270	0270	0270	0270	0270	0270
0280	0280	0280	0280	0280	0280	0280	0280
0290	0290	0290	0290	0290	0290	0290	0290
0300	0300	0300	0300	0300	0300	0300	0300
0310	0310	0310	0310	0310	0310	0310	0310
0320	0320	0320	0320	0320	0320	0320	0320
POWER SUPPLY CARD	PROCESSOR CARD	GENERATOR CARD	VOICE CARD 1-2	VOICE CARD 3-5	AMPLIFIER CARD A & B	AMPLIFIER CARD C	OTA CARD

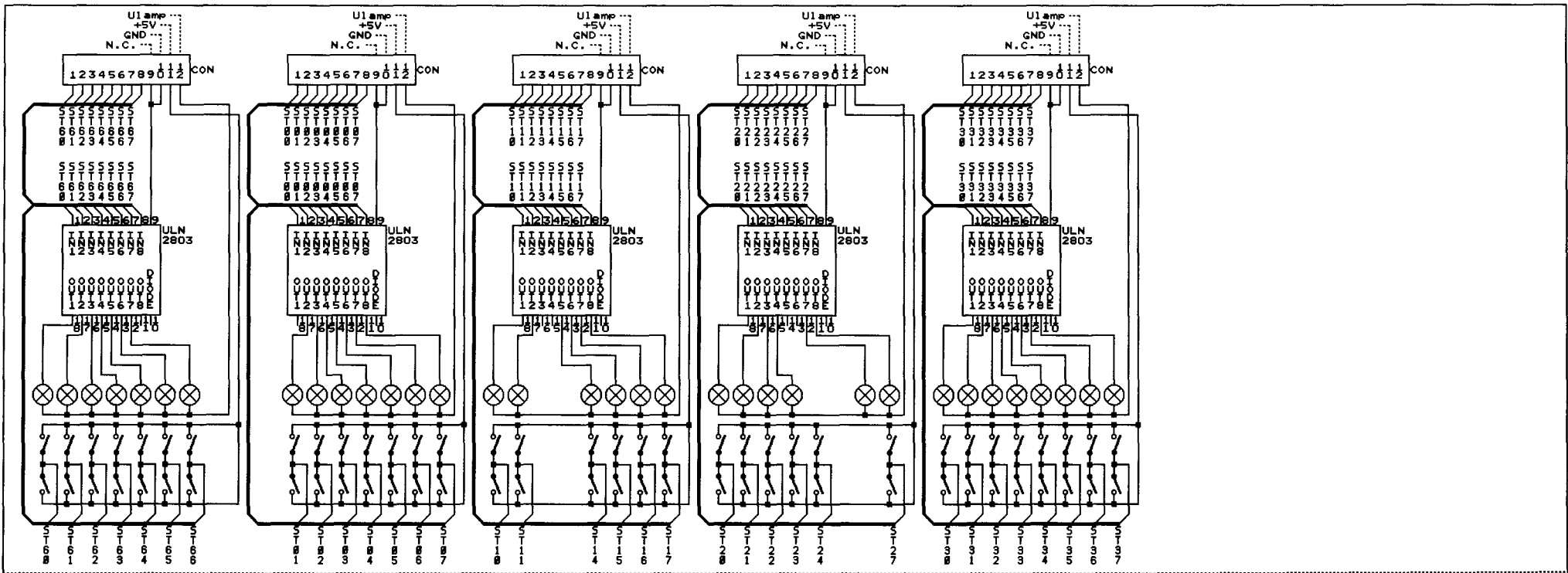


TRANSFORMER CONNECTIONS & POWER SUPPLY			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	21-08-92	PAGE
JOHANNUS OPUS 810			4

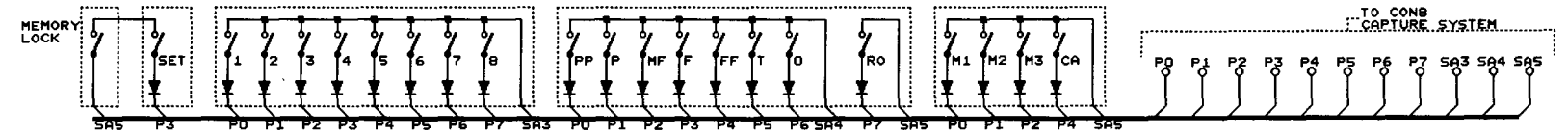


ALL CONNECTORS: TO PROCESSOR CARD
 ALL DIODES: 1N4148

SCANNING KEYING & TRANSPOSER		
DESIGN	LAR	REV.
DRAWN	VERSCHOOR	19-08-92
JOHANNUS OPUS 810		PAGE 5



SWITCH-BANK CAPTURE SYSTEM



STOPLIST

- ACCESSORIES**
 ST60 = SWELL TO GREAT
 ST61 = GREAT TO PEDAL
 ST62 = SWELL TO PEDAL
 ST63 = TREMULANT GREAT
 ST64 = TREMULANT SWELL
 ST65 = CHORUS
 ST66 = MANUAL BASS

PEDAL

- ST01 = DOUBLE BASS 16'
 ST02 = SUBBASS 16'
 ST03 = OCTAVE 8'
 ST04 = GEDACKT 8'
 ST05 = BASSFLUTE 4'
 ST06 = MIXTURE III
 ST07 = CONTRA TRUMPET 16'
 ST10 = TRUMPET 8'
 ST11 = MIDI TO PEDAL (CHAN. 3)

GREAT

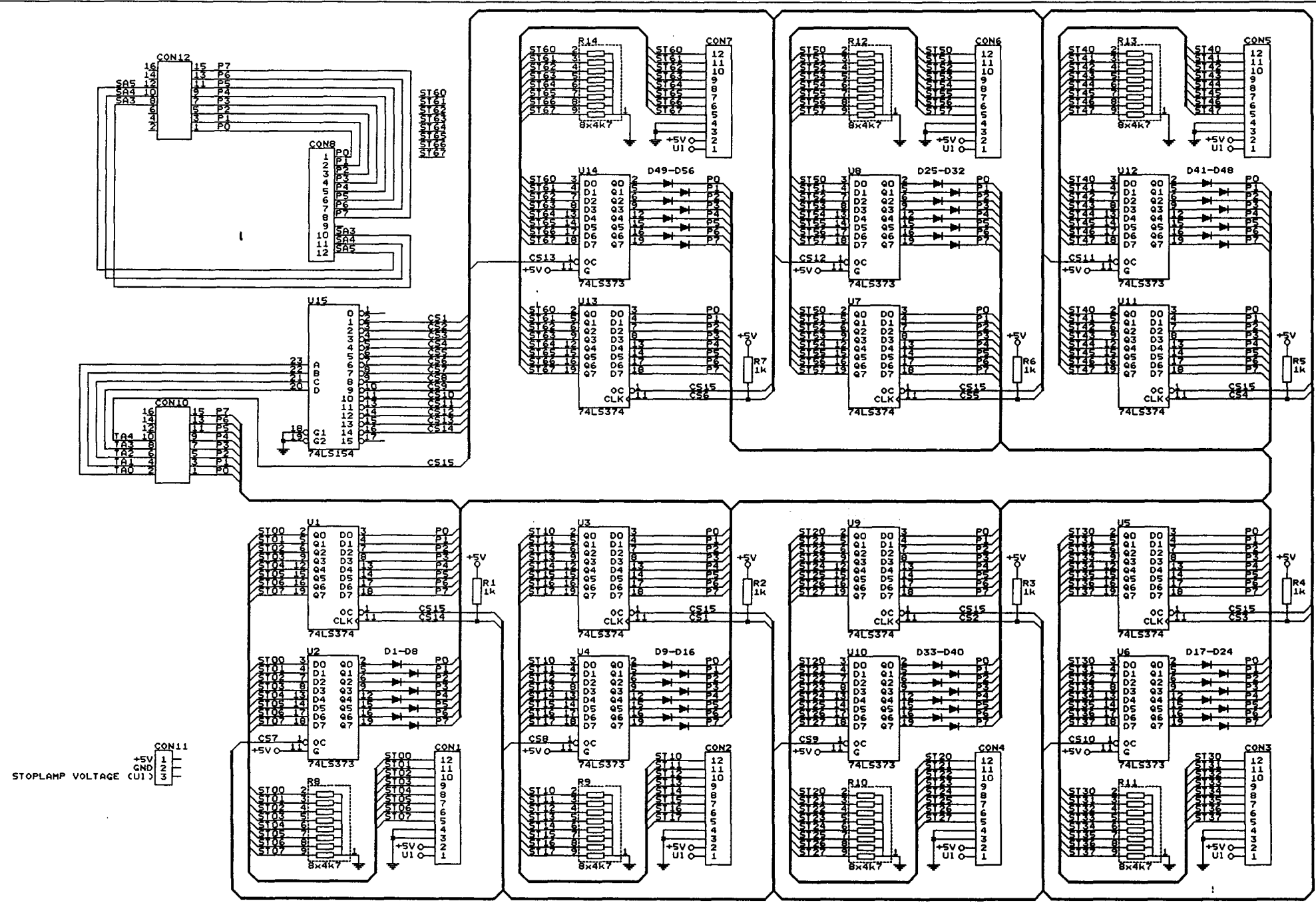
- ST14 = OPEN DIAPASON 8'
 ST15 = ROHRFLUTE 8'
 ST16 = OCTAVE 4'
 ST17 = TWELFTH 2 2/3'
 ST20 = SUPEROCTAVE 2'
 ST21 = CORNET IV
 ST22 = MIXTURE II-IV
 ST23 = TRUMPET 8'
 ST24 = MIDI TO GREAT (CHAN. 1)

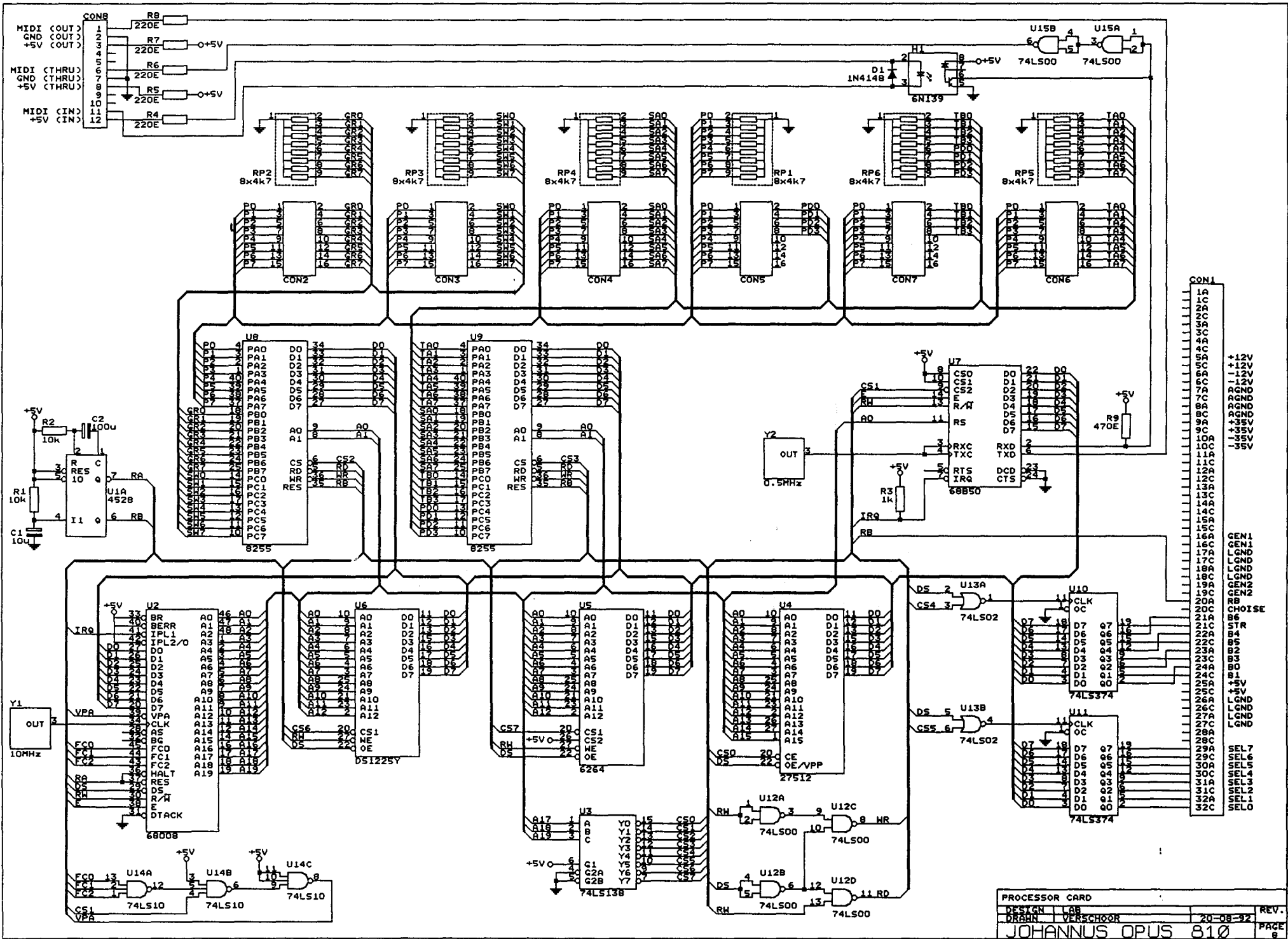
SWELL

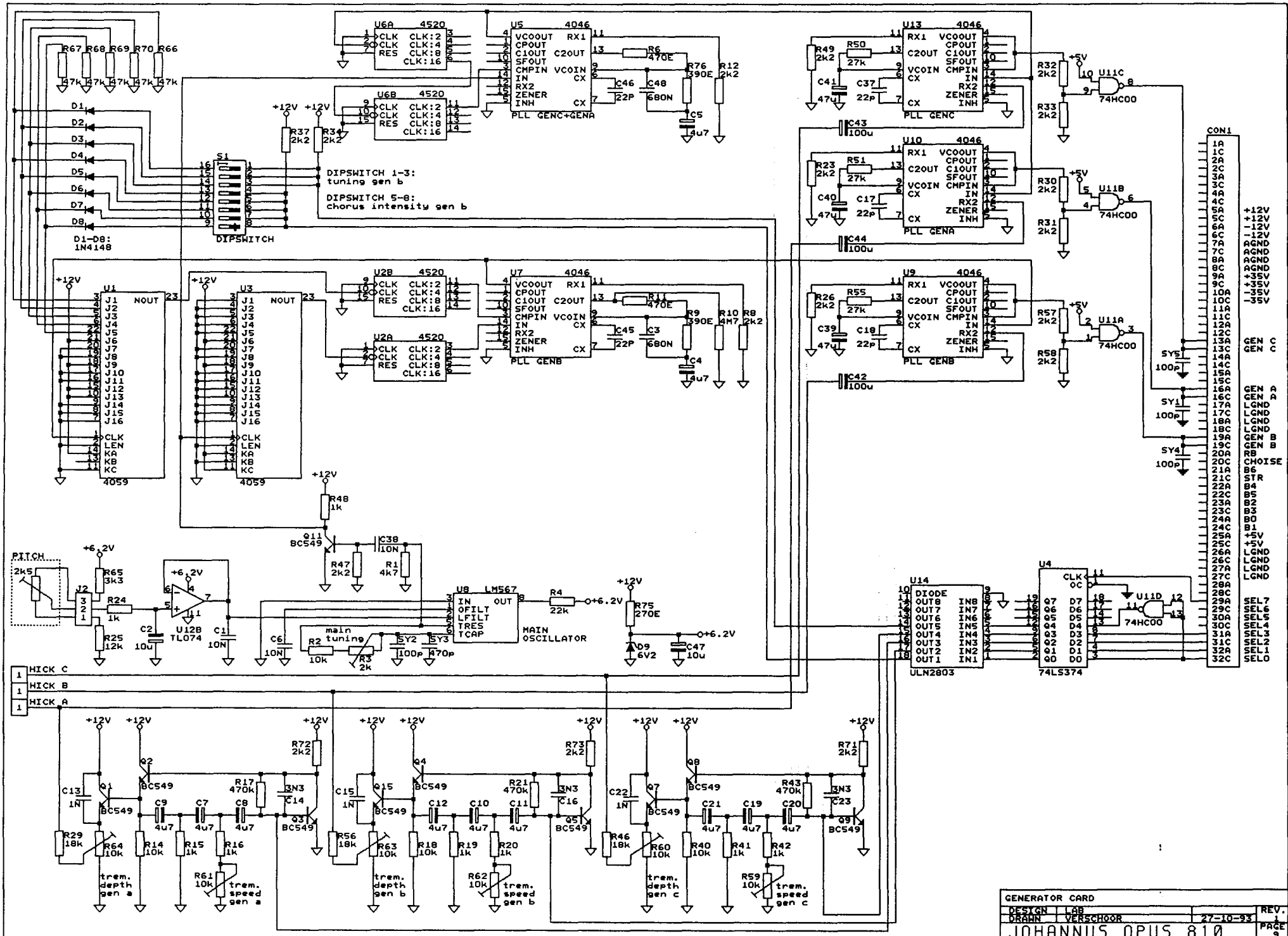
- ST27 = BOURDON 16'
 ST30 = STOPPED FLUTE 8'
 ST31 = VIOLA 8'
 ST32 = CELESTE 8'
 ST33 = OPEN FLUTE 4'
 ST34 = WALDFLUTE 2'
 ST35 = NAZARD 1 1/3'
 ST36 = CROMORNE 8'
 ST37 = MIDI TO SWELL (CHAN. 2)

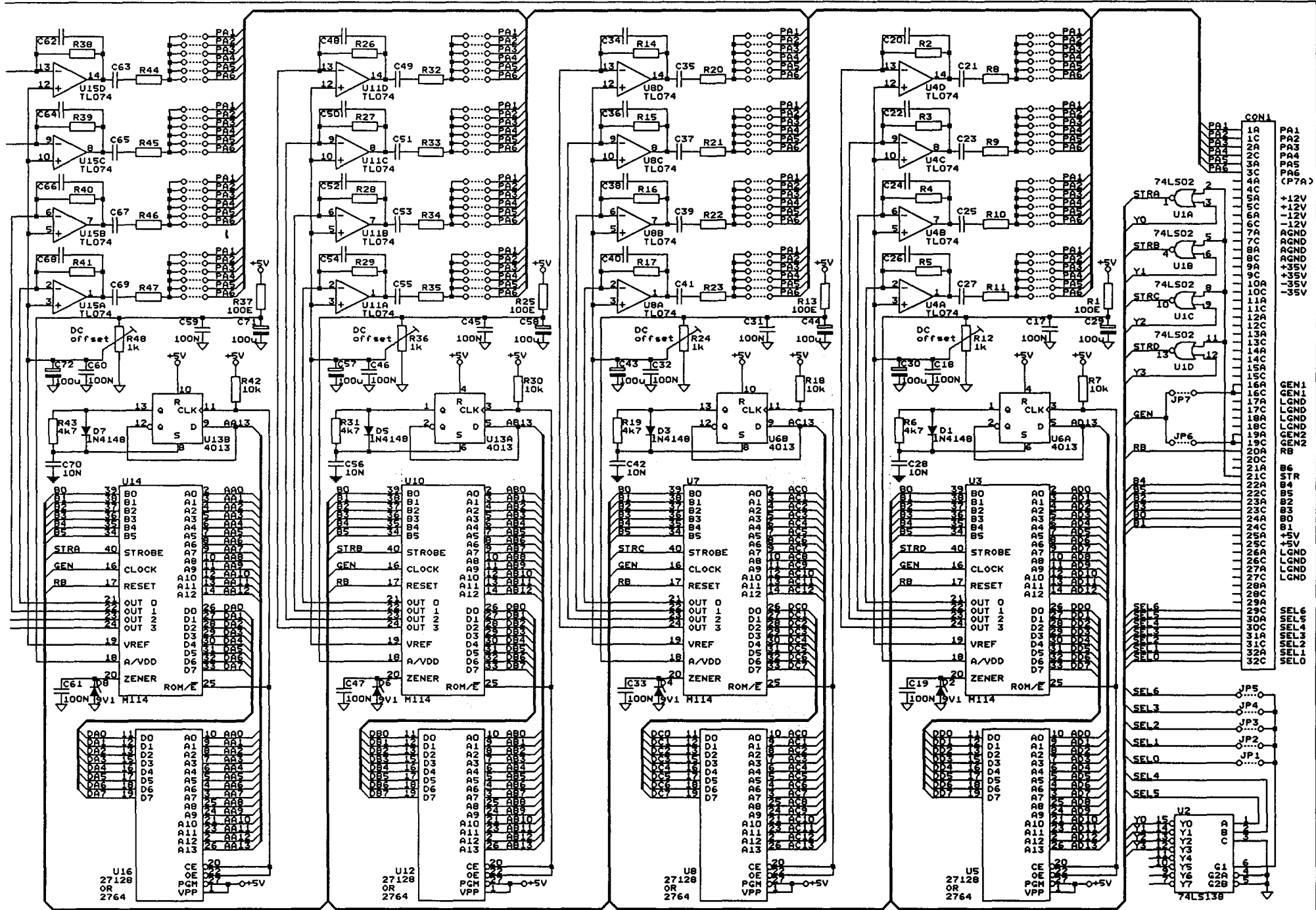
ALL CONNECTORS: TO CAPTURE SYSTEM
 ALL STOPLAMPS: 14Vdc/75mA

STOP-BANK AND SWITCH-BANK CAPTURE SYSTEM			
DESIGN	LAB	DATE	REV.
DRAAN	VERSCHOOR	25-10-93	1
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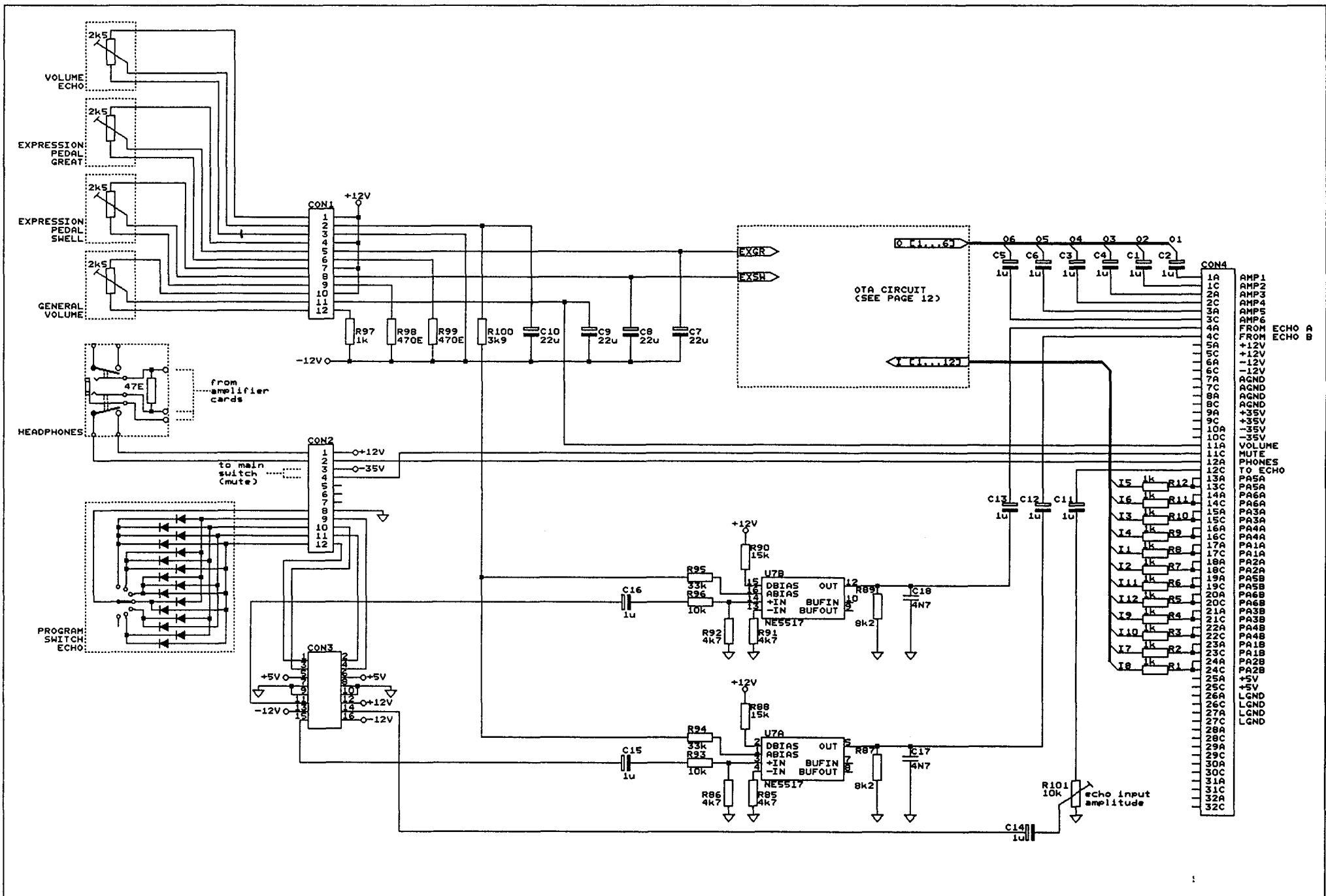


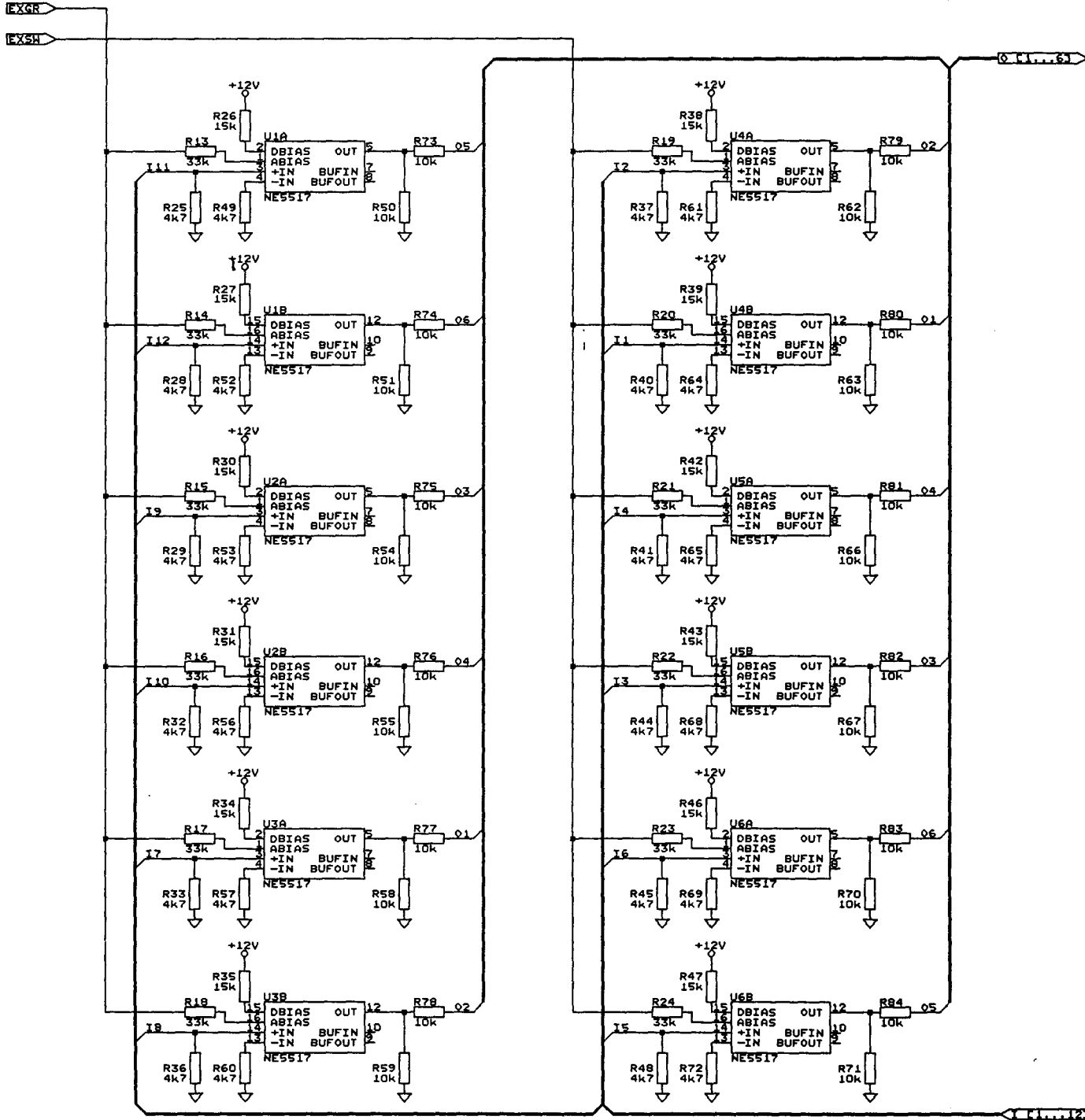


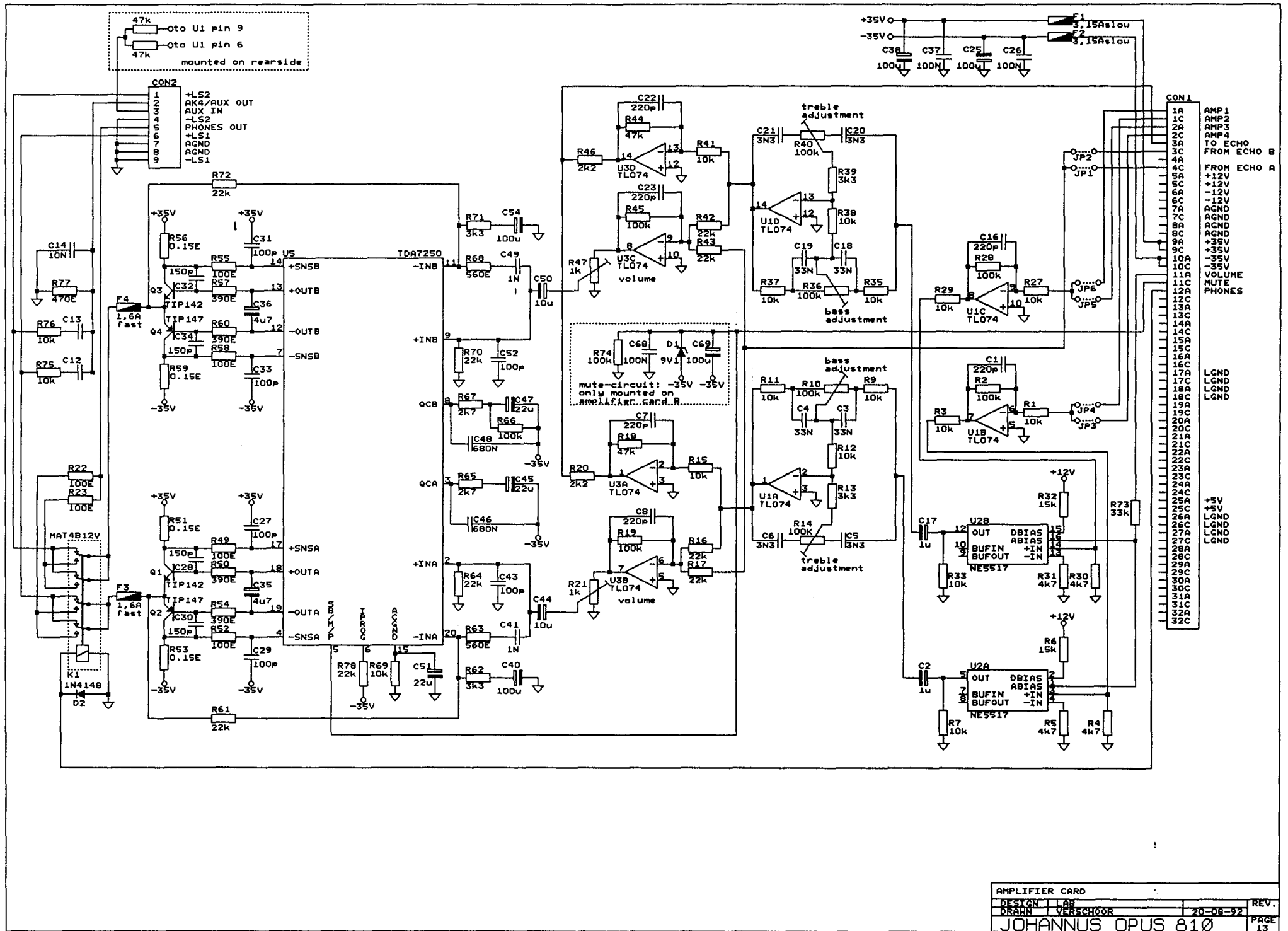


NOTE: IF FOR U5, U8, U12 OR U16 A 2764 EPROM IS PLACED INSTEAD OF A 27128 EPROM, THE 1/2 4013 (U6 AND U13) USED FOR SWITCHING THE UPPER 8K ROM AND THE LOWER 8K ROM, IS NOT NECESSARY.

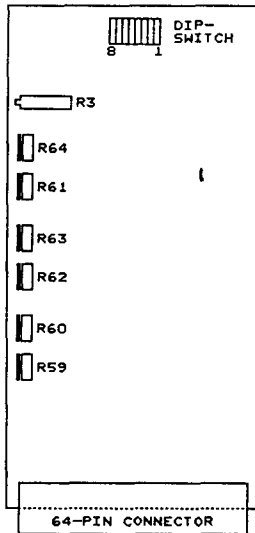
VOICE CARD			
DESIGN	LAB		REV.
DRAHN	VERSCHOOR	20-08-92	PAGE 10
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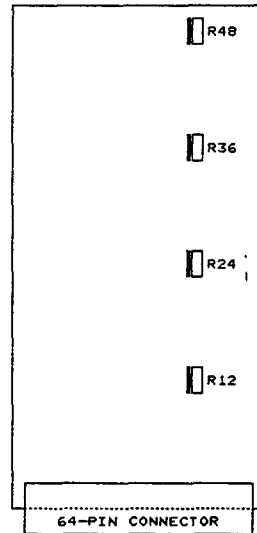


GENERATOR CARD
(COMPONENT-SIDE VIEW)



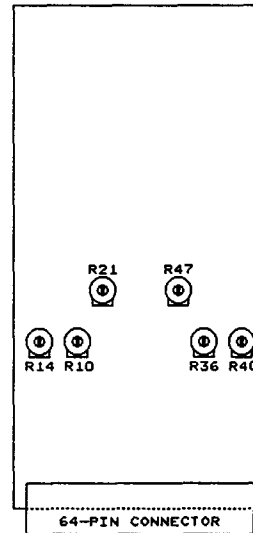
- R3 = MAIN TUNING
- R64 = TREMULANT DEPTH GREAT
- R61 = TREMULANT SPEED GREAT
- R63 = TREMULANT DEPTH SHELL
- R62 = TREMULANT SPEED SHELL
- R60 = TREMULANT DEPTH CHOIR
- R59 = TREMULANT SPEED CHOIR
- DS1-DS3 = TUNING SHELL
- DS4-DS8 = CHORUS INTENSITY SHELL

VOICE CARD
(COMPONENT-SIDE VIEW)



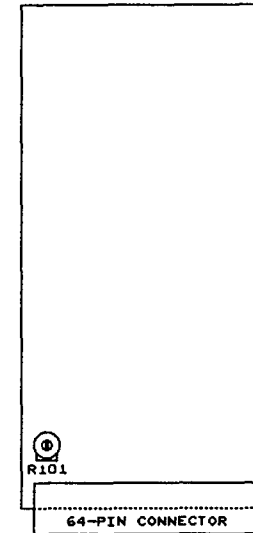
- R12 = DC-OFFSET VOICE D
(DISTORSION VOICE D)
 - R24 = DC-OFFSET VOICE C
(DISTORSION VOICE C)
 - R36 = DC-OFFSET VOICE B
(DISTORSION VOICE B)
 - R48 = DC-OFFSET VOICE A
(DISTORSION VOICE A)
- NOTE: R12-R24-R36-R48 ARE NOT
FOR CHANGING VOLUMES!!
TURNING THESE POTENTIOMETERS
WILL GIVE DISTORSION!!

AMPLIFIER CARD
(COMPONENT-SIDE VIEW)



- R10 = BASS LEFT AMPLIFIER
- R14 = TREBLE LEFT AMPLIFIER
- R21 = VOLUME LEFT AMPLIFIER
- R36 = BASS RIGHT AMPLIFIER
- R40 = TREBLE RIGHT AMPLIFIER
- R47 = VOLUME RIGHT AMPLIFIER

OTA CARD
(COMPONENT-SIDE VIEW)



- R101 = INPUT AMPLITUDE ECHO