

JOHANNUS

SCHEMATIC DIAGRAMS

P O S I T I E F

5 - 38

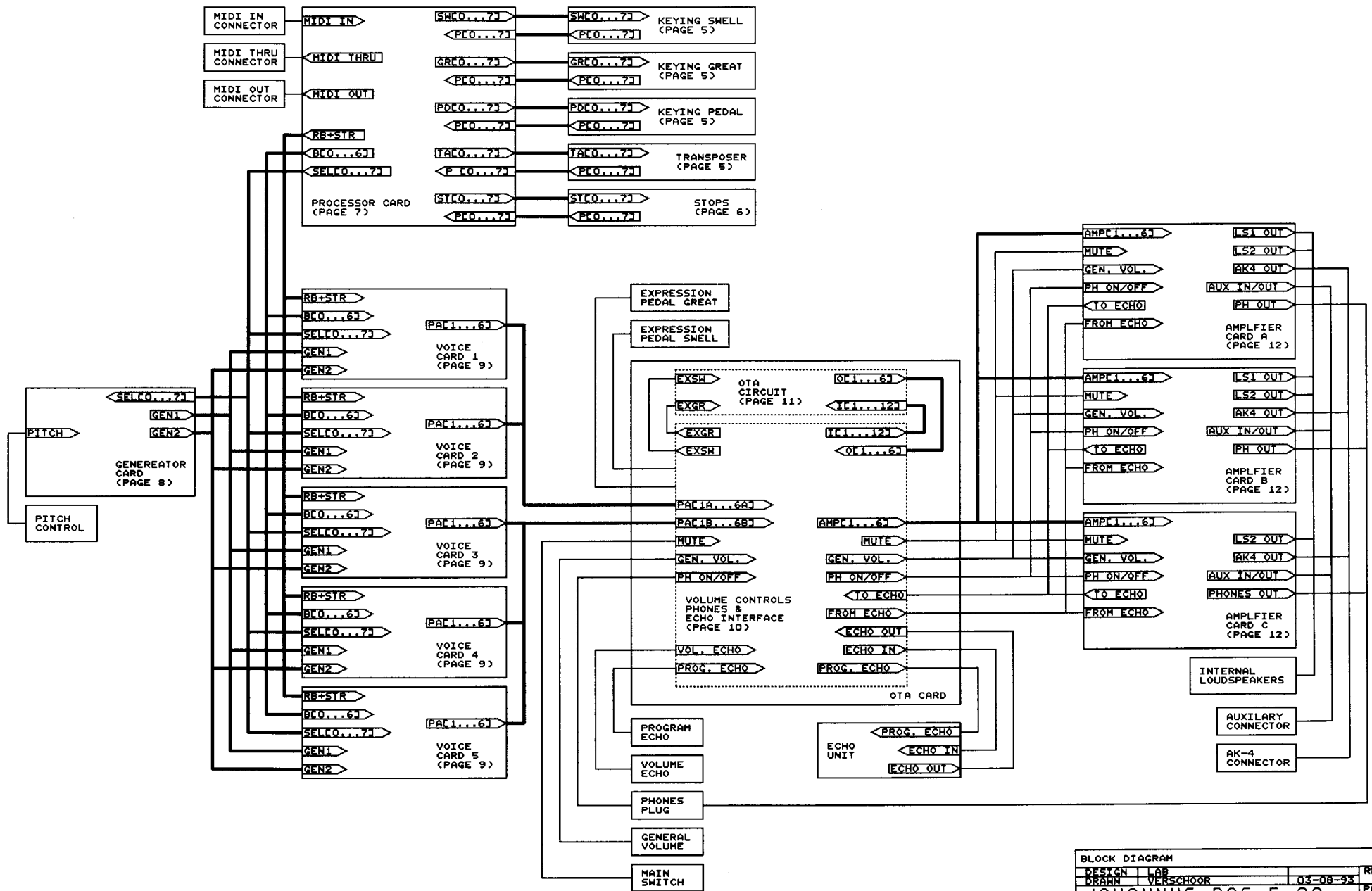
ALTERATIONS RESERVED

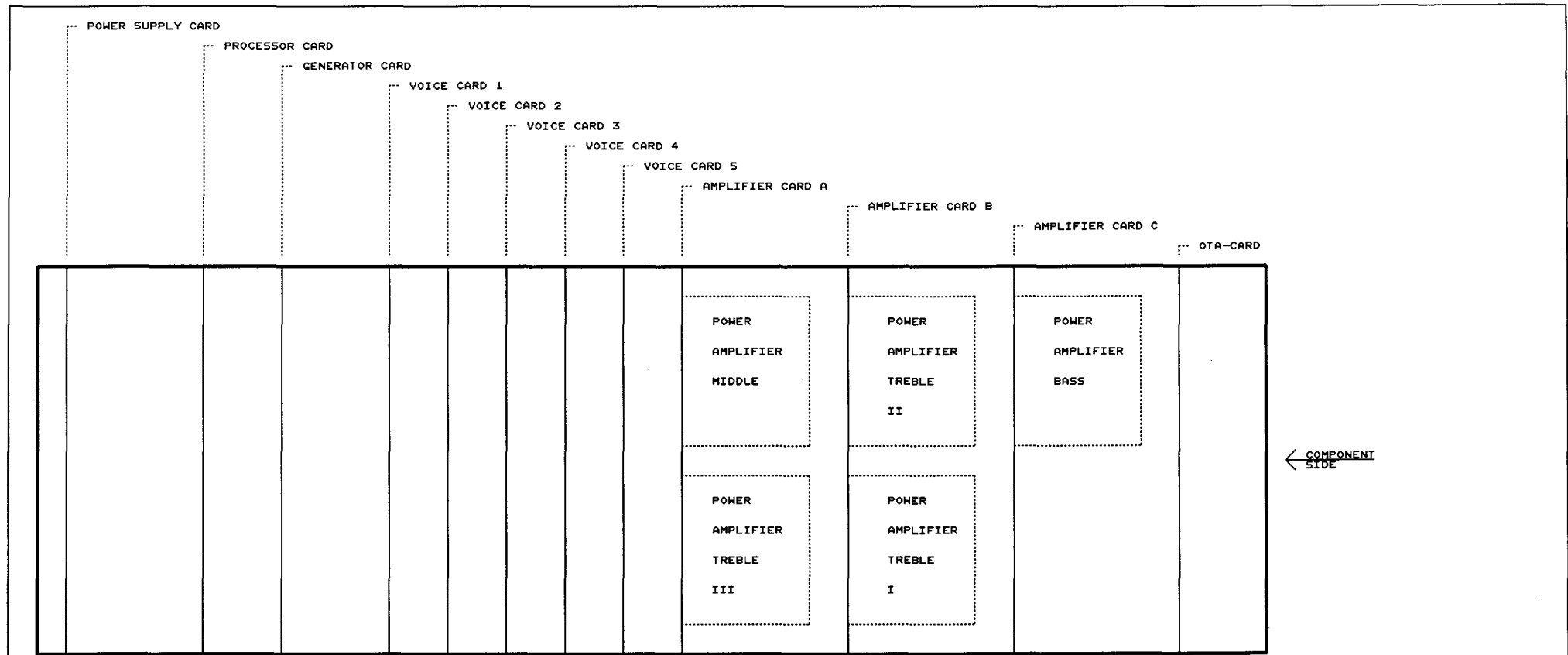
JOHANNUS Orgelbouw b.v.

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
7. PROCESSOR CARD
8. GENERATOR CARD
9. VOICE CARD
10. VOLUMECONTROLS; HEADPHONES CONNECTIONS &
ECHO INTERFACE (ota card)
11. EXPRESSION PEDAL CIRCUIT (ota card)
12. AMPLIFIER CARD
13. 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

SOLDERINGSIDE VIEW

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



AK-4
OUT

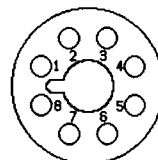
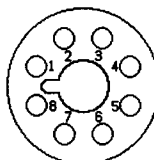
1. AUX OUT CHANNEL A
2. GROUND
3. AUX IN CHANNEL A
4. AUX OUT CHANNEL B
5. AUX IN CHANNEL B



AUX
IN/OUT

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

1. - BASS AMPLIFIER
2. + BASS AMPLIFIER

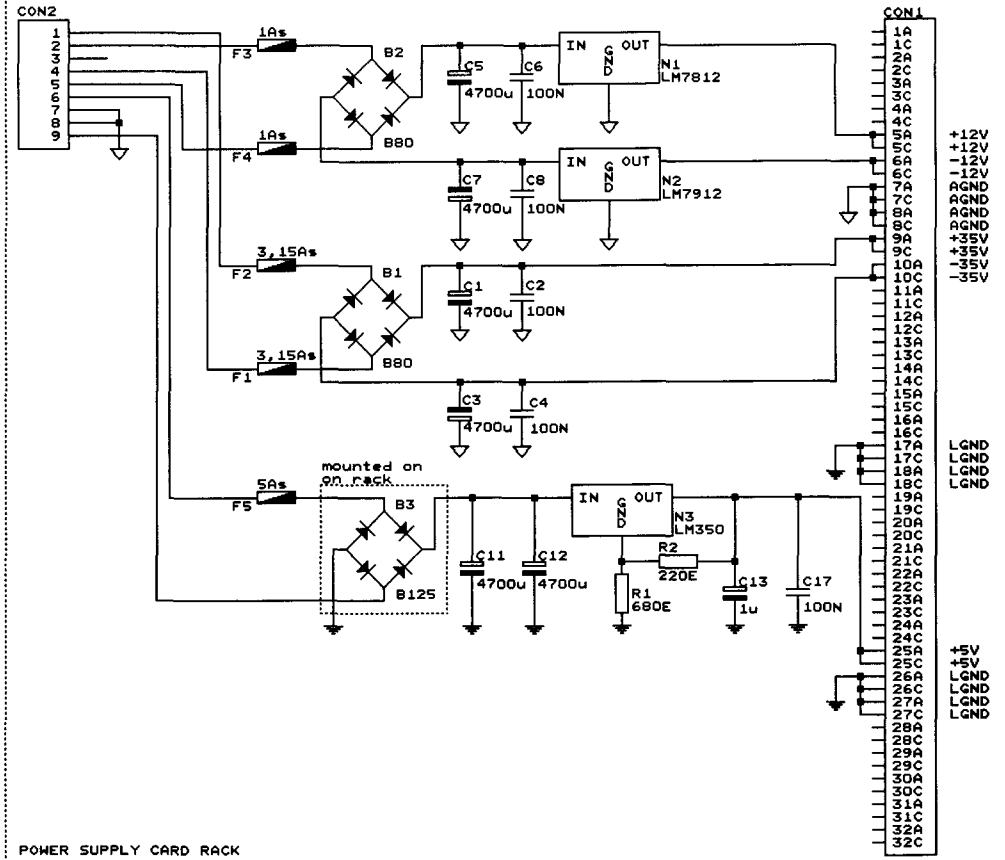
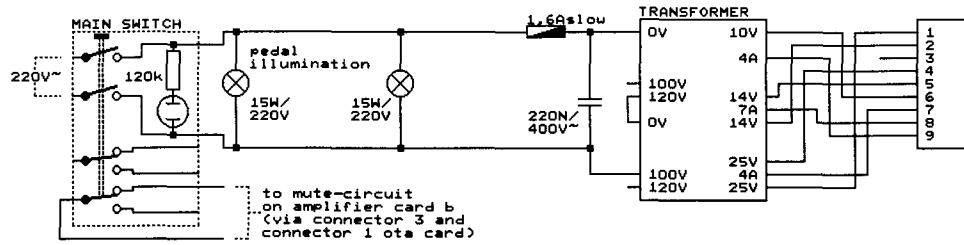


(OPTIONAL)

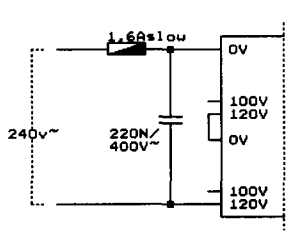
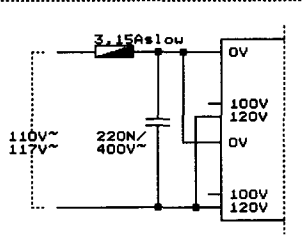
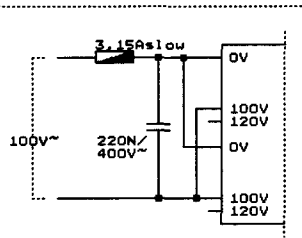
POSITION DIAGRAM CARDS (TOPVIEW) &
EXTERNAL CONNECTIONS (mounted on the
rearside of the organ)

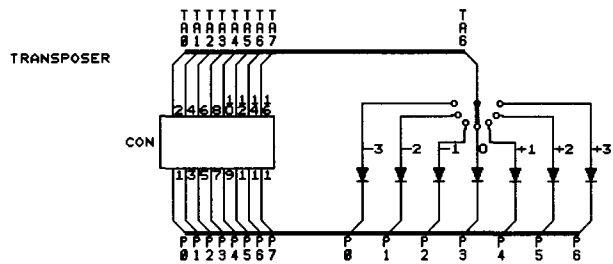
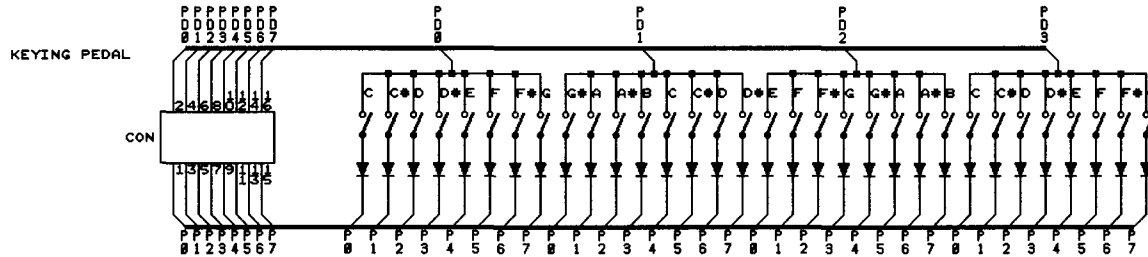
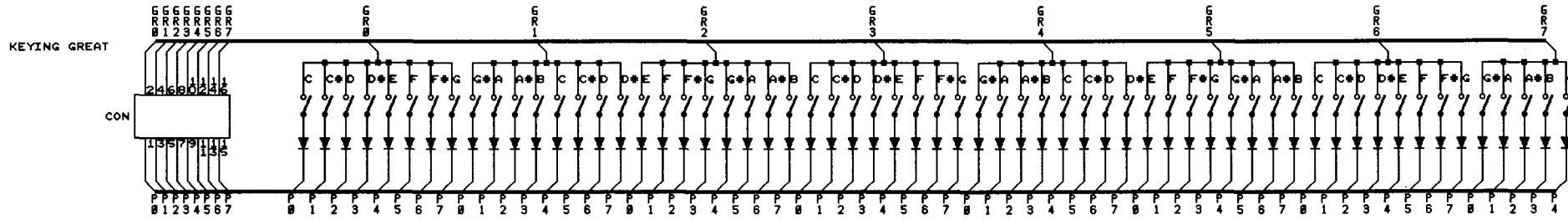
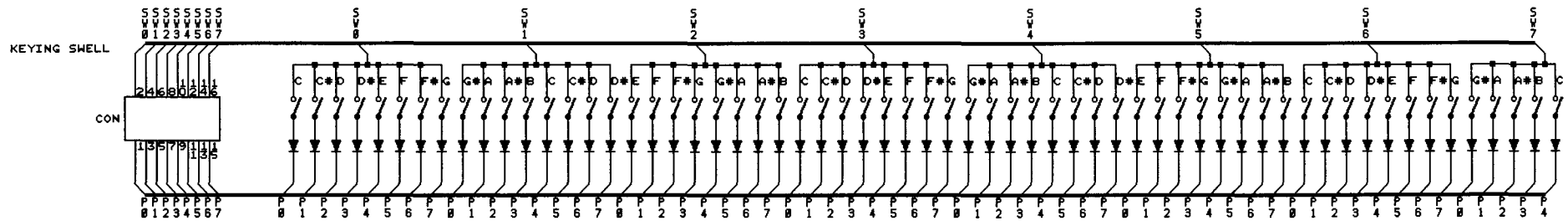
DESIGN	LAB	REV.
DRAWN	VERSCHOOR	03-08-93
JOHANNUS POS 5-38		PAGE 2

CON1	CON2	CON3	CON4-5	CON6-8	CON9-10	CON11	CON12	
015 020 030 040 +12V 050 -12V 060 AGND 070 AGND 080 +35V 090 -35V 010 0110 0120 0130 0140 0150 0160 LGND 0170 LGND 0180 0190 0200 0210 0220 0230 0240 +5V 0250 LGND 0260 LGND 0270 0280 0290 0300 0310 0320	015 020 030 040 +12V 050 -12V 060 AGND 070 AGND 080 +35V 090 -35V 010 0110 0120 0130 0140 0150 0160 LGND 0170 LGND 0180 0190 RB 0200 B6 0210 B4 0220 B2 0230 B0 0240 +5V 0250 LGND 0260 LGND 0270 0280 SEL7 0290 SEL5 0300 SEL3 0310 SEL1 0320	015 020 030 040 +12V 050 -12V 060 AGND 070 AGND 080 +35V 090 -35V 010 0110 0120 0130 0140 0150 0160 GEN1 0170 LGND 0180 0190 GEN2 0200 RB 0210 B6 0220 B4 0230 B2 0240 B0 0250 +5V 0260 LGND 0270 LGND 0280 0290 SEL7 0300 SEL5 0310 SEL3 0320	015 020 030 040 +12V 050 -12V 060 AGND 070 AGND 080 +35V 090 -35V 010 0110 0120 0130 0140 0150 0160 GEN1 0170 LGND 0180 0190 GEN2 0200 RB 0210 B6 0220 B4 0230 B2 0240 B0 0250 +5V 0260 LGND 0270 LGND 0280 0290 SEL7 0300 SEL5 0310 SEL3 0320	015 020 030 040 +12V 050 -12V 060 AGND 070 AGND 080 +35V 090 -35V 010 0110 0120 0130 0140 0150 0160 GEN1 0170 LGND 0180 0190 GEN2 0200 RB 0210 B6 0220 B4 0230 B2 0240 B0 0250 +5V 0260 LGND 0270 LGND 0280 0290 SEL7 0300 SEL5 0310 SEL3 0320	015 020 030 040 +12V 050 -12V 060 AGND 070 AGND 080 +35V 090 -35V 010 0110 0120 0130 0140 0150 0160 GEN1 0170 LGND 0180 0190 GEN2 0200 RB 0210 B6 0220 B4 0230 B2 0240 B0 0250 +5V 0260 LGND 0270 LGND 0280 0290 SEL7 0300 SEL5 0310 SEL3 0320	015 020 030 040 +12V 050 -12V 060 AGND 070 AGND 080 +35V 090 -35V 010 0110 0120 0130 0140 0150 0160 AMP3 0170 TO ECHO 0180 0190 +12V 0200 -12V 0210 AGND 0220 AGND 0230 +35V 0240 -35V 0250 VOLUME 0260 PHONES 0270 0280 0290 0300 0310 0320	015 020 030 040 +12V 050 -12V 060 AGND 070 AGND 080 +35V 090 -35V 010 0110 0120 0130 0140 0150 0160 AMP4 0170 FROM ECHO B 0180 0190 +12V 0200 -12V 0210 AGND 0220 AGND 0230 +35V 0240 -35V 0250 VOLUME 0260 PHONES 0270 0280 0290 0300 0310 0320	015 020 030 040 +12V 050 -12V 060 AGND 070 AGND 080 +35V 090 -35V 010 0110 0120 0130 0140 0150 0160 AMP1 0170 FROM ECHO A 0180 0190 +12V 0200 -12V 0210 AGND 0220 AGND 0230 +35V 0240 -35V 0250 VOLUME 0260 PHONES 0270 0280 0290 0300 0310 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	



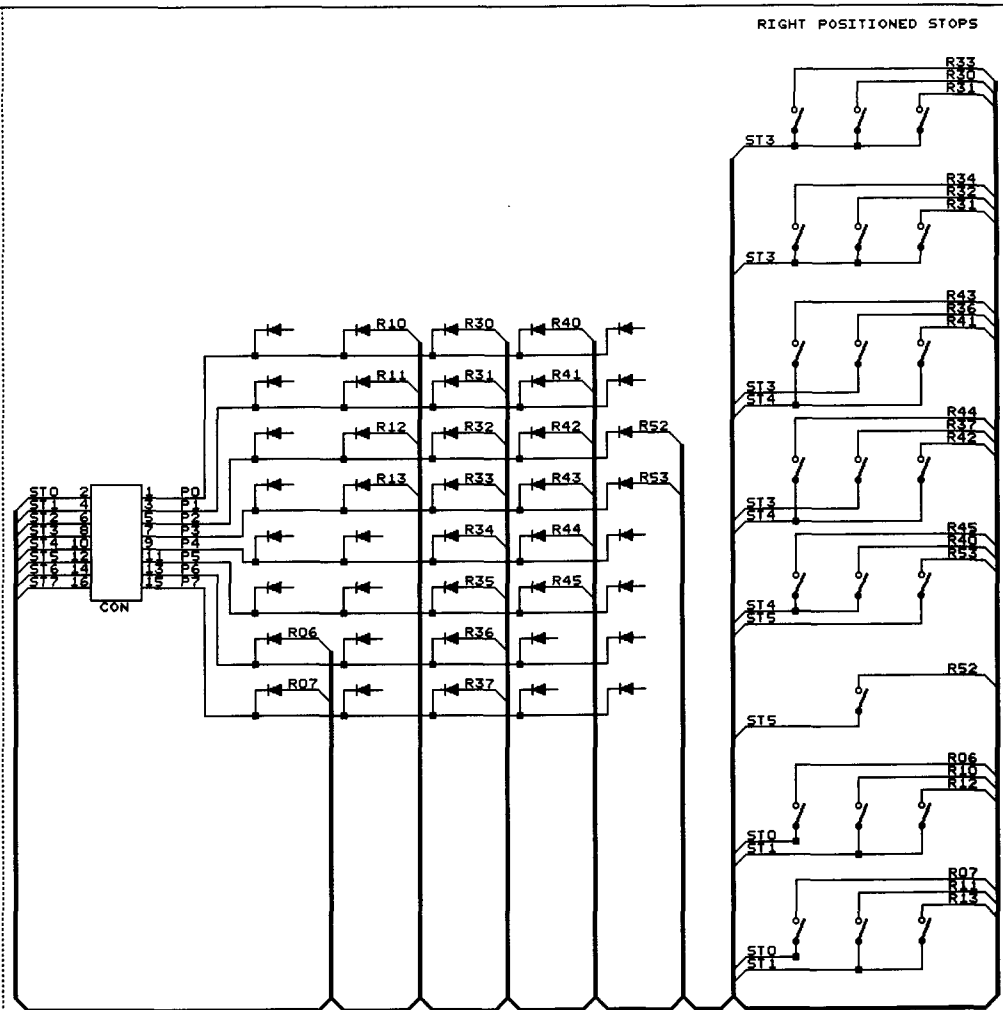
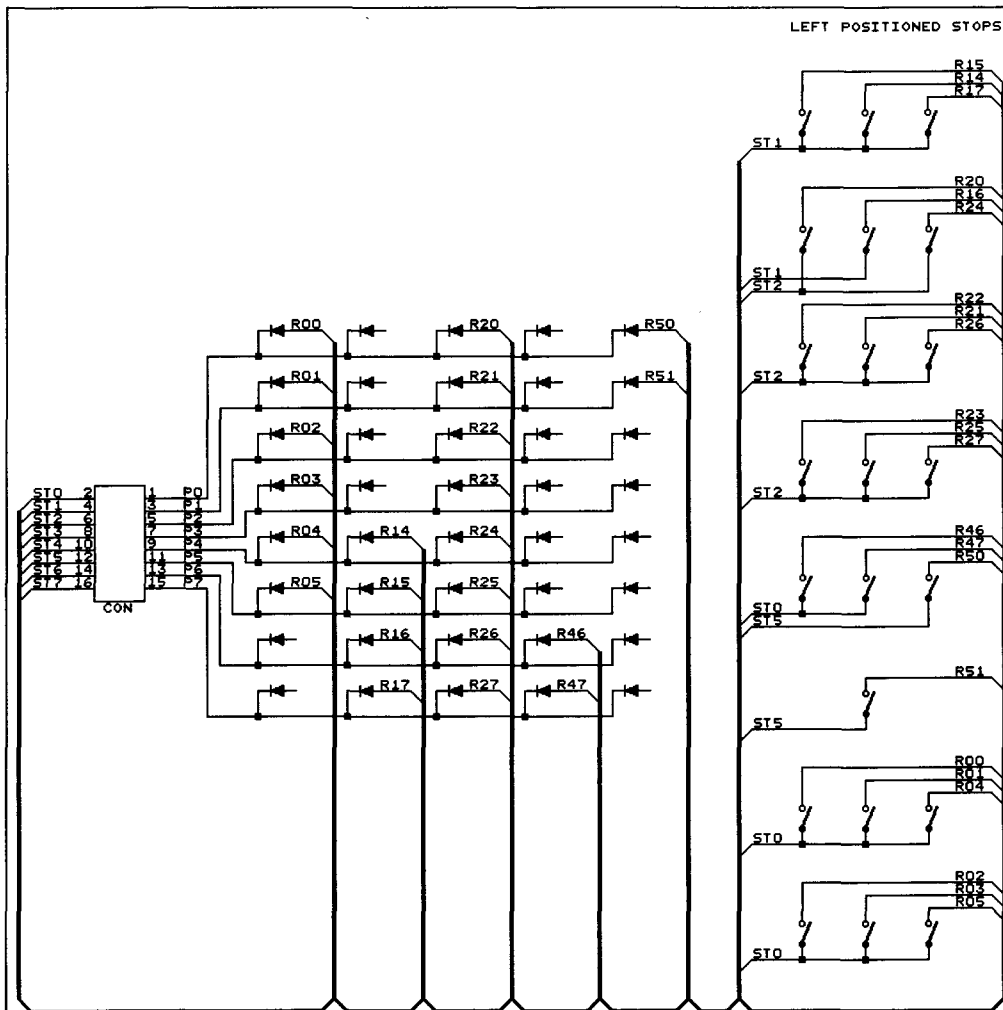
POWER SUPPLY CARD RACK





ALL CONNECTORS: TO PROCESSOR CARD
 ALL DIODES: 1N4148

SCANNING KEYING & TRANSPOSER		
DESIGN	LAB	REV.
GRAHN	VERSCHOOR	03-08-33
JOHANNUS POS 5-38		PAGE 5



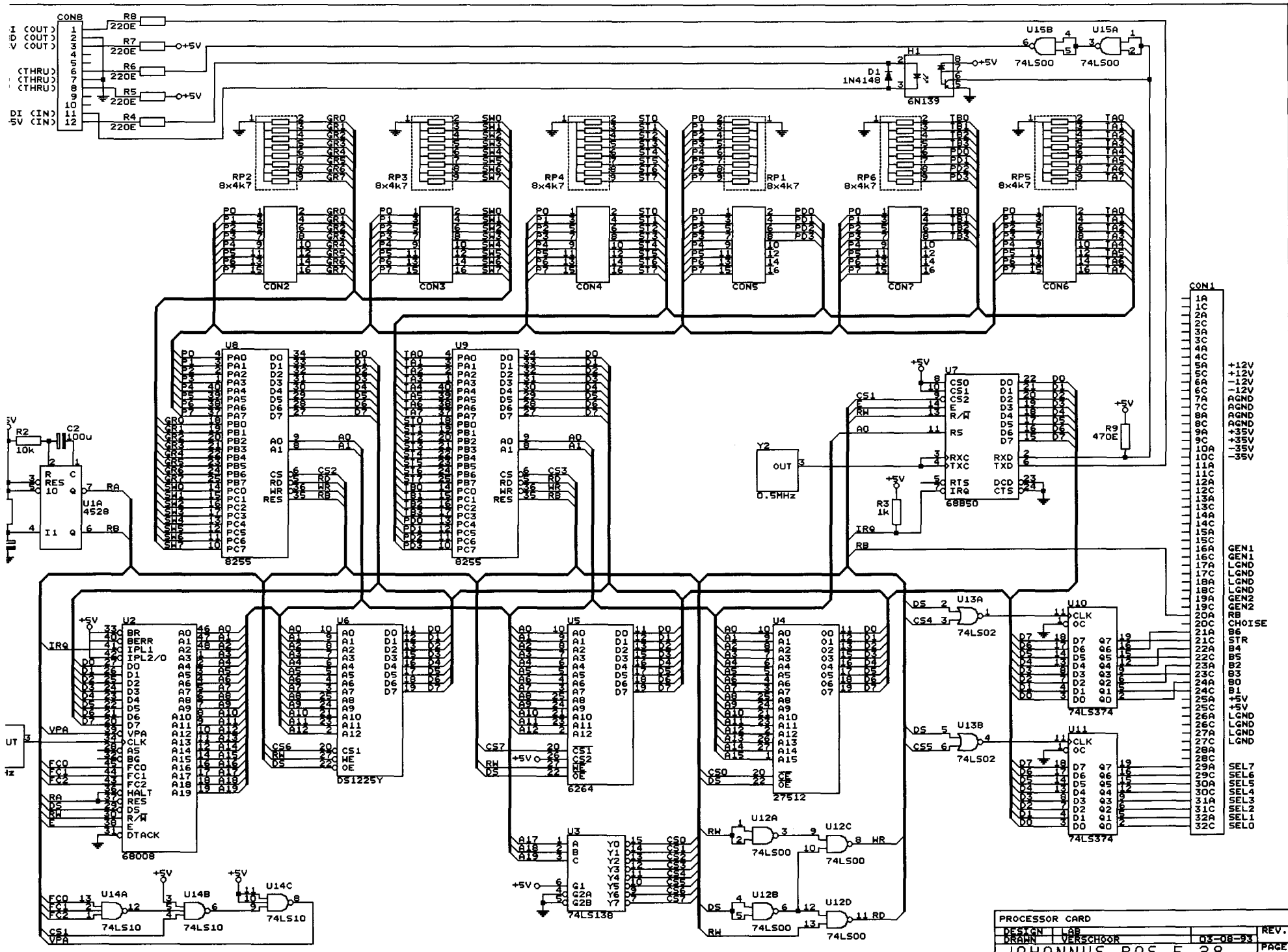
- STOPLIST
- GREAT**
- R14 = BOURDON 16'
 - R15 = OPEN DIAPASON 8'
 - R16 = ROHRFLUTE 8'
 - R17 = GAMBA 8'
 - R20 = OCTAVE 4'
 - R21 = OPEN FLUTE 4'
 - R22 = TWELFTH 2 2/3'
 - R23 = SUPEROCTAVE 2'
 - R24 = CORNET IV
 - R25 = MIXTURE IV-VI
 - R26 = TRUMPET 16'
 - R27 = TRUMPET 8'
- ACCESSORIES**
- R46 = SWELL TO GREAT
 - R47 = GREAT TO PEDAL
 - R50 = SWELL TO PEDAL
 - R51 = TREMULANT GREAT
- PEDAL**
- R00 = DOUBLE BASS 16'
 - R01 = SUBBASS 16'
 - R02 = OCTAVE 8'
 - R03 = GEDACKT 8'
 - R04 = CHORALBASS 4'
 - R05 = BASSFLUTE 4'

- STOPLIST
- SWELL**
- R30 = QUINTATON 16'
 - R31 = OPEN DIAPASON 8'
 - R32 = STOPPED FLUTE 8'
 - R33 = VIOLA 8'
 - R34 = CELESTE 8'
 - R35 = OCTAVE 4'
 - R36 = ROHRFLUTE 4'
 - R37 = FLUTE TWELFTH 2 2/3'
 - R40 = WALDFLUTE 2'
 - R41 = TIERCE 1 3/5'
 - R42 = NAZARD 1 1/3'
 - R43 = RAUSCHPFEIFE II-IV
 - R44 = CROMORNE 8'
 - R45 = OBOE 8'
- ACCESSORIES**
- R52 = TREMULANT SWELL
 - R53 = CHORUS
- PEDAL**
- R06 = OPEN FLUTE 2'
 - R07 = MIXTURE III
 - R10 = BOMBARDE 32'
 - R11 = CONTRA TRUMPET 16'
 - R12 = TRUMPET 8'
 - R13 = CLARION 4'

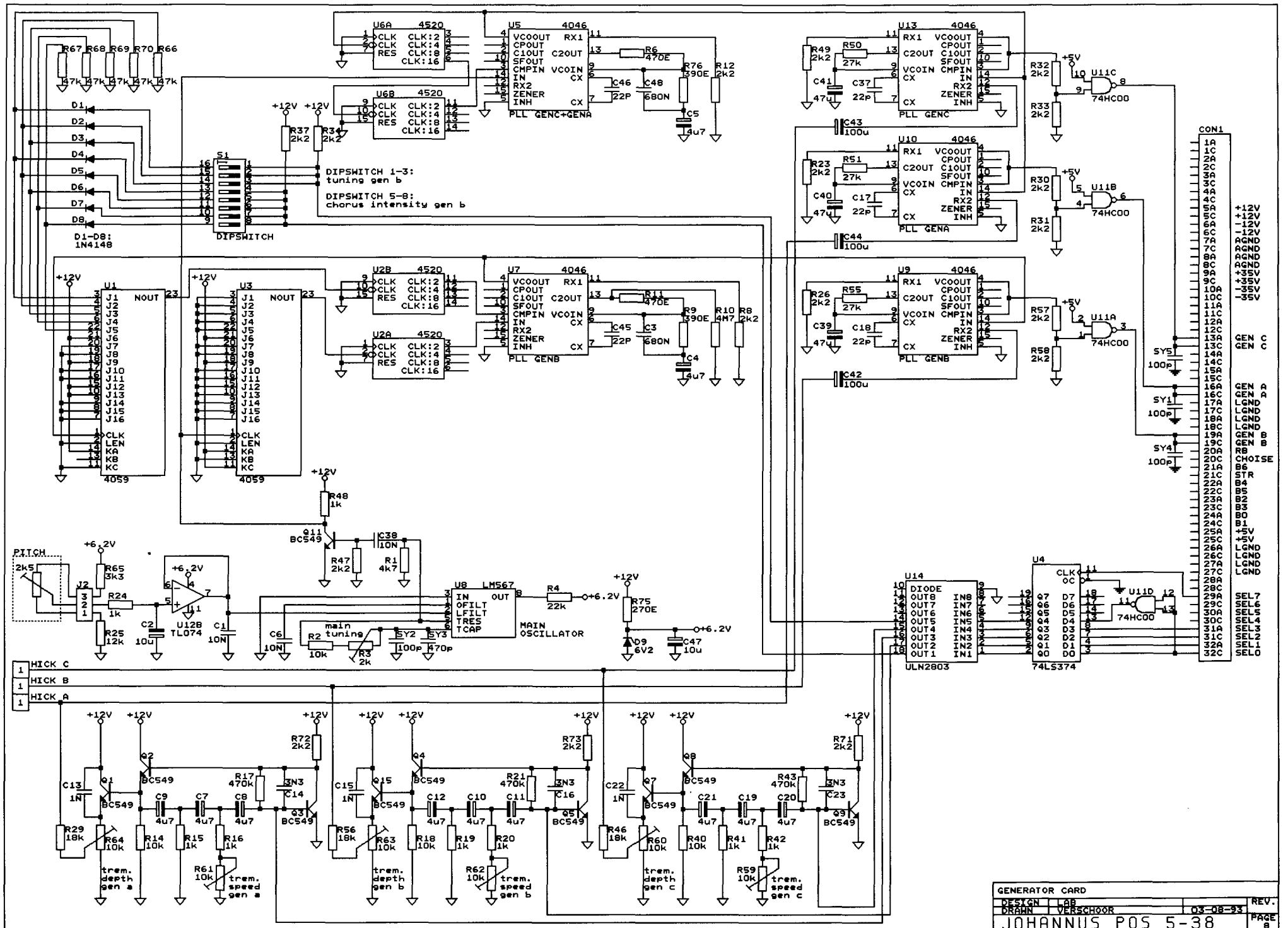
ALL CONNECTORS: TO CAPTURE SYSTEM

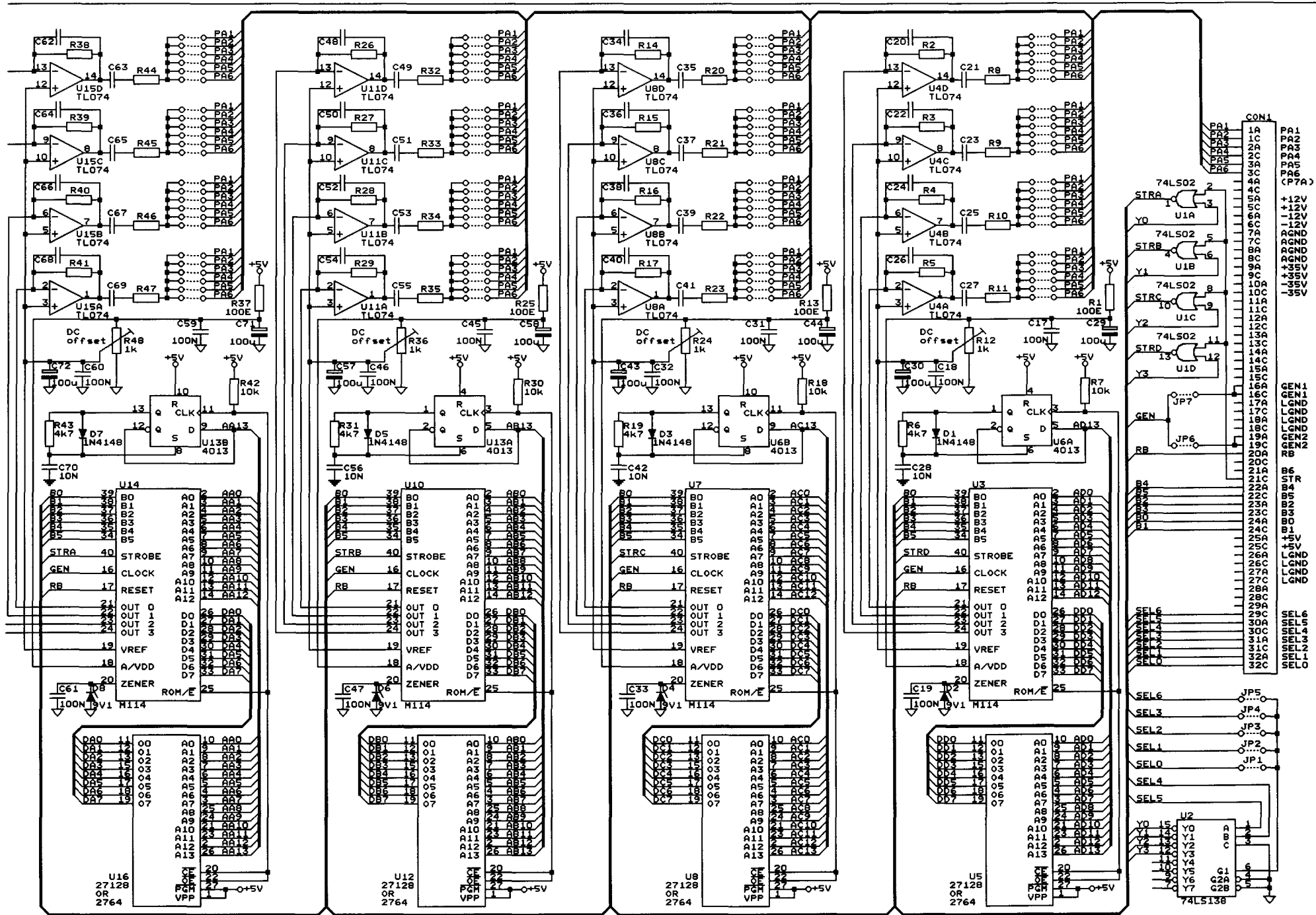
ALL DIODES: 1N4148

STOP-BANK		REV.
DESIGN	LAB	03-08-93
DRAWN	VERSCHOOR	PAGE 6
JOHANNUS POS 5-38		

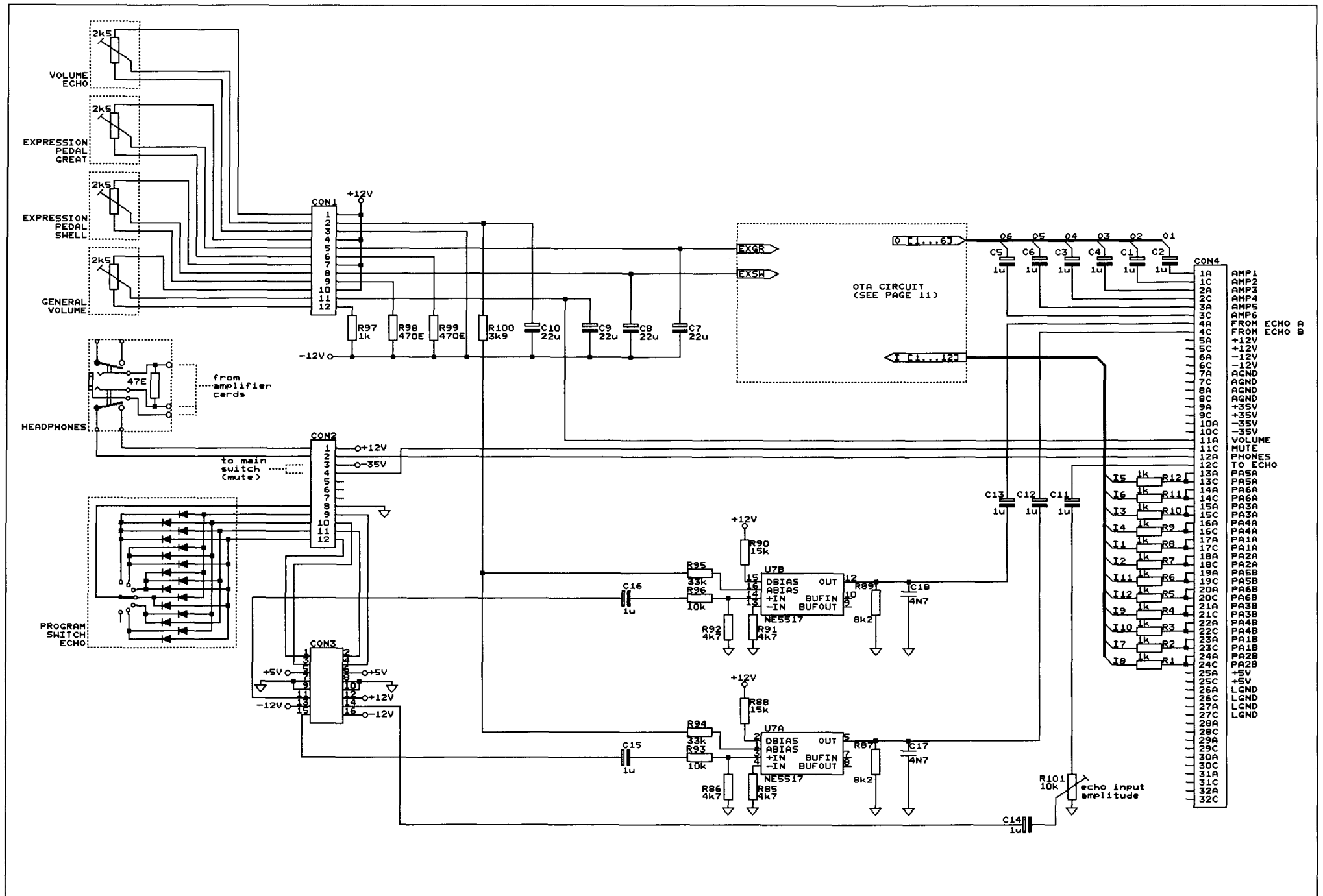


PROCESSOR CARD			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	03-08-83	PAGE
JOHANNUS POS 5-38			7

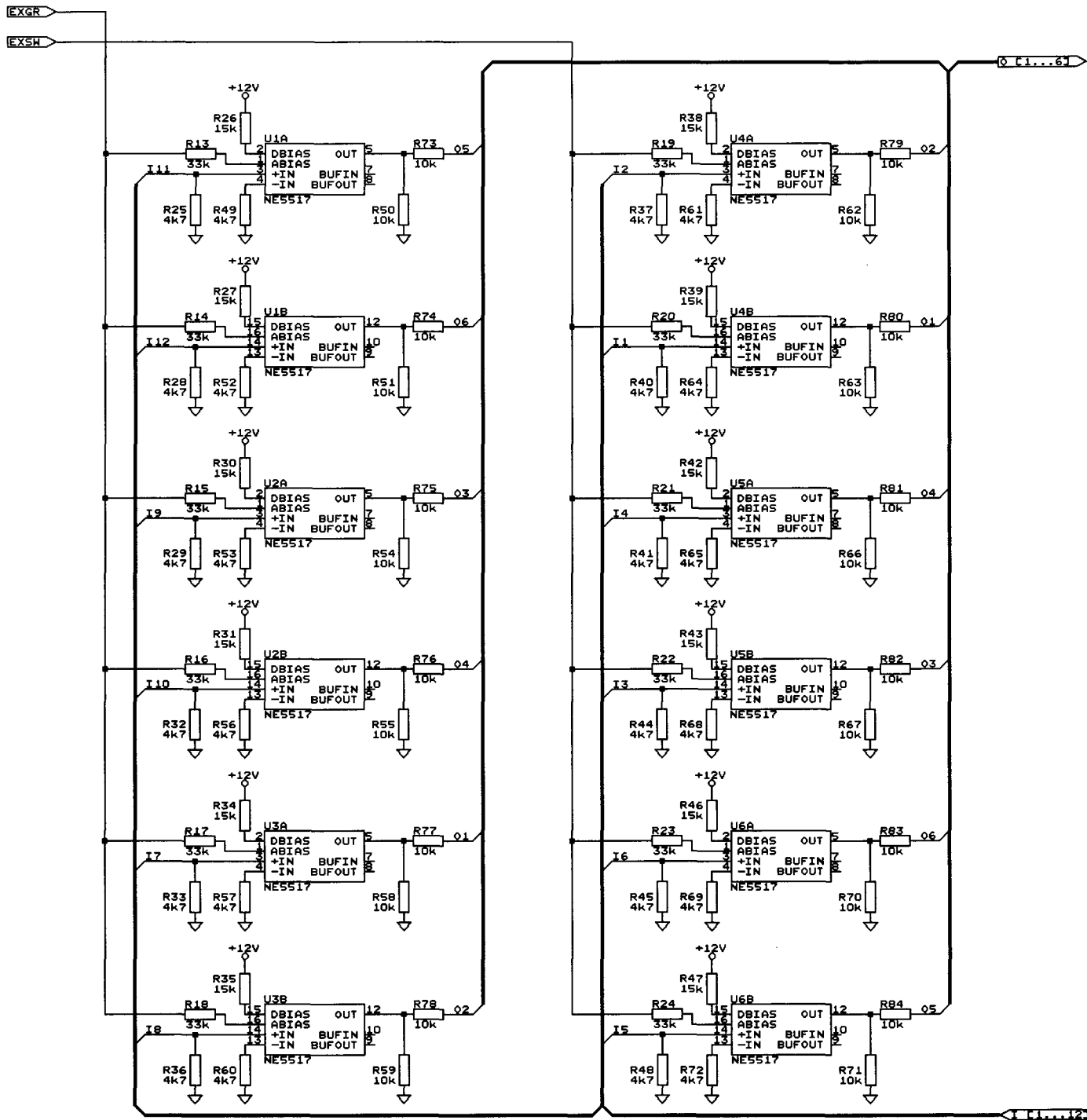


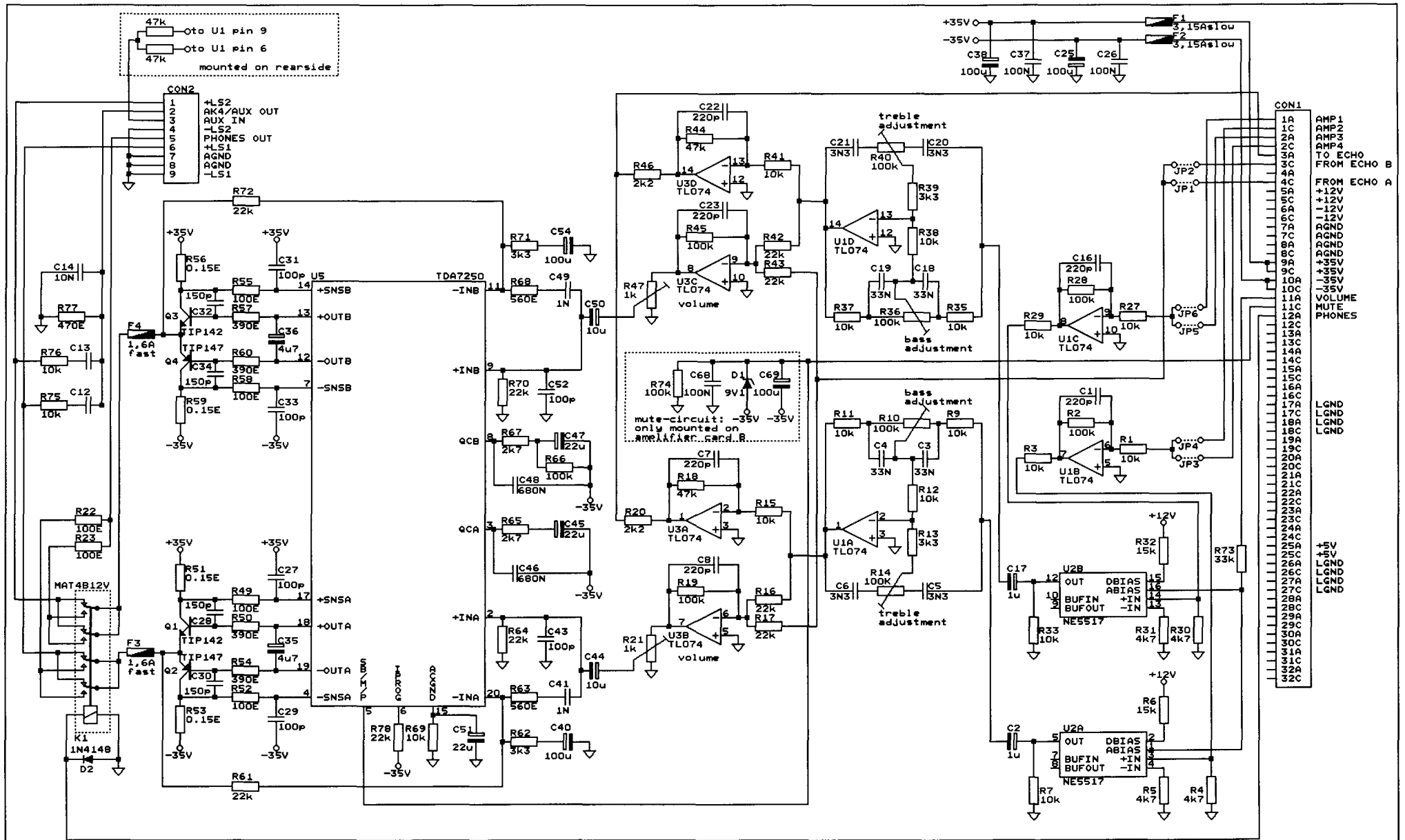


NOTE: IF FOR U5, U8, U12 OR U16 A 2764 EPROM IS PLACED INSTEAD OF A 27128 EPROM, THE 1/2 4013 (U6 AND U13) USED FOR SWITCHING THE UPPER BK ROM AND THE LOWER BK ROM, IS NOT NECESSARY.

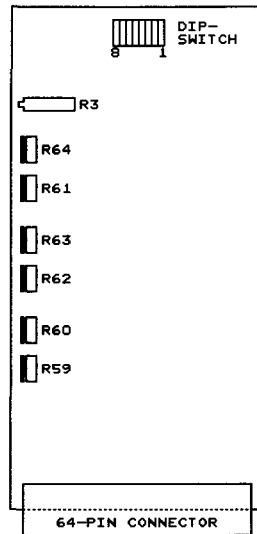


VOLUME CONTROLS; HEADPHONES CONNECTIONS & ECHO INTERFACE (ota card)			
DESIGN	LAB	REV.	
DRAWN	VERSCHOOR	03-08-93	PAGE 10
JOHANNUS POS 5-38			



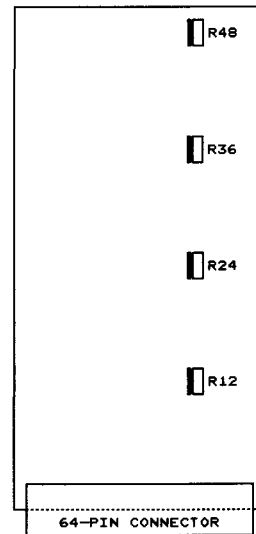


GENERATOR CARD
(COMPONENT-SIDE VIEW)



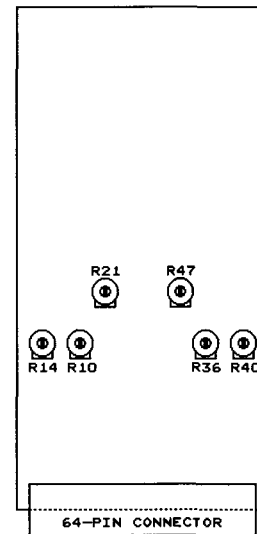
- R3 = MAIN TUNING
- R64 = TREMLANT DEPTH GREAT
- R61 = TREMLANT SPEED GREAT
- R63 = TREMLANT DEPTH SWELL
- R62 = TREMLANT SPEED SWELL
- R60 = TREMLANT DEPTH CHOIR
- R59 = TREMLANT SPEED CHOIR
- DS1-DS3 = TUNING SWELL
- DS4-DS8 = CHORUS INTENSITY SWELL

VOICE CARD
(COMPONENT-SIDE VIEW)



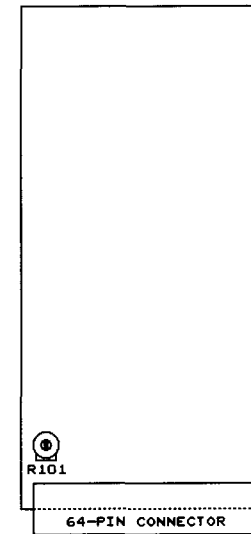
- R12 = DC-OFFSET VOICE D
(DISTORSION VOICE D)
 - R24 = DC-OFFSET VOICE C
(DISTORSION VOICE C)
 - R36 = DC-OFFSET VOICE B
(DISTORSION VOICE B)
 - R48 = DC-OFFSET VOICE A
(DISTORSION VOICE A)
- NOTE: R12-R24-R36-R48 ARE NOT
FOR CHANGING VOLUMES!!
TURNING THESE POTENTIOMETERS
WILL GIVE DISTORSION!!

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