

JOHANNUS

SCHEMATIC DIAGRAMS

P O S I T I E F

5 - 30

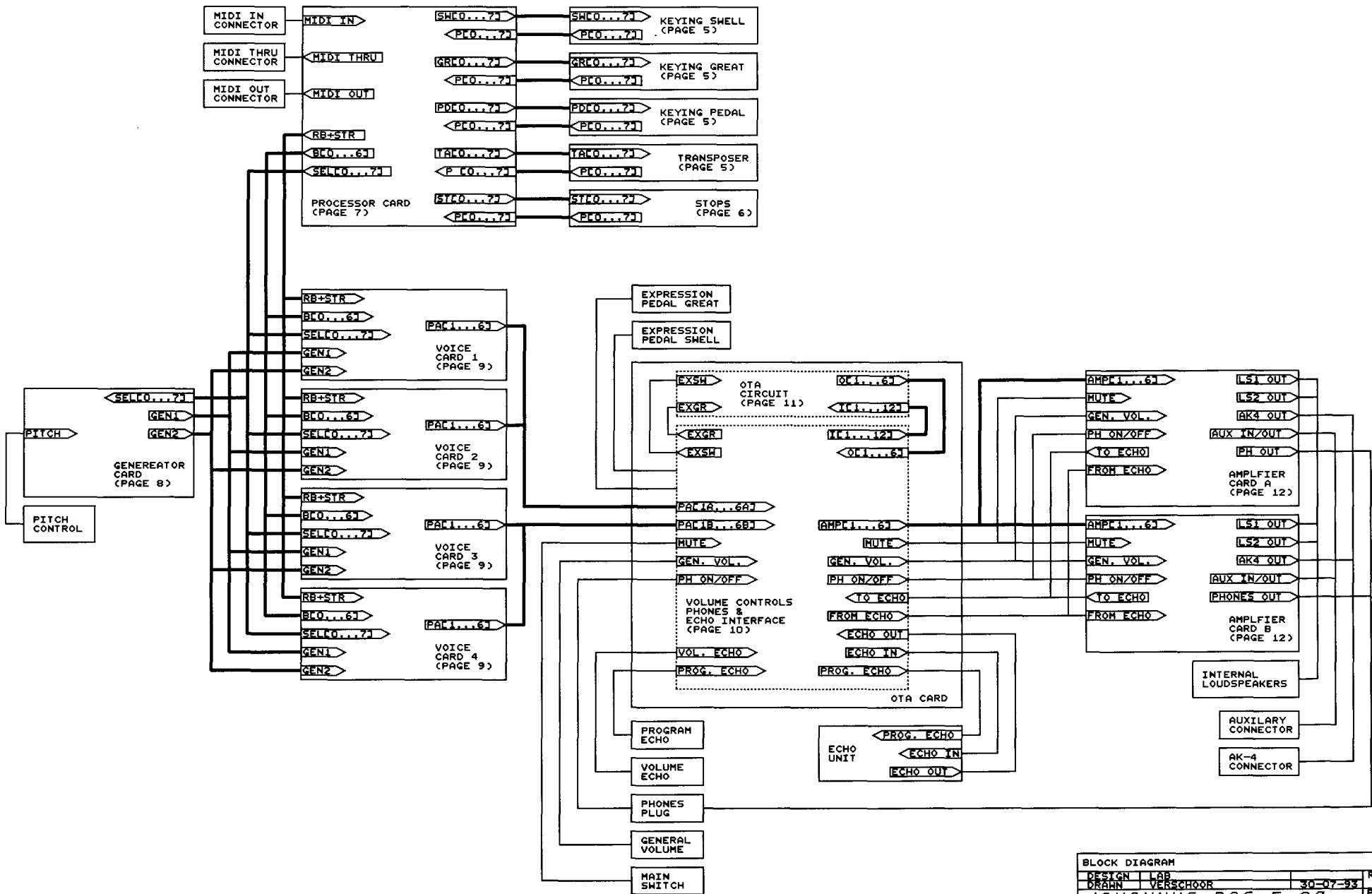
ALTERATIONS RESERVED

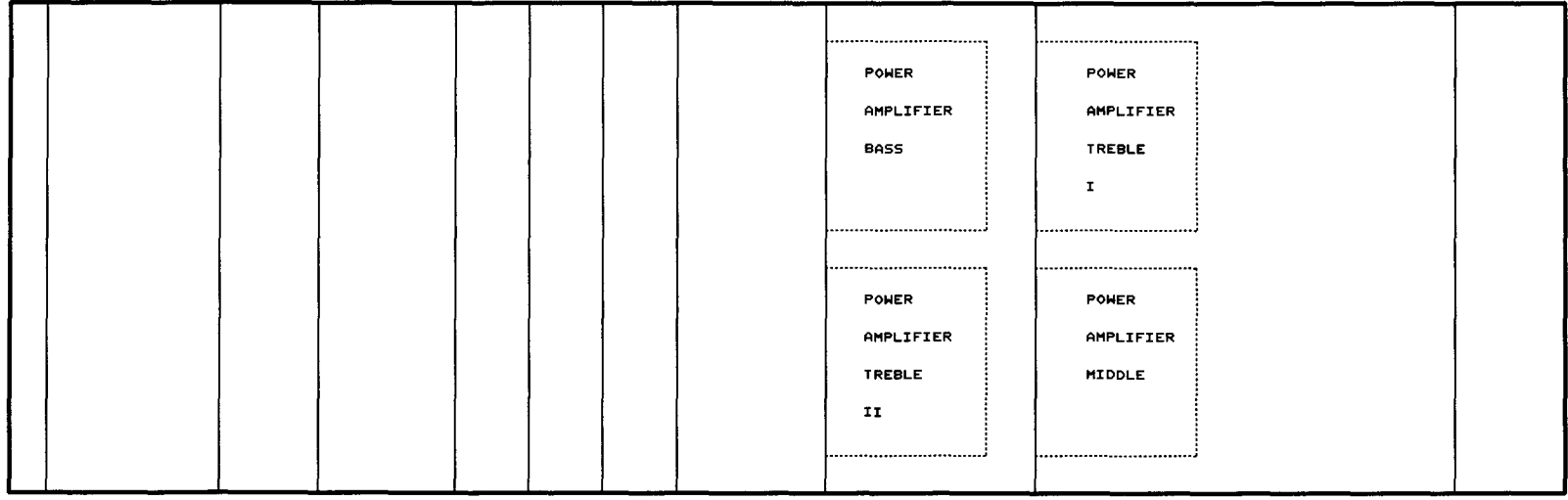
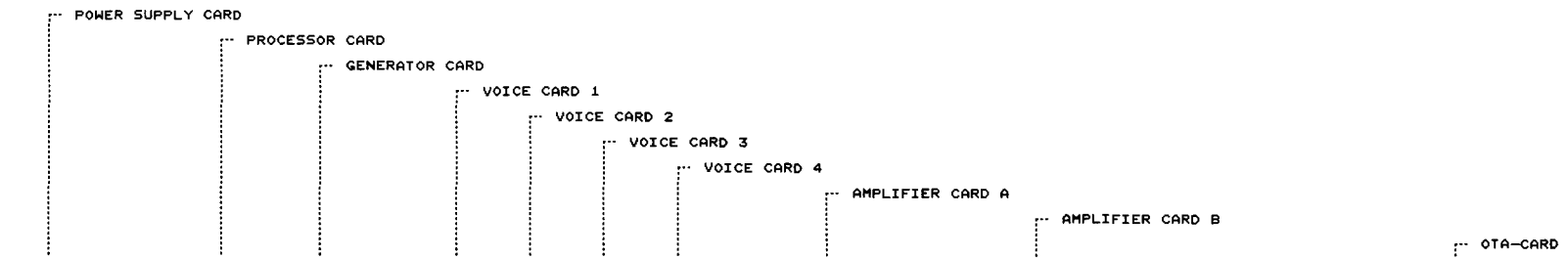
JOHANNUS Orgelbouw b.v.

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

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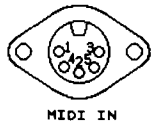
1. BLOCK DIAGRAM
2. POSITION DIAGRAM CARDS (TOPVIEW) &
EXTERNAL CONNECTIONS (mounted on the
rearside of the organ)
3. PINNING BUS CARD CONNECTORS
4. TRANSFORMER CONNECTIONS & POWER SUPPLY
5. SCANNING KEYING & TRANSPOSER
6. STOP-BANK
7. PROCESSOR CARD
8. GENERATOR CARD
9. VOICE CARD
10. VOLUMECONTROLS;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



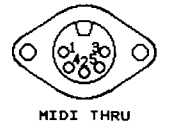


← COMPONENT SIDE

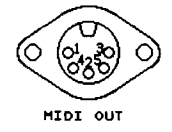
1. NOT CONNECTED
2. NOT CONNECTED
3. NOT CONNECTED
4. +5V MIDI IN
5. MIDI IN



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

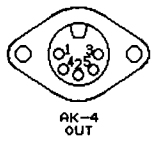


1. NOT CONNECTED
2. NOT CONNECTED
3. NOT CONNECTED
4. +5V MIDI OUT
5. MIDI OUT

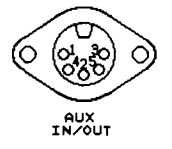


SOLDERING SIDE VIEW

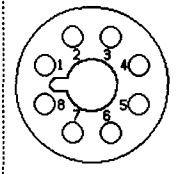
1. AK-4 OUT CHANNEL A
2. GROUND
3. NOT CONNECTED
4. AK-4 OUT CHANNEL B
5. NOT CONNECTED



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

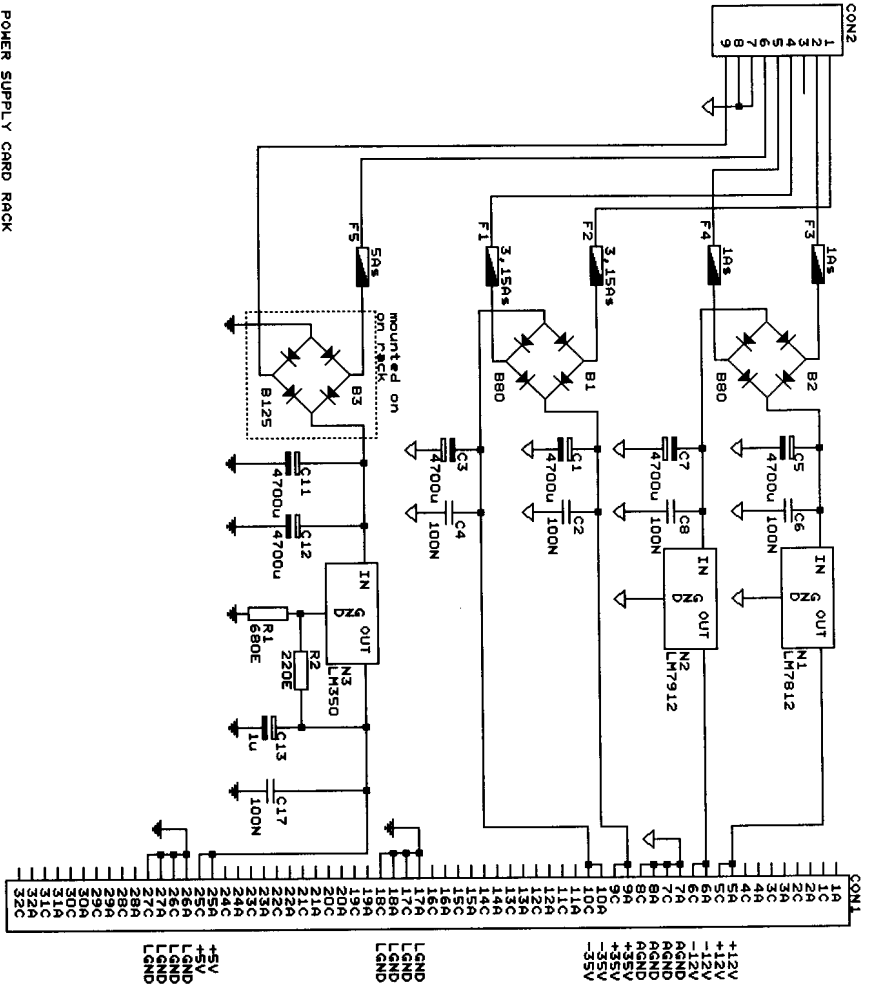
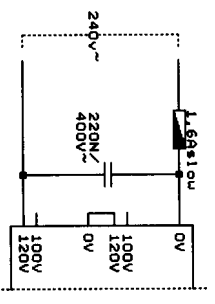
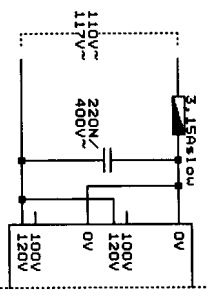
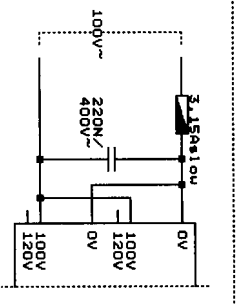
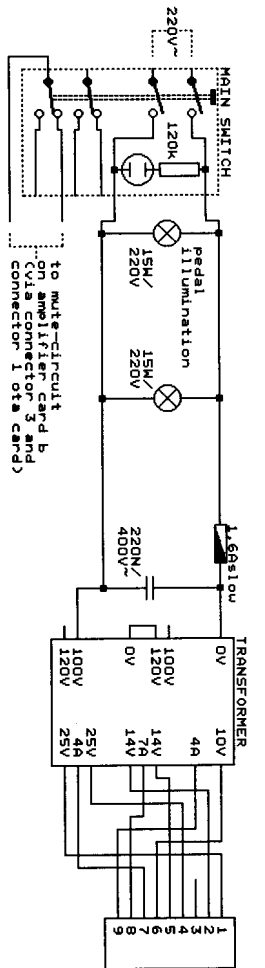


1. - BASS AMPLIFIER
2. + BASS AMPLIFIER
3. - MIDDLE AMPLIFIER
4. + MIDDLE AMPLIFIER
5. - TREBLE I AMPLIFIER
6. + TREBLE I AMPLIFIER
7. - TREBLE II AMPLIFIER
8. + TREBLE II AMPLIFIER

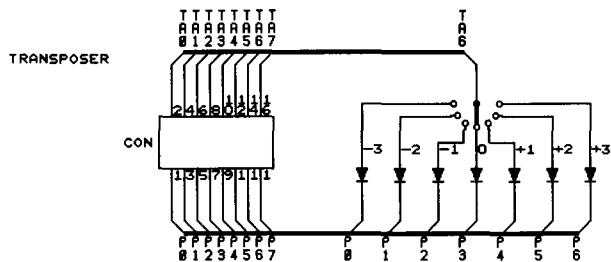
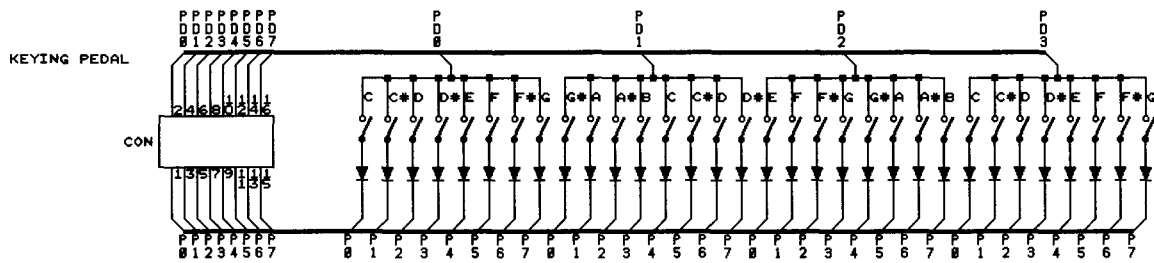
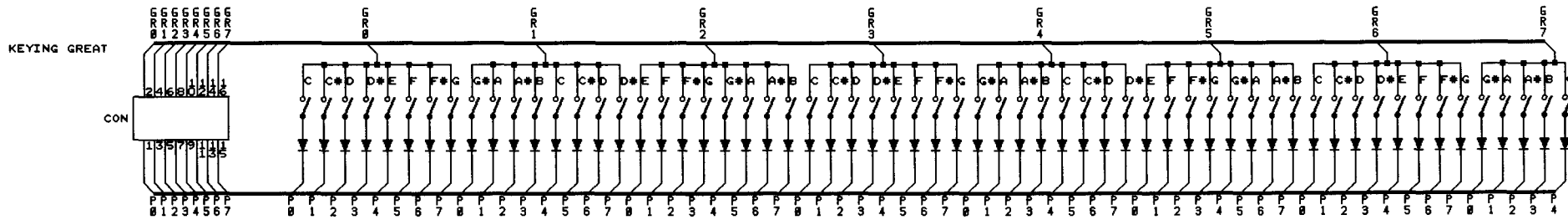
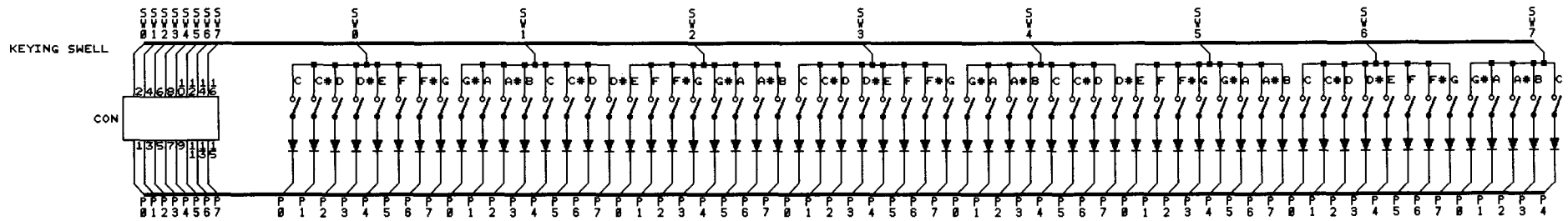


(OPTIONAL)

CON1	CON2	CON3	CON4-5	CON6-B	CON9-10	CON11	CON12	
010 020 030 040 050 060 070 080 090 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320	010 020 030 040 050 060 070 080 090 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320	010 020 030 040 050 060 070 080 090 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320	010 020 030 040 050 060 070 080 090 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320	010 020 030 040 050 060 070 080 090 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320	010 020 030 040 050 060 070 080 090 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320	010 020 030 040 050 060 070 080 090 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320	010 020 030 040 050 060 070 080 090 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320	
+12V -12V AGND AGND +35V -35V LGND LGND +5V LGND LGND	+12V -12V AGND AGND +35V -35V LGND LGND +5V LGND LGND	+12V -12V AGND AGND +35V -35V GEN1 LGND GEN2 RB B6 B5 B4 B2 B0 +5V LGND LGND	+12V -12V AGND AGND +35V -35V GEN1 LGND GEN2 RB B6 B5 B4 B2 B0 +5V LGND LGND	+12V -12V AGND AGND +35V -35V GEN1 LGND GEN2 RB B6 B5 B4 B2 B0 +5V LGND LGND	+12V -12V AGND AGND +35V -35V LGND LGND +5V LGND LGND	+12V -12V AGND AGND +35V -35V LGND LGND +5V LGND LGND	FROM ECHO A FROM ECHO B FROM ECHO A FROM ECHO B -12V AGND AGND +35V -35V MUTE VOLUME PHONES LGND LGND +5V LGND LGND	FROM ECHO A FROM ECHO B FROM ECHO A FROM ECHO B -12V AGND AGND +35V -35V MUTE VOLUME PHONES LGND LGND +5V LGND LGND
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

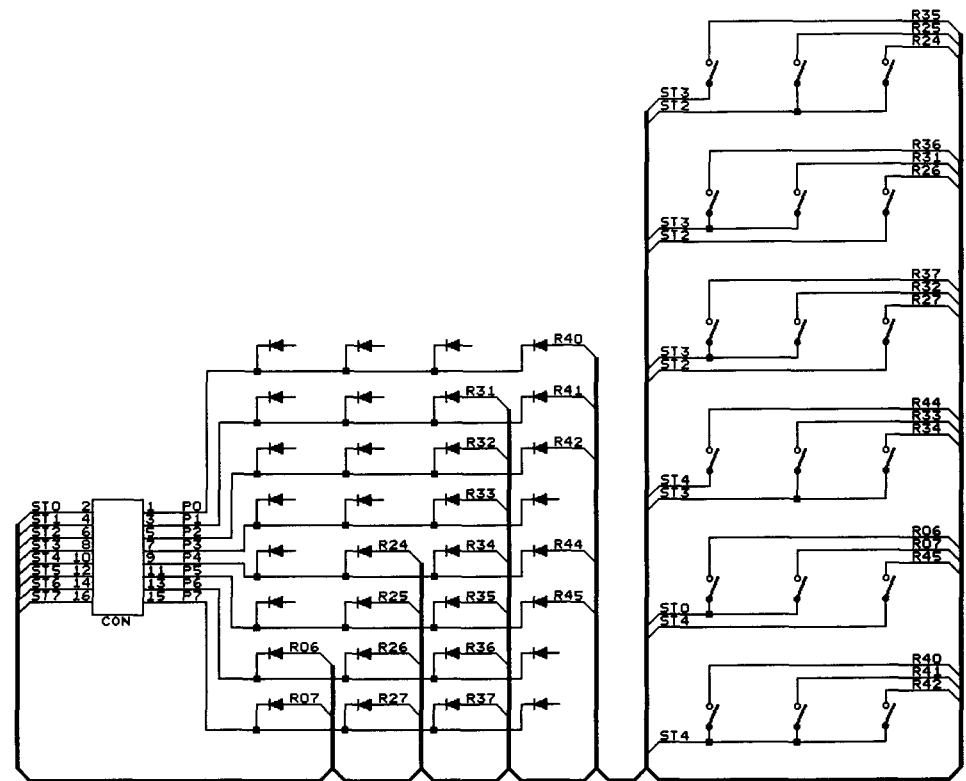
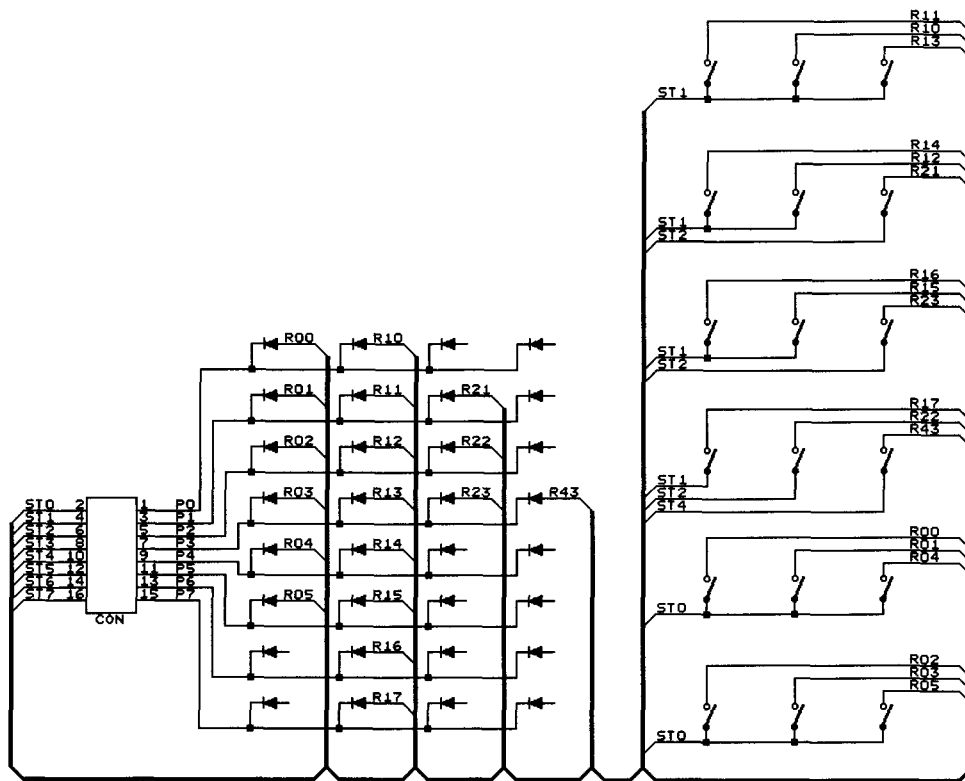


ALL CONNECTORS: TO PROCESSOR CARD
 ALL DIODES: 1N4148

SCANNING KEYING & TRANSPOSER			REV.
DESIGN	LAB		
DRAWN	VERSCHOOR	30-07-93	PAGE 5
JOHANNUS POS 5-30			

LEFT POSITIONED STOPS

RIGHT POSITIONED STOPS

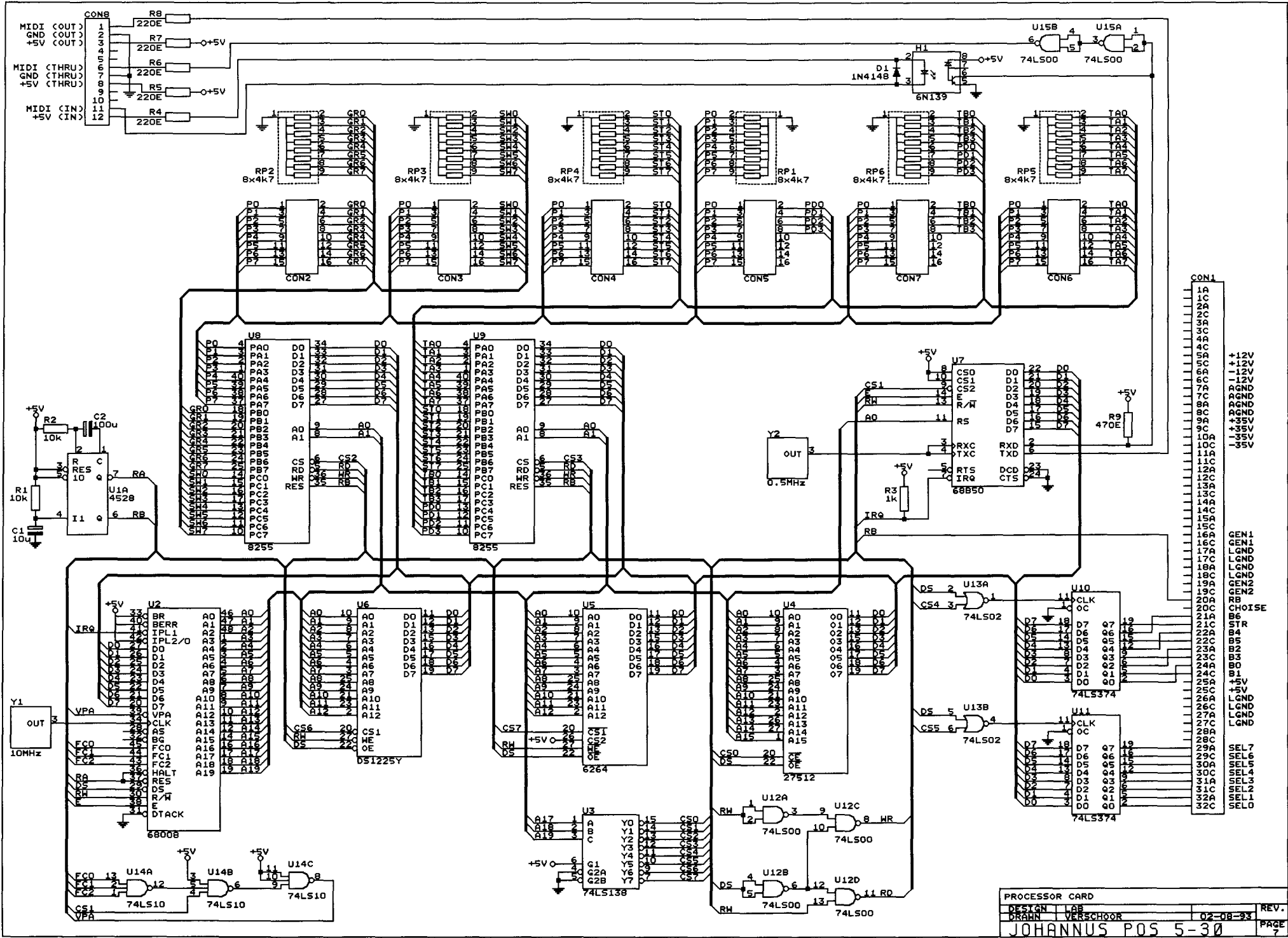


- STOPLIST GREAT
- R10 = BOURDON 16'
 - R11 = OPEN DIAPASON 8'
 - R12 = ROHRFLUTE 8'
 - R13 = GAMBA 8'
 - R14 = OCTAVE 4'
 - R15 = OPEN FLUTE 4'
 - R16 = TWELFTH 2 2/3'
 - R17 = SUPEROCTAVE 2'
 - R21 = CORNET IV
 - R22 = MIXTURE IV-VI
 - R23 = TRUMPET 8'
- ACCESSORIES
- R43 = TREMLANT GREAT
- PEDAL
- R00 = DOUBLE BASS 16'
 - R01 = SUBBASS 16'
 - R02 = OCTAVE 8'
 - R03 = GEDACKT 8'
 - R04 = BASSFLUTE 4'
 - R05 = MIXTURE III

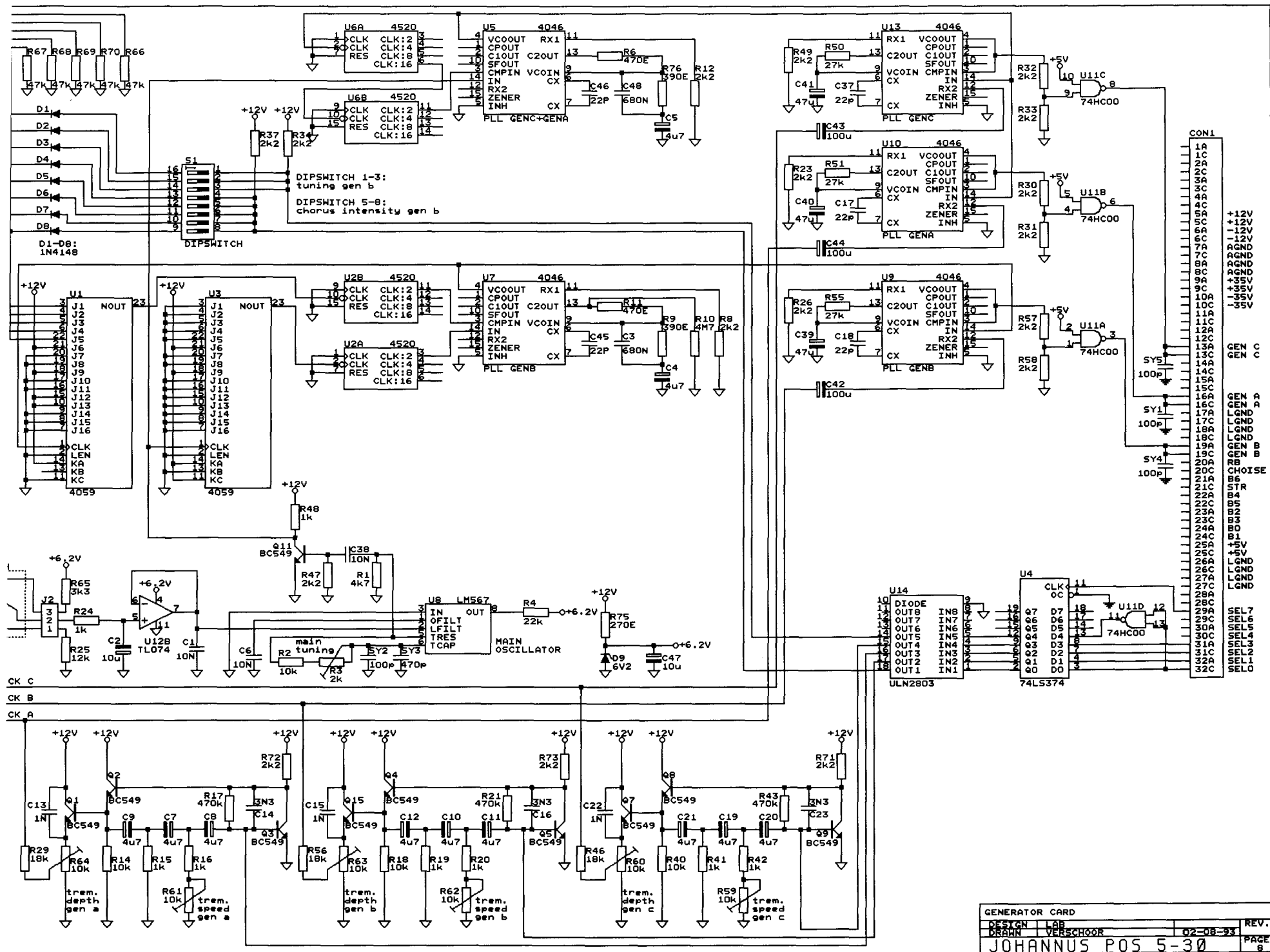
- STOPLIST SWELL
- R24 = OPEN DIAPASON 8'
 - R25 = STOPPED FLUTE 8'
 - R26 = VIOLA 8'
 - R27 = CELESTE 8'
 - R31 = FLUTE 4'
 - R32 = FLUTE TWELFTH 2 2/3'
 - R33 = WALDFLUTE 2'
 - R34 = TIERCE 1 3/5'
 - R35 = RAUSCHPFEIFE II-IV
 - R36 = CROMORNE 8'
 - R37 = OBOE 8'
- ACCESSORIES
- R44 = TREMLANT SWELL
- PEDAL
- R06 = CONTRA TRUMPET 16'
 - R07 = TRUMPET 8'
- ACCESSORIES
- R45 = CHORUS
 - R40 = SWELL TO GREAT
 - R41 = GREAT TO PEDAL
 - R42 = SWELL TO PEDAL

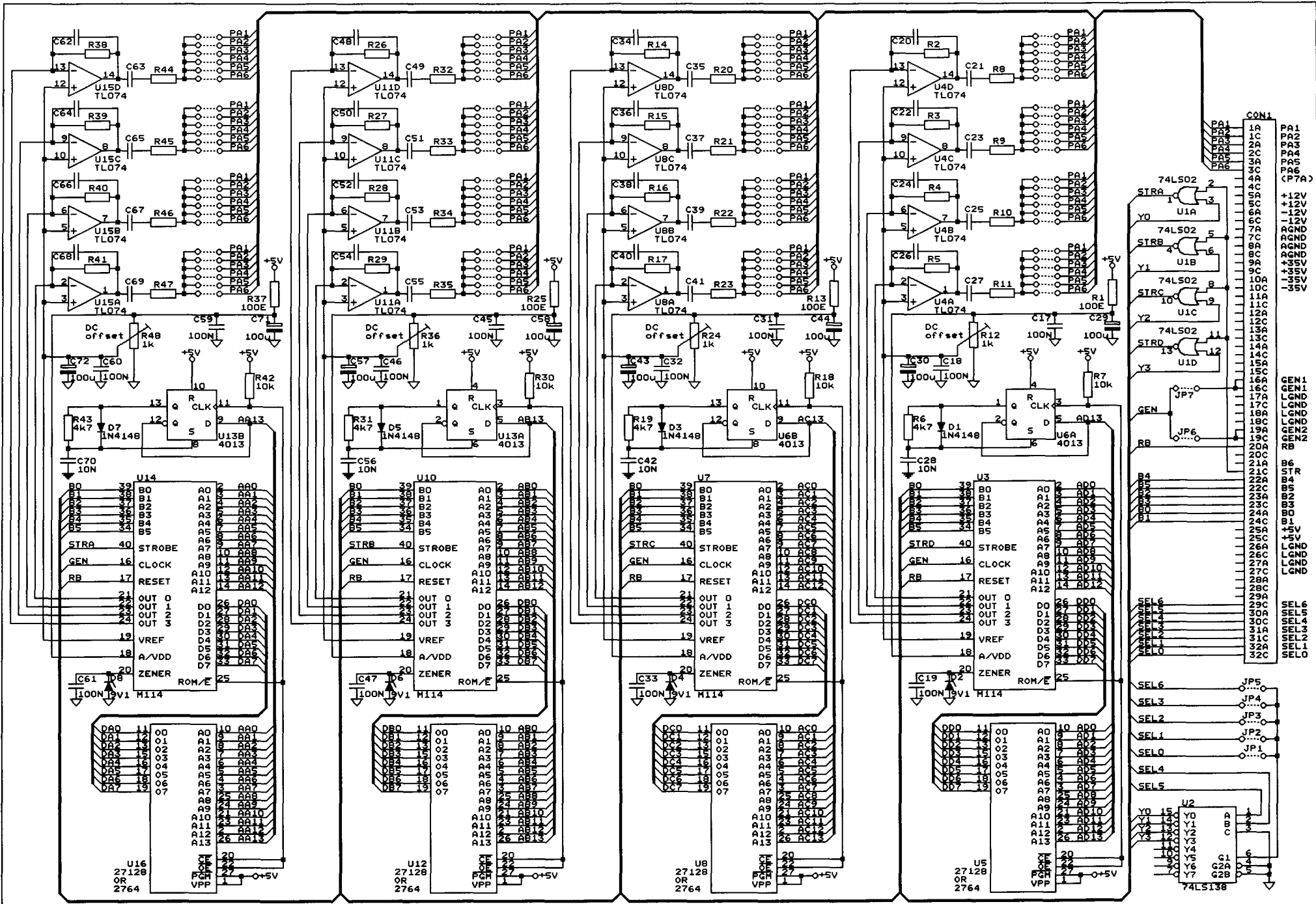
ALL CONNECTORS: TO CAPTURE SYSTEM
ALL DIODES: 1N4148

STOP-BANK				REV.
DESIGN	LAB			
DRAWN	VERSCHOOR	02-08-93		PAGE 6
JOHANNUS POS 5-30				



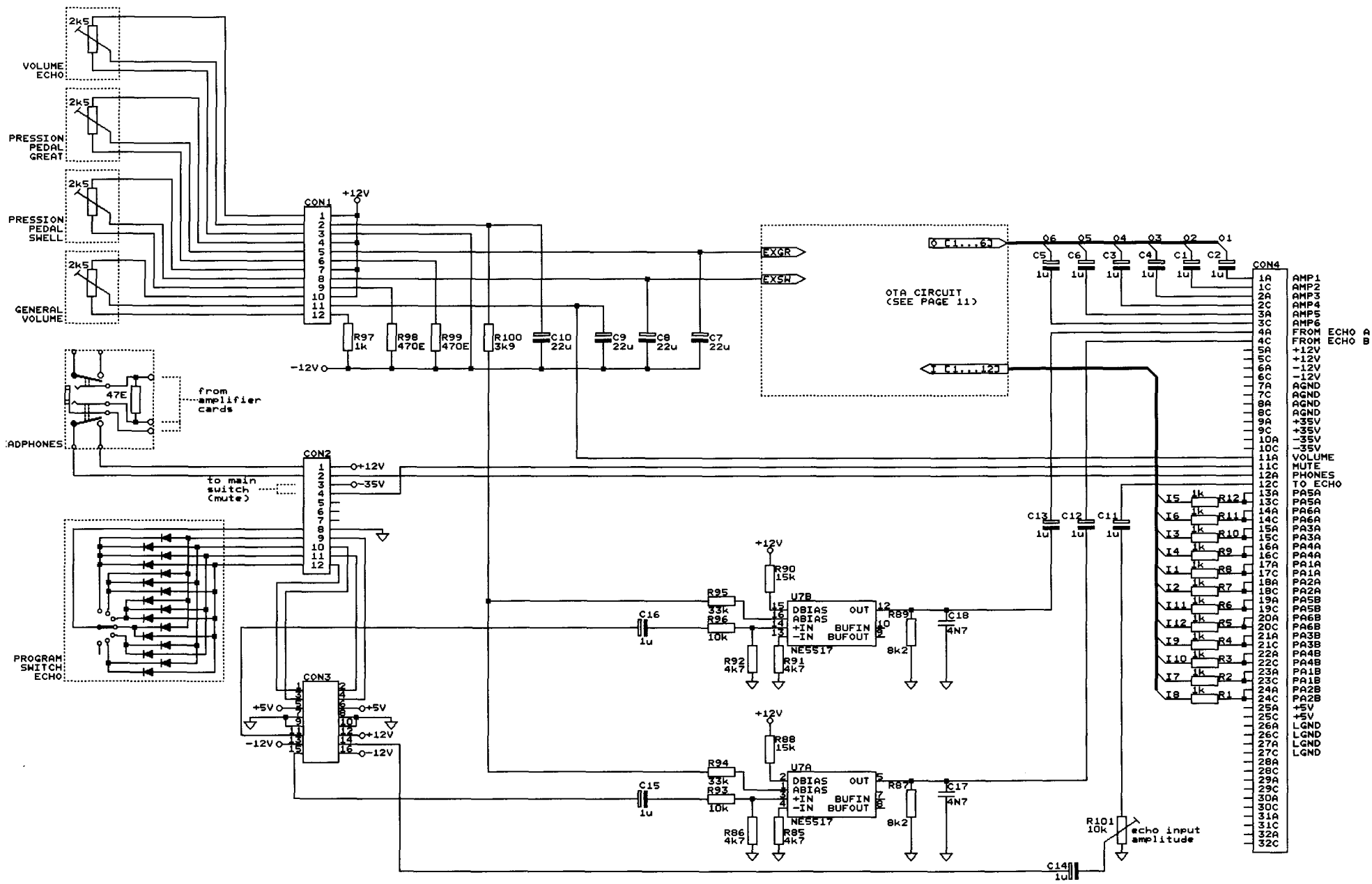
PROCESSOR CARD			REV.
DESIGN	LAB	02-08-93	PAGE 7
DRAWN	VERSCHOOR		
JOHANNUS POS 5-30			





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.

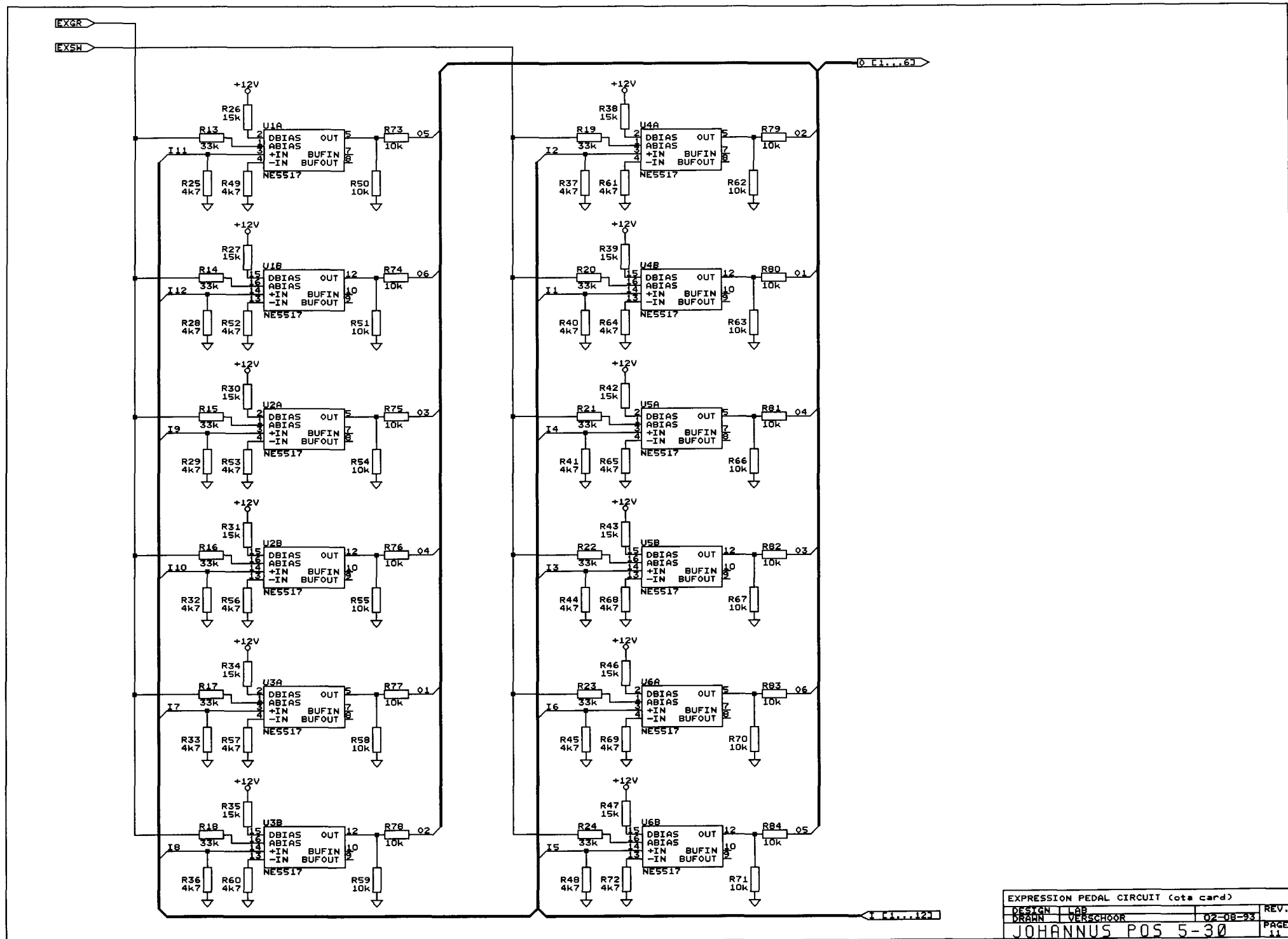
VOICE CARD			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	02-08-93	PAGE 9
JOHANNUS POS 5-30			

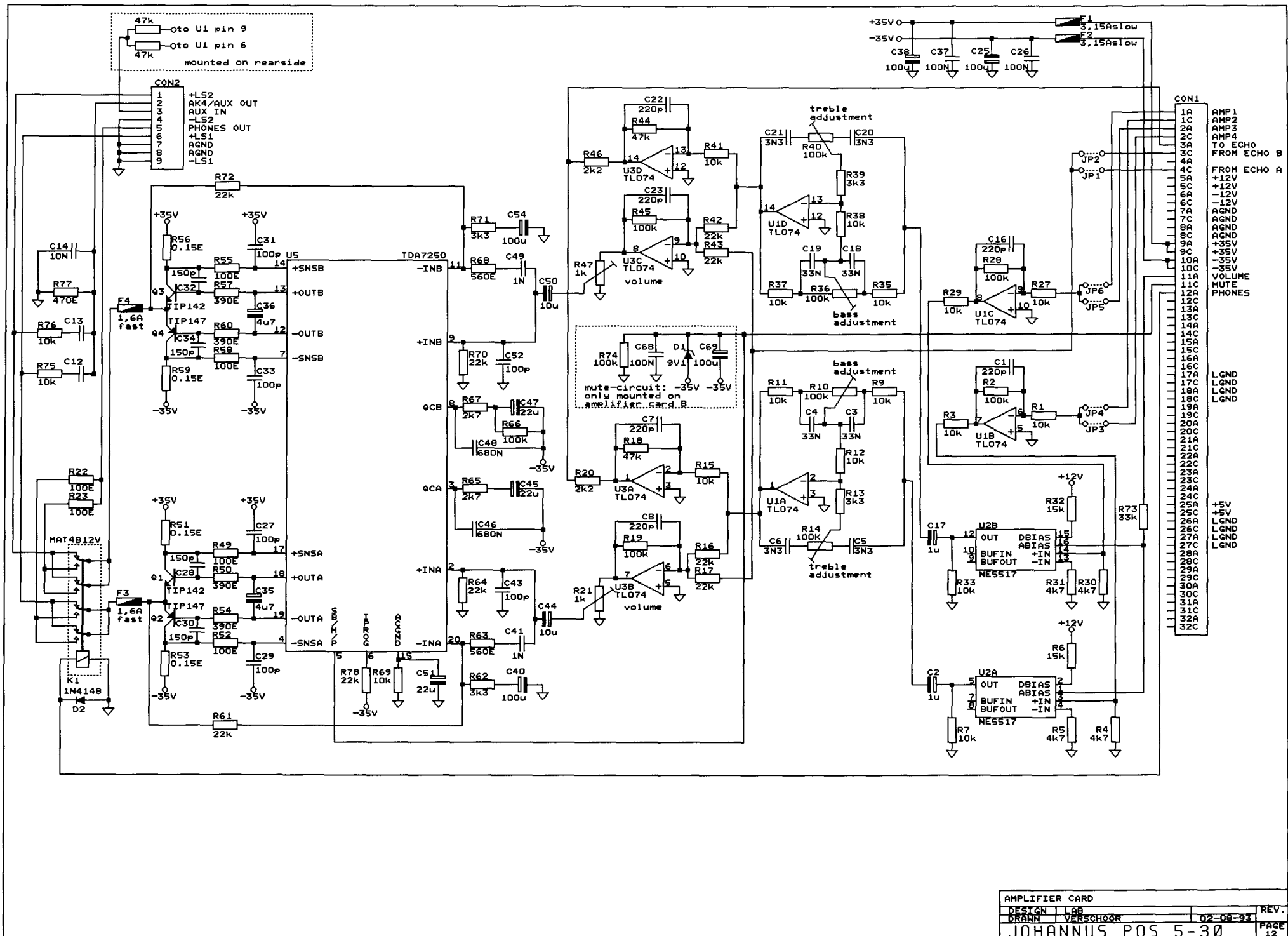


VOLUME CONTROLS; HEADPHONES CONNECTIONS & ECHO INTERFACE (ota card)

DESIGN	LAB		REV.
DRAHN	VERSCHOOR	02-08-93	PAGE 10

JOHANNUS POS 5-30



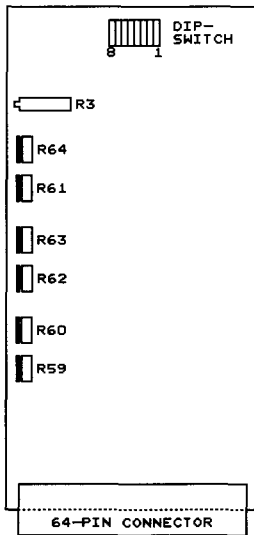


47k Oto U1 pin 9
 47k Oto U1 pin 6
 mounted on rearside

+35V0
 -35V0
 C38 100u
 C37 100n
 C25 100u
 C26 100n
 F1 3,15Aslow
 F2 3,15Aslow

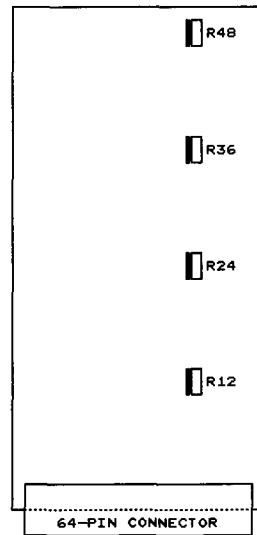
- CON1
- 1A AMP1
 - 1C AMP2
 - 2A AMP3
 - 2C AMP4
 - 3A TO ECHO
 - 3C FROM ECHO B
 - 4A
 - 4C
 - 5A +12V
 - 5C +12V
 - 6C -12V
 - 7A AGND
 - 7C AGND
 - 8C AGND
 - 9C +35V
 - 9C +35V
 - 10A -35V
 - 10C
 - 10A
 - 11A VOLUME
 - 11C MUTE
 - 12C PHONES
 - 13A
 - 13C
 - 14C
 - 15A
 - 15C
 - 16A LGND
 - 16C LGND
 - 17A LGND
 - 17C LGND
 - 18A LGND
 - 18C LGND
 - 19A
 - 19C
 - 20A
 - 20C
 - 21A
 - 21C
 - 22A
 - 22C
 - 23A
 - 23C
 - 24A
 - 24C
 - 25A
 - 25C
 - 26A +5V
 - 26C +5V
 - 27A LGND
 - 27C LGND
 - 28A LGND
 - 28C LGND
 - 29A
 - 29C
 - 30A
 - 30C
 - 31A
 - 31C
 - 32A
 - 32C

GENERATOR CARD
(COMPONENT-SIDE VIEW)



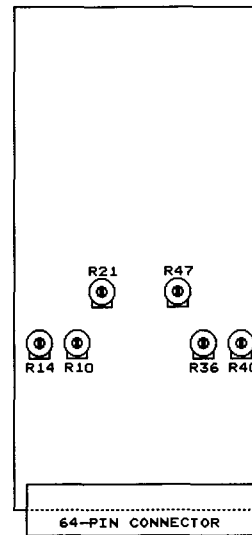
- R3 = MAIN TUNING
- R64 = TREMULANT DEPTH GREAT
- R61 = TREMULANT SPEED GREAT
- R63 = TREMULANT DEPTH SWELL
- R62 = TREMULANT SPEED SWELL
- R60 = TREMULANT DEPTH CHOIR
- R59 = TREMULANT SPEED CHOIR
- DS1-DS3 = TUNING SWELL
- DS4-DS8 = CHORUS INTENSITY SWELL

VOICE CARD
(COMPONENT-SIDE VIEW)



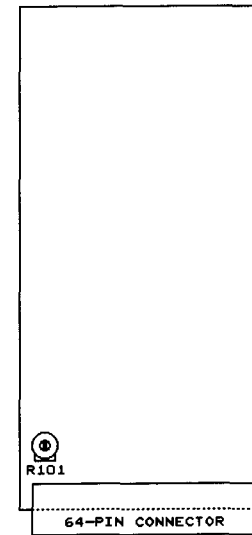
- R12 = DC-OFFSET VOICE D
(DISTORSION VOICE D)
 - R24 = DC-OFFSET VOICE C
(DISTORSION VOICE C)
 - R36 = DC-OFFSET VOICE B
(DISTORSION VOICE B)
 - R48 = DC-OFFSET VOICE A
(DISTORSION VOICE A)
- NOTE: R12-R24-R36-R48 ARE NOT
FOR CHANGING VOLUMES!!
TURNING THESE POTENTIOMETERS
WILL GIVE DISTORSION!!

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