

# WESLEY

***SCHEMATIC DIAGRAMS***

***W E S L E Y***

***ANDANTE***

***ETUDE***

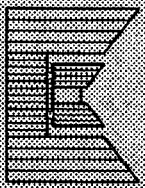
***ALLEGRO***

***PRESTO***

ALTERATIONS RESERVED

**WESLEY Organs b.v.**

~~Maarsstraat 28 6716 AH Ede Tel. (08380) 37409 Fax (08380) 22238~~



# JOHANNUS

***SCHEMATIC DIAGRAMS***

***J O H A N N U S***

***ANDANTE***

***ETUDE***

***ALLEGRO***

***PRESTO***

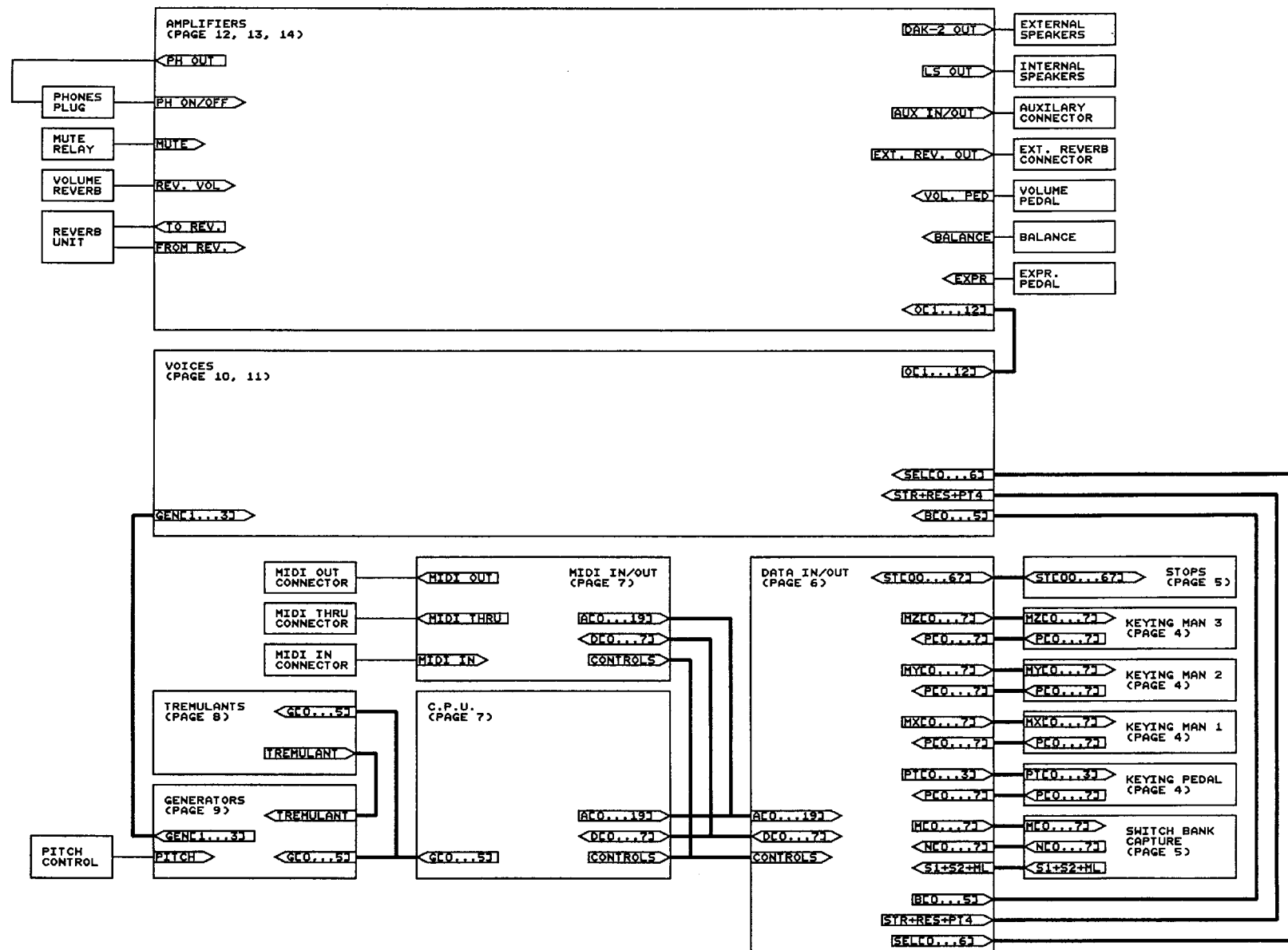
ALTERATIONS RESERVED

**JOHANNUS Orgelbouw b.v.**

Morsestraat 28 - 6716 AH Ede - Tel. \*31 318 697403 - Fax \*31 318 622238

# C O N T E N T S

- 1 BLOCK DIAGRAM
- 2 POSITION DIAGRAM PCB'S (component side view)  
& EXTERNAL CONNECTIONS (mounted on the  
rearside of the organ)
- 3 TRANSFORMER CONNECTIONS & POWER SUPPLY
- 4 SCANNING KEYING & TRANSPOSER
- 5A STOP-BANK & SWITCH-BANK CAPTURE SYSTEM (ANDANTE)
- 5B STOP-BANK & SWITCH-BANK CAPTURE SYSTEM (ETUDE)
- 5C STOP-BANK & SWITCH-BANK CAPTURE SYSTEM (ALLEGRO)
- 5D STOP-BANK & SWITCH-BANK CAPTURE SYSTEM (PRESTO)
- 6 DATA IN/OUT (lower pcb)
- 7 C.P.U. (lower pcb)
- 8 TREMULANT CIRCUITS (lower pcb)
- 9 GENERATOR CIRCUITS (lower pcb)
- 10 SELECTS, DATA & OUTPUT BUFFERS  
VOICES (middle pcb)
- 11 VOICES A & B (middle pcb)
- 12 VOLUME CONTROLS; HEADPHONES CONNECTIONS &  
REVERB CONNECTIONS (upper pcb)
- 13 AMPLIFIERS A & B (upper pcb)
- 14 AMPLIFIERS E & F: PRE-AMPS INT. REVERB/  
DAK-2 & POWER AMPS DAK-2 (upper pcb)
- 15 POSITION DIAGRAM INTERNAL ADJUSTMENTS &  
POWER SUPPLY CONNECTORS

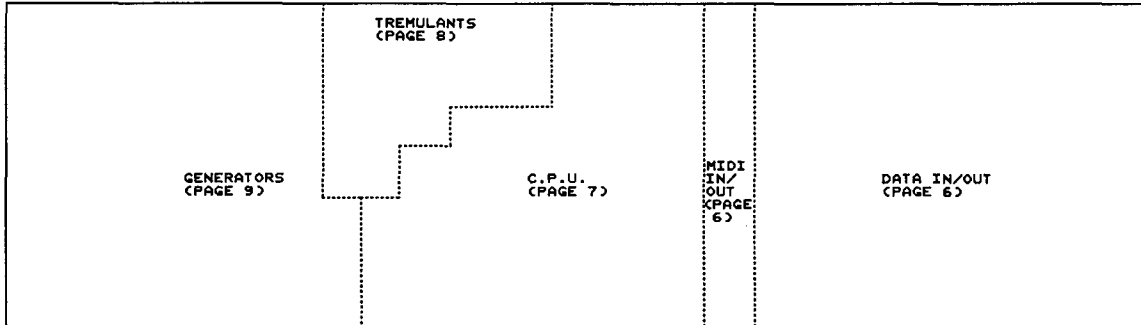


INPUT/ OUTPUT REVERB (PAGE 12)	PRE- AMPS A+B (PAGE 13)	EQUAL AMPS A+B (PAGE 13)	GEN. VOL. AMPS A+B (PAGE 13)	VOL. 1 AMPS A+B (PAGE 12)	VOL. 2 AMPS A+B (PAGE 12)	VOL. 3 AMPS A+B (PAGE 12)	PRE- AMPS C+D (PAGE 13)	EQUAL AMPS C+D (PAGE 13)	GEN. VOL. AMPS C+D (PAGE 13)	VOL. 1 AMPS C+D (PAGE 12)	VOL. 2 AMPS C+D (PAGE 12)	VOL. 3 AMPS C+D (PAGE 12)	REV. PRE- AMPS E+F (PAGE 14)	REV. EQUAL AMPS E+F (PAGE 14)	REV. VOL. AMPS E+F (PAGE 14)	INPUTS/ VOLUMES AMPS (PAGE 12)
AMPLIFIER A (PAGE 13)	AMPLIFIER B (PAGE 13)		OUTPUT AMPS A+B (PAGE 13)		AMPLIFIER C (PAGE 13)		AMPLIFIER D (PAGE 13)		OUTPUT AMPS C+D (PAGE 13)		AMPLIFIER E (DAK-2) (PAGE 14)		AMPLIFIER F (DAK-2) (PAGE 14)		OUTPUT AMPS E+F (DAK-2) (PAGE 14)	

UPPER PCB

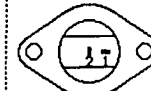
VOICE A (PAGE 11)	VOICE B (PAGE 11)	VOICE C (PAGE 11)	VOICE D (PAGE 11)	VOICE E (PAGE 11)	VOICE F (PAGE 11)	VOICE G (PAGE 11)	VOICE H (PAGE 11)	VOICE I (PAGE 11)	VOICE J (PAGE 11)	OUTPUT BUFFERS (PAGE 10)
										SELECTS & DATA INPUT (PAGE 10)

MIDDLE PCB



LOWER PCB

- 1. + LS AMP F
- 2. - LS AMP F



LS 2  
(DAK-2)

- 1. + LS AMP E
- 2. - LS AMP E



LS 1  
(DAK-2)

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



MIDI IN

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



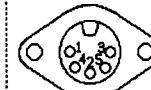
AUX  
IN/OUT

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



MIDI THRU

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



AK-4  
OUT

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

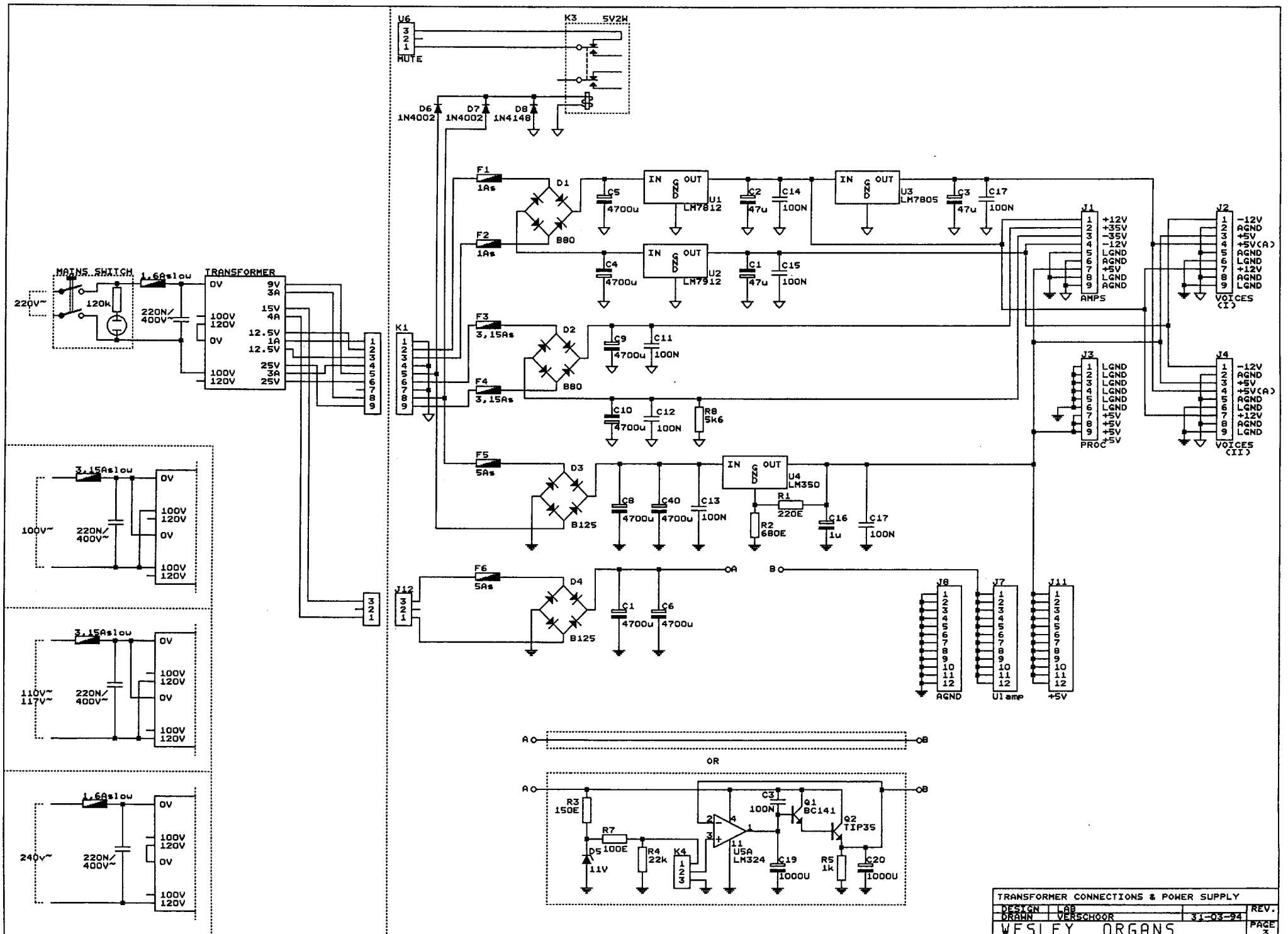


MIDI OUT

SOLDERSIDE VIEW

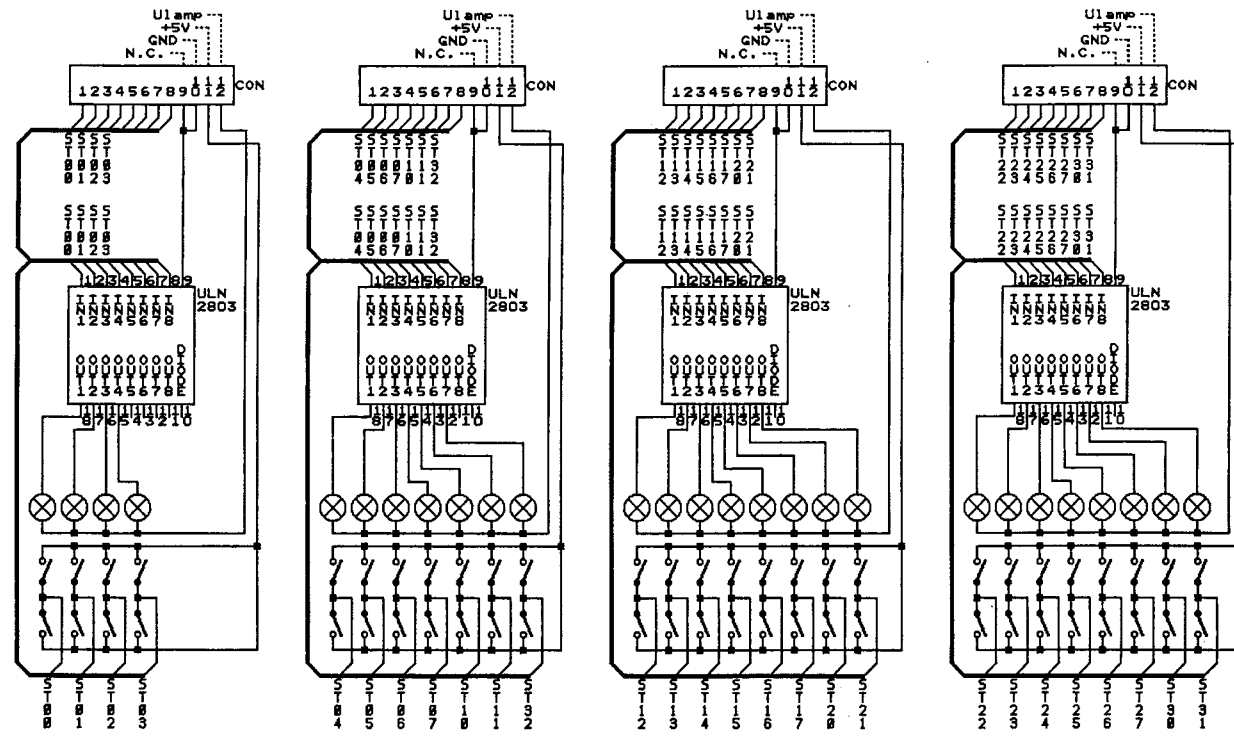
POSITION DIAGRAM PCB'S (componentside view)  
& EXTERNAL CONNECTIONS (mounted on the  
rearside of the organ)

DESIGN	LAB	REV.
DRAWN	VERSCHOOR	23-03-94
WESLEY ORGANS		PAGE 2

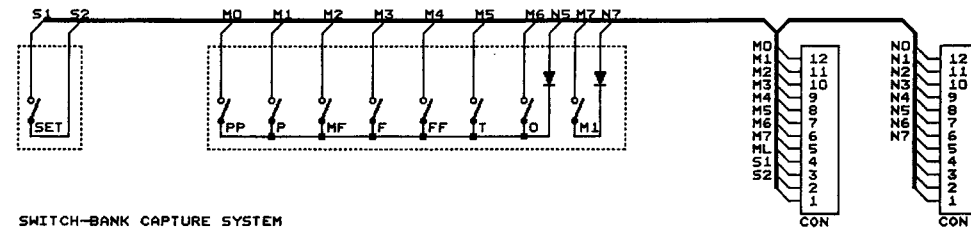


TRANSFORMER CONNECTIONS & POWER SUPPLY			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	31-03-94	PAGE 3
WESLEY ORGANS			





STOPBANK



SWITCH-BANK CAPTURE SYSTEM

**BASS**

ST00 = SUBBASS 16'  
 ST01 = GEDACK 8'  
 ST02 = OCTAVEBASS 4'  
 ST03 = FAGOTTO 16'

**ACCOMPANIMENT**

ST04 = PRINCIPAL 8'  
 ST05 = ROHRFLUTE 8'  
 ST06 = VIOLA 8'  
 ST07 = CELESTE 8'  
 ST10 = OCTAVE 4'  
 ST11 = FLUTE 4'  
 ST32 = CHORDS

**MANUAL**

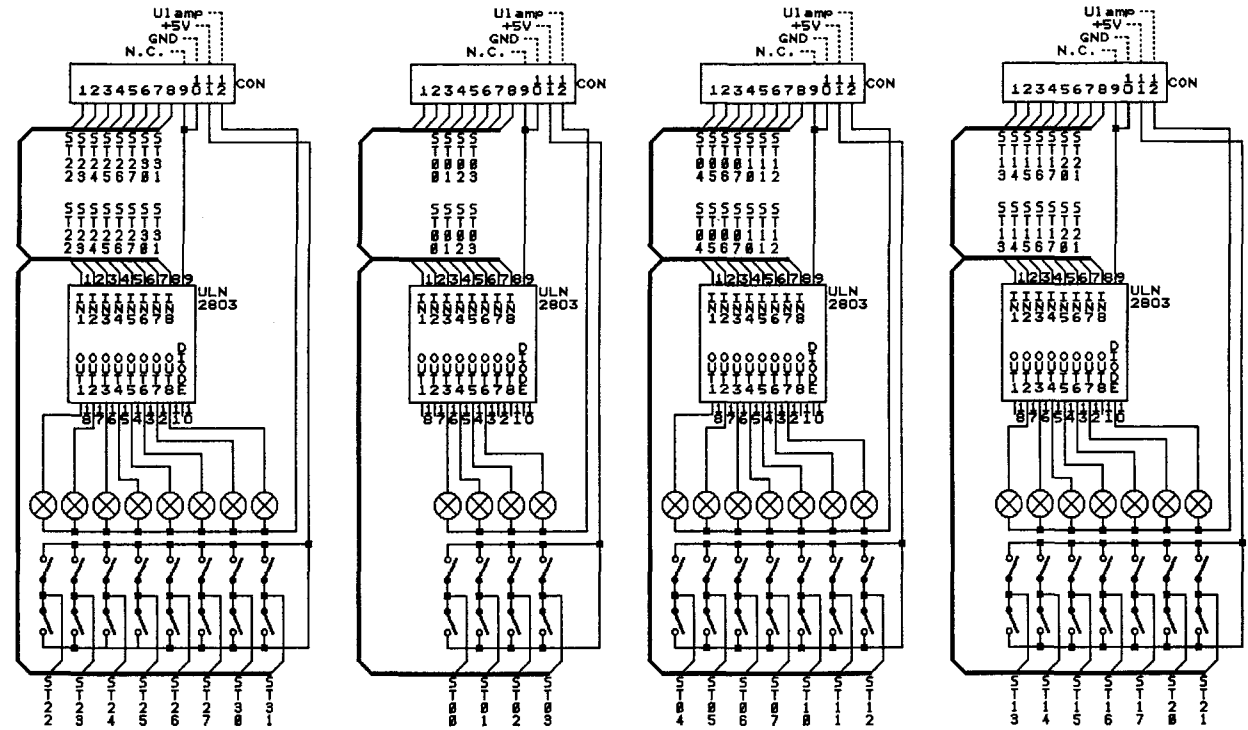
ST12 = QUINTATON 16'  
 ST13 = PRINCIPAL 8'  
 ST14 = ROHRFLUTE 8'  
 ST15 = VIOLA 8'  
 ST16 = CELESTE 8'  
 ST17 = OCTAVE 4'  
 ST20 = FLUTE 4'  
 ST21 = QUINTFLUTE 2 2/3'  
 ST22 = SUPEROCTAVE 2'  
 ST23 = HALDFLUTE 2'  
 ST24 = TIERCE 1 3/5'  
 ST25 = MIXTURE V  
 ST26 = TRUMPET 8'  
 ST27 = OCTAVE COUPLER  
 ST30 = TREMULANT  
 ST31 = CHORUS

STOPLIST

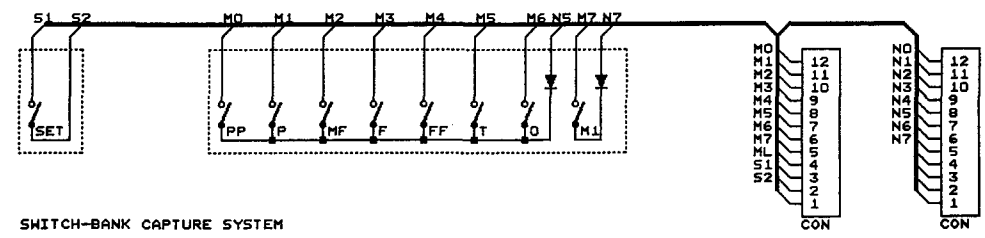
ALL CONNECTORS: TO PROC.  
 ALL STOPLAMPS: 14Vdc/75mA

STOP-BANK AND SWITCH-BANK CAPTURE SYSTEM			
DESIGN	LAB	REV.	REV.
DRAWN	VERSCHOOR	30-03-94	
WESLEY ANDANTE			PAGE 5A





STOPBANK



SWITCH-BANK CAPTURE SYSTEM

- ACCESSORIES**  
 ST22 = SHELL TO GREAT  
 ST23 = GREAT TO PEDAL  
 ST24 = SHELL TO PEDAL  
 ST25 = TREMLANT GREAT  
 ST26 = TREMLANT SHELL  
 ST27 = CHORUS  
 ST30 = MANUAL BASS  
 ST31 = INTONATION 2

STOPLIST

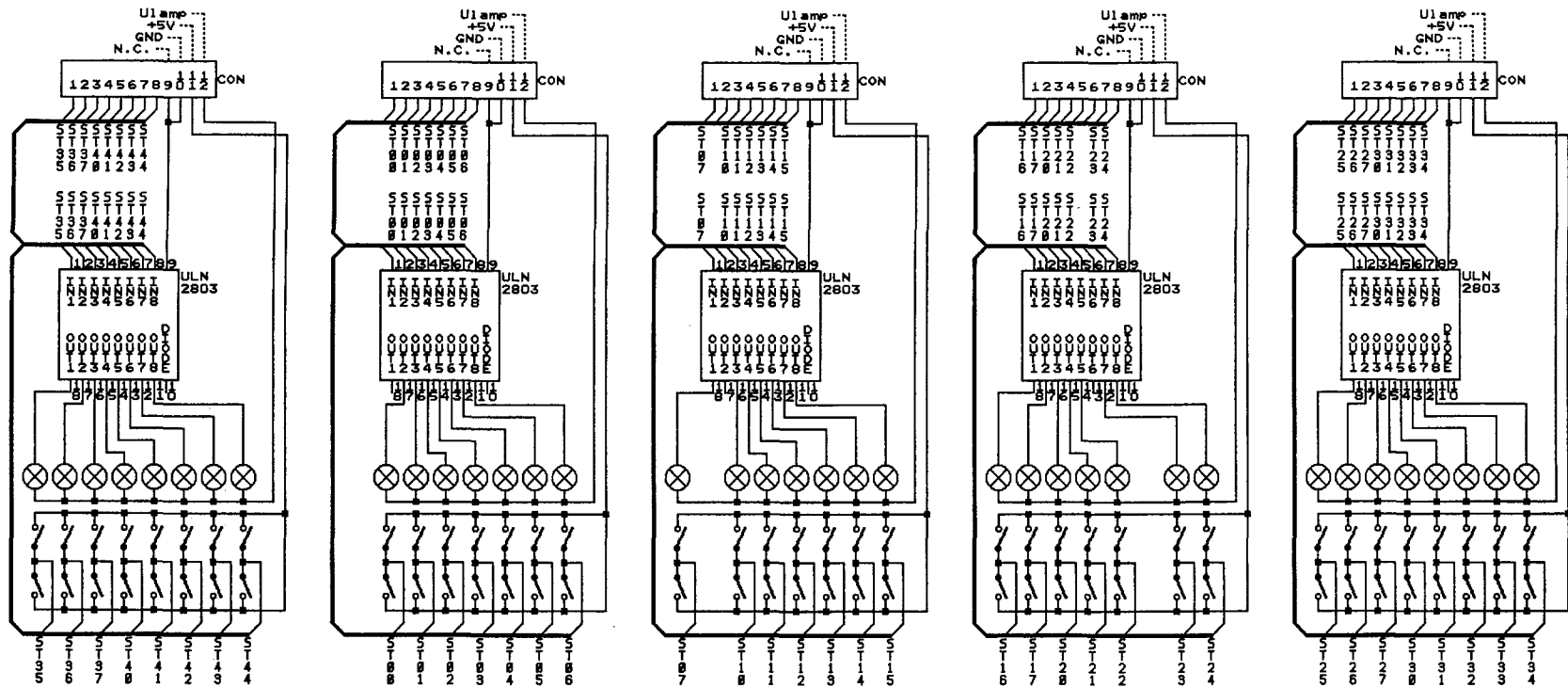
- PEDAL**  
 STD0 = SUBBASS 16'  
 STD1 = GEDACK 8'  
 STD2 = OCTAVEBASS 4'  
 STD3 = FAGOTTO 16'

- GREAT**  
 ST04 = OPEN DIAPASON 8'  
 ST05 = ROHRFLUTE 8'  
 ST06 = OCTAVE 4'  
 ST07 = SUPEROCTAVE 2'  
 ST10 = SESQUIALTER II  
 ST11 = MIXTURE IV  
 ST12 = TRUMPET 8'

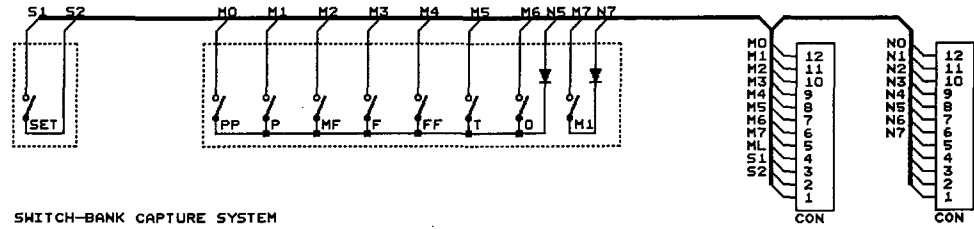
- SWELL**  
 ST13 = STOPPED FLUTE 8'  
 ST14 = VIOLA 8'  
 ST15 = CELESTE 8'  
 ST16 = ROHRFLUTE 4'  
 ST17 = NAZARD 2 2/3'  
 ST20 = WALDFLUTE 2'  
 ST21 = OBOE 8'

ALL CONNECTORS: TO PROC.  
 ALL STOPLAMPS: 14Vdc/75mA

STOP-BANK AND SWITCH-BANK CAPTURE SYSTEM			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	30-03-94	PAGE
WESLEY ETUDE			5B



STOPBANK



SWITCH-BANK CAPTURE SYSTEM

ACCESSORIES

- ST35 = SWELL TO GREAT
- ST36 = GREAT TO PEDAL
- ST37 = SWELL TO PEDAL
- ST40 = TREMULANT GREAT
- ST41 = TREMULANT SWELL
- ST42 = CHORUS
- ST43 = MANUAL BASS
- ST44 = INTONATION 2

PEDAL

- ST00 = PRINCIPAL 16'
- ST01 = SUBBASS 16'
- ST02 = OCTAVEBASS 8'
- ST03 = GEDACK 8'
- ST04 = CHORALBASS 4'
- ST05 = FLUTE 2'
- ST06 = BOMBARDE 16'
- ST07 = TRUMPET 8'

GREAT

- ST10 = QUINTATON 16'
- ST11 = OPEN DIAPASON 8'
- ST12 = ROHRFLUTE 8'
- ST13 = Gamba 8'
- ST14 = OCTAVE 4'
- ST15 = OPEN FLUTE 4'
- ST16 = TWELFTH 2 2/3'
- ST19 = SUPEROCTAVE 2'
- ST20 = CORNET IV
- ST21 = MIXTURE V
- ST22 = TRUMPET 8'

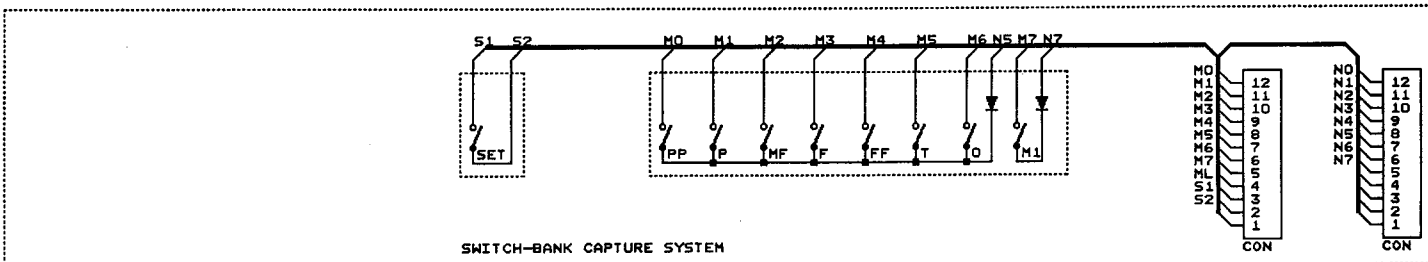
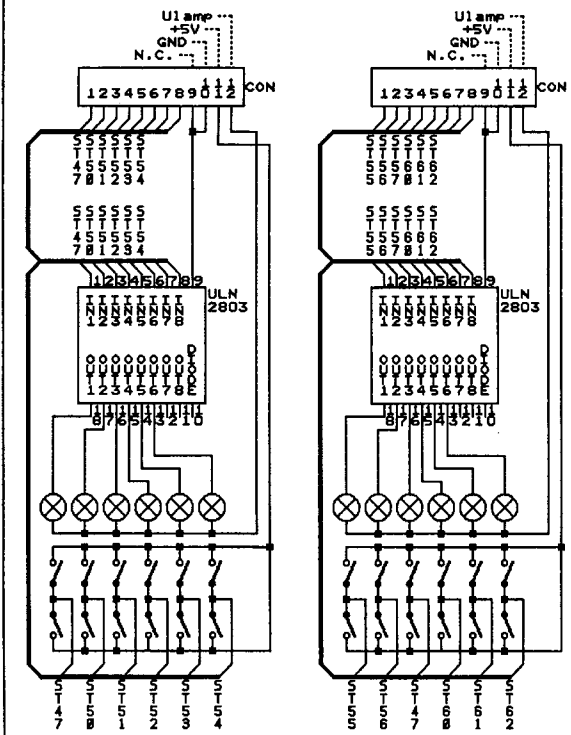
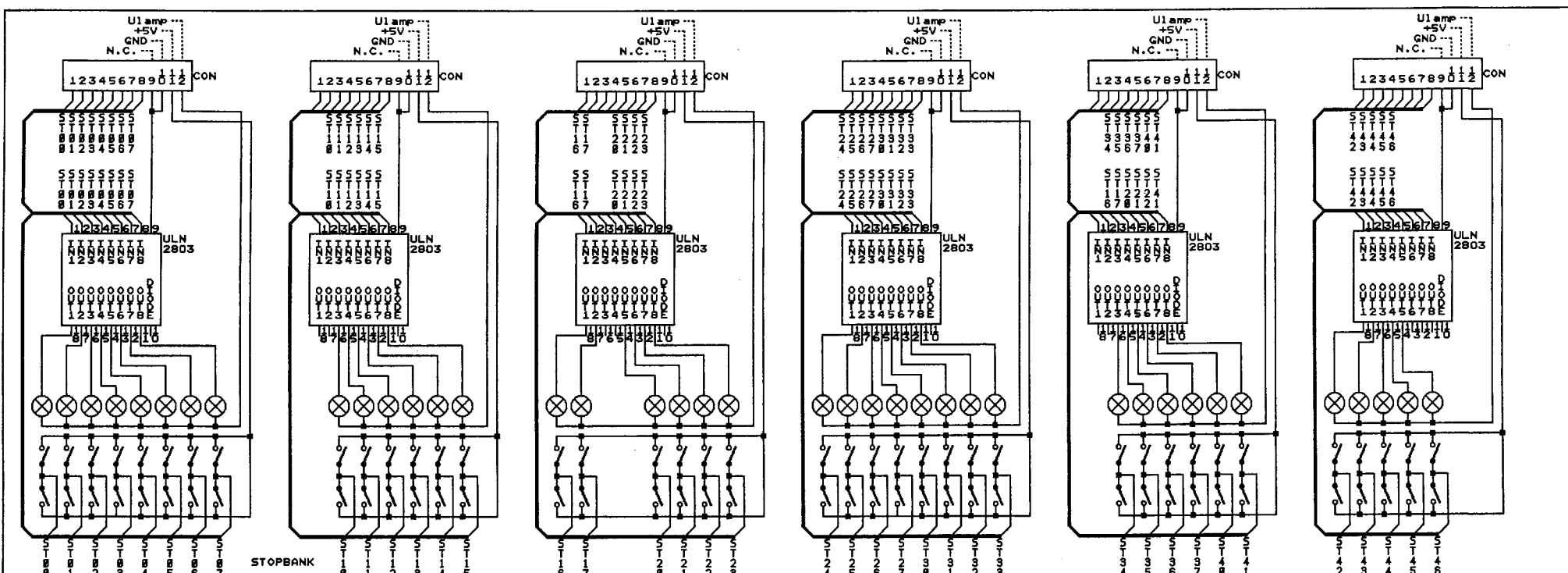
SWELL

- ST23 = OPEN DIAPASON 8'
- ST24 = STOPPED FLUTE 8'
- ST25 = VIOLA 8'
- ST26 = CELESTE 8'
- ST27 = ROHRFLUTE 4'
- ST30 = NAZARD 2 2/3'
- ST31 = WALDFLUTE 2'
- ST32 = TIERCE 1 3/5'
- ST33 = CROMORNE 16'
- ST34 = OBOE 8'

STOPLIST

ALL CONNECTORS: TO PROC.  
ALL STOPLAMPS: 14Vdc/75mA

STOP-BANK AND SWITCH-BANK CAPTURE SYSTEM			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	30-03-94	
WESLEY ALLEGRO			PAGE 50

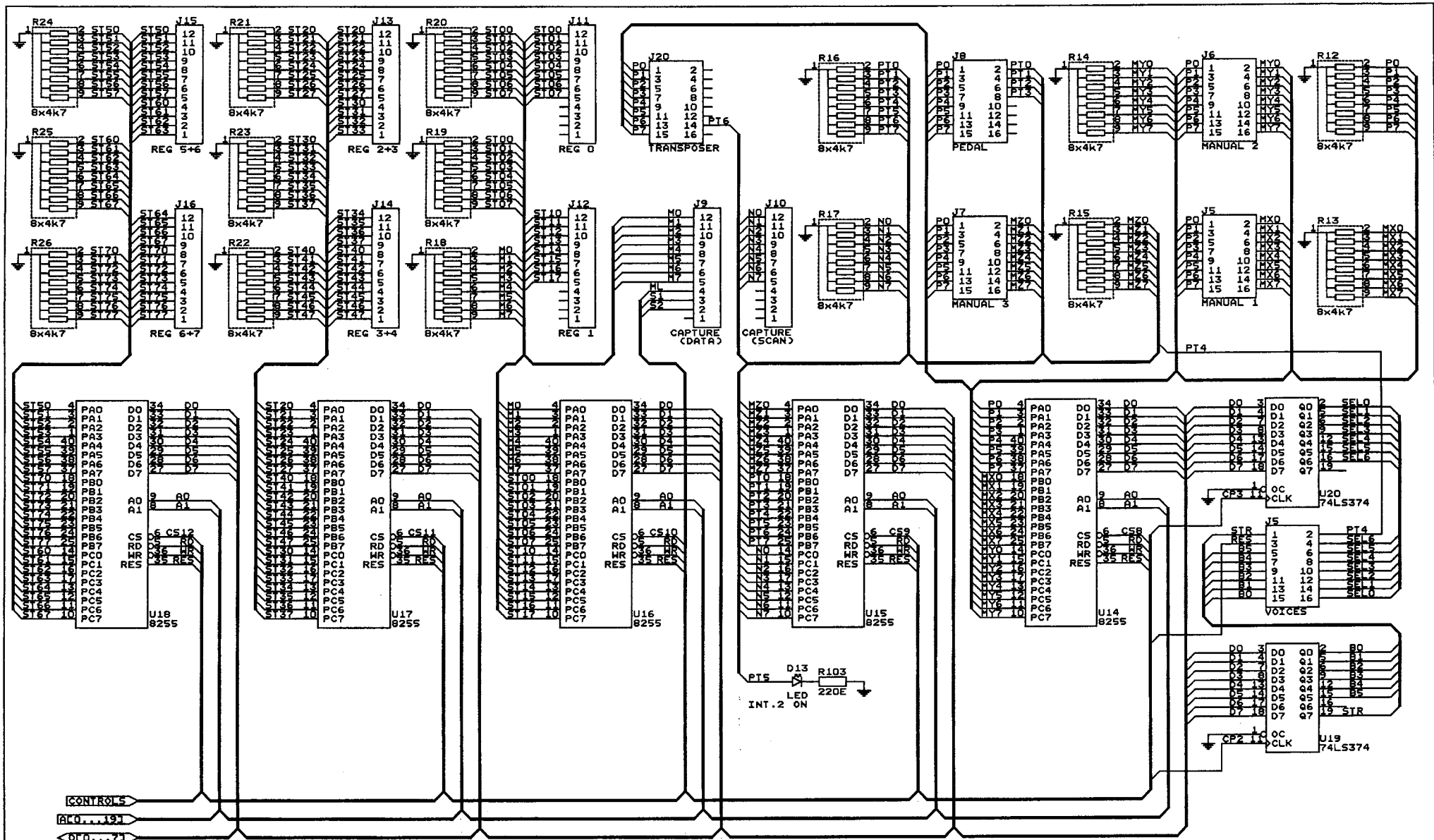


- |  |   |  |  |  |
|--|---|--|--|--|
| <p><b>ACCESSORIES</b></p> <ul style="list-style-type: none"> <li>ST47 = CHOIR TO GREAT</li> <li>ST50 = SWELL TO GREAT</li> <li>ST51 = SWELL TO CHOIR</li> <li>ST52 = CHOIR TO PEDAL</li> <li>ST53 = GREAT TO PEDAL</li> <li>ST54 = SWELL TO PEDAL</li> <li>ST55 = TREMULANT CHOIR</li> <li>ST56 = TREMULANT GREAT</li> <li>ST57 = TREMULANT SWELL</li> <li>ST60 = CHORUS</li> <li>ST61 = MANUAL BASS</li> <li>ST62 = INTONATION 2</li> </ul> | <p><b>PEDAL</b></p> <ul style="list-style-type: none"> <li>ST00 = PRINCIPAL 16'</li> <li>ST01 = SUBBASS 16'</li> <li>ST02 = OCTAVEBASS 8'</li> <li>ST03 = GEDACK 8'</li> <li>ST04 = CHORALBASS 4'</li> <li>ST05 = FLUTE 2'</li> <li>ST06 = BOMBARDE 16'</li> <li>ST07 = TRUMPET 8'</li> </ul> | <p><b>CHOIR</b></p> <ul style="list-style-type: none"> <li>ST10 = BOURDON 8'</li> <li>ST11 = OCTAVE 4'</li> <li>ST12 = FLUTE 4'</li> <li>ST13 = SPITZFLUTE 2'</li> <li>ST14 = QUINT 1 1/3'</li> <li>ST15 = SIFFLUTE 1'</li> <li>ST16 = SCHARF III</li> <li>ST17 = CROMORNE 8'</li> </ul> | <p><b>GREAT</b></p> <ul style="list-style-type: none"> <li>ST20 = QUINTATON 16'</li> <li>ST21 = OPEN DIAPASON 8'</li> <li>ST22 = ROHRFLUTE 8'</li> <li>ST23 = GAMBA 8'</li> <li>ST24 = OCTAVE 4'</li> <li>ST25 = OPEN FLUTE 4'</li> <li>ST26 = THELFTH 2 2/3'</li> <li>ST27 = SUPEROCTAVE 2'</li> <li>ST30 = CORNET IV</li> <li>ST31 = MIXTURE V</li> <li>ST32 = TRUMPET 16'</li> <li>ST33 = TRUMPET 8'</li> </ul> | <p><b>SWELL</b></p> <ul style="list-style-type: none"> <li>ST34 = OPEN DIAPASON 8'</li> <li>ST35 = STOPPED FLUTE 8'</li> <li>ST36 = VIOLA 8'</li> <li>ST37 = CELESTE 8'</li> <li>ST40 = ROHRFLUTE 4'</li> <li>ST41 = NAZARD 2 2/3'</li> <li>ST42 = WALDFLUTE 2'</li> <li>ST43 = TIERCE 1 3/5'</li> <li>ST44 = CROMORNE 16'</li> <li>ST45 = VOX HUMANA 8'</li> <li>ST47 = OBONE 8'</li> </ul> |
|--|---|--|--|--|

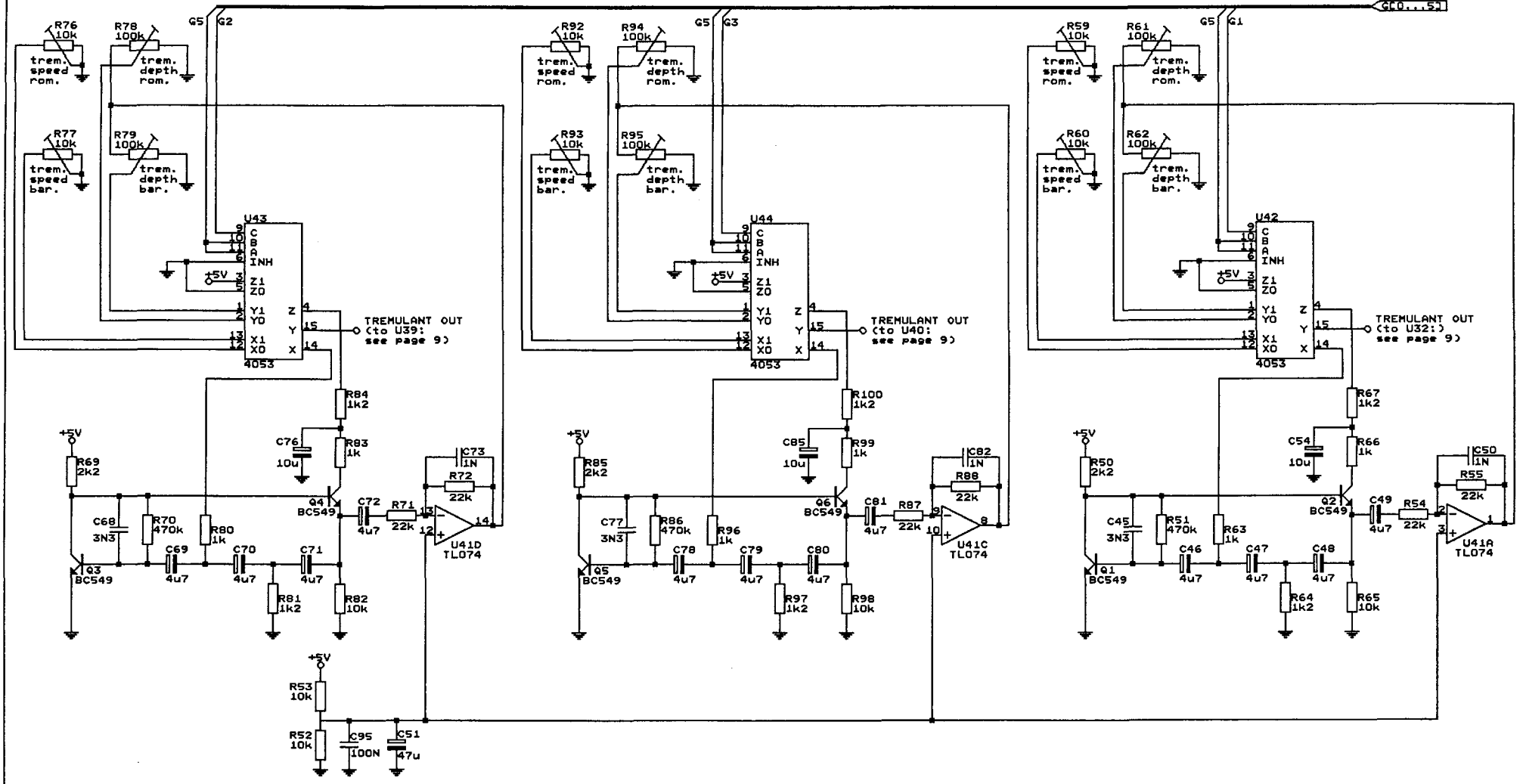
STOPLIST

ALL CONNECTORS: TO PROC.  
ALL STOPLAMPS: 14Vdc/75mA

STOP-BANK AND SWITCH-BANK CAPTURE SYSTEM			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	31-03-94	PAGE
WESLEY PRESTO			5D





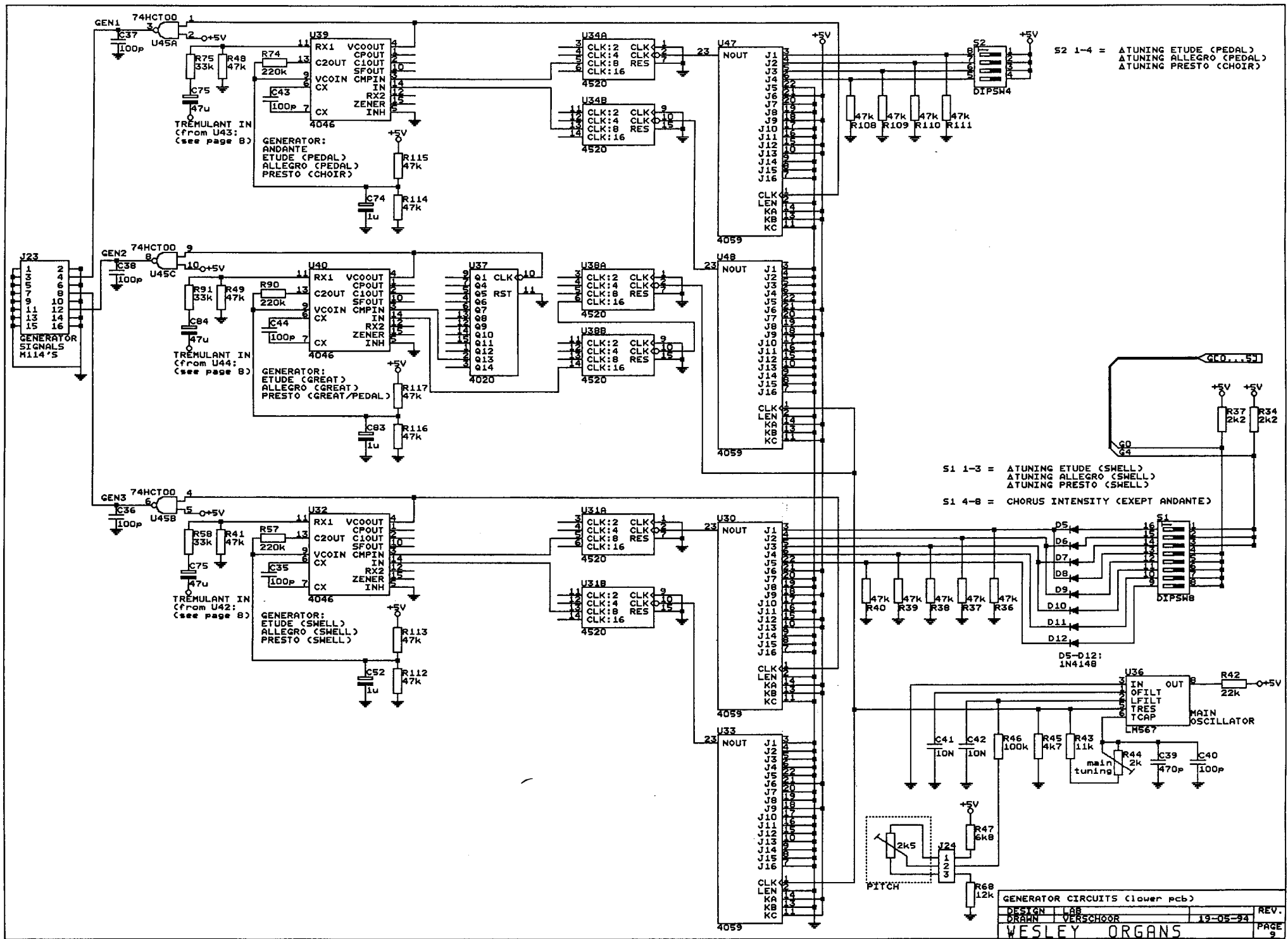


TREMULANT: ANDANTE  
PRESTO (CHOIR)

TREMULANT: ETUDE (GREAT)  
ALLEGRO (GREAT)  
PRESTO (GREAT)

TREMULANT: ETUDE (SWELL)  
ALLEGRO (SWELL)  
PRESTO (SWELL)

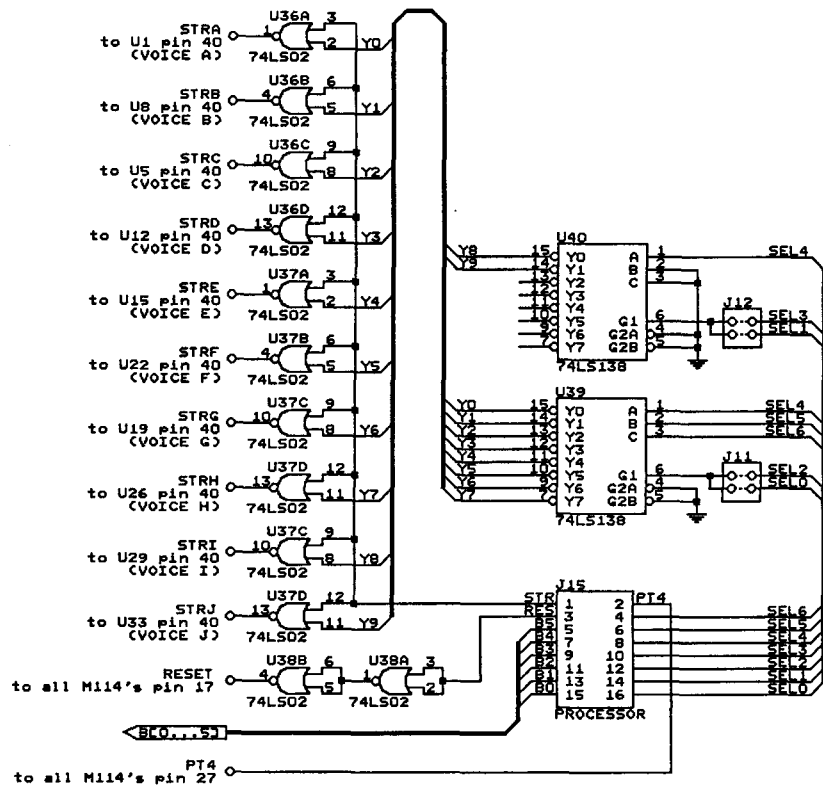
TREMULANT CIRCUITS (lower pcb)			
DESIGN	LAB	REV.	
DRAWN	VERSCHOOR	18-05-94	PAGE 6
WESLEY ORGANS			



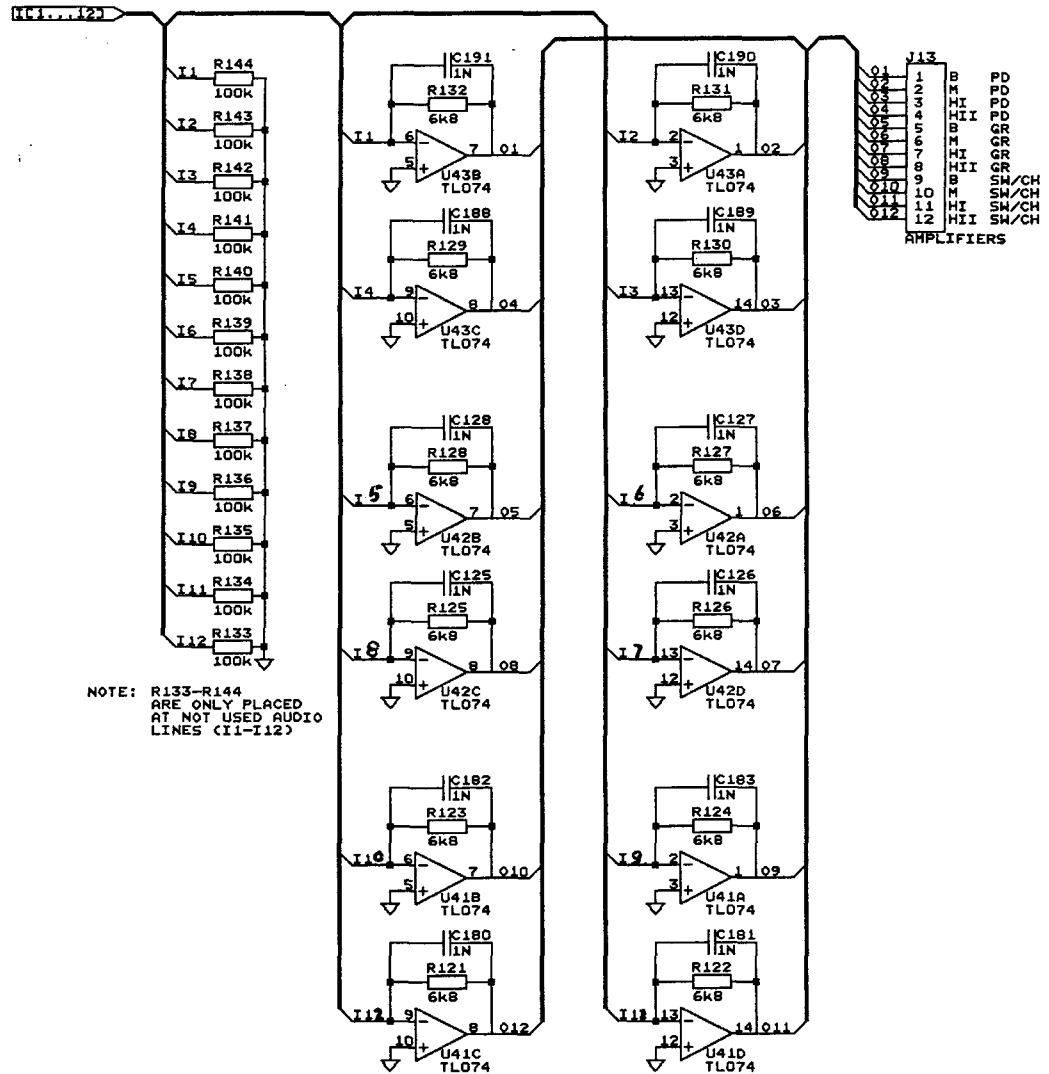
S2 1-4 = ATUNING ETUDE (PEDAL)  
 ATUNING ALLEGRO (PEDAL)  
 ATUNING PRESTO (CHOIR)

S1 1-3 = ATUNING ETUDE (SWELL)  
 ATUNING ALLEGRO (SWELL)  
 ATUNING PRESTO (SWELL)  
 S1 4-8 = CHORUS INTENSITY (EXCEPT ANDANTE)

GENERATOR CIRCUITS (lower pcb)			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	19-05-94	PAGE 9
WESLEY ORGANS			



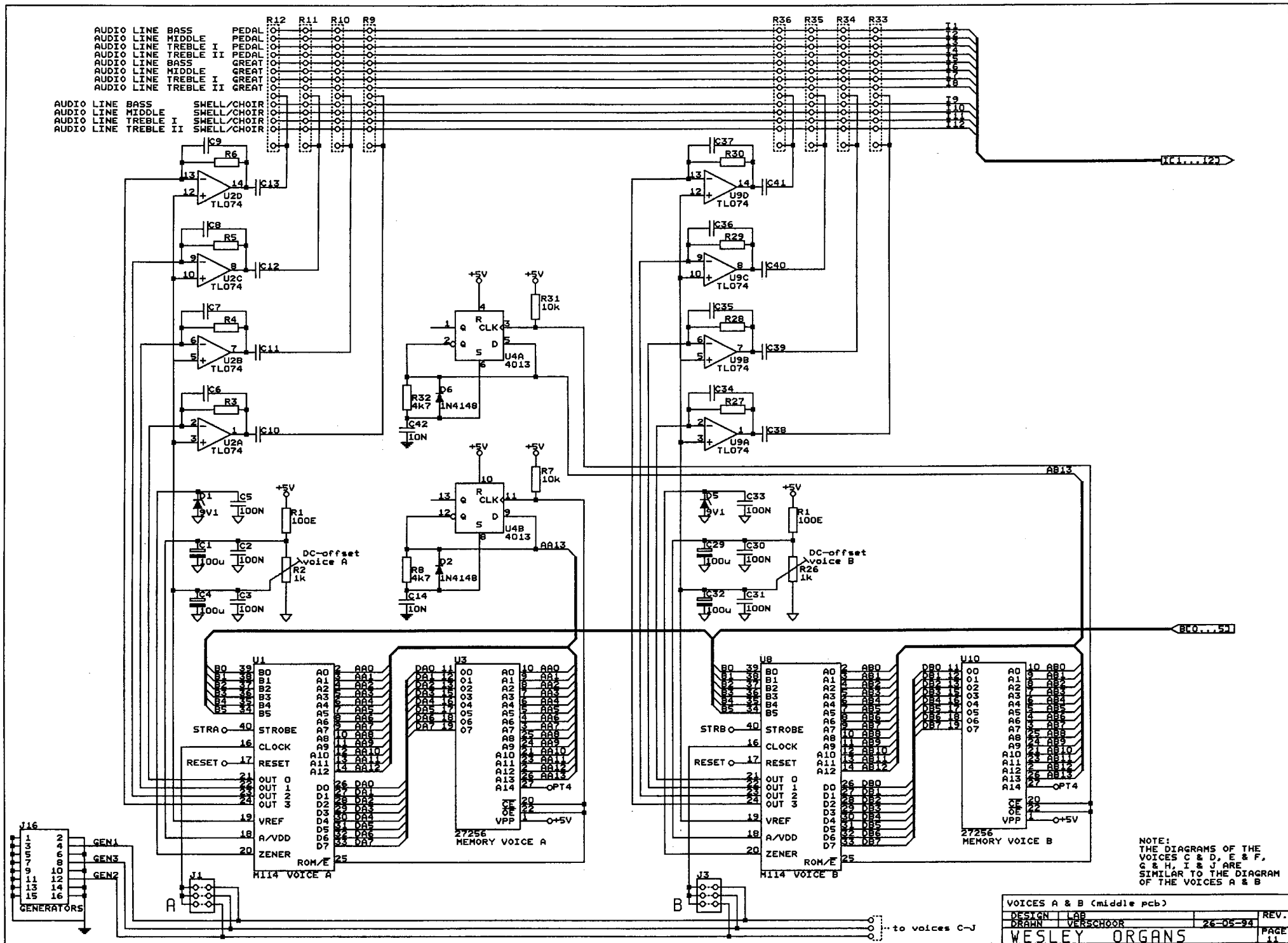
SELECTS AND DATA



OUTPUT BUFFERS

SELECTS, DATA & OUTPUT BUFFERS			
VOICES (middle pcb)			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	19-05-94	
WESLEY ORGANS			PAGE 10

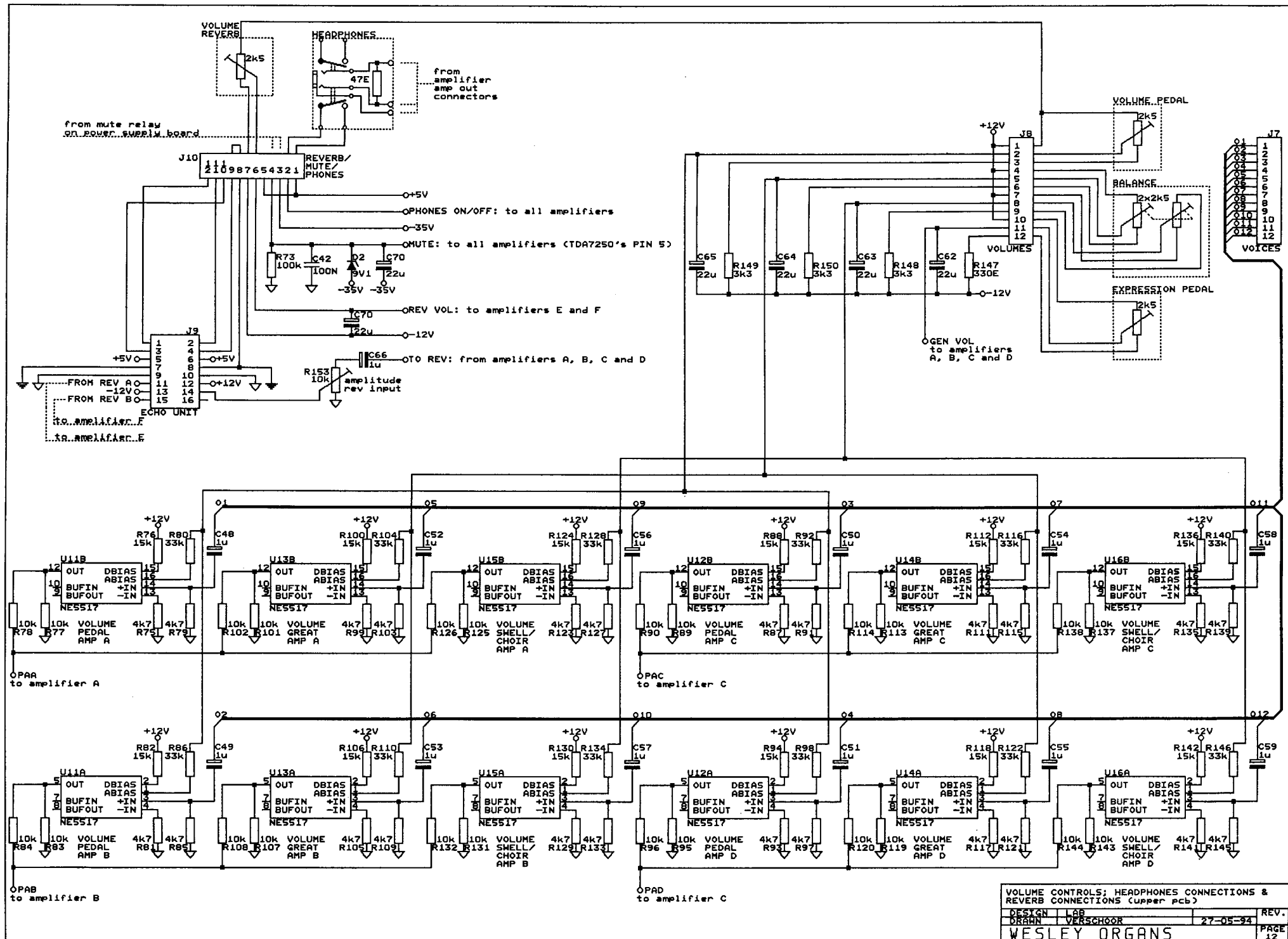




AUDIO LINE BASS PEDAL  
 AUDIO LINE MIDDLE PEDAL  
 AUDIO LINE TREBLE I PEDAL  
 AUDIO LINE TREBLE II PEDAL  
 AUDIO LINE BASS GREAT  
 AUDIO LINE MIDDLE GREAT  
 AUDIO LINE TREBLE I GREAT  
 AUDIO LINE TREBLE II GREAT  
 AUDIO LINE BASS SMELL/CHOIR  
 AUDIO LINE MIDDLE SMELL/CHOIR  
 AUDIO LINE TREBLE I SMELL/CHOIR  
 AUDIO LINE TREBLE II SMELL/CHOIR

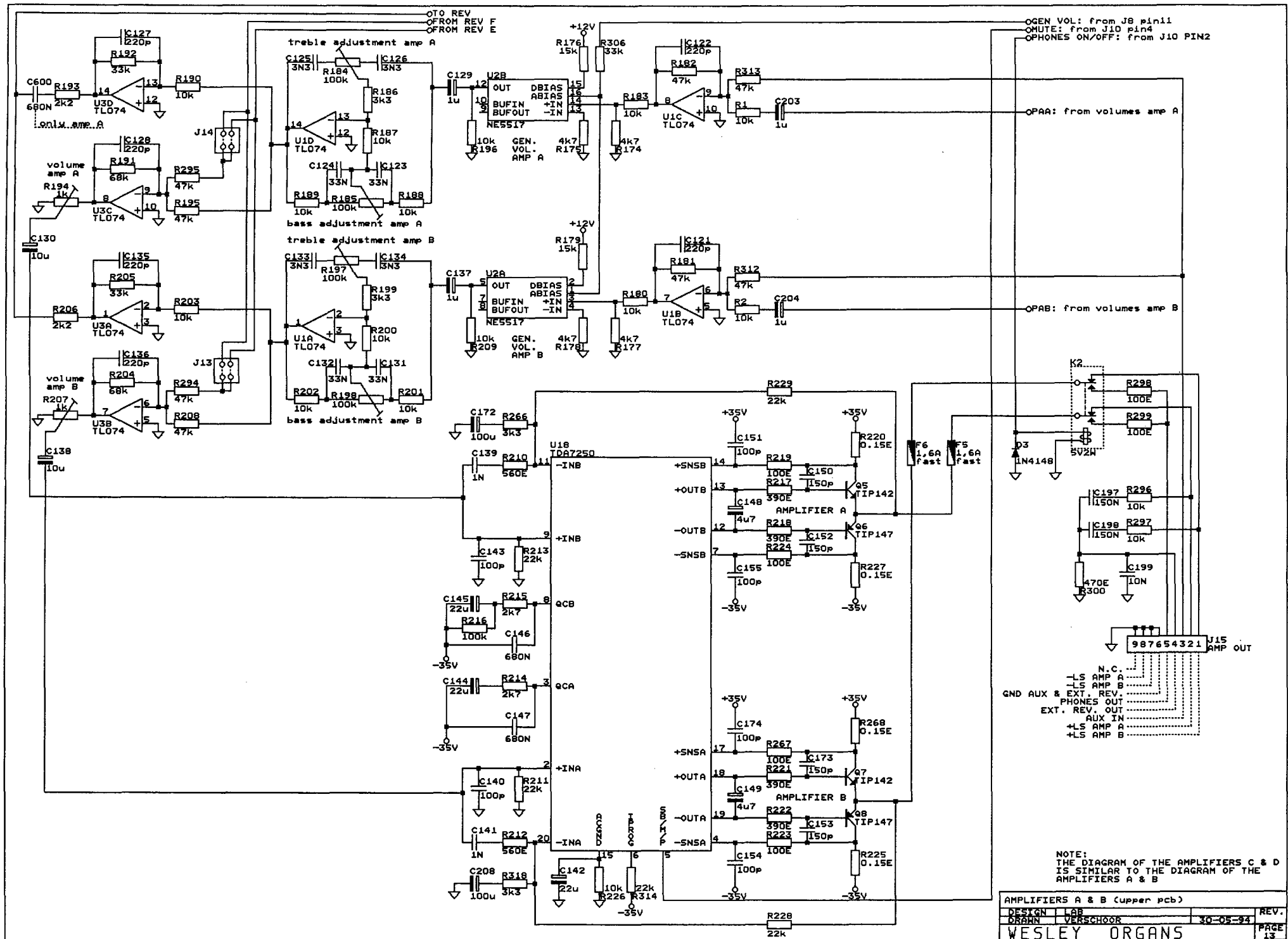
NOTE:  
 THE DIAGRAMS OF THE  
 VOICES C & D, E & F,  
 G & H, I & J ARE  
 SIMILAR TO THE DIAGRAM  
 OF THE VOICES A & B

VOICES A & B (middle pcb)			
DESIGN	LAB		REV.
DRAWN	VERSCHOOR	26-05-94	PAGE
WESLEY ORGANS			11

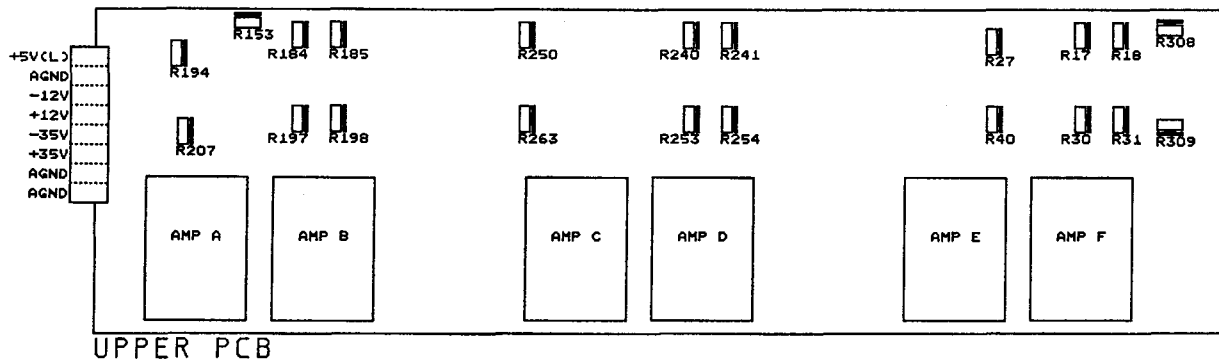


VOLUME CONTROLS; HEADPHONES CONNECTIONS & REVERB CONNECTIONS (upper pcb)

DESIGN	LAB	REV.
DRAWN	VERSCHOOR	27-05-94
WESLEY ORGANS		PAGE 12

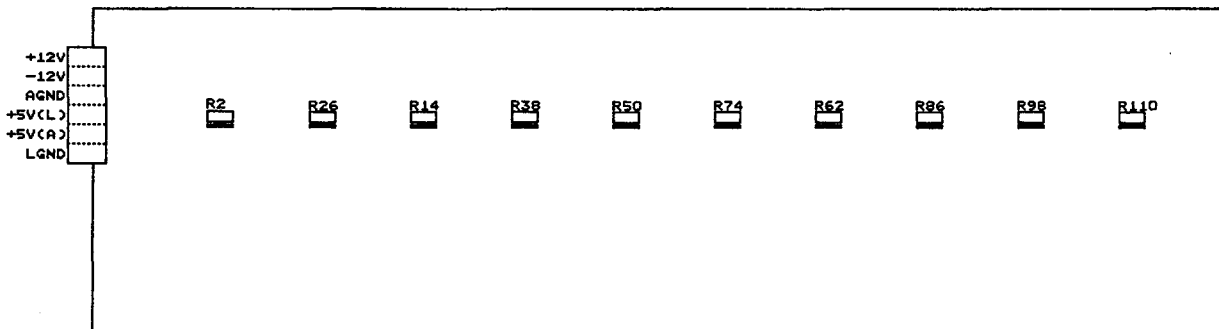






UPPER PCB

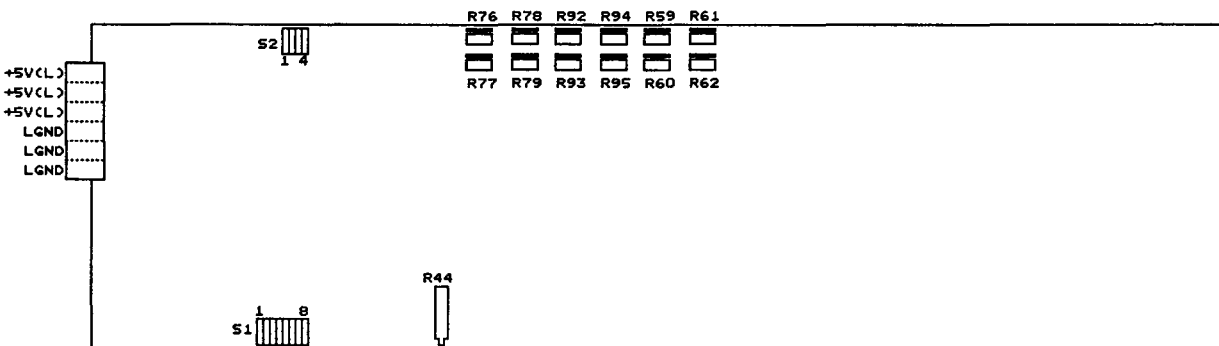
- R17 = TREBLE AMP E (INT. REVERB + DAK-2)
- R18 = BASS AMP E (INT. REVERB + DAK-2)
- R27 = VOLUME AMP E (DAK-2)
- R30 = TREBLE AMP F (INT. REVERB + DAK-2)
- R31 = BASS AMP F (INT. REVERB + DAK-2)
- R40 = VOLUME AMP F (DAK-2)
- R153 = AMPLITUDE REVERB INPUT (INT. REVERB + DAK-2)
- R184 = TREBLE AMP A
- R185 = BASS AMP A
- R194 = VOLUME AMP A
- R197 = TREBLE AMP B
- R198 = BASS AMP B
- R207 = VOLUME AMP B
- R240 = TREBLE AMP C
- R241 = BASS AMP C
- R250 = VOLUME AMP C
- R253 = TREBLE AMP D
- R254 = BASS AMP D
- R263 = VOLUME AMP D
- R308 = AMPLITUDE REVERB A IN AMP E (INT. REVERB + DAK-2)
- R309 = AMPLITUDE REVERB B IN AMP F (INT. REVERB + DAK-2)



MIDDLE PCB

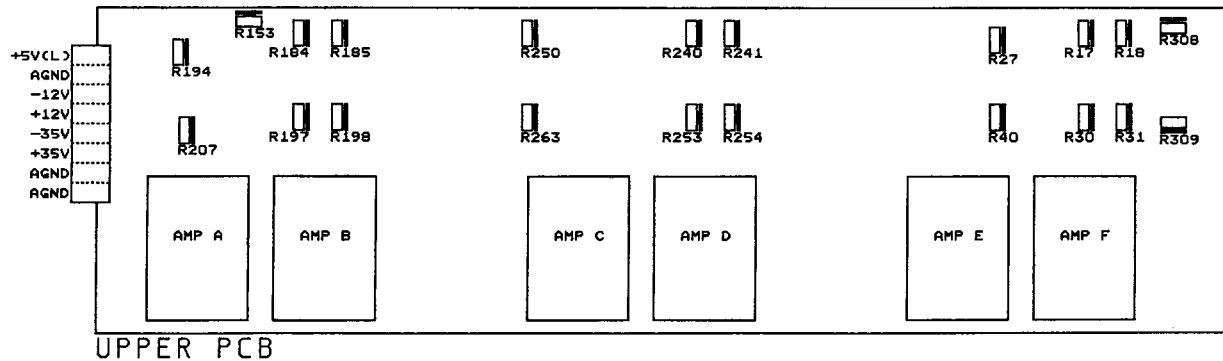
- R2 = DC OFFSET U1
- R14 = DC OFFSET U5
- R26 = DC OFFSET U8
- R38 = DC OFFSET U12
- R50 = DC OFFSET U15
- R62 = DC OFFSET U19
- R74 = DC OFFSET U22
- R86 = DC OFFSET U26
- R98 = DC OFFSET U29
- R110 = DC OFFSET U33

NOTE: THESE POTENTIOMETERS ARE NOT FOR CHANGING VOLUMES!! TURNING THESE POTENTIOMETERS CAN RESULT IN DISTORSION!!

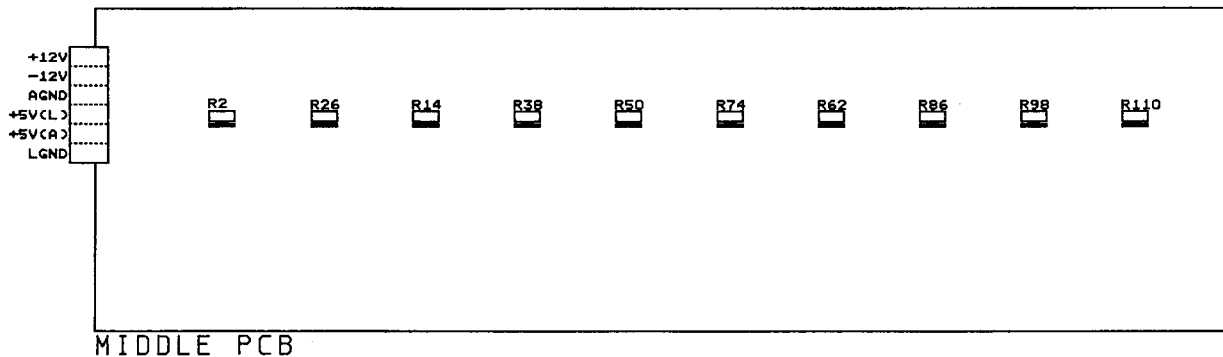


LOWER PCB

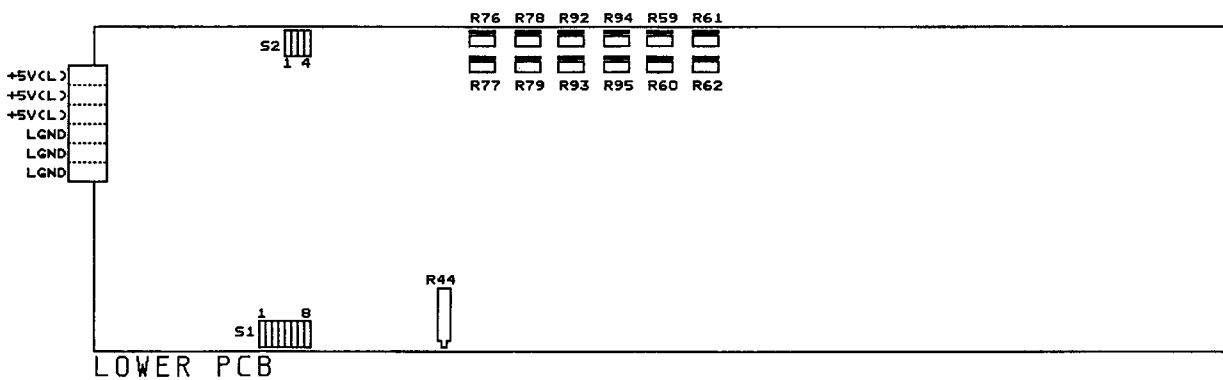
- R44 = MAIN TUNING
- R59 = TREMULANT SPEED SWELL (ROMANTIC)
- R60 = TREMULANT SPEED SWELL (BAROQUE)
- R61 = TREMULANT DEPTH SWELL (ROMANTIC)
- R62 = TREMULANT DEPTH SWELL (BAROQUE)
- R76 = TREMULANT SPEED ANDANTE & CHOIR PRESTO (ROMANTIC)
- R77 = TREMULANT SPEED ANDANTE & CHOIR PRESTO (BAROQUE)
- R78 = TREMULANT DEPTH ANDANTE & CHOIR PRESTO (ROMANTIC)
- R79 = TREMULANT DEPTH ANDANTE & CHOIR PRESTO (BAROQUE)
- R92 = TREMULANT SPEED GREAT (ROMANTIC)
- R93 = TREMULANT SPEED GREAT (BAROQUE)
- R94 = TREMULANT DEPTH GREAT (ROMANTIC)
- R95 = TREMULANT DEPTH GREAT (BAROQUE)
- S1 1-3 = DELTA TUNING SWELL
- S1 4-8 = CHORUS INTENSITY (EXEPT ANDANTE)
- S2 1-4 = DELTA TUNING PEDAL (ETUDE/ALLEGRO) DELTA TUNING CHOIR (PRESTO)



- R17 = TREBLE AMP E (INT. REVERB + DAK-2)
- R18 = BASS AMP E (INT. REVERB + DAK-2)
- R27 = VOLUME AMP E (DAK-2)
- R30 = TREBLE AMP F (INT. REVERB + DAK-2)
- R31 = BASS AMP F (INT. REVERB + DAK-2)
- R40 = VOLUME AMP F (DAK-2)
- R153 = AMPLITUDE REVERB INPUT (INT. REVERB + DAK-2)
- R184 = TREBLE AMP A
- R185 = BASS AMP A
- R194 = VOLUME AMP A
- R197 = TREBLE AMP B
- R198 = BASS AMP B
- R207 = VOLUME AMP B
- R240 = TREBLE AMP C
- R241 = BASS AMP C
- R250 = VOLUME AMP C
- R253 = TREBLE AMP D
- R254 = BASS AMP D
- R263 = VOLUME AMP D
- R308 = AMPLITUDE REVERB A IN AMP E (INT. REVERB + DAK-2)
- R309 = AMPLITUDE REVERB B IN AMP F (INT. REVERB + DAK-2)



- R2 = DC OFFSET U1
  - R14 = DC OFFSET U5
  - R26 = DC OFFSET U8
  - R38 = DC OFFSET U12
  - R50 = DC OFFSET U15
  - R62 = DC OFFSET U19
  - R74 = DC OFFSET U22
  - R86 = DC OFFSET U26
  - R98 = DC OFFSET U29
  - R110 = DC OFFSET U33
- NOTE: THESE POTENTIOMETERS ARE NOT FOR CHANGING VOLUMES!!  
TURNING THESE POTENTIOMETERS CAN RESULT IN DISTORSION!!



- R44 = MAIN TUNING
  - R59 = TREMULANT SPEED SWELL (ROMANTIC)
  - R60 = TREMULANT SPEED SWELL (BAROQUE)
  - R61 = TREMULANT DEPTH SWELL (ROMANTIC)
  - R62 = TREMULANT DEPTH SWELL (BAROQUE)
  - R76 = TREMULANT SPEED ANDANTE & CHOIR PRESTO (ROMANTIC)
  - R77 = TREMULANT SPEED ANDANTE & CHOIR PRESTO (BAROQUE)
  - R78 = TREMULANT DEPTH ANDANTE & CHOIR PRESTO (ROMANTIC)
  - R79 = TREMULANT DEPTH ANDANTE & CHOIR PRESTO (BAROQUE)
  - R92 = TREMULANT SPEED GREAT (ROMANTIC)
  - R93 = TREMULANT SPEED GREAT (BAROQUE)
  - R94 = TREMULANT DEPTH GREAT (ROMANTIC)
  - R95 = TREMULANT DEPTH GREAT (BAROQUE)
- S1 1-3 = DELTA TUNING SWELL  
S1 4-8 = CHORUS INTENSITY (EXEPT ANDANTE)  
S2 1-4 = DELTA TUNING PEDAL (ETUDE/ALLEGRO)  
DELTA TUNING CHOIR (PRESTO)