SIELORCHESTRA

SCHEMATIC DIAGRAM

SIEL®

PRESETS-SWITCHBOARD 440-99-0102 E

CONTROLS SWITCH BOARD 440-99-0101 D

BRASS STRINGS REED PIANO

BRASS ATTACK · BRILLIANCE · VIBRATO SPEED · VIBRATO · MUTE · TROMBONE TRUMPET · CELLO · VIOLIN · PERCUSSION · SOLO · ACCORDEON · MUSETTE · PIANO · HONKY TONK · ATTACK · SUSTAIN · VOLUME

220 VAC

100 mAT

POWER SUPPLY 440-99-0103 A

440.99.0104

440.99.0103

440.99.0100

3302

4013

LOGIC & ENVELO 440-99-0103 B

KEY SWITCH BOARD 440-99-0100 C

TUNING G 440-99-0106

VIBRATO

FILTERS & DELAY LINES 440-99-0104 F

HONKY TONK · CELLO · VIOLIN · MUSETTE · TROMBONE · TRUMPET · ACCORDEON · PIANO · STRINGS SQUELCH · MIX PREAMP

SUSTAIN FOOTSWITCH

HIGH / LOW OUT

VOLUME PEDAL

NOTES:

- All diodes are 1N 4148;
- All the logic signals are: 0 = −6V; 1 = +6V;
- All switches shown in off position;
- All resistors 1/4W unless otherwise indicated
- All electrolytic capacitors 16 V DC unless otherwise indicated.

PRESETS SWITCHBOARD (E)

CONTROLS SWITCHBOARD (D)

LOGIC, ENVELOPES (B)

POWER SUPPLY (A)

FILTERS, DELAY-LINES (F)

KEYSWITCHBOARD (C)

TUNING (G)

cable A

cable B

cable C

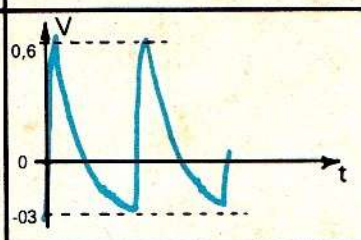
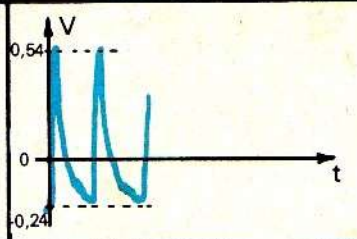
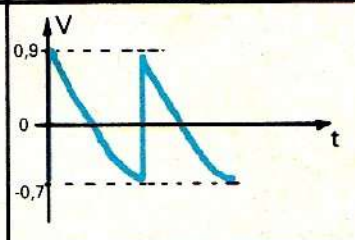
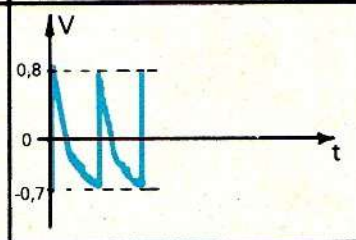
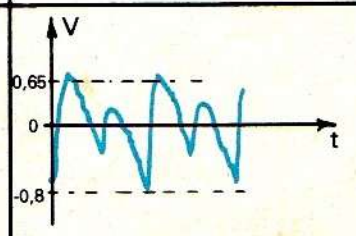
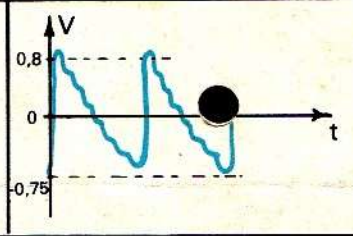
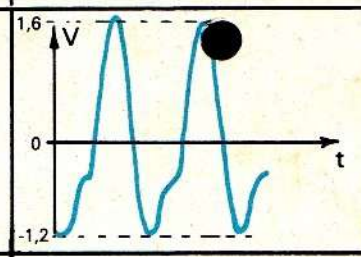
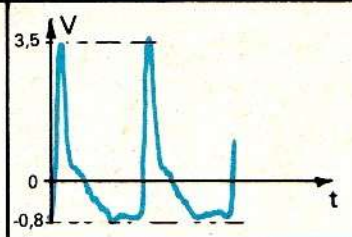
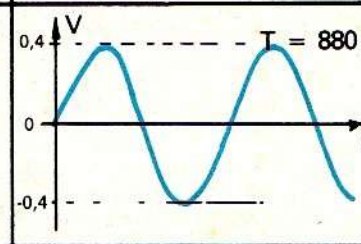
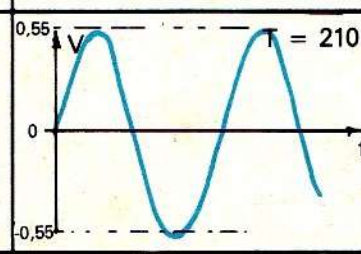
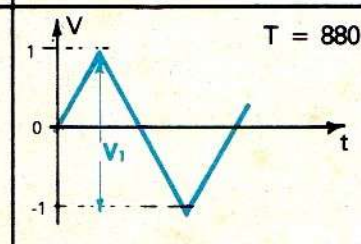
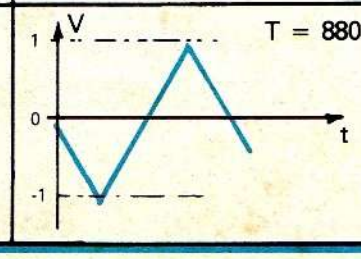
cable D

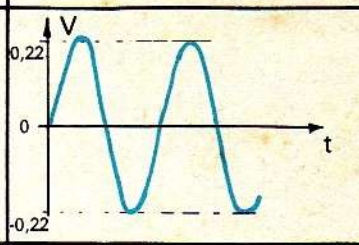
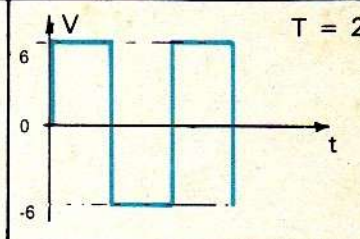
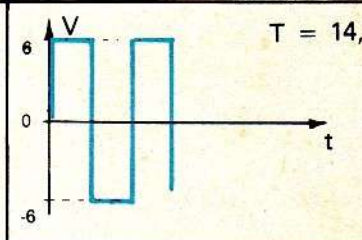
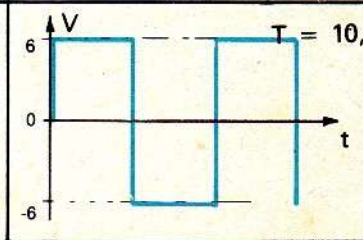
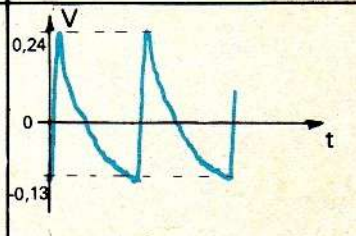
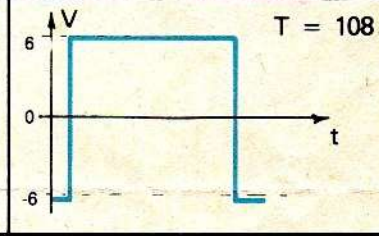
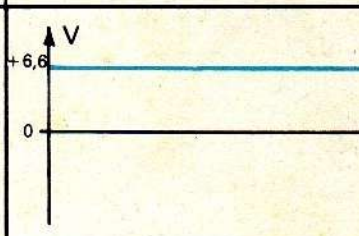
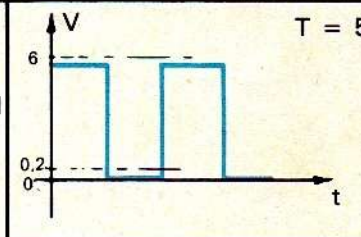
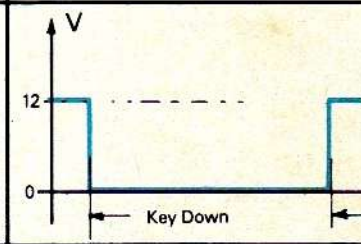
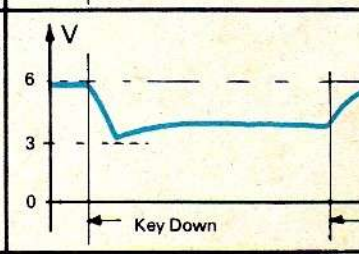
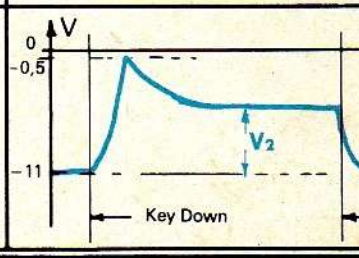
cable E

cable F

cable G

cable H

TP	INSTRUMENT INSERTED	CONDITION	WAVEFORMS
01	Trombone	– Brilliance max – Mute off - f = 440 Hz	
01	Trumpet	Brilliance max Mute off - f = 880 Hz	
X1	Cello	- Percuss. off - f = 440 Hz	
X1	Violin	Percuss. off f = 880 Hz	
01	Accordeon	Attack min. f = 880 Hz	
X1	Musette	Attack min. f = 880 Hz	
01	Piano	Sustain max f = 440 Hz	
X1	Honky Tonk	Sustain max f = 440 Hz	
Tp1	Violin or Cello		
Tp2	Violin or Cello		
Tp1	Honky Tonk or Musette		
Tp2	Honky Tonk or Musette		

TP	INSTRUMENT INSERTED	CONDITION	WAVEFORMS
Tp3			
Tp4		Tp1 To ground	
Tp5		Tp2 To ground	
Tp6		Tp3 To ground	
Tp7 Tp8 Tp9	Violin	Perc off Solo off f = 440 Hz	
Tp10	Trumpet	- Vibrato on - Any Key pressed	
Tp11	Piano		
Tp11	Violin	– Attack min – Any key, pressed	
Tp12	Trumpet		
Tp13	Trumpet	– Brass Attack 1/2 – Brilliance max – Mute off	
Tp14	Trumpet	- Brass Attack 1/2 - Brilliance max - Mute off	

ADJUST

Tp1	Musette		Adjust Pf1 for V_1 = 2 Vpp
Tp14	Trumpet		Adjust Pb1 for V_2 = -7V
Fo	Set ext Tuning 1/2		Pitch the coil Lc1 for fo = 2,001 MHz

Position	Type	Code
A		
ICa1-3	uA 79 MG	367.99.8003
ICa2-4	uA 78 MG	367.99.8002
B		
ICb1-2	1458	367.99.7004
ICb3	4016	367.99.6004
ICb4-11-12	4011	367.99.6002
ICb5-6	4049	367.99.6012
ICb7-9	4071	367.99.6022
ICb8	4069	367.99.6005
ICb10	4082	367.99.6023
Tb1.5	BC 173	364.99.0003
Tb6-7	BC 416	364.99.0004
C		
ICc1	4069	367.99.6005
ICc2	50242	367.99.5001
ICc3 ÷ 14	TDA 1008	367.99.5011
ICc15	1458	367.99.7004
Tc1	BC173 selected	364.99.0007
F		
ICf1-2-4-11	4016	367.99.6004
ICf3	13600	367.99.7005
ICf5-6-7	TDA 1022	367.99.5012
ICf8-9	4013	367.99.6003
ICf10-12	3302	367.99.7003
ICf13-14-15	1458	367.99.7004
Tf1.3	BC173	364.99.0003
Tf4	BC416	364.99.0004
Tf5.10	BC173	364.99.0003

Cable Map

Cable	1	2	3	4	5	6	7	8	9	10
A	−12	⊥	+12	−6	⊥	+6				
B	V_D	Vib.Sp.	Vib.Sp.	⊥	8'	16'				
C	+12	+6	⊥	⊥	−12	2'				
D	Vib.Sp.	Vib.Sp.	V_D	Tb·B	Tr·B	C·S				
E	V·S	S_O·S	A·R	M·R	Pi·P	H·P				
F	+6	−6	⊥	⊥	+12	−12				
G	ADSR	⊥	S·S_O	S·$\overline{S}$·$\overline{S_O}$	$\overline{H{\cdot}P + M{\cdot}R}$	H·P + M·R				
H	⊥	Sustain	⊥	C.B.	⊥	Decay				

Connector Map

Connector	I	Mute	—	Mute	Brill.	Attack	Sustain	Sustain	Sustain	Attack	Attack
	L	LED Attack	LED Brill.	LED Vib.Sp.	LED Piano	LED Reed	LED Strings	LED Brass	LED Mute	LED Vibrato	V_D
	M	LED Attack	LED Sustain	+6		H·P	P	M·R	R	S_O·S	S
	N	P_Z·S	B	Vib.	Vib.	B'	S'	R'	P'	−6	+12

NOTES:

PIANO = P
BRASS = B
STRINGS = S
REED = R

Trombone = Tb
Trumpet = Tr
Cello = C
Violin = V
Percussion = P_Z
Vibrato delay = V_D
Common bar = C.B.

Solo = So
Accordeon = A
Musette = M
Piano = Pi
Honky Tonky = H