



SERVICE MANUAL

Schematic Diagrams



CODE : 270186



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GENERALMUSIC S.p.A. Sales Division: 47048 S.Giovanni in Marignano (RN) ITALY - Via delle Rose, 12 - tel. 0541/959511 - tlx 550555 GMUSIC I - fax 0541/957404



Notice

Service must be carried out by qualified personnel only. Any tampering carried out by unqualified personnel during the guarantee period will forfeit the right to guarantee.

For a correct operation of the instrument, after having switched off, be careful to wait at least 3 seconds before switching on again. To improve the device's specifications, the schematic diagrams may be subject to change without prior notice.

Schematic Notes

All components marked by this symbol have special safety characteristics, when replacing any of these components use only manufacturer's specified parts.

The (μ) micro symbol of capacitance value is substituted by U. The (Ω) omega symbol of resistance value is substituted by E. The electrolytic capacitors are 25Vdc rated voltage unless otherwise specified. All resistors are 1/8W unless otherwise specified.

← Soldering point.

• Male connector.

○ Female connector.

— M/F faston connector.

□ Test point.

⬭ Flag joined with one or more flags with the same signal name inscribed.

↑ Supply voltage.

⬇ Logic supply ground.

⬇ Analog supply ground.

⬇ Chassis ground.

⬇ Earth ground.



ATTENTION

Observe precautions when handling electrostatic sensitive devices

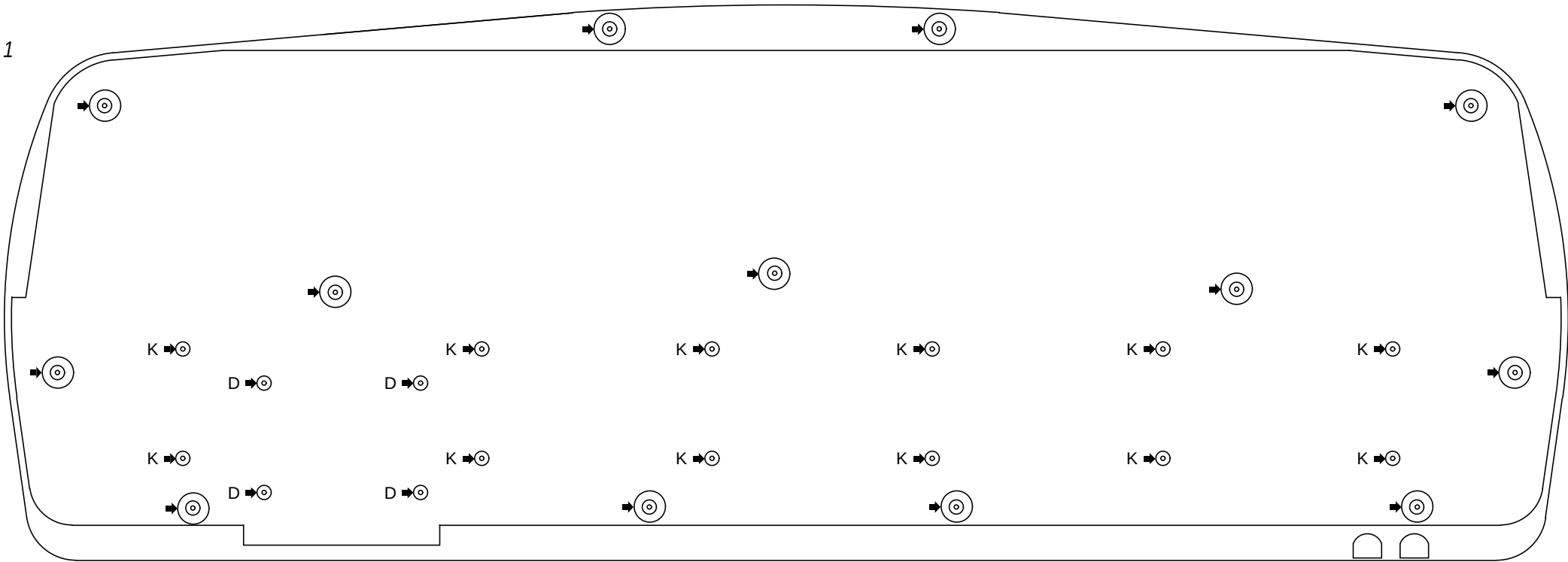
Opening Instructions
refer to fig. 1

To open the instrument remove the screws marked by ➡

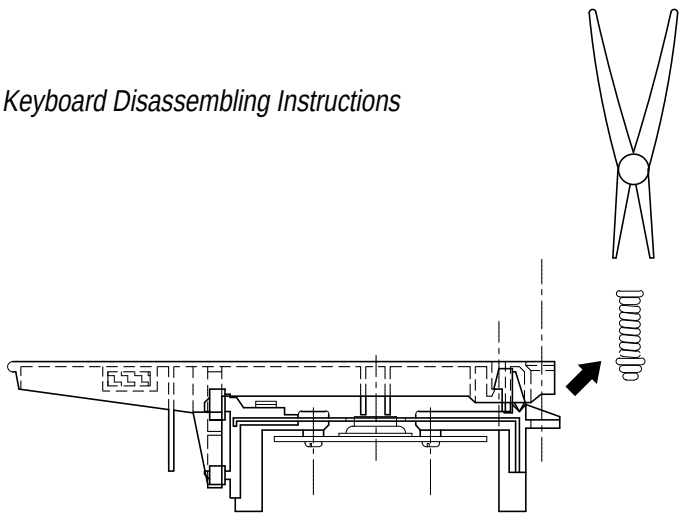
To separate the keyboard from chassis remove the screws marked by K ➡ (open the instrument before proceed)

To access to the Disk Drive remove the screws marked by D ➡

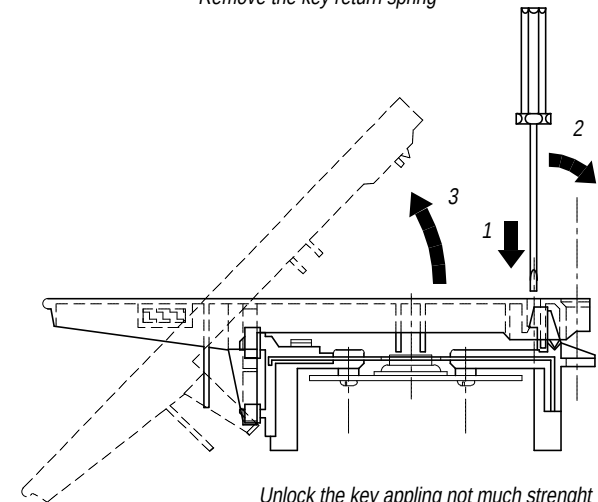
Fig. 1



Keyboard Disassembling Instructions

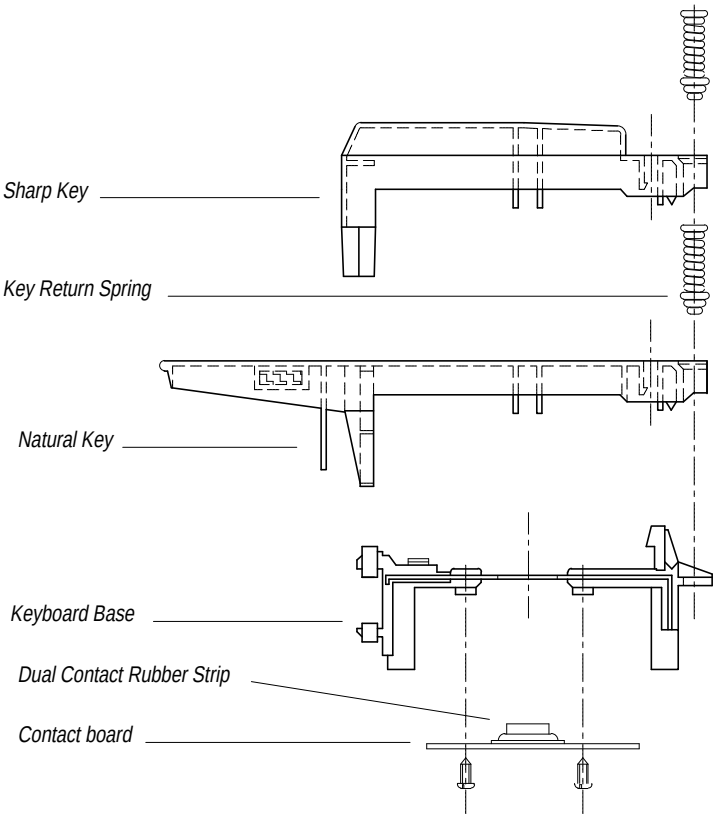


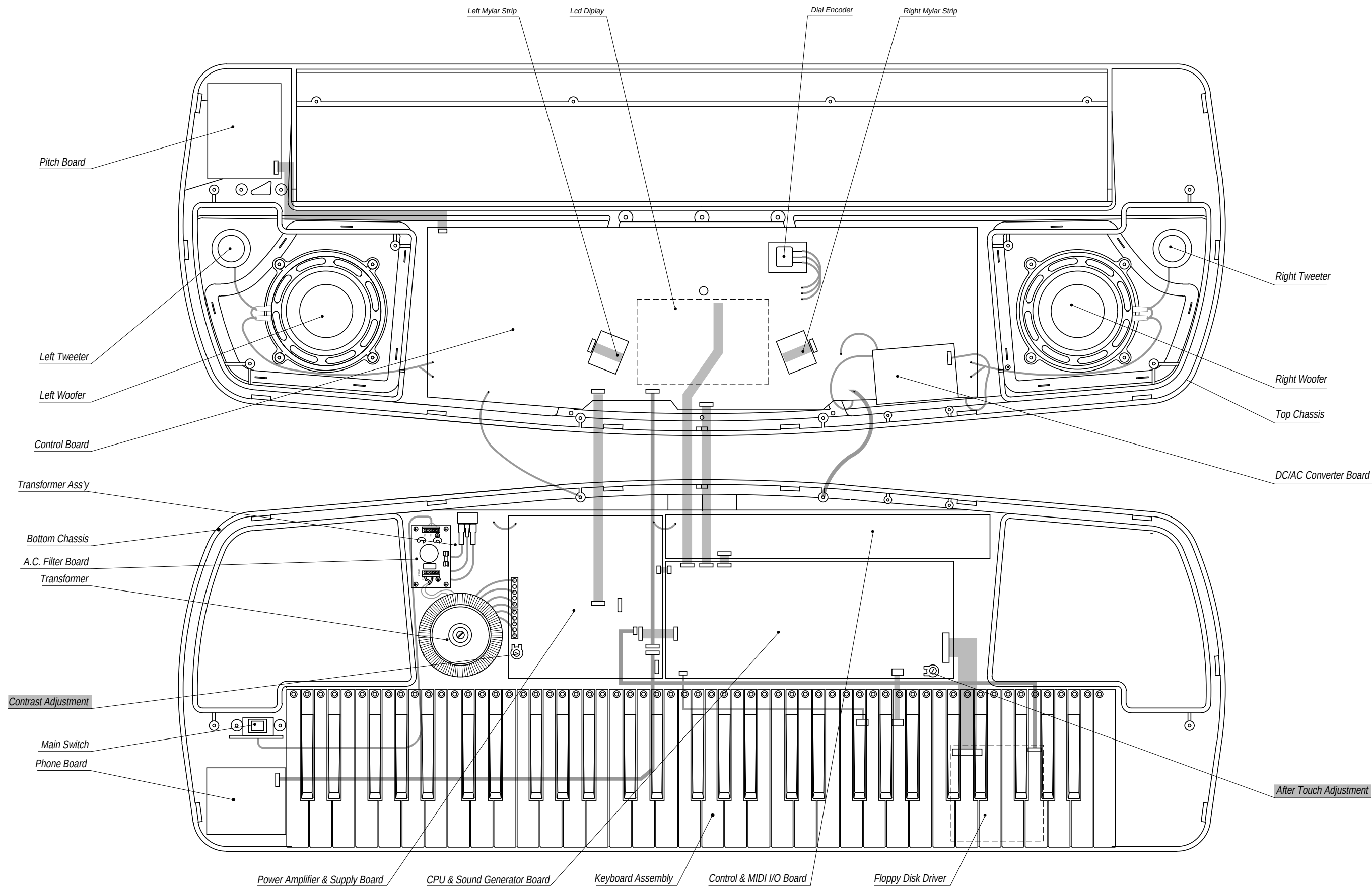
Remove the key return spring

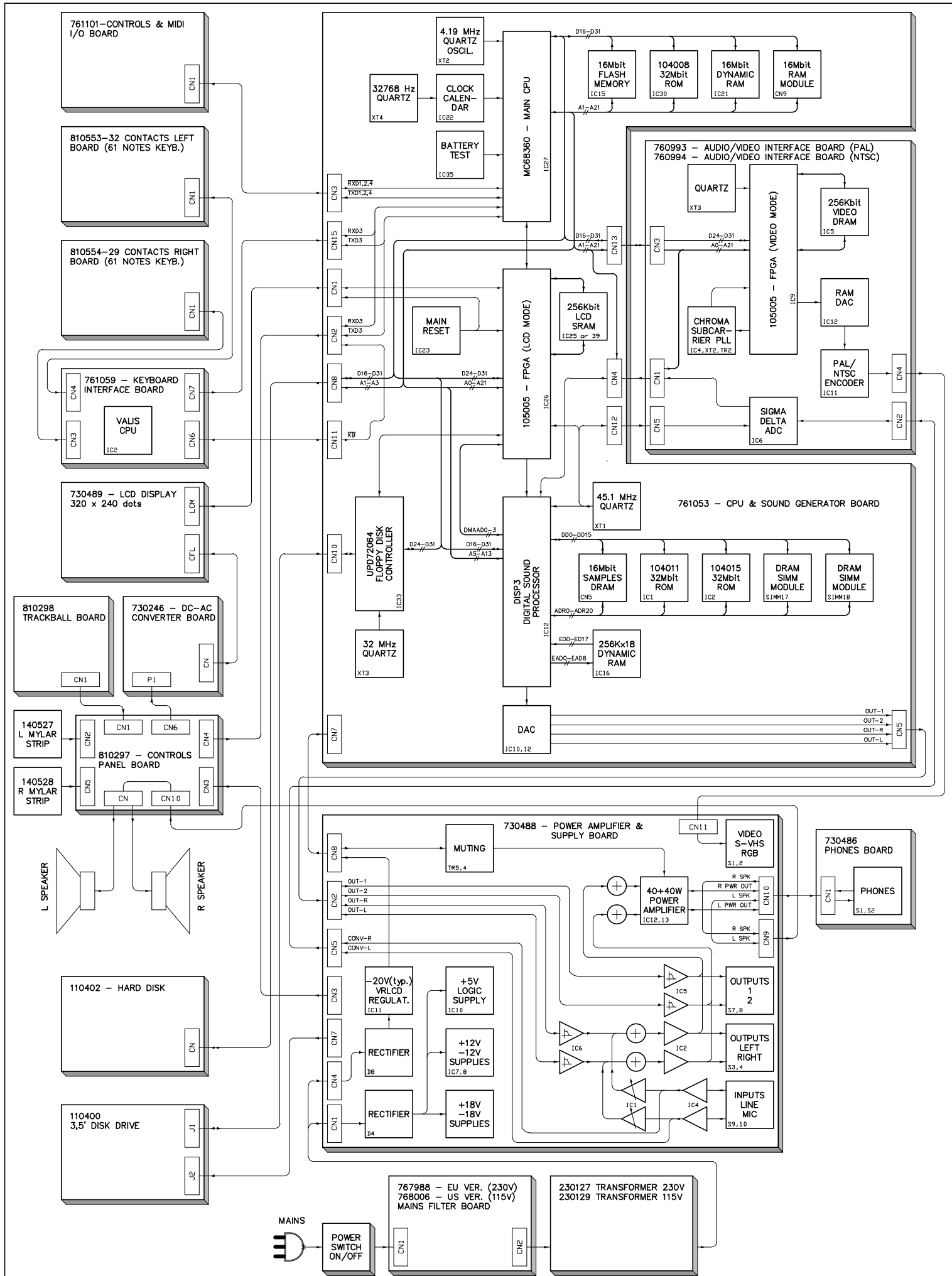


Unlock the key applying not much strenght
Note: To remove a sharp key before you must remove a near natural key.

Keyboard Exploded View

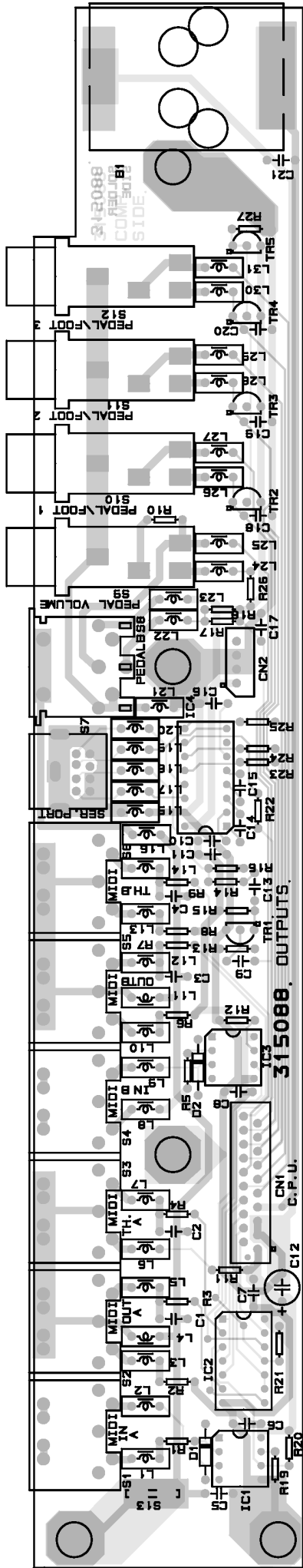




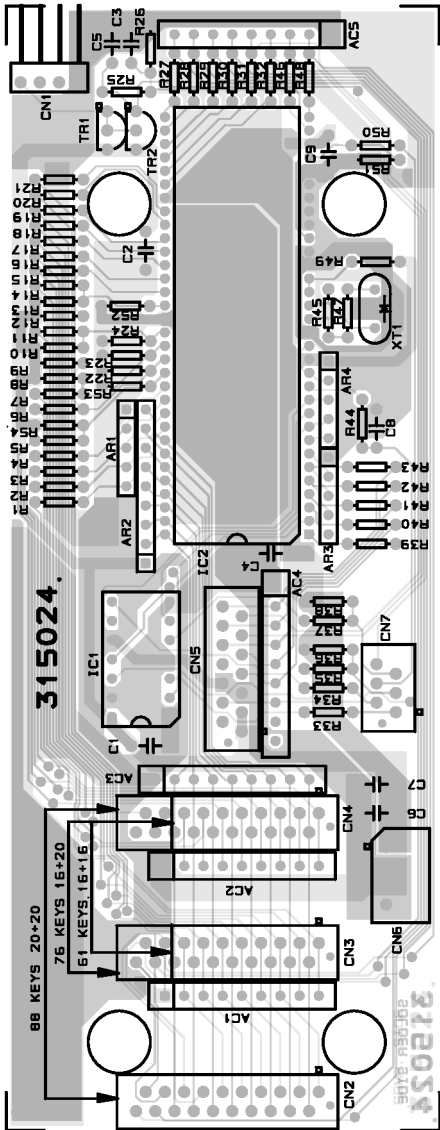


DRW: G. Boccato	DWG#: 550107	PCB#	GENERALMUSIC S.p.A. ITALY
CKD: N. Riccobelli	DISK: 40 PART: 1/1	WK4 BLOCK DIAGRAM	ALL RIGHTS ARE RESERVED. NO COPIES OR REPRODUCE THIS DOCUMENT WITHOUT WRITTEN CONSENT BY GENERALMUSIC.
APP: Pannelli	REV: 25/10/96		

MIDI & CONTROLS I/O BOARD (PCB LAYOUT).

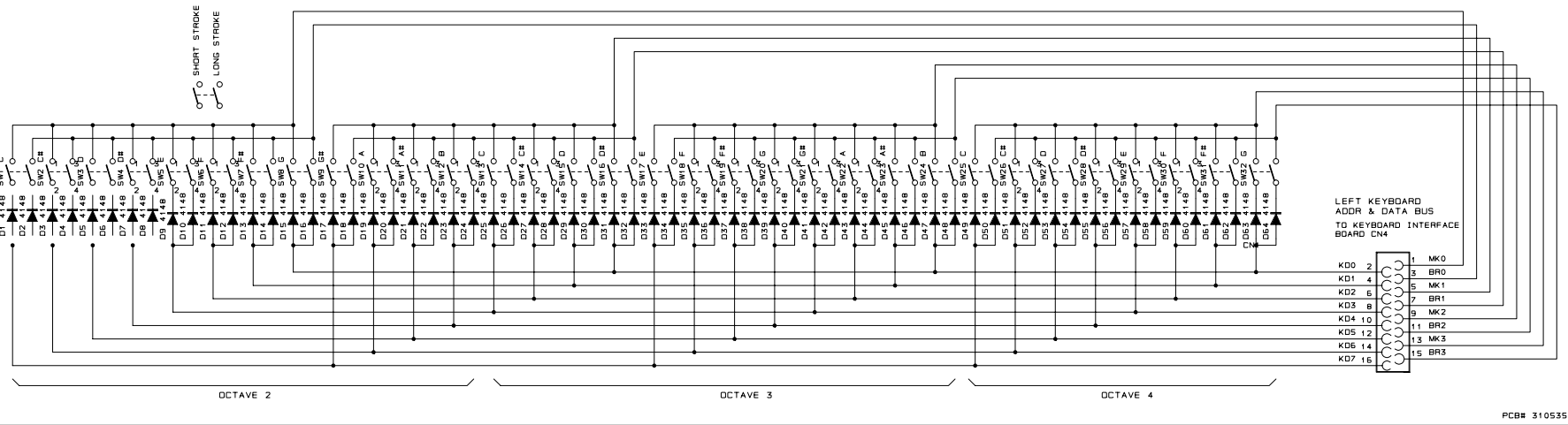


KEYBOARD INTERFACE BOARD (PCB LAYOUT).

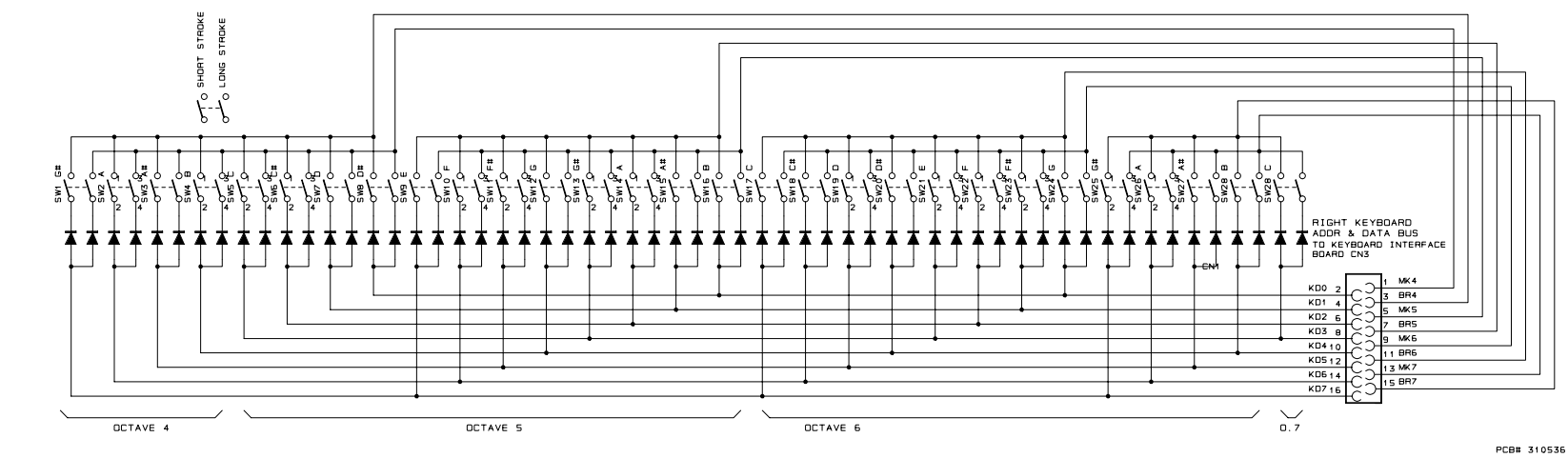


DRW: BOCCATO	DWG: 315024/088	SCHEMATIC DIAGRAM WK4	GENERALMUSIC S.p.A. Italy
CKD: RICCABELLI	DISK: 40 PART: 1/1	Midi & Controls I/O Board, Keyboard Interface Board (Pcb Layouts)	ALL RIGHTS ARE RESERVED. NO COPIES OR REPRODUCE THIS DOCUMENT WITHOUT WRITTEN CONSENT BY GENERALMUSIC.
APP: PANNELLI	REV: 11-12-96		

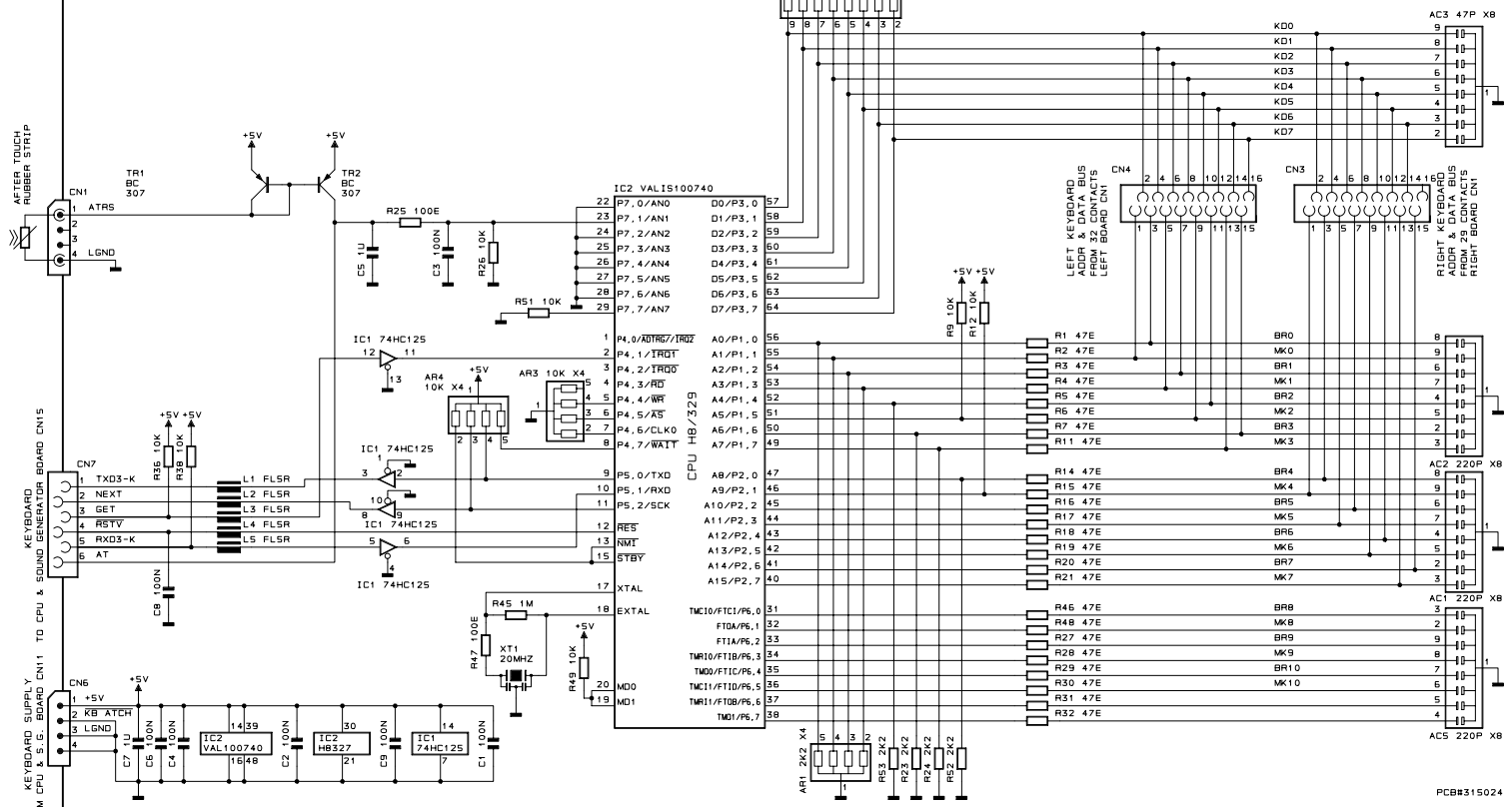
810553 - 32 CONTACTS LEFT BOARD (61 NOTES DYNAMIC KEYBOARD)



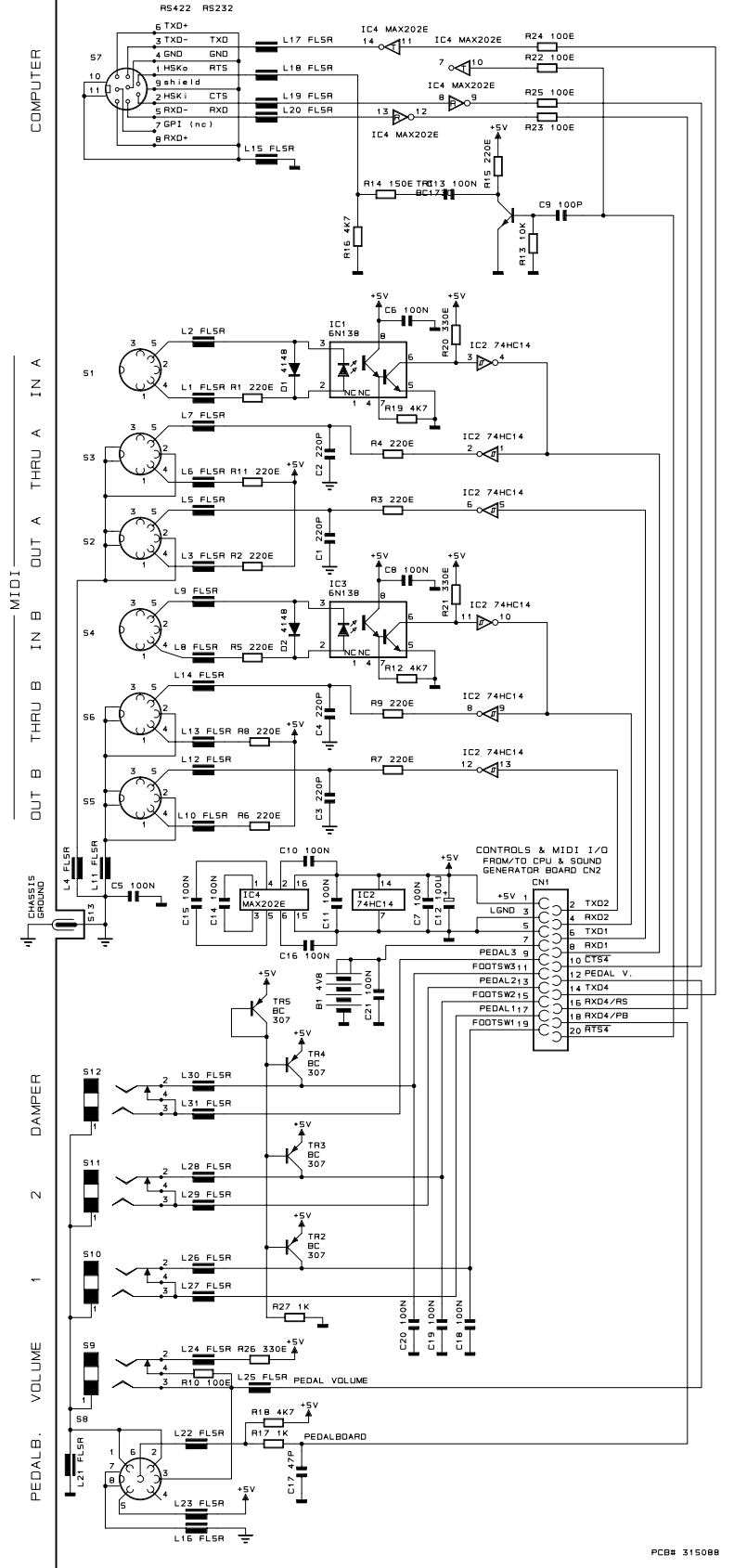
810554 - 29 CONTACTS RIGHT BOARD (61 NOTES DYNAMIC KEYBOARD)



761059 - KEYBOARD INTERFACE BOARD

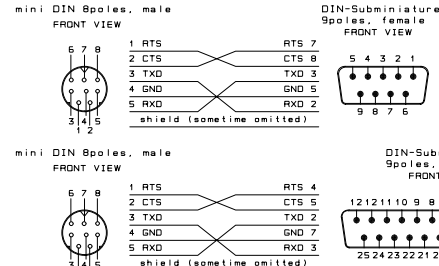


761101 - MIDI & CONTROLS I/O BOARD

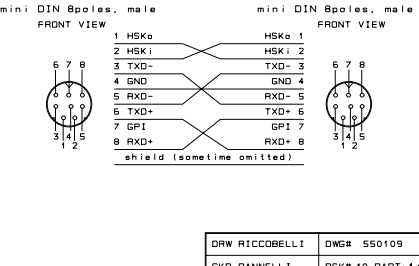


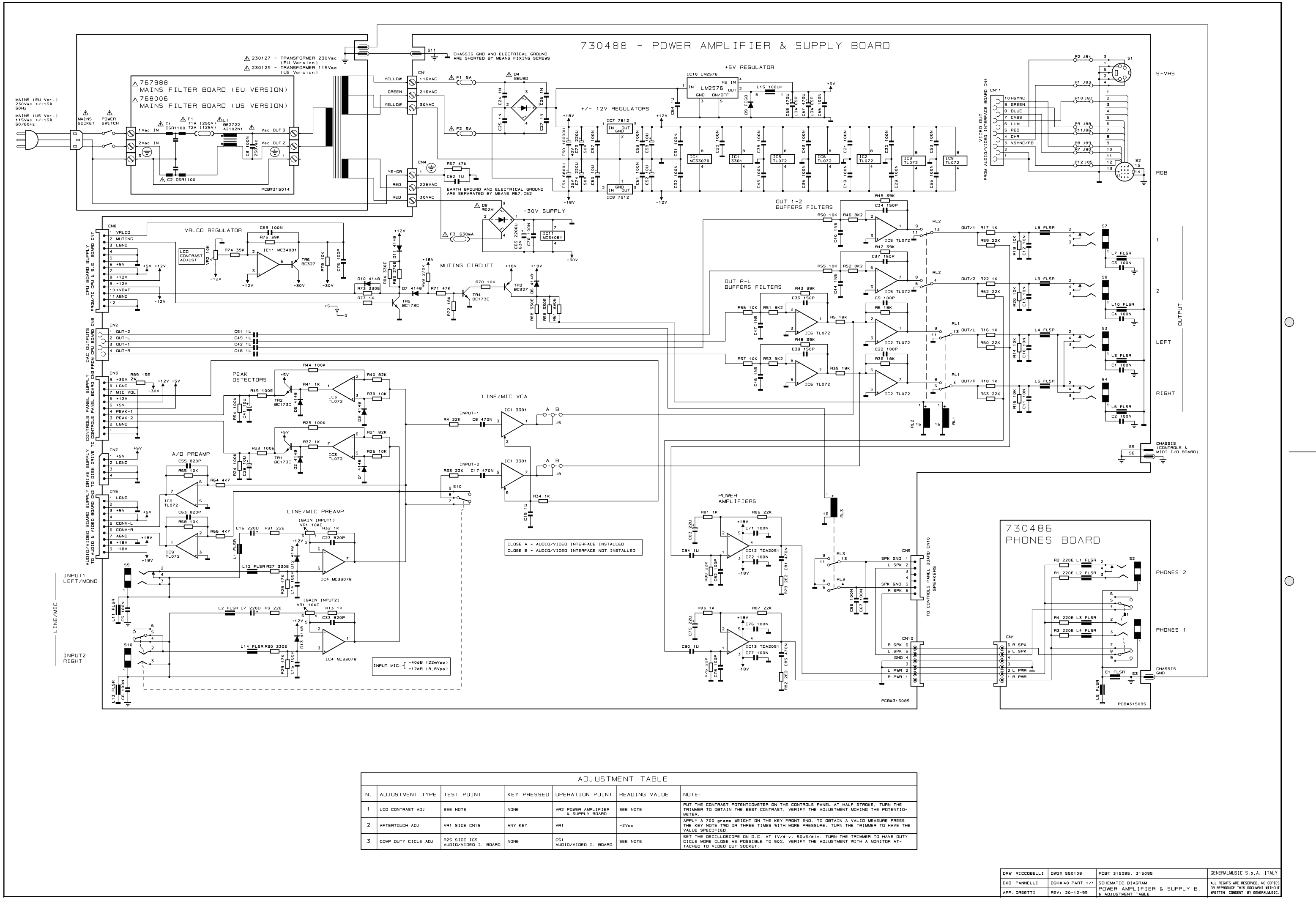
KEYBOARD - COMPUTER CONNECTIONS

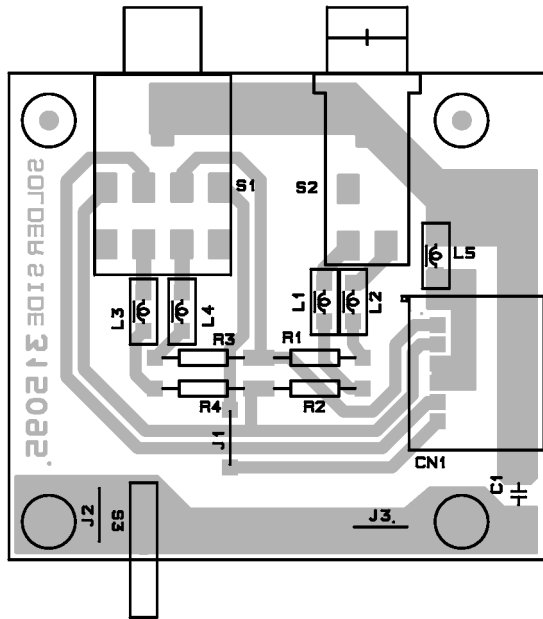
IBM PC/AT RS232 CONNECTION



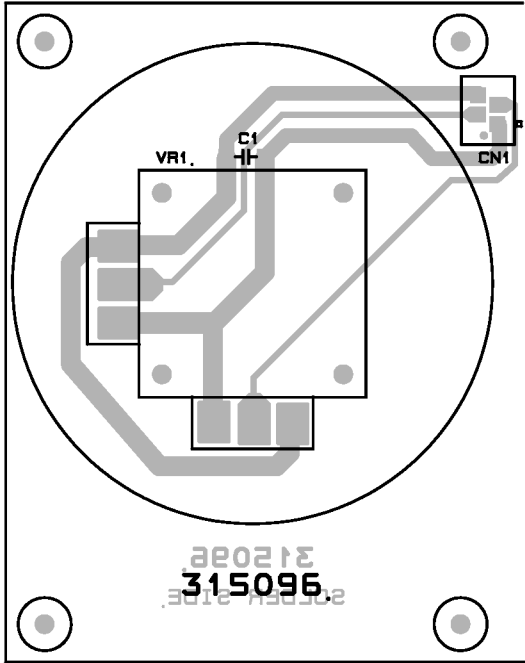
APPLE MACINTOSH RS422 CONNECTION



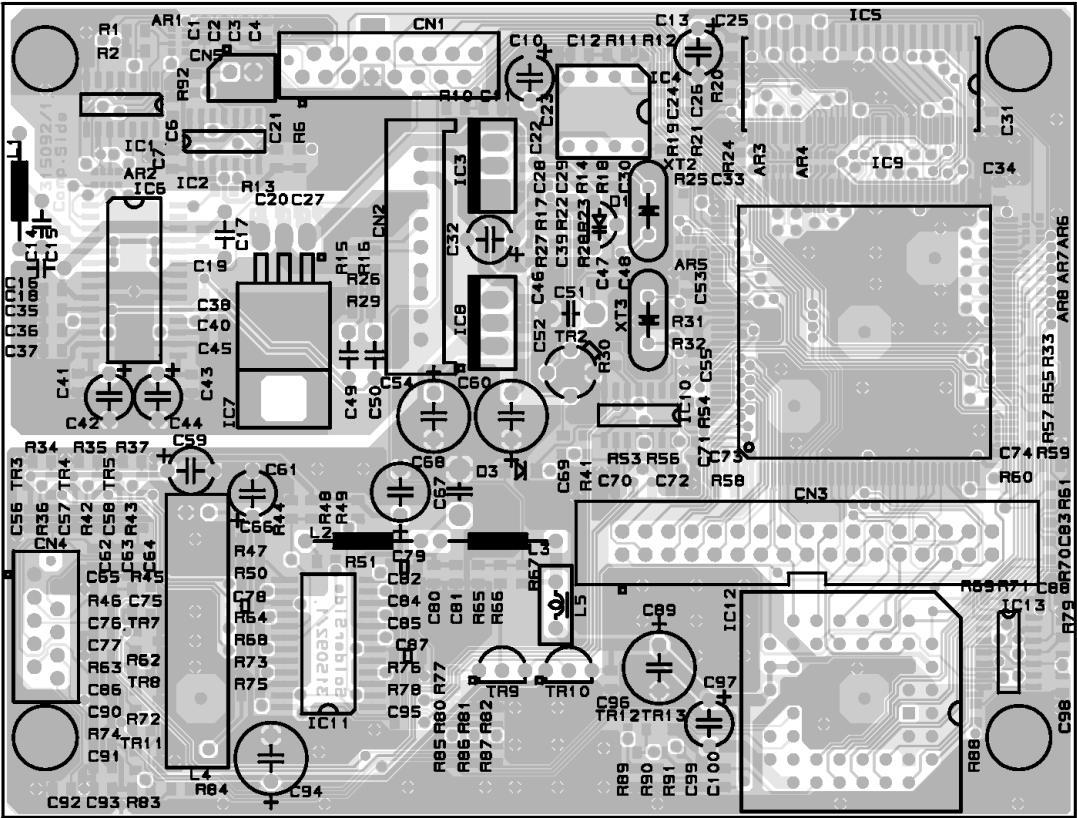




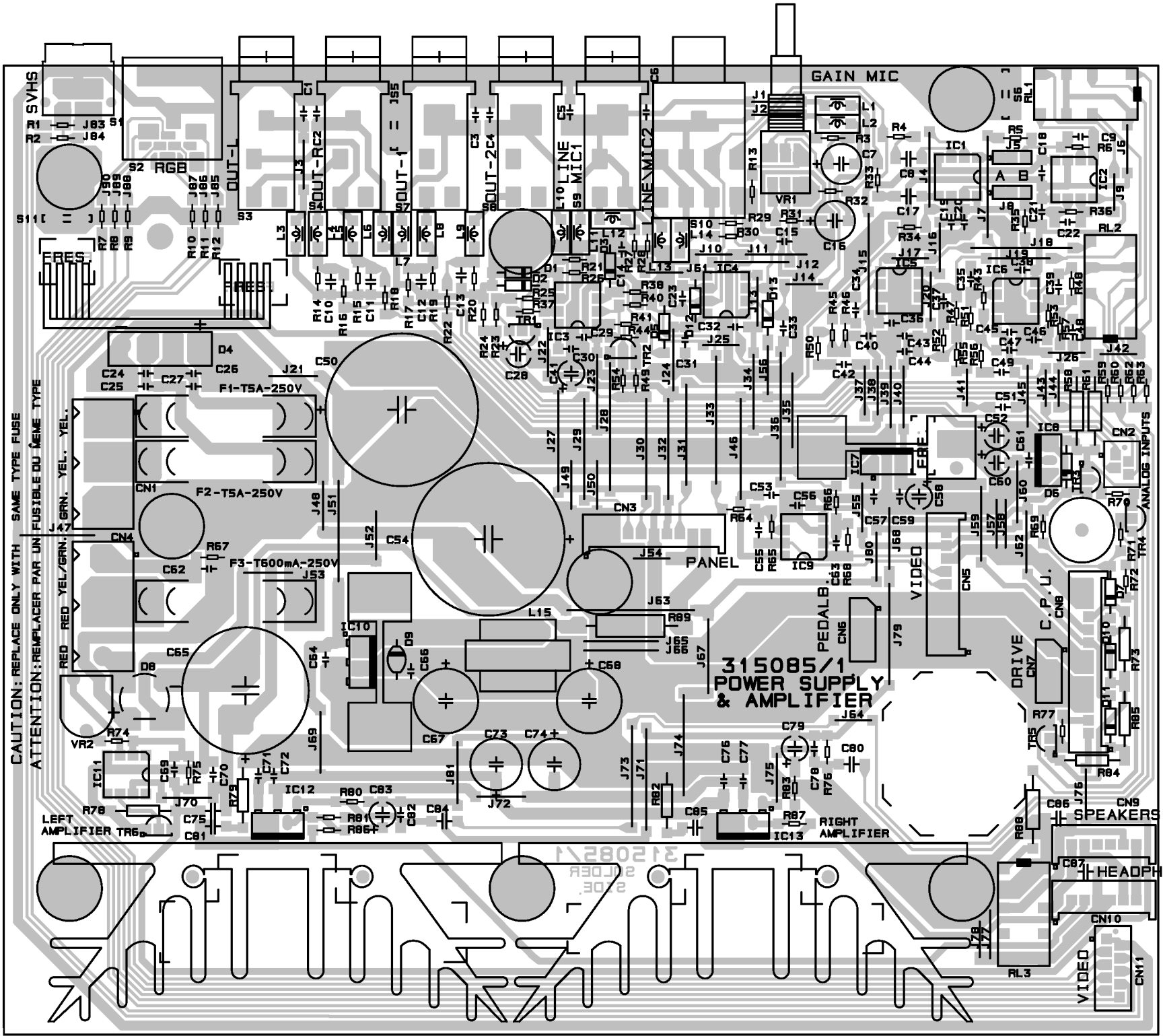
PHONES BOARD BOARD (PCB LAYOUT)



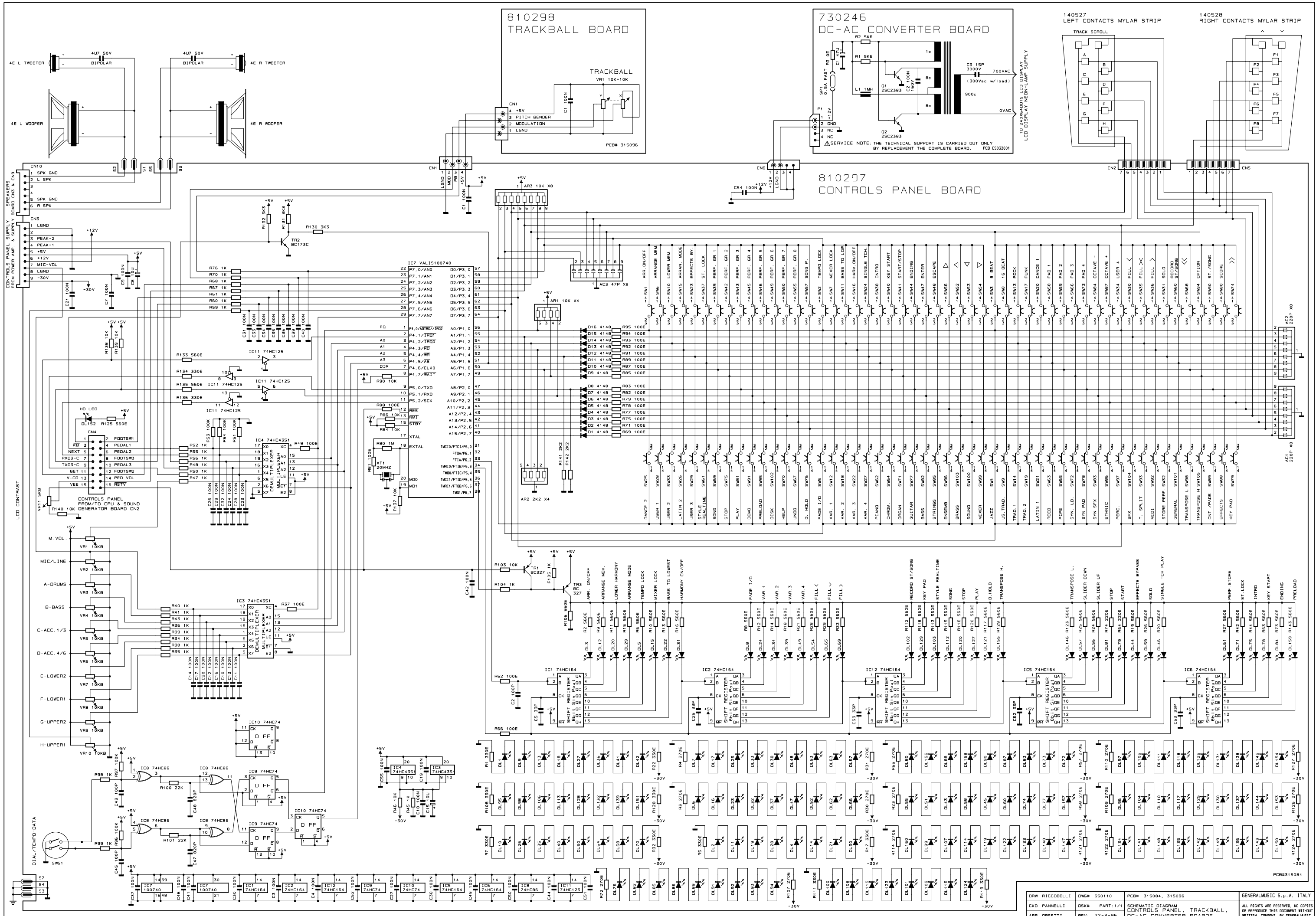
TRACKBALL BOARD (PCB LAYOUT)

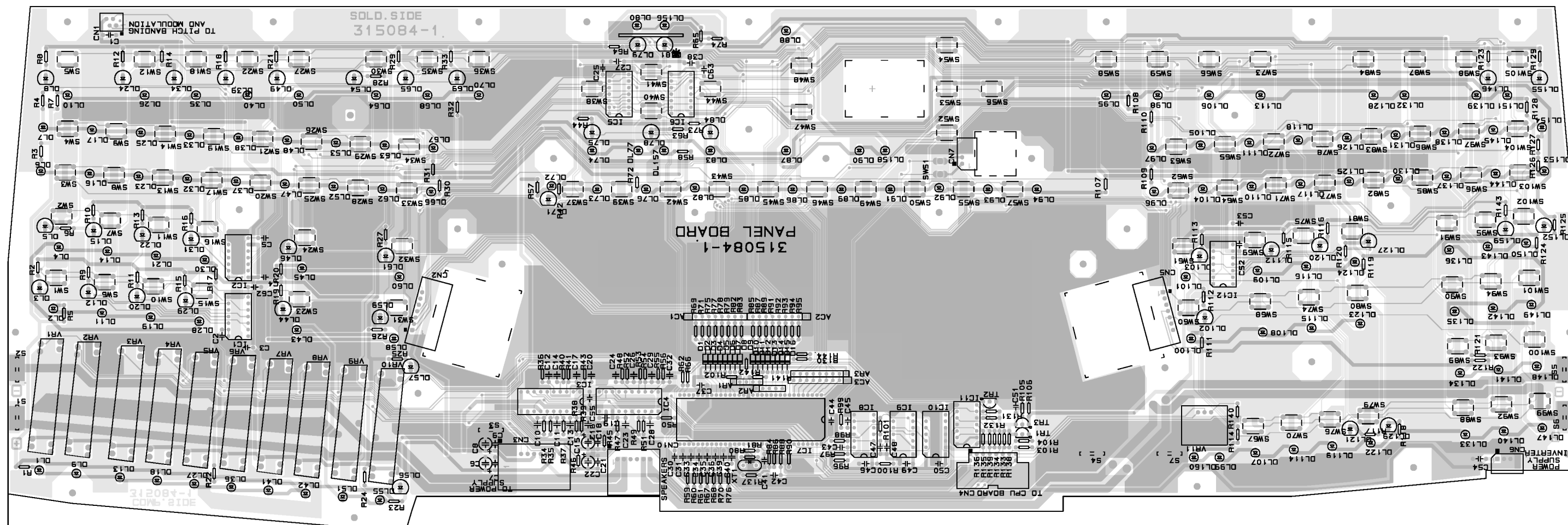


AUDIO/VIDEO INTERFACE BOARD (PCB LAYOUT)

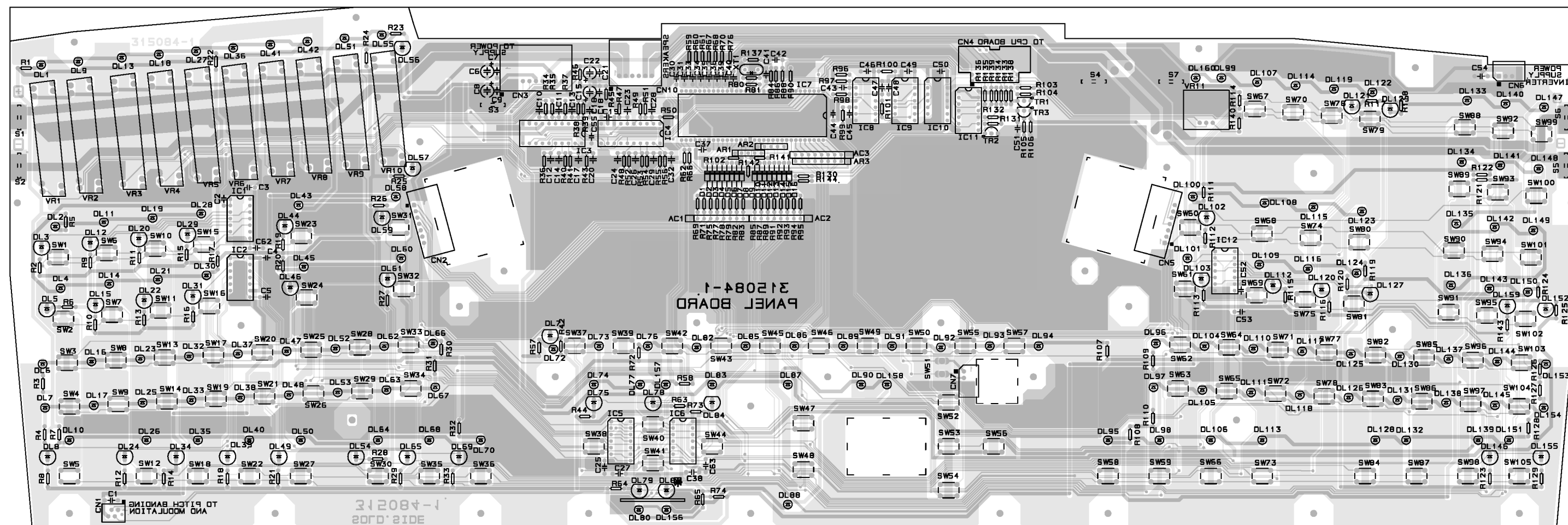


POWER AMPLIFIER & SUPPLY BOARD (PCB LAYOUT)





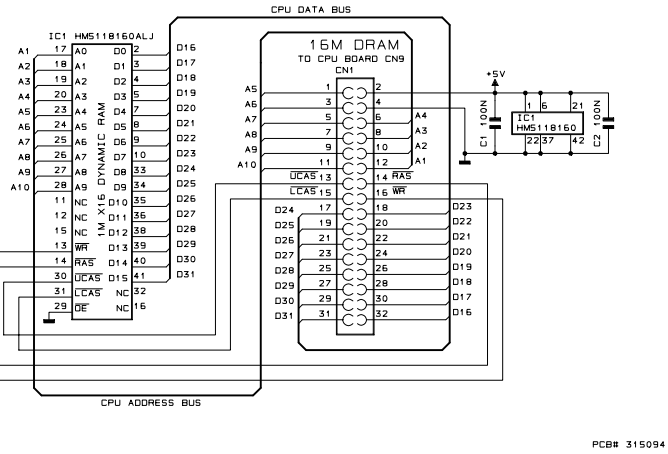
CONTROLS PANEL BOARD (PCB REVERSE LAYOUT)



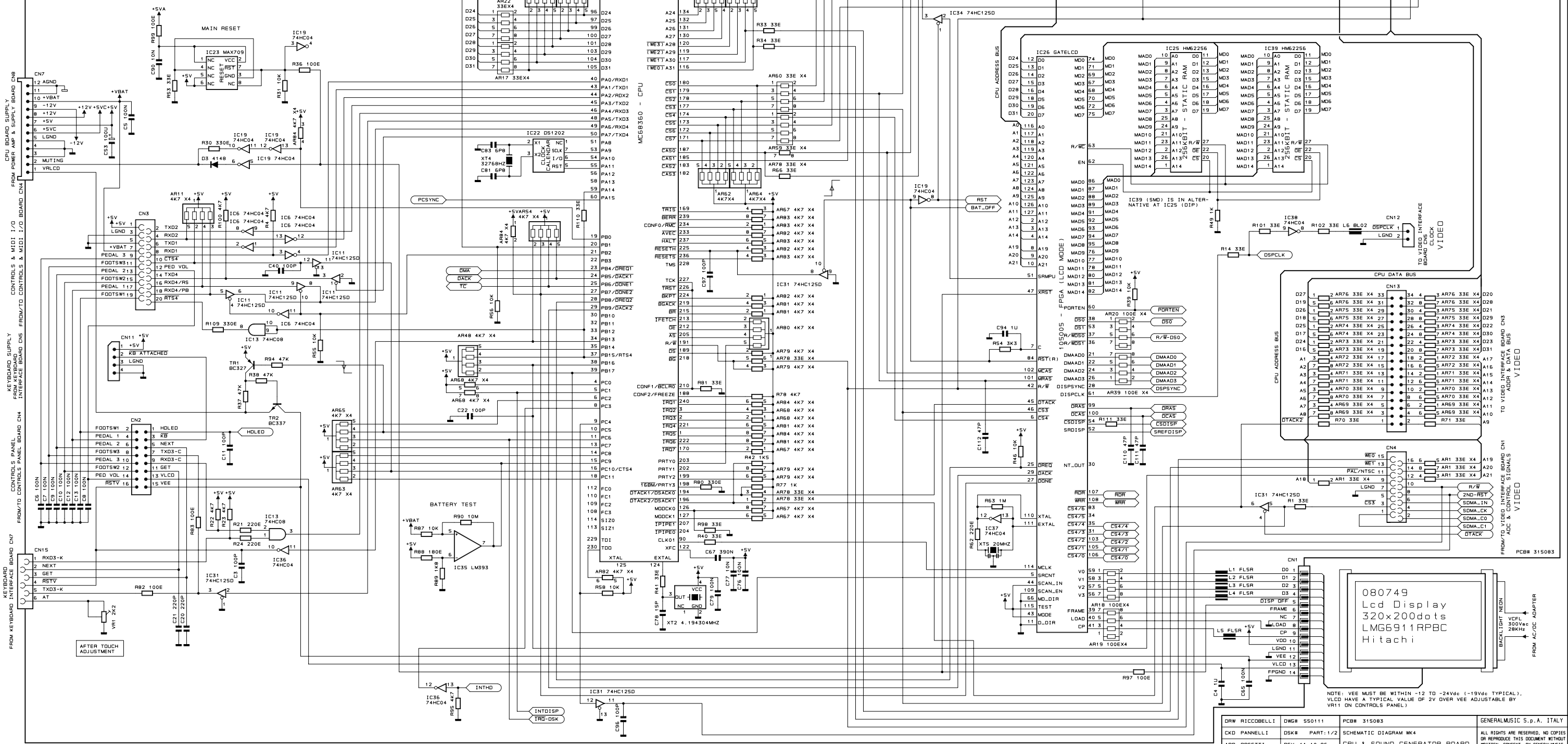
CONTROLS PANEL BOARD (PCB LAYOUT)

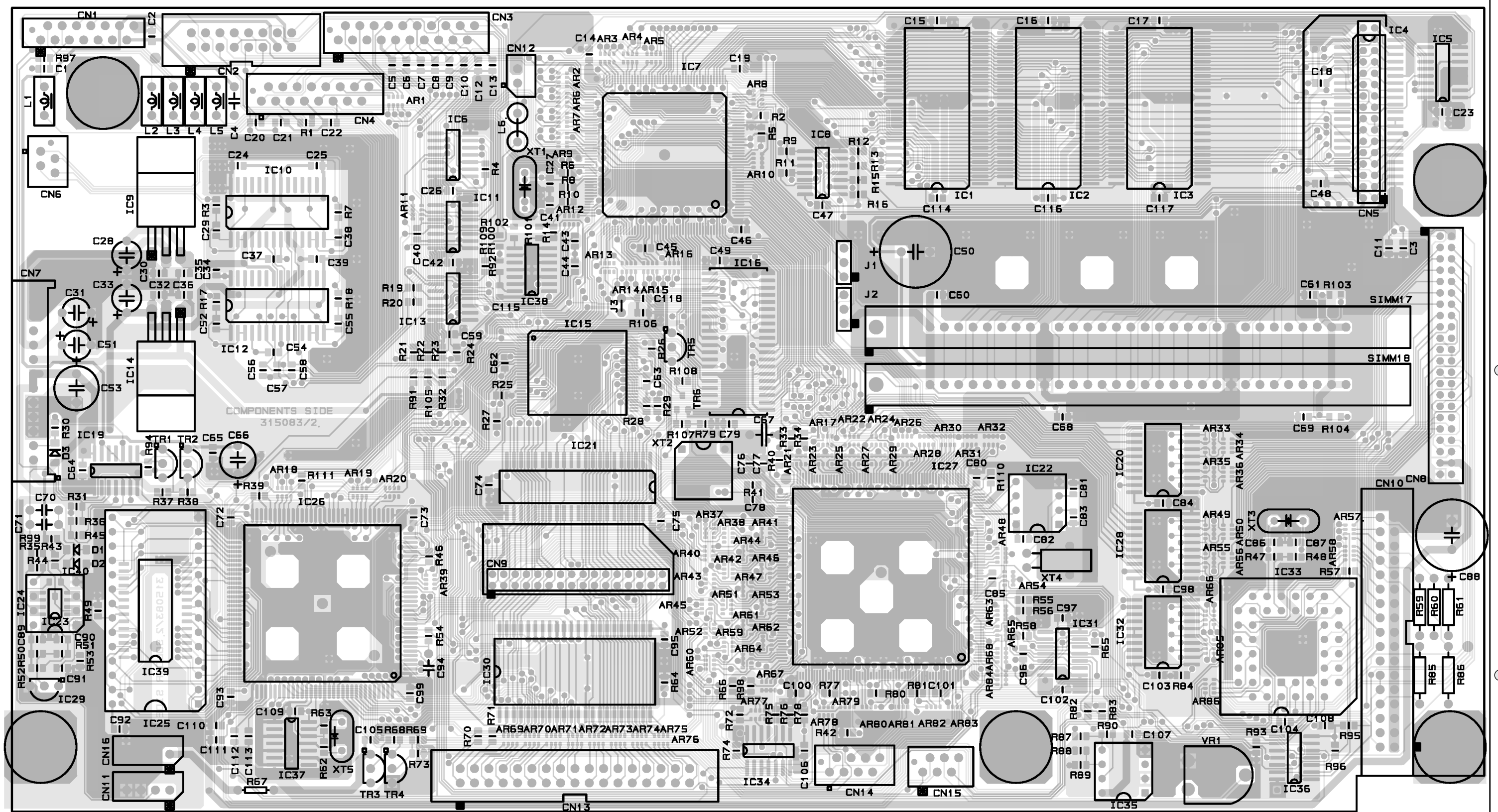
DRW: BOCCATO	DWG: 315084	SCHEMATIC DIAGRAM: WK4	GENERALMUSIC S.p.A. Italy
CKD:	DISK: 40 PART: 1/1	Controls Panel Board (Pcb Layout and Reverse Layout)	ALL RIGHTS ARE RESERVED. NO COPIES OR REPRODUCE THIS DOCUMENT WITHOUT WRITTEN CONSENT BY GENERALMUSIC.
APP:	REV: 11-11-96		

761094 16Mbit (2Mbyte) DRAM MODULE BOARD (SUPPLIED WITH THE OPTIONAL HARD DISK KIT)



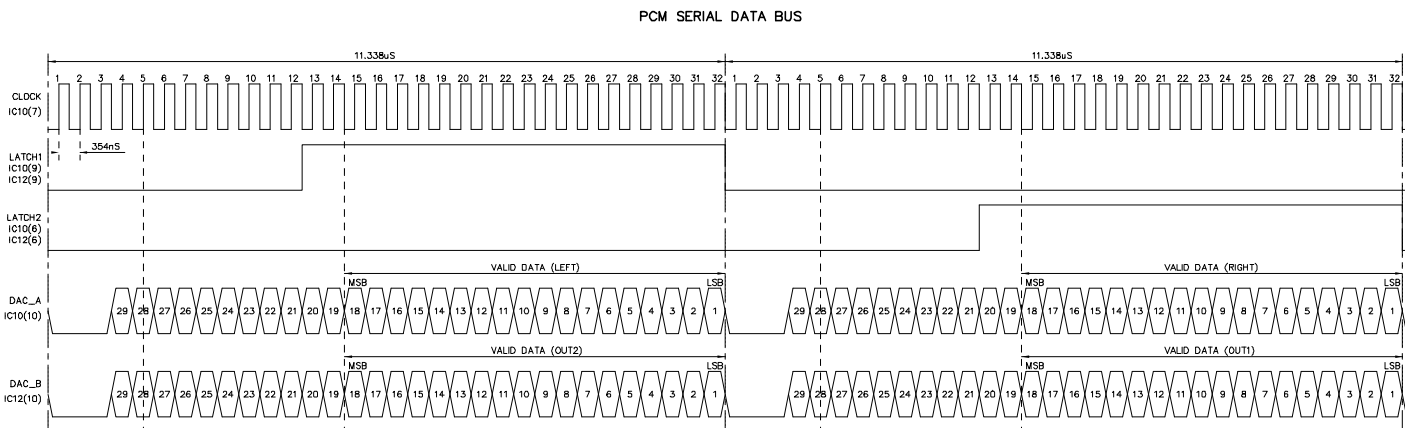
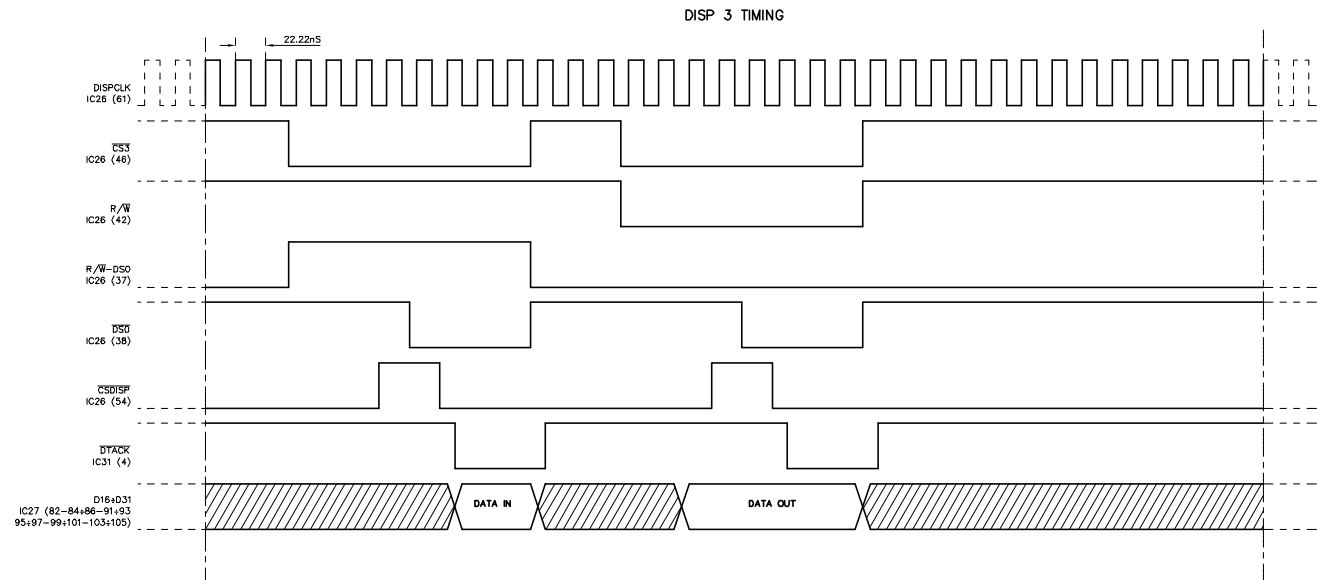
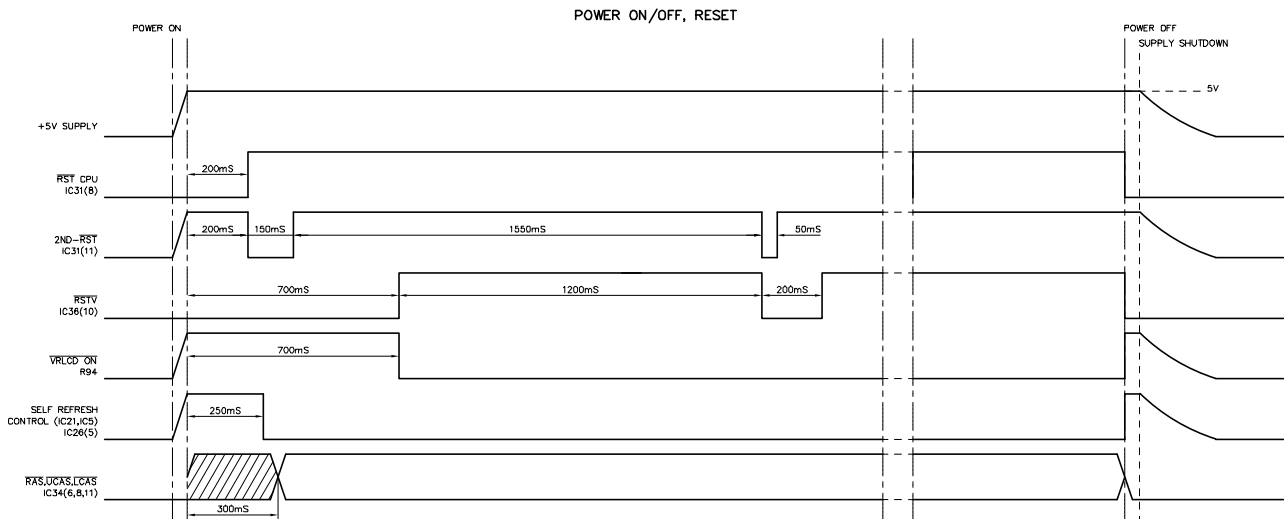
761053 - CPU & SOUND GENERATOR BOARD PART 1/2



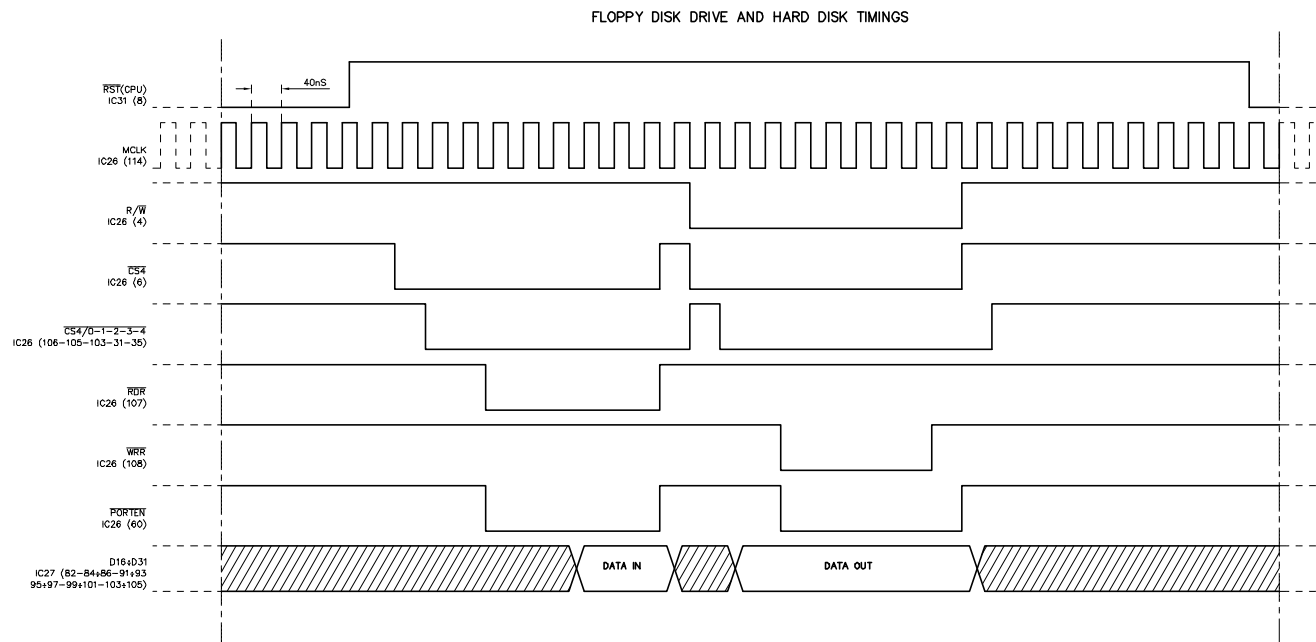
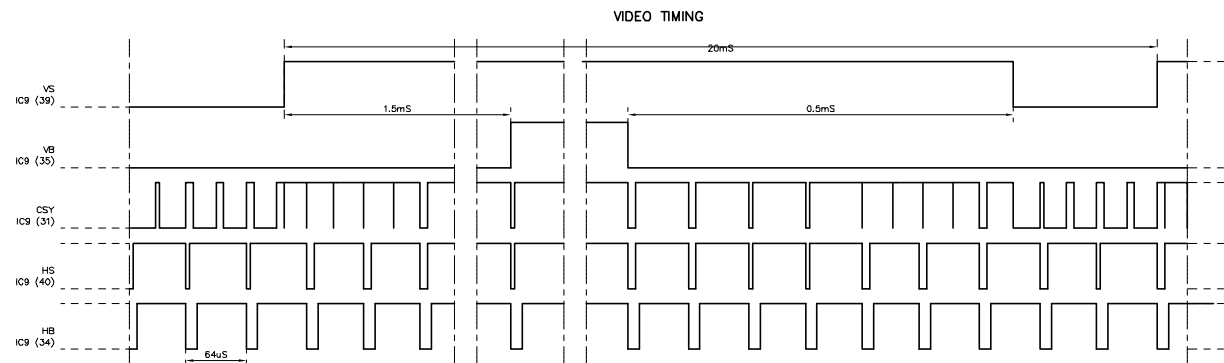
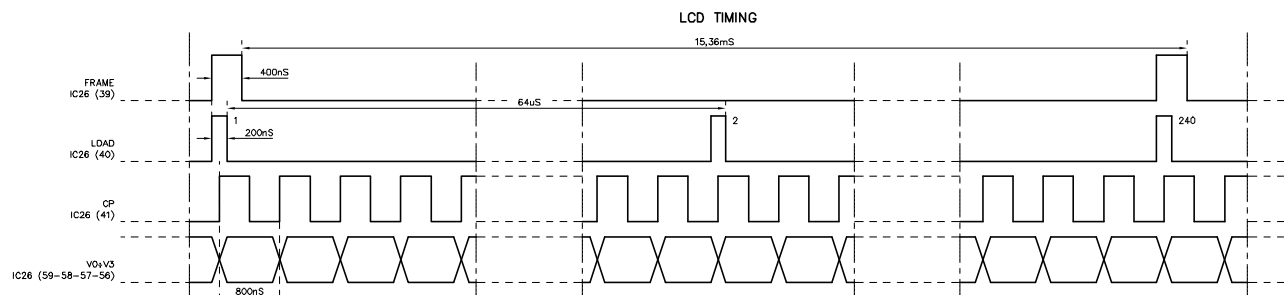


CPU & SOUND GENERATOR BOARD (PCB LAYOUT).

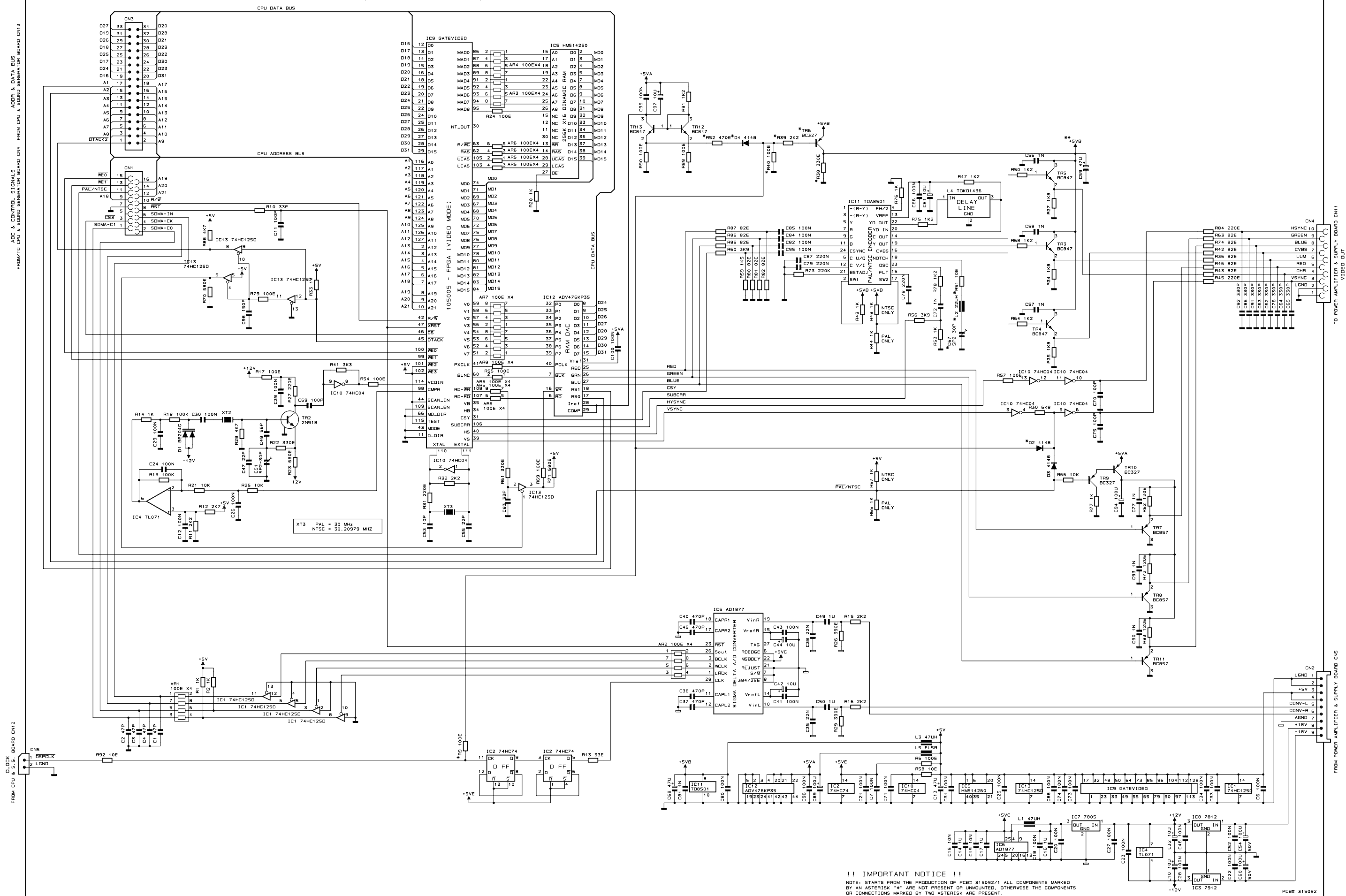
DRW: BOCCATO	DWG: 315083	SCHEMATIC DIAGRAM WK4	GENERALMUSIC S.p.A. Italy
CKD: RICCABELLI	DISK: 40 PART: 1/1	Cpu & Sound Generator Board (Pcb Layout)	ALL RIGHTS ARE RESERVED. NO COPIES OR REPRODUCE THIS DOCUMENT WITHOUT WRITTEN CONSENT BY GENERALMUSIC.
APP: PANNELLI	REV: 11-11-96		



NOTE: ALL COMPONENTS PIN REFERENCE ARE LOCATED ON "CPU & SOUND GENERATOR BOARD" UNLESS OTHERWISE SPECIFIED.



```
760993 - AUDIO/VIDEO INTERFACE BOARD (PAL VERSION)
760994 - AUDIO/VIDEO INTERFACE BOARD (NTSC VERSION)
```



!! IMPORTANT NOTICE !!

NOTE: STARTS FROM THE PRODUCTION OF PCB# 315092/1 ALL COMPONENTS MARKED BY AN ASTERISK "*" ARE NOT PRESENT OR UNMOUNTED, OTHERWISE THE COMPONENTS OR CONNECTIONS MARKED BY TWO ASTERISK ARE PRESENT.

DRW RICCOBELL1	DWG# 550113	PCB# 315092	GENERALMUSIC S.p.A. ITALY
CKD PANNELLI	DSK# 41 PART: 1/1	SCHEMATIC DIAGRAM WK4	ALL RIGHTS ARE RESERVED, NO COPIES OR REPRODUCE THIS DOCUMENT WITHOUT WRITTEN CONSENT BY GENERALMUSIC.
APP. ORSETTI	REV: 16-10-96	AUDIO/VIDEO INTERFACE BOARD	

KIT 970214 (PAL) - KIT 970215 (NTSC) - Audio/Video interface mounting instructions:

- Locate the CPU Board [A] and insert the buffer modules [2] into the connectors [H].
- Fix the AUDIO/VIDEO Board [1] to the threaded locations of the support [B] by means of the screw [8].
- Connect the cables [3-4-5-6-7] to the AUDIO/VIDEO Board [1] and to the CPU [A] and amplifier [D] boards.
- Check that the two jumpers J5 e J8 [E] are set to position "A" and that the jumper J1 [F] is set to position "A".

NOTE: The jumper J1 [F] must be set on A position if the buffer modules are installed, on B position if the SIMM dram modules are intalled.

Part List:

1) Audio/Video board	(Code 760994)
2) 2 buffer modules	(Code 761093)
3) 34 contacts x 7.5cm flat cable	(Code 840805)
4) 9 contacts x 12.5cm flat cable	(Code 840824)
5) 16 contacts x 5cm flat cable	(Code 840822)
6) 10 contacts x 10cm flat cable	(Code 840823)
7) 2 contacts x 10cm Screened cable	(Code 841025)
8) 4 screws (M3x8)	(Code 120003)

KIT 970225 - Volatile SIMM Dram modules mounting instructions:

- Locate the CPU board [A].
- Insert the Simm modules [2] into the CPU's SIMM17-18 connectors [H].

The operations can be carried out without removing the support [B].

Check that the jumpers J1 [F] are set to position "B".

Part List:

1) N° 2 4Mbyte 70ns Dram module	(Code 760994)
---------------------------------	---------------

NOTE: the SIMM module compatibles are:
1 Mbyte (x8 or x9) 30-pin 70ns maximum access time.
4 Mbyte (x8 or x9) 30-pin 70ns maximum access time.
16 Mbyte (x8 or x9) 30-pin 70ns maximim access time.
The modules must be two.

Part List:

1) N° 2 4Mbyte 70ns Dram module	(Code 760994)
---------------------------------	---------------

KIT 970207 - Hard disk installation kit mounting instructions:

- Locate the CPU board [A] and remove the support [B] by screwing the locking screws [6].
- Insert the DRAM module [2] into the CPU's CN9 connector [C].
- Replace the support [B].
- Fix the mounting brakets [4] to the Hard Disk [1] by means of the four screw [5] and fix the assembly to the threaded locations [E] by means of the four screws [5].
- Connect one end of the jumper [3] to the Hard Disk connector, starting from the extreme left end in order that 4 free pins remain to the right of the connector, and the other end to the CPU's CN8 connector [D].

Part List:

1) 16Mbit DRAM module	(Code 761094)
2) 44 contacts x 7.5 cm flat cable	(Code 840824)
3) N°2 mounting brakets	(Code 171250)
4) N°8 screws (M3x4)	(Code 120113)

Hard disk specifications:

Dimensions: 2.5" Interface: IDE, or EIDE, or Fast ATA Size: to 540 MByte
Must be formatted using the procedure specified in the owner's manual.
Brands generally accepted: SEAGATE, QUANTUM, HITACHI, CONNER.
Suggested models: SEAGATE MODEL "ST9420AG" - QUANTUM DAYTONA 540

KIT 970213 - Backed Samples Dram mounting instructions:

- Locate the CPU board [A].
- Insert the DRAM module [1] into the CPU's CN5 connector.

The operations can be carried out without removing the support [B].

Check that the jumper J2 [G] is set to position "B".

Part List:

1) 16Mbit DRAM module	(Code 761094)
-----------------------	---------------

Spare Part List

Legend	
EU	=Specify European Version (230Vac)
US	=Specify United States Version (115Vac)
Code	Description
Accessories	
950897	Demo Song Disk 2
950896	Demo Song Disk 1
950895	Operating System Disk
660279	Music Stand
300617	Owner's Manual Folder
271064	Owner's Manual (Swedish Language)
271063	Owner's Manual (Dutch Language)
271062	Owner's Manual (German Language)
271054	Owner's Manual (English Language)
271053	Owner's Manual (Spanish Language)
271052	Owner's Manual (French Language)
271046	Owner's Manual (Italian Language)
130274	Mains Cable (EU)
Optional Accessories	
130429	3mt RS232 Cable (MiniDin 8 To D-Sub 9)
970213	Backed Sample Dram
761094	* 16Mbit Dram Module
140923	** 32 Contacts Vert Female Connector
104009	** HM5118160ALJ 16Mbit Dram Ta=70nS
970207	Hard Disk Installation Kit
840824	* 44 Wires 7.5cm Length Flat Cable
761094	* 16Mbit Dram Module
140923	** 32 Contacts Vert Female Connector
104009	** HM5118160ALJ 16Mbit Dram Ta=70nS
171250	* Hard Disk Support
970224	Hard Disk Unit
110402	* Hard Disk (type depend by availability)
970225	Volatile SIMM Dram
100742	* 4MByte SIMM Module
970215	NTSC Audio/Video Interface Kit (US)
970214	PAL Audio/Video Interface Kit (EU)
841004	* 34 Wires 7.5cm Length Flat Cable
840823	* 10 Wires 10cm Length Flat Cable
840822	* 16 Wires 5cm Length Flat Cable
840204	* 9 Wires 15cm Length Flat Cable
761093	* Buffer Module Board (Pcb# 315023)
103013	** 74HC138D SOIC 1 Of 8 Decoder
103003	** 74HC374DW SOIC Octal D-Type Flip-Flop
760994	* Audio/Video Interf. Board (Pcb# 315092) (NTSC Version)
760993	* Audio/Video Interf. Board (Pcb# 315092) (PAL Version)
230582	** LC Delay Line 400ns 0.5MHz
230569	** FL5R200PNT EMI Coil For Signal
230561	** 47uH 10% 100mA RF-Coil
230560	** 22uH 10% 170mA RF-Coil
141016	** 16 Contacts Vert Female Connector
141013	** 10 Contacts Vert Female Connector
140866	** 34 Contacts Vert Male Connector
140324	** 9 Contacts Vert Male Connector
105005	** FPGA - Video/Lcd Controller
104003	** HM514260JP SOJ Dynamic Ram 4Mbit Ta=70ns
103012	** 74HC125D SOIC Quad Tri-State Buffer
103011	** AD1877 SOIC Dual Channel 1bit ADC
103010	** 74HC04D SOIC Hex Inverter
103007	** 74HC74D SOIC Dual Flip-Flop
100739	** ADV476 Color Palette Ram Dac
100059	** 7805 +5V 1A Voltage Regulator
100045	** 7812 +12V 1A Voltage Regulator
100043	** 7912 -12V 1A Voltage Regulator
100019	** TL071 LN J-Fet Operational Amplifier
091001	** BC857 TO236 Smd Pnp Transistor
091000	** BC847 TO236 Smd Npn Transistor
090153	** BC327 TO92 Pnp Transistor
090102	** 2N918 VHF Npn Transistor
081000	** PMLL4148 Smd 100mA 75V Signal Diode
080500	** BB204G Dual Varicap Diode
010717	** 30.20979MHz Quartz Resonator (NTSC Version)
010716	** 7.15909MHz Quartz Resonator (NTSC Version)
010715	** 8.867238MHz Quartz Resonator (PAL Version)
010714	** 30MHz Quartz Resonator (PAL Version)
010602	** 5p2-30pF N750 Ceramic Capacitor Trimmer
130428	* 3mt Video Cable (Din/Rgb To Rca) (NTSC Version)
130317	* 3mt Video Cable (Din/Rgb To Scart) (PAL Version)
120003	* M3x8mm Screw

Cabinet Assembly

	Bottom Assembly
651555	Bottom Chassis
340503	Lower Potentiometer Knob (Mic/Line In)
340502	Upper Potentiometer Knob (Mic/Line In)
340501	Right Speaker Box Gasket
340498	Left Speaker Box Gasket
340186	Adhesive Cable Fixing
190015	Adhesive Rubber Foot
110400	3.5" Disk Drive
110298	Power Switch
110085	T630mA Fuse 6.3x32mm (US)
110021	T5A Fuse 6.3x32mm (US)
110020	T5A Fuse 5x20mm (EU)
110009	T630mA Fuse 5x20mm (EU)
	Top Assembly
660283	Right Speaker Grid
660282	Left Speaker Grid
660281	Tweeter Grid
651557	Centre Controls & Display Chassis
651556	Top Chassis
651554	Display Screen
651553	Potentiometers Display Rubber Strip
651552	<Performance Groups> Actuators Rubber Strip
651551	<Sound Groups> Actuators Rubber Strip
651550	<Style Groups> Actuators Rubber Strip
651549	<Edit/Number> Actuators Rubber Strip
651548	<Sequencer> Actuators Rubber Strip
651547	<Arrange ... Store Perf> Actuators Rubber Strip
651546	<Contrast ... Key Pad> Actuators Rubber Strip
651545	<Pad 1 ... Tranposer #> Actuators Rubber Strip
651544	<Fade I/O ... Fill >> Actuators Rubber Strip
651543	<Start/Stop...Data/Entry> Actuators Rubber Strip
340510	Led Len
340509	Transparent Support For Centre Controls
340508	Transparent Support For Left Controls
340507	Transparent Support For Right Controls
340496	Display Support Spacer
340494	Potentiometer Knob
340493	Dial Knob
340482	Right Actuator Rubber Strip (display)
340481	Left Actuator Rubber Strip (display)
220110	4ohm Woofer Speaker
220109	4ohm Tweeter Speaker
210251	Potentiometers Gasket
210250	5" Speaker Gasket
180634	"Power Station" Adhesive Plate (Power Station Version)
171295	Fixing (controls board to the left side chassis)
171269	Controls Panel Board Spacer
171241	Display & Contact Strip Support
140528	Right Contact Mylar Strip (display)
140527	Left Contact Mylar Strip (display)
120960	Dial Steel Sphere
110254	Rotary Encoder With Snap

Mains Filter & Transformer Assembly

730502	Mains Filter & Transformer Assembly (US)
730487	Mains Filter & Transformer Assembly (EU)
768006	* Mains Filter Board (pcb# 315014) (US)
767988	** Mains Filter Board (Pcb# 315014)
230568	** 10mH 250Vac 1A AC Line EMI Coil "Siemens"
140010	** 3 Contacts P=10 Vert Terminal Block
110114	** Fuse Clip 6.3x32mm 10A Max (US)
110113	** Fuse Clip 5x20mm 6A max (EU)
020493	** 100n 250Vac MKP EMI Capacitor "Siemens"
010719	** 2n2 250Vac 7A 20% AC Line "Y" Filter "Murata"
230129	* Transformer 130W 115V (US)
230127	* Transformer 130W 230V (EU)
110614	* Mains Socket
110083	* T2A Fuse 6.3x32mm (US)
110011	* T1A Fuse 5x20mm (EU)

Power Amplifier & Supply Board

730488		Power Amplifier & Supply Board (Pcb# 315085)
230569	*	FL5R200PNT EMI Coil For Signal
230524	*	100uH Switching Coil
141013	*	10 Contacts Vert Female Connector
141010	*	4 Contacts Vert Female Connector
140877	*	Jumper For Contacts Strip (p=2.54mm)
140874	*	Single In Line Vert Male Strip (specify contacts)
140873	*	4 Contacts Vert Male Connector
140325	*	12 Contacts Vert Male Connector
140324	*	9 Contacts Vert Male Connector
140323	*	6 Contacts Vert Male Connector

140248	*	4 Poles Mini Din Female Socket
140231	*	Horizontal Jack Stereo Socket (with dual switch)
140219	*	Horizontal Female 13 Poles Din Socket
140217	*	Horizontal Jack Stereo Slim Socket
140010	*	3 Contacts P=10 Vert Terminal Block
110305	*	Relay 12V / 2 Switch 1A 250V
110119	*	Fuse Clip 10A max (EU) (US)
100955	*	LM2576 5V 3A Switching Reg
100954	*	TDA2051 40W Power Amplifier
100931	*	MC34081 Operational Amplifier
100919	*	MC33078 Dual LN J-Fet Operational Amplifier
100906	*	CEM3381 Dual V.C.A.
100061	*	TL072 Dual J-Fet Operational Amplifier
100045	*	7812 +12V 1A Voltage Regulator
100043	*	7912 -12V 1A Voltage Regulator
090182	*	BC173C TO92 Npn Transistor
090153	*	BC327 TO92 Pnp Transistor
080606	*	GBU8D 8A Rectifier Diodes Bridge
080171	*	FE6B 6A 100V Fast Recovery Diode
080168	*	W02M 1.5A Rectifier Diodes Bridge
080103	*	1N4148 100mA 75V Signal Diode
071011	*	2x10K Alog Rotary Pot
070181	*	10K 20% Horizontal Linear Trimmer
030950	*	470u 16v 20% Low Esr Vert Electrolytic Capacitor
030881	*	10000uf 50V Snap-In Electrolytic Capacitor
030863	*	6800u 35v 20% Snap-In Electrolytic Capacitor
030525	*	2200u 63V 20% Snap-In Electrolytic Capacitor

Phones Board

730486	Phones Board (Pcb# 315095)
230569	* FL5R200PNT EMI Coil For Signal
140327	* 6 Contacts Hor Male Connector
140231	* Horizontal Jack Stereo Socket (with dual switch)
140217	* Horizontal Jack Stereo Slim Socket
120849	* Hor Pc Male Faston 2.8

Keyboard Assembly

720465		Keyboard Assembly
840808	*	16 Wires 30cm Length Flat Cable
840807	*	16 Wires 20cm Length Flat Cable
761059	*	Keyboard Interface Board (Pcb# 315024)
230569	**	FL5R200PNT EMI Coil For Signal
141016	**	16 Contacts Vert Female Connector
141011	**	6 Contacts Vert Female Connector
140890	**	4 Contacts Hor Male Single-Strip
140872	**	4 Contactcs Hor Male Connector
100740	**	HD6433278 Cpu F=20MHz
100605	**	74HC125 Quad 3-State Buffer
090192	**	BC307 TO92 Pnp Transistor
010725	**	20MHz Ceramic Resonator With Capacitors
720418	*	Keyboard Mech. & Elect. Assembly
810554	**	29 Contacts Right Board (Pcb# 310536)
810553	**	29 Contacts Left Board (Pcb# 310535)
500059	**	Mechanical Assembly
160200	***	Keys Return Spring
151118	***	Last C Key
151117	***	B Key
151116	***	A Key
151115	***	G Key
151114	***	F Key
151113	***	E Key
151112	***	D Key
151111	***	C Key
151001	***	Sharp Key
340115	*	Adhesive Flat Cable Fixing
340092	*	5mm Board Spacer

Trackball Board

810298	Trackball Board (Pcb# 315096)
340237	* Pitch & Modulation Hemispherical Knob
141010	* 4 Contacts Vert Female Connector
120682	* M3 Threaded Insert-Bush For Knob
120272	* WL3x10mm Screw
070700	* 10K+10K Linear Joystick Potentiometer

Controls Panel Board

810297	Controls Panel Board (Pcb# 315084)
171310	* Copper Screen For Leds
141010	* 4 Contacts Vert Female Connector
140914	* 7 Contacts Hor Female Zif Mylar Connector
140872	* 4 Contacts Hor Male Connector
140857	* 16 Contacts Hor Male Connector
140529	* Microswitch 12V 50mA 0.25mm
140328	* 9 Contacts Hor Male Connector
140327	* 6 Contacts Hor Male Connector

100740	*	HD6433278	Cpu F=20MHz
100645	*	74HC4351	8ch Analog Multiplexer
100620	*	74HC86	Quad 2-Input Exor Gate
100614	*	74HC74	Dual Flip-Flop
100607	*	74HC164	8bit S To P Shift Register
100605	*	74HC125	Quad 3-State Buffer
090182	*	BC173C	TO92 Npn Transistor
090153	*	BC327	TO92 Pnp Transistor
080743	*	3mm	Wide Diffused Green Led
080711	*	3mm	High Efficiency Red Led
080103	*	1N4148	100mA 75V Signal Diode
070702	*	5K	Linear Rotary Potentiometer
070551	*	10K	Linear 30mm Slider Potentiometer
050493	*	10Kx4	1/8w 5% Resistor Array
050492	*	10Kx8	1/8w 5% Resistor Array
050414	*	2K2x4	1/8w 5% Resistor Array
010725	*	20MHz	Ceramic Resonator With Capacitors
010662	*	220p	10% 50V X8 Cap Array
010661	*	47p	10% 50V X8 Cap Array

Lcd Display Assembly

730489		Lcd Display Assembly
130600	*	14 Wires 30cm Length Mylar Flat Cable
080749	*	Lcd Display 320X240 dots LMG6911RPBC Hitachi

DC-AC Converter Assembly

730484		DC-AC Converter Assembly
730246	*	DC-AC Converter Board (Pcb# Cs032001)
340523	*	6,5mm Spacer
171246	*	DC-AC Converter Support

Controls & Midi I/O Board

761101		Controls & Midi I/O Board with Battery
751101	*	Controls & Midi I/O Board (Pcb# 315088)
230569	**	FL5R200PNT EMI Coil For Signal
141018	**	20 Contacts Vert Female Connector
140247	**	8p Mini Din Female Socket
140217	**	Horizontal Jack Stereo Slim Socket
140216	**	Horizontal Female 6 Poles Din Socket
140212	**	Horizontal Female 5 Poles Din Socket
100734	**	MAX202E RS232 Drivers/Receiver
100618	**	74HC14 Hex Inverter Schmitt Trigger
100035	**	6N138 Optocoupler
090192	**	BC307 TO92 Pnp Transistor
090182	**	BC173C TO92 Npn Transistor
080103	**	1N4148 100mA 75V Signal Diode
110300	*	4.8V 280mAh Nicd Battery

Cpu & Sound Generator Board

761053	Cpu & Sound Generator Board (Pcb# 315083)
230569	* FL5R200PNT EMI Coil For Signal
141018	* 20 Contacts Vert Female Connector
141016	* 16 Contacts Vert Female Connector
141011	* 6 Contacts Vert Female Connector
141010	* 4 Contacts Vert Female Connector
140922	* 32 Contacts Vert Male Strip P=2mm
140917	* 2 Contacts Vert Male Connector
140915	* 44 Contacts Vert Male Strip P=2mm
140913	* Simm Socket 30 Pin
140881	* 14 Contacts Vert Female Con. For Mylar Cable
140877	* Jumper For Contacts Strip (p=2.54mm)
140874	* Single In Line Vert Male Strip (specify contacts)
140873	* 4 Contacts Vert Male Connector
140866	* 34 Contacts Vert Male Connector
140854	* 16 Contacts Vert Male Connector
140325	* 12 Contacts Vert Male Connector
106003	* MAX709 Power Monitor With Reset
105005	* FPGA - Video/Lcd Controller
105004	* MC68360EM25 Cpu Fc=25MHz
105002	* DSP3 Digital Sound Processor
104015	* 23C32000G 32Mbit Rom "Samples 2"
104011	* 23C32000G 32Mbit Rom "Samples 1"
104010	* HM514280AJ 4M5bit Dram Ta=70nS
104009	* HM5118160ALJ 16Mbit Dram Ta=70nS
104008	* 23C32000G 32Mbit Rom "Styles"
104007	* E28F016SV-100 1Mbit Flash Rom Ta=100nS
103013	* 74HC138D SOIC 1 Of 8 Decoder
103012	* 74HC125D SOIC Quad Tri-State Buffer
103010	* 74HC04D SOIC Hex Inverter
103004	* AD1865R SOP 18bit D/A Converter
103002	* 74HC245DW SOIC Octal Bus Transceiver
103001	* 74HC08D SOIC Quad 2-Input And Gate
101502	* 74AC125D SOIC Quad Tri-State Buffer
100904	* LM393 Dual Comparator
100733	* uPD72064 Floppy Disk Controller

100731	*	DS1202 Clock Calendar
100576	*	HM62256LP-12 Static Ram 256Kbit Ta=120nS
100059	*	7805 +5V 1A Voltage Regulator
100058	*	7905 -5V 1A Voltage Regulator
090182	*	BC173C TO92 Npn Transistor
090153	*	BC327 TO92 Pnp Transistor
090152	*	BC337 TO92 Npn Transistor
070160	*	2K2 20% Horizontal Linear Trimmer
055102	*	33E X4 1/16w 5% Smd Resistor Array
055101	*	4K7 X4 1/16w 5% Smd Resistor Array
055100	*	100E X4 1/16w 5% Smd Resistor Array
010732	*	4.194304MHz Quartz Oscillator
010727	*	45.1584MHz Quartz Resonator
010725	*	20MHz Ceramic Resonator With Capacitors
010718	*	32MHz Quartz Resonator
010710	*	32768Hz Quartz Resonator

Wiring Connections

840821	20 Wires 3cm Length Flat Cable
840812	2 Wires 30cm Length Speakers Cable
840811	6 Wires 57cm Length Crimp Terminal Cable
840810	4 Wires 30cm Length Flat Cable
840809	4 Wires 30cm Length Crimp Terminal Cable
840806	12 Wires 5cm Length Crimp Terminal Cable
840805	34 Wires 7.5cm Length Flat Cable
840803	6 Wires 12.5cm Length Flat Cable
840757	4 Wires 3cm Length Flat Cable
840724	4 Wires 25cm Length Crimp Terminal Cable
840707	4 Wires 50cm Length Cable
840558	4 Wires 10cm Length Cable
840529	16 Wires 20cm Length Flat Cable
840207	9 Wires 25cm Length Flat Cable
770737	Internal Mains Cable

Note:

Each spare part is single quantity unless otherwise specified.

Asterisk prefix explanation:

Omitted = First level spare part.

One asterisk = Second level, part of previous listed first level part.

Two asterisk = Third level, part of previous listed second level part.

Three asterisk =

Any request for not above mentioned part must encompass specific description including:

- 1) Model name,
- 2) Section name,
- 3) Module code,
- 4) Reference name,
- 5) Quantity number.