

A-33

MIDI KEYBOARD CONTROLLER

SERVICE NOTES

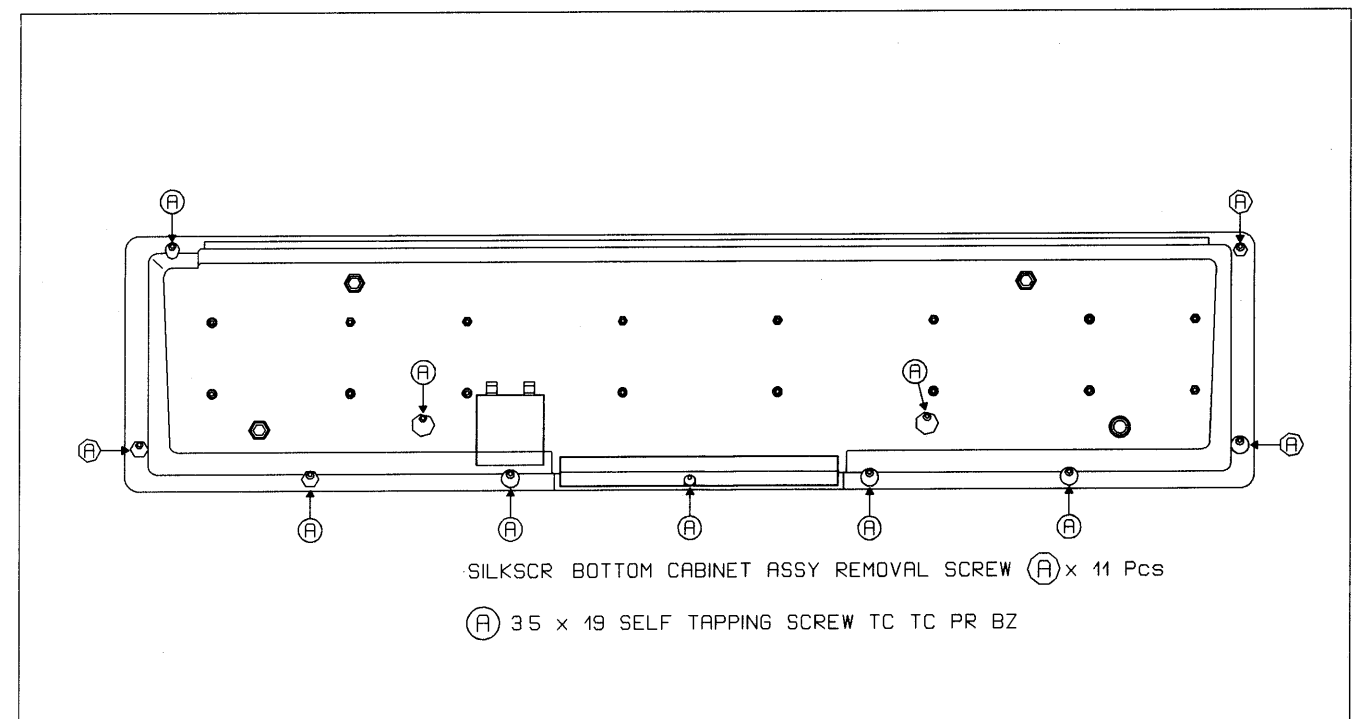
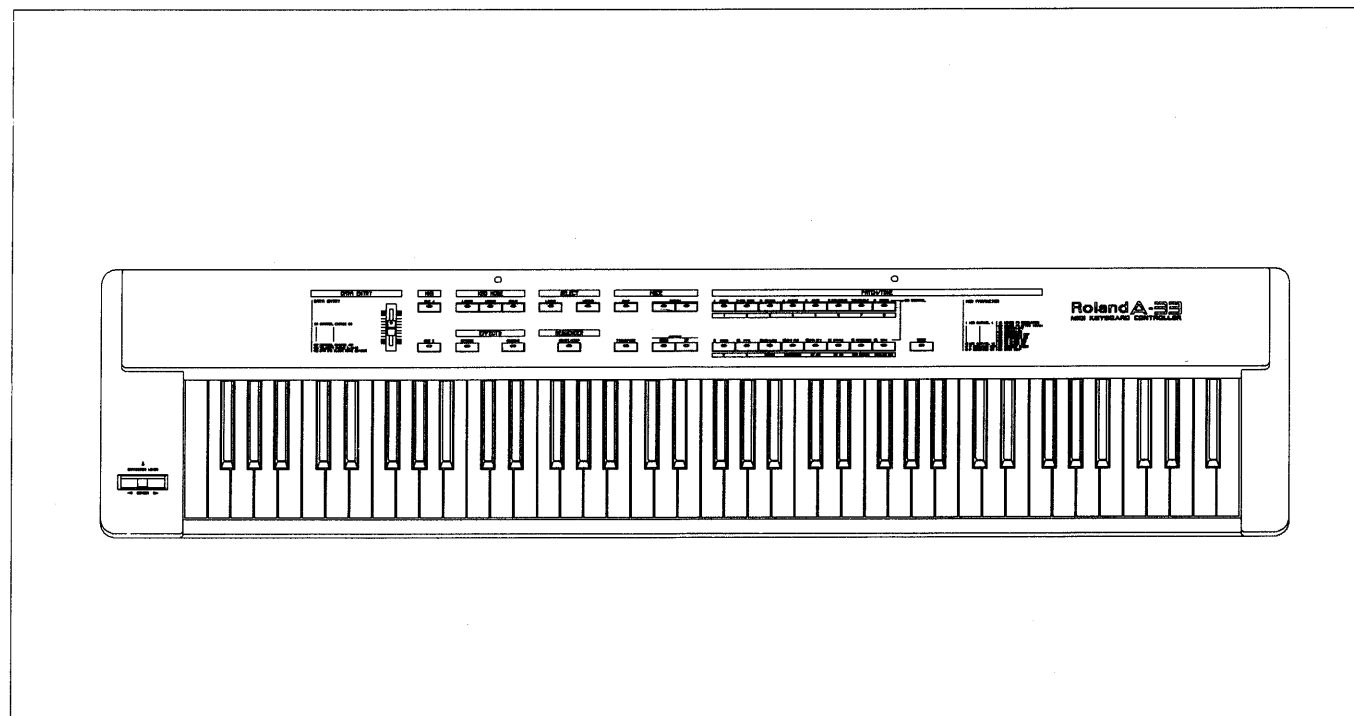
First Edition
Issued by RES

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SPECIFICATIONS

Keyboard.....	76 weighted keys (E-F)	
	Velocity sensitive	
Sound Source.....	Completely compatible with Roland GS Format.	
Power Requirement.....	DC9V, Alkaline Battery(6x MN1500) or AC Adaptor ACA Series.	
Current Draws.....	80mADC at 9VDC	
Power Consumption.....	720mW. (100V/117V/230V/240V)	
Battery Life.....	Approximately 25 hours.	
	Note: These figures will vary depending on the actual conditions of use.	
Jack and Connections.....	MIDI IN; Out1; Out2; Thru	
	: Sustain Switch	
	: Expression Pedal	
	: DC In	
Controls.....	Data Entry (Slider)	
	: Bender/Modulation (Lever)	
External Dimension.....	1195(W) x 270(D) x 110(HMo)	
Weight.....	8 kg	
Accessory.....	Owner's Manual (E-D-F-I)	K6010217
	: Owner's Manual (E-J-DUTCH)	K6010223
	: MIDI Guide	K6010109
	: MIDI Cable 1m(Black)	23405228
	: Alkaline Battery MN1500 6pcs	
	2 Battery Set Size "AA" Alk.	J2569102
	: Music Rest	K2190102
	: Music Score Holder	22200320

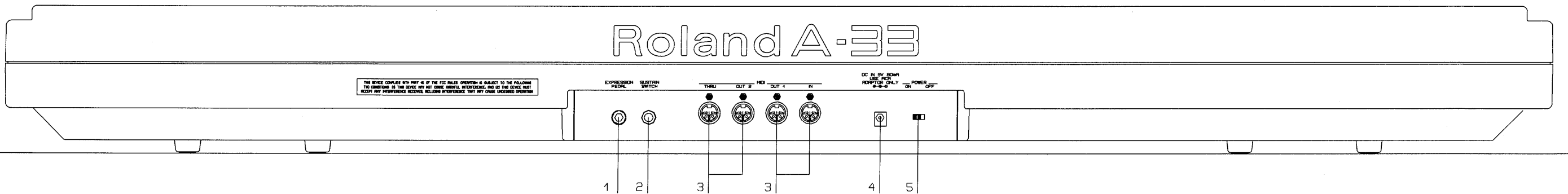
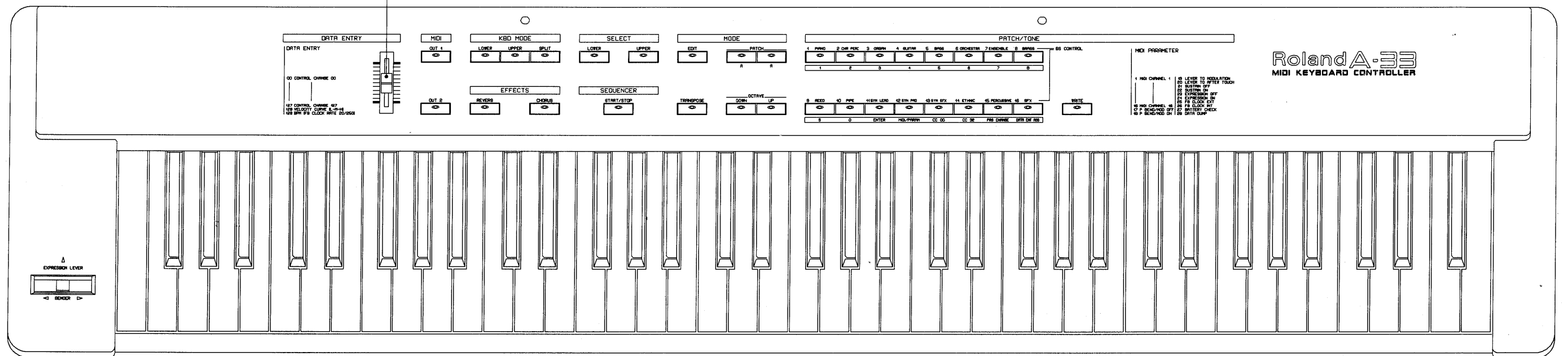
DISASSEMBLY



LOCATION OF CONTROLS

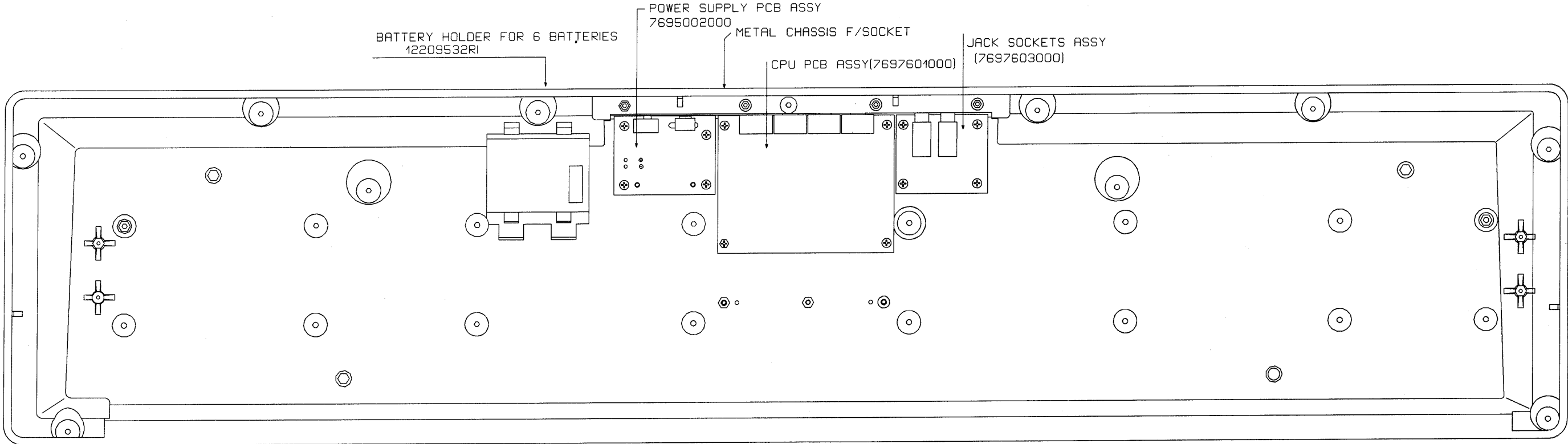
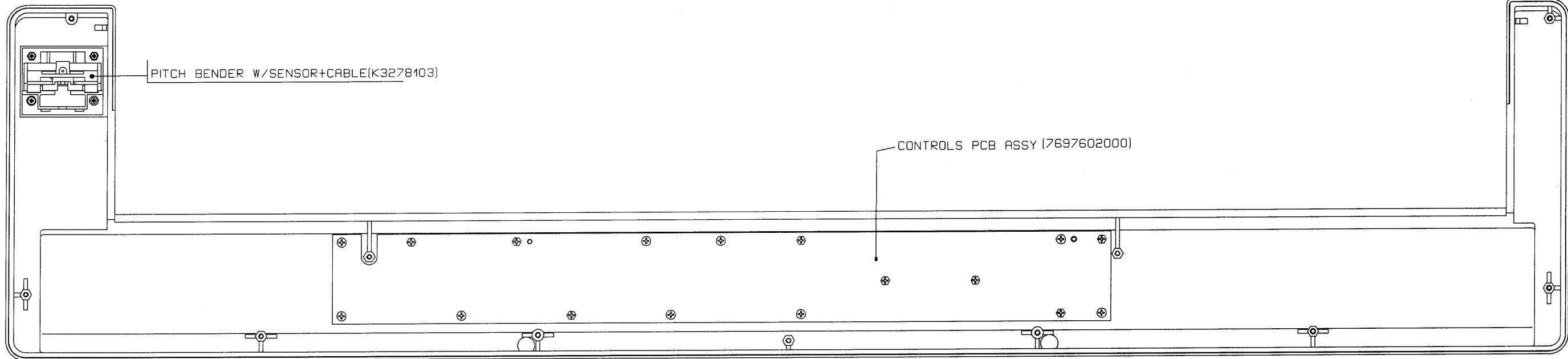
- GROUP 22x8 W/DIFF - BLACK
- LED DIODE TLHR4401 - RED
- SWITCH EVO - QSB 05K 6R160

POT COVER (K2478198)
 LIN POT CURSOR 100KB 10MS(J3339101)



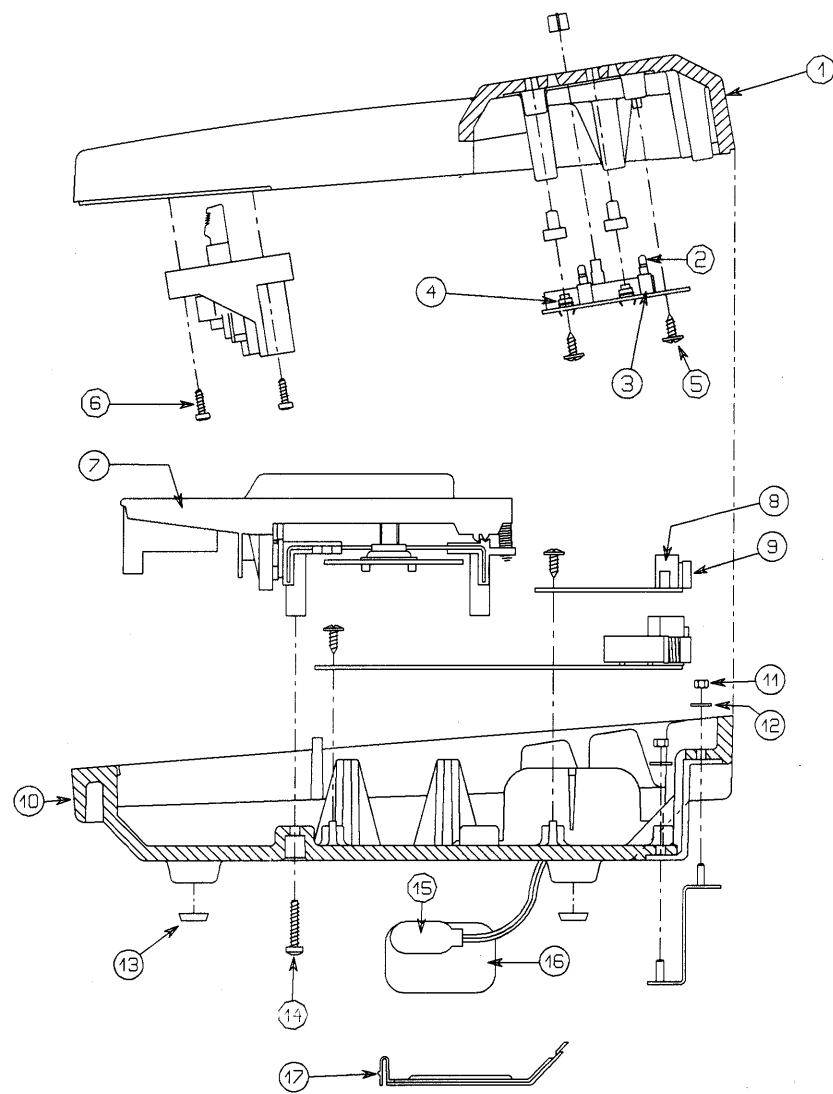
- 1 - JACK SOCKET HLJ0520-01-010(13449126)
- 2 - JACK SOCKET HLJ0520-01-010(13449125)
- 3 - 5P DIN SOCKET 2PZ YKFSI-5054 (13429825)
- 4 - DC SUPPLY SOCKET HEC 0470 01-630 (13449711)
- 5 - POWER SWITCH SSSP12114A (13159111)

EXPLODED VIEW 1



LEFT CONT PCB ASSY+RUBBER 7695005000	RIGHT CONT PCB ASSY+RUBBER 7695004000
76-KEY KEYBOARD ASSY TP/9P (7695013000)	

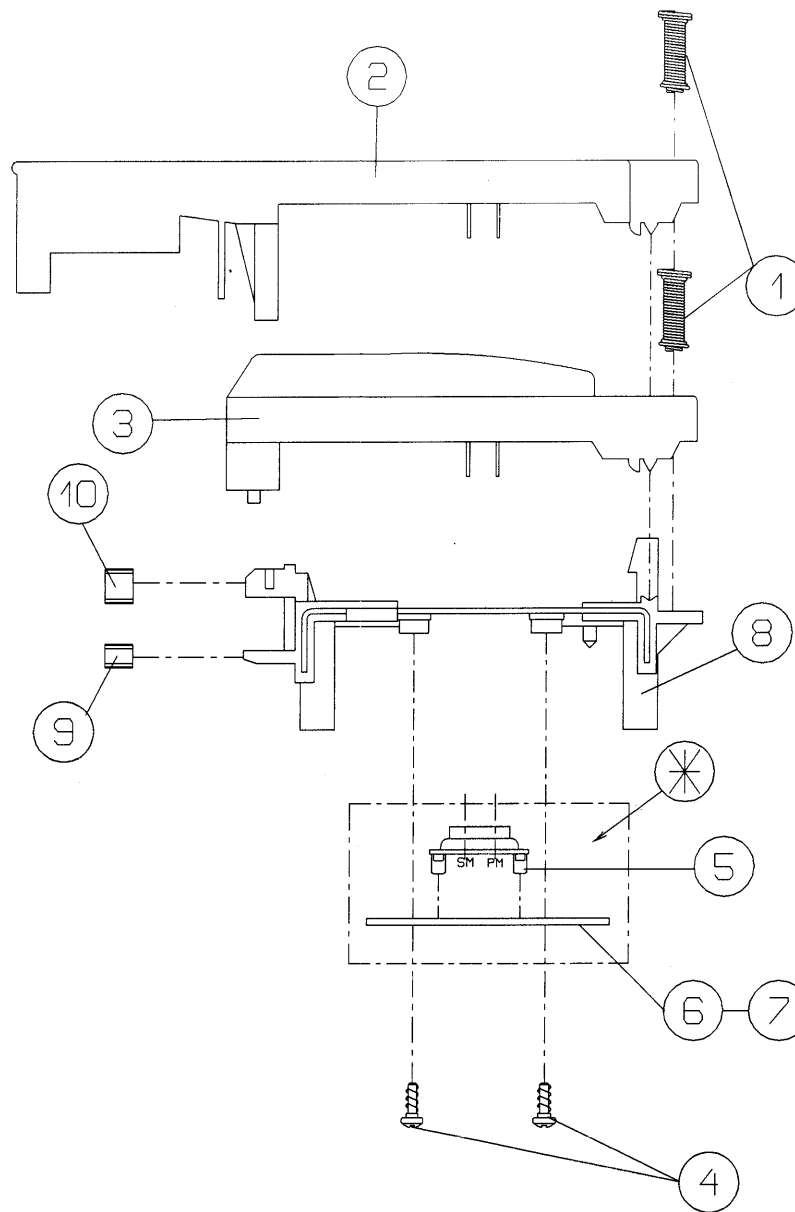
EXPLODED VIEW 2



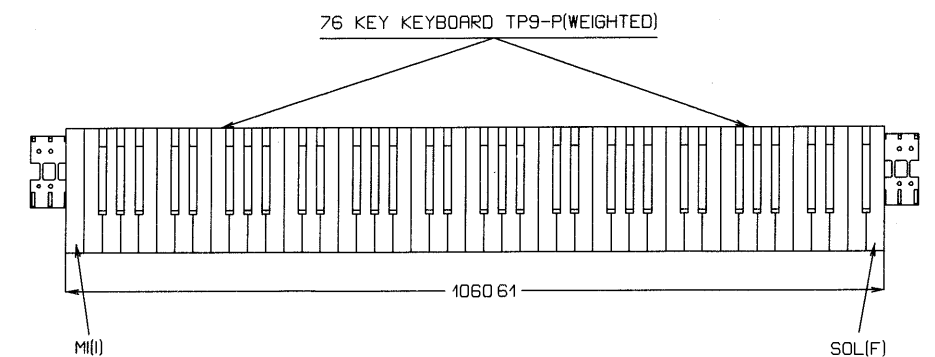
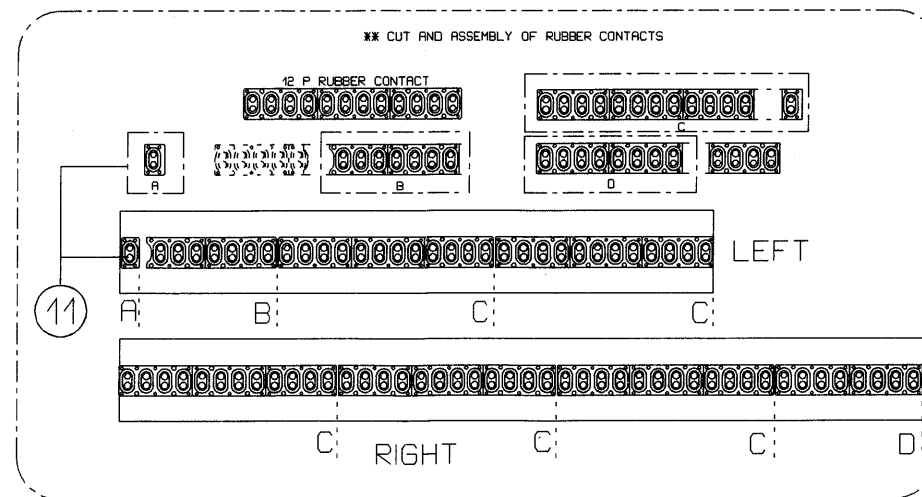
N. PARTS N. PARTS NAME

- ① 7697604000 SILKSCR TOP CABINET ASSY
- ② 15029284RI LED DIODE TLHR4401-RED
- ③ K2168101 SPACER H=115
- ④ 1312975301 SWITCH TYPE EVO-QSB 05K
- ⑤ J2289115 SPECIAL SCREW 35x9.5 PR T 8
- ⑥ J2289104 SELF TAP SCREW 2.9x8 TC TC PR BZ
- ⑦ K2588101 76 KEY KEYBOARD TP9 (WEIGHTED)
- ⑧ 13429823RI POWER SOCKET BLOCK
- ⑨ 13449711 DC SUPPLY SOC HEC0470-01-630
- ⑩ 7697605000 SILKSCR BTM CABINET ASSY
- ⑪ J2289113 NUT 3MA N3
- ⑫ J2139101 FLAT WASHER 1/D4
- ⑬ J2359101 SPACER 3M ART SJ5012
- ⑭ J2289106 SELF TAP SCREW 3.5x19 TC TC PR BZ
- ⑮ 13419723RI 9V BATTERY CONNECTION
- ⑯ 12209532RI BATTERY HOLDER FOR 6 BATTERIES
- ⑰ 7697606000 VARNISHED BATTERY COVER

KEYBOARD PARTS LIST



Ref	Description	Code RJA	n	
1	KEY SPRING gr 63	J2179101	76	
2	NATURAL KEY C5 (gr10)	DO	J2579112	6
	NATURAL KEY D6 (gr10)	RE	J2579113	6
	NATURAL KEY E7 (gr10)	MI	J2579114	6
	NATURAL KEY F1 (gr10)	FA	J2579115	7
	NATURAL KEY G2 (gr10)	SOL	J2579116	6
	NATURAL KEY A3 (gr10)	LA	J2579117	6
	NATURAL KEY B4 (gr10)	SI	J2579118	6
	NATURAL KEY C8 (gr10)	MI(I)	J2579119	1
	NATURAL KEY G (gr10)	SOL(F)	J2579121	1
3	SHARP KEY (gr10)	J2579120	34	
4	SELF TAP SCREW 2.9x8mm TC TC PR BZ	J2289104	42	
5	12 P RUBBER CONTACT	22185238	7**	
6	LEFT CONTACT PCB ASSY+RUBBER	7695005000	1	
7	RIGHT CONTACT PCB ASSY+RUBBER	7695004000	1	
8	PLASTIC CHASSIS	J2589101	1	
9	GUIDE BUSHING INFERIOR	J2359104	76	
10	GUIDE BUSHING SUPERIOR	22158789	76	
11	CONDUCTIVE RUBBER(1P) LR 13/1	23128908	1	
*	CONTACT BOARDS ARE COMPLETE WITH RUBBER CONTACTS			



A B C D E F G H J K L M N P Q

BLOCK DIAGRAM

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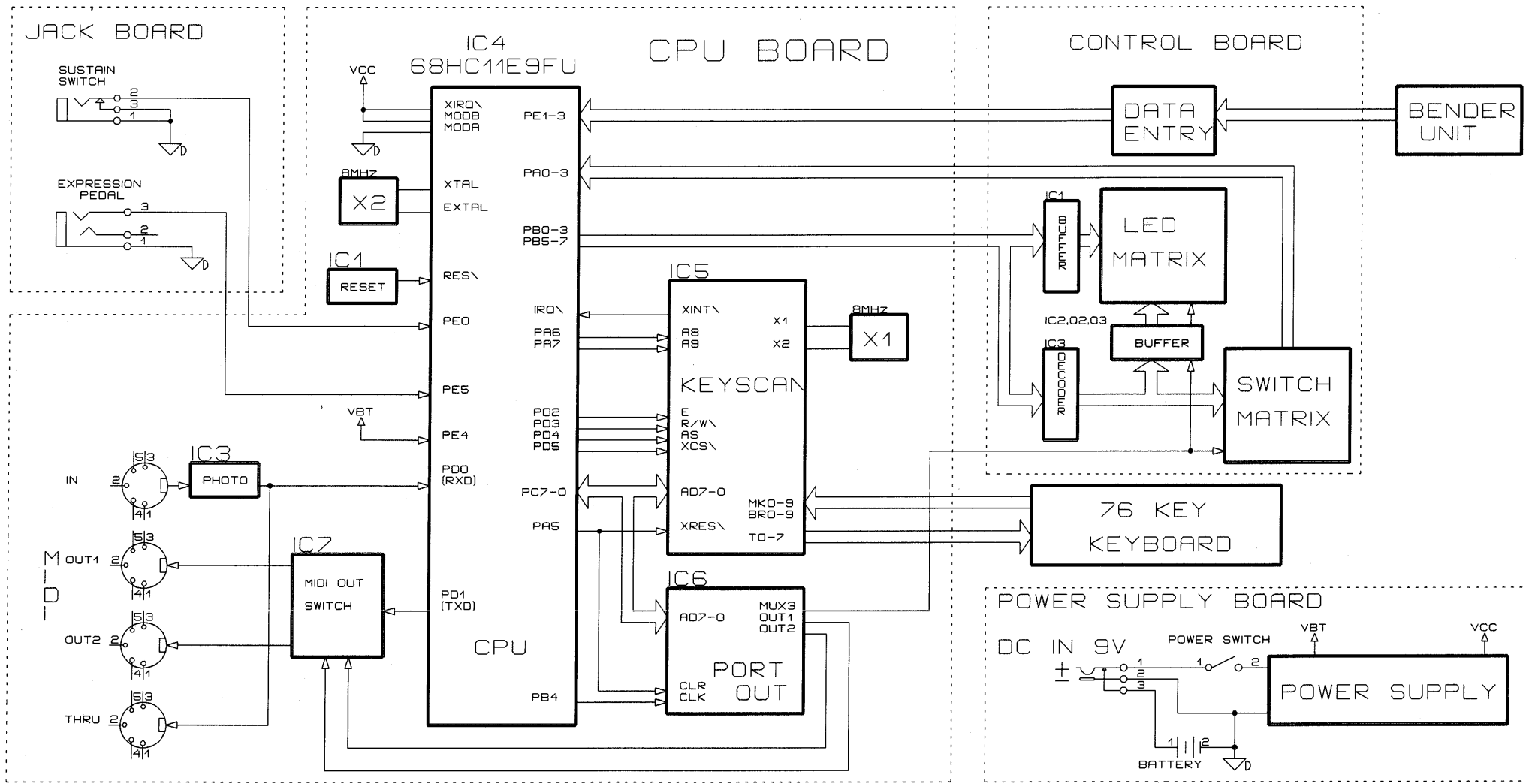
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RESTORING THE FACTORY PRESET

- 1) Switch On your A-33, keeping the "Write" button pressed.
- 2) All the 32 Factory Patches will be restored into your A-33.
- 3) During the restoring procedure, the LEDs on the panel will blink until the operation is over.
The restoring procedure requires 30 sec approximately.

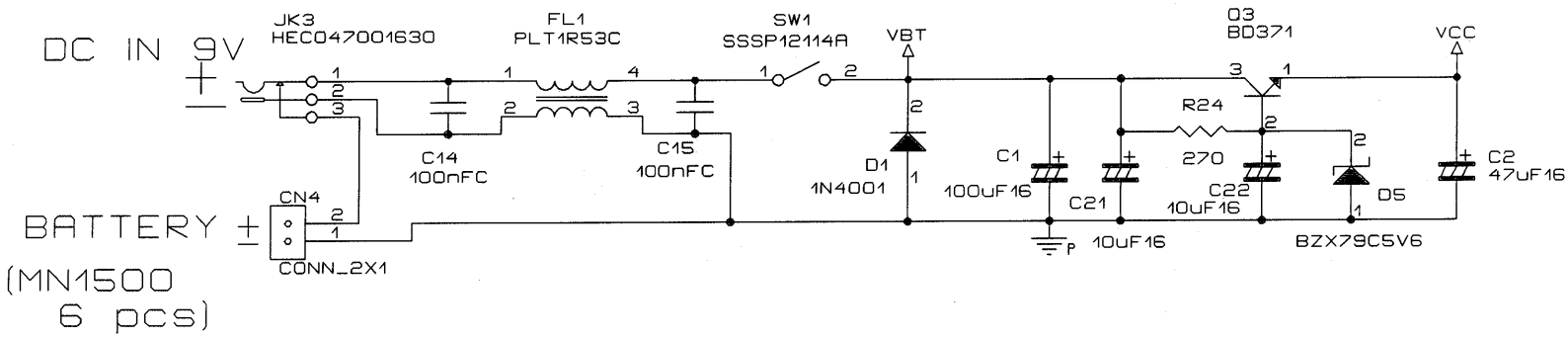
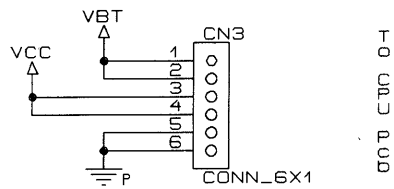
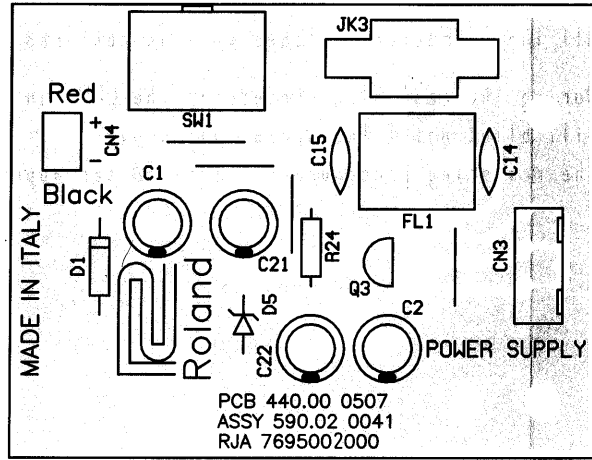
TRANSLATION FROM ENGLISH INTO JAPANESE/英文和訳部分

RESTORING THE FACTORY PRESET (A-33) ファクトリープリセットへの戻し方

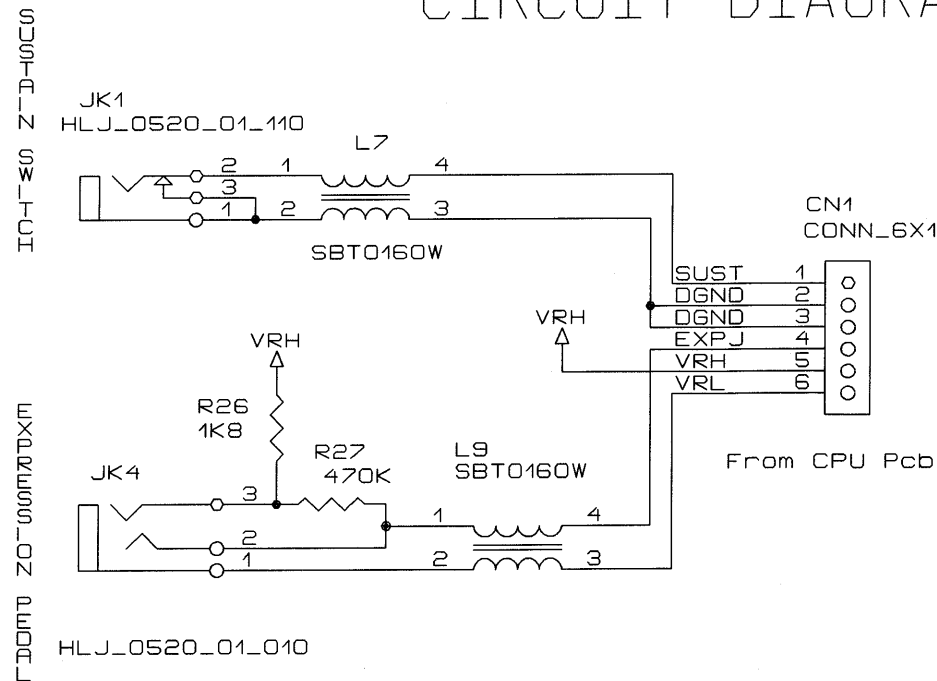
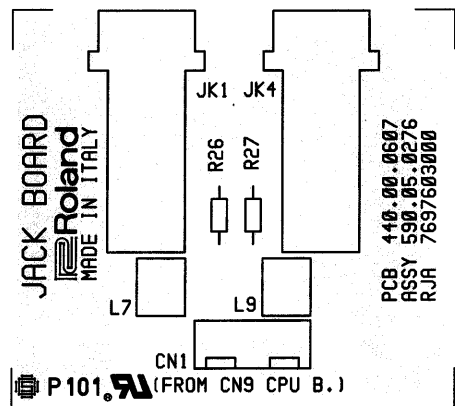
- 1) "Write" ボタンを押しながら、A-33の電源を入れて下さい。
- 2) 32個のファクトリーパッチ全てが自動的にロードされます。
- 3) この処理が終了するまで、パネル上のLEDが点滅します。
この処理は約30秒で完了します。

A B C D E F G H J K L M N P Q

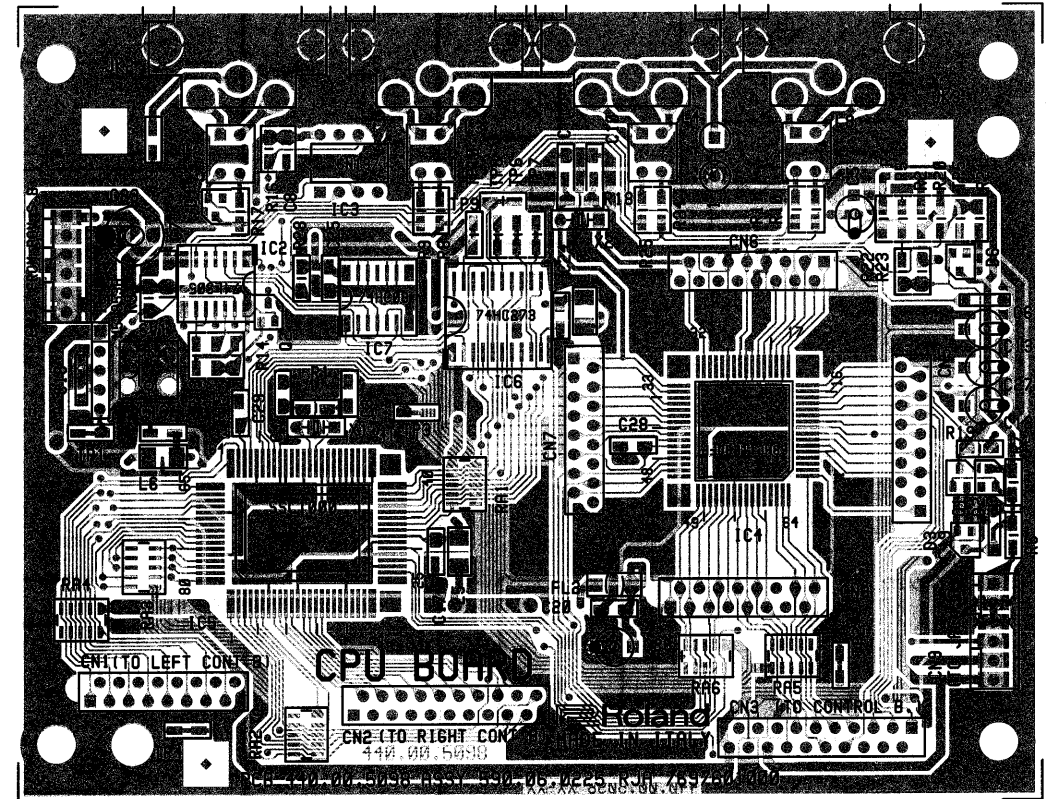
POWER SUPPLY PCB ASSY (or POWER SUP. BOARD) & CIRCUIT DIAGRAM



JACK PCB ASSY (or JACK BOARD) & CIRCUIT DIAGRAM



CPU PCB ASSY (or CPU BOARD)



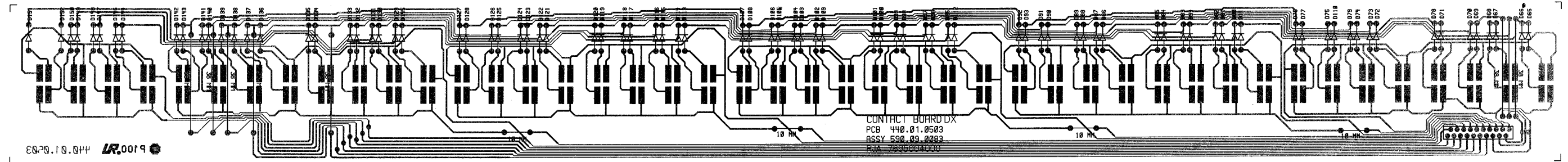
A B C D E F G H J K L M N P Q

RIGHT CONTACT PCB ASSY w/RUBBER C. (or RIGHT CONTACT BOARD w/RUBBER C.)

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CIRCUIT DIAGRAM(RIGHT CONTACT BOARD w/RUBBER CONT.)

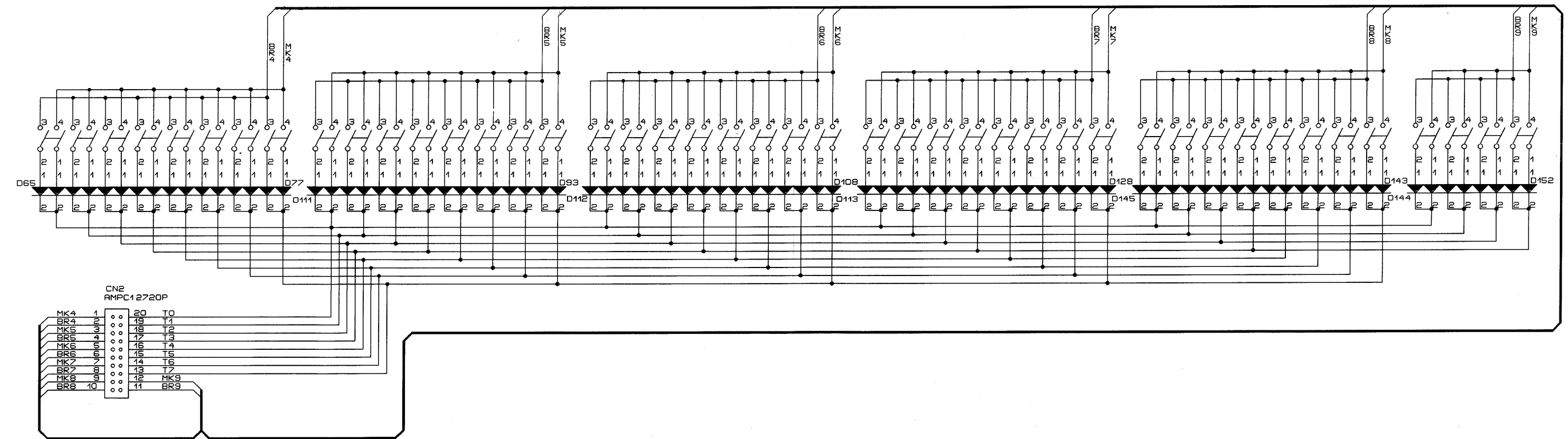
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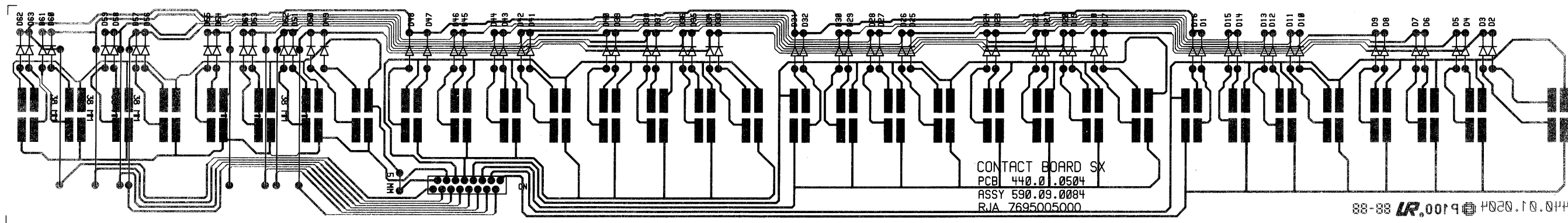
A B C D E F G H J K L M N P Q

LEFT CONTACT PCB ASSY w/RUBBER C. (or LEFT CONTACT BOARD w/RUBBER C.)

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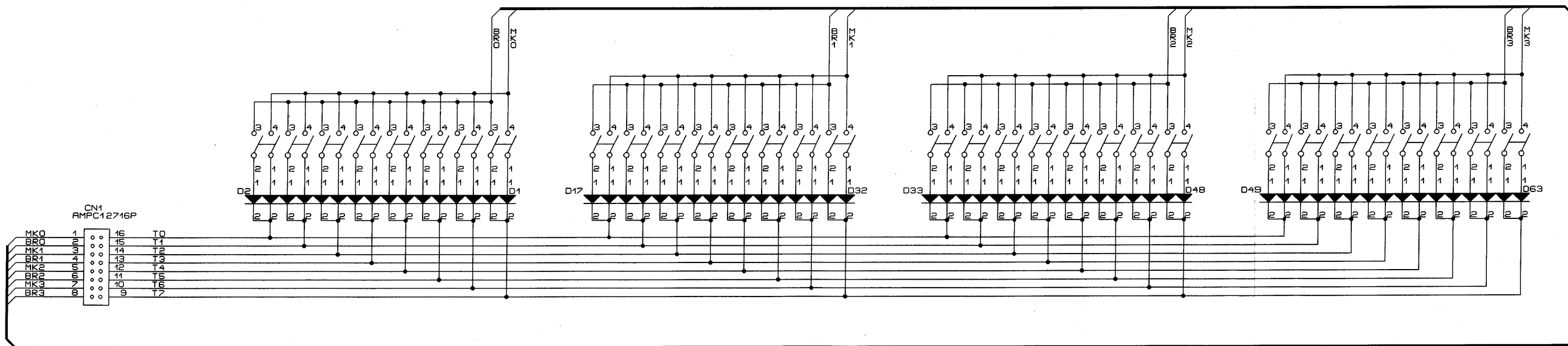
CIRCUIT DIAGRAM (LEFT CONTACT BOARD w/RUBBER C.)

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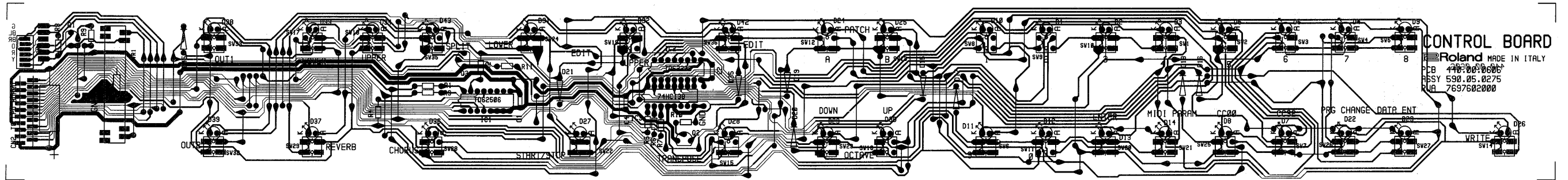
A B C D E F G H J K L M N P Q

CONTROL PCB ASSY (or CONTROL BOARD) & CIRCUIT DIAGRAM

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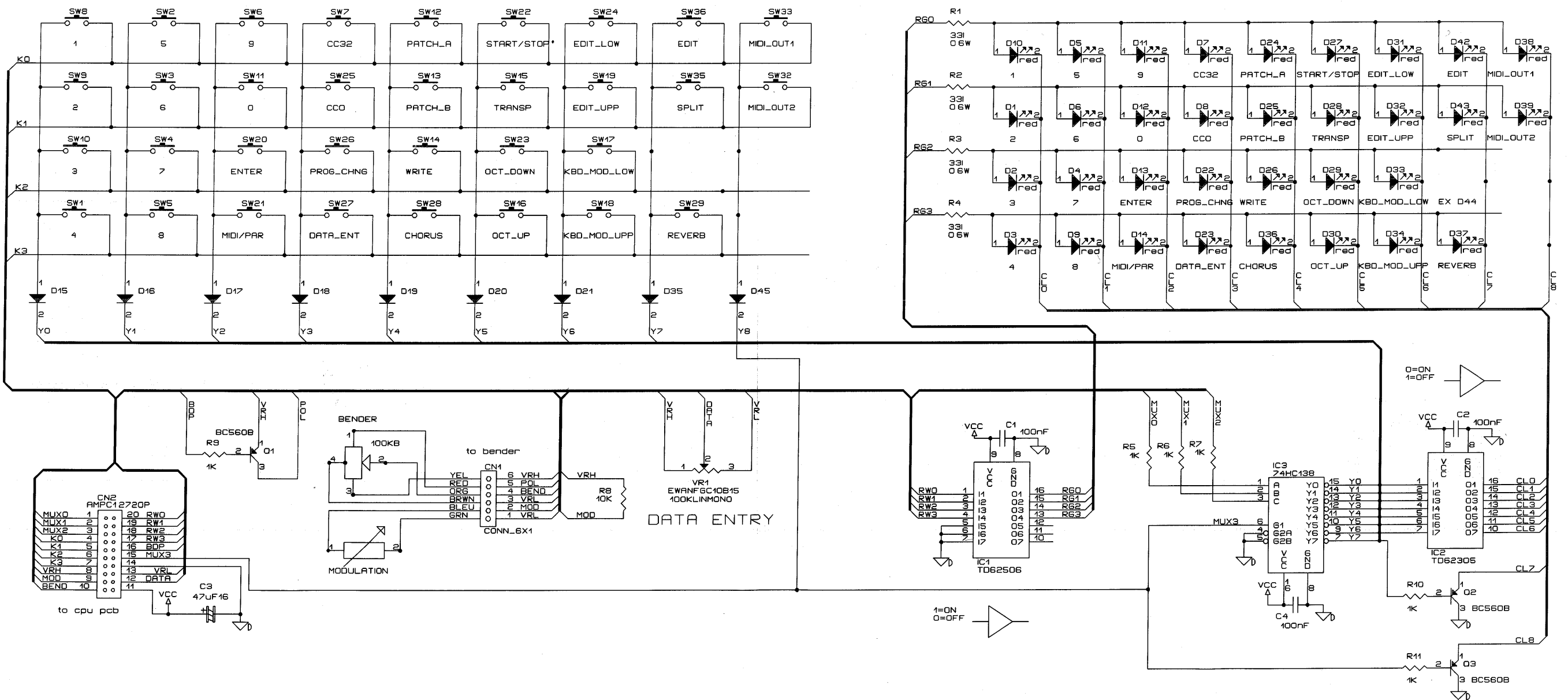
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PARTS LIST A-33

SAFETY PRECAUTIONS:
The parts marked Δ have safety-related characteristics. Use only listed parts for replacement.

CONSIDERATIONS ON PARTS ORDERING

When ordering any parts listed in the parts list, please specify the following items in the order sheet.

EX.	QTY	PART NUMBER	DESCRIPTION	MODEL NUMBER
	10	22575241	Sharp Key	C-20/50
	15	2247017300	Knob(Orange)	DAC-15D

Failure to completely fill the above items with correct number and description will result in delayed or even undelivered replacement.

CPU=CPU BOARD RCB=RIGHT CONTACT BOARD
CB =CONTROL BOARD JK =JACK BOARD
LCB=LEFT CONTACT BOARD PSB=POWER SUPPLY BOARD

NOTE: " # " The parts marked # are new (Initial Parts).
<<EMI>> Component for EMC.

[E] Exchange Parts

CASING

J2359101 SPACER 3M ART. SJ5012
7697606000 VARN. BATTERY COVER A33 #
7697604000 VARN+SILK. TOP CABINET ASSY A33 #
7697605000 VARN+SILK. BOTTOM CBN ASSY A33 #

KNOB, BUTTON

K2478198 POT. COVER
K2478200 GROUP 22X8 W/DIFF. - BLACK

SWITCH

1312975301 SWITCH EVQ-QSB 05K GR. 160 on CB
13159111 POWER SWITCH SSSP12114A SW1 on PSB

JACK, SOCKET

13449711 DC-SUPPLY SOC. HEC0470-01-630 JK3 on PSB
13449125 JACK SOCKET HLJ0520-01-110 JK1 on JKB
13449126 JACK SOCKET HLJ0520-01-010 JK4 on JKB
13429825 5P DIN SOCKET 2PZ YKF51-5054 JK2, JK3 on CPU

BENDER UNIT

K3278103 PITCH BENDER W/SENSOR +CABLE #

KEYBOARD ASSY

7695013000 76-KEY KEYBOARD ASSY TP/9P
NOTE: 76-KEY KEYBOARD ASSY TP/9P includes the following parts.
For details refer to Keyboard parts list (pag. 4)
7695004000 RIGHT CONTACT BOARD W/RUBBER ASSY
7695005000 LEFT CONTACT BOARD W/RUBBER ASSY
22105238 12P RUBBER CONTACT
7625920000 1P RUBBER CONTACT LR13/13

PCB ASSY

7695002000 POWER SUPPLY PCB ASSY A30-A33
7697602000 CONTROLS PCB ASSY A-33 #
7697603000 JACK SOCKETS ASSY A-33 #
7697601000 CPU PCB ASSY A-33 # [E]

IC

K525811610 I. C. TMP60HC11E9F2237 FLAT # IC4 on CPU
15169550RI I. C. 74 HC138 IC3 on CB
J5259007 I. C. 74 HC 08 FLAT IC7 on CPU
J5259102 I. C. 74 HC 273 FLAT IC6 on CPU
15239124 I. C. SSC1000-15239124 FLAT IC5 on CPU
15269214 I. C. 74LS05 IC2 on CPU
15219183 I. C. M51953 A STANDING IC1 on CPU
15199559RI I. C. TD 62506P IC6 on CB
15199560RI I. C. TD 62305AP IC2 on CB
15229718RI PHOTO-COUPLER 6N 137 IC3 on CPU

TRANSISTOR

15119155RI TRANSISTOR BC/560-B 01, 03 on CB
J5119101 TRANSISTOR BD 371 C 03 on PSB
15319101 TRANSISTOR 2SC-2412 01 on CPU
15309101 TRANSISTOR 2SA-1037KR 02 on CPU

DIODE

15019159RI DIODE 1N-4148 D15-D24, D34-D45 on CB/ on LCB, RCB
15339112 CHIP DIODE DA119 D2-D6 on CPU
J5029107 LED DIODE 3 SLR-37VR3F - RED on CB

15019345RI ZENER DIODE BZX79C 5.6V D5 on PSB
15019158RI DIODE 1N-4001 D1 on PSB

RESISTOR

J3919104 CHIP RES. ARRAY 2512 0X10 K +2C RA1, RA5, RA6 on CPU
J3919105 CHIP RESIST. ARRAY 2512 0X15K +2C RA2-RA4 on CPU
J3009150 UNINFL. RES. 33 OHM 1/4W 5% R1-R4 on CB

POTENTIOMETER

J3339101 LIN. POT. CURSOR 100KB 10 MS VR1 on CB

CAPACITOR

13649668RI ELECTRL. COND. -H 47UF 25V C3 on CB
J3629103 ELECTRL. COND. 100U 25V P5 C23 on CPU/C1 on PSB
J3629104 ELECTRL. COND. 10U 50V P5 C5-C26 on CPU/C21, C22 on PSB
J3629105 ELECTRL. COND. 47U 50V P5 C2 on PSB
J3629107 ELECTRL. COND. 1UF 100V P5 C12, C13, C27 on CPU

INDUCTOR, COIL, FILTER

12449302RI NOISE SUP. PLT1-R53C <<EMI>> FL1 on PSB
12449370 NOISE SUP. SBT-0160W <<EMI>> L7, L9 on JKB/L2-L4, L8 on CPU
12449326 NOISE SUP. SBT-0460 <<EMI>> L1 on CPU
J2399103 NOISE SUP. ELKS471FA (CHIP) <<EMI>> FL2 on CPU
J2399104 CHIP NOISE SUP. EXCCL4532U1 <<EMI>> L5, L6, L10 on CPU

CRYSTAL, RESONATOR

15299112RI CERAMIC RESONATOR 8 MHZ X1, X2 on CPU

CONNECTOR

13419677RI 16P FEM. CONN. AMP 1.27
13369689RI 20P FEM. CONN. AMP 1.27
13439479RI MALE CONN. AMP 6W STANDING
J3439123 6P MALE CONN. P. 2 M 90

WIRING, CABLE

7695008001 16P FLAT CABLE (26) -2C #
7695009001 20P FLAT CABLE (14) -2C #

SCREW

J2289122 SELF TAP. SCREW 2.2X 6 TC TC
J2289126 SELF TAP. SCREW 2.9X 8 TCTCPRBZ
J2289125 SELF TAP. SCREW 2.9X10 TCTCPRBZ
J2289128 SELF TAP. SCREW 3.5X19 TCTCPRBZ
J2289160 SELF TAP. SCREW 2.9X13 TCTCPR BR
J2289115 SELF TAP. SCREW 3.5X9.5 TCPRTFR H. 8
J2289186 SCREW 3.5X16 TC PR TFR H. 8
J2289113 NUT 3MA H. 3
J2139101 FLAT WASHER I/D 4

MISCELLANEOUS

K2168102 SPACER FOR LED H. 2.8 D.E. 5.5
22248470 ANTIDUST COVER F/POTENT.
13419723RI 9V BATTERY CONNECTION
12209532RI BATTERY HOLDER FOR 6 BATTERIES
13429823RI P. SUPPLY PLUG LOCKING
K263811401 RIGHT POLYST. END-SIDE
K263811501 LEFT POLYST. END-SIDE
K2678109 CARTENE ENVELOPE HD 150X40
K2618159 OUTER PACKING A-33 #

ACCESSORIES

23485228 MIDI CABLE 1M - BLACK
J2569102 2-BATTERY SET -SIZE "AA"-ALK. (MN1500)
K2198102 MUSIC REST
22208320 MUSIC SCORE HOLDER
K6018109 MIDI GUIDE
K6018217 OWNER'S MANUAL (E/D/F/I) A-33 #
K6018223 OWNER'S MANUAL (SP/DUTCH) A-33 #
K6018226 OWNER'S MANUAL (J) A-33 #