

A-30

MIDI KEYBOARD CONTROLLER

SERVICE NOTES

First Edition

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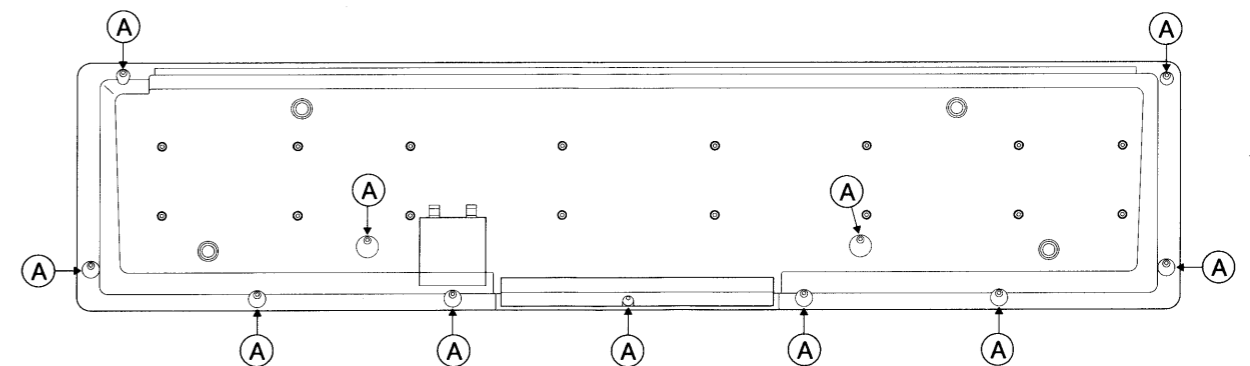
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(or CONTROLS BOARD)	(or CONTROLS BOARD)	
LEFT CONTACT PCB ASSY w/RUBBER	LEFT CONTACT PCB ASSY w/RUBBER	10, 11
(or CONTACT BOARD SX)	(or CONTACT BOARD SX)	
RIGHT CONTACT PCB ASSY w/RUBBER	RIGHT CONTACT PCB ASSY w/RUBBER	10, 11
(or CONTACT BOARD)	(or CONTACT BOARD)	

SPECIFICATIONS/仕様

- ◎KEYBOARD 76 weighted key dynamic keyboard
- ◎SOUND SOURCE Completely compatible with Roland GS format.
- ◎USER PATCHES 32
- ◎CURRENT DRAW 80mA(DC 9V)
- ◎BATTERY LIFE Approx. 25 hours(used alkaline battery type x 6 pcs)
- ◎DIMENSIONS 1195(W) x 270(D) x 105(H) mm
47-3/64(W) x 10-5/8(D) x 4-9/64(H) inches.
- ◎WHIGHTS 8.1 kg/ 17 lb 13 oz.
- ◎ACCESSORIES Alkaline Battery MN1500 Duracell x 6 pcs
NOTE: The below parts is supported as replacement instead of above parts.
注：上記の部品は、供給しません。
補修用部品としては、下記の部品が供給されます。
Alkaline Battery SUM-3S :PNo.12569105
MIDI Cable 1m (Black) :PNo.23485228
Owner's Manual :PNo.K6018122
(English/French/Germany/Italy/Japanese)
- ◎OPTIONS AC Adaptor
ACA-100 (100V)
ACA-120 (117V)
ACA-220 (230V)
ACA-240A (240VA)
ACA-240E (240VE)

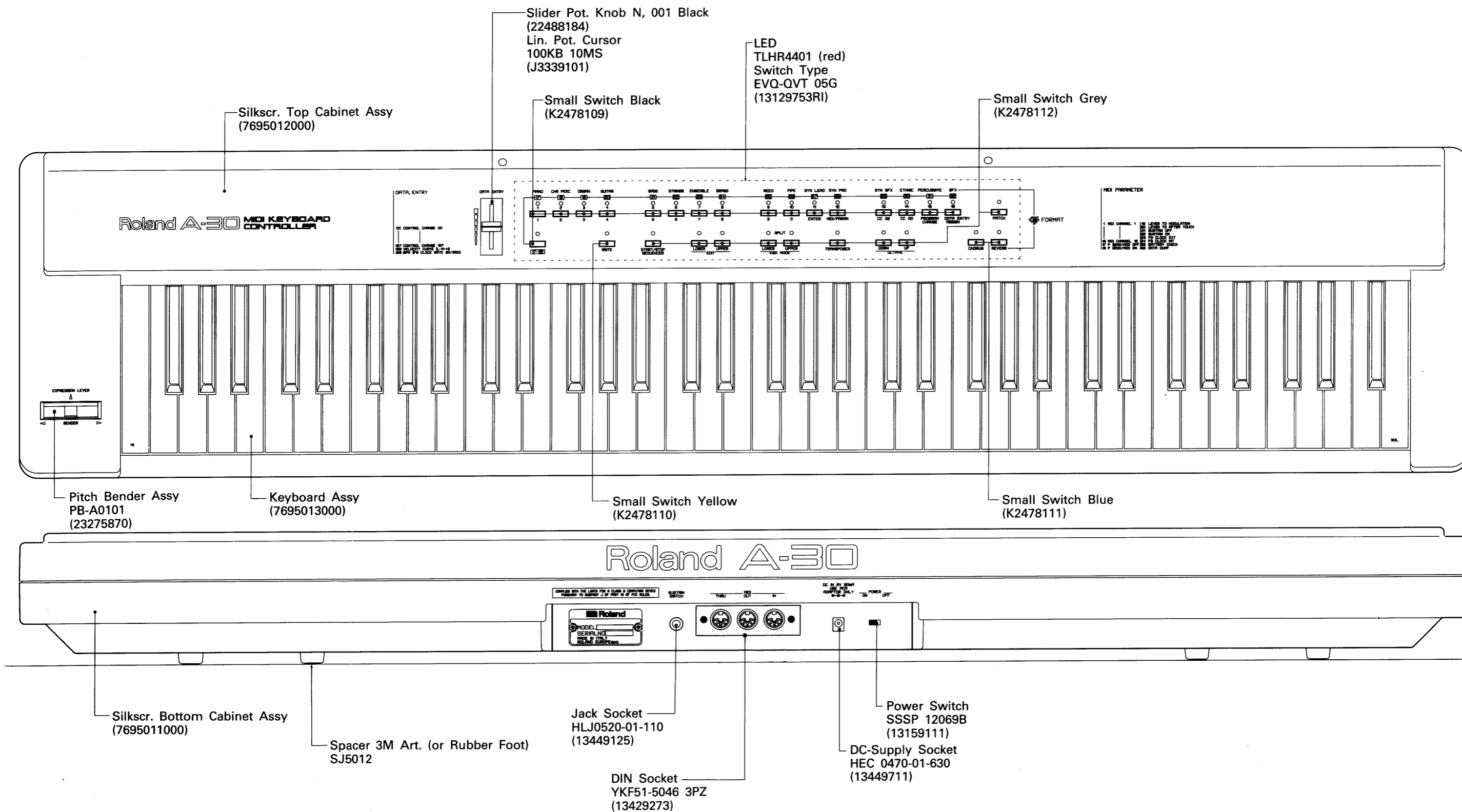


DISASSEMBLY/分解手順

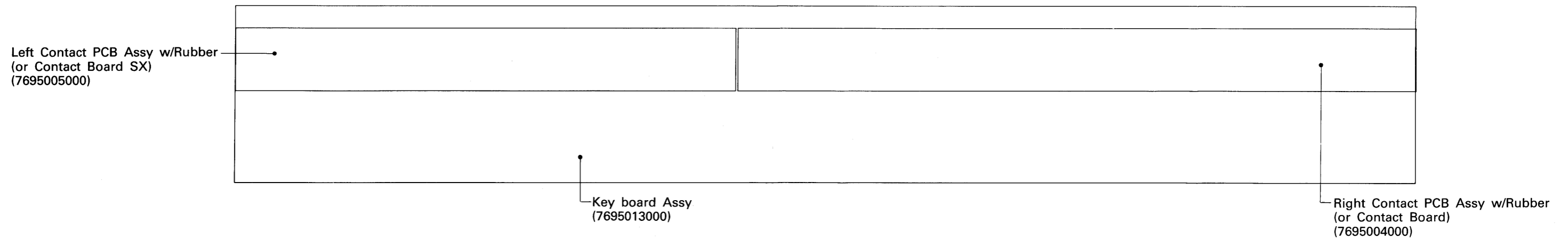
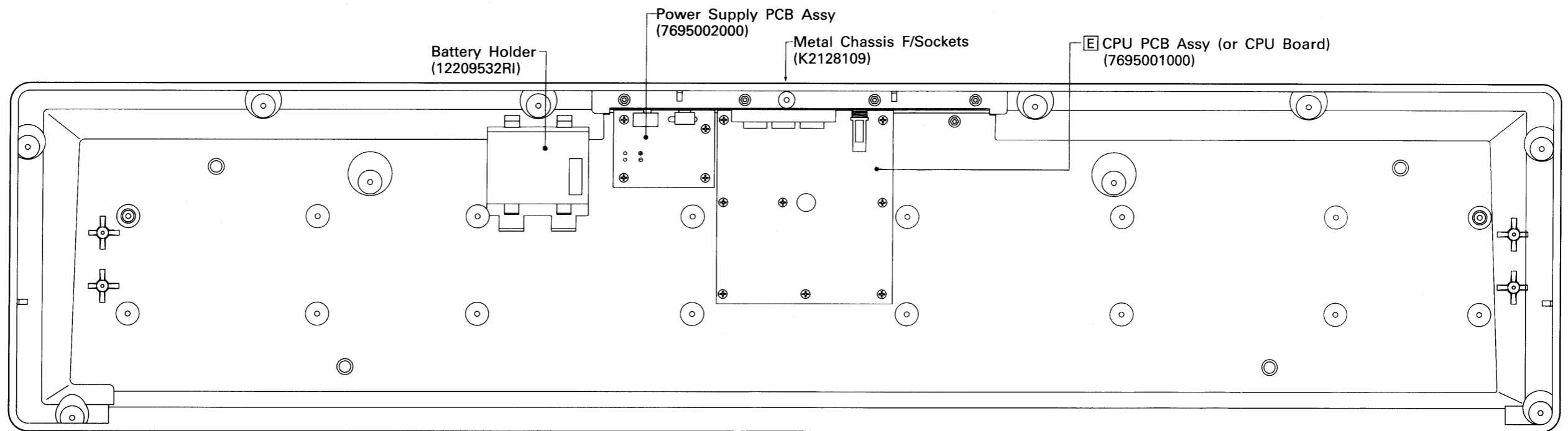
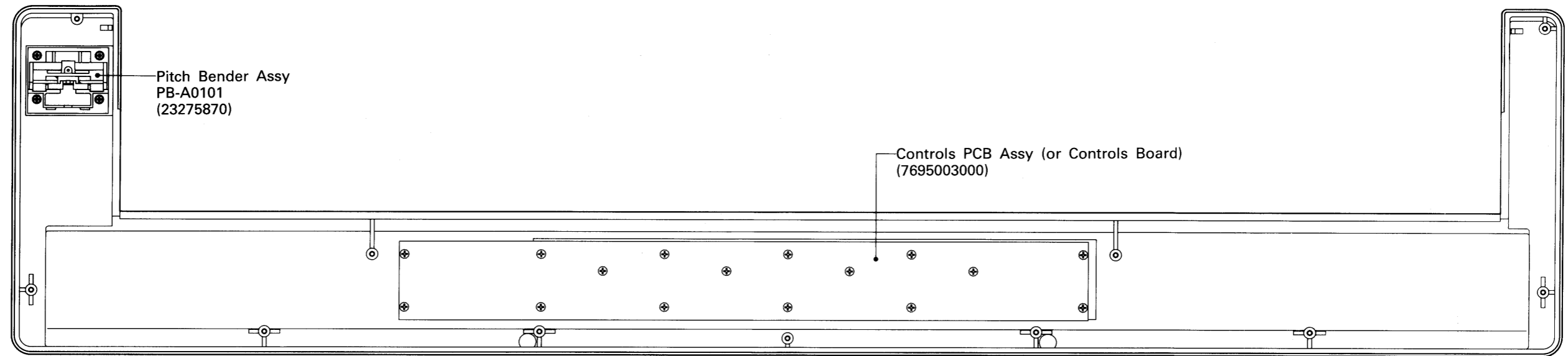


Silkscr Bottom Cabinet Assy removal screw (A) x 11 pcs
(A): 3.5 x 19 mm Self tap. screw TCTCPBZ.

LOCATION OF CONTROLS/パネル配置図

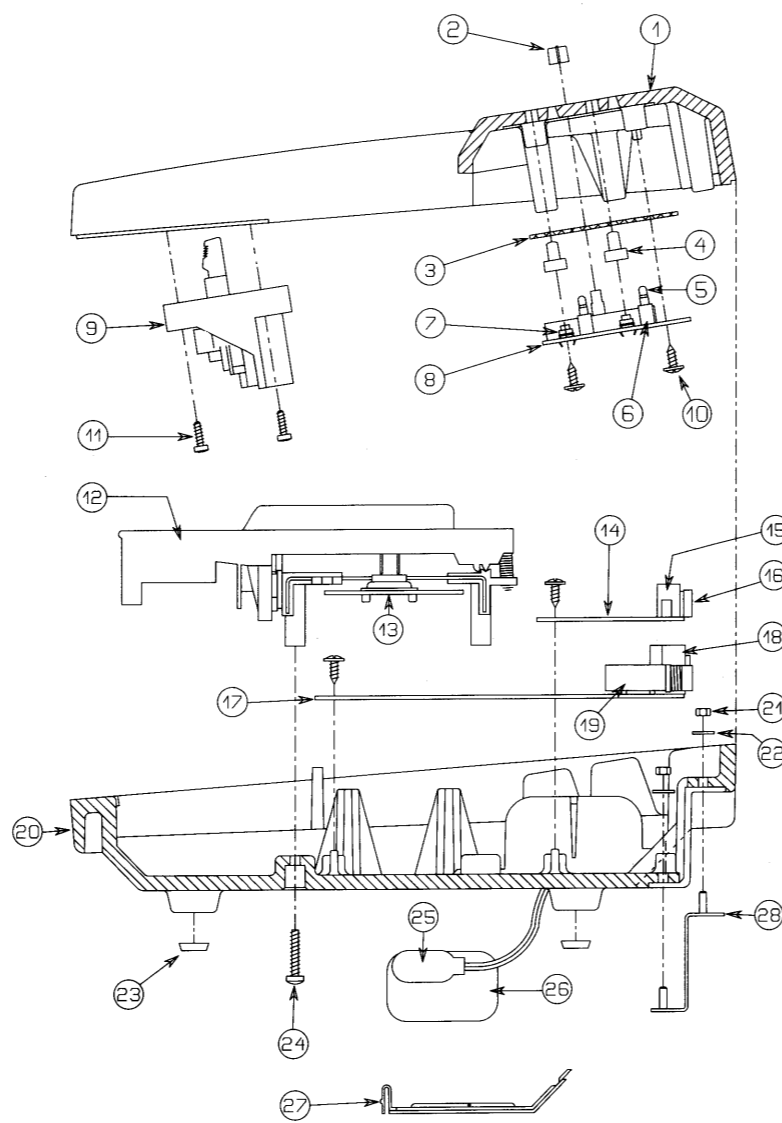


EXPLODED VIEW 1 / 分解图 1



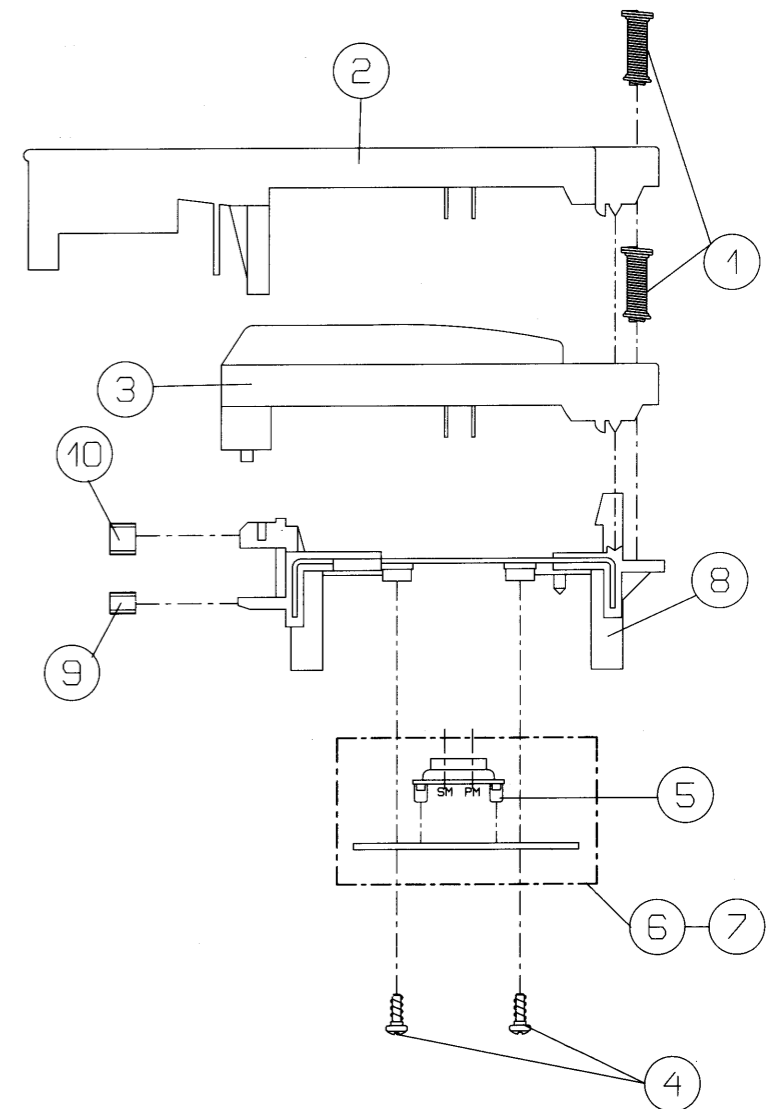
EXPLODED VIEW 2/分解図 2

NO.	PARTS NUMBER	PARTS NAME
①	7695012000	Silkscr. Top Cabinet Assy
②	22488184	Slider Pot. Knob N,001 black
③	K2268108	Vibration Damping Form F/Cover
④	K2478109	Small Switch black
④	K2478110	Small Switch yellow
④	K2478111	Small Switch blue
④	K2478112	Small Switch grey
⑤	15029248RI	LED (red) TLHR4401
⑥	K2168101	Spacer H.11.5
⑦	13129753RI	Switch Type EVQ-QVT05G
⑧	7695003000	Controls PCB Assy (or Controls Board)
⑨	23275870	Pitch Bender Assy PB-A0101
⑩	*****	3.5 x 9.5mm Special Screw PR T.8 (Screw No. J2289115 or 250990009)
⑪	*****	2.9 x 8mm Self Tap. Screw TCTCPBZ (Screw No. J2289104 or 206132908)
⑫	7695013000	Keyboard Assy 76keys (weight)
⑬	7695004000	Right Contact PCB Assy w/Rubber (or Contact Board)
⑬	7695005000	Left Contact PCB Assy w/Rubber (or Contact Board Sx)
⑭	7695002000	Power Supply PCB Assy
⑮	13429823RI	Power Socket Block
⑯	13449711	DC-Supply Socket HEC0470-01-630
⑰	E 7695001000	CPU PCB Assy (or CPU Board)
⑱	13429273	DIN Socket YKF51-5046 3PZ
⑲	13449125	Jack Socket HLJ0520-01-110
⑳	7695011000	Silkscr. Bottom Cabinet Assy
㉑	*****	MA3 Nut H.3 (Screw No. J2289113 or 260133003)
㉒	*****	Flat Washer I/D 4 (Screw No. J2139101 or 270990001)
㉓	J2359101	Spacer 3M Art. SJ5012 (or Rubber Foot)
㉔	*****	3.5 x 19mm Self Tap. Screw TCTCPBZ (Screw No. J2289106 or 206133519)
㉕	13419723RI	Battery Connection
㉖	12209532RI	Battery Holder
㉗	7695014000	Varnished Battery Cover
㉘	K2128109	Metal Chassis F/Sockets



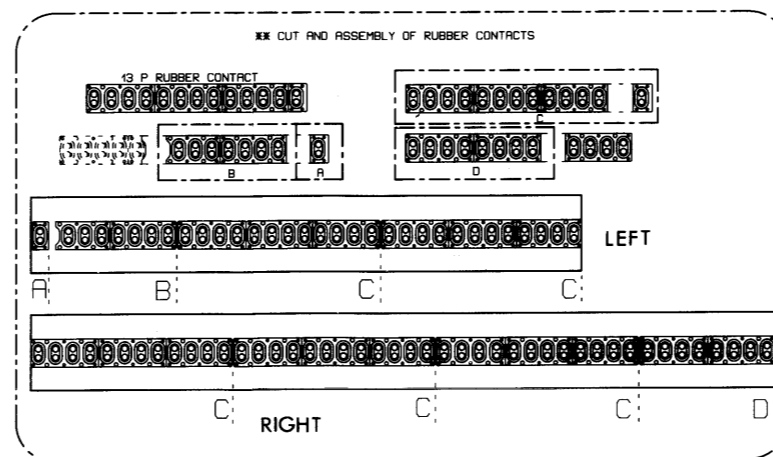
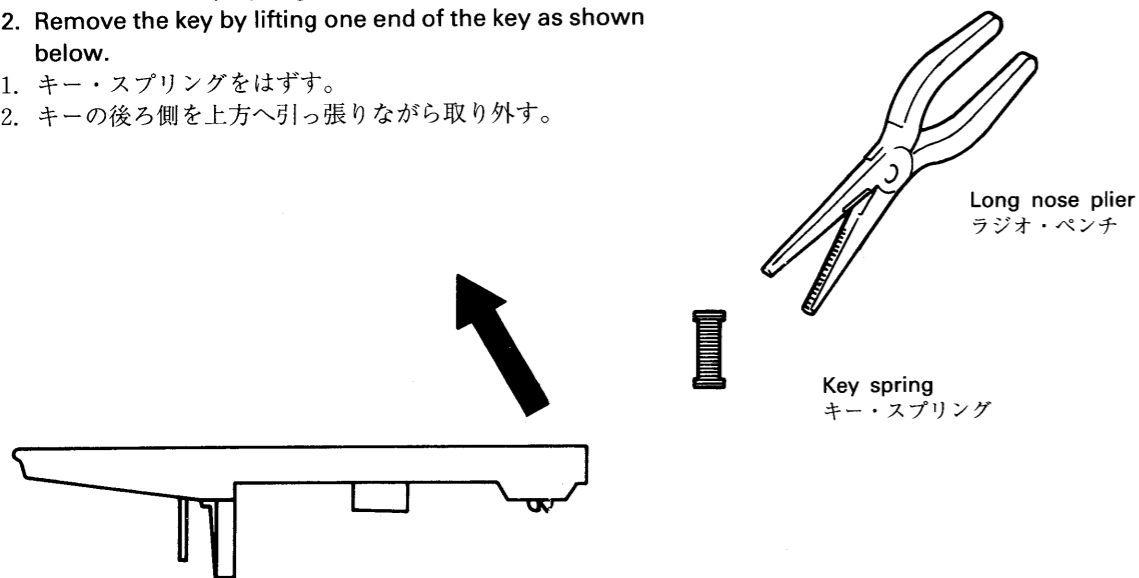
KEYBOARD PARTS LIST/鍵盤パーツリスト

NO.	PARTS NUMBER	PARTS NAME
①	J2179101	KEY SPRING gr63
①	J2579112	NATURAK KEY C5 (gr10) (DO) (weight)
①	J2579113	NATURAL KEY D6 (gr10) (RE) (weight)
①	J2579114	NATURAL KEY E7 (gr10) (MI) (weight)
①	J2579115	NATURAL KEY F1 (gr10) (FA) (weight)
②	J2579116	NATURAL KEY G2 (gr10) (SOL) (weight)
②	J2579117	NATURAL KEY A3 (gr10) (LA) (weight)
②	J2579118	NATURAL KEY B4 (gr10) (SI) (weight)
②	J2579119	NATURAL KEY C8 (gr10) (MI (1)) (weight)
②	J2579121	NATURAL KEY G (gr10) (SOL (F)) (weight)
③	J2599120	SHARP KEY (gr10) (weight)
④	*****	2.9 x 8mm SELF TAP.SCREW TCTCPBZ (SCREW NO. J2289104 or 206132908)
⑤	J3169101	RUBBER CONTACT 13P
⑥	7695005000	LEFT CONTACT PCB ASSY w/RUBBER (or CONTACT BOARD SX)
⑦	7695004000	RIGHT CONTACT PCB ASSY w/RUBBER (or CONTACT BOARD)
⑧	J2589101	PLASTIC CHASSIS
⑨	J2359104	GUIDE BUSHING INFERIOR
⑩	22158789	GUIDE BUSHING SUPERIOR



KEYBOARD DISASSEMBLY/鍵盤分解手順

1. Remove the key spring from key to be removed.
 2. Remove the key by lifting one end of the key as shown below.
1. キー・スプリングをはずす。
 2. キーの後ろ側を上方へ引っ張りながら取り外す。



PARTS LIST/パーツリスト

SAFETY PRECAUTIONS:
 The parts marked △ have safety-related characteristics. Use only listed parts for replacement.
 安全上の注意：
 △が付いている部品は、安全上特別な規格でつくられたものです。交換の際は、指定された部品番号以外の部品は使わないようにして下さい。

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.
 パーツ発注に関するお願い
 オーダーシートには、必ず下記の4項目は正確に記入して下さい。(例外は除く)
 必要数 パーツナンバー 品名 使用機種
 例) 10 22575241 Sharp Key C-20/50
 15 2247017300 Knob (orange) DAC-15D
 もし記入漏れ、誤記等がある場合、必要部品が発送出来なかったり、大幅な遅れの原因になります。御協力をお願いします。

CASING/ケース

7695011000	SILKSCR. BOTTOM CABINET ASSY
7695012000	SILKSCR. TOP CABINET ASSY
7695014000	VARNISHED BATTERY COVER
J2359101	SPACER 3M ART. SJ5012 (or RUBBER FOOT)

CHASSIS/シャーシ

K2638114	RIGHT POLYST. END SIDE
K2638115	LEFT POLYST. END SIDE
K2128109	METAL CHASSIS F/SOCKETS

KNOB, BUTTON/ツマミ, ボタン

22488184	SLIDER POT. KNOB N, 001 BLACK
K2478109	SMALL SWITCH BLACK
K2478110	SMALL SWITCH YELLOW
K2478111	SMALL SWITCH BLUE
K2478112	SMALL SWITCH GREY

SWITCH/スイッチ

13129753RI	EVQ-QVT05G	SWITCH TYPE
13159111	SSSP12069B	POWER SWITCH

JACK, SOCKET/ジャック, ソケット

13449711	HEC0470-01-630	DC-SUPPLY SOCKET
13449125	HLJ0520-01-110	JACK SOCKET
13429273	YKF51-5046 3PZ	DIN SOCKET

BENDER UNIT/ベンダー・ユニット

23275870	PB-A0101	PITCH BENDER ASSY
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NOTE: Replacements Pitch Bender Assy should be made on a unit basis. No replacements available for individual parts. Replacement only by a unit.

注: Pitch Bender Assy の交換は、ユニット単位で行って下さい。補修品は、ユニット単位。

KEYBOARD/鍵盤完成品

7695013000	KEYBOARD ASSY
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NOTE: See "A30 KEYBOARD PARTS LIST" (P. 4) for details.

注: 詳細は、"A30 KEYBOARD PARTS LIST" (P. 4) を参照して下さい。

PCB ASSY/基板完成品

<input type="checkbox"/>	7695001000	CPU PCB ASSY (or CPU BOARD)
<input type="checkbox"/>	7695003000	CONTROLS PCB ASSY (or CONTROLS BOARD)
<input type="checkbox"/>	7695002000	POWER SUPPLY PCB ASSY

IC

K5258101	ZC400431CFU	MASK CPU	IC4 on CPU
15239124	SSC1000	GATE ARRAY (KEY SCAN.)	IC5 on CPU
15169550T0	74HC138	3 TO 8 DEMULTIPLEXER	IC3 on CONTROL
15169334H0	74LS05P	HEX O. C. INVERTER	IC2 on CPU
15219183	M51953AL	RESET IC	IC1 on CPU
15199559RI	TD62506P	LEDS BUFFER	IC1 on CONTROL
15199560RI	TD62305AP	LEDS BUFFER	IC2 on CONTROL
15229718	6N137	PHOTO-COUPLER	IC3 on CPU

TRANSISTOR/トランジスター

15119155RI	BC/560-B
J5119101	BD371C
15119154RI	BC/549-B

DIODE/ダイオード

15019158RI	IN-4001	
15019159RI	1N-414B	
15029284RI	TLHR4401	LED (red)
15019345RI	BZX79C5V6	ZENER 5.6V

RESISTOR/抵抗

13910103	S. L. 8X10K +C	RESISTOR ARRAY
13919253RI	RGLD8X153J 15KX8	RESISTOR ARRAY

POTENTIOMETER/ポリューム

J3339101	100KB 10MS	LIN. POT. CURSOR
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CAPACITOR/コンデンサー

13519452	DD306-959-F104Z25	CERAM. COND.
13529179RI	100K 20%	MULTILAYER CER. COND.
13649668RI	47UF/ 25V	ELECTRL. COND. -H
13639179RI	100UF/ 25V	ELECTRL. COND. -V
13639169S0	47UF/ 25V	ELECTRL. COND. -V
13639206S0	10UF/ 50V	ELECTRL. COND. -V
13639255RI	1UF/100V	ELECTRL. COND. -V

INDUCTOR, COIL, FILTER/インダクタ, コイル, フィルター

12449382RI	PLT1-R53C	NOISE SUP.
12449370	SBT-0160W	NOISE SUP.
12449326	SBT-0460	NOISE SUP.
13529187	ELKTT391CA	NOISE SUP.
12449380	EXC-ELDR25V	NOISE SUP.

CRYSTAL, RESONATOR/クリスタル, 発振子

15299112RI	8MHz	CERAMIC RESONATOR
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CONNECTOR/コネクタ

13419677RI	AMP C/1.27	(16P)	FEMALE CONN.
13369689RI	AMP C/1.27	(20P)	FEMALE CONN.
23275870	CONNECTOR	(6P)	MALE

WIRING, CABLE/ワイヤリング, ケーブル

7695008000	CABLE ASSY	(28)	w (16PC-16PC)
7695009000	CABLE ASSY	(14)	w (20PC-20PC)
7695010000	CABLE ASSY	(42)	w (20PC-20PC)

SCREW/ネジ類

*****	2.2 x 6mm SELF TAP. SCREW TCTC (SCREW No. J2289122 or 201132206)
*****	2.9 x 6mm SELF TAP. SCREW TCTC (SCREW No. J2289101 or 201132906)
*****	2.9 x 8mm SELF TAP. SCREW TCTCPRBZ (SCREW No. J2289104 or 206132908)
*****	3.5 x 19mm SELF TAP. SCREW TCTCPRBZ (SCREW No. J2289106 or 206133519)
*****	3.5 x 9.5mm SPECIAL SCREW PR T.8 (SCREW No. J2289115 or 250990009)
*****	MA3 NUT H.3 (SCREW No. J2289113 or 260133003)
*****	FLAT WASHER I/D 4 (SCREW No. J2139101 or 270990001)

MISCELLANEOUS/その他

K2168101	SPACER H. 11. 5
13419723RI	BATTERY CONNECTION
12209532RI	BATTERY HOLDER
13429823RI	POWER SOCKET BLOCK
K2268108	VIBRATION DAMPING FORM F/COVER

ACCESSORIES/標準付属品

*****	MN1500 DURACELL	BATTERY
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NOTE: The below parts is supported as replacement instead of above parts.

注: 上記の部品は、供給しません。補修用部品としては、下記の部品が供給されます。

23485228	12569105 Battery SUM-3S
K6018122	MIDI CABLE 1M (BLACK) OWNER'S MANUAL (ENGLISH/FRENCH/GERMANY/ITALY/JAPANESE)

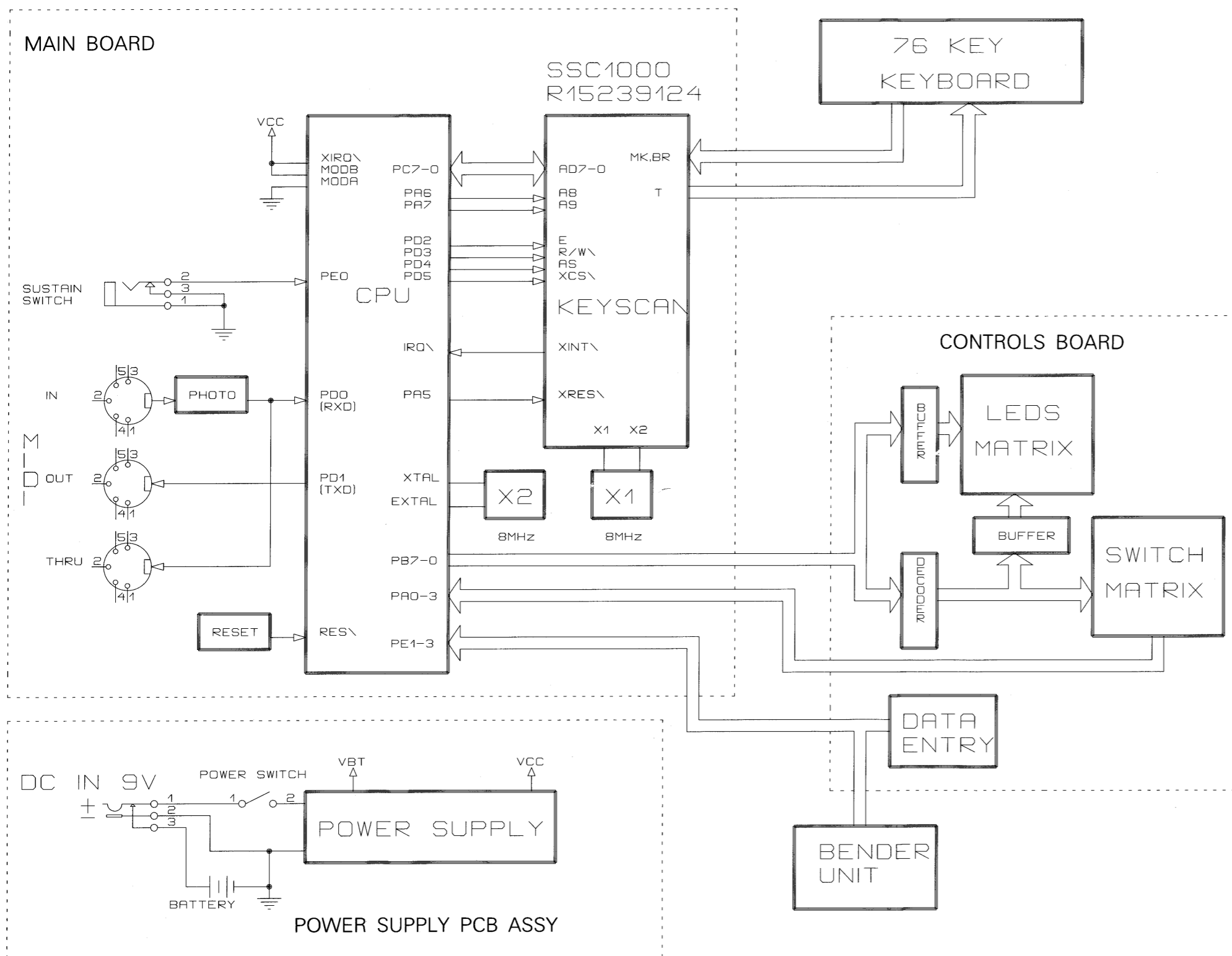
OPTIONS/別売品

*****	ACA-100	AC Adaptor (100V)
*****	ACA-120	AC Adaptor (117V)
*****	ACA-220	AC Adaptor (230V)
*****	ACA-240A	AC Adaptor (240VA)
*****	ACA-240E	AC Adaptor (240VE)

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BLOCK DIAGRAM/ブロック図



RESTORING THE FACTORY PRESETS
/ファクトリー・プリセットのロード方法

1. Switch on your instrument, keeping the [WRITE] pressed.
2. All 32 Factory patched will be restored into your musical device.
3. During the restoring procedure, the LEDs on the panel will blink until the operation is over.
The restoring procedure requires 30 seconds approximately.

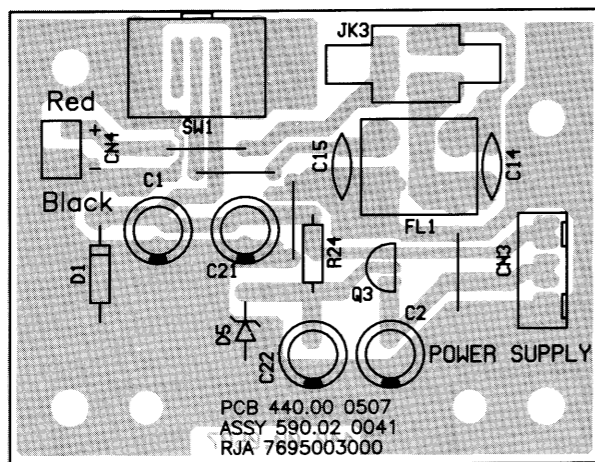
1. [WRITE] を押しながら電源をオンして下さい。
2. 32のすべてのファクトリー・プリセットがロードされます。
3. ロード中、パネル上のLEDは動作が終了するまで点滅します。
ロードは完了までおよそ30秒かかります。

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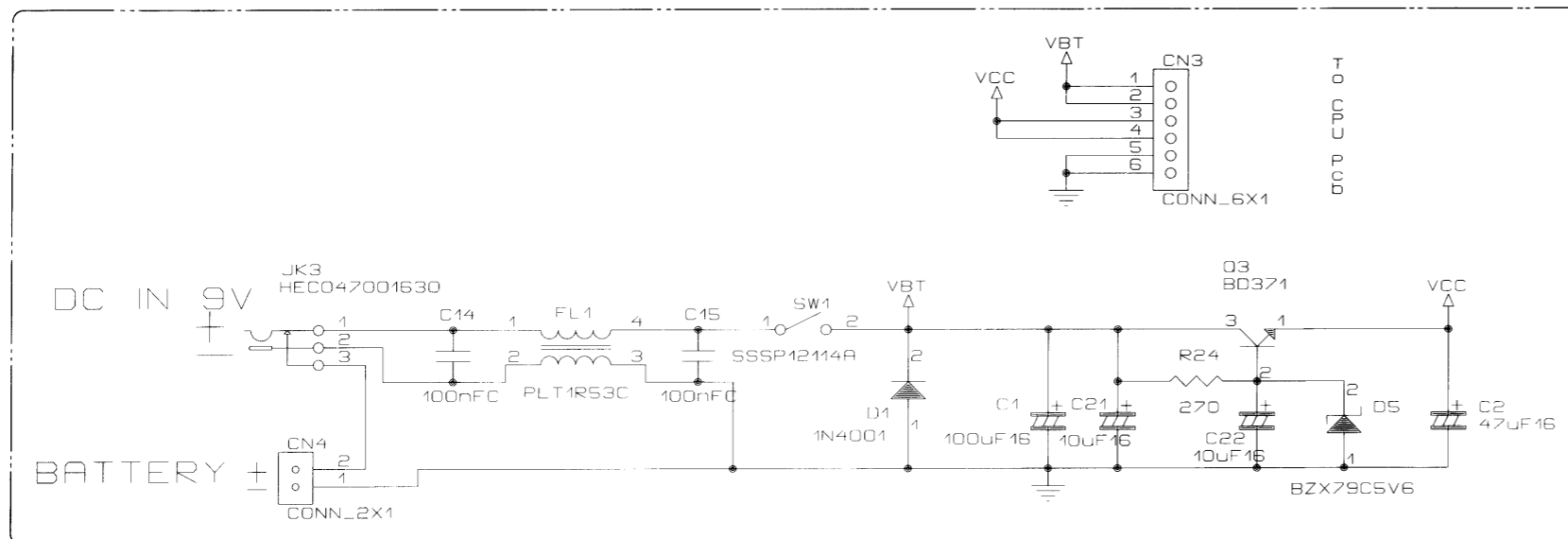
POWER SUPPLY PCB ASS'Y

ASSY 7695002000



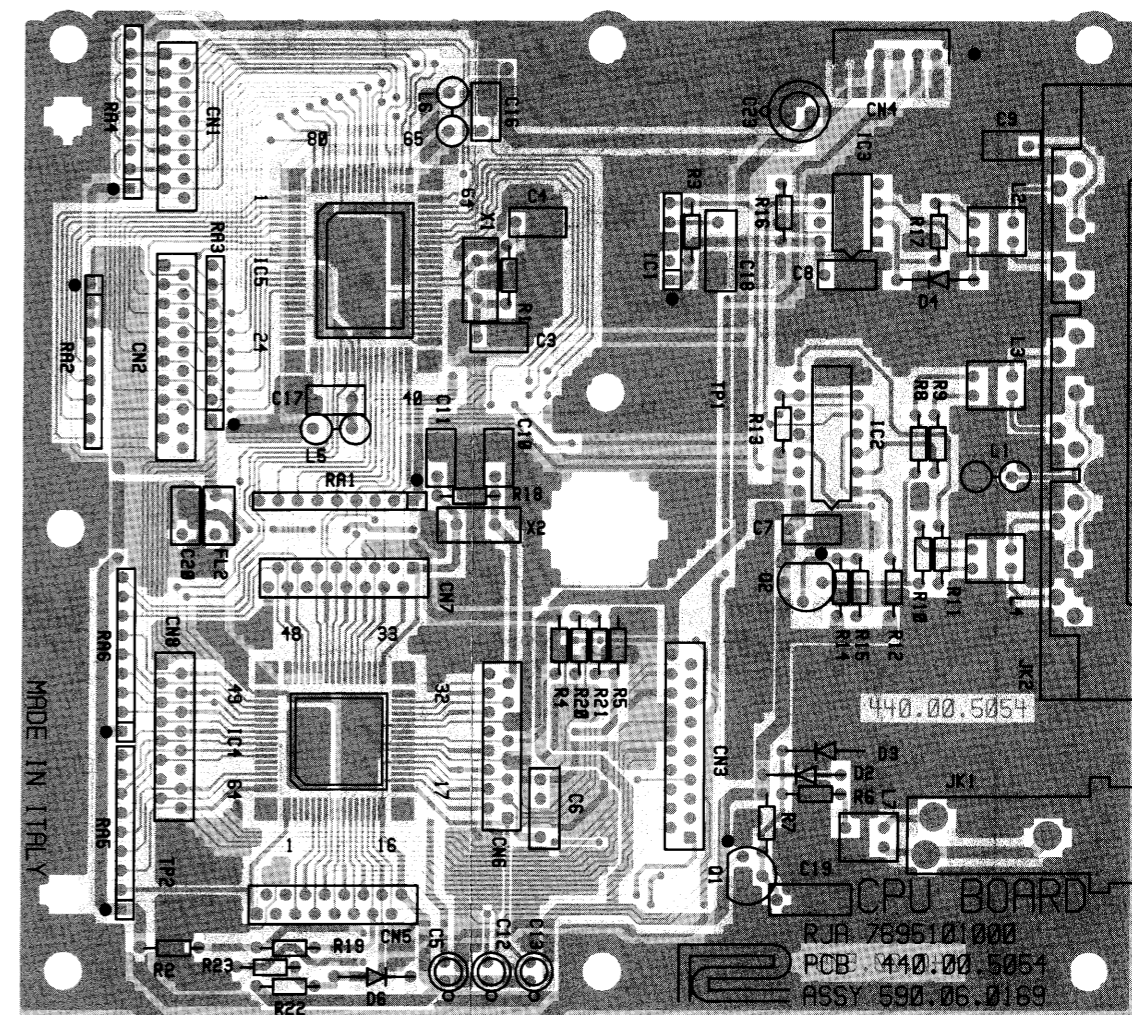
View from component side

POWER SUPPLY PCB ASS'Y



CPU PCB ASS'Y (or CPU BOARD)

ASSY 7695001000

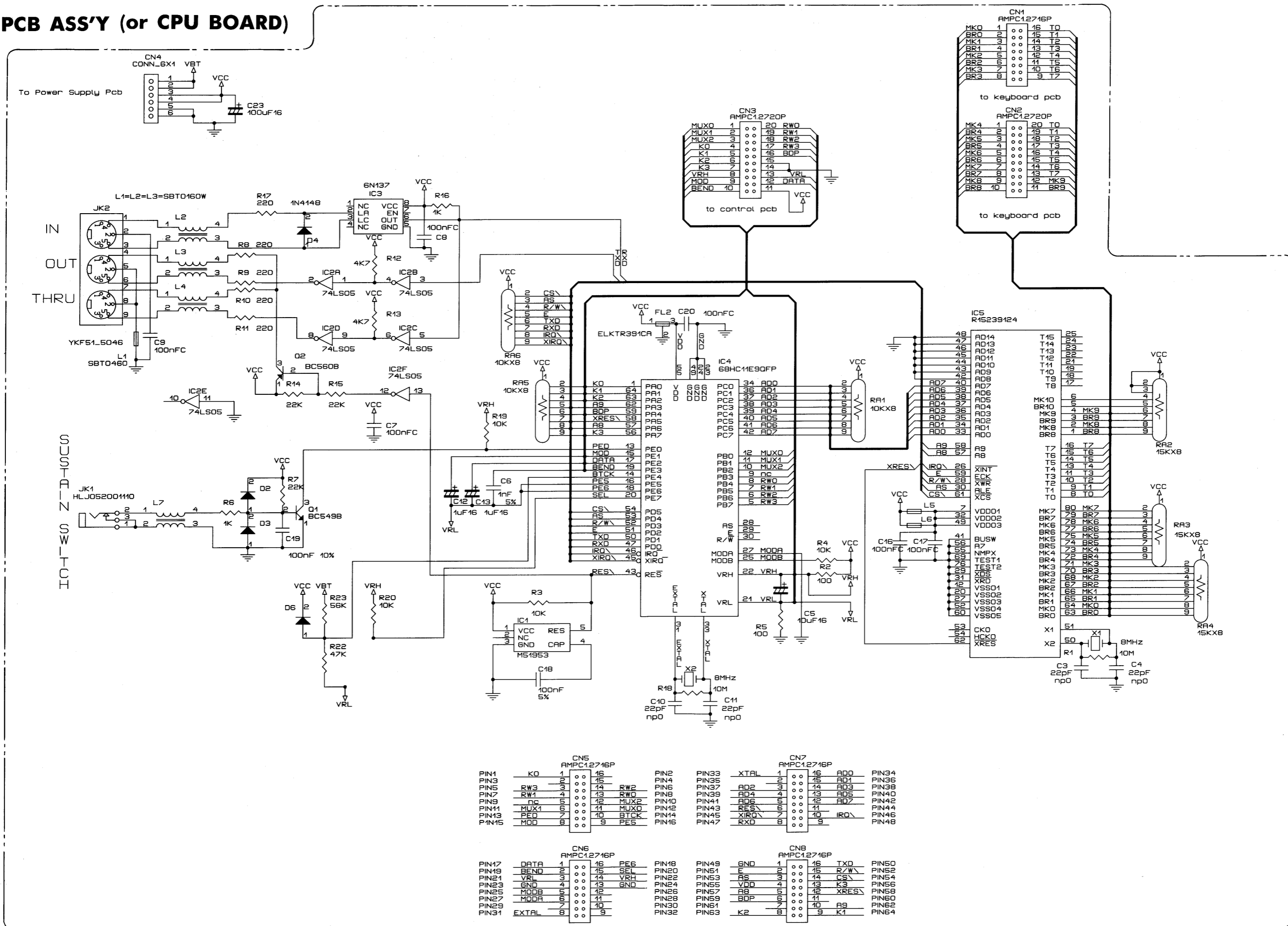


View from component side

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CPU PCB ASS'Y (or CPU BOARD)

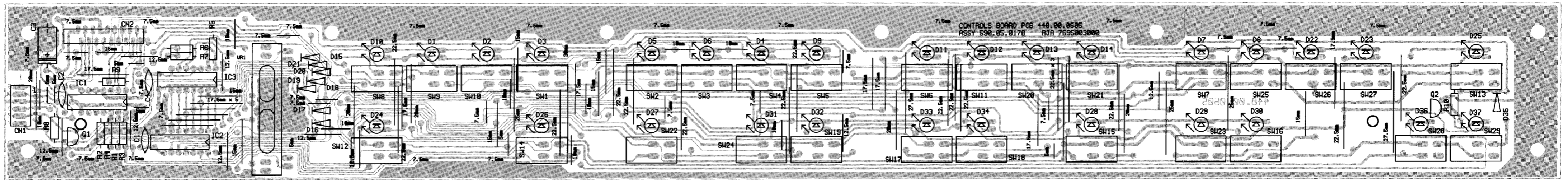


CN5 AMPC1.2716P				CN7 AMPC1.2716P			
PIN1	KO	1	16	PIN2	XTAL	1	16
PIN3		2	15	PIN33		2	15
PIN5	RW3	3	14	PIN35		3	14
PIN7	RW1	4	13	PIN37	AD2	4	13
PIN9	DC	5	12	PIN39	AD4	5	12
PIN11	MUX1	6	11	PIN41	AD6	6	11
PIN13	PE0	7	10	PIN43	RES	7	10
PIN15	MOD	8	9	PIN45	XRES	8	9
CN6 AMPC1.2716P				CN8 AMPC1.2716P			
PIN17	DATA	1	16	PIN18	GND	1	16
PIN19	BEND	2	15	PIN20	F	2	15
PIN21	VRL	3	14	PIN22	AS	3	14
PIN23	GND	4	13	PIN24	VDD	4	13
PIN25	MODB	5	12	PIN26	AB	5	12
PIN27	MODA	6	11	PIN28	BDP	6	11
PIN29		7	10	PIN30		7	10
PIN31	EXTAL	8	9	PIN32	K2	8	9

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CONTROLS PCB ASS'Y (or CONTROLS BOARD) ASSY 7695003000



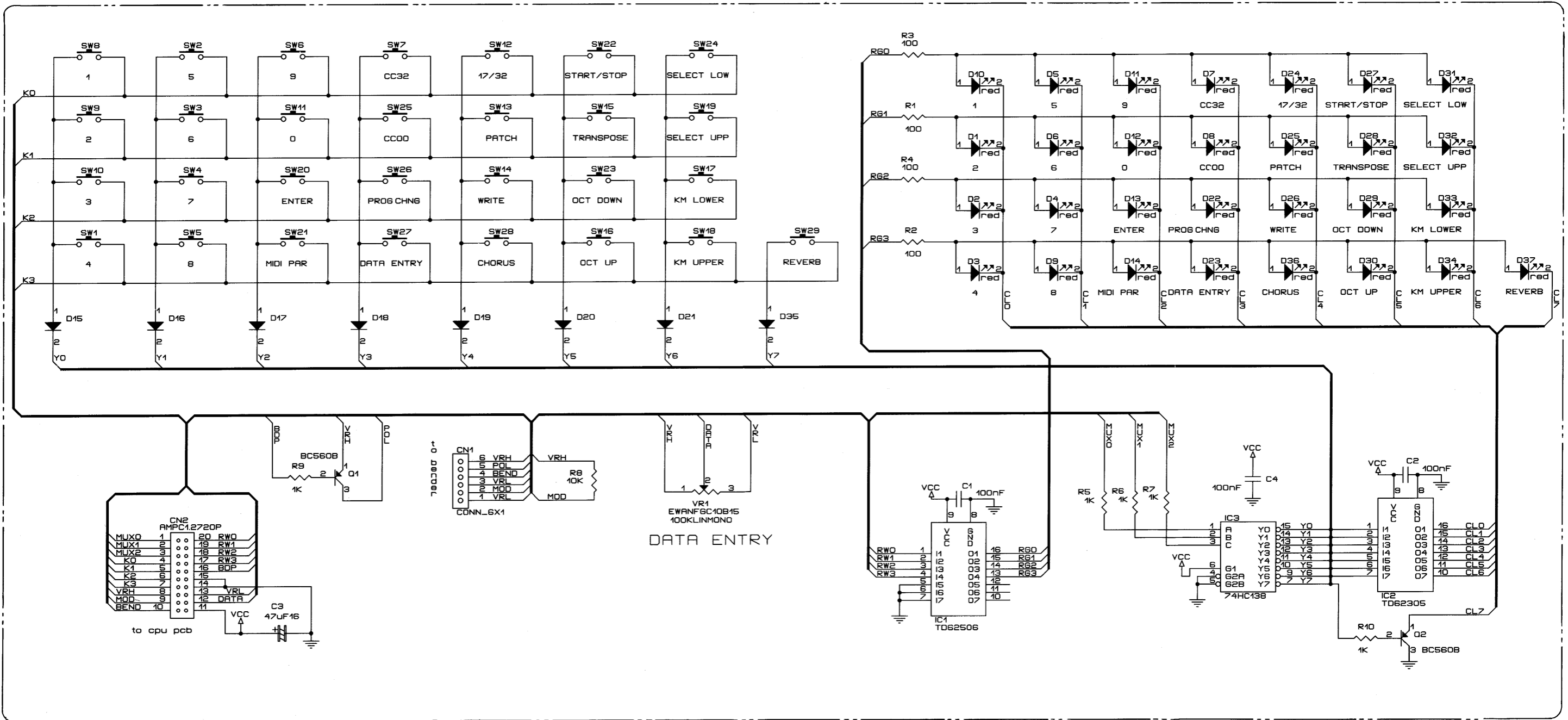
ROLAND 505 SER 18-11-91 DIRITTO

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View from component side

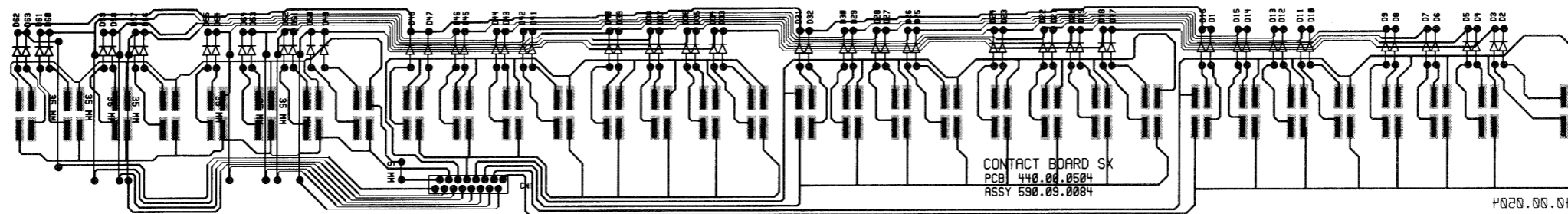
CONTROLS PCB ASS'Y (or CONTROLS BOARD)



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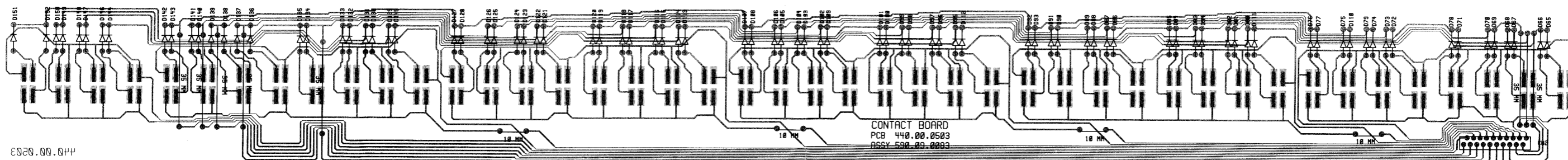
LEFT CONTACT PCB ASS'Y w/RUBBER
(or CONTACT BOARD SX)
ASSY 7695005000



CONTACT BOARD SX
PCB 440.00.0504
ASSY 590.09.0004

PN20.00.0PP
View from component side

RIGHT CONTACT PCB ASS'Y w/RUBBER
(or CONTACT BOARD)
ASSY 7695004000



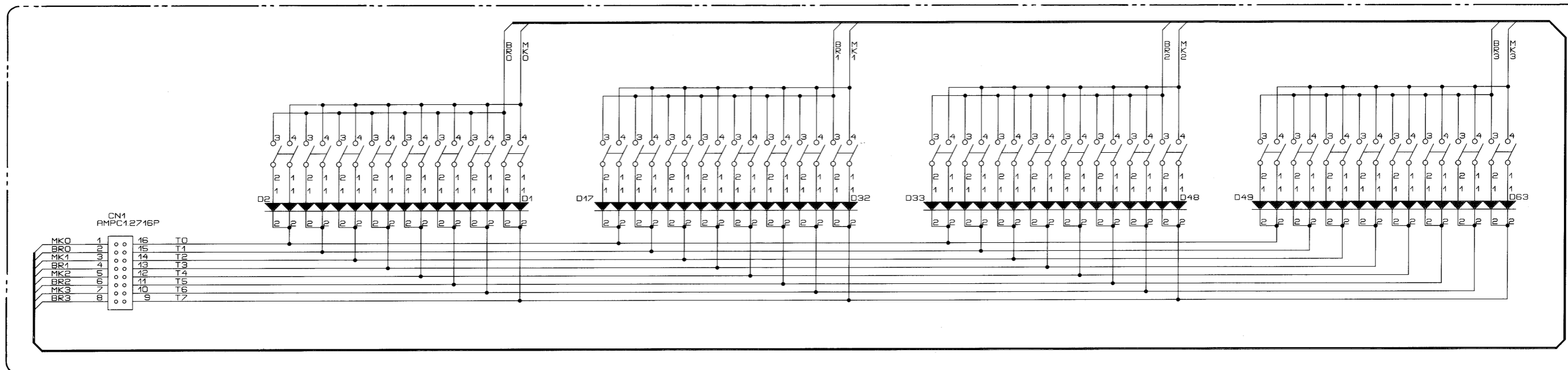
CONTACT BOARD
PCB 440.00.0503
ASSY 590.09.0003

PN20.00.0PP
View from component side

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**LEFT CONTACT PCB ASS'Y w/RUBBER
(or CONTACT BOARD SX)**



**RIGHT CONTACT PCB ASS'Y w/RUBBER
(or CONTACT BOARD)**

