

# Clavinova®

# CVP-835

## SERVICE MANUAL



### ■ CONTENTS

SPECIFICATIONS .....	2
PANEL LAYOUT .....	4
CIRCUIT BOARD LAYOUT .....	6
BLOCK DIAGRAM .....	8
DISASSEMBLY PROCEDURE .....	10
LSI PIN DESCRIPTION .....	18
IC BLOCK DIAGRAM .....	23
CIRCUIT BOARDS .....	25
TEST PROGRAM .....	38
INSPECTIONS .....	40
ERROR MESSAGES .....	40
MIDI DATA FORMAT .....	41
MIDI IMPLEMENTATION CHART .....	45
PARTS LIST	

## IMPORTANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

**WARNING:** Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

**IMPORTANT:** The presentation or sale of this manual to any individual or firm does not constitute authorization, certification, recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

**WARNING:** Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

**IMPORTANT:** Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

## WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

**DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHAT SO EVER!**

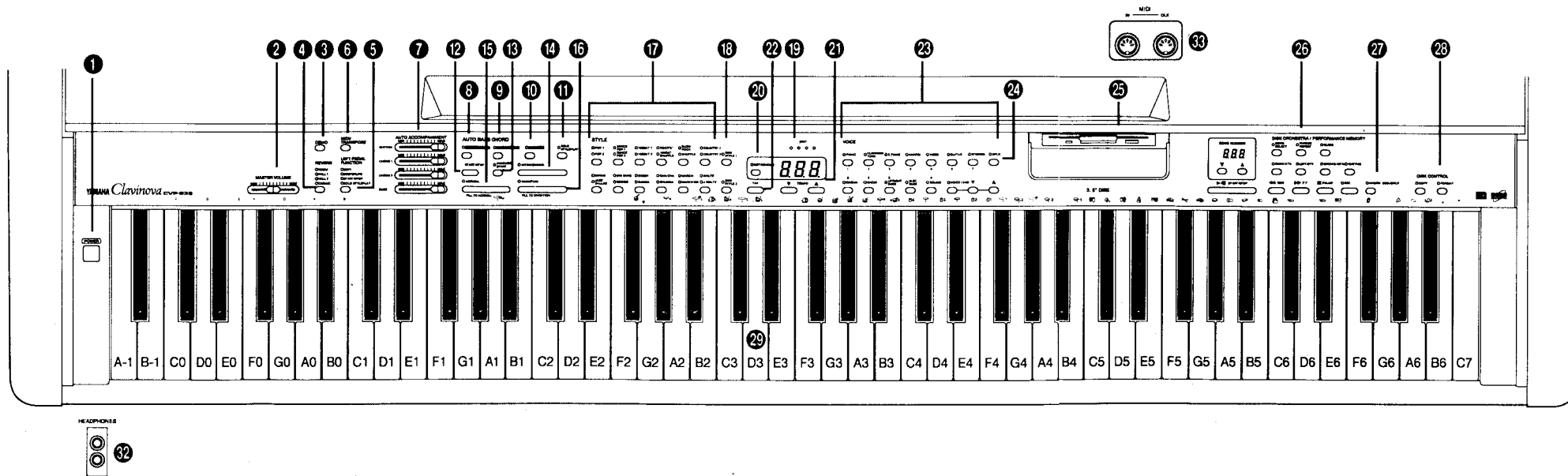
Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

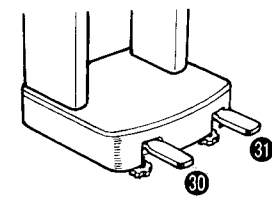
## ■ SPECIFICATIONS

<b>KEYBOARD</b>	88 KEYS (A-1 — C7)	
<b>TONE GENERATOR</b>	AWM (Advanced Wave Memory)	
<b>VOICE SELECTORS &amp; CONTROLS</b>	PIANO, CLAVINOVA TONE, E. PIANO, HARPSI, VIBES, GUITAR, STRINGS, ORGAN, CHOIR, UPRIGHT BASS, ELEC BASS, DRUMS, VOICE 13 - 60, ▲/▼, SPLIT	
<b>AUTO BASS CHORD &amp; CONTROLS</b>	FULL KEYBOARD, SINGLE FINGER, FINGERED, SOLO STYLEPLAY, RHYTHM VOLUME, CHORD 1 VOLUME, CHORD 2 VOLUME, BASS VOLUME	
<b>STYLE SELECTORS &amp; CONTROLS</b>	POP 1/2, DANCE POP 1/2, 16 BEAT 1/2, ROCK'N', 16 BEAT SHUFFLE, SLOW ROCK, SHUFFLE, COUNTRY 1/2, SWING, JAZZ BALLAD, BIG BAND, BOOGIE, BOSSA, SAMBA, CHA-CHA, RHUMBA, MARCH, MARCH 6/8, WALTZ, J. WALTZ, DISK STYLE 1/2 START/STOP, SYNCHRO START, INTRO/ENDING, NORMAL/FILL TO NORMAL, VARIATION/ FILL TO VARIATION, TEMPO ▲/▼, TEMPO Display, BEAT LED, TAP, METRONOME	
<b>DISK STYLE</b>	40 styles	
<b>KEYBOARD PERCUSSION</b>	44 instruments	
<b>REVERB</b>	ROOM, HALL 1, HALL 2, COSMIC	
<b>DISK ORCHESTRA/ PERFORMANCE MEMORY</b>	SONG SELECT, PHRASE REPEAT, GUIDE, RIGHT/1TR, LEFT/2TR, ORCH/3-10TR, RHYTHM, ► START/STOP, ◀◀REW, ▶▶FF,    PAUSE, REC, CHORD SEQUENCE, SONG NUMBER Display	
<b>DISK DRIVE &amp; CONTROLES</b>	3.5" 2DD Micro Floppy Disk Drive. COPY, FORMAT	
<b>PEDAL CONTROLS</b>	RIGHT	DAMPER
	CENTER	—
	LEFT	SOFT (SOSTENUTO, START/STOP, SOLO STYLEPLAY)
<b>OTHER CONTROLS</b>	MASTER VOLUME, MIDI/TRANPOSE, DEMO, POWER	
<b>JACKS &amp; CONNECTORS</b>	HEADPHONES x 2, MIDI IN/OUT	
<b>MAIN AMPLIFIERS</b>	40 W (20 W x 2)	
<b>SPEAKERS</b>	16 cm (6-2/7")x 2,5 cm (2") x2	
<b>DIMENSIONS</b> (W x D x H)	Music stand down	1414 mm x 506 mm x 835 mm (55-5/8" x 20" x 32-7/8")
	Music stand up	1414 mm x 506 mm x 1013 mm (55-5/8" x 20" x 39-7/8")
<b>WEIGHT</b>	54.0 kg (119 lbs.)	

**■ PANEL LAYOUT**



- ① POWER Switch
- ② MASTER VOLUME Control
- ③ [DEMO] Button
- ④ [REVERB] Button
- ⑤ [LEFT PEDAL FUNCTION] Button
- ⑥ [MIDI/TRANPOSE] Button
- ⑦ AUTO ACCOMPANIMENT Volume Controls
- ⑧ AUTO BASS CHORD [FULL KEYBOARD] Button
- ⑨ AUTO BASS CHORD [SINGLE FINGER] Button
- ⑩ AUTO BASS CHORD [FINGERED] Button
- ⑪ [SOLO STYLEPLAY] Button
- ⑫ [START/STOP] Button
- ⑬ [SYNCHRO START] Button
- ⑭ [INTRO/ENDING] Button
- ⑮ [NORMAL/FILL TO NORMAL] Button
- ⑯ [VARIATION/FILL TO VARIATION] Button
- ⑰ STYLE Selectors
- ⑱ [DISK STYLE] Buttons
- ⑲ BEAT Display
- ⑳ [METRONOME] Button
- ㉑ TEMPO Display and [▲] and [▼] Buttons
- ㉒ [TAP] Button
- ㉓ VOICE Selectors
- ㉔ [SPLIT] Button
- ㉕ 3.5" Floppy Disk Drive
- ㉖ DISK ORCHESTRA/PERFORMANCE MEMORY Display and Buttons
- ㉗ [CHORD SEQUENCE] Button
- ㉘ DISK CONTROL Buttons
- ㉙ Keyboard
- ㉚ Soft Pedal
- ㉛ Damper Pedal
- ㉜ HEADPHONES Jacks
- ㉝ MIDI Connectors



**CIRCUIT BOARD LAYOUT**

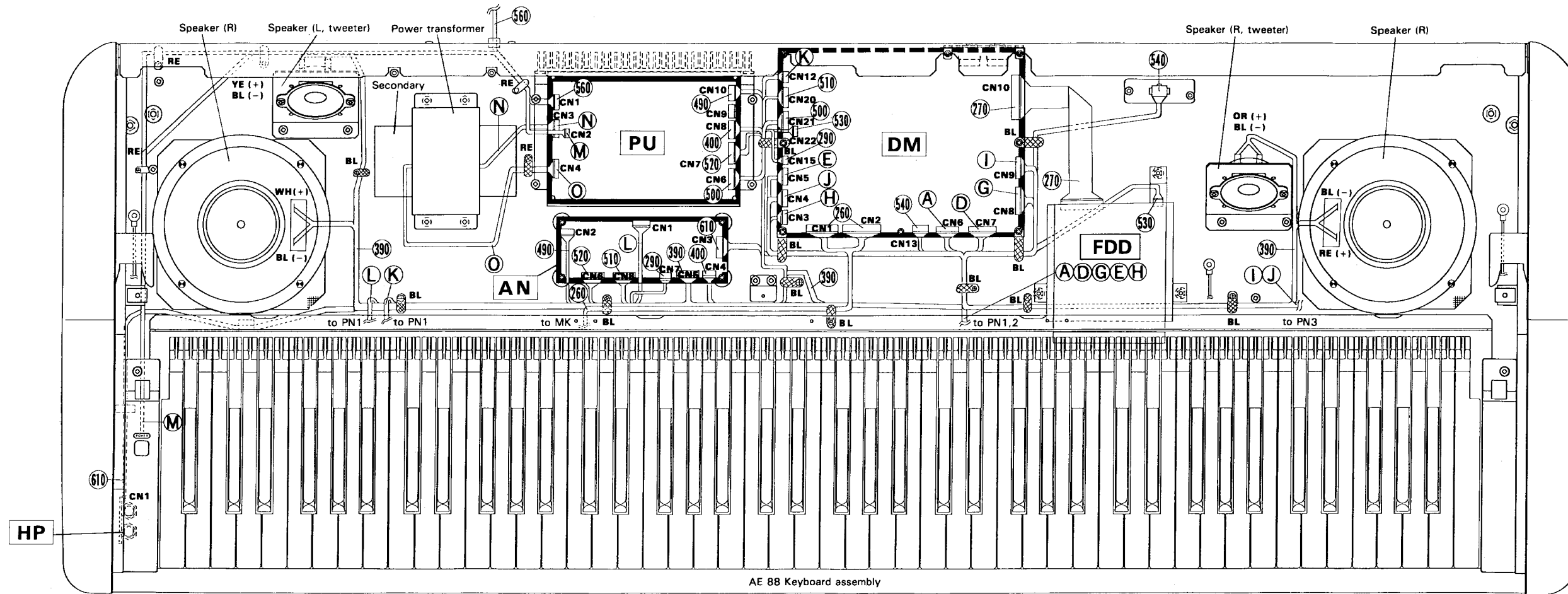
LOCATION	PART No.	PART NAME	DESTINATION
260	VL25440	Connector assembly, MK	MK→DM-CN1,2
270	VK97560	Connector assembly, FDD-SIG	FDD→DM-CN12
290	VQ66820	Connector assembly, MUTE	AN-CN7→DM-CN15
390	VQ66840	Connector assembly, SP	AN-CN5→SP
400	VQ66830	Connector assembly, SP(AN)	PU-CN8→AN-CN4
490	VQ66800	Connector assembly, SIG	PU-CN10→AN-CN2
500	VQ66770	Connector assembly, PS(+5)	PU-CN6→DM-CN21
510	VQ66780	Connector assembly, PS(±15)	PU-CN7→AN-CN6
520	VQ66780	Connector assembly, PS(±15)	AN-CN8→DM-CN20
530	VQ66850	Connector assembly, FDD-PWR	FDD→DM-CN22

LOCATION	PART No.	PART NAME	DESTINATION
540	VR36850	PK cable	Keybad→DM-CN13
560	VQ66920	AC cord assembly : U,C	→PU-CN1
	VQ66930	AC cord assembly : A	
	VQ66950	AC cord assembly : B	
	VQ66940	AC cord assembly : E	
	VQ66900	AC cord assembly : X	
610	VQ66810	Connector assembly, HP	HP-CN1→AN-CN3

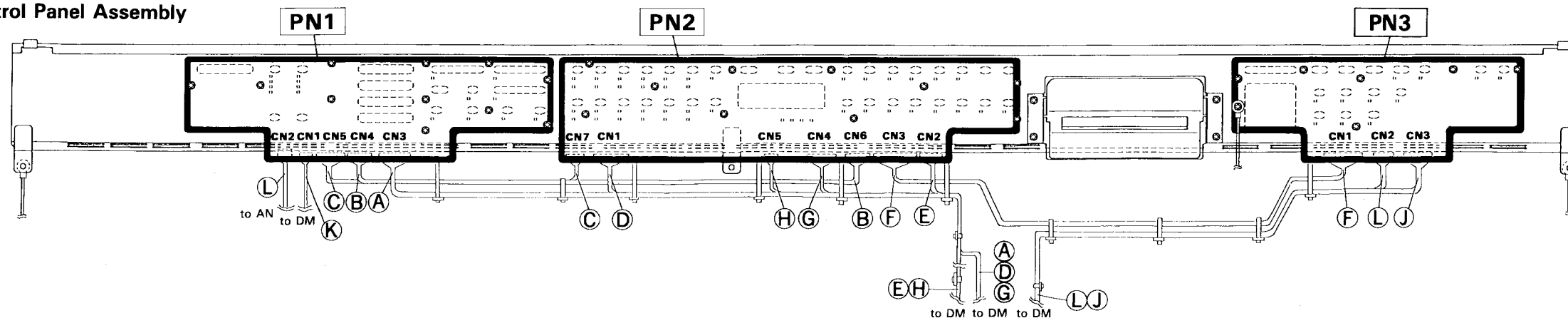
LOCATION	PART No.	PART NAME	DESTINATION
A	VK11550	Connector assembly, KRD-KRD	PN1-CN3→DM-CN6
B	VK11110	Connector assembly, KRD-KRD	PN1-CN4→PN2-CN6
C	VK10420	Connector assembly, KRD-KRD	PN1-CN5→PN2-CN7
D	VK11180	Connector assembly, KRD-KRD	PN2-CN1→DM-CN7
E	VK10980	Connector assembly, KRD-KRD	PN2-CN2→DM-CN5
F	VK11310	Connector assembly, KRD-KRD	PN2-CN3→PN3-CN1
G	VK10900	Connector assembly, KRD-KRD	PN2-CN4→DM-CN8
H	VJ98110	Connector assembly, KRD-KRD	PN2-CN5→DM-CN3

LOCATION	PART No.	PART NAME	DESTINATION
I	VK11670	Connector assembly, KRD-KRD	PN3-CN2→DM-CN9
J	VK12000	Connector assembly, KRD-KRD	PN3-CN3→DM-CN4
K	VQ78840	Connector assembly, VOL1	PN1-CN1→DM-CN12
L	VQ66760	Connector assembly, VOL2	PN1-CN2→AN-CN1
M	VQ78560	Power switch assembly	Power SW→PU-CN2
N		P.T. primary	P.T. primary→PU-CN3
O		P.T. secondary	P.T. secondary→PU-CN4

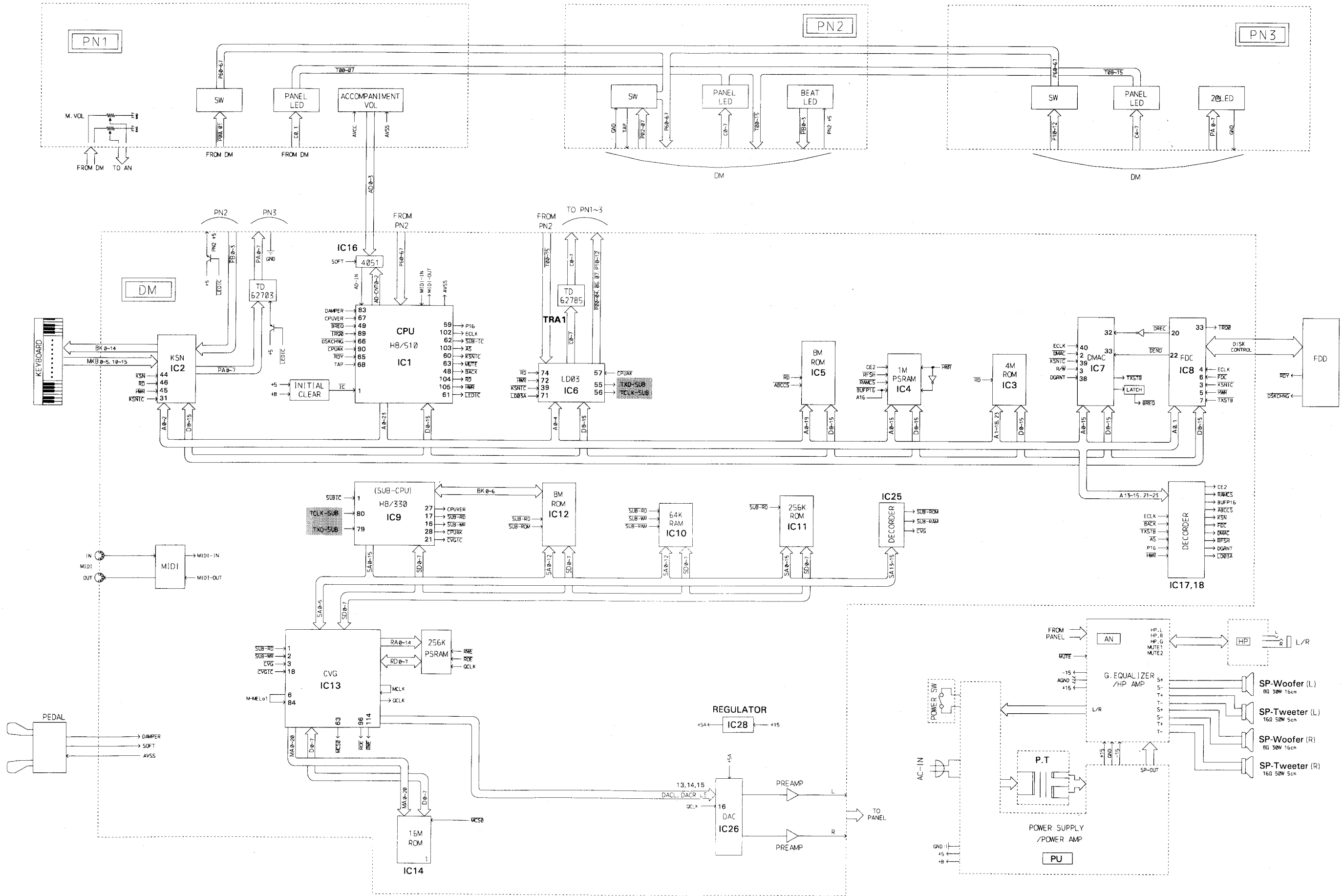
\*The connector assemblies listed above are not prepared as service parts. (except AC cord, power switch, PK cable)



• Control Panel Assembly



BLOCK DIAGRAM



CVP-83S

## DISASSEMBLY PROCEDURE

### 1 Top Board Removal

1-1 Remove the three (3) screws marked [640] in the figure. (Fig. 1)

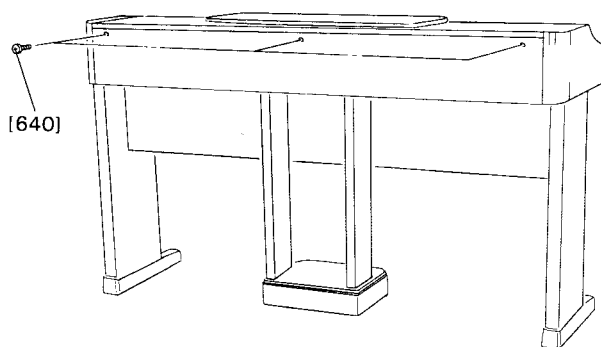
1-2 Slide the top board forward slightly. (Fig. 2)

(Warning) Be careful not slide the top board forward too much, since the back of the top board may fall in and cause damage.

1-3 Pick up the top board by its edge and remove it. (Fig. 3)

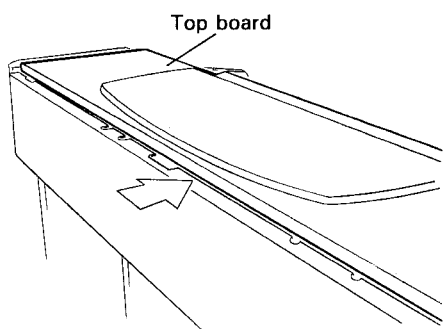
\* This will give you access to the circuit boards as shown in the figure 4.

- (1) DM circuit board
- (2) PU circuit board
- (3) AN circuit board
- (4) Power transformer assembly
- (5) Speakers (woofer)
- (6) Speakers (tweeter)

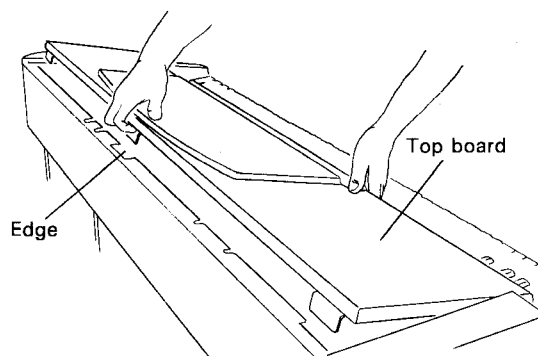


[640] : BIND HEAD SCREW 4.0X8 ZMC2BL(EG340360)

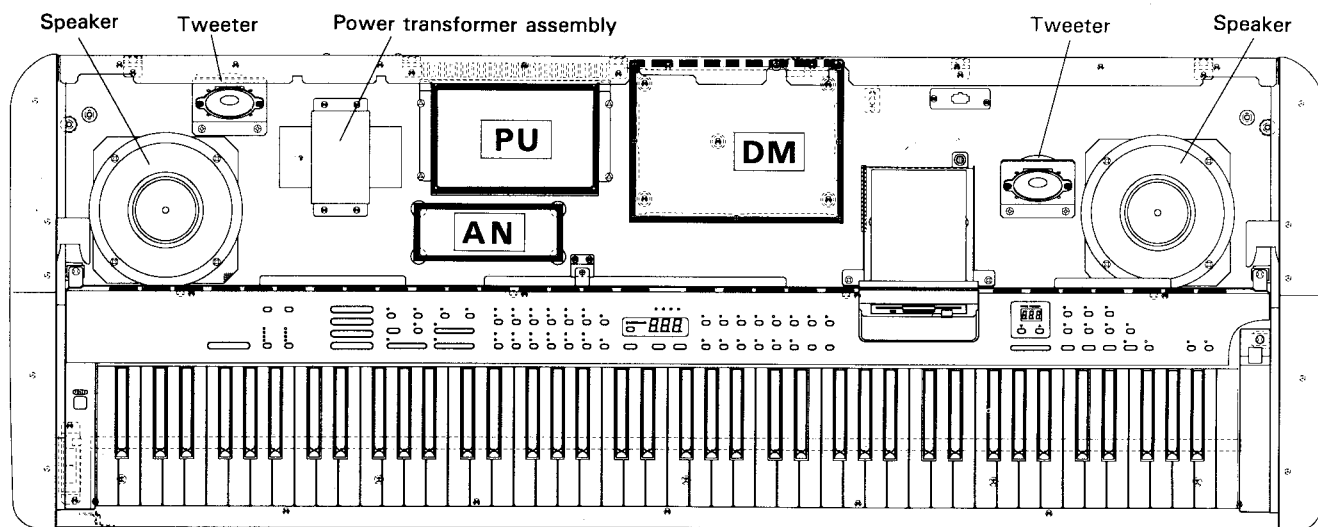
(Fig. 1)



(Fig. 2)



(Fig. 3)



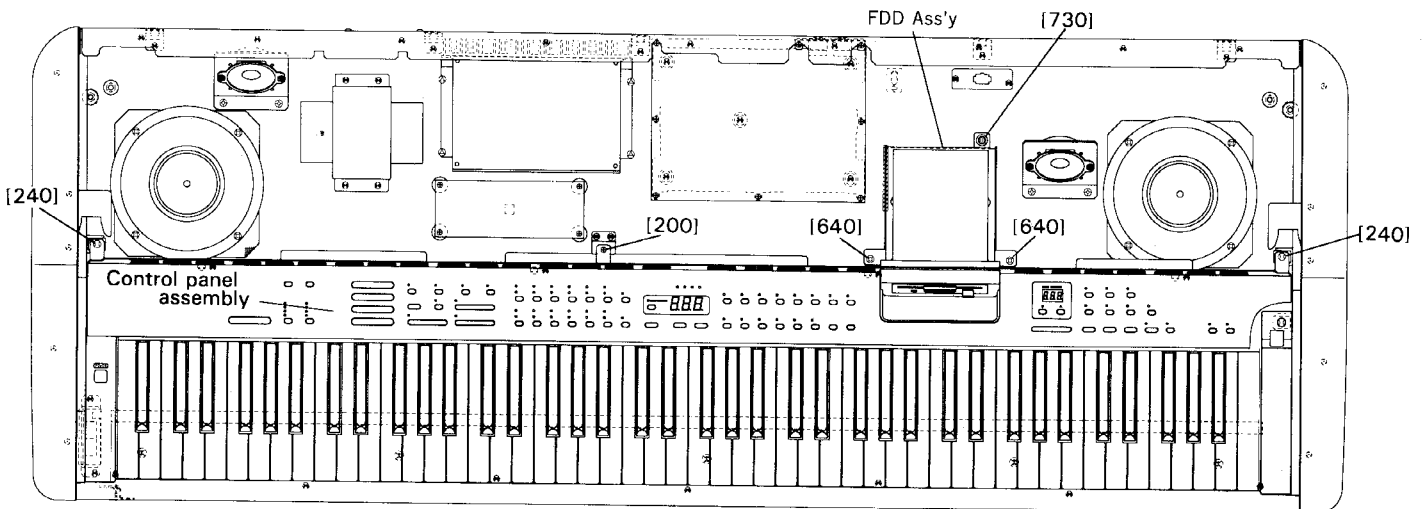
(Fig. 4)

**2 FDD Assembly Removal**

- 2-1 Remove the top board. (see procedure 1)
- 2-2 Remove the screw marked [730] and two (2) screws marked [640], then remove the FDD assembly with FDD holder. (Fig. 5)
- 2-3 Remove the four (4) screws marked [650], then remove the FDD assembly from the FDD holder. (Fig. 6)

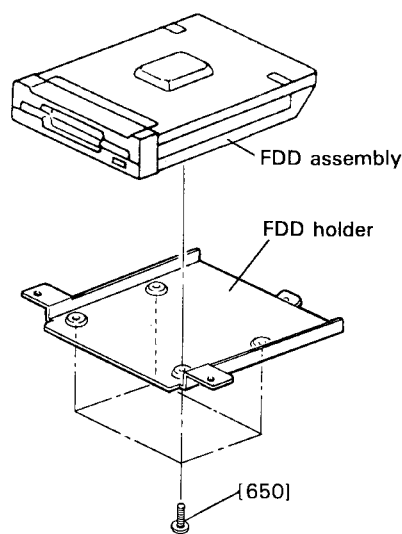
**3 Control Panel Assembly Removal**

- 3-1 Remove the top board. (see procedure 1)
- 3-2 Remove the FDD assembly with FDD holder. (see procedure 2-2)
- 3-3 Remove the screw marked [200] and two (2) screws marked [240], then the control panel assembly can be removed. (Fig. 5)



- [200] : BIND HEAD TAPPING SCREW-C 3.0X8 ZMC2Y(VB268100)
- [240] : BIND HEAD TAPPING SCREW-S 4.0X10 ZMC2BL(VF627200)
- [640] : BIND HEAD SCREW 4.0X8 ZMC2BL (EG340360)
- [730] : BIND HEAD TAPPING SCREW-1 3.5X16 ZMC2Y (EP030190)

(Fig.5)



- [650] : BIND HEAD TAPPING SCREW-C 3.0X6 ZMC2Y(EP630390)

(Fig.6)



#### 4 PN1 Circuit Board Removal

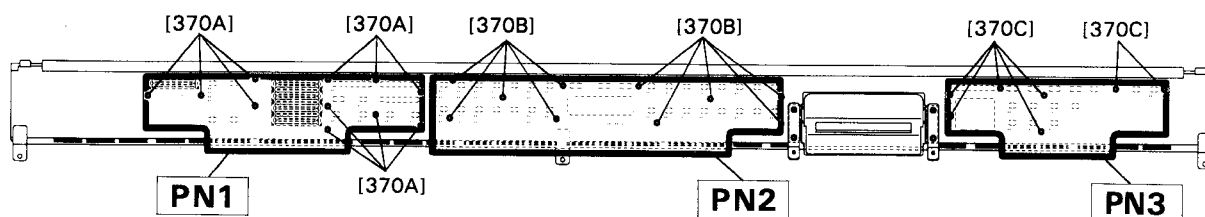
- 4-1 Remove the top board. (see procedure 1)
- 4-2 Remove the control panel assembly. (see procedure 3)
- 4-3 Remove the eleven (11) screws marked [370A], then the PN1 circuit board can be removed. (Fig. 7)

#### 5 PN2 Circuit Board Removal

- 5-1 Remove the top board. (see procedure 1)
- 5-2 Remove the control panel assembly. (see procedure 3)
- 5-3 Remove the ten (10) screws marked [370B], then the PN2 circuit board can be removed. (Fig. 7)

#### 6 PN3 Circuit Board Removal

- 6-1 Remove the top board. (see procedure 1)
- 6-2 Remove the control panel assembly. (see procedure 3)
- 6-3 Remove the seven (7) screws marked [370C], then the PN3 circuit board can be removed. (Fig. 7)

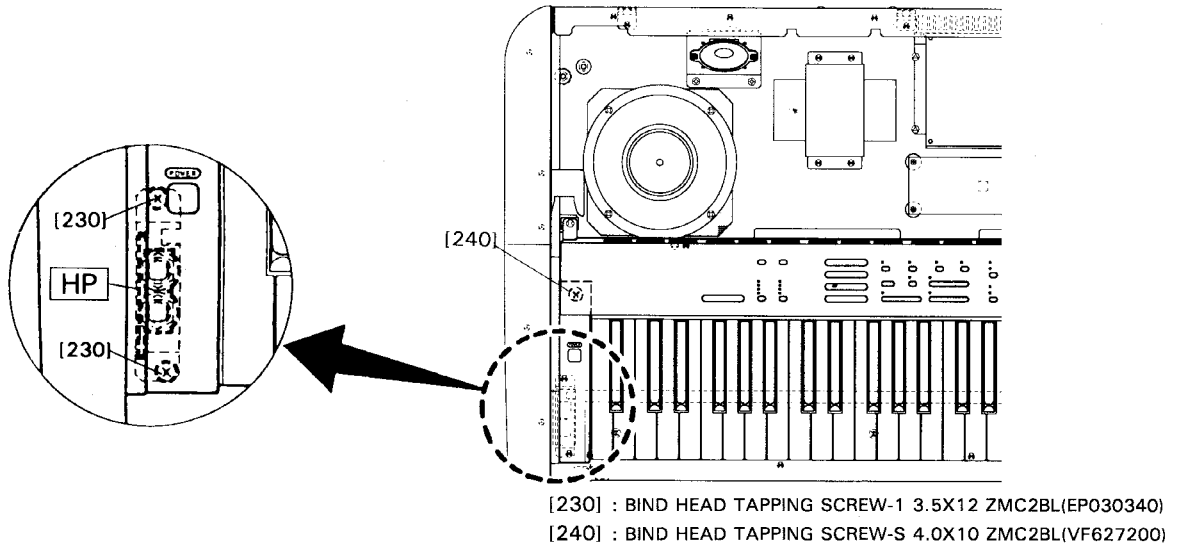


[370] : BIND HEAD TAPPING SCREW-C 3.0X6 ZMC2Y(EP630390)

(Fig.7)

**7 HP Circuit Board Removal**

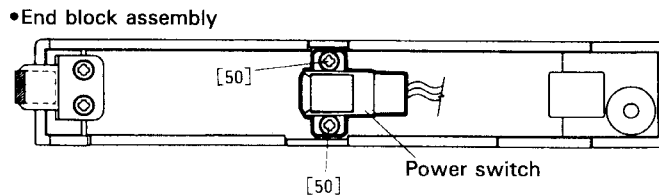
- 7-1 Remove the top board. (see procedure 1)
- 7-2 Remove the control panel assembly. (see procedure 3)
- 7-3 Remove the screw marked [240], then remove the left end block assembly. (Fig. 8)
- 7-4 Remove the two (2) screws marked [230], then the HP circuit board can be removed. (Fig. 8)



(Fig.8)

**8 Power Switch Removal**

- 8-1 Remove the top board. (see procedure 1)
- 8-2 Remove the control panel assembly. (see procedure 3)
- 8-3 Remove the left end block assembly. (see procedure 7-3)
- 8-4 Remove the two (2) screws marked [50], then the power switch can be removed. (Fig.9)

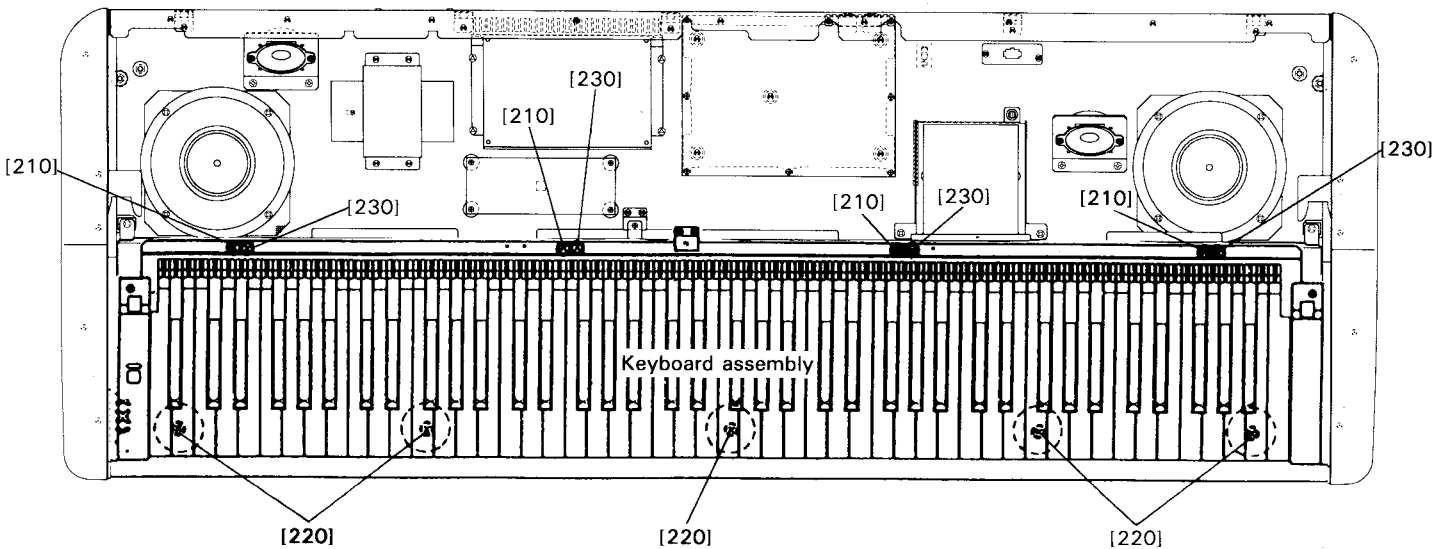


[50] : BIND HEAD TAPPING SCREW-P 3.0X8 ZMC2Y(EP600280)

(Fig.9)

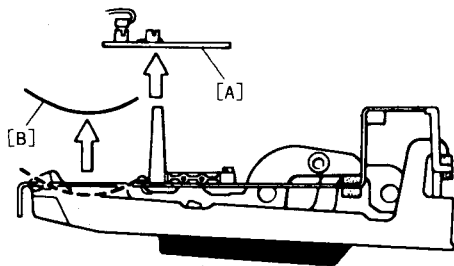
**9 Keyboard Assembly Removal**

- 9-1 Remove the top board. (see procedure 1)
- 9-2 Remove the control panel assembly. (see procedure 3)
- 9-3 Remove the right and left end blocks. (see procedure 7-3)
- 9-4 Remove the five (5) screws marked [220]. These screws are located on the underside of the keybed. (Fig. 10)
- 9-5 Remove the four (4) screws marked [210] and four (4) screws marked [230], then the keyboard assembly can be removed. (Fig. 10)
- 9-6 Remove the circuit board marked [A], and remove the key spring [B]. (Fig. 11)
- 9-7 Press the [D'] part of the white key in the direction shown in the figure, then remove the white key marked [D] and hammer assembly marked [C]. (Fig. 12, 13)
- 9-8 The black keys can be disassembled in the same manner as these steps.

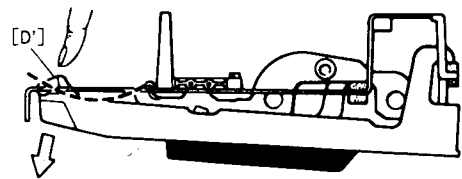


[210] : BIND HEAD SCREW 4.0X14 ZMC2Y(EG340210)  
 [220] : BIND HEAD SCREW 5.0X20 ZMC2BL(VB857600)  
 [230] : BIND HEAD TAPPING SCREW-1 3.5X12 ZMC2BL(EP030340)

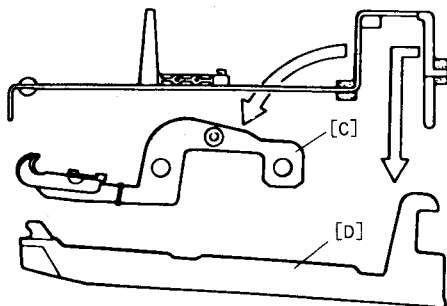
(Fig. 10)



(Fig. 11)



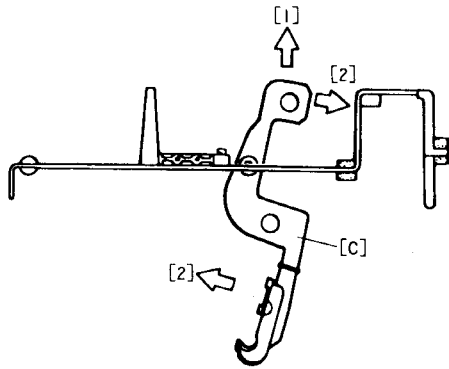
(Fig. 12)



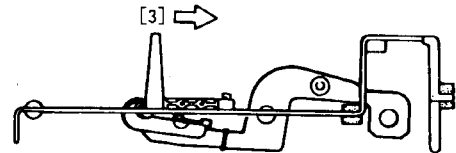
(Fig. 13)

**10 Assembling The Keyboard**

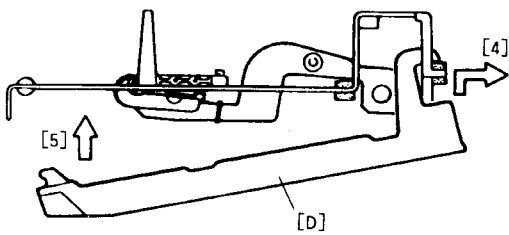
- 10-1 Insert the hammer assembly to the frame. (Fig. 14)
- 10-2 Set the hammer assembly as shown in the figures 14 and 15.
- 10-3 Then set the white key in the order of [4] and [5]. (Fig. 16)
- 10-4 Press the white key in the direction [6] shown in the figure 17.
- 10-5 Attach the key spring and then place the circuit board. (Fig. 18)
- 10-6 The black keys can be assembled in the same manner as these steps.



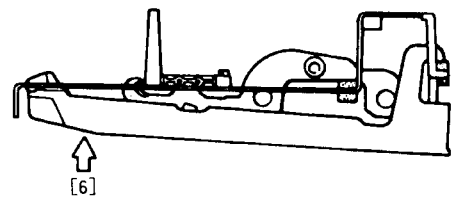
(Fig. 14)



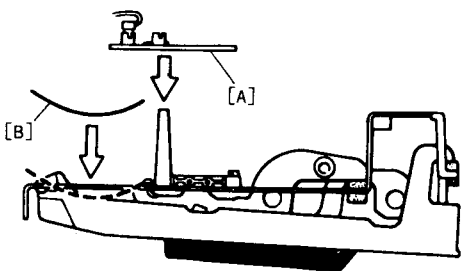
(Fig. 15)



(Fig. 16)



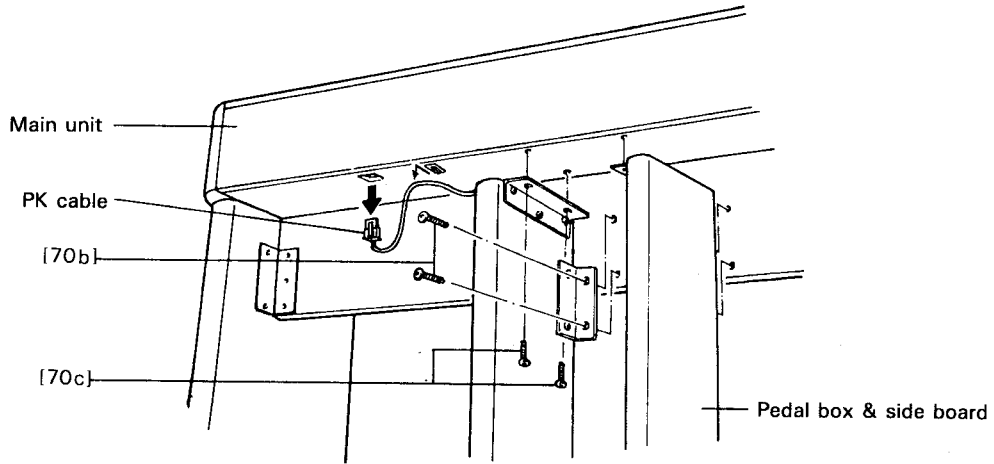
(Fig. 17)



(Fig. 18)

**11 Pedal Assembly Removal**

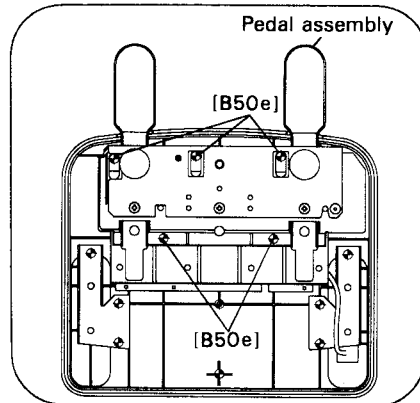
- 11-1 Remove the four (4) screws marked [70c], and disconnect the connector of the PK cable. (Fig.19)
- 11-2 Remove the four (4) screws marked [70b], then remove the pedal box & side board. (Fig.19)
- 11-3 Remove the five (5) screws marked [B50e], then the pedal assembly can be removed. (Fig.20)



[70b] : BIND HEAD SCREW 4.0X12 ZMC2BL(VB132700)  
 [70c] : BIND HEAD SCREW 6.0X14 ZMC2BL(VF682700)

(Fig.19)

**● PEDAL ASSEMBLY**



[B50e] : BIND HEAD TAPPING SCREW-P 4.0X12 ZMC2Y(EP640110)

(Fig.20)

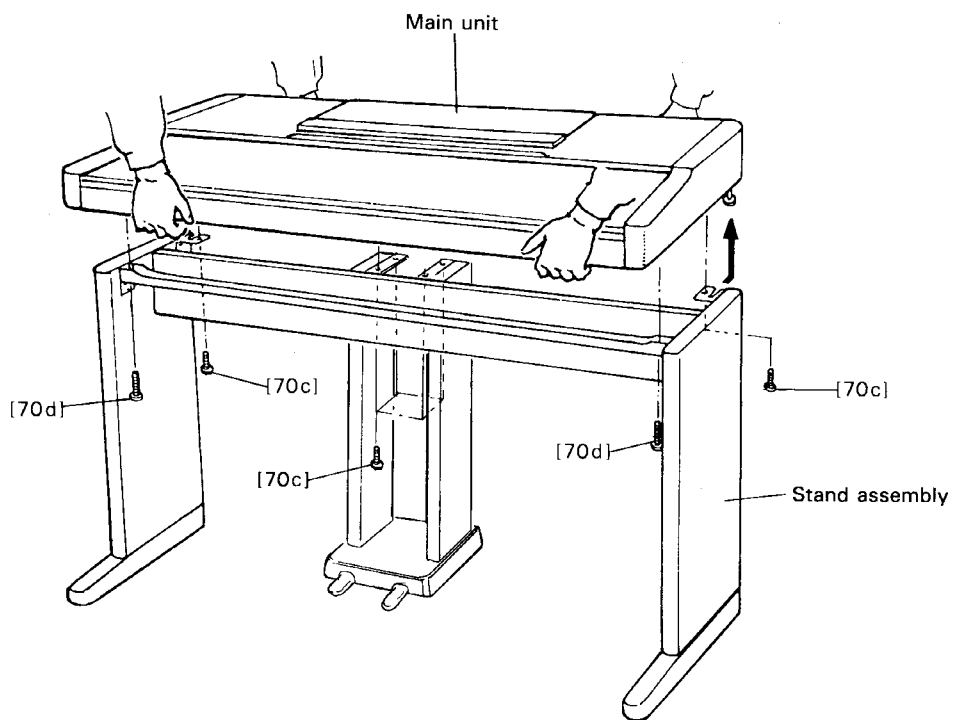
### 12 Main Unit Removal

12-1 Remove the two (2) screws marked [70d] and six (6) screws marked [70c]. (Fig.21)

12-2 Disconnect the connector of the PK cable. (Fig.22)

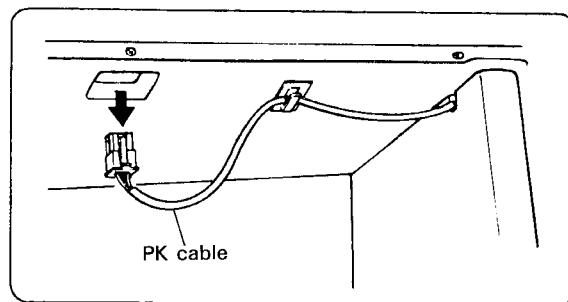
12-3 Lift the unit upward slightly and then slide it toward the back, then raise it to remove. (Fig.21)

CAUTION: CAREFULLY LIFT THE MAIN UNIT UP FROM THE SIDE BOARDS, TAKING CARE NOT TO PINCH YOUR FINGERS.



[70c] : BIND HEAD SCREW 6.0X14 ZMC2BL(VF682700)  
[70d] : BIND HEAD SCREW 6.0X25 ZMC2BL(VB131900)

(Fig.21)



(Fig.22)

## LSI PIN DESCRIPTION

### ● HD6415108F10 <H8/510> (XJ797A00) CPU

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION		
1	RES	I	Reset	57	P41/TMC1	I/O	Port 4		
2	NMI	I	Non-maskable interrupt	58	P42/TMR1	I/O			
3	VSS		Ground	59	P43/TMO	I/O			
4	D0	I/O	Data bus	60	P44/TI1	I/O			
5	D1	I/O			61	P45/TCI1	I/O		
6	D2	I/O			62	P46/TI2	I/O		
7	D3	I/O			63	P47/TCI2	I/O		
8	D4	I/O			64	VSS		Ground	
9	D5	I/O			65	P50/TOA1	I/O		
10	D6	I/O			66	P51/TOB1	I/O	Port 5	
11	D7	I/O			67	P52/TOA2	I/O		
12	D8	I/O			68	P53/TOB2	I/O		
13	D9	I/O			69	P54	I/O		
14	D10	I/O	Ground	70	P55	I/O	Port 6		
15	D11	I/O			71	P56		I/O	
16	D12	I/O			72	P57		I/O	
17	D13	I/O			73	P60		I/O	
18	D14	I/O			74	P61	I/O	Port 6	
19	D15	I/O			75	P62	I/O		
20	VSS			Address bus	76	P63	I/O	Port 6	
21	A0	O				77	P64		I/O
22	A1	O				78	P65		I/O
23	A2	O				79	P66		I/O
24	A3	O			80	P67	I/O	Ground	
25	A4	O			81	VSS			
26	A5	O			82	AVSS		Analog ground	
27	A6	O			83	P70/ANO	I	Analog signal input	
28	A7	O			84	P71/AN1	I		
29	A8	O			85	P72/AN2	I		
30	A9	O	(Ground)	86	P73/AN3	I	Analog power supply		
31	A10	O			87	AVCC			
32	A11	O			88	VCC		Power supply	
33	A12	O			89	P80/IRQ0	I/O	Port 8	
34	A13	O			90	P81/IRQ1	I/O		
35	A14	O			91	P82/SCK1	I/O		
36	A15	O			92	P83/SCK2	I/O		
37	VSS				93	P84/RXD1	I/O	Ground	
38	A16	O			94	P85/TXD1	I/O		
39	A17	O			95	P86/RXD2	I/O		
40	A18	O		96	P87/TXD2	I/O			
41	A19	O		97	VSS		Clock		
42	A20	O		98	EXTAL				
43	A21	O		99	XTAL		Ground		
44	A22	O		100	VSS				
45	A23	O	Ground	101	$\phi$	O	Sync-signal		
46	VSS				102	E	O	Enable	
47	WAT/P30	I/O			103	AS	O	Address strobe	
48	BAK/P31	I/O			104	RD	O	Read control	
49	BRQ/P32	I/O	Port 3	105	HWR	O	H/Write control		
50	P33	I/O			106	LWR	O	L/Write control	
51	P34	I/O			107	RFSH	I	Refresh	
52	P35	I/O			108	VCC		Power supply	
53	P36	I/O	Power supply	109	MD0	I	Mode select		
54	P37	I/O			110	MD1		I	
55	VCC				111	MD2		I	
56	TRQ/P40	I/O		Port 4	112	STBY	I	Stand-by mode signal	

• HD6473308RCP12 (XM510B00) SUB-CPU(H8-330)

Pin No.	Name	I/O	Function	Pin No.	Name	I/O	Function
1	RES	I	Reset	41	P42	I/O	Port 4
2	XTAL	I	Clock	42	P43	I/O	
3	EXTAL	I		43	P44	I/O	
4	MD1	I	Mode select	44	P45	I/O	
5	MDO	I		45	P46	I/O	
6	NMI	I		46	P47	I/O	
7	STBY	I	Non-maskable interrupt stand-by mode signal	47	VCC	I/O	Power supply
8	VCC	I	Power supply	48	A15	I/O	
9	P52	I/O	Port 5	49	A14	I/O	Address bus/Port 2
10	ARXD	I/O	Ground	50	A13	I/O	
11	ATXD	I/O		51	A12	I/O	
12	VSS	I/O		52	A11	I/O	
13	P97	I/O		(Wait)	53	A10	I/O
14	P96	I/O	(Write strobe)	54	A9	I/O	Ground
15	AS	I/O		55	A8	I/O	
16	WR	I/O	(Read strobe)	56	VSS	I/O	Address bus/Port 1
17	RD	I/O	Port 9	57	A7	I/O	
18	P92	I/O		58	A6	I/O	
19	P91	I/O		59	A5	I/O	
20	P90	I/O		60	A4	I/O	
21	P60	I/O	Port 6	61	A3	I/O	Data bus/Port 3
22	P61	I/O		62	A2	I/O	
23	P62	I/O		63	A1	I/O	
24	P63	I/O		64	A0	I/O	
25	P64	I/O	Analog power supply	65	D0	I/O	Ground
26	P65	I/O		66	D1	I/O	
27	P66	I/O		67	D2	I/O	
28	P67	I/O		68	D3	I/O	
29	AVCC	I	Analog input/Part 7	69	D4	I/O	Port 8
30	AN0	I		70	D5	I/O	
31	AN1	I		71	D6	I/O	
32	AN2	I		72	D7	I/O	
33	AN3	I	Analog ground	73	VSS	I/O	Port 8
34	AN4	I		74	P80	I/O	
35	AN5	I		75	P81	I/O	
36	AN6	I		76	P82	I/O	
37	AN7	I	Port 4	77	P83	I/O	
38	AVSS	I		78	P84	I/O	
39	P40	I/O	Port 4	79	P85	I/O	
40	P41	I/O		80	P86	I/O	

• HD68B44RP (XI940A00) DMAC (Direct Memory Access Controller)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	VSS	I	Ground	21	D7	I/O	Data bus
2	CS	I	Chip select	22	D6	I/O	
3	RW	I	Read/Write	23	D5	I/O	
4	A0	I/O	Address bus	24	D4	I/O	
5	A1	I/O		25	D3	I/O	
6	A2	I/O		26	D2	I/O	
7	A3	I/O		27	D1	I/O	
8	A4	I/O		28	D0	I/O	
9	A5	I/O		29	TXRQ3	I	Transmission request
10	A6	I/O		30	TXRQ2	I	
11	A7	I/O		Interrupt request/Data end	31	TXRQ1	I
12	A8	I/O			32	TXRQ0	I
13	A9	I/O		33	IRQ/DENE	O	Transmission stanby
14	A10	I/O	34	TXSTB	O		
15	A11	I/O	35	TXAKA	O	Transmission acknowledge	
16	A12	I/O	36	DRQR	O	Halt request	
17	A13	I/O	37	DRQT	O	Halt request in TSC mode	
18	A14	I/O	38	DGRNT	I	Bus grant	
19	A15	I/O	39	RES	I	Reset	
20	VCC	I	Power supply	40	Ø2DMA	I	System clock

CVP-83S



• YM6633 (XH543A00) KSN (Key Scanner)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION	
1	XIN	I	Clock	33	DB0	I/O	Data bus	
2	XOUT	O		34	DB1	I/O		
3	MK15	I		35	DB2	I/O		
4	MK14	I	Keyboard 2nd make contact	36	DB3	I/O		
5	MK13	I		37	DB4	I/O		
6	MK12	I		38	DB5	I/O		
7	MK11	I		39	DB6	I/O		
8	MK10	I		40	DB7	I/O		
9	MK05	I		Keyboard 1st make contact	41	AD0	I	Address bus
10	MK04	I			42	AD1	I	
11	MK03	I	43		AD2	I		
12	MK02	I	44		CEN	I	Chip select	
13	MK01	I	45		WRN	I	Write control	
14	MK00	I	Keyboard block	46	RDN	I	Read control	
15	B0	O		47	PA0	O	Port A	
16	B1	O		48	PA1	O		
17	B2	O		49	PA2	O		
18	B3	O		50	PA3	O		
19	B4	O		51	PA4	O		
20	B5	O		52	PA5	O		
21	B6	O	53	PA6	O			
22	B7	O	Ground	54	PA7	O		
23	Vss	O		55	TP	I	Ground	
24	B8	O		56	PB0	O	Port B	
25	B9	O	57	PB1	O			
26	B10	O	58	PB2	O			
27	B11	O	59	PB3	O			
28	B12	O	60	PB4	O			
29	B13	O	61	PB5	O			
30	B14	O	62	XCLK	O	Clock for CDO		
31	ICN	I	Initial clear	63	CDO	O	Control data	
32	Vss	I	Ground	64	VDD	O	Power supply	

• HD63266FP (XI939A00) FDC (Floppy Disk Controller)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	8"/5"	I	Data transmission speed	33	TRK0	I	Track 00 signal
2	XTALSET	I	Clock select	34	INDEX	I	Index signal
3	RESET	I	Reset	35	RDATA	I	Read data input from FDD
4	E/RD	I	Enable /Read	36	XTAL2	I	Clock
5	R/W/WR	I	Read /write /Write	37	EXTAL2	I	
6	CS	I	Chip select	38	NC		Clock
7	DACK	I	DMA acknowledge	39	XTAL1	I	
8	RS0	I	Register select	40	EXTAL1	I	
9	RS1	I		41	VSS4		Ground
10	VSS1			42	VSS5		
11	VSS2		Ground	43	NC		Power supply
12	DO	I/O	Data bus	44	VCC2		
13	D1	I/O		45	VCC3		
14	D2	I/O		46	VCC4		
15	D3	I/O		47	WGATE	O	Write control
16	D4	I/O		48	WDATA	O	Write data to FDD
17	D5	I/O		49	VSS6		Ground
18	D6	I/O		50	STEP	O	Step signal to control head of FDD
19	D7	I/O	51	HDIR	O	Direction	
20	DREQ	O	DMA request	52	HLOAD	O	Head load
21	IRQ	O	Interrupt request	53	HSEL	O	Head select
22	DEND	I	Data end	54	VSS7		Ground
23	VSS3		Ground	55	DS0	O	Drive select
24	1/2EX1		Power supply	56	DST	O	
25	VCC1			57	DS2	O	
26	NUM1	I		58	DS3	O	
27	NUM2	I	Host interface select	59	VSS8		Ground
28	IFS	I		60	MON0	O	Motor on
29	SFORM	I		61	MON1	O	
30	INP	I	Format data	62	MON2	O	
31	READY	I	Index pulse	63	MON3	O	
32	WPRT	I	Ready from FDD	64	VSS9		Ground
			Write protected signal				

• LC92018B-500 (X1616A00) LD03

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	P04	O	Parallel port	41	T08	O	Drive (sink)
2	P05	O		42	T09	O	
3	P06	O		43	Vss		
4	P07	O		44	T10	O	Drive (sink)
5	P10	O		45	T11	O	
6	P11	O		46	Vss		
7	P12	O		47	T12	O	Drive (sink)
8	P13	O		48	T13	O	
9	P14	O		49	Vss		
10	P15	O		50	T14	O	Drive (sink)
11	P16	O		51	T15	O	
12	P17	O		52	Vss		
13	Vss			53	XTLI	I	Clock
14	T00	O		54	XTLO	O	
15	T01	O		55	TXD	O	Serial communication interface
16	Vss			56	TCLK	O	
17	T02	O		57	TREQ	I	
18	T03	O	58	D0	I/O		
19	Vss		59	D1	I/O	Data bus	
20	T04	O	60	D2	I/O		
21	T05	O	61	D3	I/O		
22	Vss		62	D4	I/O		
23	T06	O	63	D5	I/O		
24	T07	O	64	D6	I/O		
25	Vss		65	D7	I/O		
26	C0	O	66	A0	I	Address bus	
27	C1	O	67	A1	I		
28	C2	O	68	A2	I		
29	C3	O	69	A3	I		
30	C4	O	70	A4	I		
31	VDD		71	CS	I		Chip select Write
32	C5	O	72	WR	I		
33	C6	O	73	VDD		Read	
34	C7	O	74	RD	I		
35	RXD	I	75	CW	O	I/O expand control	
36	RCLK	I	76	CR	O		
37	FREQ	O	77	P00	O	Parallel port	
38	IRQ	O	78	P01	O		
39	RES	I	79	P02	O		
40	Vss		80	P03	O		

•  $\mu$ PD63200GS (XM145A00) DAC (Digital to Analog Converter)

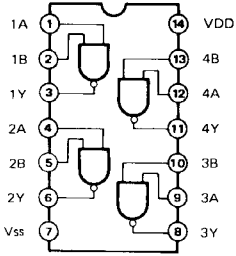
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	4/8F	I	4/8 fs selection	9	R.REF		R-ch voltage reference
2	D.GND		Digital GND	10	L.REF		L-ch voltage reference
3	16 BIT	I	16 bit/18 bit selection	11	L.OUT	O	L-ch output
4	D.VDD		Digital VDD	12	A.GND		Analog GND
5	A.GND		Analog GND	13	LRCK/P2	I	WORD clock
6	R.OUT	O	R-ch output	14	LR/RSI	I	R-ch series input
7	A.VDD		Analog VDD	15	SI/LSI	I	Series input/L-ch series input
8	A.VDD			16	CLK	I	Clock

• YMW265B-F (XK281B00) CVG (Convolution Voice Generator)

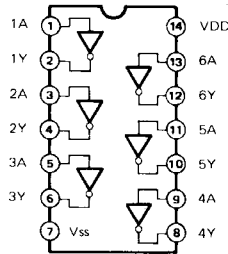
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	RD	I	Read	65	MCS2	O	Wave ROM chip select
2	WR	I	Write	66	MCS3	O	
3	CS	I	Chip select	67	MCS4	O	
4	CDO	O	CD output	68	MCS5	O	
5	MELO0	O	MEL stereo output	69	KONO0	O	Key on & LFO on output
6	MELO1	O					
7	MELO2	O					
8	MELO3	O					
9	MELI1	I	MEL stereo mixing input	70	KONO1	O	NSYS output (8-channel x 4)
10	DACLR	O	DAC L/R output	71	NSO0	O	
11	LE	O	Latch enable	72	NSO1	O	
12	SHL	O	Sample/Hold L channel output	73	NSO2	O	
13	SHR	O	Sample/Hold R channel output	74	NSO3	O	Key on & LFO on input
14	2CHIP	I	2 chips mode (0 = 1 chip, 1 = 2 chips)	75	KONIO	I	
15	S/M	I	Slave/Master select (0 = master, 1 = slave)	76	KONI1	I	NSYS input (8-channel x 4)
16	VDD		Power supply (+5V)	77	NSIO	I	
17	VSS		Ground	78	NSI1	I	
18	IC	I	Initial clear	79	NSI2	I	
19	XTAL	O	Crystal osc.	80	VDD		Power supply (+5V)
20	EXTAL	O	Crystal/Ext. clock	81	VSS		Ground
21	MCLKO	O	12.8MHz osc. output	82	NSI3	I	NSYS input
22	MCLKI	I	12.8MHz master clock input	83	MELIO	I	MEL stereo mixing input
23	HCLKO	O	6.4MHz clock output (NSYS)	84	REVIO	I	MEL reverberation input
24	QCLKO	O	3.2MHz clock output (MEL, LDSP, DAC)	85	REV11	I	
25	SYWI	I	12.8MHz sync. signal input	86	RCS0	O	RAM chip enable
26	SYWO	O	12.8MHz sync. signal output	87	RCS1	O	RAM chip enable
27	SYOD	I	6.4MHz/3.2MHz sync. signal output	88	RD0	I/O	RAM data bus
28	MOE	O	Wave ROM output enable	89	RD1	I/O	
29	MD0	I	Wave ROM data bus	90	RD2	I/O	
30	MD1	I					
31	MD2	I					
32	MD3	I					
33	MD4	I					
34	MD5	I					
35	MD6	I					
36	MD7	I					
37	MA0	O					
38	MA1	O					
39	MA2	O	RAM address bus	91	RD3	I/O	
40	MA3	O					
41	MA4	O					
42	MA5	O					
43	MA6	O					
44	MA7	O					
45	MA8	O					
46	MA9	O					
47	MA10	O					
48	VDD			(Power supply (+5V))	92	RD4	I/O
49	VSS			(Ground)	93	RD5	I/O
50	MA11	O	Wave ROM address bus	94	RD6	I/O	
51	MA12	O	Wave ROM chip select	95	RD7	I/O	
52	MA13	O					
53	MA14	O					
54	MA15	O					
55	MA16	O					
56	MA17	O					
57	MA18	O					
58	MA19	O					
59	MA20	O					
60	MA21	O					
61	MA22	O					
62	MA23	O					
63	MCS0	O					
64	MCS1	O					
				96	ROE	O	RAM output enable
				97	RA0	O	RAM address bus
				98	RA1	O	
				99	RA2	O	
				100	RA3	O	
				101	RA4	O	
				102	RA5	O	
				103	RA6	O	
				104	RA7	O	
				105	RA8	O	
				106	RA9	O	
				107	RA10	O	
				108	RA11	O	
				109	RA12	O	
				110	RA13	O	
				111	RA14	O	
				112	VDD		Power supply (+5V)
				113	VSS		Ground
				114	RWE	O	RAM write enable
				115	D0	I/O	Register data bus
				116	D1	I/O	
				117	D2	I/O	
				118	D3	I/O	
				119	D4	I/O	
				120	D5	I/O	
				121	D6	I/O	
				122	D7	I/O	
				123	A0	I	Register address bus
				124	A1	I	
				125	A2	I	
				126	A3	I	
				127	A4	I	
				128	A5	I	

# IC BLOCK DIAGRAM

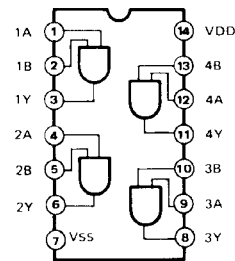
- **SN74HC00NSR** (XE165A00)  
Quad 2 Input NAND



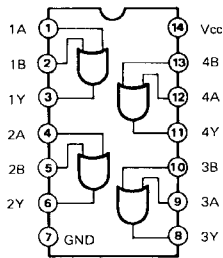
- **SN74HC04NSR** (XD830A00)  
Hex Inverter



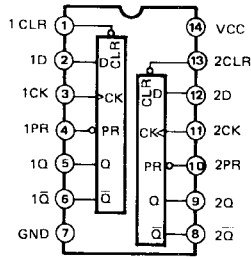
- **SN74HC08NSR** (XD831A00)  
Quad 2 Input AND



- **SN74HC32NSR** (XD833A00)  
Quad 2 Input OR

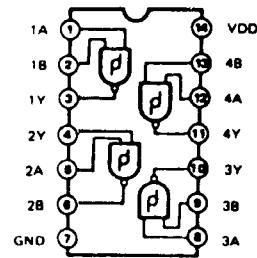


- **SN74HC74NSR** (XC726A00)  
Dual D-Type Flip-Flop

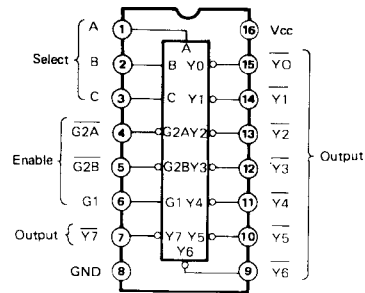


INPUTS				OUTPUTS	
PR	CLR	CLK	D	Q	Q̄
L	H	X	X	H	L
H	L	X	X	L	H
L	L	X	X	H	H
H	H	↑	H	H	L
H	H	↑	L	L	H
H	H	L	X	Q <sub>o</sub>	Q̄ <sub>o</sub>

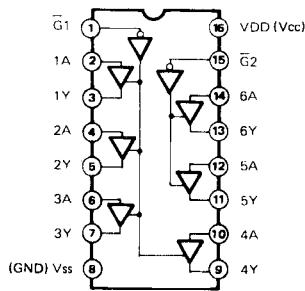
- **SN74HC132NS-R** (XL112A00)  
Quad 2 Input NAND



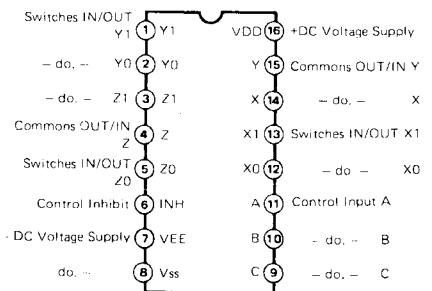
- **SN74HC138NSR** (XD835A00)  
3 to 8 Demultiplexer



- **SN74HC367NSR** (XD840A00)  
Hex 3-State Bus Buffer

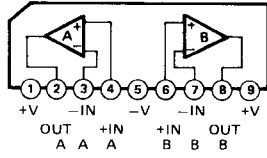


- **TC74HC4051AF** (XJ623A00)  
Triple 2-Ch.  
Multiplexer/Demultiplexer

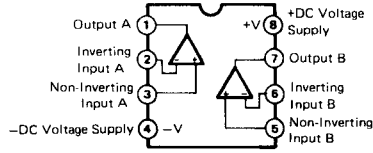


CVP-83S

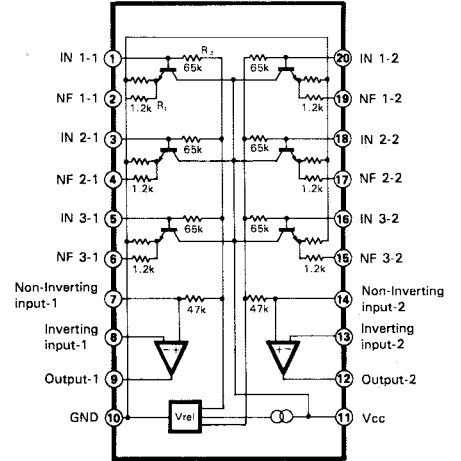
- **μPC4570HA(XB247A00)**  
Dual Operational Amplifier



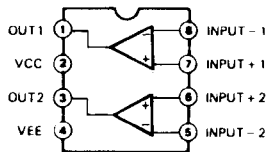
- **μPC4570G2(XF291A00)**  
Dual Operational Amplifier



- **M5243P12 (XH897A00)**  
Graphic Equalizer



- **LA6517(XM804A00)**  
Dual Operational Amplifier



# CIRCUIT BOARDS

Notes)

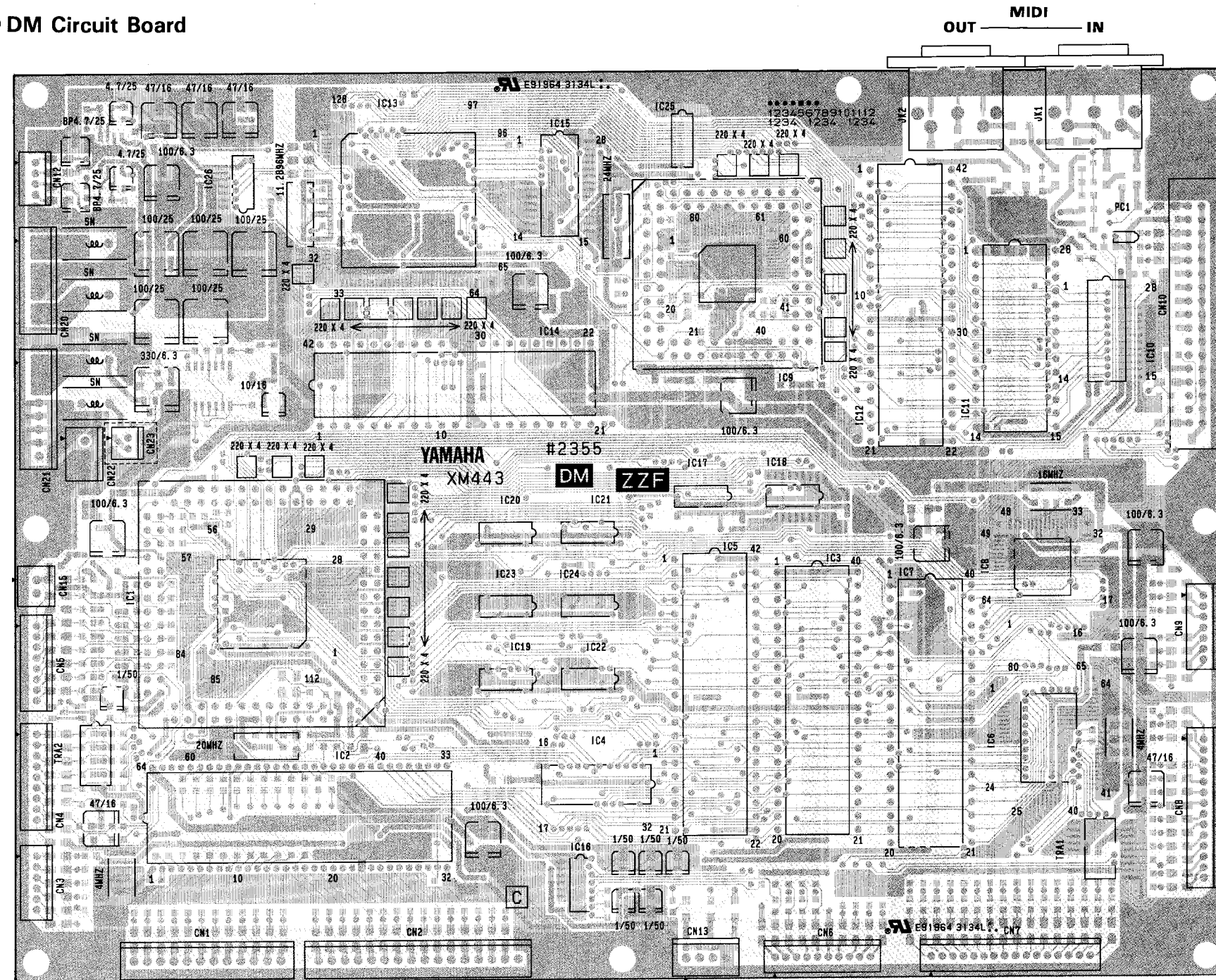
- Circuit Board : DM (VQ219700) XM443C0
1. IC
    - IC 1: HD6415108F10 H8/510 (XJ797A00) CPU
    - IC 2: YM6633 (XH543A00) KSN
    - IC 3: (XM453B00) EPROM 4M MAIN
    - IC 4: TC518128BFL-80 (XK832B00) PSRAM 1M
    - IC 5: ABC/RHYTHM (XM506B00) EPROM 8M-8BIT
    - IC 6: LC92018B-500 (XI616A00) LD03
    - IC 7: HD68B44RP (XI940A00) DMAC
    - IC 8: HD63266F (XI939A00) FDC
    - IC 9: (XM510B00) SUB-CPU,OTP H8/330
    - IC10: HY6264ALJ-10 (XK929A00) SRAM 64K
    - IC11: WAVE-DEBUG (XM507B00) EPROM 256K
    - IC12: PARAMETER 8M (XM508100) 8M PARAMETER
    - IC13: YMW265B-F (XK281B00) CVG
    - IC14: HN624116PZ40 (XM509100) ROM
    - IC15: HM65256BLFP-10T (XIO20A00) PSRAM 256K or TC51832AFL-10 (XM049A00) PSRAM 256K
    - IC16: TC74HC4051AF (XJ623A00) MULTIPLEX
    - IC17,18,25: SN74HC138NSR (XD835A00) DECODER
    - IC19: SN74HC00NSR (XE165A00) NAND
    - IC20: SN74HC32NSR (XD833A00) OR
    - IC21: SN74HC08NSR (XD831A00) AND
    - IC22: SN74HC04NSR (XD830A00) INVERTER
    - IC23: SN74HC74NSR (XC726A00) DFF
    - IC24: SN74HC367NSR (XD840A00) BUFFER
    - IC26: UPD63200GS (XM145A00) DAC
    - IC27: UPC4570G2 (XF291A00) OP AMP
    - IC28: NJM78L05UA (XJ598A00) REGULATOR +5V
    - IC29: SN74HC132NS-R (XL112A00) NAND
  2. DIN JACK
    - JK 1: 5P YKF51-50 (VB312500) MIDI IN
    - JK 2: 5P YKF51-50 (VB312500) MIDI OUT
  3. BASE POST CONNECTOR
    - CN 1: XH-12P TE (LB918120) to MK
    - CN 2: XH-16P TE (LB918160) to MK
    - CN 3: PH-6P TE (VB390200) to PN2-CN 5
    - CN 4: PH-9P TE (VB390500) to PN3-CN 3
    - CN 5: PH-8P TE (VB390400) to PN2-CN 2
    - CN 6: PH-10P TE (VB390600) to PN1-CN 3
    - CN 7: PH-16P TE (VF283400) to PN2-CN 1
    - CN 8: PH-14P TE (VE352600) to PN2-CN 4
    - CN 9: PH-7P TE (VB390300) to PN3-CN 2
    - CN12: PH-4P TE (VB390000) to PN1-CN 1
    - CN13: XH-4P TE (LB918040) to PEDAL(PK cable)
    - CN15: XH-2P TE (LB918020) to AN-CN 7
    - CN20: XH-7P TE (LB918070) to AN-CN 8
    - CN21: XH-8P TE (LB918080) to PU-CN 6
    - CN22: XH-3P TE (LB918030) to FDD
  4. CONNECTOR
    - CN10: 34P TE (VQ391300) to FDD
  5. QUARTZ CRYSTAL UNIT
    - 11.2896MHz: 11.2896M SMD-49 (VP864800)
    - 20MHz: 20.0M SMD-49 (VQ274700)
    - 24MHz: 24.0M SMD-49 (VQ274800)
  6. CERAMIC RESONATOR
    - 4MHz: 4M CSTCS4.00M (VQ275000)
    - 16MHz: 16M CSACS16.00M (VQ274900)
  7. TRANSISTOR
    - TR 1,2: 2SC2412K T147 S (VN416200)
    - TR 3: 2SA1162 O,Y (VJ927200) or 2SA1052 B,C (VQ395600)
    - TR 4-6: 2SC2712 Y (VJ927100) or 2SC2462LCTR C (VQ395500)
  8. TRANSISTOR ARRAY
    - TRA 1,2: TD62785F SOURCE (VQ202400)
  9. PHOTO COUPLER
    - PC 1: PC410T (VN686000)
  10. DIODE
    - D 1-3: MA221 (VB493900) or RLS-73 (VB797600)
  11. CHIP INDUCTANCE
    - FB 2: MMZ2012Y601125 (VQ562500) or BK2125HM601-T (VQ724900)
    - FB 3: BLM32A06PT (VJ928500)
    - FL: NWL2520-560J (VQ464300)
    - SN: 5.0U SF-M0520 T (VQ332000) or 10U SN-S3M1010T (VQ332100)
  12. RESISTOR ARRAY
    - 220x4: EXB-V8V221JV (VP105000)

● Jumper wire

J1	J2	J3	J4	J5	J8	J9	J10	J11	J12
×	○	○	×	×	○	×	×	×	×

○: installed X: not installed

● DM Circuit Board



OUT — MIDI — IN

not installed

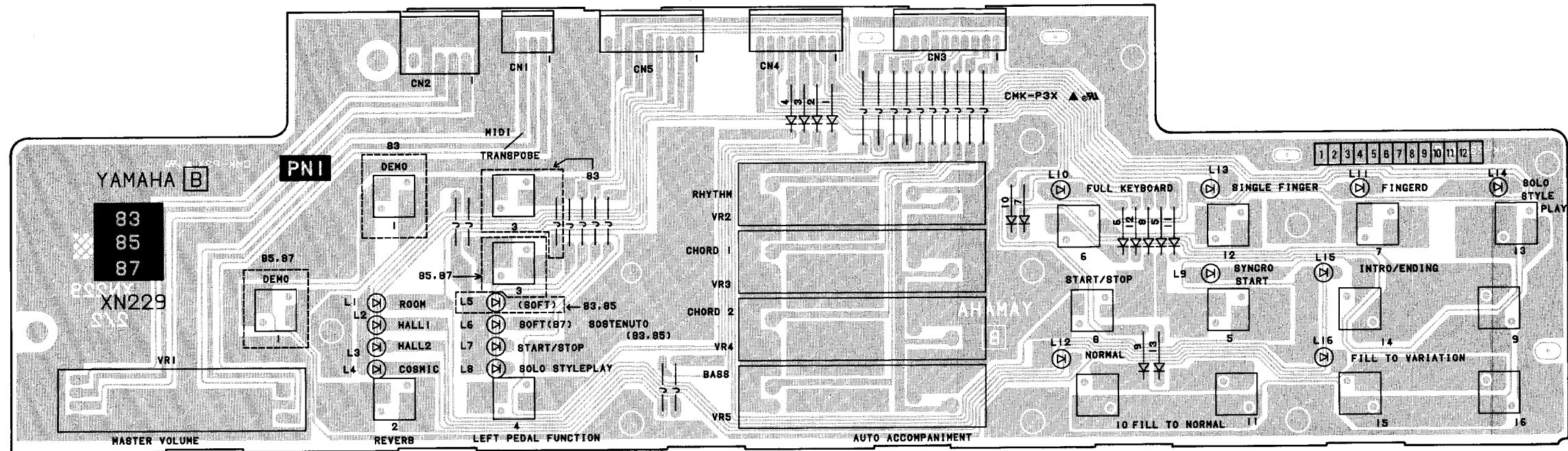
Components side







● PN1 Circuit Board

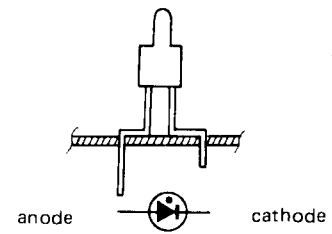


Pattern side

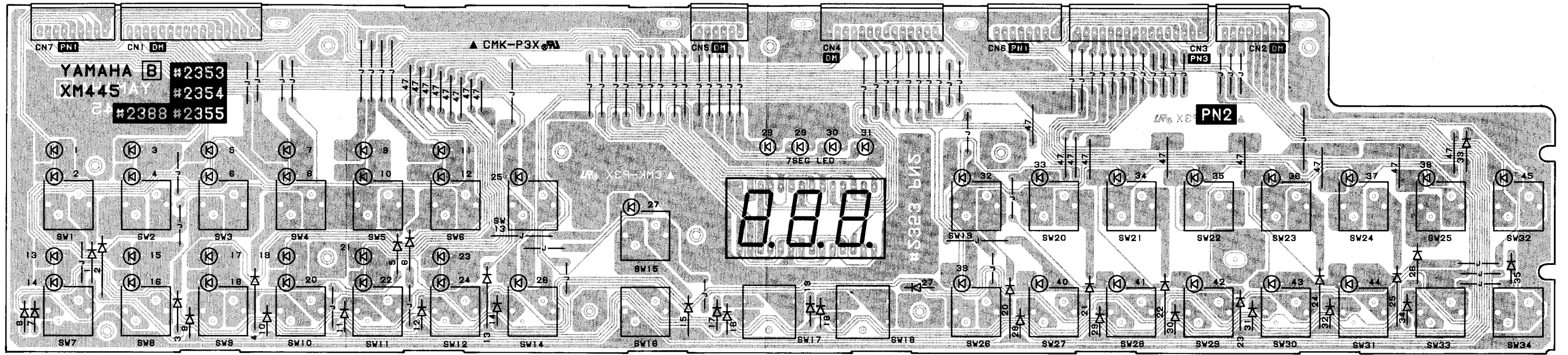
Notes)

- |                            |                                       |
|----------------------------|---------------------------------------|
| Circuit Board :            | PN1 (VQ221000)XN229B0                 |
| 1. PUSH SWITCH<br>SW 1-16: | KEC10901 (KA906550)                   |
| 2. BASE POST CONNECTOR     |                                       |
| CN 1:                      | PH-4P SE (VB858300) to DM-CN12        |
| CN 2:                      | XH-5P SE (LB919050) to AN-CN 1        |
| CN 3:                      | PH-10P SE (VB858900) to DM-CN 6       |
| CN 4:                      | PH-8P SE (VB858700) to PN2-CN 6       |
| CN 5:                      | PH-9P SE (VB858800) to PN2-CN 7       |
| 3. SLIDE POT.              |                                       |
| VR 1:                      | A 10.0Kx2 (VK369000) MASTER VOLUME    |
| VR 2-5:                    | B 10.0K (VK368700) AUTO ACCOMPANIMENT |
| 4. DIODE                   |                                       |
| D 1-13:                    | 1SS133,1SS176 (VB941200)              |
| 5. LED                     |                                       |
| LED 1-16:                  | SLZ-190B-03 RE (VD180000)             |
| 6. JUMPER WIRE             |                                       |
| -J-:                       | 0.55 (VD04170)                        |

● LED installation



● PN2 Circuit Board



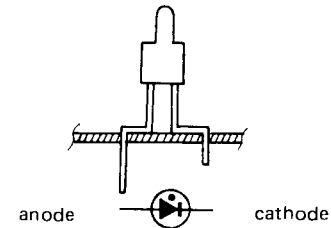
Components side

- |                        |                          |
|------------------------|--------------------------|
| SW 1: 1. POP 1         | SW14: 26. DISK STYLE 2   |
| 2. POP 2               | SW15: 27.                |
| SW 2: 3. DANCE POP 1   | 28.                      |
| 4. DANCE POP 2         | 29. } BEAT               |
| SW 3: 5. 16 BEAT 1     | 30.                      |
| 6. 16 BEAT 2           | 31.                      |
| SW 4: 7. ROCK'N        | SW16: TAP                |
| 8. 16 BEAT SHUFFLE     | SW17: ▼                  |
| SW 5: 9. SLOW ROCK     | SW18: ▲                  |
| 10. SHUFFLE            | SW19: 32. PIANO          |
| SW 6: 11. COUNTRY 1    | SW20: 33. CLAVINOVA TONE |
| 12. COUNTRY 2          | SW21: 34. E PIANO        |
| SW 7: 13. SWING        | SW22: 35. HARPSI         |
| 14. JAZZ BALLAD        | SW23: 36. VIBES          |
| SW 8: 15. BIG BAND     | SW24: 37. GUITAR         |
| 16. BOOGIE             | SW25: 38. STRINGS        |
| SW 9: 17. BOSSA        | SW26: 39. ORGAN          |
| 18. SAMBA              | SW27: 40. CHOIR          |
| SW10: 19. CHA-CHA      | SW28: 41. UPRIGHT BASS   |
| 20. RUMBA              | SW29: 42. ELEC BASS      |
| SW11: 21. MARCH        | SW30: 43. DRUMS          |
| 22. MARCH 6/8          | SW31: 44. VOICE 13-60    |
| SW12: 23. WALTZ        | SW32: 45. SPLIT          |
| 24. J WALTZ            | SW33: ▼                  |
| SW13: 25. DISK STYLE 1 | SW34: ▲                  |

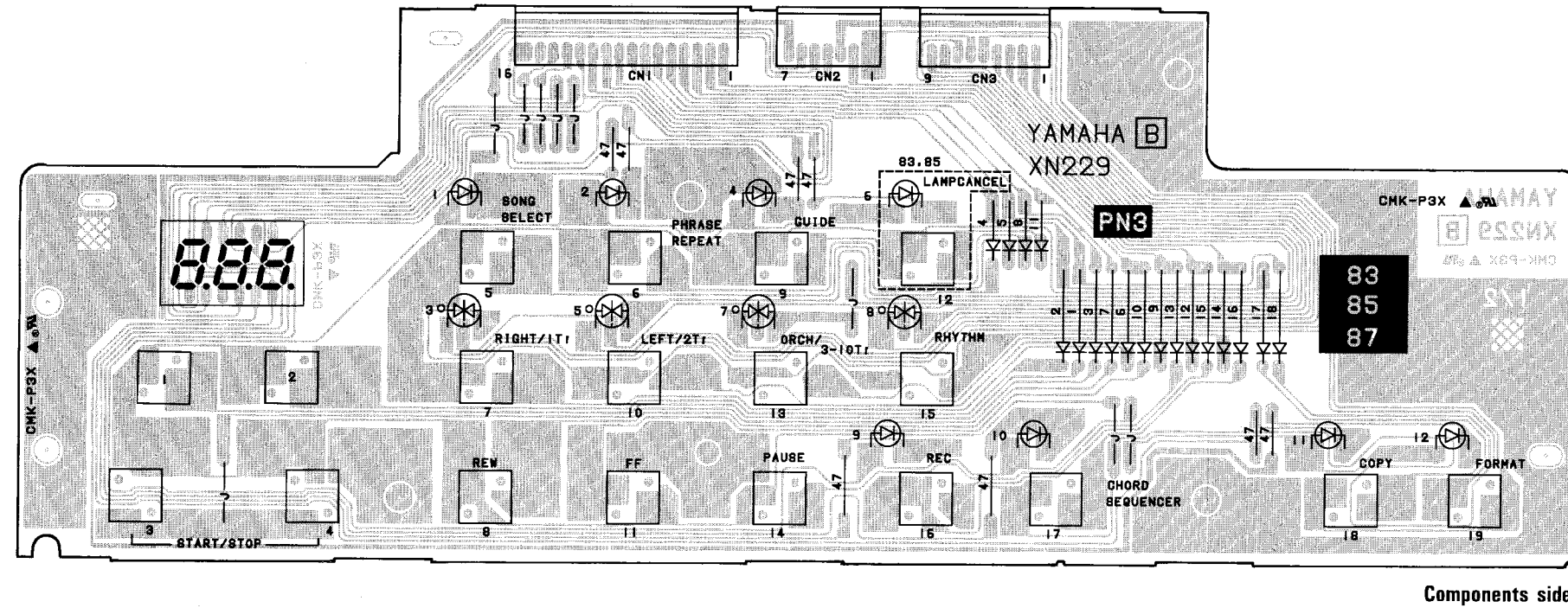
Notes)

- |                        |                                       |
|------------------------|---------------------------------------|
| Circuit Board :        | PN2 (VQ219900)XM445B0                 |
| 1. PUSH SWITCH         | KEC10901 (KA906550)                   |
| SW1-16,19-34:          | SKHFAA (VK793700) TEMPO               |
| SW17,18:               |                                       |
| 2. BASE POST CONNECTOR | PH-16P SE (VK015600) to DM-CN 7       |
| CN 1:                  | PH-8P SE (VB858700) to DM-CN 5        |
| CN 2:                  | PH-16P SE (VK015600) to PN3-CN 1      |
| CN 3:                  | PH-14P SE (VH904200) to DM-CN 8       |
| CN 4:                  | PH-6P SE (VB858500) to DM-CN 3        |
| CN 5:                  | PH-8P SE (VB858700) to PN1-CN 4       |
| CN 6:                  | PH-9P SE (VB858800) to PN1-CN 5       |
| CN 7:                  |                                       |
| 3. DIODE               | 1SS133,1SS176 (VB941200)              |
| 1-35:                  |                                       |
| 4. LED                 | SLZ-190B-03 RE (VD180000)             |
| 1-28,32-45:            | SLZ290B-03-T2GR (VG778600) BEAT-2,3,4 |
| 29-31:                 |                                       |
| 5. LED DISPLAY         | LB-603VLF (VL086000) (VL086000) or    |
| 7SEGLED:               | SL-9351S (VQ323900)                   |
| 6. JUMPER WIRE         | 0.55 (VD04170)                        |
| -J- :                  |                                       |

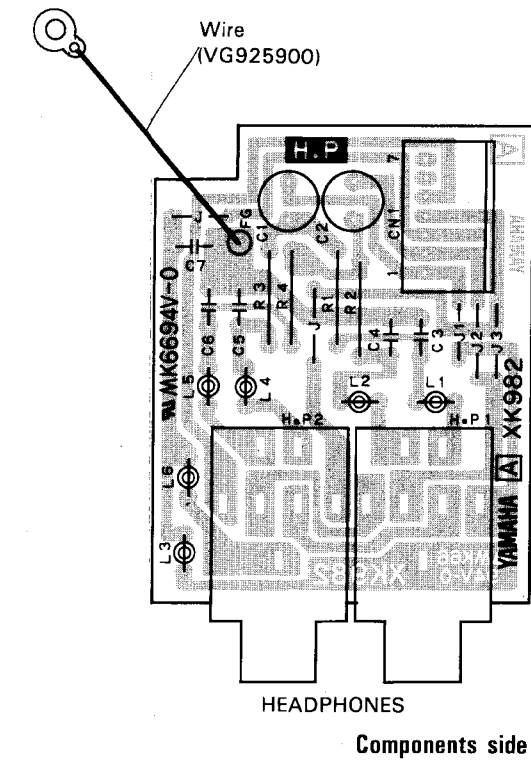
● LED installation



● PN3 Circuit Board



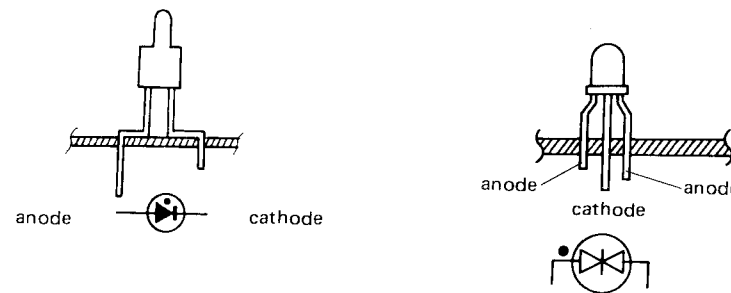
● HP Circuit Board



Notes)

- |                          |  |
|--------------------------|--|
| Circuit Board :          | PN3 (VQ221200)XN229B0                                      |
| 1. PUSH SWITCH SW 1-19:  | KEC10901 (KA906550)  |
| 2. BASE POST CONNECTOR   |  |
| CN 1:                    | PH-16P SE (VK015600) to PN2-CN 3                           |
| CN 2:                    | PH-7P SE (VB858600) to DM-CN 9                             |
| CN 3:                    | PH-9P SE (VB858800) to DM-CN 4                             |
| 3. DIODE D 1-18:         | 1SS133,1SS176 (VB941200)                                   |
| 4. LED LED 1,2,4,6,9-12: | SLZ-190B-03 RE (VD180000)                                  |
| LED 3,5,7,8:             | GL8ED5 (VQ996300) RIGHT/1TR, LEFT/2TR, ORCH/3-10TR, RHYTHM |
| 5. LED DISPLAY 7SEGLED:  | LB-303MA132 (VL050200)                                     |
| 6. JUMPER WIRE -J-:      | 0.55 (VD04170)   |

● LED installation



Notes)

- |                                     |                                  |
|-------------------------------------|----------------------------------|
| Circuit Board :                     | HP (VN906600)XK982A0             |
| 1. SEMICONDUCTIVE CERA. CAP. C 3-7: | 0.1000 25V Z (VE659000)          |
| 2. COIL L 1-6:                      | FL5R200QN 20u (VB971100)         |
| 3. PHONE JACK H.P 1,2:              | YKB21-5006 (LB101870) HEADPHONES |
| 4. BASE POST CONNECTOR CN 1:        | XH-7P SE (LB919070) to AN-CN 3   |

● Jumper wire

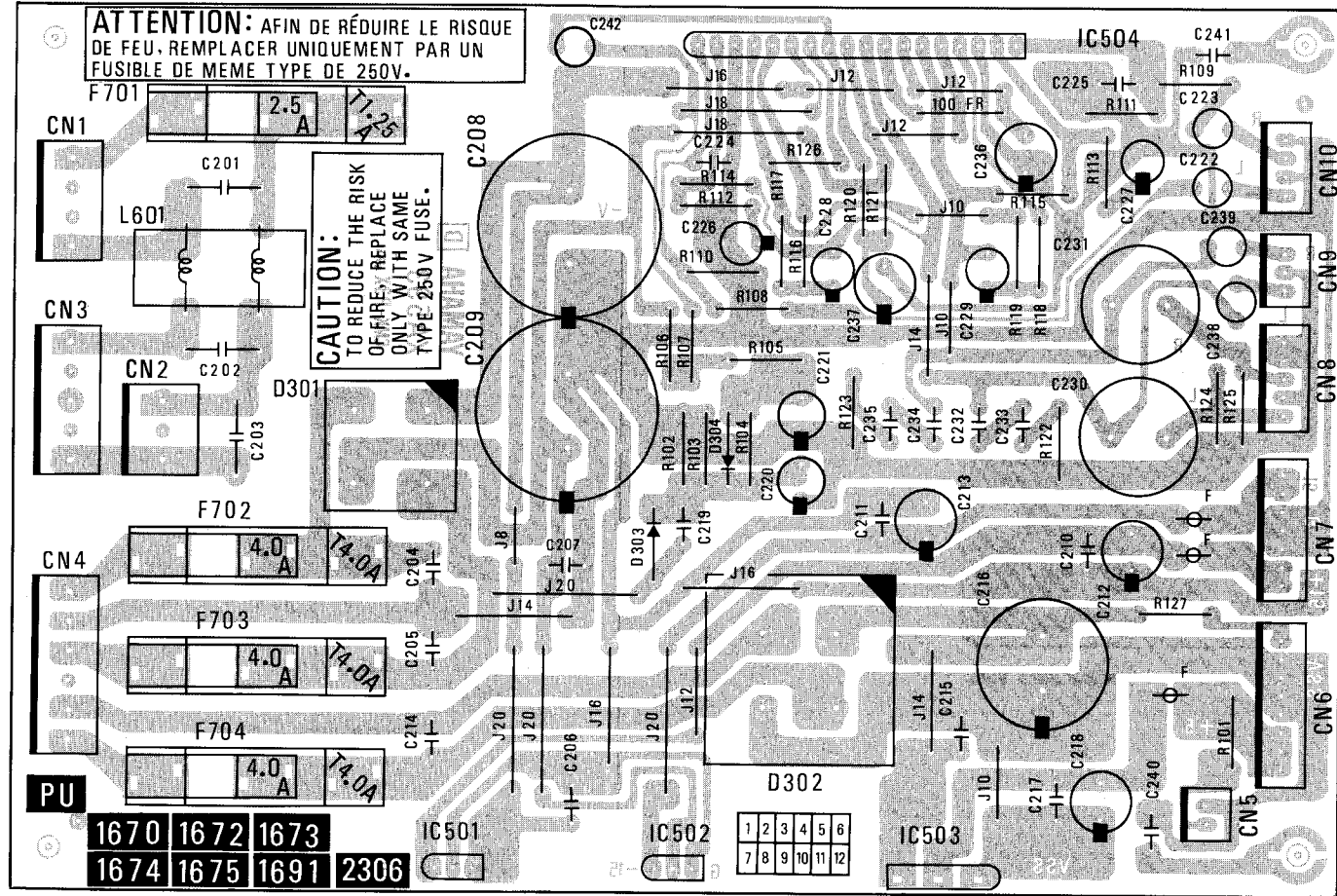
J1	J2	J3	C1	C2
X	X	○	○ (Jumper wire)	○ (Jumper wire)

(○: installed X: not installed)

PN3: 2NA-VQ96610  
HP : 2NA-VN46510



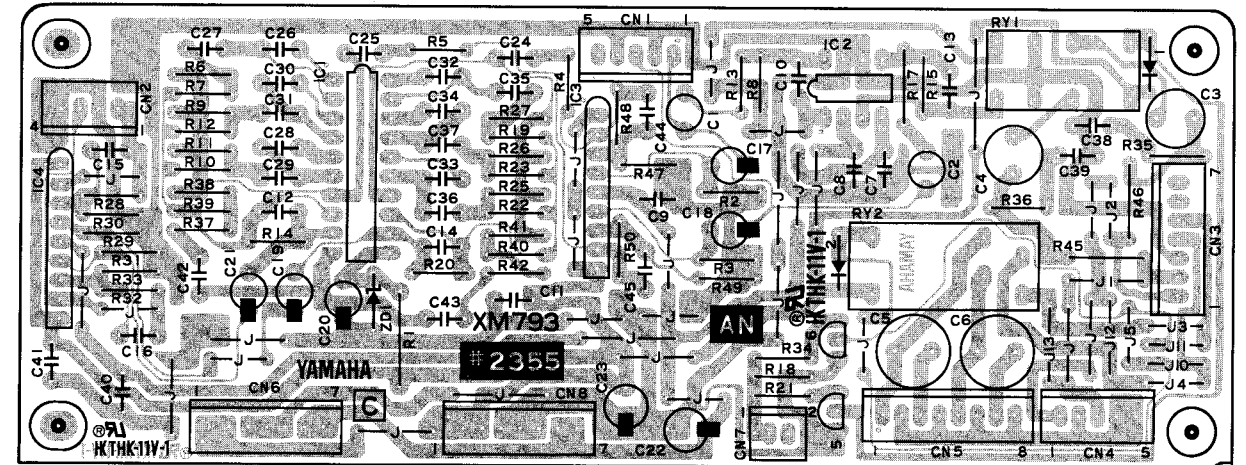
● PU Circuit Board



Components side

- Notes)
- |                 |                               |
|-----------------|-------------------------------|
| Circuit Board : | PU (VD919900)XA593D0(U,C,X)   |
| Circuit Board : | PU (VD920000)XA593D0(A,B,E,M) |
- IC  
IC501: NJM78M15A (IG081300) REGULATOR +15V  
IC502: NJM79M15A (XA589A00) REGULATOR -15V  
IC503: SI-3052V (IG136200) REGULATOR +5V  
IC504: STK4131MARK2 (XA588A00) POWER AMP
  - DIODE  
D303,304: 11ES4 (VB481900)
  - DIODE STACK  
D301: S4VB20 2.6A (IH001090)  
D302: D4BB20 4.5A (IH001170) or D5FB20 5.0A (IH001370)
  - FUSE RESISTOR  
marked FR: 100.0 1/4 J (HW095100)
  - COIL  
L601: 400u (VA937000)
  - FERRITE BEAD  
marked F: BL02RN2-R62T4 (GE300670)
  - FUSE  
F701: 250V 2.50A J (KB002680)(U,C,X)  
F701: T 250V 1.25A J (KB000680)(A,B,E,M)  
F702-704: 250V 4.00A J (KB002640)(U,C,X)  
F702-704: T 250V 4.00A J (KB000790)(A,B,E,M)
  - BASE POST CONNECTOR  
CN 1: VH-4P TE (LB932040) to AC CORD  
CN 2: VH-3P TE (LB932030) to POWER SWITCH  
CN 3: VH-5P TE (LB932050) to P.T.primary  
CN 4: VH-6P TE (LB932060) to P.T.secondary  
CN 6: XH-8P TE (LB918080) to DM-CN21  
CN 7: XH-7P TE (LB918070) to AN-CN 6  
CN 8: XH-5P TE (LB918050) to AN-CN 4  
CN 9: XH-3P TE (LB918030)  
CN10: XH-4P TE (LB918040) to AN-CN 2

● AN Circuit Board



Components side

- Notes)
- |                              |                                 |                                |                             |
|------------------------------|---------------------------------|--------------------------------|-----------------------------|
| Circuit Board :              | AN (VQ519200) XM793CO           | 9. IC                          |                             |
| 1. ELECTROLYTIC CAP.-BP      |                                 | IC 1:                          | M5243P12 (XH897A00) DP20M   |
| C 1,2:                       | 3.30 50.0V (UK866330)           | IC 2:                          | LA6517 (XM804A00) OP AMP    |
| C 3,4:                       | 47.00 16.0V (UK837470)          | IC 3:                          | UPC4570HA (XB247A00) OP AMP |
| C 5,6:                       | 1.50UF 50.0V (VQ758500)         | IC 4:                          | UPC4570HA (XB247A00) OP AMP |
| 2. SEMICONDUCTIVE CERA. CAP. |                                 | 10. RELAY                      |                             |
| C 7-9,11,40,41:              | 0.1000 25V Z (VC694800)         | RY 1:                          | DC RY12W 12V (KC001900)     |
| 3. DIODE                     |                                 | RY 2:                          | DC G5Z-2A 12V (VK881200)    |
| D 1:                         | 1SS133,1SS176 (VB941200)        | 11. CARBON RESISTOR            |                             |
| D 2:                         | 11ES4 (VB481900)                | R 1:                           | 150.0 1/4 J (HF755150)      |
| 4. BASE POST CONNECTOR       |                                 | R 4,5,11,14,20,25:             | 4.7K 1/4 J (HF756470)       |
| CN 1:                        | XH-5P TE (LB918050) to PN1-CN 2 | R 6,8,10,12,15,22,23,27,38,41: | 47.0K 1/4 J (HF757470)      |
| CN 2:                        | XH-4P TE (LB918040) to PU-CN10  | R 7,19:                        | 8.2K 1/4 J (HF756820)       |
| CN 3:                        | XH-7P TE (LB918070) to HP-CN 1  | R 9,13,26:                     | 5.6K 1/4 J (HF756560)       |
| CN 4:                        | XH-5P TE (LB918050) to PU-CN 8  | R18,29,31,47,49:               | 10.0K 1/4 J (HF757100)      |
| CN 5:                        | XH-8P TE (LB918080) to SPEAKER  | R21,34:                        | 1.0K 1/4 J (HF756100)       |
| CN 6:                        | XH-7P TE (LB918070) to PU-CN 7  | R35,36:                        | 33.0 1/4 J (HF754330)       |
| CN 7:                        | XH-2P TE (LB918020) to DM-CN15  | R37,39,40,42:                  | 1.2K 1/4 J (HF756120)       |
| CN 8:                        | XH-7P TE (LB918070) to DM-CN20  | R43,44:                        | 22.0K 1/4 J (HF757220)      |
| 5. CERAMIC CAP.-SL           |                                 | R48,50:                        | 33.0 1/4 J (HF757330)       |
| C10,13:                      | 82P 50V J (FG651820)            | 12. TRANSISTOR                 |                             |
| 6. CERAMIC CAP.-B            |                                 | TR 5,6:                        | 2SC1815 Y,GR (IC1815M0)     |
| C12,14:                      | 1000P 50V K (FG613100)          | 13. ZENER DIODE                |                             |
| C44,45:                      | 220P 50V K (FG612220)           | ZD 1:                          | MTZ J 12.0B 12V (VG440200)  |
| 7. ELECTROLYTIC CAP.         |                                 | 14. JUMPER WIRE                |                             |
| C17-21:                      | 10.00 50.0V (UJ867100)          | -J-,                           |                             |
| C22,23:                      | 100.00 25.0V (UJ848100)         | J10-13,                        |                             |
| 8. MYLAR CAP.                |                                 | R28,32,45,46:                  | 0.55 (VD04170)              |
| C24,25:                      | 0.3300 50V J (UA655330)         |                                |                             |
| C26:                         | 0.0560 50V J (UA654560)         |                                |                             |
| C27,35:                      | 0.5600 50V J (UA655560)         |                                |                             |
| C28,33:                      | 0.0180 50V J (UA654180)         |                                |                             |
| C29,36:                      | 5600P 50V J (UA353560)          |                                |                             |
| C30,34:                      | 0.1800 50V J (UA655180)         |                                |                             |
| C31,37:                      | 0.0330 50V J (UA654330)         |                                |                             |
| C32:                         | 0.0560 50V J (UA654560)         |                                |                             |
| C38,39:                      | 0.1000 50V J (UA655100)         |                                |                             |
| C42,43:                      | 8200P 50V J (UA353820)          |                                |                             |

PU: 2NA-VD91970  
AN: 2NA-VN51910

## ■ TEST PROGRAM

### 1. HOW TO ENTER THE TEST PROGRAM

While pressing the [A-1] and [C7] keys of the keyboard, turn on the power switch. The system will run the INITIAL TEST routine (refer to the INITIAL TEST section for details).

### 2. INITIAL TEST

The following tests will be performed automatically when the test program is initiated.

- A. The version of the MAIN PROGRAM (IC3) will appear on the tempo LED display.
- B. The version of the SUB PROGRAM (IC9) will appear on the song LED display.
- C. The 2nd make contact check of the keyboard will be performed. If an error is detected, the system will not enter the test program.
- D. The pedal off check will be performed. If an error is detected, the PIANO LED will blink.
- E. The panel switch off check will be performed. If an error is detected, the CLAVINOVA TONE LED will blink.

### 3. TEST PROGRAM

Pressing the key of the keyboard will activate the test as shown below.

- [B-1]: EXIT
- [D0] : LED TEST 1
- [E0] : LED TEST 2
- [F0] : RAM TEST
- [G0] : MIDI TEST
- [A0] : 1kHz SOUND OUTPUT (CVG:IC13)
- [B0] : 440Hz SOUND OUTPUT TEST 1 (CVG:IC13)
- [G1] : FDD TEST
- [A1] : LED TEST 3
- [C3] : 440Hz SOUND OUTPUT TEST 2 (CVG:IC13)
- [G3] : 440Hz SOUND OUTPUT TEST 3 (CVG:IC13)
- [C4] : 32 SOUNDS OUTPUT, WAVE ROM TEST (CVG:IC13)
- [C5] : ABC PARAMETER ROM VERSION DISPLAY
- [D5] : REVERBERATION RAM TEST

Although the other test items the factory inspection are assigned to the keys other than the above, they are not recommended to use for repair work.

- 3-1. Exit  
Press the [B-1] key to exit the test program, then the system will enter the play mode.
- 3-2. LED Test 1  
Press the [D0] key, and check that all LEDs on the panel light together.
- 3-3. LED Test 2  
Press the [E0] key, and check that all LEDs on the panel blink together.
- 3-4. RAM Test  
Pressing the [F0] will activate the RAM test. If an NG (No Good) error is detected, the E. PIANO LED will blink. When this test is performed, the preserved data will be cleared.
- 3-5. MIDI Test  
After connecting the MIDI IN to the MIDI OUT via a MIDI cable, press the [G0] key to execute the test. If an error occurs, the HARPSI LED will blink.
- 3-6. 1kHz Sound Output Test (CVG:IC13)  
Press the [A0] key and check that the correct sine wave signal is output from PHONES (L/R) jack. (L: - 3dB, R: - 3dB)
- 3-7. 440Hz Sound Output Test 1 (CVG:IC13)  
Press the [B0] key and check that the correct sine wave signal is output from PHONES (L/R) jack. (L: - 1.3dB, R: - 5.8dB)
- 3-8. FDD Test  
Insert a blank floppy disk to the FDD and press the [G1] key to execute the test. If an error occurs, the VIBES LED will blink.
- 3-9. LED Test 3  
Press the [A1] key, and check that all LEDs of the keyboard light together.
- 3-10. 440Hz Sound Output Test 2 (CVG:IC13)  
Press the [C3] key and check that the correct sine wave signal is output from PHONES (L/R) jack. (L: - 0dB, R: - ∞dB)
- 3-11. 440Hz Sound Output Test 3 (CVG:IC13)  
Press the [G3] key and check that the correct sine wave signal is output from PHONES (L/R) jack. (L: - ∞dB, R: - 0dB)
- 3-12. 32 Sound Output & Wave ROM Test (CVG:IC13, ROM:IC14)  
When the [C4] key is pressed, sine wave signals will sound in succession from 1-channel through 32-channel.

3-13. ABC Parameter ROM Version Display  
When the [C5] key is pressed, the version of the ABC ROM (IC5) will be indicated in the tempo LED display and the version of the parameter ROM (IC12) will be indicated in the song LED display.

3-14. Reverberation RAM Test  
When the [D5] key is pressed, the reverberation RAM check will be performed.

**4. At power on the following tests are performed automatically.**

- ABC PARAMETER ROM : When NG,[ROCK'N] LED will blink.
- KSN : When NG,[16 BEAT SHUFFLE] LED will blink.
- SUB CPU : When NG,[SLOW ROCK] LED will blink.
- DMA : When NG,[SHUFFLE] LED will blink.
- FDC : When NG,[COUNTRY 1] LED will blink.

## ■ INSPECTIONS

### 1. PREPARATIONS

- 1-1 Power supply voltage  
Before testing for specifications, confirm AC line voltage is the rated value  $\pm 2\%$ .
- 1-2 Measuring Equipment  
The level meter should have a IHF-C filter.  
The input impedance of the oscilloscope should be more than 1 M ohms.
- 1-3 Measuring Point  
Unless specified, measure the signal at the HEADPHONES(L).
- 1-4 Controls  
Unless specified, set the controls and jacks as follows:
- |                            |                   |
|----------------------------|-------------------|
| MASTER VOLUME control      | : MAX.            |
| AUTO ACCOMPANIMENT control | : MAX.            |
| VOICE switch               | : PIANO           |
| RHYTHM switch              | : POP 1           |
| DAMPER pedal               | : OFF             |
| SOFT pedal                 | : OFF             |
| TRANSCOPE mode             | : DEFAULT SETTING |
| REVERB                     | : OFF             |
| JACKS                      | : OPEN            |

### 2. INSPECTIONS

- 2-1 PITCH  
Press the [A3] key on the keyboard, and check that the pitch of the output signal is  $440\text{Hz} \pm 3$  cents.
- 2-2 INPUT/OUTPUT LEVELS  
Activate the test program, and press the [A0] key on the keyboard to generate a sine wave of 1kHz (refer to TEST PROGRAM section for details).  
Insert the appropriate 1/4" phone plugs into jack and check HEADPHONES(L/R) outputs. If necessary, verify the frequency, output waveform and output level using an oscilloscope, level meter (with IHF-C filter).  
Listed below are the specifications of each output during this test.  
HEADPHONES:  $11 \pm 2\text{dBm}$
- Activate the test program, and press the [B0] key on the keyboard to generate a sine wave of 440Hz (refer to TEST PROGRAM section for details).  
Insert the appropriate 1/4" phone plugs into HEADPHONES(L/R) and check HEADPHONES (L/R) outputs. Listed below are the specifications of each output during this test.  
HEADPHONES(L):  $13 \pm 2\text{dBm}$   
HEADPHONES(R):  $10 \pm 2\text{dBm}$
- 2-3 NOISE LEVEL  
The noise level should be less than  $-70$  dBm.

## ■ ERROR MESSAGES

*dEr* Disk Error.

An error occurred while writing to or reading from the disk.  
Try the operation again; if the error occurs a second time the disk or drive may be faulty. If the drive has been in use for some the heads may be dirty. Clean the heads with a commercially-available floppy disk head cleaner.

*Pro* Write Protected.

You have attempted to format, write to, copy to, or delete data from a write-protected disk. Use a disk that is not write protected (set the disk's write-protect tab to the write-enable position).

*For* Unformatted Disk.

The loaded disk is not formatted for use with the Clavinova.

## MIDI DATA FORMAT

### 1. NOTE ON/OFF

[9nH] [kkH] [vvH]

9nH= Note on/off event  
(n= MIDI channel number)

kkH= Note number  
(Transmission: 0FH-72H= D#-1-F#7,  
Reception= 15H-6CH: A-1-C7)

vvH= Velocity  
(Note on= 01H-7FH, Note off= 00H)

[8nH] [kkH] [vvH]

8nH= Note off event  
(n= MIDI channel number)

kkH= Note number (15H-6CH: A-1-C7)

vvH= Velocity (Note off= 00H-7FH)

\* 8nH (note off) is receive only.  
9nH (vvH=00H) used for transmission.

### 2. CONTROL CHANGE

[BnH] [ccH] [vvH]

BnH= Control event  
(n= MIDI channel number)

ccH= Control number  
vvH= Control value

#### • Modulation (Vibrato)

[BnH] [01H] [vvH]

n= MIDI channel number  
vvH= Modulation

00H-0FH: Off : AM also off.  
10H-1FH: 1 : Voice default AM  
when greater than 10H  
20H-2FH: 2  
30H-3FH: 3  
40H-4FH: 4  
50H-5FH: 5  
60H-6FH: 6  
70H-7FH: 7

\* LFO speed fixed for each voice

#### • Volume

[BnH] [07H] [vvH]

n= MIDI channel number  
vvH= Volume (00H-7FH)

00H: -∞  
6FH: -3dB  
7FH: ±0dB

#### • Pan

[BnH] [0AH] [vvH]

n= MIDI channel number  
vvH= Pan (00H-7FH)

00H-17H: Left 6  
18H-1FH: Left 5  
20H-27H: Left 4  
28H-2FH: Left 3  
30H-37H: Left 2  
38H-3FH: Left 1  
40H-47H: Center  
48H: Voice default Pan  
49H: Scaling Pan (Standard) (receive only)  
4AH: Scaling Pan (Wide) (receive only)  
4BH: Scaling Pan (Narrow L) (receive only)  
4CH: Scaling Pan (Narrow C) (receive only)  
4DH: Scaling Pan (Narrow R) (receive only)  
4EH: Scaling Pan (Half L) (receive only)  
4FH: Scaling Pan (Half R) (receive only)  
50H-57H: Right 1  
58H-5FH: Right 2  
60H-67H: Right 3  
68H-6FH: Right 4  
70H-77H: Right 5  
78H-7FH: Right 6

#### • Expression

[BnH] [0BH] [vvH]

n= MIDI channel number  
vvH= Expression (00H-7FH)

00H: -∞  
6FH: -3dB  
7FH: ±0dB

#### • Damper pedal

[BnH] [40H] [vvH]

n= MIDI channel number  
vvH= Control value (00H-7FH)

00H-3FH: off  
40H-7FH: on

#### • Sostenuto pedal

[BnH] [42H] [vvH]

n= MIDI channel number  
vvH= Control value (00H-7FH)

00H-3FH: Off  
40H-7FH: On

#### • Soft pedal

[BnH] [43H] [vvH]

n= MIDI channel number  
vvH= Control value (00H-7FH)

00H-3FH: Off  
40H-7FH: On

#### • Portamento control

[BnH] [54H] [vvH]

n= MIDI channel number  
vvH= Control value (00H-7FH)  
15H-6CH: Key Number

#### • Reverb depth

[BnH] [5BH] [vvH]

n= MIDI channel number  
vvH= Reverb Depth (00H-7FH)  
Individually adjustable for each channel.

### 3. MODE MESSAGES (receive only)

[BnH] [ccH] [vvH]

BnH= Control event  
(n= MIDI channel number)

ccH= Mode message number  
vvH= Mode message value

#### • All sound off

[BnH] [78H] [00H]

n= MIDI channel number

##### \* All Sound Off Operation

[78H] leaves the Sustain, Soft, Sostenuto and other control change parameters unaffected, but all currently on notes are turned off regardless of their control change settings.

In the multi-timbre mode only notes in the specified channel are turned off. When both the multi-timbre and omni modes are off, only receive-channel notes are turned off.

Nothing occurs when the multi-timbre mode is off and the omni mode is on.

#### • Reset all controllers

[BnH] [79H] [00H]

n= MIDI channel number

#### • Local Control ON/OFF

[BnH] [7AH] [vvH]

n= MIDI channel number  
vvH= 00H: Off  
7FH: On



- All notes OFF  
[BnH] [7BH] [00H]  
n= MIDI channel number
- OMNI OFF/All notes OFF  
[BnH] [7CH] [00H]  
n= MIDI channel number
- OMNI ON/All notes OFF  
[BnH] [7DH] [00H]  
n= MIDI channel number
- \* Mode messages are received only on the specified receive channel even when the omni mode is on. However, All Note Off, Reset All Controller, and All Sound Off messages are ignored when omni is on. The running status is stored even when the data is ignored. Further, the data is received when Control Change Cancel is on.
- \* Only effective in the Poly mode, not in the Mono mode.
- \* **All Note Off Operation**  
[7BH] leaves the Sustain, Soft, Sostenuto and other control change parameters unaffected, but all currently on notes are turned off regardless of their control change settings.  
In the multi-timbre mode only notes in the specified channel are turned off.  
When both the multi-timbre and omni modes are off, only receive-channel notes are turned off.  
Nothing occurs when the multi-timbre mode is off and the omni mode is on.  
If an all Note Off message accompanies [7CH] or [7DH], all notes on all channels are turned off as well as Sustain, Soft, and Sostenuto.
- \* **Reset All Controller**  
Modulation, Expression, Sustain, Soft, and Sostenuto are initialized when a Reset All Controller message is received. Bank, Volume, Pan, and Depth are unaffected.  
In the multi-timbre mode only the specified channel is initialized.  
When both the multi-timbre and omni modes are off, only the receive channel is initialized.  
Nothing occurs when the multi-timbre mode is off and the omni mode is on.

#### 4. REGISTERED/NON-REGISTERED PARAMETER NUMBER

- Data entry  
[BnH] [06H] [mmH]  
[BnH] [26H] [lH]  
n= MIDI channel number  
mm/l=RPN
- Data inc  
[BnH] [60H] [xxH]  
n= MIDI channel number  
xx= Dummy, RPN

- Data dec  
[BnH] [61H] [xxH]  
n= MIDI channel number  
xx= Dummy, RPN
- Non-registered parameter number  
[BnH] [62H] [lH]  
[BnH] [63H] [mmH]  
n= MIDI channel number  
\* No parameter is received, but the data is recognized because of RPN reception.
- Registered parameter number  
[BnH] [64H] [lH]  
[BnH] [65H] [mmH]  
n= MIDI channel number  
lH= 00H, mmH= 00H: Pitch bend sensitivity  
lH= 7FH, mmH= 7FH: RPN Reset  
\* Pitch Bend Sensitivity uses RPN (Registered Parameter Number).  
When RPN is received, the received numbers are stored in the internal buffer regardless of order, and the Pitch Bend Sensitivity is changed if the buffer value is 00,00 when a Data Entry or INC/DEC is received.  
By writing "not receive" (FF) to both buffers when the power is turned on, operation is prevented when only an MSB or LSB is received.  
"Not receive" is written to both buffers in the same way when RPN Reset (7F,7F) is received.  
Data is always transmitted in the following order: RPN MSB, LSB, Data Entry MSB, LSB.  
The maximum Pitch Bend Sensitivity range is MSB = 0...3 (a minor third).  
LSB is ignored. Higher values result in the maximum sensitivity for the current voice.

#### 5. PROGRAM CHANGE

- [CnH] [ppH]  
CnH= Program change event  
(n= MIDI channel number)  
ppH= Program number

**Panel Voices**

dd	VOICE
00H	PIANO
01H	CLAVINOVA TONE
02H	E. PIANO
03H	HARPSICHORD
04H	VIBES
05H	GUITAR
06H	STRINGS
07H	ORGAN
08H	CHOIR
09H	UPRIGHT BASS
0AH	E. BASS
0BH	DRUMS

#### Voices 13 — 60

dd	VOICE
0CH	BRASS
0DH	POP BRASS
0EH	TRUMPET
0FH	MUTE TRUMPET
10H	HORN
11H	SAX
12H	SAX SOFT
13H	CLARINET
14H	OBOE
15H	FLUTE
16H	ACCORDION
17H	HARMONICA
18H	STRINGS SOFT
19H	VIOLIN
1AH	VIOLIN HARD
1BH	FULL ORGAN
1CH	JAZZ ORGAN 1
1DH	SYNTH BRASS
1EH	SYNTH WOOD
1FH	SYNTH STRINGS
20H	SYNTH CHOIR
21H	PIANO BRIGHT
22H	PIANO SOFT
23H	E. PIANO DX
24H	SYNTH CRYSTAL
25H	CELESTA
26H	MARIMBA
27H	FOLK GUITAR
28H	JAZZ GUITAR 1
29H	JAZZ GUITAR 2
2AH	ROCK GUITAR 1
2BH	ROCK GUITAR 2
2CH	MUTE GUITAR
2DH	BANJO
2EH	PIZZICATO
2FH	HARP
30H	U. BASS SOFT
31H	E. BASS SOFT
32H	E. BASS HEAVY
33H	SYNTH BASS
34H	TIMPANI & ORCH. HIT
35H	BASSOON
36H	CHAMBER STRINGS
37H	JAZZ ORGAN 2
38H	ROCK GUITAR 3
39H	COSMIC 1
3AH	COSMIC 2
3BH	COSMIC 3

#### 6. PITCH BENDER

- [EnH] [lH] [mmH]  
EnH= Bender event  
(n= MIDI channel number)  
lH= Least significant byte  
mmH= Most significant byte

\* **Caution:** The bend range is set to a minor third when the power is turned on. RPN data can be used to set the range in whole-tone increments. The range can be set as high as a minor third for all voices, but higher ranges will be limited depending on the voice.

7. SYSTEM REALTIME MESSAGES

Data	Transmission	Reception
F8H	Transmitted every 96 clocks	Received as 96-clock tempo timing when MIDI clock is set to External
FAH	Rhythm start	Rhythm start
FCH	Rhythm stop	Rhythm stop
FEH	Transmitted every 200 milliseconds	All notes are turned off if no data is received for more than 400 milliseconds

\* **Caution:** If an overrun framing error occurs the Damper, Sostenuto, and Soft effects for all channels are turned off and an All Note Off occurs.

8. SYSTEM EXCLUSIVE MESSAGES

• YAMAHA MIDI format

[F0H] [43H] [xnH] [ffH] ..... [F7H]

43H= YAMAHA ID

xnH= Substatus + MIDI channel number

ffH= Format number

\* n specifies the receive channel regardless of whether omni is on or off.

- x ff Information
- 0 7CH Panel data receive
- 2 7CH Panel data bulk dump request
- 2 7DH Model ID data bulk dump request

Panel Data Send Format

F0H, 43H, 0xH, 7CH, 00H, 22H  
(x: channel number, data length= Panel data+0Ch)

53H, 4BH, 20 H, 20H (SK)  
43H, 56H, 50H, 27H, 39H, 33H (CVP'93)  
3xH, 3yH (Version x, y)  
[Panel Data]  
[Check Sum (1byte)]= 0 (53H+4BH+20H+...+Data end)

F7H

[Panel Data Contents]

- (1) ABC ON/OFF
- (2) SSP ON/OFF
- (3) SSP NO.
- (4) MANUAL VOICE
- (5) MANUAL VOLUME
- (6) RHYTHM NO.
- (7) RHYTHM VARIATION
- (8) TEMPO (Absolute value LSB)
- (9) TEMPO (Absolute value MSB)
- (10) RHYTHM VOLUME
- (11) CHORD 1 VOLUME
- (12) CHORD 2 VOLUME
- (13) BASS VOLUME
- (14) SPLIT POINT
- (15) DUAL/SPLIT MODE
- (16) DUAL/SPLIT VOICE
- (17) DUAL/SPLIT BALANCE
- (18) REVERB
- (19) REVERB DEPTH
- (20) PEDAL FUNCTION
- (21) VOICE BANK (Upper 4 bits)
- (22) INTRO

Individual Key Tuning Data Bulk Dump Format

F0H, 43H, 73H  
34H (Product ID: CVP-87A/85A/83S)  
06H (Bulk ID)  
00H (Bulk No.)  
00H, 00H, 0bH, 00H (Data Length= wxyH 88\*2 bytes)  
[BULK DATA] (low (A-1), high (A-1) ...low (C7), high (C7))  
[CHECK SUM (1byte)]= 0-sum (BULK DATA)

Name Data Send Format

F0H, 43H, 0xH, 7DH, 00H, 10H  
(Data Length= 10H byte)  
53H, 4BH, 20H, 20H (SK)  
43H, 56H, 50H, 27H, 39H, 33H (CVP'93)  
43H, 56H, 50H, 20H, 34H, 35H (CVP-83S)  
3xH, 3yH, 20H, 20H, 20H, 20H (Version x,y)  
[CHECK SUM (1byte)]= 0-(53H+4BH+20H+...+20H)

F7H

• Clavinova MIDI Format

[F0H] [43H] [73H] [yyH] [xxH] [F7H]  
43H= YAMAHA ID  
73H= CLAVINOVA ID  
yyH= Product ID (CVP-87A/85A/83S= 34H)  
xxH= Substatus

- xxH Information
- 02H Internal MIDI clock
- 03H External MIDI clock
- 13H Multi-timbre mode off
- 14H Common voice multi-timbre mode on
- 15H Multi-timbre mode on
- 16H Record cancel
- 18H Common voice multi-timbre mode individual track reverb depth on
- 7cH All Note Off, Receive Cancel - n+1, Omni off

\* When nn = 2, 3, 13, 14, 15, 16, 17, 18, or 7C, Clavinova common ID (01H) is recognized as well as 34H.

\* All Control Change values are reset when [14H] or [15H] is received. All voices and other parameters are also reset in order to ensure the same initial settings.

• Special Messages

[F0H] [43H] [73H] [yyH] [11H] [0nH] [ccH] [vvH] [F7H]  
43H= YAMAHA ID  
73H= CLAVINOVA ID  
yyH= Product ID (CVP-87A/85A/83S= 34H)  
11H= Clavinova Special Control Code  
0nH= Control MIDI Change (n= special control change number)  
ccH= Control number  
ddH= Control value

cc	Control	Value [dd]
08H	DUAL/SPLIT Balance	00H= lower MAX 7FH= upper MAX
10H	ABC Mode	00H= Off 01H= ABC Single Finger 02H= ABC Fingered 03H= Full-Keyboard ABC 04H= New Full-Keyboard (IAS)
11H	Rhythm Variation	00H= Off 01H= Variation number
12H	Fill In Switch Event	00H= Fill to normal Off event 01H= Fill to normal On event 02H= Fill to variation On event 03H= Fill to variation Off event
13H	Intro/Ending *Switch Event	00H= Intro/Ending Off 01H= Intro mode On 02H= Ending mode On 03H= Fill to normal mode On 04H= Fill to variation mode On
14H	Split	[ddH]= Split key number (the highest note in the left-hand keyboard range)
15H	Rhythm Number	[ddH]= Rhythm number
19H	Volume	[ddH]= Volume value 2 (BASS) 4 (CHORD 1) 5 (CHORD 2)
1AH	Rhythm Volume	[ddH]= Volume value
1BH	Metronome mode (receive only)	00H: Off 01H: On
21H	Solo Styleplay Number	00~18H= Style number
22H	Solo Styleplay	00H-3FH= Off 40H-7FH= On
30H	Drums Parameter Change See Drum Parameter Expanded Format, below	
59H	Reverb	00H= Off 01H= Room 02H= Hall 1 03H= Hall 2 04H= Cosmic
5AH	Dual/Split mode	00H= Off 01H= Dual 02H= Split (upper damper) 03H= Split (lower damper) 04H= Split (upper/lower damper) 05H= Split & Lower Voice Oct Up (upper damper) 06H= Split & Lower Voice Oct Up (lower damper) 07H= SPLIT & Lower Voice Oct Up (upper/lower damper)

5CH Dual/Split Voice [ddH]= Dual/Split voice number

5DH Pedal Function [ddH]= Function number

\* When cc = 58 (Brilliance), 59 (Reverb), or 61 (Mute Track), SK common ID (01H) is recognized in addition to xxH.

#### Drum Parameter Expanded Format

[F0H] [43H] [73H] [xxH] [11H] [0nH]  
[30H] [xxH] .....[F7H]

xxH: Product ID;  
Common product ID also recognized (pattern editor transmits both).

0x30: /\* Drum Parameter \*/ \*2 Expanded Format

\* This resets all parameters when a different drum kit is selected.

Expands Special Message 30.

#### • Effect Level

[F0H] [43H] [73H] [xxH] [11H] [0nH]  
[30H] [43H] [knH] [enH] [siH] [F7H]

11H: Clavinova special control code

0nH: MIDI Channel Number

\* Received only on channel 15 (0EH) in the CVP'93, affecting all tracks.

Received only on channel 10 (09H) n the GM mode, affecting all tracks.

30H: Drums Parameter Change

43H: Effect Send Level

knH: Key Number

\* Also included in the panel key code in the Common Voice mode (because conversion is not possible). Included in the GM key code in the GM mode.

\* When kn = 01 the en for all keys is set to the default.

When kn = 02 the en for all keys is set to s1.

enH: Effect Number

en= 5B: Reverb Depth

en= 5D: Chorus Depth

\* Only reverb supported in the CVP'93.

siH: Send Level

\* When several levels are set for one instrument [enH] and [siH] can be written repeatedly.

In this case the unit must recognize the data regardless of the order of en.

\* This data applies a  $\pm 40H$  offset to the CH depth parameter of each channel of each instrument.

#### Example

[F0H] [43H] [73H] [xxH] [11H] [0eH]  
[30H] [43H] [knH] [enH] [siH] [F7H]

[knH] [enH] [siH]

[36H] [5bH] [10H]:

F#0 Brush Roll reverb depth set to -30H.

[36H] [5bH] [20H] [5dH] [60H]

[36H] [5dH] [60H] [5bH] [20H]:

F#0 Brush Roll reverb depth set to -20H and chorus to +20H.

[01H] [5bH] [xxH]:

Reverb depth for all keys set to default ( $\pm 0$ ).

[01H] [5dH] [xxH]:

Chorus depth for all keys set to default ( $\pm 0$ ).

[02H] [5bH] [20H]:

Reverb depth for all keys set to -20H.

[02H] [5dH] [30H]:

Chorus depth for all keys set to -10H.

#### • Pan Set Switching

[F0H] [43H] [73H] [xxH] [11H] [0nH]  
[30H] [47H] [knH] [pnH] [F7H]

11H: Clavinova special control code

0nH: MIDI Channel Number

\* Received only on channel 15 (0EH) in the CVP'93, affecting all tracks.

Received only on channel 10 (09H) n the GM mode, affecting all tracks.

30H: Drums Parameter Change

47H: Panpot

knH: Key Number

\* Also included in the panel key code in the Common Voice mode (because conversion is not possible). Included in the GM key code in the GM mode.

\* When kn = 01 pan is set to the value specified in pn.

When kn = 02 the pan for all keys is set to the pin point specified in pn.

pnH: Pan

\* When kn = 01 pan is set to the value specified in pn.

pn= 00: Normal DOC Setting

= 01: Narrow DOC left

= 02: Narrow DOC center

= 03: Narrow DOC right

= 04: Normal GM Setting

= 05: Narrow GM left

= 06: Narrow GM center

= 07: Narrow GM right

\* Normal pan value used when kn is other than 01.

However, values 48...4F are also set to pin-point center.

#### • Absolute Tempo

[F0H] [43H] [73H] [yyH] [11H] [1nH]  
[ccH] [ddH] [F7H]

43H= YAMAHA ID

73H= CLAVINOVA ID

yyH= Product ID (CVP-87A/85A/83S= 34H)

11H= Clavinova special control code

1nH= Control MIDI Change

(Transmit: n = Control Change number)

(Receive: any channel OK)

cc= Absolute tempo low byte

dd= Absolute tempo high byte

Tempo= dd\*128+ccH

#### • Beat, Tempo LED ON/OFF

[F0H] [43H] [73H] [yyH] [11H] [4FH]  
[ccH] [ddH] [F7H]

43H= YAMAHA ID

73H= CLAVINOVA ID

yyH= Product ID

(CVP-87A/85A/83S= 34H, or common 01H)

11H= Clavinova special control code

4FH= Control MIDI Change

ccH= 00H: Beat lamp on/off

01H: Tempo lamp on/off

ddH= 00H: On

7FH: Off

• All MIDI data available for general use are given above.

**CVP-83S**

YAMAHA [ Clavinova ]  
 Model CVP-83S MIDI Implementation Chart

Date : 07/17, 1993  
 Version : 1.0

Function	Transmitted	Recognized	Remarks
Basic Default	: 1	: 1	
Channel Changed	: 1-16	: 1-16	
Mode Default	: 3	: 1	
Mode Messages	: X	: OMNIon,OMNIoff	
	: *****	: X	
Note Number : True voice	: 15-114	: 21-108	
	: *****	: 21-108	
Velocity Note on	: 0 9nH,v=1-127	: 0 v=1-127	
Velocity Note off	: X 9nH,v=0	: X	
After Key's	: X	: X	
Touch Ch's	: X	: X	
Pitch Bender	: 0	: 0	
Control	01 : 0	: 0	: Modulation
	06, 38 : X	: 0	: Data entry
	07 : 0	: 0	: Volume
	10 : 0	: 0	: Pan pot
	11 : 0	: 0	: Expression
Change	64 : 0	: 0	: Damper
	66 : 0	: 0	: Sostenuto
	67 : 0	: 0	: Soft
	84 : 0	: 0	: Portament
	91 : 0	: 0	: Reverb depth
	96, 97 : X	: 0	: Data inc/dec
	98, 99,100,101 : X	: 0	: NRPN,PRN lsb/msb
	120 : X	: 0	: All sounds off
			: *1
	121 : X	: 0	: Reset all
			: controllers *1
Program Change : True #	: 0 0-59	: 0 0-127	
	: *****	: 0-127	
System Exclusive	: 0	: 0	
System : Song Pos	: X	: X	
System : Song Sel	: X	: X	
Common : Tune	: X	: X	
System :Clock	: 0	: 0	
Real Time:Commands	: 0	: 0	
Aux :Local ON/OFF	: X	: 0	
Aux :All Notes OFF	: X	: 0 (123-125) *1	
Mes- :Active Sense	: 0	: 0	
sages:Reset	: X	: X	
Notes	: *1 = receive (120,121,123) if omni off or multi-timbre on		

Mode 1 : OMNI ON, POLY      Mode 2 : OMNI ON, MONO      0 : Yes  
 Mode 3 : OMNI OFF, POLY    Mode 4 : OMNI OFF, MONO    X : No

CVP-83S

# Clavinova<sup>®</sup>

# CVP-83S

## PARTS LIST

### ■ CONTENTS

ELECTRICAL PARTS.....	1
OVERALL ASSEMBLY.....	6
MAIN UNIT.....	8
CONTROL PANEL ASSEMBLY.....	13
TOP BOARD ASSEMBLY.....	16
SIDE COVER ASSEMBLY.....	18
END BLOCK ASSEMBLY.....	19
POWER SWITCH ASSEMBLY.....	20
MUSIC REST ASSEMBLY.....	21
POWER TRANSFORMER ASSEMBLY.....	22
KEYBOARD UNIT.....	23
STAND ASSEMBLY.....	25
AC CORD ASSEMBLY.....	27
BENCH(BC-8).....	28

### Notes DESTINATION ABBREVIATIONS

J : Japanese model	A : Australian model
U : U.S. model	E : European model
C : Canadian model	D : German model
X : General model	B : British model
M : South African model	I : Indonesian model
H : North European model	

- The numbers with "pc." or "pcs" in "Remarks" show quantities for each unit.
- The parts with "--" in "Part No." are not available as spare parts.

**ELECTRICAL PARTS**

Ref. No.	Part No.	Description	部品名	Remarks	ランク
		<ELECTRICAL PARTS>	<電気部品>	CVP83S	
**	VQ219700	CIRCUIT BOARD	DM		44
**	VQ519200	CIRCUIT BOARD	AN		15
	VC796500	CIRCUIT BOARD	AE88L		09
	VC796300	CIRCUIT BOARD	AE C		10
**	VC796600	CIRCUIT BOARD	AE88H		08
**	VQ221000	CIRCUIT BOARD	PN1		13
**	VQ221200	CIRCUIT BOARD	PN3		14
**	VQ219900	CIRCUIT BOARD	PN2		
	VN908600	CIRCUIT BOARD	HP		09
	V0000800	CIRCUIT BOARD	PEDAL		05
	VD919900	CIRCUIT BOARD	PU		21
	VD920000	CIRCUIT BOARD	PU	U,C,X A,B,E,M	21
**	VQ219700	CIRCUIT BOARD	DM		44
	EP630220	BIND HEAD TAPPING SCREW-P	3.0X8 ZMC2BL		01
	UB012220	MONOLITHIC CERA. CAP. (CHIP)	B 220P 50V K		01
	UB012470	MONOLITHIC CERA. CAP. (CHIP)	B 470P 50V K		01
	UB051150	MONOLITHIC CERA. CAP. (CHIP)	SL 15P 50V J		01
	UB051220	MONOLITHIC CERA. CAP. (CHIP)	SL 22P 50V J		01
	UB051390	MONOLITHIC CERA. CAP. (CHIP)	SL 39P 50V J		01
	UB052100	MONOLITHIC CERA. CAP. (CHIP)	SL 100P 50V J		01
	UB044100	MONOLITHIC CERA. CAP. (CHIP)	F 0.010 50V Z		01
	UB245100	MONOLITHIC CERA. CAP. (CHIP)	F 0.100 25V Z		01
	UFO18100	ELECTROLYTIC CAP. (CHIP)	100 6.3V		01
**	UF037100	ELECTROLYTIC CAP. (CHIP)	10 16V		01
**	UF037470	ELECTROLYTIC CAP. (CHIP)	47 16V		01
**	UF046470	ELECTROLYTIC CAP. (CHIP)	4.7 25V		01
**	UF066100	ELECTROLYTIC CAP. (CHIP)	1 50V		01
**	UF118330	ELECTROLYTIC CAP. (CHIP)	330 6.3V		01
**	UF148100	ELECTROLYTIC CAP. (CHIP)	100 25V		
**	UF246470	ELECTROLYTIC CAP. -BP (CHIP)	4.7 25V		
**	VJ928500	CHIP INDUCTANCE	BLM32A06PT		01
**	VQ464300	CHIP INDUCTANCE	NWL2520-560J		
**	RD250000	CHIP CARBON RESISTOR	0.0 0.0 J		01
	RD254560	CHIP CARBON RESISTOR	56.0 0.1 J		01
	RD255100	CHIP CARBON RESISTOR	100.0 0.1 J		01
	RD255120	CHIP CARBON RESISTOR	120.0 0.1 J		01
	RD255220	CHIP CARBON RESISTOR	220.0 0.1 J		01
	RD255330	CHIP CARBON RESISTOR	330.0 0.1 J		01
	RD256100	CHIP CARBON RESISTOR	1.0K 0.1 J		01
	RD256120	CHIP CARBON RESISTOR	1.2K 0.1 J		01
	RD256150	CHIP CARBON RESISTOR	1.5K 0.1 J		01
	RD256220	CHIP CARBON RESISTOR	2.2K 0.1 J		01
	RD256470	CHIP CARBON RESISTOR	4.7K 0.1 J		01
	RD257100	CHIP CARBON RESISTOR	10.0K 0.1 J		01
	RD257220	CHIP CARBON RESISTOR	22.0K 0.1 J		01
	RD257330	CHIP CARBON RESISTOR	33.0K 0.1 J		01
	RD258470	CHIP CARBON RESISTOR	470.0K 0.1 J		01
	RD259100	CHIP CARBON RESISTOR	1.0M 0.1 J		01
**	VP105000	RESISTOR ARRAY	EXB-V8V221JV		01
**	XF291A00	IC	UPC4570G2		03
**	XJ598A00	IC	NJH78L05UA	OP AMP REGULATOR +5V	
**	XC728A00	IC	SN74HC74NSR	DFF	01
**	XD830A00	IC	SN74HC04NSR	INVERTER	01
**	XD831A00	IC	SN74HC08NSR	AND	01
**	XD833A00	IC	SN74HC32NSR	OR	01
**	XD835A00	IC	SN74HC138NSR	DECODER	02
**	XD840A00	IC	SN74HC367NSR	BUFFER	02
**	XE165A00	IC	SN74HC00NSR	NAND	01
**	XJ623A00	IC	TC74HC4051AF	MULTIPLEX	02
**	XL112A00	IC	SN74HC132NS-R	NAND	03
**	XI939A00	IC	HD63266F	FDC	09
**	XI940A00	IC	HD68B44RP	DMAC	08
**	XJ797A00	IC	HD6415108F10	CPU	09
**	XM510B00	IC	H8/330	SUB-CPU,OTP	
**	XK832B00	IC	TC518128BFL-80	PSRAM 1M	
**	XK929A00	IC	HY6264ALJ-10	SRAM 64K	08
**	XM508100	IC	PARAMETER 8M	8M PARAMETER	
**	XM509100	IC	HN624116PZ40	ROM	
**	XM453B00	IC		EPROM 4M MAIN	
**	XM506B00	IC	ABC/RHYTHM	EPROM 8M-8BIT	
**	XM507B00	IC	WAVE-DEBUG	EPROM 256K	
**	XH543A00	IC	YM6633	KSN	09
**	XI616A00	IC	LC92018B-500	LDO3	07
**	XK281B00	IC	YMW265B-F	CVG	
**	XM145A00	IC	UPD63200GS	DAC	07
**	VB312500	DIN JACK	5P YKF51-50	DIN ジャック	02
**	LB918020	BASE POST CONNECTOR	XH-2P TE	ベースツキポスト	01

CVP-83S

Ref. No.	Part No.	Description		部 品 名	Remarks	ランク
	LB918030	BASE POST CONNECTOR	XH-3P TE	ベースツキポスト		01
	LB918040	BASE POST CONNECTOR	XH-4P TE	ベースツキポスト		01
	LB918070	BASE POST CONNECTOR	XH-7P TE	ベースツキポスト		01
	LB918080	BASE POST CONNECTOR	XH-8P TE	ベースツキポスト		01
	LB918120	BASE POST CONNECTOR	XH-12P TE	ベースツキポスト		02
	LB918160	BASE POST CONNECTOR	XH-16P TE	ベースツキポスト		01
	VB390000	BASE POST CONNECTOR	PH-4P TE	コネクタベースト		01
	VB390200	BASE POST CONNECTOR	PH-6P TE	コネクタベースト		01
	VB390300	BASE POST CONNECTOR	PH-7P TE	コネクタベースト		01
	VB390400	BASE POST CONNECTOR	PH-8P TE	コネクタベースト		01
	VB390500	BASE POST CONNECTOR	PH-9P TE	コネクタベースト		03
	VB390600	BASE POST CONNECTOR	PH-10P TE	コネクタベースト		01
	VF352600	BASE POST CONNECTOR	PH-14P TE	コネクタベースト		01
	VF283400	BASE POST CONNECTOR	PH-16P TE	コネクタベースト		01
	VQ391300	CONNECTOR	34P TE	コネクタ		01
	VI622400	IC SOCKET	PLPS-N84B-T	ICソケット		06
	VK405200	IC SOCKET	DICF-40CS-E	ICソケット		03
	VK863100	IC SOCKET	DICF-42CS-E	ICソケット		03
	VL184700	IC SOCKET	DICF-28CS-E	ICソケット		
	VP864800	QUARTZ CRYSTAL UNIT	11.2896M SMD-49	水晶振動子		
	VQ274700	QUARTZ CRYSTAL UNIT	20.0M SMD-49	水晶振動子		
	VQ274800	QUARTZ CRYSTAL UNIT	24.0M SMD-49	水晶振動子		
	VQ274900	CERAMIC RESONATOR	16M CSACS16.00M	セラミック共振器		
	VQ275000	CERAMIC RESONATOR	4M CSTCS4.00M	セラミック共振器		
	VN416200	TRANSISTOR	2SC2412K T147 S	トランジスタ		01
	VQ202400	TRANSISTOR ARRAY	TD62785F SOURCE	トランジスタアレイ		
	VN686000	PHOTO COUPLER	PC410T	フォトカプラー		04
	VN632800	HOLDER, MIDI	#2327	取り付け具		05
	1 VQ332000	CHIP INDUCTANCE	5.0U SF-M0520 T	チップインダクタ		
	1 VQ332100	CHIP INDUCTANCE	10U SN-S3M1010T	チップインダクタ		
	2 XI020A00	IC	HM65256BLFP-10T	IC	PSRAM 256K	08
	2 XM049A00	IC	TC51832AFL-10	IC	PSRAM 256K	08
	3 VB493900	DIODE	MA221	ダイオード		01
	3 VB797600	DIODE	RLS-73	ダイオード		01
	4 VJ927200	TRANSISTOR	2SA1162 O,Y	トランジスタ		01
	4 VQ395600	TRANSISTOR	2SA1052 B,C	トランジスタ		
	5 VJ927100	TRANSISTOR	2SC2712 Y	トランジスタ		01
	5 VQ395500	TRANSISTOR	2SC2462LCTR C	トランジスタ		
	6 VQ562500	CHIP INDUCTANCE	MMZ2012Y601125	チップインダクタ		
	6 VQ724900	CHIP INDUCTANCE	BK2125HM601-T	チップインダクタ		
	VQ519200	CIRCUIT BOARD	AN	A N シート		15
	--	JUMPER WIRE	0.55	ジャンパー線	(VD04170)	
	C1 UK866330	ELECTROLYTIC CAP.-BP	3.30 50.0V	B P ケミコン		01
	C2 UK866330	ELECTROLYTIC CAP.-BP	3.30 50.0V	B P ケミコン		01
	C3 UK837470	ELECTROLYTIC CAP.-BP	47.00 16.0V	B P ケミコン		01
	C4 UK837470	ELECTROLYTIC CAP.-BP	47.00 16.0V	B P ケミコン		01
	C5 VQ758500	ELECTROLYTIC CAP.-BP	1.50UF 50.0V	B P ケミコン		
	C6 VQ758500	ELECTROLYTIC CAP.-BP	1.50UF 50.0V	B P ケミコン		
	C7 VC694800	SEMICONDUCTIVE CERA. CAP.	0.1000 25V Z	半導体セラコン		01
	C8 VC694800	SEMICONDUCTIVE CERA. CAP.	0.1000 25V Z	半導体セラコン		01
	C9 VC694800	SEMICONDUCTIVE CERA. CAP.	0.1000 25V Z	半導体セラコン		01
	D1 VB941200	DIODE	1SS133,1SS176	ダイオード		01
	D2 VB481900	DIODE	11ES4	ダイオード		01
	R1 HF755150	CARBON RESISTOR	150.0 1/4 J	カーボン抵抗		01
	R4 HF756470	CARBON RESISTOR	4.7K 1/4 J	カーボン抵抗		01
	R5 HF756470	CARBON RESISTOR	4.7K 1/4 J	カーボン抵抗		01
	R6 HF757470	CARBON RESISTOR	47.0K 1/4 J	カーボン抵抗		01
	R7 HF756820	CARBON RESISTOR	8.2K 1/4 J	カーボン抵抗		01
	R8 HF757470	CARBON RESISTOR	47.0K 1/4 J	カーボン抵抗		01
	R9 HF756560	CARBON RESISTOR	5.6K 1/4 J	カーボン抵抗		01
	CN1 LB918050	BASE POST CONNECTOR	XH-5P TE	ベースツキポスト		01
	CN2 LB918040	BASE POST CONNECTOR	XH-4P TE	ベースツキポスト		01
	CN3 LB918070	BASE POST CONNECTOR	XH-7P TE	ベースツキポスト		01
	CN4 LB918050	BASE POST CONNECTOR	XH-5P TE	ベースツキポスト		01
	CN5 LB918080	BASE POST CONNECTOR	XH-8P TE	ベースツキポスト		01
	CN6 LB918070	BASE POST CONNECTOR	XH-7P TE	ベースツキポスト		01
	CN7 LB918020	BASE POST CONNECTOR	XH-2P TE	ベースツキポスト		01
	CN8 LB918070	BASE POST CONNECTOR	XH-7P TE	ベースツキポスト		01
	C10 FG651820	CERAMIC CAP.-SL	82P 50V J	セラコン (S L)		01
	C11 VC694800	SEMICONDUCTIVE CERA. CAP.	0.1000 25V Z	半導体セラコン		01
	C12 FG613100	CERAMIC CAP.-B	1000P 50V K	セラコン B		01
	C13 FG651820	CERAMIC CAP.-SL	82P 50V J	セラコン (S L)		01
	C14 FG613100	CERAMIC CAP.-B	1000P 50V K	セラコン B		01
	C17 UJ867100	ELECTROLYTIC CAP.	10.00 50.0V	ケミコン		01
	C18 UJ867100	ELECTROLYTIC CAP.	10.00 50.0V	ケミコン		01
	C19 UJ867100	ELECTROLYTIC CAP.	10.00 50.0V	ケミコン		01
	C20 UJ867100	ELECTROLYTIC CAP.	10.00 50.0V	ケミコン		01
	C21 UJ867100	ELECTROLYTIC CAP.	10.00 50.0V	ケミコン		01

\* : New Parts (新規部品) NR

Ref. No.	Part No.	Description	部 品 名	Remarks	ランク
C22	UJ848100	ELECTROLYTIC CAP.	100.00 25.0V	ケミコン	01
C23	UJ848100	ELECTROLYTIC CAP.	100.00 25.0V	ケミコン	01
C24	UA655330	MYLAR CAP.	0.3300 50V J	マイラコン	01
C25	UA655330	MYLAR CAP.	0.3300 50V J	マイラコン	01
C26	UA654560	MYLAR CAP.	0.0560 50V J	マイラコン	01
C27	UA655560	MYLAR CAP.	0.5600 50V J	マイラコン	01
C28	UA654180	MYLAR CAP.	0.0180 50V J	マイラコン	01
C29	UA353560	MYLAR CAP.	5600P 50V J	マイラコン	01
C30	UA655180	MYLAR CAP.	0.1800 50V J	マイラコン	01
C31	UA654330	MYLAR CAP.	0.0330 50V J	マイラコン	01
C32	UA654560	MYLAR CAP.	0.0560 50V J	マイラコン	01
C33	UA654180	MYLAR CAP.	0.0180 50V J	マイラコン	01
C34	UA655180	MYLAR CAP.	0.1800 50V J	マイラコン	01
C35	UA655560	MYLAR CAP.	0.5600 50V J	マイラコン	01
C36	UA353560	MYLAR CAP.	5600P 50V J	マイラコン	01
C37	UA654330	MYLAR CAP.	0.0330 50V J	マイラコン	01
C38	UA655100	MYLAR CAP.	0.1000 50V J	マイラコン	01
C39	UA655100	MYLAR CAP.	0.1000 50V J	マイラコン	01
C40	VC694800	SEMICONDUCTIVE CERA. CAP.	0.1000 25V Z	半導体セラコン	01
C41	VC694800	SEMICONDUCTIVE CERA. CAP.	0.1000 25V Z	半導体セラコン	01
C42	UA353820	MYLAR CAP.	8200P 50V J	マイラコン	01
C43	UA353820	MYLAR CAP.	8200P 50V J	マイラコン	01
C44	FG612220	CERAMIC CAP.-B	220P 50V K	セラコン B	01
C45	FG612220	CERAMIC CAP.-B	220P 50V K	セラコン B	01
* IC1	XH897A00	IC	M5243P12	IC	G. EQUALIZER
IC2	XN804A00	IC	LA8517	IC	OP AMP
IC3	XB247A00	IC	UPC4570HA	IC	OP AMP
IC4	XB247A00	IC	UPC4570HA	IC	OP AMP
J10	--	JUMPER WIRE	0.55	ジャンパー線	(VD04170)
J11	--	JUMPER WIRE	0.55	ジャンパー線	(VD04170)
J12	--	JUMPER WIRE	0.55	ジャンパー線	(VD04170)
J13	--	JUMPER WIRE	0.55	ジャンパー線	(VD04170)
RY1	KC001900	RELAY	DC RY12W 12V	リレー	07
RY2	VK881200	RELAY	DC G5Z-2A 12V	リレー	04
R10	HF757470	CARBON RESISTOR	47.0K 1/4 J	カーボン抵抗	01
R11	HF756470	CARBON RESISTOR	4.7K 1/4 J	カーボン抵抗	01
R12	HF757470	CARBON RESISTOR	47.0K 1/4 J	カーボン抵抗	01
R13	HF756560	CARBON RESISTOR	5.6K 1/4 J	カーボン抵抗	01
R14	HF756470	CARBON RESISTOR	4.7K 1/4 J	カーボン抵抗	01
R15	HF757470	CARBON RESISTOR	47.0K 1/4 J	カーボン抵抗	01
R17	HF756560	CARBON RESISTOR	5.6K 1/4 J	カーボン抵抗	01
R18	HF757100	CARBON RESISTOR	10.0K 1/4 J	カーボン抵抗	01
R19	HF756820	CARBON RESISTOR	8.2K 1/4 J	カーボン抵抗	01
R20	HF756470	CARBON RESISTOR	4.7K 1/4 J	カーボン抵抗	01
R21	HF756100	CARBON RESISTOR	1.0K 1/4 J	カーボン抵抗	01
R22	HF757470	CARBON RESISTOR	47.0K 1/4 J	カーボン抵抗	01
R23	HF757470	CARBON RESISTOR	47.0K 1/4 J	カーボン抵抗	01
R25	HF756470	CARBON RESISTOR	4.7K 1/4 J	カーボン抵抗	01
R26	HF756560	CARBON RESISTOR	5.6K 1/4 J	カーボン抵抗	01
R27	HF757470	CARBON RESISTOR	47.0K 1/4 J	カーボン抵抗	01
R28	--	JUMPER WIRE	0.55	ジャンパー線	(VD04170)
R29	HF757100	CARBON RESISTOR	10.0K 1/4 J	カーボン抵抗	01
R31	HF757100	CARBON RESISTOR	10.0K 1/4 J	カーボン抵抗	01
R32	--	JUMPER WIRE	0.55	ジャンパー線	(VD04170)
R34	HF756100	CARBON RESISTOR	1.0K 1/4 J	カーボン抵抗	01
R35	HF754330	CARBON RESISTOR	33.0 1/4 J	カーボン抵抗	01
R36	HF754330	CARBON RESISTOR	33.0 1/4 J	カーボン抵抗	01
R37	HF756120	CARBON RESISTOR	1.2K 1/4 J	カーボン抵抗	01
R38	HF757470	CARBON RESISTOR	47.0K 1/4 J	カーボン抵抗	01
R39	HF756120	CARBON RESISTOR	1.2K 1/4 J	カーボン抵抗	01
R40	HF756120	CARBON RESISTOR	1.2K 1/4 J	カーボン抵抗	01
R41	HF757470	CARBON RESISTOR	47.0K 1/4 J	カーボン抵抗	01
R42	HF756120	CARBON RESISTOR	1.2K 1/4 J	カーボン抵抗	01
R43	HF757220	CARBON RESISTOR	22.0K 1/4 J	カーボン抵抗	01
R44	HF757220	CARBON RESISTOR	22.0K 1/4 J	カーボン抵抗	01
R45	--	JUMPER WIRE	0.55	ジャンパー線	(VD04170)
R46	--	JUMPER WIRE	0.55	ジャンパー線	(VD04170)
R47	HF757100	CARBON RESISTOR	10.0K 1/4 J	カーボン抵抗	01
R48	HF757330	CARBON RESISTOR	33.0K 1/4 J	カーボン抵抗	01
R49	HF757100	CARBON RESISTOR	10.0K 1/4 J	カーボン抵抗	01
R50	HF757330	CARBON RESISTOR	33.0K 1/4 J	カーボン抵抗	01
TR5	IC1815M0	TRANSISTOR	2SC1815 Y,GR	トランジスタ	01
TR6	IC1815M0	TRANSISTOR	2SC1815 Y,GR	トランジスタ	01
ZD1	VG440200	ZENER DIODE	MTZ J 12.0B 12V	ツェナーダイオード	01
2	VC796500	CIRCUIT BOARD	AE88L	A E 8 8 L シート	09
3	VB941200	DIODE	1SS133,1SS176	ダイオード	01
4	LB918160	BASE POST CONNECTOR	XH-16P TE	ベーススツキポスト	01
4	LB918120	BASE POST CONNECTOR	XH-12P TE	ベーススツキポスト	02

CVP-83S



Ref. No.	Part No.	Description	部品名	Remarks	ランク
2	VC796300	CIRCUIT BOARD	AE C	A E C シート	10
3	VB941200	DIODE	1SS133,1SS176	ダイオード	01
3	LB918160	BASE POST CONNECTOR	XH-16P TE	ベースツキポスト	01
4	LB918120	BASE POST CONNECTOR	XH-12P TE	ベースツキポスト	02
2	VC796600	CIRCUIT BOARD	AE88H	A E 8 8 H シート	08
2	VB941200	DIODE	1SS133,1SS176	ダイオード	01
3	LB918160	BASE POST CONNECTOR	XH-16P TE	ベースツキポスト	01
* * *	VQ221000	CIRCUIT BOARD	PN1	P N 1 シート	13
* * *	VQ221200	CIRCUIT BOARD	PN3	P N 3 シート	14
	HF754470	CARBON RESISTOR	47.0 1/4 J	カーボン抵抗	01
	KA906550	PUSH SWITCH	KEC10901	プッシュスイッチ	02
	LB919050	BASE POST CONNECTOR	XH-5P SE	ベースツキポスト	01
	VB858300	BASE POST CONNECTOR	PH-4P SE	ベースツキポスト	01
	VB858600	BASE POST CONNECTOR	PH-7P SE	ベースツキポスト	01
	VB858700	BASE POST CONNECTOR	PH-8P SE	ベースツキポスト	01
	VB858800	BASE POST CONNECTOR	PH-9P SE	ベースツキポスト	01
	VB858900	BASE POST CONNECTOR	PH-10P SE	ベースツキポスト	01
	VK015600	BASE POST CONNECTOR	PH-16P SE	ベースツキポスト	01
	VK368700	SLIDE POT.	B 10.0K	スライドロット	03
	VK369000	SLIDE POT.	A 10.0Kx2	二連スライドロット	03
	VB941200	DIODE	1SS133,1SS176	ダイオード	01
	VD180000	LED	SLZ-190B-03 RE	L E D	01
	VLO50200	LED DISPLAY	LB-303MA132	L E D ディスプレイ	06
	VQ996300	LED	GL8ED5	2色LED	4pcs
	--	LED-SHADE		遮光シート	(VR18780)
	--	JUMPER WIRE	0.55	ジャンパー線	(VD04170)
* * *	VQ219900	CIRCUIT BOARD	PN2	P N 2 シート	
	HF754470	CARBON RESISTOR	47.0 1/4 J	カーボン抵抗	01
	KA906550	PUSH SWITCH	KEC10901	プッシュスイッチ	02
	VK793700	PUSH SWITCH	SKHFAA	プッシュスイッチ	03
	VB858500	BASE POST CONNECTOR	PH-6P SE	ベースツキポスト	01
	VB858700	BASE POST CONNECTOR	PH-8P SE	ベースツキポスト	01
	VB858800	BASE POST CONNECTOR	PH-9P SE	ベースツキポスト	01
	VH904200	BASE POST CONNECTOR	PH-14P SE	ベースツキポスト	01
	VK015600	BASE POST CONNECTOR	PH-16P SE	ベースツキポスト	01
	VB941200	DIODE	1SS133,1SS176	ダイオード	01
	VD180000	LED	SLZ-190B-03 RE	L E D	01
	VG778600	LED	SLZ290B-03-T2GR	L E D	42pcs
	--	JUMPER WIRE	0.55	ジャンパー線	BEAT-2,3,4 3pcs
1	VLO86000	LED DISPLAY	LB-603VLF	L E D ディスプレイ	(VD04170)
1	VQ323900	LED DISPLAY	SL-9351S	L E D ディスプレイ	05
	VN906600	CIRCUIT BOARD	HP	H P シート	09
	VE659000	SEMICONDUCTIVE CERA. CAP.	0.1000 25V Z	半導体セラコン	01
	VB971100	COIL	FL5R200QN 20u	コイル	01
	VK992200	CARBON RESISTOR	68.0 1/2 J	カーボン抵抗	01
	LB101870	PHONE JACK	YKB21-5006	ホーンジャック	03
	LB919070	BASE POST CONNECTOR	XH-7P SE	ベースツキポスト	01
	--	JUMPER WIRE	0.55	ジャンパー線	(VD04170)
	VG925900	WIRE	GND 100mm	アース束線	03
	V0000800	CIRCUIT BOARD	PEDAL	P E D A L シート	05
	LB918040	BASE POST CONNECTOR	XH-4P TE	ベースツキポスト	01
	--	JUMPER WIRE	0.55	ジャンパー線	(VD04170)
	VD919900	CIRCUIT BOARD	PU	P U シート	U.C,X
	VD920000	CIRCUIT BOARD	PU	P U シート	A,B,E,M
	EE630060	PAN HEAD SCREW	3.0X12 ZMC2Y	+ナベ小ネジ	01
	EE630100	PAN HEAD SCREW	3.0X30 ZMC2Y	+ナベ小ネジ	01
	EP600250	BIND HEAD TAPPING SCREW-B	3.0X8 ZMC2Y	+バインドBタイト	01
	--	FLAT WASHER	3.0X8X0.5 ZMC2Y	平座金みがき丸	(0376537)
	UA355220	MYLAR CAP.	0.2200 50V J	マイラコン	01
	FG652100	CERAMIC CAP.-SL	100P 50V J	セラコン (SL)	01
	UJ847470	ELECTROLYTIC CAP.	47.00 25.0V	ケミコン	01
	UJ848100	ELECTROLYTIC CAP.	100.00 25.0V	ケミコン	01
	UJ857470	ELECTROLYTIC CAP.	47.00 35.0V	ケミコン	01
	UJ858100	ELECTROLYTIC CAP.	100.00 35.0V	ケミコン	01
* * *	FZ004910	ELECTROLYTIC CAP.	4700 35.0V	ケミコン	05
	UI939680	ELECTROLYTIC CAP.	6800 16.0V	ケミコン	04
	UK547100	ELECTROLYTIC CAP.-BP	10.00 25.0V	B P ケミコン	01
	UK866100	ELECTROLYTIC CAP.-BP	1.00 50.0V	B P ケミコン	01
	VA937100	ELECTROLYTIC CAP.-BP	1000 25.0V	B P ケミコン	03
	VD287800	SEMICONDUCTIVE CERA. CAP.	0.1000 50V Z	半導体セラコン	01
	VA937000	COIL	400u	コイル	05
	GE300670	FERRITE BEAD	BL02RN2-R62T4	フェライトビーズ	02

\* : New Parts (新規部品) NR

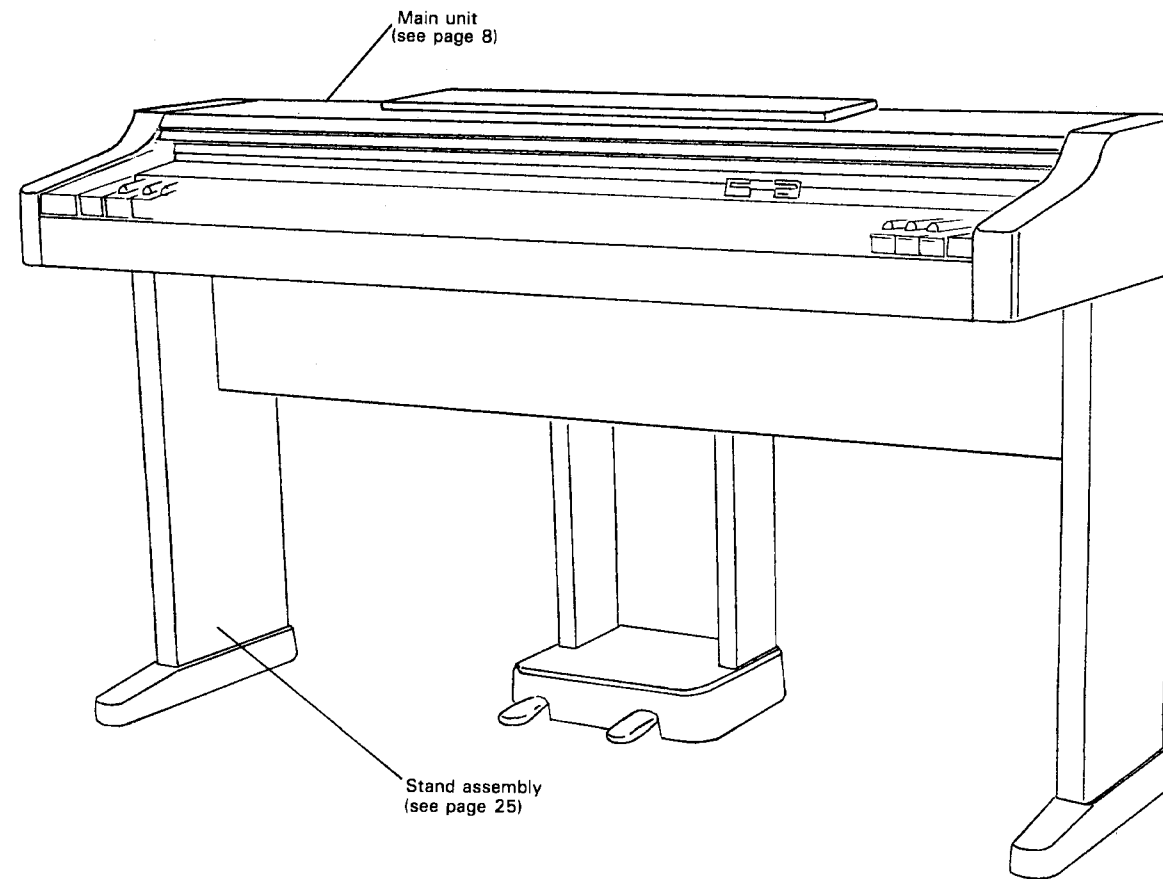
CVP-83S

Ref. No.	Part No.	Description	部 品 名	Remarks	ランク
*	HF753470	CARBON RESISTOR	4.7 1/4 J	カーボ抵抗	01
	HF755100	CARBON RESISTOR	100.0 1/4 J	カーボ抵抗	01
	HF756100	CARBON RESISTOR	1.0K 1/4 J	カーボ抵抗	01
	HF756220	CARBON RESISTOR	2.2K 1/4 J	カーボ抵抗	01
	HF756470	CARBON RESISTOR	4.7K 1/4 J	カーボ抵抗	01
	HF757100	CARBON RESISTOR	10.0K 1/4 J	カーボ抵抗	01
	HF757220	CARBON RESISTOR	22.0K 1/4 J	カーボ抵抗	01
	HF757470	CARBON RESISTOR	47.0K 1/4 J	カーボ抵抗	01
	HF757820	CARBON RESISTOR	82.0K 1/4 J	カーボ抵抗	01
*	HF758180	CARBON RESISTOR	180.0K 1/4 J	カーボ抵抗	01
	HW095100	FUSE RESISTOR	100.0 1/4 J	ヒューズ抵抗	01
	XA588A00	IC	STK4131MARK2	IC	POWER AMP
	IG081300	IC	NJM78M15A	IC	REGULATOR +15V
	IG138200	IC	SI-3052V	IC	REGULATOR +5V
	XA589A00	IC	NJM79M15A	IC	REGULATOR -15V
	KB002640	FUSE	4.00A U 250V	ヒューズ	U,C,X
	KB002680	FUSE	2.50A U 250V	ヒューズ	U,C,X
	KB000680	FUSE	T 1.25AL/250V S	ヒューズ	A,B,E,M
	KB000790	FUSE	T 4.00AL/250V S	ヒューズ	A,B,E,M
	LB918030	BASE POST CONNECTOR	XH-3P TE	ベースポスト	01
	LB918040	BASE POST CONNECTOR	XH-4P TE	ベースポスト	01
	LB918050	BASE POST CONNECTOR	XH-5P TE	ベースポスト	01
	LB918070	BASE POST CONNECTOR	XH-7P TE	ベースポスト	01
	LB918080	BASE POST CONNECTOR	XH-8P TE	ベースポスト	01
	LB932030	BASE POST CONNECTOR	VH-3P TE	ベースポスト	01
	LB932040	BASE POST CONNECTOR	VH-4P TE	ベースポスト	01
	LB932050	BASE POST CONNECTOR	VH-5P TE	ベースポスト	01
	LB932060	BASE POST CONNECTOR	VH-6P TE	ベースポスト	01
	LB201530	FUSE HOLDER	PC-FH1	ヒューズホルダ	01
	VB481900	DIODE	11ES4	ダイオード	01
D302	IH001090	DIODE STACK	S4VB20 2.6A	ダイオードスタック	04
	IH001170	DIODE STACK	D4BB20 4.5A	ダイオードスタック	05
D302	IH001370	DIODE STACK	D5FB20 5.0A	ダイオードスタック	05
	AA058660	HOLDER		ダイオードスタックホルダ	01
	VB097200	ANGLE BRACKET		取付け金具	01
	--	HEAT SINK		放熱シン	(VD92150)
	--	HEAT SINK		放熱板	(VE06800)
	--	INSULATION SHEET		絶縁紙	A,B,E,M(VE94660)
	CB058550	INSULATION SHEET		絶縁紙	
	VA078900	JUMPER WIRE	0.55	ジャンパー線	04
KC	FI384100	CERAMIC CAP.	0.010 400V	規格認定コン	01
KC	FI494100	CERAMIC CAP.	0.010 400V	規格認定コン	01
**	XN131A00	SPEAKER	5.0cm 16ohm 20W	スピーカ	
**	XM992A00	SPEAKER	16.0cm 8ohm 20W	スピーカ	2pcs
**	VR368500	PK CABLE		P K 束線	
**	VQ668800	PK CABLE		P K ケーブル	
**	VQ669200	AC CORD ASSEMBLY		電源コード	U,C
**	VQ669300	AC CORD ASSEMBLY		電源コード	A
**	VQ669500	AC CORD ASSEMBLY		電源コード	B
**	VQ669400	AC CORD ASSEMBLY		電源コード	E
**	VQ669000	AC CORD ASSEMBLY		電源コード	X
**	VQ669100	AC CORD ASSEMBLY		電源コード	M
**	VQ862500	POWER TRANSFORMER ASSEMBLY		トランス	U,C
**	VQ862800	POWER TRANSFORMER ASSEMBLY		トランス	A,X,M
**	VQ862700	POWER TRANSFORMER ASSEMBLY		トランス	B
**	VQ862600	POWER TRANSFORMER ASSEMBLY		トランス	E
	VC843500	PUSH SWITCH	SDDL B1	プッシュスイッチ	POWER 03

\* : New Parts (新規部品) NR

ランク : Japan Only

OVERALL ASSEMBLY



Ref. No.	Part No.	Description	部品名	Remarks	ランク
		<OVERALL ASSEMBLY>	<総組立>	CVP83S	
10	--	MAIN UNIT	メインユニット	U (VQ49720)	
10	--	MAIN UNIT	メインユニット	A (VQ49730)	
10	--	MAIN UNIT	メインユニット	B (VQ49740)	
10	--	MAIN UNIT	メインユニット	E (VQ49750)	
10	--	MAIN UNIT	メインユニット	C (VQ49760)	
10	--	MAIN UNIT	メインユニット	X (VQ49770)	
10	--	MAIN UNIT	メインユニット	M (VQ49780)	
20	--	STAND ASSEMBLY	スタンド A s s y	(VR07110)	
*	VR144400	BACK TOE	U L バックトゥ	U	
	--	MUSIC DISK	ミュージックディスク	(VR06010)	
	--	VOICE LIST	ボイスリストシート	(VQ65290)	
	--	FLOPPY DISK	フロppy ディスク	(VG17650)	
	--	STYLE DISK	スタイルディスク	(VQ65390)	
*	VQ701300	TOP COVER	トップカバー		
	--	BENCH	椅子	U (VH99520)	
	--	BENCH	椅子	B (VJ26890)	
	--	BENCH	椅子	C (VI23580)	

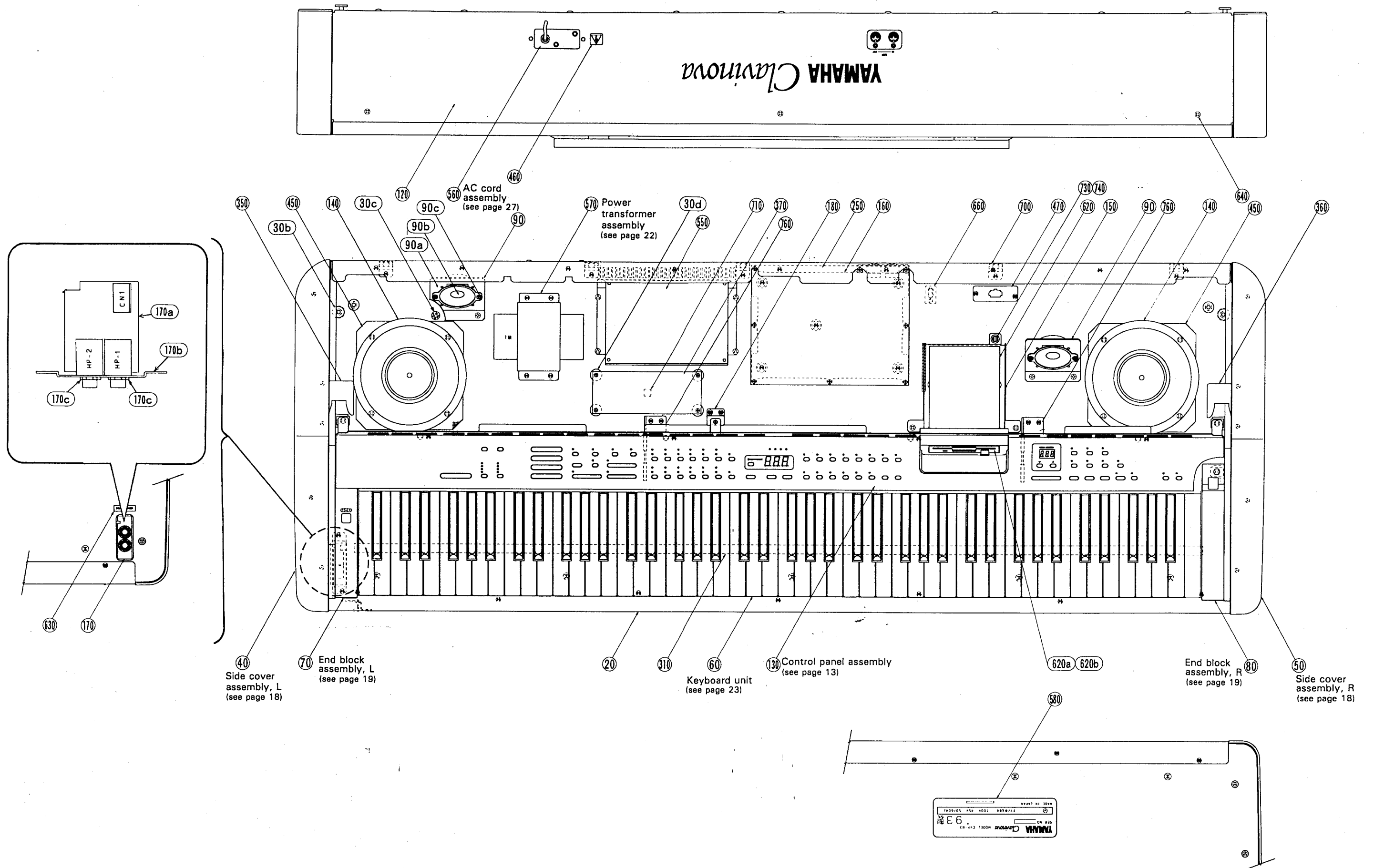
\* : New Parts (新規部品) NR

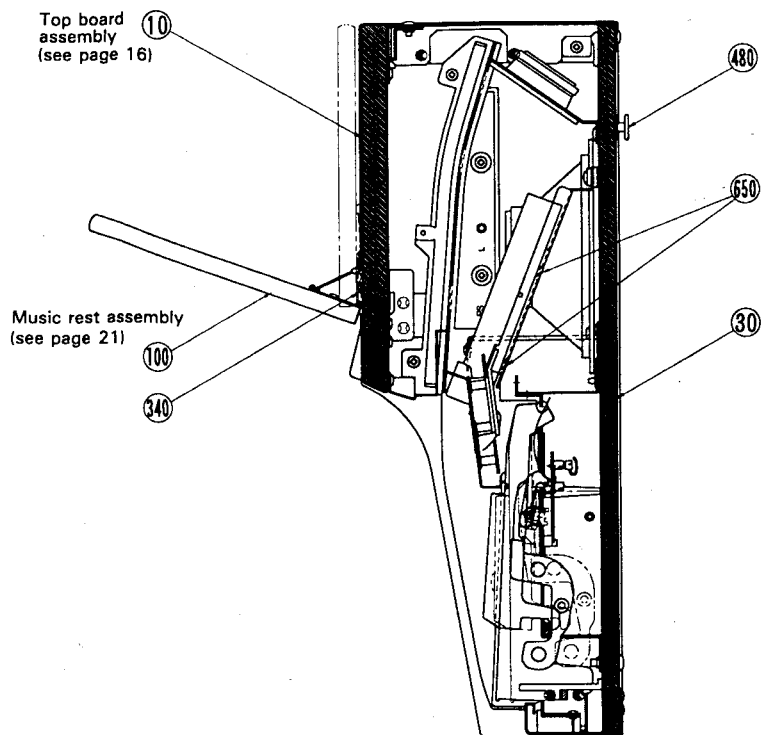
ランク : Japan Only

MAIN UNIT

Ref. No.	Part No.	Description	部品名	Remarks	ランク
	--	<MAIN UNIT>	<メインユニット>	CVP83S	
	--	MAIN UNIT	メインユニット	U (VQ49720)	
	--	MAIN UNIT	メインユニット	A (VQ49730)	
	--	MAIN UNIT	メインユニット	B (VQ49740)	
	--	MAIN UNIT	メインユニット	E (VQ49750)	
	--	MAIN UNIT	メインユニット	C (VQ49760)	
	--	MAIN UNIT	メインユニット	X (VQ49770)	
	--	MAIN UNIT	メインユニット	H (VQ49780)	
* 10	VQ679300	TOP BOARD ASSEMBLY	屋根集成		
* 20	VR055900	FRONT RAIL ASSEMBLY	口金 Ass'y		
* 30	VQ488400	KEYBED ASSEMBLY	棚板木部集成		
30a	--	KEYBED	棚板素材	(VQ48850)	
30b	VD986100	NUT	鬼目ナット	10pcs	01
30c	ET200040	NUT	鬼目ナット	26pcs	01
30d	VB936500	NUT	シート鬼目ナット	5pcs	01
* 40	VR053100	SIDE COVER ASSEMBLY	腕木 Ass'y L		
* 50	VR053200	SIDE COVER ASSEMBLY	腕木 Ass'y R		
* 60	VN471000	KEYBOARD UNIT	A E 2 鍵盤		54
* 70	VQ791500	END BLOCK ASSEMBLY	拍子木 Ass'y L		
80	VN661200	END BLOCK ASSEMBLY	拍子木 Ass'y R		07
90	--	SPEAKER ASSEMBLY, TWEETER	ツイーター Ass'y	2pcs (VQ86990)	
* 90a	VL205100	SPEAKER HOLDER	スピーカ取付板		04
* 90b	XN131A00	SPEAKER	スピーカ		
90c	VI693100	BIND HEAD TAPPING SCREW-S	+ バインド S タイト	4pcs	01
* 100	VR069500	MUSIC REST ASSEMBLY	譜面板 Ass'y		
* 120	VR193200	BACK TOP BOARD ASSEMBLY	背面板 Ass'y		
* 130	--	CONTROL PANEL ASSEMBLY	コンパネ Ass'y		(VR03340)
* 140	XM992A00	SPEAKER	スピーカ	2pcs	
* 150	VR280000	FDD HOLDER ASSEMBLY	ディスク固定金具 Ass'y		
* 160	VR405700	HOLDER ASSEMBLY, DM P.C.B.	DM 固定金具 Ass'y		10
170	VN906700	HEADPHONES JACK ASSEMBLY	HP ジャック Ass'y		09
170a	VN906600	CIRCUIT BOARD	HP シート		04
170b	VN631800	HOLDER, PHONE JACK	HP J 取付金具		01
170c	ET400040	NUT	管用ナット	2pcs	
180	VN875000	SUPPORT, CONTROL PANEL	コンパネ支持金具	1pc.	05
190	EG330360	BIND HEAD SCREW	+ バインド小ネジ	2pcs	01
200	VB268100	BIND HEAD TAPPING SCREW-C	+ バインド C タイト	15pcs	01
210	EG340210	BIND HEAD SCREW	+ バインド小ネジ	10pcs	01
220	VB857600	BIND HEAD SCREW	+ バインド小ネジ	5pcs	01
230	EP030340	BIND HEAD TAPPING SCREW-1	+ バインド T P 1 種	57pcs	01
240	VF627200	BIND HEAD TAPPING SCREW-S	+ バインド S タイト	8pcs	01
* 250	VQ219700	CIRCUIT BOARD	DM シート		44
260	VL254400	CONNECTOR ASSEMBLY	MK 束線 Ass'y		09
270	--	CONNECTOR ASSEMBLY	FDD-SIG 束線	(VK97560)	
280	VN678900	BIND HEAD TAPPING SCREW-S	+ バインド S タイト	10pcs	01
290	--	CONNECTOR ASSEMBLY	MUTE 束線	(VQ66820)	
310	VK020200	CUSHION	クッション材	1pc.	06
320	VI693100	BIND HEAD TAPPING SCREW-S	+ バインド S タイト	8pcs	01
330	EG340030	BIND HEAD SCREW	+ バインド小ネジ	4pcs	01
340	EP030310	BIND HEAD TAPPING SCREW-1	+ バインド T P 1 種	4pcs	01
* 350	VQ757000	HOLDER, TOP BOARD	屋根受け金具 Ass'y		
* 360	VQ757100	HOLDER, TOP BOARD	屋根受け金具 Ass'y		
* 370	VQ519200	CIRCUIT BOARD	AN シート		15
380	VK348200	CUP SCREW	カップスクリュー	4pcs	01
390	--	CONNECTOR ASSEMBLY	SP 束線	(VQ66840)	
400	--	CONNECTOR ASSEMBLY	SP (AN) 束線	(VQ66830)	
410	EG340360	BIND HEAD SCREW	+ バインド小ネジ	5pcs	01
420	VB403600	BIND HEAD SCREW	+ バインド小ネジ	8pcs	01
450	VF823100	METAL NET	金網	2pcs	03
460	--	GRAPHIC MARK	グラフィックマーク	U only (VB95140)	
470	VN891200	CONNECTOR PANEL	コネクタパネル	1pc.	03
480	VN887900	GUIDE SCREW	ガイドスクリュー	2pcs	03
490	--	CONNECTOR ASSEMBLY	SIG 束線	(VQ66800)	
500	--	CONNECTOR ASSEMBLY	電源束線 (+5)	(VQ66770)	
510	--	CONNECTOR ASSEMBLY	電源束線 (±15)	(VQ66780)	
530	--	CONNECTOR ASSEMBLY	FDD-PWR 束線	(VQ66850)	
* 540	VR368500	PK CABLE	PK 束線		
550	VD919900	CIRCUIT BOARD	PU シート	U, C, X	21
550	VD920000	CIRCUIT BOARD	PU シート	A, B, E, M	21
* 560	VQ669200	AC CORD ASSEMBLY	電源コード Ass'y	U, C	
* 560	VQ669300	AC CORD ASSEMBLY	電源コード Ass'y	A	
* 560	VQ669500	AC CORD ASSEMBLY	電源コード Ass'y	B	
* 560	VQ669400	AC CORD ASSEMBLY	電源コード Ass'y	E	
* 560	VQ669000	AC CORD ASSEMBLY	電源コード Ass'y	X	
* 560	VQ669100	AC CORD ASSEMBLY	電源コード Ass'y	M	
* 570	VQ862500	POWER TRANSFORMER ASSEMBLY	トランス Ass'y	U, C	
* 570	VQ862800	POWER TRANSFORMER ASSEMBLY	トランス Ass'y	A, X, M	
* 570	VQ862700	POWER TRANSFORMER ASSEMBLY	トランス Ass'y	B	

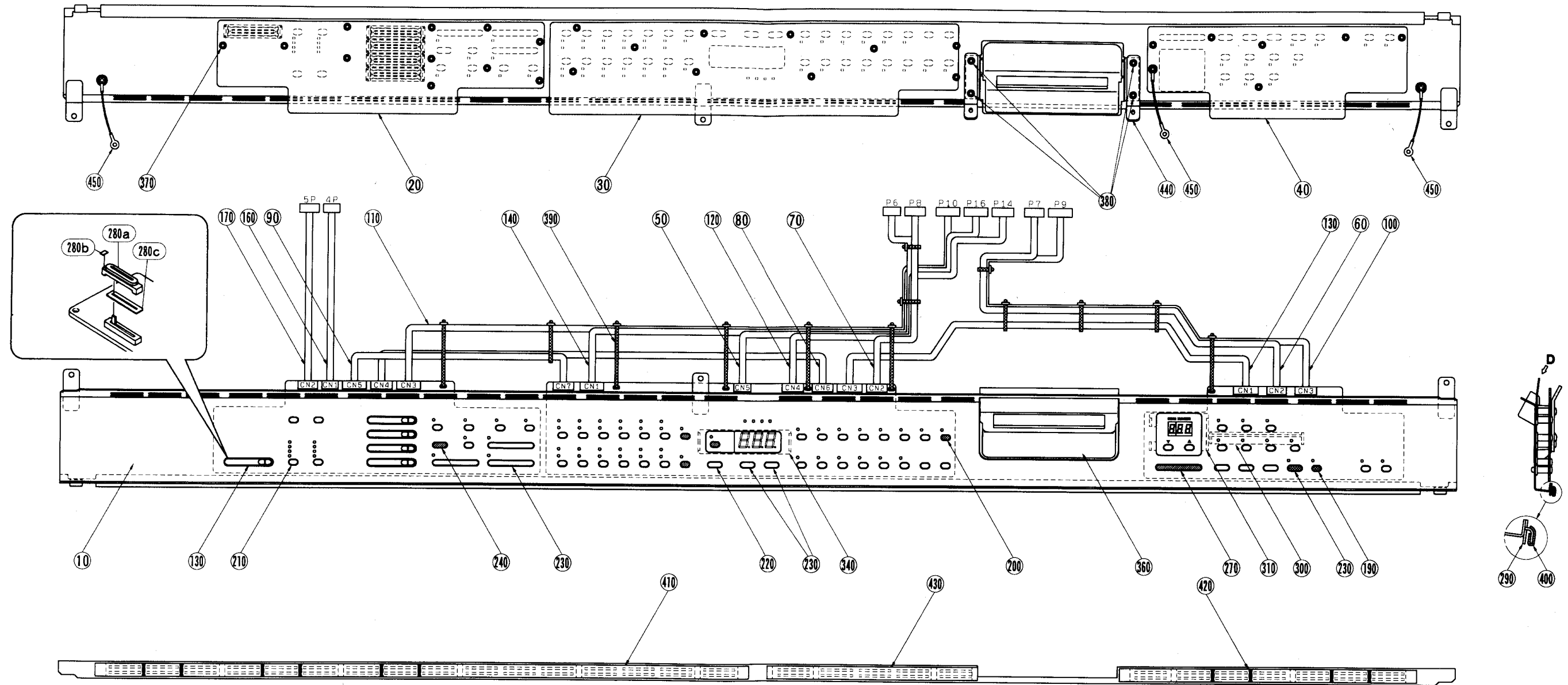
Ref. No.	Part No.	Description	部品名	Remarks	ランク
* 570	VQ862600	POWER TRANSFORMER ASSEMBLY	トランス Ass'y	E	
580	--	NAME PLATE	銘板	U (VQ65310)	
580	--	NAME PLATE	銘板	A, X, M (VQ65320)	
580	--	NAME PLATE	銘板	B (VQ65330)	
580	--	NAME PLATE	銘板	E (VQ65350)	
580	--	NAME PLATE	銘板	C (VQ68040)	
590	VA211900	HEXAGONAL NUT	フランジ付六角ナット	A, X, M only 2pcs	01
600	EG330380	BIND HEAD SCREW	+ バインド小ネジ	A, X, M only 2pcs	01
610	--	CONNECTOR ASSEMBLY	HP 束線		
620	VR368800	FLOPPY DISK DRIVE ASSEMBLY	FDD Ass'y	(VQ66810)	
* 620a	VQ728500	FLOPPY DISK DRIVE	3.5" FDD		
620b	--	SPACER	245X5X0.35	(VR44390)	
630	--	LABEL	ヘッドホネ	(VP25190)	
640	EG340360	BIND HEAD SCREW	4.0X8 ZMC2BL	3pcs	01
650	EP630390	BIND HEAD TAPPING SCREW-C	3.0X6 ZMC2Y	4pcs	01
660	--	CABLE CLIP	FCA-10	1pc. (VQ91650)	
670	VB998200	BIND HEAD TAPPING SCREW-1	3.0X12 ZC2BL	1pc.	01
680	CB817510	CORD BINDER	S-14B	10pcs	01
690	VD800100	CORD BINDER	S-14B-R RE	4pcs	03
700	VI338600	EARTH PLATE	アース金具	4pcs	03
710	VG676300	ANTICRACK RUBBER	10X10X8(H)	1pc.	01
730	EP030190	BIND HEAD TAPPING SCREW-1	3.5X16 ZMC2Y	1pc.	01
* 740	EX001090	FLAT WASHER	4.0X10 ZMC2Y	1pc. (0376541)	
750	CB033610	CORD BINDER	L=160	1pc.	
* 760	VR417500	HOLDER, CONTROL PANEL	コンパネ受け金具 Ass'y	2pcs	



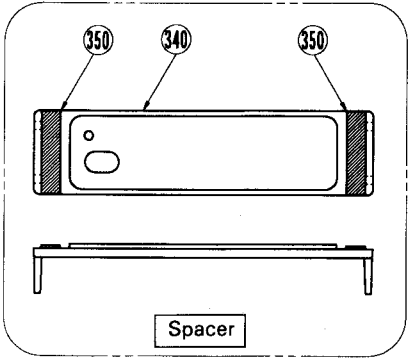
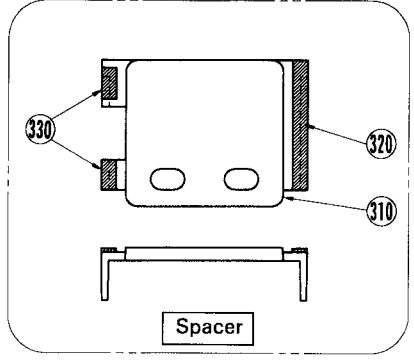
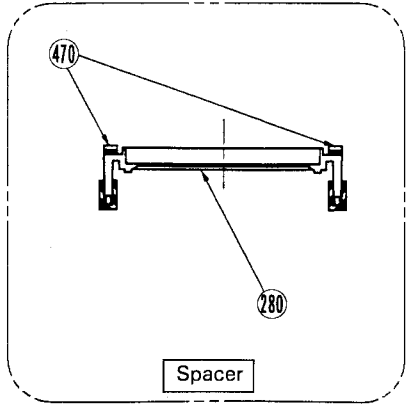
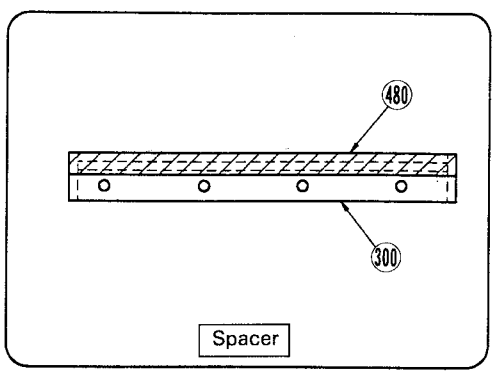


730	⊕	3. 5x16	MF ZnII
670	⊖	3. 0x12	MF ZnII-BL
650	—	3. 0x6	MF ZnII
640	⊗	4. 0x8	MF ZnII-BL
590 600	⊗	3. 0 3. 0x10	MF ZnII MF ZnII-BL
430	⊗	3. 0x8	MF ZnII
420	⊗	4. 0x20	MF ZnII-BL
380	⊗	4. 0x18	MF ZnII
340	—	3. 0x16	MF ZnII-BL
330	⊗	4. 0x12	MF ZnII
320	⊗	4. 0x8	MF ZnII-BL
280	⊗	4. 0x16	MF ZnII
240	⊗	4. 0x10	MF ZnII-BL
230	⊗	3. 5x12	MF ZnII-BL
220	⊗	5. 0x20	MF ZnII-BL
210	⊗	4. 0x14	MF ZnII
200	⊗	3. 0x8	MF ZnII
190	○	3. 0x6	MF ZnII-BL

CONTROL PANEL ASSEMBLY



Section D

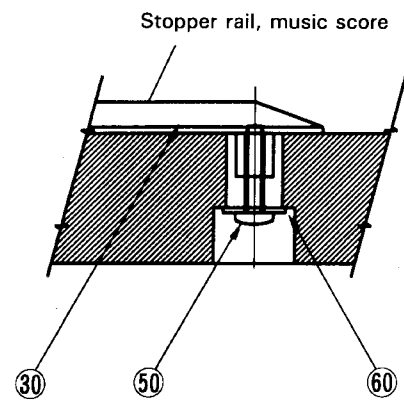
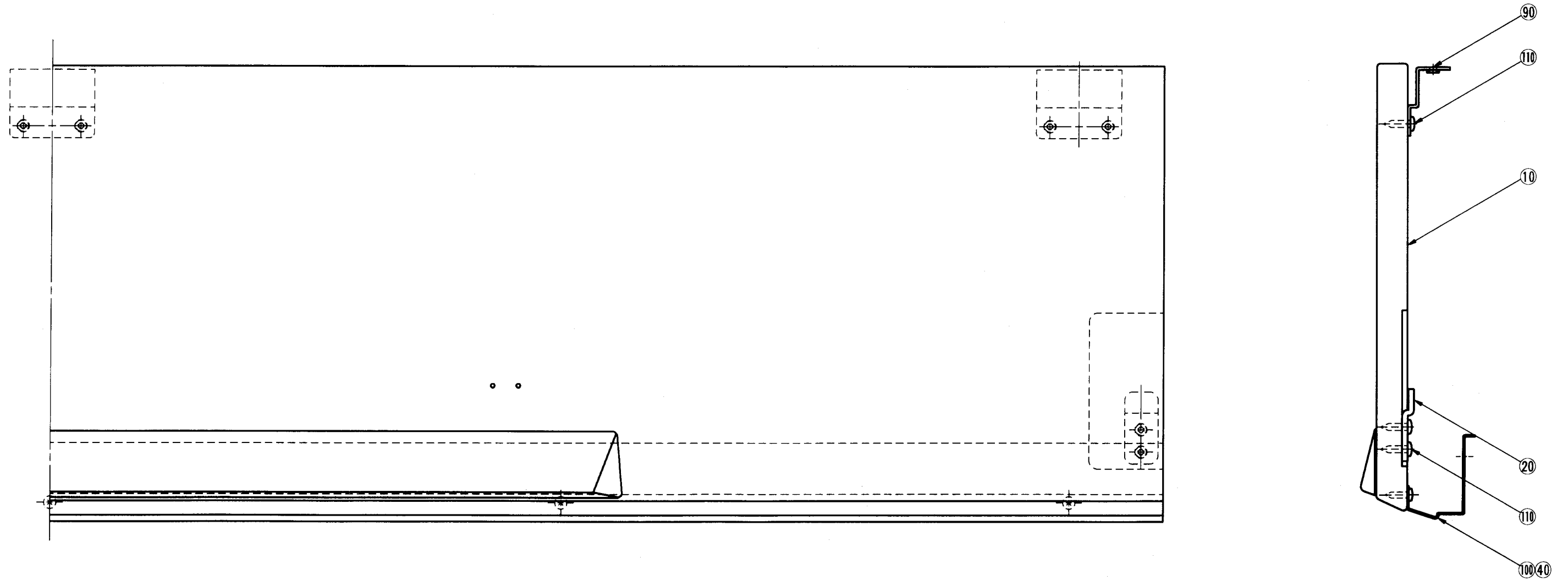


Ref. No.	Part No.	Description	部品名	Remarks	ランク
* 10	VR033300	<CONTROL PANEL ASSEMBLY>	<コンパネアッセンブリ>	CVP83S (VR03340)	
* 20	VQ221000	CONTROL PANEL	印刷品		13
* 30	VQ219900	CIRCUIT BOARD	PN1		
* 40	VQ221200	CIRCUIT BOARD	PN2 PN3		14
50	--	CONNECTOR ASSEMBLY	6P-450	KRD-KRD 東線 (VJ98110)	
60	--	CONNECTOR ASSEMBLY	7P-650	KRD-KRD 東線 (VK11670)	
70	--	CONNECTOR ASSEMBLY	8P-400	KRD-KRD 東線 (VK10980)	
80	--	CONNECTOR ASSEMBLY	8P-450	KRD-KRD 東線 (VK11110)	
90	--	CONNECTOR ASSEMBLY	9P-250	KRD-KRD 東線 (VK10420)	
100	--	CONNECTOR ASSEMBLY	9P-750	KRD-KRD 東線 (VK12000)	
110	--	CONNECTOR ASSEMBLY	10P-600	KRD-KRD 東線 (VK11550)	
120	--	CONNECTOR ASSEMBLY	14P-350	KRD-KRD 東線 (VK10900)	
130	--	CONNECTOR ASSEMBLY	16P-500	KRD-KRD 東線 (VK11310)	
140	--	CONNECTOR ASSEMBLY	16P-450	KRD-KRD 東線 (VK11180)	
160	--	CONNECTOR ASSEMBLY	VOL1	VOL 東線 1 (VQ78840)	
170	--	CONNECTOR ASSEMBLY	VOL2	VOL 東線 2 (VQ66760)	
180	CB059250	KNOB	BL-YE	ツマミ	5pcs
190	VA064600	KNOB	RE	ツマミ	1pc.
200	CB059470	KNOB	GY	ツマミ	4pcs
210	CB059240	KNOB	BL	ツマミ	47pcs
220	VK792200	KNOB	MS	ツマミ	4pcs
* 230	VK897100	KNOB	MS RE	ツマミ	1pc.
240	VK897000	KNOB	MS GY	ツマミ	1pc.
250	VK792100	KNOB	W	ツマミ	2pcs
280	CB059230	KNOB	L	ツマミ	3pcs
270	VK897500	KNOB	L GY	ツマミ	1pc.
280	VK323500	ESCUTCHEON ASSEMBLY		エスケッション Assy	05
280a	VD135000	ESCUTCHEON		エスケッション	01
280b	VD214900	SPACER		防振スペーサー S	01
280c	CA016330	DUST PROOF CLOTH		防塵クロス	02
280d	--	PACKING	13X13		(VK17180)
290	VN660800	FELT	RE	フェルト	05
* 300	VQ499600	LED LENS		LEDレンズ	1pc.
310	VL170800	FILTER, LED DISPLAY		二色表示窓印刷品	06
320	VL303000	SPACER	4X34	防振スペーサー B	1pc.
330	VL761300	SPACER	4X8	防振スペーサー C	2pcs
* 340	VQ499800	FILTER, LED DISPLAY		防振ネズ表示窓印刷品 A	03
350	VL302800	SPACER	5X22	防振スペーサー	2pcs
360	VQ225200	FDD COVER		ディスクカバー塗装品	07
370	EP630390	BIND HEAD TAPPING SCREW-C	3.0X6 ZMC2Y	ナット	30pcs
380	VD495400	BIND HEAD TAPPING SCREW-C	3.0X10 ZMC2BL	ナット	4pcs
390	CB069250	CORD BINDER	8K-1	インシュロック	13pcs
400	--	PACKING	16X12X1	パッキング	2pcs (VP89590)
410	VN913600	DUST PROOF CLOTH	605X12	防塵クロス	1pc.
420	--	DUST PROOF CLOTH		防塵クロス A	1pc. (VQ75630)
430	--	DUST PROOF CLOTH		防塵クロス B	1pc. (VQ75640)
* 440	VR268300	HOLDER, FDD		FDD取付金具	2pcs
450	--	WIRE	L=150 GND	アース線	3pc. (VH87160)
460	--	ADHESIVE TAPE		両面粘着テープ	10pcs (VR36610)
470	VD214900	SPACER		防振スペーサー S	10pcs
480	--	SPACER		防振スペーサー D	(VR01810)

\* : New Parts (新規部品) NR



■TOP BOARD ASSEMBLY

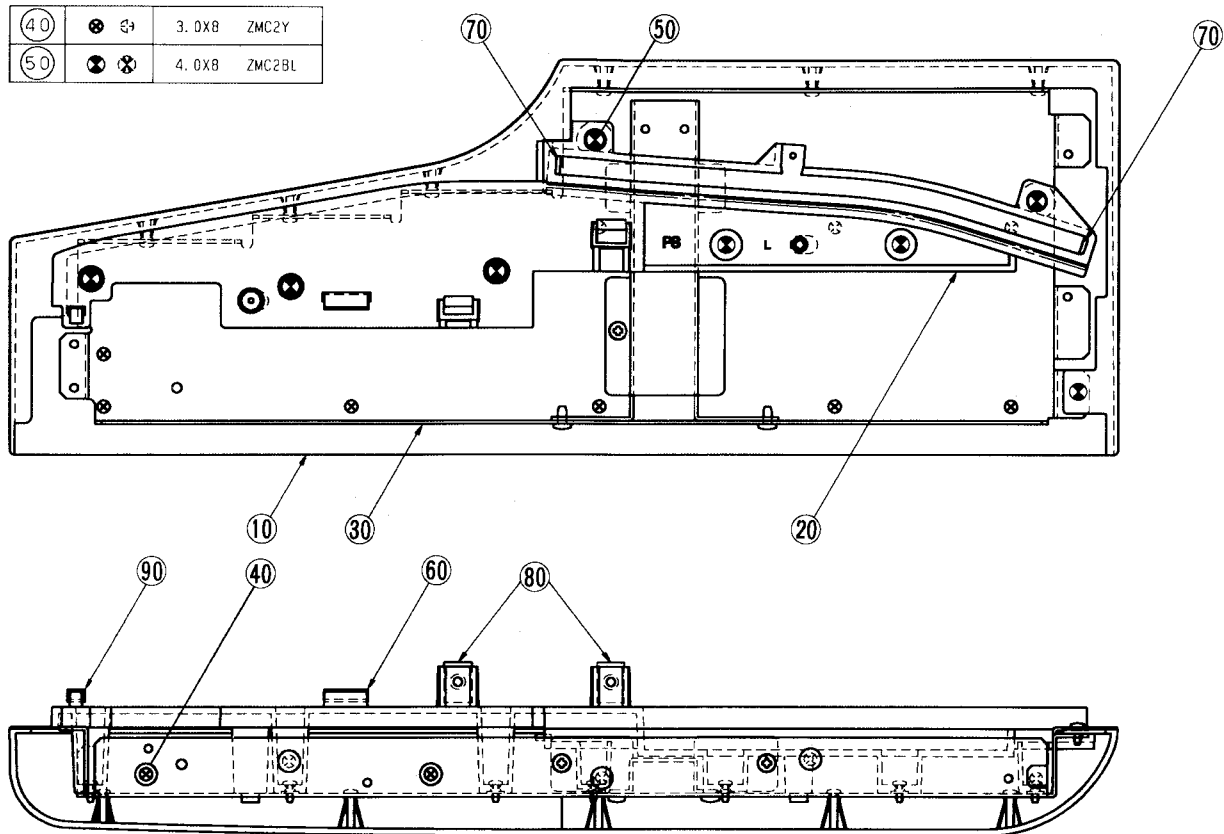


Ref. No.	Part No.	Description	部品名	Remarks	ランク
*	VQ679300	<TOP BOARD ASSEMBLY>	<屋根集成>	CVP83S	
10	--	TOP BOARD	屋根	(VR05340)	
*	20	HOLDER, TOP BOARD	屋根固定金具 F	2pcs	
*	30	STOPPER RAIL, MUSIC SCORE	譜面止レール Ass'y		
40	EP030170	BIND HEAD TAPPING SCREW-1	+ バインド T P 1 種	5pcs	01
50	EP600310	BIND HEAD TAPPING SCREW-P	+ バインド P タイト	5pcs	01
60	VK287600	FLAT WASHER	平座金みがき丸	5pcs	01
*	90	HOLDER, TOP BOARD	屋根固定金具 R	3pcs	
100	VP558500	ORNAMENT ASSEMBLY	屋根前飾り Ass'y		11
110	EP040170	BIND HEAD TAPPING SCREW-1	+ バインド T P 1 種	10pcs	01

\* : New Parts (新規部品) NR

ランク : Japan Only

■ SIDE COVER ASSEMBLY



● Side cover assembly, L

Ref. No.	Part No.	Description	部品名	Remarks	ランク
*	VR053100	<SIDE COVER ASSEMBLY>	<腕木 Ass y L>	CVP83S	
10	--	SIDE COVER	腕木 (L) H/S品	(VR05290)	
20	--	BLOCK, SIDE COVER	山板 (L)	(VQ48720)	
30	--	SIDE COVER PLATE ASSEMBLY	腕木金具 Ass y L	(VQ69260)	
40	EP600280	BIND HEAD TAPPING SCREW-P	+ バインド P タイ	15pcs	01
50	EX000840	BIND HEAD TAPPING SCREW-S	+ バインド S タイ	8pcs	01
60	--	PACKING	パフ	1pc. (VH01790)	
70	--	FELT	フェルト	2pcs (VJ18790)	
80	VD255800	NUT	スピードナット	2pcs	01
90	--	PACKING	パフ	1pc. (VJ22420)	

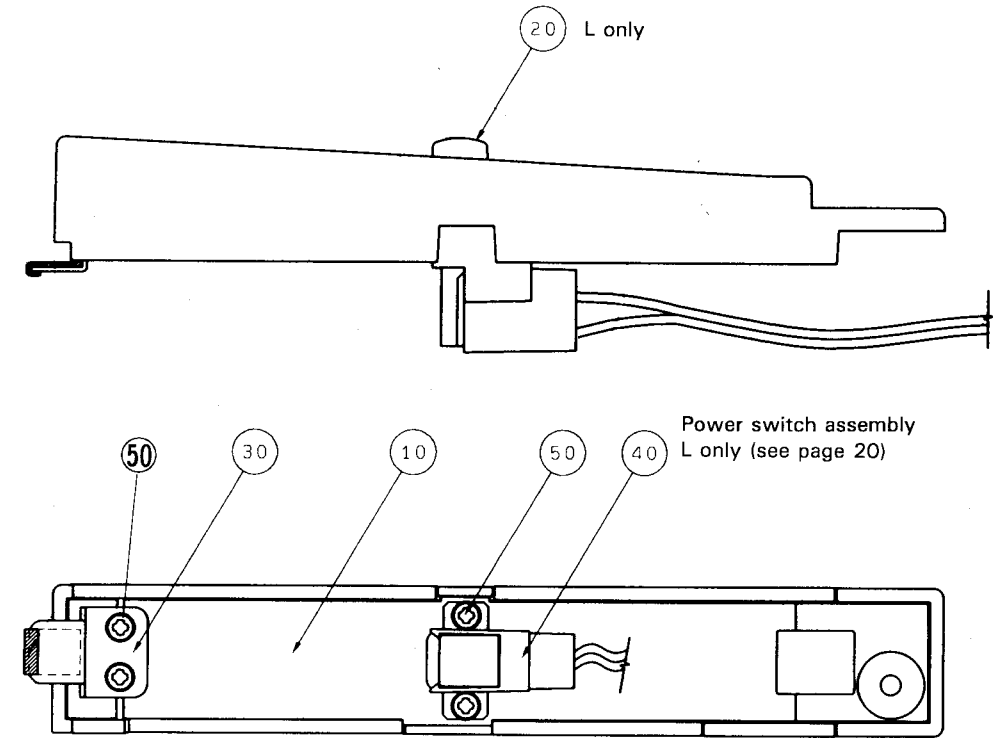
● Side cover assembly, R

Ref. No.	Part No.	Description	部品名	Remarks	ランク
*	VR053200	<SIDE COVER ASSEMBLY>	<腕木 Ass y R>	CVP83S	
10	--	SIDE COVER	腕木 (R) H/S品	(VR05300)	
20	--	BLOCK, SIDE COVER	山板 (R)	(VQ48730)	
30	--	SIDE COVER PLATE ASSEMBLY	腕木金具 Ass y R	(VQ69270)	
40	EP600280	BIND HEAD TAPPING SCREW-P	+ バインド P タイ	15pcs	01
50	EX000840	BIND HEAD TAPPING SCREW-S	+ バインド S タイ	8pcs	01
60	--	PACKING	パフ	1pc. (VH01790)	
70	--	FELT	フェルト	2pcs (VJ18790)	
80	VD255800	NUT	スピードナット	2pcs	01
90	--	PACKING	パフ	1pc. (VJ22420)	

\* : New Parts (新規部品) NR

ランク : Japan Only

■ END BLOCK ASSEMBLY (L,R)



● End block assembly, L

Ref. No.	Part No.	Description	部品名	Remarks	ランク
*	VQ791500	<END BLOCK ASSEMBLY>	<拍子木 Ass y L>	CVP83S	
10	VN675200	END BLOCK	拍子木塗装品 L		06
20	VF663400	KNOB	プッシュマミ	1pc.	01
30	VL732000	HOLDER, END BLOCK	拍子木固定金具 F Assy		04
40	VQ785600	POWER SWITCH ASSEMBLY	パワースイッチ束線		
50	EP600280	BIND HEAD TAPPING SCREW-P	+ バインド P タイ	1pc.	01

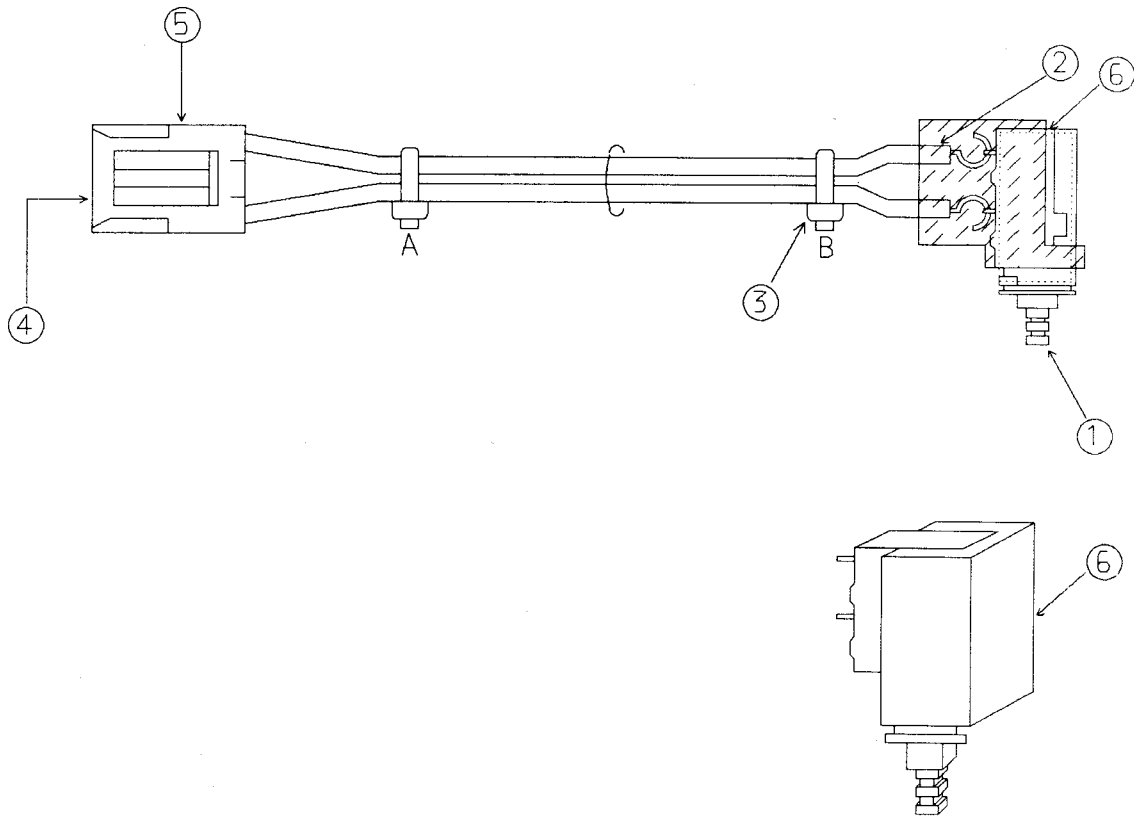
● End block assembly, R

Ref. No.	Part No.	Description	部品名	Remarks	ランク
*	VN661200	<END BLOCK ASSEMBLY>	<拍子木 Ass y R>	CVP83S	
10	VN675300	END BLOCK	拍子木塗装品 R		07
30	VL732000	HOLDER, END BLOCK	拍子木固定金具 F Assy		06
50	EP600280	BIND HEAD TAPPING SCREW-P	+ バインド P タイ	2pcs	04

\* : New Parts (新規部品) NR

ランク : Japan Only

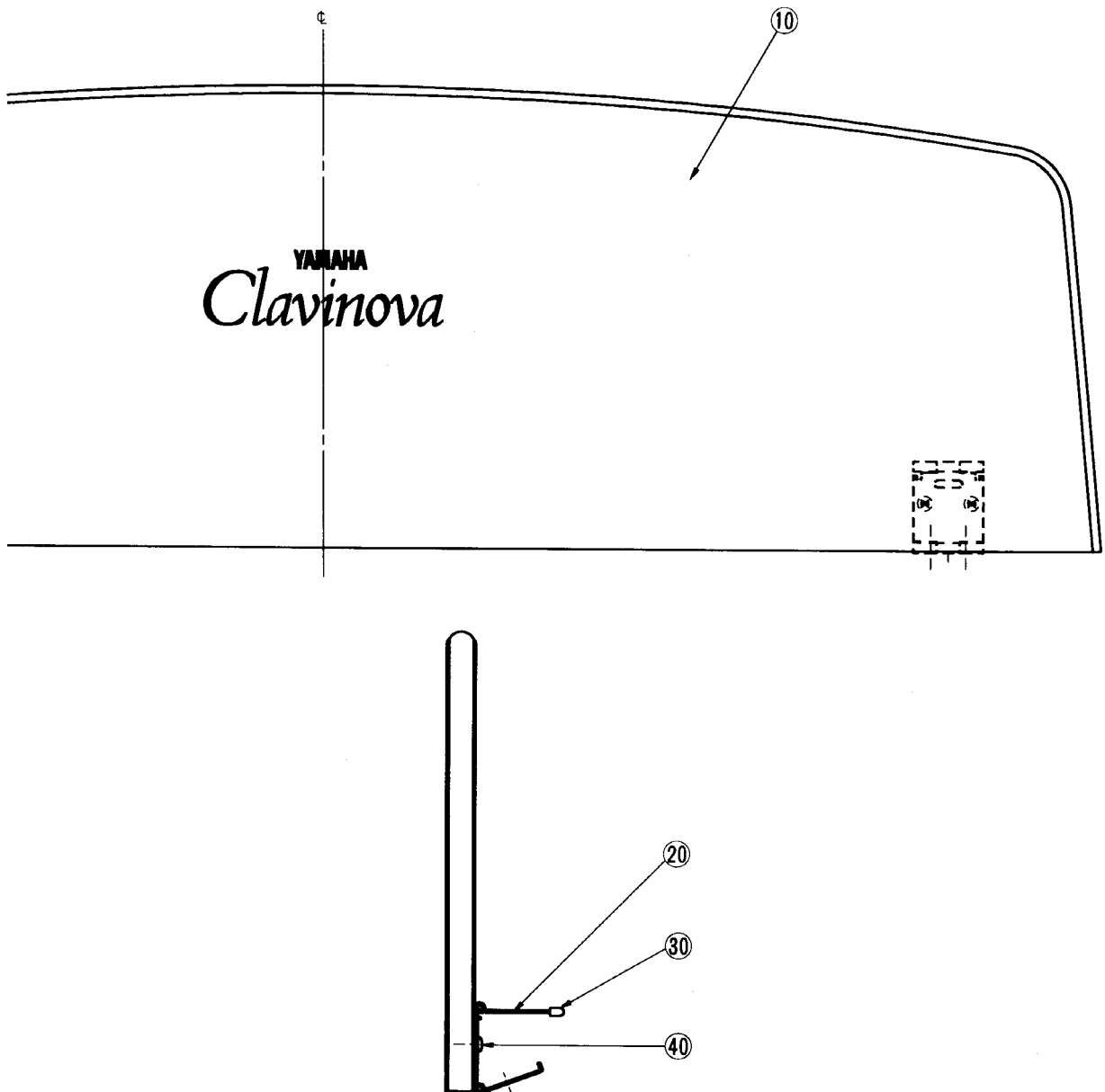
■ POWER SWITCH ASSEMBLY



Ref. No.	Part No.	Description	部品名	Remarks	ランク
*	VQ785600	POWER SWITCH ASSEMBLY	<パワースイッチ束線>	CVP83S	
1	VC843500	PUSH SWITCH	プッシュスイッチ	POWER	03
2	CB049980	SWITCH COVER	プッシュスイッチカバー		01
3	CB069250	CORD BINDER	パワースイッチタイ	4pcs	01
4	LB101710	CONNECTOR PIN	インシュロックタイ	2pcs	01
5	LB015030	CONNECTOR HOUSING	圧着端子	1pc.	01
6	--	CUSHION	ハウジング 防振材	1pc. (VH66430)	

\* : New Parts (新規部品) NR

■ MUSIC REST ASSEMBLY

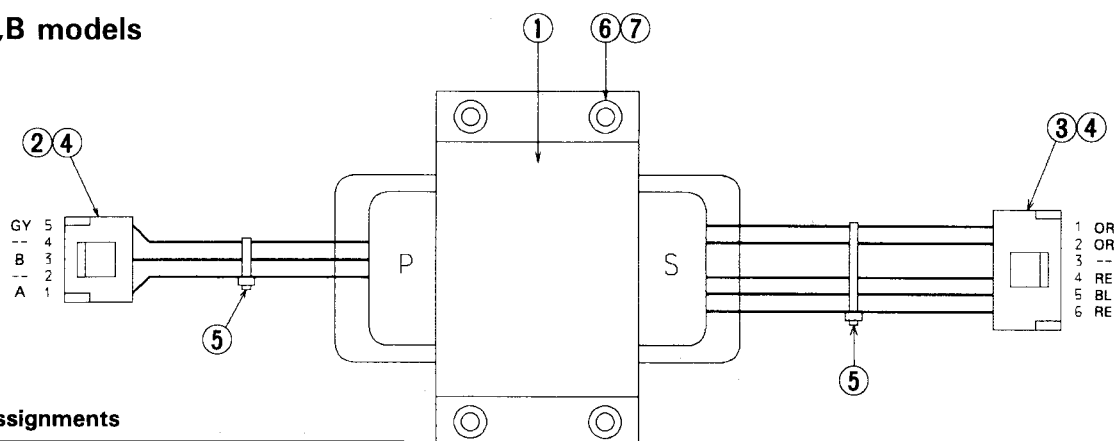


Ref. No.	Part No.	Description	部品名	Remarks	ランク
* 10	VR069500	<MUSIC REST ASSEMBLY>	< 譜 面 板 A s s y >	CVP83S	
	--	MUSIC REST	譜 面 板 集 成	(VR05550)	06
20	VD255900	HINGE	譜 面 板 蝶 番	2pcs	01
30	CB054920	CAP	キ ャ ッ プ	2pcs	
40	EX001070	BIND HEAD TAPPING SCREW-1	+ バ イ ン ド T P 1 種	4pcs	

CVP-83S

# POWER TRANSFORMER ASSEMBLY

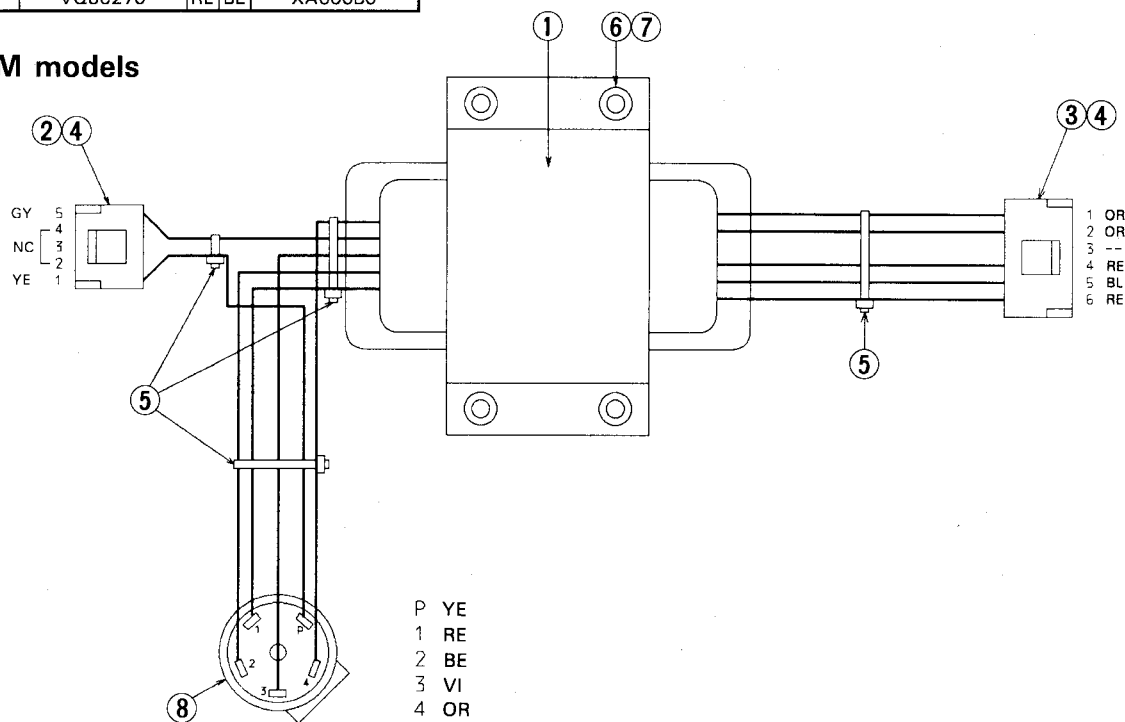
## ● U,C,E,B models



### ● Pin assignments

MODEL	Power transformer assembly	A	B	Power transformer
U,C	VQ86250	BR	YE	XA598B0
E	VQ86260	BE	RE	XA600B0
B	VQ86270	RE	BE	XA600B0

## ● A,X,M models

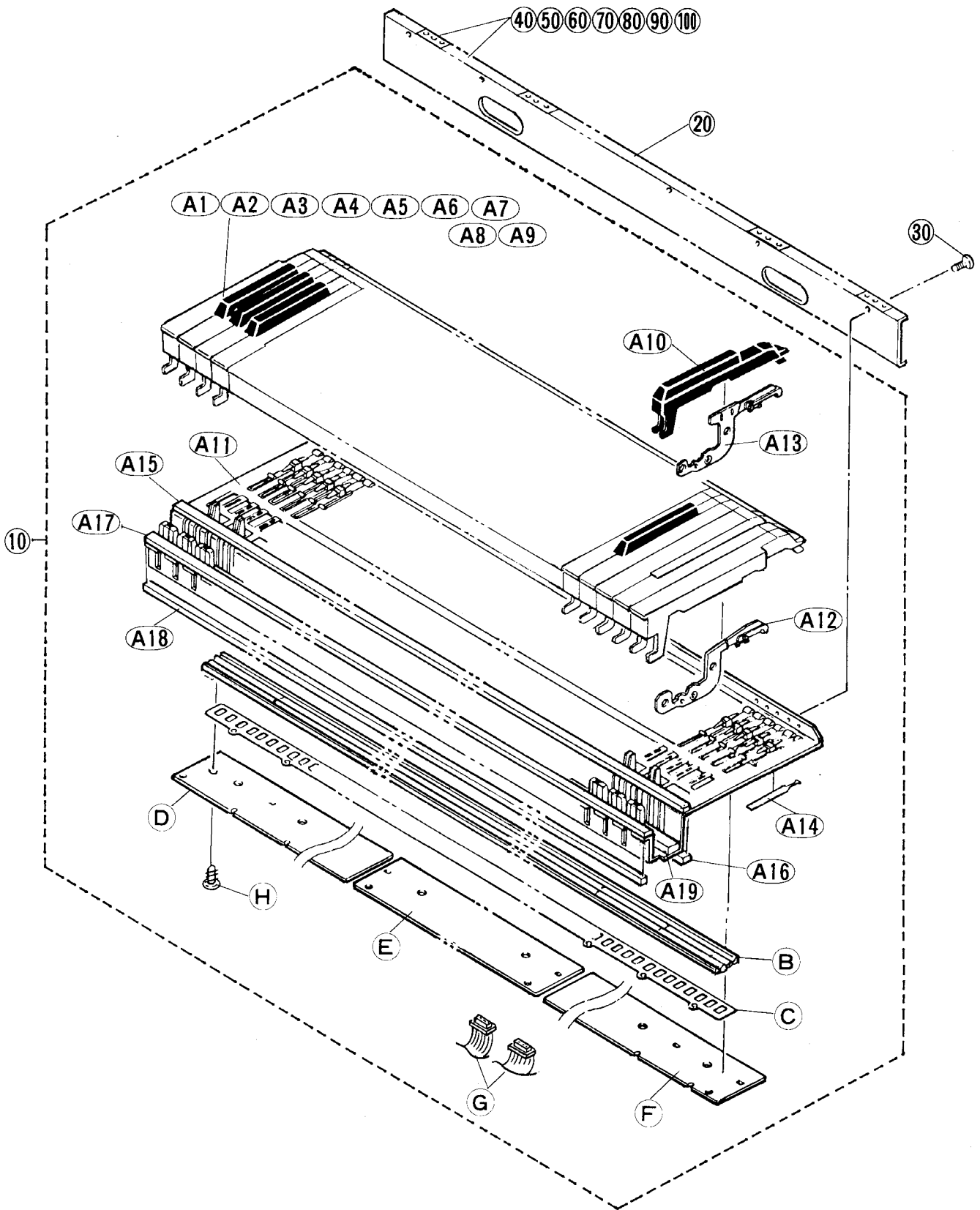


Ref. No.	Part No.	Description	部品名	Remarks	ランク
	VQ862500	<POWER TRANSFORMER ASS'Y>	<トランス A s s y >	CVP83S	
	VQ862800	POWER TRANSFORMER ASSEMBLY	トランス A s s y	U,C	
	VQ862700	POWER TRANSFORMER ASSEMBLY	トランス A s s y	A,X,M	
	VQ862600	POWER TRANSFORMER ASSEMBLY	トランス A s s y	B	
				E	
1	--	POWER TRANSFORMER	電源トランス	U,C (XA598B0)	
1	--	POWER TRANSFORMER	電源トランス	A,X,M (XA601B0)	
1	--	POWER TRANSFORMER	電源トランス	B,E (XA600B0)	
2	LB015050	CONNECTOR HOUSING	ハウジング		01
3	LB015060	CONNECTOR HOUSING	ハウジング		01
4	LB101710	CONNECTOR PIN	圧着端子		01
5	CB069250	CORD BINDER	インシュロックタイ		01
6	VA121400	SPACER	スペーサ		02
7	VA121600	RUBBER BUSHING	ゴムブッシュ		01
8	LB202280	VOLTAGE SELECTOR	電圧切替器	A,X,M only	03

\* : New Parts (新規部品) NR

ランク : Japan Only

■ AE2 KEYBOARD



CVP-83S

## ● KEYBOARD UNIT

Ref. No.	Part No.	Description		部品名	Remarks	ランク
10	VN471000	<KEYBOARD UNIT>	A88 K6	< A E 2 鍵盤 >	CVP83S	54
20	--	KEYBOARD ASSEMBLY	A88 K6	A E 2 鍵盤 A s s y	(VN47130)	08
30	VD526300	HOLDER, KEYBOARD		反り止め金具 A 8 8		01
40	EP640490	BIND HEAD TAPPING SCREW-C	4.0X6 FCM3BL	+ バインド C タイ	8pcs	
	--	SPACER	t=0.5	スパーサー	(VD48480)	
50	--	SPACER	t=1.0	スパーサー	(VD48490)	
60	--	SPACER	t=0.8	スパーサー	(VD51810)	
70	--	SPACER	t=0.35	スパーサー	(VD51820)	
80	VD518300	SPACER	t=0.25	スパーサー		01
90	--	SPACER	t=1.25	スパーサー	(VF51760)	
100	--	SPACER	t=1.5	スパーサー	(VF51770)	

\* : New Parts (新規部品) NR

ランク : Japan Only

## ● KEY BOARD ASSEMBLY

Ref. No.	Part No.	Description		部品名	Remarks	ランク
	--	<KEYBOARD ASSEMBLY>	A88 K6	< A E 2 鍵盤 Assy >	CVP83S (VN47130)	
A	--	FRAME ASSEMBLY, KEYBOARD	AE 88	M K フレーム A s s y	(VN47160)	11
B	VN474300	RUBBER CONTACT	AE88	可動導電ゴム		03
C	VC799300	INSULATION SPACER	AE88	絶縁スパーサー		09
D	VC796500	CIRCUIT BOARD	AE88L	A E 8 8 L シート		10
E	VC796300	CIRCUIT BOARD	AE C	A E C シート		08
F	VC796600	CIRCUIT BOARD	AE88H	A E 8 8 H シート		06
G	VC815200	FLAT CABLE	NRD-NRD 16P110	束線		01
H	EP600270	BIND HEAD TAPPING SCREW-P	3.0X10 ZMC2Y	+ バインド P タイ	15pcs	01
H	EP630660	BIND HEAD TAPPING SCREW-P	3.0X10 ZMC2BL	+ バインド P タイ	15pcs	01

\* : New Parts (新規部品) NR

ランク : Japan Only

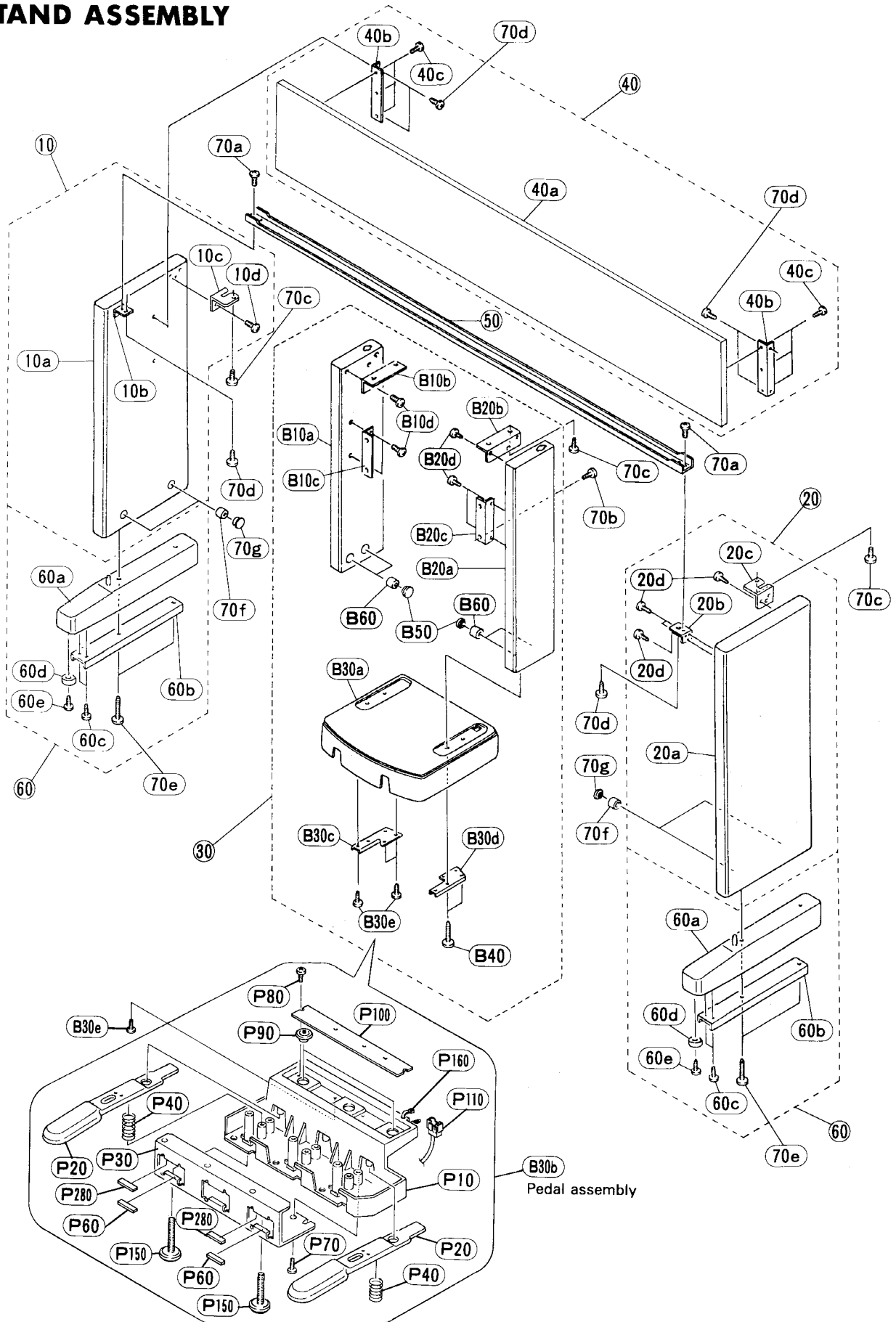
## ● FLAME ASSEMBLY

Ref. No.	Part No.	Description		部品名	Remarks	ランク
	--	<FRAME ASSEMBLY>	AE 88	< M K フレーム Assy >	CVP83S (VN47160)	
A1	VM890700	WHITE KEY	C	白鍵 C	7pcs	04
A2	VM890800	WHITE KEY	D	白鍵 D	7pcs	04
A3	VM890900	WHITE KEY	E	白鍵 E	7pcs	04
A4	VM891000	WHITE KEY	F	白鍵 F	7pcs	04
A5	VM891100	WHITE KEY	G	白鍵 G	7pcs	04
A6	VM891200	WHITE KEY	A	白鍵 A	7pcs	04
A7	VM891300	WHITE KEY	B	白鍵 B	8pcs	04
A8	VM891400	WHITE KEY	C'	白鍵 C'	1pc.	05
A9	VM891700	WHITE KEY	A'	白鍵 A'	1pc.	05
A10	VM891800	BLACK KEY		黒鍵	36pcs	04
A11	VC509100	FRAME	A88	M K フレーム A 8 8		05
A12	VM892400	HAMMER ASSEMBLY, WHITE KEY		ハンマー白鍵 A s s y	52pcs	05
A13	VM892500	HAMMER ASSEMBLY, BLACK KEY		ハンマー黒鍵 A s s y	36pcs	03
A14	VM958100	KEY SPRING		鍵バネ	88pcs	04
A15	VC984900	FELT		フェルト	1pc.	05
A16	VI437200	CUSHION		クッション	1pc.	03
A17	VC985100	FELT		フェルト	1pc.	03
A18	VC985200	FELT		フェルト	1pc.	06
A19	VP283200	FELT		フェルト	1pc.	

\* : New Parts (新規部品) NR

ランク : Japan Only

# STAND ASSEMBLY



CVP-83S



## ● STAND ASSEMBLY

Ref. No.	Part No.	Description	部品名	Remarks	ランク
*	10	<STAND ASSEMBLY> SIDE BOARD ASSEMBLY	<スタンド Ass'y> 側板 Ass'y L	CVP83S (VR07110)	
	10a	SIDE BOARD	側板木部集成 L	(VR05450)	
	10b	ANGLE BRACKET	アングル	1pc.	02
	10c	HOLDER, STAND	ST.受け金具	1pc.	05
*	10d	EP030580 BIND HEAD TAPPING SCREW-1	+ バインド TP 1種	6pcs	01
	20	VR054800 SIDE BOARD ASSEMBLY	側板 Ass'y R		
	20a	SIDE BOARD	側板木部集成 (R)	(VR05460)	
	20b	ANGLE BRACKET	アングル	1pc.	02
	20c	HOLDER, STAND	ST.受け金具	1pc.	05
	20d	EP030580 BIND HEAD TAPPING SCREW-1	+ バインド TP 1種	6pcs	01
*	30	-- PEDAL BOX & SIDE BOARD	P側板 BOX Ass'y	(VR07100)	
	40	VQ633600 BACK TOP BOARD ASSEMBLY	スタンド 框 Ass'y		
	40a	BACK TOP BOARD	スタンド 框 集成	(VQ63340)	
	40b	ANGLE BRACKET, BACK BOARD	背面 框 固定 金具	2pcs	04
	40c	EP040250 BIND HEAD TAPPING SCREW-1	+ バインド TP 1種	6pcs	01
*	50	VQ067100 ANGLE BRACKET U	U金具 Ass'y		
	60	VQ637900 STAND BASE ASSEMBLY	妻土台 Ass'y		
	60a	-- STAND BASE	妻土台	2pcs (VQ48660)	
	60b	VA881100 ANGLE BRACKET, STAND BASE	妻土台 金具	2pcs	03
	60c	EP640500 BIND HEAD TAPPING SCREW-P	+ バインド P タイ	4pcs	01
	60d	VI235200 FOOT	スベリ座	2pcs	01
	60e	VA847500 BIND HEAD TAPPING SCREW-P	+ バインド P タイ	2pcs	01
	70	VL175700 SCREW SET	ネジ セット Ass'y		06
	70a	EG340340 BIND HEAD SCREW	+ バインド 小ネジ	2pcs	01
	70b	VB132700 BIND HEAD SCREW	+ バインド 小ネジ	4pcs	01
	70c	VF682700 BIND HEAD SCREW	+ バインド 小ネジ	6pcs	01
	70d	VB131900 BIND HEAD SCREW	+ バインド 小ネジ	6pcs	01
	70e	VD180600 PAN HEAD SCREW	+ ナベ 小ネジ	4pcs	01
	70f	ET400070 JOINT CONNECTOR	ジョイント コネクター	4pcs	01
	70g	VJ009300 CAP	キャップ	4pcs	01

\* : New Parts (新規部品) NR

ランク : Japan Only

## ● PEDAL BOX &amp; SIDE BOARD

Ref. No.	Part No.	Description	部品名	Remarks	ランク
*	B10	<PEDAL BOX & SIDE BOARD> SIDE BOARD ASS'Y, PEDAL	<P側板 BOX Ass'y> ペダル 側板 Ass'y L	CVP83S (VR07100)	
	B10a	SIDE BOARD, PEDAL	ペダル 側板木部集成 L	(VR05380)	
	B10b	HOLDER, SIDE BOARD	P.側板 固定 金具	1pc. (VQ48610)	
	B10c	ANGLE BRACKET	ペダル 側板 取付 金具 下	1pc.	03
	B10d	EP030580 BIND HEAD TAPPING SCREW-1	+ バインド TP 1種	6pcs	01
*	B20	VR054100 SIDE BOARD ASS'Y, PEDAL	ペダル 側板 Ass'y R		
	B20a	SIDE BOARD, PEDAL	ペダル 側板木部集成 R	(VR05390)	
	B20b	HOLDER, SIDE BOARD	P.側板 固定 金具	1pc. (VQ48610)	
	B20c	VG567700 ANGLE BRACKET	ペダル 側板 取付 金具 下	1pc.	03
	B20d	EP030580 BIND HEAD TAPPING SCREW-1	+ バインド TP 1種	6pcs	01
	B30	-- PEDAL BOX ASSEMBLY	ペダル BOX Ass'y	(VQ67950)	
	B30a	VK753400 PEDAL BOX	ペダル BOX		09
	B30b	VQ638300 PEDAL ASSEMBLY	ペダル Ass'y		
	B30c	VK838000 ANGLE BRACKET, PEDAL BOX	ペダル BOX 金具 L	1pc.	04
	B30d	VK902000 ANGLE BRACKET, PEDAL BOX	ペダル BOX 金具 R	1pc.	03
	B30e	EP640110 BIND HEAD TAPPING SCREW-P	+ バインド P タイ	11pcs	01
*	B40	VQ313400 PAN HEAD SCREW	+ ナベ 尖り先 小ネジ	4pcs	01
	B50	VJ009300 CAP	キャップ	4pcs	01
	B60	ET400070 JOINT CONNECTOR	ジョイント コネクター	4pcs	01
	B70	-- CAUTION LABEL	ペダル 注意書	(VD96610)	

\* : New Parts (新規部品) NR

ランク : Japan Only

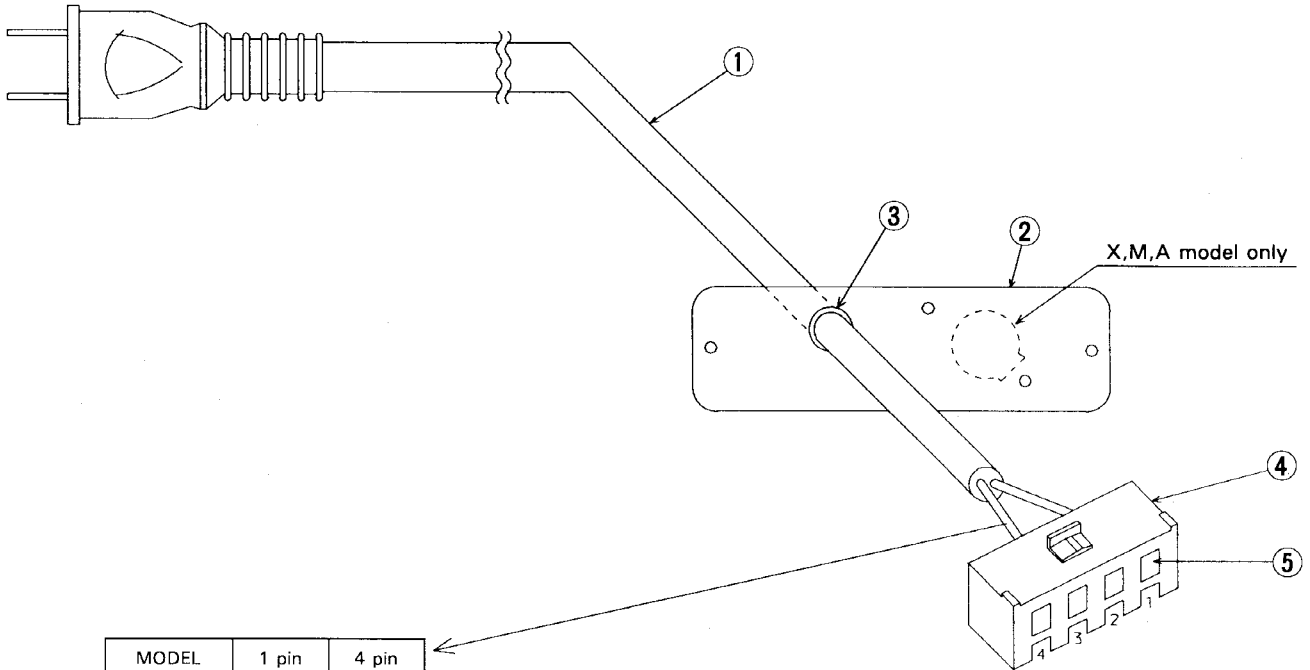
## ● PEDAL ASSEMBLY

Ref. No.	Part No.	Description	部品名	Remarks	ランク
*	P10	<PEDAL ASSEMBLY> PEDAL FRAME	<ペダル Ass'y> ペダル フレーム	CVP83S	
	P20	VF657600 PEDAL PIECE	ペダル 本体	2pcs	06
	P30	VF657700 HOLDER, PEDAL	ペダル 支持 金具	1pc.	04
	P40	VP348100 PEDAL SPRING	ペダル バネ	2pcs	03
	P60	VF812700 FELT	フェルト	2pcs	03
	P70	VD260600 BIND HEAD TAPPING SCREW-P	+ バインド P タイ	3pcs	01
	P80	VD964600 BW HEAD TAPPING SCREW-P	+ B W H P タイ	4pcs	01
	P90	VF815100 RUBBER CONTACT	接点 ゴム	2pcs	01
	P100	V0000800 CIRCUIT BOARD	P E D A L シート		05
*	P110	VQ668800 PK CABLE	P K ケーブル		
	P150	VP354800 ADJUSTER	丸形 アジャスター	2pcs	03
	P160	CB069250 CORD BINDER	インシュロック タイ	1pc.	01
	P280	VH861100 FELT	フェルト	2pcs	02

\* : New Parts (新規部品) NR

ランク : Japan Only 26

# AC CORD ASSEMBLY



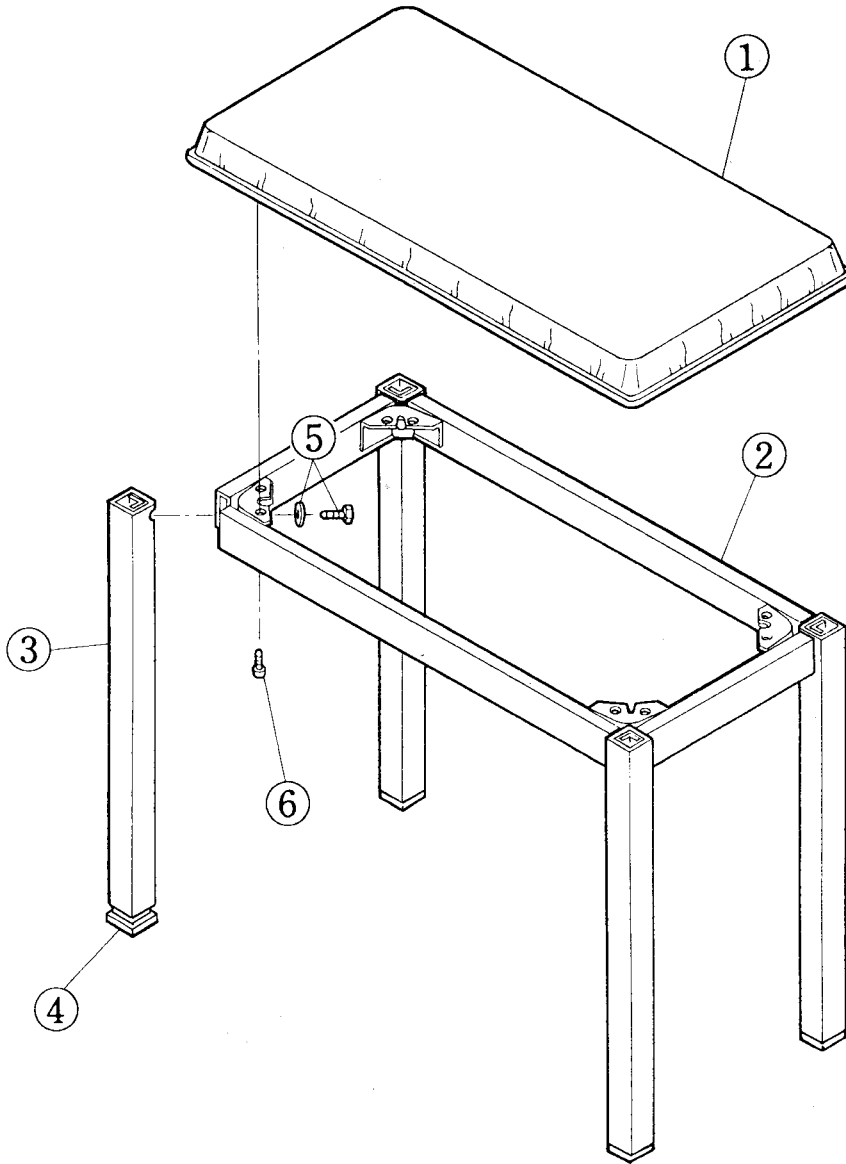
MODEL	1 pin	4 pin
X	WH	BL
M	SB	BR
U,C	WH	BL
A	SB	BR
E	BE	BR
B	BE	BR

Ref. No.	Part No.	Description	部品名	Remarks	ランク
		<AC CORD ASSEMBLY>	<電源コード Assy>	CVP83S	
	VQ669200	AC CORD ASSEMBLY	電源コード Assy	U,C	
	VQ669300	AC CORD ASSEMBLY	電源コード Assy	A	
	VQ669500	AC CORD ASSEMBLY	電源コード Assy	B	
	VQ669400	AC CORD ASSEMBLY	電源コード Assy	E	
	VQ669000	AC CORD ASSEMBLY	電源コード Assy	X	
	VQ669100	AC CORD ASSEMBLY	電源コード Assy	M	
1	VP016100	AC CORD	電源コード	U,C	06
1	MG002070	AC CORD	電源コード	A	06
1	VH895700	AC CORD	電源コード	B	09
1	VD846300	AC CORD	電源コード	E	05
1	VE430800	AC CORD	電源コード	X	05
1	MG002080	AC CORD	電源コード	M	06
2	AA104700	CORD HOLDER	コード取り付け板	U,C,B,E	02
2	AA105130	CORD HOLDER	コード取り付け板	A,X,M	04
3	CB032840	CORD STRAIN RELIEF	コードストッパー	U,C,X,M	01
3	CB072750	CORD STRAIN RELIEF	コードストッパー	A,B,E	01
4	LB015040	CONNECTOR HOUSING	コハウジング		01
5	LB101710	CONNECTOR PIN	圧着端子		01

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CVP-83S

■ BENCH BC-8



Ref. No.	Part No.	Description		部品名	Remarks	ランク
		<BENCH>	BC-8	<椅子>	CVP83S	
1	NX004160	BENCH BOARD ASSEMBLY		座板 A s s y	J, U	16
1	NX004170	BENCH BOARD ASSEMBLY		座板 A s s y	C, X	
1	--	BENCH BOARD ASSEMBLY		座板 A s s y	B	
2	AX000350	BENCH FRAME ASSEMBLY		座枠 A s s y		13
3	AX000360	LEG PIPE ASSEMBLY		脚パイプ A s s y	4pcs	08
4	CX003630	LEG CAP		脚キャップ	4pcs	01
5	EX000450	HEXAGONAL BOLT & SP WASHER	5.0X12	パネ座付六角ボルト	4pcs	03
6	EJ350206	PAN HEAD TAPPING SCREW	5.0X20 FCN3BL	+ナベ T P ネジ	8pcs	01

\* : New Parts (新規部品) NR

ランク : Japan Only