

Clavinova[®]

CLP-121S

SERVICE MANUAL



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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 or 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 specifications 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!

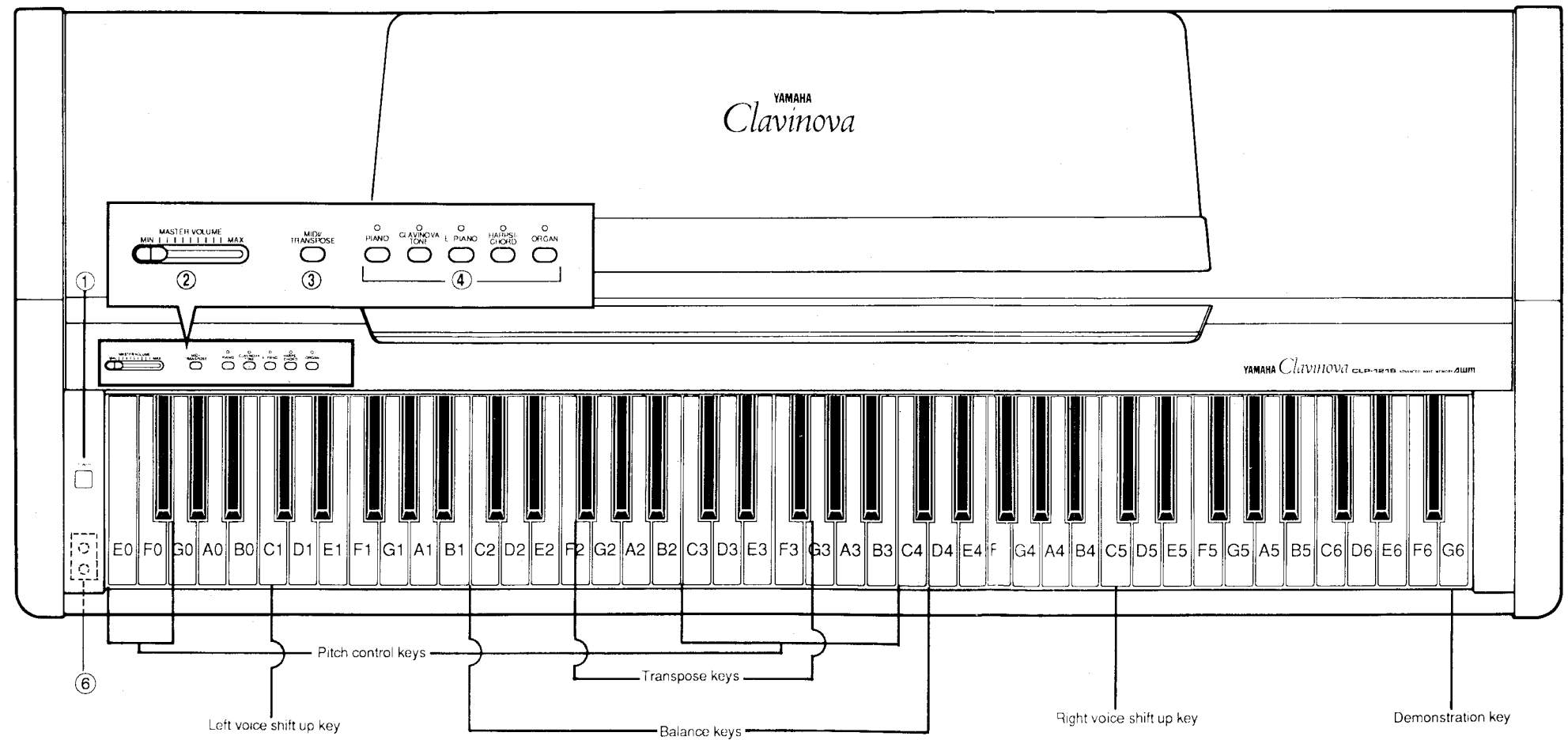
If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

■ SPECIFICATIONS

	CLP-121S
KEYBOARD	76 KEYS (E0 ~ G6)
VOICE SELECTORS	PIANO, CLAVINOVA TONE, E. PIANO, HARPSICHORD, ORGAN
PEDAL CONTROLS	SOFT/SOSTENUTO, DAMPER
OTHER CONTROLS	MASTER VOLUME, MIDI/TRANSCOPE
JACKS/CONNECTORS	HEADPHONES × 2, AUX. OUT R & L/L+R, OPTIONAL IN R/L, MIDI IN/OUT
INPUT & OUTPUT LEVEL/IMPEDANCE	AUX. OUT: 600 Ω OPTIONAL IN: 15 kΩ / -10 dBm (for nominal output level)
MAIN AMPLIFIERS	10W × 2
SPEAKERS	16 cm × 2
DIMENSIONS (W × D × H)	1214.7 × 472 × 825.6 mm (47-3/4" × 18-1/2" × 32-1/2")
WEIGHT	44.0 kg (97.0 lbs.)

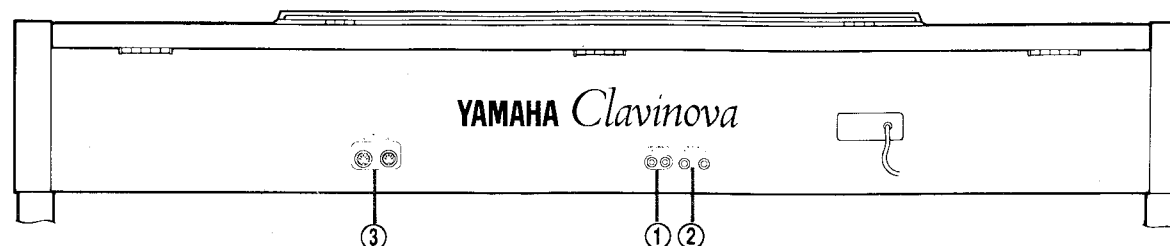
■ PANEL LAYOUT

● Front Panel



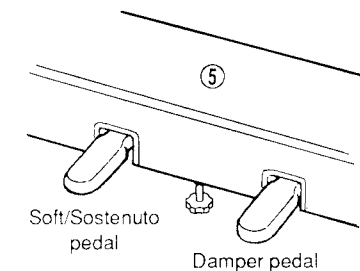
- ① [POWER] Switch
- ② [MASTER VOLUME] Control
- ③ [MIDI/TRANSCOPE] Button
- ④ Voice Selectors
- ⑤ Pedals
- ⑥ HEADPHONES Jacks (Bottom Panel)

● Rear Panel

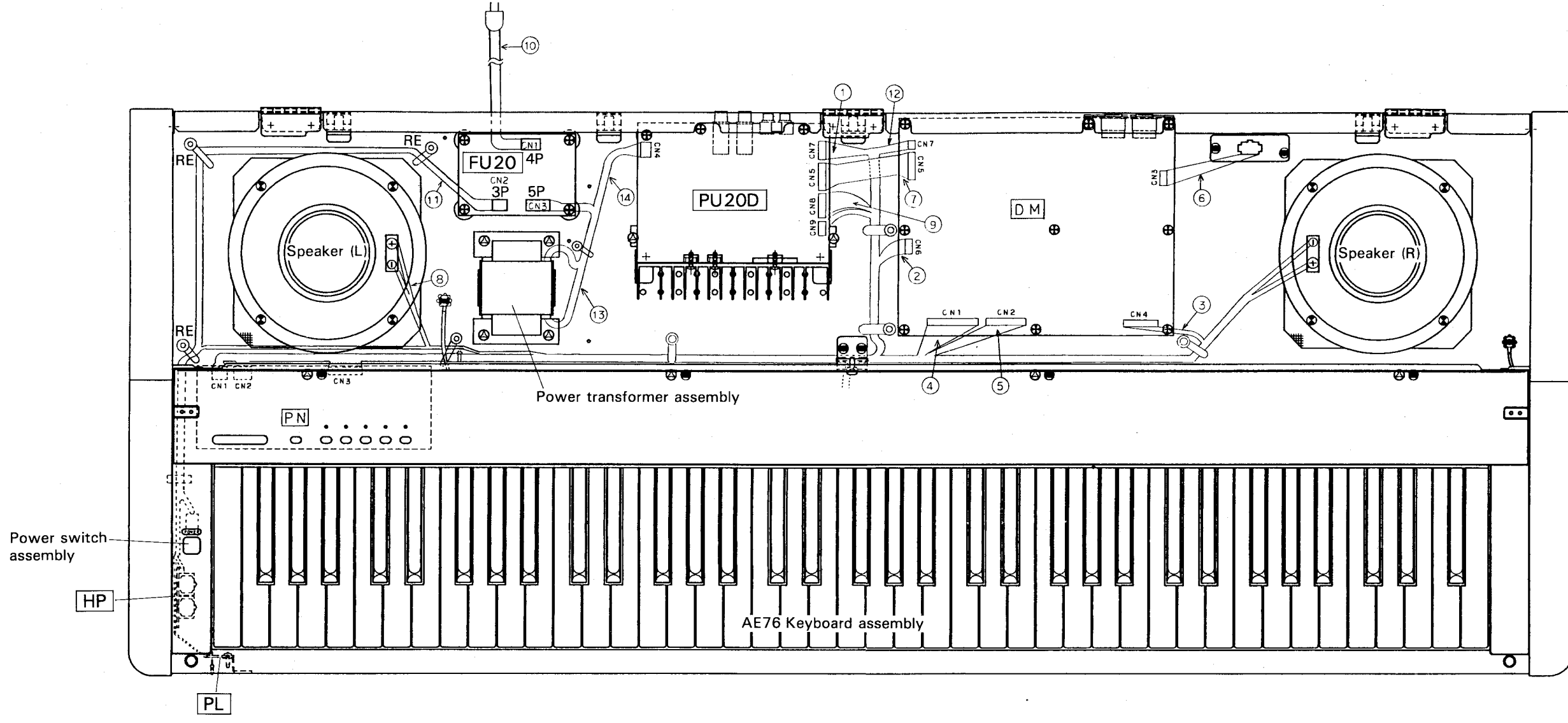


- ③ MIDI IN and OUT Connectors
- ① OPTIONAL IN L/R Jacks
- ② AUX OUT R and L/L+R Jacks

● Pedals



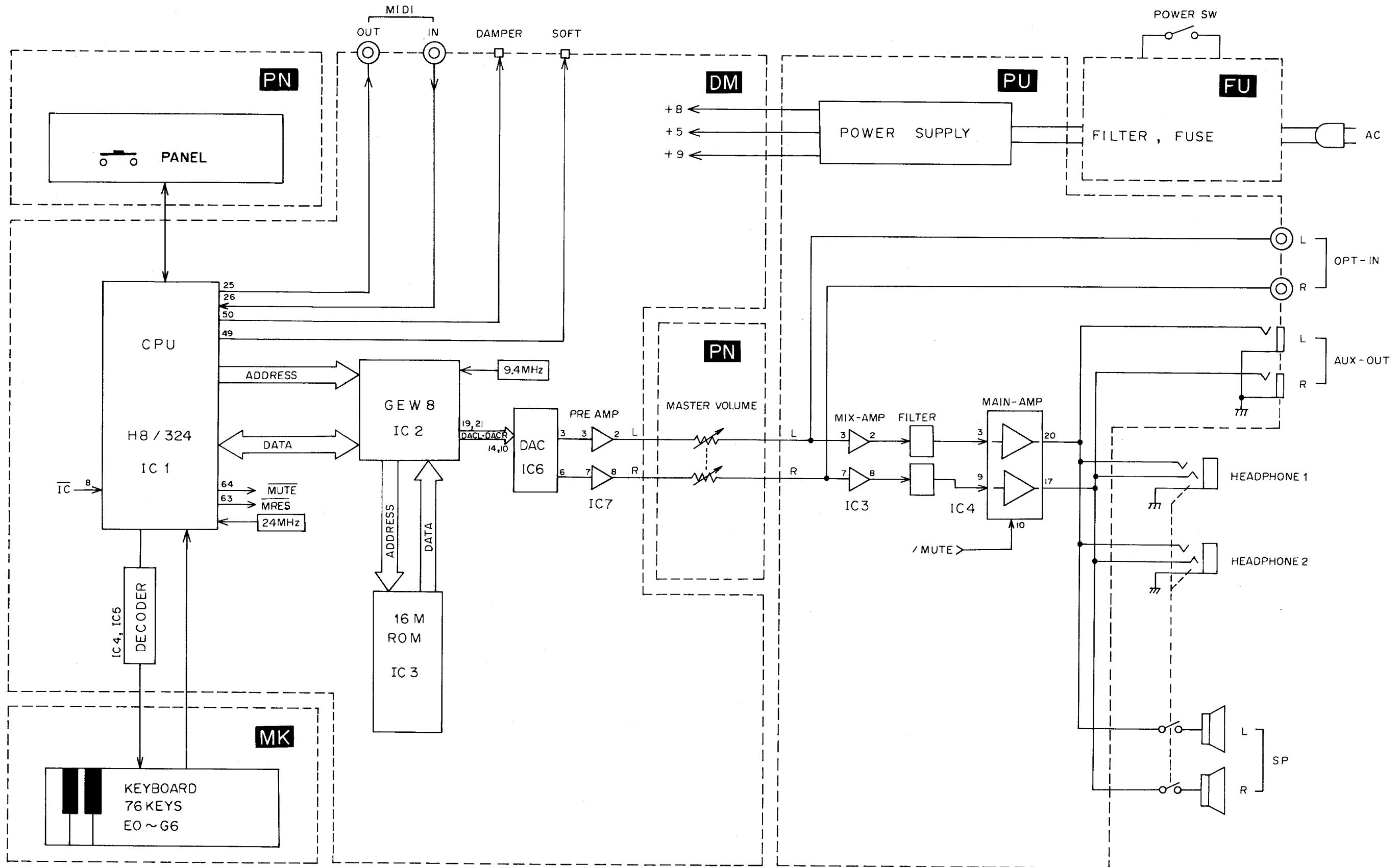
■ CIRCUIT BOARD LAYOUT



LOCATION	PART NAME	DESTINATION		PART NO.
1	Connector Assembly, VOL2	PN-CN2	PU-CN7	VN44570
2	Connector Assembly, VOL1	DM-CN6	PN-CN1	VN44560
3	Connector Assembly, PN1	DM-CN4	PN-CN3	VJ98000
4	Connector Assembly, MK	DM-CN1	KEYBOARD	VL25440
5	Connector Assembly, MK	DM-CN2	KEYBOARD	VL25440
6	Connector Assembly, PK	DM-CN3	KEYBED-CN	VN44580
7	Connector Assembly, PS	DM-CN5	PU-CN5	VN58870
8	Connector Assembly, SP	PU-CN9	SPEAKER	VN58880
9	Connector Assembly, HP	PU-CN8	HP-CN1	VN44550
10	AC Cord Assembly	FU-CN1	AC CORD	VF71110
11	POWER Switch Assembly	FU-CN2	POWER SW	VL32810
12	Connector Assembly, P. LED	DM-CN7	PL-CN1	VP80020
13	Connector Assembly, PT1	FU-CN3	P.T. primary	—
14	Connector Assembly, PT2	PU-CN4	P.T. secondary	—

* The connector assemblies are not prepared as service parts. (except PK)

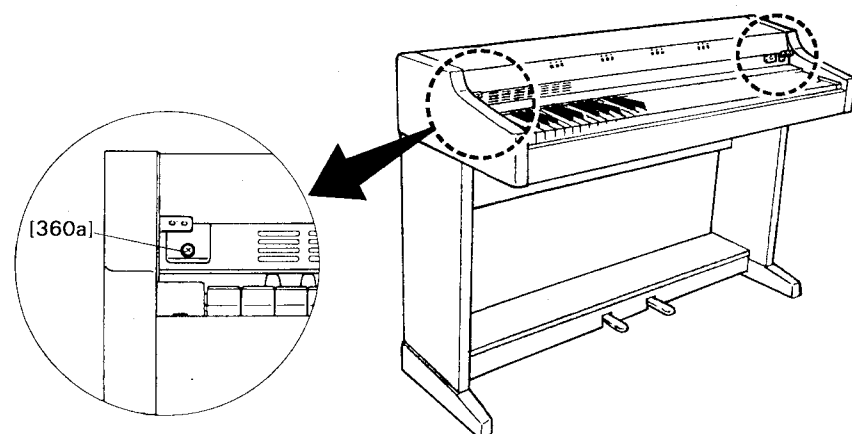
■ BLOCK DIAGRAM



DISASSEMBLY PROCEDURE

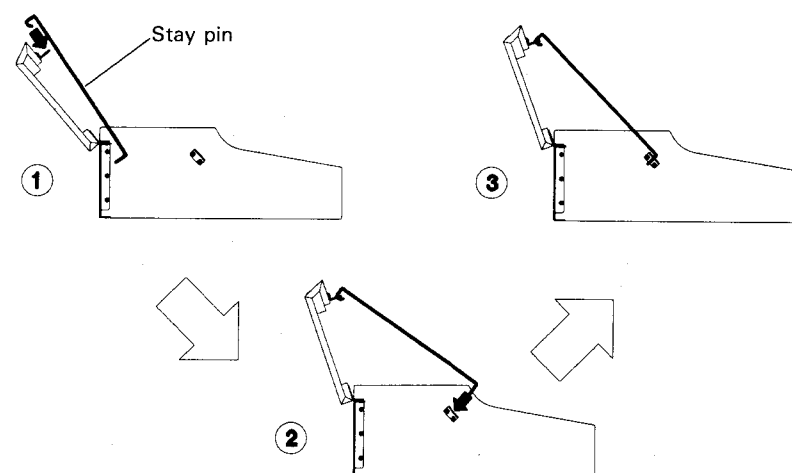
1. Opening The Top Board

- 1-1. To open the top board, loosen the two (2) screws marked [360a]. Lift the top board from the front and hold it with your hand. Use the stay which is provided with this unit to hold it. Attach the stay pin as shown in the illustration making sure that it can not come off. (Fig. 1, Fig. 2)



[360a]: Bind Head Tapping Screw-S 4.0×10 ZMC2BL (VF627200)

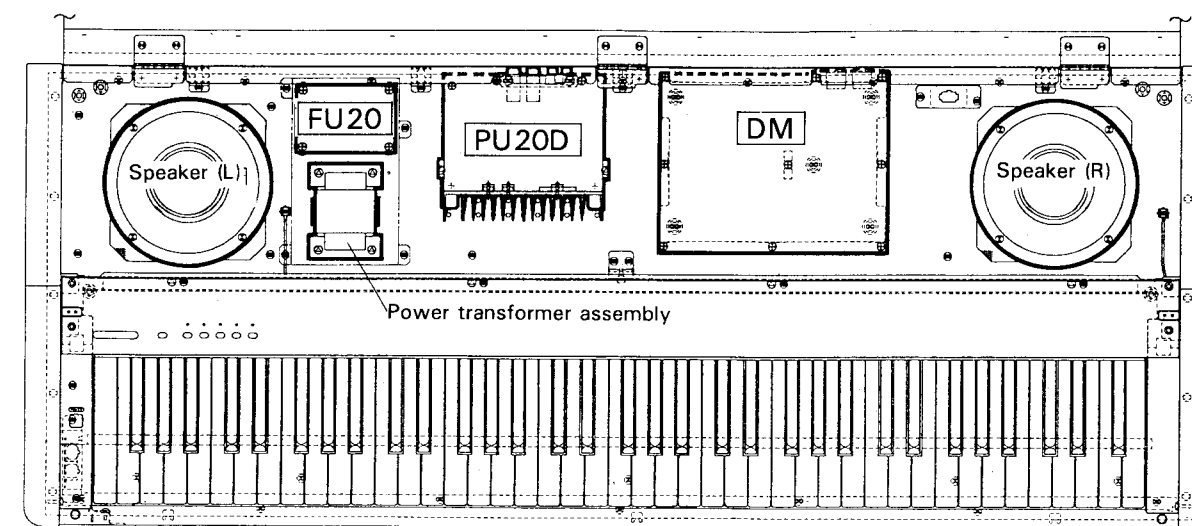
(Fig. 1)



(Fig. 2)

- * This will give you access to the circuit boards as shown in the figure 3.

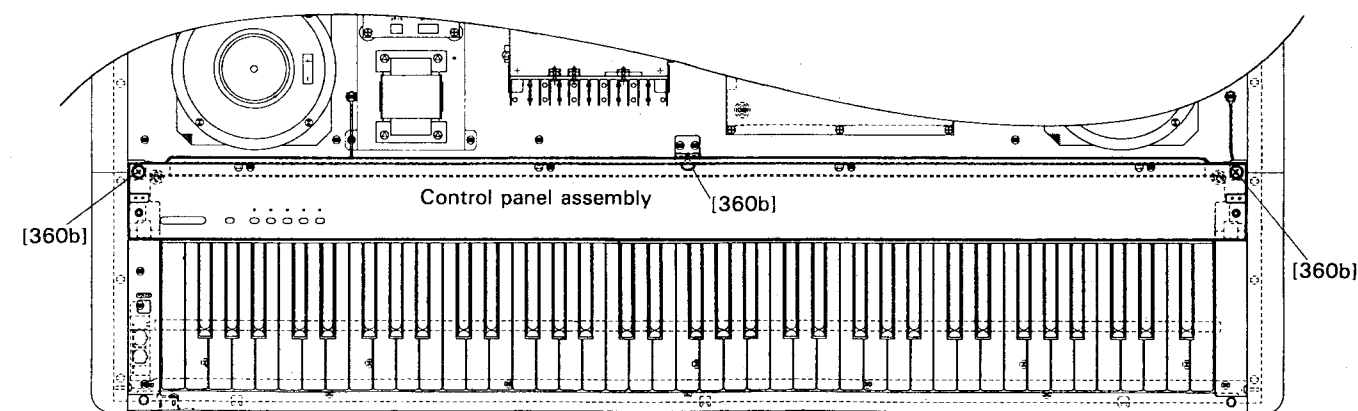
- (1) DM circuit board
- (2) PU20D assembly
- (3) FU20 circuit board
- (4) Power transformer
- (5) Speakers



(Fig. 3)

2. Control Panel Assembly Removal

- 2-1. Open the top board. (see procedure 1)
2-2. Remove the three (3) screws marked [360b], then the control panel assembly can be removed. (Fig. 4)



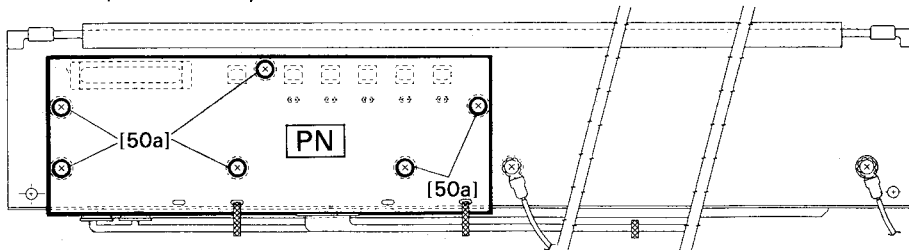
[360b]: Bind Head Tapping Screw-S 4.0×10 ZMC2BL (VF627200)

(Fig. 4)

3. PN Circuit Board Removal

- 3-1. Open the top board. (see procedure 1)
- 3-2. Remove the control panel assembly. (see procedure 2)
- 3-3. Remove the six (6) screws marked [50a], then the PN circuit board can be removed. (Fig. 5)

• Control panel assembly

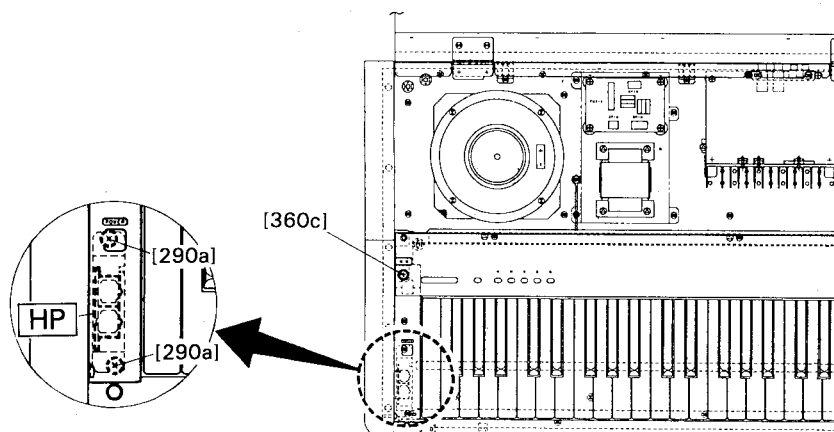


[50a]: Bind Head Tapping Screw-C 3.0 × 6 ZMC2Y (EP630390)

(Fig. 5)

4. HP Circuit Board Removal

- 4-1. Open the top board. (see procedure 1)
- 4-2. Remove the control panel assembly. (see procedure 2)
- 4-3. Remove the screw marked [360c], then remove the left end block assembly. (Fig. 6)
- 4-4. Remove the two (2) screws marked [290a], then the HP circuit board can be removed. (Fig. 6)



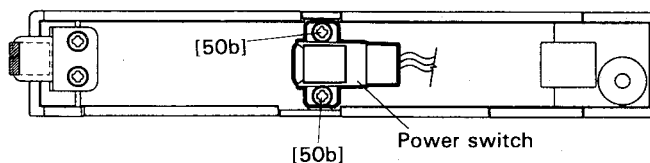
[290a]: Bind Head Tapping Screw-1 3.5 × 12 ZMC2BL (EP030340)
 [360c]: Bind Head Tapping Screw-S 4.0 × 10 ZMC2BL (VF627200)

(Fig. 6)

5. Power Switch Removal

- 5-1. Open the top board. (see procedure 1)
- 5-2. Remove the control panel assembly. (see procedure 2)
- 5-3. Remove the screw marked [360c], then remove the left end block assembly. (Fig. 6)
- 5-4. Remove the two (2) screws marked [50b], then the power switch can be removed. (Fig. 7)

• End block assembly (L)

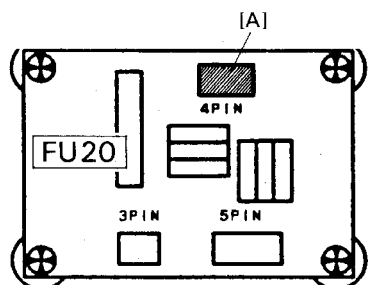


[50b]: Bind Head Tapping Screw-P 3.0 × 8 ZMC2Y (EP600280)

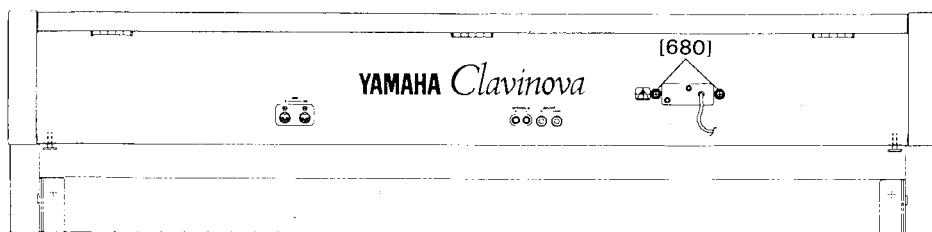
(Fig. 7)

6. AC Cord Assembly Removal

- 6-1. Open the top board. (see procedure 1)
- 6-2. Disconnect the connector marked [A]. (Fig. 8)
- 6-3. Remove the two (2) screws marked [680], then the AC cord assembly can be removed. (Fig. 9)



(Fig. 8)

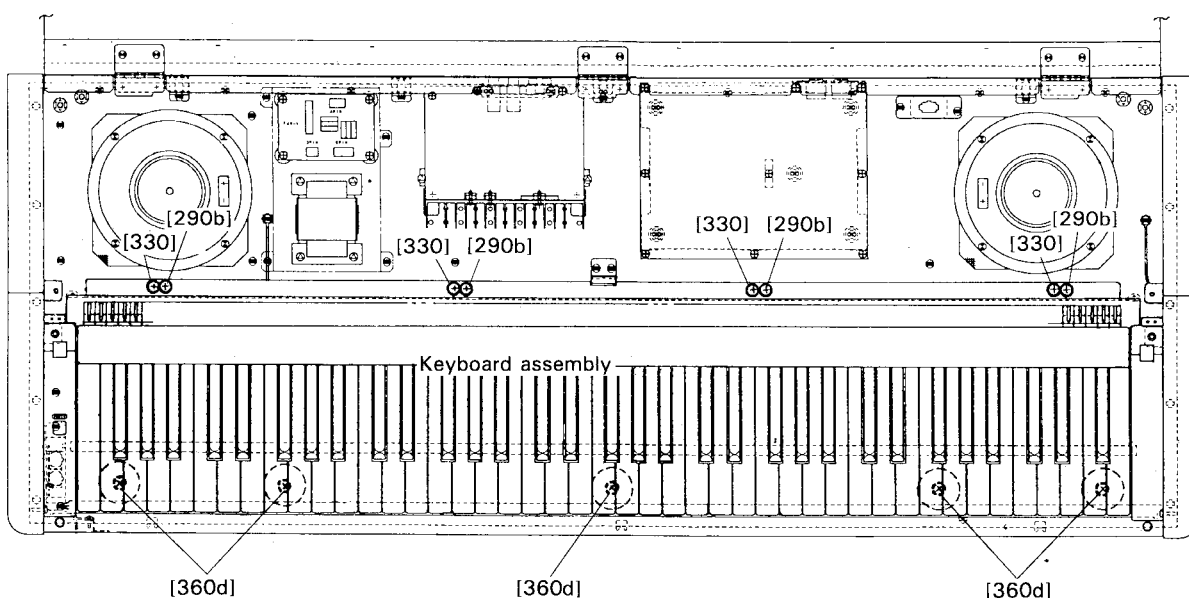


[680]: Bind Head Screw 3.0 × 6 ZMC2BL (EG330360)

(Fig. 9)

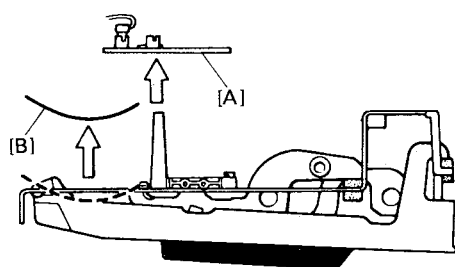
7. Keyboard Assembly Removal

- 7-1. Open the top board. (see procedure 1)
- 7-2. Remove the control panel assembly. (see procedure 2)
- 7-3. Remove the right and left end blocks. (see procedure 5-3)
- 7-4. Remove the five (5) screws marked [360d]. These screws are located on the underside of the keyboard. (Fig. 10)
- 7-5. Remove the four (4) screws marked [330] and four (4) screws [290b], then the keyboard assembly can be removed. (Fig. 10)
- 7-6. Remove the circuit board marked [A], and remove the key spring [B]. (Fig. 11)
- 7-7. 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, Fig. 13)
- 7-8. The Black keys can be disassembled in the same manner as these steps.

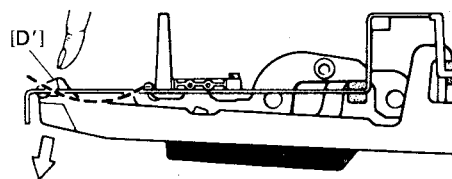


[290]: Bind Head Tapping Screw-1 3.5 × 12 ZMC2BL (EP030340)
 [330]: Bind Head Screw 4.0 × 14 ZMC2Y (EG340210)
 [360d]: Bind Head Tapping Screws 4.0 × 10 ZMC2BL (VF627200)

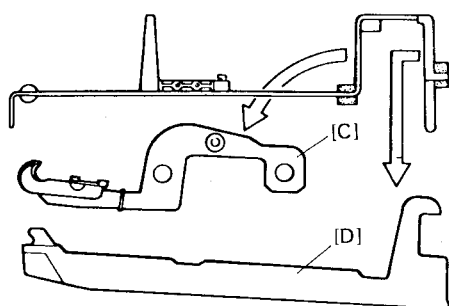
(Fig. 10)



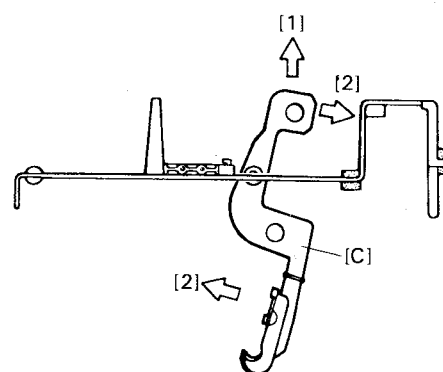
(Fig. 11)



(Fig. 12)



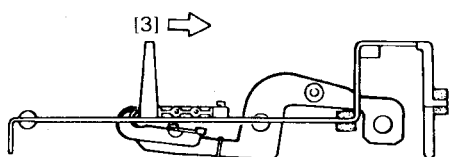
(Fig. 13)



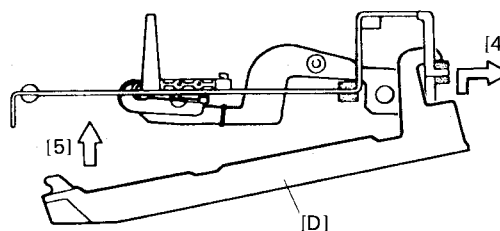
(Fig. 14)

8. Assembling The Keyboard

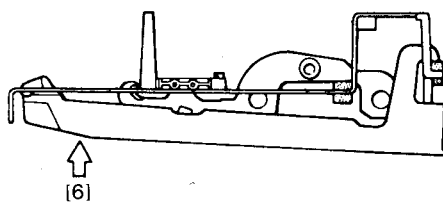
- 8-1. Insert the hammer assembly to the frame. (Fig. 14)
- 8-2. Set the hammer assembly as shown in the figures 14 and 15.
- 8-3. Then set the white key in the order of [4] and [5]. (Fig. 16)
- 8-4. Press the white key in the direction [6] shown in the figure 17.
- 8-5. Attach the key spring and place the circuit board. (Fig. 18)
- 8-6. The black keys can be assembled in the same manner as these steps.



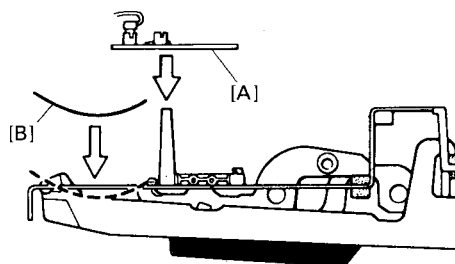
(Fig. 15)



(Fig. 16)



(Fig. 17)



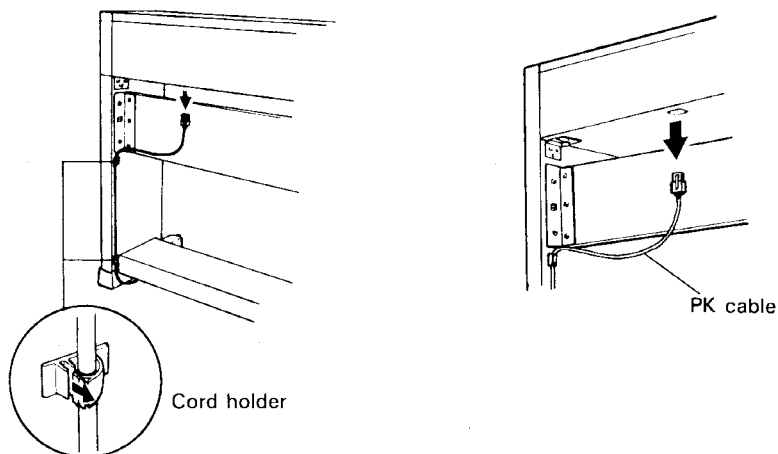
(Fig. 18)

9. Main Unit Removal

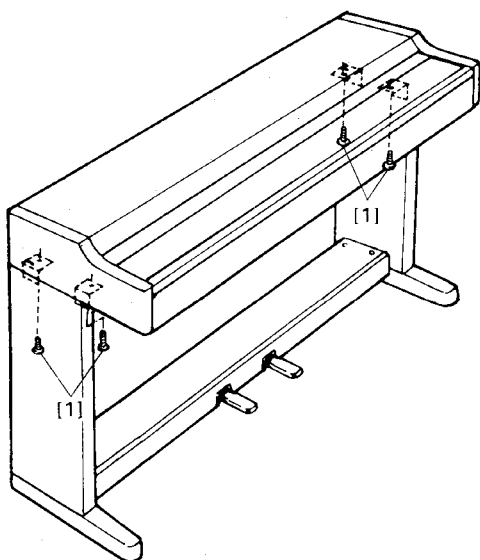
9-1. Disconnect the connector of the PK cable. (Fig. 19)

9-2. Remove the four (4) screws marked [1], then lift the unit upward slightly and then slide it toward the back, then raise it to remove. (Fig. 20 and Fig. 21)

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

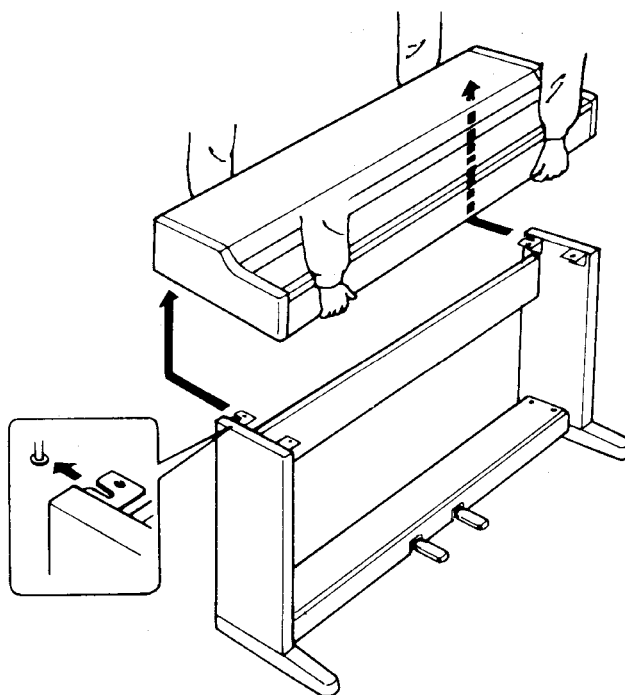


(Fig. 19)



[1]: Bind Head Screw 6.0 × 16 ZMC2BL (EG360020)

(Fig. 20)



(Fig. 21)

LSI PIN DESCRIPTION

• HD6433258W01P (XK986100) CPU (H8/324)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	P60	I/O	Port 6	33	P72	I/O	Port 7
2	P61	I/O		34	P73	I/O	
3	P62	I/O		35	P74	I/O	
4	P63	I/O		36	P75	I/O	
5	P64	I/O		37	P76	I/O	
6	P65	I/O		38	P77	I/O	
7	P66	I/O		39	Vcc		
8	RES	I	40	P27	I/O		
9	XTAL		Clock	41	P26	I/O	Port 2
10	EXTAL			42	P25	I/O	
11	MD1	I	Mode select	43	P24	I/O	Port 2
12	MD0	I		44	P23	I/O	
13	NM1	I	Non-maskable interrupt request	45	P22	I/O	Port 2
14	Vcc		Power supply	46	P21	I/O	
15	STBY	I	Stand-by mode signal	47	P20	I/O	Ground
16	Vss		Ground	48	Vss		
17	P40	I/O	Port 4	49	P17	I/O	Port 1
18	P41	I/O		50	P16	I/O	
19	P42	I/O		51	P15	I/O	
20	P43	I/O		52	P14	I/O	
21	P44	I/O		53	P13	I/O	
22	P45	I/O		54	P12	I/O	
23	P46	I/O		55	P11	I/O	
24	P47	I/O	Port 5	56	P10	I/O	Port 3
25	P50	I/O		57	P30	I/O	
26	P51	I/O		58	P31	I/O	
27	P52	I/O	Port 5	59	P32	I/O	Port 3
28	P53	I/O		60	P33	I/O	
29	P54	I/O	Port 7	61	P34	I/O	Port 3
30	P55	I/O		62	P35	I/O	
31	P70	I/O		63	P36	I/O	
32	P71	I/O		64	P37	I/O	

• YMW-258-F (XJ427A00) GEW8 (AWM & FM Tone Generator)

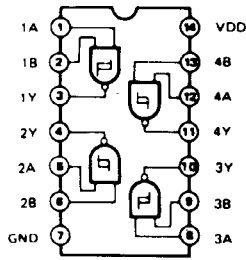
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	NC		Ground	41	Vss		Ground
2	Vss			42	NC		
3	D0	I/O	CPU data bus	43	Vss		Ground
4	D7	I/O		44	AB0	O	
5	A0	I	CPU address bus	45	DB7	I/O	Voice memory data bus
6	A1	I		46	AB1	O	
7	A2	I		47	AB2	O	
8	A3	I		48	AB10	O	
9	CS	I	Chip select	49	AB3	O	Voice memory address bus
10	RD	I	Read control	50	AB4	O	
11	WR	I	Write control	51	AB11	O	
12	XIN		Clock	52	AB5	O	
13	XOUT		Initial clear	53	AB9	O	
14	IC	I		54	AB6	O	
15	TST0		Test pin	55	AB8	O	
16	TST1			56	AB7	O	
17	Vss		Ground	57	AB13	O	Ground
18	DITHER		Not used	58	AB12	O	
19	DACL	O	Data output, L channel	59	AB14	O	Voice memory address bus
20	DACDCLK	O	Bit clock output to DAC	60	AB15	O	
21	DACRD	O	Data output, R channel	61	AB17	O	
22	DACLE	O	Word clock output to DAC	62	Vss		Ground
23	NC		System clock output to DAC	63	Vss		
24	DACMC	O		64	Vss		
25	CH27			65	Vss		
26	DSPSYW		Not used	66	AB15	O	Voice memory address bus
27	DSPSEND			67	AB18	O	
28	DSPRET			68	AB19	O	
29	DSPIC		Power supply	69	AB20	O	Voice memory address bus
30	DSPCDS			70	AB21	O	
31	DSPCLK		Power supply	71	MRD	O	Memory read
32	Vdd			72	Vdd		
33	DB3	I/O	Voice memory data bus	73	MWR	O	Memory write
34	DB2	I/O		74	D3	I/O	
35	DB4	I/O		75	D4	I/O	CPU data bus
36	DB1	I/O		76	D2	I/O	
37	DB5	I/O		77	D5	I/O	
38	DB0	I/O		78	D1	I/O	CPU data bus
39	DB6	I/O		79	D6	I/O	
40	NC			80	Vss		Ground

• **PCM69AP-2 (XM050A00)** DAC (Digital to Analog Converter)

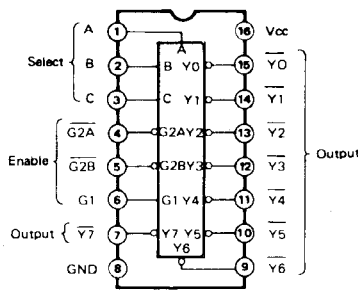
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	+Vcc		Analog power supply	9	DGND		Digital ground
2	VC, L		V-common, L channel	10	DA, R	I	Data input, R channel
3	IO, L	O	Current output, L channel	11	BCK	I	Bit clock
4	SER		Servo filter	12	CLK	I	System clock
5	REF		Reference filter	13	WDCK	I	Word clock
6	IO, R	O	Current output, R channel	14	DA, L	I	Data input, L channel
7	VC, R		V-common, R channel	15	TP1		Test pin
8	AGND		Analog ground	16	+VDD		Digital power supply

■ **IC BLOCK DIAGRAM**

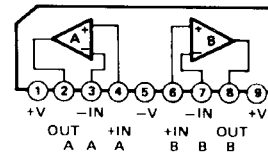
• **SN74HC132N (IR013250)**
Quad 2 Input NAND



• **SN74HC138N (IR013850)**
3 to 8 Demultiplexer

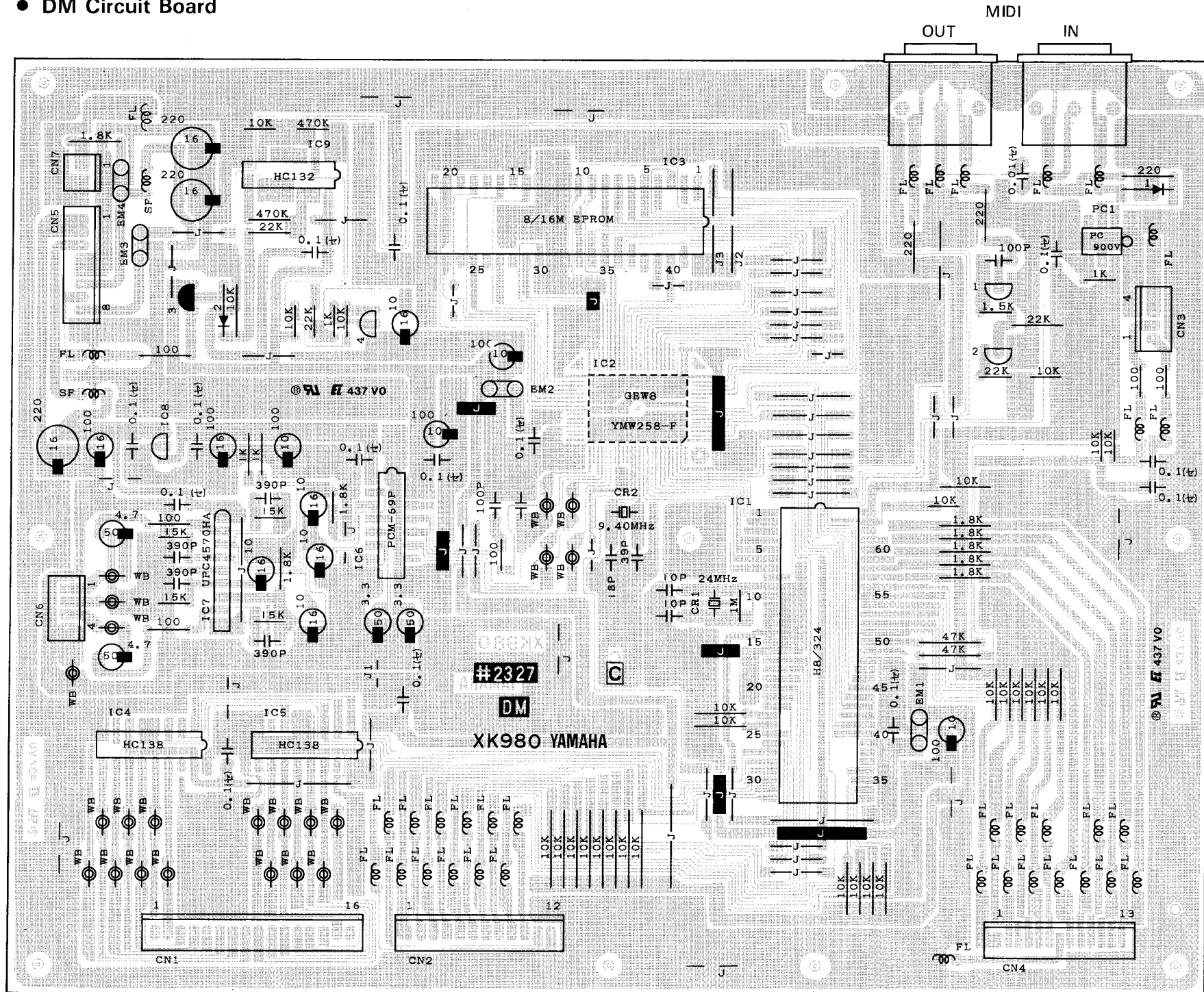


• **μPC4570HA (XB247A00)**
Dual Operational Amplifier



CIRCUIT BOARDS

• DM Circuit Board



Components side

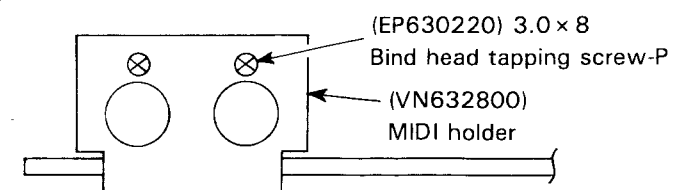
Notes)

- Circuit Board: DM (VN464600) XK980C0
- Semiconductive Cera. Cap.
0.1 (七): 0.1μ 16V M (VH740700)
 - Coil
FL: FL5R200QNT 20μH (VB835000)
SF: SNT-D20TF 10μH (VN381200)
 - Ferrite Bead
FB: BL02RN1-R62T4 (GE300610)
WB: BL02RN2-R62T4 (GE300670)
 - IC
IC 1: HD6433258W01P (XK986100) CPU (H8/324)
IC 2: YMW258-F (XJ427A00) GEV8
IC 3: TC5316200APH139 (XK987100) ROM 16M
IC 4, 5: SN74HC138N (IR013850) DECODER
IC 6: PCM69AP-2 (XM050A00) DAC
IC 7: UPC4570HA (XB247A00) OP AMP
IC 8: UPC78L05J (XC349A00) REGULATOR +5V or NJM78L05A (XJ596A00) REGULATOR +5V
IC 9: SN74HC132N (IR013250) NAND
 - DIN Connector
MIDI-IN, OUT: 5P YKF51-50 (VB312500)
 - Base Post Connector
CN 1: XH-16P TE (LB918160) to Keyboard
CN 2: XH-12P TE (LB918120) to Keyboard
CN 3, 6: XH-4P TE (LB918040) CN3 to PK cable
CN6 to PN (CN1)
CN 4: PH-13P TE (VF283100) to PN (CN3)
CN 5: XH-8P TE (LB918080) to PU20D (CN5)
CN 7: PH-2P TE (VB389800) to PL (CN1)
 - LC Filter
EM 1~3: DSS306-93F223Z1 (VD542700)
EM 4: Jumper Wire
 - Quartz Crystal Unit
CR 1: 24MHz AT-49 (VK409400)
CR 2: 9.4MHz HC-49/U (VL456800)
 - Transistor
1, 2: 2SC1740S R, S (IC174070)
3: 2SA1015 O, Y (IA101590)
4: 2SC1815 Y, GR (IC1815M0)
 - Diode
1, 2: 1SS133, 1SS176 (VB941200)
 - Photo Coupler
PC 1: PC-900V (VG181900)

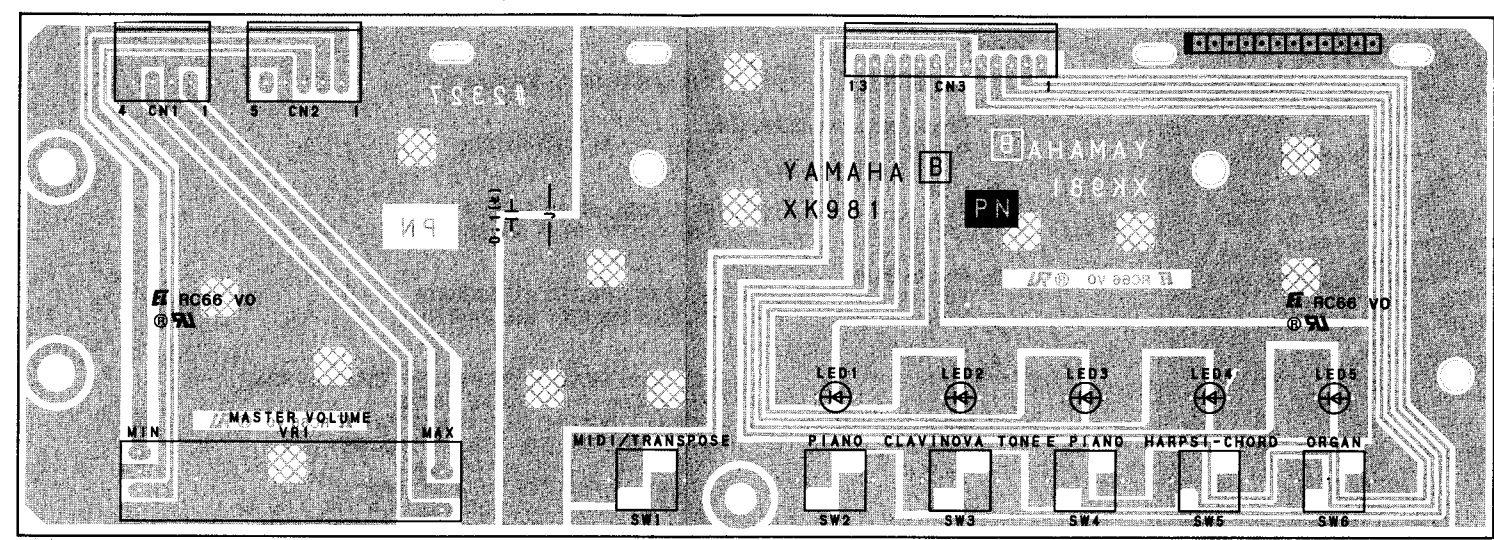
• Jumper wire

J1	J2	J3
x	x	○

(○: installed x: not installed)



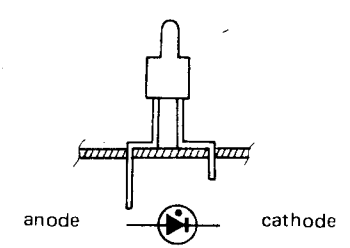
● PN Circuit Board



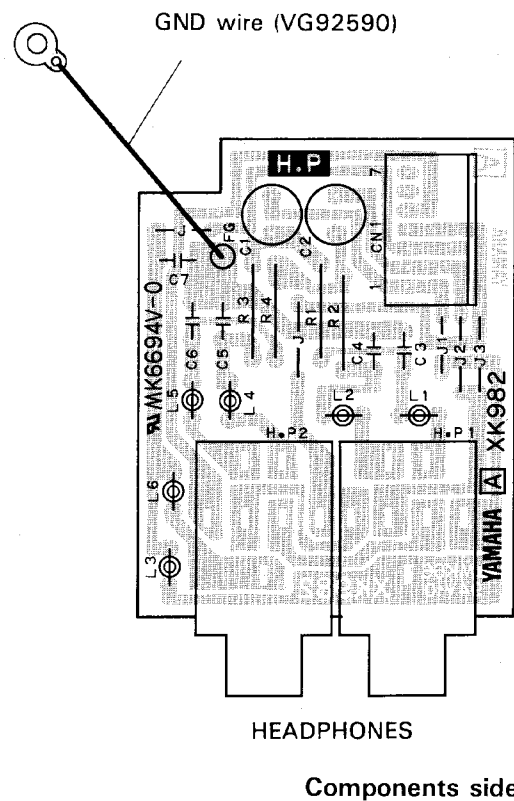
Components side

Notes)

- Circuit Board: PN (VN464800) XK981B0
- 1. Push Switch
SW 1 ~ 6: KEC10901 (KA906550)
- 2. Base Post Connector
CN 1: XH-4P SE (LB919040) to DM (CN6)
CN 2: XH-5P SE (LB919050) to PU20D (CN7)
CN 3: PH-13P SE (VK015400) to DM (CN4)
- 3. Slide Pot.
VR 1: A 10.0K x 2 (VK369000) MASTER VOLUME
- 4. LED
LED 1 ~ 5: SLZ-190B-03 RE (VD180000)



● HP Circuit Board



Notes)

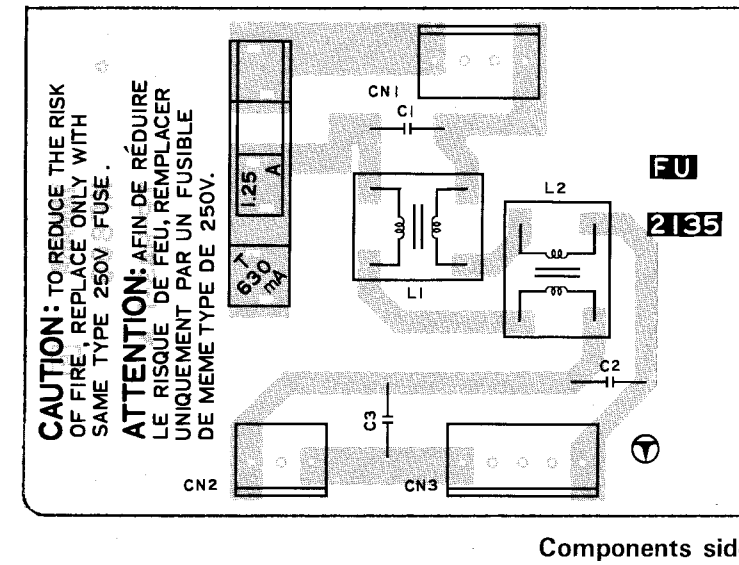
- Circuit Board: HP (VP419600) XK982A0
1. Electrical Cap.-BP
C 1, 2: 47.0 μ 16.0V (UK137470)
 2. Semiconductive Cera. Cap.
C 3~7: 0.1 μ 25V Z (VE659000)
 3. Coil
L 1~6: FL5R200QN 20 μ H (VB971100)
 4. Phone Jack
H·P 1, 2: YKB21-5006 (LB101870) HEADPHONES
 5. Base Post Connector
CN 1: XH-7P SE (LB919070) to PU20D (CN8)

● Jumper wire

J1	J2	J3
○	○	x

(○: installed x: not installed)

● FU20 Circuit Board

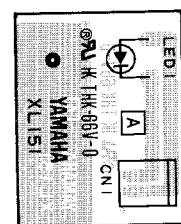


Notes)

- Circuit Board: FU20 (VN885700) XF806B0 (J, M)
FU20 (VP312400) XF806B0 (U, C, X)
FU20 (VP312500) XF806B0 (A, B, H)
1. 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)
 2. Ceramic Cap.
C 1: 0.01 μ 400V (FI384100)
C 2, 3: 4700P 400V (FI383470)
 3. Fuse
F 1 (J, M): T 1.25A 250V (KB000430)
(U, C, X): T 1.25A 250V (VC268400)
(A, B, H): T 630mA/250V (KB002600)
 4. Coil
L 1: SU10V-D10010 1A (VF616300)
 5. Jumper wire
L 2: Jumper wire

● PL Circuit Board

POWER indicator

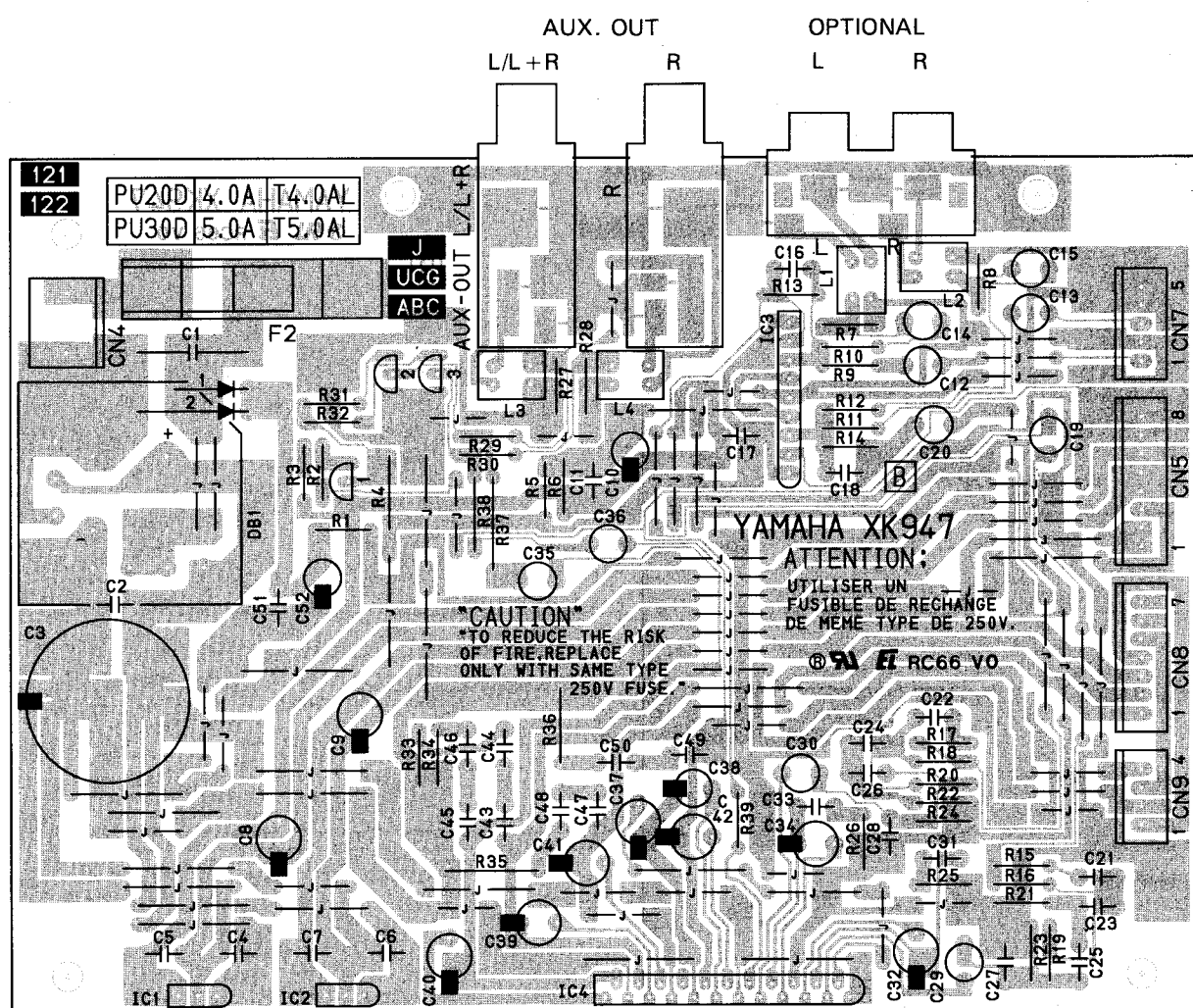


Components side

Notes)

- Circuit Board: PL (VN637600) XL151A0
1. Base Post Connector
CN 1: PH-2P SE (VB858100) to DM (CN7)
 2. LED
LED 1: SLZ-190B-03 RE (VD180000) POWER indicator

● PU20D Circuit Board



Components side

Notes)

- | | |
|--------------------------------|---|
| Circuit Board: | PU20D (VN553100) XK947B0 (A, B, H)
PU20D (VN553000) XK947B0 (U, C, X)
PU20D (VN552900) XK947B0 (J, M) |
| 1. Mylar Cap. | |
| C01: | 0.47 μ 100V K (FC085470) |
| C31, 33: | 0.1 μ 50V J (UA655100) |
| C43-50: | 0.068 μ 50V J (UA354680) |
| 2. Ceramic Cap. | |
| C16, 18: | 47P 50V J (FG651470) |
| C27, 28: | 3900P 50V K (FG613390) |
| 3. Electrolytic Cap. | |
| C03: | 4700 μ 25.0V (UJ649470) |
| C08, 09, 32, 34, 37,
39-42: | 100 μ 25.0V (UJ848100) |
| C10, 19, 20, 35, 36: | 10 μ 16.0V (UJ837100) |
| C12-15, 29, 30: | 1.0 μ 50.0V (UK866100) |
| C38: | 22 μ 25.0V (UJ847220) |
| C52: | 3.3 μ 50.0V (UJ866330) |
| 4. Semiconductive Cera. Cap. | |
| C02, 04, 06, 51: | 0.1 μ 25V Z (VC694800) |
| C05, 07, 11, 17: | 0.1 μ 16V M (VH740700) |
| 5. Coil | |
| L01-04: | SBT-0180W 80 μ H (VF456600) |
| 6. IC | |
| IC01: | NJM7805FA (XC719A00) REGULATOR +5V |
| IC02: | NJM78M09FA (XJ141A00) REGULATOR +9V |
| IC03: | UPC4570HA (XB247A00) OP AMP |
| IC04: | LA4620 BTL 17W (XL011A00) POWER AMP |
| 7. Pin Jack | |
| OPTIONAL IN: | YKC21-0188 (VI145300) |
| 8. Phone Jack | |
| AUX OUT-L/L+R, R: | HLJ0521 MONO. (LB202330) |
| 9. Base Post Connector | |
| CN04: | VH-3P TE (LB932030) to P.T. (secondary) |
| CN05: | XH-8P TE (LB918080) to DM (CN5) |
| CN07: | XH-5P TE (LB918050) to PN (CN2) |
| CN08: | XH-7P TE (LB918070) to HP (CN1) |
| CN09: | XH-4P TE (LB918040) to Speakers |
| 10. Transistor | |
| Q01-03: | 2SC1815 Y, GR (IC1815M0) |
| 11. Diode | |
| D01, 02: | 11ES4 (VB481900) |
| 12. Diode Stack | |
| DB01: | S4VB20 2.6A (IH001090) |
| 13. Jumper Wire | |
| R19, 20: | Jumper wire |
| 14. Fuse | |
| FO2 (U, C, X): | T 4.00A 250V (KB002640) |
| (A, B, H): | T 4.00AL/250V (KB000790) |
| (J, M): | T 4.00A 250V (KB000380) |

INSPECTIONS

1. Preparations

1-1 Power supply voltage

Before testing for specifications, confirm AC line voltage is the rated value $\pm 10\%$.

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:

POWER switch:	ON
MASTER VOLUME control:	MAX.
VOICE switch:	PIANO
DAMPER pedal:	OFF
TRANSCOPE mode:	DEFAULT SETTING

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 [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 each output jack and check AUX OUT (L/R) and 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 and conditions of each output during this test.

HEADPHONES (L):	sine wave, $1.5 \pm 3\text{dBm}$
HEADPHONES (R):	sine wave, $-1.0 \pm 3\text{dBm}$
AUX OUT (L):	sine wave, $-7.5 \pm 3\text{dBm}$
AUX OUT (R):	sine wave, $-10.0 \pm 3\text{dBm}$

When the phone plug inserted to the AUX OUT (R) is disconnected, the output level of the AUX OUT (L/L + R) is as follow.

AUX OUT (L):	sine wave, $-8.5 \pm 3\text{dBm}$
--------------	-----------------------------------

When sine waves of 1kHz, -20dBm are applied to the OPTIONAL IN (L, R) inputs, the specifications and conditions of each output are as follows during this test.

HEADPHONES (L):	sine wave, $8.0 \pm 3\text{dBm}$
HEADPHONES (R):	sine wave, $8.0 \pm 3\text{dBm}$
AUX OUT (L):	sine wave, $-1.0 \pm 3\text{dBm}$
AUX OUT (R):	sine wave, $-1.0 \pm 3\text{dBm}$

2-3 NOISE LEVEL

The noise level should be less than -70 dBm.

■ TEST PROGRAM

1. HOW TO ENTER THE TEST PROGRAM

While pressing the [E0] and [G6] keys on the keyboard, turn on the power switch. The CLP-121 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 CPU will be indicated by the voice LED indicators.
- B. The 2nd make contact check of the keyboard will be performed. If an error is detected, the system will not enter the test program.
- C. The pedal off check will be performed. If an error is detected, the PIANO LED will light.
- D. The panel switch off check will be performed. If an error is detected, the CLAVINOVA TONE LED will light.

3. TEST PROGRAM

Pressing the key on the keyboard will activate the test as shown below. (VOLUME: max.)

[B-1], [F0] :	EXIT
[G0] :	MIDI TEST
[A0] :	1kHz SOUND OUTPUT
[B0] :	440Hz SOUND OUTPUT TEST 1
[F1] :	SOUND DIMINISH
[C3] :	440Hz SOUND OUTPUT TEST 2
[G3] :	440Hz SOUND OUTPUT TEST 3
[C4] :	32 SOUNDS OUTPUT, WAVE ROM TEST
[C5] :	PARAMETER ROM VERSION DISPLAY

3-1. Exit

Press the [B-1] or [F0] keys to exit the test program, then the system will enter the play mode.

3-2. 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 HARPSICHORD LED will light.

3-3. 1kHz Sound Output Test

Press the [A0] key and check that the correct sine wave signal is output from PHONES (L/R) jack.
(L: $0.0 \pm 3\text{dBm}$, R: $0.5 \pm 3\text{dBm}$)

3-4. 440Hz Sound Output Test 1

Press the [B0] key and check that the correct sine wave signal is output from PHONES (L/R) jack.
(L: $1.5 \pm 3\text{dBm}$, R: $-1.0 \pm 3\text{dBm}$)

3-5. Sound Diminish

If the [F1] key is pressed, the sounded signal will go off.

3-6. 440Hz Sound Output Test 2

Press the [C3] key and check that the correct sine wave signal is output from PHONES (L/R) jack.
(L: $3.0 \pm 3\text{dBm}$, R: $-\infty\text{dBm}$)

3-7. 440Hz Sound Output Test 3

Press the [G3] key and check that the correct sine wave signal is output from PHONES (L/R) jack.
(L: $-\infty\text{dBm}$, R: $3.5 \pm 3\text{dBm}$)

3-8. 28 Sound Output & Wave ROM Test

When the [C4] key is pressed, sine wave signals will sound in succession from 1-channel through 28-channel.

ROM1: CLAVINOVA TONE, E.PIANO, HARPSICHORD, PIANO

3-9. Parameter ROM Version Display

When the [C5] key is pressed, the version of the parameter ROM will be indicated by the voice LED indicators.

MIDI DATA FORMAT

1. NOTE ON/OFF

Data format: [9nH] -> [kk] -> [vv]

9nH = Note ON/OFF event (n = channel number)

kk = Note number (Transmit: 22 ~ 109 = A#-1 ~ C#7 / Receive: 21 ~ 108 = A-1 ~ C7)

vv = Velocity (Key ON = 1 ~ 127. Key OFF = 0)

Data format: [8nH] -> [kk] -> [vv]

8nH = Note OFF event (n = channel number)

kk = Note number (21 ~ 108 = A-1 ~ C7)

vv = Velocity (Key OFF = 0 ~ 127)

* Note OFF event format [8nH] -> [kk] also recognized (reception only).

2. CONTROL CHANGE & MODE MESSAGES

Data format: [BnH] -> [cc] -> [vv]

BnH = Control event (n = channel number)

cc = Control number

vv = Control value

cc	CONTROL	VALUE [vv]
07H	Volume (reception only)	00000000 : -∞ 01101111 : -3dB 01111111 : ±0dB
0AH	Pan Pot (reception only)	00H ~ 17H LEFT 6 18H ~ 1FH 5 20H ~ 27H 4 28H ~ 2FH 3 30H ~ 37H 2 38H ~ 3FH 1 40H ~ 47H CENTER 48H ~ 4FH SCALING PAN 50H ~ 57H RIGHT 1 58H ~ 5FH 2 60H ~ 67H 3 68H ~ 6FH 4 70H ~ 77H 5 78H ~ 7FH 6
0BH	Expression (reception only)	00000000 : -∞ 01101111 : -3dB 01111111 : ±0dB
40H	Damper Pedal	00H ~ 3FH : OFF 40H ~ 7FH : ON
42H	Sostenuto Pedal	00H ~ 3FH : OFF 40H ~ 7FH : ON
43H	Soft Pedal	00H ~ 3FH : OFF 40H ~ 7FH : ON
79H	Reset	AllController 00H (reception only)
7AH	Local Control ON/OFF	00H : OFF 7FH : ON (reception only)
7BH	All Notes OFF	00H (reception only)
7CH	Omni OFF/ All Notes OFF	00H (reception only)
7DH	Omni ON/ All Notes OFF	00H (reception only)

3. PROGRAM CHANGE

Data format: [CnH] -> [pp]

CnH = program event (n = channel number)

pp = Program number

pp	VOICE NAME
00	PIANO
01	CLAVINOVA TONE
02	E. PIANO
03	HARPSICHOARD
04	ORGAN

4. SYSTEM REALTIME MESSAGES

Active Sensing (FEH)

Transmitted every 200 milliseconds. If not received for more than 400 milliseconds a NOTE OFF occurs.

5. SYSTEM EXCLUSIVE MESSAGES

(1) YAMAHA MIDI Format

Data format: [F0H] -> [43H] -> [xn] -> [ff] . . . [F7H]

43H : Yamaha

xn : Substatus + channel number.

ff : Format number.

x ff Information

2 7CH Panel Data Send occurs when this data received.

2 7DH Name Data Send occurs when this data received.

(2) Clavinova MIDI Format

Data format: [F0H] -> [43H] -> [73H] -> [30H] -> [yy] -> [F7H]

43H : Yamaha ID

73H : Clavinova ID

30H : CLP-121S ID

yy : Substatus

yy Information

13H Multi-timbre mode OFF.

15H Multi-timbre mode ON.

7cH All notes OFF; receive channel = c+1; omni OFF.

(3) Special Control

Data format: [F0H] -> [43H] -> [73H] -> [30H] -> [11H] -> [0nH] -> [cc] -> [vv] -> [F7H]

43H : Yamaha ID

73H : Clavinova ID

30H : CLP-121S ID

11H : Clavinova special control

0nH : Control MIDI change + channel number

cc : Control number

vv : Value

cc Control Value [vv]

08H Dual Balance 00H : Left Voice Max.

7FH : Right Voice Max.

5AH Dual Mode 00H : Dual Off

01H : Dual On (Normal)

02H : Dual On (Left voice 1

octave up)

03H : Dual On (Right voice 1

octave up)

5CH Dual Voice [vv] : Dual Voice

PANEL DATA SEND FORMAT

F0H, 43H, 0nH, 7CH, 00H, 19H (n: channel number)

53H, 4BH, 20H, 20H (SK)

43H, 4CH, 50H, 31H, 32H, 31H (CLP-121S)

3xH, 3yH (x, y: version number)

[PANEL DATA]

[CHECK SUM (1byte)] = 0-(53H+4BH+20H+.....+Data end)

F7H

• Panel Data Contents

(1) VOICE

(2) DUAL VOICE

(3) DUAL ON/OFF

(4) DUAL BALANCE

(5) 0

(6) 0

(7) 0

(8) 0

(9) 0

(10) 0

(11) LEFT PEDAL (SOFT or SOSTENUTO)

(12) SPLIT POINT

(13) 0

MODEL ID CODE SEND FORMAT

F0H, 43H, 0nH, 7DH, 00H, 10H (n: channel number)

53H, 4BH, 20H, 20H (SK)

43H, 4CH, 50H, 31H, 32H, 31H (CLP-121S)

3xH, 3yH, 20H, 20H, 20H, 20H (x, y: version number)

[CHECK SUM (1byte)] = 0-(53H+4BH+20H+.....+20H)

F7H

Clavinova[®]

CLP-121S

PARTS LIST

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Notes DESTINATION ABBREVIATIONS

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

ELECTRICAL PARTS

Ref. No.	Part No.	Description	部品名	Remarks	ランク
		<ELECTRICAL PARTS>			
	VC796400	Circuit Board	AE76H	<電気部品>	CLP121S
	VC796200	Circuit Board	AE76L	AE76Hシート	08
	VC796300	Circuit Board	AE-C	AE76Lシート	08
	VN464600	Circuit Board	DM	AE-Cシート	10
	VN885700	Circuit Board	FU20	DMシート	31
	VP312400	Circuit Board	FU20	FU20シート	J,M
	VP312500	Circuit Board	FU20	FU20シート	U,C,X
	VP419600	Circuit Board	FU20	FU20シート	A,B,H
	VO000800	Circuit Board	HP	HPシート	10
	VN637600	Circuit Board	PEDAL	PEDALシート	05
	VN464800	Circuit Board	PL	PLシート	05
	VN552900	Circuit Board	PN	PNシート	10
	VN553000	Circuit Board	PU20D	PU20Dシート	J,M
	VN553100	Circuit Board	PU20D	PU20Dシート	U,C,X
			PU20D	PU20Dシート	A,B,H
	VC796400	Circuit Board	AE76H	AE76Hシート	08
	VB941200	Diode	1SS133,1SS176	ダイオード	01
	LB918160	Base Post Connector	XH-16P TE	ベースツキポスト	
	VC796200	Circuit Board	AE76L	AE76Lシート	08
	VB941200	Diode	1SS133,1SS176	ダイオード	01
	LB918160	Base Post Connector	XH-16P TE	ベースツキポスト	
	LB918120	Base Post Connector	XH-12P TE	ベースツキポスト	02
	VC796300	Circuit Board	AE-C	AE-Cシート	10
	VB941200	Diode	1SS133,1SS176	ダイオード	01
	LB918160	Base Post Connector	XH-16P TE	ベースツキポスト	
	LB918120	Base Post Connector	XH-12P TE	ベースツキポスト	02
	VN464600	Circuit Board	DM	DMシート	31
	EP630220	Bind Head Tapping Screw-P	3.0X8 ZMC2BL	+バインドPタイト	01
	FG612390	Ceramic Cap.-B	390P 50V K	セラコン (B)	01
	FG651100	Ceramic Cap.-SL	10P 50V D	セラコン (SL)	
	FG651180	Ceramic Cap.-SL	18P 50V J	セラコン (SL)	01
	FG651390	Ceramic Cap.-SL	39P 50V J	セラコン (SL)	01
	FG651470	Ceramic Cap.-SL	47P 50V J	セラコン (SL)	
	FG652100	Ceramic Cap.-SL	100P 50V J	セラコン (SL)	01
	FG644100	Ceramic Cap.-F	0.0100 50V Z	セラコン F	01
	UJ828100	Electrolytic Cap.	100.00 10.0V	ケミコン	01
	UJ837100	Electrolytic Cap.	10.00 16.0V	ケミコン	01
	UJ838100	Electrolytic Cap.	100.00 16.0V	ケミコン	01
	UJ838220	Electrolytic Cap.	220.00 16.0V	ケミコン	01
	UJ866330	Electrolytic Cap.	3.30 50.0V	ケミコン	01
	UJ866470	Electrolytic Cap.	4.70 50.0V	ケミコン	01
	VH740700	Semiconductive Cera. Cap.	0.1000 16V M	半導体セラコン	01
	VB835000	Coil	FL5R200QNT 20u	コイル	01
	VN381200	Coil	SNT-D20TF 10u	コイル	03
	GE300610	Ferrite Bead	BL02RN1-R62T4	フェライトビーズ	01
	GE300670	Ferrite Bead	BL02RN2-R62T4	フェライトビーズ	02
	HF755100	Carbon Resistor	100.0 1/4 J	カーボン抵抗	01
	HF755180	Carbon Resistor	180.0 1/4 J	カーボン抵抗	01
	HF755220	Carbon Resistor	220.0 1/4 J	カーボン抵抗	01
	HF756100	Carbon Resistor	1.0K 1/4 J	カーボン抵抗	01
	HF756120	Carbon Resistor	1.2K 1/4 J	カーボン抵抗	01
	HF756150	Carbon Resistor	1.5K 1/4 J	カーボン抵抗	01
	HF756180	Carbon Resistor	1.8K 1/4 J	カーボン抵抗	01
	HF757100	Carbon Resistor	10.0K 1/4 J	カーボン抵抗	01
	HF757150	Carbon Resistor	15.0K 1/4 J	カーボン抵抗	01
	HF757220	Carbon Resistor	22.0K 1/4 J	カーボン抵抗	01
	HF757470	Carbon Resistor	47.0K 1/4 J	カーボン抵抗	01
	HF758470	Carbon Resistor	470.0K 1/4 J	カーボン抵抗	01
	HF759100	Carbon Resistor	1.0M 1/4 J	カーボン抵抗	01
	XB247A00	IC	UPC4570HA	IC	OP AMP
	IR013250	IC	SN74HC132N	IC	NAND
	IR013850	IC	SN74HC138N	IC	DECODER
	XK986100	IC	HD6433258W01P	IC	CPU
	XK987100	IC	TC5316200APH139	IC	ROM 16M
	XJ427A00	IC	YMW258-F	IC	GEW8
	XMQ50A00	IC	PCM69AP-2	IC	DAC
	XC349A00	IC	UPC78L05J	IC	REGULATOR +5V
	XJ596A00	IC	NJM78L05A	IC	REGULATOR +5V
	VB312500	DIN Connector	5P YKF51-50	DINコネクタ	MIDI IN,OUT
	LB918040	Base Post Connector	XH-4P 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	
	VB389800	Base Post Connector	PH-2P TE	コネクタベースポスト	01
	VF283100	Base Post Connector	PH-13P TE	コネクタベースポスト	01

*New Parts (新規部品)

ランク : Japan only

Ref. No.	Part No.	Description	部品名	Remarks	ランク
	VD542700	LC Filter	DSS306-93F223Z1	LC フィルター	01
	VK409400	Quartz Crystal Unit	24M AT-49	水晶振動子	03
	VL456800	Quartz Crystal Unit	9.4M HC-49/U	水晶振動子	03
	IA101590	Transistor	2SA1015 O,Y	トランジスタ	01
	IC174070	Transistor	2SC1740S R,S	トランジスタ	01
	IC1815M0	Transistor	2SC1815 Y,GR	トランジスタ	01
	VB941200	Diode	1SS133,1SS176	ダイオード	01
	VG181900	Photo Coupler	PC-900V	フォトカプラー	03
	VN632800	Holder, MIDI	#2327	MIDI 取付金具	05
	VN885700	Circuit Board	FU20	FU20 シート	09
	VP312400	Circuit Board	FU20	FU20 シート	09
	VP312500	Circuit Board	FU20	FU20 シート	09
	LB201530	Fuse Holder	PC-FH1	ヒューズホルダ	01
CN01	LB932040	Base Post Connector	VH-4P TE	ベースポスト	01
CN02	LB932030	Base Post Connector	VH-3P TE	ベースポスト	01
CN03	LB932050	Base Post Connector	VH-5P TE	ベースポスト	01
C001	FI384100	Ceramic Cap.	0.010 400V	規格認定コン	01
C002	FI383470	Ceramic Cap.	4700P 400V	規格認定コン	01
C003	FI383470	Ceramic Cap.	4700P 400V	規格認定コン	01
F001	KB000430	Fuse	T 1.25A 250V	ヒューズ	01
F001	VC268400	Fuse	T 1.25A 250V	ヒューズ	02
F001	KB002600	Fuse	T 630mA/250V	ヒューズ	02
L001	VF616300	Coil	SU10V-D10010 1A	SU コイル	03
L002	--	Jumper Wire	0.55	ジャンパー線	(VD04170)
	VP419600	Circuit Board	HP	HP シート	10
	UK137470	Electrical Cap.-BP	47.00 16.0V	B P ケミコン	02
	VE659000	Semiconductive Cera. Cap.	0.1000 25V Z	半導体セラコン	01
	VB971100	Coil	FL5R200QN 20u	コイル	01
	VP419800	Carbon Resistor	100.0 1/2 J	カーボン抵抗	01
	LB101870	Phone Jack	YKB21-5006	ホンコネクタ	03
	LB919070	Base Post Connector	XH-7P SE	ベースツキポスト	01
	--	Wire	GND 100mm	アース束線	(VG92590)
	V0000800	Circuit Board	PEDAL	PEDAL シート	05
	LB918040	Base Post Connector	XH-4P TE	ベースツキポスト	01
	VN637600	Circuit Board	PL	PL シート	05
	VB858100	Base Post Connector	PH-2P SE	コネクタベースポスト	01
	VD180000	LED	SLZ-190B-03 RE	LED	POWER indicator 01
	VN464800	Circuit Board	PN	PN シート	10
	KA906550	Push Switch	KEC10901	プッシュ SW	02
	LB919040	Base Post Connector	XH-4P SE	ベースツキポスト	01
	LB919050	Base Post Connector	XH-5P SE	ベースツキポスト	01
	VK015400	Base Post Connector	PH-13P SE	コネクタベースポスト	01
	VK369000	Slide Pot.	A 10.0Kx2	二連スライダ VR	03
	VD180000	LED	SLZ-190B-03 RE	LED	MASTER VOLUME 01
	VN552900	Circuit Board	PU20D	PU20D シート	18
	VN553000	Circuit Board	PU20D	PU20D シート	18
	VN553100	Circuit Board	PU20D	PU20D シート	18
	VI145300	Pin Jack	YKC21-0188	ピンコネクタ	01
	LB202330	Phone Jack	HLJ0521 MONO.	ホンコネクタ	OPTIONAL IN 01
	LB201530	Fuse Holder	PC-FH1	ヒューズホルダ	01
C01	FC085470	Mylar Cap.	0.4700 100V K	マイラーコン	02
C02	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z	半導体セラコン	01
C03	UJ649470	Electrolytic Cap.	4700 25.0V	ケミコン	03
C04	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z	半導体セラコン	01
C05	VH740700	Semiconductive Cera. Cap.	0.1000 16V M	半導体セラコン	01
C06	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z	半導体セラコン	01
C07	VH740700	Semiconductive Cera. Cap.	0.1000 16V M	半導体セラコン	01
C08	UJ848100	Electrolytic Cap.	100.00 25.0V	ケミコン	01
C09	UJ848100	Electrolytic Cap.	100.00 25.0V	ケミコン	01
C10	UJ837100	Electrolytic Cap.	10.00 16.0V	ケミコン	01
C11	VH740700	Semiconductive Cera. Cap.	0.1000 16V M	半導体セラコン	01
C12	UK866100	Electrical Cap.-BP	1.00 50.0V	B P ケミコン	01
C13	UK866100	Electrical Cap.-BP	1.00 50.0V	B P ケミコン	01
C14	UK866100	Electrical Cap.-BP	1.00 50.0V	B P ケミコン	01
C15	UK866100	Electrical Cap.-BP	1.00 50.0V	B P ケミコン	01
C16	FG651470	Ceramic Cap.-SL	47P 50V J	セラコン (S L)	01
C17	VH740700	Semiconductive Cera. Cap.	0.1000 16V M	半導体セラコン	01
C18	FG651470	Ceramic Cap.-SL	47P 50V J	セラコン (S L)	01
C19	UK837100	Electrical Cap.-BP	10.00 16.0V	B P ケミコン	01
C20	UK837100	Electrical Cap.-BP	10.00 16.0V	B P ケミコン	01
C27	FG613390	Ceramic Cap.-B	3900P 50V K	セラコン B	01
C28	FG613390	Ceramic Cap.-B	3900P 50V K	セラコン B	01
C29	UK866100	Electrical Cap.-BP	1.00 50.0V	B P ケミコン	01

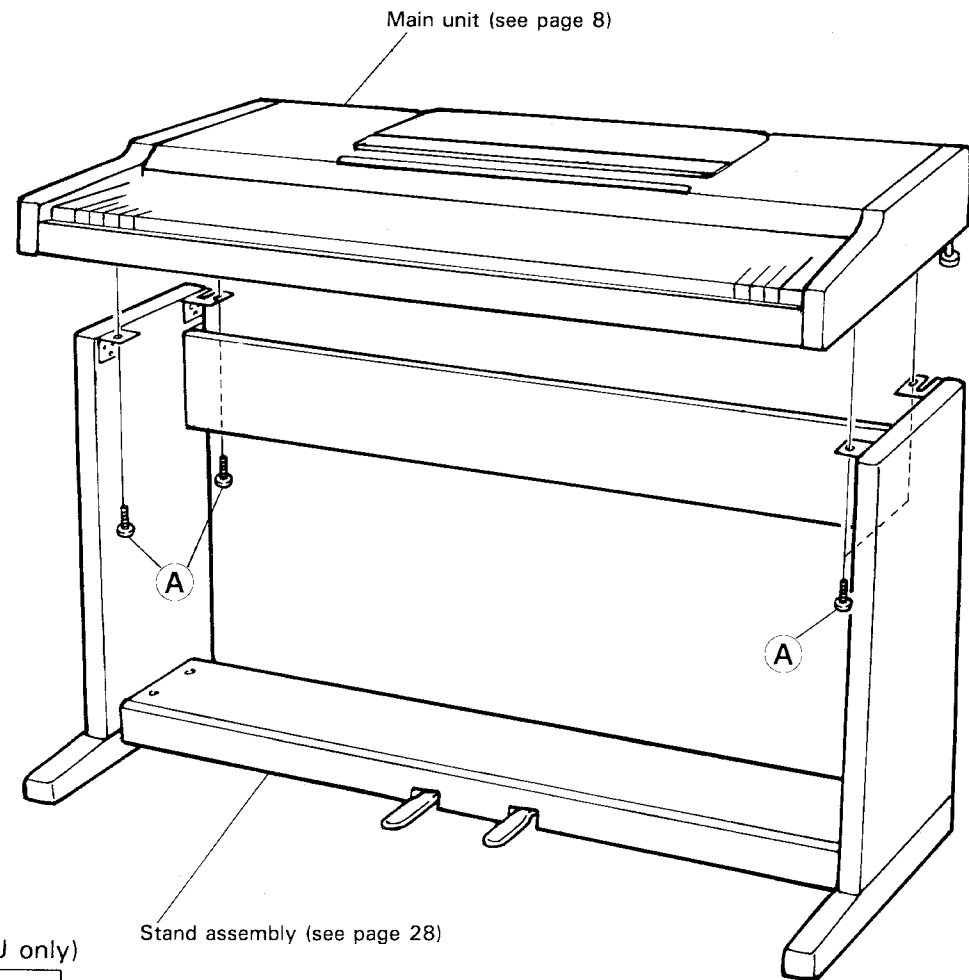
*New Parts (新規部品)

ランク: Japan only

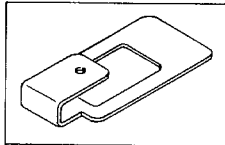
Ref. No.	Part No.	Description	部品名	Remarks	ランク
C30	UK866100	Electrical Cap.-BP	1.00 50.0V	B P ケミコン	01
C31	UA655100	Mylar Cap.	0.1000 50V J	マイラーコン	01
C32	UJ848100	Electrolytic Cap.	100.00 25.0V	ケミコン	01
C33	UA655100	Mylar Cap.	0.1000 50V J	マイラーコン	01
C34	UJ848100	Electrolytic Cap.	100.00 25.0V	ケミコン	01
C35	UK837100	Electrical Cap.-BP	10.00 16.0V	B P ケミコン	01
C36	UK837100	Electrical Cap.-BP	10.00 16.0V	B P ケミコン	01
C37	UJ848100	Electrolytic Cap.	100.00 25.0V	ケミコン	01
C38	UJ847220	Electrolytic Cap.	22.00 25.0V	ケミコン	01
C39	UJ848100	Electrolytic Cap.	100.00 25.0V	ケミコン	01
C40	UJ848100	Electrolytic Cap.	100.00 25.0V	ケミコン	01
C41	UJ848100	Electrolytic Cap.	100.00 25.0V	ケミコン	01
C42	UJ848100	Electrolytic Cap.	100.00 25.0V	ケミコン	01
C43	UA354680	Mylar Cap.	0.0680 50V J	マイラーコン	01
C44	UA354680	Mylar Cap.	0.0680 50V J	マイラーコン	01
C45	UA354680	Mylar Cap.	0.0680 50V J	マイラーコン	01
C46	UA354680	Mylar Cap.	0.0680 50V J	マイラーコン	01
C47	UA354680	Mylar Cap.	0.0680 50V J	マイラーコン	01
C48	UA354680	Mylar Cap.	0.0680 50V J	マイラーコン	01
C49	UA354680	Mylar Cap.	0.0680 50V J	マイラーコン	01
C50	UA354680	Mylar Cap.	0.0680 50V J	マイラーコン	01
C51	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z	半導体セラコン	01
C52	UJ866330	Electrolytic Cap.	3.30 50.0V	ケミコン	01
D01	VB481900	Diode	11ES4	ダイオード	01
D02	VB481900	Diode	11ES4	ダイオード	01
F02	KB000380	Fuse	T 4.00A 250V	ヒューズ	J, H 01
F02	KB002640	Fuse	T 4.00A 250V	ヒューズ	U, C, X 03
F02	KB000790	Fuse	T 4.00AL/250V	ヒューズ	A, B, H 02
L01	VF456600	Coil	SBT-0180W 80u	コイル	03
L02	VF456600	Coil	SBT-0180W 80u	コイル	03
L03	VF456600	Coil	SBT-0180W 80u	コイル	03
L04	VF456600	Coil	SBT-0180W 80u	コイル	03
R01	HF756100	Carbon Resistor	1.0K 1/4 J	カーボン抵抗	01
R02	HF757100	Carbon Resistor	10.0K 1/4 J	カーボン抵抗	01
R03	HF757100	Carbon Resistor	10.0K 1/4 J	カーボン抵抗	01
R04	HF757100	Carbon Resistor	10.0K 1/4 J	カーボン抵抗	01
R05	HF756100	Carbon Resistor	1.0K 1/4 J	カーボン抵抗	01
R06	HF756100	Carbon Resistor	1.0K 1/4 J	カーボン抵抗	01
R07	HF757220	Carbon Resistor	22.0K 1/4 J	カーボン抵抗	01
R08	HF757220	Carbon Resistor	22.0K 1/4 J	カーボン抵抗	01
R09	HF758100	Carbon Resistor	100.0K 1/4 J	カーボン抵抗	01
R10	HF757220	Carbon Resistor	22.0K 1/4 J	カーボン抵抗	01
R11	HF758100	Carbon Resistor	100.0K 1/4 J	カーボン抵抗	01
R12	HF757220	Carbon Resistor	22.0K 1/4 J	カーボン抵抗	01
R13	HF757820	Carbon Resistor	82.0K 1/4 J	カーボン抵抗	01
R14	HF757820	Carbon Resistor	82.0K 1/4 J	カーボン抵抗	01
R16	HF757100	Carbon Resistor	10.0K 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	--	Jumper Wire	0.55	ジャンパー線	(VD04170) 01
R20	--	Jumper Wire	0.55	ジャンパー線	(VD04170) 01
R23	HF755820	Carbon Resistor	820.0 1/4 J	カーボン抵抗	01
R24	HF755820	Carbon Resistor	820.0 1/4 J	カーボン抵抗	01
R25	HF756100	Carbon Resistor	1.0K 1/4 J	カーボン抵抗	01
R26	HF756100	Carbon Resistor	1.0K 1/4 J	カーボン抵抗	01
R27	HF756100	Carbon Resistor	1.0K 1/4 J	カーボン抵抗	01
R28	HF756100	Carbon Resistor	1.0K 1/4 J	カーボン抵抗	01
R29	HF756150	Carbon Resistor	1.5K 1/4 J	カーボン抵抗	01
R30	HF756150	Carbon Resistor	1.5K 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	HF757100	Carbon Resistor	10.0K 1/4 J	カーボン抵抗	01
R33	HF753220	Carbon Resistor	2.2 1/4 J	カーボン抵抗	01
R34	HF753220	Carbon Resistor	2.2 1/4 J	カーボン抵抗	01
R35	HF753220	Carbon Resistor	2.2 1/4 J	カーボン抵抗	01
R36	HF753220	Carbon Resistor	2.2 1/4 J	カーボン抵抗	01
R37	HF755100	Carbon Resistor	100.0 1/4 J	カーボン抵抗	01
R38	HF755100	Carbon Resistor	100.0 1/4 J	カーボン抵抗	01
R39	HF757100	Carbon Resistor	10.0K 1/4 J	カーボン抵抗	01
CN04	LB932030	Base Post Connector	VH-3P TE	ベースポスト	01
CN05	LB918080	Base Post Connector	XH-8P TE	ベースポスト	01
CN07	LB918050	Base Post Connector	XH-5P TE	ベースポスト	01
CN08	LB918070	Base Post Connector	XH-7P TE	ベースポスト	01
CN09	LB918040	Base Post Connector	XH-4P TE	ベースポスト	01
DB01	IH001090	Diode Stack	S4VB20 2.6A	ダイオードスタック	04
IC01	XC719A00	IC	NJM7805FA	IC	REGULATOR +5V 02
IC02	XJ141A00	IC	NJM7809FA	IC	REGULATOR +9V 02
IC03	XB247A00	IC	UPC4570HA	IC	OP AMP 01
IC04	XL011A00	IC	LA4620 BTL 17W	IC	POWER AMP 01
TRO1	IC1815M0	Transistor	2SC1815 Y,GR	トランジスタ	01
TRO2	IC1815M0	Transistor	2SC1815 Y,GR	トランジスタ	01

Ref. No.	Part No.	Description	部品名	Remarks	ランク
1	--	<CONNECTOR ASSEMBLY>			
2	VB304300	Connector Assembly	PL	CLP121 (VP80020)	
	VB936800	Connector Housing	PH-2P	2pcs	01
		Connector Contact	SPH-002T-P0.5S	4pcs	01
	LB101130	Connector Assembly	PS	(VN58870)	
	LB009080	Connector Pin	SXH-001T-P0.6	16pcs	01
	CB069250	Connector Housing	XH-8P	2pcs	01
		Cord Binder	BK-1		01
	LB009070	Connector Assembly	HP	(VN44550)	
	LB101130	Connector Housing	XH-7P	2pcs	01
	CB069250	Connector Pin	SXH-001T-P0.6	10pcs	01
		Cord Binder	BK-1	5pcs	01
	VN893600	PK Cable	PK	DM-KEYBED	06
	LB009040	Connector Housing	XH-4P		01
	LB101130	Connector Pin	SXH-001T-P0.6	4pcs	01
	VN592400	Receptacle	5559-6P BL		01
	VN592200	Connector Pin	5558T2	4pcs	01
	CB069250	Cord Binder	BK-1		01
	LB101130	Connector Assembly	SP	(VN58880)	
	LB009040	Connector Pin	SXH-001T-P0.6	4pcs	01
		Connector Housing	XH-4P		01
	LA003260	Receptacle	170122-4	2pcs	01
	LA003240	Receptacle	170043-4	2pcs	01
	CB069250	Cord Binder	BK-1	7pcs	01
	--	Connector Assembly	MK	(VL25440)	
	--	Connector Assembly	MK1	(VL25420)	
	--	Connector Assembly	MK2	(VL25430)	
	--	Cushion	50X220X1.6	(VP32080)	
	--	Wire	GND1	(VH52610)	
	LA003690	Lug Terminal		2pcs	01
	VB291400	Connector Assembly	13P-800 KRD-KRD	(VK12180)	
	VJ986900	Cord Binder	PLT1M-XMR	2pcs	
		Socket	KRD-13P	2pcs	01
	LB009040	Connector Assembly	VOL1	(VN44560)	
	LB101130	Connector Housing	XH-4P	2pcs	01
	CB069250	Connector Pin	SXH-001T-P0.6	8pcs	01
		Cord Binder	BK-1	4pcs	01
	LB009050	Connector Assembly	VOL2	(VN44570)	
	LB101130	Connector Housing	XH-5P	2pcs	01
	CB069250	Connector Pin	SXH-001T-P0.6	8pcs	01
		Cord Binder	BK-1	4pcs	01
	LA003240	Receptacle	170043-4		01
	LB101130	Connector Pin	SXH-001T-P0.6	2pcs	01
	LB013160	Connector Assembly	#2224,25 DM-MK	(VL25420)	
		Socket	NRD-16P	3pcs	02
	LB013120	Connector Assembly	#2224,25 DM-MK	(VL25430)	
		Socket	NRD-12P	3pcs	01
	VN445900	PK Cable	#2328	PEDAL	08
	VN592300	Receptacle	5557-6P BL		
	VN554900	Connector Pin	5556T2	4pcs	
	LB009040	Connector Housing	XH-4P		01
	LB101130	Connector Pin	SXH-001T-P0.6	4pcs	01
	VC815200	Connector Assembly	NRD-NRD 16P110		06
	LB013160	Socket	NRD-16P	2pcs	02
	--	Wire	GND1	(VG92590)	
	LA003690	Lug Terminal			01

OVERALL ASSEMBLY



• Back toe (U only)



Ref. No.	Part No.	Description	部品名	Remarks	ランク
		<OVERALL ASSEMBLY>	<総組立>	CLP121S (VP41420)	
1	--	Main Unit	メインユニット	U (VP39580)	
1	--	Main Unit	メインユニット	A (VP39600)	
1	--	Main Unit	メインユニット	B (VP39630)	
1	--	Main Unit	メインユニット	H (VP39650)	
1	--	Main Unit	メインユニット	C (VP39680)	
1	--	Main Unit	メインユニット	X (VP39670)	
1	--	Main Unit	メインユニット	M (VP39730)	
2	--	Stand Assembly	スタンド A s s y	(VN89250)	
12	--	Bench	椅子	U (VF98280)	
12	--	Bench	椅子	B (VJ26900)	
12	--	Bench	椅子	C (VI23600)	
14	VP245000	Top Cover	トップカバー		
18	VP316100	Back Toe	U L バックトウ	U	
A	EG360020	Bind Head Screw	+ バインド小ネジ	4pcs	

*New Parts (新規部品)

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>	CLP121S	
	--	Main Unit	メインユニット	U (VP39560)	
	--	Main Unit	メインユニット	A (VP39600)	
	--	Main Unit	メインユニット	B (VP39630)	
	--	Main Unit	メインユニット	H (VP39650)	
	--	Main Unit	メインユニット	C (VP39680)	
	--	Main Unit	メインユニット	X (VP39670)	
	--	Main Unit	メインユニット	M (VP39730)	
* 10	VN661800	Back Top Board Assembly	背面板 A s s y		15
	--	Back Top Board	背面板印刷品	(VN88730)	
10a	--	Hinge	蝶番		03
10b	VH662600	Pan Head Tapping Screw-S	+ナベ S タイト	6pcs (0376956)	
10c	--	Packing	パフ	2pcs	
10d	VN906200	Packing	パフ		
10e	VN906100	Packing	パフ		
* 20	--	Control Panel Assembly	コンパネ A s s y	(VP41690)	
30	VN874500	Keybed Assembly	棚板木部集成	(VN91830)	18
	--	Keybed	棚板		
30a	--	Nut	鬼目ナット	6pcs	01
30b	VD986100	Nut	鬼目ナット	18pcs	01
30c	ET200070	Nut	鬼目ナット	5pcs	01
30d	VB936500	Nut	シート鬼目ナット		01
40	--	End Block Assembly	拍子木 A s s y L	(VN92130)	
50	--	End Block Assembly	拍子木 A s s y R	(VN66120)	
60	VN471100	Keyboard Unit	A E 2 鍵盤		51
70	VF823100	Metal Net	金網	2pcs	03
80	VJ624000	Holder, P.C.B.	シート固定金具		01
90	VN875100	Holder, DM P.C.B.	DMシート固定金具		
100	V0027400	Angle Bracket, Panel	パネル補強金具		05
110	VK155400	Cushion	クッション材		05
120	VN891200	Connector Panel	コネクタパネル		03
* 130	VN464600	Circuit Board	DMシート		31
140	--	Headphones Jack Assembly	HPジャック A s s y	(VP41950)	
140a	VP419600	Circuit Board	HPシート		10
140b	VN631800	Holder, Phone Jack	HP J 取付金具		
140c	ET400040	Nut	管用ナット	2pcs	01
* 150	XL300A00	Speaker	スピーカ	2pcs	08
180	--	Connector Assembly	PL 束線	(VP80020)	
190	--	Connector Assembly	電源束線	(VN58870)	
200	--	Connector Assembly	HP 束線	(VN44550)	
* 230	VN893600	PK Cable	PK 束線		06
250	--	Connector Assembly	SP 束線	(VN58880)	
260	--	Connector Assembly	MK 束線 A s s y	(VL25440)	
290	EP030340	Bind Head Tapping Screw-1	+バインド T P 1 種	45pcs	01
300	--	Flat Head Tapping Screw-1	+皿 T P 1 種	10pcs (0374019)	
310	EP030260	Bind Head Tapping Screw-1	+バインド T P 1 種	16pcs	01
320	VB857600	Bind Head Screw	+バインド小ネジ	5pcs	01
330	EG340210	Bind Head Screw	+バインド小ネジ	10pcs	01
340	VB403600	Bind Head Screw	+バインド小ネジ	8pcs	01
360	VF627200	Bind Head Tapping Screw-S	+バインド S タイト	7pcs	01
370	VB268100	Bind Head Tapping Screw-C	+バインド C タイト	16pcs	01
* 380	VN885700	Circuit Board	F U 2 0 シート	J, M	09
* 380	VP312400	Circuit Board	F U 2 0 シート	U, C, X	09
* 380	VP312500	Circuit Board	F U 2 0 シート	A, B, H	09
* 390	VN553200	PU20D Assembly	P U 2 0 D A s s y	J, M	19
* 390	VN553300	PU20D Assembly	P U 2 0 D A s s y	U, C, X	19
* 390	VN553400	PU20D Assembly	P U 2 0 D A s s y	A, B, H	19
* 400	VN600900	Power Transformer Assembly	電源トランス A s s y	U, C	15
* 400	VN601100	Power Transformer Assembly	電源トランス A s s y	A	16
* 400	VN601000	Power Transformer Assembly	電源トランス A s s y	B, H	14
* 400	VN601100	Power Transformer Assembly	電源トランス A s s y	X, M	16
* 410	VN790900	AC Cord Assembly	電源コード A s s y	U, C	09
* 410	VN791000	AC Cord Assembly	電源コード A s s y	A	10
* 410	VN791200	AC Cord Assembly	電源コード A s s y	B	11
* 410	VN791100	AC Cord Assembly	電源コード A s s y	H	09
* 410	VN790700	AC Cord Assembly	電源コード A s s y	X	09
* 410	VN790800	AC Cord Assembly	電源コード A s s y	M	09
* 420	VN906000	Top Board Assembly	屋根 A s s y		20
420a	--	Top Board	屋根集成	(VN87930)	
420b	VN887400	Holder, Top Board	屋根固定金具	2pcs	04
420c	EP030260	Bind Head Tapping Screw-1	+バインド T P 1 種	4pcs	01
* 420d	V0022000	Music Stand	譜面台		05
* 420e	VP353800	Support	支持棒		03
420f	VI338600	Earth Plate	アース金具	2pcs	01
420g	EP030230	Bind Head Tapping Screw-1	+バインド T P 1 種	2pcs	01
420h	VP756900	Felt	フェルト	2pcs	
* 430	VN915300	Side Cover Assembly	腕木 A s s y L		20
* 440	VN915500	Side Cover Assembly	腕木 A s s y R		20
450	--	Name Plate	銘板		
470	VG186900	Shield Cover	シールドカバー	U	05

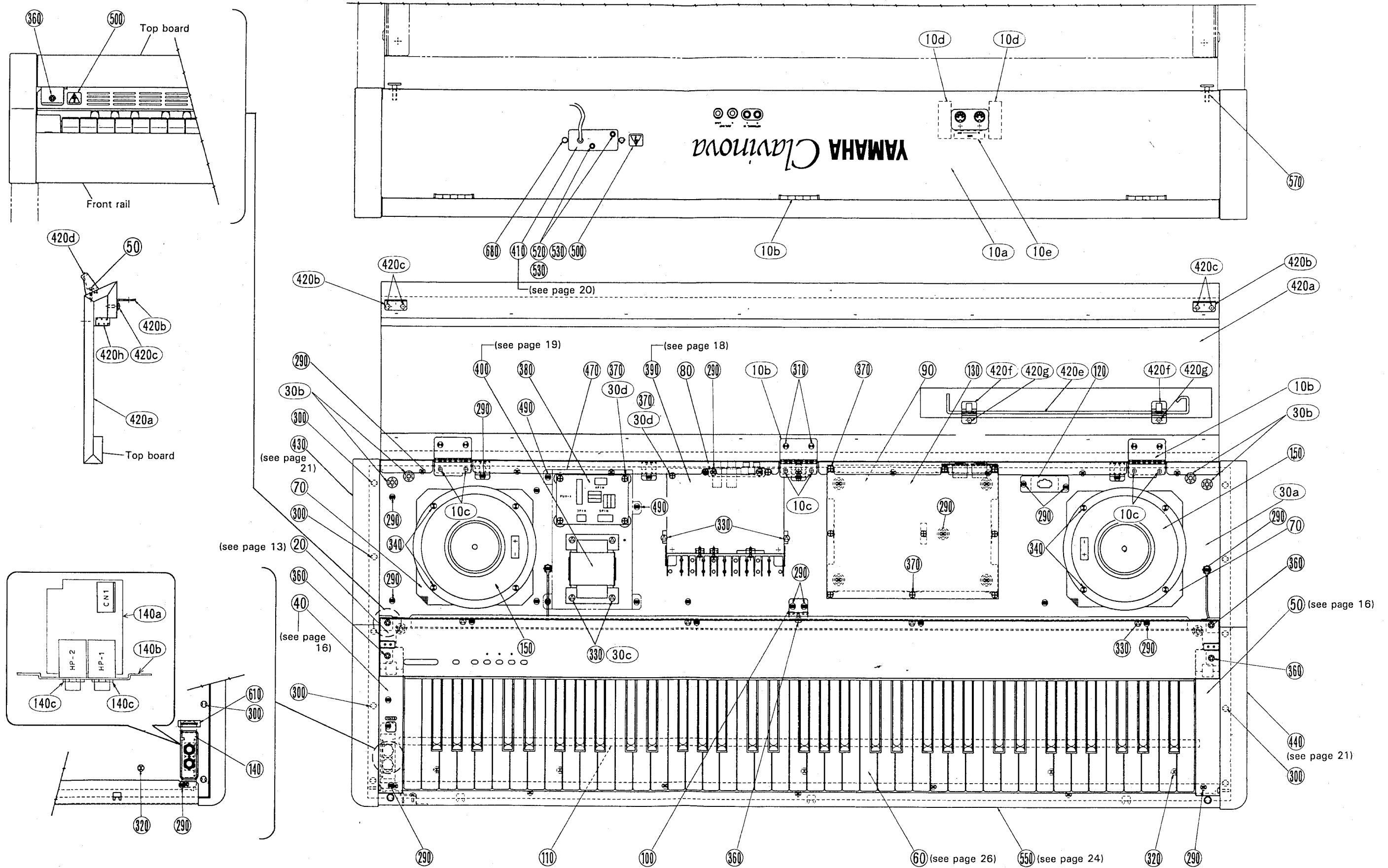
ランク : Japan only

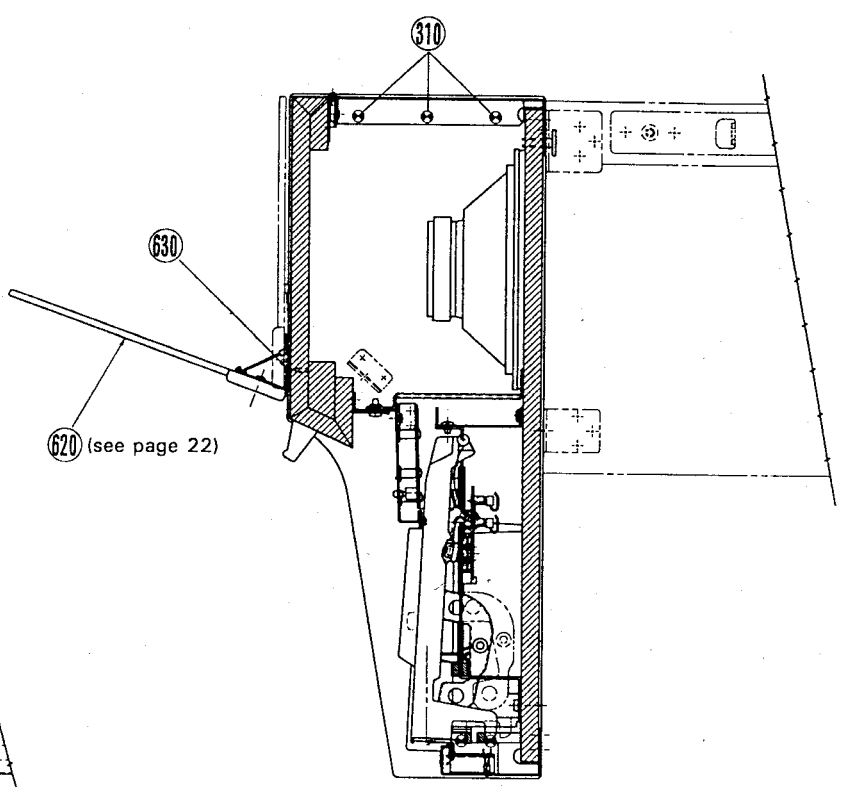
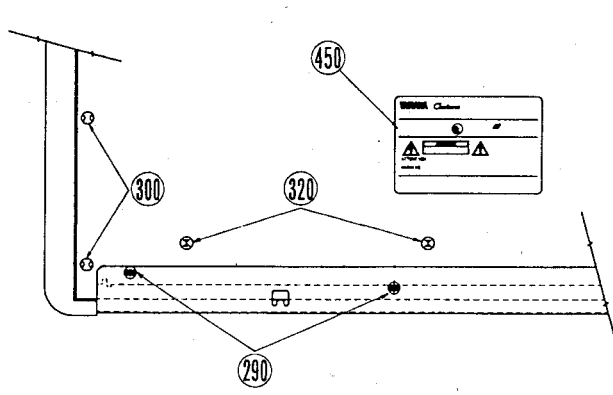
Ref. No.	Part No.	Description	部品名	Remarks	ランク
490	EP030340	Bind Head Tapping Screw-1	+バインド T P 1 種	U (VB95140)	01
500	--	Graphic Mark	グラフィックマーク		
520	VA211900	Hexagonal Nut	+フランジ付六角ナット	X, M	01
530	EG330380	Bind Head Screw	+バインド小ネジ	X, M	01
* 550	VN886600	Front Rail Assembly	口金 A s s y		13
* 570	VN887900	Guide Screw	ガイドスクリュー	2pcs	
580	CB817510	Cord Binder	S-14B 束線止め	5pcs	01
590	--	Cord Binder	S-14B-R (80mm) RE 束線止め 赤	4pcs (VD80010)	
600	--	Filament Tape	粘着テープ	2pcs (VP83460)	
610	--	Label	HP J ラベル	(VP25190)	
* 620	VN921800	Music Rest Assembly	譜面板 A s s y		12
630	EP030310	Bind Head Tapping Screw-1	+バインド T P 1 種	4pcs	01
640	CB033610	Cord Binder	束線止め		01
670	VI338600	Earth Plate	アース金具	4pcs	03
680	EG330360	Bind Head Screw	+バインド小ネジ	2pcs	01

9 *New Parts (新規部品)

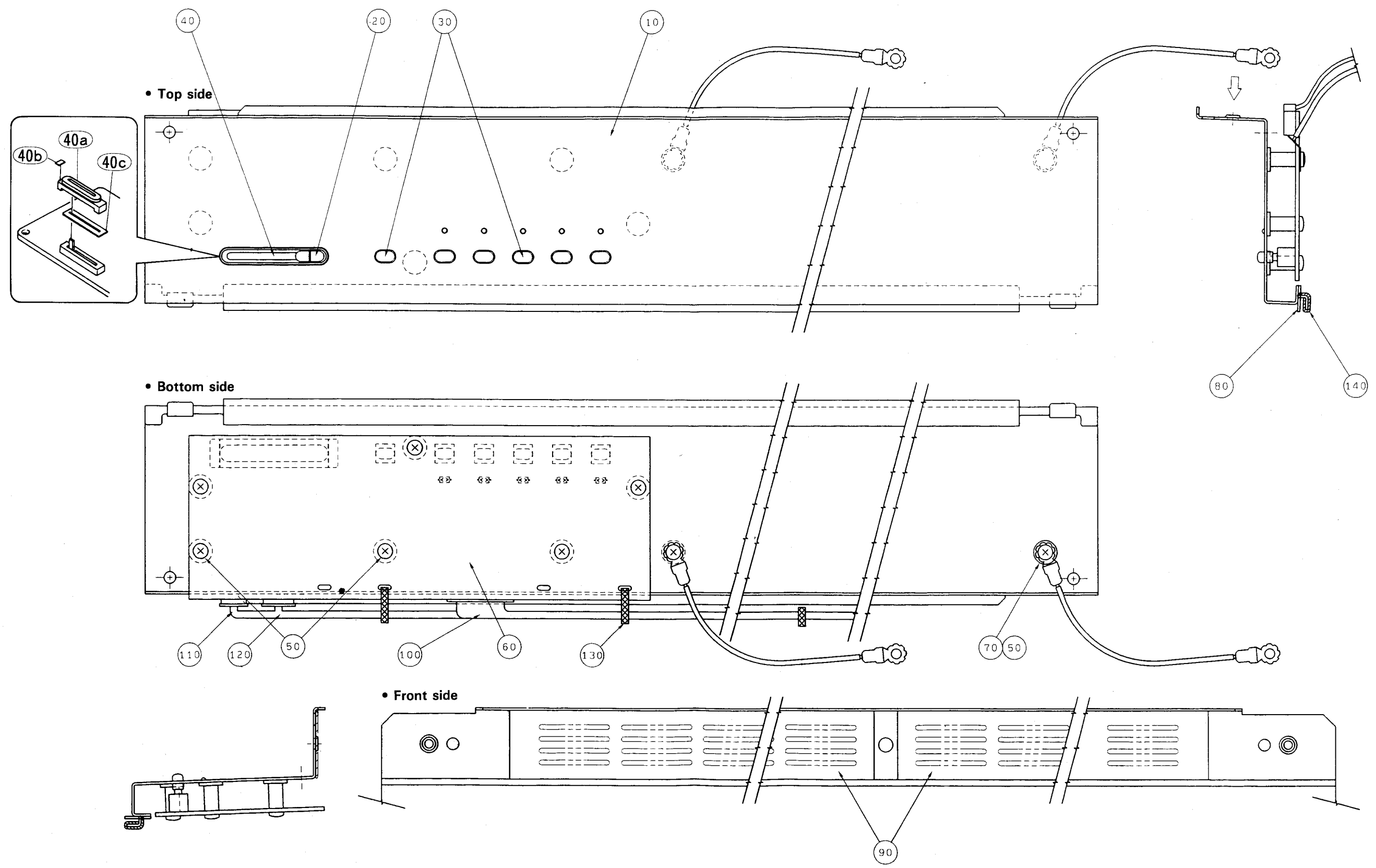
ランク : Japan only

MAIN UNIT

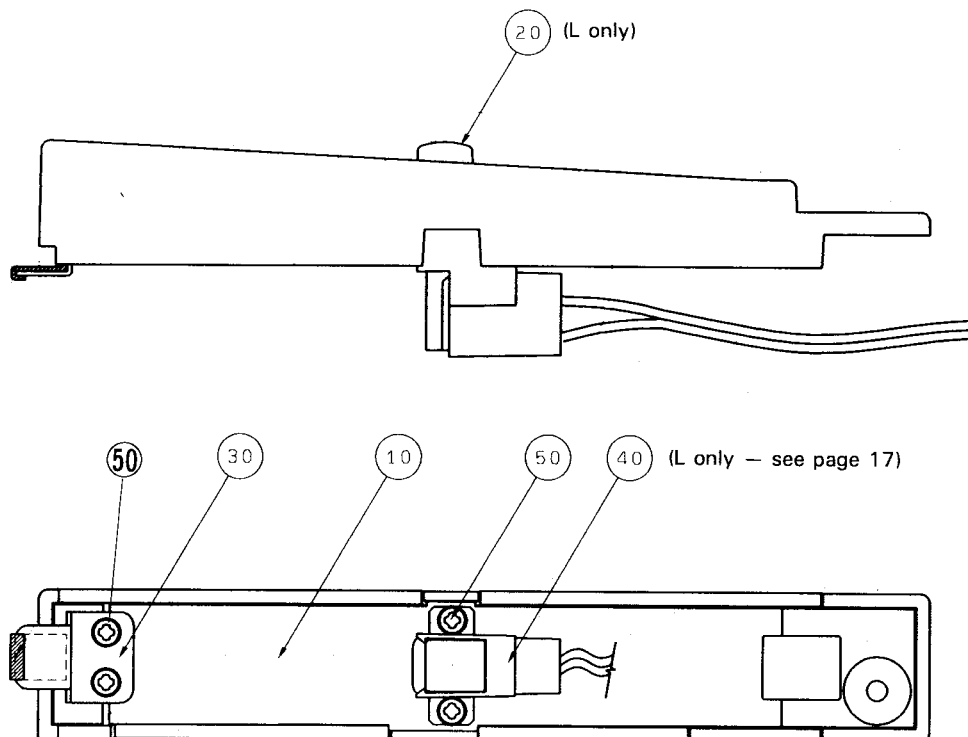




CONTROL PANEL ASSEMBLY



■ END BLOCK ASSEMBLY (L,R)



• End Block Assembly (L)

Ref. No.	Part No.	Description			部品名	Remarks	ランク
* 10	--	<END BLOCK ASSEMBLY> End Block	LEFT		<拍子木 Ass y L >	CLP121S(VN92130)	
20	VN675200	End Block	LEFT		拍子木塗装品 L		01
30	VF663400	Knob	LEFT		拍子木 ツマミ	POWER switch	04
30	VL732000	Holder, End Block	BL		拍子木固定金具 F Assy		08
* 40	VL328100	Power Switch Assembly			パワー SW 束線		01
50	EP600280	Bind Head Tapping Screw-P	3.0X8	ZMC2Y	+ バインド P タイト	4pcs	

*New Parts (新規部品)

ランク : Japan only

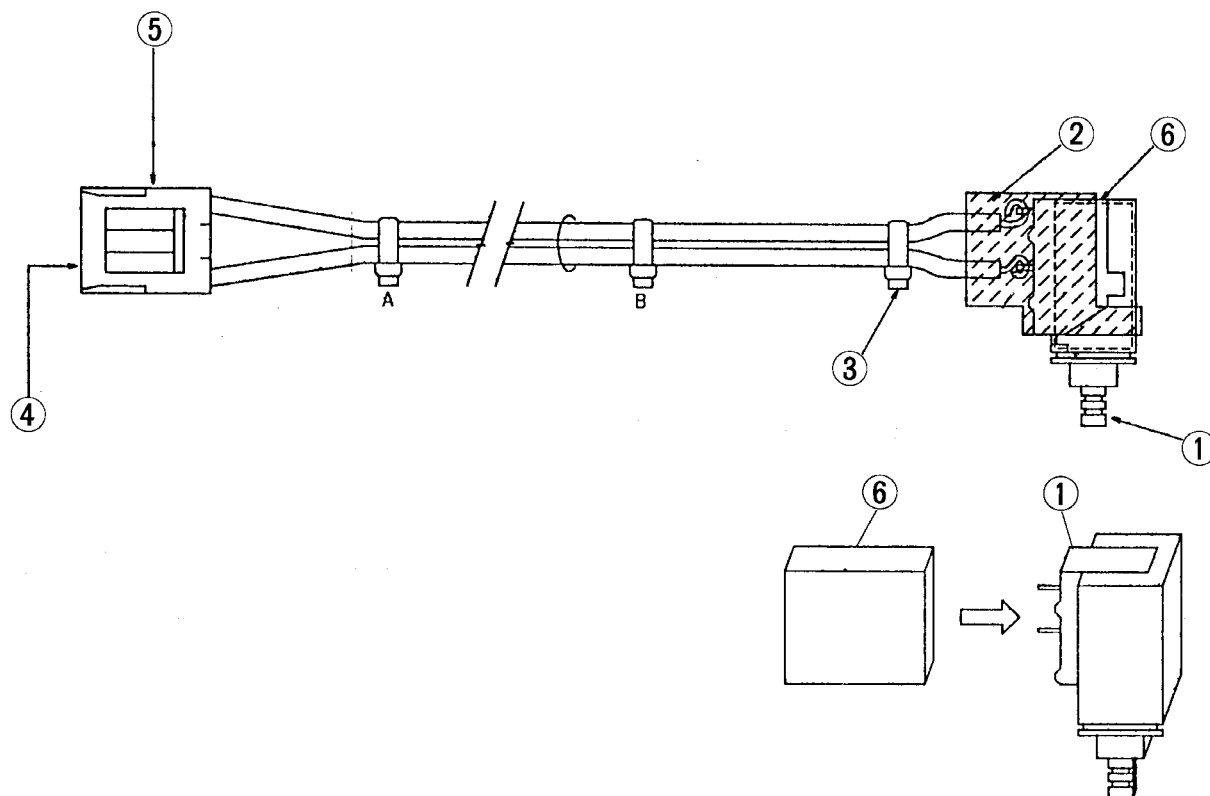
• End Block Assembly (R)

Ref. No.	Part No.	Description			部品名	Remarks	ランク
* 10	--	<END BLOCK ASSEMBLY> End Block	RIGHT		<拍子木 Ass y R >	CLP121S(VN66120)	
30	VN675300	End Block	RIGHT		拍子木塗装品 R		04
30	VL732000	Holder, End Block			拍子木固定金具 F Assy		01
50	EP600280	Bind Head Tapping Screw-P	3.0X8	ZMC2Y	+ バインド P タイト	2pcs	

*New Parts (新規部品)

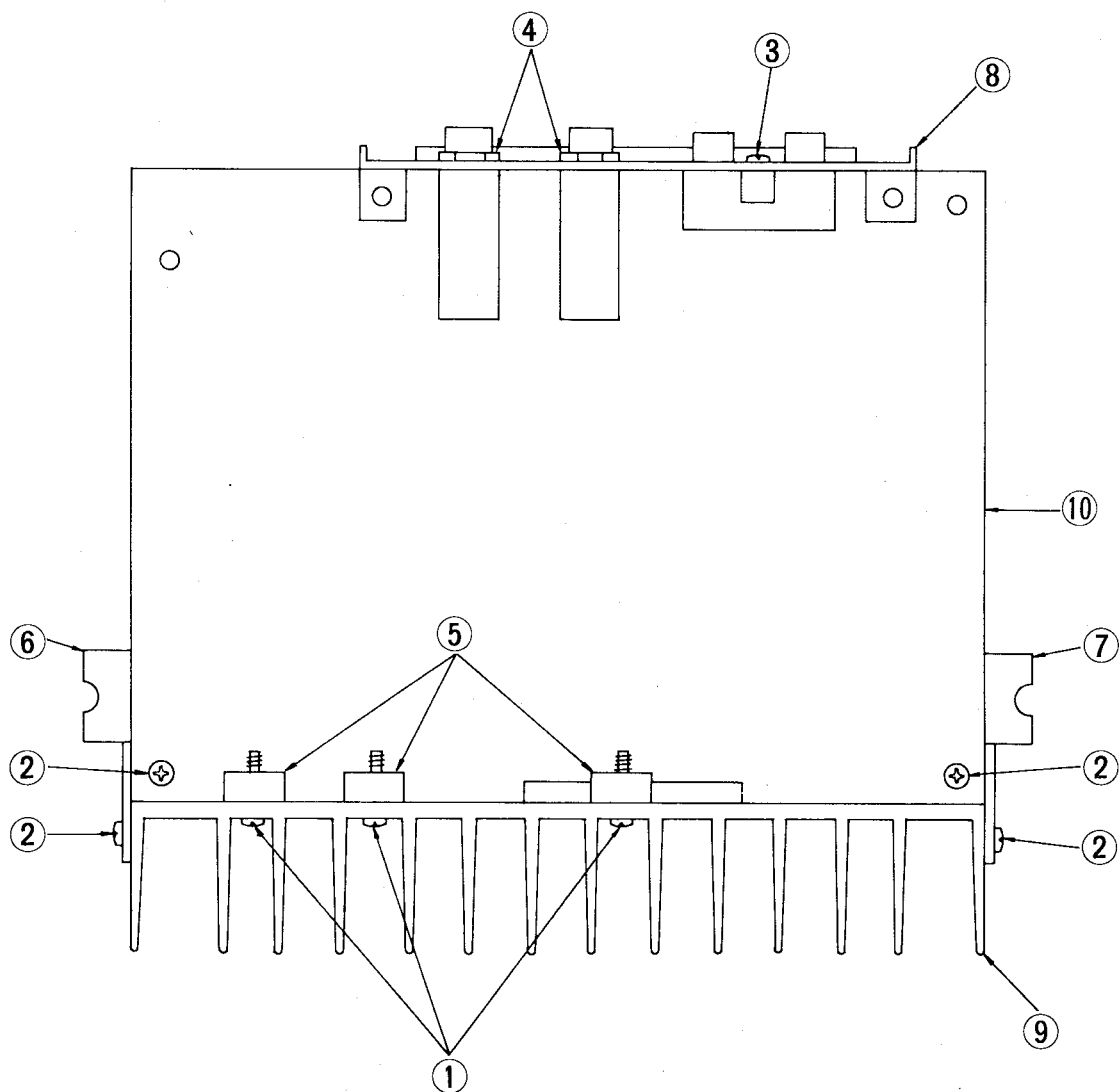
ランク : Japan only

■ POWER SWITCH ASSEMBLY



Ref. No.	Part No.	Description	部品名	Remarks	ランク
	--	<POWER SWITCH ASSEMBLY>			
1	VD173100	Push Switch	SDDLA1	<パワーSW束線>	CLP121S(VL32810)
2	CB049980	Switch Cover	BL	プッシュSW	03
3	CB069250	Cord Binder	BK-1	パワースイッチカバー	01
4	LB101710	Connector Pin	SVH-21T-P1.1	インシュロックタイ	4pcs
				圧着端子	2pcs
5	LB015030	Connector Housing	VH-3P	ハウジング	01
6	--	Cushion	UN-2	防振材 UN-2	(VH66430)

■ PU20D ASSEMBLY



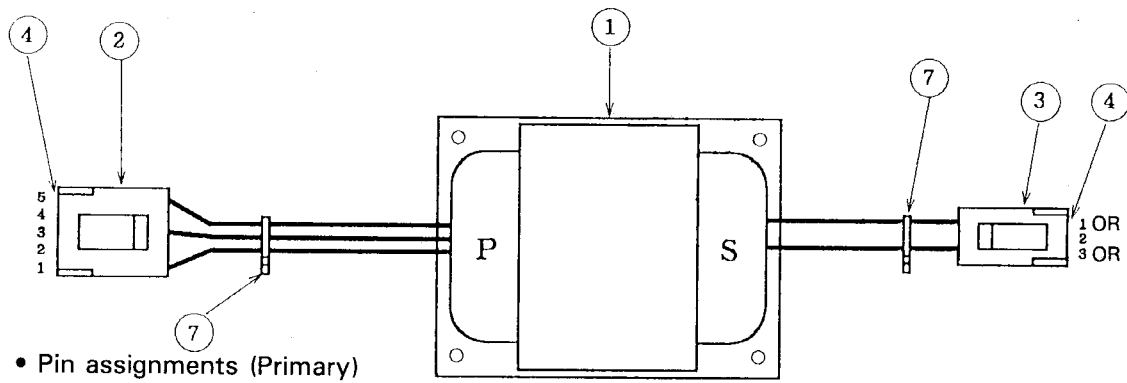
Ref. No.	Part No.	Description		部品名	Remarks	ランク
		<PU20D ASSEMBLY>		< P U 2 0 D Assy >	CLP121S	
	VN553200	PU20D Assembly		P U 2 0 D A s s y	J,M	19
	VN553300	PU20D Assembly		P U 2 0 D A s s y	U,C,X	19
	VN553400	PU20D Assembly		P U 2 0 D A s s y	A,B,H	19
1	EG330070	Bind Head Screw	3.0X12 ZMC2Y	+ バインド小ネジ	3pcs	
2	EP630390	Bind Head Tapping Screw-C	3.0X6 ZMC2Y	+ バインドCタイト	4pcs	01
3	EP630220	Bind Head Tapping Screw-P	3.0X8 ZMC2BL	+ バインドPタイト	1pc.	01
4	ET400040	Nut	12X14X2 FCM3BL	管用ナット	2pcs	01
5	AA058660	Holder		トランジスターホルダ	3pcs	01
6	VF790500	Frame	(L)	電源フレーム		03
7	VF790600	Frame	(R)	電源フレーム		03
8	VN554400	A-jack Holder		A-ジャック取付金具		05
9	VN554500	Heat Sink	L=50mm	放熱板 S		
10	VN552900	Circuit Board	PU20D	P U 2 0 D シート	J,M	18
10	VN553000	Circuit Board	PU20D	P U 2 0 D シート	U,C,X	18
10	VN553100	Circuit Board	PU20D	P U 2 0 D シート	A,B,H	18

*New Parts (新規部品)

ランク : Japan only

POWER TRANSFORMER ASSEMBLY

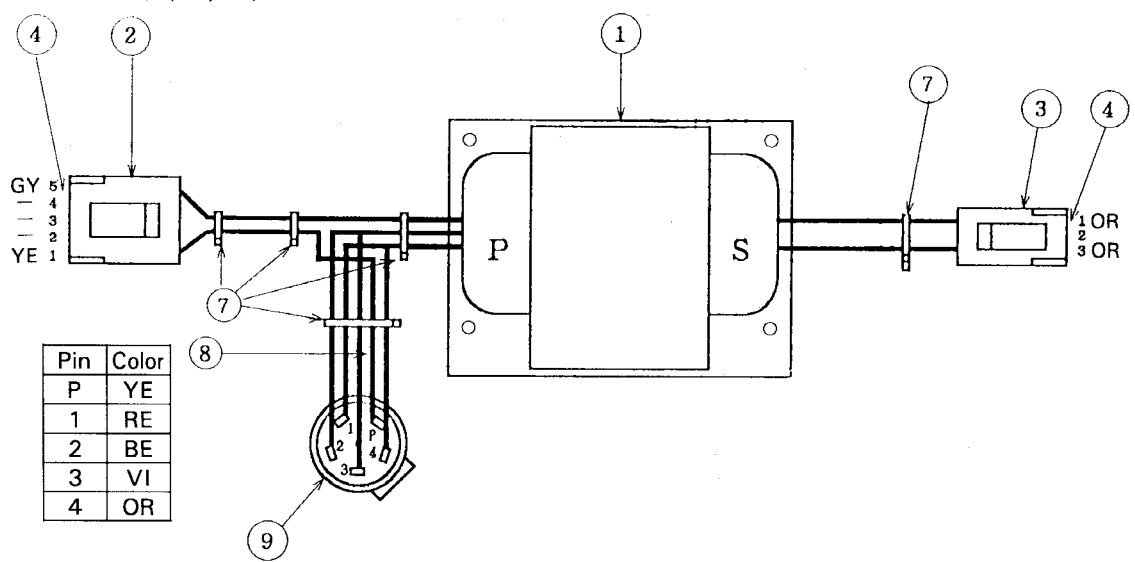
- VN600800, VN600900, VN601000 (J, U, C, B, H)



• Pin assignments (Primary)

	1	2	3	4	5
VN600800	YE	—	BR	—	GY
VN600900	BR	—	YE	—	GY
VN601000	RE	—	—	—	GY

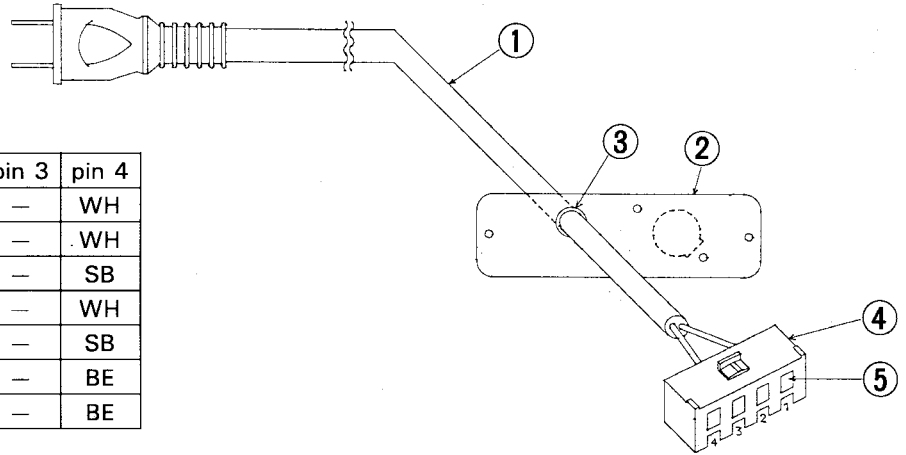
- VN601100 (A, X, M)



Pin	Color
P	YE
1	RE
2	BE
3	VI
4	OR

Ref. No.	Part No.	Description	部品名	Remarks	ランク
	VN600900	<POWER TRANSFORMER ASS'Y> Power Transformer Assembly	<トランス A s s y> 電源トランス A s s y	CLP121S U,C	15
	VN601100	Power Transformer Assembly	電源トランス A s s y	A,X,M	16
	VN601000	Power Transformer Assembly	電源トランス A s s y	B,H	14
1	XL032A00	Power Transformer	電源トランス	J,U,C	11
1	XL034A00	Power Transformer	電源トランス	A,X,M	11
1	XL033A00	Power Transformer	電源トランス	B,H	11
2	LB015050	Connector Housing	ハウジング		01
3	LB015030	Connector Housing	ハウジング		01
4	LB101710	Connector Pin	圧着端子	5pcs	01
7	CB069250	Cord Binder	インシュロックタイ	2pcs	01
9	LB202280	Voltage Selector	電圧切替器	X	03

■ AC CORD ASSEMBLY

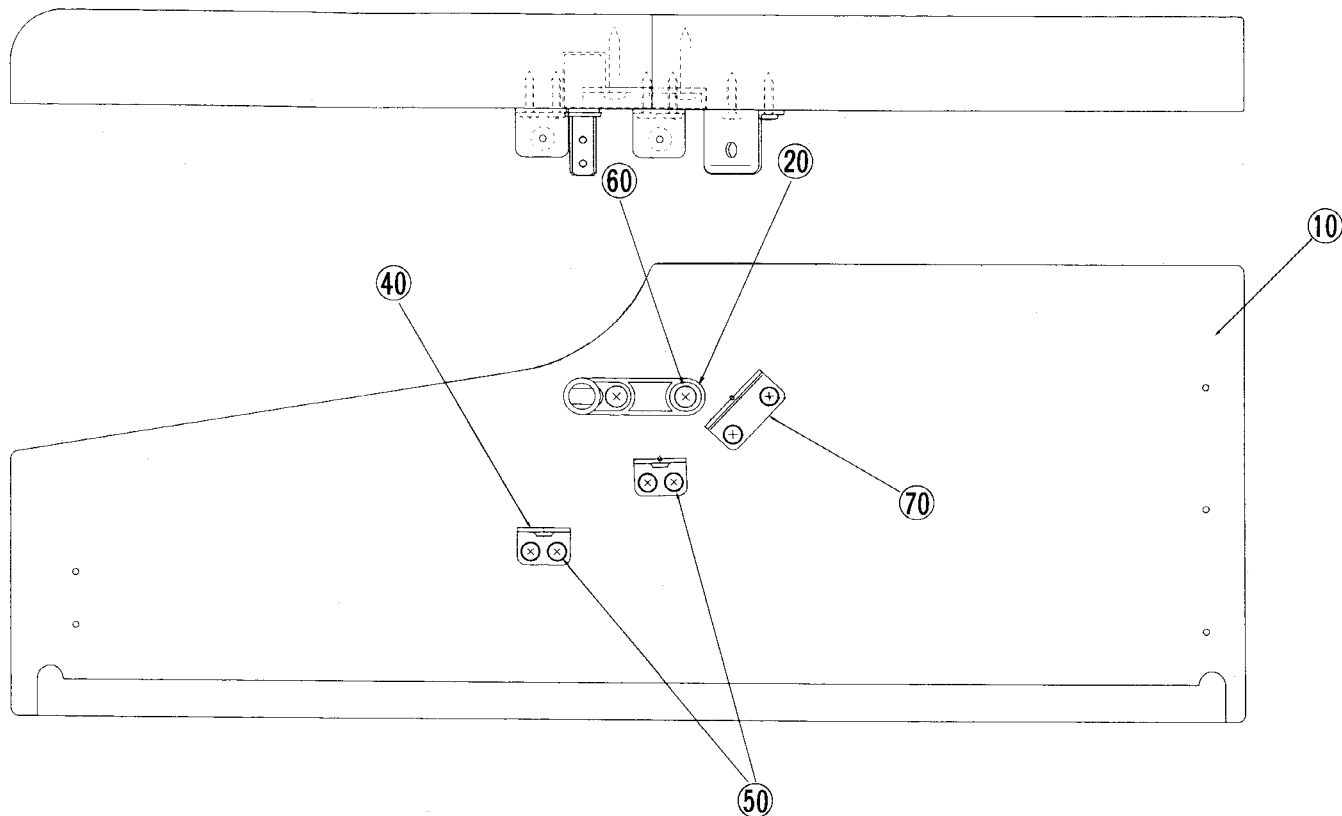


	pin 1	pin 2	pin 3	pin 4
VN790600	BL	—	—	WH
VN790900	BL	—	—	WH
VN791000	BR	—	—	SB
VN791200	BL	—	—	WH
VN791100	BR	—	—	SB
VN790700	BR	—	—	BE
VN790800	BR	—	—	BE

Ref. No.	Part No.	Description	部品名	Remarks	ランク
		<AC CORD ASSEMBLY>	<電源コード Assy>	CLP121S	
	VN790900	AC Cord Assembly	電源コード Assy	U,C	09
	VN791000	AC Cord Assembly	電源コード Assy	A	10
	VN791200	AC Cord Assembly	電源コード Assy	B	11
	VN791100	AC Cord Assembly	電源コード Assy	H	09
	VN790700	AC Cord Assembly	電源コード Assy	X	09
	VN790800	AC Cord Assembly	電源コード Assy	M	09
* <UC>	VN790900	AC Cord Assembly	電源コード Assy	U,C	09
1	VP016100	AC Cord	電源コード	U,C	
2	AA104700	Cord Holder	コード取り付け板	U,C,B,H	02
3	CB032840	Cord Strain Relief	コードストッパー	U,C,X,M	01
4	LB015040	Connector Housing	ハウジング		01
5	LB101710	Connector Pin	圧着端子	2pcs	01
* <A>	VN791000	AC Cord Assembly	電源コード Assy	A	10
1	MG002070	AC Cord	電源コード	A	06
2	AA105130	Cord Holder	コード取り付け板	A,X	04
3	CB072750	Cord Strain Relief	コードストッパー	A,B,H	01
4	LB015040	Connector Housing	ハウジング		01
5	LB101710	Connector Pin	圧着端子	2pcs	01
* 	VN791200	AC Cord Assembly	電源コード Assy	B	11
1	VH895700	AC Cord	電源コード	B	09
2	AA104700	Cord Holder	コード取り付け板	U,C,B,H	02
3	CB072750	Cord Strain Relief	コードストッパー	A,B,H	01
4	LB015040	Connector Housing	ハウジング		01
5	LB101710	Connector Pin	圧着端子	2pcs	01
* <H>	VN791100	AC Cord Assembly	電源コード Assy	H	09
1	VD846300	AC Cord	電源コード	H	05
2	AA104700	Cord Holder	コード取り付け板	U,C,B,H	02
3	CB072750	Cord Strain Relief	コードストッパー	A,B,H	01
4	LB015040	Connector Housing	ハウジング		01
5	LB101710	Connector Pin	圧着端子	2pcs	01
* <X>	VN790700	AC Cord Assembly	電源コード Assy	X	09
1	VE430800	AC Cord	電源コード	X	05
2	AA105130	Cord Holder	コード取り付け板	A,X	04
3	CB032840	Cord Strain Relief	コードストッパー	U,C,X,M	01
4	LB015040	Connector Housing	ハウジング		01
5	LB101710	Connector Pin	圧着端子	2pcs	01
* <M>	VN790800	AC Cord Assembly	電源コード Assy	M	09
1	MG002080	AC Cord	電源コード	M	06
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
4	LB015040	Connector Housing	ハウジング		01
5	LB101710	Connector Pin	圧着端子	2pcs	01

*New Parts (新規部品)

■ SIDE COVER ASSEMBLY (L,R)



• Side Cover Assembly (L)

Ref. No.	Part No.	Description	部品名	Remarks	ランク
* 10	VN915300	<SIDE COVER ASSEMBLY>	<腕木 Assy L >	CLP121S	20
	--	Side Cover	腕木塗装品 L	(VN91890)	
* 40	VN887000	Angle Bracket	受け金具	2pcs	03
* 50	EP030260	Bind Head Tapping Screw-1	+ バインド T P 1 種	6pcs	01

*New Parts (新規部品)

ランク : Japan only

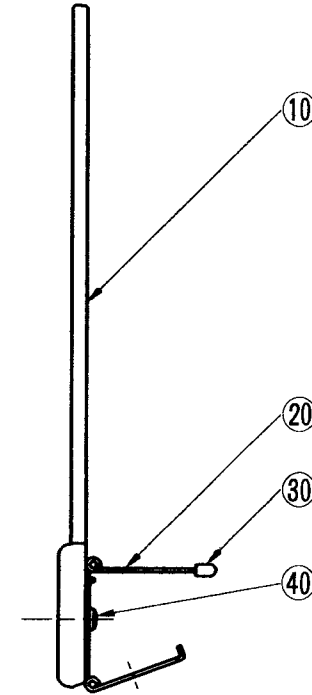
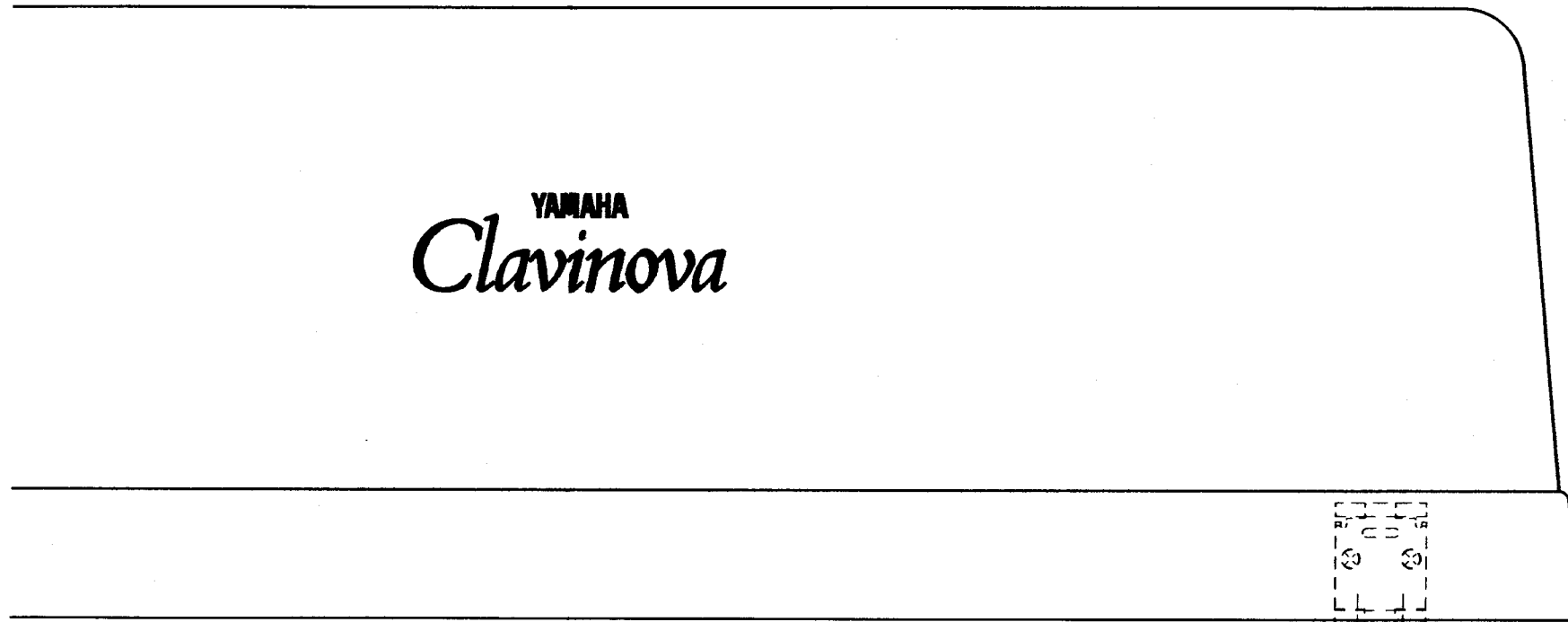
• Side Cover Assembly (R)

Ref. No.	Part No.	Description	部品名	Remarks	ランク
* 10	VN915500	<SIDE COVER ASSEMBLY>	<腕木 Assy R >	CLP121S	20
	--	Side Cover	腕木塗装品 R	(VN91900)	
* 40	VN887000	Angle Bracket	受け金具	2pcs	03
* 50	EP030260	Bind Head Tapping Screw-1	+ バインド T P 1 種	8pcs	01
* 70	VN887400	Holder, Top Board	屋根固定金具		04

21 *New Parts (新規部品)

ランク : Japan only

■ MUSIC REST ASSEMBLY

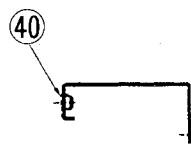


Ref. No.	Part No.	Description	部品名	Remarks	ランク
* 10	VN921800	<MUSIC REST ASSEMBLY>	<譜面板 Ass y>	CLP121S	12
	--	Music Rest	譜面板印刷品	(V002430)	
20	VD255900	Hinge	譜面板蝶番	2pcs	05
30	CB054920	Cap	キャップ	2pcs	01
40	VA819100	Bind Head Tapping Screw-P	+ バインドPタイト	4pcs	01

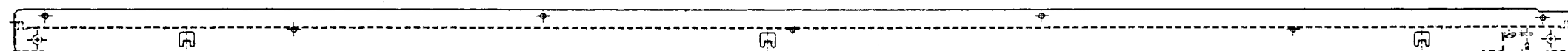
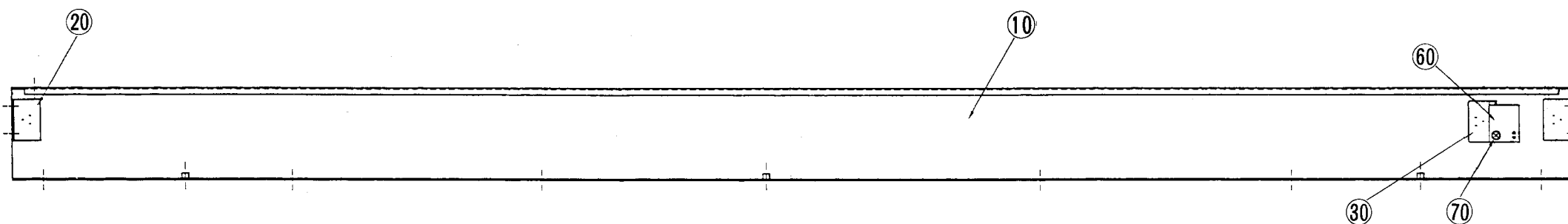
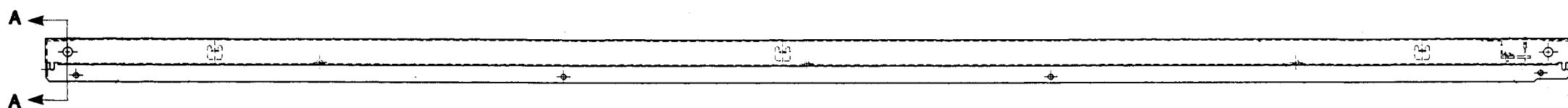
*New Parts (新規部品)

ランク : Japan only

FRONT RAIL ASSEMBLY

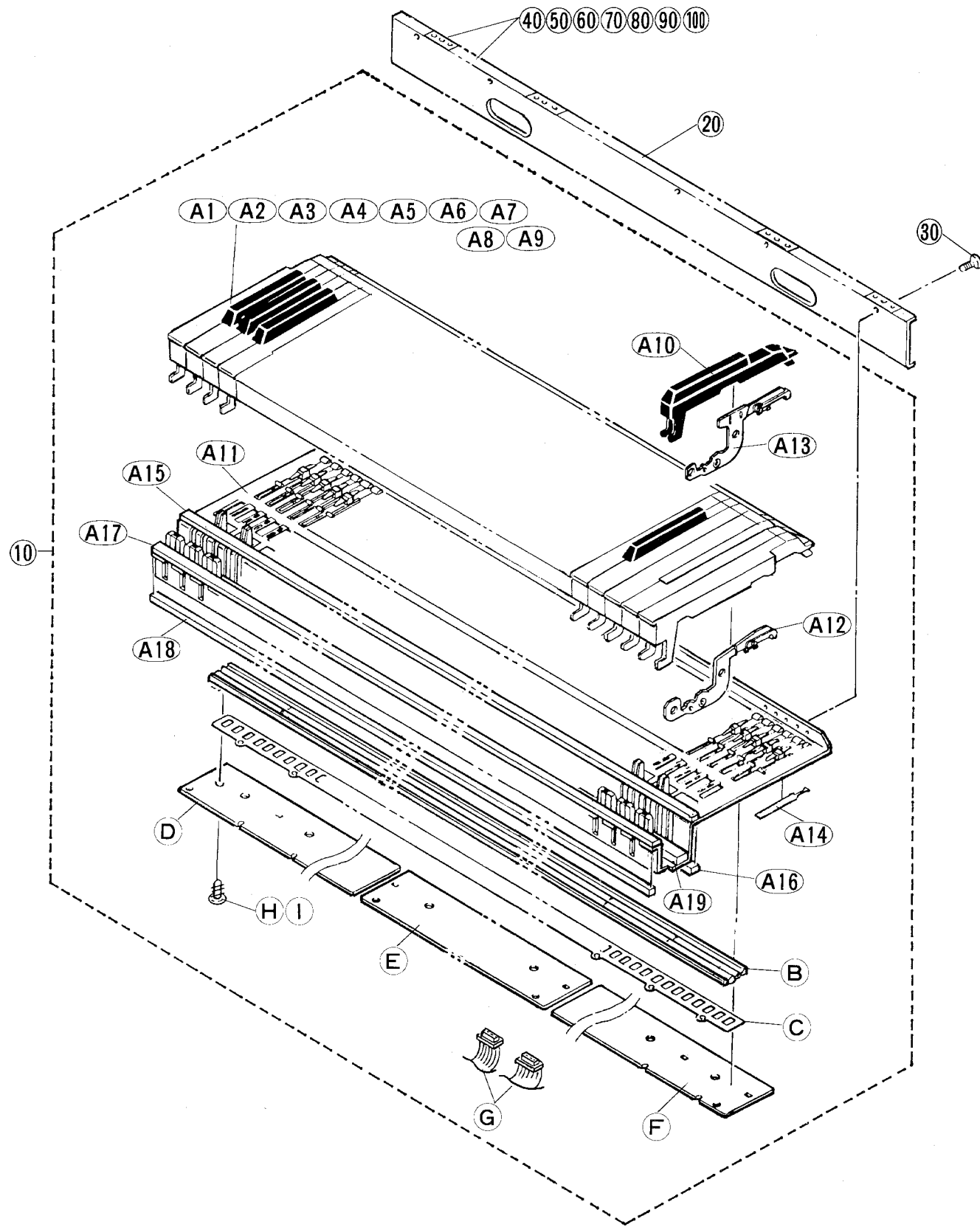


SEC. A~A



Ref. No.	Part No.	Description	部品名	Remarks	ランク
*	VN886600	<FRONT RAIL ASSEMBLY>	<口金 A s s y >	CLP121S	13
10	--	Front Rail	口金	(VN88670)	
20	--	Angle Bracket, Front Rail	口金補強金具	2pcs (VN88860)	
30	--	Holder, PL P.C.B.	P.L取付金具	(VN88880)	
40	CB022400	Rubber Button	ゴムボタン	2pcs	01
*	VN637600	Circuit Board	PLシート		05
70	EP630390	Bind Head Tapping Screw-C	+ バインド C タイト	1pc.	01

KEYBOARD



• Keyboard

Ref. No.	Part No.	Description	部品名	Remarks	ランク	
* 10	VN471100	<KEYBOARD>	E76 K6	< A E 2 鍵盤 >	CLP121S	51
* 20	--	Keyboard Assembly	E76 K6	A E 2 鍵盤 A s s y	(VN47140)	08
30	VD526200	Holder, Keyboard		反り止め金具 E 7 6		01
40	EP640490	Bind Head Tapping Screw-C	4.0X6 FCM3BL	+ バインド P タイ	7pcs	
50	--	Spacer	t=0.5	スペーサー	(VD48480)	
60	--	Spacer	t=1.0	スペーサー	(VD48490)	
70	--	Spacer	t=0.8	スペーサー	(VD51810)	
80	VD518300	Spacer	t=0.35	スペーサー	(VD51820)	01
90	--	Spacer	t=0.25	スペーサー	(VF51760)	
100	--	Spacer	t=1.25	スペーサー	(VF51770)	
			t=1.5	スペーサー		

*New Parts (新規部品)

ランク : Japan only

• Keyboard Assembly

Ref. No.	Part No.	Description	部品名	Remarks	ランク	
* A	--	<KEYBOARD ASSEMBLY>	E76 K6	< A E 2 鍵盤 Assy >	CLP121S(VN47140)	
B	--	Frame Assembly, Keyboard	AE 76	M K フレーム A s s y	(VN47170)	10
C	VN474500	Rubber Contact	AE 76	可動導電ゴム		03
D	VC799100	Insulation Spacer	AE76	絶縁スペーサー		08
E	VC796200	Circuit Board	AE76L	A E 7 6 L シート		10
F	VC796300	Circuit Board	AE-C	A E - C シート		08
G	VC796400	Circuit Board	AE76H	A E 7 6 H シート		06
H	VC815200	Connector Assembly	NRD-NRD 16P110	束線		01
I	EP600270	Bind Head Tapping Screw-P	3.0X10 ZMC2Y	+ バインド P タイ	13pcs	01
H	EP630660	Bind Head Tapping Screw-P	3.0X10 ZMC2BL	+ バインド P タイ	13pcs	01

*New Parts (新規部品)

ランク : Japan only

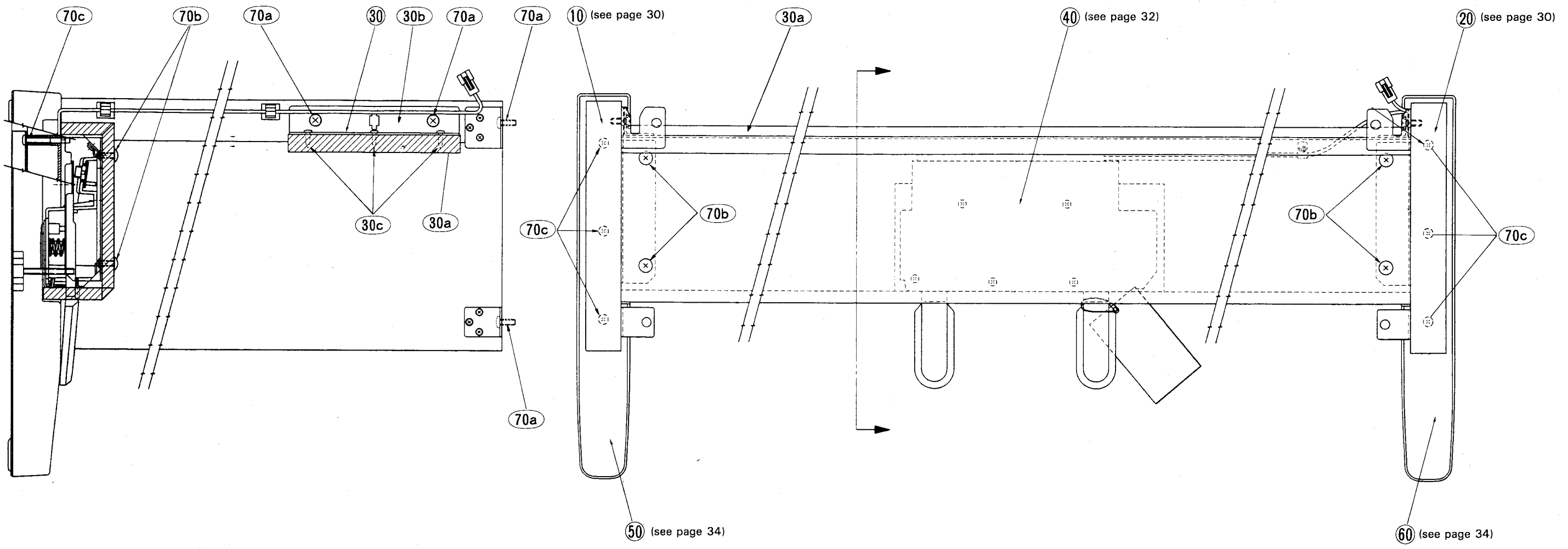
• Frame Assembly

Ref. No.	Part No.	Description	部品名	Remarks	ランク	
* A1	--	<FRAME ASSEMBLY>	AE 76	< M K フレーム Assy >	CLP121S(VN47170)	
A2	VM890700	White Key	C	白鍵 C	8pcs	04
A3	VM890800	White Key	D	白鍵 D	6pcs	04
A4	VM890900	White Key	E	白鍵 E	6pcs	04
A5	VM891000	White Key	F	白鍵 F	7pcs	04
A6	VM891100	White Key	G	白鍵 G	6pcs	04
A7	VM891200	White Key	A	白鍵 A	6pcs	04
A8	VM891300	White Key	B	白鍵 B	6pcs	04
A9	VM891500	White Key	E'	白鍵 E'	1pc.	05
A9	VM891600	White Key	G'	白鍵 G'	1pc.	05
A10	VM891800	Black Key		黒鍵	31pcs	04
A11	--	MK Frame	E76	M K フレーム E 7 6	(VC50920)	05
A12	VM892400	Hammer Assembly, White Key		ハンマー白鍵 A s s y	45pcs	05
A13	VM892500	Hammer Assembly, Black Key		ハンマー黒鍵 A s s y	31pcs	03
A14	VM958100	Key Spring		鍵パネ	76pcs	04
A15	VC984400	Felt		フェルト		05
A16	VI437300	Cushion		クッション		03
A17	VC984600	Felt		フェルト		03
A18	VC984700	Felt		フェルト		08
A19	VP283300	Felt		フェルト		

*New Parts (新規部品)

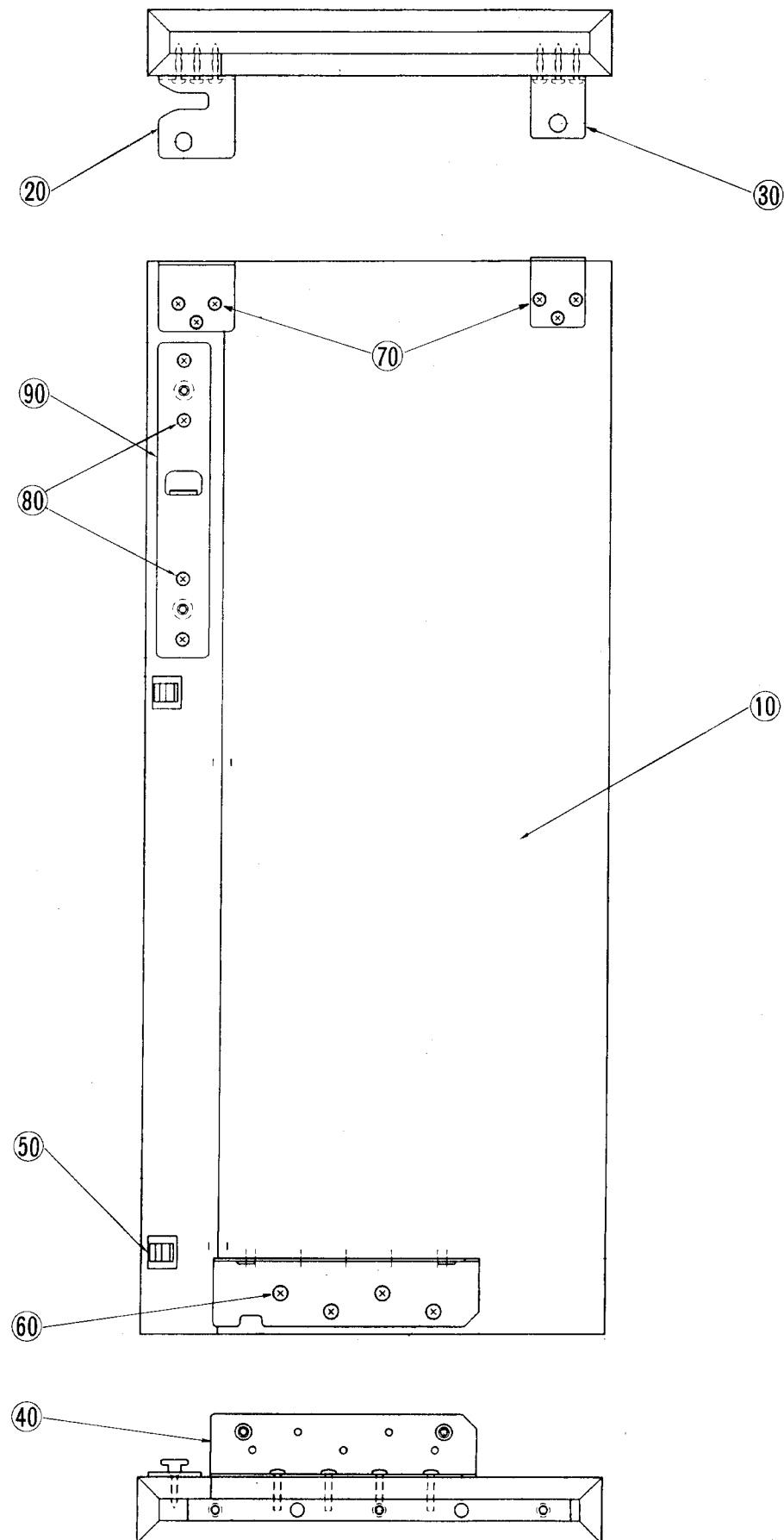
ランク : Japan only

STAND ASSEMBLY



Ref. No.	Part No.	Description	部品名	Remarks	ランク
		<STAND ASSEMBLY>	<スタンドアッシー>	CLP121S (VN89250)	
10	VN899500	Side Board Assembly	側板アッシー L		19
20	VN899700	Side Board Assembly	側板アッシー R		19
30	VN653900	Back Top Board Assembly	スタンド框アッシー	(VN87460)	13
30a	--	Back Top Board			
30b	VN634400	Holder, Back Top Board	スタンド框金具	2pcs	
30c	EP040250	Bind Head Tapping Screw-1	+ バインド T P 1 種	6pcs	01
40	--	Pedal Box Assembly	P. BOX アッシー	(VN89930)	
50	VN657900	Stand Base Assembly	妻土台アッシー L		10
60	VN658000	Stand Base Assembly	妻土台アッシー R		
70	VN920500	Screw Set	ネジセット		
70a	EG360020	Bind Head Screw	+ バインド 小ネジ	8pcs	
70b	VJ318300	Trus Head Screw	+ トラス 小ネジ	4pcs	
70c	VP304200	Bind Head Screw	+ バインド 小ネジ	6pcs	

■ SIDE BOARD ASSEMBLY (L,R)



• Side Board Assembly (L)

Ref. No.	Part No.	Description	部品名	Remarks	ランク
* 10	VN899500	<SIDE BOARD ASSEMBLY>	<側板 Ass y L>	CLP121S	19
** 20	--	Side Board	側板木部集成 L	(VN86980)	05
** 30	VN886300	Holder, Stand	S T . 受け金具		
** 40	VN973100	Angle Bracket, Stand	S T . アングル		
** 60	VN899100	Angle Bracket	ペダル B O X 取付金具		
** 60	EG340410	Bind Head Screw	+ バインド小ネジ	4pcs	01
** 70	EPO30580	Bind Head Tapping Screw-1	+ バインド T P 1 種	6pcs	01
** 80	EM030180	Flat Head Tapping Screw-1	+ 皿 T P 1 種	4pcs	01
** 90	VN634300	Holder, Side Board	側板金具		
* 10	VN899700	<SIDE BOARD ASSEMBLY>	<側板 Ass y R>	CLP121S	19
** 20	--	Side Board	側板木部集成 R	(VN86990)	05
** 30	VN886400	Holder, Stand	S T . 受け金具		
** 40	VN973100	Angle Bracket, Stand	S T . アングル		
** 50	VN899200	Angle Bracket	ペダル B O X 取付金具		
** 50	VP592100	Cord Clamper	N K クランプ	2pcs	03
** 60	EG340410	Bind Head Screw	+ バインド小ネジ	4pcs	01
** 70	EPO30580	Bind Head Tapping Screw-1	+ バインド T P 1 種	6pcs	01
** 80	EM030180	Flat Head Tapping Screw-1	+ 皿 T P 1 種	4pcs	01
** 90	VN634300	Holder, Side Board	側板金具		

*New Parts (新規部品)

ランク : Japan only

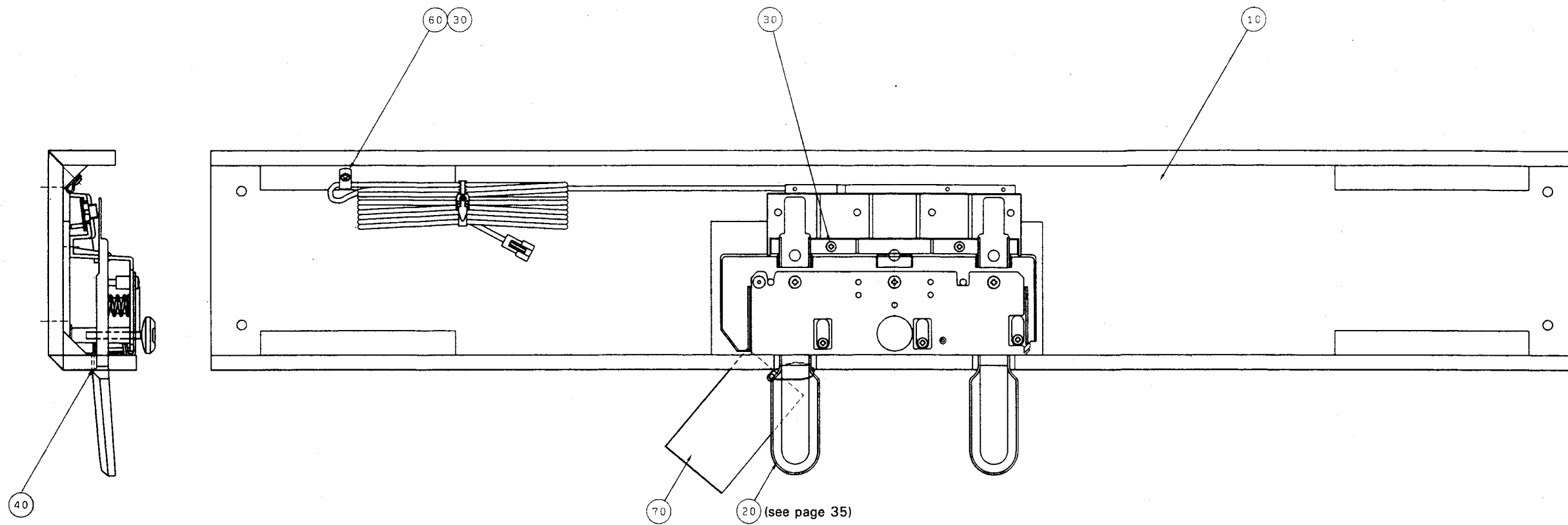
• Side Board Assembly (R)

Ref. No.	Part No.	Description	部品名	Remarks	ランク
* 10	VN899700	<SIDE BOARD ASSEMBLY>	<側板 Ass y R>	CLP121S	19
** 20	--	Side Board	側板木部集成 R	(VN86990)	05
** 30	VN886400	Holder, Stand	S T . 受け金具		
** 40	VN973100	Angle Bracket, Stand	S T . アングル		
** 50	VN899200	Angle Bracket	ペダル B O X 取付金具		
** 50	VP592100	Cord Clamper	N K クランプ	2pcs	03
** 60	EG340410	Bind Head Screw	+ バインド小ネジ	4pcs	01
** 70	EPO30580	Bind Head Tapping Screw-1	+ バインド T P 1 種	6pcs	01
** 80	EM030180	Flat Head Tapping Screw-1	+ 皿 T P 1 種	4pcs	01
** 90	VN634300	Holder, Side Board	側板金具		

*New Parts (新規部品)

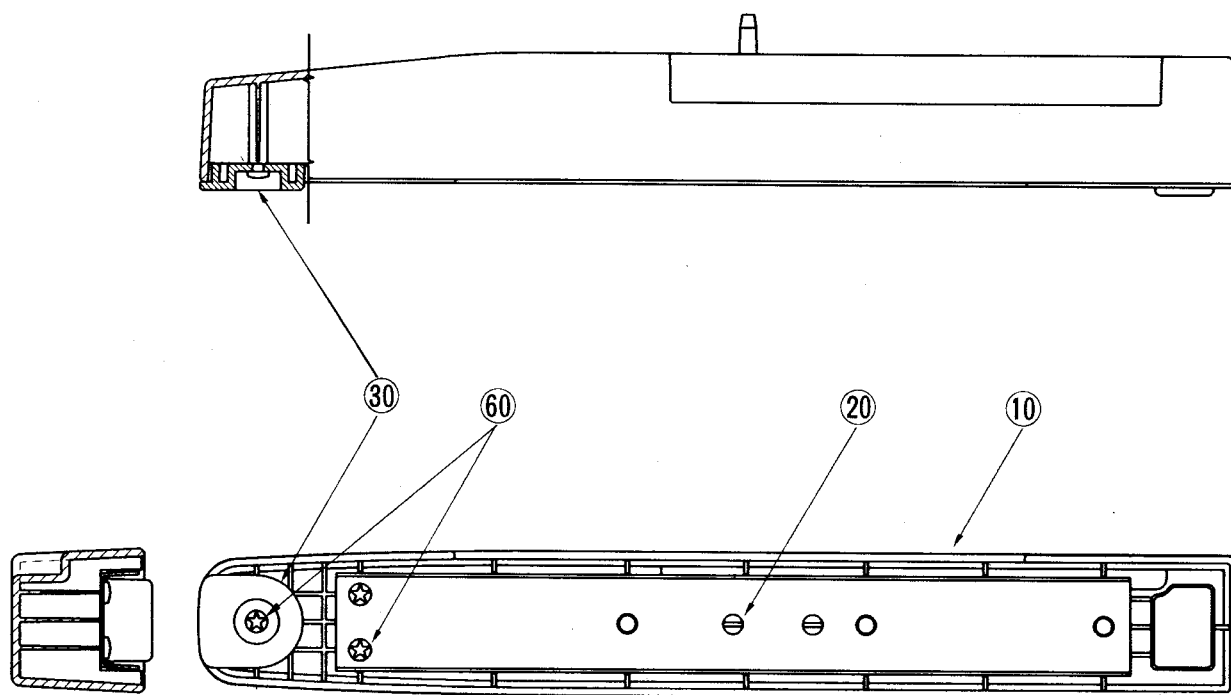
ランク : Japan only

■ PEDAL BOX ASSEMBLY



Ref. No.	Part No.	Description	部品名	Remarks	ランク
* 10	--	<PEDAL BOX ASSEMBLY>	<ペダルBOX Assy>	CLP121S(VN89930)	
* 20	VN873600	Pedal Box	ペダルボックス		
* 30	VP233500	Pedal Assembly	ペダル Assy		
* 30	EP040230	Bind Head Tapping Screw-1	+ バインド T P 1 種	6 pcs	01
* 40	VN900200	Felt	フェルト	2 pcs	
60	CB900030	Cord Binder	コード押え		01
70	--	Caution Label	ペダル注意書	(VD96610)	

■ STAND BASE ASSEMBLY (L,R)



• Stand Base Assembly (L)

Ref. No.	Part No.	Description	部品名	Remarks	ランク
10	VN657900	<STAND BASE ASSEMBLY> Stand Base	LEFT LEFT	<妻土台 Assy L > CLP121S (VN67630)	10
20	VA881100	Angle Bracket, Stand Base	妻土台成形品 L		03
30	VP316200	Foot	妻土台金具		
60	EP640110	Bind Head Tapping Screw-P 4.0X12 ZMC2Y	スペリ座 + バインド P タイト	3pcs	01

*New Parts (新規部品)

ランク : Japan only

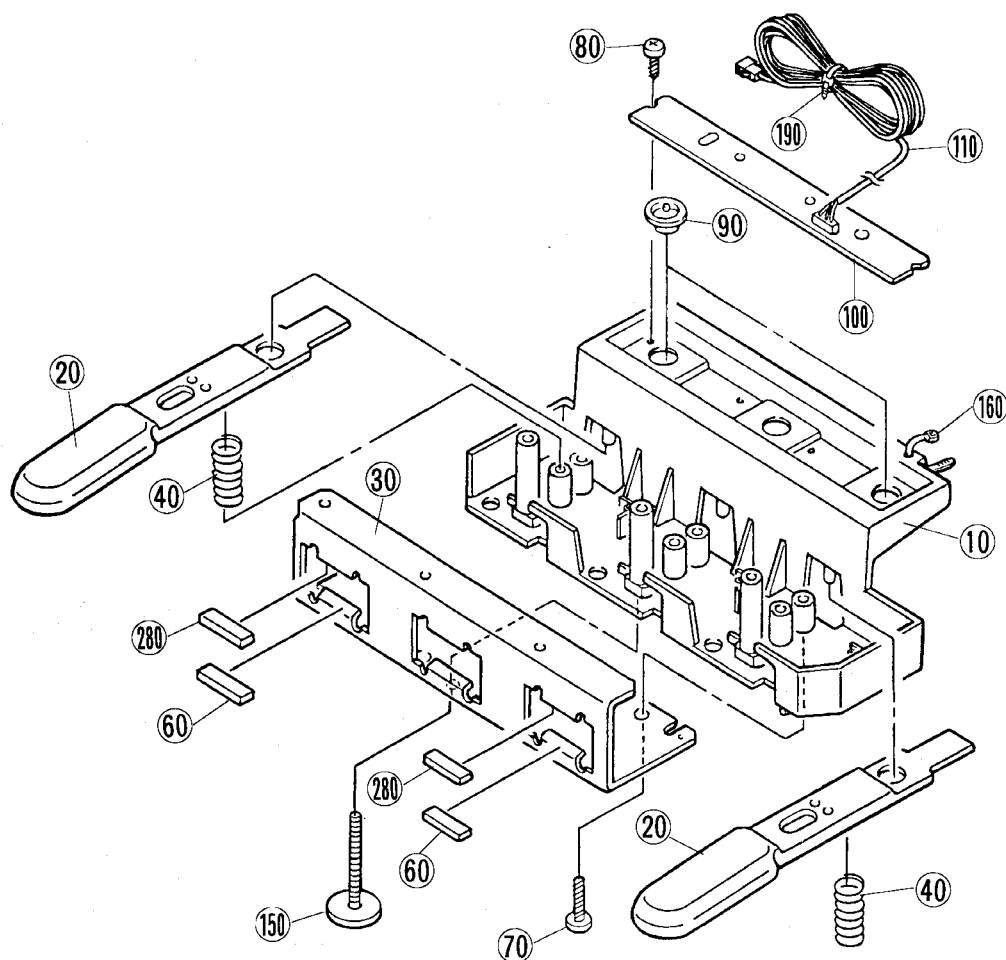
• Stand Base Assembly (R)

Ref. No.	Part No.	Description	部品名	Remarks	ランク
10	VN658000	Stand Base Assembly Stand Base	RIGHT RIGHT	<妻土台 Assy R > CLP121S (VN67640)	
20	VA881100	Angle Bracket, Stand Base	妻土台成形品 R		03
30	VP316200	Foot	妻土台金具		
60	EP640110	Bind Head Tapping Screw-P 4.0X12 ZMC2Y	スペリ座 + バインド P タイト	3pcs	01

*New Parts (新規部品)

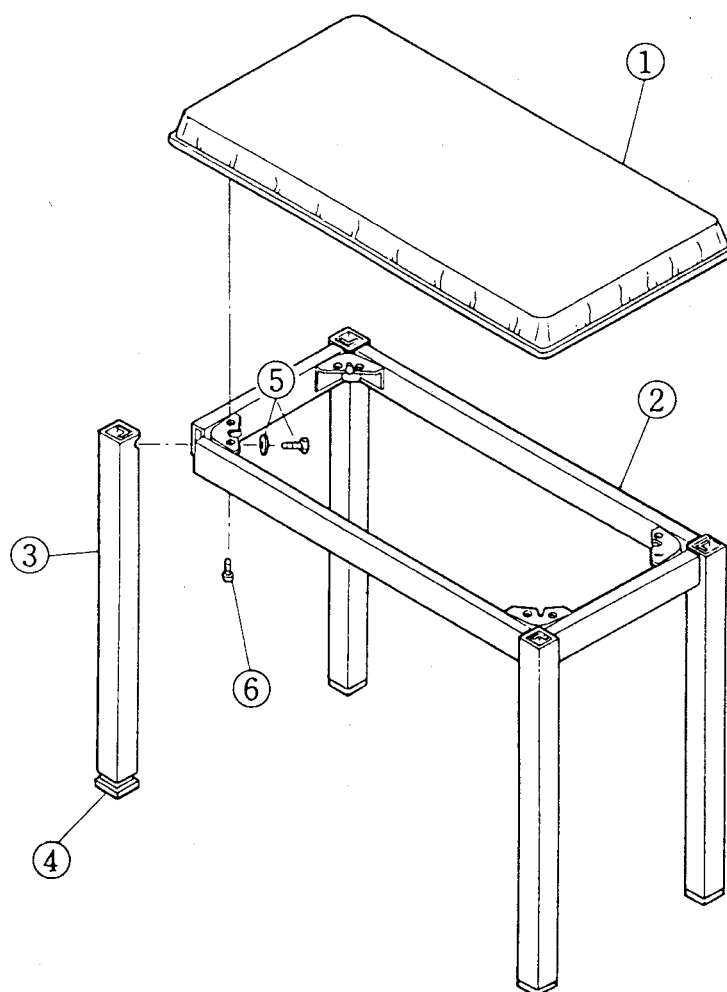
ランク : Japan only

■ PEDAL ASSEMBLY



Ref. No.	Part No.	Description	部品名	Remarks	ランク
*	VP233500	<PEDAL ASSEMBLY>	<ペダル Assy>	CLP121S	
	10	Pedal Frame	ペダルフレーム		05
	20	Pedal Piece	ペダル本体	2pcs	06
	30	Holder, Pedal	ペダル支持金具		04
	40	Pedal Spring	ペダルバネ	2pcs	
*	60	VF812700 Felt	フェルト	2pcs	03
	70	VD260600 Bind Head Tapping Screw-P	5.0X25 ZMC2BL + バインド P タイト	3pcs	01
	80	VD964600 BW Head Tapping Screw-P	3.0X10 ZMC2Y + B W H P タイト	4pcs	01
	90	VF815100 Rubber Contact	接点ゴム	2pcs	01
*	100	VQ000800 Circuit Board	P E D A L シート		05
*	110	VN445900 PK Cable	P K ケーブル		08
	150	VP354800 Adjuster	丸形アジャスター	1pc.	03
	160	CB069250 Cord Binder	BK-1 インシュロックタイ		01
	190	-- Cord Binder	BL コードバインダー	(VD13520)	
	280	VH661100 Felt	36X10X2.5 フェルト	2pcs	02

■ BENCH (BC-7)



Ref. No.	Part No.	Description		部品名	Remarks	ランク
		<BENCH>	BC-7	<椅子>	CLP121S	
1	NX003280	Bench Board Assembly		座板 A s s y	J	16
1	NX003320	Bench Board Assembly		座板 A s s y	A, B, C, H, M, X	
1	NX003330	Bench Board Assembly		座板 A s s y	U	
2	AX000190	Bench Frame Assembly		座枠 A s s y		13
3	AX000200	Leg Pipe Assembly		脚パイプ A s s y	4pcs	05
4	CX002990	Leg Cap		脚キャップ	4pcs	01
5	EX000410	Hexagonal Bolt & SP Washer	5.0X12	パネル座付六角ボルト	4pcs	03
6	EJ350206	Pan Head Tapping Screw	5.0X20 FCM3BL	パネル T P ネジ	8pcs	01

#New Parts (新規部品)

ランク : Japan only