

# PORTATONE

# PSR-

# A10000

## SERVICE MANUAL



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 **YAMAHA**  
HAMAMATSU, JAPAN

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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:** This 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 principal-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 bus in the unit (heavy gauge black wires connect to this bus).

**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.

**WARNING**

Components having special characteristics are marked  and must be replaced with parts having specification equal to those originally installed.

**SPECIFICATIONS**

○ : available

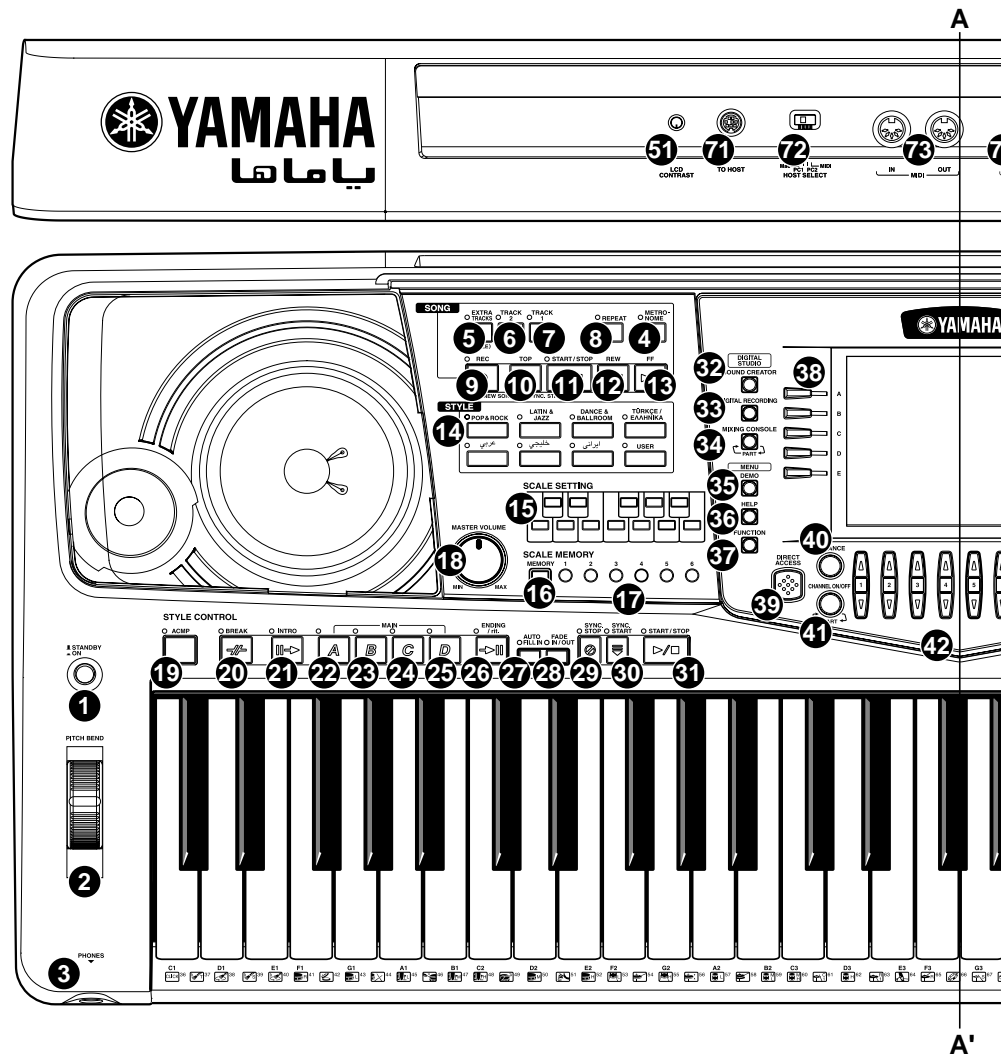
<b>Sound Source</b>		AWM Dynamic Stereo Sampling		
<b>Display</b>		320 x 240 dots backlit graphic LCD		
<b>Keyboard</b>		61 keys (C1 - C6 with Initial Touch)		
<b>Voice</b>	<b>Polyphony (max)</b>	32		
	<b>Number of Voices</b>	<b>Number of Oriental Voice</b>	43	
		<b>Number of Oriental Dram Kits</b>	6	
		<b>Number of Sweet Voice</b>	3	
		<b>Number of Cool Voice</b>	1	
	<b>Sound creator</b>	○		
<b>Effects</b>	<b>Effect Blocks</b>	<b>Reverb</b>	1	
		<b>Chorus</b>	1	
		<b>DSP</b>	1	
	<b>Effect Types</b>	<b>REVERB</b>	23 Preset+3 User	
		<b>CHORUS</b>	15 Preset+3 User	
		<b>DSP</b>	93 Preset+3 User	
<b>Accompaniment Style</b>	<b>Number of Accompaniment Styles</b>	190		
		<b>Number of Oriental Styles</b>	123	
		<b>Number of Session Styles</b>	4	
	<b>Fingering</b>	Single Finger, Fingered, Fingered On Bass, Multi Finger, AI Fingered, Full Keyboard, AI Full Keyboard		
	<b>Style Creator</b>	○		

○: available

<b>Song</b>	<b>Format</b>	SMF (Format 0,1), ESEQ
	<b>Preset Songs</b>	○
	<b>Lyrics</b>	○
	<b>Recording</b>	Quick Recording, Multi Recording, Step Recording, Song Editing
	<b>Record Channels</b>	16
<b>Multi Pad</b>	<b>Preset</b>	4 Pads x 80 Banks
<b>Memory Device</b>	<b>Floppy Disk (2HD,2DD)</b>	○
	<b>Flash Memory (internal)</b>	260 KB
	<b>Flash Availability</b>	Song (SMF), Style (SFF), Registration, Voice, etc.
<b>Tempo</b>	<b>Tempo Range</b>	5 - 500
	<b>Tap Tempo</b>	○
	<b>Metronome</b>	○
	<b>Sound</b>	Bell on/off
<b>Scale</b>	<b>Scale Tuning</b>	○
	<b>Scale Memory buttons</b>	6
	<b>Scale Template</b>	Equal Temperament, Bayat, Rast, Pure Major, Pure Minor, Pythagorean, Mean-Tone, Werckmeister, Kirnberger
<b>Registration Memory</b>	<b>Buttons</b>	8
	<b>Regist Sequence</b>	○
	<b>Freeze</b>	○
<b>Others</b>	<b>Demo</b>	Function, Voice, Style
	<b>Language</b>	3 languages (English, German, French)
	<b>Help</b>	○
	<b>Direct Access</b>	○
	<b>Master Volume</b>	○
	<b>Fade In/Out</b>	○
	<b>Transpose</b>	Keyboard/Song/Master
	<b>Tuning</b>	○
	<b>Touch Response</b>	5 level
<b>Jacks/Connectors</b>		DC IN, PHONES, MIDI (OUT, IN), TO HOST, HOST SELECT SW, FOOT PEDAL1 (SWITCH), FOOT PEDAL2, AUX OUT (LEVEL FIXED) (L/R), OUTPUT (L/L+R)
<b>Pedal Functions</b>		VOLUME, SUSTAIN, SOSTENUTO, SOFT, GLIDE, PORTAMENTO, PITCHBEND, MODULATION, DSP VARIATION, SONG START/STOP, STYLE START/STOP, etc.
<b>Amplifiers/ Speakers</b>	<b>Amplifiers</b>	12 W x 2
	<b>Speakers</b>	(12 cm + 5 cm) x 2
<b>Power Consumption</b>		31 W
<b>Power supply</b>		Yamaha AC adaptor PA-300 (included) *
<b>Dimensions [W x D x H] (without Music Stand)</b>		973 x 399 x 161 mm [38-5/16" x 15-11/16" x 6-5/16"]
<b>Weight</b>		10.0 Kg (22 lbs., 1 oz)
<b>Accessories</b>		PA-300 AC Adaptor *, Floppy Disk [includes style files, song files and MIDI Driver], Music Stand, Data List, Owner's Manual
<b>Optional accessories</b>	<b>Headphones</b>	HPE-150
	<b>Foot Switch</b>	FC4 / FC5
	<b>Foot Controller</b>	FC7
	<b>Keyboard Stand</b>	L-6, L-7

\*May not be included you area.

## ■ PANEL LAYOUT



### POWER

- ① [STANDBY/ON] switch

### WHEEL

- ② PITCH BEND

### PHONES

- ③ [PHONES] jack

### METRONOME

- ④ [METRONOME] button

### SONG

- ⑤ [EXTRA TRACKS (STYLE)] button  
 ⑥ [TRACK 2 (L)] button  
 ⑦ [TRACK 1 (R)] button  
 ⑧ [REPEAT] button  
 ⑨ [REC] button  
 ⑩ [TOP] button  
 ⑪ [START / STOP] button  
 ⑫ [REW] button  
 ⑬ [FF] button

### STYLE

- ⑭ STYLE buttons

### SCALE SETTING

- ⑮ [SCALE SETTING] buttons

### SCALE MEMORY

- ⑯ [MEMORY] button

- ⑰ [1] - [6] buttons

### MASTER VOLUME

- ⑱ [MASTER VOLUME] dial

### STYLE CONTROL

- ⑲ [ACMP] button  
 ⑳ [BREAK] button  
 ㉑ [INTRO] button  
 ㉒ MAIN [A] button  
 ㉓ MAIN [B] button  
 ㉔ MAIN [C] button  
 ㉕ MAIN [D] button  
 ㉖ [ENDING / rit.] button

- ㉗ [AUTO FILL IN] button

- ㉘ [FADE IN / OUT] button

- ㉙ [SYNC.STOP] button

- ㉚ [SYNC.START] button

- ㉛ [START / STOP] button

### DIGITAL STUDIO

- ㉜ [SOUND CREATOR] button

- ㉝ [DIGITAL RECORDING] button

- ㉞ [MIXING CONSOLE] button

### MENU

- ㉟ [DEMO] button

- ㊱ [HELP] button

- ㊲ [FUNCTION] button

### DISPLAY CONTROL

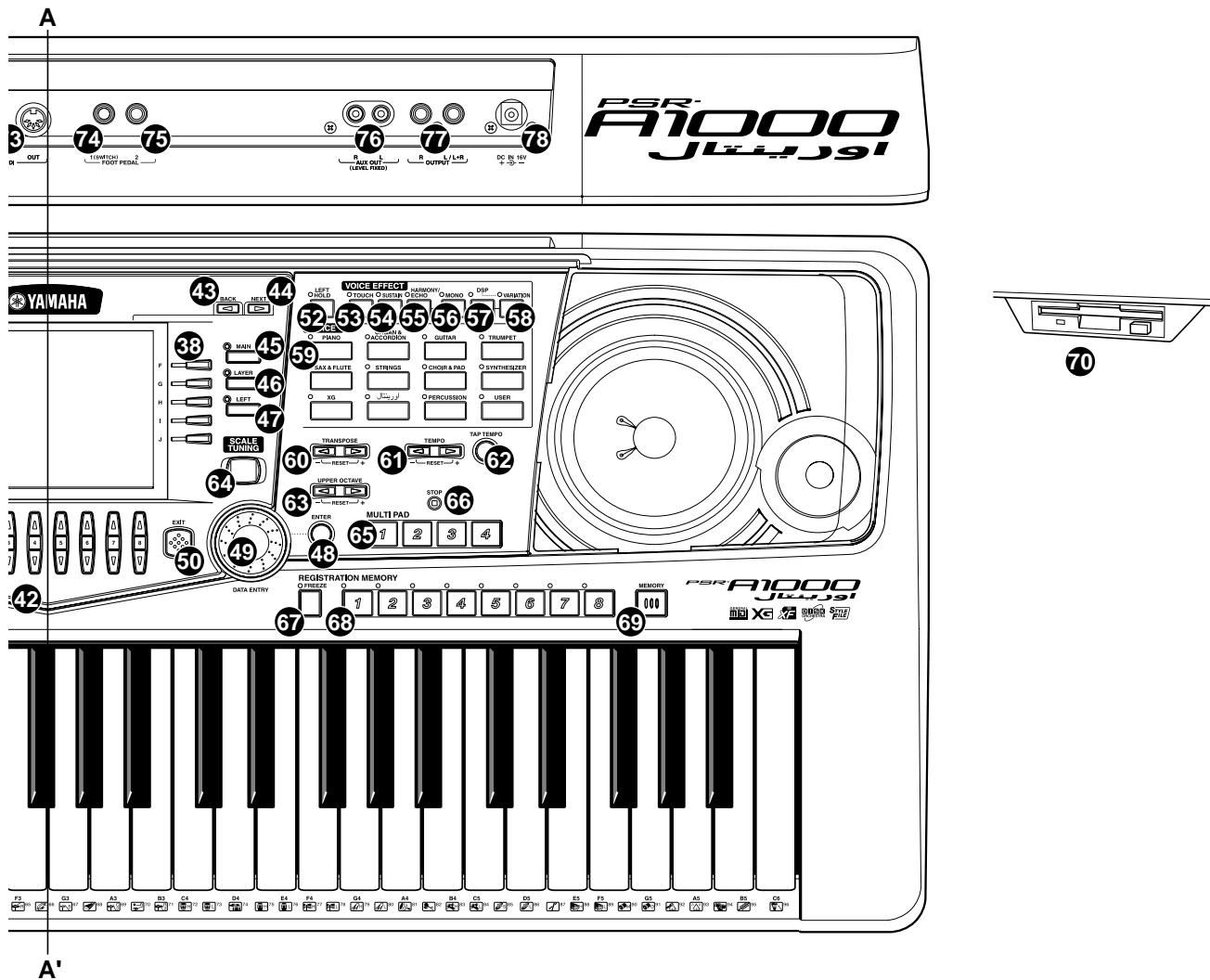
- ㊳ [A] - [J] buttons

- ㊴ [DIRECT ACCESS] button

- ㊵ [BALANCE] button

- ㊶ [CHANNEL ON / OFF] button





42 [1▲▼] - [8▲▼] buttons

43 [BACK] button

44 [NEXT] button

45 VOICE PART ON / OFF [MAIN] button

46 VOICE PART ON / OFF [LAYER] button

47 VOICE PART ON / OFF [LEFT] button

48 [ENTER] button

49 [DATA ENTRY] dial

50 [EXIT] button

51 [LCD CONTRAST] knob

**VOICE EFFECT**

52 [LEFT HOLD] button

53 [TOUCH] button

54 [SUSUTAIN] button

55 [HARMONY / ECHO] button

56 [MONO] button

57 [DSP] button

58 [VARIATION] button

**VOICE**

59 VOICE buttons

**TRANSPOSE**

60 [◀] [▶] buttons

**TEMPO**

61 [◀] [▶] buttons

62 [TAP TEMPO] button

**UPPER OCTAVE**

63 [UPPER OCTAVE] button

**SCALE TUNING**

64 [SCALE TUNING] button

**MULTI PAD**

65 [1] - [4] buttons

66 [STOP] button

**REGISTRATION MEMORY**

67 [FREEZE] button

68 [1] - [8] buttons

69 [MEMORY] button

**FLOPPY DISK**

70 Floppy disk drive (3.5")

**Connectors**

71 [TO HOST] terminal

72 [HOST SELECT] switch

73 MIDI [OUT] [IN] terminals

74 [FOOT PEDAL 1 (SWITCH)] jack

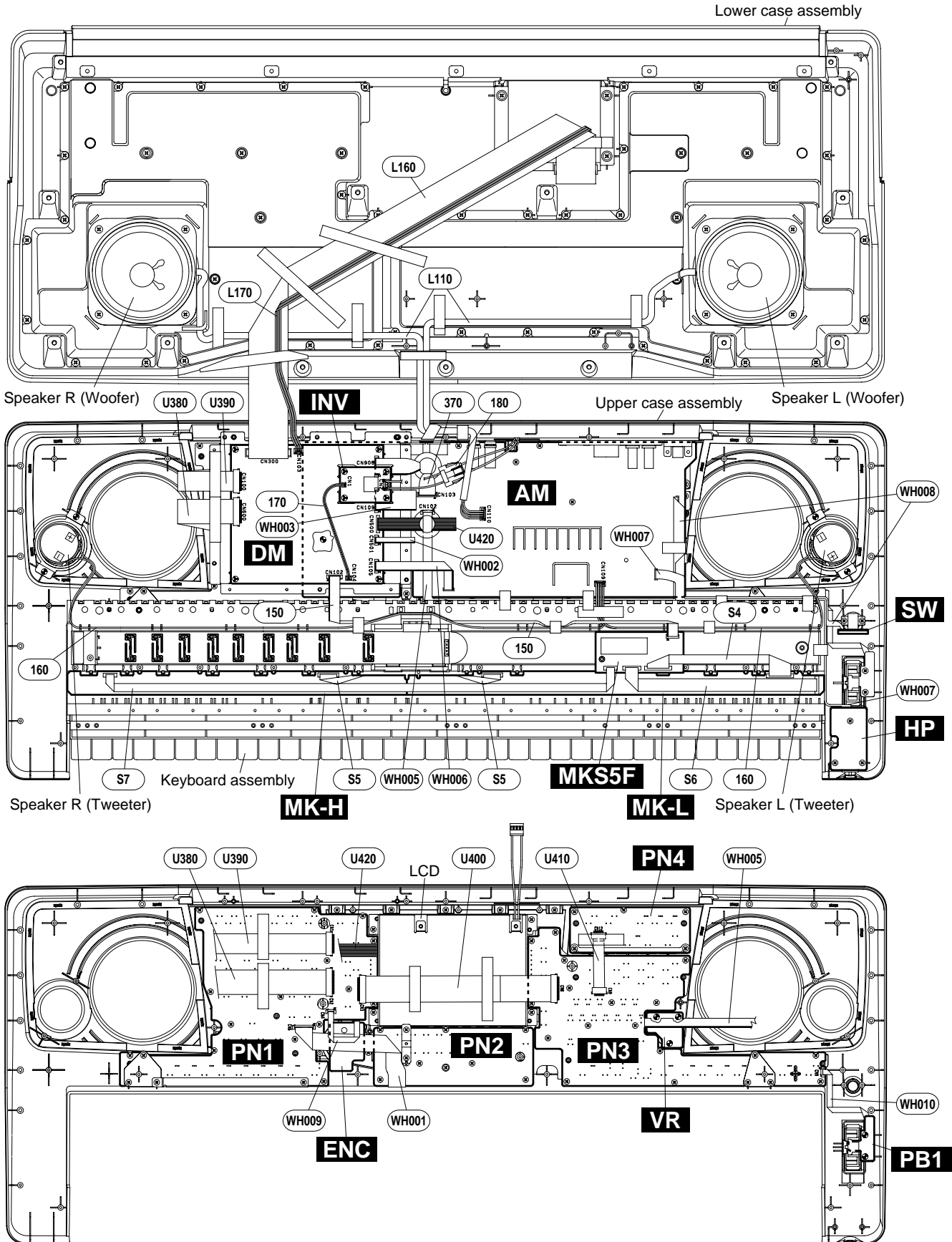
75 [FOOT PEDAL 2] jack

76 AUX OUT (LEVEL FIXED) [L] [R] jacks

77 OUTPUT [L / L+R] [R] jacks

78 [DC IN] terminal

# ■ CIRCUIT BOARD LAYOUT & WIRING



Location	Part No.	Connector Assembly	Destination				Remarks
(150)	(V778240)	KB	MKS5F-CN1	*1	DM-CN102	*1	6P
(160)	(V778260)	TW	Speaker (Tweeter)		AM-CN109		4P L=800 mm
(170)	(V778270)	INVP	INV-CN1	*1	DM-CN104	*2	2P L=200 mm
(180)	(V778280)	INV	INV-CN2	*1	LCD (Backlight)		4P L=100 mm
(370)	(V815810)	AN2	AM-CN103	*1	DM-CN908	*1	9P
(L110)	(V778250)	SP	Speaker (Woofer)		AM-CN110		5P L=800 mm
(L160)	V7782900	FD	FDD		DM-CN300	*1	34P
(L170)	V7780900	FDPS	FDD		DM-CN103	*2	3P L=700 mm
(U380)	(V778070)	PN1	PN1-CN2		DM-CN600		26P
(U390)	(V778080)	PN2	PN1-CN1		DM-CN100		21P
(U400)	MFA28300	CARD	PN1-CN3		PN3-CN8		28P 300 mm
(U410)	MFA11100	CARD	PN3-CN9		PN4-CN12		11P 100 mm
(U420)	(V815820)	LCD	LCD		DM-CN500	*2	14P
(S4)	VU958900	Cable	MK-L		MKS5F-CN2		12P
(S5)	VU659500	Cable	MK-L		MK-H		12P
(S6)	VU659400	Cable	MK-L		MKS5F-CN3		7P
(S7)	VU659600	Cable	MK-H		MKS5F-CN4		5P
(WH001)	(V778110)	PN5	PN2-CN7		PN1-CN5	*1	10P L=200 mm
(WH002)	(V778120)	CNT	AM-CN303		DM-CN501	*1	3P L=120 mm
(WH003)	(V778130)	DJ	AM-CN300		DM-CN109	*1	11P L=120 mm
(WH005)	(V778150)	VOL	VR-CN100		AM-CN102	*1	5P L=480 mm
(WH006)	(V778160)	PS	AM-CN106		DM-CN105	*1	5P L=120 mm
(WH007)	(V778170)	HP	HP-CN111		AM-CN108		5P L=380 mm
(WH008)	(V778180)	SW	SW-CN104		AM-CN105		6P L=320 mm
(WH009)	(V778190)	ENC	ENC-CN13		PN1-CN4	*1	3P L=100 mm
(WH010)	(V778200)	PB	PB1-CN16		PN3-CN10	*1	3P L=130 mm

\* The parts with "( )" in "Part No." are not available as service parts.

\*1: Edge mark is adjusted to Pin 1 mark (△ mark).

\*2: Red wire is adjusted to Pin 1 mark (△ mark).

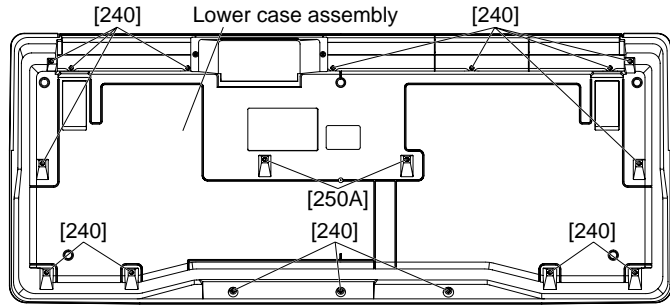
## DISASSEMBLY PROCEDURE

**Caution:** Be sure to attach the removed filament tape just as it was before removal.

### 1. Lower Case Assembly

(Time required: About 5 minutes)

- 1-1 Remove the sixteen (16) screws marked [240] and the two (2) screws marked [250A]. The lower case assembly can then be removed. (Fig. 1)



[240]: Bind Head Tapping Screw-P 3.0x12 MFZN2Y (EP600300)  
 [250A]: Bind Head Tapping Screw-P 3.0x25 MFZN2Y (VK228100)  
 (Fig. 1)

### 2. HP Circuit Board

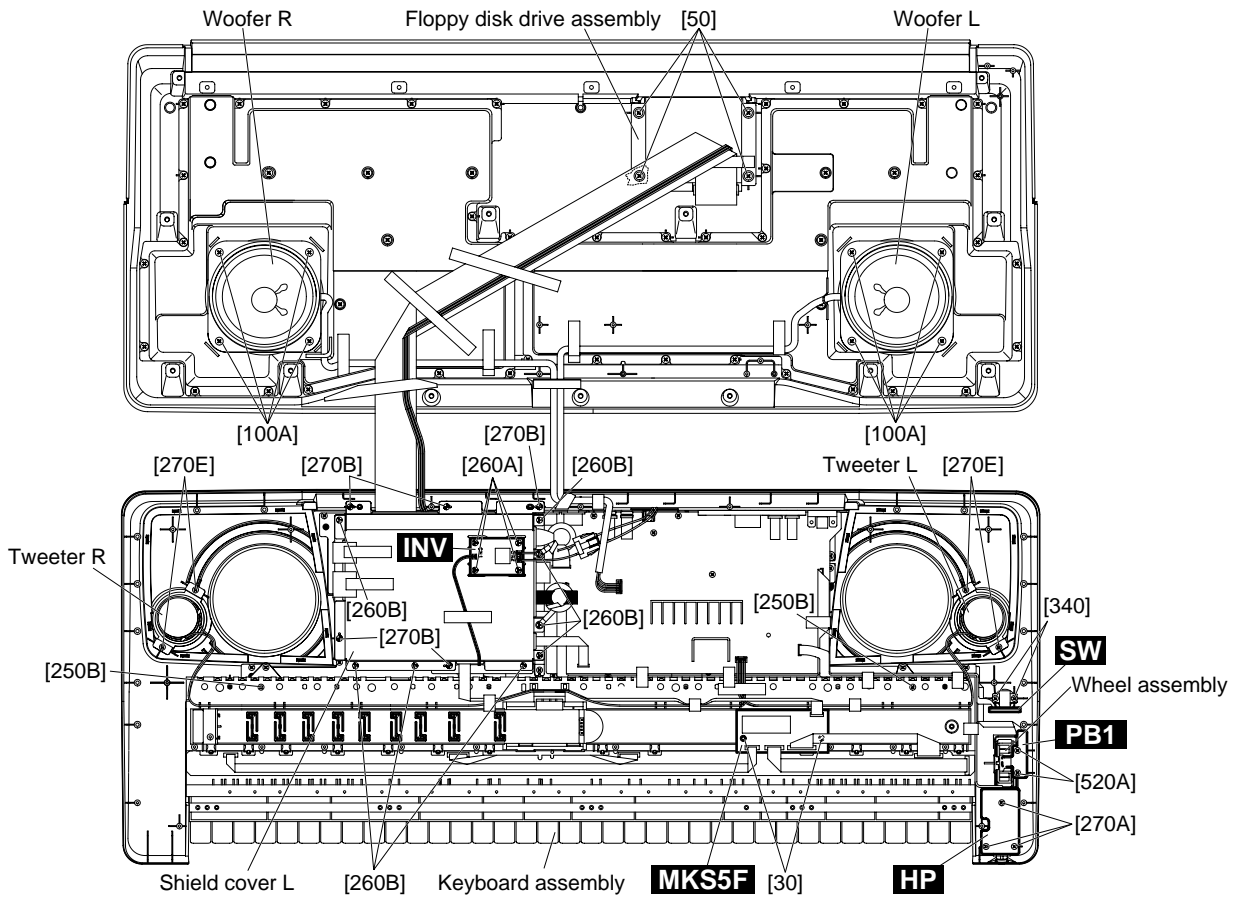
(Time required: About 10 minutes)

- 2-1 Remove the lower case assembly. (See procedure 1.)
- 2-2 Remove the three (3) screws marked [270A]. The HP circuit board can then be removed. (Fig. 2)

### 3. Wheel Assembly, PB1 Circuit Board

(Time required: About 10 minutes)

- 3-1 Remove the lower case assembly. (See procedure 1.)
- 3-2 Remove the two (2) screws marked [520A]. The PB1 circuit board with the wheel assembly can then be removed. (Fig. 2)
- 3-3 Remove the wheel assembly from the PB1 circuit board. (Fig. 2)



[30]: Bind Head Tapping Screw-P 3.0x16 MFZN2BL (EP630220)      [260]: Bind Head Tapping Screw-B 3.0x6 MFZN2Y (EP600130)  
 [50]: Bind Head Tapping Screw-P 4.0x16 MFZN2Y (VM839600)      [270]: Bind Head Tapping Screw-P 3.0x8 MFZN2Y (EP600280)  
 [100]: Bind Head Tapping Screw-P 4.0x10 MFZN2Y (EP640500)      [340]: Flat Head Tapping Screw-B 3.0x8 MFZN2Y (EP600420)  
 [250B]: Bind Head Tapping Screw-P 3.0x25 MFZN2Y (VK228100)      [520A]: Bind Head Tapping Screw-P 3.0x8 MFZN2Y (EP600280)

(Fig. 2)

**4. SW Circuit Board**  
(Time required: About 10 minutes)

- 4-1 Remove the lower case assembly. (See procedure 1.)
- 4-2 Remove the two (2) screws marked [340]. The SW circuit board can then be removed. (Fig. 2)
- 4-3 Remove the red knob from the SW circuit board.

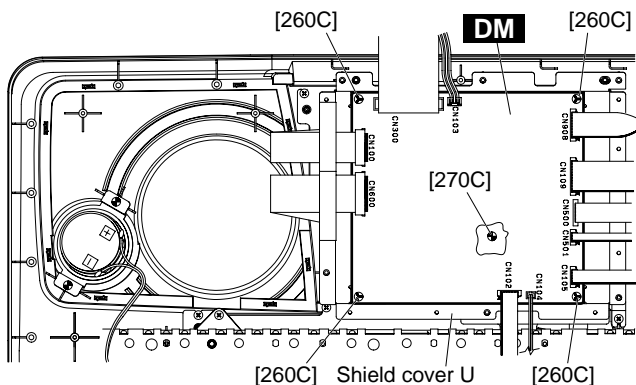
**5. INV Circuit Board**  
(Time required: About 10 minutes)

**⚠ ATTENTION:** High Voltage

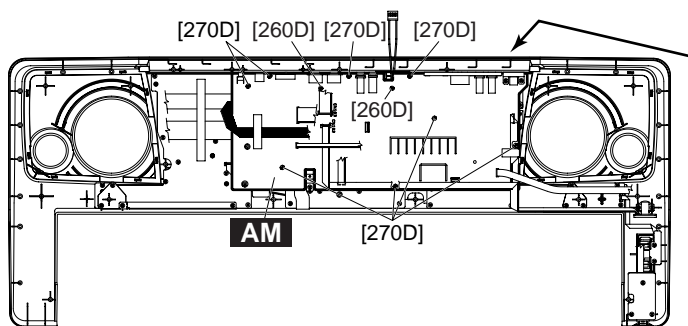
- 5-1 Remove the lower case assembly. (See procedure 1.)
- 5-2 Remove the four (4) screws marked [260A]. The INV circuit board can then be removed. (Fig. 2)

**6. DM Circuit Board, Shield Cover L and U**  
(Time required: About 15 minutes)

- 6-1 Remove the lower case assembly. (See procedure 1.)
- 6-2 Remove the INV circuit board. (See procedure 5.)
- 6-3 Remove the eight (8) screws marked [260B] and the five (5) screws marked [270B]. The shield cover L can then be removed. (Fig. 2)
- 6-4 Remove the four (4) screws marked [260C]. The DM circuit board can then be removed. (Fig. 3)
- 6-5 Remove the screw marked [270C]. The shield cover U can then be removed. (Fig. 3)



[260C]: Bind Head Tapping Screw-B 3.0x6 MFZN2Y (EP600130)  
[270C]: Bind Head Tapping Screw-P 3.0x8 MFZN2Y (EP600280)  
(Fig. 3)



[260D]: Bind Head Tapping Screw-B 3.0x6 MFZN2Y (EP600130)  
[270D]: Bind Head Tapping Screw-P 3.0x8 MFZN2Y (EP600280)  
[280]: Bind Head Tapping Screw-B 3.0x6 MFZN2BL (EP600230)

(Fig. 5)

**7. AM Circuit Board**  
(Time required: About 15 minutes)

- 7-1 Remove the lower case assembly. (See procedure 1.)
- 7-2 Remove the INV circuit board. (See procedure 5.)
- 7-3 Remove the shield cover L, the DM circuit board and the shield cover U. (See procedure 6.)
- 7-4 Remove the two (2) screws marked [260D], the eight (8) screws marked [270D] and the four (4) screws marked [280]. The AM circuit board can then be removed. (Fig. 5)

**8. Keyboard Assembly**  
(Time required: About 10 minutes)

- 8-1 Remove the lower case assembly. (See procedure 1.)
- 8-2 Remove the two (2) screws marked [250B]. The keyboard assembly can then be removed. (Fig. 2)

**9. Tweeter (Time required: About 10 minutes)**

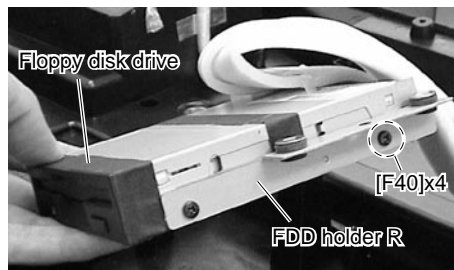
- 9-1 Remove the lower case assembly. (See procedure 1.)
- 9-2 Remove the two (2) screws marked [270E]. The tweeter can then be removed. (Fig. 2)
- \* The left and right tweeters can be removed in the respectively same method.

**10. Woofer (Time required: About 10 minutes)**

- 10-1 Remove the lower case assembly. (See procedure 1.)
- 10-2 Remove the four (4) screws marked [100A]. The woofer can then be removed. (Fig. 2)
- \* The left and right woofers can be removed in the respectively same method.

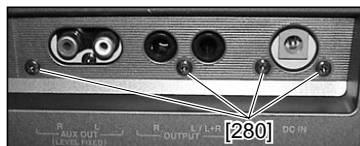
**11. Floppy Disk Drive**  
(Time required: About 10 minutes)

- 11-1 Remove the lower case assembly. (See procedure 1.)
- 11-2 Remove the four (4) screws marked [50]. The floppy disk drive assembly can then be removed. (Fig. 2)
- 11-3 Remove the four (4) screws marked [F40]. The left and right FDD holders can then be removed from the floppy disk drive. (Fig. 4)



[F40]: Bind Head Tapping Screw 3.0x6 MFZN2BL (EG330360)  
(Fig. 4)

• Rear view

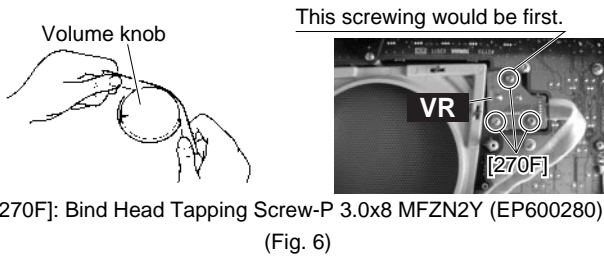


**12. VR, ENC, PN1, PN2, PN3, PN4 Circuit Boards and LCD**

- 12-1 Remove the lower case assembly. (See procedure 1.)
- 12-2 Remove the INV circuit board. (See procedure 5.)
- 12-3 Remove the shield cover L, the DM circuit board and the shield cover U. (See procedure 6.)
- 12-4 Remove the AM circuit board. (See procedure 7.)

**12-5 VR Circuit Board  
(Time required: About 20 minutes) :**

- 12-5-1 Remove the volume knob from the control panel side. (Fig. 6)
- 12-5-2 Remove the three (3) screws marked [270F]. The VR circuit board can then be removed. (Fig. 6)
- \* When you install the VR circuit board, tighten the screws in order as shown in Figure 6.



**12-6 ENC Circuit Board  
(Time required: About 20 minutes) :**

- 12-6-1 Remove the encoder knob from the control panel side. (Fig. 8)
- 12-6-2 Remove the hexagonal nut marked [A]. The ENC circuit board can then be removed. (Fig. 7, 9)

**12-7 PN1 Circuit Board  
(Time required: About 25 minutes) :**

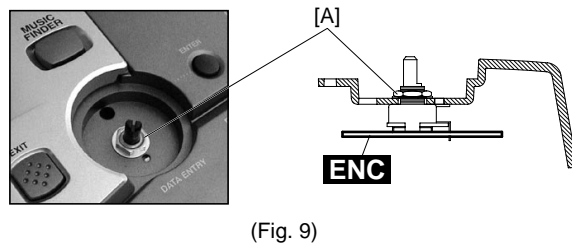
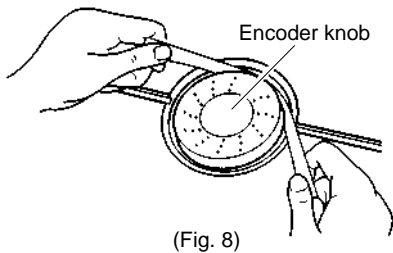
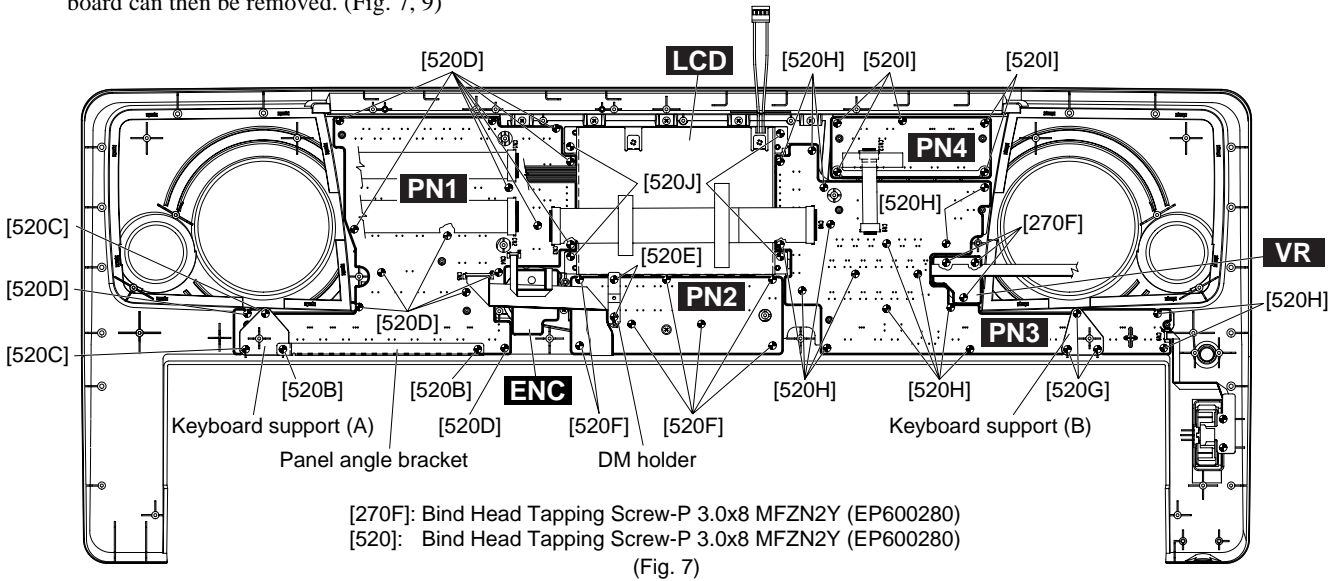
- 12-7-1 Remove the keyboard assembly. (See procedure 8.)
- 12-7-2 Remove the two (2) screws marked [520B]. The panel angle bracket can then be removed. (Fig. 7)
- 12-7-3 Remove the two (2) screws marked [520C]. The keyboard support (A) can then be removed. (Fig. 7)
- 12-7-4 Remove the fifteen (15) screws marked [520D]. The PN1 circuit board can then be removed. (Fig. 7)

**12-8 PN2 Circuit Board  
(Time required: About 25 minutes) :**

- 12-8-1 Remove the keyboard assembly. (See procedure 8.)
- 12-8-2 Remove the two (2) screws marked [520E]. The DM holder can then be removed. (Fig. 7)
- 12-8-3 Remove the seven (7) screws marked [520F]. The PN2 circuit board can then be removed. (Fig. 7)

**12-9 PN3 Circuit board  
(Time required: About 25 minutes) :**

- 12-9-1 Remove the keyboard assembly. (See procedure 8.)
- 12-9-2 Remove the three (3) screws marked [520G]. The keyboard support (B) can then be removed. (Fig. 7)
- 12-9-3 Remove the seventeen (17) screws marked [520H]. The PN3 circuit board can then be removed. (Fig. 7)



12-10 **PN4 Circuit board**

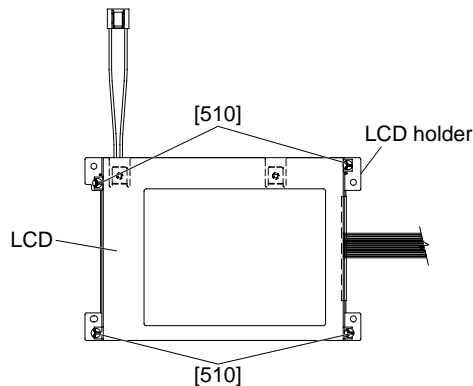
**(Time required: About 20 minutes) :**

12-10-1 Remove the five (5) screws marked [520I]. The PN4 circuit board can then be removed. (Fig. 7)

12-11 **LCD (Time required: About 20 minutes) :**

12-11-1 Remove the four (4) screws marked [520J]. The LCD can then be removed with the LCD holder. (Fig. 7)

12-11-2 Remove the four (4) screws marked [510]. The LCD holder can then be removed from the LCD. (Fig. 10)



[510]: Bind Head Tapping Screw-B 3.0x6 MFZN2Y (EP600130)  
(Fig. 10)

13. **Disassembling the Keyboard Assembly (Time required: About 20 minutes)**

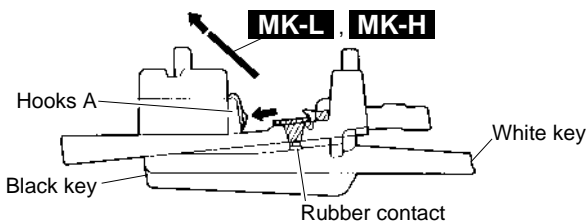
13-1 Remove the Keyboard assembly. (See procedure 8.)

13-2 Remove the two (2) screws marked [30]. The MKS5F circuit board can then be removed. (Fig. 2)

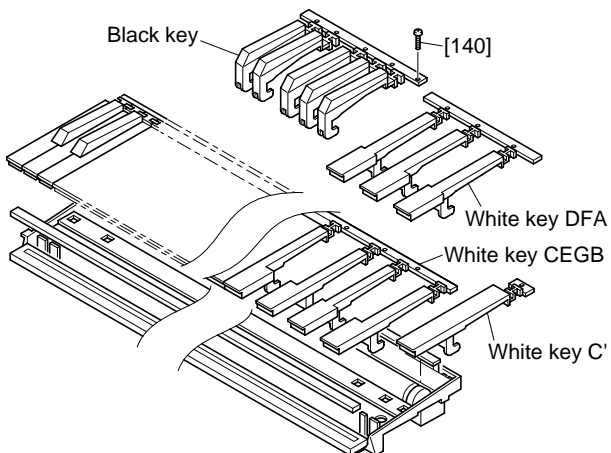
\* Be sure to make a correct match when connecting MKS5F (CN1) and DM (CN102). Connecting the connectors in the wrong way around may cause damage to the MKS5F circuit board.

13-3 Remove the MK-L and MK-H circuit board while pressing the fifteen (15) hooks A inward, and then remove the rubber contact. (Fig. 11)

13-4 Remove the twenty-one (21) screws marked [140], then remove the black keys from the lower notes. Afterwards, remove the white keys DFA and C' and then remove the white keys CEGB from the higher notes. At this time, lift the keys from the front and slide them towards you. The keys can then be removed from the assembly. (Fig. 12)



(Fig. 11)



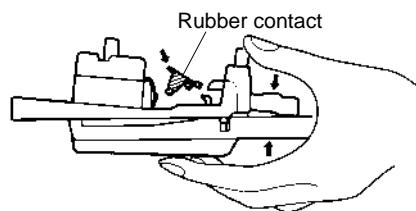
[140]: Bind Head Tapping Screw-P 3.0x16 MFZN2BL (VB205200)  
[140]: Bind Head Tapping Screw-P 3.0x16 MFZN2B (VS756700)  
(Fig. 12)

14. **Assembling the Keyboard Assembly (Time required: About 20 minutes)**

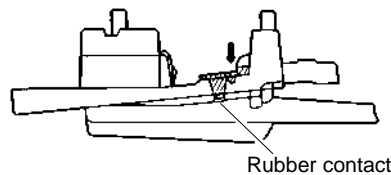
14-1 Install the white keys CEGB from the lower notes, and then install the DFA keys and C' key. Afterwards install the black keys from the higher notes, and tighten the twenty-one (21) screws marked [140]. (Fig. 12)

14-2 Install the rubber contacts in the assembly while pressing the keys as shown in Figure 13. Check that the rubber contact has been firmly placed into position in the area indicated by the arrow in Figure 14. When fitting the rubber contacts, raise both ends of the frame so that keys do not push the rubber contact up.

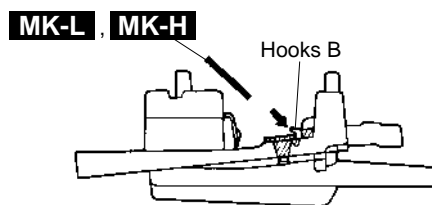
14-3 Install the MK-L and MK-H circuit boards in the assembly so that the hooks B hold it as shown in Figure 15.



(Fig. 13)



(Fig. 14)



(Fig. 15)

## ■ LSI PIN DESCRIPTION

HD63266F (XI939A00) FDC .....	12
μPD789022GB-A15-8E (XZ560100) CPU KBS .....	12
HD6417709F80B (XV250B00) CPU .....	13
HG73C205AFD (XU947C00) SWX00B .....	14
S1D13305F00B100 (XQ595A00) LCDC .....	15
AD1854JRSRL (XY782A00) DAC .....	15

### ● HD63266F (XI939A00) FDC (Floppy Disk Controller)

DM: IC300

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	8"/5"	I	Data transmission speed	33	/TRKO	I	Track 00 signal
2	XTALSET	I	Clock select	34	/INDEX	I	Index signal
3	/RESET	I	Rest	35	/RDATA	I	Read data input from FDD
4	E//RD	I	Enable/Read	36	XTAL2	I	Clock
5	RW//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	Ground
9	RS1	I					
10	VSS1	I	Ground	41	VSS4	I	
11	VSS2	I					
12	D0	I/O	Data bus	44	VCC2	I	Power supply
13	D1	I/O					
14	D2	I/O					
15	D3	I/O					
16	D4	I/O					
17	D5	I/O					
18	D6	I/O					
19	D7	I/O		46	VCC4	I	
20	/DREQ	O	DMA request	47	/WGATE	O	Write control
21	/IRQ	O	Interrupt request	48	/WDATA	O	Writ data to FDD
22	/DEND	I	Data end	49	VSS6	I	Ground
23	VSS3	I	Ground	50	/STEP	O	Step signal to control head of FDD
24	1/2 EX1	I	Power supply	51	/HDIR	O	Direction
25	VCC1	I					
26	NUM1	I					
27	NUM3	I					
28	IFS	I	Host interface select	52	/HLOAD	O	Head load
29	SFORM	I	Format data	53	/HSEL	O	Head select
30	/INP	I	Index pulse	54	VSS7	I	Ground
31	/READY	I	Ready from FDD	55	/DS0	O	Drive select
32	/WPRT	I	Write control signal	56	/DS1	O	
				57	/DS2	O	
				58	/DS3	O	
				59	VSS8	I	Ground
				60	/MON0	O	Motor on
				61	/MON1	O	
				62	/MON2	O	
				63	/MON3	O	Ground
				64	VSS9	I	

### ● μPD789022GB-A15-8E (XZ560100) CPU KBS

MKS5F: IC1

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION	
1	P12	I/O	Port 1	23	P32/INTP2/CPT2	I/O	Port 3/External interrupt input/Capture edge input	
2	P11	I/O						
3	P10	I/O						
4	P47/KR7	I/O	Port 4/Key return signal detection input	24	P31/INTP1	I/O	Port 3/External interrupt input	
5	P46/KR6	I/O						
6	P45/KR5	I/O						
7	P44/KR4	I/O						
8	P43/KR3	I/O						
9	P42/KR2	I/O						
10	P41/KR1	I/O						
11	P40/KR0	I/O		25	P30/INTP0	I/O	Port 2/Asynchronous serial interface serial data input/Serial interface serial data input	
12	NC		Internally connected (N.C.)	26	P22/RXD/SIO	I/O		Port 2/Asynchronous serial interface serial data output/Serial interface serial data output
13	IC							
14	X2	I	Clock	27	P21/TXD/SO0	I/O	Port 2/Asynchronous serial interface serial clock input/Serial interface serial clock	
15	X1	I						
16	VSS0	I	Ground	28	P20/ASCK/SCK0	I/O		
17	VDD0	I	Power supply	29	P07	I/O	Port 0	
18	/RESET	I	System reset	30	P06	I/O		
19	P53	I/O	Port 5	31	P05	I/O		
20	P52	I/O						
21	P51/TO2	I/O						
22	P50/TI0/TO0	I/O	Port 5/16-bit timer output	32	P04	I/O		
			Port 5/External count clock input to 8-bit timer/8-bit timer output	33	P03	I/O		
				34	P02	I/O		
				35	P01	I/O	Power supply	
				36	P00	I/O		
				37	NC		Ground	
				38	VDD1	I		
				39	VSS1	I		
				40	P17	I/O	Port 1	
				41	P16	I/O		
				42	P15	I/O		
				43	P14	I/O		
				44	P13	I/O		



● HD6417709F80B (XV250B00) CPU

DM: IC100

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION	
1	MD1	I	System clock	105	CKE/PTK[5]	I/O	CK enable (SDRAM)/ I/O port K	
2	MD2	I		106	RAS3L/PTJ[0]	I/O	RAS/ I/O port J	
3	Vcc (RTC)	-	Power supply (3.3 V)	107	RAS2L/PTJ[1]	I/O	RAS/ I/O port J	
4	XTAL2	I	Clock	108	CASLL/CAS/PTJ[2]	I/O	CAS (DRAM)/CAS (SDRAM)/ I/O port J	
5	EXTAL2	O	Clock	109	Vss	-	Ground (0 V)	
6	Vss (RTC)	-	Ground (0 V)	110	CASLH/PTJ[3]	I/O	CAS (DRAM) I/O port J	
7	NMI	I	Interrupt request	111	Vcc	-	Power supply (3.3 V)	
8	IRQ0/IRL0/PTH[0]	I	Interrupt request	112	CASH/PTJ[4]	I/O	CAS (DRAM) I/O port J	
9	IRQ1/IRL1/PTH[1]	I		113	CASHH/PTJ[5]	I/O	CAS (DRAM)/ I/O port J	
10	IRQ2/IRL2/PTH[2]	I		114	DACK0/PTD[5]	I/O	DMAC/ I/O port D	
11	IRQ3/IRL3/PTH[3]	I	Interrupt request	115	DACK1/PTD[7]	I/O	DMAC/ I/O port D	
12	IRQ4/PTH[4]	I		116	CAS2L/PTE[6]	I/O	CAS (DRAM)/ I/O port E	
13	D31/PTB[7]	I/O	Data bus/ I/O port B	117	CAS2H/PTE[3]	I/O	CAS (DRAM) I/O port E	
14	D30/PTB[6]	I/O		118	RAS3U/PTE[2]	I/O	RAS/ I/O port E	
15	D29/PTB[5]	I/O		119	RAS2U/PTE[1]	I/O	RAS/ I/O port E	
16	D28/PTB[4]	I/O		120	PTE[0]	I/O	I/O port E	
17	D27/PTB[3]	I/O		121	BACK	O	System clock	
18	D26/PTB[2]	I/O		122	BREQ	I	System clock	
19	Vss	-	Ground (0 V)	123	WAIT	I	Bus control	
20	D25/PTB[1]	I/O	Interrupt request	124	RESETM	I	Reset	
21	Vcc	-	Power supply (3.3 V)	125	PTH[5]/ADTRG	I	I/O port H/Analog	
22	D24/PTB[0]	I/O	Data bus/ I/O port B	126	IOIS16/PTG[7]	I	Right protect/Input port G	
23	D23/PTA[7]	I/O	Data bus/ I/O port A	127	PTG[6]	I	I/O port G	
24	D22/PTA[6]	I/O		128	PTG[5]	I		
25	D21/PTA[5]	I/O		129	PTG[4]	I		
26	D20/PTA[4]	I/O		130	PTG[3]	I		
27	Vss	-		Ground (0 V)	131	PTG[2]		I
28	D19/PTA[3]	I/O		Data bus/ I/O port A	132	Vss		-
29	Vcc	-	Power supply (3.3 V)	133	PTG[1]	I	I/O port G	
30	D18/PTA[2]	I/O	Data bus/ I/O port A	134	Vcc	-	Power supply (3.3 V)	
31	D17/PTA[1]	I/O		135	PTG[0]	I	I/O port G	
32	D16/PTA[0]	I/O		136	PTF[7]/PINT[15]	I	I/O port F/Port Interrupt request	
33	Vss	-		Ground (0 V)	137	PTF[6]/PINT[14]		I
34	D15	I/O	Data bus	138	PTF[5]/PINT[13]	I		
35	Vcc	-	Power supply (3.3 V)	139	PTF[4]/PINT[12]	I		
36	D14	I/O	Data bus	140	PTF[3]/PINT[11]	I		
37	D13	I/O		141	PTF[2]/PINT[10]	I		
38	D12	I/O		142	PTF[1]/PINT[9]	I		
39	D11	I/O		143	PTF[0]/PINT[8]	I		
40	D10	I/O		144	MD0	I	System clock	
41	D9	I/O		145	Vcc (PLL1)	-	Power supply (3.3 V)	
42	D8	I/O	Data bus	146	CAP1	-	Clock	
43	D7	I/O	Data bus	147	Vss (PLL1)	-	Ground (0 V)	
44	D6	I/O		148	Vss (PLL2)	-	Ground (0 V)	
45	Vss	-		Ground (0 V)	149	CAP2	-	Clock
46	D5	I/O		Data bus	150	Vcc (PLL2)	-	Power supply (3.3 V)
47	Vcc	-		Power supply (3.3 V)	151	PTH[6]	I	I/O port H
48	D4	I/O		Data bus	152	Vss	-	Ground (0 V)
49	D3	I/O	153		Vss	-	Ground (0 V)	
50	D2	I/O	154		Vcc	-	Power supply (3.3 V)	
51	D1	I/O	155		XTAL	O	Clock	
52	D0	I/O	156		EXTAL	I	Clock	
53	A0	O	Address bus		157	STATUS[0]/PTJ[6]	I/O	System clock
54	A1	O		158	STATUS[1]/PTJ[7]	I/O		
55	A2	O		159	TCLK/PTH[7]	I/O	Timer	
56	A3	O		160	IRQOUT	O	Interrupt request	
57	Vss	-	Ground (0 V)	161	Vss	-	Ground (0 V)	
58	A4	O	Address bus	162	CKIO	I/O	Clock	
59	Vcc	-		Power supply (3.3 V)	163	Vcc	-	Power supply (3.3 V)
60	A5	O	Address bus	164	TxD0/SCPT[0]	O	Forward data/Output port for SCI	
61	A6	O		165	SKC0/SCPT[1]	I/O	Serial clock/ I/O port for SCI	
62	A7	O		166	TxD1/SCPT[2]	O	Forward data/Output port for SCI	
63	A8	O		167	SKC1/SCPT[3]	I/O	Serial clock/ I/O port for SCI	
64	A9	O		168	TxD2/SCPT[4]	O	Forward data/Output port for SCI	
65	A10	O		169	SKC2/SCPT[5]	I/O	Serial clock/ I/O port for SCI	
66	A11	O	Address bus	170	RTS2/SCPT[6]	I/O	Transmit request/ I/O port for SCI	
67	A12	O		171	RxD0/SCPT[0]	I	Reception data/Input port for SCI	
68	A13	O		172	RxD1/SCPT[2]	I	Reception data/Input port for SCI	
69	Vss	-		Ground (0 V)	173	Vss	-	Ground (0 V)
70	A14	O		Address bus	174	RxD2/SCPT[4]	I	Reception data/Input port for SCI
71	Vcc	-		Power supply (3.3 V)	175	Vcc	-	Power supply (3.3 V)
72	A15	O	Address bus	176	CTS2/IRQ5/SCPT[7]	I	Transmit clear/Interrupt request/Input port for SCI	
73	A16	O		177	PTC[7]/PINT[7]	I/O	I/O port C/Interrupt request	
74	A17	O		178	PTC[6]/PINT[6]	I/O		
75	A18	O		179	PTC[5]/PINT[5]	I/O		
76	A19	O		180	PTC[4]/PINT[4]	I/O		
77	A20	O		181	Vss	-		Ground (0 V)
78	A21	O	Address bus	182	WAKEUP/PTD[3]	I/O		Interrupt request/ I/O port D
79	Vss	-		Ground (0 V)	183	Vcc	-	Power supply (3.3 V)
80	A22	O	Address bus	184	PTD[2]/RESETOUT	I/O	I/O port D/Reset	
81	Vcc	-		Power supply (3.3 V)	185	PTC[3]/PINT[3]	I/O	I/O port C/Interrupt request
82	A23	O	Address bus	186	PTC[2]/PINT[2]	I/O		
83	Vss	-	Ground (0 V)	187	PTC[1]/PINT[1]	I/O		
84	A24	O	Address bus	188	PTC[0]/PINT[0]	I/O		
85	Vcc	-	Power supply (3.3 V)	189	DRAK0/PTD[1]	I/O	DMA request/ I/O port D	
86	A25	O	Address bus	190	DRAK1/PTD[0]	I/O	DMA request/ I/O port D	
87	BS/PTK[4]	I/O	Bus control/ I/O port K	191	DREQ0/PTD[4]	I	DMA request/ I/O port D	
88	RD	O	Read strobe	192	DREQ1/PTD[6]	I	DMA request/ I/O port D	
89	WE0/DQMLL	O	Select signal/DQM (SDRAM)	193	RESETP	I	System clock	
90	WE1/DQMLU/WE	O	Select signal/DQM (SDRAM)/PCMCIA WE	194	CA	I	System clock	
91	WE2/DQMLUCORP/PTK[6]	I/O	Select signal/DQM (SDRAM)/PCMCIA I/O read/ I/O port K	195	MD3	I	System clock	
92	WE3/DQMLUCORW/PTK[7]	I/O	Select signal/DQM (SDRAM)/PCMCIA I/O write/ I/O port K	196	MD4	I	System clock	
93	RD/WR	O	Read/Write signal	197	MD5	I	System clock	
94	PTE[7]	I/O	I/O port E	198	AVss	-	Analog ground (0 V)	
95	Vss	-	Ground (0 V)	199	AN[0]/PTL[0]	I	A/D change input/Input port L	
96	CS0	O	Chip select	200	AN[1]/PTL[1]	I		
97	Vcc	-	Power supply (3.3 V)	201	AN[2]/PTL[2]	I		
98	CS2/PTK[0]	I/O	Chip select/ I/O port K	202	AN[3]/PTL[3]	I		
99	CS3/PTK[1]	I/O	Chip select/ I/O port K	203	AN[4]/PTL[4]	I		
100	CS4/PTK[2]	I/O	Chip select/ I/O port K	204	AN[5]/PTL[5]	I		
101	CS5/CE1A[3]	I/O	Chip select/CE1/ I/O port K	205	AVcc	-	Analog power supply (3.3 V)	
102	CS6/CE1B	O	Chip select/CE1	206	AN[6]/DA[1]/PTL[6]	I/O	A/D change input/D/A change output/Input port L	
103	CE2A/PTE[4]	I/O	Chip enable/ I/O port E	207	AN[7]/DA[0]/PTL[7]	I/O		
104	CE2B/PTE[5]	I/O	Chip enable/ I/O port E	208	AVss	-	Analog ground (0 V)	

## ● HG73C205AFD (XU947C00) SWX00B (Tone Generator)

DM: IC801

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	ICN	I	Initial clear	85	CMA3	O	Program address bus
2	RFCLKI	I	PLL Clock	86	CMA8	O	Program address bus
3	TM2	I	PLL Control	87	CMA2	O	Program address bus
4	AVDD_PLL		Power supply	88	CRD	O	read signal
5	AVSS_PLL		Ground	89	CMA1	O	Program address bus
6	MODE0	I	SWX dual mode	90	CUB	O	high byte effective signal
7	VCC7		Power supply	91	VCC91		Power supply
8	GND8		Ground	92	GHND92		Ground
9	XIN	I	crystal oscillator	93	CS1	O	CS signal
10	XOUT	O	crystal oscillator	94	CMA0	O	Program address bus
11	MODE1	I	SWX separate mode	95	CLB	O	low byte effective signal
12	TEST0	I	TEST pin	96	CMA12	O	Program address bus
13	TESTON	I	TEST pin	97	CMA11	O	Program address bus
14	AN0-P40	I	A/D converter	98	CMA10	O	Program address bus
15	AN1-P41	I	A/D converter	99	CMA9	O	Program address bus
16	AN2-P42	I	A/D converter	100	GND100		Ground
17	AN3-P43	I	A/D converter	101	CWE	O	write signal
18	AVDD_AN		Power supply	102	CMA16	O	Program address bus
19	AVSS_AN		Ground	103	CMA15	O	Program address bus
20	TXD0	O	for MIDI or TO-HOST	104	CMA14	O	Program address bus
21	TXD1	O	for MIDI	105	CMA13	O	Program address bus
22	EXCLK	I	Crystal oscillator	106	CMD8	I/O	Program memory Data bus
23	SMD11	I/O	Wave memory data bus	107	CMD7	I/O	Program memory Data bus
24	SMD4	I/O	Wave memory data bus	108	CMD9	I/O	Program memory Data bus
25	SMD3	I/O	Wave memory data bus	109	CMD6	I/O	Program memory Data bus
26	SMD12	I/O	Wave memory data bus	110	CMD10	I/O	Program memory Data bus
27	SMD10	I/O	Wave memory data bus	111	CMD5	I/O	Program memory Data bus
28	SMD5	I/O	Wave memory data bus	112	CMD11	I/O	Program memory Data bus
29	SMD2	I/O	Wave memory data bus	113	CMD4	I/O	Program memory Data bus
30	SMD13	I/O	Wave memory data bus	114	CMD12	I/O	Program memory Data bus
31	SMD9	I/O	Wave memory data bus	115	CMD3	I/O	Program memory Data bus
32	SMD6	I/O	Wave memory data bus	116	CMD13	I/O	Program memory Data bus
33	SMD1	I/O	Wave memory data bus	117	CMD2	I/O	Program memory Data bus
34	SMD14	I/O	Wave memory data bus	118	CMD14	I/O	Program memory Data bus
35	VCC35		Power supply	119	VCC119		Power supply
36	GND36		Ground	120	GND115		Ground
37	SMD8	I/O	Wave memory data bus	121	CMD1	I/O	Program memory Data bus
38	SMD7	I/O	Wave memory data bus	122	CMD15	I/O	Program memory Data bus
39	SMD0	I/O	Wave memory data bus	123	CMD0	I/O	Program memory Data bus
40	SMD15	I/O	Wave memory data bus	124	CMA21	O	Program address bus
41	SOE	O	read signal	125	PDT15	I/O	SWX access data bus
42	SWE	O	write signal	126	PDT14	I/O	SWX access data bus
43	SRAS	O	RAS signal	127	PDT13	I/O	SWX access data bus
44	SCAS	O	CAS signal	128	PDT12	I/O	SWX access data bus
45	REFRESH	O	REFRESH signal	129	PDT11	I/O	SWX access data bus
46	CS0	O	CS signal	130	PDT10	I/O	SWX access data bus
47	SMA0	O	Memory address bus	131	PDT9	I/O	SWX access data bus
48	SMA16	O	Memory address bus	132	PDT8	I/O	SWX access data bus
49	VCC49		Power supply	133	VCC133		Power supply
50	GND50		Ground	134	GND134		Ground
51	SMA1	O	Memory address bus	135	PDT7	I/O	SWX access data bus
52	SMA15	O	Memory address bus	136	PDT6	I/O	SWX access data bus
53	SMA2	O	Memory address bus	137	PDT5	I/O	SWX access data bus
54	SMA14	O	Memory address bus	138	PDT4	I/O	SWX access data bus
55	SMA3	O	Memory address bus	139	PDT3	I/O	SWX access data bus
56	SMA13	O	Memory address bus	140	PDT2	I/O	SWX access data bus
57	SMA4	O	Memory address bus	141	PDT1	I/O	SWX access data bus
58	SMA12	O	Memory address bus	142	PDT0	I/O	SWX access data bus
59	SMA5	O	Memory address bus	143	VCA143		Power supply
60	GND60		Ground	144	GND144		Ground
61	VCC61		Power supply	145	PAD2	I	SWX access address bus
62	SMA11	O	Memory address bus	146	PAD1	I	SWX access address bus
63	SMA6	O	Memory address bus	147	PAD0	I	SWX access address bus
64	SMA10	O	Memory address bus	148	VCC148		Power supply
65	SMA7	O	Memory address bus	149	GND149		Ground
66	SMA9	O	Memory address bus	150	PCS	I	Chip select
67	SMA17	O	Memory address bus	151	PWR	I	write enable
68	SMA8	O	Memory address bus	152	PRD	I	read enable
69	SMA18	O	Memory address bus	153	RXD0	I	for Midi or TO-HOST
70	SMA19	O	Memory address bus	154	RXD1	I	for Midi or Key scan
71	SMA20	O	Memory address bus	155	SCLKI	I	EXT Clock
72	SMA21	O	Memory address bus	156	ADIN	I	A/D converter
73	SMA22	O	Memory address bus	157	ADLR	O	A/D converter LR clock
74	SMA23	O	Memory address bus	158	DO0	O	DAC
75	CMA20	O	Program address bus	159	DO1	O	DAC
76	CMA19	O	Program address bus	160	SYSCLK	O	1/2 clock
77	VCC77		Power supply	161	VCC161		Power supply
78	GND78		Ground	162	GND162		Ground
79	CMA18	O	Program address bus	163	WLCK	O	for DAC LR clock
80	CMA17	O	Program address bus	164	QCLK	O	1/12 clock
81	CMA5	O	Program address bus	165	BCLK	O	IIS-DAC clock
82	CMA6	O	Program address bus	166	SYI	I	Synch signal
83	CMA4	O	Program address bus	167	IRQ0	I	Interrupt request
84	CMA7	O	Program address bus	168	NMI	I	Interrupt request

● **S1D13305F00B100** (XQ595A00) **LCDC** (LCD Controller)

DM: IC500

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	VA5	O	VRAM address bus	31	XD2	O	Data bus output for 4 bit dot
2	VA4	O		32	XD1	O	
3	VA3	O		33	XD0	O	S driver enable, chain clock
4	VA2	O		34	XECL	O	
5	VA1	O		35	XSCL	O	Data bus shift clock
6	VA0	O		36	Vss	-	Ground
7	/VWR	O	VRAM read/write	37	LP	O	X driver latch pulse
8	/VCE	O	Memory control	38	WF	O	Frame signal for X/Y driver
9	/VRD	-	Not used	39	YDIS	O	Power down signal for displaying off mode
10	/RES	I	Initial clear	40	YD	O	Scan start signal
11	NC	-	Not used	41	YSCL	O	Scan shift clock
12	NC	-	Not used	42	VD7	I/O	VRAM data bus
13	/RD	I	Read strobe	43	VD6	I/O	
14	/WR	I	Write strobe	44	VD5	I/O	
15	SEL2	I	Bus select	45	VD4	I/O	
16	SEL1	I	Bus select	46	VD3	I/O	
17	OSC1	I	Clock	47	VD2	I/O	
18	OSC2	O	Clock	48	VD1	I/O	
19	/CS	I	Chip select	49	VD0	I/O	VRAM address bus
20	A0	I	Data mode select	50	VA15	O	
21	Vdd	-	Power supply	51	VA14	O	
22	D0	I/O	Data bus	52	VA13	O	
23	D1	I/O		53	VA12	O	
24	D2	I/O		54	VA11	O	
25	D3	I/O		55	VA10	O	
26	D4	I/O		56	VA9	O	
27	D5	I/O		57	VA8	O	
28	D6	I/O		58	VA7	O	
29	D7	I/O	59	VA6	O	Not used	
30	XD3	O	Data bus output for 4 bit dot	60	NC		-

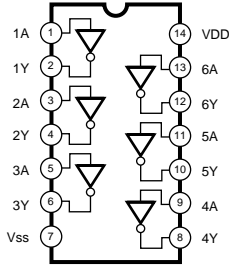
● **AD1854JRSRL** (XY782A00) **DAC** (Digital to Analog Converter)

DM: IC700

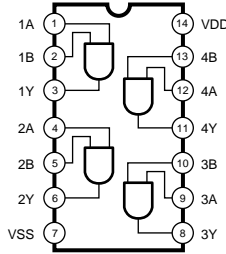
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	DGND	I	Digital Ground	15	AGND	I	Analog Ground
2	MCLK	I	Master Clock Input. Connect to an external clock source at either 256, 384 or 512 Fs.	16	OUTL-	O	Left Channel Negative line level analog output.
3	CLATCH	I	Latch input for control data. This input is rising-edge sensitive.	17	OUTL+	O	Left Channel Positive line level analog output.
4	CCLK	I	Control clock input for control data. Control input data must be valid on the rising edge of CCLK. CCLK may be continuous or gated.	18	AVDD	I	Analog Power Supply. Connect to analog 5 V supply.
5	CDATA	I	Serial control input, MSB first, containing 16 bits of unsigned data per channel. Used for specifying channel-specific attenuation and mute.	19	FILTB	O	Filter Capacitor connection, connect 10 $\mu$ F capacitor to AGND.
6	384//256	I	Selects the master clock mode as either 384 times the intended sample frequency (HI) or 256 times the intended sample frequency (LO). The state of this input should be hardwired to logic HI or logic LO, or may be changed while the AD1854 is in power-down/reset. It must not be changed while the AD1854 is operational.	20	IDPM1	I	Input serial data port mode control one. With IDPM0, defines one of four serial modes.
7	X2MCLK	I	Selects internal clock doubler (LO) or internal clock = MCLK (HI).	21	IDPM0	I	Input serial data port mode control zero. With IDPM1, defines one of four serial modes.
8	ZEROR	O	Right Channel Zero Flag Output. This pin goes HI when Right Channel has no signal input for more than 1024 LR Clock Cycles.	22	ZEROL	O	Left Channel Zero Flag Output. This pin goes HI when Left Channel has no signal input for more than 1024 LR Clock Cycles.
9	DEEMP	I	De-Emphasis. Digital de-emphasis is enabled when this input signal is HI. This is used to impose a 50 $\mu$ s/15 $\mu$ s response characteristic on the output audio spectrum at an assumed 44.1 kHz sample rate.	23	MUTE	I	Mute. Assert HI to mute both stereo analog outputs. Deassert LO for normal operation.
10	96//48	I	Selects 48 kHz (LO) or 96 kHz Sample Frequency Control.	24	/PD//RST	I	/Power-Down//Reset. The AD1854 is placed in a low power consumption mode when this pin is held LO. The AD1854 is reset on the rising edge of this signal. The serial control port registers are reset to the default values. Connect HI for normal operation.
11	AGND	I	Analog Ground	25	L//RCLK	I	Left/Right clock input for input data. Must run continuously.
12	OUTR+	O	Right Channel Positive line level analog output.	26	BCLK	I	Bit clock input for input data. Need not run continuously; may be gated or used in a burst fashion.
13	OUTR-	O	Right Channel Negative line level analog output.	27	SDATA	I	Serial input, MSB first, containing two channels of 16, 18, 20, and 24 bits of twos complement data per channel.
14	FILTR	O	Voltage Reference Filter Capacitor Connection. Bypass and decouple the voltage reference with parallel 10 $\mu$ F and 0.1 $\mu$ F capacitors to the AGND.	28	DVDD	I	Digital Power Supply Connect to digital 5 V supply.

## IC BLOCK DIAGRAM

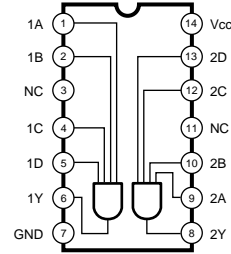
- **SN74HCU04NSR** (XW842A00)  
**SN74HCU04N** (IG142250)  
Hex Inverter  
DM: IC510, 511  
AM: IC301



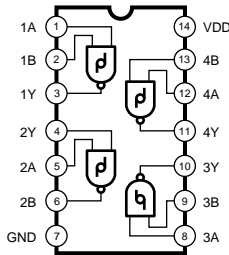
- **HD74LV08AFPEL** (IS000800)  
Quad 2 Input AND  
DM: IC101



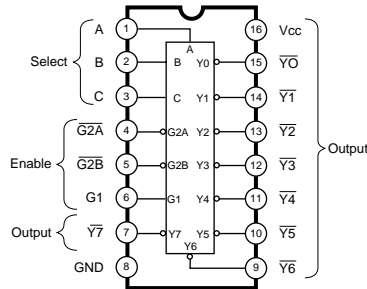
- **HD74LV21ATELL** (X0010A00)  
Dual 4 Input AND  
DM: IC310



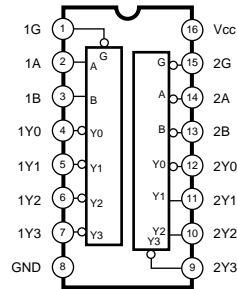
- **SN74HC132NSR** (XW792A00)  
**MM74HC132SJX** (XY352A00)  
Quad 2 Input NAND  
DM: IC914



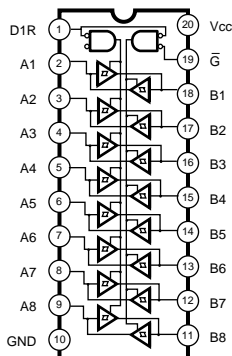
- **SN74HCT138NSR** (XY865A00)  
3 to 8 Demultiplexer  
DM: IC600



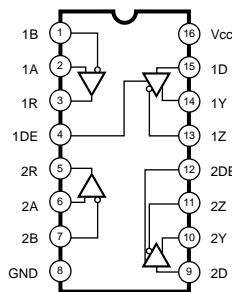
- **HD74LVC139FPEL** (XS048A00)  
Dual 2 to 4 Demultiplexer  
DM: IC308



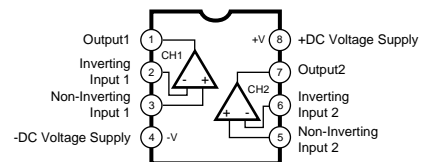
- **HD74LV245ATELL** (XW744A00)  
**74LVC245APW** (XZ286A00)  
**TC74VHCT245AFT** (XT744A00)  
Octal 3-State Bus Transceiver  
DM: IC103, 104, 301-303, 304-306, 911



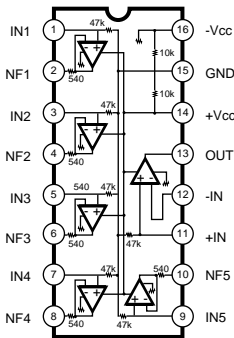
- **SN75C1168N** (XU463A00)  
Line Driver/Receiver  
AM: IC307



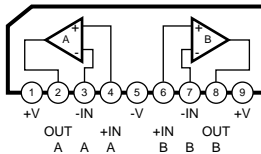
- **M5233FP-600D** (X0506A00)  
Comparator  
DM: IC913



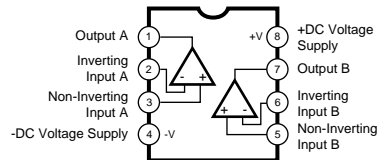
- **M5227P** (XF751A00)  
5-Band Graphic Equalizer  
AM: IC104, 105



- **μPC4570HA** (XB247A00)  
Dual Operational Amplifier  
AM: IC100, 102, 107, 108, 111, 112



- **μPC4570G2** (XF291A00)  
Dual Operational Amplifier  
DM: 702, 703



## ■ CIRCUIT BOARDS CONTENTS

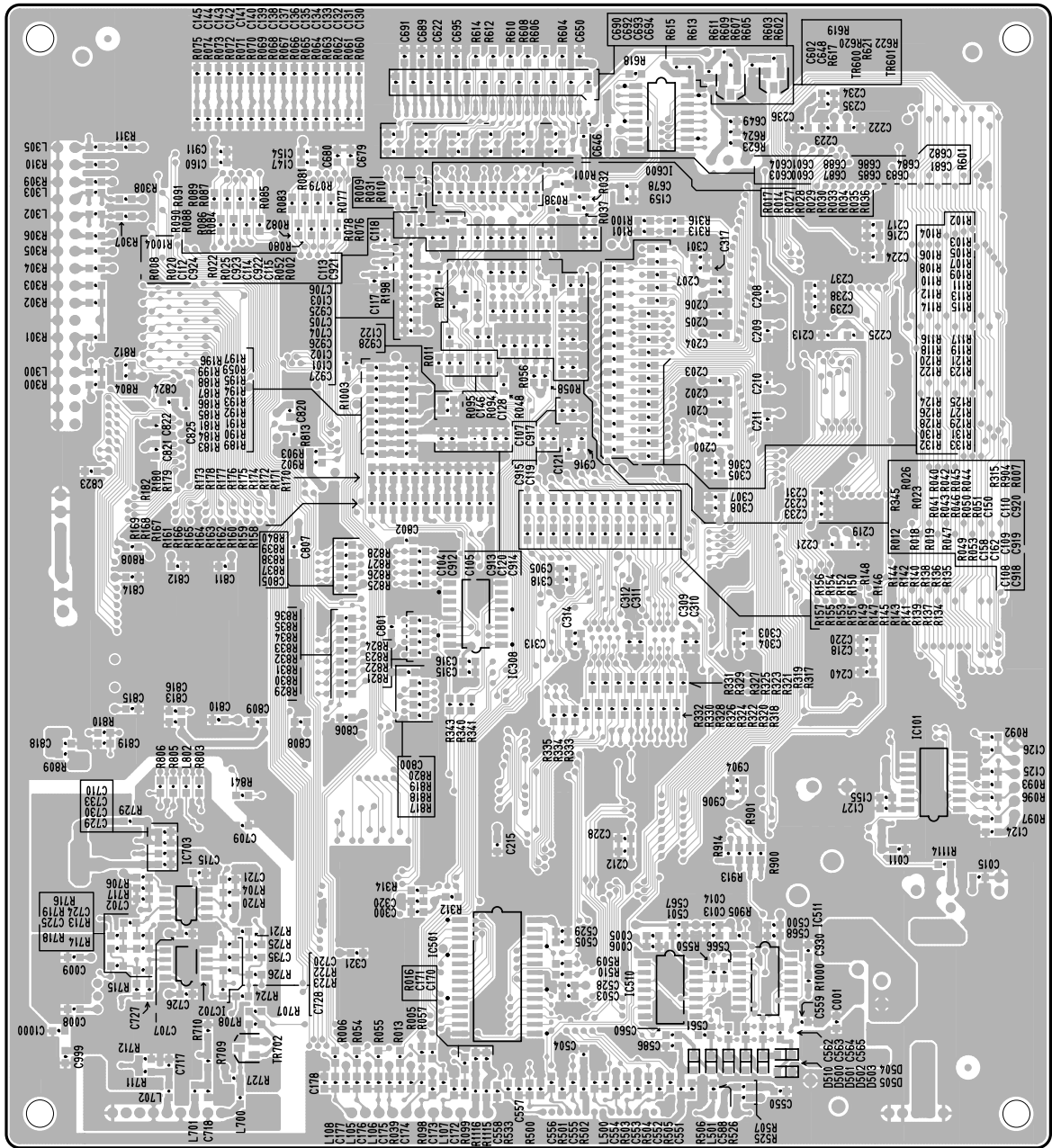
AM (X0189D0) .....	28
DM (X0128D) .....	18/19
ENC (X2616B0) .....	21/22
HP (X0189D0) .....	30
INV (XW193B0) .....	29
MK-H (XR565B0) .....	32
MK-L (XR564B0) .....	31
MKS5F (X2002A0) .....	31

PB1 (X2617B0) .....	24/27
PN1 (X2616B0) .....	20/22
PN2 (X02616B0) .....	20/23
PN3 (X2617B0) .....	24/26
PN4 (X2617B0) .....	24/27
SW (X0189D0) .....	30
VR (X0189D0) .....	28

**Note:** See parts list for details of circuit board component parts.

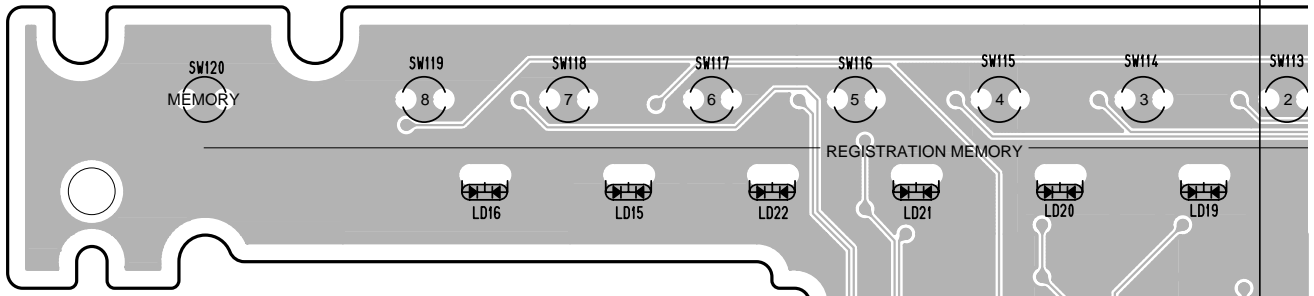


● DM Circuit Board

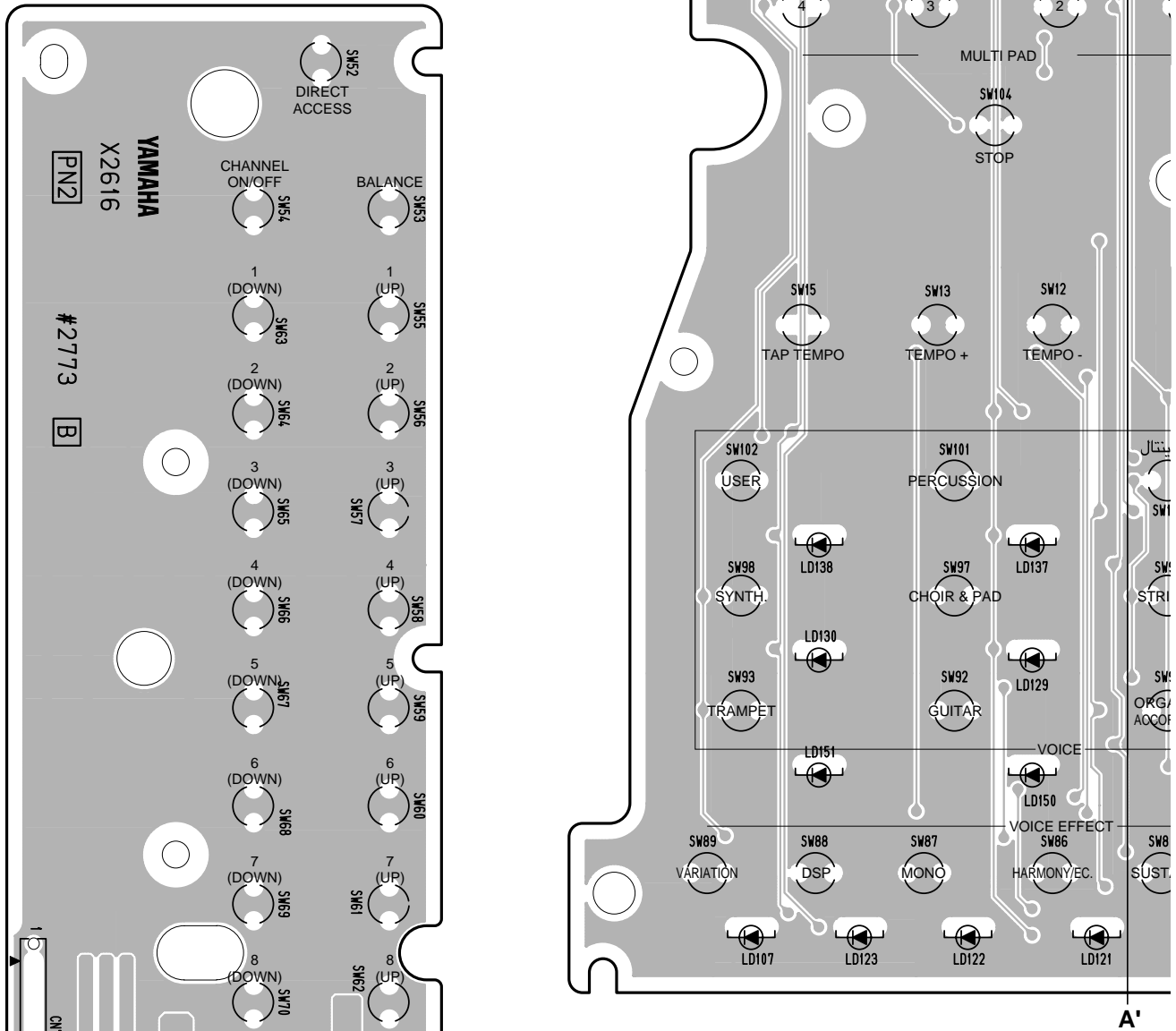


Pattern side

● PN1 Circuit Board

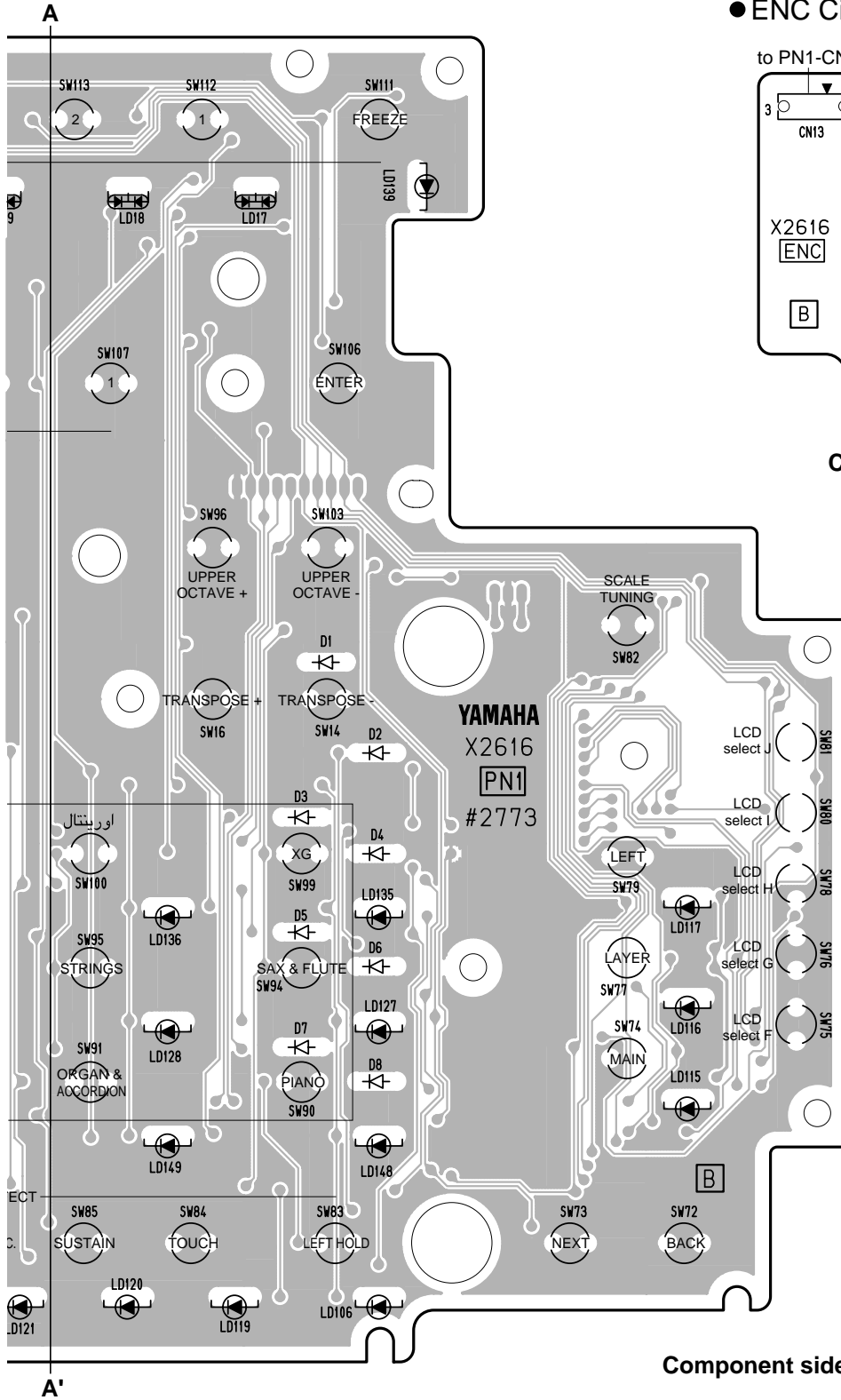


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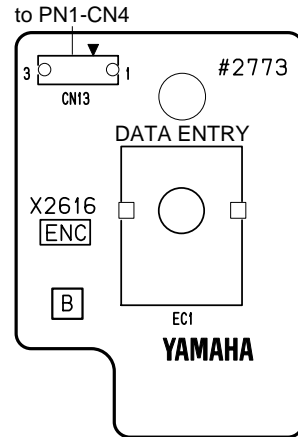


PN1, PN2: 2NA-V922220





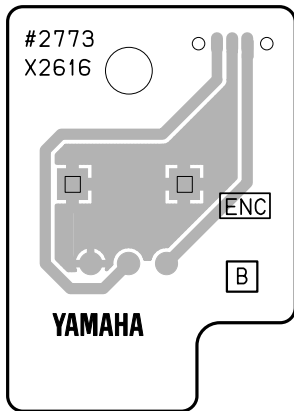
● ENC Circuit Board



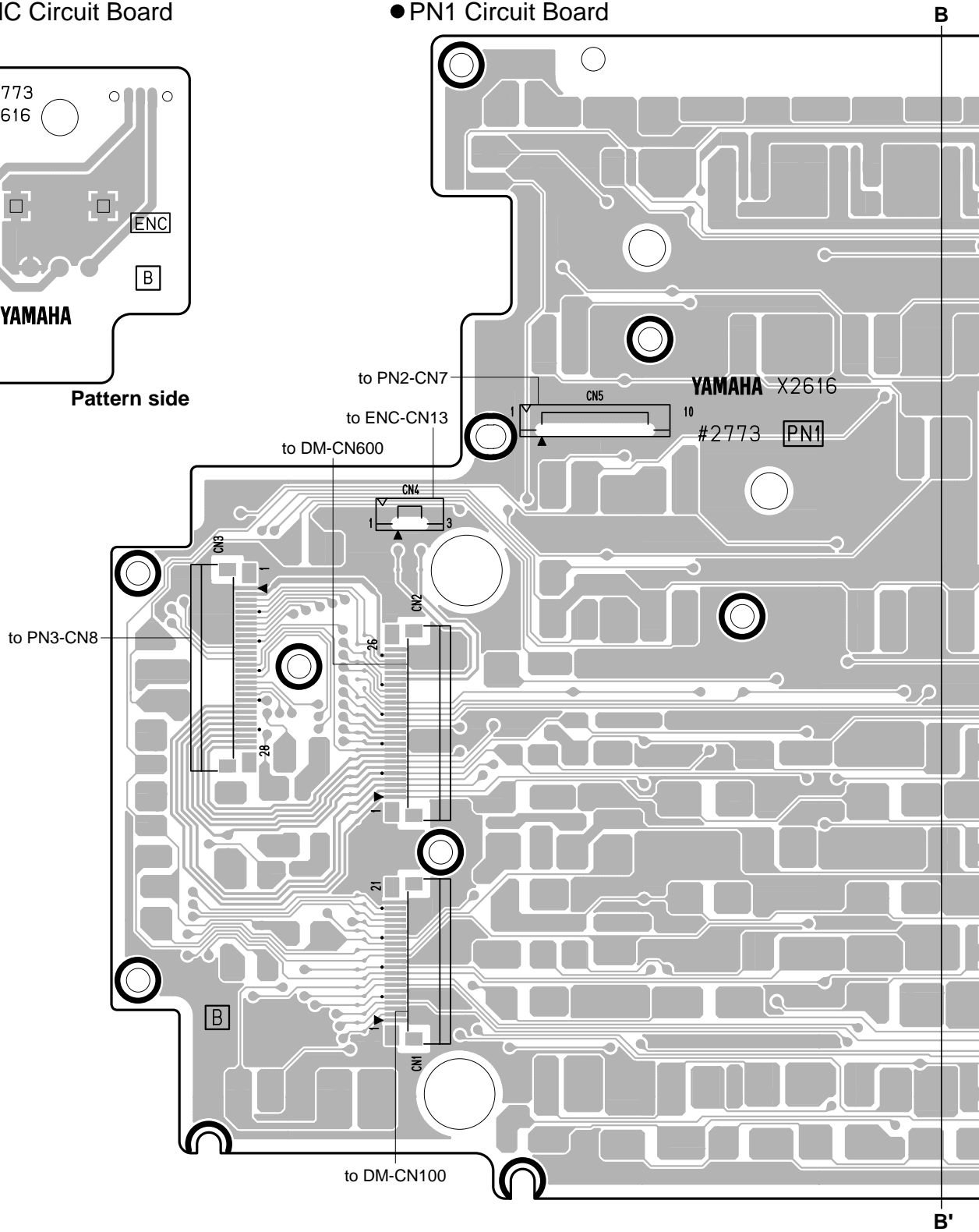
Component side

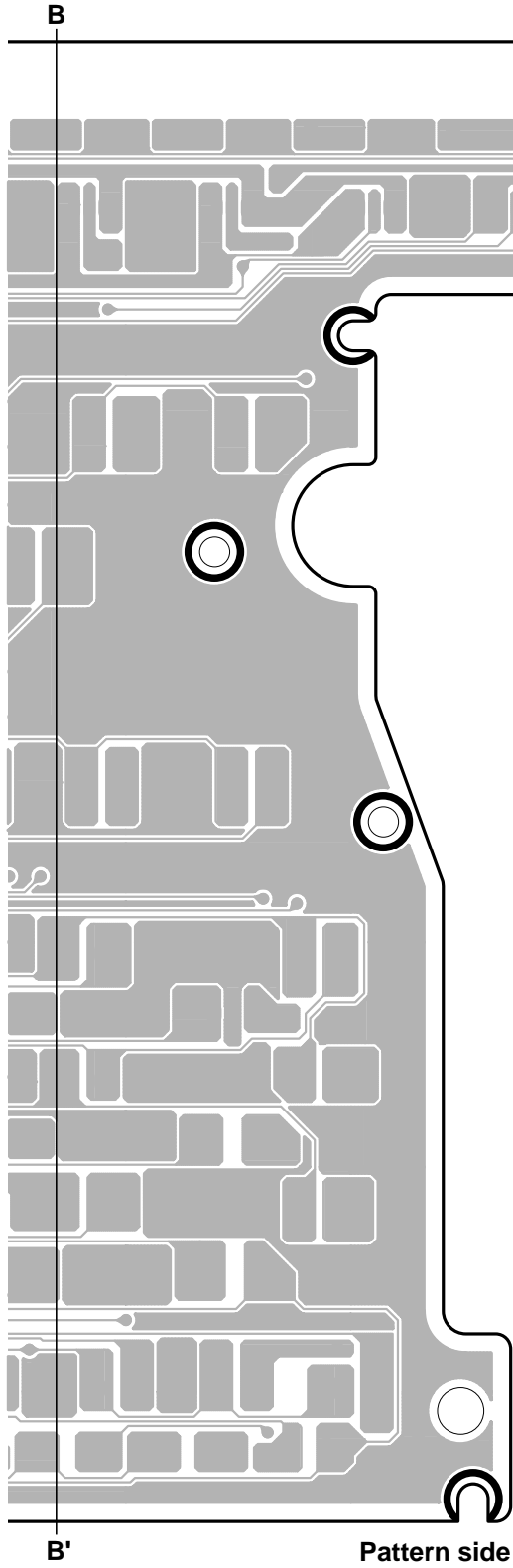
Component side

● ENC Circuit Board

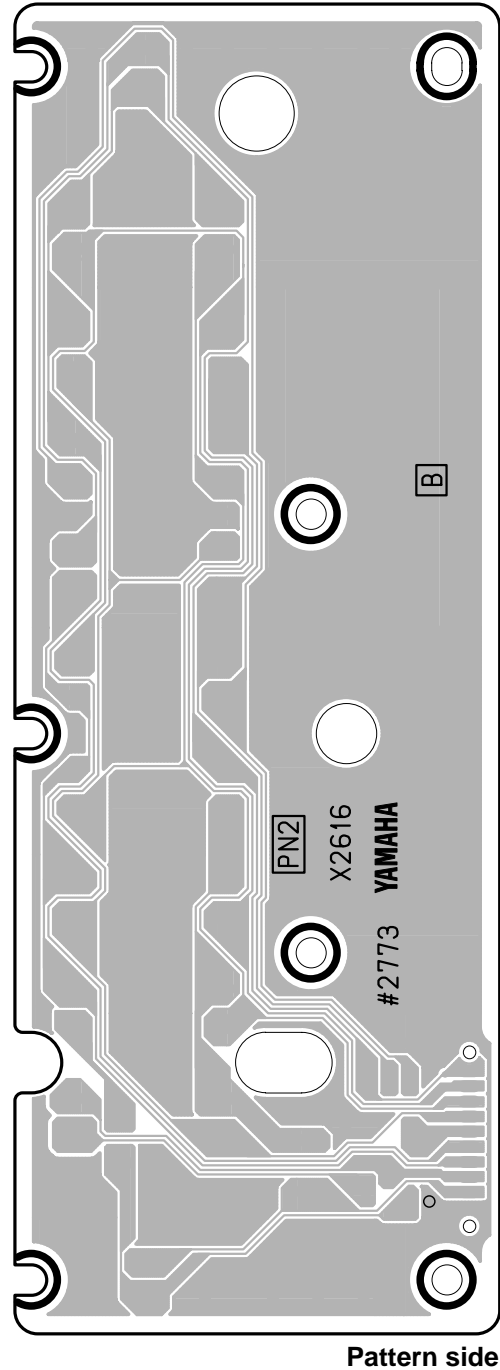


● PN1 Circuit Board



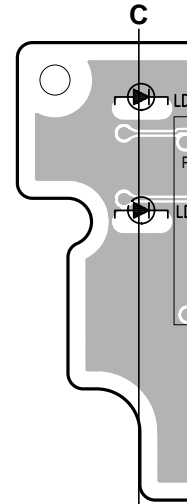
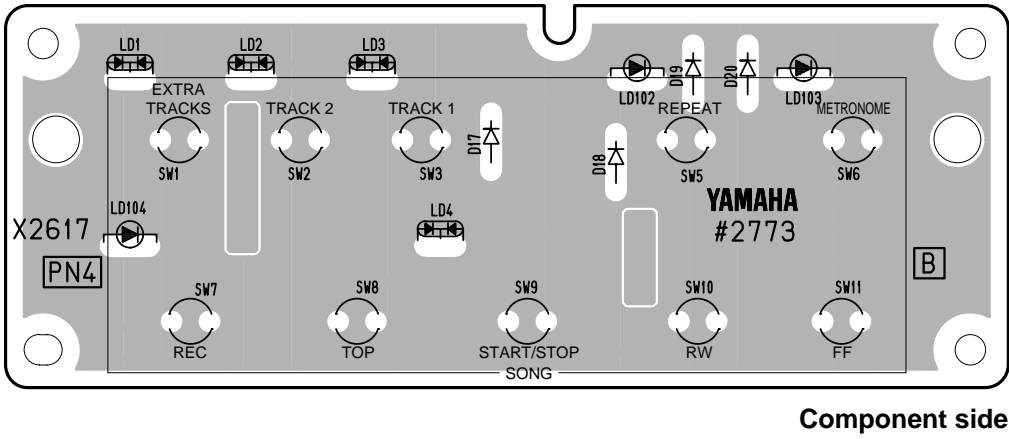


● PN2 Circuit Board

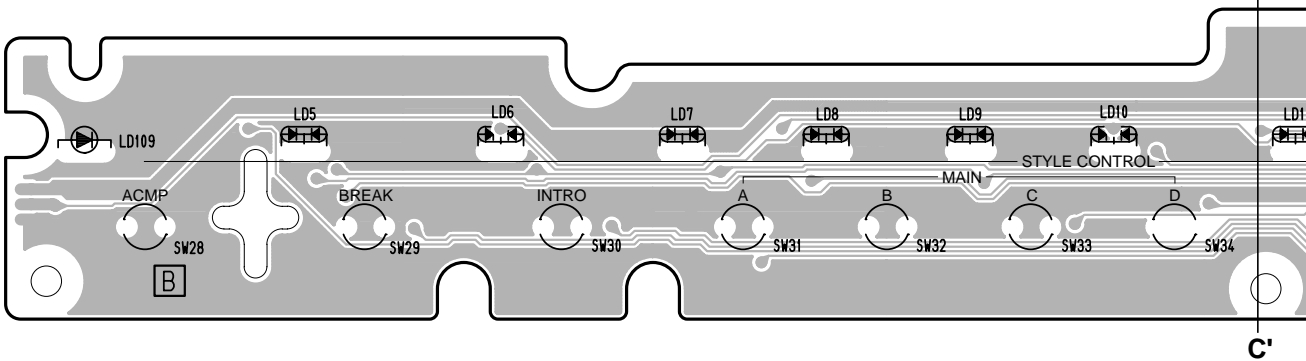


PN1, PN2: 2NA-V922220

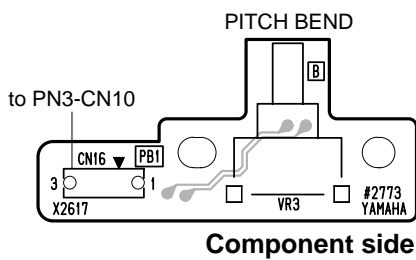
● PN4 Circuit Board



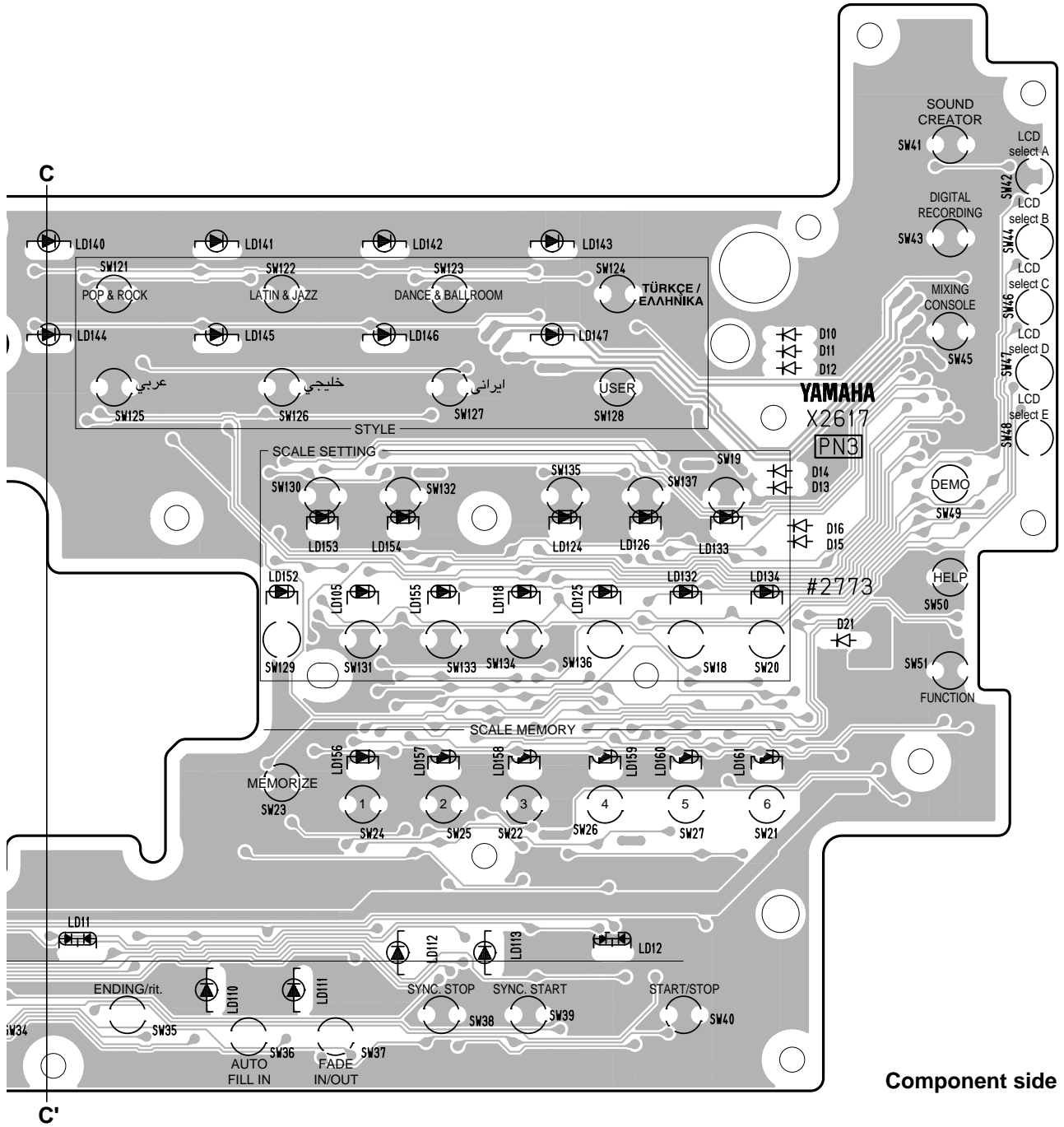
● PN3 Circuit Board



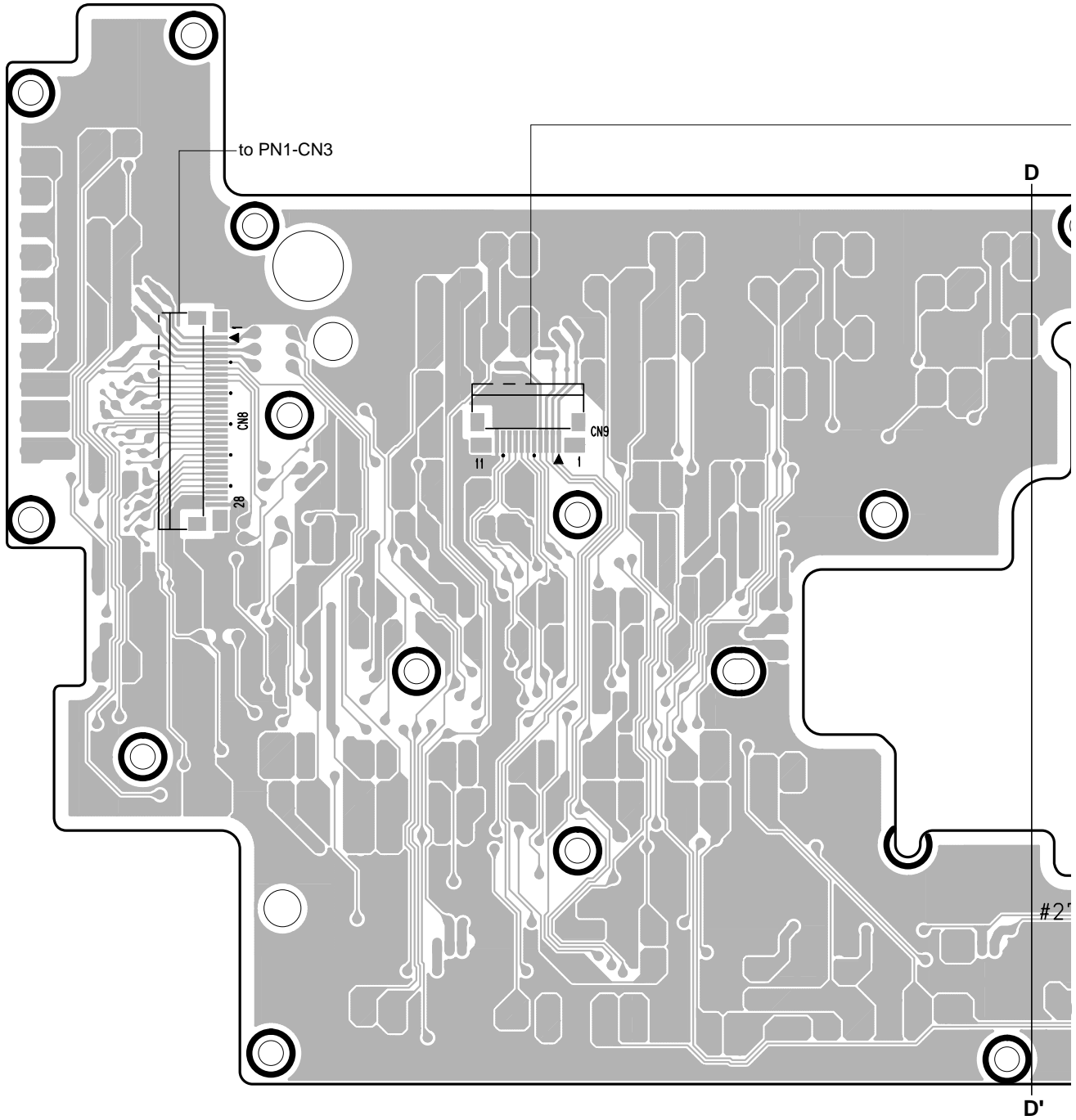
● PB1 Circuit Board



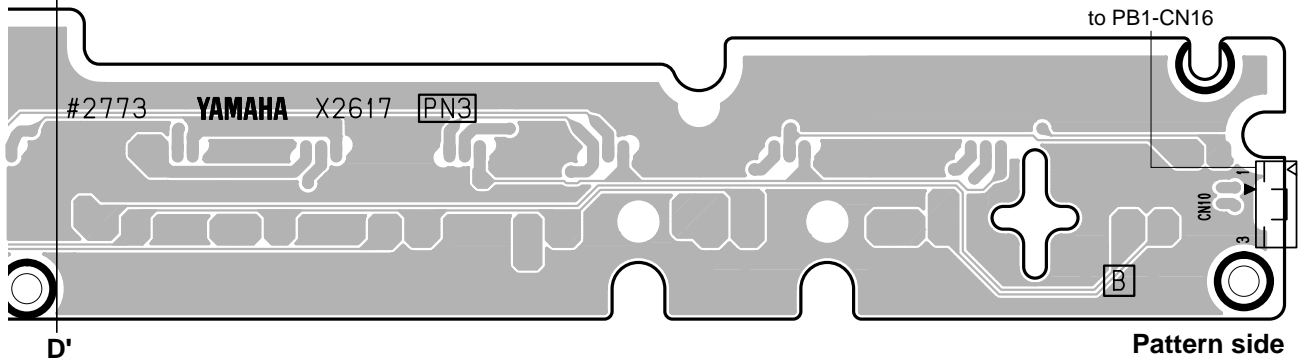
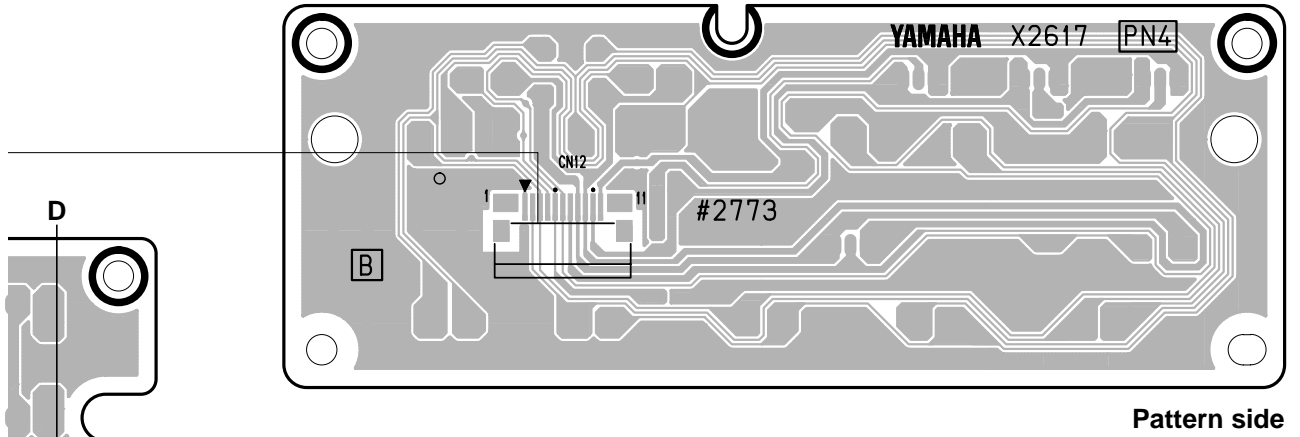
PN3, PN4, PB1: 2NA-V922230



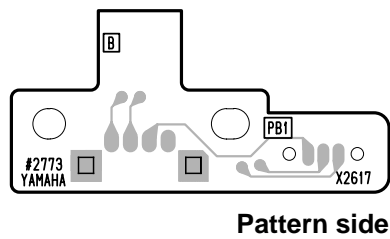
● PN3 Circuit Board



● PN4 Circuit Board

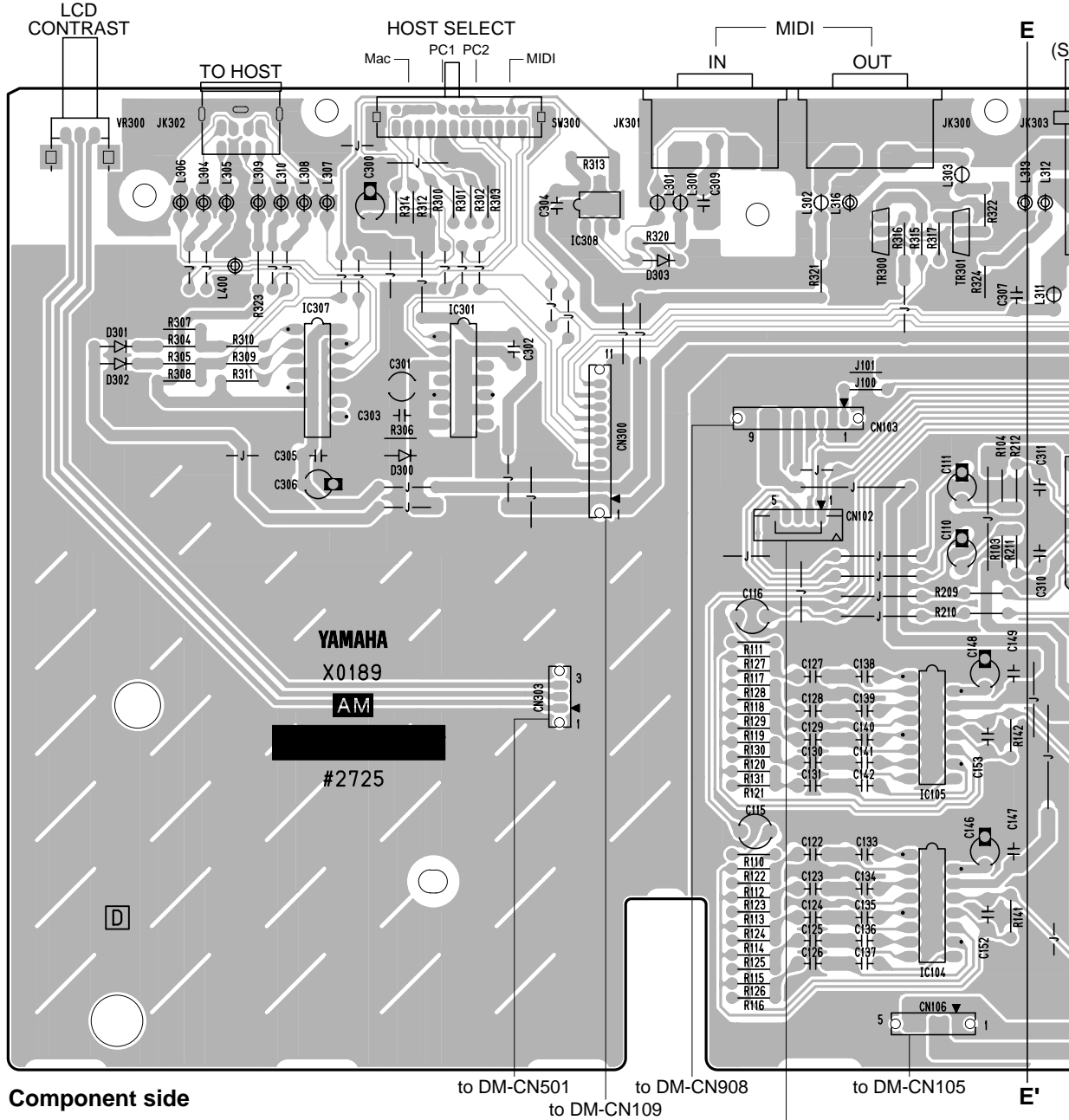


● PB1 Circuit Board

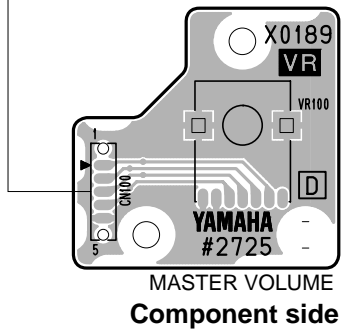


PN3, PN4, PB1: 2NA-V922230

● AM Circuit Board

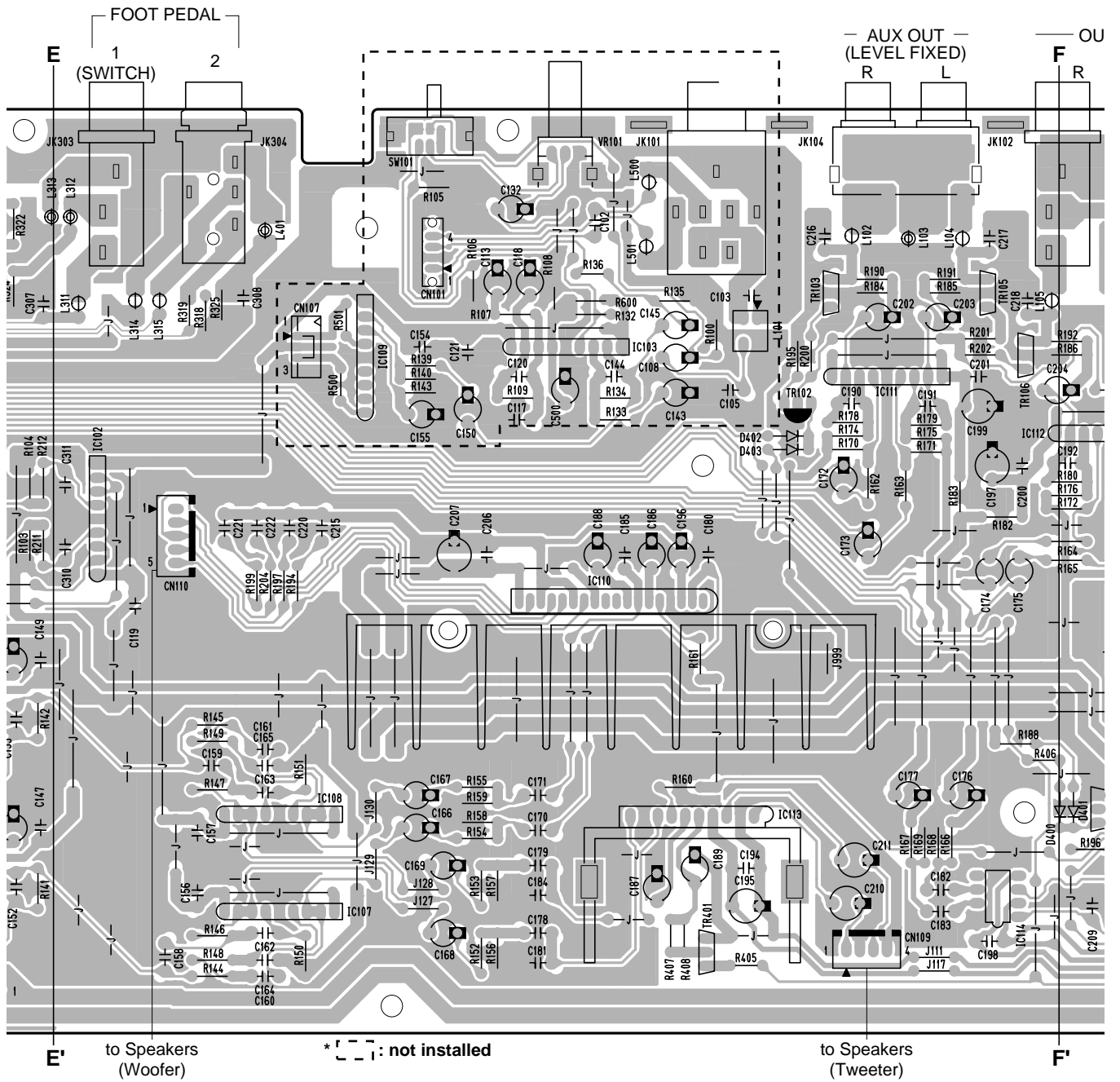


● VR Circuit Board

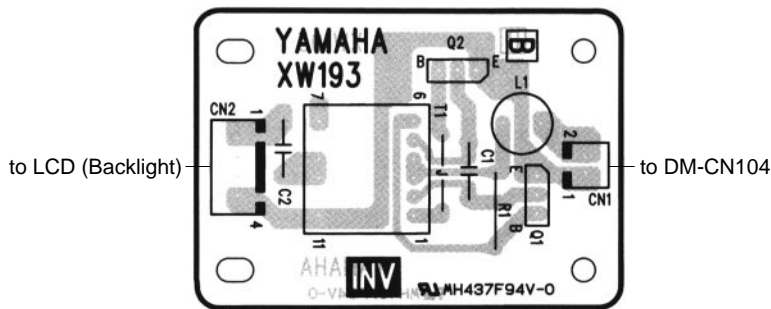


AM, VR: 2NA-V756840



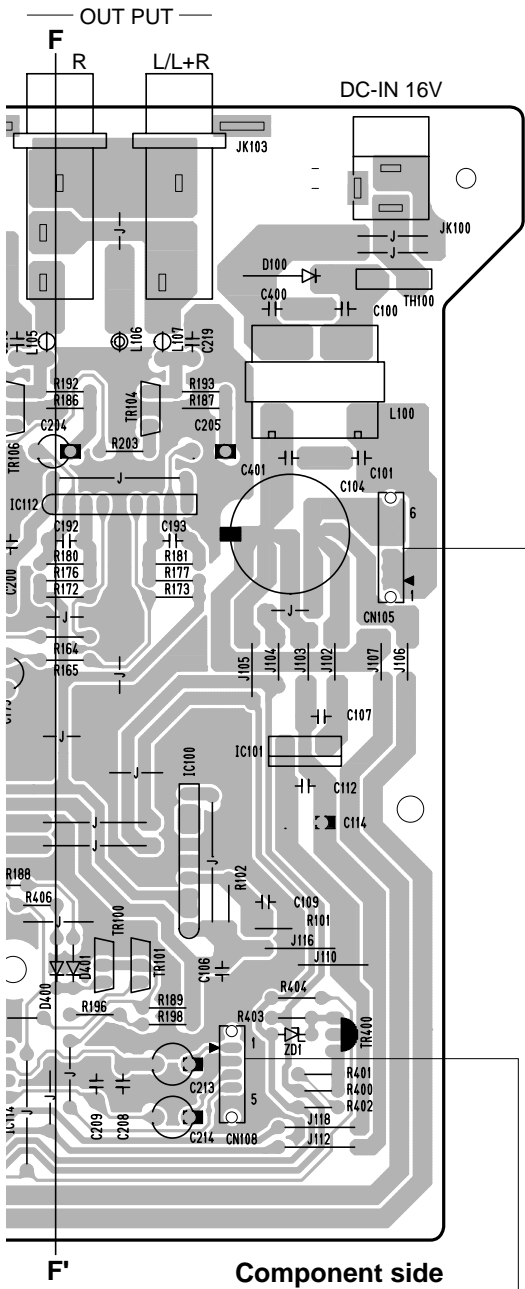


● INV Circuit Board

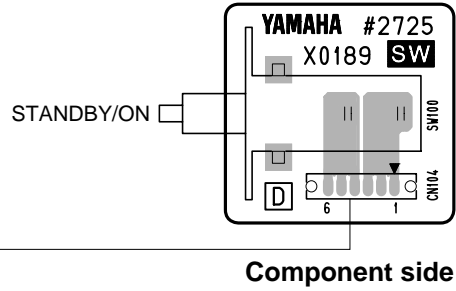


Component side

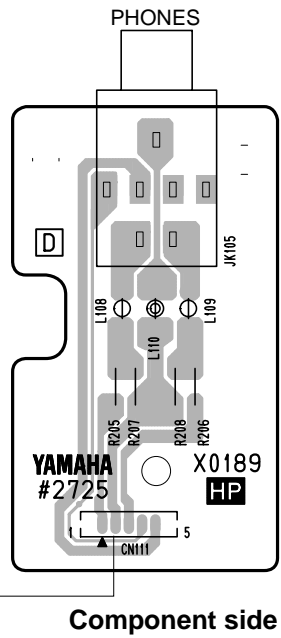
AM: 2NA-V756840  
 INV: 2NA-V420050



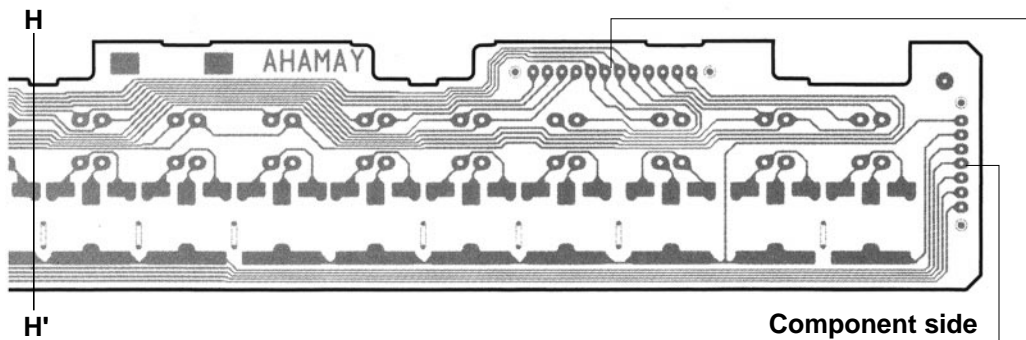
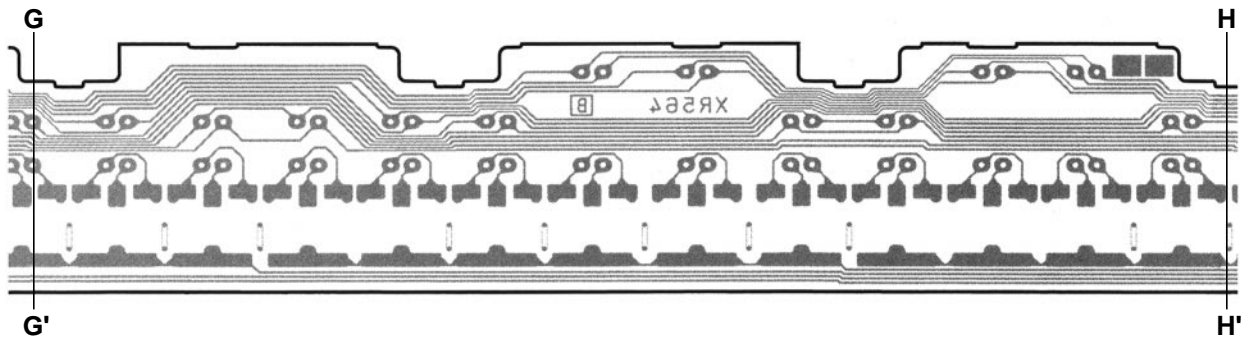
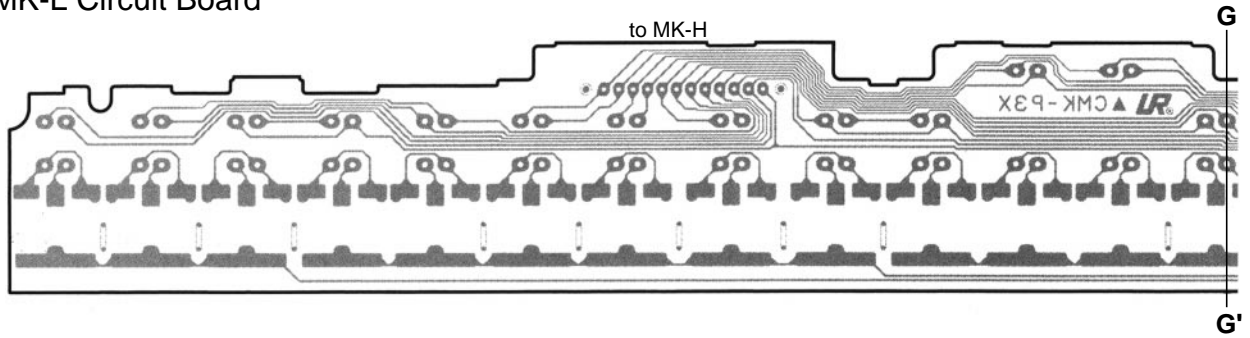
● SW Circuit Board



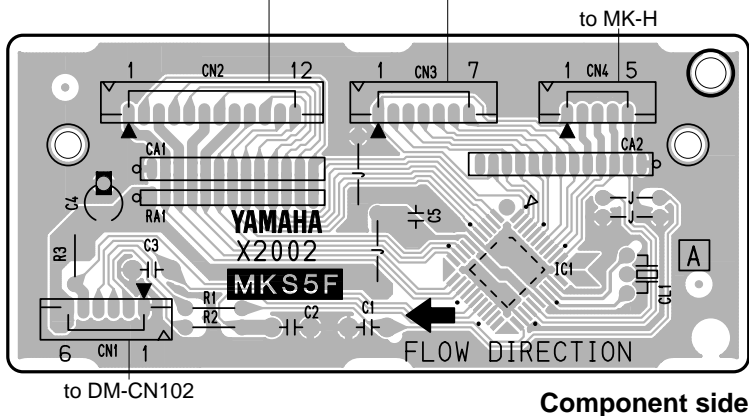
● HP Circuit Board



● MK-L Circuit Board

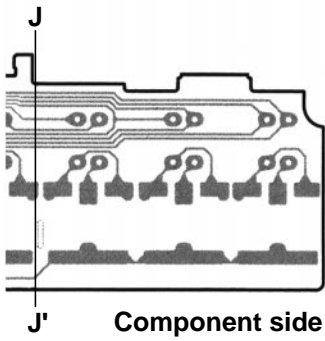
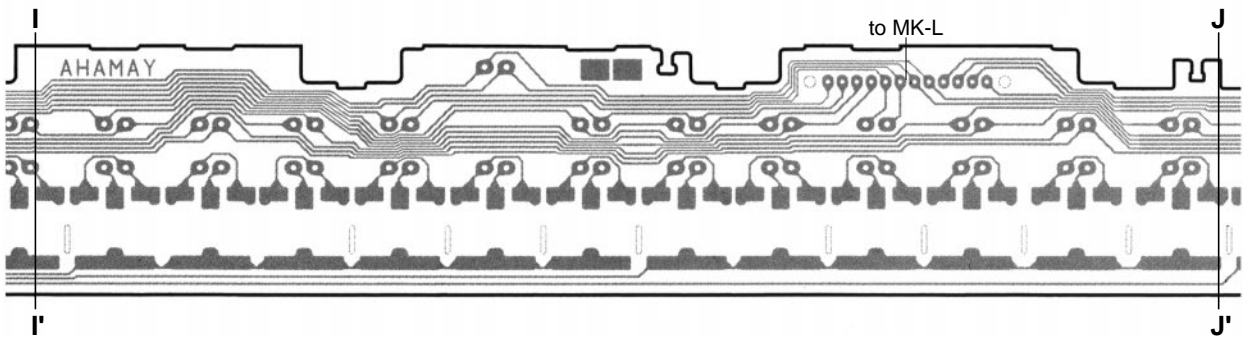
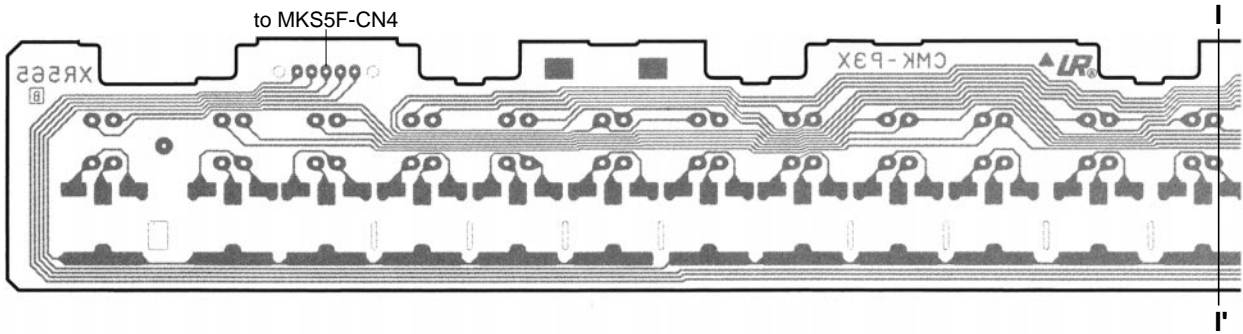


● MKS5F Circuit Board



MK-L: 2NA-VV58380  
 MKS5F: 2NAKZ-V814260

● MK-H Circuit Board





No.	LCD (initial)	Test Function and Judgment criteria
17	017: Output L Check	Connect the level meter (with a JIS-C filter) to each terminal (PHONES, OUTPUT L/L+R, R, AUX OUT L, R). Set the [MASTER VOLUME] at MAX and check the L channel output level. (1 kHz sine wave, PAN=L) (PHONES L, R: 33 ohm load OUTPUT L/L+R, R: 10 kohm load AUX OUT L, R: 10 kohm load) <b>PHONES L:</b> +3.5 dBm +/- 2 dB <b>PHONES R:</b> less than -30.0 dBm <b>OUTPUT L/L+R:</b> +13.5 dBm +/- 2 dBm <b>OUTPUT R:</b> less than -50.0 dBm <b>AUX OUT L:</b> +9.1 dBm +/- 2 dB <b>AUX OUT R:</b> less than -60.0 dBm
18	018: EQ Low Check	Check the sine wave output of EQ-Low frequency at about 65.4 Hz (C1). (PAN=Center)
19	019: EQ Mid Check	Check the sine wave output of EQ-Mid frequency at about 523 Hz (C4). (PAN=Center)
20	020: EQ High Check	Check the sine wave output EQ-High frequency at about 4186 Hz (C7). (PAN=Center)
22	022: D/A Noise Check	Checks D/A converter noise. Connect the level meter (with a JIS-C filter) to each terminal (PHONES, OUTPUT L/L+R, R, AUX OUT L, R). Set the [MASTER VOLUME] at MAX and check the noise level. <b>PHONES L, R:</b> less than -75.0 dBm <b>OUTPUT L/L+R, R:</b> less than -70.0 dBm <b>AUX OUT L, R:</b> less than -70.0 dBm
23	023: SW, LED Check	Check the switches on the panel and LED. Press the switches on the LCD as instructed. A pre-assigned note is output when the switch is pressed. (See table 1). When the switch with LED is pressed, that LED will light up. As the check result appears on the LCD when all the switches are pressed as instructed. Check that OK is displayed. For the dial check, confirm that the turning the data dial clockwise will increase the numerical value from 50 to 100 and turning it counterclockwise will reduce it from 100 to 0.
24	024: All Panel LED On Check	Check that all panel LEDs are on. The 2-colors LED light up in orange.
25	025: Red LED On Check	Check that all red LEDs are on. The 2-colors LED light up in red.
26	026: Green LED On Check	Check that all green LEDs are on. The 2-colors LED light up in green.
28	028: All LCD On Check	Check that all LCD dots are on.
29	029: All LCD Off Check	Check that all LCD dots are off.
31	031: LCD Brightness Check	Press the [1] to [4] switches of [ONE TOUCH SETTING] in order. The brightness of the LCD grows lighter every time a switch is pressed.
36	036: Pedal 1 Check	Connect the foot switch (FC-4) to the [FOOT PEDAL 1] jack. Check that the C3 note is output when pressing the pedal, and that the C4 note is output when releasing the pedal.
37	037: Pedal 2 Check	Connect the foot volume (FC-7) to the [FOOT PEDAL 2] jack. Check that the C3 note is output when fully pressing the pedal to the back (to maximum), and that the C4 note is output when fully pressing the pedal to the front (to minimum).
38	038: Pitch Bend Wheel Check	Checks the pitch bend wheel. First, it is checked that the [PITCH BEND] wheel is a center position. Check that the C3 note is output when rotating the [PITCH BEND] wheel to minimum from center, and that the C4 note is output when rotating it to maximum.
40	040: MIDI Check	After connecting the [MIDI IN] jack and [MIDI OUT] jack with a MIDI cable, execute the test. Set the [HOST SELECT] switch to "MIDI". Check that the C4 note is output and that the LCD displays "OK". If there is no input after one second since signal output, it is judged NG.
41	041: TO HOST Check	Connect pin 3 to pin 5 and pin 6 to pin 8 of the [TO HOST] terminal, and execute the test. Check that the following note sounds when changing the [HOST SELECT] switch position according to the LCD indication; the LCD will display "OK". (PC1: note C3; PC2: note C4; MAC: note C5) If there is no input after one second since signal output, it is judged NG.
43	043: ROM Check2	Checks the ROMs that are connected to the CPU bus. Check the LCD "ROM Check2 OK"
44	044: RAM Check2	Checks the RAMs that are connected to the CPU bus. Check the LCD "RAM Check2 OK"
45	045: Flash Check2	Checks the Flash Memories that are connected to the CPU bus. Check the LCD "Flash Check2 OK"
46	046: Wave ROM Check2	Checks the Wave ROMs. Check the LCD "XG Wave ROM Check OK"
47	047: Wave RAM Check2	Checks the Wave RAMs. Check the LCD "XG Wave RAM Check OK"
55	055: Factory Set	If this test is executed, the Flash ROMs will be initialized when the power is turned on in the next time.
56	056: Test Exit	Exit from the test program after executing this test.

Note: 0 dBm=0.775 V

Time is required to complete the checks performed by test No. 43–47.

## • Power On Reset

Set to the factory preset data when the [STANDBY/ON] switch is turned on while pressing the highest (rightmost) white key on the keyboard.

### • TABLE 1

ORDER	SWITCH	NOTE	ORDER	SWITCH	NOTE
1	EXTRA TRACKS	C2	68	2-L	F#3
2	TRACK2	C#2	69	3-U	G3
3	TRACK1	D2	70	3-L	G#3
4	REPEAT	D#2	71	4-U	A3
5	METRONOME	E2	72	4-L	A#3
6	REC	F2	73	5-U	B3
7	TOP	F#2	74	5-L	C4
8	START/STOP (SONG)	G2	75	6-U	C#4
9	REW	G#2	76	6-L	D4
10	FF	A2	77	7-U	D#4
11	POP & ROCK	A#2	78	7-L	E4
12	SWING & JAZZ (LATIN & JAZZ)	B2	79	8-U	F4
13	BALLROOM (DANCE & BALLROOM)	C3	80	8-L	F#4
14	MARCH & WALTZ ( TÜRKÇE / ΕΛΛΗΝΙΚΑ )	C#3	81	EXIT	G4
15	BALLAD ( عربي )	D3	82	F	G#4
16	DANCE ( خليجي )	D#3	83	G	A4
17	LATIN ( ایرانی )	E3	84	H	A#4
18	USER STYLE	F3	85	I	B4
19	SCALE SETTING C	F#3	86	J	C5
20	SCALE SETTING C#	G3	87	BACK	C#5
21	SCALE SETTING D	G#3	88	NEXT	D5
22	SCALE SETTING E $\flat$	A3	89	MAIN	D#5
23	SCALE SETTING E	A#3	90	LAYER	E5
24	SCALE SETTING F	B3	91	LEFT	F5
25	SCALE SETTING F#	C4	92	SCALE TUNING	F#5
26	SCALE SETTING G	C#4	93	LEFT HOLD	G5
27	SCALE SETTING A $\flat$	D4	94	TOUCH	G#5
28	SCALE SETTING A	D#4	95	SUSTAIN	A5
29	SCALE SETTING B $\flat$	E4	96	HARMONY/ECHO	A#5
30	SCALE SETTING B	F4	97	MONO	B5
31	SCALE MEMORY	F#4	98	DSP	C6
32	SCALE MEMORY 1	G4	99	VARIATION	C2
33	SCALE MEMORY 2	G#4	100	PIANO	C#2
34	SCALE MEMORY 3	A4	101	ORGAN & ACCORDION	D2
35	SCALE MEMORY 4	A#4	102	GIUITAR	D#2
36	SCALE MEMORY 5	B4	103	TRUMPET	E2
37	SCALE MEMORY 6	C5	104	SAX & FLUTE	F2
38	ACCOMP. ON/OFF	C#5	105	STRINGS	F#2
39	BREAK	D5	106	CHOIR & PAD	G2
40	INTRO	D#5	107	SYNTHESIZER	G#2
41	MAIN A	E5	108	XG	A2
42	MAIN B	F5	109	ORIENTAL ( اورينتال )	A#2
43	MAIN C	F#5	110	PERCCUSION	B2
44	MAIN D	G5	111	USER	C3
45	ENDING	G#5	112	TRANSPOSE -	C#3
46	AUTO FILL	A5	113	TRANSPOSE +	D3
47	FADE IN/OUT	A#5	114	TEMPO -	D#3
48	SYNC. STOP	B5	115	TEMPO +	E3
49	SYNC. START	C6	116	TAP TEMPO	F3
50	START/STOP (STYLE)	C2	117	OCTAVE -	F#3
51	SOUND CREATOR	C#2	118	OCTAVE +	G3
52	DIGITAL RECORDING	D2	119	PAD STOP	G#3
53	MIXING CONSOLE	D#2	120	ENTER	A3
54	DEMO	E2	121	PAD 1	A#3
55	HELP	F2	122	PAD 2	B3
56	FUNCTION	F#2	123	PAD 3	C4
57	A	G2	124	PAD 4	C#4
58	B	G#2	125	FREEZE	D4
59	C	A2	126	REGIST 1	D#4
60	D	A#2	127	REGIST 2	E4
61	E	B2	128	REGIST 3	F4
62	DIRECT ACCESS	C3	129	REGIST 4	F#4
63	BALANCE	C#3	130	REGIST 5	G4
64	PART ON/OFF	D3	131	REGIST 6	G#4
65	1-U	D#3	132	REGIST 7	A4
66	1-L	E3	133	REGIST 8	A#4
67	2-U	F3	134	MEMORY	B4

## SYSTEM RESET

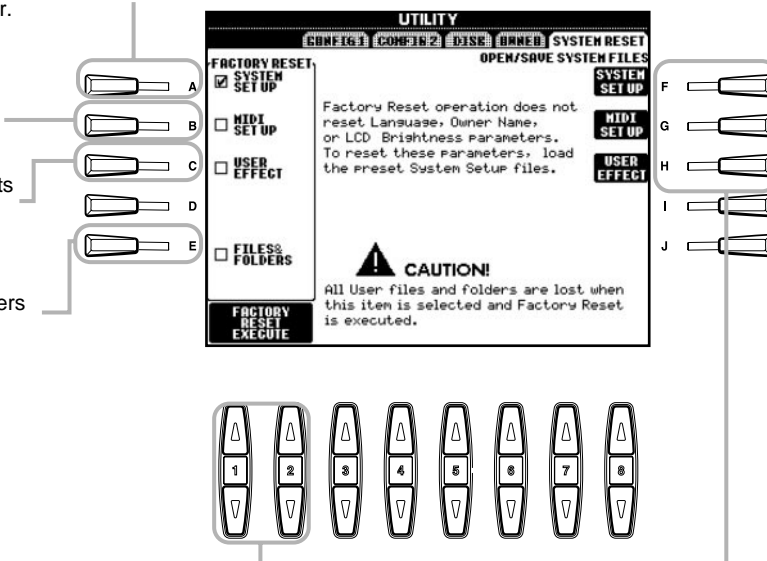
This operation lets you restore the PSR-A1000 to its original factory settings. These settings include System Setup, MIDI Setup, User Effect, and Files & Folders.

Restores the System Setup parameters to the original factory settings. You can also restore only the System Setup settings by simultaneously holding down the highest key on the keyboard (C6) and turning on the power.

Restores the MIDI templates to the original factory settings.

Restores the User Effects to the original factory settings.

Deletes all files and folders stored in the User page.



Executes the Factory Reset operation for all items checkmarked above.

These call up the corresponding Open/Save displays. These let you store the corresponding data as files for future recall. From the PRESET page, you can also recall the respective factory settings.

### NOTE

The functions and settings below do not apply to the Factory Reset operation. However, you can restore these to their original settings by calling up the preset System Setup files from the PRESET page in the SYSTEM SETUP Open/Save display.

- Language
- Owner Name
- LCD Brightness



## ■ MIDI IMPLEMENTATION CHART

YAMAHA [ Portable Keyboard ]

Date : 29, March 2002

Model PSR-A1000 MIDI Implementation Chart

Version : 1.00

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1 - 16 1 - 16	1 - 16 1 - 16	
Mode	Default Messages Altered	3 X *****	3 X X	
Note Number : True voice		0 - 127 *****	0 - 127 0 - 127	
Velocity	Note ON Note OFF	O 9nH,v=1-127 X 9nH,v=0	O 9nH,v=1-127 X	
After Touch	Key's Ch's	X X	O X	
Pitch Bend		O	O 0 - 24 semi	
Control Change	0,32 1,5,7,10,11 6,38 64,65,66,67 71-74 84 91,93,94 96-97 98-99 100-101 120 121	O O O O O O O X O O X X	O O O O O O O O O O O O	Bank Select  Data Entry  Sound Controller Portament Cntrl Effect Depth RPN Inc,Dec NRPN LSB,MSB RPN LSB,MSB All Sound Off Reset All Cntrls
Prog Change : True #		O 0 - 127 *****	O 0 - 127	
System Exclusive		O	O	
Common	: Song Pos. : Song Sel. : Tune	X X X	X X X	
System Real Time	: Clock : Commands	O O	O O	
Aux Messages	: All Sound Off : Reset All Cntrls : Local ON/OFF : All Notes OFF : Active Sense : Reset	X X X X O X	O (120,126-127) O (121) X O (123-125) O X	
Notes:				

Mode 1: OMNI ON , POLY  
Mode 3: OMNI OFF, POLY

Mode 2: OMNI ON , MONO  
Mode 4: OMNI OFF, MONO

O: Yes  
X: No

## ■ MIDI DATA FORMAT

Many MIDI messages listed in the MIDI Data Format are expressed in decimal numbers, binary numbers and hexadecimal numbers. Hexadecimal numbers may include the letter "H" as a suffix. Also, "n" can freely be defined as any whole number.

To enter data/values, refer to the table below.

Decimal	Hexadecimal	Binary	Decimal	Hexadecimal	Binary	Decimal	Hexadecimal	Binary	Decimal	Hexadecimal	Binary
0	00	0000 0000	32	20	0010 0000	64	40	0100 0000	96	60	0110 0000
1	01	0000 0001	33	21	0010 0001	65	41	0100 0001	97	61	0110 0001
2	02	0000 0010	34	22	0010 0010	66	42	0100 0010	98	62	0110 0010
3	03	0000 0011	35	23	0010 0011	67	43	0100 0011	99	63	0110 0011
4	04	0000 0100	36	24	0010 0100	68	44	0100 0100	100	64	0110 0100
5	05	0000 0101	37	25	0010 0101	69	45	0100 0101	101	65	0110 0101
6	06	0000 0110	38	26	0010 0110	70	46	0100 0110	102	66	0110 0110
7	07	0000 0111	39	27	0010 0111	71	47	0100 0111	103	67	0110 0111
8	08	0000 1000	40	28	0010 1000	72	48	0100 1000	104	68	0110 1000
9	09	0000 1001	41	29	0010 1001	73	49	0100 1001	105	69	0110 1001
10	0A	0000 1010	42	2A	0010 1010	74	4A	0100 1010	106	6A	0110 1010
11	0B	0000 1011	43	2B	0010 1011	75	4B	0100 1011	107	6B	0110 1011
12	0C	0000 1100	44	2C	0010 1100	76	4C	0100 1100	108	6C	0110 1100
13	0D	0000 1101	45	2D	0010 1101	77	4D	0100 1101	109	6D	0110 1101
14	0E	0000 1110	46	2E	0010 1110	78	4E	0100 1110	110	6E	0110 1110
15	0F	0000 1111	47	2F	0010 1111	79	4F	0100 1111	111	6F	0110 1111
16	10	0001 0000	48	30	0011 0000	80	50	0101 0000	112	70	0111 0000
17	11	0001 0001	49	31	0011 0001	81	51	0101 0001	113	71	0111 0001
18	12	0001 0010	50	32	0011 0010	82	52	0101 0010	114	72	0111 0010
19	13	0001 0011	51	33	0011 0011	83	53	0101 0011	115	73	0111 0011
20	14	0001 0100	52	34	0011 0100	84	54	0101 0100	116	74	0111 0100
21	15	0001 0101	53	35	0011 0101	85	55	0101 0101	117	75	0111 0101
22	16	0001 0110	54	36	0011 0110	86	56	0101 0110	118	76	0111 0110
23	17	0001 0111	55	37	0011 0111	87	57	0101 0111	119	77	0111 0111
24	18	0001 1000	56	38	0011 1000	88	58	0101 1000	120	78	0111 1000
25	19	0001 1001	57	39	0011 1001	89	59	0101 1001	121	79	0111 1001
26	1A	0001 1010	58	3A	0011 1010	90	5A	0101 1010	122	7A	0111 1010
27	1B	0001 1011	59	3B	0011 1011	91	5B	0101 1011	123	7B	0111 1011
28	1C	0001 1100	60	3C	0011 1100	92	5C	0101 1100	124	7C	0111 1100
29	1D	0001 1101	61	3D	0011 1101	93	5D	0101 1101	125	7D	0111 1101
30	1E	0001 1110	62	3E	0011 1110	94	5E	0101 1110	126	7E	0111 1110
31	1F	0001 1111	63	3F	0011 1111	95	5F	0101 1111	127	7F	0111 1111

- Except the table above, for example 144–159(decimal)/9nH/1001 0000–1001 1111(binary) denotes the Note On Message for each channel (1–16). 176–191/BnH/1011 0000–1011 1111 denotes the Control Change Message for each channel (1–16). 192–207/CnH/1100 0000–1100 1111 denotes the Program Change Message for each channel (1–16). 240/FOH/1111 0000 denotes the start of a System Exclusive Message. 247/F7H/1111 0111 denotes the end of a System Exclusive Message.
- aaH (hexidecimal)/0aaaaaaa (binary) denotes the data address. The address contains High, Mid, and Low.
- bbH/Obbbbbb denotes the byte count.
- ccH/Occccccc denotes the check sum.
- ddH/Oddddddd denotes the data/value.

### MIDI CHANNEL MESSAGE (1)

O: available

MIDI Events	Status byte		1st Data byte		2nd Data byte		Corresponding Voice		MIDI Reception (respond/ignore)				MIDI Transmission (generated data)									
	Status		Data (HEX)	Parameter	Data (HEX)	Parameter	Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	Upper Lower	M. Pad	Style	Song	MIDI				
Key Off	8nH	(n:Channel Number)	kk	Key no. (0-127)	vv	Velocity (0-127)	O	O	O	O	O	O	X	X	X	O	X					
Key On	9nH	(n:Channel Number)	kk	Key no. (0-127)	vv	Key On: vv=1-127 Key Off: vv=0	O	O	O	O	O	O	O	O	O	O	O	X				
Control Change	BnH	(n:Channel Number)	0 (00H)	Bank Select MSB	0 (00H) 64 (40H) 126 (7EH) 127 (7FH)	Normal SFX voice SFX kit Drum kit	O	O	O	O	O	O	O	O	O	O	O	X				
			1 (01H)	Modulation	0-127 (00H...7FH)	Data	O	O	O	O	O	O	O	O	O	O	O	O	O	X		
			5 (05H)	Portamento Time	0-127 (00H...7FH)	Data	O	O	O	O	O	X	O	O	O	O	X	O	X	O	X	
			6 (06H)	Data Entry MSB	0-127 (00H...7FH)	Data	O	O	O	O	O	O	O	O	O	O	X	O	O	O	X	
			7 (07H)	Main Volume	0-127 (00H...7FH)	Data	O	O	O	O	O	O	O	O	O	O	X	O	O	O	X	
			10 (0AH)	Panpot	0-127 (00H...7FH)	L64...C...R63	O	O	O	O	O	O	O	O	O	O	X	O	O	O	X	
			11 (0BH)	Expression	0-127 (00H...7FH)	Data	O	O	O	O	O	O	O	O	O	O	O	O	O	O	X	
			32 (20H)	Bank Select LSB	0-127 (00H...7FH)	Data	O	O	O	O	O	O	O	O	O	O	X	O	O	O	X	
			38 (26H)	Data Entry LSB	0-127 (00H...7FH)	Data	O	O	O	O	O	X	O	O	O	O	X	O	X	O	X	
			64 (40H)	Sustain (Damper)	0-127 (00H...7FH)	Data	O	O	O	O	O	X	O	O	O	O	O	O	X	O	X	
			65 (41H)	Prtamento	0-127 (00H...7FH)	0...63, 64...127 (OFF, ON)	O	O	O	O	O	O	X	O	O	O	O	O	X	O	X	
			66 (42H)	Sostenuto	0-127 (00H...7FH)	0...63, 64...127 (OFF, ON)	O	O	O	O	O	O	X	O	O	O	O	O	X	O	X	
			67 (43H)	Soft Pedal	0-127 (00H...7FH)	0...63, 64...127 (OFF, ON)	O	O	O	O	O	O	X	O	O	O	O	O	X	O	X	
			71 (47H)	Harmonic Content	0-127 (00H...7FH)	-64...0...+63	O	O	O	O	O	O	O	O	O	O	X	O	O	O	X	
			72 (48H)	Release Time	0-127 (00H...7FH)	-64...0...+63	O	O	O	O	O	O	O	O	O	O	X	O	O	O	X	
			73 (49H)	Attack Time	0-127 (00H...7FH)	-64...0...+63	O	O	O	O	O	O	O	O	O	O	X	O	O	O	X	
			74 (4AH)	Brightness	0-127 (00H...7FH)	-64...0...+63	O	O	O	O	O	O	X	O	O	O	X	O	O	O	X	
			84 (54H)	Portamento Control	0-127 (00H...7FH)	Key no. (0-127)	O	O	O	O	O	X	O	O	O	O	O	X	O	X	O	X
			91 (5BH)	Effect1 Depth (Reverb Send Level)	0-127 (00H...7FH)	Data	O	O	O	O	O	O	O	O	O	O	X	O	O	O	X	
			93 (5DH)	Effect3 Depth (Chorus Send Level)	0-127 (00H...7FH)	Data	O	O	O	O	O	O	O	O	O	O	X	O	O	O	X	
			94 (5EH)	Effect4 Depth (Variation Send Level)	0-127 (00H...7FH)	Data	O	O	O	O	O	O	O	O	O	O	X	O	O	O	X	
96 (60H)	RPN Increment	— —	*1	O	O	O	O	O	X	O	O	O	O	X	O	X	O	X				
97 (61H)	RPN Decrement	— —	*1	O	O	O	O	O	X	O	O	O	O	X	O	X	O	X				
98 (62H)	NRPN LSB	0-127 (00H...7FH)	Data	O	O	O	O	O	X	O	O	O	O	O	X	O	O	X				
99 (63H)	NRPN MSB	0-127 (00H...7FH)	Data	O	O	O	O	O	X	O	O	O	O	O	X	O	O	X				
100 (64H)	RPN LSB	0-127 (00H...7FH)	Data	O	O	O	O	O	O	O	O	O	O	X	O	O	O	X				
101 (65H)	RPN MSB	0-127 (00H...7FH)	Data	O	O	O	O	O	O	O	O	O	O	X	O	O	O	X				
Mode Message	BnH	(n:Channel Number)	120 (78H)	All Sound Off	0 (00H)	Data	O	O	O	O	O	O	O	X	X	O	X	O	X			
			121 (79H)	Reset All Controllers	0 (00H)	Data	O	O	X	X	X	X	X	X	X	X	O	X	O	X		
			123 (7BH)	All Note Off	0 (00H)	Data	O	O	O	O	O	O	O	O	O	X	X	O	X	O	X	
			124 (7CH)	Omni Off	0 (00H)	Data	O	O	X	X	X	X	X	X	X	X	X	O	X	O	X	
			125 (7DH)	Omni On	0 (00H)	Data	O	O	X	X	X	X	X	X	X	X	X	O	X	O	X	
			126 (7EH)	Mono	0-16 (00H...10H)	Data	O	O	X	X	X	X	X	X	X	X	X	O	X	O	X	
			127 (7FH)	Poly	0 (00H)	Data	O	O	X	X	X	X	X	X	X	X	X	O	X	O	X	
Program Change	CnH	(n:Channel Number)	pp (00H...7FH)	Voice Number (0-127)	— —	—	O	O	O	O	O	O	O	O	X	O	O	O	X			
Channel After Touch	DnH	(n:Channel Number)	vv (00H...7FH)	Data	— —	—	O	O	O	X	O	O	O	X	X	O	X	O	X			
Polyphonic After Touch	AnH	(n:Channel Number)	kk (00H...7FH)	Key no. (0-127)	vv (00H...7FH)	Data	X	X	X	X	X	X	X	X	X	X	X	O	X			
Pitch Bend Change	EnH	(n:Channel Number)	cc (00H...7FH)	LSB	dd (00H...7FH)	MSB	O	O	O	O	O	O	O	O	O	O	O	O	X			
Realtime Message	F8H	MIDI Clock	—	—	—	—	—	O (*2)														
	FAH	Start	—	—	—	—	—	O (*2)														
	FBH	Continue	—	—	—	—	—	X														
	FCH	Stop	—	—	—	—	—	O (*2)														
	FEH	Active Sens	—	—	—	—	—	O														
	FFH	System Reset	—	—	—	—	—	X														

\*1 The data byte is ignored.  
 \*2 Received when the Clock is set to External.  
 \*3 Transmitted when the Clock is set to Internal and Transmit Clock is set to on.  
 \*4 Transmitted when the Transmit Clock is set to on.

## MIDI CHANNEL MESSAGE (2)

### NRPN

NRPN		Data Entry		Parameter	Data Range	Corresponding Voice	MIDI Reception (respond/ignore)					MIDI Transmission (generated data)				
MSB	LSB	MSB	LSB			Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	Upper Lower	M. Pad	Style	Song
01H	08H	mmH	---	Vibrato Rate	mm: 00H-40H-7FH (-64...0...+63)	○	○	○	X	○	○	○	○	○	○	X
01H	09H	mmH	---	Vibrato Depth	mm: 00H-40H-7FH (-64...0...+63)	○	○	○	X	○	○	○	○	○	○	X
01H	0AH	mmH	---	Vibrato Delay	mm: 00H-40H-7FH (-64...0...+63)	○	○	○	X	○	○	○	○	○	○	X
01H	20H	mmH	---	Low Pass Filter Cutoff Frequency	mm: 00H-40H-7FH (-64...0...+63)	○	○	X	X	○	X	X	○	X	○	X
01H	21H	mmH	---	Low Pass Filter Resonance	mm: 00H-40H-7FH (-64...0...+63)	○	○	X	X	○	X	X	○	X	○	X
01H	63H	mmH	---	EG Attack Time	mm: 00H-40H-7FH (-64...0...+63)	○	○	X	X	○	X	X	○	X	○	X
01H	64H	mmH	---	EG Decay Time	mm: 00H-40H-7FH (-64...0...+63)	○	○	○	X	○	○	○	○	○	○	X
01H	66H	mmH	---	EG Release	mm: 00H-40H-7FH (-64...0...+63)	○	○	X	X	○	X	X	○	X	○	X
14H	rrH	mmH	---	Drum Low Pass Filter Cutoff Frequency	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	○ (Drum Only)	○	X	X	X	X	X	X	X	○	X
15H	rrH	mmH	---	Drum Low Pass Filter Resonance	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)		○	X	X	X	X	X	X	X	○	X
16H	rrH	mmH	---	Drum EG Attack Rate	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)		○	X	X	X	X	X	X	X	○	X
17H	rrH	mmH	---	Drum EG Decay Rate	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)		○	X	X	X	X	X	X	X	○	X
18H	rrH	mmH	---	Drum Pitch Coarse	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)		○	X	X	X	X	X	X	X	○	X
19H	rrH	mmH	---	Drum Pitch Fine	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)		○	X	X	X	X	X	X	X	○	X
1AH	rrH	mmH	---	Drum Level	rr: drum instrument note number mm: 00H-7FH (0...127)		○	X	X	X	X	X	X	X	○	X
1CH	rrH	mmH	---	Drum Pan	rr: drum instrument note number mm: 00H, 01H-40H-7FH (RND, L63...C...R63)		○	X	X	X	X	X	X	X	○	X
1DH	rrH	mmH	---	Drum Reverb Send Level	rr: drum instrument note number mm: 00H-7FH (0...127)		○	X	X	X	X	X	X	X	○	X
1EH	rrH	mmH	---	Drum Chorus Send Level	rr: drum instrument note number mm: 00H-7FH (0...127)		○	X	X	X	X	X	X	X	○	X
1FH	rrH	mmH	---	Drum Variation Send Level	rr: drum instrument note number mm: 00H-7FH (0...127) (Variation Connection=SYSTEM) (Variation Connection=INSERTION)		○	X	X	X	X	X	X	X	○	X

NRPN MSB: 14H-1FH (for drums) message is accepted as long as the channel is set with a drum voice.  
Data Entry LSB: Ignored.

### RPN

RPN		Data Entry		Parameter	Data Range	Corresponding Voice	MIDI Reception (respond/ignore)					MIDI Transmission (generated data)				
MSB	LSB	MSB	LSB			Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	Upper Lower	M. Pad	Style	Song
00H	00H	mmH	---	Pitch Bend Sensitivity	mm: 00H-18H (0...+24[semitones])	○	○	○	○	○	○	○	○	○	○	X
00H	01H	mmH	llH	Fine Tune	mm ll : 00H 00H -100[cent] ... mm ll : 40H 00H 0[cent] ... mm ll : 7FH 7FH 100[cent]	○	○	○	○	○	○	○	○	○	○	X
00H	02H	mmH	---	Coarse Tune	mm: 28H-40H-58H (-24...0...+24[semitones])	○	○	○	○	○	○	○	○	○	○	X
7FH	7FH	---	---	Null	---	○	○	○	○	○	○	○	○	○	○	X



Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice					MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
						Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)					M.Pad	Style	Song	MIDI
2	1	20	2	00-7F	CHORUS TYPE MSB	Refer to Effect Parameter List	41(=CHORUS1)	O								O (Mixing Console)	X	O	O	X
				00-7F	CHORUS TYPE LSB	-	0									O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 1	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 2	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 3	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 4	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 5	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 6	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 7	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 8	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 9	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 10	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS RETURN	-∞dB...0dB...+6dB (0...96...127)	40	O								O (Mixing Console)	X	O	O	X
				01-7F	CHORUS PAN	L63...C...R63	40	O								X	X	O	O	X
				00-7F	SEND CHORUS TO REVERB	-∞dB...0dB...+6dB (0...96...127)	0	O								X	X	O	O	X

TOTAL SIZE 0F

2	1	30	1	00-7F	CHORUS PARAMETER 11	Refer to Effect Parameter List	Depends on Chorus Type	O							O (Mixing Console *Depends on Chorus Type)	X	O	O	X	
				00-7F	CHORUS PARAMETER 12	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 13	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 14	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 15	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X
				00-7F	CHORUS PARAMETER 16	-	Depends on Chorus Type	O								O (Mixing Console *Depends on Chorus Type)	X	O	O	X

TOTAL SIZE 06

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice					MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
						Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)					M.Pad	Style	Song	MIDI
2	1	40	2	00-7F	VARIATION TYPE MSB	Refer to Effect Parameter List	05(=DELAY L, C, R)	O								O (Mixing Console)	X	O	O	X
				00-7F	VARIATION TYPE LSB	-	0									O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 1 MSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 1 LSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 2 MSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 2 LSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 3 MSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 3 LSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 4 MSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 4 LSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 5 MSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 5 LSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 6 MSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 6 LSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 7 MSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 7 LSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 8 MSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 8 LSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 9 MSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 9 LSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 10 MSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION PARAMETER 10 LSB	-	Depends on Variation Type	O								O (Mixing Console *Depends on Variation Type)	X	O	O	X
				00-7F	VARIATION RETURN	-∞dB...0dB...+6dB (0...96...127)	40	O								O (Mixing Console)	X	O	O	X
				00-7F	VARIATION PAN	L63...C...R63	40	O								X	X	O	O	X
				00-7F	SEND VARIATION TO REVERB	-∞dB...0dB...+6dB (0...96...127)	0	O								X	X	O	O	X
				00-7F	SEND VARIATION TO CHORUS	-∞dB...0dB...+6dB (0...96...127)	0	O								X	X	O	O	X
				00-7F	VARIATION CONNECTION	INSERTION, SYSTEM	0	O								X	X	O	O	X
				00-7F	VARIATION PART NUMBER	Reception: Part1...16(0...15) Transmission: Part1...16(0...15) AD(64) OFF(127)	7F	O								O (Mixing Console)	X	O	O	X
				00-7F	MW VARIATION CONTROL DEPTH	-64...0...+63	40	O								X	X	O	O	X
				00-7F	BEND VARIATION CONTROL DEPTH	-64...0...+63	40	O								X	X	O	O	X
				00-7F	CAT VARIATION CONTROL DEPTH	-64...0...+63	40	O								X	X	O	O	X
				00-7F	AC1 VARIATION CONTROL DEPTH	-64...0...+63	40	X								X	X	X	X	X
				01-7F	AC2 VARIATION CONTROL DEPTH	-64...0...+63	40	X								X	X	X	X	X

TOTAL SIZE 21

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice	MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)						
						Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M. Pad	Style	Song	MIDI		
2	1	70	1	00-7F	VARIATION PARAMETER 11	Refer to Effect Parameter List	Depends on Variation Type	O	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)				
		71	1	00-7F	VARIATION PARAMETER 12		Depends on Variation Type	O	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)				
		72	1	00-7F	VARIATION PARAMETER 13		Depends on Variation Type	O	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)				
		73	1	00-7F	VARIATION PARAMETER 14		Depends on Variation Type	O	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)				
		74	1	00-7F	VARIATION PARAMETER 15		Depends on Variation Type	O	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)				
		75	1	00-7F	VARIATION PARAMETER 16		Depends on Variation Type	O	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)				

TOTAL SIZE 06

MIDI Parameter Change table (MULTI PART)

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice	MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)							
						Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M. Pad	Style	Song	MIDI			
8	nn	0	1	00-20	ELEMENT RESERVE	0...32	part10=00, other parts=02	O	O	X	X	X	X	X	X	X	X	O	X
		1	1	00-7F	BANK SELECT MSB	0...127	part10=7F, other parts=00	O	O	O	X	O	O	X	X	X	O	X	
		2	1	00-7F	BANK SELECT LSB	0...127	0	O	O	O	X	O	O	X	X	X	O	X	
		3	1	00-7F	PROGRAM NUMBER	0...127	0	O	O	O	X	O	O	X	X	X	O	X	
		4	1	00-0F 7F	Rev CHANNEL	1...16, OFF	Part No.	O	O	X	X	X	X	X	X	X	X	O	X
		5	1	00-01	MONO/POLY MODE	MONO, POLY	1	O	O	X	X	X	X	X	X	X	O	X	
		6	1	00-02	SAME NOTE NUMBER KEY ON ASSIGN	SINGLE, MULTI, INST (for Drum)	1	O	O	X	X	O	X	X	X	X	O	X	
		7	1	00-03	PART MODE	NORMAL, DRUM, DRUMS1...2	part10=02, other parts=00	O	O	X	X	X	X	O (Drum Voice)	X	X	O	X	
		8	1	00-7F	CHANNEL TRANSPOSE	-24...0...+24[semitones]	40	O	O	O	X	O	O	X	X	X	O	X	
		9	2	00-0F	DETUNE	-12.8...0...+12.7[Hz]	08 00	O	O	O	X	O	O	X	X	X	O	X	
		0A		00-0F		1st bit3-0 → bit7-4 2nd bit3-0 → bit3-0													
		0B	1	00-7F	VOLUME	0...127	64	O	O	O	X	O	O	X	X	X	O	X	
		0C	1	00-7F	VELOCITY SENSE DEPTH	0...127	40	O	O	O	X	X	O	O (Sound Creator)	O	X	O	X	
		0D	1	00-7F	VELOCITY SENSE OFFSET	0...127	40	O	O	O	X	X	O	O (Sound Creator)	O	X	O	X	
		0E	1	00-7F	PAN	RND, L63...C...R63	40	O	O	O	X	O	O	X	X	X	O	X	
		0F	1	00-7F	NOTE LIMIT LOW	C-2...G8	00	O	O	X	X	X	X	X	X	X	O	X	
		10	1	00-7F	NOTE LIMIT HIGH	C-2...G8	7F	O	O	X	X	X	X	X	X	X	O	X	
		11	1	00-7F	DRY LEVEL	0...127	7F	O	O	O	X	O	O	O (Sound Creator)	O	X	O	X	
		12	1	00-7F	CHORUS SEND	0...127	0	O	O	O	X	O	O	X	X	X	O	X	
		13	1	00-7F	REVERB SEND	0...127	28	O	O	O	X	O	O	X	X	X	O	X	
		14	1	00-7F	VARIATION SEN	0...127	0	O	O	O	X	O	O	X	X	X	O	X	
		15	1	00-7F	DVIBRATO RATE	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	
		16	1	00-7F	VIBRATO DEPTH	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	
		17	1	00-7F	VIBRATO DELAY	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	
		18	1	00-7F	FILTER CUTOFF FREQUENCY	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	
		19	1	00-7F	FILTER RESONANCE	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	
		1A	1	00-7F	EG ATTACK TIME	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	
		1B	1	00-7F	EG DECAY TIME	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	
		1C	1	00-7F	EG RELEASE TIME	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	
		1D	1	28-58	MW PITCH CONTROL	-24...0...+24[semitones]	40	O	O	O	X	O	O	X	X	X	O	X	
		1E	1	00-7F	MW LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	O	O	X	O	O	X	X	X	O	X	
		1F	1	00-7F	MW AMPLITUDE CONTROL	-100...0...+100[%]	40	O	O	O	X	O	O	X	X	X	O	X	
		20	1	00-7F	MW LFO PMOD DEPTH	0...127	0A	O	O	O	X	O	O	X	X	X	O	X	
		21	1	00-7F	MW LFO FMOD DEPTH	0...127	0	O	O	O	X	O	O	X	X	X	O	X	
		22	1	00-7F	MW LFO AMOD DEPTH	0...127	0	O	O	O	X	O	O	X	X	X	O	X	
		23	1	28-58	BEND PITCH CONTROL	-24...0...+24[semitones]	42	O	O	O	X	O	O	X	X	X	O	X	
		24	1	00-7F	BEND LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	O	O	X	O	O	X	X	X	O	X	
		25	1	00-7F	BEND AMPLITUDE CONTROL	-100...0...+100[%]	40	O	O	O	X	O	O	X	X	X	O	X	
		26	1	00-7F	BEND LFO PMOD DEPTH	0...127	0	O	O	O	X	O	O	X	X	X	O	X	
		27	1	00-7F	BEND LFO FMOD DEPTH	0...127	0	O	O	O	X	O	O	X	X	X	O	X	
		28	1	00-7F	BEND LFO AMOD DEPTH	0...127	0	O	O	O	X	O	O	X	X	X	O	X	

TOTAL SIZE 29

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice					MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
						Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M. Pad	Style	Song	MIDI				
	30	1	00-01	Rcv PITCH BEND	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	31	1	00-01	Rcv CH AFTER TOUCH (CAT)	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	32	1	00-01	Rcv PROGRAM CHANGE	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	33	1	00-01	Rcv CONTROL CHANGE	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	34	1	00-01	Rcv POLY AFTER TOUCH (PAT)	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	35	1	00-01	Rcv NOTE MESSAGE	OFF, ON	1		O	O	X	X	X	X	X		X	X	O	X	
	36	1	00-01	Rcv RPN	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	37	1	00-01	Rcv NRPN	OFF, ON	1	XG mode=01, GM mode=00	X	X	X	X	X	X	X		X	X	X	X	
	38	1	00-01	Rcv MODULATION	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	39	1	00-01	Rcv VOLUME	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	3A	1	00-01	Rcv PAN	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	3B	1	00-01	Rcv EXPRESSION	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	3C	1	00-01	Rcv HOLD1	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	3D	1	00-01	Rcv PORTAMENTO	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	3E	1	00-01	Rcv SOSTENUTO	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	3F	1	00-01	Rcv SOFT PEDAL	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	40	1	00-01	Rcv BANK SELECT	OFF, ON	1		X	X	X	X	X	X	X		X	X	X	X	
	41	1	00-7F	SCALE TUNING C	-63...0...+63[cent]	40		O	O	O	X	O	O	O	O (Function)	X	X	O	X	
	42	1	00-7F	SCALE TUNING C#	-63...0...+63[cent]	40		O	O	O	X	O	O	O	O (Function)	X	X	O	X	
	43	1	00-7F	SCALE TUNING D	-63...0...+63[cent]	40		O	O	O	X	O	O	O	O (Function)	X	X	O	X	
	44	1	00-7F	SCALE TUNING D#	-63...0...+63[cent]	40		O	O	O	X	O	O	O	O (Function)	X	X	O	X	
	45	1	00-7F	SCALE TUNING E	-63...0...+63[cent]	40		O	O	O	X	O	O	O	O (Function)	X	X	O	X	
	46	1	00-7F	SCALE TUNING F	-63...0...+63[cent]	40		O	O	O	X	O	O	O	O (Function)	X	X	O	X	
	47	1	00-7F	SCALE TUNING F#	-63...0...+63[cent]	40		O	O	O	X	O	O	O	O (Function)	X	X	O	X	
	48	1	00-7F	SCALE TUNING G	-63...0...+63[cent]	40		O	O	O	X	O	O	O	O (Function)	X	X	O	X	
	49	1	00-7F	SCALE TUNING G#	-63...0...+63[cent]	40		O	O	O	X	O	O	O	O (Function)	X	X	O	X	
	4A	1	00-7F	SCALE TUNING A	-63...0...+63[cent]	40		O	O	O	X	O	O	O	O (Function)	X	X	O	X	
	4B	1	00-7F	SCALE TUNING A#	-63...0...+63[cent]	40		O	O	O	X	O	O	O	O (Function)	X	X	O	X	
	4C	1	00-7F	SCALE TUNING B	-63...0...+63[cent]	40		O	O	O	X	O	O	O	O (Function)	X	X	O	X	
	4D	1	28-58	CAT PITCH CONTROL	-24...0...+24[semitones]	40		O	O	O	X	X	O	O	X	X	X	O	X	
	4E	1	00-7F	CAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40		O	O	O	X	X	O	O	X	X	X	O	X	
	4F	1	00-7F	CAT AMPLITUDE CONTROL	-100...0...+100[%]	40		O	O	O	X	X	O	O	X	O	X	O	X	
	50	1	00-7F	CAT LFO PMOD DEPTH	0...127	00		O	O	O	X	X	O	O	X	O	X	O	X	
	51	1	00-7F	CAT LFO FMOD DEPTH	0...127	00		O	O	O	X	X	O	O	X	X	O	X	X	
	52	1	00-7F	CAT LFO AMOD DEPTH	0...127	00		O	O	O	X	X	O	O	X	X	O	X	X	
	53	1	28-58	PAT PITCH CONTROL	-24...0...+24[semitones]	40		X	X	X	X	X	X	X	X	X	X	X	X	
	54	1	00-7F	PAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40		X	X	X	X	X	X	X	X	X	X	X	X	
	55	1	00-7F	PAT AMPLITUDE CONTROL	-100...0...+100[%]	40		X	X	X	X	X	X	X	X	X	X	X	X	
	56	1	00-7F	PAT LFO PMOD DEPTH	0...127	0		X	X	X	X	X	X	X	X	X	X	X	X	
	57	1	00-7F	PAT LFO FMOD DEPTH	0...127	0		X	X	X	X	X	X	X	X	X	X	X	X	
	58	1	00-7F	PAT LFO AMOD DEPTH	0...127	0		X	X	X	X	X	X	X	X	X	X	X	X	
	59	1	00-5F	AC1 CONTROLLER NUMBER	0...95	10		X	X	X	X	X	X	X	X	X	X	X	X	
	5A	1	28-58	AC1 PITCH CONTROL	-24...0...+24[semitones]	40		X	X	X	X	X	X	X	X	X	X	X	X	
	5B	1	00-7F	AC1 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40		X	X	X	X	X	X	X	X	X	X	X	X	
	5C	1	00-7F	AC1 AMPLITUDE CONTROL	-100...0...+100[%]	40		X	X	X	X	X	X	X	X	X	X	X	X	
	5D	1	00-7F	AC1 LFO PMOD DEPTH	0...127	0		X	X	X	X	X	X	X	X	X	X	X	X	
	5E	1	00-7F	AC1 LFO FMOD DEPTH	0...127	0		X	X	X	X	X	X	X	X	X	X	X	X	
	5F	1	00-7F	AC1 LFO AMOD DEPTH	0...127	0		X	X	X	X	X	X	X	X	X	X	X	X	
	60	1	00-5F	AC2 CONTROLLER NUMBER	0...95	11		X	X	X	X	X	X	X	X	X	X	X	X	
	61	1	28-58	AC2 PITCH CONTROL	-24...0...+24[semitones]	40		X	X	X	X	X	X	X	X	X	X	X	X	
	62	1	00-7F	AC2 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40		X	X	X	X	X	X	X	X	X	X	X	X	
	63	1	00-7F	AC2 AMPLITUDE CONTROL	-100...0...+100[%]	40		X	X	X	X	X	X	X	X	X	X	X	X	
	64	1	00-7F	AC2 LFO PMOD DEPTH	0...127	0		X	X	X	X	X	X	X	X	X	X	X	X	
	65	1	00-7F	AC2 LFO FMOD DEPTH	0...127	0		X	X	X	X	X	X	X	X	X	X	X	X	
	66	1	00-7F	AC2 LFO AMOD DEPTH	0...127	0		X	X	X	X	X	X	X	X	X	X	X	X	
	67	1	00-01	PORTAMENTO SWITCH	OFF, ON	0		O	O	O	X	X	O	O	X	X	X	O	X	
	68	1	00-7F	PORTAMENTO TIME	0...127	0		O	O	O	X	X	O	O	X	X	X	O	X	
	69	1	00-7F	PITCH EG INITIAL LEVEL	-64...0...+63	40		X	X	X	X	X	X	X	X	X	X	X	X	
	6A	1	00-7F	PITCH EG ATTACK TIME	-64...0...+63	40		X	X	X	X	X	X	X	X	X	X	X	X	
	6B	1	00-7F	PITCH EG RELEASE LEVEL	-64...0...+63	40		X	X	X	X	X	X	X	X	X	X	X	X	
	6C	1	00-7F	PITCH EG RELEASE TIME	-64...0...+63	40		X	X	X	X	X	X	X	X	X	X	X	X	
	6D	1	01-7F	VELOCITY LIMIT LOW	1...127	1		X	X	X	X	X	X	X	X	X	X	X	X	
	6E	1	01-7F	VELOCITY LIMIT HIGH	1...127	7F		X	X	X	X	X	X	X	X	X	X	X	X	

TOTAL SIZE 3F

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice					MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
						Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M. Pad	Style	Song	MIDI				
	70	1		NOT USED	---															
	71	1		NOT USED	---															
	72	1	00-7F	EQ BASS GAIN	-12dB...+12dB	40		O	O	O	X	O	O	O	O (Mixing Console)	O	O	O	X	
	73	1	00-7F	EQ TREBLE GAIN	-12dB...+12dB	40		O	O	O	X	O	O	O	O (Mixing Console)	O	O	O	X	

TOTAL SIZE 04



Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice					MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
						Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M. Pad	Style	Song	MIDI				
		74	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		75	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		76	1	04-28 EQ BASS FREQUENCY	32...2.0k[Hz]	0C	O	O	O	X	O	O	O (Sound Creator)	O	X	O	X			
		77	1	1C-3A EQ TREBLE FREQUENCY	500...16.0k[Hz]	36	O	O	O	X	O	O	O (Sound Creator)	O	X	O	X			
		78	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		79	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		7A	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		7B	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		7C	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		7D	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		7E	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		7F	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TOTAL SIZE 0C

nn = PART NUMBER

If there is a Drum Voice assigned to the part, the following parameters are ineffective.

- BANK SELECT LSB
- MONO/POLY MODE
- SCALE TUNING
- PORTAMENTO
- PITCH EG
- FILTER MODULATION DEPTH (FMOD DEPTH)
- AMPLITUDE MODULATION DEPTH (AMOD DEPTH)

**MIDI Parameter Change table (DRUM SETUP)**

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice					MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
						Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M. Pad	Style	Song	MIDI				
10	rr	0	1	00-7F PITCH COARSE	-64...0...+63	40	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X
		1	1	00-7F PITCH FINE	-64...0...+63[cent]	40	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X
		2	1	00-7F LEVEL	0...127	Depends on the note	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X
		3	1	00-7F ALTERNATE GROUP	OFF, 1...127	Depends on the note	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X
		4	1	00-7F PAN	RND, L63...C...R63	Depends on the note	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X
		5	1	00-7F REVERB SEND	0...127	Depends on the note	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X
		6	1	00-7F CHORUS SEND	0...127	Depends on the note	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X
		7	1	00-7F VARIATION SEN	0...127	7F	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X
		8	1	00-01 DKEY ASSIGN	SINGLE, MULTI	0	O (Drum only)	O	X	X	X	X	X	X	X	X	X	O	O	X
		9	1	00-01 Rcv NOTE OFF	OFF, ON	Depends on the note	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	X	
		0A	1	00-01 Rcv NOTE ON	OFF, ON	1	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	X	
		0B	1	00-7F LOW PASS FILTER CUTOFF FREQUENCY	-64...0...+63	40	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X
		0C	1	00-7F LOW PASS FILTER RESONANCE	-64...0...+63	40	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X
		0D	1	00-7F EG ATTACK RATE	-64...0...+63	40	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X
		0E	1	00-7F EG DECAY1 RATE	-64...0...+63	40	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X
		0F	1	00-7F EG DECAY2 RATE	-64...0...+63	40	O (Drum only)	O	X	X	X	X	X	X	X	X	O	O	O	X

TOTAL SIZE 10

Address (H)	Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice					MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
						Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M. Pad	Style	Song	MIDI				
		20	1	00-7F EQ BASS GAIN	-12...+12[dB]	40	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		21	1	00-7F EQ TREBLE GAIN	-12...+12[dB]	40	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		22	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		23	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		24	1	04-28 EQ BASS FREQUENCY	32...2.0k[Hz]	0C	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		25	1	1C-3A EQ TREBLE FREQUENCY	500...16.0k[Hz]	36	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		26	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		27	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		28	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		29	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		2A	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		2B	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		2C	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		2D	1	NOT USED	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TOTAL SIZE 0E

n: Drum Setup Number (0-1)

rr: note number (0D-5B)

In the following cases, the CVP/PSR will initialize all Drum Setups.

- XG SYSTEM ON received
- GM SYSTEM ON received
- DRUM SETUP RESET received (only when in XG mode)

[Note]

When a part to which a Drum Setup is assigned receives a program change, the assigned Drum Setup will be initialized.

If the same Drum Setup is assigned to two or more parts, changes in Drum Setup parameters (including program changes) will apply to all parts to which it is assigned.

## SYSTEM EXCLUSIVE MESSAGES

- \* Not received when the Receive System Exclusive Message is set to off.
- \* Not transmitted when the Transmit System Exclusive Message is set to on.

### System Exclusive Messages

MIDI Event	Data Format	Corresponding Voice						MIDI Reception (effective or not for each part)	MIDI Reception (affecting the panel)	MIDI Transmission (generated data)				
		Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra			Panel (main generation method)	M. Pad	Style	Song	MIDI
Section Control	<b>F0 43 7E 00 ss dd F7</b> 11110000 F0= Exclusive status 01000011 43= YAMAHA ID 01111110 7E= Style 00000000 00= 0sssssss ss= Switch No. 00H INTRO A 01H INTRO B 02H INTRO C 03H INTRO D 08H MAIN A 09H MAIN B 0AH MAIN C 0BH MAIN D 10H FILL IN AA 11H FILL IN BB 12H FILL IN CC 13H FILL IN DD 18H BREAK FILL 20H ENDING A 21H ENDING B 22H ENDING C 23H ENDING D 0ddddd dd= Switch On/Off 00H (Off) 7HF (On) 11110111 F7= End of Exclusive	—	—	—	—	—	—	O (Section LED)	O (Section Sw)	X	X	O	X	
Tempo Control	<b>F0 43 7E 01 t4 t3 t2 t1 F7</b> 11110000 F0= Exclusive status 01000011 43= YAMAHA ID 01111110 7E= Style 00000001 01= 0ttttttt t4= tempo4 0ttttttt t3= tempo3 0ttttttt t2= tempo2 0ttttttt t1= tempo1 11110111 F7= End of Exclusive	—	—	—	—	—	—	O (Tempo indication)	O (Tempo Sw)	X	X	O	X	
Chord Control	<b>F0 43 7E tt d1 d2 d3 d4 F7</b> Type 1 (tt=2) 11110000 F0= Exclusive status 01000011 43= YAMAHA ID 01111110 7E= Style 00000010 02= type 1 0ddddd d1= chord root(cr) 0ddddd d2= chord type(ct) 0ddddd d3= bass note(bn) 0ddddd d4= bass type(bt) 11110111 F7= End of Exclusive  cr: Chord Root 0fffnnnn fff: b or #, nnnn: note(root) 0000nnnn 0n bbb 0fff0000 x0 reserved 0001nnnn 1n bb 0fff0001 x1 C 0010nnnn 2n b 0fff0010 x2 D 0011nnnn 3n natural 0fff0011 x3 E 0100nnnn 4n # 0fff0100 x4 F 0101nnnn 5n ## 0fff0101 x5 G 0110nnnn 6n ### 0fff0110 x6 A 0fff0111 x7 B  ct: Chord Type 0 - 34,127 00000000 00 0 Maj 00010010 12 18 dim7 00000001 01 1 Maj6 00010011 13 19 7th 00000010 02 2 Maj7 00010100 14 20 7sus4 00000011 03 3 Maj7(#11) 00010101 15 21 7b5 00000100 04 4 Maj(9) 00010110 16 22 7(9) 00000101 05 5 Maj7(9) 00010111 17 23 7(#11) 00000110 06 6 Maj6(9) 00011000 18 24 7(13) 00000111 07 7 aug 00011001 19 25 7(b9) 00001000 08 8 min 00011010 1A 26 7(b13) 00001001 09 9 min6 00011011 1B 27 7(#9) 00001010 0A 10 min7 00011100 1C 28 Maj7aug 00001011 0B 11 min7b5 00011101 1D 29 7aug 00001100 0C 12 min(9) 00011110 1E 30 1+8 00001101 0D 13 min7(9) 00011111 1F 31 1+5 00001110 0E 14 min7(11) 01000000 20 32 sus4 00001111 0F 15 minMaj7 01000001 21 33 1+2+5 00010000 10 16 minMaj7(9) 01000010 22 34 cc 00010001 11 17 dim  bn : On Bass Chord Same as Chord root 127:No bass chord bt : Bass Chord Same as Chord type 127:No bass chord  * Not received when Receive Chord System Exclusive Message is set to off. * Not transmitted when Transmit Chord System Exclusive Message is set to on.	—	—	—	—	—	—	O (Chord indication)	O (Keyboard)	X	X	O	X	
	Type 2 (tt=3) 11110000 F0= Exclusive status 01000011 43= YAMAHA ID 01111110 7E= Style 00000011 03= type 2 0ddddd dd= note1 0ddddd dd= note2 0ddddd dd= note3 : : 0ddddd dd= note10 11110111 F7= End of Exclusive	—	—	—	—	—	—	O (Chord indication)	X	X	X	X	X	

**System Exclusive Messages (Universal Realtime messages)**

MIDI Event	Data Format	Corresponding Voice	MIDI Reception (effective or not for each part)					MIDI Reception (affecting the panel)	MIDI Transmission (generated data)					
		Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra		Panel (main generation method)					
Master Volume	F0 7F 7F 04 01 ll mm F7	O	O	X	X	X	X	X	X	X	X	X	X	X
	11110000	F0= Exclusive status												
	01111111	7F= Universal Real Time												
	01111111	7F= ID of target device												
	00000100	04= Sub-ID #1=Device Control Message												
	00000001	01= Sub-ID #2=Master Volume												
	01111111	ll= Volume LSB												
	0mmmmmmmm	mm= Volume MSB												
	11110111	F7= End of Exclusive												
	or													
	F0 7F XN 04 01 ll mm F7													
	11110000	F0= Exclusive status												
	01111111	7F= Universal Real Time												
	0xxxxnnnn	XN= When N is received N=0-F, whichever is received. X=ignored												
00000100	04= Sub-ID #1=Device Control Message													
00000001	01= Sub-ID #2=Master Volume													
01111111	ll= Volume LSB													
0mmmmmmmm	mm= Volume MSB													
11110111	F7= End of Exclusive													

**System Exclusive Messages (Universal Non Realtime messages)**

MIDI Event	Data Format	Corresponding Voice	MIDI Reception (effective or not for each part)					MIDI Reception (affecting the panel)	MIDI Transmission (generated data)				
		Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra		Panel (main generation method)				
General MIDI System On	F0 7E 7F 09 01 F7	O	O	X	X	X	O	O	X	X	X	O	X
	11110000	F0= Exclusive status											
	01111111	7F= Universal Real Time											
	01111111	7F= ID of target device											
	00001001	09= Sub-ID #1=General MIDI Message											
	00000001	01= Sub-ID #2=General MIDI On											
	11110111	F7= End of Exclusive											
	or												
	F0 7E XN 09 01 F7												
	11110000	F0= Exclusive status											
	01111111	7F= Universal Real Time											
	0xxxxnnnn	XN= When N is received N=0-F, whichever is received. X=ignored											
	00001001	09= Sub-ID #1=General MIDI Message											
	00000001	01= Sub-ID #2=General MIDI On											
11110111	F7= End of Exclusive												

**System Exclusive Messages (XG)**

MIDI Event	Data Format	Corresponding Voice	MIDI Reception (effective or not for each part)					MIDI Reception (affecting the panel)	MIDI Transmission (generated data)					
		Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra		Panel (main generation method)					
XG Parameter Change	F0 43 1n 4C hh mm ll dd ... F7	* Refer to Parameter Change Table	* Refer to Parameter Change Table					—	* Refer to Parameter Change Table					
	11110000	F0= Exclusive status												
	01000011	43= YAMAHA ID												
	0001nnnn	1n= Device Number n=always 0 (when transmit), n=0-F (when receive)												
	01001100	4C= Model ID												
	0hhhhhhh	hh= Address High												
	0mmmmmm	mm= Address Mid												
	01111111	ll= Address Low												
	0ddddd	dd= Data												
	+													
	11110111	F7= End of Exclusive												
	+													
	0ddddd	dd= Data												
	0ccccccc	cc= Checksum												
11110111	F7= End of Exclusive													
XG Bulk Dump	F0 43 0n 4C aa bb hh mm ll dd ... dd cc F7	* Refer to Parameter Change Table	* Refer to Parameter Change Table					—	X	X	X	X	O	
	11110000	F0= Exclusive status												
	01000011	43= YAMAHA ID												
	0000nnnn	0n= Device Number n=always 0 (when transmit), n=0-F (when receive)												
	01001100	4C= Model ID												
	0aaaaaaa	aa= Byte Count MSB												
	0bbbbbbb	bb= Byte Count LSB												
	0hhhhhhh	hh= Address High												
	0mmmmmm	mm= Address Mid												
	01111111	ll= Address Low												
	0ddddd	dd= Data												
	+													
	0ddddd	dd= Data												
	0ccccccc	cc= Checksum												
11110111	F7= End of Exclusive													
XG Parameter Request	F0 43 3n 4C hh ll F7	—	—	—	—	—	—	O (—)	X	X	X	X	X	
	11110000	F0= Exclusive status												
	01000011	43= YAMAHA ID												
	0011nnnn	3n= Device Number n=always 0 (when transmit), n=0-F (when receive)												
	01001100	4C= Model ID												
	0hhhhhhh	hh= Address High												
	0mmmmmm	mm= Address Mid												
	01111111	ll= Address Low												
	0ddddd	dd= Data												
	+													
	11110111	F7= End of Exclusive												
	XG Dump Request	F0 43 2n 4C hh mm ll F7	—	—	—	—	—	—	O (—)	X	X	X	X	X
		11110000	F0= Exclusive status											
		01000011	43= YAMAHA ID											
0010nnnn		2n= Device Number n=always 0 (when transmit), n=0-F (when receive)												
01001100		4C= Model ID												
0hhhhhhh		hh= Address High												
0mmmmmm		mm= Address Mid												
01111111		ll= Address Low												
0ddddd		dd= Data												
+														
11110111		F7= End of Exclusive												

System Exclusive Messages (Others)

MIDI Event	Data Format	Corresponding Voice	MIDI Reception (effective or not for each part)					MIDI Reception (affecting the panel)	MIDI Transmission (generated data)				
		Regular Voice	Song	Main Layer Left	Keyboard	Style	Extra		Panel (main generation method)	M.Pad	Style	Song	MIDI
MIDI Master Tuning	F0 43 1n 27 30 00 00 mm ll cc F7 11110000 F0= Exclusive status 01000011 43= YAMAHA ID 0001nnnn 1nn= always 0 (when transmit), n=0-F (when receive) 00100111 27= Model ID of TG100 00110000 30= Address High 00000000 00= Address Mid 00000000 00= Address Low 0000mmmm 0m= Master Tune MSB 00001111 0l= Master Tune LSB 0ccccccc cc= don't care 11110111 F7= End of Exclusive	O						O (Function)	X	X	X	X	X

# PORTATONE

## PSR- A10000

# PARTS LIST


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### Notes: DESTINATION ABBREVIATIONS

A: Australian model	M: South African model
B: British model	O: Chinese model
C: Canadian model	Q: South-east Asia model
D: German model	T: Taiwan model
E: European model	U: U.S.A. model
F: French model	V: General export model (110 V)
H: North European model	W: General export model (220 V)
I: Indonesian model	N,X: General export model
J: Japanese model	Y: Export model

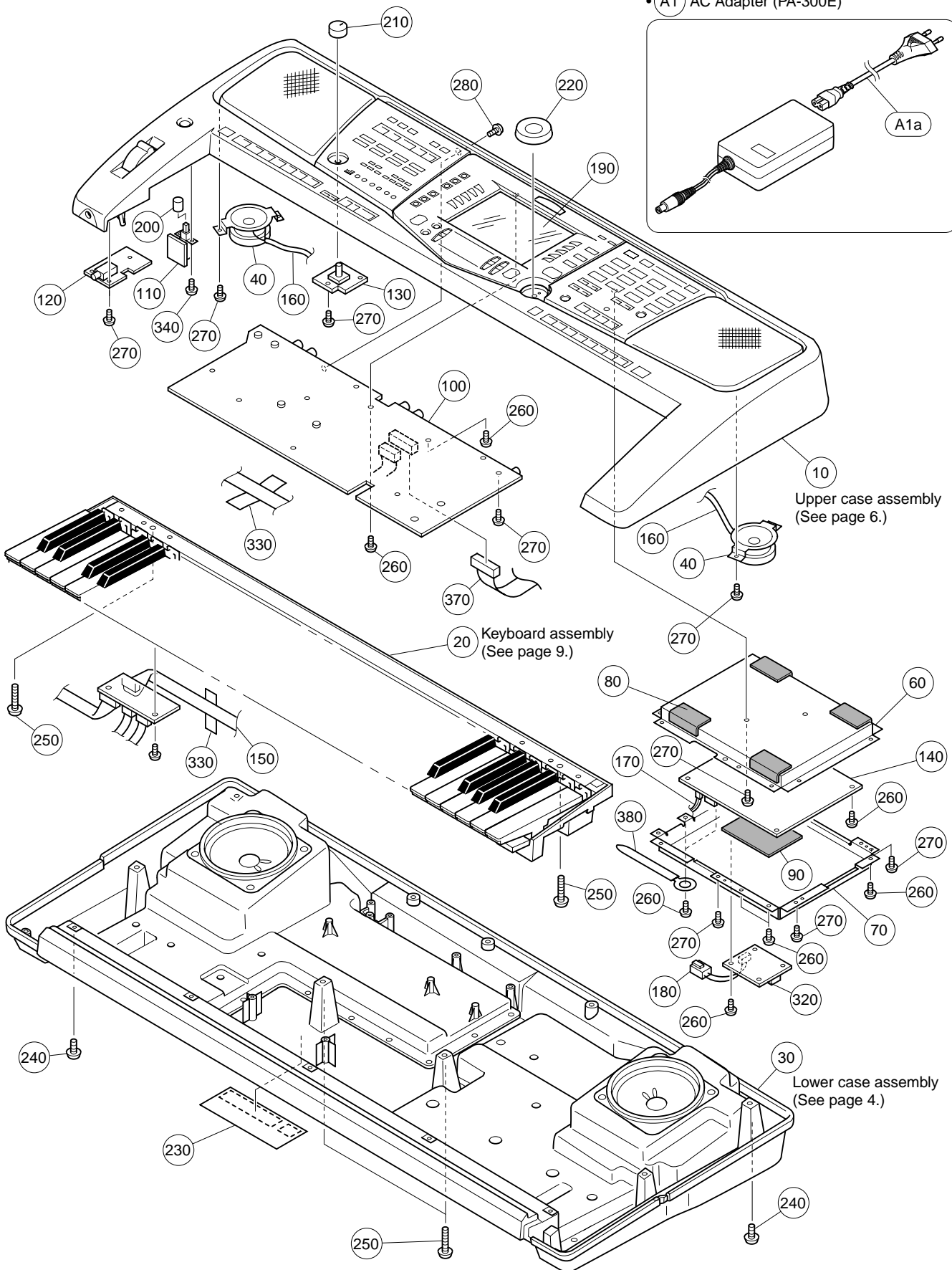
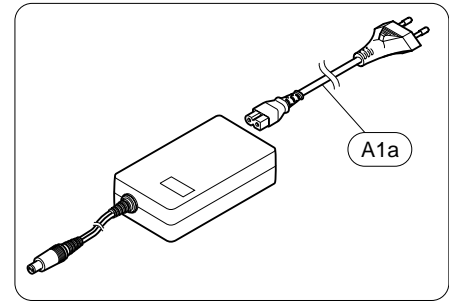
### ■ WARNING

Components having special characteristics are marked  and must be replaced with parts having specification equal to those originally installed.

- The numbers in “QTY” show quantities for each unit.
- The parts with “-” in “PART NO.” are not available as spare parts.
- The mark “}” in the remarks column indicates that these parts are interchangeable.
- The second letter of the shaded ( ) part number is O, not zero.
- The second letter of the shaded ( ) part number is I, not one.

# OVERALL ASSEMBLY

- A1 AC Adapter (PA-300E)



REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
10	--	OVERALL ASSEMBLY		PSR-A1000 (V910700)		
20	--	Upper Case Assembly		(V912870)		
20	<b>V7632100</b>	Keyboard Assembly	16M C61 P2M MKS5			21
30	--	Lower Case Assembly		(V912890)		
40	<b>XV910A00</b>	Speaker	5.0cm 4ohm	TWEETER	2	05
60	--	Shield Cover U		(V765410)		
70	--	Shield Cover L		(V765430)		
80	--	Cushion	35X25XT1	(V776290)		4
90	--	Cushion	70X50XT1	(V776300)		
100	<b>V7749400</b>	Circuit Board	AM			
110	<b>V7749500</b>	Circuit Board	SW			
120	<b>V7749600</b>	Circuit Board	HP			
130	<b>V7749700</b>	Circuit Board	VR			
140	<b>V9222100</b>	Circuit Board	DM			
150	--	Connector Assembly	KB 6P	(V778240)		
160	--	Connector Assembly	TW XH 4P L=800	(V778260)		
170	--	Connector Assembly	INVP PH 2P L=200	(V778270)		
180	--	Connector Assembly	INV XH 4P L=100	(V778280)		
190	<b>V7654600</b>	LCD Cover				06
200	<b>VQ218800</b>	Push Knob Red		STANDBY/ON		03
210	<b>VU432400</b>	Knob Black		MASTER VOLUME		01
220	<b>V4561900</b>	Encoder Knob Gold		DATA ENTRY		05
230	--	Name Plate		(V912900)		
240	<b>EP600300</b>	Bind Head Tapping Screw-P	3.0X12 MFZN2Y		16	01
250	<b>VK228100</b>	Bind Head Tapping Screw-P	3.0X25 MFZN2Y		4	01
260	<b>EP600130</b>	Bind Head Tapping Screw-B	3.0X6 MFZN2Y		18	01
270	<b>EP600280</b>	Bind Head Tapping Screw-P	3.0X8 MFZN2Y		24	01
280	<b>EP600230</b>	Bind Head Tapping Screw-B	3.0X6 MFZN2BL		4	01
320	<b>V4200400</b>	Circuit Board	INV			07
330	<b>VA126100</b>	Adhesive Tape	12X50		20	03
340	<b>EP600420</b>	Flat Head Tapping Screw-B	3.0X8 MFZN2Y		2	01
370	--	Connector Assembly	AN2 9P	(V815810)		
380	<b>CB817510</b>	Cord Binder	S-14B		2	03
ACCESSORIES						
△	A1	<b>V7656200</b>	AC Adapter	PA-300 E	E	15
△	A1a	<b>AAX30970</b>	AC Cord		E	
△	A1	<b>V7656300</b>	AC Adapter	PA-300 GBR	B	16
△	A1a	<b>AAX30980</b>	AC Cord		B	
		<b>V2589700</b>	Music Rest Black			08
*		<b>X2803A00</b>	Floppy Disk	3.5 inch 1.44M	E,N,B	

\*: New Parts

RANK: Japan only



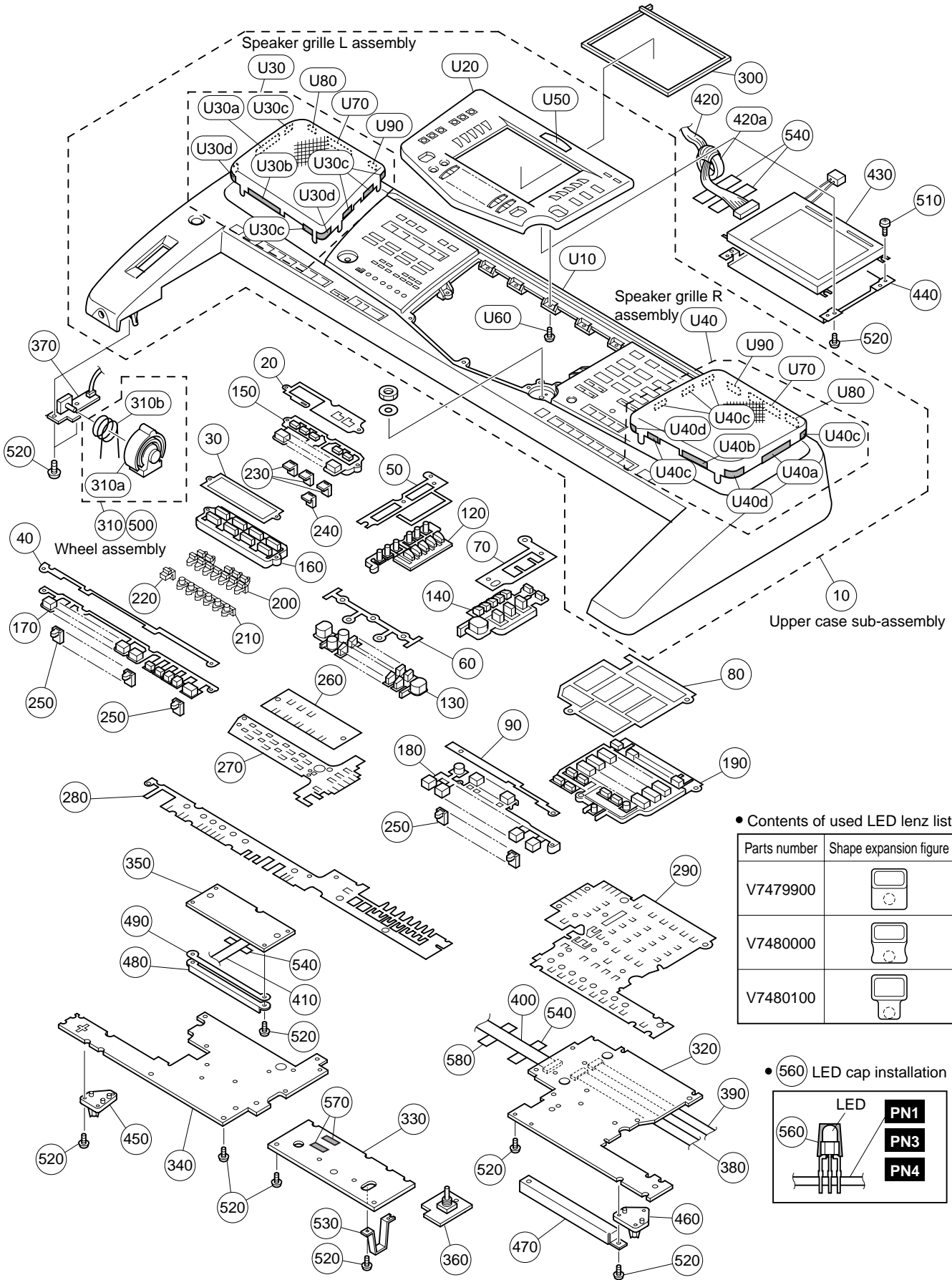


REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	--	LOWER CASE ASSEMBLY		PSR-A1000 (V912890)		
* 10	<b>V9198100</b>	Lower Case Sub Assembly				
20	--	Floppy Disk Drive Assembly		(V766070)		
30	<b>V7632700</b>	Cover, FDD				03
40	<b>EP600280</b>	Bind Head Tapping Screw-P	3.0X8 MFZN2Y		2	01
50	<b>VM839600</b>	Bind Head Tapping Screw-P	4.0X16 MFZN2Y		4	01
60	<b>VA126100</b>	Adhesive Tape	12X50		7	03
70	--	Vibration-proof Tape	10X40X0.5	(VT85830)	2	
80	--	Vibration-proof Tape	7X100X0.5	(VT85820)		
90	<b>XT523A00</b>	Speaker	12.0cm 4ohm 10W	WOOFER	2	07
100	<b>EP640500</b>	Bind Head Tapping Screw-P	4.0X10 MFZN2Y		8	01
110	--	Connector Assembly	SP XH 5P L=800	(V778250)		
130	--	Cushion	30X110XT3.5	(VZ53050)		
160	<b>V7782900</b>	Connector Assembly	FD 34P FLAT CABLE			06
170	<b>V7780900</b>	Connector Assembly	FDPS XH 3P L=700			03
180	<b>VV269300</b>	Adhesive Tape	12X20		4	
* L10	<b>V9198100</b>	Lower Case Sub Assembly				
L20	--	Lower Case		(V766000)		
L20	<b>CB043750</b>	Foot Black	T1.6		5	01
L30	--	Cushion	210X13XT2	(V462340)	2	
L40	--	Vibration-proof Tape	13X700 T0.5	(VZ27440)	2	
L50	--	Speaker Box L	LEFT	(V374980)		
L60	--	Speaker Box R	RIGHT	(V374990)		
L70	--	Seal Tape	1 20X70XT1	(VZ08600)	2	
L80	--	Seal Tape	2 8X1800XT1	(VZ08610)	2	
L90	--	Seal Tape	SP D(125-110)XT1	(VZ08650)	2	
L100	<b>EP640500</b>	Bind Head Tapping Screw-P	4.0X10 MFZN2Y		53	01
L110	--	Cushion Felt		(V751260)		
L120	--	Cushion Felt		(V751270)		
F10	<b>V6492300</b>	Floppy Disk Drive Assembly		(V766070)		13
F20	<b>VT431000</b>	Floppy Disk Drive	ALPS DF354H			03
F30	<b>VT431100</b>	Holder, FDD L	LEFT			03
F30	<b>VT431100</b>	Holder, FDD R	RIGHT			
F40	<b>EG330360</b>	Bind Head Screw	3.0X6 MFZN2BL		4	01
F50	<b>VA121600</b>	Bushing			4	01
F60	<b>VK431100</b>	FDD Spacer			4	01
F70	--	Adhesive Tape	ECT #590S W=15	(ZL35000)		

\*: New Parts

RANK: Japan only

# UPPER CASE ASSEMBLY



REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	--	UPPER CASE ASSEMBLY		PSR-A1000 (V912870)		
* 10	<b>V9132400</b>	Upper Case Sub-assembly				
20	--	Vibration-proof Sheet	U1	(V776010)		
30	--	Vibration-proof Sheet	U2	(V913250)		
40	--	Vibration-proof Sheet	U3	(V776030)		
50	--	Vibration-proof Sheet	U4	(V776040)		
60	--	Vibration-proof Sheet	U5	(V776050)		
70	--	Vibration-proof Sheet	U6	(V776060)		
80	--	Vibration-proof Sheet	U7	(V913260)		
90	--	Vibration-proof Sheet	U8	(V776080)		
120	<b>V7656700</b>	Panel Button Black	x11	SOUND CREATOR,DIGITAL RECORDING,MIXING CONSOLE, DEMO,HELP,FUNCTION, LCD select A-E		03
130	<b>V7656900</b>	Panel Button Black	x20	DIRECT ACCESS,BALANCE, CHANNEL ON/OFF,1-8(UP/DOWN),EXIT		03
140	<b>V7657100</b>	Panel Button Black	x11	BACK,NEXT,MAIN,LAYER, LEFT, SCALE TUNING,LCD SELECT F-J		03
150	<b>V7657300</b>	Panel Button Gold	x10	SONG (EXTRA TRACKS,...,FF)		03
* 160	<b>V8882400</b>	Panel Button Gold	x8	STYLE(POP&ROCK,..,USER)		
* 170	<b>V8882500</b>	Panel Button Black	x13	STYLE CONTROL(ACMP,..,START/STOP)		
180	<b>V7479500</b>	Panel Button Black	x15	ENTER,MULTI PAD1-4, REGISTRATION MEMORY (FREEZE,...,MEMORY)		03
* 190	<b>V8882600</b>	Panel Button Gold	x27	LEFT HOLD,VOICE EFFECT (TOUCH,...,VARIATION), VOICE(PIANO,...,USER),		
				TRANSPOSE,TEMPO,UPPER OCTAVE,TAP TEMPO,STOP SCALE SETTING		
* 200	<b>V8568600</b>	Panel Button	x12	SCALE MEMORY1-6		
* 210	<b>V8568800</b>	Panel Button	x6	MEMORIZE		
* 220	<b>V8568900</b>	Panel Button	x1	EXTRA TRACKS,TRACK1-2	3	01
230	<b>V7479900</b>	Lens, LED		SONG(START/STOP)		01
240	<b>V7480000</b>	Lens, LED		STYLE CONTROL(BREAK,INTRO, MAIN A-D,ENDING/rit., START/STOP),REGISTRATION	16	01
250	<b>V7480100</b>	Lens, LED		MEMORY 1-8		
260	--	Vibration-proof Sheet	L1	(V776110)		
270	--	Vibration-proof Sheet	L2	(V913270)		
280	--	Vibration-proof Sheet	L3	(V913280)		
290	--	Vibration-proof Sheet	L4	(V920000)		
300	--	Vibration-proof Sheet	LC-3000#2N	(VV61640)		
310	--	Wheel Assembly		(VT48770)		
310a	<b>VT366400</b>	Wheel		PITCH BEND		03
310b	<b>VT440100</b>	Spring				03
* 320	<b>V9238800</b>	Circuit Board	PN1			
* 330	<b>V9238900</b>	Circuit Board	PN2			
* 340	<b>V9239100</b>	Circuit Board	PN3			
* 350	<b>V9239200</b>	Circuit Board	PN4			
* 360	<b>V9239000</b>	Circuit Board	ENC			
* 370	<b>V9239300</b>	Circuit Board	PB1			
380	--	Connector Assembly	PN1 26P	(V778070)		
390	--	Connector Assembly	PN2 21P	(V778080)		
400	<b>MFA28300</b>	Cable	28P 300mm P=1.0			
410	<b>MFA11100</b>	Cable	11P 100mm P=1.0			
420	--	Connector Assembly	LCD 14P	(V815820)		
420a	<b>VB933800</b>	Ferrite Core	BP53RB310190100A			04
430	<b>V3331300</b>	LCD	EDMMPU3BCF			23
440	--	LCD Holder		(V768340)		
450	<b>V7479800</b>	Support, Keyboard				01
460	<b>V7484700</b>	Support, Keyboard				01
470	--	Angle Bracket, Panel		(V748060)		
480	--	Angle Bracket, Panel	2	(V777170)		
490	--	Insulating Paper		(V777180)		
500	<b>TX920280</b>	Grease	G-31KA 50g			10
510	<b>EP600130</b>	Bind Head Tapping Screw-B	3.0X6 MFZN2Y		4	01

\*: New Parts

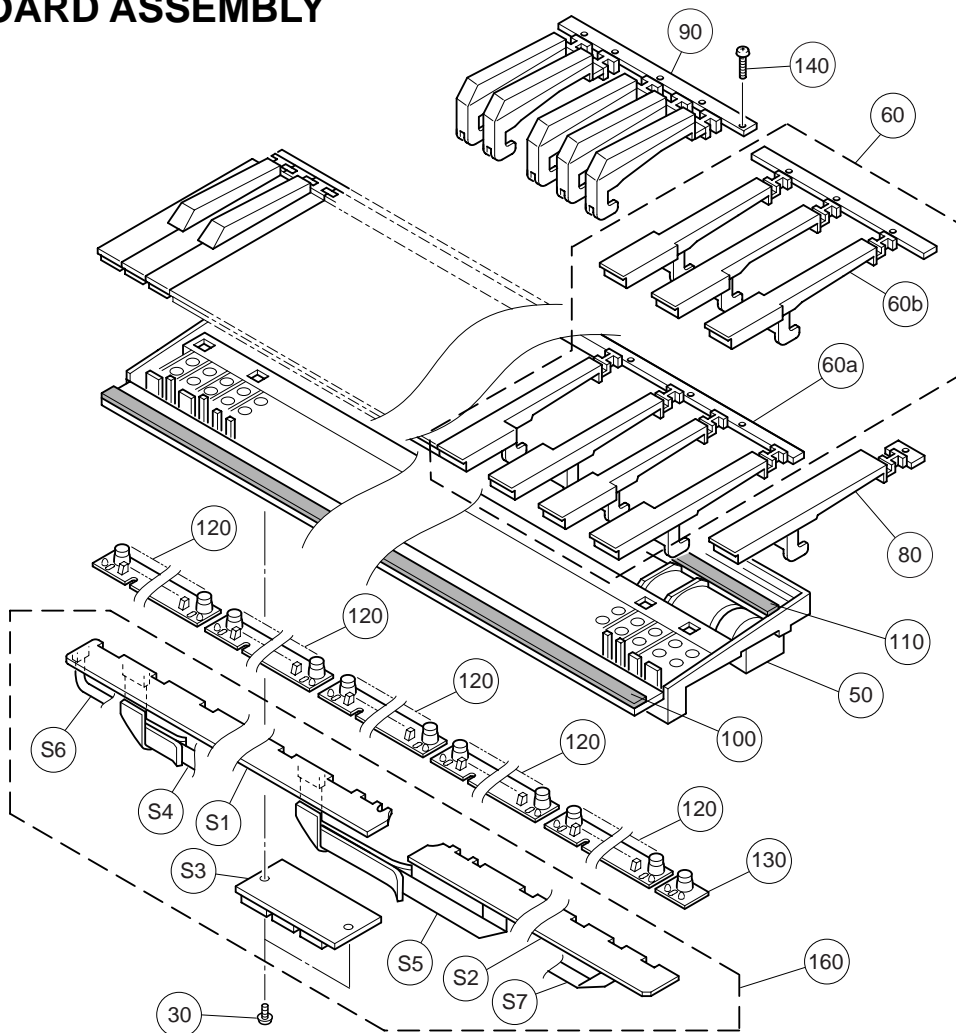
RANK: Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
520	<b>EP600280</b>	Bind Head Tapping Screw-P	3.0X8 MFZN2Y		58	01
530	<b>V7561800</b>	Holder, DM				
540	<b>VA126100</b>	Adhesive Tape	12X50		5	03
560	<b>V8114500</b>	LED Cap			20	02
570	--	Nonwoven Fabric Cloth	25X7X0.5	(V837730)	2	
580	<b>VN195400</b>	Adhesive Tape	12X70			03
	<b>V9132400</b>	Upper Case Sub-assembly				
U10	--	Upper Case		(V913290)		
U20	--	Center Panel		(V913300)		
U30	<b>V7659700</b>	Speaker Grille L Assembly	LEFT			05
U30a	--	Nonwoven Fabric Cloth	80X8X0.5	(V766020)		
U30b	--	Nonwoven Fabric Cloth	55X8X0.5	(V766030)		
U30c	--	Nonwoven Fabric Cloth	14X8X0.5	(V766040)	5	
U30d	--	Nonwoven Fabric Cloth	40X8X0.5	(V826450)	2	
U40	<b>V7659800</b>	Speaker Grille R Assembly	RIGHT			05
U40a	--	Nonwoven Fabric Cloth	80X8X0.5	(V766020)		
U40b	--	Nonwoven Fabric Cloth	55X8X0.5	(V766030)		
U40c	--	Nonwoven Fabric Cloth	14X8X0.5	(V766040)	5	
U40d	--	Nonwoven Fabric Cloth	40X8X0.5	(V826450)	2	
U50	<b>V7660600</b>	Emblem	YAMAHA			
U60	<b>EP600280</b>	Bind Head Tapping Screw-P	3.0X8 MFZN2Y		12	01
U70	--	Spacer	L=100	(V384790)	2	
U80	--	Spacer	L=20	(V834710)	2	
U90	--	Spacer	L=13	(V834720)	2	

\*: New Parts

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# KEYBOARD ASSEMBLY



REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
	V7632100	KEYBOARD ASSEMBLY	16M C61 P2M MKS5	PSR-A1000		21
30	EP630220	Bind Head Tapping Screw-P	3.0X8 MFZN2BL	}	2	01
50	--	Frame	C61 16M			
50	VU328600	Frame	C61 16M			10
60	VH1809C0	White Key	16L CEGB DFA		5	03
60a	VH180900	White Key	16L CEGB		5	03
60b	VH181000	White Key	16L DFA		5	03
80	VH181100	White Key	16L C'			01
90	VH181200	Black Key	16L #		5	03
100	VH181300	Felt				03
110	VH181400	Rubber Sheet				01
120	VU328400	Rubber Contact	16M OCT 2M 12KEYS		5	06
130	VU328500	Rubber Contact	16M C' 2M 1KEY			
140	VB205200	Bind Head Tapping Screw-P	3.0X16 MFZN2BL	}	21	01
140	VS756700	Bind Head Tapping Screw-P	3.0X16 MFZN2B			
150	TX920280	Grease	G-31KA 50g			10
160	--	Circuit Board Assembly	16M C61 P2 MKS5	(V763220)		
	--	Circuit Board Assembly	16M C61 P2 MKS5	(V763220)		
S1	VU648100	Circuit Board	MK-L			09
S2	VU648200	Circuit Board	MK-H			09
S3	V8142700	Circuit Board	MKS5F			08
S4	VU958900	Cable	12P			03
S5	VU659500	Cable	12P			02
S6	VU659400	Cable	7P			02
S7	VU659600	Cable	5P			02

\*: New Parts

RANK: Japan only

# ■ ELECTRICAL PARTS

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
		ELECTRICAL PARTS		PSR-A1000		
	V7749400	Circuit Board	AM	(V756880)(X0189D0)		
	V7749600	Circuit Board	HP	(V756880)(X0189D0)		
	V7749500	Circuit Board	SW	(V756880)(X0189D0)		
	V7749700	Circuit Board	VR	(V756880)(X0189D0)		
*	V9222100	Circuit Board	DM	(X0128D0)		
*	V9239000	Circuit Board	ENC	(V922220)(X2616B0)		
*	V9238800	Circuit Board	PN1	(V922220)(X2616B0)		
*	V9238900	Circuit Board	PN2	(V922220)(X2616B0)		
	V4200400	Circuit Board	INV	(XW193B0)		07
	VU648200	Circuit Board	MK-H	(XR565C0)		09
	VU648100	Circuit Board	MK-L	(XR564C0)		09
	V8142700	Circuit Board	MKS5F	(V814260)(X2002A0)		08
*	V9239300	Circuit Board	PB1	(V922230)(X2617B0)		
*	V9239100	Circuit Board	PN3	(V922230)(X2617B0)		
*	V9239200	Circuit Board	PN4	(V922230)(X2617B0)		
	V7749400	Circuit Board	AM	(V756880)(X0189D0)		
	V7749600	Circuit Board	HP	(V756880)(X0189D0)		
	V7749500	Circuit Board	SW	(V756880)(X0189D0)		
	V7749700	Circuit Board	VR	(V756880)(X0189D0)		
	--	Jumper Wire	0.55	(VA07890)		
10	--	Angle Bracket		(V748510)		
20	--	Angle Bracket, DC Jack		(V748520)		
30	EP600130	Bind Head Tapping Screw-B	3.0X6 MFZN2Y		2	01
40	EP630220	Bind Head Tapping Screw-P	3.0X8 MFZN2BL			01
50	EP600190	Bind Head Tapping Screw-B	3.0X8 MFZN2BL		4	01
60	EP600220	Bind Head Tapping Screw-B	3.0X10 MFZN2Y		2	01
C0100	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0101	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0104	UR749680	Electrolytic Cap.	6800 25.0V			03
C0106	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0107	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0109	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0110	UR865100	Electrolytic Cap.	0.10 50.0V			01
C0111	UR865100	Electrolytic Cap.	0.10 50.0V			01
C0112	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0114	UR848100	Electrolytic Cap.	100.00 25.0V			01
C0115	UN866220	Electrolytic Cap.-BP	2.20 50.0V			01
C0116	UN866220	Electrolytic Cap.-BP	2.20 50.0V			01
C0119	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0122	VR168700	Monolithic Mylar Capacitor	ECQ-V1H224JL3			01
C0123	UA654680	Mylar Capacitor	0.0680 50V J			02
C0124	UA654120	Mylar Capacitor	0.0120 50V J			01
C0125	UA653560	Mylar Capacitor	5600P 50V J			01
C0126	UA653390	Mylar Capacitor	3900P 50V J			01
C0127	VR168700	Monolithic Mylar Capacitor	ECQ-V1H224JL3			01
C0128	UA654680	Mylar Capacitor	0.0680 50V J			02
C0129	UA654120	Mylar Capacitor	0.0120 50V J			01
C0130	UA653560	Mylar Capacitor	5600P 50V J			01
C0131	UA653390	Mylar Capacitor	3900P 50V J			01
C0133	VR169500	Monolithic Mylar Capacitor	ECQ-V1H824JL3			01
C0134	VR168600	Monolithic Mylar Capacitor	ECQ-V1H184JL3			01
C0135	UA654470	Mylar Capacitor	0.0470 50V J			01
C0136	UA654220	Mylar Capacitor	0.0220 50V J			01
C0137	UA652560	Mylar Capacitor	560P 50V J			02
C0138	VR169500	Monolithic Mylar Capacitor	ECQ-V1H824JL3			01
C0139	VR168600	Monolithic Mylar Capacitor	ECQ-V1H184JL3			01
C0140	UA654470	Mylar Capacitor	0.0470 50V J			01
C0141	UA654220	Mylar Capacitor	0.0220 50V J			01
C0142	UA652560	Mylar Capacitor	560P 50V J			02
C0146	UR837470	Electrolytic Cap.	47.00 16.0V			01
C0147	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0148	UR837470	Electrolytic Cap.	47.00 16.0V			01
C0149	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0152	FG612560	Ceramic Capacitor-B	560P 50V K			01
C0153	FG612560	Ceramic Capacitor-B	560P 50V K			01
C0156	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0157	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0158	UA653470	Mylar Capacitor	4700P 50V J			01

\*: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C0159	UA653470	Mylar Capacitor	4700P 50V J			01
C0160	UA653820	Mylar Capacitor	8200P 50V J			01
C0161	UA653820	Mylar Capacitor	8200P 50V J			01
C0162	UA653470	Mylar Capacitor	4700P 50V J			01
-0165	UA653470	Mylar Capacitor	4700P 50V J			01
C0166	UR866220	Electrolytic Cap.	2.20 50.0V			01
C0167	UR866220	Electrolytic Cap.	2.20 50.0V			01
C0168	UR866100	Electrolytic Cap.	1.00 50.0V			01
C0169	UR866100	Electrolytic Cap.	1.00 50.0V			01
C0170	VR169000	Monolithic Mylar Capacitor	ECQ-V1H334JL3			01
C0171	VR169000	Monolithic Mylar Capacitor	ECQ-V1H334JL3			01
C0172	UR837100	Electrolytic Cap.	10.00 16.0V			01
C0173	UR837100	Electrolytic Cap.	10.00 16.0V			01
C0174	UN837100	Electrolytic Cap.-BP	10.00 16.0V			01
C0175	UN837100	Electrolytic Cap.-BP	10.00 16.0V			01
C0176	UR866220	Electrolytic Cap.	2.20 50.0V			01
C0177	UR866220	Electrolytic Cap.	2.20 50.0V			01
C0178	V6490000	Monolithic Ceramic Cap.	1.000 25V Z			01
C0179	V6490000	Monolithic Ceramic Cap.	1.000 25V Z			01
C0180	FG612470	Ceramic Capacitor-B	470P 50V K			01
C0181	FG612470	Ceramic Capacitor-B	470P 50V K			01
C0182	UR866220	Electrolytic Cap.	2.20 50.0V			01
C0183	UR866220	Electrolytic Cap.	2.20 50.0V			01
C0184	FG612470	Ceramic Capacitor-B	470P 50V K			01
C0185	FG612470	Ceramic Capacitor-B	470P 50V K			01
C0186	UR827330	Electrolytic Cap.	33.00 10.0V			01
C0187	UR866470	Electrolytic Cap.	4.70 50.0V			01
C0188	UR865470	Electrolytic Cap.	0.47 50.0V			01
C0189	UR838100	Electrolytic Cap.	100.00 16.0V			01
C0190	FG651680	Ceramic Capacitor-SL	68P 50V J			01
-0193	FG651680	Ceramic Capacitor-SL	68P 50V J			01
C0194	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0195	UR848100	Electrolytic Cap.	100.00 25.0V			01
C0196	UR828100	Electrolytic Cap.	100.00 10.0V			01
C0197	UR838220	Electrolytic Cap.	220.00 16.0V			01
C0198	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0199	UR838220	Electrolytic Cap.	220.00 16.0V			01
C0200	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0201	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0202	UR837100	Electrolytic Cap.	10.00 16.0V			01
-0205	UR837100	Electrolytic Cap.	10.00 16.0V			01
C0206	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0207	UR848100	Electrolytic Cap.	100.00 25.0V			01
C0208	FG644220	Ceramic Capacitor-F	0.0220 50V Z			01
C0209	FG644220	Ceramic Capacitor-F	0.0220 50V Z			01
C0210	UR838220	Electrolytic Cap.	220.00 16.0V			01
C0211	UR838220	Electrolytic Cap.	220.00 16.0V			01
C0213	UR838220	Electrolytic Cap.	220.00 16.0V			01
C0214	UR838220	Electrolytic Cap.	220.00 16.0V			01
C0215	UA654470	Mylar Capacitor	0.0470 50V J			01
C0216	FG613680	Ceramic Capacitor-B	6800P 50V K			01
-0219	FG613680	Ceramic Capacitor-B	6800P 50V K			01
C0220	UA654470	Mylar Capacitor	0.0470 50V J			01
-0222	UA654470	Mylar Capacitor	0.0470 50V J			01
C0300	UR837100	Electrolytic Cap.	10.00 16.0V			01
C0301	UN817470	Electrolytic Cap.-BP	47.00 6.3V			01
C0302	FG644100	Ceramic Capacitor-F	0.0100 50V Z			01
C0303	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0304	FG644100	Ceramic Capacitor-F	0.0100 50V Z			01
C0305	FG644100	Ceramic Capacitor-F	0.0100 50V Z			01
C0306	UR837100	Electrolytic Cap.	10.00 16.0V			01
C0307	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0308	FG644100	Ceramic Capacitor-F	0.0100 50V Z			01
C0309	FG644100	Ceramic Capacitor-F	0.0100 50V Z			01
C0310	FG613100	Ceramic Capacitor-B	1000P 50V K			01
C0311	FG613100	Ceramic Capacitor-B	1000P 50V K			01
C0400	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C0401	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
CN100	VI878300	Cable Holder	51048 5P TE			01
CN102	VK024900	Wire Trap	52147 5P TE			01

\*: New Parts

RANK: Japan only

PSR-A1000

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
CN103	<b>VB390500</b>	Connector Base Post	PH 9P TE			03
CN104	<b>VI878400</b>	Cable Holder	51048 6P TE			01
CN105	<b>VI878400</b>	Cable Holder	51048 6P TE			01
CN106	<b>VI878300</b>	Cable Holder	51048 5P TE			01
CN108	<b>VI878300</b>	Cable Holder	51048 5P TE			01
CN109	<b>LB918040</b>	Base Post Connector	XH 4P TE			01
CN110	<b>LB918050</b>	Base Post Connector	XH 5P TE			01
CN111	<b>VI878300</b>	Cable Holder	51048 5P TE			01
CN300	<b>VI878900</b>	Cable Holder	51048 11P TE			01
CN303	<b>VI878100</b>	Cable Holder	51048 3P TE			01
△ D0100	<b>VR313500</b>	Diode	S3V20			01
D0300	<b>VB941200</b>	Diode	1SS133,1SS176			01
-0303	<b>VB941200</b>	Diode	1SS133,1SS176			01
D0400	<b>VB941200</b>	Diode	1SS133,1SS176			01
-0403	<b>VB941200</b>	Diode	1SS133,1SS176			01
HS001	--	Heat Sink	25BS098H-L50	(V776520)		
HS002	--	Heat Sink		(V791920)		
IC100	<b>XB247A00</b>	IC	UPC4570HA	OP AMP		02
IC101	<b>XJ608A00</b>	IC	NJM7812FA	} REGULATOR +12V		02
IC101	<b>XM169A00</b>	IC	AN7812F			
IC102	<b>XB247A00</b>	IC	UPC4570HA	OP AMP		02
IC104	<b>XF751A00</b>	IC	M5227P	EQUALIZER		04
IC105	<b>XF751A00</b>	IC	M5227P	EQUALIZER		04
IC107	<b>XB247A00</b>	IC	UPC4570HA	OP AMP		02
IC108	<b>XB247A00</b>	IC	UPC4570HA	OP AMP		02
IC110	<b>XQ619A00</b>	IC	LA4705NA	POWER AMP 17W		05
IC111	<b>XB247A00</b>	IC	UPC4570HA	OP AMP		02
IC112	<b>XB247A00</b>	IC	UPC4570HA	OP AMP		02
IC113	<b>XW812A00</b>	IC	LA4262	POWER AMP 7W 2ch		04
IC114	<b>XM217A00</b>	IC	LA4525	POWER AMP 0.65W 2ch		03
IC301	<b>IG142250</b>	IC	SN74HCU04N	INVERTER		01
IC307	<b>XU463A00</b>	IC	SN75C1168N	LINE TRANSCEIVER		05
IC308	<b>VG181900</b>	Photo Coupler	PC-900V			03
J0100	--	Jumper Wire	0.55	(VA07890)		
-0107	--	Jumper Wire	0.55	(VA07890)		
J0110	--	Jumper Wire	0.55	(VA07890)		
-0112	--	Jumper Wire	0.55	(VA07890)		
J0116	--	Jumper Wire	0.55	(VA07890)		
-0118	--	Jumper Wire	0.55	(VA07890)		
J0127	--	Jumper Wire	0.55	(VA07890)		
-0130	--	Jumper Wire	0.55	(VA07890)		
J0999	--	Jumper Wire	0.55	(VA07890)		
△ JK100	<b>V7509100</b>	Connector	DJ-0735B-029	DC IN 16V		02
JK102	<b>VB312600</b>	Phone Jack Black	YKB21-5012	OUTPUT R		02
JK103	<b>VC687500</b>	Phone Jack Black	YKB21-5014	OUTPUT L/L+R		01
JK104	<b>VP599300</b>	Pin Jack White/Red	2P YKC21-3120	AUX OUT L/R(LEVEL FIXED)		02
JK105	<b>LB101870</b>	Phone Jack	YKB21-5006	PHONES		03
JK300	<b>VJ107200</b>	DIN Connector	5P YKF51-5050	MIDI OUT		01
JK301	<b>VJ107200</b>	DIN Connector	5P YKF51-5050	MIDI IN		01
JK302	<b>VM761000</b>	DIN Connector	8P MD-S810	TO HOST		03
JK303	<b>VB312600</b>	Phone Jack Black	YKB21-5012	FOOT PEDAL 1		02
JK304	<b>VS115400</b>	Phone Jack Black	LGR4609-7000	FOOT PEDAL 2		01
△ L0100	<b>VI486800</b>	Line Filter	SU10VD-20020			03
L0102	<b>VB835000</b>	Coil	FL5R200QNT 20uH	}		01
L0102	<b>V2993400</b>	Choke Coil	R-5C.20U 20uH			01
L0103	<b>GE300670</b>	Ferrite Bead	BL02RN2-R62T4	}		02
L0104	<b>VB835000</b>	Coil	FL5R200QNT 20uH			01
L0104	<b>V2993400</b>	Choke Coil	R-5C.20U 20uH	}		01
L0105	<b>VB835000</b>	Coil	FL5R200QNT 20uH			01
L0105	<b>V2993400</b>	Choke Coil	R-5C.20U 20uH	}		01
L0106	<b>GE300670</b>	Ferrite Bead	BL02RN2-R62T4			02
L0107	<b>VB835000</b>	Coil	FL5R200QNT 20uH	}		01
-0109	<b>VB835000</b>	Coil	FL5R200QNT 20uH			01
L0107	<b>V2993400</b>	Choke Coil	R-5C.20U 20uH	}		01
-0109	<b>V2993400</b>	Choke Coil	R-5C.20U 20uH			01
L0110	<b>GE300670</b>	Ferrite Bead	BL02RN2-R62T4	}		02
L0300	<b>VB835000</b>	Coil	FL5R200QNT 20uH			01
-0316	<b>VB835000</b>	Coil	FL5R200QNT 20uH	}		01
L0300	<b>V2993400</b>	Choke Coil	R-5C.20U 20uH			01
-0316	<b>V2993400</b>	Choke Coil	R-5C.20U 20uH		01	

\*: New Parts

RANK: Japan only



REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
L0400	<b>VB835000</b>	Coil	FL5R200QNT 20uH	}	01
L0400	<b>V2993400</b>	Choke Coil	R-5C.20U 20uH		01
L0401	<b>VB835000</b>	Coil	FL5R200QNT 20uH		01
L0401	<b>V2993400</b>	Choke Coil	R-5C.20U 20uH		01
R0101	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
R0102	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
R0103	<b>HF758100</b>	Carbon Resistor	100.0K 1/4 J		01
R0104	<b>HF758100</b>	Carbon Resistor	100.0K 1/4 J		01
R0110	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
R0111	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
R0112	<b>HF757220</b>	Carbon Resistor	22.0K 1/4 J		01
R0113	<b>HF755560</b>	Carbon Resistor	560.0 1/4 J		01
R0114	<b>HF756120</b>	Carbon Resistor	1.2K 1/4 J		01
R0115	<b>HF756100</b>	Carbon Resistor	1.0K 1/4 J		01
R0116	<b>HF757150</b>	Carbon Resistor	15.0K 1/4 J		01
R0117	<b>HF757220</b>	Carbon Resistor	22.0K 1/4 J		01
R0118	<b>HF755560</b>	Carbon Resistor	560.0 1/4 J		01
R0119	<b>HF756120</b>	Carbon Resistor	1.2K 1/4 J		01
R0120	<b>HF756100</b>	Carbon Resistor	1.0K 1/4 J		01
R0121	<b>HF757150</b>	Carbon Resistor	15.0K 1/4 J		01
R0122	<b>HF755220</b>	Carbon Resistor	220.0 1/4 J		01
R0123	<b>HF757180</b>	Carbon Resistor	18.0K 1/4 J		01
R0124	<b>HF757220</b>	Carbon Resistor	22.0K 1/4 J		01
R0125	<b>HF757220</b>	Carbon Resistor	22.0K 1/4 J		01
R0126	<b>HF756270</b>	Carbon Resistor	2.7K 1/4 J		01
R0127	<b>HF755220</b>	Carbon Resistor	220.0 1/4 J		01
R0128	<b>HF757180</b>	Carbon Resistor	18.0K 1/4 J		01
R0129	<b>HF757220</b>	Carbon Resistor	22.0K 1/4 J		01
R0130	<b>HF757220</b>	Carbon Resistor	22.0K 1/4 J		01
R0131	<b>HF756270</b>	Carbon Resistor	2.7K 1/4 J		01
R0141	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
R0142	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
R0144	<b>HF756560</b>	Carbon Resistor	5.6K 1/4 J		01
R0145	<b>HF756560</b>	Carbon Resistor	5.6K 1/4 J		01
R0146	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
R0147	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
R0148	<b>HF756560</b>	Carbon Resistor	5.6K 1/4 J		01
R0149	<b>HF756560</b>	Carbon Resistor	5.6K 1/4 J		01
R0150	<b>HF757100</b>	Carbon Resistor	10.0K 1/4 J		01
R0151	<b>HF757100</b>	Carbon Resistor	10.0K 1/4 J		01
R0152	<b>HF756220</b>	Carbon Resistor	2.2K 1/4 J		01
-0155	<b>HF756220</b>	Carbon Resistor	2.2K 1/4 J		01
R0156	<b>HF755330</b>	Carbon Resistor	330.0 1/4 J		01
-0159	<b>HF755330</b>	Carbon Resistor	330.0 1/4 J		01
R0160	<b>HF756220</b>	Carbon Resistor	2.2K 1/4 J		01
R0161	<b>HF757100</b>	Carbon Resistor	10.0K 1/4 J		01
R0162	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
-0165	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
R0166	<b>HF756330</b>	Carbon Resistor	3.3K 1/4 J		01
R0167	<b>HF756330</b>	Carbon Resistor	3.3K 1/4 J		01
R0168	<b>HF755100</b>	Carbon Resistor	100.0 1/4 J		01
R0169	<b>HF755100</b>	Carbon Resistor	100.0 1/4 J		01
R0170	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
R0171	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
R0172	<b>HF757100</b>	Carbon Resistor	10.0K 1/4 J		01
R0173	<b>HF757100</b>	Carbon Resistor	10.0K 1/4 J		01
R0174	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
-0179	<b>HF756470</b>	Carbon Resistor	4.7K 1/4 J		01
R0180	<b>HF757100</b>	Carbon Resistor	10.0K 1/4 J		01
R0181	<b>HF757100</b>	Carbon Resistor	10.0K 1/4 J		01
R0182	<b>HF754820</b>	Carbon Resistor	82.0 1/4 J		01
R0183	<b>HF754820</b>	Carbon Resistor	82.0 1/4 J		01
R0184	<b>HF757100</b>	Carbon Resistor	10.0K 1/4 J		01
-0187	<b>HF757100</b>	Carbon Resistor	10.0K 1/4 J		01
R0188	<b>HF757220</b>	Carbon Resistor	22.0K 1/4 J		01
R0189	<b>HF756820</b>	Carbon Resistor	8.2K 1/4 J		01
R0190	<b>HF755680</b>	Carbon Resistor	680.0 1/4 J		01
-0193	<b>HF755680</b>	Carbon Resistor	680.0 1/4 J		01
R0194	<b>HF753220</b>	Carbon Resistor	2.2 1/4 J		01
R0195	<b>HF757100</b>	Carbon Resistor	10.0K 1/4 J		01

\*: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
R0196	HF757220	Carbon Resistor	22.0K 1/4 J			01
R0197	HF753220	Carbon Resistor	2.2 1/4 J			01
R0198	HF757220	Carbon Resistor	22.0K 1/4 J			01
R0199	HF753220	Carbon Resistor	2.2 1/4 J			01
R0200	HF756470	Carbon Resistor	4.7K 1/4 J			01
-0203	HF756470	Carbon Resistor	4.7K 1/4 J			01
R0204	HF753220	Carbon Resistor	2.2 1/4 J			01
R0205	HF755100	Carbon Resistor	100.0 1/4 J			01
R0206	HF755100	Carbon Resistor	100.0 1/4 J			01
R0207	HF755330	Carbon Resistor	330.0 1/4 J			01
R0208	HF755330	Carbon Resistor	330.0 1/4 J			01
R0209	HF755100	Carbon Resistor	100.0 1/4 J			01
R0210	HF755100	Carbon Resistor	100.0 1/4 J			01
R0211	HF756100	Carbon Resistor	1.0K 1/4 J			01
R0212	HF756100	Carbon Resistor	1.0K 1/4 J			01
R0300	HF757100	Carbon Resistor	10.0K 1/4 J			01
-0303	HF757100	Carbon Resistor	10.0K 1/4 J			01
R0304	HF755100	Carbon Resistor	100.0 1/4 J			01
R0305	HF755100	Carbon Resistor	100.0 1/4 J			01
R0306	HF756100	Carbon Resistor	1.0K 1/4 J			01
R0307	HF757100	Carbon Resistor	10.0K 1/4 J			01
R0308	HF757100	Carbon Resistor	10.0K 1/4 J			01
R0309	HF755220	Carbon Resistor	220.0 1/4 J			01
R0310	HF755220	Carbon Resistor	220.0 1/4 J			01
R0311	HF757100	Carbon Resistor	10.0K 1/4 J			01
R0312	HF757100	Carbon Resistor	10.0K 1/4 J			01
R0313	HF756100	Carbon Resistor	1.0K 1/4 J			01
R0314	HF757100	Carbon Resistor	10.0K 1/4 J			01
R0315	HF757220	Carbon Resistor	22.0K 1/4 J			01
R0316	HF757220	Carbon Resistor	22.0K 1/4 J			01
R0317	HF756150	Carbon Resistor	1.5K 1/4 J			01
R0318	HF757100	Carbon Resistor	10.0K 1/4 J			01
R0319	HF755220	Carbon Resistor	220.0 1/4 J			01
-0322	HF755220	Carbon Resistor	220.0 1/4 J			01
R0323	HF757100	Carbon Resistor	10.0K 1/4 J			01
R0324	HF757470	Carbon Resistor	47.0K 1/4 J			01
R0325	HF756100	Carbon Resistor	1.0K 1/4 J			01
R0400	HF757220	Carbon Resistor	22.0K 1/4 J			01
R0401	HF756820	Carbon Resistor	8.2K 1/4 J			01
R0402	HF756470	Carbon Resistor	4.7K 1/4 J			01
R0403	HF756150	Carbon Resistor	1.5K 1/4 J			01
R0404	HF758100	Carbon Resistor	100.0K 1/4 J			01
R0405	HF756330	Carbon Resistor	3.3K 1/4 J			01
R0406	HF756470	Carbon Resistor	4.7K 1/4 J			01
R0407	HF755330	Carbon Resistor	330.0 1/4 J			01
R0408	HF755330	Carbon Resistor	330.0 1/4 J			01
△ SW100	VY980400	Push Switch	SDDL B1 J,UC,CEE	STANDBY/ON		03
△ SW300	VQ665200	Slide Switch	SSSF144-S06N-0	HOST SELECT		03
△ TH100	VV458000	Protector Switch	RUE250 2.50A 30V			03
TR100	IC174070	Transistor	2SC1740S R,S			01
TR101	IC174070	Transistor	2SC1740S R,S			01
TR102	IA101590	Transistor	2SA1015 O,Y			01
TR103	IC174070	Transistor	2SC1740S R,S			01
-106	IC174070	Transistor	2SC1740S R,S			01
TR300	IC174070	Transistor	2SC1740S R,S			01
TR301	IC174070	Transistor	2SC1740S R,S			01
TR400	IA101590	Transistor	2SA1015 O,Y			01
TR401	IC174070	Transistor	2SC1740S R,S			01
VR100	VZ048400	Rotary Variable Resistor	A10K XV0141GPNV20F	MASTER VOLUME		02
VR300	VV049100	Rotary Variable Resistor	B 10K RK09K1110	LCD CONTRAST		01
WH002	--	Connector Assembly	CNT 3P L=120	(V778120)		
WH003	--	Connector Assembly	DJ 11P L=120	(V778130)		
WH005	--	Connector Assembly	VOL 5P L=480	(V778150)		
WH006	--	Connector Assembly	PS 5P L=120	(V778160)		
WH007	--	Connector Assembly	HP 5P L=380	(V778170)		
WH008	--	Connector Assembly	SW 6P L=320	(V778180)		
ZD001	VG437300	Zener Diode	MTZ J 5.1A 5.1V			01
* C0000	V9222100	Circuit Board	DM	(X0128D0)		
C0000	UR848100	Electrolytic Cap.	100.00 25.0V			01

\*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C0001	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0002	UR839100	Electrolytic Cap.	1000 16.0V			01
C0005	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0006	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0007	UF047100	Electrolytic Cap. (chip)	10 25V			01
C0008	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0009	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0010	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0011	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0012	UF028100	Electrolytic Cap. (chip)	100 10V			01
C0013	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0014	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0015	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0100	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0101	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
-0105	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0107	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
-0110	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0111	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0112	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
-0115	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0116	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0117	US061220	Ceramic Capacitor-CH(chip)	22P 50V J			01
C0118	US061220	Ceramic Capacitor-CH(chip)	22P 50V J			01
C0119	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
-0122	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0123	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0124	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0125	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0126	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0127	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0128	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0130	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
-0145	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0146	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0147	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0150	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0154	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0155	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0158	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0159	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0160	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0162	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0170	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
-0178	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0200	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
-0211	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0212	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0213	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0215	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0216	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0217	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0218	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0219	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
-0225	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0228	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0231	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0232	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0233	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0234	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0235	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0236	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0237	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0238	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0239	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0240	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0300	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0301	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0302	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0303	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01

\*: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
C0304	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0305	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0306	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0307	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0308	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0309	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0310	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0311	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0312	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0313	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0314	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0315	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0316	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
-0318	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0319	UF037100	Electrolytic Cap. (chip)	10 16V			01
C0320	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0321	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0500	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0501	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0503	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0504	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0505	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01
C0528	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0529	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0536	UF018100	Electrolytic Cap. (chip)	100 6.3V			01
C0550	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0551	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
-0557	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0558	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0560	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z			01
-0565	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z			01
C0566	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0567	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0568	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0586	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0587	UF057100	Electrolytic Cap. (chip)	10 35V			01
C0588	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0600	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0601	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0602	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0603	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0604	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0605	UF128220	Electrolytic Cap. (chip)	220 10V UUR1A2			01
C0622	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0646	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0648	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0649	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0650	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0678	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
-0695	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01
C0701	UF027470	Electrolytic Cap. (chip)	47 10V			01
C0702	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0704	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0705	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01
C0706	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0707	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0709	US063220	Ceramic Capacitor-B (chip)	2200P 50V K			01
C0710	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0711	UF047100	Electrolytic Cap. (chip)	10 25V			01
C0712	UF047100	Electrolytic Cap. (chip)	10 25V			01
C0715	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01
C0716	UF037220	Electrolytic Cap. (chip)	22 16V			01
C0717	US063220	Ceramic Capacitor-B (chip)	2200P 50V K			01
C0718	US063220	Ceramic Capacitor-B (chip)	2200P 50V K			01
C0719	UF037220	Electrolytic Cap. (chip)	22 16V			01
C0720	US062220	Ceramic Capacitor-SL(chip)	220P 50V J			01
C0721	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01
C0722	UF046470	Electrolytic Cap. (chip)	4.7 25V			01
C0723	UF046470	Electrolytic Cap. (chip)	4.7 25V			01
C0724	US062220	Ceramic Capacitor-SL(chip)	220P 50V J			01

\*: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK	
C0725	US062330	Ceramic Capacitor-SL(chip)	330P 50V J			01	
C0726	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01	
C0727	US062220	Ceramic Capacitor-SL(chip)	220P 50V J			01	
C0728	US062220	Ceramic Capacitor-SL(chip)	220P 50V J			01	
C0729	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01	
C0730	US135100	Ceramic Capacitor-F (chip)	0.1000 16V Z			01	
C0731	UF037100	Electrolytic Cap. (chip)	10 16V			01	
C0732	UF037100	Electrolytic Cap. (chip)	10 16V			01	
C0733	US063220	Ceramic Capacitor-B (chip)	2200P 50V K			01	
C0734	UF046470	Electrolytic Cap. (chip)	4.7 25V			01	
C0735	US062330	Ceramic Capacitor-SL(chip)	330P 50V J			01	
C0736	UF046470	Electrolytic Cap. (chip)	4.7 25V			01	
C0800	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01	
-0802	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01	
C0803	UF017220	Electrolytic Cap. (chip)	22 6.3V			01	
C0804	UF017220	Electrolytic Cap. (chip)	22 6.3V			01	
C0805	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01	
-0815	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01	
C0816	US062100	Ceramic Capacitor-SL(chip)	100P 50V J			01	
C0817	UF017220	Electrolytic Cap. (chip)	22 6.3V			01	
C0818	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01	
C0819	US061680	Ceramic Capacitor-SL(chip)	68P 50V J			01	
C0820	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01	
-0823	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01	
C0904	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01	
C0905	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01	
C0906	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01	
C0911	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01	
-0928	US062470	Ceramic Capacitor-SL(chip)	470P 50V J			01	
C0930	US063100	Ceramic Capacitor-B (chip)	1000P 50V K			01	
C0999	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01	
C1000	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K			01	
CN100	V6146400	Connector, FFC	52207 21P SE				
CN102	VF728300	Wire Trap	52147 6P TE			01	
CN103	LB918030	Base Post Connector	XH 3P TE			01	
CN104	VB389800	Connector Base Post	PH 2P TE			01	
CN105	VK024900	Wire Trap	52147 5P TE			01	
CN109	VK025500	Wire Trap	52147 11P TE			01	
CN300	VQ391300	Connector	34P TE			03	
CN500	VV878100	Connector Base Post	DF13-14P-1.25DSA			04	
CN501	VK024700	Wire Trap	52147 3P TE			01	
CN600	V7563700	Connector, FFC	52207 26P SE				
CN908	VB390500	Connector Base Post	PH 9P TE			03	
D0000	VZ060500	Diode	SFPB-62V			01	
D0500	VT332900	Diode	1SS355 TE-17			01	
-0505	VT332900	Diode	1SS355 TE-17			01	
D0510	VT332900	Diode	1SS355 TE-17			01	
EM001	VD542700	LC Filter	DSS6NF31C223Q93A			01	
IC001	X0165A00	IC	PST596DNR	SYSTEM RESET		02	
IC100	XV250B00	IC	HD6417709F80B	CPU		11	
IC101	IS000800	IC	HD74LV08AFPEL	AND		01	
IC103	XW744A00	IC	HD74LV245ATELL	BUFFER		02	
IC104	XW744A00	IC	HD74LV245ATELL	BUFFER		02	
IC111	XS516A00	IC	UPC2933T-E1	REGULATOR +3.3V		03	
IC112	XJ598A00	IC	NJM78L05UA	REGULATOR +5V		02	
IC114	XT514A00	IC	SI-8050S(LF1103)	DC-DC CONVERTER		05	
IC200	X0176A00	IC	W986432DH-7	} SDRAM 64M		15	
IC200	X0493A00	IC	K4S643232E-TC60000				
IC200	X0494A00	IC	K4S643232E-TC70000				15
IC204	XV685A00	IC	MBM29F400BC-70PFTN	FLASH ROM 4M DATA STORAGE		11	
* IC205	X2849100	IC	K3N6V162DE-GC10	MASK ROM 32M PROGRAM-L			
* IC206	X2850100	IC	K3N6V129DE-GC10	MASK ROM 32M PROGRAM-H			
* IC207	X2851100	IC	K3N6V162DE-GC10	MASK ROM 32M STYLE			
IC300	XI939A00	IC	HD63266F	FDC		09	
IC301	XZ286A00	IC	74LVC245APW	BUFFER		02	
-303	XZ286A00	IC	74LVC245APW	BUFFER		02	
IC304	XT744A00	IC	TC74VHCT245AFT	BUFFER		07	
-306	XT744A00	IC	TC74VHCT245AFT	BUFFER		07	
IC308	XS048A00	IC	HD74LVC139FPEL	DECODER		03	
IC310	X0010A00	IC	HD74LV21ATELL	AND		01	

\*: New Parts

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REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
IC500	<b>XQ595A00</b>	IC	S1D13305F00B100	LCDC } SRAM 256K		08
IC501	<b>XR115A00</b>	IC	UPD43256BGU-70L			08
IC501	<b>XV411A00</b>	IC	W24258S-70LE-EL10			07
IC501	<b>XW433A00</b>	IC	CY62256LL-70SNCT			05
IC501	<b>XZ388A00</b>	IC	W24257S-70LL-EL10			05
IC510	<b>XW842A00</b>	IC	SN74HCU04NSR	INVERTER INVERTER DECODER }		01
IC511	<b>XW842A00</b>	IC	SN74HCU04NSR			01
IC600	<b>XY865A00</b>	IC	SN74HCT138NSR			02
IC601	<b>VT943400</b>	Transistor Array	TD62785F(TP1)			04
IC601	<b>V8566600</b>	Transistor Array	TD62785F(EL)			
IC700	<b>XY782A00</b>	IC	AD1854JRSRL	DAC OP AMP OP AMP } DRAM 4M		05
IC702	<b>XF291A00</b>	IC	UPC4570G2			03
IC703	<b>XF291A00</b>	IC	UPC4570G2			03
IC800	<b>XU462A00</b>	IC	MSM514260C-60TS-K			08
IC800	<b>XU462B00</b>	IC	MSM514260E-60TS-K			07
IC801	<b>XU947C00</b>	IC	HG73C205AFD	SWX00B MASK ROM WAVE BUFFER COMPARATOR } NAND		09
* IC804	<b>X2857100</b>	IC	K3N9V140NA-YC12			
IC911	<b>XT744A00</b>	IC	TC74VHCT245AFT			07
IC913	<b>X0506A00</b>	IC	M5233FP-600D			02
IC914	<b>XW792A00</b>	IC	SN74HC132NSR			01
IC914	<b>XY352A00</b>	IC	MM74HC132SJX		02	
L0000	<b>VN381200</b>	Coil	SNT-D20TF 10uH			03
L0100	<b>VN381200</b>	Coil	SNT-D20TF 10uH			03
L0101	<b>VZ060700</b>	Choke Coil	220U ELC15E221 15E			05
L0105	<b>VY657200</b>	Chip Inductance	600 BK1608HM601			01
-0108	<b>VY657200</b>	Chip Inductance	600 BK1608HM601			01
L0300	<b>VY657200</b>	Chip Inductance	600 BK1608HM601			01
L0302	<b>VY657200</b>	Chip Inductance	600 BK1608HM601			01
L0303	<b>VY657200</b>	Chip Inductance	600 BK1608HM601			01
L0305	<b>VY657200</b>	Chip Inductance	600 BK1608HM601			01
L0500	<b>VY657200</b>	Chip Inductance	600 BK1608HM601			01
L0501	<b>VY657200</b>	Chip Inductance	600 BK1608HM601			01
L0700	<b>VY657200</b>	Chip Inductance	600 BK1608HM601			01
-0702	<b>VY657200</b>	Chip Inductance	600 BK1608HM601			01
L0802	<b>VY657200</b>	Chip Inductance	600 BK1608HM601			01
R0001	<b>RD357470</b>	Carbon Resistor (chip)	47.0K 63M J			01
R0002	<b>RD357470</b>	Carbon Resistor (chip)	47.0K 63M J			01
R0005	<b>RD357100</b>	Carbon Resistor (chip)	10.0K 63M J			01
R0006	<b>RD354680</b>	Carbon Resistor (chip)	68.0 63M J			01
R0008	<b>RD357100</b>	Carbon Resistor (chip)	10.0K 63M J			01
R0009	<b>RD354680</b>	Carbon Resistor (chip)	68.0 63M J			01
R0010	<b>RD355100</b>	Carbon Resistor (chip)	100.0 63M J			01
R0011	<b>RD354680</b>	Carbon Resistor (chip)	68.0 63M J			01
-0014	<b>RD354680</b>	Carbon Resistor (chip)	68.0 63M J			01
R0016	<b>RD354680</b>	Carbon Resistor (chip)	68.0 63M J			01
-0019	<b>RD354680</b>	Carbon Resistor (chip)	68.0 63M J			01
R0020	<b>RD357100</b>	Carbon Resistor (chip)	10.0K 63M J			01
-0023	<b>RD357100</b>	Carbon Resistor (chip)	10.0K 63M J			01
R0025	<b>RD357100</b>	Carbon Resistor (chip)	10.0K 63M J			01
R0026	<b>RD357100</b>	Carbon Resistor (chip)	10.0K 63M J			01
R0027	<b>RD354680</b>	Carbon Resistor (chip)	68.0 63M J			01
-0038	<b>RD354680</b>	Carbon Resistor (chip)	68.0 63M J			01
R0039	<b>RD355100</b>	Carbon Resistor (chip)	100.0 63M J			01
R0040	<b>RD357100</b>	Carbon Resistor (chip)	10.0K 63M J			01
-0052	<b>RD357100</b>	Carbon Resistor (chip)	10.0K 63M J			01
R0053	<b>RD358470</b>	Carbon Resistor (chip)	470.0K 63M J			01
R0054	<b>RD356100</b>	Carbon Resistor (chip)	1.0K 63M J			01
R0055	<b>RD356100</b>	Carbon Resistor (chip)	1.0K 63M J			01
R0056	<b>RD357470</b>	Carbon Resistor (chip)	47.0K 63M J			01
R0057	<b>RD356100</b>	Carbon Resistor (chip)	1.0K 63M J			01
R0058	<b>RD358470</b>	Carbon Resistor (chip)	470.0K 63M J			01
R0059	<b>RD357100</b>	Carbon Resistor (chip)	10.0K 63M J			01
R0060	<b>RD357470</b>	Carbon Resistor (chip)	47.0K 63M J			01
-0075	<b>RD357470</b>	Carbon Resistor (chip)	47.0K 63M J			01
R0076	<b>RD354680</b>	Carbon Resistor (chip)	68.0 63M J			01
-0091	<b>RD354680</b>	Carbon Resistor (chip)	68.0 63M J			01
R0092	<b>RD355100</b>	Carbon Resistor (chip)	100.0 63M J			01
-0095	<b>RD355100</b>	Carbon Resistor (chip)	100.0 63M J			01
R0096	<b>RD357100</b>	Carbon Resistor (chip)	10.0K 63M J			01
R0097	<b>RD357100</b>	Carbon Resistor (chip)	10.0K 63M J			01

\*: New Parts

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REF NO.	PART NO.	DESCRIPTION	REMARKS	QTY	RANK
R0098	RD355100	Carbon Resistor (chip)	100.0 63M J		01
R0099	RD356150	Carbon Resistor (chip)	1.5K 63M J		01
R0100	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0101	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0102	RD354680	Carbon Resistor (chip)	68.0 63M J		01
-0169	RD354680	Carbon Resistor (chip)	68.0 63M J		01
R0170	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
-0180	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0181	RD354680	Carbon Resistor (chip)	68.0 63M J		01
R0182	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0183	RD354680	Carbon Resistor (chip)	68.0 63M J		01
-0188	RD354680	Carbon Resistor (chip)	68.0 63M J		01
R0189	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
-0195	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0196	RD354680	Carbon Resistor (chip)	68.0 63M J		01
R0197	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0198	RD355330	Carbon Resistor (chip)	330.0 63M J		01
R0199	RD354680	Carbon Resistor (chip)	68.0 63M J		01
R0300	RD355470	Carbon Resistor (chip)	470.0 63M J		01
-0311	RD355470	Carbon Resistor (chip)	470.0 63M J		01
R0312	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0313	RD354680	Carbon Resistor (chip)	68.0 63M J		01
R0314	RD355100	Carbon Resistor (chip)	100.0 63M J		01
R0315	RD354680	Carbon Resistor (chip)	68.0 63M J		01
-0335	RD354680	Carbon Resistor (chip)	68.0 63M J		01
R0340	RD354100	Carbon Resistor (chip)	10.0 63M J		01
R0341	RD354100	Carbon Resistor (chip)	10.0 63M J		01
R0343	RD354100	Carbon Resistor (chip)	10.0 63M J		01
R0345	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0500	RD355100	Carbon Resistor (chip)	100.0 63M J		01
-0507	RD355100	Carbon Resistor (chip)	100.0 63M J		01
R0509	RD354100	Carbon Resistor (chip)	10.0 63M J		01
R0510	RD354100	Carbon Resistor (chip)	10.0 63M J		01
R0525	RD356560	Carbon Resistor (chip)	5.6K 63M J		01
R0526	RD357470	Carbon Resistor (chip)	47.0K 63M J		01
R0533	RD355100	Carbon Resistor (chip)	100.0 63M J		01
R0550	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0601	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
-0603	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0604	RD354470	Carbon Resistor (chip)	47.0 63M J		01
-0615	RD354470	Carbon Resistor (chip)	47.0 63M J		01
R0618	RD350000	Carbon Resistor (chip)	0 63M J		01
R0619	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
-0621	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0622	RD356100	Carbon Resistor (chip)	1.0K 63M J		01
R0623	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0624	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0704	RD356470	Carbon Resistor (chip)	4.7K 63M J		01
R0706	RD356470	Carbon Resistor (chip)	4.7K 63M J		01
R0707	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0708	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0709	RD355560	Carbon Resistor (chip)	560.0 63M J		01
R0710	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0711	RD355560	Carbon Resistor (chip)	560.0 63M J		01
R0712	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0713	RD356560	Carbon Resistor (chip)	5.6K 63M J		01
R0714	RD356560	Carbon Resistor (chip)	5.6K 63M J		01
R0715	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0716	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0717	RD356470	Carbon Resistor (chip)	4.7K 63M J		01
R0718	RD356560	Carbon Resistor (chip)	5.6K 63M J		01
R0719	RD356560	Carbon Resistor (chip)	5.6K 63M J		01
R0720	RD356470	Carbon Resistor (chip)	4.7K 63M J		01
R0721	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0722	RD356560	Carbon Resistor (chip)	5.6K 63M J		01
R0723	RD356560	Carbon Resistor (chip)	5.6K 63M J		01
R0724	RD357100	Carbon Resistor (chip)	10.0K 63M J		01
R0725	RD356560	Carbon Resistor (chip)	5.6K 63M J		01
R0726	RD356560	Carbon Resistor (chip)	5.6K 63M J		01
R0727	RD356470	Carbon Resistor (chip)	4.7K 63M J		01

\*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
R0729	RD354100	Carbon Resistor (chip)	10.0 63M J			01
R0803	RD355220	Carbon Resistor (chip)	220.0 63M J			01
R0804	RD357100	Carbon Resistor (chip)	10.0K 63M J			01
R0805	RD355220	Carbon Resistor (chip)	220.0 63M J			01
R0806	RD355220	Carbon Resistor (chip)	220.0 63M J			01
R0808	RD357100	Carbon Resistor (chip)	10.0K 63M J			01
R0809	RD353470	Carbon Resistor (chip)	4.7 63M J			01
R0810	RD354680	Carbon Resistor (chip)	68.0 63M J			01
R0812	RD357100	Carbon Resistor (chip)	10.0K 63M J			01
R0813	RD357100	Carbon Resistor (chip)	10.0K 63M J			01
R0817	RD354680	Carbon Resistor (chip)	68.0 63M J			01
-0840	RD354680	Carbon Resistor (chip)	68.0 63M J			01
R0841	RD350000	Carbon Resistor (chip)	0 63M J			01
R0900	RD354100	Carbon Resistor (chip)	10.0 63M J			01
R0901	RD354100	Carbon Resistor (chip)	10.0 63M J			01
R0902	RD358470	Carbon Resistor (chip)	470.0K 63M J			01
R0903	RD358470	Carbon Resistor (chip)	470.0K 63M J			01
R0904	RD350000	Carbon Resistor (chip)	0 63M J			01
R0905	RD357100	Carbon Resistor (chip)	10.0K 63M J			01
R0913	RD354680	Carbon Resistor (chip)	68.0 63M J			01
R0914	RD354680	Carbon Resistor (chip)	68.0 63M J			01
R1000	RD357100	Carbon Resistor (chip)	10.0K 63M J			01
R1003	RD357100	Carbon Resistor (chip)	10.0K 63M J			01
R1004	RD357100	Carbon Resistor (chip)	10.0K 63M J			01
R1114	RD355560	Carbon Resistor (chip)	560.0 63M J			01
R1115	VY657200	Chip Inductance	600 BK1608HM601			01
R1116	VY657200	Chip Inductance	600 BK1608HM601			01
TR100	VP872600	Transistor	2SA1708 S,T			01
TR503	V5005800	Digital Transistor	FMG11A T148			01
-508	V5005800	Digital Transistor	FMG11A T148			01
TR600	VV556400	Transistor	2SC2412K Q,R,S			01
TR601	VV556500	Transistor	2SA1037AK Q,R,S			01
TR602	VT929300	Transistor	2SD2097 TV2 Q,R,S			01
TR702	VV556400	Transistor	2SC2412K Q,R,S			01
X0101	VR870700	Quartz Crystal Unit	10MHz SMD-49			04
X0300	V3811500	Ceramic Resonator	16.00MHz CSTCV16.0			01
X0800	VV335600	Quartz Crystal Unit	33.8688MHz DSO751S			06
*	V9239000	Circuit Board	ENC	(V922220)(X2616B0)		
*	V9238800	Circuit Board	PN1	(V922220)(X2616B0)		
*	V9238900	Circuit Board	PN2	(V922220)(X2616B0)		
CN001	V6146400	Connector, FFC	52207 21P SE			
CN002	V7563700	Connector, FFC	52207 26P SE			
CN003	VZ992200	Connector, FFC	52207 28P SE			
CN004	VK024700	Wire Trap	52147 3P TE			01
CN005	VF728200	Wire Trap	52147 10P TE			01
CN007	VI878800	Cable Holder	51048 10P TE			01
CN013	VI878100	Cable Holder	51048 3P TE			01
DO001	VB941200	Diode	1SS133,1SS176			01
-0008	VB941200	Diode	1SS133,1SS176			01
EC001	VU481300	Encoder	REB161 PVB 15F	DATA ENTRY		03
LD015	V7481600	LED Green/Red	GL3ED403B0V	REGISTRATION MEMORY 7		01
LD016	V7481600	LED Green/Red	GL3ED403B0V	REGISTRATION MEMORY 8		01
LD017	V7481600	LED Green/Red	GL3ED403B0V	REGISTRATION MEMORY 1		01
LD018	V7481600	LED Green/Red	GL3ED403B0V	REGISTRATION MEMORY 2		01
LD019	V7481600	LED Green/Red	GL3ED403B0V	REGISTRATION MEMORY 3		01
LD020	V7481600	LED Green/Red	GL3ED403B0V	REGISTRATION MEMORY 4		01
LD021	V7481600	LED Green/Red	GL3ED403B0V	REGISTRATION MEMORY 5		01
LD022	V7481600	LED Green/Red	GL3ED403B0V	REGISTRATION MEMORY 6		01
LD106	VC341300	LED Red	SLZ-190B-01	VOICE EFFECT(LEFT HOLD)		01
LD107	VC341300	LED Red	SLZ-190B-01	VOICE EFFECT(VARIATION)		01
LD115	VD180000	LED Red	SLZ-190B-03	MAIN		01
LD116	VT425100	LED Red	SLZ-190B-17-T1	LAYER		01
LD117	V5771400	LED Red	SLZ-190B-20-T1	LEFT		01
LD119	VC341300	LED Red	SLZ-190B-01	VOICE EFFECT(TOUCH)		01
LD120	VC341300	LED Red	SLZ-190B-01	VOICE EFFECT(SUSTAIN)		01
LD121	VC341300	LED Red	SLZ-190B-01	VOICE EFFECT(HARMONY/EC.)		01
LD122	VC341300	LED Red	SLZ-190B-01	VOICE EFFECT(MONO)		01
LD123	VC341300	LED Red	SLZ-190B-01	VOICE EFFECT(DSP)		01
LD127	VD180000	LED Red	SLZ-190B-03	VOICE(SAX & FLUTE)		01

\*: New Parts

RANK: Japan only



REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
LD128	VD180000	LED Red	SLZ-190B-03	VOICE(STRINGS)		01
LD129	VD180000	LED Red	SLZ-190B-03	VOICE(CHOIR & PAD)		01
LD130	VD180000	LED Red	SLZ-190B-03	VOICE(SYNTH.)		01
LD135	VT425100	LED Red	SLZ-190B-17-T1	VOICE(XG)		01
LD136	VT425100	LED Red	SLZ-190B-17-T1	VOICE		01
LD137	VT425100	LED Red	SLZ-190B-17-T1	VOICE(PERCUSSION)		01
LD138	VT425100	LED Red	SLZ-190B-17-T1	VOICE(USER)		01
LD139	V5771400	LED Red	SLZ-190B-20-T1	REGIST. MEMORY(FREEZE)		01
LD148	VI921400	LED Red	SLZ-190B-04-T1	VOICE(PIANO)		01
LD149	VI921400	LED Red	SLZ-190B-04-T1	VOICE(ORGAN & ACCORDION)		01
LD150	VI921400	LED Red	SLZ-190B-04-T1	VOICE(GUITAR)		01
LD151	VI921400	LED Red	SLZ-190B-04-T1	VOICE(TRAMPET)		01
SW012	VV056000	Tact Switch	SKQNAED010	TEMPO -		01
SW013	VV056000	Tact Switch	SKQNAED010	TEMPO +		01
SW014	VV056000	Tact Switch	SKQNAED010	TRANSPOSE -		01
SW015	VV056000	Tact Switch	SKQNAED010	TEMPO TAP		01
SW016	VV056000	Tact Switch	SKQNAED010	TRANSPOSE +		01
SW052	VV056000	Tact Switch	SKQNAED010	DIRECT ACCESS		01
SW053	VV056000	Tact Switch	SKQNAED010	BALANCE		01
SW054	VV056000	Tact Switch	SKQNAED010	CHANNEL ON/OFF		01
SW055	VV056000	Tact Switch	SKQNAED010	1(UP)		01
SW056	VV056000	Tact Switch	SKQNAED010	2(UP)		01
SW057	VV056000	Tact Switch	SKQNAED010	3(UP)		01
SW058	VV056000	Tact Switch	SKQNAED010	4(UP)		01
SW059	VV056000	Tact Switch	SKQNAED010	5(UP)		01
SW060	VV056000	Tact Switch	SKQNAED010	6(UP)		01
SW061	VV056000	Tact Switch	SKQNAED010	7(UP)		01
SW062	VV056000	Tact Switch	SKQNAED010	8(UP)		01
SW063	VV056000	Tact Switch	SKQNAED010	1(DOWN)		01
SW064	VV056000	Tact Switch	SKQNAED010	2(DOWN)		01
SW065	VV056000	Tact Switch	SKQNAED010	3(DOWN)		01
SW066	VV056000	Tact Switch	SKQNAED010	4(DOWN)		01
SW067	VV056000	Tact Switch	SKQNAED010	5(DOWN)		01
SW068	VV056000	Tact Switch	SKQNAED010	6(DOWN)		01
SW069	VV056000	Tact Switch	SKQNAED010	7(DOWN)		01
SW070	VV056000	Tact Switch	SKQNAED010	8(DOWN)		01
SW071	VV056000	Tact Switch	SKQNAED010	EXIT		01
SW072	VV056000	Tact Switch	SKQNAED010	BACK		01
SW073	VV056000	Tact Switch	SKQNAED010	NEXT		01
SW074	VV056000	Tact Switch	SKQNAED010	MAIN		01
SW075	VV056000	Tact Switch	SKQNAED010	LCD select F		01
SW076	VV056000	Tact Switch	SKQNAED010	LCD select G		01
SW077	VV056000	Tact Switch	SKQNAED010	LAYER		01
SW078	VV056000	Tact Switch	SKQNAED010	LCD select H		01
SW079	VV056000	Tact Switch	SKQNAED010	LEFT		01
SW080	VV056000	Tact Switch	SKQNAED010	LCD select I		01
SW081	VV056000	Tact Switch	SKQNAED010	LCD select J		01
SW082	VV056000	Tact Switch	SKQNAED010	SCALE TUNING		01
SW083	VV056000	Tact Switch	SKQNAED010	VOICE EFFECT(LEFT HOLD)		01
SW084	VV056000	Tact Switch	SKQNAED010	VOICE EFFECT(TOUCH)		01
SW085	VV056000	Tact Switch	SKQNAED010	VOICE EFFECT(SUSTAIN)		01
SW086	VV056000	Tact Switch	SKQNAED010	VOICE EFFECT(HARMONY/EC.)		01
SW087	VV056000	Tact Switch	SKQNAED010	VOICE EFFECT(MONO)		01
SW088	VV056000	Tact Switch	SKQNAED010	VOICE EFFECT(DSP)		01
SW089	VV056000	Tact Switch	SKQNAED010	VOICE EFFECT(VARIATION)		01
SW090	VV056000	Tact Switch	SKQNAED010	VOICE(PIANO)		01
SW091	VV056000	Tact Switch	SKQNAED010	VOICE(ORGAN & ACCORDION)		01
SW092	VV056000	Tact Switch	SKQNAED010	VOICE(GUITAR)		01
SW093	VV056000	Tact Switch	SKQNAED010	VOICE(TRAMPET)		01
SW094	VV056000	Tact Switch	SKQNAED010	VOICE(SAX & FLUTE)		01
SW095	VV056000	Tact Switch	SKQNAED010	VOICE(STRINGS)		01
SW096	VV056000	Tact Switch	SKQNAED010	UPPER OCTAVE +		01
SW097	VV056000	Tact Switch	SKQNAED010	VOICE(CHOIR & PAD)		01
SW098	VV056000	Tact Switch	SKQNAED010	VOICE(SYNTH.)		01
SW099	VV056000	Tact Switch	SKQNAED010	VOICE(XG)		01
SW100	VV056000	Tact Switch	SKQNAED010	VOICE		01
SW101	VV056000	Tact Switch	SKQNAED010	VOICE(PERCUSSION)		01
SW102	VV056000	Tact Switch	SKQNAED010	VOICE(USER)		01
SW103	VV056000	Tact Switch	SKQNAED010	UPPER OCTAVE -		01
SW104	VV056000	Tact Switch	SKQNAED010	STOP		01

\*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
SW106	VV056000	Tact Switch	SKQNAED010	ENTER		01
SW107	VV056000	Tact Switch	SKQNAED010	MULTI PAD 1		01
SW108	VV056000	Tact Switch	SKQNAED010	MULTI PAD 2		01
SW109	VV056000	Tact Switch	SKQNAED010	MULTI PAD 3		01
SW110	VV056000	Tact Switch	SKQNAED010	MULTI PAD 4		01
SW111	VV056000	Tact Switch	SKQNAED010	REGIST. MEMORY(FREEZE)		01
SW112	VV056000	Tact Switch	SKQNAED010	REGISTRATION MEMORY 1		01
SW113	VV056000	Tact Switch	SKQNAED010	REGISTRATION MEMORY 2		01
SW114	VV056000	Tact Switch	SKQNAED010	REGISTRATION MEMORY 3		01
SW115	VV056000	Tact Switch	SKQNAED010	REGISTRATION MEMORY 4		01
SW116	VV056000	Tact Switch	SKQNAED010	REGISTRATION MEMORY 5		01
SW117	VV056000	Tact Switch	SKQNAED010	REGISTRATION MEMORY 6		01
SW118	VV056000	Tact Switch	SKQNAED010	REGISTRATION MEMORY 7		01
SW119	VV056000	Tact Switch	SKQNAED010	REGISTRATION MEMORY 8		01
SW120	VV056000	Tact Switch	SKQNAED010	MEMORY		01
WH001	--	Connector Assembly	PN5 10P L=200	(V778110)		
WH009	--	Connector Assembly	ENC 3P L=100	(V778190)		
	V4200400	Circuit Board	INV	(XW193B0)		07
	--	Jumper Wire	0.55	(VA07890)		
C0001	V4007800	Electrolytic Cap. (chip)	0.15 100V ECQV11			01
C0002	V4007700	Ceramic Capacitor-SL	15P 3KV J			01
CN001	VB389800	Connector Base Post	PH 2P TE			01
CN002	LB918040	Base Post Connector	XH 4P TE			01
L0001	V4006900	Coil	RCH-895-101K 100uH			01
Q0001	VT929300	Transistor	2SD2097 TV2 Q,R,S			01
Q0002	VT929300	Transistor	2SD2097 TV2 Q,R,S			01
R0001	HF755560	Carbon Resistor	560.0 1/4 J			01
T0001	V4006800	Inverter Transformer	SEP-16			05
	VU648200	Circuit Board	MK-H	(XR565C0)		09
2	VB941200	Diode	1SS133,1SS176			01
5	VK025600	Wire Trap	52147 12P TE			01
6	VK024900	Wire Trap	52147 5P TE			01
	VU648100	Circuit Board	MK-L	(XR564C0)		09
2	VB941200	Diode	1SS133,1SS176			01
5	VK025600	Wire Trap	52147 12P TE			01
6	VK025100	Wire Trap	52147 7P TE			01
	V8142700	Circuit Board	MKS5F	(V814260)(X2002A0)		08
	--	Vibration-proof Tape	10X64X0.5	(VK34680)		
	--	Jumper Wire	0.55	(VA07890)		
C1	FG651220	Ceramic Capacitor-SL	22P 50V J	}		01
-3	FG651220	Ceramic Capacitor-SL	22P 50V J			01
C1	VR027400	Ceramic Capacitor-SL	22P 63V J	}		01
-3	VR027400	Ceramic Capacitor-SL	22P 63V J			01
C4	UR828100	Electrolytic Cap.	100.00 10.0V	}		01
C5	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z			01
C5	VM902400	Semiconductive Cera. Cap.	0.1000 25V Z			01
CA1	VP755200	Ceramic Capacitor Array	100P 50V K			02
CA2	VP755200	Ceramic Capacitor Array	100P 50V K			02
CL1	V6781400	Ceramic Resonator	5.00M EF0EC5004T4Q			01
CN1	VF728300	Wire Trap	52147 6P TE			01
CN2	VK025600	Wire Trap	52147 12P TE			01
CN3	VK025100	Wire Trap	52147 7P TE			01
CN4	VK024900	Wire Trap	52147 5P TE			01
IC1	XZ560100	IC	UPD789022GB-A15-8E	CPU KBS		04
R1	HF456470	Carbon Resistor	4.7K 1/4 J			01
R2	HF456470	Carbon Resistor	4.7K 1/4 J			01
R3	HF457470	Carbon Resistor	47.0K 1/4 J			01
R1	VL631400	Carbon Resistor	4.7K 1/6 J			01
R2	VL631400	Carbon Resistor	4.7K 1/6 J			01
R3	VL632600	Carbon Resistor	47.0K 1/6 J			01
RA1	VH373200	Resistor Array	RGLE12X473J			01
*	V9239300	Circuit Board	PB1	(V922230)(X2617B0)		
*	V9239100	Circuit Board	PN3	(V922230)(X2617B0)		
*	V9239200	Circuit Board	PN4	(V922230)(X2617B0)		
CN008	VZ992200	Connector, FFC	52207 28P SE			

\*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
CN009	V2426700	Connector, FFC	52207 11P SE			01
CN010	VK024700	Wire Trap	52147 3P TE			01
CN012	V2426700	Connector, FFC	52207 11P SE			01
CN016	VI878100	Cable Holder	51048 3P TE			01
D0010	VB941200	Diode	1SS133,1SS176			01
-0021	VB941200	Diode	1SS133,1SS176			01
LD001	V7481600	LED Green/Red	GL3ED403B0V	SONG(EXTRA TRACKS)		01
LD002	V7481600	LED Green/Red	GL3ED403B0V	SONG(TRACK 2)		01
LD003	V7481600	LED Green/Red	GL3ED403B0V	SONG(TRACK 1)		01
LD004	V7481600	LED Green/Red	GL3ED403B0V	SONG(START/STOP)		01
LD005	V7481600	LED Green/Red	GL3ED403B0V	STYLE CONTROL(BREAK)		01
LD006	V7481600	LED Green/Red	GL3ED403B0V	STYLE CONTROL(INTRO)		01
LD007	V7481600	LED Green/Red	GL3ED403B0V	STYLE CONTROL(MAIN A)		01
LD008	V7481600	LED Green/Red	GL3ED403B0V	STYLE CONTROL(MAIN B)		01
LD009	V7481600	LED Green/Red	GL3ED403B0V	STYLE CONTROL(MAIN C)		01
LD010	V7481600	LED Green/Red	GL3ED403B0V	STYLE CONTROL(MAIN D)		01
LD011	V7481600	LED Green/Red	GL3ED403B0V	STYLE CONTROL(ENDING/rit)		01
LD012	V7481600	LED Green/Red	GL3ED403B0V	STYLE CONT.(START/STOP)		01
LD102	VD180000	LED Red	SLZ-190B-03	SONG(REPEAT)		01
LD103	VD180000	LED Red	SLZ-190B-03	SONG(METRONOME)		01
LD104	V5771400	LED Red	SLZ-190B-20-T1	SONG(REC)		01
* LD105	V9437200	LED Red	SLR-343VCT32	SCALE SETTING		
LD109	V5771400	LED Red	SLZ-190B-20-T1	STYLE CONTROL(ACMP)		01
LD110	V5771400	LED Red	SLZ-190B-20-T1	STYLE CONT.(AUTO FILL IN)		01
LD111	V5771400	LED Red	SLZ-190B-20-T1	STYLE CONT.(FADE IN/OUT)		01
LD112	V5771400	LED Red	SLZ-190B-20-T1	STYLE CONT.(SYNC. STOP)		01
LD113	V5771400	LED Red	SLZ-190B-20-T1	STYLE CONT.(SYNC. START)		01
* LD118	V9437200	LED Red	SLR-343VCT32	SCALE SETTING		
* LD124	V9437200	LED Red	SLR-343VCT32	SCALE SETTING		
* LD125	V9437200	LED Red	SLR-343VCT32	SCALE SETTING		
* LD126	V9437200	LED Red	SLR-343VCT32	SCALE SETTING		
* LD132	V9437200	LED Red	SLR-343VCT32	SCALE SETTING		
* LD133	V9437200	LED Red	SLR-343VCT32	SCALE SETTING		
* LD134	V9437200	LED Red	SLR-343VCT32	SCALE SETTING		
LD140	VT425100	LED Red	SLZ-190B-17-T1	STYLE(POP & ROCK)		01
LD141	VT425100	LED Red	SLZ-190B-17-T1	STYLE(LATIN & JAZZ)		01
LD142	VT425100	LED Red	SLZ-190B-17-T1	STYLE(DANCE & BALLROOM)		01
LD143	VT425100	LED Red	SLZ-190B-17-T1	STYLE		01
LD144	V5771400	LED Red	SLZ-190B-20-T1	STYLE		01
LD145	V5771400	LED Red	SLZ-190B-20-T1	STYLE		01
LD146	V5771400	LED Red	SLZ-190B-20-T1	STYLE		01
LD147	V5771400	LED Red	SLZ-190B-20-T1	STYLE(UESR)		01
* LD152	V9437200	LED Red	SLR-343VCT32	SCALE SETTING		
* LD153	V9437200	LED Red	SLR-343VCT32	SCALE SETTING		
* LD154	V9437200	LED Red	SLR-343VCT32	SCALE SETTING		
* LD155	V9437200	LED Red	SLR-343VCT32	SCALE SETTING		
* LD156	V9437200	LED Red	SLR-343VCT32	SCALE MEMORY 1		
* LD157	V9437200	LED Red	SLR-343VCT32	SCALE MEMORY 2		
* LD158	V9437200	LED Red	SLR-343VCT32	SCALE MEMORY 3		
* LD159	V9437200	LED Red	SLR-343VCT32	SCALE MEMORY 4		
* LD160	V9437200	LED Red	SLR-343VCT32	SCALE MEMORY 5		
* LD161	V9437200	LED Red	SLR-343VCT32	SCALE MEMORY 6		
SW001	VV056000	Tact Switch	SKQNAED010	SONG(EXTRA TRACKS)		01
SW002	VV056000	Tact Switch	SKQNAED010	SONG(TRACK 2)		01
SW003	VV056000	Tact Switch	SKQNAED010	SONG(TRACK 1)		01
SW005	VV056000	Tact Switch	SKQNAED010	SONG(REPEAT)		01
SW006	VV056000	Tact Switch	SKQNAED010	SONG(METRONOME)		01
SW007	VV056000	Tact Switch	SKQNAED010	SONG(REC)		01
SW008	VV056000	Tact Switch	SKQNAED010	SONG(TOP)		01
SW009	VV056000	Tact Switch	SKQNAED010	SONG(START/STOP)		01
SW010	VV056000	Tact Switch	SKQNAED010	SONG(RW)		01
SW011	VV056000	Tact Switch	SKQNAED010	SONG(FF)		01
SW018	VV056000	Tact Switch	SKQNAED010	SCALE SETTING		01
SW019	VV056000	Tact Switch	SKQNAED010	SCALE SETTING		01
SW020	VV056000	Tact Switch	SKQNAED010	SCALE SETTING		01
SW021	VV056000	Tact Switch	SKQNAED010	SCALE MEMORY 6		01
SW022	VV056000	Tact Switch	SKQNAED010	SCALE MEMORY 3		01
SW023	VV056000	Tact Switch	SKQNAED010	MEMORIZE		01
SW024	VV056000	Tact Switch	SKQNAED010	SCALE MEMORY 1		01
SW025	VV056000	Tact Switch	SKQNAED010	SCALE MEMORY 2		01

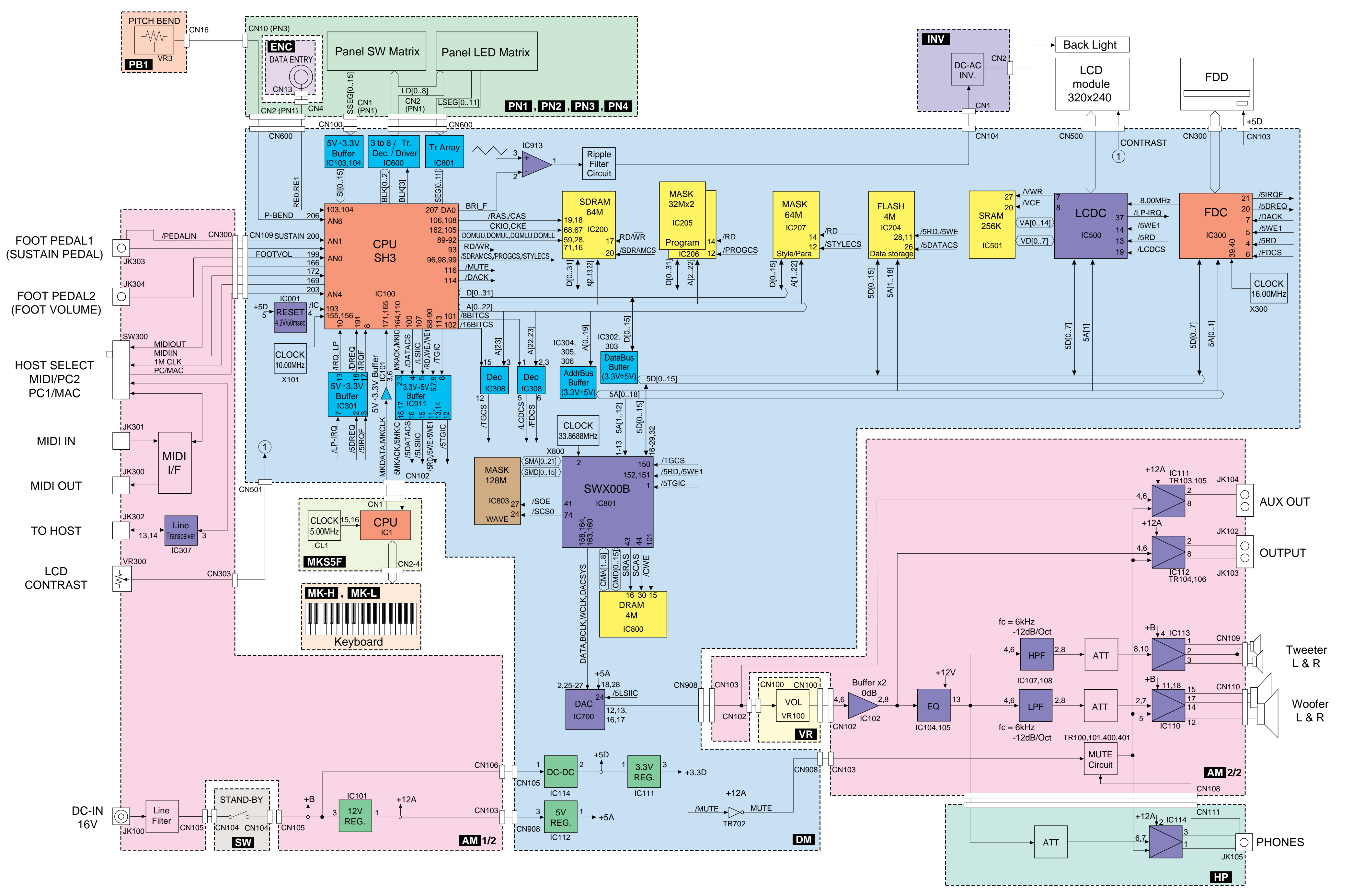
\*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION		REMARKS	QTY	RANK
SW026	VV056000	Tact Switch	SKQNAED010	SCALE MEMORY 4		01
SW027	VV056000	Tact Switch	SKQNAED010	SCALE MEMORY 5		01
SW028	VV056000	Tact Switch	SKQNAED010	STYLE CONTROL(ACMP)		01
SW029	VV056000	Tact Switch	SKQNAED010	STYLE CONTROL(BREAK)		01
SW030	VV056000	Tact Switch	SKQNAED010	STYLE CONTROL(INTRO)		01
SW031	VV056000	Tact Switch	SKQNAED010	STYLE CONTROL(MAIN A)		01
SW032	VV056000	Tact Switch	SKQNAED010	STYLE CONTROL(MAIN B)		01
SW033	VV056000	Tact Switch	SKQNAED010	STYLE CONTROL(MAIN C)		01
SW034	VV056000	Tact Switch	SKQNAED010	STYLE CONTROL(MAIN D)		01
SW035	VV056000	Tact Switch	SKQNAED010	STYLE CONTROL(ENDING/rit)		01
SW036	VV056000	Tact Switch	SKQNAED010	STYLE CONT.(AUTO FILL IN)		01
SW037	VV056000	Tact Switch	SKQNAED010	STYLE CONT.(FADE IN/OUT)		01
SW038	VV056000	Tact Switch	SKQNAED010	STYLE CONT.(SYNC. STOP)		01
SW039	VV056000	Tact Switch	SKQNAED010	STYLE CONT.(SYNC. START)		01
SW040	VV056000	Tact Switch	SKQNAED010	STYLE CONT.(START/STOP)		01
SW041	VV056000	Tact Switch	SKQNAED010	SOUND CREATOR		01
SW042	VV056000	Tact Switch	SKQNAED010	LCD select A		01
SW043	VV056000	Tact Switch	SKQNAED010	DIGITAL RECORDING		01
SW044	VV056000	Tact Switch	SKQNAED010	LCD select B		01
SW045	VV056000	Tact Switch	SKQNAED010	MIXING CONSOLE		01
SW046	VV056000	Tact Switch	SKQNAED010	LCD select C		01
SW047	VV056000	Tact Switch	SKQNAED010	LCD select D		01
SW048	VV056000	Tact Switch	SKQNAED010	LCD select E		01
SW049	VV056000	Tact Switch	SKQNAED010	DEMO		01
SW050	VV056000	Tact Switch	SKQNAED010	HELP		01
SW051	VV056000	Tact Switch	SKQNAED010	FUNCTION		01
SW121	VV056000	Tact Switch	SKQNAED010	STYLE(POP & ROCK)		01
SW122	VV056000	Tact Switch	SKQNAED010	STYLE(LATIN & JAZZ)		01
SW123	VV056000	Tact Switch	SKQNAED010	STYLE(DANCE & BALLROOM)		01
SW124	VV056000	Tact Switch	SKQNAED010	STYLE		01
SW125	VV056000	Tact Switch	SKQNAED010	STYLE		01
SW126	VV056000	Tact Switch	SKQNAED010	STYLE		01
SW127	VV056000	Tact Switch	SKQNAED010	STYLE		01
SW128	VV056000	Tact Switch	SKQNAED010	STYLE(UESR)		01
SW129	VV056000	Tact Switch	SKQNAED010	SCALE SETTING		01
SW130	VV056000	Tact Switch	SKQNAED010	SCALE SETTING		01
SW131	VV056000	Tact Switch	SKQNAED010	SCALE SETTING		01
SW132	VV056000	Tact Switch	SKQNAED010	SCALE SETTING		01
SW133	VV056000	Tact Switch	SKQNAED010	SCALE SETTING		01
SW134	VV056000	Tact Switch	SKQNAED010	SCALE SETTING		01
SW135	VV056000	Tact Switch	SKQNAED010	SCALE SETTING		01
SW136	VV056000	Tact Switch	SKQNAED010	SCALE SETTING		01
SW137	VV056000	Tact Switch	SKQNAED010	SCALE SETTING		01
VR003	VT432100	Rotary Variable Resistor	B10K EVJ05DF25B14	PITCH BEND		03
WH010	--	Connector Assembly	PB 3P L=130	(V778200)		
	XV910A00	Speaker	5.0cm 4ohm	TWEETER	2	05
	XT523A00	Speaker	12.0cm 4ohm 10W	WOOFER	2	07
	V3331300	LCD	EDMMPU3BCF			23
	V6492300	Floppy Disk Drive	ALPS DF354H			13

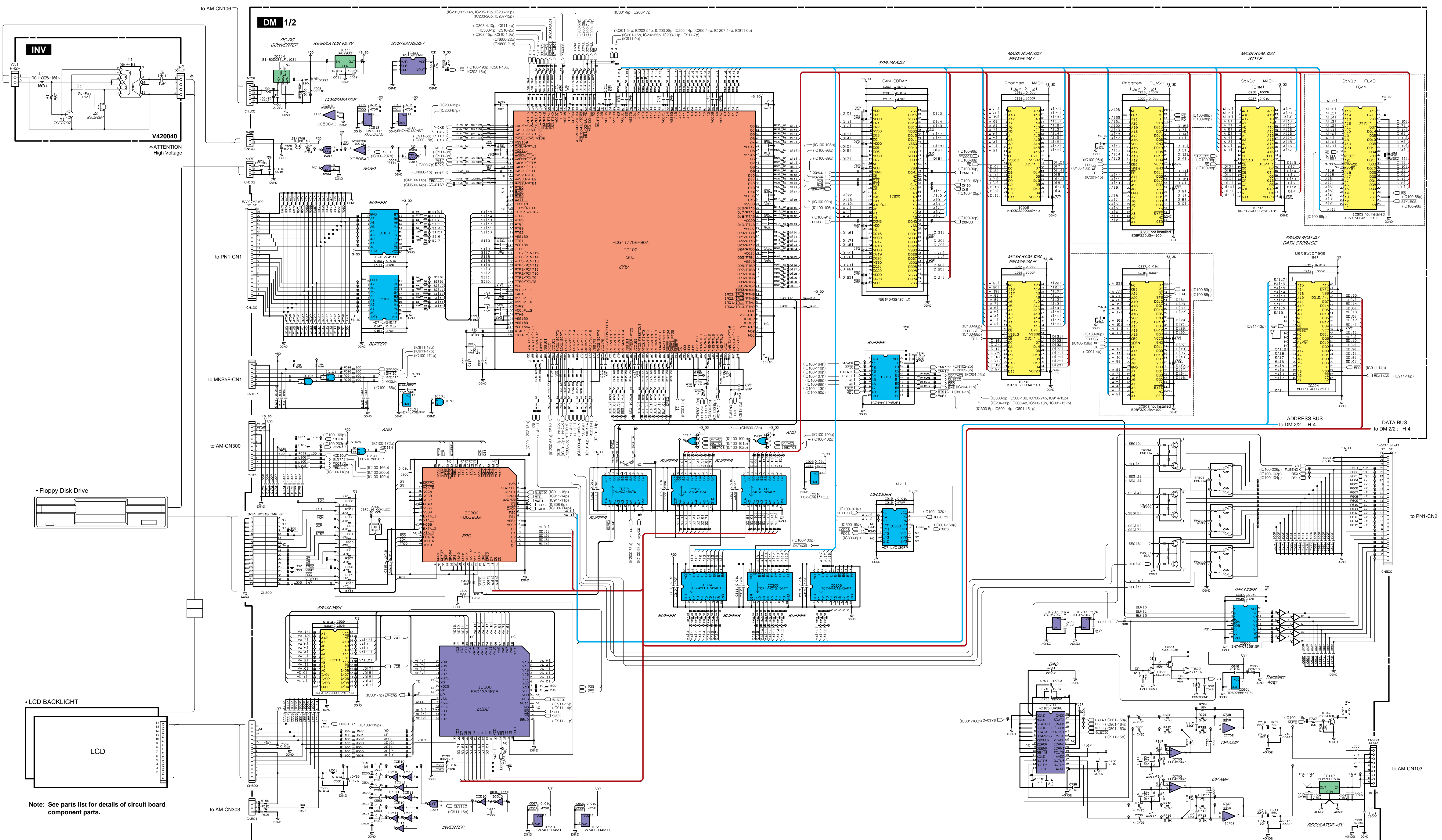
\*: New Parts

RANK: Japan only



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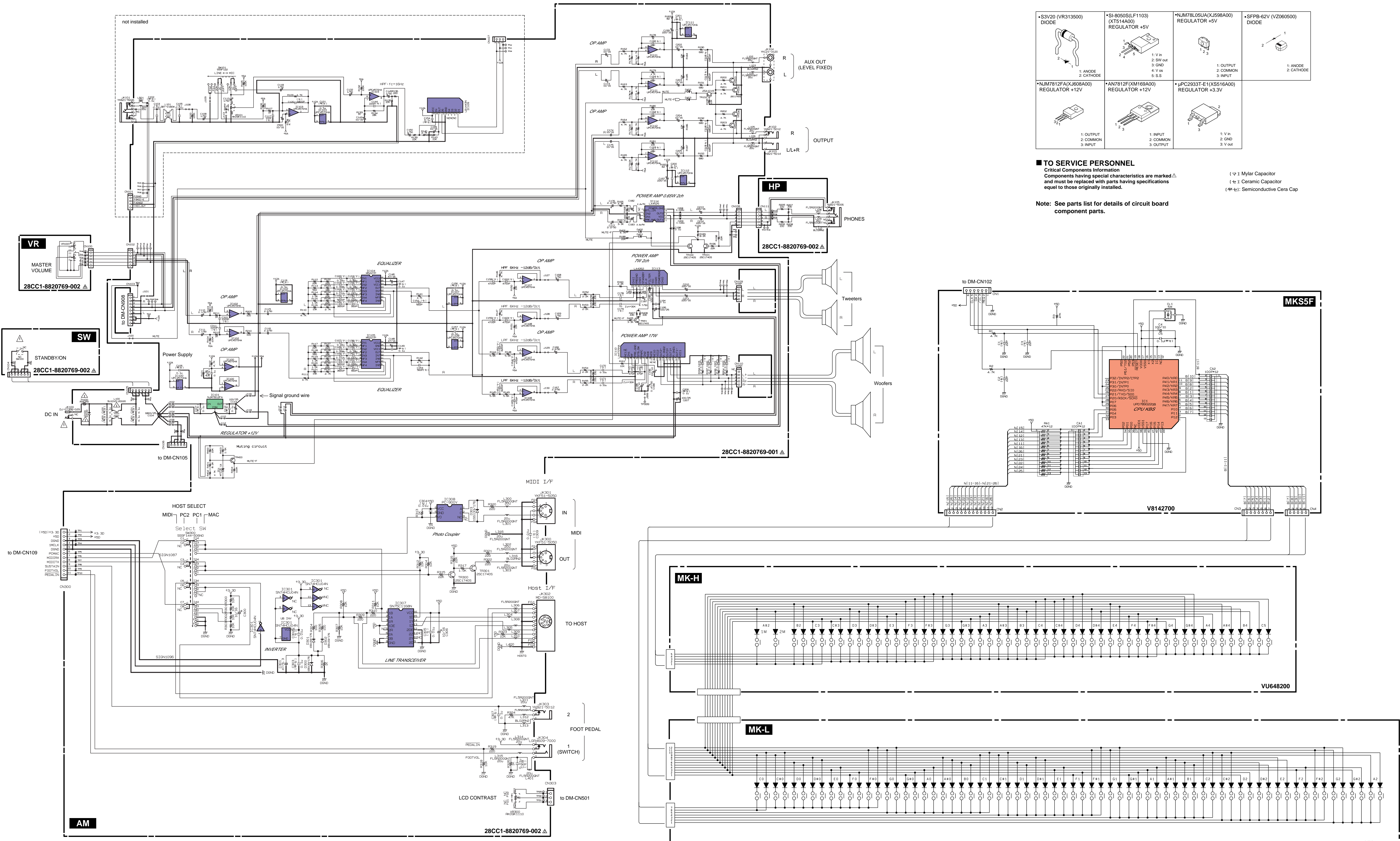
Note: See parts list for details of circuit board component parts.

- (M): Mylar Capacitor
- (C): Ceramic Capacitor
- (R): Metal Oxide Film Resistor









<p>•S3V20 (VR313500) DIODE</p>	<p>•SI-8050S(LF1103) (XT514A00) REGULATOR +5V</p>	<p>•NUM78L05UA(XJ598A00) REGULATOR +5V</p>	<p>•SFPB-62V (VZ060500) DIODE</p>
<p>•NUM7812FA(XJ608A00) REGULATOR +12V</p>	<p>•AN7812FX(M169A00) REGULATOR +12V</p>	<p>•µPC2933T-E1(XS516A00) REGULATOR +3.3V</p>	

**TO SERVICE PERSONNEL**  
**Critical Components Information**  
 Components having special characteristics are marked  $\Delta$  and must be replaced with parts having specifications equal to those originally installed.

( $\nabla$ ): Mylar Capacitor  
 (C): Ceramic Capacitor  
 (#): Semiconductive Cera Cap

Note: See parts list for details of circuit board component parts.

