Clavinova®

CVP-209/CVP-207

SERVICE MANUAL



CVP-209



CVP-207

■ **CONTENTS**

SPECIFICATIONS **3**
PANEL LAYOUT **5**
CIRCUIT BOARD LAYOUT & WIRING **8**
DISASSEMBLY PROCEDURE **10**
LSI PIN DESCRIPTION **22**
IC BLOCK DIAGRAM **29**
CIRCUIT BOARDS **30**
TEST PROGRAM **51**
SYSTEM RESET **55**
MIDI IMPLEMENTATION CHART **56**
MIDI DATA FORMAT **58**
PARTS LIST
BLOCK DIAGRAM
OVERALL CIRCUIT DIAGRAM

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YAMAHA
HAMAMATSU, JAPAN
1.753K-3771 **Printed in Japan '01.09**

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 belived 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.

IMPORTANT NOTICE FOR THE UNITED KINGDOM

Connecting the Plug and Cord

IMPORTANT. The wires in this main lead are coloured in accordance with the following code:

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the main lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The BLUE wire must be connected to the terminal that is marked with the letter N (or coloured BLACK).

The BROWN wire must be connected to the terminal that is marked with the letter L (or coloured RED).

Be certain that neither core is connected to the earth terminal of the three pin plug.

■ WARNING

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

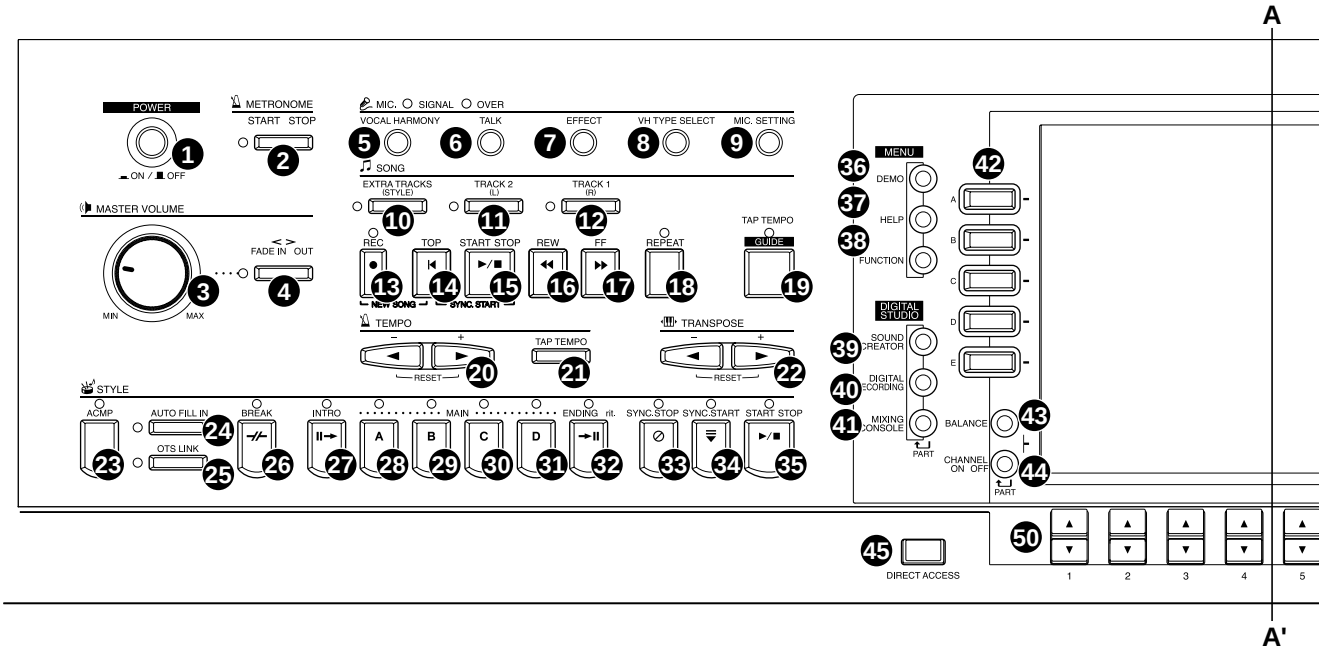
■ SPECIFICATIONS

◯: available

Model Name			CVP-209	CVP-207
Sound Source			AWM Dynamic Stereo Sampling	
Display			640 x 480 dots backlit graphic LCD	
Keyboard			88 keys (A-1 - C7)	
Voice	Polyphony (max)		256	192
	Voice Selection		390 voices + 480 XG voices + 26 Drum Kits	375 voices + 480 XG voices + 26 Drum Kits
		Regular Voice	310	
		Natural Voice	37	22
		Sweet Voice	10	
		Cool Voice	6	
		Live Voice	17	
		Organ Flute	10 (9 Footages)	10 (8 Footages)
	Sound creator		◯	
Effects	Effect Blocks	Reverb	2	
		Chorus	2	
		DSP	7	5
		Brilliance	1	
	Effect Types	Microphone	1	
		REVERB1	29 Preset+3 User	
		REVERB2	5	
		CHORUS1	25 Preset+3 User	
		CHORUS2	3	
		DSP1	164 Preset+3 User	
		DSP2	12	
		DSP3,4,5	164 Preset +10 User	88 Preset +10 User
		DSP6 (CVP-209 only)	164 Preset +10 User	–
		DSP7 (CVP-209 only)	88 Preset +10 User	–
		Brilliance	5	
		Master EQ	5 Preset + 2 User	
		Part EQ	27 Parts	
	Vocal Harmony		59 Preset +10 User	49 Preset +10 User
Accompaniment Style	Number of Accompaniment Styles		230	216
	Number of Session Styles		28	
	Number of Pianist Styles		36	
	Number of Piano Combo Styles		18	
	Fingering		Single Finger, Fingered, Fingered On Bass, Multi Finger, AI Fingered, Full Keyboard, AI Full Keyboard	
	Style Creator		◯	
	OTS (One Touch Setting)		4/Accompaniment Style	
	OTS link		◯	
	Music Finder		Approximately 2500 records	
		Edit	◯	
Song	Format		SMF (Format 0,1), ESEQ	
	Preset Songs		◯	
	Guide		Follow Lights, Any Key, Karao-Key, Vocal CueTIME	
		Guide Lamp	88 Red	
	Lyrics		◯	
	Score		◯	
	Recording		Quick Recording, Multi Recording, Step Recording, Song Editing	
		Record Channels	16	
Memory Device	Floppy Disk (2HD,2DD)		◯	
	Flash Memory (internal)		4 MB	
	Flash Availability		Song (SMF), Style (SFF), Registration, Voice, etc.	
Tempo	Tempo Range		5 - 500	
	Tap Tempo		◯	
	Metronome		◯	
		Sound	Bell on/off, Human Voices (5 languages)	
Registration Memory	Buttons		8	
	Regist Sequence		◯	
	Freeze		◯	

Model Name		CVP-209	CVP-207
Others	**Demo**	Function, Voice, Style	
	Language	6 languages (English, Japanese, German, French, Spanish, Italian)	
	Help	○	
	Direct Access	○	
	Piano setting button (including Piano Lock)	○	
	Master Volume	○	
	Fade In/Out	○	
	Transpose	Keyboard/Song/Master	
	Tuning	○	
	Tuning Curve	Flat/Stretch (Natural Piano Voice only)	
	Scale	Equal Temperament, Pure Major/Pure Minor, Pythagorean, Mean-Tone, Werckmeister/Kirnberger, Arabic 1/2	
	Touch Response	5 level	
Jacks/Connectors		PHONES x 2, MIDI (THRU, OUT, IN), TO HOST, HOST SELECT SW, AUX PEDAL, AUX IN (L/L+R), AUX OUT (LEVEL FIXED) (L/R), AUX OUT (L/L+R)	
		MIC (INPUT VOLUME, MIC./ LINE IN),VIDEO OUT	
Pedals	**Number of Pedals**	3	
	Pedal Functions	VOLUME, SUSTAIN, SOSTENUTO, SOFT, GLIDE, PORTAMENTO, PITCHBEND, MODULATION, DSP VARIATION, VIBROTOR ON/OFF, SONG START/STOP, STYLE START/STOP, etc.	
Amplifiers/ Speakers	**Amplifiers**	60 W x 2	
	Speakers	(16 cm + 5 cm + 3 cm) x 2	
Dimensions [W x D x H] (with the Music Stand)		1426.0 x 633.5 x 932 mm [56-1/8" x 24-15/16" x 36-11/16"] (1426.0 x 633.5 x 1097.4 mm) [56-1/8" x 24-15/16" x 43-3/16"]	1429.9 x 634.3 x 927.4 mm [56-5/16" x 24-15/16" x 36-1/2"] (1429.9 x 634.3 x 1092.6 mm) [56-5/16" x 24-15/16" x 43-1/8"]
Weight		83.5 Kg (184 lbs., 13 oz)	78.5 Kg (173 lbs., 10 oz)
Output Impedance		PHONES: 33 ohm load, AUX OUT: 600 ohm, VIDEO OUT: 75 ohm	

■ PANEL LAYOUT



POWER

1 [ON / OFF] button (POWER)

METRONOME

2 [START / STOP] button (METRONOME)

MASTER VOLUME

3 [MASTER VOLUME] dial

4 [FADE IN / OUT] button

MIC.

5 [VOCAL HARMONY] button

6 [TALK] button

7 [EFFECT] button

8 [VH TYPE SELECT] button

9 [MIC. SETTING] button

SONG

10 [EXTRA TRACKS (STYLE)] button

11 [TRACK 2 (L)] button

12 [TRACK 1 (R)] button

13 [REC] button

14 [TOP] button

15 [START / STOP] button (SONG)

16 [REW] button

17 [FF] button

18 [REPEAT] button

19 [GUIDE] button

TEMPO

20 [◄] [►] buttons (TEMPO)

21 [TAP TEMPO] button

TRANSPOSE

22 [◄] [►] buttons (TRANSPOSE)

STYLE

23 [ACMP] button

24 [AUTO FILLIN] button

25 [OTS LINK] button

26 [BREAK] button

27 [INTRO] button

28 MAIN [A] button

29 MAIN [B] button

30 MAIN [C] button

31 MAIN [D] button

32 [ENDING / rit.] button

33 [SYNC.STOP] button

34 [SYNC.START] button

35 [START / STOP] button (STYLE)

MENU

36 [DEMO] button

37 [HELP] button

38 [FUNCTION] button

DIGITAL STUDIO

39 [SOUND CREATOR] button

40 [DIGITAL RECORDING] button

41 [MIXING CONSOLE] button

DISPLAY CONTROL

42 [A] - [J] buttons

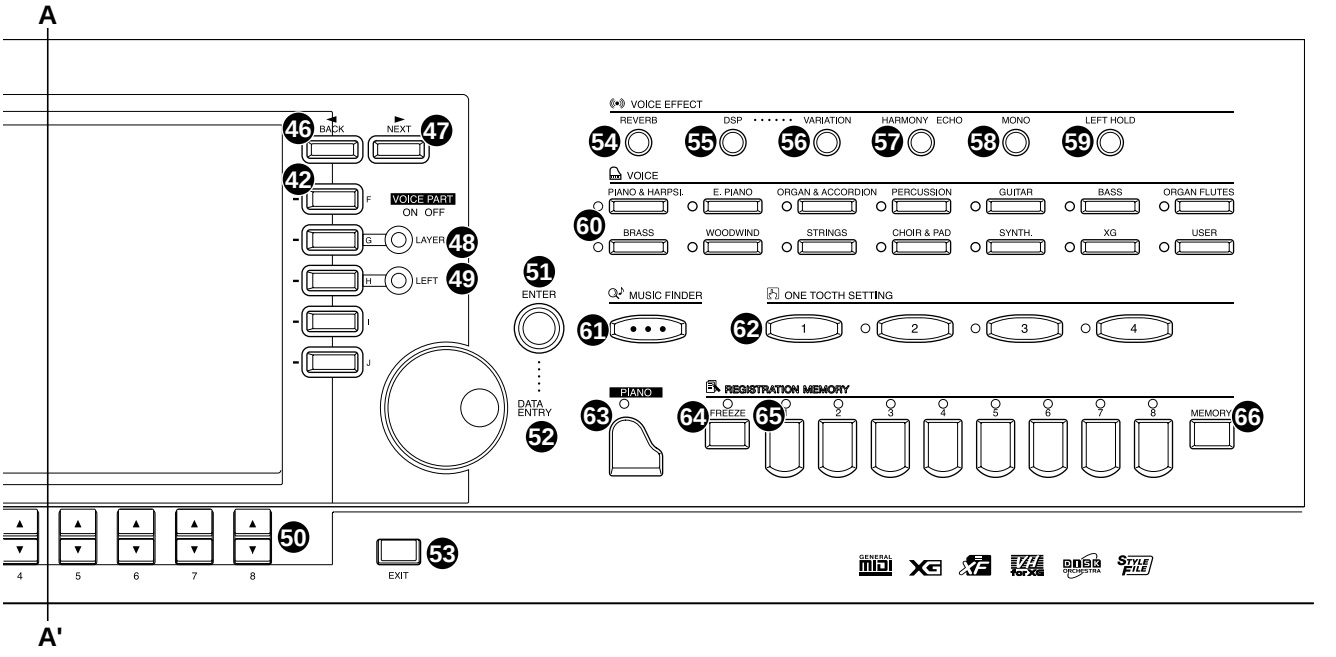
43 [BALANCE] button

44 [CHANNEL ON / OFF] button

45 [DIRECT ACCESS] button

46 [BACK] button

47 [NEXT] button



48 VOICE PART ON / OFF [LAYER] button

49 VOICE PART ON / OFF [LEFT] button

50 [1 ▲▼] - [8 ▲▼] buttons

51 [ENTER] button

52 [DATA ENTRY] dial

53 [EXIT] button

VOICE EFFECT

54 [REVERB] button

55 [DSP] button

56 [VARIATION] button

57 [HARMONY / ECHO] button

58 [MONO] button

59 [LEFT HOLD] button

VOICE

60 VOICE buttons

MUSIC FINDER

61 [MUSIC FINDER] button

ONE TOUCH SETTING

62 [1] - [4] buttons (ONE TOUCH SETTING)

PIANO Setting

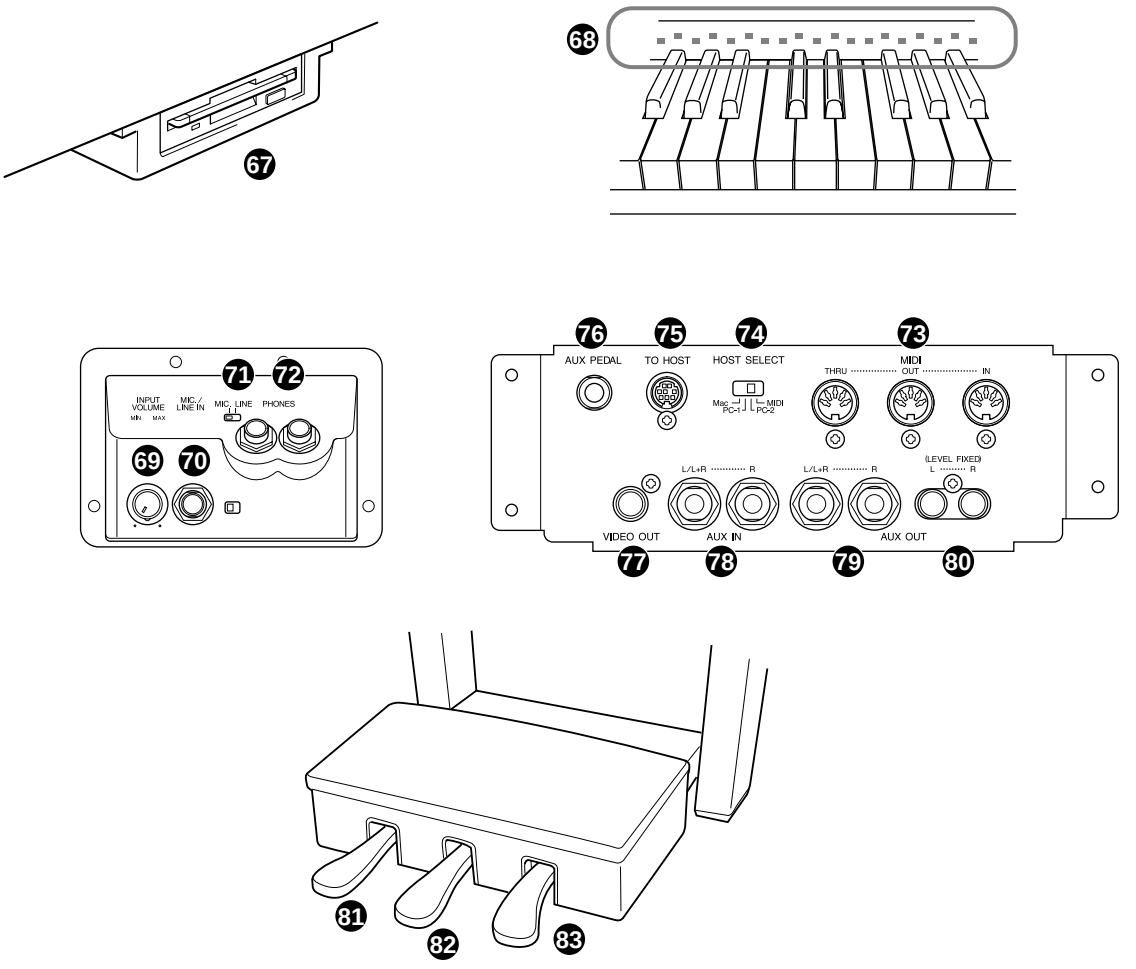
63 [PIANO] button

REGISTRATION MEMORY

64 [FREEZE] button

65 [1] – [8] buttons (REGISTRATION MEMORY)

66 [MEMORY] button



67 Floppy disk drive (3.5”)

68 Keyboard guide lamps

Microphone and Headphone Connectors

69 [INPUT VOLUME] knob

70 [MIC. LINE IN] jack

71 [MIC. LINE] switch

72 [PHONES] jacks

Connectors

73 MIDI [THRU] [OUT] [IN] terminals

74 [HOST SELECT] switch

75 [TO HOST] terminal

76 [AUX PEDAL] jack

77 [VIDEO OUT] jack

78 AUX IN [L / L+R] [R] jacks

79 AUX OUT [L / L+R] [R] jacks

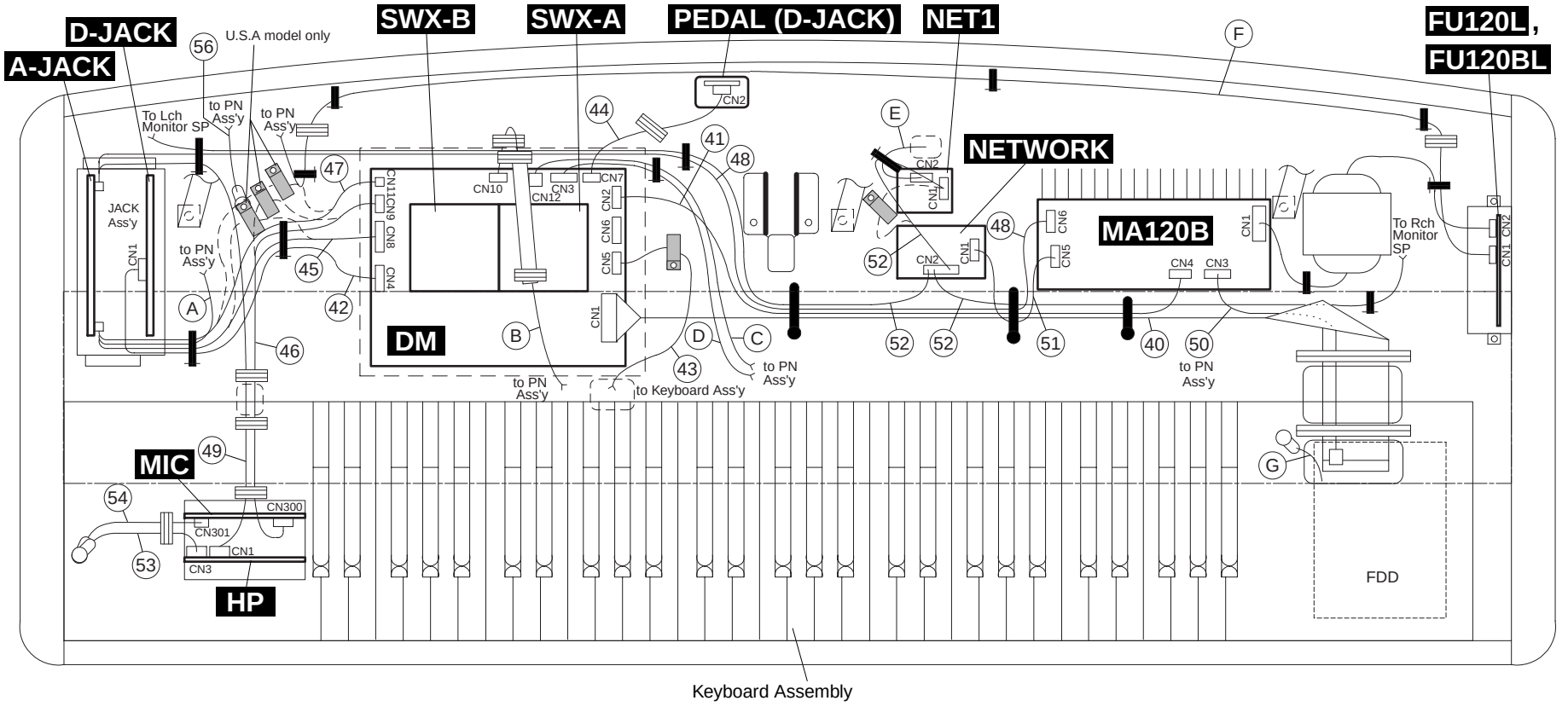
80 AUX OUT (LEVEL FIXED) [L] [R] jacks

Pedals

81 Left pedal

82 Sostenuto pedal

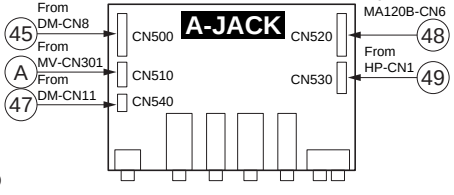
83 Damper pedal



NOTE1) The meaning of symbols.

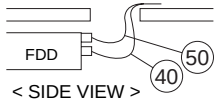
- : Ferrite core
- : Cable holder
- : Cord binder
- : Filament tape
- : Lug terminal

NOTE2) Refer to the following figure for wiring to A-JACK circuit board.



NOTE3) • (40) Wire Harness shall be installed with its connector guide looks down.

• (40) and (50) Wire Harness shall be installed with slack off as the following drawing.



* The following is applied to U.S.A model.

NOTE4) Fix the Ferrite Core of (45) on the screw hole of (56).

NOTE5) Connect the space between PANEL RAIL and KEYBED by the Shield Sheet.

NOTE6) Fix (B) on DM Cover by the Filament tape.

Location	Part No.	Connector Assembly	Destination		Remarks
(40)	V3261500	FDD-SIG	DM-CN1	FDD	34P-900
(41)	(V803670)	D POWER	DM-CN2	MA120B-CN4	5P
(42)	VJ984100	KRD-KRD	DM-CN4	D-JACK-CN1	10P-400
(43)	V7681100	MK-LF	DM-CN5	GH-DclSW L-CN1	8P-600
(44)	(VK10380)	KRD-KRD	DM-CN7	PEDAL (D-JACK)-CN2	5P-250
(45)	(VK10880)	KRD-KRD	DM-CN8	A-JACK-CN500	12P-350 J,B,E,N
	(V824690)	AJACK-LF			12P U
(46)	(VK10950)	KRD-KRD	DM-CN9	MIC-CN300	5P-400 J,B,E,N
	(V823550)	MIC-LF			5P U
(47)	V7681200	V-OUT	DM-CN11	A-JACK-CN540	2P-450 J,B,E,N
	V8235400	VOUT-LF			2P U
(48)	(VK12740)	KRD-KRD	A-JACK-CN520	MA120B-CN6	9P-1000
(49)	(VK11370)	KRD-KRD	A-JACK-CN530	HP-CN1	7P-550
(50)	V7788500	FDD-POW	MA120B-CN3	FDD (Power Supply)	6P
(51)	(V202710)	SP1	MA120B-CN5	NETWORK-CN1	4P
(52)	(V763070)	MSP	NETWORK-CN2	NET1-CN1,Monitor SP	8P J,B,E,N
	(V839420)	MSP-LF			8P U
(53)	(VL50740)	GND (HP)	HP-CN3	Keybed	2P
(54)	(V340590)	GND (MIC)	MIC-CN301	Keybed	2P
(56)	(V756950)	GND	Panel rail	Keybed	1P L=180 J,B,E,N only
(A)	(V768130)	VOL	MV-CN301	A-JACK-CN510	8P-500
(B)	(V827740)	LCD-LF-SH	DM-CN10	LCD	20P
(C)	(V753050)	B. LIGHT	DM-CN12	INV-CN201	3P
(D)	(V814380)	PN-LF	DM-CN3	PNR-CN101	11P-800
(E)	(V763050)	SP	NET1-CN2	W-SP,T-SP	8P
(F)	(V811510)	PSW	FU120L, FU120BL-CN1	P-SW	2P J,B,E,N
	(V818520)	PSW 1	FU120BL-CN1		2P U
	(V818530)	PSW 2			3P U
(G)	(V686040)	GND	FDD	Keybed	1P L=120

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

■ DISASSEMBLY PROCEDURE

1. Floppy Disk Drive

(Time required: About 10 minutes)

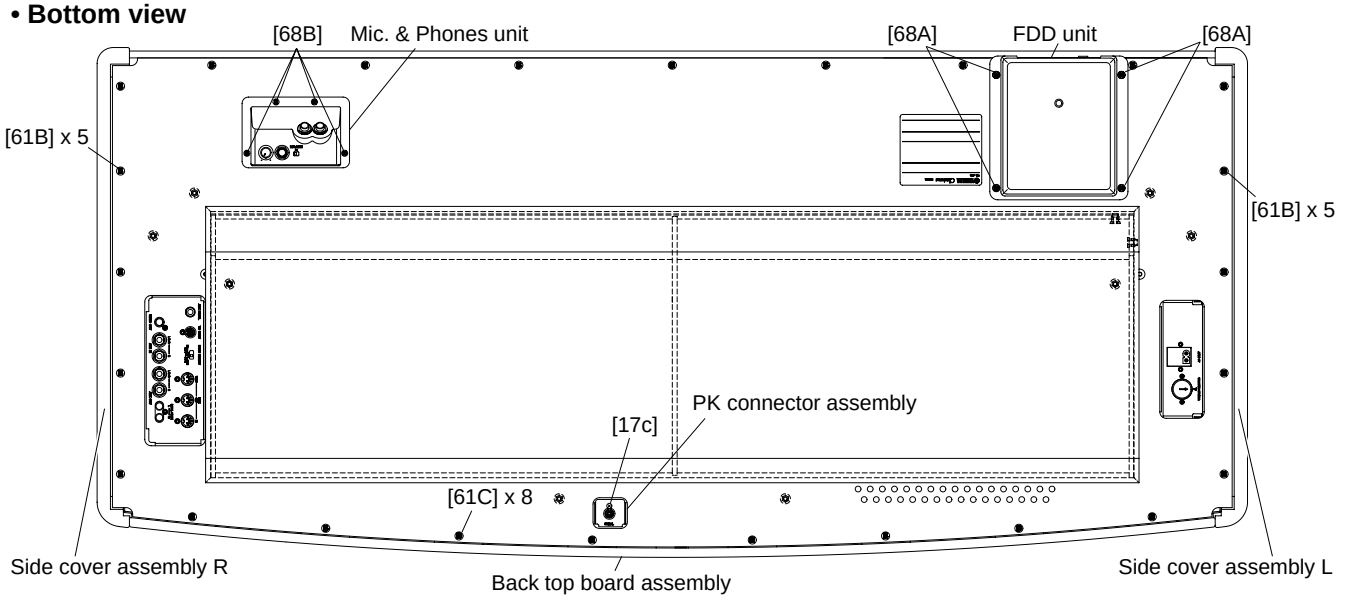
1-1 Remove the four (4) screws marked [68A]. The FDD unit can then be removed. (Fig. 1)

1-2 Remove the four (4) screws marked [8]. The FDD cover can then be removed. (Fig. 2)

1-3 Remove the screw marked [3A]. The GND wire can then be removed. (Fig. 3)

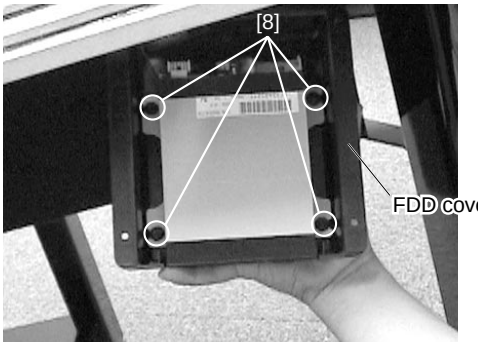
1-4 Remove the three (3) screws marked [3B]. The floppy disk drive can then be removed from the FDD holder. (Fig. 3)

• Bottom view



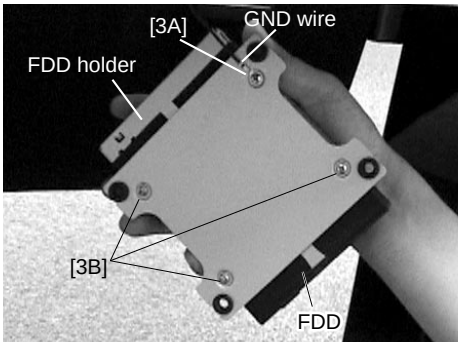
[17c]: Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)
[61]: Truss Head Tapping Screw-1 3.5x25 MFZN2BL (EN630190)
[68]: Bind Head Tapping Screw-1 3.5x14 MFZN2BL (EP030250)

Fig. 1



[8]: PW Head Tapping Screw-B 3.0x8-8 MFZN2BL (V2276900)

Fig. 2



[3]: Bind Head Screw 3.0x5 MFZN2Y (EG330150)

Fig. 3

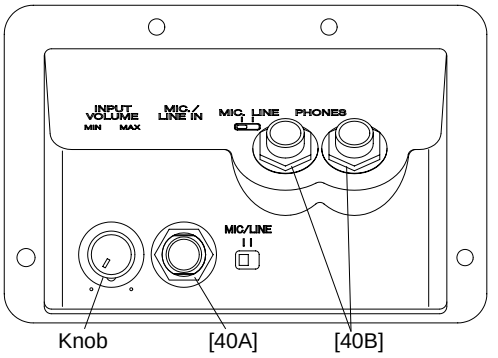
2. Mic. & Phones Unit, MIC and HP Circuit Boards (Time required: About 10 minutes)

2-1 Remove the four (4) screws marked [68B]. The mic. & phones unit can then be removed. (Fig. 1)

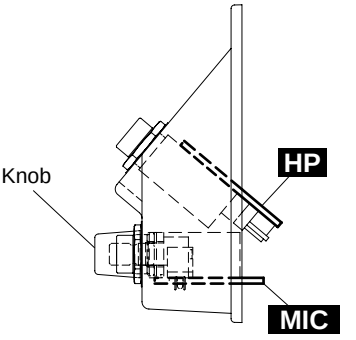
2-2 Remove the input volume knob and the hexagonal nut marked [40A]. The MIC circuit board can then be removed. (Fig. 4)

2-3 Remove the two (2) hexagonal nuts marked [40B]. The HP circuit board can then be removed. (Fig. 4)

• **Bottom view**



• **Side view**



[40]: Hexagonal Nut 12.0 14x2 MFZN2BL (VB508600)

Fig. 4

3. Music Rest Assembly

(Time required: About 5 minutes)

3-1 Remove the six (6) screws marked [66]. The music rest assembly can then be removed. (Fig. 5)

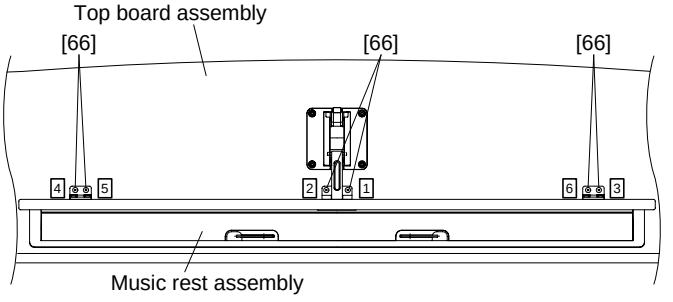
* When reinstalling the music rest assembly, tighten it with six screws of [66] in order of 1 2 3 4 5 6.

4. Top Board Assembly

(Time required: About 5 minutes)

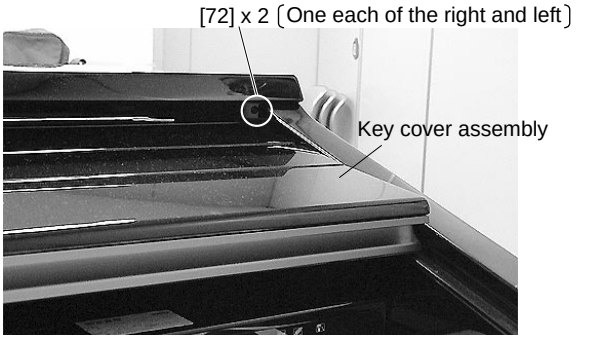
4-1 Open the key cover assembly to a half.

4-2 Remove the two (2) screws marked [72]. The top board assembly can then be removed by sliding and lifting up. (Fig. 6)



[66]: Bind Head Tapping Screw-1 3.5x16 MFZN2BL (EP030260)

Fig. 5



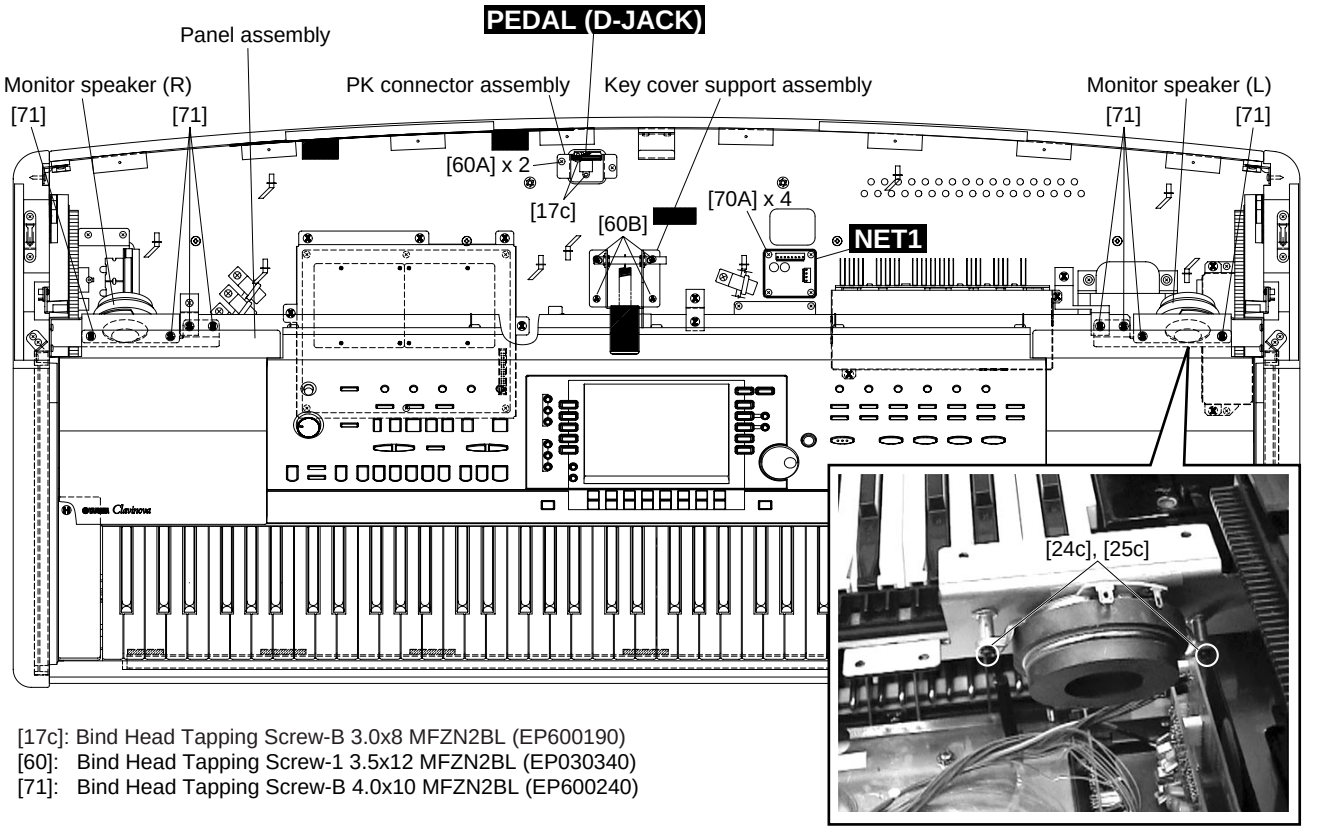
[72]: Cap Screw 3.0x8 BL (VP575300)

Fig. 6

5. Circuit Boards and Assemblies (Main Unit - Part 1) (Time required: About 5 minutes each)

Remove the following screws after removing the top board assembly. Each circuit board and assembly can then be removed. (Fig. 7)

Circuit Board and Unit	Ref. No.	Screw	QTY
NET1	[70A]	Bind Head Tapping Screw-1 3.5x20 MFZN2Y (EP030470)	4
PK Connector Assembly	[60A]	Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)	2
Monitor Speaker (L)	[24c]	Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)	2
Monitor Speaker (R)	[25c]	Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)	2



[17c]: Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)
[60]: Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)
[71]: Bind Head Tapping Screw-B 4.0x10 MFZN2BL (EP600240)

Fig. 7

6. PEDAL (D-JACK) Circuit Board

(Time required: About 10 minutes)

6-1 Remove the PK connector assembly. (See procedure 5.)

6-2 Remove the two (2) screws marked [17c]. The PEDAL (D-JACK) circuit board can then be removed. (Fig. 1, Fig. 7)

7. Key Cover Assembly

(Time required: About 10 minutes)

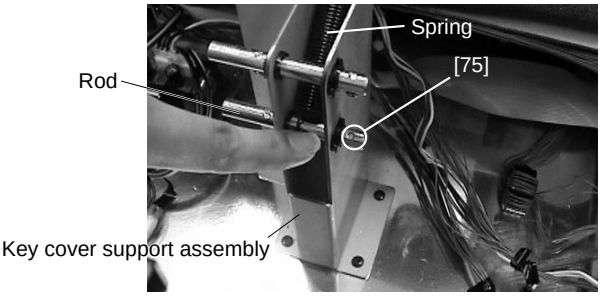
7-1 Close the key cover assembly.

7-2 Remove the top board assembly. (See procedure 4.)

7-3 Remove the screw marked [75] and pull out the lower rod from the key cover support assembly. The spring can then be removed. (Fig. 8)

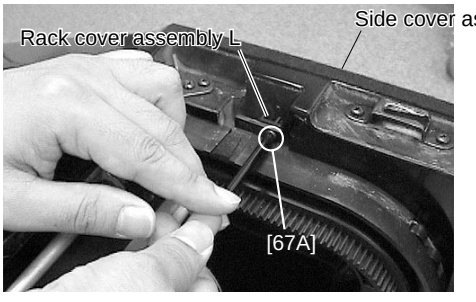
7-4 Remove the screw marked [67A]. The rack cover assembly (L) can then be removed. (Fig. 9)

* The rack cover assembly (R) can then be removed in the same manner.



[75]: Bind Head Tapping Screw 3.0x8 MFZN2Y (VD976600)

Fig. 8



[67A]: Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)

Fig. 9

7-5 Set the left end of the rod at the slits of the guide and then lift the rear key cover assembly. (Fig. 10)

7-6 Lean slightly the key cover assembly so that the guide pin can be removed from the guide rail. (Fig. 11)

* When removing, be sure not to make scratches on the side cover.

* When reinstalling the key cover assembly, apply a masking shield tape around the guide rail to prevent from making scratches on the assembly.

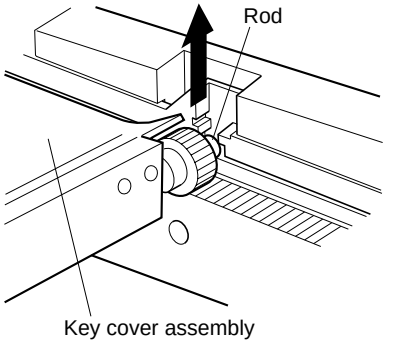


Fig. 10

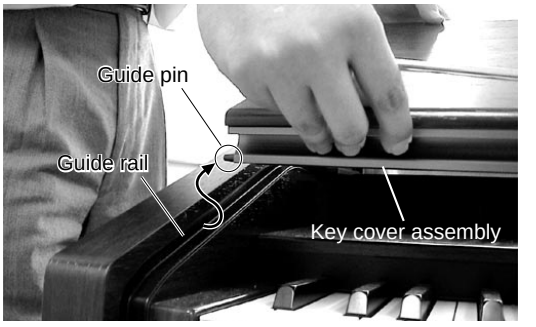


Fig. 11

8. Rack Assembly (L, R)

(Time required: About 15 minutes)

8-1 Remove the top board assembly. (See procedure 4.)

8-2 Remove the key cover assembly. (See procedure 7.)

8-3 Remove the four (4) screws marked [15]. The rack assembly (L) can then be removed. (Fig. 12)

* The rack assembly (R) can then be removed in the same manner.

9. Panel Assembly

(Time required: About 15 minutes)

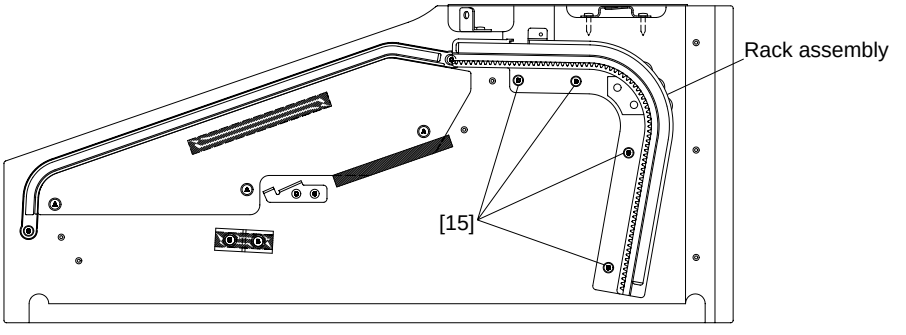
9-1 Remove the top board assembly. (See procedure 4.)

9-2 Remove the key cover assembly. (See procedure 7.)

9-3 Remove the four (4) screws marked [60B]. The key cover support assembly can then be removed. (Fig. 7)

9-4 Remove the eight (8) screws marked [71]. The panel assembly can then be removed. (Fig. 7)

• Arm Assembly



[15]: Bind Head Tapping Screw-1 3.5x20 MFZN2Y (EP030470)

Fig. 12

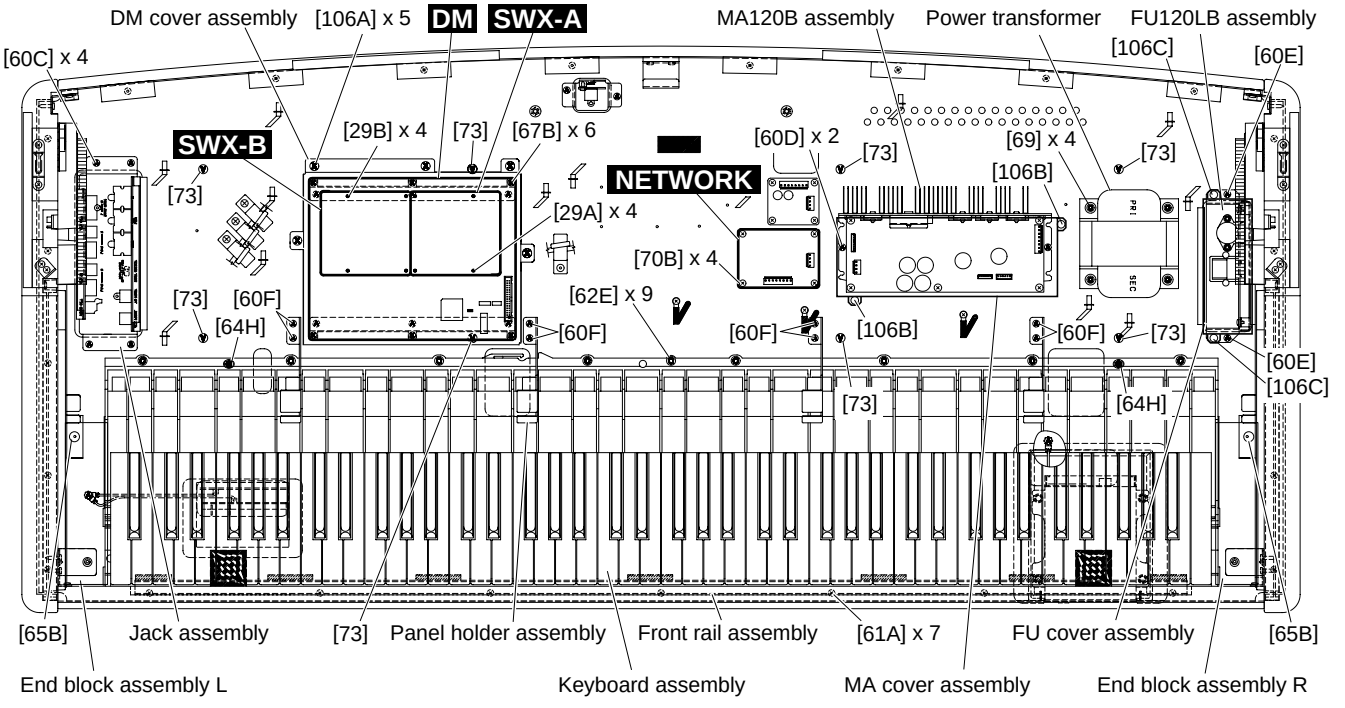
10. Circuit Boards and Assemblies (Main Unit - Part 2) (Time required: About 5 minutes each)

Remove the following screws after removing the panel assembly. Each circuit board and assembly can then be removed. (Fig. 13)

Circuit Board and Unit	Ref. No.	Screw	QTY
DM Cover Assembly	[106A]	Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)	5
DM (*1)	[67B]	Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)	6
SWX-A (*2)	[29A]	Board spacer	4
SWX-B (*2)	[29B]	Board spacer	4
Jack Assembly	[60C]	Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)	4
NETWORK	[70B]	Bind Head Tapping Screw-1 3.5x20 MFZN2Y (EP030470)	4
MA cover Assembly (US model only)	[106B]	Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)	2
MA120B Assembly	[60D]	Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)	2
FU cover Assembly (US model only)	[106C]	Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)	2
FU120LB Assembly	[60E]	Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)	2
Power Transfomer	[69]	Bind Head Screw 4.0x12 MFZN2BL (VB132700)	4

*1 Be sure to make a correct match when connecting DM (CN10) from the LCD unit.

*2 Be careful of insertion position of spacer when you install the circuit board. Must not use spacer inserted in the reverse once.



[60]: Bind Head Tapping Screw-1 3.5x12 MFZN2BL (EP030340)
[61A]: Truss Head Tapping Screw-1 3.5x25 MFZN2BL (EN630190)
[62]: Pan Head Screw-1 PW 5.0x25 MFZN2Y (VV040700)
[64]: Bind Head Tapping Screw-1 4.0x14 MFZN2Y (EP040230)
[65B]: Truss Head Tapping Screw-1 3.5x30 MFZN2BL (VU952600)
[73]: Bind Head Screw SP 5.0x30 MFZN2BL (VQ635300)

Fig. 13

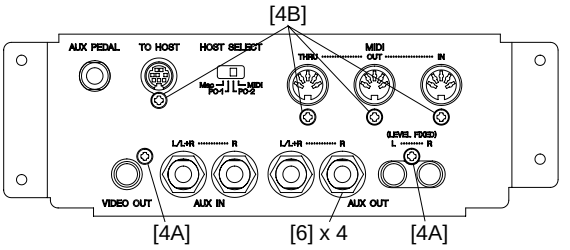
11. A-JACK Circuit Board, D-JACK Circuit Boaed (Time required: About 25 minutes)

11-1 Remove the jack assembly. (See procedure 10.)

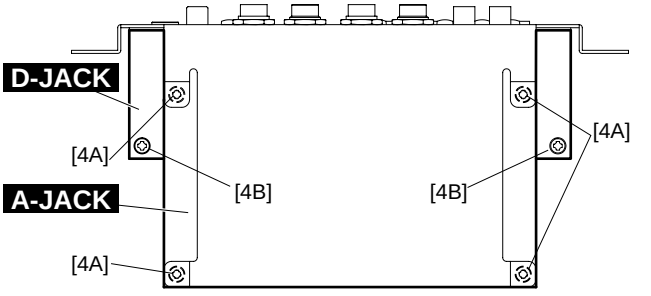
11-2 Remove the six (6) screws marked [4A] and the six (6) hexagonal nuts marked [6]. The A-JACK circuit board can then be removed. (Fig. 14)

11-3 Remove the six (6) screws marked [4B]. The D-JACK circuit board can then be removed. (Fig. 14)

• Jack Assembly



[4]: Bind Head Tapping Screw-B 3.0x8 MFZN2BL (EP600190)



[6]: Hexagonal Nut 12.0 14x2 MFZN2BL (VB508600)

Fig. 14

12. Circuit Boards and Assemblies (Panel Assembly) (Time required: About 5 minutes each)

Remove the following screws after removing the panel assembly. Each circuit board and assembly can then be removed. (Fig. 15)

Circuit Board and Unit	Ref. No.	Screw	QTY
GL case assembly	[62A]	Bind Head Tapping Screw-B 2.6x8 MFZN2BL (VB096700)	8
	[65A]	Bind Head Tapping Screw-1 3.5x10 MFZN2Y (EP030230)	6
INV	[64A]	Bind Head Tapping Screw-B 3.0x8 MFZN2Y (EP600250)	2
PNL	[64B]	Bind Head Tapping Screw-B 3.0x8 MFZN2Y (EP600250)	13
	[70C]	PW Head Tapping Screw-B 3.0x10-8 MFZN2Y (VU767800)	1
PNR (PNR) (*1)	[64C]	Bind Head Tapping Screw-B 3.0x8 MFZN2Y (EP600250)	15
LCD (*1)	[63]	Bind Head Tapping Screw-B 3.0x6 MFZN2BL (EP600230)	1
	[64D]	Bind Head Tapping Screw-B 3.0x8 MFZN2Y (EP600250)	3
PNCR (*1)	[62B]	Bind Head Tapping Screw-B 2.6x8 MFZN2BL (VB096700)	3
PNCL	[62C]	Bind Head Tapping Screw-B 2.6x8 MFZN2BL (VB096700)	5
PNCB (*2)	[62D]	Bind Head Tapping Screw-B 2.6x8 MFZN2BL (VB096700)	6
Push switch	[64E]	Bind Head Tapping Screw-B 3.0x8 MFZN2Y (EP600250)	2
MV	[64F]	Bind Head Tapping Screw-B 3.0x8 MFZN2Y (EP600250)	3
		Knob	1
PNR (ENC)	[64G]	Bind Head Tapping Screw-B 3.0x8 MFZN2Y (EP600250)	4
		Encoder Knob	1

*1 Remove the INV circuit board before removing PNR (PNR) circuit board, PNCR circuit board and LCD unit.

*2 Remove the GL case assembly before removing PNCB circuit board.

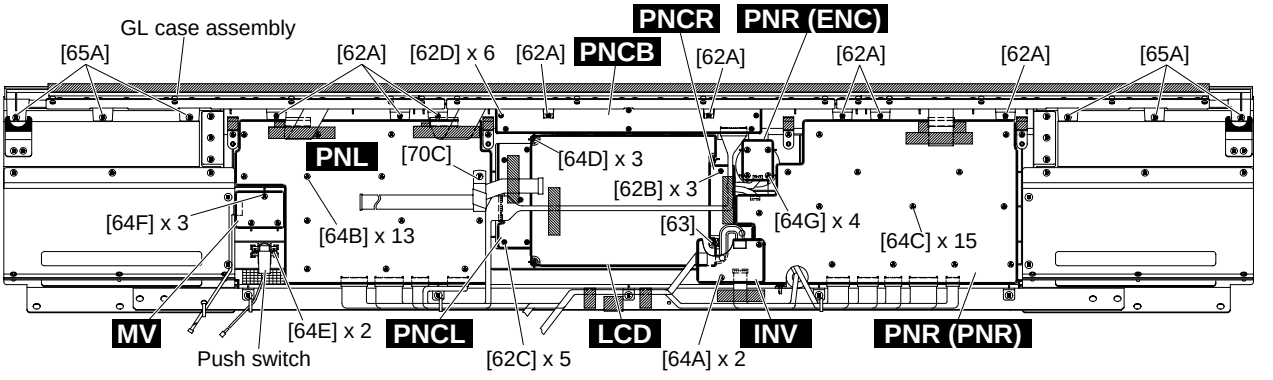


Fig. 15

13. GLL Circuit Board, GLC Circuit Board, GLR Circuit Board

(Time required: About 25 minutes)

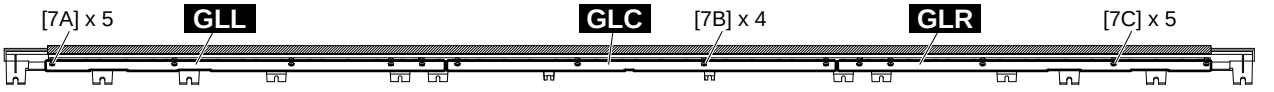
13-1 Remove the GL case assembly. (See procedure 12.)

13-2 Remove the five (5) screws marked [7A]. The GLL circuit board can then be removed. (Fig. 16)

13-3 Remove the four (4) screws marked [7B]. The GLC circuit board can then be removed. (Fig. 16)

13-4 Remove the five (5) screws marked [7C]. The GLR circuit board can then be removed. (Fig. 16)

• GL Case Assembly



[7]: Bind Head Tapping Screw-B 2.6x8 MFZN2BL (VB096700)

Fig. 16

14. Keyboard Assembly

(Time required: About 20 minutes)

14-1 Remove the top board assembly. (See procedure 4.)

14-2 Remove the key cover assembly. (See procedure 7.)

14-3 Remove the panel assembly. (See procedure 9.)

14-4 Remove the eight (8) screws marked [60F]. The four panel holders can then be removed. (Fig. 13)

14-5 Remove the screw marked [65B]. The end block assembly can then be removed. (Fig. 13)

* The left and right end block assembly can then be removed in the same manner.

14-6 Remove the nine (9) screws marked [62E] and the two (2) screws marked [64H]. The keyboard assembly can then be removed. (Fig. 13)

15. Front Rail Assembly

(Time required: About 30 minutes)

15-1 Remove the top board assembly. (See procedure 4.)

15-2 Remove the key cover assembly. (See procedure 7.)

15-3 Remove the panel assembly. (See procedure 9.)

15-4 Remove the keyboard assembly. (See procedure 14.)

15-5 Remove the seven (7) screws marked [61A] and the four (4) screws marked [74A]. The front rail assembly can then be removed. (Fig. 13, Fig. 17)

16. Side Cover Assembly L (or R)

(Time required: About 40 minutes)

16-1 Remove the top board assembly. (See procedure 4.)

16-2 Remove the key cover assembly. (See procedure 7.)

16-3 Remove the panel assembly. (See procedure 9.)

16-4 Remove the keyboard assembly. (See procedure 14.)

16-5 Remove the front rail assembly. (See procedure 15.)

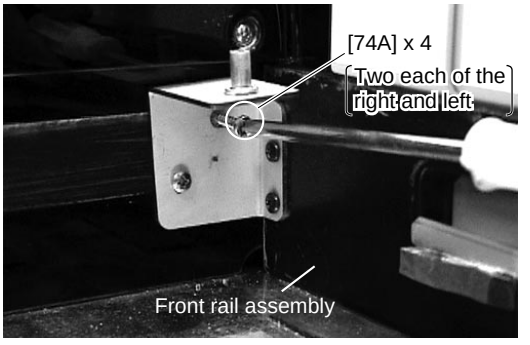
16-6 Remove the five (5) screws marked [61B] and the three (3) screws marked [74B]. The side cover assembly (L) can then be removed. (Fig. 1, Fig. 18)

* The side cover assembly (R) can then be removed in the same manner.

17. Back Top Board Assembly

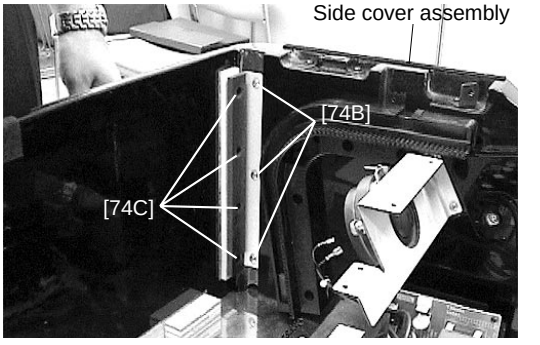
(Time required: About 45 minutes)

17-1 Remove the top board assembly. (See procedure 4.)
17-2 Remove the key cover assembly. (See procedure 7.)
17-3 Remove the panel assembly. (See procedure 9.)
17-4 Remove the keyboard assembly. (See procedure 14.)
17-5 Remove the front rail assembly. (See procedure 15.)
17-6 Remove the side cover assembly L (or R). (See procedure 16.)
17-7 Remove the four (4) screws marked [74C] and the eight (8) screws marked [61C]. The back top board assembly can then be removed. (Fig. 1, Fig. 18)



[74A]: Bind Head Tapping Screw-1 3.5x16 MFZN2Y (EP030190)

Fig. 17



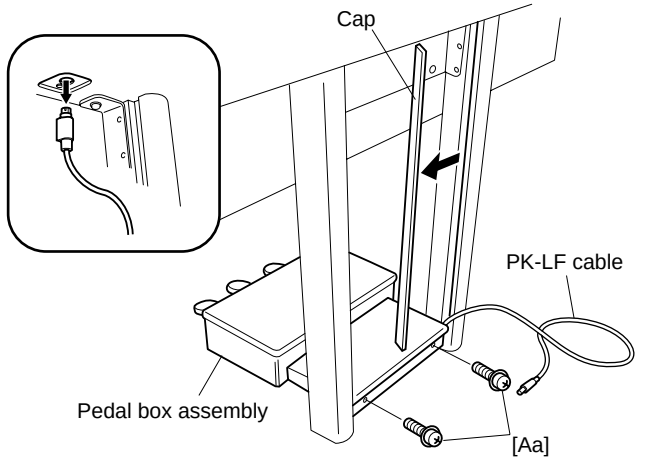
[74]: Bind Head Tapping Screw-1 3.5x16 MFZN2Y (EP030190)

Fig. 18

18. Pedal Assembly

(Time required: About 10 minutes)

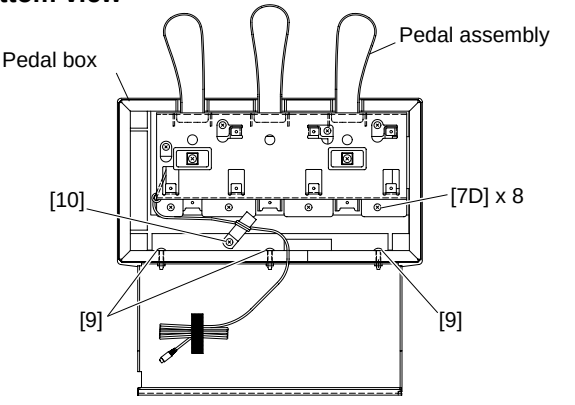
18-1 Remove the cap, and disconnect the PK-LF cable. (Fig. 19)
18-2 Remove the two (2) screws marked [Aa]. The pedal box assembly can then be removed.
18-3 Remove the eight (8) screws marked [7D] and the screw marked [10]. The pedal assembly can then be removed. (Fig. 20)
18-4 Remove the three (3) screws marked [9]. The pedal box can then be removed. (Fig. 20)



[Aa]: Bind Head Screw SP 5.0x16 MFZN2BL (VU688000)

Fig. 19

• Bottom view



[7D]: Bind Head Tapping Screw-1 3.5x12 MFZN2Y (EP030240)
[9]: Truss Head Tapping Screw-B 0x20 MFZN2BL (V213700)
[10]: Truss Head Tapping Screw-1 3.5x14 MFZN2Y (EN630230)

Fig. 20

19. Front Leg Assembly, Rear Leg Assembly

(Time required: About 15 minutes)

19-1 Remove the pedal box assembly. (See procedure 18-2.)

19-2 With a soft cloth like a blanket placed on the floor. Rest the main unit against the wall gently so that the keyboard side is faced toward the bottom. (Fig. 21)

19-3 Remove the five (5) screws marked [Ab]. The front leg assembly can then be removed. (Fig. 22)

* The left and right front leg assembly each can then be removed in the same manner.

19-4 Remove the four (4) screws marked [Ac]. The rear leg assembly can then be removed. (Fig. 23)

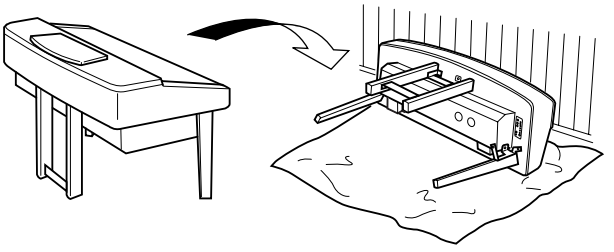
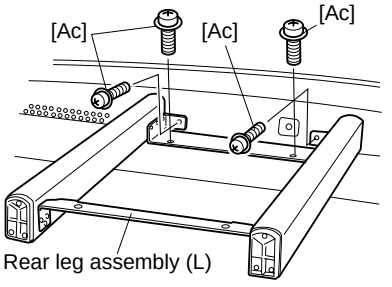


Fig. 21

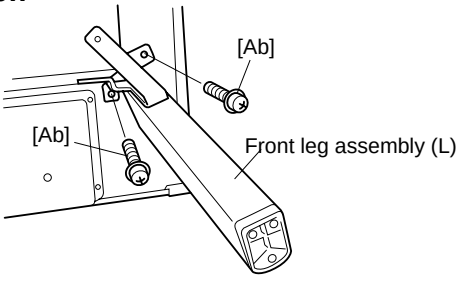
• Bottom view



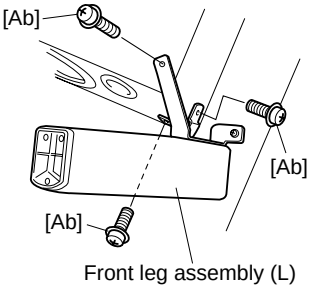
[Ac]: Bind Head Screw SP 5.0x16 MFZN2BL (VU688000)

Fig. 23

• Bottom view



• Speaker box view



[Ab]: Bind Head Screw SP 5.0x16 MFZN2BL (VU688000)

Fig. 22

20. Speaker Box Assembly

(Time required: About 30 minutes)

20-1 Remove the DM circuit board. (See procedure 10.)

20-2 Disconnect the SP cable from the connector marked [CN002] located on the NET1 circuit board. (Fig. 24)

20-3 Disconnect the PK-LF cable. (Fig. 19)

20-4 Remove the speaker grille. (Fig. 25)

20-5 Remove the two (2) screws marked [Ad]. (Fig. 25)

20-6 With a soft cloth like a blanket placed on the floor. Rest the main unit against the wall gently so that the keyboard side is faced toward the bottom. (Fig. 21)

20-7 Remove the rear leg assembly with the pedal box assembly. (See procedure 19-4.)

20-8 Remove the four (4) screws marked [Ae] and eight (8) screws marked [73]. The speaker box assembly can then be removed. (Fig. 13, Fig. 26)

21. Woofer, Tweeter

(Time required: About 10 minutes)

21-1 Remove the speaker grille. (Fig. 25)

21-2 Remove the four (4) screws marked [11A]. The woofer can then be removed. (Fig. 27)

* The left and right woofer each can then be removed in the same manner.

21-3 Remove the four (4) screws marked [11B]. The woofer can then be removed. (Fig. 27)

* The left and right tweeter each can then be removed in the same manner.

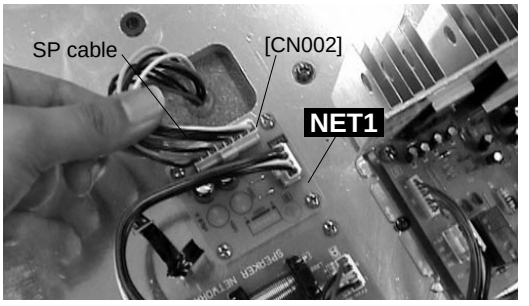
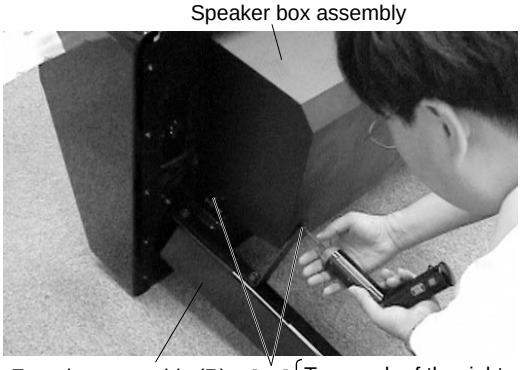
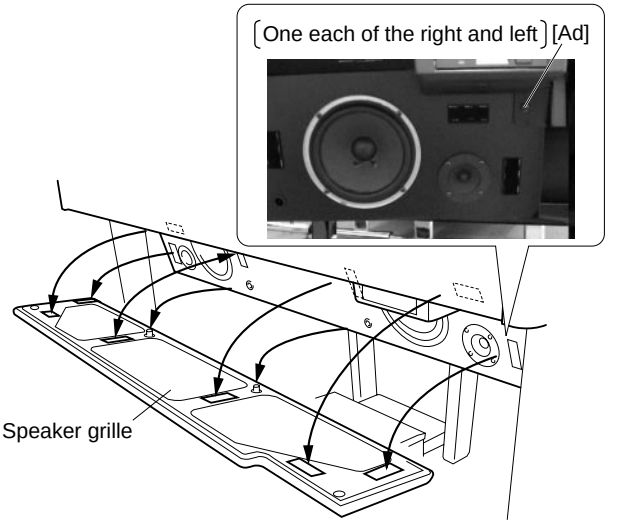


Fig. 24



[Ae]: Bind Head Screw SP 5.0x16 MFZN2BL (VU688000)

Fig. 26



[Ad]: Bind Head Screw SP 5.0x16 MFZN2BL (VU688000)

Fig. 25

• Speaker box assembly



[11]: Bind Head Tapping Screw-1 4.0x16 MFZN2BL (EP040250)

Fig. 27

22. Disassembling the Keyboard

(Time required: About 15 minutes)

* After inserting a round stick (Rod:TX000670) between the frame and the keys, remove the circuit boards. (Fig. 28)

22-1 GH-DclSW L Circuit Board

Remove the seven (7) screws marked [260A]. The GH-DclSW L circuit board can then be removed. (Fig. 29)

22-2 GH-D SW H Circuit Board

Remove the ten (10) screws marked [260B]. The GH-D SW H circuit board can then be removed. (Fig. 29)

* Keys can be removed without removing the circuit boards.

* After removing the GH-DclSW L and GH-D SW H circuit boards, and the rubbers can then be removed.

22-3 White key

Insert a thin plate between the white keys, near the triangle mark around the fulcrum of the key, and press down the stopper marked [A] to remove the key. (Fig. 30, Fig. 31)

* Take care not to damage the key spring when removing a key.

* A black key can be removed after the white keys on either side have been removed.

22-4 Hammer, White Key

After a key has been removed, push a key spring down once to take it out of the hook. (Fig. 32)

Place the keyboard assembly upside-down and peel the stopper away. Then hammer of the white key can then be removed. (Fig. 33)

* The hammer of the black key can then be removed in the same manner.

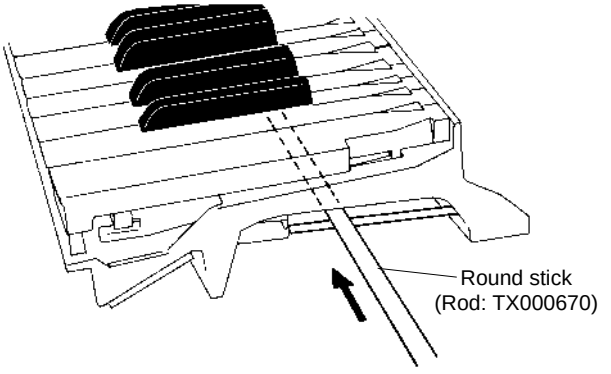
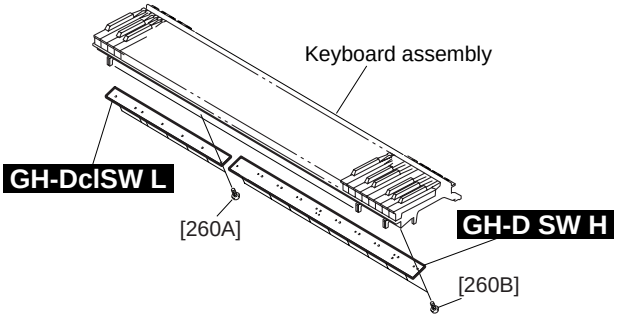


Fig. 28



[260]: Bind Head Tapping Screw-P 3.0x10 MFZN2 (VT413400)

Fig. 29

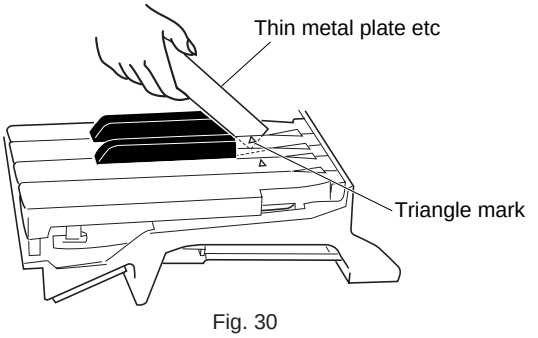


Fig. 30

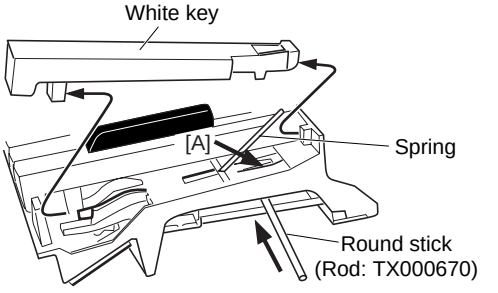


Fig. 31

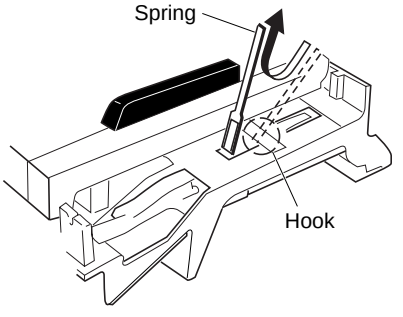


Fig. 32

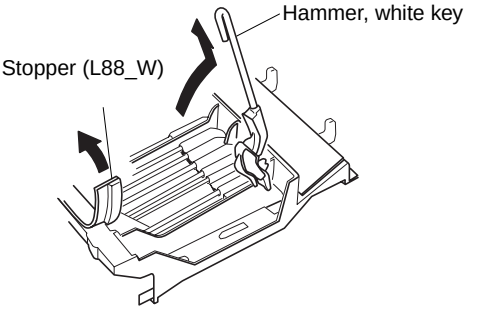


Fig. 33

23 Assembling the Keyboard

(Time required: About 15 minutes)

23-1 Hammer, White Key (Hammer, Black Key)

Place the keyboard assembly upside-down, insert a hammer assembly into the frame, and put the stopper (L88_W) on. (Fig. 34)

* There are four (4) kinds of hammers that differ in weight.

23-2 Spring

Place the keyboard assembly rightside up. Fix key springs on the frame by setting one at each slit and pushing down once on each key spring. (Fig. 35)

* Be careful of the direction of the spring.

23-3 White Key (Black Key)

After a key has been fit to part [C] and key guide, make sure that the spring is fixed to the key and then press down part [B] of the key. (Fig. 36)

23-4 GH-DclSW L Circuit Board

Tighten the seven (7) screws marked [260A] to fix the GH-DclSW L circuit board. (Fig. 29)

23-5 GH-D SW H Circuit Board

Tighten the ten (10) screws marked [260B] to fix the GH-D SW H circuit board. (Fig. 29)

* Install the circuit boards in the keyboard assembly so that the hooks hold it as shown in figure 37.

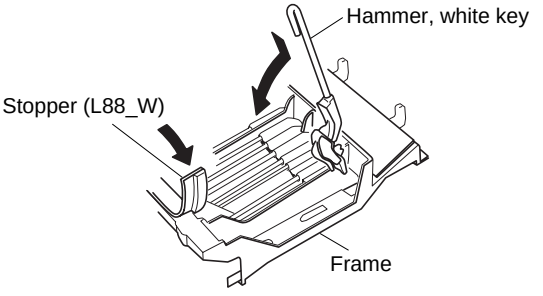


Fig. 34

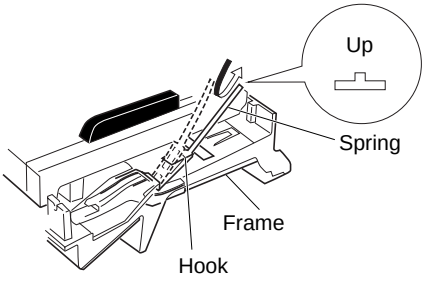


Fig. 35

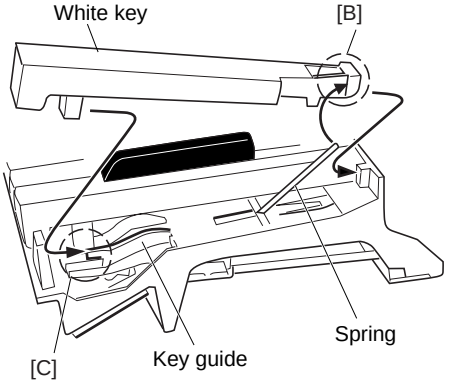


Fig. 36

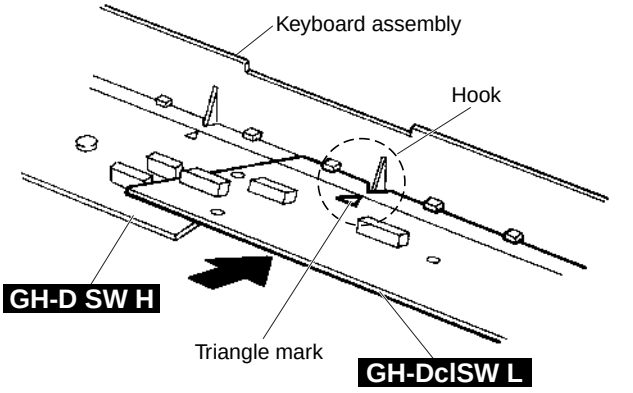


Fig. 37

■ LSI PIN DESCRIPTION

MN101C027YB (XS711200) **CPU** 22
PCM1702U/2K (XP551A00) **DAC** (Digital to Analog Converter) 22
HD6417709F80B (XV250B00) **CPU** 23
TC203C760HF-002 (XS725A00) **SWP30B**
(AWM Tone Generator coped with MEG) Standard Wave Processor 24
HG73C205AFD (XU947C00) **SWX00B** (Tone Generator) 25
MBCG46183-129 (XV833A00) **SIO4** (Gate Array) 26
TC160G22AF-1252 (XU135A00) **MI2** (MPU Interface 2) 26
YSS236-F (XT013A00) **VOP3** 27
HD63266F (XI939A00) **FDC** (Floppy Disk Controller) 28
YMZ702-D (XR632A00) **KSN2** (Key Scanner) 28
AK5351-VF-E2 (XV510A00) **ADC** (Analog to Digital Converter) 28

● **MN101C027YB** (XS711200) **CPU**

PNR: IC001

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	S1	I	Switch matrix data	33	S12	I	Switch matrix data
2	S2	I		34	S13	I	
3	S3	I		35	S14	I	
4	S4	I		36	TXD	O	MIDI transmit data
5	S5	I		37	S15	I	Switch matrix data
6	VREF+	-	Power supply (+5V, analog)	38	S16	I	
7	VDD	-	Power supply (+5V)	39	S17	I	
8	OSC2	O	Crystal oscillator (8MHz)	40	S18	I	
9	OSC1	I	Crystal oscillator (8MHz)	41	L16	O	LED drive data
10	VSS	-	Ground	42	L17	O	
11	XI	I	Not used	43	L18	O	
12	XO	O	Not used	44	L19	O	
13	MMOD	I	Memory mode select (Grounded)	45	L8	O	
14	RD0	O	Rotary encoder data	46	L9	O	
15	RXD	I	MIDI receive data	47	L10	O	
16	D0	O	LED and switch drive data	48	L11	O	
17	D1	O		49	L12	O	
18	D2	O		50	L13	O	
19	D3	O		51	L14	O	
20	D4	O		52	L15	O	
21	/RST	I	Reset	53	L7	O	LED and switch drive data
22	D5	O	LED and switch drive data	54	L6	O	
23	D6	O		55	L5	O	
24	D7	O		56	L4	O	
25	D8	O		57	L3	O	
26	D9	O		58	L2	O	
27	S6	I	Switch matrix data	59	L1	O	
28	S7	I		60	L0	O	
29	S8	I		61	VREF	-	Grounded
30	S9	I		62	AD0	I	Analog input
31	S10	I		63	AD1	I	Analog input
32	S11	I		64	S0	I	Switch matrix data

● **PCM1702U/2K** (XP551A00) **DAC** (Digital to Analog Converter)

DM: IC028, 029

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	DATA	I	Data input	11	+VCC		Power supply (+5 V)
2	CLK	I	Clock	12	BPO		Bipolar de-couple
3	NC			13	NC		
4	+VDD		Power supply (+5 V)	14	IOUT	O	Output current
5	D.GND		Digital ground	15	A.GND		Analog ground
6	-VDD		Power supply (-5 V)	16	A.GND		Analog ground
7	L.E	I	Latch enable	17	SERV		Servo de-couple
8	NC			18	NC		
9	NC			19	REF		Reference de-couple
10	NC			20	-VCC		Power supply (-5 V)

● **HD6417709F80B** (XV250B00) **CPU**

DM: IC001, 002

PIN NO.	NAME	I/O	FUNCTION
1	MD1	I	Mode control
2	MD2	I	
3	Vcc(RTC)	-	Power supply +3.3V
4	XTAL2	O	Crystal oscillator
5	EXTAL2	I	
6	Vss(RTC)	-	Ground
7	NMI	I	Non-maskable interrupt request
8	IRQ0//IRL0/PTH0	I	Interrupt request / Port H
9	IRQ1//IRL1/PTH1	I	
10	IRQ2//IRL2/PTH2	I	
11	IRQ3//IRL3/PTH3	I	
12	IRQ4/PTH4	I	
13	D31/PTB7	I/O	Data bus / Port B
14	D30/PTB6	I/O	
15	D29/PTB5	I/O	
16	D28/PTB4	I/O	
17	D27/PTB3	I/O	
18	D26/PTB2	I/O	
19	Vss	-	Ground
20	D25/PTB1	I/O	Data bus / Port B
21	Vcc	-	Power supply +3.3V
22	D24/PTB0	I/O	Data bus / Port B
23	D23/PTA7	I/O	Data bus / Port A
24	D22/PTA6	I/O	
25	D21/PTA5	I/O	
26	D20/PTA4	I/O	
27	Vss	-	Ground
28	D19/PTA3	I/O	Data bus / Port A
29	Vcc	-	Power supply +3.3V
30	D18/PTA2	I/O	Data bus / Port A
31	D17/PTA1	I/O	
32	D16/PTA0	I/O	
33	Vss	-	Ground
34	D15	I/O	Data bus
35	Vcc	-	Power supply +3.3V
36	D14	I/O	Data bus
37	D13	I/O	
38	D12	I/O	
39	D11	I/O	
40	D10	I/O	
41	D9	I/O	
42	D8	I/O	
43	D7	I/O	
44	D6	I/O	
45	Vss	-	Ground
46	D5	I/O	Data bus
47	Vcc	-	Power supply +3.3V
48	D4	I/O	Data bus
49	D3	I/O	
50	D2	I/O	
51	D1	I/O	
52	D0	I/O	
53	A0	O	Address bus
54	A1	O	
55	A2	O	
56	A3	O	
57	Vss	-	Ground
58	A4	O	Address bus
59	Vcc	-	Power supply +3.3V
60	A5	O	Address bus
61	A6	O	
62	A7	O	
63	A8	O	
64	A9	O	
65	A10	O	
66	A11	O	
67	A12	O	
68	A13	O	
69	Vss	-	Ground
70	A14	O	Address bus
71	Vcc	-	Power supply +3.3V
72	A15	O	Address bus
73	A16	O	
74	A17	O	
75	A18	O	
76	A19	O	
77	A20	O	
78	A21	O	
79	Vss	-	Ground
80	A22	O	Address bus
81	Vcc	-	Power supply +3.3V
82	A23	O	Address bus
83	Vss	-	Ground
84	A24	O	Address bus
85	Vcc	-	Power supply +3.3V
86	A25	O	Address bus
87	/BS/PTK4	I/O	Bus cycle / Port K
88	/RD	O	Read strobe
89	/WE0/DQMLL	O	
90	/WE1/DQMLU//WE	O	
91	/WE2/DQMUL//ICRD/PTK6	I/O	
92	/WE3/DQMUU/ICIWR/PTK7	I/O	
93	RD//WR	O	Read / Write
94	PTE7	I/O	Port E
95	Vss	-	Ground
96	/CS0	O	Chip select
97	Vcc	-	Power supply +3.3V
98	/CS2/PTK0	I/O	Chip select / Port K
99	/CS3/PTK1	I/O	
100	/CS4/PTK2	I/O	
101	/CS5//CE1A/PTK3	I/O	Chip select / Chip enable / Port K
102	/CS6//CE1B	O	Chip select / Chip enable
103	/CE2A/PTE4	I/O	Chip enable / Port E
104	/CE2B/PTE5	I/O	

PIN NO.	NAME	I/O	FUNCTION
105	CKE/PTK5	I/O	CK enable / Port K
106	/RAS3L/PTJ0	I/O	3L Row address strobe / Port J
107	/RAS2L/PTJ1	I/O	2L Row address strobe / Port J
108	/CASLL//CAS/PTJ2	I/O	LL Column address strobe / Column address strobe / Port J
109	Vss	-	Ground
110	/CASLH/PTJ3	I/O	LH Column address strobe / Port J
111	Vcc	-	Power supply +3.3V
112	/CASHL/PTJ4	I/O	HL Column address strobe / Port J
113	/CASHH/PTJ5	I/O	HH Column address strobe / Port J
114	DACK0/PTD5	I/O	DMA acknowledge / Port D
115	DACK1/PTD7	I/O	
116	CAS2L/PTE6	I/O	2L Column address strobe / Port E
117	CAS2H/PTE3	I/O	2H Column address strobe / Port E
118	/RAS3U/PTE2	I/O	3U Row address strobe / Port E
119	/RAS2U/PTE1	I/O	2U Row address strobe / Port E
120	PTE0	I/O	Port E
121	/BACK	O	Bus acknowledge
122	/BREQ	I	Bus request
123	/WAIT	I	Hardware wait request
124	/RESETM	I	Manual reset
125	PTH5//ADTRG	I	Port H / Analog trigger
126	IOIS16/PTG7	I	Write protect / Port G
127	PTG6	I	Port G
128	PTG5	I	
129	PTG4	I	
130	PTG3	I	
131	PTG2	I	
132	VSS	-	Ground
133	PTG1	I	Port G
134	Vcc	-	Power supply +3.3V
135	PTG0	I	Port G
136	PTF7/PINT15	I	Port F / Port interruption
137	PTF6/PINT14	I	
138	PTF5/PINT13	I	
139	PTF4/PINT12	I	
140	PTF3/PINT11	I	
141	PTF2/PINT10	I	
142	PTF1/PINT9	I	
143	PTF0/PINT8	I	
144	MD0	I	Mode control
145	Vcc(PLL1)	-	Power supply +3.3V
146	CAP1	-	Capacitor
147	Vss(PLL1)	-	Ground
148	Vss(PLL2)	-	Ground
149	CAP2	-	Capacitor
150	VCC(PLL2)	-	Power supply +3.3V
151	PTH6	I	Port H
152	Vss	-	Ground
153	Vss	-	
154	Vcc	-	Power supply +3.3V
155	XTAL1	O	Crystal oscillator
156	EXTAL1	I	
157	STATUS0/PTJ6	I/O	Processor status / Port J
158	STATUS1/PTJ7	I/O	
159	TCLK/PTH7	I/O	Timer clock / Port H
160	/IRQOUT	O	Interrupt request output
161	Vss	-	Ground
162	CKIO	I/O	System clock input / output
163	Vcc	-	Power supply +3.3V
164	TXD0/SCPT0	O	Data transmission / SCI port
165	SCK0/SCPT1	I/O	Serial clock / SCI port
166	TXD1/SCPT2	O	Data transmission / SCI port
167	SCK1/SCPT3	I/O	Serial clock / SCI port
168	TXD2/SCPT4	O	Data transmission / SCI port
169	SCK2/SCPT5	I/O	Serial clock / SCI port
170	RTS2/SCPT6	I/O	Transmit request / SCI port
171	RXD0/SCPT0	I	Data reception / SCI port
172	RXD1/SCPT2	I	
173	Vss	-	Ground
174	RXD2/SCPT4	I	Data reception / SCI port
175	Vcc	-	Power supply +3.3V
176	CTS2//IRQ5/SCPT7	I	Transmit request / Interrupt request / SCI port
177	PTC7/PINT7	I/O	Port C / Port interruption
178	PTC6/PINT6	I/O	
179	PTC5/PINT5	I/O	
180	PTC4/PINT4	I/O	
181	Vss	-	Ground
182	/WAKEUP/PTD3	I/O	Standby mode Interrupt request output / port D
183	Vcc	-	Power supply +3.3V
184	PTD2//RESETOUT	I/O	Port D / Reset output
185	PTC3/PINT3	I/O	Port C / Port interruption
186	PTC2/PINT2	I/O	
187	PTC1/PINT1	I/O	
188	PTC0/PINT0	I/O	
189	DRAK0/PTD1	I/O	DMA acknowledge / Port D
190	DRAK1/PTD0	I/O	
191	/DREQ0/PTD4	I	DMA request / Port D
192	/DREQ1/PTD6	I	
193	/RESETP	I	Power on reset
194	/CA	I	Chip active
195	MD3	I	Mode control
196	MD4	I	
197	MD5	I	
198	AVss	-	Analog ground
199	AN0/PTL0	I	Analog input / Port L
200	AN1/PTL1	I	
201	AN2/PTL2	I	
202	AN3/PTL3	I	
203	AN4/PTL4	I	
204	AN5/PTL5	I	
205	AVcc	-	Analog power supply +3.3V
206	AN6/DA1/PTL6	I/O	Analog input / Analog output / Port L
207	AN7/DA0/PTL7	I/O	
208	AVss	-	Analog ground

● **TC203C760HF-002** (XS725A00) **SWP30B**
(AWM Tone Generator coped with MEG) Standard Wave Processor

DM: IC003, IC004 (CVP-209)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	Vss		(Ground)	121	VSS		(Ground)
2	CA0	I		122	HMD0	I/O	
3	CA1	I		123	HMD1	I/O	
4	CA2	I		124	HMD2	I/O	
5	CA3	I		125	HMD3	I/O	
6	CA4	I		126	HMD4	I/O	
7	CA5	I		127	HMD5	I/O	
8	CA6	I	Address bus of internal register	128	HMD6	I/O	
9	CA7	I		129	HMD7	I/O	
10	CA8	I		130	HMD8	I/O	Wave memory data bus (Upper 16 bits)
11	CA9	I		131	HMD9	I/O	
12	CA10	I		132	HMD10	I/O	
13	CA11	I		133	HMD11	I/O	
14	VSS		(Ground)	134	HMD12	I/O	
15	CD0	I/O		135	HMD13	I/O	
16	CD1	I/O		136	HMD14	I/O	
17	CD2	I/O		137	HMD15	I/O	
18	CD3	I/O		138	VSS		(Ground)
19	CD4	I/O		139	HMA0	O	
20	CD5	I/O		140	HMA1	O	
21	CD6	I/O		141	HMA2	O	
22	CD7	I/O		142	HMA3	O	
23	CD8	I/O		143	HMA4	O	
24	CD9	I/O	Data bus of internal register	144	HMA5	O	
25	CD10	I/O		145	HMA6	O	
26	CD11	I/O		146	HMA7	O	
27	CD12	I/O		147	HMA8	O	
28	CD13	I/O		148	HMA9	O	
29	CD14	I/O		149	HMA10	O	
30	VDD		(Power supply)	150	VDD		(Power supply)
31	VSS		(Ground)	151	VSS		(Ground)
32	CD15	I/O		152	HMA11	O	Wave memory address bus
33	CSN	I	Chip select	153	HMA12	O	
34	WRN	I	Write strobe	154	HMA13	O	
35	RDN	I	Read strobe	155	HMA14	O	
36	VDD		(Power supply)	156	HMA15	O	
37	SYSH0	O		157	HMA16	O	
38	SYSH1	O		158	HMA17	O	
39	SYSH2	O		159	HMA18	O	
40	SYSH3	O		160	HMA19	O	
41	SYSH4	O	NSYS/LNSYS upper 16 bits output	161	HMA20	O	
42	SYSH5	O		162	HMA21	O	
43	SYSH6	O		163	HMA22	O	
44	SYSH7	O		164	HMA23	O	
45	KONO0	O		165	HMA24	O	
46	KONO1	O		166	VSS		(Ground)
47	KONO2	O	Key on data	167	MRASN	O	RAS when DRAM(s) is connected to wave memory
48	KONO3	O		168	MCASN	O	CAS when DRAM(s) is connected to wave memory
49	VSS		(Ground)	169	MOEN	O	Wave memory output enable
50	SYSL0	I/O		170	MWEN	O	Wave memory write enable
51	SYSL1	I/O		171	VSS		(Ground)
52	SYSL2	I/O		172	LMD0	I/O	
53	SYSL3	I/O		173	LMD1	I/O	
54	SYSL4	I/O	NSYS input/LNSYS output lower 8 bits	174	LMD2	I/O	
55	SYSL5	I/O		175	LMD3	I/O	
56	SYSL6	I/O		176	LMD4	I/O	
57	SYSL7	I/O		177	LMD5	I/O	
58	KONI0	I		178	LMD6	I/O	
59	KONI1	I		179	LMD7	I/O	Wave memory data bus (Lower 16 bits)
60	VDD	I	(Power supply)	180	VDD		(Power supply)
61	VSS		Key on data input (Ground)	181	VSS		(Ground)
62	KONI2	I		182	LMD8	I/O	
63	KONI3	I		183	LMD9	I/O	
64	DAC0	O		184	LMD10	I/O	
65	DAC1	O	DAC output	185	LMD11	I/O	
66	WCLK	O	DAC0/DAC1 word clock	186	LMD12	I/O	
67	MELO0	O		187	LMD13	I/O	
68	MELO1	O		188	LMD14	I/O	
69	MELO2	O		189	LMD15	I/O	
70	MELO3	O		190	VSS		(Ground)
71	MELO4	O	MEL wave data output	191	LMA0	O	
72	MELO5	O		192	LMA1	O	
73	MELO6	O		193	LMA2	O	
74	MELO7	O		194	LMA3	O	
75	VDD		(Power supply)	195	LMA4	O	
76	ADLR	O	ADC word clock	196	LMA5	O	
77	MELI0	I		197	LMA6	O	
78	MELI1	I		198	LMA7	O	
79	MELI2	I		199	LMA8	O	
80	MELI3	I		200	LMA9	O	
81	MELI4	I	MEL wave data input	201	LMA10	O	
82	MELI5	I		202	LMA11	O	
83	MELI6	I		203	VSS		(Ground)
84	MELI7	I		204	LMA12	O	
85	VSS		(Ground)	205	LMA13	O	Wave memory address bus (Lower data memory)
86	RCASN	O	DRAM column address strobe (RAS signal)	206	LMA14	O	
87	RA8	O		207	LMA15	O	
88	RA7	O		208	LMA16	O	
89	RA6	O		209	LMA17	O	
90	VDD		(Power supply)	210	VDD		(Power supply)
91	VSS		(Ground)	211	VSS		(Ground)
92	RA5	O		212	LMA18	O	
93	RA4	O		213	LMA19	O	
94	RA3	O		214	LMA20	O	
95	RA2	O		215	LMA21	O	
96	RA1	O		216	LMA22	O	
97	RA0	O	DRAM address bus	217	LMA23	O	
98	RRASN	O	DRAM row address strobe (RAS signal)	218	LMA24	O	
99	RWEN	O	DARM write enable	219	VSS		(Ground)
100	VSS		(Ground)	220	SYO	O	Sync. signal for master clock
101	RD7	I/O		221	SYOD	O	Sync. signal for HCLK/QCLK
102	RD6	I/O		222	QCLK	O	1/12 master clock (64 Fs)
103	RD5	I/O		223	HCLK	O	1/6 master clock (128 Fs)
104	RD4	I/O		224	CK256	O	1/3 master clock (256 Fs)
105	RD3	I/O		225	SYSCLK	O	1/2 master clock (384 Fs)
106	RD2	I/O		226	VDD		(Power supply)
107	RD1	I/O		227	SYI	I	Sync. clock
108	RD0	I/O		228	MCLKI	I	Master clock input
109	VSS		(Ground)	229	MCLKO	O	Master clock output
110	RD17	I/O		230	VDD		(Power supply)
111	RD16	I/O		231	XIN	I	Crystal osc. input
112	RD15	I/O		232	XOUT	O	Crystal osc. output
113	RD14	I/O		233	VSS		(Ground)
114	RD13	I/O		234	ICN	I	Initial clear
115	RD12	I/O		235	CHIP2	I	2 chips mode enable
116	RD11	I/O		236	SLAVE	I	Master/Slave select when 2 chips mode
117	RD10	I/O		237	TESTON	I	
118	RD9	I/O		238	ACIN	I	Test pin
119	RD8	I/O		239	DCTEST	I	
120	VDD		(Power supply)	240	VDD		(Power supply)

DRAM data bus

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

SWX-A: IC001, 002
SWX-B: IC001, 002

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	O	Ground	162	GND162		Ground
79	CMA18	O	Program address bus	163	WCLK	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

● **MBCG46183-129** (XV833A00) **SIO4** (Gate Array)

DM: IC007

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	D5	I/O	Data Bus	25	TX31	O	Transmit Data 31
2	D6	I/O		26	RX32	I	Receive Data 32
3	D7	I/O		27	TX32	O	Transmit Data 32
4	/IRQ0	I/O	Interrupt Request Port 0	28	RX33	I	Receive Data 33
5	/IRQ1	I/O	Interrupt Request Port 1	29	TX33	I/O	Transmit Data 33
6	Vss		Ground	30	/IC	I	Initial Clear
7	/IRQ2	I/O	Interrupt Request Port 2	31	Vss		Ground
8	IRQ3	I/O	Interrupt Request Port 3	32	XI	I	Quartz Crystal Input
9	/RD	I	Read Signal Input	33	Vss		Ground
10	/WR	I	Write Signal Input	34	XO	I/O	Quartz Crystal Onput
11	/CE	I	Chip Enable Input	35	A0	I	Address Bus
12	/ASTB	I	Address Strobe (Not used: to ground)	36	A1	I	
13	TESTSIO	I	Input with Pull-down Resistor (50 k)	37	A2	I	
14	RX0	I	Receive Data 0	38	A3	I	
15	TX0	O	Transmit Data 0	39	A4	I	
16	RX1	I	Receive Data 1	40	A5	I	
17	TX1	O	Transmit Data 1	41	CPUCLK	I	CPU Clock
18	Vss		Ground	42	Vss		Ground
19	Vdd		Power Supply	43	Vdd		Power Supply
20	RX2	I	Receive Data 2	44	D0	I/O	Data Bus
21	TX2/BO2	O	Transmit Data 2	45	D1	I/O	
22	RX30	I	Receive Data 30	46	D2	I/O	
23	TX30	O	Transmit Data 30	47	D3	I/O	
24	TX31	I	Receive Data 31	48	D4	I/O	

● **TC160G22AF-1252** (XU135A00) **MI2** (MPU Interface 2)

DM: IC008

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	TEST	I	Test pin	41	SD0	I/O	Slave CPU data 0-15
2	VDD		Power supply	42	SD1	I/O	
3	XIN	I	Clock	43	SD2	I/O	
4	XOUT	O	Clock	44	SD3	I/O	
5	VSS		Ground	45	SD4	I/O	
6	/RESET	I	Reset	46	SD5	I/O	
7	/MCS	I	Main CPU chip select	47	SD6	I/O	
8	/MRD	I	Main CPU read	48	SD7	I/O	
9	/MWR	I	Main CPU write	49	SD8	I/O	
10	/MIRQ	O	Main CPU interrupt request	50	SD9	I/O	
11	MA0	I	Main CPU address 0	51	SD10	I/O	
12	VSS		Ground	52	VSS		(Ground)
13	MA1	I	Main CPU address 1-4	53	SD11	I/O	Slave CPU data 0-15
14	MA2	I		54	SD12	I/O	
15	MA3	I		55	SD13	I/O	
16	MA4	I		56	SD14	I/O	
17	MD0	I/O	Main CPU data 0-15	57	SD15	I/O	
18	MD1	I/O		58	/TXREQ	I	4-bit CPU send data request
19	MD2	I/O		59	RRDY	I	4-bit CPU ready
20	MD3	I/O		60	SCLK	O	4-bit CPU clock
21	VSS		(Ground)	61	SD	I/O	4-bit CPU data
22	MD4	I/O		62	DR1	O	KBS interface drive (pedal)
23	MD5	I/O		63	DR2	O	KBS interface drive (lower keyboard)
24	MD6	I/O		64	DR3	O	KBS interface drive (upper keyboard)
25	MD7	I/O		65	KD1	I	Keyboard data scan (pedal)
26	MD8	I/O		66	KD2	I	Keyboard data scan (lower keyboard)
27	MD9	I/O		67	KD3	I	Keyboard data scan (upper keyboard)
28	MD10	I/O		68	KBSCLK	O	KBS clock
29	MD11	I/O		69	XCLK1	I	KSN interface clock
30	MD12	I/O		70	XCLK2	I	
31	MD13	I/O		71	XCLK3	I	
32	MD14	I/O		72	KSEL	I	KBS/KSN select
33	VDD			73	VDD		Power supply
34	MD15	I/O	(Power supply)	74	ADSEL0	O	FSV interface CH select
35	/SCS	I	Slave CPU chip select	75	ADSEL1	O	
36	/SRD	I	Slave CPU read	76	ADSEL2	O	
37	/SWR	I	Slave CPU write	77	ADMCLK	O	FSV A/D system clock (8 MHz)
38	/SIRQ	O	Slave CPU interrupt request	78	ADL/R	O	FSV A/D L/R clock(31.25 kHz)
39	SA0	I	Slave CPU address 0	79	ADSCLK	O	FSV A/D bit clock(1 MHz)
40	VSS		Ground	80	ADDATA	I	FSV A/D data

● YSS236-F (XT013A00) VOP3

DM: IC005

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	VSS		Power supply	81	SO7	O	
2	WA17	O		82	SO6	O	Serial output
3	WA16	O		83	SO5	O	
4	WA15	O		84	VDD		Ground
5	WA14	O		85	VSS		Power supply
6	WA13	O	External memory address bus	86	SO4	O	
7	WA12	O		87	SO3	O	
8	WA11	O		88	SO2	O	Serial output
9	WA10			89	SO1	O	
10	VDD		Ground	90	SO0	O	
11	VSS		Power supply	91	WDCK	O	Data enable for DAC
12	WA09	O		92	SWPKON	O	SWP00 format key on output
13	WA08	O		93	IRQN	O	EG interrupt
14	WA07	O		94	VDD		Ground
15	WA06	O		95	VSS		Power supply
16	WA05	O	External memory address bus	96	XTAL_I	I	Quartz crystal terminal
17	WA04	O		97	XTAL_O	O	Quartz crystal terminal
18	WA03	O		98	MCLK	O	Oscillate clock output
19	WA02	O		99	VDD		Ground
20	VDD		Ground	100	VSS		Power supply
21	VSS		Power supply	101	MICN	I	Initial clear
22	WA01	O	External memory address bus	102	CLKIN	I	Master clock input
23	WA00	O		103	SYWIN	I	Sync.signal input
24	WEN	O	External memory control (WEN)	104	SYW	O	Sync.signal output
25	OEN	O	External memory control (OEN)	105	SYWD	O	Sync.signal output
26	RASN	O	External memory control (RASN)	106	VDD		Ground
27	CASN	O	External memory control (CASN)	107	VSS		Power supply
28	CEN	O	External memory control (CEN)	108	CLKO	O	For test (512 fs output)
29	VDD		Ground	109	WCLK	O	2 times sync.clock output (256 fs)
30	VSS		Power supply	110	HCLK	O	4 times sync.clock output (128 fs)
31	WD19	I/O		111	QCLK	O	8 times sync.clock output (64 fs)
32	WD18	I/O		112	TSTCI	I	PLL test input
33	WD17	I/O		113	VDD		Ground
34	WD16	I/O	External memory data bus	114	VSS		Power supply
35	WD15	I/O		115	(NC)		
36	WD14	I/O		116	VDD(PLL)		
37	VDD		Ground	117	CPO	O	PLL control output
38	VSS		Power supply	118	CPIN	I	PLL control input
39	WD13	I/O		119	REF	I	PLL control input
40	WD12	I/O		120	VSS(PLL)		
41	WD11	I/O		121	(NC)		
42	WD10	I/O	External memory data bus	122	VDD		Ground
43	WD09	I/O		123	VSS		Power supply
44	WD08	I/O		124	TSTCS	I	PLL test input
45	WD07	I/O		125	CA6	I	
46	VDD		Ground	126	CA5	I	
47	VSS		Power supply	127	CA4	I	CPU address bus
48	WD06	I/O		128	CA3	I	
49	WD05	I/O		129	CA2	I	
50	WD04	I/O		130	VDD		Ground
51	WD03	I/O	External memory data bus	131	VSS		Power supply
52	WD02	I/O		132	CA1	I	CPU address bus
53	WD01	I/O		133	CA0	I	Lo/Hi select in 8 bits write
54	WD00	I/O		134	CSN	I	Chip select
55	VDD		Ground	135	RDN	I	Register read
56	VSS		Power supply	136	WRN	I	Register write
57	TST2	O		137	BTYP		Data bus type select
58	TST1	O	Test output	138	VDD		Ground
59	TST0	O		139	VSS		Power supply
60	MS	I	Memory select	140	CD15	I/O	
61	LRCLK	O	LR clock for ADC	141	CD14	I/O	
62	SI7	I	Serial input	142	CD13	I/O	CPU data bus
63	SI6	I		143	CD12	I/O	
64	VDD		Ground	144	CD11	I/O	
65	VSS		Power supply	145	VDD		Ground
66	SI5	I		146	VSS		Power supply
67	SI4	I		147	CD10	I/O	
68	SI3	I		148	CD09	I/O	
69	SI2	I	Serial input	149	CD08	I/O	
70	SI1	I		150	CD07	I/O	CPU data bus
71	SI0	I		151	CD06	I/O	
72	DB1	I	Output bit type select for DAC	152	CD05	I/O	
73	DB0	I		153	VDD		Ground
74	VDD		Ground	154	VSS		Power supply
75	VSS		Power supply	155	CD04	I/O	
76	ODFM	I	Output mode select for DAC	156	CD03	I/O	
77	OFS3	I		157	CD02	I/O	CPU data bus
78	OFS2	I	Serial output format select	158	CD01	I/O	
79	OFS1	I		159	CD00	I/O	
80	OFS0	I		160	VDD		Ground

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

DM: IC006

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		Clock
5	RW//WR	I	Read/write/Write	37	EXTAL2		
6	/CS	I	Chip select	38	NC		
7	/DACK	I	DMA acknowledge	39	XTAL1		Clock
8	RS0	I	Register select	40	EXTAL1		
9	RS1	I		41	VSS4		Ground
10	VSS1		Ground	42	VSS5		
11	VSS2			43	NC		
12	D0	I/O	Data bus	44	VCC2		Power supply
13	D1	I/O		45	VCC3		
14	D2	I/O		46	VCC4		
15	D3	I/O		47	/WGATE	O	Write control
16	D4	I/O		48	/WDATA	O	Writ data to FDD
17	D5	I/O		49	VSS6		Ground
18	D6	I/O		50	/STEP	O	Step signal to control head of FDD
19	D7	I/O		51	/HDIR	O	Direction
20	/DREQ	O	DMA request	52	/HLOAD	O	Head load
21	/IRQ	O	Interrupt request	53	/HSEL	O	Head select
22	/DEND	I	Data end	54	VSS7		Ground
23	VSS3		Ground	55	/DS0	O	Drive select
24	1/2 EX1			56	/DS1	O	
25	VCC1		Power supply	57	/DS2	O	
26	NUM1	I		58	/DS3	O	
27	NUM3	I		59	VSS8		Ground
28	IFS	I	Host interface select	60	/MON0	O	Motor on
29	SFORM	I	Format data	61	/MON1	O	
30	/INP	I	Index pulse	62	/MON2	O	
31	/READY	I	Ready from FDD	63	/MON3	O	
32	/WPRT	I	Write control signal	64	VSS9		Ground

● **YMZ702-D** (XR632A00) **KSN2** (Key Scanner)

GH-DclSW L: KSN2

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	BK5	O	Key block (open drein)	21	GND		Ground
2	BK4	O		22	VDD		Power supply
3	BK3	O		23	SO	O	Serial data
4	BK2	O		24	ACK	I	Acknowledge/mode select
5	BK1	O		25	XCK	I	Clock for serial data
6	BK0	O		26	/IC	I	Initial clear
7	MK15	I	First make contact	27	TST1	I	Test mode
8	MK14	I		28	TST2	I	(L,L: normal mode, others: test)
9	MK13	I		29	XCKINH	I	Inhibit of serial clock
10	MK12	I		30	BK14	O	Key block (open drein)
11	MK11	I		31	BK13	O	
12	MK10	I		32	BK12	O	
13	MK05	I	Second make contact	33	BK11	O	
14	MK04	I		34	BK10	O	
15	MK03	I		35	BK9	O	
16	MK02	I		36	BK8	O	
17	MK01	I		37	BK7	O	
18	MK00	I		38	BK6	O	
19	XIN	I	Crystal osc. input (4 MHz)	39	GND		Ground
20	XOUT	O	Crystal osc. output (4 MHz)	40	VDD		Power supply

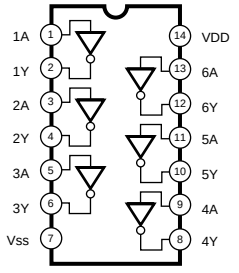
● **AK5351-VF-E2** (XV510A00) **ADC** (Analog to Digital Converter)

DM: IC027

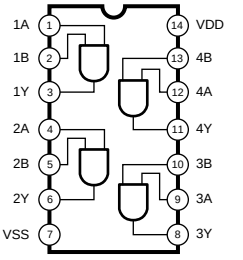
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	AINR+	I	Analog signal input (R channel +)	13	DGND	-	Digital ground
2	AINR-	I	Analog signal input (R channel -)	14	TST4	I/O	Test mode setting 4
3	VREF	O	Reference voltage	15	AMODE2		Interface clock select 2
4	VA	-	Analog power supply	16	/PD	I	Power-down mode
5	AGND	-	Analog ground	17	MCLK	I	Master clock input
6	AINL+	I	Analog signal input (L channel +)	18	SCLK	I/O	Serial data clock
7	AINL-	I	Analog signal input (L channel -)	19	LRCK	I	Input/Output channel clock
8	TST1	I/O	Test mode setting 1	20	FSYNC	I/O	Frame synch. clock
9	HPFE		HPF on/off	21	SDATA	O	Serial data output
10	TST2	I/O	Test mode setting 2	22	CMODE	I	Master clock select
11	TST3	I/O	Test mode setting 3	23	SMODE1	I	Interface clock select 1
12	VD	-	Digital power supply	24	VB	-	Digital power supply

■ IC BLOCK DIAGRAM

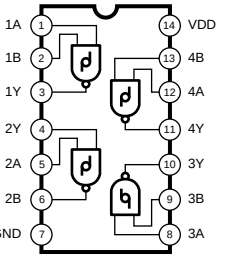
● **TC74HCU04AFEL** (XD598A00)
Hex Inverter
DM: IC051



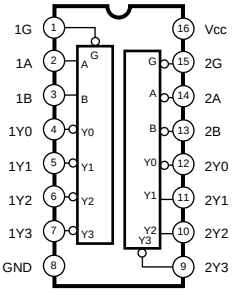
● **HD74LVC08FP** (XU720A00)
Quad 2 Input AND
DM: IC052



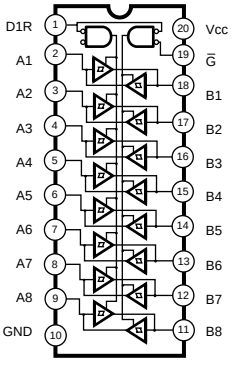
● **HD74LV132AFPEL** (IS013200)
SN74HC132NSR (XW792A00)
Quad 2 Input NAND
DM: IC030,
IC053



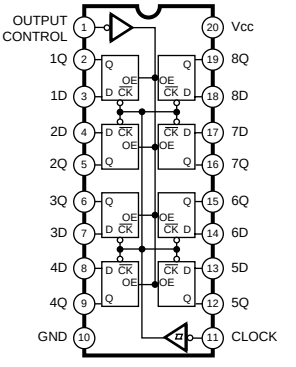
● **HD74LVC139FPEL** (XS048A00)
TC74HC139AF(EL) (XW891A00)
Dual 2 to 4 Demultiplexer
DM: IC031,
IC041



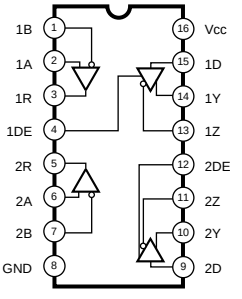
● **TC74VHCT245AFT** (XT744A00)
HD74LVC245A (XW148A00)
Octal 3-State Bus Transceiver
DM: IC032-039



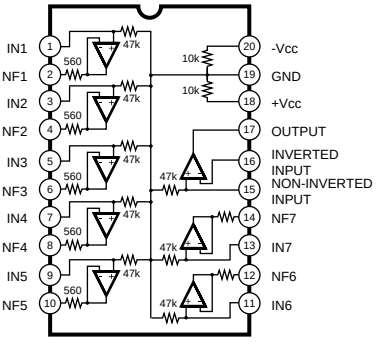
● **HD74LV374AFPEL** (IS037400)
SN74LV374ANSR (IS037410)
Octal 3-State D-Type Flip-Flop
DM: IC040



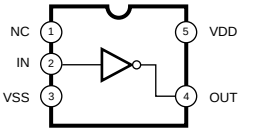
● **SN75C1168NSR** (XU073A00)
Line Driver/Receiver
D-JACK: IC002



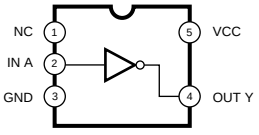
● **M5229FP** (XY487A00)
7 Band Graphic Equalizer
A-JACK: IC300, 400



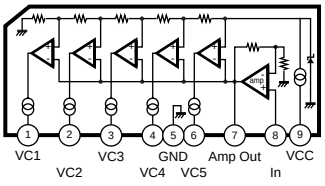
● **SC7SU04FEL** (XI348A00)
Inverter Gate
D-JACK: IC001



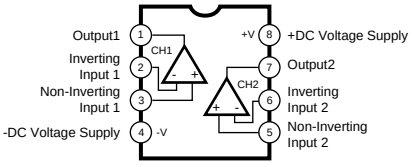
● **TC7SH04FU** (XS775A00)
Inverter Gate
SWX-A: IC009 (CVP-209)
SWX-B: IC009 (CVP-209)



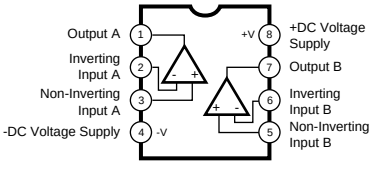
● **LB1443N** (XF483A00)
LED Driver
DM: IC042



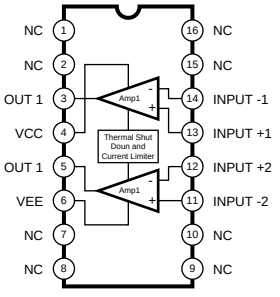
● **M5233FP-600D** (X0506A00)
Comparator
DM: IC054



● µ**PC4570G2** (XF291A00)
Dual Operational Amplifier
DM: IC043, 044
A-JACK: IC100
MIC: IC100



● **LA6517M-TE-R** (XT131A00)
Dual Low Voltage Power Amplifier
A-JACK: IC200



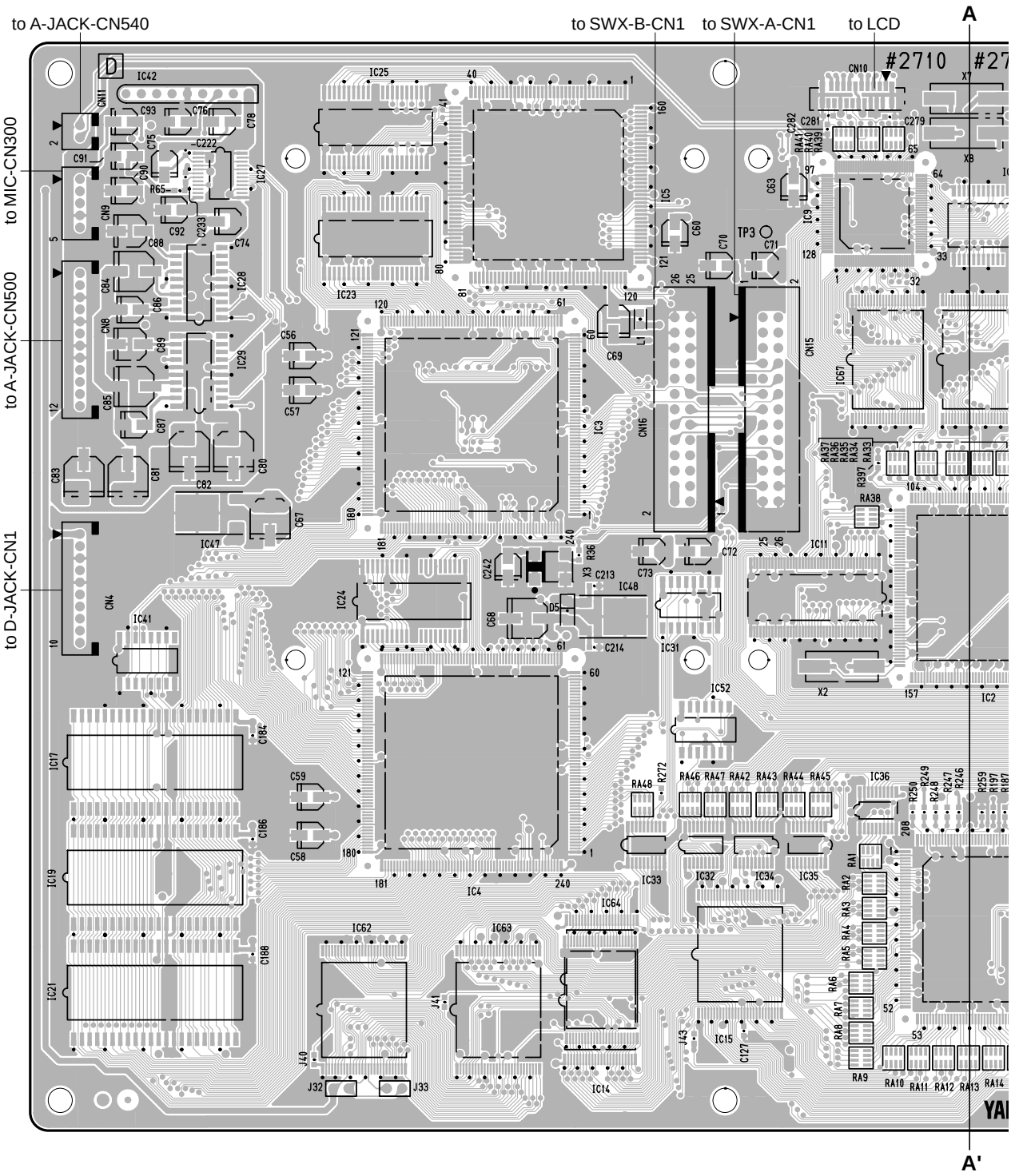
■ CIRCUIT BOARDS CONTENTS

A-JACK (XZ888B0) ····· 43
D-JACK (XW982D0) ····· 44
DM (XZ894D0) ····· 31/33
FU120L, FU120BL (XS882A0) ····· 41
GLC (XZ883B0) ····· 45
GLL (XZ883B0) ····· 46
GLR (XZ883B0) ····· 47
HP (XQ795A0) ····· 49
INV (XZ890C0) ····· 35/38
MA120B (XZ588D0) ····· 49
MIC (XV507D0) ····· 42
MV (XZ889C0) ····· 32
NET1 (XT123B0) ····· 32
NETWORK (XV011A0) ····· 34
PEDAL (D-JACK) (XW982D0) ····· 44
PEDAL (SW) (X0193A0) ····· 50
PNCB (XZ889C0) ····· 39
PNCL (X0081B0) ····· 41
PNCR (X0081B0) ····· 42
PNL (XZ889C0) ····· 39
PNR (ENC) (XZ890C0) ····· 35/38
PNR (PNR) (XZ890C0) ····· 35/37
SWX-A (XZ895D0) ····· 48
SWX-B (XZ895D0) ····· 48

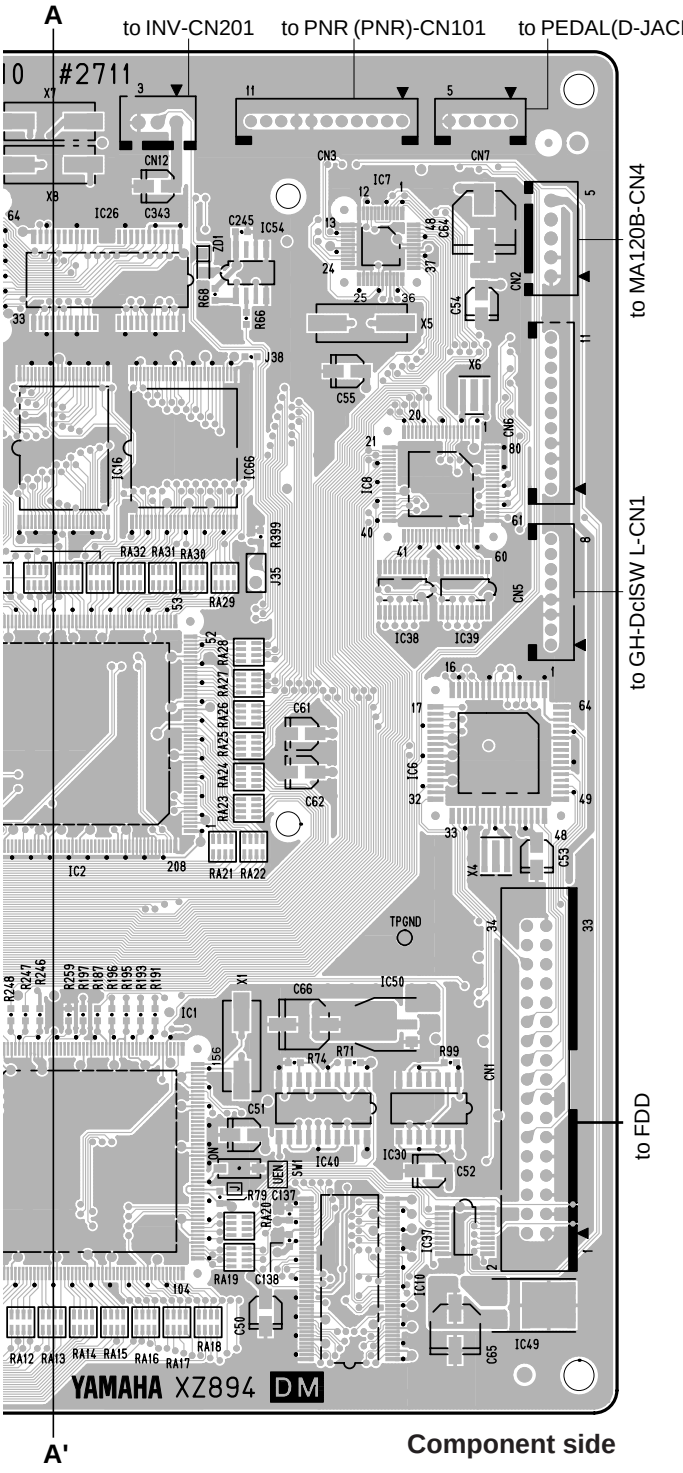
Note: See parts list for details of circuit board component parts.

■ CIRCUIT BOARDS

● DM Circuit Board

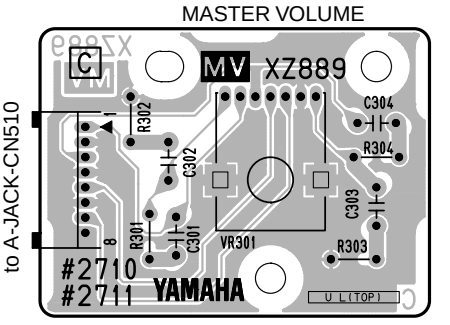


2NA-V716030-1



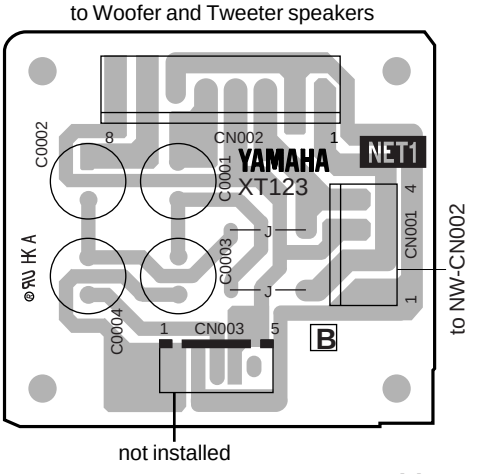
Component side

● MV Circuit Board



Component side

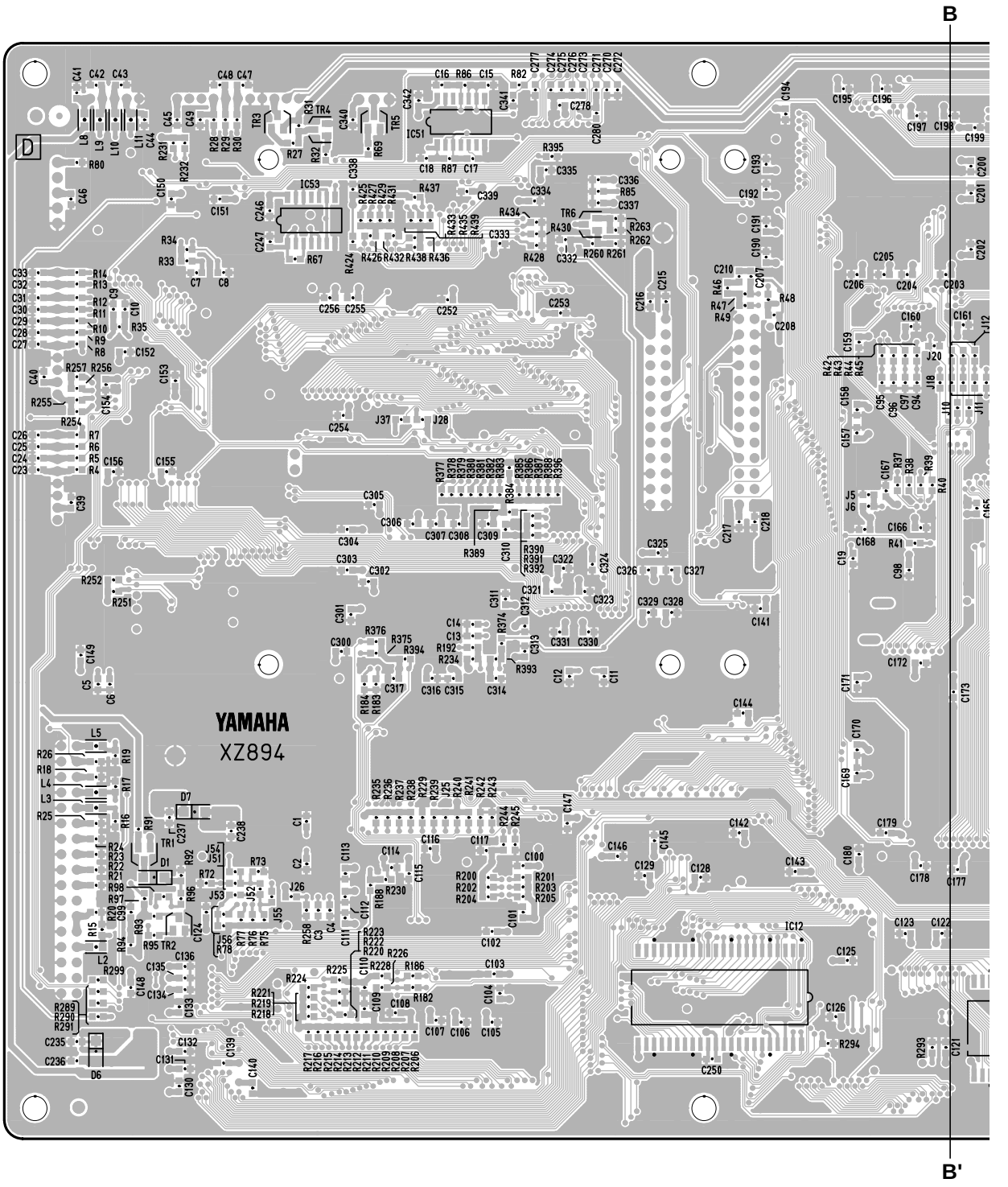
● NET1 Circuit Board



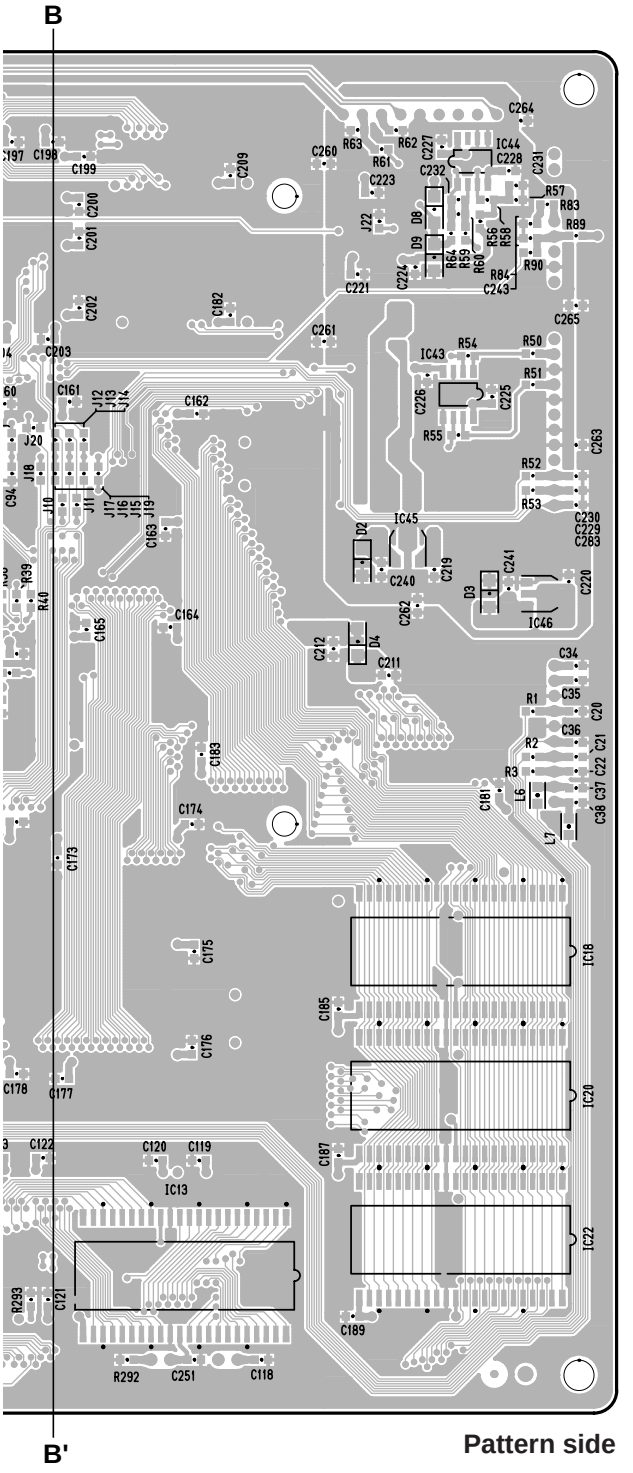
Component side

DM: 2NA-V716030-1
MV: 2NA-V715630 ⚠
NET1: 2NA-VY64290 ⚠

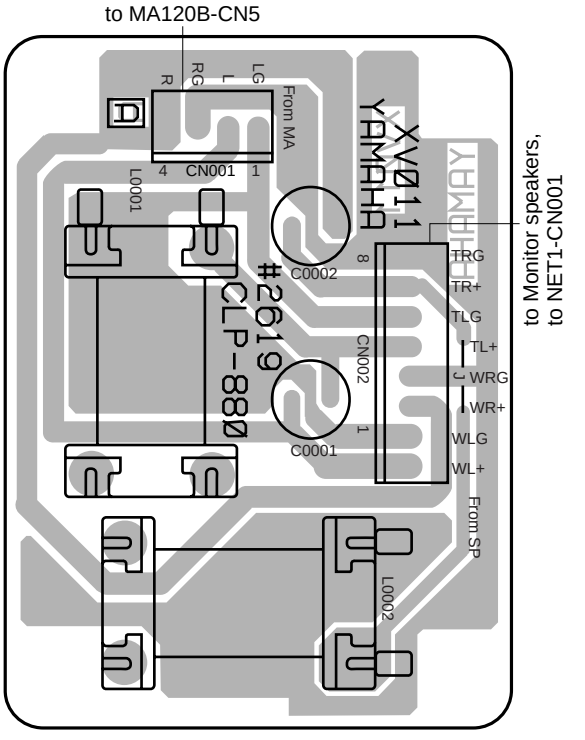
● DM Circuit Board



● NETWORK Circuit Board



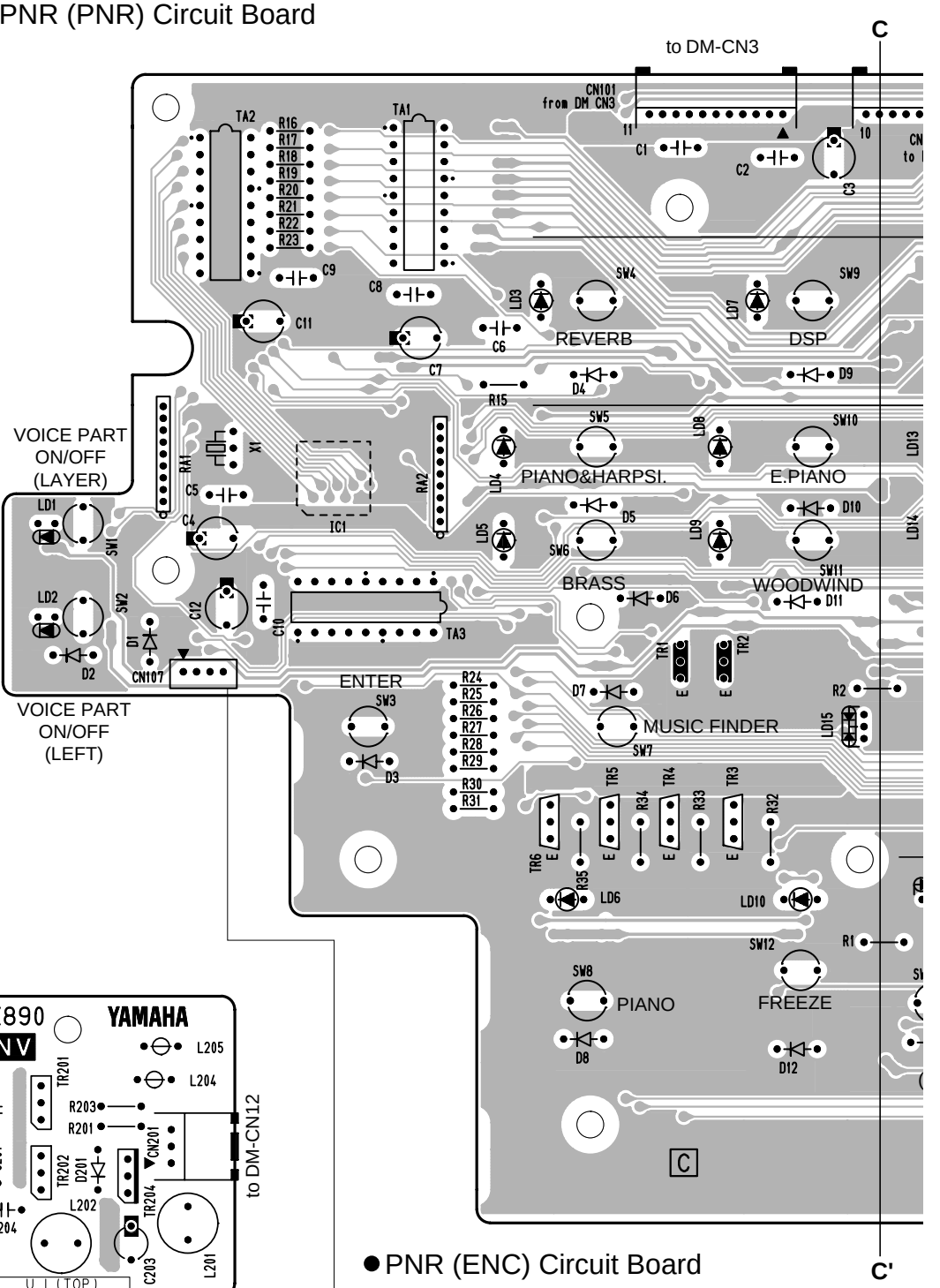
Pattern side



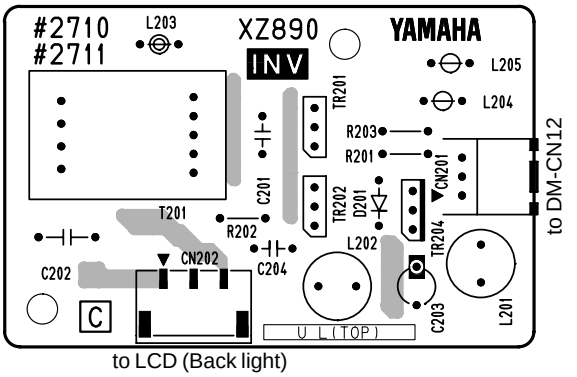
Component side

DM: 2NA-V716030-2
NETWORK: 2NA-V245500 ⚠2

● PNR (PNR) Circuit Board

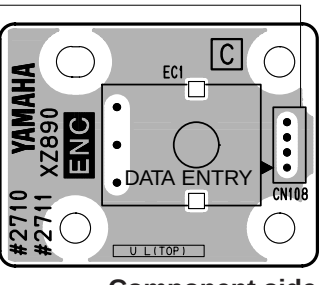


● INV Circuit Board



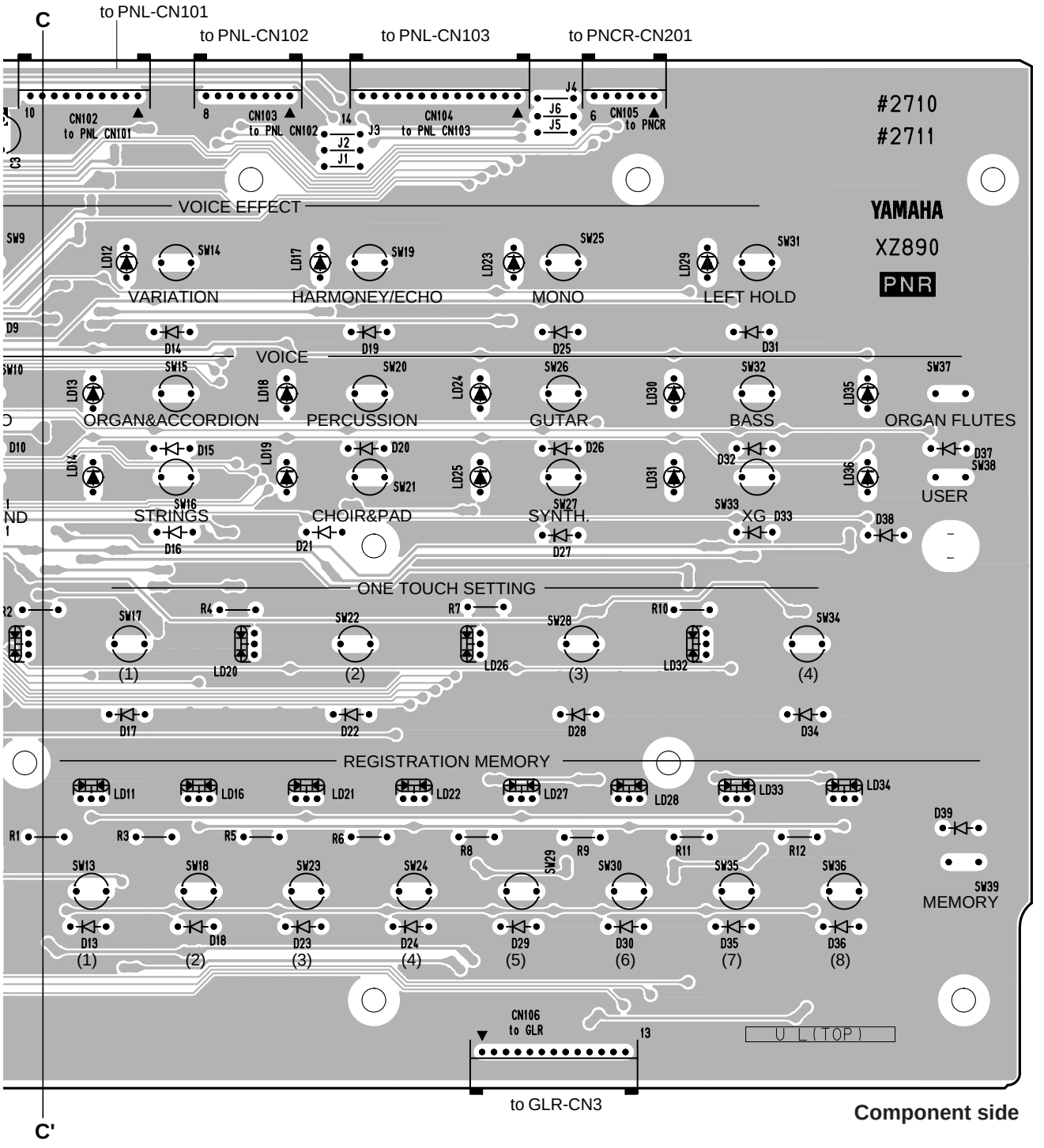
Component side

● PNR (ENC) Circuit Board

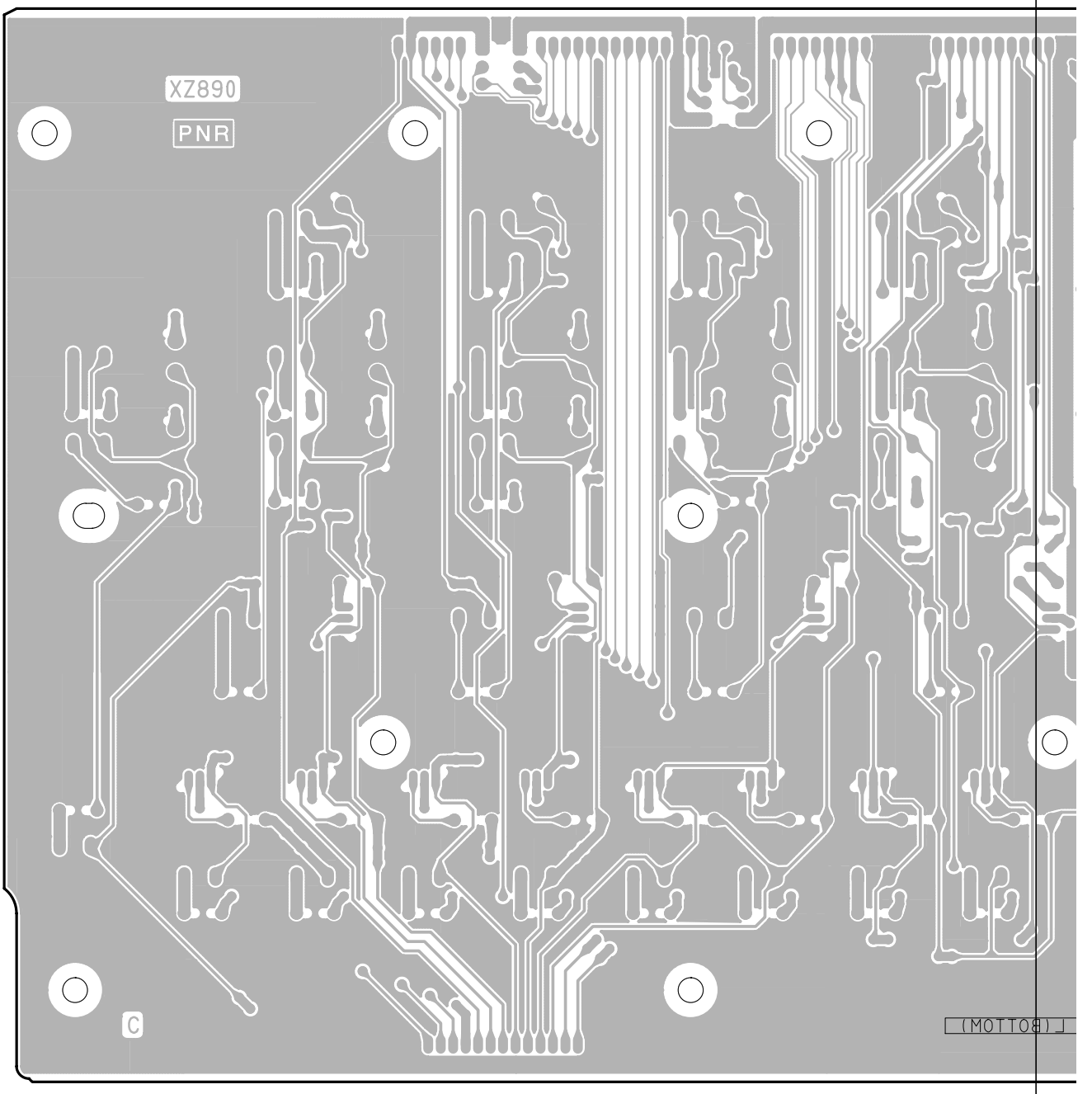


Component side

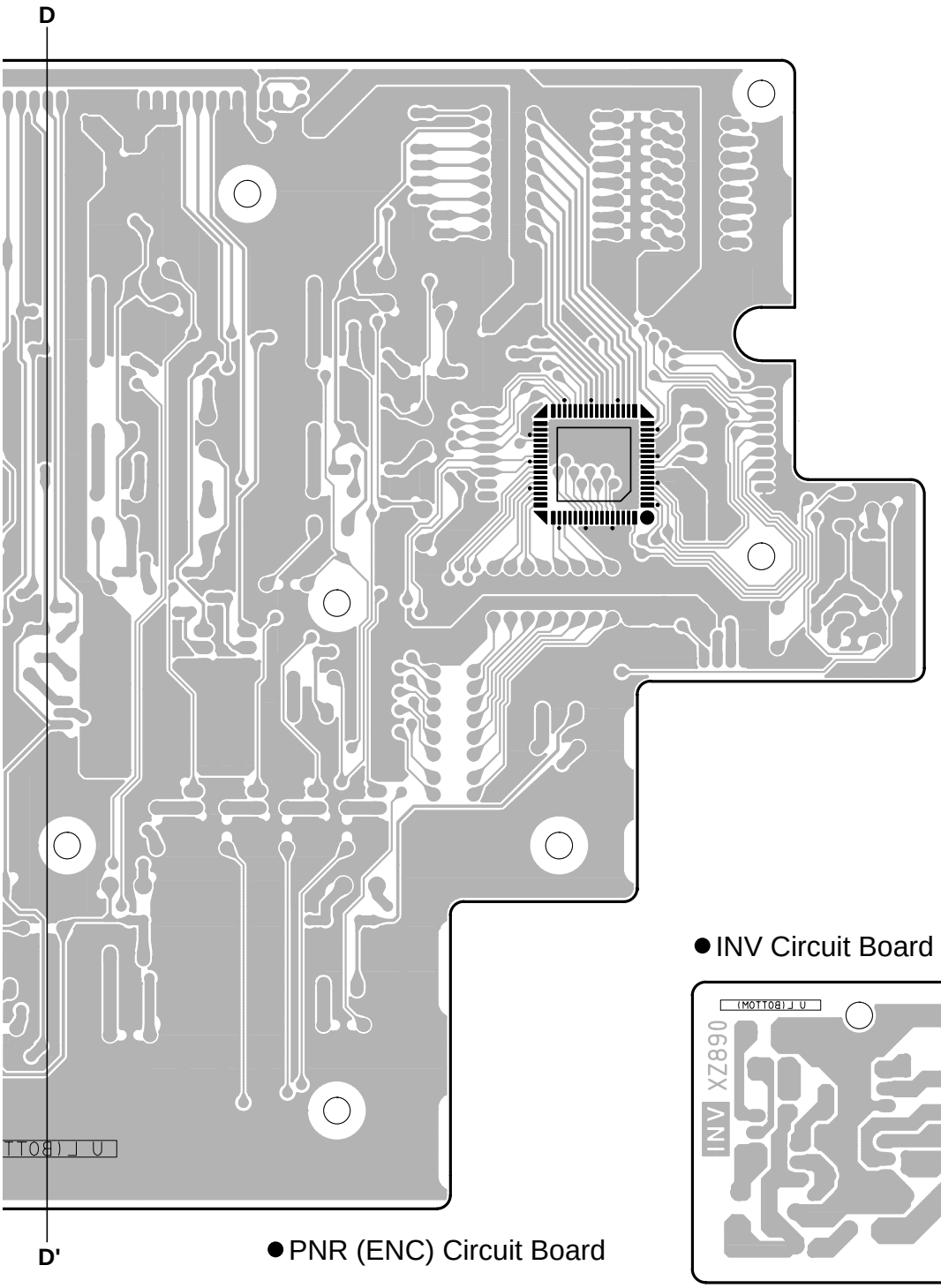
PNR, INV, ENC: 2NA-V715700⚠


C
C'
to PNL-CN101
to PNL-CN102
to PNL-CN103
to PNCR-CN201
CN102 to PNL CN101
CN103 to PNL CN102
CN104 to PNL CN103
CN105 to PNCR
J1
J2
J3
J4
J5
J6
#2710
#2711
YAMAHA
XZ890
PNR
VOICE EFFECT
VARIATION
HARMONEY/ECHO
MONO
LEFT HOLD
VOICE
ORGAN&ACCORDION
PERCUSSION
GUTAR
BASS
ORGAN FLUTES
USER
STRINGS
CHOIR&PAD
SYNTH.
XG
ONE TOUCH SETTING
REGISTRATION MEMORY
MEMORY
CN106 to GLR
to GLR-CN3
U L (TOP)
Component side

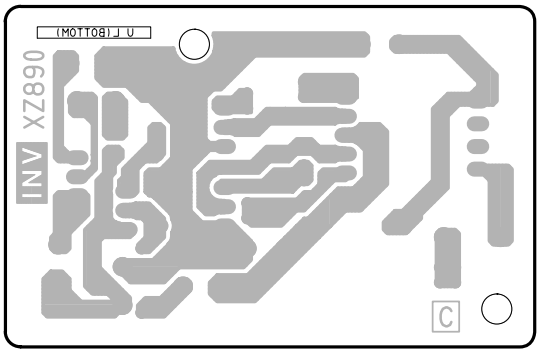
● PNR (PNR) Circuit Board



Pattern side

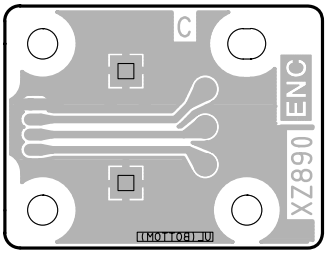


● INV Circuit Board



Pattern side

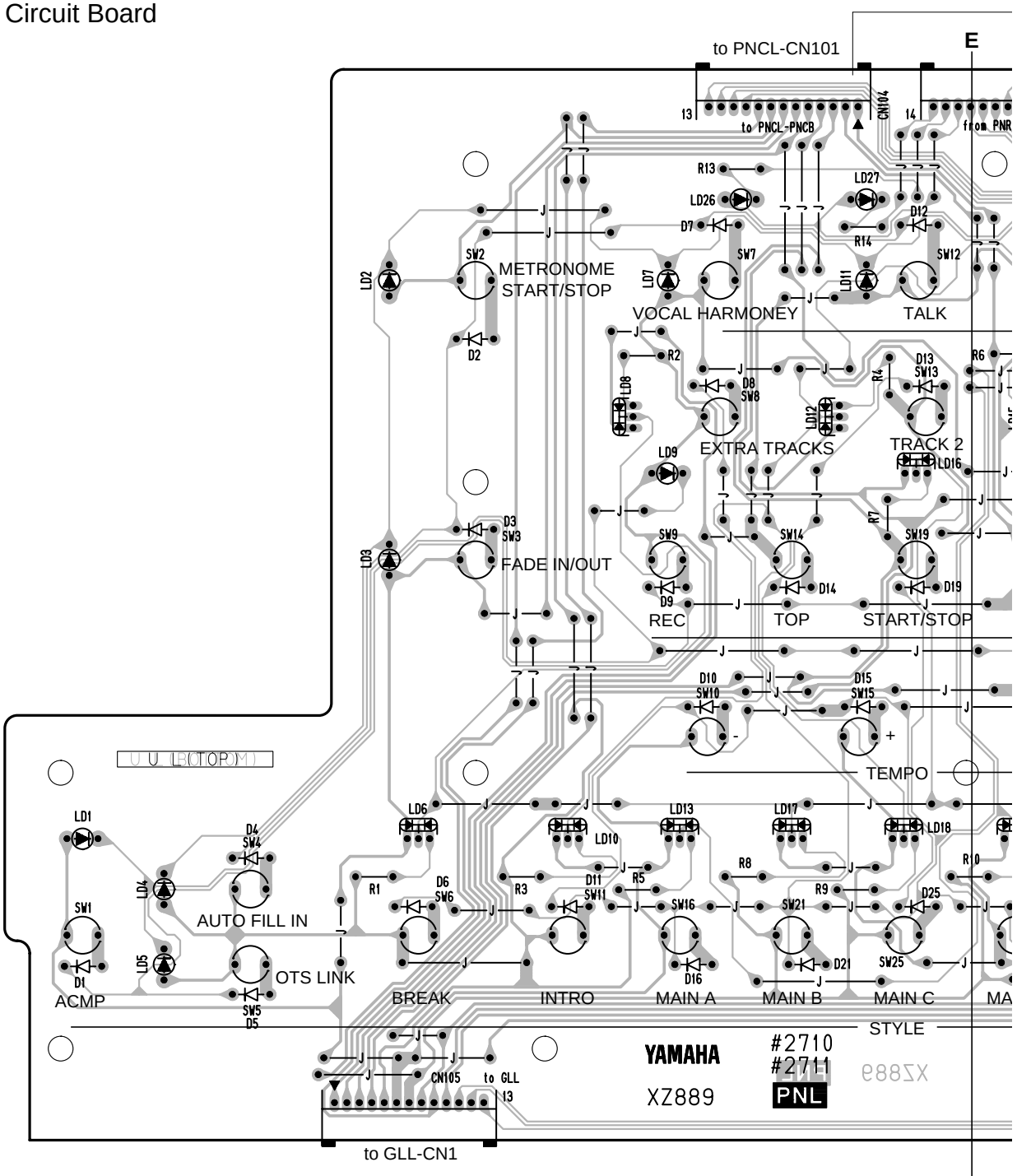
● PNR (ENC) Circuit Board



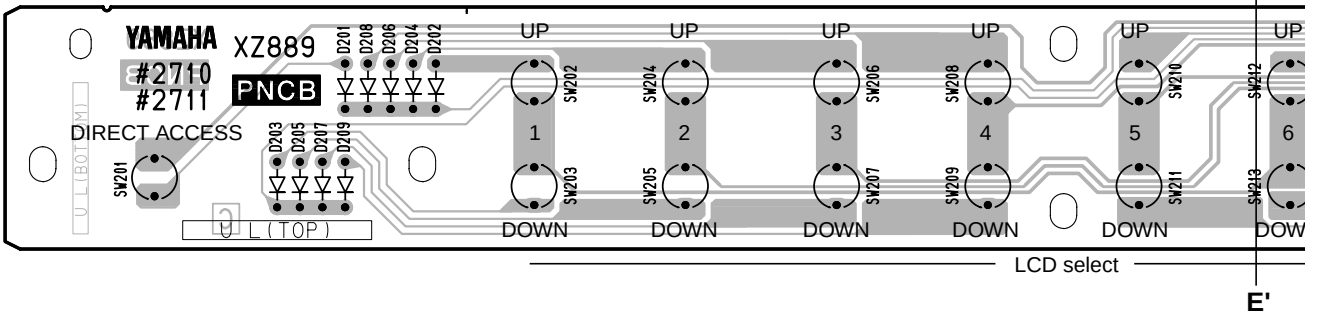
Pattern side

PNR, INV, ENC: 2NA-V715700⚠1

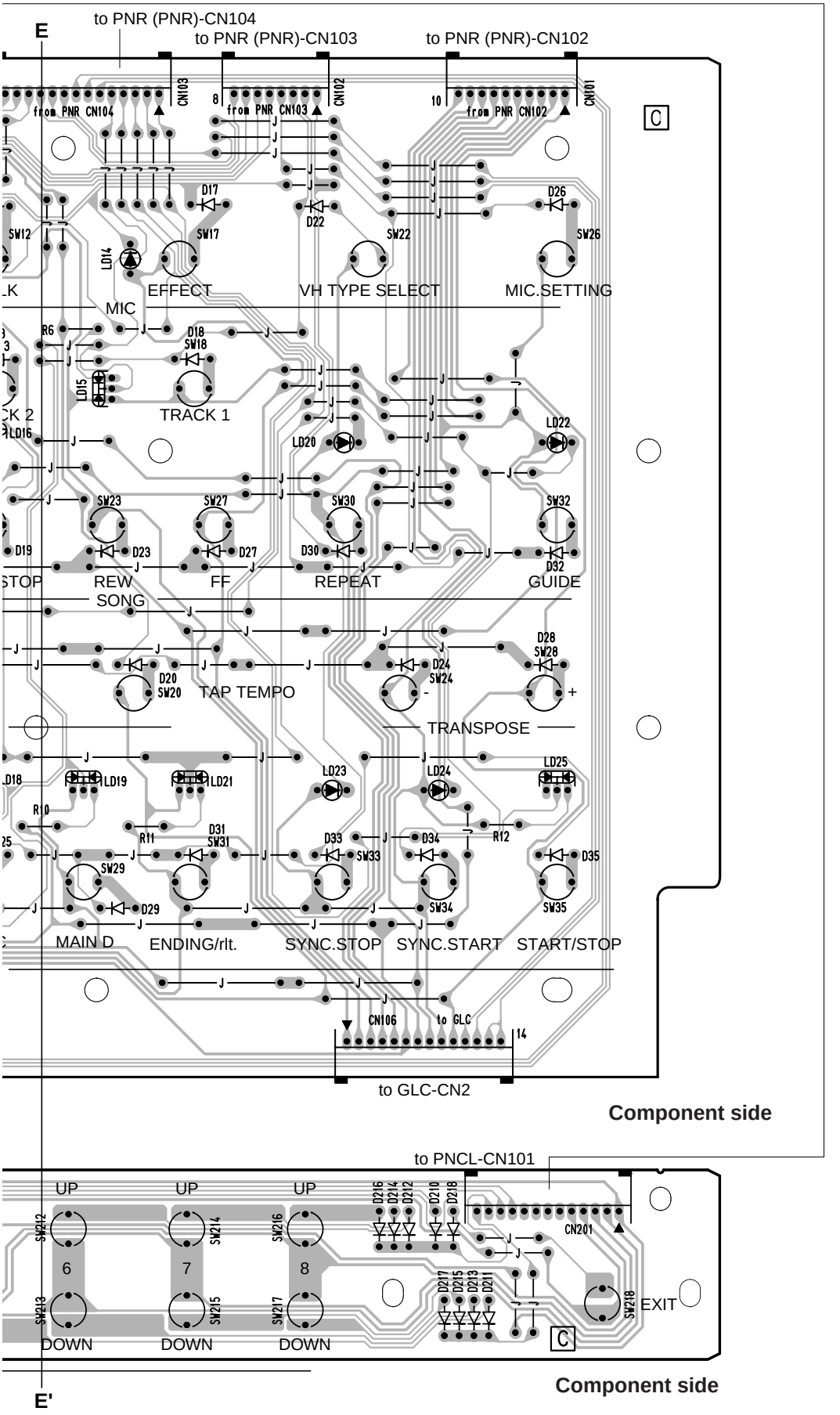
● PNL Circuit Board



● PNCB Circuit Board

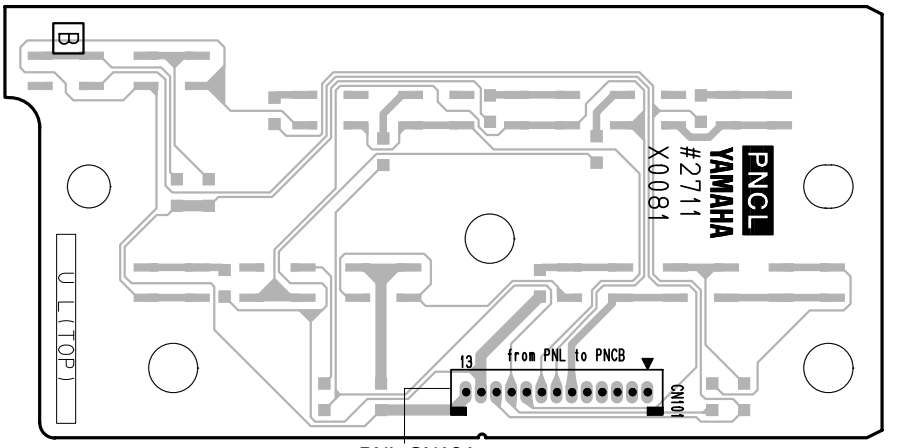


PNL, PNCB: 2NA-V715630⚠1

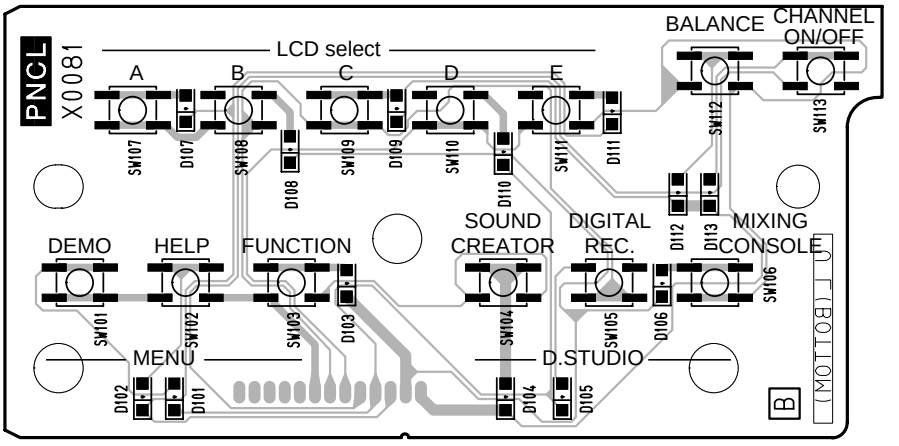


PNL, PNCB: 2NA-V715630⚠

● PNCL Circuit Board

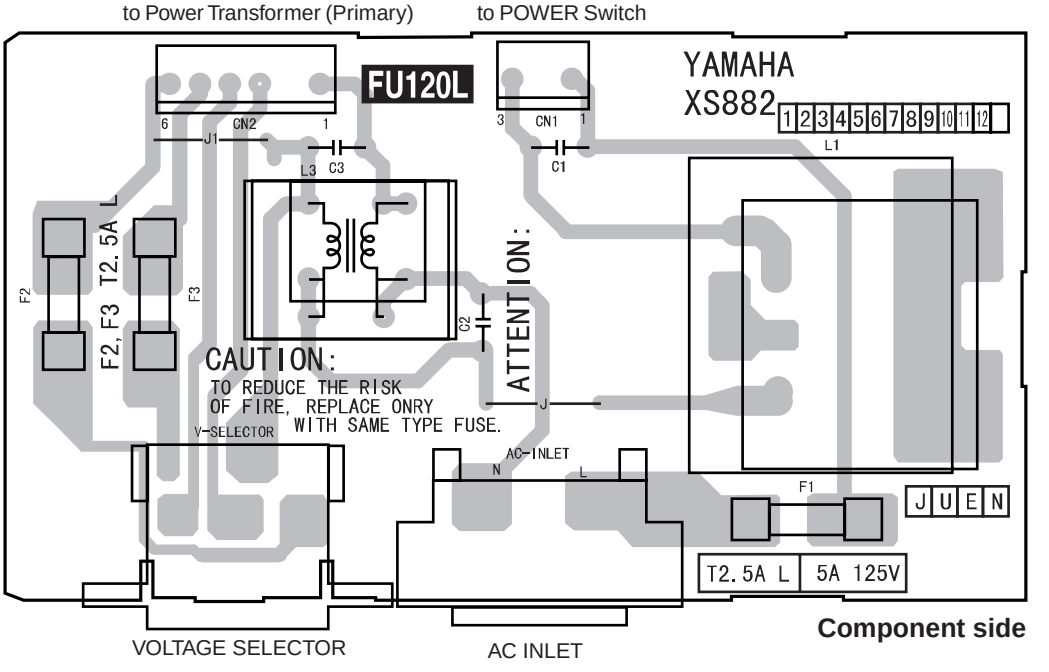


Component side



Pattern side

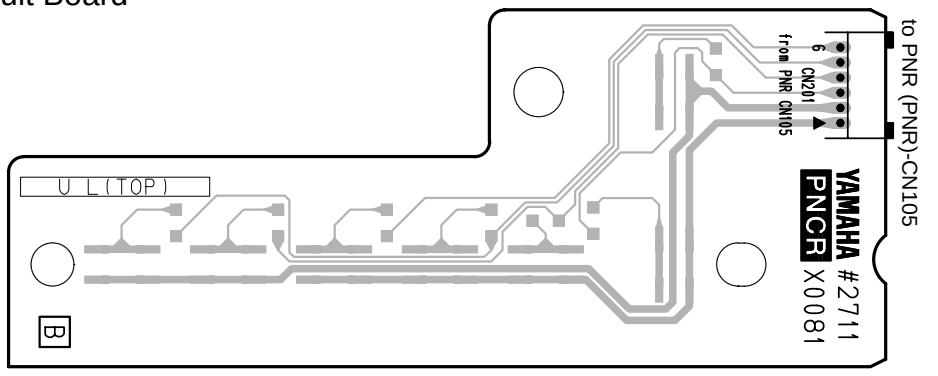
● FU120L, FU120BL Circuit Board



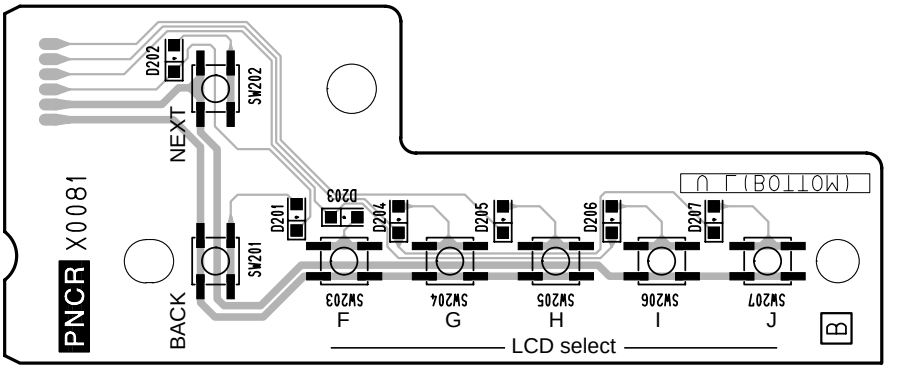
Component side

PNCL: 2NA-V715680
FU120L, FU120BL: 2NA-V782250 ⚠1

● PNCR Circuit Board

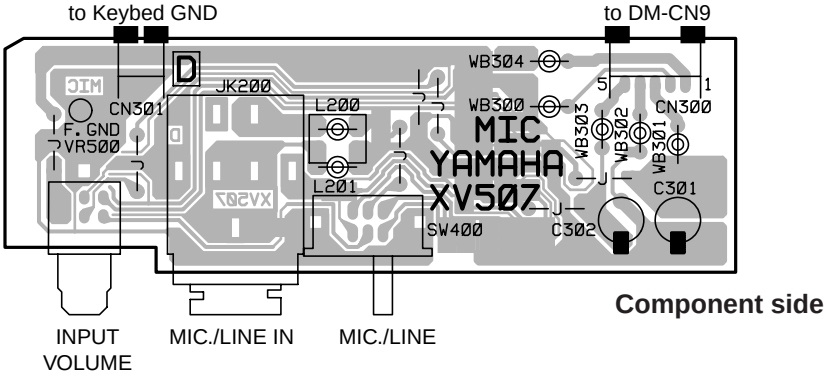


Component side

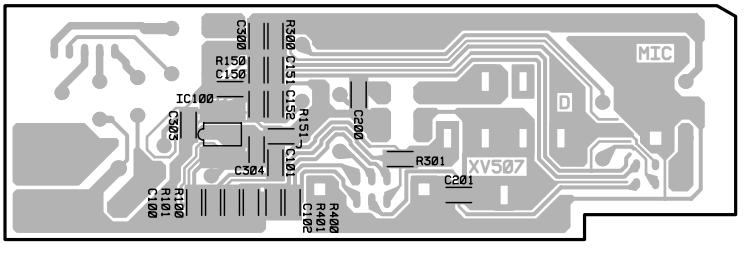


Pattern side

● MIC Circuit Board



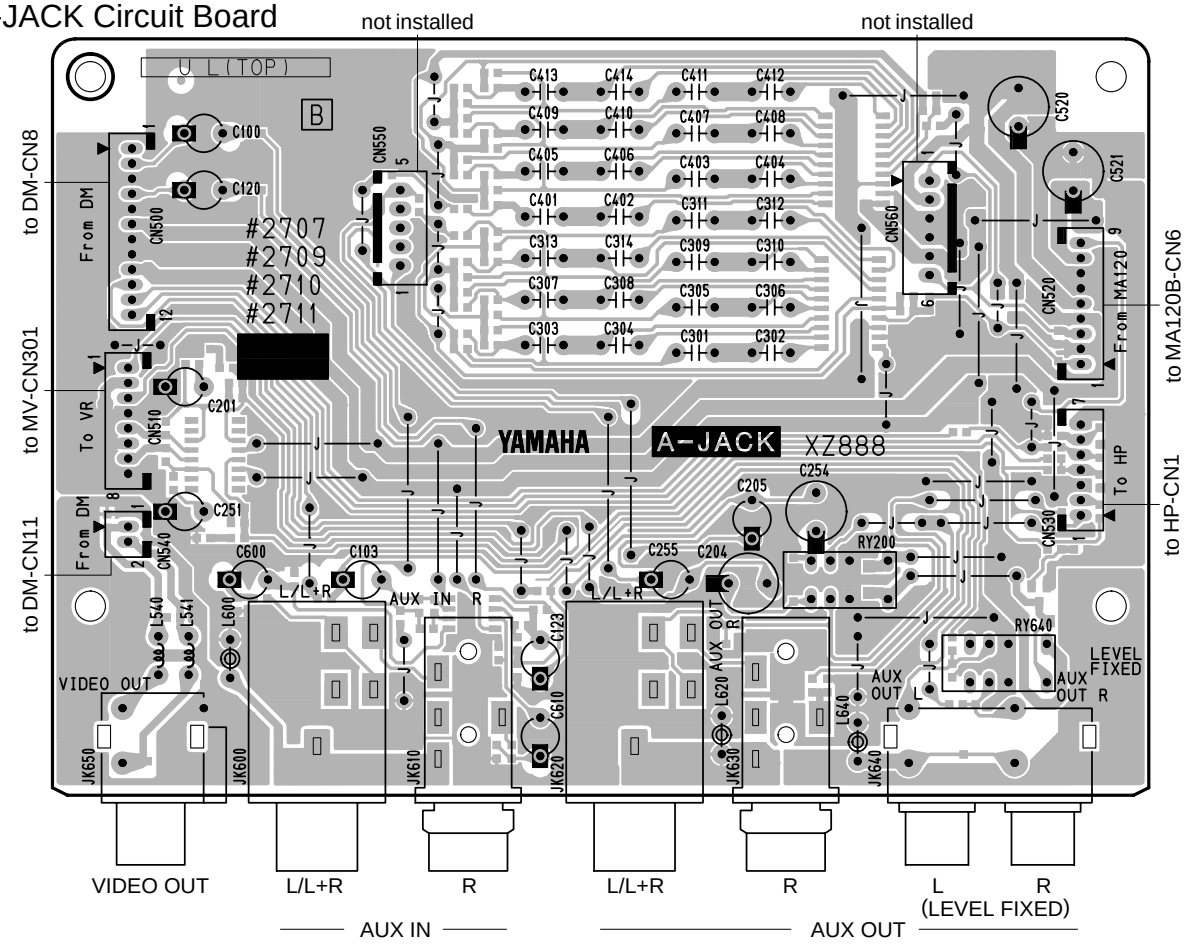
Component side



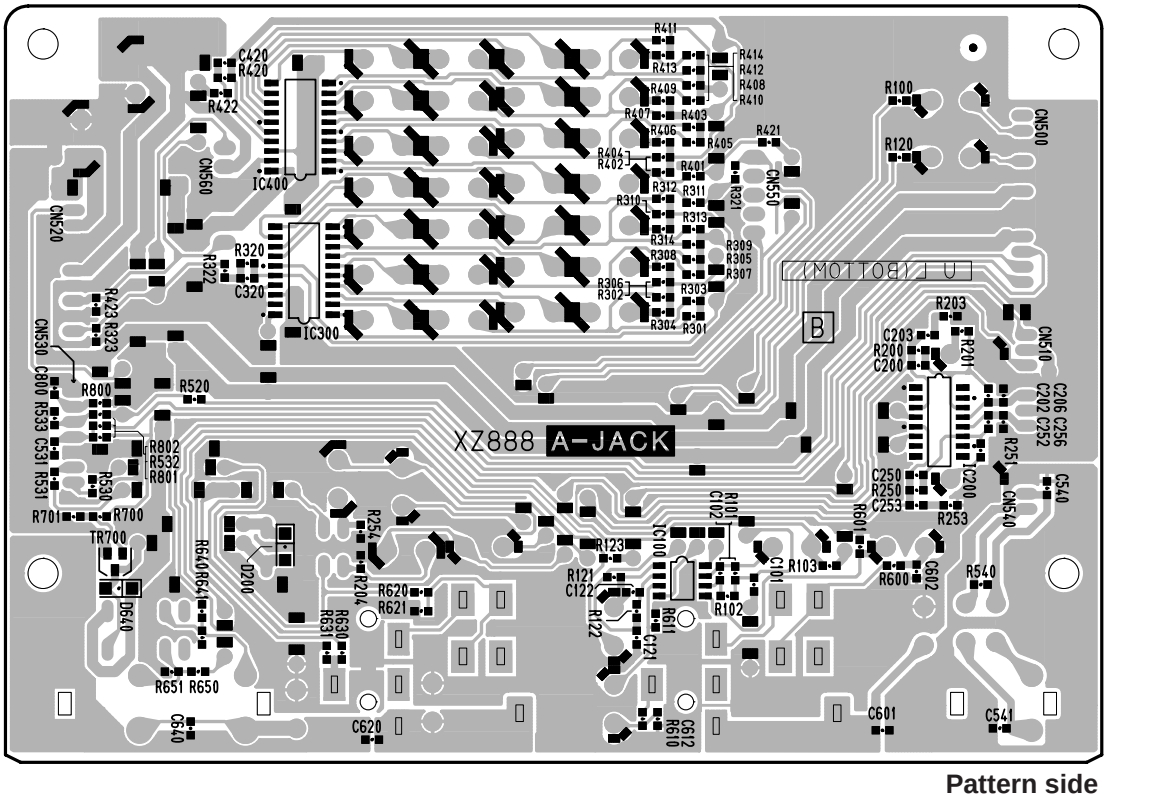
Pattern side

PNCR: 2NA-V715680
MIC: 2NA-V313580 ⚠3

● A-JACK Circuit Board



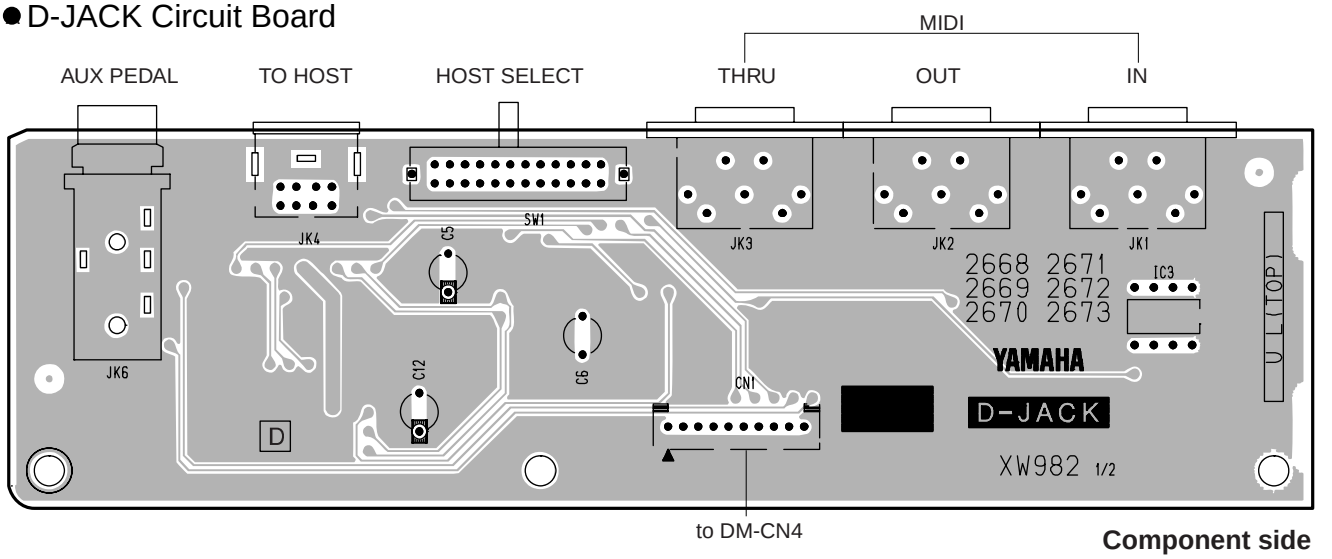
Component side



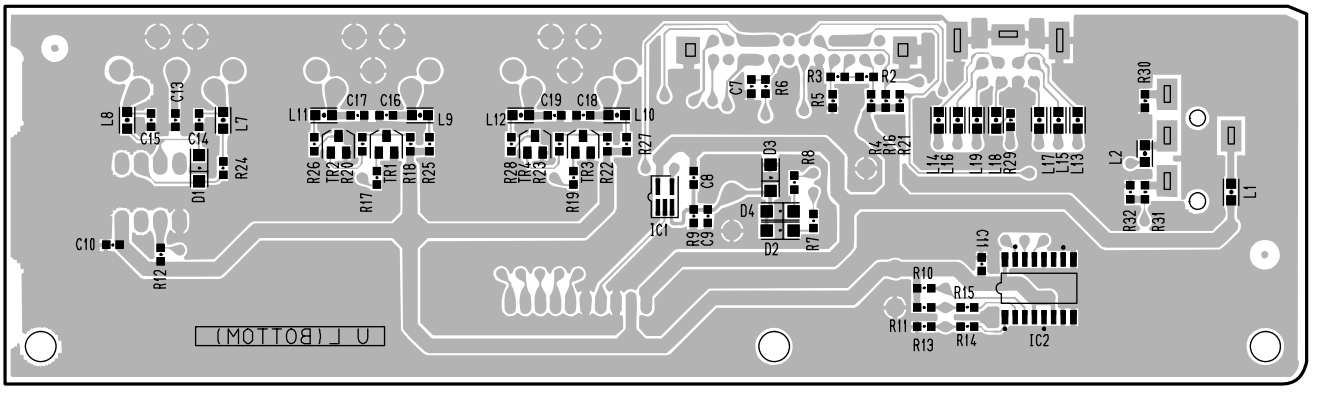
Pattern side

2NA-V714700

● D-JACK Circuit Board

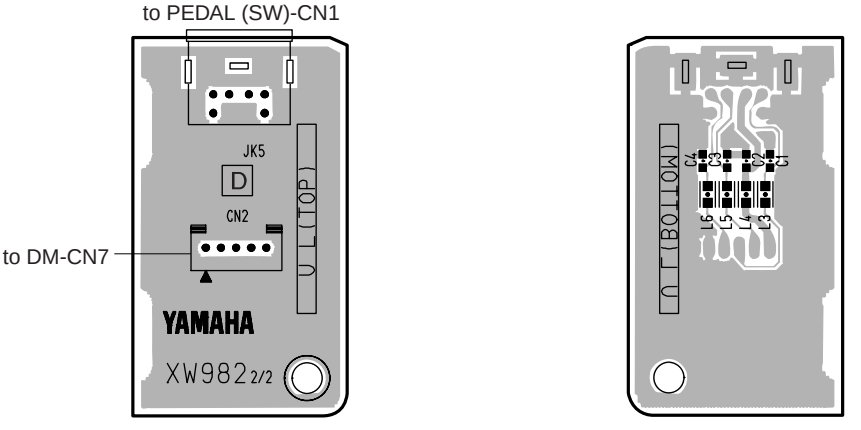


Component side



Pattern side

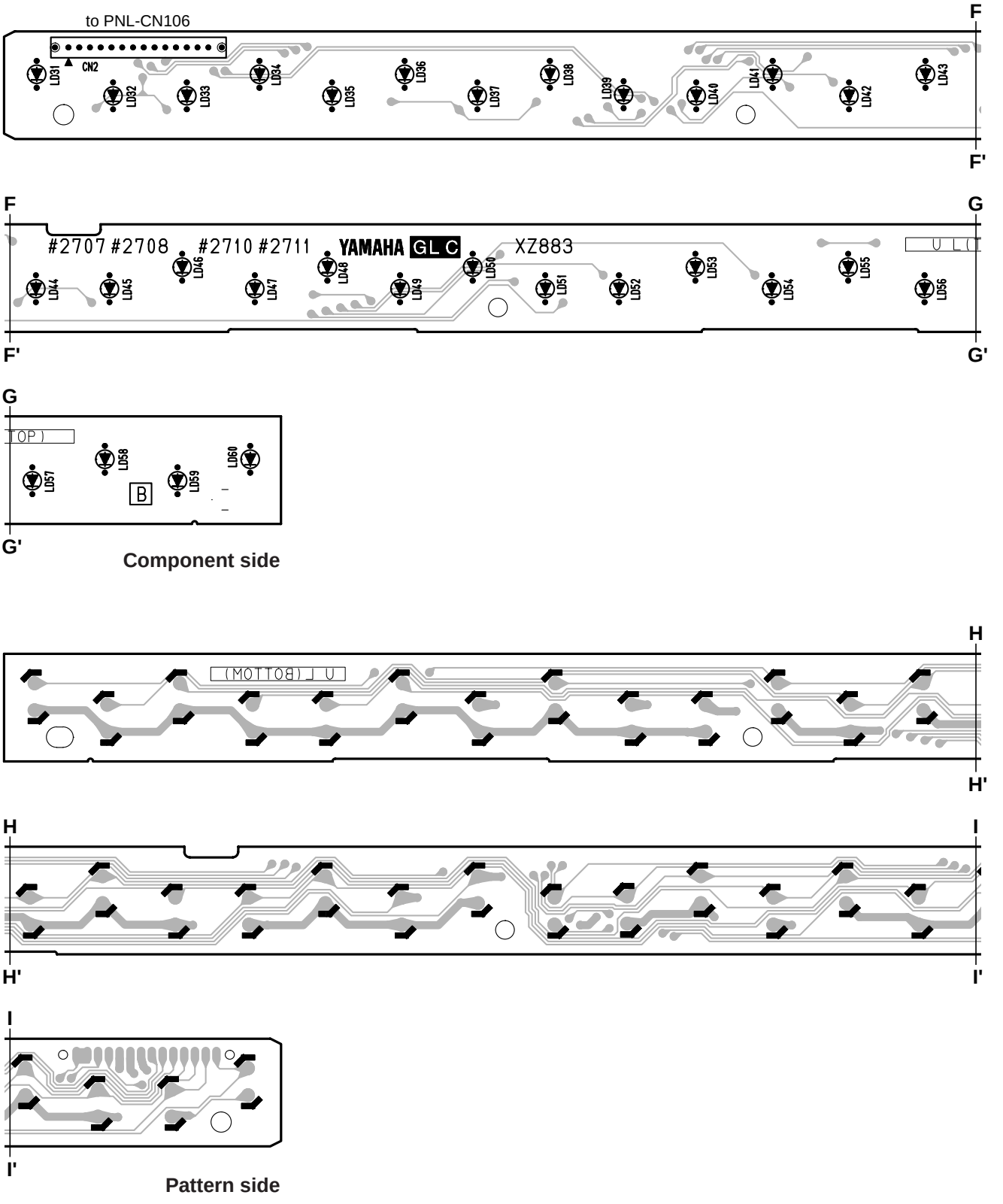
● PEDAL (D-JACK 2/2) Circuit Board



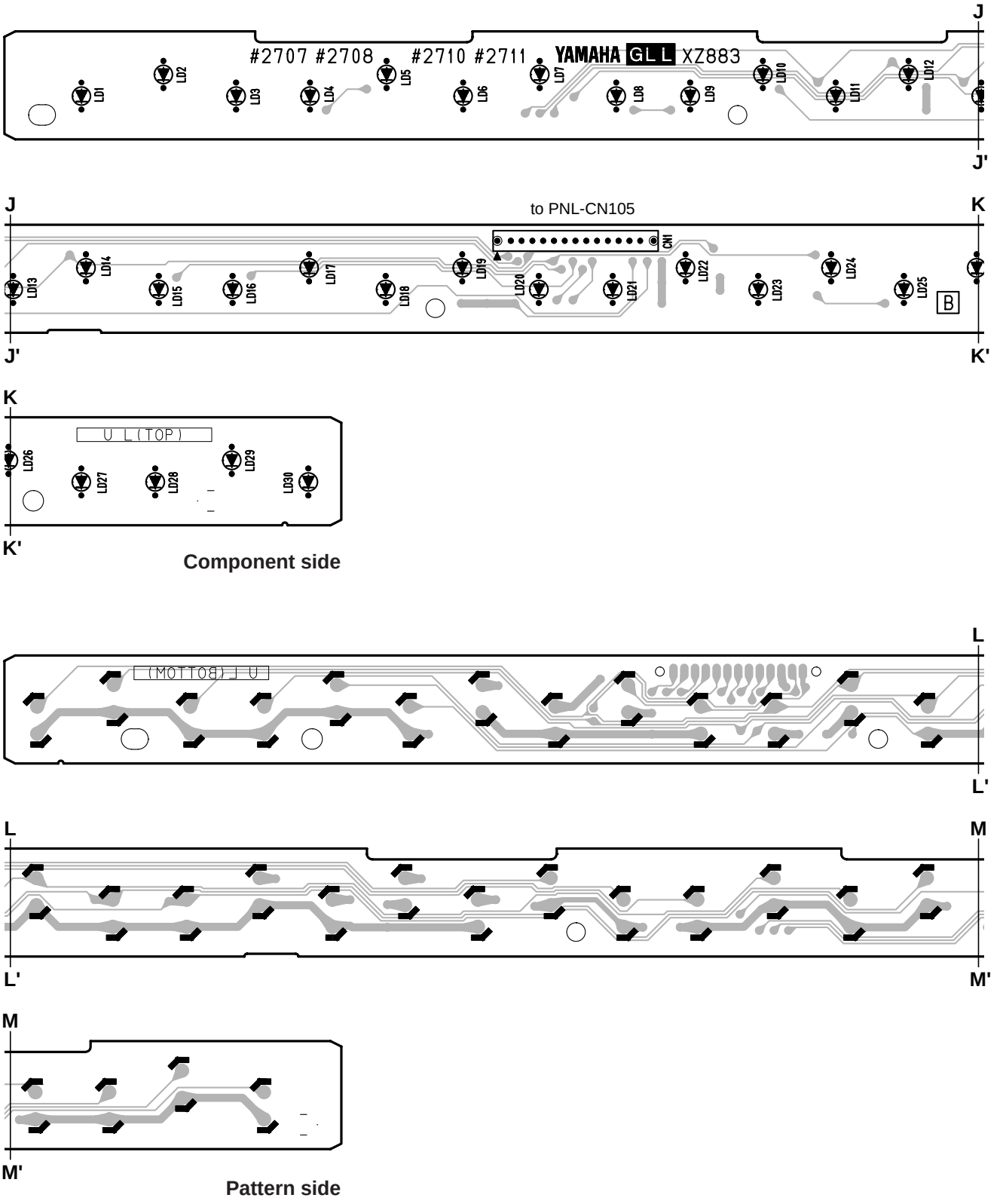
Component side **Pattern side**

D-JACK, PEDAL (D-JACK 2/2): 2NA-V493830 ⚠1

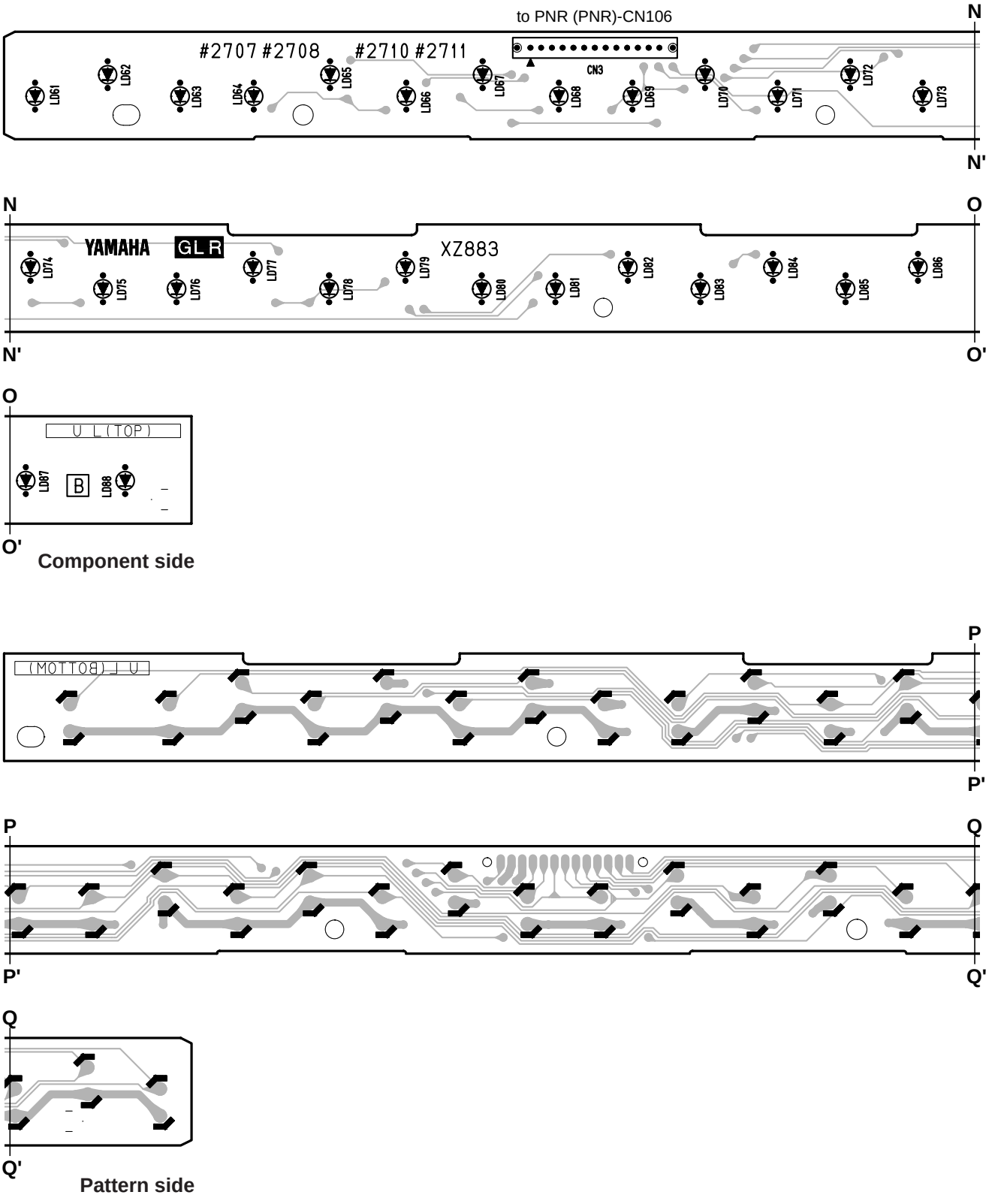
● GLC Circuit Board



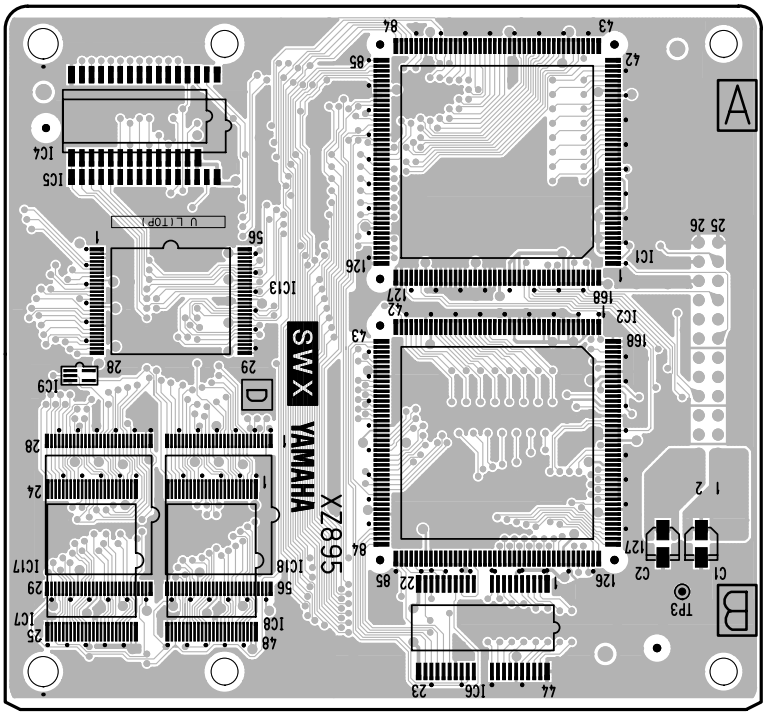
● GLL Circuit Board



● GLR Circuit Board

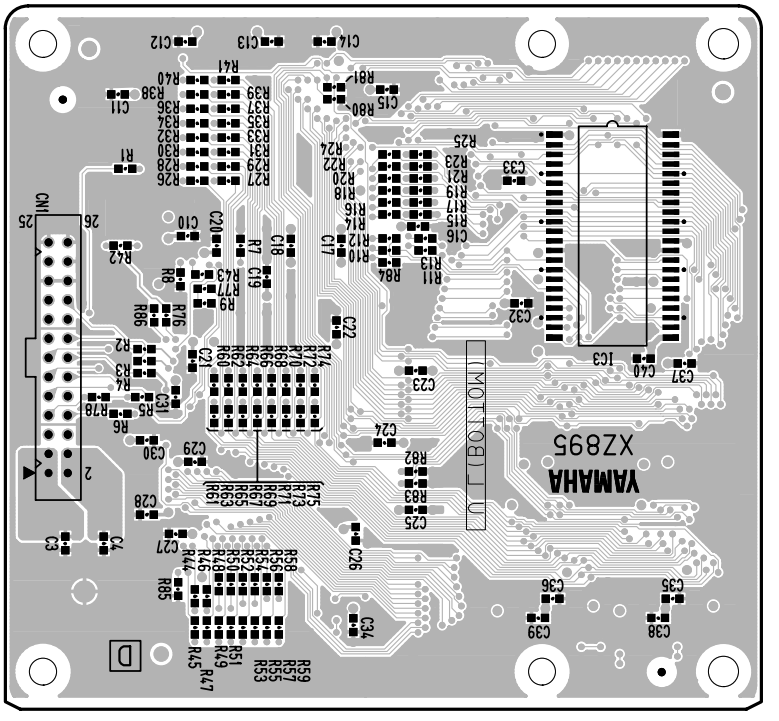


● SWX-A, SWX-B Circuit Board



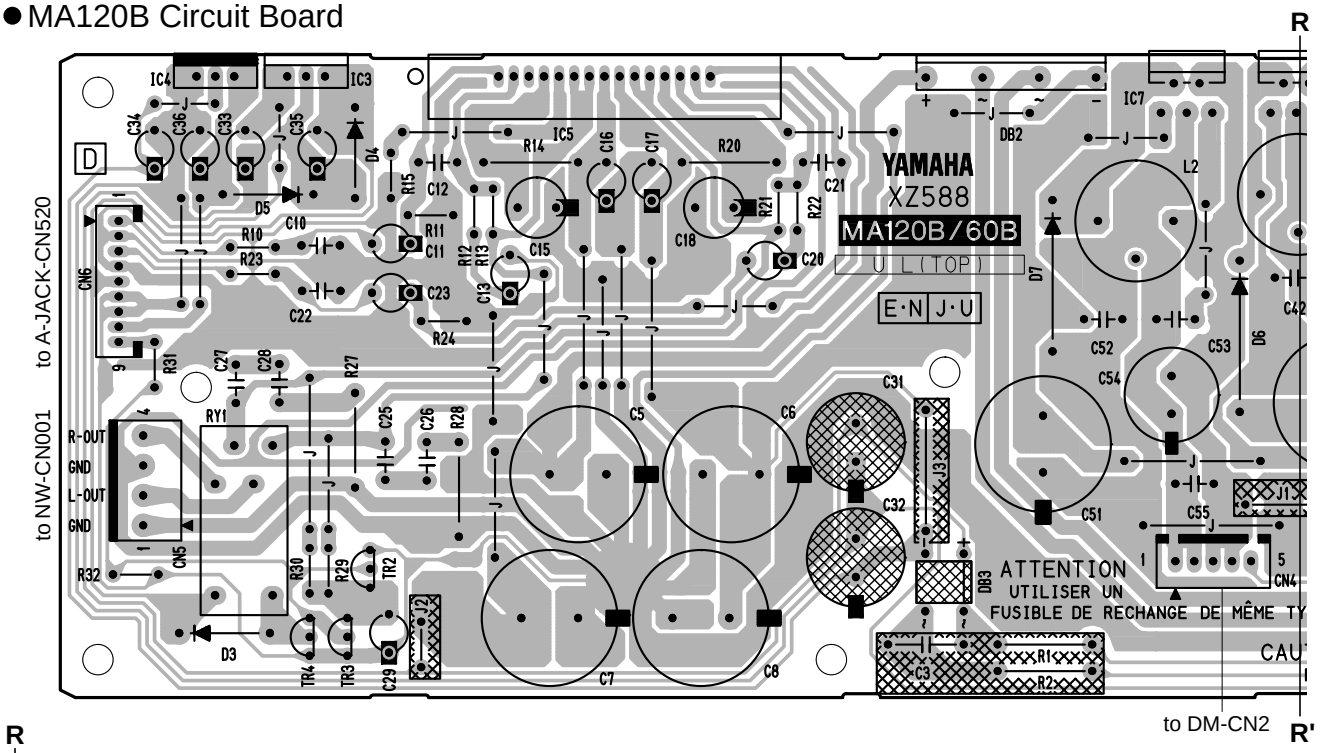
Component side

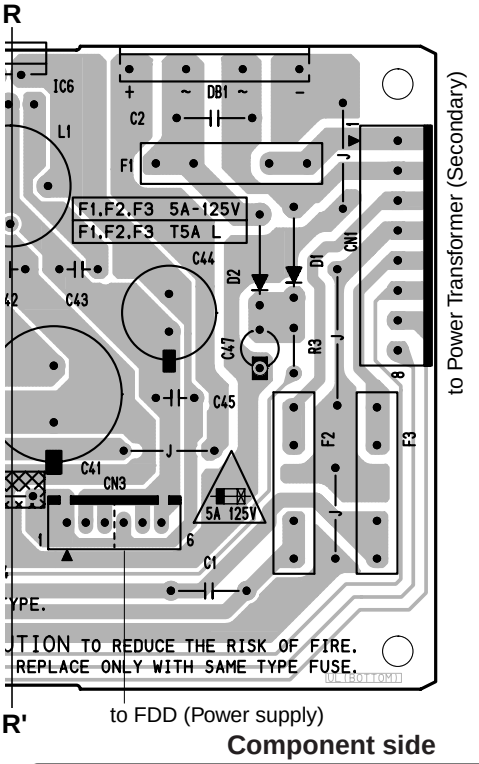
to DM-CN15 (SWX-A)
to DM-CN16 (SWX-B)



Pattern side

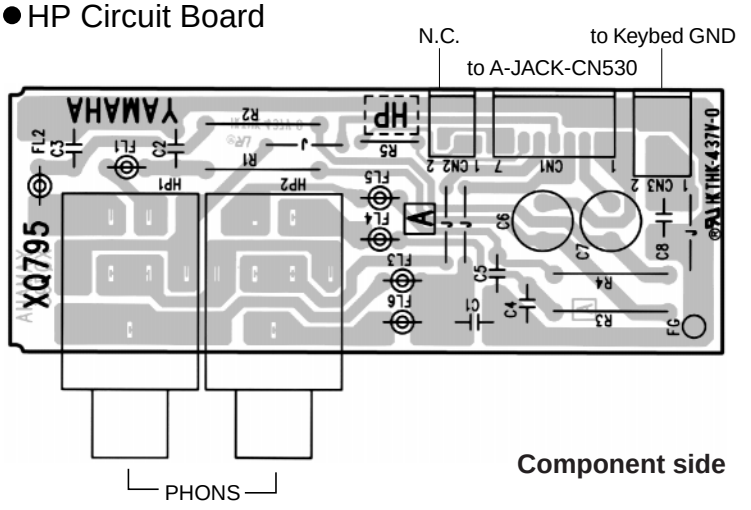
● MA120B Circuit Board





Component side

● HP Circuit Board



Component side

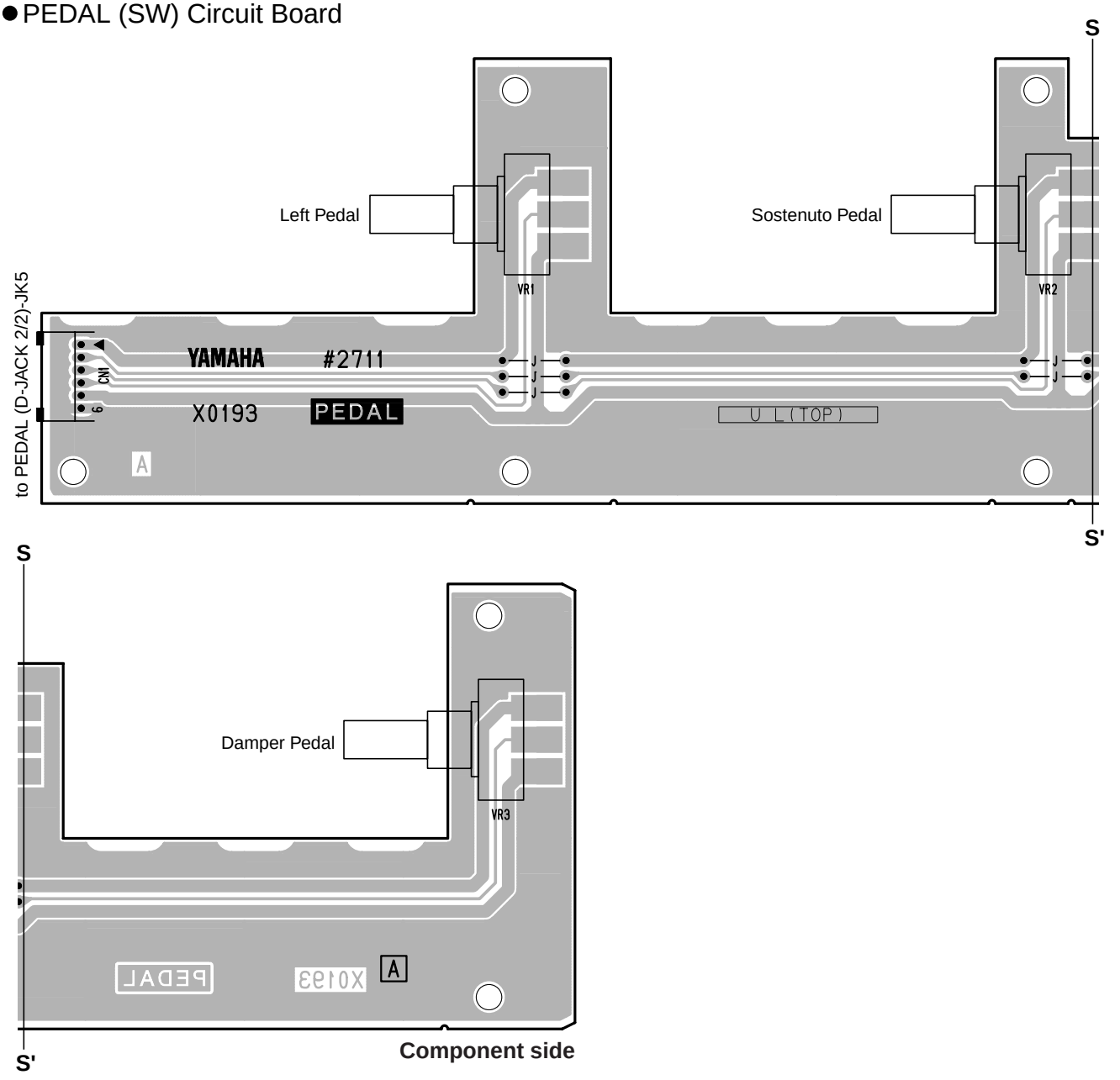
CAUTION: REPLACE WITH SAME TYPE 5A 125V FUSE.

ATTENTION: UTILISER UN FUSIBLE DE RECHANGE DE MÉME TYPE DE 5A 125V.

NOTE : The symbol (⊣⊠) shows Slow operating fuse.

MA120B: 2NA-V675390 ⚠4
HP: 2NA-VY66380 ⚠1

● PEDAL (SW) Circuit Board

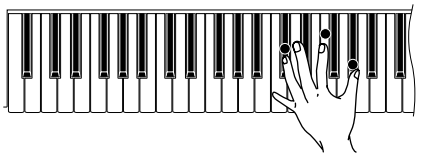


■ TEST PROGRAM

1. Preparation

1) The volume is usually moved to the use position when no volume change is required.
2) Measuring instruments: frequency counter, level meter (with JIS-C filter)
   Note: Connect a stereo plug to the [PHONES] jack at 33 ohms.
3) Jigs: foot volume (FC-7), MIDI cable, floppy disk (2HD & 2DD), microphone

2. How to enter the Test Program



While pressing the [C#2], [F2] and [G#2] keys, turn the [POWER ON/OFF] switch on.

3. Proceeding through the Teat Program

When the test program is activated, the sign “TEST” is indicated on the LCD display.
Select the test program item to be executed by pressing the [TEMPO-] or [TEMPO+] button.
Press the [START/STOP] button to execute testing. When the test result is OK, press the [START/STOP] button to return to the test item name on display. Proceed to the next test by pressing the [TEMPO-] or [TEMPO+] button. When the test result is OK, an asterisk (*) is added in front of its item name on display.
When the test result is NG, press the [DEMO] button or the lowest (leftmost) white key on the keyboard to return to the test item name on display and then turn off the [POWER ON/OFF] switch to end the test program.

4. Test program list

No.	LCD (initial)	Test Function and Judgment criteria
1	001: Version	Displays each ROM version. ROM versions are displayed alternately on the LCD.
2	002: ROM Check1	Checks the ROMs that are connected to the CPU bus. The test results appear on the LCD. Check the LCD “ROM Check1 OK”
3	003: RAM Check1	Checks the RAMs that are connected to the CPU bus. The test results appear on the LCD. Check the LCD “RAM Check1 OK”
4	004:Flash Check1	Checks the Flash Memories that are connected to the CPU bus. The test results appear on the LCD. Check the LCD “Flash Check1 OK”
5	005: Wave ROM Check1	Checks the Wave ROMs. The test results appear on the LCD. Check the LCD “XG Wave ROM Check OK” “Natural Wave ROM1 Check OK”
6	006: Wave RAM Check1	Checks the Wave RAMs. The test results appear on the LCD. Check the LCD “XG Wave RAM Check OK” “Natural Wave RAM1 Check OK”
7	007: FDD Check	Checks the floppy disk drive unit. Insert the floppy disks one bye one (2HD or 2DD). The test will be executed immediately if an FD is inserted in the drive. After completing the test for one FD, replace it with another to continue the test. Displays “FDD Check OK” if the test result is OK. Displays “NO FD” and stands by for FD insertion if an FD is drawn out before completion of the test. Displays “PROTECT FD” if the write-protect switch of FD is on. Displays “UNFORMAT FD” if non-formatted FD is inserted.
8	008: Effect1 RAM Check	Checks the Reverb (Natural voice) RAM. Outputs the sine wave (C3) MAX at the send level and MIN at the drive level. Check the sound by hearing that there is not noise or abnormal sound.
9	009: Effect2 RAM Check	Checks the VOP3 RAM. Outputs the sine wave (C3) MAX at the send level and MIN at the drive level. Check the sound by hearing that there is not noise or abnormal sound.
10	010: Effect3 RAM Check	Checks the XG1 RAM. Outputs the sine wave (C3) MAX at the send level and MIN at the drive level. Check the sound by hearing that there is not noise or abnormal sound.
11	011: Effect4 RAM Check (CVP-209 only)	Checks the XG2 RAM. Outputs the sine wave (C3) MAX at the send level and MIN at the drive level. Check the sound by hearing that there is not noise or abnormal sound.
12	012: TG 1 Check	Checks the Sound Source 1 (Autoscale) (XG) Sequentially outputs the sine wave starting from the low keys (from C2 to G4) by switching the channel of the sound source. Check the sound by hearing that there is not noise or abnormal sound.

No.	LCD (initial)	Test Function and Judgment criteria
13	013: TG 2 Check	Checks the Sound Source 2 (Autoscale) (Natural Voice 1) Sequentially outputs the sine wave starting from the low keys (from C2 to G4) by switching the channel of the sound source. Check the sound by hearing that there is not noise or abnormal sound.
14	014: TG 3 Check	Checks the Sound Source 3 (Autoscale) (Natural Voice 2) Sequentially outputs the sine wave starting from the low keys (from C2 to G4) by switching the channel of the sound source. Check the sound by hearing that there is not noise or abnormal sound.
15	015: Pitch Check	Pitch check: Connect the frequency counter to the [PHONES] jack (33 ohm load). Outputs the sine wave at 440 +/-0.2 Hz. (PAN = Center) Decline quantity check of the volume: Connect the level meter (with a JIS-C filter) to the [PHONES] jack. Set the [MASTER VOLUME] at MIN and check the output level. **PHONES L, R:** less than -80.0 dBm
16	016: Output R Check	Connect the level meter (with a JIS-C filter) to each terminal (PHONES, AUX OUT L/L+R, R, AUX OUT (LEVEL FIXED) L, R). Set the [MASTER VOLUME] at MAX and check the R channel output level. (1 kHz sine wave, PAN=R) (PHONES L, R: 33 ohm load AUX OUT L/L+R, R: 10 kohm load AUX OUT (LEVEL FIXED) L, R: 10 kohm load) **PHONES L:** less than -30.0 dBm **PHONES R:** +10.0 dBm +/-2 dB **AUX OUT L/L+R:** less than -34.0 dBm **AUX OUT R:** +16.0 dBm +/-2 dB **AUX OUT (LEVEL FIXED) L:** less than -36.0 dBm **AUX OUT (LEVEL FIXED) R:** +14.0 dBm +/-2 dB
17	017: Output L Check	Connect the level meter (with a JIS-C filter) to each terminal (PHONES, AUX OUT L/L+R, R, AUX OUT (LEVEL FIXED) 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 AUX OUT L/L+R, R: 10 kohm load AUX OUT (LEVEL FIXED) L, R: 10 kohm load) **PHONES L:** +10.0 dBm +/-2 dB **PHONES R:** less than -30.0 dBm **AUX OUT L/L+R:** +16.0 dBm +/-2 dB **AUX OUT R:** less than -34.0 dBm **AUX OUT (LEVEL FIXED) L:** +14.0 dBm +/-2 dB **AUX OUT (LEVEL FIXED) R:** less than -36.0 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	It is the item inspecting in the factory.
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 54-page 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.
27	027: All Key LED On Check	Check that all key LEDs are on.
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.
30	030: LCD Contrast Check	Pressing the switch on the LCD as instructed. Check that the contrast of the LCD changes.
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.
32	032: Soft Pedal Check	Check that the C3 note is output when pressing and releasing the soft pedal, and that the C4 note is output when pressing it again.
33	033: Sostenuto Pedal Check	Check that the C3 note is output when pressing and releasing the sostenuto pedal, and that the C4 note is output when pressing it again.
34	034: Damper Pedal Check	Check that the C3 note is output when pressing and releasing the damper pedal, and that the C4 note is output when pressing it again.
35	035: Aux Pedal Check	Connect the foot volume (FC-7) to the [AUX PEDAL 1] 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 rhe front (to minimum).

No.	LCD (initial)	Test Function and Judgment criteria
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 “MIDI Check 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 “TO HOST Check 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.
42	042: MIC Check	Connect a microphone to the [MIC./LINE IN] jack and speak to it. Set the [MIC./LINE] select switch to [MIC.] and set the [INPUT VOLUME] at maximum. Check the voice sound by hearing that there is not unusual noise or abnormal sound.
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” “Natural Wave RAM1 Check OK”
48	048: VIDEO OUT NTSC RED (J and U models only)	Checks the NTSC red signal of “VIDEO OUT”. Connect the TV to the [VIDEO OUT] jack and check that TV characters become red.
49	049: VIDEO OUT NTSC GREEN (J and U models only)	Checks the NTSC green signal of “VIDEO OUT”. Connect the TV to the [VIDEO OUT] jack and check that TV characters become green.
50	050: VIDEO OUT NTSC BLUE (J and U models only)	Checks the NTSC blue signal of “VIDEO OUT”. Connect the TV to the [VIDEO OUT] jack and check that TV characters become blue.
51	051: VIDEO OUT PAL RED (B, E, N models only)	Checks the PAL red signal of “VIDEO OUT”. Connect the TV to the [VIDEO OUT] jack and check that TV characters become red.
52	052: VIDEO OUT PAL GREEN (B, E, N models only)	Checks the PAL green signal of “VIDEO OUT”. Connect the TV to the [VIDEO OUT] jack and check that TV characters become green.
53	053: VIDEO OUT PAL BLUE (B, E, N models only)	Checks the PAL blue signal of “VIDEO OUT”. Connect the TV to the [VIDEO OUT] jack and check that TV characters become blue.
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

The System Backup is initialized and set to the factory preset data when the [POWER ON/OFF] switch is turned on while pressing the highest (rightmost) white key on the keyboard.

• **TABLE 1**

ORDER	SWITCH	NOTE
1	METRONOME	C2
2	VOCAL HARMONY	C#2
3	TALK	D2
4	EFFECT	D#2
5	VH TYPE SELECT	E2
6	MC. SETUP	F2
7	EXTRA TRACKS	F#2
8	TRACK2	G2
9	TRACK1	G#2
10	FADE IN/OUT	A2
11	REC	A#2
12	TOP	B2
13	START/STOP (SONG)	C3
14	RW	C#3
15	FF	D3
16	REPEAT	D#3
17	GUIDE	E3
18	TEMPO -	F3
19	TEMPO +	F#3
20	TAP TEMPO	G3
21	TRANSPOSE -	G#3
22	TRANSPOSE +	A3
23	ACCOMP. ON/OFF	A#3
24	AUTO FILL IN	B3
25	OTS LINK	C4
26	BREAK	C#4
27	INTRO	D4
28	MAIN A	D#4
29	MAIN B	E4
30	MAIN C	F4
31	MAIN D	F#4
32	ENDING	G4
33	SYNC STOP	G#4
34	SYNC START	A4
35	START/STOP (STYLE)	A#4
36	DEMO	B4
37	HELP	C5
38	FUNCTION	C#5
39	SOUND CREATOR	D5
40	DIGITAL RECORDING	D#5
41	MIXING CONSOLE	E5
42	A	F5
43	B	F#5
44	C	G5
45	D	G#5
46	E	A5
47	BALANCE	A#5
48	PART ON/OFF	B5
49	DIRECT ACCESS	C6
50	1-U	C2
51	1-L	C#2
52	2-U	D2
53	2-L	D#2
54	3-U	E2
55	3-L	F2
56	4-U	F#2

ORDER	SWITCH	NOTE
57	4-L	G2
58	5-U	G#2
59	5-L	A2
60	6-U	A#2
61	6-L	B2
62	7-U	C3
63	7-L	C#3
64	8-U	D3
65	8-L	D#3
66	EXIT	E3
67	BACK	F3
68	NEXT	F#3
69	F	G3
70	G	G#3
71	H	A3
72	I	A#3
73	J	B3
74	LAYER	C4
75	LEFT	C#4
76	REVERB	D4
77	DSP	D#4
78	SLOW/FAST	E4
79	HARMONY ECHO	F4
80	POLY/MONO	F#4
81	LEFT HOLD	G4
82	PIANO &HARPSI	G#4
83	E.PIANO	A4
84	ORGAN & ACCORDION	A#4
85	PERCUSSION	B4
86	GUITAR	C5
87	BASS	C#5
88	ORGAN FLUTES	D5
89	BRASS	D#5
90	W.WIND	E5
91	STRING	F5
92	CHOIR & PAD	F#5
93	SYNTH	G5
94	XG	G#5
95	USER	A5
96	ENTER	A#5
97	MUSIC FINDER	B5
98	OTS1	C6
99	OTS2	C2
100	OTS3	C#2
101	OTS4	D2
102	PIANO	D#2
103	FREEZE	E2
104	REGIST1	F2
105	REGIST2	F#2
106	REGIST3	G2
107	REGIST4	G#2
108	REGIST5	A2
109	REGIST6	A#2
110	REGIST7	B2
111	REGIST8	C3
112	MEMORY	C#3

SYSTEM RESET

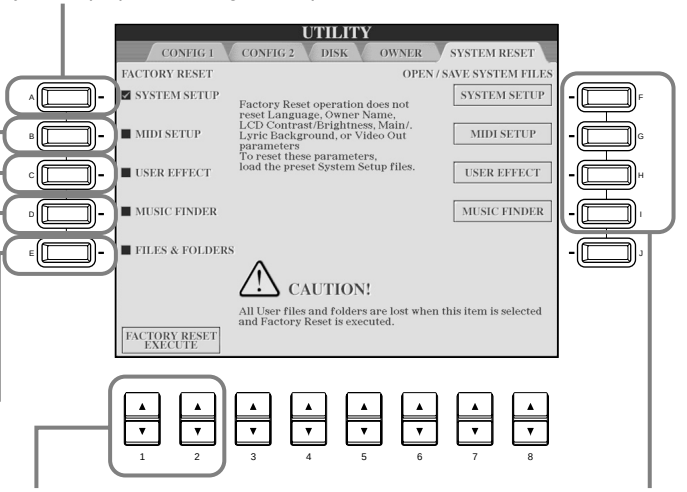
Restores the System Setup parameters to the original factory settings. You can also restore only the System Setup settings by simultaneously holding down the highest key on the keyboard (C7) and turning on the power.

Restores the MIDI templates to the original factory settings.

Restores the User Effects to the original factory settings.

Restores the Music Finder data 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 to disk, for future recall. Pressing each of these buttons calls up the corresponding Open/Save display, from which you can select the corresponding PRESET page. From this PRESET page, you can save the relevant data.

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, using the Open/Save System Files function.
Language
Owner Name
LDC Contrast
LCD Brightness
Video Out settings (NTSC/PAL)
Screen Content

NOTE

All Music Finder records can be stored together as a single file. When calling up a stored file, a message appears prompting you to replace or append the records as desired.
Replace:
All Music Finder records currently in the instrument are deleted and replaced with the records of the selected file.
Append:
The records called up are added to the vacant record numbers.

■ MIDI IMPLEMENTATION CHART

YAMAHA [Clavinova] Date : 25,Jun 2001
Model CVP-209/207 MIDI Implementation Chart Version : 1.00
(Natural sound source)

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

Mode 1 : OMNI ON , POLY Mode 2 : OMNI ON ,MONO o: Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF,MONO x: No

YAMAHA [Clavinova]
Model CVP-209/207 MIDI Implementation Chart
(XG sound source)

Date : 25,Jun 2001
Version : 1.00

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

Mode 1 : OMNI ON , POLY
Mode 2 : OMNI ON ,MONO
Mode 3 : OMNI OFF, POLY
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
0	00	0000 0000
1	01	0000 0001
2	02	0000 0010
3	03	0000 0011
4	04	0000 0100
5	05	0000 0101
6	06	0000 0110
7	07	0000 0111
8	08	0000 1000
9	09	0000 1001
10	0A	0000 1010
11	0B	0000 1011
12	0C	0000 1100
13	0D	0000 1101
14	0E	0000 1110
15	0F	0000 1111
16	10	0001 0000
17	11	0001 0001
18	12	0001 0010
19	13	0001 0011
20	14	0001 0100
21	15	0001 0101
22	16	0001 0110
23	17	0001 0111
24	18	0001 1000
25	19	0001 1001
26	1A	0001 1010
27	1B	0001 1011
28	1C	0001 1100
29	1D	0001 1101
30	1E	0001 1110
31	1F	0001 1111

Decimal	Hexadecimal	Binary
32	20	0010 0000
33	21	0010 0001
34	22	0010 0010
35	23	0010 0011
36	24	0010 0100
37	25	0010 0101
38	26	0010 0110
39	27	0010 0111
40	28	0010 1000
41	29	0010 1001
42	2A	0010 1010
43	2B	0010 1011
44	2C	0010 1100
45	2D	0010 1101
46	2E	0010 1110
47	2F	0010 1111
48	30	0011 0000
49	31	0011 0001
50	32	0011 0010
51	33	0011 0011
52	34	0011 0100
53	35	0011 0101
54	36	0011 0110
55	37	0011 0111
56	38	0011 1000
57	39	0011 1001
58	3A	0011 1010
59	3B	0011 1011
60	3C	0011 1100
61	3D	0011 1101
62	3E	0011 1110
63	3F	0011 1111

Decimal	Hexadecimal	Binary
64	40	0100 0000
65	41	0100 0001
66	42	0100 0010
67	43	0100 0011
68	44	0100 0100
69	45	0100 0101
70	46	0100 0110
71	47	0100 0111
72	48	0100 1000
73	49	0100 1001
74	4A	0100 1010
75	4B	0100 1011
76	4C	0100 1100
77	4D	0100 1101
78	4E	0100 1110
79	4F	0100 1111
80	50	0101 0000
81	51	0101 0001
82	52	0101 0010
83	53	0101 0011
84	54	0101 0100
85	55	0101 0101
86	56	0101 0110
87	57	0101 0111
88	58	0101 1000
89	59	0101 1001
90	5A	0101 1010
91	5B	0101 1011
92	5C	0101 1100
93	5D	0101 1101
94	5E	0101 1110
95	5F	0101 1111

Decimal	Hexadecimal	Binary
96	60	0110 0000
97	61	0110 0001
98	62	0110 0010
99	63	0110 0011
100	64	0110 0100
101	65	0110 0101
102	66	0110 0110
103	67	0110 0111
104	68	0110 1000
105	69	0110 1001
106	6A	0110 1010
107	6B	0110 1011
108	6C	0110 1100
109	6D	0110 1101
110	6E	0110 1110
111	6F	0110 1111
112	70	0111 0000
113	71	0111 0001
114	72	0111 0010
115	73	0111 0011
116	74	0111 0100
117	75	0111 0101
118	76	0111 0110
119	77	0111 0111
120	78	0111 1000
121	79	0111 1001
122	7A	0111 1010
123	7B	0111 1011
124	7C	0111 1100
125	7D	0111 1101
126	7E	0111 1110
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/0bbbbbbb denotes the byte count.
- ccH/0ccccccc denotes the check sum.
- ddH/0ddddddd denotes the data/value.

O: available

	CPV-209	CPV-207	CPV-205	CPV-203
Regular Voice	O	O	O	O
Organ (Organ Flutes) Voice	O	O	-	-
Mic	O	O	O	-
Vocal Harmony	O	O	-	-
Natural Voice	O	O	O	O
M. Pad (Multi Pad)	-	-	-	-

MIDI CHANNEL MESSAGE (1)

O: available

MIDI Events	Status byte		1st Data byte			2nd Data byte			Corresponding Voice/Part			MIDI Reception (respond/ignore)					MIDI Transmission (generated data)					
	Status		Data	(HEX)	Parameter	Data	(HEX)	Parameter	Regular/ Organ Voice	Mic/Vocal Harmony	Natural 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 (Harmony Channel/ Melody Channel)	O	O	O	O	O	O	X	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 (Harmony Channel/ Melody Channel)	O	O	O	O	O	O	O (Keyboard)	O	O	O	O	X
Control Change	BnH	(n:Channel Number)	0	(00H)	Bank Select MSB	0 64 126 127	(00H) (40H) (7EH) (7FH)	Normal SFX voice SFX kit Drum kit	O	X	O	O	O	O (Main)	O	O	O (Voice)	X	O	O	O	X
			1	(01H)	Modulation	0~127	(00H...7FH)	Data	O	X	X	O	O	O (Main/ Layer/Left)	O	O	O (Pedal)	O	O	O	O	X
			5	(05H)	Portamento Time	0~127	(00H...7FH)	Data	O	X	X	O	O	O (Main/ Layer/Left)	X	O	O (Mixing Console)	X	O	X	O	X
			6	(06H)	Data Entry MSB	0~127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O	O (Main/ Layer/Left)	O	O	O (Mixing Console)	X	O	O	O	X
			7	(07H)	Main Volume	0~127	(00H...7FH)	Data	O	X	O	O	O	O (Main/ Layer/Left)	O	O	O (Mixing Console)	X	O	O	O	X
			10	(0AH)	Panpot	0~127	(00H...7FH)	L64...C...R63	O	X	O	O	O	O (Main/ Layer/Left)	O	O	O (Mixing Console)	X	O	O	O	X
			11	(0BH)	Expression	0~127	(00H...7FH)	Data	O	X	O	O	O	O (Main/ Layer/Left)	O	O	O (Pedal)	O	O	O	O	X
			32	(20H)	Bank Select LSB	0~127	(00H...7FH)	Data	O	X	O	O	O	O (Main)	O	O	O (Voice)	X	O	O	O	X
			38	(26H)	Data Entry LSB	0~127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O	O (Main/ Layer/Left)	X	O	O (Mixing Console)	X	O	X	O	X
			64	(40H)	Sustain (Damper)	0~127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O	O (Main/ Layer/Left)	X	O	O (Pedal)	O	O	X	O	X
			65	(41H)	Portamento	0~127	(00H...7FH)	0...63, 64...127 (OFF, ON)	O	X	X	O	O	O (Main/ Layer/Left)	X	O	O (Poly/Mono Sw)	O	O	X	O	X
			66	(42H)	Sostenuto	0~127	(00H...7FH)	0...63, 64...127 (OFF, ON)	O	X	O	O	O	O (Main/ Layer/Left)	X	O	O (Pedal)	O	O	X	O	X
			67	(43H)	Soft Pedal	0~127	(00H...7FH)	0...63, 64...127 (OFF, ON)	O	X	O	O	O	O (Main/ Layer/Left)	X	O	O (Pedal)	O	O	X	O	X
			71	(47H)	Harmonic Content	0~127	(00H...7FH)	-64...0...+63	O	X	X	O	O	O (Main/ Layer/Left)	O	O	O (Mixing Console)	X	O	O	O	X
			72	(48H)	Release Time	0~127	(00H...7FH)	-64...0...+63	O	X	X	O	O	O (Main/ Layer/Left)	O	O	O (Sound Creator)	X	O	O	O	X
			73	(49H)	Attack Time	0~127	(00H...7FH)	-64...0...+63	O	X	X	O	O	O (Main/ Layer/Left)	O	O	O (Sound Creator)	X	O	O	O	X
			74	(4AH)	Brightness	0~127	(00H...7FH)	-64...0...+63	O	X	X	O	O	O (Main/ Layer/Left)	X	O	O (Sound Creator)	X	O	O	O	X
			84	(54H)	Portamento Control	0~127	(00H...7FH)	Key no. (0~127)	O	X	X	O	O	X	O	O	O (Auto Accom-paniment)	X	O	X	O	X
			91	(5BH)	Effect1 Depth (Reverb Send Level)	0~127	(00H...7FH)	Data	O	X	O	O	O	O (Main/ Layer/Left)	O	O	O (Mixing Console)	X	O	O	O	X
			93	(5DH)	Effect3 Depth (Chorus Send Level)	0~127	(00H...7FH)	Data	O	X	O	O	O	O (Main/ Layer/Left)	O	O	O (Mixing Console)	X	O	O	O	X
			94	(5EH)	Effect4 Depth (Variation Send Level)	0~127	(00H...7FH)	Data	O	X	X	O	O	O (Main/ Layer/Left)	O	O	O (Mixing Console)	X	O	O	O	X
			96	(60H)	RPN Increment	-	-	*1	O	O (Harmony Channel/ Melody Channel)	O	O	O	X	O	O	X	X	O	X	O	X
			97	(61H)	RPN Decrement	-	-	*1	O	O (Harmony Channel/ Melody Channel)	O	O	O	X	O	O	X	X	O	X	O	X
			98	(62H)	NRPN LSB	0~127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	X	O	O	X	O	O	O (Sound Creator)	X	O	O	O	X
			99	(63H)	NRPN MSB	0~127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	X	O	O	X	O	O	O (Sound Creator)	X	O	O	O	X
			100	(64H)	RPN LSB	0~127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O	O (Main/ Layer/Left)	O	O	O (Mixing Console)	X	O	O	O	X
			101	(65H)	RPN MSB	0~127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O	O (Main/ Layer/Left)	O	O	O (Mixing Console)	X	O	O	O	X
Mode Message	BnH	(n:Channel Number)	120	(78H)	All Sound Off	0	(00H)	Data	O	X	O	O	O	O (Main/ Layer/Left)	O	O	X	X	O	X	O	X
			121	(79H)	Reset All Controllers	0	(00H)	Data	O	X	O	O	X	X	X	X	X	X	O	X	O	X
			123	(7BH)	All Note Off	0	(00H)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O	O (Main/ Layer/Left)	O	O	X	X	O	X	O	X
			124	(7CH)	Omni Off	0	(00H)	Data	O	X	X	O	X	X	X	X	X	X	O	X	O	X
			125	(7DH)	Omni On	0	(00H)	Data	O	X	X	O	X	X	X	X	X	X	O	X	O	X
			126	(7EH)	Mono	0~16	(00H...10H)	Data	O	X	X	O	X	X	X	X	X	X	O	X	O	X
			127	(7FH)	Poly	0	(00H)	Data	O	X	X	O	X	X	X	X	X	X	O	X	O	X

MIDI Events	Status byte		1st Data byte		2nd Data byte		Corresponding Voice/Part			MIDI Reception (respond/ignore)					MIDI Transmission (generated data)					
	Status		Data (HEX)	Parameter	Data (HEX)	Parameter	Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	Upper Lower	M.Pad	Style	Song	MIDI
Program Change	CnH	(n:Channel Number)	pp (00H...7FH)	Voice Number (0~127)	- -	-	O	X	O	O	O	O (Main)	O	O	O (Voice)	X	O	O	O	X
Channel After Touch	DnH	(n:Channel Number)	vv (00H...7FH)	Data	- -	-	O	X	X	O	O	O (Main/ Layer/Left)	X	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	X	O	X
Pitch Bend Change	EnH	(n:Channel Number)	cc (00H...7FH)	LSB	dd (00H...7FH)	MSB	O	O (Harmony Channel/ Melody Channel)	O	O	O	O (Main/ Layer/Left)	O	O	O (Pedal)	O	O	O	O	X
Realtime Message	F8H	MIDI Clock	-	-	-	-	-	-	-	O (*2)					O (*3)					
	FAH	Start	-	-	-	-	-	-	-	O (*2)					O (*4)					
	FBH	Continue	-	-	-	-	-	-	-	X					X					
	FCH	Stop	-	-	-	-	-	-	-	O (*2)					O (*4)					
	FEH	Active Sens	-	-	-	-	-	-	-	O					O					
	FFH	System Reset	-	-	-	-	-	-	-	X					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.

About Mic/Vocal Harmony column:
The relevant parameters are received by the song part designated by the Effect's Harmony Channel Parameter or Melody Parameter.

MIDI CHANNEL MESSAGE (2)

NRPN

NRPN		Data Entry		Parameter	Data Range	Corresponding Voice/Part			MIDI Reception (respond/ignore)					MIDI Transmission (generated data)					
MSB	LSB	MSB	LSB			Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	Upper Lower	M.Pad	Style	Song	MIDI
01H	08H	mmH	--	Vibrato Rate	mm: 00H-40H-7FH (-64...0...+63)	O	O (Harmony Channel/ Melody Channel)	X	O	O	X	O	O	O (Sound Creator)	X	O	O	O	X
01H	09H	mmH	--	Vibrato Depth	mm: 00H-40H-7FH (-64...0...+63)	O	O (Harmony Channel/ Melody Channel)	X	O	O	X	O	O	O (Sound Creator)	X	O	O	O	X
01H	0AH	mmH	--	Vibrato Delay	mm: 00H-40H-7FH (-64...0...+63)	O	O (Harmony Channel/ Melody Channel)	X	O	O	X	O	O	O (Sound Creator)	X	O	O	O	X
01H	20H	mmH	--	Low Pass Filter Cutoff Frequency	mm: 00H-40H-7FH (-64...0...+63)	O	X	X	O	X	X	O	X	X	X	O	X	O	X
01H	21H	mmH	--	Low Pass Filter Resonance	mm: 00H-40H-7FH (-64...0...+63)	O	X	X	O	X	X	O	X	X	X	O	X	O	X
01H	30H	mmH	--	EQ BASS (*1)	mm: 00H-40H-7FH (-64...0...+63)	O	X	X	O	X	X	O	X	X	X	X	X	O	X
01H	31H	mmH	--	EQ TREBLE (*1)	mm: 00H-40H-7FH (-64...0...+63)	O	X	X	O	X	X	O	X	X	X	X	X	O	X
01H	34H	mmH	--	EQ BASS Frequency (*1)	mm: 04H-28H (32...2.0k[Hz])	O	X	X	O	X	X	X	X	X	X	X	X	O	X
01H	35H	mmH	--	EQ TREBLE Frequency (*1)	mm: 1CH-3AH (500...16.0k[Hz])	O	X	X	O	X	X	X	X	X	X	X	X	O	X
01H	63H	mmH	--	EG Attack Time	mm: 00H-40H-7FH (-64...0...+63)	O	X	X	O	X	X	O	X	X	X	X	X	O	X
01H	64H	mmH	--	EG Decay Time	mm: 00H-40H-7FH (-64...0...+63)	O	X	X	O	O	X	O	O	O (Sound Creator)	X	O	O	O	X
01H	66H	mmH	--	EG Release	mm: 00H-40H-7FH (-64...0...+63)	O	X	X	O	X	X	O	X	X	X	O	X	O	X
14H	rrH	mmH	--	Drum Low Pass Filter Cutoff Frequency	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	O (Drum Only)	X	X	O	X	X	X	X	X	X	X	O	O	X
15H	rrH	mmH	--	Drum Low Pass Filter Resonance	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)		X	X	O	X	X	X	X	X	X	X	O	O	X
16H	rrH	mmH	--	Drum EG Attack Rate	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)		X	X	O	X	X	X	X	X	X	X	O	O	X
17H	rrH	mmH	--	Drum EG Decay Rate	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)		X	X	O	X	X	X	X	X	X	X	O	O	X
18H	rrH	mmH	--	Drum Pitch Coarse	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)		X	X	O	X	X	X	X	X	X	X	O	O	X
19H	rrH	mmH	--	Drum Pitch Fine	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)		X	X	O	X	X	X	X	X	X	X	O	O	X
1AH	rrH	mmH	--	Drum Level	rr: drum instrument note number mm: 00H-7FH (0...127)		X	X	O	X	X	X	X	X	X	X	O	O	X
1CH	rrH	mmH	--	Drum Pan	rr: drum instrument note number mm: 00H, 01H-40H-7FH (RND, L63...C...R63)		X	X	O	X	X	X	X	X	X	X	O	O	X
1DH	rrH	mmH	--	Drum Reverb Send Level	rr: drum instrument note number mm: 00H-7FH (0...127)		X	X	O	X	X	X	X	X	X	X	O	O	X
1EH	rrH	mmH	--	Drum Chorus Send Level	rr: drum instrument note number mm: 00H-7FH (0...127)		X	X	O	X	X	X	X	X	X	X	O	O	X
1FH	rrH	mmH	--	Drum Variation Send Level	rr: drum instrument note number mm: 00H-7FH (0...127) (Variation Connection=SYSTEM) mm: 00H, 01H-7FH (OFF, ON) (Variation Connection=INSERTION)		X	X	O	X	X	X	X	X	X	X	O	O	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.

NRPN (Vocal Harmony)

NRPN		Data Entry		Parameter	Data Range	Corresponding Voice/Part			MIDI Reception (respond/ignore)					MIDI Transmission (generated data)					
MSB	LSB	MSB	LSB			Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	Upper Lower	M.Pad	Style	Song	MIDI
00H	00H	mmH	--	Harmony Mute (*2)	0-63, 64-127 (Off, On)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	X	X	O	X
01H	1AH	mmH	--	Detune Modulation (*2)	mm: 00H-7FH (0...127)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	X	X	O	X
02H	10H	mmH	--	Harmony1 Volume (*2)	mm: 00H-7FH (0...127)	X	O (Harmony Channel)	X	X	X	X	X	X	O (Vocal Harmony Type Edit)	X	X	X	O	X
02H	11H	mmH	--	Harmony2 Volume (*2)	mm: 00H-7FH (0...127)	X	O (Harmony Channel)	X	X	X	X	X	X	O (Vocal Harmony Type Edit)	X	X	X	O	X
02H	12H	mmH	--	Harmony3 Volume (*2)(*3)	mm: 00H-7FH (0...127)	X	O (Harmony Channel)	X	X	X	X	X	X	O (Vocal Harmony Type Edit)	X	X	X	O	X
02H	20H	mmH	--	Harmony1 Pan (*2)	mm: 00H, 01H-40H-7FH (RND, L63...C...R63)	X	O (Harmony Channel)	X	X	X	X	X	X	O (Vocal Harmony Type Edit)	X	X	X	O	X
02H	21H	mmH	--	Harmony2 Pan (*2)	mm: 00H, 01H-40H-7FH (RND, L63...C...R63)	X	O (Harmony Channel)	X	X	X	X	X	X	O (Vocal Harmony Type Edit)	X	X	X	O	X
02H	22H	mmH	--	Harmony3 Pan (*2)(*3)	mm: 00H, 01H-40H-7FH (RND, L63...C...R63)	X	O (Harmony Channel)	X	X	X	X	X	X	O (Vocal Harmony Type Edit)	X	X	X	O	X
02H	30H	mmH	--	Harmony1 Detune (*2)	mm: 00H-40H-7FH (-64...0...+63)	X	O (Harmony Channel)	X	X	X	X	X	X	O (Vocal Harmony Type Edit)	X	X	X	O	X
02H	31H	mmH	--	Harmony2 Detune (*2)	mm: 00H-40H-7FH (-64...0...+63)	X	O (Harmony Channel)	X	X	X	X	X	X	O (Vocal Harmony Type Edit)	X	X	X	O	X
02H	32H	mmH	--	Harmony3 Detune (*2)(*3)	mm: 00H-40H-7FH (-64...0...+63)	X	O (Harmony Channel)	X	X	X	X	X	X	O (Vocal Harmony Type Edit)	X	X	X	O	X

Data Entry LSB: Ignored.

RPN

NRPN		Data Entry		Parameter	Data Range	Corresponding Voice/Part			MIDI Reception (respond/ignore)					MIDI Transmission (generated data)					
MSB	LSB	MSB	LSB			Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	Upper Lower	M.Pad	Style	Song	MIDI
00H	00H	mmH	--	Pitch Bend Sensitivity	mm: 00H-18H (0...+24[semitones])	O	O (Harmony Channel/ Melody Channel)	O	O	O	O (Main/ Layer/Left)	O	O	O (Mixing Console)	X	O	O	O	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]	O	X	O	O	O	O (Main/ Layer/Left)	O	O	O (Mixing Console)	X	O	O	O	X
00H	02H	mmH	--	Coarse Tune	mm: 28H-40H-58H (-24...0...+24[semitones])	O	X	O	O	O	O (Main/ Layer/Left)	O	O	X	X	O	O	O	X
7FH	7FH	--	--	Null	-	O	O	O	O	O	O (Main/ Layer/Left)	O	O	X	X	O	O	O	X

*1 2Band Part EQ

CVP-203	X
CVP-205	X
CVP-207	O
CVP-209	O

*2 Vocal Harmony

CVP-203	X
CVP-205	X
CVP-207	O
CVP-209	O

*3 CVP-209 only

About Mic/Vocal Harmony column:

The relevant parameters are received by the song part designated by the Effect's Harmony Channel Parameter or Melody Parameter.

MIDI PARAMETER CHANGE TABLE

* Not Received when Receive System Exclusive Message Parameters is set to off.
* Not transmitted when Transmit System Exclusive Message Parmeters is set to on.

MIDI Parameter Change table (XG SYSTEM)

CVP-203	O
CVP-205	O
CVP-207	O
CVP-209	O

O: available

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
								Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
00	00	00	4	00-0F	MASTER TUNE	-102.4...0...+102.3[cent]	*Panel setting value	O	X	O	O					O (Function)	X	X	O	X
		01		00-0F		1st bit 3-0 bit 15-12														
		02		00-0F		2nd bit 3-0 bit 11-8														
		03		00-0F		3rd bit 3-0 bit 7-4														
						4th bit 3-0 bit 3-0														
		04	1	00-7F	MASTER VOLUME	0...127	7F	O	X	O	O	X	X	X	X	X	X	X	O	X
		05	1	00-7F	MASTER ATTENUATOR	0...127	00	X	X	X	X	X	X	X	X	X	X	X	X	X
		06	1	28-58	TRANSPOSE	-24...0...+24[semitones]	40	O	X	O	O	X	X	X	X	X	X	X	O	X
		7D	1	N	DRUM SETUP RESET	N: Drum setup number	-	O (Drum only)	X	X	O	X	X	X	X	X	X	X	O	X
		7E	1	00	XG SYSTEM ON	00=XG system ON	-	O	X	O	O	X	X	X	O	X	X	X	O	X
		7F	1	00	ALL PARAMETER RESET	00=ON	-	O	X	O	O	X	X	X	O	X	X	X	O	X

TOTAL SIZE 07

MIDI Parameter Change table (SYSTEM INFORMATION)

CVP-203	O
CVP-205	O
CVP-207	O
CVP-209	O

Address (H)			Size (H)	Data (H)	Parameter	Description	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
							Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
01	00	00	E	20-7F	Model Name 1	32...127(ASCII CHARACTER)	-	-	-	-	-	-	-	-	X	X	X	X	O
		...		...	...	...													
		0D		20-7F	Model Name 14	32...127(ASCII CHARACTER)													
		0E	1		NOT USED														
		0F	1		NOT USED														

TOTAL SIZE 10

Transmitted in response to Dump Request. Not received.

MIDI Parameter Change table (EFFECT1)

CVP-203	O
CVP-205	O
CVP-207	O
CVP-209	O

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
								Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
02	01	00	2	00-7F 00-7F	REVERB TYPE MSB REVERB TYPE LSB	Refer to Effect Parameter List 〃	01(=HALL1) 00	O	O	X	O					O (Mixing Console)	X	O	O	X
		02	1	00-7F	REVERB PARAMETER 1	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console)	X	O	O	X
		03	1	00-7F	REVERB PARAMETER 2	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		04	1	00-7F	REVERB PARAMETER 3	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		05	1	00-7F	REVERB PARAMETER 4	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		06	1	00-7F	REVERB PARAMETER 5	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		07	1	00-7F	REVERB PARAMETER 6	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		08	1	00-7F	REVERB PARAMETER 7	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		09	1	00-7F	REVERB PARAMETER 8	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		0A	1	00-7F	REVERB PARAMETER 9	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		0B	1	00-7F	REVERB PARAMETER 10	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		0C	1	00-7F	REVERB RETURN	-∞dB...0dB...+6dB (0...96...127)	40	O	O	X	O					O (Mixing Console)	X	O	O	X
		0D	1	01-7F	REVERB PAN	L63...C...R63	40	O	O	X	O					X	X	O	O	X

TOTAL SIZE 0E

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
								Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
02	01	10	1	00-7F	REVERB PARAMETER 11	Refer to Effect Parameter List	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		11	1	00-7F	REVERB PARAMETER 12	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		12	1	00-7F	REVERB PARAMETER 13	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		13	1	00-7F	REVERB PARAMETER 14	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		14	1	00-7F	REVERB PARAMETER 15	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X
		15	1	00-7F	REVERB PARAMETER 16	〃	Depends on Reverb Type	O	O	X	O (*Depends on Reverb Type)					O (Mixing Console *Depends on Reverb Type)	X	O	O	X

TOTAL SIZE 06

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
								Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
02	01	20	2	00-7F 00-7F	CHORUS TYPE MSB CHORUS TYPE LSB	Refer to Effect Parameter List 〃	41(=CHORUS1) 00	O	O	X	O					O (Mixing Console)	X	O	O	X
		22	1	00-7F	CHORUS PARAMETER 1	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		23	1	00-7F	CHORUS PARAMETER 2	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		24	1	00-7F	CHORUS PARAMETER 3	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		25	1	00-7F	CHORUS PARAMETER 4	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		26	1	00-7F	CHORUS PARAMETER 5	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		27	1	00-7F	CHORUS PARAMETER 6	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		28	1	00-7F	CHORUS PARAMETER 7	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		29	1	00-7F	CHORUS PARAMETER 8	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		2A	1	00-7F	CHORUS PARAMETER 9	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		2B	1	00-7F	CHORUS PARAMETER 10	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		2C	1	00-7F	CHORUS RETURN	-∞dB...0dB...+6dB (0...96...127)	40	O	O	X	O					O (Mixing Console)	X	O	O	X
		2D	1	01-7F	CHORUS PAN	L63...C...R63	40	O	O	X	O					X	X	O	O	X
		2E	1	00-7F	SEND CHORUS TO REVERB	-∞dB...0dB...+6dB (0...96...127)	00	O	O	X	O					X	X	O	O	X
TOTAL SIZE			0F																	
02	01	30	1	00-7F	CHORUS PARAMETER 11	Refer to Effect Parameter List	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		31	1	00-7F	CHORUS PARAMETER 12	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		32	1	00-7F	CHORUS PARAMETER 13	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		33	1	00-7F	CHORUS PARAMETER 14	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		34	1	00-7F	CHORUS PARAMETER 15	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					O (Mixing Console *Depends on Chorus Type)	X	O	O	X
		35	1	00-7F	CHORUS PARAMETER 16	〃	Depends on Chorus Type	O	O	X	O (*Depends on Chorus Type)					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/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
								Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
02	01	40	2	00-7F 00-7F	VARIATION TYPE MSB VARIATION TYPE LSB	Refer to Effect Parameter List 〃	05(=DELAY L, C, R) 00	O	O	X	O					O (Mixing Console)	X	O	O	X
		42	2	00-7F 00-7F	VARIATION PARAMETER 1 MSB VARIATION PARAMETER 1 LSB	〃 〃	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		44	2	00-7F 00-7F	VARIATION PARAMETER 2 MSB VARIATION PARAMETER 2 LSB	〃 〃	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		46	2	00-7F 00-7F	VARIATION PARAMETER 3 MSB VARIATION PARAMETER 3 LSB	〃 〃	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		48	2	00-7F 00-7F	VARIATION PARAMETER 4 MSB VARIATION PARAMETER 4 LSB	〃 〃	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		4A	2	00-7F 00-7F	VARIATION PARAMETER 5 MSB VARIATION PARAMETER 5 LSB	〃 〃	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		4C	2	00-7F 00-7F	VARIATION PARAMETER 6 MSB VARIATION PARAMETER 6 LSB	〃 〃	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		4E	2	00-7F 00-7F	VARIATION PARAMETER 7 MSB VARIATION PARAMETER 7 LSB	〃 〃	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		50	2	00-7F 00-7F	VARIATION PARAMETER 8 MSB VARIATION PARAMETER 8 LSB	〃 〃	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
								Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
		52	2	00-7F 00-7F	VARIATION PARAMETER 9 MSB VARIATION PARAMETER 9 LSB	˝ ˝	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		54	2	00-7F 00-7F	VARIATION PARAMETER 10 MSB VARIATION PARAMETER 10 LSB	˝ ˝	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		56	1	00-7F	VARIATION RETURN	-∞dB...0dB...+6dB (0...96...127)	40	O	O	X	O					O (Mixing Console)	X	O	O	X
		57	1	00-7F	VARIATION PAN	L63...C...R63	40	O	O	X	O					X	X	O	O	X
		58	1	00-7F	SEND VARIATION TO REVERB	-∞dB...0dB...+6dB (0...96...127)	00	O	O	X	O					X	X	O	O	X
		59	1	00-7F	SEND VARIATION TO CHORUS	-∞dB...0dB...+6dB (0...96...127)	00	O	O	X	O					X	X	O	O	X
		5A	1	00-7F	VARIATION CONNECTION	INSERTION, SYSTEM	00	O	O	X	O					X	X	O	O	X
		5B	1	00-7F	VARIATION PART NUMBER	Reception: Part1...16(0...15) Transmission: Part1...16(0...15) AD(64) OFF(127)	7F	O	O	X	O					O (Mixing Console)	X	O	O	X
		5C	1	00-7F	MW VARIATION CONTROL DEPTH	-64...0...+63	40	O	O	X	O					X	X	O	O	X
		5D	1	00-7F	BEND VARIATION CONTROL DEPTH	-64...0...+63	40	O	O	X	O					X	X	O	O	X
		5E	1	00-7F	CAT VARIATION CONTROL DEPTH	-64...0...+63	40	O	O	X	O					X	X	O	O	X
		5F	1	00-7F	AC1 VARIATION CONTROL DEPTH	-64...0...+63	40	X	X	X	X					X	X	X	X	X
		60	1	01-7F	AC2 VARIATION CONTROL DEPTH	-64...0...+63	40	X	X	X	X					X	X	X	X	X

TOTAL SIZE 21

02	01	70	1	00-7F	VARIATION PARAMETER 11	Refer to Effect Parameter List	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		71	1	00-7F	VARIATION PARAMETER 12	˝	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		72	1	00-7F	VARIATION PARAMETER 13	˝	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		73	1	00-7F	VARIATION PARAMETER 14	˝	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		74	1	00-7F	VARIATION PARAMETER 15	˝	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X
		75	1	00-7F	VARIATION PARAMETER 16	˝	Depends on Variation Type	O	O	X	O (*Depends on Variation Type)					O (Mixing Console *Depends on Variation Type)	X	O	O	X

TOTAL SIZE 06

MIDI Parameter Change table (MULTI EQ)

CVP-203	X
CVP-205	X
CVP-207	O
CVP-209	O

Address (H)			Size (H)	Data (H)	Parameter	Description	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
							Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
02	40	00	1	00-04	EQ TYPE	flat, jazz, pops, rock, classic	O	O	X	O					X	X	X	O	X
		01	1	34-4C	EQ GAIN1	-12...0...+12[dB]	O	O	X	O					O (Mixing Console)	X	X	O	X
		02	1	04-28	EQ FREQUENCY1	32...2.0k[Hz]	O	O	X	O					O (Mixing Console)	X	X	O	X
		03	1	01-78	EQ Q1	0.1...12.0	O	O	X	O					O (Mixing Console)	X	X	O	X
		04	1	00-01	EQ SHAPE1	shelving, peaking	O	O	X	O					X	X	X	O	X
		05	1	34-4C	EQ GAIN2	-12...0...+12[dB]	O	O	X	O					O (Mixing Console)	X	X	O	X
		06	1	0E-36	EQ FREQUENCY2	100...10.0k[Hz]	O	O	X	O					O (Mixing Console)	X	X	O	X
		07	1	01-78	EQ Q2	0.1...12.0	O	O	X	O					O (Mixing Console)	X	X	O	X
		08	1		NOT USED		-	-	-	-					-	-	-	-	-
		09	1	34-4C	EQ GAIN3	-12...0...+12[dB]	O	O	X	O					O (Mixing Console)	X	X	O	X
		0A	1	0E-36	EQ FREQUENCY3	100...10.0k[Hz]	O	O	X	O					O (Mixing Console)	X	X	O	X
		0B	1	01-78	EQ Q3	0.1...12.0	O	O	X	O					O (Mixing Console)	X	X	O	X
		0C	1		NOT USED		-	-	-	-					-	-	-	-	-
		0D	1	34-4C	EQ GAIN4	-12...0...+12[dB]	O	O	X	O					O (Mixing Console)	X	X	O	X
		0E	1	0E-36	EQ FREQUENCY4	100...10.0k[Hz]	O	O	X	O					O (Mixing Console)	X	X	O	X
		0F	1	01-78	EQ Q4	0.1...12.0	O	O	X	O					O (Mixing Console)	X	X	O	X
		10	1		NOT USED		-	-	-	-					-	-	-	-	-
		11	1	34-4C	EQ GAIN5	-12...0...+12[dB]	O	O	X	O					O (Mixing Console)	X	X	O	X
		12	1	1C-3A	EQ FREQUENCY5	0.5k...16.0k[Hz]	O	O	X	O					O (Mixing Console)	X	X	O	X
		13	1	01-78	EQ Q5	0.1...12.0	O	O	X	O					O (Mixing Console)	X	X	O	X
		14	1	00-01	EQ SHAPE5	shelving, peaking	O	O	X	O					X	X	X	O	X

TOTAL SIZE 05

The MULTI EQ Parameter cannot be reset to its factory setting with XG SYSTEM ON.

MIDI Parameter Change table (EFFECT2)

CVP-203	X
CVP-205	X
CVP-207	O
CVP-209	O

Address (H)			Size (H)	Data (H)	Parameter	Description	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
							Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
03	n	00	2	00-7F 00-7F	INSERTION EFFECT TYPE MSB INSERTION EFFECT TYPE LSB	Refer to Effect Parameter List 〃	O	O	X	O					O (Mixing Console)	X	X	O	X
		02	1	00-7F	INSERTION EFFECT PARAMETER 1	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		03	1	00-7F	INSERTION EFFECT PARAMETER 2	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		04	1	00-7F	INSERTION EFFECT PARAMETER 3	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		05	1	00-7F	INSERTION EFFECT PARAMETER 4	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		06	1	00-7F	INSERTION EFFECT PARAMETER 5	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		07	1	00-7F	INSERTION EFFECT PARAMETER 6	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		08	1	00-7F	INSERTION EFFECT PARAMETER 7	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		09	1	00-7F	INSERTION EFFECT PARAMETER 8	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		0A	1	00-7F	INSERTION EFFECT PARAMETER 9	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		0B	1	00-7F	INSERTION EFFECT PARAMETER 10	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		0C	1	00-7F	INSERTION EFFECT PART NUMBER	Reception: Part1...16(0...15) Transmission: Part1...16(0...15) AD(64) OFF(127)	O	O	X	O					O (Mixing Console)	X	X	O	X
		0D	1	00-7F	MW INSERTION CONTROL DEPTH	-64...0...+63	O	O	X	O					X	X	X	O	X
		0E	1	00-7F	BEND INSERTION CONTROL DEPTH	-64...0...+63	O	O	X	O					X	X	X	O	X
		0F	1	00-7F	CAT INSERTION CONTROL DEPTH	-64...0...+63	O	O	X	O					X	X	X	O	X
		10	1	00-7F	AC1 INSERTION CONTROL DEPTH	-64...0...+63	X	X	X	X					X	X	X	X	X
		11	1	00-7F	AC2 INSERTION CONTROL DEPTH	-64...0...+63	X	X	X	X					X	X	X	X	X
TOTAL SIZE			12																

		20	1	00-7F	INSERTION EFFECT PARAMETER 11	Refer to Effect Parameter List	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		21	1	00-7F	INSERTION EFFECT PARAMETER 12	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		22	1	00-7F	INSERTION EFFECT PARAMETER 13	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		23	1	00-7F	INSERTION EFFECT PARAMETER 14	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		24	1	00-7F	INSERTION EFFECT PARAMETER 15	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		25	1	00-7F	INSERTION EFFECT PARAMETER 16	〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
TOTAL SIZE			6																

Address (H)			Size (H)	Data (H)	Parameter	Description	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
							Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
		30	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 1 MSB INSERTION EFFECT PARAMETER 1 LSB	Refer to Effect Parameter List 〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		32	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 2 MSB INSERTION EFFECT PARAMETER 2 LSB	〃 〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		34	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 3 MSB INSERTION EFFECT PARAMETER 3 LSB	〃 〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		36	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 4 MSB INSERTION EFFECT PARAMETER 4 LSB	〃 〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		38	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 5 MSB INSERTION EFFECT PARAMETER 5 LSB	〃 〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		3A	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 6 MSB INSERTION EFFECT PARAMETER 6 LSB	〃 〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		3C	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 7 MSB INSERTION EFFECT PARAMETER 7 LSB	〃 〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		3E	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 8 MSB INSERTION EFFECT PARAMETER 8	〃 〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		40	2	00-7F 00-7F	LSBINSERTION EFFECT PARAMETER 9 MSB INSERTION EFFECT PARAMETER 9 LSB	〃 〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
		42	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 10 MSB INSERTION EFFECT PARAMETER 10 LSB	〃 〃	O	O	X	O (*Depends on Insertion Type)					O (Mixing Console *Depends on Insertion Type)	X	X	O	X
TOTAL SIZE			14																

The second byte of the address is considered as an Insertion effect number.
n: insertion effect number
For effect types that do not require MSB, the Parameters for Address 02-0B will be received and the Parameters for Address 30-42 will not be received.
For effect types that require MSB, the Parameters for Address 30-42 will be received and the Parameters for Address 02-0B will not be received.
When Bulk Dumps that include Effect Type data are transmitted, the Parameters for Address 02-0B will always be transmitted. But, effects that require MSB, when the bulk dump is received the Parameters for Address 02-0B will not be received.

*1 CVP-207: n=0~2
CVP-209: n=0~4

MIDI Parameter Change table (SPECIAL EFFECT)

CVP-203	X
CVP-205	X
CVP-207	O
CVP-209	O

Address (H)			Size (H)	Data (H)	Parameter	Description	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
							Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
04	00	00	2	00-7F 00-7F	INSERTION EFFECT TYPE MSBI NSERTION EFFECT TYPE LSB	Vocoder(89), Chordal(90), Detune(91), Chromatic(92), Thru(0...88, 93...127)	X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		02	1	00-7F	INSERTION EFFECT PARAMETER 1 Harmony Mode		X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		03	1	00-7F	INSERTION EFFECT PARAMETER 2 Harmony Gender Type	Off(0), Auto(1)	X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		04	1	00-7F	INSERTION EFFECT PARAMETER 3 Lead Gender Type	Off(0), Unison(1), Male(2), Female(3)	X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		05	1	00-7F	INSERTION EFFECT PARAMETER 4 Lead Gender Depth	-64...0...+63(0...127)	X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		06	1	00-7F	INSERTION EFFECT PARAMETER 5 Lead Pitch Correction	Free(0), Correct(1)	X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		07	1	00-7F	INSERTION EFFECT PARAMETER 6 Auto Upper Gender Threshold	0...12(0...12)	X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		08	1	00-7F	INSERTION EFFECT PARAMETER 7 Auto Lower Gender Threshold	0...12(0...12)	X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		09	1	00-7F	INSERTION EFFECT PARAMETER 8 Upper Gender Depth	-64...0...+63(0...127)	X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		0A	1	00-7F	INSERTION EFFECT PARAMETER 9 Lower Gender Depth	-64...0...+63(0...127)	X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		0B	1	00-7F	INSERTION EFFECT PARAMETER 10	L63>H...L=H...L<H63 (1...64...127)	X	O	X	X	X	X	X	X	O (MicSetting)	X	X	O	X
		0C	1	00-7F	INSERTION EFFECT PART NUMBER	AD(64), OFF(0...63, 65...127)	X	O	X	X	X	X	X	X	O (Vocal Harmony Sw)	X	X	O	X
		0D	1	00-7F	MW INSERTION CONTROL DEPTH	-64...0...+63	X	X	X	X	X	X	X	X	X	X	X	X	X
		0E	1	00-7F	BEND INSERTION CONTROL DEPTH	-64...0...+63	X	X	X	X	X	X	X	X	X	X	X	X	X
		0F	1	00-7F	CAT INSERTION CONTROL DEPTH	-64...0...+63	X	X	X	X	X	X	X	X	X	X	X	X	X
		10	1	00-7F	AC1 INSERTION CONTROL DEPTH	-64...0...+63	X	X	X	X	X	X	X	X	X	X	X	X	X
		11	1	00-7F	AC2 INSERTION CONTROL DEPTH	-64...0...+63	X	X	X	X	X	X	X	X	X	X	X	X	X
TOTAL SIZE			12																
		14	1	00-7F	UNIQUE INSERTION EFFECT EXTERNAL CONTROL CH1 (HARMONY CHANNEL)	1...16(0...15), OFF(127)	X	O	X	X	X	X	X	X	O (MicSetting)	X	X	O	X
		15	1	00-7F	UNIQUE INSERTION EFFECT EXTERNAL CONTROL CH1 (MELODY CHANNEL)	1...16(0...15), OFF(127)	X	O	X	X	X	X	X	X	X	X	X	O	X
TOTAL SIZE			2																
		20	1	00-7F	INSERTION EFFECT PARAMETER 11 Vibrate Depth	0...100cent(0...127)	X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		21	1	00-7F	INSERTION EFFECT PARAMETER 12 Vibrate Rate	0Hz(0), 0.1...12.7Hz(1...127)	X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		22	1	00-7F	INSERTION EFFECT PARAMETER 13 Vibrate Delayl	0...2.54sec(0...127)	X	O	X	X	X	X	X	X	O (VH Type Select)	X	X	O	X
		23	1	00-7F	NSERTION EFFECT PARAMETER 14		X	X	X	X	X	X	X	X	X	X	X	X	X
		24	1	00-7F	INSERTION EFFECT PARAMETER 15		X	X	X	X	X	X	X	X	X	X	X	X	X
		25	1	00-7F	INSERTION EFFECT PARAMETER 16		X	X	X	X	X	X	X	X	X	X	X	X	X
TOTAL SIZE			6																

The SPECIAL EFFECT Parameter cannot be reset to its factory setting with XG SYSTEM ON.

MIDI Parameter Change table (MULTI PART)

CVP-203	O
CVP-205	O
CVP-207	O
CVP-209	O

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
								Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
08	nn	00	1	00-20	ELEMENT RESERVE	0...32	part10=00, other parts=02	O	X	X	O	X	X	X	X	X	X	X	O	X
		01	1	00-7F	BANK SELECT MSB	0...127	part10=7F, other parts =00	O	X	O	O	O	X	O	O	X	X	X	O	X
		02	1	00-7F	BANK SELECT LSB	0...127	00	O	X	O	O	O	X	O	O	X	X	X	O	X
		03	1	00-7F	PROGRAM NUMBER	0...127	00	O	X	O	O	O	X	O	O	X	X	X	O	X
		04	1	00-0F,7F	Rcv CHANNEL	1...16, OFF	Part No.	O	X	X	O	X	X	X	X	X	X	X	O	X
		05	1	00-01	MONO/POLY MODE	MONO, POLY	01	O	X	X	O	X	X	X	X	X	X	X	O	X
		06	1	00-02	SAME NOTE NUMBER KEY ON ASSIGN	SINGLE, MULTI, INST (for Drum)	01	O	X	X	O	X	X	O	X	X	X	X	O	X
		07	1	00-03	PART MODE	NORMAL, DRUM, DRUMS1...2	part10=02, other parts=00	O	X	O	O	X	X	X	X	O (Drum Voice)	X	X	O	X
		08	1	00-7F	CHANNEL TRANSPOSE	-24...0...+24[semitones]	40	O	X	O	O	O	X	O	O	X	X	X	O	X
		09 0A	2	00-0F 00-0F	DETUNE	-12.8...0...+12.7[Hz] 1st bit3-0 bit7-4 2nd bit3-0 bit3-0	08 00	O	X	O	O	O	X	O	O	X	X	X	O	X
		0B	1	00-7F	VOLUME	0...127	64	O	X	O	O	O	X	O	O	X	X	X	O	X
		0C	1	00-7F	VELOCITY SENSE DEPTH	0...127	40	O	X	O	O	O	X	X	O	O (Sound Creator)	O	X	O	X
		0D	1	00-7F	VELOCITY SENSE OFFSET	0...127	40	O	X	O	O	O	X	X	O	O (Sound Creator)	O	X	O	X
		0E	1	00-7F	PAN	RND, L63...C...R63	40	O	X	O	O	O	X	O	O	X	X	X	O	X
		0F	1	00-7F	NOTE LIMIT LOW	C-2...G8	00	O	X	X	O	X	X	X	X	X	X	X	O	X
		10	1	00-7F	NOTE LIMIT HIGH	C-2...G8	7F	O	X	X	O	X	X	X	X	X	X	X	O	X
		11	1	00-7F	DRY LEVEL	0...127	7F	O	X	X	O	O	X	O	O	O (Sound Creator)	O	X	O	X
		12	1	00-7F	CHORUS SEND	0...127	00	O	X	O	O	O	X	O	O	X	X	X	O	X
		13	1	00-7F	REVERB SEND	0...127	28	O	X	O	O	O	X	O	O	X	X	X	O	X
		14	1	00-7F	VARIATION SEN	0...127	00	O	X	X	O	O	X	O	O	X	X	X	O	X
		15	1	00-7F	DVIBRATO RATE	-64...0...+63	40	O	X	X	O	O	X	O	O	X	X	X	O	X
		16	1	00-7F	VIBRATO DEPTH	-64...0...+63	40	O	X	X	O	O	X	O	O	X	X	X	O	X
		17	1	00-7F	VIBRATO DELAY	-64...0...+63	40	O	X	X	O	O	X	O	O	X	X	X	O	X
		18	1	00-7F	FILTER CUTOFF FREQUENCY	-64...0...+63	40	O	X	X	O	O	X	O	O	X	X	X	O	X
		19	1	00-7F	FILTER RESONANCE	-64...0...+63	40	O	X	X	O	O	X	O	O	X	X	X	O	X
		1A	1	00-7F	EG ATTACK TIME	-64...0...+63	40	O	X	X	O	O	X	O	O	X	X	X	O	X
		1B	1	00-7F	EG DECAY TIME	-64...0...+63	40	O	X	X	O	O	X	O	O	X	X	X	O	X
		1C	1	00-7F	EG RELEASE TIME	-64...0...+63	40	O	X	X	O	O	X	O	O	X	X	X	O	X
		1D	1	28-58	MW PITCH CONTROL	-24...0...+24[semitones]	40	O	X	X	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	X	X	O	O	X	O	O	X	X	X	O	X
		1F	1	00-7F	MW AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	X	O	O	X	O	O	X	X	X	O	X
		20	1	00-7F	MW LFO PMOD DEPTH	0...127	0A	O	X	X	O	O	X	O	O	X	X	X	O	X
		21	1	00-7F	MW LFO FMOD DEPTH	0...127	00	O	X	X	O	O	X	O	O	X	X	X	O	X
		22	1	00-7F	MW LFO AMOD DEPTH	0...127	00	O	X	X	O	O	X	O	O	X	X	X	O	X
		23	1	28-58	BEND PITCH CONTROL	-24...0...+24[semitones]	42	O	X	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	X	X	O	O	X	O	O	X	X	X	O	X
		25	1	00-7F	BEND AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	X	O	O	X	O	O	X	X	X	O	X
		26	1	00-7F	BEND LFO PMOD DEPTH	0...127	00	O	X	X	O	O	X	O	O	X	X	X	O	X
		27	1	00-7F	BEND LFO FMOD DEPTH	0...127	00	O	X	X	O	O	X	O	O	X	X	X	O	X
		28	1	00-7F	BEND LFO AMOD DEPTH	0...127	00	O	X	X	O	O	X	O	O	X	X	X	O	X
TOTAL SIZE			29																	
		30	1	00-01	Rcv PITCH BEND	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		31	1	00-01	Rcv CH AFTER TOUCH (CAT)	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		32	1	00-01	Rcv PROGRAM CHANGE	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		33	1	00-01	Rcv CONTROL CHANGE	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		34	1	00-01	Rcv POLY AFTER TOUCH (PAT)	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		35	1	00-01	Rcv NOTE MESSAGE	OFF, ON	01	O	X	O	O	X	X	X	X	X	X	O	X	X
		36	1	00-01	Rcv RPN	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		37	1	00-01	Rcv NRPN	OFF, ON	XG mode=01, GM mode=00	X	X	X	X	X	X	X	X	X	X	X	X	X
		38	1	00-01	Rcv MODULATION	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		39	1	00-01	Rcv VOLUME	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		3A	1	00-01	Rcv PAN	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		3B	1	00-01	Rcv EXPRESSION	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		3C	1	00-01	Rcv HOLD1	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		3D	1	00-01	Rcv PORTAMENTO	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		3E	1	00-01	Rcv SOSTENUTO	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		3F	1	00-01	Rcv SOFT PEDAL	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		40	1	00-01	Rcv BANK SELECT	OFF, ON	01	X	X	X	X	X	X	X	X	X	X	X	X	X
		41	1	00-7F	SCALE TUNING C	-63...0...+63[cent]	40	O	X	O	O	O	X	O	O	O (Function)	X	X	O	X
		42	1	00-7F	SCALE TUNING C#	-63...0...+63[cent]	40	O	X	O	O	O	X	O	O	O (Function)	X	X	O	X
		43	1	00-7F	SCALE TUNING D	-63...0...+63[cent]	40	O	X	O	O	O	X	O	O	O (Function)	X	X	O	X
		44	1	00-7F	SCALE TUNING D#	-63...0...+63[cent]	40	O	X	O	O	O	X	O	O	O (Function)	X	X	O	X
		45	1	00-7F	SCALE TUNING E	-63...0...+63[cent]	40	O	X	O	O	O	X	O	O	O (Function)	X	X	O	X
		46	1	00-7F	SCALE TUNING F	-63...0...+63[cent]	40	O	X	O	O	O	X	O	O	O (Function)	X	X	O	X
		47	1	00-7F	SCALE TUNING F#	-63...0...+63[cent]	40	O	X	O	O	O	X	O	O	O (Function)	X	X	O	X
		48	1	00-7F	SCALE TUNING G	-63...0...+63[cent]	40	O	X	O	O	O	X	O	O	O (Function)	X	X	O	X
		49	1	00-7F	SCALE TUNING G#	-63...0...+63[cent]	40	O	X	O	O	O	X	O	O	O (Function)	X	X	O	X
		4A	1	00-7F	SCALE TUNING A	-63...0...+63[cent]	40	O	X	O	O	O	X	O	O	O (Function)	X	X	O	X
		4B	1	00-7F	SCALE TUNING A#	-63...0...+63[cent]	40	O	X	O	O	O	X	O	O	O (Function)	X	X	O	X
		4C	1	00-7F	SCALE TUNING B	-63...0...+63[cent]	40	O	X	O	O	O	X	O	O	O (Function)	X	X	O	X
		4D	1	28-58	CAT PITCH CONTROL	-24...0...+24[semitones]	40	O	X	X	O	O	X	X	O	X	X	X	O	X
		4E	1	00-7F	CAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	X	X	O	O	X	X	O	X	X	X	O	X
		4F	1	00-7F	CAT AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	X	O	O	X	X	O	X	O	X	O	X
		50	1	00-7F	CAT LFO PMOD DEPTH	0...127	00	O	X	X	O	O	X	X	O	X	O	X	O	X
		51	1	00-7F	CAT LFO FMOD DEPTH	0...127	00	O	X	X	O	O	X	X	O	X	X	X	O	X

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
								Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
		52	1	00-7F	CAT LFO AMOD DEPTH	0...127	00	O	X	X	O	O	X	X	O	X	X	X	O	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	X
		54	1 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	X
		55	1	00-7F	PAT AMPLITUDE CONTROL	-100...0...+100[%]	40	X	X	X	X	X	X	X	X	X	X	X	X	X
		56	1	00-7F	PAT LFO PMOD DEPTH	0...127	00	X	X	X	X	X	X	X	X	X	X	X	X	X
		57	1	00-7F	PAT LFO FMOD DEPTH	0...127	00	X	X	X	X	X	X	X	X	X	X	X	X	X
		58	1	00-7F	PAT LFO AMOD DEPTH	0...127	00	X	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	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	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	X
		5C	1	00-7F	AC1 AMPLITUDE CONTROL	-100...0...+100[%]	40	X	X	X	X	X	X	X	X	X	X	X	X	X
		5D	1	00-7F	AC1 LFO PMOD DEPTH	0...127	00	X	X	X	X	X	X	X	X	X	X	X	X	X
		5E	1	00-7F	AC1 LFO FMOD DEPTH	0...127	00	X	X	X	X	X	X	X	X	X	X	X	X	X
		5F	1	00-7F	AC1 LFO AMOD DEPTH	0...127	00	X	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	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	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	X
		63	1	00-7F	AC2 AMPLITUDE CONTROL	-100...0...+100[%]	40	X	X	X	X	X	X	X	X	X	X	X	X	X
		64	1	00-7F	AC2 LFO PMOD DEPTH	0...127	00	X	X	X	X	X	X	X	X	X	X	X	X	X
		65	1	00-7F	AC2 LFO FMOD DEPTH	0...127	00	X	X	X	X	X	X	X	X	X	X	X	X	X
		66	1	00-7F	AC2 LFO AMOD DEPTH	0...127	00	X	X	X	X	X	X	X	X	X	X	X	X	X
		67	1	00-01	PORTAMENTO SWITCH	OFF, ON	00	O	X	X	O	O	X	X	O	X	X	X	O	X
		68	1	00-7F	PORTAMENTO TIME	0...127	00	O	X	X	O	O	X	X	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	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	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	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	X
		6D	1	01-7F	VELOCITY LIMIT LOW	1...127	01	X	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	X
TOTAL SIZE				3F																
		70	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-
		71	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-
		72	1	00-7F	EQ BASS GAIN	-12dB...+12dB	40	O (*2)	X	X	O (*2)	O (*2)	X	O (*2)	O (*2)	O (Mixing Console) (*2)	O	O	O	X
		73	1	00-7F	EQ TREBLE GAIN	-12dB...+12dB	40	O (*2)	X	X	O (*2)	O (*2)	X	O (*2)	O (*2)	O (Mixing Console) (*2)	O	O	O	X
TOTAL SIZE				04																
		74	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-
		75	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-
		76	1	04-28	EQ BASS FREQUENCY	32...2.0k[Hz]	0C	O (*2)	X	X	O (*2)	O (*2)	X	X	O (*2)	O (Sound Creator) (*2)	O	X	O	X
		77	1	1C-3A	EQ TREBLE FREQUENCY	500...16.0k[Hz]	36	O (*2)	X	X	O (*2)	O (*2)	X	X	O (*2)	O (Sound Creator) (*2)	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)

*2 On CVP-203/205, the following parameters are not accepted, or are not transmitted by the Panel operations.
- EQ BASS GAIN
- EQ TREBLE GAIN
- EQ BASS FREQUENCY
- EQ TREBLE FREQUENCY

MIDI Parameter Change table (A/D PART)

CVP-203	X
CVP-205	O
CVP-207	O
CVP-209	O

Address (H)			Size (H)	Data (H)	Parameter	Description	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
							Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
10	00	00	1	00-01	INPUT GAIN	MIC, LINE	X	X	X	X	X	X	X	X	X	X	X	X	X
		01	1	00-7F	BANK SELECT MSB	0...127	X	X	X	X	X	X	X	X	X	X	X	X	X
		02	1	00-7F	BANK SELECT LSB	0...127	X	X	X	X	X	X	X	X	X	X	X	X	X
		03	1	00-7F	PROGRAM NUMBER	0...127	X	X	X	X	X	X	X	X	X	X	X	X	X
		04	1	00-1F,7F	Rcv CHANNEL	1...16,OFF	X	O	X	X	X	X	X	X	X	X	X	O	X
		05	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		06	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		07	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		08	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		09	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		0A	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		0B	1	00-7F	VOLUME	0...127	X	O	X	X	X	X	X	X	O (Mixing Console)	X	X	O	X
		0C	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		0D	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		0E	1	01-7F	PAN	L63...C...R63	X	O	X	X	X	X	X	X	O (Mixing Console)	X	X	O	X
		0F	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		10	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		11	1	00-7F	DRY LEVEL		X	O	X	X	X	X	X	X	O (Mixing Console) (CVP-205 only)	X	X	O	X
		12	1	00-7F	CHORUS SEND		X	O	X	X	X	X	X	X	O (Mixing Console)	X	X	O	X
		13	1	00-7F	REVERB SEND		X	O	X	X	X	X	X	X	O (Mixing Console)	X	X	O	X
		14	1	00-7F	VARIATION SEND		X	O	X	X	X	X	X	X	O (Mixing Console) (CVP-205 only)	X	X	O	X

TOTAL SIZE 15

10	0n	30	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		31	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		32	1	00-01	Rcv PROGRAM CHANGE	OFF, ON	X	X	X	X	X	X	X	X	X	X	X	X	X
		33	1	00-01	Rcv CONTROL CHANGE	OFF, ON	X	X	X	X	X	X	X	X	X	X	X	X	X
		34	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		35	1	00-01	MUTE	ON, OFF	X	X	X	X	X	X	X	X	X	X	X	X	X
		36	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		37	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		38	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		39	1	00-01	Rcv VOLUME	OFF, ON	X	X	X	X	X	X	X	X	X	X	X	X	X
		3A	1	00-01	Rcv PAN	OFF, ON	X	X	X	X	X	X	X	X	X	X	X	X	X
		3B	1	00-01	Rcv EXPRESSION	OFF, ON	X	X	X	X	X	X	X	X	X	X	X	X	X
		3C	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		3D	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		3E	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		3F	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		40	1	00-01	Rcv BANK SELECT	OFF, ON	X	X	X	X	X	X	X	X	X	X	X	X	X
		41	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		42	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		43	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		44	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		45	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		46	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		47	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		48	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		49	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		4A	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		4B	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		4C	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		4D	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		4E	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		4F	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		50	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		51	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		52	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		53	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		54	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		55	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		56	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		57	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		58	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		59	1	00-5F	AC1 CONTROLLER NUMBER	0...95	X	X	X	X	X	X	X	X	X	X	X	X	X
		5A	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		5B	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		5C	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		5D	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		5E	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		5F	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-
		60	1	00-5F	AC2 CONTROLLER NUMBER	0...95	X	X	X	X	X	X	X	X	X	X	X	X	X

TOTAL SIZE 31

The A/D PART Parameter cannot be reset to its factory setting with XG SYSTEM ON.

MIDI Parameter Change table (DRUM SETUP)

CVP-203	O
CVP-205	O
CVP-207	O
CVP-209	O

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Transmission (generated data)				
								Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra	Panel (main generation method)	M.Pad	Style	Song	MIDI
10	rr	00	1	00-7F	PITCH COARSE	-64...0...+63	40	O (Drum only)	X	X	O	X	X	X	X	X	X	O	O	X
		01	1	00-7F	PITCH FINE	-64...0...+63[cent]	40	O (Drum only)	X	X	O	X	X	X	X	X	X	O	O	X
		02	1	00-7F	LEVEL	0...127	Depends on the note	O (Drum only)	X	X	O	X	X	X	X	X	X	O	O	X
		03	1	00-7F	ALTERNATE GROUP	OFF, 1...127	Depends on the note	O (Drum only)	X	X	O	X	X	X	X	X	X	X	O	X
		04	1	00-7F	PAN	RND, L63...C...R63	Depends on the note	O (Drum only)	X	X	O	X	X	X	X	X	X	O	O	X
		05	1	00-7F	REVERB SEND	0...127	Depends on the note	O (Drum only)	X	X	O	X	X	X	X	X	X	O	O	X
		06	1	00-7F	CHORUS SEND	0...127	Depends on the note	O (Drum only)	X	X	O	X	X	X	X	X	X	O	O	X
		07	1	00-7F	VARIATION SEN	0...127	7F	O (Drum only)	X	X	O	X	X	X	X	X	X	O	O	X
		08	1	00-01	DKEY ASSIGN	SINGLE, MULTI	00	O (Drum only)	X	X	O	X	X	X	X	X	X	X	O	X
		09	1	00-01	Rcv NOTE OFF	OFF, ON	Depends on the note	O (Drum only)	X	X	O	X	X	X	X	X	X	X	O	X
		0A	1	00-01	Rcv NOTE ON	OFF, ON	01	O (Drum only)	X	X	O	X	X	X	X	X	X	X	O	X
		0B	1	00-7F	LOW PASS FILTER CUTOFF FREQUENCY	-64...0...+63	40	O (Drum only)	X	X	O	X	X	X	X	X	X	O	O	X
		0C	1	00-7F	LOW PASS FILTER RESONANCE	-64...0...+63	40	O (Drum only)	X	X	O	X	X	X	X	X	X	O	O	X
		0D	1	00-7F	EG ATTACK RATE	-64...0...+63	40	O (Drum only)	X	X	O	X	X	X	X	X	X	O	O	X
		0E	1	00-7F	EG DECAY1 RATE	-64...0...+63	40	O (Drum only)	X	X	O	X	X	X	X	X	X	O	O	X
		0F	1	00-7F	EG DECAY2 RATE	-64...0...+63	40	O (Drum only)	X	X	O	X	X	X	X	X	X	O	O	X
TOTAL SIZE			10																	

		20	1	00-7F	EQ BASS GAIN	-12...+12[dB]	40	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
		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
		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
		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

O: available

MIDI Event	Data Format	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Reception (affecting the panel)	MIDI Transmission (generated data)				
		Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra		Panel (main generation method)	M.Pad	Style	Song	MIDI
Section Control	F0 43 7E 00 ss dd F7 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 0ddddddd 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	F0 43 7E 01 t4 t3 t2 t1 F7 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	F0 43 7E tt d1 d2 d3 d4 F7 Type 1 (tt=2) 11110000 F0= Exclusive status 01000011 43= YAMAHA ID 01111110 7E= Style 00000010 02= type 1 0ddddddd d1= chord root(cr) 0ddddddd d2= chord type(ct) 0ddddddd d3= bass note(bn) 0ddddddd 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) 00100000 20 32 sus4 00001111 0F 15 minMaj7 00100001 21 33 1+2+5 00010000 10 16 minMaj7(9) 00100010 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 0ddddddd dd= note1 0ddddddd dd= note2 0ddddddd dd= note3 : : 0ddddddd 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/Part			MIDI Reception (effective or not for each part)					MIDI Reception (affecting the panel)	MIDI Transmission (generated data)				
		Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra		Panel (main generation method)	M.Pad	Style	Song	MIDI
Master Volume	F0 7F 7F 04 01 ll mm F7 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 0lllllll ll= Volume LSB 0mmmmmmm 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 0xxxnnnn 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 0lllllll ll= Volume LSB 0mmmmmmm mm= Volume MSB 11110111 F7= End of Exclusive	O	-	O	O	x	X	X	X	X	X	X	X	X (Output as XG Master Volume)	X

System Exclusive Messages (Universal Non Realtime messages)

MIDI Event	Data Format	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Reception (affecting the panel)	MIDI Transmission (generated data)				
		Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra		Panel (main generation method)	M.Pad	Style	Song	MIDI
General MIDI System On	F0 7E 7F 09 01 F7 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 0xxxnnnn 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	O	-	O	O	x	X	X	O	O (Mixing Console)	X	X	X	O	X

System Exclusive Messages (XG)

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

System Exclusive Messages (Clavinova compliance)

```
11110000  F0= Exclusive status
01000011  43= YAMAHA ID
01110011  73= Clavinova ID
    :              :
11110111  F7= End of Exclusive
```

MIDI Event	Data Format	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Reception (affecting the panel)	MIDI Transmission (generated data)				
		Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra		Panel (main generation method)	M.Pad	Style	Song	MIDI
Internal Clock	F0 43 73 01 02 F7 00000001 01= Model ID (Clavinova common ID) 00000010 02= Internal Clock Substatus	-	-	-	X	X	X	X	X	O (Function)	X	X	X	X	X
External Clock	F0 43 73 01 03 F7 00000001 01= Model ID (Clavinova common ID) 00000011 03= External Clock Substatus	-	-	-	X	X	X	X	X	O (Function)	X	X	X	X	X
Organ Flutes data Bulk Dump	F0 43 73 01 06 0B 00 00 01 06 0n [Bulk Data] sum F7 01H Model ID (Clavinova common ID) 06H Bulk ID 0BH Bulk No. (Organ Flutes data Bulk Dump) 00H, 00H, 01H, 06H Data Length :16bytes 1st Channel No. 0nH 2nd Footage [1'] 00 - mmH mm : maximum 3rd [1 1/3'] 00 - mmH 5th [2'] 00 - mmH 6th [2 2/3'] 00 - mmH 7th [4'] 00 - mmH 8th [5 1/3'] 00 - mmH 9th [8'] 00 - mmH 10th [16'] 00 - mmH 11th [Attack 2'] 00 - mmH 12th [Attack 2 2/3'] 00 - mmH 13th [Attack 4'] 00 - mmH 14th Settings [Attack Length] 00 - mmH 15th [Response] 00 - mmH 16th [Attack Mode] 00 - 01H 00H: Each, 01H: First 17th [Wave Variation] 00 - 01H 00H: Sine, 01H: Tone Wheel 18th [Volume] 01 - vvH vv: maximum 19th [aux] 00H 20th [aux] 00H 21th [aux] 00H 22th [aux] 00H sum Check Sum = 0-sum(BULK DATA) CVP-203 X - - CVP-205 X - - CVP-207 O mm=7 vv=8 CVP-209 O mm=8 vv=9	O (Organ Flute)	X	X	O	O	X	X	O	O (Sound Creator)	O (Sound Creator)	X	X	O	X
Natural Voice Reverb Type	F0 43 73 01 31 0n 00 dd F7 00000001 01= Model ID (Clavinova common ID) 00110001 31= Natural Voice Exclusive data 0000nnnn 0n= Channel No. (Always 00) 00000000 00= Natural Voice Reverb Type Substatus 0ddddddd dd= data (0:Room, 1:Hall1, 2:Hall2, 3:Stage, 4:Plate) CVP-203 O CVP-205 O CVP-207 O CVP-209 O	X	X	O	O					O (Sound Creator)	O (Sound Creator)	X	O	O	X
Natural Voice Chorus Type	F0 43 73 01 31 0n 01 dd F7 00000001 01= Model ID (Clavinova common ID) 00110001 31= Natural Voice Exclusive data 0000nnnn 0n= Channel No. (Always 00) 00000001 01= Natural Voice Chorus Type Substatus 0ddddddd dd= data (0:Chorus,1:Celeste, 2:Flanger) CVP-203 O CVP-205 O CVP-207 O CVP-209 O	X	X	O	O					O (Sound Creator)	O (Sound Creator)	X	O	O	X
Natural Voice Variation Type	F0 43 73 01 31 0n 02 dd F7 00000001 01= Model ID (Clavinova common ID) 00110001 31= Natural Voice Exclusive data 0000nnnn 0n= Channel No. (Always 00) 00000010 00= Natural Voice Variation Type Substatus 0ddddddd dd= data (00H:DelayLCR, 01H:DelayLR, 02H:Echo, 03H:CrossDelay, 04H:Symphonic, 05H:RotarySpeaker, 06H:Tremolo, 07H:VibeRotor, 08H:AutoPan, 09H:Phaser, 0AH:AutoWah, 0BH:SoundBoardRev, 0CH:Off) CVP-203 O CVP-205 O CVP-207 O CVP-209 O	X	X	O	O					O (Sound Creator)	O (Sound Creator)	X	O	O	X
Natural Voice Vibe Rotor Control	F0 43 73 01 31 0n 08 dd F7 00000001 01= Model ID (Clavinova common ID) 00110001 31= Natural Voice Exclusive data 0000nnnn 0n= Channel No. (Always 00) 00001000 08= Natural Voice Vibe Rotor Control Substatus 0ddddddd dd= data (00H:Off, 7FH:On) CVP-203 O CVP-205 O CVP-207 O CVP-209 O	X	X	O (If the Type is set to Vibe Rotor)	O					O (Sound Creator)	O (Sound Creator)	X	X	O	X

MIDI Event	Data Format	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Reception (affecting the panel)	MIDI Transmission (generated data)				
		Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra		Panel (main generation method)	M.Pad	Style	Song	MIDI
Natural Voice Variation Send Level	F0 43 73 01 50 11 0n 00 dd F7 00000001 01= Model ID (Clavinova common ID) 01010000 50= Common Model data 00010001 11= Song Track related 0000nnnn 0n= Channel No. 00000000 00= Natural Voice Variation Send Level Substatus 0ddddddd dd= data (00H~7FH) CVP-203 O CVP-205 O CVP-207 O CVP-209 O	X	X	O	O	O	X	O	O	O (Mixing Console)	O (Mixing Console)	X	O	O	X
Natural Voice Dry Level	F0 43 73 01 50 11 0n 01 dd F7 00000001 01= Model ID (Clavinova common ID) 01010000 50= Common Model data 00010001 11= Song Track related 0000nnnn 0n= Channel No. 00000001 01= Natural Voice Dry Level Substatus 0ddddddd dd= data (00H~7FH) CVP-203 O CVP-205 O CVP-207 O CVP-209 O	X	X	O	O	O	X	O	O	O (Mixing Console)	O (Mixing Console)	X	O	O	X

System Exclusive Messages Special Operators

MIDI Event	Data Format	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Reception (affecting the panel)	MIDI Transmission (generated data)				
		Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra		Panel (main generation method)	M.Pad	Style	Song	MIDI
Volume & Expression & Pan Realtime control off (Voice Reserve)	F0 43 73 01 11 0n 45 dd F7 11110000 F0= Exclusive status 01000011 43= YAMAHA ID 01110011 73= Clavinova ID 00000001 01= Model ID (Clavinova common ID) 00010001 11= Special Operators 0000nnnn 0n= Channel No. 01000101 45= Volume & Expression Control No. Substatus 0ddddddd dd= data (00H : Realtime On, 7FH : Realtime Off) 11110111 F7= End of Exclusive	O	-	O	O	X	X	X	X	X	X	X	X	O	X
MIDI Key LED Mode On Off	F0 43 73 01 11 0n 47 dd F7 11110000 F0= Exclusive status 01000011 43= YAMAHA ID 01110011 73= Clavinova ID 00000001 01= Model ID (Clavinova common ID) 00010001 11= Special Operators 0000nnnn 0n= Channel No. 01000111 47= MIDI Key LED Mode On Off Substatus 0ddddddd dd= data 00H : Key LED Mode Off 01H : Key LED Mode On+no notes sound 02H : Key LED Mode On+notes sound 11110111 F7= End of Exclusive When Key LED Mode is set to On, key note on messages via designated channnel turns the LED on/off. 9n, note, Vel=0 : off 9n, note, Vel=1 : flush 9n, note, Vel=2~: on When selecting whether notes sound or not, you should turn off the Key LED Mode once. CVP-203 O CVP-205 O CVP-207 O CVP-209 O	-	-	-	-	-	-	-	-	O (Keyboard LED lights when receiving the note messages)	X	X	X	X	X

System Exclusive Messages Special Operators (Vocal Harmony Additional Parameters)

MIDI Event	Data Format	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Reception (affecting the panel)	MIDI Transmission (generated data)				
		Regular/ Organ Voice	Mic/Vocal Harmony	Natural Voice	Song	Main Layer Left	Keyboard	Style	Extra		Panel (main generation method)	M.Pad	Style	Song	MIDI
Vocal Harmony Pitch to Note ON/OFF	F0 43 73 01 11 0n 50 00 ss F7 11110000 F0= Exclusive status 01000011 43= YAMAHA ID 01110011 73= Clavinova ID 00000001 01= Model ID (Clavinova common ID) 00010001 11= Special Operators 0000nnnn 0n= Channel No. (Always 00) 01010000 50= Vocal Harmony Additional Parameter Control No. 00000000 00= Pitch to Note Parameter No. 0ddddddd dd= data (00H : Off, 01H : On) 11110111 F7= End of Exclusive CVP-203 X CVP-205 X CVP-207 O CVP-209 O	X	O	X	X	X	X	X	X	O (Vocal Harmony Edit)	O (Vocal Harmony Edit)	X	X	O	X
Vocal Harmony Pitch to Note Part	F0 43 73 01 11 00 50 01 ss F7 11110000 F0= Exclusive status 01000011 43= YAMAHA ID 01110011 73= Clavinova ID 00000001 01= Model ID (Clavinova common ID) 00010001 11= Special Operators 0000nnnn 0n= Channel No. (Always 00) 01010000 50= Vocal Harmony Additional Parameter Control No. 00000001 01= Pitch to Note Part Parameter No. 0ddddddd dd= data 00H : Main 01H : Layer 02H : Left 04H : Upper 11110111 F7= End of Exclusive CVP-203 X CVP-205 X CVP-207 O CVP-209 O	X	O	X	X	X	X	X	X	O (Vocal Harmony Edit)	O (Vocal Harmony Edit)	X	X	O	X
Vocal Harmony Vocoder Part (Harmony Part (Panel))	0 43 73 01 11 00 50 10 ss F7 11110000 F0= Exclusive status 01000011 43= YAMAHA ID 01110011 73= Clavinova ID 00000001 01= Model ID (Clavinova common ID) 00010001 11= Special Operators 0000nnnn 0n= Channel No. (Always 00) 01010000 50= Vocal Harmony Additional Parameter Control No. 00010000 10= Vocoder Part Parameter No. 0ddddddd dd= data 00H : Off 01H : Upper 02H : Lower 11110111 F7= End of Exclusive CVP-203 X CVP-205 X CVP-207 O CVP-209 O	X	O	X	X	X	X	X	X	O (Mic Setting)	O (Mic Setting)	X	X	O	X

System Exclusive Messages (Others)

MIDI Event	Data Format	Corresponding Voice/Part			MIDI Reception (effective or not for each part)					MIDI Reception (affecting the panel)	MIDI Transmission (generated data)				
		Regular/ Organ Voice	Mic/Vocal Harmony	Natural 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 0000llll 0l= Master Tune LSB 0ccccccc cc= don't care 11110111 F7= End of Exclusive	O	X	O	O					O (Function)	X	X	X	X	X

Clavinova®

CVP-209/CVP-207

PARTS LIST

CONTENTS

OVERALL ASSEMBLY (CVP-209) ····· 2
OVERALL ASSEMBLY (CVP-207) ····· 4
MAIN UNIT (CVP-209) ····· 6
MAIN UNIT (CVP-207) ····· 10
PANEL ASSEMBLY ····· 14
GL CASE ASSEMBLY ····· 18
MUSIC REST ASSEMBLY ····· 19
TOP BOARD ASSEMBLY ····· 20
KEY COVER ASSEMBLY ····· 21
SIDE COVER ASSEMBLY ····· 22
FDD UNIT ····· 24
JACK ASSEMBLY ····· 25
MIC. & PHONES UNIT ····· 26
SPEAKER BOX ASSEMBLY ····· 27
KEYBOARD ASSEMBLY ····· 28
FRONT LEG ASSEMBLY ····· 30
REAR LEG ASSEMBLY ····· 31
PEDAL BOX ASSEMBLY ····· 32
PEDAL ASSEMBLY ····· 33
MA120B ASSEMBLY ····· 34
FU120LB ASSEMBLY ····· 35
BENCH (BC-200PE/BC-200DR) ····· 36
BENCH (BC-120DR) ····· 37
BENCH (BC-100DR) ····· 38
ELECTRICAL PARTS ····· 39~55

Notes: DESTINATION ABBREVIATIONS

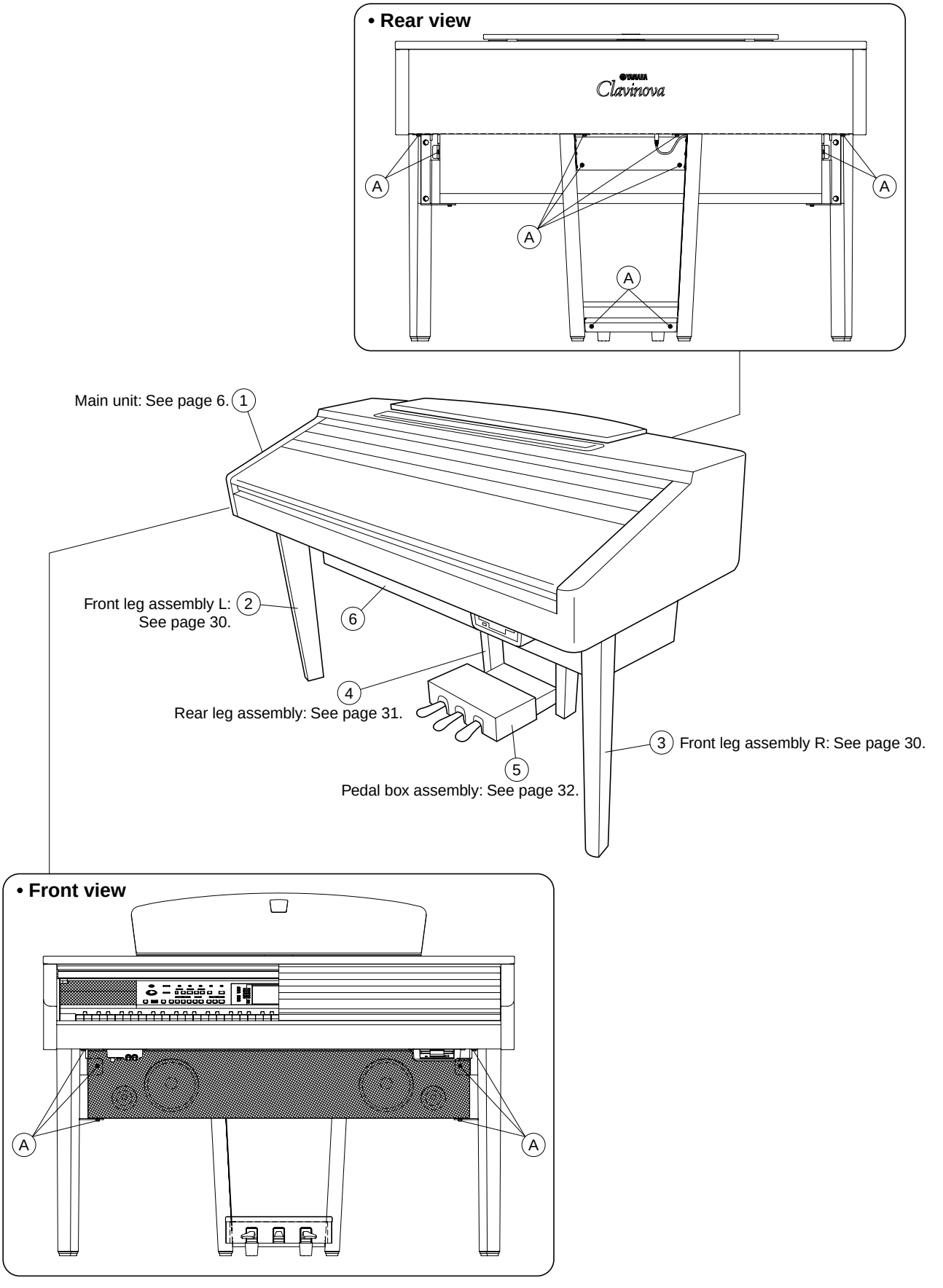
A:	Australian model	M:	South African model
B:	British model	O:	Chinese model
C:	Canadian model	Q:	South-east Asia model
D:	German model	T:	Taiwan model
E:	European model	U:	U.S.A. model
F:	French model	V:	General export model (110 V)
H:	North European model	W:	General export model (220 V)
I:	Indonesian 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 (CVP-209)

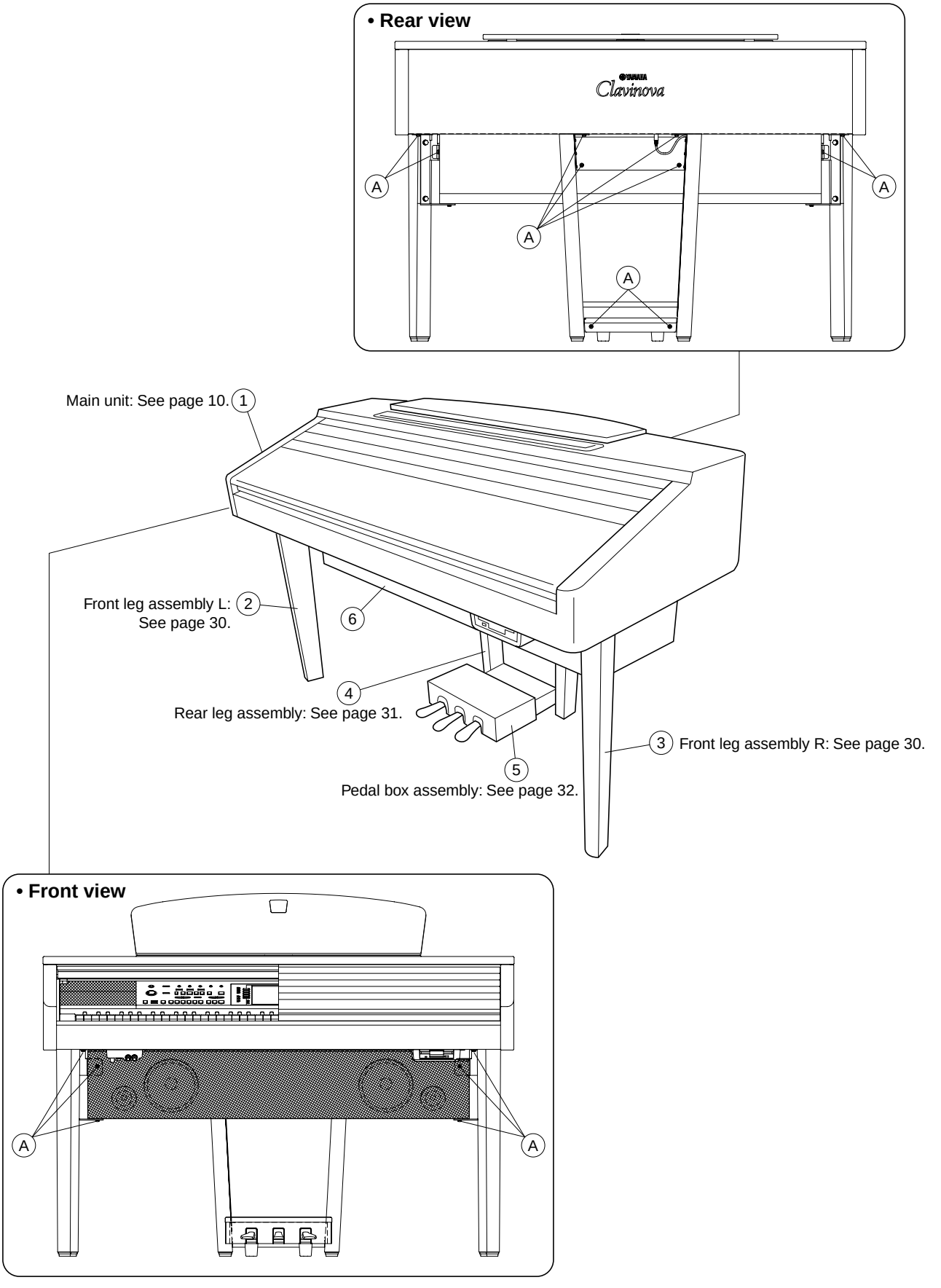


	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			OVERALL ASSEMBLY			CVP-209			
	1	- -	Main Unit			J	(V705940)		
	1	- -	Main Unit			U	(V705950)		
	1	- -	Main Unit			B,E	(V705960)		
	1	- -	Main Unit			N	(V705970)		
*	2	**V7059900**	Front Leg Assembly L	LEFT					
*	3	**V7060000**	Front Leg Assembly R	RIGHT					
*	4	**V7060100**	Rear Leg Assembly						
	5	- -	Pedal Box Assembly				(V706030)		
*	6	**V7061600**	Speaker Grille						
			ACCESSORIES						
⚠		**VT015700**	AC Cord Set	J 2P 2.5m 7A		J			05
⚠		**VT015800**	AC Cord Set	U 2P 2.44m 7A		U			06
⚠		**VT015900**	AC Cord Set	E 2P 2.5m		E,N			05
⚠		**VT016000**	AC Cord Set	B 2P 2.5m		B			08
		- -	Bench	BC-200PE		J,U,N	(V756440)		
		V5771000	Headphone	059711		J			07
		V2384100	Floppy Disk	3.50inch 2000K					03
*		**XZ857A00**	Floppy Disk	PIANO 50PIECE J		J			
*		**X0173A00**	Floppy Disk	PIANO 50PIECE U/E		U,B,E,N			03
*		**X0206A00**	Floppy Disk	MUSIC FINDER FD		J			03
*		**V7060600**	Screw Set						
⚠		**VK726100**	Connector	CCT5902		N			03
*		**V7060600**	Screw Set						
*	A	**V8694700**	Bind Head Screw	SP 5.0X18 MFZN2BL				18	01
			JIGS						
		TX000670	Rod						

*: New Parts

RANK: Japan only

■ OVERALL ASSEMBLY (CVP-207)



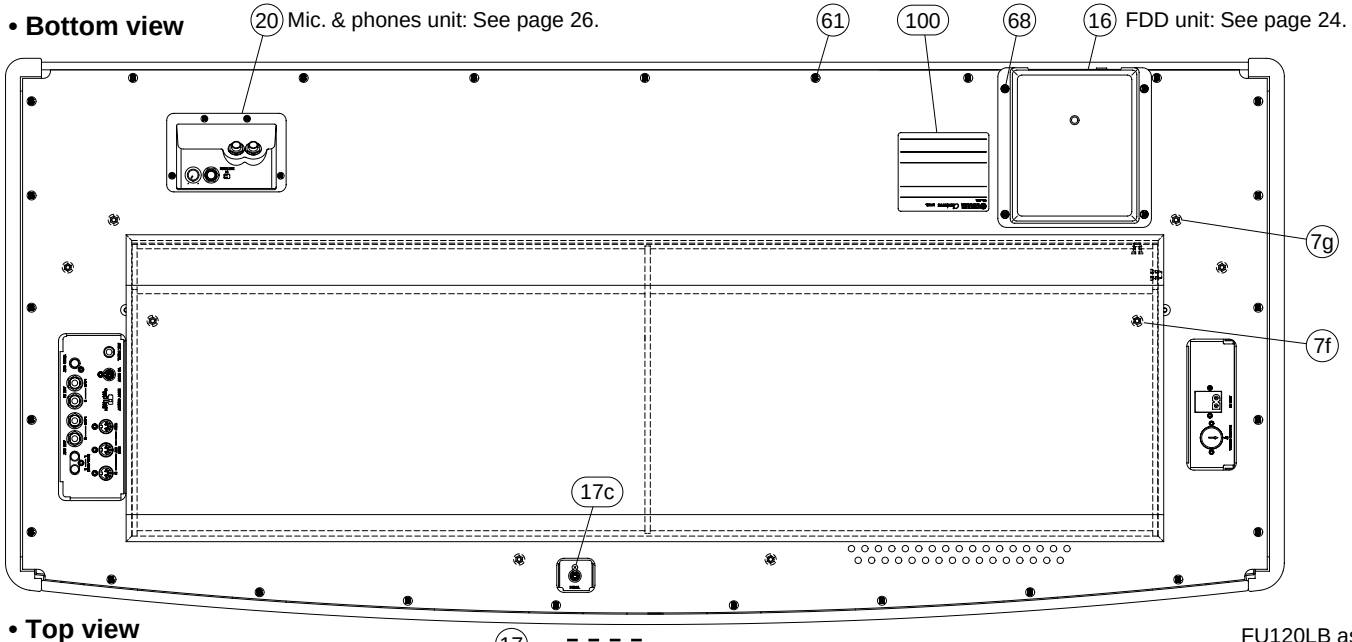
	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			OVERALL ASSEMBLY			CVP-207			
	1	- -	Main Unit			J	(V715900)		
	1	- -	Main Unit			U	(V715910)		
	1	- -	Main Unit			B,E	(V715920)		
	1	- -	Main Unit			N	(V715930)		
*	2	**V7165100**	Front Leg Assembly L	LEFT					
*	3	**V7165200**	Front Leg Assembly R	RIGHT					
*	4	**V7165300**	Rear Leg Assembly						
	5	- -	Pedal Box Assembly				(V716550)		
*	6	**V7061600**	Speaker Grille						
			ACCESSORIES						
⚠		**VT015700**	AC Cord Set	J 2P 2.5m 7A		J			05
⚠		**VT015800**	AC Cord Set	U 2P 2.44m 7A		U			06
⚠		**VT015900**	AC Cord Set	E 2P 2.5m		E,N			05
⚠		**VT016000**	AC Cord Set	B 2P 2.5m		B			08
		- -	Bench	BC-200DR		J	(V756420)		
		- -	Bench	BC-102DR		U	(V756390)		
		- -	Bench	BC-100DR		N	(V553140)		
		V5771000	Headphone	059711		J			07
		V2384100	Floppy Disk	3.50inch 2000K					03
*		**XZ857A00**	Floppy Disk	PIANO 50PIECE J		J			
*		**X0173A00**	Floppy Disk	PIANO 50PIECE U/E		U,B,E,N			03
*		**X0206A00**	Floppy Disk	MUSIC FINDER FD		J			03
*		**V7060600**	Screw Set						
⚠		**VK726100**	Connector	CCT5902		N			03
*		**V7060600**	Screw Set						
	A	**VU688000**	Bind Head Screw	SP 5.0X16 MFZN2BL				18	01
			JIGS						
		TX000670	Rod						

*: New Parts

RANK: Japan only

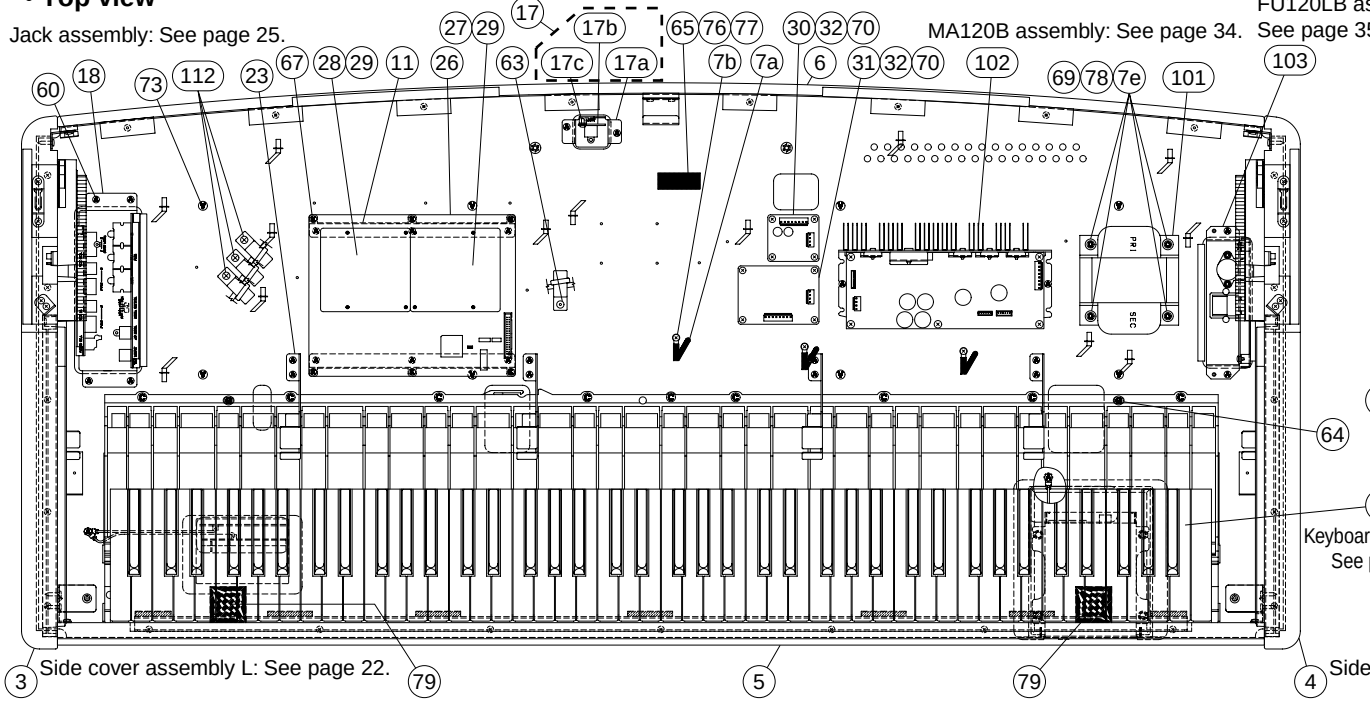
■ MAIN UNIT (CVP-209)

• Bottom view

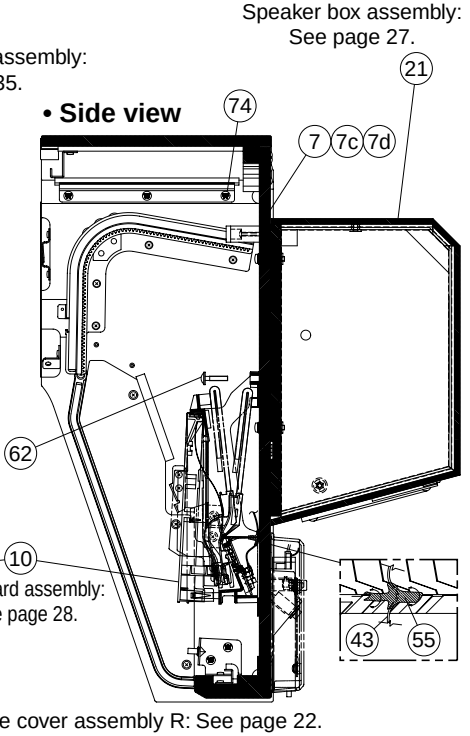


LOCATION	SYMBOL
60	A
61	B
62	C
64	G
67	K
68	N
69	Q
73	V
74	W

• Top view

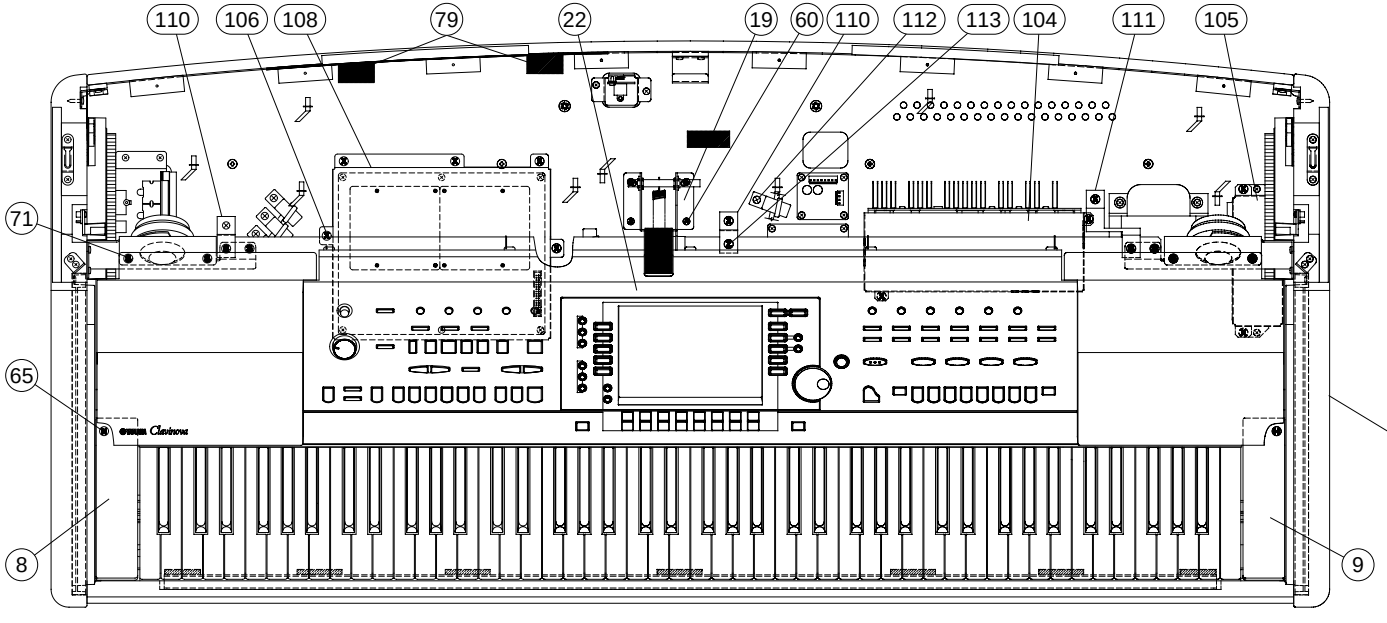


• Side view

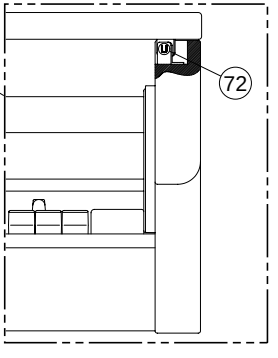


• Top view

Panel assembly: See page 14.

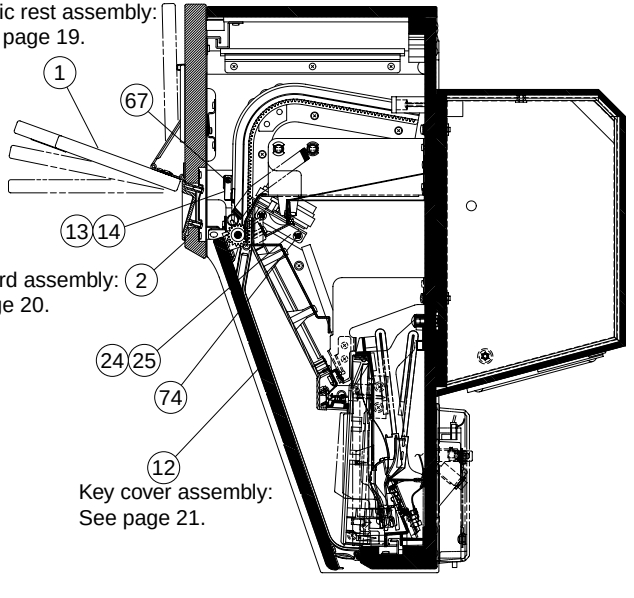


LOCATION	SYMBOL
60	A
65	H
67	K
71	S
72	U
74	W
106	X
113	Z



• Side view

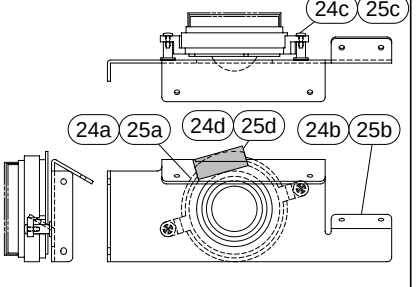
Music rest assembly:
See page 19.

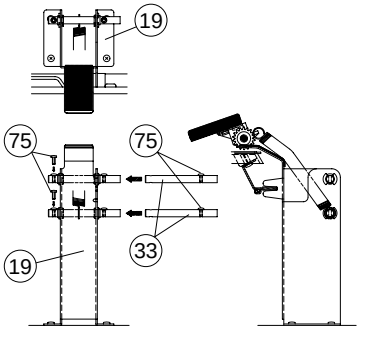


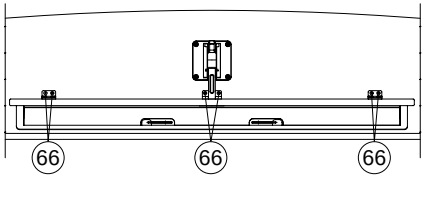
Top board assembly:
See page 20.

Key cover assembly:
See page 21.

• Speaker assembly







	REF NO.	PART NO.	DESCRIPTION		REMARKS		QTY	RANK
			MAIN UNIT		CVP-209			
		- -	Main Unit		J	(V705940)		
		- -	Main Unit		U	(V705950)		
		- -	Main Unit		B,E	(V705960)		
		- -	Main Unit		N	(V705970)		
		- -	Main Unit Sub Assembly			(V705980)		
*	6	**V8183700**	Back Top Board Assembly		J,U			
*	6	**V7089900**	Back Top Board Assembly		B,E,N			
	22	- -	Panel Assembly		J	(V803170)		
	22	- -	Panel Assembly		U	(V713560)		
	22	- -	Panel Assembly		B,E,N	(V713540)		
	45	- -	Connector Assembly	KRD-KRD 12P-350	J,B,E,N	(VK10880)		
	45	- -	Connector Assembly	AJACK-LF 12P	U	(V824690)		
	46	- -	Connector Assembly	KRD-KRD 5P-400	J,B,E,N	(VK10950)		
	46	- -	Connector Assembly	MIC-LF 5P	U	(V823550)		
*	47	**V7681200**	Connector Assembly	V-OUT PH 2P-450	J,B,E,N			
*	47	**V8235400**	Connector Assembly	VOUT-LF 2P	U			
	52	- -	Connector Assembly	MSP VH 8P	J,B,E,N	(V763070)		
	52	- -	Connector Assembly	MSP-LF VH 8P	U	(V839420)		
	55	**VP834600**	Adhesive Tape	12X50	J,B,E,N		8	02
	55	**VP834600**	Adhesive Tape	12X50	U		9	02
	56	- -	GND Wire	L=180	J,B,E,N	(V756950)		
	100	- -	Name Plate		J	(V707800)		
	100	- -	Name Plate		U	(V707810)		
	100	- -	Name Plate		B,E	(V707820)		
	100	- -	Name Plate		N	(V707840)		
⚠ *	101	**X0134A00**	Power Transformer	GA-120B J	J			
⚠ *	101	**X0135A00**	Power Transformer	GA120B U.IEC65	U,B,E			
⚠ *	101	**X0145A00**	Power Transformer	GA-120B N IEC65	N			
*	102	**V7026100**	MA120B Assembly		J,U			
*	102	**V7684800**	MA120B Assembly		B,E,N			
*	103	**V7631400**	FU120LB Assembly		J			
*	103	**V7631500**	FU120LB Assembly		U			
*	103	**V7631600**	FU120LB Assembly		B,E			
*	103	**V7631700**	FU120LB Assembly		N			
	104	- -	MA Cover Assembly		U	(V766590)		
	105	**VV607200**	FU Cover Assembly		U			06
	106	**EP030340**	Bind Head Tapping Screw-1	3.5X12 MFZN2BL	J,B,E,N		6	01
	106	**EP030340**	Bind Head Tapping Screw-1	3.5X12 MFZN2BL	U		12	01
	108	- -	DM Cover Assembly		J,B,E,N	(V814280)		
	108	- -	DM Cover Assembly U		U	(V842900)		
*	109	**V8185300**	Connector Assembly	PSW2	U			
	110	- -	Shield Sheet A		U	(V827830)	2	
	111	- -	Shield Sheet B		U	(V827840)		
	112	**EN630230**	Truss Head Tapping Screw-1	3.5X14 MFZN2Y	U		4	01
	113	**EP600240**	Bind Head Tapping Screw-B	4.0X10 MFZN2BL	U			01
		- -	Main Unit Sub Assembly			(V705980)		
*	1	**V7062200**	Music Rest Assembly					
*	2	**V7078800**	Top Board Assembly					
*	3	**V7078600**	Side Cover Assembly L	LEFT				
*	4	**V7078700**	Side Cover Assembly R	RIGHT				
*	5	**V7078900**	Front Rail Assembly					
*	7	**V7691300**	Keybed Assembly					
	7a	**CB817510**	Cord Binder	S-14B			3	03
	7b	**EP030240**	Bind Head Tapping Screw-1	3.5X12 MFZN2Y			3	01
	7c	- -	Felt	170X15X2		(V824520)		
	7d	- -	Felt	130X15X2		(V824530)	2	
	7e	**VD238200**	Nut	B 4.0X9.5 MFZN2BL			4	01
	7f	**VA127400**	Nut	B 5.0X12 MFZN2BL			9	01
	7g	**VA127400**	Nut	B 5.0X12 MFZN2BL			6	01
*	8	**V7091400**	End Block Assembly L	LEFT (KD)				12
*	9	**V7091500**	End Block Assembly R	RIGHT (KD)				12
*	10	**V7803300**	Keyboard Assembly	GHD_CL88				
	11	- -	Holder, DM			(V715370)	2	
*	12	**V7081800**	Key Cover Assembly					
*	13	**V8042900**	Rack Cover Assembly L	LEFT				
*	14	**V8043000**	Rack Cover Assembly R	RIGHT				
	16	- -	FDD Unit			(V706210)		
	17	- -	PK Connector Assembly			(V753580)		

*: New Parts

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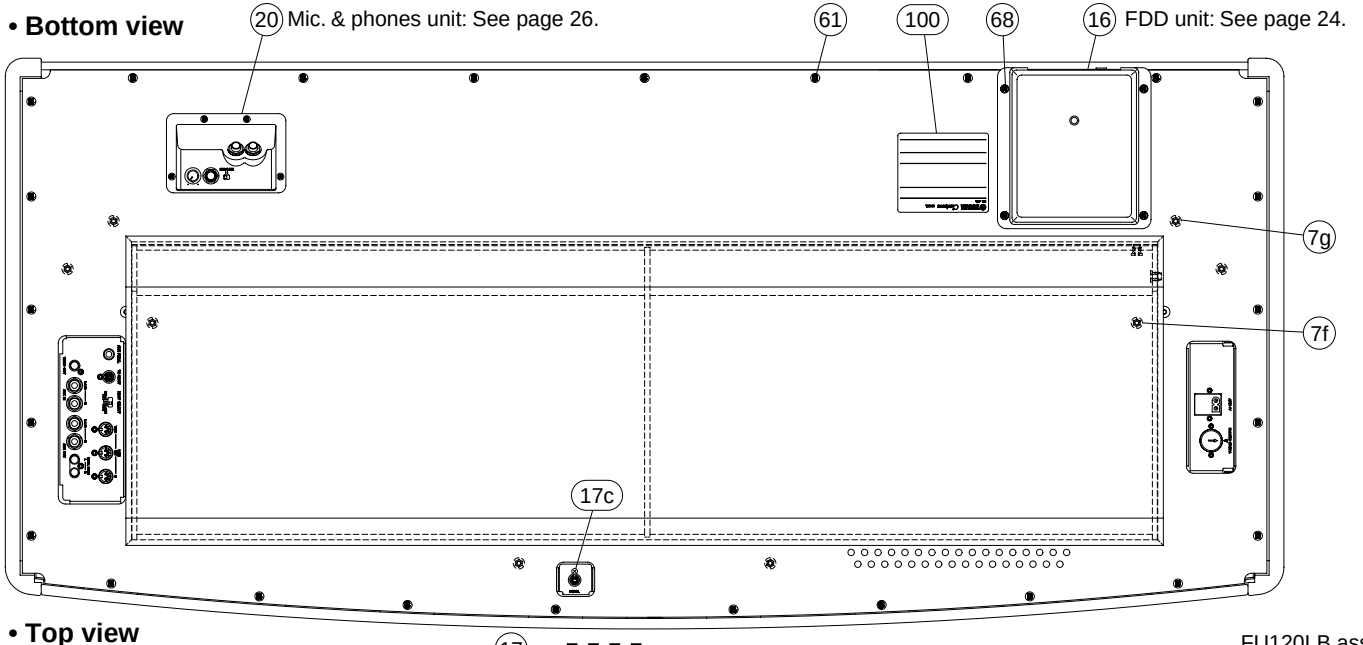
	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	17a	**V7585400**	Angle, PK Connector					05
	17b	**V6366400**	Circuit Board	PEDAL (D-JACK)				
	17c	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			2	01
	18	**- -**	Jack Assembly			(V764720)		
*	19	**V7612800**	Key Cover Support Assembly					
	20	**- -**	Mic. & Phones Unit			(V767590)		
	21	**- -**	Speaker Box Assembly			(V708230)		
*	23	**V7172400**	Panel Holder Assembly				4	
	24	**- -**	Speaker Assembly L	LEFT		(V715320)		
	24a	**XU755A00**	Speaker	3.0cm 8 ohm 60W		MONITOR		10
*	24b	**V7150300**	Speaker Holder L	LEFT				07
	24c	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			2	01
	24d	**- -**	Felt	35X25X1		(V802470)		
	25	**- -**	Speaker Assembly R	RIGHT		(V715330)		
	25a	**XU755A00**	Speaker	3.0cm 8 ohm 60W		MONITOR		10
*	25b	**V7150400**	Speaker Holder R	RIGHT				07
	25c	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			2	01
	25d	**- -**	Felt	35X25X1		(V802470)		
*	26	**V7160300**	Circuit Board	DM				
*	27	**V7160600**	Circuit Board	SWX-A				
*	28	**V7160800**	Circuit Board	SWX-B				
	29	**VU264400**	Board Spacer					03
	30	**V2403300**	Circuit Board	NET1				
*	31	**V7674700**	Circuit Board	NETWORK				
	32	**CB040950**	Spacer				8	03
*	33	**V7840400**	Rod				2	
	40	**V3261500**	Connector Assembly	FDD-SIG 34P-900				08
	41	**- -**	Connector Assembly	D POWER XH 5P		(V803670)		
	42	**VJ984100**	Connector Assembly	KRD-KRD 10P-400				05
	43	**V7681100**	Connector Assembly	MK-LF 8P-600				
	44	**- -**	Connector Assembly	KRD-KRD 5P-250		(VK10380)		
	48	**- -**	Connector Assembly	KRD-KRD 9P-1000		(VK12740)		
	49	**- -**	Connector Assembly	KRD-KRD 7P-550		(VK11370)		
*	50	**V7788500**	Connector Assembly	FDD-POW XH 6P				
	51	**- -**	Connector Assembly	SP1 VH 4P		(V202710)		
	53	**- -**	GND Connector Assembly	HP XH 2P		(VL50740)		
	54	**- -**	GND Connector Assembly	MIC PH 2P		(V340590)		
	57	**- -**	Adhesive Tape	12X100		(VV62740)	2	
	60	**EP030340**	Bind Head Tapping Screw-1	3.5X12 MFZN2BL			30	01
	61	**EN630190**	Truss Head Tapping Screw-1	3.5X25 MFZN2BL			25	01
	62	**VV040700**	Pan Head Screw	PW 5.0X25 MFZN2Y			9	01
	63	**EN630230**	Truss Head Tapping Screw-1	3.5X14 MFZN2Y				01
	64	**EP040230**	Bind Head Tapping Screw-1	4.0X14 MFZN2Y			2	01
	65	**VU952600**	Truss Head Tapping Screw-1	3.5X30 MFZN2BL			4	01
	66	**EP030260**	Bind Head Tapping Screw-1	3.5X16 MFZN2BL			6	01
	67	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			8	01
	68	**EP030250**	Bind Head Tapping Screw-1	3.5X14 MFZN2BL			8	01
	69	**VB132700**	Bind Head Screw	4.0X12 MFZN2BL			4	01
	70	**EP030470**	Bind Head Tapping Screw-1	3.5X20 MFZN2Y			8	01
	71	**EP600240**	Bind Head Tapping Screw-B	4.0X10 MFZN2BL			8	01
	72	**VP575300**	Cap Screw	3.0X8 BL			2	01
	73	**VQ635300**	Bind Head Screw	SP 5.0X30 MFZN2BL			8	01
	74	**EP030190**	Bind Head Tapping Screw-1	3.5X16 MFZN2Y			14	01
	75	**VD976600**	Bind Head Screw	3.0X8 MFZN2Y			4	01
	76	**- -**	Cleat FT	18X50		(V804640)		
*	77	**V8046600**	Cushion	421X2.5X4			4	
	78	**VK287600**	Flat Washer	4.0X12X1.0 MFZN2Y			4	01
	79	**- -**	Tape	40X20m		(V604530)		

*: New Parts

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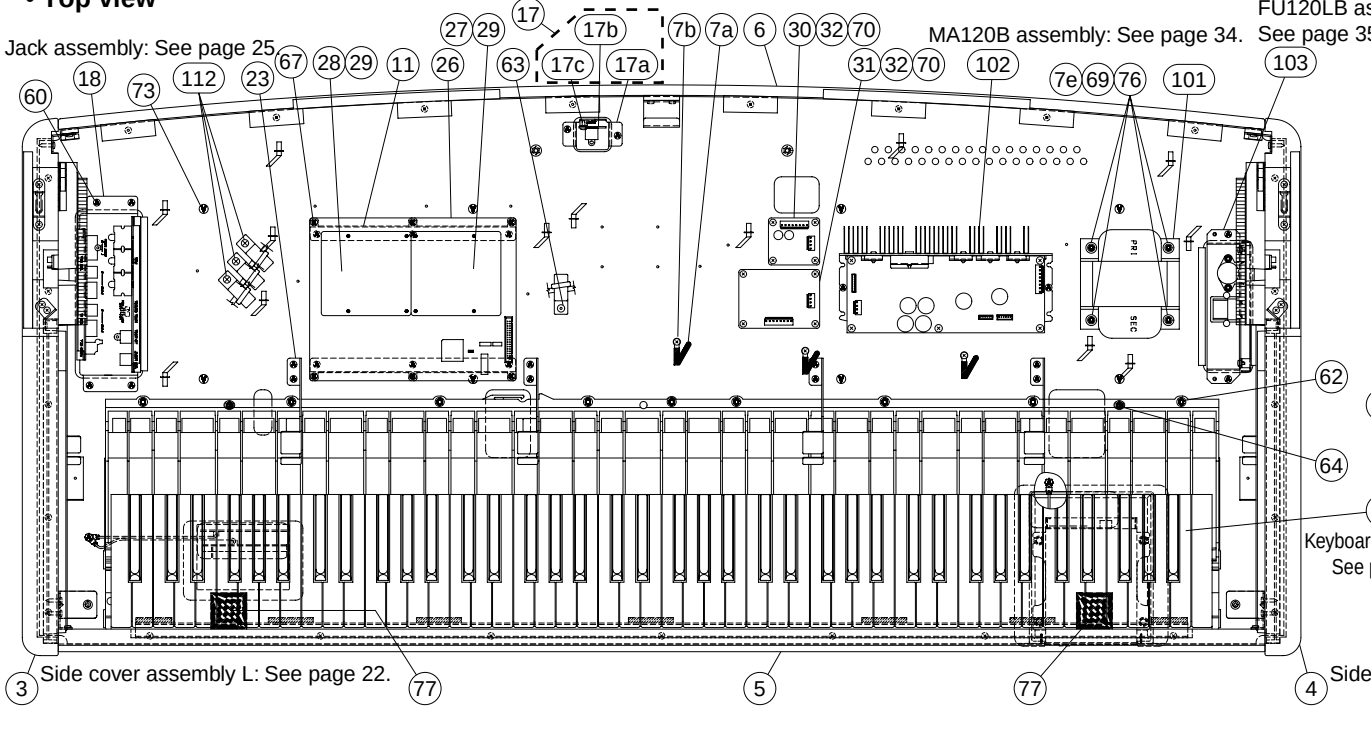
■ MAIN UNIT (CVP-207)

• Bottom view

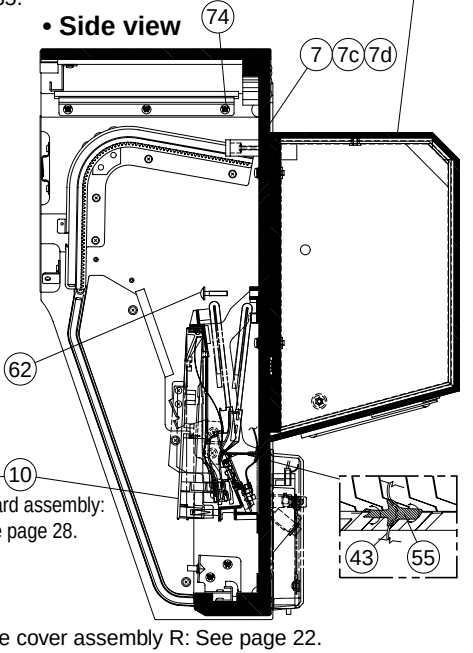


LOCATION	SYMBOL
60	A
61	B
62	C
64	G
67	K
68	N
69	Q
73	V
74	W

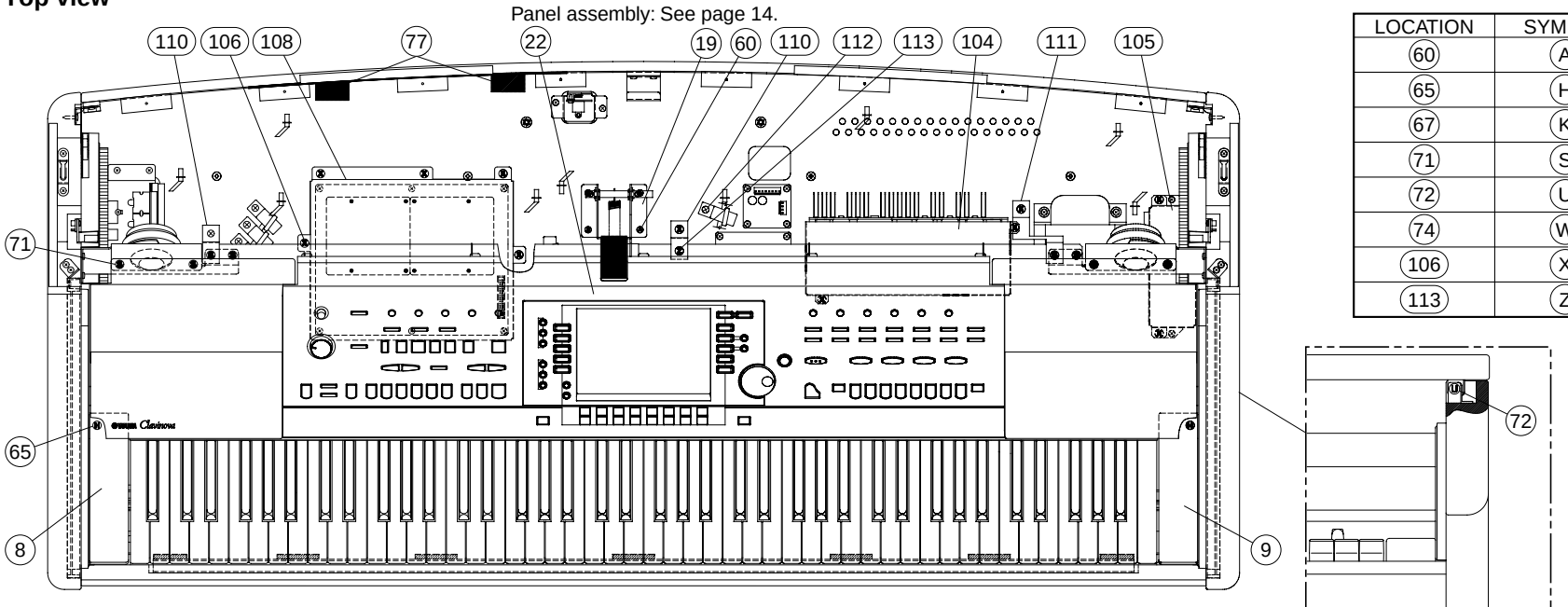
• Top view



• Side view

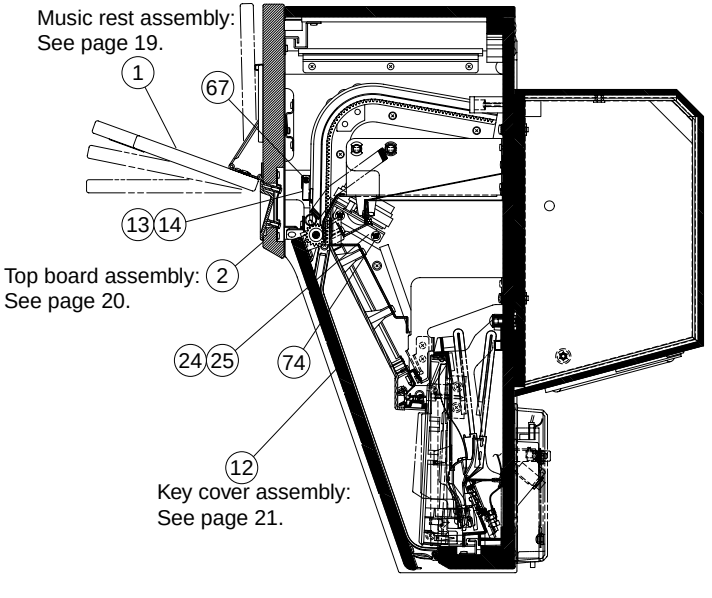


• Top view

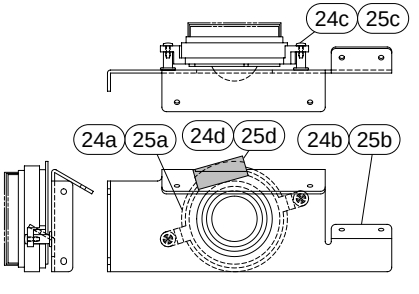


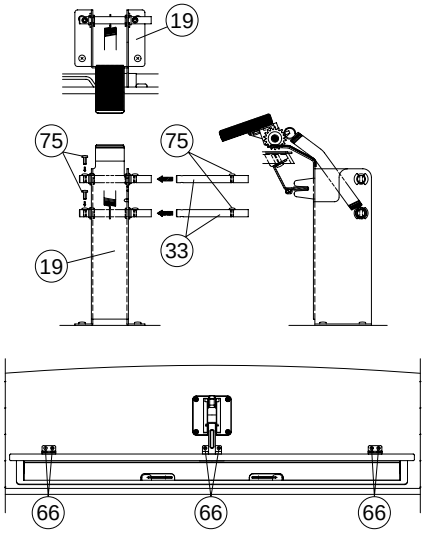
LOCATION	SYMBOL
60	A
65	H
67	K
71	S
72	U
74	W
106	X
113	Z

• Side view



• Speaker assembly





	REF NO.	PART NO.	DESCRIPTION		REMARKS		QTY	RANK
			MAIN UNIT		CVP-207			
		- -	Main Unit		J	(V715900)		
		- -	Main Unit		U	(V715910)		
		- -	Main Unit		B,E	(V715920)		
		- -	Main Unit		N	(V715930)		
		- -	Main Unit Sub Assembly			(V715940)		
*	6	**V8183800**	Back Top Board Assembly		J,U			
*	6	**V7171400**	Back Top Board Assembly		B,E,N			
	22	- -	Panel Assembly		J	(V803180)		
	22	- -	Panel Assembly		U	(V716480)		
	22	- -	Panel Assembly		B,E,N	(V716470)		
	45	- -	Connector Assembly	KRD-KRD 12P-350	J,B,E,N	(VK10880)		
	45	- -	Connector Assembly	AJACK-LF 12P	U	(V824690)		
	46	- -	Connector Assembly	KRD-KRD 5P-400	J,B,E,N	(VK10950)		
	46	- -	Connector Assembly	MIC-LF 5P	U	(V823550)		
*	47	**V7681200**	Connector Assembly	V-OUT PH 2P-450	J,B,E,N			
*	47	**V8235400**	Connector Assembly	VOUT-LF 2P	U			
	52	- -	Connector Assembly	MSP VH 8P	J,B,E,N	(V763070)		
	52	- -	Connector Assembly	MSP-LF VH 8P	U	(V839420)		
	55	**VP834600**	Adhesive Tape	12X50	J,B,E,N		8	02
	55	**VP834600**	Adhesive Tape	12X50	U		9	02
	56	- -	GND Wire	L=180	J,B,E,N	(V756950)		
	100	- -	Name Plate		J	(V716770)		
	100	- -	Name Plate		U	(V716780)		
	100	- -	Name Plate		B,E	(V716800)		
	100	- -	Name Plate		N	(V716850)		
⚠ *	101	**X0134A00**	Power Transformer	GA-120B J	J			
⚠ *	101	**X0135A00**	Power Transformer	GA120B U.IEC65	U,B,E			
⚠ *	101	**X0145A00**	Power Transformer	GA-120B N IEC65	N			
*	102	**V7026100**	MA120B Assembly		J,U			
*	102	**V7684800**	MA120B Assembly		B,E,N			
*	103	**V7631400**	FU120LB Assembly		J			
*	103	**V7631500**	FU120LB Assembly		U			
*	103	**V7631600**	FU120LB Assembly		B,E			
*	103	**V7631700**	FU120LB Assembly		N			
	104	- -	MA Cover Assembly		U	(V766590)		
	105	**VV607200**	FU Cover Assembly		U			06
	106	**EP030340**	Bind Head Tapping Screw-1	3.5X12 MFZN2BL	J,B,E,N		6	01
	106	**EP030340**	Bind Head Tapping Screw-1	3.5X12 MFZN2BL	U		12	01
	108	- -	DM Cover Assembly		J,B,E,N	(V814280)		
	108	- -	DM Cover Assembly U		U	(V842900)		
*	109	**V8185300**	Connector Assembly	PSW2	U			
	110	- -	Shield Sheet A		U	(V827830)	2	
	111	- -	Shield Sheet B		U	(V827840)		
	112	**EN630230**	Truss Head Tapping Screw-1	3.5X14 MFZN2Y	U		4	01
	113	**EP600240**	Bind Head Tapping Screw-B	4.0X10 MFZN2BL	U			01
		- -	Main Unit Sub Assembly			(V715940)		
*	1	**V7170500**	Music Rest Assembly					
*	2	**V7170600**	Top Board Assembly					
*	3	**V7170900**	Side Cover Assembly L	LEFT				
*	4	**V7171000**	Side Cover Assembly R	RIGHT				
*	5	**V7171100**	Front Rail Assembly					
*	7	**V7691300**	Keybed Assembly					
	7a	**CB817510**	Cord Binder	S-14B			3	03
	7b	**EP030240**	Bind Head Tapping Screw-1	3.5X12 MFZN2Y			3	01
	7c	- -	Felt	170X15X2		(V824520)		
	7d	- -	Felt	130X15X2		(V824530)	2	
	7e	**VD238200**	Nut	B 4.0X9.5 MFZN2BL			4	01
	7f	**VA127400**	Nut	B 5.0X12 MFZN2BL			9	01
	7g	**VA127400**	Nut	B 5.0X12 MFZN2BL			6	01
*	8	**V7179100**	End Block Assembly L	LEFT				
*	9	**V7179200**	End Block Assembly R	RIGHT				
*	10	**V7803300**	Keyboard Assembly	GHD_CL88				
	11	- -	Holder, DM			(V715370)	2	
*	12	**V7171800**	Key Cover Assembly					
*	13	**V8042900**	Rack Cover Assembly L	LEFT				
*	14	**V8043000**	Rack Cover Assembly R	RIGHT				
	16	- -	FDD Unit			(V706210)		
	17	- -	PK Connector Assembly			(V753580)		

*: New Parts

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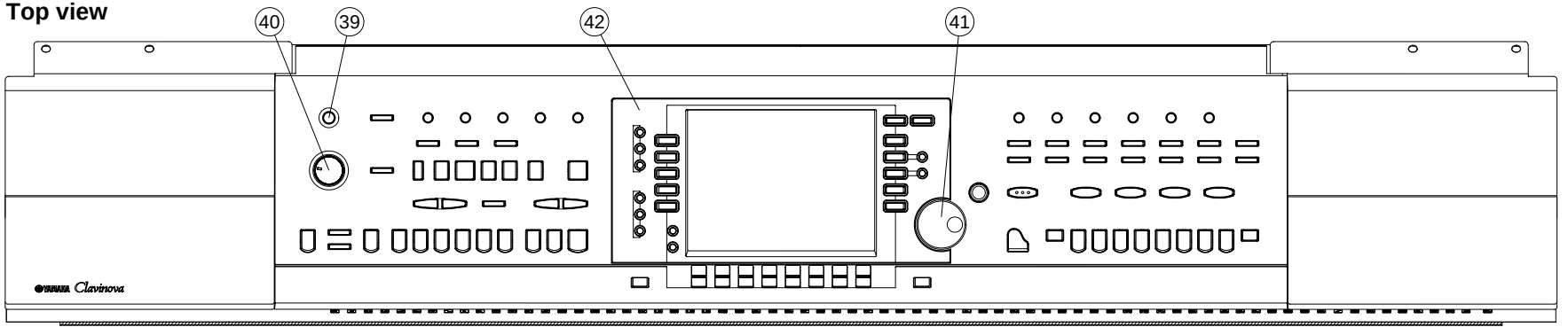
	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	17a	**V7585400**	Angle, PK Connector					05
	17b	**V6366400**	Circuit Board	PEDAL (D-JACK)				
	17c	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			2	01
	18	**- -**	Jack Assembly			(V764720)		
*	19	**V7612800**	Key Cover Support Assembly					
	20	**- -**	Mic. & Phones Unit			(V767590)		
	21	**- -**	Speaker Box Assembly			(V708230)		
*	23	**V7172400**	Panel Holder Assembly				4	
	24	**- -**	Speaker Assembly L	LEFT		(V715320)		
	24a	**XU755A00**	Speaker	3.0cm 8 ohm 60W		MONITOR		10
*	24b	**V7150300**	Speaker Holder L	LEFT				07
	24c	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			2	01
	24d	**- -**	Felt	35X25X1		(V802470)		
	25	**- -**	Speaker Assembly R	RIGHT		(V715330)		
	25a	**XU755A00**	Speaker	3.0cm 8 ohm 60W		MONITOR		10
*	25b	**V7150400**	Speaker Holder R	RUGHT				07
	25c	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			2	01
	25d	**- -**	Felt	35X25X1		(V802470)		
*	26	**V7160400**	Circuit Board	DM				
*	27	**V7161000**	Circuit Board	SWX-A				
*	28	**V7161200**	Circuit Board	SWX-B				
	29	**VU264400**	Board Spacer				8	03
	30	**V2403300**	Circuit Board	NET1				
*	31	**V7674700**	Circuit Board	NETWORK				
	32	**CB040950**	Spacer				8	03
*	33	**V7840400**	Rod				2	
	40	**V3261500**	Connector Assembly	FDD-SIG 34P-900				08
	41	**- -**	Connector Assembly	D POWER XH 5P		(V803670)		
	42	**VJ984100**	Connector Assembly	KRD-KRD 10P-400				05
	43	**V7681100**	Connector Assembly	MK-LF 8P-600				
	44	**- -**	Connector Assembly	KRD-KRD 5P-250		(VK10380)		
	48	**- -**	Connector Assembly	KRD-KRD 9P-1000		(VK12740)		
	49	**- -**	Connector Assembly	KRD-KRD 7P-550		(VK11370)		
*	50	**V7788500**	Connector Assembly	FDD-POW XH 6P				
	51	**- -**	Connector Assembly	SP1 VH 4P		(V202710)		
	53	**- -**	GND Connector Assembly	HP XH 2P		(VL50740)		
	54	**- -**	GND Connector Assembly	MIC PH 2P		(V340590)		
	57	**- -**	Adhesive Tape	12X100		(VV62740)	2	
	60	**EP030340**	Bind Head Tapping Screw-1	3.5X12 MFZN2BL			30	01
	61	**EN630190**	Truss Head Tapping Screw-1	3.5X25 MFZN2BL			25	01
	62	**VV040700**	Pan Head Screw	PW 5.0X25 MFZN2Y			9	01
	63	**EN630230**	Truss Head Tapping Screw-1	3.5X14 MFZN2Y				01
	64	**EP040230**	Bind Head Tapping Screw-1	4.0X14 MFZN2Y			2	01
	65	**VU952600**	Truss Head Tapping Screw-1	3.5X30 MFZN2BL			2	01
	66	**EP030260**	Bind Head Tapping Screw-1	3.5X16 MFZN2BL			6	01
	67	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			8	01
	68	**EP030250**	Bind Head Tapping Screw-1	3.5X14 MFZN2BL			8	01
	69	**VB132700**	Bind Head Screw	4.0X12 MFZN2BL			4	01
	70	**EP030470**	Bind Head Tapping Screw-1	3.5X20 MFZN2Y			8	01
	71	**EP600240**	Bind Head Tapping Screw-B	4.0X10 MFZN2BL			8	01
	72	**VP575300**	Cap Screw	3.0X8 BL			2	01
	73	**VQ635300**	Bind Head Screw	SP 5.0X30 MFZN2BL			8	01
	74	**EP030190**	Bind Head Tapping Screw-1	3.5X16 MFZN2Y			14	01
	75	**VD976600**	Bind Head Screw	3.0X8 MFZN2Y			4	01
	76	**VK287600**	Flat Washer	4.0X12X1.0 MFZN2Y			4	01
	77	**- -**	Tape	40X20m		(V604530)		

*: New Parts

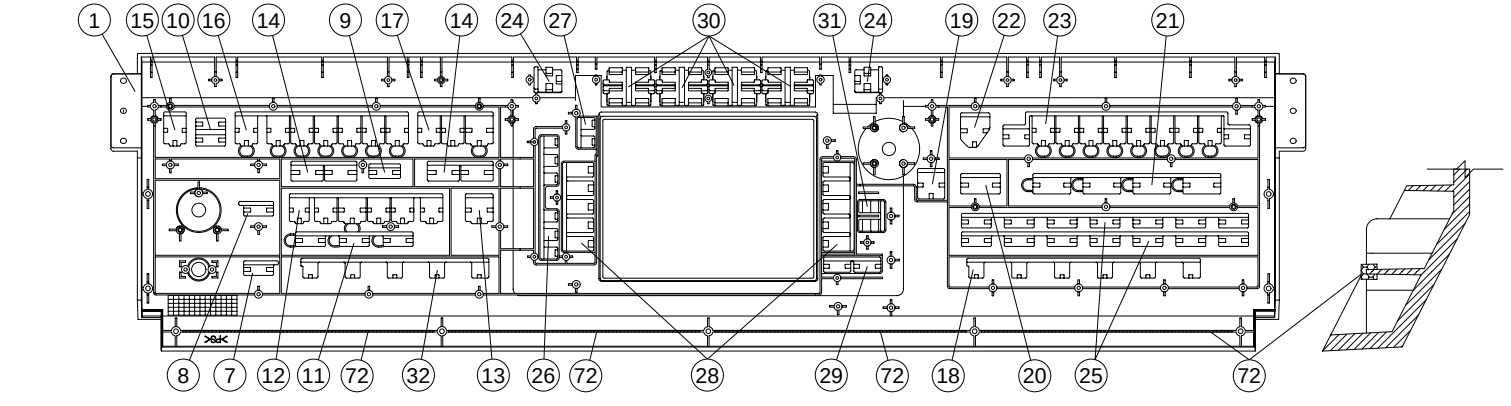
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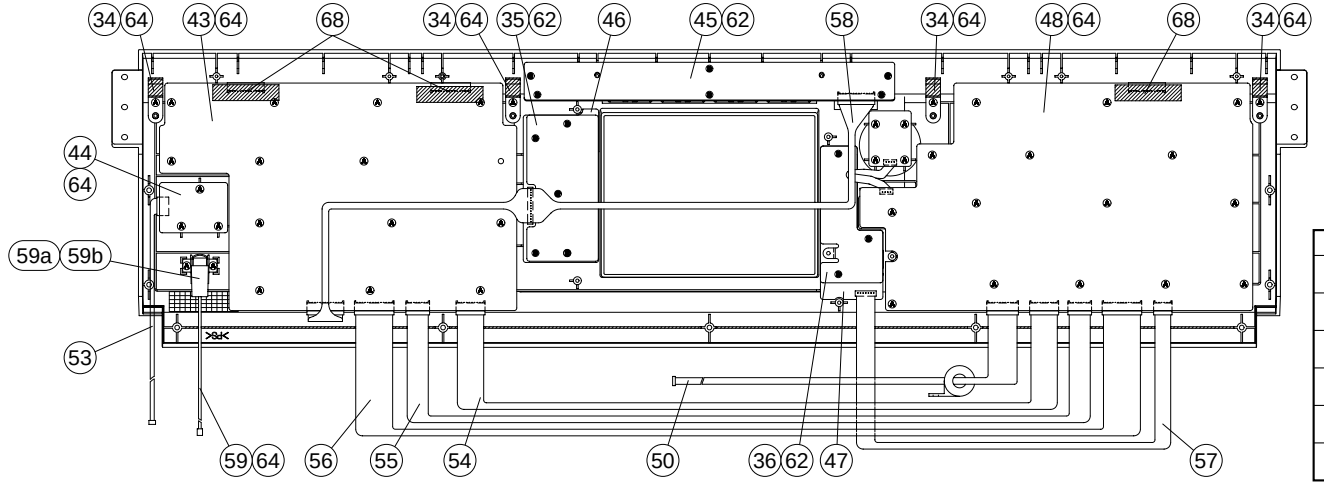
■ PANEL ASSEMBLY

• **Top view**



• **Bottom view**

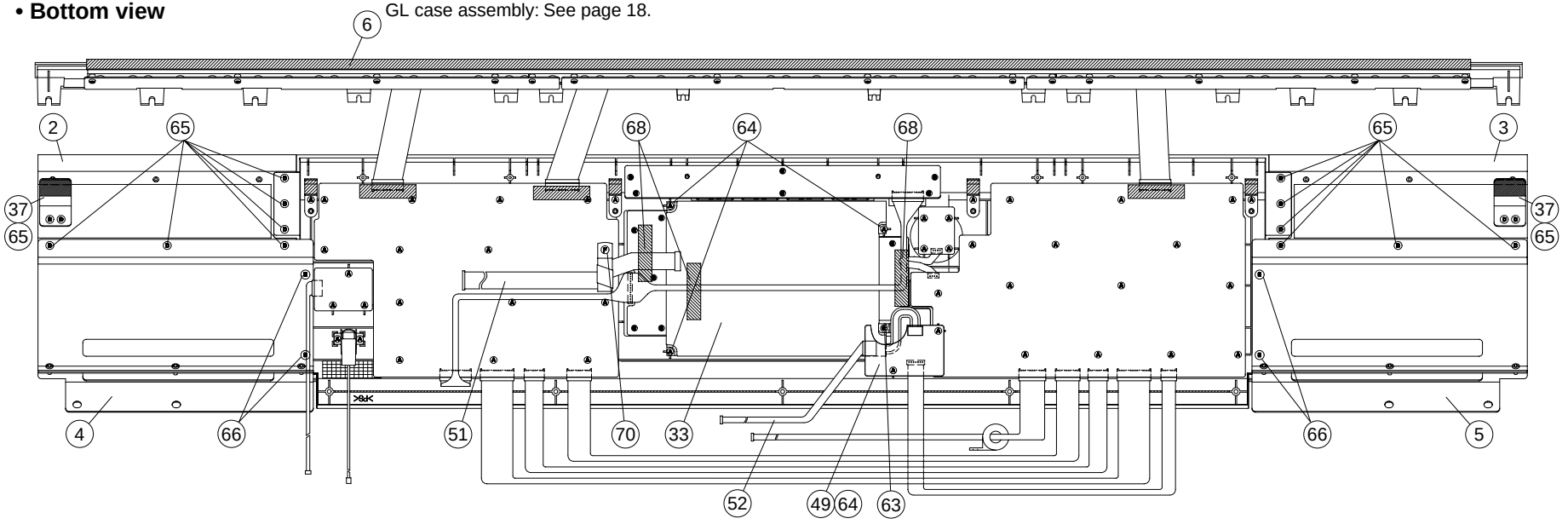


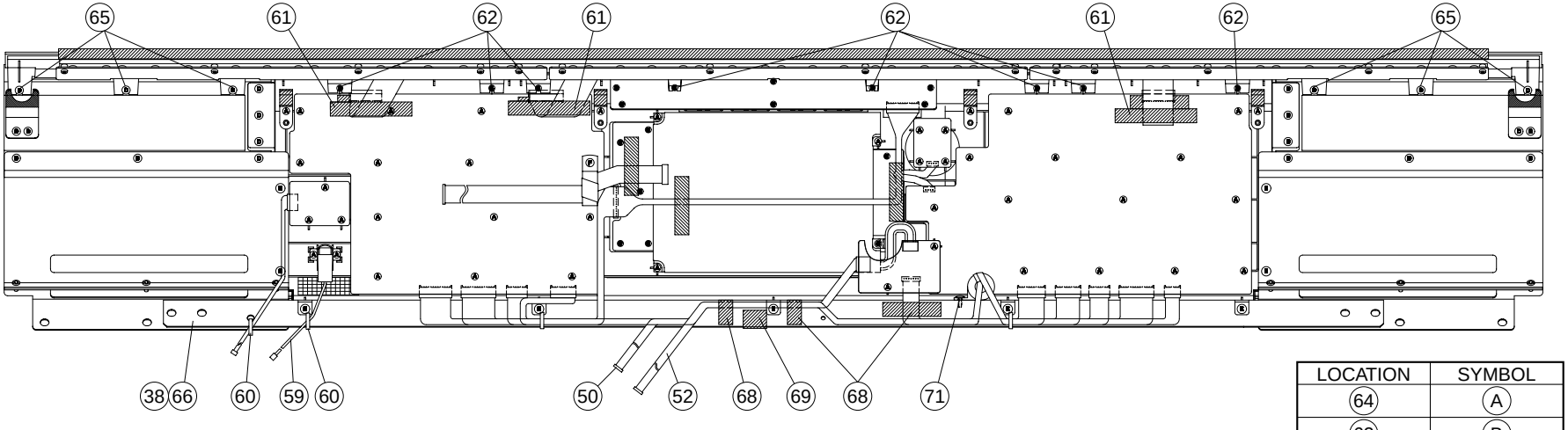


LOCATION	SYMBOL
64	A
62	B
63	C
65	D
66	E
70	F

• **Bottom view**

GL case assembly: See page 18.





LOCATION	SYMBOL
64	A
62	B
63	C
65	D
66	E
70	F

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			PANEL ASSEMBLY			CVP-209/CVP-207		
		- -	Panel Assembly			CVP-209 J (V803170)		
		- -	Panel Assembly			CVP-207 J (V803180)		
		- -	Panel Assembly			CVP-209 U (V713560)		
		- -	Panel Assembly			CVP-207 U (V716480)		
		- -	Panel Assembly			CVP-209 B,E,N (V713540)		
		- -	Panel Assembly			CVP-207 B,E,N (V716470)		
*	1	**V8015500**	Control Panel			CVP-209 J		
*	1	**V8015600**	Control Panel			CVP-207 J		
*	1	**V7142300**	Control Panel			CVP-209 U,B,E,N		
*	1	**V7165000**	Control Panel			CVP-207 U,B,E,N		
*	2	**V7151100**	Panel L	LEFT		CVP-209/CVP-207 J		
*	2	**V7164000**	Panel L	LEFT		CVP-207 U,B,E,N		
*	3	**V7145300**	Panel R	RIGHT		CVP-209/CVP-207 J		18
*	3	**V7163100**	Panel R	RIGHT		CVP-207 U,B,E,N		
*	4	**V7812400**	Speaker Grille	LEFT				
*	5	**V7812300**	Speaker Grille	RIGHT				
	6	- -	GL Case Assembly			(V713620)		
*	7	**V7137100**	Push Button Green	1A		METRONOME(START/STOP)		
*	8	**V7137300**	Push Button Gray	1B		FADE IN/OUT		
*	9	**V7137400**	Push Button Brown	1C		TEMPO(TAP TEMPO)		
*	10	**V7137600**	Push Button Dark Gray	1D x2		STYLE(AUTO FIL IN, OTS LINK)		
*	11	**V7137800**	Push Button Gray	2 x3		SONG(EXTRA TRACKS,TRACK2, TARCK1)		
*	12	**V7512100**	Push Button Red/Green/Gray	3 x6		SONG(REC,TOP,START/STOP, REW,FF,REPEAT)		
*	13	**V7138100**	Push Button Umber	4		SONG(GUIDE)		
*	14	**V7512500**	Push Button Brown	5 x2		TEMPO(+/-),TRANSPOSE(+/-)	2	
*	15	**V7138300**	Push Button Dark Gray	6		STYLE(ACMP)		
*	16	**V7512800**	Push Button Brown	7 x7		STYLE(BREAK,INTRO,MAIN, ENDING/rlt.)		
*	17	**V7512900**	Push Button Brown	8 x3		STYLE(SYNC.STOP, SYNC.START,START/STOP)		
*	18	**V7138700**	Push Button Gray	9 x6		VOICE EFFECT(REVERB,DSP, VARIATION,HARMONY/ECHO, MONO,LEFT HOLD)		
*	19	**V7139000**	Push Button Dark Gray	11		ENTER		
*	20	**V7139300**	Push Button Gray	12		MUSIC FINDER		
*	21	**V7513000**	Push Button Brown	13 x4		ONE TOUCH SETTING(1-4)		
*	22	**V7139600**	Push Button Brown	14		PIANO		
*	23	**V7140000**	Push Button Dark Gray/Red	16 x10		REGISTRATION MEMORY (FREEZE,1-8,MEMORY)		
*	24	**V7140200**	Push Button Dark Gray	17		DIRECT ACCESS,EXIT	2	
*	25	**V7140400**	Push Button Gray	18 x7		VOICE(PIANO&HARPSI., ... USER)	2	
*	26	**V7140800**	Push Button Umber/Beige	20 x6		MENU(DEMO,HELP,FUNCTION), DIGITAL STUDIO(SOUND CREATOR,DIGITAL RECORDING, MIXING CONSOLE)		
*	27	**V7141200**	Push Button Gray	22 x2		BALANCE,CHANNEL ON/OFF		
*	28	**V7141500**	Push Button Gray	24 x5		LCD select(A-J)	2	
*	29	**V7141900**	Push Button Gray	26 x2		BACK,NEXT		
*	30	**V8012500**	Push Button Gray	28 x2		LCD select(1-8)	4	
*	31	**V7505400**	Push Button	29 x2		VOICE PART ON/OFF(LAYER, LEFT)		
*	32	**V7542000**	Push Button	30 x5		MIC.(VOCAL HARMONY,TALK, EFFECT,VH TYPE SELECT, MIC. SETTING)		
*	33	**V7182100**	LCD	EDMGRB8KMF				
	34	**VV651600**	CP Holder Assembly				4	04
*	35	**V7506900**	Panel Holder L	PNCL D				01
*	36	**V7507000**	Panel Holder R	PNCR D				01
*	37	**V7541800**	Panel Holder	A-2AS			2	
*	38	**V7150200**	Panel Rail					06
*	39	**V7151200**	Push Knob Black			POWER ON/OFF		01
	40	**VU432400**	Knob Black			MASTER VOLUME		01
	41	**VQ664100**	Encoder Knob Black			DATA ENTRY		02
*	42	**V8019700**	LCD Cover			J		
*	42	**V7152100**	LCD Cover			U,B,E,N		15

*: New Parts

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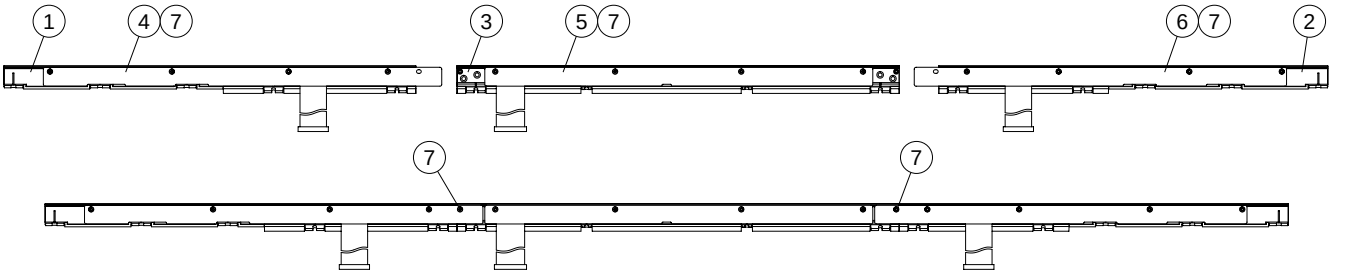
	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	43	**V7156400**	Circuit Board	PNL				
*	44	**V7156500**	Circuit Board	MV				
*	45	**V7156900**	Circuit Board	PNCB				
*	46	**V7156600**	Circuit Board	PNCL				
*	47	**V7156700**	Circuit Board	PNCR				
*	48	**V7157100**	Circuit Board	PNR (PNR,ENC)				
*	49	**V7173700**	Circuit Board	INV				
	50	**- -**	Connector Assembly	PN-LF 11P-800		(V814380)		
	51	**- -**	Connector Assembly	LCD-LF-SH		(V827740)		
	52	**- -**	Connector Assembly	B.LIGHT XH 3P		(V753050)		
	53	**- -**	Connector Assembly	VOL PH 8P-500		(V768130)		
	54	**- -**	Connector Assembly	KRD-KRD 10P-600		(VK11550)		
	55	**VK115300**	Connector Assembly	KRD-KRD 8P-600				05
	56	**- -**	Connector Assembly	KRD-KRD 14P-650		(VK11740)		
	57	**VJ981200**	Connector Assembly	KRD-KRD 6P-300				04
	58	**- -**	Connector Assembly	KRD3 KRD-13P-300		(V768150)		
	59	**- -**	Power Switch Assembly	PSW		J,B,E,N (V811510)		
	59	**- -**	Power Switch Assembly	PSW1		U (V818520)		
⚠	59a	**VC843500**	Push Switch	SDDLB1216A J.U.C.S		POWER ON/OFF		03
	59b	**V5800800**	Switch Cover	IVORY				01
	60	**CB069250**	Cord Holder	BK-1			4	01
	61	**- -**	Adhesive Tape	12X100		(VV62740)	3	
	62	**VB096700**	Bind Head Tapping Screw-B	2.6X8 MFZN2BL			22	01
	63	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL				01
	64	**EP600250**	Bind Head Tapping Screw-B	3.0X8 MFZN2Y			46	01
	65	**EP030230**	Bind Head Tapping Screw-1	3.5X10 MFZN2Y			22	01
	66	**EP640130**	Bind Head Tapping Screw-B	4.0X10 MFZN2Y			9	01
	68	**VP834600**	Adhesive Tape	12X50			9	02
	69	**- -**	Felt	35X20		(V802470)		
	70	**VU767800**	PW Head Tapping Screw-B	3.0X10-8 MFZN2Y				01
	71	**V2276900**	PW Head Tapping Screw-B	3.0X8-8 MFZN2BL				01
	72	**- -**	Nonwoven Fabric Cloth	190X5X0.25		(V819030)	4	

*: New Parts

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■ GL CASE ASSEMBLY

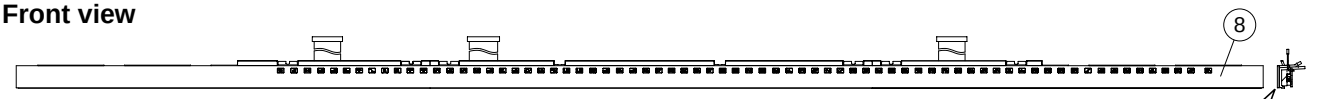
• **Rear view**



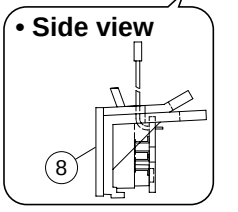
• **Top view**



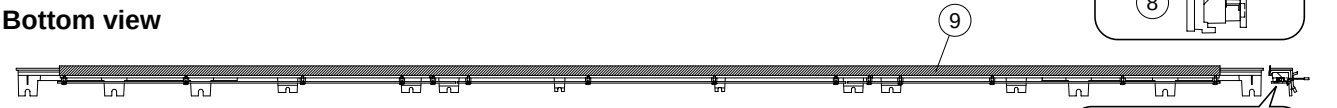
• **Front view**



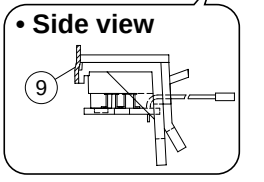
• **Side view**



• **Bottom view**



• **Side view**



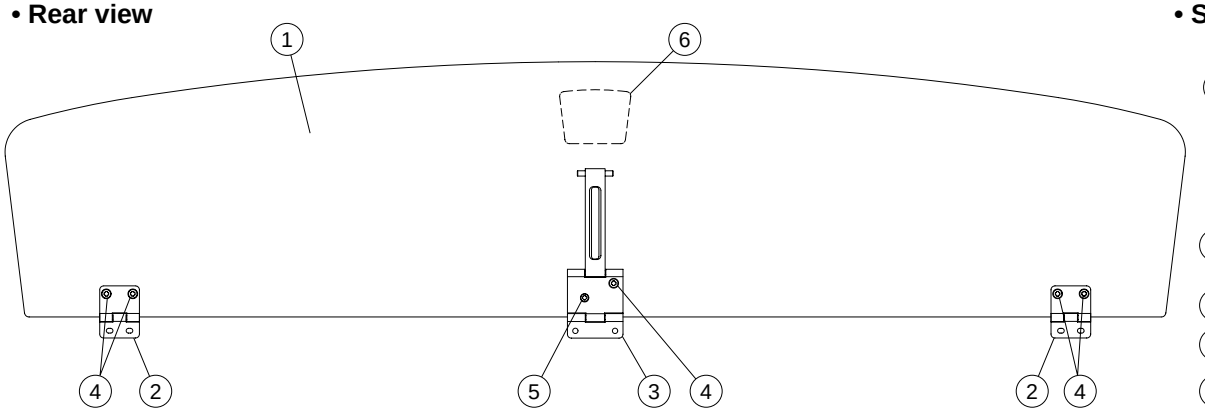
	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		- -	GL CASE ASSEMBLY			CVP-209/CVP-207 (V713620)		
*	1	**V7142900**	GL Case L	LEFT				06
*	2	**V7143100**	GL Case R	RIGHT				06
*	3	**V7511800**	GL Case C	CENTER				07
*	4	**V7135800**	Circuit Board	GLL				
*	5	**V7135900**	Circuit Board	GLC				
*	6	**V7136100**	Circuit Board	GLR				
	7	**VB096700**	Bind Head Tapping Screw-B	2.6X8 MFZN2BL			14	01
*	8	**V7152200**	GL Cover					09
*	9	**V7555700**	Felt	MK				
	10	- -	Nonwoven Fabric Cloth	25X20X0.5		(V810600)	6	

*: New Parts

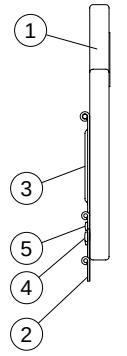
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■ MUSIC REST ASSEMBLY

• Rear view



• Side view

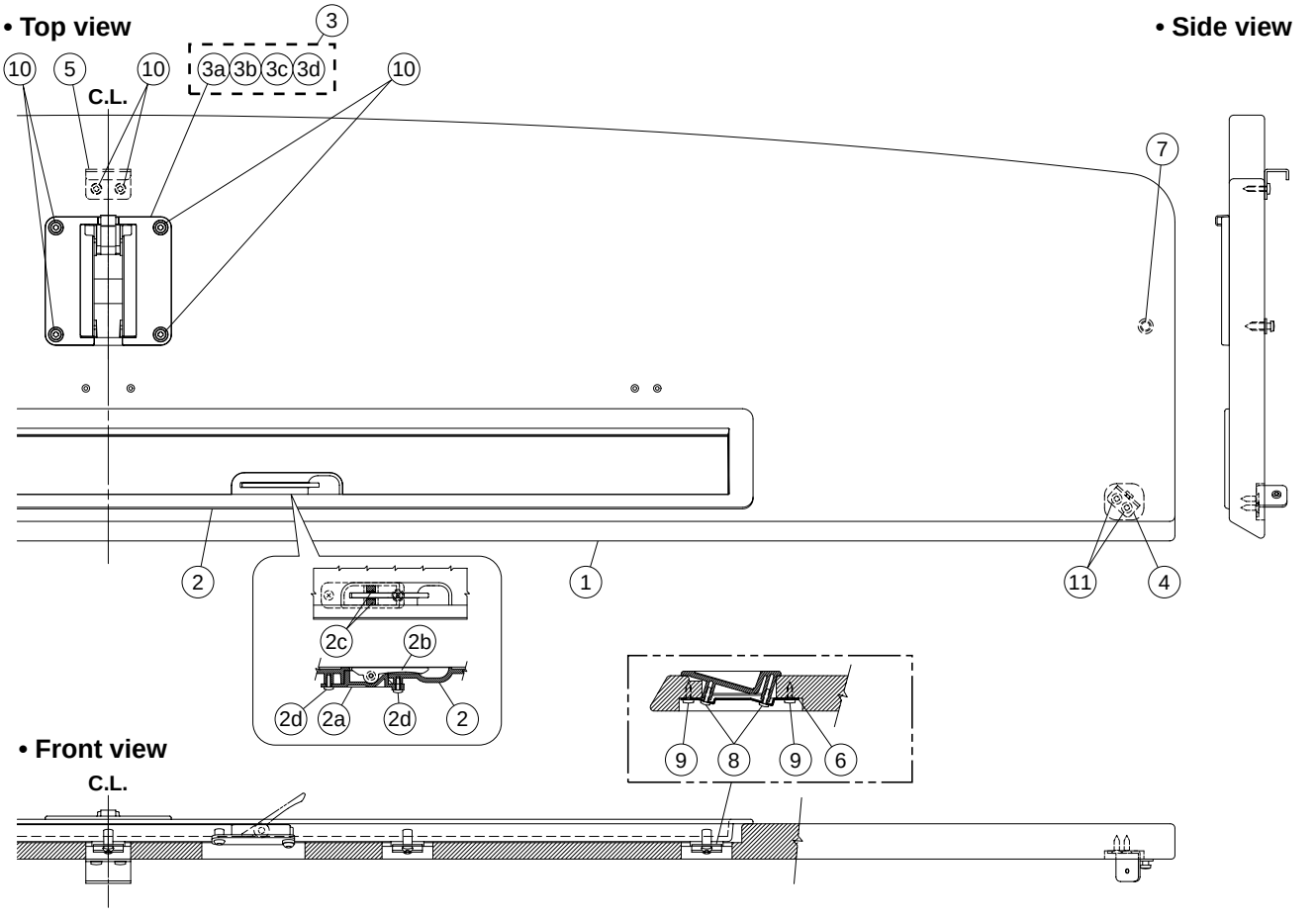


	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			MUSIC REST ASSEMBLY			CVP-209/CVP-207			
*		**V7062200**	Music Rest Assembly			CVP-209			
*		**V7170500**	Music Rest Assembly			CVP-207			
	1	**- -**	Music Rest			CVP-209	(V709300)		
	1	**- -**	Music Rest			CVP-207	(V717550)	2	
	2	**VQ450700**	Hinge					2	05
	3	**VQ450800**	Stay						07
	4	**EP030320**	Bind Head Tapping Screw-1	3.5X10 MFZN2BL				5	01
	5	**20404200**	Bind Head Tapping Screw-1	3.0X10 MFZN2BL					
	6	**V5782300**	Badge	BRASS					05

*: New Parts

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■ TOP BOARD ASSEMBLY



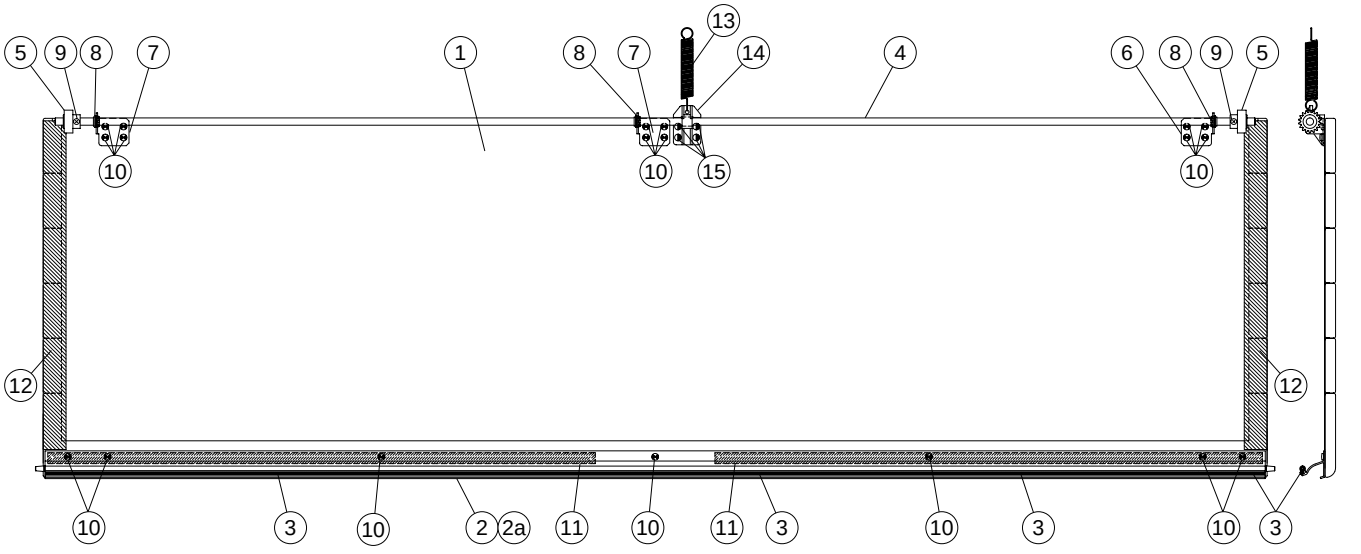
	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			TOP BOARD ASSEMBLY			CVP-209/CVP-207		
*		**V7078800**	Top Board Assembly			CVP-209		
*		**V7170600**	Top Board Assembly			CVP-207		
	1	**- -**	Top Board			CVP-209 (V708240)		
	1	**- -**	Top Board			CVP-207 (V717650)		
*	2	**V7082600**	Music Rest Assembly			CVP-209		
*	2	**V7564700**	Music Rest Assembly			CVP-207		
*	2a	**V7113200**	Case, Music Stopper	A			2	
*	2b	**V7113700**	Music Stopper Assembly	BRASS			2	05
*	2c	**V7113400**	Bushing				4	
	2d	**EP600250**	Bind Head Tapping Screw-B	3.0X8 MFZN2Y			4	01
	3	**VQ451800**	Stopper Assembly					07
	3a	**VQ451300**	Stopper L Black	LEFT				03
	3b	**VQ451400**	Stopper R Black	RIGHT				03
	3c	**VQ451500**	Stopper Holder Black					04
	3d	**EP600270**	Bind Head Tapping Screw-P	3.0X10 MFZN2Y			6	01
*	4	**V7134000**	Angle Bracket A				2	
*	5	**V7134400**	Angle Bracket D					03
*	6	**V7508600**	Angle Bracket				5	
	7	**VV444100**	Screw				2	03
	8	**EP600140**	Bind Head Tapping Screw-B	3.0X10 MFZN2BL			10	01
	9	**EP030240**	Bind Head Tapping Screw-1	3.5X12 MFZN2Y			10	01
	10	**EP030260**	Bind Head Tapping Screw-1	3.5X16 MFZN2BL			6	01
	11	**EM030280**	Flat Head Tapping Screw-1	3.5X12 MFZN2Y			4	01

*: New Parts

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■ KEY COVER ASSEMBLY

• **Bottom view** • **Side view**



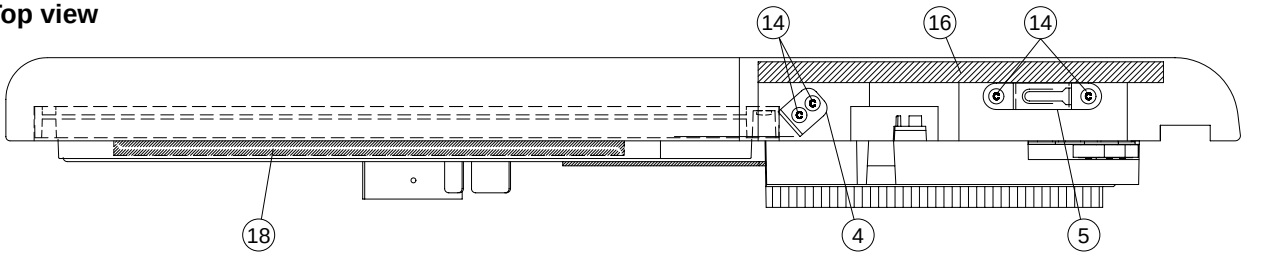
	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			KEY COVER ASSEMBLY			CVP-209/CVP-207			
*		**V7081800**	Key Cover Assembly			CVP-209			
*		**V7171800**	Key Cover Assembly			CVP-207			
	1	**- -**	Key Cover			CVP-209	(V709220)		
	1	**- -**	Key Cover			CVP-207	(V717940)		
*	2	**V7081300**	Sash-F Assembly	FRONT					
	2a	**V4964400**	Guide Pin					2	
	3	**VU457600**	Cushion	421X2.5X4				4	03
*	4	**V7092000**	Rod						08
	5	**VT190400**	Gear					2	03
	6	**- -**	Holder, Rod L	LEFT			(V750840)		
	7	**- -**	Holder, Rod R	RIGHT			(V750850)	2	
	8	**VS368500**	Bushing					3	03
	9	**EG330060**	Bind Head Screw	3.0X10 MFZN2Y				2	01
	10	**VN920900**	Bind Head Tapping Screw-1	3.5X8 MFZN2BL				19	01
	11	**- -**	Adhesive Tape	600X12			(VO02370)	2	
	12	**- -**	Tape	358X25X0.2		CVP-209	(V842820)	2	
	12	**- -**	Tape	360X25		CVP-207	(V711290)	2	
*	13	**V7848500**	Spring Asembly						
*	14	**V8042600**	Spring Holder						
	15	**EP030230**	Bind Head Tapping Screw-1	4.5X10 MFZN2Y				4	01

*: New Parts

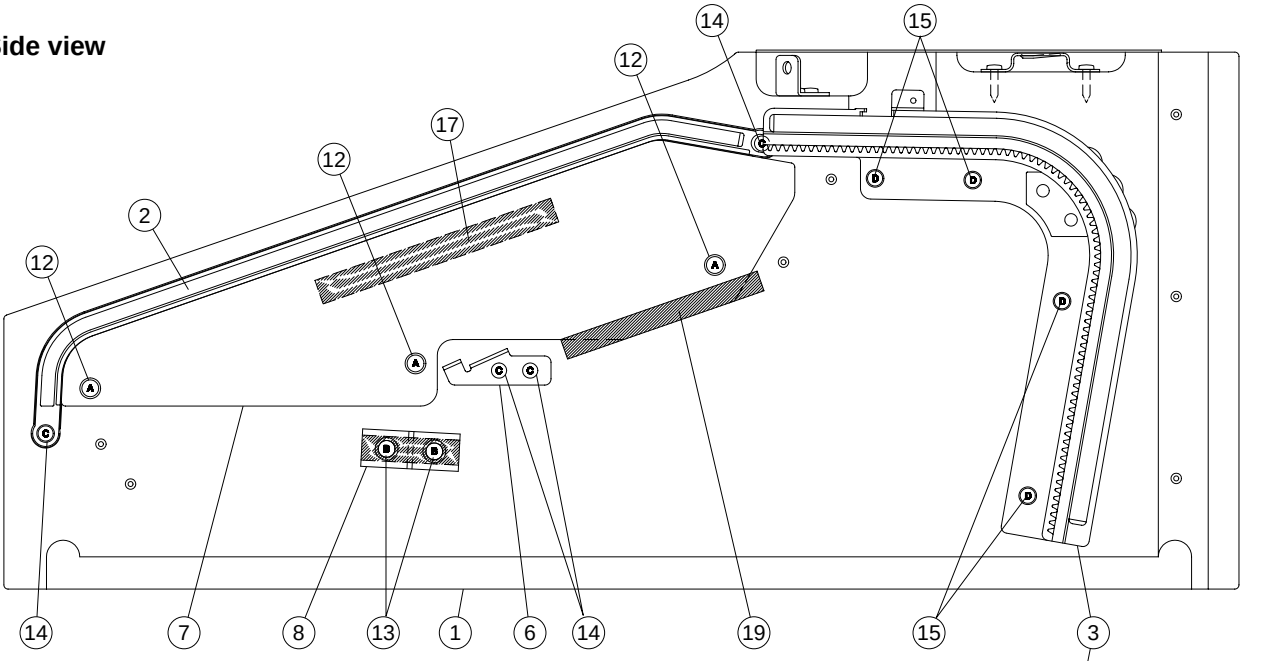
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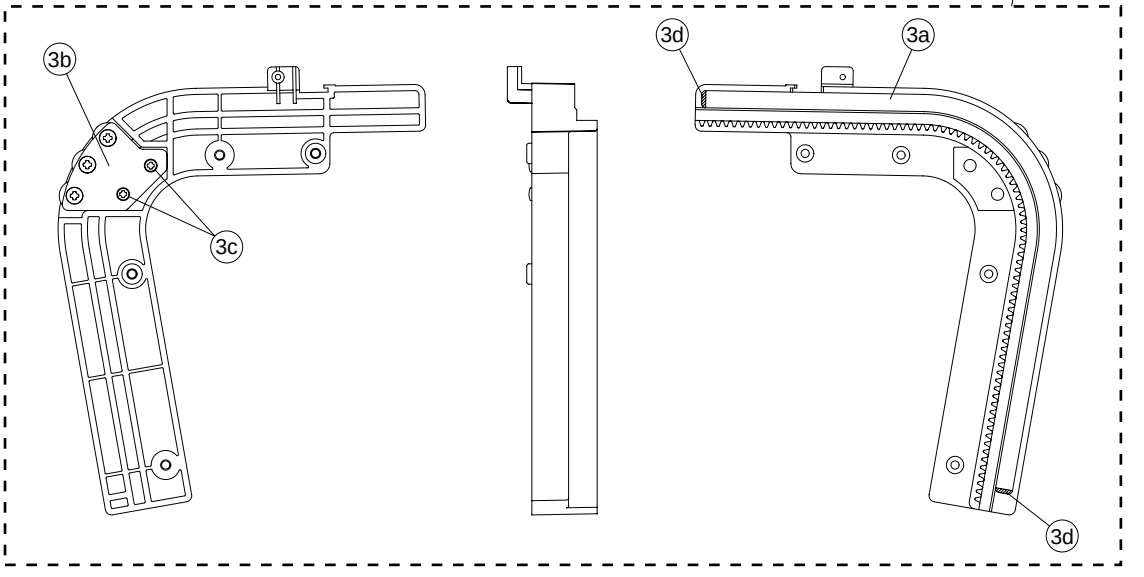
■ SIDE COVER ASSEMBLY

• **Top view**



• **Side view**





• SIDE COVER ASSEMBLY L

	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			SIDE COVER ASSEMBLY L	LEFT		CVP-209/CVP-207			
*		**V7078600**	Side Cover Assembly L	LEFT		CVP-209			
*		**V7170900**	Side Cover Assembly L	LEFT		CVP-207			
	1	**- -**	Side Cover L	LEFT		CVP-209	(V708850)		
	1	**- -**	Side Cover L	LEFT		CVP-207	(V756200)		
*	2	**V7697700**	Guide Rail Assembly L	LEFT					
	3	**- -**	Rack Assembly L	LEFT		CVP-209	(V784960)		
	3	**- -**	Rack Assembly L	LEFT		CVP-207	(V708890)		
*	3a	**V7109200**	Rack L	LEFT					
*	3b	**V7507900**	Bearing Assembly L	LEFT					
	3c	**EP600220**	Bind Head Tapping Screw-B	3.0X10 MFZN2Y				2	01
	3d	**- -**	Felt Black	8.5X6X2		CVP-209	(VP47880)		
*	4	**V7134100**	Angle Bracket B						02
	5	**VV444200**	Holder, Top Board	1.20 BLACK					03
*	6	**V7506400**	Panel Holder	A-3L					
	7	**- -**	Cover Support L	LEFT		CVP-209	(V709320)		
	7	**- -**	Cover Support L	LEFT		CVP-207	(V717710)		
	8	**- -**	Cleat B	18X50			(V718660)		
	12	**EN630030**	Truss Head Tapping Screw-1	3.5X16 MFZN2Y				3	01
	13	**VU952600**	Truss Head Tapping Screw-1	3.5X30 MFZN2BL				2	01
	14	**EP030260**	Bind Head Tapping Screw-1	3.5X16 MFZN2BL				8	01
	15	**EP030470**	Bind Head Tapping Screw-1	3.5X20 MFZN2Y				4	01
	16	**- -**	Felt	195X10X1			(V244700)		
	17	**- -**	Adhesive Tape	12X120			(V799020)		
	18	**- -**	Adhesive Tape	7X260			(V809380)		
	19	**- -**	Felt	100X10X2		CVP-209	(V824540)		

*: New Parts

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• SIDE COVER ASSEMBLY R

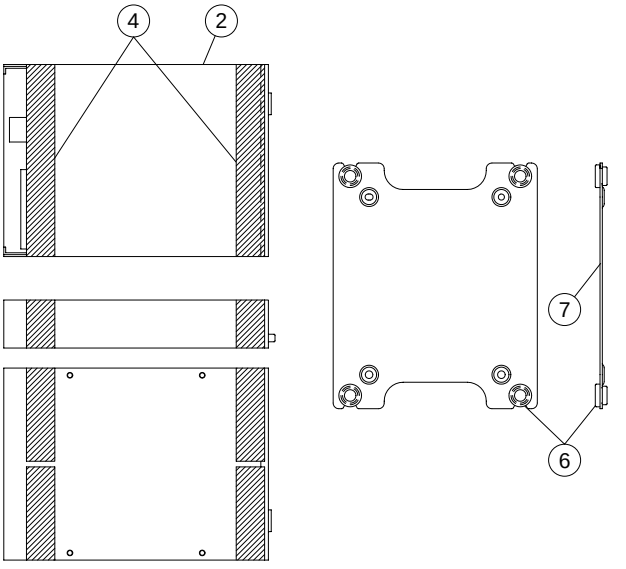
	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			SIDE COVER ASSEMBLY R	RIGHT		CVP-209/CVP-207			
*		**V7078700**	Side Cover Assembly R	RIGHT		CVP-209			
*		**V7171000**	Side Cover Assembly R	RIGHT		CVP-207			
	1	**- -**	Side Cover R	RIGHT		CVP-209	(V708860)		
	1	**- -**	Side Cover R	RIGHT		CVP-207	(V756210)		
*	2	**V7697800**	Guide Rail Assembly R	RIGHT					
	3	**- -**	Rack Assembly R	RIGHT		CVP-209	(V784970)		
	3	**- -**	Rack Assembly R	RIGHT		CVP-207	(V708900)		
*	3a	**V7109300**	Rack R	RIGHT					
*	3b	**V7508000**	Bearing Assembly R	RIGHT					
	3c	**EP600220**	Bind Head Tapping Screw-B	3.0X10 MFZN2Y				2	01
	3d	**- -**	Felt Black	8.5X6X2		CVP-209	(VP47880)		
*	4	**V7134100**	Angle Bracket B						02
	5	**VV444200**	Holder, Top Board	1.20 BLACK					03
*	6	**V7507400**	Panel Holder	A-3R					
	7	**- -**	Cover Support R	RIGHT		CVP-209	(V709330)		
	7	**- -**	Cover Support R	RIGHT		CVP-207	(V717720)		
	8	**- -**	Cleat B	18X50			(V718660)		
	12	**EN630030**	Truss Head Tapping Screw-1	3.5X16 MFZN2Y				3	01
	13	**VU952600**	Truss Head Tapping Screw-1	3.5X30 MFZN2BL				2	01
	14	**EP030260**	Bind Head Tapping Screw-1	3.5X16 MFZN2BL				8	01
	15	**EP030470**	Bind Head Tapping Screw-1	3.5X20 MFZN2Y				4	01
	16	**- -**	Felt	195X10X1			(V244700)		
	17	**- -**	Adhesive Tape	12X120			(V799020)		
	18	**- -**	Adhesive Tape	7X260			(V809380)		
	19	**- -**	Felt	100X10X2		CVP-209	(V824540)		

*: New Parts

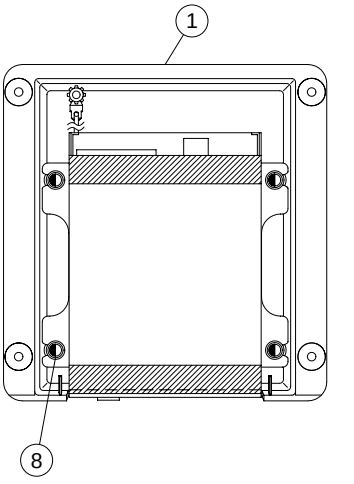
RANK: Japan only

■ FDD UNIT

• Adhesive tape installation view



• Top view



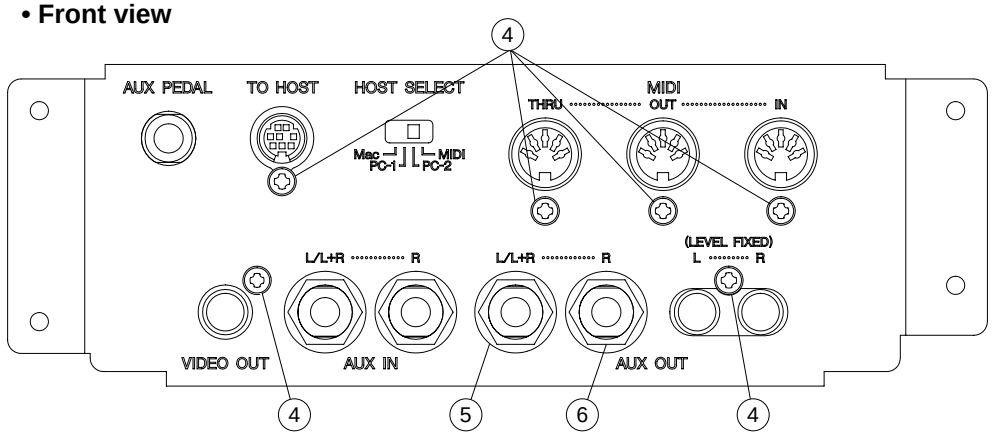
REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	- -	FDD UNIT			CVP-209/CVP-207 (V706210)		
* 1	**V7093800**	FDD Cover					
2	**V6492300**	Floppy Disk Drive	DF354H 3.5"				13
3	**EG330150**	Bind Head Screw	3.0X5 MFZN2Y			4	01
4	- -	Adhesive Tape Black	15X30m		(V256440)		
5	- -	GND Wire	L=120		(V686040)		
6	**VA121600**	Bushing				4	01
7	- -	Holder, FDD	1.2		(V523680)		
8	**V2276900**	PW Head Tapping Screw-B	3.0X8-8 MFZN2BL			4	01

*: New Parts

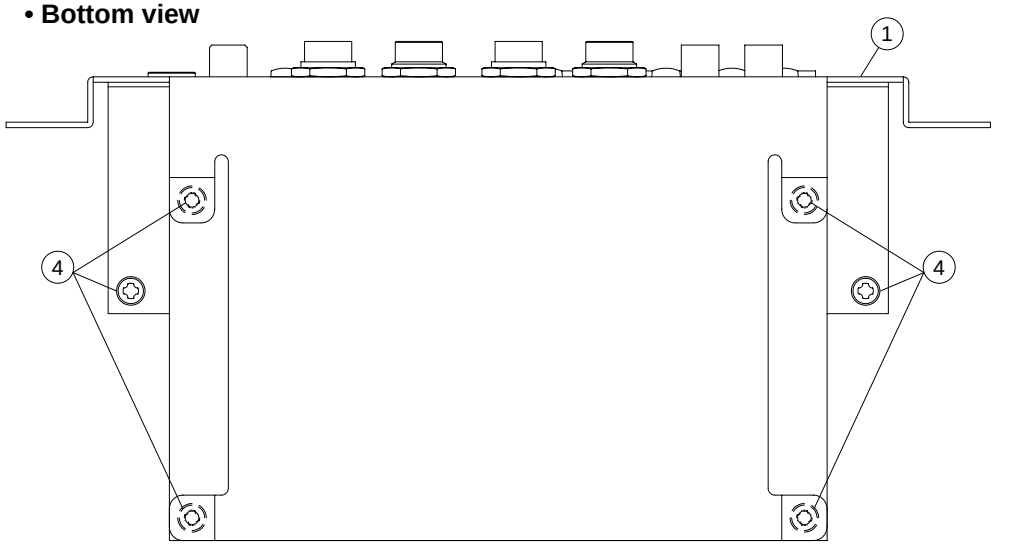
RANK: Japan only

■ JACK ASSEMBLY

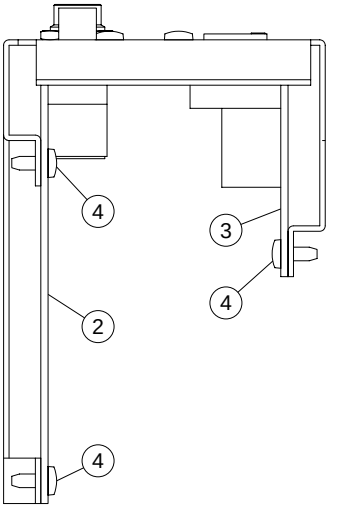
• Front view



• Bottom view



• Side view



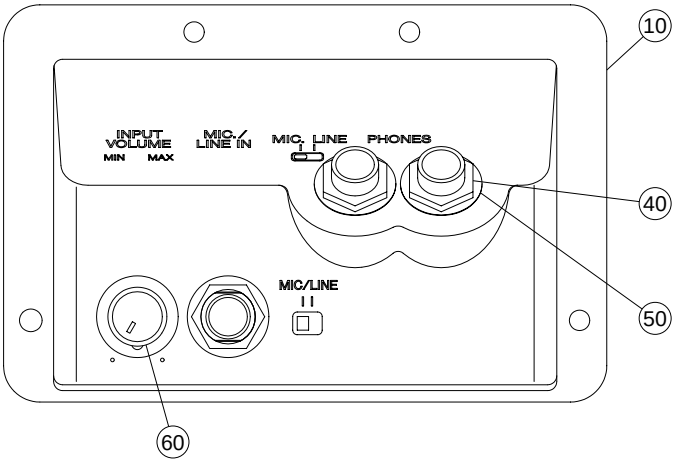
	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		- -	JACK ASSEMBLY			CVP-209/CVP-207 (V764720)		
*	1	**V7647300**	Angle, Jack					08
*	2	**V7147300**	Circuit Board	A-JACK				
	3	**V6366200**	Circuit Board	D-JACK				10
	4	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			12	01
	5	**VJ869400**	Washer Black				4	02
	6	**VB508600**	Hexagonal Nut	12.0 14X2 MFZN2BL			4	01

*: New Parts

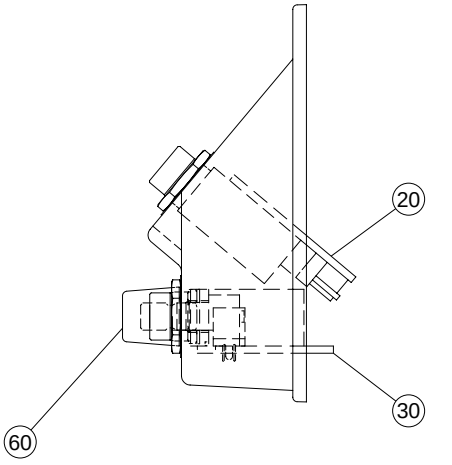
RANK: Japan only

■ MIC. & PHONES UNIT

• Bottom view



• Side view



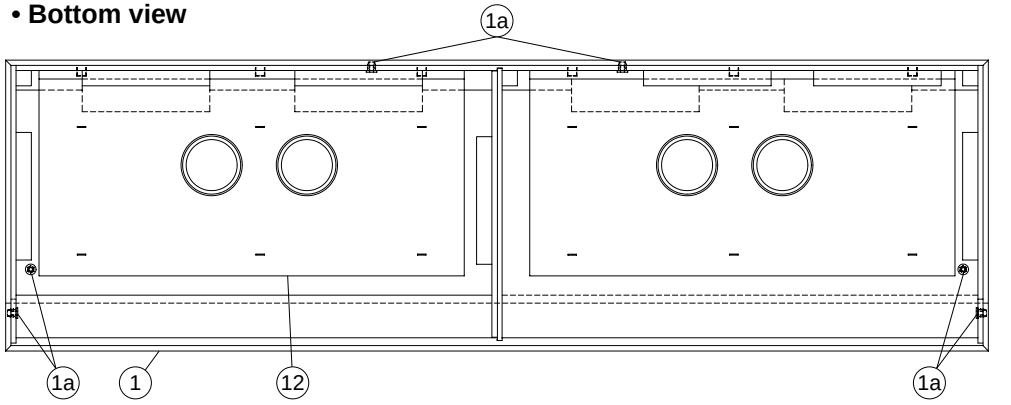
	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		- -	MIC. & PHONES UNIT			CVP-209/CVP-207 (V767590)		
*	10	**V8036100**	Cover, Mic. & Phones					
*	20	**V8115900**	Circuit Board	HP				
*	30	**V7596600**	Circuit Board	MIC				
	40	**VB508600**	Hexagonal Nut	12.0 14X2 MFZN2BL			3	01
	50	**VJ869400**	Washer Black				3	02
	60	**CB028970**	Knob Black			INPUT VOLUME		03

*: New Parts

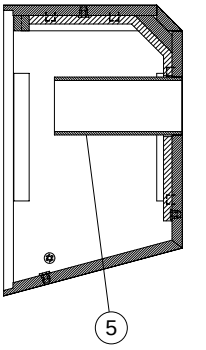
RANK: Japan only

■ SPEAKER BOX ASSEMBLY

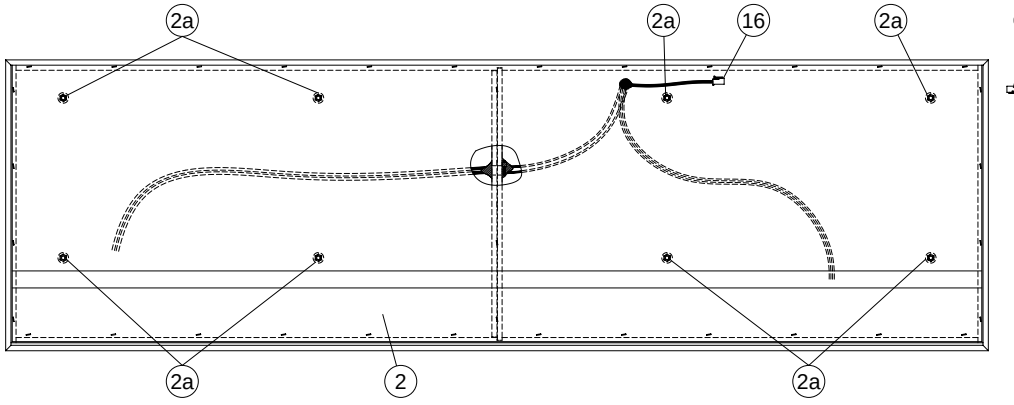
• **Bottom view**



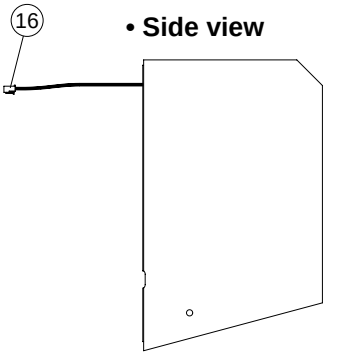
• **Side view**



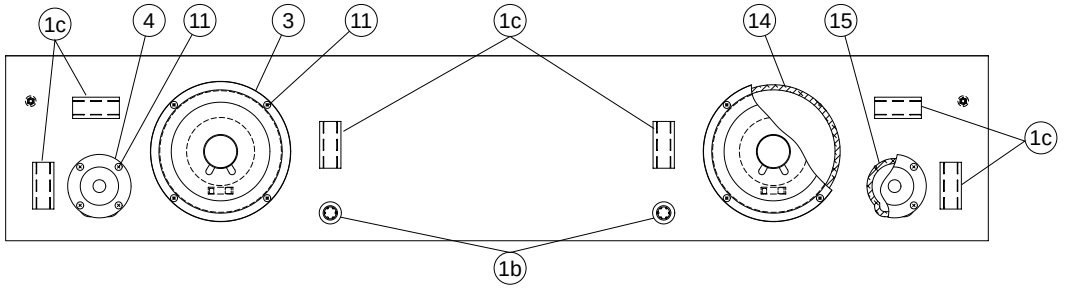
• **Top view**



• **Side view**



• **Front view**

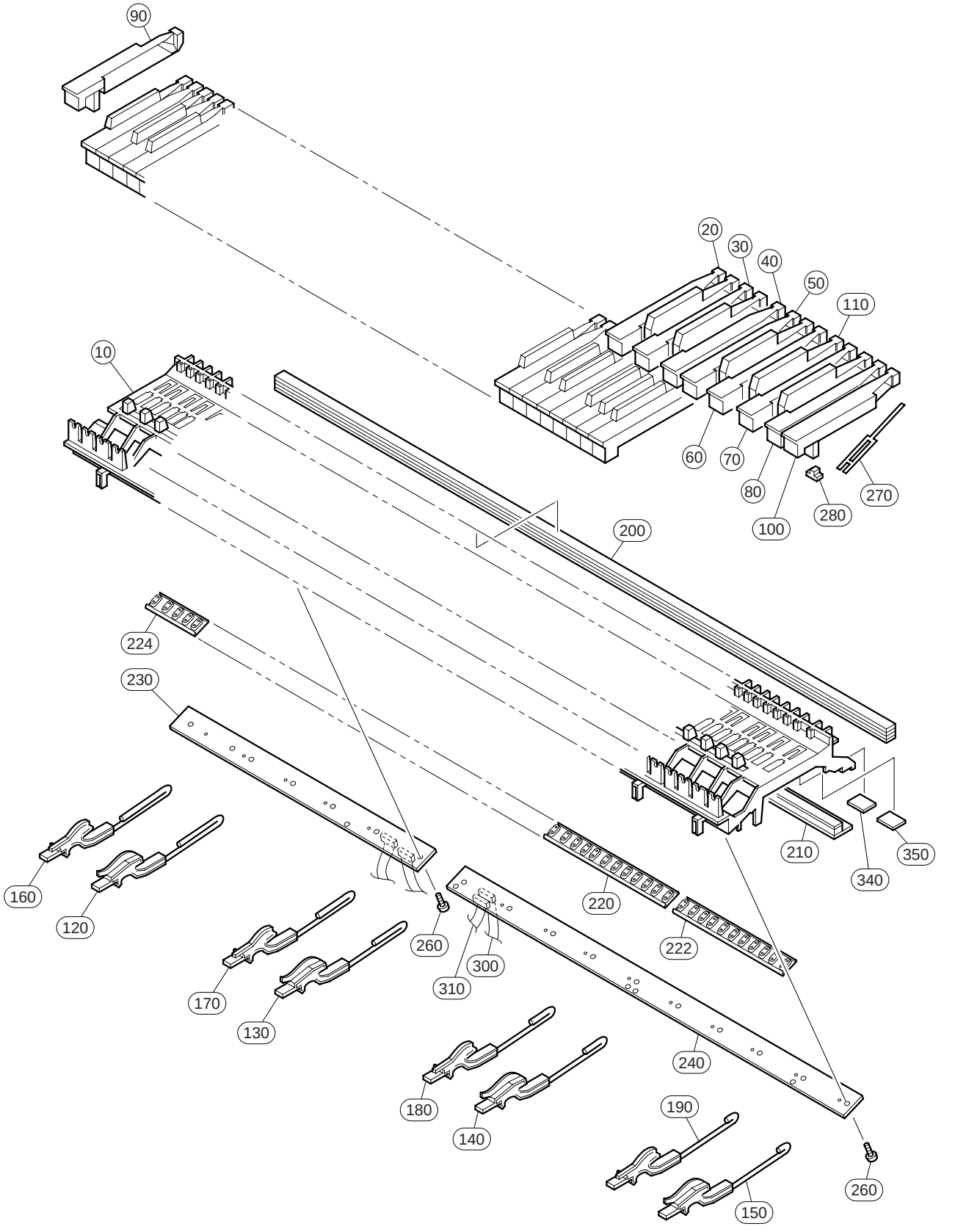


	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		- -	SPEAKER BOX ASSEMBLY			CVP-209/CVP-207 (V708230)		
*	1	**V7147100**	Speaker Box					
	1a	**ET200030**	Nut	B 5.0X12 MFZN2Y			6	01
	1b	**CB603920**	Holder	PK-6			2	04
	1c	**VJ933500**	Dual Lock Black				6	05
	2	- -	Top Board, Speaker Box			(V774770)		
	2a	**ET200030**	Nut	B 5.0X12 MFZN2Y			8	01
*	3	**X0358A00**	Speaker	16cm 8 ohm 60W		WOOFER	2	
	4	**XL455A00**	Speaker	5.0cm 16 ohm 60w		TWEETER	2	07
	5	- -	Port	M60 L=150		(V773570)	4	
	11	**EP040250**	Bind Head Tapping Screw-1	4.0X16 MFZN2BL			16	01
	12	- -	Cushion	500X370		(V774790)	2	
	14	- -	Cushion	2X6X480		(V630000)	2	
	15	- -	Cushion	2X6X210		(V769740)	2	
	16	- -	Connector Assembly	SP VH 8P		(V763050)		

*: New Parts

RANK: Japan only

■ KEYBOARD ASSEMBLY



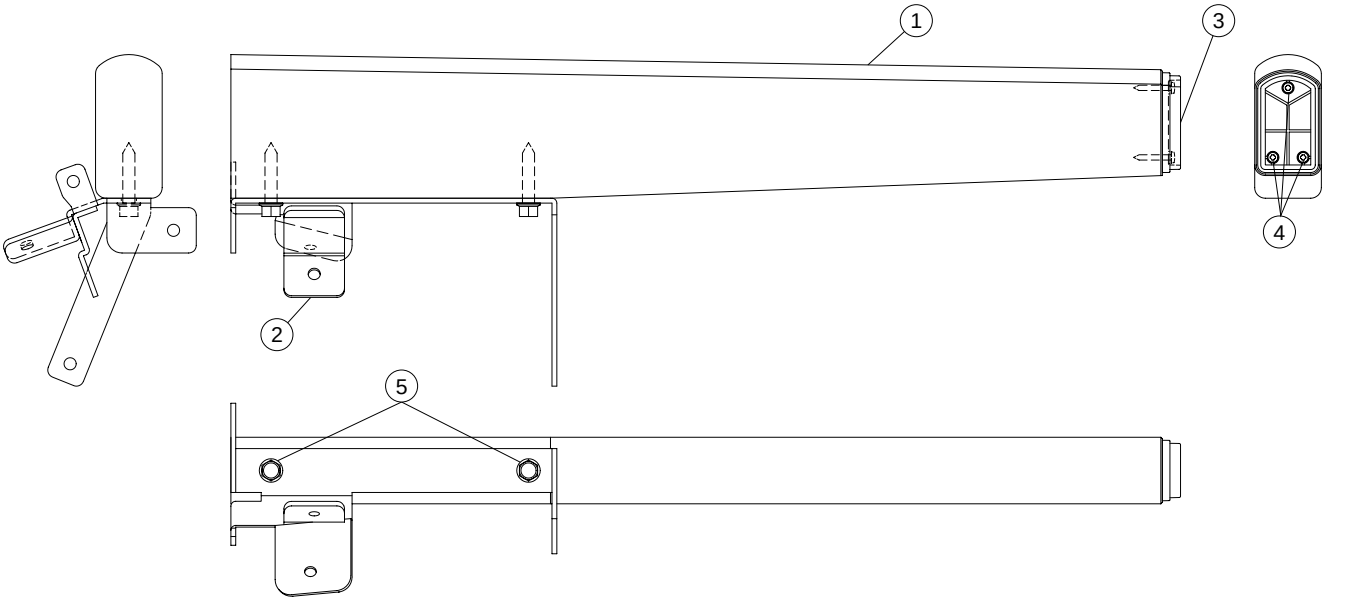
	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*		**V7803300**	KEYBOARD ASSEMBLY	GHD_CL88		CVP-209/CVP-207		
	10	**- -**	MK Frame			(VU42210)		
	20	**VU101000**	White Key	C			7	05
	30	**VU101100**	White Key	D			7	05
	40	**VU101200**	White Key	E			7	05
	50	**VU101300**	White Key	F			7	05
	60	**VU101400**	White Key	G			7	05
	70	**VU101500**	White Key	A			7	05
	80	**VU101600**	White Key	B			8	05
	90	**VU101700**	White Key	A'				05
	100	**VU101800**	White Key	C'				05
	110	**VU102100**	Black Key				36	05
	120	**VY828500**	Hammer, White Key	W1			13	05
	130	**VY828600**	Hammer, White Key	W2			13	05
	140	**VY828700**	Hammer, White Key	W3			13	05
	150	**VY828800**	Hammer, White Key	W4			13	05
	160	**VY828900**	Hammer, Black Key	B1			9	05
	170	**VY829000**	Hammer, Black Key	B2			9	05
	180	**VY829100**	Hammer, Black Key	B3			9	05
	190	**VY829200**	Hammer, Black Key	B4			9	05
	200	**VU342100**	Stopper Felt	U88				09
	210	**V7640100**	Stopper Felt	L88_W				07
	220	**VY846700**	Rubber Contact	OCTAVE 12KEY D-C#			6	08
	222	**VY846800**	Rubber Contact	OCTAVE 11KEY A-C#				08
	224	**VY846900**	Rubber Contact	OCTAVE 5KEY D-C				08
	230	**V7817100**	Circuit Board	GH-DclSW L				
	240	**VZ705300**	Circuit Board	GH-D_SW H				13
	260	**VT413400**	Bind Head Tapping Screw-P	3.0X10 MFZN2			17	01
	270	**VZ417900**	Spring	R WHITE/BLACK		}	88	03
	270	**V2798500**	Spring	R WHITE/BLACK		}	88	
	280	**VU237500**	Rubber			}	88	03
	280	**V2211300**	Rubber	2		}	88	03
	290	**- -**	Grease	G-1006Y		(V627430)		
	300	**VU341800**	Connector Assembly	KRD 9P BLOCK				06
	310	**VU341900**	Connector Assembly	KRD 12P NOTE				07
	340	**VV467900**	Stopper Support A	A 35.5X20			11	03
	350	**VV468100**	Stopper Support B	B 24X20			18	03
			JIGS					
		TX000670	Rod					

*: New Parts

RANK: Japan only

■ FRONT LEG ASSEMBLY

• Top view • Side view • Bottom view



• FRONT LEG ASSEMBLY L

	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			FRONT LEG ASSEMBLY L	LEFT		CVP-209/CVP-207			
*		**V7059900**	Front Leg Assembly L	LEFT		CVP-209			
*		**V7165100**	Front Leg Assembly L	LEFT		CVP-207			
	1	**- -**	Front Leg			CVP-209	(V706250)		
	1	**- -**	Front Leg			CVP-207	(V717420)		
	2	**- -**	Front Leg Angle L	LEFT			(V715170)		
*	3	**V7063600**	Leg Cap			CVP-209			07
*	3	**V7063700**	Leg Cap			CVP-207			02
	4	**EP030480**	Bind Head Tapping Screw-1	3.5X25 MFZN2BL				3	01
*	5	**V7676400**	Hexagonal Bolt-1	8.0X40 MFZN2BL				2	01

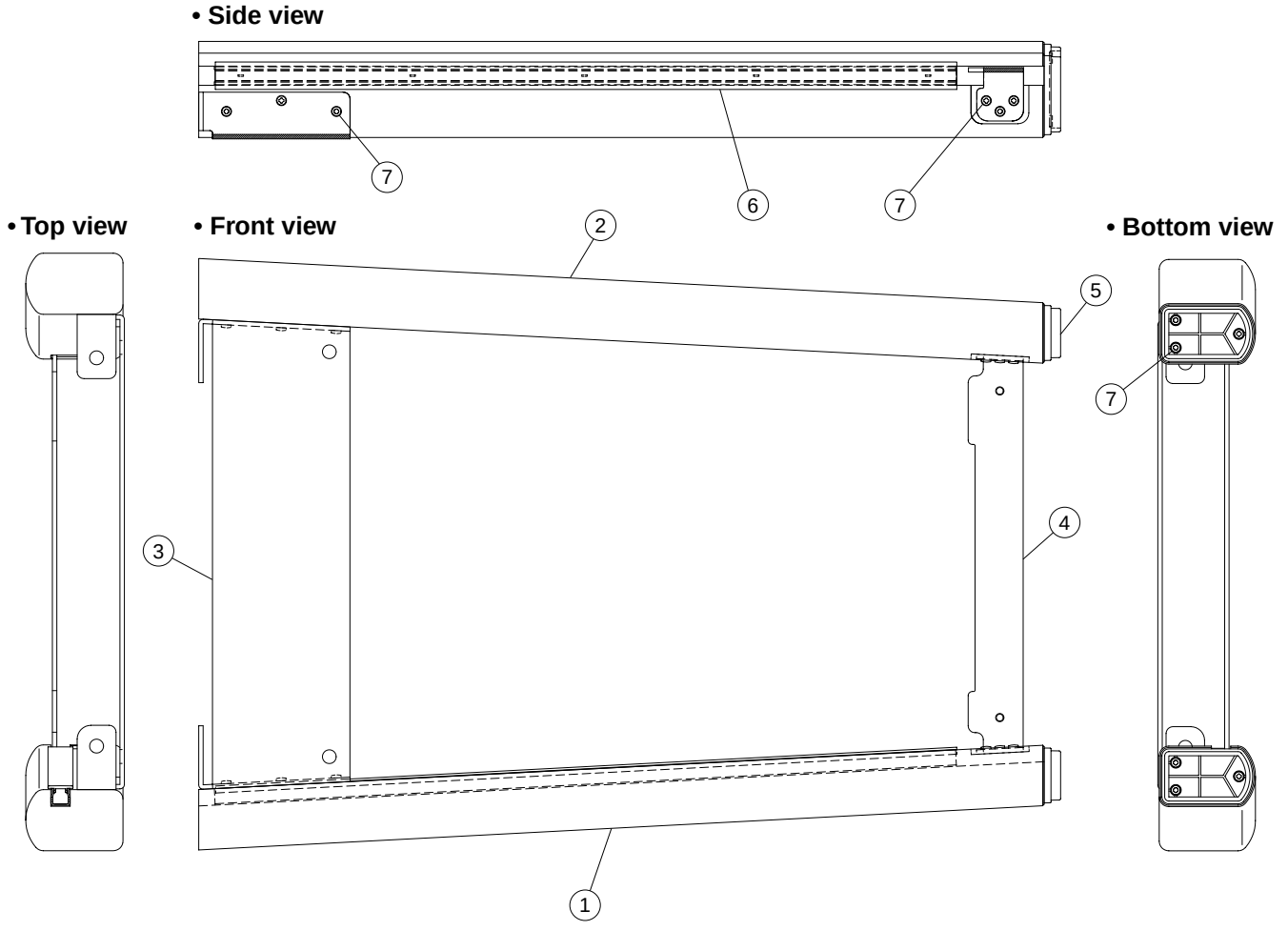
*: New Parts RANK: Japan only

• FRONT LEG ASSEMBLY R

	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			FRONT LEG ASSEMBLY R	RIGHT		CVP-209/CVP-207			
*		**V7060000**	Front Leg Assembly R	RIGHT		CVP-209			
*		**V7165200**	Front Leg Assembly R	RIGHT		CVP-207			
	1	**- -**	Front Leg			CVP-209	(V706250)		
	1	**- -**	Front Leg			CVP-207	(V717420)		
	2	**- -**	Front Leg Angle R	RIGHT			(V715180)		
*	3	**V7063600**	Leg Cap			CVP-209			07
*	3	**V7063700**	Leg Cap			CVP-207			02
	4	**EP030480**	Bind Head Tapping Screw-1	3.5X25 MFZN2BL				3	01
*	5	**V7676400**	Hexagonal Bolt-1	8.0X40 MFZN2BL				2	01

*: New Parts RANK: Japan only

■ REAR LEG ASSEMBLY

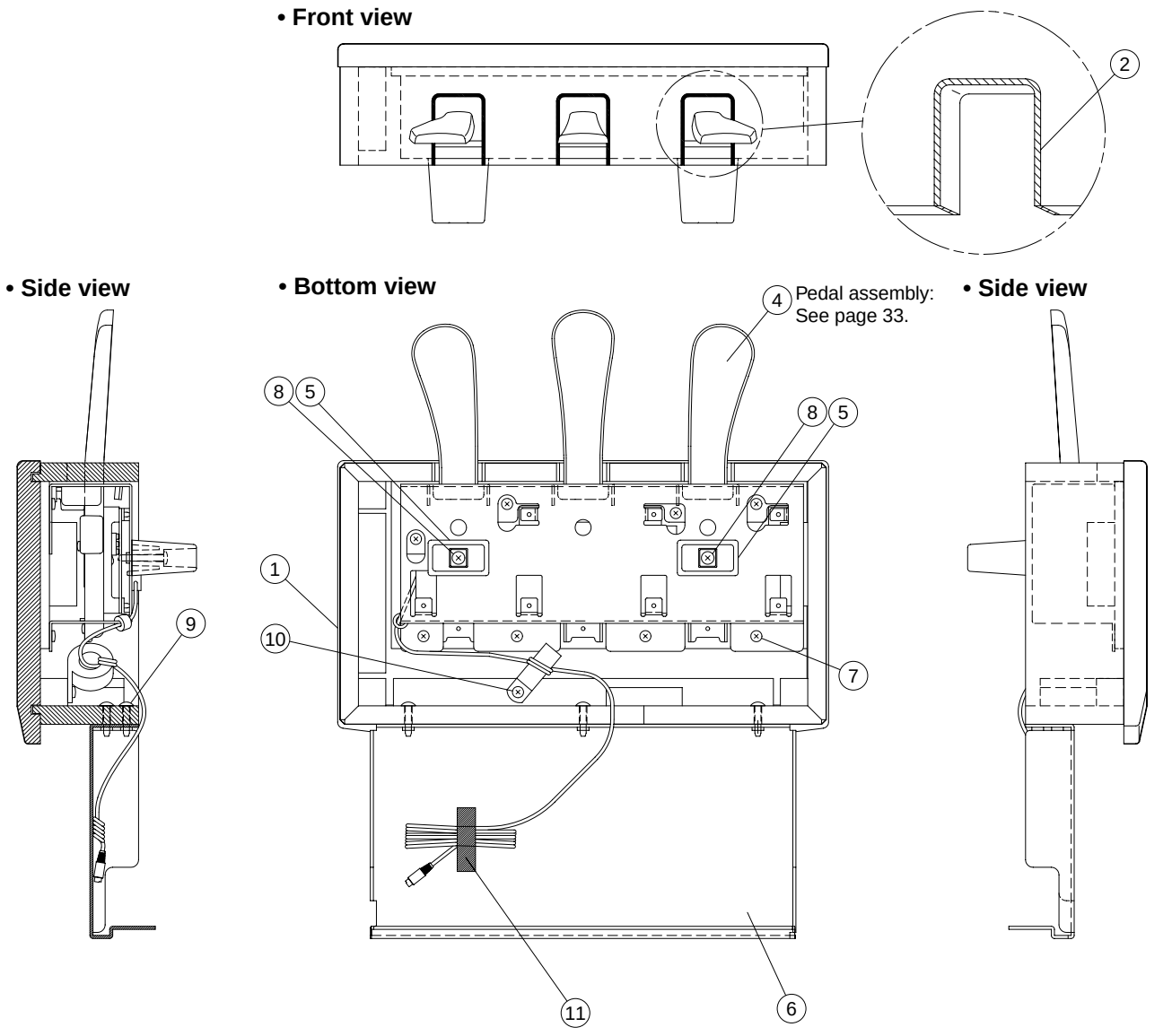


	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			REAR LEG ASSEMBLY			CVP-209/CVP-207			
*		**V7060100**	Rear Leg Assembly			CVP-209			
*		**V7165300**	Rear Leg Assembly			CVP-207			
	1	**- -**	Rear Leg L	LEFT		CVP-209	(V759890)		
	1	**- -**	Rear Leg L	LEFT		CVP-207	(V759900)		
	2	**- -**	Rear Leg R	RIGHT		CVP-209	(V714330)		
	2	**- -**	Rear Leg R	RIGHT		CVP-207	(V717450)		
	3	**- -**	Rear Leg Angle U	UPPER			(V715230)		
	4	**- -**	Rear Leg Angle L	LOWER			(V715240)		
*	5	**V7063600**	Leg Cap	CHROME		CVP-209		2	07
*	5	**V7063700**	Leg Cap	CHROME		CVP-207		2	02
*	6	**V7757600**	Cap Black			CVP-209			05
	7	**EP030480**	Bind Head Tapping Screw-1	3.5X25 MFZN2BL		CVP-207		18	01

*: New Parts

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■ PEDAL BOX ASSEMBLY

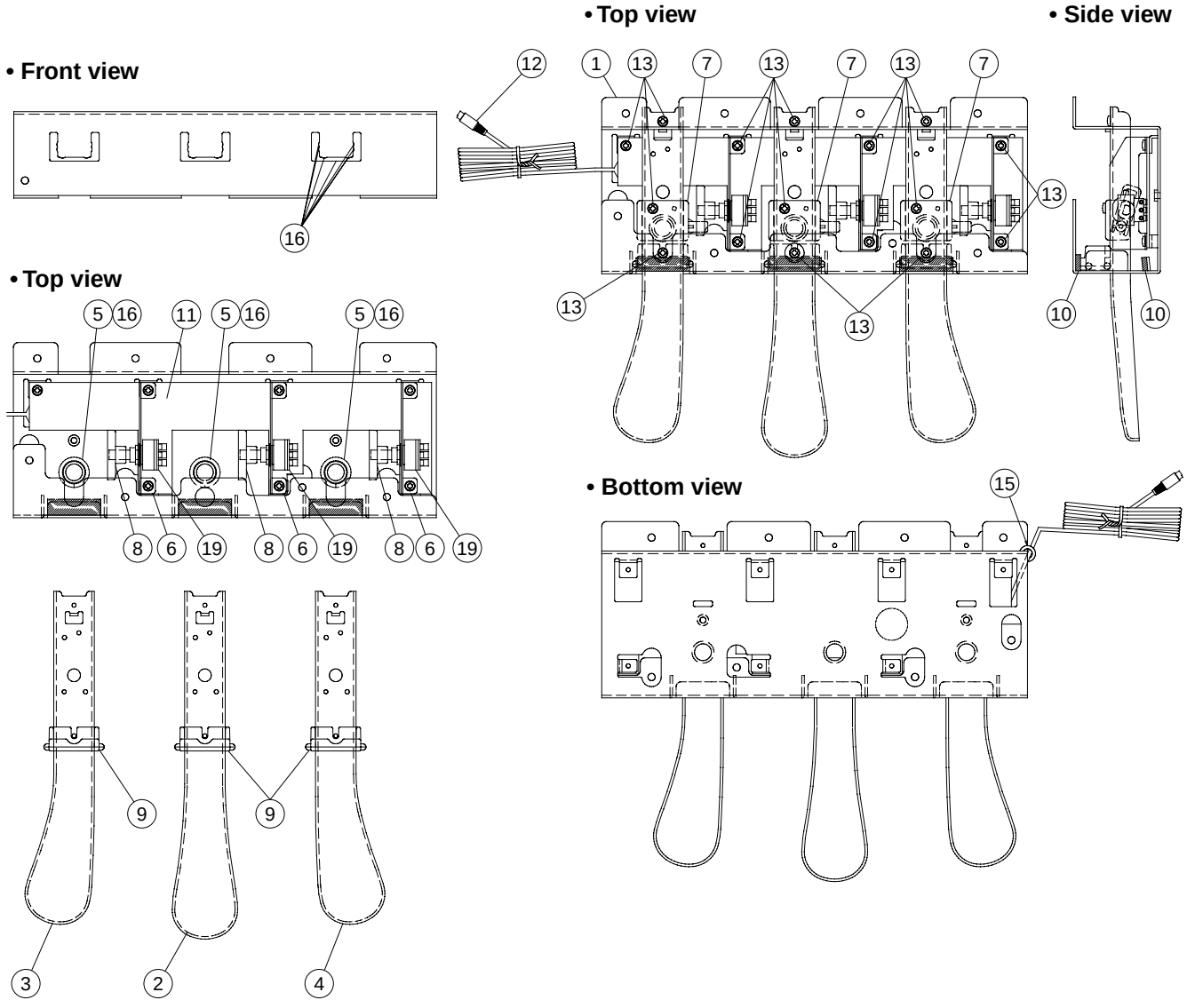


	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			PEDAL BOX ASSEMBLY			CVP-209/CVP-207			
		- -	Pedal Box Assembly			CVP-209	(V706030)		
		- -	Pedal Box Assembly			CVP-207	(V716550)		
*	1	**V7075400**	Pedal Box Assembly			CVP-209			
*	1	**V7175000**	Pedal Box Assembly			CVP-207			
	2	- -	Felt Red	125X12X2			(V719800)	3	
*	4	**V7075500**	Pedal Assembly	(N)					
*	5	**V7511900**	Foot					2	
*	6	**V7156000**	Pedal Box Angle						08
	7	**EP030240**	Bind Head Tapping Screw-1	3.5X12 MFZN2Y				8	01
	8	**VQ023800**	Bind Head Tapping Screw-B	4.0X30 MFZN2BL				2	01
	9	**V2173700**	Truss Head Tapping Screw-B	0X20 MFZN2BL				3	01
	10	**EN630230**	Truss Head Tapping Screw-1	3.5X14 MFZN2Y					01
	11	**VP834600**	Adhesive Tape	12X50					02

*: New Parts

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■ PEDAL ASSEMBLY



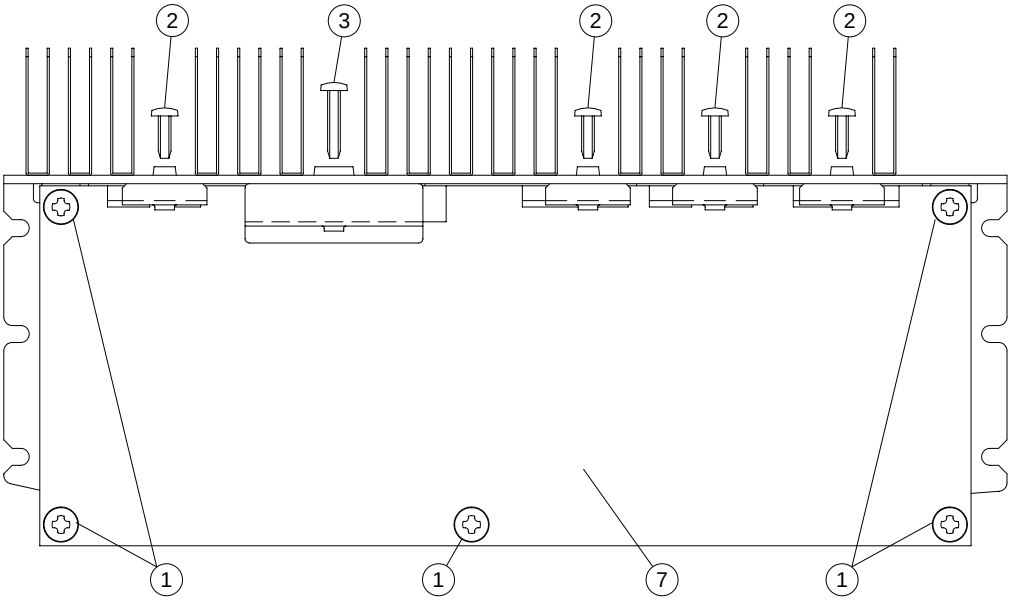
	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*		**V7075500**	PEDAL ASSEMBLY	(N)		CVP-209/CVP-207		
*	1	**V7511700**	Pedal Frame					06
	2	**VU362000**	Pedal Piece C	CENTER		Sostenuto pedal		08
	3	**VU362100**	Pedal Piece L	LEFT		Left pedal		08
	4	**VU362200**	Pedal Piece R	RIGHT		Damper pedal		08
	5	**VP348100**	Pedal Spring				3	03
*	6	**V7598000**	Angle Bracket				3	
	7	**VV475800**	Holder, VR	PEDAL			3	03
	8	**VV476000**	Actuator, VR	PEDAL			3	03
	9	**VU339800**	Shutter	PEDAL			3	03
	10	**VU346500**	Felt Black	PA			6	03
*	11	**V7675600**	Circuit Board	PEDAL (SW)				
*	12	**V7685600**	Connector Assembly	PK-LF				
	13	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			16	01
	15	**CB069250**	Cord Holder	BK-1				01
	16	**- -**	Grease	G-31KA		(VE96850)		
	19	**HS412520**	Rotary Variable Resistor	K161SOZO1		Pedal	3	05

*: New Parts

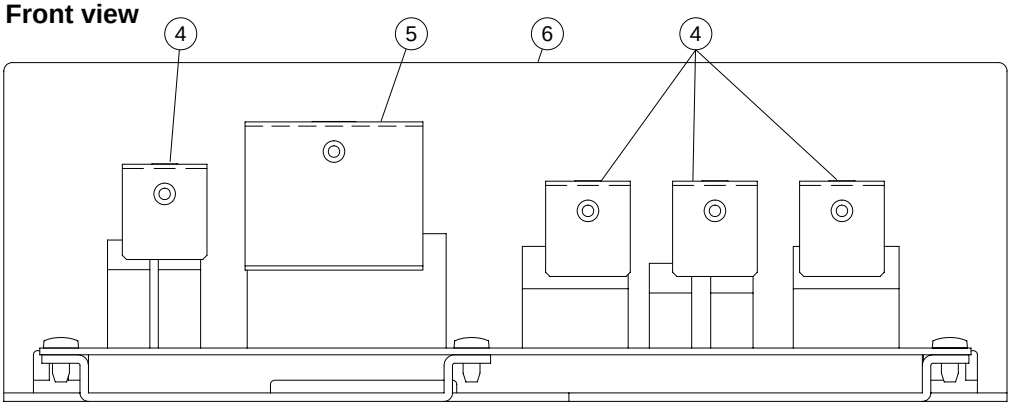
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■ MA120B ASSEMBLY

• Top view



• Front view



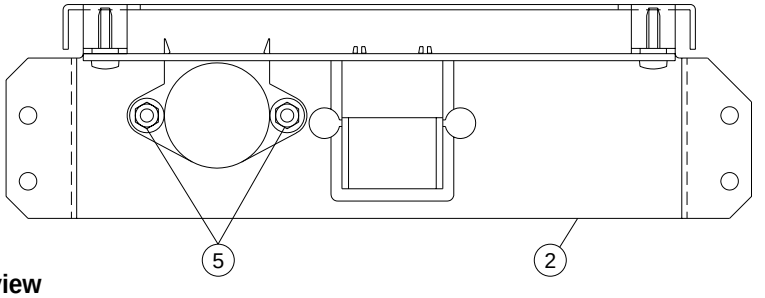
	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			MA120B ASSEMBLY			CVP-209/CVP-207			
*		**V7026100**	MA120B Assembly			J,U			
*		**V7684800**	MA120B Assembly			B,E,N			
	1	**EP640410**	Bind Head Tapping Screw-B	4.0X8 MFZN2Y				5	01
	2	**EP600220**	Bind Head Tapping Screw-B	3.0X10 MFZN2Y				4	01
	3	**EP600390**	Bind Head Tapping Screw-B	3.0X16 MFZN2Y					01
	4	**VT461100**	Transistor Holder A					4	03
	5	**VT461200**	Transistor Holder B						03
	6	**- -**	Heat Sink				(V761610)		
	7	**- -**	Circuit Board	MA120B		J,U	(V702620)		
	7	**- -**	Circuit Board	MA120B		B,E,N	(V729590)		

*: New Parts

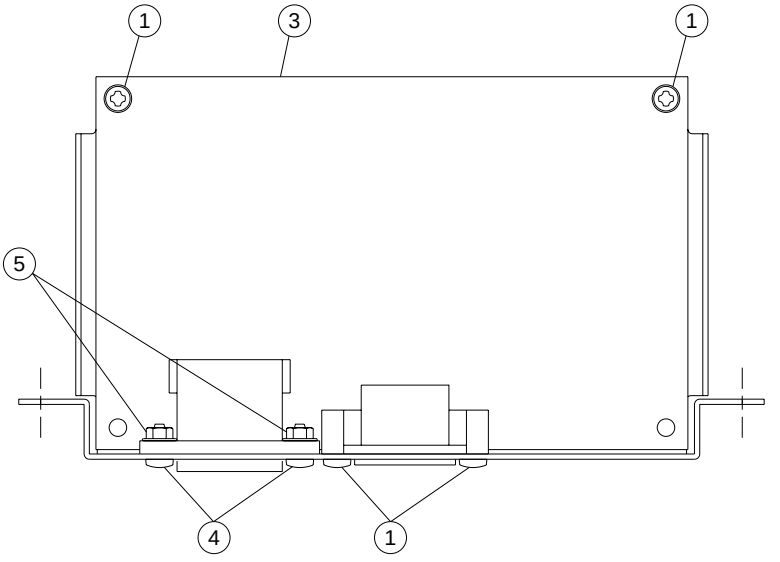
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■ FU120LB ASSEMBLY

• Top view



• Front view

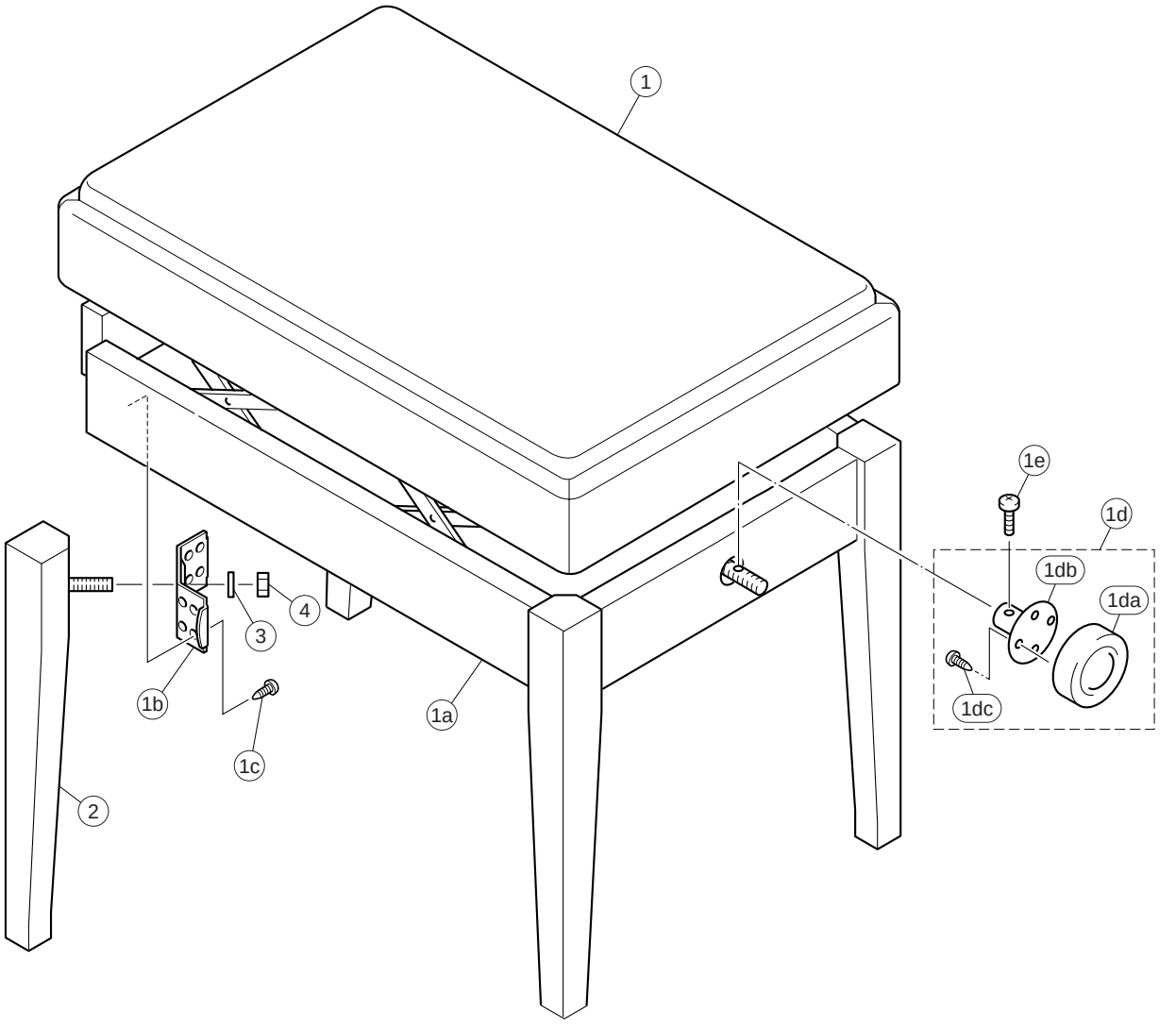


	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			FU120LB ASSEMBLY			CVP-209/CVP-207			
*		**V7631400**	FU120LB Assembly			J			
*		**V7631500**	FU120LB Assembly			U			
*		**V7631600**	FU120LB Assembly			B,E			
*		**V7631700**	FU120LB Assembly			N			
	1	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL				4	01
*	2	**V7585500**	Panel, AC Inlet			J,U,B,E			06
*	2	**V7585600**	Panel, AC Inlet			N			06
	3	**- -**	Circuit Board	FU120L		J	(VV64990)		
	3	**- -**	Circuit Board	FU120BL		U	(V771250)		
	3	**- -**	Circuit Board	FU120BL		B,E	(V760130)		
	3	**- -**	Circuit Board	FU120L		N	(VV65050)		
	4	**EG330380**	Bind Head Screw	3.0X10 MFZN2BL		N		2	01
	5	**VA211900**	Hexagonal Nut	3.0 MFZN2Y		N		2	01

*: New Parts

RANK: Japan only

■ BENCH (BC-200PE/BC-200DR)

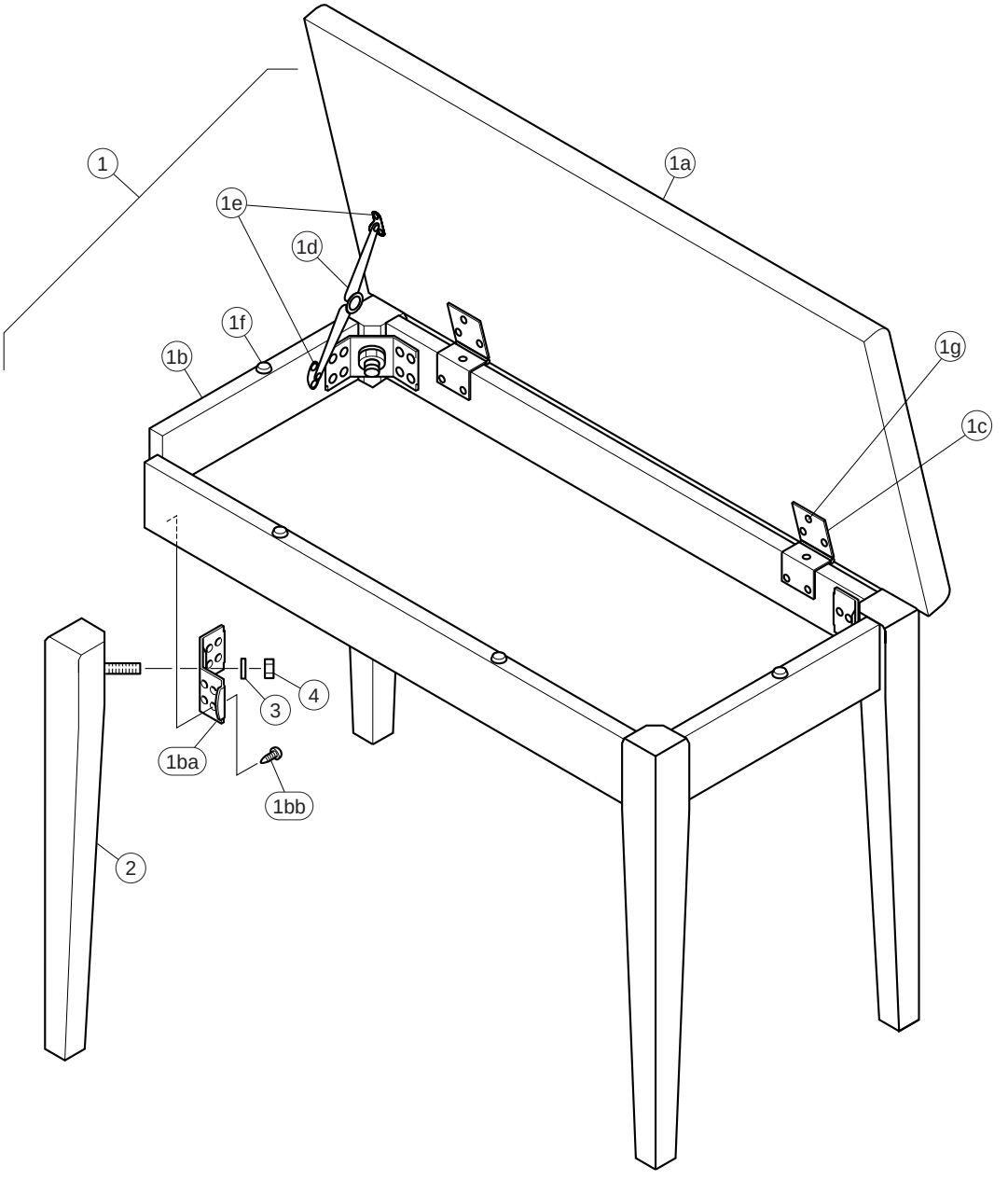


	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			BENCH	BC-200PE/BC-200DR		CVP-209/207			
		- -	Bench	BC-200PE		CVP-209 J,U,N	(V756440)		
		- -	Bench	BC-200DR		CVP-207 J	(V756420)		
*	1	**V7669400**	Bench Board Assembly			CVP-209			
*	1	**V7669200**	Bench Board Assembly			CVP-207			
	1a	- -	Lift Assembly				(V766250)		
*	1b	**V7396200**	Holder, Leg					4	03
	1c	**EP030260**	Bind Head Tapping Screw-1	3.5X16 MFZN2BL				32	01
*	1d	**V7671200**	Knob Assembly			CVP-209			
*	1d	**V7671000**	Knob Assembly			CVP-207			
	1da	- -	Knob			CVP-209	(V767160)		
	1da	- -	Knob			CVP-207	(V767130)		
*	1db	**V7662700**	Angle						
	1dc	**EP040250**	Bind Head Tapping Screw-1	4.0X16 MFZN2BL				4	01
	1e	**VR060200**	Bind Head Tapping Screw-B	4.0X16 MFZN2BL					01
*	2	**V7672200**	Leg Assembly			CVP-209		4	
*	2	**V7672000**	Leg Assembly			CVP-207		4	
*	3	**V7678600**	Spring Washer	#2 10.0 MFZN2BL				4	
*	4	**V7678700**	Hexagonal Nut	#1 10.0X1.25 MFZN2				4	
			ACCESSORY						
		- -	Wrench				(V688680)		

*: New Parts

RANK: Japan only

■ BENCH (BC-120DR)

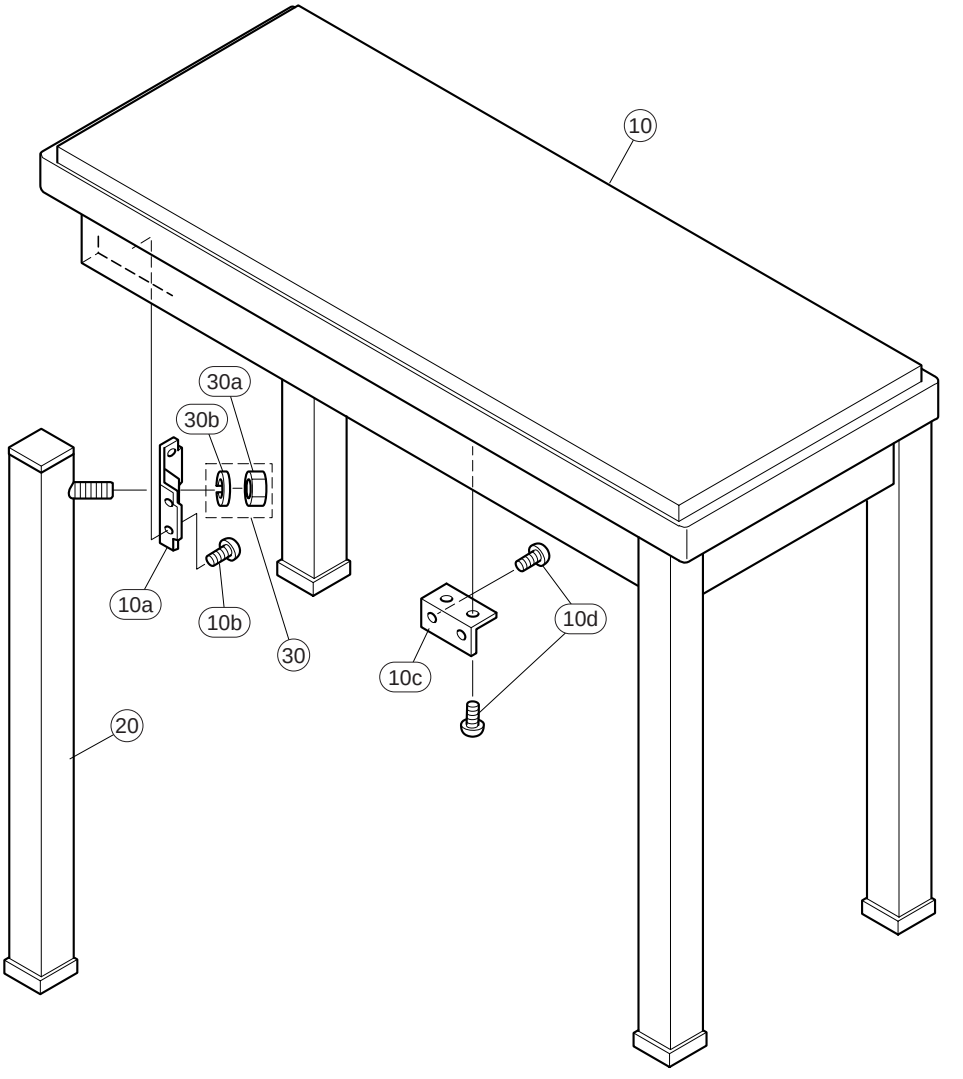


	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		- -	BENCH	BC-102DR		CVP-207 U (V756390)		
*	1	**V7695800**	Bench Board Assembly					
	1a	- -	Bench Board			(V769170)		
	1b	- -	Seat Support Assembly			(V769620)		
*	1ba	**V7396200**	Holder, Leg				4	03
	1bb	**EP030260**	Bind Head Tapping Screw-1	3.5X16 MFZN2BL			32	01
*	1c	**V7696900**	Hinge	2.0 2 MFZN2BL			2	05
	1d	**VB896300**	Stay	MFNZN2BL				04
	1e	**EP030250**	Bind Head Tapping Screw-1	3.5X14 MFZN2BL			4	01
	1f	- -	Spacer	BC-102		(V792090)	4	
	1g	**EM030340**	Flat Head Tapping Screw-1	3.5X14 MFZN2BL			12	01
*	2	**V7692000**	Leg Assembly				4	
*	3	**V7678600**	Spring Washer	#2 10.0 MFZN2BL			4	
*	4	**V7678700**	Hexagonal Nut	#1 10.0X1.25 MFZN2			4	
			ACCESSORY					
		- -	Wrench			(V688680)		

*: New Parts

RANK: Japan only

■ BENCH (BC-100DR)



REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	- -	BENCH	BC-100DR		CVP-207 N (V553140)		
10	**V5532900**	Bench Board Assembly					16
10a	**AA016480**	Holder, Leg				4	02
10b	**EP030190**	Bind Head Tapping Screw-1	3.5X16 MFZN2Y			16	01
10c	**VC969300**	Holder, Bench Board				4	03
10d	**EP030170**	Bind Head Tapping Screw-1	3.5X14 MFZN2Y			16	01
* 20	**V8176300**	Leg Assembly	BC-100DR			4	
30	**VS530500**	Screw Set Assembly	BC-XX				03
30a	**03761250**	Hexagonal Nut	10.0X1.25 MFZN2Y			4	01
30b	**03765820**	Spring Washer	10.0 MFZN2Y			4	01
		ACCESSORY					
	- -	Wrench			(V688680)		

*: New Parts

RANK: Japan only

■ ELECRICAL PARTS

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			ELECTRICAL PARTS			CVP-209/CVP-207		
*		**V7147300**	Circuit Board	A-JACK		(XZ888B0)		
		V6366200	Circuit Board	D-JACK		(XW982D0)		10
		V6366400	Circuit Board	PEDAL (D-JACK)		(XW982D0)		
*		**V7160300**	Circuit Board	DM		CVP-209 (XZ894D0)		
*		**V7160400**	Circuit Board	DM		CVP-207 (XZ894D0)		
		- -	Circuit Board	FU120L		J (VV64990,XS882A0)		
		- -	Circuit Board	FU120BL		U (V771250,XS882A0)		
		- -	Circuit Board	FU120BL		B,E (V760130,XS882A0)		
		- -	Circuit Board	FU120L		N (VV65050,XS882A0)		
		VZ705300	Circuit Board	GH-D_SW H		(XT241A0)		13
		V7817100	Circuit Board	GH-DclSW L		(XT240A0)		
*		**V7135900**	Circuit Board	GLC		(XZ883B0)		
*		**V7135800**	Circuit Board	GLL		(XZ883B0)		
*		**V7136100**	Circuit Board	GLR		(XZ883B0)		
*		**V8115900**	Circuit Board	HP		(XQ795A0)		
*		**V7173700**	Circuit Board	INV		(XZ890C0)		
*		**V7157100**	Circuit Board	PNR (PNR,ENC)		(XZ890C0)		
		- -	Circuit Board	MA120B		J,U (V702620,XZ588D0)		
		- -	Circuit Board	MA120B		B,E,N (V729590,XZ588D0)		
*		**V7596600**	Circuit Board	MIC		(XV507D0)		
*		**V7156500**	Circuit Board	MV		(XZ889C0)		
*		**V7156900**	Circuit Board	PNCB		(XZ889C0)		
*		**V7156400**	Circuit Board	PNL		(XZ889C0)		
		V2403300	Circuit Board	NET1		(XT123B0)		
*		**V7674700**	Circuit Board	NETWORK		(XV011A0)		
*		**V7675600**	Circuit Board	PEDAL (SW)		(X0193A0)		
*		**V7156600**	Circuit Board	PNCL		(X0081B0)		
*		**V7156700**	Circuit Board	PNCR		(X0081B0)		
*		**V7160600**	Circuit Board	SWX-A		CVP-209 (XZ895D0)		
*		**V7161000**	Circuit Board	SWX-A		CVP-207 (XZ895D0)		
*		**V7160800**	Circuit Board	SWX-B		CVP-209 (XZ895D0)		
*		**V7161200**	Circuit Board	SWX-B		CVP-207 (XZ895D0)		
*		**V7147300**	Circuit Board	A-JACK		(XZ888B0)		
		- -	Jumper Wire	0.55		(VA07890)		
	C0100	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C0101	**US063330**	Ceramic Capacitor-B (chip)	3300P 50V K				01
	C0102	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0103	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C0120	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C0121	**US063330**	Ceramic Capacitor-B (chip)	3300P 50V K				01
	C0122	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0123	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C0200	**US062150**	Ceramic Capacitor-SL(chip)	150P 50V J				01
	C0201	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C0202	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	C0203	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0204	**UR848220**	Electrolytic Cap.	220.00 25.0V				01
	C0205	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C0206	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0250	**US062150**	Ceramic Capacitor-SL(chip)	150P 50V J				01
	C0251	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C0252	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	C0253	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0254	**UR848220**	Electrolytic Cap.	220.00 25.0V				01
	C0255	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C0256	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0301	**UA354330**	Mylar Capacitor	0.0330 50V J				01
	C0302	**VR169400**	Monolithic Mylar Capacitor	ECQ-V1H684JL3 0.68				
	C0303	**UA354330**	Mylar Capacitor	0.0330 50V J				01
	C0304	**VR169400**	Monolithic Mylar Capacitor	ECQ-V1H684JL3 0.68				
	C0305	**UA354390**	Mylar Capacitor	0.0390 50V J				01
	C0306	**UA354820**	Mylar Capacitor	0.0820 50V J				01
	C0307	**UA354330**	Mylar Capacitor	0.0330 50V J				01
	C0308	**UA354270**	Mylar Capacitor	0.0270 50V J				01
	C0309	**UA354100**	Mylar Capacitor	0.0100 50V J				01
	C0310	**UA354470**	Mylar Capacitor	0.0470 50V J				
	C0311	**UA354270**	Mylar Capacitor	0.0270 50V J				01
	C0312	**UA353220**	Mylar Capacitor	2200P 50V J				01

*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0313	**UA353560**	Mylar Capacitor	5600P 50V J				
* C0314	**UA353210**	Mylar Capacitor	100P 50V J				
C0320	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0401	**UA354330**	Mylar Capacitor	0.0330 50V J				01
C0402	**VR169400**	Monolithic Mylar Capacitor	ECQ-V1H684JL3 0.68				
C0403	**UA354330**	Mylar Capacitor	0.0330 50V J				01
C0404	**VR169400**	Monolithic Mylar Capacitor	ECQ-V1H684JL3 0.68				
C0405	**UA354390**	Mylar Capacitor	0.0390 50V J				01
C0406	**UA354820**	Mylar Capacitor	0.0820 50V J				01
C0407	**UA354330**	Mylar Capacitor	0.0330 50V J				01
C0408	**UA354270**	Mylar Capacitor	0.0270 50V J				01
C0409	**UA354100**	Mylar Capacitor	0.0100 50V J				01
C0410	**UA354470**	Mylar Capacitor	0.0470 50V J				
C0411	**UA354270**	Mylar Capacitor	0.0270 50V J				01
C0412	**UA353220**	Mylar Capacitor	2200P 50V J				01
C0413	**UA353560**	Mylar Capacitor	5600P 50V J				
* C0414	**UA353210**	Mylar Capacitor	100P 50V J				
C0420	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0520	**UR848220**	Electrolytic Cap.	220.00 25.0V				01
C0521	**UR848220**	Electrolytic Cap.	220.00 25.0V				01
C0531	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0540	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0541	**US063680**	Ceramic Capacitor-B (chip)	6800P 50V K				01
C0600	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
C0601	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0602	**US063680**	Ceramic Capacitor-B (chip)	6800P 50V K				01
C0610	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
C0612	**US063680**	Ceramic Capacitor-B (chip)	6800P 50V K				01
C0620	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0640	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
CN500	**VB390800**	Connector Base Post	PH 12P TE				01
CN510	**VB390400**	Connector Base Post	PH 8P TE				01
CN520	**VB390500**	Connector Base Post	PH 9P TE				03
CN530	**VB390300**	Connector Base Post	PH 7P TE				01
CN540	**VB389800**	Connector Base Post	PH 2P TE				01
D0200	**VB493900**	Diode	MA221				01
D0640	**VB493900**	Diode	MA221				01
IC100	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC200	**XT131A00**	IC	LA6517M-TE-R		OP AMP		04
IC300	**XY487A00**	IC	M5229FP		EQUALIZER		03
IC400	**XY487A00**	IC	M5229FP		EQUALIZER		03
JK600	**VL080500**	Phone Jack	YKB21-5076		AUX IN L/L+R		02
JK610	**VS115400**	Phone Jack Black	LGR4609-7000		AUX IN R		01
JK620	**VL080500**	Phone Jack	YKB21-5076		AUX OUT L/L+R		02
JK630	**VS115400**	Phone Jack Black	LGR4609-7000		AUX OUT R		01
JK640	**VP599300**	Pin Jack	2P YKC21-3120		AUX OUT LEVEL FIXED L/R		02
JK650	**VI311100**	Pin Jack	1P YKC21-3017		VIDEO OUT		01
L0540	**V3085000**	Choke Coil	R-5C.10uH				
L0541	**- -**	Jumper Wire	0.55		(VD04170)		
L0600	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
L0620	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
L0640	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
R0100	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0101	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0102	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
R0103	**RD355100**	Carbon Resistor (chip)	100 63M J				01
R0120	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0121	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0122	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
R0123	**RD355100**	Carbon Resistor (chip)	100 63M J				01
R0200	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0201	**RD357150**	Carbon Resistor (chip)	15K 63M J				01
R0203	**RD354330**	Carbon Resistor (chip)	33 63M J				01
R0204	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0250	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0251	**RD357150**	Carbon Resistor (chip)	15K 63M J				01
R0253	**RD354330**	Carbon Resistor (chip)	33 63M J				01
R0254	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0301	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0302	**RD357220**	Carbon Resistor (chip)	22K 63M J				01

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R0303	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0304	**RD357220**	Carbon Resistor (chip)	22K 63M J				01
	R0305	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
	R0306	**RD357180**	Carbon Resistor (chip)	18K 63M J				01
	R0307	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
	R0308	**RD357180**	Carbon Resistor (chip)	18K 63M J				01
	R0309	**RD355560**	Carbon Resistor (chip)	560 63M J				01
	R0310	**RD357220**	Carbon Resistor (chip)	22K 63M J				01
	R0311	**RD357150**	Carbon Resistor (chip)	15K 63M J				01
	R0312	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
	R0313	**RD357180**	Carbon Resistor (chip)	18K 63M J				01
	R0320	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
	R0321	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0322	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
	R0323	**RD356270**	Carbon Resistor (chip)	2.7K 63M J				01
	R0401	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0402	**RD357220**	Carbon Resistor (chip)	22K 63M J				01
	R0403	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0404	**RD357220**	Carbon Resistor (chip)	22K 63M J				01
	R0405	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
	R0406	**RD357180**	Carbon Resistor (chip)	18K 63M J				01
	R0407	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
	R0408	**RD357180**	Carbon Resistor (chip)	18K 63M J				01
	R0409	**RD355560**	Carbon Resistor (chip)	560 63M J				01
	R0410	**RD357220**	Carbon Resistor (chip)	22K 63M J				01
	R0411	**RD357150**	Carbon Resistor (chip)	15K 63M J				01
	R0412	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
	R0413	**RD357180**	Carbon Resistor (chip)	18K 63M J				01
	R0414	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
	R0420	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
	R0421	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0422	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
	R0423	**RD356270**	Carbon Resistor (chip)	2.7K 63M J				01
	R0520	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0530	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	-0533	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0540	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0600	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
	R0601	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
	R0610	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
	R0611	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
	R0620	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0621	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
	R0630	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0631	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
	R0640	**RD355680**	Carbon Resistor (chip)	680 63M J				01
	R0641	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0650	**RD355680**	Carbon Resistor (chip)	680 63M J				01
	R0651	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0700	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
	R0701	**RD357330**	Carbon Resistor (chip)	33K 63M J				01
*	RY200	**V7358200**	Relay	DC FBR12WD12 12V				04
*	RY640	**V7358200**	Relay	DC FBR12WD12 12V				04
	TR700	**VV556400**	Transistor	2SC2412K Q,R,S				01
		V6366200	Circuit Board	D-JACK		(XW982D0)		10
		V6366400	Circuit Board	PEDAL (D-JACK)		(XW982D0)		
	C0002	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0005	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
	C0006	**UN817470**	Electrolytic Cap.-BP	47.00 6.3V				01
	C0008	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0011	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0012	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
	C0013	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0020	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	CN001	**VB390600**	Connector Base Post	PH 10P TE				01
	CN002	**VB390100**	Connector Base Post	PH 5P TE				01
	D0001	**VV925900**	Diode	RLS-73 TE-11				01
	-0004	**VV925900**	Diode	RLS-73 TE-11				01
	IC001	**XI348A00**	IC	SC7SU04FEL INV		INVERTER		01

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	IC002	**XU073A00**	IC	SN75C1168NSR LINE		LINE TRANSCEIVER		05
	IC003	**VD473200**	Photo Coupler	6N137				05
	JK001	**VT202500**	DIN Connector	5P YKF51-50		MIDI IN		01
	JK002	**VT202500**	DIN Connector	5P YKF51-50		MIDI OUT		01
	JK003	**VT202500**	DIN Connector	5P YKF51-50		MIDI THRU		01
	JK004	**VV269500**	DIN Connector	8P MD-S813		TO HOST		03
	JK005	**V4874800**	DIN Connector	6P MD-S613		to Pedal assembly		02
	JK006	**VS115400**	Phone Jack Black	LGR4609-7000		AUX PEDAL		01
	L0001	**VQ724900**	Chip Inductance	BK2125HM601-T				01
	-0003	**VQ724900**	Chip Inductance	BK2125HM601-T				01
	L0004	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	L0005	**VQ724900**	Chip Inductance	BK2125HM601-T				01
	-0019	**VQ724900**	Chip Inductance	BK2125HM601-T				01
	R0002	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	-0005	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	R0006	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0007	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	R0008	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	R0009	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0010	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	R0011	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	R0012	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0013	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	R0014	**RD355220**	Carbon Resistor (chip)	220 63M J				01
	R0015	**RD355220**	Carbon Resistor (chip)	220 63M J				01
	R0016	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	R0017	**RD357220**	Carbon Resistor (chip)	22K 63M J				01
	R0018	**RD357220**	Carbon Resistor (chip)	22K 63M J				01
	R0019	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	R0020	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
	R0021	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	R0022	**RD357220**	Carbon Resistor (chip)	22K 63M J				01
	R0023	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
	R0024	**RD355220**	Carbon Resistor (chip)	220 63M J				01
	-0028	**RD355220**	Carbon Resistor (chip)	220 63M J				01
	R0029	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	R0030	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0031	**RD355220**	Carbon Resistor (chip)	220 63M J				01
	R0032	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	SW001	**VQ665200**	Slide Switch	SSSF144-S06N-0		HOST SELECT		03
	TR001	**VV556400**	Transistor	2SC2412K Q,R,S				01
	-004	**VV556400**	Transistor	2SC2412K Q,R,S				01
*		**V7160300**	Circuit Board	DM		CVP-209 (XZ894D0)		
*		**V7160400**	Circuit Board	DM		CVP-207 (XZ894D0)		
	C0001	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
	C0002	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
	C0003	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0004	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0005	**US060500**	Ceramic Capacitor-CH(chip)	5P 50V C				01
	C0006	**US060500**	Ceramic Capacitor-CH(chip)	5P 50V C				01
	C0007	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C0008	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
	C0009	**US061150**	Ceramic Capacitor-CH(chip)	15P 50V J				01
	C0010	**US061150**	Ceramic Capacitor-CH(chip)	15P 50V J				01
	C0011	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
	C0012	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
	C0013	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0014	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0015	**US061100**	Ceramic Capacitor-CH(chip)	10P 50V J				01
	C0016	**US061120**	Ceramic Capacitor-CH(chip)	12P 50V J				01
	C0017	**US061100**	Ceramic Capacitor-CH(chip)	10P 50V J				01
	C0018	**US061100**	Ceramic Capacitor-CH(chip)	10P 50V J				01
	C0019	**US061270**	Ceramic Capacitor-CH(chip)	27P 50V J				01
	C0020	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	-0026	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	C0034	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0039	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0041	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0046	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0047	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
-0049	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0050	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
-0057	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0058	**UF037100**	Electrolytic Cap. (chip)	10 16V		CVP-209		01
C0059	**UF037100**	Electrolytic Cap. (chip)	10 16V		CVP-209		01
C0060	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
-0063	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0064	**UF118330**	Electrolytic Cap. (chip)	330 6.3V UUR0J3				01
C0065	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C0067	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C0068	**UF038100**	Electrolytic Cap. (chip)	100 16V		CVP-209		01
C0069	**UF037220**	Electrolytic Cap. (chip)	22 16V				01
C0070	**UF017220**	Electrolytic Cap. (chip)	22 6.3V				01
-0073	**UF017220**	Electrolytic Cap. (chip)	22 6.3V				01
C0074	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
-0076	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0078	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
C0080	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
-0085	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C0086	**UF017220**	Electrolytic Cap. (chip)	22 6.3V				01
C0087	**UF017220**	Electrolytic Cap. (chip)	22 6.3V				01
C0088	**UF017470**	Electrolytic Cap. (chip)	47 6.3V				01
C0089	**UF017470**	Electrolytic Cap. (chip)	47 6.3V				01
C0090	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
C0091	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0092	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0093	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
C0094	**US061270**	Ceramic Capacitor-CH(chip)	27P 50V J				01
-0097	**US061270**	Ceramic Capacitor-CH(chip)	27P 50V J				01
C0098	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0168	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0169	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K		CVP-209		01
-0180	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K		CVP-209		01
C0181	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0182	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0183	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K		CVP-209		01
C0184	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0209	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0210	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0211	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0212	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0213	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K		CVP-209		01
C0214	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K		CVP-209		01
C0215	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0220	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0221	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
-0228	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0229	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0231	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0232	**US062150**	Ceramic Capacitor-SL(chip)	150P 50V J				01
C0233	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0235	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0236	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0240	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0241	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0242	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0243	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0245	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0246	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0247	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0250	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0256	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0270	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
-0277	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0278	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0279	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
-0282	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0300	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0317	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0321	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0342	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0343	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
CN001	**VQ391300**	Connector	34P TE				03
CN002	**LB918050**	Connector Base Post	XH 5P TE				01
CN003	**VB390700**	Connector Base Post	PH 11P TE				01
CN004	**VB390600**	Connector Base Post	PH 10P TE				01
CN005	**VB390400**	Connector Base Post	PH 8P TE				01
CN007	**VB390100**	Connector Base Post	PH 5P TE				01
CN008	**VB390800**	Connector Base Post	PH 12P TE				01
CN009	**VB390100**	Connector Base Post	PH 5P TE				01
* CN010	**V7294600**	Connector, FFC/FPC	52559 20P TE				02
CN011	**VB389800**	Connector Base Post	PH 2P TE				01
CN012	**LB918030**	Base Post Connector	XH 3P TE				01
CN015	**VM673300**	Header	HIF3FC26PA-2.54DSA				03
CN016	**VM673300**	Header	HIF3FC26PA-2.54DSA				03
D0001	**VB493900**	Diode	MA221				01
-0004	**VB493900**	Diode	MA221				01
D0005	**VB493900**	Diode	MA221		CVP-209		01
D0006	**VB493900**	Diode	MA221				01
D0007	**RD150000**	Carbon Resistor (chip)	0.0 1/4 J				01
D0009	**VB493900**	Diode	MA221				01
D0009	**VB493900**	Diode	MA221				01
IC001	**XV250B00**	IC	HD6417709F80B		CPU		11
IC002	**XV250B00**	IC	HD6417709F80B		CPU		11
IC003	**XS725A00**	IC	TC203C760HF-002		SWP30B		19
IC004	**XS725A00**	IC	TC203C760HF-002		CVP-209 SWP30B		19
IC005	**XT013A00**	IC	YSS236-F		VOP3		13
IC006	**XI939A00**	IC	HD63266F		FDC		09
IC007	**XV833A00**	IC	MBCG46183-129		SIO4 (GATE ARRAY)		06
IC008	**XU135A00**	IC	TC160G22AF-1252		MI2		06
* IC009	**XZ690A00**	IC	SED1356F0A		LCDC		
IC010	**XY099A00**	IC	KM432S2030CT-G8		SDRAM 64M		15
IC010	**XY781A00**	IC	HY57V653220B-10				15
IC010	**X0176A00**	IC	W986432DH-7				15
IC010	**X0493A00**	IC	K4S643232E-TC60				
IC010	**X0494A00**	IC	K4S643232E-TC70				15
IC011	**XY099A00**	IC	KM432S2030CT-G8		SDRAM 64M		15
IC011	**XY781A00**	IC	HY57V653220B-10				15
IC011	**X0176A00**	IC	W986432DH-7				15
IC011	**X0493A00**	IC	K4S643232E-TC60				
IC011	**X0494A00**	IC	K4S643232E-TC70				15
* IC012	**X0099200**	IC	MX23L6410		CVP-209 M.ROM 64M MAIN L		
* IC012	**X0101200**	IC	MX23L6410		CVP-207 M.ROM 64M MAIN L		
* IC013	**X0100200**	IC	MX23L6410		CVP-209 M.ROM 64M MAIN H		
* IC013	**X0102200**	IC	MX23L6410		CVP-207 M.ROM 64M MAIN H		
* IC014	**X0103200**	IC	MX23L6410		FLASH ROM 64M STYLE		
* IC015	**XZ816A00**	IC	E28F320J3A-100		FALSH ROM 32M		16
* IC016	**X0106100**	IC	MX23L6410		FLASH ROM LCD PROGRAM2		
IC017	**XW763200**	IC			MASK ROM 64M WAVE1 LOW		11
IC018	**XW764200**	IC			MASK ROM 64M WAVE1 HIGH		11
IC019	**XW765100**	IC			MASK ROM 64M WAVE2 LOW		11
IC020	**XW766100**	IC			MASK ROM 64M WAVE2 HIGH		11
IC021	**XY814100**	IC			MASK ROM 64M WAVE3 LOW		10
IC022	**XY815100**	IC			MASK ROM 64M WAVE3 HIGH		10
IC023	**XU462A00**	IC	MSM514260C-60TS-K		DRAM 4M		08
IC023	**XU462B00**	IC	MSM514260E-60TS-K				07
IC023	**XV077B00**	IC	MSM514260E-60JS				
IC023	**XW732A00**	IC	SDM4260CLTM-6S				07
IC024	**XU462A00**	IC	MSM514260C-60TS-K		CVP-209 DRAM 4M		08
IC024	**XU462B00**	IC	MSM514260E-60TS-K				07
IC024	**XV077B00**	IC	MSM514260E-60JS				
IC024	**XW732A00**	IC	SDM4260CLTM-6S				07
IC025	**XU462A00**	IC	MSM514260C-60TS-K		DRAM 4M		08
IC025	**XU462B00**	IC	MSM514260E-60TS-K				07
IC025	**XV077B00**	IC	MSM514260E-60JS				
IC025	**XW732A00**	IC	SDM4260CLTM-6S				07
* IC026	**XZ964A00**	IC	K4E151612D-TC60000		DRAM 16M		08
IC027	**XV510A00**	IC	AK5351-VF-E2		ADC		08
IC028	**XP551A00**	IC	PCM1702U/2K		DAC		08

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	IC029	**XP551A00**	IC	PCM1702U/2K		DAC		08
*	IC030	**IS013200**	IC	HD74LV132AFPEL		NAND		01
	IC031	**XS048A00**	IC	HD74LVC139FPEL		DECODER		03
	IC032	**XT744A00**	IC	TC74VHCT245AFT		BUFFER		07
	IC033	**XT744A00**	IC	TC74VHCT245AFT		BUFFER		07
	IC034	**XW148A00**	IC	HD74LVC245A		BUFFER		02
	-036	**XW148A00**	IC	HD74LVC245A		BUFFER		02
	IC037	**XT744A00**	IC	TC74VHCT245AFT		BUFFER		07
	IC038	**XW148A00**	IC	HD74LVC245A		BUFFER		02
	IC039	**XW148A00**	IC	HD74LVC245A		BUFFER		02
*	IC040	**IS037400**	IC	HD74LV374AFPEL		D-FF		02
*	IC040	**IS037410**	IC	SN74LV374ANSR				
	IC041	**XW891A00**	IC	TC74HC139AF(EL)		DECODER		01
	IC042	**XF483A00**	IC	LB1443N		LED DRIVER		02
	IC043	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC044	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC045	**XJ598A00**	IC	NJM78L05UA		REGULATOR +5V		02
	IC046	**XN086A00**	IC	NJM79L05UA TE1		REGULATOR -5V		02
	IC047	**XS516A00**	IC	UPC2933T-E1		REGULATOR +3.3V		03
	IC048	**XS516A00**	IC	UPC2933T-E1		CVP-209 REGULATOR +3.3V		03
	IC049	**XS516A00**	IC	UPC2933T-E1		REGULATOR +3.3V		03
	IC051	**XD598A00**	IC	TC74HCU04AFEL		INVERTER		01
	IC052	**XU720A00**	IC	HD74LVC08FP		AND		01
	IC053	**XW792A00**	IC	SN74HC132NSR		NAND		01
	IC054	**X0506A00**	IC	M5233FP-600D		COMPARATOR		
*	IC067	**X0105100**	IC	MX23L12811TC		MASK ROM 128M LCD PRG.1		
	J0005	**RD350000**	Carbon Resistor (chip)	0 63M J		CVP-207		01
	J0006	**RD350000**	Carbon Resistor (chip)	0 63M J		CVP-209		01
	J0010	**RD350000**	Carbon Resistor (chip)	0 63M J		CVP-209		01
	J0011	**RD350000**	Carbon Resistor (chip)	0 63M J		CVP-209		01
	J0012	**RD350000**	Carbon Resistor (chip)	0 63M J		CVP-207		01
	-0014	**RD350000**	Carbon Resistor (chip)	0 63M J		CVP-207		01
	J0015	**RD350000**	Carbon Resistor (chip)	0 63M J		CVP-209		01
	-0018	**RD350000**	Carbon Resistor (chip)	0 63M J		CVP-209		01
	J0019	**RD350000**	Carbon Resistor (chip)	0 63M J		CVP-207		01
	J0020	**RD350000**	Carbon Resistor (chip)	0 63M J		CVP-207		01
	J0022	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	J0026	**RD350000**	Carbon Resistor (chip)	0 63M J		CVP-209		01
	J0037	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	J0038	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	J0040	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	J0041	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	J0052	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	-0054	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	L0001	**VR579900**	Chip Inductance	BK2125HS601-T				01
	-0011	**VR579900**	Chip Inductance	BK2125HS601-T				01
	R0001	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	-0007	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	R0015	**RD355470**	Carbon Resistor (chip)	470 63M J				01
	-0026	**RD355470**	Carbon Resistor (chip)	470 63M J				01
	R0027	**RD355330**	Carbon Resistor (chip)	330 63M J				01
	R0028	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	-0030	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	R0031	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	R0032	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0033	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	R0034	**RD359100**	Carbon Resistor (chip)	1.0M 63M J				01
	R0035	**RD359100**	Carbon Resistor (chip)	1.0M 63M J				01
	R0036	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0037	**RD354680**	Carbon Resistor (chip)	68 63M J				01
	-0045	**RD354680**	Carbon Resistor (chip)	68 63M J				01
	R0046	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	R0047	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	R0048	**RD356680**	Carbon Resistor (chip)	6.8K 63M J				01
	R0049	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0050	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	-0053	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	R0054	**RD356820**	Carbon Resistor (chip)	8.2K 63M J				01
	R0055	**RD356820**	Carbon Resistor (chip)	8.2K 63M J				01
	R0056	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01

*: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R0057	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0058	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
-0062	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0063	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0064	**RD355150**	Carbon Resistor (chip)	150 63M J				01
R0065	**RD355150**	Carbon Resistor (chip)	150 63M J				01
R0066	**RD355100**	Carbon Resistor (chip)	100 63M J				01
R0067	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0068	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0071	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
-0079	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0082	**RD354680**	Carbon Resistor (chip)	68 63M J				01
R0083	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0084	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
R0085	**RD355150**	Carbon Resistor (chip)	150 63M J				01
R0086	**RD359100**	Carbon Resistor (chip)	1.0M 63M J				01
R0087	**RD359100**	Carbon Resistor (chip)	1.0M 63M J				01
R0089	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0090	**RD355100**	Carbon Resistor (chip)	100 63M J				01
R0091	**RD356180**	Carbon Resistor (chip)	1.8K 63M J				01
R0092	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
R0093	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0094	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0095	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0096	**RD357220**	Carbon Resistor (chip)	22K 63M J				01
R0097	**RD357220**	Carbon Resistor (chip)	22K 63M J				01
R0098	**RD358470**	Carbon Resistor (chip)	470K 63M J				01
R0099	**RD358470**	Carbon Resistor (chip)	470K 63M J				01
R0182	**RD354680**	Carbon Resistor (chip)	68 63M J				01
R0183	**RD358470**	Carbon Resistor (chip)	470K 63M J				01
R0184	**RD358470**	Carbon Resistor (chip)	470K 63M J				01
R0186	**RD354680**	Carbon Resistor (chip)	68 63M J				01
-0188	**RD354680**	Carbon Resistor (chip)	68 63M J				01
R0191	**RD354680**	Carbon Resistor (chip)	68 63M J				01
R0193	**RD354680**	Carbon Resistor (chip)	68 63M J				01
R0195	**RD354680**	Carbon Resistor (chip)	68 63M J				01
-0197	**RD354680**	Carbon Resistor (chip)	68 63M J				01
R0200	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
-0226	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0227	**RD357100**	Carbon Resistor (chip)	10K 63M J		CVP-209		01
R0228	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
-0232	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0234	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
-0240	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0241	**RD358470**	Carbon Resistor (chip)	470K 63M J				01
-0245	**RD358470**	Carbon Resistor (chip)	470K 63M J				01
R0246	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
-0250	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0251	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0252	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0254	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
-0259	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0260	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
R0261	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0262	**RD354680**	Carbon Resistor (chip)	68 63M J				01
R0063	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
R0272	**RD354680**	Carbon Resistor (chip)	68 63M J				01
R0289	**RD354680**	Carbon Resistor (chip)	68 63M J				01
-0291	**RD354680**	Carbon Resistor (chip)	68 63M J				01
R0292	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0293	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0299	**RD354680**	Carbon Resistor (chip)	68 63M J				01
R0374	**RD354680**	Carbon Resistor (chip)	68 63M J				01
R0375	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
-0393	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0395	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0396	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0397	**RD354680**	Carbon Resistor (chip)	68 63M J				01
R0398	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
R0399	**RD357100**	Carbon Resistor (chip)	10K 63M J				01

∗: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R0424	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	-0439	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	RA001	**RE044680**	Resistor Array	68X4				01
	-048	**RE044680**	Resistor Array	68X4				01
	SW001	**V3026900**	Switch	CHS-01 TA1		ON:J,OFF:U,E,N		02
	TR001	**VJ927200**	Transistor	2SA1162 O,Y				01
	TR002	**VV556400**	Transistor	2SC2412K Q,R,S				01
	TR003	**VJ927200**	Transistor	2SA1162 O,Y				01
	TR004	**VV556400**	Transistor	2SC2412K Q,R,S				01
	TR006	**VV556400**	Transistor	2SC2412K Q,R,S				01
	X0001	**VR870700**	Quartz Crystal Unit	10MHz SMD-49				04
	X0002	**VR870700**	Quartz Crystal Unit	10MHz SMD-49				04
	X0003	**VV335600**	Quartz Crystal Unit	33.8688MHz DSO751S				06
	X0004	**V2370300**	Ceramic Resonator	16.00M CSACV16.00				01
	X0005	**VS486900**	Quartz Crystal Unit	8.0MHz SMD-49				03
	X0006	**V2370300**	Ceramic Resonator	16.00M CSACV16.00				01
	X0007	**V6074800**	Quartz Crystal Unit	14.31818MHz SMD-49				03
	X0008	**V6074900**	Quartz Crystal Unit	17.734475M SMD-49				03
	ZD001	**VU172200**	Zener Diode	UDZS6.8BTE-17 6.8V				01
		- -	Circuit Board	FU120L		J (VV64990,XS882A0)		
		- -	Circuit Board	FU120BL		U (V771250,XS882A0)		
		- -	Circuit Board	FU120BL		B,E (V760130,XS882A0)		
		- -	Circuit Board	FU120L		N (VV65050,XS882A0)		
⚠		**VT139600**	Voltage Selector	M1684-E		N		04
⚠		**VT308100**	AC Inlet	2P CCT9302-0101M		J,B,E,N		02
⚠		**VT308200**	AC Inlet	2P CCT9302-0201		U		02
		LB201530	Fuse Holder	PC-FH1		J,U,B,N	2	01
		LB201530	Fuse Holder	PC-FH1		N	6	01
		- -	Jumper Wire	0.55		(VD04170)		
⚠	C0001	**VY675000**	Capacitor	0.010 250V J.U.C.S				01
⚠	C0002	**VY675100**	Capacitor	4700P 250V J.U.C.S				01
⚠	C0003	**VY675100**	Capacitor	4700P 250V J.U.C.S				01
	CN001	**LB932030**	Base Post Connector	VH 3P TE				01
	CN002	**LB932060**	Base Post Connector	VH 6P TE				01
⚠	F0001	**KB003630**	Fuse	5.00A 125V JU		J,U,N		01
⚠	F0001	**KB003080**	Fuse	2.50A S		B,E		01
⚠	F0002	**KB003080**	Fuse	2.50A S		N		01
⚠	F0003	**KB003080**	Fuse	2.50A S		N		01
	J0001	**- -**	Jumper Wire	0.55		J,B,E (VD04170)		
	J0002	**- -**	Jumper Wire	0.55		U (VD04170)		
	L0001	**VY670400**	Coil	S-150-J0 11.7mH		J		07
	L0001	**- -**	Jumper Wire	0.55		U,B,E,N (VD04170)		
	L0003	**VF790900**	Coil	SU10V-D20010 10uH				03
		VZ705300	Circuit Board	GH-D_SW H		(XT241A0)		13
		- -	Nonwoven Fabric Cloth			(VU45980)		
	CN1	**VB390500**	Connector Base Post	PH 9P TE				03
	CN2	**VB390800**	Connector Base Post	PH 12P TE				01
	D1	**VB941200**	Diode	1SS133,1SS176				01
	-108	**VB941200**	Diode	1SS133,1SS176				01
		V7817100	Circuit Board	GH-DclSW L		(XT240A0)		
		- -	Nonwoven Fabric Cloth			(VU45960)		
	C1	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	-3	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	C5	**VF760000**	Electrolytic Cap.-KS	100.00 10.0V				01
	CL1	**VI653000**	Ceramic Resonator	CST4.00MGW040				01
	CN1	**VB390400**	Connector Base Post	PH 8P TE				01
	CN2	**VB390500**	Connector Base Post	PH 9P TE				03
	CN3	**VB390800**	Connector Base Post	PH 12P TE				01
	D5	**VB941200**	Diode	1SS133,1SS176				01
	-72	**VB941200**	Diode	1SS133,1SS176				01
	J1	**- -**	Jumper Wire	0.55		(VD04170)		
	J2	**- -**	Jumper Wire	0.55		(VD04170)		
	KSN2	**XR632A00**	IC	YMZ702-D		KSN2		09
	R1	**HF759100**	Carbon Resistor	1.0M 1/4 J				01
	R2	**HF755100**	Carbon Resistor	100.0 1/4 J				01
	R3	**HF755100**	Carbon Resistor	100.0 1/4 J				01
	R4	**HF756100**	Carbon Resistor	1.0K 1/4 J				01

∗: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	RA1	**VU483500**	Resistor Array	RGLD12X103J				01
*		**V7135900**	Circuit Board	GLC		(XZ883B0)		
*		**V7135800**	Circuit Board	GLL		(XZ883B0)		
*		**V7136100**	Circuit Board	GLR		(XZ883B0)		
*	LD001	**V7446700**	LED	SLI-343URT		Keyboard Guide lamp		01
*	-088	**V7446700**	LED	SLI-343URT				01
	WH001	**- -**	Connector Assembly	GL1		(V753060)		
	WH002	**- -**	Connector Assembly	GL2		(V753070)		
	WH003	**- -**	Connector Assembly	GL1		(V753060)		
*		**V8115900**	Circuit Board	HP		(XQ795A0)		
	C1	**VE659000**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	-5	**VE659000**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C6	**- -**	Jumper Wire	0.55		(VD04170)		
	C7	**- -**	Jumper Wire	0.55		(VD04170)		
	CN1	**VB858600**	Connector Base Post	PH 7P SE				01
	CN2	**VB858100**	Connector Base Post	PH 2P SE				01
	CN3	**LB919020**	Base Post Connector	XH 2P SE				01
	FL1	**VB971100**	Coil	FL5R200QN 20uH				01
	-6	**VB971100**	Coil	FL5R200QN 20uH				01
	HP1	**LB101870**	Phone Jack	YKB21-5006		PHONES		03
	HP2	**LB101870**	Phone Jack	YKB21-5006		PHONES		03
	R1	**VK992200**	Carbon Resistor	68.0 1/2 J				01
	-4	**VK992200**	Carbon Resistor	68.0 1/2 J				01
	R5	**- -**	Jumper Wire	0.55		(VD04170)		
*		**V7173700**	Circuit Board	INV		(XZ890C0)		
*		**V7157100**	Circuit Board	PNR (PNR,ENC)		(XZ890C0)		
	C0001	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	C0002	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	C0003	**VS490700**	Electrolytic Cap.	47.0 16.0V				01
	C0004	**VS490700**	Electrolytic Cap.	47.0 16.0V				01
	C0005	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	C0006	**FG613100**	Ceramic Capacitor-B	1000P 50V K				01
	C0007	**VS490700**	Electrolytic Cap.	47.0 16.0V				01
	C0008	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	-0010	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	C0011	**VS490700**	Electrolytic Cap.	47.0 16.0V				01
	C0012	**VS490700**	Electrolytic Cap.	47.0 16.0V				01
	C0201	**VV444500**	Electrolytic Cap.	0.0330 250V K				01
	C0202	**V4007700**	Ceramic Capacitor-SL	15P 3KV J				01
	C0203	**UR839100**	Electrolytic Cap.	1000.0 16.0V				01
	CN101	**VB389600**	Connector Base Post	PH 11P SE				01
	CN102	**VB858900**	Connector Base Post	PH 10P SE				01
	CN103	**VB858700**	Connector Base Post	PH 8P SE				01
	CN104	**VH904200**	Connector Base Post	PH 14P SE				01
	CN105	**VB858500**	Connector Base Post	PH 6P SE				01
	CN106	**VK015400**	Connector Base Post	PH 13P SE				01
	CN201	**LB919030**	Base Post Connector	XH 3P SE				01
*	CN202	**V7293500**	Connector	BH 3P SE				02
	D0001	**VB941200**	Diode	1SS133,1SS176				01
	-0039	**VB941200**	Diode	1SS133,1SS176				01
	D0201	**VB941200**	Diode	1SS133,1SS176				01
	EC001	**VU481300**	Encoder	REB161 PVB 15F		DATA ENTRY		03
	IC001	**XS711200**	IC	MN101C027YB		CPU		06
	J0001	**- -**	Jumper Wire	0.55		(VA07890)		
	-0003	**- -**	Jumper Wire	0.55		(VA07890)		
	L0201	**VS587900**	Coil	LH L 08TB221K 220u				01
	L0202	**VS587900**	Coil	LH L 08TB221K 220u				01
	L0204	**- -**	Jumper Wire	0.55		(VA07890)		
	L0205	**VS587900**	Coil	LH L 08TB221K 220u				01
	LD001	**VZ460300**	Photo Diode	SELU6814CTP5		VOICE PART ON/OFF(LAYER)		02
	LD002	**VZ460300**	Photo Diode	SELU6814CTP5		VOICE PART ON/OFF(LEFT)		02
*	LD003	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE EFFECT(REVERB)		
*	LD004	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(PIANO&HARPSI.)		
*	LD005	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(BRASS)		
*	LD006	**V7767400**	LED Red	SLZ-981B-09-T1		PIANO		
*	LD007	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE EFFECT(DSP)		
*	LD008	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(E.PIANO)		

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	LD009	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(WOODWIND)		
*	LD010	**V7767400**	LED Red	SLZ-981B-09-T1		REGIST. MEMORY(FREEZE)		
*	LD011	**V7481600**	LED Green/Red	GL3ED403B0V		REGISTRATION MEMORY(1)		01
*	LD012	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE EFFECT(VARIATION)		
*	LD013	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(ORGAN&ACCORDION)		
*	LD014	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(STRINGS)		
*	LD015	**V7481600**	LED Green/Red	GL3ED403B0V		ONE TOUCH SETTING(1)		01
*	LD016	**V7481600**	LED Green/Red	GL3ED403B0V		REGISTRATION MEMORY(2)		01
*	LD017	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE EFFECT(HARMONY/ECHO		
*	LD018	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(PERCUSSION)		
*	LD019	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(CHOIR&PAD)		
*	LD020	**V7481600**	LED Green/Red	GL3ED403B0V		ONE TOUCH SETTING(2)		01
*	LD021	**V7481600**	LED Green/Red	GL3ED403B0V		REGISTRATION MEMORY(3)		01
*	LD022	**V7481600**	LED Green/Red	GL3ED403B0V		REGISTRATION MEMORY(4)		01
*	LD023	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE EFFECT(MONO)		
*	LD024	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(GUITAR)		
*	LD025	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(SYNTH.)		
*	LD026	**V7481600**	LED Green/Red	GL3ED403B0V		ONE TOUCH SETTING(3)		01
*	LD027	**V7481600**	LED Green/Red	GL3ED403B0V		REGISTRATION MEMORY(5)		01
*	LD028	**V7481600**	LED Green/Red	GL3ED403B0V		REGISTRATION MEMORY(6)		01
*	LD029	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE EFFECT(LEFT HOLD)		
*	LD030	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(BASS)		
*	LD031	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(XG)		
*	LD032	**V7481600**	LED Green/Red	GL3ED403B0V		ONE TOUCH SETTING(4)		01
*	LD033	**V7481600**	LED Green/Red	GL3ED403B0V		REGISTRATION MEMORY(7)		01
*	LD034	**V7481600**	LED Green/Red	GL3ED403B0V		REGISTRATION MEMORY(8)		01
*	LD035	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(ORGAN FLUTES)		
*	LD036	**V7767400**	LED Red	SLZ-981B-09-T1		VOICE(USER)		
	R0001	**HF754820**	Carbon Resistor	82.0 1/4 J				01
	-0012	**HF754820**	Carbon Resistor	82.0 1/4 J				01
	R0015	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
	R0016	**HF754560**	Carbon Resistor	56.0 1/4 J				01
	-0035	**HF754560**	Carbon Resistor	56.0 1/4 J				01
	R0201	**HF757220**	Carbon Resistor	22.0K 1/4 J				01
	R0202	**HF756270**	Carbon Resistor	2.7K 1/4 J				01
	R0203	**HF756150**	Carbon Resistor	1.5K 1/4 J				01
	RA001	**VF771900**	Resistor Array	RGLE8X103J				01
	RA002	**VF771900**	Resistor Array	RGLE8X103J				01
*	SW001	**V7446500**	Tact Switch	SKQNADD010		VOICE PART ON/OFF(LAYER)		01
*	SW002	**V7446500**	Tact Switch	SKQNADD010		VOICE PART ON/OFF(LEFT)		01
	SW003	**VV439800**	Tact Switch	SKQNAJ		ENTER		01
	SW004	**VV439800**	Tact Switch	SKQNAJ		VOICE EFFECT(REVERB)		01
	SW005	**VV439800**	Tact Switch	SKQNAJ		VOICE(PIANO&HARPSI.)		01
	SW006	**VV439800**	Tact Switch	SKQNAJ		VOICE(BRASS)		01
	SW007	**VV439800**	Tact Switch	SKQNAJ		MUSIC FINDER		01
	SW008	**VV439800**	Tact Switch	SKQNAJ		PIANO		01
	SW009	**VV439800**	Tact Switch	SKQNAJ		VOICE EFFECT(DSP)		01
	SW010	**VV439800**	Tact Switch	SKQNAJ		VOICE(E.PIANO)		01
	SW011	**VV439800**	Tact Switch	SKQNAJ		VOICE(WOODWIND)		01
	SW012	**VV439800**	Tact Switch	SKQNAJ		REGIST. MEMORY(FREEZE)		01
	SW013	**VV439800**	Tact Switch	SKQNAJ		REGISTRATION MEMORY(1)		01
	SW014	**VV439800**	Tact Switch	SKQNAJ		VOICE EFFECT(VARIATION)		01
	SW015	**VV439800**	Tact Switch	SKQNAJ		VOICE(ORGAN&ACCORDION)		01
	SW016	**VV439800**	Tact Switch	SKQNAJ		VOICE(STRINGS)		01
	SW017	**VV439800**	Tact Switch	SKQNAJ		ONE TOUCH SETTING(1)		01
	SW018	**VV439800**	Tact Switch	SKQNAJ		REGISTRATION MEMORY(2)		01
	SW019	**VV439800**	Tact Switch	SKQNAJ		VOICE EFFECT(HARMONY/ECHO		01
	SW020	**VV439800**	Tact Switch	SKQNAJ		VOICE(PERCUSSION)		01
	SW021	**VV439800**	Tact Switch	SKQNAJ		VOICE(CHOIR&PAD)		01
	SW022	**VV439800**	Tact Switch	SKQNAJ		ONE TOUCH SETTING(2)		01
	SW023	**VV439800**	Tact Switch	SKQNAJ		REGISTRATION MEMORY(3)		01
	SW024	**VV439800**	Tact Switch	SKQNAJ		REGISTRATION MEMORY(4)		01
	SW025	**VV439800**	Tact Switch	SKQNAJ		VOICE EFFECT(MONO)		01
	SW026	**VV439800**	Tact Switch	SKQNAJ		VOICE(GUITAR)		01
	SW027	**VV439800**	Tact Switch	SKQNAJ		VOICE(SYNTH.)		01
	SW028	**VV439800**	Tact Switch	SKQNAJ		ONE TOUCH SETTING(3)		01
	SW029	**VV439800**	Tact Switch	SKQNAJ		REGISTRATION MEMORY(5)		01
	SW030	**VV439800**	Tact Switch	SKQNAJ		REGISTRATION MEMORY(6)		01
	SW031	**VV439800**	Tact Switch	SKQNAJ		VOICE EFFECT(LEFT HOLD)		01
	SW032	**VV439800**	Tact Switch	SKQNAJ		VOICE(BASS)		01

*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
SW033	**VV439800**	Tact Switch	SKQNAJ		VOICE(XG)		01
SW034	**VV439800**	Tact Switch	SKQNAJ		ONE TOUCH SETTING(4)		01
SW035	**VV439800**	Tact Switch	SKQNAJ		REGISTRATION MEMORY(7)		01
SW036	**VV439800**	Tact Switch	SKQNAJ		REGISTRATION MEMORY(8)		01
SW037	**VV439800**	Tact Switch	SKQNAJ		VOICE(ORGAN FLUTES)		01
SW038	**VV439800**	Tact Switch	SKQNAJ		VOICE(USER)		01
SW039	**VV439800**	Tact Switch	SKQNAJ		REGIST. MEMORY(MEMORY)		01
T0201	**VS602500**	Inverter Transformer	CLF16A				07
TA001	**VH885000**	Transistor Array	TD62785P SOURCE				04
TA002	**VJ041400**	Transistor Array	TD62381P				04
TA003	**VJ041400**	Transistor Array	TD62381P				04
TR001	**VT817300**	Digital Transistor	DTB113ZS TP				01
TR002	**VT817300**	Digital Transistor	DTB113ZS TP				01
TR003	**VK165500**	Digital Transistor	DTC123JS TP				01
-006	**VK165500**	Digital Transistor	DTC123JS TP				01
TR201	**VS185700**	Transistor	2SC3669-O/Y(TPF2)		}		01
TR201	**VS185600**	Transistor	2SD1863 TV2 82-390		}		01
TR202	**VS185700**	Transistor	2SC3669-O/Y(TPF2)		}		01
TR202	**VS185600**	Transistor	2SD1863 TV2 82-390		}		01
TR204	**VP872600**	Transistor	2SA1708 S,T				01
WH001	**- -**		ENC DS 4P		(V753020)		
X0001	**VE222400**	Ceramic Resonator	8 MHz EFO-FC8004A4				03
	- -	Circuit Board	MA120B		J,U (V702620,XZ588D0)		
	- -	Circuit Board	MA120B		B,E,N (V729590,XZ588D0)		
	VT740000	Support, PCB	3T-9 T=9			2	03
⚠	**KB003630**	Fuse	5.00A JU		J,U		01
⚠	**KB003240**	Fuse	5.00A S		B,E,N		01
	VJ834500	Insulation Sheet	#1000				03
	- -	Jumper Wire	0.55		(VD04170)		
C0001	**VA302600**	Ceramic Capacitor-E	0.0100 500V P				01
-0003	**VA302600**	Ceramic Capacitor-E	0.0100 500V P				01
C0005	**VL232200**	Electrolytic Cap.	3300 50.0V				04
-0008	**VL232200**	Electrolytic Cap.	3300 50.0V				04
C0010	**FG613100**	Ceramic Capacitor-B	1000P 50V K				01
C0011	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
C0012	**FG612220**	Ceramic Capacitor-B	220P 50V K				01
C0013	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
C0015	**UR868100**	Electrolytic Cap.	100.00 50.0V				01
C0016	**UR867100**	Electrolytic Cap.	10.00 50.0V				01
C0017	**UR867100**	Electrolytic Cap.	10.00 50.0V				01
C0018	**UR868100**	Electrolytic Cap.	100.00 50.0V				01
C0020	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
C0021	**FG612220**	Ceramic Capacitor-B	220P 50V K				01
C0022	**FG613100**	Ceramic Capacitor-B	1000P 50V K				01
C0023	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
C0025	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
-0028	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
C0029	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
C0031	**VL232300**	Electrolytic Cap.	2200 25.0V				03
C0032	**VL232300**	Electrolytic Cap.	2200 25.0V				03
C0033	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
-0036	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
* C0041	**V7535100**	Electrolytic Cap.	3900 35.0V				04
C0042	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
C0043	**FG444100**	Ceramic Capacitor-F	0.0100 50V Z		}		01
C0043	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z		}		01
* C0044	**V7016500**	Electrolytic Cap.	1000 35.0V				02
C0045	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
C0047	**UR866330**	Electrolytic Cap.	3.30 50.0V				01
* C0051	**V7535100**	Electrolytic Cap.	3900 35.0V				04
C0052	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
C0053	**FG444100**	Ceramic Capacitor-F	0.0100 50V Z		}		01
C0053	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z		}		01
* C0054	**V7016500**	Electrolytic Cap.	1000 35.0V				02
C0055	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
CN001	**LB932080**	Base Post Connector	VH 8P TE				01
CN003	**LB918060**	Base Post Connector	XH 6P TE				01
CN004	**LB918050**	Base Post Connector	XH 5P TE				01
CN005	**LB932040**	Base Post Connector	VH 4P TE				01

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	CN006	**VB390500**	Connector Base Post	PH 9P TE				03
	DB001	**VQ111500**	Diode Stack	D3SBA20-4103 4.0A				03
	DB002	**VQ111500**	Diode Stack	D3SBA20-4103 4.0A				03
	DB003	**VR253700**	Diode Stack	S1NB20 1.0A 200V				02
	D0001	**VB481900**	Diode	11ES4				01
	-0005	**VB481900**	Diode	11ES4				01
*	D0006	**V8107700**	Diode	RK46				
*	D0007	**V8107700**	Diode	RK46				
	F0001	**VP206500**	Fuse Holder	EYF-52BC			2	01
	-0003	**VP206500**	Fuse Holder	EYF-52BC			2	01
	IC003	**XJ602A00**	IC	NJM78M12FA		REGULATOR +12V 0.5A		02
	IC004	**XD343A00**	IC	NJM79M12FA		REGULATOR +12V		03
*	IC005	**X2192A00**	IC	STK402-090		POWER AMP. 50W 2ch		
	IC006	**XT442A00**	IC	SI-8050S		REGULATOR +5V		05
	IC007	**XT442A00**	IC	SI-8050S		REGULATOR +5V		05
*	L1	**V6782600**	Choke Coil	100U ELC15E101FN				05
*	L2	**V6782600**	Choke Coil	100U ELC15E101FN				05
	R1	**VU253100**	Fuse Resistor	0.47 1/2 J				01
	R2	**VU253100**	Fuse Resistor	0.47 1/2 J				01
	R3	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
	R10	**HF755560**	Carbon Resistor	560.0 1/4 J				01
	R11	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R12	**HF755390**	Carbon Resistor	390.0 1/4 J				01
	R13	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R14	**HW095100**	Fuse Resistor	100.0 1/4 J				01
	R15	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R20	**HW095100**	Fuse Resistor	100.0 1/4 J				01
	R21	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R22	**HF755390**	Carbon Resistor	390.0 1/4 J				01
	R23	**HF755560**	Carbon Resistor	560.0 1/4 J				01
	R24	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R27	**VC742500**	Metal Oxide Film Resistor	10.0 1W J				01
	R28	**VC742500**	Metal Oxide Film Resistor	10.0 1W J				01
	R29	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R30	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R31	**HF756330**	Carbon Resistor	3.3K 1/4 J				01
	R32	**HF756330**	Carbon Resistor	3.3K 1/4 J				01
	RY001	**VK881200**	Relay	DC G5Z-2A-YA 12V				04
	TR002	**IC1815M0**	Transistor	2SC1815 Y,GR				01
	-004	**IC1815M0**	Transistor	2SC1815 Y,GR				01
*		**V7596600**	Circuit Board	MIC		(XV507D0)		
		RD250000	Carbon Resistor (chip)	0.0 0.0 J				01
		- -	Jumper Wire	0.55		(VD04170)		
	C0100	**UB013270**	Monolithic Ceramic Cap.	B 2700P 50V K				01
	C0101	**UB445470**	Monolithic Ceramic Cap.	F 0.470 16V Z				01
	C0102	**UB052100**	Monolithic Ceramic Cap.	SL 100P 50V J				01
	C0150	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
	C0151	**UB446100**	Ceramic Capacitor-F (chip)	F 1.0 16V Z				01
	C0152	**UB052100**	Monolithic Ceramic Cap.	SL 100P 50V J				01
	C0200	**UB446100**	Ceramic Capacitor-F (chip)	F 1.0 16V Z				01
	C0201	**UB013100**	Monolithic Ceramic Cap.	B 1000P 50V K				01
	C0300	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C0301	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
	C0302	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
	C0303	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C0304	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	CN300	**VB858400**	Connector Base Post	PH 5P SE				01
	CN301	**VB858100**	Connector Base Post	PH 2P SE				01
	IC100	**XF291A00**	IC	UPC4570G2		OP AMP		03
	JK200	**LB101870**	Phone Jack	YKB21-5006		MIC./LINE IN		03
	L0200	**- -**	Jumper Wire	0.55		(VD04170)		
	L0201	**VB835000**	Coil	FL5R200QNT 20uH		}		01
	L0201	**V2993400**	Choke Coil	R-5C.20uH		}		01
	R0100	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
	R0101	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R0150	**RD257270**	Carbon Resistor (chip)	27.0K 0.1 J				01
	R0151	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
	R0301	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R0400	**RD255470**	Carbon Resistor (chip)	470.0 0.1 J				01

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	SW400	**VZ050000**	Slide Switch	SSSF122-S09N0		MIC./LINE		01
	VR500	**V3340000**	Rotary Variable Resistor	A10.0KX2 RK0971230		INPUT VOLUME		04
	WB300	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	-304	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	WB300	**V2635200**	Ferrite Bead	RH03506BT-B				
	-304	**V2635200**	Ferrite Bead	RH03506BT-B				
*		**V7156500**	Circuit Board	MV		(XZ889C0)		
*		**V7156900**	Circuit Board	PNCB		(XZ889C0)		
*		**V7156400**	Circuit Board	PNL		(XZ889C0)		
		- -	Jumper Wire	0.55		(VA07890)		
	C0301	**UA353220**	Mylar Capacitor	2200P 50V J				01
	C0302	**VR169200**	Monolithic Mylar Capacitor	ECQ-V1H474JL3				01
	C0303	**VR169200**	Monolithic Mylar Capacitor	ECQ-V1H474JL3				01
	C0304	**UA353220**	Mylar Capacitor	2200P 50V J				01
	CN101	**VB858900**	Connector Base Post	PH 10P SE				01
	CN102	**VB858700**	Connector Base Post	PH 8P SE				01
	CN103	**VH904200**	Connector Base Post	PH 14P SE				01
	CN104	**VK015400**	Connector Base Post	PH 13P SE				01
	CN105	**VK015400**	Connector Base Post	PH 13P SE				01
	CN106	**VH904200**	Connector Base Post	PH 14P SE				01
	CN201	**VK015400**	Connector Base Post	PH 13P SE				01
	CN301	**VB858700**	Connector Base Post	PH 8P SE				01
	D0001	**VB941200**	Diode	1SS133,1SS176				01
	-0035	**VB941200**	Diode	1SS133,1SS176				01
	D0201	**VB941200**	Diode	1SS133,1SS176				01
	-0218	**VB941200**	Diode	1SS133,1SS176				01
*	LD001	**V7767400**	LED Red	SLZ-981B-09-T1		STYLE(ACMP)		
*	LD002	**V7767400**	LED Red	SLZ-981B-09-T1		METRONOME(START/STOP)		
*	LD003	**V7767400**	LED Red	SLZ-981B-09-T1		FADE IN/OUT		
*	LD004	**V7767400**	LED Red	SLZ-981B-09-T1		STYLE(AUTO FILL IN)		
*	LD005	**V7767400**	LED Red	SLZ-981B-09-T1		STYLE(OTS LINK)		
*	LD006	**V7481600**	LED Green/Red	GL3ED403B0V		STYLE(BREAK)		01
*	LD007	**V7767400**	LED Red	SLZ-981B-09-T1		MIC.(VOCAL HARMONY)		
*	LD008	**V7481600**	LED Green/Red	GL3ED403B0V		SONG(EXTRA TRACKS)		01
*	LD009	**V7767400**	LED Red	SLZ-981B-09-T1		SONG(REC)		
*	LD010	**V7481600**	LED Green/Red	GL3ED403B0V		STYLE(INTRO)		01
*	LD011	**V7767400**	LED Red	SLZ-981B-09-T1		MIC.(TALK)		
*	LD012	**V7481600**	LED Green/Red	GL3ED403B0V		SONG(TRACK 2)		01
*	LD013	**V7481600**	LED Green/Red	GL3ED403B0V		STYLE(MAIN A)		01
*	LD014	**V7767400**	LED Red	SLZ-981B-09-T1		MIC.(EFFECT)		
*	LD015	**V7481600**	LED Green/Red	GL3ED403B0V		SONG(TRACK 1)		01
*	LD016	**V7481600**	LED Green/Red	GL3ED403B0V		SONG(START/STOP)		01
*	LD017	**V7481600**	LED Green/Red	GL3ED403B0V		STYLE(MAIN B)		01
*	LD018	**V7481600**	LED Green/Red	GL3ED403B0V		STYLE(MAIN C)		01
*	LD019	**V7481600**	LED Green/Red	GL3ED403B0V		STYLE(MAIN D)		01
*	LD020	**V7767400**	LED Red	SLZ-981B-09-T1		SONG(REPEAT)		
*	LD021	**V7481600**	LED Green/Red	GL3ED403B0V		STYLE(ENDING/rlt.)		01
*	LD022	**V7767400**	LED Red	SLZ-981B-09-T1		SONG(GUIDE)		
*	LD023	**V7767400**	LED Red	SLZ-981B-09-T1		STYLE(SYNC.STOP)		
*	LD024	**V7767400**	LED Red	SLZ-981B-09-T1		STYLE(SYNC.START)		
*	LD025	**V7481600**	LED Green/Red	GL3ED403B0V		STYLE(START/STOP)		01
	LD026	**VN518200**	LED Green	SLZ-389C-02-T1		MIC. SIGNAL		01
*	LD027	**V7767400**	LED Red	SLZ-981B-09-T1		MIC. OVER		
	R0001	**HF754820**	Carbon Resistor	82.0 1/4 J				01
	-0012	**HF754820**	Carbon Resistor	82.0 1/4 J				01
	R0013	**HF755220**	Carbon Resistor	220.0 1/4 J				01
	R0014	**HF755220**	Carbon Resistor	220.0 1/4 J				01
	R0301	**HF756390**	Carbon Resistor	3.9K 1/4 J				01
	R0302	**HF756180**	Carbon Resistor	1.8K 1/4 J				01
	R0303	**HF756180**	Carbon Resistor	1.8K 1/4 J				01
	R0304	**HF756390**	Carbon Resistor	3.9K 1/4 J				01
	SW001	**VV439800**	Tact Switch	SKQNAJ		STYLE(ACMP)		01
	SW002	**VV439800**	Tact Switch	SKQNAJ		METRONOME(START/STOP)		01
	SW003	**VV439800**	Tact Switch	SKQNAJ		FADE IN/OUT		01
	SW004	**VV439800**	Tact Switch	SKQNAJ		STYLE(AUTO FILL IN)		01
	SW005	**VV439800**	Tact Switch	SKQNAJ		STYLE(OTS LINK)		01
	SW006	**VV439800**	Tact Switch	SKQNAJ		STYLE(BREAK)		01
	SW007	**VV439800**	Tact Switch	SKQNAJ		MIC.(VOCAL HARMONY)		01
	SW008	**VV439800**	Tact Switch	SKQNAJ		SONG(EXTRA TRACKS)		01

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	SW009	**VV439800**	Tact Switch	SKQNAJ		SONG(REC)		01
	SW010	**VV439800**	Tact Switch	SKQNAJ		TEMPO(-)		01
	SW011	**VV439800**	Tact Switch	SKQNAJ		STYLE(INTRO)		01
	SW012	**VV439800**	Tact Switch	SKQNAJ		MIC.(TALK)		01
	SW013	**VV439800**	Tact Switch	SKQNAJ		SONG(TRACK 2)		01
	SW014	**VV439800**	Tact Switch	SKQNAJ		SONG(TOP)		01
	SW015	**VV439800**	Tact Switch	SKQNAJ		TEMPO(+)		01
	SW016	**VV439800**	Tact Switch	SKQNAJ		STYLE(MAIN A)		01
	SW017	**VV439800**	Tact Switch	SKQNAJ		MIC.(EFFECT)		01
	SW018	**VV439800**	Tact Switch	SKQNAJ		SONG(TRACK 1)		01
	SW019	**VV439800**	Tact Switch	SKQNAJ		SONG(START/STOP)		01
	SW020	**VV439800**	Tact Switch	SKQNAJ		TEMPO(TAP TEMPO)		01
	SW021	**VV439800**	Tact Switch	SKQNAJ		STYLE(MAIN B)		01
	SW022	**VV439800**	Tact Switch	SKQNAJ		MIC.(VH TYPE SELECT)		01
	SW023	**VV439800**	Tact Switch	SKQNAJ		SONG(REW)		01
	SW024	**VV439800**	Tact Switch	SKQNAJ		TRANSPOSE(-)		01
	SW025	**VV439800**	Tact Switch	SKQNAJ		STYLE(MAIN C)		01
	SW026	**VV439800**	Tact Switch	SKQNAJ		MIC.(MIC.SETTING)		01
	SW027	**VV439800**	Tact Switch	SKQNAJ		SONG(FF)		01
	SW028	**VV439800**	Tact Switch	SKQNAJ		TRANSPOSE(+)		01
	SW029	**VV439800**	Tact Switch	SKQNAJ		STYLE(MAIN D)		01
	SW030	**VV439800**	Tact Switch	SKQNAJ		SONG(REPEAT)		01
	SW031	**VV439800**	Tact Switch	SKQNAJ		STYLE(ENDING/rlt.)		01
	SW032	**VV439800**	Tact Switch	SKQNAJ		SONG(GUIDE)		01
	SW033	**VV439800**	Tact Switch	SKQNAJ		STYLE(SYNC.STOP)		01
	SW034	**VV439800**	Tact Switch	SKQNAJ		STYLE(SYNC.START)		01
	SW035	**VV439800**	Tact Switch	SKQNAJ		STYLE(START/STOP)		01
	SW201	**VV056000**	Tact Switch	SKQNAED010		DIRECT ACCESS		01
	SW202	**VV056000**	Tact Switch	SKQNAED010		LCD select up (1)		01
	SW203	**VV056000**	Tact Switch	SKQNAED010		LCD select down (1)		01
	SW204	**VV056000**	Tact Switch	SKQNAED010		LCD select up (2)		01
	SW205	**VV056000**	Tact Switch	SKQNAED010		LCD select down (2)		01
	SW206	**VV056000**	Tact Switch	SKQNAED010		LCD select up (3)		01
	SW207	**VV056000**	Tact Switch	SKQNAED010		LCD select down (3)		01
	SW208	**VV056000**	Tact Switch	SKQNAED010		LCD select up (4)		01
	SW209	**VV056000**	Tact Switch	SKQNAED010		LCD select down (4)		01
	SW210	**VV056000**	Tact Switch	SKQNAED010		LCD select up (5)		01
	SW211	**VV056000**	Tact Switch	SKQNAED010		LCD select down (5)		01
	SW212	**VV056000**	Tact Switch	SKQNAED010		LCD select up (6)		01
	SW213	**VV056000**	Tact Switch	SKQNAED010		LCD select down (+6)		01
	SW214	**VV056000**	Tact Switch	SKQNAED010		LCD select up (7)		01
	SW215	**VV056000**	Tact Switch	SKQNAED010		LCD select down (7)		01
	SW216	**VV056000**	Tact Switch	SKQNAED010		LCD select up (8)		01
	SW217	**VV056000**	Tact Switch	SKQNAED010		LCD select down (8)		01
	SW218	**VV056000**	Tact Switch	SKQNAED010		EXIT		01
*	VR301	**V8333100**	Rotary Variable Resistor	B10K XV0141GPVN 1B		MASTER VOLUME		
		V2403300	Circuit Board	NET1		(XT123B0)		
		- -	Jumper Wire	0.55		(VD04170)		
	C0001	**VS677200**	Electrolytic Cap.-BP	1.50UF 63.0V				01
	C0002	**VS677200**	Electrolytic Cap.-BP	1.50UF 63.0V				01
	CN001	**LB932040**	Base Post Connector	VH 4P TE				01
	CN002	**LB932080**	Base Post Connector	VH 8P TE				01
*		**V7674700**	Circuit Board	NETWORK		(XV011A0)		
		- -	Jumper Wire	0.55		(VD04170)		
*	C0001	**V5928800**	Electrolytic Cap.-BP	4.70 63.0V				01
*	C0002	**V5928800**	Electrolytic Cap.-BP	4.70 63.0V				01
	CN001	**LB932040**	Base Post Connector	VH 4P TE				01
	CN002	**LB932080**	Base Post Connector	VH 8P TE				01
	L0001	**VB573700**	Network Coil	0.26mH 0.8mm				05
	L0002	**VB573700**	Network Coil	0.26mH 0.8mm				05
*		**V7675600**	Circuit Board	PEDAL (SW)		(X0193A0)		
	CN001	**VB858500**	Connector Base Post	PH 6P SE				01
	J	**- -**	Jumper Wire	0.55		(VD04170)		
*		**V7156600**	Circuit Board	PNCL		(X0081B0)		
*		**V7156700**	Circuit Board	PNCR		(X0081B0)		
	CN101	**VF283100**	Connector Base Post	PH 13P TE				01

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	CN201	**VB858500**	Connector Base Post	PH 6P SE				01
	D0101	**VB493900**	Diode	MA221				01
	-0113	**VB493900**	Diode	MA221				01
	D0201	**VB493900**	Diode	MA221				01
	-0207	**VB493900**	Diode	MA221				01
*	SW101	**V7446600**	Tact Switch	EVQQWS03W		MENU(DEMO)		01
*	SW102	**V7446600**	Tact Switch	EVQQWS03W		MENU(HELP)		01
*	SW103	**V7446600**	Tact Switch	EVQQWS03W		MENU(FUNCTION)		01
*	SW104	**V7446600**	Tact Switch	EVQQWS03W		D. STUDIO(SOUND CREATOR)		01
*	SW105	**V7446600**	Tact Switch	EVQQWS03W		D. STUDIO(DIGITAL REC.)		01
*	SW106	**V7446600**	Tact Switch	EVQQWS03W		D. STUDIO(MIXING CONSOLE)		01
*	SW107	**V7446600**	Tact Switch	EVQQWS03W		LCD select (A)		01
*	SW108	**V7446600**	Tact Switch	EVQQWS03W		LCD select (B)		01
*	SW109	**V7446600**	Tact Switch	EVQQWS03W		LCD select (C)		01
*	SW110	**V7446600**	Tact Switch	EVQQWS03W		LCD select (D)		01
*	SW111	**V7446600**	Tact Switch	EVQQWS03W		LCD select (E)		01
*	SW112	**V7446600**	Tact Switch	EVQQWS03W		BALANCE		01
*	SW113	**V7446600**	Tact Switch	EVQQWS03W		CHANNEL ON/OFF		01
*	SW201	**V7446600**	Tact Switch	EVQQWS03W		BACK		01
*	SW202	**V7446600**	Tact Switch	EVQQWS03W		NEXT		01
*	SW203	**V7446600**	Tact Switch	EVQQWS03W		LCD select (F)		01
*	SW204	**V7446600**	Tact Switch	EVQQWS03W		LCD select (G)		01
*	SW205	**V7446600**	Tact Switch	EVQQWS03W		LCD select (H)		01
*	SW206	**V7446600**	Tact Switch	EVQQWS03W		LCD select (I)		01
*	SW207	**V7446600**	Tact Switch	EVQQWS03W		LCD select (J)		01
*		**V7160600**	Circuit Board	SWX-A		CVP-209 (XZ895D0)		
*		**V7161000**	Circuit Board	SWX-A		CVP-207 (XZ895D0)		
	C0001	**UF017220**	Electrolytic Cap. (chip)	22 6.3V				01
	C0002	**UF017220**	Electrolytic Cap. (chip)	22 6.3V				01
	C0003	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0004	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0010	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0040	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	CN001	**VU341400**	Straight Connector	HIF3FB-26DA-2.54DS				03
	IC001	**XU947C00**	IC	HG73C205AFD		SWX00B		09
	IC002	**XU947C00**	IC	HG73C205AFD		SWX00B		09
*	IC003	**X0107C00**	IC			FLASH ROM 16M SWX-MAIN		
	IC004	**XR115A00**	IC	UPD43256BGU-70L		SRAM 256K		08
	IC004	**XT090A00**	IC	SRM2B256SLMX70				07
	IC004	**XV411A00**	IC	W24258S-70LE-EL10				07
	IC004	**XW433A00**	IC	CY62256LL-70SNCT				05
	IC004	**XZ388A00**	IC	W24257S-70LL-EL10				05
*	IC007	**X0036100**	IC	K3N9V1A3QM-YC12Y00		MASK ROM 128M WAVE		15
*	IC008	**X0037100**	IC	K3N9V1000M-YC		CVP209 M-ROM 128M WAVE		15
	IC009	**XS775A00**	IC	TC7SH04FU		CVP-209 INVERTER		
	R0001	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0003	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0005	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0006	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0007	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	R0010	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	-0076	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	R0077	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0080	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	-0086	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
*		**V7160800**	Circuit Board	SWX-B		CVP-209 (XZ895D0)		
*		**V7161200**	Circuit Board	SWX-B		CVP-207 (XZ895D0)		
	C0001	**UF017220**	Electrolytic Cap. (chip)	22 6.3V				01
	C0002	**UF017220**	Electrolytic Cap. (chip)	22 6.3V				01
	C0003	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0004	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0010	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0040	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	CN001	**VU341400**	Straight Connector	HIF3FB-26DA-2.54DS				03
	IC001	**XU947C00**	IC	HG73C205AFD		SWX00B		09
	IC002	**XU947C00**	IC	HG73C205AFD		SWX00B		09
*	IC003	**X0107C00**	IC			FLASH ROM 16M SWX-MAIN		
	IC004	**XR115A00**	IC	UPD43256BGU-70L		SRAM 256K		08

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	IC004	**XT090A00**	IC	SRM2B256SLMX70				07
	IC004	**XV411A00**	IC	W24258S-70LE-EL10				07
	IC004	**XW433A00**	IC	CY62256LL-70SNCT				05
	IC004	**XZ388A00**	IC	W24257S-70LL-EL10				05
	IC006	**XU462A00**	IC	MSM514260C-60TS-K		DRAM 4M		08
	IC006	**XU462B00**	IC	MSM514260E-60TS-K				07
	IC006	**XV077B00**	IC	MSM514260E-60JS				
	IC006	**XW732A00**	IC	S1N42T6026S000B				07
*	IC007	**X0038100**	IC	K3N9V1000M-YC		MASK ROM 128M WAVE		15
*	IC008	**X0039100**	IC	K3N9V1000M-YC		CVP209 M-ROM 128M WAVE		15
	IC009	**XS775A00**	IC	TC7SH04FU		CVP-209 INVERTER		01
	R0001	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0005	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0010	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	-0076	**RD355100**	Carbon Resistor (chip)	100 63M J				01
	R0077	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0080	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
	-0086	**RD357100**	Carbon Resistor (chip)	10K 63M J				01
⚠		**VT015700**	AC Cord Set	J 2P 2.5m 7A		J		05
⚠		**VT015800**	AC Cord Set	U 2P 2.44m 7A		U		06
⚠		**VT015900**	AC Cord Set	E 2P 2.5m		E,N		05
⚠		**VT016000**	AC Cord Set	B 2P 2.5m		B		08
⚠ *		**X0134A00**	Power Transformer	GA-120B J		J		
⚠ *		**X0135A00**	Power Transformer	GA120B U.IEC65		U,B,E		
⚠ *		**X0145A00**	Power Transformer	GA-120B N IEC65		N		
*		**V7182100**	LCD	EDMGRB8KMF				
⚠		**VC843500**	Push Switch	SDDLB1216A J.U.C.S		POWER ON/OFF		03
		V6492300	Floppy Disk Drive	DF354H 3.5"				13
*		**X0358A00**	Speaker	16cm 8 ohm 60W		WOOFER	2	
		XL455A00	Speaker	5.0cm 16 ohm 60w		TWEETER	2	07
		XU755A00	Speaker	3.0cm 8 ohm 60W		MONITOR		10
		HS412520	Rotary Variable Resistor	K161SOZO1		Pedal	3	05

*: New Parts

RANK: Japan only

■CVP-209/CVP-207 OVERALL CIRCUIT DIAGRAM 1/4 (DM1/2)

DM 1/2

CPU IC1 H06417709

SDRAM 64M IC10

NAND

AND

BUFFER

DECODER

REGULATOR +3.3V

FDC IC6 H06326F

FDD

to MA120B-CN3

to MA120B-CN4

SIO4 (GATE ARRAY) IC7

to PNR-CN101

MI2 IC8 TC160G22AF

F. ROM 64M MAIN L

F. ROM 64M MAIN H

MASK ROM 64M MAIN L

MASK ROM 64M MAIN H

FLASH ROM 32M

F. ROM 64M STYLE

MASK ROM 64M STYLE

D-FF

to D-JACK - CN1

to GH-DclSW L-CN1

not installed

to PEDAL-CN2 (D-JACK 2/2)

SWP30B IC3 MASTER

SWP30B IC4 SLAVE

VOP3 IC5 YSSF236-F

CVP-209 only

DRAM 4M

MASK ROM 64M WAVE1 LOW

MASK ROM 64M WAVE2 LOW

MASK ROM 64M WAVE2 HIGH

MASK ROM 64M WAVE3 HIGH

DAC PCM1702U

OP AMP

ADC IC27 AK5351

LED DRIVER IC42 LB1443N

REGULATOR +5V

REGULATOR -5V

to A-JACK - CN500

to MIC-CN300

to SWX-A - CN1

to SWX-B - CN1

28CC1-8820111 1

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

CVP-209/CVP-207 OVERALL CIRCUIT DIAGRAM 2/4 (DM2/2, D-JACK, SWX-A, SWX-B, INV, PEDAL)

DM 2/2

CPU IC2 HD6417709

SDRAM 64M IC11

FLASH ROM LCD PROGRAM2 IC56 E28F640J3A-120 (not installed)

MASK ROM LCD PRAGRAM2 IC16 MX29L6410

MASK ROM LCD PRG.1 IC67 MX29L12811

LCDC IC9 SED1356F0A

COMPARATOR IC54 NJ2902FP

NAND IC53 74HC132

DRAM 16M IC26

INVERTER IC51 74HC04

LCD Back Light

LCD

to A-JACK - CN540

28CC1-8820489

INV

28CC1-8820111 ⚠1

PEDAL (D-JACK 2/2)

to DM-CN7

PEDAL

D-JACK (D-JACK 1/2)

PHOTO COUPLER

IN

OUT

MIDI

THRU

HOST SELECT

Select SW

to DM CN4

AUX PEDAL

Host I/F

TO HOST

INVERTER

LINE TRANSCEIVER

28CC1-8815738 ⚠4

PEDAL

LEFT SOSTENUTO DAMPER

28CC1-8820116

LEFT pedal SOSTENUTO pedal DAMPER pedal

SWX-A / SWX-B

	ALL	SWX-A	SWX-B
R1(TGOUT)	O	O	O
R2(SCLK)	O	–	–
R3(SYDO,MCLK)	O	O	–
R4(SYDCLK)	O	–	–
R5(DACR)	※	O	O
R6(MIXOUT-DACL)	O	O	–
R7(TGIN)	10K	O	–
R8(SYI)	10K	–	–
R9(MELOUT)	※	–	–
R27(SLVMEL)	※	O	O
R28(SLVMELOUT)	※	–	–

SWX00B IC1 MASTER

SWX00B IC2 SLAVE

SRAM 256K IC4 SRAM256K

FLASH ROM 16M SWX-MAIN IC3 MX29C1610

FLASH ROM 16M SWX-MAIN IC13 E28F128J3A-100 (not installed)

MASK ROM 128M WAVE IC7 MX29L12810

M-ROM 128M WAVE IC8 MX29L12810 (CVP-209 only)

SWX-B only

DRAM 4M IC6 M5M51429DCC-60

IC9 TC75S04FU (CVP-209 only)

IC5 LP62S2624M-70LL (not installed)

IC17 E28F128J3A-150 (not installed)

IC18 E28F128J3A-150

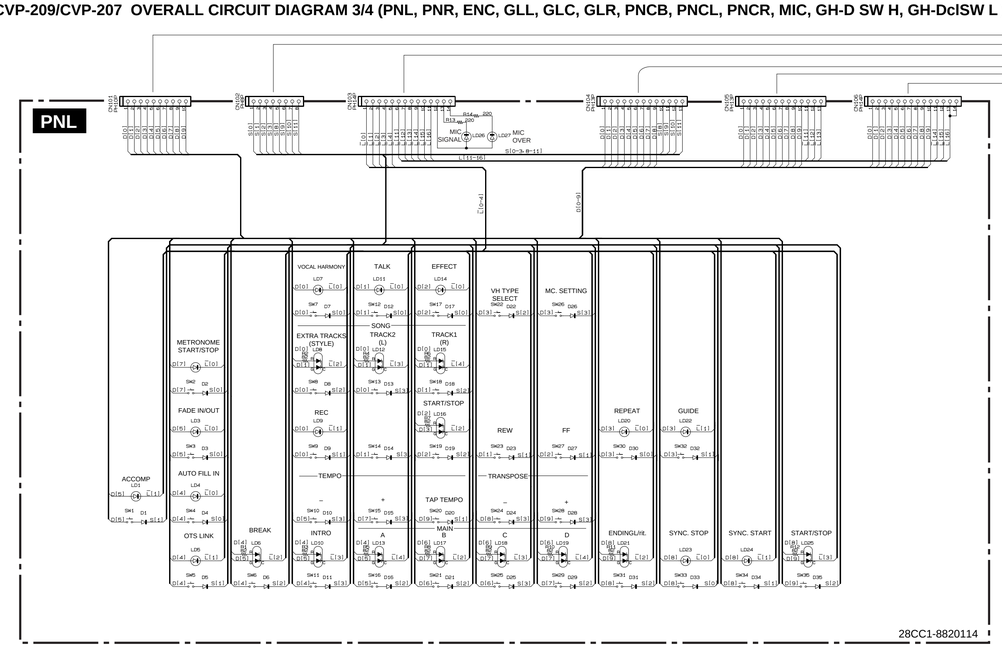
SWX-A: to DM-CN15
SWX-B: to DM-CN16

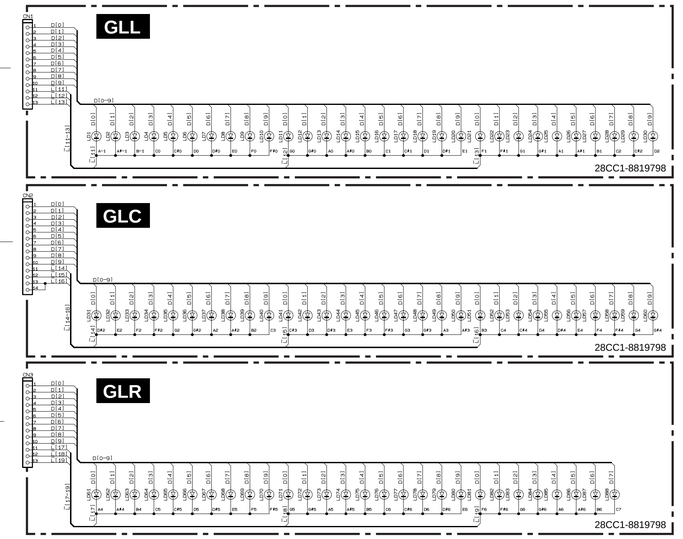
28CC1-8820112

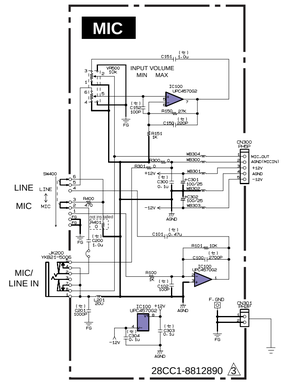
(セ): Ceramic Capacitor

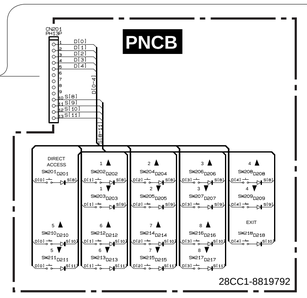
Note : See parts list for details of circuit board component parts

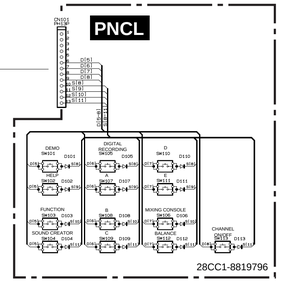
■CVP-209/CVP-207 OVERALL CIRCUIT DIAGRAM 3/4 (PNL, PNR, ENC, GLL, GLC, GLR, PNCB, PNCL, MIC, GH-D SW H, GH-DclSW L)

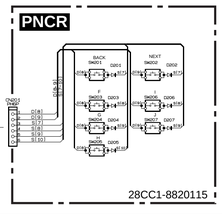


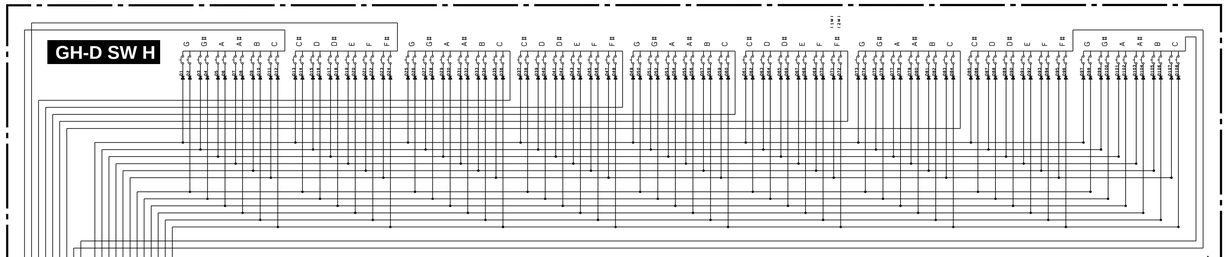


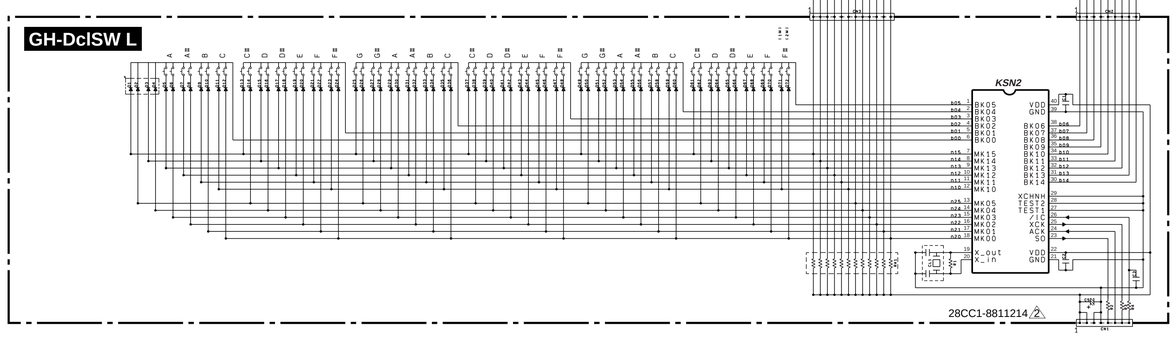










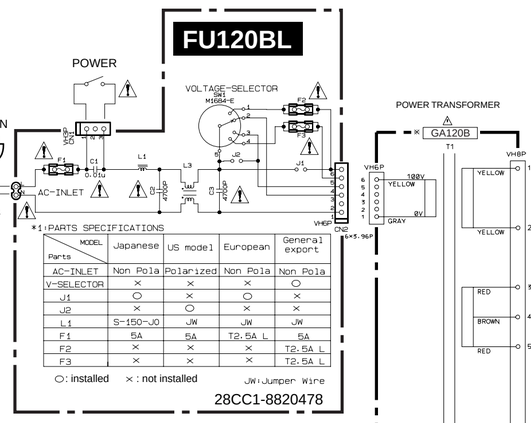


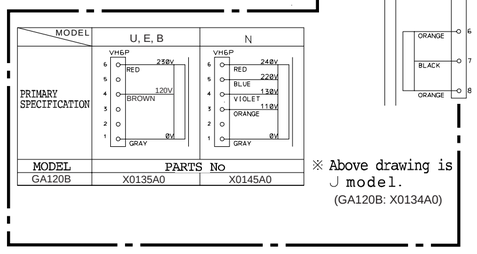
(セ): **Ceramic Capacitor**

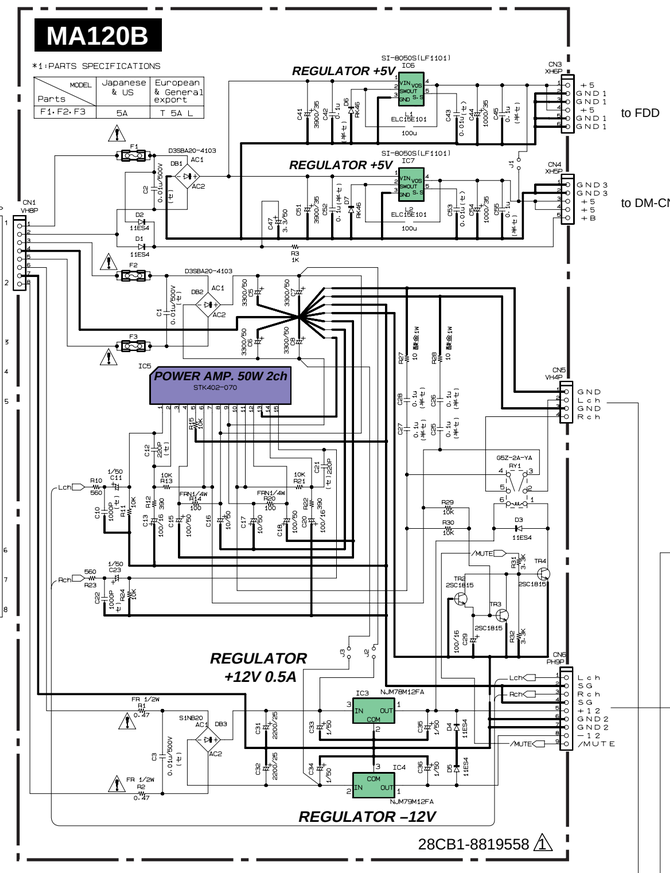
(マ): **Mylar Capacitor**

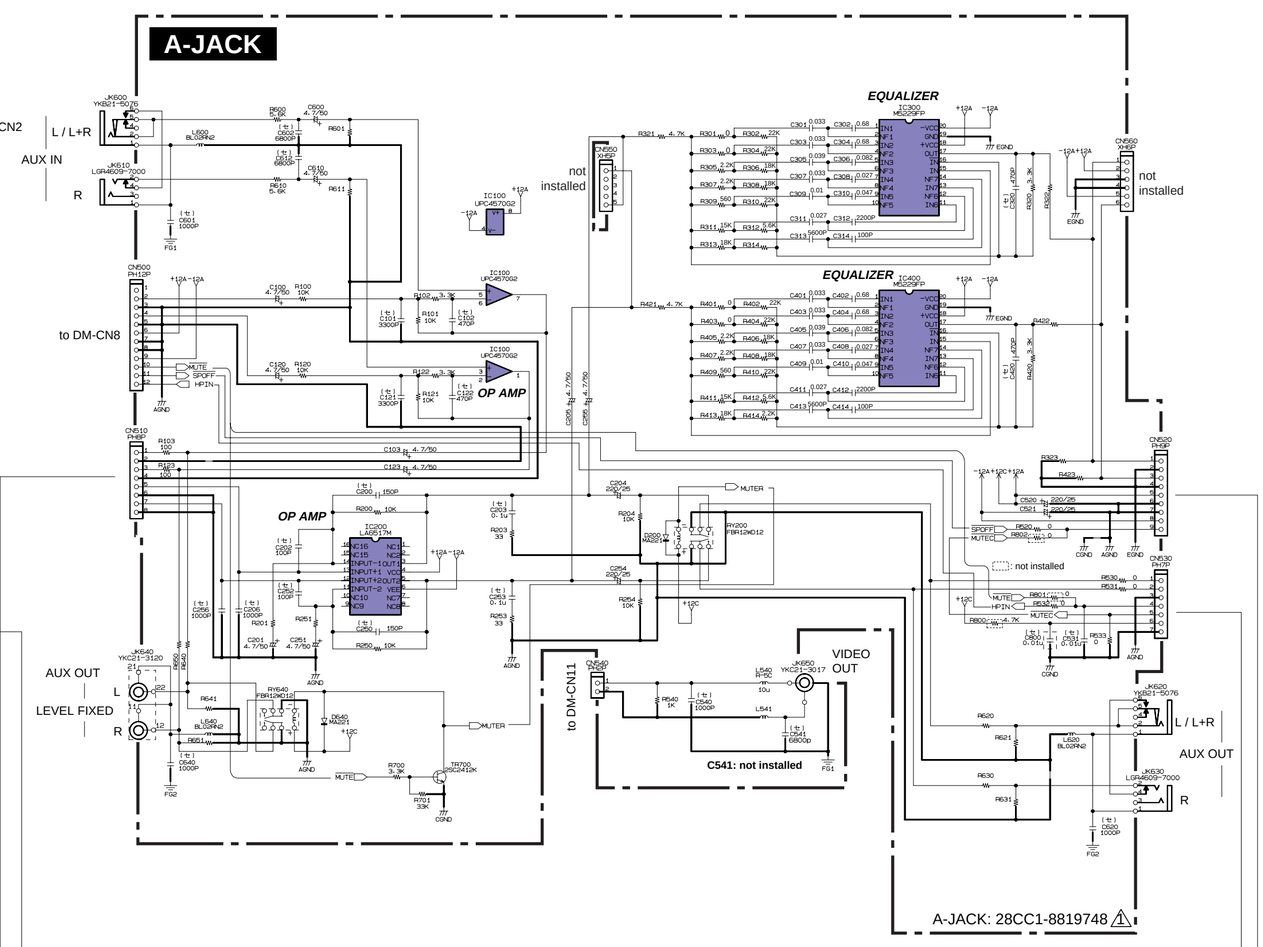
Note : See parts list for details of circuit board component parts.

■ CVP-209/CVP-207 OVERALL CIRCUIT DIAGRAM 4/4 (FU120BL, MA120B, A-JACK, HP, NET1, NETWORK)

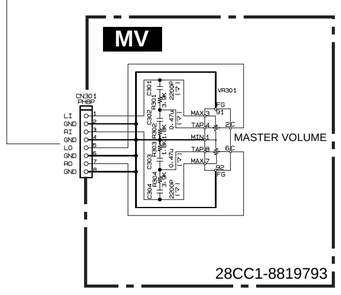


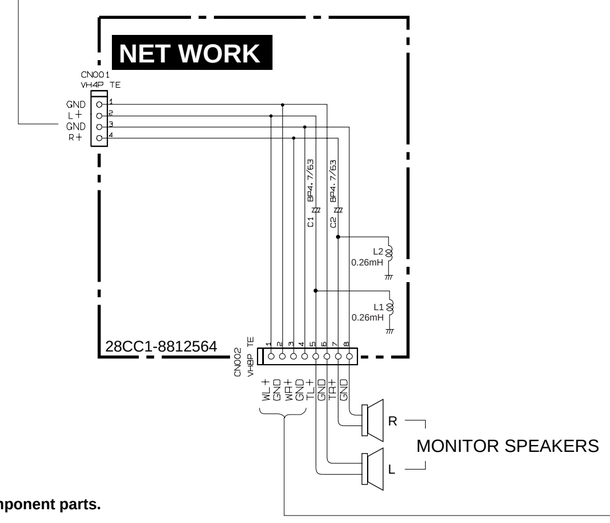


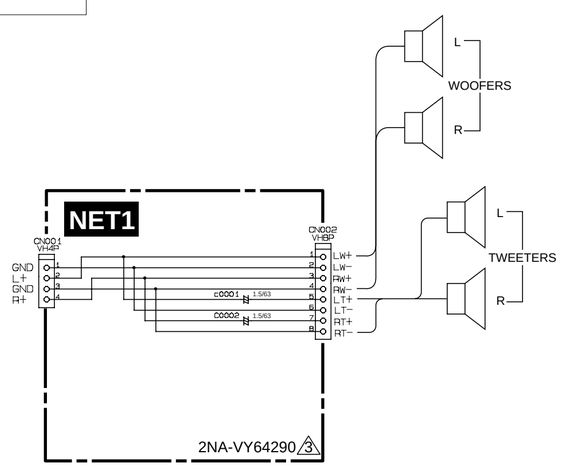


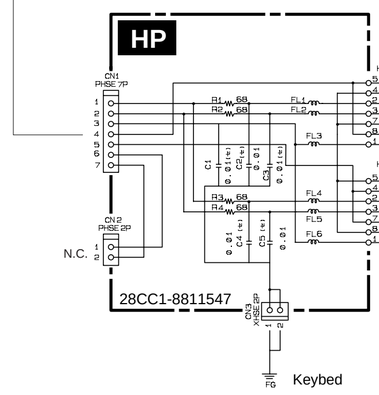


■ **WARNING**
Components having special characteristics are marked ⚠1 and must be replaced with parts having specifications equel to those originally installed.







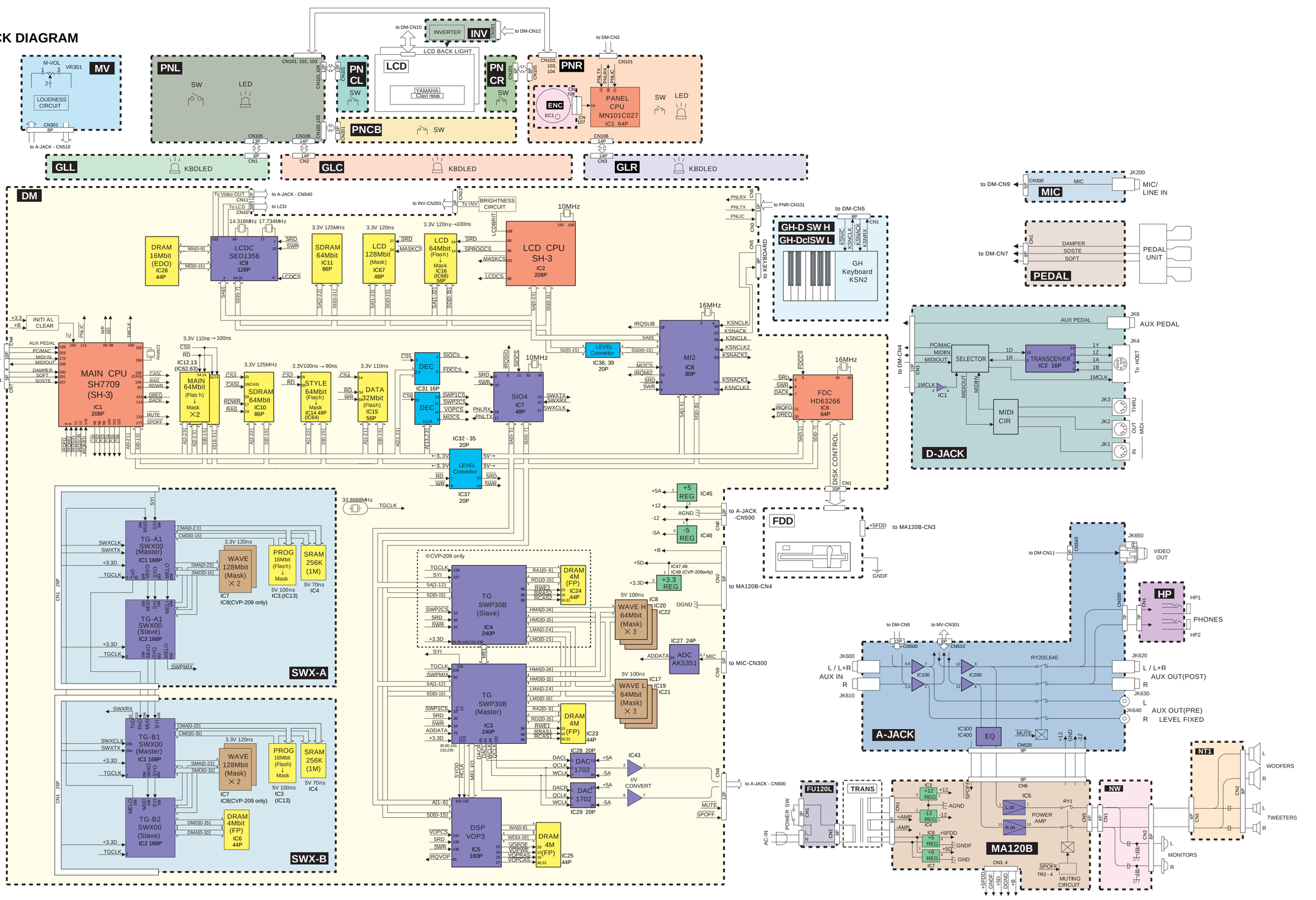


（マ）: **Mylar Capacitor**
（セ）: **Ceramic Capacitor**
（半セ）: **Semiconductive Capacitor**
（酸金）: **Metal Oxide Film Resistor**

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

• μPC2933T-E1 (XS516A00) REGULATOR +3.3V 1: V in 2: GND 3: V out	•NJM78L05UA(XJ598A00) REGULATOR +5V 1: OUTPUT 2: COMMON 3: INPUT	•SI-8050S(XT442A00) REGULATOR +5V 1: V in 2: SW out 3: GND 4: V os 5: S.S	•NJM79L05UA(XN086A00) REGULATOR -5V 1: COMMON 2: INPUT 3: OUTPUT	•NJM78M12FA(XJ602A00) REGULATOR +12V 1: OUTPUT 2: COMMON 3: INPUT	•NJM79M12FA(XD343A00) REGULATOR -12V 1: OUTPUT 2: INPUT 3: COMMON	•D3SBA20-4103 (VQ111500) DIODE STACK 4.0A	• S1NB20 1.0A 200V (VR253700) DIODE STACK 1: ANODE 2: CATHODE	•RK46 (V8107700) DIODE 1: ANODE 2: CATHODE	•11ES4 (VB481900) DIODE 1: ANODE 2: CATHODE

■ CVP-209/CVP-207 BLOCK DIAGRAM


MV
PNL
PN CL
LCD
PN CR
PNCB
PNR
GLL
GLC
GLR
KBDLED
DM
MAIN CPU SH7709 (SH-3) IC1 208P
LCDC SED1356 IC9 128P
LCD CPU SH-3 IC2 208P
MI2 IC8 80P
SIO4 IC7 48P
FDC HD63266 IC6 64P
DEC IC31 16P
STYLE 64Mbit (Flash) IC15 56P
DATA 32Mbit (Flash) IC15 56P
MAIN 64Mbit (Flas h) IC12,13 (IC62,63) ×2
SDRAM 64Mbit IC10 86P
SDRAM 64Mbit IC11 86P
DRAM 16Mbit (EDO) IC26 44P
LCD 128Mbit (Mask) IC67 48P
LCD 64Mbit (Flash) Mask IC16 (IC66) 56P
LEVEL Convertor IC38, 39 20P
LEVEL Convertor IC32 - 35 20P
LEVEL Convertor IC37 20P
INITI AL CLEAR
BRIGHTNESS CIRCUIT
GH-D SW H
GH-DclSW L
GH Keyboard KSN2
to KEYBOARD
to DM-CN9
MIC
MIC/ LINE IN
to DM-CN7
PEDAL
PEDAL UNIT
AUX PEDAL
SELECTOR
TRANSCEIVER IC2 16P
MIDI CIR
D-JACK
to HOST
THRU
OUT
IN
MIDI
DISK CONTROL
FDD
to MA120B-CN3
to MA120B-CN4
to A-JACK -CN500
to MIC-CN300
to DM-CN5
to PNR-CN101
to INV-CN201
to DM-CN10
to DM-CN12
to DM-CN3
to A-JACK - CN540
to A-JACK - CN510
to D-JACK - CN1
to PEDAL-CN1
SWX-A
SWX-B
TG-A1 SWX00 (Master) IC1 168P
TG-A1 SWX00 (Slave) IC2 168P
TG-B1 SWX00 (Master) IC1 168P
TG-B2 SWX00 (Slave) IC2 168P
WAVE 128Mbit (Mask) × 2
PROG 16Mbit (Flash)
SRAM 256K (1M)
TG SWP30B (Slave) IC4 240P
TG SWP30B (Master) IC3 240P
DSP VOP3 IC5 160P
DRAM 4M (FP) IC24 44P
DRAM 4M (FP) IC23 44P
DRAM 4M (FP) IC25 44P
WAVE H 64Mbit (Mask) × 3
WAVE L 64Mbit (Mask) × 3
ADC AK5351
DAC 1702
I/V CONVERT
33.8688MHz
TGCLK
10MHz
16MHz
14.318MHz 17.734MHz
+5 REG IC45
-5 REG IC46
+3.3 REG
to +5FDD
to GNDF
to VIDEO OUT
to PHONES
to MONITORS
to TWEETERS
to WOOFERS
to AUX OUT(POST)
to AUX OUT(PRE) LEVEL FIXED
to AUX PEDAL
to MIC/ LINE IN
to L / L+R
to AUX IN
to R
to L
to TWEETERS
to MONITORS
to PHONES
to Keybed
to MUTING CIRCUIT
to POWER AMP
to SPOFF
to MUTE
to DAMPER
to SOSTE
to SOFT
to PEDAL UNIT
to GH Keyboard KSN2
to MIC/ LINE IN
to AUX PEDAL
to VIDEO OUT
to PHONES
to MONITORS
to TWEETERS
to WOOFERS
to AUX OUT(POST)
to AUX OUT(PRE) LEVEL FIXED
to L / L+R
to AUX IN
to R