PORTATONE

PSR-OR700

SERVICE MANUAL



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PK 001787

YAMAHA

HAMAMATSU, JAPAN

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IMPORTANT NOTICE

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

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

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

The data provided is 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 mains lead are coloured in accordance with the following code:

BLUE : NEUTRAL BROWN : LIVE

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

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

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

Making sure 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.

SAVING DATA



Be sure to perform it

Saving and backing up your data

The data of the types listed below are lost when you turn off the power to the instrument. Save the data to the USER tab display, or USB storage device (USB flash memory/floppy disk, etc).

- Recorded/Edited Songs
- Created/Edited Styles
- Edited Voices
- Memorized One Touch Settings
- Edited MIDI settings

Moreover, the above-mentioned data can be saved all at once. Data in the USER tab display may be lost due to malfunction or incorrect operation. Save important data to a USB storage device (USB flash memory/floppy disk, etc).

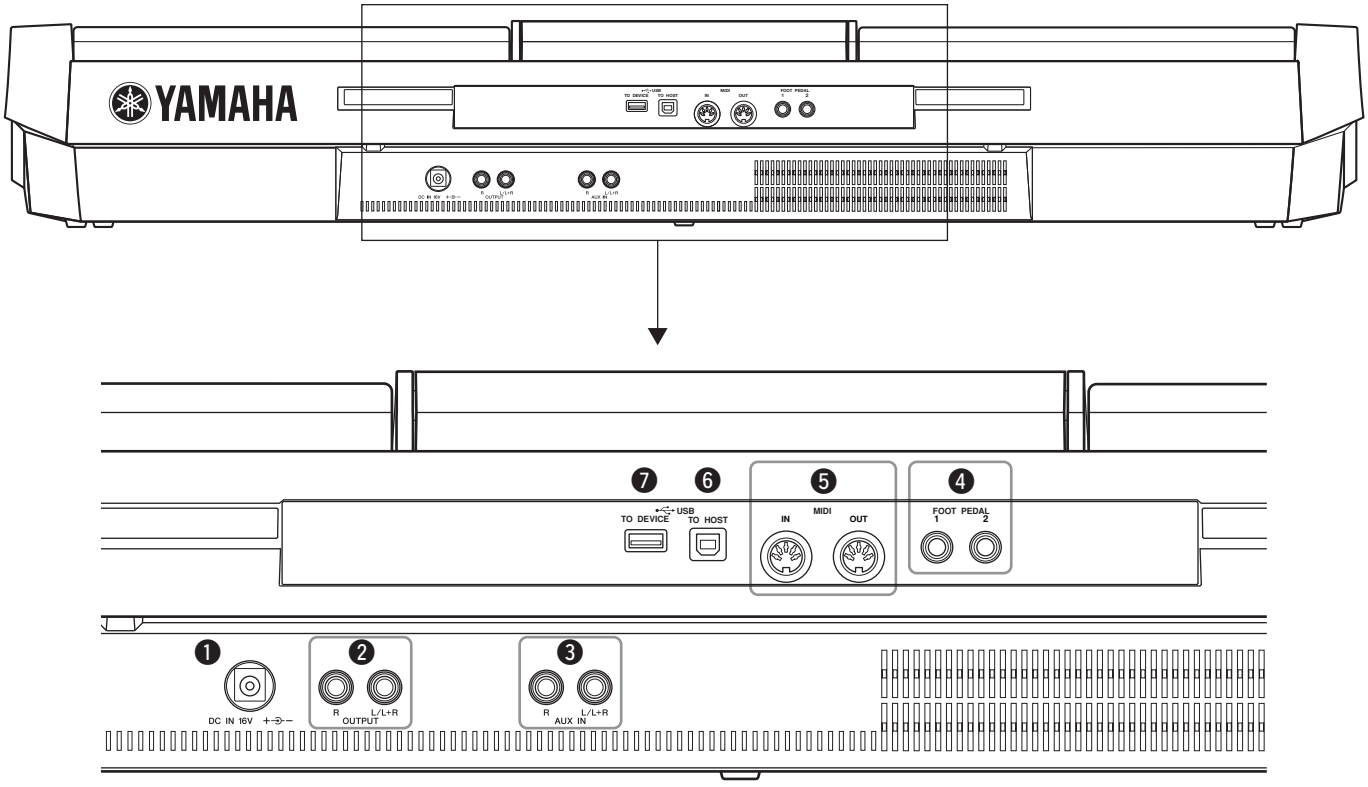
SPECIFICATIONS

Sound Source			AWM Stereo Sampling
Keyboard			61 keys (C1-C6 with Initial Touch)
Display			320 x 240 dots QVGA B/W LCD
	Music Score, Lyrics		YES
Voice	**Polyphony (max)**		96
	Voice Selection		360 voices + 480 XG voices 22 Drum/SFX Kits + GM2 + GS voices for GS Song playback
		Mega Voice	10
		Live! Voice	14
		Cool! Voice	18
		Sweet! Voice	11
		Organ Flutes! Voice	10
		Regular Voice	297
	Voice Editing (Voice Set)		YES
Effects	**Effect Blocks**	**Reverb/Chorus/DSP**	6
	Effect Types	**Reverb/Chorus/DSP**	Reverb: 34 Preset + 3 User Chorus: 29 Preset + 3 User DSP 1: 191 Preset + 3 User DSP 2-4: 106 Preset + 10 User
		Master EQ	5 Preset + 2 User
		Part EQ	28 Parts
Accompaniment Style	**Accompaniment Styles**		314
		Pro Styles	302
		Session Styles	12
	Mega Voice/Style		YES
	Fingering		Single Finger, Fingered, Fingered On Bass, Multi Finger, AI Fingered, Full Keyboard, AI Full Keyboard
	Style Creator		YES
	OTS (One Touch Setting)		4 for each Style
	OTS Link		YES
	Music Finder	**Preset**	YES
		Edit	YES
	RAM Capacity		120 KB
Song	**Preset Songs**		5 samples
	Guide		Follow Lights, Any Key, Karao-Key
	Performance assistant technology		YES
	Recording		Quick Recording, Multi Recording, Step Recording, Song Editing
		Record Channels	16
	RAM Capacity		300 KB
Multi Pad	**Preset**		4 Pads x 80 Banks
Memory Device	**USB Flash Memory**		YES
	Floppy Disk (2HD, 2DD)		External Adaptor (via USB TO DEVICE)
	Hard Disk		External Adaptor (via USB TO DEVICE)
	Flash Memory (Internal)		560 KB
	Memory Card (SmartMedia, etc.)		External Adaptor (via USB TO DEVICE)
Tempo	**Tempo Range**		5 - 500, Tap Tempo
	Metronome		Yes
		Sound	Bell on/off
Registration Memory	**Buttons**		8
	Regist. Sequence / Freeze		Yes

Others	Demo	YES
	Language for Display	5 Languages (English, German, French, Spanish, Italian)
	Direct Access	YES
	Transpose	Keyboard/Song/Master
	Scale Type	9
Computer Connection	USB to HOST	YES
	USB to DEVICE	YES
Other Connectors		PHONES, MIDI (IN, OUT), FOOT PEDAL (1, 2), AUX IN (R, L/L+R), OUTPUT (R, L/L+R)
Pedal Functions		VOLUME, SUSTAIN, SOSTENUTO, SOFT, GLIDE, PORTAMENTO, PITCHBEND, MODULATION, DSP VARIATION, SONG PLAY/PAUSE, STYLE START/STOP, etc.
Amplifiers/ Speakers	Amplifiers	12 W x 2
	Speakers	(12 cm + 5 cm) x 2
Power Consumption		35 W
Dimensions [W x D x H]		1003 mm x 433 mm x 148 mm (39 5/8" x 17 1/8" x 5 7/8")
Weight		11.5 kg (25 lbs., 5 5/8 oz)
Optional Accessories	Headphones	HPE-150/HPE-30
	Footswitch	FC4/FC5
	Foot Controller	FC7
	Floppy Disk Drive	UD-FD01
	AC Power Adaptor	PA-301
	Keyboard stand	L-6/L-7
Accessories		Guide to Yamaha Online Member Product User Registration, Accessory CD-ROM for Windows, Owner's Manual, Accessory CD-ROM for Windows Installation Guide, Music Rest, AC Power Adaptor (PA-301 or an equivalent*) * May not be included depending on your particular area.

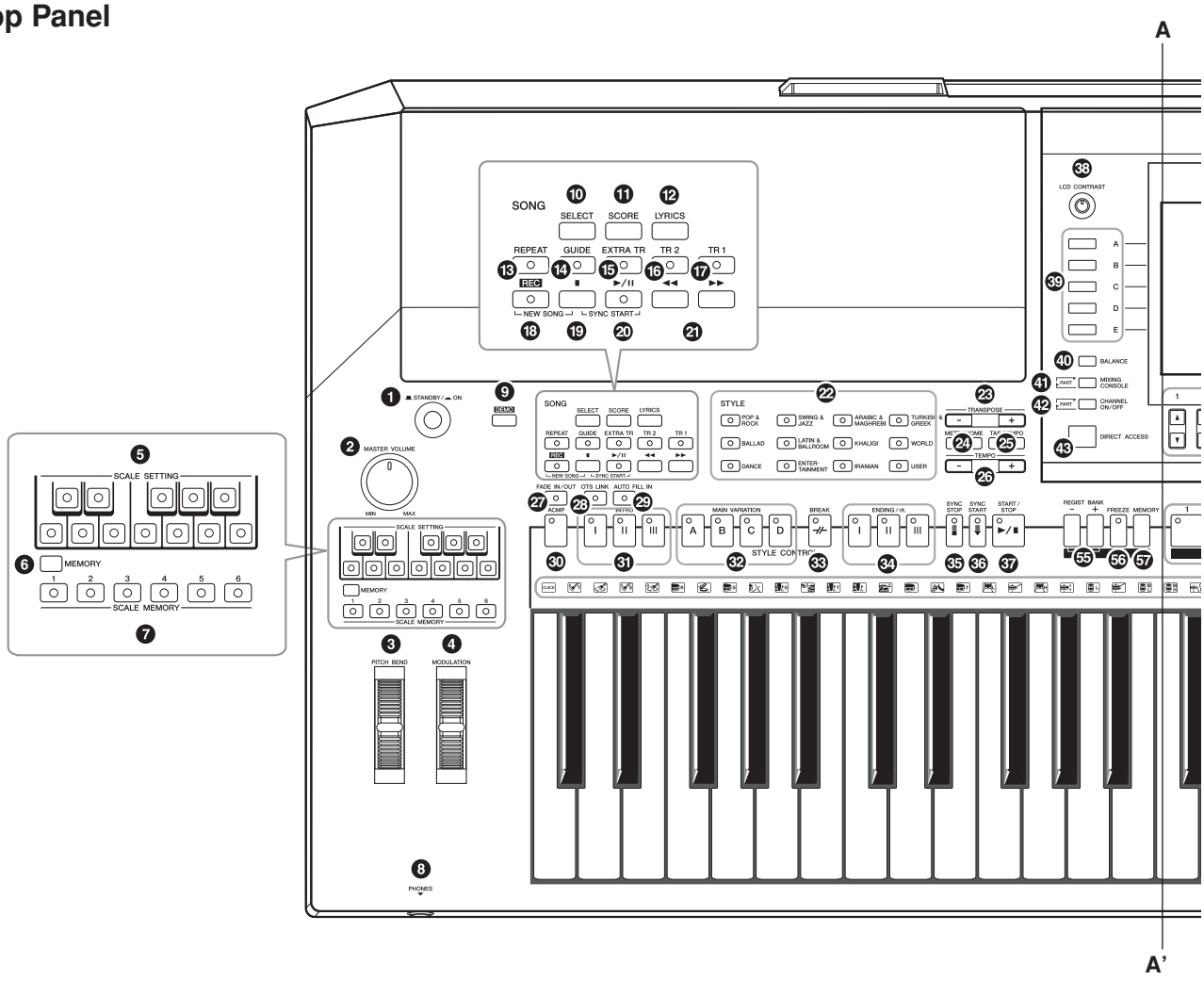
PANEL LAYOUT

• Rear Panel



❶ [DC IN 16V] terminal
❷ [OUTPUT L/L+R, R] jacks
❸ [AUX IN L/L+R, R] jacks
❹ [FOOT PEDAL 1, 2] jacks
❺ [MIDI IN, OUT] terminals
❻ [USB TO HOST] terminal
❼ [USB TO DEVICE] terminal

• Top Panel



STANDBY/ON
- ❶ [STANDBY/ON] switch

VOLUME
- ❷ [MASTER VOLUME] dial

WHEEL
- ❸ [PITCH BEND] wheel
- ❹ [MODULATION] wheel

SCALE SETTING
- ❺ [SCALE SETTING] buttons

SCALE MEMORY
- ❻ [MEMORY] button
- ❼ [SCALE MEMORY] buttons

PHONES
- ❽ [PHONES] terminal

DEMO
- ❾ [DEMO] button

SONG
- ❿ [SELECT] button
- ⓫ [SCORE] button
- ⓬ [LYRICS] button
- ⓭ [REPEAT] button
- ⓮ [GUIDE] button
- ⓯ [EXTRA TR] button
- ⓰ [TR 2] button
- ⓱ [TR 1] button
- ⓲ [REC] button
- ⓳ [■] (STOP) button
- ⓴ [►/❚❚] (PLAY/PAUSE) button
- ㉑ [◄◄], [►►] (REW, FF) buttons

STYLE
- ㉒ STYLE buttons

TRANSPOSE
- ㉓ [–], [+] buttons

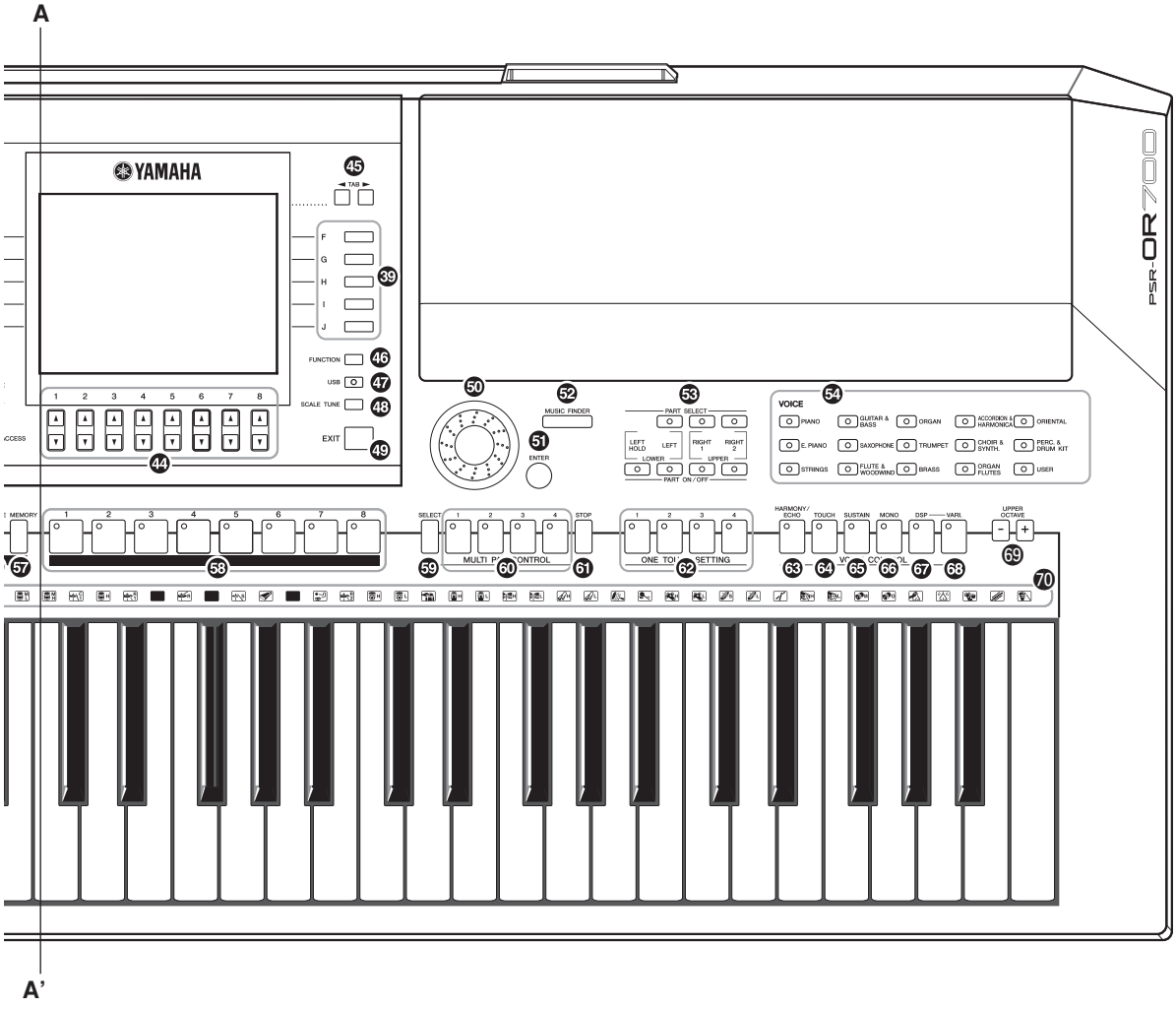
METRONOME
- ㉔ [METRONOME] button

TAP TEMPO
- ㉕ [TAP TEMPO] button

TEMPO
- ㉖ [–], [+] buttons

FADE IN/OUT
- ㉗ [FADE IN/OUT] button

STYLE CONTROL
- ㉘ [OTS LINK] button
- ㉙ [AUTO FILL IN] button
- ㉚ [ACMP] button
- ㉛ INTRO [I], [II], [III] buttons



㉜ MAIN VARIATION [A], [B], [C], [D] buttons
㉝ [BREAK] button
㉞ ENDING/rit. [I], [II], [III] buttons
㉟ [SYNC STOP] button
㊱ [SYNC START] button
㊲ [START/STOP] button
㊳ [LCD CONTRAST] knob
㊴ [A] – [J] buttons
㊵ [BALANCE] button
㊶ [MIXING CONSOLE] button
㊷ [CHANNEL ON/OFF] button
㊸ [DIRECT ACCESS] button
㊹ [1▲, ▼] – [8▲, ▼] buttons
㊺ TAB [◄], [►] buttons
㊻ [FUNCTION] button
㊼ [USB] button
㊽ [SCALE TUNE] button
㊾ [EXIT] button
㊿ DATA ENTRY dial
(51) [ENTER] button

MUSIC FINDER
(52) [MUSIC FINDER] button

PART
(53) [PART SELECT], [PART ON/OFF] buttons

VOICE
(54) VOICE buttons

REGISTRATION MEMORY
(55) REGIST BANK [–], [+] buttons
(56) [FREEZE] button
(57) [MEMORY] button
(58) [1] – [8] buttons

MULTI PAD CONTROL
(59) [SELECT] button
(60) [1] – [4] buttons
(61) [STOP] button

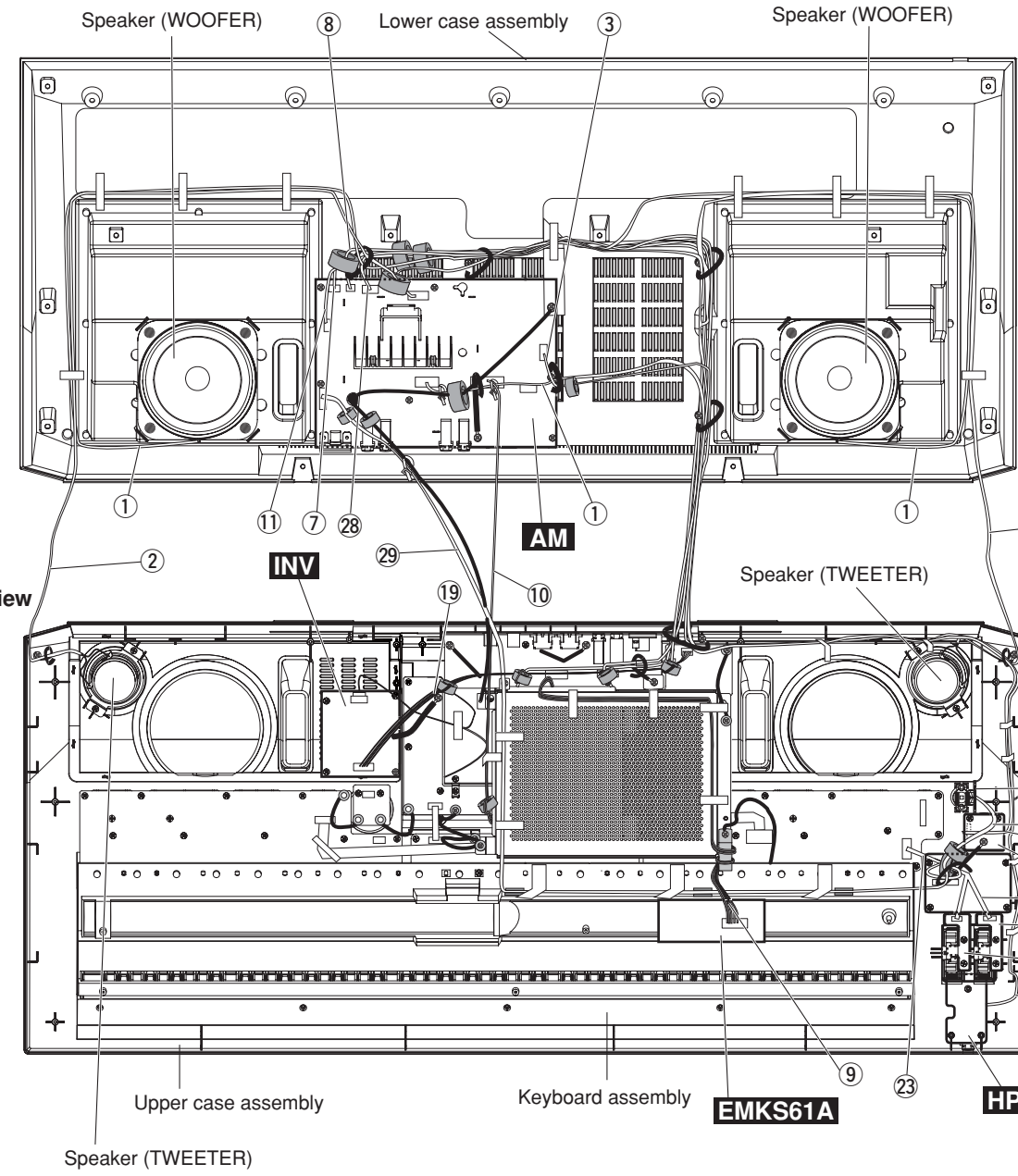
ONE TOUCH SETTING
(62) [1] – [4] buttons

VOICE CONTROL
(63) [HARMONY/ECHO] button
(64) [TOUCH] button
(65) [SUSTAIN] button
(66) [MONO] button
(67) [DSP] button
(68) [VARI.] button

UPPER OCTAVE
(69) UPPER OCTAVE [–], [+] buttons
(70) Drum Kit icons

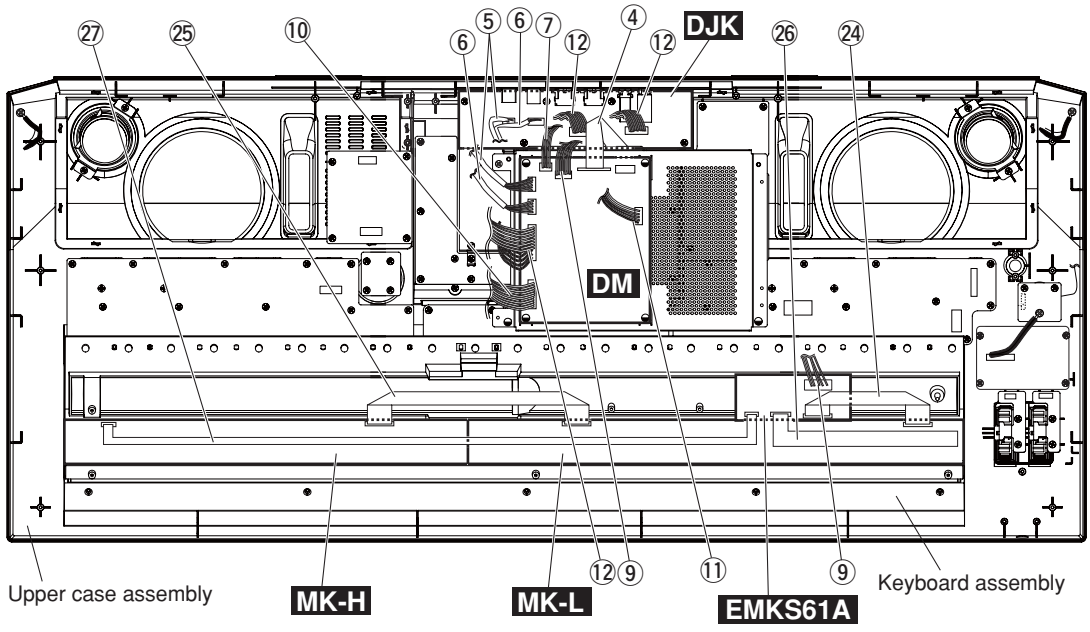
■ CIRCUIT BOARD LAYOUT & WIRING

• **Top view**

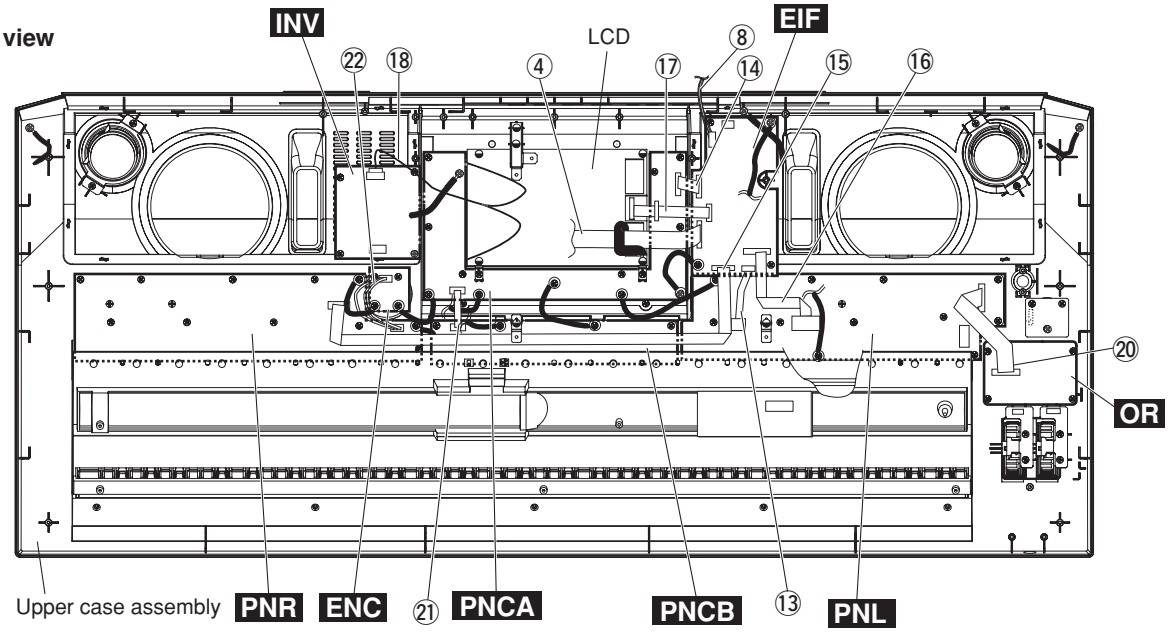


• **Bottom view**

• **Bottom view**



• **Bottom view**



● PSR-S700

No.	Location	Parts No.	Connector Assembly	Source			Destination			Remarks
①	120	(WK41290)	SPWOLF	AM-CN51	*1		Speaker (WOOFER)	*2	*9	5P L=1400/1700
②	210	(WK41240)	SPTWLF	AM-CN53	*1		Speaker (TWEETER)	*2	*9	4P L=1100/900
③	500	(WK41790)	VOLLF	VR-CN100	*3		AM-CN99	*1		8P L=930
④	500	WK547300	FFC Cable	DM-CN50	*1	*5	EIF-CN207	*1	*5	30P
⑤	510	WK444200	USBLF	DM-CN31	*1		DJK-CN72	*1		6P L=300
⑥				DM-CN30	*1		DJK-CN73	*1		5P L=400
⑦	530	(WK40590)	AM5DLF	DM-CN810	*1		AM-CN96	*1		4P L=1100
⑧				EIF-CN201	*1		AM-CN98	*1		6P L=850
⑨	550	(WK39730)	EMKSLF	DM-CN60	*1		EMKS61A-CN1	*1		7P L=550
⑩	560	(WK43330)	AUXLF	DM-CN400	*1		AM-CN11	*1		11P L=600
⑪	570	(WK40150)	DC3DLF	DM-CN800	*1		AM-CN97	*1		5P-6P L=1150
⑫	600	(WK43420)	MPLF	DM-CN70	*1		DJK-CN75	*1		13P-9P L=320
							DJK-CN81			13P-10P L=360
⑬	650	MFA06080	Cable	EIF-CN202	*1	*7	PNL-CN105	*1	*6	6P L=80
⑭	660	MFA22060	Cable	EIF-CN205	*1	*7	PNCA-CN001	*1	*7	22P L=60
⑮	670	WK547500	FFC Cable	EIF-CN204	*1	*7	PNR-CN001	*1	*6	23P L=500
⑯	680	WK547400	FFC Cable	EIF-CN206	*1	*7	PNL-CN101	*1	*6	26P L=140
⑰	700	WK699600	LCDLF	EIF-CN208	*1	*5	LCD	*1	*8	20P L=130
⑱	--	--	LCD Backlight	INV-CN302	*1		LCD-Backlight	*3		2P
⑲	710	(WK44350)	INVLF	EIF-CN203	*1		INV-CN301	*1		4P L=650
⑳	740	WK737500	FFC Cable	PNL-CN102	*1	*6	OR-CN901	*1	*7	14P L=120
㉑	750	MFA13060	Cable	PNCA-CN002	*1	*7	PNCB-CN101	*1	*7	13P L=60
㉒	760	(WD30300)	PH	PNR-CN002	*1		ENC-CN401	*1		3P L=100
㉓	770	(WK41680)	PBMODLF	PNL-CN103	*1		PB-CN501	*1		7P-3P L=290
							MOD-CN601			7P-4P L=260
㉔	S4	VU958900	Cable	EMKS61A-CN2	*1	*4	MK-L	*1		12P
㉕	S5	VU659500	Cable	MK-H	*1		MK-L	*1		12P
㉖	S6	VU659400	Cable	EMKS61A-CN4	*1	*4	MK-L	*1		7P
㉗	S7	VU659600	Cable	EMKS61A-CN3	*1	*4	MK-H	*1		5P
㉘	WH001	(WK43610)	HPLF	HP-CN47	*1		AM-CN46	*1		5P L=1600
㉙	WH003	(WK41460)	SWLF	SW-CN94	*1		AM-CN91	*1		6P L=1300

* The parts with "( )" in "Part No." are not available as spare parts.
*1: Insertion
*2: Manual soldering
*3: Insertion
*4: Edge mark is adjusted to Pin 1 mark (△mark).
*5: Plated terminal front side view.
*6: Plated terminal upper side view.
*7: Plated terminal back side view.
*8: Plated terminal lower side view.
*9: Speaker-R (Red +, Blue –), Speaker-L (White +, Black –)

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

DISASSEMBLY PROCEDURE

Precautions

* **Disassembly or assembly should be performed on a cloth so as not to damage the LCD.**
* **Install the filament tape and the harness clamp in the same way as they were before removal.**
* **MAC (Media Access Control) address is stored in the DM circuit board. If the DM circuit board is replaced, MAC address will be changed.**

* **Notes on Flat Cable**
  Contacts are visible from the back. Pay attention not to insert and install the cable to the connector inversely. (Photo 1)



Front Side



Back Side

Photo 1

1. Lower Case Assembly
(Time required: About 8 minutes)

1-1. Remove the twenty-eight (28) screws marked [100]. The two bottom boards can then be removed. (Fig. 1)

1-2. Remove the eight (8) screws marked [110], five (5) screws marked [120], two (2) screws marked [130A] and two (2) screws marked [130B]. The lower case assembly can then be removed. (Fig. 1)

2. HP Circuit Board
(Time required: About 8 minutes)

2-1. Remove the lower case assembly. (See procedure 1.)

2-2. Remove the three (3) screws marked [140A]. The HP circuit board can then be removed. (Fig. 2)

3. Wheel Assembly, PB Circuit Board
(Time required: About 8 minutes)

3-1. Remove the lower case assembly. (See procedure 1.)

3-2. Remove the two (2) screws marked [570A]. The PB circuit board can then be removed with the wheel assembly. (Fig. 2)

* **The wheel assembly is not part of the PB circuit board. When replacing the PB circuit board, remove the wheel assembly from the PB circuit board, and install it on the new circuit board.**

4. Wheel, MOD Circuit Board
(Time required: About 8 minutes)

4-1. Remove the lower case assembly. (See procedure 1.)

4-2. Remove the two (2) screws marked [570B]. The MOD circuit board can then be removed with the wheel. (Fig. 2)

* **The wheel is not part of the MOD circuit board. When replacing the MOD circuit board, remove the wheel from the MOD circuit board, and install it on the new circuit board.**

5. SW Circuit Board
(Time required: About 8 minutes)

5-1. Remove the lower case assembly. (See procedure 1.)

5-2. Remove the two (2) screws marked [140B]. The SW circuit board can then be removed. (Fig. 2)

* **The push knob is not part of the SW circuit board. When replacing the SW circuit board, remove the push knob from the SW circuit board, and install it on the new circuit board. (Photo 2)**

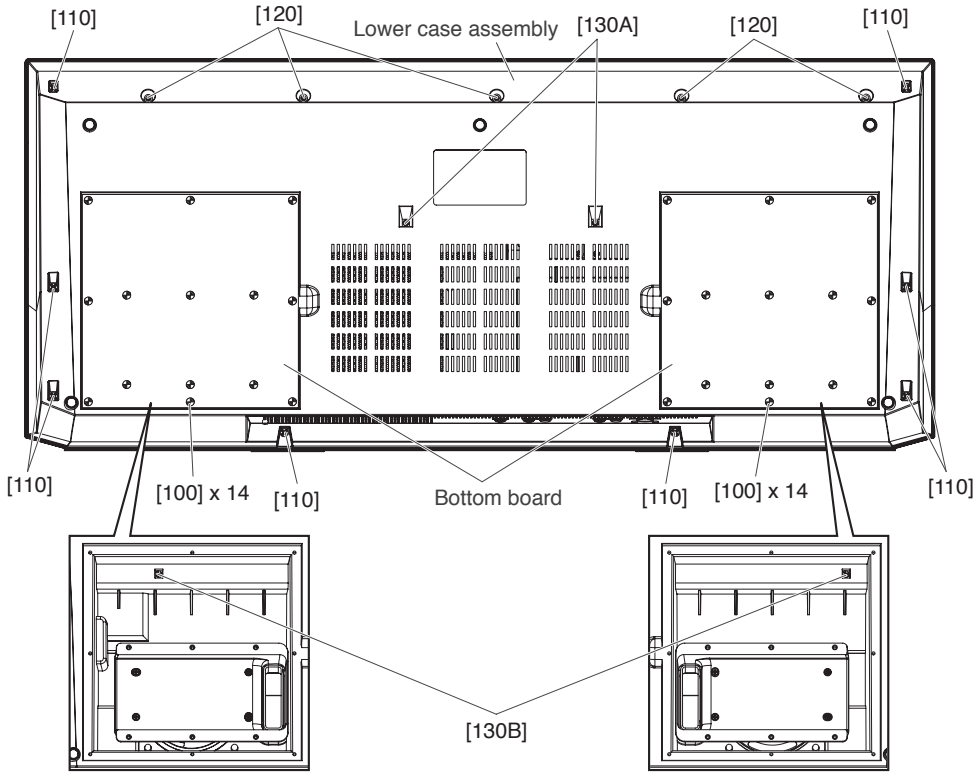
6. VR Circuit Board
(Time required: About 9 minutes)

6-1. Tie a string or the like to the volume knob. Then, pull the string to remove the volume knob from the control panel side. (Fig. 1, Fig. 3)

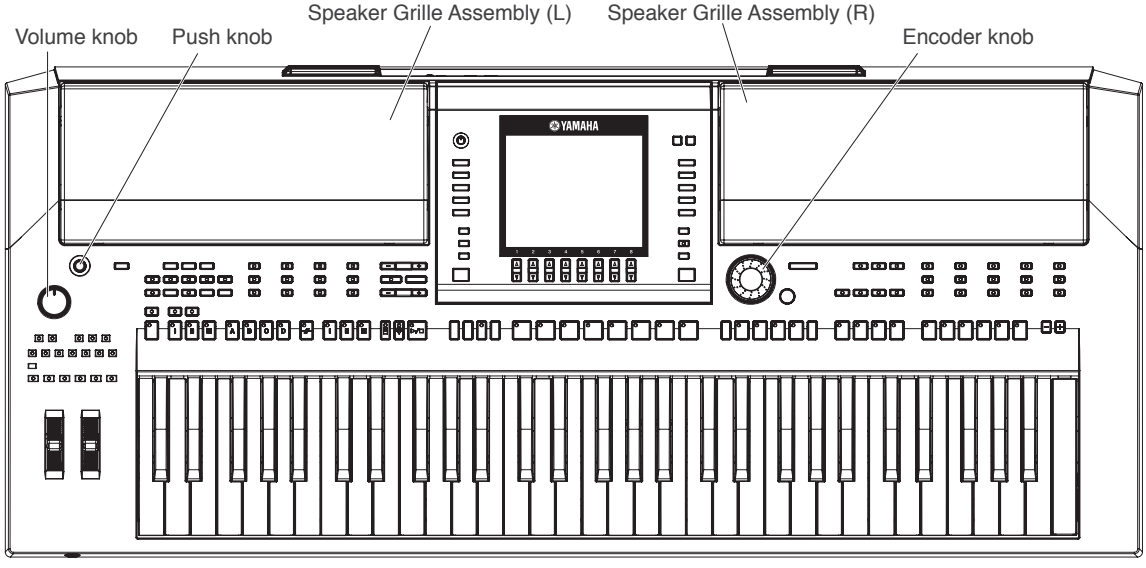
6-2. Remove the lower case assembly. (See procedure 1.)

6-3. Remove the three (3) screws marked [570C]. The VR circuit board can then be removed. (Fig. 2)

〈**Bottom view**〉



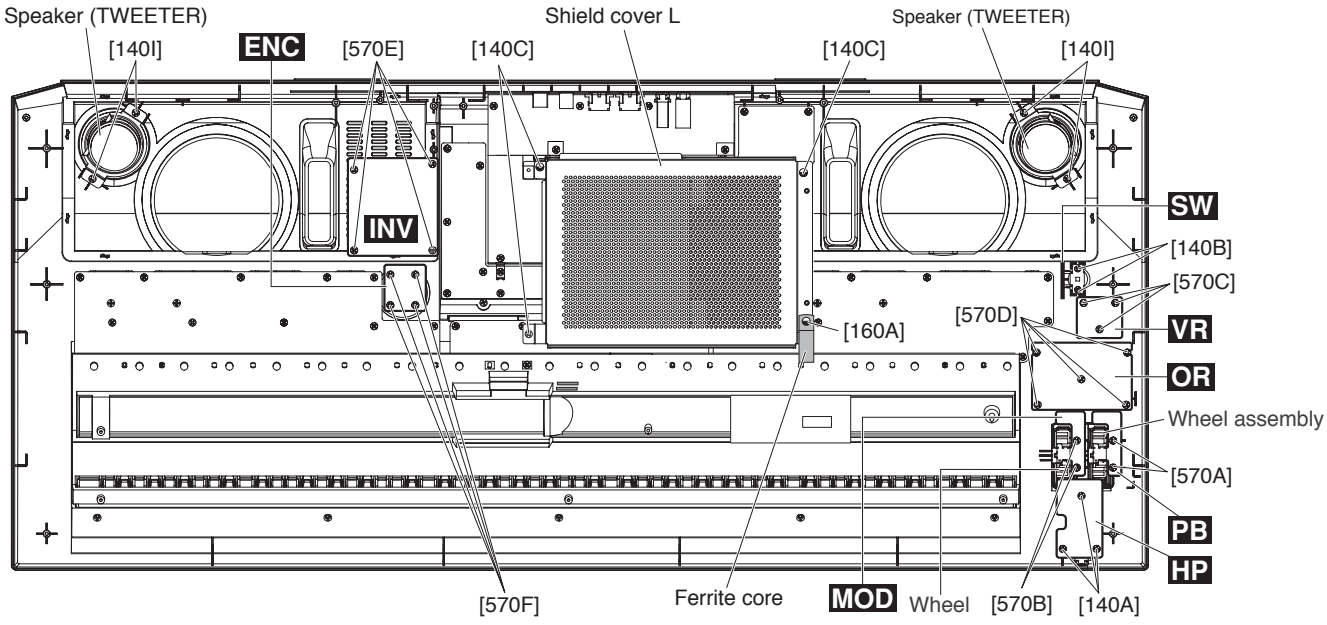
〈**Top view**〉



[100]: Bind Head Tapping Screw-B 4.0X16 MFZN2W3 (WF154100)
[110]: Bind Head Tapping Screw-B 3.0X12 MFZN2W3 (WE987400)
[120]: Bind Head Tapping Screw-B 3.0X16 MFZN2W3 (WE973400)
[130]: Bind Head Tapping Screw-B 3.0X30 MFZN2W3 (WF491000)

Fig. 1

● **Upper Case Assembly**
〈Bottom view〉



[140]: Bind Head Tapping Screw-B 3.0X8 MFZN2W3 (WE774300)
[570]: Bind Head Tapping Screw-B 3.0X8 MFZN2W3 (WE774300)

Fig. 2

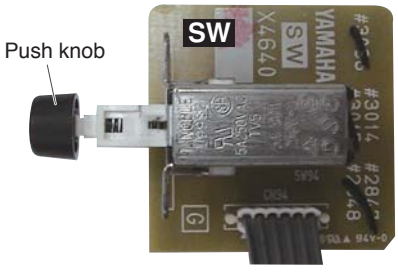


Photo 2

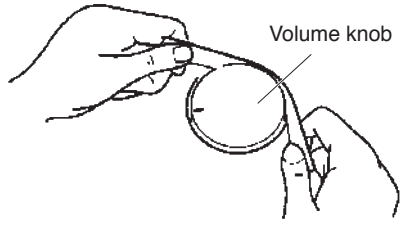


Fig. 3

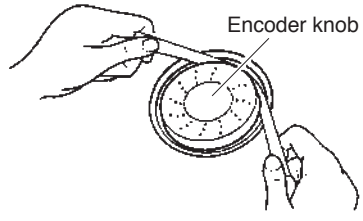


Fig. 4

7. OR Circuit Board
(Time required: About 8 minutes)

7-1. Remove the lower case assembly. (See procedure 1.)
7-2. Remove the five (5) screws marked [570D]. The OR circuit board can then be removed. (Fig. 2)

8. INV Circuit Board
(Time required: About 8 minutes)

8-1. Remove the lower case assembly. (See procedure 1.)
8-2. Remove the four (4) screws marked [570E]. The INV circuit board can then be removed. (Fig. 2)

9. ENC Circuit Board
(Time required: About 9 minutes)

9-1. Tie a string or the like to the encoder knob. Then, pull the string to remove the encoder knob from the control panel side. (Fig. 1, Fig. 4)
9-2. Remove the lower case assembly. (See procedure 1.)
9-3. Remove the four (4) screws marked [570F]. The ENC circuit board can then be removed. (Fig. 2)

10. Shield Cover U, Shield Cover L, DM Circuit Board

10-1. Remove the lower case assembly. (See procedure 1.)

10-2. **Shield Cover L (Time required: About 8 minutes)**

10-2-1. Remove the three (3) screws marked [140C] and the screw marked [160A]. The ferrite core and shield cover L can then be removed. (Fig. 2)

10-3. **DM Circuit Board**
(Time required: About 9 minutes)

10-3-1. Remove the shield cover L. (See procedure 10-2.)

10-3-2. Remove the four (4) screws marked [140D]. The DM circuit board can then be removed. (Fig. 5)

*** MAC (Media Access Control) address is stored in the DM circuit board. If the DM circuit board is replaced, the MAC address will be changed. (Photo 3)**

*** The DM circuit board has a built-in jumper switch for switching the display in Japanese or in English (SW3). (Photo 4)**

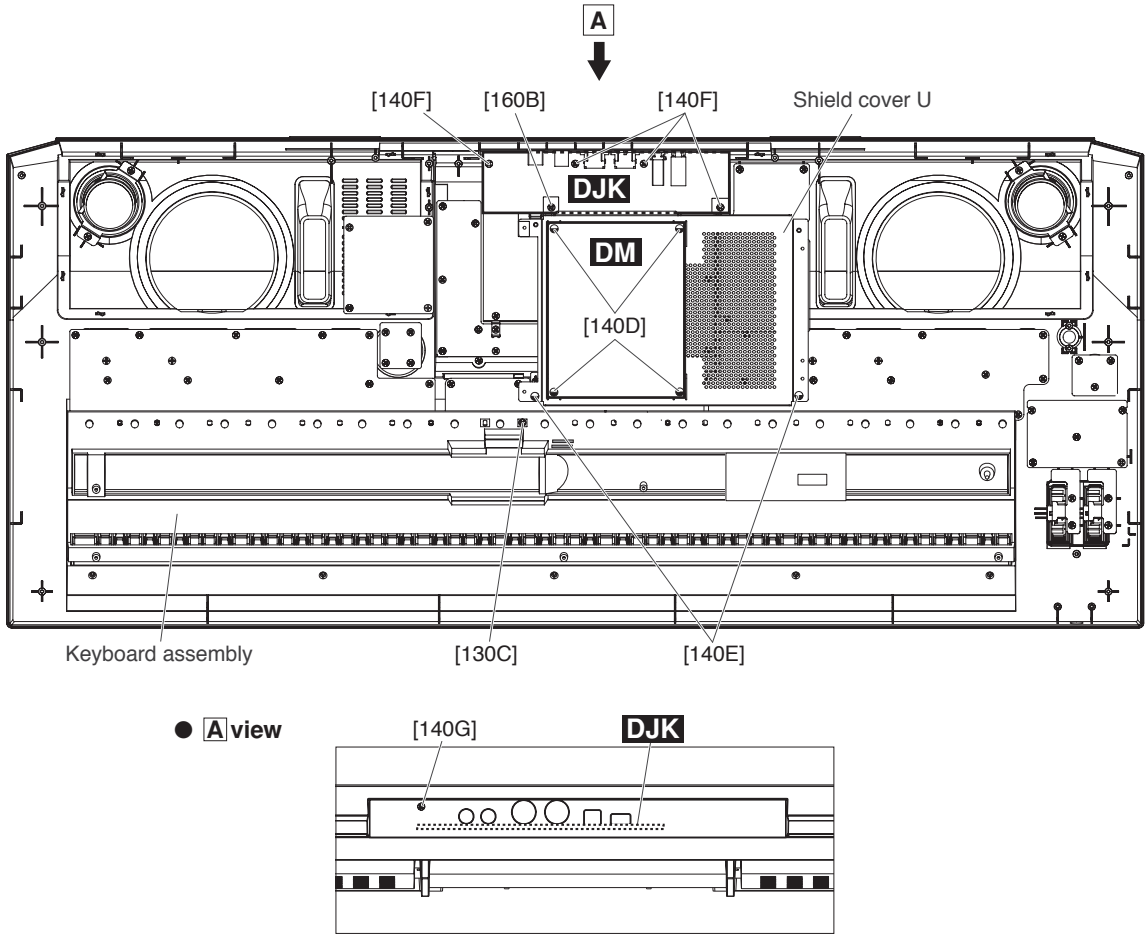
10-4. **Shield Cover U (Time required: About 9 minutes)**

10-4-1. Remove the shield cover L. (See procedure 10-2.)

10-4-2. Remove the two (2) screws marked [140E]. The shield cover U can then be removed with the DM circuit board. (Fig. 5)

10-4-3. Remove the DM circuit board from the shield cover U. (See procedure 10-3-2.)

● **Upper Case Assembly**
〈**Bottom view**〉



[130C]: Bind Head Tapping Screw-B 3.0X30 MFZN2W3 (WF491000)
[140]: Bind Head Tapping Screw-B 3.0X8 MFZN2W3 (WE774300)
[160B]: PW Head Tapping Screw-B 3.0X12 MFZN2W3 (WF002100)

Fig. 5

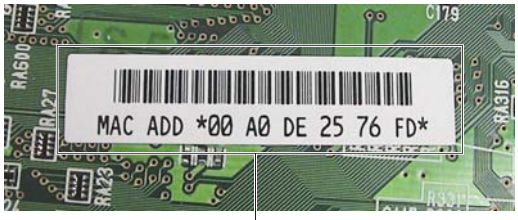


Photo 3

● **Jumper switch**

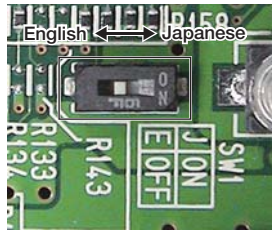


Photo 4

11. DJK Circuit Board

(Time required: About 10 minutes)

11-1. Remove the lower case assembly. (See procedure 1.)
11-2. Remove the shield cover L. (See procedure 10-2.)
11-3. Remove the shield cover U with the DM circuit board. (See procedure 10-4.)
11-4. Remove the four (4) screws marked [140F], the screw marked [160A] and the screw marked [140G]. The DJK circuit board can then be removed. (Fig. 5)

12. EIF Circuit Board

(Time required: About 9 minutes)

12-1. Remove the lower case assembly. (See procedure 1.)
12-2. Remove the shield cover L. (See procedure 10-2.)
12-3. Remove the shield cover U with the DM circuit board. (See procedure 10-4.)
12-4. Remove the four (4) screws marked [570G]. The EIF circuit board can then be removed. (Fig. 6)

13. Keyboard Assembly

(Time required: About 8 minutes)

13-1. Remove the lower case assembly. (See procedure 1.)
13-2. Remove the screw marked [130C]. The keyboard assembly can then be removed. (Fig. 5)

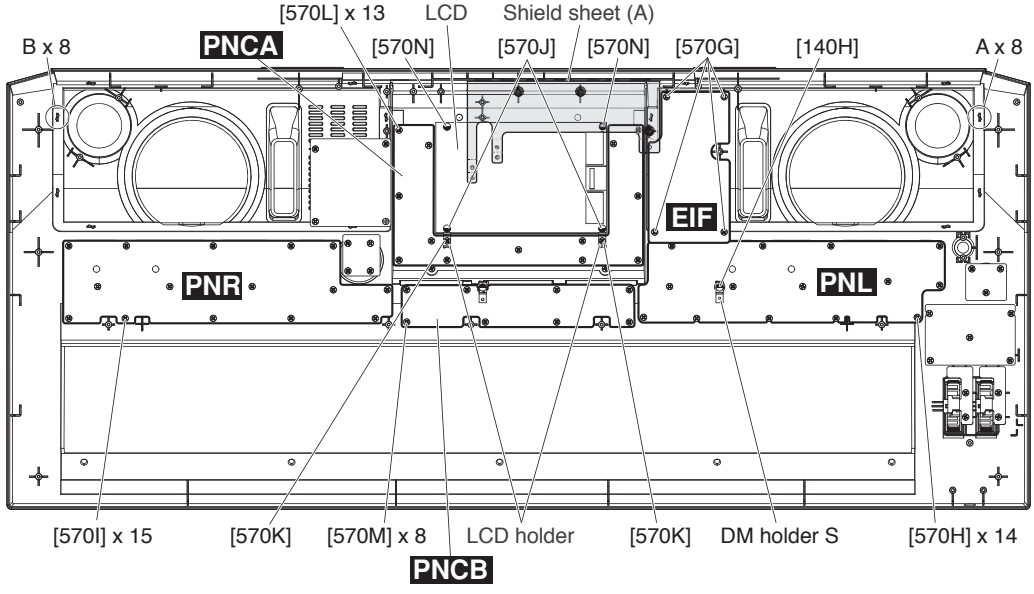
14. PNL Circuit Board

(Time required: About 11 minutes)

14-1. Remove the lower case assembly. (See procedure 1.)
14-2. Remove the shield cover L. (See procedure 10-2.)
14-3. Remove the shield cover U with the DM circuit board. (See procedure 10-4.)
14-4. Remove the keyboard assembly. (See procedure 13.)
14-5. Remove the screw marked [140H]. The DM holder S can then be removed. (Fig. 6)
14-6. Remove the fourteen (14) screws marked [570H]. The PNL circuit board can then be removed. (Fig. 6)

● **Upper Case Assembly**

〈**Bottom view**〉



[140H]: Bind Head Tapping Screw-B 3.0X8 MFZN2W3 (WE774300)
[570]: Bind Head Tapping Screw-B 3.0X8 MFZN2W3 (WE774300)

Fig. 6

15. PNR Circuit Board
(Time required: About 11 minutes)

15-1. Remove the lower case assembly. (See procedure 1.)
15-2. Remove the keyboard assembly. (See procedure 13.)
15-3. Remove the fifteen (15) screws marked [570I]. The PNR circuit board can then be removed. (Fig. 6)

16. PNCA Circuit Board, PNCB Circuit Board, LCD

16-1. Remove the lower case assembly. (See procedure 1.)
16-2. Remove the shield cover L. (See procedure 10-2.)
16-3. Remove the shield cover U with the DM circuit board. (See procedure 10-4.)

16-4. **PNCA Circuit Board**
(Time required: About 13 minutes)

16-4-1. Remove the DJK circuit board. (See procedure 11.)
16-4-2. Remove the two (2) screws marked [570J] and two (2) screws marked [570K]. The LCD holder can then be removed. (Fig. 6)
16-4-3. Turn up the shield sheet (A) and remove the thirteen (13) screws marked [570L]. The PNCA circuit board can then be removed. (Fig. 6)

16-5. **PNCB Circuit Board**
(Time required: About 10 minutes)

16-5-1. Remove the keyboard assembly. (See procedure 13.)
16-5-2. Remove the eight (8) screws marked [570M]. The PNCB circuit board can then be removed. (Fig. 6)

16-6. **LCD (Time required: About 10 minutes)**

16-6-1. Remove the DJK circuit board. (See procedure 11.)
16-6-2. Turn up the shield sheet (A) and remove the two (2) screws marked [570J] and two (2) screws marked [570N]. The LCD can then be removed. (Fig. 6)

17. Tweeter **(Time required: About 8 minutes)**

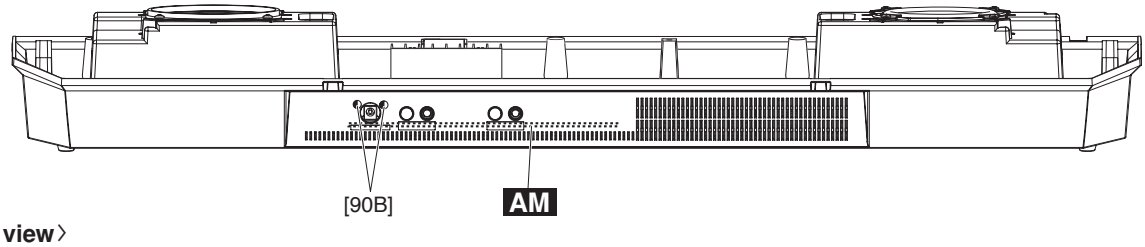
17-1. Remove the lower case assembly. (See procedure 1.)
17-2. Remove the two (2) screws marked [140I]. The tweeter can then be removed. (Fig. 2)
* **The left and right tweeters can be removed in the same method.**

18. Woofer **(Time required: About 8 minutes)**

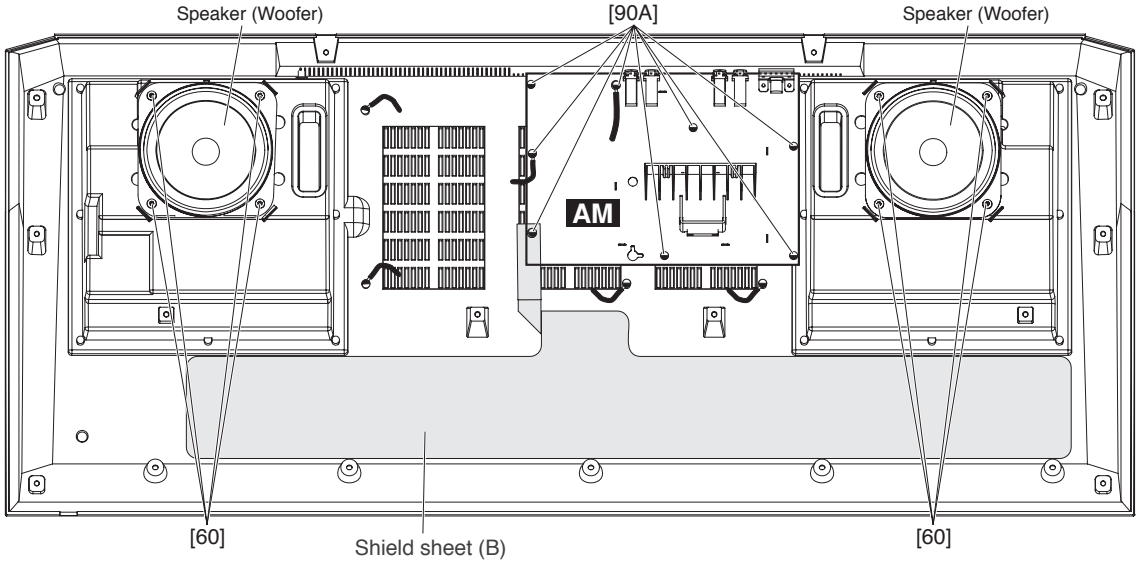
18-1. Remove the lower case assembly. (See procedure 1.)
18-2. Remove the four (4) screws marked [60]. The woofer can then be removed. (Fig. 7)
* **The left and right woofers can be removed in the same method.**

● **Lower Case Assembly**

〈**Rear view**〉



〈**Top view**〉



[60]: Bind Head Tapping Screw-B 4.0X8 MFZN2W3 (WE974600)
[90]: Bind Head Tapping Screw-B 3.0X8 MFZN2W3 (WE774300)

Fig. 7

19. Speaker Grille Assembly (L)
(Time required: About 10 minutes)

19-1. Remove the lower case assembly. (See procedure 1.)
19-2. Remove the INV circuit board. (See procedure 8.)
19-3. Restraighten the eight (8) projections marked [A] to come off the slots of the upper case assembly. (Fig. 6)
19-4. Remove the speaker grille assembly (L). (Fig. 1)

20. Speaker Grille Assembly (R)
(Time required: About 11 minutes)

20-1. Remove the lower case assembly. (See procedure 1.)
20-2. Remove the shield cover L. (See procedure 10-2.)
20-3. Remove the shield cover U with the DM circuit board. (See procedure 10-4.)
20-4. Remove the EIF circuit board. (See procedure 12.)
20-5. Restraighten the eight (8) projections marked [B] to come off the slots of the upper case assembly. (Fig. 6)
20-6. Remove the Speaker Grille assembly (R). (Fig. 1)

21. AM Circuit Board
(Time required: About 9 minutes)

21-1. Remove the lower case assembly. (See procedure 1.)
21-2. Remove the eight (8) screws marked [90A] and two (2) screws marked [90B]. The AM circuit board can then be removed. (Fig. 7)

22. Disassembling the Keyboard Assembly

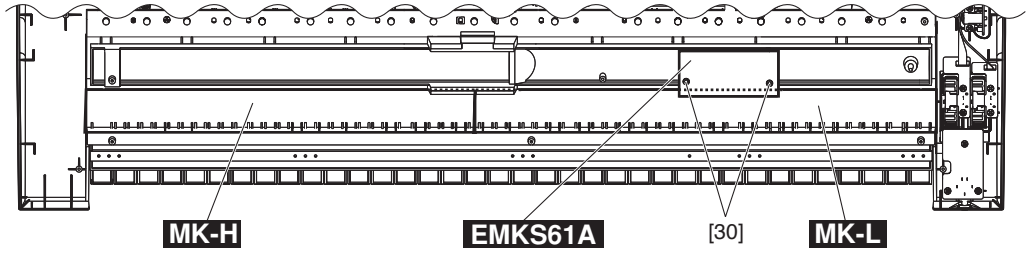
22-1. Remove the lower case assembly. (See procedure 1.)
22-2. Remove the keyboard assembly. (See procedure 13.)

22-3. **EMKS61A Circuit Board**
(Time required: About 8 minutes)
Remove the two (2) screws marked [30]. The EMKS61A circuit board can then be removed. (Fig. 8)

22-4. **MK-L Circuit Board**
(Time required: About 9 minutes)
Remove the MK-L circuit board while pressing the seven (7) hooks A in the direction of the arrow. (Fig. 9)

22-5. **MK-H Circuit Board**
(Time required: About 9 minutes)
22-5-1. Remove the EMKS61A circuit board. (See procedure 22-3.)
22-5-2. Remove the MK-H circuit board while pressing the eight (8) hooks A in the direction of the arrow. (Fig. 9)

22-6. **Rubber Contact:**
Remove the rubber contact. (Fig. 9) (Photo 5)



[30]: Bind Head Tapping Screw-P 3.0X8 MFZN2B3 (WF266600)

Fig. 8

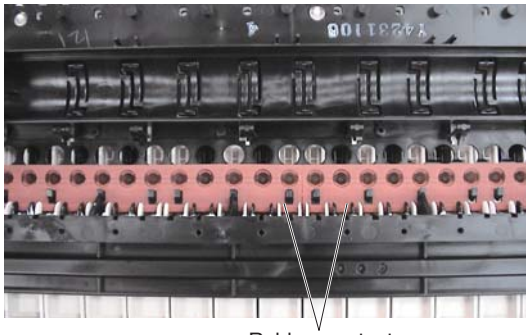


Photo 5

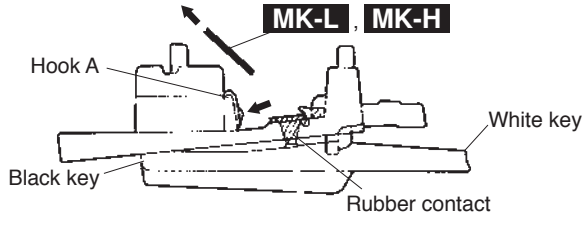


Fig. 9

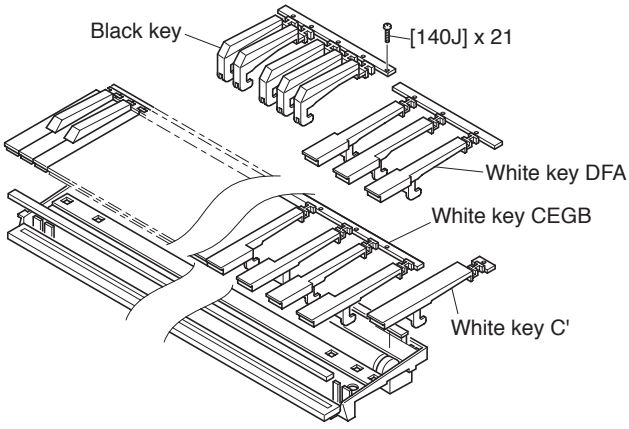
22-7. **White and Black Keys:**

22-7-1. Remove the twenty-one (21) screws marked [140L], then remove the black keys from the lower notes. (Fig. 10)

22-7-2. Remove the white keys DFA and C'. (Fig. 10)

22-7-3. Remove the while keys CEGB from the higher notes. (Fig. 10)

* **Lift the front portion of the keys and slide them towards you. The keys can then be removed from the assembly.**



[140J]: Bind Head Tapping Screw-P 3.0X16 MFZN2W3 (WE973000) or
Bind Head Tapping Screw-P 3.0X16 MFZN2B3 (WE983200)

Fig. 10

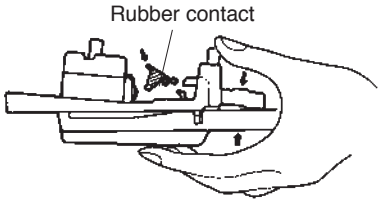


Fig. 11

23. Assembling the Keyboard Assembly

23-1. Install the white keys CEGB from the lower notes. (Fig. 10)

23-2. Install the white keys DFA and C'. (Fig. 10)

23-3. Install the black keys from the higher notes, and tighten the twenty-one (21) screws marked [140L]. (Fig. 10)

* **To install the white and black keys, insert the projections of the keys into the respective slots [C] on the frame first. (Photo 6, Photo 7, Photo 8)**

23-4. Install the rubber contacts while pulling the keys up. (Fig. 11, Fig. 12)

* **When fitting the rubber contacts, raise both ends of the frame so that keys do not push the rubber contact up.**

23-5. Install the MK-L and MK-H circuit boards in the assembly so that the hooks B hold it. (Fig. 13)

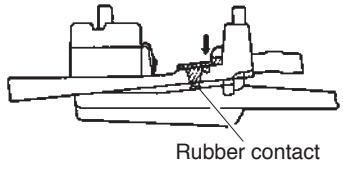


Fig. 12

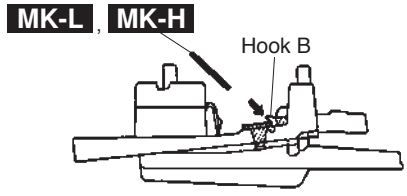


Fig. 13

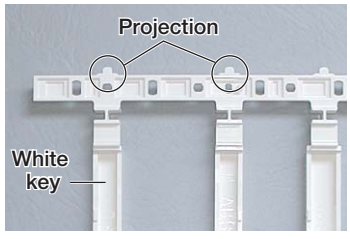


Photo 6

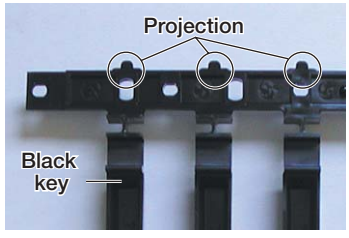


Photo 7

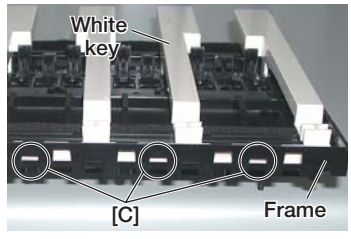


Photo 8

■ LSI PIN DESCRIPTION

AK4385ET (X6040A00) **DAC** (Digital to Analog Converter) 19
HD6417727F160CV (X2890B00) **CPU** 20
M38044M4-C16FPU0 (X4406100) **LED DRIVER/SWITCH SCAN** 19
T6TZ2XBG-0002 (X7376B00) **SWP51** (Tone Generator) 21
µPD780031AYGK-N04 (X0031200) **LKS** 23

● **AK4385ET** (X6040A00) **DAC** (Digital to Analog Converter)

DM: IC400

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	MCLK	I	Master Clock	9	AOUTR-	O	Rch Analog out(-)
2	BICK	I	Audio Serial Data Clock	10	AOUTR+	O	Rch Analog out(+)
3	SDTI	I	Audio Serial Date Input	11	AOUTL-	O	Lch Analog out(-)
4	LRCK	I	L/R Clock	12	AOUTL+	O	Lch Analog out(+)
5	PDN	I	Power Down mode	13	Vss	-	Ground
6	CSN	I	Chip Select	14	VDD	-	Power Supply
7	CCLK	I	Control Data Input	15	DZFR	O	Rch Data Zero Input Detect
8	CDTI	I	Control Data Input	16	DZFL	O	Lch Data Zero Input Detect

● **M38044M4-C16FPU0** (X4406100) **LED DRIVER/SWITCH SCAN**

EIF: IC201

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	P62/AN2	I/O	Port6 / A-D converter input	33	P17	I/O	Port1
2	P61/AN1	I/O		34	P16	I/O	
3	P60/AN0	I/O		35	P15	I/O	
4	P57/INT3	I/O	Port5 / Interrupt input	36	P14	I/O	
5	P56/PWM	I/O	Port5 / PWM output	37	P13	I/O	
6	P55/CNTR1	I/O	Port5 / Timer Y	38	P12	I/O	
7	P54/CNTR0	I/O	Port5 / Timer X	39	P11/INT01	I/O	Port1 / Interrupt input
8	P53/SRDY2	I/O	Port5 / Serial ready	40	P10/INT41	I/O	
9	P52/SCLK2	I/O	Port5 / Serial clock	41	P07/AN15	I/O	Port0 / A-D converter input
10	P51/SOUT2	I/O	Port5 / Serial output	42	P06/AN14	I/O	
11	P50/SIN2	I/O	Port5 / Serial input	43	P05/AN13	I/O	
12	P47/SRDY1/CNTR2	I/O	Port4 / Serial ready / Timer Z	44	P04/AN12	I/O	
13	P46/SCLK1	I/O	Port4 / Serial clock	45	P03/AN11	I/O	
14	P45/TxD1	I/O	Port4 / Transmit data	46	P02/AN10	I/O	
15	P44/RxD1	I/O	Port4 / Receive data	47	P01/AN9	I/O	
16	P43/INT2	I/O	Port4 / Interrupt input	48	P00/AN8	I/O	
17	P42/INT1	I/O		49	P37/SRDY3	I/O	Port3 / Serial ready
18	CNVss	I	Ground	50	P36/SCLK3	I/O	Port3 / Serial clock
19	RESET	I	Reset input	51	P35/TxD3	I/O	Port3 / Transmit data
20	P41/INT00/XCIN	I/O	Port4 / Interrupt input / Sub-clock generating input	52	P34/RxD3	I/O	Port3 / Receive data
21	P40/INT40/XCOUT	I/O	Port4 / Interrupt input / Sub-clock generating output	53	P33/SCL	I/O	Port3 / Serial clock
22	XIN	I	Clock input	54	P32/SDA	I/O	Port3 / Serial data
23	XOUT	O	Clock output	55	P31/DA2	I/O	Port3 / D-A converter output
24	Vss	-	Ground	56	P30/DA1	I/O	
25	P27(LED7)	I/O	Port2	57	Vcc	-	Power supply +5V
26	P26(LED6)	I/O		58	VREF	I	Reference voltage
27	P25(LED5)	I/O		59	AVss	I	Analog ground
28	P24(LED4)	I/O		60	P67/AN7	I/O	Port6 / A-D converter input
29	P23(LED3)	I/O		61	P66/AN6	I/O	
30	P22(LED2)	I/O		62	P65/AN5	I/O	
31	P21(LED1)	I/O		63	P64/AN4	I/O	
32	P20(LED0)	I/O		64	P63/AN3	I/O	

● HD6417727F160CV (X2890B00) CPU

DM: IC100

PIN NO.	NAME	I/O	FUNCTION
1	Vcc-RTC	-	Power supply for RTC (1.9V)
2	XTAL2	-	Not in use (XTAL for internal RTC)
3	EXTAL2	-	
4	Vss-RTC	-	Power supply for RTC (0V)
5	MD1	-	Clock mode setting
6	MD2	-	
7	NMI	-	Not in use (Non-maskable interrupt request)
8	IRQ0/IRL0_/PTH[0]	I	External interrupt request
9	IRQ1/IRL1_/PTH[1]	I	
10	IRQ2/IRL2_/PTH[2]	I	
11	IRQ3/IRL3_/PTH[3]	I	
12	IRQ4/PTH[4]	I	
13	VEPWC	O	VEE control pin for LCD panel
14	VCPWC	-	VCC control pin for LCD panel
15	MD5	-	Big endian setting
16	/BREQ	-	Not in use (bus request)
17	/BACK	-	Bus acknowledge
18	VssQ	-	VssQ
19	CKIO2	-	System clock output
20	VccQ	-	VccQ
21	D31/PTB[7]	I/O	Data bus
22	D30/PTB[6]	I/O	
23	D29/PTB[5]	I/O	
24	D28/PTB[4]	I/O	
25	D27/PTB[3]	I/O	
26	D26/PTB[2]	I/O	
27	D25/PTB[1]	I/O	
28	D24/PTB[0]	I/O	
29	VssQ	-	VssQ
30	D23/PTA[7]	I/O	Data bus
31	VccQ	-	VccQ
32	D22/PTA[6]	I/O	Data bus
33	D21/PTA[5]	I/O	
34	D20/PTA[4]	I/O	
35	Vss	-	Vss
36	D19/PTA[3]	I/O	Data bus
37	Vcc	-	Vcc
38	D18/PTA[2]	I/O	Data bus
39	D17/PTA[1]	I/O	
40	D16/PTA[0]	I/O	
41	D15	-	Data bus
42	VssQ	-	VssQ
43	D14	-	Data bus
44	VccQ	-	VccQ
45	D13	-	Data bus
46	D12	-	
47	D11	-	
48	D10	-	
49	D9	-	
50	D8	-	
51	D7	-	
52	D6	-	
53	VssQ	-	VssQ
54	D5	-	Data bus
55	VccQ	-	VccQ
56	D4	-	Data bus
57	D3	-	
58	D2	-	
59	D1	-	
60	D0	-	
61	A0	-	Address bus
62	A1	-	
63	A2	-	
64	VssQ	-	VssQ
65	A3	-	Address bus
66	VccQ	-	VccQ
67	A4	-	Address bus
68	A5	-	
69	A6	-	
70	A7	-	
71	A8	-	
72	A9	-	
73	A10	-	
74	A11	-	
75	VssQ	-	VssQ
76	A12	-	Address bus
77	VccQ	-	VccQ
78	A13	-	Address bus
79	A14	-	
80	A15	-	
81	A16	-	
82	A17	-	
83	A18	-	
84	A19	-	
85	A20	-	
86	VssQ	-	VssQ
87	A21	-	Address bus
88	VccQ	-	VccQ
89	A22	-	Address bus
90	A23	-	
91	Vss	-	Vss
92	A24	-	Address bus
93	Vcc	-	Vcc
94	A25	-	Address bus
95	BS_/PTK[4]	O	Not connected (bus cycle start signal)
96	RD_	-	Read strobe
97	WE0_/DQMLL	O	Write 0 signal
98	WE1_/DQMLU/WE	O	Write 1 signal
99	WE2_/DQMUL/ICIORD_/PTK[6]	O	Write 2 signal
100	VssQ	-	VssQ
101	WE3_/DQMUU/ICIOWR_/PTK{7}	O	Write 3 signal
102	VccQ	-	VccQ
103	RD/WR_	O	Read/Write
104	PTE[7]/PCC0RDY/AUDSYNC_	O	I/O
105	/CS0	-	Chip Select 0
106	/CS2	-	Chip Select 2
107	/CS3	-	Chip Select 3
108	/CS4/PTK[2]	O	Chip Select 4
109	/CS5/CE1A_/PTK[3}	O	Chip Select 5
110	/CS6/CE1B_	O	Chip Select 6
111	CE2A_/PTE[4]	O	Output port (SWP50 Reset)
112	CE2B_/PTE[5]	O	Output port (PLG Board Reset)
113	AFE_HC1/USB1d_DPLS/PTK[0]	O	SPD DATA
114	AFE_RLYCNT_/USB1d_DMNS/PTK[1]	O	SPD CL
115	VssQ	-	VssQ
116	AFE_SCLK/USB1d_TXDPLS	I	Not in use (USB1 D+ transmission)
117	VccQ	-	VccQ
118	PTM[7]/PTINT[7]/AFE_FS/USB1d_RCV	I	Not in use
119	PTM[6]/PTINT[6]/AFE_RXIN/USB1d_SPEED	I	
120	PTM[5]/PTINT[5]/AFE_TXOUT/USB1d_TXSE0	I	
121	PTM[4]/PINT[4]/AFE_RDET_/USB1d_TXDMNS	I	Not in use
122	Reserved/USB1d_SUSPEND	O	
123	USB1_ovr_crnt/USBF_VBUS	I	USB function VBUS
124	USB2_ovr_crnt_	-	USB2_HOST2 over current detection
125	RTS2_/USB1d_TXENL	O	Not in use
126	PTE[2]/USB1_pwr_en	O	USB1 voltage control
127	PTE[1]/USB2_pwr_en	O	USB2 voltage control
128	CKE/PTK[5]	O	Enable (SDRAM)
129	/RAS3/PTJ[0]	O	RAS for SDRAM
130	Reserved/PTJ[1]	O	Not in use
131	Reserved//CAS/PTJ[2]	O	CAS for SDRAM
132	VssQ	-	VssQ
133	Reserved/PTJ[3]	O	Output port (DAC Reset)
134	VccQ	-	VccQ
135	Reserved/PTJ[4]	O	Output port (SIO Reset)
136	Reserved/PTJ[5]	O	Output port (DAC Mute)
137	Vss	-	Vss
138	PTD[5]/CL1	O	LCD line clock
139	Vcc	-	Vcc
140	PTD[7]/DON	O	LCD DISPLAY ON
141	PTE[6]/M_DISP	O	LCD alternater
142	PTE[3]/FLM	O	LCD frame line marker
143	PTE[0]/TDO	O	JTAG (test data output)
144	PCC0RESET/DRACK0	O	DMA request acceptance
145	PCC0DRV_/DACK0_	O	DMA acknowledge
146	/WAIT	-	Hardware wait request
147	/RESETM	-	Manual reset request
148	/ADTRG/PTH[5]	I	Analog A/D trigger
149	/IOIS16/PTG[7]	I	Not in use
150	/ASEMD0	-	
151	PTG[5]/ASEBRKAK_		
152	PTG[4]	I	
153	PCC0BVD2/PTG[3]/AUDATA[3]	I	
154	PCC0BVD1/PTG[2]/AUDATA[2]	I	
155	Vss	-	Vss
156	PCC0CD2/PTG[1]/AUDATA[1]	I	Not in use
157	Vcc	-	Vcc
158	PCC0CD1/PTG[0]/AUDATA[0]	I	Not in use
159	VssQ	-	VssQ
160	PTF[7]/PINT[15]/TRST_	I	Not in use
161	VccQ	-	VccQ
162	PTF[6]/PINT[14]/TMS	I	Not in use
163	PTF[5]/PINT[13]/TDI	I	
164	PTF[4]/PINT[12]/TCK	I	
165	PTF[3]/PINT[11]/Reserved	I	
166	PCCREG_/PTF[2]/Reserved	I	
167	PCC0VS1_/PTF[1]/Reserved	I	
168	PCC0VS2_/PTF[0]/Reserved	I	
169	MD0	-	Clock mode setting
170	Vcc-PLL1	-	Power supply for Vcc_PLL1 - PLL1(1.9V)
171	CAP1	-	External capacitance for CAP1 _ PLL1
172	Vss-PLL1	-	Power supply for Vss_PLL1 _ PLL1(0V)
173	Vss-PLL2	-	Power supply for Vss_PLL2 _ PLL2 (0V)
174	CAP2	-	External capacitance for CAP2 _ PLL2
175	Vcc-PLL2	-	Power supply for Vcc_PLL2 _ PLL2 (1.9V)
176	PCC0WAIT_/PTH[6]/AUDCK	I	Not in use
177	Vss	-	Vss
178	Vcc	-	Vcc
179	XTAL	-	Clock oscillator
180	EXTAL	-	External clock
181	LCD15/PTM[3]/PINT[10]	I	Not in use
182	LCD14/PTM[2]/PINT[9]	I	
183	LCD13/PTM[1]/PINT[8]	I	
184	LCD12/PTM[0]	I	Input port (Flash ROM RY/BY)
185	STATUS0/PTJ[6]	O	Output port (Flash ROM write protect)
186	STATUS1/PTJ[7]	O	Output port (Flash ROM ACC)
187	CL2/PTH[7]	O	LCD clock output
188	VssQ	-	VssQ
189	CKIO	-	System clock input/output (for SDRAM)
190	VccQ	-	VccQ
191	TxD0/SCPT[0]	O	Output port for SCI
192	SCK0/SCPT[1]	O	Not in use
193	TxD_SIO/SCPT[2]	O	
194	SIOMCLK/SCPT[3]	O	
195	TxD2/SCPT[4]	O	Output port for SCI
196	SCK_SIO/SCPT[5]	O	Not in use
197	SIOFSYNC/SCPT[6]	O	
198	RxD0/SCPT[0]	i	Receiving data 0
199	RxD_SIO/SCPT[2]	i	Not in use
200	Vss	-	Vss
201	RxD2/SCPT[4]	i	Receiving data 2
202	Vcc	-	Vcc
203	SCPT[7]/CTS2_/IRQ5	I	Not in use
204	LCD11/PTC[7]/PINT[3]	O	Output port (PLG CLOCK ON/OFF)
205	LCD10/PTC[6]/PINT[2]	O	Not in use
206	LCD9/PTC[5]/PINT[1]	O	
207	VssQ	-	VssQ
208	LCD8/PTC[4]/PINT[0]	O	Not in use
209	VccQ	-	VccQ
210	LCD7/PTD[3]	O	LCD DATA7
211	LCD6/PTD[2]	O	LCD DATA6
212	LCD5/PTC[3]	O	LCD DATA5
213	LCD4/PTC[2]	O	LCD DATA4
214	LCD3/PTC[1]	O	LCD DATA3
215	LCD2/PTC[0]	O	LCD DATA2
216	LCD1/PTD[1]	O	LCD DATA1
217	LCD0/PTD[0]	O	LCD DATA0
218	DREQ0_/PTD[4]	I	DMA request
219	LCK/UCLK/PTD[6]	I	USB clock
220	/RESETP	-	Power on reset request
221	CA	-	Hardware standby request
222	MD3	-	Bus width setting for area0
223	MD4	-	
224	/Scan_testen	-	Test pin (fixed to 3.3V)
225	Avcc_USB	-	USB analog power supply (3.3V)
226	USB1_P	IO	USB1 data input/output (+)
227	USB1_M	IO	USB1 data input/output (-)
228	Avss_USB	-	USB analog power supply (0V)
229	USB2_P	IO	USB2 data input/output (+)
230	USB2_M	IO	USB2 data input/output (-)
231	Avcc_USB	-	USB analog power supply (3.3V)
232	Avss	-	A/D analog power supply (0V)
233	AN[2]/PTL[2]	I	AD converter input
234	AN[3]/PTL[3]	I	
235	AN[4]/PTL[4]	I	
236	AN[5]/PTL[5]	I	
237	Avcc	-	A/D analog power supply (3.3V)
238	AN[6]/PTL[6]/DA[1]	I	AD converter input
239	AN[7]/PTL[7]/DA[0]	O	DA converter output (LCD contrast)
240	Avss	-	A/D analog power supply (0V)

● **T6TZ2XBG-0002** (X7376B00) **SWP51** (Tone Generator)

DM: IC200

PIN NO.	OUTER NO.	NAME	I/O	FUNCTION	PIN NO.	OUTER NO.	NAME	I/O	FUNCTION
1	E5	VSS	-	Ground	106	E22	VSS	-	Ground
2	D4	VDD1	-	Power supply +1.5 V	107	D23	VDD1	-	Power supply +1.5 V
3	C3	CD15	I/O	Data bus of internal register	108	C24	HMA15	O	Wave memory address bus
4	B2	CD13	I/O		109	B25	HMA16	O	
5	A1	CD14	I/O		110	A26	HMA22	O	
6	D5	CD6	I/O		111	E23	HMA25	O	
7	E6	CD2	I/O		112	F22	VDD3	-	Power supply +3.3 V
8	C4	CD9	I/O		113	D24	HMA27	O	Wave memory address bus
9	B3	CD11	I/O		114	C25	HMA0	O	
10	A2	CD12	I/O		115	B26	HMA23	O	
11	A3	CD10	I/O		116	C26	HMA24	O	
12	D6	CD1	I/O		117	F23	VDD3	-	Power supply +3.3 V
13	E7	VSS	-	Ground	118	G22	HMA26	O	Wave memory address bus
14	C5	CD5	I/O	Data bus of internal register	119	E24	HMA30	O	
15	B4	CD8	I/O		120	D25	HMA28	O	
16	A4	CD7	I/O		121	D26	HMA29	O	
17	D7	VSS	-	Ground	122	G23	LMA17	O	Wave memory address bus (Lower data memory)
18	C6	CD0	I/O	Data bus of internal register	123	F24	LMA19	O	
19	E8	VSS	-	Ground	124	H22	VSS	-	Ground
20	D8	VDD3	-	Power supply +3.3 V	125	H23	VDD3	-	Power supply +3.3 V
21	B5	CD4	I/O	Data bus of internal register	126	E25	LMA20	O	Wave memory address bus (Lower data memory)
22	A5	CD3	I/O		127	E26	LMA21	O	
23	C7	CA2	I	Address bus of internal regisuter	128	G24	LMA9	O	
24	B6	CA0	I		129	F25	LMA18	O	
25	E9	CA8	I		130	J22	LMA12	O	
26	D9	CA9	I		131	J23	LMA4	O	
27	C8	CA5	I		132	H24	LMA6	O	
28	A6	CA1	I		133	F26	LMA8	O	
29	B7	CA3	I		134	G25	LMA7	O	
30	A7	CA4	I		135	G26	LMA10	O	
31	E10	VSS	-	Ground	136	K22	VSS	-	Ground
32	D10	VDD1	-	Power supply +1.5 V	137	K23	VDD1	-	Power supply +1.5 V
33	C9	CA10	I	Address bus of internal regisuter	138	J24	LMA13	O	Wave memory address bus (Lower data memory)
34	B8	CA6	I		139	H25	LMA11	O	
35	A8	CA7	I		140	H26	LMA5	O	
36	B9	CA11	I		141	J25	LMA3	O	
37	E11	CA14	I		142	L22	LMA16	O	
38	D11	CA15	I		143	L23	LMA0	O	
39	C10	CA13	I		144	K24	LMA2	O	
40	A9	CA12	I		145	J26	LMA14	O	
41	B10	CSN0	I	Chip select	146	K25	LMA15	O	
42	A10	CSN1	I		147	K26	LMA1	O	
43	E12	VSS	-	Ground	148	M22	VSS	-	Ground
44	D12	VDD3	-	Power supply +3.3 V	149	M23	VDD3	-	Power supply +3.3 V
45	C11	WRN	I	Write strobe	150	L24	LMA22	O	Wave memory address bus (Lower data memory)
46	B11	RDN	I	Read strobe	151	L25	LMA23	O	
47	A11	WAITo	O	Hardware wait request	152	L26	LMA24	O	
48	C12	IRQo	O	Interrupt request	153	M24	LMA27	O	
49	B12	DREQo	O	DMA request	154	M25	LMA28	O	
50	E13	TCK	I	Test pin	155	N22	LMA25	O	
51	D13	TRST	I		156	N23	LMA26	O	
52	C13	VSS	-	Ground	157	N24	LMA30	O	
53	A12	XO	O	Crystal osc. output	158	M26	LMA29	O	
54	B13	XI	I	Crystal osc. input	159	N25	MOEN	O	Wave memory output enable
55	A13	VDD3	-	Power supply +3.3 V	160	N26	MWEN	O	Wave memory write enable
56	A14	SLAVE	I	Master/Slave select	161	P26	LMD15	I/O	Wave memory data bus (Lower 16 bit)
57	E14	TMS	I	Test pin	162	P22	VSS	-	Ground
58	D14	TDO	O		163	P23	VDD3	-	Power supply +3.3 V
59	C14	ICN	I	Initial clear	164	P24	LMD13	I/O	Wave memory data bus (Lower 16 bit)
60	B14	RFCLKo	O	PLL Clock	165	P25	LMD14	I/O	
61	B15	PLL_TSTN	I	Test pin	166	R25	LMD11	I/O	
62	C15	PLL_BP	I		167	R24	LMD10	I/O	
63	D15	VDD3	-	Power supply +3.3 V	168	R23	VDD3	-	Power supply +3.3 V
64	E15	VSS	-	Ground	169	R22	VSS	-	Ground
65	A15	RFCLKi	I	PLL Clock	170	R26	LMD12	I/O	Wave memory data bus (Lower 16 bit)
66	A16	VDD1	-	Power supply +1.5 V	171	T26	LMD9	I/O	
67	B16	TMODE	I	Test pin	172	T25	LMD8	I/O	
68	C16	PLL_AVD	-	Analog power supply +1.5 V (PLL)	173	T24	LMD7	I/O	
69	D16	NC	-	Not used	174	T23	VSS	-	Ground
70	E16	NC	-	Not used	175	T22	VSS	-	Ground
71	A17	PLL_AVS	-	Analog ground (PLL)	176	U26	LMD6	I/O	Wave memory data bus (Lower 16 bit)
72	B17	TEST1	I	Test pin	177	U25	LMD5	I/O	
73	A18	VSS	-	Ground	178	V26	LMD3	I/O	
74	C17	SYI	I	Sync. clock	179	U24	LMD4	I/O	
75	D17	VDD1	-	Power supply +1.5 V	180	U23	VDD1	-	Power supply +1.5 V
76	E17	VSS	-	Ground	181	U22	VSS	-	Ground
77	B18	KONTRGo	O	Key on data	182	V25	LMD2	I/O	Wave memory data bus (Lower 16 bit)
78	A19	KONTRGi	I		183	W26	LMD0	I/O	
79	C18	CK512	O	Master clock (512 Fs)	184	V24	LMD1	I/O	
80	B19	CK128	O	Master clock (256 Fs)	185	W25	DCSL0	O	Wave memory chip select (Low)
81	D18	BCLK	O	Master clock (64 Fs)	186	V23	VDD3	-	Power supply +3.3 V
82	E18	SYO	O	Sync. clock	187	V22	VDD1	-	Power supply +1.5 V
83	C19	HMA20	O	Wave memory address bus	188	W24	DCSL1	O	Wave memory chip select (Low)
84	A20	HMA21	O		189	Y26	DQML3	O	MASK signal
85	B20	HMA19	O		190	Y25	DQML1	O	
86	C20	HMA18	O		191	Y24	DMAL14	O	Address bus (DIMM, SDRAM)
87	D19	VDD3	-	Power supply +3.3 V	192	W23	VDD3	-	Power supply +3.3 V
88	E19	VSS	-	Ground	193	W22	VSS	-	Ground
89	A21	HMA9	O	Wave memory address bus	194	AA26	DMAL13	O	Address bus (DIMM, SDRAM)
90	B21	HMA7	O		195	AA25	DMAL12	O	
91	A22	HMA6	O		196	AB26	DMAL9	O	
92	D20	HMA8	O		197	Y23	VSS	-	Ground
93	C21	HMA10	O		198	AA24	DMAL11	O	Address bus (DIMM, SDRAM)
94	E20	HMA17	O		199	Y22	VSS	-	Ground
95	D21	VDD3	-	Power supply +3.3 V	200	AA23	DMAL10	O	Address bus (DIMM, SDRAM)
96	B22	HMA11	O	Wave memory address bus	201	AB25	DMAL8	O	
97	A23	HMA4	O		202	AC26	DMAL6	O	
98	C22	HMA5	O		203	AB24	DMAL7	O	
99	B23	HMA13	O		204	AC25	DMAL5	O	
100	E21	VSS	-	Ground	205	AA22	VSS	-	Ground
101	D22	HMA12	O	Wave memory address bus	206	AB23	VSS	-	Ground
102	C23	HMA3	O		207	AC24	DMAL4	O	Address bus (DIMM, SDRAM)
103	A24	HMA14	O		208	AD26	DMAL3	O	
104	B24	HMA2	O		209	AD25	DMAL2	O	
105	A25	HMA1	O		210	AE26	DMAL0	O	

PIN NO.	OUTER NO.	NAME	I/O	FUNCTION
211	AB22	VSS	-	Ground
212	AC23	VDD1	-	Power supply +1.5 V
213	AD24	DMAL1	O	Address bus (DIMM, SDRAM)
214	AE25	DCSL2	O	Wave memory chip select (Low)
215	AF26	DRAS0	O	DIMM, SDRAM row address strobe (RAS signal)
216	AC22	DCAS0	O	DIMM, SDRAM column address strobe (CAS signal)
217	AB21	VDD3	-	Power supply +3.3 V
218	AD23	DCLKIN	I	DIMM, SDRAM clock input
219	AE24	DQML2	O	MASK signal
220	AF25	DCSL3	O	Wave memory chip select (Low)
221	AF24	DQML0	O	MASK signal
222	AC21	VDD3	-	Power supply +3.3 V
223	AB20	VSS	-	Ground
224	AD22	DWEN0	O	DIMM, SDRAM write enable
225	AE23	DCLK0	O	DIMM, SDRAM clock signal
226	AF23	DCLK1	O	
227	AC20	DCLKE	O	DIMM, SDRAM clock enable
228	AD21	HMD13	I/O	Wave memory data bus (Upper data memory)
229	AB19	VSS	-	Ground
230	AC19	VDD3	-	Power supply +3.3 V
231	AE22	HMD15	I/O	Wave memory data bus (Upper data memory)
232	AF22	HMD14	I/O	
233	AD20	HMD10	I/O	
234	AE21	HMD12	I/O	
235	AB18	VDD1	-	Power supply +1.5 V
236	AC18	VDD3	-	Power supply +3.3 V
237	AD19	HMD7	I/O	Wave memory data bus (Upper data memory)
238	AF21	HMD11	I/O	
239	AE20	HMD9	I/O	
240	AF20	HMD8	I/O	
241	AB17	VSS	-	Ground
242	AC17	VDD1	-	Power supply +1.5 V
243	AD18	HMD4	I/O	Wave memory data bus (Upper data memory)
244	AE19	HMD6	I/O	
245	AF19	HMD5	I/O	
246	AE18	HMD3	I/O	
247	AB16	VSS	-	Ground
248	AC16	VSS	-	Ground
249	AD17	HMD1	I/O	Wave memory data bus (Upper data memory)
250	AF18	HMD2	I/O	
251	AE17	HMD0	I/O	
252	AF17	DCSH0	O	Wave memory chip select (High)
253	AB15	VSS	-	Ground
254	AC15	VDD3	-	Power supply +3.3 V
255	AD16	DCSH1	O	Wave memory chip select (High)
256	AE16	DQMH3	O	MASK signal
257	AF16	DQMH1	O	
258	AD15	DMAH14	O	Address bus (DIMM, SDRAM)
259	AE15	DMAH13	O	
260	AB14	VSS	-	Ground
261	AC14	VSS	-	Ground
262	AD14	DMAH11	O	Address bus (DIMM, SDRAM)
263	AF15	DMAH12	O	
264	AE14	DMAH10	O	
265	AF14	DMAH9	O	
266	AF13	DMAH8	O	
267	AB13	VDD3	-	Power supply +3.3 V
268	AC13	VDD3	-	Power supply +3.3 V
269	AD13	DMAH6	O	Address bus (DIMM, SDRAM)
270	AE13	DMAH7	O	
271	AE12	DMAH4	O	
272	AD12	DMAH3	O	
273	AC12	VDD3	-	Power supply +3.3 V
274	AB12	VSS	-	Ground
275	AF12	DMAH5	O	Address bus (DIMM, SDRAM)
276	AF11	DMAH2	O	
277	AE11	DMAH1	O	
278	AD11	DMAH0	O	
279	AC11	VSS	-	Ground
280	AB11	VSS	-	Ground
281	AF10	DRAS1	O	DIMM, SDRAM row address strobe (RAS signal)
282	AE10	DCSH2	O	Wave memory chip select (High)
283	AF9	DQMH2	O	MASK signal
284	AD10	DCSH3	O	Wave memory chip select (High)
285	AC10	VDD1	-	Power supply +1.5 V
286	AB10	VSS	-	Ground
287	AE9	DQMH0	O	MASK signal
288	AF8	DWEN1	O	DIMM, SDRAM write enable
289	AD9	DCAS1	O	DIMM, SDRAM column address strobe (CAS signal)
290	AE8	DCLK2	O	DIMM, SDRAM clock signal
291	AC9	VDD3	-	Power supply +3.3 V
292	AB9	VDD1	-	Power supply +1.5 V
293	AD8	DCLK3	O	DIMM, SDRAM clock signal
294	AF7	MELO0	O	MEL wave data output
295	AE7	MELO1	O	
296	AD7	MELO2	O	
297	AC8	VDD3	-	Power supply +3.3 V
298	AB8	VSS	-	Ground
299	AF6	MELO3	O	MEL wave data output
300	AE6	MELO4	O	
301	AF5	MELO5	O	
302	AC7	MELO6	O	
303	AD6	MELO7	O	
304	AB7	WCLK0	O	For DAC word clock
305	AC6	WCLK1	O	
306	AE5	EIRQ	O	E bus interrupt request
307	AF4	EICN	O	E bus initial clear
308	AD5	ESDA	I/O	E bus data
309	AE4	ESCL	I/O	E bus clock
310	AB6	MELI0	I	MEL wave data input
311	AC5	MELI1	I	
312	AD4	MELI2	I	
313	AF3	MELI3	I	
314	AE3	MELI4	I	
315	AF2	MELI5	I	
316	AB5	VSS	-	Ground
317	AC4	VDD1	-	Power supply +1.5 V
318	AD3	MELI6	I	MEL wave data input
319	AE2	MELI7	I	
320	AF1	ADLR	O	For ADC word clock
321	AB4	DITo	O	Digital audio output
322	AA5	VSS	-	Ground
323	AC3	AFRM	I/O	Frame signal (ABUS)
324	AD2	ACLK	I/O	Clock signal (ABUS)
325	AE1	ADIR	O	Direction signal (ABUS)
326	AD1	ADAT0	I/O	Data bus (ABUS)
327	AA4	VDD3	-	Power supply +3.3 V
328	Y5	ADAT9	I/O	Data bus (ABUS)
329	AB3	ADAT3	I/O	
330	AC2	ADAT1	I/O	
331	AC1	ADAT2	I/O	
332	Y4	ADAT10	I/O	
333	AA3	ADAT6	I/O	
334	W5	VSS	-	Ground
335	W4	VDD3	-	Power supply +3.3 V
336	AB2	ADAT4	I/O	Data bus (ABUS)
337	AB1	ADAT5	I/O	
338	Y3	ADAT11	I/O	
339	AA2	ADAT7	I/O	
340	V5	ADAT14	I/O	
341	V4	ADAT15	I/O	
342	W3	ADAT13	I/O	
343	AA1	ADAT8	I/O	
344	Y2	ADAT12	I/O	
345	Y1	TDI	I	Test pin
346	U5	VSS	-	Ground
347	U4	VDD1	-	Power supply +1.5 V
348	V3	HRD13	I/O	DRAM data bus
349	W2	HRD15	I/O	
350	W1	HRD14	I/O	
351	V2	HRD12	I/O	
352	T5	HRD7	I/O	
353	T4	HRD6	I/O	
354	U3	HRD10	I/O	
355	V1	HRD11	I/O	
356	U2	HRD9	I/O	
357	U1	HRD8	I/O	
358	R5	VSS	-	Ground
359	R4	VDD3	-	Power supply +3.3 V
360	T3	HRD5	I/O	DRAM data bus
361	T2	HRD4	I/O	
362	T1	HRD3	I/O	
363	R3	HRD2	I/O	
364	R2	HRD1	I/O	
365	P5	VDD3	-	Power supply +3.3 V
366	P4	HRD0	I/O	DRAM data bus
367	P3	RWEN	O	DRAM write enable
368	R1	RQML	O	MASK signal (SDRAM)
369	P2	RCAS	O	DRAM column address strobe (CAS signal)
370	P1	RRAS	O	DRAM row address strobe (RAS signal)
371	N1	RA13	O	DRAM address bus
372	N5	VDD3	-	Power supply +3.3 V
373	N4	VDD3	-	Power supply +3.3 V
374	N3	RA10	O	DRAM address bus
375	N2	RA12	O	
376	M2	RA1	O	
377	M3	RA2	O	
378	M4	VDD3	-	Power supply +3.3 V
379	M5	VSS	-	Ground
380	M1	RA0	O	DRAM address bus
381	L1	RA3	O	
382	L2	RA4	O	
383	L3	RA5	O	
384	L4	VSS	-	Ground
385	L5	VSS	-	Ground
386	K1	RA6	O	DRAM address bus
387	K2	RA7	O	
388	J1	RA9	O	
389	K3	RA8	O	
390	K4	VDD1	-	Power supply +1.5 V
391	K5	VSS	-	Ground
392	J2	RA11	O	DRAM address bus
393	H1	RCLK	O	SDRAM clock signal
394	J3	RCLKE	O	SDRAM clock enable
395	H2	RCLKIN	I	SDRAM, DRAM clock input
396	J4	VDD3	-	Power supply +3.3 V
397	J5	VDD1	-	Power supply +1.5 V
398	H3	RQMH	O	MASK signal (SDRAM)
399	G1	LRD15	I/O	DRAM data bus (Lower data)
400	G2	LRD14	I/O	
401	G3	LRD13	I/O	
402	H4	VDD3	-	Power supply +3.3 V
403	H5	VSS	-	Ground
404	F1	LRD12	I/O	DRAM data bus (Lower data)
405	F2	LRD11	I/O	
406	E1	LRD8	I/O	
407	G4	VDD3	-	Power supply +3.3 V
408	F3	LRD10	I/O	DRAM data bus (Lower data)
409	G5	VDD3	-	Power supply +3.3 V
410	F4	LRD9	I/O	DRAM data bus (Lower data)
411	E2	LRD7	I/O	
412	D1	LRD5	I/O	
413	E3	LRD6	I/O	
414	D2	LRD4	I/O	
415	F5	VSS	-	Ground
416	E4	VSS	-	Ground
417	D3	LRD3	I/O	DRAM data bus (Lower data)
418	C1	LRD2	I/O	
419	C2	LRD1	I/O	
420	B1	LRD0	I/O	

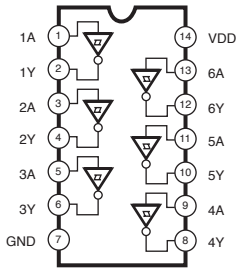
• µPD780031AYGK-N04 (X0031200) LKS

EMKS61A: IC001

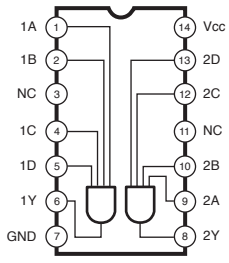
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	P50/A8	I/O	Port 5 / Higher address bus	33	P10/ANI0	I	Port 1 / A/D converter analog input
2	P51/A9	I/O		34	AV_{REF}	I	A/D converter reference voltage input
3	P52/A10	I/O		35	AV_{DD}	-	Analog power supply
4	P53/A11	I/O		36	$\overline{RESET}$	I	System reset input
5	P54/A12	I/O		37	XT2	-	Subsystem clock oscillation
6	P55/A13	I/O		38	XT1	I	
7	P56/A14	I/O		39	IC	-	Internally connected
8	P57/A15	I/O		40	X2	-	Main system clock oscillation
9	Vss0	-	Ground	41	X1	I	
10	$V_{DD}0$	-	Power supply	42	Vss1	-	Ground
11	P30	I/O	Port 3	43	P00/INTP0	I/O	Port 0 / External interrupt request input
12	P31	I/O		44	P01/INTP1	I/O	
13	P32/SDA0	I/O	Port 3 / Serial data input/output	45	P02/INTP2	I/O	
14	P33/SCL0	I/O	Port 3 / Serial clock input/output	46	P03/INTP3/ADTRG	I/O	Port 0 / External interrupt request input / Trigger signai input
15	P34	I/O	Port 3	47	P70/TI00/TO0	I/O	Port 7 / External count clock input / 16-bit timer/event counter 0 output
16	P35	I/O		48	P71/TI01	I/O	Port 7 / Capture trigger input
17	P36	I/O		49	P72/TI50/TO50	I/O	Port 7 / External count clock input / 8-bit timer/event counter 50 output
18	P20/SI30	I/O	Port 2 / Serial data input	50	P73/TI51/TO51	I/O	Port 7 / External count clock input / 8-bit timer/event counter 51 output
19	P21/SO30	I/O	Port 2 / Serial data output	51	P74/PCL	I/O	Port 7 / Clock output
20	P22/$\overline{SCK30}$	I/O	Port 2 / Serial clock input/output	52	P75/BUZ	I/O	Port 7 / Buzzer output
21	P23RxD0	I/O	Port 2 / Serial data input	53	P64/$\overline{RD}$	I/O	Port 6 / Strobe signal output for reading
22	P24/TxD0	I/O	Port 2 / Serial data output	54	P65/$\overline{WR}$	I/O	Port 6 / Strobe signal output for writing
23	P25/ASCK0	I/O	Port 2 / Serial clock input/output	55	P66/$\overline{WAIT}$	I/O	Port 6 / Wait insertion
24	$V_{DD}1$	-	Power supply	56	P67/ASTB	I/O	Port 6 / Strobe output
25	AVss	-	Ground	57	P40/AD0	I/O	Port 4 / Lower address/data bus
26	P17/ANI7	I	Port 1 / A/D converter analog input	58	P41/AD1	I/O	
27	P16/ANI6	I		59	P42/AD2	I/O	
28	P15/ANI5	I		60	P43/AD3	I/O	
29	P14/ANI4	I		61	P44/AD4	I/O	
30	P13/ANI3	I		62	P45/AD5	I/O	
31	P12/ANI2	I		63	P46/AD6	I/O	
32	P11/ANI1	I		64	A47/AD7	I/O	

IC BLOCK DIAGRAM

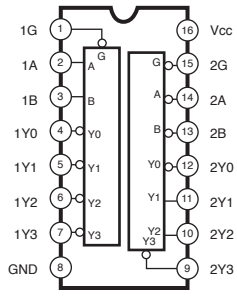
- **SN74AHC14PWR** (X3098A00)
  Hex Inverter
  DM: IC011



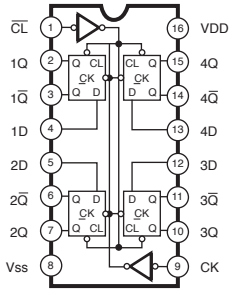
- **HD74LV21ATELL** (X0010A00)
- **SN74LV21APWR** (X2377A00)
  Dual 4 Input AND
  DM: IC908



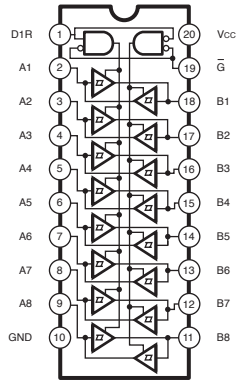
- **SN74LV139APWR** (X7618A00)
  DM: IC900
  Dual 2 to 4 Demultiplexer



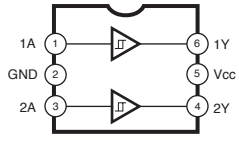
- **SN74LV175APWR** (X5535A00)
  Quad D-Type Flip-Flop
  DM: IC907



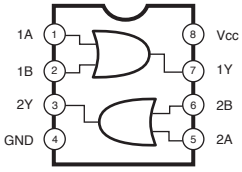
- **HD74LV245ATELL-E** (XW744A00)
- **SN74LV245APWR** (X3693A00)
- **TC74VHC245FT(EL,K)** (XU797B00)
  Octal 3-State Bus Transceiver
  DM: IC901-904



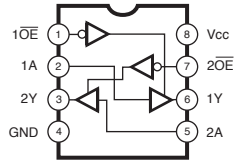
- **SN74LVC2G17DCKR** (X4454A00)
  Dual Schmitt-trigger Buffer
  DM: IC070



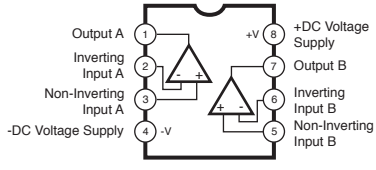
- **TC7W32FU** (XQ173A00)
  Dual 2 Input OR Gate
  DM: IC905



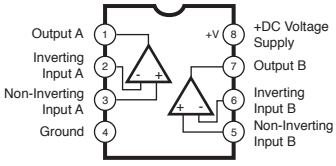
- **SN74LVC2G125DCUR** (X7171A00)
  Dual Bus Buffer Gate
  DM: IC031



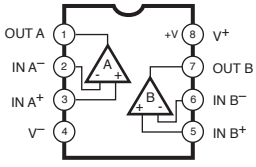
- **NJM2068M-D(TE2)** (X3505A00)
  DM: IC420, 490
- **NJM4556AM-TE1** (X5049A00)
  AM: IC048
- **µPC4570G2-E1-A** (X7351A00)
  AM: IC013, 050, 055, 093
  Dual Operational Amplifier



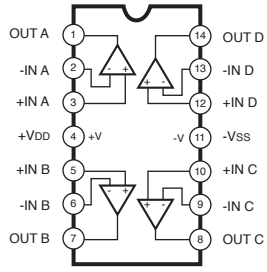
● **NE5532DR** (X5482A00)
AM: IC013, 050, 055, 093
DM: IC420, 490
Dual Operational Amplifier



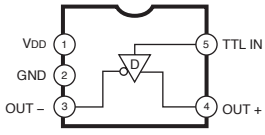
● **LMV358AM8X-NL** (X7287A00)
Dual Operational Amplifier
EIF: IC202



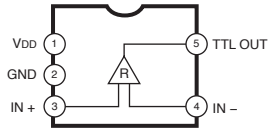
● **µPC4574G2-E1-A** (X7391A00)
Quad Operational Amplifier
AM: IC021, 022, 031, 032, 043



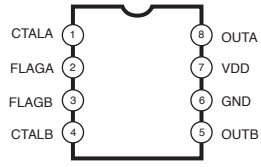
● **DS90LV011ATMF/NOPB** (X6788A00)
3V LVDS Single High Speed Differential Driver
DM: IC050



● **DS90LV012ATMF/NOPB** (X6789A00)
3V LVDS Single CMOS Differential Line Receiver
EIF: IC204

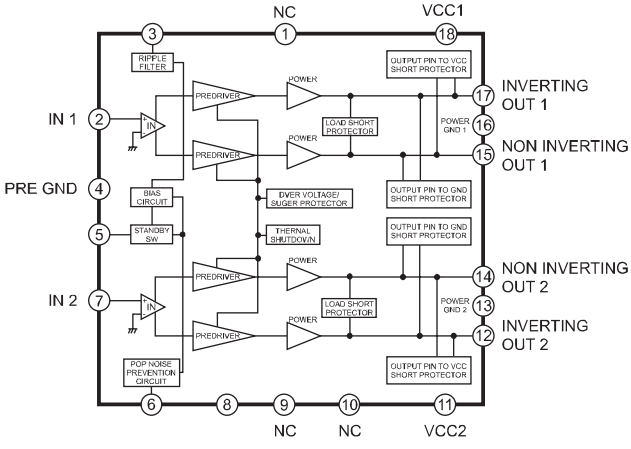


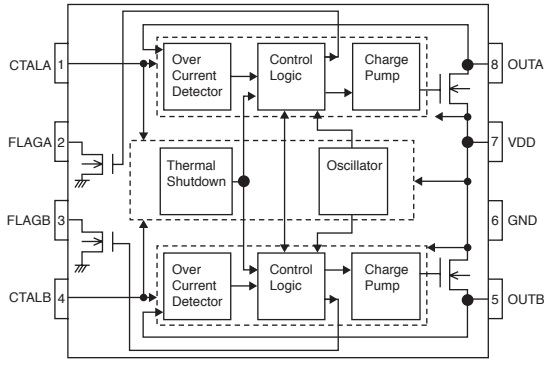
● **BD6516F-E2** (X7950A00)
High Side Switch
DM: IC030



Pin No.	Pin Name	Pin Function
1 4	CTRLA CTRLB	Control input
2 3	FLAGA FLAGB	Error flag output
5 8	OUTB OUTA	Switch output
6	GND	Ground
7	VDD	Switch input

● **LA4705NA-E** (XQ619A00)
Power Amplifier
AM: IC051



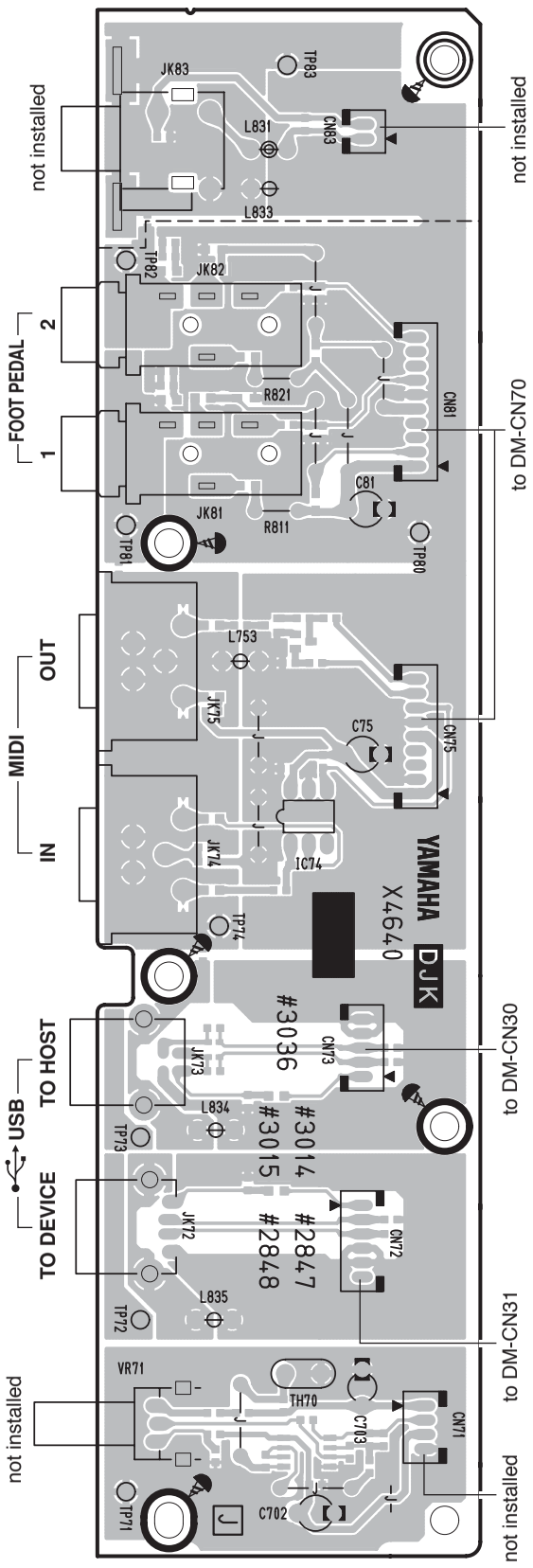


CIRCUIT BOARDS

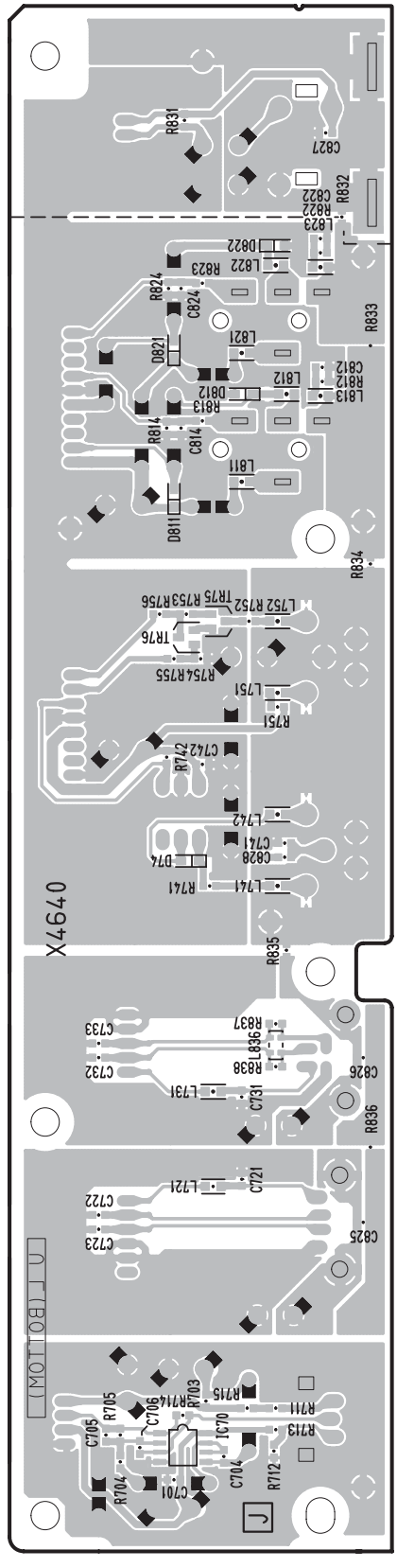
AM Circuit Board (X4640J0) 28/29
DJK Circuit Board (X4640J0) 27
DM Circuit Board (X7776D0) 30/31
EIF Circuit Board (X8085D0) 32
ENC Circuit Board (X8085D0) 39
EMKS61A Circuit Board (X6637C0) 44/45
HP Circuit Board (X4640J0) 33
INV Circuit Board (X8085D0) 34/35
MK-H Circuit Board (XR565C0) 45
MK-L Circuit Board (XR564C0) 44
MOD Circuit Board (X8085D0) 39
OR Circuit Board (X8085D0) 36/37
PB Circuit Board (X8085D0) 39
PNCA Circuit Board (X8085D0) 34/36
PNCB Circuit Board (X8085D0) 38
PNL Circuit Board (X8086D0) 40
PNR Circuit Board (X8086D0) 42
SW Circuit Board (X4640J0) 33
VR Circuit Board (X4640J0) 33

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

● DJK Circuit Board



Component side

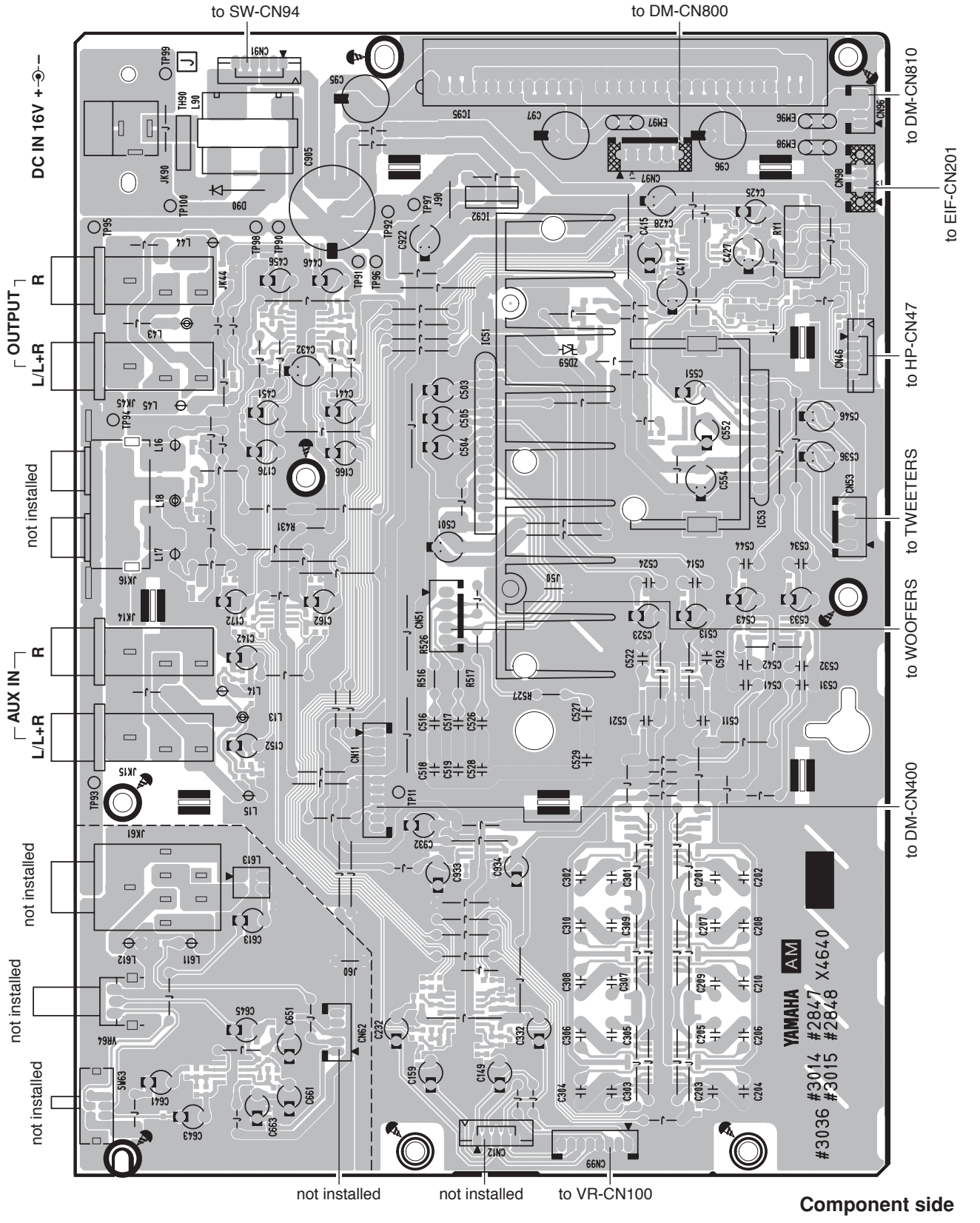


Pattern side

DJK: 2NA-WB82640 ⚠6

● AM Circuit Board

Scale: 85/100

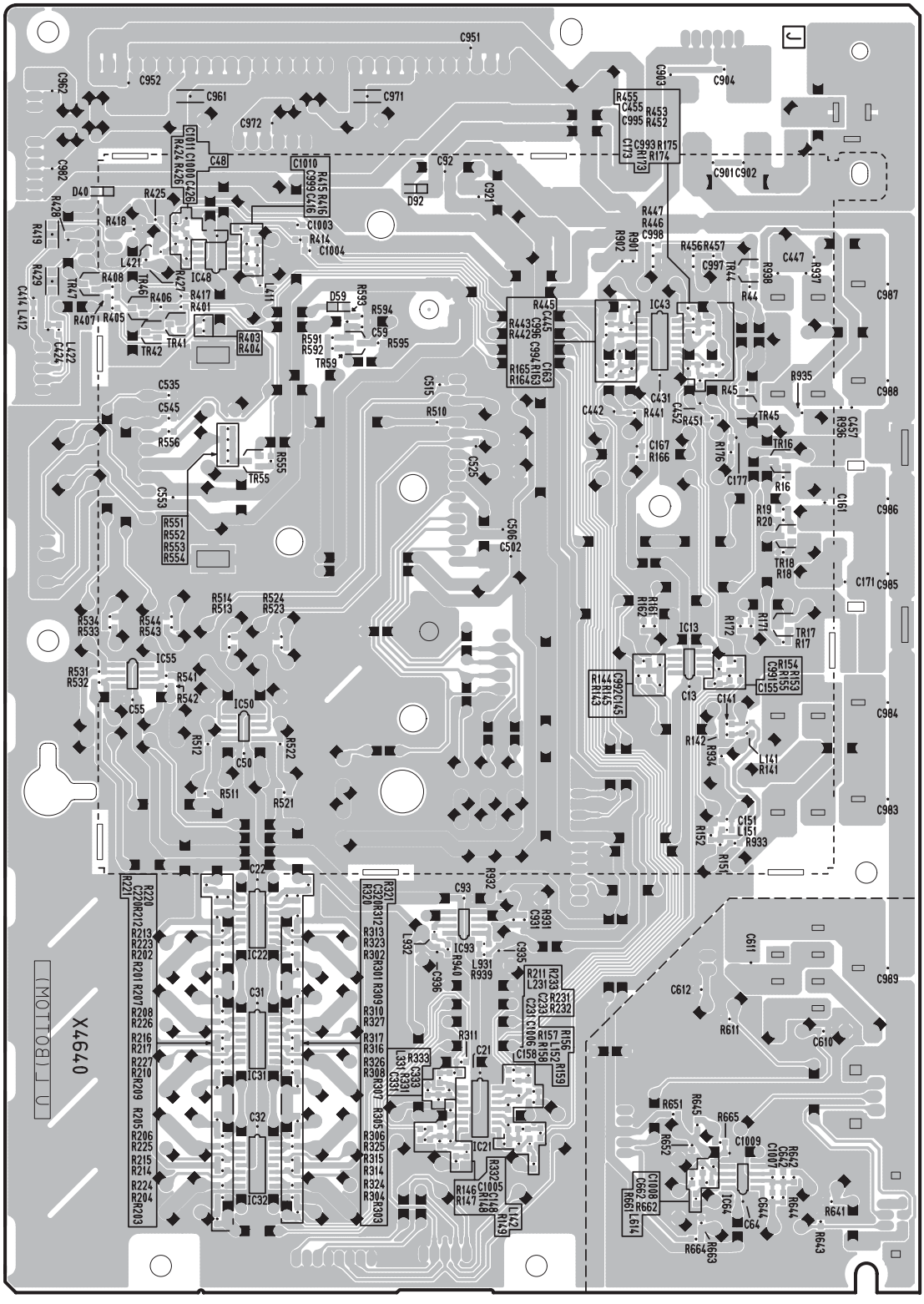


Component side

AM: 2NA-WB82640 6

● AM Circuit Board

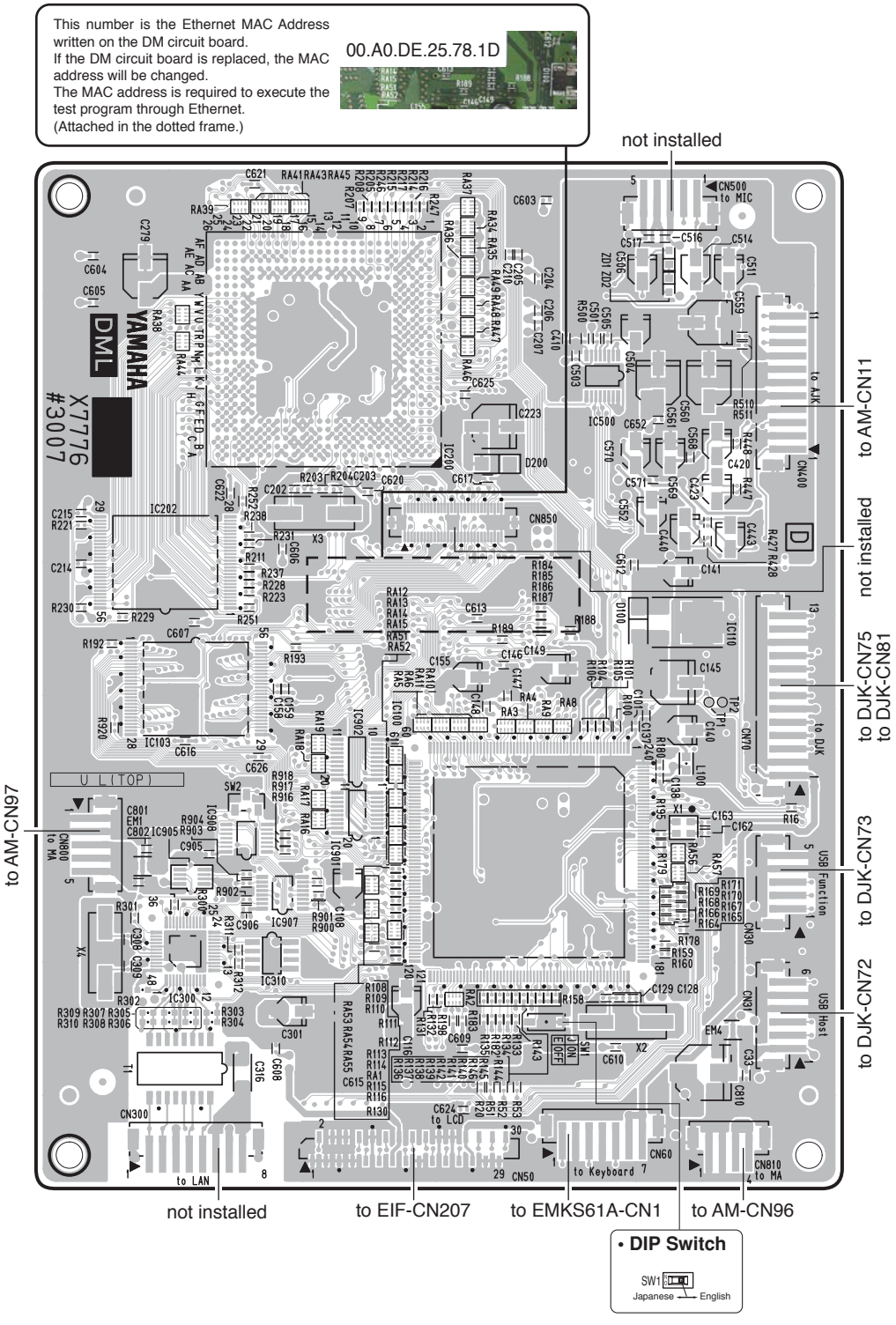
Scale: 85/100



Pattern side

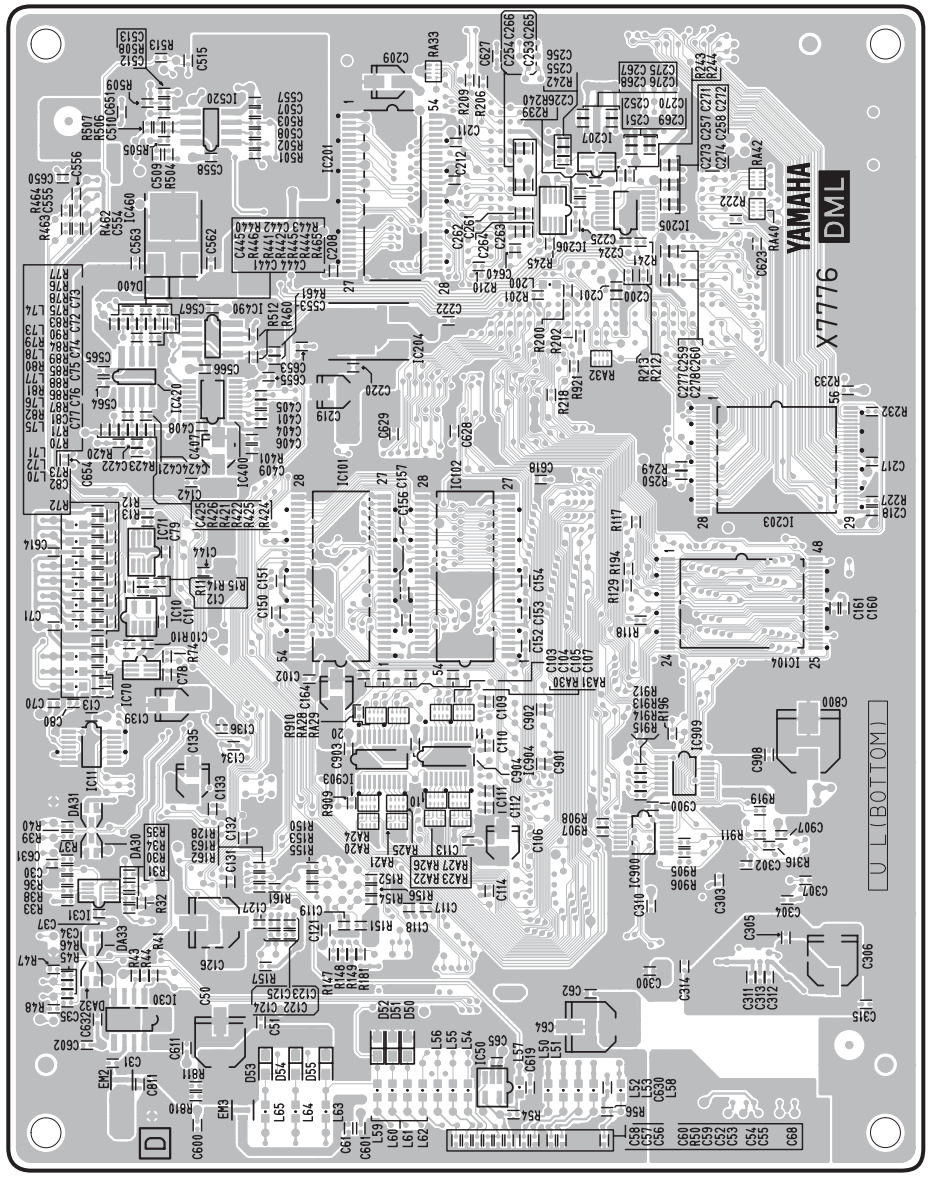
AM: 2NA-WB82640 ⚠6

• DM Circuit Board



DM: 2NA-WH48760 ⚠1

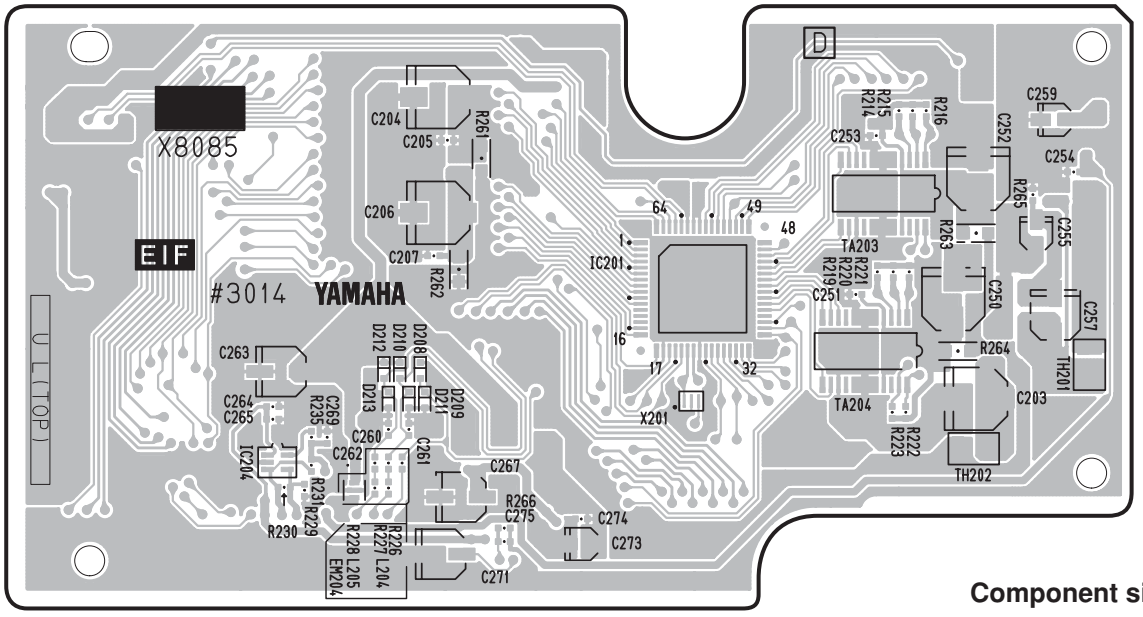
● DM Circuit Board



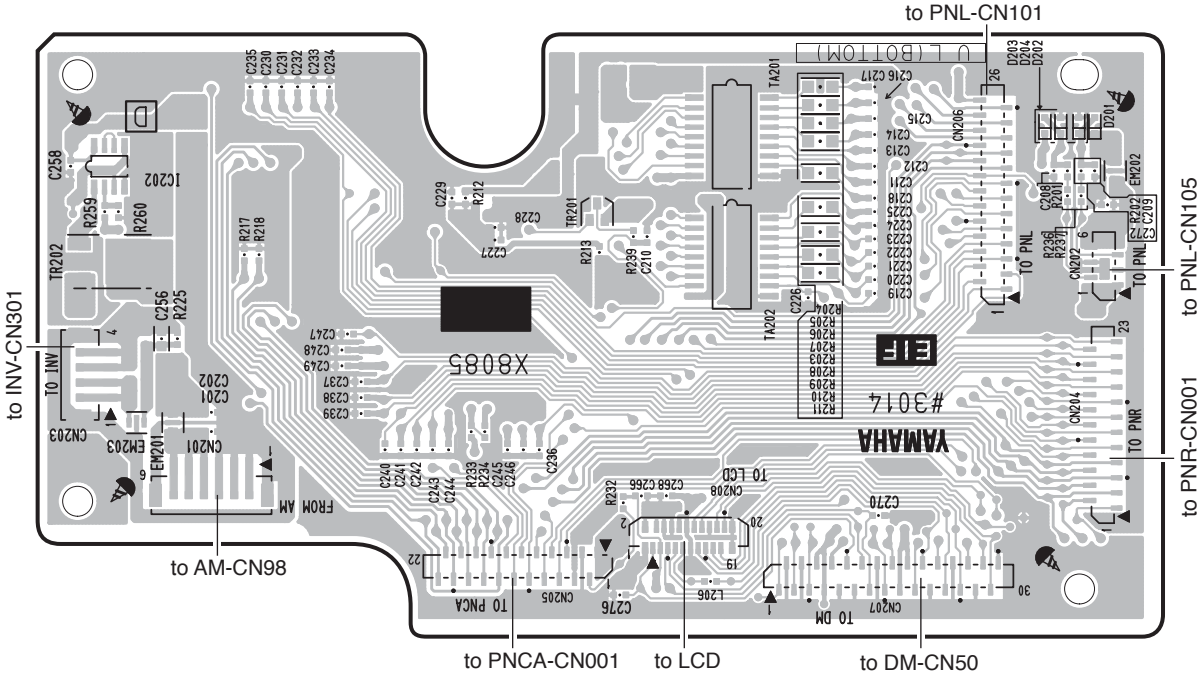
Pattern side

DM: 2NA-WH48760 ⚠

● EIF Circuit Board



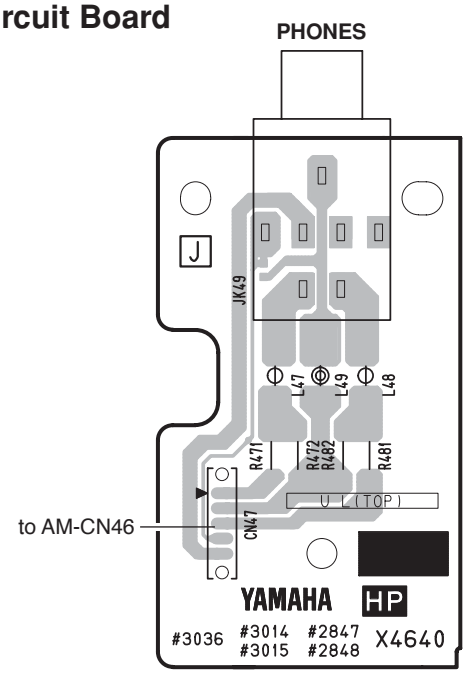
Component side

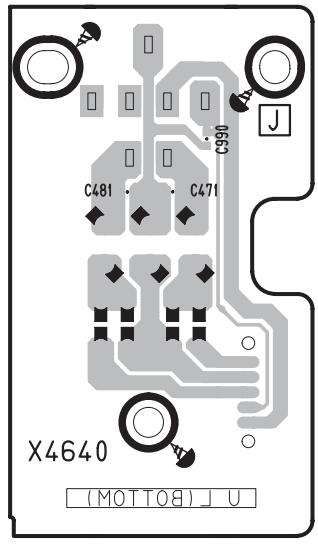


Pattern side

EIF: 2NA-WJ00580 ⚠

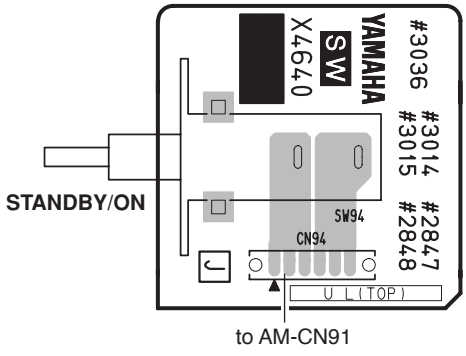
● HP Circuit Board

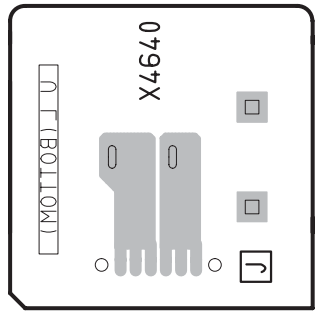




Component side **Pattern side**

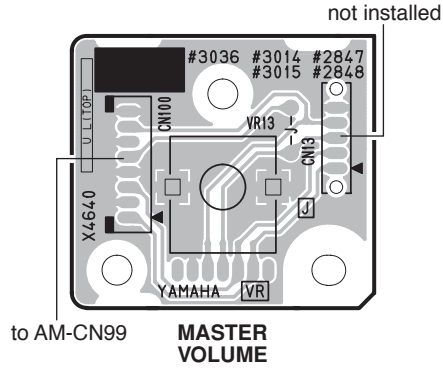
● SW Circuit Board

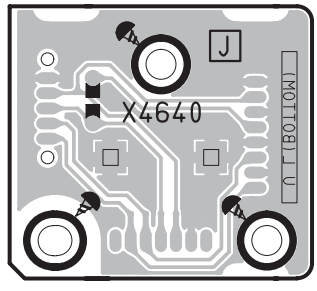




Component side **Pattern side**

● VR Circuit Board

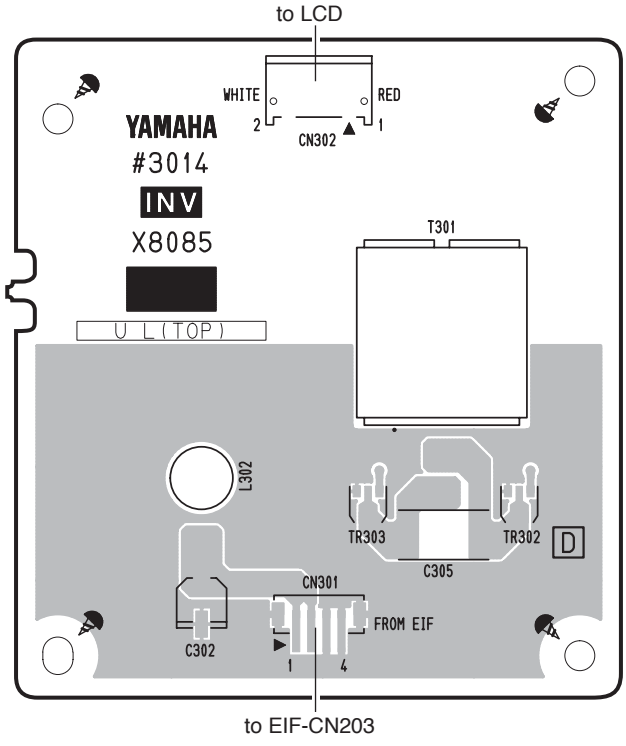




Component side **Pattern side**

HP, SW, VR: 2NA-WB82640 △6

● INV Circuit Board

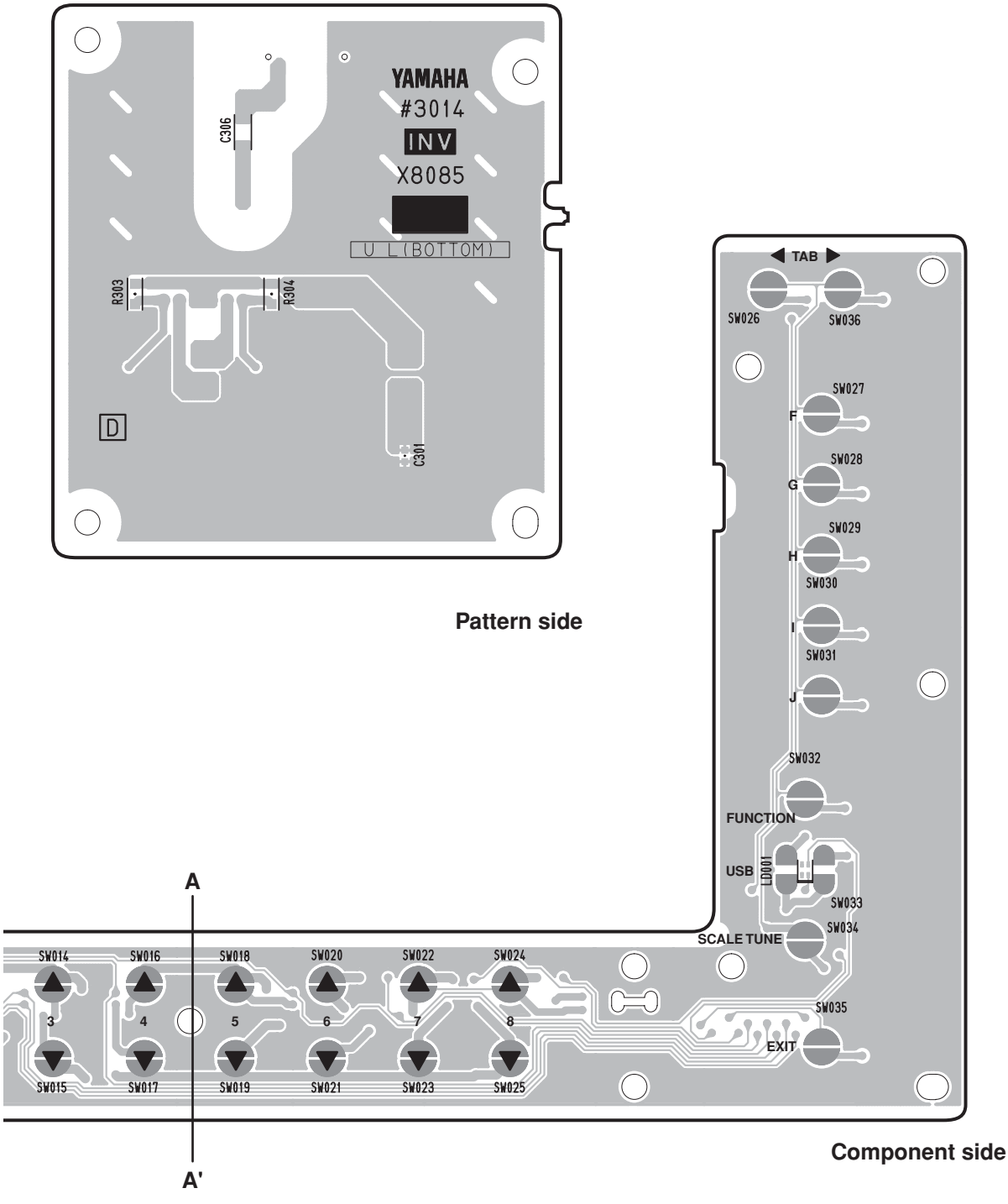


Component side

● PNCA Circuit Board

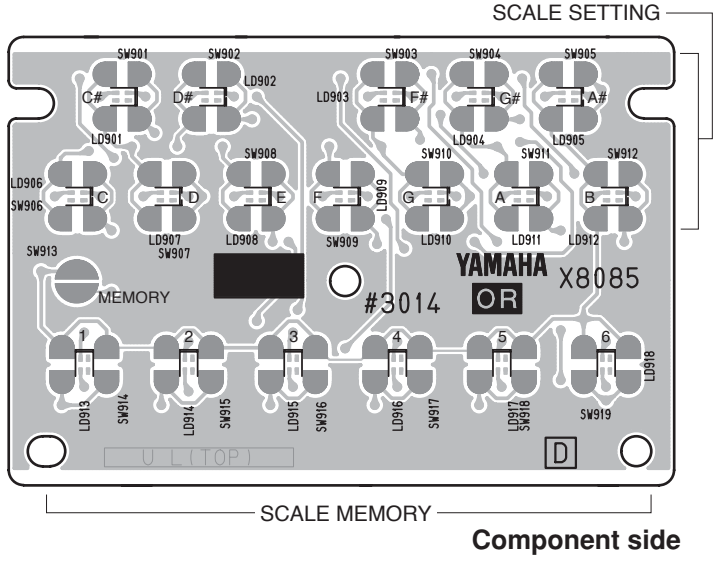
INV, PNCA: 2NA-WJ00580 ⚠1

● INV Circuit Board



INV, PNCA: 2NA-WJ00580 ⚠1

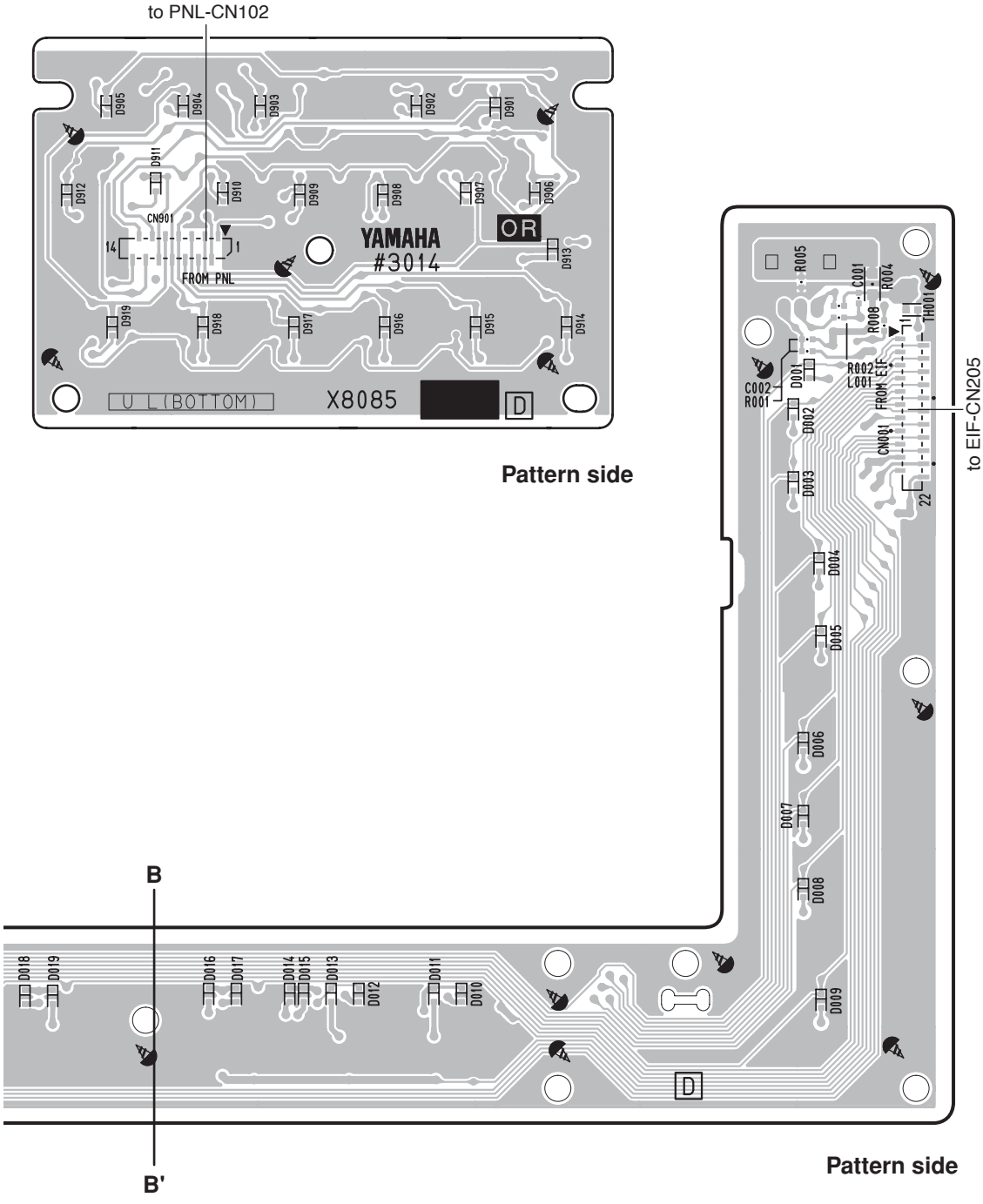
● OR Circuit Board



Component side

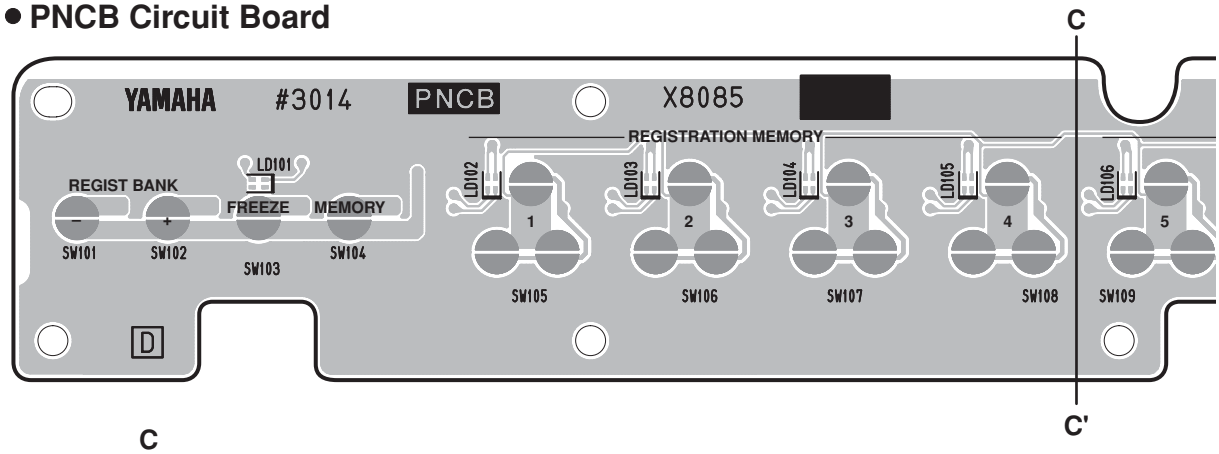
● PNCA Circuit Board

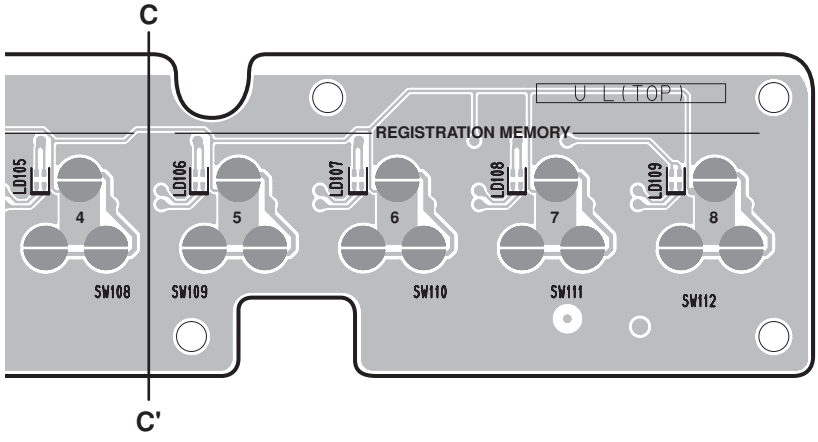
OR, PNCA: 2NA-WJ00580 ⚠



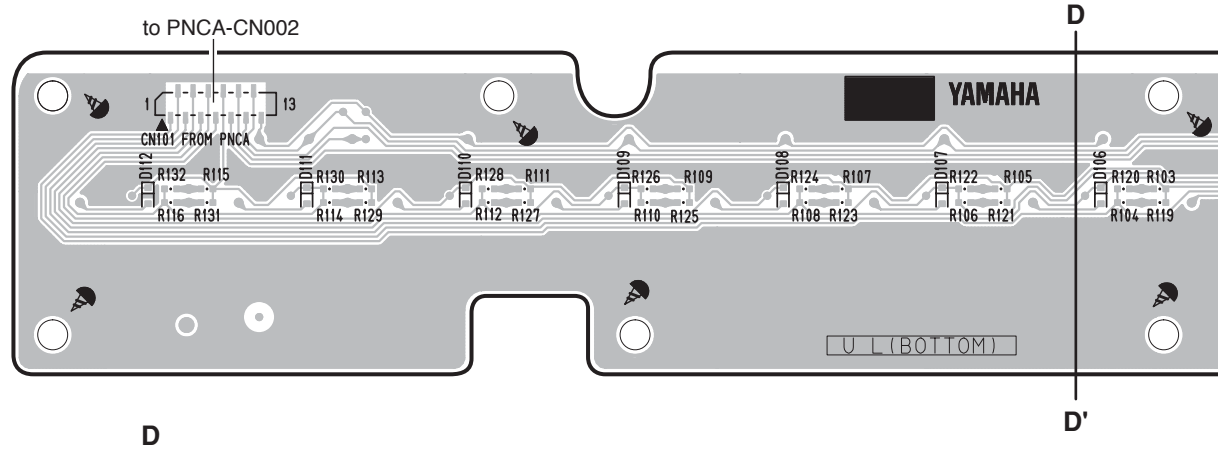
OR, PNCA: 2NA-WJ00580 ⚠

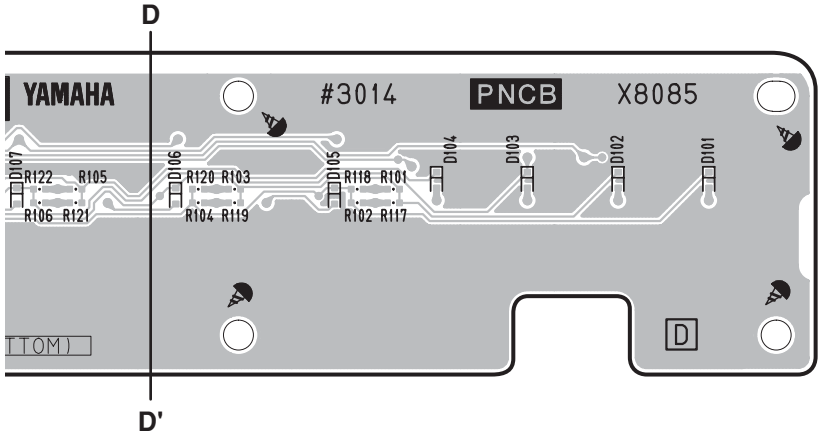
● PNCB Circuit Board





Component side

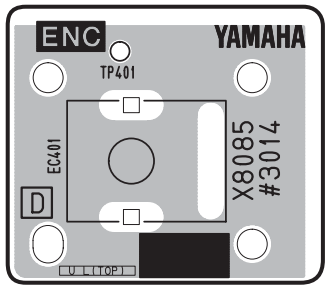




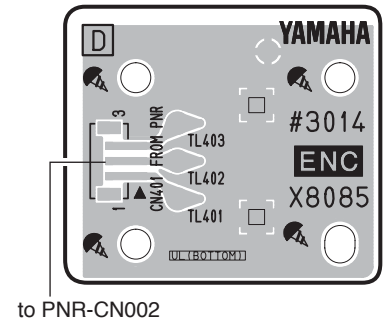
Pattern side

PNCB: 2NA-WJ00580 ⚠

● ENC Circuit Board

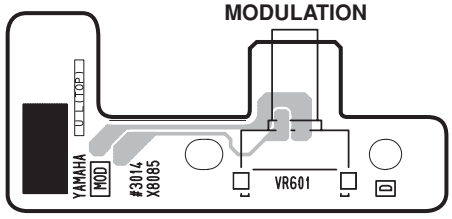


Component side

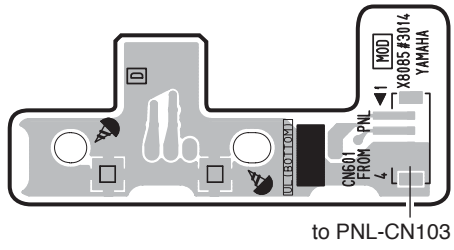


Pattern side

● MOD Circuit Board

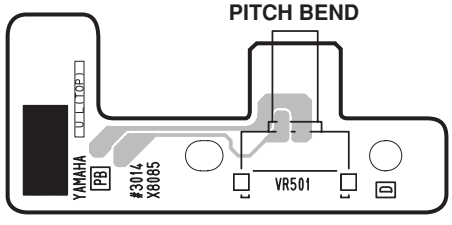


Component side

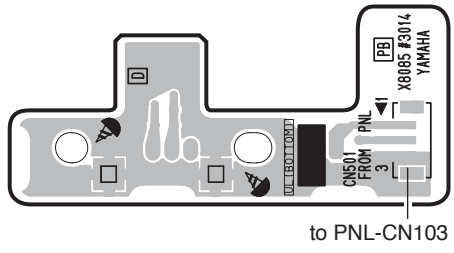


Pattern side

● PB Circuit Board

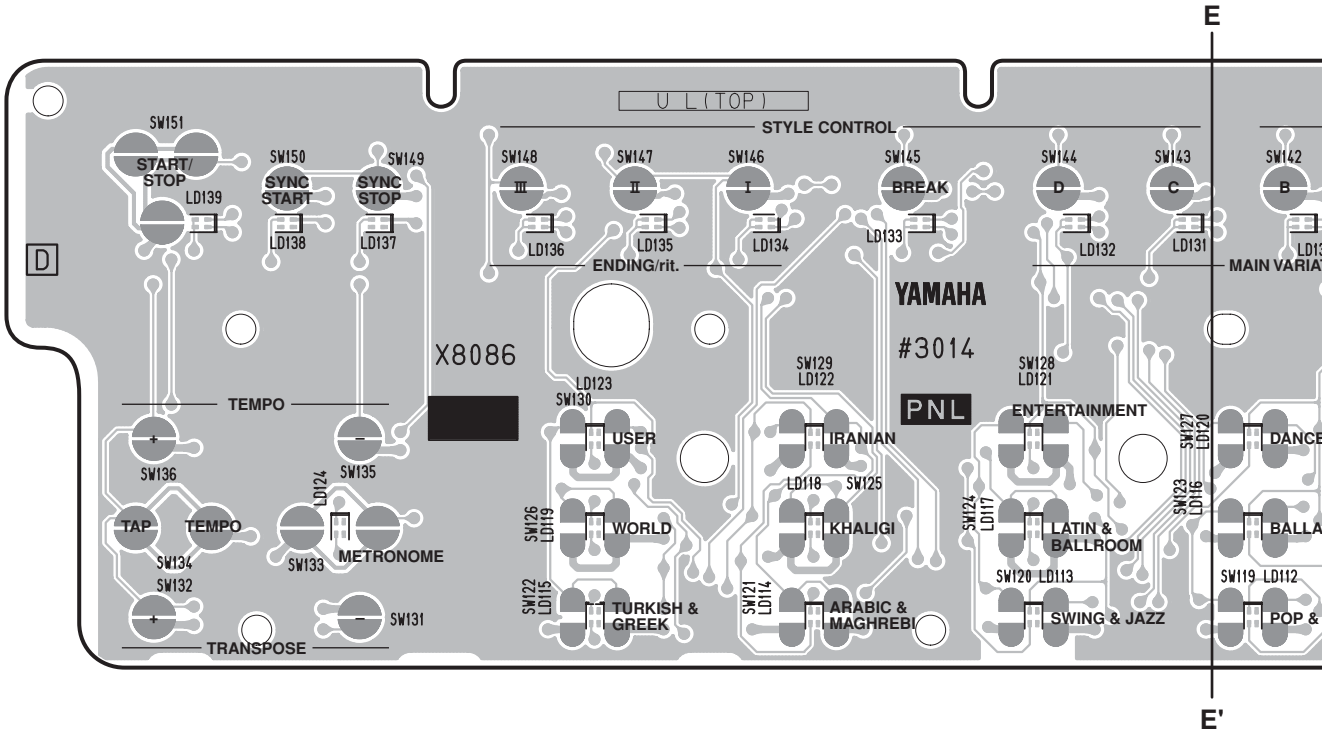


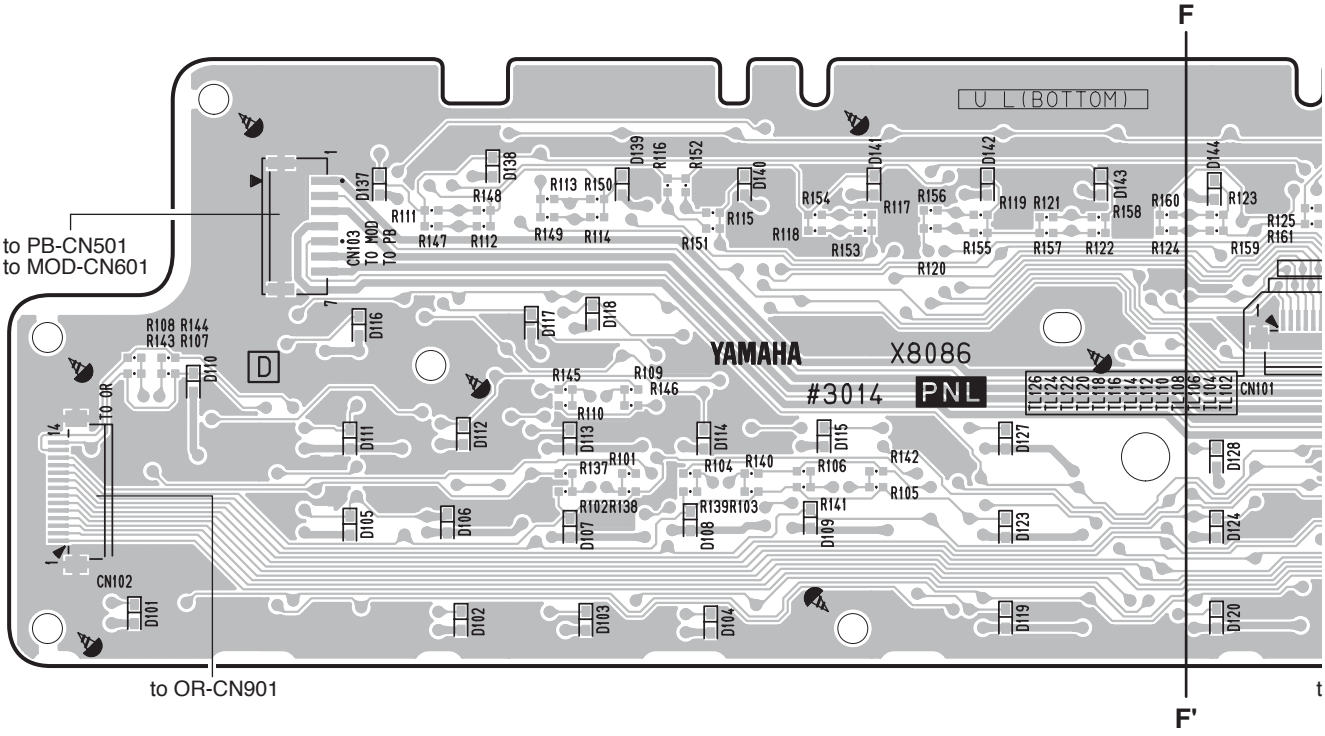
Component side



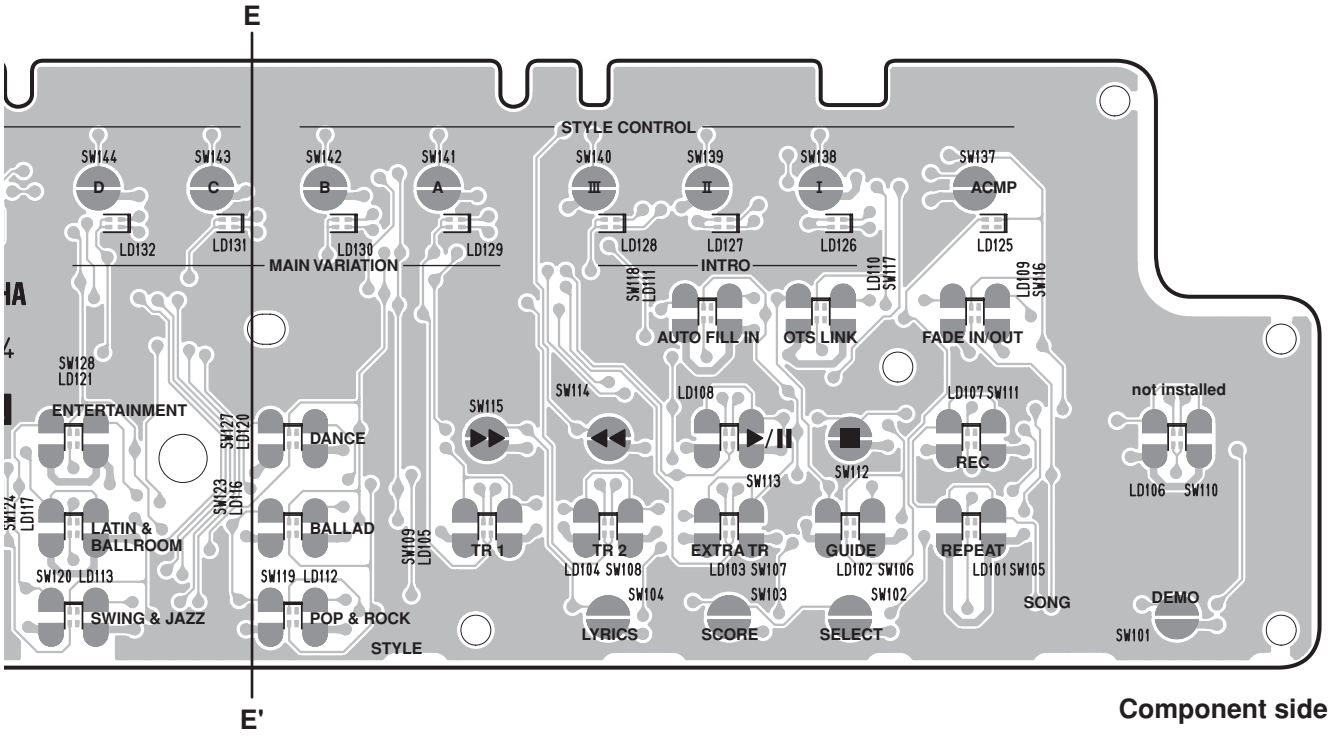
Pattern side

● PNL Circuit Board

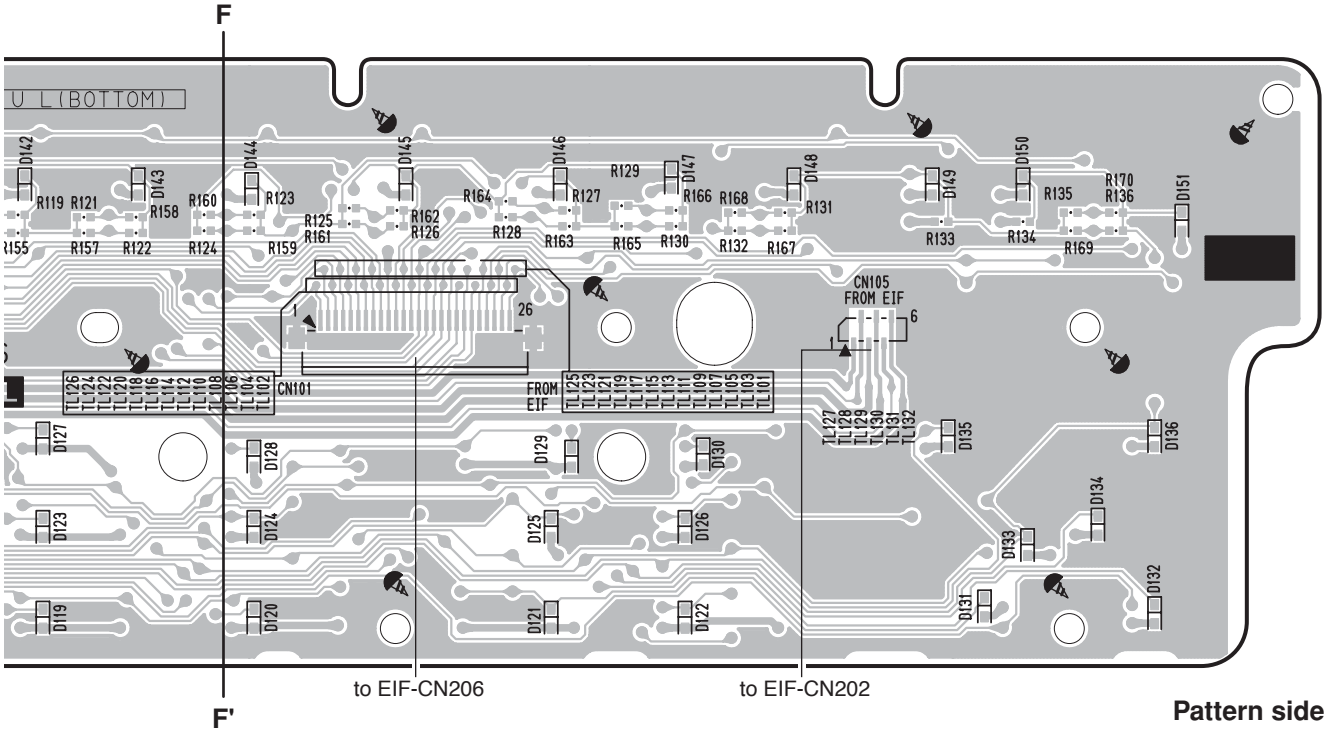




PNL: 2NA-WJ00760 ⚠



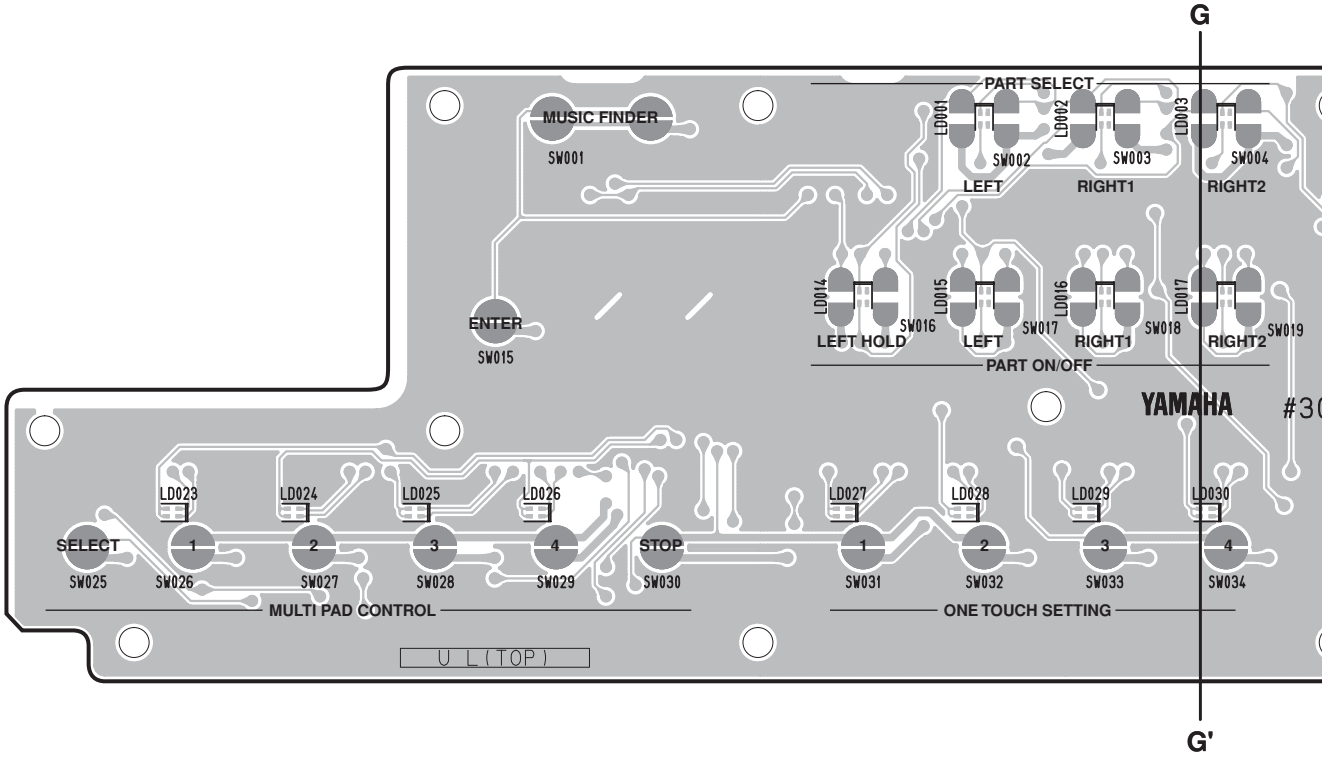
Component side

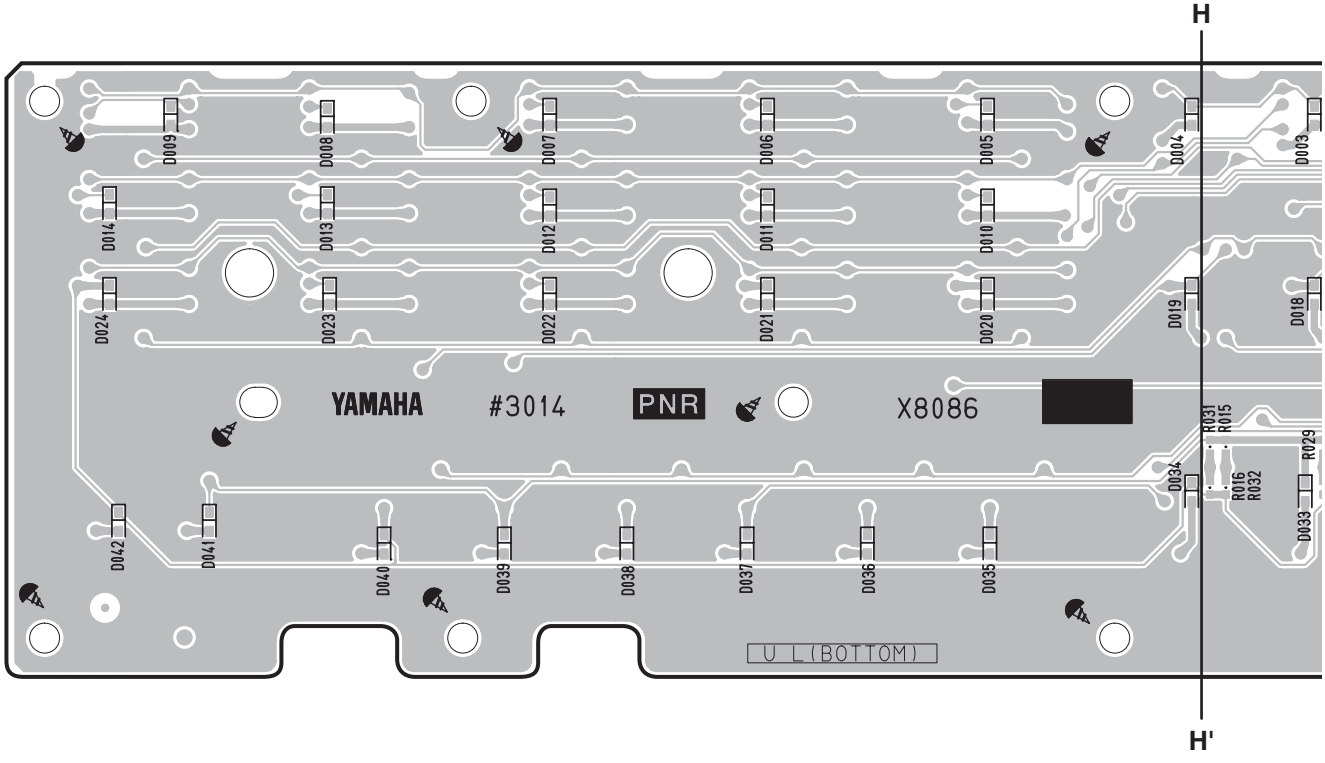


Pattern side

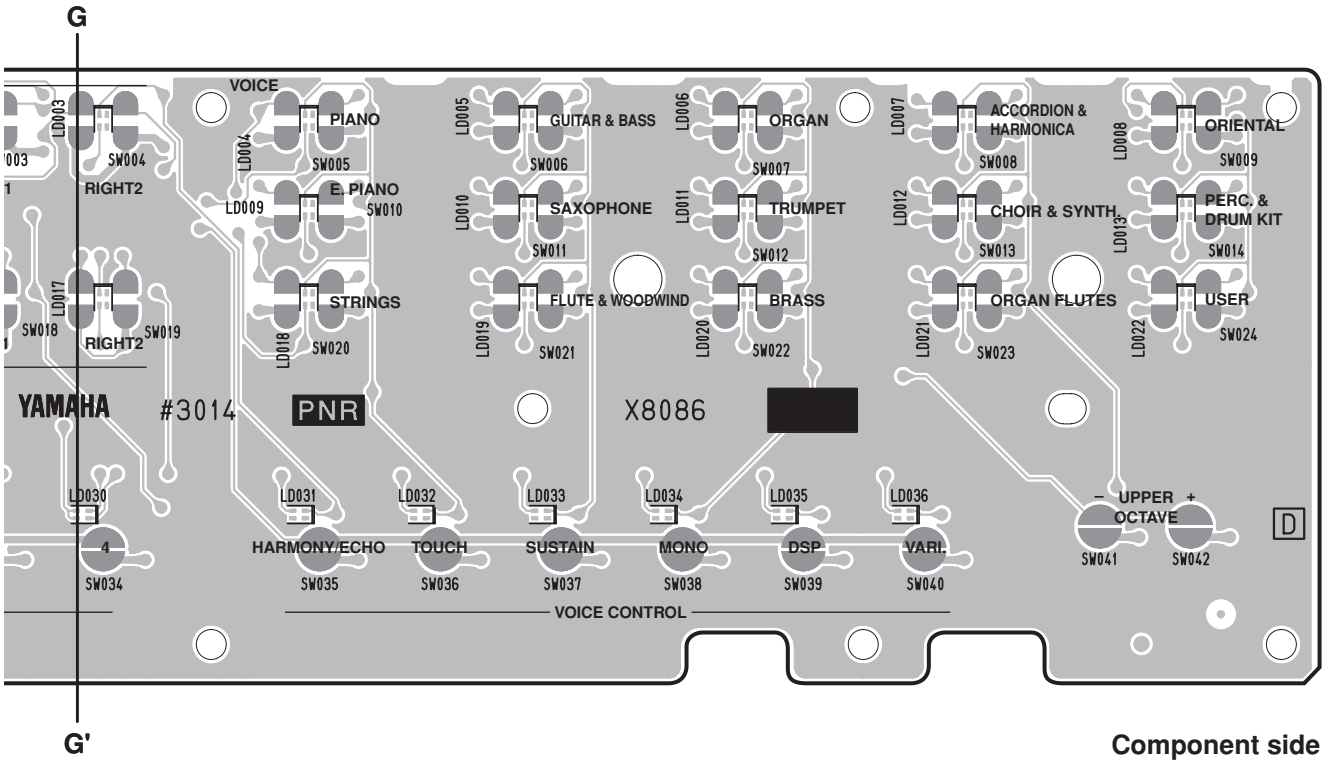
PNL: 2NA-WJ00760 ⚠

● PNR Circuit Board

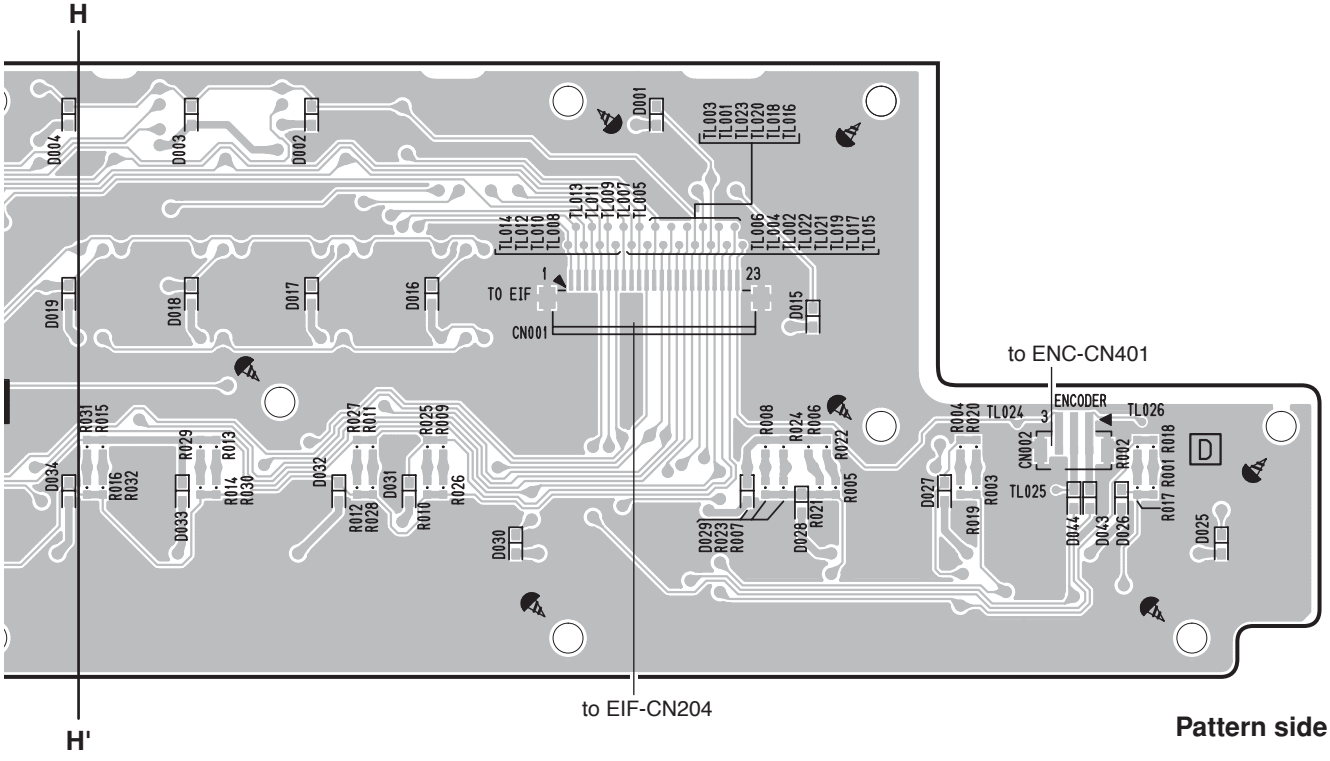




PNR: 2NA-WJ00760 ⚠1



Component side

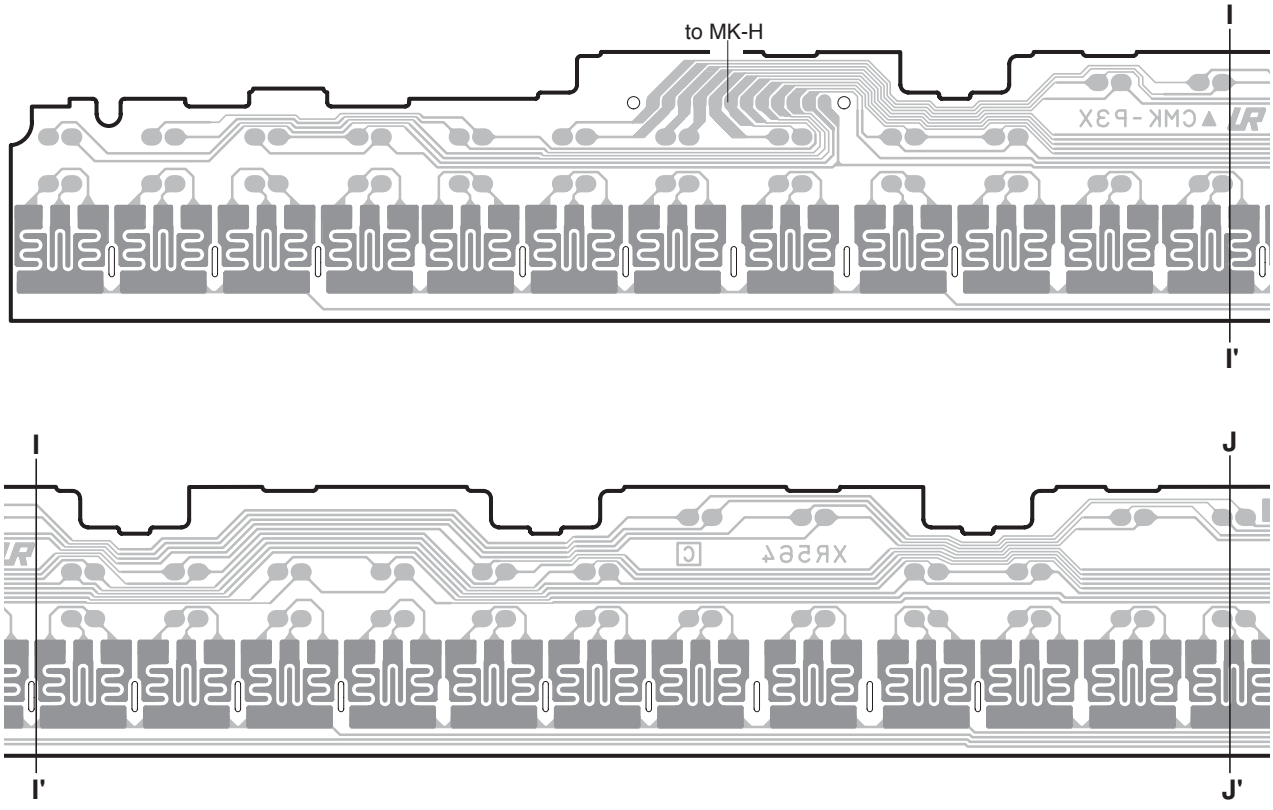


Pattern side

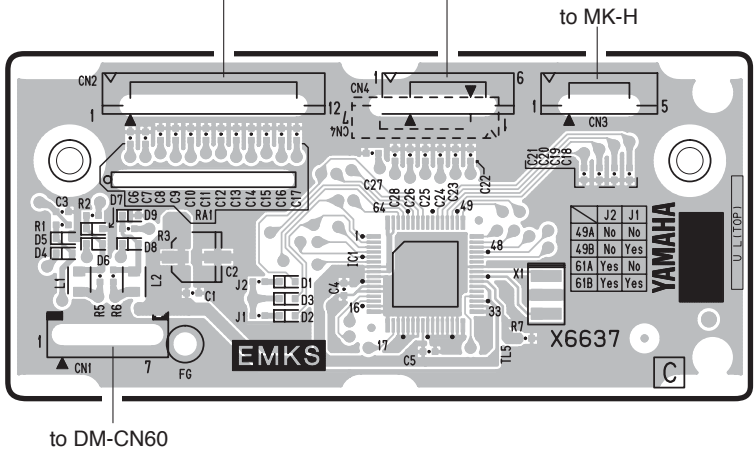
PNR: 2NA-WJ00760 ⚠

● MK-L Circuit Board

Scale: 90/100



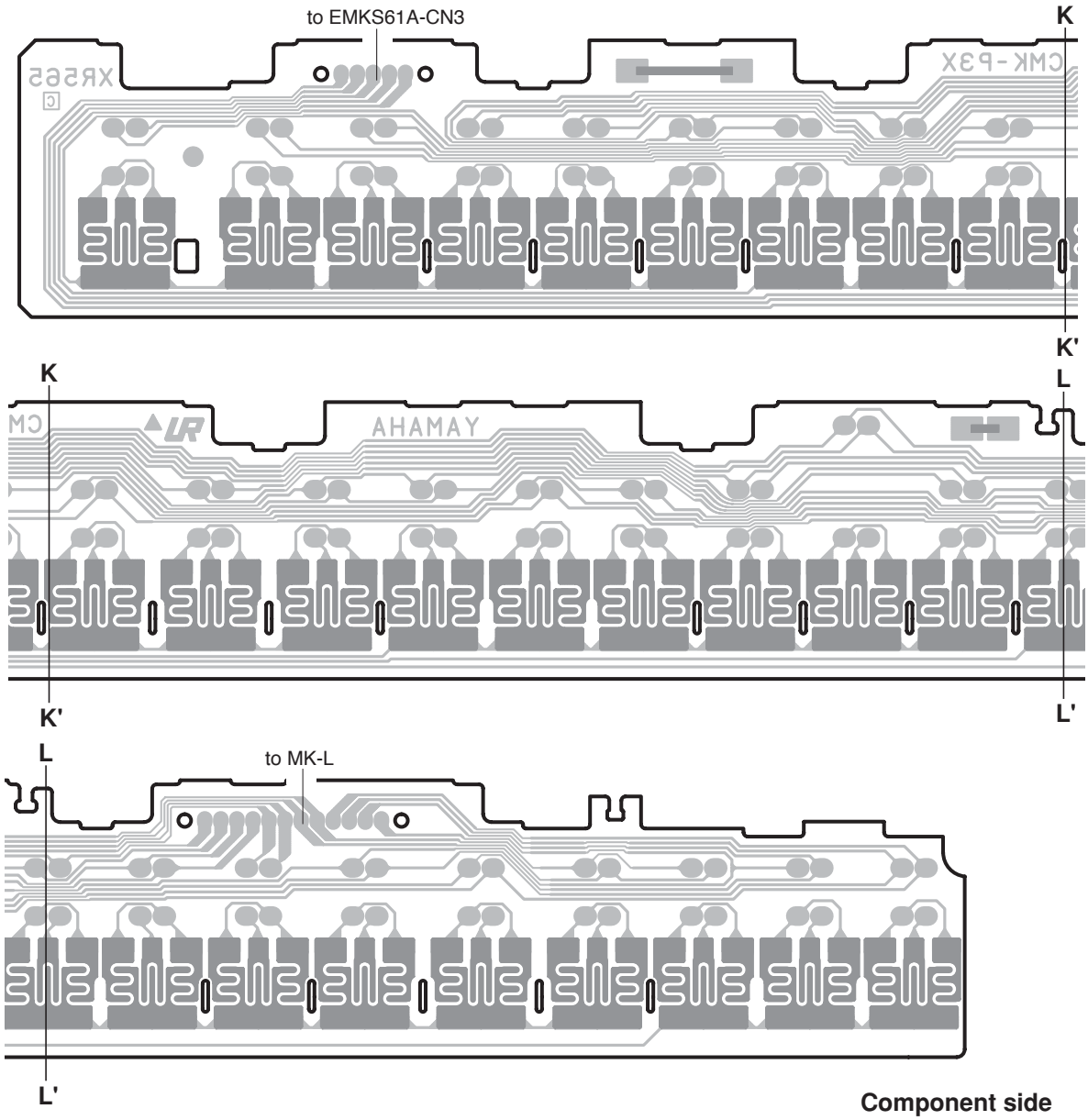
● EMKS61A Circuit Board



EMKS61A: 2NA-WF31010
MK-L: 2NA-VV58380

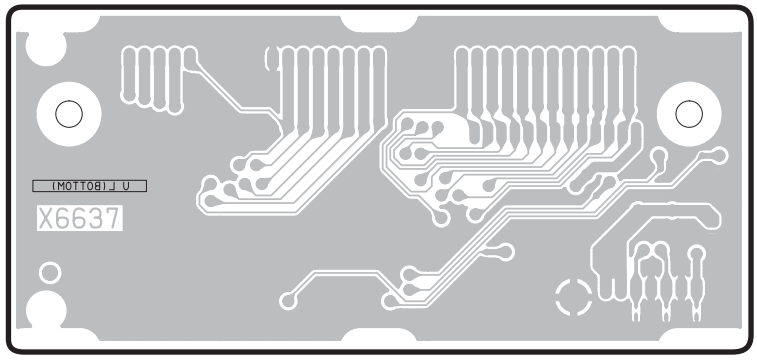
● MK-H Circuit Board

Scale: 90/100



Component side

● EMKS61A Circuit Board



Pattern side

EMKS61A: 2NA-WF31010
MK-H: 2NA-VV58390

TEST PROGRAM

*** If the test number 64 "Factory Set" is executed, the Internet setup data will be lost.**

1 Measurement Conditions

1-1: Measuring Instruments

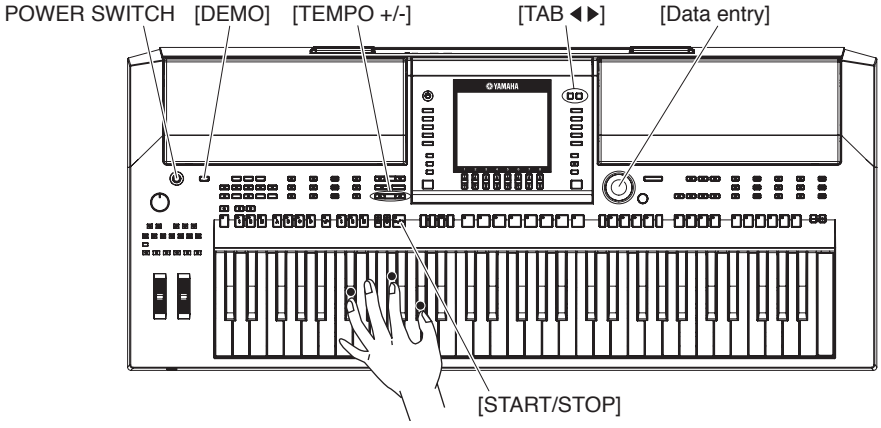
· Level meter (with a JIS-C filter).
· Frequency counter, which can detect thousandth value or more
* Input impedance of the measuring instrument should be 1 MΩ or more.
* Connect a load resistor of 33 Ω and measure at the [PHONES] jack using stereo plugs unless otherwise specified.

1-2: Jig

Foot controller (FC7), MIDI cable, USB cable, USB storage device (USB floppy drive, etc.), Display monitor
* For an inspection that requires a pedal unit, inspect with the pedal unit connected.

2 Starting up the test program

Turn on the power switch while pressing and holding the [C#2], [F2], and [G#2] on the lower keyboard (C#2 major code).



2-1: How to carry out tests

1) **"TEST"** will appear on the LCD when the test program starts up.
2) Go to item choosing mode with [TEMPO +]/[TEMPO -] button or [Data entry] dial.
   (If the [Data entry] dial is turned counterclockwise at the head of items (Test 1), the last item (Test 65) will be selected. If the [Data entry] dial is turned clockwise at the last item (Test 65), the head of items (Test 1) will be selected.
3) Press the [START/STOP] button to execute a test.

● **If the test result is OK:**
When the test result is OK, an asterisk " ∗ " will be displayed at the head so that you can see later if it has already been checked.
If the result is OK, return to the selection screen with the [START/STOP] button.

● **If the test result is NG:**
If the result is NG, press the [DEMO] button or lowest key on the keyboard to return to the selection display.

3 Tests Overview

Test No.	LCD display	Test descriptions, judging conditions, etc.
1	**001 : Version**	Checking the version of the ROM. Displays version of the ROM. If the [TAB▶] switch is pressed while the version is displayed, a sub version display will be shown. In case of NG, "0.00" appears in the version field. **Model Name : PSR-OR700 (E)** **Main Program : ＊.＊＊** **BitMap : ＊.＊＊** **Content1 : ＊.＊＊** **Content2 : ＊.＊＊** **Wave1 : ＊.＊＊** **(Sub Version)** **Main Boot : ＊.＊＊ ＊.＊＊ : Version**
2	**002 : ROM Check1** OK: **002 : ROM Check1 OK** NG: **002 : ROM Check1 Main Program ROM NG**	Checking the ROM connected to the CPU bus. (Simplified check) Check that **"ROM Check1 OK"** is displayed on the LCD.
3	**003 : RAM Check1** OK: **003 : RAM Check1 OK** NG: **003 : RAM Check1 Main Program RAM NG**	Checking the RAM connected to the CPU bus. (Simplified check) Check that **"RAM Check1 OK"** is displayed on the LCD.
4	**004 : Flash Check1** OK: **004 : Flash Check1 OK** NG: **004 : Flash Check1 NG**	Checking the flash memory connected to the CPU bus. (Simplified check) Check that **"Flash Check1 OK"** is displayed on the LCD. It will take about 8 seconds before the test is over.
5	**005 : Wave ROM Check1** OK: **005 : Wave ROM Check1 OK** NG: **005 : Wave ROM Check1 NG**	Checking the WAVE ROM connected to the TG bus. (Simplified check) Check that **"Wave ROM Check1 OK"** is displayed on the LCD.
6	**006 : Effect RAM Check1** OK: **006 : Effect RAM Check1 OK** NG: **006 : Effect RAM Check1 NG**	Checking the Effect RAM connected to the TG bus. (Simplified check) Check that **"Effect RAM Check1 OK"** is displayed on LCD.
7	**007 : TG 1 Check** OK: **007 : TG 1 Check End**	Checking the tone generator 1. Sequentially outputs the sine wave starting from the low keys and switching sounds of the tone generator. (32 notes from C2 to G4) Check that there is no abnormal sounds or noise. **"TG 1 Check End"** will appear when the test is over.

Test No.	LCD display	Test descriptions, judging conditions, etc.
10	**010 : Pitch Check**	Checking sound pitch. **Pitch accuracy check:** Connect a frequency counter to the [PHONES] jack. (Either L or R) When the test is started, a sine wave of (441.4 ± 0.2 Hz) will be played. (PAN=Center) **Amount of volume decay:** Connect a level meter (with a JIS-C filter) to the L/R of the [PHONES] jacks. Set the [MASTER VOLUME] to the minimum. Load should be 33 Ω. Check that the amount of decay is 75.0 dB or more for both L and R of the [PHONES] jack.
11	**011 : Output R Check**	Checking the R channel output. Connect a level meter (with a JIS-C filter) to each jack. (PHONES L, R, OUTPUT L/L+R, R) Set the [MASTER VOLUME] to the maximum level and check the output level of the R channel. (1 KHz sine wave, PAN=R) (PHONES L, R: 33 Ω load, OUTPUT L/L+R, R: 10 kΩ load (2 monaural jacks used simultaneously)) · PHONES L: -45.0 dBu or less PHONES R: -4.0 ± 2 dBu · OUTPUT L/L+R: -48.0 dBu or less OUTPUT R: +3.5 ± 2 dBu
12	**012 : Output L Check**	Checking the L channel output. Connect a level meter (with a JIS-C filter) to each jack. (PHONES L, R, OUTPUT L/L+R, R) Set the [MASTER VOLUME] to the maximum level and check the output level of the L channel. (1 KHz sine wave, PAN = L) (PHONES L, R: 33 Ω load, OUTPUT L/L+R, R: 10 kΩ load (2 monaural jacks used simultaneously)) · PHONES L: -4.0 ± 2 dBu PHONES R: -45.0 dBu or less · OUTPUT L/L+R: +3.5 ± 2 dBu OUTPUT R: -48.0 dBu or less
	Noise Level	After the test 12 is completed, connect the level meter (with a JIS-C filter) to the L/R of the [PHONES] jacks and check the noise level. (PHONES L, R: 33 Ω load) · PHONES L: -80.0 dBu or less PHONES R: -80.0 dBu or less
13	**013 : EQ Low Check**	Checking EQ-LOW frequency. Check that sine wave at about 65.4 Hz (C1) is output with specified level and PAN=Center. Sound production stops when returning to the selection screen with the [START/STOP] button.
14	**014 : EQ Mid Check**	Checking EQ-MID frequency. Check that sine wave at about 523 Hz (C4) is output with specified level and PAN=Center. Sound production stops when returning to the selection screen with the [START/STOP] button.
15	**015 : EQ High Check**	Checking EQ-HIGH frequency. Check that sine wave at about 4186 Hz (C7) is output with specified level and PAN=Center. Sound production stops when returning to the selection screen with the [START/STOP] button.
17	**017 : MUTE Check** MUTE OFF: **017 : MUTE Check** **OFF** MUTE ON: **017 : MUTE Check** **ON**	Checking MUTE. Set the [MASTER VOLUME] to the maximum level. Connect a level meter (with a JIS-C filter) to the L/R of the [PHONES] jack. (33 Ω load) When the test is started with the [START/STOP] button, sounds can be played (MUTE OFF) and **"MUTE Check OFF"** is displayed on the LCD. Mute sounds (MUTE ON) with the [TAB◀] button and **"MUTE Check ON"** is displayed on the LCD. Cancel the mute function (MUTE OFF) with the [TAB▶] button and **"MUTE Check OFF"** is displayed on the LCD. Check output level when [MUTE ON] is selected. PHONES L, R: -80.0 dBu or less
21	**021 : SW, LED Check** OK: **021 : SW, LED Check** **END**	Checking switches and switch LEDs. Activate switches shown on the LCD one by one and a sound is played at the prescribed pitch respectively (refer to page 71, 72). When a switch with LED is turned on, the LED will light up, too. (A two-colored LED will light in red.) To quit the test halfway, use the [DEMO] button or the lowest key on the keyboard to return to the selection screen. After all the switches are pressed, **"Dial Down"** will be shown on the LCD for [Data entry] dial check. Turn the [Data entry] dial counterclockwise and the number on the LCD will change from 50 to 0 and **"Dial Up"** will be shown on the LCD. Next, turn the dial clockwise and the number will change from 0 to 100. Make sure that **"SW, LCD Check END"** is displayed on the LCD.

Test No.	LCD display	Test descriptions, judging conditions, etc.
22	**022 : All Panel LED On Check**	Checking whole LEDs' lighting up. Check that all the LEDs will light. All the LEDs on the PNL side will light with the [TAB◀] button. All the LEDs on the PNR side will light with the [TAB▶] button. Two-colored LEDs will light in orange.
23	**023 : Red LED On Check**	Checking whole red LEDs' lighting up. Check that all the red LEDs will light. All the red LEDs on the PNL side will light with the [TAB◀] button. All the red LEDs on the PNR side will light with the [TAB▶] button.
24	**024 : Green LED On Check**	Checking whole green LEDs' lighting up. Check that all the green LEDs will light. All the green LEDs on the PNL side will light with the [TAB◀] button. All the green LEDs on the PNR side will light with the [TAB▶] button.
27	**027 : All LCD On Check**	Checking whole LCD's lighting up. Check that all the dots in the LCD are turned black.
28	**028 : All LCD Off Check**	Checking whole LCD's turning off. Check that all the dots in the LCD are turned white.
29	**029 : LCD Brightness Check** OK: **029 : LCD Brightness Check LCD Brightness**	Checking LCD brightness. Press the buttons [1] to [4] in the [REGISTRATION MEMORY] section in order. Check that LCD brightness varies as buttons are pressed. (The brightness are the same for the button [2] and button [4], though.) Check also that brightness at each step is even and that LCD does not stop lighting. When the test is completed, **"LCD Brightness"** will be shown.
33	**033 : Pitch Bend Wheel Check** If the center of the [PITCH BEND] wheel is not detected: **033 : Pitch Bend Wheel Check Pitch Bend Center NG** OK: **033 : Pitch Bend Wheel Check OK** NG: **033 : Pitch Bend Wheel Check NG**	Checking PITCH BEND. Detects the center of the [PITCH BEND] wheel. Turn the [PITCH BEND] wheel from the center to minimum and C3 will be played. Turn to maximum and G3 will be played. Then, turn the wheel back to the center and check that C4 is played. Check that **"Pitch Bend Wheel Check OK"** is displayed on the LCD when the test is completed.
34	**034 : Modulation Wheel Check** OK: **034 : Modulation Wheel Check OK** NG: **034 : Modulation Wheel Check NG**	Checking MODULATION. Turn the [MODULATION] wheel away from you to the end and then toward you to the end. When the wheel is at maximum, C3 is played. When turned to minimum, C4 is played. Check that **"Modulation Wheel Check OK"** is displayed on the LCD when the test is completed.
39	**039 : Pedal 1 Check** OK: **039 : Pedal 1 Check OK** NG: **039 : Pedal 1 Check NG**	Checking the Pedal 1. Connect the foot controller (FC7) to the [FOOT PEDAL 1] jack. When the pedal is set to the minimum and C3 is played. When the pedal is set to the maximum and G3 is played. Disconnect the foot controller from the [FOOT PEDAL 1] jack and C4 is played. Check that **"Pedal 1 Check OK"** is displayed on the LCD when the test is completed.
40	**040 : Pedal 2 Check** OK: **039 : Pedal 2 Check OK** NG: **039 : Pedal 2 Check NG**	Checking the Pedal 2. Connect the foot controller (FC7) to the [FOOT PEDAL 2] jack. When the pedal is set to the minimum and C3 is played. When the pedal is set to the maximum and G3 is played. Disconnect the foot controller from the [FOOT PEDAL 2] jack and C4 is played. Check that **"Pedal 2 Check OK"** is displayed on the LCD when the test is completed.

Test No.	LCD display	Test descriptions, judging conditions, etc.
42	**042 : MIDI Check** OK: **042 : MIDI Check** **OK** NG: **042 : MIDI Check** **NG**	Checking MIDI. Connect the [MIDI IN] connector and [MIDI OUT] connector with a MIDI cable and then execute the test. Check that C4 is played and **"MIDI Check OK"** is displayed on the LCD.
46	**046 : USB to Device/Host Check** 1: **046 : USB to Device/Host Check** **Connect Device – Host** 2: **046 : USB to Device/Host Check** **Device – Host OK** 3: **046 : USB to Device/Host Check** **Connect USB Storage** OK: **046 : USB to Device/Host Check** **OK** NG: **046 : USB to Device/Host Check** **NG**	Checking USB Device/Host. Enter the test with the [START/STOP] button and **"Connect Device – Host"** will be shown on the LCD. When a USB cable is connected to the [USB TO DEVICE] and [USB TO HOST] connectors, **"Device – Host OK"** is shown on the LCD and quickly followed by **"Connect USB Storage"**. Disconnect the USB cable from the [USB TO DEVICE] and [USB TO HOST] connectors and then connect a USB storage device to [USB TO DEVICE] connector. Check that C4 will be played and **"USB to Device/Host Check OK"** will be shown on the LCD.
47	**047 : USB Storage Device Check** When a floppy disk is not inserted: **047 : USB Storage Device Check** **NO DISK** OK: **047 : USB Storage Device Check** **OK** NG: **047 : USB Storage Device Check** **NG**	Testing if USB Storage devices can be used. Connect a FDD to the [USB TO DEVICE] connector, insert a floppy disk and execute the test. If a floppy disk is not inserted, **"NO DISK"** is shown on the LCD. 1. Conduct sector read/write tests at ten points. 2. Reads every 100 sectors from sector 0. 3. Compares with the data after sector writing to confirm agreement. Check that **"USB Storage Device Check OK"** is displayed on the LCD.
49	**049 : Keyboard Type Check** OK: **049 : Keyboard Type Check** **OK** **(16M)**	Checking Keyboard Type. Check that **"Keyboard Type Check OK (16M)"** is displayed on the LCD.
53	**053 : ROM Check2** OK: **053 : ROM Check2** **OK** NG: **053 : ROM Check2** **Main Program ROM NG**	Checking the ROM connected to the CPU bus. (Complete check) Check that **"ROM Check2 OK"** is displayed on the LCD. It will take about 4 seconds for the check.
54	**054 : RAM Check2** OK: **054 : RAM Check2** **OK** NG: **054 : RAM Check2** **Main Program RAM NG**	Checking the RAM connected to the CPU bus. (Complete check) Check that **"RAM Check2 OK"** is displayed on the LCD. It will take about 2 seconds for the check.

Test No.	LCD display	Test descriptions, judging conditions, etc.
55	**055 : Flash Check2** OK: **055 : Flash Check2 OK** NG: **055 : Flash Check2 NG**	Checking the flash memory connected to the CPU bus. (Complete check) Check that **"Flash Check2 OK"** is displayed on the LCD. It will take about 32 seconds for the check.
56	**056 : Wave ROM Check2** OK: **056 : Wave ROM Check2 OK** NG: **056 : Wave ROM Check2 NG**	Checking the WAVE ROM connected to the TG bus. (Complete check) Check that **"Wave ROM Check2 OK"** is displayed on the LCD. It will take about 18 seconds for the check.
57	**057 : Effect RAM Check2** OK: **057 : Effect RAM Check2 OK** NG: **057 : Effect RAM Check2 NG**	Checking the Effect RAM connected to the TG bus. (Complete check) Check that **"Effect RAM Check2 OK"** is displayed on LCD. It will take about 20 seconds for the check.
58	**058 : Panel PCB Check1**	Test for factory inspection.
59	**059 : Panel PCB Check2**	Test for factory inspection.
60	**060 : Panel PCB Check3**	Test for factory inspection.
61	**061 : Panel Sheet Check4**	Test for factory inspection.
64	**064 : Factory Set**	**If the Factory Set is executed, Internet setup will be lost.** When the power is turned on the next time, data are set to Flash ROM to be in factory default. In this test, a flag for initialization is set only (if necessary). Execution is made when the power is turned on the next time.
65	**065 : Test Exit**	This will leave the test program and change to the play mode.

• Other Tests

AUX IN

Check that the output is as shown in the following table when signals are input to the AUX IN.

INPUT / OUTPUT	OUTPUT (10 kΩ load)		PHONES (33 Ω load)	
	L/L+R	R	L	R
AUX IN L/L+R: Sine wave (1 kHz, + 12 dBu) R: No input	+9.0 ± 2 dBu	-42.5 dBu or less	+1.0 ± 2 dBu	-39.0 dBu or less
AUX IN L/L+R: No input R: Sine wave (1 kHz, + 12 dBu)	-42.5 dBu or less	+9.0 ± 2 dBu	-39.0 dBu or less	+1.0 ± 2 dBu

Switch Test Sequence

Turn	SW Name / Display	Note number
1	DEMO	C2
2	SELECT	C#2
3	SCORE	D2
4	LYRICS	D#2
5	POP & ROCK	E2
6	SWING & JAZZ	F2
7	ARABIC & MAGHREBI	F#2
8	TURKISH & GREEK	G2
9	TRANSPOSE –	G#2
10	TRANSPOSE +	A2
11	REPEAT	A#2
12	GUIDE	B2
13	EXTRA TR	C3
14	TR 2	C#3
15	TR 1	D3
16	BALLAD	D#3
17	LATIN & BALLROOM	E3
18	KHALIGI	F3
19	WORLD	F#3
20	METRONOME	G3
21	TAP TEMPO	G#3
22	REC	A3
23	STOP	A#3
24	PLAY/PAUSE	B3
25	REW	C4
26	FF	C#4
27	DANCE	D4
28	ENTERTAINMENT	D#4
29	IRANIAN	E4
30	USER	F4
31	TEMPO –	F#4
32	TEMPO +	G4
33	FADE IN/OUT	G#4
34	OTS LINK	A4
35	AUTO FILL IN	A#4
36	ACMP	B4
37	INTRO Ⅰ	C5
38	INTRO Ⅱ	C#5
39	INTRO Ⅲ	D5
40	MAIN VARIATION A	D#5
41	MAIN VARIATION B	E5
42	MAIN VARIATION C	F5
43	MAIN VARIATION D	F#5
44	BREAK	G5
45	ENDING/rit. Ⅰ	G#5
46	ENDING/rit. Ⅱ	A5
47	ENDING/rit. Ⅲ	A#5
48	SYNC STOP	B5
49	SYNC START	C6
50	START/STOP	C2
51	A	C#2
52	B	D2
53	C	D#2

Turn	SW Name / Display	Note number
54	D	E2
55	E	F2
56	BALANCE	F#2
57	MIXING CONSOLE	G2
58	CHANNEL ON/OFF	G#2
59	DIRECT ACCESS	A2
60	1▲	A#2
61	2▲	B2
62	3▲	C3
63	4▲	C#3
64	5▲	D3
65	6▲	D#3
66	7▲	E3
67	8▲	F3
68	1▼	F#3
69	2▼	G3
70	3▼	G#3
71	4▼	A3
72	5▼	A#3
73	6▼	B3
74	7▼	C4
75	8▼	C#4
76	TAB◀	D4
77	TAB▶	D#4
78	F	E4
79	G	F4
80	H	F#4
81	I	G4
82	J	G#4
83	FUNCTION	A4
84	USB	A#4
85	INTERNET	B4
86	EXIT	C5
87	REGIST BANK –	C#5
88	REGIST BANK +	D5
89	FREEZE	D#5
90	MEMORY	E5
91	REGIST. MEMORY 1	F5
92	REGIST. MEMORY 2	F#5
93	REGIST. MEMORY 3	G5
94	REGIST. MEMORY 4	G#5
95	REGIST. MEMORY 5	A5
96	REGIST. MEMORY 6	A#5
97	REGIST. MEMORY 7	B5
98	REGIST. MEMORY 8	C6
99	MUSIC FINDER	C2
100	PART SELECT LEFT	C#2
101	PART SELECT RIGHT 1	D2
102	PART SELECT RIGHT 2	D#2
103	PIANO	E2
104	GUITAR & BASS	F2
105	ORGAN	F#2
106	ACCORDION & HARMONICA	G2

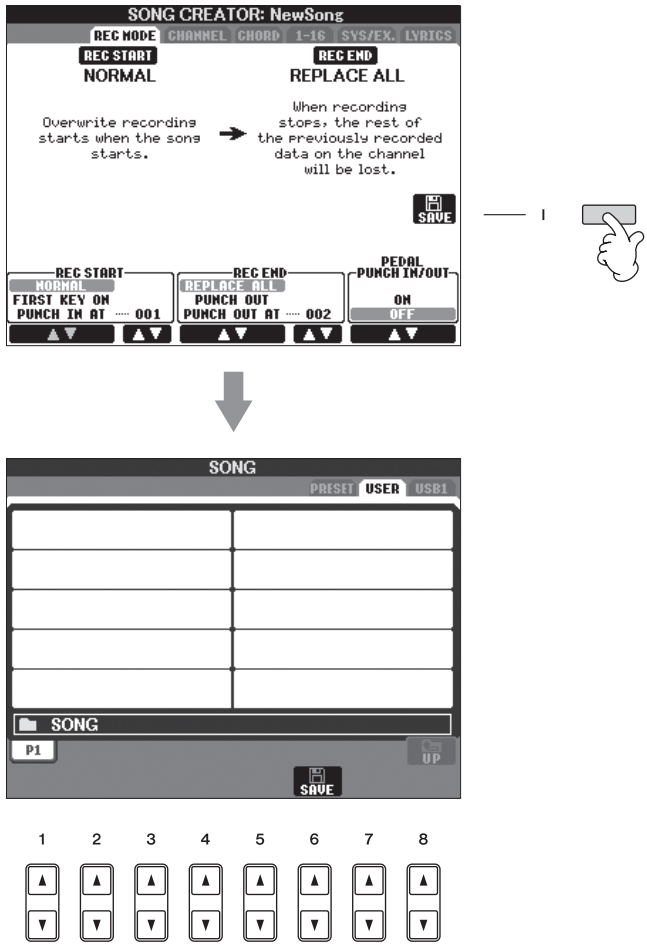
Turn	SW Name / Display	Note number
107	ORIENTAL	G#2
108	E. PIANO	A2
109	SAXOPHONE	A#2
110	TRUMPET	B2
111	CHOIR & SYNTH.	C3
112	PERC. & DRUM KIT	C#3
113	ENTER	D3
114	PART ON/OFF LEFT HOLD	D#3
115	PART ON/OFF LEFT	E3
116	PART ON/OFF RIGHT 1	F3
117	PART ON/OFF RIGHT 2	F#3
118	STRINGS	G3
119	FLUTE & WOODWIND	G#3
120	BRASS	A3
121	ORGAN FLUTES	A#3
122	USER	B3
123	PAD SELECT	C4
124	PAD CONTROL 1	C#4
125	PAD CONTROL 2	D4
126	PAD CONTROL 3	D#4
127	PAD CONTROL 4	E4
128	PAD STOP	F4
129	ONE TOUCH SETTING 1	F#4
130	ONE TOUCH SETTING 2	G4
131	ONE TOUCH SETTING 3	G#4
132	ONE TOUCH SETTING 4	A4
133	HARMONY/ECHO	A#4
134	TOUCH	B4
135	SUSTAIN	C5
136	MONO	C#5
137	DSP	D5
138	VARI.	D#5
139	UPPER OCTAVE –	E5
140	UPPER OCTAVE +	F5
141	SCALE SETTING C#	F#5
142	SCALE SETTING D#	G5
143	SCALE SETTING F#	G#5
144	SCALE SETTING G#	A5
145	SCALE SETTING A#	A#5
146	SCALE SETTING C	B5
147	SCALE SETTING D	C6
148	SCALE SETTING E	C2
149	SCALE SETTING F	C#2
150	SCALE SETTING G	D2
151	SCALE SETTING A	D#2
152	SCALE SETTING B	E2
153	MEMORY	F2
154	SCALE MEMORY 1	F#2
155	SCALE MEMORY 2	G2
156	SCALE MEMORY 3	G#2
157	SCALE MEMORY 4	A2
158	SCALE MEMORY 5	A#2
159	SCALE MEMORY 6	B2

SAVING FILES

This operation lets you save your original data (such as Songs and Voices you've created) to a file.

1 After you've created a Song or Voice in the relevant SONG CREATOR or VOICE SET display, press the [SAVE] display button.

The File Selection display for the corresponding data appears. Keep in mind that the Save operation is executed from the File Selection display.



2 Select the appropriate tab (USER, USB, etc.) to which you want to save the data by using the TAB [◄] [►] buttons.

3 Press the [6▼] (SAVE) button to call up the file naming display.



4 Enter the file name.

5 Press the [8▲] (OK) button to save the file.

If you want to cancel the Save operation, press the [8▼] (CANCEL) button.

The saved file will be automatically located at the appropriate position among the files in alphabetical order.

RESTORING THE FACTORY-PROGRAMMED SETTINGS

Restoring the Factory-programmed System

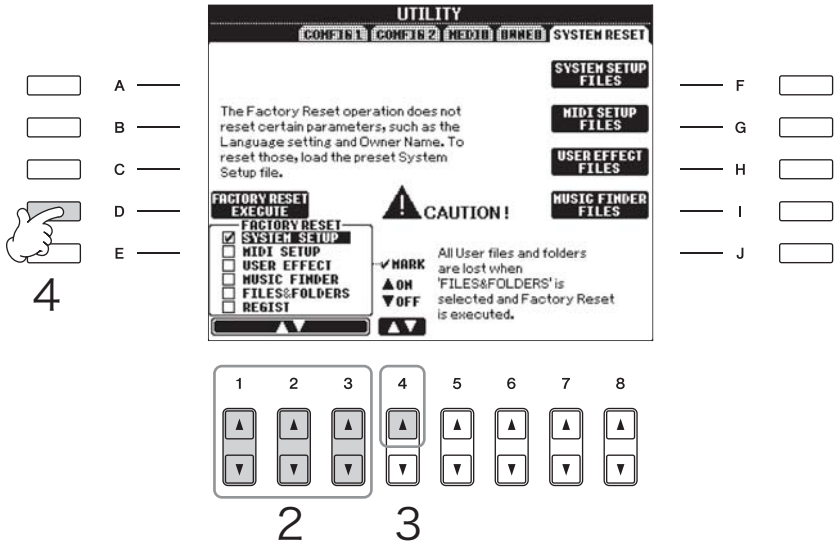
While holding the C6 key (right-most key on the keyboard), turn the [POWER] button ON.
This operation has the same result as and is a shortcut for the System Setup restore operation explained in step 2 of the following section.

Restoring the Factory-programmed Settings Independently by Item

1 Call up the operation display.
[FUNCTION] → [J] UTILITY → TAB [◀][▶] SYSTEM RESET

2 Select items by pressing the [1▲▼] – [3▲▼] buttons.

SYSTEM SETUP	Restores the System Setup parameters to the original factory settings. Refer to the Data List for details about which parameters belong to the System Setup. Refer to the Data List for details on which parameters belong to the System Setup. **http://www.yamaha.co.jp/manual/**
MIDI SETUP	Restores the MIDI settings including the MIDI templates on the User tab display to the original factory status.
USER EFFECT	Restores the User Effect settings including the user effect types, user master EQ types created via the Mixing Console display to the original factory settings.
MUSIC FINDER	Restores the Music Finder data (all records) to the original factory settings.
FILES&FOLDERS	Deletes all files and folders stored in the User tab display.
REGIST	Temporarily deletes the current Registration Memory settings of the selected Bank. The same can be done also by turning the [POWER] button ON while holding the B5 key (right-most B key on the keyboard).



⚠ This operation deletes all your original data for the respective item (MIDI SETUP, USER EFFECT, MUSIC FINDER, and FILES & FOLDERS).

3 Checkmark the box of the item to be reset to the factory programmed settings by pressing the [4▲] button.

4 Press the [D] button to execute the Factory Reset operation for all checkmarked items.

Saving and Recalling Your Original Settings as a Single File

For the items below, you can save your Original Settings as a Single File for future recall.

1 Make all desired settings on the instrument.

2 Call up the operation display.
[FUNCTION] → [J] UTILITY → TAB [◄][►] SYSTEM RESET

3 Press one of the [F] – [I] buttons to call up the relevant display for saving your data.

SYSTEM SETUP	Parameters set on the various displays such as the [FUNCTION] → UTILITY are handled as a single System Setup file. Refer to the Data List for details on which parameters belong to the System Setup. **http://www.yamaha.co.jp/manual/**
MIDI SETUP	The MIDI settings including the MIDI templates on the User tab display are handled as a single file.
USER EFFECT	The User Effect settings including the user effect types and user master EQ types created via the Mixing Console displays are managed as a single file.
MUSIC FINDER	All the preset and created records of the Music Finder are handled as a single file.

4 Select one of the tabs (other than the PRESET) by pressing the TAB [◄] [►] buttons.

Note that the file in the PRESET tab display is the file of factory-programmed settings. If you select it, the factory-programmed settings for the respective item will be restored. (This is the same results as on page 54 "Restoring the Factory-programmed Settings Independently by Item.")

5 Save your file (page 53).

6 To recall your file, select the tab and page to which you've saved the file (same tab and page as specified in step 4), and press the corresponding [A] – [J] button.

DATA BACKUP

For maximum data security, copy or save your important data to a USB storage device. This provides a convenient backup if the internal memory is damaged.

Data that can be saved

1. Song*, Style, Multi Pad, Registration Memory Bank, Scale Memory Bank and Voice
2. Music Finder Record, Effect**, MIDI Template and System File
3. All data listed in 1 and 2 above

* Protected Songs (those with a "Prot.1/Prot.2" indication at the upper left of the file name) cannot be saved. However, Songs with a "Prot.2" indication can be moved (cut-and-paste operation) to a USB flash memory.

** Effect data includes the following:
• Edited or saved data in the Mixing Console "EFFECT/EQ."

The backup procedure is different for the data types in 1, 2, and 3 above.

Backup procedure

1. Song, Style, Multi Pad, Registration Memory Bank, Scale Memory Bank and Voice Data

1 Insert/connect the backup USB storage device (destination).

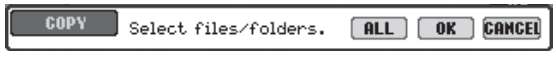
2 Call up the display containing the desired file to be copied.

Song: Press the SONG [SELECT] button.
Style: Press one of the STYLE buttons.
Multi Pad: Press the MULTI PAD CONTROL [SELECT] button.
Registration Memory Bank: Press the REGIST BANK [+] and [–] buttons simultaneously.
Scale Memory Bank: Call up the Main display and press the [E] button.
Voice: Press one of the VOICE buttons.

3 Select the USER tab by using the TAB [◄] [►] buttons.

4 Press the [3▼] (COPY) button to copy the file/folder.

The pop-up window for the Copy operation appears at the bottom of the display.



5 Press the [6▼] (ALL) button to select all files/folders indicated on the current display and all other pages.

To cancel the selection, press the [6▼] (ALL OFF) button again.

6 Press the [7▼] (OK) button to confirm the file/folder selection.

To cancel the Copy operation, press the [8▼] (CANCEL) button.

7 Select the destination USB tab to which the file/folder is to be copied, by using the TAB [◄] [►] buttons.

8 Press the [4▼] (PASTE) button to paste the file/folder.

If a message appears indicating data cannot be copied
Protected Songs (“Prot. 1/Prot.2” is indicated at the upper left side of the file names) are included in the copied files. These protected Songs cannot be copied. However, Songs with a “Prot.2” indication can be moved (cut-and-paste operation) to a USB flash memory.

2. Music Finder Record, Effect, MIDI Template and System Data

1 Insert/connect the backup USB storage device (destination).

2 Call up the operation display.
[FUNCTION] → [J] UTILITY → TAB [◄][►] SYSTEM RESET

3 Press one of the [F]-[I] buttons to call up the relevant display for saving your data.

4 Select the appropriate USB tab to which you want to save the data by using the TAB [◄] [►] buttons.

5 Save your data (page 53).

3. All data listed in 1 and 2

1 Insert/connect the backup USB storage device (destination).

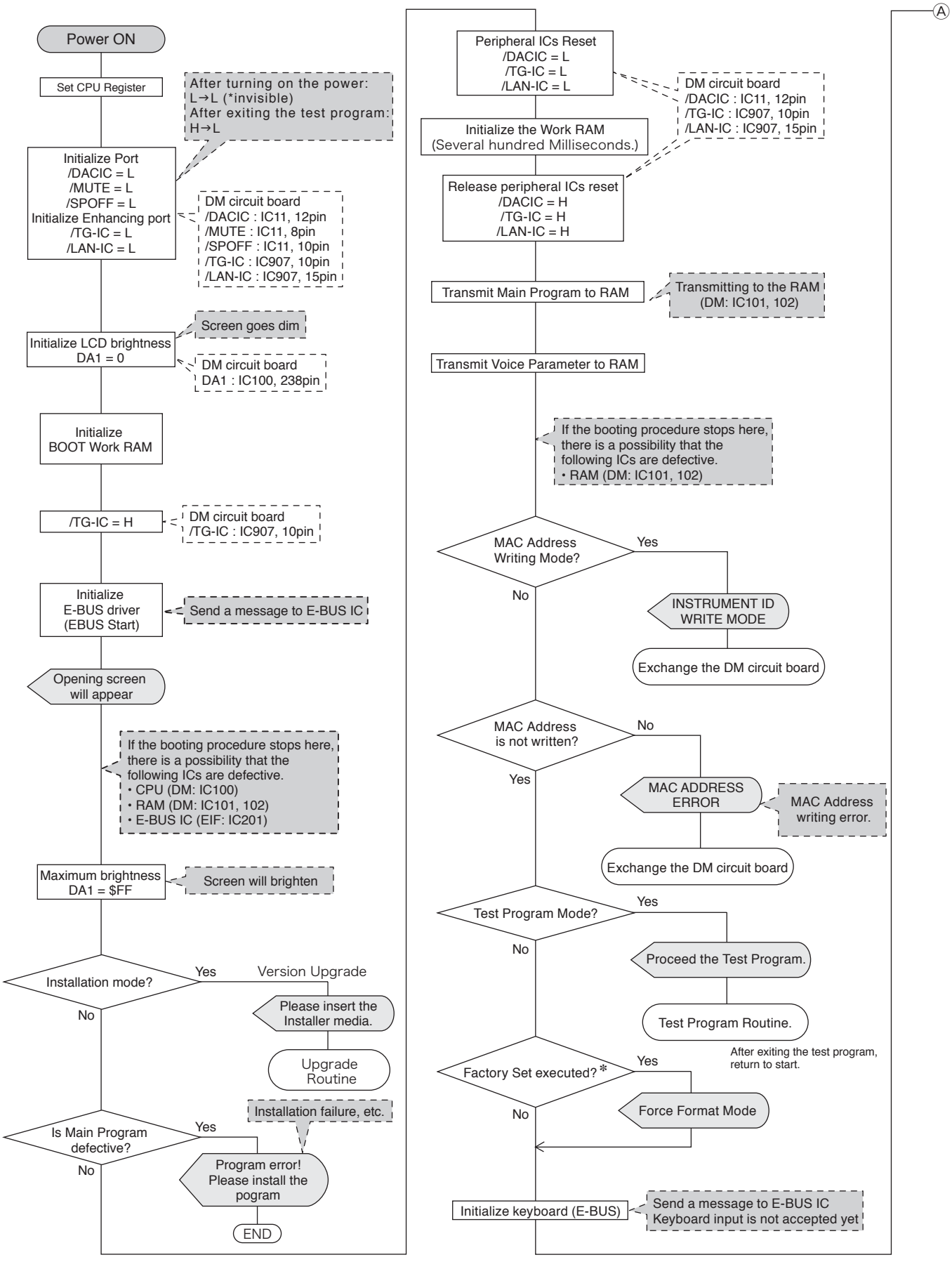
2 Call up the operation display.
[FUNCTION] → [J] UTILITY → TAB [◄][►] OWNER

3 Press the [D] (BACKUP) button to save the data to the USB storage device.
To restore the data, press the [E] (RESTORE) button in step 3 above.

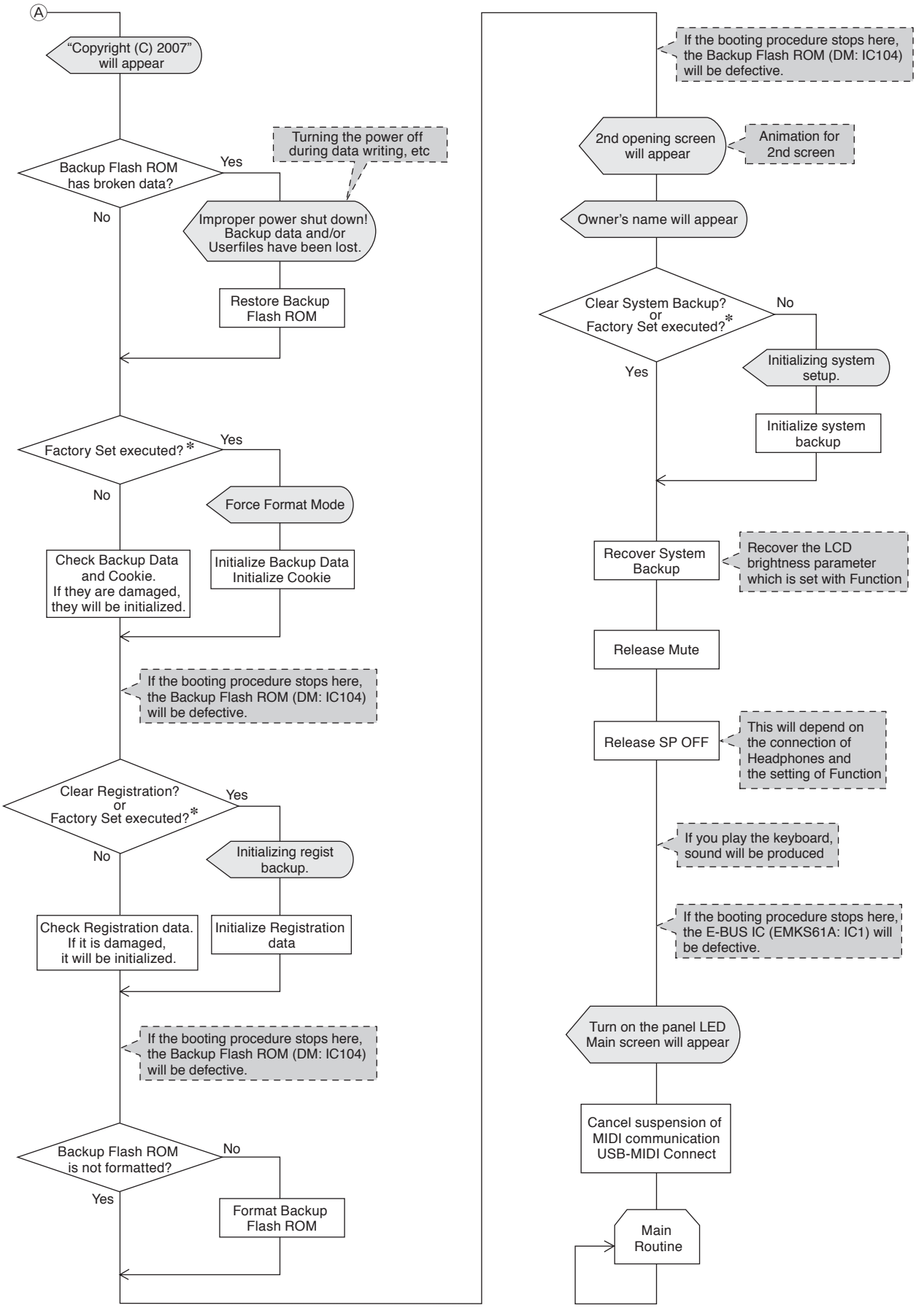
- **It takes a few minutes to complete the backup/restore operation.**
- **Backup data which has not been created on the PSR-OR700 cannot be restored.**

⚠ Move the Protected Songs which are saved to the USER display before restoring. If the songs are not moved, the operation deletes the data.

SYSTEM BOOTING FLOWCHART



* "Factory Set" refers to the condition of turning on the power after executing "Factory Set" in the Test Program.


A
"Copyright (C) 2007" will appear
Backup Flash ROM has broken data?
Yes
No
Turning the power off during data writing, etc
Improper power shut down! Backup data and/or Userfiles have been lost.
Restore Backup Flash ROM
Factory Set executed? *
Yes
No
Force Format Mode
Check Backup Data and Cookie. If they are damaged, they will be initialized.
Initialize Backup Data Initialize Cookie
If the booting procedure stops here, the Backup Flash ROM (DM: IC104) will be defective.
Clear Registration? or Factory Set executed? *
Yes
No
Initializing regist backup.
Check Registration data. If it is damaged, it will be initialized.
Initialize Registration data
If the booting procedure stops here, the Backup Flash ROM (DM: IC104) will be defective.
Backup Flash ROM is not formatted?
No
Yes
Format Backup Flash ROM
If the booting procedure stops here, the Backup Flash ROM (DM: IC104) will be defective.
2nd opening screen will appear
Animation for 2nd screen
Owner's name will appear
Clear System Backup? or Factory Set executed? *
No
Yes
Initializing system setup.
Initialize system backup
Recover System Backup
Recover the LCD brightness parameter which is set with Function
Release Mute
Release SP OFF
This will depend on the connection of Headphones and the setting of Function
If you play the keyboard, sound will be produced
If the booting procedure stops here, the E-BUS IC (EMKS61A: IC1) will be defective.
Turn on the panel LED Main screen will appear
Cancel suspension of MIDI communication USB-MIDI Connect
Main Routine

MIDI IMPLEMENTATION CHART

YAMAHA [Portable Keyboard] Date : 08-May-2006
Model PSR-OR700 MIDI Implementation Chart Version : 1.00

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default	1 - 16	1 - 16	
	Changed	1 - 16	1 - 16	
Mode	Default	3	3	
	Messages	×	×	
	Altered	**********	×	
Note Number : True voice		0 - 127 **********	0 - 127 0 - 127	
Velocity	Note ON	○ 9nH,v=1-127	○ 9nH,v=1-127	
	Note OFF	× 9nH,v=0	×	
After Touch	Key's	×	○	
	Ch's	×	○	
Pitch Bend		○	○ 0 - 24 semi	
Control Change	0,32	○	○	Bank Select
	1,5,7,10,11	○	○	
	6,38	○	○	Data Entry
	64,65,66,67	○	○	
	71,72,73,74	○	○	Sound Controller
	84	○	○	Portamento Cntrl
	91,93,94	○	○	Effect Depth
	96,97	×	○	RPN Inc,Dec
	98,99	○	○	NRPN LSB,MSB
	100,101	○	○	RPN LSB,MSB
Prog Change : True #		○ 0 - 127 **********	○ 0 - 127	
System Exclusive		○	○	
Common	: Song Pos.	×	×	
	: Song Sel.	×	×	
	: Tune	×	×	
System Real Time	: Clock	○	○	
	: Commands	○	○	
Aux Mes-sages	: All Sound Off	×	○ (120,126,127)	
	: Reset All Cntrls	×	○ (121)	
	: Local ON/OFF	×	○ (122)	
	: All Notes OFF	×	○ (123-125)	
	: Active Sense	○	○	
	: Reset	×	×	
Notes:				

Mode 1 : OMNI ON , POLY Mode 2 : OMNI ON ,MONO ○ : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF,MONO × : 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	0110 0000
65	41	0110 0001
66	42	0110 0010
67	43	0110 0011
68	44	0110 0100
69	45	0110 0101
70	46	0110 0110
71	47	0110 0111
72	48	0110 1000
73	49	0110 1001
74	4A	0110 1010
75	4B	0110 1011
76	4C	0110 1100
77	4D	0110 1101
78	4E	0110 1110
79	4F	0110 1111
80	50	0111 0000
81	51	0111 0001
82	52	0111 0010
83	53	0111 0011
84	54	0111 0100
85	55	0111 0101
86	56	0111 0110
87	57	0111 0111
88	58	0111 1000
89	59	0111 1001
90	5A	0111 1010
91	5B	0111 1011
92	5C	0111 1100
93	5D	0111 1101
94	5E	0111 1110
95	5F	0111 1111

Decimal	Hexadecimal	Binary
96	60	0100 0000
97	61	0100 0001
98	62	0100 0010
99	63	0100 0011
100	64	0100 0100
101	65	0100 0101
102	66	0100 0110
103	67	0100 0111
104	68	0100 1000
105	69	0100 1001
106	6A	0100 1010
107	6B	0100 1011
108	6C	0100 1100
109	6D	0100 1101
110	6E	0100 1110
111	6F	0100 1111
112	70	0101 0000
113	71	0101 0001
114	72	0101 0010
115	73	0101 0011
116	74	0101 0100
117	75	0101 0101
118	76	0101 0110
119	77	0101 0111
120	78	0101 1000
121	79	0101 1001
122	7A	0101 1010
123	7B	0101 1011
124	7C	0101 1100
125	7D	0101 1101
126	7E	0101 1110
127	7F	0101 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/F0H/1111 0000 denotes the start of a System Exclusive Message. 247/F7H/1111 0111 denotes the end of a System Exclusive Message.
- aaH (hexadecimal)/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.

MIDI CHANNEL MESSAGE (1)

[MIDI] [Song Creator]

MIDI Events	Status byte	1st Data byte			2nd Data byte			Voice	MIDI Reception					MIDI Transmission					PLAY		REC
	Status	Data	(HEX)	Parameter	Data	(HEX)	Parameter	Regular/Drum/ Natural/Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
Key Off [GM1] [GM2]	8nH (n: Channel Number)	kk		Key no. (0-127)	vv		Velocity (0-127)	O	O	O	O	O	O	X	X	O	O	X	O	X	X
Key On [GM1] [GM2]	9nH (n: Channel Number)	kk		Key no. (0-127)	vv		Key On: vv=1-127 Key Off: vv=0	O	O	O	O	O	O	●	O	O	O	●	O	X	O
Control Change	BnH (n: Channel Number)	0	(00H)	Bank Select MSB [GM2]	0 8 64 120 121 126 127	(00H) (08H) (40H) (78H) (79H) (7EH) (7FH)	Normal Mega Voice SFX Voice GM2 Rhythm GM2 Normal SFX Kit Drum Kit	O	O	O	O (Right1)	O	O	●	O	●	●	X	O	O	O
		1	(01H)	Modulation [GM1] [GM2]	0-127	(00H...7FH)	Data	O	O	O	O (All Keyboard parts)	O	O	●	O	O	O	●	O	O	O
		5	(05H)	Portamento Time [GM2]	0-127	(00H...7FH)	Data	O (Except Organ Flutes)	O	O	O (All Keyboard parts)	X	O	●	O	X	O	X	O	O	O
		6	(06H)	Data Entry MSB [GM2]	0-127	(00H...7FH)	Data	O	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	X	O
		7	(07H)	Main Volume [GM1] [GM2]	0-127	(00H...7FH)	Data	O	O	O	O (All Keyboard parts)	O	O	●	O	●	●	X	O	O	O
		10	(0AH)	Panpot [GM1] [GM2]	0-127	(00H...7FH)	L64...C...R63	O	O	O	O (All Keyboard parts)	O	O	●	O	●	●	X	O	O	O
		11	(0BH)	Expression [GM1] [GM2]	0-127	(00H...7FH)	Data	O	O	O	O (All Keyboard parts)	O	O	●	●	●	●	●	O	O	O
		32	(20H)	Bank Select LSB [GM2]	0-127	(00H...7FH)	Data	O	O	O	O (Right1)	O	O	●	O	●	●	X	O	O	O
		38	(26H)	Data Entry LSB [GM2]	0-127	(00H...7FH)	Data	O	O	O	O (All Keyboard parts)	X	O	●	O	X	O	X	O	X	O
		64	(40H)	Sustain (Damper) [GM1] [GM2]	0-127	(00H...7FH)	Data	O	O	O	O (All Keyboard parts)	X	O	●	O	X	O	●	O	O	O
		65	(41H)	Portamento [GM2]	0-127	(00H...7FH)	0...63, 64...127 (OFF, ON)	O (Except Natural Piano, Organ Flutes)	O	O	O (All Keyboard parts)	X	O	●	O	X	O	●	O	O	O
		66	(42H)	Sostenuto [GM2]	0-127	(00H...7FH)	0...63, 64...127 (OFF, ON)	O	O	O	O (All Keyboard parts)	X	O	●	O	X	O	●	O	O	O
		67	(43H)	Soft Pedal [GM2]	0-127	(00H...7FH)	0...63, 64...127 (OFF, ON)	O	O	O	O (All Keyboard parts)	X	O	●	O	X	O	●	O	O	O
		71	(47H)	Harmonic Content [GM2]	0-127	(00H...7FH)	-64...0...+63	O	O	O	O (All Keyboard parts)	O	O	●	O	●	●	X	O	O	O
		72	(48H)	Release Time [GM2]	0-127	(00H...7FH)	-64...0...+63	O	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	O	O
		73	(49H)	Attack Time [GM2]	0-127	(00H...7FH)	-64...0...+63	O	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	O	O
		74	(4AH)	Brightness [GM2]	0-127	(00H...7FH)	-64...0...+63	O	O	O	O (All Keyboard parts)	O	O	●	O	●	●	X	O	O	O
		75	(4BH)	Decay Time [GM2]	0-127	(00H...7FH)	-64...0...+63	O	O	O	O (All Keyboard parts)	O	O	X	X	X	O	X	O	O	X
		76	(4CH)	Vibrato Rate [GM2]	0-127	(00H...7FH)	-64...0...+63	O	O	O	O (All Keyboard parts)	O	O	X	X	X	O	X	O	O	X
		77	(4DH)	Vibrato Depth [GM2]	0-127	(00H...7FH)	-64...0...+63	O	O	O	O (All Keyboard parts)	O	O	X	X	X	O	X	O	O	X
		78	(4EH)	Vibrato Delay [GM2]	0-127	(00H...7FH)	-64...0...+63	O	O	O	O (All Keyboard parts)	O	O	X	X	X	O	X	O	O	X
		84	(54H)	Portamento Control	0-127	(00H...7FH)	Key no. (0-127)	O	O	O	X	O	O	O	O	●	O	X	O	X	O
		91	(5BH)	Effect1 Depth (Reverb Send Level) [GM2]	0-127	(00H...7FH)	Data	O	O	O	O (All Keyboard parts)	O	O	●	●	●	●	X	O	O	O
		93	(5DH)	Effect3 Depth (Chorus Send Level) [GM2]	0-127	(00H...7FH)	Data	O	O	O	O (All Keyboard parts)	O	O	●	●	●	●	X	O	O	O
		94	(5EH)	Effect4 Depth (Variation Send Level)	0-127	(00H...7FH)	Data	O	O	O	O (All Keyboard parts)	O	O	O	O	●	●	X	O	O	X Multi Part Record-ing
		96	(60H)	RPN Increment	-	-	The data byte is ignored.	O	O	O	X	O	O	X	O	X	O	X	O	X	X
		97	(61H)	RPN Decrement	-	-	The data byte is ignored.	O	O	O	X	O	O	X	O	X	O	X	O	X	X
		98	(62H)	NRPN LSB	0-127	(00H...7FH)	Data	O	O	O	X	O	O	●	O	O	O	X	O	O	O
		99	(63H)	NRPN MSB	0-127	(00H...7FH)	Data	O	O	O	X	O	O	●	O	O	O	X	O	O	O
		100	(64H)	RPN LSB [GM2]	0-127	(00H...7FH)	Data	O	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	O	O
		101	(65H)	RPN MSB [GM2]	0-127	(00H...7FH)	Data	O	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	O	O

[MIDI] [Song Creator]

MIDI Events	Status byte	1st Data byte			2nd Data byte			Voice	MIDI Reception					MIDI Transmission					PLAY	REC	
	Status	Data	(HEX)	Parameter	Data	(HEX)	Parameter	Regular/Drum/ Natural/Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
Mode Message	BnH (n: Channel Number)	120	(78H)	All Sound Off [GM2]	0	(00H)	Data	O	O	O	O (All Keyboard parts)	O	O	X	O	X	O	X	O	X	X
		121	(79H)	Reset All Controllers [GM1] [GM2]	0	(00H)	Data	O	O	X	X	X	X	X	O	X	O	X	O	X	X
		122	(7AH)	Local Control	0 127	(00H) (7FH)	OFF ON	-	O					X	X	X	X	X	X	X	X
		123	(7BH)	All Note Off [GM1] [GM2]	0	(00H)	Data	O	O	O	O (All Keyboard parts)	O	O	X	O	X	O	X	O	X	X
		124	(7CH)	Omni Off [GM2]	0	(00H)	Data	O	O (*1)	X	X	X	X	X	O	X	O	X	O	X	X
		125	(7DH)	Omni On [GM2]	0	(00H)	Data	O	O (*2)	X	X	X	X	X	O	X	O	X	O	X	X
		126	(7EH)	Mono [GM2]	0-16	(00H...10H)	Data	O	O	X	X	X	X	X	O	X	O	X	O	X	X
		127	(7FH)	Poly [GM2]	0	(00H)	Data	O	O	X	X	X	X	X	O	X	O	X	O	X	X
Program Change [GM1] [GM2]	CnH (n: Channel Number)	pp	(00H... 7FH)	Voice Number (0-127)	-	-	-	O	O	O	O (Right1)	O	O	●	O	●	●	X	O	O	O
Channel After Touch [GM1] [GM2]	DnH (n: Channel Number)	vv	(00H... 7FH)	Data	-	-	-	O	O	O	O (All Keyboard parts)	X	O	X	O	X	O	X	O	X	O
Polyphonic After Touch	AnH (n: Channel Number)	kk	(00H... 7FH)	Key no. (0-127)	vv	(00H...7FH)	Data	O	O	X	X	X	X	X	X	X	O	X	O	X	X
Pitch Bend Change [GM1] [GM2]	EnH (n: Channel Number)	cc	(00H... 7FH)	LSB	dd	(00H...7FH)	MSB	O	O	O	O (All Keyboard parts)	O	O	●	O	O	O	●	O	O	O
Realtime Message	F8H MIDI Clock	-		-	-		-	-	O (Received when the Clock is set to MIDI, USB1, or USB2.)					O (Transmitted when the Clock is set to Internal and the Transmit Clock is set to on.)					-	-	-
	FAH Start	-		-	-		-	-	O (Received when the Clock is set to MIDI, USB1, or USB2.)					O (Transmitted when the Transmit Clock is set to on.)					-	-	-
	FBH Continue	-		-	-		-	-	X					X					-	-	-
	FCH Stop	-		-	-		-	-	O (Received when the Clock is set to MIDI, USB1, or USB2.)					O (Transmitted when the Transmit Clock is set to on.)					-	-	-
	FEH Active Sense [GM2]	-		-	-		-	-	O					O					-	-	-
	FFH System Reset	-		-	-		-	-	X					X					-	-	-

●: Transmitted via panel operations and keyboard/controller performances.

*1: Same operation as when receiving All Note Off.
*2: Same operation as when receiving All Note Off. OMNI ON is not enabled.

[GM1] ... GM Required Parameter
[GM2] ... GM Level 2 Required Parameter

MIDI CHANNEL MESSAGE (2)

NRPN

[MIDI] [Song Creator]

NRPN		Data Entry		Parameter	Data Range	Voice	MIDI Reception					MIDI Transmission					PLAY		REC
MSB	LSB	MSB	LSB			Regular/Drum/ Natural/Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
01H	08H	mmH	--	Vibrato Rate	mm: 00H-40H-7FH (-64...0...+63)	O	O	O	X	O	O	●	O	O	O	X	O	O	O
01H	09H	mmH	--	Vibrato Depth	mm: 00H-40H-7FH (-64...0...+63)	O	O	O	X	O	O	●	O	O	O	X	O	O	O
01H	0AH	mmH	--	Vibrato Delay	mm: 00H-40H-7FH (-64...0...+63)	O	O	O	X	O	O	●	O	O	O	X	O	O	O
01H	20H	mmH	--	Low Pass Filter Cutoff Frequency	mm: 00H-40H-7FH (-64...0...+63)	O	O	X	X	O	X	X	O	X	O	X	O	O	X
01H	21H	mmH	--	Low Pass Filter Resonance	mm: 00H-40H-7FH (-64...0...+63)	O	O	X	X	O	X	X	O	X	O	X	O	O	X
01H	30H	mmH	--	EQ Bass Gain	mm: 00H-40H-7FH (-64...0...+63)	O	O	X	X	O	X	X	X	X	O	X	O	O	X
01H	31H	mmH	--	EQ Treble Gain	mm: 00H-40H-7FH (-64...0...+63)	O	O	X	X	O	X	X	X	X	O	X	O	O	X
01H	34H	mmH	--	EQ Bass Frequency	mm: 04H-28H (32...2.0k[Hz])	O	O	X	X	X	X	X	X	X	O	X	O	O	X
01H	35H	mmH	--	EQ Treble Frequency	mm: 1CH-3AH (500...16.0k[Hz])	O	O	X	X	X	X	X	X	X	O	X	O	O	X
01H	63H	mmH	--	EG Attack Time	mm: 00H-40H-7FH (-64...0...+63)	O	O	X	X	O	X	X	O	X	O	X	O	O	X
01H	64H	mmH	--	EG Decay Time	mm: 00H-40H-7FH (-64...0...+63)	O	O	O	X	O	O	●	O	O	O	X	O	O	O
01H	66H	mmH	--	EG Release	mm: 00H-40H-7FH (-64...0...+63)	O	O	X	X	O	X	X	O	X	O	X	O	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)	O	X	X	X	X	X	X	O	O	X	O	X	X
15H	rrH	mmH	--	Drum Low Pass Filter Resonance	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	O (Drum only)	O	X	X	X	X	X	X	O	O	X	O	X	X
16H	rrH	mmH	--	Drum EG Attack Rate	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	O (Drum only)	O	X	X	X	X	X	X	O	O	X	O	X	X
17H	rrH	mmH	--	Drum EG Decay Rate	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	O (Drum only)	O	X	X	X	X	X	X	O	O	X	O	X	X
18H	rrH	mmH	--	Drum Pitch Coarse	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	O (Drum only)	O	X	X	X	X	X	X	O	O	X	O	X	X
19H	rrH	mmH	--	Drum Pitch Fine	rr: drum instrument note number mm: 00H-40H-7FH (-64...0...+63)	O (Drum only)	O	X	X	X	X	X	X	O	O	X	O	X	X
1AH	rrH	mmH	--	Drum Level	rr: drum instrument note number mm: 00H-7FH (0...127)	O (Drum only)	O	X	X	X	X	X	X	O	O	X	O	X	X
1CH	rrH	mmH	--	Drum Pan	rr: drum instrument note number mm: 00H, 01H-40H-7FH (RND, L63...C...R63)	O (Drum only)	O	X	X	X	X	X	X	O	O	X	O	X	X
1DH	rrH	mmH	--	Drum Reverb Send Level	rr: drum instrument note number mm: 00H-7FH (0...127)	O (Drum only)	O	X	X	X	X	X	X	O	O	X	O	X	X
1EH	rrH	mmH	--	Drum Chorus Send Level	rr: drum instrument note number mm: 00H-7FH (0...127)	O (Drum only)	O	X	X	X	X	X	X	O	O	X	O	X	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)	O (Drum only)	O	X	X	X	X	X	X	O	O	X	O	X	X
30H	rrH	mmH	--	Drum EQ Bass Gain	rr: drum instrument note number mm: 00H-7FH (0...127)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
31H	rrH	mmH	--	Drum EQ Treble Gain	rr: drum instrument note number mm: 00H-7FH (0...127)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
34H	rrH	mmH	--	Drum EQ Bass Frequency	rr: drum instrument note number mm: 04H-28H (32...2.0k[Hz])	X	X	X	X	X	X	X	X	X	X	X	X	X	X
35H	rrH	mmH	--	Drum EQ Treble Frequency	rr: drum instrument note number mm: 1CH-3AH (500...16.0k[Hz])	X	X	X	X	X	X	X	X	X	X	X	X	X	X

●: Transmitted via panel operations and keyboard/controller performances.

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

RPN

[MIDI] [Song Creator]

RPN		Data Entry		Parameter	Data Range	Voice	MIDI Reception					MIDI Transmission					PLAY		REC
MSB	LSB	MSB	LSB			Regular/Drum/ Natural/Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/Left)
00H	00H	mmH	--	Pitch Bend Sensitivity [GM1] [GM2]	mm: 00H-18H (0...+24[semitones])	O	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	O	O
00H	01H	mmH	llH	Fine Tune [GM1] [GM2]	mm ll: 00H 00H -100[cent] ... mm ll: 40H 00H 0[cent] ... mm ll: 7FH 7FH 100[cent]	O	O	O	O (All Keyboard parts)	O	O	●	O	O	O	X	O	O	O
00H	02H	mmH	--	Coarse Tune [GM1] [GM2]	mm: 28H-40H-58H (-24...0...+24[semitones])	O	O	O	O (All Keyboard parts)	O	O	X	O	O	O	X	O	O	X
00H	05H	mmH	llH	Modulation Sensitivity [GM2]	mm: Specified in semitone steps ll: Specified in 100/128 cent steps	O	O	X	X	X	X	X	X	X	O	X	O	X	X
7FH	7FH	--	--	Null [GM2]	-	O	O	O	O (All Keyboard parts)	O	O	X	O	O	O	X	O	X	X

●: Transmitted via panel operations and keyboard/controller performances.

[GM1] ... GM Required Parameter
[GM2] ... GM Level 2 Required Parameter

XG PARAMETER CHANGE TABLE

* Not received when Receive System Exclusive Message Parameters is set to off.
* Not transmitted when Transmit System Exclusive Message Parameters is set to off.

MIDI Parameter Change table (XG SYSTEM)

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI] Voice	[MIDI] MIDI Reception					[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
								Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/Left)
00	00	00 01 02 03	4	00-0F 00-0F 00-0F 00-0F	MASTER TUNE	-102.4...0...+102.3[cent] 1st bit3-0 -> bit15-12 2nd bit3-0 -> bit11-8 3rd bit3-0 -> bit7-4 4th bit3-0 -> bit3-0	*Panel setting value	O	O					●					O	X	X
		04	1	00-7F	MASTER VOLUME	0...127	7F	O	O (Available for extra parts of a song)					O					O	O	X
		05	1	00-7F	MASTER ATTENUATOR	0...127	00	X	X					X					X	X	X
		06	1	28-58	TRANSPOSE	-24...0...+24[semitones]	40	O	O (Available for extra parts of a song)					O					O	O	X
		7D	1	N	DRUM SETUP RESET	N: Drum setup number	-	O (Drum only)	O (Available for extra parts of a song)					O					O	X	X
		7E	1	00	XG SYSTEM ON	00=XG system ON	-	O	O (Available for extra parts of a song)					O					O	X	O
		7F	1	00	ALL PARAMETER RESET	00=ON	-	O	O (Available for extra parts of a song)					O					O	X	X

TOTAL SIZE 07

●: Transmitted via panel operations

MIDI Parameter Change table (SYSTEM INFORMATION)

Address (H)			Size (H)	Data (H)	Parameter	Description	[MIDI] Voice	[MIDI] MIDI Reception					[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
							Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/Left)
01	00	00 ... 0D 0E 0F	E 1 ... 1	20-7F ... 20-7F	Model Name 1 ... Model Name 14 NOT USED NOT USED	32...127 (ASCII CHARACTER) ... 32...127 (ASCII CHARACTER)	-	-					O (Available only when receiving requests via MIDI)					-	-	-

TOTAL SIZE 10

Transmitted in response to Dump Request. Not received.

MIDI Parameter Change table (EFFECT1)

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI] Voice	[MIDI] MIDI Reception					[MIDI] MIDI Transmission					[Song Creator] PLAY		[Song Creator] REC
								Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
02	01	00	2	00-7F 00-7F	REVERB TYPE MSB REVERB TYPE LSB	Refer to Effect Parameter List	01 (=HALL1) 00	O	O					●					O	O	O
		02	1	00-7F	REVERB PARAMETER 1		Depends on Reverb Type	O	O					●					O	O	O
		03	1	00-7F	REVERB PARAMETER 2		Depends on Reverb Type	O	O					●					O	O	O
		04	1	00-7F	REVERB PARAMETER 3		Depends on Reverb Type	O	O					●					O	O	O
		05	1	00-7F	REVERB PARAMETER 4		Depends on Reverb Type	O	O					●					O	O	O
		06	1	00-7F	REVERB PARAMETER 5		Depends on Reverb Type	O	O					●					O	O	O
		07	1	00-7F	REVERB PARAMETER 6		Depends on Reverb Type	O	O					●					O	O	O
		08	1	00-7F	REVERB PARAMETER 7		Depends on Reverb Type	O	O					●					O	O	O
		09	1	00-7F	REVERB PARAMETER 8		Depends on Reverb Type	O	O					●					O	O	O
		0A	1	00-7F	REVERB PARAMETER 9	Refer to Effect Parameter List	Depends on Reverb Type	O	O					●					O	O	O
		0B	1	00-7F	REVERB PARAMETER 10		Depends on Reverb Type	O	O					●					O	O	O
		0C	1	00-7F	REVERB RETURN	-∞dB...0dB...+6dB (0...64...127)	40	O	O					●					O	O	O
		0D	1	01-7F	REVERB PAN	L63...C...R63	40	O	O					O					O	O	X

TOTAL SIZE 0E

02	01	10	1	00-7F	REVERB PARAMETER 11	Refer to Effect Parameter List	Depends on Reverb Type	O	O					●					O	O	O
		11	1	00-7F	REVERB PARAMETER 12		Depends on Reverb Type	O	O					●					O	O	O
		12	1	00-7F	REVERB PARAMETER 13		Depends on Reverb Type	O	O					●					O	O	O
		13	1	00-7F	REVERB PARAMETER 14		Depends on Reverb Type	O	O					●					O	O	O
		14	1	00-7F	REVERB PARAMETER 15		Depends on Reverb Type	O	O					●					O	O	O
		15	1	00-7F	REVERB PARAMETER 16		Depends on Reverb Type	O	O					●					O	O	O

OTAL SIZE 06

●: Transmitted via panel operations

[MIDI] [Song Creator]

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Voice	MIDI Reception					MIDI Transmission					PLAY	REC
								Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	From panel (Right1/ Right2/ Left)
02	01	20	2	00-7F 00-7F	CHORUS TYPE MSB CHORUS TYPE LSB	Refer to Effect Parameter List	41 (=CHORUS1) 00	O		O						●			O	O
		22	1	00-7F	CHORUS PARAMETER 1		Depends on Chorus Type	O		O						●			O	O
		23	1	00-7F	CHORUS PARAMETER 2		Depends on Chorus Type	O		O						●			O	O
		24	1	00-7F	CHORUS PARAMETER 3		Depends on Chorus Type	O		O						●			O	O
		25	1	00-7F	CHORUS PARAMETER 4		Depends on Chorus Type	O		O						●			O	O
		26	1	00-7F	CHORUS PARAMETER 5		Depends on Chorus Type	O		O						●			O	O
		27	1	00-7F	CHORUS PARAMETER 6		Depends on Chorus Type	O		O						●			O	O
		28	1	00-7F	CHORUS PARAMETER 7		Depends on Chorus Type	O		O						●			O	O
		29	1	00-7F	CHORUS PARAMETER 8		Depends on Chorus Type	O		O						●			O	O
		2A	1	00-7F	CHORUS PARAMETER 9		Depends on Chorus Type	O		O						●			O	O
		2B	1	00-7F	CHORUS PARAMETER 10		Depends on Chorus Type	O		O						●			O	O
		2C	1	00-7F	CHORUS RETURN	-∞dB...0dB...+6dB (0...64...127)	40	O		O						●			O	O
		2D	1	01-7F	CHORUS PAN	L63...C...R63	40	O		O						O			O	X
		2E	1	00-7F	SEND CHORUS TO REVERB	-∞dB...0dB...+6dB (0...64...127)	00	O		O						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						●			O	O
		31	1	00-7F	CHORUS PARAMETER 12		Depends on Chorus Type	O		O						●			O	O
		32	1	00-7F	CHORUS PARAMETER 13		Depends on Chorus Type	O		O						●			O	O
		33	1	00-7F	CHORUS PARAMETER 14		Depends on Chorus Type	O		O						●			O	O
		34	1	00-7F	CHORUS PARAMETER 15		Depends on Chorus Type	O		O						●			O	O
		35	1	00-7F	CHORUS PARAMETER 16		Depends on Chorus Type	O		O						●			O	O

TOTAL SIZE 06

[MIDI] [Song Creator]

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Voice	MIDI Reception					MIDI Transmission					PLAY	REC
								Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	From panel (Right1/ Right2/ Left)
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						●			O	O
		42	2	00-7F 00-7F	VARIATION PARAMETER 1 MSB VARIATION PARAMETER 1 LSB		Depends on Variation Type	O		O						●			O	O
		44	2	00-7F 00-7F	VARIATION PARAMETER 2 MSB VARIATION PARAMETER 2 LSB		Depends on Variation Type	O		O						●			O	O
		46	2	00-7F 00-7F	VARIATION PARAMETER 3 MSB VARIATION PARAMETER 3 LSB		Depends on Variation Type	O		O						●			O	O
		48	2	00-7F 00-7F	VARIATION PARAMETER 4 MSB VARIATION PARAMETER 4 LSB		Depends on Variation Type	O		O						●			O	O
		4A	2	00-7F 00-7F	VARIATION PARAMETER 5 MSB VARIATION PARAMETER 5 LSB		Depends on Variation Type	O		O						●			O	O
		4C	2	00-7F 00-7F	VARIATION PARAMETER 6 MSB VARIATION PARAMETER 6 LSB		Depends on Variation Type	O		O						●			O	O
		4E	2	00-7F 00-7F	VARIATION PARAMETER 7 MSB VARIATION PARAMETER 7 LSB		Depends on Variation Type	O		O						●			O	O
		50	2	00-7F 00-7F	VARIATION PARAMETER 8 MSB VARIATION PARAMETER 8 LSB		Depends on Variation Type	O		O						●			O	O
		52	2	00-7F 00-7F	VARIATION PARAMETER 9 MSB VARIATION PARAMETER 9 LSB		Depends on Variation Type	O		O						●			O	O
		54	2	00-7F 00-7F	VARIATION PARAMETER 10 MSB VARIATION PARAMETER 10 LSB	Refer to Effect Parameter List	Depends on Variation Type	O		O						●			O	O
		56	1	00-7F	VARIATION RETURN	-∞dB...0dB...+6dB (0...64...127)	40	O		O						●			O	O
		57	1	01-7F	VARIATION PAN	L63...C...R63	40	O		O						O			O	X
		58	1	00-7F	SEND VARIATION TO REVERB	-∞dB...0dB...+6dB (0...64...127)	00	O		O						O			O	X
		59	1	00-7F	SEND VARIATION TO CHORUS	-∞dB...0dB...+6dB (0...64...127)	00	O		O						O			O	X
		5A	1	00-01	VARIATION CONNECTION	INSERTION, SYSTEM	00	O		O						●			O	O
		5B	1	00-7F	VARIATION PART NUMBER	Reception: Part1...16 (0...15) Transmission: Part1...16 (0...15) AD (64) OFF (127)	7F	O		O						●			O	O
		5C	1	00-7F	MW VARIATION CONTROL DEPTH	-64...0...+63	40	O		O						O			O	X
		5D	1	00-7F	BEND VARIATION CONTROL DEPTH	-64...0...+63	40	O		O						O			O	X
		5E	1	00-7F	CAT VARIATION CONTROL DEPTH	-64...0...+63	40	O		O						O			O	X
		5F	1	00-7F	AC1 VARIATION CONTROL DEPTH	-64...0...+63	40	O		O						O			O	X
		60	1	00-7F	AC2 VARIATION CONTROL DEPTH	-64...0...+63	40	O		O						O			O	X

TOTAL SIZE 21

02	01	70	1	00-7F	VARIATION PARAMETER 11	Refer to Effect Parameter List	Depends on Variation Type	O		O						●			O	O
		71	1	00-7F	VARIATION PARAMETER 12		Depends on Variation Type	O		O						●			O	O
		72	1	00-7F	VARIATION PARAMETER 13		Depends on Variation Type	O		O						●			O	O
		73	1	00-7F	VARIATION PARAMETER 14		Depends on Variation Type	O		O						●			O	O
		74	1	00-7F	VARIATION PARAMETER 15		Depends on Variation Type	O		O						●			O	O
		75	1	00-7F	VARIATION PARAMETER 16		Depends on Variation Type	O		O						●			O	O

TOTAL SIZE 06

●: Transmitted via panel operations.

MIDI Parameter Change table (MULTI EQ)

[MIDI] [Song Creator]

Address (H)			Size (H)	Data (H)	Parameter	Description		Voice	MIDI Reception					MIDI Transmission					PLAY	REC
								Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
02	40	00	1	00-04	EQ TYPE	flat, jazz, pops, rock, classic	*The MULTI EQ Parameter cannot be reset to its factory setting with XG SYSTEM ON.ß	O	O					O					O	X	X
		01	1	34-4C	EQ GAIN1	-12...0...+12[dB]		O	O					●					O	X	X
		02	1	04-28	EQ FREQUENCY1	32...2.0k[Hz]		O	O					●					O	X	X
		03	1	01-78	EQ Q1	0.1...12.0		O	O					●					O	X	X
		04	1	00-01	EQ SHAPE1	shelving, peaking		O	O					O					O	X	X
		05	1	34-4C	EQ GAIN2	-12...0...+12[dB]		O	O					●					O	X	X
		06	1	0E-36	EQ FREQUENCY2	100...10.0k[Hz]		O	O					●					O	X	X
		07	1	01-78	EQ Q2	0.1...12.0		O	O					●					O	X	X
		08	1		NOT USED			-	-					-					-	-	-
		09	1	34-4C	EQ GAIN3	-12...0...+12[dB]		O	O					●					O	X	X
		0A	1	0E-36	EQ FREQUENCY3	100...10.0k[Hz]		O	O					●					O	X	X
		0B	1	01-78	EQ Q3	0.1...12.0		O	O					●					O	X	X
		0C	1		NOT USED			-	-					-					-	-	-
		0D	1	34-4C	EQ GAIN4	-12...0...+12[dB]		O	O					●					O	X	X
		0E	1	0E-36	EQ FREQUENCY4	100...10.0k[Hz]		O	O					●					O	X	X
		0F	1	01-78	EQ Q4	0.1...12.0		O	O					●					O	X	X
		10	1		NOT USED			-	-					-					-	-	-
		11	1	34-4C	EQ GAIN5	-12...0...+12[dB]		O	O					●					O	X	X
		12	1	1C-3A	EQ FREQUENCY5	0.5k...16.0k[Hz]		O	O					●					O	X	X
		13	1	01-78	EQ Q5	0.1...12.0		O	O					●					O	X	X
		14	1	00-01	EQ SHAPE5	shelving, peaking		O	O					O					O	X	X

TOTAL SIZE 15

●: Transmitted via panel operations.

About PLAY column:
Not available when Function → Utility → Parameter Lock is checked.

MIDI Parameter Change table (EFFECT2)

[MIDI] [Song Creator]

Address (H)			Size (H)	Data (H)	Parameter	Description		Voice	MIDI Reception					MIDI Transmission					PLAY		REC
								Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
03	n	00	2	00-7F 00-7F	INSERTION EFFECT TYPE MSB INSERTION EFFECT TYPE LSB	Refer to Effect Parameter List	*The EFFECT 2 Parameter cannot be reset to its factory setting with XG SYSTEM ON.	O		O				●					O	O	O
		02	1	00-7F	INSERTION EFFECT PARAMETER 1			O		O				●					O	O	O
		03	1	00-7F	INSERTION EFFECT PARAMETER 2			O		O				●					O	O	O
		04	1	00-7F	INSERTION EFFECT PARAMETER 3			O		O				●					O	O	O
		05	1	00-7F	INSERTION EFFECT PARAMETER 4			O		O				●					O	O	O
		06	1	00-7F	INSERTION EFFECT PARAMETER 5			O		O				●					O	O	O
		07	1	00-7F	INSERTION EFFECT PARAMETER 6			O		O				●					O	O	O
		08	1	00-7F	INSERTION EFFECT PARAMETER 7			O		O				●					O	O	O
		09	1	00-7F	INSERTION EFFECT PARAMETER 8			O		O				●					O	O	O
		0A	1	00-7F	INSERTION EFFECT PARAMETER 9			O		O				●					O	O	O
		0B	1	00-7F	INSERTION EFFECT PARAMETER 10			O		O				●					O	O	O
		0C	1	00-7F	INSERTION EFFECT PART NUMBER	Reception: Part1...16 (0...15) Transmission: Part1...16 (0...15) AD (64) OFF (127)		O		O				●					O	O	O
		0D	1	00-7F	MW INSERTION CONTROL DEPTH	-64...0...+63		O		O				O					O	O	X
		0E	1	00-7F	BEND INSERTION CONTROL DEPTH	-64...0...+63		O		O				O					O	O	X
		0F	1	00-7F	CAT INSERTION CONTROL DEPTH	-64...0...+63		O		O				O					O	O	X
		10	1	00-7F	AC1 INSERTION CONTROL DEPTH	-64...0...+63		O		O				O					O	O	X
		11	1	00-7F	AC2 INSERTION CONTROL DEPTH	-64...0...+63		O		O				O					O	O	X

TOTAL SIZE 12

		20	1	00-7F	INSERTION EFFECT PARAMETER 11	Refer to Effect Parameter List		O		O				●					O	O	O
		21	1	00-7F	INSERTION EFFECT PARAMETER 12			O		O				●					O	O	O
		22	1	00-7F	INSERTION EFFECT PARAMETER 13			O		O				●					O	O	O
		23	1	00-7F	INSERTION EFFECT PARAMETER 14			O		O				●					O	O	O
		24	1	00-7F	INSERTION EFFECT PARAMETER 15			O		O				●					O	O	O
		25	1	00-7F	INSERTION EFFECT PARAMETER 16			O		O				●					O	O	O

TOTAL SIZE 6

[MIDI] [Song Creator]

Address (H)			Size (H)	Data (H)	Parameter	Description		Voice	MIDI Reception					MIDI Transmission					PLAY		REC
								Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
		30	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 1 MSB INSERTION EFFECT PARAMETER 1 LSB	Refer to Effect Parameter List		O		O				●					O	O	O
		32	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 2 MSB INSERTION EFFECT PARAMETER 2 LSB			O		O				●					O	O	O
		34	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 3 MSB INSERTION EFFECT PARAMETER 3 LSB			O		O				●					O	O	O
		36	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 4 MSB INSERTION EFFECT PARAMETER 4 LSB			O		O				●					O	O	O
		38	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 5 MSB INSERTION EFFECT PARAMETER 5 LSB			O		O				●					O	O	O
		3A	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 6 MSB INSERTION EFFECT PARAMETER 6 LSB			O		O				●					O	O	O
		3C	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 7 MSB INSERTION EFFECT PARAMETER 7 LSB			O		O				●					O	O	O
		3E	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 8 MSB INSERTION EFFECT PARAMETER 8 LSB			O		O				●					O	O	O
		40	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 9 MSB INSERTION EFFECT PARAMETER 9 LSB			O		O				●					O	O	O
		42	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 10 MSB INSERTION EFFECT PARAMETER 10 LSB			O		O				●					O	O	O

TOTAL SIZE 14

●: Transmitted via panel operations

The second byte of the address is considered as an Insertion effect number
n: insertion effect number (n=0~2)

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 addresses 02-0B will always be transmitted.
For effects that require MSB however, when a bulk dump is received, the parameters for addresses 02-0B will not be received.

MIDI Parameter Change table (MULTI PART)

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI] Voice	[MIDI] MIDI Reception					[MIDI] MIDI Transmission						[Song Creator] PLAY	[Song Creator] REC
								Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
08	nn	00	1	00-20	ELEMENT RESERVE	0...32	part10, 26=0, other parts=2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		01	1	00-7F	BANK SELECT MSB	0...127	part10=7F, other parts=00	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		02	1	00-7F	BANK SELECT LSB	0...127	00	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		03	1	00-7F	PROGRAM NUMBER	1...128	00	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		04	1	00-0F, 7F	Rcv CHANNEL	1...16, OFF	Part No.	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		05	1	00-01	MONO/POLY MODE	MONO, POLY	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		06	1	00-02	SAME NOTE NUMBER KEY ON ASSIGN	SINGLE, MULTI, INST (for Drum)	01	O	O	X	X	O	X	X	X	X	O	X	O	X	X
		07	1	00-03	PART MODE	NORMAL, DRUM, DRUMS1...2	part10=02, other parts=00	O	O	X	X	X	X	●	X	●	●	X	O	X	O
		08	1	28-58	NOTE SHIFT	-24...0...+24[semitones]	40	O	O	O	X	O	O	X	X	X	O	X	O	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	O	O	X	O	O	X	X	X	O	X	O	X	X
		0B	1	00-7F	VOLUME	0...127	64	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		0C	1	00-7F	VELOCITY SENSE DEPTH	0...127	40	O	O	O	X	X	O	●	O	X	O	X	O	O	O
		0D	1	00-7F	VELOCITY SENSE OFFSET	0...127	40	O	O	O	X	X	O	●	O	X	O	X	O	O	O
		0E	1	00-7F	PAN	RND, L63...C...R63	40	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		0F	1	00-7F	NOTE LIMIT LOW	C-2...G8	00	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		10	1	00-7F	NOTE LIMIT HIGH	C-2...G8	7F	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		11	1	00-7F	DRY LEVEL	0...127	7F	O	O	O	X	O	O	X	O	●	●	X	O	O	O
		12	1	00-7F	CHORUS SEND	0...127	00	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		13	1	00-7F	REVERB SEND	0...127	28	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		14	1	00-7F	VARIATION SEND	0...127	00	O	O	O	X	O	O	X	X	X	O	X	O	O	O
		15	1	00-7F	VIBRATO RATE	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		16	1	00-7F	VIBRATO DEPTH	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		17	1	00-7F	VIBRATO DELAY	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		18	1	00-7F	FILTER CUTOFF FREQUENCY	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		19	1	00-7F	FILTER RESONANCE	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		1A	1	00-7F	EG ATTACK TIME	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		1B	1	00-7F	EG DECAY TIME	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		1C	1	00-7F	EG RELEASE TIME	-64...0...+63	40	O	O	O	X	O	O	X	X	X	O	X	O	O	X
		1D	1	28-58	MW PITCH CONTROL	-24...0...+24[semitones]	40	O	O	O	X	X	O	X	X	X	O	X	O	X	X
		1E	1	00-7F	MW LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	O	O	X	X	O	●	O	X	O	X	O	O	O
		1F	1	00-7F	MW AMPLITUDE CONTROL	-100...0...+100[%]	40	O	O	O	X	X	O	X	X	X	O	X	O	X	X
		20	1	00-7F	MW LFO PMOD DEPTH	0...127	0A	O	O	O	X	X	O	●	O	X	O	X	O	O	O
		21	1	00-7F	MW LFO FMOD DEPTH	0...127	00	O	O	O	X	X	O	●	O	X	O	X	O	O	O
		22	1	00-7F	MW LFO AMOD DEPTH	0...127	00	O	O	O	X	X	O	●	O	X	O	X	O	O	O
		23	1	28-58	BEND PITCH CONTROL	-24...0...+24[semitones]	42	O	O	O	X	O	O	X	X	X	O	X	O	X	X
		24	1	00-7F	BEND LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	O	O	X	O	O	X	X	X	O	X	O	X	X
		25	1	00-7F	BEND AMPLITUDE CONTROL	-100...0...+100[%]	40	O	O	O	X	O	O	X	X	X	O	X	O	X	X
		26	1	00-7F	BEND LFO PMOD DEPTH	0...127	00	O	O	O	X	O	O	X	X	X	O	X	O	X	X
		27	1	00-7F	BEND LFO FMOD DEPTH	0...127	00	O	O	O	X	O	O	X	X	X	O	X	O	X	X
		28	1	00-7F	BEND LFO AMOD DEPTH	0...127	00	O	O	O	X	O	O	X	X	X	O	X	O	X	X

TOTAL SIZE 29

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	[MIDI] Voice	[MIDI] MIDI Reception					[MIDI] MIDI Transmission						[Song Creator] PLAY	[Song Creator] REC
								Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	Panel (Right1/ Right2/ Left)
		30	1	00-01	Rcv PITCH BEND	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		31	1	00-01	Rcv CH AFTER TOUCH (CAT)	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		32	1	00-01	Rcv PROGRAM CHANGE	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		33	1	00-01	Rcv CONTROL CHANGE	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		34	1	00-01	Rcv POLY AFTER TOUCH (PAT)	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		35	1	00-01	Rcv NOTE MESSAGE	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		36	1	00-01	Rcv RPN	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		37	1	00-01	Rcv NRPN	OFF, ON	XGmode=01, GMmode=00	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		38	1	00-01	Rcv MODULATION	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		39	1	00-01	Rcv VOLUME	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		3A	1	00-01	Rcv PAN	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		3B	1	00-01	Rcv EXPRESSION	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		3C	1	00-01	Rcv HOLD1	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		3D	1	00-01	Rcv PORTAMENTO	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		3E	1	00-01	Rcv SOSTENUTO	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		3F	1	00-01	Rcv SOFT PEDAL	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		40	1	00-01	Rcv BANK SELECT	OFF, ON	01	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		41	1	00-7F	SCALE TUNING C	-64...0...+63[cent]	40	O	O	O	X	O	O	●	X	●	O	X	O	O	O
		42	1	00-7F	SCALE TUNING C#	-64...0...+63[cent]	40	O	O	O	X	O	O	●	X	●	O	X	O	O	O
		43	1	00-7F	SCALE TUNING D	-64...0...+63[cent]	40	O	O	O	X	O	O	●	X	●	O	X	O	O	O
		44	1	00-7F	SCALE TUNING D#	-64...0...+63[cent]	40	O	O	O	X	O	O	●	X	●	O	X	O	O	O
		45	1	00-7F	SCALE TUNING E	-64...0...+63[cent]	40	O	O	O	X	O	O	●	X	●	O	X	O	O	O
		46	1	00-7F	SCALE TUNING F	-64...0...+63[cent]	40	O	O	O	X	O	O	●	X	●	O	X	O	O	O
		47	1	00-7F	SCALE TUNING F#	-64...0...+63[cent]	40	O	O	O	X	O	O	●	X	●	O	X	O	O	O
		48	1	00-7F	SCALE TUNING G	-64...0...+63[cent]	40	O	O	O	X	O	O	●	X	●	O	X	O	O	O
		49	1	00-7F	SCALE TUNING G#	-64...0...+63[cent]	40	O	O	O	X	O	O	●	X	●	O	X	O	O	O
		4A	1	00-7F	SCALE TUNING A	-64...0...+63[cent]	40	O	O	O	X	O	O	●	X	●	O	X	O	O	O
		4B	1	00-7F	SCALE TUNING A#	-64...0...+63[cent]	40	O	O	O	X	O	O	●	X	●	O	X	O	O	O
		4C	1	00-7F	SCALE TUNING B	-64...0...+63[cent]	40	O	O	O	X	O	O	●	X	●	O	X	O	O	O
		4D	1	28-58	CAT PITCH CONTROL	-24...0...+24[semitones]	40	O	O	O	X	X	O	X	X	X	O	X	O	X	X
		4E	1	00-7F	CAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	O	O	X	X	O	X	O	X	O	X	O	O	X
		4F	1	00-7F	CAT AMPLITUDE CONTROL	-100...0...+100[%]	40	O	O	O	X	X	O	X	X	X	O	X	O	X	X
		50	1	00-7F	CAT LFO PMOD DEPTH	0...127	00	O	O	O	X	X	O	X	O	X	O	X	O	O	X
		51	1	00-7F	CAT LFO FMOD DEPTH	0...127	00	O	O	O	X	X	O	X	O	X	O	X	O	O	X
		52	1	00-7F	CAT LFO AMOD DEPTH	0...127	00	O	O	O	X	X	O	X	O	X	O	X	O	O	X
		53	1	28-58	PAT PITCH CONTROL	-24...0...+24[semitones]	40	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		54	1	00-7F	PAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		55	1	00-7F	PAT AMPLITUDE CONTROL	-100...0...+100[%]	40	O	O	X	X	X	X	X	X	X	O	X	O	X	X

[MIDI] [Song Creator]

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Voice	MIDI Reception					MIDI Transmission					PLAY	REC
								Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	Panel (Right1/ Right2/ Left)
		56	1	00-7F	PAT LFO PMOD DEPTH	0...127	00	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		57	1	00-7F	PAT LFO FMOD DEPTH	0...127	00	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		58	1	00-7F	PAT LFO AMOD DEPTH	0...127	00	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		59	1	00-5F	AC1 CONTROLLER NUMBER	0...95	10	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		5A	1	28-58	AC1 PITCH CONTROL	-24...0...+24[semitones]	40	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		5B	1	00-7F	AC1 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		5C	1	00-7F	AC1 AMPLITUDE CONTROL	-100...0...+100[%]	40	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		5D	1	00-7F	AC1 LFO PMOD DEPTH	0...127	00	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		5E	1	00-7F	AC1 LFO FMOD DEPTH	0...127	00	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		5F	1	00-7F	AC1 LFO AMOD DEPTH	0...127	00	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		60	1	00-5F	AC2 CONTROLLER NUMBER	0...95	11	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		61	1	28-58	AC2 PITCH CONTROL	-24...0...+24[semitones]	40	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		62	1	00-7F	AC2 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		63	1	00-7F	AC2 AMPLITUDE CONTROL	-100...0...+100[%]	40	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		64	1	00-7F	AC2 LFO PMOD DEPTH	0...127	00	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		65	1	00-7F	AC2 LFO FMOD DEPTH	0...127	00	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		66	1	00-7F	AC2 LFO AMOD DEPTH	0...127	00	O	O	X	X	X	X	X	X	X	O	X	O	X	X
		67	1	00-01	PORTAMENTO SWITCH	OFF, ON	00	O (Except Natural Piano, Organ Flutes)	O	O	X	X	O	X	X	X	O	X	O	O	X
		68	1	00-7F	PORTAMENTO TIME	0...127	00	O	O	O	X	X	O	X	X	X	O	X	O	O	X
		69	1	00-7F	PITCH EG INITIAL LEVEL	-64...0...+63	40	O	O	O	X	X	O	X	X	X	O	X	O	X	X
		6A	1	00-7F	PITCH EG ATTACK TIME	-64...0...+63	40	O	O	O	X	X	O	X	X	X	O	X	O	X	X
		6B	1	00-7F	PITCH EG RELEASE LEVEL	-64...0...+63	40	O	O	O	X	X	O	X	X	X	O	X	O	X	X
		6C	1	00-7F	PITCH EG RELEASE TIME	-64...0...+63	40	O	O	O	X	X	O	X	X	X	O	X	O	X	X
		6D	1	01-7F	VELOCITY LIMIT LOW	1...127	01	O	O	O	X	X	O	X	X	X	O	X	O	X	X
		6E	1	01-7F	VELOCITY LIMIT HIGH	1...127	7F	O	O	O	X	X	O	X	X	X	O	X	O	X	X

TOTAL SIZE 3F

		70	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		71	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		72	1	00-7F	EQ BASS GAIN	-12dB...+12dB	40	O	O	O	X	O	O	●	●	●	●	X	O	O	O
		73	1	00-7F	EQ TREBLE GAIN	-12dB...+12dB	40	O	O	O	X	O	O	●	●	●	●	X	O	O	O

TOTAL SIZE 04

		74	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		75	1		NOT USED		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		76	1	04-28	EQ BASS FREQUENCY	32...2.0k[Hz]	0C	O	O	O	X	X	O	●	O	X	O	X	O	O	O
		77	1	1C-3A	EQ TREBLE FREQUENCY	500...16.0k[Hz]	36	O	O	O	X	X	O	●	O	X	O	X	O	O	O
		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

●: Transmitted via panel operations

[MIDI] [Song Creator]

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Voice	MIDI Reception					MIDI Transmission					PLAY	REC
								Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
0A	nn	40	1	00-7F	MW OFFSET LEVEL CONTROL	-100 – 100[%]	40	O	O	O	X	X	O	●	O	X	O	X	O	O	O
		41	1	00-7F	BEND OFFSET LEVEL CONTROL	-100 – 100[%]	40	O	O	X	X	X	X	X	X	X	O	X	O	O	X
		42	1	00-7F	CAT OFFSET LEVEL CONTROL	-100 – 100[%]	40	O	O	O	X	X	O	X	O	X	O	X	O	O	X
		43	1	00-7F	PAT OFFSET LEVEL CONTROL	-100 – 100[%]	40	O	O	X	X	X	X	X	X	X	O	X	O	O	X
		44	1	00-7F	AC1 OFFSET LEVEL CONTROL	-100 – 100[%]	40	O	O	X	X	X	X	X	X	X	O	X	O	O	X
		45	1	00-7F	AC2 OFFSET LEVEL CONTROL	-100 – 100[%]	40	O	O	X	X	X	X	X	X	X	O	X	O	O	X

TOTAL SIZE 06

●: Transmitted via panel operations

nn = PART NUMBER

If there is a Drum Voice assigned to the part, the following parameters are ineffective.
- BANK SELECT LSB
- PORTAMENTO
- MONO/POLY
- SCALE TUNING
- POLY AFTER TOUCH
- PITCH EG

MIDI Parameter Change table (DRUM SETUP)

[MIDI] [Song Creator]

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Voice	MIDI Reception				MIDI Transmission					PLAY		REC
								Regular/Drum/ Natural/Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
3n	rr	00	1	00-7F	PITCH COARSE	-64...0...+63	40	O (Drum only)	O (Available only for song parts)					O					O	X	X
		01	1	00-7F	PITCH FINE	-64...0...+63[cent]	40	O (Drum only)	O (Available only for song parts)					O					O	X	X
		02	1	00-7F	LEVEL	0...127	Depends on the note	O (Drum only)	O (Available only for song parts)					O					O	X	X
		03	1	00-7F	ALTERNATE GROUP	OFF, 1...127	Depends on the note	O (Drum only)	O (Available only for song parts)					O					O	X	X
		04	1	00-7F	PAN	RND, L63...C...R63	Depends on the note	O (Drum only)	O (Available only for song parts)					O					O	X	X
		05	1	00-7F	REVERB SEND	0...127	Depends on the note	O (Drum only)	O (Available only for song parts)					O					O	X	X
		06	1	00-7F	CHORUS SEND	0...127	Depends on the note	O (Drum only)	O (Available only for song parts)					O					O	X	X
		07	1	00-7F	VARIATION SEND	0...127	7F	O (Drum only)	O (Available only for song parts)					O					O	X	X
		08	1	00-01	KEY ASSIGN	SINGLE, MULTI	00	O (Drum only)	O (Available only for song parts)					O					O	X	X
		09	1	00-01	Rcv NOTE OFF	OFF, ON	Depends on the note	O (Drum only)	O (Available only for song parts)					O					O	X	X
		0A	1	00-01	Rcv NOTE ON	OFF, ON	01	O (Drum only)	O (Available only for song parts)					O					O	X	X
		0B	1	00-7F	LOW PASS FILTER CUTOFF FREQUENCY	-64...0...+63	40	O Drum only)	O (Available only for song parts)					O					O	X	X
		0C	1	00-7F	LOW PASS FILTER RESONANCE	-64...0...+63	40	O (Drum only)	O (Available only for song parts)					O					O	X	X
		0D	1	00-7F	EG ATTACK RATE	-64...0...+63	40	O (Drum only)	O (Available only for song parts)					O					O	X	X
		0E	1	00-7F	EG DECAY1 RATE	-64...0...+63	40	O (Drum only)	O (Available only for song parts)					O					O	X	X
		0F	1	00-7F	EG DECAY2 RATE	-64...0...+63	40	O (Drum only)	O (Available only for song parts)					O					O	X	X

TOTAL SIZE 10

[MIDI] [Song Creator]

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Voice	MIDI Reception				MIDI Transmission					PLAY		REC
								Regular/Drum/ Natural/Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
		20	1	00-7F	EQ BASS GAIN	-12...+12[dB]	40	X	X					X					X	X	X
		21	1	00-7F	EQ TREBLE GAIN	-12...+12[dB]	40	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
		25	1	1C-3A	EQ TREBLE FREQUENCY	500...16.0k[Hz]	36	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 instrument will initialize all Drum Setups.
- XG SYSTEM ON received
- GM SYSTEM ON received
- GM LEVEL2 SYSTEM ON received
- GS RESET 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 (1)

[GM1] ... GM Required Parameter
[GM2] ... GM Level2 Required Parameter

* Not received when Receive System Exclusive Message Parameters is set to off.
* Not transmitted when Transmit System Exclusive Message Parameters is set to off.

System Exclusive Messages (Universal Real Time Messages)

[MIDI] [Song Creator]

MIDI Event	Data Format	Voice	MIDI Reception					MIDI Transmission					PLAY		REC
		Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel operations
Master Volume [GM2]	F0 7F XN 04 01 SS TT 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 0sssssss SS = Volume LSB 0ttttttt TT = Volume MSB 11110111 F7 = End of Exclusive	O	O (Available for extra parts of a song)					O					O	O	X
Master Fine Tuning [GM2]	F0 7F XN 04 03 SS TT 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 00000011 03 = Sub-ID #2 = Master Fine Tuning 0sssssss SS = Fine Tuning LSB 0ttttttt TT = Fine Tuning MSB 11110111 F7 = End of Exclusive	O	O (Available for extra parts of a song)					O					O	X	X
Master Coarse Tuning [GM2]	F0 7F XN 04 04 00 TT 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 00000100 04 = Sub-ID #2 = Master Coarse Tuning 00000000 00 0ttttttt TT = Coarse Tuning MSB 11110111 F7 = End of Exclusive	O	O (Available for extra parts of a song)					O					O	X	X
Reverb Parameter [GM2]	F0 7F XN 04 05 01 01 01 01 PP VV ... F7 11000000 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 00000101 05 = Sub-ID #2 = Global Parameter Control 00000001 01 = Slot path length = 1 00000001 01 = Parameter ID width = 1 00000001 01 = Value width = 1 00000001 01 = Slot path MSB = 1 00000001 01 = Slot path LSB = 1 (Reverb) 0ppppppp PP = Parameter to be controlled. 0vvvvvvv VV = Value for the Parameter. : : 11110111 F7 = End of Exclusive Parameter (pp) / Value (vv) / Display pp=0 Reverb Type: 0...8 — 0: RoomS, 1: RoomM, 2: RoomL, 3: HallM, 4: HallL (default), 8: GM Plate pp=1 Reverb Time: 0...127 — 0...11.0s	O	O					O					O	O	X
Chorus Parameter [GM2]	F0 7F XN 04 05 01 01 01 02 PP VV ... 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 00000101 05 = Sub-ID #2 = Global Parameter Control 00000001 01 = Slot path length = 1 00000001 01 = Parameter ID width = 1 00000001 01 = Value width = 1 00000001 01 = Slot path MSB = 1 00000010 02 = Slot path LSB = 2 (Chorus) 0ppppppp PP = Parameter to be controlled. 0vvvvvvv VV = Value for the Parameter : : 11110111 F7 = End of Exclusive Parameter (pp) / Value (vv) / Display pp=0 Chorus Type: 0...5 — 0: GM Chorus1, 1: GM Chorus2, 2: GM Chorus3 (default), 3: GM Chorus4, 4: FB Chorus, 5: GM Flanger pp=1 Mod Rate: 0...127 — 0...15.5Hz pp=2 Mod Depth: 0...127 pp=3 Feedback: 0...127 pp=4 Send to Reverb: 0...127	O	O					O					O	O	X
Channel Pressure (Aftertouch) [GM2]	F0 7F XN 09 01 0M PP RR ... 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 = Controller Destination Setting 00000001 01 = Sub-ID #2 = Controller Type: 01 (Channel Pressure) 0000mmmm 0M = MIDI Channel (00-0F) 0ppppppp PP = Controlled Parameter 0rrrrrrr RR = Data : : 11110111 F7 = End of Exclusive Make sure to set both the controlled parameter and the range. Parameters not set will be restored to their default values. Control Parameter (pp) / Data (RR) / Description / Default Value pp=00 Pitch Control: 28H–58H — -24...0...+24semitones — 40H pp=01 Filter Cutoff Control: 00H–FH — -9600...0...+9450cents — 40H pp=02 Amplitude Control: 00H–FH — -100...0...+100% — 40H pp=03 LFO Pitch Depth: 00H–FH — 0...127 — 00H pp=04 LFO Filter Depth: 00H–FH — 0...127 — 00H pp=05 LFO Amplitude Depth: 00H–FH — 0...127 — 00H	O	O	X	X	X	X	X	X	X	O	X	O	X	X

[MIDI] [Song Creator]

MIDI Event	Data Format	Voice	MIDI Reception					MIDI Transmission					PLAY	REC
		Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel operations
Controller (Control Change) [GM2]	F0 7F XN 09 03 0M CC PP RR ... 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 = Controller Destination Setting 00000011 03 = Sub-ID #2 = Controller Type: 03 (Control Change) 0000mmmm 0M = MIDI Channel (00-0F) 0ccccccc CC = Controller Number (01H-1FH, 40H-5FH) 0ppppppp PP = Controlled Parameter 0rrrrrrr RR = Range : : 11110111 F7 = End of Exclusive Make sure to set both the controlled parameter and the range. Parameters not set will be restored to their default values. Control Parameter (pp) / Data (RR) / Description / Default Value pp=00 Pitch Control / 28H–58H / -24...0...+24semitones / 40H pp=01 Filter Cutoff Control / 00H–7FH / -9600...0...+9450cents / 40H pp=02 Amplitude Control / 00H–7FH / -100...0...+100% / 40H pp=03 LFO Pitch Depth / 00H–7FH / 0...127 / 00H pp=04 LFO Filter Depth / 00H–7FH / 0...127 / 00H pp=05 LFO Amplitude Depth / 00H–7FH / 0...127 / 00H	O	O	X	X	X	X	X	X	X	O	X	O	X	X
Key-Based Instrument Control [GM2]	F0 7F XN 0A 01 0M KK CC VV ... F7 11110000 F0 = Exclusive status 01111111 7F = Universal Real Time 0xxxnnnn XN = When N is received N=0-F, whichever is received. X = ignored 00001010 0A = Sub-ID #1=Key-Based Instrument Control 00000001 01 = Sub-ID #2=Controller 0000mmmm 0M = MIDI Channel (00-0F) 0kkkkkkk KK = Key Number 0ccccccc CC = Controller Number 0vvvvvvv VV = Value ... ... 11110111 F7 = End of Exclusive Make sure to set both the controlled number and the value. Control Number (CC) / Value (VV) / Description / Default value CC=07H Volume / 00H–7FH / -100...0...+100% / 40H CC=0AH Pan / 00H–7FH (absolute) / L63...C...R63 / (Preset value) CC=5BH Reverb Send Level / 00H–7FH (absolute) / 0...Max / (Preset value) CC=5DH Chorus Send Level / 00H–7FH (absolute) / 0...Max / (Preset value)	O (Drum only)	O	X	X	X	X	X	X	X	O	X	O	X	X

System Exclusive Messages (Universal Non-Real Time Messages)

[MIDI] [Song Creator]

MIDI Event	Data Format	Voice	MIDI Reception					MIDI Transmission					PLAY	REC
		Regular/ Drum/ Natural/ Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel operations
GM1 System On [GM1] [GM2]	F0 7E XN 09 01 F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-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				O	X	O
GM2 System On [GM2]	F0 7E XN 09 03 F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxnnnn XN = When N is received N = 0-F, whichever is received. X = ignored 00001001 09 = Sub-ID #1=General MIDI Message 00000011 03 = Sub-ID #2=General MIDI2 On 11110111 F7 = End of Exclusive	O			O					O				O	X	X
General MIDI System Off [GM1] [GM2]	F0 7E XN 09 02 F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxnnnn XN = When N is received N = 0-F, whichever is received. X = ignored 00001001 09 = Sub-ID #1 = General MIDI Message 00000010 02 = Sub-ID #2 = General MIDI Off 11110111 F7 = End of Exclusive	O			O					O				O	X	X
Scale/ Octave Tuning [GM2]	F0 7E XN 08 08 JJ GG MM SS ... F7 11110000 F0 = Exclusive status 01111110 7E = Universal Non-Real Time 0xxxnnnn XN = When N is received N=0-F, whichever is received. X = ignored 00001000 08 = Sub-ID #1=MIDI Tuning Standard 00001000 08 = Sub-ID #2=scale/octave tuning 1byte form 0jjjjjjj JJ = Channel/option byte1 bits 0 to 1 = channel 15 to 16 bits 2 to 6 = reserved 0ggggggg GG = Channel byte2 - bits0 to 6 = channel 8 to 14 0mmmmmmm MM = Channel byte2 - bits0 to 6 = channel 1 to 7 0sssssss SS = 12byte tuning offset of 12 semitones from C to B 00H means -64cent 40H means 0cent 7FH means +63cent ... ... 11110111 F7 = End of Exclusive	O			O (Available for song parts)					O				O	X	X

System Exclusive Messages (2)

* Not received when Receive System Exclusive Message Parameters is set to off.
* Not transmitted when Transmit System Exclusive Message Parameters is set to off.

System Exclusive Messages (Style)

[MIDI]

MIDI Event	Data Format	Voice	MIDI Reception					MIDI Transmission				
		Regular/Drum/ Natural/Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower
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) 7FH (On) 11110111 F7 = End of Exclusive	-			O					●		
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	-			O					●		
Chord Control	F0 43 7E tt d1 d2 d3 d4 F7 Type1 (tt=02) 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 0001nnnn 1n bb 0010nnnn 2n b 0011nnnn 3n 0100nnnn 4n # 0101nnnn 5n ## 0110nnnn 6n ### 0fff0111 x7 B 0fff0000 x0 reserved 0fff0001 x1 C 0fff0010 x2 D natural 0fff0011 x3 E 0fff0100 x4 F 0fff0101 x5 G 0fff0110 x6 A ct : Chord Type 0 - 34, 127 00000000 00 0 Maj 00000001 01 1 Maj6 00000010 02 2 Maj7 00000011 03 3 Maj7(#11) 00000100 04 4 Maj(9) 00000101 05 5 Maj7(9) 00000110 06 6 Maj6(9) 00000111 07 7 aug 00001000 08 8 min 00001001 09 9 min6 00001010 0A 10 min7 00001011 0B 11 min7b5 00001100 0C 12 min(9) 00001101 0D 13 min7(9) 00001110 0E 14 min7(11) 00001111 0F 15 minMaj7 00010000 10 16 minMaj7(9) 00010001 11 17 dim 00010010 12 18 dim7 00010011 13 19 7th 00010100 14 20 7sus4 00010101 15 21 7b5 00010110 16 22 7(9) 00010111 17 23 7(#11) 00011000 18 24 7(13) 00011001 19 25 7(b9) 00011010 1A 26 7 b13) 00011011 1B 27 7(#9) 00011100 1C 28 Maj7aug 00011101 1D 29 7aug 00011110 1E 30 1+8 00011111 1F 31 1+5 00100000 20 32 sus4 00100001 21 33 1+2+5 00100010 22 34 cc bn: On Bass Note — Same as Chord root / 127: No bass chord bt: Bass Chord — Same as Chord type / 127: No bass chord * Not received when Chord System Exclusive Message Parameters is set to off. * Not received when Transmit Chord System Exclusive Message Parameters is set to off.	-			O					●		
	Type2 (tt=03) 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					X		

●: Transmitted via panel operations

System Exclusive Messages (XG)

[MIDI]

MIDI Event	Data Format	Voice	MIDI Reception					MIDI Transmission				
		Regular/Drum/ Natural/Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower
XG Parameter Changes	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 receive) 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 XG Parameter Change Table.	O * Refer to XG Parameter Change Table.					O * Refer to XG Parameter Change Table.				
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 receive) 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 XG Parameter Change Table.	O * Refer to XG Parameter Change Table.					O * Refer to XG Parameter Change Table.				
XG Parameter Request	F0 43 3n 4C hh mm ll F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0011nnnn 3n = Device Number n = always 0 (when transmit), n = 0-F (when receive) 01001100 4C = Model ID 0hhhhhhh hh = Address High 0mmmmmmm mm= Address Mid 0lllllll ll = Address Low 11110111 F7 = End of Exclusive	-	O * Refer to XG Parameter Change Table.					O * Refer to XG Parameter Change Table.				
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 receive) 01001100 4C = Model ID 0hhhhhhh hh = Address High 0mmmmmmm mm= Address Mid 0lllllll ll = Address Low 11110111 F7 = End of Exclusive	-	O * Refer to XG Parameter Change Table.					O ** Refer to XG Parameter Change Table.				

System Exclusive Messages (Clavinova compliance)

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

[MIDI]

MIDI Event	Data Format	Voice	MIDI Reception					MIDI Transmission				
		Regular/Drum/ Natural/Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower
Internal Clock	F0 43 73 01 02 F7 00000001 01 = Model ID (Clavinova common ID) 00000010 02 = Internal Clock Substatus	-			O					X		
External Clock	F0 43 73 01 03 F7 00000001 01 = Model ID (Clavinova common ID) 00000011 03 = External Clock Substatus	-			O					X		
Organ Flutes data Bulk Dump	F0 43 73 01 06 0B 00 00 01 06 0n [Bulk Data] sum 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 - 08H 3rd [1 1/3'] 00 - 08H 4th [1 3/5'] 00 - 08H 5th [2'] 00 - 08H 6th [2 2/3'] 00 - 08H 7th [4'] 00 - 08H 8th [5 1/3'] 00 - 08H 9th [8'] 00 - 08H 10th [16'] 00 - 08H 11th [Attack 2'] 00 - 08H 12th [Attack 2 2/3'] 00 - 08H 13th [Attack 4'] 00 - 08H 14th Settings [Attack Length] 00 - 08H 15th [Response] 00 - 08H 16th [Attack Mode] 00 - 01H 00H: Each, 01H: First 17th [Wave Variation] 00 - 01H 00H: Sine, 01H: Vintage 18th [Volume] 01 - 09H 19th [aux] 00H 20th [aux] 00H 21th [aux] 00H 22th [aux] 00H sum Check Sum = 0-sum (BULK DATA)	O (Organ Flute)	O	O	X	X	O	●	X	X	O	X

●: Transmitted via panel operations

System Exclusive Messages (Others)

[MIDI]

MIDI Event	Data Format	Voice	MIDI Reception					MIDI Transmission				
		Regular/Drum/ Natural/Organ Voice	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower
MIDI Master Tuning	F0 43 1n 27 30 00 00 0m 0l cc F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 0001nnnn 1n n= always 0 (when transmit), n=0-F (when receive) 00100111 27 = Model ID of TG100 00110000 30 = Address High 00000000 00 = Address Mid 00000000 00 = Address Low 0000mmmm 0m= Master Tune MSB 00001111 0l = Master Tune LSB 0ccccccc cc = don't care 11110111 F7 = End of Exclusive	O	O					X				

Song System Exclusive Message List

Data Format	Parameter	Description	Note
Guide			
F0 43 73 01 1F 00 cc dd F7	Guide Mode	ccH = Part Select No 00H (TRACK1=ON, TRACK2=ON) 01H (TRACK1=OFF, TRACK2=ON) 02H (TRACK1=ON, TRACK2=OFF) 03H (TRACK1=OFF, TRACK2=OFF) ddH = Mode 00H=Guide OFF 01H=Follow Lights 02H=Any Key 03H=Karao-Key	Entered to the song from the [SONG CREATOR] > CHANNEL > SETUP display.
Score			
F0 43 73 01 50 12 00 00 dd F7	Left Part indication On/Off	00H: OFF, 7FH: ON	Entered to the song from the [SONG CREATOR] > CHANNEL > SETUP display.
F0 43 73 01 50 12 00 01 dd F7	Right Part indication On/Off	00H: OFF, 7FH: ON	
F0 43 73 01 50 12 00 02 dd F7	Lyrics indication On/Off	00H: OFF, 7FH: ON	
F0 43 73 01 50 12 00 03 dd F7	Chord indication On/Off	00H: OFF, 7FH: ON	
F0 43 73 01 50 12 00 04 dd F7	N.Name indication On/Off	00H: OFF, 7FH: ON	
F0 43 73 01 50 12 00 05 dd F7	Size designation	00H: SMALL, 02H: LARGE	
F0 43 73 01 50 12 00 06 dd F7	Left Ch	00H~0FH=CH, 7EH=OFF, 7FH=AUTO	
F0 43 73 01 50 12 00 07 dd F7	Right Ch	00H~0FH=CH, 7EH=OFF, 7FH=AUTO	
F0 43 73 01 50 12 00 08 dd F7	Quantize triplet On/Off	00H: Triplet OFF, 7FH: Triplet ON	
F0 43 73 01 50 12 00 09 dd F7	Quantize	00H: quarter, 01H: eighth, 02H: sixteenth, 03H: thirty-second	
F0 43 73 01 50 12 00 0A dd F7	NoteName	00H: ABC, 01H: FixedDo, 02H: MovableDo	
F0 43 73 01 50 12 00 0B dd F7	Color Note	00H: OFF, 7FH: ON	
Style			
F0 43 73 01 51 00 00 00 03 10 00 dd F7	STYLE SPLIT POINT	dd=STYLE SPLIT POINT (Note Number)	Entered to the song from the [SONG CREATOR] > CHANNEL > SETUP display.
F0 43 73 01 51 05 00 03 04 00 00 dd dd F7	STYLE NUMBER	dd dd = Style No.	Entered when recording.
F0 43 7E 00 ss dd F7	Section Control	Refer to the MIDI Data Format.	Entered when recording.

Song Meta Event List

Data Format	Parameter	Description	Note
FF 05 len [Data]	Lyrics	len = Data length, [Data] = Lyrics Data	
FF 51 03 t1 t2 t3	Set Tempo	t1 t2 t3 = Tempo value B7 1B 00~01 D4 C0 (Tempo 5~500)	Entered when recording.
FF 58 04 nn dd cc bb	Beat	nn = Numerator dd = Denominator (2n) cc = MIDI clock per metronome click bb = Number of thirty-second notes in MIDI quarter note	Entered when recording.
FF 59 02 sf mi	Key Signature	sf = -7 – 7 mi = 0: Major key, 1: Minor key	Entered from the [Score] > SETUP display.
YAMAHA META EVENT			
FF 7F 06 43 73 0A 00 07 dd	Score Start Bar	ddH: Start form this measure dd = -100 – 1, 1 – 100	Same as ScBar entered from the [SONG CREATOR] > SYS/EX. display.
FF 7F len 43 73 0D 01 [Data]	Keyboard Voice	Voice settings for RIGHT1, 2, and LEFT	Entered to the song from the [SONG CREATOR] > CHANNEL > SETUP display.
YAMAHA XF META EVENT			
FF 7F 07 43 7B 01 cr ct bn bt	Chord Name	Refer to “Chord Control” in the MIDI Data Format (System Exclusive Messages).	Entered when recording.
FF 7F 05 43 7B 03 20 08	Phrase Mark	Used as a marker for each phrase when executing Phrase Mark repeat playback.	Used when performing the Phrase Mark repeat playback.
FF 7F 04 43 7B 04 dd	Phrase Max	Maximum Phrase Number.	
FF 7F 05 43 7B 0C rr ll	Guide Track Flag	Sets the TRACK 1 and TRACK 2 parameters on the [FUNCTION] > [SONG SETTING] display. rr = TRACK1 (0: OFF, 1: 1CH~16: 16CH) ll = TRACK2 (0: OFF, 1: 1CH~16: 16CH)	Entered when recording.

PORTATONE
PSR-OR700

PARTS LIST

■ CONTENTS

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Notes : DESTINATION ABBREVIATIONS

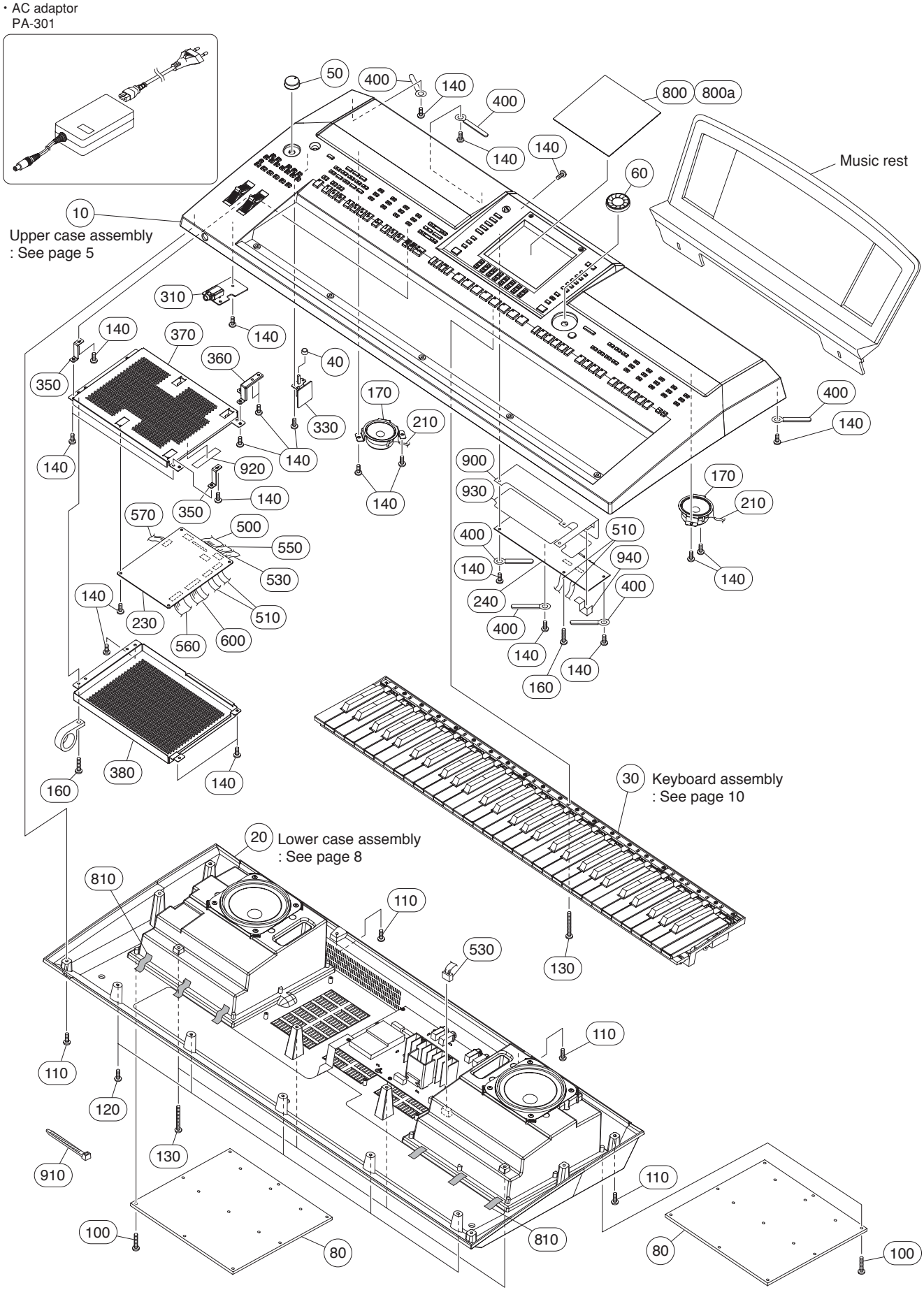
A : Australian model	M : South African model
B : British model	O : Chinese model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W: General export model (220V)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

■ WARNING

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

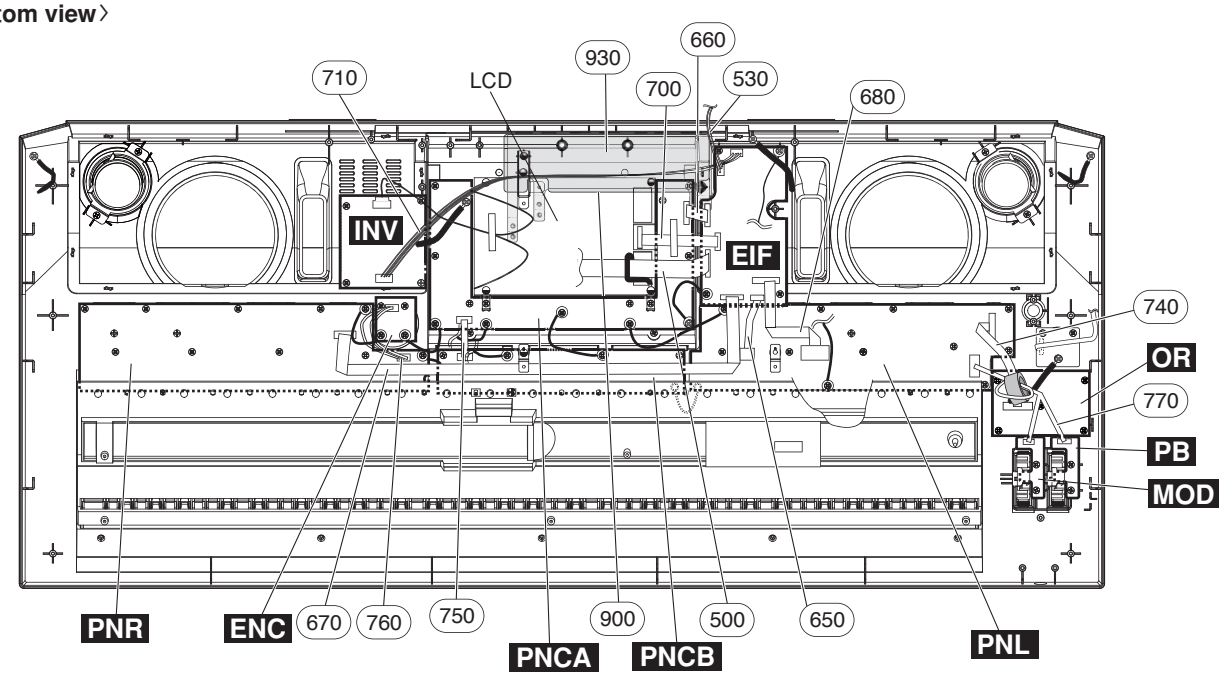
- The numbers “QTY” show quantities for each unit.
- The parts with “--” in “PART NO.” are not available as spare parts.
- This mark “ } ” in the REMARKS column means these parts are interchangeable.
- The second letter of the shaded ( ) part number is O, not zero.
- The second letter of the shaded (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

OVERALL ASSEMBLY



● **Upper Case Assembly**

〈**Bottom view**〉



REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
		OVERALL ASSEMBLY		総組立	PSR-OR700		
	--	Overall Assembly		総組立	U,E (WK88330)		
	--	Overall Assembly		総組立	N (WH28330)		
10	--	Upper Case Assembly		上ケースAss'y	U,E (WK88360)		
10	--	Upper Case Assembly		上ケースAss'y	N (WH98850)		
20	--	Lower Case Assembly		下ケースAss'y	U,E (WK88380)		
20	--	Lower Case Assembly		下ケースAss'y	N (WH98990)		
30	**WB914200**	Keyboard Assembly	16M C61-2M-EBUS	16M鍵盤EMKSA			18
40	**V7151200**	Push Knob Black		プッシュツマミクロ	STANDBY/ON		01
50	**VU432400**	Volume Knob Black		Vツマミ	MASTER VOLUME		01
60	**WJ584000**	Encoder Knob Black		エンコーダツマミ	Data entry		04
80	**WJ044200**	Bottom Board		底板		2	03
100	**WF154100**	Bind Head Tapping Screw-B	4.0X16 MFZN2W3	Bタイト十BIND		28	01
110	**WE987400**	Bind Head Tapping Screw-B	3.0X12 MFZN2W3	Bタイト十BIND		8	01
120	**WE973400**	Bind Head Tapping Screw-B	3.0X16 MFZN2W3	Bタイト十BIND		5	01
130	**WF491000**	Bind Head Tapping Screw-B	3.0X30 MFZN2W3	Bタイト十BIND		5	01
140	**WE774300**	Bind Head Tapping Screw-B	3.0X8 MFZN2W3	Bタイト十BIND		41	01
160	**WF002100**	PW Head Tapping Screw-B	3.0X12 MFZN2W3	Bタイト十PWH		2	01
170	**XV910A00**	Speaker	5.0cm 4ohm 10W	スピーカー	TWEETER	2	05
210	--	Connector Assembly	SPTWLF XH4P+LF	SPTWLF束線	(WK41240)		
* 230	**WH487800**	Circuit Board	DM	DMシート			
240	**WK877100**	Circuit Board	DJK	DJKシート	U,E		
240	**WJ009200**	Circuit Board	DJK	DJKシート	N		
310	**WK877200**	Circuit Board	HP	HPシート	U,E		
310	**WJ009300**	Circuit Board	HP	HPシート	N		
330	**WK877400**	Circuit Board	SW	SWシート	U,E		
330	**WJ009500**	Circuit Board	SW	SWシート	N		
350	--	DM Holder S	Small	DM固定金具(小)	(WH72360)	2	
360	--	DM Holder L	Large	DM固定金具(大)	(WH72370)		
370	--	Shield Cover U	Upper	シールドカバー上	(WH99030)		
380	--	Shield Cover L	Lower	シールドカバー下	(WH99040)		
400	**CB817510**	Cord Binder	S-14B-E,S-14	束線止め		9	03
500	**WK547300**	FFC Cable	DML 30P P=1.0	FFC束線			07
510	**WK444200**	Connector Assembly	USBLF 6P300L&5P400	USBLF束線Ass'y			05
530	--	Connector Assembly	AM5DLF6P850&4P1100	AM5DLF束線Assy	(WK40590)		
550	--	Connector Assembly	EMKSLF PH7P L550mm	WIRING Ass'y	(WK39730)		
560	--	Connector Assembly	AUXLF PH11P L600mm	AUXLF束線	(WK43330)		
570	--	Connector Assembly	DC3DLF PH5P-XH6P L=1150mm	DC3DLF束線Assy	(WK40150)		
600	--	Connector Assembly	MPLF PH 13P-9P/10P L=360mm	MPLF束線	(WK43420)		
650	**MFA06080**	Cable	6P 80mm P=1.0	カード電線			01

*: New Parts

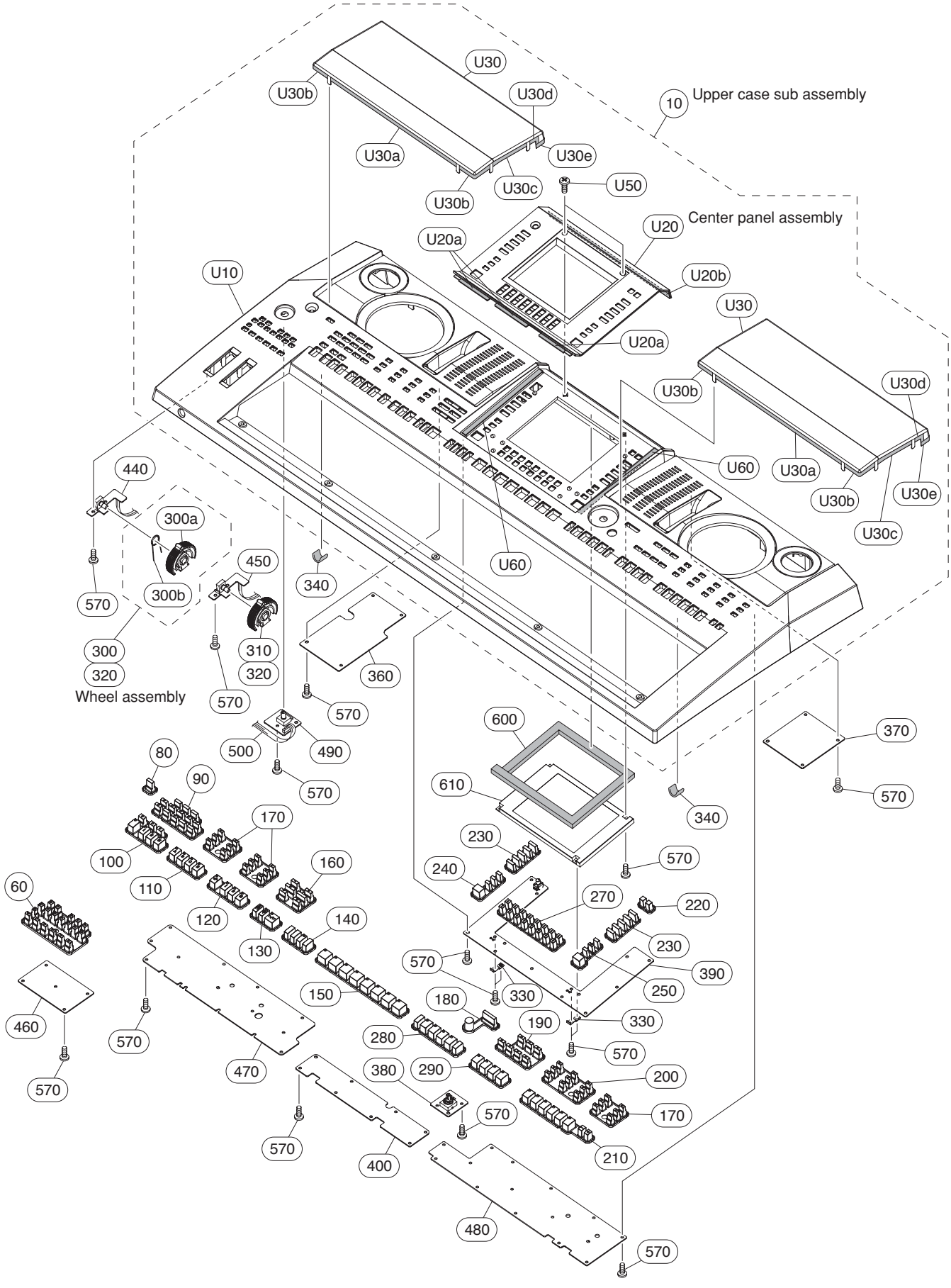
RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	660	**MFA22060**	Cable	22P 60mm P=1.0	カードド電線			01
	670	**WK547500**	FFC Cable	PNR 23P500mm P=1.0	FFC束線			05
	680	**WK547400**	FFC Cable	PNL 26P140mm P=1.0	FFC束線			03
	700	**WK699600**	Connector Assembly	LCDLF 20P130mm 0.5	WIRING Ass'y			06
	710	**--**	Connector Assembly	INVLF PH4P L=650mm	INVLF束線Ass'y	(WK44350)		
*	740	**WK737500**	FFC Cable	OR 14P 120mm P=1.0	FFC束線			
	750	**MFA13060**	Cable	13P 60mm P=1.0	カードド電線			01
	760	**--**	Connector Assembly	PH 3P L=100mm	PH束線	(WD30300)		
	770	**--**	Connector Assembly	PBMODLF PH 7P-3/4P L=290mm	PBMODLF束線	(WK41680)		
	800	**WJ200800**	LCD Cover		LCDカバー印刷品			
	800a	**--**	Adhesive Tape		両面粘着テープ	(WJ20240)		
	810	**--**	Adhesive Tape	12X50	粘着テープ	(VA12610)	25	
	900	**--**	Shield Sheet		シールドシート	(WK41640)		
	910	**--**	Cord Holder	BK-1	インシュロックタイ	(CB06925)	2	
	920	**--**	DM Cushion	PORONL-24	DMクッション	(WK25040)		
	930	**WK820200**	Insulation Sheet		絶縁防振シート			01
	940	**--**	Aluminum Tape	40X20m	導電性粘着テープ	(WA53090)		
			ACCESSORIES		付属品			
*		**X8114A00**	CD-ROM	12cm	CD-ROM 海外			
		WC331200	Music Rest		譜面立て			05
⚠		**WH943400**	AC Adaptor	PA-301 U	ACアダプター	U		12
⚠		**WH943500**	AC Adaptor	PA-301 E	ACアダプター	E		12

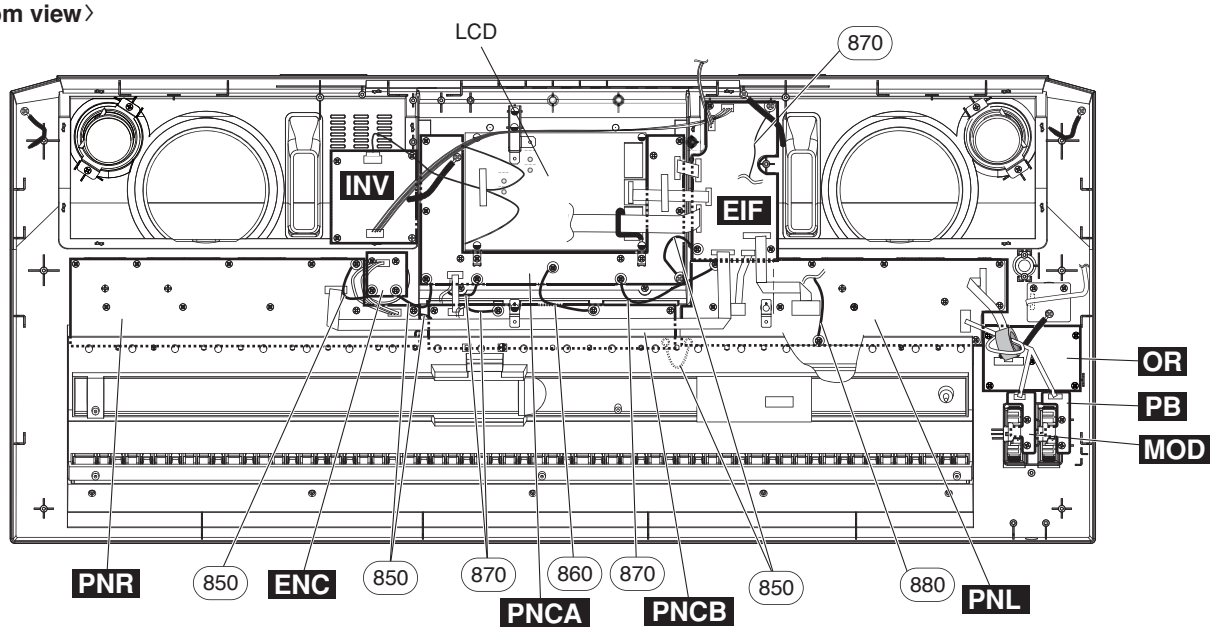
*: New Parts

RANK: Japan only

UPPER CASE ASSEMBLY



〈**Bottom view**〉



	REF NO.	PART NO.	DESCRIPTION		部　　品　　名	REMARKS	QTY	RANK
			UPPER CASE ASSEMBLY		上ケースＡｓｓ’ｙ	PSR-OR700		
		--	Upper Case Assembly		上ケースＡｓｓ’ｙ	U,E (WK88360)		
		--	Upper Case Assembly		上ケースＡｓｓ’ｙ	N (WH98850)		
*	10	**WH989100**	Upper Case Sub-assembly		上ケースサブＡｓｓ’ｙ			
*	60	**WJ203200**	Panel Switch Assembly	x19	ＰＮスイッチＡｓｓ’ｙ	SCALE SETING,MEMORY,		
						SCALE MEMORY(1-6)		
	80	**WH647900**	Panel Switch	x1	ＰＮスイッチ	DEMO		
	90	**WJ203400**	Panel Switch Assembly	x13	ＰＮスイッチＡｓｓ’ｙ	SONG (SELECT - ►►)		
	100	**WJ203500**	Panel Switch Assembly	x7	ＰＮスイッチＡｓｓ’ｙ	FADE IN/OUT,OTS LINK,AUTO		
						FILL IN,ACMP,INTRO(I-III)		
	110	**WJ203600**	Panel Switch Assembly	x4	ＰＮスイッチＡｓｓ’ｙ	MAIN VARIATIO﹀ (A,B,C,D)		
	120	**WJ203700**	Panel Switch Assembly	x4	ＰＮスイッチＡｓｓ’ｙ	BREAK,ENDING/rit.(I-III)		
	130	**WJ203800**	Panel Switch Assembly	x3	ＰＮスイッチＡｓｓ’ｙ	SYNC STOP,SYNC START,		
						START/STOP		
	140	**WJ203900**	Panel Switch Assembly	x4	ＰＮスイッチＡｓｓ’ｙ	REGIST BANK(–,+),FREEZE,		
						MEMORY		
	150	**WJ204000**	Panel Switch Assembly	x8	ＰＮスイッチＡｓｓ’ｙ	REGISTRATION MEMORY (1-8)		
	160	**WJ204100**	Panel Switch Assembly	x6	ＰＮスイッチＡｓｓ’ｙ	TRANSPOSE(–,+),METRONOME,		
						TAP TEMPO,TEMPO(–,+)		
	170	**WJ204200**	Panel Switch Assembly	x6	ＰＮスイッチＡｓｓ’ｙ	STYLE(POP&ROCK - USER),	3	
						VOICE(ACCORDION&HARMONICA		
						- USER)		
	180	**WH648900**	Panel Switch	x2	ＰＮスイッチ	MUSIC FINDER,ENTER		
	190	**WJ204300**	Panel Switch Assembly	x7	ＰＮスイッチＡｓｓ’ｙ	PART SELECT,PART ON/OFF		
						(LEFT HOLD,LEFT,RIGHT1&2)		
	200	**WJ204400**	Panel Switch Assembly	x9	ＰＮスイッチＡｓｓ’ｙ	VOICE(PIANO - BRASS)		
	210	**WJ204500**	Panel Switch Assembly	x8	ＰＮスイッチＡｓｓ’ｙ	VOICE CTRL(HARMONY/ECHO -		
						VARI.),UPPER OCTAVE(–,+)		
	220	**WH649300**	Panel Switch	x2	ＰＮスイッチ	TAB ◄ , ►		
	230	**WH649400**	Panel Switch	x5	ＰＮスイッチ	A - E,F - J	2	
	240	**WH649500**	Panel Switch	x4	ＰＮスイッチ	BALANCE,MIXING CONSOLE,		
						CHANNEL ON/OFF,DIRECT ACCESS		
	250	**WJ204600**	Panel Switch Assembly	x4	ＰＮスイッチＡｓｓ’ｙ	FUNCTION,USB,INTERNET,EXI		
	270	**WH649800**	Panel Switch	x16	ＰＮスイッチ	1 - 8 (Up/Down)		
	280	**WJ204700**	Panel Switch Assembly	x6	ＰＮスイッチＡｓｓ’ｙ	MULTI PAD CONTROL		
						(SELECT,1 - 4,STOP)		
	290	**WJ204800**	Panel Switch Assembly	x4	ＰＮスイッチＡｓｓ’ｙ	ONE TOUCH SETTING (1 - 4)		
	300	**VY793100**	Wheel Assembly		ホイールＡｓｓ’ｙ	PITCH BEND		04
	300a	**VY750800**	Wheel		ホイール			03
	300b	**VT440100**	Spring		ホイールバネ			03

*: New Parts　　RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
	310	**VY750800**	Wheel		ホイール	MODULATION		03
	320	**TX920280**	Grease	G-31KA 50g	グリス	(VE96850)		10
	330	--	LCD Holder		LCD固定金具	(WH67680)	2	
	340	--	Nonwoven Fabric Cloth		不織布	(WD76610)	2	
*	360	**WJ007000**	Circuit Board	EIF	EIFシート			
*	370	**WJ007100**	Circuit Board	INV	INVシート			
*	380	**WJ007200**	Circuit Board	ENC	ENCシート			
*	390	**WJ006800**	Circuit Board	PNCA	PNCAシート			
*	400	**WJ006900**	Circuit Board	PNCB	PNCBシート			
*	440	**WJ007300**	Circuit Board	PB	PBシート			
*	450	**WJ007400**	Circuit Board	MOD	MODシート			
*	460	**WJ007500**	Circuit Board	OR	ORシート			
*	470	**WJ012900**	Circuit Board	PNL	PNLシート			
*	480	**WJ013000**	Circuit Board	PNR	PNRシート			
	490	**WK877300**	Circuit Board	VR	VRシート	U,E		
	490	**WJ009400**	Circuit Board	VR	VRシート	N		
	500	--	Connector Assembly	VOLLF PH-PH 8P L=930mm	VOLLF束線	(WK41790)		
	570	**WE774300**	Bind Head Tapping Screw-B	3.0X8 MFZN2W3	Bタイト十BIND		79	01
	600	--	Dust-proof Sheet	CALMFLEX F-2	防塵フォーム	(WJ00090)		
	610	**WH447300**	LCD	EDMMUG1BBF	液晶ディスプレイ			
	850	--	GND Wire	GROUND1 L=30mm	アース線 1	(WJ01330)	5	
	860	--	GND Wire	GROUND2 L=50mm	アース線 2	(WJ01340)		
	870	--	GND Wire	GROUND3 L=80mm	アース線 3	(WJ01350)	4	
	880	--	GND Wire	GROUND4 L=120mm	アース線 4	(WJ01360)		
*		**WH989100**	Upper Case Sub-Assembly		上ケースサブAss'y			
	U10	--	Upper Case		上ケース塗装印刷品	(WH98870)		
*	U20	**WJ990200**	Center Panel Assembly		C.パネルAss'y			
	U20a	--	Cushion	60X8X1	クッション(PE)	(WJ26270)	3	
	U20b	--	Nonwoven Fabric Cloth	238X8X0.5	不織布	(WJ00040)		
*	U30	**WJ202500**	Speaker Grille Assembly		SPグリルAss'y		2	
	U30a	--	Nonwoven Fabric Cloth	250X8X0.5	不織布	(WH95200)	4	
	U30b	--	Nonwoven Fabric Cloth	60X8X0.5	不織布	(WH95210)	4	
	U30c	--	Nonwoven Fabric Cloth	68X8X0.5	不織布	(WH95220)	4	
	U30d	--	Nonwoven Fabric Cloth	27X8X0.5	不織布	(WH95230)	4	
	U30e	--	Nonwoven Fabric Cloth	46X8X0.5	不織布	(WH95240)	4	
	U50	**WE774300**	Bind Head Tapping Screw-B	3.0X8 MFZN2W3	Bタイト十BIND		2	01
	U60	--	Cushion	152X6X2.0	クッション(PE)	(WJ26260)	2	

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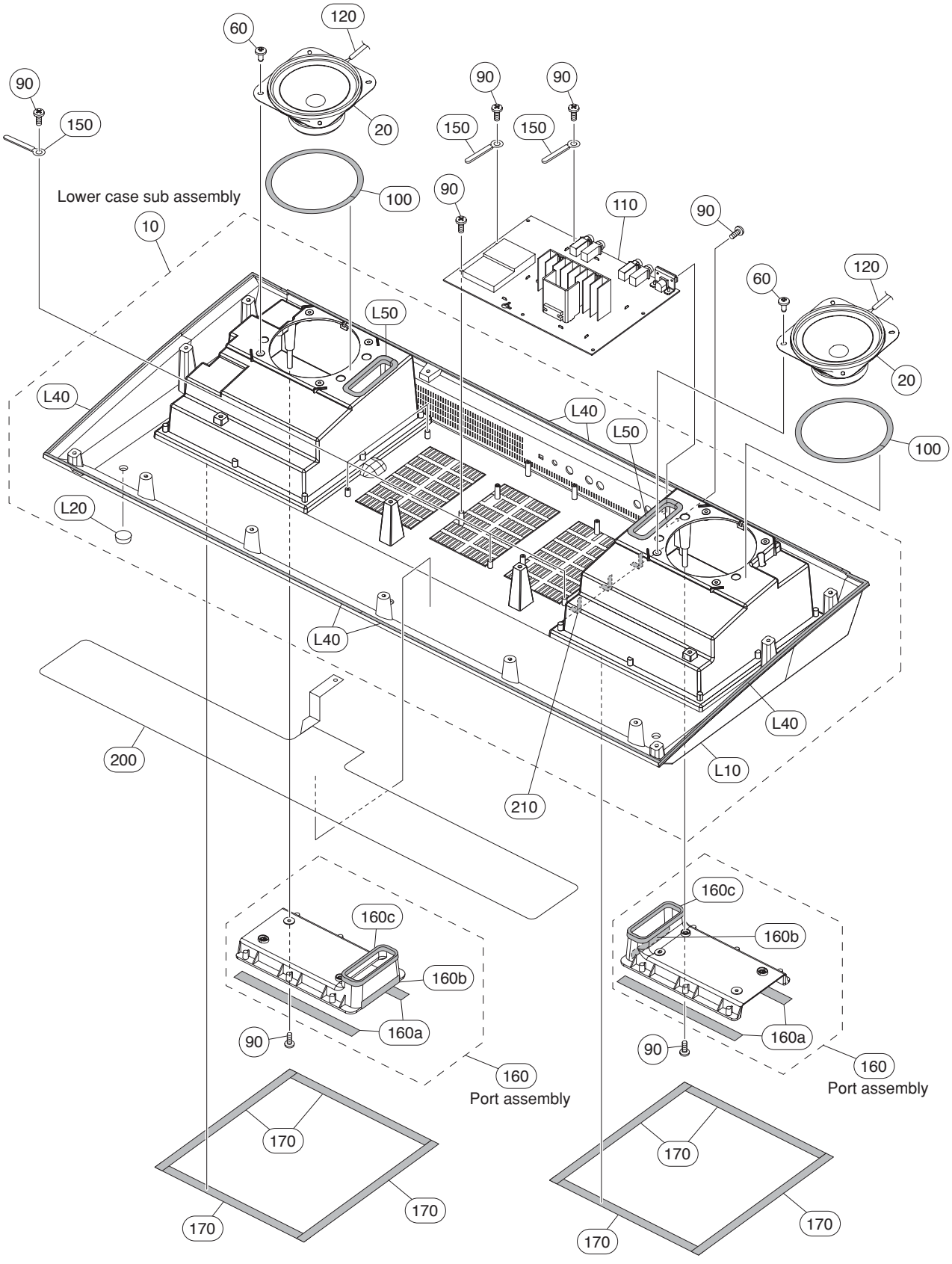
LOWER CASE ASSEMBLY



REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
		LOWER CASE ASSEMBLY		下ケースAss'y	PSR-OR700		
	--	Lower Case Assembly		下ケースAss'y	U,E (WK88380)		
	--	Lower Case Assembly		下ケースAss'y	N (WH98990)		
10	**WH990100**	Lower Case Sub Assembly		下ケースサブAss'y			
20	**XT523A00**	Speaker	12.0cm 4ohm 10W	スピーカー	WOOFER	2	07
60	**WE974600**	Bind Head Tapping Screw-B	4.0X8 MFZN2W3	Bタイト十BIND		8	01
90	**WE774300**	Bind Head Tapping Screw-B	3.0X8 MFZN2W3	Bタイト十BIND		22	01
100	--	Cushion	390X8X1	クッション(PE)	(WH95380)	2	
110	**WK877000**	Circuit Board	AM	AMシート	U,E		
110	**WJ009100**	Circuit Board	AM	AMシート	N		
120	--	Connector Assembly	SPWOLF XH5P L=1700	SPWOLF束線	(WK41290)		
150	**CB817510**	Cord Binder	S-14B-E,S-14	束線止め		6	03
160	--	Port Assembly		ポートAss'y	(WJ24040)	2	
160a	--	Cushion	192X10X1	クッション(PE)	(WJ24010)	4	
160b	--	Cushion	84X16X1	クッション(PE)	(WJ24020)	2	
160c	--	Cushion	218X13X2	クッション(PE)	(WJ24940)	2	
170	--	Cushion	240X8X1	クッション(PE)	(WH95400)	8	
200	--	Shield Sheet		シールドシート	(WK65330)		
	WH990100	Lower Case Sub Assembly		下ケースサブAss'y			
L10	--	Lower Case		下ケース印刷品	(WJ32380)		
L20	**CB043750**	Foot	T1.6	ゴム脚		5	01
L40	--	Cushion	500X13X1	クッション(PE)	(WJ16590)	6	
L50	--	Cushion	205X5X5	クッション	(WJ04390)	2	

✻: New Parts

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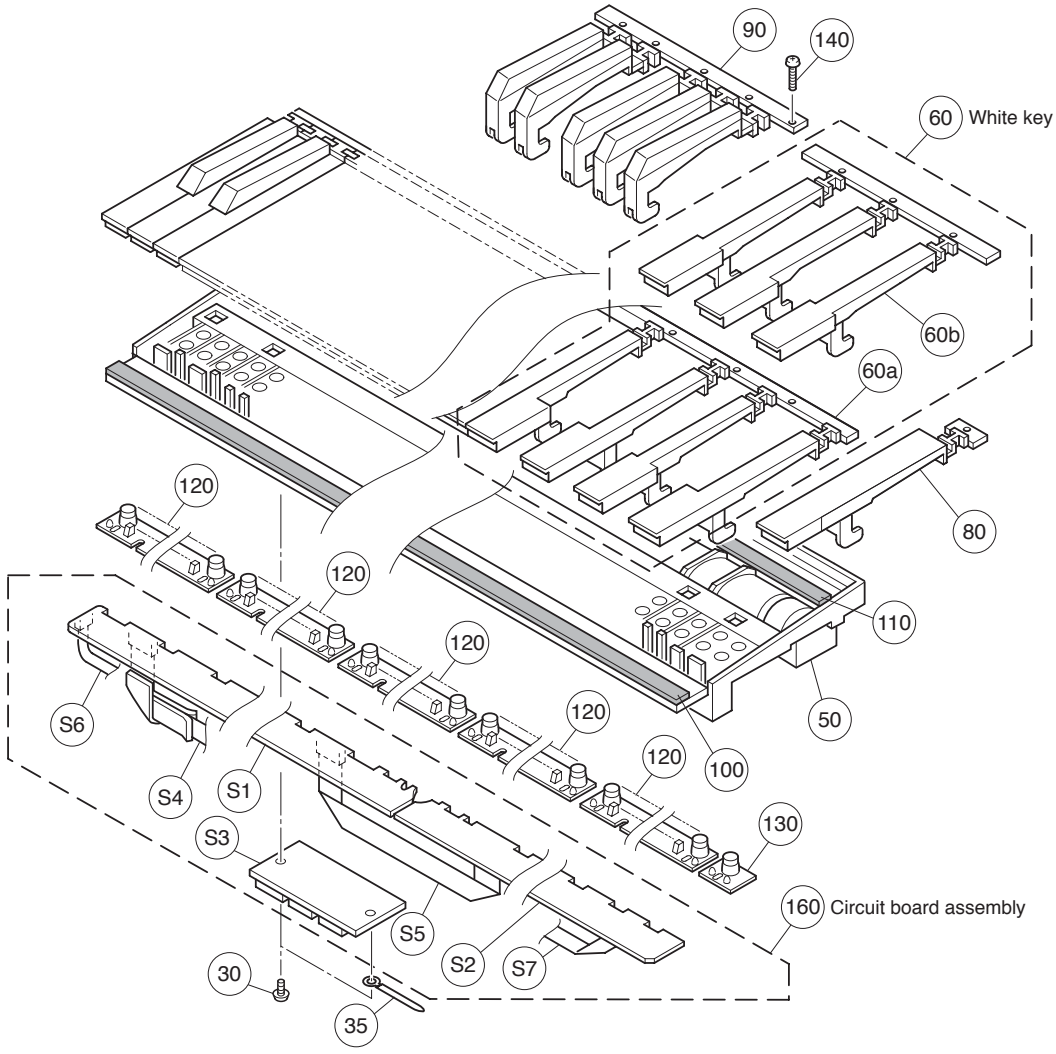
KEYBOARD ASSEMBLY



REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
		KEYBOARD ASSEMBLY		１６Ｍ鍵盤ＥＭＫＳＡ	PSR-OR700		
	WB914200	Keyboard Assembly	16M C61-2M-EBUS	１６Ｍ鍵盤ＥＭＫＳＡ			18
30	**WF266600**	Bind Head Tapping Screw-P	3.0X8 MFZN2B3	Ｐタイト＋ＢＩＮＤ		2	01
35	**CB817510**	Cord Binder	S-14B-E,S-14	束線止め			03
50	**--**	Frame	C61 16M	フレーム	(VS15380)		
50	**VU328600**	Frame	C61 16M	フレーム			10
60	**VH1809D0**	White Key	16L CEGBDFA	白鍵ＣＥＧＢＤＦＡ		5	05
60a	**--**	White Key	16L CEGB	白鍵ＣＥＧＢ	(VH18090)	5	
60b	**--**	White Key	16L DFA	白鍵ＤＦＡ	(VH18100)	5	
80	**VH181100**	White Key	16L C'	白鍵Ｃ’			01
90	**VH181200**	Black Key	16L #	黒鍵		5	03
100	**VH181300**	Felt		フェルト			03
110	**VH181400**	Rubber Sheet		ゴムシート			01
110	**WA525100**	Rubber Sheet		クッションシート			01
120	**VU328400**	Rubber Contact	16M OCT 2M 12KEYS	接点ゴム		5	06
130	**VU328500**	Rubber Contact	16M C' 2M 1KEY	接点ゴム			05
140	**WE973000**	Bind Head Tapping Screw-P	3.0X16 MFZN2W3	Ｐタイト＋ＢＩＮＤ		21	01
140	**WE983200**	Bind Head Tapping Screw-P	3.0X16 MFZN2B3	Ｐタイト＋ＢＩＮＤ		21	01
150	**TX920280**	Grease	G-31KA 50g	グリス	(VE96850)		10
160	**--**	Circuit Board Assembly	16M C61 P2M EBUS	鍵盤ＳＷシート	(WB91430)		
	--	Circuit Board Assembly	16M C61 P2M EBUS	鍵盤ＳＷシート	(WB91430)		
S1	**VU648100**	Circuit Board	MK-L	ＭＫ－Ｌシート			09
S2	**VU648200**	Circuit Board	MK-H	ＭＫ－Ｈシート			09
S3	**WF310500**	Circuit Board	EMKS61A (E-BUS)	ＥＭＫＳ６１Ａシート			
S4	**VU958900**	Cable	12P	ケーブル			03
S5	**VU659500**	Cable	12P	ケーブル			02
S6	**VU659400**	Cable	7P	ケーブル			02
S7	**VU659600**	Cable	5P	ケーブル			02

*: New Parts

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ELECTRICAL PARTS

AM/DJK/HP/SW/VR

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
		ELECTRICAL PARTS		電気部品	PSR-OR700		
	WK877000	Circuit Board	AM	AMシート	U,E (WK84180)(X4640J0)		
	WJ009100	Circuit Board	AM	AMシート	N (WJ00900)(X4640J0)		
	WK877100	Circuit Board	DJK	DJKシート	U,E (WK84180)(X4640J0)		
	WJ009200	Circuit Board	DJK	DJKシート	N (WJ00900)(X4640J0)		
	WK877200	Circuit Board	HP	HPシート	U,E (WK84180)(X4640J0)		
	WJ009300	Circuit Board	HP	HPシート	N (WJ00900)(X4640J0)		
	WK877400	Circuit Board	SW	SWシート	U,E (WK84180)(X4640J0)		
	WJ009500	Circuit Board	SW	SWシート	N (WJ00900)(X4640J0)		
	WK877300	Circuit Board	VR	VRシート	U,E (WK84180)(X4640J0)		
	WJ009400	Circuit Board	VR	VRシート	N (WJ00900)(X4640J0)		
*	**WH487800**	Circuit Board	DM	DMシート	(X7776D0)		
*	**WJ007000**	Circuit Board	EIF	EIFシート	(WJ00670)(X8085D0)		
*	**WJ007200**	Circuit Board	ENC	ENCシート	(WJ00670)(X8085D0)		
*	**WJ007100**	Circuit Board	INV	INVシート	(WJ00670)(X8085D0)		
*	**WJ007400**	Circuit Board	MOD	MODシート	(WJ00670)(X8085D0)		
*	**WJ007500**	Circuit Board	OR	ORシート	(WJ00670)(X8085D0)		
*	**WJ007300**	Circuit Board	PB	PBシート	(WJ00670)(X8085D0)		
*	**WJ006800**	Circuit Board	PNCA	PNCAシート	(WJ00670)(X8085D0)		
*	**WJ006900**	Circuit Board	PNCB	PNCBシート	(WJ00670)(X8085D0)		
	WF310500	Circuit Board	EMKS61A (E-BUS)	EMKS61Aシート	(WF31010)(X6637C0)		
	VU648200	Circuit Board	MK-H	MK-Hシート	(VU64800)(XR565C0)		09
	VU648100	Circuit Board	MK-L	MK-Lシート	(VU64790)(XR564C0)		09
*	**WJ012900**	Circuit Board	PNL	PNLシート	(WJ01280)(X8086D0)		
*	**WJ013000**	Circuit Board	PNR	PNRシート	(WJ01280)(X8086D0)		
	WK877000	Circuit Board	AM	AMシート	U,E (WK84180)(X4640J0)		
	WJ009100	Circuit Board	AM	AMシート	N (WJ00900)(X4640J0)		
	WK877100	Circuit Board	DJK	DJKシート	U,E (WK84180)(X4640J0)		
	WJ009200	Circuit Board	DJK	DJKシート	N (WJ00900)(X4640J0)		
	WK877200	Circuit Board	HP	HPシート	U,E (WK84180)(X4640J0)		
	WJ009300	Circuit Board	HP	HPシート	N (WJ00900)(X4640J0)		
	WK877400	Circuit Board	SW	SWシート	U,E (WK84180)(X4640J0)		
	WJ009500	Circuit Board	SW	SWシート	N (WJ00900)(X4640J0)		
	WK877300	Circuit Board	VR	VRシート	U,E (WK84180)(X4640J0)		
	WJ009400	Circuit Board	VR	VRシート	N (WJ00900)(X4640J0)		
	--	Jumper Wire	0.55	ジャンパー線	(VA07891)		
	--	Angle Bracket, DC Jack		DCジャック金具	(V748520)		
	WE774300	Bind Head Tapping Screw-B	3.0X8 MFZN2W3	Bタイト十BIND		6	01
	WE774200	Bind Head Tapping Screw-B	3.0X10 MFZN2W3	Bタイト十BIND		2	01
	--	Silicon Grease	G-746	シリコングリス	(0412125)		
	--	Shield Cover, AM		シールドカバーAM	(WC62800)		
C0013	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ(F)			01
C0021	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ(F)			01
C0022	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ(F)			01
C0031	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ(F)			01
C0032	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ(F)			01
C0048	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ(F)			01
C0050	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ(F)			01
C0055	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ(F)			01
C0059	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ(F)			01
C0075	**UR837220**	Electrolytic Cap.	22.00 16.0V RX TP	ケミコン			01
C0081	**UR837220**	Electrolytic Cap.	22.00 16.0V RX TP	ケミコン			01
C0092	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ(F)			01
C0093	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ(F)			01
C0095	**WB477000**	Electrolytic Cap.	330.00 35.0V RX TP	ケミコンZL			01
C0095	**WC303700**	Electrolytic Cap.	330.00 35.0V RX TP	ケミコンKZE			01
C0096	**WB476900**	Electrolytic Cap.	470.00 16.0V RX TP	ケミコンZL			01
C0096	**WC303600**	Electrolytic Cap.	470.00 16.0V RX TP	ケミコンKZE			01
C0097	**WB476900**	Electrolytic Cap.	470.00 16.0V RX TP	ケミコンZL			01
C0097	**WC303600**	Electrolytic Cap.	470.00 16.0V RX TP	ケミコンKZE			01
C0141	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ(B)			01
C0142	**UR866470**	Electrolytic Cap.	4.70 50.0V RX TP	ケミコン			01
C0145	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ(SL)			01
C0148	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J RECT.	チップセラ(SL)			01
C0149	**UR837100**	Electrolytic Cap.	10.00 16.0V RX TP	ケミコン			01
C0151	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ(B)			01
C0152	**UR866470**	Electrolytic Cap.	4.70 50.0V RX TP	ケミコン			01
C0155	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ(SL)			01
C0158	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J RECT.	チップセラ(SL)			01

*: New Parts

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AM/DJK/HP/SW/VR

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
C0159	**UR837100**	Electrolytic Cap.	10.00 16.0V RX TP	ケミコン			01
C0163	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J RECT.	チップセラ（SL）			01
C0166	**UR837100**	Electrolytic Cap.	10.00 16.0V RX TP	ケミコン			01
C0167	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C0173	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J RECT.	チップセラ（SL）			01
C0176	**UR837100**	Electrolytic Cap.	10.00 16.0V RX TP	ケミコン			01
C0177	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C0201	**VE327200**	Monolithic Mylar Capacitor	1.0 50V J RX TP	積層マイラーコン			02
C0201	**VU838100**	Monolithic Mylar Capacitor	1.0000 50V J	積層マイラーコン			
C0202	**VE326400**	Monolithic Mylar Capacitor	0.22 50V J RX TP	積層マイラーコン			01
C0202	**VR168700**	Monolithic Mylar Capacitor	ECQ-V1H224JL3	積層マイラーコン			01
C0203	**UA354820**	Mylar Capacitor	0.0820 50V J RX TP	マイラーコン			01
C0203	**UA654820**	Mylar Capacitor	0.0820 50V J RX TP	マイラーコン			01
C0204	**VE326500**	Monolithic Mylar Capacitor	0.27 50V J RX TP	積層マイラーコン			01
C0204	**VR168900**	Monolithic Mylar Capacitor	ECQ-V1H274JL3	積層マイラーコン			01
C0205	**UA354100**	Mylar Capacitor	0.0100 50V J RX TP	マイラーコン			01
C0205	**UA654100**	Mylar Capacitor	0.0100 50V J RX TP	マイラーコン			01
C0206	**VE326100**	Monolithic Mylar Capacitor	0.12 50V J RX TP	積層マイラーコン			01
C0206	**VR168400**	Monolithic Mylar Capacitor	ECQ-V1H124JL3	積層マイラーコン			01
C0207	**UA353560**	Mylar Capacitor	5600P 50V J RX TP	マイラーコン			01
C0207	**UA653560**	Mylar Capacitor	5600P 50V J RX TP	マイラーコン			01
C0208	**UA354270**	Mylar Capacitor	0.0270 50V J RX TP	マイラーコン			01
C0208	**UA654270**	Mylar Capacitor	0.0270 50V J RX TP	マイラーコン			01
C0209	**UA353470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0209	**UA653470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0210	**UA353150**	Mylar Capacitor	1500P 50V J RX TP	マイラーコン			
C0210	**UA653150**	Mylar Capacitor	1500P 50V J RX TP	マイラーコン			01
C0220	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（SL）			01
C0231	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C0232	**UR837470**	Electrolytic Cap.	47.00 16.0V RX TP	ケミコン			01
C0232	**UR847470**	Electrolytic Cap.	47.00 25.0V RX TP	ケミコン			01
C0233	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ（SL）			01
C0301	**VE327200**	Monolithic Mylar Capacitor	1.0 50V J RX TP	積層マイラーコン			02
C0301	**VU838100**	Monolithic Mylar Capacitor	1.0000 50V J	積層マイラーコン			
C0302	**VE326400**	Monolithic Mylar Capacitor	0.22 50V J RX TP	積層マイラーコン			01
C0302	**VR168700**	Monolithic Mylar Capacitor	ECQ-V1H224JL3	積層マイラーコン			01
C0303	**UA354820**	Mylar Capacitor	0.0820 50V J RX TP	マイラーコン			01
C0303	**UA654820**	Mylar Capacitor	0.0820 50V J RX TP	マイラーコン			01
C0304	**VE326500**	Monolithic Mylar Capacitor	0.27 50V J RX TP	積層マイラーコン			01
C0304	**VR168900**	Monolithic Mylar Capacitor	ECQ-V1H274JL3	積層マイラーコン			01
C0305	**UA354100**	Mylar Capacitor	0.0100 50V J RX TP	マイラーコン			01
C0305	**UA654100**	Mylar Capacitor	0.0100 50V J RX TP	マイラーコン			01
C0306	**VE326100**	Monolithic Mylar Capacitor	0.12 50V J RX TP	積層マイラーコン			01
C0306	**VR168400**	Monolithic Mylar Capacitor	ECQ-V1H124JL3	積層マイラーコン			01
C0307	**UA353560**	Mylar Capacitor	5600P 50V J RX TP	マイラーコン			
C0307	**UA653560**	Mylar Capacitor	5600P 50V J RX TP	マイラーコン			01
C0308	**UA354270**	Mylar Capacitor	0.0270 50V J RX TP	マイラーコン			01
C0308	**UA654270**	Mylar Capacitor	0.0270 50V J RX TP	マイラーコン			01
C0309	**UA353470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0309	**UA653470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0310	**UA353150**	Mylar Capacitor	1500P 50V J RX TP	マイラーコン			
C0310	**UA653150**	Mylar Capacitor	1500P 50V J RX TP	マイラーコン			01
C0320	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（SL）			01
C0331	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C0332	**UR837470**	Electrolytic Cap.	47.00 16.0V RX TP	ケミコン			01
C0332	**UR847470**	Electrolytic Cap.	47.00 25.0V RX TP	ケミコン			01
C0333	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ（SL）			01
C0414	**US063220**	Ceramic Capacitor-B (chip)	2200P 50V K RECT.	チップセラ（B）			01
C0415	**UR866220**	Electrolytic Cap.	2.20 50.0V RX TP	ケミコン			01
C0416	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（SL）			01
C0417	**UR848100**	Electrolytic Cap.	100.00 25.0V RX TP	ケミコン			01
C0424	**US063220**	Ceramic Capacitor-B (chip)	2200P 50V K RECT.	チップセラ（B）			01
C0425	**UR866220**	Electrolytic Cap.	2.20 50.0V RX TP	ケミコン			01
C0426	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（SL）			01
C0427	**UR848100**	Electrolytic Cap.	100.00 25.0V RX TP	ケミコン			01
C0428	**UR838220**	Electrolytic Cap.	220.00 16.0V RX TP	ケミコン			01
C0431	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0432	**UR838220**	Electrolytic Cap.	220.00 16.0V RX TP	ケミコン			01
C0441	**UR837100**	Electrolytic Cap.	10.00 16.0V RX TP	ケミコン			01
C0442	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
C0445	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J RECT.	チップセラ（SL）			01
C0446	**UR837100**	Electrolytic Cap.	10.00 16.0V RX TP	ケミコン			01
C0447	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C0451	**UR837100**	Electrolytic Cap.	10.00 16.0V RX TP	ケミコン			01
C0452	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C0455	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J RECT.	チップセラ（SL）			01
C0456	**UR837100**	Electrolytic Cap.	10.00 16.0V RX TP	ケミコン			01
C0457	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C0501	**UR848100**	Electrolytic Cap.	100.00 25.0V RX TP	ケミコン			01
C0502	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0503	**UR828100**	Electrolytic Cap.	100.00 10.0V RX TP	ケミコン			01
C0504	**UR865470**	Electrolytic Cap.	0.47 50.0V RX TP	ケミコン			01
C0505	**UR827330**	Electrolytic Cap.	33.00 10.0V RX TP	ケミコン			01
C0506	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0511	**UA353820**	Mylar Capacitor	8200P 50V J RX TP	マイラーコン			01
C0511	**UA653820**	Mylar Capacitor	8200P 50V J RX TP	マイラーコン			01
C0512	**UA353470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0512	**UA653470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0513	**UR866220**	Electrolytic Cap.	2.20 50.0V RX TP	ケミコン			01
C0514	**VE326600**	Monolithic Mylar Capacitor	0.33 50V J RX TP	積層マイラーコン			01
C0514	**VR169000**	Monolithic Mylar Capacitor	ECQ-V1H334JL3	積層マイラーコン			01
C0515	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（SL）			01
C0516	**VE326000**	Monolithic Mylar Capacitor	0.10 50V J RX TP	積層マイラーコン			01
-0519	**VE326000**	Monolithic Mylar Capacitor	0.10 50V J RX TP	積層マイラーコン			01
C0516	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3	積層マイラーコン			01
-0519	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3	積層マイラーコン			01
C0521	**UA353820**	Mylar Capacitor	8200P 50V J RX TP	マイラーコン			01
C0521	**UA653820**	Mylar Capacitor	8200P 50V J RX TP	マイラーコン			01
C0522	**UA353470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0522	**UA653470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0523	**UR866220**	Electrolytic Cap.	2.20 50.0V RX TP	ケミコン			01
C0524	**VE326600**	Monolithic Mylar Capacitor	0.33 50V J RX TP	積層マイラーコン			01
C0524	**VR169000**	Monolithic Mylar Capacitor	ECQ-V1H334JL3	積層マイラーコン			01
C0525	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（SL）			01
C0526	**VE326000**	Monolithic Mylar Capacitor	0.10 50V J RX TP	積層マイラーコン			01
-0529	**VE326000**	Monolithic Mylar Capacitor	0.10 50V J RX TP	積層マイラーコン			01
C0526	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3	積層マイラーコン			01
-0529	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3	積層マイラーコン			01
C0531	**UA353470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0531	**UA653470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0532	**UA353470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0532	**UA653470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0533	**UR866100**	Electrolytic Cap.	1.00 50.0V RX TP	ケミコン			01
C0534	**VE326800**	Monolithic Mylar Capacitor	0.47 50V J RX TP	積層マイラーコン			01
C0534	**VR169200**	Monolithic Mylar Capacitor	ECQ-V1H474JL3	積層マイラーコン			01
C0535	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（SL）			01
C0536	**UR838220**	Electrolytic Cap.	220.00 16.0V RX TP	ケミコン			01
C0541	**UA353470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0541	**UA653470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0542	**UA353470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0542	**UA653470**	Mylar Capacitor	4700P 50V J RX TP	マイラーコン			01
C0543	**UR866100**	Electrolytic Cap.	1.00 50.0V RX TP	ケミコン			01
C0544	**VE326800**	Monolithic Mylar Capacitor	0.47 50V J RX TP	積層マイラーコン			01
C0544	**VR169200**	Monolithic Mylar Capacitor	ECQ-V1H474JL3	積層マイラーコン			01
C0545	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（SL）			01
C0546	**UR838220**	Electrolytic Cap.	220.00 16.0V RX TP	ケミコン			01
C0551	**UR866470**	Electrolytic Cap.	4.70 50.0V RX TP	ケミコン			01
C0552	**UR837470**	Electrolytic Cap.	47.00 16.0V RX TP	ケミコン			01
C0552	**UR847470**	Electrolytic Cap.	47.00 25.0V RX TP	ケミコン			01
C0553	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0554	**UR848100**	Electrolytic Cap.	100.00 25.0V RX TP	ケミコン			01
C0721	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0722	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J RECT.	チップセラ（CH）			01
C0723	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J RECT.	チップセラ（CH）			01
C0731	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0741	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（B）			01
C0742	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（B）			01
C0812	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（B）			01
C0814	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ（SL）			01
C0822	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（B）			01

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C0824	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ（SL）			01
C0825	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0826	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0901	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
-0904	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0905	**UR749680**	Electrolytic Cap.	6800 25.0V FORM.	ケミコン			03
C0921	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0922	**UR848100**	Electrolytic Cap.	100.00 25.0V RX TP	ケミコン			01
C0931	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0932	**UR837470**	Electrolytic Cap.	47.00 16.0V RX TP	ケミコン			01
C0932	**UR847470**	Electrolytic Cap.	47.00 25.0V RX TP	ケミコン			01
C0933	**UR838100**	Electrolytic Cap.	100.00 16.0V RX TP	ケミコン			01
C0934	**UR838100**	Electrolytic Cap.	100.00 16.0V RX TP	ケミコン			01
C0935	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0936	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0951	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0952	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0961	**V5333500**	Ceramic Capacitor-B (chip)	10.0 6.3V K RECT.	チップセラ（B）			01
C0962	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0971	**V5333500**	Ceramic Capacitor-B (chip)	10.0 6.3V K RECT.	チップセラ（B）			01
C0972	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0982	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
-0984	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0987	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0988	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0990	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（F）			01
C0991	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ（SL）			01
-0996	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ（SL）			01
C0999	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ（SL）			01
C1000	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ（SL）			01
C1003	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C1004	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C1005	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ（SL）			01
C1006	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ（SL）			01
C1010	**US062560**	Ceramic Capacitor-SL(chip)	560P 50V J RECT.	チップセラ（SL）			01
C1011	**US062560**	Ceramic Capacitor-SL(chip)	560P 50V J RECT.	チップセラ（SL）			01
CN011	**VB390700**	Base Post Connector	PH 11P TE	ベースポスト			01
CN046	**VK024900**	Wire Trap	52147 5P TE	ワイヤートラップ			01
CN047	**VI878300**	Cable Holder	51048 5P TE	ケーブルホルダー			01
CN051	**LB918050**	Base Post Connector	XH 5P TE	ベースツキポスト			01
CN053	**LB918040**	Base Post Connector	XH 4P TE	ベースツキポスト			01
CN072	**VB390200**	Base Post Connector	PH 6P TE	ベースポスト			01
CN073	**VB390100**	Base Post Connector	PH 5P TE	ベースポスト			01
CN075	**VB390500**	Base Post Connector	PH 9P TE	ベースポスト			03
CN081	**VB390600**	Base Post Connector	PH 10P TE	ベースポスト			01
CN091	**VF728300**	Wire Trap	52147 6P TE	ワイヤートラップ			01
CN094	**VI878400**	Cable Holder	51048 6P TE	ケーブルホルダー			01
CN096	**VB390000**	Base Post Connector	PH 4P TE	ベースポスト			01
CN097	**LB918060**	Base Post Connector	XH 6P TE	ベースツキポスト			01
CN098	**VB390200**	Base Post Connector	PH 6P TE	ベースポスト			01
CN099	**VB390400**	Base Post Connector	PH 8P TE	ベースポスト			01
CN100	**VB390400**	Base Post Connector	PH 8P TE	ベースポスト			01
D0040	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D0059	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D0059	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D0059	**WG139300**	Diode	KDS4148U-RTK/P TE	ダイオード			
D0074	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D0074	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D0074	**WG139300**	Diode	KDS4148U-RTK/P TE	ダイオード			
D0090	**VR313500**	Diode	S3V20 JI	ダイオード			01
D0092	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D0092	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D0092	**WG139300**	Diode	KDS4148U-RTK/P TE	ダイオード			
D0811	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D0811	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D0811	**WG139300**	Diode	KDS4148U-RTK/P TE	ダイオード			
D0812	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D0812	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D0812	**WG139300**	Diode	KDS4148U-RTK/P TE	ダイオード			
D0821	**VR496500**	Diode	MA111 FLAT TP	ダイオード			

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D0821	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D0821	**WG139300**	Diode	KDS4148U-RTK/P TE	ダイオード			
D0822	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D0822	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D0822	**WG139300**	Diode	KDS4148U-RTK/P TE	ダイオード			
EM096	**VD542700**	LC Filter	DSS6NF31C223Q93A	LCフィルターEMI			01
-098	**VD542700**	LC Filter	DSS6NF31C223Q93A	LCフィルターEMI			01
HT051	**--**	Heat Sink	25BS098H-L50	放熱板	(V776520)		
HT053	**--**	Heat Sink		放熱板	(WD18590)		
IC013	**X5482A00**	IC	NE5532DR	IC	OP AMP		
IC013	**X7351A00**	IC	UPC4570G2-E1-A	IC			01
IC021	**X7391A00**	IC	UPC4574G2-E1-A	IC	OP AMP		02
IC022	**X7391A00**	IC	UPC4574G2-E1-A	IC	OP AMP		02
IC031	**X7391A00**	IC	UPC4574G2-E1-A	IC	OP AMP		02
IC032	**X7391A00**	IC	UPC4574G2-E1-A	IC	OP AMP		02
IC043	**X7391A00**	IC	UPC4574G2-E1-A	IC	OP AMP		02
IC048	**X5049A00**	IC	NJM4556AM-TE1	IC	OP AMP		02
IC050	**X5482A00**	IC	NE5532DR	IC	OP AMP		
IC050	**X7351A00**	IC	UPC4570G2-E1-A	IC			01
IC051	**XQ619A00**	IC	LA4705NA-E	IC	POWER AMP 17W		05
IC053	**XW812A00**	IC	LA4262-E	IC	POWER AMP 7W 2ch		04
IC055	**X5482A00**	IC	NE5532DR	IC	OP AMP		
IC055	**X7351A00**	IC	UPC4570G2-E1-A	IC			01
IC074	**WA645200**	Photo Coupler	PC900V0NSZX	フォトカプラ			04
IC092	**XJ608A00**	IC	NJM7812FA	IC	REGULATOR +12V		02
IC093	**X5482A00**	IC	NE5532DR	IC	OP AMP		
IC093	**X7351A00**	IC	UPC4570G2-E1-A	IC			01
IC095	**X4404A00**	Hybrid IC	MPD6S004S	ハイブリットIC	DC-DC CONVERTER		09
J0050	**--**	Jumper Wire	0.55	ジャンパー線	(VA07891)		
J0090	**--**	Jumper Wire	0.55	ジャンパー線	(VA07891)		
JK014	**VB312600**	Phone Jack Black	YKB21-5012	ホーンコネクタ（黒）	AUX IN R		02
JK015	**VC687500**	Phone Jack Black	YKB21-5014	ホーンコネクタ（黒）	AUX IN L/L+R		01
JK044	**VB312600**	Phone Jack Black	YKB21-5012	ホーンコネクタ（黒）	OUTPUT R		02
JK045	**VC687500**	Phone Jack Black	YKB21-5014	ホーンコネクタ（黒）	OUTPUT L/L+R		01
JK049	**LB101870**	Phone Jack	YKB21-5006	ホーンコネクタ	PHONES		03
JK049	**WJ306200**	Phone Jack	MSJ-064-15A B AG	ホーンコネクタ			
JK072	**WA245700**	USB Connector	YKF45 4P SE	USBコネクタ	USB TO DEVICE		02
JK073	**V6802600**	USB Jack	USB 4P SE	USBジャック	USB TO HOST		02
JK073	**V9016000**	USB Connector	YKF45-0021N 4P SE	USBコネクタB			02
JK074	**VJ107200**	DIN Connector	5P YKF51-5050N	DINコネクタ	MIDI IN		01
JK074	**VZ085800**	DIN Connector	5P HDC-052S-01	DINコネクタ			01
JK075	**VJ107200**	DIN Connector	5P YKF51-5050N	DINコネクタ	MIDI OUT		01
JK075	**VZ085800**	DIN Connector	5P HDC-052S-01	DINコネクタ			01
JK081	**VS115400**	Phone Jack Black	LGR4609-7100F	ホーンコネクタ（黒）	FOOT PEDAL 1		01
JK082	**VS115400**	Phone Jack Black	LGR4609-7100F	ホーンコネクタ（黒）	FOOT PEDAL 2		01
⚠ JK090	**V7509100**	Connector	DJ-0735D_029	電源コネクタ	DC IN 16V		02
L0013	**GE300670**	Ferrite Bead	BL02RN2R1P1A	フェライトビーズ			02
L0013	**VM898600**	Ferrite Bead	EXCELDR35V TAPING	フェライトビーズ			01
L0014	**V3085000**	Choke Coil	R-5C TE 10uH	チョークコイル10U			
L0014	**VB835000**	Coil	FL05RD200AT 20uH	コイル20U			01
L0015	**V3085000**	Choke Coil	R-5C TE 10uH	チョークコイル10U			
L0015	**VB835000**	Coil	FL05RD200AT 20uH	コイル20U			01
L0043	**GE300670**	Ferrite Bead	BL02RN2R1P1A	フェライトビーズ			02
L0043	**VM898600**	Ferrite Bead	EXCELDR35V TAPING	フェライトビーズ			01
L0044	**V3085000**	Choke Coil	R-5C TE 10uH	チョークコイル10U			
L0044	**VB835000**	Coil	FL05RD200AT 20uH	コイル20U			01
L0045	**V3085000**	Choke Coil	R-5C TE 10uH	チョークコイル10U			
L0045	**VB835000**	Coil	FL05RD200AT 20uH	コイル20U			01
L0047	**V3085000**	Choke Coil	R-5C TE 10uH	チョークコイル10U			
L0047	**VB835000**	Coil	FL05RD200AT 20uH	コイル20U			01
L0048	**V3085000**	Choke Coil	R-5C TE 10uH	チョークコイル10U			
L0048	**VB835000**	Coil	FL05RD200AT 20uH	コイル20U			01
L0049	**GE300670**	Ferrite Bead	BL02RN2R1P1A	フェライトビーズ			02
L0049	**VM898600**	Ferrite Bead	EXCELDR35V TAPING	フェライトビーズ			01
⚠ L0090	**WB214900**	Line Filter	PLH10AN1112R6P2B	ラインフィルター			03
L0141	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L0142	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L0151	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L0152	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L0231	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
L0331	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L0411	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L0412	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L0421	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L0422	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L0721	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J RECT.	チップ抵抗			01
L0731	**VU954000**	Chip Solid Inductance	BLM21PG300SN1D	チップソリッドインダクタ			01
L0741	**VQ724900**	Chip Inductance	BK212 5HM601-T	チップインダクタ			01
L0741	**VY944700**	Chip Inductance	BLM21BD601SN1D 2	チップインダクタ			01
L0742	**VQ724900**	Chip Inductance	BK212 5HM601-T	チップインダクタ			01
L0742	**VY944700**	Chip Inductance	BLM21BD601SN1D 2	チップインダクタ			01
L0751	**VQ724900**	Chip Inductance	BK212 5HM601-T	チップインダクタ			01
L0751	**VY944700**	Chip Inductance	BLM21BD601SN1D 2	チップインダクタ			01
L0752	**VQ724900**	Chip Inductance	BK212 5HM601-T	チップインダクタ			01
L0752	**VY944700**	Chip Inductance	BLM21BD601SN1D 2	チップインダクタ			01
L0753	**V3085000**	Choke Coil	R-5C TE 10uH	チョークコイル10U			
L0753	**VB835000**	Coil	FL05RD200AT 20uH	コイル 20U			01
L0811	**VQ724900**	Chip Inductance	BK212 5HM601-T	チップインダクタ			01
-0813	**VQ724900**	Chip Inductance	BK212 5HM601-T	チップインダクタ			01
L0811	**VY944700**	Chip Inductance	BLM21BD601SN1D 2	チップインダクタ			01
-0813	**VY944700**	Chip Inductance	BLM21BD601SN1D 2	チップインダクタ			01
L0821	**VQ724900**	Chip Inductance	BK212 5HM601-T	チップインダクタ			01
-0823	**VQ724900**	Chip Inductance	BK212 5HM601-T	チップインダクタ			01
L0821	**VY944700**	Chip Inductance	BLM21BD601SN1D 2	チップインダクタ			01
-0823	**VY944700**	Chip Inductance	BLM21BD601SN1D 2	チップインダクタ			01
L0836	**V5239100**	Common Mode Coil	DLP31SN121ML2L	コモンモードコイル			03
L0931	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L0932	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
R0018	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0019	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R0044	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0045	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0142	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0143	**RD357220**	Carbon Resistor (chip)	22.0K 63M J RECT.	チップ抵抗			01
R0144	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0145	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0146	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R0147	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0148	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0149	**RD354470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R0152	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0153	**RD357220**	Carbon Resistor (chip)	22.0K 63M J RECT.	チップ抵抗			01
R0154	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0155	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0156	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R0157	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0158	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0159	**RD354470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R0163	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
-0166	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0173	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
-0176	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0201	**RD357220**	Carbon Resistor (chip)	22.0K 63M J RECT.	チップ抵抗			01
R0202	**RD355470**	Carbon Resistor (chip)	470.0 63M J RECT.	チップ抵抗			01
R0203	**RD355680**	Carbon Resistor (chip)	680.0 63M J RECT.	チップ抵抗			01
R0204	**RD357180**	Carbon Resistor (chip)	18.0K 63M J RECT.	チップ抵抗			01
R0205	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R0206	**RD357180**	Carbon Resistor (chip)	18.0K 63M J RECT.	チップ抵抗			01
R0207	**RD355470**	Carbon Resistor (chip)	470.0 63M J RECT.	チップ抵抗			01
R0208	**RD357220**	Carbon Resistor (chip)	22.0K 63M J RECT.	チップ抵抗			01
R0209	**RD357220**	Carbon Resistor (chip)	22.0K 63M J RECT.	チップ抵抗			01
R0210	**RD355390**	Carbon Resistor (chip)	390.0 63M J RECT.	チップ抵抗			01
R0211	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0213	**RD357470**	Carbon Resistor (chip)	47.0K 63M J RECT.	チップ抵抗			01
-0217	**RD357470**	Carbon Resistor (chip)	47.0K 63M J RECT.	チップ抵抗			01
R0220	**RD356330**	Carbon Resistor (chip)	3.3K 63M J RECT.	チップ抵抗			01
R0221	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R0223	**RD355560**	Carbon Resistor (chip)	560.0 63M J RECT.	チップ抵抗			01
-0227	**RD355560**	Carbon Resistor (chip)	560.0 63M J RECT.	チップ抵抗			01
R0231	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
R0232	**RD358100**	Carbon Resistor (chip)	100.0K 63M J RECT.	チップ抵抗			01
R0233	**RD354470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R0301	**RD357220**	Carbon Resistor (chip)	22.0K 63M J RECT.	チップ抵抗			01
R0302	**RD355470**	Carbon Resistor (chip)	470.0 63M J RECT.	チップ抵抗			01
R0303	**RD355680**	Carbon Resistor (chip)	680.0 63M J RECT.	チップ抵抗			01
R0304	**RD357180**	Carbon Resistor (chip)	18.0K 63M J RECT.	チップ抵抗			01
R0305	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R0306	**RD357180**	Carbon Resistor (chip)	18.0K 63M J RECT.	チップ抵抗			01
R0307	**RD355470**	Carbon Resistor (chip)	470.0 63M J RECT.	チップ抵抗			01
R0308	**RD357220**	Carbon Resistor (chip)	22.0K 63M J RECT.	チップ抵抗			01
R0309	**RD357220**	Carbon Resistor (chip)	22.0K 63M J RECT.	チップ抵抗			01
R0310	**RD355390**	Carbon Resistor (chip)	390.0 63M J RECT.	チップ抵抗			01
R0311	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0313	**RD357470**	Carbon Resistor (chip)	47.0K 63M J RECT.	チップ抵抗			01
-0317	**RD357470**	Carbon Resistor (chip)	47.0K 63M J RECT.	チップ抵抗			01
R0320	**RD356330**	Carbon Resistor (chip)	3.3K 63M J RECT.	チップ抵抗			01
R0321	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R0323	**RD355560**	Carbon Resistor (chip)	560.0 63M J RECT.	チップ抵抗			01
-0327	**RD355560**	Carbon Resistor (chip)	560.0 63M J RECT.	チップ抵抗			01
R0331	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R0332	**RD358100**	Carbon Resistor (chip)	100.0K 63M J RECT.	チップ抵抗			01
R0333	**RD354470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R0401	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0403	**RD356820**	Carbon Resistor (chip)	8.2K 63M J RECT.	チップ抵抗			01
R0404	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0405	**RD357220**	Carbon Resistor (chip)	22.0K 63M J RECT.	チップ抵抗			01
R0406	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0407	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0408	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R0414	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0415	**RD356560**	Carbon Resistor (chip)	5.6K 63M J RECT.	チップ抵抗			01
R0416	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0417	**RD356180**	Carbon Resistor (chip)	1.8K 63M J RECT.	チップ抵抗			01
R0418	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R0419	**RD154330**	Carbon Resistor (chip)	33.0 1/4 J TP	チップ抵抗			01
R0424	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0425	**RD356560**	Carbon Resistor (chip)	5.6K 63M J RECT.	チップ抵抗			01
R0426	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0427	**RD356180**	Carbon Resistor (chip)	1.8K 63M J RECT.	チップ抵抗			01
R0428	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R0429	**RD154330**	Carbon Resistor (chip)	33.0 1/4 J TP	チップ抵抗			01
R0431	**--**	Jumper Wire	0.55	ジャンパー線	(VA07891)		
R0441	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
-0443	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0445	**RD357120**	Carbon Resistor (chip)	12.0K 63M J RECT.	チップ抵抗			01
R0446	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0447	**RD355680**	Carbon Resistor (chip)	680.0 63M J RECT.	チップ抵抗			01
R0451	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
-0453	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0455	**RD357120**	Carbon Resistor (chip)	12.0K 63M J RECT.	チップ抵抗			01
R0456	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0457	**RD355680**	Carbon Resistor (chip)	680.0 63M J RECT.	チップ抵抗			01
R0471	**HF454680**	Carbon Resistor	68.0 1/4 J AX TP	カーボン抵抗			01
R0472	**HF455330**	Carbon Resistor	330.0 1/4 J AX TP	カーボン抵抗			01
R0481	**HF454680**	Carbon Resistor	68.0 1/4 J AX TP	カーボン抵抗			01
R0482	**HF455330**	Carbon Resistor	330.0 1/4 J AX TP	カーボン抵抗			01
R0510	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0511	**RD356560**	Carbon Resistor (chip)	5.6K 63M J RECT.	チップ抵抗			01
R0512	**RD356560**	Carbon Resistor (chip)	5.6K 63M J RECT.	チップ抵抗			01
R0513	**RD356220**	Carbon Resistor (chip)	2.2K 63M J RECT.	チップ抵抗			01
R0514	**RD355120**	Carbon Resistor (chip)	120.0 63M J RECT.	チップ抵抗			01
R0516	**HF453220**	Carbon Resistor	2.2 1/4 J AX TP	カーボン抵抗			01
R0517	**HF453220**	Carbon Resistor	2.2 1/4 J AX TP	カーボン抵抗			01
R0521	**RD356560**	Carbon Resistor (chip)	5.6K 63M J RECT.	チップ抵抗			01
R0522	**RD356560**	Carbon Resistor (chip)	5.6K 63M J RECT.	チップ抵抗			01
R0523	**RD356220**	Carbon Resistor (chip)	2.2K 63M J RECT.	チップ抵抗			01
R0524	**RD355120**	Carbon Resistor (chip)	120.0 63M J RECT.	チップ抵抗			01
R0526	**HF453220**	Carbon Resistor	2.2 1/4 J AX TP	カーボン抵抗			01
R0527	**HF453220**	Carbon Resistor	2.2 1/4 J AX TP	カーボン抵抗			01
R0531	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01

✻: New Parts

RANK: Japan only

AM/DJK/HP/SW/VR

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
R0532	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0533	**RD356180**	Carbon Resistor (chip)	1.8K 63M J RECT.	チップ抵抗			01
R0534	**RD355180**	Carbon Resistor (chip)	180.0 63M J RECT.	チップ抵抗			01
R0541	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0542	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0543	**RD356180**	Carbon Resistor (chip)	1.8K 63M J RECT.	チップ抵抗			01
R0544	**RD355180**	Carbon Resistor (chip)	180.0 63M J RECT.	チップ抵抗			01
R0551	**RD355680**	Carbon Resistor (chip)	680.0 63M J RECT.	チップ抵抗			01
-0554	**RD355680**	Carbon Resistor (chip)	680.0 63M J RECT.	チップ抵抗			01
R0555	**RD356330**	Carbon Resistor (chip)	3.3K 63M J RECT.	チップ抵抗			01
R0556	**RD356220**	Carbon Resistor (chip)	2.2K 63M J RECT.	チップ抵抗			01
R0591	**RD357220**	Carbon Resistor (chip)	22.0K 63M J RECT.	チップ抵抗			01
R0592	**RD356150**	Carbon Resistor (chip)	1.5K 63M J RECT.	チップ抵抗			01
R0593	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0594	**RD356820**	Carbon Resistor (chip)	8.2K 63M J RECT.	チップ抵抗			01
R0595	**RD358100**	Carbon Resistor (chip)	100.0K 63M J RECT.	チップ抵抗			01
R0741	**RD355220**	Carbon Resistor (chip)	220.0 63M J RECT.	チップ抵抗			01
R0742	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R0751	**RD355220**	Carbon Resistor (chip)	220.0 63M J RECT.	チップ抵抗			01
R0752	**RD355220**	Carbon Resistor (chip)	220.0 63M J RECT.	チップ抵抗			01
R0753	**RD356150**	Carbon Resistor (chip)	1.5K 63M J RECT.	チップ抵抗			01
R0754	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0755	**RD357220**	Carbon Resistor (chip)	22.0K 63M J RECT.	チップ抵抗			01
R0756	**RD357220**	Carbon Resistor (chip)	22.0K 63M J RECT.	チップ抵抗			01
R0811	**HF454220**	Carbon Resistor	22.0 1/4 J AX TP	カーボン抵抗			01
R0812	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R0813	**RD355220**	Carbon Resistor (chip)	220.0 63M J RECT.	チップ抵抗			01
R0814	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0821	**HF454220**	Carbon Resistor	22.0 1/4 J AX TP	カーボン抵抗			01
R0822	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R0823	**RD355220**	Carbon Resistor (chip)	220.0 63M J RECT.	チップ抵抗			01
R0824	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R0931	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0932	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R0933	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R0934	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R0936	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R0937	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R0939	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R0940	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
RY1	**V8245600**	Relay	DC ATX203 12V	リレー			04
RY1	**V8616500**	Relay	DC G6S-2 12V	リレー 12V			04
RY1	**WB751900**	Relay	DC EC2-12NU-F 12V	リレー 12V			03
⚠ SW094	**V9661700**	Push Switch	SY16-32-4(U99S2)/T	プッシュSW	STANDBY/ON		03
⚠ SW094	**VY980400**	Push Switch	SDDLB15700 J,UC,CE	プッシュSW			03
⚠ TH090	**V8132900**	Fuse	MF-R250-AP-10	マルチヒューズ			03
⚠ TH090	**VV458000**	Protector Switch	RUEF250 2.50A 30V	ポリスイッチ			03
TR018	**V8819500**	Transistor	2SA1235A E,F TP	トランジスタ			01
TR018	**VV556500**	Transistor	2SA1037AK Q,R,S TP	トランジスタ			01
TR018	**IB070900**	Transistor	2SB709A P,Q,R,S TP	トランジスタ			01
TR041	**VJ927100**	Transistor	2SC2712-Y(TE85R,F)	トランジスタ			01
TR041	**VQ986700**	Transistor	2SC4081 T106 TP	トランジスタ			01
TR041	**VV556400**	Transistor	2SC2412K Q,R,S TP	トランジスタ			01
TR041	**V4767500**	Transistor	2SD0601ARL/AQL Q,R	トランジスタ			01
TR042	**VJ927100**	Transistor	2SC2712-Y(TE85R,F)	トランジスタ			01
TR042	**VQ986700**	Transistor	2SC4081 T106 TP	トランジスタ			01
TR042	**VV556400**	Transistor	2SC2412K Q,R,S TP	トランジスタ			01
TR042	**V4767500**	Transistor	2SD0601ARL/AQL Q,R	トランジスタ			01
TR044	**VD303700**	Transistor	2SC3326 -A,B(TE85R	トランジスタ			01
-047	**VD303700**	Transistor	2SC3326 -A,B(TE85R	トランジスタ			01
TR044	**VZ725900**	Transistor	2SD1938(F) S,T TP	トランジスタ			01
-047	**VZ725900**	Transistor	2SD1938(F) S,T TP	トランジスタ			01
TR055	**VJ927100**	Transistor	2SC2712-Y(TE85R,F)	トランジスタ			01
TR055	**VQ986700**	Transistor	2SC4081 T106 TP	トランジスタ			01
TR055	**VV556400**	Transistor	2SC2412K Q,R,S TP	トランジスタ			01
TR055	**V4767500**	Transistor	2SD0601ARL/AQL Q,R	トランジスタ			01
TR059	**V8819500**	Transistor	2SA1235A E,F TP	トランジスタ			01
TR059	**VV556500**	Transistor	2SA1037AK Q,R,S TP	トランジスタ			01
TR059	**IB070900**	Transistor	2SB709A P,Q,R,S TP	トランジスタ			01
TR075	**VJ927100**	Transistor	2SC2712-Y(TE85R,F)	トランジスタ			01

✻: New Parts

RANK: Japan only

AM/DJK/HP/SW/VR and DM

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
TR075	**VQ986700**	Transistor	2SC4081 T106 TP	トランジスタ			01
TR075	**VV556400**	Transistor	2SC2412K Q,R,S TP	トランジスタ			01
TR075	**V4767500**	Transistor	2SD0601ARL/AQL Q,R	トランジスタ			01
TR076	**VJ927100**	Transistor	2SC2712-Y(TE85R,F)	トランジスタ			01
TR076	**VQ986700**	Transistor	2SC4081 T106 TP	トランジスタ			01
TR076	**VV556400**	Transistor	2SC2412K Q,R,S TP	トランジスタ			01
TR076	**V4767500**	Transistor	2SD0601ARL/AQL Q,R	トランジスタ			01
VR013	**WA994700**	Rotary Variable Resistor	A 10.0K XV014111	二連ロータリーVR	MASTER VOLUME		02
WH001	**--**	Connector Assembly	HPLF 5P L=1600	HPLF束線	(WK43610)		
WH003	**--**	Connector Assembly	SWLF 6P L=1300	SWLF束線	(WK41460)		
WH004	**--**	Wire Assembly	GNDLF	GNDLF束線Ass'y	(WK73300)		
WH005	**--**	Wire Assembly	GNDLF1 L=400	GNDLF1束線Assy	U,E (WK87820)		
WH005	**--**	GND Wire	GROUND L=300	アース線	N (WH91410)		
ZD059	**VG437300**	Zener Diode	MTZ J 5.1A 5.1V TP	ツェナーダイオード			01
*	**WH487800**	Circuit Board	DM	DMシート	(X7776D0)		
C010	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C011	**US663330**	Ceramic Capacitor-B (chip)	3300P 50V K RECT.	チップセラ(B)			
C013	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C030	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C031	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C033	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C037	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C050	**UF038100**	Electrolytic Cap. (chip)	100 16V	チップケミコン			01
C051	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C052	**US662100**	Ceramic Capacitor-CH(chip)	100P 50V J RECT.	チップセラ(CH)			
-059	**US662100**	Ceramic Capacitor-CH(chip)	100P 50V J RECT.	チップセラ(CH)			
C061	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C062	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C064	**UF038100**	Electrolytic Cap. (chip)	100 16V	チップケミコン			01
C065	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C070	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
-073	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C078	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C080	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C081	**US663100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ(B)			01
C082	**US663100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ(B)			01
C101	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
-105	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C106	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C107	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C108	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C109	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
-114	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C116	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C117	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
-119	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C121	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C122	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ(B)			01
C123	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ(F)			01
C124	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ(B)			01
C125	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ(F)			01
C126	**UF008220**	Electrolytic Cap. (chip)	220 4V	チップケミコン			01
C127	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C128	**US660500**	Ceramic Capacitor-CH(chip)	5P 50V C RECT.	チップセラ(CH)			
C129	**US660500**	Ceramic Capacitor-CH(chip)	5P 50V C RECT.	チップセラ(CH)			
C131	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
-134	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C135	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C136	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
-138	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C139	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
-141	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C142	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C144	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C145	**WJ057000**	Electrolytic Cap. (chip)	330 6.3V EEEFK0J33	チップケミコン			
C146	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
-148	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01
C149	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C150	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ(B)			01

*: New Parts

RANK: Japan only

DM

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
-154	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C155	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C156	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
-161	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C162	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C163	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C164	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C200	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C201	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C202	**US661330**	Ceramic Capacitor-CH(chip)	33P 50V J RECT.	チップセラ（CH）			
C203	**US661330**	Ceramic Capacitor-CH(chip)	33P 50V J RECT.	チップセラ（CH）			
C204	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C205	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C206	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C207	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C208	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C209	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C210	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C211	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C212	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C214	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C215	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C217	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C218	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C219	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C220	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C222	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C223	**WJ057000**	Electrolytic Cap. (chip)	330 6.3V EEEFK0J33	チップケミコン			
C251	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C252	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C253	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C254	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C255	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C256	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C257	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C258	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C259	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C260	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C261	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C262	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C263	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C264	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C265	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C266	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C267	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C268	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C269	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C270	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C271	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C272	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C273	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C274	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C275	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C276	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C277	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C278	**US662470**	Ceramic Capacitor-B (chip)	470P 50V K RECT.	チップセラ（B）			01
C279	**UF018100**	Electrolytic Cap. (chip)	100 6.3V	チップケミコン			01
C407	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C408	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C409	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C410	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C420	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C421	**US662330**	Ceramic Capacitor-B (chip)	330P 50V K RECT.	チップセラ（B）			
C422	**US663100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C423	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C424	**US662330**	Ceramic Capacitor-B (chip)	330P 50V K RECT.	チップセラ（B）			
C425	**US663100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C440	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C441	**US662330**	Ceramic Capacitor-B (chip)	330P 50V K RECT.	チップセラ（B）			
C442	**US663100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
C443	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C444	**US662330**	Ceramic Capacitor-B (chip)	330P 50V K RECT.	チップセラ（B）			
C445	**US663100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C552	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C553	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C554	**US663100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
-556	**US663100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（B）			01
C560	**UF038100**	Electrolytic Cap. (chip)	100 16V	チップケミコン			01
C561	**UF038100**	Electrolytic Cap. (chip)	100 16V	チップケミコン			01
C562	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C563	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C564	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
C565	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C566	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
C567	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C568	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C569	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C570	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
C571	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C600	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
-611	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
C612	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
-632	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C640	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C652	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C653	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C655	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C800	**UF118330**	Electrolytic Cap. (chip)	330 6.3V UUR0J3	チップケミコン			01
C801	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C802	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C810	**UF118330**	Electrolytic Cap. (chip)	330 6.3V UUR0J3	チップケミコン			01
C811	**US635100**	Ceramic Capacitor-F (chip)	0.100 16V Z RECT.	チップセラ（F）			01
C900	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
-907	**US634100**	Ceramic Capacitor-B (chip)	0.010 16V K RECT.	チップセラ（B）			01
CN030	**VT388600**	Base Post Connector	PH 5P TE	ベース付ポスト			01
CN031	**VT388700**	Base Post Connector	PH 6P TE	ベース付ポスト			01
CN050	**V4415100**	Connector, FFC/FPC	52808 30P TP	FFC／FPCコネクタ			02
CN060	**VT388800**	Base Post Connector	PH 7P TE	ベース付ポスト			
CN070	**VT389400**	Base Post Connector	PH 13P TE	ベース付ポスト			02
CN400	**VT389200**	Base Post Connector	PH 11P TE	ベース付ポスト			01
CN800	**VT388600**	Base Post Connector	PH 5P TE	ベース付ポスト			01
CN810	**VT388500**	Base Post Connector	PH 4P TE	ベース付ポスト			01
D050	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
-055	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D100	**VS201100**	Diode	D1F60 1A 600V TP	ダイオード			01
D200	**VS201100**	Diode	D1F60 1A 600V TP	ダイオード			01
D400	**VS201100**	Diode	D1F60 1A 600V TP	ダイオード			01
DA30	**V9424900**	Diode Array	TE85L	ダイオードアレイ			01
-33	**V9424900**	Diode Array	TE85L	ダイオードアレイ			01
EM1	**WE056200**	EMI Filter (chip)	NFM21PC105B1A3D	エミフィルチップ			01
-4	**WE056200**	EMI Filter (chip)	NFM21PC105B1A3D	エミフィルチップ			01
IC010	**X7701A00**	IC	BU4229G-TR	IC	SYSTEM RESET		01
IC011	**X3098A00**	IC	SN74AHC14PWR	IC	INVERTER		
IC030	**X7950A00**	IC	BD6516F-E2	IC	HIGH SIDE SWITCH		03
IC031	**X7171A00**	IC	SN74LVC2G125DCUR	IC	BUFFER GATE		03
IC050	**X6788A00**	IC	DS90LV011ATMF/NOPB	IC	LVDS DRIVER		
IC070	**X4454A00**	IC	SN74LVC2G17DCKR	IC	BUFFER		01
IC100	**X2890B00**	IC	HD6417727F160CV	IC	CPU		15
IC101	**X3584B00**	IC	W9812G6DH-7	IC	SDRAM 128M		09
IC101	**X3585D00**	IC	K4S281632I-UC75000	IC			
IC101	**X6720B00**	IC	EDS1216AGTA-75-E	IC			07
IC102	**X3584B00**	IC	W9812G6DH-7	IC	SDRAM 128M		09
IC102	**X3585D00**	IC	K4S281632I-UC75000	IC			
IC102	**X6720B00**	IC	EDS1216AGTA-75-E	IC			07
* IC103	**X8244B00**	IC	S29GL256N10TFI020	IC	FLASH ROM 256M PROGRAM		
IC104	**X4025D00**	IC	MX29LV800CBTC-70G	IC	FLASH ROM 8M BACK UP		05
IC104	**X7354A00**	IC	S29AL008D90TFI020	IC			04
IC110	**X7820A00**	IC	BA18BC0FP-E2	IC	REGULATOR +1.8V		02
IC200	**X7376B00**	IC	T6TZ2XBG-0002	IC	SWP51		17
IC201	**X2760C00**	IC	K4S641632K-UC75000	IC	SDRAM 64M		07

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IC201	**XZ414C00**	IC	W9864G6EH-7	IC			07
IC202	**X8245B00**	IC	S29GL256N10TFI020	IC	FLASH ROM 256M WAVE L		
IC203	**X8246B00**	IC	S29GL256N10TFI020	IC	FLASH ROM 256M WAVE H		
IC204	**X7700A00**	IC	BA15BC0FP-E2	IC	REGULATOR +1.5V		02
IC400	**X6040A00**	IC	AK4385ET	IC	DAC		03
IC420	**X3505A00**	IC	NJM2068M-D(TE2)	IC	OP AMP		02
IC420	**X5482A00**	IC	NE5532DR	IC			
IC460	**XS534A00**	IC	NJM78M05DL1A	IC	REGULATOR +5V		02
IC490	**X3505A00**	IC	NJM2068M-D(TE2)	IC	OP AMP		02
IC490	**X5482A00**	IC	NE5532DR	IC			
IC900	**X7618A00**	IC	SN74LV139APWR	IC	DECODER		
IC901	**X3693A00**	IC	SN74LV245APWR	IC	TRANSCEIVER		
-904	**X3693A00**	IC	SN74LV245APWR	IC			
IC901	**XU797B00**	IC	TC74VHC245FT(EL,K)	IC			01
-904	**XU797B00**	IC	TC74VHC245FT(EL,K)	IC			01
IC901	**XW744A00**	IC	HD74LV245ATELL-E	IC			02
-904	**XW744A00**	IC	HD74LV245ATELL-E	IC			02
IC905	**XQ173A00**	IC	TC7W32FU(TE12L,F)	IC	OR		01
IC907	**X5535A00**	IC	SN74LV175APWR	IC	D-FF		01
IC908	**X0010A00**	IC	HD74LV21ATELL	IC	AND		01
IC908	**X2377A00**	IC	SN74LV21APWR	IC			01
L050	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
-057	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L050	**WG595200**	Chip Inductance	GZ1608D60 SU	チップインダクタ			
-057	**WG595200**	Chip Inductance	GZ1608D60 SU	チップインダクタ			
L059	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
-065	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L059	**WG595200**	Chip Inductance	GZ1608D60 SU	チップインダクタ			
-065	**WG595200**	Chip Inductance	GZ1608D60 SU	チップインダクタ			
L070	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
-078	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L070	**WG595200**	Chip Inductance	GZ1608D60 SU	チップインダクタ			
-078	**WG595200**	Chip Inductance	GZ1608D60 SU	チップインダクタ			
L100	**VR579900**	Chip Inductance	BK2125 HS601-T	チップインダクタ			01
L100	**WG595500**	Chip Inductance	GZ2012U60 SU	チップインダクタ			
L200	**V2747000**	Chip Inductance	BLM18PG600SN1	チップインダクタ			
L200	**WG593700**	Chip Inductance	PZ1608U60 SU	チップインダクタ			
R010	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R016	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R020	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R030	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R034	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R035	**RD458100**	Carbon Resistor (chip)	100.0K 63M J RECT.	チップ抵抗			01
R036	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R037	**RD456150**	Carbon Resistor (chip)	1.5K 63M J RECT.	チップ抵抗			01
R038	**RD456150**	Carbon Resistor (chip)	1.5K 63M J RECT.	チップ抵抗			01
R039	**RD454270**	Carbon Resistor (chip)	27.0 63M J RECT.	チップ抵抗			01
R040	**RD454270**	Carbon Resistor (chip)	27.0 63M J RECT.	チップ抵抗			01
R041	**RD456680**	Carbon Resistor (chip)	6.8K 63M J RECT.	チップ抵抗			01
R043	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R044	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R045	**RD454270**	Carbon Resistor (chip)	27.0 63M J RECT.	チップ抵抗			01
R046	**RD454270**	Carbon Resistor (chip)	27.0 63M J RECT.	チップ抵抗			01
R047	**RD457150**	Carbon Resistor (chip)	15.0K 63M J RECT.	チップ抵抗			01
R048	**RD457150**	Carbon Resistor (chip)	15.0K 63M J RECT.	チップ抵抗			01
R051	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R052	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R053	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R056	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R070	**RD455100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R071	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R072	**RD458100**	Carbon Resistor (chip)	100.0K 63M J RECT.	チップ抵抗			01
R073	**RD455100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R074	**RD455100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R075	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R076	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R077	**RD458470**	Carbon Resistor (chip)	470.0K 63M J RECT.	チップ抵抗			
R078	**RD458470**	Carbon Resistor (chip)	470.0K 63M J RECT.	チップ抵抗			
R080	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R081	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01

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R083	**RD458470**	Carbon Resistor (chip)	470.0K 63M J RECT.	チップ抵抗			
R086	**RD458470**	Carbon Resistor (chip)	470.0K 63M J RECT.	チップ抵抗			
R087	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
-090	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R100	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R101	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R104	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R105	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R106	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R108	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
-116	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R130	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R131	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R132	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R136	**RD455100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R137	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R138	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R139	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R140	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R144	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
-146	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R147	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R150	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
-157	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R158	**RD455470**	Carbon Resistor (chip)	470.0 63M J RECT.	チップ抵抗			01
R159	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
-161	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R162	**RD455220**	Carbon Resistor (chip)	220.0 63M J RECT.	チップ抵抗			01
R163	**RD455220**	Carbon Resistor (chip)	220.0 63M J RECT.	チップ抵抗			01
R164	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R165	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R166	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
-170	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R178	**RD458100**	Carbon Resistor (chip)	100.0K 63M J RECT.	チップ抵抗			01
R180	**RD458470**	Carbon Resistor (chip)	470.0K 63M J RECT.	チップ抵抗			
R181	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R182	**RD456680**	Carbon Resistor (chip)	6.8K 63M J RECT.	チップ抵抗			01
R183	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R185	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R187	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R192	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R195	**RD455100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R196	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R198	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R200	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R201	**RD455220**	Carbon Resistor (chip)	220.0 63M J RECT.	チップ抵抗			01
R202	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R203	**RD459100**	Carbon Resistor (chip)	1.0M 63M J RECT.	チップ抵抗			01
R204	**RD455560**	Carbon Resistor (chip)	560.0 63M J RECT.	チップ抵抗			
R205	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R206	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R208	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R210	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R211	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R212	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
-217	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R218	**RD454220**	Carbon Resistor (chip)	22.0 63M J RECT.	チップ抵抗			01
R221	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
-223	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R227	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R228	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R230	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R231	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R233	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R237	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R247	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R249	**RD457100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R251	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R252	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R420	**RD456390**	Carbon Resistor (chip)	3.9K 63M J RECT.	チップ抵抗			

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
R421	**RD456560**	Carbon Resistor (chip)	5.6K 63M J RECT.	チップ抵抗			01
R422	**RD456470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R423	**RD456390**	Carbon Resistor (chip)	3.9K 63M J RECT.	チップ抵抗			
R424	**RD456560**	Carbon Resistor (chip)	5.6K 63M J RECT.	チップ抵抗			01
R425	**RD456470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R426	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R440	**RD456390**	Carbon Resistor (chip)	3.9K 63M J RECT.	チップ抵抗			
R441	**RD456560**	Carbon Resistor (chip)	5.6K 63M J RECT.	チップ抵抗			01
R442	**RD456470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R443	**RD456390**	Carbon Resistor (chip)	3.9K 63M J RECT.	チップ抵抗			
R444	**RD456560**	Carbon Resistor (chip)	5.6K 63M J RECT.	チップ抵抗			01
R445	**RD456470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R446	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R460	**RD456470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R461	**RD456470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R462	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R463	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R464	**RD456100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R465	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R512	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R810	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R811	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R900	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
-911	**RD454470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R916	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
-918	**RD450000**	Carbon Resistor (chip)	0.00 63M J RECT.	チップ抵抗			01
R919	**RD454220**	Carbon Resistor (chip)	22.0 63M J RECT.	チップ抵抗			01
-921	**RD454220**	Carbon Resistor (chip)	22.0 63M J RECT.	チップ抵抗			01
RA01	**V7394200**	Resistor Array	MNR04-M0ABJ470	抵抗アレイ			01
-06	**V7394200**	Resistor Array	MNR04-M0ABJ470	抵抗アレイ			01
RA01	**WH206200**	Resistor Array	47X4 M	抵抗アレイ			01
-06	**WH206200**	Resistor Array	47X4 M	抵抗アレイ			01
RA08	**V7394200**	Resistor Array	MNR04-M0ABJ470	抵抗アレイ			01
-19	**V7394200**	Resistor Array	MNR04-M0ABJ470	抵抗アレイ			01
RA08	**WH206200**	Resistor Array	47X4 M	抵抗アレイ			01
-19	**WH206200**	Resistor Array	47X4 M	抵抗アレイ			01
RA20	**V9229500**	Chip Resistor Array	MNR04-M0ABJ103	チップ抵抗アレイ			01
-23	**V9229500**	Chip Resistor Array	MNR04-M0ABJ103	チップ抵抗アレイ			01
RA20	**WH211800**	Resistor Array	10K X 4 M	抵抗アレイ			
-23	**WH211800**	Resistor Array	10K X 4 M	抵抗アレイ			
RA24	**V7394200**	Resistor Array	MNR04-M0ABJ470	抵抗アレイ			01
-31	**V7394200**	Resistor Array	MNR04-M0ABJ470	抵抗アレイ			01
RA24	**WH206200**	Resistor Array	47X4 M	抵抗アレイ			01
-31	**WH206200**	Resistor Array	47X4 M	抵抗アレイ			01
RA32	**V9229500**	Chip Resistor Array	MNR04-M0ABJ103	チップ抵抗アレイ			01
-37	**V9229500**	Chip Resistor Array	MNR04-M0ABJ103	チップ抵抗アレイ			01
RA32	**WH211800**	Resistor Array	10K X 4 M	抵抗アレイ			
-37	**WH211800**	Resistor Array	10K X 4 M	抵抗アレイ			
RA38	**V7394200**	Resistor Array	MNR04-M0ABJ470	抵抗アレイ			01
-49	**V7394200**	Resistor Array	MNR04-M0ABJ470	抵抗アレイ			01
RA38	**WH206200**	Resistor Array	47X4 M	抵抗アレイ			01
-49	**WH206200**	Resistor Array	47X4 M	抵抗アレイ			01
RA51	**V7394200**	Resistor Array	MNR04-M0ABJ470	抵抗アレイ			01
RA51	**WH206200**	Resistor Array	47X4 M	抵抗アレイ			01
RA52	**V7394200**	Resistor Array	MNR04-M0ABJ470	抵抗アレイ			01
RA52	**WH206200**	Resistor Array	47X4 M	抵抗アレイ			01
RA53	**V9229500**	Chip Resistor Array	MNR04-M0ABJ103	チップ抵抗アレイ			01
-55	**V9229500**	Chip Resistor Array	MNR04-M0ABJ103	チップ抵抗アレイ			01
RA53	**WH211800**	Resistor Array	10K X 4 M	抵抗アレイ			
-55	**WH211800**	Resistor Array	10K X 4 M	抵抗アレイ			
RA56	**WC976600**	Chip Resistor Array	MNR04-M0ABJ471	チップ抵抗アレイ			
RA56	**WH208600**	Resistor Array	470 X 4	抵抗アレイ			
RA57	**V9229500**	Chip Resistor Array	MNR04-M0ABJ103	チップ抵抗アレイ			01
RA57	**WH211800**	Resistor Array	10K X 4 M	抵抗アレイ			
SW1	**V3026900**	Jumper Switch	CHS-01 TA1	ジャンパーSW	J/E Select		02
X1	**WH521200**	Quartz Crystal Unit	48MHz SG-310SCF	水晶振動器			04
X2	**VP864900**	Quartz Crystal Unit	16MHz SMD-49	水晶振動子			04
X3	**VP864800**	Quartz Crystal Unit	11.2896MHz SMD-49	水晶振動子			04
*	**WJ007000**	Circuit Board	EIF	EIFシート	(WJ00670)(X8085D0)		

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
*		**WJ007200**	Circuit Board	ENC	ＥＮＣシート	(WJ00670)(X8085D0)		
*		**WJ007100**	Circuit Board	INV	ＩＮＶシート	(WJ00670)(X8085D0)		
*		**WJ007400**	Circuit Board	MOD	ＭＯＤシート	(WJ00670)(X8085D0)		
*		**WJ007500**	Circuit Board	OR	ＯＲシート	(WJ00670)(X8085D0)		
*		**WJ007300**	Circuit Board	PB	ＰＢシート	(WJ00670)(X8085D0)		
*		**WJ006800**	Circuit Board	PNCA	ＰＮＣＡシート	(WJ00670)(X8085D0)		
*		**WJ006900**	Circuit Board	PNCB	ＰＮＣＢシート	(WJ00670)(X8085D0)		
	C001	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C002	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C010	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C011	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C201	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C202	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C203	**UF128220**	Electrolytic Cap. (chip)	220 10V UUR1A2	チップケミコン			01
	C204	**UF128470**	Electrolytic Cap. (chip)	470 10V UUR1A4	チップケミコン			02
	C205	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C206	**UF128470**	Electrolytic Cap. (chip)	470 10V UUR1A4	チップケミコン			02
	C207	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	-209	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C210	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（ＳＬ）			01
	-226	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（ＳＬ）			01
	C227	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z RECT.	チップセラ（Ｆ）			01
	C228	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C229	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C230	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（ＳＬ）			01
	-235	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（ＳＬ）			01
	C236	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（Ｂ）			01
	C237	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（ＳＬ）			01
	-249	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J RECT.	チップセラ（ＳＬ）			01
	C250	**UF128220**	Electrolytic Cap. (chip)	220 10V UUR1A2	チップケミコン			01
	C251	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C252	**UF128220**	Electrolytic Cap. (chip)	220 10V UUR1A2	チップケミコン			01
	C253	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C254	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C255	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
	C256	**UB445470**	Monolithic Ceramic Cap.	F 0.470 16V Z RECT	チップ積層セラコン			01
	C257	**V9451800**	Electrolytic Cap. (chip)	47.00 10.0V REFLOW	チップ ＯＳケミコン			03
	C258	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C259	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
	C260	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J RECT.	チップセラ（ＣＨ）			01
	C261	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J RECT.	チップセラ（ＣＨ）			01
	C262	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C263	**UF038100**	Electrolytic Cap. (chip)	100 16V	チップケミコン			01
	C264	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C265	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K RECT.	チップセラ（Ｂ）			01
	C266	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C267	**UF038100**	Electrolytic Cap. (chip)	100 16V	チップケミコン			01
	C268	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C272	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C273	**UF037100**	Electrolytic Cap. (chip)	10 16V	チップケミコン			01
	C274	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チップセラ（Ｆ）			01
	C301	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ（Ｂ）			01
	C302	**UF038100**	Electrolytic Cap. (chip)	100 16V	チップケミコン			01
	C305	**WB489000**	Mylar Capacitor (chip)	0.27 250V K	チップマイラ			
	C306	**WH116000**	Monolithic Ceramic Cap.	15P 3.15KV J TAPIN	チップ積層セラコン			01
	CN001	**V9560600**	Connector, FFC/FPC	52808 22P TE	ＦＦＣ／ＦＰＣコネクタ			02
	CN002	**WC195100**	Connector, FFC/FPC	52808 13P TE	ＦＦＣ／ＦＰＣコネクタ			
	CN101	**WC195100**	Connector, FFC/FPC	52808 13P TE	ＦＦＣ／ＦＰＣコネクタ			
	CN201	**VT388700**	Base Post Connector	PH 6P TE	ベース付ポスト			01
	CN202	**WC194500**	Connector, FFC/FPC	52808 6P TE	ＦＦＣ／ＦＰＣコネクタ			
	CN203	**VT388500**	Base Post Connector	PH 4P TE	ベース付ポスト			01
	CN204	**WC199600**	Connector, FFC/FPC	52808 23P TE	ＦＦＣ／ＦＰＣコネクタ			02
	CN205	**V9560600**	Connector, FFC/FPC	52808 22P TE	ＦＦＣ／ＦＰＣコネクタ			02
	CN206	**V6478900**	Connector, FFC/FPC	52808 26P TE	ＦＦＣ／ＦＰＣコネクタ			01
	CN207	**V4415100**	Connector, FFC/FPC	52808 30P TP	ＦＦＣ／ＦＰＣコネクタ			02
	CN208	**V7294600**	Connector, FFC/FPC	52559 20P TE	ＦＦＣ／ＦＰＣコネクタ			02
	CN301	**VT388500**	Base Post Connector	PH 4P TE	ベース付ポスト			01
	CN302	**WB748700**	Connector	BH 2P SE	ＢＨコネクタ			03
	CN401	**VT388400**	Base Post Connector	PH 3P TE	ベース付ポスト			01
	CN501	**VT388400**	Base Post Connector	PH 3P TE	ベース付ポスト			01

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REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
CN601	**VT388500**	Base Post Connector	PH 4P TE	ベース付ポスト			01
CN901	**WC195200**	Connector, FFC/FPC	52808 14P TE	FFC／FPCコネクタ			01
D001	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
-036	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D001	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
-036	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D001	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
-036	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
D101	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
-112	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D101	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
-112	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D101	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
-112	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
D201	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
-204	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D201	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
-204	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D201	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
-204	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
D208	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
-213	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D208	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
-213	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D208	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
-213	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
D901	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
-919	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D901	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
-919	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D901	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
-919	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
EC401	**VU481300**	Encoder	REB161 PVB 15F	16形エンコーダ	Data entry		03
EM001	**WE056200**	EMI Filter (chip)	NFM21PC105B1A3D	エミフィルチップ			01
EM002	**WE056200**	EMI Filter (chip)	NFM21PC105B1A3D	エミフィルチップ			01
EM201	**WE056200**	EMI Filter (chip)	NFM21PC105B1A3D	エミフィルチップ			01
-204	**WE056200**	EMI Filter (chip)	NFM21PC105B1A3D	エミフィルチップ			01
IC201	**X4406100**	IC	M38044M4-C16FPU0	IC	LED DRIVER/SWITCH SCAN		08
IC202	**X7287A00**	IC	LMV358AM8X_NL	IC	OP AMP		03
IC204	**X6789A00**	IC	DS90LV012ATMF/NOPB	IC	LVDS RECEIVER		05
L001	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L204	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
-206	**VY657200**	Chip Inductance	600 BK1608HM601-T	チップインダクタ			01
L302	**WH673300**	Coil	RCH-875NP-560K 56u	コイル 5 6 U			
LD001	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	USB		01
LD101	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	FREEZE		01
LD102	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	1 (REGISTRATION MEMORY)		01
LD103	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	2 (REGISTRATION MEMORY)		01
LD104	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	3 (REGISTRATION MEMORY)		01
LD105	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	4 (REGISTRATION MEMORY)		01
LD106	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	5 (REGISTRATION MEMORY)		01
LD107	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	6 (REGISTRATION MEMORY)		01
LD108	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	7 (REGISTRATION MEMORY)		01
LD109	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	8 (REGISTRATION MEMORY)		01
LD901	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	C# (SCALE SETTING)		01
LD902	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	D# (SCALE SETTING)		01
LD903	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	F# (SCALE SETTING)		01
LD904	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	G# (SCALE SETTING)		01
LD905	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	A# (SCALE SETTING)		01
LD906	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	C (SCALE SETTING)		01
LD907	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	D (SCALE SETTING)		01
LD908	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	E (SCALE SETTING)		01
LD909	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	F (SCALE SETTING)		01
LD910	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	G (SCALE SETTING)		01
LD911	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	A (SCALE SETTING)		01
LD912	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	B (SCALE SETTING)		01
LD913	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	1 (SCALE MEMORY)		01
LD914	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	2 (SCALE MEMORY)		01
LD915	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	3 (SCALE MEMORY)		01
LD916	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	4 (SCALE MEMORY)		01

✻: New Parts

RANK: Japan only

EIF/ENC/INV/MOD/OR/PB/PNCA/PNCB and EMKS61A

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
LD917	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	5 (SCALE MEMORY)		01
LD918	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	6 (SCALE MEMORY)		01
R001	**RD356560**	Carbon Resistor (chip)	5.6K 63M J RECT.	チップ抵抗			01
R002	**RD356470**	Carbon Resistor (chip)	4.7K 63M J RECT.	チップ抵抗			01
R004	**RD150000**	Carbon Resistor (chip)	0.0 1/4 J TP	チップ抵抗			01
R005	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R010	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R101	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R102	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R103	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R104	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R105	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R106	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R107	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R108	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R109	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R110	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R111	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R112	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R113	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R114	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R115	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R116	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R201	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R202	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R203	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J TP	チップ抵抗			01
-211	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J TP	チップ抵抗			01
R212	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R214	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
-223	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R225	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.	チップ抵抗			01
R226	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R227	**RD354470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R228	**RD354470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R230	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R232	**RD354680**	Carbon Resistor (chip)	68.0 63M J RECT.	チップ抵抗			01
R233	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R235	**RD355330**	Carbon Resistor (chip)	330.0 63M J RECT.	チップ抵抗			01
R236	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R237	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R239	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R259	**RD355270**	Carbon Resistor (chip)	270.0 63M J RECT.	チップ抵抗			01
R260	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R261	**RD153470**	Carbon Resistor (chip)	4.7 1/4 J TP	チップ抵抗			01
-264	**RD153470**	Carbon Resistor (chip)	4.7 1/4 J TP	チップ抵抗			01
R303	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J TP	チップ抵抗			01
R304	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J TP	チップ抵抗			01
T301	**WH480600**	Inverter Transformer	EP208B/TW	インバータトランス			06
TA201	**V8566600**	Transistor Array	TD62785FG-(5,EL)	トランジスタアレイ			05
TA202	**V8566600**	Transistor Array	TD62785FG-(5,EL)	トランジスタアレイ			05
TA203	**VY703900**	Transistor Array	TD62309FG(5,EL)	トランジスタアレイ			04
TA204	**VY703900**	Transistor Array	TD62309FG(5,EL)	トランジスタアレイ			04
TH201	**WK514800**	Protector Switch	MF-MSMF200-2	POLYSWITCH			
TH202	**WK514700**	Protector Switch	MF-MSMF050-2	POLYSWITCH			
TP401	**VE340300**	Test Pin	IRS-1169	テストポイントピン			01
TR201	**VY677700**	Digital Transistor	DTB123YK T146	デジタルトランジスタ			01
TR201	**WG989900**	Digital Transistor	KRA226S-RTK/P	デジタルトランジスタ			01
TR202	**WJ114400**	Transistor	2SC5886(TE16L1,NQ)	トランジスタ			
TR302	**V9065800**	Transistor	2SC4672 T100 P P	トランジスタ			01
TR303	**V9065800**	Transistor	2SC4672 T100 P P	トランジスタ			01
VR001	**VS368200**	Rotary Variable Resistor	B10K RK09K1130A8G	ロータリーVR 1連	LCD CONTRAST		01
VR501	**VZ486300**	Rotary Variable Resistor	B10K EVJ05DF20B14	ロータリーVR	PITCH BEND		03
VR601	**VZ486300**	Rotary Variable Resistor	B10K EVJ05DF20B14	ロータリーVR	MODULATION		03
X201	**WH673400**	Ceramic Resonator	16.8MHz CSTCE16M8V51	セラミック振動子			02
	WF310500	Circuit Board	EMKS61A (E-BUS)	EMKS61Aシート	(WF31010)(X6637C0)		
	--	Vibration-proof Tape	10X64X0.5	防振テープ	(VK34680)		
C0001	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z RECT.	チップセラ(F)			01
C0002	**UF038100**	Electrolytic Cap. (chip)	100 16V	チップケミコン			01
C0003	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チップセラ(B)			01

✻: New Parts

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EMKS61A and MK-H and MK-L and PNL/PNR

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
C0004	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z RECT.	チップセラ（F）			01
C0005	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z RECT.	チップセラ（F）			01
C0006	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ（SL）			01
-0028	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.	チップセラ（SL）			01
CN001	**VB390300**	Base Post Connector	PH 7P TE	ベースポスト			01
CN002	**VK025600**	Wire Trap	52147 12P TE	ワイヤートラップ			01
CN003	**VK024900**	Wire Trap	52147 5P TE	ワイヤートラップ			01
CN004	**VK025100**	Wire Trap	52147 7P TE	ワイヤートラップ			01
D0001	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
-0003	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
IC001	**X0031200**	IC	UPD780031AYGK-N04	IC	LKS		05
J0002	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R0001	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.	チップ抵抗			01
R0002	**RD354470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R0003	**RD354470**	Carbon Resistor (chip)	47.0 63M J RECT.	チップ抵抗			01
R0005	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
R0006	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.	チップ抵抗			01
RA001	**V8090800**	Resistor Array	RGLE12X103J	抵抗アレイ			01
X0001	**V6150500**	Ceramic Resonator	8.38MHz EFOS8384E5	セラミック振動子			01
	VU648200	Circuit Board	MK-H	MKーHシート	(VU64800)(XR565C0)		09
2	**VB941200**	Diode	1SS133,1SS176 TE	ダイオード			01
5	**VK025600**	Wire Trap	52147 12P TE	ワイヤートラップ			01
6	**VK024900**	Wire Trap	52147 5P TE	ワイヤートラップ			01
	VU648100	Circuit Board	MK-L	MKーLシート	(VU64790)(XR564C0)		09
2	**VB941200**	Diode	1SS133,1SS176 TE	ダイオード			01
5	**VK025600**	Wire Trap	52147 12P TE	ワイヤートラップ			01
6	**VK025100**	Wire Trap	52147 7P TE	ワイヤートラップ			01
*	**WJ012900**	Circuit Board	PNL	PNLシート	(WJ01280)(X8086D0)		
*	**WJ013000**	Circuit Board	PNR	PNRシート	(WJ01280)(X8086D0)		
CN001	**WD295900**	Connector, FFC	52793 23P SE	FFCコネクター			01
CN002	**VT388400**	Base Post Connector	PH 3P TE	ベース付ポスト			01
CN101	**V4574900**	Connector, FFC	52793-2670	FFCコネクター			02
CN102	**WA625700**	Connector, FFC	52793 14P SE	FFCコネクター			
CN103	**VT619300**	Base Post Connector	PH 7P SE	ベース付ポスト			01
CN105	**WC194500**	Connector, FFC/FPC	52808 6P TE	FFC／FPCコネクタ			
D001	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
-044	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D001	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
-044	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D001	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
-044	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
D101	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
-109	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D101	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
-109	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D101	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
-109	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
D111	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
-151	**VR496500**	Diode	MA111 FLAT TP	ダイオード			
D111	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
-151	**VT332900**	Diode	1SS355 TE-17 TP	ダイオード			01
D111	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
-151	**WC398800**	Diode	KDS160-RTK/P TP	ダイオード			01
LD001	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	LEFT (PART SELECT)		01
LD002	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	RIGHT1 (PART SELECT)		01
LD003	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	RIGHT2 (PART SELECT)		01
LD004	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	PIANO (VOICE)		01
LD005	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	GUITAR & BASS (VOICE)		01
LD006	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	ORGAN (VOICE)		01
LD007	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	ACCORDION&HARMONICA (VOICE)		01
LD008	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	ORIENTAL (VOICE)		01
LD009	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	E.PIANO (VOICE)		01
LD010	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	SAXOPHONE (VOICE)		01
LD011	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	TRUMPET (VOICE)		01
LD012	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	CHOIR & SYNTH. (VOICE)		01
LD013	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	PERC.&DRUM KIT (VOICE)		01
LD014	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップLED	LEFT HOLD (PART ON/OFF)		01

*: New Parts

RANK: Japan only

PNL/PNR

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
LD015	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	LEFT (PART ON/OFF)		01
LD016	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	RIGHT1 (PART ON/OFF)		01
LD017	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	RIGHT2 (PART ON/OFF)		01
LD018	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	STRINGS (VOICE)		01
LD019	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	FLUTE & WOODWIND (VOICE)		01
LD020	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	BRASS (VOICE)		01
LD021	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	ORGAN FLUTES (VOICE)		01
LD022	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	USER (VOICE)		01
LD023	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	1 (MULTI PAD CONTROL)		01
LD024	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	2 (MULTI PAD CONTROL)		01
LD025	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	3 (MULTI PAD CONTROL)		01
LD026	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	4 (MULTI PAD CONTROL)		01
LD027	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	1 (ONE TOUCH SETTING)		01
LD028	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	2 (ONE TOUCH SETTING)		01
LD029	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	3 (ONE TOUCH SETTING)		01
LD030	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	4 (ONE TOUCH SETTING)		01
LD031	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	HARMONY/ECHO (VOICE CONTROL)		01
LD032	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	TOUCH (VOICE CONTROL)		01
LD033	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	SUSTAIN (VOICE CONTROL)		01
LD034	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	MONO (VOICE CONTROL)		01
LD035	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	DSP (VOICE CONTROL)		01
LD036	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	VARI. (VOICE CONTROL)		01
LD101	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	REPEAT (SONG)		01
LD102	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	GUIDE (SONG)		01
LD103	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	EXTRA TR (SONG)		01
LD104	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	TR 2 (SONG)		01
LD105	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	TR 1 (SONG)		01
LD107	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	REC (SONG)		01
LD108	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	PLAY/PAUSE (SONG)		01
LD109	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	FADE IN/OUT		01
LD110	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	OTS LINK		01
LD111	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	AUTO FILL IN		01
LD112	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	POP & ROCK (STYLE)		01
LD113	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	SWING & JAZZ (STYLE)		01
LD114	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	ARABIC & MAGHREBI (STYLE)		01
LD115	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	TURKISH&GREEK (STYLE)		01
LD116	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	BALLAD (STYLE)		01
LD117	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	LATIN & BALLROOM (STYLE)		01
LD118	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	KHALIGI (STYLE)		01
LD119	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	WORLD (STYLE)		01
LD120	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	DANCE (STYLE)		01
LD121	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	ENTERTAINMENT (STYLE)		01
LD122	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	IRANIAN (STYLE)		01
LD123	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	USER (STYLE)		01
LD124	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	METRONOME (STYLE)		01
LD125	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	ACMP		01
LD126	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	INTRO I		01
LD127	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	INTRO II		01
LD128	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	INTRO III		01
LD129	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	MAIN VARIATION A		01
LD130	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	MAIN VARIATION B		01
LD131	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	MAIN VARIATION C		01
LD132	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	MAIN VARIATION D		01
LD133	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	BREAK		01
LD134	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	ENDING/rit. I		01
LD135	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	ENDING/rit. II		01
LD136	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	ENDING/rit. III		01
LD137	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	SYNC STOP		01
LD138	**WJ491700**	LED (chip) Amber	BL-HJF36J-TRB	チップ LED	SYNC START		01
LD139	**WJ491600**	LED (chip) AM/YG	BL-HJFGE36J-TRB	2色LEDチップ	START/STOP		01
R001	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R002	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R003	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R004	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R005	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R006	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R007	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R008	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R009	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R010	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01

✻: New Parts

RANK: Japan only

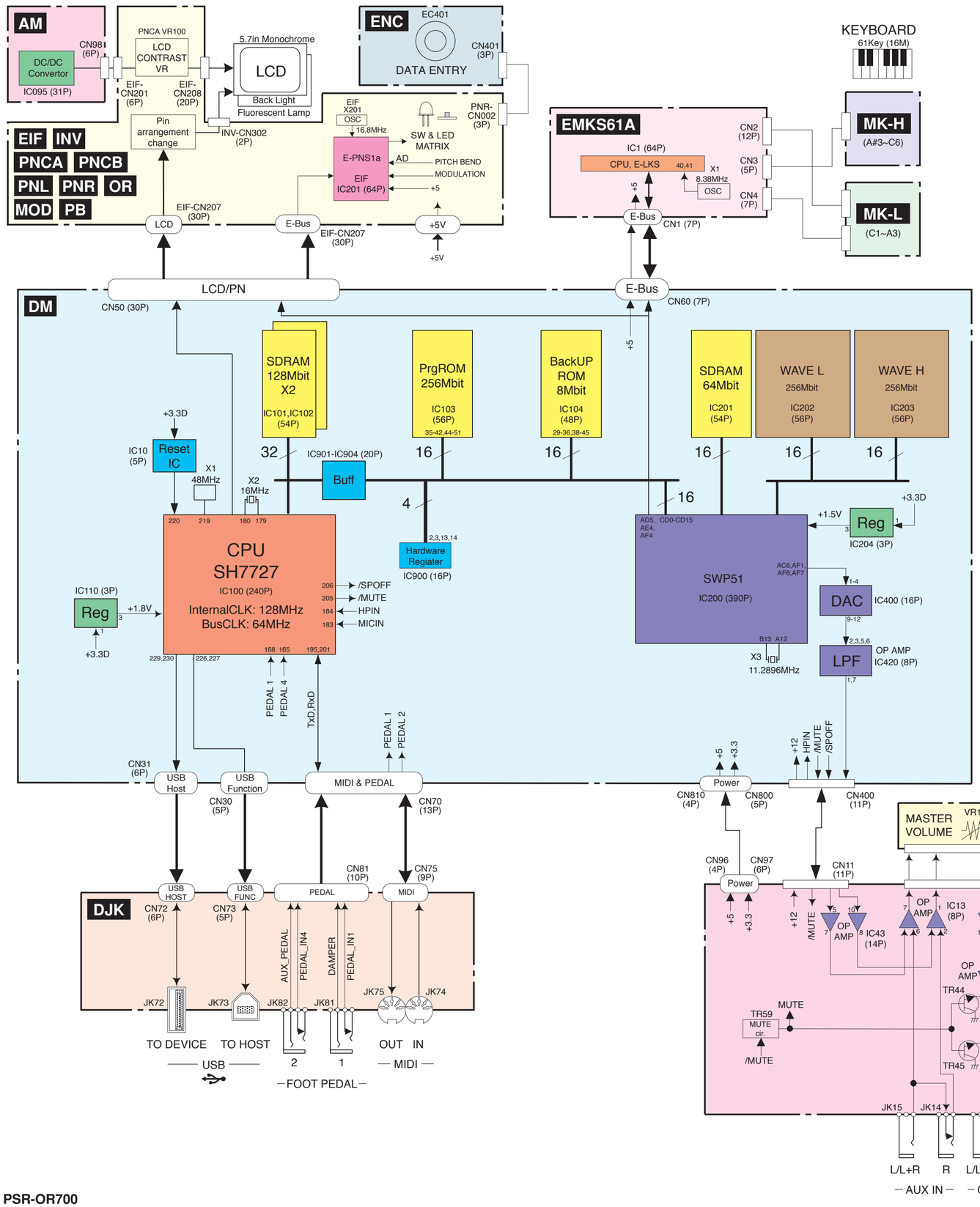
PNL/PNR

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	RANK
R011	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R012	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R013	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R014	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R015	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R016	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R101	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R102	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R103	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R104	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R105	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R106	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R109	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R110	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R111	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R112	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R113	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R114	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R115	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R116	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R117	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R118	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R119	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R120	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R121	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R122	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R123	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R124	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R125	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R126	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R127	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R128	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R129	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R130	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R131	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R132	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
R133	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
-135	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.	チップ抵抗			01
R136	**RD354560**	Carbon Resistor (chip)	56.0 63M J RECT.	チップ抵抗			01
	XT523A00	Speaker	12.0cm 4ohm 10W	スピーカー	WOOFER	2	07
	XV910A00	Speaker	5.0cm 4ohm 10W	スピーカー	TWEETER	2	05
	WH447300	LCD	EDMMUG1BBF	液晶ディスプレイ			

✻: New Parts

RANK: Japan only

■PSR-OR700 BLOCK DIAGRAM



Circuit diagram notational explanations.

(Example)
to DJK-CN75
<Page 9: E-5>

Page 9 are the page of a circuit diagram.
E-5 is indicates the location of the counter inter-sheet connector.
(The alphabet indicates horizontal direction and the number indicates vertical direction)

28CA1-2001011971-1

PSR-OR700

■ PSR-OR700 OVERALL CIRCUIT DIAGRAM 1/6 (DM1/2)

DM 1/2

■ CONTENTS
PSR-OR700 OVERALL CIRCUIT DIAGRAM

AM 5
DJK 6
DM 1/2 1
DM 2/2 2
EIF 4
EMKS61A 3
ENC 4
HP 5
INV 4
MK-H 3
MK-L 3
MOD 3
OR 3
PB 3
PNCA 6
PNCB 6
PNL 3
PNR 4
SW 5
VR 5

Circuit diagram notational explanations.

(Example)
to DJK-CN75
<Page 9: E-5>

Page 9 are the page of a circuit diagram.
E-5 is indicates the location of the counter inter-sheet connector.
(The alphabet indicates horizontal direction and the number indicates vertical direction)

28CC1-2001009593-1 A

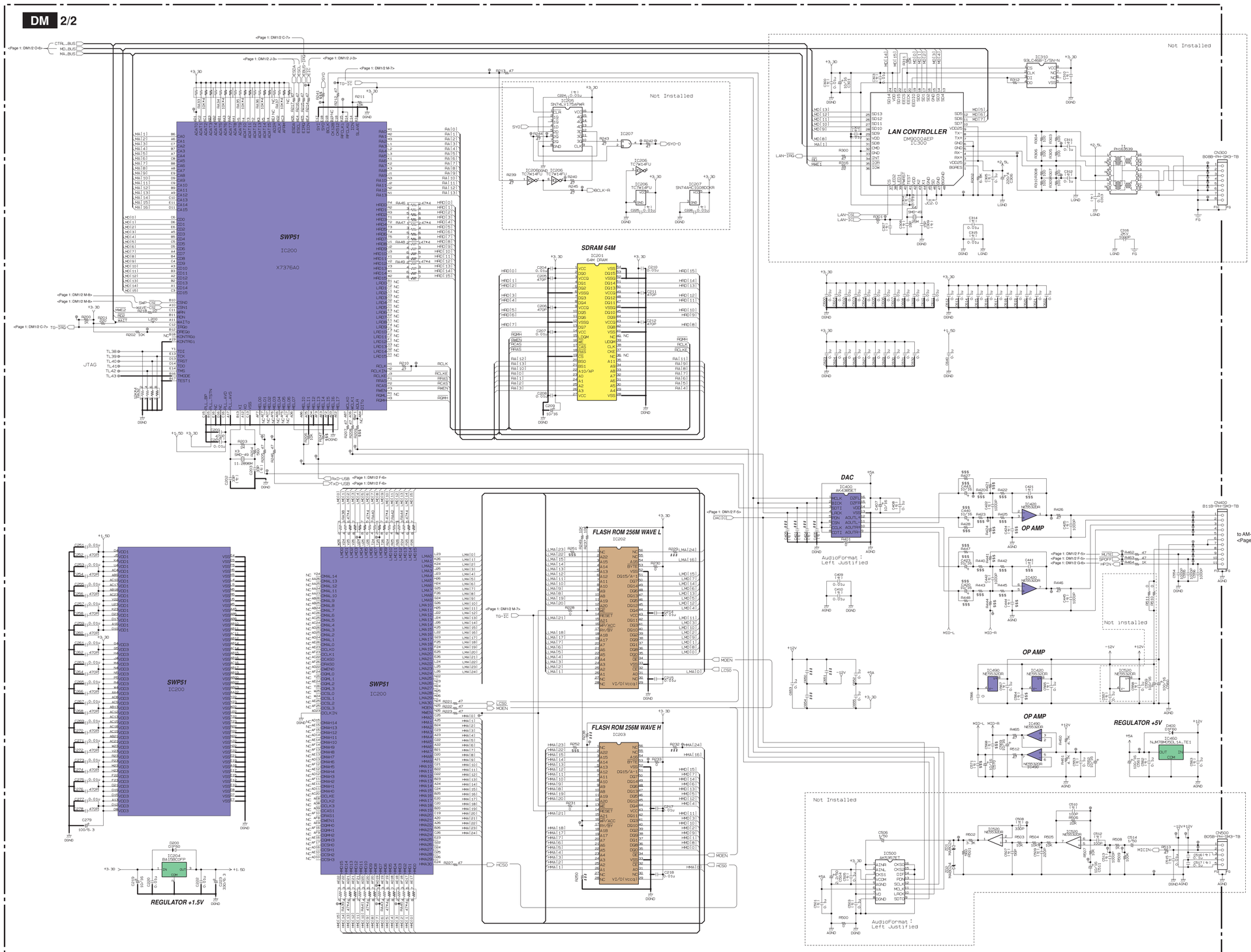
- BA15BC0FP (X7700A00) REGULATOR +1.5V
  DM: IC204
- BA18BC0FP (X7820A00) REGULATOR +1.8V
  DM: IC110
- D1F60 (VS201100) DIODE
  DM: D100, 200, 400
  1: Vcc
  2: N.C.
  3: OUT
  FIN: GND
- 1SS372 (V9424900) DIODE ARRAY
  DM: DA30-33
  1: ANODE1
  2: CATHODE2
  3: CATHODE1, ANODE2

###: Not installed
$$$: See Parts List
(ヤヒ): Ceramic Capacitor

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

PSR-OR700

■ PSR-OR700 OVERALL CIRCUIT DIAGRAM 2/6 (DM2/2)

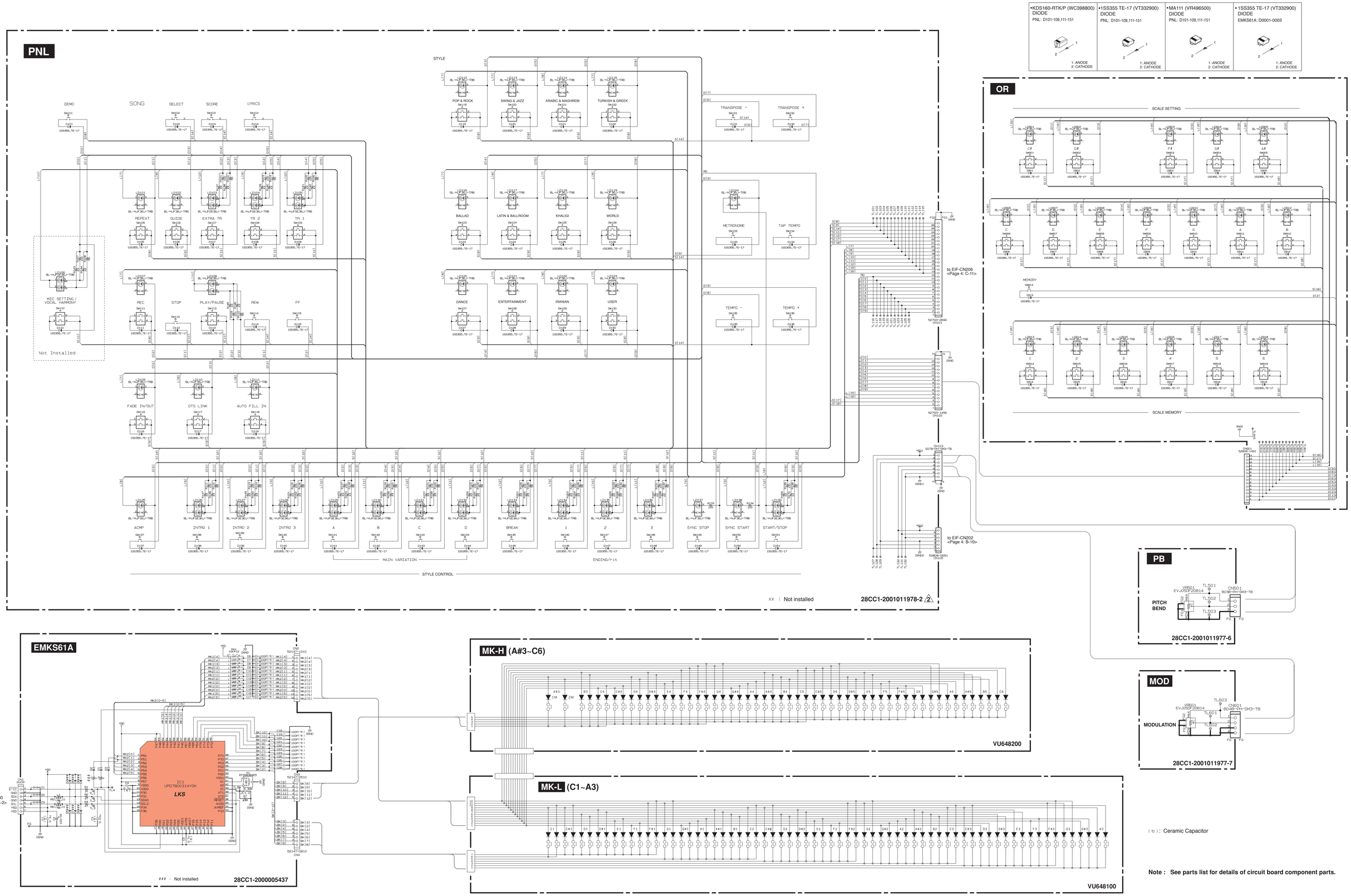


• NJM78M05DL1A(XS534A00) REGULATOR +5V DM: IC460	• BA15BC0FP (X7700A00) REGULATOR +1.5V DM: IC204 • BA18BC0FP (X7820A00) REGULATOR +1.8V DM: IC110	• D1F60 (VS201100) DIODE DM: D100, 200, 400	• 1SS372 (V9424900) DIODE ARRAY DM: DA30-33
1: INPUT 2: GND 3: OUTPUT	1: Vcc 2: N.C. 3: OUT FIN: GND	1: ANODE 2: CATHODE	1: ANODE1 2: CATHODE2 3: CATHODE1, ANODE2

###: Not installed
$$$: See Parts List
(セ): Ceramic Capacitor

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

■ PSR-OR700 OVERALL CIRCUIT DIAGRAM 6/3 (EMKS61A, MK-H, MK-L, MOD, OR, PB, PNL)



•KDS160-RTK/P (WC398800) DIODE	•1SS355 TE-17 (VT332900) DIODE	•MA111 (VR496500) DIODE	•1SS355 TE-17 (VT332900) DIODE
PNL: D101-109,111-151	PNL: D101-109,111-151	PNL: D101-109,111-151	EMKS61A: D0001-0003
1: ANODE 2: CATHODE	1: ANODE 2: CATHODE	1: ANODE 2: CATHODE	1: ANODE 2: CATHODE

(セ): Ceramic Capacitor

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

■ PSR-OR700 OVERALL CIRCUIT DIAGRAM 4/6 (EIF, ENC, INV, LCD, PNR)

PNR

PART SELECT — VOICE

MUSIC FINDER

LEFT | RIGHT1 | RIGHT2 | PIANO | GUITAR & BASS | ORGAN | ACCORDION & HARMONICA | ORIENTAL

E.PIANO | SAXOPHONE | TRUMPET | CHOIR & SYNTH. | PERC. & DRUM KIT

PART ON/OFF

ENTER

LEFT HOLD | LEFT | RIGHT1 | RIGHT2 | STRINGS | FLUTE & WOODWIND | BRASS | ORGAN FLUTES | USER

MULTI PAD CONTROL — ONE TOUCH SETTING — VOICE CONTROL

SELECT 1 | 2 | 3 | 4 | STOP | 1 | 2 | 3 | 4 | HARMONY/ECHO | TOUCH | SUSTAIN | MONO | DSP | VARI. | UPPER OCTAVE − | +

28CC1-2001011978-1 ⚠1

EIF

Specification of IC201
Device ID No.= 01000
Switch: Lo-Active
LED: Lo-Active
Drive: Hi-Active

E-ENSIA IC201 — LED DRIVER/ SWITCH SCAN

OP AMP

LVDS RECEIVER

R229	R230	R231	R235	IC204	C264	C265
No	Yes	No	Yes	Yes	Yes	Yes

28CC1-2001011977-3 ⚠2

ENC

Data entry

28CC1-10010011977-5

INV

28CC1-2001011977-4 ⚠1

LCD

xx : Not installed

(セ): Ceramic Capacitor

(マ): Mylar Capacitor

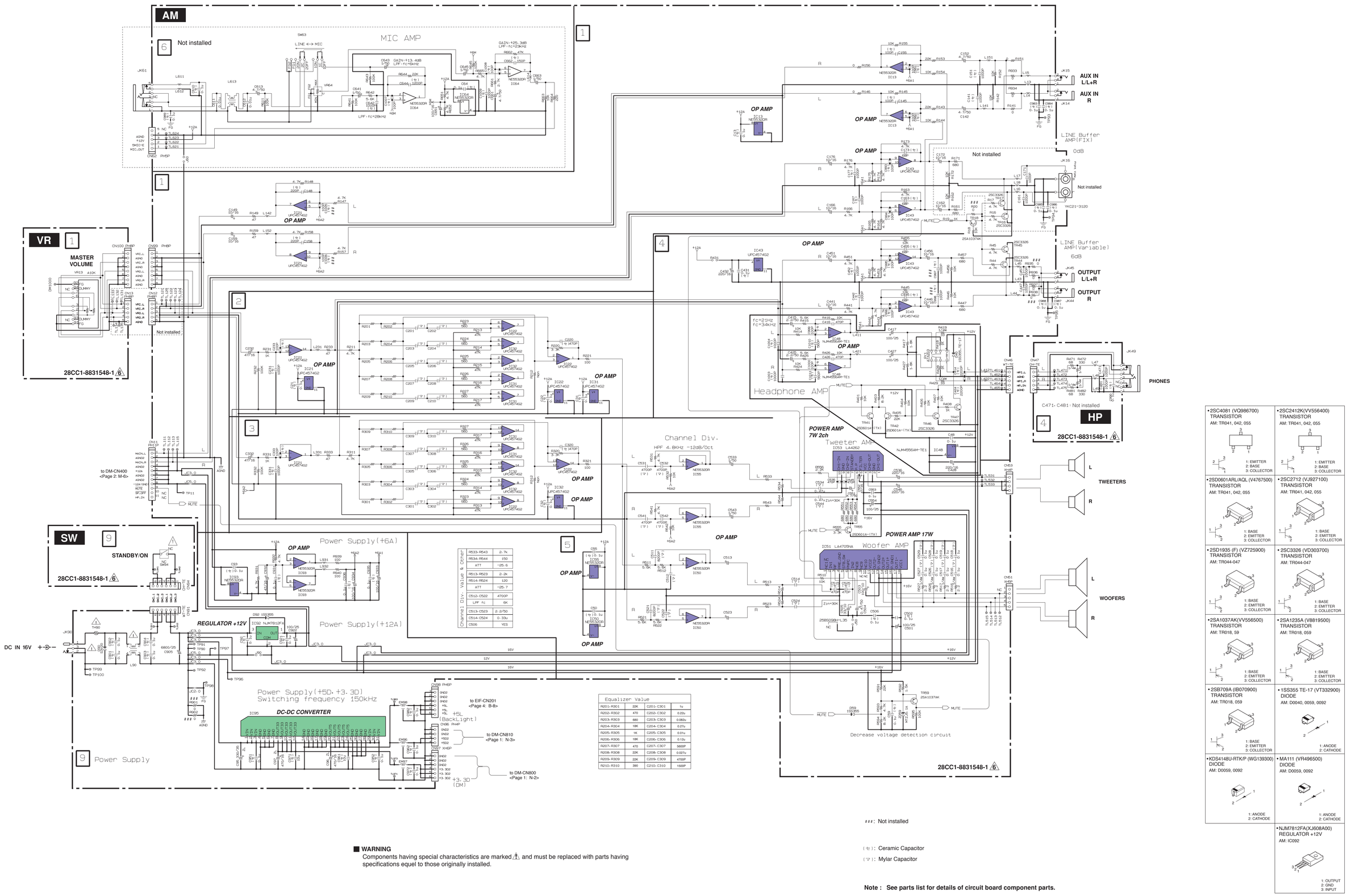
Note : See parts list for details of circuit board component parts.

•KDS160-RTK/P (WC398800) DIODE PNR: D001-044 1: ANODE 2: CATHODE	•1SS355 TE-17 (VT332900) DIODE PNR: D001-044 1: ANODE 2: CATHODE	•MA111 (VR496500) DIODE PNR: D001-044 1: ANODE 2: CATHODE	•KDS160-RTK/P (WC398800) DIODE EIF: D201-204, 208-213 1: ANODE 2: CATHODE	•1SS355 TE-17 (VT332900) DIODE EIF: D201-204, 208-213 1: ANODE 2: CATHODE
•MA111 (VR496500) DIODE EIF: D201-204, 208-213 1: ANODE 2: CATHODE	•2SC5886 (WJ114400) TRANSISTOR EIF: TR202 1: BASE 2: COLLECTOR 3: EMITTER	•KRA226S (WG989900) DIGITAL TRANSISTOR EIF: TR201 1. COMMON (EMITTER) 2. IN (BASE) 3. OUT (COLLECTOR)	•DTB123YK (VY677700) DIGITAL TRANSISTOR EIF: TR201 1: GND (+) 2: IN 3: OUT	•2SC4672 (V9065800) TRANSISTOR INV: TR302, 303 1: BASE 2: COLLECTOR 3: EMITTER

to AM-CN98 <Page 5: F-9>
to PNL-CN105 <Page 3: L-7>
to PNL-CN101 <Page 3: L-4>
to DM-CN50 <Page 1: I-2>
to PNCA-CN001 <Page 6: D-7>

PSR-OR700

■ PSR-OR700 OVERALL CIRCUIT DIAGRAM 5/6 (AM, HP, SW, VR)



R533-R543	2.7k
R534-R544	150
ATT	−25.6
R513-R523	2.2k
R514-R524	120
ATT	−25.7
C512-C522	4700P
LPF fc	6K
C513-C523	2.2/50
C514-C524	0.33u
C506	YES

Channel Div. Value & Other

Equalizer Value			
R201-R301	22K	C201-C301	1u
R202-R302	470	C202-C302	0.22u
R203-R303	680	C203-C303	0.082u
R204-R304	18K	C204-C304	0.27u
R205-R305	1K	C205-C305	0.01u
R206-R306	18K	C206-C306	0.12u
R207-R307	470	C207-C307	5600P
R208-R308	22K	C208-C308	0.027u
R209-R309	22K	C209-C309	4700P
R210-R310	390	C210-C310	1500P

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

###: Not installed

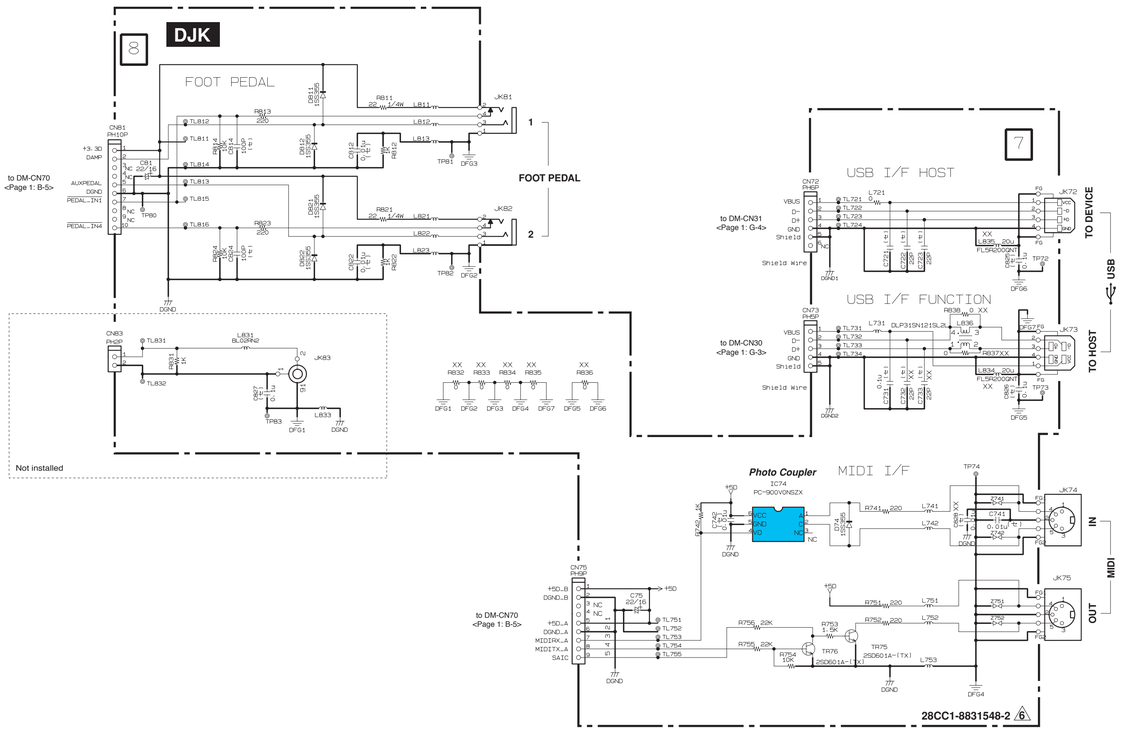
(セ): Ceramic Capacitor

(マ): Mylar Capacitor

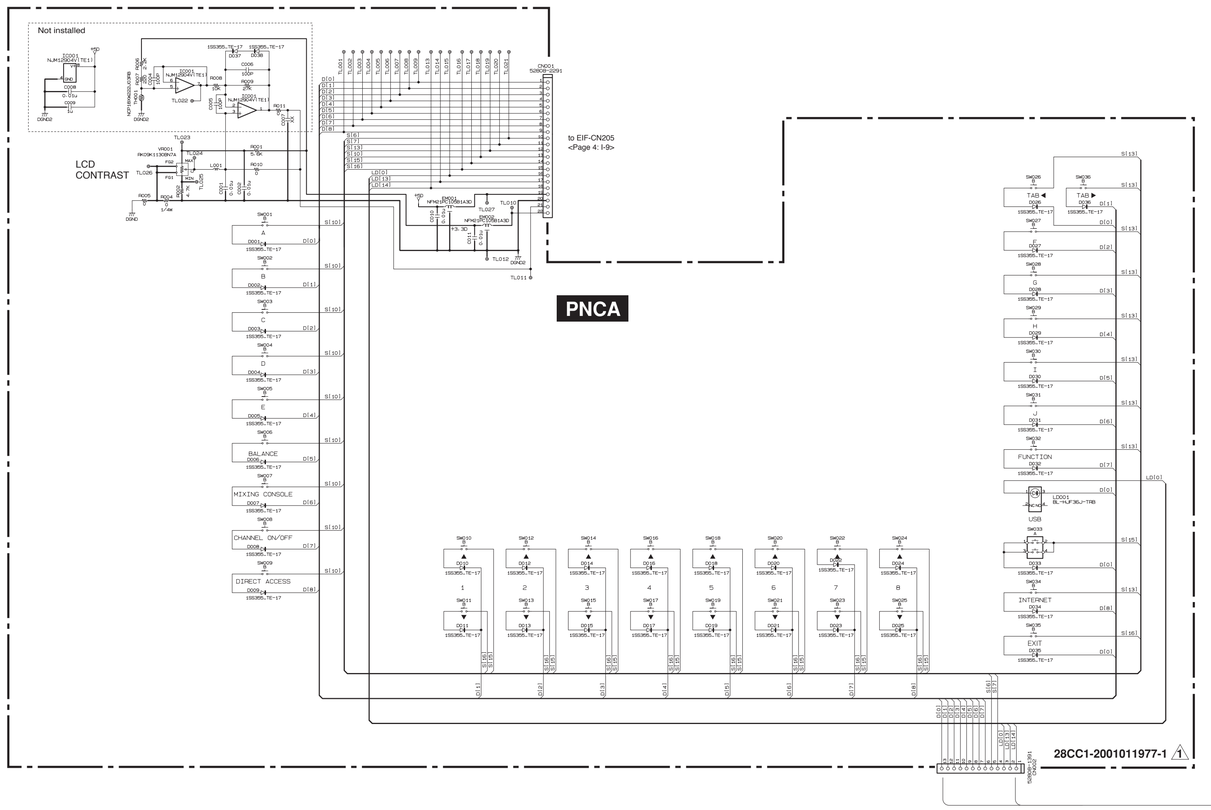
Note : See parts list for details of circuit board component parts.

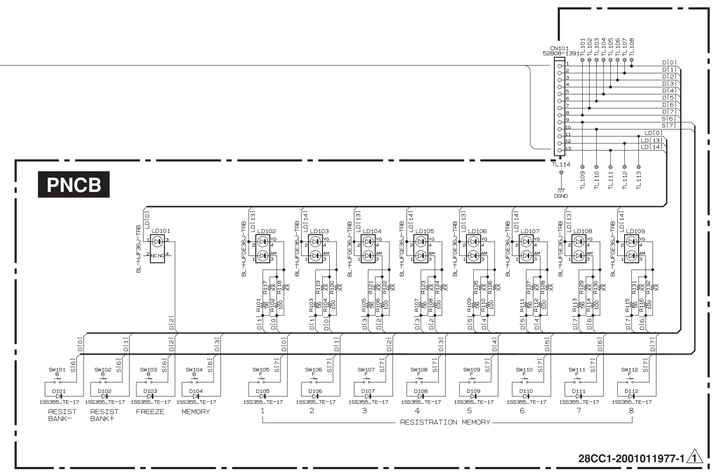
- 2SC4081 (VQ986700) TRANSISTOR AM: TR041, 042, 055 — 1: EMITTER 2: BASE 3: COLLECTOR
- 2SC2412K(VV556400) TRANSISTOR AM: TR041, 042, 055 — 1: EMITTER 2: BASE 3: COLLECTOR
- 2SD0601ARL/AQL (V4767500) TRANSISTOR AM: TR041, 042, 055 — 1: BASE 2: EMITTER 3: COLLECTOR
- 2SC2712 (VJ927100) TRANSISTOR AM: TR041, 042, 055 — 1: BASE 2: EMITTER 3: COLLECTOR
- 2SD1935 (F) (VZ725900) TRANSISTOR AM: TR044-047 — 1: BASE 2: EMITTER 3: COLLECTOR
- 2SC3326 (VD303700) TRANSISTOR AM: TR044-047 — 1: BASE 2: EMITTER 3: COLLECTOR
- 2SA1037AK(VV556500) TRANSISTOR AM: TR018, 59 — 1: BASE 2: EMITTER 3: COLLECTOR
- 2SA1235A (V8819500) TRANSISTOR AM: TR018, 059 — 1: BASE 2: EMITTER 3: COLLECTOR
- 2SB709A (IB070900) TRANSISTOR AM: TR018, 059 — 1: BASE 2: EMITTER 3: COLLECTOR
- 1SS355 TE-17 (VT332900) DIODE AM: D0040, 0059, 0092 — 1: ANODE 2: CATHODE
- KDS4148U-RTK/P (WG139300) DIODE AM: D0059, 0092 — 1: ANODE 2: CATHODE
- MA111 (VR496500) DIODE AM: D0059, 0092 — 1: ANODE 2: CATHODE
- NJM7812FA(XJ608A00) REGULATOR +12V AM: IC092 — 1: OUTPUT 2: GND 3: INPUT

■ PSR-OR700 OVERALL CIRCUIT DIAGRAM 6/6 (DJK, PNCA, PNCB)



• MA111 (VR496500) DIODE PNCA: D001-036 PNCB: D101-112 1: ANODE 2: CATHODE	• 1SS355 TE-17 (VT332900) DIODE PNCA: D001-036 PNCB: D101-112 1: ANODE 2: CATHODE	• KDS160-RTK/P (WC398800) DIODE PNCA: D001-036 PNCB: D101-112 1: ANODE 2: CATHODE	• MA111 (VR496500) DIODE DJK: D0074, 0811, 0812, 0821, 0822 1: ANODE 2: CATHODE	• 1SS355 TE-17 (VT332900) DIODE DJK: D0074, 0811, 0812, 0821, 0822 1: ANODE 2: CATHODE	• KDS4148U-RTK/P (WG139300) DIODE DJK: D0074, 0811, 0812, 0821, 0822 1: ANODE 2: CATHODE	• 2SC4081 (VQ986700) TRANSISTOR DJK: TR075, 076 1: EMITTER 2: BASE 3: COLLECTOR	• 2SC2412K(VV556400) TRANSISTOR DJK: TR075, 076 1: EMITTER 2: BASE 3: COLLECTOR	• 2SD0601ARL/AQL (V4767500) TRANSISTOR DJK: TR075, 076 1: BASE 2: EMITTER 3: COLLECTOR





xx : Not installed

[セ]: Ceramic Capacitor

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