PORTATONE

PSR-1500 / PSR-3000

SERVICE MANUAL



PSR-1500



PSR-3000

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PK 001719

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.

■ WARNING

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

■ SAVING DATA

Saving and backing up your data



Be sure to perform it

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 , floppy disk, SmartMedia card, or appropriate external media.

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

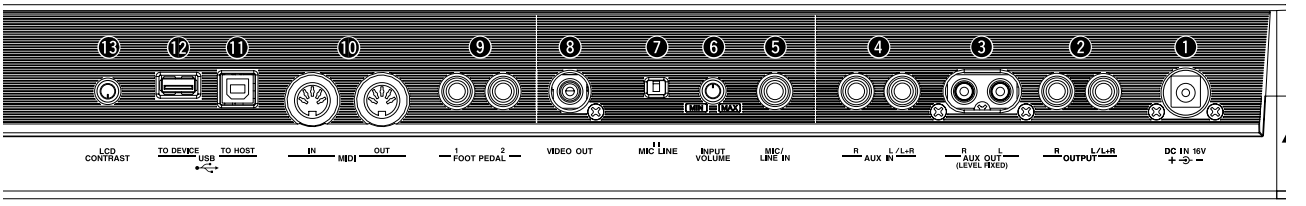
SPECIFICATIONS

			PSR-1500	PSR-3000
Sound Source			AWM Stereo Sampling	
Keyboard			61 keys (C1–C6 with Initial Touch)	
Display			320 x 240 dots QVGA B/W LCD	320 X 240 dots QVGA Color LCD
	Music Score, Lyrics		YES	
Voice	Polyphony (max)		96	128
	Voice Selection		297 voices + 480 XG Voices 14 Drum/SFX Kits + GM2 + GS Voice for GS Song playback	332 voices + 480 XG Voices 17 Drum/SFX Kits + GM2 + GS Voice for GS Song playback
		Mega Voice	—	10
		Regular Voice	273	261
		Sweet! Voice	8	14
		Cool! Voice	5	18
		Live! Voice	1	19
		Organ Flutes!	10	
	Sound Creator		YES	
Effects	Effect Blocks	Reverb/Chorus/DSP	6	
		Microphone	—	1
	Effect Types	Reverb/Chorus/DSP	Reverb : 35 Preset + 3 User Chorus : 30 Preset + 3 User DSP 1 : 183 Preset + 3 User DSP 2–4 : 106 Preset + 10 User	Reverb : 35 Preset + 3 User Chorus : 30 Preset + 3 User DSP 1 : 183 Preset + 3 User DSP 2–4 : 106 Preset + 10 User
		Master EQ	5 Preset + 2 User	5 Preset + 2 User
		Part EQ	28 Parts	
	Vocal Harmony		—	61 Preset + 10 User
Accompaniment Style	Accompaniment Styles		190	240
		Pro Styles	176	217
		Session Styles	14	23
	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	Follow Lights, Any Key, Karao-Key, Vocal CueTIME
	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 54 Banks	4 Pads x 80 Banks
Internet Direct Connection			External Adapter (via USB to DEVICE)	
Memory Device	Floppy Disk (2HD, 2DD)		External Adapter (via USB to DEVICE)	
	Hard Disk		External Adapter (via USB to DEVICE)	
	Flash Memory (Internal)		650 KB	1.5 MB
	SmartMedia Slot		1 (Compatible with SmartMedia FAT12 or 16 format)	

			PSR-1500	PSR-3000
Tempo	Tempo Range		5 - 500, Tap Tempo	
	Metronome		Yes	
		Sound	Bell on/off	
Registration Memory	Buttons		8	
	Regist. Sequence / Freeze		YES	
Others	Demo / Help		YES	
	Language for Display		6 Languages (English, Japanese, 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), AUX OUT (LEVEL FIXED) (R, L/L+R)	
			—	MIC (INPUT VOLUME, MIC/LINE IN), VIDEO OUT
Pedal Functions			VOLUME, SUSTAIN, SOSTENUTO, SOFT, GLIDE, PORTAMENTO, PITCHBEND, MODULATION, DSP VARIATION, SONG START/STOP, STYLE START/STOP, etc.	
Amplifiers/ Speakers	Amplifiers		12 W x 2	
	Speakers		(12 cm + 5 cm) x 2	(12 cm + 4 cm(dome)) x 2
Dimensions [W x D x H]			937 mm x 399 mm x 167 mm (38-5/16" x 15-11/16" x 6-9/16")	
Weight			10 kg (22 lbs., 1 oz)	11 kg (24 lbs., 4 oz)
Accessories			Guide to Yamaha Online Member Product User Registration, Accesory CD-ROM for Windows, Owner's Manual, Data List, Accesory CD-ROM for Windows Installation Guide **The following items may be included or optional, depending on your locale** Floppy Disk Drive, SmartMedia card, PA-300 AC Adaptor	
Optional accessories	Headphones		HPE-3/HPE-150	
	Foot Switch		FC4/FC5	
	Foot Controller		FC7	
	Keyboard stand		L-6/L-7	

■ PANEL LAYOUT

• Rear view

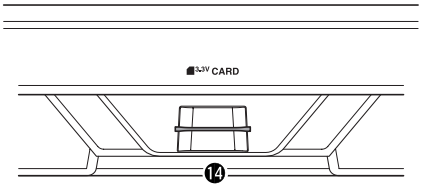


✻ This figure shows the PSR-3000.

REAR PANEL

❶ [DC IN 16V] terminal
❷ OUTPUT [L/L+R] / [R] jacks
❸ AUX OUT (LEVEL FIXED) [L] / [R] jacks
❹ AUX IN [L/L+R] / [R] jacks
❺ [MIC./LINE IN] jack (PSR-3000)
❻ [INPUT VOLUME] knob (PSR-3000)
❼ [MIC. LINE] switch (PSR-3000)
❽ [VIDEO OUT] jack (PSR-3000)
❾ FOOT PEDAL [1] / [2] jacks
❿ MIDI [OUT] [IN] terminals
⓫ [USB TO HOST] terminal
⓬ [USB TO DEVICE] terminal
⓭ [LCD CONTRAST] knob

• Front view

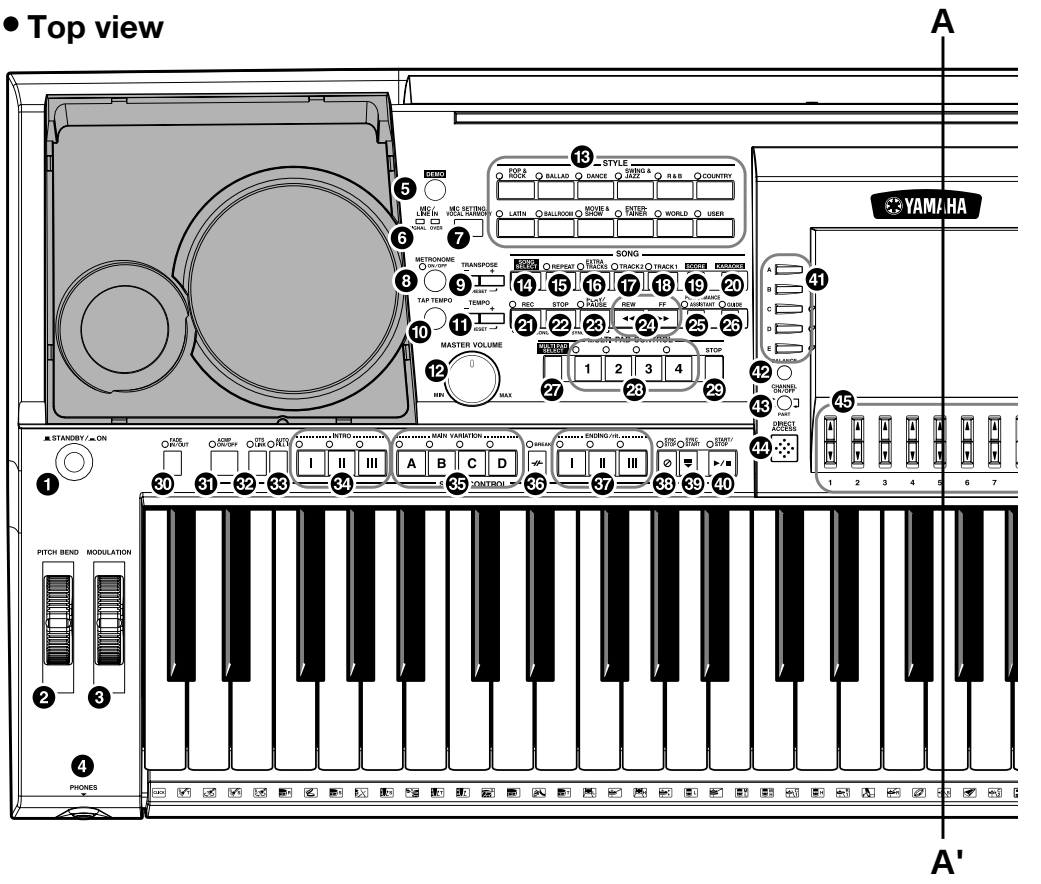


✻ This figure shows the PSR-3000.

SMART MEDIA

⓮ CARD slot

• Top view



❶ [STANDBY/ON] switch

WHEEL

❷ [PITCH BEND] wheel

❸ [MODULATION] wheel

PHONES

❹ [PHONES]

❺ [DEMO] button

MIC.

❻ [MIC/LINE IN] (PSR-3000)

❼ [MIC SETTING/VOCAL HARMONY] button (PSR-3000)

METRONOME

❽ [METRONOME] button

TRANSPOSE

❾ [–] [+] buttons

TEMPO

❿ [TAP] button

⓫ [–][+] buttons

VOLUME

⓬ [MASTER VOLUME] dial

STYLE

⓭ STYLE buttons

SONG

⓮ [SONG SELECT] button

⓯ [REPEAT] button

⓰ [EXTRA TRACKS] button

⓱ [TRACK 2] button

⓲ [TRACK 1] button

⓳ [SCORE] button

⓴ [KARAOKE] button

㉑ [REC] button

㉒ [STOP] button

㉓ [PLAY/PAUSE] button

㉔ [REW]/[FF] buttons

㉕ [PERFORMANCE ASSISTANT] button

㉖ [GUIDE] button

MULTI PAD CONTROL

㉗ [MULTI PAD SELECT] button

㉘ [1]–[4] buttons

㉙ [STOP] button

㉚ [FADE IN/OUT] button

STYLE CONTROL

㉛ [ACMP ON/OFF] button

㉜ [OTS LINK] button

㉝ [AUTO FILL IN] button

㉞ INTRO [I]/[II]/[III] buttons

㉟ MAIN VARIATION [A]/[B]/[C]/[D] buttons

㊱ [BREAK] button

㊲ ENDING/rit. [I]/[II]/[III] buttons

㊳ [SYNC STOP] button

㊴ [SYNC START] button

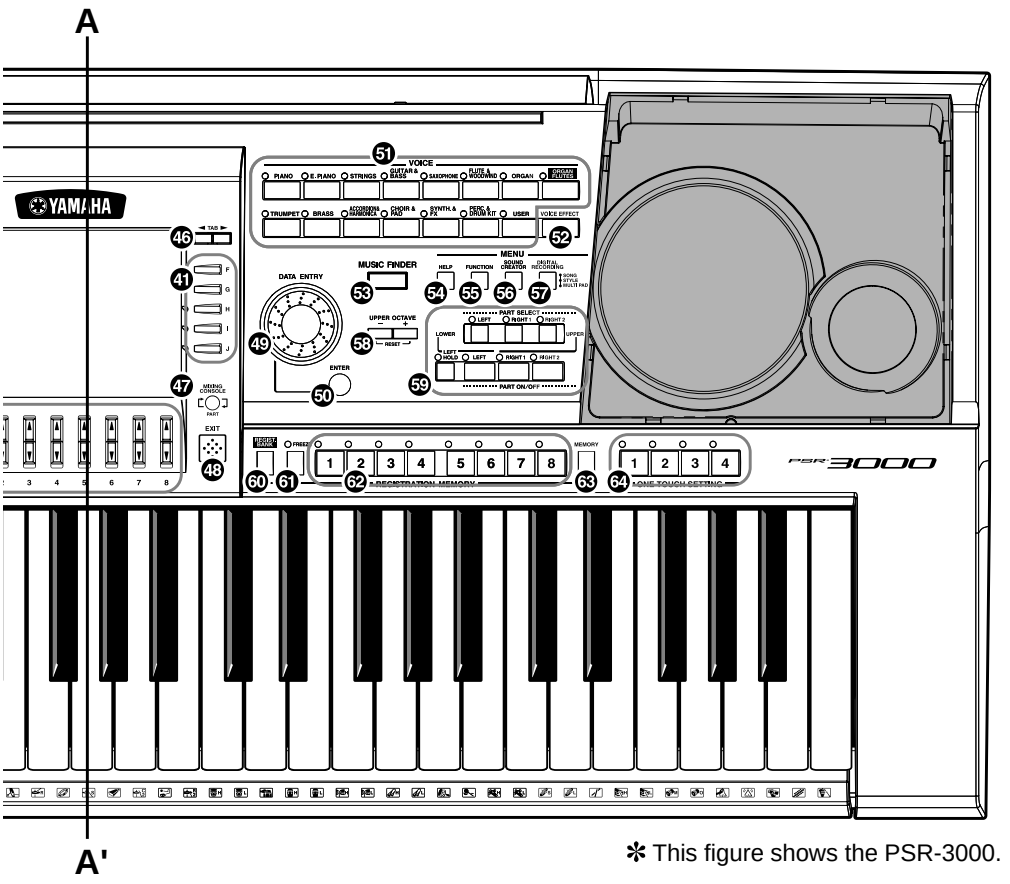
㊵ [START/STOP] button

㊶ [A]–[J] buttons

㊷ [BALANCE] button

㊸ [CHANNEL ON/OFF] button

㊹ [DIRECT ACCESS] button



✻ This figure shows the PSR-3000.

㊺ [1▲▼]–[8▲▼] buttons
㊻ TAB [◄][►] buttons
㊼ [MIXING CONSOLE] button
㊽ [EXIT] button
㊾ [DATA ENTRY] dial
㊿ [ENTER] button

VOICE

(51) VOICE buttons
(52) [VOICE EFFECT] button

MUSIC FINDER

(53) [MUSIC FINDER] button

MENU

(54) [HELP] button
(55) [FUNCTION] button
(56) [SOUND CREATOR] button
(57) [DIGITAL RECORDING] button

UPPER OCTAVE

(58) [UPPER OCTAVE] [–][+] buttons

PART

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

REGISTRATION MEMORY

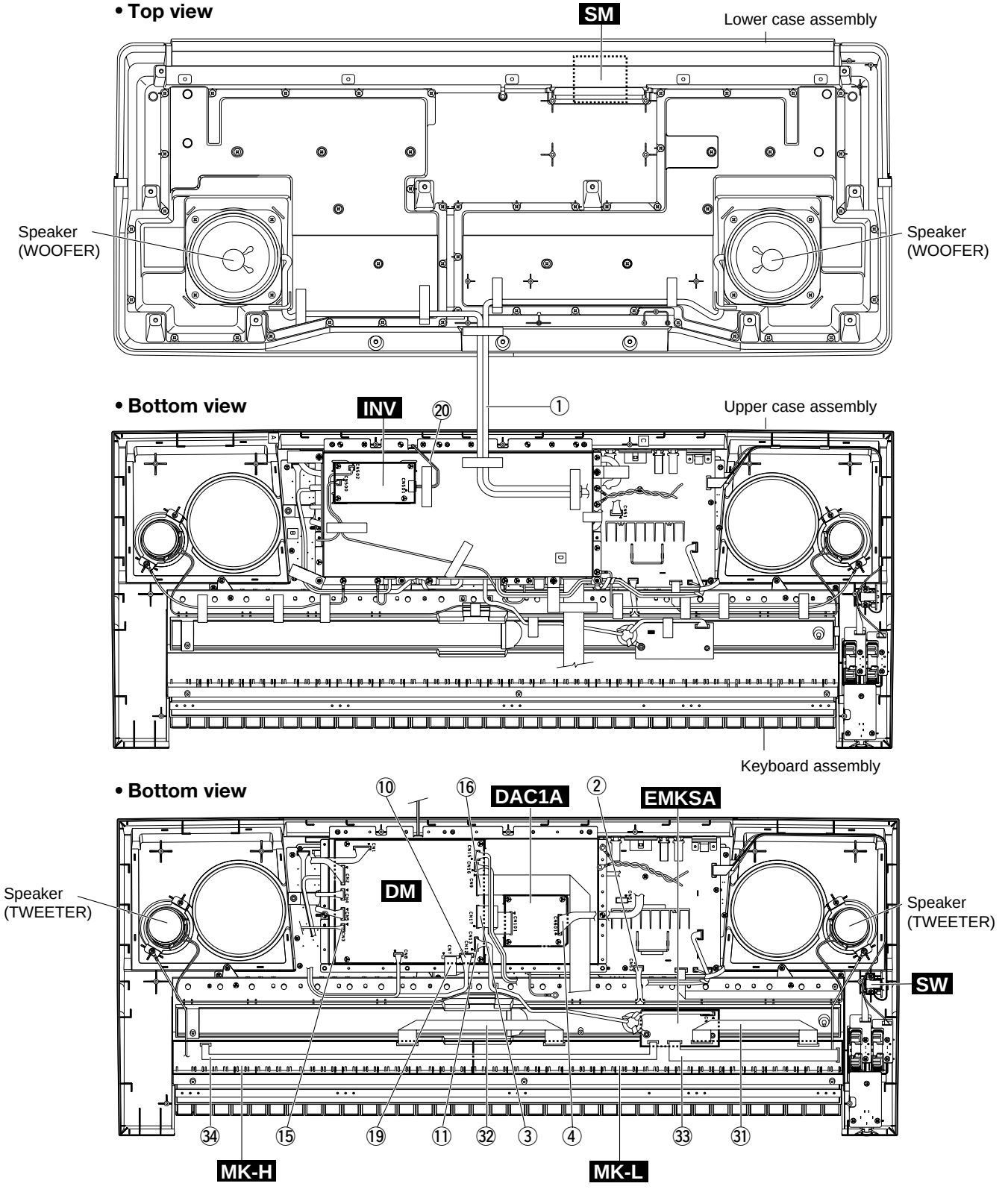
(60) [REGIST. BANK] button
(61) [FREEZE] button
(62) [1]–[8] buttons
(63) [MEMORY] button

ONE TOUCH SETTING

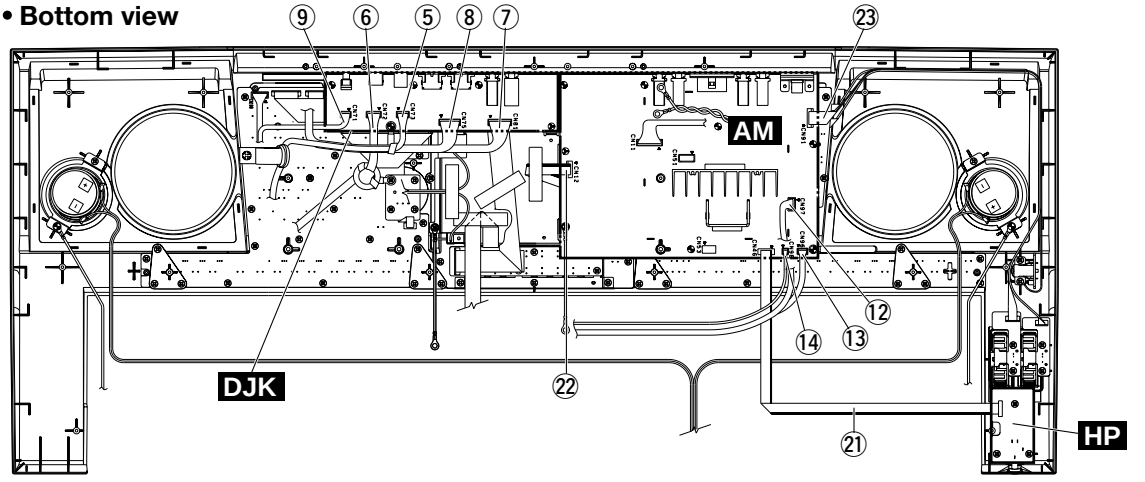
(64) [1]–[4] buttons

■ CIRCUIT BOARD LAYOUT & WIRING

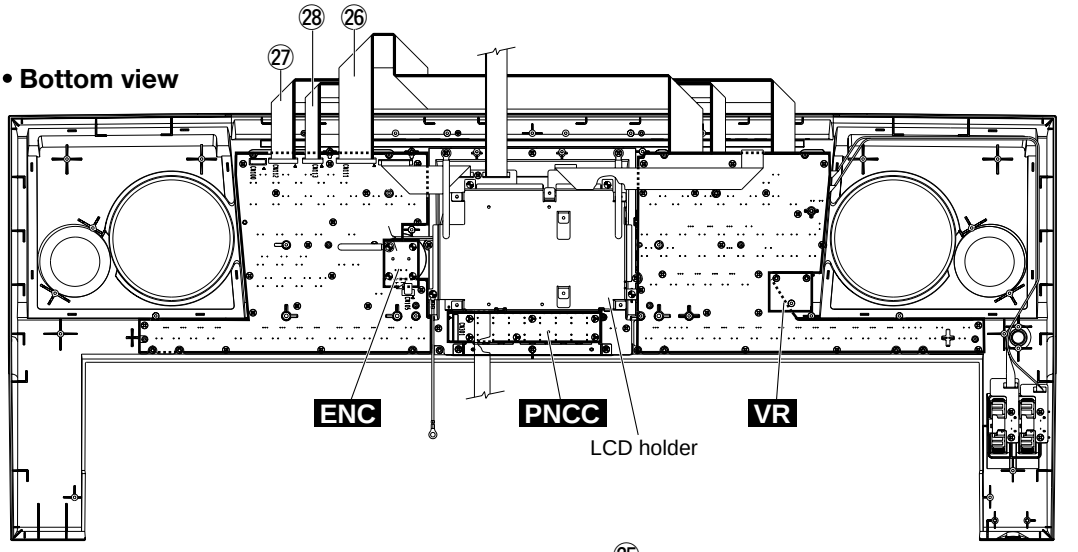
• PSR-1500



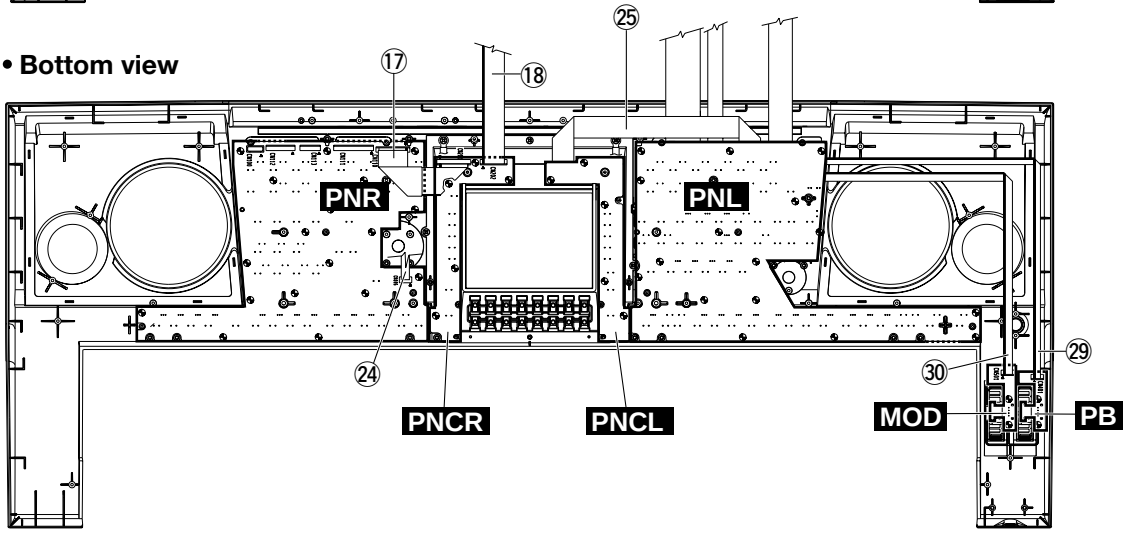
• **Bottom view**



• **Bottom view**



• **Bottom view**

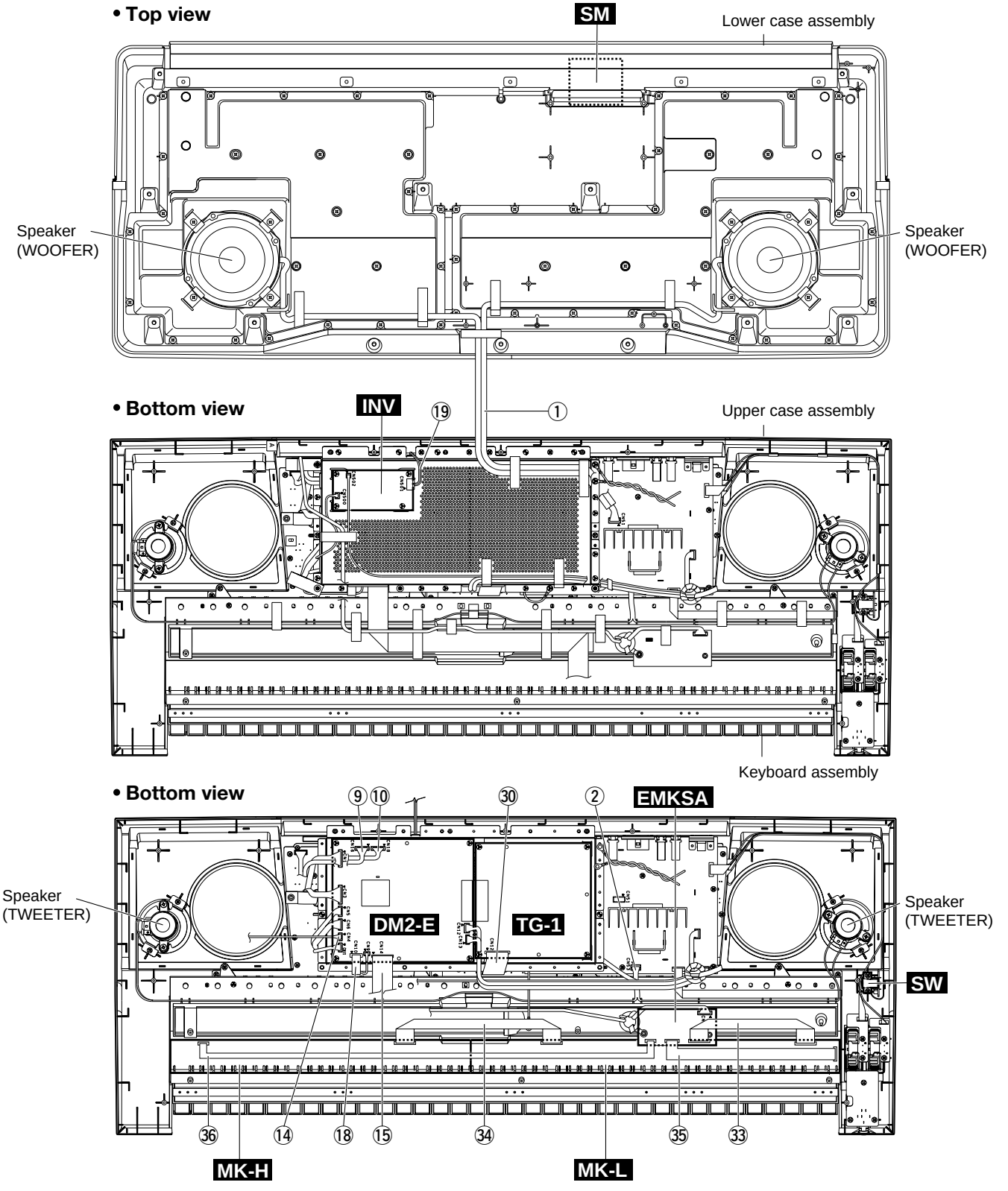


No.	Location	Parts No.	Connector Assembly	Destination							Remarks
①	30	(V778250)	SP	Speaker (WOOFER)	*3		AM-CN51	*1			5P L=800
②	240	(V778260)	TW	Speaker (TWEETER)	*2	*9	AM-CN53	*1			4P L=800
③	250	WB996900	FFC Cable	DM-CN17	*1		DAC1A-CN101	*1	*8		26P
④	260	(WD60400)	DAC	DAC1A-CN601	*1		AM-CN11	*1			11P L=400
⑤	280	(WD47550)	U-H	DM-CN4	*1		DJK-CN73	*1			5P L=400
⑥	290	(WD47530)	U-D	DM-CN5	*1		DJK-CN72	*1			6P L=400
⑦	300	(WD60020)	MIDI	DM-CN2	*1		DJK-CN81	*1			10P
⑧	300	(WD60020)	MIDI	DM-CN1	*1		DJK-CN75	*1			9P
⑨	330	WD600000	EPNCNT	DM-CN8	*1		DJK-CN71	*1			4P L=400
⑩	330	WD600000	EPNCNT	DM-CN12	*1		PNR-CN100	*1			7P
⑪	340	WD600300	EMK	DM-CN13	*1		EMKSA-CN1	*1			7P L=450
⑫	350	(WD60010)	DC	DM-CN15	*1		AM-CN97	*1			4P
⑬	350	(WD60010)	DC	DM-CN16	*1		AM-CN96	*1			4P
⑭	350	(WD60010)	DC	INV-CN502	*1		AM-CN98	*1			2P
⑮	370	(WC38090)	INV	DM-CN3	*1		INV-CN500	*1			3P
⑯	380	WC379800	FFC Cable	DM-CN9	*1	*8	SM-CN1	*1	*5		24P
⑰	450	WD544800	PN8	PNR-CN110	*1	*4	PNCR-CN201	*1	*4		13P L=110
⑱	460	WD589600	PN9	PNCR-CN202	*1	*4	PNCC-CN301	*1	*4		10P L=240
⑲	530	WD215800	FFC Cable	LCD	*1	*6	DM-CN7	*1	*7		14P
⑳	--	--	LCD Backlight	LCD-Backlight	*3		INV-CN501	*1			2P
㉑	WH001	(WB99600)	HP	HP-CN47	*3		AM-CN46	*1	*4		5P L=400
㉒	WH002	(WB99610)	VOL	VR-CN13	*3		AM-CN12	*1	*4		5P L=350
㉓	WH003	(WB99620)	SW	SW-CN94	*3		AM-CN91	*1	*4		6P L=500
㉔	WIRE1	(WC37730)	PN1	ENC-CN301	*3		PNR-CN105	*1	*4		3P L=55
㉕	WIRE2	(WD54440)	PN2	PNL-CN104	*3		PNCL-CN201	*3			10P L=280
㉖	WIRE3	(WD54450)	PN3	PNL-CN108	*3		PNR-CN111	*1	*4		16P L=460
㉗	WIRE4	(WD54460)	PN4	PNL-CN109	*3		PNR-CN112	*1	*4		11P L=540
㉘	WIRE5	(WD54470)	PN5	PNL-CN110	*3		PNR-CN113	*1	*4		7P L=450
㉙	WIRE6	(WD28230)	PN6	PNL-CN106	*3		PB-CN401	*1	*4		3P L=480
㉚	WIRE7	(WD28240)	PN7	PNL-CN107	*3		MOD-CN501	*1	*4		4P L=480
㉛	S4	VU958900	Cable	MK-L			EMKSA-CN2				12P
㉜	S5	VU659500	Cable	MK-L			MK-H				12P
㉝	S6	VU659400	Cable	MK-L			EMKSA-CN4				7P
㉞	S7	VU659600	Cable	MK-H			EMKSA-CN3				5P

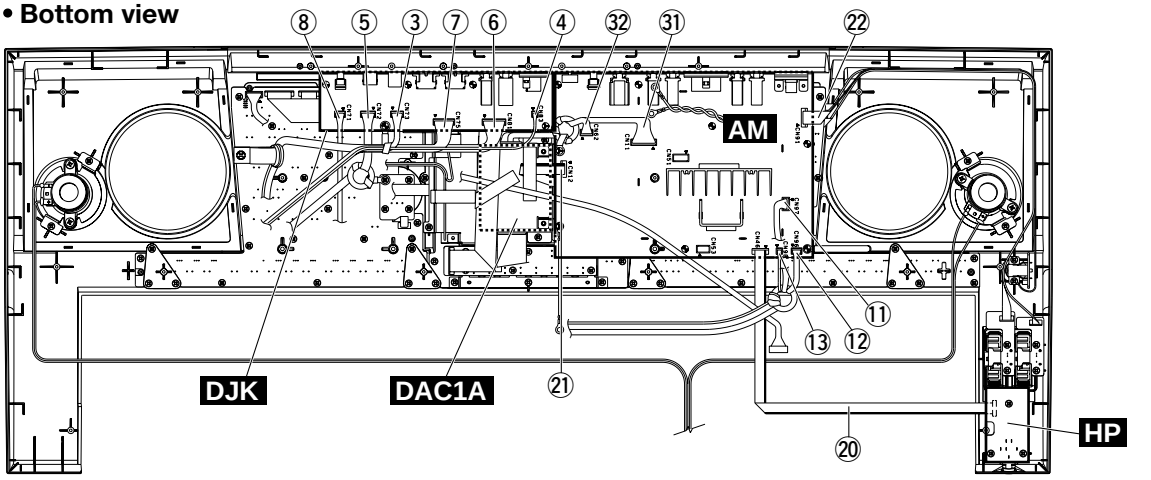
*The parts with "( )" in "**Part No.**" are not available as spare pats.
*1: Insertion
*2: Manual soldering
*3: Connected
*4: Edge mark is adjusted to Pin 1 mark (△mark).
*5: Plated terminal front side view.
*6: Plated terminal top side view.
*7: Plated terminal back side view.
*8: Plated terminal PCB end 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.

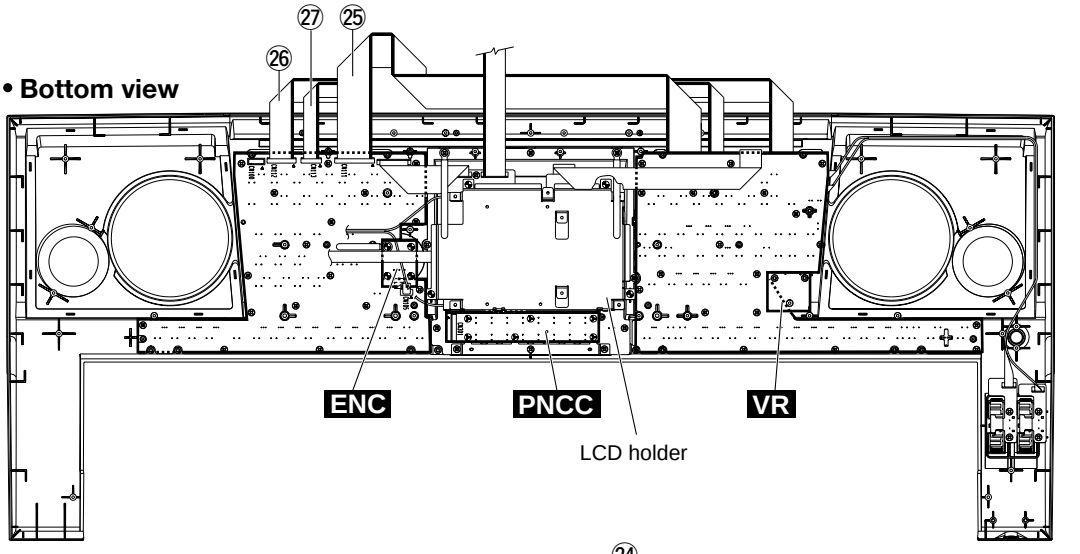
• PSR-3000


• Top view
SM
Lower case assembly
Speaker
(WOOFER)
Speaker
(WOOFER)
• Bottom view
INV
⑲
①
Upper case assembly
Keyboard assembly
• Bottom view
⑨
⑩
㉚
②
EMKSA
Speaker
(TWEETER)
DM2-E
TG-1
Speaker
(TWEETER)
SW
㊱
⑭
⑱
⑮
㉞
㉟
㉝
MK-H
MK-L

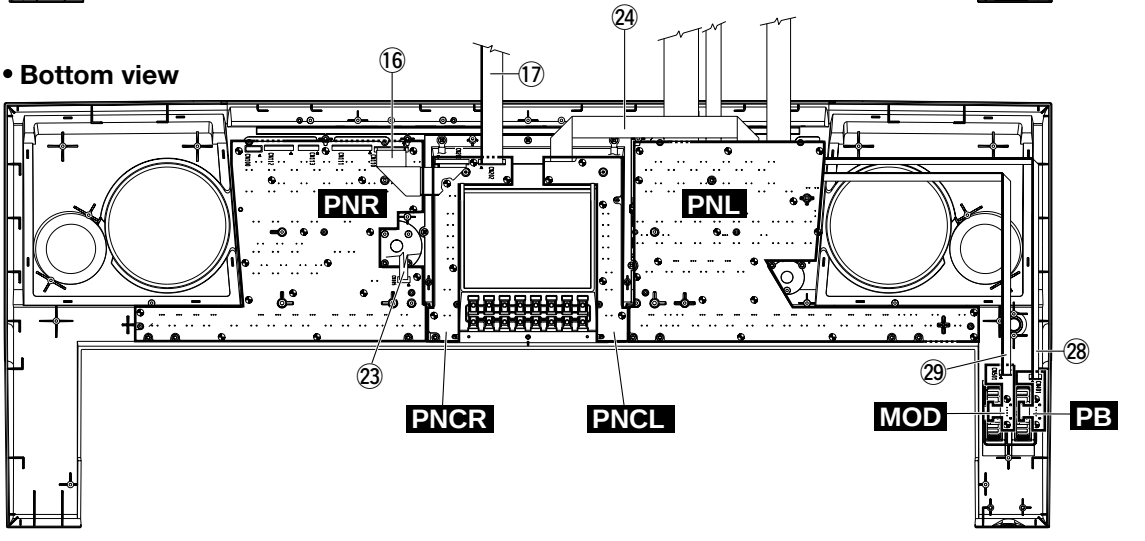
• Bottom view



• Bottom view



• Bottom view



No.	Location	Parts No.	Connector Assembly	Destination						Remarks
①	30	(V778250)	SP	Speaker (WOOFER)	*3		AM-CN51	*1		5P L=800
②	240	(V778260)	TW	Speaker (TWEETER)	*2	*9	AM-CN53	*1		4P L=800
③	280	(WD47730)	UH/V	DM2-E-CN5	*1		DJK-CN73	*1		5P
④	280	(WD47730)	UH/V	DM2-E-CN9	*1		DJK-CN83	*1		2P
⑤	290	(WD47530)	U-D	DM2-E-CN6	*1		DJK-CN72	*1		6P L=400
⑥	300	(WD37910)	M/P	DM2-E-CN3	*1		DJK-CN81	*1		10P
⑦	300	(WD37910)	M/P	DM2-E-CN1	*1		DJK-CN75	*1		9P
⑧	330	WD378500	CONTR	DM2-E-CN11	*1		DJK-CN71	*1		4P L=180
⑨	340	(WD57530)	EBUS2	DM2-E-CN16	*1		EMKSA-CN1	*1		7P L=1000
⑩	340	(WD57530)	EBUS2	PNR-CN100	*1		DM2-E-CN18	*1		7P
⑪	350	(WD37920)	DC	DM2-E-CN12	*1		AM-CN97	*1		4P
⑫	350	(WD37920)	DC	DM2-E-CN13	*1		AM-CN96	*1		4P
⑬	350	(WD37920)	DC	INV-CN502	*1		AM-CN98	*1		2P
⑭	370	(WC38090)	INV	DM2-E-CN4	*1		INV-CN500	*1		3P
⑮	380	WD215600	FFC Cable	DM2-E-CN14	*1	*8	SM-CN1	*1	*5	24P
⑯	450	WD544800	PN8	PNR-CN110	*1	*4	PNCR-CN201	*1	*4	13P L=110
⑰	460	WD589600	PN9	PNCR-CN202	*1	*4	PNCC-CN301	*1	*4	10P L=240
⑱	530	WD215700	FFC Cable	LCD	*1	*6	DM2-E-CN10	*1	*7	14P
⑲	--	--	LCD Backlight	LCD-Backlight	*3		INV-CN501	*1		2P
⑳	WH001	(WB99600)	HP	HP-CN47	*3		AM-CN46	*1	*4	5P L=400
㉑	WH002	(WB99610)	VOL	VR-CN13	*3		AM-CN12	*1	*4	5P L=350
㉒	WH003	(WB99620)	SW	SW-CN94	*3		AM-CN91	*1	*4	6P L=500
㉓	WIRE1	(WC37730)	PN1	ENC-CN301	*3		PNR-CN105	*1	*4	3P L=55
㉔	WIRE2	(WD54440)	PN2	PNL-CN104	*3		PNCL-CN201	*3		10P L=280
㉕	WIRE3	(WD54450)	PN3	PNL-CN108	*3		PNR-CN111	*1	*4	16P L=460
㉖	WIRE4	(WD54460)	PN4	PNL-CN109	*3		PNR-CN112	*1	*4	11P L=540
㉗	WIRE5	(WD54470)	PN5	PNL-CN110	*3		PNR-CN113	*1	*4	7P L=450
㉘	WIRE6	(WD28230)	PN6	PNL-CN106	*3		PB-CN401	*1	*4	3P L=480
㉙	WIRE7	(WD28240)	PN7	PNL-CN107	*3		MOD-CN501	*1	*4	4P L=480
㉚	D30	WD215500	FFC Cable	DAC1A-CN101	*3		TG1-CN2	*1	*7	26P
㉛	D40	WD379600	DAC	DAC1A-CN601	*3		AM-CN11	*1		11P L=270
㉜	D40	WD379600	DAC	DAC1A-CN701	*3		AM-CN62	*1		5P L=250
㉝	S4	VU958900	Cable	MK-L			EMKSA-CN2			12P
㉞	S5	VU659500	Cable	MK-L			MK-H			12P
㉟	S6	VU659400	Cable	MK-L			EMKSA-CN4			7P
㊱	S7	VU659600	Cable	MK-H			EMKSA-CN3			5P

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

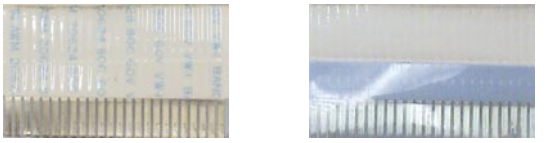
Caution: Be sure to attach the removed filament tape just as it was before removal.

DISASSEMBLY PROCEDURE

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

⚠ **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 (Printed Side) Back Side

(Photo 1)

1. Lower Case Assembly

(Time required: About 3 minutes)

1-1. Remove the sixteen (16) screws marked [420] and the two (2) screws marked [430A]. The lower case assembly can then be removed. (Fig. 1)

* **Note that the connectors on the SM and AM circuit board are connected to each other.**

2. SM Circuit Board

(Time required: About 4 minutes)

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

2-2. Remove the two (2) screws marked [460A]. The SM case assembly can then be removed. (Fig. 1)

2-3. Remove the four (4) screws marked [S50]. The SM circuit board can then be removed. (Fig. 1)

3. HP Circuit Board

(Time required: About 4 minutes)

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

3-2. Remove the three (3) screws marked [460B]. The HP circuit board can then be removed. (Fig. 2)

4. Wheel Assembly, PB Circuit Board

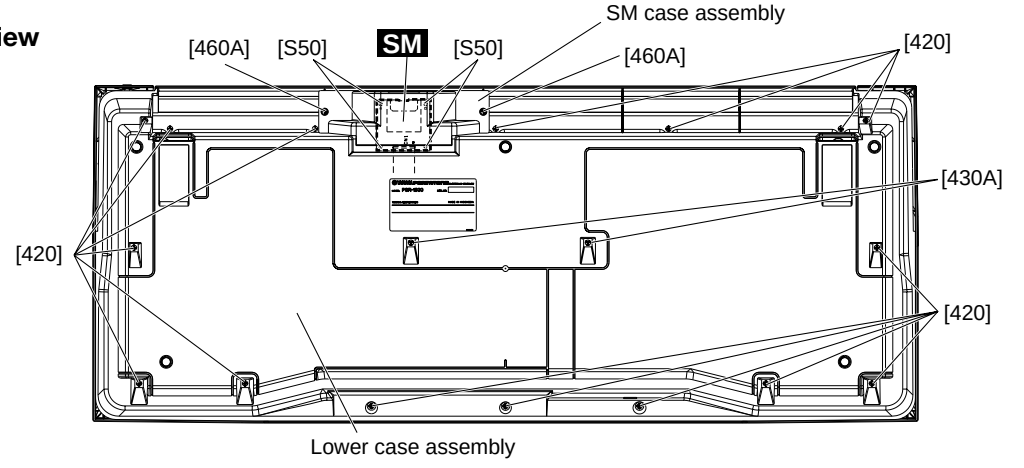
(Time required: About 3 minutes)

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

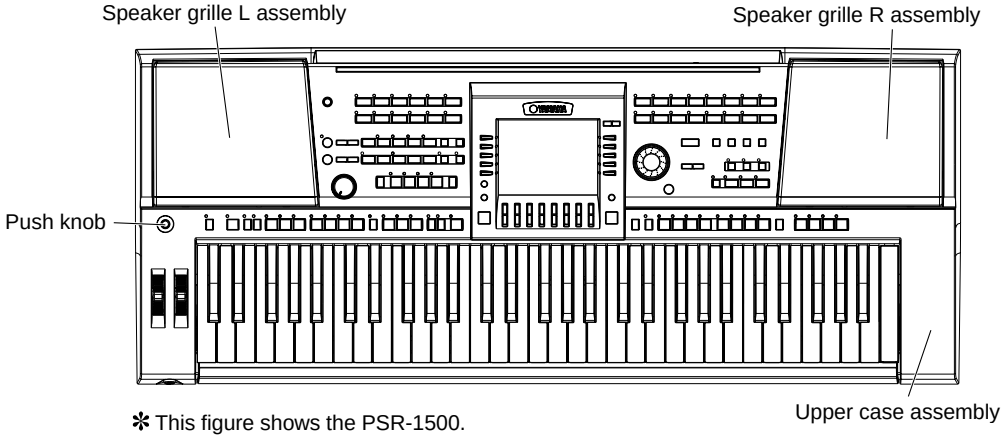
4-2. Remove the two (2) screws marked [560A]. The PB circuit board with the wheel assembly can then be removed. (Fig. 2)

4-3. Remove the wheel assembly from the PB circuit board. (Fig. 2)

• Bottom view



• Top view



✻ This figure shows the PSR-1500.

[S50]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y(EP600250)
[420]: Bind Head Tapping Screw-P 3.0X12 MFZN2Y(EP600300)
[430A]: Bind Head Tapping Screw-P 3.0X25 MFZN2Y(VK228100)
[460A]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y(EP600250)

(Fig. 1)

5. MOD Circuit Board

(Time required: About 3 minutes)

5-1. Remove the lower case assembly. (See procedure 1.)
5-2. Remove the two (2) screws marked [560B]. The MOD circuit board with the wheel can then be removed. (Fig. 2)
5-3. Remove the wheel from the MOD circuit board. (Fig. 2)

6. SW Circuit Board

(Time required: About 3 minutes)

6-1. Remove the lower case assembly. (See procedure 1.)
6-2. Remove the two (2) screws marked [460C]. The SW circuit board can then be removed. (Fig. 2)
6-3. Remove the push knob from the SW circuit board. (Fig. 1)

7. Tweeter (PSR-1500)

(Time required: About 4 minutes)

7-1. Remove the lower case assembly. (See procedure 1.)
7-2. Remove the two (2) screws marked [460D]. The tweeter can then be removed. (Fig. 2)

*** The left and right tweeters can be removed in the same method.**

8. Tweeter (PSR-3000)

(Time required: About 4 minutes)

8-1. Remove the lower case assembly. (See procedure 1.)
8-2. Remove the two (2) screws marked [450]. The tweeter can then be removed. (Fig. 2)

*** The left and right tweeters can be removed in the same method.**

9. Woofer (PSR-1500)

(Time required: About 4 minutes)

9-1. Remove the lower case assembly. (See procedure 1.)
9-2. Remove the four (4) screws marked [60]. The woofer can then be removed. (Fig. 2)

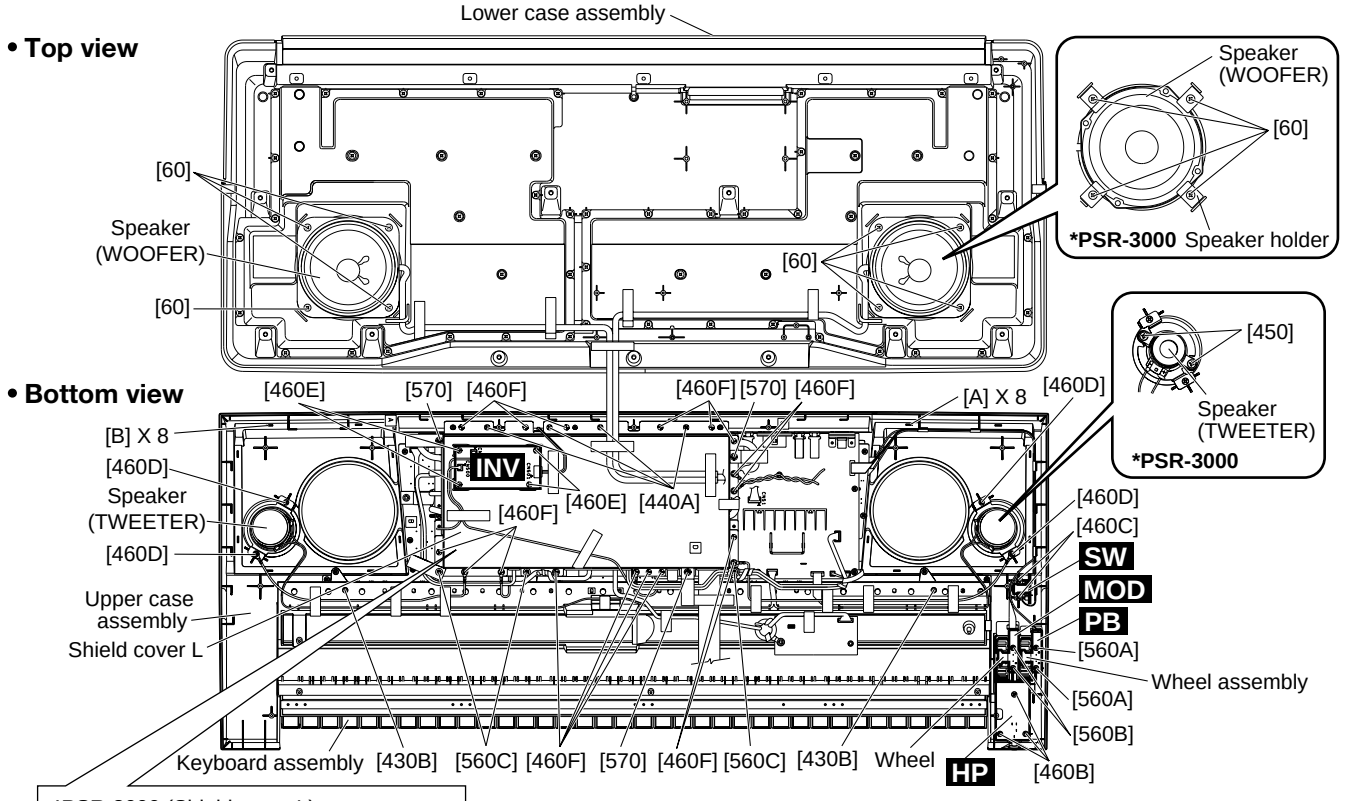
*** The left and right woofers can be removed in the same method.**

10. Woofer (PSR-3000)

(Time required: About 4 minutes)

10-1. Remove the lower case assembly. (See procedure 1.)
10-2. Remove the four (4) screws marked [60]. The woofer and the four (4) speaker holders can then be removed. (Fig. 2)

*** The left and right woofers can be removed in the same method.**



(Fig. 2-1)

(Fig. 2)

✻ This figure shows the PSR-1500.

[60]: Bind Head Tapping Screw-P 4.0X10 MFZN2Y(EP640500)
[430B]: Bind Head Tapping Screw-P 3.0X25 MFZN2Y(VK228100)
[440A]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL(EP600230)
[450]: Bind Head Tapping Screw-B 4.0X8 MFZN2BL(EG340190)
[460]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y(EP600250)
[560]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y(EP600250)
[570]: PW Head Tapping Screw-B 3.0X8-8 MFZN2BL(V2276900)

11. Speaker Grille L Assembly

(Time required: About 4 minutes)

11-1. Remove the lower case assembly. (See procedure 1.)
11-2. Restraighten the eight (8) projections marked [A] to come off the slots of the upper case assembly. (Fig. 2)
11-3. Remove the Speaker Grille L assembly. (Fig. 1)

12. Speaker Grille R Assembly

(Time required: About 4 minutes)

12-1. Remove the lower case assembly. (See procedure 1.)
12-2. Restraighten the eight (8) projections marked [B] to come off the slots of the upper case assembly. (Fig. 2)
12-3. Remove the Speaker Grille R assembly. (Fig. 1)

13. Keyboard Assembly

(Time required: About 3 minutes)

13-1. Remove the lower case assembly. (See procedure 1.)
13-2. Remove the two (2) screws marked [430B]. The keyboard assembly can then be removed. (Fig. 2)

14. INV Circuit Board

(Time required: About 4 minutes)

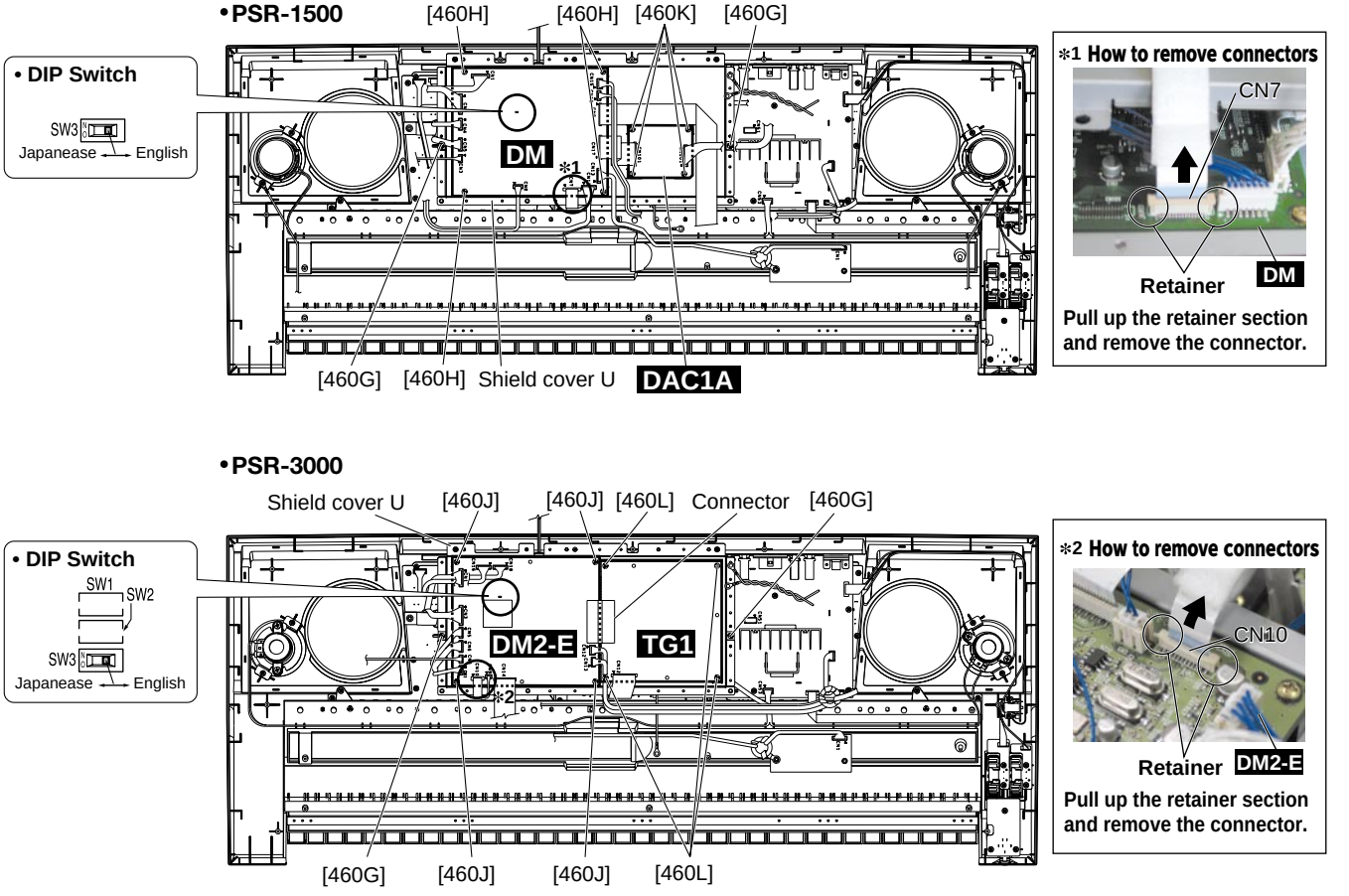
⚠ **There may be high voltage components. Make sure to disassemble the components after turning the power switch off.**

14-1. Remove the lower case assembly. (See procedure 1.)
14-2. Remove the four (4) screws marked [460E]. The INV circuit board can then be removed. (Fig. 2)

15. DM Circuit Board (PSR-1500), DM2-E Circuit Board (PSR-3000), DAC1A Circuit Board, TG1 Circuit Board (PSR-3000)

15-1. Remove the lower case assembly. (See procedure 1.)
15-2. Remove the four (4) screws marked [440A], the seventeen (17) screws marked [460F], the three (3) screws marked [560C] and the three (3) screws marked [570]. The shield cover L with the INV circuit board can then be removed. (Fig. 2) **(PSR-1500)**
15-3. Remove the four (4) screws marked [440A], the nineteen (19) screws marked [460F], the three (3) screws marked [560C] and the screw marked [570]. The shield cover L with the INV circuit board can then be removed. (Fig. 2-1) **(PSR-3000)**

• Bottom view



*** When DM circuit board (PSR-1500) or DM2-E circuit board (PSR-3000) is replaced, data on Internet settings may be lost.**

*** DM circuit board (PSR-1500) and DM2-E circuit board (PSR-3000) have an internal DIP switch for switching the display in Japanese or in English (SW3).**

[460]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y(EP600250)

(Fig. 3)

15-4. DM Circuit Board (PSR-1500)
(Time required: About 8 minutes):
Remove the four (4) screws marked [460H]. The DM circuit board can then be removed. (Fig. 3)

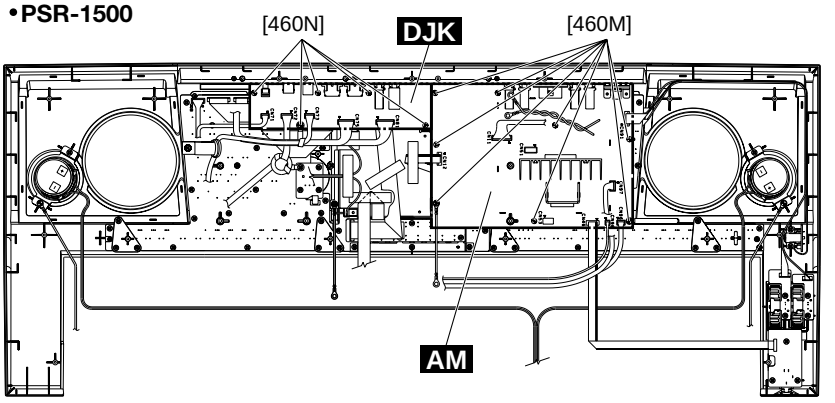
15-5. DM2-E Circuit Board (PSR-3000)
(Time required: About 8 minutes):
Remove the four (4) screws marked [460J], and disconnect the connectors from the TG1 circuit board. The DM2-E circuit board can then be removed. (Fig. 3)

15-6. DAC1A Circuit Board (PSR-1500)
(Time required: About 8 minutes):
Remove the four (4) screws marked [460K]. The DAC1A circuit board can then be removed. (Fig. 3)

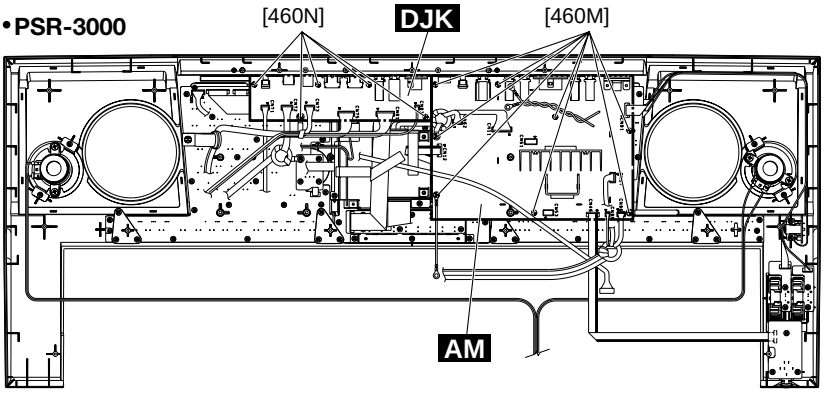
15-7. TG1 Circuit Board (PSR-3000)
(Time required: About 8 minutes):
Remove the four (4) screws marked [460L], and disconnect the connectors from the DM2-E circuit board. The TG1 circuit board can then be removed. (Fig. 3)

• Bottom view

• PSR-1500



• PSR-3000

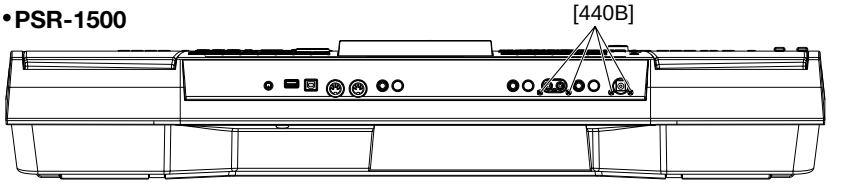


[460]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y(EP600250)

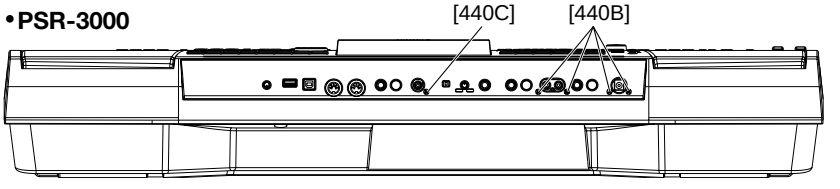
(Fig. 4)

• Rear view

• PSR-1500



• PSR-3000



[440]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL(EP600230)

(Fig. 5)

16. AM Circuit Board, DJK Circuit Board

16-1. Remove the lower case assembly. (See procedure 1.)

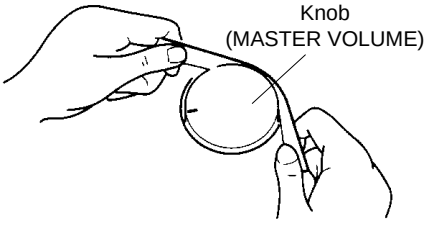
16-2. Remove the shield cover L. (See procedures 15-2, 3.)

16-3. Remove the two (2) screws marked [460G]. The shield cover U with the DM circuit board and DAC1A circuit board (PSR-1500) or with DM2-E circuit board and TG1 circuit board (PSR-3000) can then be removed. (Fig. 3)

16-4. AM Circuit Board
(Time required: About 9 minutes):
Remove the eight (8) screws marked [460M]. The AM circuit board can then be removed. (Fig. 4)

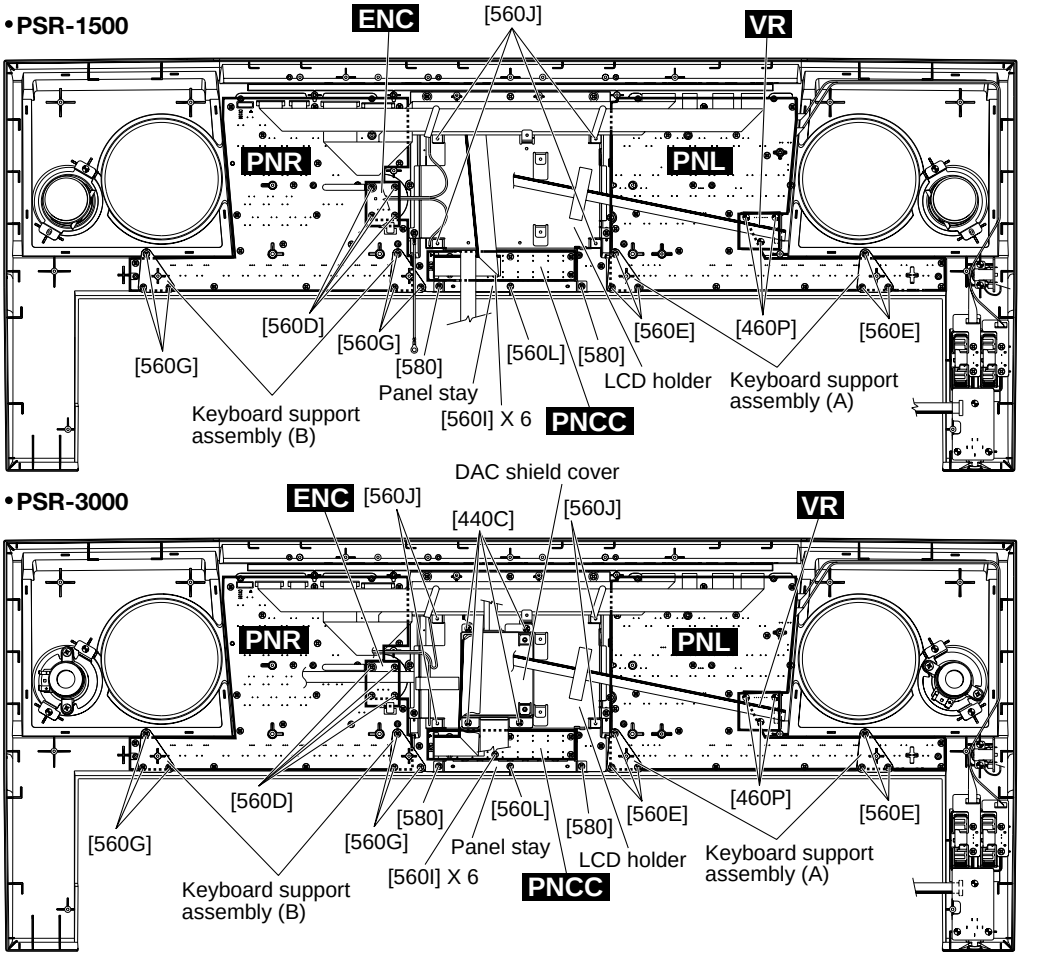
16-5. DJK Circuit Board (PSR-1500)
(Time required: About 9 minutes):
Remove the four (4) screws marked [440B] and the five (5) screws marked [460N]. The DJK circuit board can then be removed. (Figs. 4, 5)

16-6. DJK Circuit Board (PSR-3000)
(Time required: About 9 minutes):
Remove the four (4) screws marked [440B], the screw marked [440C] and the five (5) screws marked [460N]. The DJK circuit board can then be removed. (Figs. 4, 5)



(Fig. 6)

• Bottom view



[440C]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL(EP600230)
[460P]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y(EP600250)
[560]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y(EP600250)
[580]: Bind Head Tapping Screw-B 3.0X10 MFZN2BL(EP600140)

(Fig. 7)

17. VR, ENC, PNL, PNR, PNCC, DAC1A, PNCL and PNCR Circuit Boards, and LCD

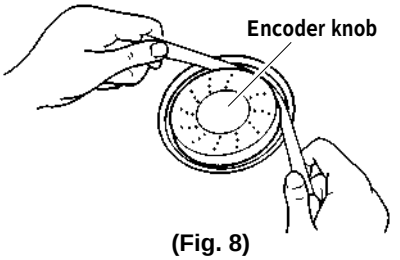
17-1. Remove the lower case assembly. (See procedure 1.)
17-2. Remove the shield cover L. (See procedures 15-2, 3.)
17-3. Remove the shield cover U. (See procedure 16-3.)

17-4. VR Circuit Board (Time required: About 10 minutes):

17-4-1. Remove the AM circuit board. (See procedure 16-4.)
17-4-2. Remove the volume knob from the control panel side. (Fig. 6)
17-4-3. Remove the three (3) screws marked [460P]. The VR circuit board can then be removed. (Fig. 7)

17-5. ENC Circuit Board (Time required: About 10 minutes):

17-5-1. Remove the encoder knob from the control panel side. (Fig. 8)
17-5-2. Remove the four (4) screws marked [560D]. The ENC circuit board can then be removed. (Fig. 7)



(Fig. 8)

17-6. PNL Circuit Board (Time required: About 13 minutes):

17-6-1. Remove the AM circuit board. (See procedure 16-4.)
17-6-2. Remove the VR circuit board. (See procedure 17-4.)
17-6-3. Remove the keyboard assembly. (See procedure 13.)
17-6-4. Remove the six (6) screws marked [560E]. The two (2) keyboard support assemblies (A) can then be removed. (Fig. 7)
17-6-5. Remove the sixteen (16) screws marked [560F]. The PNL circuit board can then be removed. (Fig. 9)

17-7. PNR Circuit Board (Time required: About 13 minutes):

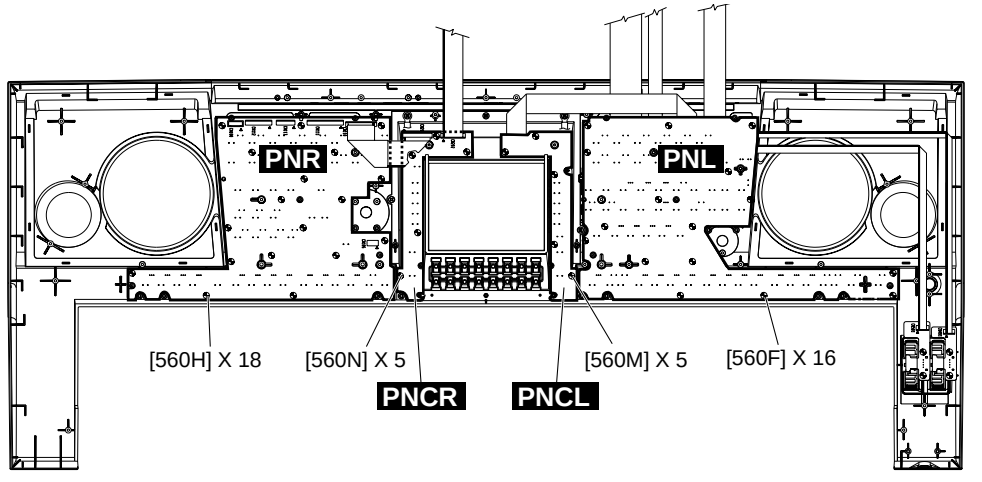
17-7-1. Remove the ENC circuit board. (See procedure 17-5.)
17-7-2. Remove the DJK circuit board. (See procedures 16-5, 6.)
17-7-3. Remove the keyboard assembly. (See procedure 13.)
17-7-4. Remove the six (6) screws marked [560G]. The two (2) keyboard support assemblies (B) can then be removed. (Fig. 7)
17-7-5. Remove the eighteen (18) screws marked [560H]. The PNR circuit board can then be removed. (Fig. 9)

17-8. PNCC Circuit Board (Time required: About 9 minutes):

17-8-1. Remove the keyboard assembly. (See procedure 13.)
17-8-2. Remove the AM circuit board. (See procedure 16-4.)
17-8-3. Remove the six (6) screws marked [560I]. The PNCC circuit board can then be removed. (Fig. 7)

17-9. DAC1A Circuit Board (PSR-3000) (Time required: About 9 minutes):

17-9-1. Remove the four (4) screws marked [440C]. The shield cover DAC and DAC1A circuit board can then be removed. (Fig. 7)
17-9-2. Remove the four (4) screws marked [D60]. The DAC1A circuit board can then be removed. (Fig. 10)



✻ This figure shows the PSR-1500.

[560]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y(EP600250)

(Fig. 9)

17-10. LCD (Time required: About 11 minutes):

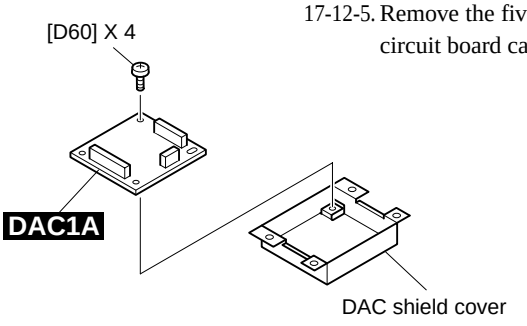
17-10-1. Remove the PNCC circuit board. (See procedure 17-8.)
17-10-2. Remove the DJK circuit board. (See procedures 16-5, 6.)
17-10-3. Remove the four (4) screws marked [560J]. The LCD can then be removed with the LCD holder. (Fig. 7)
17-10-4. Remove the four (4) screws marked [560K]. The LCD can then be removed from the LCD holder. (Fig. 11)

17-11. PNCL Circuit Board (Time required: About 12 minutes):

17-11-1. Remove the keyboard assembly. (See procedure 13.)
17-11-2. Remove the AM circuit board. (See procedure 16-4.)
17-11-3. Remove the PNCC circuit board. (See procedure 17-8.)
17-11-4. Remove the LCD with the LCD holder. (See procedure 17-10.)
17-11-5. Remove the screw marked [560L] and the two (2) screws marked [580]. The panel stay can then be removed. (Fig. 7)
17-11-6. Remove the five (5) screws marked [560M]. The PNCL circuit board can then be removed. (Fig. 9)

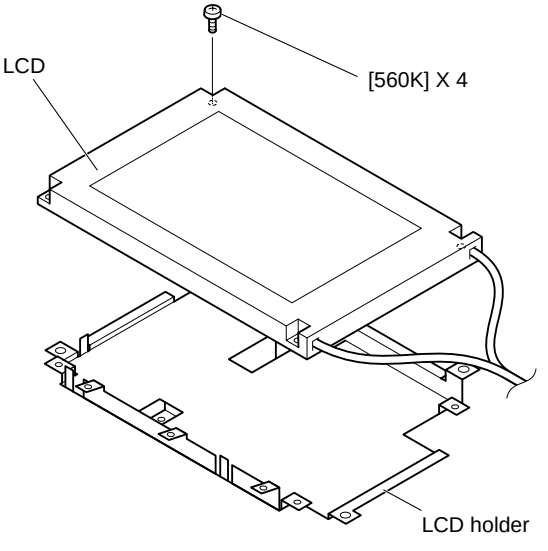
17-12. PNCR Circuit Board (Time required: About 12 minutes):

17-12-1. Remove the keyboard assembly. (See procedure 13.)
17-12-2. Remove the PNCC circuit board. (See procedure 17-8.)
17-12-3. Remove the LCD with the LCD holder. (See procedure 17-10.)
17-12-4. Remove the screw marked [560L] and the two (2) screws marked [580]. The panel stay can then be removed. (Fig. 7)
17-12-5. Remove the five (5) screws marked [560N]. The PNCR circuit board can then be removed. (Fig. 9)

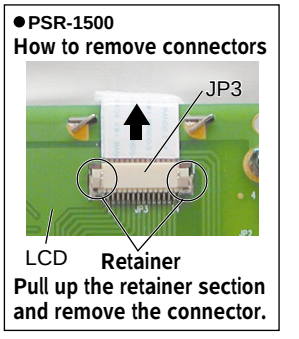


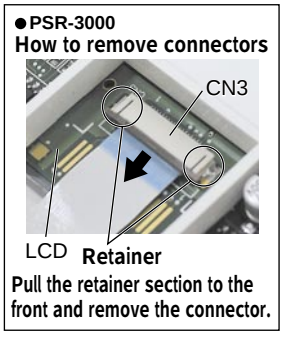
[D60]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL(EP600230)

(Fig. 10)



✻ This figure shows the PSR-3000.





[560K]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y(EP600250)

(Fig. 11)

18. Disassembling the Keyboard Assembly

18-1. Remove the lower case assembly. (See procedure 1.)

18-2. Remove the keyboard assembly. (See procedure 13.)

18-3. EMKSA Circuit Board
(Time required: About 4 minutes):
Remove the two (2) screws marked [30]. The EMKSA circuit board can then be removed. (Fig. 12)

* **Be sure to make a correct match when connecting the EMKSA (CN1) and DM (CN13) for PSR-1500, or when connecting the EMKSA (CN1) and DM2-E (CN16) for PSR-3000. Connecting the connectors in the wrong way may cause damage to the EMKSA circuit board.**

18-4. MK-L Circuit Board, MK-H Circuit Board
(Time required: About 5 minutes):
Remove the MK-L and MK-H circuit board while pressing the fifteen (15) hooks A inward, and then remove the rubber contact. (Fig. 13)

18-5. Rubber Contact:
Remove the rubber contact. (Fig. 13) (Photo 2)

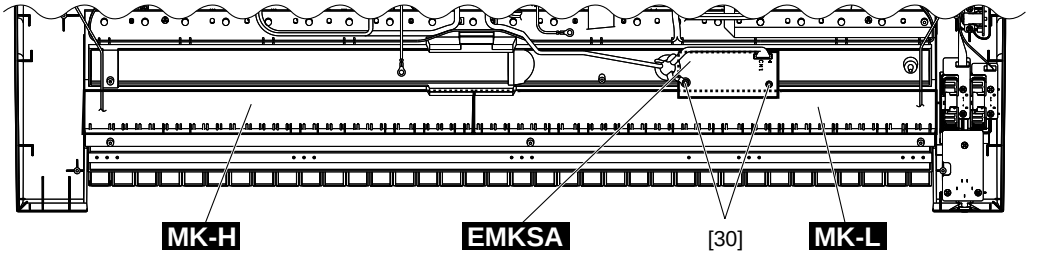
18-6. White and Black Keys:

18-6-1. Remove the twenty-one (21) screws marked [140], then remove the black keys from the lower notes. (Fig. 14)

18-6-2. Remove the white keys DFA and C'. (Fig. 14)

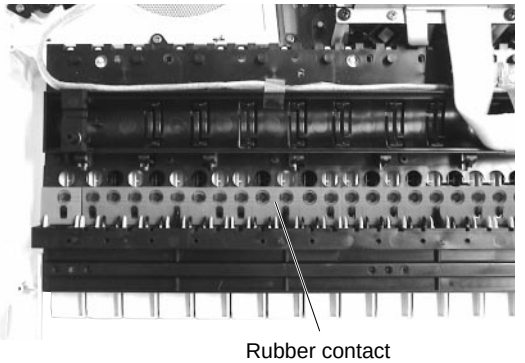
18-6-3. Remove the while keys GEGB from the higher notes. (Fig. 14)

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

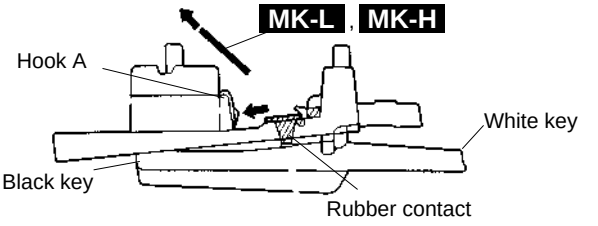


[30]: Bind Head Tapping Screw-P 3.0X8 MFZN2BL(EP630220)

(Fig. 12)



(Photo 2)



(Fig. 13)

19. Assembling the Keyboard Assembly

19-1. Install the white keys GEGB from the lower notes. (Fig. 14)

19-2. Install the white keys DFA and C'. (Fig. 14)

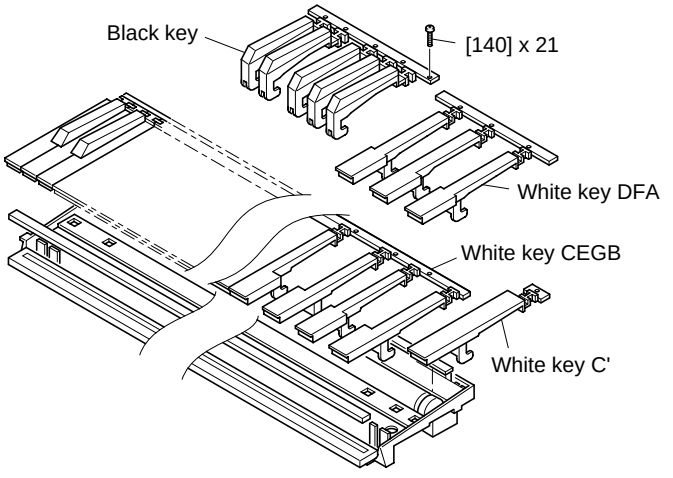
19-3. Install the black keys from the higher notes, and tighten the twenty-one (21) screws marked [140]. (Fig. 14)

* **To install the white and black keys, insert the projections of the keys into the respective slots [C] on the frame first. (Photos 3, 4, 5)**

19-4. Install the rubber contacts while pulling the keys up. (Figs. 15, 16)

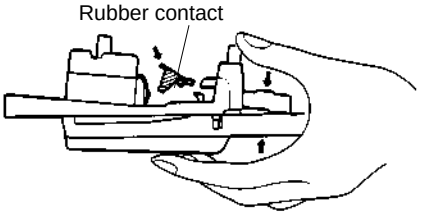
* **When fitting the rubber contacts, raise both ends of the frame so that keys do not push the rubber contact up.**

19-5. Install the MK-L and MK-H circuit boards in the assembly so that the hooks B hold it. (Fig. 17)

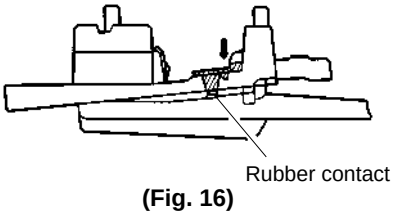


[140]: Bind Head Tapping 3.0x16 MFZN2BL (VB205200) or Bind Head Tapping 3.0x16 MFZN2B (VS756700)

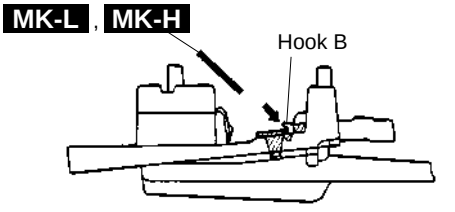
(Fig. 14)



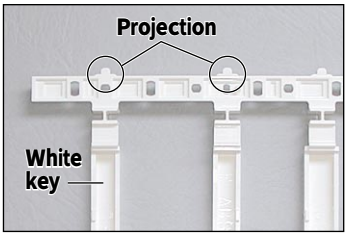
(Fig. 15)



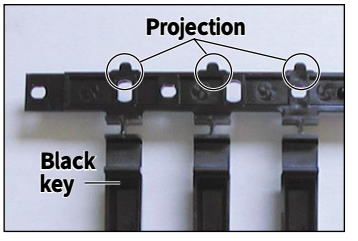
(Fig. 16)



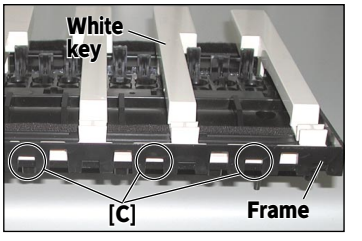
(Fig. 17)



(Photo 3)



(Photo 4)



(Photo 5)

■ LSI PIN DESCRIPTION

M38869M8A-184GP (X5343100) **CPU** (PSR-3000) 23
HD6417727F160C (X2890B00) **CPU** 24
HD6417709SHF200B (X2687A00) **CPU** (SH3) (PSR-3000) 25
HD6417709SHF200B (X2687B00) **CPU** (SH3) (PSR-3000) 25
M38044M4-C16FP (X4406100) **CPU** 26
μ**PD780031AYGK-NO4** (X0031200) **CPU** 26
S1D13806F00A200 (X4029A00) **LCDC** (PSR-3000) 27
T8F02TB-0102 (X0060A00) **SWP50** 28/29
S1L50553F21Y000 (X4195A00) **Gate Array** (PSR-3000) 30
AK5381VT-E2 (X5219A00) **ADC** 30
AK4393VF-E2 (XW029A00) **DAC** 31
MPD6S004S (X4404A00) **DC-DC CONVERTER** 31

● **M38869M8A-184GP** (X5343100) **CPU**

DM2-E: IC055 (PSR-3000)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	P6$_0$/AN$_0$	I/O	Port 6 / Analog input	41	P1$_5$	I/O	Port 1
2	P7$_7$/SCL	I/O	Port 7 / Serial clock	42	P1$_4$	I/O	
3	P7$_6$/SDA	I/O	Port 7 / Serial data	43	P1$_3$	I/O	
4	P7$_5$/INT$_{41}$	I/O	Port 7 / Interrupt request	44	P1$_2$	I/O	
5	P7$_4$/INT$_{31}$	I/O		45	P1$_1$	I/O	
6	P7$_3$/$\overline{SRDY2}$/INT$_{21}$	I/O	Port 7 / Serial control reqister / Interrupt request	46	P1$_0$	I/O	
7	P7$_2$/SCLK2	I/O	Port 7 / Serial clock	47	P0$_7$	I/O	Port 0
8	P7$_1$/SOUT2	I/O	Port 7 / Serial output	48	P0$_6$	I/O	
9	P7$_0$/SIN2	I/O	Port 7 / Serial input	49	P0$_5$	I/O	
10	P5$_7$/DA$_2$/PWM$_{11}$	I/O	Port 5 / D-A output /PWM output	50	P0$_4$	I/O	
11	P5$_6$/DA$_1$/PWM$_{01}$	I/O		51	P0$_3$	I/O	
12	P5$_5$/CNTR$_1$	I/O	Port 5 / Timer	52	P0$_2$	I/O	
13	P5$_4$/CNTR$_0$	I/O		53	P0$_1$	I/O	
14	P5$_3$/INT$_{40}$/$\overline{W}$	I/O	Port 5 / Interrupt request / Write	54	P0$_0$/P3$_{REF}$	I/O	Port 0 / Port 3 reference
15	P5$_2$/INT$_{30}$/$\overline{R}$	I/O	Port 5 / Interrupt request / read	55	P3$_7$	I/O	Port 3
16	P5$_1$/INT$_{20}$/$\overline{S_0}$	I/O	Port 5 / Interrupt request /	56	P3$_6$	I/O	
17	P5$_0$/A$_0$	I/O	Port 5 / Address	57	P3$_5$	I/O	
18	S$_1$			58	P3$_4$	I/O	
19	OBF$_{10}$			59	P3$_3$	I/O	
20	P4$_5$/TXD	I/O	Port 4 / Data transmission	60	P3$_2$	I/O	
21	P4$_4$/RXD	I/O	Port 4 / Data reception	61	P3$_1$/PWM$_{10}$	I/O	Port 3 / PWM output
22	OBF$_{01}$			62	P3$_0$/PWM$_{00}$	I/O	
23	OBF$_{00}$			63	P8$_7$/DQ$_7$	I/O	Port 8 /
24	$\underline{CNV_{SS}}$	-	Ground	64	P8$_6$/DQ$_6$	I/O	
25	$\overline{RESET}$	I	System reset input	65	P8$_5$/DQ$_5$	I/O	
26	P4$_1$/XCIN	I/O	Port 4 /	66	P8$_4$/DQ$_4$	I/O	
27	P4$_0$/XOUT	I/O	Port 4 /	67	P8$_3$/DQ$_3$	I/O	
28	XIN	I	8MHz	68	P8$_2$/DQ$_2$	I/O	
29	XOUT	O		69	P8$_1$/DQ$_1$	I/O	
30	VSS	-	Ground	70	P8$_0$/DQ$_0$	I/O	
31	P2$_7$	I/O	Port 2	71	VCC	-	Power supply +5V
32	P2$_6$	I/O		72	VREF	I	Voltage reference
33	P2$_5$	I/O		73	AVSS	-	Ground
34	P2$_4$	I/O		74	P6$_7$/AN$_7$	I/O	Port 6 / Analog input
35	P2$_3$	I/O		75	P6$_6$/AN$_6$	I/O	
36	P2$_2$	I/O		76	P6$_5$/AN$_5$	I/O	
37	P2$_1$	I/O		77	P6$_4$/AN$_4$	I/O	
38	P2$_0$	I/O		78	P6$_3$/AN$_3$	I/O	
39	P1$_7$	I/O	Port 2	79	P6$_2$/AN$_2$	I/O	
40	P1$_6$	I/O		80	P6$_1$/AN$_1$	I/O	

● HD6417727F160C (X2890B00) CPU

DM: IC007 (PSR-1500)
DM2-E: IC006 (PSR-3000)

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

- **HD6417709SHF200B** (X2687A00) **CPU** (SH3)
- **HD6417709SHF200B** (X2687B00) **CPU** (SH3)

TG1: IC001 (PSR-3000)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	MD1	I	Mode control	105	CKE/PTK5	I/O	CK enable / Port K
2	MD2	I		106	RAS3L/PTJ0	I/O	RAS address bus / Port J
3	Vcc(RTC)	-	Power supply +1.8 V	107	PTJ1	I/O	Port J
4	XTAL2	O	Crystal oscillator	108	CASL/PTJ2	I/O	CAS address bus / Port J
5	EXTAL2	I		109	VssQ	-	Ground
6	Vss(RTC)	-	Ground	110	CASU/PTJ3	I/O	CAS address bus / Port J
7	NMI	I	Non-maskable interrupt request	111	VccQ	-	Power supply +3.3 V
8	IRQ0/IRL0/PTH0	I	Interrupt request / Port H	112	PTJ4	I/O	Port J
9	IRQ1/IRL1/PTH1	I		113	PTJ5	I/O	
10	IRQ2/IRL2/PTH2	I		114	DACK0/PTD5	I/O	DMA acknowledge / Port D
11	IRQ3/IRL3/PTH3	I		115	DACK1/PTD7	I/O	
12	IRQ4/PTH4	I		116	PTE6	I/O	Port E
13	D31/PTB7	I/O	Data bus / Port B	117	PTE3	I/O	
14	D30/PTB6	I/O		118	RAS3U/PTE2	I/O	RAS address bus / Port E
15	D29/PTB5	I/O		119	PTE1	I/O	Port E
16	D28/PTB4	I/O		120	TDO/PTE0	I/O	Test data / Port E
17	D27/PTB3	I/O		121	BACK	O	Bus acknowledge
18	D26/PTB2	I/O		122	BREQ	I	Bus request
19	VssQ	-	Ground	123	WAIT	I	Hardware wait request
20	D25/PTB1	I/O	Data bus / Port B	124	RESETM	I	Manual reset
21	VccQ	-	Power supply +3.3 V	125	ADTRG/PTH5	I	Analog trigger / Port H
22	D24/PTB0	I/O	Data bus / Port B	126	IOIS16/PTG7	I	Write protect / Port G
23	D23/PTA7	I/O	Data bus / Port A	127	ASEMD0/PTG6	I	ASE mode / Port G
24	D22/PTA6	I/O		128	ASEBRKAK/PTG5	I/O	ASE break acknowledge / Port G
25	D21/PTA5	I/O		129	PTG4/CKIO2	I/O	Port G / Clock output
26	D20/PTA4	I/O		130	AUDATA3/PTG3	I/O	AUD data / Port G
27	Vss	-	Ground	131	AUDATA2/PTG2	I/O	
28	D19/PTA3	I/O	Data bus / Port A	132	Vss	-	Ground
29	Vcc	-	Power supply +1.8 V	133	AUDATA1/PTG1	I/O	AUD data / Port G
30	D18/PTA2	I/O	Data bus / Port A	134	Vcc	-	Power supply +1.8 V
31	D17/PTA1	I/O		135	AUDATA0/PTG0	I/O	AUD data / Port G
32	D16/PTA0	I/O		136	TRST/PTF7/PINT15	I	Test reset / Port F / Port interruption
33	VssQ	-	Ground	137	TMS/PTF6/PINT14	I	Test mode switch / Port F / Port interruption
34	D15	I/O	Data bus	138	TDI/PTF5/PINT13	I	Test data / Port F / Port interruption
35	VccQ	-	Power supply +3.3 V	139	TCK/PTF4/PINT12	I	Test clock / Port F / Port interruption
36	D14	I/O	Data bus	140	IRLS3/PTF3/PINT11	I	Interrupt request / Port F / Port interruption
37	D13	I/O		141	IRL2/PTF2/PINT10	I	
38	D12	I/O		142	IRLS1/PTF1/PINT9	I	
39	D11	I/O		143	IRLS0/PTF0/PINT8	I	
40	D10	I/O		144	MD0	I	Mode control
41	D9	I/O		145	Vcc(PLL1)	-	Power supply +1.8 V
42	D8	I/O		146	CAP1	-	Capacitor
43	D7	I/O		147	Vss(PLL1)	-	Ground
44	D6	I/O		148	Vss(PLL2)	-	Ground
45	VssQ	-	Ground	149	CAP2	-	Capacitor
46	D5	I/O	Data bus	150	VCC(PLL2)	-	Power supply +1.8 V
47	VccQ	-	Power supply +3.3 V	151	AUDCK/PTH6	I	AUD clock / Port H
48	D4	I/O	Data bus	152	Vss	-	Ground
49	D3	I/O		153	Vss	-	
50	D2	I/O		154	Vcc	-	Power supply +1.8 V
51	D1	I/O		155	XTAL1	O	Crystal oscillator
52	D0	I/O		156	EXTAL1	I	
53	A0	O	Address bus	157	STATUS0/PTJ6	I/O	Processor status / Port J
54	A1	O		158	STATUS1/PTJ7	I/O	
55	A2	O		159	TCLK/PTH7	I/O	Timer clock / Port H
56	A3	O		160	/IRQOUT	O	Interrupt request output
57	VssQ	-	Ground	161	VssQ	-	Ground
58	A4	O	Address bus	162	CKIO	I/O	System clock input / output
59	VccQ	-	Power supply +3.3 V	163	VccQ	-	Power supply +3.3 V
60	A5	O	Address bus	164	TXD0/SCPT0	O	Data transmission / SCI port
61	A6	O		165	SCK0/SCPT1	I/O	Serial clock / SCI port
62	A7	O		166	TXD1/SCPT2	O	Data transmission / SCI port
63	A8	O		167	SCK1/SCPT3	I/O	Serial clock / SCI port
64	A9	O		168	TXD2/SCPT4	O	Data transmission / SCI port
65	A10	O		169	SCK2/SCPT5	I/O	Serial clock / SCI port
66	A11	O		170	RTS2/SCPT6	I/O	Transmit request / SCI port
67	A12	O		171	RXD0/SCPT0	I	Data reception / SCI port
68	A13	O		172	RXD1/SCPT2	I	
69	VssQ	-	Ground	173	Vss	-	Ground
70	A14	O	Address bus	174	RXD2/SCPT4	I	Data reception / SCI port
71	VccQ	-	Power supply +3.3 V	175	Vcc	-	Power supply +1.8 V
72	A15	O	Address bus	176	CTS2/IRQ5/SCPT7	I	Transmit clear / Interrupt request / SCI port
73	A16	O		177	MCS7/PTC7/PINT7	I/O	Mask ROM chip select / Port C / Port interruption
74	A17	O		178	MCS6/PTC6/PINT6	I/O	
75	A18	O		179	MCS5/PTC5/PINT5	I/O	
76	A19	O		180	MCS4/PTC4/PINT4	I/O	
77	A20	O		181	VssQ	-	Ground
78	A21	O		182	WAKEUP/PTD3	I/O	Standby mode Interrupt request output / Port D
79	Vss	-	Ground	183	VccQ	-	Power supply +3.3 V
80	A22	O	Address bus	184	RESETOUT/PTD2	I/O	Reset output / Port D
81	Vcc	-	Power supply +1.8 V	185	MCS3/PTC3/PINT3	I/O	Mask ROM chip select / Port C / Port interruption
82	A23	O	Address bus	186	MCS2/PTC2/PINT2	I/O	
83	VssQ	-	Ground	187	MCS1/PTC1/PINT1	I/O	
84	A24	O	Address bus	188	MCS0/PTC0/PINT0	I/O	
85	VccQ	-	Power supply +3.3 V	189	DRAK0/PTD1	I/O	DMA acknowledge / Port D
86	A25	O	Address bus	190	DRAK1/PTD0	I/O	
87	BS/PTK4	I/O	Bus cycle / Port K	191	DREQ0/PTD4	I	DMA request / Port D
88	RD	O	Read strobe	192	DREQ1/PTD6	I	
89	WE0/DQMLL	O	Select signal (D7-D0) / D QM (SDRAM)	193	RESETP	I	Power on reset
90	WE1/DQMLU/WE	O	Select signal (D15-D8) / D QM (SDRAM) / Write enable	194	CA	I	Chip active
91	WE2/DQMUU/ICIORD/PTK6	I/O	Select signal (D23-D16) / D QM (SDRAM) / I/O read / Port K	195	MD3	I	Mode control
92	WE3/DQMUU/ISIOWR/PTK7	I/O	Select signal (D31-D24) / D QM (SDRAM) / I/O write / Port K	196	MD4	I	
93	RD/WR	O	Read / Write	197	MD5	I	
94	AUDSYNC/PTE7	I/O	AUD cycle / Port E	198	AVss	-	Analog ground
95	VssQ	-	Ground	199	AN0/PTL0	I	Analog input / Port L
96	CS0/MCS0	O	Chip select / Mask ROM chip select	200	AN1/PTL1	I	
97	VccQ	-	Power supply +3.3V	201	AN2/PTL2	I	
98	CS2/PTK0	I/O	Chip select / Port K	202	AN3/PTL3	I	
99	CS3/PTK1	I/O		203	AN4/PTL4	I	
100	CS4/PTK2	I/O		204	AN5/PTL5	I	
101	CS5/CE1A/PTK3	I/O	Chip select / Chip enable / Port K	205	AVcc	-	Analog power supply +3.3 V
102	CS6/CE1B	O	Chip select / Chip enable	206	AN6/DA1/PTL6	I/O	Analog input / Analog output / Port L
103	CE2A/PTE4	I/O	Chip enable / Port E	207	AN7/DA0/PTL7	I/O	
104	CE2B/PTE5	I/O		208	AVss	-	Analog ground

● M38044M4-C16FP (X4406100) CPU

PNR: IC100

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	

● μPD780031AYGK-NO4 (X0031200) CPU

EMKSA: 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	AVREF	I	A/D converter reference voltage input
3	P52/A10	I/O		35	AVDD	-	Analog power supply
4	P53/A11	I/O		36	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	VDD0	-	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/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/RD	I/O	Port 6 / Strobe signal output for reading
22	P24/TxD0	I/O	Port 2 / Serial data output	54	P65/WR	I/O	Port 6 / Strobe signal output for writing
23	P25/ASCK0	I/O	Port 2 / Serial clock input/output	55	P66/WAIT	I/O	Port 6 / Wait insertion
24	VDD1	-	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	

• S1D13806F00A200 (X4029A00) LCDC

DM2-E: IC019 (PSR-3000)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	IOV_{DD}	-	Power supply +3.3V	73	IOV_{DD}	-	Power supply +3.3V
2	CNF2	I	Configure the S1D13704	74	FPFRAME	O	Frame pulse
3	CNF1	I		75	FPLINE	O	Line pulse
4	CNF0	I		76	NC	-	not used
5	TESTEN	I	Test enable	77	DRDY	O	TFT / D-TFD display enable
6	A20	O	Address bus	78	FPSHIFT	O	Shift clock
7	A19	O		79	V_{SS}	-	Ground
8	A18	O		80	FPDAT0	O	Panel data bus
9	A17	O		81	FPDAT1	O	
10	A16	O		82	FPDAT2	O	
11	A15	O		83	FPDAT3	O	
12	A14	O		84	FPDAT4	O	
13	A13	O		85	FPDAT5	O	
14	A12	O		86	FPDAT6	O	
15	A11	O		87	FPDAT7	O	
16	A10	O		88	V_{SS}	-	Ground
17	A9	O		89	$COREV_{DD}$	-	Power supply +3.3V
18	A8	O		90	FPDAT8	O	Panel data bus
19	A7	O		91	FPDAT9	O	
20	A6	O		92	IOV_{DD}	-	Power supply +3.3V
21	A5	O		93	FPDAT10	O	Panel data bus
22	A4	O		94	FPDAT11	O	
23	A3	O		95	FPDAT12	O	
24	A2	O		96	FPDAT13	O	
25	A1	O		97	FPDAT14	O	
26	A0	O		98	FPDAT15	O	
27	$COREV_{DD}$	-	Power supply +3.3V	99	V_{SS}	-	Ground
28	CS	I	Chip select	100	FPDAT16	O	Panel data bus
29	M/R	I	Memory buffer / register	101	FPDAT17	O	
30	BS	I	Bus cycle start	102	FPDAT18	O	
31	RD	I	Read strobe	103	FPDAT19	O	
32	WE0	I	Write strobe	104	FPDAT20	O	
33	WE1	I/O	Write enable	105	FPDAT21	O	
34	RD/WR	I	Read / Write	106	FPDAT22	O	
35	RESET	I	System reset	107	FPDAT23	O	
36	V_{SS}	-	Ground	108	V_{SS}	-	Ground
37	IOV_{DD}	-	Power supply +3.3V	109	IOV_{DD}	-	Power supply +3.3V
38	DV_{DD}	-	Power supply +3.3V	110	AV_{DD}	-	
39	WAIT	O	Hardware wait request	111	AV_{SS}	-	Ground
40	DB15	I/O	System data bus	112	RED	O	Analog output / S-video brightness for CRT red
41	DB14	I/O		113	IREF	I	DAC current refference
42	DB13	I/O		114	AV_{DD}	-	Power supply +3.3V
43	DB12	I/O		115	GREEN	O	Analog output / complex video output signal for CRT green
44	DB11	I/O		116	AV_{DD}	-	Power supply +3.3V
45	DB10	I/O		117	BLUE	O	Analog output / s-video color for CRT blue
46	DB9	I/O		118	AV_{SS}	-	Ground
47	DB8	I/O		119	HRTC	O	Horizontal direction retrace signal for CRT
48	DB7	I/O		120	VRTC	O	Vertical direction retrace signal for CRT
49	DB6	I/O		121	V_{SS}	-	Ground
50	DB5	I/O		122	$COREV_{DD}$	-	Power supply +3.3V
51	DB4	I/O		123	IOV_{DD}	-	
52	DB3	I/O		124	VMP0		
53	DB2	I/O		125	VMP1		
54	DB1	I/O		126	VMP2		
55	DB0	I/O		127	VMP3		
56	DTESEN			128	VMP4		
57	GPIO8	I/O	General purpose input / output	129	VMP5		
58	DV_{SS}	-	Ground	130	VMP6		
59	V_{SS}	-		131	VMP7		
60	BUSCLK	I	System bus clock	132	DV_{DD}	-	Power supply +3.3V
61	GPIO7	I/O	General purpose input / output	133	TEST	I	Test input
62	CLKI3	I	Selectable input clock	134	GPIO12	I/O	General purpose input / output
63	GPIO6	I/O	General purpose input / output	135	GPIO11	I/O	
64	CLKI2	I	Selectable input clock	136	GPIO10	I/O	
65	GPIO5	I/O	General purpose input / output	137	GPIO9	I/O	
66	CLKI	I	Selectable input clock	138	CNF7	I	Configure the S1D13704
67	GPIO4	I/O	General purpose input / output	139	CNF6	I	
68	GPIO3	I/O		140	CNF5	I	
69	GPIO2	I/O		141	CNF4	I	
70	GPIO1	I/O		142	CNF3	I	
71	GPIO0	I/O		143	DV_{SS}	-	Ground
72	V_{SS}	-	Ground	144	V_{SS}	-	

● T8F02TB-0102 (X0060A00) SWP50

DM: IC035 (PSR-1500)
TG1: IC006 (PSR-3000)

PIN NO.	OUTER NO.	NAME	I/O	FUNCTION	PIN NO.	OUTER NO.	NAME	I/O	FUNCTION
1	E5	VSS2	-	Ground	106	E22	VSS2	-	Ground
2	D4	VDDC	-	Power supply +1.5 V	107	D23	VDDC	-	Power supply +1.5 V
3	C3	CD15	I/O		108	C24	HMA15	O	
4	B2	CD13	I/O		109	B25	HMA16	O	Wave memory address bus
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	VDDS	-	Power supply +3 V
8	C4	CD9	I/O	Data bus of internal register	113	D24	HMA27	O	
9	B3	CD11	I/O		114	C25	HMA0	O	Wave memory address bus
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	VDDS	-	Power supply +3 V
13	E7	VSS	-	Ground	118	G22	HMA26	O	
14	C5	CD5	I/O		119	E24	HMA30	O	Wave memory address bus
15	B4	CD8	I/O	Data bus of internal register	120	D25	HMA28	O	
16	A4	CD7	I/O		121	D26	HMA29	O	
17	D7	VSS2	-	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	VDDS	-	Power supply +3 V	125	H23	VDDS	-	Power supply +3 V
21	B5	CD4	I/O	Data bus of internal register	126	E25	LMA20	O	
22	A5	CD3	I/O		127	E26	LMA21	O	
23	C7	CA2	I		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	Wave memory address bus (Lower data memory)
27	C8	CA5	I	Address bus of internal regisuter	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	VSS2	-	Ground	136	K22	VSS2	-	Ground
32	D10	VDDC	-	Power supply +1.5 V	137	K23	VDDC	-	Power supply +1.5 V
33	C9	CA10	I		138	J24	LMA13	O	
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	Address bus of internal regisuter	142	L22	LMA16	O	Wave memory address bus (Lower data memory)
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	VDDS	-	Power supply +3 V	149	M23	VDDS	-	Power supply +3 V
45	C11	WRN	I	Write strobe	150	L24	LMA22	O	
46	B11	RDN	I	Read strobe	151	L25	LMA23	O	
47	A11	WAIT0	O	Hardware wait request	152	L26	LMA24	O	
48	C12	IRQ0	O	Interrupt request	153	M24	LMA27	O	
49	B12	DREQ0	O		154	M25	LMA28	O	Wave memory address bus (Lower data memory)
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	VDDS	-	Power supply +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	VDDS	-	Power supply +3 V
59	C14	ICN	I	Initial clear	164	P24	LMD13	I/O	
60	B14	RFCLK0	O	PLL Clock	165	P25	LMD14	I/O	Wave memory data bus (Lower 16 bit)
61	B15	PLL_TSTN	I	Power supply	166	R25	LMD11	I/O	
62	C15	PLL_BP	I		167	R24	LMD10	I/O	
63	D15	VDDS	-	Power supply +3 V	168	R23	VDDS	-	Power supply +3 V
64	E15	VSS	-	Ground	169	R22	VSS	-	Ground
65	A15	RFCLK1	I	PLL Clock	170	R26	LMD12	I/O	
66	A16	VDDC	-	Power supply +1.5 V	171	T26	LMD9	I/O	Wave memory data bus (Lower 16 bit)
67	B16	TMODE	I	Test pin	172	T25	LMD8	I/O	
68	C16	PLL_AVD	-	Power supply (PLL)	173	T24	LMD7	I/O	
69	D16	NC	-	Not used	174	T23	VSS2	-	Ground
70	E16	NC	-	Not used	175	T22	VSS	-	Ground
71	A17	PLL_AVS	-	Power supply (PLL)	176	U26	LMD6	I/O	
72	B17	TEST1	I	Test pin	177	U25	LMD5	I/O	Wave memory data bus (Lower 16 bit)
73	A18	VSS	-	Ground	178	V26	LMD3	I/O	
74	C17	SY1	I	Sync. clock	179	U24	LMD4	I/O	
75	D17	VDDC	-	Power supply +1.5 V	180	U23	VDDC	-	Power supply +3 V
76	E17	VSS2	-	Ground	181	U22	VSS2	-	Ground
77	B18	KONTRG0	O	Key on data	182	V25	LMD2	I/O	
78	A19	KONTRG1	I		183	W26	LMD0	I/O	Wave memory data bus (Lower 16 bit)
79	C18	CK512	O		184	V24	LMD1	I/O	
80	B19	CK128	O	Master clock (256 Fs)	185	W25	DCSL0	O	
81	D18	BCLK	O	Master clock (64 Fs)	186	V23	VDDS	-	Power supply +3 V
82	E18	SY0	O	Sync. clock	187	V22	VDDC	-	Power supply +1.5 V
83	C19	HMA20	O		188	W24	DCSL1	O	
84	A20	HMA21	O	Wave memory address bus	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	VDDS	-	Power supply +1.5 V	192	W23	VDDS	-	Power supply +3 V
88	E19	VSS	-	Ground	193	W22	VSS	-	Ground
89	A21	HMA9	O		194	AA26	DMAL13	O	
90	B21	HMA7	O		195	AA25	DMAL12	O	Address bus (DIMM, SDRAM)
91	A22	HMA6	O	Wave memory address bus	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	VDDS	-	Power supply +1.5 V	200	AA23	DMAL10	O	
96	B22	HMA11	O		201	AB25	DMAL8	O	
97	A23	HMA4	O	Wave memory address bus	202	AC26	DMAL6	O	Address bus (DIMM, SDRAM)
98	C22	HMA5	O		203	AB24	DMAL7	O	
99	B23	HMA13	O		204	AC25	DMAL5	O	
100	E21	VSS	-	Ground	205	AA22	VSS2	-	Ground
101	D22	HMA12	O		206	AB23	VSS	-	Ground
102	C23	HMA3	O		207	AC24	DMAL4	O	
103	A24	HMA14	O	Wave memory address bus	208	AD26	DMAL3	O	Address bus (DIMM, SDRAM)
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	VSS2	-	Ground
212	AC23	VDDC	-	Power supply +1.5 V
213	AD24	DMAL1	O	Address bus (DIMM, SDRAM)
214	AE25	DCSL2	O	
215	AF26	DRAS0	O	
216	AC22	DCAS0	O	
217	AB21	VDDS	-	Power supply +3 V
218	AD23	DCLKIN	I	
219	AE24	DQML2	O	MASK signal
220	AF25	DCSL3	O	
221	AF24	DQML0	O	MASK signal
222	AC21	VDDS	-	Power supply +3 V
223	AB20	VSS	-	Ground
224	AD22	DWEN0	O	
225	AE23	DCLK0	O	
226	AF23	DCLK1	O	
227	AC20	DCLKE	O	
228	AD21	HMD13	I/O	Wave memory data bus (Upper data memory)
229	AB19	VSS	-	Ground
230	AC19	VDDS	-	Power supply +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	VDDC	-	Power supply +1.5 V
236	AC18	VDDS	-	Power supply +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	VSS2	-	Ground
242	AC17	VDDC	-	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	VSS2	-	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	
253	AB15	VSS	-	Ground
254	AC15	VDDS	-	Power supply +3 V
255	AD16	DCSH1	O	
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	VSS2	-	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	VDDS	-	Power supply +3 V
268	AC13	VDDS	-	Power supply +3 V
269	AD13	DMAH6	O	Address bus (DIMM, SDRAM)
270	AE13	DMAH7	O	
271	AE12	DMAH4	O	
272	AD12	DMAH3	O	
273	AC12	VDDS	-	Power supply +1.5 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	
282	AE10	DCSH2	O	
283	AF9	DQMH2	O	MASK signal
284	AD10	DCSH3	O	
285	AC10	VDDC	-	Power supply +1.5 V
286	AB10	VSS2	-	Ground
287	AE9	DQMH0	O	MASK signal
288	AF8	DWEN1	O	
289	AD9	DCAS1	O	
290	AE8	DCLK2	O	
291	AC9	VDDS	-	Power supply +3 V
292	AB9	VDDC	-	Power supply +1.5 V
293	AD8	DCLK3	O	
294	AF7	MELO0	O	MEL wave data output
295	AE7	MELO1	O	
296	AD7	MELO2	O	
297	AC8	VDDS	-	
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 LR clock
305	AC6	WCLK1	O	
306	AE5	EIRQ	O	
307	AF4	EICN	O	
308	AD5	ESDA	I/O	
309	AE4	ESCL	I/O	
310	AB6	MELI0	I	MEL wave data input
311	AC5	MELI1	I	
312	AD4	MELI2	I	
303	AF3	MELI3	I	
314	AE3	MELI4	I	
315	AF2	MELI5	I	

PIN NO.	OUTER NO.	NAME	I/O	FUNCTION
316	AB5	VSS2	-	Ground
317	AC4	VDDC	-	Power supply +1.5 V
318	AD3	MELI6	I	MEL wave data input
319	AE2	MELI7	I	
320	AF1	ADLR	O	Power supply +3 V
321	AB4	DITO	O	
322	AA5	VSS	-	Ground
323	AC3	AFRM	I/O	
324	AD2	ACLK	I/O	
325	AE1	ADIR	O	
326	AD1	ADAT0	I/O	Data bus (ABUS)
327	AA4	VDDS	-	Power supply +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	VDDS	-	Power supply +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	
346	U5	VSS2	-	Ground
347	U4	VDDC	-	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	VDDS	-	Power supply +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	VDDS	-	Power supply +3 V
366	P4	HRD0	I/O	DRAM data bus
367	P3	RWEN	O	DRAM write enable
368	R1	RQML	O	
369	P2	RCAS	O	DRAM column address strobe (RAS signal)
370	P1	RRAS	O	DRAM row address strobe (RAS signal)
371	N1	RA13	O	DRAM address bus
372	N5	VDDS	-	Power supply +3 V
373	N4	VDDS	-	Power supply +3 V
374	N3	RA10	O	DRAM address bus
375	N2	RA12	O	
376	M2	RA1	O	
377	M3	RA2	O	
378	M4	VDDS	-	Power supply +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	VSS2	-	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	VDDC	-	Power supply +1.5 V
391	K5	VSS2	-	Ground
392	J2	RA11	O	DRAM address bus
393	H1	RCLK	O	
394	J3	RCLKE	O	
395	H2	RCLKIN	I	
396	J4	VDDS	-	Power supply +3 V
397	J5	VDDC	-	Power supply +1.5 V
398	H3	RQMH	O	
399	G1	LRD15	I/O	DRAM data bus (Lower data)
400	G2	LRD14	I/O	
401	G3	LRD13	I/O	
402	H4	VDDS	-	Power supply +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	VDDS	-	Ground
408	F3	LRD10	I/O	DRAM data bus (Lower data)
409	G5	VDDS	-	Ground
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	VSS2	-	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	

● S1L50553F21Y000 (X4195A00) Gate Array

TG1: IC005 (PSR-3000)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	CLKI	I	Clock	41	VDD	-	Power supply
2	CLKO	O		42	RESET	I	Reset
3	VDD	-	Power supply	43	VSS	-	Ground
4	SCANENB	I/O	Scan enable	44	OUT4	O	Output
5	ATPGENB	I/O		45	OUT3	O	
6	VSS	-	Ground	46	INP2	I	Input
7	PLLTEST	I	Test	47	INP1	I	
8	$\overline{\text{PLLRES}}$	I	Reset	48	INP0	I	
9	PLLVSS	-	Ground	49	TESTENB	I/O	Test enable
10	MVDD	-	Power supply	50	VSS	-	Ground
11	PLLVSS	-	Ground	51	OSCO		
12	AVDD	-	Analog power supply	52	VDD	-	Power supply
13	CHG0			53	OSCI		
14	LPVSS	-	Ground	54	VSS	-	Ground
15	VSS	-		55	SIRQ	I/O	Interrupt request
16	MIRQ	I/O	Interrupt request	56	SCS	I	Control port
17	MCS	I	Control port	57	SWR	I	Write
18	MWR	I	Write	58	SRD	I	Read
19	MRD	I	Read	59	SA		
20	MA			60	VSS	-	Ground
21	VDD	-	Power supply	61	VDD	-	Power supply
22	MD0	I/O	DRAM data bus	62	SD0	I/O	Serial data
23	MD1	I/O		63	SD1	I/O	
24	MD2	I/O		64	SD2	I/O	
25	MD3	I/O		65	SD3	I/O	
26	MD4	I/O		66	SD4	I/O	
27	MD5	I/O		67	SD5	I/O	
28	MD6	I/O		68	SD6	I/O	
29	MD7	I/O		69	SD7	I/O	
30	VSS	-	Ground	70	VSS	-	Ground
31	MD8	I/O	DRAM data bus	71	SD8	I/O	Serial data
32	VDD	-	Power supply	72	VDD	-	Power supply
33	MD9	I/O	DRAM data bus	73	SD9	I/O	Serial data
34	MD10	I/O		74	SD10	I/O	
35	MD11	I/O		75	SD11	I/O	
36	MD12	I/O		76	SD12	I/O	
37	MD13	I/O		77	SD13	I/O	
38	MD14	I/O		78	SD14	I/O	
39	MD15	I/O		79	SD15	I/O	
40	VSS	-	Ground	80	VSS	-	Ground

● AK5381VT-E2 (X5219A00) ADC

DAC1A: IC401

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	AINR	I	Rch Analog input pin	9	SDTO	O	Audio serial data output pin
2	AINL	I	Lch Analog input pin	10	LRCK	I/O	Output channnel clock pin
3	CKS1	I	Mode select 1 pin	11	MCLK	I	Master clock input pin
4	VCOM	O	Common voltage output pin	12	SCLK	I/O	Audio serial data clock pin
5	AGND	-	Analog ground	13	PDN	I	Power down mode pin
6	VA	-	Analog power supply	14	DIF	I	Audio interface format pin
7	VD	-	Digital power supply	15	CKS2	I	Mode select 2 pin
8	DGND	-	Digital ground	16	CKS0	I	Mode select 0 pin

● **AK4393VF-E2** (XW029A00) **DAC**

DAC1A: IC301

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	DVSS	-	Digital ground	15	BVSS	-	Substrate ground
2	DVDD	-	Digital power supply	16	VREFL	I	Low level voltage reference
3	MCLK	I	Master clock	17	VREFH	I	High level voltage reference
4	/PD	I	Power down mode	18	AVDD	-	Analog power supply +5 V
5	BICK	I	Audio serial data clock	19	AVSS	-	Analog ground
6	SDATA	I	Audio serial data input	20	AOUTR-	O	Rch negative analog output
7	LRCK	I	L/R clock	21	AOUTR+	O	Rch positive analog output
8	SMUTE//CS	I	Soft mute	22	AOUTL-	O	Lch negative analog output
9	DFS	I	Double speed sampling mode	23	AOUTL+	O	Lch positive analog output
10	DEM0/CCLK	I	De-emphasis enable	24	VCOM	O	Common voltage output
11	DEM1/CDTI	I		25	P//S	I	Parallel/serial select
12	DIF0	I	Digital input format	26	CKS0	I	Master clock select
13	DIF1	I		27	CKS1	I	
14	DIF2	I		28	CKS2	I	

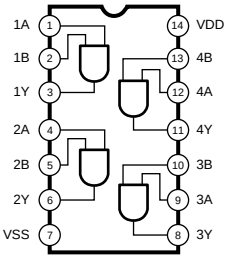
● **MPD6S004S** (X4404A00) **DC-DC CONVERTER**

AM: IC095

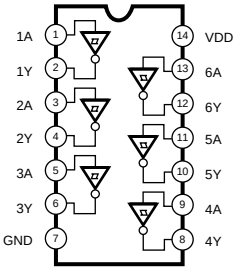
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	VIN	I	Input voltage	17	GND	-	Ground
2	VIN	I		18	GND	-	
3	VIN	I		19	GND	-	
4	GND	-	Ground	20	VOUT5	O	Output voltage +5V
5	GND	-		21	VOUT5	O	
6	GND	-		22	VOUT5	O	
7	GND	-		23	VOUT5	O	
8	VOUT33	O	Output voltage +3.3V	24	VOUT5	O	
9	VOUT33	O		25	GND	-	Ground
10	VOUT33	O		26	GND	-	
11	VOUT33	O		27	GND	-	
12	VOUT33	O		28	GND	-	
13	No. pin	-		29	VIN	I	Input voltage
14	GND	-	Ground	30	VIN	I	
15	GND	-		31	VIN	I	
16	GND	-					

IC BLOCK DIAGRAM

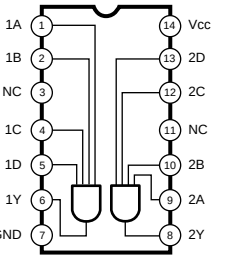
● **HD74LVC08TELL** (X4961A00)
Quad 2 Input AND
DM2-E: IC032,033 (PSR-3000)



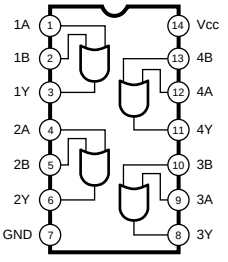
● **TC74VHC14FT** (XV890A00)
Hex Inverter
DM: IC049 (PSR-1500)
DM2-E: IC002,005,009,012,040 (PSR-3000)
TG1: IC021 (PSR-3000)



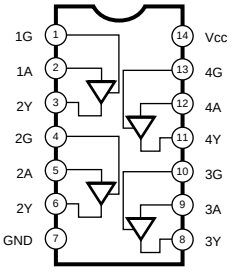
● **HD74LV21ATELL** (X0010A00)
Dual 4 Input AND
DM: IC027 (PSR-1500)
DM2-E: IC024 (PSR-3000)



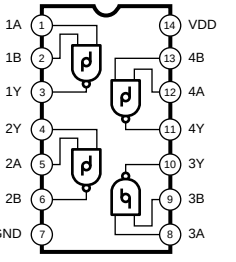
● **TC74VHC32FT** (XY945A00)
● **TC74VHCT32AFT-EL** (XZ372A00)
Quad 2 Input OR
DM: IC044,048 (PSR-1500)
DM2-E: IC001,016,037,044,058 (PSR-3000)



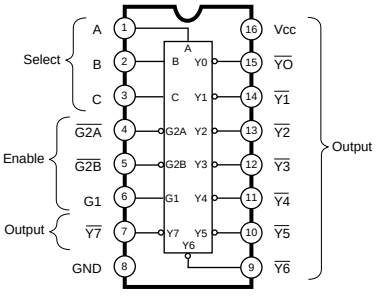
● **HD74LV126ATELL** (X3123A00)
Bus Buffer
DM: IC011 (PSR-1500)
DM2-E: IC010 (PSR-3000)



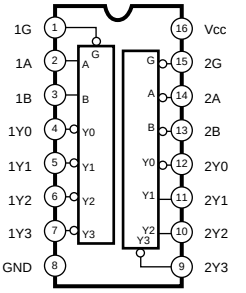
● **SN74HC132NSR** (XW792A00)
Quad 2 Input NAND
DM2-E: IC007 (PSR-3000)



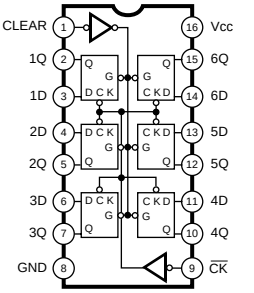
● **TC74VHC138FT** (XZ495A00)
● **HD74LVC138TELL** (X4962A00)
● **HD74LVC138FP** (XS963A00)
3 to 8 Demultiplexer
DM: IC032 (PSR-1500)
DM2-E: IC029,030 (PSR-3000)
TG1: IC020 (PSR-3000)



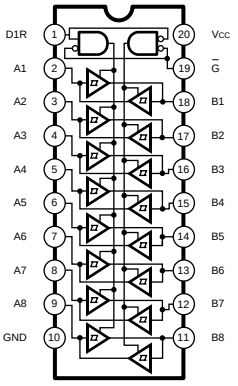
● **TC74VHC139FT** (XV893A00)
HD74LVC139TELL (X4963A00)
Dual 2 to 4 Demultiplexer
DM: IC033 (PSR-1500)
DM2-E: IC031 (PSR-3000)



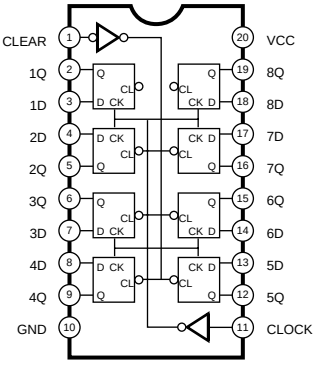
● **SN74LV174APWR** (X5189A00)
Hex D-Type Flip-Flop
DM: IC039 (PSR-1500)



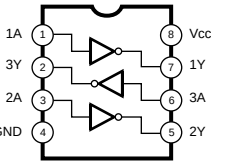
● **HD74LVC245ATELL** (XW148A00)
● **HD74LV245ATELL** (XW744A00)
Octal 3-State Bus Transceiver
DM: IC023-026,030,031,046,047,055 (PSR-1500)
DM2-E: IC020-023,027,028,042,043,054,056,057 (PSR-3000)



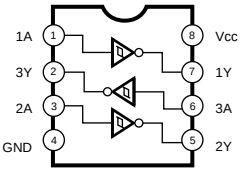
● **HD74LV273ATELL** (X2689A00)
Octal D-Type Flir Flop
DM: IC045 (PSR-1500)
DM2-E: IC036,041 (PSR-3000)



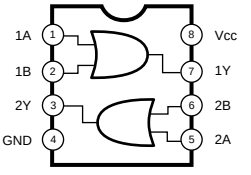
● **TC7WU04F** (XN567A00)
Triple Inverter
DM2-E: IC025,026,059 (PSR-3000)



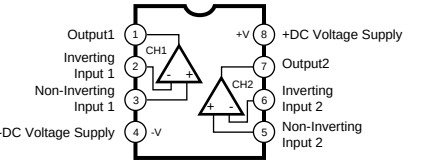
● **TC7W14FU** (XN883A00)
● **TC7WH14FU** (XY806A00)
Triple Inverter
DM: IC004,005,006,008,010,054 (PSR-1500)



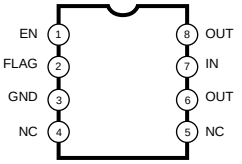
● **TC7W32FU(TE12L)** (XQ173A00)
Dual 2 Input OR Gate
DM: IC003,041 (PSR-1500)

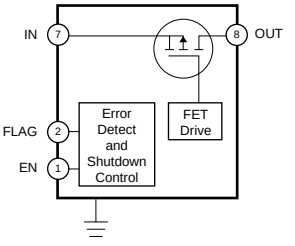


● **M5233FP-600D** (X0506A00)
Comparator
DM: IC009 (PSR-1500)
DM2-E: IC008 (PSR-3000)



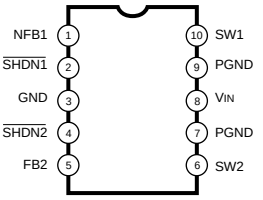
● **LM3525MX-H** (X3119A00)
USB Power Switch
DM: IC014 (PSR-1500)
DM2-E: IC011 (PSR-3000)

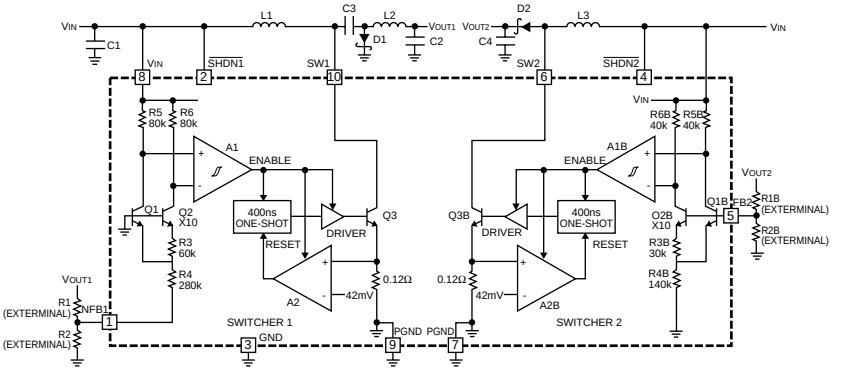




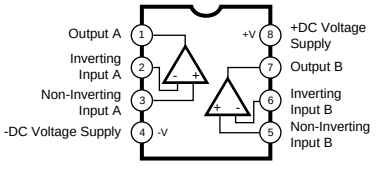
Pin No.	Pin Name	Pin Function
1	EN (LM3525-L) EN (LM3525-H)	Enable (Input): Logic-compatible enable input.
2	FLG	Fault Flag (Output): Active-low, open-drain output. Indicates overcurrent, UVLO, and thermal shutdown.
3	GND	Ground
4, 5	NC	Not internally connected.
7	IN	Supply Input: Input to the power switch and the supply voltage for the IC.
6, 8	OUT	Switch Output: Output of the high side switch. Pins 6 and 8 must be tied together.

● **LT1945EMS#TR** (X5154A00)
DC-DC Converter
DM: IC017 (PSR-1500)

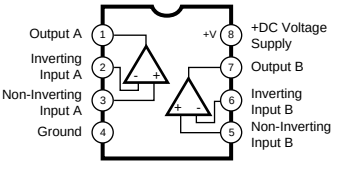




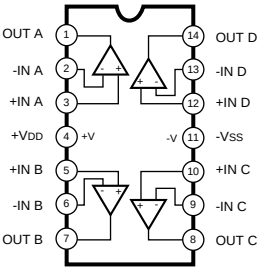
● **µPC4570G2** (XF291A00)
Dual Operational Amplifier
AM: IC013,050,055,064,093
DAC1A: IC302,402,404



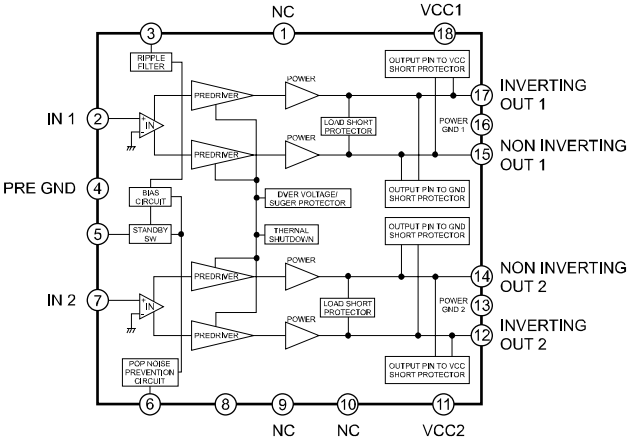
● **NJM12904M(TE1)** (X5475A00)
Operational Amplifier
DJK: IC070



● **µPC4574G2** (XE518A00)
Quad Operational Amplifier
AM: IC021,022,031,032,043



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



■ CIRCUIT BOARDS

● PSR-1500

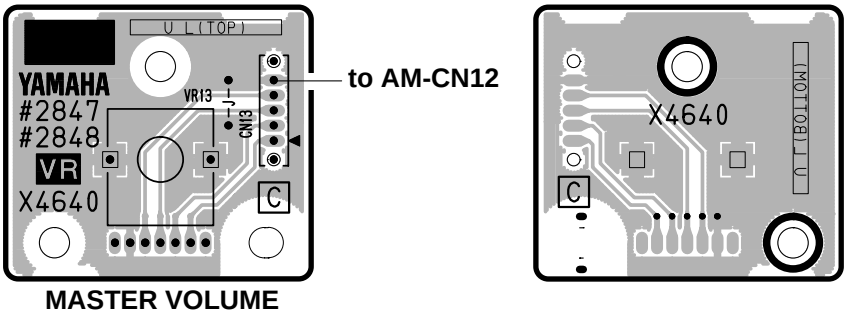
AM Circuit Board (X4640C0) **40/42**
DAC1A Circuit Board (X5174B0) **47**
DJK Circuit Board (X4640C0) **46**
DM Circuit Board (X4405D0) **36/37**
EMKSA Circuit Board (X0092D0) **58/59**
ENC Circuit Board (X4702E0) **52**
HP Circuit Board (X4640C0) **47**
INV Circuit Board (X4702E0) **55**
MK-H Circuit Board (XR565C0) **59**
MK-L Circuit Board (XR564C0) **58**
MOD Circuit Board (X4701E0) **49**
PB Circuit Board (X4701E0) **50**
PNCC Circuit Board (X4701E0) **44/45**
PNCL Circuit Board (X4702E0) **57**
PNCR Circuit Board (X4701E0) **56**
PNL Circuit Board (X4702E0) **52/54**
PNR Circuit Board (X4701E0) **48/50**
SM Circuit Board (X5150B0) **35**
SW Circuit Board (X4640C0) **52**
VR Circuit Board (X4640C0) **35**

● PSR-3000

AM Circuit Board (X4640C0) **40/42**
DAC1A Circuit Board (X5174B0) **47**
DJK Circuit Board (X4640C0) **46**
DM2-E Circuit Board (X4383E0) **38/39**
EMKSA Circuit Board (X0092D0) **58/59**
ENC Circuit Board (X4702E0) **52**
HP Circuit Board (X4640C0) **47**
INV Circuit Board (X4702E0) **55**
MK-H Circuit Board (XR565C0) **59**
MK-L Circuit Board (XR564C0) **58**
MOD Circuit Board (X4701E0) **49**
PB Circuit Board (X4701E0) **50**
PNCC Circuit Board (X4701E0) **44/45**
PNCL Circuit Board (X4702E0) **57**
PNCR Circuit Board (X4701E0) **56**
PNL Circuit Board (X4702E0) **52/54**
PNR Circuit Board (X4701E0) **48/50**
SM Circuit Board (X5150B0) **35**
SW Circuit Board (X4640C0) **52**
TG1 Circuit Board (X4411C0) **44/45**
VR Circuit Board (X4640C0) **35**

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

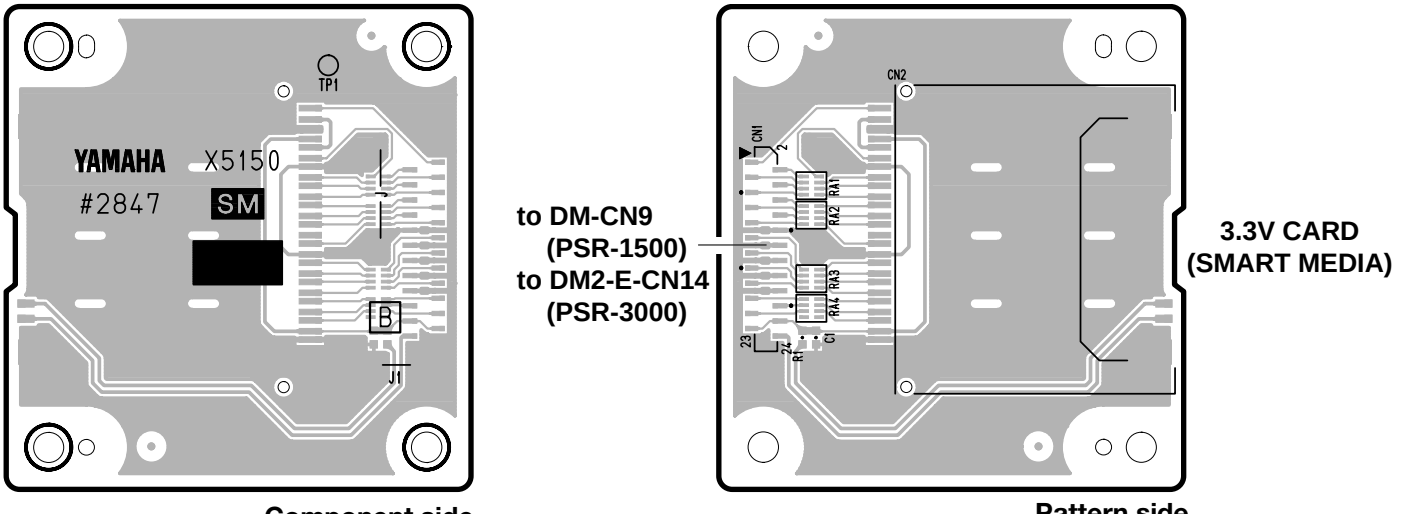
● VR Circuit Board



MASTER VOLUME
Component side

Pattern side

● SM Circuit Board

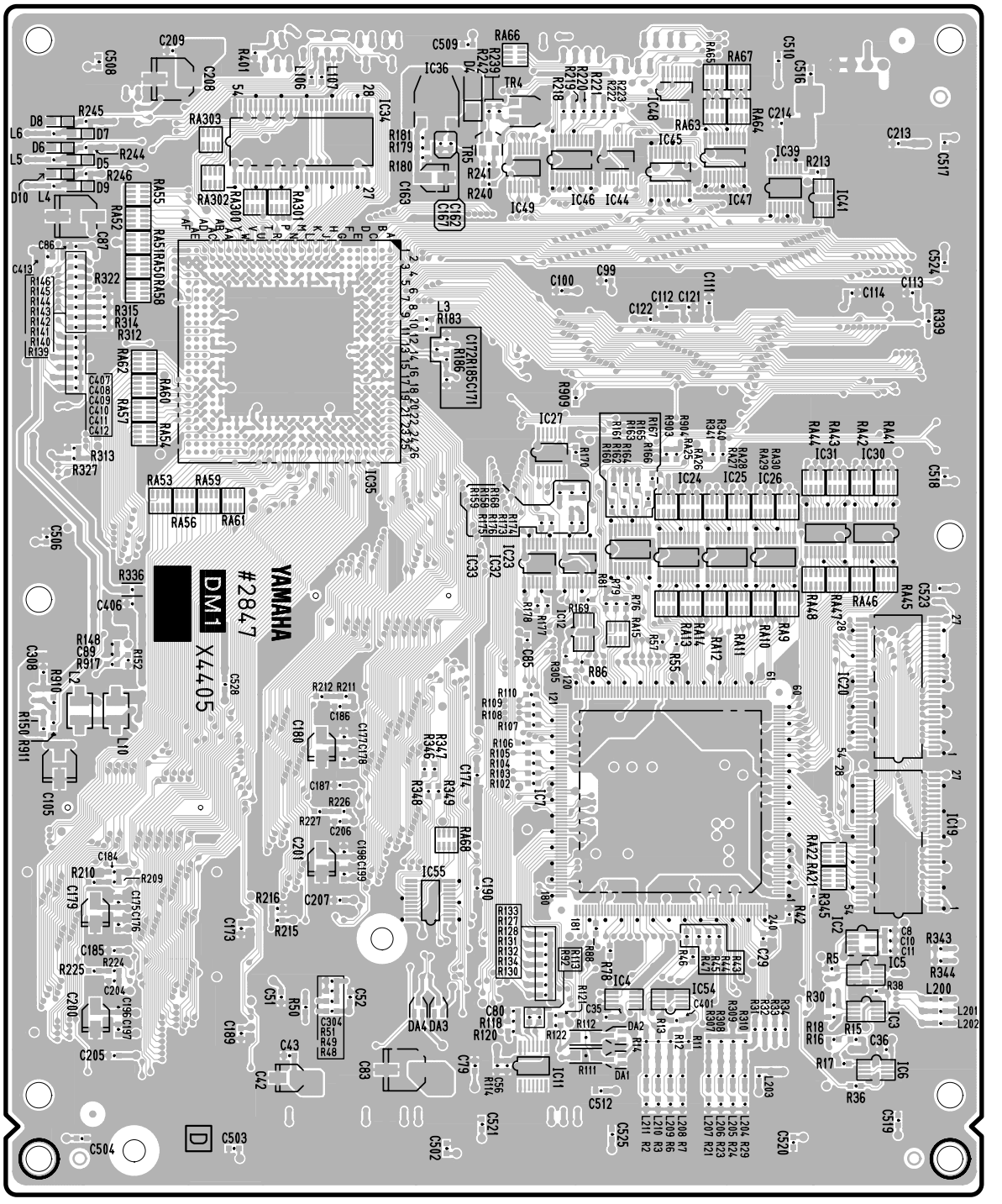


Component side

Pattern side

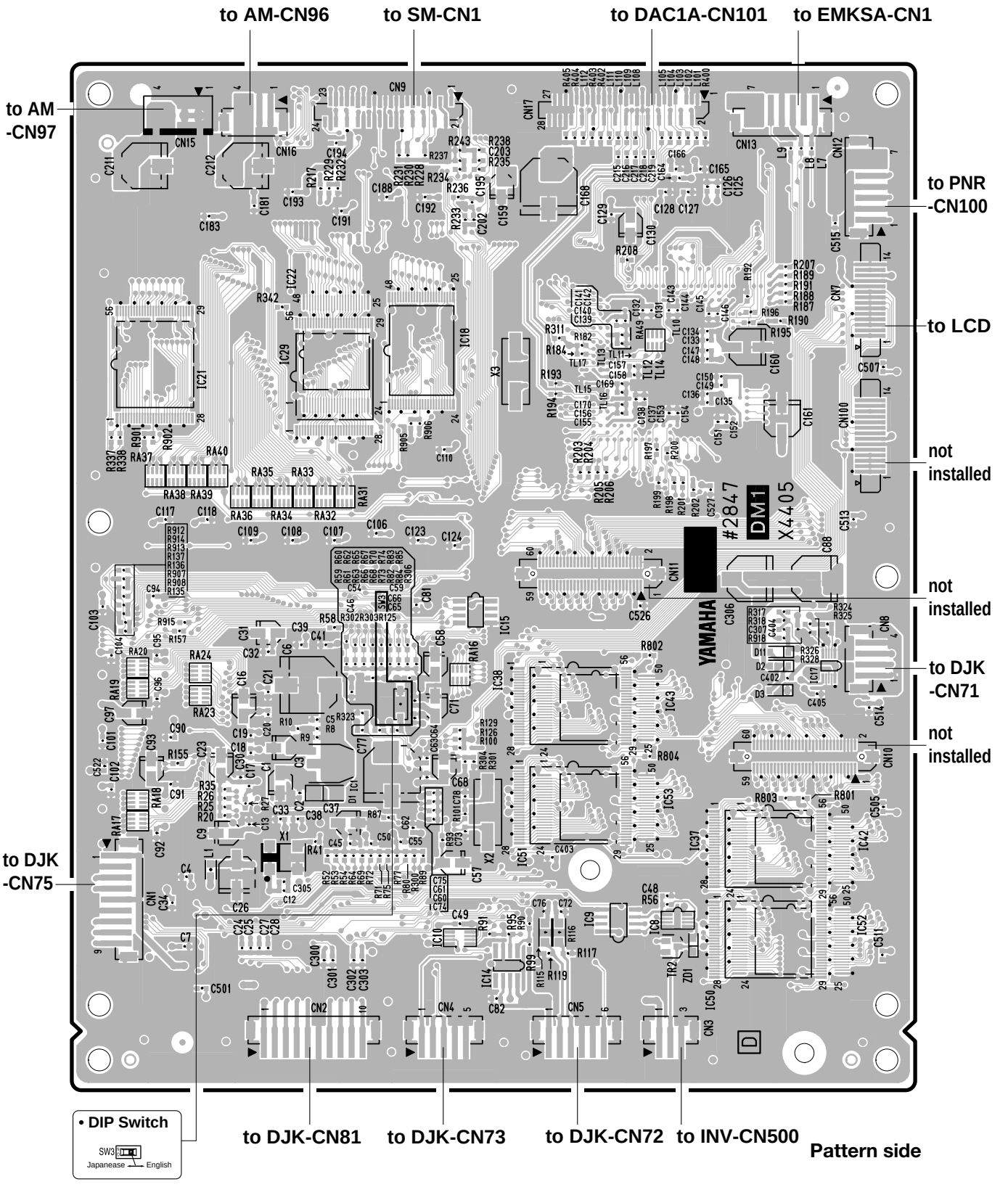
SM: 2NA-WB70420
VR: 2NA-WB82640-1 △3

• DM Circuit Board (PSR-1500)

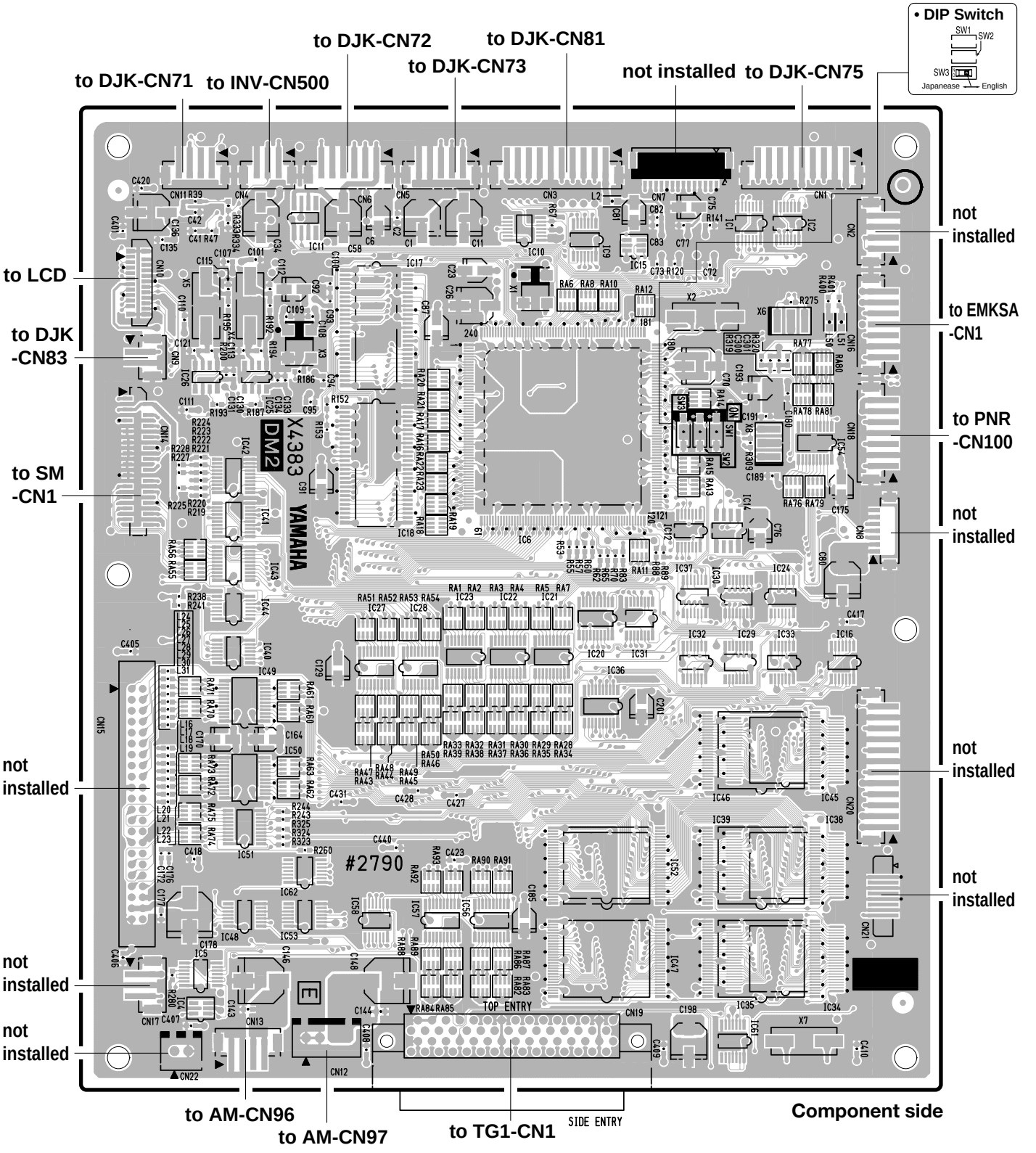


Component side

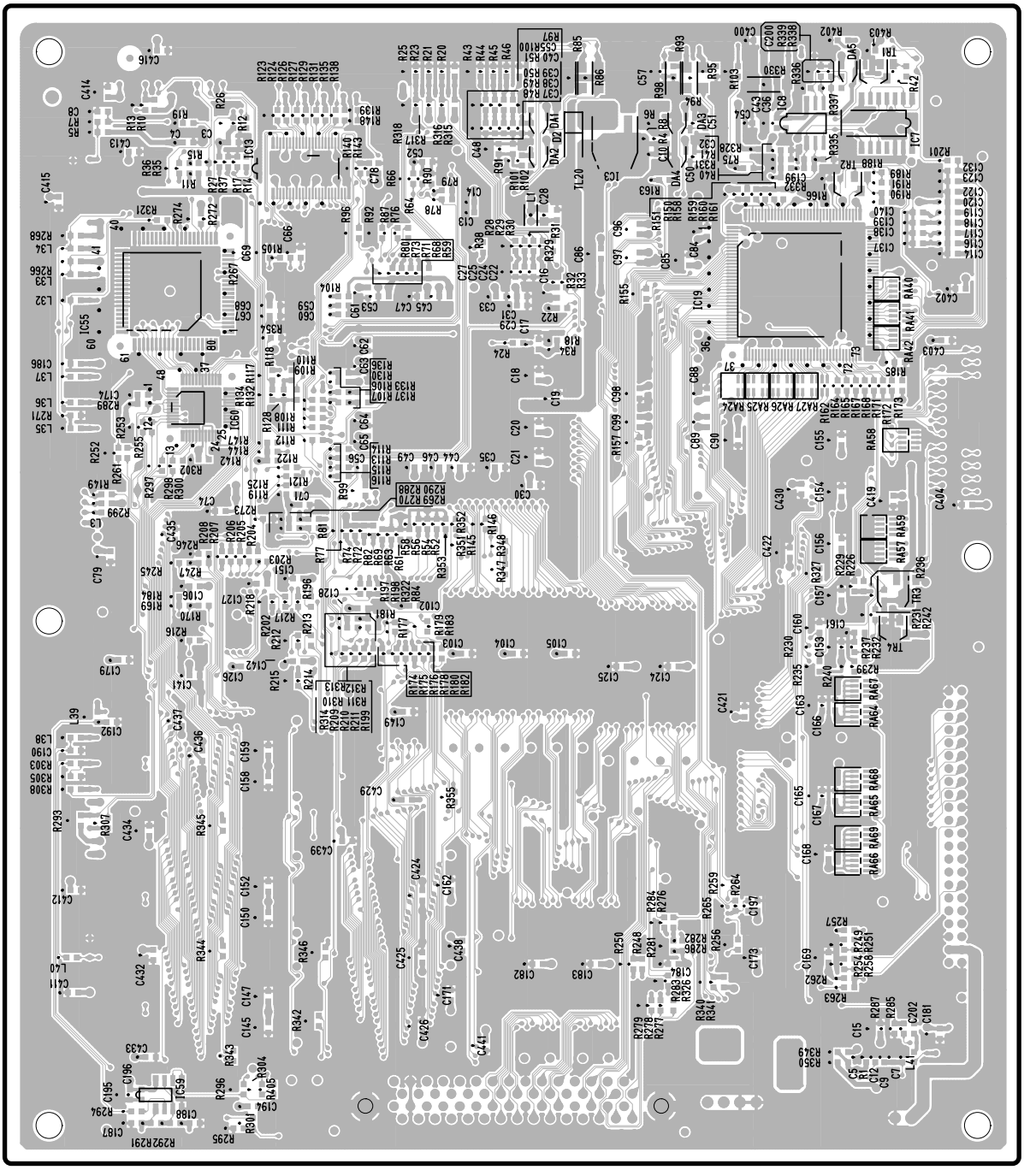
• DM Circuit Board (PSR-1500)



• DM2-E Circuit Board (PSR-3000)

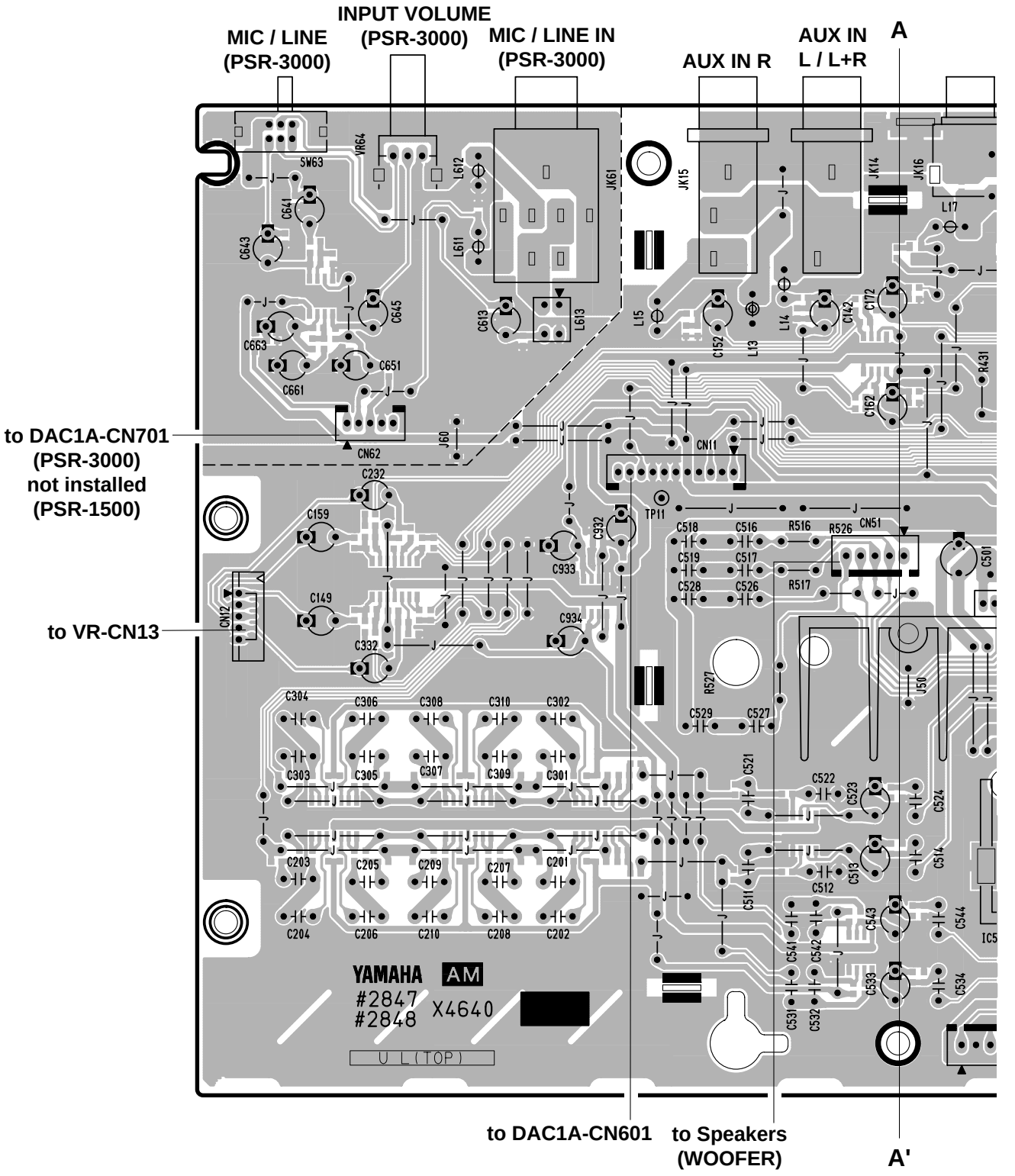


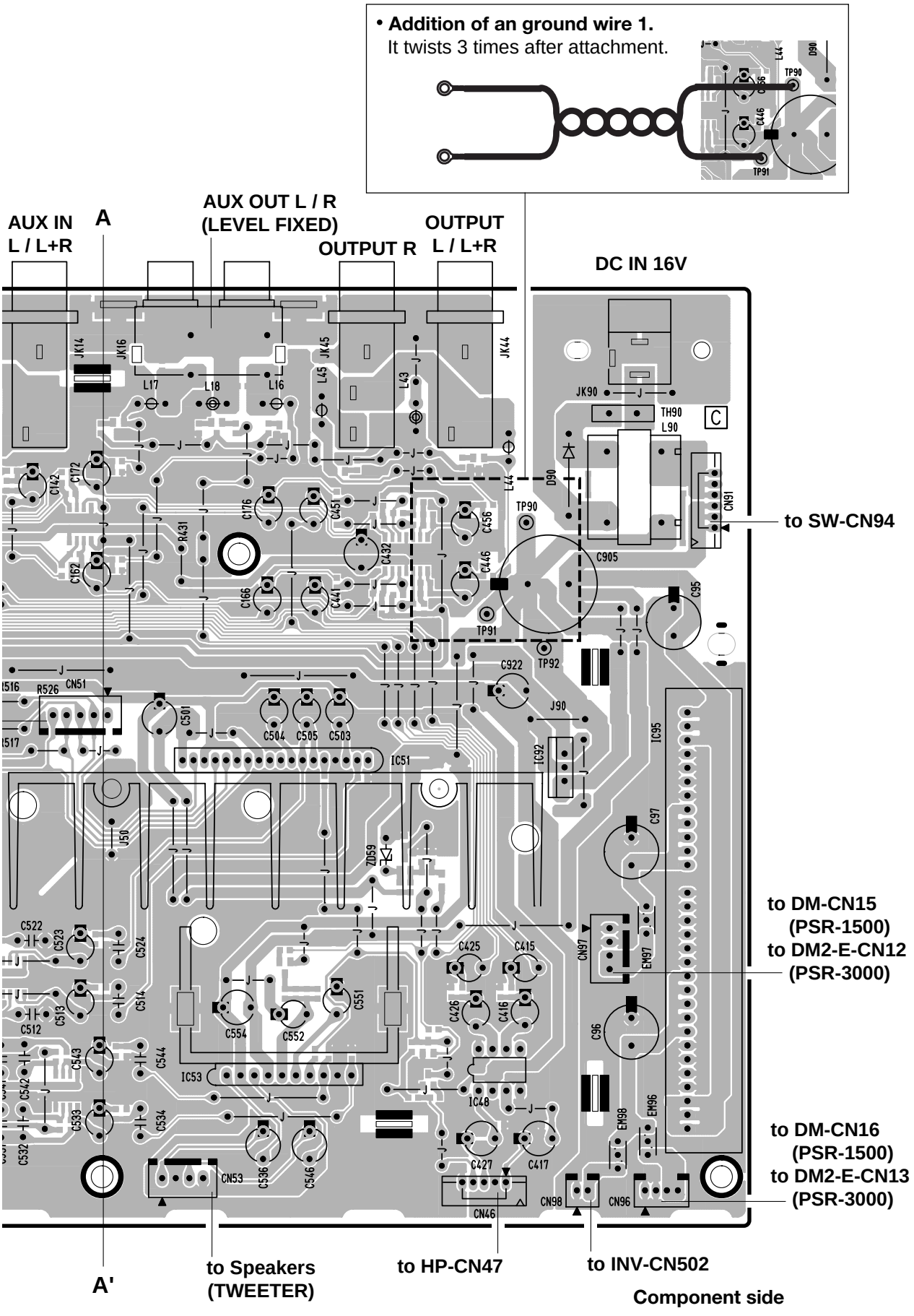
• DM2-E Circuit Board (PSR-3000)



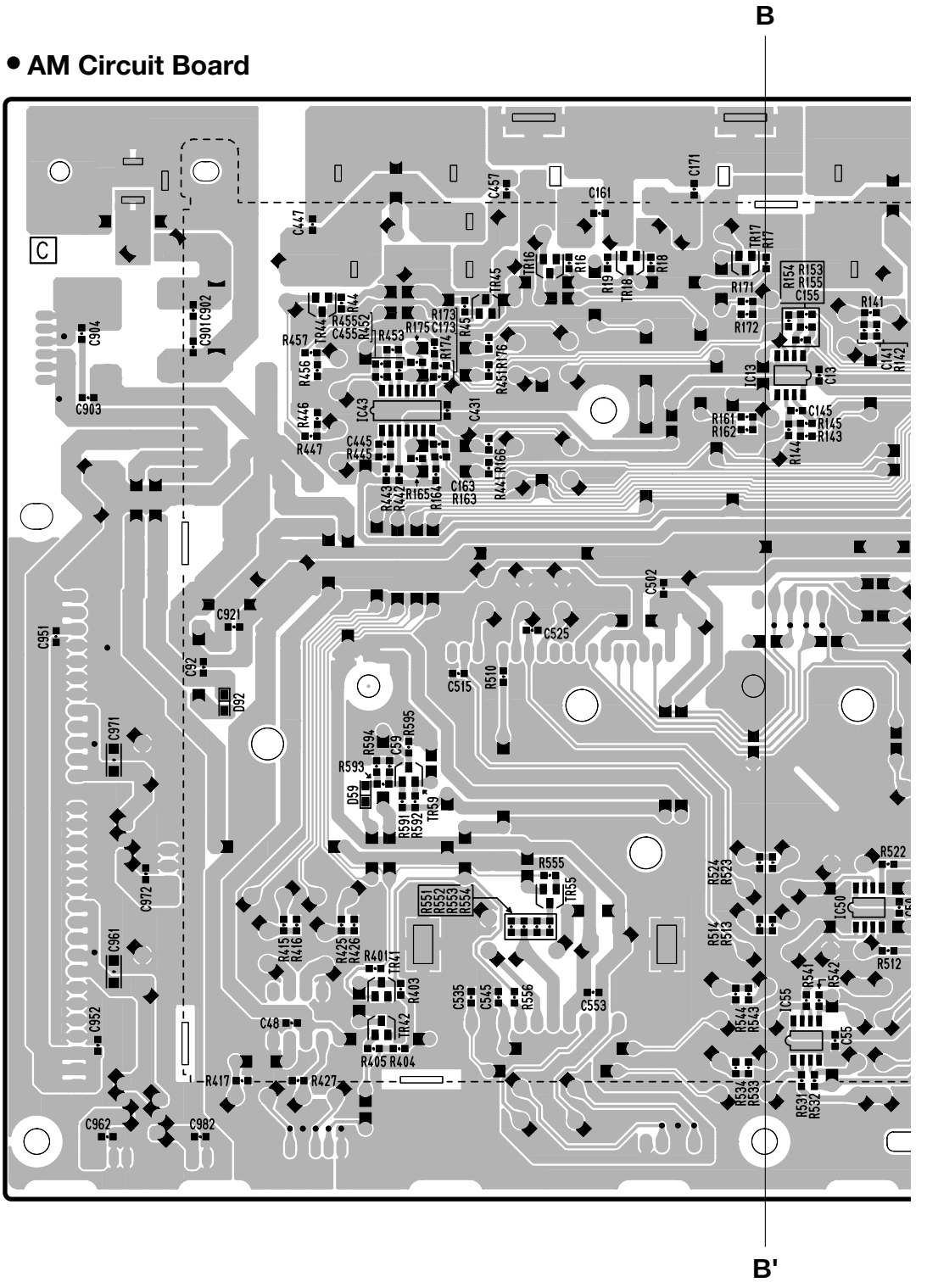
Pattern side

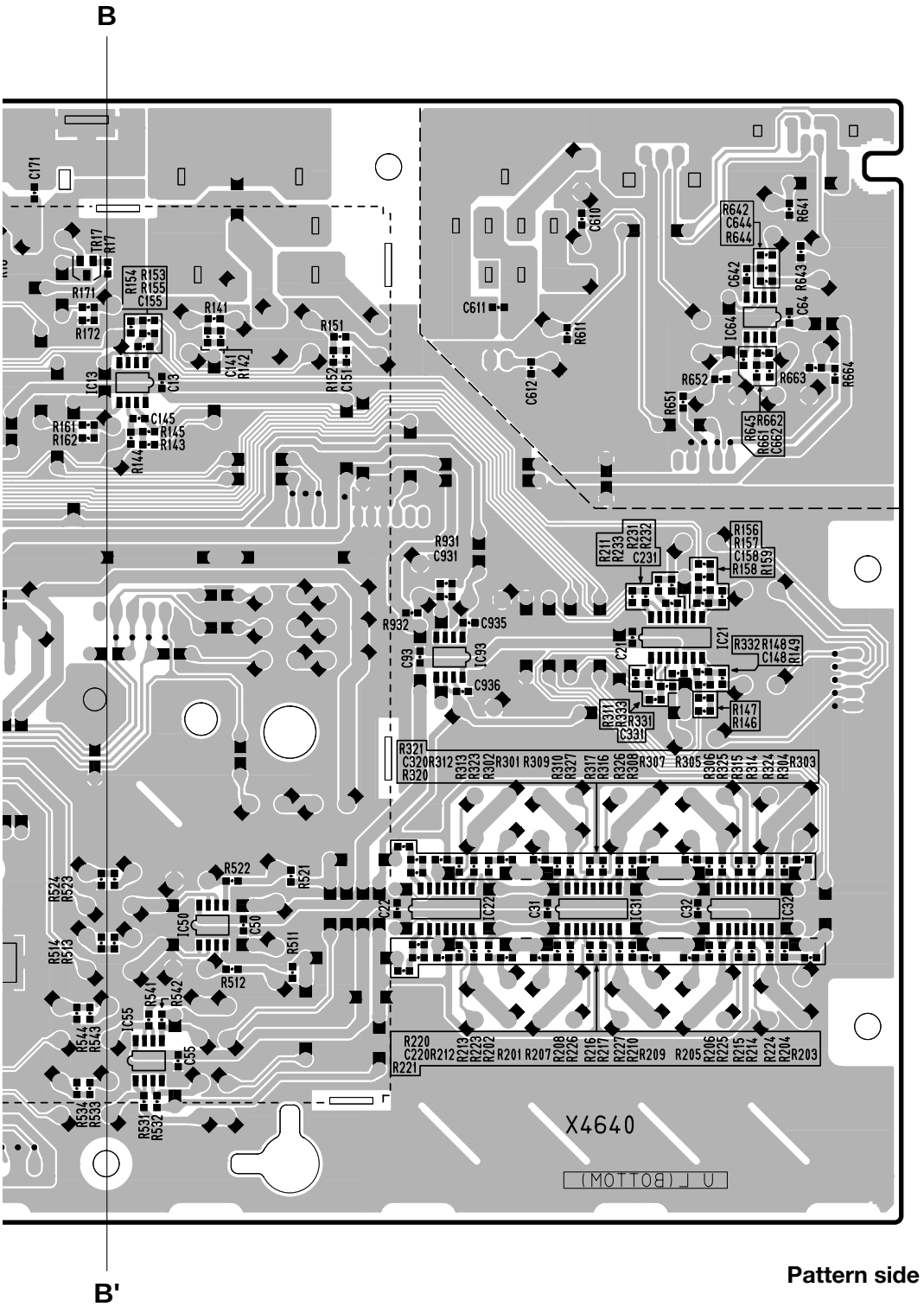
• AM Circuit Board




• Addition of an ground wire 1.
It twists 3 times after attachment.
AUX IN
L / L+R
A
AUX OUT L / R
(LEVEL FIXED)
OUTPUT R
OUTPUT
L / L+R
DC IN 16V
to SW-CN94
to DM-CN15
(PSR-1500)
to DM2-E-CN12
(PSR-3000)
to DM-CN16
(PSR-1500)
to DM2-E-CN13
(PSR-3000)
A'
to Speakers
(TWEETER)
to HP-CN47
to INV-CN502
Component side

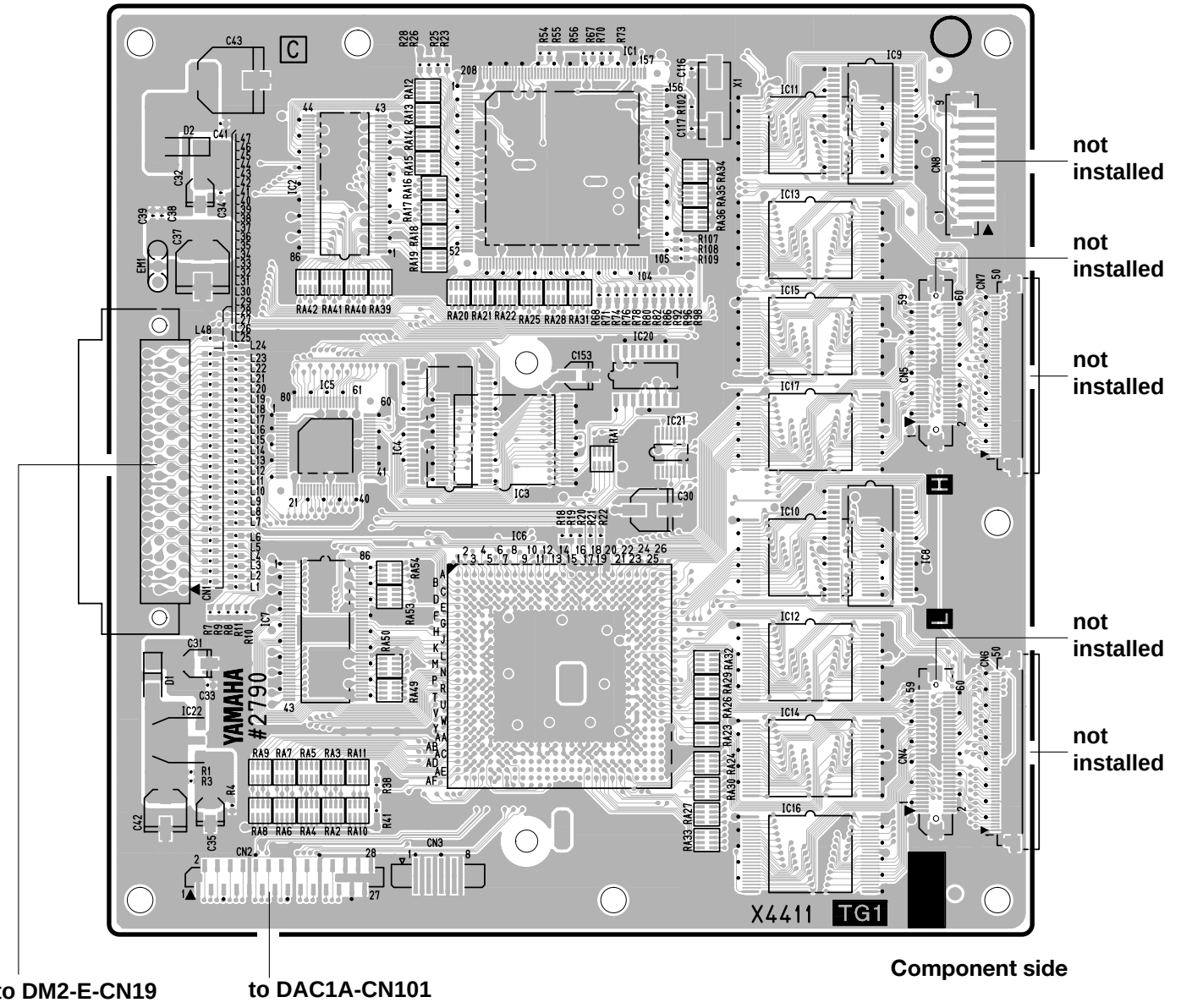
• AM Circuit Board



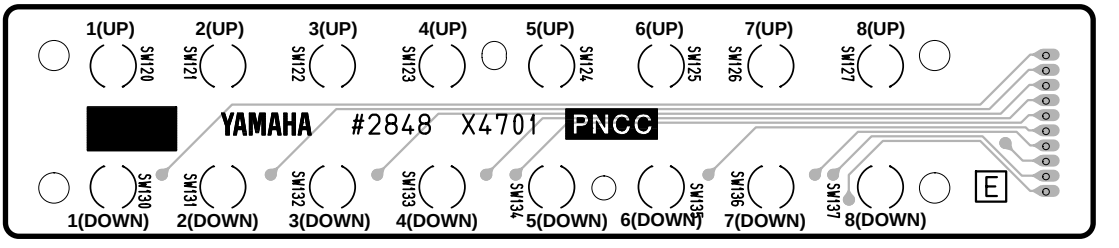


Pattern side

• TG1 Circuit Board (PSR-3000)



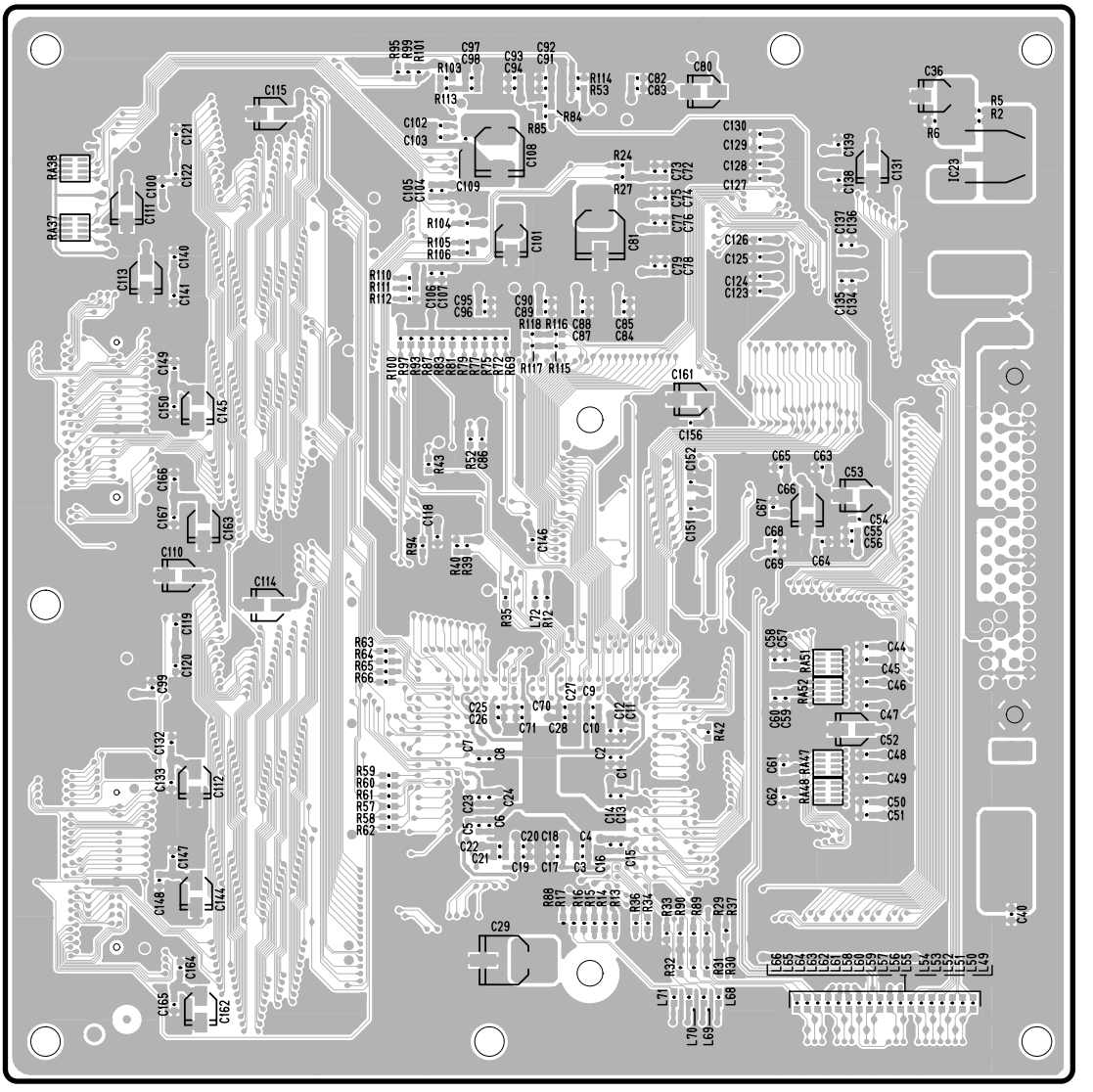
• PNCC Circuit Board



Component side

PNCC: 2NA-WB94790-1 ⚠3
TG1: 2NA-WB82270-1 ⚠1

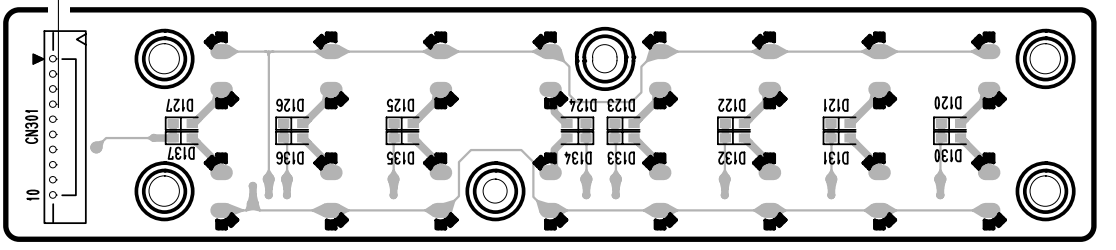
• TG1 Circuit Board (PSR-3000)



Pattern side

• PNCC Circuit Board

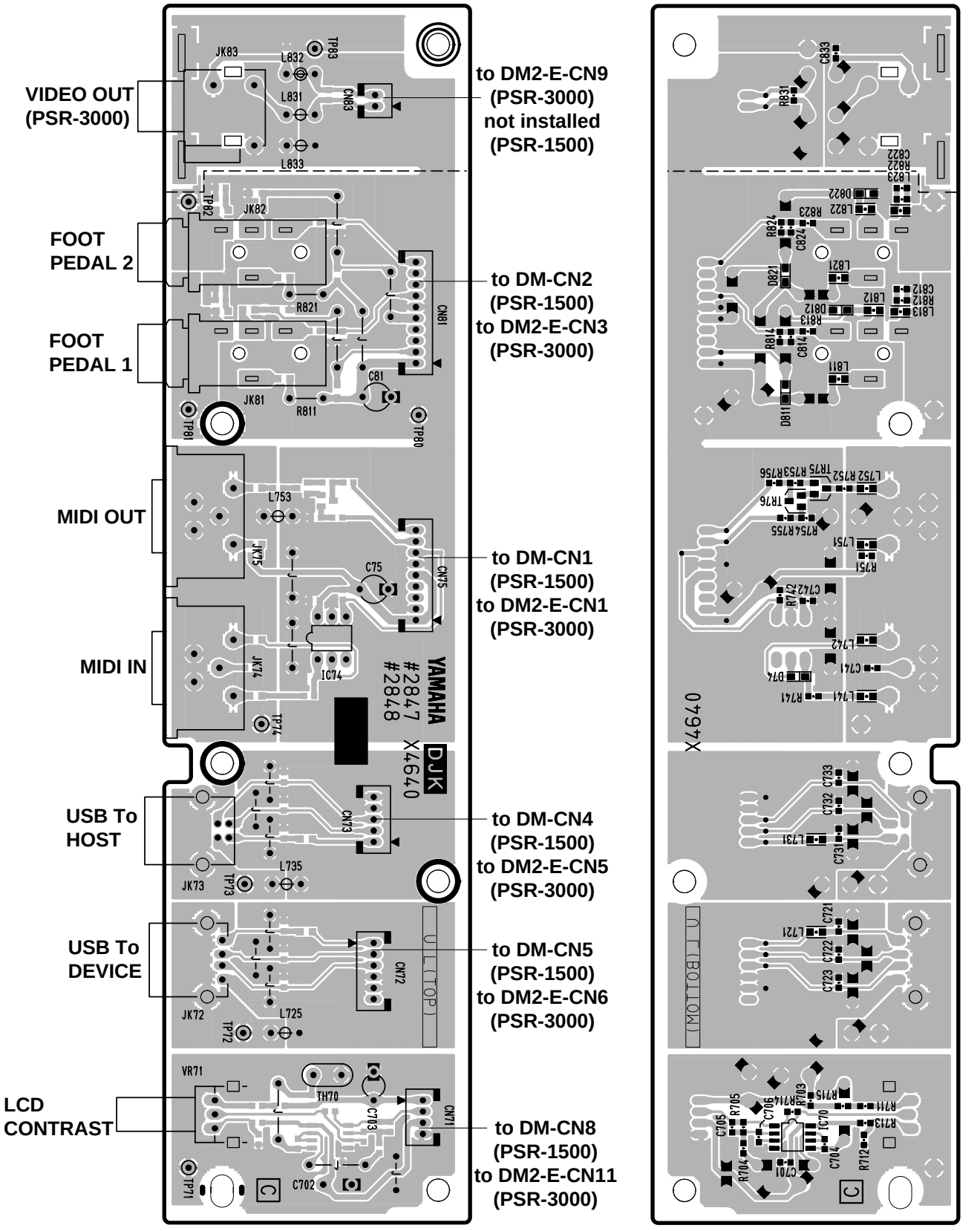
to PNCR-CN202



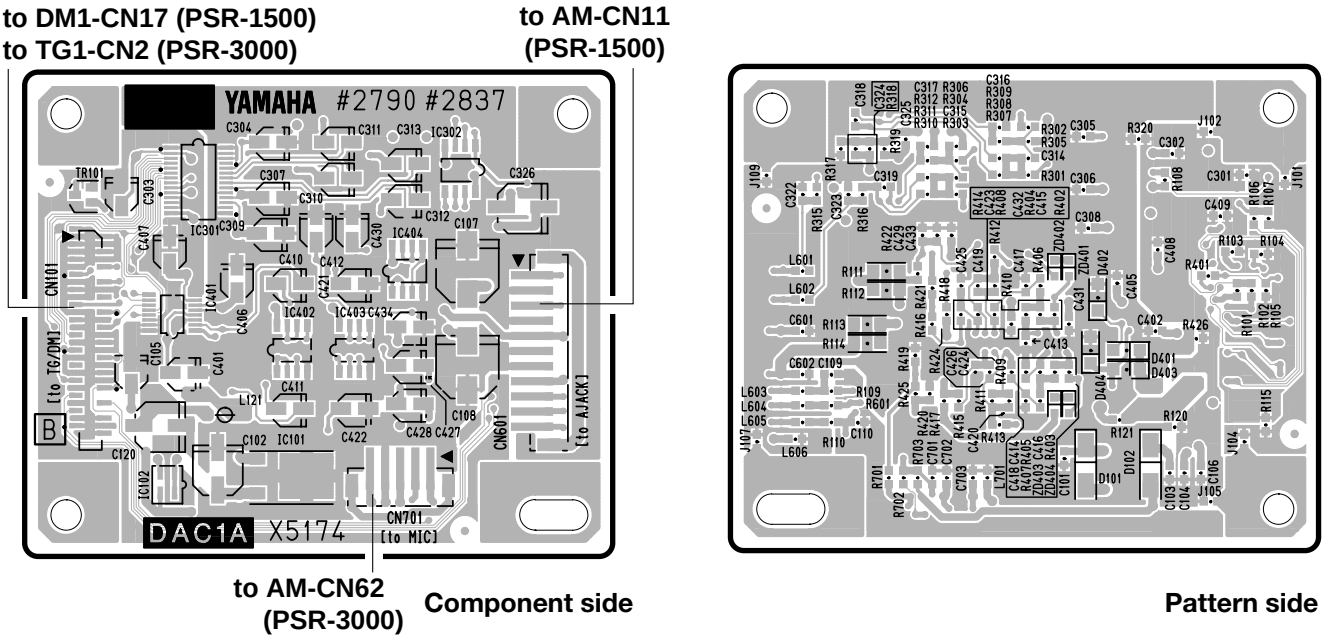
Pattern side

PNCC: 2NA-WB94790-1 ⚠3
TG1: 2NA-WB82270-1 ⚠1

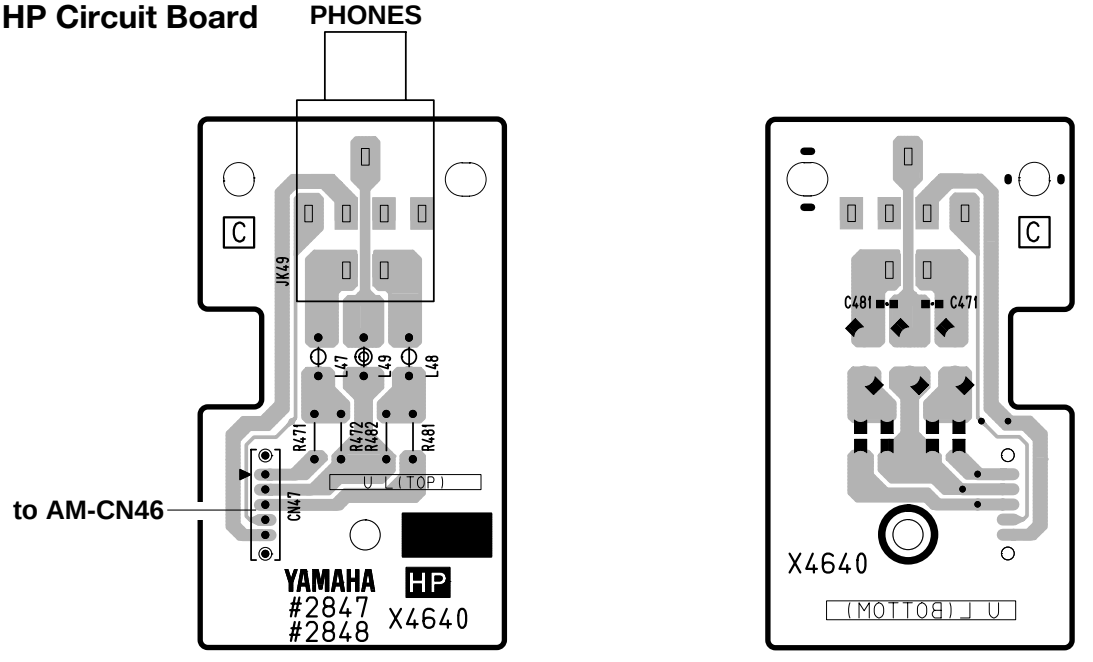
• DJK Circuit Board



• DAC1A Circuit Board

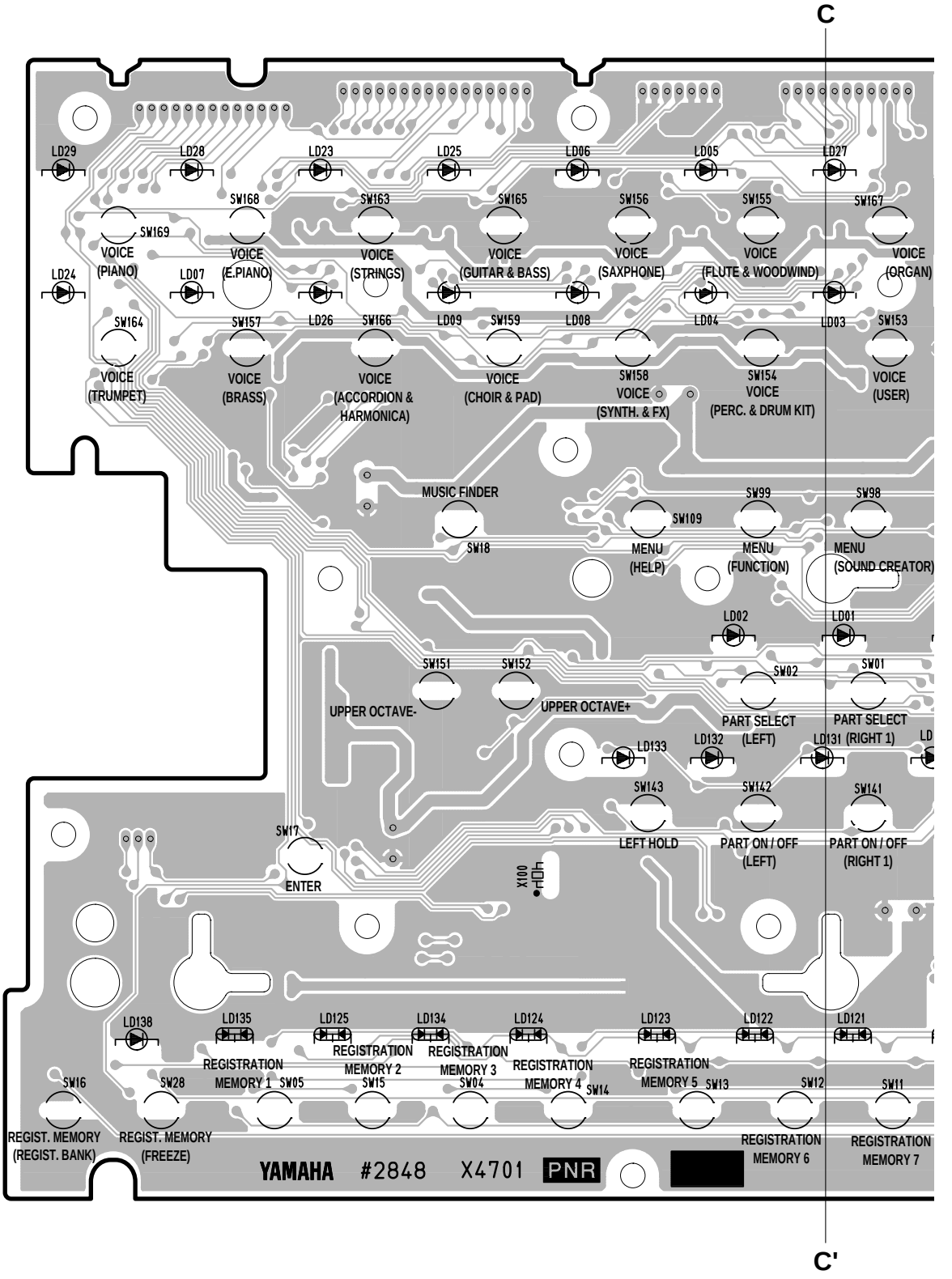


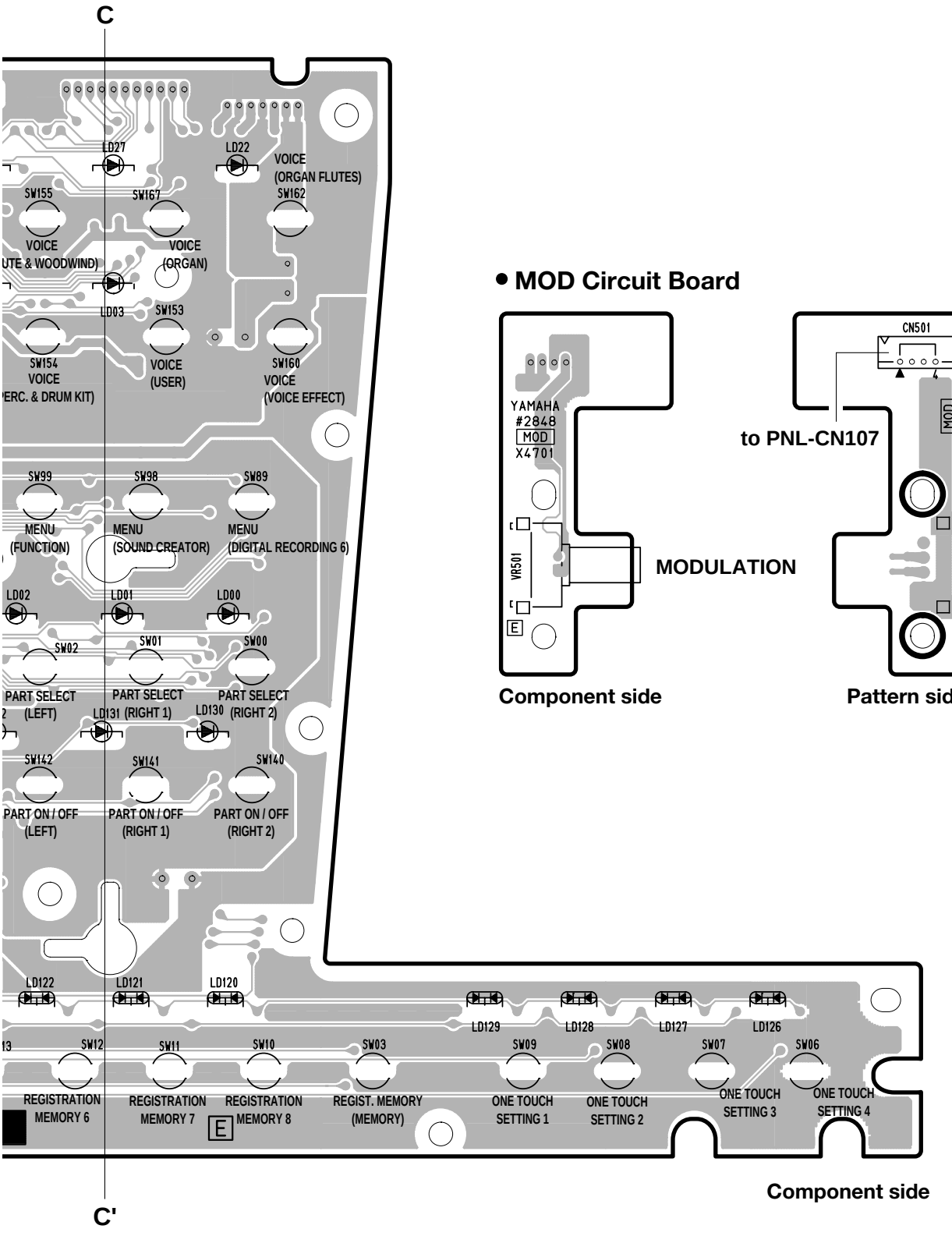
• HP Circuit Board



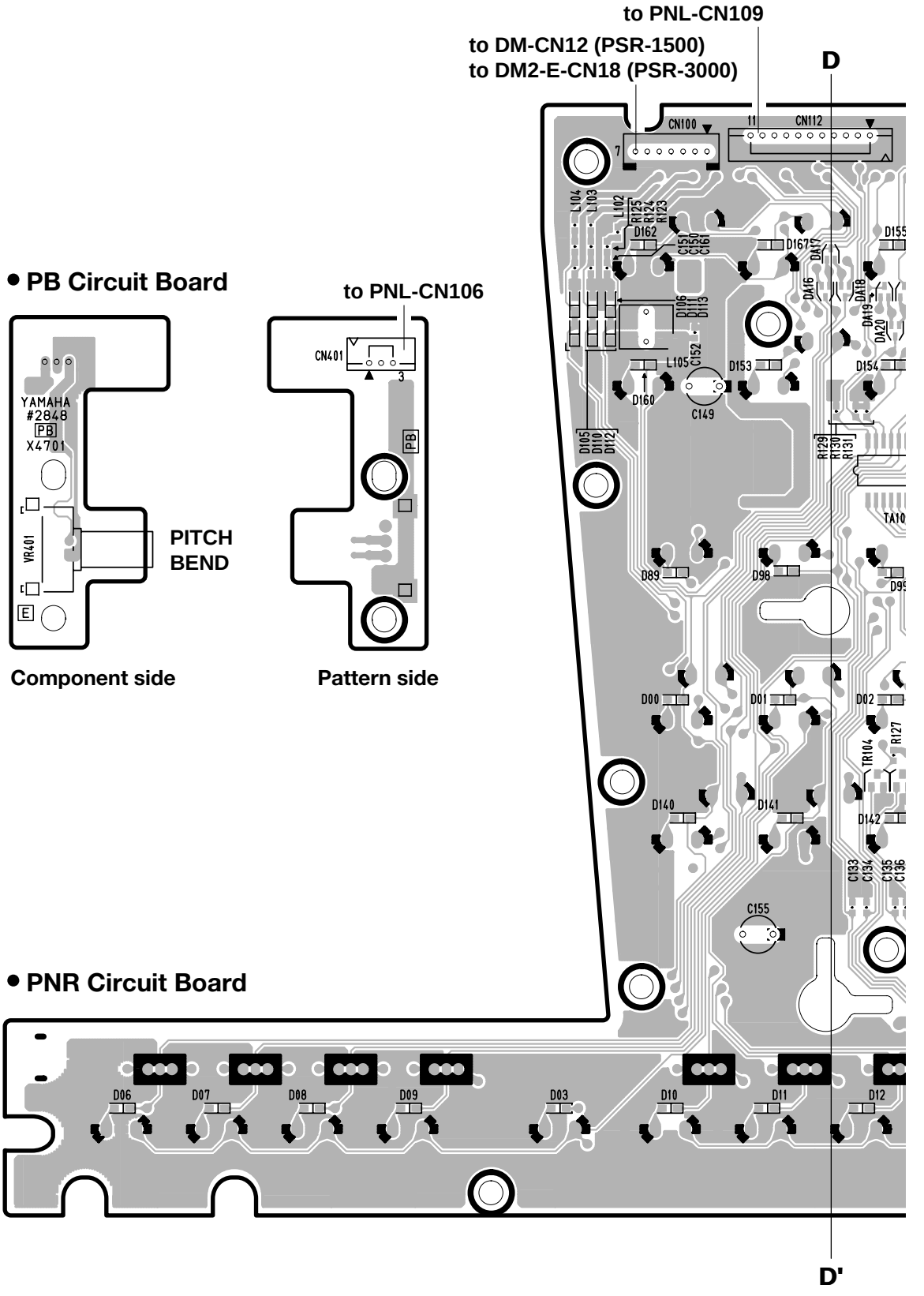
DAC1A: 2NA-WB55050-1
HP: 2NA-WB82640-1 ⚠3

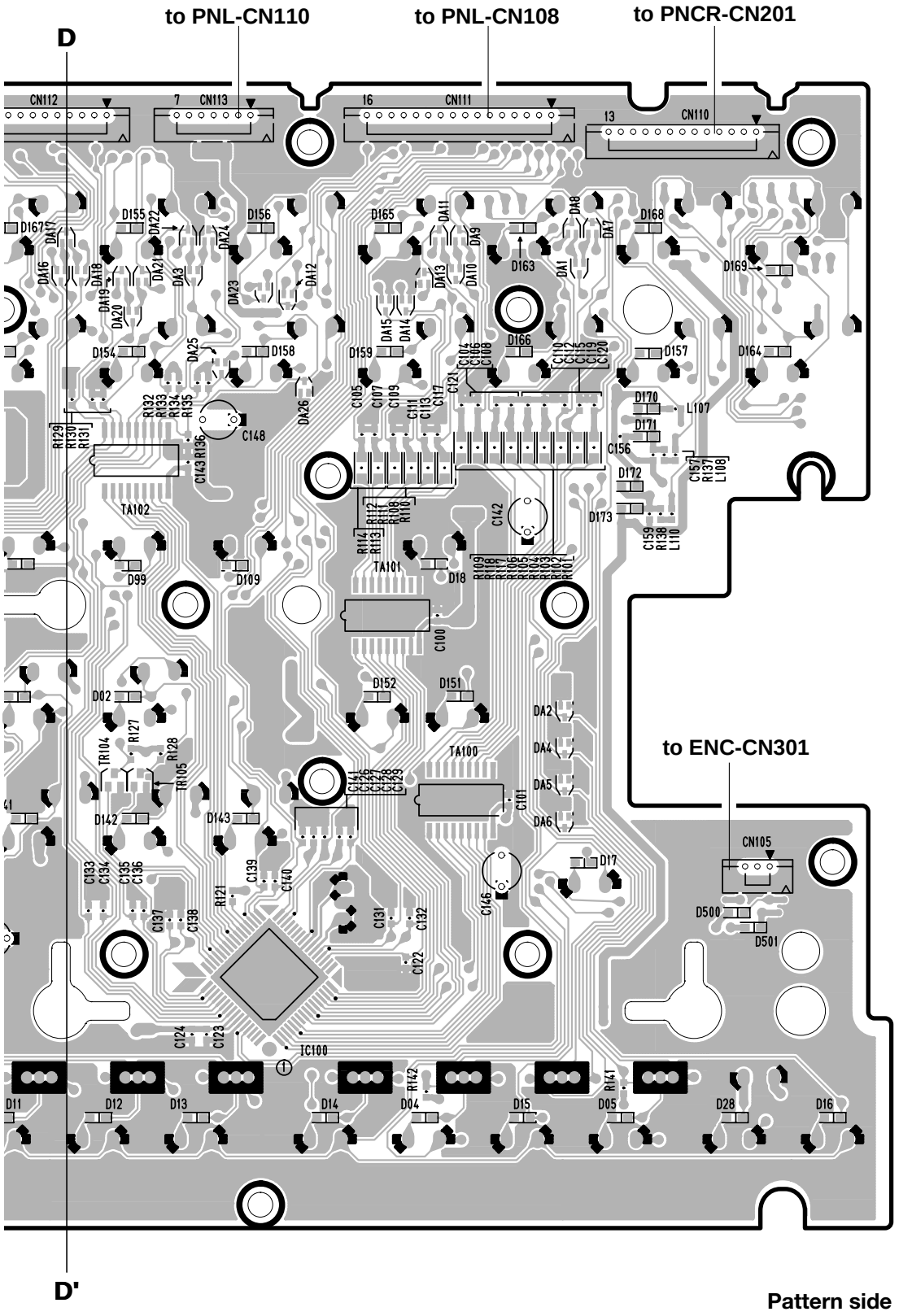
• PNR Circuit Board



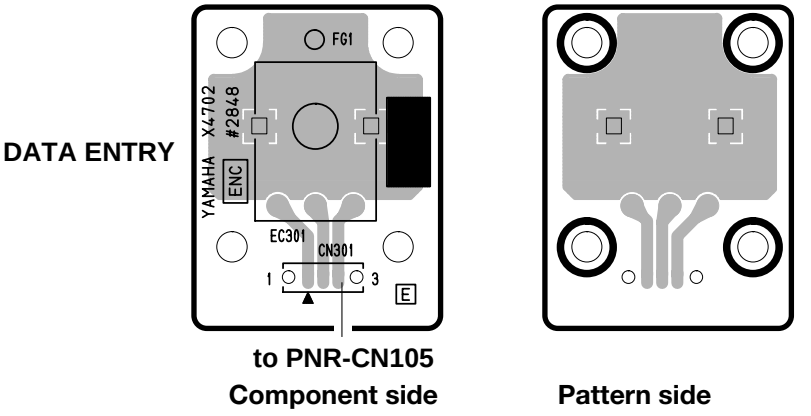


• MOD Circuit Board

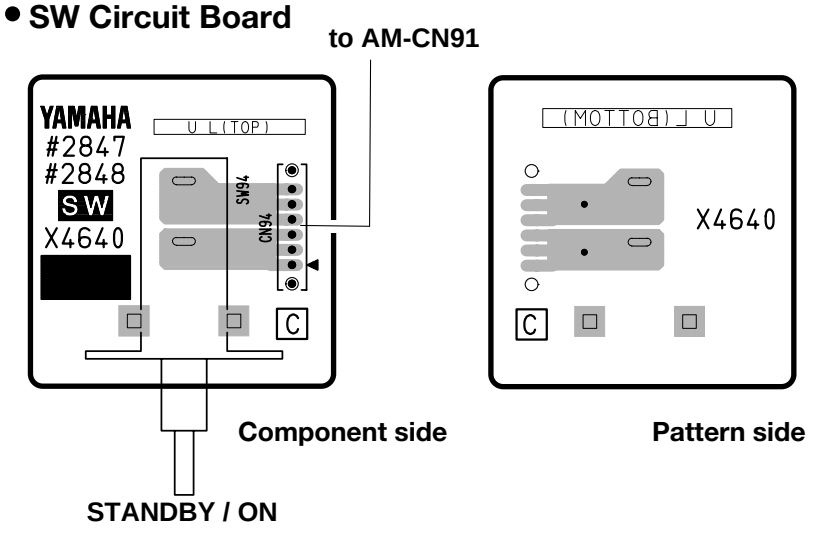

to PNL-CN109
to DM-CN12 (PSR-1500)
to DM2-E-CN18 (PSR-3000)
D
• PB Circuit Board
to PNL-CN106
YAMAHA
#2848
PB
X4701
VR401
E
PITCH
BEND
CN401
3
PB
Component side
Pattern side
CN100
CN112
11
7
L104
L103
L102
R125
R124
R123
D162
C157
C156
C161
D167
DA17
DA16
DA18
DA19
DA20
D155
D106
D111
D113
L105
C152
D153
D154
D160
C149
D105
D110
D112
R129
R130
R131
TA10
D89
D98
D99
D00
D01
D02
R127
TR104
D140
D141
D142
C133
C134
C135
C136
C155
• PNR Circuit Board
D06
D07
D08
D09
D03
D10
D11
D12
D'


to PNL-CN110
to PNL-CN108
to PNCR-CN201
D
D'
to ENC-CN301
CN112
CN113
CN111
CN110
CN105
TA102
TA101
TA100
IC100
Pattern side

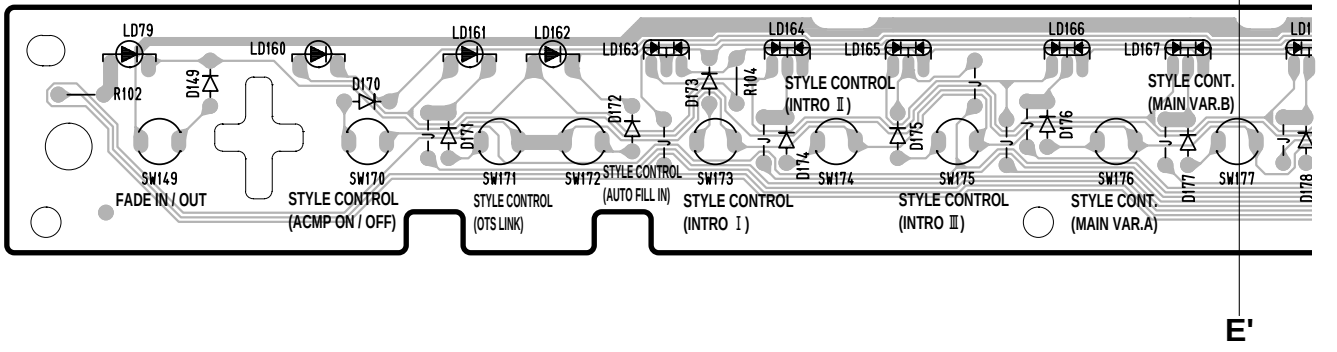
• ENC Circuit Board

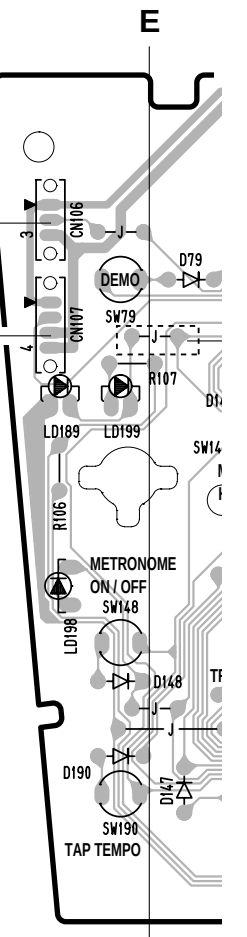


• SW Circuit Board

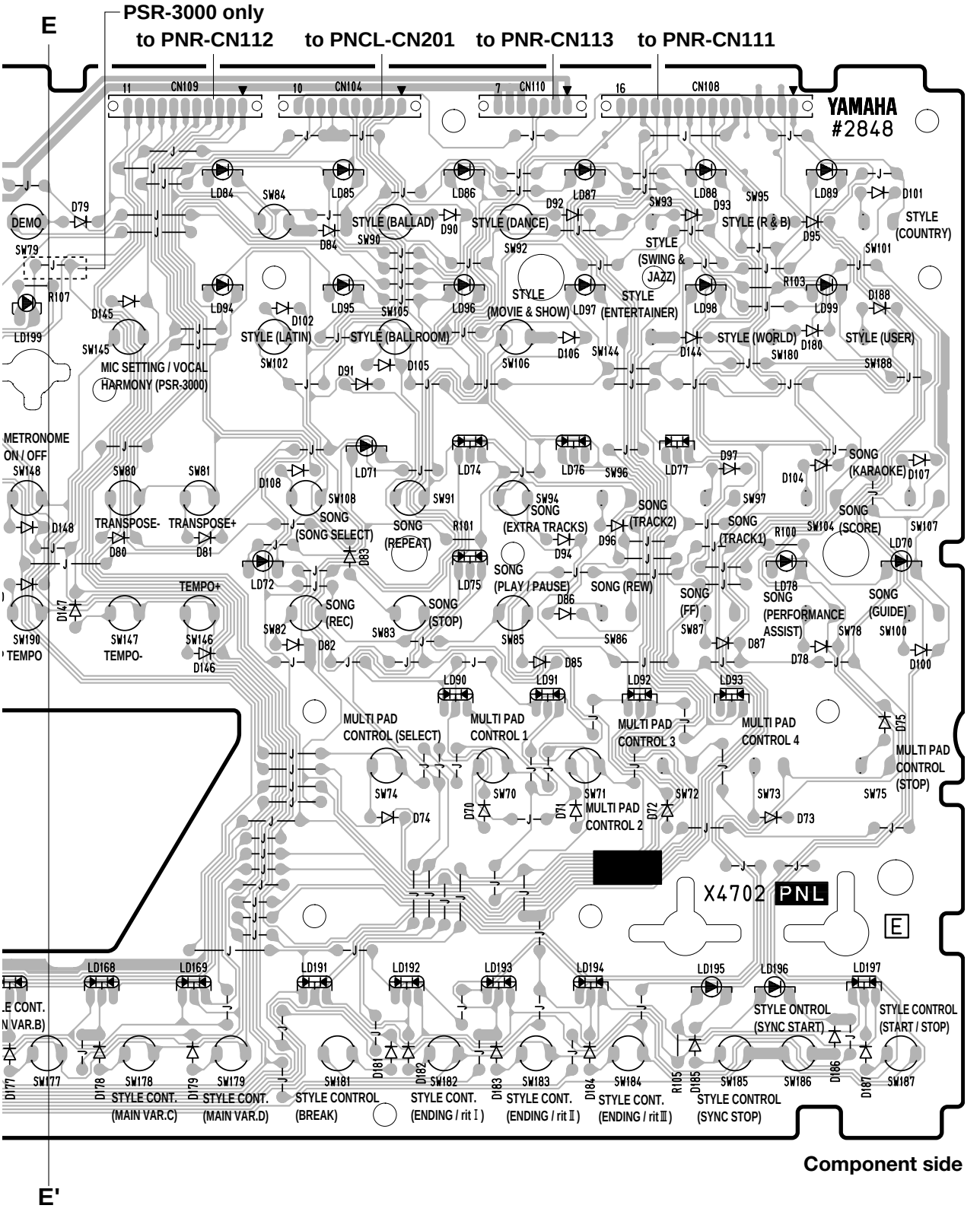


• PNL Circuit Board

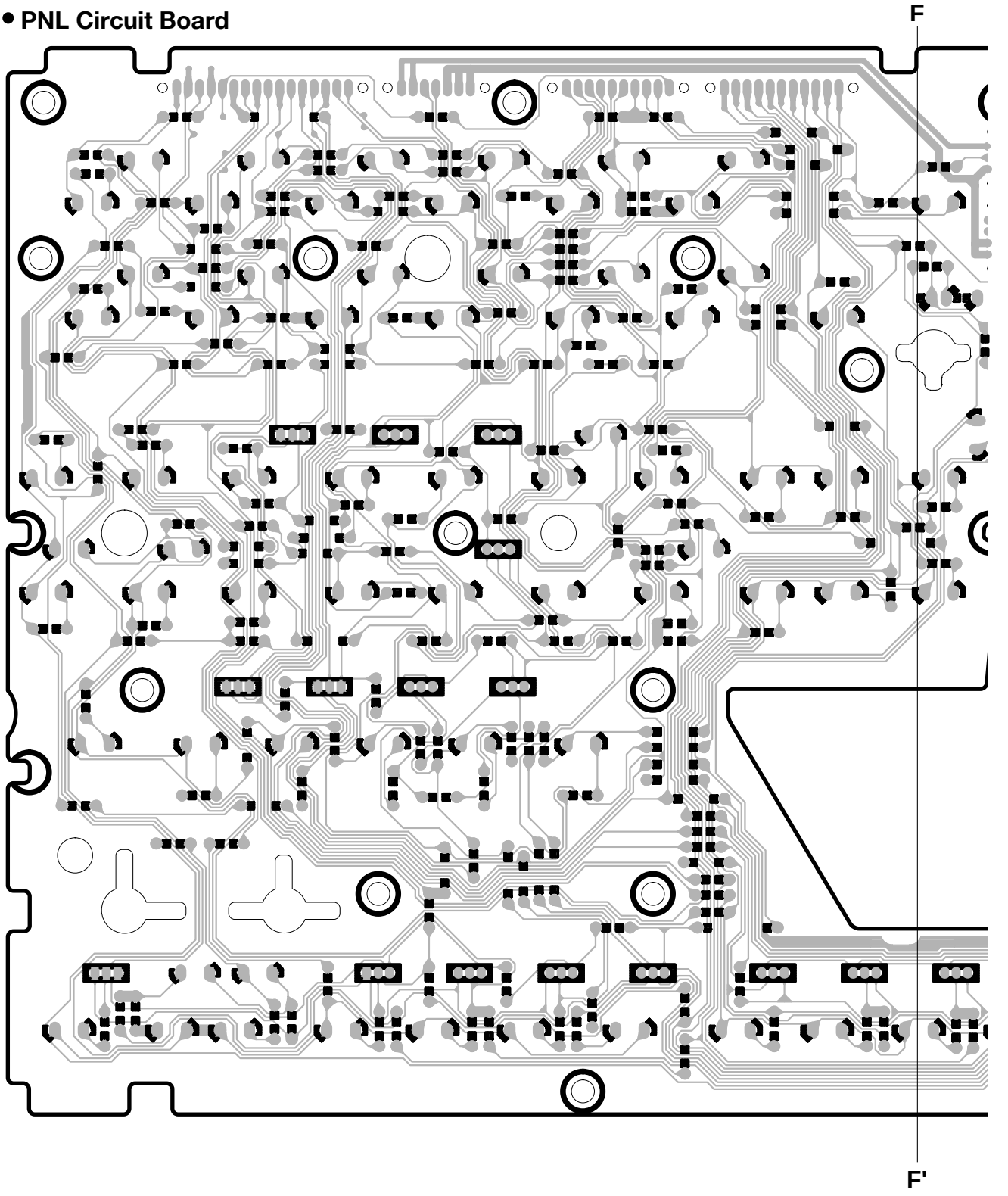


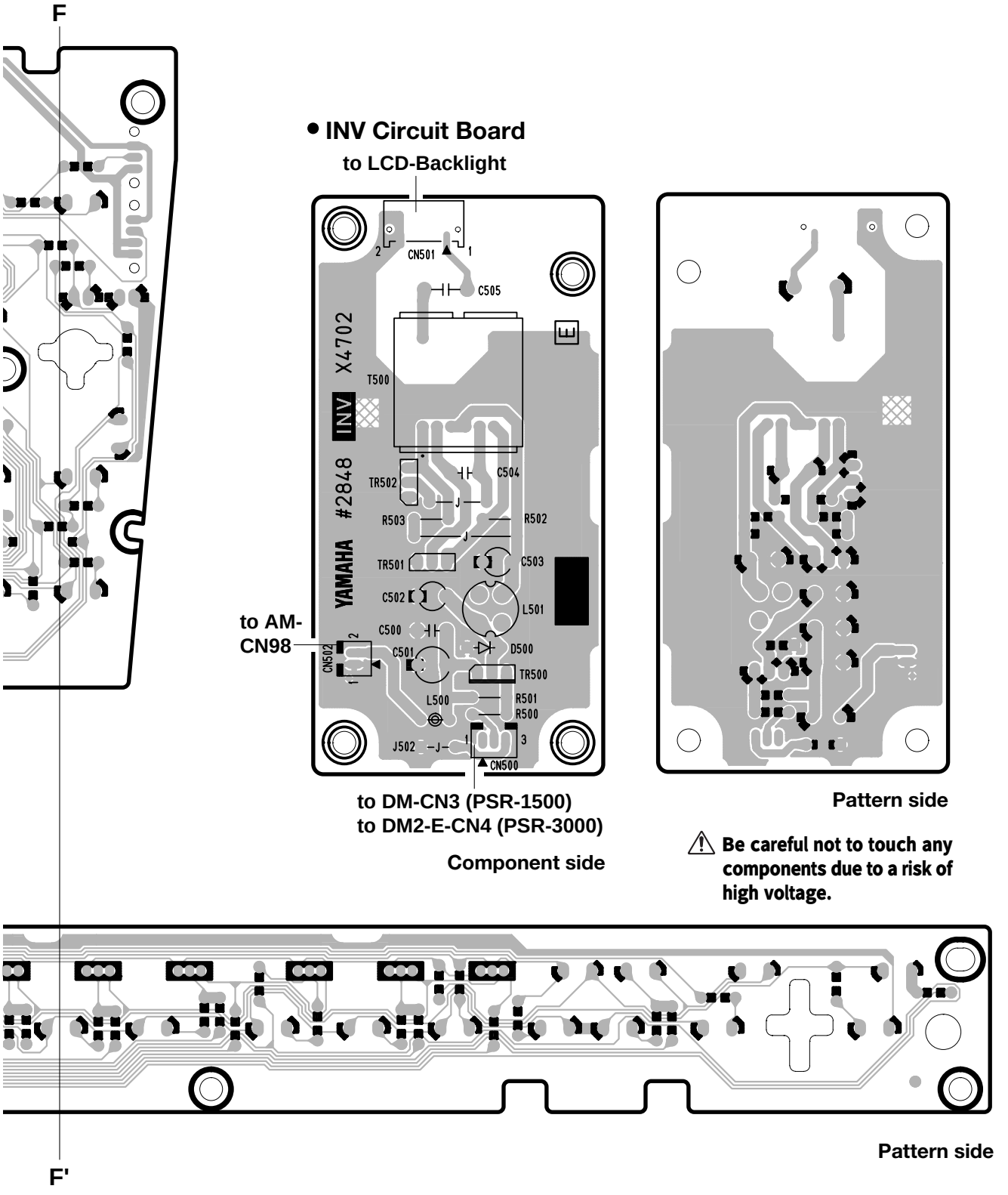


ENC, PNL: 2NA-WB85600-2 △3
SW: 2NA-WB82640-1 △3

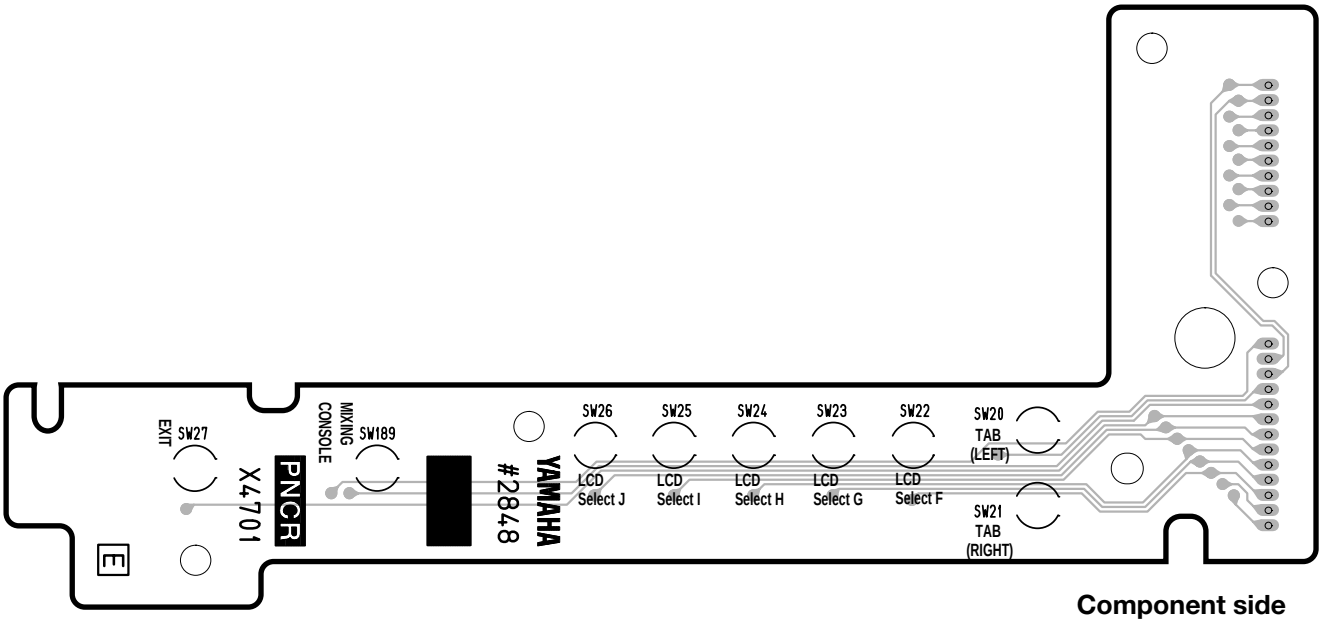

E
PSR-3000 only
to PNR-CN112
to PNCL-CN201
to PNR-CN113
to PNR-CN111
CN109
CN104
CN110
CN108
YAMAHA
#2848
DEMO
STYLE (BALLAD)
STYLE (DANCE)
STYLE (R & B)
STYLE (COUNTRY)
STYLE (SWING & JAZZ)
STYLE (MOVIE & SHOW)
STYLE (ENTERTAINER)
STYLE (LATIN)
STYLE (BALLROOM)
STYLE (WORLD)
STYLE (USER)
MIC SETTING / VOCAL HARMONY (PSR-3000)
METRONOME ON / OFF
TRANSPOSE-
TRANSPOSE+
TEMPO+
TEMPO-
SONG (SONG SELECT)
SONG (REPEAT)
SONG (EXTRA TRACKS)
SONG (TRACK2)
SONG (TRACK1)
SONG (KARAOKE)
SONG (SCORE)
SONG (REC)
SONG (STOP)
SONG (PLAY / PAUSE)
SONG (REW)
SONG (FF)
SONG (PERFORMANCE ASSIST)
SONG (GUIDE)
MULTI PAD CONTROL (SELECT)
MULTI PAD CONTROL 1
MULTI PAD CONTROL 2
MULTI PAD CONTROL 3
MULTI PAD CONTROL 4
MULTI PAD CONTROL (STOP)
X4702 PNL
E
STYLE CONT. (MAIN VAR.C)
STYLE CONT. (MAIN VAR.D)
STYLE CONTROL (BREAK)
STYLE CONT. (ENDING / rit Ⅰ)
STYLE CONT. (ENDING / rit Ⅱ)
STYLE CONT. (ENDING / rit Ⅲ)
STYLE ONTROL (SYNC START)
STYLE CONTROL (SYNC STOP)
STYLE CONTROL (START / STOP)
Component side
E'

• **PNL Circuit Board**

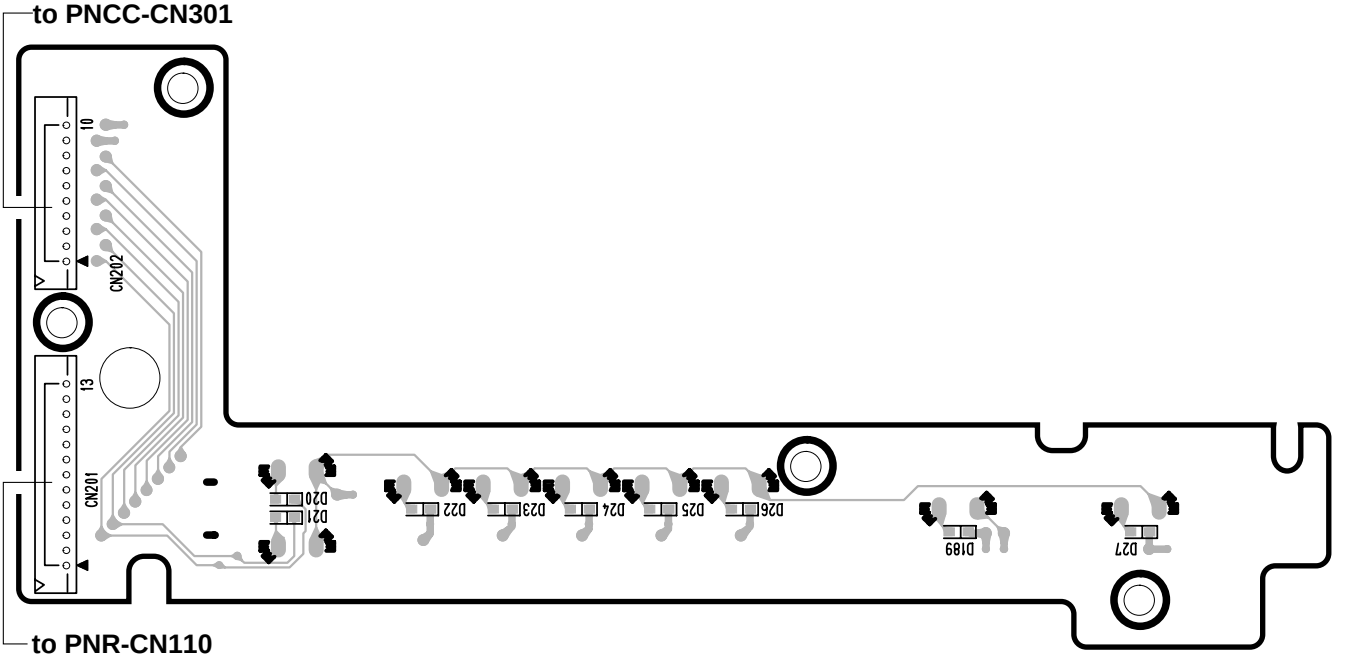



F
• INV Circuit Board
to LCD-Backlight
CN501
C505
X4702
INV
#2848
YAMAHA
T500
TR502
C504
R503
R502
TR501
C503
C502
L501
C500
C501
D500
TR500
L500
R501
R500
J502
CN500
to AM-
CN98
CN502
to DM-CN3 (PSR-1500)
to DM2-E-CN4 (PSR-3000)
Component side
Pattern side
⚠ Be careful not to touch any components due to a risk of high voltage.
Pattern side
F'

• PNCR Circuit Board

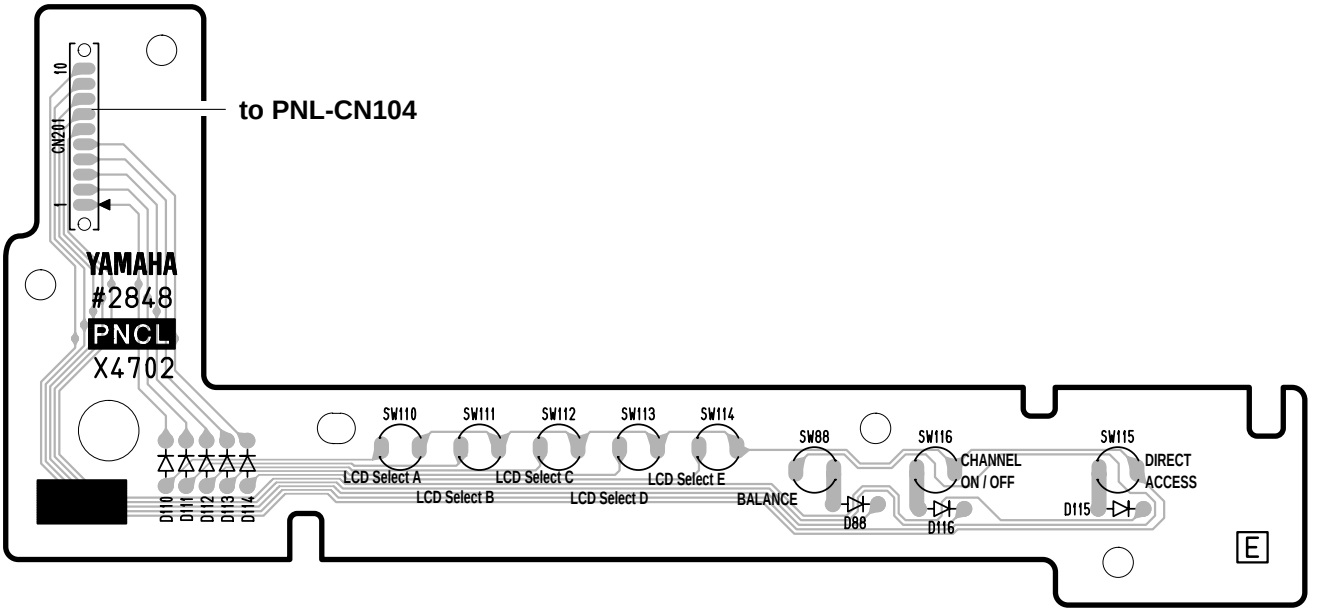


Component side

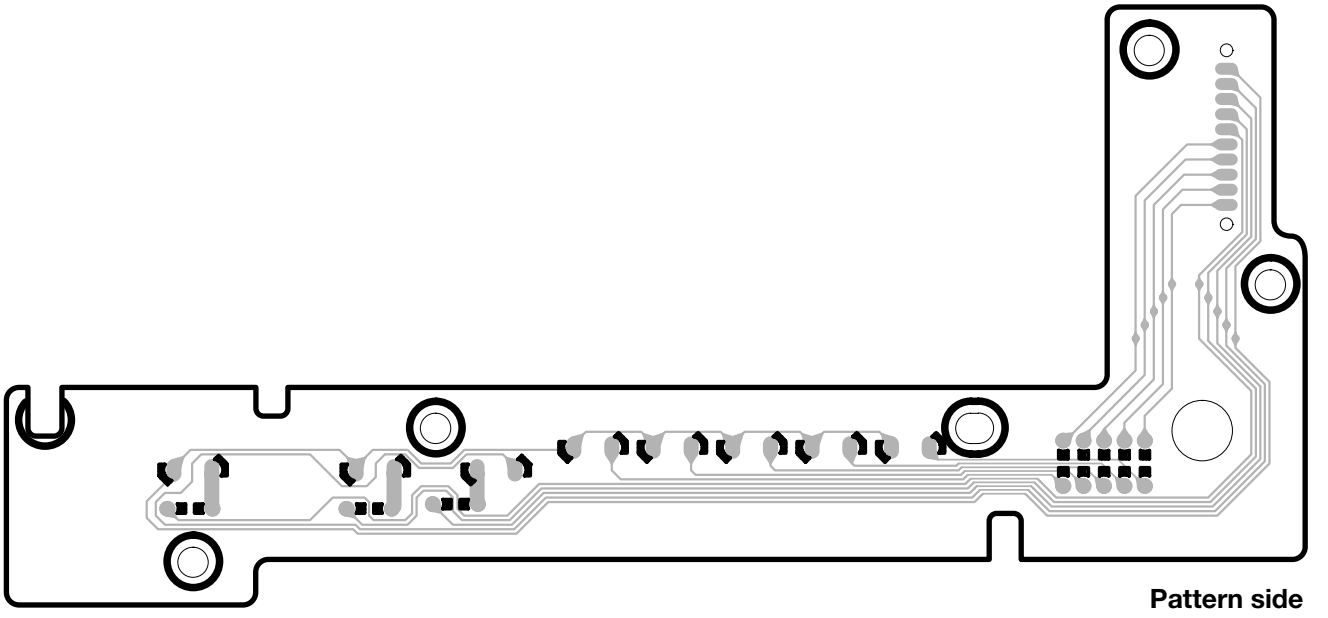


Pattern side

• PNCL Circuit Board

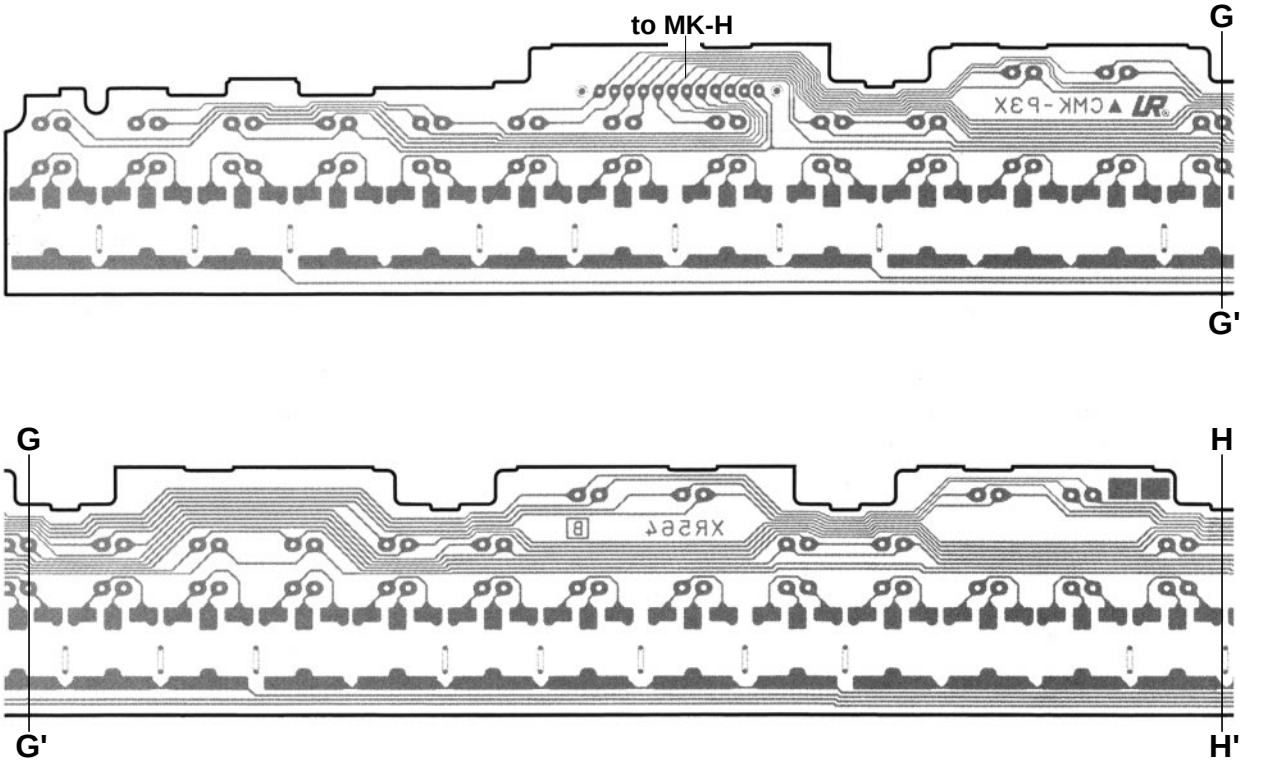


Component side

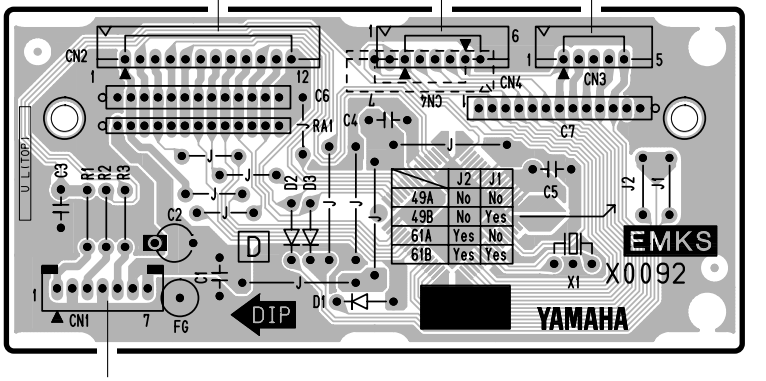


Pattern side

• MK-L Circuit Board



• EMKSA Circuit Board

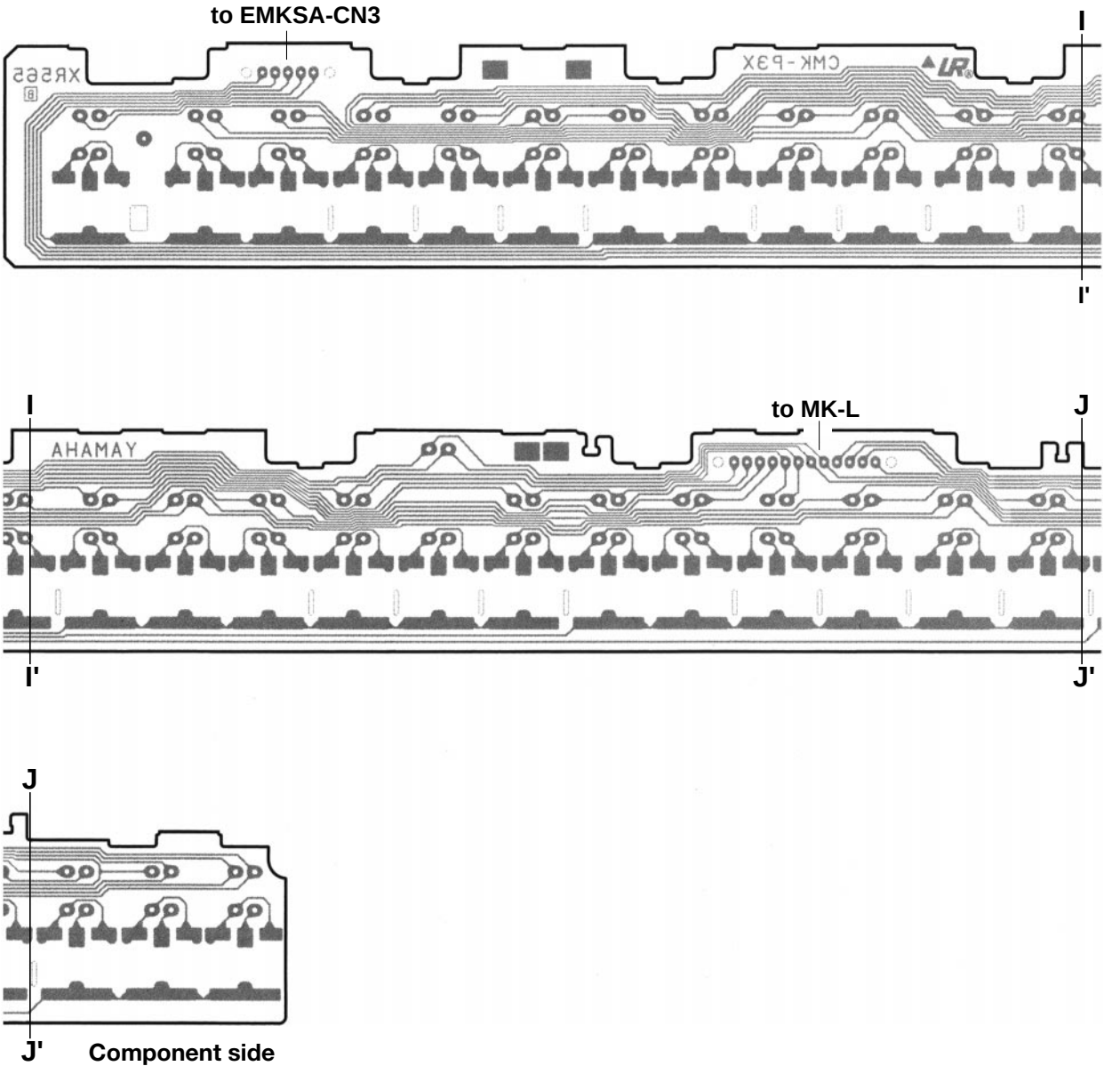


to DM-CN13 (PSR-1500)
to DM2-E-CN16 (PSR-3000)

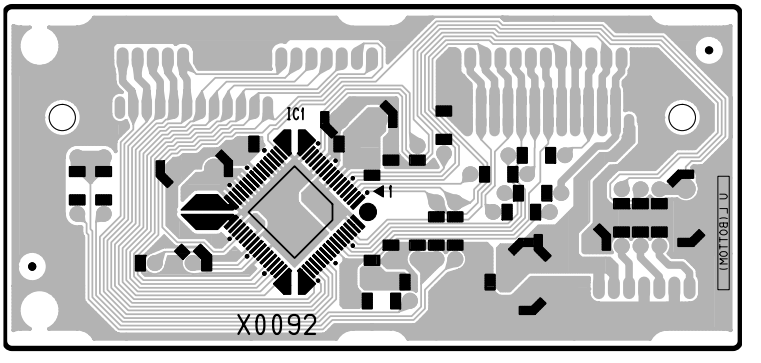
Component side

MK-L: 2NA-VV58380
EMKSA: 2NAKZ-V766280 △4

• MK-H Circuit Board



• EMKSA Circuit Board



Pattern side

MK-H: 2NA-VV583900
EMKSA: 2NAKZ-V766280 ⚠2

TEST PROGRAM

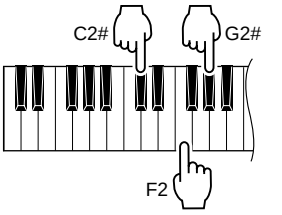
✻ If you execute the test No. 88, Factory Set, data on Internet settings may be lost.

1 Preparation

1) PA-300 (AC adaptor) is used.
2) Measuring instruments: frequency counter, level meter (with JIS-C filter)
   Note: Connect a stereo plug to the [PHONES] jack at 33ohms.
3) Jigs: foot switch (FC-4), foot volume (FC-7), MIDI cable, USB cable, floppy disk, microphone (PSR-3000 only)

2 How to enter the Test Program

While pressing the [C2#], [F2] and [G2#] keys, turn the [STANDBY/ON] switch on.



3 Proceeding through the Test Program

1) When the test program is activated, the sign **"TEST"** is indicated on the LCD display.
   The test program automatically performs RAM BACKUP check when entering test mode.
2) Select the test program item to be executed by pressing the [TEMPO–] or [TEMPO+] button, or using the [DATA ENTRY] dial.
3) Press the [START/STOP] button to execute testing.

When the test result is OK, press the [START/STOP] button to return to the test item selection screen.
Proceed to the next test by pressing the [TEMPO–] or [TEMPO+] button, or using the [DATA ENTRY] dial.
When the test results is OK, an asterisk (∗) is added in front of its item name on display.

When the test result is NG, press the [DEMO] button or the lowest (leftmost) white key on the keyboard to return to the test item selection screen and then turn off the [STANDBY/ON] switch to end the test program.

4 Test program list

No	LCD display	Test descriptions, judging conditions, etc.
1	**001 : Version**	Checks each ROM version. This test program displays ROM's versions. Press the [TAB ▶] switch while displaying ROM's versions to move to the screen displaying the sub-versions. **Case PSR-1500** **Model Name : PSR-1500(E)** **Main Program : ∗.∗∗** **BitMap : ∗.∗∗** **Contents1 : ∗.∗∗** **Contents2 : ∗.∗∗** **Wave1 : ∗.∗∗** **(Sub Version)** **Main Boot : ∗.∗∗** **∗.∗∗** : Version **Case PSR-3000** **Model Name : PSR-3000(E)** **Main Program : ∗.∗∗** **Sub Program : ∗.∗∗** **BitMap : ∗.∗∗** **Contents1 : ∗.∗∗** **Contents2 : ∗.∗∗** **Wave1 : ∗.∗∗** **(Sub Version)** **Main Boot : ∗.∗∗** **Sub1 Boot : ∗.∗∗**
2	**002 : ROM Check1**	Checks ROM connected to CPU bus. (simple check) Confirm that **"ROM Check 1 OK"** is displayed on LCD.
3	**003 : RAM Check1**	Checks RAM connected to CPU bus. (simple check) Confirm that **"RAM Check1 OK"** is displayed on LCD.
4	**004 : Flash Check1**	Checks flash memory connected to CPU bus. (simple check) Confirm that **"Flash Check 1 OK"** is displayed on LCD. Check takes about 15 seconds.
5	**005 : Wave ROM Check1**	Checks WAVE ROM connected to TG1 bus. (simple check) Confirm that **"Wave ROM Check OK"** is displayed on LCD.
6	**006 : Effect RAM Check**	Checks Effect RAM. Confirm that **"Effect Check TG1 OK"** is displayed on LCD.
7	**007 : TG1 Check**	Checks TG1. The test program sequentially outputs the sine wave by changing the tone of the sound source from the low keys (from C2 to G4). Check the sound by hearing that there is not noise or abnormal sound.
14	**014 : Pitch Check**	Checks PITCH. Pitch Accuracy Check: Connect the frequency counter to L or R of [PHONE] jack. When the test is performed, sound is produced with 441.4±0.2Hz sine wave, PAN=center.

No	LCD display	Test descriptions, judging conditions, etc.
15	**015 : Output R Check**	Checks R channel output. Connect the level meter (with a JIS-C filter) to each jack (PHONES L, R, OUTPUT L/L+R, R, AUX OUT (LEVEL FIXED) L, R) With [MASTER VOLUME] at the maximum, check the R channel output level. (1KHz sine wave, PAN=R) (PHONES L, R: 33 ohms load OUTPUT L/L+R, R: 10k ohms load AUX OUT (LEVEL FIXED) L, R: 10k ohms load) • PHONES L: -45.0dBu or less PHONES R: -4.0±2dBu • OUTPUT L/L+R: -75.0dBu or less OUTPUT R: +3.5±2dBu • AUX OUT (LEVEL FIXED) L: -80.0dBu or less AUX OUT (LEVEL FIXED) R: -1.0±2dBu
16	**016 : Output L Check**	Checks L channel output. Connect the level meter (with a JIS-C filter) to each jack (PHONES L, R, OUTPUT L/L+R, R, AUX OUT (LEVEL FIXED) L, R) With [MASTER VOLUME] at the maximum, check the L channel output level. (1KHz sine wave, PAN=L) (PHONES L, R: 33 ohms load OUTPUT L/L+R, R: 10k ohms load AUX OUT (LEVEL FIXED) L, R: 10k ohms load) • PHONES L: -4.0±2dBu PHONES R: -45.0dBu or less • OUTPUT L/L+R: +3.5±2dBu OUTPUT R: -75.0dBu or less • AUX OUT (LEVEL FIXED) L: -1.0±2dBu AUX OUT (LEVEL FIXED) R: -80.0dBu or less
19	**019 : EQ Low Check**	Checks EQ-LOW frequency. Confirm that sound is output with a sine save of about 65.4 Hz (C1) at a specified level, PAN=center. Sound production stops when returning to selection screen with the [START/STOP] button.
20	**020 : EQ Mid Check**	Checks EQ-MID frequency. Confirm that sound is output with a sine wave of about 523 Hz (C4) at a specified level, PAN=center. Sound production stops when returning to selection screen with the [START/STOP] button.
21	**021 : EQ High Check**	Checks EQ-HIGH frequency. Confirm that sound is output with a sine wave of about 4186 Hz (C7) at a specified level, PAN=center. Sound production stops when returning to selection screen with the [START/STOP] button.
23	**023 : MUTE Check**	Checks MUTE. Set the [MASTER VOLUME] at the maximum. Connect the level meter (with a JIS-C filter) to L and R of [PHONES] jacks. (33 ohms load) Sound absorption using [TAB ◀] switch (MUTE ON). Sound production using [TAB ▶] switch (MUTE OFF). [MUTE ON] (PHONES L, R: -80.0dBu or less)
25	**025 : MIC Check** (PSR-3000 only)	Checks a microphone. MIC Check: Connect a microphone to [MIC] jack and speak to it Check the voice sound by hearing that there is not unusual noise or abnormal sound. MIC Level: Connect the level meter (with a JIS-C filter) to L and R of [PHONES] jacks. (33 ohms load) Set the [MASTER VOLUME] at the maximum. Measure the output of each terminal after inputting a sine wave of 1 kHz at -40dBu to [MIC] jack. Set [MIC/LINE] select switch to [MIC] and set [MIC VOLUME] at the maximum. PHONES L,R: -7.5±2dBu
27	**027 : SW, LED Check**	Checks SW, LED. Press the switches on the LCD as instructed. A preassigned note is output when the switch is pressed. (See P64, 65) When the switch with LED is pressed, that LED will light up. (If you wish to cancel the check in progress, press [DEMO SW] or the lowest key on the keyboard to return to the selection screen.) When all the switches are pressed, **"Dial Down"** is displayed on LCD. Also check the rotary encoder. Turn the rotary encoder clockwise. The numbers are displayed from 50 to 100 on LCD. Then turn the rotary encoder counterclockwise. The numbers are displayed from 100 to 0 on LCD. Confirm that **"SW, LED Check OK"** is displayed on LCD.

No	LCD display	Test descriptions, judging conditions, etc.
28	028 : ALL Panel LED On Check	Checks all the panel LEDs' lighting up. Confirm that all the panel LEDs will light up. The LEDs on the PNL side light up when [TAB ◀] switch is pressed. The LEDs on the PNR side light up when [TAB ▶] switch is pressed. The 2-color LED lights up in orange. When exiting from the test, **"ALL Panel LED On Check"** is displayed on LCD.
29	029 : Red LED On Check	Checks all the red LEDs' lighting up. Confirm that all the red LEDs will light up. The LEDs on the PNL side light up when [TAB ◀] switch is pressed. The LEDs on the PNR side light up when [TAB ▶] switch is pressed. When exiting from the test, **"Red LED On Check"** is displayed on LCD.
30	030 : Green LED On Check	Checks all the green LEDs' lighting up. Confirm that all the green LEDs will light up. The LEDs on the PNL side light up when [TAB ◀] switch is pressed. The LEDs on the PNR side light up when [TAB ▶] switch is pressed. When exiting from the test, **"Green LED On Check"** is displayed on LCD.
33	033 : ALL LCD On Check	Checks all LCDs' lighting up. Confirm that all the LCD dots turn into black.
34	034 : ALL LCD Off Check	Checks all LCDs' going out. Confirm that all the LCD dots turn into white.
36	036 : LCD Brightness Check	Checks LCD brightness. Press the [1] to [4] switches of [REGISTRATION MEMORY] in order. The brightness of the LCD grows less lighter every time a switch is pressed. ([2] and [4] have the same brightness) Check uniform brightness and the LCD does not light off at each stage.
37	037 : LCD Pattern Check (PSR-3000 only)	Checks LCD pattern. Switch from RGB pattern → rainbow pattern → flicker noise pattern, using [TAB ▶] switch. Reversely switch from the flicker noise pattern → rainbow pattern → RGB pattern if using [TAB ◀] switch. The test program displays the color pattern for inspecting the picture quality of the LCD.
40	040 : Pitch Bend Wheel Check	Checks PITCH BEND. First, detect the center of the [PITCH BEND] wheel. Check that the C3 note is output when rotating the [PITCH BEND] wheel to minimum from center, and that the G3 note is output when rotating it to maximum. Check that the C4 note is output when rotating it back to the center. Confirm that **"Pitch Bend Wheel Check OK"** is displayed on LCD when exiting from the test.
41	041 : Modulation Wheel Check	Checks MODULATION. Rotate the [MODULATION] wheel to maximum toward the back and then rotate it to maximum to the front. The C3 note is output when rotating the wheel to maximum and the C4 note is output when rotating it to minimum. Confirm that **"Modulation Wheel Check OK"** is displayed on LCD when exiting from the test.
46	046 : Pedal 1 Check	Checks Pedal 1. Connect the foot volume to the [FOOT SWITCH] jack. The C3 note is output when pressing the pedal to minimum and the G3 note is output when pressing it to maximum. Then the C4 note is output when removing the pedal from the [FOOT PEDAL] jack. Confirm that **"Pedal 1 Check OK"** is displayed on LCD when exiting from the test.
47	047 : Pedal 2 Check	Checks Pedal 2. Connect the foot volume to the [FOOT SWITCH] jack. The C3 note is output when pressing the pedal to minimum and the G3 note is output when pressing it to maximum. Then the C4 note is output when removing the pedal from the [FOOT PEDAL] jack. Confirm that **"Pedal 2 Check OK"** is displayed on LCD when exiting from the test.

No	LCD display	Test descriptions, judging conditions, etc.
53	**053 : MIDI Check**	Checks MIDI. After connecting the [MIDI IN] terminal and [MIDI OUT] terminal with a MIDI cable, execute the test. Confirm that the C4 note is output and **"MIDI OK"** is displayed on LCD.
55	**055 : VIDEO OUT NTSC RGB** (PSR-3000 only)	Checks Video OUT. Connect the PSR-3000 with its appropriate display monitor. Confirm that the display monitor displays the RGB color code.
56	**056 : VIDEO OUT PAL RGB** (PSR-3000 only)	Checks Video OUT. Connect the PSR-3000 with its appropriate display monitor. Confirm that the display monitor displays the RGB color code.
57	**057 : USB to Device/Host Check**	Checks USB Device/Host. Press the [START/STOP] button first. **"Connect USB to Device and to Host"** will appear on LCD. When USB cable is connected to [USB TO DEVICE] terminal and [USB TO HOST] terminal, **"USB to Device/Host1 Check OK"** will appear on LCD, immediately followed by **"Connect USB Storage Device"**. Pull USB cable off [USB TO DEVICE] terminal and [USB TO HOST] terminal and connect USB cable of FDD to [USB TO DEVICE] terminal. Confirm that the C4 note is output and **"USB to Device/Host Check OK"** is displayed on LCD.
58	**058 : USB Strage Device Check**	Tests if USB Storage devices can be used. 1. Connect FDD to [USB TO DEVICE] terminal and insert a floppy disk. When no disk is inserted, **"NO DISK"** will be displayed on LCD. 2. Conduct 10-sector read/write test. 3. Read every 100 sectors from 0 sector. 4. Compare with data after sector writing to confirm agreement. Confirm that **"USB Storage Device Check OK"** is displayed on LCD.
59	**059 : CARD Check**	Checks smart media (CARD). Insert the smart media (CARD) with a protect sticker placed on, and then press the [START/STOP] button. Confirm that **"PROTECT CARD"** is displayed on LCD. Pull off the CARD with the protect sticker on and insert another CARD with no protect sticker on. Confirm that the **"CARD OK"** is displayed on LCD. Pull off the CARD and press the [START/STOP] button to compete the checking.
61	**061 : KeyboardType Check**	Checks KeyboardType. Confirm that **"Keyboard Type Check OK (16M)"** is displayed on LCD.
67	**067 : ROM Check2**	Checks ROM connected to CPU bus. (Complete check) Confirm that **"ROM Check2 OK"** is displayed on LCD. Check takes about 4 seconds for PSR-1500 and about 5 seconds for PSR-3000.
68	**068 : RAM Check2**	Checks RAM connected to CPU bus. (Complete check) Confirm that **"RAM Check2 OK"** is displayed on LCD. Check takes about 2 seconds.
69	**069 : Flash Check2**	Checks flash memory connected to CPU bus. (Complete check) Confirm that **"Flash Check2 OK"** is displayed on LCD. Check takes about 33 seconds for PSR-1500 and about 60 seconds for PSR-3000.
70	**070 : Wave ROM Check2**	Checks WAVE ROM connected to TG bus. (Complete check) Confirm that **"Wave ROM Check OK"** is displayed on LCD. Check takes about 7 seconds for PSR-1500 and about 20 seconds for PSR-3000.
71	**071 : Effect RAM Check2**	Checks Effect RAM connected to TG bus. (Complete check) Confirm that **"Effect Check TG1 OK"** is displayed on LCD. Check takes about 7 seconds for PSR-1500 and about 5 seconds for PSR-3000.
88	**088 : Factory Set**	**If you execute the Factory Set, data on Internet settings may be lost.** At the next time of turning on power, data are set to FlashROM to be in factory default. Here, a flag for initialization is set (only when necessary). Execution is made at the next time of turning on power.
89	**089 : TEST Exit**	Exits from the test program and enters into the play mode after executing this test.

Switch Test Sequence (PSR-1500)

Turn	SW Name / Display	Note number
1	DEMO	C2
2	POP&ROCK	C#2
3	BALLAD	D2
4	DANCE	D#2
5	SWING&JAZZ	E2
6	R&B	F2
7	COUNTRY	F#2
8	LATIN	G2
9	BALLROOM	G#2
10	MOVIE&SHOW	A2
11	ENTERTAINER	A#2
12	WORLD	B2
13	USER	C3
14	METRONOME	C#3
15	TRANSPOSE–	D3
16	TRANSPOSE+	D#3
17	SONG SELECT	E3
18	REPEAT	F3
19	EXTRA TRACKS	F#3
20	TRACK2	G3
21	TRACK1	G#3
22	SCORE	A3
23	KARAOKE	A#3
24	TAP TEMPO	B3
25	TEMPO–	C4
26	TEMPO+	C#4
27	REC	D4
28	STOP	D#4
29	PLAY/PAUSE	E4
30	REW	F4
31	FF	F#4
32	PERFORMANCE ASSIS	G4
33	GUIDE	G#4
34	MULTI PAD SELECT	A4
35	MULTI PAD 1	A#4
36	MULTI PAD 2	B4
37	MULTI PAD 3	C5
38	MULTI PAD 4	C#5
39	MULTI PAD STOP	D5
40	FADE IN/OUT	D#5
41	ACMP.ON/OFF	E5
42	OTS LINK	F5
43	AUTO FILL IN	F#5
44	INTRO 1	G5
45	INTRO 2	G#5
46	INTRO 3	A5
47	MAIN A	A#5
48	MAIN B	B5
49	MAIN C	C6
50	MAIN D	C2
51	BREAK	C#2
52	ENDING 1	D2
53	ENDING 2	D#2
54	ENDING 3	E2
55	SYNC STOP	F2
56	SYNC START	F#2
57	START/STOP	G2
58	A	G#2
59	B	A2
60	C	A#2
61	D	B2
62	E	C3
63	BALANCE	C#3
64	CHANNEL ON/OFF	D3
65	DIRECT ACCESS	D#3
66	1-U	E3
67	2-U	F3
68	3-U	F#3
69	4-U	G3
70	5-U	G#3
71	6-U	A3
72	7-U	A#3
73	8-U	B3
74	1-L	C4
75	2-L	C#4
76	3-L	D4
77	4-L	D#4
78	5-L	E4
79	6-L	F4
80	7-L	F#4
81	8-L	G4
82	TAB ◀ (BACK)	G#4
83	TAB ▶ (NEXT)	A4
84	F	A#4
85	G	B4
86	H	C5
87	I	C#5
88	J	D5
89	MIXING CONSOLE	D#5
90	EXIT	E5
91	PIANO	F5
92	E.PIANO	F#5
93	STRINGS	G5
94	GUITAR&BASS	G#5
95	SAXOPHONE	A5
96	FLUTE&WOODWIND	A#5
97	ORGAN	B5
98	ORGAN FLUTES	C6
99	TRUMPET	C2
100	BRASS	C#2
101	ACCORDION&HARMONI	D2
102	CHOIR&PAD	D#2
103	SYNTH.&FX	E2
104	PERC.&DRUM KIT	F2
105	USER	F#2
106	VOICE EFFECT	G2
107	MUSIC FINDER	G#2
108	HELP	A2
109	FUNCTION	A#2
110	SOUND CREATOR	B2
111	DIGITAL RECORDING	C3
112	UPPER OCTAVE–	C#3
113	UPPER OCTAVE+	D3
114	PART SELECT LEFT	D#3
115	PART SELECT R1	E3
116	PART SELECT R2	F3
117	ENTER	F#3
118	LEFT HOLD	G3
119	PART ON/OFF LEFT	G#3
120	PART ON/OFF R1	A3
121	PART ON/OFF R2	A#3
122	REGIST.BANK	B3
123	FREEZE	C4
124	REGIST.1	C#4
125	REGIST.2	D4
126	REGIST.3	D#4
127	REGIST.4	E4
128	REGIST.5	F4
129	REGIST.6	F#4
130	REGIST.7	G4
131	REGIST.8	G#4
132	MEMORY	A4
133	OTS1	A#4
134	OTS2	B4
135	OTS3	C5
136	OTS4	C#5

Switch Test Sequence (PSR-3000)

Turn	SW Name / Display	Note number
1	DEMO	C2
2	POP&ROCK	C#2
3	BALLAD	D2
4	DANCE	D#2
5	SWING&JAZZ	E2
6	R&B	F2
7	COUNTRY	F#2
8	MIC SETTING	G2
9	LATIN	G#2
10	BALLROOM	A2
11	MOVIE&SHOW	A#2
12	ENTERTAINER	B2
13	WORLD	C3
14	USER	C#3
15	METRONOME	D3
16	TRANSPOSE−	D#3
17	TRANSPOSE+	E3
18	SONG SELECT	F3
19	REPEAT	F#3
20	EXTRA TRACKS	G3
21	TRACK2	G#3
22	TRACK1	A3
23	SCORE	A#3
24	KARAOKE	B3
25	TAP TEMPO	C4
26	TEMPO−	C#4
27	TEMPO+	D4
28	REC	D#4
29	STOP	E4
30	PLAY/PAUSE	F4
31	REW	F#4
32	FF	G4
33	PERFORMANCE ASSIS	G#4
34	GUIDE	A4
35	MULTI PAD SELECT	A#4
36	MULTI PAD 1	B4
37	MULTI PAD 2	C5
38	MULTI PAD 3	C#5
39	MULTI PAD 4	D5
40	MULTI PAD STOP	D#5
41	FADE IN/OUT	E5
42	ACMP.ON/OFF	F5
43	OTS LINK	F#5
44	AUTO FILL IN	G5
45	INTRO 1	G#5
46	INTRO 2	A5
47	INTRO 3	A#5
48	MAIN A	B5
49	MAIN B	C6
50	MAIN C	C2
51	MAIN D	C#2
52	BREAK	D2
53	ENDING 1	D#2
54	ENDING 2	E2
55	ENDING 3	F2
56	SYNC STOP	F#2
57	SYNC START	G2
58	START/STOP	G#2
59	A	A2
60	B	A#2
61	C	B2
62	D	C3
63	E	C#3
64	BALANCE	D3
65	CHANNEL ON/OFF	D#3
66	DIRECT ACCESS	E3
67	1-U	F3
68	2-U	F#3
69	3-U	G3

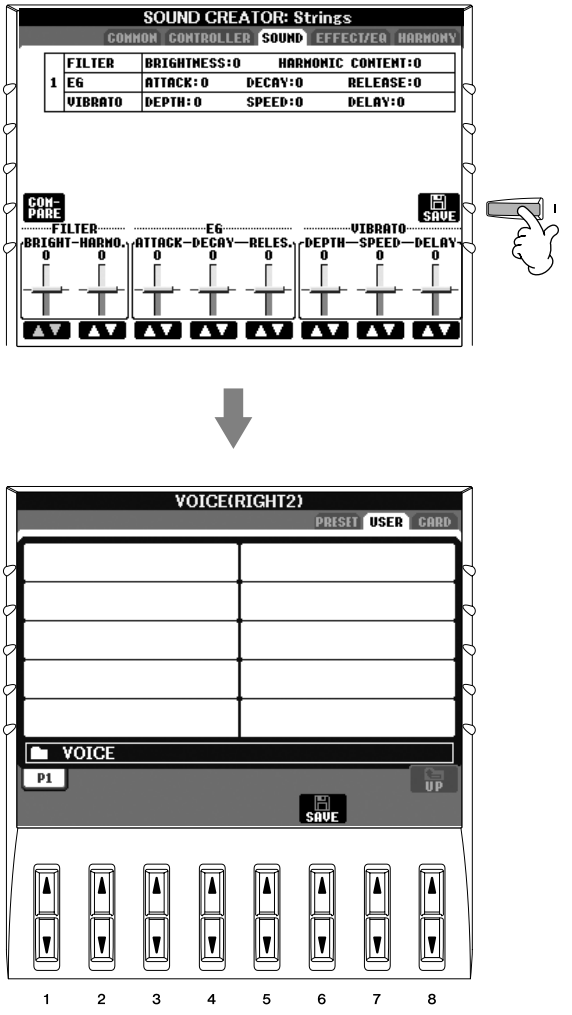
Turn	SW Name / Display	Note number
70	4-U	G#3
71	5-U	A3
72	6-U	A#3
73	7-U	B3
74	8-U	C4
75	1-L	C#4
76	2-L	D4
77	3-L	D#4
78	4-L	E4
79	5-L	F4
80	6-L	F#4
81	7-L	G4
82	8-L	G#4
83	TAB ◀ (BACK)	A4
84	TAB ▶ (NEXT)	A#4
85	F	B4
86	G	C5
87	H	C#5
88	I	D5
89	J	D#5
90	MIXING CONSOLE	E5
91	EXIT	F5
92	PIANO	F#5
93	E.PIANO	G5
94	STRINGS	G#5
95	GUITAR&BASS	A5
96	SAXOPHONE	A#5
97	FLUTE&WOODWIND	B5
98	ORGAN	C6
99	ORGAN FLUTES	C2
100	TRUMPET	C#2
101	BRASS	D2
102	ACCORDION&HARMONI	D#2
103	CHOIR&PAD	E2
104	SYNTH.&FX	F2
105	PERC.&DRUM KIT	F#2
106	USER	G2
107	VOICE EFFECT	G#2
108	MUSIC FINDER	A2
109	HELP	A#2
110	FUNCTION	B2
111	SOUND CREATOR	C3
112	DIGITAL RECORDING	C#3
113	UPPER OCTAVE−	D3
114	UPPER OCTAVE+	D#3
115	PART SELECT LEFT	E3
116	PART SELECT R1	F3
117	PART SELECT R2	F#3
118	ENTER	G3
119	LEFT HOLD	G#3
120	PART ON/OFF LEFT	A3
121	PART ON/OFF R1	A#3
122	PART ON/OFF R2	B3
123	REGIST.BANK	C4
124	FREEZE	C#4
125	REGIST.1	D4
126	REGIST.2	D#4
127	REGIST.3	E4
128	REGIST.4	F4
129	REGIST.5	F#4
130	REGIST.6	G4
131	REGIST.7	G#4
132	REGIST.8	A4
133	MEMORY	A#4
134	OTS1	B4
135	OTS2	C5
136	OTS3	C#5
137	OTS4	D5

SAVING FILES

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

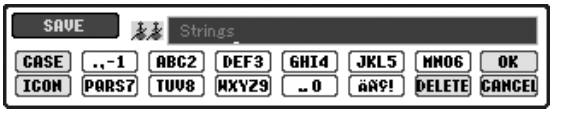
1 **After you've created a Song or Voice in the relevant SONG CREATOR or SOUND CREATOR display, press the [SAVE] display button.**

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, CARD, 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

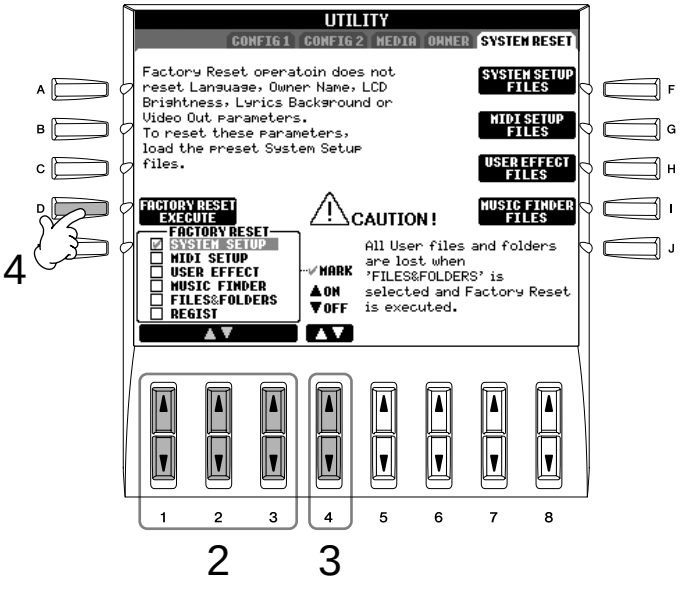
While holding the C6 key (right-most key on the keyboard), turn the [POWER] button ON.
This operation has the same result as and is a shortcut for the System Setup restore operation explained in step 2 of the following section.

Restoring the Factory-programmed Settings Independently by Item

1 **Call up the operation display.**
[FUNCTION] → [I] 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 separate Data List booklet for details about which parameters belong to the System Setup.
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, and user vocal harmony types (PSR-3000) 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] → [I] 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 and microphone setting display are handled as a single System Setup file. Refer to the separate Data List booklet for details on which parameters belong to the System Setup.
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, user master EQ types, and user vocal harmony types (PSR-3000) 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 67 “Restoring the Factory-programmed Settings Independently by Item.”)

5 **Save your file (page 66).**

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 Yamaha recommends that you copy or save your important data to separate storage media, such as a SmartMedia card or 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 and Voice
2 Music Finder Record, Effect**, MIDI Template and System File

* 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 SmartMedia card with ID. Songs with a “Prot.1” indication cannot be moved to external media.

**Effect data includes the following :
- Edited or saved data in the Mixing Console “EFFECT/EQ”
- Edited or saved data of the Vocal Harmony type (PSR-3000 only).

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

Backup procedure

Song, Style, Multi Pad, Registration Memory Bank and Voice Data

1 Insert/connect the backup media (destination), such as a SmartMedia card or USB storage device.

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

Song : Press the [SONG SELECT] button.
Style : Press the [STYLE SELECT] button.
Multi Pad : Press the [MULTI PAD SELECT] button.
Registration Memory Bank : Press the [REGIST. BANK] 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.



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 Tab (CARD or USB) 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 SmartMedia card with ID.

Music Finder Record, Effect, MIDI Templata and System Data

1 **Insert/connect the backup media (destination), such as a SmartMedia card or USB storage device.**

2 **Call up the operation display.**
[FUNCTION] → [I] 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 tab (CARD or USB) to which you want to save the data by using the TAB [◄]/ [►] buttons.**

5 **Save your data (page 66).**

INITIALIZING INTERNET SETTINGS

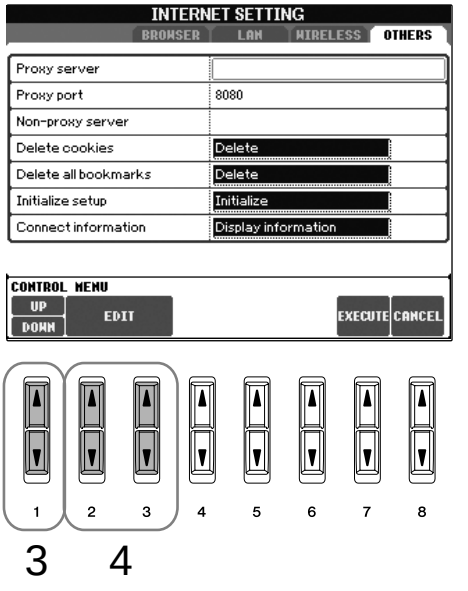
The settings of the Internet function are not initialized when using the Initialize operation of the PSR-1500/3000; Internet settings must be initialized separately, as explained here. Initializing will reset to the default values not only the settings of the browser, but also all settings you have made in the Internet Settings displays (except for the cookies and bookmarks), including those related to Internet connection.

1 **Press the [5 ▼] (SETTING) button to call up the Internet Settings display.**

2 **Press the TAB [►] button to select the OTHERS tab.**

3 **Press the [1 ▲▼] (UP/DOWN) button to select "Initialize."**

4 **Use the [2 ▲▼]/ [3 ▲▼] (EDIT) buttons to initialize the Internet settings.**



Delete cookies/bookmarks
Cookies and bookmarks are still remain after executing the initialize operation above.
To delete the cookies or bookmarks, use the appropriate operations in the OTHERS tab display

VERSION UPGRADE

Download the version upgrade program from the Yamaha official website.

● List of the updating Flash ROM

PSR-1500	Main Program	DM	IC21
PSR-3000	Main Program	DM2-E	IC47

● How to Install

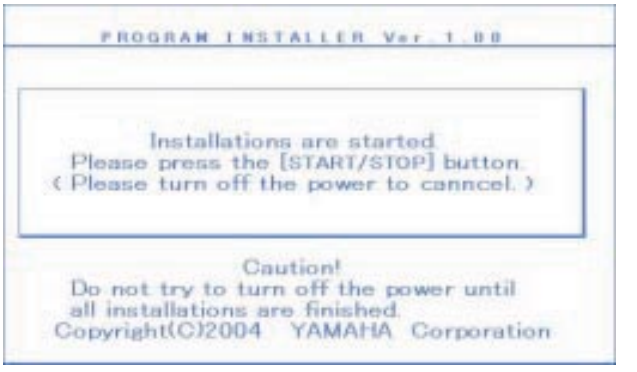
⚠ Never turn the instrument off while installing.
It may break the boot Flash ROM device.To repair it, you have to exchange the Flash ROM on board.
Never take the smartmedia from the instrument while installing.

1 Insert Smartmedia to the instrument.

⚠ Please take care about the side of the media. Gold side is downward.

2 Boot the instrument with install mode.
Turn on the instrument with pressing [START/STOP] button.

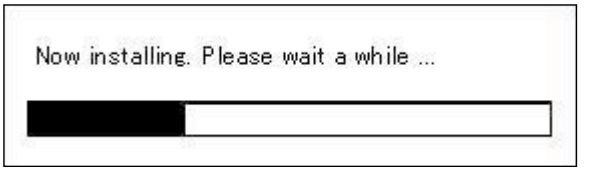




1 Press the [START/STOP] button and start the installations.

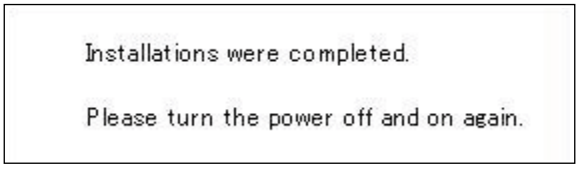
2 Then, the installation starts automatically.

3 It shows the following on LCD during installations.



4 Finish the installations, then it shows the following message on LCD.

Success:



Failure:



5 Turn off the power supply of the instrument.

Please refer to the error message table (page 73) if it will show an error message on LCD.

3 Verify the version

1 Turn on the power supply of the instrument with pressing the [DIRECT ACCESS] switch simultaneously.

2 Version display mode starts.

3 Check that the version of Main Program on LCD is in agreement with the version of install data.

4 Check that all items are set to OK.

The version display on LCD.

● **PSR-1500**

```
Version Overview
Model Name      : PSR-1500 (E)
Main Boot       : 1.00
Main Program    : 1.04      OK
BitMap          : 1.00      OK
LCD Patch       : 1.00      OK
Contents1       : 1.00      OK
Contents2       : 1.00      OK
Font            : 1.00      OK
Wnn             : 1.00      OK
Wave            : 1.00      OK
Press [EXIT] to quit.
```

● **PSR-3000**

```
Version Overview
Model Name      : PSR-3000 (E)
Main Boot       : 1.00
Sub Boot        : 1.01
Main Program    : 1.04      OK
Sub Program     : 1.00      OK
BitMap          : 1.00      OK
LCD Patch       : 1.00      OK
Contents1       : 1.00      OK
Contents2       : 1.00      OK
Font            : 1.00      OK
Wnn             : 1.00      OK
Wave            : 1.00      OK
Press [EXIT] to quit.
```

5 If it checks that it is satisfactory, turn off the power supply of the instrument.

4 Complete installation

The program installation is completion above.
Please refer to the trouble shootings (page 73) if an error will occur during installations.

● Trouble Shootings

Turned off the instrument while installing. Pulling off the SmartMedia card while installing.

Please retry to install.

No information on LCD with booting install mode.

The Flash ROM may be broken.
You need to exchange the Flash ROM device on board.
To avoid this, please don't turn the instrument off while installing.

Can't execute installation using the SmartMedia which was copied by the PC.

Please check the format of the SmartMedia card.
The instrument does not support SmartMedia cards formatted in FAT32.
Please re-format the SmartMedia card in FAT format, and retry installation.

An error message is displayed on LCD.

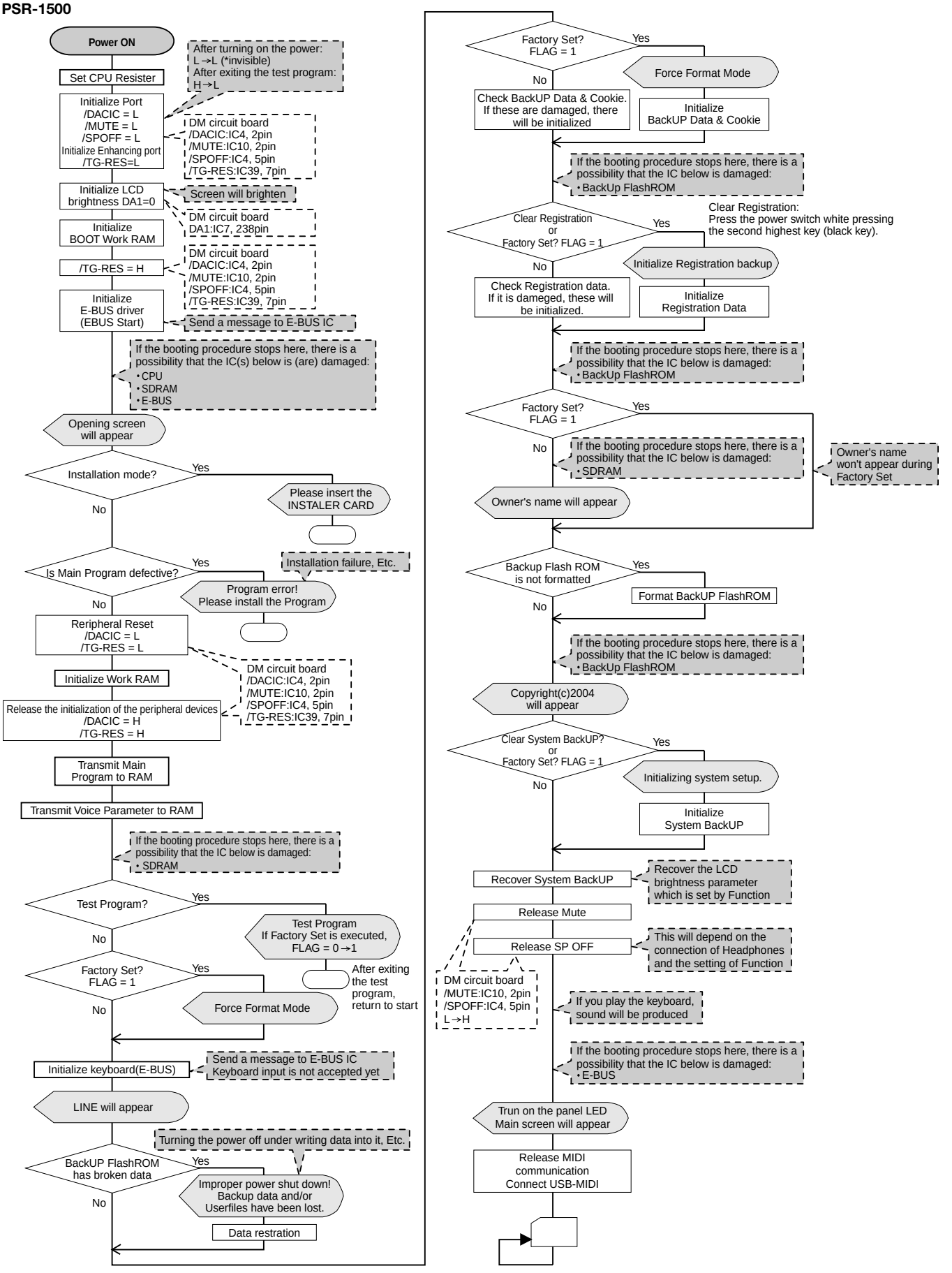
Please refer to the following table.

<table>
<tr><th colspan="2">error message</th><th>note</th><th>to do</th></tr>
<tr><td colspan="2">Card error!</td><td>Cannot load the installation data from the smartmedia.</td><td>Please check the smartmedia if it will have been inserted exactly.

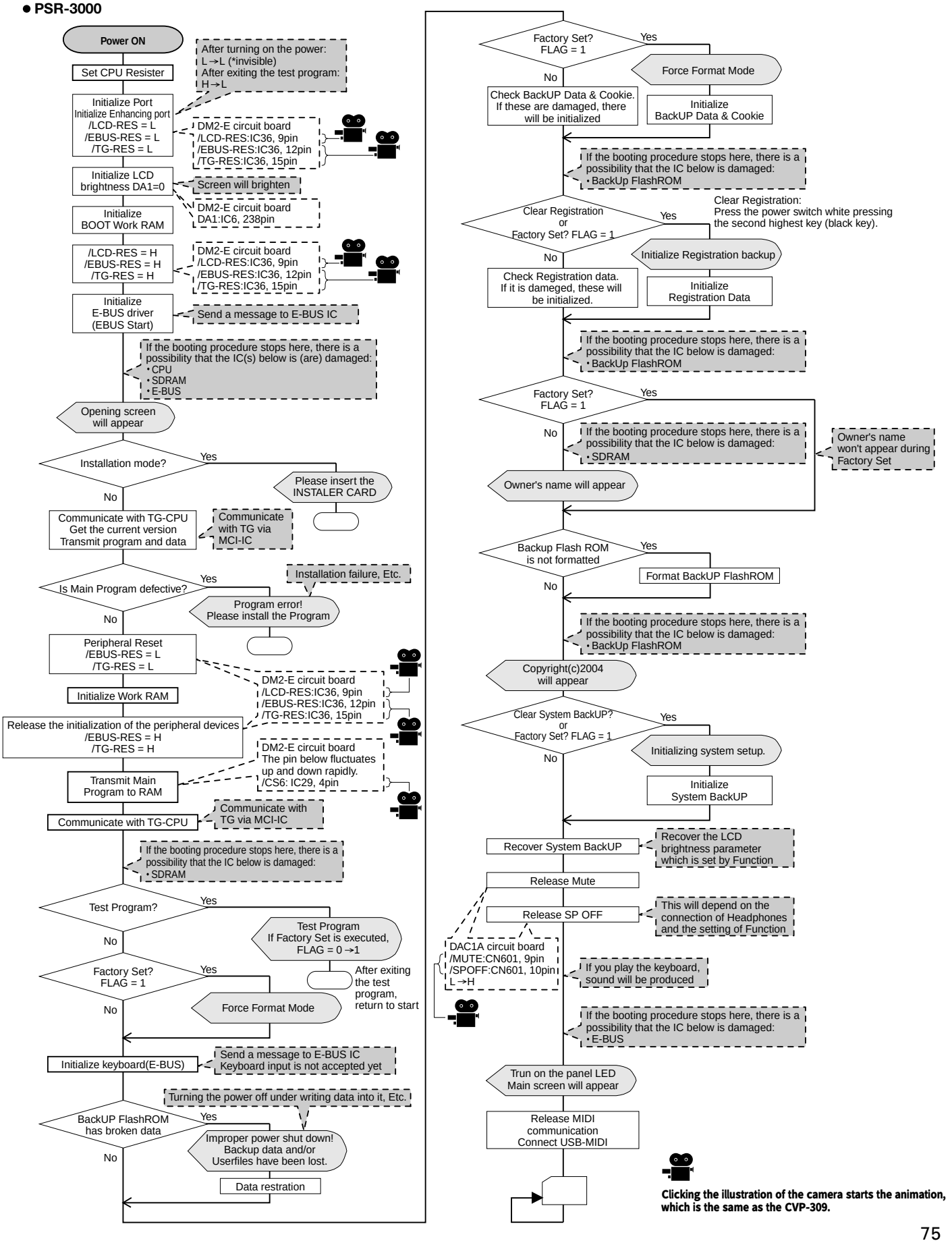
Please check the smartmedia if it will stick the dust to the face of metal.</td></tr>
<tr><td colspan="2">Install data does not exist!</td><td>Cannot recognize the smartmedia, or not exist the installation data into the smartmedia.</td><td>Please check the smartmedia if it will have been inserted exactly.
Please check the data into the smartmedia using the PC.</td></tr>
<tr><td colspan="2">Install error!</td><td>Fail to install the data.</td><td rowspan="9">Please check the data correctly into the smartmedia.
Please retry to install the data.
Please try to use the another smartmedia.</td></tr>
<tr><td rowspan="8">(Details)</td><td>E001</td><td>The boot data may be incorrect.</td></tr>
<tr><td>E002</td><td>The data size is too large.</td></tr>
<tr><td>E003</td><td>Check sum error (Reading from the smartmedia) .</td></tr>
<tr><td>E004</td><td>An error occured during to erase data.</td></tr>
<tr><td>E005</td><td>Cannot write data to the Flash ROM at the assigned address.</td></tr>
<tr><td>E006</td><td>An error occured during to write data to the Flash ROM.</td></tr>
<tr><td>E007</td><td>An error occured during to verify data into the Flash ROM.</td></tr>
<tr><td>E008</td><td>Check sum error (Writing to the Flash ROM) .</td></tr>
</table>

SYSTEM BOOTING FLOWCHART

● **PSR-1500**



● **PSR-3000**



Clicking the illustration of the camera starts the animation, which is the same as the CVP-309.

YAMAHA [Portable Keyboard] Date : 21-Jan-2004
Model PSR-1500/3000 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	X	X	
	Altered	**********	X	
Note Number : True voice		0 - 127 **********	0 - 127 0 - 127	
Velocity	Note ON	O 9nH,v=1-127	O 9nH,v=1-127	
	Note OFF	X 9nH,v=0	X	
After Touch	Key's	X	O	
	Ch's	X	O	
Pitch Bend		O	O 0 - 24 semi	
Control Change	0,32	O	O	Bank Select
	1,5,7,10,11	O	O	
	6,38	O	O	Data Entry
	64,65,66,67	O	O	
	71-74	O	O	Sound Controller
	84	O	O	Portamento Cntrl
	91,93,94	O	O	Effect Depth
	96-97	X	O	RPN Inc,Dec
	98-99	O	O	NRPN LSB,MSB
	100-101	O	O	RPN LSB,MSB
Prog Change : True #		O 0 - 127 **********	O 0 - 127	
System Exclusive		O	O	
Common	: Song Pos.	X	X	
	: Song Sel.	X	X	
	: Tune	X	X	
System Real Time	: Clock	O	O	
	: Commands	O	O	
Aux Mes-sages	: All Sound Off	X	O (120,126-127)	
	: Reset All Cntrls	X	O (121)	
	: Local ON/OFF	X	O (122)	
	: All Notes OFF	X	O (123-125)	
	: Active Sense	O	O	
	: Reset	X	X	
Notes:				

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

MIDI DATA FORMAT

Many MIDI messages listed in the MIDI Data Format are expressed in decimal numbers, binary numbers and hexadecimal numbers. Hexa-decimal numbers may include the letter “H” as a suffix. Also, “n” can freely be defined as any whole number.
To enter data/values, refer to the table below.

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

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

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

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

- Except the table above, for example 144-159(decimal)/9nH/1001 0000-1001 1111(binary) denotes the Note On Message for each channel (1-16). 176-191/BnH/1011 0000-1011 1111 denotes the Control Change Message for each channel (1-16). 192-207/CnH/ 1100 0000-1100 1111 denotes the Program Change Message for each channel (1-16). 240/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	Mic/Vocal Harmony	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 (Harmony Channel/ Melody Channel)	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 (Harmony Channel/ Melody Channel)	O	O	O	O	O	●	O	O	O	●	O	X	O
Control Change	BnH	0	(00H)	Bank Select MSB [GM2]	0 8 64 118 119 120 121 126 127	00H 08H 40H 76H 77H 78H 79H 7EH 7FH	Normal Mega Voice SFX Voice GS Rhythm GS Normal GM2 Rhythm GM2 Normal SFX Kit Drum Kit	O	X	O	O	O (Right1)	O	O	●	O	●	●	X	O	O	O
		1	(01H)	Modulation [GM1] [GM2]	0-127	(00H...7FH)	Data	O	X	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)	X	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 (Harmony Channel/ Melody Channel)	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 (A/D Part Receive Channel)	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 (A/D Part Receive Channel)	O	O	O (All Keyboard parts)	O	O	●	O	●	●	X	O	O	O
		11	(0BH)	Expression [GM1] [GM2]	0-127	(00H...7FH)	Data	O	X	O	O	O (All Keyboard parts)	O	O	●		●	●	●	O	O	O
		32	(20H)	Bank Select LSB [GM2]	0-127	(00H...7FH)	Data	O	X	O	O	O (Right1)	O	O	●	O	●	●	X	O	O	O
		38	(26H)	Data Entry LSB [GM2]	0-127	(00H...7FH)	Data	O	X	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 (Harmony Channel/ Melody Channel)	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)	X	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	X	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	X	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	X	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	X	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	X	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	X	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	X	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	X	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	X	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	X	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	X	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 (A/D Part Receive Channel)	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 (A/D Part Receive Channel)	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	X	O	O	O (All Keyboard parts)	O	O	O	O	●	●	X	O	O	X Multi Record-ing

[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	Mic/Vocal Harmony	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
		96	(60H)	RPN Increment	-	-	The data byte is ignored.	O	O (Harmony Channel/ Melody Channel)	O	O	X	O	O	X	O	X	O	X	O	X	X
		97	(61H)	RPN Decrement	-	-	The data byte is ignored.	O	O (Harmony Channel/ Melody Channel)	O	O	X	O	O	X	O	X	O	X	O	X	X
		98	(62H)	NRPN LSB	0-127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	X	O	O	●	O	O	O	X	O	O	O
		99	(63H)	NRPN MSB	0-127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	X	O	O	●	O	O	O	X	O	O	O
		100	(64H)	RPN LSB [GM2]	0-127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O (All Keyboard parts)	O	O	●	O	●	●	X	O	O	O
		101	(65H)	RPN MSB [GM2]	0-127	(00H...7FH)	Data	O	O (Harmony Channel/ Melody Channel)	O	O	O (All Keyboard parts)	O	O	●	O	●	●	X	O	O	O
Mode Message	BnH (n: Channel Number)	120	(78H)	All Sound Off [GM2]	0	(00H)	Data	O	X	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	X	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 (Harmony Channel/ Melody Channel)	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	X	O	X	X	X	X	X	O	X	O	X	O	X	X
		125	(7DH)	Omni On [GM2]	0	(00H)	Data	O	X	O	X	X	X	X	X	O	X	O	X	O	X	X
		126	(7EH)	Mono [GM2]	0-16	(00H...10H)	Data	O	X	O	X	X	X	X	X	O	X	O	X	O	X	X
		127	(7FH)	Poly [GM2]	0	(00H)	Data	O	X	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	X	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	X	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	X	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 (Harmony Channel/ Melody Channel)	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 A, MIDI B, 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 A, MIDI B, 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 A, MIDI B, 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. O: Available

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

Mic./Vocal Harmony

PSR-1500	X
PSR-3000	O

[GM1] ... GM Required Parameter
[GM2] ... GM Level2 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	Mic/Vocal Harmony	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 (Harmony Channel/ Melody Channel)	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 (Harmony Channel/ Melody Channel)	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 (Harmony Channel/ Melody Channel)	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	X	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	X	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	X	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	X	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	X	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	X	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	X	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	X	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	X	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)	X	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)	X	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)	X	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)	X	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)	X	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)	X	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)	X	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)	X	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)	X	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)	X	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)	X	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	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	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	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	X

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

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

NRPN (Vocal Harmony)

[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	Mic/Vocal Harmony	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	--	Harmony Mute	mm: 00H-3FH, 40H-7FH (Off, On)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	O	X	O	X	X
01H	1AH	mmH	--	Detune Modulation	mm: 00H-7FH (0...127)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	O	X	O	X	X
02H	10H	mmH	--	Harmony1 Volume	mm: 00H-7FH (0...127)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	11H	mmH	--	Harmony2 Volume	mm: 00H-7FH (0...127)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	12H	mmH	--	Harmony3 Volume	mm: 00H-7FH (0...127)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	20H	mmH	--	Harmony1 Pan	mm: 00H, 01H-40H-7FH (RND, L63...C...R63)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	21H	mmH	--	Harmony2 Pan	mm: 00H, 01H-40H-7FH (RND, L63...C...R63)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	22H	mmH	--	Harmony3 Pan	mm: 00H, 01H-40H-7FH (RND, L63...C...R63)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	30H	mmH	--	Harmony1 Detune	mm: 00H-40H-7FH (-64...0...+63)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	31H	mmH	--	Harmony2 Detune	mm: 00H-40H-7FH (-64...0...+63)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X
02H	32H	mmH	--	Harmony3 Detune	mm: 00H-40H-7FH (-64...0...+63)	X	O (Harmony Channel)	X	X	X	X	X	X	X	X	●	X	O	X	X

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

Data Entry LSB: Ignored.

RPN [MIDI] [Song Creator]

RPN MSB	RPN LSB	Data Entry MSB	Data Entry LSB	Parameter	Data Range	Voice: Regular/Drum/Natural/Organ Voice	Voice: Mic/Vocal Harmony	MIDI Reception: Song	MIDI Reception: Right1/Right2/Left	MIDI Reception: Keyboard	MIDI Reception: Style	MIDI Reception: Extra	MIDI Transmission: Right1/Right2/Left	MIDI Transmission: M.Pad	MIDI Transmission: Style	MIDI Transmission: Song	MIDI Transmission: Upper Lower	PLAY: PLAY	PLAY: REW	REC: From panel (Right1/Right2/Left)
00H	00H	mmH	--	Pitch Bend Sensitivity [GM1] [GM2]	mm: 00H-18H (0...+24[semitones])	O	O (Harmony Channel/ Melody Channel)	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	X	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	X	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	X	O	X	X	X	X	X	X	X	O	X	O	X	X
7FH	7FH	--	--	Null [GM2]	-	O	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. O: Available

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

Mic./Vocal Harmony

PSR-1500	X
PSR-3000	O

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

[MIDI] [Song Creator]

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

TOTAL SIZE 07
●: Transmitted via panel operations O: Available

MIDI Parameter Change table (SYSTEM INFORMATION)

[MIDI] [Song Creator]

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

TOTAL SIZE 10
Transmitted in response to Dump Request. Not received.

MIDI Parameter Change table (EFFECT1)

[MIDI] [Song Creator]

Address (H)			Size (H)	Data (H)	Parameter	Description	XG Default (H)	Voice: Regular/Drum/Natural/Organ Voice	Voice: Mic/Vocal Harmony	MIDI Reception: Song	MIDI Reception: Right1/Right2/Left	MIDI Reception: Keyboard	MIDI Reception: Style	MIDI Reception: Extra	MIDI Transmission: Right1/Right2/Left	MIDI Transmission: M.Pad	MIDI Transmission: Style	MIDI Transmission: Song	MIDI Transmission: Upper Lower	PLAY: PLAY	PLAY: REW	REC: From panel (Right1/Right2/Left)
02	01	00	2	00-7F	REVERB TYPE MSB	Refer to Effect Parameter List	01 (=HALL1)	O	O			O					●			O	O	O
				00-7F	REVERB TYPE LSB		00															
		02	1	00-7F	REVERB PARAMETER 1	〃	Depends on Reverb Type	O	O			O					●			O	O	O
		03	1	00-7F	REVERB PARAMETER 2	〃	Depends on Reverb Type	O	O			O					●			O	O	O
		04	1	00-7F	REVERB PARAMETER 3	〃	Depends on Reverb Type	O	O			O					●			O	O	O
		05	1	00-7F	REVERB PARAMETER 4	〃	Depends on Reverb Type	O	O			O					●			O	O	O
		06	1	00-7F	REVERB PARAMETER 5	〃	Depends on Reverb Type	O	O			O					●			O	O	O
		07	1	00-7F	REVERB PARAMETER 6	〃	Depends on Reverb Type	O	O			O					●			O	O	O

[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	Mic/ Vocal Harmony	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
		08	1	00-7F	REVERB PARAMETER 7	Refer to Effect Parameter List	Depends on Reverb Type	O	O		O					●				O	O	O
		09	1	00-7F	REVERB PARAMETER 8	〃	Depends on Reverb Type	O	O		O					●				O	O	O
		0A	1	00-7F	REVERB PARAMETER 9	〃	Depends on Reverb Type	O	O		O					●				O	O	O
		0B	1	00-7F	REVERB PARAMETER 10	〃	Depends on Reverb Type	O	O		O					●				O	O	O
		0C	1	00-7F	REVERB RETURN	-∞dB...0dB...+6dB (0...64...127)	40	O	O		O					●				O	O	O
		0D	1	01-7F	REVERB PAN	L63...C...R63	40	O	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	O
		11	1	00-7F	REVERB PARAMETER 12	〃	Depends on Reverb Type	O	O		O					●				O	O	O
		12	1	00-7F	REVERB PARAMETER 13	〃	Depends on Reverb Type	O	O		O					●				O	O	O
		13	1	00-7F	REVERB PARAMETER 14	〃	Depends on Reverb Type	O	O		O					●				O	O	O
		14	1	00-7F	REVERB PARAMETER 15	〃	Depends on Reverb Type	O	O		O					●				O	O	O
		15	1	00-7F	REVERB PARAMETER 16	〃	Depends on Reverb Type	O	O		O					●				O	O	O

TOTAL SIZE 06

●: Transmitted via panel operations O: Available

[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	Mic/ Vocal Harmony	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	20	2	00-7F 00-7F	CHORUS TYPE MSB CHORUS TYPE LSB	Refer to Effect Parameter List	41 (=CHORUS1) 00	O	O		O					●				O	O	O
		22	1	00-7F	CHORUS PARAMETER 1	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		23	1	00-7F	CHORUS PARAMETER 2	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		24	1	00-7F	CHORUS PARAMETER 3	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		25	1	00-7F	CHORUS PARAMETER 4	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		26	1	00-7F	CHORUS PARAMETER 5	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		27	1	00-7F	CHORUS PARAMETER 6	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		28	1	00-7F	CHORUS PARAMETER 7	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		29	1	00-7F	CHORUS PARAMETER 8	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		2A	1	00-7F	CHORUS PARAMETER 9	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		2B	1	00-7F	CHORUS PARAMETER 10	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		2C	1	00-7F	CHORUS RETURN	-∞dB...0dB...+6dB (0...64...127)	40	O	O		O					●				O	O	O
		2D	1	01-7F	CHORUS PAN	L63...C...R63	40	O	O		O					O				O	O	X
		2E	1	00-7F	SEND CHORUS TO REVERB	-∞dB...0dB...+6dB (0...64...127)	00	O	O		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	O	O
		31	1	00-7F	CHORUS PARAMETER 12	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		32	1	00-7F	CHORUS PARAMETER 13	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		33	1	00-7F	CHORUS PARAMETER 14	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		34	1	00-7F	CHORUS PARAMETER 15	〃	Depends on Chorus Type	O	O		O					●				O	O	O
		35	1	00-7F	CHORUS PARAMETER 16	〃	Depends on Chorus Type	O	O		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	Mic/ Vocal Harmony	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	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	O	O
		42	2	00-7F 00-7F	VARIATION PARAMETER 1 MSB VARIATION PARAMETER 1 LSB	〃	Depends on Variation Type	O	O		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	O	O
		46	2	00-7F 00-7F	VARIATION PARAMETER 3 MSB VARIATION PARAMETER 3 LSB	〃	Depends on Variation Type	O	O		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	O	O
		4A	2	00-7F 00-7F	VARIATION PARAMETER 5 MSB VARIATION PARAMETER 5 LSB	〃	Depends on Variation Type	O	O		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	O	O
		4E	2	00-7F 00-7F	VARIATION PARAMETER 7 MSB VARIATION PARAMETER 7 LSB	〃	Depends on Variation Type	O	O		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	O	O
		52	2	00-7F 00-7F	VARIATION PARAMETER 9 MSB VARIATION PARAMETER 9 LSB	〃	Depends on Variation Type	O	O		O					●				O	O	O

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	Mic/ Vocal Harmony	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
		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	O	O
		56	1	00-7F	VARIATION RETURN	-∞dB...0dB...+6dB (0...64...127)	40	O	O			O					●			O	O	O
		57	1	01-7F	VARIATION PAN	L63...C...R63	40	O	O			O					O			O	O	X
		58	1	00-7F	SEND VARIATION TO REVERB	-∞dB...0dB...+6dB (0...64...127)	00	O	O			O					O			O	O	X
		59	1	00-7F	SEND VARIATION TO CHORUS	-∞dB...0dB...+6dB (0...64...127)	00	O	O			O					O			O	O	X
		5A	1	00-01	VARIATION CONNECTION	INSERTION, SYSTEM	00	O	O			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	O	O
		5C	1	00-7F	MW VARIATION CONTROL DEPTH	-64...0...+63	40	O	O			O					O			O	O	X
		5D	1	00-7F	BEND VARIATION CONTROL DEPTH	-64...0...+63	40	O	O			O					O			O	O	X
		5E	1	00-7F	CAT VARIATION CONTROL DEPTH	-64...0...+63	40	O	O			O					O			O	O	X
		5F	1	00-7F	AC1 VARIATION CONTROL DEPTH	-64...0...+63	40	O	O			O					O			O	O	X
		60	1	00-7F	AC2 VARIATION CONTROL DEPTH	-64...0...+63	40	O	O			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	O	O
		71	1	00-7F	VARIATION PARAMETER 12	〃	Depends on Variation Type	O	O			O					●			O	O	O
		72	1	00-7F	VARIATION PARAMETER 13	〃	Depends on Variation Type	O	O			O					●			O	O	O
		73	1	00-7F	VARIATION PARAMETER 14	〃	Depends on Variation Type	O	O			O					●			O	O	O
		74	1	00-7F	VARIATION PARAMETER 15	〃	Depends on Variation Type	O	O			O					●			O	O	O
		75	1	00-7F	VARIATION PARAMETER 16	〃	Depends on Variation Type	O	O			O					●			O	O	O

TOTAL SIZE 06

●: Transmitted via panel operations. O: Available

MIDI Parameter Change table (MULTI EQ)

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	Mic/ Vocal Harmony	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.	O	O			O					O			O	X	X
		01	1	34-4C	EQ GAIN1	-12...0...+12[dB]		O	O			O					●			O	X	X
		02	1	04-28	EQ FREQUENCY1	32...2.0k[Hz]		O	O			O					●			O	X	X
		03	1	01-78	EQ Q1	0.1...12.0		O	O			O					●			O	X	X
		04	1	00-01	EQ SHAPE1	shelving, peaking		O	O			O					O			O	X	X
		05	1	34-4C	EQ GAIN2	-12...0...+12[dB]		O	O			O					●			O	X	X
		06	1	0E-36	EQ FREQUENCY2	100...10.0k[Hz]		O	O			O					●			O	X	X
		07	1	01-78	EQ Q2	0.1...12.0		O	O			O					●			O	X	X
		08	1		NOT USED			-	-			-					-			-	-	-
		09	1	34-4C	EQ GAIN3	-12...0...+12[dB]		O	O			O					●			O	X	X
		0A	1	0E-36	EQ FREQUENCY3	100...10.0k[Hz]		O	O			O					●			O	X	X
		0B	1	01-78	EQ Q3	0.1...12.0		O	O			O					●			O	X	X
		0C	1		NOT USED			-	-			-					-			-	-	-
		0D	1	34-4C	EQ GAIN4	-12...0...+12[dB]		O	O			O					●			O	X	X
		0E	1	0E-36	EQ FREQUENCY4	100...10.0k[Hz]		O	O			O					●			O	X	X
		0F	1	01-78	EQ Q4	0.1...12.0		O	O			O					●			O	X	X
		10	1		NOT USED			-	-			-					-			-	-	-
		11	1	34-4C	EQ GAIN5	-12...0...+12[dB]		O	O			O					●			O	X	X
		12	1	1C-3A	EQ FREQUENCY5	0.5k...16.0k[Hz]		O	O			O					●			O	X	X
		13	1	01-78	EQ Q5	0.1...12.0		O	O			O					●			O	X	X
		14	1	00-01	EQ SHAPE5	shelving, peaking		O	O			O					O			O	X	X

TOTAL SIZE 15

●: Transmitted via panel operations. O: Available

MIDI Parameter Change table (EFFECT2)

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	Mic/ Vocal Harmony	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	O
		02	1	00-7F	INSERTION EFFECT PARAMETER 1	〃		O	O			O					●			O	O	O
		03	1	00-7F	INSERTION EFFECT PARAMETER 2	〃		O	O			O					●			O	O	O
		04	1	00-7F	INSERTION EFFECT PARAMETER 3	〃		O	O			O					●			O	O	O
		05	1	00-7F	INSERTION EFFECT PARAMETER 4	〃		O	O			O					●			O	O	O
		06	1	00-7F	INSERTION EFFECT PARAMETER 5	〃		O	O			O					●			O	O	O
		07	1	00-7F	INSERTION EFFECT PARAMETER 6	〃		O	O			O					●			O	O	O
		08	1	00-7F	INSERTION EFFECT PARAMETER 7	〃		O	O			O					●			O	O	O
		09	1	00-7F	INSERTION EFFECT PARAMETER 8	〃		O	O			O					●			O	O	O
		0A	1	00-7F	INSERTION EFFECT PARAMETER 9	〃		O	O			O					●			O	O	O
		0B	1	00-7F	INSERTION EFFECT PARAMETER 10	〃		O	O			O					●			O	O	O

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	Mic/ Vocal Harmony	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
		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	O
		0D	1	00-7F	MW INSERTION CONTROL DEPTH	-64...0...+63		O	O	O					O					O	O	X
		0E	1	00-7F	BEND INSERTION CONTROL DEPTH	-64...0...+63		O	O	O					O					O	O	X
		0F	1	00-7F	CAT INSERTION CONTROL DEPTH	-64...0...+63		O	O	O					O					O	O	X
		10	1	00-7F	AC1 INSERTION CONTROL DEPTH	-64...0...+63		O	O	O					O					O	O	X
		11	1	00-7F	AC2 INSERTION CONTROL DEPTH	-64...0...+63		O	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	O
		21	1	00-7F	INSERTION EFFECT PARAMETER 12	〃		O	O	O					●					O	O	O
		22	1	00-7F	INSERTION EFFECT PARAMETER 13	〃		O	O	O					●					O	O	O
		23	1	00-7F	INSERTION EFFECT PARAMETER 14	〃		O	O	O					●					O	O	O
		24	1	00-7F	INSERTION EFFECT PARAMETER 15	〃		O	O	O					●					O	O	O
		25	1	00-7F	INSERTION EFFECT PARAMETER 16	〃		O	O	O					●					O	O	O
TOTAL SIZE 6																						
		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	O
		32	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 2 MSB INSERTION EFFECT PARAMETER 2 LSB	〃		O	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	O
		36	2	00-7F	INSERTION EFFECT PARAMETER 4 MSB INSERTION EFFECT PARAMETER 4 LSB	〃		O	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	O
		3A	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 6 MSB INSERTION EFFECT PARAMETER 6 LSB	〃		O	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	O
		3E	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 8 MSB INSERTION EFFECT PARAMETER 8 LSB	〃		O	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	O
		42	2	00-7F 00-7F	INSERTION EFFECT PARAMETER 10 MSB INSERTION EFFECT PARAMETER 10 LSB	〃		O	O	O					●					O	O	O

TOTAL SIZE 14

●: Transmitted via panel operations O: Available

The second byte of the address is considered as an Insertion effect number
n: insertion effect number

PSR-1500	n = 0~2
PSR-3000	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 Address 02-0B will always be transmitted. But, effects that require MSB, when the bulk dump is received the Parameters for Address 02-0B will not be received.

MIDI Parameter Change table (SPECIAL EFFECT)

PSR-1500	X
PSR-3000	O

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	Mic/ Vocal Harmony	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
04	00	00	2	00-7F 00-7F	INSERTION EFFECT TYPE MSB INSERTION EFFECT TYPE LSB	Vocoder (89), Chordal (90), Detune (91), Chromatic (92), Thru (0...88, 93...127)	*The SPECIAL EFFECT Parameter cannot be reset to its factory setting with XG SYSTEM ON	X	O			O					●				O	O	X
		02	1	00-7F	INSERTION EFFECT PARAMETER 1 Harmony Mode			X	O			O					●				O	O	X
		03	1	00-7F	INSERTION EFFECT PARAMETER 2 Harmony Gender Type	Off (0), Auto (1)		X	O			O					●				O	O	X
		04	1	00-7F	INSERTION EFFECT PARAMETER 3 Lead Gender Type	Off (0), Unison (1), Male (2), Female (3)		X	O			O					●				O	O	X
		05	1	00-7F	INSERTION EFFECT PARAMETER 4 Lead Gender Depth	-64...0...+63 (0...127)		X	O			O					●				O	O	X
		06	1	00-7F	INSERTION EFFECT PARAMETER 5 Lead Pitch Correction	Free (0), Correct (1)		X	O			O					●				O	O	X
		07	1	00-7F	INSERTION EFFECT PARAMETER 6 Auto Upper Gender Threshold	0...12 (0...12)		X	O			O					●				O	O	X
		08	1	00-7F	INSERTION EFFECT PARAMETER 7 Auto Lower Gender Threshold	0...12 (0...12)		X	O			O					●				O	O	X
		09	1	00-7F	INSERTION EFFECT PARAMETER 8 Upper Gender Depth	-64...0...+63 (0...127)		X	O			O					●				O	O	X
		0A	1	00-7F	INSERTION EFFECT PARAMETER 9 Lower Gender Depth	-64...0...+63 (0...127)		X	O			O					●				O	O	X
		0B	1	00-7F	INSERTION EFFECT PARAMETER 10	L63>H...L=H...L<H63 (1...64...127)		X	O			O					●				O	O	X
		0C	1	00-7F	INSERTION EFFECT PART NUMBER	AD(64), OFF (0...63, 65...127)		X	O			O					●				O	O	O
		0D	1	00-7F	MW INSERTION CONTROL DEPTH	-64...0...+63		X	X			X					X				X	X	X
		0E	1	00-7F	BEND INSERTION CONTROL DEPTH	-64...0...+63		X	X			X					X				X	X	X
		0F	1	00-7F	CAT INSERTION CONTROL DEPTH	-64...0...+63		X	X			X					X				X	X	X
		10	1	00-7F	AC1 INSERTION CONTROL DEPTH	-64...0...+63		X	X			X					X				X	X	X
		11	1	00-7F	AC2 INSERTION CONTROL DEPTH	-64...0...+63		X	X			X					X				X	X	X

TOTAL SIZE 12

		14	1	00-7F	UNIQUE INSERTION EFFECT EXTERNAL CONTROL CH1 (HARMONY CHANNEL)	1...16 (0...15), OFF (127)		X	O			O					●				O	O	X
		15	1	00-7F	UNIQUE INSERTION EFFECT EXTERNAL CONTROL CH1 (MELODY CHANNEL)	1...16 (0...15), OFF (127)		X	O			O					O				O	O	X

TOTAL SIZE 2

		20	1	00-7F	INSERTION EFFECT PARAMETER 11 Vibrato Depth	0...100cent (0...127)		X	O			O					●				O	O	X
		21	1	00-7F	INSERTION EFFECT PARAMETER 12 Vibrato Rate	0Hz (0), 0.1...12.7Hz (1...127)		X	O			O					●				O	O	X
		22	1	00-7F	INSERTION EFFECT PARAMETER 13 Vibrato Delay	0...2.54sec (0...127)		X	O			O					●				O	O	X
		23	1	00-7F	INSERTION EFFECT PARAMETER 14			X	X			X					X				X	X	X
		24	1	00-7F	INSERTION EFFECT PARAMETER 15			X	X			X					X				X	X	X
		25	1	00-7F	INSERTION EFFECT PARAMETER 16			X	X			X					X				X	X	X

TOTAL SIZE 6

●: Transmitted via panel operations O: Available

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	Mic/ Vocal Harmony	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	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		02	1	00-7F	BANK SELECT LSB	0...127	00	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		03	1	00-7F	PROGRAM NUMBER	1...128	00	O	X	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	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		05	1	00-01	MONO/POLY MODE	MONO, POLY	01	O	X	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	X	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	X	O	X	X	X	X	●	X	●	●	X	O	X	O
		08	1	28-58	NOTE SHIFT	-24...0...+24[semitones]	40	O	X	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	X	O	O	X	O	O	X	X	X	O	X	O	X	X
		0B	1	00-7F	VOLUME	0...127	64	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		0C	1	00-7F	VELOCITY SENSE DEPTH	0...127	40	O	X	O	O	X	X	O	●	O	X	O	X	O	O	O
		0D	1	00-7F	VELOCITY SENSE OFFSET	0...127	40	O	X	O	O	X	X	O	●	O	X	O	X	O	O	O
		0E	1	00-7F	PAN	RND, L63...C...R63	40	O	X	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	X	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	X	O	X	X	X	X	X	X	X	O	X	O	X	X
		11	1	00-7F	DRY LEVEL	0...127	7F	O	X	O	O	X	O	O	X	O	●	●	X	O	O	O
		12	1	00-7F	CHORUS SEND	0...127	00	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		13	1	00-7F	REVERB SEND	0...127	28	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		14	1	00-7F	VARIATION SEND	0...127	00	O	X	O	O	X	O	O	X	X	X	O	X	O	O	O
		15	1	00-7F	VIBRATO RATE	-64...0...+63	40	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		16	1	00-7F	VIBRATO DEPTH	-64...0...+63	40	O	X	O	O	X	O	O	X	X	X	O	X	O	O	X
		17	1	00-7F	VIBRATO DELAY	-64...0...+63	40	O	X	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	X	O	O	X	O	O	X	X	X	O	X	O	O	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	Mic/ Vocal Harmony	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
	19	1	00-7F	FILTER RESONANCE	-64...0...+63	40	O	X	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	X	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	X	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	X	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	X	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	X	O	O	X	X	O	●	O	X	O	X	O	O	O
	1F	1	00-7F	MW AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	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	X	O	O	X	X	O	●	O	X	O	X	O	O	O
	21	1	00-7F	MW LFO FMOD DEPTH	0...127	00	O	X	O	O	X	X	O	●	O	X	O	X	O	O	O
	22	1	00-7F	MW LFO AMOD DEPTH	0...127	00	O	X	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	X	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	X	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	X	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	X	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	X	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	X	O	O	X	O	O	X	X	X	O	X	O	X	X

TOTAL SIZE 29

[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	Mic/ Vocal Harmony	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
	30	1	00-01	Rcv PITCH BEND	OFF, ON	01	O	X	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	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	32	1	00-01	Rcv PROGRAM CHANGE	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	33	1	00-01	Rcv CONTROL CHANGE	OFF, ON	01	O	X	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	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	35	1	00-01	Rcv NOTE MESSAGE	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	36	1	00-01	Rcv RPN	OFF, ON	01	O	X	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	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	38	1	00-01	Rcv MODULATION	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	39	1	00-01	Rcv VOLUME	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	3A	1	00-01	Rcv PAN	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	3B	1	00-01	Rcv EXPRESSION	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	3C	1	00-01	Rcv HOLD1	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	3D	1	00-01	Rcv PORTAMENTO	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	3E	1	00-01	Rcv SOSTENUTO	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	3F	1	00-01	Rcv SOFT PEDAL	OFF, ON	01	O	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	40	1	00-01	Rcv BANK SELECT	OFF, ON	01	O	X	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	X	O	O	X	O	O	●	X	●	O	X	O	O	O
	42	1	00-7F	SCALE TUNING C#	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
	43	1	00-7F	SCALE TUNING D	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
	44	1	00-7F	SCALE TUNING D#	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
	45	1	00-7F	SCALE TUNING E	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
	46	1	00-7F	SCALE TUNING F	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
	47	1	00-7F	SCALE TUNING F#	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
	48	1	00-7F	SCALE TUNING G	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
	49	1	00-7F	SCALE TUNING G#	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
	4A	1	00-7F	SCALE TUNING A	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
	4B	1	00-7F	SCALE TUNING A#	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
	4C	1	00-7F	SCALE TUNING B	-64...0...+63[cent]	40	O	X	O	O	X	O	O	●	X	●	O	X	O	O	O
	4D	1	28-58	CAT PITCH CONTROL	-24...0...+24[semitones]	40	O	X	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	X	O	O	X	X	O	X	O	X	O	X	O	O	O
	4F	1	00-7F	CAT AMPLITUDE CONTROL	-100...0...+100[%]	40	O	X	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	X	O	O	X	X	O	X	O	X	O	X	O	O	O
	51	1	00-7F	CAT LFO FMOD DEPTH	0...127	00	O	X	O	O	X	X	O	X	O	X	O	X	O	O	O
	52	1	00-7F	CAT LFO AMOD DEPTH	0...127	00	O	X	O	O	X	X	O	X	O	X	O	X	O	O	O
	53	1	28-58	PAT PITCH CONTROL	-24...0...+24[semitones]	40	O	X	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	X	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	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	56	1	00-7F	PAT LFO PMOD DEPTH	0...127	00	O	X	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	X	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	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	59	1	00-5F	AC1 CONTROLLER NUMBER	0...95	10	O	X	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	X	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	X	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	X	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	X	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	X	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	X	O	X	X	X	X	X	X	X	O	X	O	X	X
	60	1	00-5F	AC2 CONTROLLER NUMBER	0...95	11	O	X	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	X	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	X	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	X	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	X	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	X	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	X	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)	X	O	O	X	X	O	X	X	X	O	X	O	O	X
	68	1	00-7F	PORTAMENTO TIME	0...127	00	O	X	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	X	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	X	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	X	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	X	O	O	X	X	O	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	Mic/ Vocal Harmony	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
		6D	1	01-7F	VELOCITY LIMIT LOW	1...127	01	O	X	O	O	X	X	O	X	X	X	O	X	O	X	X
		6E	1	01-7F	VELOCITY LIMIT HIGH	1...127	7F	O	X	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	X	O	O	X	O	O	●	●	●	●	X	O	O	O
		73	1	00-7F	EQ TREBLE GAIN	-12dB...+12dB	40	O	X	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	X	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	X	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 O: Available

[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	Mic/ Vocal Harmony	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	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	O
		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 O: Available

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 (A/D PART)

PSR-1500	X
PSR-3000	O

[MIDI] [Song Creator]

Address (H)			Size (H)	Data (H)	Parameter	Description		Voice		MIDI Reception					MIDI Transmission					PLAY		REC
								Regular/ Drum/ Natural/ Organ Voice	Mic/ Vocal Harmony	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	REW	From panel (Right1/ Right2/ Left)
10	0n	00	1	00-01	INPUT GAIN	MIC, LINE	*The A/D PART parameter cannot be reset to its factory setting with XG System On.	X	X	X					X					X	X	X
		01	1	00-7F	BANK SELECT MSB	0...127		X	X	X					X					X	X	X
		02	1	00-7F	BANK SELECT LSB	0...127		X	X	X					X					X	X	X
		03	1	00-7F	PROGRAM NUMBER	1...128		X	X	X					X					X	X	X
		04	1	00-0F, 7F	Rcv CHANNEL	1...16, OFF		X	O	O					O					O	X	X
		05	1		NOT USED			-	-	-					-					-	-	-
		06	1		NOT USED			-	-	-					-					-	-	-
		07	1		NOT USED			-	-	-					-					-	-	-
		08	1		NOT USED			-	-	-					-					-	-	-
		09	1		NOT USED			-	-	-					-					-	-	-
		0A	1		NOT USED			-	-	-					-					-	-	-
		0B	1	00-7F	VOLUME	0...127		X	O	O					●					O	X	X
		0C	1		NOT USED			-	-	-					-					-	-	-
		0D	1		NOT USED			-	-	-					-					-	-	-
		0E	1	01-7F	PAN	L63...C...R63		X	O	O					●					O	X	X
		0F	1		NOT USED			-	-	-					-					-	-	-
		10	1		NOT USED			-	-	-					-					-	-	-
		11	1	00-7F	DRY LEVEL	0...127		X	O	O					●					O	X	X
		12	1	00-7F	CHORUS SEND	0...127		X	O	O					●					O	X	X
		13	1	00-7F	REVERB SEND	0...127		X	O	O					●					O	X	X
		14	1	00-7F	VARIATION SEND	0...127		X	O	O					●					O	X	X

TOTAL SIZE 15

n: A/D Part Number (0)

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	Mic/ Vocal Harmony	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower	PLAY	From panel (Right1/ Right2/ Left)
3n	rr	00	1	00-7F	PITCH COARSE	-64...0...+63	40	O (Drum only)	X	O (Available only for song parts)					O					O	X	X
		01	1	00-7F	PITCH FINE	-64...0...+63[cent]	40	O (Drum only)	X	O (Available only for song parts)					O					O	X	X
		02	1	00-7F	LEVEL	0...127	Depends on the note	O (Drum only)	X	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)	X	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)	X	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)	X	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)	X	O (Available only for song parts)					O					O	X	X
		07	1	00-7F	VARIATION SEND	0...127	7F	O (Drum only)	X	O (Available only for song parts)					O					O	X	X
		08	1	00-01	KEY ASSIGN	SINGLE, MULTI	00	O (Drum only)	X	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)	X	O (Available only for song parts)					O					O	X	X
		0A	1	00-01	Rcv NOTE ON	OFF, ON	01	O (Drum only)	X	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)	X	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)	X	O (Available only for song parts)					O					O	X	X
		0D	1	00-7F	EG ATTACK RATE	-64...0...+63	40	O (Drum only)	X	O (Available only for song parts)					O					O	X	X
		0E	1	00-7F	EG DECAY1 RATE	-64...0...+63	40	O (Drum only)	X	O (Available only for song parts)					O					O	X	X
		0F	1	00-7F	EG DECAY2 RATE	-64...0...+63	40	O (Drum only)	X	O (Available only for song parts)					O					O	X	X

TOTAL SIZE 10

		20	1	00-7F	EQ BASS GAIN	-12...+12[dB]	40	X	X	X					X					X	X	X
		21	1	00-7F	EQ TREBLE GAIN	-12...+12[dB]	40	X	X	X					X					X	X	X
		22	1		NOT USED		-	-	-	-					-					-	-	-
		23	1		NOT USED		-	-	-	-					-					-	-	-
		24	1	04-28	EQ BASS FREQUENCY	32...2.0k[Hz]	0C	X	X	X					X					X	X	X
		25	1	1C-3A	EQ TREBLE FREQUENCY	500...16.0k[Hz]	36	X	X	X					X					X	X	X
		26	1		NOT USED		-	-	-	-					-					-	-	-
		27	1		NOT USED		-	-	-	-					-					-	-	-
		28	1		NOT USED		-	-	-	-					-					-	-	-
		29	1		NOT USED		-	-	-	-					-					-	-	-
		2A	1		NOT USED		-	-	-	-					-					-	-	-
		2B	1		NOT USED		-	-	-	-					-					-	-	-
		2C	1		NOT USED		-	-	-	-					-					-	-	-
		2D	1		NOT USED		-	-	-	-					-					-	-	-

TOTAL SIZE 0E

n: Drum Setup Number (0-1)
rr: note number (0D-5B)

In the following cases, the instrument will initialize all Drum Setups.
- XG SYSTEM ON received
- GM SYSTEM ON received
- GM LEVEL2 SYSTEM ON received
- DRUM SETUP RESET received (only when in XG mode)

[Note]
When a part to which a Drum Setup is assigned receives a program change, the assigned Drum Setup will be initialized.
If the same Drum Setup is assigned to two or more parts, changes in Drum Setup parameters (including program changes) will apply to all parts to which it is assigned.

System Exclusive Messages (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	Mic/ Vocal Harmony	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 0ssssssss SS = Volume LSB 0ttttttt TT = Volume MSB 11110111 F7 = End of Exclusive	O	X	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 0ssssssss SS = Fine Tuning LSB 0ttttttt TT = Fine Tuning MSB 11110111 F7 = End of Exclusive	O	X	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	X	O (Available for extra parts of a song)					O					O	X	X
Reverb Parameter [GM2]	F0 7F XN 04 05 01 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	O	X
Chorus Parameter [GM2]	F0 7F XN 04 05 01 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	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	X	O	X	X	X	X	X	X	X	O	X	X	O	X	X

MIDI Event	Data Format	Voice		MIDI Reception					MIDI Transmission					PLAY		REC
		Regular/ Drum/ Natural/ Organ Voice	Mic/ Vocal Harmony	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	X	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)	X	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	Mic/ Vocal Harmony	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	X			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	Mic/Vocal Harmony	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	Mic/Vocal Harmony	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	Mic/Vocal Harmony	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)	X	O	O	X	X	O	●	X	X	O	X

●: Transmitted via panel operations

System Exclusive Messages (Special Operators)

[MIDI]

MIDI Event	Data Format	Voice		MIDI Reception					MIDI Transmission				
		Regular/Drum/ Natural/Organ Voice	Mic/Vocal Harmony	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower

System Exclusive Messages Special Operators (Vocal Harmony Additional Parameters)

Vocal Harmony

PSR-1500	X
PSR-3000	O

[MIDI]

MIDI Event	Data Format	Voice		MIDI Reception					MIDI Transmission				
		Regular/Drum/ Natural/Organ Voice	Mic/Vocal Harmony	Song	Right1/ Right2/ Left	Keyboard	Style	Extra	Right1/ Right2/ Left	M.Pad	Style	Song	Upper Lower
Vocal Harmony Pitch to Note ON/OFF	F0 43 73 01 11 0n 50 00 dd F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01110011 73 = Clavinova ID 00000001 01 = Model ID (Clavinova common ID) 00010001 11 = Special Operators 0000nnnn 0n = Channel No. (Always 00) 01010000 50 = Vocal Harmony Additional Parameter Control No. 00000000 00 = Pitch to Note Parameter No. 0ddddddd dd = data (00H: Off, 01H: On) 11110111 F7 = End of Exclusive	X	O			O					●		
Vocal Harmony Pitch to Note Part	F0 43 73 01 11 0n 50 01 dd F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01110011 73 = Clavinova ID 00000001 01 = Model ID (Clavinova common ID) 00010001 11 = Special Operators 0000nnnn 0n = Channel No. (Always 00) 01010000 50 = Vocal Harmony Additional Parameter Control No. 00000001 01 = Pitch to Note Part Parameter No. 0ddddddd dd = data 00H: Right1 01H: Right2 02H: Left 03H: (not used) 04H: Upper 11110111 F7=End of Exclusive	X	O			O					●		
Vocal Harmony Vocoder Part (Harmony Part (Panel))	F0 43 73 01 11 0n 50 10 dd F7 11110000 F0 = Exclusive status 01000011 43 = YAMAHA ID 01110011 73 = Clavinova ID 00000001 01 = Model ID (Clavinova common ID) 00010001 11 = Special Operators 0000nnnn 0n = Channel No. (Always 00) 01010000 50 = Vocal Harmony Additional Parameter Control No. 00010000 10 = Vocoder Part Parameter No. 0ddddddd dd = data 00H: Off 01H: Upper 02H: Lower 11110111 F7 = End of Exclusive	X	O			O					●		

●: Transmitted via panel operations

System Exclusive Messages (Others)

[MIDI]

MIDI Event	Data Format	Voice		MIDI Reception					MIDI Transmission				
		Regular/Drum/ Natural/Organ Voice	Mic/Vocal Harmony	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 0000llll 0l = Master Tune LSB 0ccccccc cc = don't care 11110111 F7 = End of Exclusive	O	O			O					X		

Song System Exclusive Message List / Liste der System-Exclusive-Meldungen der Songs / Liste des messages exclusifs au système demorceaux / Lista de mensajes exclusivos del sistema de canciones

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 04H=Vocal CueTIME (Vocal Cue Time is not available on the PSR-1500.)	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 No.	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 / Liste der Meta-Events der Songs / Liste des métaévénements des morceaux / Lista de meta-eventos de canciones

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 the RIGHT1~3 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 dd 08	Phrase Mark	dd Phrase mark 0hfccccc bit6 (h) 0: Right, 1: Left Right hand/Left Hand bit5 (f) 0: Channel available, 1: Channel not available Flag for whether channel information (bit 4-0) is valid or not Phrases common to all channels assigned to 1 bit4-0 (ccccc) CH (0: 1ch~31: 32ch) Channel information whose phrase mark is available	Used when performing the Phrase Mark repeat playback.
FF 7F 04 43 7B 04 dd	Phrase Max	Max Phrase Number	Used when performing the Phrase Mark repeat playback.
FF 7F 05 43 7B 0C rr ll	Guide Track Flag	Sets the TRACK1 and TRACK2 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-1500 / PSR-3000

PARTS LIST

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KEYBOARD ASSEMBLY 10
PSR-1500 ELECTRICAL PARTS 11-31
PSR-3000 ELECTRICAL PARTS 32-58

Notes : DESTINATION ABBREVIATIONS

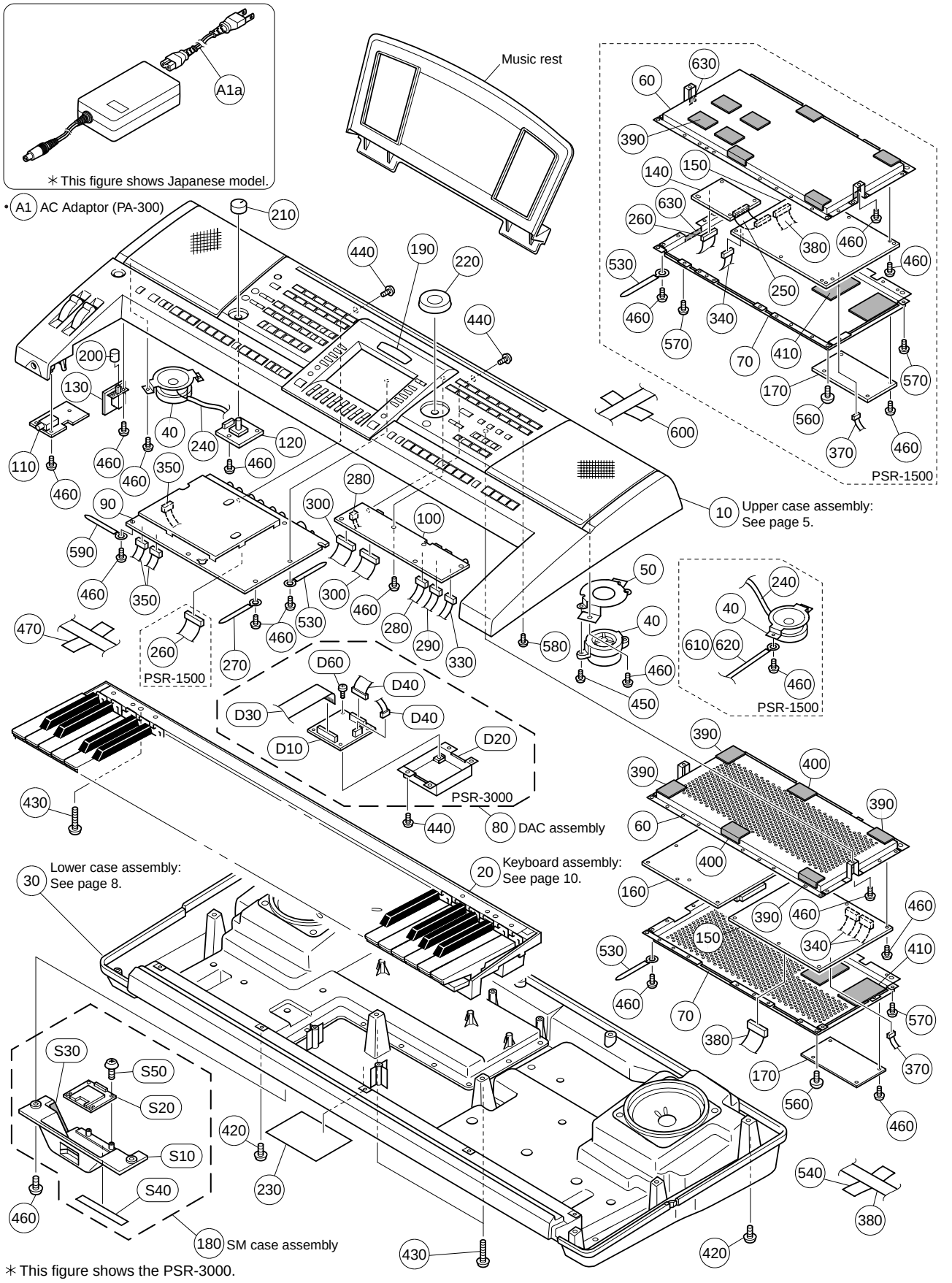
A : Australian model	M : South African model
B : British model	O : Chinese model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W: General export model (220V)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



	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			OVERALL ASSEMBLY			PSR-1500/PSR-3000		
		--	Overall Assembly			PSR-1500 J (WD39740)		
		--	Overall Assembly			PSR-1500 U,C,E,B,N (WB43160)		
		--	Overall Assembly			PSR-3000 J (WD39730)		
		--	Overall Assembly			PSR-3000 U,C,E,B,N (WB43140)		
	10	--	Upper Case Assembly			PSR-1500 (WB43190)		
	10	--	Upper Case Assembly			PSR-3000 (WB43180)		
*	20	**WB914200**	Keyboard Assembly	16M C61-2M-EBUS				
	30	--	Lower Case Assembly			PSR-1500 (WC38460)		
	30	--	Lower Case Assembly			PSR-3000 (WC32300)		
	40	**XV910A00**	Speaker	5.0cm 4ohm		PSR-1500: TWEETER	2	05
	40	**X0215A00**	Speaker	2.0cm 3ohm		PSR-3000: TWEETER	2	08
	50	--	Speaker Holder			PSR-3000 (V748080)	2	
	60	--	Shield Cover U	UPPER		PSR-1500 (WC53720)		
	60	--	Shield Cover U	UPPER		PSR-3000 (WC53710)		
	70	--	Shield Cover L	LOWER		PSR-1500 (WB83360)		
	70	--	Shield Cover L	LOWER		PSR-3000 (WB54010)		
	80	--	DAC Assembly			PSR-3000 (WC55860)		
*	90	**WB826500**	Circuit Board	AM		PSR-1500		
*	90	**WB827100**	Circuit Board	AM		PSR-3000		
*	100	**WB826600**	Circuit Board	DJK		PSR-1500		
*	100	**WB827200**	Circuit Board	DJK		PSR-3000		
*	110	**WB826700**	Circuit Board	HP		PSR-1500		
*	110	**WB827300**	Circuit Board	HP		PSR-3000		
*	120	**WB826800**	Circuit Board	VR		PSR-1500		
*	120	**WB827400**	Circuit Board	VR		PSR-3000		
*	130	**WB826900**	Circuit Board	SW		PSR-1500		
*	130	**WB827500**	Circuit Board	SW		PSR-3000		
*	140	**WC748800**	Circuit Board	DAC1A		PSR-1500		
*	150	**WC022800**	Circuit Board	DM		PSR-1500		
*	150	**WC295600**	Circuit Board	DM2-E		PSR-3000		
*	160	**WB822200**	Circuit Board	TG1		PSR-3000		
*	170	**WB989500**	Circuit Board	INV		PSR-1500		
*	170	**WB989400**	Circuit Board	INV		PSR-3000		
	180	--	SM Case Assembly			(WB82570)		
	190	**V7660600**	Emblem	YAMAHA				01
	200	**V7151200**	Push Knob Black			STANDBY/ON		01
	210	**VU432400**	Knob Black			MASTER VOLUME		01
	220	**V7761500**	Encoder Knob Silver			DATA ENTRY		03
	230	--	Name Plate			PSR-1500 (WC38470)		
	230	--	Name Plate			PSR-3000 (WC32550)		
	240	--	Connector Assembly	TW XH 4P L=800		(V778260)		
*	250	**WB996900**	Cable, FFC	P=1.0-K-26-50		PSR-1500		
*	260	--	Connector Assembly	DAC PH 11P L=400		PSR-1500 (WD60040)		
	260a	**VD947800**	Data Line Filter	ESD-R-25D-B		PSR-1500		05
	260a	**V3122900**	Data Line Filter	K1 NFT-13BK2		PSR-1500		06
	270	--	GND Wire 2	L=70		(WD38290)		
	280	--	Connector Assembly	U-H 5P L=400		PSR-1500 (WD47550)		
	280a	**VD947800**	Data Line Filter	ESD-R-25D-B		PSR-1500		05
	280a	**V3122900**	Data Line Filter	K1 NFT-13BK2		PSR-1500		06
	280	--	Connector Assembly	UH/V 2P/5P/6P		PSR-3000 (WD47730)		
	290	--	Connector Assembly	U-D 6P L=400		(WD47530)		
	290a	**VB933800**	Ferrite Core	BP53RB310190100A				04
	300	--	Connector Assembly	MIDI PH 9P/10P		PSR-1500 (WD60020)		
	300a	**VD947800**	Data Line Filter	ESD-R-25D-B		PSR-1500		05
	300a	**V3122900**	Data Line Filter	K1 NFT-13BK2		PSR-1500		06
	300	--	Connector Assembly	M/P PH 9P/10P		PSR-3000 (WD37910)		
	300a	**VD947800**	Data Line Filter	ESD-R-25D-B		PSR-3000		05
	300a	**V3122900**	Data Line Filter	K1 NFT-13BK2		PSR-3000		06
*	330	**WD600000**	Connector Assembly	EPNCNT 4P L=400/7P		PSR-1500		
	330a	**VD947800**	Data Line Filter	ESD-R-25D-B		PSR-1500		05
	330a	**V3122900**	Data Line Filter	K1 NFT-13BK2		PSR-1500		06
*	330	**WD378500**	Connector Assembly	CONTR PH 4P L=180		PSR-3000		
*	340	**WD600300**	Connector Assembly	EMK PH 7P L=450		PSR-1500		
	340a	**VB933800**	Ferrite Core	BP53RB310190100A		PSR-1500		04
	340	--	Connector Assembly	EBUS2 7P/7P L=1000		PSR-3000 (WD57530)		
	340a	**VD947800**	Data Line Filter	ESD-R-25D-B		PSR-3000		05
	340a	**V3122900**	Data Line Filter	K1 NFT-13BK2		PSR-3000		06

*: New Parts

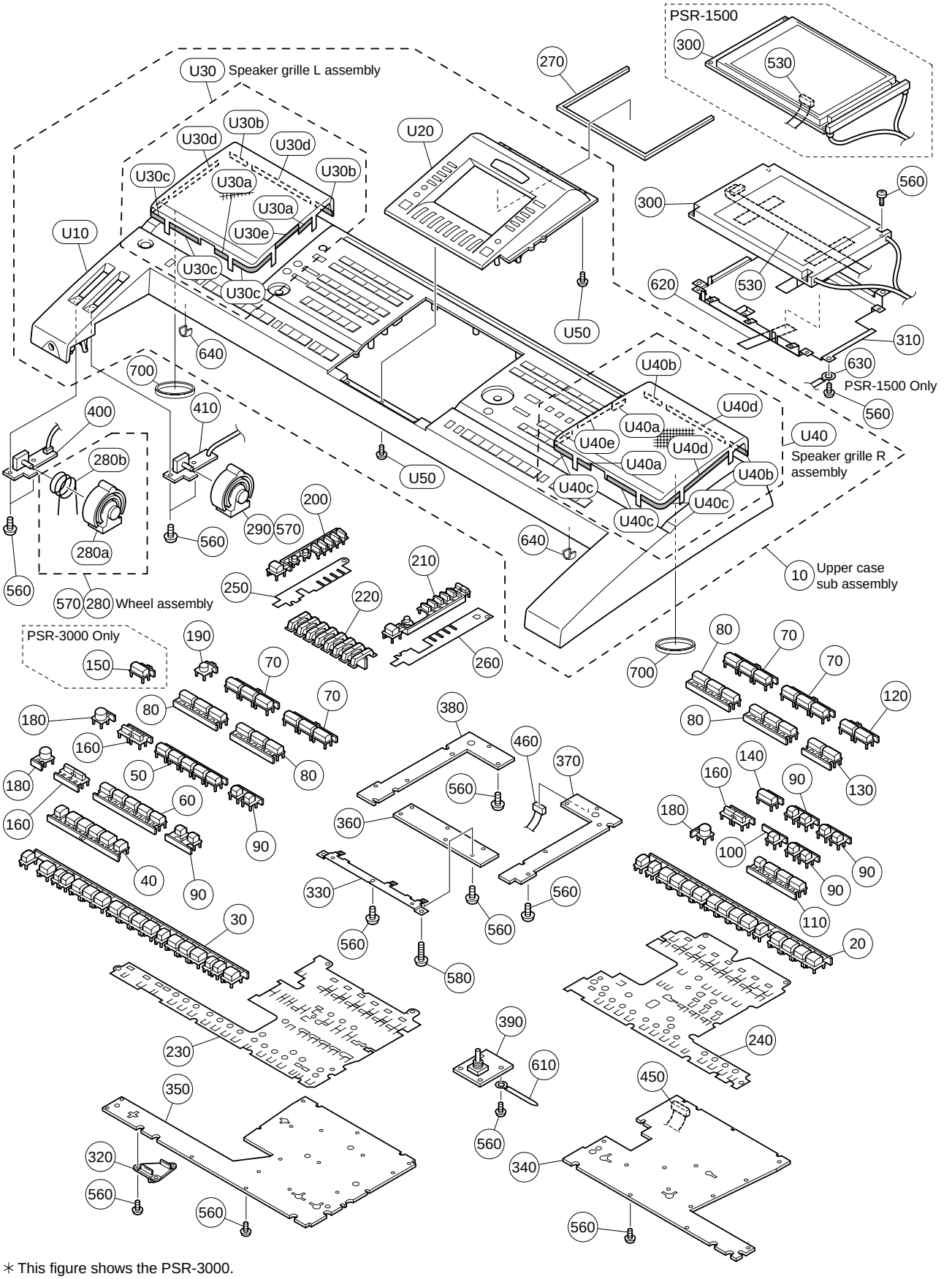
RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
	350	--	Connector Assembly	DC PH 2P/4P XH 4P		PSR-1500	(WD60010)		
	350a	**VD947800**	Data Line Filter	ESD-R-25D-B		PSR-1500			05
	350a	**V3122900**	Data Line Filter	K1 NFT-13BK2		PSR-1500			06
	350	--	Connector Assembly	DC PH 2P/4P XH 4P		PSR-3000	(WD37920)		
	350a	**VB933800**	Ferrite Core	BP53RB310190100A		PSR-3000			04
	370	--	Connector Assembly	INV PH 3P			(WC38090)		
*	380	**WC379800**	Cable, FFC	P=1.0-K-24-450		PSR-1500			
*	380	**WD215600**	Cable, FFC	P=1.0-K-24-500		PSR-3000			
	390	--	Cushion	35X25XT1 PE		PSR-1500	(V776290)	8	
	390	--	Cushion	35X25XT1 PE		PSR-3000	(V776290)	4	
	400	--	Cushion	30X30XT1 PE		PSR-3000	(V741810)	2	
	410	--	Cushion	60X38XT1 PE			(WC32320)	2	
	420	**EP600300**	Bind Head Tapping Screw-P	3.0X12 MFZN2Y				16	01
	430	**VK228100**	Bind Head Tapping Screw-P	3.0X25 MFZN2Y				4	01
	440	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL		PSR-1500		8	01
	440	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL		PSR-3000		13	01
	450	**EG340190**	Bind Head Tapping Screw-B	4.0X8 MFZN2BL		PSR-3000		4	01
	460	**EP600250**	Bind Head Tapping Screw-B	3.0X8 MFZN2Y		PSR-1500		58	01
	460	**EP600250**	Bind Head Tapping Screw-B	3.0X8 MFZN2Y		PSR-3000		60	01
	470	**VA126100**	Adhesive Tape	12X50		PSR-1500		25	03
	470	**VA126100**	Adhesive Tape	12X50		PSR-3000		22	03
	530	**CB040540**	Cord Binder	S-72B L=50				3	01
	540	--	Adhesive Tape	12X90		PSR-3000	(V591240)	2	
	560	**VR138400**	Bind Head Tapping Screw-B	4.0X12 MFZN2BL				3	01
	570	**V2276900**	PW Head Tapping Screw-B	3.0X8-8 MFZN2BL		PSR-1500		3	01
	570	**V2276900**	PW Head Tapping Screw-B	3.0X8-8 MFZN2BL		PSR-3000			01
	580	**VZ894000**	PW Head Tapping Screw-B	3.0X12 MFZN2Y					01
	590	**CB817510**	Cord Binder	S-14B					03
	600	--	Adhesive Tape	12X70		PSR-1500	(VN19540)		
	610	--	GND Wire 3	L=300		PSR-1500	(WD46870)		
	620	--	GND Wire 4	L=380		PSR-1500	(WD46880)		
	630	--	Adhesive Tape	ECT #590S W=15		PSR-1500	(ZL35000)		
		--	DAC Assembly			PSR-3000	(WC55860)		
*	D10	**WC748600**	Circuit Board	DAC1A					
	D20	--	Shield Cover, DAC				(WB83150)		
*	D30	**WD215500**	Cable, FFC	P=1.0-K-26-100					
*	D40	**WD379600**	Connector Assembly	DAC 5P L=250/11P L=270					
	D40a	**VB933800**	Ferrite Core	BP53RB310190100A					04
	D60	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL				4	01
		--	SM Case Assembly				(WB82570)		
*	S10	**WB825400**	SM Case						
*	S20	**WB704300**	Circuit Board	SM					
	S30	--	Vibration-proof Tape	10X40X0.5			(VT85830)	2	
	S40	--	Vibration-proof Tape	7X100X0.5			(VT85820)		
	S50	**EP600250**	Bind Head Tapping Screw-B	3.0X8 MFZN2Y				4	01
			ACCESSORIES						
⚠	A1	**V7656000**	AC Adaptor	PA-300 J		J			16
⚠	A1a	**AAX30950**	AC Cord			J			06
⚠	A1	**V7656100**	AC Adaptor	PA-300 U		U,C			16
⚠	A1a	**AAX30960**	AC Cord			U,C			08
⚠	A1	**V7656200**	AC Adaptor	PA-300 E		E			15
⚠	A1a	**AAX30970**	AC Cord			E			08
⚠	A1	**V7656300**	AC Adaptor	PA-300 B		B			16
⚠	A1a	**AAX30980**	AC Cord			B			09
*		**WC331200**	Music Rest Gray						
		WB874000	FDD	USB-FDD YD-8U10		E,B			19
*		**X4869A00**	CD-ROM	12cm		J			
*		**X4870A00**	CD-ROM	12cm		U,C,E,N			
*		**X5483A00**	Smart Media	K9S2808V0C-SSB0000		J			
*		**X5106A00**	Smart Media	K9S2808V0C-SSB0000		N			

*: New Parts

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UPPER CASE ASSEMBLY



∗ This figure shows the PSR-3000.

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			UPPER CASE ASSEMBLY			PSR-1500/PSR-3000		
		--	Upper Case Assembly			PSR-1500 (WB43190)		
		--	Upper Case Assembly			PSR-3000 (WB43180)		
*	10	**WC385200**	Upper Case Sub Assembly			PSR-1500		
*	10	**WC332100**	Upper Case Sub Assembly			PSR-3000		
*	20	**WC453400**	Panel Button Assembly	x15 BLUE		PSR-1500:		
*	20	**WC451300**	Panel Button Assembly	x15 BLACK		PSR-3000: REGISTRATION MEMORY(BANK, FREEZE,1-8,MEMORY), ONE TOUCH SETTING 1-4		
*	30	**WC453500**	Panel Button Assembly	x18 BLUE		PSR-1500:		
*	30	**WC451400**	Panel Button Assembly	x18 BLACK		PSR-3000: FADE IN/OUT,STYLE CONTROL (ACMP,...,START/STOP)		
*	40	**WC451500**	Panel Button Assembly	x6 SILVER		MULTI PAD CONTROL(SELECT, 1-4,STOP)		
*	50	**WC451600**	Panel Button Assembly	x5 SILVER		SONG(SELECT,...,TRACK 1)		
*	60	**WC451700**	Panel Button Assembly	x5 SILVER		SONG(REC,...,FF)		
*	70	**WC451800**	Panel Button Assembly	x3 SILVER		STYLE((POP & ROCK,BALLAD, DANCE),(SWING & JAZZ,R & B,COUNTRY)),VOICE((PIANO, E.PIANO,STRINGS),(GUITAR & BASS,SAXOPHONE,FLUTE & WOODWIND))	4	
*	80	**WC451900**	Panel Button Assembly	x3 SILVER		STYLE((LATIN,BALLROOM, MOVIE & SHOW),(ENTER-TAINER,WORLD,USER)),VOICE ((TRUMPET,BRASS,ACCORDION & HARMONICA),(CHOIR & PAD, SYNTH.& FX,PERC.& DRUM KIT))	4	
*	90	**WC452000**	Panel Button Assembly	x2 SILVER		SONG((SCORE,KARAOKE), (PERFORMANCE ASSISTANT, GUIDE)),MENU((HELP, FUNCTION),(SOUND CREATOR, DIGITAL RECORDING)),PART SELECT(RIGHT 1,RIGHT 2)	5	
*	100	**WC452100**	Panel Button Assembly	x1 SILVER		PART SELECT(LEFT)		
*	110	**WC452200**	Panel Button Assembly	x4 SILVER		LEFT HOLD,PART ON/OFF (LEFT,RIGHT 1,2)		
*	120	**WC452300**	Panel Button Assembly	x2 SILVER		VOICE(ORGAN,ORGAN FLUTES)		
*	130	**WC452400**	Panel Button Assembly	x2 SILVER		VOICE(USER,VOICE EFFECT)		
*	140	**WC452500**	Panel Button Assembly	x1 SILVER		MUSIC FINDER		
*	150	**WC452600**	Panel Button Assembly	x1 SILVER		PSR-3000: MIC SETTING/VOCAL HARMONY		
*	160	**WC452700**	Panel Button Assembly	x2 SILVER		TRANSPOSE -/+,TEMPO -/+, UPPER OCTAVE -/+	3	
*	180	**WC452900**	Panel Button Assembly	x1 SILVER		METRONOME ON/OFF, TAP TEMPO,ENTER	3	
*	190	**WC453000**	Panel Button Assembly	x1 SILVER		DEMO		
*	200	**WC455300**	Panel Button Assembly	x8 BLUE		PSR-1500:		
*	200	**WC453100**	Panel Button Assembly	x8 BLACK		PSR-3000: BALANCE,CHANNEL ON/OFF, DIRECT ACCESS,LCD Sel.A-E		
*	210	**WC455400**	Panel Button Assembly	x9 BLUE		PSR-1500:		
*	210	**WC453200**	Panel Button Assembly	x9 BLACK		PSR-3000: TAB(L/R),MIXING CONSOLE, EXIT,LCD Sel.F-J		
*	220	**WB802800**	Panel Button	x16 BLACK		1-8(Up/Down)		
	230	--	Vibration-proof Sheet	L1		(WC30150)		
	240	--	Vibration-proof Sheet	L2		(WC30170)		
	250	--	Vibration-proof Sheet	L3		(WC30180)		
	260	--	Vibration-proof Sheet	L4		(WC30190)		
	270	--	Vibration-proof Sheet	3X3X480		(WC30200)		
	280	**VY793100**	Wheel Assembly					04
	280a	**VY750800**	Wheel			PITCH BEND		03
	280b	**VT440100**	Spring					03
	290	**VY750800**	Wheel			MODULATION		03
*	300	**WB912200**	LCD	VG-S322453-1BTFWA		PSR-1500		
*	300	**WB912000**	LCD	MC57T02E		PSR-3000		

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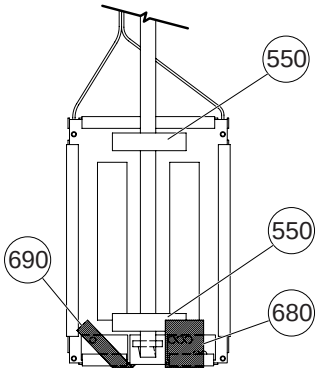
	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	310	--	Holder, LCD			(WC33620)		
*	320	**WB593200**	Support Assembly, Keyboard				4	
	330	--	Panel Stay			(WB83220)		
*	340	**WB855900**	Circuit Board	PNR				
*	350	**WB989100**	Circuit Board	PNL		PSR-1500		
*	350	**WB856600**	Circuit Board	PNL		PSR-3000		
*	360	**WB856100**	Circuit Board	PNCC				
*	370	**WB856900**	Circuit Board	PNCR				
*	380	**WB989300**	Circuit Board	PNCL		PSR-1500		
*	380	**WB857100**	Circuit Board	PNCL		PSR-3000		
*	390	**WB989200**	Circuit Board	ENC		PSR-1500		
*	390	**WB856500**	Circuit Board	ENC		PSR-3000		
*	400	**WB856200**	Circuit Board	PB				
*	410	**WB856300**	Circuit Board	MOD				
*	450	**WD544800**	Connector Assembly	PN8 13P L=110				
*	460	**WD589600**	Connector Assembly	PN9 10P L=240				
*	530	**WD215800**	Cable, FFC	P=1.0-K-14-240		PSR-1500		
*	530	**WD215700**	Cable, FFC	P=0.5-K-20-400		PSR-3000		
	550	**VA126100**	Adhesive Tape	12X50		PSR-3000	2	03
	560	**EP600250**	Bind Head Tapping Screw-B	3.0X8 MFZN2Y			79	01
	570	**TX920280**	Grease	G-31KA 50g		(VE96850)		10
	580	**EP600140**	Bind Head Tapping Screw-B	3.0X10 MFZN2BL			2	01
	610	**CB040540**	Cord Binder	S-72B L=50				01
	620	--	Adhesive Tape	12X90		(V591240)		
	630	--	GND Wire 2	L=70		PSR-1500 (WD38290)		
	640	--	Nonwoven Fabric Cloth			(WD76610)	2	
	650	--	Nonwoven Fabric Cloth			PSR-3000 (WD76620)	2	
	660	--	Nonwoven Fabric Cloth			PSR-3000 (WD76630)		
	670	--	Nonwoven Fabric Cloth			PSR-3000 (WD76640)	2	
	680	--	Cushion	50X26XT1 PE		PSR-3000 (WD80750)		
	690	--	Cushion	60X10XT1 PE		PSR-3000 (WD80760)		
	700	--	Cushion	155X4XT1 PE		PSR-1500 (WD88240)	2	
*		**WC385200**	Upper Case Sub Assembly			PSR-1500		
*		**WC332100**	Upper Case Sub Assembly			PSR-3000		
	U10	--	Upper Case			PSR-1500 (WC38600)		
	U10	--	Upper Case			PSR-3000 (WC33680)		
	U20	--	Center Panel Blue			PSR-1500 (WC38620)		
	U20	--	Center Panel Black			PSR-3000 (WC33690)		
*	U30	**WC337000**	Speaker Grille L Assembly	LEFT				
	U30a	--	Nonwoven Fabric Cloth	25X8X0.5		(WC32190)	2	
	U30b	--	Nonwoven Fabric Cloth	35X8X0.5		(WC32200)	2	
	U30c	--	Nonwoven Fabric Cloth	65X8X0.5		(WC32210)	3	
	U30d	--	Nonwoven Fabric Cloth	95X8X0.5		(WC32220)	2	
	U30e	--	Cushion	70X8XT1 PE		(WD54340)		
*	U40	**WC337100**	Speaker Grille R Assembly	RIGHT				
	U40a	--	Nonwoven Fabric Cloth	25X8X0.5		(WC32190)	2	
	U40b	--	Nonwoven Fabric Cloth	35X8X0.5		(WC32200)	2	
	U40c	--	Nonwoven Fabric Cloth	65X8X0.5		(WC32210)	3	
	U40d	--	Nonwoven Fabric Cloth	95X8X0.5		(WC32220)	2	
	U40e	--	Cushion	70X8XT1 PE		(WD54340)		
	U50	**EP600250**	Bind Head Tapping Screw-B	3.0X8 MFZN2Y			5	01

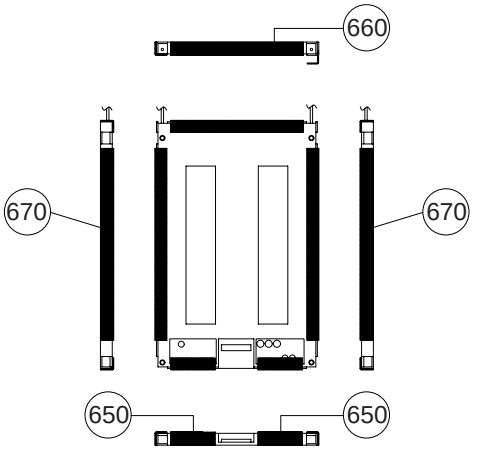
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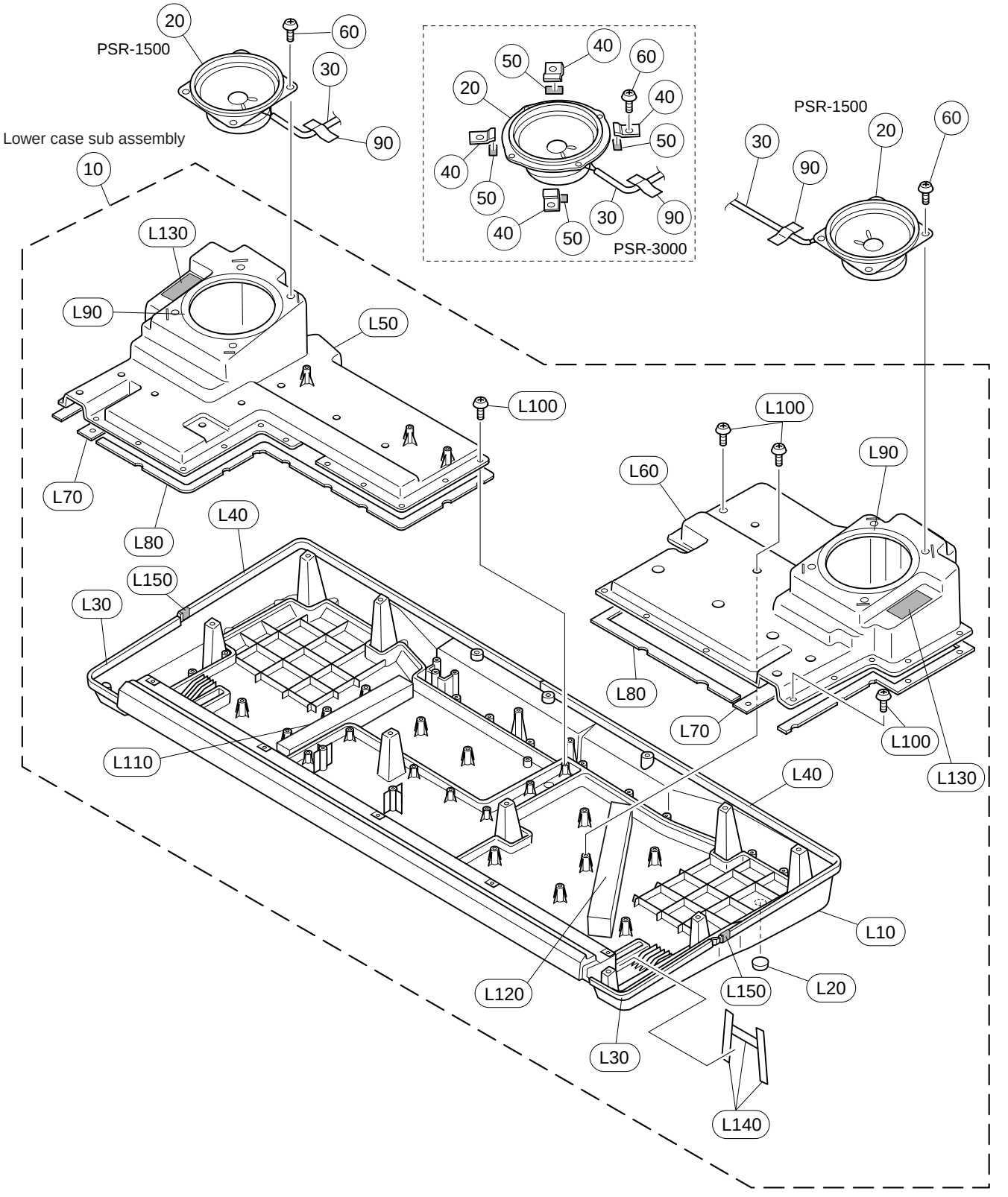
● Detail of LCD assembly (PSR-3000)

<Back side>





LOWER CASE ASSEMBLY

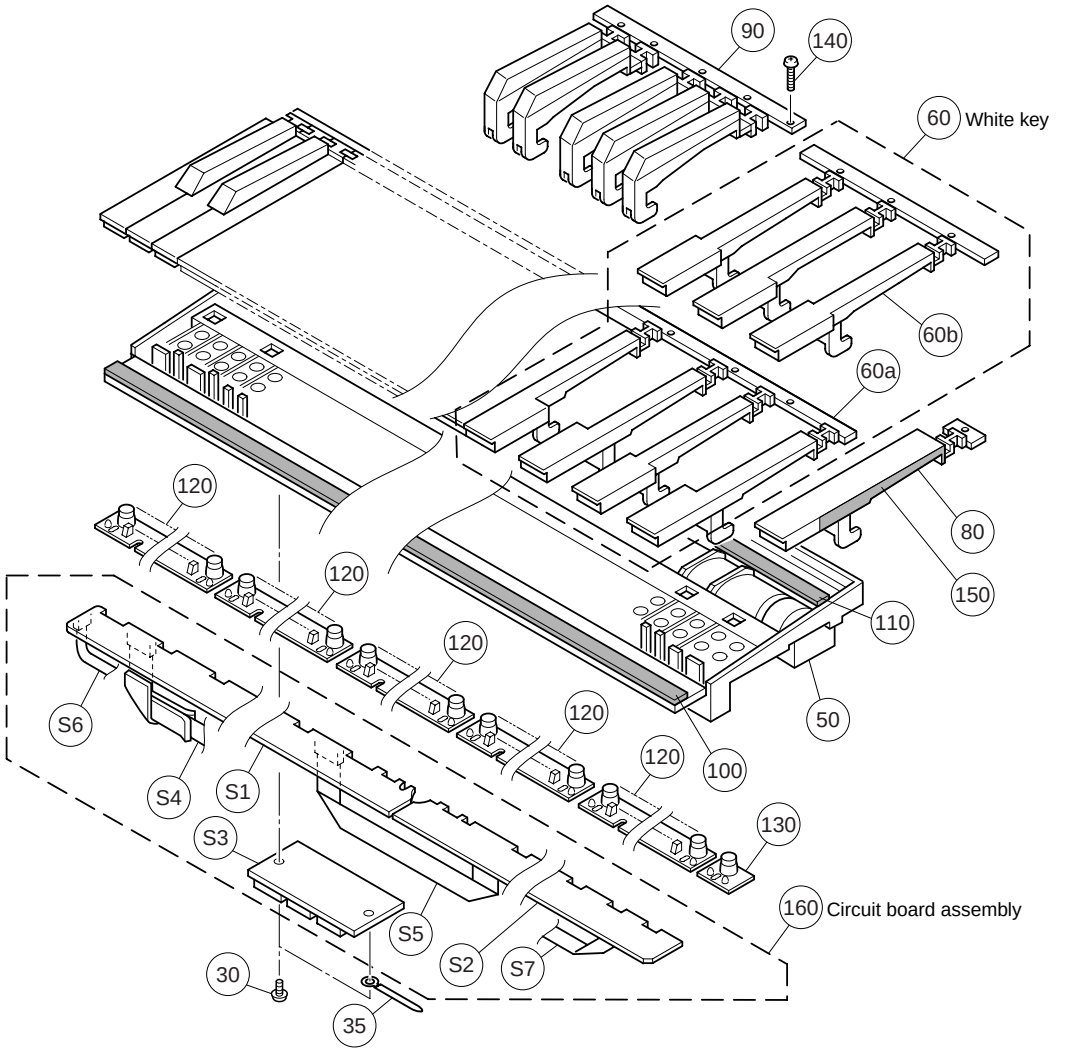


	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			LOWER CASE ASSEMBLY			PSR-1500/PSR-3000		
		--	Lower Case Assembly			PSR-1500 (WC38460)		
		--	Lower Case Assembly			PSR-3000 (WC32300)		
*	10	**WC336600**	Lower Case Sub Assembly					
	20	**XT523A00**	Speaker	12.0cm 4ohm 10W		PSR-1500: WOOFER	2	07
*	20	**X5053B00**	Speaker	12.0cm		PSR-3000: WOOFER	2	
	30	--	Connector Assembly	SP XH 5P L=800		(V778250)		
	40	**V7480700**	Speaker Holder			PSR-3000	8	01
	50	--	Nonwoven Fabric Cloth	16X5X0.5		PSR-3000 (V834600)	8	
	60	**EP640500**	Bind Head Tapping Screw-P	4.0X10 MFZN2Y			8	01
	90	**VA126100**	Adhesive Tape	12X50			7	03
*		**WC336600**	Lower Case Sub Assembly					
	L10	--	Lower Case			(WC33730)		
	L20	**CB043750**	Foot Black	T1.6			5	01
	L30	--	Cushion	210X13XT2 PE		(V462340)	2	
	L40	--	Vibration-proof Tape	13X700 T0.5		(VZ27440)	2	
	L50	--	Speaker Box L	LEFT		(V374980)		
	L60	--	Speaker Box R	RIGHT		(V374990)		
	L70	--	Seal Tape	1 20X70XT1		(VZ08600)	2	
	L80	--	Seal Tape	2 8X1800XT1		(VZ08610)	2	
	L90	--	Seal Tape	SP D(125-110)XT1		(VZ08650)	2	
	L100	**EP640500**	Bind Head Tapping Screw-P	4.0X10 MFZN2Y			53	01
	L110	--	Cushion Felt			(V751260)		
	L120	--	Cushion Felt			(V751270)		
	L130	--	Cushion	50X50XT2 PE		(V766010)	2	
	L140	--	Cushion	43X7XT2 PE		(WC33740)	6	
	L150	--	Cushion	30X10XT1 PE		(WD54330)	2	

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KEYBOARD ASSEMBLY



	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*		**WB914200**	KEYBOARD ASSEMBLY	16M C61-2M-EBUS		PSR-1500/PSR-3000		
	30	**EP630220**	Bind Head Tapping Screw-P	3.0X8 MFZN2BL			2	01
	35	**CB817510**	Cord Binder	S-14B				03
	50	**--**	Frame	C61 16M		(VS15380)		
	50	**VU328600**	Frame	C61 16M				10
	60	**VH1809D0**	White Key	16L CEGBDFA			5	05
	60a	**--**	White Key	16L CEGB		(VH18090)	5	
	60b	**--**	White Key	16L DFA		(VH18100)	5	
	80	**VH181100**	White Key	16L C'				01
	90	**VH181200**	Black Key	16L #			5	03
	100	**VH181300**	Felt					03
	110	**VH181400**	Rubber Sheet					01
	110	**WA525100**	Rubber Sheet					01
	120	**VU328400**	Rubber Contact	16M OCT 2M 12KEYS			5	06
	130	**VU328500**	Rubber Contact	16M C' 2M 1KEY				05
	140	**VB205200**	Bind Head Tapping Screw-P	3.0X16 MFZN2BL			21	01
	140	**VS756700**	Bind Head Tapping Screw-P	3.0X16 MFZN2B			21	01
	150	**TX920280**	Grease	G-31KA 50g		(VE96850)		10
	160	**--**	Circuit Board Assembly	16M C61 P2M EBUS		(WB91430)		
		--	Circuit Board Assembly	16M C61 P2M EBUS		(WB91430)		
	S1	**VU648100**	Circuit Board	MK-L				09
	S2	**VU648200**	Circuit Board	MK-H				09
*	S3	**WB914100**	Circuit Board	EMKSA (E-BUS)				
	S4	**VU958900**	Cable	12P				03
	S5	**VU659500**	Cable	12P				02
	S6	**VU659400**	Cable	7P				02
	S7	**VU659600**	Cable	5P				02

*: New Parts

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PSR-1500 ELECTRICAL PARTS

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			ELECTRICAL PARTS			PSR-1500		
*		**WB826500**	Circuit Board	AM		(WB82640)(X4640C0)		
*		**WB826600**	Circuit Board	DJK		(WB82640)(X4640C0)		
*		**WB826700**	Circuit Board	HP		(WB82640)(X4640C0)		
*		**WB826900**	Circuit Board	SW		(WB82640)(X4640C0)		
*		**WB826800**	Circuit Board	VR		(WB82640)(X4640C0)		
*		**WC748800**	Circuit Board	DAC1A		(WC74870)(X5174B0)		
*		**WC022800**	Circuit Board	DM		(X4405D0)		
*		**WB914100**	Circuit Board	EMKSA (E-BUS)		(WB91400)(X0092D0)		
*		**WB989200**	Circuit Board	ENC		(WB98850)(X4702E0)		
*		**WB989500**	Circuit Board	INV		(WB98850)(X4702E0)		
*		**WB989300**	Circuit Board	PNCL		(WB98850)(X4702E0)		
*		**WB989100**	Circuit Board	PNL		(WB98850)(X4702E0)		
		VU648200	Circuit Board	MK-H		(VU64800)(XR565C0)		09
		VU648100	Circuit Board	MK-L		(VU64790)(XR564C0)		09
*		**WB856300**	Circuit Board	MOD		(WB94790)(X4701E0)		
*		**WB856200**	Circuit Board	PB		(WB94790)(X4701E0)		
*		**WB856100**	Circuit Board	PNCC		(WB94790)(X4701E0)		
*		**WB856900**	Circuit Board	PNCR		(WB94790)(X4701E0)		
*		**WB855900**	Circuit Board	PNR		(WB94790)(X4701E0)		
*		**WB704300**	Circuit Board	SM		(WB70420)(X5150B0)		
*		**WB826500**	Circuit Board	AM		(WB82640)(X4640C0)		
*		**WB826600**	Circuit Board	DJK		(WB82640)(X4640C0)		
*		**WB826700**	Circuit Board	HP		(WB82640)(X4640C0)		
*		**WB826900**	Circuit Board	SW		(WB82640)(X4640C0)		
*		**WB826800**	Circuit Board	VR		(WB82640)(X4640C0)		
		--	Jumper Wire	0.55		(VA07890)		
	10	**--**	Angle Bracket, DC Jack			(V748520)		
	30	**--**	Angle Bracket	2P		(WB83290)		
	40	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			7	01
	50	**EP600220**	Bind Head Tapping Screw-B	3.0X10 MFZN2Y			2	01
	60	**--**	Silicon Grease	X-113A G746		(VA79810)		
	80	**--**	Shield Cover, AM			(WC62800)		
	C0013	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0021	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0022	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0031	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0032	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0048	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0050	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0055	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0059	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0075	**UR837220**	Electrolytic Cap.	22.00 16.0V				01
	C0081	**UR837220**	Electrolytic Cap.	22.00 16.0V				01
	C0092	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0093	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
*	C0095	**WB477000**	Electrolytic Cap.-ZL	330.00 35.0V		}		
*	C0095	**WC303700**	Electrolytic Cap.-KZE	330.00 35.0V		}		
*	C0096	**WB476900**	Electrolytic Cap.-ZL	470.00 16.0V		}		
*	C0096	**WC303600**	Electrolytic Cap.-KZE	470.00 16.0V		}		
*	C0097	**WB476900**	Electrolytic Cap.-ZL	470.00 16.0V		}		
*	C0097	**WC303600**	Electrolytic Cap.-KZE	470.00 16.0V		}		
	C0141	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0142	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C0145	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	C0148	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
	C0149	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
	C0151	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0152	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C0155	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	C0158	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
	C0159	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
	C0161	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0162	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
	C0163	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J				01
	C0166	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
	C0171	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0172	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
	C0173	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J				01

*: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0176	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0201	**VE327100**	Monolithic Mylar Capacitor	0.82 50V J				02
C0201	**VR169500**	Monolithic Mylar Capacitor	ECQ-V1H824JL3				01
C0202	**VE326400**	Monolithic Mylar Capacitor	0.22 50V J				01
C0202	**VR168700**	Monolithic Mylar Capacitor	ECQ-V1H224JL3				01
C0203	**UA354680**	Mylar Capacitor	0.0680 50V J				01
C0204	**VE326300**	Monolithic Mylar Capacitor	0.18 50V J				01
C0204	**VR168600**	Monolithic Mylar Capacitor	ECQ-V1H184JL3				01
C0205	**UA354120**	Mylar Capacitor	0.0120 50V J				01
C0206	**UA354470**	Mylar Capacitor	0.0470 50V J				
C0207	**UA353560**	Mylar Capacitor	5600P 50V J				
C0208	**UA354220**	Mylar Capacitor	0.0220 50V J				
C0209	**UA353390**	Mylar Capacitor	3900P 50V J				01
C0210	**UA352560**	Mylar Capacitor	560P 50V J				01
C0220	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0231	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0232	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
C0232	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
C0301	**VE327100**	Monolithic Mylar Capacitor	0.82 50V J				02
C0301	**VR169500**	Monolithic Mylar Capacitor	ECQ-V1H824JL3				01
C0302	**VE326400**	Monolithic Mylar Capacitor	0.22 50V J				01
C0302	**VR168700**	Monolithic Mylar Capacitor	ECQ-V1H224JL3				01
C0303	**UA354680**	Mylar Capacitor	0.0680 50V J				01
C0304	**VE326300**	Monolithic Mylar Capacitor	0.18 50V J				01
C0304	**VR168600**	Monolithic Mylar Capacitor	ECQ-V1H184JL3				01
C0305	**UA354120**	Mylar Capacitor	0.0120 50V J				01
C0306	**UA354470**	Mylar Capacitor	0.0470 50V J				
C0307	**UA353560**	Mylar Capacitor	5600P 50V J				
C0308	**UA354220**	Mylar Capacitor	0.0220 50V J				
C0309	**UA353390**	Mylar Capacitor	3900P 50V J				01
C0310	**UA352560**	Mylar Capacitor	560P 50V J				01
C0320	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0331	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0332	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
C0332	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
C0415	**UR866220**	Electrolytic Cap.	2.20 50.0V				01
C0416	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0417	**UR838220**	Electrolytic Cap.	220.00 16.0V				01
C0425	**UR866220**	Electrolytic Cap.	2.20 50.0V				01
C0426	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0427	**UR838220**	Electrolytic Cap.	220.00 16.0V				01
C0431	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0432	**UR838220**	Electrolytic Cap.	220.00 16.0V				01
C0441	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0445	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J				01
C0446	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0447	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0451	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0455	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J				01
C0456	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0457	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0471	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0481	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0501	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
C0502	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0503	**UR828100**	Electrolytic Cap.	100.00 10.0V				01
C0504	**UR865470**	Electrolytic Cap.	0.47 50.0V				01
C0505	**UR827330**	Electrolytic Cap.	33.00 10.0V				01
C0511	**UA353820**	Mylar Capacitor	8200P 50V J				01
C0512	**UA353470**	Mylar Capacitor	4700P 50V J				01
C0513	**UR866220**	Electrolytic Cap.	2.20 50.0V				01
C0514	**VE326600**	Monolithic Mylar Capacitor	0.33 50V J				01
C0514	**VR169000**	Monolithic Mylar Capacitor	ECQ-V1H334JL3				01
C0515	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0516	**VE326000**	Monolithic Mylar Capacitor	0.10 50V J				01
-0519	**VE326000**	Monolithic Mylar Capacitor	0.10 50V J				01
C0516	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
-0519	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
C0521	**UA353820**	Mylar Capacitor	8200P 50V J				01
C0522	**UA353470**	Mylar Capacitor	4700P 50V J				01

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0523	**UR866220**	Electrolytic Cap.	2.20 50.0V				01
C0524	**VE326600**	Monolithic Mylar Capacitor	0.33 50V J				01
C0524	**VR169000**	Monolithic Mylar Capacitor	ECQ-V1H334JL3				01
C0525	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0526	**VE326000**	Monolithic Mylar Capacitor	0.10 50V J				01
-0529	**VE326000**	Monolithic Mylar Capacitor	0.10 50V J				01
C0526	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
-0529	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
C0531	**UA353470**	Mylar Capacitor	4700P 50V J				01
C0532	**UA353470**	Mylar Capacitor	4700P 50V J				01
C0533	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
C0534	**VE326800**	Monolithic Mylar Capacitor	0.4700 50V J				01
C0534	**VR169200**	Monolithic Mylar Capacitor	ECQ-V1H474JL3				01
C0535	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0536	**UR838220**	Electrolytic Cap.	220.00 16.0V				01
C0541	**UA353470**	Mylar Capacitor	4700P 50V J				01
C0542	**UA353470**	Mylar Capacitor	4700P 50V J				01
C0543	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
C0544	**VE326800**	Monolithic Mylar Capacitor	0.4700 50V J				01
C0544	**VR169200**	Monolithic Mylar Capacitor	ECQ-V1H474JL3				01
C0545	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0546	**UR838220**	Electrolytic Cap.	220.00 16.0V				01
C0551	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
C0552	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
C0552	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
C0553	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0554	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
C0721	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
-0723	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
C0731	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
-0733	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
C0741	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0742	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0812	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0814	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0822	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0824	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0901	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-0904	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0905	**UR749680**	Electrolytic Cap.	6800 25.0V				03
C0921	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0922	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
C0931	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0932	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
C0932	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
C0933	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0934	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0935	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0936	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0951	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0952	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0961	**V5333500**	Ceramic Capacitor-B (chip)	10.00 6.3V K				01
C0962	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0971	**V5333500**	Ceramic Capacitor-B (chip)	10.00 6.3V K				01
C0972	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0982	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
CN011	**VB390700**	Connector Base Post	PH 11P TE				01
CN012	**VK024900**	Wire Trap	52147 5P TE				01
CN013	**VI878300**	Cable Holder	51048 5P TE				01
CN046	**VK024900**	Wire Trap	52147 5P TE				01
CN047	**VI878300**	Cable Holder	51048 5P TE				01
CN051	**LB918050**	Base Post Connector	XH 5P TE				01
CN053	**LB918040**	Base Post Connector	XH 4P TE				01
CN071	**VB390000**	Connector Base Post	PH 4P TE				01
CN072	**VB390200**	Connector Base Post	PH 6P TE				01
CN073	**VB390100**	Connector Base Post	PH 5P TE				01
CN075	**VB390500**	Connector Base Post	PH 9P TE				03
CN081	**VB390600**	Connector Base Post	PH 10P TE				01
CN091	**VF728300**	Wire Trap	52147 6P TE				01
CN094	**VI878400**	Cable Holder	51048 6P TE				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	CN096	**VB390000**	Connector Base Post	PH 4P TE				01
	CN097	**LB918040**	Base Post Connector	XH 4P TE				01
	CN098	**VB389800**	Connector Base Post	PH 2P TE				01
	D0059	**VT332900**	Diode	1SS355 TE-17				01
	D0074	**VT332900**	Diode	1SS355 TE-17				01
⚠	D0090	**VR313500**	Diode	S3V20				01
	D0092	**VT332900**	Diode	1SS355 TE-17				01
	D0811	**VT332900**	Diode	1SS355 TE-17				01
	D0812	**VT332900**	Diode	1SS355 TE-17				01
	D0821	**VT332900**	Diode	1SS355 TE-17				01
	D0822	**VT332900**	Diode	1SS355 TE-17				01
	EM096	**VD542700**	LC Filter	DSS6NF31C223Q93A				01
	-098	**VD542700**	LC Filter	DSS6NF31C223Q93A				01
	HT051	--	Heat Sink	25BS098H-L50		(V776520)		
	HT053	--	Heat Sink			(WD18590)		
	IC013	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC021	**XE518A00**	IC	UPC4574G2		OP AMP		03
	IC022	**XE518A00**	IC	UPC4574G2		OP AMP		03
	IC031	**XE518A00**	IC	UPC4574G2		OP AMP		03
	IC032	**XE518A00**	IC	UPC4574G2		OP AMP		03
	IC043	**XE518A00**	IC	UPC4574G2		OP AMP		03
	IC048	**XM217A00**	IC	LA4525		POWER AMP 0.65W 2ch		03
	IC050	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC051	**XQ619A00**	IC	LA4705NA		POWER AMP 17W		05
	IC053	**XW812A00**	IC	LA4262		POWER AMP 7W 2ch		04
	IC055	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC074	**WA645200**	Photo Coupler	PC900V0NSZX				04
	IC092	**XJ608A00**	IC	NJM7812FA		REGULATOR +12V		02
	IC093	**XF291A00**	IC	UPC4570G2		OP AMP		03
*	IC095	**X4404A00**	Hybrid IC	MPD6S004S		DC-DC CONVERTER		
	J0050	--	Jumper Wire	0.55		(VA07890)		
	J0090	--	Jumper Wire	0.55		(VA07890)		
	JK014	**VC687500**	Phone Jack Black	YKB21-5014		AUX IN L/L+R		01
	JK015	**VB312600**	Phone Jack Black	YKB21-5012		AUX IN R		02
	JK016	**VP599300**	Pin Jack	2P YKC21-3120		AUX OUT L/R (LEVEL FIXED)		02
	JK044	**VC687500**	Phone Jack Black	YKB21-5014		OUTPUT L/L+R		01
	JK045	**VB312600**	Phone Jack Black	YKB21-5012		OUTPUT R		02
	JK049	**LB101870**	Phone Jack	YKB21-5006		PHONES		03
	JK072	**WA245700**	USB Connector	YKF45-0027 4P SE		USB TO DEVICE		02
	JK073	**V6802600**	USB Jack	USB 4P SE		USB TO HOST		02
	JK073	**V9016000**	USB Connector	YKF45-0021 4P SE				02
	JK074	**VJ107200**	DIN Connector	5P YKF51-5050		MIDI IN		01
	JK074	**VZ085800**	DIN Connector	5P HDC-052S-01				01
	JK075	**VJ107200**	DIN Connector	5P YKF51-5050		MIDI OUT		01
	JK075	**VZ085800**	DIN Connector	5P HDC-052S-01				01
	JK081	**VS115400**	Phone Jack Black	LGR4609-7000		FOOT PEDAL 1		01
	JK082	**VS115400**	Phone Jack Black	LGR4609-7000		FOOT PEDAL 2		01
⚠	JK090	**V7509100**	Connector	DJ-0735D*029		DC IN 16V		02
	L0013	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	L0013	**VM898600**	Ferrite Bead	EXC-ELDR35V				01
	L0014	**VB835000**	Coil	FL5R200QNT 20uH				01
	-0017	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0014	**V3085000**	Choke Coil	R-5C.10U 10uH				
	-0017	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0018	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	L0018	**VM898600**	Ferrite Bead	EXC-ELDR35V				01
	L0043	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	L0043	**VM898600**	Ferrite Bead	EXC-ELDR35V				01
	L0044	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0044	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0045	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0045	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0047	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0047	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0048	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0048	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0049	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	L0049	**VM898600**	Ferrite Bead	EXC-ELDR35V				01
⚠	L0090	**WB214900**	Line Filter	PLH10AN1112R6P2B				03
	L0721	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
L0725	--	Jumper Wire	0.55		(VA07890)		
L0731	**VU954000**	Chip Solid Inductance	BLM21P300SPT				01
L0735	**VB835000**	Coil	FL5R200QNT 20uH				01
L0735	**V3085000**	Choke Coil	R-5C.10U 10uH				
L0741	**VQ724900**	Chip Inductance	BK2125HM601-T				01
L0741	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
L0742	**VQ724900**	Chip Inductance	BK2125HM601-T				01
L0742	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
L0751	**VQ724900**	Chip Inductance	BK2125HM601-T				01
L0751	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
L0752	**VQ724900**	Chip Inductance	BK2125HM601-T				01
L0752	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
L0753	**VB835000**	Coil	FL5R200QNT 20uH				01
L0753	**V3085000**	Choke Coil	R-5C.10U 10uH				
L0811	**VQ724900**	Chip Inductance	BK2125HM601-T				01
-0813	**VQ724900**	Chip Inductance	BK2125HM601-T				01
L0811	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
-0813	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
L0821	**VQ724900**	Chip Inductance	BK2125HM601-T				01
-0823	**VQ724900**	Chip Inductance	BK2125HM601-T				01
L0821	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
-0823	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
R0016	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0017	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0018	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0019	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0044	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0045	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0141	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0142	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0143	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0144	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0145	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0146	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0147	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0148	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0149	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0151	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0152	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0153	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0154	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0155	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0156	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0157	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0158	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0159	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0161	**RD355680**	Carbon Resistor (chip)	680.0 63M J				01
R0162	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0163	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
-0166	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0171	**RD355680**	Carbon Resistor (chip)	680.0 63M J				01
R0172	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0173	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
-0176	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0201	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0202	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
R0203	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0204	**RD357180**	Carbon Resistor (chip)	18.0K 63M J				01
R0205	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
R0206	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0207	**RD356390**	Carbon Resistor (chip)	3.9K 63M J				01
R0208	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0209	**RD357180**	Carbon Resistor (chip)	18.0K 63M J				01
R0210	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
R0211	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0213	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
-0217	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0220	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
R0221	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0223	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
-0227	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0231	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0232	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0233	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0301	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0302	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
R0303	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0304	**RD357180**	Carbon Resistor (chip)	18.0K 63M J				01
R0305	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
R0306	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0307	**RD356390**	Carbon Resistor (chip)	3.9K 63M J				01
R0308	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0309	**RD357180**	Carbon Resistor (chip)	18.0K 63M J				01
R0310	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
R0311	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0313	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
-0317	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0320	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
R0321	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0323	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
-0327	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0331	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0332	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0333	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0401	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0403	**RD356820**	Carbon Resistor (chip)	8.2K 63M J				01
R0404	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0405	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0415	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
R0416	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0417	**RD356180**	Carbon Resistor (chip)	1.8K 63M J				01
R0425	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
R0426	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0427	**RD356180**	Carbon Resistor (chip)	1.8K 63M J				01
R0431	--	Jumper Wire	0.55		(VA07890)		
R0441	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
-0443	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0445	**RD357120**	Carbon Resistor (chip)	12.0K 63M J				01
R0446	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0447	**RD355680**	Carbon Resistor (chip)	680.0 63M J				01
R0451	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
-0453	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0455	**RD357120**	Carbon Resistor (chip)	12.0K 63M J				01
R0456	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0457	**RD355680**	Carbon Resistor (chip)	680.0 63M J				01
R0471	**HF455100**	Carbon Resistor	100.0 1/4 J				01
R0472	**HF455330**	Carbon Resistor	330.0 1/4 J				01
R0481	**HF455100**	Carbon Resistor	100.0 1/4 J				01
R0482	**HF455330**	Carbon Resistor	330.0 1/4 J				01
R0510	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0511	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0512	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0513	**RD356270**	Carbon Resistor (chip)	2.7K 63M J				01
R0514	**RD355150**	Carbon Resistor (chip)	150.0 63M J				01
R0516	**HF453220**	Carbon Resistor	2.2 1/4 J				01
R0517	**HF453220**	Carbon Resistor	2.2 1/4 J				01
R0521	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0522	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0523	**RD356270**	Carbon Resistor (chip)	2.7K 63M J				01
R0524	**RD355150**	Carbon Resistor (chip)	150.0 63M J				01
R0526	**HF453220**	Carbon Resistor	2.2 1/4 J				01
R0527	**HF453220**	Carbon Resistor	2.2 1/4 J				01
R0531	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0532	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0533	**RD356270**	Carbon Resistor (chip)	2.7K 63M J				01
R0534	**RD355150**	Carbon Resistor (chip)	150.0 63M J				01
R0541	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0542	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0543	**RD356270**	Carbon Resistor (chip)	2.7K 63M J				01
R0544	**RD355150**	Carbon Resistor (chip)	150.0 63M J				01

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R0551	**RD355680**	Carbon Resistor (chip)	680.0 63M J				01
-0554	**RD355680**	Carbon Resistor (chip)	680.0 63M J				01
R0555	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
R0556	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
R0591	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0592	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
R0593	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0594	**RD356820**	Carbon Resistor (chip)	8.2K 63M J				01
R0595	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0711	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0713	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0714	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0715	**RD357390**	Carbon Resistor (chip)	39.0K 63M J				01
R0741	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0742	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0751	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0752	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0753	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
R0754	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0755	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0756	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0811	**HF454220**	Carbon Resistor	22.0 1/4 J				01
R0812	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0813	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0814	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0821	**HF454220**	Carbon Resistor	22.0 1/4 J				01
R0822	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0823	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0824	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0931	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0932	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
⚠ SW094	**VY980400**	Push Switch	SDDLB1 J,UC,CEE		STANDBY/ON		03
⚠ SW094	**V9661700**	Push Switch	SY16-32-4(U99S2)/T				03
⚠ TH090	**VV458000**	Protector Switch	RUE250 2.50A 30V				03
⚠ TH090	**V8132900**	Protector Circuit	MF-R250-AP-10				03
TR016	**VD303700**	Transistor	2SC3326 A,B TE85R				01
TR016	**VZ725900**	Transistor	2SD1938(F) S,T				
TR017	**VD303700**	Transistor	2SC3326 A,B TE85R				01
TR017	**VZ725900**	Transistor	2SD1938(F) S,T				
TR018	**VV556500**	Transistor	2SA1037AK Q,R,S				01
TR018	**V8819500**	Transistor	2SA1235A E,F				
TR018	**IB070900**	Transistor	2SB709A P,Q,R,S				01
TR041	**VJ927100**	Transistor	2SC2712 Y				01
TR041	**VQ986700**	Transistor	2SC4081 T106				01
TR041	**VV556400**	Transistor	2SC2412K Q,R,S				01
TR041	**V4767500**	Transistor	2SD601A-(TX) Q,R,S				01
TR042	**VJ927100**	Transistor	2SC2712 Y				01
TR042	**VQ986700**	Transistor	2SC4081 T106				01
TR042	**VV556400**	Transistor	2SC2412K Q,R,S				01
TR042	**V4767500**	Transistor	2SD601A-(TX) Q,R,S				01
TR044	**VD303700**	Transistor	2SC3326 A,B TE85R				01
TR044	**VZ725900**	Transistor	2SD1938(F) S,T				
TR045	**VD303700**	Transistor	2SC3326 A,B TE85R				01
TR045	**VZ725900**	Transistor	2SD1938(F) S,T				
TR055	**VJ927100**	Transistor	2SC2712 Y				01
TR055	**VQ986700**	Transistor	2SC4081 T106				01
TR055	**VV556400**	Transistor	2SC2412K Q,R,S				01
TR055	**V4767500**	Transistor	2SD601A-(TX) Q,R,S				01
TR059	**VV556500**	Transistor	2SA1037AK Q,R,S				01
TR059	**V8819500**	Transistor	2SA1235A E,F				
TR059	**IB070900**	Transistor	2SB709A P,Q,R,S				01
TR075	**VJ927100**	Transistor	2SC2712 Y				01
TR075	**VQ986700**	Transistor	2SC4081 T106				01
TR075	**VV556400**	Transistor	2SC2412K Q,R,S				01
TR075	**V4767500**	Transistor	2SD601A-(TX) Q,R,S				01
TR076	**VJ927100**	Transistor	2SC2712 Y				01
TR076	**VQ986700**	Transistor	2SC4081 T106				01
TR076	**VV556400**	Transistor	2SC2412K Q,R,S				01
TR076	**V4767500**	Transistor	2SD601A-(TX) Q,R,S				01
VR013	**WA994700**	Rotary Variable Resistor	A 10K XV014111YGPV		MASTER VOLUME		02

✻: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	VR071	**VV049100**	Rotary Variable Resistor	B 10K RK09K1110		LCD CONTRAST		01
	WH001	--	Connector Assembly	HP 5P L=400		(WB99600)		
	WH002	--	Connector Assembly	VOL 5P L=350		(WB99610)		
	WH003	--	Connector Assembly	SW 6P L=500		(WB99620)		
	WH004	--	GND Wire 1	L=120		(WD38280)	2	
	ZD059	**VG437300**	Zener Diode	MTZ J 5.1A 5.1V				01
*		**WC748800**	Circuit Board	DAC1A		(WC74870)(X5174B0)		
	C0101	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0102	**UF018100**	Electrolytic Cap. (chip)	100 6.3V				01
	C0103	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0104	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0105	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C0106	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0107	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C0109	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	C0110	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	C0120	**UF018100**	Electrolytic Cap. (chip)	100 6.3V				01
	C0302	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0303	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0304	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0305	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0306	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0307	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0308	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0309	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	-0313	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0314	**US062560**	Ceramic Capacitor-SL(chip)	560P 50V J				01
	C0315	**US062560**	Ceramic Capacitor-SL(chip)	560P 50V J				01
	C0316	**US062180**	Ceramic Capacitor-SL(chip)	180P 50V J				01
	-0319	**US062180**	Ceramic Capacitor-SL(chip)	180P 50V J				01
	C0324	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0325	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0326	**UF027470**	Electrolytic Cap. (chip)	47 10V				01
	C0601	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	CN101	**V6478900**	Connector, FFC/FPC	52808 26P TE				01
	CN601	**VT389200**	Base Post Connector	PH 11P TE				01
	D0101	**VN681100**	Diode	EC10DS4-TE12L		}		01
	D0101	**VS201100**	Diode	D1F60		}		01
	D0102	**VN681100**	Diode	EC10DS4-TE12L		}		01
	D0102	**VS201100**	Diode	D1F60		}		01
	IC101	**XV492A00**	IC	UPC2905T-E1		REGULATOR +5V		03
	IC102	**XZ642A00**	IC	TAR5S33		REGULATOR +3.3V		
	IC301	**XW029A00**	IC	AK4393VF-E2		DAC		07
	IC302	**XF291A00**	IC	UPC4570G2		OP AMP		03
	J0101	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	J0104	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	L0601	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	L0602	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	L0603	**V4830100**	Chip Inductance	MMZ1608Y601C				01
	-0606	**V4830100**	Chip Inductance	MMZ1608Y601C				01
	R0102	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0103	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	-0105	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0106	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	-0108	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0109	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0110	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0111	**RD154270**	Carbon Resistor (chip)	27.0 1/4 J				01
	R0112	**RD154270**	Carbon Resistor (chip)	27.0 1/4 J				01
	R0114	**RD150000**	Carbon Resistor (chip)	0.0 1/4 J				01
	R0115	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0120	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0121	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0301	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	-0304	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0305	**RD356820**	Carbon Resistor (chip)	8.2K 63M J				01
	-0307	**RD356820**	Carbon Resistor (chip)	8.2K 63M J				01
	R0308	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0309	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R0310	**RD356820**	Carbon Resistor (chip)	8.2K 63M J				01
	R0311	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0312	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0315	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
	R0316	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
	R0318	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0319	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0601	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	TR101	**VJ927100**	Transistor	2SC2712 Y				01
	TR101	**VV556400**	Transistor	2SC2412K Q,R,S				01
	TR101	**VV925400**	Transistor	2SC2712 GR				01
	TR101	**V4767500**	Transistor	2SD601A-(TX) Q,R,S				01
*		**WC022800**	Circuit Board	DM		(X4405D0)		
	C0001	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0002	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0004	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0005	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0006	**V9454200**	Electrolytic Cap. (chip)	220.00 6.3V				03
	C0007	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0008	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0009	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0010	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0011	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0012	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0013	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0016	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0017	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0021	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0023	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0024	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0025	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0026	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
	C0027	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0028	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0029	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0030	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0031	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0032	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0033	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0034	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	-0036	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0037	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0038	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0039	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0041	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0042	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0043	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0045	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0046	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0048	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0049	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0052	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0054	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0056	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0057	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0058	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0059	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0060	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0061	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0062	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0066	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0068	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0071	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0073	**US060500**	Ceramic Capacitor-CH(chip)	5P 50V C				01
	C0074	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0075	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0077	**V9454200**	Electrolytic Cap. (chip)	220.00 6.3V				03
	C0078	**US060700**	Ceramic Capacitor-CH(chip)	7P 50V D				01
	C0079	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0080	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0082	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0083	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C0086	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0087	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C0088	**UF067100**	Electrolytic Cap. (chip)	10 50V				01
C0089	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0090	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
-0092	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0093	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0094	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
-0096	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0097	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0099	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0100	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0101	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
-0104	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0105	**UF066470**	Electrolytic Cap. (chip)	4.7 50V				01
C0106	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0110	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0113	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0114	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0117	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0118	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0121	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0125	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0126	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0127	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0128	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0129	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0130	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0131	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0132	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0133	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0134	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0135	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0136	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0137	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0138	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0139	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0140	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0141	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0142	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0143	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0144	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0145	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0146	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0147	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0148	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0149	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0150	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0151	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0152	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0153	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0154	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0155	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0156	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0157	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0158	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0159	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0160	**UF018100**	Electrolytic Cap. (chip)	100 6.3V				01
C0161	**UF018100**	Electrolytic Cap. (chip)	100 6.3V				01
C0162	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0164	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0165	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0166	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0167	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0168	**V9454200**	Electrolytic Cap. (chip)	220.00 6.3V				03
C0169	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0170	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	C0171	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C0172	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C0179	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0180	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0181	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0183	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0188	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0191	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0195	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0202	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0203	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0208	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C0209	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0211	**UF128470**	Electrolytic Cap. (chip)	470 10V UUR1A4				02
	C0212	**UF128470**	Electrolytic Cap. (chip)	470 10V UUR1A4				02
	C0213	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0214	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0215	**US061470**	Ceramic Capacitor-CH(chip)	47P 50V J				01
	-0219	**US061470**	Ceramic Capacitor-CH(chip)	47P 50V J				01
	C0300	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0304	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0305	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0308	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0401	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0402	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0403	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0405	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0407	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	C0408	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	C0409	**US061560**	Ceramic Capacitor-CH(chip)	56P 50V J				01
	-0412	**US061560**	Ceramic Capacitor-CH(chip)	56P 50V J				01
	C0413	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0501	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-0528	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	CN001	**VT389000**	Base Post Connector	PH 9P TE				01
	CN002	**VT389100**	Base Post Connector	PH 10P TE				01
	CN003	**VT388400**	Base Post Connector	PH 3P TE				01
	CN004	**VT388600**	Base Post Connector	PH 5P TE				01
	CN005	**VT388700**	Base Post Connector	PH 6P TE				01
	CN007	**VY939300**	Connector, FFC	52610 14P TE				02
	CN008	**VT388500**	Base Post Connector	PH 4P TE				01
	CN009	**V9028300**	Connector, FFC/FPC	52808 24P TE				02
	CN012	**VT388800**	Base Post Connector	PH 7P TE				
	CN013	**VT388800**	Base Post Connector	PH 7P TE				
	CN015	**LB918040**	Base Post Connector	XH 4P TE				01
	CN016	**VT388500**	Base Post Connector	PH 4P TE				01
	CN017	**V6478900**	Connector, FFC/FPC	52808 26P TE				01
	D0001	**VS201100**	Diode	D1F60				01
*	D0002	**WC549600**	Diode	RB160M-30 TR				
*	D0003	**WC549600**	Diode	RB160M-30 TR				
	D0004	**VS201100**	Diode	D1F60				01
	D0005	**VT332900**	Diode	1SS355 TE-17				01
	-0010	**VT332900**	Diode	1SS355 TE-17				01
	DA001	**V9424900**	Diode Array	1SS372 TE85L				01
	-004	**V9424900**	Diode Array	1SS372 TE85L				01
	IC001	**X0609A00**	IC	LMS8117AMP-ADJ		REGULATOR		03
	IC002	**XY568A00**	IC	RN5VD30CA-TR		SYSTEM RESET		02
	IC003	**XQ173A00**	IC	TC7W32FU(TE12L)		OR		01
	IC004	**XN883A00**	IC	TC7W14FU		INVERTER		02
	IC005	**XN883A00**	IC	TC7W14FU		INVERTER		02
	IC006	**XY806A00**	IC	TC7WH14FU		INVERTER		02
	IC007	**X2890B00**	IC	HD6417727F160C		CPU		15
	IC008	**XY806A00**	IC	TC7WH14FU		INVERTER		02
	IC009	**X0506A00**	IC	M5233FP-600D		COMPARATOR		02
	IC010	**XN883A00**	IC	TC7W14FU		INVERTER		02
	IC011	**X3123A00**	IC	HD74LV126ATELL		BUFFER		
	IC014	**X3119A00**	IC	LM3525MX-H		USB POWER SWITCH		05
*	IC017	**X5154A00**	IC	LT1945EMS#TR		DC-DC CONVERTER		
	IC018	**X3485A00**	IC	MBM29LV800BA-70		F. ROM 8M DATA STORAGE		08
	IC018	**X4025A00**	IC	MX29LV800BTC-70		F. ROM 8M DATA STORAGE		08

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	IC019	**X3584A00**	IC	W981216BH-75		SDRAM 128M		11
	IC019	**X3584B00**	IC	W9812G6DH-7				
	IC020	**X3584A00**	IC	W981216BH-75		SDRAM 128M		11
	IC020	**X3584B00**	IC	W9812G6DH-7				
*	IC021	**X4885C00**	IC	MBM29PL12LM10PCN-K		FLASH ROM 128M MAIN		
	IC023	**XW148A00**	IC	HD74LVC245ATELL		TRANSCEIVER		02
	-026	**XW148A00**	IC	HD74LVC245ATELL		TRANSCEIVER		02
	IC027	**X0010A00**	IC	HD74LV21ATELL		AND		01
*	IC029	**X4886100**	IC	MR27V6402G		P2ROM 64M DATA		
	IC030	**XW148A00**	IC	HD74LVC245ATELL		TRANSCEIVER		02
	IC031	**XW148A00**	IC	HD74LVC245ATELL		TRANSCEIVER		02
	IC032	**XZ495A00**	IC	TC74VHC138FT		DECODER		01
	IC033	**XV893A00**	IC	TC74VHC139FT		DECODER		02
	IC034	**XZ414B00**	IC	W986416DH-7		SDRAM 64M		08
	IC034	**X2760A00**	IC	K4S641632F-TC75				10
*	IC034	**X2760B00**	IC	K4S641632H-TC75				
	IC035	**X0060A00**	IC	T8F02TB-0102		SWP50		15
	IC036	**X0609A00**	IC	LMS8117AMP-ADJ		REGULATOR		03
*	IC039	**X5189A00**	IC	SN74LV174APWR		D-FF		
	IC041	**XQ173A00**	IC	TC7W32FU(TE12L)		OR		01
*	IC042	**X4887100**	IC	MX23L6410		MASK ROM 64M WAVE-2L		
*	IC043	**X4888100**	IC	MX23L6410		MASK ROM 64M WAVE-2H		
	IC044	**XY945A00**	IC	TC74VHC32FT		OR		01
	IC045	**X2689A00**	IC	HD74LV273ATELL		D-FF		01
	IC046	**XW744A00**	IC	HD74LV245ATELL		TRANSCEIVER		02
	IC047	**XW744A00**	IC	HD74LV245ATELL		TRANSCEIVER		02
	IC048	**XY945A00**	IC	TC74VHC32FT		OR		01
	IC049	**XV890A00**	IC	TC74VHC14FT		INVERTER		02
	IC054	**XN883A00**	IC	TC7W14FU		INVERTER		02
	IC055	**XW148A00**	IC	HD74LVC245ATELL		TRANSCEIVER		02
	L0001	**VR579900**	Chip Inductance	BK2125HS601-T				01
*	L0002	**WC539600**	Chip Inductance	22U LQH43CN220K03L				
	L0003	**V2747000**	Chip Inductance	BLM18PG600SN1				
	-0009	**V2747000**	Chip Inductance	BLM18PG600SN1				
	L0101	**VY657200**	Chip Inductance	600 BK1608HM601				01
	-0112	**VY657200**	Chip Inductance	600 BK1608HM601				01
	L0200	**VY657200**	Chip Inductance	600 BK1608HM601				01
	-0211	**VY657200**	Chip Inductance	600 BK1608HM601				01
	R0002	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0003	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0005	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	-0007	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
*	R0008	**RF455560**	Carbon Resistor (chip)	560.0 D				
	R0009	**RF455220**	Carbon Resistor (chip)	220.0 D				
	R0010	**RF454820**	Carbon Resistor (chip)	82.0 D				01
	R0011	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	-0014	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0015	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
	R0016	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
	R0017	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
	R0018	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0020	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0021	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
	R0025	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0026	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0027	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0029	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
	R0030	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0031	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	-0034	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0035	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0036	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
	R0041	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
	R0042	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
	R0043	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0044	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
	-0047	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
	R0048	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0049	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0050	**RD356270**	Carbon Resistor (chip)	2.7K 63M J				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R0051	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
	R0052	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	-0054	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0055	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0056	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0057	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0058	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0059	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0060	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0061	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0062	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0063	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0064	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
	R0065	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0066	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0067	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0068	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0069	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0070	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0071	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0072	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
	R0073	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0074	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0075	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
	R0076	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0077	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
	R0078	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0079	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0080	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
	R0081	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0082	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0083	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0084	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
	R0085	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0087	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
	R0088	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
	R0089	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0090	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
	R0091	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
	R0092	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
	R0093	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0095	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
	R0101	**RD355330**	Carbon Resistor (chip)	330.0 63M J				01
	R0102	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
	R0103	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
	R0105	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
	R0107	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	-0110	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
	R0111	**RD154270**	Carbon Resistor (chip)	27.0 1/4 J				01
	R0112	**RD154270**	Carbon Resistor (chip)	27.0 1/4 J				01
	R0113	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
	R0114	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
	R0115	**RD154270**	Carbon Resistor (chip)	27.0 1/4 J				01
	R0116	**RD154270**	Carbon Resistor (chip)	27.0 1/4 J				01
	R0117	**RD357150**	Carbon Resistor (chip)	15.0K 63M J				01
	R0118	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0119	**RD357150**	Carbon Resistor (chip)	15.0K 63M J				01
	R0120	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
	R0122	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
	R0125	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0127	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0128	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0130	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	-0134	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0139	**VY657200**	Chip Inductance	600 BK1608HM601				01
	-0146	**VY657200**	Chip Inductance	600 BK1608HM601				01
*	R0148	**RF458330**	Carbon Resistor (chip)	330.0K D				
	R0150	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0152	**RF456120**	Carbon Resistor (chip)	1.2K D 1608				
	R0158	**RD350000**	Carbon Resistor (chip)	0 63M J				01

❇: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R0159	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0160	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
-0167	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0169	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0170	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0173	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
-0178	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0179	**RF455270**	Carbon Resistor (chip)	270.0 D				01
R0180	**RF454270**	Carbon Resistor (chip)	27.0 D				01
R0181	**RF455270**	Carbon Resistor (chip)	270.0 D				01
R0182	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0183	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0184	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0185	**RD359100**	Carbon Resistor (chip)	1.0M 63M J				01
R0186	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0187	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0188	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
-0191	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0192	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0193	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0194	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
R0196	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0197	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
-0206	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0208	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0213	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0217	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0218	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
-0223	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0228	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
R0229	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0230	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
R0231	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
R0232	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0233	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0234	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0235	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0238	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0239	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0240	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0241	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0242	**RD355470**	Carbon Resistor (chip)	470.0 63M J				01
R0243	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0244	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0245	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0246	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0300	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0302	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0304	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0306	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0308	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0309	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0311	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0312	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0314	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0315	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0323	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0324	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0328	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0338	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0343	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0344	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0345	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0346	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0347	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0348	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
R0349	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
R0400	**RD350000**	Carbon Resistor (chip)	0 63M J				01
-0405	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0902	**RD350000**	Carbon Resistor (chip)	0 63M J				01

✻: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R0904	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0906	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0907	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0910	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0913	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0915	**RD350000**	Carbon Resistor (chip)	0 63M J				01
	R0917	**RF457180**	Carbon Resistor (chip)	18.0K D				
	RA009	**RE044680**	Resistor Array	68X4				01
	-016	**RE044680**	Resistor Array	68X4				01
	RA017	**RE044470**	Resistor Array	47X4				01
	-030	**RE044470**	Resistor Array	47X4				01
	RA031	**RE047470**	Resistor Array	47KX4				01
	-040	**RE047470**	Resistor Array	47KX4				01
	RA041	**RE044470**	Resistor Array	47X4				01
	-048	**RE044470**	Resistor Array	47X4				01
	RA049	**RE047100**	Resistor Array	10KX4				01
	-052	**RE047100**	Resistor Array	10KX4				01
	RA053	**RE044680**	Resistor Array	68X4				01
	RA054	**RE044680**	Resistor Array	68X4				01
	RA055	**RE047100**	Resistor Array	10KX4				01
	RA056	**RE044680**	Resistor Array	68X4				01
	RA057	**RE044680**	Resistor Array	68X4				01
	RA058	**RE047100**	Resistor Array	10KX4				01
	RA059	**RE044680**	Resistor Array	68X4				01
	-062	**RE044680**	Resistor Array	68X4				01
	RA063	**RE044470**	Resistor Array	47X4				01
	RA064	**RE044470**	Resistor Array	47X4				01
	RA065	**RE047100**	Resistor Array	10KX4				01
	-067	**RE047100**	Resistor Array	10KX4				01
	RA068	**RE045220**	Resistor Array	220X4				01
	RA300	**RE044680**	Resistor Array	68X4				01
	-303	**RE044680**	Resistor Array	68X4				01
	SW003	**V3026900**	Slide Switch	CHS-01 TA1		J/E Select		02
	TR002	**VV556400**	Transistor	2SC2412K Q,R,S				01
	TR004	**V2569000**	Transistor	2SB766A				01
	TR005	**VJ927100**	Transistor	2SC2712 Y		⎫		01
	TR005	**VV556400**	Transistor	2SC2412K Q,R,S		⎭		01
	X0001	**V9704700**	Quartz Crystal Unit	48MHz SG-710ECK		⎫		
	X0001	**WA244900**	Quartz Crystal Unit	48.000MHz DSO751SV		⎭		04
	X0002	**VP864900**	Quartz Crystal Unit	16MHz SMD-49				04
	X0003	**VP864800**	Quartz Crystal Unit	11.2896MHz SMD-49				04
*		**WB914100**	Circuit Board	EMKSA (E-BUS)		(WB91400)(X0092D0)		
		--	Vibration-proof Tape	10X64X0.5		(VK34680)		
		--	Jumper Wire	0.55		(VA07890)		
	C0001	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C0002	**UR828100**	Electrolytic Cap.	100.00 10.0V				01
	C0003	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	C0004	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C0005	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C0006	**VP755200**	Ceramic Capacitor Array	100P 50V K				02
	C0007	**VP755200**	Ceramic Capacitor Array	100P 50V K				02
	CN001	**VB390300**	Connector Base Post	PH 7P TE				01
	CN002	**VK025600**	Wire Trap	52147 12P TE				01
	CN003	**VK024900**	Wire Trap	52147 5P TE				01
	CN004	**VK025100**	Wire Trap	52147 7P TE				01
	D0001	**VB941200**	Diode	1SS133,1SS176				01
	-0003	**VB941200**	Diode	1SS133,1SS176				01
	IC001	**X0031200**	IC	UPD780031AYGK-N04		CPU		05
	J0002	**--**	Jumper Wire	0.55		(VA07890)		
	R0001	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
	R0002	**HF754470**	Carbon Resistor	47.0 1/4 J				01
	R0003	**HF754470**	Carbon Resistor	47.0 1/4 J				01
	RA001	**V8090800**	Resistor Array	RGLE12X103J				01
	X0001	**V6091100**	Ceramic Resonator	8.38MHz EFOMC8384T4				01
*		**WB989200**	Circuit Board	ENC		(WB98850)(X4702E0)		
*		**WB989500**	Circuit Board	INV		(WB98850)(X4702E0)		
*		**WB989300**	Circuit Board	PNCL		(WB98850)(X4702E0)		
*		**WB989100**	Circuit Board	PNL		(WB98850)(X4702E0)		

✻: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	J	--	Jumper Wire	0.55		(VA07890)		
	C0500	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	C0501	**UR828220**	Electrolytic Cap.	220.00 10.0V				01
	C0502	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
*	C0504	**WB547000**	Capacitor	0.18 250V K				
*	C0505	**WB536300**	Ceramic Capacitor-SL	12P 3KV J				
	CN104	**VI878800**	Cable Holder	51048 10P TE				01
	CN106	**VI878100**	Cable Holder	51048 3P TE				01
	CN107	**VI878200**	Cable Holder	51048 4P TE				01
	CN108	**VI879400**	Cable Holder	51048 16P TE				01
	CN109	**VI878900**	Cable Holder	51048 11P TE				01
	CN110	**VI878500**	Cable Holder	51048 7P TE				01
	CN201	**VI878800**	Cable Holder	51048 10P TE				01
	CN301	**VI878100**	Cable Holder	51048 3P TE				01
	CN500	**VB389900**	Connector Base Post	PH 3P TE				01
*	CN501	**WB748700**	Connector	S02(8.0)B-BHS				
	CN502	**VB389800**	Connector Base Post	PH 2P TE				01
	D0070	**VD631600**	Diode	1SS133,176,HSS104				01
	-0075	**VD631600**	Diode	1SS133,176,HSS104				01
	D0078	**VD631600**	Diode	1SS133,176,HSS104				01
	-0088	**VD631600**	Diode	1SS133,176,HSS104				01
	D0090	**VD631600**	Diode	1SS133,176,HSS104				01
	-0097	**VD631600**	Diode	1SS133,176,HSS104				01
	D0100	**VD631600**	Diode	1SS133,176,HSS104				01
	-0102	**VD631600**	Diode	1SS133,176,HSS104				01
	D0104	**VD631600**	Diode	1SS133,176,HSS104				01
	-0108	**VD631600**	Diode	1SS133,176,HSS104				01
	D0110	**VD631600**	Diode	1SS133,176,HSS104				01
	-0116	**VD631600**	Diode	1SS133,176,HSS104				01
	D0144	**VD631600**	Diode	1SS133,176,HSS104				01
	D0146	**VD631600**	Diode	1SS133,176,HSS104				01
	-0149	**VD631600**	Diode	1SS133,176,HSS104				01
	D0170	**VD631600**	Diode	1SS133,176,HSS104				01
	-0188	**VD631600**	Diode	1SS133,176,HSS104				01
	D0190	**VD631600**	Diode	1SS133,176,HSS104				01
	D0500	**VD631600**	Diode	1SS133,176,HSS104				01
	EC301	**VU481300**	Encoder	REB161 PVB 15F		DATA ENTRY		03
	L0500	**GE901870**	Coil	SN3-205B 10uH				03
*	L0501	**WB531900**	Coil	RCH-108-221 220uH				
*	LD070	**WB947500**	LED Red	SLZ-9G81B-34-T1		SONG(GUIDE)		
*	LD071	**WB947500**	LED Red	SLZ-9G81B-34-T1		SONG(REPEAT)		
*	LD072	**WB947500**	LED Red	SLZ-9G81B-34-T1		SONG(REC)		
	LD074	**VG197600**	LED Green/Red	GL3ED8		SONG(EXTRA TRACKS)		01
	LD075	**VG197600**	LED Green/Red	GL3ED8		SONG(PLAY/PAUSE)		01
	LD076	**VG197600**	LED Green/Red	GL3ED8		SONG(TRACK 2)		01
	LD077	**VG197600**	LED Green/Red	GL3ED8		SONG(TRACK 1)		01
*	LD078	**WB947500**	LED Red	SLZ-9G81B-34-T1		SONG(PERFORMANCE ASSISTANT)		
*	LD079	**WB947300**	LED Red	SLZ-9G81B-03-T1		FADE IN/OUT		
*	LD084	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE(POP & ROCK)		
*	LD085	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE(BALLAD)		
*	LD086	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE(DANCE)		
*	LD087	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE(SWING & JAZZ)		
*	LD088	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE(R & B)		
*	LD089	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE(COUNTRY)		
	LD090	**VG197600**	LED Green/Red	GL3ED8		MULTI PAD CONTROL 1		01
	LD091	**VG197600**	LED Green/Red	GL3ED8		MULTI PAD CONTROL 2		01
	LD092	**VG197600**	LED Green/Red	GL3ED8		MULTI PAD CONTROL 3		01
	LD093	**VG197600**	LED Green/Red	GL3ED8		MULTI PAD CONTROL 4		01
*	LD094	**WB947400**	LED Red	SLZ-9G81B-33-T1		STYLE(LATIN)		
*	LD095	**WB947400**	LED Red	SLZ-9G81B-33-T1		STYLE(BALLROOM)		
*	LD096	**WB947400**	LED Red	SLZ-9G81B-33-T1		STYLE(MOVIE & SHOW)		
*	LD097	**WB947400**	LED Red	SLZ-9G81B-33-T1		STYLE(ENTERTAINER)		
*	LD098	**WB947400**	LED Red	SLZ-9G81B-33-T1		STYLE(WORLD)		
*	LD099	**WB947400**	LED Red	SLZ-9G81B-33-T1		STYLE(USER)		
*	LD160	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE CONTROL(ACMP ON/OFF)		
*	LD161	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE CONTROL(OTS LINK)		
*	LD162	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE CONTROL(AUTO FILL IN)		
	LD163	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(INTRO I)		01
	LD164	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(INTRO II)		01
	LD165	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(INTRO III)		01

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	LD166	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(MAIN VARIATION A)		01
	LD167	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(MAIN VARIATION B)		01
	LD168	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(MAIN VARIATION C)		01
	LD169	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(MAIN VARIATION D)		01
	LD191	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(BREAK)		01
	LD192	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(ENDING/rit.I)		01
	LD193	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(ENDING/rit.II)		01
	LD194	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(ENDING/rit.III)		01
*	LD195	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE CONTROL(SYNC STOP)		
*	LD196	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE CONTROL(SYNC START)		
	LD197	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(START/STOP)		01
*	LD198	**WB947500**	LED Red	SLZ-9G81B-34-T1		METRONOME ON/OFF		
	R0100	**HF755120**	Carbon Resistor	120.0 1/4 J				01
	-0106	**HF755120**	Carbon Resistor	120.0 1/4 J				01
	R0500	**HF755330**	Carbon Resistor	330.0 1/4 J				01
	R0501	**HF757220**	Carbon Resistor	22.0K 1/4 J				01
	R0502	**HF756150**	Carbon Resistor	1.5K 1/4 J				01
	R0503	**HF756150**	Carbon Resistor	1.5K 1/4 J				01
*	SP074	**WC176600**	LED Spacer	L=9.0				
*	-077	**WC176600**	LED Spacer	L=9.0				
*	SP090	**WC176600**	LED Spacer	L=9.0				
*	-093	**WC176600**	LED Spacer	L=9.0				
*	SP163	**WB948200**	LED Spacer	L=7.0				
*	-169	**WB948200**	LED Spacer	L=7.0				
*	SP191	**WB948200**	LED Spacer	L=7.0				
*	-194	**WB948200**	LED Spacer	L=7.0				
*	SP197	**WB948200**	LED Spacer	L=7.0				
	SW070	**VV056000**	Tact Switch	SKQNAED010		MULTI PAD CONTROL 1		01
	SW071	**VV056000**	Tact Switch	SKQNAED010		MULTI PAD CONTROL 2		01
	SW072	**VV056000**	Tact Switch	SKQNAED010		MULTI PAD CONTROL 3		01
	SW073	**VV056000**	Tact Switch	SKQNAED010		MULTI PAD CONTROL 4		01
	SW074	**VV056000**	Tact Switch	SKQNAED010		MULTI PAD CONTROL(MULTI PAD SELECT)		01
	SW075	**VV056000**	Tact Switch	SKQNAED010		MULTI PAD CONTROL(STOP)		01
	SW078	**VV056000**	Tact Switch	SKQNAED010		SONG(PERFORMANCE ASSISTANT)		01
	SW079	**VV056000**	Tact Switch	SKQNAED010		DEMO		01
	SW080	**VV056000**	Tact Switch	SKQNAED010		TRANSPOSE -		01
	SW081	**VV056000**	Tact Switch	SKQNAED010		TRANSPOSE +		01
	SW082	**VV056000**	Tact Switch	SKQNAED010		SONG(REC)		01
	SW083	**VV056000**	Tact Switch	SKQNAED010		SONG(STOP)		01
	SW084	**VV056000**	Tact Switch	SKQNAED010		STYLE(POP & ROCK)		01
	SW085	**VV056000**	Tact Switch	SKQNAED010		SONG(PLAY/PAUSE)		01
	SW086	**VV056000**	Tact Switch	SKQNAED010		SONG(REW)		01
	SW087	**VV056000**	Tact Switch	SKQNAED010		SONG(FF)		01
	SW088	**VV056000**	Tact Switch	SKQNAED010		BALANCE		01
	SW090	**VV056000**	Tact Switch	SKQNAED010		STYLE(BALLAD)		01
	SW091	**VV056000**	Tact Switch	SKQNAED010		SONG(REPEAT)		01
	SW092	**VV056000**	Tact Switch	SKQNAED010		STYLE(DANCE)		01
	SW093	**VV056000**	Tact Switch	SKQNAED010		STYLE(SWING & JAZZ)		01
	SW094	**VV056000**	Tact Switch	SKQNAED010		SONG(EXTRA TRACKS)		01
	SW095	**VV056000**	Tact Switch	SKQNAED010		STYLE(R & B)		01
	SW096	**VV056000**	Tact Switch	SKQNAED010		SONG(TRACK 2)		01
	SW097	**VV056000**	Tact Switch	SKQNAED010		SONG(TRACK 1)		01
	SW100	**VV056000**	Tact Switch	SKQNAED010		SONG(GUIDE)		01
	SW101	**VV056000**	Tact Switch	SKQNAED010		STYLE(COUNTRY)		01
	SW102	**VV056000**	Tact Switch	SKQNAED010		STYLE(LATIN)		01
	SW104	**VV056000**	Tact Switch	SKQNAED010		SONG(SCORE)		01
	SW105	**VV056000**	Tact Switch	SKQNAED010		STYLE(BALLROOM)		01
	SW106	**VV056000**	Tact Switch	SKQNAED010		STYLE(MOVIE & SHOW)		01
	SW107	**VV056000**	Tact Switch	SKQNAED010		SONG(KARAOKE)		01
	SW108	**VV056000**	Tact Switch	SKQNAED010		SONG(SONG SELECT)		01
	SW110	**VV056000**	Tact Switch	SKQNAED010		LCD Select A		01
	SW111	**VV056000**	Tact Switch	SKQNAED010		LCD Select B		01
	SW112	**VV056000**	Tact Switch	SKQNAED010		LCD Select C		01
	SW113	**VV056000**	Tact Switch	SKQNAED010		LCD Select D		01
	SW114	**VV056000**	Tact Switch	SKQNAED010		LCD Select E		01
	SW115	**VV056000**	Tact Switch	SKQNAED010		DIRECT ACCESS		01
	SW116	**VV056000**	Tact Switch	SKQNAED010		CHANNEL ON/OFF		01
	SW144	**VV056000**	Tact Switch	SKQNAED010		STYLE(ENTERTAINER)		01
	SW146	**VV056000**	Tact Switch	SKQNAED010		TEMPO +		01
	SW147	**VV056000**	Tact Switch	SKQNAED010		TEMPO -		01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	SW148	**VV056000**	Tact Switch	SKQNAED010		METRONOME ON/OFF		01
	SW149	**VV056000**	Tact Switch	SKQNAED010		FADE IN/OUT		01
	SW170	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(ACMP ON/OFF)		01
	SW171	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(OTS LINK)		01
	SW172	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(AUTO FILL IN)		01
	SW173	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(INTRO I)		01
	SW174	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(INTRO II)		01
	SW175	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(INTRO III)		01
	SW176	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(MAIN VARIATION A)		01
	SW177	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(MAIN VARIATION B)		01
	SW178	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(MAIN VARIATION C)		01
	SW179	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(MAIN VARIATION D)		01
	SW180	**VV056000**	Tact Switch	SKQNAED010		STYLE(WORLD)		01
	SW181	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(BREAK)		01
	SW182	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(ENDING/rit.I)		01
	SW183	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(ENDING/rit.II)		01
	SW184	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(ENDING/rit.III)		01
	SW185	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(SYNC STOP)		01
	SW186	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(SYNC START)		01
	SW187	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(START/STOP)		01
	SW188	**VV056000**	Tact Switch	SKQNAED010		STYLE(USER)		01
	SW190	**VV056000**	Tact Switch	SKQNAED010		TAP TEMPO		01
*	T0500	**WC013800**	Inverter Transformer	EP208B/TW 225mH				
	TR500	**VP872600**	Transistor	2SA1708 S,T				01
	TR501	**VS185600**	Transistor	2SD1863 TV2 82-390				01
	TR502	**VS185600**	Transistor	2SD1863 TV2 82-390				01
	WIRE1	--	Connector Assembly	PN1 3P L=55		(WC37730)		
	WIRE2	--	Connector Assembly	PN2 10P L=280		(WD54440)		
	WIRE3	--	Connector Assembly	PN3 16P L=460		(WD54450)		
	WIRE4	--	Connector Assembly	PN4 11P L=540		(WD54460)		
	WIRE5	--	Connector Assembly	PN5 7P L=450		(WD54470)		
	WIRE6	--	Connector Assembly	PN6 3P L=480		(WD28230)		
	WIRE7	--	Connector Assembly	PN7 4P L=480		(WD28240)		
		VU648200	Circuit Board	MK-H		(VU64800)(XR565C0)		09
	2	**VB941200**	Diode	1SS133,1SS176		A#3-C6		01
	5	**VK025600**	Wire Trap	52147 12P TE				01
	6	**VK024900**	Wire Trap	52147 5P TE				01
		VU648100	Circuit Board	MK-L		(VU64790)(XR564C0)		09
	2	**VB941200**	Diode	1SS133,1SS176		C1-A3		01
	5	**VK025600**	Wire Trap	52147 12P TE				01
	6	**VK025100**	Wire Trap	52147 7P TE				01
*		**WB856300**	Circuit Board	MOD		(WB94790)(X4701E0)		
*		**WB856200**	Circuit Board	PB		(WB94790)(X4701E0)		
*		**WB856100**	Circuit Board	PNCC		(WB94790)(X4701E0)		
*		**WB856900**	Circuit Board	PNCR		(WB94790)(X4701E0)		
*		**WB855900**	Circuit Board	PNR		(WB94790)(X4701E0)		
	C0100	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0101	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0104	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	-0113	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0115	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0117	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0119	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	-0121	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0122	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0123	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0124	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0126	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	-0129	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0131	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	-0141	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0142	**UR828220**	Electrolytic Cap.	220.00 10.0V				01
	C0143	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0146	**UR828220**	Electrolytic Cap.	220.00 10.0V				01
	C0148	**UR828220**	Electrolytic Cap.	220.00 10.0V				01
	C0149	**UR828220**	Electrolytic Cap.	220.00 10.0V				01
	C0150	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	C0151	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J				01
	C0152	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0155	**UR828220**	Electrolytic Cap.	220.00 10.0V				01
	C0156	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0157	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0159	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0161	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	CN100	**VB390300**	Connector Base Post	PH 7P TE				01
	CN105	**VK024700**	Wire Trap	52147 3P TE				01
	CN110	**VK025700**	Wire Trap	52147 13P TE				01
	CN111	**VJ861600**	Wire Trap	52147 16P TE				01
	CN112	**VK025500**	Wire Trap	52147 11P TE				01
	CN113	**VK025100**	Wire Trap	52147 7P TE				01
	CN201	**VK025700**	Wire Trap	52147 13P TE				01
	CN202	**VF728200**	Wire Trap	52147 10P TE				01
	CN301	**VF728200**	Wire Trap	52147 10P TE				01
	CN401	**VK024700**	Wire Trap	52147 3P TE				01
	CN501	**VK024800**	Wire Trap	52147 4P TE				01
	D0000	**VT332900**	Diode	1SS355 TE-17				01
	-0018	**VT332900**	Diode	1SS355 TE-17				01
	D0020	**VT332900**	Diode	1SS355 TE-17				01
	-0028	**VT332900**	Diode	1SS355 TE-17				01
	D0089	**VT332900**	Diode	1SS355 TE-17				01
	D0098	**VT332900**	Diode	1SS355 TE-17				01
	D0099	**VT332900**	Diode	1SS355 TE-17				01
	D0105	**VT332900**	Diode	1SS355 TE-17				01
	D0106	**VT332900**	Diode	1SS355 TE-17				01
	D0109	**VT332900**	Diode	1SS355 TE-17				01
	-0113	**VT332900**	Diode	1SS355 TE-17				01
	D0120	**VT332900**	Diode	1SS355 TE-17				01
	-0127	**VT332900**	Diode	1SS355 TE-17				01
	D0130	**VT332900**	Diode	1SS355 TE-17				01
	-0137	**VT332900**	Diode	1SS355 TE-17				01
	D0140	**VT332900**	Diode	1SS355 TE-17				01
	-0143	**VT332900**	Diode	1SS355 TE-17				01
	D0151	**VT332900**	Diode	1SS355 TE-17				01
	-0160	**VT332900**	Diode	1SS355 TE-17				01
	D0162	**VT332900**	Diode	1SS355 TE-17				01
	-0173	**VT332900**	Diode	1SS355 TE-17				01
	D0189	**VT332900**	Diode	1SS355 TE-17				01
	D0500	**VT332900**	Diode	1SS355 TE-17				01
	D0501	**VT332900**	Diode	1SS355 TE-17				01
	DA001	**V9424900**	Diode Array	1SS372 TE85L				01
	-026	**V9424900**	Diode Array	1SS372 TE85L				01
*	IC100	**X4406100**	IC	M38044M4-C16FP		CPU		
	L0102	**VY657200**	Chip Inductance	600 BK1608HM601				01
	-0104	**VY657200**	Chip Inductance	600 BK1608HM601				01
	L0105	**GE901870**	Coil	SN3-205B 10uH				03
	L0107	**VY657200**	Chip Inductance	600 BK1608HM601				01
	L0108	**VY657200**	Chip Inductance	600 BK1608HM601				01
	L0110	**VY657200**	Chip Inductance	600 BK1608HM601				01
*	LD000	**WB947500**	LED Red	SLZ-9G81B-34-T1		PART SELECT(RIGHT 2)		
*	LD001	**WB947500**	LED Red	SLZ-9G81B-34-T1		PART SELECT(RIGHT 1)		
*	LD002	**WB947500**	LED Red	SLZ-9G81B-34-T1		PART SELECT(LEFT)		
*	LD003	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(USER)		
*	LD004	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(PERC.& DRUM KIT)		
*	LD005	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(FLUTE & WOODWIND)		
*	LD006	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(SAXOPHONE)		
*	LD007	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(BRASS)		
*	LD008	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(SYNTH.& FX)		
*	LD009	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(CHOIR & PAD)		
*	LD022	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(ORGAN FLUTES)		
*	LD023	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(STRINGS)		
*	LD024	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(TRUMPET)		
*	LD025	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(GUITAR & BASS)		
*	LD026	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(ACCORDION & HARMONICA)		
*	LD027	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(ORGAN)		
*	LD028	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(E.PIANO)		
*	LD029	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(PIANO)		
	LD120	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 8		01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	LD121	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 7		01
	LD122	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 6		01
	LD123	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 5		01
	LD124	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 4		01
	LD125	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 2		01
	LD126	**VG197600**	LED Green/Red	GL3ED8		ONE TOUCH SETTING 4		01
	LD127	**VG197600**	LED Green/Red	GL3ED8		ONE TOUCH SETTING 3		01
	LD128	**VG197600**	LED Green/Red	GL3ED8		ONE TOUCH SETTING 2		01
	LD129	**VG197600**	LED Green/Red	GL3ED8		ONE TOUCH SETTING 1		01
*	LD130	**WB947500**	LED Red	SLZ-9G81B-34-T1		PART ON/OFF(RIGHT 2)		
*	LD131	**WB947500**	LED Red	SLZ-9G81B-34-T1		PART ON/OFF(RIGHT 1)		
*	LD132	**WB947500**	LED Red	SLZ-9G81B-34-T1		PART ON/OFF(LEFT)		
*	LD133	**WB947500**	LED Red	SLZ-9G81B-34-T1		LEFT HOLD		
	LD134	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 3		01
	LD135	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 1		01
*	LD138	**WB947300**	LED Red	SLZ-9G81B-03-T1		REGISTRATION MEMORY(FREEZE)		
	R0101	**RD155220**	Carbon Resistor (chip)	220.0 1/4 J				
	R0102	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0103	**RD155220**	Carbon Resistor (chip)	220.0 1/4 J				
	R0104	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	-0106	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0108	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0109	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0110	**RD155220**	Carbon Resistor (chip)	220.0 1/4 J				
	R0111	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	-0114	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0117	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0118	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0121	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0123	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0124	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
	R0125	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
	R0127	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	-0136	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0137	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0138	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0141	**RD355120**	Carbon Resistor (chip)	120.0 63M J				01
	R0142	**RD355120**	Carbon Resistor (chip)	120.0 63M J				01
*	SP120	**WB948200**	LED Spacer	L=7.0				
*	-129	**WB948200**	LED Spacer	L=7.0				
*	SP134	**WB948200**	LED Spacer	L=7.0				
*	SP135	**WB948200**	LED Spacer	L=7.0				
	SW000	**VV056000**	Tact Switch	SKQNAED010		PART SELECT(RIGHT 2)		01
	SW001	**VV056000**	Tact Switch	SKQNAED010		PART SELECT(RIGHT 1)		01
	SW002	**VV056000**	Tact Switch	SKQNAED010		PART SELECT(LEFT)		01
	SW003	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY(MEMORY)		01
	SW004	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 3		01
	SW005	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 1		01
	SW006	**VV056000**	Tact Switch	SKQNAED010		ONE TOUCH SETTING 4		01
	SW007	**VV056000**	Tact Switch	SKQNAED010		ONE TOUCH SETTING 3		01
	SW008	**VV056000**	Tact Switch	SKQNAED010		ONE TOUCH SETTING 2		01
	SW009	**VV056000**	Tact Switch	SKQNAED010		ONE TOUCH SETTING 1		01
	SW010	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 8		01
	SW011	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 7		01
	SW012	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 6		01
	SW013	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 5		01
	SW014	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 4		01
	SW015	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 2		01
	SW016	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY(REGIST.BANK)		01
	SW017	**VV056000**	Tact Switch	SKQNAED010		ENTER		01
	SW018	**VV056000**	Tact Switch	SKQNAED010		MUSIC FINDER		01
	SW020	**VV056000**	Tact Switch	SKQNAED010		TAB(LEFT)		01
	SW021	**VV056000**	Tact Switch	SKQNAED010		TAB(RIGHT)		01
	SW022	**VV056000**	Tact Switch	SKQNAED010		LCD Select F		01
	SW023	**VV056000**	Tact Switch	SKQNAED010		LCD Select G		01
	SW024	**VV056000**	Tact Switch	SKQNAED010		LCD Select H		01
	SW025	**VV056000**	Tact Switch	SKQNAED010		LCD Select I		01
	SW026	**VV056000**	Tact Switch	SKQNAED010		LCD Select J		01
	SW027	**VV056000**	Tact Switch	SKQNAED010		EXIT		01
	SW028	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY(FREEZE)		01

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	SW089	**VV056000**	Tact Switch	SKQNAED010		MENU(DIGITAL RECORDING)		01
	SW098	**VV056000**	Tact Switch	SKQNAED010		MENU(SOUND CREATOR)		01
	SW099	**VV056000**	Tact Switch	SKQNAED010		MENU(FUNCTION)		01
	SW109	**VV056000**	Tact Switch	SKQNAED010		MENU(HELP)		01
	SW120	**VZ085500**	Tact Switch	SKQNAM004A		1(UP)		01
	SW121	**VZ085500**	Tact Switch	SKQNAM004A		2(UP)		01
	SW122	**VZ085500**	Tact Switch	SKQNAM004A		3(UP)		01
	SW123	**VZ085500**	Tact Switch	SKQNAM004A		4(UP)		01
	SW124	**VZ085500**	Tact Switch	SKQNAM004A		5(UP)		01
	SW125	**VZ085500**	Tact Switch	SKQNAM004A		6(UP)		01
	SW126	**VZ085500**	Tact Switch	SKQNAM004A		7(UP)		01
	SW127	**VZ085500**	Tact Switch	SKQNAM004A		8(UP)		01
	SW130	**VZ085500**	Tact Switch	SKQNAM004A		1(DOWN)		01
	SW131	**VZ085500**	Tact Switch	SKQNAM004A		2(DOWN)		01
	SW132	**VZ085500**	Tact Switch	SKQNAM004A		3(DOWN)		01
	SW133	**VZ085500**	Tact Switch	SKQNAM004A		4(DOWN)		01
	SW134	**VZ085500**	Tact Switch	SKQNAM004A		5(DOWN)		01
	SW135	**VZ085500**	Tact Switch	SKQNAM004A		6(DOWN)		01
	SW136	**VZ085500**	Tact Switch	SKQNAM004A		7(DOWN)		01
	SW137	**VZ085500**	Tact Switch	SKQNAM004A		8(DOWN)		01
	SW140	**VV056000**	Tact Switch	SKQNAED010		PART ON/OFF(RIGHT 2)		01
	SW141	**VV056000**	Tact Switch	SKQNAED010		PART ON/OFF(RIGHT 1)		01
	SW142	**VV056000**	Tact Switch	SKQNAED010		PART ON/OFF(LEFT)		01
	SW143	**VV056000**	Tact Switch	SKQNAED010		LEFT HOLD		01
	SW151	**VV056000**	Tact Switch	SKQNAED010		UPPER OCTAVE -		01
	SW152	**VV056000**	Tact Switch	SKQNAED010		UPPER OCTAVE +		01
	SW153	**VV056000**	Tact Switch	SKQNAED010		VOICE(USER)		01
	SW154	**VV056000**	Tact Switch	SKQNAED010		VOICE(PERC.& DRUM KIT)		01
	SW155	**VV056000**	Tact Switch	SKQNAED010		VOICE(FLUTE & WOODWIND)		01
	SW156	**VV056000**	Tact Switch	SKQNAED010		VOICE(SAXOPHONE)		01
	SW157	**VV056000**	Tact Switch	SKQNAED010		VOICE(BRASS)		01
	SW158	**VV056000**	Tact Switch	SKQNAED010		VOICE(SYNTH.& FX)		01
	SW159	**VV056000**	Tact Switch	SKQNAED010		VOICE(CHOIR & PAD)		01
	SW160	**VV056000**	Tact Switch	SKQNAED010		VOICE(VOICE EFFECT)		01
	SW162	**VV056000**	Tact Switch	SKQNAED010		VOICE(ORGAN FLUTES)		01
	SW163	**VV056000**	Tact Switch	SKQNAED010		VOICE(STRINGS)		01
	SW164	**VV056000**	Tact Switch	SKQNAED010		VOICE(TRUMPET)		01
	SW165	**VV056000**	Tact Switch	SKQNAED010		VOICE(GUITAR & BASS)		01
	SW166	**VV056000**	Tact Switch	SKQNAED010		VOICE(ACCORDION & HARMONICA)		01
	SW167	**VV056000**	Tact Switch	SKQNAED010		VOICE(ORGAN)		01
	SW168	**VV056000**	Tact Switch	SKQNAED010		VOICE(E.PIANO)		01
	SW169	**VV056000**	Tact Switch	SKQNAED010		VOICE(PIANO)		01
	SW189	**VV056000**	Tact Switch	SKQNAED010		MIXING CONSOLE		01
	TA100	**V8566600**	Transistor Array	TD62785F(EL)				05
	TA101	**V8566600**	Transistor Array	TD62785F(EL)				05
	TA102	**V7723400**	Transistor Array	TD62381F(EL)				04
*	TR104	**WB679800**	Digital Transistor	DTD123YK T146				
*	TR105	**WB679800**	Digital Transistor	DTD123YK T146				
	VR401	**VZ486300**	Rotary Variable Resistor	B10K EVJ05DF20B14		PITCH BEND		03
	VR501	**VZ486300**	Rotary Variable Resistor	B10K EVJ05DF20B14		MODULATION		03
*	X0100	**WB715900**	Ceramic Resonator	CSTLS16M8X51-A0				
*		**WB704300**	Circuit Board	SM		(WB70420)(X5150B0)		
	J	**--**	Jumper Wire	0.55		(VA07890)		
	C0001	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	CN001	**V9028300**	Connector, FFC/FPC	52808 24P TE				02
	CN002	**V3962800**	Connector	CN015R-3013-0		3.3V CARD		05
	R0001	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	RA001	**RE044470**	Resistor Array	47X4				01
	-004	**RE044470**	Resistor Array	47X4				01
		XV910A00	Speaker	5.0cm 4ohm		TWEETER (PSR-1500)	2	05
		XT523A00	Speaker	12.0cm 4ohm 10W		WOOFER (PSR-1500)	2	07
*		**WB912200**	LCD	VG-S322453-1BTFWA		(PSR-1500)		

*: New Parts

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PSR-3000 ELECTRICAL PARTS

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			ELECTRICAL PARTS			PSR-3000		
*		**WB827100**	Circuit Board	AM		(WB82700)(X4640C0)		
*		**WB827200**	Circuit Board	DJK		(WB82700)(X4640C0)		
*		**WB827300**	Circuit Board	HP		(WB82700)(X4640C0)		
*		**WB827500**	Circuit Board	SW		(WB82700)(X4640C0)		
*		**WB827400**	Circuit Board	VR		(WB82700)(X4640C0)		
*		**WC748600**	Circuit Board	DAC1A		(WC74850)(X5174B0)		
*		**WC295600**	Circuit Board	DM2-E		(X4383E0)		
*		**WB914100**	Circuit Board	EMKSA (E-BUS)		(WB91400)(X0092D0)		
*		**WB856500**	Circuit Board	ENC		(WB85600)(X4702E0)		
*		**WB989400**	Circuit Board	INV		(WB85600)(X4702E0)		
*		**WB857100**	Circuit Board	PNCL		(WB85600)(X4702E0)		
*		**WB856600**	Circuit Board	PNL		(WB85600)(X4702E0)		
		VU648200	Circuit Board	MK-H		(VU64800)(XR565C0)		09
		VU648100	Circuit Board	MK-L		(VU64790)(XR564C0)		09
*		**WB856300**	Circuit Board	MOD		(WB94790)(X4701E0)		
*		**WB856200**	Circuit Board	PB		(WB94790)(X4701E0)		
*		**WB856100**	Circuit Board	PNCC		(WB94790)(X4701E0)		
*		**WB856900**	Circuit Board	PNCR		(WB94790)(X4701E0)		
*		**WB855900**	Circuit Board	PNR		(WB94790)(X4701E0)		
*		**WB704300**	Circuit Board	SM		(WB70420)(X5150B0)		
*		**WB822200**	Circuit Board	TG1		(X4411C0)		
*		**WB827100**	Circuit Board	AM		(WB82700)(X4640C0)		
*		**WB827200**	Circuit Board	DJK		(WB82700)(X4640C0)		
*		**WB827300**	Circuit Board	HP		(WB82700)(X4640C0)		
*		**WB827500**	Circuit Board	SW		(WB82700)(X4640C0)		
*		**WB827400**	Circuit Board	VR		(WB82700)(X4640C0)		
		--	Jumper Wire	0.55		(VA07890)		
	10	**--**	Angle Bracket, DC Jack			(V748520)		
	20	**--**	Angle Bracket	1P		(WB83280)		
	30	**--**	Angle Bracket	2P		(WB83290)		
	40	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			8	01
	50	**EP600220**	Bind Head Tapping Screw-B	3.0X10 MFZN2Y			2	01
	60	**--**	Silicon Grease	X-113A G746		(VA79810)		
	80	**--**	Shield Cover, AM			(WC62800)		
	C0013	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0021	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0022	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0031	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0032	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0048	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0050	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0055	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0059	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0064	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0075	**UR837220**	Electrolytic Cap.	22.00 16.0V				01
	C0081	**UR837220**	Electrolytic Cap.	22.00 16.0V				01
	C0092	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0093	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
*	C0095	**WB477000**	Electrolytic Cap.-ZL	330.00 35.0V				
*	C0095	**WC303700**	Electrolytic Cap.-KZE	330.00 35.0V				
*	C0096	**WB476900**	Electrolytic Cap.-ZL	470.00 16.0V				
*	C0096	**WC303600**	Electrolytic Cap.-KZE	470.00 16.0V				
*	C0097	**WB476900**	Electrolytic Cap.-ZL	470.00 16.0V				
*	C0097	**WC303600**	Electrolytic Cap.-KZE	470.00 16.0V				
	C0141	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0142	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C0145	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	C0148	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
	C0149	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
	C0151	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0152	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C0155	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	C0158	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
	C0159	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
	C0161	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0162	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
	C0163	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J				01
	C0166	**UR837100**	Electrolytic Cap.	10.00 16.0V				01

*: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0171	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0172	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0173	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J				01
C0176	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0201	**VE326800**	Monolithic Mylar Capacitor	0.4700 50V J				01
C0201	**VR169200**	Monolithic Mylar Capacitor	ECQ-V1H474JL3				01
C0202	**VE326600**	Monolithic Mylar Capacitor	0.33 50V J				01
C0202	**VR169000**	Monolithic Mylar Capacitor	ECQ-V1H334JL3				01
C0203	**UA354470**	Mylar Capacitor	0.0470 50V J				
C0204	**VE326700**	Monolithic Mylar Capacitor	0.39 50V J				01
C0204	**VR169100**	Monolithic Mylar Capacitor	ECQ-V1H394JL3				01
C0205	**UA353820**	Mylar Capacitor	8200P 50V J				01
C0206	**UA354330**	Mylar Capacitor	0.0330 50V J				01
C0207	**UA353390**	Mylar Capacitor	3900P 50V J				01
C0208	**UA354180**	Mylar Capacitor	0.0180 50V J				01
C0209	**UA354120**	Mylar Capacitor	0.0120 50V J				01
C0210	**UA353100**	Mylar Capacitor	1000P 50V J				01
C0220	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0231	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0232	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
C0232	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
C0301	**VE326800**	Monolithic Mylar Capacitor	0.4700 50V J				01
C0301	**VR169200**	Monolithic Mylar Capacitor	ECQ-V1H474JL3				01
C0302	**VE326600**	Monolithic Mylar Capacitor	0.33 50V J				01
C0302	**VR169000**	Monolithic Mylar Capacitor	ECQ-V1H334JL3				01
C0303	**UA354470**	Mylar Capacitor	0.0470 50V J				
C0304	**VE326700**	Monolithic Mylar Capacitor	0.39 50V J				01
C0304	**VR169100**	Monolithic Mylar Capacitor	ECQ-V1H394JL3				01
C0305	**UA353820**	Mylar Capacitor	8200P 50V J				01
C0306	**UA354330**	Mylar Capacitor	0.0330 50V J				01
C0307	**UA353390**	Mylar Capacitor	3900P 50V J				01
C0308	**UA354180**	Mylar Capacitor	0.0180 50V J				01
C0309	**UA354120**	Mylar Capacitor	0.0120 50V J				01
C0310	**UA353100**	Mylar Capacitor	1000P 50V J				01
C0320	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0331	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0332	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
C0332	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
C0415	**UR866220**	Electrolytic Cap.	2.20 50.0V				01
C0416	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0417	**UR838220**	Electrolytic Cap.	220.00 16.0V				01
C0425	**UR866220**	Electrolytic Cap.	2.20 50.0V				01
C0426	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0427	**UR838220**	Electrolytic Cap.	220.00 16.0V				01
C0431	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0432	**UR838220**	Electrolytic Cap.	220.00 16.0V				01
C0441	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0445	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J				01
C0446	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0447	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0451	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0455	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J				01
C0456	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0457	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0471	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0481	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0501	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
C0502	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0503	**UR828100**	Electrolytic Cap.	100.00 10.0V				01
C0504	**UR865470**	Electrolytic Cap.	0.47 50.0V				01
C0505	**UR827330**	Electrolytic Cap.	33.00 10.0V				01
C0511	**UA353820**	Mylar Capacitor	8200P 50V J				01
C0512	**UA353390**	Mylar Capacitor	3900P 50V J				01
C0513	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
C0513	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
C0514	**VE327200**	Monolithic Mylar Capacitor	1.0 50V J				02
C0514	**VU838100**	Monolithic Mylar Capacitor	1.0000 50V J				
C0515	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0516	**VE326000**	Monolithic Mylar Capacitor	0.10 50V J				01
-0519	**VE326000**	Monolithic Mylar Capacitor	0.10 50V J				01

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0516	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
-0519	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
C0521	**UA353820**	Mylar Capacitor	8200P 50V J				01
C0522	**UA353390**	Mylar Capacitor	3900P 50V J				01
C0523	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
C0523	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
C0524	**VE327200**	Monolithic Mylar Capacitor	1.0 50V J				02
C0524	**VU838100**	Monolithic Mylar Capacitor	1.0000 50V J				
C0525	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0526	**VE326000**	Monolithic Mylar Capacitor	0.10 50V J				01
-0529	**VE326000**	Monolithic Mylar Capacitor	0.10 50V J				01
C0526	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
-0529	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
C0531	**UA353470**	Mylar Capacitor	4700P 50V J				01
C0532	**UA353470**	Mylar Capacitor	4700P 50V J				01
C0533	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
C0534	**VE326800**	Monolithic Mylar Capacitor	0.4700 50V J				01
C0534	**VR169200**	Monolithic Mylar Capacitor	ECQ-V1H474JL3				01
C0535	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0536	**UR838220**	Electrolytic Cap.	220.00 16.0V				01
C0541	**UA353470**	Mylar Capacitor	4700P 50V J				01
C0542	**UA353470**	Mylar Capacitor	4700P 50V J				01
C0543	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
C0544	**VE326800**	Monolithic Mylar Capacitor	0.4700 50V J				01
C0544	**VR169200**	Monolithic Mylar Capacitor	ECQ-V1H474JL3				01
C0545	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0546	**UR838220**	Electrolytic Cap.	220.00 16.0V				01
C0551	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
C0552	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
C0552	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
C0553	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0554	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
C0610	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0611	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0612	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0613	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
C0641	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
C0642	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0643	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
C0644	**US063120**	Ceramic Capacitor-B (chip)	1200P 50V K				01
C0645	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
C0651	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
C0661	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
C0662	**US062150**	Ceramic Capacitor-SL(chip)	150P 50V J				01
C0663	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
C0701	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0702	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0703	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
C0704	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
-0706	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0721	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
-0723	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
C0731	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
-0733	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
C0741	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0742	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0812	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0814	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0822	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0824	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0833	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0901	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-0904	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0905	**UR749680**	Electrolytic Cap.	6800 25.0V				03
C0921	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0922	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
C0931	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0932	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
C0932	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
C0933	**UR837100**	Electrolytic Cap.	10.00 16.0V				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	C0934	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
	C0935	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0936	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0951	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0952	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0961	**V5333500**	Ceramic Capacitor-B (chip)	10.00 6.3V K				01
	C0962	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0971	**V5333500**	Ceramic Capacitor-B (chip)	10.00 6.3V K				01
	C0972	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C0982	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	CN011	**VB390700**	Connector Base Post	PH 11P TE				01
	CN012	**VK024900**	Wire Trap	52147 5P TE				01
	CN013	**VI878300**	Cable Holder	51048 5P TE				01
	CN046	**VK024900**	Wire Trap	52147 5P TE				01
	CN047	**VI878300**	Cable Holder	51048 5P TE				01
	CN051	**LB918050**	Base Post Connector	XH 5P TE				01
	CN053	**LB918040**	Base Post Connector	XH 4P TE				01
	CN062	**VB390100**	Connector Base Post	PH 5P TE				01
	CN071	**VB390000**	Connector Base Post	PH 4P TE				01
	CN072	**VB390200**	Connector Base Post	PH 6P TE				01
	CN073	**VB390100**	Connector Base Post	PH 5P TE				01
	CN075	**VB390500**	Connector Base Post	PH 9P TE				03
	CN081	**VB390600**	Connector Base Post	PH 10P TE				01
	CN083	**VB389800**	Connector Base Post	PH 2P TE				01
	CN091	**VF728300**	Wire Trap	52147 6P TE				01
	CN094	**VI878400**	Cable Holder	51048 6P TE				01
	CN096	**VB390000**	Connector Base Post	PH 4P TE				01
	CN097	**LB918040**	Base Post Connector	XH 4P TE				01
	CN098	**VB389800**	Connector Base Post	PH 2P TE				01
	D0059	**VT332900**	Diode	1SS355 TE-17				01
	D0074	**VT332900**	Diode	1SS355 TE-17				01
⚠	D0090	**VR313500**	Diode	S3V20				01
	D0092	**VT332900**	Diode	1SS355 TE-17				01
	D0811	**VT332900**	Diode	1SS355 TE-17				01
	D0812	**VT332900**	Diode	1SS355 TE-17				01
	D0821	**VT332900**	Diode	1SS355 TE-17				01
	D0822	**VT332900**	Diode	1SS355 TE-17				01
	EM096	**VD542700**	LC Filter	DSS6NF31C223Q93A				01
	-098	**VD542700**	LC Filter	DSS6NF31C223Q93A				01
	HT051	**--**	Heat Sink	25BS098H-L50		(V776520)		
	HT053	**--**	Heat Sink			(WD18590)		
	IC013	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC021	**XE518A00**	IC	UPC4574G2		OP AMP		03
	IC022	**XE518A00**	IC	UPC4574G2		OP AMP		03
	IC031	**XE518A00**	IC	UPC4574G2		OP AMP		03
	IC032	**XE518A00**	IC	UPC4574G2		OP AMP		03
	IC043	**XE518A00**	IC	UPC4574G2		OP AMP		03
	IC048	**XM217A00**	IC	LA4525		POWER AMP 0.65W 2ch		03
	IC050	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC051	**XQ619A00**	IC	LA4705NA		POWER AMP 17W		05
	IC053	**XW812A00**	IC	LA4262		POWER AMP 7W 2ch		04
	IC055	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC064	**XF291A00**	IC	UPC4570G2		OP AMP		03
*	IC070	**X5475A00**	IC	NJM12904M(TE1)		OP AMP		
	IC074	**WA645200**	Photo Coupler	PC900V0NSZX				04
	IC092	**XJ608A00**	IC	NJM7812FA		REGULATOR +12V		02
	IC093	**XF291A00**	IC	UPC4570G2		OP AMP		03
*	IC095	**X4404A00**	Hybrid IC	MPD6S004S		DC-DC CONVERTER		
	J0050	**--**	Jumper Wire	0.55		(VA07890)		
	J0060	**--**	Jumper Wire	0.55		(VA07890)		
	J0090	**--**	Jumper Wire	0.55		(VA07890)		
	JK014	**VC687500**	Phone Jack Black	YKB21-5014		AUX IN L/L+R		01
	JK015	**VB312600**	Phone Jack Black	YKB21-5012		AUX IN R		02
	JK016	**VP599300**	Pin Jack	2P YKC21-3120		AUX OUT L/R (LEVEL FIXED)		02
	JK044	**VC687500**	Phone Jack Black	YKB21-5014		OUTPUT L/L+R		01
	JK045	**VB312600**	Phone Jack Black	YKB21-5012		OUTPUT R		02
	JK049	**LB101870**	Phone Jack	YKB21-5006		PHONES		03
	JK061	**LB101870**	Phone Jack	YKB21-5006		MIC/LINE IN		03
	JK072	**WA245700**	USB Connector	YKF45-0027 4P SE		USB TO DEVICE		02
	JK073	**V6802600**	USB Jack	USB 4P SE		USB TO HOST		02

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	JK073	**V9016000**	USB Connector	YKF45-0021 4P SE				02
	JK074	**VJ107200**	DIN Connector	5P YKF51-5050		MIDI IN		01
	JK074	**VZ085800**	DIN Connector	5P HDC-052S-01				01
	JK075	**VJ107200**	DIN Connector	5P YKF51-5050		MIDI OUT		01
	JK075	**VZ085800**	DIN Connector	5P HDC-052S-01				01
	JK081	**VS115400**	Phone Jack Black	LGR4609-7000		FOOT PEDAL 1		01
	JK082	**VS115400**	Phone Jack Black	LGR4609-7000		FOOT PEDAL 2		01
	JK083	**VI311100**	Pin Jack	1P YKC21-3017		VIDEO OUT		01
⚠	JK090	**V7509100**	Connector	DJ-0735D*029		DC IN 16V		02
	L0013	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	L0013	**VM898600**	Ferrite Bead	EXC-ELDR35V				01
	L0014	**VB835000**	Coil	FL5R200QNT 20uH				01
	-0017	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0014	**V3085000**	Choke Coil	R-5C.10U 10uH				
	-0017	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0018	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	L0018	**VM898600**	Ferrite Bead	EXC-ELDR35V				01
	L0043	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	L0043	**VM898600**	Ferrite Bead	EXC-ELDR35V				01
	L0044	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0044	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0045	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0045	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0047	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0047	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0048	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0048	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0049	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	L0049	**VM898600**	Ferrite Bead	EXC-ELDR35V				01
⚠	L0090	**WB214900**	Line Filter	PLH10AN1112R6P2B				03
	L0611	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0611	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0612	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0612	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0613	**VF456600**	Coil	SBT-0180W 80uH				03
	L0721	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	L0725	**--**	Jumper Wire	0.55		(VA07890)		
	L0731	**VU954000**	Chip Solid Inductance	BLM21P300SPT				01
	L0735	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0735	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0741	**VQ724900**	Chip Inductance	BK2125HM601-T				01
	L0741	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
	L0742	**VQ724900**	Chip Inductance	BK2125HM601-T				01
	L0742	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
	L0751	**VQ724900**	Chip Inductance	BK2125HM601-T				01
	L0751	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
	L0752	**VQ724900**	Chip Inductance	BK2125HM601-T				01
	L0752	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
	L0753	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0753	**V3085000**	Choke Coil	R-5C.10U 10uH				
	L0811	**VQ724900**	Chip Inductance	BK2125HM601-T				01
	-0813	**VQ724900**	Chip Inductance	BK2125HM601-T				01
	L0811	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
	-0813	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
	L0821	**VQ724900**	Chip Inductance	BK2125HM601-T				01
	-0823	**VQ724900**	Chip Inductance	BK2125HM601-T				01
	L0821	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
	-0823	**VY944700**	Chip Inductance	BLM21BD601SN1D				01
	L0831	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	L0831	**VM898600**	Ferrite Bead	EXC-ELDR35V				01
	L0832	**--**	Jumper Wire	0.55		(VA07890)		
	L0833	**VB835000**	Coil	FL5R200QNT 20uH				01
	L0833	**V3085000**	Choke Coil	R-5C.10U 10uH				
	R0016	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0017	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0018	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0019	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0044	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0045	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0141	**RD350000**	Carbon Resistor (chip)	0 63M J				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R0142	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0143	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0144	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0145	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0146	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0147	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0148	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0149	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0151	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0152	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0153	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0154	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0155	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0156	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0157	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0158	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0159	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0161	**RD355680**	Carbon Resistor (chip)	680.0 63M J				01
R0162	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0163	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
-0166	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0171	**RD355680**	Carbon Resistor (chip)	680.0 63M J				01
R0172	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0173	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
-0176	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0201	**RD357180**	Carbon Resistor (chip)	18.0K 63M J				01
R0202	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0203	**RD356120**	Carbon Resistor (chip)	1.2K 63M J				01
R0204	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0205	**RD356390**	Carbon Resistor (chip)	3.9K 63M J				01
R0206	**RD357180**	Carbon Resistor (chip)	18.0K 63M J				01
R0207	**RD355150**	Carbon Resistor (chip)	150.0 63M J				01
R0208	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0209	**RD357150**	Carbon Resistor (chip)	15.0K 63M J				01
R0210	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0211	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0213	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
-0217	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0220	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
R0221	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0223	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
-0227	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0231	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0232	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0233	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0301	**RD357180**	Carbon Resistor (chip)	18.0K 63M J				01
R0302	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0303	**RD356120**	Carbon Resistor (chip)	1.2K 63M J				01
R0304	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0305	**RD356390**	Carbon Resistor (chip)	3.9K 63M J				01
R0306	**RD357180**	Carbon Resistor (chip)	18.0K 63M J				01
R0307	**RD355150**	Carbon Resistor (chip)	150.0 63M J				01
R0308	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0309	**RD357150**	Carbon Resistor (chip)	15.0K 63M J				01
R0310	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0311	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0313	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
-0317	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0320	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
R0321	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0323	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
-0327	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0331	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0332	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0333	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0401	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0403	**RD356820**	Carbon Resistor (chip)	8.2K 63M J				01
R0404	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0405	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0415	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R0416	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0417	**RD356180**	Carbon Resistor (chip)	1.8K 63M J				01
R0425	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
R0426	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0427	**RD356180**	Carbon Resistor (chip)	1.8K 63M J				01
R0431	--	Jumper Wire	0.55		(VA07890)		
R0441	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
-0443	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0445	**RD357120**	Carbon Resistor (chip)	12.0K 63M J				01
R0446	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0447	**RD355680**	Carbon Resistor (chip)	680.0 63M J				01
R0451	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
-0453	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0455	**RD357120**	Carbon Resistor (chip)	12.0K 63M J				01
R0456	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0457	**RD355680**	Carbon Resistor (chip)	680.0 63M J				01
R0471	**HF455100**	Carbon Resistor	100.0 1/4 J				01
R0472	**HF455330**	Carbon Resistor	330.0 1/4 J				01
R0481	**HF455100**	Carbon Resistor	100.0 1/4 J				01
R0482	**HF455330**	Carbon Resistor	330.0 1/4 J				01
R0510	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0511	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0512	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0513	**RD356270**	Carbon Resistor (chip)	2.7K 63M J				01
R0514	**RD355150**	Carbon Resistor (chip)	150.0 63M J				01
R0516	**HF453220**	Carbon Resistor	2.2 1/4 J				01
R0517	**HF453220**	Carbon Resistor	2.2 1/4 J				01
R0521	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0522	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0523	**RD356270**	Carbon Resistor (chip)	2.7K 63M J				01
R0524	**RD355150**	Carbon Resistor (chip)	150.0 63M J				01
R0526	**HF453220**	Carbon Resistor	2.2 1/4 J				01
R0527	**HF453220**	Carbon Resistor	2.2 1/4 J				01
R0531	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0532	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0533	**RD356180**	Carbon Resistor (chip)	1.8K 63M J				01
R0534	**RD355180**	Carbon Resistor (chip)	180.0 63M J				01
R0541	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0542	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0543	**RD356180**	Carbon Resistor (chip)	1.8K 63M J				01
R0544	**RD355180**	Carbon Resistor (chip)	180.0 63M J				01
R0551	**RD355680**	Carbon Resistor (chip)	680.0 63M J				01
-0554	**RD355680**	Carbon Resistor (chip)	680.0 63M J				01
R0555	**RD356330**	Carbon Resistor (chip)	3.3K 63M J				01
R0556	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
R0591	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0592	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
R0593	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0594	**RD356820**	Carbon Resistor (chip)	8.2K 63M J				01
R0595	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0611	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0641	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0642	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0643	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0644	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0645	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0651	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0652	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0661	**RD356270**	Carbon Resistor (chip)	2.7K 63M J				01
R0662	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0663	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0664	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0703	**RD356220**	Carbon Resistor (chip)	2.2K 63M J				01
R0704	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0705	**RD357270**	Carbon Resistor (chip)	27.0K 63M J				01
R0711	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0712	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0715	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0741	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0742	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R0751	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0752	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0753	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
R0754	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0755	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0756	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0811	**HF454220**	Carbon Resistor	22.0 1/4 J				01
R0812	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0813	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0814	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0821	**HF454220**	Carbon Resistor	22.0 1/4 J				01
R0822	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0823	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0824	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0831	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0931	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0932	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
SW063	**VQ545800**	Slide Switch	SSSF04		MIC/LINE		02
⚠ SW094	**VY980400**	Push Switch	SDDLB1 J,UC,CEE		STANDBY/ON		03
⚠ SW094	**V9661700**	Push Switch	SY16-32-4(U99S2)/T				03
TH070	**VS696900**	Thermistor	ERTD2FGJ202S				01
⚠ TH090	**VV458000**	Protector Switch	RUE250 2.50A 30V				03
⚠ TH090	**V8132900**	Protector Circuit	MF-R250-AP-10				03
TR016	**VD303700**	Transistor	2SC3326 A,B TE85R				01
TR016	**VZ725900**	Transistor	2SD1938(F) S,T				
TR017	**VD303700**	Transistor	2SC3326 A,B TE85R				01
TR017	**VZ725900**	Transistor	2SD1938(F) S,T				
TR018	**VV556500**	Transistor	2SA1037AK Q,R,S				01
TR018	**V8819500**	Transistor	2SA1235A E,F				
TR018	**IB070900**	Transistor	2SB709A P,Q,R,S				01
TR041	**VJ927100**	Transistor	2SC2712 Y				01
TR041	**VQ986700**	Transistor	2SC4081 T106				01
TR041	**VV556400**	Transistor	2SC2412K Q,R,S				01
TR041	**V4767500**	Transistor	2SD601A-(TX) Q,R,S				01
TR042	**VJ927100**	Transistor	2SC2712 Y				01
TR042	**VQ986700**	Transistor	2SC4081 T106				01
TR042	**VV556400**	Transistor	2SC2412K Q,R,S				01
TR042	**V4767500**	Transistor	2SD601A-(TX) Q,R,S				01
TR044	**VD303700**	Transistor	2SC3326 A,B TE85R				01
TR044	**VZ725900**	Transistor	2SD1938(F) S,T				
TR045	**VD303700**	Transistor	2SC3326 A,B TE85R				01
TR045	**VZ725900**	Transistor	2SD1938(F) S,T				
TR055	**VJ927100**	Transistor	2SC2712 Y				01
TR055	**VQ986700**	Transistor	2SC4081 T106				01
TR055	**VV556400**	Transistor	2SC2412K Q,R,S				01
TR055	**V4767500**	Transistor	2SD601A-(TX) Q,R,S				01
TR059	**VV556500**	Transistor	2SA1037AK Q,R,S				01
TR059	**V8819500**	Transistor	2SA1235A E,F				
TR059	**IB070900**	Transistor	2SB709A P,Q,R,S				01
TR075	**VJ927100**	Transistor	2SC2712 Y				01
TR075	**VQ986700**	Transistor	2SC4081 T106				01
TR075	**VV556400**	Transistor	2SC2412K Q,R,S				01
TR075	**V4767500**	Transistor	2SD601A-(TX) Q,R,S				01
TR076	**VJ927100**	Transistor	2SC2712 Y				01
TR076	**VQ986700**	Transistor	2SC4081 T106				01
TR076	**VV556400**	Transistor	2SC2412K Q,R,S				01
TR076	**V4767500**	Transistor	2SD601A-(TX) Q,R,S				01
VR013	**WA994700**	Rotary Variable Resistor	A 10K XV014111YGPV		MASTER VOLUME		02
VR064	**V7597000**	Rotary Variable Resistor	A 10.0K RK09K1110		INPUT VOLUME		03
VR071	**VV049100**	Rotary Variable Resistor	B 10K RK09K1110		LCD CONTRAST		01
WH001	**--**	Connector Assembly	HP 5P L=400		(WB99600)		
WH002	**--**	Connector Assembly	VOL 5P L=350		(WB99610)		
WH003	**--**	Connector Assembly	SW 6P L=500		(WB99620)		
WH004	**--**	GND Wire 1	L=120		(WD38280)	2	
ZD059	**VG437300**	Zener Diode	MTZ J 5.1A 5.1V				01
*	**WC748600**	Circuit Board	DAC1A		(WC74850)(X5174B0)		
C0101	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0102	**UF018100**	Electrolytic Cap. (chip)	100 6.3V				01
C0103	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0104	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0105	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
C0106	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0107	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
C0109	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0110	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0120	**UF018100**	Electrolytic Cap. (chip)	100 6.3V				01
C0302	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0303	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0304	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0305	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0306	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0307	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0308	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0309	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
-0313	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0314	**US062560**	Ceramic Capacitor-SL(chip)	560P 50V J				01
C0315	**US062560**	Ceramic Capacitor-SL(chip)	560P 50V J				01
C0316	**US062180**	Ceramic Capacitor-SL(chip)	180P 50V J				01
-0319	**US062180**	Ceramic Capacitor-SL(chip)	180P 50V J				01
C0324	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0325	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0326	**UF027470**	Electrolytic Cap. (chip)	47 10V				01
C0401	**UF066220**	Electrolytic Cap. (chip)	2.2 50V				01
C0402	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0405	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0406	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0407	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0408	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0409	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0410	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
C0411	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
C0412	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0413	**US061560**	Ceramic Capacitor-CH(chip)	56P 50V J				01
C0414	**US061560**	Ceramic Capacitor-CH(chip)	56P 50V J				01
C0415	**US062330**	Ceramic Capacitor-SL(chip)	330P 50V J				01
C0416	**US062330**	Ceramic Capacitor-SL(chip)	330P 50V J				01
C0417	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
C0418	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
C0423	**RD350000**	Carbon Resistor (chip)	0 63M J				01
C0424	**RD350000**	Carbon Resistor (chip)	0 63M J				01
C0427	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
C0428	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
C0429	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0430	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0431	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0433	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0434	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0601	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0701	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0702	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0703	**RD350000**	Carbon Resistor (chip)	0 63M J				01
CN101	**V6478900**	Connector, FFC/FPC	52808 26P TE				01
CN601	**VT389200**	Base Post Connector	PH 11P TE				01
CN701	**VT388600**	Base Post Connector	PH 5P TE				01
D0101	**VN681100**	Diode	EC10DS4-TE12L				01
D0101	**VS201100**	Diode	D1F60				01
D0102	**VN681100**	Diode	EC10DS4-TE12L				01
D0102	**VS201100**	Diode	D1F60				01
D0401	**VB493900**	Diode	MA221				01
-0404	**VB493900**	Diode	MA221				01
D0401	**VV925900**	Diode	RLS-73 TE-11				01
-0404	**VV925900**	Diode	RLS-73 TE-11				01
IC101	**XV492A00**	IC	UPC2905T-E1		REGULATOR +5V		03
IC102	**XZ642A00**	IC	TAR5S33		REGULATOR +3.3V		
IC301	**XW029A00**	IC	AK4393VF-E2		DAC		07
IC302	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC401	**X5219A00**	IC	AK5381VT-E2		ADC		05
IC402	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC404	**XF291A00**	IC	UPC4570G2		OP AMP		03

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
J0101	**RD350000**	Carbon Resistor (chip)	0 63M J				01
J0104	**RD350000**	Carbon Resistor (chip)	0 63M J				01
L0601	**RD350000**	Carbon Resistor (chip)	0 63M J				01
L0602	**RD350000**	Carbon Resistor (chip)	0 63M J				01
L0603	**V4830100**	Chip Inductance	MMZ1608Y601C				01
-0606	**V4830100**	Chip Inductance	MMZ1608Y601C				01
L0701	**V4830100**	Chip Inductance	MMZ1608Y601C				01
R0102	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0103	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0104	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0106	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0108	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0109	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0110	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0111	**RD154270**	Carbon Resistor (chip)	27.0 1/4 J				01
R0112	**RD154270**	Carbon Resistor (chip)	27.0 1/4 J				01
R0114	**RD150000**	Carbon Resistor (chip)	0.0 1/4 J				01
R0115	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0120	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0121	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0301	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
-0304	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0305	**RD356820**	Carbon Resistor (chip)	8.2K 63M J				01
-0307	**RD356820**	Carbon Resistor (chip)	8.2K 63M J				01
R0308	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0309	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0310	**RD356820**	Carbon Resistor (chip)	8.2K 63M J				01
R0311	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0312	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0315	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0316	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0318	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0319	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0401	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0402	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0403	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
R0404	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0409	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0410	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0411	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0414	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0415	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0416	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0417	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0418	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0419	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0420	**RD356560**	Carbon Resistor (chip)	5.6K 63M J				01
R0421	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0422	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0424	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0425	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0601	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0701	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0702	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
TR101	**VJ927100**	Transistor	2SC2712 Y				01
TR101	**VV556400**	Transistor	2SC2412K Q,R,S				01
TR101	**VV925400**	Transistor	2SC2712 GR				01
TR101	**V4767500**	Transistor	2SD601A-(TX) Q,R,S				01
ZD401	**V8960900**	Zener Diode	MA8024-(TX) 2.4V				01
-404	**V8960900**	Zener Diode	MA8024-(TX) 2.4V				01
*	**WC295600**	Circuit Board	DM2-E		(X4383E0)		
C0001	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C0002	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-0005	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0007	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0009	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0010	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0011	**V9452200**	Electrolytic Cap. (chip)	150.00 4.0V				03
C0012	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0013	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0014	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0015	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0016	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0021	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0022	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0023	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0024	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0025	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0026	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C0027	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0028	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0033	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0034	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C0035	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0040	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0041	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0042	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0043	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0044	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0049	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0052	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0053	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0054	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0055	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0056	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0057	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0058	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C0059	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0060	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0061	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0065	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0066	**US060500**	Ceramic Capacitor-CH(chip)	5P 50V C				01
C0067	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0068	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0069	**US060500**	Ceramic Capacitor-CH(chip)	5P 50V C				01
C0070	**V9452200**	Electrolytic Cap. (chip)	150.00 4.0V				03
C0071	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0079	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0080	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C0084	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0086	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0087	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0088	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0090	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0091	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0092	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0093	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0108	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0109	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0110	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0111	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0112	**US061120**	Ceramic Capacitor-CH(chip)	12P 50V J				01
C0113	**US061150**	Ceramic Capacitor-CH(chip)	15P 50V J				01
C0114	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0115	**US061120**	Ceramic Capacitor-CH(chip)	12P 50V J				01
C0116	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
-0120	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0121	**US061150**	Ceramic Capacitor-CH(chip)	15P 50V J				01
C0122	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0123	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0124	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0128	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0129	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0130	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0131	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0132	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0133	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0134	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0135	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0136	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C0137	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
-0140	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C0141	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0142	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0143	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0144	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0145	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0146	**UF128470**	Electrolytic Cap. (chip)	470 10V UUR1A4				02
C0147	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0148	**UF128470**	Electrolytic Cap. (chip)	470 10V UUR1A4				02
C0149	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0150	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0151	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0157	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0158	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0159	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0160	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0161	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C0162	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0166	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0168	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0170	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0171	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0174	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0175	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0179	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0180	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0181	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C0182	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0184	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0185	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0186	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0187	**US061120**	Ceramic Capacitor-CH(chip)	12P 50V J				01
C0188	**US061120**	Ceramic Capacitor-CH(chip)	12P 50V J				01
C0189	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0191	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0193	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0194	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0195	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0196	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0198	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C0200	**RD350000**	Carbon Resistor (chip)	0 63M J				01
C0201	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0400	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0441	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
CN001	**VT389000**	Base Post Connector	PH 9P TE				01
CN003	**VT389100**	Base Post Connector	PH 10P TE				01
CN004	**VT388400**	Base Post Connector	PH 3P TE				01
CN005	**VT388600**	Base Post Connector	PH 5P TE				01
CN006	**VT388700**	Base Post Connector	PH 6P TE				01
CN009	**VT388300**	Base Post Connector	PH 2P TE				
CN010	**V7294600**	Connector, FFC/FPC	52559 20P TE				02
CN011	**VT388500**	Base Post Connector	PH 4P TE				01
CN012	**LB918040**	Base Post Connector	XH 4P TE				01
CN013	**VT388500**	Base Post Connector	PH 4P TE				01
CN014	**V9028300**	Connector, FFC/FPC	52808 24P TE				02
CN016	**VT388800**	Base Post Connector	PH 7P TE				
CN018	**VT388800**	Base Post Connector	PH 7P TE				
CN019	**V6089200**	Connector Receptacle	8801 60P SE				05
D0002	**VS201100**	Diode	D1F60				01
DA001	**V9424900**	Diode Array	1SS372 TE85L				01
-004	**V9424900**	Diode Array	1SS372 TE85L				01
IC001	**XY945A00**	IC	TC74VHC32FT		OR		01
IC002	**XV890A00**	IC	TC74VHC14FT		INVERTER		02
IC003	**X0609A00**	IC	LMS8117AMP-ADJ		REGULATOR		03
IC004	**X4160A00**	IC	RN5VD29CA-TR		SYSTEM RESET		
IC005	**XV890A00**	IC	TC74VHC14FT		INVERTER		02
IC006	**X2890B00**	IC	HD6417727F160C		CPU		15
IC007	**XW792A00**	IC	SN74HC132NSR		NAND		02

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	IC008	**X0506A00**	IC	M5233FP-600D		COMPARATOR		02
	IC009	**XV890A00**	IC	TC74VHC14FT		INVERTER		02
	IC010	**X3123A00**	IC	HD74LV126ATELL		BUFFER		
	IC011	**X3119A00**	IC	LM3525MX-H		USB POWER SWITCH		05
	IC012	**XV890A00**	IC	TC74VHC14FT		INVERTER		02
	IC016	**XZ372A00**	IC	TC74VHCT32AFT-EL		OR		01
	IC017	**X3584A00**	IC	W981216BH-75		SDRAM 128M		11
	IC017	**X3584B00**	IC	W9812G6DH-7				
	IC018	**X3584A00**	IC	W981216BH-75		SDRAM 128M		11
	IC018	**X3584B00**	IC	W9812G6DH-7				
*	IC019	**X4029A00**	IC	S1D13806F00A200		LCDC		
	IC020	**XW148A00**	IC	HD74LVC245ATELL		TRANSCEIVER		02
	-023	**XW148A00**	IC	HD74LVC245ATELL		TRANSCEIVER		02
	IC024	**X0010A00**	IC	HD74LV21ATELL		AND		01
	IC025	**XN567A00**	IC	TC7WU04F		INVERTER		01
	IC026	**XN567A00**	IC	TC7WU04F		INVERTER		01
	IC027	**XW148A00**	IC	HD74LVC245ATELL		TRANSCEIVER		02
	IC028	**XW148A00**	IC	HD74LVC245ATELL		TRANSCEIVER		02
	IC029	**X4962A00**	IC	HD74LVC138TELL		DECODER		02
	IC030	**X4962A00**	IC	HD74LVC138TELL		DECODER		02
	IC031	**X4963A00**	IC	HD74LVC139TELL		DECODER		02
	IC032	**X4961A00**	IC	HD74LVC08TELL		AND		01
	IC033	**X4961A00**	IC	HD74LVC08TELL		AND		01
*	IC034	**X5029100**	IC	MR27V12800J-07U		P2ROM 128M DATA		
	IC036	**X2689A00**	IC	HD74LV273ATELL		D-FF		01
	IC037	**XY945A00**	IC	TC74VHC32FT		OR		01
	IC040	**XV890A00**	IC	TC74VHC14FT		INVERTER		02
	IC041	**X2689A00**	IC	HD74LV273ATELL		D-FF		01
	IC042	**XW744A00**	IC	HD74LV245ATELL		TRANSCEIVER		02
	IC043	**XW744A00**	IC	HD74LV245ATELL		TRANSCEIVER		02
	IC044	**XY945A00**	IC	TC74VHC32FT		OR		01
*	IC047	**X5028C00**	IC	777AV030		FLASH ROM 128M PROGRAM		
	IC052	**XZ610A00**	IC	MBM29LV160BE-70TN		F. ROM 16M DATA STORAGE		12
	IC054	**XW744A00**	IC	HD74LV245ATELL		TRANSCEIVER		02
	IC055	**X5343100**	IC	M38869M8A-184GP		CPU		07
	IC056	**XW744A00**	IC	HD74LV245ATELL		TRANSCEIVER		02
	IC057	**XW744A00**	IC	HD74LV245ATELL		TRANSCEIVER		02
	IC058	**XY945A00**	IC	TC74VHC32FT		OR		01
	IC059	**XN567A00**	IC	TC7WU04F		INVERTER		01
	L0001	**VR579900**	Chip Inductance	BK2125HS601-T				01
	L0032	**VY657200**	Chip Inductance	600 BK1608HM601				01
	-0037	**VY657200**	Chip Inductance	600 BK1608HM601				01
	L0050	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	L0051	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R0001	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
*	R0004	**RF455560**	Carbon Resistor (chip)	560.0 D				
	R0005	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0006	**RF454820**	Carbon Resistor (chip)	82.0 D				01
	R0007	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0008	**RF455220**	Carbon Resistor (chip)	220.0 D				
	R0010	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
	R0011	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
	R0012	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
	-0015	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
	R0017	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0018	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0019	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
	R0020	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
	R0022	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0025	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
	R0026	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0027	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0028	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	-0031	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0034	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0035	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
	R0036	**RD355220**	Carbon Resistor (chip)	220.0 63M J				01
	R0037	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
	R0038	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
	R0039	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R0040	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0041	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
R0042	**RD356270**	Carbon Resistor (chip)	2.7K 63M J				01
R0043	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
-0046	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0047	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0048	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
-0051	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0052	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0053	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0054	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0055	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0056	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0057	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0058	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0059	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0060	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0061	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0062	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0063	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0064	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0065	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0066	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
-0068	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0069	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0070	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0071	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0072	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0073	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0074	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0075	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0076	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0077	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0078	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0080	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0081	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0082	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0083	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0084	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0085	**RD154270**	Carbon Resistor (chip)	27.0 1/4 J				01
R0086	**RD154270**	Carbon Resistor (chip)	27.0 1/4 J				01
R0087	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
-0089	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0090	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0091	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0092	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
R0093	**RD154270**	Carbon Resistor (chip)	27.0 1/4 J				01
R0094	**RD154270**	Carbon Resistor (chip)	27.0 1/4 J				01
R0095	**RD357150**	Carbon Resistor (chip)	15.0K 63M J				01
R0097	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0098	**RD357150**	Carbon Resistor (chip)	15.0K 63M J				01
R0099	**RD357220**	Carbon Resistor (chip)	22.0K 63M J				01
R0100	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
R0102	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
R0104	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0105	**RD355330**	Carbon Resistor (chip)	330.0 63M J				01
R0106	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0107	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0112	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
-0116	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0117	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0118	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0119	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0128	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0130	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0132	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0133	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0134	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0137	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0142	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R0144	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0146	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0147	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0150	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0152	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0153	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0158	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0162	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0163	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
R0164	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0165	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0166	**RD355150**	Carbon Resistor (chip)	150.0 63M J				01
R0167	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0168	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0170	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0171	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0173	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0174	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
-0179	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0180	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
R0181	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
-0183	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0184	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0185	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0186	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
R0187	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
R0188	**RD354820**	Carbon Resistor (chip)	82.0 63M J				01
R0189	**RD355470**	Carbon Resistor (chip)	470.0 63M J				01
R0190	**RD356150**	Carbon Resistor (chip)	1.5K 63M J				01
R0191	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0192	**RD355330**	Carbon Resistor (chip)	330.0 63M J				01
R0193	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
R0194	**RD359100**	Carbon Resistor (chip)	1.0M 63M J				01
R0195	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
R0196	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0197	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0199	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0200	**RD359100**	Carbon Resistor (chip)	1.0M 63M J				01
R0201	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0202	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
-0216	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0217	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0218	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0219	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
-0224	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0225	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
R0226	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0227	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
R0228	**RD358470**	Carbon Resistor (chip)	470.0K 63M J				01
R0229	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0230	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0231	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0232	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0235	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0237	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0238	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0239	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0240	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0241	**RD355470**	Carbon Resistor (chip)	470.0 63M J				01
R0242	**RD358100**	Carbon Resistor (chip)	100.0K 63M J				01
R0250	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0252	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0253	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
R0255	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
R0261	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0262	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0263	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0264	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0265	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0266	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R0267	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0268	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0269	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0270	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0271	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0274	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0275	**RD359100**	Carbon Resistor (chip)	1.0M 63M J				01
R0276	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0277	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
-0279	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
R0281	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0282	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
-0285	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0286	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0287	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0288	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0289	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0290	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0291	**RD359100**	Carbon Resistor (chip)	1.0M 63M J				01
R0292	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
R0294	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0295	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0301	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0310	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0311	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0314	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0316	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0317	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0319	**RD350000**	Carbon Resistor (chip)	0 63M J				01
-0321	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0326	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0327	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0329	**RD355100**	Carbon Resistor (chip)	100.0 63M J				01
R0330	**RD150000**	Carbon Resistor (chip)	0.0 1/4 J				01
R0339	**RD357470**	Carbon Resistor (chip)	47.0K 63M J				01
R0340	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0341	**RD356470**	Carbon Resistor (chip)	4.7K 63M J				01
R0348	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0349	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0355	**RD354330**	Carbon Resistor (chip)	33.0 63M J				01
R0400	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0401	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
R0402	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0403	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0405	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
RA001	**RE044680**	Resistor Array	68X4				01
-005	**RE044680**	Resistor Array	68X4				01
RA007	**RE044680**	Resistor Array	68X4				01
RA011	**RE044680**	Resistor Array	68X4				01
RA013	**RE044680**	Resistor Array	68X4				01
RA014	**RE047100**	Resistor Array	10KX4				01
RA015	**RE047100**	Resistor Array	10KX4				01
RA016	**RE044470**	Resistor Array	47X4				01
-027	**RE044470**	Resistor Array	47X4				01
RA028	**RE044220**	Resistor Array	22X4				01
-033	**RE044220**	Resistor Array	22X4				01
RA034	**RE047470**	Resistor Array	47KX4				01
-039	**RE047470**	Resistor Array	47KX4				01
RA040	**RE044680**	Resistor Array	68X4				01
-042	**RE044680**	Resistor Array	68X4				01
RA043	**RE047470**	Resistor Array	47KX4				01
-046	**RE047470**	Resistor Array	47KX4				01
RA047	**RE044470**	Resistor Array	47X4				01
-056	**RE044470**	Resistor Array	47X4				01
RA057	**RE047100**	Resistor Array	10KX4				01
-059	**RE047100**	Resistor Array	10KX4				01
RA076	**RE044470**	Resistor Array	47X4				01
RA077	**RE047470**	Resistor Array	47KX4				01
RA078	**RE045100**	Resistor Array	100X4				01
RA079	**RE044470**	Resistor Array	47X4				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	RA080	**RE047470**	Resistor Array	47KX4				01
	RA081	**RE045100**	Resistor Array	100X4				01
	RA082	**RE047470**	Resistor Array	47KX4				01
	-085	**RE047470**	Resistor Array	47KX4				01
	RA086	**RE044470**	Resistor Array	47X4				01
	-093	**RE044470**	Resistor Array	47X4				01
	SW003	**V3026900**	Slide Switch	CHS-01 TA1		J/E Select		02
	TR001	**VV556400**	Transistor	2SC2412K Q,R,S				01
	TR002	**VV556400**	Transistor	2SC2412K Q,R,S				01
	TR003	**V2569000**	Transistor	2SB766A				01
	TR004	**VV556400**	Transistor	2SC2412K Q,R,S				01
	X0001	**V9704700**	Quartz Crystal Unit	48MHz SG-710ECK				
	X0001	**WA244900**	Quartz Crystal Unit	48.000MHz DSO751SV				04
	X0002	**VP864900**	Quartz Crystal Unit	16MHz SMD-49				04
*	X0003	**WB562800**	Quartz Crystal Unit	50MHz SG-710ECK				
*	X0003	**WC624600**	Quartz Crystal Unit	50MHz DSO751SV				
	X0004	**V6074900**	Quartz Crystal Unit	17.734475MHz SMD-49				03
	X0005	**V6074800**	Quartz Crystal Unit	14.31818MHz SMD-49				03
	X0006	**VY681200**	Ceramic Resonator	CSTCC8M00G53-R0				01
	X0007	**VP864800**	Quartz Crystal Unit	11.2896MHz SMD-49				04
*		**WB914100**	Circuit Board	EMKSA (E-BUS)		(WB91400)(X0092D0)		
		--	Vibration-proof Tape	10X64X0.5		(VK34680)		
		--	Jumper Wire	0.55		(VA07890)		
	C0001	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C0002	**UR828100**	Electrolytic Cap.	100.00 10.0V				01
	C0003	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	C0004	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C0005	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C0006	**VP755200**	Ceramic Capacitor Array	100P 50V K				02
	C0007	**VP755200**	Ceramic Capacitor Array	100P 50V K				02
	CN001	**VB390300**	Connector Base Post	PH 7P TE				01
	CN002	**VK025600**	Wire Trap	52147 12P TE				01
	CN003	**VK024900**	Wire Trap	52147 5P TE				01
	CN004	**VK025100**	Wire Trap	52147 7P TE				01
	D0001	**VB941200**	Diode	1SS133,1SS176				01
	-0003	**VB941200**	Diode	1SS133,1SS176				01
	IC001	**X0031200**	IC	UPD780031AYGK-N04		CPU		05
	J0002	**--**	Jumper Wire	0.55		(VA07890)		
	R0001	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
	R0002	**HF754470**	Carbon Resistor	47.0 1/4 J				01
	R0003	**HF754470**	Carbon Resistor	47.0 1/4 J				01
	RA001	**V8090800**	Resistor Array	RGLE12X103J				01
	X0001	**V6091100**	Ceramic Resonator	8.38MHz EFOMC8384T4				01
*		**WB856500**	Circuit Board	ENC		(WB85600)(X4702E0)		
*		**WB989400**	Circuit Board	INV		(WB85600)(X4702E0)		
*		**WB857100**	Circuit Board	PNCL		(WB85600)(X4702E0)		
*		**WB856600**	Circuit Board	PNL		(WB85600)(X4702E0)		
	J	**--**	Jumper Wire	0.55		(VA07890)		
	C0500	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	C0501	**UR828220**	Electrolytic Cap.	220.00 10.0V				01
	C0502	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
*	C0504	**WB688000**	Capacitor	0.15 250V K				
	C0505	**V4007700**	Ceramic Capacitor-SL	15P 3KV J				01
	CN104	**VI878800**	Cable Holder	51048 10P TE				01
	CN106	**VI878100**	Cable Holder	51048 3P TE				01
	CN107	**VI878200**	Cable Holder	51048 4P TE				01
	CN108	**VI879400**	Cable Holder	51048 16P TE				01
	CN109	**VI878900**	Cable Holder	51048 11P TE				01
	CN110	**VI878500**	Cable Holder	51048 7P TE				01
	CN201	**VI878800**	Cable Holder	51048 10P TE				01
	CN301	**VI878100**	Cable Holder	51048 3P TE				01
	CN500	**VB389900**	Connector Base Post	PH 3P TE				01
*	CN501	**WB748700**	Connector	S02(8.0)B-BHS				
	CN502	**VB389800**	Connector Base Post	PH 2P TE				01
	D0070	**VD631600**	Diode	1SS133,176,HSS104				01
	-0075	**VD631600**	Diode	1SS133,176,HSS104				01
	D0078	**VD631600**	Diode	1SS133,176,HSS104				01
	-0088	**VD631600**	Diode	1SS133,176,HSS104				01

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	D0090	**VD631600**	Diode	1SS133,176,HSS104				01
	-0097	**VD631600**	Diode	1SS133,176,HSS104				01
	D0100	**VD631600**	Diode	1SS133,176,HSS104				01
	-0102	**VD631600**	Diode	1SS133,176,HSS104				01
	D0104	**VD631600**	Diode	1SS133,176,HSS104				01
	-0108	**VD631600**	Diode	1SS133,176,HSS104				01
	D0110	**VD631600**	Diode	1SS133,176,HSS104				01
	-0116	**VD631600**	Diode	1SS133,176,HSS104				01
	D0144	**VD631600**	Diode	1SS133,176,HSS104				01
	-0149	**VD631600**	Diode	1SS133,176,HSS104				01
	D0170	**VD631600**	Diode	1SS133,176,HSS104				01
	-0188	**VD631600**	Diode	1SS133,176,HSS104				01
	D0190	**VD631600**	Diode	1SS133,176,HSS104				01
	D0500	**VD631600**	Diode	1SS133,176,HSS104				01
	EC301	**VU481300**	Encoder	REB161 PVB 15F		DATA ENTRY		03
	L0500	**GE901870**	Coil	SN3-205B 10uH				03
*	L0501	**WB531900**	Coil	RCH-108-221 220uH				
*	LD070	**WB947500**	LED Red	SLZ-9G81B-34-T1		SONG(GUIDE)		
*	LD071	**WB947500**	LED Red	SLZ-9G81B-34-T1		SONG(REPEAT)		
*	LD072	**WB947500**	LED Red	SLZ-9G81B-34-T1		SONG(REC)		
	LD074	**VG197600**	LED Green/Red	GL3ED8		SONG(EXTRA TRACKS)		01
	LD075	**VG197600**	LED Green/Red	GL3ED8		SONG(PLAY/PAUSE)		01
	LD076	**VG197600**	LED Green/Red	GL3ED8		SONG(TRACK 2)		01
	LD077	**VG197600**	LED Green/Red	GL3ED8		SONG(TRACK 1)		01
*	LD078	**WB947500**	LED Red	SLZ-9G81B-34-T1		SONG(PERFORMANCE ASSISTANT)		
*	LD079	**WB947300**	LED Red	SLZ-9G81B-03-T1		FADE IN/OUT		
*	LD084	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE(POP & ROCK)		
*	LD085	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE(BALLAD)		
*	LD086	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE(DANCE)		
*	LD087	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE(SWING & JAZZ)		
*	LD088	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE(R & B)		
*	LD089	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE(COUNTRY)		
	LD090	**VG197600**	LED Green/Red	GL3ED8		MULTI PAD CONTROL 1		01
	LD091	**VG197600**	LED Green/Red	GL3ED8		MULTI PAD CONTROL 2		01
	LD092	**VG197600**	LED Green/Red	GL3ED8		MULTI PAD CONTROL 3		01
	LD093	**VG197600**	LED Green/Red	GL3ED8		MULTI PAD CONTROL 4		01
*	LD094	**WB947400**	LED Red	SLZ-9G81B-33-T1		STYLE(LATIN)		
*	LD095	**WB947400**	LED Red	SLZ-9G81B-33-T1		STYLE(BALLROOM)		
*	LD096	**WB947400**	LED Red	SLZ-9G81B-33-T1		STYLE(MOVIE & SHOW)		
*	LD097	**WB947400**	LED Red	SLZ-9G81B-33-T1		STYLE(ENTERTAINER)		
*	LD098	**WB947400**	LED Red	SLZ-9G81B-33-T1		STYLE(WORLD)		
*	LD099	**WB947400**	LED Red	SLZ-9G81B-33-T1		STYLE(USER)		
*	LD160	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE CONTROL(ACMP ON/OFF)		
*	LD161	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE CONTROL(OTS LINK)		
*	LD162	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE CONTROL(AUTO FILL IN)		
	LD163	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(INTRO I)		01
	LD164	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(INTRO II)		01
	LD165	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(INTRO III)		01
	LD166	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(MAIN VARIATION A)		01
	LD167	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(MAIN VARIATION B)		01
	LD168	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(MAIN VARIATION C)		01
	LD169	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(MAIN VARIATION D)		01
*	LD189	**WB947700**	LED Green	SEL4426G		MIC/LINE IN(SIGNAL)		
	LD191	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(BREAK)		01
	LD192	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(ENDING/rit.I)		01
	LD193	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(ENDING/rit.II)		01
	LD194	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(ENDING/rit.III)		01
*	LD195	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE CONTROL(SYNC STOP)		
*	LD196	**WB947300**	LED Red	SLZ-9G81B-03-T1		STYLE CONTROL(SYNC START)		
	LD197	**VG197600**	LED Green/Red	GL3ED8		STYLE CONTROL(START/STOP)		01
*	LD198	**WB947500**	LED Red	SLZ-9G81B-34-T1		METRONOME ON/OFF		
*	LD199	**WB947600**	LED Red	SEL4226R		MIC/LINE IN(OVER)		
	R0100	**HF755120**	Carbon Resistor	120.0 1/4 J				01
	-0107	**HF755120**	Carbon Resistor	120.0 1/4 J				01
	R0500	**HF755330**	Carbon Resistor	330.0 1/4 J				01
	R0501	**HF757220**	Carbon Resistor	22.0K 1/4 J				01
	R0502	**HF756120**	Carbon Resistor	1.2K 1/4 J				01
*	SP074	**WC176600**	LED Spacer	L=9.0				
*	-077	**WC176600**	LED Spacer	L=9.0				
*	SP090	**WC176600**	LED Spacer	L=9.0				

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	-093	**WC176600**	LED Spacer	L=9.0				
*	SP163	**WB948200**	LED Spacer	L=7.0				
	-169	**WB948200**	LED Spacer	L=7.0				
*	SP189	**V2493700**	LED Spacer	H=4.5				03
*	SP191	**WB948200**	LED Spacer	L=7.0				
*	-194	**WB948200**	LED Spacer	L=7.0				
*	SP197	**WB948200**	LED Spacer	L=7.0				
	SP199	**V2493700**	LED Spacer	H=4.5				03
	SW070	**VV056000**	Tact Switch	SKQNAED010		MULTI PAD CONTROL 1		01
	SW071	**VV056000**	Tact Switch	SKQNAED010		MULTI PAD CONTROL 2		01
	SW072	**VV056000**	Tact Switch	SKQNAED010		MULTI PAD CONTROL 3		01
	SW073	**VV056000**	Tact Switch	SKQNAED010		MULTI PAD CONTROL 4		01
	SW074	**VV056000**	Tact Switch	SKQNAED010		MULTI PAD CONTROL(MULTI PAD SELECT)		01
	SW075	**VV056000**	Tact Switch	SKQNAED010		MULTI PAD CONTROL(STOP)		01
	SW078	**VV056000**	Tact Switch	SKQNAED010		SONG(PERFORMANCE ASSISTANT)		01
	SW079	**VV056000**	Tact Switch	SKQNAED010		DEMO		01
	SW080	**VV056000**	Tact Switch	SKQNAED010		TRANSPOSE -		01
	SW081	**VV056000**	Tact Switch	SKQNAED010		TRANSPOSE +		01
	SW082	**VV056000**	Tact Switch	SKQNAED010		SONG(REC)		01
	SW083	**VV056000**	Tact Switch	SKQNAED010		SONG(STOP)		01
	SW084	**VV056000**	Tact Switch	SKQNAED010		STYLE(POP & ROCK)		01
	SW085	**VV056000**	Tact Switch	SKQNAED010		SONG(PLAY/PAUSE)		01
	SW086	**VV056000**	Tact Switch	SKQNAED010		SONG(REW)		01
	SW087	**VV056000**	Tact Switch	SKQNAED010		SONG(FF)		01
	SW088	**VV056000**	Tact Switch	SKQNAED010		BALANCE		01
	SW090	**VV056000**	Tact Switch	SKQNAED010		STYLE(BALLAD)		01
	SW091	**VV056000**	Tact Switch	SKQNAED010		SONG(REPEAT)		01
	SW092	**VV056000**	Tact Switch	SKQNAED010		STYLE(DANCE)		01
	SW093	**VV056000**	Tact Switch	SKQNAED010		STYLE(SWING & JAZZ)		01
	SW094	**VV056000**	Tact Switch	SKQNAED010		SONG(EXTRA TRACKS)		01
	SW095	**VV056000**	Tact Switch	SKQNAED010		STYLE(R & B)		01
	SW096	**VV056000**	Tact Switch	SKQNAED010		SONG(TRACK 2)		01
	SW097	**VV056000**	Tact Switch	SKQNAED010		SONG(TRACK 1)		01
	SW100	**VV056000**	Tact Switch	SKQNAED010		SONG(GUIDE)		01
	SW101	**VV056000**	Tact Switch	SKQNAED010		STYLE(COUNTRY)		01
	SW102	**VV056000**	Tact Switch	SKQNAED010		STYLE(LATIN)		01
	SW104	**VV056000**	Tact Switch	SKQNAED010		SONG(SCORE)		01
	SW105	**VV056000**	Tact Switch	SKQNAED010		STYLE(BALLROOM)		01
	SW106	**VV056000**	Tact Switch	SKQNAED010		STYLE(MOVIE & SHOW)		01
	SW107	**VV056000**	Tact Switch	SKQNAED010		SONG(KARAOKE)		01
	SW108	**VV056000**	Tact Switch	SKQNAED010		SONG(SONG SELECT)		01
	SW110	**VV056000**	Tact Switch	SKQNAED010		LCD Select A		01
	SW111	**VV056000**	Tact Switch	SKQNAED010		LCD Select B		01
	SW112	**VV056000**	Tact Switch	SKQNAED010		LCD Select C		01
	SW113	**VV056000**	Tact Switch	SKQNAED010		LCD Select D		01
	SW114	**VV056000**	Tact Switch	SKQNAED010		LCD Select E		01
	SW115	**VV056000**	Tact Switch	SKQNAED010		DIRECT ACCESS		01
	SW116	**VV056000**	Tact Switch	SKQNAED010		CHANNEL ON/OFF		01
	SW144	**VV056000**	Tact Switch	SKQNAED010		STYLE(ENTERTAINER)		01
	SW145	**VV056000**	Tact Switch	SKQNAED010		MIC SETTING/VOCAL HARMONY		01
	SW146	**VV056000**	Tact Switch	SKQNAED010		TEMPO +		01
	SW147	**VV056000**	Tact Switch	SKQNAED010		TEMPO -		01
	SW148	**VV056000**	Tact Switch	SKQNAED010		METRONOME ON/OFF		01
	SW149	**VV056000**	Tact Switch	SKQNAED010		FADE IN/OUT		01
	SW170	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(ACMP ON/OFF)		01
	SW171	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(OTS LINK)		01
	SW172	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(AUTO FILL IN)		01
	SW173	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(INTRO I)		01
	SW174	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(INTRO II)		01
	SW175	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(INTRO III)		01
	SW176	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(MAIN VARIATION A)		01
	SW177	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(MAIN VARIATION B)		01
	SW178	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(MAIN VARIATION C)		01
	SW179	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(MAIN VARIATION D)		01
	SW180	**VV056000**	Tact Switch	SKQNAED010		STYLE(WORLD)		01
	SW181	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(BREAK)		01
	SW182	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(ENDING/rit.I)		01
	SW183	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(ENDING/rit.II)		01
	SW184	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(ENDING/rit.III)		01
	SW185	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(SYNC STOP)		01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	SW186	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(SYNC START)		01
	SW187	**VV056000**	Tact Switch	SKQNAED010		STYLE CONTROL(START/STOP)		01
	SW188	**VV056000**	Tact Switch	SKQNAED010		STYLE(USER)		01
	SW190	**VV056000**	Tact Switch	SKQNAED010		TAP TEMPO		01
*	T0500	**WC013700**	Inverter Transformer	EP208B/TW 170mH				
	TR500	**VP872600**	Transistor	2SA1708 S,T				01
	TR501	**VS185600**	Transistor	2SD1863 TV2 82-390				01
	TR502	**VS185600**	Transistor	2SD1863 TV2 82-390				01
	WIRE1	--	Connector Assembly	PN1 3P L=55		(WC37730)		
	WIRE2	--	Connector Assembly	PN2 10P L=280		(WD54440)		
	WIRE3	--	Connector Assembly	PN3 16P L=460		(WD54450)		
	WIRE4	--	Connector Assembly	PN4 11P L=540		(WD54460)		
	WIRE5	--	Connector Assembly	PN5 7P L=450		(WD54470)		
	WIRE6	--	Connector Assembly	PN6 3P L=480		(WD28230)		
	WIRE7	--	Connector Assembly	PN7 4P L=480		(WD28240)		
		VU648200	Circuit Board	MK-H		(VU64800)(XR565C0)		09
	2	**VB941200**	Diode	1SS133,1SS176		A#3-C6		01
	5	**VK025600**	Wire Trap	52147 12P TE				01
	6	**VK024900**	Wire Trap	52147 5P TE				01
		VU648100	Circuit Board	MK-L		(VU64790)(XR564C0)		09
	2	**VB941200**	Diode	1SS133,1SS176		C1-A3		01
	5	**VK025600**	Wire Trap	52147 12P TE				01
	6	**VK025100**	Wire Trap	52147 7P TE				01
*		**WB856300**	Circuit Board	MOD		(WB94790)(X4701E0)		
*		**WB856200**	Circuit Board	PB		(WB94790)(X4701E0)		
*		**WB856100**	Circuit Board	PNCC		(WB94790)(X4701E0)		
*		**WB856900**	Circuit Board	PNCR		(WB94790)(X4701E0)		
*		**WB855900**	Circuit Board	PNR		(WB94790)(X4701E0)		
	C0100	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0101	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0104	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	-0113	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0115	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0117	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0119	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	-0121	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0122	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C0123	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	C0124	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0126	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	-0129	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0131	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	-0141	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0142	**UR828220**	Electrolytic Cap.	220.00 10.0V				01
	C0143	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0146	**UR828220**	Electrolytic Cap.	220.00 10.0V				01
	C0148	**UR828220**	Electrolytic Cap.	220.00 10.0V				01
	C0149	**UR828220**	Electrolytic Cap.	220.00 10.0V				01
	C0150	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J				01
	C0151	**US061680**	Ceramic Capacitor-SL(chip)	68P 50V J				01
	C0152	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0155	**UR828220**	Electrolytic Cap.	220.00 10.0V				01
	C0156	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0157	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0159	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0161	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	CN100	**VB390300**	Connector Base Post	PH 7P TE				01
	CN105	**VK024700**	Wire Trap	52147 3P TE				01
	CN110	**VK025700**	Wire Trap	52147 13P TE				01
	CN111	**VJ861600**	Wire Trap	52147 16P TE				01
	CN112	**VK025500**	Wire Trap	52147 11P TE				01
	CN113	**VK025100**	Wire Trap	52147 7P TE				01
	CN201	**VK025700**	Wire Trap	52147 13P TE				01
	CN202	**VF728200**	Wire Trap	52147 10P TE				01
	CN301	**VF728200**	Wire Trap	52147 10P TE				01
	CN401	**VK024700**	Wire Trap	52147 3P TE				01
	CN501	**VK024800**	Wire Trap	52147 4P TE				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	D0000	**VT332900**	Diode	1SS355 TE-17				01
	-0018	**VT332900**	Diode	1SS355 TE-17				01
	D0020	**VT332900**	Diode	1SS355 TE-17				01
	-0028	**VT332900**	Diode	1SS355 TE-17				01
	D0089	**VT332900**	Diode	1SS355 TE-17				01
	D0098	**VT332900**	Diode	1SS355 TE-17				01
	D0099	**VT332900**	Diode	1SS355 TE-17				01
	D0105	**VT332900**	Diode	1SS355 TE-17				01
	D0106	**VT332900**	Diode	1SS355 TE-17				01
	D0109	**VT332900**	Diode	1SS355 TE-17				01
	-0113	**VT332900**	Diode	1SS355 TE-17				01
	D0120	**VT332900**	Diode	1SS355 TE-17				01
	-0127	**VT332900**	Diode	1SS355 TE-17				01
	D0130	**VT332900**	Diode	1SS355 TE-17				01
	-0137	**VT332900**	Diode	1SS355 TE-17				01
	D0140	**VT332900**	Diode	1SS355 TE-17				01
	-0143	**VT332900**	Diode	1SS355 TE-17				01
	D0151	**VT332900**	Diode	1SS355 TE-17				01
	-0160	**VT332900**	Diode	1SS355 TE-17				01
	D0162	**VT332900**	Diode	1SS355 TE-17				01
	-0173	**VT332900**	Diode	1SS355 TE-17				01
	D0189	**VT332900**	Diode	1SS355 TE-17				01
	D0500	**VT332900**	Diode	1SS355 TE-17				01
	D0501	**VT332900**	Diode	1SS355 TE-17				01
	DA001	**V9424900**	Diode Array	1SS372 TE85L				01
	-026	**V9424900**	Diode Array	1SS372 TE85L				01
*	IC100	**X4406100**	IC	M38044M4-C16FP		CPU		
	L0102	**VY657200**	Chip Inductance	600 BK1608HM601				01
	-0104	**VY657200**	Chip Inductance	600 BK1608HM601				01
	L0105	**GE901870**	Coil	SN3-205B 10uH				03
	L0107	**VY657200**	Chip Inductance	600 BK1608HM601				01
	L0108	**VY657200**	Chip Inductance	600 BK1608HM601				01
	L0110	**VY657200**	Chip Inductance	600 BK1608HM601				01
*	LD000	**WB947500**	LED Red	SLZ-9G81B-34-T1		PART SELECT(RIGHT 2)		
*	LD001	**WB947500**	LED Red	SLZ-9G81B-34-T1		PART SELECT(RIGHT 1)		
*	LD002	**WB947500**	LED Red	SLZ-9G81B-34-T1		PART SELECT(LEFT)		
*	LD003	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(USER)		
*	LD004	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(PERC.& DRUM KIT)		
*	LD005	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(FLUTE & WOODWIND)		
*	LD006	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(SAXOPHONE)		
*	LD007	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(BRASS)		
*	LD008	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(SYNTH.& FX)		
*	LD009	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(CHOIR & PAD)		
*	LD022	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(ORGAN FLUTES)		
*	LD023	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(STRINGS)		
*	LD024	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(TRUMPET)		
*	LD025	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(GUITAR & BASS)		
*	LD026	**WB947400**	LED Red	SLZ-9G81B-33-T1		VOICE(ACCORDION & HARMONICA)		
*	LD027	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(ORGAN)		
*	LD028	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(E.PIANO)		
*	LD029	**WB947300**	LED Red	SLZ-9G81B-03-T1		VOICE(PIANO)		
	LD120	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 8		01
	LD121	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 7		01
	LD122	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 6		01
	LD123	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 5		01
	LD124	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 4		01
	LD125	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 2		01
	LD126	**VG197600**	LED Green/Red	GL3ED8		ONE TOUCH SETTING 4		01
	LD127	**VG197600**	LED Green/Red	GL3ED8		ONE TOUCH SETTING 3		01
	LD128	**VG197600**	LED Green/Red	GL3ED8		ONE TOUCH SETTING 2		01
	LD129	**VG197600**	LED Green/Red	GL3ED8		ONE TOUCH SETTING 1		01
*	LD130	**WB947500**	LED Red	SLZ-9G81B-34-T1		PART ON/OFF(RIGHT 2)		
*	LD131	**WB947500**	LED Red	SLZ-9G81B-34-T1		PART ON/OFF(RIGHT 1)		
*	LD132	**WB947500**	LED Red	SLZ-9G81B-34-T1		PART ON/OFF(LEFT)		
*	LD133	**WB947500**	LED Red	SLZ-9G81B-34-T1		LEFT HOLD		
	LD134	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 3		01
	LD135	**VG197600**	LED Green/Red	GL3ED8		REGISTRATION MEMORY 1		01
*	LD138	**WB947300**	LED Red	SLZ-9G81B-03-T1		REGISTRATION MEMORY(FREEZE)		
	R0101	**RD155220**	Carbon Resistor (chip)	220.0 1/4 J				
	R0102	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R0103	**RD155220**	Carbon Resistor (chip)	220.0 1/4 J				
	R0104	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	-0106	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0108	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0109	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0110	**RD155220**	Carbon Resistor (chip)	220.0 1/4 J				
	R0111	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	-0114	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0117	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0118	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
	R0121	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0123	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0124	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
	R0125	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
	R0127	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	-0136	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
	R0137	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0138	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	R0141	**RD355120**	Carbon Resistor (chip)	120.0 63M J				01
	R0142	**RD355120**	Carbon Resistor (chip)	120.0 63M J				01
*	SP120	**WB948200**	LED Spacer	L=7.0				
*	-129	**WB948200**	LED Spacer	L=7.0				
*	SP134	**WB948200**	LED Spacer	L=7.0				
*	SP135	**WB948200**	LED Spacer	L=7.0				
	SW000	**VV056000**	Tact Switch	SKQNAED010		PART SELECT(RIGHT 2)		01
	SW001	**VV056000**	Tact Switch	SKQNAED010		PART SELECT(RIGHT 1)		01
	SW002	**VV056000**	Tact Switch	SKQNAED010		PART SELECT(LEFT)		01
	SW003	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY(MEMORY)		01
	SW004	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 3		01
	SW005	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 1		01
	SW006	**VV056000**	Tact Switch	SKQNAED010		ONE TOUCH SETTING 4		01
	SW007	**VV056000**	Tact Switch	SKQNAED010		ONE TOUCH SETTING 3		01
	SW008	**VV056000**	Tact Switch	SKQNAED010		ONE TOUCH SETTING 2		01
	SW009	**VV056000**	Tact Switch	SKQNAED010		ONE TOUCH SETTING 1		01
	SW010	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 8		01
	SW011	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 7		01
	SW012	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 6		01
	SW013	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 5		01
	SW014	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 4		01
	SW015	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY 2		01
	SW016	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY(REGIST.BANK)		01
	SW017	**VV056000**	Tact Switch	SKQNAED010		ENTER		01
	SW018	**VV056000**	Tact Switch	SKQNAED010		MUSIC FINDER		01
	SW020	**VV056000**	Tact Switch	SKQNAED010		TAB(LEFT)		01
	SW021	**VV056000**	Tact Switch	SKQNAED010		TAB(RIGHT)		01
	SW022	**VV056000**	Tact Switch	SKQNAED010		LCD Select F		01
	SW023	**VV056000**	Tact Switch	SKQNAED010		LCD Select G		01
	SW024	**VV056000**	Tact Switch	SKQNAED010		LCD Select H		01
	SW025	**VV056000**	Tact Switch	SKQNAED010		LCD Select I		01
	SW026	**VV056000**	Tact Switch	SKQNAED010		LCD Select J		01
	SW027	**VV056000**	Tact Switch	SKQNAED010		EXIT		01
	SW028	**VV056000**	Tact Switch	SKQNAED010		REGISTRATION MEMORY(FREEZE)		01
	SW089	**VV056000**	Tact Switch	SKQNAED010		MENU(DIGITAL RECORDING)		01
	SW098	**VV056000**	Tact Switch	SKQNAED010		MENU(SOUND CREATOR)		01
	SW099	**VV056000**	Tact Switch	SKQNAED010		MENU(FUNCTION)		01
	SW109	**VV056000**	Tact Switch	SKQNAED010		MENU(HELP)		01
	SW120	**VZ085500**	Tact Switch	SKQNAM004A		1(UP)		01
	SW121	**VZ085500**	Tact Switch	SKQNAM004A		2(UP)		01
	SW122	**VZ085500**	Tact Switch	SKQNAM004A		3(UP)		01
	SW123	**VZ085500**	Tact Switch	SKQNAM004A		4(UP)		01
	SW124	**VZ085500**	Tact Switch	SKQNAM004A		5(UP)		01
	SW125	**VZ085500**	Tact Switch	SKQNAM004A		6(UP)		01
	SW126	**VZ085500**	Tact Switch	SKQNAM004A		7(UP)		01
	SW127	**VZ085500**	Tact Switch	SKQNAM004A		8(UP)		01
	SW130	**VZ085500**	Tact Switch	SKQNAM004A		1(DOWN)		01
	SW131	**VZ085500**	Tact Switch	SKQNAM004A		2(DOWN)		01
	SW132	**VZ085500**	Tact Switch	SKQNAM004A		3(DOWN)		01
	SW133	**VZ085500**	Tact Switch	SKQNAM004A		4(DOWN)		01
	SW134	**VZ085500**	Tact Switch	SKQNAM004A		5(DOWN)		01
	SW135	**VZ085500**	Tact Switch	SKQNAM004A		6(DOWN)		01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	SW136	**VZ085500**	Tact Switch	SKQNAM004A		7(DOWN)		01
	SW137	**VZ085500**	Tact Switch	SKQNAM004A		8(DOWN)		01
	SW140	**VV056000**	Tact Switch	SKQNAED010		PART ON/OFF(RIGHT 2)		01
	SW141	**VV056000**	Tact Switch	SKQNAED010		PART ON/OFF(RIGHT 1)		01
	SW142	**VV056000**	Tact Switch	SKQNAED010		PART ON/OFF(LEFT)		01
	SW143	**VV056000**	Tact Switch	SKQNAED010		LEFT HOLD		01
	SW151	**VV056000**	Tact Switch	SKQNAED010		UPPER OCTAVE -		01
	SW152	**VV056000**	Tact Switch	SKQNAED010		UPPER OCTAVE +		01
	SW153	**VV056000**	Tact Switch	SKQNAED010		VOICE(USER)		01
	SW154	**VV056000**	Tact Switch	SKQNAED010		VOICE(PERC.& DRUM KIT)		01
	SW155	**VV056000**	Tact Switch	SKQNAED010		VOICE(FLUTE & WOODWIND)		01
	SW156	**VV056000**	Tact Switch	SKQNAED010		VOICE(SAXOPHONE)		01
	SW157	**VV056000**	Tact Switch	SKQNAED010		VOICE(BRASS)		01
	SW158	**VV056000**	Tact Switch	SKQNAED010		VOICE(SYNTH.& FX)		01
	SW159	**VV056000**	Tact Switch	SKQNAED010		VOICE(CHOIR & PAD)		01
	SW160	**VV056000**	Tact Switch	SKQNAED010		VOICE(VOICE EFFECT)		01
	SW162	**VV056000**	Tact Switch	SKQNAED010		VOICE(ORGAN FLUTES)		01
	SW163	**VV056000**	Tact Switch	SKQNAED010		VOICE(STRINGS)		01
	SW164	**VV056000**	Tact Switch	SKQNAED010		VOICE(TRUMPET)		01
	SW165	**VV056000**	Tact Switch	SKQNAED010		VOICE(GUITAR & BASS)		01
	SW166	**VV056000**	Tact Switch	SKQNAED010		VOICE(ACCORDION & HARMONICA)		01
	SW167	**VV056000**	Tact Switch	SKQNAED010		VOICE(ORGAN)		01
	SW168	**VV056000**	Tact Switch	SKQNAED010		VOICE(E.PIANO)		01
	SW169	**VV056000**	Tact Switch	SKQNAED010		VOICE(PIANO)		01
	SW189	**VV056000**	Tact Switch	SKQNAED010		MIXING CONSOLE		01
	TA100	**V8566600**	Transistor Array	TD62785F(EL)				05
	TA101	**V8566600**	Transistor Array	TD62785F(EL)				05
	TA102	**V7723400**	Transistor Array	TD62381F(EL)				04
*	TR104	**WB679800**	Digital Transistor	DTD123YK T146				
*	TR105	**WB679800**	Digital Transistor	DTD123YK T146				
	VR401	**VZ486300**	Rotary Variable Resistor	B10K EVJ05DF20B14		PITCH BEND		03
	VR501	**VZ486300**	Rotary Variable Resistor	B10K EVJ05DF20B14		MODULATION		03
*	X0100	**WB715900**	Ceramic Resonator	CSTLS16M8X51-A0				
*		**WB704300**	Circuit Board	SM		(WB70420)(X5150B0)		
	J	--	Jumper Wire	0.55		(VA07890)		
	C0001	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
	CN001	**V9028300**	Connector, FFC/FPC	52808 24P TE				02
	CN002	**V3962800**	Connector	CN015R-3013-0		3.3V CARD		05
	R0001	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
	RA001	**RE044470**	Resistor Array	47X4				01
	-004	**RE044470**	Resistor Array	47X4				01
*		**WB822200**	Circuit Board	TG1		(X4411C0)		
	C0001	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0002	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0003	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0004	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0005	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0006	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0007	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0008	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0009	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0010	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0011	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0012	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0013	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0014	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0015	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0016	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0017	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0018	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0019	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0020	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0021	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0022	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0023	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0024	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
	C0025	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C0026	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0027	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0028	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0029	**UF018100**	Electrolytic Cap. (chip)	100 6.3V				01
C0030	**UF018100**	Electrolytic Cap. (chip)	100 6.3V				01
C0031	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0032	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0033	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0034	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0037	**UF118220**	Electrolytic Cap. (chip)	220 6.3V UUR0J2				01
C0038	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0039	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0040	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0041	**US135100**	Ceramic Capacitor-F (chip)	0.1000 16V Z				01
C0042	**V9452100**	Electrolytic Cap. (chip)	100.00 6.3V				03
C0043	**V9454200**	Electrolytic Cap. (chip)	220.00 6.3V				03
C0044	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0045	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0046	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0047	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0048	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0049	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0050	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0051	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0052	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0053	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0054	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0055	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0056	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0057	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0058	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0059	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0060	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0061	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0062	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0063	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0064	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0065	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0066	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0067	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0068	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0069	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0070	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0071	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0072	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0073	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0074	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0075	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0076	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0077	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0078	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0079	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0080	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0081	**V9452100**	Electrolytic Cap. (chip)	100.00 6.3V				03
C0082	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0083	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0084	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0085	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0086	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0087	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0088	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0089	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0090	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0091	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0092	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0093	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0094	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0095	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0096	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0097	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0098	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C0099	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0100	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0101	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0102	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0103	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0104	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0105	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0106	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0107	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0108	**V9452100**	Electrolytic Cap. (chip)	100.00 6.3V				03
C0109	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0110	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
-0115	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0116	**US061100**	Ceramic Capacitor-CH(chip)	10P 50V D				01
C0117	**US060500**	Ceramic Capacitor-CH(chip)	5P 50V C				01
C0118	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0123	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0124	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0125	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0126	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0127	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0128	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0129	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0130	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0131	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0132	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0134	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0135	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0136	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0137	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0138	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0139	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C0140	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0141	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0144	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0145	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0146	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0152	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0153	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0156	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C0161	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
-0163	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C0164	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-0167	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
CN001	**VZ581400**	Plug	8800 60P SE				05
CN002	**V6478900**	Connector, FFC/FPC	52808 26P TE				01
D0001	**VS201100**	Diode	D1F60				01
D0002	**VS201100**	Diode	D1F60				01
EM001	**VD542700**	LC Filter	DSS6NF31C223Q93A				01
IC001	**X2687A00**	IC	HD6417709SHF200B		CPU (SH3)		20
IC001	**X2687B00**	IC	HD6417709SHF200B				14
IC002	**X0176A00**	IC	W986432DH-7		SDRAM 64M		15
* IC002	**X2466A00**	IC	UPD4564323G5-A70				
IC002	**X3479A00**	IC	K4S643232F-TC/L60				08
IC004	**X4763100**	IC	MR27V402E-095TP		MASK ROM 4M PROGRAM		05
IC005	**X4195A00**	IC	S1L50553F21Y000		GATE ARRAY		05
IC006	**X0060A00**	IC	T8F02TB-0102		SWP50		15
IC007	**X0176A00**	IC	W986432DH-7		SDRAM 64M		15
* IC007	**X2466A00**	IC	UPD4564323G5-A70				
IC007	**X3479A00**	IC	K4S643232F-TC/L60				08
* IC010	**X4787100**	IC	MR27V12800J-0S7TN		MASK ROM 128M WAVE L1		
* IC011	**X4788100**	IC	MR27V12800J-0S7TN		MASK ROM 128M WAVE H1		
* IC012	**X4789100**	IC	MR27V12800J-0S7TN		MASK ROM 128M WAVE L2		
* IC013	**X4790100**	IC	MR27V12800J-0S7TN		MASK ROM 128M WAVE H2		
IC020	**XS963A00**	IC	HD74LVC138FP		DECODER		02
IC021	**XV890A00**	IC	TC74VHC14FT		INVERTER		02
IC022	**X0609A00**	IC	LMS8117AMP-ADJ		REGULATOR		03
IC023	**X0609A00**	IC	LMS8117AMP-ADJ		REGULATOR		03
L0001	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
-0005	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
L0007	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
-0023	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
L0025	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
-0048	**RD354470**	Carbon Resistor (chip)	47.0 63M J				01
L0049	**VY657200**	Chip Inductance	600 BK1608HM601				01
L0050	**VY657200**	Chip Inductance	600 BK1608HM601				01
L0052	**VY657200**	Chip Inductance	600 BK1608HM601				01
L0054	**VY657200**	Chip Inductance	600 BK1608HM601				01
-0061	**VY657200**	Chip Inductance	600 BK1608HM601				01
L0064	**VY657200**	Chip Inductance	600 BK1608HM601				01
L0072	**V2747000**	Chip Inductance	BLM18PG600SN1				
R0001	**RF455270**	Carbon Resistor (chip)	270.0 D				01
-0003	**RF455270**	Carbon Resistor (chip)	270.0 D				01
R0004	**RF454270**	Carbon Resistor (chip)	27.0 D				01
R0005	**RF455270**	Carbon Resistor (chip)	270.0 D				01
R0006	**RF454820**	Carbon Resistor (chip)	82.0 D				01
R0007	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0012	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0013	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0018	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0021	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
R0022	**RD355270**	Carbon Resistor (chip)	270.0 63M J				01
R0023	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0026	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0027	**RD356100**	Carbon Resistor (chip)	1.0K 63M J				01
R0028	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0033	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0034	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0035	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0036	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0037	**RD355560**	Carbon Resistor (chip)	560.0 63M J				01
R0040	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0042	**RD354390**	Carbon Resistor (chip)	39.0 63M J				01
R0043	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0052	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0054	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0056	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0057	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
-0066	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0067	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0068	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0069	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0070	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0071	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0072	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0073	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0074	**RD350000**	Carbon Resistor (chip)	0 63M J				01
R0075	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0076	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0077	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0078	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0079	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0080	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0081	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0082	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0083	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0084	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0085	**RD354390**	Carbon Resistor (chip)	39.0 63M J				01
R0086	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0087	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0090	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0092	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0093	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0094	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
-0096	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0097	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0098	**RD354680**	Carbon Resistor (chip)	68.0 63M J				01
R0099	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
-0101	**RD357100**	Carbon Resistor (chip)	10.0K 63M J				01
R0102	**RD355330**	Carbon Resistor (chip)	330.0 63M J				01

✻: New Parts

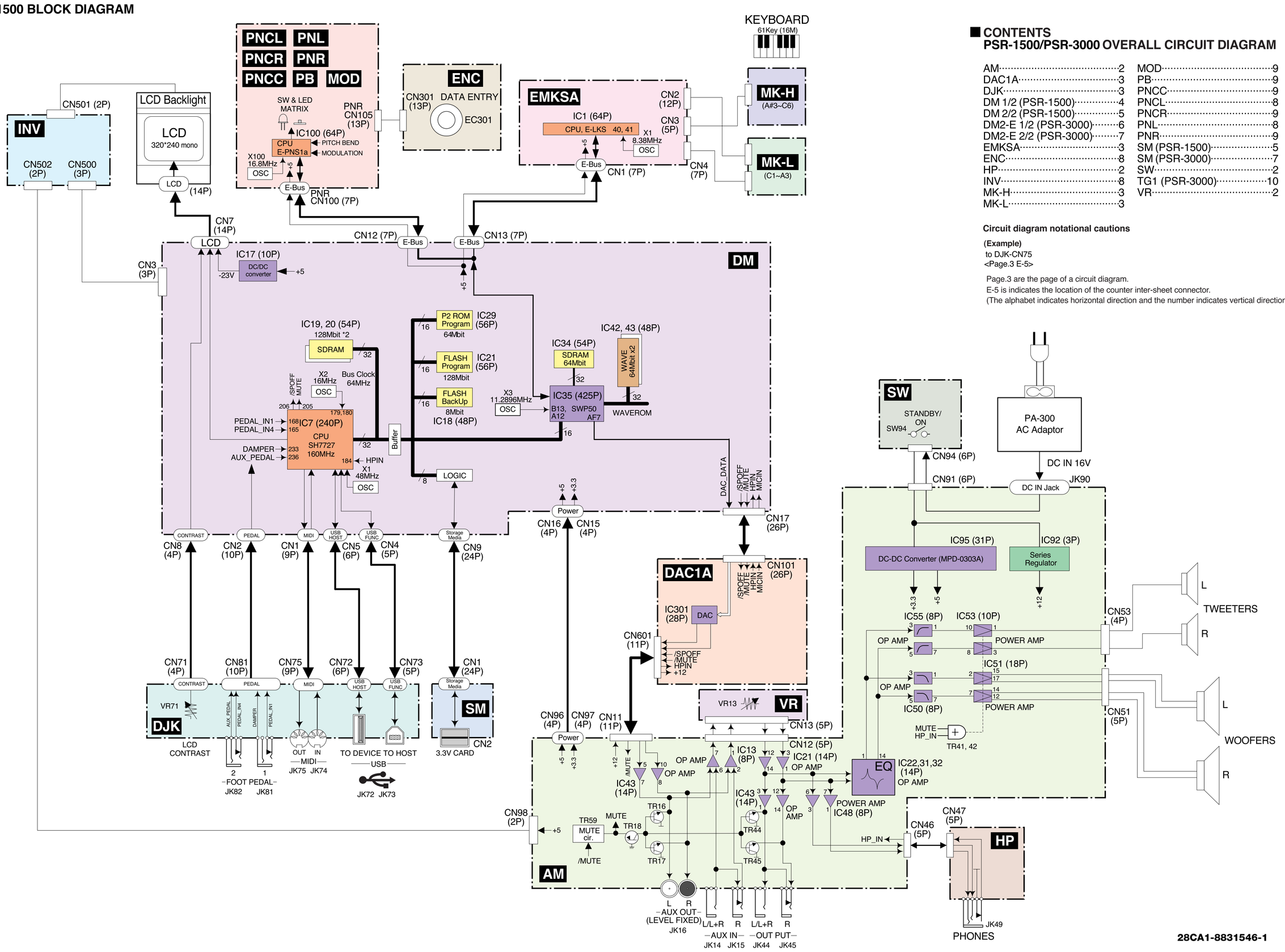
RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
	R0103	**RD357100**	Carbon Resistor (chip)	10.0K 63M J					01
	R0104	**RD355220**	Carbon Resistor (chip)	220.0 63M J					01
	R0105	**RD357100**	Carbon Resistor (chip)	10.0K 63M J					01
	R0106	**RD357100**	Carbon Resistor (chip)	10.0K 63M J					01
	R0107	**RD354680**	Carbon Resistor (chip)	68.0 63M J					01
	-0109	**RD354680**	Carbon Resistor (chip)	68.0 63M J					01
	R0110	**RD357100**	Carbon Resistor (chip)	10.0K 63M J					01
	-0112	**RD357100**	Carbon Resistor (chip)	10.0K 63M J					01
	R0114	**RD357100**	Carbon Resistor (chip)	10.0K 63M J					01
	R0115	**RD350000**	Carbon Resistor (chip)	0 63M J					01
	R0116	**RD350000**	Carbon Resistor (chip)	0 63M J					01
	RA001	**RE047100**	Resistor Array	10KX4					01
	RA002	**RE048100**	Resistor Array	100KX4					01
	RA003	**RE044680**	Resistor Array	68X4					01
	RA004	**RE048100**	Resistor Array	100KX4					01
	RA005	**RE044680**	Resistor Array	68X4					01
	RA006	**RE048100**	Resistor Array	100KX4					01
	RA007	**RE044680**	Resistor Array	68X4					01
	RA008	**RE048100**	Resistor Array	100KX4					01
	RA009	**RE044680**	Resistor Array	68X4					01
	RA010	**RE048100**	Resistor Array	100KX4					01
	RA011	**RE044680**	Resistor Array	68X4					01
	-015	**RE044680**	Resistor Array	68X4					01
	RA016	**RE044390**	Resistor Array	39X4					01
	-022	**RE044390**	Resistor Array	39X4					01
	RA023	**RE044560**	Resistor Array	56X4					01
	RA024	**RE044560**	Resistor Array	56X4					01
	RA025	**RE044680**	Resistor Array	68X4					01
	RA026	**RE044560**	Resistor Array	56X4					01
	RA027	**RE044560**	Resistor Array	56X4					01
	RA028	**RE044680**	Resistor Array	68X4					01
	RA029	**RE044560**	Resistor Array	56X4					01
	RA030	**RE044560**	Resistor Array	56X4					01
	RA031	**RE044680**	Resistor Array	68X4					01
	RA032	**RE044560**	Resistor Array	56X4					01
	RA033	**RE044560**	Resistor Array	56X4					01
	RA034	**RE047100**	Resistor Array	10KX4					01
	-038	**RE047100**	Resistor Array	10KX4					01
	RA039	**RE044390**	Resistor Array	39X4					01
	-042	**RE044390**	Resistor Array	39X4					01
	RA047	**RE044560**	Resistor Array	56X4					01
	-054	**RE044560**	Resistor Array	56X4					01
	X0001	**WB551700**	Quartz Crystal Unit	16.666MHz SMD-49					03
		X0215A00	Speaker	2.0cm 3ohm		TWEETER	(PSR-3000)	2	08
*		**X5053B00**	Speaker	12.0cm		WOOFER	(PSR-3000)	2	
*		**WB912000**	LCD	MC57T02E			(PSR-3000)		

*: New Parts

RANK: Japan only

■ PSR-1500 BLOCK DIAGRAM



■ CONTENTS
PSR-1500/PSR-3000 OVERALL CIRCUIT DIAGRAM

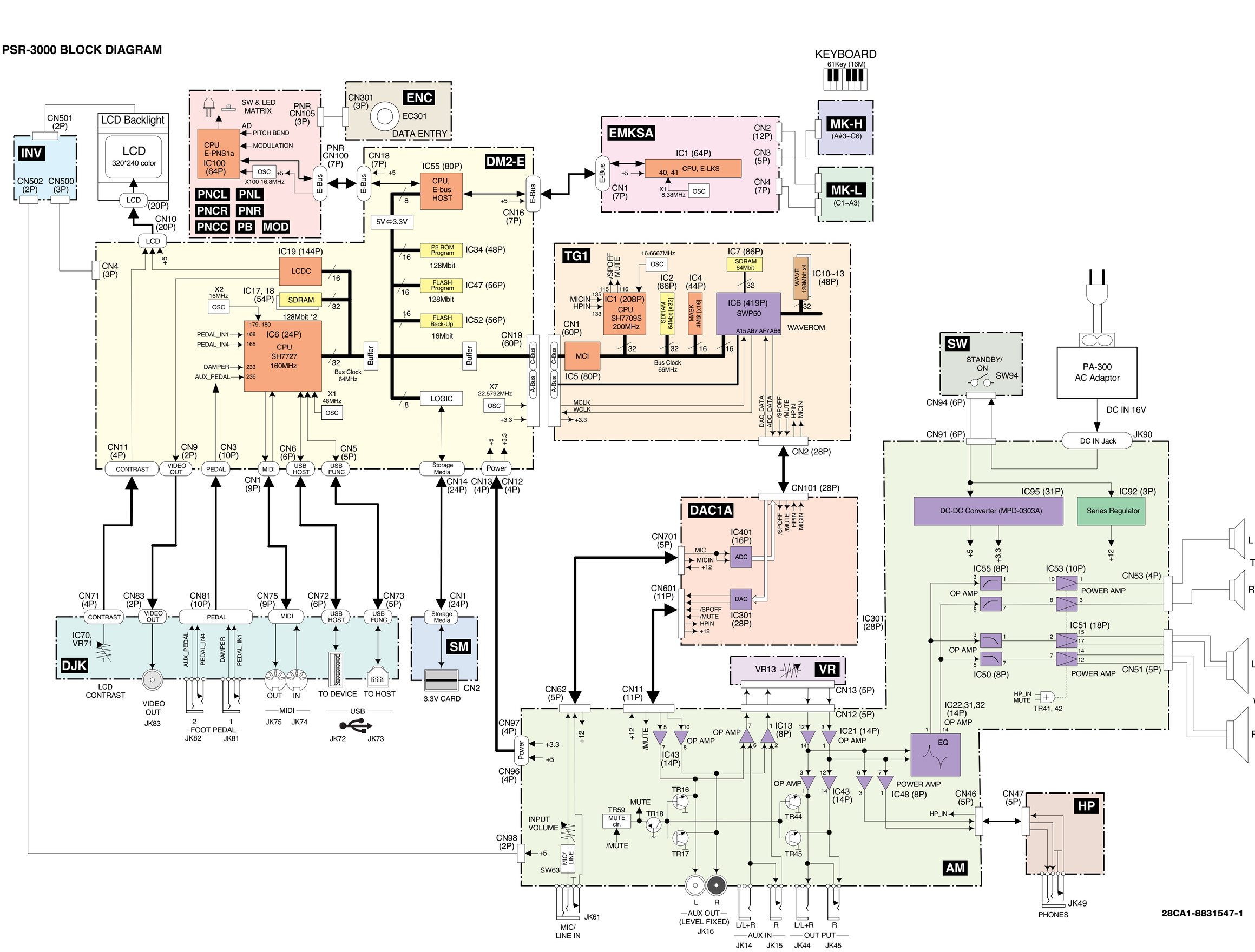
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Circuit diagram notational cautions

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to DJK-CN75
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E-5 is indicates the location of the counter inter-sheet connector.
(The alphabet indicates horizontal direction and the number indicates vertical direction)

■ PSR-3000 BLOCK DIAGRAM



■PSR-1500/PSR-3000 OVERALL CIRCUIT DIAGRAM (AM, HP, SW, VR)

6 PSR-3000 only

MIC / LINE SW63 — LINE ↔ MIC — INPUT VOLUME VR64 — MIC AMP — GAIN:+13.4dB LPF:fc=6kHz — GAIN:+25.3dB LPF:fc=23kHz — OP AMP — LPF:fc=28kHz

JK61 MIC/LINE IN 150%–600%

PSR-1500: not installed
PSR-3000: to DAC1A-CN701 <Page.3 P-5>

1 VR — MASTER VOLUME VR13 A10K — 28CC1-8831548-1

to DAC1A-CN601 <Page.3 P-2>

1 — IC13 UPC4570G2 — LINE Buffer AMP (FIX) 0dB — AUX IN — L/L+R

IC43 UPC4574G2 — LINE Buffer AMP (Variable) 60dB — OUTPUT — L/L+R

4 — Headphone AMP — Power AMP 0.65W 2ch — IC48 LA4525 — HP — PHONES — 28CC1-8831548-1

2 — IC21 IC22 IC31 IC32 UPC4574G2

3 — IC31 IC32 IC33 IC34 UPC4574G2

5 — Channel Div. — HPF 4.8KHz -12dB/Oct — IC55 IC50 UPC4570G2 — Tweeter AMP — POWER AMP 7W 2ch — IC53 LA4262 — TWEETERS — Woofer AMP — POWER AMP 17W — IC51 LA4705NA — WOOFERS — Decrease voltage detection circuit — 28CC1-8831548-1

9 SW — STANDBY/ON — SW94 — 28CC1-8831548-1

Power Supply(+6A) — IC93 UPC4570G2

Power Supply(+12A) — D92 1SS355 — IC92 NJM7812FA — REGULATOR +12V

DC IN 16V — TH90 — JK90 — L90 — 6800/25 C905

AM — 9 Power Supply

Power Supply(+5D,+3.3D) Switching frequency 150kHz — IC95 DC-DC CONVERTER — to INV-CN502 <Page.8 E-11> — +5L (BackLight) — +5D (DM) — +3.3D (DM) — PSR-1500: to DM 2/2-CN16 <Page.5 P-7> PSR-3000: to DM2-E 2/2-CN13 <Page.7 B-9> — PSR-1500: to DM 2/2-CN15 <Page.5 P-6> PSR-3000: to DM2-E 2/2-CN12 <Page.7 B-9>

Equalizer value

	PSR-1500	PSR-3000		PSR-1500	PSR-3000
R201-R301	22K	18K	C201-C301	0.82u	0.47u
R202-R302	1.5K	560	C202-C302	0.22u	0.33u
R203-R303	560	1.2K	C203-C303	0.068u	0.047u
R204-R304	18K	22K	C204-C304	0.18u	0.39u
R205-R305	2.2K	3.9K	C205-C305	0.012u	8200P
R206-R306	22K	18K	C206-C306	0.047u	0.033u
R207-R307	3.9K	150	C207-C307	5600P	3900P
R208-R308	22K	22K	C208-C308	0.022u	0.018u
R209-R309	18K	15K	C209-C309	3900P	0.012u
R210-R310	1.5K	5.6K	C210-C310	560P	1000P

• NJM7812FA (XJ608A00) REGULATOR +12V AM: IC92	• S3V20 (VR313500) DIODE AM: D90	• 1SS355 TE-17 (VT332900) DIODE AM: D59,92
1: OUTPUT 2: COMMON 3: INPUT	1: ANODE 2: CATHODE	1: ANODE 2: CATHODE

(ㅓ): Ceramic Capacitor
(マ): Mylar Capacitor

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

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

PSR-1500/PSR-3000

■ PSR-1500/PSR-3000 OVERALL CIRCUIT DIAGRAM (DAC1A, DJK, EMKSA, MK-H, MK-L)

DJK

8 FOOT PEDAL

PSR-1500: to DM 1/2-CN2
<Page.4 B-6>
PSR-3000: to DM2-E 1/2-CN3
<Page.6 B-6>

JK81 PHP10P; CB1 22/10; RB11 22 1/4W; RB12 22 1/4W; RB13 220; RB21 22 1/4W; RB22 22 1/4W; RB23 220; DB11 1SS355; DB12 1SS355; DB21 1SS355; DB22 1SS355; JKB1; JKB2; TPB1; TPB2; TPB0; +3.3D DAMP; AUXPEDAL; DGND; PEDAL_IN1; PEDAL_IN4

FOOT PEDAL

28CC1-8831548-2 ⚠3

PSR-3000 only
PSR-1500: not installed
PSR-3000: to DM2-E 1/2-CN9
<Page.6 M-2>

CN83 PHP3P; TL831; RB31 75K; TL832; L831 BLM21N2; L832; VIDEO OUT; JK83; D83 1SS355; TPB3; L833; DGND

7

IC70 NJM12904M; IC70 NJM12904M; C701 0.01u; C702 10/16; C703 10/16; C704 0.1u; C705 100P; C706 0.1u; RB701 150; RB702 150; RB703 150; RB704 10K; RB705 2K; +3.3D; +5D; OP AMP; OP AMP

PSR-1500: to DM 1/2-CN8
<Page.4 L-2>
PSR-3000: to DM2-E 1/2-CN11
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LCD CONTRAST

VR71 5.6K; R711; R712; R713; R714; R715; C71 0.1u; C72 0.1u; C73 0.1u; MAX-ADJ.MIN; TP71; DGND3

PSR-1500 PSR-3000
R712 Non 4.7K
R713 0 Non
R714 0 Non
R715 39K 0

LCD Contrast Volume

28CC1-8831548-2 ⚠3

7 USB I/F HOST

PSR-1500: to DM 1/2-CN5
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PSR-3000: to DM2-E 1/2-CN6
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Covering
Shield Wire

CN72 PHP5P; TL721; TL722; TL723; TL724; L721; L725; C721 22P; C722 22P; C723 22P; C724 22P; C725 0.1u; TP72; JK72; TO DEVICE

USB

USB I/F FUNCTION

PSR-1500: to DM 1/2-CN4
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PSR-3000: to DM2-E 1/2-CN5
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Covering
Shield Wire

CN73 PHP5P; TL731; TL732; TL733; TL734; L731; L735; C731 22P; C732 22P; C733 22P; C734 22P; C735 0.1u; TP73; JK73; TO HOST

MIDI I/F

IC74 PC-900V0NSZX; Photo Couple; R741 220; R742 220; L741; L742; C741 0.01u; C742 0.01u; TP74; JK74; IN; JK75; OUT; MIDI

PSR-1500: to DM 1/2-CN1
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PSR-3000: to DM2-E 1/2-CN1
<Page.6 B-4>

CN75 PHP5P; R751 220; R752 220; L751; L752; L753; C751; C752; TP75 2SC2412K; TP76 2SC2412K; R753 1.5K; R754 10K; R755 22K; R756 22K; +5D; DGND

28CC1-8831548-2 ⚠3

DAC1A

PSR-1500: to DM 2/2-CN17
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PSR-3000: to TG1-CN2
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CN101 52808-2691; HPLN; HPRN; MICIN; SPOFF; MUTE; DACTC; WCLK1; ADLR; 64FS; 256FS; ADC_DATA0; ADC_DATA1; ADC_DATA2

DAC
IC301 AK4393
+3.3A; +5A2; 256FS; DACTC; 64FS; DAC_4393; WCLK1; DAC_4393; ADC_DATA0; MUTE; R106 10K; R107 10K; TR101 2SA1586; R108 10K; R109 0; R101 Non; R102 Non; R103 Non; R104 Non; R105 Non; PSR-3000: Non; PSR-1500: 1K; R115 1K; C301 Non; C302 0.1u; C303 10/16; C304 0.1u; C305 0.1u; C306 0.1u; C307 10/16; C308 0.1u; C309 10/16; C310 10/16; C311 10/16; C312 10/16; C313 10/16; C314 1000P; C315 1000P; C316 180P; C317 180P; C318 180P; C319 180P; R301 4.7K; R302 4.7K; R303 4.7K; R304 4.7K; R305 B.2K; R306 B.2K; R307 B.2K; R308 B.2K; R309 4.7K; R310 B.2K; R311 4.7K; R312 B.2K; IC302; IC303; OP AMP; R315 27; R316 27; C362 NC; C363 NC; MID; AGND1; AGND2; AGND3; DGND

IC302 UPC4570G2; IC403 UPC4570G2; IC402 UPC4570G2; IC404 UPC4570G2; R112 1/4W; R111 1/4W; R113 1/4W; R114 1/4W; C306 47/10; C307 47/10; C308 4.7K; C309 4.7K; R316 4.7K; R317 Non; C310 Non; C311 Non; C312 Non; C313 Non; C314 Non; C315 Non; C316 Non; C317 Non; C318 Non; C319 Non; C320 Non; C321 Non; C322 Non; C323 Non; C324 Non; C325 Non; C326 Non; C327 Non; C328 Non; C329 Non; C330 Non; C331 Non; C332 Non; C333 Non; C334 Non; C335 Non; C336 Non; C337 Non; C338 Non; C339 Non; C340 Non; C341 Non; C342 Non; C343 Non; C344 Non; C345 Non; C346 Non; C347 Non; C348 Non; C349 Non; C350 Non; C351 Non; C352 Non; C353 Non; C354 Non; C355 Non; C356 Non; C357 Non; C358 Non; C359 Non; C360 Non; C361 Non; C362 Non; C363 Non; C364 Non; C365 Non; C366 Non; C367 Non; C368 Non; C369 Non; C370 Non; C371 Non; C372 Non; C373 Non; C374 Non; C375 Non; C376 Non; C377 Non; C378 Non; C379 Non; C380 Non; C381 Non; C382 Non; C383 Non; C384 Non; C385 Non; C386 Non; C387 Non; C388 Non; C389 Non; C390 Non; C391 Non; C392 Non; C393 Non; C394 Non; C395 Non; C396 Non; C397 Non; C398 Non; C399 Non; C400 Non; C401 Non; C402 Non; C403 Non; C404 Non; C405 Non; C406 Non; C407 Non; C408 Non; C409 Non; C410 Non; C411 Non; C412 Non; C413 Non; C414 Non; C415 Non; C416 Non; C417 Non; C418 Non; C419 Non; C420 Non; C421 Non; C422 Non; C423 Non; C424 Non; C425 Non; C426 Non; C427 Non; C428 Non; C429 Non; C430 Non; C431 Non; C432 Non; C433 Non; C434 Non; C435 Non; C436 Non; C437 Non; C438 Non; C439 Non; C440 Non; C441 Non; C442 Non; C443 Non; C444 Non; C445 Non; C446 Non; C447 Non; C448 Non; C449 Non; C450 Non; C451 Non; C452 Non; C453 Non; C454 Non; C455 Non; C456 Non; C457 Non; C458 Non; C459 Non; C460 Non; C461 Non; C462 Non; C463 Non; C464 Non; C465 Non; C466 Non; C467 Non; C468 Non; C469 Non; C470 Non; C471 Non; C472 Non; C473 Non; C474 Non; C475 Non; C476 Non; C477 Non; C478 Non; C479 Non; C480 Non; C481 Non; C482 Non; C483 Non; C484 Non; C485 Non; C486 Non; C487 Non; C488 Non; C489 Non; C490 Non; C491 Non; C492 Non; C493 Non; C494 Non; C495 Non; C496 Non; C497 Non; C498 Non; C499 Non; C500 Non; C501 Non; C502 Non; C503 Non; C504 Non; C505 Non; C506 Non; C507 Non; C508 Non; C509 Non; C510 Non; C511 Non; C512 Non; C513 Non; C514 Non; C515 Non; C516 Non; C517 Non; C518 Non; C519 Non; C520 Non; C521 Non; C522 Non; C523 Non; C524 Non; C525 Non; C526 Non; C527 Non; C528 Non; C529 Non; C530 Non; C531 Non; C532 Non; C533 Non; C534 Non; C535 Non; C536 Non; C537 Non; C538 Non; C539 Non; C540 Non; C541 Non; C542 Non; C543 Non; C544 Non; C545 Non; C546 Non; C547 Non; C548 Non; C549 Non; C550 Non; C551 Non; C552 Non; C553 Non; C554 Non; C555 Non; C556 Non; C557 Non; C558 Non; C559 Non; C560 Non; C561 Non; C562 Non; C563 Non; C564 Non; C565 Non; C566 Non; C567 Non; C568 Non; C569 Non; C570 Non; C571 Non; C572 Non; C573 Non; C574 Non; C575 Non; C576 Non; C577 Non; C578 Non; C579 Non; C580 Non; C581 Non; C582 Non; C583 Non; C584 Non; C585 Non; C586 Non; C587 Non; C588 Non; C589 Non; C590 Non; C591 Non; C592 Non; C593 Non; C594 Non; C595 Non; C596 Non; C597 Non; C598 Non; C599 Non; C600 Non; C601 0.1u; C602 Non; C603 Non; C604 Non; C605 Non; C606 Non; C607 Non; C608 Non; C609 Non; C610 Non; C611 Non; C612 Non; C613 Non; C614 Non; C615 Non; C616 Non; C617 Non; C618 Non; C619 Non; C620 Non; C621 Non;

■PSR-1500/PSR-3000 OVERALL CIRCUIT DIAGRAM (DM 1/2 (PSR-1500))

DM 1/2

- LMS8117AMP-ADJ (X0609A00)
  REGULATOR
  DM: IC1
  1: ADJ/GND
  2: OUTPUT
  3: INPUT
- 1SS372 TE85L (V9424900)
  DIODE ARRAY
  DM: DA1 ~ 4
  1: ANODE1
  2: CATHODE2
  3: CATHODE1, ANODE2
- D1F60 (VS201100)
  DIODE
  DM: D1
  1: ANODE
  2: CATHODE
- RB160M-30 TR (WC549600)
  DIODE
  DM: 2, 3
  1: ANODE
  2: CATHODE

	R310	R311	R150
PSR-1500	YES	NO	0

	R323	R322	R301
PSR-1500	YES	NO	NO

SDRAM(IC19, 20)	
128MBit/32M	
R912	NO YES
R913	YES NO
R914	NO YES
R915	YES NO
R155	NO YES
R157	NO YES

SW3: Japanese / English

J/E Select: SW3 — J: ON, E: OFF

C77:Chip OS Capacitor

R8-R10:Metal Film Resistor
C6:Chip OS Capacitor

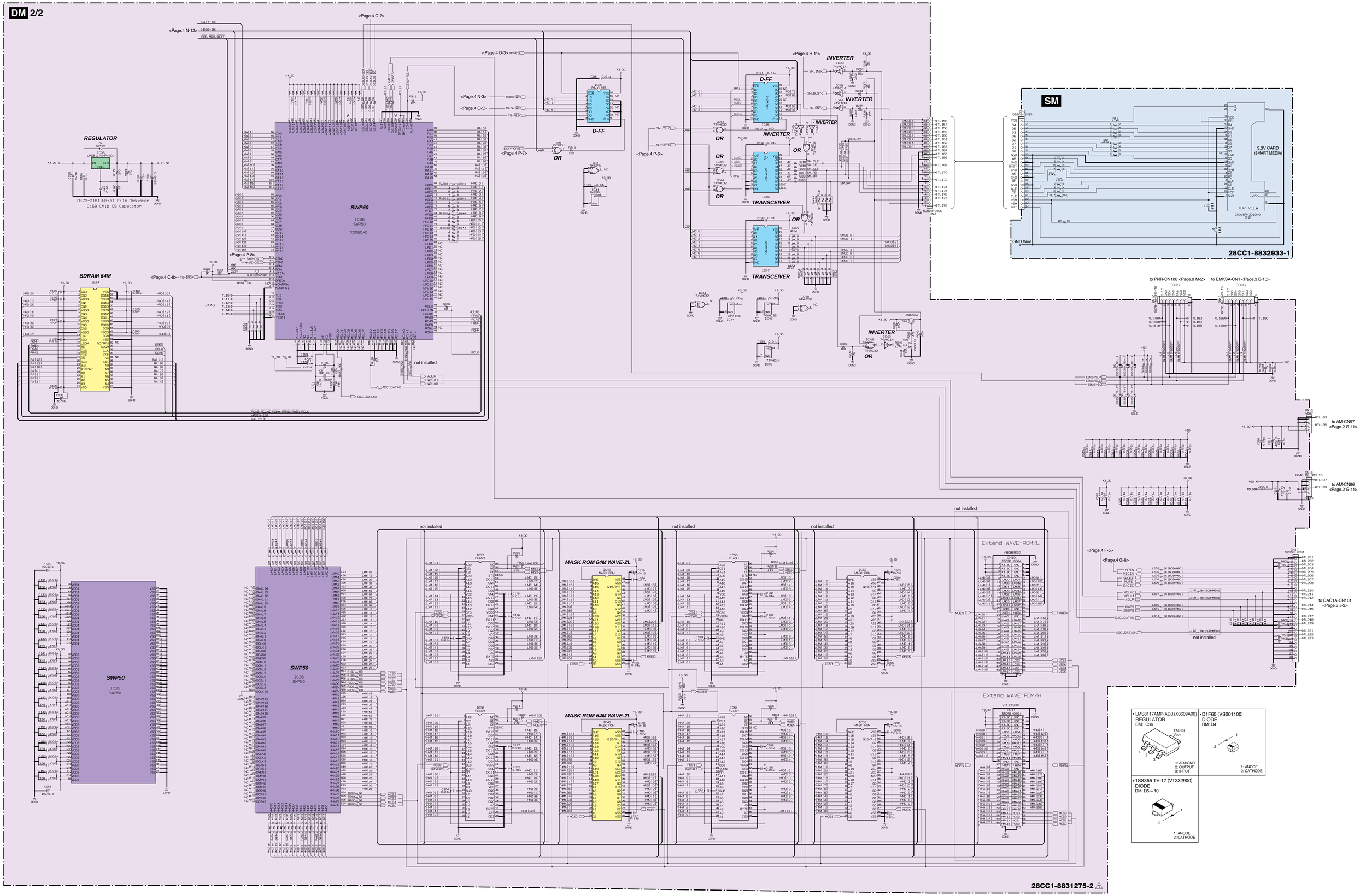
Note: See parts list for details of circuit board component parts.

(セ): Ceramic Capacitor
金皮: Metal Film Resistor
YES: Installed
NO or ###: not installed

28CC1-8831275-1

■ PSR-1500/PSR-3000 OVERALL CIRCUIT DIAGRAM (DM 2/2 (PSR-1500), SM)

DM 2/2



- LMS8117AMP-ADJ (X0609A00) REGULATOR DM: IC36 — TAB IS VOUT; 1: ADJ/GND 2: OUTPUT 3: INPUT
- D1F60 (VS201100) DIODE DM: D4 — 1: ANODE 2: CATHODE
- 1SS355 TE-17 (VT332900) DIODE DM: D5 ~ 10 — 1: ANODE 2: CATHODE

(⊕) : Ceramic Capacitor
: not installed

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

■ PSR-1500/PSR-3000 OVERALL CIRCUIT DIAGRAM (DM2-E 1/2 (PSR-3000))

DM2-E 1/2

Type	E
C7	0.01u
C9	0.01u
C12	0.01u

Type	E
IC7	M52339FP
IC8	M52339FP
TR1	Yes
D45	No
R39	Yes
R40	Yes
R42	Yes
R47	Yes
R330	Yes
R331	No
R332	No
R333	No
R334	No
R335	No
R336	No
R337	No
R338	No
R339	Yes
C41	Yes
C42	Yes
C199	No
C200	Yes

SYSTEM RESET · COMPARATOR · INVERTER · NAND · BUFFER · OR · USB Function · USB POWER SWITCH · USB HOST · MIDI · KNEEforFUTA · FOOT_PEDAL · REGULATOR · CPU · SDRAM 128M · LCD(W_VGA) · TOUCH PANEL · VIDEO Out · LCDC · TRANSCEIVER · DECODER · AND · LCD Contrast Volume

Type	E
CN2	No
CN3	Yes
R21	No
R23	No
R24	No
R33	No
R316	Yes
R317	Yes

Type	E
R145	No
R146	Yes
R155	No
R157	No
R347	No
R349	Yes
R351	No
R352	No
R353	No

SDRAM Type E 128M

Mode	Select			
E	PSR-3000	SW1 No	SW2 No	SW3 Yes	RH54 No

ROM Select	
R19B	No
R314	Yes

- LMS8117AMP-ADJ (X0609A00) REGULATOR DM2-E: IC3
  1: ADJ/GND 2: OUTPUT 3: INPUT
- 1SS372 TE85L (V9424900) DIODE ARRAY DM2-E: DA1 - 4
  1: ANODE1 2: CATHODE2 3: CATHODE1, ANODE2
- D1F60 (VS201100) DIODE DM2-E: D2
  1: ANODE 2: CATHODE

28CC1-8831549-1 Ⓐ

(セ): Ceramic Capacitor
金属: Metal Film Resistor
Yes: Installed
No or ###: not installed

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

■ PSR-1500/PSR-3000 OVERALL CIRCUIT DIAGRAM (DM2-E 2/2 (PSR-3000), SM)

DM2-E 2/2

Type	Mode1	IC47	IC34	IC35	IC39	IC45	IC52
E	PSR-3000	128M	No	No	No	No	16M

Type	R344	R345
E	No	No

Type	E
R2650	1K
R2658	1K
CN18	Yes

Type	CN17	L41	C202	R280
E	No	No	No	No

FLASH ROM 128M PROGRAM

P2ROM 128M DATA

FLASH ROM 16M DATA STORAGE

TRANSCEIVER

CPU

INVERTER

AND

OR

D-FF

SM

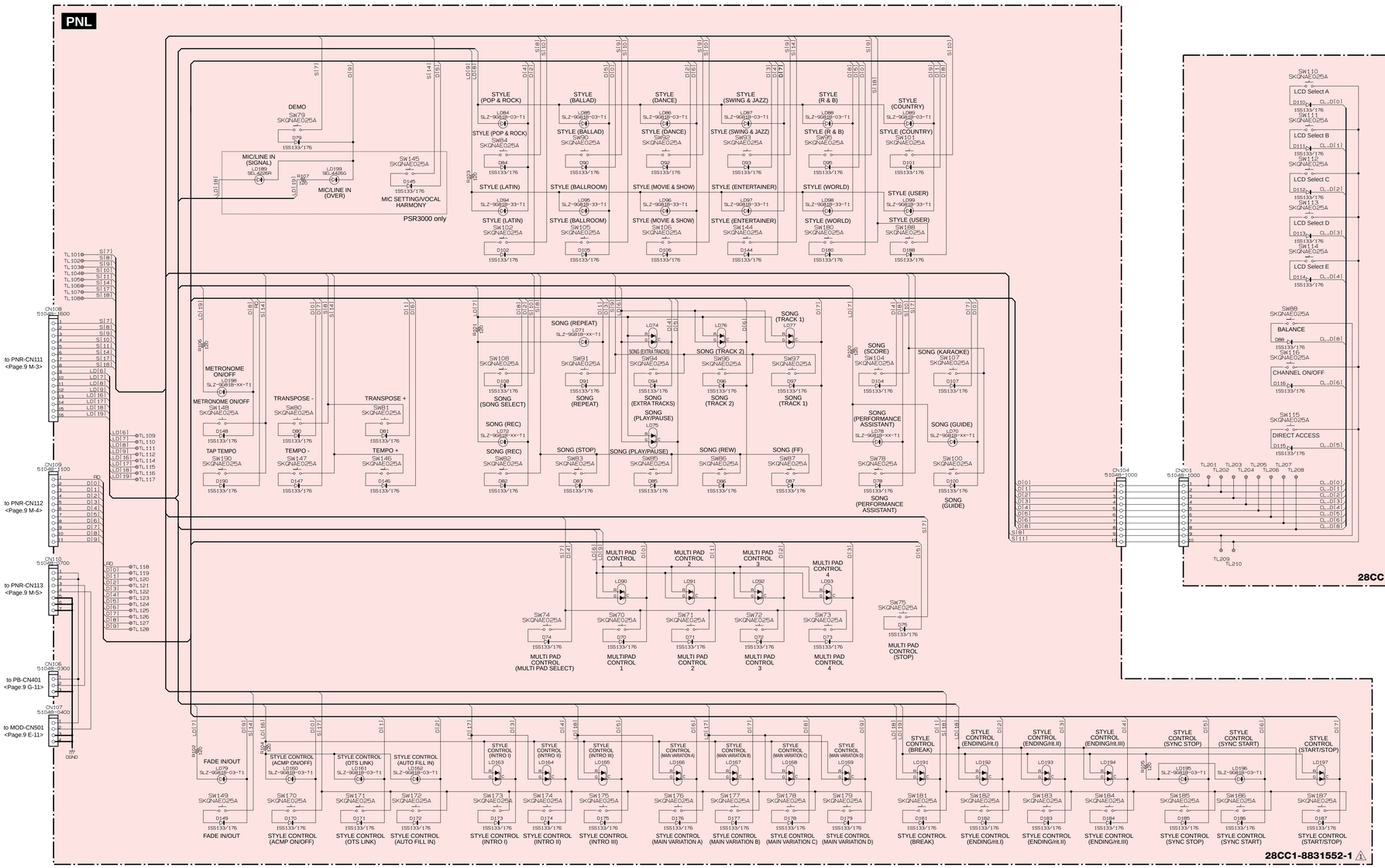
28CC1-8832933-1

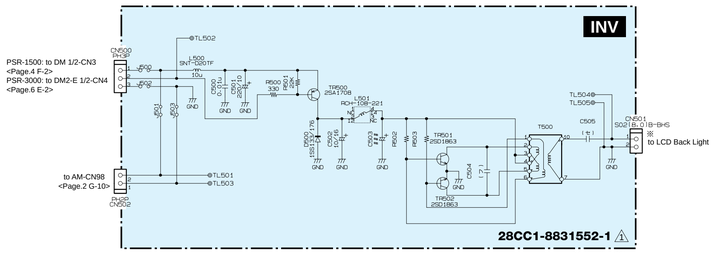
28CC1-8831549-2

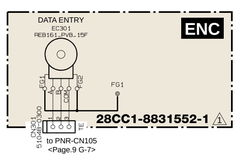
Note: See parts list for details of circuit board component parts.

(セ) : Ceramic Capacitor
Yes : installed
No or ### : not installed

■PSR-1500/PSR-3000 OVERALL CIRCUIT DIAGRAM (ENC, INV, PNCL, PNL)







	R502	R503	C504	T500	C505
VDS	1.5K HF75515 HF45515	1.5K HF75515 HF45512	0.1B WB54700	WC01380	12P WB53630
ARIMA	1.2K HF75512 HF45512	——	0.15 WB68800	WC01370	15P VA00770

(セ) : Ceramic Capacitor
(フ) : Metallized Polyester Film Capacitor

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

■ PSR-1500/PSR-3000 OVERALL CIRCUIT DIAGRAM (MOD, PB, PNCC, PNR)

PNR

CPU
IC100
M38044M4-XXXFP
E-PNS1a

PNCR

MOD

PB

PNCC

• 1SS372 TE85L (V9424900)
DIODE ARRAY
PNR: DA1 ~ 26

1: ANODE1
2: CATHODE2
3: CATHODE1, ANODE2

• 1SS355 TE-17 (VT332900)
DIODE
PNR: D105, 106, 110 ~ 113, 170 ~ 173

1: ANODE
2: CATHODE

28CC1-8831553-1 ⚠

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

■ PSR-1500/PSR-3000 OVERALL CIRCUIT DIAGRAM (TG1 (PSR-3000))

TG1

- LMS8117AMP-ADJ (X0609A00) REGULATOR
  TG1: IC22, 23
  TAB IS VOUT
  1: ADJ/GND
  2: OUTPUT
  3: INPUT
- D1F60 (VS201100) DIODE
  TG1: D1, 2
  1: ANODE
  2: CATHODE

REGULATOR

REGULATOR

+3.3V-7709 (100MHz)
+1.8V-7709(100MHz)
7709(133MHz)
+1.5V-7709(133MHz)
7709(166MHz)
+2.0V-7709(166MHz)

to DM2-E 2/2-CN19 <Page.7 N-10>

to DAC1A-CN101 <Page.3 J-2>

GATE ARRAY
IC5
S1L50053
MCI

CPU (SH3)
MAIN-CPU SH3
IC1
HD6417095
(200MHz)
(External Bus 66.66MHz)

INVERTER

DECODER

SD RAM 64M

MASK ROM 4M PROGRAM

SDRAM 64M

SWP50
IC6
SwP50

MASK ROM 128M WAVE L1

MASK ROM 128M WAVE L2

MASK ROM 128M WAVE H1

MASK ROM 128M WAVE H2

not installed

WAVE-ROM L 4M (MASK)

WAVE-ROM H 4M (MASK)

WAVE-ROM L3 128M (MASK)

WAVE-ROM L4 128M (MASK)

WAVE-ROM H3 128M (MASK)

WAVE-ROM H4 128M (MASK)

Extend WAVE-ROM L

Extend WAVE-ROM H

to JTAG

to VA

28CC1-8831550-1

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

(セ): Ceramic Capacitor
金皮: Metal Film Resistor
Yes: installed
No: not installed