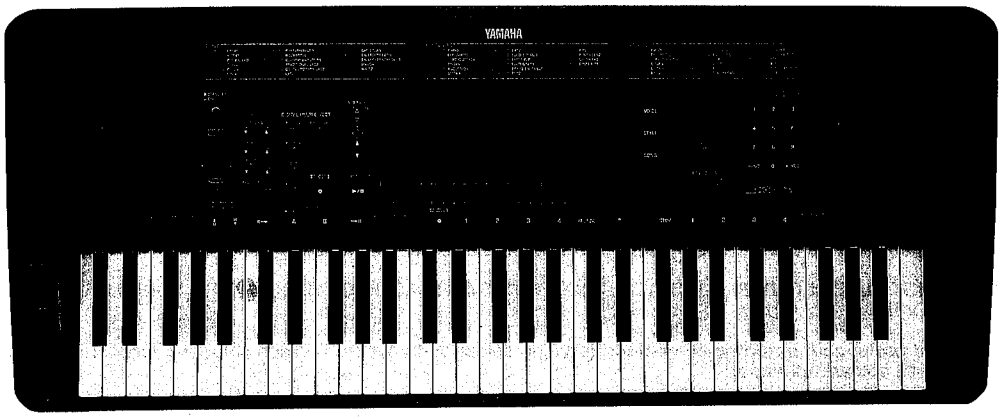
PORTATONE

PSR-630

SERVICE MANUAL



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PK 001595
19970901-110000

YAMAHA CORP.
HAMAMATSU, JAPAN
2.4K-306 Printed in Japan '97.09

IMPORTANT NOTICE

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

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

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

The data provided is belived to be accurate and applicable to the unit(s) indicated on the cover. The research engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity you body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss.)

IMPORTANT: Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

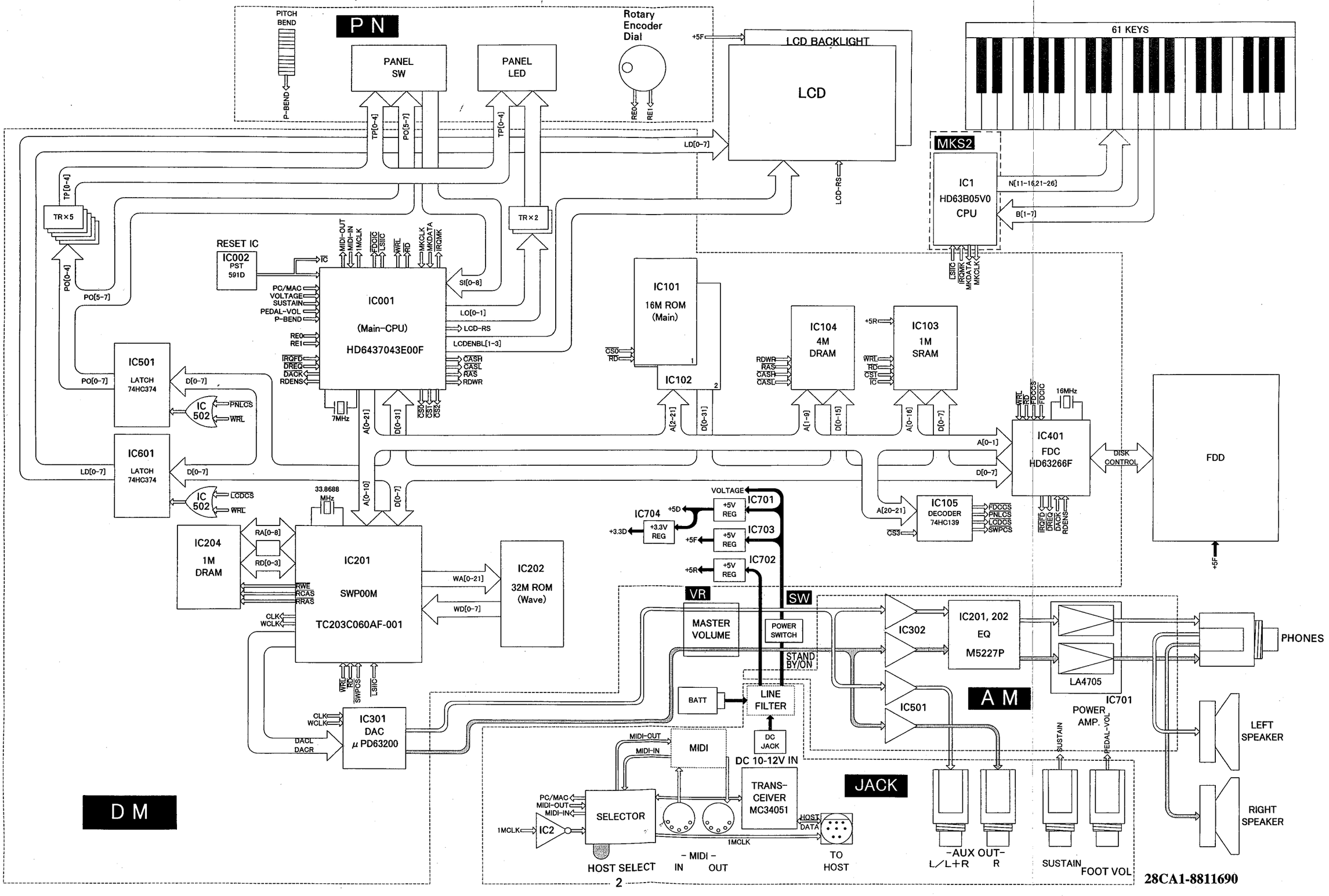
DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHAT SO EVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

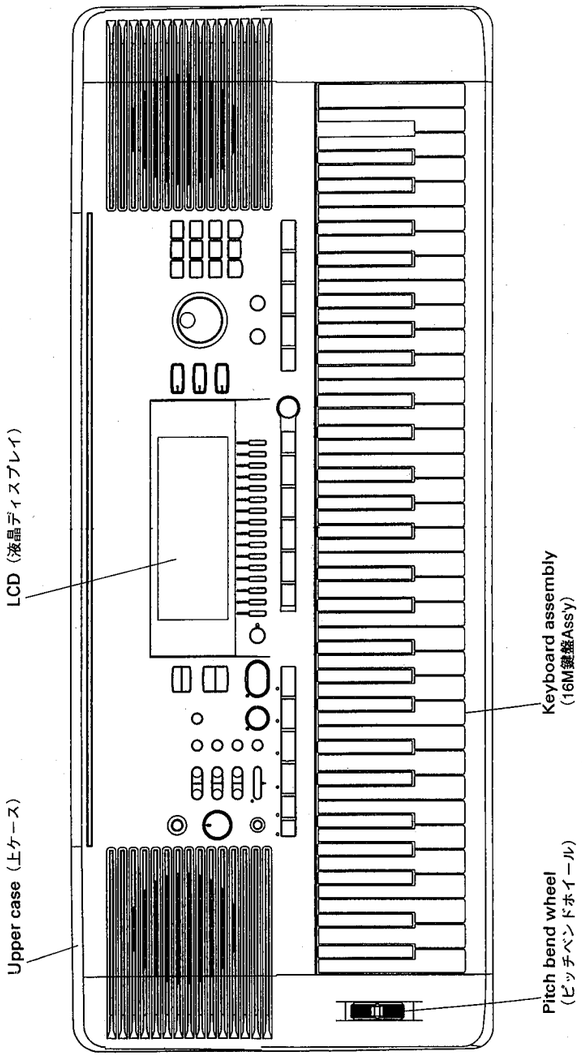
If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

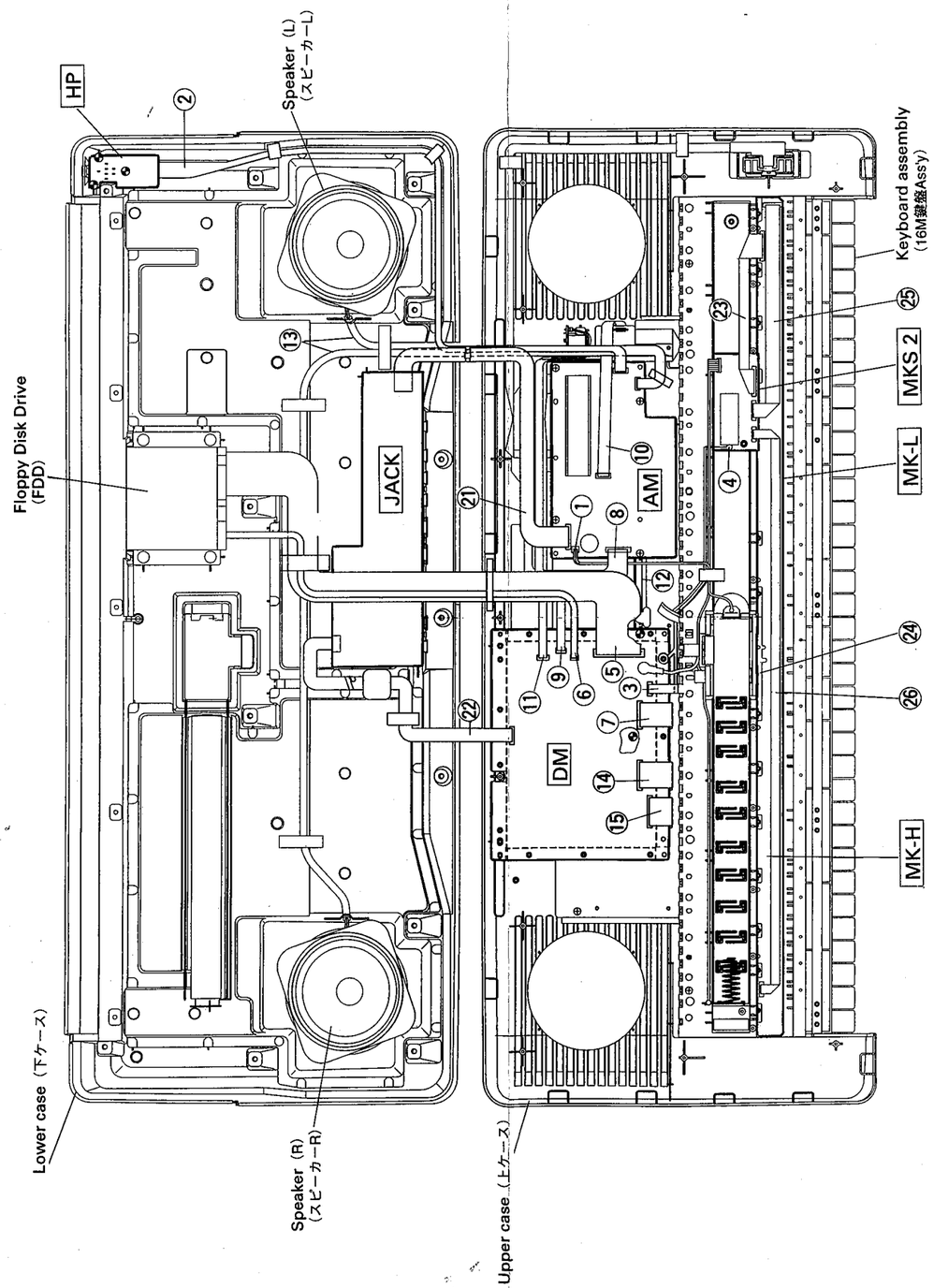
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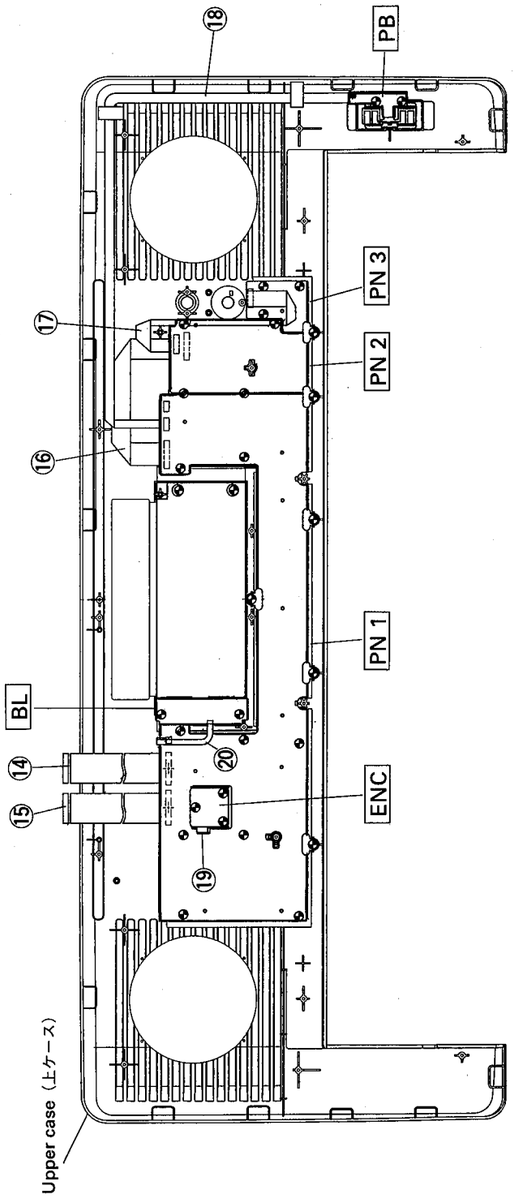
■ BLOCK DIAGRAM (ブロックダイアグラム)



■ CIRCUIT BOARD LAYOUT (ユニットレイアウト)







PSR-630

• WIRING

REF. NO.	DESTINATION		CONNECTOR ASSEMBLY	REMARKS	PART NO.	AVAILA-BILITY
①	AM-CN701	Battery	BATT	2P/L210,600	VY83590	×
②	AM-CN705	HP-CN706	HP	5P/L850	VY83260	×
③	DM-CN802	MK2-CN1	DK-MK	6P/L430	VY83280	×
④	MK-G	GND	MK EARTH	1P/L300	VZ49430	×
⑤	DM-CN401	FDD IO Connector	FDD	34P	VY83570	×
⑥	DM-CN402	FDD POWER	FDD POWER	3P	VY83580	×
⑦	DM-CN601	LCD	LCD	15P/L300	VY83270	×
⑧	AM-CN704	SW-CN707	AM-SW	10P/L380	VY83190	×
⑨	DM-CN701	SW-CN708	DM-SW	5P/L450	VY83200	×
⑩	AM-CN301	VR-CN302	AM-VR	5P/L220	VY83210	×
⑪	DM-CN301	VR-CN303	DM-VR	4P/L500	VY83220	×
⑫	AM-G	GND	AM EARTH	1P/L200	VY49400	×
⑬	AM-CN702	Speaker(L),(R)	SP-L/R	4P	VY38290	×
⑭	PN1-CN1	DM-CN502	PN-DM 1	14P/L300	VY83110	×
⑮	PN1-CN2	DM-CN501	PN-DM 2	13P/L300	VY83120	×
⑯	PN1-CN3A	PN2-CN3B	PN1-PN2	11P/L260	VY83130	×
⑰	PN2-CN4A	PN2-CN4B	PN2-PN3	6P/L220	VY83140	×
⑱	PN1-CN6A	PB-CN6B	PN1-PB	3P/L650	VY83150	×
⑲	PN1-CN5A	MOD-CN5B	PN1-RE	3P/L50	VY83170	×
⑳	PN1-CN8A	BL-CN-CN8B	PN1-BL	2P/L160	VY83180	×
㉑	AM-CN709	JACK-JK9	AM-JACK	9P/L400	VY83240	×
㉒	DM-CN801	JACK-JK5	DM-JACK	8P/L450	VZ53090	×
㉓	MKS2-CN2	MK-L	(160d)	12P/L190	VU95890	○
㉔	MK-H	MK-L	(160e)	12P/L215	VU65950	○
㉕	MKS2-CN3	MK-L	(160f)	7P/L250	VU65940	○
㉖	MKS2-CN4	MK-H	(160g)	5P/L615	VU65960	○

NOTE : REF. NO. is indicated in the CIRCUIT BOARD LAYOUT figures in page 4 and page 5.
Parts No.1-22 are not available as spare parts, and parts No.23-26 are available as spare parts.

■ DISASSEMBLY PROCEDURE (分解手順)

1. Lower Case Assembly

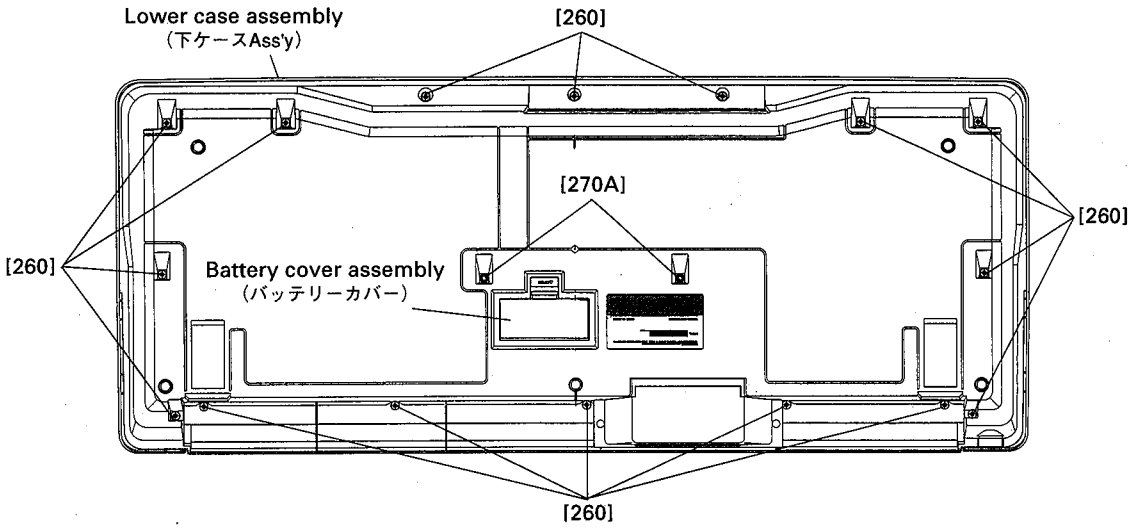
1-1 Remove the battery cover assembly. (Fig. 1)

1-2 Remove the sixteen (16) screws marked [260] and the two (2) screws marked [270A]. Then the lower case assembly can be removed. (Fig. 1)

1. 下ケース Ass'y

1-1 バッテリーカバーを外します。(図 1)

1-2 [260]のネジ 16 本と[270A]のネジ 2 本を外し、下ケース Ass'y を外します。(図 1)



[260]: Bind Head Tapping Screw-P 3.0X12 MFZN2Y (EP600300) ＋バインド P タイト
[270A]: Bind Head Tapping Screw-P 3.0X25 MFZN2Y (VK228100) ＋バインド P タイト

(Fig. 1)

2. DM Circuit Board

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

2-2 Remove the three (3) screws marked [240A] and the twelve (12) screws marked [250]. Then the shield cover L can be removed. (Fig. 2)

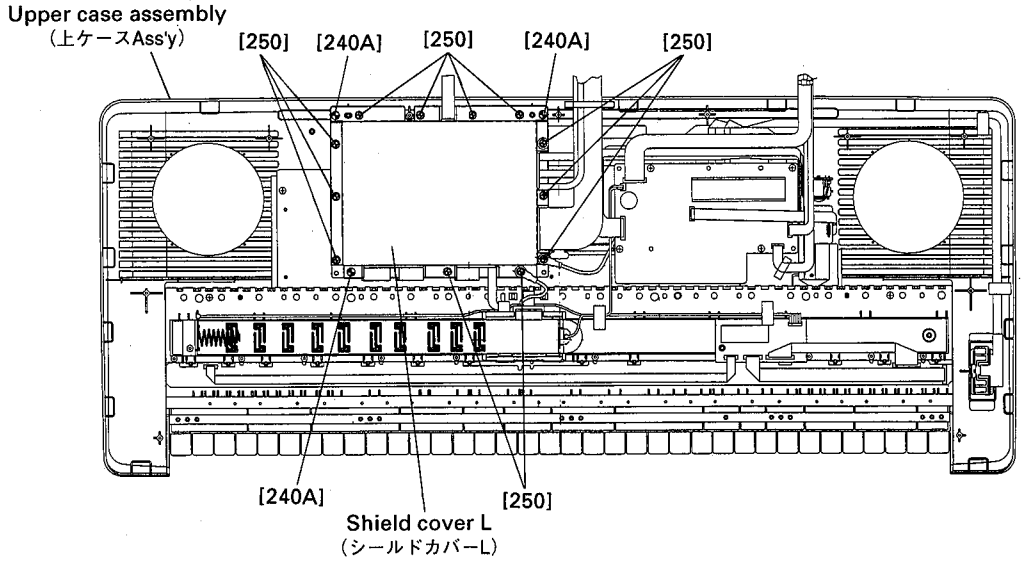
2-3 Remove the screw marked [240B]. Then the DM circuit board can be removed. (Fig. 2, 3)

2. DM シート

2-1 下ケース Ass'y を外します。（1 項参照）

2-2 [240A]のネジ 3 本と[250]のネジ 12 本を外し、シールドカバーL を外します。（図 2）

2-3 [240B]のネジ 1 本を外し、DM シートを外します。（図 2、図 3）



[240A]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインド P タイト
[250]: Bind Head Tapping Screw-B 3.0X6 MFZN2Y (EP600130) ＋バインド B タイト

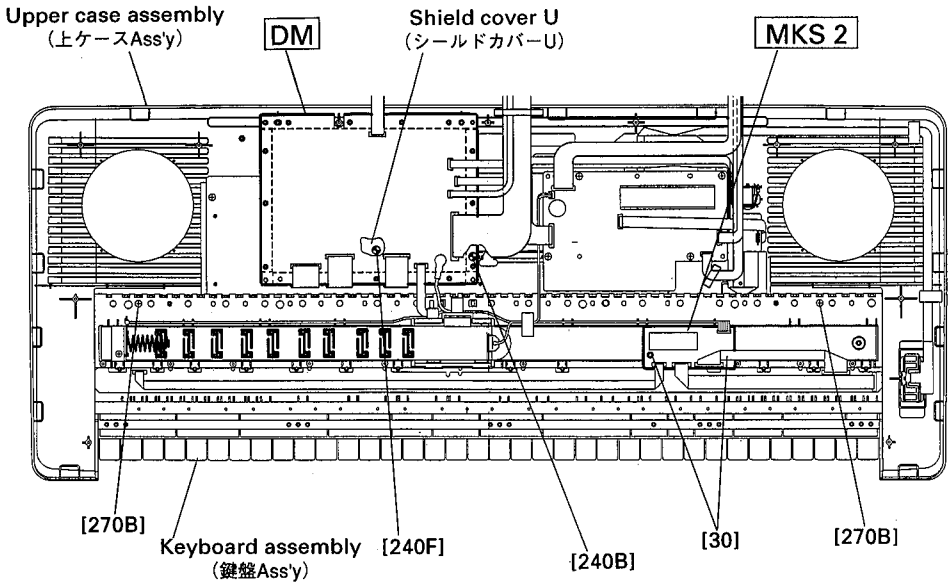
(Fig. 2)

3. Keyboard Assembly

3-1 Remove the lower case assembly. (See Procedure 1.)
3-2 Remove the two (2) screws marked [270B]. Then the keyboard assembly can be removed. (Fig. 3)

3. 鍵盤 Ass'y

3-1 下ケース Ass'y を外します。（1 項参照）
3-2 [270B]のネジ 2 本を外し、鍵盤 Ass'y を外します。（図 3）



[30]: Bind Head Tapping Screw-P 3.0X8 MFZN2BL (EP630220) ＋バインド P タイト
[240B]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインド P タイト
[240F]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインド P タイト
[270B]: Bind Head Tapping Screw-P 3.0X25 MFZN2Y (VK228100) ＋バインド P タイト

(Fig. 3)

4. AM Circuit Board

4-1 Remove the lower case assembly. (See Procedure 1.)
4-2 Remove the four (4) screws marked [240C]. Then the AM circuit board can be removed. (Fig. 4)

5. VR Circuit Board

5-1 Remove the MASTER VOLUME knob on the control panel. (Fig. 4)
5-2 Remove the lower case assembly. (See Procedure 1.)
5-3 Remove the three (3) screws marked [240D]. Then the VR circuit board can be removed. (Fig. 4)

6. SW Circuit Board

6-1 Remove the lower case assembly. (See Procedure 1.)
6-2 Remove the two (2) screws marked [240E]. Then the SW circuit board can be removed. (Fig. 4)
6-3 Pull off the button from the SW circuit board.

4. AM シート

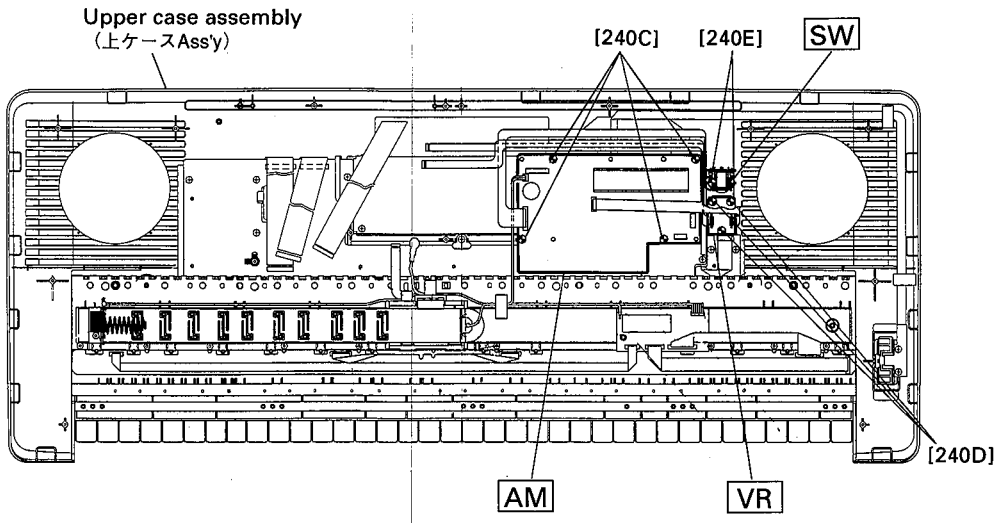
4-1 下ケース Ass'y を外します。（1 項参照）
4-2 [240C]のネジ 4 本を外し、AM シートを外します。（図 4）

5. VR シート

5-1 コントロールパネル上のボリュームツマミを外します。
5-2 下ケース Ass'y を外します。（1 項参照）
5-3 [240D]のネジ 3 本を外し、VR シートを外します。（図 4）

6. SW シート

6-1 下ケース Ass'y を外します。（1 項参照）
6-2 [240E]のネジ 2 本を外し、SW シートを外します。（図 4）
6-3 SW シートより、プッシュツマミを引き抜きます。



[240C]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト
[240D]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト
[240E]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト

(Fig. 4)

7. PN1, PN2, PN3, ENC, BL, PB Circuit Board

7-1 Remove the lower case assembly. (See Procedure 1.)
7-2 Remove the DM circuit board. (See Procedure 2.)
7-3 Remove the screw marked [240F]. Then the shield cover U can be removed. (Fig. 3)
7-4 Remove the AM circuit board. (See Procedure 4.)
7-5 Remove the keyboard assembly. (See Procedure 3.)
7-6 Each circuit board can be removed in the manner as below.

7-6-1 PN1 Circuit Board
Remove the thirteen (13) screws marked [190A] and the three (3) screws marked [190B]. Then the PN1 circuit board can be removed. (Fig. 5)

7-6-2 PN2 Circuit Board
Remove the three (3) screws marked [190B], the two (2) screws marked [190C] and the screw marked [190D]. Then the PN2 circuit board can be removed. (Fig. 5)

7-6-3 PN3 Circuit Board
Remove the screw marked [190D] and the three (3) screws marked [190E]. Then the PN3 circuit board can be removed. (Fig. 5)

7-6-4 ENC Circuit Board
Remove the three (3) screws marked [190F]. Then the ENC circuit board can be removed. (Fig. 5)
* When removing the ENC circuit board, the ENC knob will be removed simultaneously

7-6-5 BL Circuit Board
Remove the two screws marked [190G]. Then the BL circuit board can be removed. (Fig. 5)

7-6-7 PB Circuit Board
Remove the two (2) screws marked [190H]. Then the wheel assembly can be removed. Remove the wheel with the spring from the wheel assembly. (Fig. 5)

7. PN1、PN2、PN3、ENC、BL、PB シート

7-1 下ケース Ass'y を外します。（1 項参照）
7-2 DM シートを外します。（2 項参照）
7-3 [240F]のネジ 1 本を外し、シールドカバーU を外します。（図 3）
7-4 AM シートを外します。（4 項参照）
7-5 鍵盤 Ass'y を外します。（3 項参照）
7-6 各シートを下記の様にして外します。

7-6-1 PN1 シート
[190A]のネジ 13 本と[190B]のネジ 3 本を外し、PN1 シートを外します。（図 5）

7-6-2 PN2 シート
[190B]のネジ 3 本と[190C]のネジ 2 本と[190D]のネジ 1 本を外し、PN2 シートを外します。（図 5）

7-6-3 PN3 シート
[190D]のネジ 1 本と[190E]のネジ 3 本を外し、PN3 シートを外します。（図 5）

7-6-4 ENC シート
[190F]のネジ 3 本を外し、ENC シートを外します。（図 5）

※ ENC シートを外すと、コントロールパネル上のエンコーダーツマミも同時に外れます。

7-5-5 BL シート
[190G]のネジ 2 本を外し、BL シートを外します。（図 5）

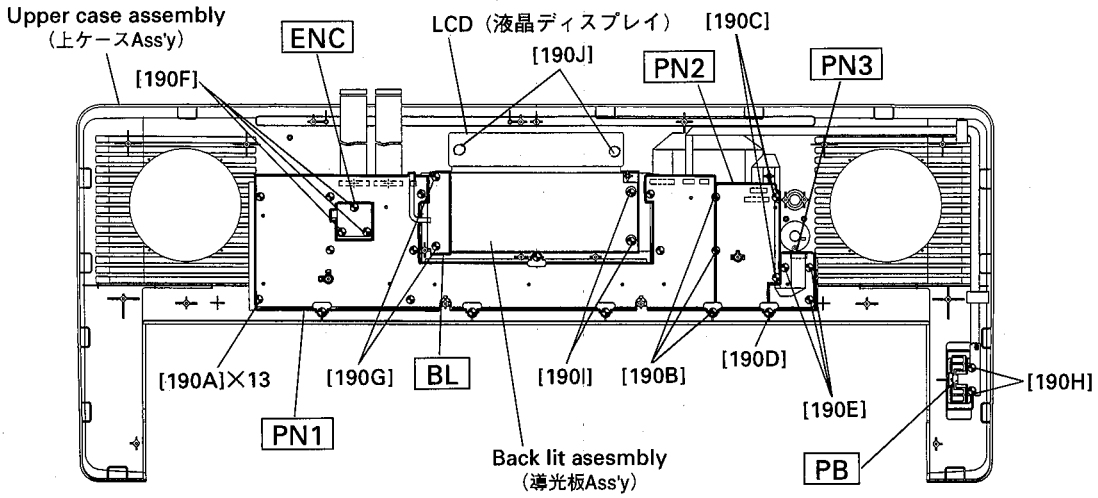
7-5-6 PB シート
[190H]のネジ 2 本を外し、ホイール Ass'y を外します。ホイール Ass'y からバネの付いたホイールを抜き取ります。（図 5）

8. LCD

8-1 Remove the lower case assembly. (See Procedure 1.)
8-2 Remove the DM circuit board. (See Procedure 2.)
8-3 Remove the screw marked [240F]. Then the shield cover U can be removed. (Fig. 3)
8-4 Remove the BL circuit board. (See Procedure 7.)
8-5 Remove the two (2) screws marked [190I]. Then the back lit assembly can be removed. (Fig. 5)
8-6 Remove the two (2) screws marked [190J]. Then the LCD can be removed. (Fig. 5)

8. 液晶ディスプレイ

8-1 下ケース Ass'y を外します。（1 項参照）
8-2 DM シートを外します。（2 項参照）
8-3 [240F]のネジ 1 本を外し、シールドカバーU を外します。（図 3）
8-4 BL シートを外します。（7 項参照）
8-5 [190I]のネジ 2 本を外し、導光板 Ass'y を外します。（図 5）
8-6 [190J]のネジ 2 本を外し、液晶ディスプレイを外します。（図 5）



[190A]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト
[190B]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト
[190C]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト
[190D]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト
[190E]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト
[190F]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト
[190G]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト
[190H]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト
[190I]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト
[190J]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト

(Fig. 5)

9. JACK Circuit Board

9-1 Remove the lower case assembly. (See Procedure 1.)
9-2 Remove the eight (8) screws marked [50A]. Then the JACK circuit board can be removed. (Fig. 6)

10. HP Circuit Board

10-1 Remove the lower case assembly. (See Procedure 1.)
10-2 Remove the three (3) screws marked [240G]. Then the HP circuit board can be removed. (Fig. 6)

11. Speakers

11-1 Remove the lower case assembly. (See Procedure 1.)
11-2 Remove the eight (8) screws marked [120]. Then the right and left speakers can be removed. (Fig. 6)

9. JACK シート

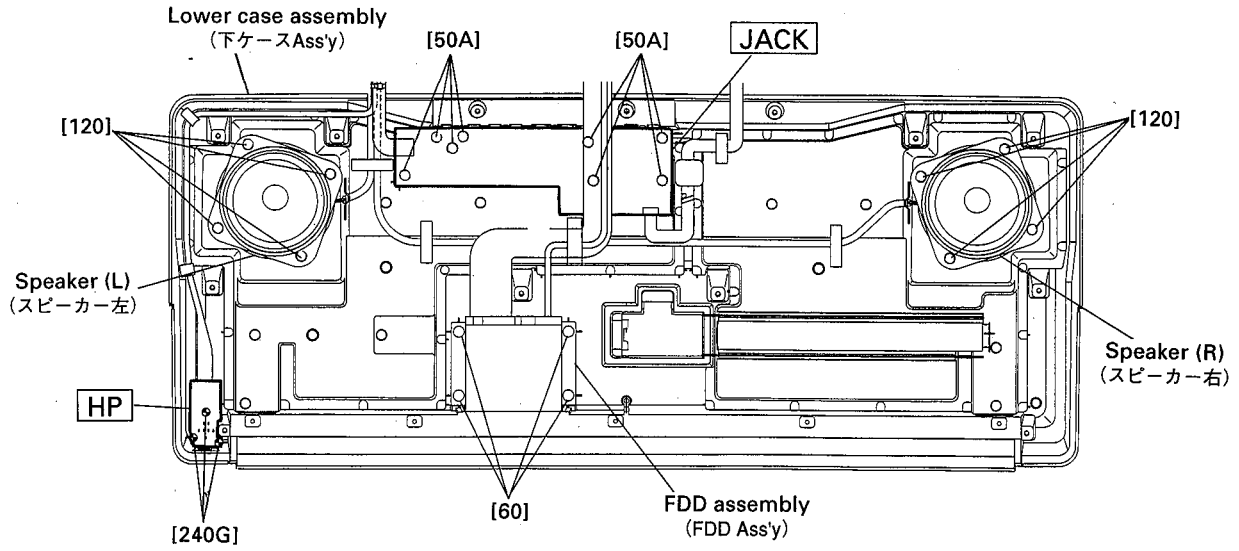
9-1 下ケース Ass'y を外します。（1 項参照）
9-2 [50A]のネジ 8 本を外し、JACK シートを外します。（図 6）

10. HP シート

10-1 下ケース Ass'y を外します。（1 項参照）
10-2 [240G]のネジ 3 本を外し、HP シートを外します。（図 6）

11. スピーカー

11-1 下ケース Ass'y を外します。（1 項参照）
11-2 [120]のネジ 8 本を外し、左右のスピーカーを外します。（図 6）



[50A]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト
[60]: Bind Head Tapping Screw-P 4.0X16 MFZN2Y (VM839600) ＋バインドPタイト
[120]: Bind Head Tapping Screw-P 4.0X10 MFZN2Y (EP640500) ＋バインドPタイト
[240G]: Bind Head Tapping Screw-P 3.0X8 MFZN2Y (EP600280) ＋バインドPタイト

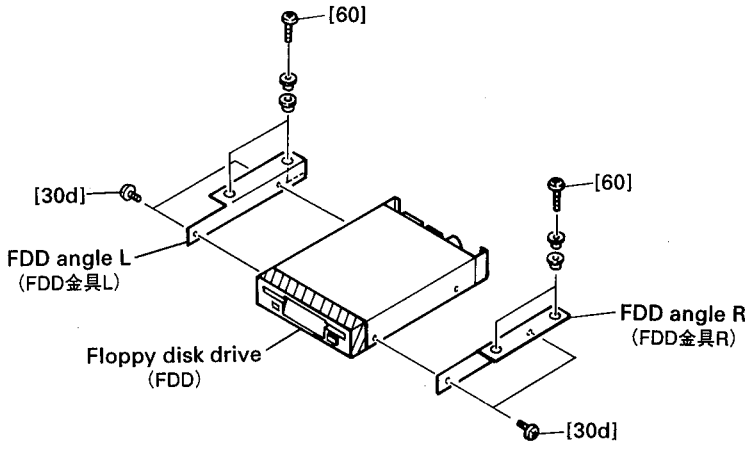
(Fig. 6)

12. Floppy Disk Drive

12-1 Remove the lower case assembly. (See Procedure 1.)
12-2 Remove the four (4) screws marked [60]. Then the FDD assembly can be removed. (Fig. 6)
12-3 Remove the four (4) screws marked [30d]. Then the FDD angle L/R can be remove from the FDD assembly. (Fig. 7)

12. FDD

12-1 下ケース Ass'y を外します。（1 項参照）
12-2 [60]のネジ 4 本を外し、FDD Ass'y を外します。（図 6）
12-3 [30d]のネジ 4 本を外し、FDD Ass'y より、FDD 金具 L/R を取り外します。（図 7）



[30d]: Bind Head Screw 3.0X6 MFZN2BL (EG330360) ＋バインド小ネジ

(Fig. 7)

13 Disassembling the keyboard assembly

13-1 Remove the keyboard assembly. (See procedure 3)

13-2 Remove the two (2) screws marked [30], then the MKS2 circuit board can be removed. (Fig. 3)

13-3 Remove the MK circuit board while pressing the fifteen (15) hooks (A) inward, and then remove the rubber contact. (Fig. 8)

13-4 Remove the twenty-one (21) screws marked as [140], then remove the black keys from the lower notes. Afterwards, remove the white keys DFA and C' and then remove the white keys CEGB from the higher notes. At this time, lift the keys from the front and slide them towards you. The keys can be removed from the assembly. (Fig. 9)

14 Assembling the keyboard assembly

14-1 Install the white keys CEGB from the lower notes, and then DFA keys and C' key. Afterwards install the back keys from the higher notes, and tighten the twenty-one (21) screws marked [140]. (Fig. 9)

14-2 Install the rubber contacts in the assembly while pressing the keys as shown in Figure 10. Check that the rubber contact has been firmly placed into position in the area indicated by the arrow in Figure 11.

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

Install the MK circuit board in the assembly so that the hooks (B) hold it as shown in Figure 11. (Fig. 10, 11, 12)

13. 鍵盤 Ass'y の分解

13-1 鍵盤 Ass'y を外します。（3 項参照）

13-2 [30]のネジ 2 本を外し、MKS2 シートを外します。（図 3）

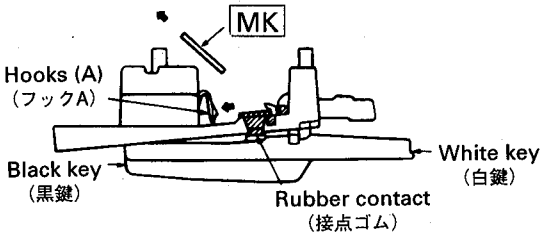
13-3 MK シートを止めているフック A 15 個を矢印の方向に押し外して MK シートを取り外します。接点ゴムは、上へ引くと外れます。（図 8）

13-4 白鍵と黒鍵を止めている[140]のネジ 21 本を外し黒鍵を音程の低い方から外します。次に白鍵 DFA と白鍵 C'を外し、最後に白鍵 CEGB を音程の高い方から外します。このとき、鍵盤の手前を持ち上げ、手前にスライドさせて取り外して下さい。（図 9）

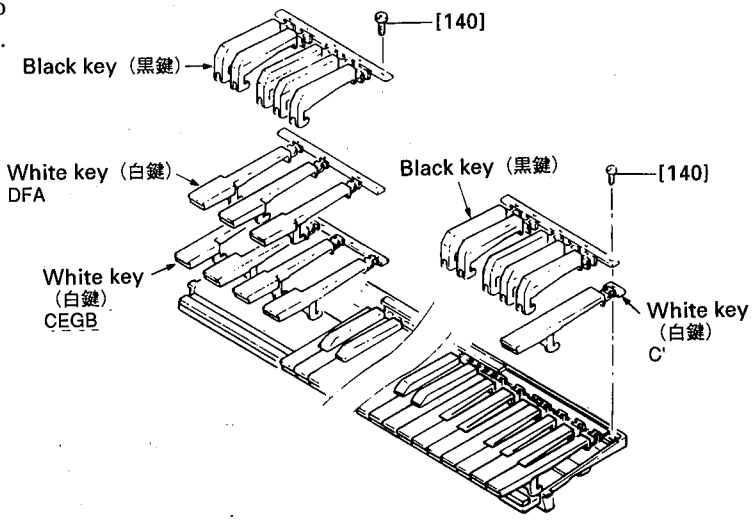
14. 鍵盤 Ass'y の組立て

14-1 白鍵 CEGB を音程の低い方からはめ込みます。
白鍵 DFA と白鍵 C'をはめ込みます。
黒鍵を音程の高い方からはめ込みます。
白鍵、黒鍵を止めていた[140]のネジ 21 本を取付けます。（図 9）

14-2 接点ゴムは、図 10 のように鍵盤を押し上げながら図 11 のようにしっかりとはめ込んで下さい。
このとき、鍵盤が接点ゴムを押し上げて、接点ゴムが浮かないように、MK フレームの両端を上げて作業を行って下さい。
MK シートは、図 11 のようにフック B にはめ込んで取り付けます。（図 10、図 11、図 12）

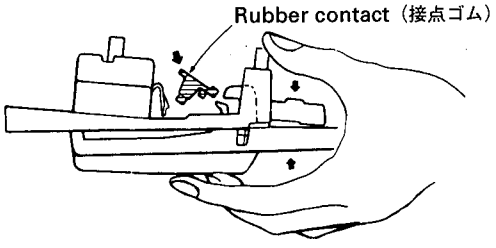


(Fig. 8)

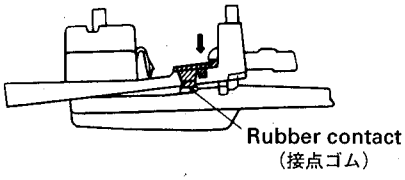


[140]: Bind Head Tapping Screw-P 3.0X16 MFZN2BL (VB205200) ＋バインドPタイト or
[140]: Bind Head Tapping Screw-P 3.0X16 MFZN2B (VS756700) ＋バインドPタイト

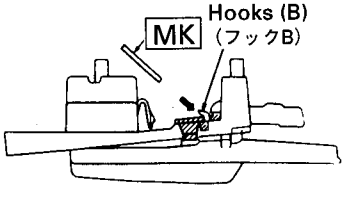
(Fig. 9)



(Fig. 10)



(Fig. 11)



(Fig. 12)

■ LSI PIN DESCRIPTION (LSI端子機能表)

• HD6437043E00F (XS936A00) CPU

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	/WRHH	O	HH write	73	D15	I/O	Data bus
2	DACK0	O	DMA transfer strobe	74	D14	I/O	
3	/WRHL	O	HL write	75	D13	I/O	
4	/CASHH	O	HH Column address strobe	76	D12	I/O	
5	PE15	I/O	Port E	77	VCC	I	Power supply
6	VSS	I	Ground	78	D11	I/O	Data bus
7	A0	O	Address bus	79	VSS	I	Ground
8	A1	O		80	D10	I/O	Data bus
9	A2	O		81	D9	I/O	
10	A3	O		82	D8	I/O	
11	A4	O		83	D7	I/O	
12	VCC	I	Power supply	84	D6	I/O	
13	A5	O	Address bus	85	VCC	I	Power supply
14	VSS	I	Ground	86	D5	I/O	Data bus
15	A6	O	Address bus	87	VSS	I	Ground
16	A7	O		88	D4	I/O	Data bus
17	A8	O		89	D3	I/O	
18	A9	O		90	D2	I/O	
19	A10	O		91	D1	I/O	
20	A11	O		92	D0	I/O	
21	A12	O		93	VSS	I	Ground
22	A13	O		94	XTAL	I	Crystal oscillator
23	A14	O		95	MD3	I	Mode select
24	A15	O		96	EXTAL	I	Crystal oscillator
25	A16	O		97	MD2	I	Mode select
26	VCC	I	Power supply	98	NMI	-	Non-maskable interrupt
27	A17	O	Address bus	99	VCC	I	Power supply
28	VSS	I	Ground	100	PA16	I/O	Port A
29	/CASHL	O	HL Column address strobe	101	PA17	I/O	Port A
30	PA19	I/O	Port A	102	MD1	I	Mode select
31	/RAS	O	Row address strobe	103	MD0	I	Mode select
32	/CASL	O	Column address strobe (low)	104	PLLVCC	I	PLL Power supply
33	PA18	I/O	Port A	105	PLLCAP	I	PLL capacitor
34	/CASH	O	Column address strobe (high)	106	PLLVSS	I	PLL Ground
35	VSS	I	Ground	107	PA15	I/O	Port A
36	RDWR	O	DRAM read/write	108	/RES	I	Reset
37	A18	O	Address bus	109	/DREQ0	I	DMA transfer request
38	A19	O		110	TIOC0B	I/O	MTU input capture/output compare (ch 0)
39	A20	O		111	PE2	I/O	Port E
40	VCC	I	Power supply	112	VCC	I	Power supply
41	A21	O	Address bus	113	PE3	I/O	Port E
42	VSS	I	Ground	114	PE4	I/O	
43	/RD	O	Read	115	PE5	I/O	
44	/WDTOVF	O	Watch dog timer overflow	116	PE6	I/O	
45	D31	I/O	Data bus	117	VSS	I	Ground
46	D30	I/O	Data bus	118	AN0	I	Analog input
47	/WRH	O	High write	119	AN1	I	
48	/WRL	O	Low write	120	AN2	I	
49	/CS1	O	Chip select	121	AN3	I	
50	/CS0	O	Chip select	122	PF4	I/O	Port F
51	/IRQ3	I	Interrupt request	123	PF5	I/O	Port F
52	/IRQ2	I	Interrupt request	124	AVSS	I	Analog ground
53	/CS3	O	Chip select	125	PF6	I/O	Port F
54	/CS2	O	Chip select	126	PF7	I/O	Port F
55	VSS	I	Ground	127	AVREF	I	Analogreference voltage
56	D29	I/O	Data bus	128	AVCC	I	Analog power supply
57	D28	I/O		129	VSS	I	Ground
58	D27	I/O		130	RxDO	I	Receive data
59	D26	I/O		131	TxDO	O	Transmit data
60	D25	I/O		132	/IRQ1	I	Interrupt request
61	VSS	I	Ground	133	RxD1	I	Receive data
62	D24	I/O	Data bus	134	PA4	I/O	Port A
63	VCC	I	Power supply	135	VCC	I	Power supply
64	D23	I/O	Data bus	136	SCK1	I/O	Serial clock
65	D22	I/O		137	PE7	I/O	Port E
66	D21	I/O		138	PE8	I/O	
67	D20	I/O		139	PE9	I/O	
68	D19	I/O		140	PE10	I/O	
69	D18	I/O		141	VSS	I	Ground
70	D17	I/O		142	TIOC3D	I/O	MTU input capture/output compare (ch 3)
71	VSS	I	Ground	143	PE12	I/O	Port E
72	D16	I/O	Data bus	144	PE13	I/O	Port E

• TC203C060AF-001 (XS724A00) SWP00M (AWM Tone Generator) Standard Wave Processor

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	Vss		Ground	51	MD2	I	
2	/IC	I	Initial clear	52	MD6	I	Wave memory data bus
3	/CS	I	Chip select	53	MD1	I	
4	/WR	I	Write strobe	54	MD7	I	
5	Vdd		DC +3.3V supply	55	Vdd		DC +3.3V supply
6	/RD	I	Read control	56	MD0	I	Wave memory data bus
7	CA10	I		57	MA0	O	
8	CA9	I		58	MA17	O	
9	CA8	I		59	MA1	O	
10	CA7	I	CPU address bus	60	MA16	O	Wave memory address bus
11	CA6	I		61	MA2	O	
12	CA5	I		62	MA15	O	
13	CA4	I		63	MA3	O	
14	CA3	I		64	MA14	O	
15	Vss		Ground	65	MA4	O	
16	CA2	I		66	Vss		Ground
17	CA1	I	CPU address bus	67	MA13	O	
18	CA0	I		68	MA5	O	
19	CD7	I/O		69	MA12	O	
20	CD6	I/O		70	MA6	O	Wave memory address bus
21	CD5	I/O		71	MA11	O	
22	CD4	I/O	CPU data bus	72	MA7	O	
23	CD3	I/O		73	MA10	O	
24	CD2	I/O		74	Vss		Ground
25	CD1	I/O		75	MA8	O	
26	CD0	I/O		76	MA9	O	
27	RA8	O		77	MA18	O	Wave memory address bus
28	RA7	O	DRAM address bus	78	MA20	O	
29	RA6	O		79	MA19	O	
30	VddS		DC +5V supply	80	VddS		DC +5V supply
31	RA5	O	DRAM address bus	81	MA21	O	
32	VSS		Ground	82	MA22	O	Wave memory address bus
33	RA4	O		83	MA23	O	
34	RA3	O		84	DACLR	O	DAC output (L or L/R)
35	RA2	O	DRAM address bus	85	DACR	O	DAC output R
36	RA1	O		86	BCLK	O	Bit clock
37	RA0	O		87	WCLK	O	Word clock
38	/RAS	O	Row address strobe	88	SYSCLK	O	System clock
39	/RWE	O	DRAM write enable	89	NSYSON	I	NSYS expansion enable
40	Vss		Ground	90	Vss		Ground
41	VddS		DC +5V supply	91	Vdd		DC +3.3V supply
42	RD3	I/O		92	TESTON	I	
43	RD2	I/O	DRAM data bus	93	ACIN	I	Test pin
44	RD1	I/O		94	DCTEST	I	
45	RD0	I/O		95	SYI	I	Synch. signal
46	/CAS	O	Column address strobe	96	MCLK1	I	Master clock input
47	MD4	I	Wave memory data bus	97	MCLK0	O	Master clock output
48	Vss		Ground	98	Vss		Ground
49	MD3	I	Wave memory data bus	99	XOUT	O	Crystal oscillator
50	MD5	I	Wave memory data bus	100	XIN	I	Crystal oscillator

• μPD63200GS (XM145A00) DAC (Digital to Analog Converter)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	4/8FS	I	4/8 Fs selection	9	R. REF		Channel R voltage reference
2	D. GND		Digital ground	10	L. REF		Channel L voltage reference
3	16/18 BIT	I	16 bit/18 bit selection	11	L. OUT	O	Channel L output
4	D. VDD		Digital power supply	12	A. GND		Analog ground
5	A. GND		Analog ground	13	LRCK/WD	I	Word clock
6	R. OUT	O	Channel R output	14	LR/RSI	I	Channel R series input
7	A. VDD		Analog power supply	15	LSI	I	Channel L series input
8	A. VDD		Analog power supply	16	CLK	I	Clock

• HD63B05V0F073P (XR951A00) CPU

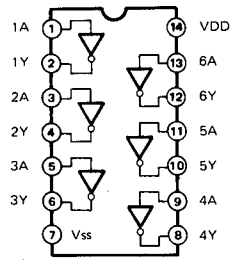
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	/RES	I	Reset	21	C7	I/O	
2	/INT	I	Interrupt request	22	C6	I/O	
3	NUM	I	Non-maskable interrupt	23	C5	I/O	
4	A7	I/O		24	C4	I/O	Port C
5	A6	I/O		25	C3	I/O	
6	A5	I/O		26	C2	I/O	
7	A4	I/O	Port A	27	C1	I/O	
8	A3	I/O		28	C0	I/O	
9	A2	I/O		29	D0	I/O	
10	A1	I/O		30	D1	I/O	Port D
11	A0	I/O		31	D2	I/O	
12	B0	I/O		32	D3/TX	O	Serial data output
13	B1	I/O		33	D4/RX	I	Serial data input
14	B2	I/O		34	D5//CK	O	Clock for serial operation
15	B3	I/O	Port B	35	D6//INT2	I	Interrupt request 2
16	B4	I/O		36	/STBY	I	Standby mode signal
17	B5	I/O		37	TIMER	I	Timer
18	B6	I/O		38	XTAL	O	Clock
19	B7	I/O		39	EXTAL	I	Clock
20	VSS		Ground	40	VCC		Power supply

• HD63266FP (XI939A00) FDC (Floppy Disk Controller)

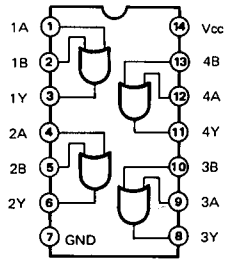
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	8"//5"	I	Data transmission speed	33	/TRK0	I	Track 00 signal
2	XTALSET	I	Clock select	34	/INDEX	I	Index signal
3	/RESET	I	Rest	35	/RDATA	I	Read data input from FDD
4	E//RD	I	Enable/Read	36	XTAL2		
5	RW//WR	I	Read/write/Write	37	EXTAL2		Clock
6	/CS	I	Chip select	38	NC		
7	/DACK	I	DMA acknowledge	39	XTAL1		
8	RS0	I	Register select	40	EXTAL1		Clock
9	RS1	I		41	VSS4		
10	VSS1		Ground	42	VSS5		Ground
11	VSS2			43	NC		
12	D0	I/O		44	VCC2		
13	D1	I/O		45	VCC3		Power supply
14	D2	I/O		46	VCC4		
15	D3	I/O		47	/WGATE	O	Write control
16	D4	I/O	Data bus	48	/WDATA	O	Writ data to FDD
17	D5	I/O		49	VSS6		Ground
18	D6	I/O		50	/STEP	O	Step signal to control head of FDD
19	D7	I/O		51	/HDIR	O	Direction
20	/DREQ	O	DMA request	52	/HLOAD	O	Head load
21	/IRQ	O	Interrupt request	53	/HSEL	O	Head select
22	/DEND	I	Data end	54	VSS7		Ground
23	VSS3		Ground	55	/DS0	O	
24	1/2 EX1			56	/DS1	O	Drive select
25	VCC1		Power supply	57	/DS2	O	
26	NUM1	I		58	/DS3	O	
27	NUM3	I		59	VSS8		Ground
28	IFS	I	Host interface select	60	/MON0	O	
29	SFORM	I	Format data	61	/MON1	O	Motor on
30	/INP	I	Index pulse	62	/MON2	O	
31	/READY	I	Ready from FDD	63	/MON3	O	
32	/WPRT	I	Write control signal	64	VSS9		Ground

■ IC BLOCK DIAGRAM (ICブロック図)

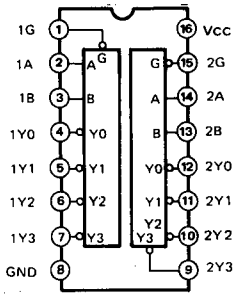
- **SN74HCU04N** (IG142250)
  Hex Inverter



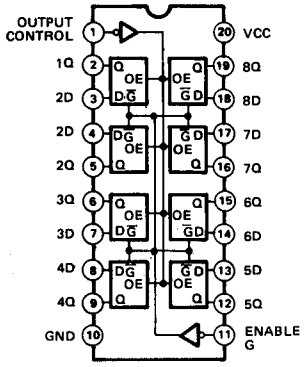
- **HD74AC32FPER**(XK452A00)
  Quad 2 Input OR



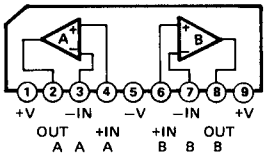
- **TC74HC139AF-TP1** (XE462A00)
  Dual 2 to 4 Demultiplexer



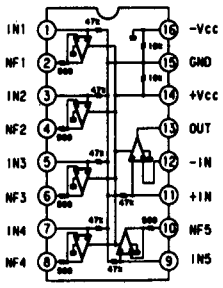
- **SN74HC374ANSR** (XQ042A00)
  Octal 3-State D-Type Flip-Flop



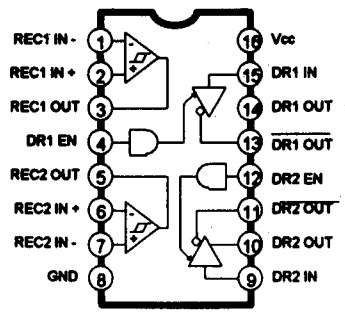
- **µPC4570HA** (XB247A00)
  Dual Operational Amplifier



- **M5227P** (XF751A00)
  5-Band Graphic Equalizer



- **MC34051P** (XP094A00)
  Dual EIA-422/423 Transceiver



■ TEST PROGRAM

1. PREPARATION

To check the unit using the test program, the following measuring instruments and jigs will be required:

- Measuring instruments and jigs:

  Level meter (with a JIS-C filter)

  Frequency counter

  ※Notes: Impedance must be 1M Ω or above.

  Use stereo plugs, and connect 30 Ω load at [PHONES] jack.

  Floppy disks (unformatted 2HD & 2DD, formatted 2HD & 2DD), Foot switch (FC4 or FC5), MIDI cable

2. HOW TO ENTER THE TEST PROGRAM

While depressing the C2#, F2 and G2# keys, turn the [STAND BY/ON] switch on.

3. PROCEEDING THROUGH THE TEST PROGRAM

- The LCD will display "TEST" when entering the test program.
- To select the program number, use [TEMPO▲/▼] button.
- To execute the test, press the [START/STOP] button.
- The LCD will display "OK" when the test result is OK.

  To proceed to the next test, press the [START/STOP] button again.
- The LCD will display "NG" when the test result is NG.

  Press the [DEMO] button to proceed the next test.

  While the test NO. 37 "MIDI check" result is NG, turn the [STAND BY/ON] switch off and re-enter the test program.

4. TEST ITEMS

TEST NO.	LCD display (Initial)	Test Functions and Judgment criteria
1	001: Version	Displays version for ROM (MAIN, STYLE, and WAVE).
2	002: Rom Chk1	Checks the PROGRAM ROM.
3	003: Ram Chk1	Checks all RAMs which are connected to CPU.
4	004: WRom Chk1	Checks WAVE ROM.
7	007: FDD Chk 1	Insert the floppy disk into the floppy disk drive. Check the floppy disk drive by using the write protect "ON" disks, the unformatted disks and the formatted disks of both type disks 2HD and 2DD.
9	009: Eff1 Chk	Checks Reverb effect Ram. Check that C3 note is output during this test.
11	011: TG1 Chk	Outputs the sine wave by changing the channels in sequence from A0 to C6. When a voice switch is depressed, the tone of the voice will sound. After autoscaling is finished, individual keys can be played. (If playing two or more keys simultaneously, the first depressed key has priority to make sound.)
13	013: Pit Chk	Connect the frequency counter to the [PHONES] jack. Check that the 440.0±0.22 Hz signal is output. Check output level (1 kHz) at this time. Connect the level meter (with a JIS-C filter) to the [PHONES] jack. (30Ω load) PHONES L/R : -29 dBm±2 dB Connect the level meter (with a JIS-C filter) to the [AUX OUT] jacks. AUX OUT L/R : -21 dBm±2 dB

14	014: Output R	Connect the level meter (with a JIS-C filter) to the [PHONES] jack. (30Ω load) Set the [MASTER VOLUME] at maximum. Check output level (1 kHz). PHONES L: Less than -75 dBm PHONES R: -30 dBm±2 dB
15	015: Output L	Connect the level meter (with a JIS-C filter) to the [PHONES] jack. (30Ω load) Set the [MASTER VOLUME] control at maximum. Check output level (1 kHz). PHONES L: -30 dBm±2 dB PHONES R: Less than -75 dBm
19	019: Noise	Connect the level meter (with a JIS-C filter) to the [PHONES] jack. (30Ω load) Set the [MASTER VOLUME] control at maximum. Check D/A converter noise. PHONES L/R: Less than -82 dBm
20	020: SW Chk	Check switches and LEDs on the panel. Press the switch which is displayed on the LCD. A pre-assigned note is output when depressing the switch. (With some switches, the corresponding LED will light up). Also check the dial by turning it; the LCD displays OK.
21	021: P LED	Check that all panel LEDs are lit up.
28	028: LCD On	Check that all LCD dots are on. The LCD becomes black.
29	029: LCD Off	Check that all LCD dots are off. The LCD becomes white.
31	031: PD1 Chk	Check that C3 note is output when pushing the pedal and C4 is output when releasing the pedal, and the LCD displays OK.
33	033: PB Chk	Check that C3 note is output when rotating the [PITCH BEND] wheel to minimum and C4 is output when rotating it to maximum, and the LCD displays OK.
37	037: MIDI Chk	After connecting the [MIDI IN] jack and [MIDI OUT] jack with the MIDI cable, execute the test. Check that C4 note is output and the test result appears on the LCD.
38	038: Host Chk	For factory test use only.
40	040: Battery Chk	Remove the AC adapter and put the batteries into the battery box. Check the LCD displays OK.
※41	041: Rom Chk2	Checks the PROGRAM ROM.
※42	042: Ram Chk2	Checks all RAMs which are connected to CPU.
※43	043: WRom Chk2	Checks WAVE ROM.
※46	046: Back Up2	Performs the RAM back up check..
47	047: Factory	All RAMs are initialized and set to the factory preset data when executing this test.
48	048: Exit	Exit from the test program when executing this test.

Note: 0 dBm =0.775 V

※ **NOTE: The above tests Nos. 41-46, require approximately 25 minutes to conduct.**
If the time is not available to perform the tests, exit the program by pressing the [TEMPO▲] button.

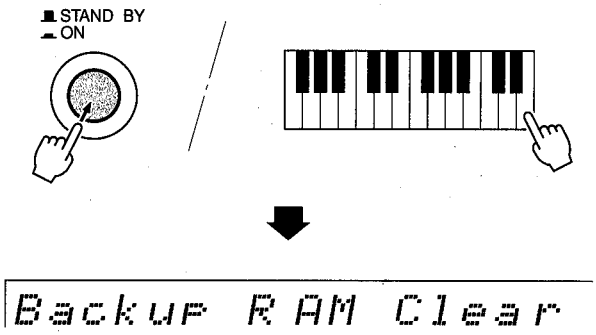
INITIALISE

Except for the data listed below, all PSR-630 panel settings are reset to their initial settings whenever the power is turned on. The data listed below are backed up — i.e. retained in memory — as long as an AC adapter is connected or a set of batteries is installed.

- Registration Memory
- User Style Data
- User Pad Data
- MIDI Transmit Settings
- MIDI Receive Settings

Data Initialization

All data can be initialized and restored to the factory preset condition by turning on the power while holding the highest (rightmost) white key on the keyboard. "Backup RAM Clear" will appear briefly on the display.



CAUTION

- ***All registration and User Style/Pad memory data, plus the other settings listed above, will be erased and/or changed when the data initialization procedure is carried out.***
- ***Carrying out the data initialization procedure will usually restore normal operation if the PSR-630 freezes or begins to act erratically for any reason.***

■ テストプログラム

1. 測定条件

本体をテストする場合は、次の測定器、治具が必要です。

- 測定器：レベル計（JIS-C フィルター）、周波数カウンター
  注1　入力インピーダンスは 1M Ω以上
  注2　特に指示のない限りステレオプラグを用い、30 Ω負荷を接続して[PHONES]端子にて測定します。
- 治具　：フロッピーディスク（未フォーマット(2HD と 2DD)、フォーマット済(2HD と 2DD)）、
  フットスイッチ（FC4 または FC5）、MIDI ケーブル

2. テストプログラムの起動

C2#と F2 と G2#の鍵盤を同時に押さえながら、[STAND BY/ON]スイッチを ON にします。

3. テストの進め方

テストプログラムが起動されると、LCD に “TEST” と表示されます。

- [TEMPO▲/▼]ボタンを押して、テストプログラムの項目を選択します。
- [START/STOP]ボタンを押すと、テストが実行されます。
- テスト結果が OK の場合は、LCD に OK が表示されます。
- 再度[START/STOP]ボタンを押すと、次のテストに進みます。
- テスト結果が NG の場合は、[DEMO]ボタンを押すと、次のテストプログラムに進みます。但し、NO.37 の MIDI Check で NG の場合は、電源を切り、テストプログラムを起動して、次のテストプログラムを選択してください。

4. テスト一覧

テスト NO.	LCD表示	テスト内容及び判定条件など
1	001: Version	ROMのバージョン表示。 ROM (MAIN, STYLE ,WAVE) のバージョンを表示します。
2	002: Rom Chk1	ROMチェック。 ROM (PROGRAM) をチェックします。OKが表示されることを確認します。
3	003: Ram Chk1	RAMチェック。CPU のバスに接続されている全てのRAMをチェックします。OKが表示されることを確認します。
4	004: WRom Chk1	WAVE ROMをチェックします。OKが表示されることを確認します。
7	007: FDD Chk 1	フロッピーディスクをFDDに挿入して行います。 WRITE PROTECTが“ON”のディスク、未フォーマットのディスク、フォーマット済のディスクについてチェックします。2HD、2DD両方のディスクで行います。
9	009: Eff1 Chk	エフェクトリバーブ用RAMチェック。リバーブ効果用RAMをチェックします。 正弦波(C3) が発音されます。聴感でノイズが無いことを確認します。
11	011: TG1 Chk	音源 1チェック (オートスケール)。 音源の1 chから64 chを順番に使用して、A0からC6までを正弦波で発音します。音色スイッチを押すとその音色で発音します。オートスケーリングが終了しますと鍵盤を弾くことで発音します。(単音、先着優先)
13	013: Pit Chk	[PHONES]端子に周波数カウンターを接続します。 ピッチ (440.0±0.22 Hz) チェック。 正しい信号が出力されていることを確認し、出力レベルをチェックします。 [PHONES]端子にレベル計を接続します(30Ω負荷)。[MASTER VOLUME] 最大。 PHONES L/R : -29 dBm±2 dB [AUX OUT]端子にレベル計を接続します（負荷オープン）。 AUX OUT L/L+R : -21 dBm±2 dB　の範囲にあることを確認します。

14	014: Output R	[PHONES]端子にレベル計を接続します。[MASTER VOLUME] 最大。 出力チェック。(1 kHz) PHONES L: -75 dBm以下、PHONES R: -30 dBm±2 dBであることを確認します。
15	015: Output L	[PHONES]端子にレベル計を接続しておきます。[MASTER VOLUME] 最大。 出力チェック。(1 kHz) PHONES L: -30 dBm±2 dB、PHONES R: -75 dBm以下であることを確認します。
19	019: Noise	[PHONES]端子にレベル計を接続しておきます。[MASTER VOLUME] 最大。 D/Aコンバータノイズチェック。 PHONES L/R : -82 dBm以下であることを確認します。 鍵盤を弾いて、DACノイズが無いことを確認します。
20	020: SW Chk	パネルのスイッチ、LED、データダイアルのチェック。 LCDにスイッチ名が表示されますので、順番にONします。 スイッチをONすると、決められた音程で発音します。又、LEDのあるスイッチの場合は、当該のLEDが点灯します。また、データダイアルを回すと0～100までの数値が表示されます。 LCDにOKが表示されることを確認します。
21	021: P LED	パネル全LED点灯チェック。 テストを実行して、パネルの全てのLEDが点灯することを確認します。
28	028: LCD On	LCD全点灯チェック。 テストを実行して、LCDの全てのドッドが点灯し、画面が黒くなることを確認します。
29	029: LCD Off	LCD全消灯チェック。 テストを実行して、LCDの全てのドッドが消灯し、画面が白くなることを確認します。
31	031: PD1 Chk	[SASTAIN]ジャックにフットスイッチを接続します。 ペダルチェック。 テストを実行し、ペダルをONするとC3を発音し、OFFするとC4を発音します。 LCDにOKが表示されることを確認します。
33	033: PB Chk	[PITCH BEND]ホイールを手前に回し、最小にするとC3を発音し、最大にするとC4を発音します。LCDにOKが表示されることを確認します。
37	037: MIDI Chk	MIDI IN OUTチェック。 [MIDI IN]端子と[MIDI OUT]端子をMIDIケーブルで接続して、テストを実行します。C4を発音し、LCDにOKが表示されることを確認します。
38	038: Host Chk	工場検査用のテスト
40	040: Battery Chk	電源アダプターをはずし、バッテリーをセットしてテストを実行します。 バッテリーのA/D値をチェックします。 LCDにOKが表示されることを確認します。
※41	041: Rom Chk2	ROM全アドレスチェック。 ROM (PROGRAM) をチェックします。OKが表示されることを確認します。
※42	042: Ram Chk2	RAM全アドレスチェック。 CPU のバスに接続されている全てのRAMをチェックします。 OKが表示されることを確認します。

※43	043: WRom Chk2	WAVE ROM全アドレスチェック。 OKが表示されることを確認します。
※46	046: Back Up2	RAMのバックアップチェックを行ないます。 OKが表示されることを確認します。
47	047: Factory	テストを実行すると全てのRAMを初期化して、工場出荷データにセットします。
48	048: Exit	実行すると、テストプログラムから抜けて、プレイモードになります。

注: 0 dBm = 0.775 V

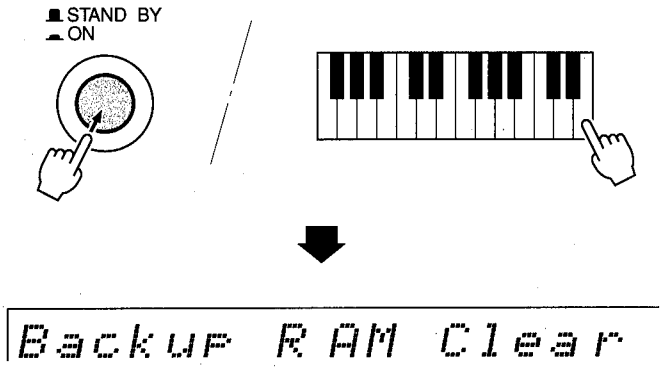
※ [TEST-NO.41] ROM 全アドレスチェック～[TEST-NO.46] RAM バックアップチェックについては時間がかかりますので、時間がない場合は、[TEMPO▲]ボタンを数回押して[TEST-NO.47] FACTORY SET に進んで下さい。

■ 初期化

PSR-630のパネル上の設定は電源を入れ直すとそれぞれの初期設定に戻りますが、レジストレーションメモリーデータ、ユーザースタイルデータ、ユーザーパッドデータ、MIDI送信設定、MIDI受信設定は、STAND BY/ONスイッチをオフにしても、電源アダプターが接続されているか、乾電池がセットされていればバックアップされています。
PSR-630のすべての設定を初期設定(工場出荷時の状態)に戻すことを「初期化」と呼びます。
初期化は以下の方法で行ってください。

1 **STAND BY/ON**スイッチを押して電源を切ります。

2 鍵盤の最高音(白鍵)を同時に押しながら、**STAND BY/ON**スイッチを押して電源を入れると、初期化が実行されます。初期化が完了するとディスプレイに「Backup RAM Clear」が表示されます。



メモ

- 初期化を実行すると、バックアップされていた設定は、初期設定値に戻りますのでご注意ください。
- PSR-630が、何らかの原因で操作不能になったり、誤動作した場合は、一旦電源を切り、初期化の操作を行ってください。

PSR-630

SPECIFICATIONS

Keyboards
- 61 standard-size keys (C1 — C6) with touch response.

Display
- Large multi-function LCD display

Setup
- Stand by/ON
- Master Volume : MIN — MAX

Control & Number Buttons
- MENU ▲▼, VOICE, STYLE, SONG, SUB MENU ▲▼, [1] — [0], [+] (YES), [–] (NO)

Disk Drive

Demo
- 15 Songs

Voice
- 215 Panel Voices +12 Drum Kits + 480 XG Voices
- Polyphony : 32
- Voice Set
- R1/R2/L Voices
- Revoice : Voice, Volume, Octave, Pan, Reverb Depth, Chorus Depth, DSP Depth
- Split Voice Mode
- Dual Voice Mode

Auto Accompaniment
- 100 Styles
- Auto Accompaniment ON/OFF
- Accompaniment Track : RHYTHM1/2, BASS, CHORD1/2, PAD, PHRASE1/2
- Accompaniment Track Settings : ON/OFF
- Accompaniment Control : SYNC START, SYNC STOP, START/STOP, INTRO, MAIN A/B (AUTO FILL), ENDING
- Beat Indicator
- Accompaniment Volume
- Revoice : Voice, Volume, Pan, Reverb Depth, Chorus Depth
- Virtual Arranger

Groove & Dynamics
- Beat Groove Template : 49 types
- Measure Groove Template : 25 types
- Dynamics Template : 17 types
- Dynamics Rate : 0 — 100%
- Expand Rate : 0 — 400%
- Boost Rate : 0 — 400%

One Touch Setting

Overall Controls
- Tempo : 32 — 280
- Transpose
- Pitch Bend Range
- Modulation
- Touch Sensitivity
- Master Tuning
- Scale Tuning
- Song Transpose
- Metronome
- Split Voice Split Point
- Accompaniment Split Point
- Fingering Mode : SINGLE FINGER/FINGERED 1/FINGERED 2/FULL KEYBOARD/MULTI-FINGER
- Voice Set
- Pedal 1/2

Digital Effect
- Reverb : 13 types
- Chorus : 10 types
- DSP (system/insertion) : 46 types
- Multi Effect : 42 types x 2
- Digital Equalizer : 5 types + 1 User Setting
- Harmony : 16 types

Registration Memory
- 32 Regist Bank : 1 — 4
- Naming
- Accompaniment Freeze

Multi Pads
- 36 Multi Pad Sets
- 4 Pads + STOP
- Chord Match
- Naming

Disk
- Song Recording/Playback
- Format
- Save
- Load
- Disk Copy
- Song Copy
- Delete File

Song
- Song Volume
- Minus One Practice
- Repeat Play
- Song Repeat
- Next Song

Song Recording
- Quick Record, Multi Record
- Recording Tracks :
  Quick Record : ACCOMPANIMENT, MELODY 1 — 4
  Multi Record : 1 — 16
- Punch In/Punch Out
- Quantize
- Naming
- Song Clear, Track Clear
- Song Edit : Voice, Volume, Octave, Pan, Reverb Depth, Chorus Depth, DSP Depth

Style Recording
- User Style : 4 (101 — 104)
- Recording Tracks : 5 Sections x 8 tracks
- Drum Cancel
- Quantize
- Naming
- Track Clear, All Clear

Multi Pad Recording
- User Pad Set : 4 (101 — 104)
- Naming
- Pad Clear, Bank Clear

MIDI
- Transmit Settings
- Receive Settings
- Local Control
- Clock
- Initial Data Send
- MIDI Template

Auxiliary Jacks
- DC IN 10-12V, PHONES, SUSTAIN, FOOT VOL, AUX OUT R, L+R/L, MIDI IN/OUT, TO HOST

Amplifiers
- 6 W + 6 W (when using PA-6 power adaptor)
- 4 W + 4 W (when using batteries)

Speakers
- 12 cm (4-3/4 ") x 2

Power Consumption
- 24 W (when using PA-6 AC power adaptor)

Batteries
- Six SUM-1, "D" size, R-20 or equivalent batteries

Rated Voltage
- DC 10-12V

Dimensions (W x D x H)
- 973 x 397 x 155 mm (38-1/4 " x 15-5/8 " x 6-1/8 ")

Weight
- 9.5 kg (20.9 lbs.) excluding batteries

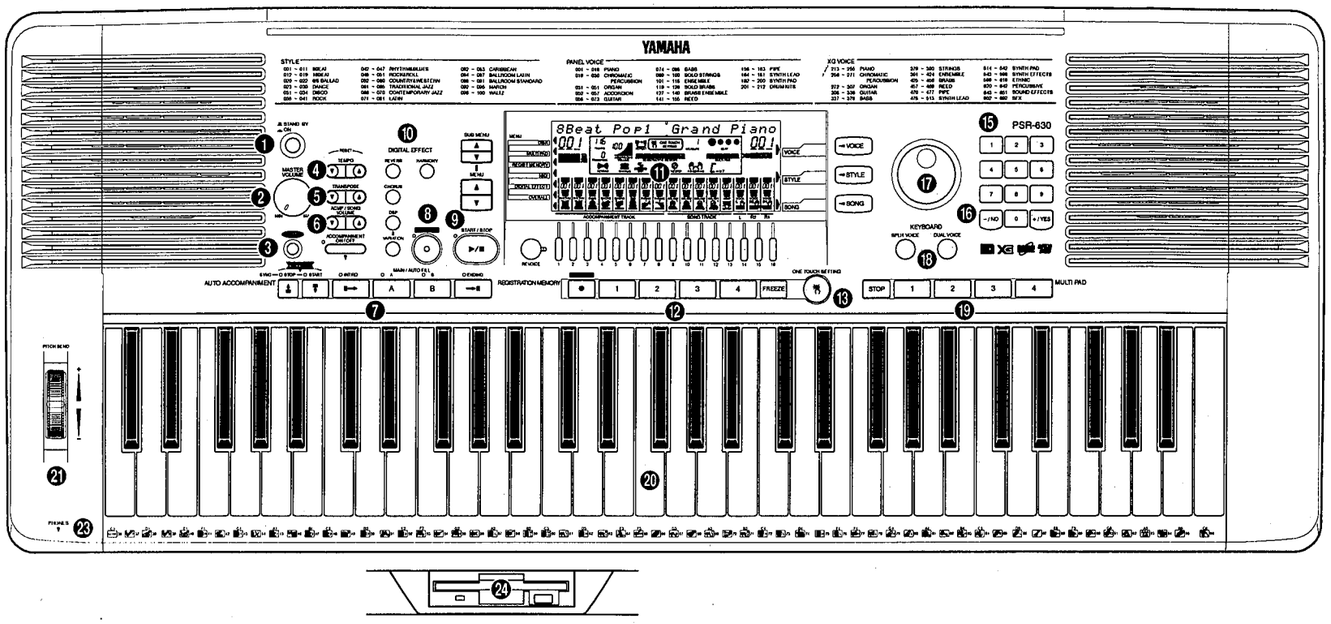
Supplied Accessories
- Sample Disk
- Music Stand
- Owner's Manual

Optional Accessories
- Headphones : HPE-150
- AC Power Adaptor : PA-6
- Foot Switch : FC4, FC5
- Foot Volume : FC7
- Keyboard Stand : L-6, L-7

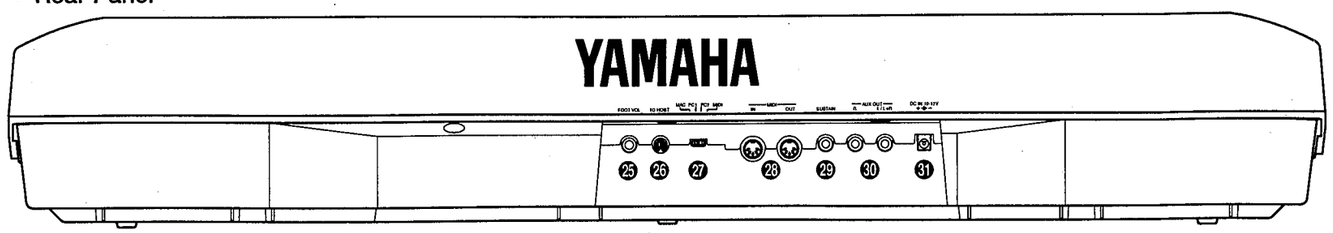
Output Level
**Refer to TEST PROGRAM section of this manual.*

■ PANEL LAYOUT

• Top Panel



• Rear Panel



• Top Panel Controls

❶ STAND BY/ON Switch

❷ MASTER VOLUME Control

❸ DEMO Button

❹ TEMPO Buttons

❺ TRANSPOSE Buttons

❻ ACCOMPANIMENT/SONG VOLUME Buttons

❼ AUTO ACCOMPANIMENT SECTION
- AUTO ACCOMPANIMENT ON/OFF Button
- SYNC STOP Button
- SYNC START Button
- INTRO Button
- MAIN/AUTO FILL A & B Buttons
- ENDING Button

❽ RECORD Button

❾ START/STOP Button

❿ DIGITAL EFFECT SECTION
- REVERB Button
- CHORUS Button
- DSP Button
- VARIATION Button
- HARMONY Button

⓫ DISPLAY & RELATED CONTROLS
- DISPLAY
- MENU Buttons
- SUB MENU Buttons
- VOICE Button
- STYLE Button
- SONG Button
- REVOICE Button
- TRACK Buttons

⓬ REGISTRATION MEMORY SECTION
- MEMORY Button
- 1, 2, 3, 4 Buttons
- FREEZE Button

⓭ ONE TOUCH SETTING Button

⓯ NUMBER Buttons

⓰ + and – Buttons

⓱ Data Dial

⓲ KEYBOARD SECTION
- DUAL VOICE Button
- SPLIT VOICE Button

⓳ MULTI PAD SECTION
- STOP Button
- 1, 2, 3, 4 Buttons

⓴ Keyboard

㉑ PITCH BEND Wheel

㉓ PHONES Jack

㉔ Disk Drive

• Rear Panel Controls

㉕ FOOT VOL Jack

㉖ TO HOST Connector

㉗ HOST SELECT Switch

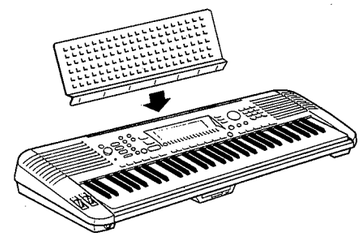
㉘ MIDI IN and OUT Connectors

㉙ SUSTAIN Jack

㉚ AUX OUT R, L/L+R Jacks

㉛ DC IN 10-12V Jack

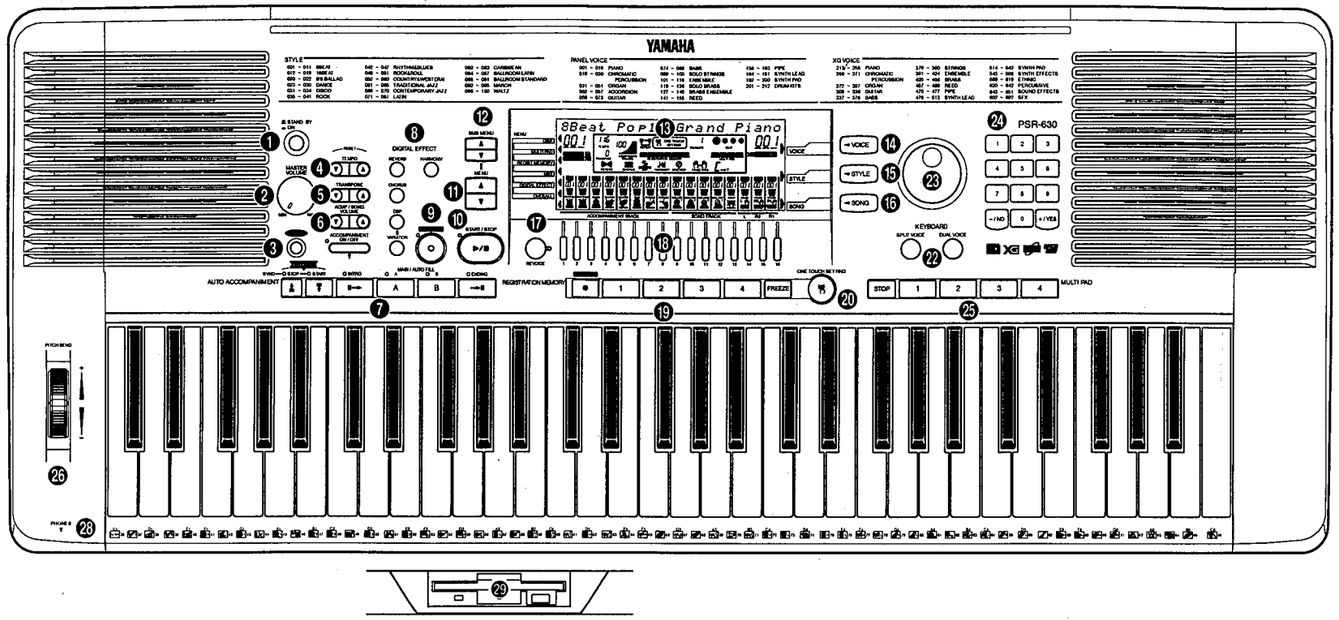
◆ The Music Stand



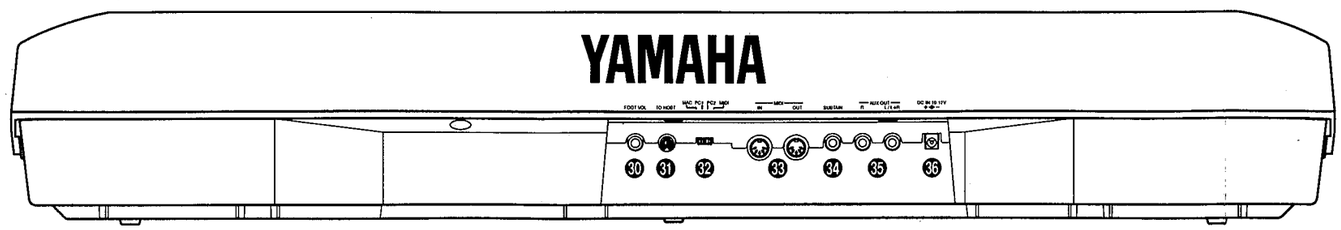
The PSR-630 is supplied with a music stand that can be attached to the instrument by inserting it into the slot at the rear of the control panel.

■ パネルレイアウト

● フロントパネル



● リアパネル



● フロントパネル

❶ **STAND BY/ON**(スタンバイ/オン)スイッチ
❷ **MASTER VOLUME**
(マスターボリューム)コントロール
❸ **DEMO**(デモ)ボタン

❹ **TEMPO▼▲**(テンポ)ボタン
❺ **TRANSPOSE▼▲**(トランスポーズ)ボタン
❻ **ACMP/SONG VOLUME▼▲**
(アカンパニメント/ソングボリューム)ボタン

❼ **AUTO ACCOMPANIMENT**
(オートアカンパニメント)部
AUTO ACCOMPANIMENT ON/OFF
(オートアカンパニメントオン/オフ)ボタン
SYNC STOP(シンクロストップ)ボタン
SYNC START(シンクロスタート)ボタン
INTRO(イントロ)ボタン
MAIN/AUTO FILL A, B
(メイン/オートフィルA, B)ボタン
ENDING(エンディング)ボタン

❽ **DIGITAL EFFECT**
(デジタルエフェクト)部
REVERB(リバーブ)ボタン
CHORUS(コーラス)ボタン
DSPボタン
VARIATION(DSPバリエーション)ボタン
HARMONY(ハーモニー)ボタン

❾ **RECORD**(録音)ボタン
❿ **START/STOP**
(スタート/ストップ)ボタン

⓫ **MENU▼▲**(メニュー)ボタン
⓬ **SUB MENU▼▲**(サブメニュー)ボタン
⓭ ディスプレイ

⓮ **VOICE**(ボイス)ボタン
⓯ **STYLE**(スタイル)ボタン
⓰ **SONG**(ソング)ボタン
⓱ **REVOICE**(リボイス)ボタン
⓲ **TRACK**
(トラック)**1**〜**16**ボタン

⓳ **REGISTRATION MEMORY**
(レジストレーションメモリー)部
MEMORY(メモリー)ボタン
1〜**4**ボタン
FREEZE(フリーズ)ボタン

⓴ **ONE TOUCH SETTING**
(ワンタッチセッティング)ボタン

㉒ **KEYBOARD**(キーボード)部
DUAL VOICE(デュアルボイス)ボタン
SPLIT VOICE(スプリットボイス)ボタン

㉓ **ダイアル**

㉔ ナンバーボタン**[1]**〜**[0]**,
[+](YES), **[−](NO)**ボタン

㉕ **MULTI PAD**(マルチパッド)部
STOP(ストップ)ボタン
1〜**4**ボタン

㉖ **PITCH BEND**(ピッチベンド)ホイール

㉘ **PHONES**(ヘッドフォン)端子

㉙ ディスクドライブ

● リアパネル

㉚ **FOOT VOL**(フットボリューム)端子
㉛ **TO HOST**(トゥーホスト)端子
㉜ **HOST SELECT**
(ホストセレクト)スイッチ
㉝ **MIDI IN/OUT**端子

㉞ **SUSTAIN**(サステイン)端子
㉟ **AUX OUT R, L/L+R**(外部出力)端子
㊱ **DC IN 10-12V**(電源アダプター接続)端子

■ 総合仕様

鍵 盤
レギュラーサイズ61鍵 (C1～C6：タッチレスポンス付)

ディスプレイ
大型液晶ディスプレイ(LCD)

セットアップ
スタンバイ/オンスイッチ
マスターボリューム：MIN～MAX

コントロール&ナンバーボタン
MENU▼▲ボタン、VOICEボタン、STYLEボタン、SONGボタン、
SUB MENU▼▲ボタン、[1]～[0]ボタン、[+](YES)、[−](NO)ボタン

ディスクドライブ

デモソング
15曲

ボイス
パネルボイス200音色 +12ドラムキット
+ XGボイス480音色(最大同時発音数32)
ボイスセット機能付
R1/R2/Lボイス
リボイス：ボイス、ボリューム、オクターブ、パン、リバーブデプス、
コーラスデプス、DSPデプス
スプリットボイスモード
デュアルボイスモード

オートアカンパニメント(自動伴奏機能)
100スタイル
アカンパニメント：オン/オフ
アカンパニメントトラック：リズム1/2、ベース、コード1/2、パッド、フレーズ1/2
アカンパニメントトラック設定：オン/オフ
アカンパニメントコントロール：シンクロスタート、シンクロストップ、スタート/ストップ、イントロ、メインA/B(オートフィル)、エンディング
ビートランプ
アカンパニメントボリューム
リボイス：ボイス、ボリューム、パン、リバーブデプス、コーラスデプス
バーチャルアレンジャー

グルーブ&ダイナミクス
ビートグルーブテンプレート：49種類
メジャーグルーブテンプレート：25種類
ダイナミクステンプレート：17種類
ダイナミクスレート：0～100%
エクスパンドレート：0～400%
ブーストレート：0～400%

ワンタッチセッティング

全体のコントロール
テンポ：32～280
トランスポーズ
ピッチベンドレンジ
モジュレーション
タッチセンス
チューニング
スケールチューニング
ソングトランスポーズ
メトロノーム
スプリットボイスモードのスプリットポイント
オートアカンパニメントのスプリットポイント
フィンガリングモード：シングルフィンガー/フィンガード1/フィンガード2/フルキーボード/マルチフィンガー
ボイスセット
ペダル1/2

デジタルエフェクト
リバーブ：13種類
コーラス：10種類
DSP：46種類(システム/インサーション)
マルチエフェクト(PSR-730)：2系統、各42種類
デジタルイコライザー(PSR-730)：5種類+ユーザー1種類
ハーモニー：16種類

レジストレーションメモリー：1～4
32バンク
ネーミング
アカンパニメントフリーズ

マルチパッド：1～4
36マルチパッドセット
コードマッチ
ネーミング

ディスク
ソング再生/録音、フォーマット、セーブ、ロード、ディスクコピー、
ソングコピー、デリートファイル

ソング
ソングボリューム、マイナスワン再生、リピート再生、ソングリピート、
ネクストソング

ソング録音
クイック録音/マルチ録音
録音トラック　クイック録音：アカンパニメント、メロディ 1～4
マルチ録音：1～16
パンチイン/パンチアウト
クオンタイズ
ネーミング
ソングクリア、トラッククリア
ソングエディット：ボイス、ボリューム、オクターブ、パン、
リバーブデプス、コーラスデプス、DSPデプス

スタイル録音
ユーザースタイル：4(101～104)
録音トラック：5セクション×8トラック
ドラムキャンセル
クオンタイズ
ネーミング
トラッククリア、オールクリア

パッド録音
ユーザーパッドセット：4(37～40)
ネーミング
パッドクリア、バンククリア

MIDI
送信設定、受信設定、ローカルオン/オフ、クロック、イニシャルセンド、
MIDIテンプレート

付属端子
DC IN 10-12V、PHONES、SUSTAIN、FOOT VOL、AUX OUT R, L/L+R、
MIDI IN/OUT、TO HOST

アンプ実用最大出力
電源アダプターPA-6使用時：6 W+6 W (EIAJ)
乾電池使用時：4 W+4 W (EIAJ)

スピーカー
12cm×2

使用電池
単1乾電池(1.5V)×6

電池寿命
アルカリ電池：約4時間
(デモ演奏連続使用：マスターボリューム約70%)

使用電源アダプター
PA-6

消費電力
電源アダプターPA-6使用時：33W

寸法(幅×奥×高mm)
973×397×155

重量(kg)乾電池含まず
9.5

付属品
サンプルディスク、電源アダプターPA-6、譜面立て、和文シート、
取扱説明書、保証書

出力レベル
※本サービスマニュアルのテストプログラムの項目を参照して下さい。

MIDI DATA FORMAT

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

Decimal	Hexadecimal	Binary
0	00	0000 0000
1	01	0000 0001
2	02	0000 0010
3	03	0000 0011
4	04	0000 0100
5	05	0000 0101
6	06	0000 0110
7	07	0000 0111
8	08	0000 1000
9	09	0000 1001
10	0A	0000 1010
11	0B	0000 1011
12	0C	0000 1100
13	0D	0000 1101
14	0E	0000 1110
15	0F	0000 1111
16	10	0001 0000
17	11	0001 0001
18	12	0001 0010
19	13	0001 0011
20	14	0001 0100
21	15	0001 0101
22	16	0001 0110
23	17	0001 0111
24	18	0001 1000
25	19	0001 1001
26	1A	0001 1010
27	1B	0001 1011
28	1C	0001 1100
29	1D	0001 1101
30	1E	0001 1110
31	1F	0001 1111
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
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) displays the Note On Message for each channel (1-16). 176-191/ BnH/1011 0000-1011 1111 displays the Control Change Message for each channel (1-16). 192-207/CnH/1100 0000-1100 1111 displays the Program Change Message for each channel (1-16). 240/FOH/1111 0000 denotes the start of a System Exclusive Message. 247/F7H/1111 0111 denotes the end of a System Exclusive Message.
- aaH (hexidecimal)/0aaaaaaa (binary) denotes the data address. The address contains High, Mid, and Low.
- bbH/0bbbbbbb denotes the byte count.
- ccH/0ccccccc denotes the check sum.
- ddH/0ddddddd denotes the data/value.

(1) TRANSMIT FLOW

MIDI OUT ← NOTE ON/OFF 9nH

- CONTROL CHANGE BnH
  - BANK SELECT MSB BnH,00H
  - BANK SELECT LSB BnH,20H
  - DATA ENTRY MSB BnH,06H
  - DATA ENTRY LSB BnH,26H
  - MAIN VOLUME BnH,07H
  - PANPOT BnH,0AH
  - EXPRESSION BnH,0BH
  - SUSTAIN BnH,40H
  - SOSTENUTE BnH,42H
  - SOFT PEDAL BnH,43H
  - REVERB SEND LEVEL BnH,5BH
  - VARIATION SEND LEVEL BnH,5EH
- PROGRAM CHANGE CnH
- PITCH BEND EnH

- SYSTEM EXCLUSIVE MESSAGE
  - <YAMAHA MIDI FORMAT>
  - <UNIVERSAL>
  - UNIVERSAL REALTIME F0H 7FH.....F7H
  - UNIVERSAL NON-REALTIME F0H 7EH.....F7H
  - <XG STANDARD>
  - XG PARAMETER CHANGE F0H 43H 1nH 4CH aaH aaH aaH ddH .....ddH F7H
  - XG BULK DUMP F0H 43H 0nH 4CH bbH bbH aaH aaH aaH ddH.....ddH ccH F7H
  - SPECIAL OPERATORS

- SYSTEM REALTIME MESSAGE
  - MIDI CLOCK F8H
  - START FAH
  - STOP FCH
  - ACTIVE SENSING FEH

(2) RECEIVE FLOW

MIDI IN → NOTE OFF 8nH

- NOTE ON/OFF 9nH
- CONTROL CHANGE
  - BANK SELECT MSB BnH,00H
  - BANK SELECT LSB BnH,20H
  - MODULATION BnH,01H
  - PORTAMENTO TIME BnH,05H
  - DATA ENTRY MSB BnH,06H
  - DATA ENTRY LSB BnH,26H
  - MAIN VOLUME BnH,07H
  - PANPOT BnH,0AH
  - EXPRESSION BnH,0BH
  - SUSTAIN BnH,40H
  - PORTAMENTO BnH,41H
  - SOSTENUTO BnH,42H
  - SOFT PEDAL BnH,43H
  - HARMONIC CONTENT BnH,47H
  - RELEASE TIME BnH,48H
  - ATTACK TIME BnH,49H
  - BRIGHTNESS BnH,4AH
  - PORTAMENTO CONTROL BnH,54H
  - REVERB SEND LEVEL BnH,5BH
  - CHORUS SEND LEVEL BnH,5DH
  - VARIATION SEND LEVEL BnH,5EH
  - DATA INCREMENT BnH,60H
  - DATA DECREMENT BnH,61H
  - NRPN LSB BnH,62H
  - NRPN MSB BnH,63H
    - VIBRATO RATE BnH,63H,01H;62H,08H,06H,mmH

    - VIBRATO RATE BnH,63H,01H,62H,08H,06H,mmH
    - VIBRATO DEPTH BnH,63H,01H,62H,09H,06H,mmH
    - VIBRATO DELAY BnH,63H,01H,62H,0AH,06H,mmH
    - FILTER CUTOFF FREQ. BnH,63H,01H,62H,20H,06H,mmH
    - FILTER RESONANCE BnH,63H,01H,62H,21H,06H,mmH
    - AEG ATTACK TIME BnH,63H,01H,62H,63H,06H,mmH
    - AEG DECAY TIME BnH,63H,01H,62H,64H,06H,mmH
    - AEG RELEASE BnH,63H,01H,62H,66H,06H,mmH
    - DRUM INST
      - CUTOFF FREQ. BnH,63H,14H,62H,rrH,06H,mmH
      - FILTER RESONANCE BnH,63H,15H,62H,rrH,06H,mmH
      - AEG ATTACK RATE BnH,63H,16H,62H,rrH,06H,mmH
      - AEG DECAY RATE BnH,63H,17H,62H,rrH,06H,mmH
      - PITCH COARSE BnH,63H,18H,62H,rrH,06H,mmH

PITCH FINE	BnH,63H,19H,62H,rrH,06H,mmH
LEVEL	BnH,63H,1AH,62H,rrH,06H,mmH
PANPOT	BnH,63H,1CH,62H,rrH,06H,mmH
REVERB SEND	BnH,63H,1DH,62H,rrH,06H,mmH
CHORUS SEND	BnH,63H,1EH,62H,rrH,06H,mmH
VARIATION SEND	BnH,63H,1FH,62H,rrH,06H,mmH
RPN LSB	BnH,64H
RPN MSB	BnH,65H
PITCH BEND SENS.	BnH,65H,00H,64H,00H,06H,mmH
FINE TUNING	BnH,65H,00H,64H,01H,06H,mmH, 26H,llH
COARSE TUNING	BnH,65H,00H,64H,02H,06H,mmH
NULL	BnH,65H,7FH,64H,7FH
ALL SOUND OFF	BnH,78H,00H
RESET ALL CONTROLLERS	BnH,79H,00H
ALL NOTES OFF	BnH,7BH,00H
OMNI OFF	BnH,7CH,00H
OMNI ON	BnH,7DH,00H
MONO	BnH,7EH
POLY	BnH,7FH
PROGRAM CHANGE	CnH
CHANNEL AFTER TOUCH	DnH
PITCH BEND CHANGE	EnH
SYSTEM EXCLUSIVE MESSAGE	
<YAMAHA MIDI FORMAT>	
<UNIVERSAL>	
UNIVERSAL REALTIME	F0H 7FH.....F7H
UNIVERSAL NON-REALTIME	F0H 7EH.....F7H
<XG STANDARD>	
XG PARAMETER CHANGE	F0H 43H 1nH 4CH aaH aaH aaH ddH .....ddH F7H
XG BULK DUMP	F0H 43H 0nH 4CH bbH bbH aaH aaH aaH ddH.....ddH ccH F7H
PARAMETER REQUEST	F0H 43H 3nH 4CH aaH aaH aaH F7H
DUMP REQUEST	F0H 43H 2nH 4CH aaH aaH aaH F7H
<CLAVINOVA MIDI COMPLIANCE>	
<SPETIAL OPERATORS>	
<Others>	
SYSTEM REALTIME MESSAGE	
MIDI CLOCK	F8H
START	FAH
STOP	FCH
ACTIVE SENSING	FEH

(3) TRANSMIT/RECEIVE DATA

(3-1) CHANNEL VOICE MESSAGES

(3-1-1) NOTE OFF (Recive only)

STATUS	1000nnnn (8nH)	n = 0 - 15 VOICE CHANNEL NUMBER
NOTE NUMBER	0kkkkkkk	k = 0 (C-2) - 127 (G8)
VELOCITY	0vvvvvvv	v: ignored

(3-1-2) NOTE ON/OFF

STATUS	1001nnnn (9nH)	n = 0 - 15 VOICE CHANNEL NUMBER
NOTE NUMBER	0kkkkkkk	k = 0 (C-2) - 127 (G8)
VELOCITY	0vvvvvvv	(v π 0) NOTE ON
	00000000	(v = 0) NOTE OFF

(3-1-3) PROGRAM CHANGE

STATUS	1100nnnn (CnH)	n = 0 - 15 VOICE CHANNEL NUMBER
PROGRAM NUMBER	0ppppppp	p = 0 - 127

*** PROGRAM NUMBER: XG DRUM VOICE number correspondence**

P = 1	Standard Kit
P = 2	Standard2 Kit
P = 9	Room Kit
P = 17	Rock Kit
P = 25	Elctrnic Kit
P = 26	Analog Kit
P = 28	Dance Kit
P = 33	Jazz Kit
P = 41	Brush Kit
P = 49	Classic Kit

*** PROGRAM NUMBER: XG SFX KIT number correspondence**

P = 1	SFX1 Kit
P = 2	SFX2 Kit

When DRUM VOICE is selected and program change data for a different DRUM VOICE is received, the currently selected DRUM VOICE will be replaced with the new DRUM VOICE.

(3-1-4) CHANNEL AFTER TOUCH (Recive only)

STATUS	1101nnnn (DnH)	n = 0 - 15 VOICE CHANNEL NUMBER
VALUE	0vvvvvvv	v = 0 - 127 AFTER TOUCH VALUE

(3-1-5) PITCH BEND CHANGE

STATUS	1110nnnn (EnH)	n = 0 - 15 VOICE CHANNEL NUMBER
LSB	0vvvvvvv	PITCH BEND CHANGE LSB
MSB	0vvvvvvv	PITCH BEND CHANGE MSB

(3-1-6) CONTROL CHANGE

STATUS	1011nnnn (BnH)	n = 0 - 15 VOICE CHANNEL NUMBER
CONTROL NUMBER	0ccccccc	
CONTROL VALUE	0vvvvvvv	

*** Transmit CONTROL NUMBER.**

c = 0	BANK SELECT MSB	; v = 0:XG NORMAL, 64:SFX NORMAL, 126:XG SFX KIT, 127:XG DRUM	
c = 32	BANK SELECT LSB	; v = 0 - 127	*3
c = 6	DATA ENTRY MSB	; v = 0 - 127	*1
c = 38	DATA ENTRY LSB	; v = 0 - 127	*1
c = 7	MAIN VOLUME	; v = 0 - 127	
c = 10	PANPOT	; v = 0 - 127	
c = 11	EXPRESSION	; v = 0 - 127	
c = 64	SUSTAIN	; v = 0-63:OFF , 64-127:ON	*2
c = 66	SOSTENUTO	; v = 0-63:OFF , 64-127:ON	*2
c = 67	SOFT PEDAL	; v = 0-63:OFF , 64-127:ON	*2
c = 91	REVERB SEND LEVEL	; v = 0 - 127	
c = 94	VARIATION SEND LEVEL	; v = 0 - 127 (When only Connection = 1[System])	

*** Receive CONTROL NUMBER.**

c = 0	BANK SELECT MSB	; v = 0:XG NORMAL, 64:SFX NORMAL, 126:XG SFX KIT, 127:XG DRUM	
c = 32	BANK SELECT LSB	; v = 0 - 127	*3
c = 1	MODULATION	; v = 0 - 127	*2
c = 5	PORTAMENTO TIME	; v = 0 - 127	*2
c = 6	DATA ENTRY MSB	; v = 0 - 127	*1
c = 38	DATA ENTRY LSB	; v = 0 - 127	*1
c = 7	MAIN VOLUME	; v = 0 - 127	
c = 10	PANPOT	; v = 0 - 127	
c = 11	EXPRESSION	; v = 0 - 127	
c = 64	SUSTAIN	; v = 0-63:OFF , 64-127:ON	*2
c = 65	PORTAMENTO	; v = 0-63:OFF , 64-127:ON	*2
c = 66	SOSTENUTO	; v = 0-63:OFF , 64-127:ON	*2
c = 67	SOFT PEDAL	; v = 0-63:OFF , 64-127:ON	*2
c = 71	HARMONIC CONTENT	; v = 0:-64 - 64:0 - 127:+63	*2
c = 72	RELEASE TIME	; v = 0:-64 - 64:0 - 127:+63	*2
c = 73	ATTACK TIME	; v = 0:-64 - 64:0 - 127:+63	*2
c = 74	BRIGHTNESS	; v = 0:-64 - 64:0 - 127:+63	*2
c = 84	PORTAMENT CONTROL	; v = 0 - 127	*2
c = 91	REVERB SEND LEVEL	; v = 0 - 127	
c = 93	CHORUS SEND LEVEL	; v = 0 - 127	
c = 94	VARIATION SEND LEVEL	; v = 0 - 127 (When only Connection = 1[System])	
c = 96	DATA INCREMENT	; v = 127	*1
c = 97	DATA DECREMENT	; v = 127	*1

*1 Only when setting the appointed parameter with RPN, NRPN.
*2 Does not effect Rhythm Voice.
*3 MSB=0, anything other than 63 is 0.

- Until a PROGRAM CHANGE message is received, the BANK SELECT operation will be suspended. When a Voice, including VOICE BANK, is changed, set the BANK SELECT and Program Change Message, and transmit in the following order, BANK SELECT MSB, LSB, PROGRAM CHANGE.
- MODULATION controls the Vibrato Depth.
- PORTAMENTO TIME controls the Pitch Change Speed when the Portamento Switch = ON. 0 being the shortest time, and 127 being the longest.
- PANPOT changes the value for the melody voice and rhythm voice in relation to the preset value.
- Portamento time is fixed to 0 when the PORTAMENTO CONTROL is used.
- HARMONIC CONTENT applies adjustment to the resonance value that is set by the voice. This parameter specifies relative change with the value of 64 producing 0 adjustment. As values get higher the sound becomes increasingly eccentric. Note that for some voices the effective parameter range is narrower than the legal parameter range.
- RELEASE TIME applies adjustment to the envelope release time set by the voice. This parameter specifies relative change with the value of 64 producing 0 adjustment.

- ATTACK TIME applies adjustment to the envelope attack time set by the voice. This parameter specifies relative change with the value of 64 producing 0 adjustment.
- BRIGHTNESS applies adjustment to the cut-off frequency set by the voice. This parameter specifies relative change with the value of 64 producing 0 adjustment. Lower voices produce a softer sound. For some voices the effective parameter range is narrower than the legal parameter range.

(3-2) CHANNEL MODE MESSAGES

STATUS	1011nnnn (BnH)	n = 0 - 15 VOICE CHANNEL NUMBER
CONTROL NUMBER	0ccccccc	c = CONTROL NUMBER
CONTROL VALUE	0vvvvvvv	v = DATA VALUE

(3-2-1) ALL SOUND OFF (Recive only)

(CONTROL NUMBER = 78H , DATA VALUE = 0)

Switches off all sound from the channel. Does not reset Note On and Hold On conditions established by Channel Messages.

(3-2-2) RESET ALL CONTROLLERS (Recive only)

(CONTROL NUMBER = 79H , DATA VALUE = 0)

Resets controllers as follows.

PITCH BEND CHANGE	0 (Center)
AFTER TOUCH	0 (min.)
MODULATION	0 (min.)
EXPRESSION	127 (max.)
SUSTAIN	0 (off)
SOSTENUTO	0 (off)
SOFT PEDAL	0 (off)
NRPN	Sets number to null. (Internal data remains unchanged)
RPN	Sets number to null. (Internal data remains unchanged)
PORTAMENT CONTROL	Resets portamento source note number
PORTAMENTO	0 (off)

(3-2-3) ALL NOTES OFF (Recive only)

(CONTROL NUMBER = 7BH , DATA VALUE = 0)

Switches off all of the channel's "on" notes. However, any notes being held by SUSTAIN or SOSTENUTO continue to sound until SUSTAIN/SOSTENUTO goes off.

(3-2-4) OMNI OFF (Recive only) (CONTROL NUMBER = 7CH , DATA VALUE = 0)

Same processing as for All Notes Off.

(3-2-5) OMNI ON (Recive only) (CONTROL NUMBER = 7DH , DATA VALUE = 0)

Same processing as for All Notes Off. Omni On is not executed.

(3-2-6) MONO (Recive only) (CONTROL NUMBER = 7EH , DATA VALUE = 0)

Same processing as for All Notes Off. If the 3rd byte is in a range of 0-16 the corresponding channel will be changed to Mode 4 (m=1).

(3-2-7) POLY (Recive only) (CONTROL NUMBER = 7FH , DATA VALUE = 0)

Same processing as for All Sounds Off and the corresponding channel will be changed to Mode 3.

(3-3) REGISTERED PARAMETER NUMBER (RPN)

STATUS	1011nnnn (BnH)	n = 0 - 15 VOICE CHANNEL NUMBER
RPN LSB	01100100 (64H)	
RPN LSB NUMBER	0ppppppp	p = RPN LSB(refer to the list below)
RPN MSB	01100101 (65H)	
RPN MSB NUMBER	0qqqqqqq	q = RPN MSB(refer to the list below)
DATA ENTRY MSB	00000110 (06H)	
DATA VALUE	0mmmmmmm	m = Data Value
DATA ENTRY LSB	00100110 (26H)	
DATA VALUE	0lllllll	l = Data Value

First appoints the parameter for RPN MSB/LSB, then sets the parameter value for data entry MSB/LSB.

RPN MSB	RPN LSB	D.ENTRY MSB	D.ENTRY LSB	PARAMETER NAME	DATA RANGE
00H	00H	mmH	—	PITCH BEND SENSITIVITY	00H - 18H (0 - 24 semitones)
01H	00H	mmH	llH	FINE TUNE	{mmH,llH} = {00H,00H} - {40H,00H} - {7FH,7FH} (-8192*100/8192) - 0 - (+8192*100/8192)
02H	00H	mmH	—	COARSE TUNE	28H - 40H - 58H (-24 - 0 - +24 semitones)
7FH	7FH	—	—	NULL	

Clears the current RPN number setting. Does not change the internal parameter settings.

(3-4) NON-REGISTERED PARAMETER NUMBER (NRPN) (Recive only)

STATUS	1011nnnn (BnH)	n = 0 - 15 VOICE CHANNEL NUMBER
NRPN LSB	01100010 (62H)	
NRPN LSB NUMBER	0ppppppp	p = NRPN LSB(refer to the list below)
NRPN MSB	01100011 (63H)	
NRPN MSB NUMBER	0qqqqqqq	q = NRPN MSB(refer to the list below)
DATA ENTRY MSB	00000110 (06H)	
DATA VALUE	0mmmmmmm	m = Data Value

First appoints the parameter for NRPN MSB/LSB, then sets the parameter value for data entry MSB/LSB.

NRPN MSB	NRPN LSB	D.ENTRY MSB	D.ENTRY LSB	PARAMETER NAME	DATA RANGE
01H	08H	mmH	—	VIBRATO RATE	00H - 40H - 7FH (-64 - 0 - +63)
01H	09H	mmH	—	VIBRATO DEPTH	00H - 40H - 7FH (-64 - 0 - +63)
01H	0AH	mmH	—	VIBRATO DELAY	00H - 40H - 7FH (-64 - 0 - +63)
01H	20H	mmH	—	FILTER CUTOFF FREQUENCY	00H - 40H - 7FH (-64 - 0 - +63)
01H	21H	mmH	—	FILTER RESONANCE	00H - 40H - 7FH (-64 - 0 - +63)
01H	63H	mmH	—	EG ATTACK TIME	00H - 40H - 7FH (-64 - 0 - +63)
01H	64H	mmH	—	EG DECAY TIME	00H - 40H - 7FH (-64 - 0 - +63)
01H	66H	mmH	—	EG RELEASE	00H - 40H - 7FH (-64 - 0 - +63)
14H	rrH	mmH	—	DRUM FILTER CUTOFF FREQ.	00H - 40H - 7FH (-64 - 0 - +63)
15H	rrH	mmH	—	DRUM FILTER RESONANCE	00H - 40H - 7FH (-64 - 0 - +63)
16H	rrH	mmH	—	DRUM AEG ATTACK RATE	00H - 40H - 7FH (-64 - 0 - +63)
17H	rrH	mmH	—	DRUM AEG DECAY RATE	00H - 40H - 7FH (-64 - 0 - +63)
18H	rrH	mmH	—	DRUM PITCH COARSE	00H - 40H - 7FH (-64 - 0 - +63)
19H	rrH	mmH	—	DRUM PITCH FINE	00H - 40H - 7FH (-64 - 0 - +63)
1AH	rrH	mmH	—	DRUM LEVEL	00H - 7FH (0 - max.)
1CH	rrH	mmH	—	DRUM PANPOT	00H ,01H - 40H - 7FH (random,left - center - right)
1DH	rrH	mmH	—	DRUM REVERB SEND LEVEL	00H - 7FH (0 - max.)
1EH	rrH	mmH	—	DRUM CHORUS SEND LEVEL	00H - 7FH (0 - max.)
1FH	rrH	mmH	—	DRUM VARIATION SEND LEVEL	00H - 7FH (0 - max.)

The MSG14H-1FH (for drums) message is accepted as long as the channel is set with a drum voice.
rrH : drum instrument note number

(3-5) SYSTEM REALTIME MESSAGES

(3-5-1) MIDI CLOCK

STATUS 11111000 (F8H)

Transmission: 96 clocks per measure are transmitted.
Reception: If the instrument's clock is set to external, after FAH is received from the external device the instrument's clock will sync with the 96 beats per measure received from the external device.
Decides whether the internal clock, or Timing Clocks received via the MIDI IN will be used.

(3-5-2) START

STATUS 11111010 (FAH)

Transmission: Transmitted when instrument's Rhythm or Song playback is started.
Reception: Depending upon the condition, Rhythm, Song Playback, or Song Rec will start.

(3-5-3) STOP

STATUS 11111100 (FCH)

Transmission: Transmitted when instrument's Rhythm or Song playback is stopped.
Reception: Depending upon the condition, Rhythm, Song Playback, or Song Rec will stop.

(3-5-4) ACTIVE SENSING

STATUS 11111110 (FEH)

Transmission: Transmitted approximately once every 200msec.
Reception: Sensing is started once this Code is received. If Status or Data is not received within 400ms, the MIDI Receive Buffer will be cleared, and all notes, including those being sustained, will be cut OFF. Also, all control values will be reset to their factory defaults.

(3-6) SYSTEM EXCLUSIVE MESSAGE

(3-6-1) YAMAHA MIDI FORMAT

(3-6-1-1) SECTION CONTROL

binary	hexadecimal	
11110000	F0	Exclusive status
01000011	43	YAMAHA ID
01111110	7E	Style
00000000	00	
0sssssss	SS	Switch No.
		00H : INTRO A
		01H~07H : INTRO B
		08H : MAIN A
		09H~0FH : MAIN B
		10H : FILL IN AA
		11H~17H : FILL IN BB
		18H : FILL IN AB
		19H~1FH : FILL IN BA
		20H : ENDING A
		21H~27H : ENDING B
0ddddddd	DD	Switch On/Off : 00H (Off),7FH (On)
11110111	F7	End of Exclusive

When an ON code is received, the appointed section will be changed.

(3-6-1-2) TEMPO CONTROL

binary	hexadecimal	
11110000	F0	Exclusive status
01000011	43	YAMAHA ID
01111110	7E	Style
00000000	01	
0ttttttt	TT	Tempo4
0ttttttt	TT	Tempo3
0ttttttt	TT	Tempo2
0ttttttt	TT	Tempo1
11110111	F7	End of Exclusive

The internal clock will be set to the received Tempo value.
Tempo Meta Event is a large data block (24-bit), it is divided into 4 groups with 7-bits going into each of the Tempos 1-4 (4 receives the remaining 3 bits).

(3-6-2) UNIVERSAL SYSTEM EXCLUSIVE

(3-6-2-1) UNIVERSAL REALTIME MESSAGE

(3-6-2-1-1) MIDI MASTER VOLUME (Recive only)

binary	hexadecimal	
11110000	F0	Exclusive status
01111110	7F	Universal Realtime
01111111	7F	ID of target Device
00001001	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
or		
11110000	F0	Exclusive status
01111110	7F	Universal Realtime
0xxxnnnn	XN	When N is received N=0-F, whichever is received. When N is transmitted N always=0. X = don't care
00001001	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

The volume for all channels will be changed simultaneously.
The TT value is used as the MIDI Master Volume value. (the ss value is ignored.)

(3-6-2-2) UNIVERSAL NON REALTIME MESSAGE

(3-6-2-2-1) GENERAL MIDI SYSTEM ON

binary	hexadecimal	
11110000	F0	Exclusive status
01111110	7E	Universal Non-Realtime
01111111	7F	ID of target Device
00001001	09	Sub-ID #1=General MIDI Message
00000001	01	Sub-ID #2=General MIDI On
11110111	F7	End of Exclusive
or		
11110000	F0	Exclusive status
01111110	7E	Universal Non-Realtime
0xxxnnnn	XN	When N is received N=0-F, whichever is received. When N is transmitted N always=0. X = don't care
00001001	09	Sub-ID #1=General MIDI Message
00000001	01	Sub-ID #2=General MIDI On
11110111	F7	End of Exclusive

Depending upon the received ON message, the System Mode will be changed to XG.
Except MIDI Master Tuning, all control data be reset to default values.
This message requires approximately 50ms to execute, so sufficient time should be allowed before the next message is sent.

(3-6-3) XG STANDARD

(3-6-3-1) XG PARAMETER CHANGE

(3-6-3-1-1) XG SYSTEM ON

binary	hexadecimal	
11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0001nnnn	1N	Device Number
01001100	4C	Model ID
00000000	00	Address High
00000000	00	Address Mid
01111110	7E	Address Low
00000000	00	Data
11110111	F7	End of Exclusive

Depending upon the received ON message, the SYSTEM MODE will be changed to XG.Controllers will be reset, all values of Multi Part and Effect, and All System values denoted by "XG" data within All System will be reset to default values in the table.
This message requires approximately 50ms to execute, so sufficient time should be allowed before the next message is sent.

(3-6-3-1-2) XG PARMETER CHANGE

binary	hexadecimal	
11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0001nnnn	1N	Device Number
01001100	4C	Model ID
0aaaaaaa	AA	Address High
0aaaaaaa	AA	Address Mid
0aaaaaaa	AA	Address Low
0ddddddd	DD	Data
!	!	
11110111	F7	End of Exclusive

For parameters with data size of 2 or 4, transmit the appropriate number of data bytes.
For more information on Address and Parameters, refer to < Table 1-2 > ~ < Table 1-8 > (pages 47-52).
The 4 data types listed below are transmitted and received.

(These are transmitted only after a Parameter change request is received.)
XG System Data
Multi Effect Data
Multi EQ Data
Multi Part Data
Drums Setup Data

(3-6-3-2) XG BULK DUMP

binary	hexadecimal	
11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0000nnnn	0N	Device Number
01001100	4C	Model ID
0bbbbbbb	BB	ByteCount
0bbbbbbb	BB	ByteCount
0aaaaaaa	AA	Address High
0aaaaaaa	AA	Address Mid
0aaaaaaa	AA	Address Low
0ddddddd	DD	Data
!	!	
0ccccccc	CC	Check sum
11110111	F7	End of Exclusive

For more information on Address and Byte Count, refer to < Table 1-2 > ~ < Table 1-8 > (pages 47-52).
The Check Sum value is set such that the sum of Byte Count, Address, Data, and Check Sum has value zero in its seven least significant bits.
If the top of the block is appointed to the Address the XG Bulk Dump, Bulk Request will be received.
The Block is a unit that consists of the data, arranged in the list, as the Total Size.

The 5 data types listed below are transmitted and received.
(These are transmitted only after a Bulk Dump request is received.)
System Data
Multi Effect Data(Individual effect unit)
Multi EQ Data
Multi Part Data(Individual part unit)
Drums Setup Data(Individual note unit)
System Information(Individual only)

(3-6-3-3) XG PARAMETER REQUEST (Recive only)

binary	hexadecimal	
11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0011nnnn	3n	Device Number
01001100	4C	Model ID
0aaaaaaa	AA	Address High
0aaaaaaa	AA	Address Mid
0aaaaaaa	AA	Address Low
11110111	F7	End of Exclusive

For more information on Address and Byte Count refer to < Table 1-2 > ~ < Table 1-8 > (pages 47-52).
The 4 data types listed below are received.
System Data
Multi Effect Data
Multi EQ Data
Multi Part Data
Drums Setup Data

(3-6-3-4) XG DUMP REQUEST (Recive only)

binary	hexadecimal	
11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0010nnnn	2n	Device Number
01001100	4C	Model ID
0aaaaaaa	AA	Address High
0aaaaaaa	AA	Address Mid
0aaaaaaa	AA	Address Low
11110111	F7	End of Exclusive

For more information on Address and Byte Count refer to < Table 1-2 > ~ < Table 1-8 > (pages 47-52).

The 5 data types listed below are received.

System Data
Multi Effect Data(Individual module unit)
Multi EQ Data
Multi Part Data(Individual part unit)
Drums Setup Data(Individual note unit)
System Information

(3-6-4) SPECIAL OPERATORS

(3-6-4-1) VOLUME ,EXPRESSION AND PAN REALTIME CONTROL OFF

binary	hexadecimal	
11110000	F0	Exclusive status
01000011	43	YAMAHA ID
01110011	73	Clavinova ID
01000101	45	CVP-98/96/94/92 ID
00010001	11	Sub ID
0000nnnn	0N	N = MIDI Channel
01001001	45	Volume and Expression Realtime Control Off
0vvvvvvv	VV	Value VV: off=7FH, on=00H
11110111	F7	End of Exclusive

When "On" is received, subsequent volume, expression, and PAN changes are only valid after the reception of the next key on. Normal operation resumes when "Off" is received.

(3-6-5) Others

(3-6-5-1) MIDI MASTER TUNING (Recive only)

binary	hexadecimal	
11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0001nnnn	1N	When N is received N=0-F, whichever is received.
00100111	27	Model ID
00110000	30	Sub ID
00000000	00	
00000000	00	
0mmmmmmm	MM	Master Tune MSB
0lllllll	LL	Master Tune LSB
0ccccccc	CC	don't care
11110111	F7	End of Exclusive

Changes tuning of all channels.
MM, LL values are used to define the MIDI Master Tuning value.

T = M-128

T : Tuning value (-99cent - +99cent)
M : A single byte value (28-228) consists of bytes 0-3 of MM = MSB, bytes 0-3 of LL = LSB.

In this setting, GM System ON, XG System ON will not be reset.

< Table 1-1> Parmeter Basic Address

	Parameter Change Address (H) (M) (L)	Description
SYSTEM	00 00 00	System
	00 00 7D	Drum Setup Reset
	00 00 7E	XG System On
	00 00 7F	All Parameter Reset
INFORMATION	01 00 00	System Information
EFFECT 1	02 01 00	Effect1(Reverb,Chorus,Variation)
MULTI EQ	02 40 00	Multi EQ(PSR-730 ONLY)
EFFECT 2	03 00 00	Effect2(PSR-730 ONLY)
MULTI PART	08 00 00	Multi Part 1
	:	
	08 0F 00	Multi Part 16
DRUM	30 0B 00	Drum Setup 1 ⟶ Address / Parameter
	31 0B 00	Drum Setup 2
		: / :
		3n 0B 00 — note number 13
		3n 0C 00 — note number 14
		: : : / :
		3n 5B 00 — note number 91

< Table 1-2 > MIDI Parameter Change table (SYSTEM)

Address (H)	Size (H)	Data (H)	Prameter Name	Description	Default Value(H)
00 00 00	4	0000	Master Tune	-102.4..+102.3[cent]	00 04 00 00
01		..07FF		1st bit3-0 -> bit15-12	(0400)
02				2nd bit3-0 -> bit11-8	(With XG, GM On, it will not reset.)
03				3rd bit3-0 -> bit7-4	
				4th bit3-0 -> bit3-0	
04	1	00..7F	Master Volume	0..127	7F
05	1		Not Used		
06	1	28..58	Transpose	-24..+24[semitones]	40
7D		n	Drum Setup Reset	n=Drum Setup Number	
7E		00	XG System On	00=XG Sytem on	
7F		00	All Parameter Reset	00=on (receive only)	

TOTAL SIZE 6

< Table 1-3 > MIDI Parameter table (System information)

Address (H)			Size (H)	Data (H)	Prameter Name	Description
01	00	00	D	20..7F	Model Name	32..127(ASCII)
		:				
		0D				
		0E	1	00		
		0F	1	00		

TOTAL SIZE 10
(Transmitted by Dump Request. Not received. Bulk Dump Only)

< Table 1-4 > MIDI Parameter Change table (EFFECT 1)

Address (H)			Size (H)	Data (H)	Prameter Name	Description	Default Value(H)
02	01	00	2	00..7F	Reverb Type MSB	Refer to the Ef. Type List	01(=HALL1)
			00..7F	Reverb Type LSB		00 : basic type	00
	02	1	00..7F	Reverb Parameter 1		Refer to the Ef. Parameter List	Depend on Reverb type
	03	1	00..7F	Reverb Parameter 2		Refer to the Ef. Parameter List	Depend on Reverb type
	04	1	00..7F	Reverb Parameter 3		Refer to the Ef. Parameter List	Depend on Reverb type
	05	1	00..7F	Reverb Parameter 4		Refer to the Ef. Parameter List	Depend on Reverb type
	06	1	00..7F	Reverb Parameter 5		Refer to the Ef. Parameter List	Depend on Reverb type
	07	1	00..7F	Reverb Parameter 6		Refer to the Ef. Parameter List	Depend on Reverb type
	08	1	00..7F	Reverb Parameter 7		Refer to the Ef. Parameter List	Depend on Reverb type
	09	1	00..7F	Reverb Parameter 8		Refer to the Ef. Parameter List	Depend on Reverb type
	0A	1	00..7F	Reverb Parameter 9		Refer to the Ef. Parameter List	Depend on Reverb type
	0B	1	00..7F	Reverb Parameter 10		Refer to the Ef. Parameter List	Depend on Reverb type
	0C	1	00..7F	Reverb Return	-∞..0..+6dB(0..96..127)	60	
	0D	1	01..7F	Reverb Pan	L63..C..R63(1..64..127)	40	

TOTAL SIZE 0E

02	01	10	1	00..7F	Reverb Parameter 11	Refer to the Ef. Parameter List	Depend on Reverb type
	11	1	00..7F	Reverb Parameter 12		Refer to the Ef. Parameter List	Depend on Reverb type
	12	1	00..7F	Reverb Parameter 13		Refer to the Ef. Parameter List	Depend on Reverb type
	13	1	00..7F	Reverb Parameter 14		Refer to the Ef. Parameter List	Depend on Reverb type
	14	1	00..7F	Reverb Parameter 15		Refer to the Ef. Parameter List	Depend on Reverb type
	15	1	00..7F	Reverb Parameter 16		Refer to the Ef. Parameter List	Depend on Reverb type

TOTAL SIZE 6

02	01	20	2	00..7F	Chorus Type MSB	Refer to the Ef. Type List	41(=Chorus1)
			00..7F	Chorus Type LSB		00 : basic type	00
	22	1	00..7F	Chorus Parameter 1		Refer to the Ef. Parameter List	Depend on Chorus Type
	23	1	00..7F	Chorus Parameter 2		Refer to the Ef. Parameter List	Depend on Chorus Type
	24	1	00..7F	Chorus Parameter 3		Refer to the Ef. Parameter List	Depend on Chorus Type
	25	1	00..7F	Chorus Parameter 4		Refer to the Ef. Parameter List	Depend on Chorus Type
	26	1	00..7F	Chorus Parameter 5		Refer to the Ef. Parameter List	Depend on Chorus Type
	27	1	00..7F	Chorus Parameter 6		Refer to the Ef. Parameter List	Depend on Chorus Type
	28	1	00..7F	Chorus Parameter 7		Refer to the Ef. Parameter List	Depend on Chorus Type
	29	1	00..7F	Chorus Parameter 8		Refer to the Ef. Parameter List	Depend on Chorus Type
	2A	1	00..7F	Chorus Parameter 9		Refer to the Ef. Parameter List	Depend on Chorus Type
	2B	1	00..7F	Chorus Parameter 10		Refer to the Ef. Parameter List	Depend on Chorus Type
	2C	1	00..7F	Chorus Return	-∞..0..+6dB(0..96..127)	60	
	2D	1	01..7F	Chorus Pan	L63..C..R63(1..64..127)	40	
	2E	1	00..7F	Send Chorus To Reverb		-∞..0..+6dB(0..96..127)	00

TOTAL SIZE 0F

02	01	30	1	00..7F	Chorus Parameter 11	Refer to the Ef. Parameter List	Depend on Chorus Type
	31	1	00..7F	Chorus Parameter 12		Refer to the Ef. Parameter List	Depend on Chorus Type
	32	1	00..7F	Chorus Parameter 13		Refer to the Ef. Parameter List	Depend on Chorus Type
	33	1	00..7F	Chorus Parameter 14		Refer to the Ef. Parameter List	Depend on Chorus Type
	34	1	00..7F	Chorus Parameter 15		Refer to the Ef. Parameter List	Depend on Chorus Type
	35	1	00..7F	Chorus Parameter 16		Refer to the Ef. Parameter List	Depend on Chorus Type

TOTAL SIZE 6

02	01	40	2	00..7F	Variation Type MSB	Refer to the Ef. Type List	"05(=DELAY L,C,R)"
			00..7F	Variation Type LSB		00 : basic type	00
	42	2	00..7F	Vari. Param. 1 MSB		Refer to the Ef. Parameter List	Depend on Vari. Type
			00..7F	Vari. Param. 1 LSB		Refer to the Ef. Parameter List	Depend on Vari. Type
	44	2	00..7F	Vari. Param. 2 MSB		Refer to the Ef. Parameter List	Depend on Vari. Type
			00..7F	Vari. Param. 2 LSB		Refer to the Ef. Parameter List	Depend on Vari. Type
	46	2	00..7F	Vari. Param. 3 MSB		Refer to the Ef. Parameter List	Depend on Vari. Type
			00..7F	Vari. Param. 3 LSB		Refer to the Ef. Parameter List	Depend on Vari. Type
	48	2	00..7F	Vari. Param. 4 MSB		Refer to the Ef. Parameter List	Depend on Vari. Type
			00..7F	Vari. Param. 4 LSB		Refer to the Ef. Parameter List	Depend on Vari. Type
	4A	2	00..7F	Vari. Param. 5 MSB		Refer to the Ef. Parameter List	Depend on Vari. Type
			00..7F	Vari. Param. 5 LSB		Refer to the Ef. Parameter List	Depend on Vari. Type

Address (H)			Size (H)	Data (H)	Prameter Name	Description	Default Value(H)
	4C	2	00..7F		Vari. Param. 6 MSB	Refer to the Ef. Parameter List	Depend on Vari. Type
			00..7F		Vari. Param. 6 LSB	Refer to the Ef. Parameter List	Depend on Vari. Type
	4E	2	00..7F		Vari. Param. 7 MSB	Refer to the Ef. Parameter List	Depend on Vari. Type
			00..7F		Vari. Param. 7 LSB	Refer to the Ef. Parameter List	Depend on Vari. Type
	50	2	00..7F		Vari. Param. 8 MSB	Refer to the Ef. Parameter List	Depend on Vari. Type
			00..7F		Vari. Param. 8 LSB	Refer to the Ef. Parameter List	Depend on Vari. Type
	52	2	00..7F		Vari. Param. 9 MSB	Refer to the Ef. Parameter List	Depend on Vari. Type
			00..7F		Vari. Param. 9 LSB	Refer to the Ef. Parameter List	Depend on Vari. Type
	54	2	00..7F		Vari. Param. 10 MSBÅ@	Refer to the Ef. Parameter List	Depend on Vari. Type
			00..7F		Vari. Param. 10 LSB	Refer to the Ef. Parameter List	Depend on Vari. Type
	56	1	00..7F		Variation Return -∞..0..+6dB(0..96..127)	60	
	57	1	01..7F		Variation Pan L63..C..R63(1..64..127)	40	
	58	1	00..7F		Send Vari. To Reverb	-∞..0..+6dB(0..96..127)	00
	59	1	00..7F		Send Vari. To Chorus	-∞..0..+6dB(0..96..127)	00
	5A	1	00..01		Variation Connection	0:insertion,1:system	00
	5B	1	00..1F		Variation Part part1..32(0..31),off(127)	7F	
	5C	1	01..7F		MW Vari. Ctrl Depth	-63..+63	40
	5D	1	01..7F		PB Vari. Ctrl Depth	-63..+63	40
	5E	1	01..7F		CAT Vari. Ctrl Depth	-63..+63	40
	5F	1	01..7F		Not Used		
	60	1	01..7F		Not Used		
TOTAL SIZE 21							

02	01	70	1	00..7F	Variation Parameter 11	option Parameter	Depend on Variation Type
	71	1	00..7F		Variation Parameter 12	option Parameter	Depend on Variation Type
	72	1	00..7F		Variation Parameter 13	option Parameter	Depend on Variation Type
	73	1	00..7F		Variation Parameter 14	option Parameter	Depend on Variation Type
	74	1	00..7F		Variation Parameter 15	option Parameter	Depend on Variation Type
	75	1	00..7F		Variation Parameter 16	option Parameter	Depend on Variation Type
TOTAL SIZE 6							

< Table 1-5 > MIDI Parameter Change table (MULTI EQ)(PSR-730 ONLY)

Address (H)			Size (H)	Data (H)	Prameter Name	Description	Default Value(H)
02	40	00	1	34..4C	EQ Type	0:FLAT 1:JAZZ 2:POPS 3:ROCK 4:CLASSIC	0
		01	1	34..4C	EQ Gain1	-12..+12[dB]	40
		02	1	04..28	EQ Frequency1	32..2000[Hz]	0C
		03	1	01..78	EQ Q1	0.1..12.0	07
		04	1	00..01	EQ Shape1	00:Shelving,01:Peaking	00
		05	1	34..4C	EQ Gain2	-12..+12[dB]	40
		06	1	0E..36	EQ Frequency2	0.1..10[KHz]	1C
		07	1	01..78	EQ Q2	0.1..12.0	07
		08	1		Not Used		
		09	1	34..4C	EQ Gain3	-12..+12[dB]	40
		0A	1	0E..36	EQ Frequency3	0.1..10[KHz]	22
		0B	1	01..78	EQ Q3	0.1..12.0	07
		0C	1		Not Used		
		0D	1	34..4C	EQ Gain4	-12..+12[dB]	40
		0E	1	0E..36	EQ Frequency4	0.1..10[KHz]	2E
		0F	1	01..78	EQ Q4	0.1..12.0	07
		10	1		Not Used		
		11	1	34..4C	EQ Gain5	-12..+12[dB]	40
		12	1	1C..3A	EQ Frequency5	0.5..16.0[KHz]	3C
		13	1	01..78	EQ Q5	0.1..12.0	07
		14	1	00..01	EQ Shape5	00:Shelving,01:Peaking	00
TOTAL SIZE 15							

< Table 1-6 > MIDI Parameter change table (Effect2))(PSR-730 ONLY)

Address (H)			(H)	Size (H)	Data	Prameter Name	Description	Default Value(H)
03	0n	00	2	00..7F	Insertion Type MSB	Refer to the Ef. Type List "49(=DISTORTION)"		
				00..7F	Insertion Type LSB	00 : basic type	00	
		02	1	00..7F	Insertion Parameter1	Refer to the Ef. Parameter List		
		03	1	00..7F	Insertion Parameter2	Refer to the Ef. Parameter List		
		04	1	00..7F	Insertion Parameter3	Refer to the Ef. Parameter List		
		05	1	00..7F	Insertion Parameter4	Refer to the Ef. Parameter List		
		06	1	00..7F	Insertion Parameter5	Refer to the Ef. Parameter List		
		07	1	00..7F	Insertion Parameter6	Refer to the Ef. Parameter List		

Address (H)			Size (H)	Data (H)	Prameter Name	Description	Default Value(H)
		08	1	00..7F	Insertion Parameter7	Refer to the Ef. Parameter List	
		09	1	00..7F	Insertion Parameter8	Refer to the Ef. Parameter List	
		0A	1	00..7F	Insertion Parameter9	Refer to the Ef. Parameter List	
		0B	1	00..7F	Insertion Parameter10	Refer to the Ef. Parameter List	
		0C	1	00..7F	Insertion Part	Part1..16,OFF	7F
		0D	1	00..7F	MW INS CTRL DPT		
		0E	1	00..7F	BEND INS CTRL DPT		
		0F	1	00..7F	CAT INS CTRL DPT		
		10	1	00..7F	Not Used		
		11	1	00..7F	Not Used		
TOTAL SIZE 12							
03	0n	20	1	00..7F	Insertion Parameter11	Refer to the Ef. Parameter List	
		21	1	00..7F	Insertion Parameter12	Refer to the Ef. Parameter List	
		22	1	00..7F	Insertion Parameter13	Refer to the Ef. Parameter List	
		23	1	00..7F	Insertion Parameter14	Refer to the Ef. Parameter List	
		24	1	00..7F	Insertion Parameter15	Refer to the Ef. Parameter List	
		25	1	00..7F	Insertion Parameter16	Refer to the Ef. Parameter List	
TOTAL SIZE 06							
03	0n	30	2	00..7F	Ins. Param.1 MSB	Refer to the Ef. Parameter List	
				00..7F	Ins. Param.1 LSB	Refer to the Ef. Parameter List	
03	0n	32	2	00..7F	Ins. Param.2 MSB	Refer to the Ef. Parameter List	
				00..7F	Ins. Param.2 LSB	Refer to the Ef. Parameter List	
03	0n	34	2	00..7F	Ins. Param.3 MSB	Refer to the Ef. Parameter List	
				00..7F	Ins. Param.3 LSB	Refer to the Ef. Parameter List	
03	0n	36	2	00..7F	Ins. Param.4 MSB	Refer to the Ef. Parameter List	
				00..7F	Ins. Param.4 LSB	Refer to the Ef. Parameter List	
03	0n	38	2	00..7F	Ins. Param.5 MSB	Refer to the Ef. Parameter List	
				00..7F	Ins. Param.5 LSB	Refer to the Ef. Parameter List	
03	0n	3A	2	00..7F	Ins. Param.6 MSB	Refer to the Ef. Parameter List	
				00..7F	Ins. Param.6 LSB	Refer to the Ef. Parameter List	
03	0n	3C	2	00..7F	Ins. Param.7 MSB	Refer to the Ef. Parameter List	
				00..7F	Ins. Param.7 LSB	Refer to the Ef. Parameter List	
03	0n	3E	2	00..7F	Ins. Param.8 MSB	Refer to the Ef. Parameter List	
				00..7F	Ins. Param.8 LSB	Refer to the Ef. Parameter List	
03	0n	40	2	00..7F	Ins. Param.9 MSB	Refer to the Ef. Parameter List	
				00..7F	Ins. Param.9 LSB	Refer to the Ef. Parameter List	
03	0n	42	2	00..7F	Ins. Param.10 MSB	Refer to the Ef. Parameter List	
				00..7F	Ins. Param.10 LSB	Refer to the Ef. Parameter List	
TOTAL SIZE 14							

For effect types that do not require MSB, the Parameters for Address 02-0B will be received. Address 30-42 will not be received.
For effect types that require MSB, the Parameters for Address 30-42 will be received. 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.
n=Insertion Effect No.(0-1)

< Table 1-7 > MIDI Parameter Change table (MULTI PART)

Address (H)			Size (H)	Data (H)	Prameter Name	Description	Default Value(H)
08	nn	00	1	00..20	Element Reserve	0..32	0(Part10),2(Others)
	nn	01	1	00..7F	Bank Select MSB	0..127	7F(Part10),00(Others)
	nn	02	1	00..7F	Bank Select LSB	0..127	00
	nn	03	1	00..7F	Program Number	1..128	00
	nn	04	1	00..0F, 7F	Rcv Channel	0..16;1..16,127;off	Part No.
	nn	05	1	00..01	Mono/Poly Mode	0:mono,1:poly	01
	nn	06	1	00..02	Same Note Number Key On Assign	0:single 1:multi 2:inst (for DRUM)	00
	nn	07	1	00..02	Part Mode	0:normal 1..3:drum thru,drum1..2	00 (Except Part10) 01 (Part10)
	nn	08	1	28..58	Note Shift	-24..+24[semitones]	40
	nn	09	2	00..FF	Detune	-12.8..+12.7[Hz]	08 00
	nn	0A				1st bit3..0 -> bit7..4 2nd bit3..0 -> bit3..0	(80)
	nn	0B	1	00..7F	Volume	0..127	64
	nn	0C	1	00..7F	Velocity Sense Depth	0..127	40
	nn	0D	1	00..7F	Velocity Sense Offset	0..127	40
	nn	0E	1	00..7F	Pan	0:random L63..C..R63(1..64..127)	40
	nn	0F	1	00..7F	Note Limit Low	C-2..G8	00
	nn	10	1	00..7F	Note Limit High	C-2..G8	7F
	nn	11	1	00..7F	Dry Level	0..127	7F
	nn	12	1	00..7F	Chorus Send	0..127	00

Address (H)		Size (H)	Data (H)	Prameter Name	Description	Default Value(H)
nn	13	1	00..7F	Reverb Send	0..127	28
nn	14	1	00..7F	Variation Send	0..127	00
nn	15	1	00..7F	Vibrato Rate	-64..+63	40
nn	16	1	00..7F	Vibrato Depth	-64..+63	40
nn	17	1	00..7F	Vibrato Delay	-64..+63	40
nn	18	1	00..7F	Filter Cutoff Freq.	-64..+63	40
nn	19	1	00..7F	Filter Resonance	-64..+63	40
nn	1A	1	00..7F	EG Attack Time	-64..+63	40
nn	1B	1	00..7F	EG Decay Time	-64..+63	40
nn	1C	1	00..7F	EG Release Time	-64..+63	40
nn	1D	1	28..58	MW Pitch Control	-24..+24[semitones]	40
nn	1E	1	00..7F	MW Filter Control	-9600..+9450[cent]	40
nn	1F	1	00..7F	MW Amp. Control	-100..+100[%]	40
nn	20	1	00..7F	MW LFO PMod Depth	0..127	0A
nn	21	1	00..7F	MW LFO FMod Depth	0..127	00
nn	22	1	00..7F	MW LFO AMod Depth	0..127	00
nn	23	1	28..58	Bend Pitch Control	-24..+24[semitones]	42
nn	24	1	00..7F	Bend Filter Control	-9600..+9450[cent]	40
nn	25	1	00..7F	Bend Amp. Control	-100..+100[%]	40
nn	26	1	00..7F	Bend LFO PMod Depth	0..127	00
nn	27	1	00..7F	Bend LFO FMod Depth	0..127	00
nn	28	1	00..7F	Bend LFO AMod Depth	0..127	00
TOTAL SIZE 29						
nn	30			Not Used		
	:			:		
nn	40			Not Used		
nn	41	1	00..7F	Scale Tuning C	-64..+63[cent]	40
nn	42	1	00..7F	Scale Tuning C#	-64..+63[cent]	40
nn	43	1	00..7F	Scale Tuning D	-64..+63[cent]	40
nn	44	1	00..7F	Scale Tuning D#	-64..+63[cent]	40
nn	45	1	00..7F	Scale Tuning E	-64..+63[cent]	40
nn	46	1	00..7F	Scale Tuning F	-64..+63[cent]	40
nn	47	1	00..7F	Scale Tuning F#	-64..+63[cent]	40
nn	48	1	00..7F	Scale Tuning G	-64..+63[cent]	40
nn	49	1	00..7F	Scale Tuning G#	-64..+63[cent]	40
nn	4A	1	00..7F	Scale Tuning A	-64..+63[cent]	40
nn	4B	1	00..7F	Scale Tuning A#	-64..+63[cent]	40
nn	4C	1	00..7F	Scale Tuning B	-64..+63[cent]	40
nn	4D	1	28..58	CAT Pitch Control	-24..+24[semitones]	40
nn	4E	1	00..7F	CAT Filter Control	-9600..+9450[cent]	40
nn	4F	1	00..7F	CAT Amplitude Control	-100..+100[%]	40
nn	50	1	00..7F	CAT LFO PMod Depth	0..127	00
nn	51	1	00..7F	CAT LFO FMod Depth	0..127	00
nn	52	1	00..7F	CAT LFO AMod Depth	0..127	00
nn	53			Not Used		
	:			:		
	66			Not Used		
nn	67	1	00..01	Portamento Switch	off/on	00
nn	68	1	00..7F	Portamento Time	0..127	00
nn	69			Not Used		
	:			:		
	6E			Not Used		
TOTAL SIZE 3F						

nn = PartNumber

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

- Bank Select LSB
- Pitch EG
- Portamento
- Soft Pedal
- Mono/Poly
- Scale Tuning

< Table 1-8 > MIDI Parameter Change table (DRUM SETUP)

Address (H)			Size (H)	Data (H)	Prameter Name	Description	Default Value(H)
3n	rr	00	1	00..7F	Pitch Coarse	-64..+63	40
3n	rr	01	1	00..7F	Pitch Fine	-64..+63[cent]	40
3n	rr	02	1	00..7F	Level	0..127	Depend on the Note
3n	rr	03	1	00..7F	Alternate Group	0:off,1..127	Depend on the Note
3n	rr	04	1	00..7F	Pan	0:random L63..C..R63(1..64..127)	Depend on the Note
3n	rr	05	1	00..7F	Reverb Send Level	0..127	Depend on the Note
3n	rr	06	1	00..7F	Chorus Send Level	0..127	Depend on the Note
3n	rr	07	1	00..7F	Variation Send Level	0..127	7F
3n	rr	08	1	00..01	Key Assign	0:single,1:multi	00
3n	rr	09	1	00..01	Rcv Note Off	off/on	Depend on the Note
3n	rr	0A	1	00..01	Rcv Note On	off/on	01
3n	rr	0B	1	00..7F	Filter Cutoff Freq.	-64..63	40
3n	rr	0C	1	00..7F	Filter Resonance	-64..63	40
3n	rr	0D	1	00..7F	EG Attack Rate	-64..63	40
3n	rr	0E	1	00..7F	EG Decay1 Rate	-64..63	40
3n	rr	0F	1	00..7F	EG Decay2 Rate	-64..63	40

TOTAL SIZE 10

n:Drum Setup Number(0 - 1)
rr:note number(0DH - 5BH)
If XG SYSTEM ON and/or GM On message is received, all Drum Setup Parameter will be reset to default values.
According to the Drum Setup Reset message, individual Drum Setup Parameters can be reset to default values.

< Table 1-9 > Effect Type List

XG ESSENTIAL EFFECT
Same as LSB=0
XG OPTION EFFECT

* If the received value does not contain an effect type in the TYPE LSB, the LSB will be directed to TYPE 0.
* Panel Effects are based on the "[Number] Effect Name".
* Using an external sequencer, capable of editing and transmitting the system exclusive messages and parameter changes, allows you to select the reverb, chorus and DSP effect types which are not accessible from the PSR-730/630 panel operation. When one of the effects is selected by the external sequencer, "XG Rev.," "XG Cho." or "XG Eff." will be shown on the display.

REVERB TYPE

TYPE MSB	TYPE LSB 00	01	02	03...07	08	09...15	16	17	18	19	20	21...
000	NO EFFECT											
001	[1]HALL1	[2]HALL2					[3]HALL3	[4]HALL4	[5]HALL5			
002	[6]ROOM1	ROOM2	[8]ROOM2				[7]ROOM3	ROOM	ROOM	[9]ROOM4		
003	[10]STAGE1	[11]STAGE2					STAGE	[12]STAGE3				
004	[13]PLATE						PLATE	PLATE				
005..015	NO EFFECT											
016												
017												
018												
019												
020..127	NO EFFECT											

CHORUS TYPE

TYPE MSB	TYPE LSB 00	01	02	03...07	08	09...15	16	17	18	19	20	21...
000	NO EFFECT											
001..064	NO EFFECT											
065	CHORUS1	CHORUS2	CHORUS3		CHORUS4							
066	CELESTE1	CELESTE2	CELESTE3		CELESTE4		CELESTE	CELESTE				
067	FLANGER 1	FLANGER2			FLANGER3		FLANGER	FLANGER				
068	SYMPHONIC											
069..071	NO EFFECT											
072	PHASER 1											
073..086	NO EFFECT											
087	ENSEMBLE DETUNE											
088..127	NO EFFECT											

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DSP(VARIATIOM) EFFECT TYPE

TYPE MSB	TYPE LSB 00	01	02	03...07	08	09...15	16	17	18	19	20	21...
000	NO EFFECT											
001	[1]HALL1	[2]HALL2					[3]HALL3	HALL	HALL			
002	[4]ROOM1	ROOM2	[5]ROOM2				[6]ROOM3	ROOM	ROOM	ROOM		
003	[7]STAGE1	[8]STAGE2					STAGE	[9]STAGE3				
004	PLATE						PLATE	PLATE				
005	DELAY L,C,R						[17]DELAY LCR					
006	[18]DELAY L,R											
007	[19]ECHO											
008	[20]CROSS DELAY											
009	ER1	ER2										
010	GATE REVERB											
011	REVERS GATE											
012..015	NO EFFECT											
016	WHITE ROOM											
017	TUNNEL											
018	CANYON											
019	BASEMENT											
020	KARAOKE 1	KARAOKE 2	KARAOKE 3									
021..063	NO EFFECT											
064	THRU											
065	CHORUS1	CHORUS2	CHORUS		CHORUS							
066	[13]CELESTE	[12]CHORUS3	CELESTE3		[11]CHORUS2		CHORUS	[10]CHORUS1	[22]ROTARY FAST	[23]ROTARY SLOW		
067	FLANGER 1	FLANGER			FLANGER		[14]FLANGER	FLANGER				
068	SYMPHONIC						[15]SYMPHONIC					
069	ROTARY SP						Rotary Sp					
070	TREMOLO						[21]TREMOLO	Rotary Sp				
071	AUTO PAN						[16]AUTO PAN	Rotary Sp	Rotary Sp	Tremolo	Gtr Tremolo	
072	[24]PHASER				PHASER							
073	DISTORTION	COMP+ DISTORTION										
074	OVER DRIVE											
075	AMP SIM.						DIST.HARD	DIST.SOFT				
076	3BAND EQ						EQ DISCO	EQ TEL				
077	2BAND EQ											
078	AUTO WAH	AUTO WAH+ DIST	AUTO WAH+ OVERDRIVE				[25]WAH					
079	THRU											
080	PITCH CHANGE	PITCH CHANGE2										
081	THRU											
082	TOUCH WAH 1	TOUCH WAH+ DIST	TOUCH WAH+ OVERDRIVE		TOUCH WAH 2							
083	COMPRESSOR											
084	NOISE GATE											
085	VOICE CANCEL											
086	2WAY ROTARY SP											
087	ENSEMBLE DETUNE											
088	AMBIENCE											
089..127	THRU											

MULTI EFFECT (INSERTION) TYPE

TYPE MSB	TYPE LSB 00	01	02	03...07	08	09...15	16	17	18	19	20	21...
000	THRU											
001	HALL 1	HALL 2					HALL	HALL	HALL			
002	ROOM 1	ROOM 2	ROOM 3				ROOM	ROOM	ROOM	ROOM		
003	STAGE 1	STAGE 2					STAGE	STAGE				
004	PLATE						PLATE	PLATE				
005	DELAY L,C,R						Delay LCR					
006	DELAY L,R											
007	ECHO											
008	CROSS DELAY											
009..019	THRU											
020	KARAOKE 1	KARAOKE 2	KARAOKE 3									
021..064	THRU											
065	CHORUS 1	CHORUS 2	CHORUS 3		CHORUS 4							
066	CELESTE 1	CELESTE 2	CELESTE 3		CELESTE 4		CHORUS	CHORUS	Rotary Sp			
067	FLANGER 1	FLANGER 2			FLANGER 3		FLANGER	FLANGER				
068	SYMPHONIC						Symphonic					
069	ROTARY SPEAKER 1						Rotary Sp					
070	TREMOLO						Tremolo	Rotary Sp				
071	AUTO PAN						AutoPan	Rotary Sp	Rotary Sp	Tremolo	Gtr Tremolo	
072	PHASER 1											
073	DISTORTION											
074	OVER DRIVE											
075	AMP SIMULATOR						DIST.HARD	DIST.SOFT				
076	3BAND EQ						EQ DISCO	EQ TEL				
077	2-BAND EQ											
078	AUTO WAH(LFO)						Auto Wah					
079..081	THRU											
082	TOUCH WAH 1				TOUCH WAH 2							
083	COMPRESSOR											
084	NOISE GATE											
085..086	THRU											
087	ENSEMBLE DETUNE											
088..127	THRU											

< Table 1-10 > Effect Parameter List

HALL1,HALL2, ROOM1,ROOM2,ROOM3, STAGE1,STAGE2 PLATE (reverb, variation, insertion block)

No.	Parameter		Value	See Table	Control
1	Reverb Time	0.3–30.0s	0–69	table#4	
2	Diffusion	0–10	0–10		
3	Initial Delay	0–63	0–63	table#5	
4	HPF Cutoff	Thru–8.0kHz	0–52	table#3	
5	LPF Cutoff	1.0k–Thru	34–60	table#3	
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11	Rev Delay	0–63	0–63	table#5	
12	Density	0–4 (reverb, variation block) 0–2 (insertion block)	0–4 0–2		
13	Er/Rev Balance	E63>R – E=R – E<R63	1–127		
14	High Damp	0.1–1.0	1–10		
15	Feedback Level	-63–+63	1–127		
16					

WHITE ROOM, TUNNEL, CANYON, BASEMENT (reverb, variation block)

No.	Parameter		Value	See Table	Control
1	Reverb Time	0.3–30.0s	0–69	table#4	
2	Diffusion	0–10	0–10		
3	Initial Delay	0–63	0–63	table#5	
4	HPF Cutoff	Thru–8.0kHz	0–52	table#3	
5	LPF Cutoff	1.0k–Thru	34–60	table#3	
6	Width	0.5–10.2m	0–37	table#11	
7	Heigt	0.5–20.2m	0–73	table#11	
8	Depth	0.5–30.2m	0–104	table#11	
9	Wall Vary	0–30	0–30		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11	Rev Delay	0–63	0–63	table#5	
12	Density	0–4	0–4		
13	Er/Rev Balance	E63>R – E=R – E<R63	1–127		
14	High Damp	0.1–1.0	1–10		
15	Feedback Level	-63–+63	1–127		
16					

DELAY L,C,R (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	Lch Delay	0.1–1486.0ms (variation block) 0.1–742.9ms (insertion block)	1–14860 1–7429		
2	Rch Delay	0.1–1486.0ms (variation block) 0.1–742.9ms (insertion block)	1–14860 1–7429		
3	Cch Delay	0.1–1486.0ms (variation block) 0.1–742.9ms (insertion block)	1–14860 1–7429		
4	Feedback Delay	0.1–1486.0ms (variation block) 0.1–742.9ms (insertion block)	1–14860 1–7429		
5	Feedback Level	-63–+63	1–127		
6	Cch Level	0–127	0–127		
7	High Damp	0.1–1.0	1–10		
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11					
12					
13	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
14	EQ Low Gain	-12–+12dB	52–76		
15	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
16	EQ High Gain	-12–+12dB	52–76		

DELAY L,R (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	Lch Delay	0.1–1486.0ms (variation block) 0.1–742.9ms (insertion block)	1–14860 1–7429		
2	Rch Delay	0.1–1486.0ms (variation block) 0.1–742.9ms (insertion block)	1–14860 1–7429		
3	Feedback Delay 1	0.1–1486.0ms (variation block) 0.1–742.9ms (insertion block)	1–14860 1–7429		
4	Feedback Delay 2	0.1–1486.0ms (variation block) 0.1–742.9ms (insertion block)	1–14860 1–7429		
5	Feedback Level	-63–+63	1–127		
6	High Damp	0.1–1.0	1–10		
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11					
12					
13	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
14	EQ Low Gain	-12–+12dB	52–76		
15	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
16	EQ High Gain	-12–+12dB	52–76		

ECHO (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	Lch Delay1	0.1–743.0ms (variation block) 0.1–371.4ms (insertion block)	1–7430 1–3714		
2	Lch Feedback Level	-63–+63	1–127		
3	Rch Delay1	0.1–743.0ms (variation block) 0.1–371.4ms (insertion block)	1–7430 1–3714		
4	Rch Feedback Level	-63–+63	1–127		
5	High Damp	0.1–1.0	1–10		
6	Lch Delay2	0.1–743.0ms (variation block) 0.1–371.4ms (insertion block)	1–7430 1–3714		
7	Rch Delay2	0.1–743.0ms (variation block) 0.1–371.4ms (insertion block)	1–7430 1–3714		
8	Delay2 Level	0–127	0–127		
9					
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11					
12					
13	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
14	EQ Low Gain	-12–+12dB	52–76		
15	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
16	EQ High Gain	-12–+12dB	52–76		

CROSS DELAY (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	L->R Delay	0.1–743.0ms (variation block) 0.1–371.4ms (insertion block)	1–7430 1–3714		
2	R->L Delay	0.1–743.0ms (variation block) 0.1–371.4ms (insertion block)	1–7430 1–3714		
3	Feedback Level	-63–+63	1–127		
4	Input Select	L,R,L&R	0–2		
5	High Damp	0.1–1.0	1–10		
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11					
12					
13	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
14	EQ Low Gain	-12–+12dB	52–76		
15	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
16	EQ High Gain	-12–+12dB	52–76		

EARLY REF1,EARLY REF2(variation block)

No.	Parameter		Value	See Table	Control
1	Type	S-H, L-H, Rdm, Rvs, Plt, Spr	0–5		
2	Room Size	0.1–7.0	0–44	table#6	
3	Diffusion	0–10	0–10		
4	Initial Delay	0–63	0–63	table#5	
5	Feedback Level	-63–+63	1–127		
6	HPF Cutoff	Thru–8.0kHz	0–52	table#3	
7	LPF Cutoff	1.0k–Thru	34–60	table#3	
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11	Liveness	0–10	0–10		
12	Density	0–3	0–3		
13	High Damp	0.1–1.0	1–10		
14					
15					
16					

GATE REVERB, REVERSE GATE (variation block)

No.	Parameter		Value	See Table	Control
1	Type	TypeA,TypeB	0–1		
2	Room Size	0.1–20.0	0–127	table#6	
3	Diffusion	0–10	0–10		
4	Initial Delay	0–127	0–127	table#5	
5	Feedback Level	-63–+63	1–127		
6	HPF Cutoff	Thru–8.0kHz	0–52	table#3	
7	LPF Cutoff	1.0k–Thru	34–60	table#3	
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11	Liveness	0–10	0–10		
12	Density	0–3	0–3		
13	High Damp	0.1–1.0	1–10		
14					
15					
16					

KARAOKE1,2,3 (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	Delay Time	0–127	0–127	table#7	
2	Feedback Level	-63–+63	1–127		
3	HPF Cutoff	Thru–8.0kHz	0–52	table#3	
4	LPF Cutoff	1.0k–Thru	34–60	table#3	
5					
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11					
12					
13					
14					
15					
16					

CHORUS1,2,3,4, CELESTE1,2,3,4 (chorus, variation, insertion block)

No.	Parameter		Value	See Table	Control
1	LFO Frequency	0.00Hz–39.7Hz	0–127	table#1	
2	LFO Depth	0–127	0–127		
3	Feedback Level	-63–+63	1–127		
4	Delay Offset	0–127	0–127	table#2	
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11	EQ Mid Frequency	100Hz–10.0kHz (variation block)	14–54	table#3	
12	EQ Mid Gain	-12–+12dB (variation block)	52–76		
13	EQ Mid Width	1.0–12.0 (variation block)	10–120		
14					
15	Input Mode	mono/stereo	0–1		
16					

FLANGER1,2,3 (chorus, variation, insertion block)

No.	Parameter		Value	See Table	Control
1	LFO Frequency	0.00Hz–39.7Hz	0–127	table#1	
2	LFO Depth	0–127	0–127		
3	Feedback Level	-63–+63	1–127		
4	Delay Offset	0–127	0–127	table#2	
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11	EQ Mid Frequency	100Hz–10.0kHz (variation block)	14–54	table#3	
12	EQ Mid Gain	-12–+12dB (variation block)	52–76		
13	EQ Mid Width	1.0–12.0 (variation block)	10–120		
14	LFO Phase Difference	-180–+180deg(resolution=3deg.)	4–124		
15					
16					

SYMPHONIC (chorus, variation, insertion block)

No.	Parameter		Value	See Table	Control
1	LFO Frequency	0.00Hz–39.7Hz	0–127	table#1	
2	LFO Depth	0–127	0–127		
3	Delay Offset	0–127	0–127	table#2	
4					
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11	EQ Mid Frequency	100Hz–10.0kHz (variation block)	14–54	table#3	
12	EQ Mid Gain	-12–+12dB (variation block)	52–76		
13	EQ Mid Width	1.0–12.0 (variation block)	10–120		
14					
15					
16					

ENSEMBLE DETUNE (chorus, variation, insertion block)

No.	Parameter		Value	See Table	Control
1	Detune	-50–+50cent	14–114		
2	Lch Init Delay	0–127	0–127	table#2	
3	Rch Init Delay	0–127	0–127	table#2	
4					
5					
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11	EQ Low Frequency	32Hz–2.0kHz (variation, insertion block)	4–40	table#3	
12	EQ Low Gain	-12–+12dB 52–76 (variation, insertion block)			
13	EQ High Frequency	500Hz–16.0kHz (variation, insertion block)	28–58	table#3	
14	EQ High Gain	-12–+12dB (variation, insertion block)	52–76		
15					
16					

AMBIENCE (variation block)

No.	Parameter		Value	See Table	Control
1	Delay Time	0–127	0–127	table#2	
2	Output Phase	normal/invers	0–1		
3					
4					
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11					
12					
13					
14					
15					
16					

ROTARY SPEAKER (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	LFO Frequency	0.00Hz–39.7Hz	0–127	table#1	●
2	LFO Depth	0–127	0–127		
3					
4					
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		
11	EQ Mid Frequency	100Hz–10.0kHz (variation block)	14–54	table#3	
12	EQ Mid Gain	-12–+12dB (variation block)	52–76		
13	EQ Mid Width	1.0–12.0 (variation block)	10–120		
14					
15					
16					

2WAY ROTARY SPEAKER (variation block)

No.	Parameter		Value	See Table	Control
1	Rotor Speed	0.0Hz–39.7Hz	0–127	table#1	●
2	Drive Low	0–127	0–127		
3	Drive High	0–127	0–127		
4	Low/High	L63>H – L=H – L<H63	1–127		
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10					
11	Crossover Frequency	100Hz–10.0kHz	14–54	table#3	
12	Mic L-R Angle	0deg–180deg(resolution=3deg.)	0–60		
13					
14					
15					
16					

TREMOLO (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	LFO Frequency	0.00Hz–39.7Hz	0–127	table#1	●
2	AM Depth	0–127	0–127		
3	PM Depth	0–127	0–127		
4					
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10					
11	EQ Mid Frequency	100Hz–10.0kHz (variation block)	14–54	table#3	
12	EQ Mid Gain	-12–+12dB (variation block)	52–76		
13	EQ Mid Width	1.0–12.0 (variation block)	10–120		
14	LFO Phase Difference	-180–+180deg(resolution=3deg.)	4–124		
15	Input Mode	mono/stereo	0–1		
16					

AUTO PAN (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	LFO Frequency	0.00Hz–39.7Hz	0–127	table#1	●
2	L/R Depth	0–127	0–127		
3	F/R Depth	0–127	0–127		
4	PAN Direction	L<->R,L->R,L<-R,Lturn,Rturn,L/R	0–5		
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10					
11	EQ Mid Frequency	100Hz–10.0kHz (variation block)	14–54	table#3	
12	EQ Mid Gain	-12–+12dB (variation block)	52–76		
13	EQ Mid Width	1.0–12.0 (variation block)	10–120		
14					
15					
16					

PHASER 1 (chorus, variation, insertion block)

No.	Parameter		Value	See Table	Control
1	LFO Frequency	0.00Hz–39.7Hz	0–127	table#1	
2	LFO Depth	0–127	0–127		
3	Phase Shift Offset	0–127	0–127		
4	Feedback Level	-63–+63	1–127		
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11	Stage	4,5,6 (chorus, insertion block) 4–12 (variation block)	4–6 4–12		
12	Diffusion	mono/stereo	0–1		
13					
14					
15					
16					

PHASER 2 (variation block)

No.	Parameter		Value	See Table	Control
1	LFO Frequency	0.00Hz–39.7Hz	0–127	table#1	
2	LFO Depth	0–127	0–127		
3	Phase Shift Offset	0–127	0–127		
4	Feedback Level	-63–+63	1–127		
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11	Stage	3,4,5,6	3-6		
12					
13	LFO Phase Difference	-180deg–+180deg(resolution=3deg.)	4–124		
14					
15					
16					

DISTORTION, OVERDRIVE (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	Drive	0–127	0–127		●
2	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
3	EQ Low Gain	-12–+12dB	52–76		
4	LPF Cutoff	1.0k–Thru	34–60	table#3	
5	Output Level	0–127	0–127		
6					
7	EQ Mid Frequency	100Hz–10.0kHz	14–54	table#3	
8	EQ Mid Gain	-12–+12dB	52–76		
9	EQ Mid Width	1.0–12.0	10–120		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		
11	Edge(Clip Curve)	0–127	0–127	mild–sharp	
12					
13					
14					
15					
16					

COMP+DIST (variation block)

No.	Parameter		Value	See Table	Control
1	Drive	0–127	0–127		●
2	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
3	EQ Low Gain	-12–+12dB	52–76		
4	LPF Cutoff	1.0k–Thru	34–60	table#3	
5	Output Level	0–127	0–127		
6					
7	EQ Mid Frequency	100Hz–10.0kHz	14–54	table#3	
8	EQ Mid Gain	-12–+12dB	52–76		
9	EQ Mid Width	1.0–12.0	10–120		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		
11	Edge(Clip Curve)	0–127	0–127	mild–sharp	
12	Attack	1ms–40ms	0–19	table#8	
13	Release	10ms–680ms	0–15	table#9	
14	Threshold	-48dB–-6dB	79–121		
15	Ratio	1.0–20.0	0–7	table#10	
16					

AMP SIMULATOR (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	Drive	0–127	0–127		●
2	AMP Type	Off,Stack,Combo,Tube	0–3		
3	LPF Cutoff	1.0k–Thru	34–60	table#3	
4	Output Level	0–127	0–127		
5					
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1–127		
11	Edge(Clip Curve)	0–127	0–127	mild–sharp	
12					
13					
14					
15					
16					

3BAND EQ(MONO) (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	EQ Low Gain	-12–+12dB	52–76		
2	EQ Mid Frequency	100Hz–10.0kHz	14–54	table#3	
3	EQ Mid Gain	-12–+12dB	52–76		
4	EQ Mid Width	1.0–12.0	10–120		
5	EQ High Gain	-12–+12dB	52–76		
6	EQ Low Frequency	50Hz–2.0kHz	8–40	table#3	
7	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
8					
9					
10					
11					
12					
13					
14					
15	Input Mode	mono/stereo	0–1		
16					

2BAND EQ(STEREO) (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
2	EQ Low Gain	-12–+12dB	52–76		
3	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
4	EQ High Gain	-12–+12dB	52–76		
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

AUTO WAH (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	LFO Frequency	0.00Hz–39.7Hz	0–127	table#1	
2	LFO Depth	0–127	0–127		
3	Cutoff Frequency Offset	0–127	0–127		●
4	Resonance	1.0–12.0	10–120		
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		
11	Drive	0–127	0–127		
12					
13					
14					
15					
16					

AUTO WAH+DIST, AUTO WHA+ODRV (variation block)

No.	Parameter		Value	See Table	Control
1	LFO Frequency	0.00Hz–39.7Hz	0–127	table#1	
2	LFO Depth	0–127	0–127		
3	Cutoff Frequency Offset	0–127	0–127		●
4	Resonance	1.0–12.0	10–120		
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		
11	Drive	0–127	0–127		
12	EQ Low Gain(distortion)	-12–+12dB	52–76		
13	EQ Mid Gain(distortion)	-12–+12dB	52–76		
14	LPF Cutoff	1.0kHz–thru	34–60	table#3	
15	Output Level	0–127	0–127		
16					

TOUCH WAH 1 (variation, insertion block), TOUCH WAH+DIST (variation block)

No.	Parameter		Value	See Table	Control
1	Sensitive	0–127	0–127		
2	Cutoff Frequency Offset	0–127	0–127		●
3	Resonance	1.0–12.0	10–120		
4					
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		
11	Drive	0–127	0–127		
12					
13					
14					
15					
16					

TOUCH WAH 2 (variation, insertion block), TOUCH WAH+ODRV (variation block)

No.	Parameter		Value	See Table	Control
1	Sensitive	0–127	0–127		
2	Cutoff Frequency Offset	0–127	0–127		●
3	Resonance	1.0–12.0	10–120		
4					
5					
6	EQ Low Frequency	32Hz–2.0kHz	4–40	table#3	
7	EQ Low Gain	-12–+12dB	52–76		
8	EQ High Frequency	500Hz–16.0kHz	28–58	table#3	
9	EQ High Gain	-12–+12dB	52–76		
10	Dry/Wet	D63>W – D=W – D<W63	1–127		
11	Drive	0–127	0–127		
12	EQ Low Gain(distortion)	-12–+12dB	52–76		
13	EQ Mid Gain(distortion)	-12–+12dB	52–76		
14	LPF Cutoff	1.0kHz–thru	34–60	table#3	
15	Output Level	0–127	0–127		
16					

PITCH CHANGE 1 (variation block)

No.	Parameter		Value	See Table	Control
1	Pitch	-24–+24	40–88		
2	Initial Delay	0–127	0–127	table#7	
3	Fine 1	-50Hz–+50Hz	14–114		
4	Fine 2	-50Hz–+50Hz	14–114		
5	Feedback Level	-99–+99%	1–127		
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11	Pan 1	L63–R63	1–127		
12	Output Level 1	0–127	0–127		
13	Pan 2	L63–R63	1–127		
14	Output Level 2	0–127	0–127		
15					
16					

PITCH CHANGE 2 (variation block)

No.	Parameter		Value	See Table	Control
1	Pitch	-24–+24	40–88		
2	Initial Delay	0–127	0–127	table#7	
3	Fine 1	-50–+50cent	14–114		
4	Fine 2	-50–+50cent	14–114		
5	Feedback Level	-99–+99%	1–127		
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1–127		●
11	Pan 1	L63–R63	1–127		
12	Output Level 1	0–127	0–127		
13	Pan 2	L63–R63	1–127		
14	Output Level 2	0–127	0–127		
15					
16					

COMPRESSOR (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	Attack	1–40ms	0–19	table#8	
2	Release	10–680ms	0–15	table#9	
3	Threshold	-48–-6dB	79–121		
4	Ratio	1.0–20.0	0–7	table#10	
5	Output Level	0–127	0–127		
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

NOISE GATE (variation, insertion block)

No.	Parameter		Value	See Table	Control
1	Attack	1–40ms	0–19	table#8	
2	Release	10–680ms	0–15	table#9	
3	Threshold	-72–-30dB	55–97		
4	Output Level	0–127	0–127		
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

< Table 1-11 > Effect Data Value Assign Table

Table#1
LFO Frequency

Data	Value	Data	Value	Data	Value	Data	Value
0	0.00	32	1.35	64	2.69	96	8.41
1	0.04	33	1.39	65	2.78	97	8.75
2	0.08	34	1.43	66	2.86	98	9.08
3	0.13	35	1.47	67	2.94	99	9.42
4	0.17	36	1.51	68	3.03	100	9.76
5	0.21	37	1.56	69	3.11	101	10.1
6	0.25	38	1.60	70	3.20	102	10.8
7	0.29	39	1.64	71	3.28	103	11.4
8	0.34	40	1.68	72	3.37	104	12.1
9	0.38	41	1.72	73	3.45	105	12.8
10	0.42	42	1.77	74	3.53	106	13.5
11	0.46	43	1.81	75	3.62	107	14.1
12	0.51	44	1.85	76	3.70	108	14.8
13	0.55	45	1.89	77	3.87	109	15.5
14	0.59	46	1.94	78	4.04	110	16.2
15	0.63	47	1.98	79	4.21	111	16.8
16	0.67	48	2.02	80	4.37	112	17.5
17	0.72	49	2.06	81	4.54	113	18.2
18	0.76	50	2.10	82	4.71	114	19.5
19	0.80	51	2.15	83	4.88	115	20.9
20	0.84	52	2.19	84	5.05	116	22.2
21	0.88	53	2.23	85	5.22	117	23.6
22	0.93	54	2.27	86	5.38	118	24.9
23	0.97	55	2.31	87	5.55	119	26.2
24	1.01	56	2.36	88	5.72	120	27.6
25	1.05	57	2.40	89	6.06	121	28.9
26	1.09	58	2.44	90	6.39	122	30.3
27	1.14	59	2.48	91	6.73	123	31.6
28	1.18	60	2.52	92	7.07	124	33.0
29	1.22	61	2.57	93	7.40	125	34.3
30	1.26	62	2.61	94	7.74	126	37.0
31	1.30	63	2.65	95	8.08	127	39.7

Table#2
Modulation Delay Offset

Data	Value	Data	Value	Data	Value	Data	Value
0	0.0	32	3.2	64	6.4	96	9.6
1	0.1	33	3.3	65	6.5	97	9.7
2	0.2	34	3.4	66	6.6	98	9.8
3	0.3	35	3.5	67	6.7	99	9.9
4	0.4	36	3.6	68	6.8	100	10.0
5	0.5	37	3.7	69	6.9	101	11.1
6	0.6	38	3.8	70	7.0	102	12.2
7	0.7	39	3.9	71	7.1	103	13.3
8	0.8	40	4.0	72	7.2	104	14.4
9	0.9	41	4.1	73	7.3	105	15.5
10	1.0	42	4.2	74	7.4	106	17.1
11	1.1	43	4.3	75	7.5	107	18.6
12	1.2	44	4.4	76	7.6	108	20.2
13	1.3	45	4.5	77	7.7	109	21.8
14	1.4	46	4.6	78	7.8	110	23.3
15	1.5	47	4.7	79	7.9	111	24.9
16	1.6	48	4.8	80	8.0	112	26.5
17	1.7	49	4.9	81	8.1	113	28.0
18	1.8	50	5.0	82	8.2	114	29.6
19	1.9	51	5.1	83	8.3	115	31.2
20	2.0	52	5.2	84	8.4	116	32.8
21	2.1	53	5.3	85	8.5	117	34.3
22	2.2	54	5.4	86	8.6	118	35.9
23	2.3	55	5.5	87	8.7	119	37.5
24	2.4	56	5.6	88	8.8	120	39.0
25	2.5	57	5.7	89	8.9	121	40.6
26	2.6	58	5.8	90	9.0	122	42.2
27	2.7	59	5.9	91	9.1	123	43.7
28	2.8	60	6.0	92	9.2	124	45.3
29	2.9	61	6.1	93	9.3	125	46.9
30	3.0	62	6.2	94	9.4	126	48.4
31	3.1	63	6.3	95	9.5	127	50.0

Table#3
EQ Frequency

Data	Value	Data	Value
8	50	40	2.0k
9	56	41	2.2k
10	63	42	2.5k
11	70	43	2.8k
12	80	44	3.2k
13	90	45	3.6k
14	100	46	4.0k
15	110	47	4.5k
16	125	48	5.0k
17	140	49	5.6k
18	160	50	6.3k
19	180	51	7.0k
20	200	52	8.0k
21	225	53	9.0k
22	250	54	10.0k
23	280	55	11.0k
24	315	56	12.0k
25	355	57	14.0k
26	400	58	16.0k
27	450	59	18.0k
28	500	60	THRU(20.0k)
29	560		
30	630		
31	700		
32	800		
33	900		
34	1.0k		
35	1.1k		
36	1.2k		
37	1.4k		
38	1.6k		
39	1.8k		

Table#4
Reverb time

Data	Value	Data	Value	Data	Value
0	0.3	32	3.5	64	17.0
1	0.4	33	3.6	65	18.0
2	0.5	34	3.7	66	19.0
3	0.6	35	3.8	67	20.0
4	0.7	36	3.9	68	25.0
5	0.8	37	4.0	69	30.0
6	0.9	38	4.1		
7	1.0	39	4.2		
8	1.1	40	4.3		
9	1.2	41	4.4		
10	1.3	42	4.5		
11	1.4	43	4.6		
12	1.5	44	4.7		
13	1.6	45	4.8		
14	1.7	46	4.9		
15	1.8	47	5.0		
16	1.9	48	5.5		
17	2.0	49	6.0		
18	2.1	50	6.5		
19	2.2	51	7.0		
20	2.3	52	7.5		
21	2.4	53	8.0		
22	2.5	54	8.5		
23	2.6	55	9.0		
24	2.7	56	9.5		
25	2.8	57	10.0		
26	2.9	58	11.0		
27	3.0	59	12.0		
28	3.1	60	13.0		
29	3.2	61	14.0		
30	3.3	62	15.0		
31	3.4	63	16.0		

Table#5
Delay Time(200.0ms)

Data	Value	Data	Value	Data	Value	Data	Value
0	0.1	32	50.5	64	100.8	96	151.2
1	1.7	33	52.0	65	102.4	97	152.8
2	3.2	34	53.6	66	104.0	98	154.4
3	4.8	35	55.2	67	105.6	99	155.9
4	6.4	36	56.8	68	107.1	100	157.5
5	8.0	37	58.3	69	108.7	101	159.1
6	9.5	38	59.9	70	110.3	102	160.6
7	11.1	39	61.5	71	111.9	103	162.2
8	12.7	40	63.1	72	113.4	104	163.8
9	14.3	41	64.6	73	115.0	105	165.4
10	15.8	42	66.2	74	116.6	106	166.9
11	17.4	43	67.8	75	118.2	107	168.5
12	19.0	44	69.4	76	119.7	108	170.1
13	20.6	45	70.9	77	121.3	109	171.7
14	22.1	46	72.5	78	122.9	110	173.2
15	23.7	47	74.1	79	124.4	111	174.8
16	25.3	48	75.7	80	126.0	112	176.4
17	26.9	49	77.2	81	127.6	113	178.0
18	28.4	50	78.8	82	129.2	114	179.5
19	30.0	51	80.4	83	130.7	115	181.1
20	31.6	52	81.9	84	132.3	116	182.7
21	33.2	53	83.5	85	133.9	117	184.3
22	34.7	54	85.1	86	135.5	118	185.8
23	36.3	55	86.7	87	137.0	119	187.4
24	37.9	56	88.2	88	138.6	120	189.0
25	39.5	57	89.8	89	140.2	121	190.6
26	41.0	58	91.4	90	141.8	122	192.1
27	42.6	59	93.0	91	143.3	123	193.7
28	44.2	60	94.5	92	144.9	124	195.3
29	45.7	61	96.1	93	146.5	125	196.9
30	47.3	62	97.7	94	148.1	126	198.4
31	48.9	63	99.3	95	149.6	127	200.0

Table#6
Room Size

Data	Value	Data	Value
0	0.1	32	5.1
1	0.3	33	5.3
2	0.4	34	5.4
3	0.6	35	5.6
4	0.7	36	5.7
5	0.9	37	5.9
6	1.0	38	6.1
7	1.2	39	6.2
8	1.4	40	6.4
9	1.5	41	6.5
10	1.7	42	6.7
11	1.8	43	6.8
12	2.0	44	7.0
13	2.1		
14	2.3		
15	2.5		
16	2.6		
17	2.8		
18	2.9		
19	3.1		
20	3.2		
21	3.4		
22	3.5		
23	3.7		
24	3.9		
25	4.0		
26	4.2		
27	4.3		
28	4.5		
29	4.6		
30	4.8		
31	5.0		

Table#7
Delay Time(400.0ms)

Data	Value	Data	Value	Data	Value	Data	Value
0	0.1	32	100.9	64	201.6	96	302.4
1	3.2	33	104.0	65	204.8	97	305.5
2	6.4	34	107.2	66	207.9	98	308.7
3	9.5	35	110.3	67	211.1	99	311.8
4	12.7	36	113.5	68	214.2	100	315.0
5	15.8	37	116.6	69	217.4	101	318.1
6	19.0	38	119.8	70	220.5	102	321.3
7	22.1	39	122.9	71	223.7	103	324.4
8	25.3	40	126.1	72	226.8	104	327.6
9	28.4	41	129.2	73	230.0	105	330.7
10	31.6	42	132.4	74	233.1	106	333.9
11	34.7	43	135.5	75	236.3	107	337.0
12	37.9	44	138.6	76	239.4	108	340.2
13	41.0	45	141.8	77	242.6	109	343.3
14	44.2	46	144.9	78	245.7	110	346.5
15	47.3	47	148.1	79	248.9	111	349.6
16	50.5	48	151.2	80	252.0	112	352.8
17	53.6	49	154.4	81	255.2	113	355.9
18	56.8	50	157.5	82	258.3	114	359.1
19	59.9	51	160.7	83	261.5	115	362.2
20	63.1	52	163.8	84	264.6	116	365.4
21	66.2	53	167.0	85	267.7	117	368.5
22	69.4	54	170.1	86	270.9	118	371.7
23	72.5	55	173.3	87	274.0	119	374.8
24	75.7	56	176.4	88	277.2	120	378.0
25	78.8	57	179.6	89	280.3	121	381.1
26	82.0	58	182.7	90	283.5	122	384.3
27	85.1	59	185.9	91	286.6	123	387.4
28	88.3	60	189.0	92	289.8	124	390.6
29	91.4	61	192.2	93	292.9	125	393.7
30	94.6	62	195.3	94	296.1	126	396.9
31	97.7	63	198.5	95	299.2	127	400.0

Table#8
Compressor Attack Time

Data	Value
0	1
1	2
2	3
3	4
4	5
5	6
6	7
7	8
8	9
9	10
10	12
11	14
12	16
13	18
14	20
15	23
16	26
17	30
18	35
19	40

Table#9
Compressor Release Time

Data	Value
0	10
1	15
2	25
3	35
4	45
5	55
6	65
7	75
8	85
9	100
10	115
11	140
12	170
13	230
14	340
15	680

Table#10
Compressor Ratio

Data	Value
0	1.0
1	1.5
2	2.0
3	3.0
4	5.0
5	7.0
6	10.0
7	20.0

Table#11
Reverb Width;Depth;Height

Data	Value	Data	Value	Data	Value	Data	Value
0	0.5	32	8.8	64	17.6	96	27.5
1	0.8	33	9.1	65	17.9	98	28.1
2	1.0	34	9.4	66	18.2	99	28.5
3	1.3	35	9.6	67	18.5	100	28.8
4	1.5	36	9.9	68	18.8	101	29.2
5	1.8	37	10.2	69	19.1	102	29.5
6	2.0	38	10.4	70	19.4	103	29.9
7	2.3	39	10.7	71	19.7	104	30.2
8	2.6	40	11.0	72	20.0		
9	2.8	41	11.2	73	20.2		
10	3.1	42	11.5	74	20.5		
11	3.3	43	11.8	75	20.8		
12	3.6	44	12.1	76	21.1		
13	3.9	45	12.3	77	21.4		
14	4.1	46	12.6	78	21.7		
15	4.4	47	12.9	79	22.0		
16	4.6	48	13.1	80	22.4		
17	4.9	49	13.4	81	22.7		
18	5.2	50	13.7	82	23.0		
19	5.4	51	14.0	83	23.3		
20	5.7	52	14.2	84	23.6		
21	5.9	53	14.5	85	23.9		
22	6.2	54	14.8	86	24.2		
23	6.5	55	15.1	87	24.5		
24	6.7	56	15.4	88	24.9		
25	7.0	57	15.6	89	25.2		
26	7.2	58	15.9	90	25.5		
27	7.5	59	16.2	91	25.8		
28	7.8	60	16.5	92	26.1		
29	8.0	61	16.8	93	26.5		
30	8.3	62	17.1	94	26.8		
31	8.6	63	17.3	95	27.1		

■ MIDI IMPLEMENTATION CHART

[Portable Keyboard]
Model: PSR-630

MIDI Implementation Chart

Date: 14-APR-1997
Version: 1.0

Function	Transmitted	Recognized	Remarks
Basic Default	1~16 *1	1~16 *2	
Channel Changed	1~16 *1	1~16 *2	
Default	3	3	
Mode 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 key's	X	X	
Touch Ch's	X	O	
Pitch Bender	O	O	
Control Change 0, 32	O	O	Bank Select
1	X *3	O	Modulation
5	X	O	Portamento Time
7, 10, 11	O	O	
6, 38	O	O	Data Entry
64~67	O	O	
71, 74	O	O	Sound Controller
72, 73	X *3	O	Sound Controller
84	X *3	O	Portamento Controllers
91, 93, 94	O	O	Effect Depth
96~97	X	O	RPN Inc, Dec
98~99	X *3	O	NRPN LSB, MSB
100~101	O	O	RPN LSB, MSB
120	X	O	All Sound Off
121	X	O	Reset All Controllers
Program Change : True #	O 0~127 **********	O 0~127	
System Exclusive	O	O	
System : Song Position	X	X	
: Song Select	X	X	
Common : Tune	X	X	
System : Clock	O	O	
Real Time : Commands	O	O	
Aux : Local ON/OFF	X	X	
: All Notes OFF	X	O (123~127)	
Messages : Active Sense	O	O	
: Reset	X	X	

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

*1 The tracks for each channel can be selected on the panel.

*2 Incoming MIDI messages control the PSR-630 as 16 channel multi timbral tone generator when initially shipped (factory set). The MIDI messages don't affect the panel controls including the Panel Voice selection since they are directly sent to the tone generator of the PSR-630. However, the following MIDI messages affects the panel controls such as Panel Voice, Style, Multi Pad and Song settings:

- MIDI MASTER TUNE, MASTER TUNE (XG System Parameter).
- TRANSPOSE (XG System Parameter).
- System Exclusive Messages related to the REVERB, CHORUS and DSP EFFECT settings.

Also, the MIDI messages affect the panel settings when one of the folowing MIDI reception modes is selected.
These modes can be selected on the panel.

Remote : The Note On/Off messages received at the designated Remote (receive) channel are processed the same as the notes normally played on the keyboard.

In this mode, only the following channel messages will be recognized:
- Note On/Off
- Control Changes
  - Bank Select (R1 voice only)
  - Modulation
  - Volume
  - Expression
  - Sustain
  - Sostenute
  - Soft Pedal
  - All Notes Off
- Program Change (R1 voice only)
- Pitch Bend

Off : The MIDI channel messages will not be received at the designated channel.

Bass : The note on/off messages received at the channel(s) set to "Bass" are recognized as the bass notes in the accompaniment section. The bass notes will be detected regardless of the accompaniment on/off and split point settings on the PSR-630 panel.

Chord : The note on/off messages received at the channel(s) set to "Chord" are recognized as the fingerings in the accompaniment section. The chords to be detected depend on the fingering mode on the PSR-630. The chords will be detected regardless of the accompaniment on/off and split point settings on the PSR-630 panel.

*3 Though these messages will not output by playing the keyboard and changing the panel settings, they may be included in the Song or Style data and output.

*1 R1、R2、L、ハーモニー、スタイル、ソングの各トラックはパネル設定により送信できます。

*2 初期設定(工場出荷時)でMIDI入力は16チャンネルのマルチティンバー音源として機能し、パネル音色、あるいは他のパネル設定に影響しません。
ただし、以下のMIDIメッセージはパネル音色、スタイル、マルチパッドおよびソングセッティングに影響します。

- MIDI マスターチューン、XG システムマスターチューン
- XG システムトランスポーズ
- リバーブ、コーラスおよびDSPエフェクト設定を変更するシステムエクスクルーシブメッセージ

また、以下のMIDI受信モード設定においても鍵盤演奏、パネル設定に影響します。これらのモードはパネル操作によって選択することができます。

Remote(リモート) : Remoteに設定されたチャンネルで受信したノートオン/オフメッセージは、鍵盤演奏と同じ方法で扱われます。

以下のチャンネルメッセージだけがこのモードにおいて認識されます:
- ノートオン/オフ
- コントロールチェンジ
  - バンクセレクト(R1のみ)
  - モジュレーション
  - ボリューム
  - エクスプレッション
  - サステイン
  - ソステヌート
  - ソフトペダル
  - オールノートオフ
- プログラムチェンジ(R1のみ)
- ピッチベンド

Bass(ベース) : Bassに設定されたチャンネルで受信したノートオン/オフメッセージは、アカンパニメント鍵域のベース音として認識されます。ベース音はPSR-630パネル上の アカンパニメントオン/オフ、フィンガリングモード、アカンパニメントのスプリットポイントに関係なく検出されます。

Chord(コード) : Chordに設定されたチャンネルで受信したノートオン/オフメッセージは、アカンパニメント鍵域での押鍵として認識されます。検出されるコードはPSR-630のフィンガリングモードに依存します。コードはPSR-630パネル上のアカンパニメントオン/オフ、アカンパニメントのスプリットポイントに関係なく検出されます。

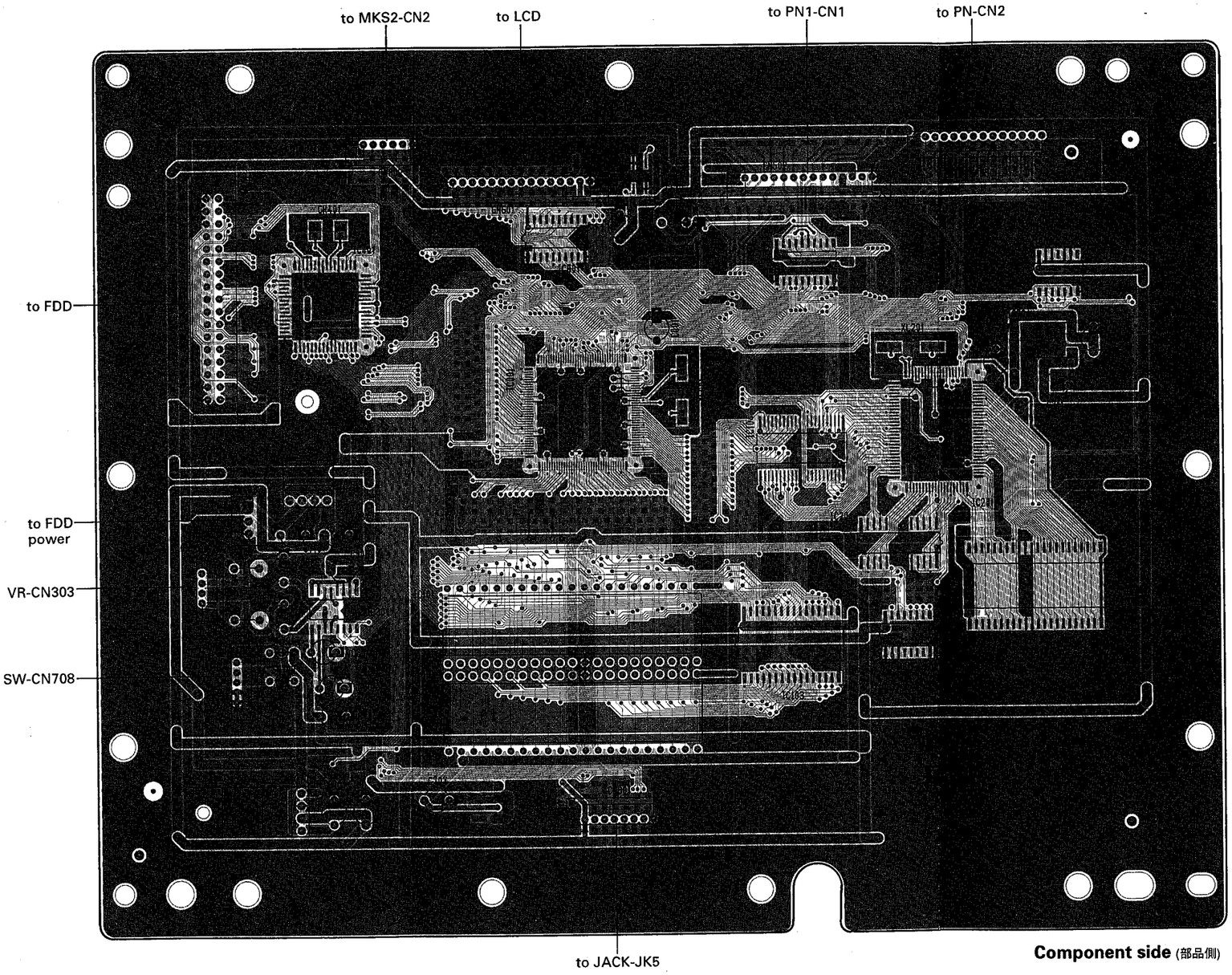
Off(オフ) : Offに設定されたチャンネルにおいてチャンネルメッセージは一切受信しません。

*3 これらのメッセージは鍵盤、パネル操作では出力されませんが、ソング、スタイルデータとして出力される場合があります。

PSR-630

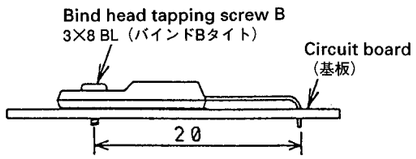
■ CIRCUIT BOARDS (シート基板図)

• DM Circuit Board (DMシート)



Component side (部品側)

•IC701, IC703 installing
(IC701, IC703の取付け)



Notes)

Circuit Board: DM (VV860700) XT154C0

1. IC

IC1:	HD6437043E00F (XS936A00) CPU
IC2:	IC-PST591DMT (XP226A00) RESET
IC101:	KM23C16000C-KF63 (XT324100) ROM 16M
IC102:	KM23C16000B-KF63 (XT325100) ROM 16M
IC103:	HM628128BLFP-7SL (XM901B00) or M5M51008BFP-70LL (XS681A00) SRAM 1M
IC104:	M5M44260CTP-7 (XS438A00) or UPD424260G5-70 (XT776A00) DRAM 4M
IC105:	TC74HC139AF-TP1 (XE462A00) DECODER
IC201:	TC203C060AF-001 (XS724A00) SWP00M
IC202:	(XT615A00) ROM 32M(WAVE)
IC204:	MB81C4256A-70PJ (XS374A00) or LH64256CK-70 (XS915A00) DRAM 1M
IC301:	UPD63200GS (XM145A00) or UPD63200GS-E1(XP867A00) DA CONVERTER
IC401:	HD63266F (XI939A00) FDC
IC501,601:	SN74HC374ANSR (XQ042A00) D-FF
IC502:	HD74AC32FPEL (XK452A00) OR
IC701,703:	PQ05RF1 (XI124A00) REGULATOR +5V
IC702:	S-81250SGUP-DQD- (XT170A00) REGULATOR +5V
IC704:	UPC2933T (XS516A00) REGULATOR +3.3V

2. Digital Transistor

TR 501,502:	DTC123JKA TP (VY677600)
TR 503-507:	DTB123YK TP (VY677700)

3. Diode

D 701:	MA221 (VB493900)

4. Mylar Capacitor

C 308,309:	0.0470 50V J (UA654470)

5. Monolithic Ceramic Cap.

C 2,3,9,101-105, 202-206,209, 211,301,302, 401,512,524-527,601-603, 605,702,705, 706,709,712, 714:801-803, 811,813:	F 0.010 50V Z (UB044100)
C 4,5:	SL 27P 50V J (UB051270)
C 6,501-510:	B 470P 50V K (UB012470)
C 8,606-617:	SL 100P 50V J (UB052100)
C 207,208,402, 403:	SL 10P 50V D (UB051100)
C 511,514-523, 804-809:	B 470P 50V K (UB012470)
C 810,812,814, 815:	B 100P 50V K (UB052170)

6. Electrolytic Cap.

C 1,201,303,604, 703,707,710, 713:	100.00 10.0V (UJ828100)
C 304,305:	47.00 10.0V (UJ827470)
C 306,307:	1.00 50.0V (UJ866100)
C 513:	1000 6.3V (UJ819100)
C 701,704,708, 711:	10.00 50.0V (UJ867100)

PSR-630

7. Coil

SN 702:	SNT-D20TF (VN381200)

8. Chip Inductance

L 701:	56U LEM2520 T 56 (VR243700)
FB 301,303,401-406,807-812:	BLM21B751S 2125 (VS740100)

9. Carbon Resistor (chip)

FB 802-806	0.0 0.0 J (RD250000)
R 1,202:	680.0 0.1 J (RD255680)
R 2:	3.3K 0.1 J (RD256330)
R 3:	1.5K 0.1 J (RD256150)
R 4-6,25,26-32:	100.0 0.1 J (RD255100)
R 7-17:	47.0K 0.1 J (RD257470)
R 18-21,85,102,401,402,415,503,504:	47.0K 0.1 J (RD257470)
R 22,23,416,522,801,802,804:	10.0K 0.1 J (RD257100)
R 24,604-613:	220.0 0.1 J (RD255220)
R 33-43:	100.0 0.1 J (RD255100)
R 44-54:	100.0 0.1 J (RD255100)
R 55-65:	100.0 0.1 J (RD255100)
R 66-76:	100.0 0.1 J (RD255100)
R 77-84,105-107:	100.0 0.1 J (RD255100)
R 108,501,502:	100.0 0.1 J (RD255100)
R 201:	1.0M 0.1 J (RD259100)
R 301,302:	180.0 0.1 J (RD255180)
R 403,405,410-412,414,525,526:	1.0K 0.1 J (RD256100)
R 404,406-409,413:	330.0 0.1 J (RD255330)
R 505-511,514-517:	47.0K 0.1 J (RD257470)
R 512,513:	22.0 0.1 J (RD254220)
R 518-521,809:	47.0K 0.1 J (RD257470)
R 603:	0.0 0.0 J (RD250000)
R 614,615:	220.0 0.1 J (RD255220)
R 701:	39.0K 0.1 J (RD257390)
R 702:	22.0K 0.1 J (RD257220)
R 803:	470.0K 0.1 J (RD258470)
R 806-808:	100.0K 0.1 J (RD258100)

10. Quartz Crystal Unit

XL 1:	7M SMD-49 (VV762900)
XL 201:	33.8688M SMD-49 (VT685200)

11. Ceramic Resonator

CR 401:	16M CSACS16.00MX (VQ274900)

12. Base Post Connector

CN 402:	XH 3P (LB918030) to FDD power

13. Connector

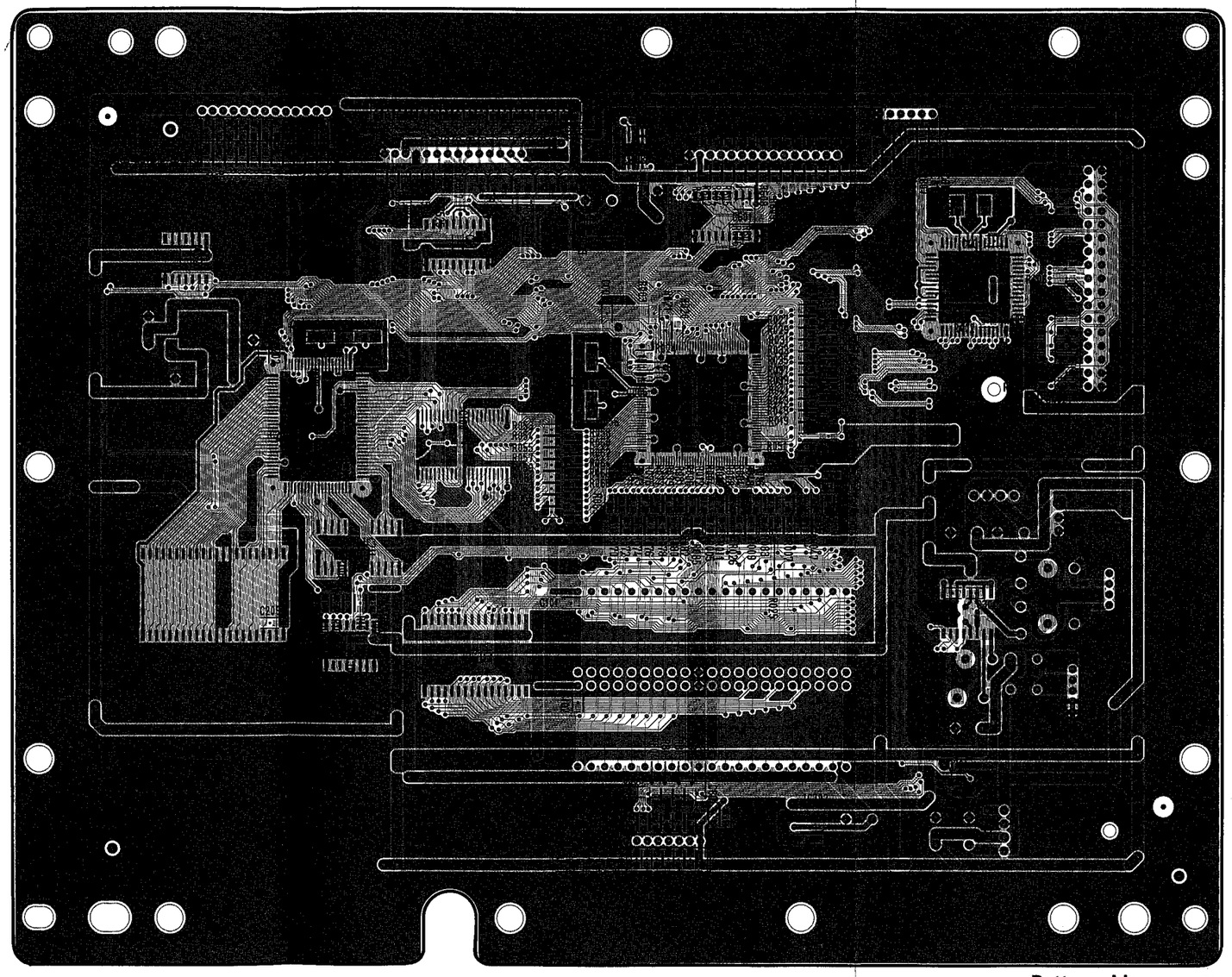
CN 401:	34P (VQ391300) to FDD
CN 601:	52147 15P (VF667600) to LCD
CN 802:	52147 6P (VF728300) to MKS2-CN1

14. Wire Trap

CN 301:	52147 4P (VK024800) to VR(AM2/4)-CN303
CN 501:	52147 13P (VK025700) to PN1(PN1/8)-CN2
CN 502:	52147 14P (VK025800) to PN1(PN1/8)-CN1
CN 701:	52147 5P (VK024900) to SW(AM4/4)-CN708
CN 801:	52147 8P (VK025200) to JACK-JK5

15. Bind Head Screw

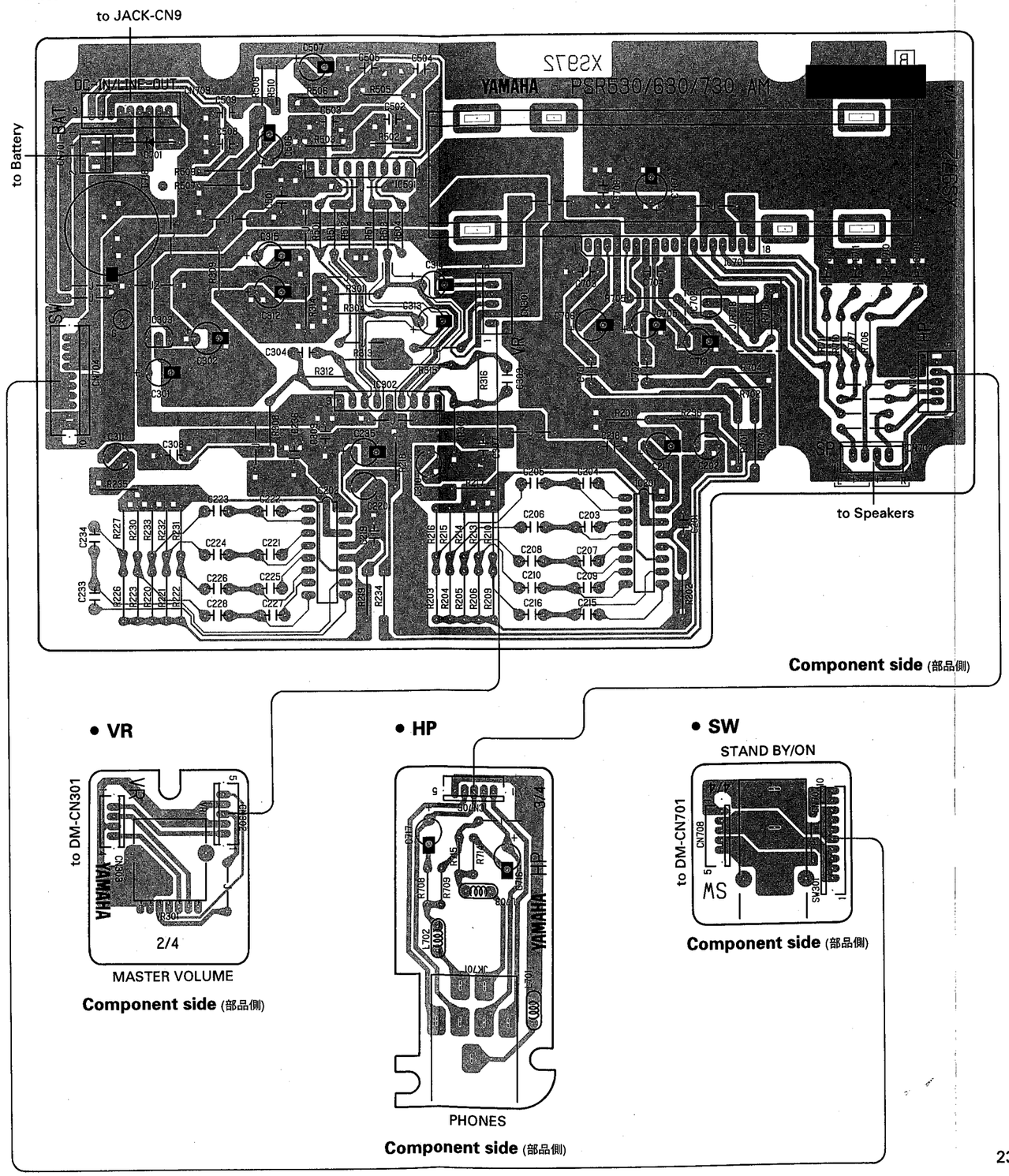
	3.0X8 MFZN2BL (EP600190)



Pattern side (パターン側)

• AM Circuit Board (AMシート)

• AM



• VR

Component side (部品側)

• HP

Component side (部品側)

• SW

Component side (部品側)

Notes)

Circuit Board: AM (AM1/4) (NX007870) XS972B0
VR (AM2/4) (NX007880) XS972B0
HP (AM3/4) (NX007890) XS972B0
VR (AM4/4) (NX007900) XS972B0

1. IC
IC201,202: M5227P (XF751A00) EQUALIZER
IC302,501: UPC4570HA (XB247A00) OP AMP
IC303: AN77L09-TA (XT676A00) REGULATOR +9V
IC701: LA4705NA (XQ619A00) 17W BTL

2. Diode
D 701: 20E1-FC4 (VL723600) or LT2A02-E (VY717100)

3. Mylar Capacitor
C 207,225: 0.0680 50V J (UA654680)
C 209,227,307, 308: 0.0100 50V J (UA654100)
C 210,228: 0.0560 50V J (UA654560)
C 216,234: 0.0180 50V J (UA654180)
C 709-712: 0.0470 50V J (UA654470)

4. Monolithic Mylar Capacitor
C 203,221: ECQ-V1H124JL3 (VR168400)
C 204,222: ECQ-V1H564JL3 (VR169300)
C 205,223: ECQ-V1H105JL3 (VU838100)
C 206,224: ECQ-V1H684JL3 (VR169400)
C 208,226: ECQ-V1H274JL3 (VR168900)
C 502,504: ECQ-V1H104JL3 (VR168300)

5. Ceramic Capacitor-B
C 201,219: 1500P 50V K (FG613150)
C 508,509: 5600P 50V K (FG613560)
C 703,704: 470P 50V K (FG612470)

6. Ceramic Capacitor-SL
C 215,233: 100P 50V J (FG652100)
C 503,505: 22P 50V J (FG651220)

7. Monolithic Ceramic Cap.
C 701,702: 1.000 25V Z (VT757800)

8. Electrolytic Cap.
C 217,235,315, 716,717: 47.00 16.0V (UJ837470)
C 301: 100.00 16.0V (UJ838100)
C 302,707: 100.00 25.0V (UJ848100)
C 312-314: 10.00 16.0V (UJ837100)
C 506,507: 1.00 50.0V (UJ866100)
C 705: 33.00 10.0V (UJ827330)
C 706: 100.00 10.0V (UJ828100)
C 713: 0.47 50.0V (UJ865470)
C 718: 6800 25.0V (VT848900)

9. Electrolytic Cap.-BP
C 202,220: 3.30 50.0V (UN866330)
C 310,311: 10.00 16.0V (UN837100)

10. Semiconductive Cera. Cap.
C 218,236,306, 309,501,708: 0.1000 25V Z (VC694800)

11. Coil
L 701-703: FL5R200QNT (VB835000)

12. Carbon Resistor
R 201,218,313, 315,705: 10.0K 1/4 J (HF757100)
R 202,219: 3.3K 1/4 J (HF756330)
R 203,205,210, 220,222,227: 22.0K 1/4 J (HF757220)
R 204,221: 2.7K 1/4 J (HF756270)
R 206,215,223, 232: 18.0K 1/4 J (HF757180)
R 209,213,226, 230: 1.0K 1/4 J (HF756100)
R 214,231,509, 510: 680.0 1/4 J (HF755680)
R 217,235,702, 704: 4.7K 1/4 J (HF756470)
R 234,236: 560.0 1/4 J (HF755560)
R 301,304,503, 506-508: 100.0K 1/4 J (HF758100)
R 307,308: 150.0 1/4 J (HF755150)
R 309,314: 2.2K 1/4 J (HF756220)
R 312,316,511, 513: 47.0K 1/4 J (HF757470)
R 501,504: 12.0K 1/4 J (HF757120)
R 502,505,701, 703: 27.0K 1/4 J (HF757270)
R 512,514: 470.0K 1/4 J (HF758470)
R 706,707,710, 711: 2.2 1/4 J (HF753220)
R 708,714: 100.0 1/4 J (HF755100)
R 709,715: 330.0 1/4 J (HF755330)

13. Rotary Variable Resistor
VR 301: A10.0K XV0141GPV (VZ048400) MASTER VOLUME

14. Push Switch
SW301: SDDLB1 J,UC,CEE (VY980400) STAND BY/ON (Power Switch)

15. Phone Jack
JK 701: YKB21-50 (LB101870) or HTJ064-0 (VV943300) PHONES

16. Base Post Connector
CN 701: XH 2P (LB918020) to BATTERIES
CN 702: XH 4P (LB918040) to SPEAKERS

17. Connector
CN 704: 5214 10P (VF728200) to SW(AM4/4)-CN707

18. Cable Holder
CN 302,708: 51048 5P (VI878300) CN302: to AM(AM1/4)-CN301 CN708: to DM-CN701
CN 303: 51048 4P (VI878200) to DM-CN301
CN 707: 51048 10P (VI878800) to AM(AM1/4)-CN704

19. wire Trap
CN 301,705,706: 52147 5P (VK024900) CN301: to VR(AM2/4)-CN302 CN705: to HP(AM3/4)-CN706 CN706: to AM(AM1/4)-CN705
CN 709: 52147 9P (VK025300) to JACK-JK9

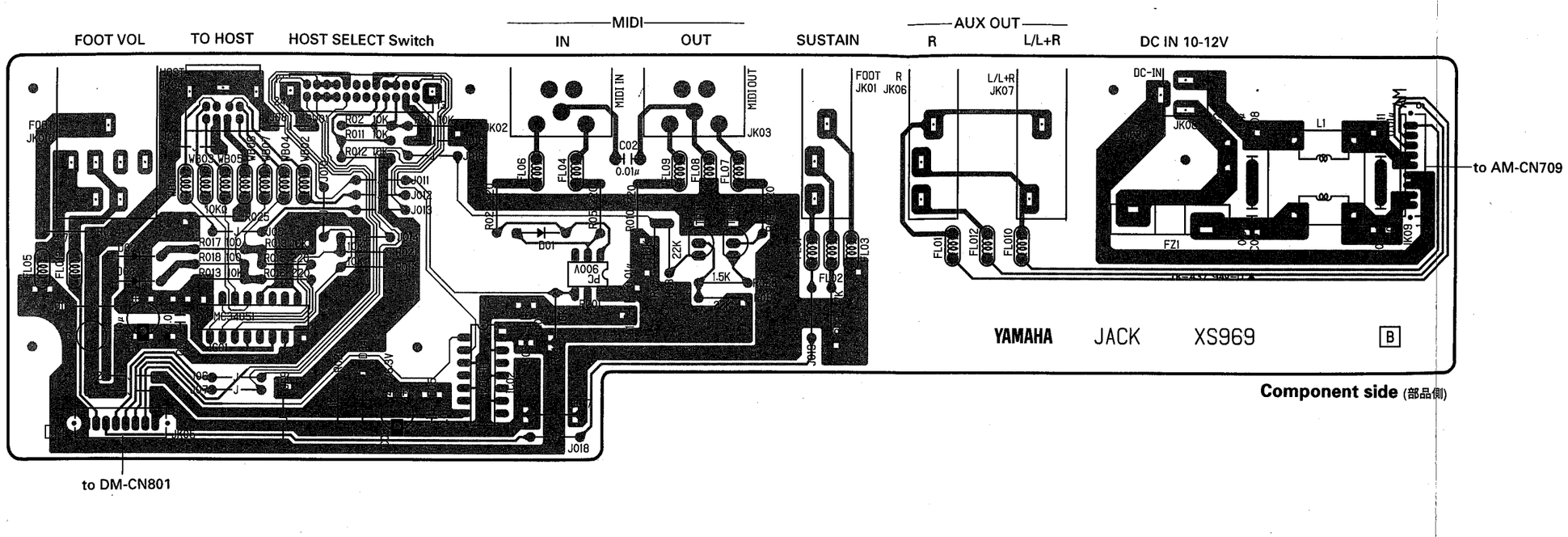
20. Heat Sink
HS 1: (VV856400)

21. Jumper Wire
0.55 (--)

22. Bind Head Tapping Screw-B
3.0X8 MFZN2BL (EP600190)

PSR-630

• JACK Circuit Board (JACKシート)



Notes)

Circuit Board: JACK (VY842800) XS969B0

1. IC
- IC1: MC34051P (XP094A00) LINE TRANSCEIVE
- IC2: SN74HCU04N (IG142250) INVERTER

2. Transistor
- TR 1,2: 2SC1740S R,S (IC174070)

3. Diode
- D 1-4: 1SS133,1SS176 (VB941200)

4. Photo Coupler
- PC 1: PC-900V (VG181900)

5. Ceramic Capacitor-F
- C 1-3,5,7-11: 0.0100 50V Z (FG644100)

6. Electrolytic Cap.
- C 4: 10.00 16.0V (UJ837100)
- C 6: 47.00 6.3V (UJ817470)

7. Line Filter
- L 1: SU10VD-20020 (VI486800)

8. Coil
- FL 1-13: FL5R200QNT (VB835000) or SBT-0260TF (VF968800)

9. Ferrite Bead
- WB1-7: BL02RN2-R62T4 (GE300670)

10. Carbon Resistor
- R 17,18: 100.0 1/4 J (HF755100)
- R 5,9,10,15,16, 22: 220.0 1/4 J (HF755220)
- R 20: 1.0K 1/4 J (HF756100)
- R 23: 1.5K 1/4 J (HF756150)
- R 24: 4.7K 1/4 J (HF756470)
- R 1,2,4,7,11-14, 19,21,25: 10.0K 1/4 J (HF757100)
- R 6,8: 22.0K 1/4 J (HF757220)
- R 3: 47.0K 1/4 J (HF757470)

11. Slide Switch
- SW1: SSSF144-S06N-0 (VQ665200)

12. Fuse
- 5.00A S (KB003240)

13. Phone Jack
- JK 1: YKB21-50 (VB312600) or JY6314-01-1 (VV943400) SUSTAIN
- JK 6: YKB21-50 (VB312600) or JY6314-01-1 (VV943400) AUX OUT R
- JK 7: YKB21-50 (VC687500) AUX OUT L/L+R
- JK 10: YKB21-50 (LB101870) or HTJ064-0 (VV943300) FOOT VOL

14. Connector
- JK 8: HEC23 (VC664500) DC IN

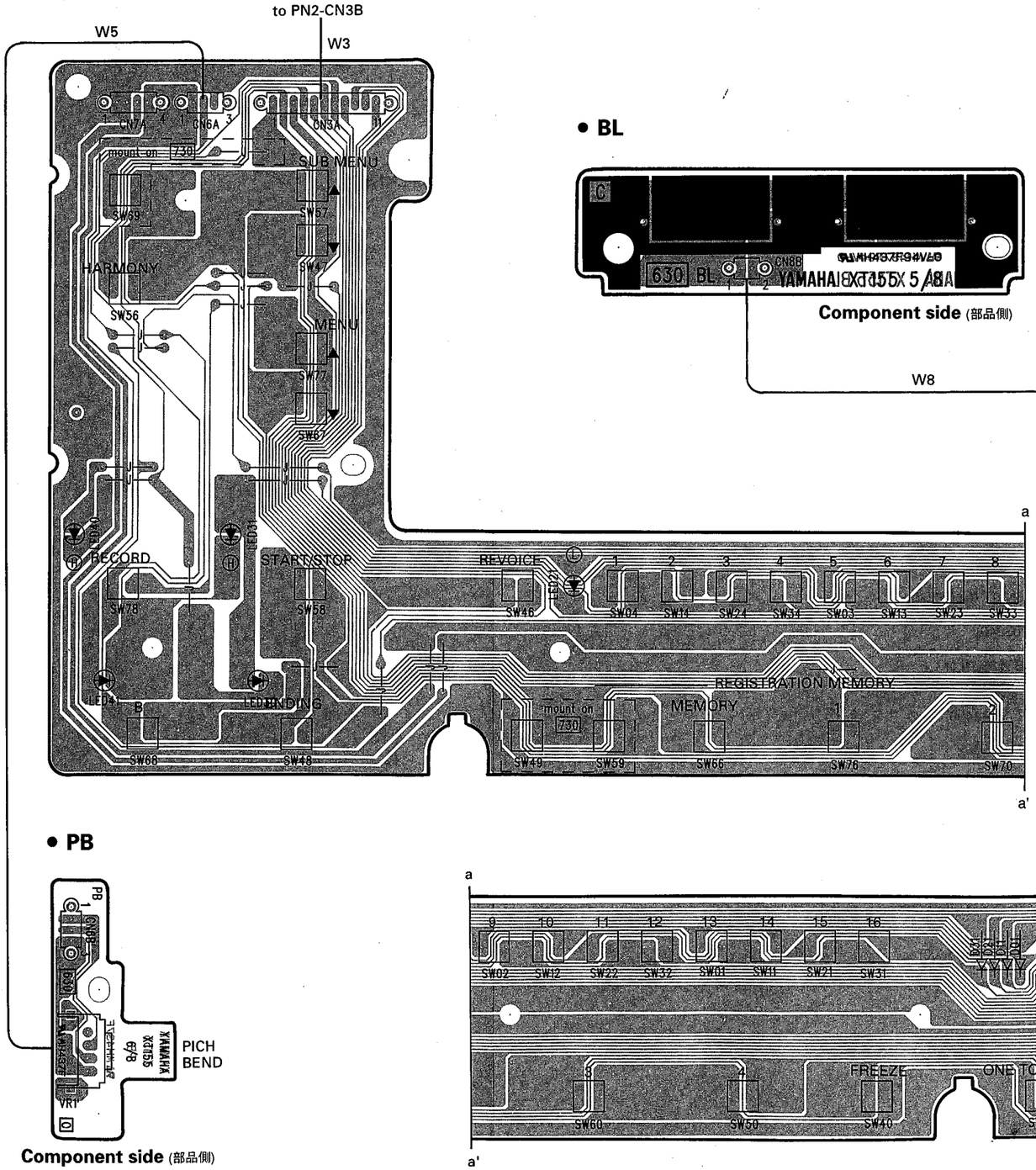
15. DIN Connector
- JK 2: 5P YKF51-50 (VJ107200) MIDI IN
- JK 3: 5P YKF51-50 (VJ107200) MIDI OUT
- JK 4: DIN 8P MD-S8 (VM761000) TO HOST

16. Cable Holder
- JK 5: 51048 8P (VI878600) to DM-CN801
- JK 9: 51048 9P (VI878700) to AM(AM1/4)-CN107

17. Fuse Holder
- EYF-52B (VP206500)

18. Jack Connector Assembly
- JACK (--)

• PN Circuit Board (PNシート)
• PN1



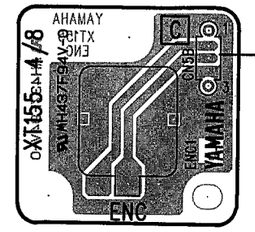
• BL

Component side (部品側)

• PB

Component side (部品側)

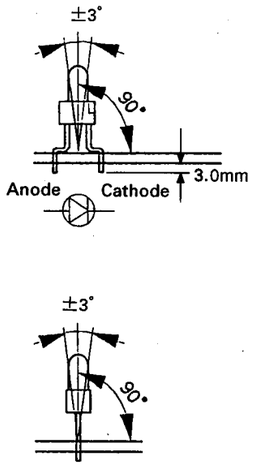
• ENC

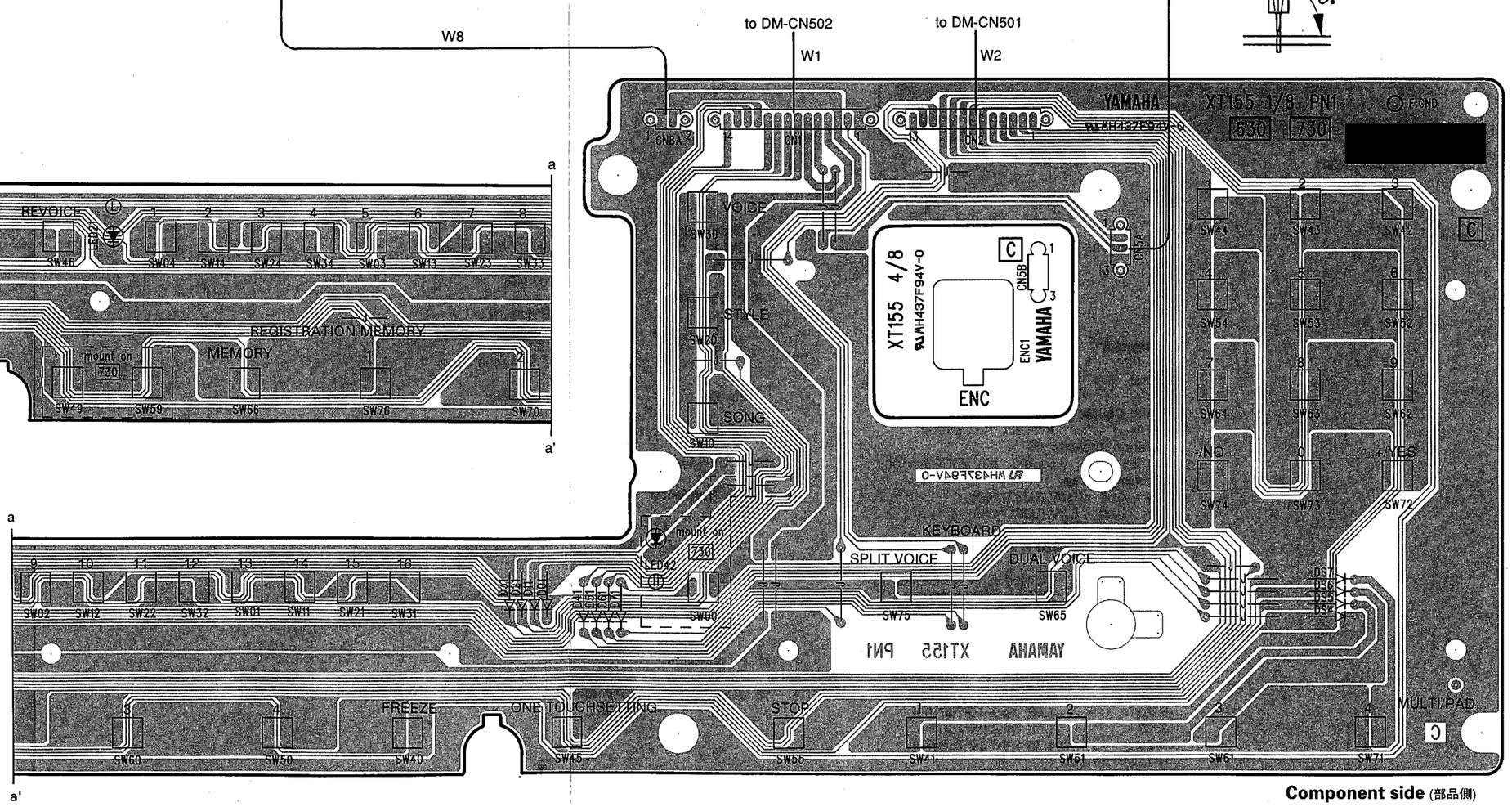


Component side (部品側)

W7

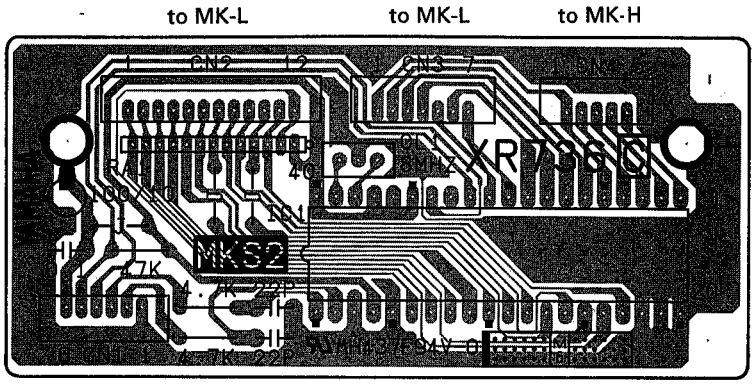
•LED installing





Component side (部品側)

• MKS2 Circuit Board (MKS2シート)

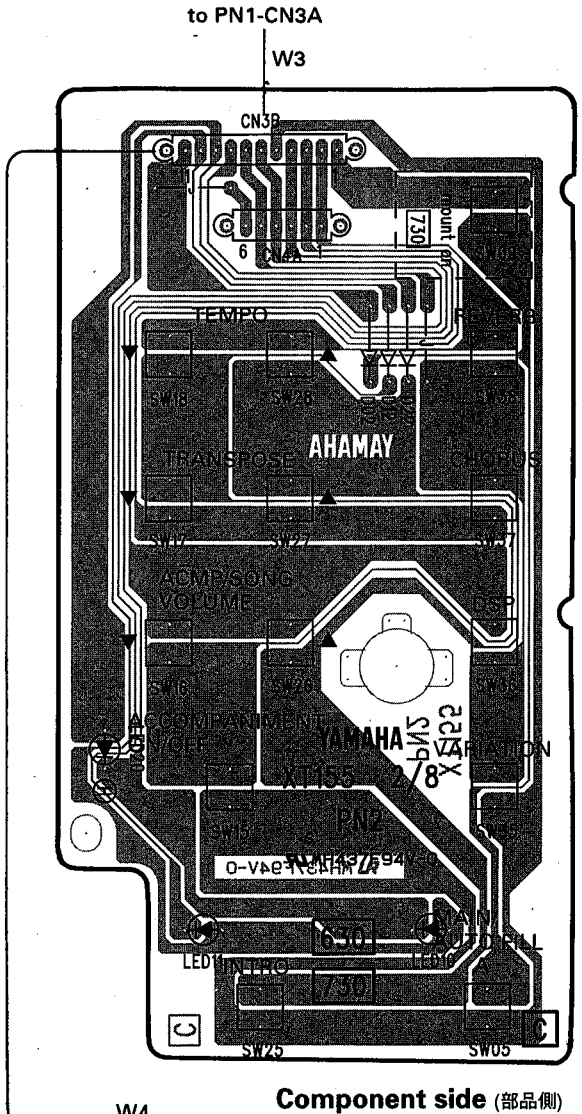


Notes)

Circuit Board: MKS2 16M (VU494600) XR736C0 or XS892A0

1. **IC**
   IC1: HD63B05V0F07P (XR951A00) CPU
2. **Ceramic Capacitor-SL**
   C 1,2: 22P 50V J (FG651220)
3. **Semiconductive Cera. Cap.**
   C 4: 0.1000 25V M (VD930900)
4. **Electrolytic Cap.**
   C 3: 100.00 10.0V (UJ828100)
5. **Carbon Resistor**
   R 1,2: 4.7K 1/4 J (HF456470)
   R 3: 47.0K 1/4 J (HF457470)
6. **Resistor Array**
   RA 1: RGLE12X473J (VH373200)
7. **Ceramic Resonator**
   CL 1: CST8.00MTW140 (VN002100) or 8.00M EFOEC8004 (VQ305500)
8. **Connector**
   CN 1: 52147 6P (VF728300) to DM-CN802
9. **Wire Trap**
   CN 2: 52147 12P (VK025600) to MK-L
   CN 3: 52147 7P (VK025100) to MK-L
   CN 4: 52147 5P (VK024900) to MK-H
10. **Jumper Wire**
    0.55 (--)

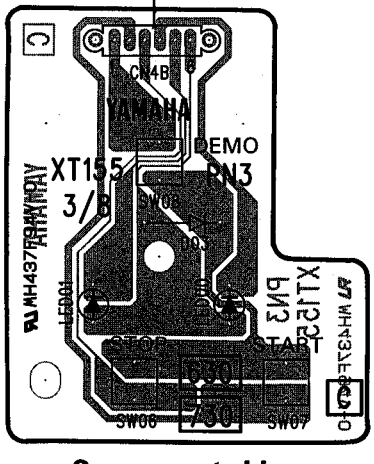
• PN2



Component side (部品側)

W4

• PN3



Component side (部品側)

Notes)

Circuit Board: PN2 (PN2/8) (NX007810) XT155C0
PN3 (PN3/8) (NX007820) XT155C0
ENC (PN4/8) (NX007830) XT155C0
PN1 (PN1/8) (NX007910) XT155C0
BL (PN5/8) (NX007920) XT155C0
PB (PN6/8) (NX007930) XT155C0

1. Diode
D 1-3,11,12,21, 22,31,41,51,61, 71,S1-S4: 1SS133,1SS176 (VB941200)

2. LED
LED 21: SLZ-190B-01 RE (VC341300) REVOICE
LED 20,31,40: SLZ-190B-11-T1 R (VI100100)
LED20:ACCOMPANIMENT ON/OFF
LED31:START/STOP
LED40:RECORD
LED 00,01,10,11, 30,41: SLZ-190B-02-T1 R (VT940900)
LED00:SYNC-START
LED01:SYNC-STOP
LED10:MAIN/AUTO FILL A
LED11:INTRO
LED30:ENDING
LED41:MAIN/AUTO FILL B

3. Lamp
0.5W T4.2C-8 5.5 (VY719300)

4. Rotary Variable Resistor
VR 1: B10K EVJ05DF25B1 (VT432100) PITCH BEND

5. Encoder
ENC 1: REB161 PVB 15F (VU481300) Dial

6. Light Touch Switch
SW 01-08,10-18, 20-28,30-38, 40-48,50-58, 60-68,70-78: EVQ 22C 05B (VT513600)

7. Cable Holder
CN 1: 51048 14P (VI879200) to DM-CN502
CN 2: 51048 13P (VI879100) to DM-CN501
CN 3A,3B: 51048 11P (VI878900)
CN3A: to PN2(PN2/8)-CN3B
CN3B: to PN1(PN1/8)-CN3A
CN 4A,4B: 51048 6P (VI878400)
CN4A: to PN3(PN3/8)-CN4B
CN4B: to PN2(PN2/8)-CN4A
CN 5A,5B,6A,6B: 51048 3P (VI878100)
CN5A: to ENC(PN4/8)-CN5B
CN5B: to PN1(PN1/8)-CN3A
CN6A: to PB(PN6/8)-CN6B
CN6B: to PN1(PN1/8)-CN6A
CN 8A,8B: 51048 2P (VI878000)
CN8A: to BL(PN5/8)-CN8B
CN8B: to PN1(PN1/8)-CN8A

8. Lamp Holder
(VY843600)

9. Connector Assembly
W1: 14P PN-DM 1(--) to DM-CN502
W2: 13P PN-DM 2(--) to DM-CN501
W3: 11P PN1-PN2(--)
W4: 6P PN2-PN3(--)
W5: 3P PN1-PB(--)
W7: 3P PN1-ENC(--)
W8: 2P PN1-BL(--)

PORTATONE

PSR-630

PARTS LIST

■ CONTENTS（目次）

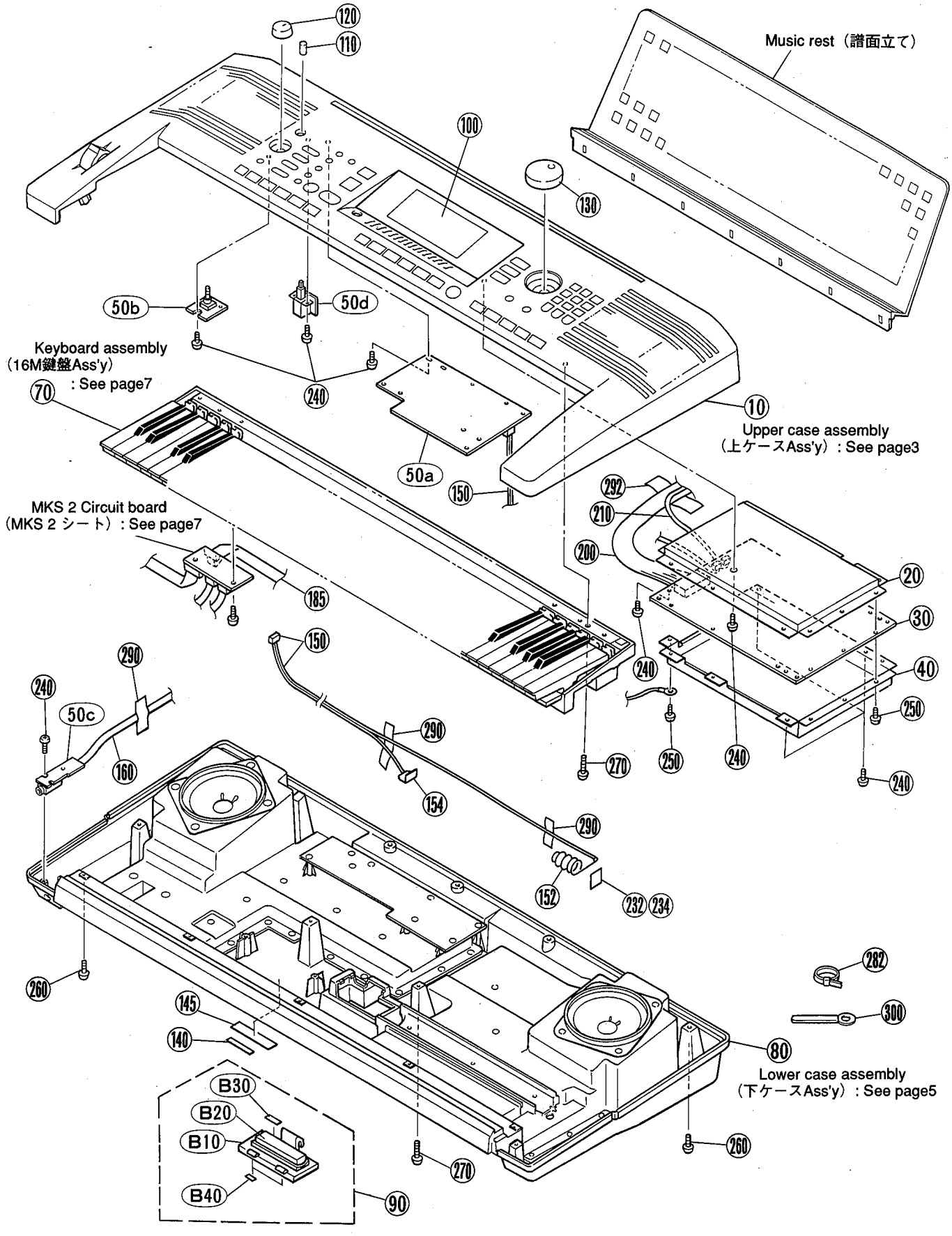
OVERALL ASSEMBLY（総組立） 1
UPPER CASE ASSEMBLY（上ケースAss'y） 3
LOWER CASE ASSEMBLY（下ケースAss'y） 5
KEYBOARD ASSEMBLY（鍵盤Ass'y） 7
ELECTRICAL PARTS（電気部品） ..... 8～11

Notes: DESTINATION ABBREVIATIONS

A : Australian model	J : Japanese model
B : British model	U : U.S. model
C : Canadian model	V : General export model (110 V)
E : European model	W : General export model (220 V)
I : Indonesian model	X : General export model
O : Chinese model	Y : Export model

- The numbers in " QTY " show quantities for each unit.
- The parts with "--" in " PART NO. " are not available as spare parts.
- 部品価格ランクは、変更になることがあります。
- QTY 欄に記されている数字は、各ユニットあたりの使用個数です。
- PART NO.が "--" の部品は、サービス用部品として準備されていません。

■ OVERALL ASSEMBLY (総組立)

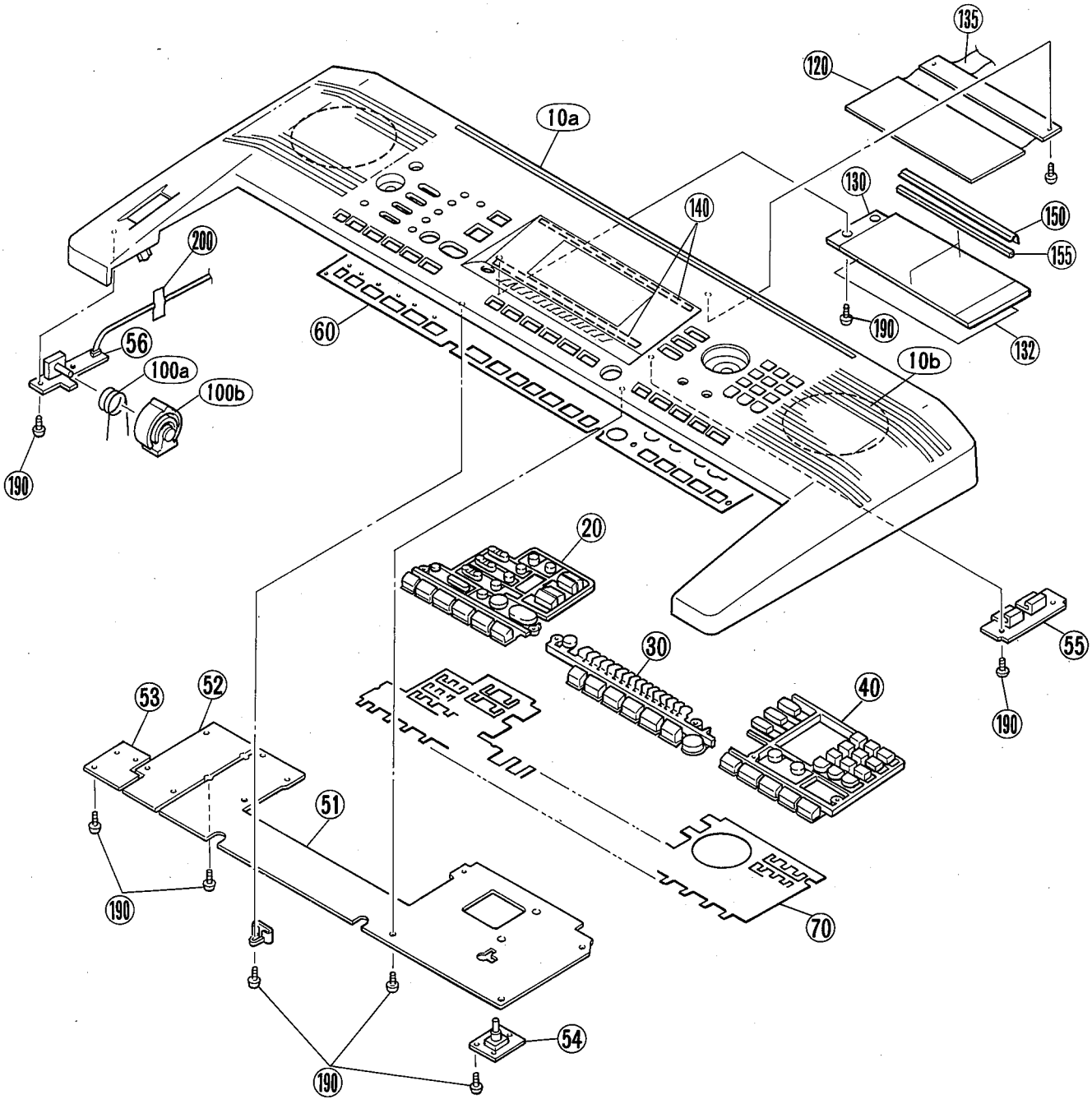


	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	ランク
			OVERALL ASSEMBLY		総組立	PSR630		
	10	--	Upper Case Assembly		上ケースAss'y	(VY79030)		
*	20	VY790600	Shield Cover U		シールドカバーU			
*	30	VV860700	Circuit Board	DM	DMシート			
*	40	VY790700	Shield Cover L		シールドカバーL			
*	50	VV854500	Circuit Board	AM	AMシート			
*	50a	--	Circuit Board	AM (AM1/4)	AMシート	(NX00787)		
*	50b	--	Circuit Board	VR (AM2/4)	VRシート	(NX00788)		
*	50c	--	Circuit Board	HP (AM3/4)	HPシート	(NX00789)		
*	50d	--	Circuit Board	SW (AM4/4	SWシート	(NX00790)		
	70	VU621100	Keyboard Assembly	C61 K6	16M鍵盤Ass'y			24
	80	--	Lower Case Assembly		下ケースAss'y	(VY79080)		
	90	VJ601000	Battery Cover Assembly	BL	バッテリーカバーAss'y			06
*	100	VZ096300	LCD Seal		LCDシール			
	110	VQ218800	Push Knob		プッシュツマミ	STAND BY/ON		03
	120	VU432400	Knob		ツマミ	MASTER VOLUME		01
	130	VL921100	Knob	BL	エンコーダーツマミ	Dial		03
	140	--	Label		規格，製番ラベル	(VY85580)		
*	145	--	Label		承認ラベルA	(VZ14640)		
	150	--	Connector Assembly	BATT	電池束線	(VY83590)		
	152	VN218200	Spring Terminal		接点バネ			03
	154	BB005490	Terminal		端子板			01
	160	--	Connector Assembly	HP	HP束線	(VY83260)		
*	185	--	Connector Assembly	MK	MK束線Ass'y	(VZ55770)		
*	200	VY835700	Connector Assembly	FDD	FDD束線			
*	210	VY835800	Connector Assembly	FDD PS	FDD電源束線			
	232	--	Vibration-proof Tape	18X25	防振テープ	(VJ86150)		03
*	234	--	Vibration-proof Tape	25X17X0.5	防振テープF	(VR12940)		
	240	EP600280	Bind Head Tapping Screw-P	3.0X8 MFZN2Y	+バインドPタイト		17	01
	250	EP600130	Bind Head Tapping Screw-B	3.0X6 MFZN2Y	+バインドBタイト		12	01
	260	EP600300	Bind Head Tapping Screw-P	3.0X12 MFZN2Y	+バインドPタイト		16	01
	270	VK228100	Bind Head Tapping Screw-P	3.0X25 MFZN2Y	+バインドPタイト		4	01
	282	--	Cord Holder	BK-1	インシュロックタイ	(CB06925)		01
	290	--	Adhesive Tape	12X50	粘着テープ	(VA12610)	7	03
	292	--	Adhesive Tape	19X70	粘着テープ	(VF29880)	2	01
	300	--	Cord Binder	S-14B	束線止め	(CB81751)		03
			ACCESSORIES		付属品			
*		VQ284000	Music Rest	BL	譜面立て			08
*		VZ089200	AC Adapter	PA-6 J	ACアダプター	J		
*		VZ089300	AC Adapter	PA-6 CE	ACアダプター	O		
*		VY789700	Japanese Guide Sheet		和文シート	J		
*		VY789800	Chinese Guide Sheet		中文シート	O		
		VZ336100	Floppy Disk		同梱FD			
		VJ601000	Battery Cover Assembly	BL	バッテリーカバーAss'y			06
	B10	CB047850	Battery Cover	BL	バッテリーカバー			02
	B20	CB047750	Battery Cushion	GY	バッテリークッション			01
	B30	--	Vibration-proof Pad	BL #7100 BL	防振パット	(CA01485)	2	
	B40	--	Vibration-proof Tape	6X 25X0.3	防振テープ	(VJ56490)	3	

* New Parts（新規部品）

ランク：Japan only

■ UPPER CASE ASSEMBLY (上ケースAss'y)

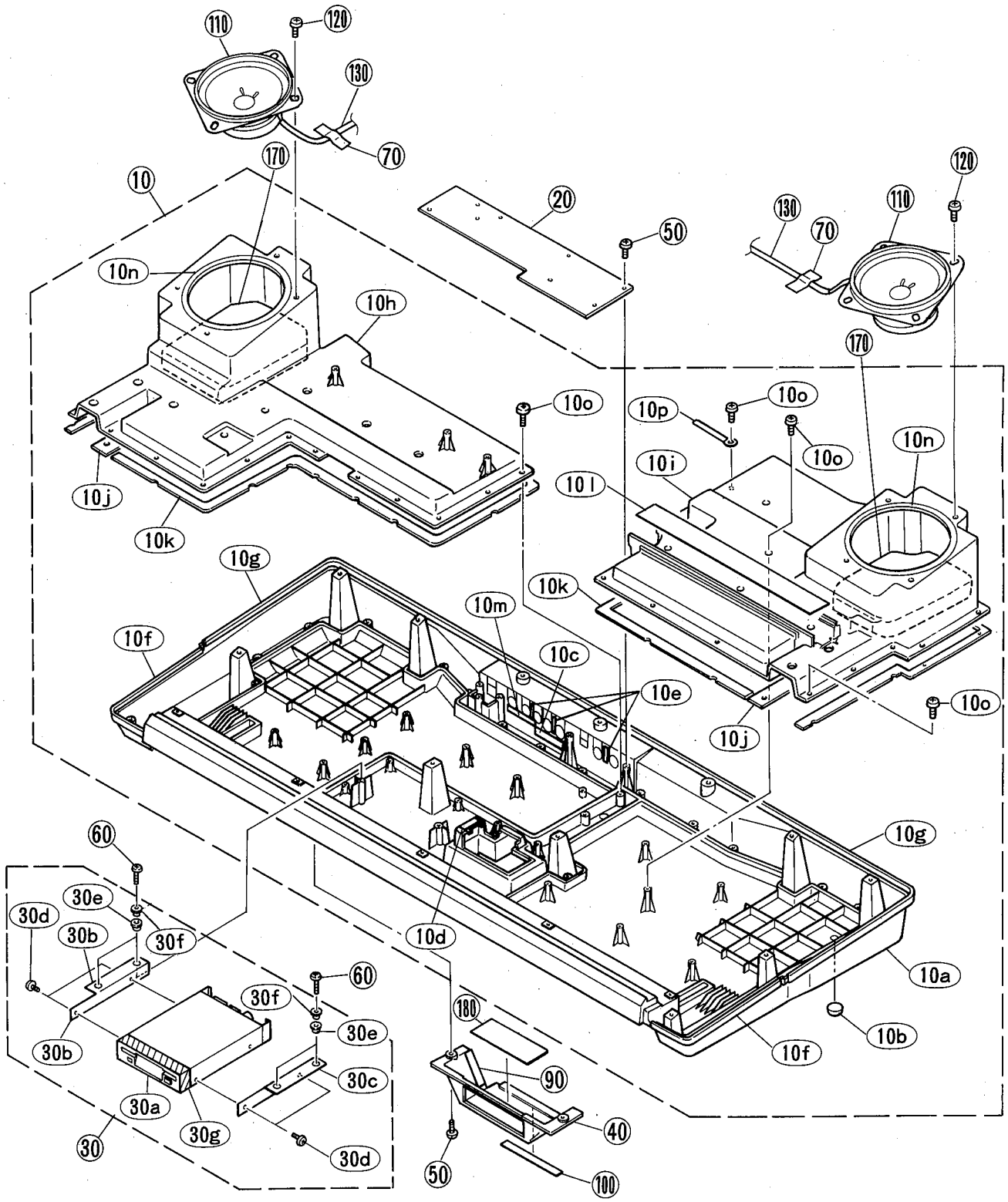


	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	ランク
			UPPER CASE ASSEMBLY		上ケースAss'y	PSR630 (VY79030)		
*	10	VY792000	Upper Case Sub Assembly		上ケースサブAss'y			
	10a	--	Upper Case		上ケース	(VY79370)		
	10b	--	Speaker Cloth		スピーカクロス	(VY76740)	2	
*	20	VY792200	Panel Switch L		パネルスイッチ L			
*	30	VY792400	Panel Switch C		パネルスイッチ C			
*	40	VY792600	Panel Switch R		パネルスイッチ R			
*	51	NX007910	Circuit Board	PN1 (PN1/8)	PN1シート			
*	52	NX007810	Circuit Board	PN2 (PN2/8)	PN2シート			
*	53	NX007820	Circuit Board	PN3 (PN3/8)	PN3シート			
*	54	NX007830	Circuit Board	ENC (PN4/8)	ENCシート			
*	55	NX007920	Circuit Board	BL (PN5/8)	BLシート			
*	56	NX007930	Circuit Board	PB (PN6/8)	PBシート			
	60	--	Vibration-proof Sheet U		防振シート U	(VY79270)		
	70	--	Vibration-proof Sheet L		防振シート L	(VZ30020)		
	100	--	Wheel Assembly		ホイールAss'y	(VT48770)		
	100a	VT366400	Wheel		ホイール	PITCH BEND		03
	100b	VT440100	Spring		ホイールバネ			03
*	120	VZ086800	LCD	DM153A-**	液晶ディスプレイ			
*	130	VY845200	Back-lit Assembly		導光板Ass'y			
*	132	VZ420500	Diffusion Sheet		拡散シート			
	135	--	Connector Assembly	LCD	LCD束線	(VY83270)		
	140	--	Vibration-proof Tape		防振テープ	(VY84550)	2	
	150	--	Vibration-proof Tape		防振テープ	(VY84560)	2	
*	155	VZ300400	LCD Support		LCDサポータ		2	
	190	EP600280	Bind Head Tapping Screw-P	3.0X8 MFZN2Y	+バインドPタイト		33	01
	200	--	Adhesive Tape	12X50	粘着テープ	(VA12610)	2	03

* New Parts（新規部品）

ランク：Japan only

■ LOWER CASE ASSEMBLY (下ケースAss'y)

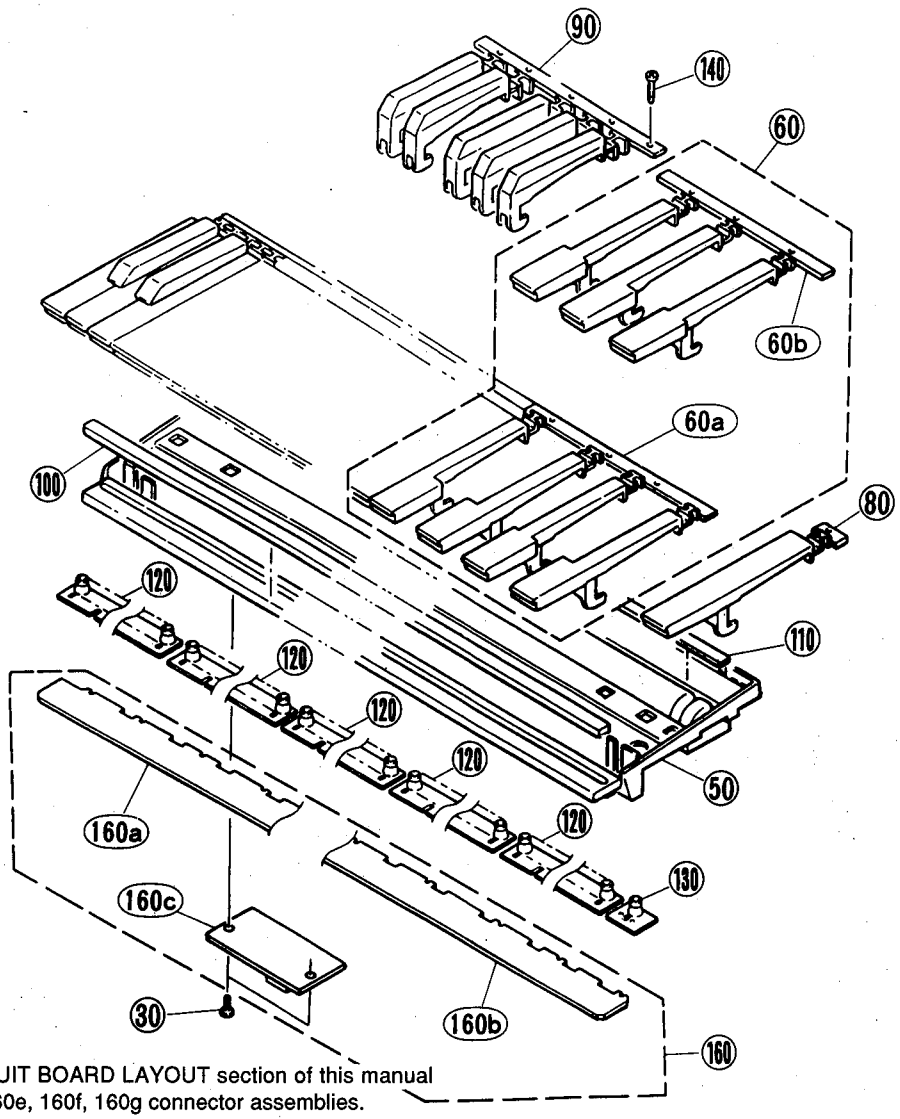


	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	ランク
			LOWER CASE ASSEMBLY		下ケースAss'y	PSR630 (VY79080)		
*	10	VY793300	Lower Case Sub Assembly		下ケースサブAss'y			
	10a	--	Lower Case		下ケース	(VY79380)		
	10b	CB043750	Foot	BL T1.6	ゴム脚		5	01
	10c	--	Vibration-proof Tape	10X60X0.5	防振テープ	(VT91560)		
	10d	--	Seal Tape E		シールテープE	(VU03320)		
	10e	--	Felt	20X5X2	フェルト	(VU06090)	3	
	10f	--	Vibration-proof Tape	13X210 T0.5	防振テープ	(VZ27430)	2	
	10g	--	Vibration-proof Tape	13X700 T0.5	防振テープ	(VZ27440)	2	
	10h	--	Speaker Box L		SPボックスL成形品	(VZ07230)		
	10i	--	Speaker Box R		SPボックスR成形品	(VZ07240)		
	10j	--	Seal Tape 1	20X70 T1.0	シールテープ1	(VZ08600)	2	
	10k	--	Seal Tape 2	8X1800 T1.0	シールテープ2	(VZ08610)	2	
	10l	--	Vibration-proof Tape	30X288 T0.5	防振テープ	(VZ27460)		
	10m	--	Vibration-proof Tape	8X60X0.5	防振テープ	(VZ49040)		
	10n	--	Seal Tape SP		シールテープSP	(VZ08650)	2	
	10o	EP640500	Bind Head Tapping Screw-P	4.0X10 MFZN2Y	+バインドPタイト		53	01
	10p	--	Cord Binder	S-14B	束線止め	(CB81751)		
*	20	VY842800	Circuit Board	JACK	JACKシート			
	30	--	Floppy Disk Drive Assembly		FDD Ass'y	(VY79340)		
*	30a	VY859300	Floppy Disk Drive	D359T7	3.5"FDD			
	30b	VT431000	Holder, FDD		FDD金具L			03
	30c	VT431100	Holder, FDD		FDD金具R			03
	30d	EG330360	Bind Head Screw	3.0X6 MFZN2BL	+バインド小ネジ		4	01
	30e	VA121600	Bushing		ゴムブッシュ		4	01
	30f	VK431100	Spacer,FDD	#2240	FDDスペーサー		4	01
	30g	--	Adhesive Tape	ECT #590S W=15	綿粘着テープ	(ZL35000)		
	40	VT366600	Cover, FDD		FDDカバー			05
	50	EP600280	Bind Head Tapping Screw-P	3.0X8 MFZN2Y	+バインドPタイト		10	01
	60	VM839600	Bind Head Tapping Screw-P	4.0X16 MFZN2Y	+バインドPタイト		4	01
	70	--	Adhesive Tape	12X50	粘着テープ	(VA12610)	5	03
	90	--	Vibration-proof Tape	10X40X0.5	防振テープ	(VT85830)	2	
	100	--	Vibration-proof Tape	7X100X0.5	防振テープ	(VT85820)		
*	110	XT523A00	Speaker	12.0CM 4 OHM 10W	スピーカー		2	
	120	EP640500	Bind Head Tapping Screw-P	4.0X10 MFZN2Y	+バインドPタイト		8	01
	130	--	Connector Assembly	SP	SP束線	(VY83290)		
	160	CB817510	Cord Binder	S-14B	束線止め			03
	170	--	Cushion		吸音材	(VZ40100)	2	
*	180	--	Cushion	30X110XT3.5	防音材	(VZ53050)		

* New Parts（新規部品）

ランク：Japan only

■ KEYBOARD ASSEMBLY (16M 鍵盤Ass'y)



※Refer to the CIRCUIT BOARD LAYOUT section of this manual regarding 160d, 160e, 160f, 160g connector assemblies.

※ 160d, 160e, 160f, 160gのケーブルについては、このマニュアルのユニットレイアウトの項を参照して下さい。

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	ランク
			KEYBOARD ASSEMBLY	PSR630	鍵盤Ass'y	PSR630		
		VU621100	Keyboard Assembly	C61 K6	16M鍵盤Ass'y			24
	30	EP630220	Bind Head Tapping Screw-P	3.0X8 MFZN2BL	+バインドPタイト		2	01
*	50	--	Frame	C61 16M	フレーム	(VU32860)		
	60	VH1809C0	White Keys		白鍵CEGBDFA			
	60a	--	White Key		白鍵CEGB	(VH18090)	5	03
	60b	--	White Key		白鍵DFA	(VH18100)	5	03
	80	VH181100	White Key		白鍵C'			01
	90	VH181200	Black Key		黒鍵		5	03
	100	VH181300	Felt		フェルト			03
	110	VH181400	Rubber Sheet		ゴムシート			01
	120	VU328400	Rubber Contact	16M OCT 2M 12KEYS	接点ゴム		5	06
	130	VU328500	Rubber Contact	16M C' 2M 1KEY	接点ゴム			05
	140	VB205200	Bind Head Tapping Screw-P	3.0X16 MFZN2BL	+バインドPタイト		21	01
	140	VS756700	Bind Head Tapping Screw-P	3.0X16 MFZN2B	+バインドPタイト		21	01
*	160	--	Circuit Board	KBD SW	鍵盤SWシート	(VU62120)		
	160a	VU648100	Circuit Board	MK-L	MK-Lシート			09
	160b	VU648200	Circuit Board	MK-H	MK-Hシート			09
	160c	VU494600	Circuit Board	MKS2 16M	MKS2シート			10
	160d	VU958900	Cable	12P	ケーブル			03
	160e	VU659500	Cable	12P	ケーブル			02
	160f	VU659400	Cable	7P	ケーブル			02
	160g	VU659600	Cable	5P	ケーブル			02

* New Parts（新規部品）

ランク：Japan only

■ ELECTRICAL PARTS (電気部品)

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	ランク
		ELECTRICAL PARTS		電気部品	PSR630		
*	VV854500	Circuit Board	AM	AMシート	(XS972B0)		
*	VV860700	Circuit Board	DM	DMシート	(XT154C0)		
*	VY842800	Circuit Board	JACK	JACKシート	(XS969B0)		
	VU648100	Circuit Board	MK-L	MK-Lシート	(XR564B0)		09
	VU648200	Circuit Board	MK-H	MK-Hシート	(XR565B0)		09
	VU494600	Circuit Board	MKS2 16M	MKS2シート	(XR736C0)(XS829A0)		10
*	NX007910	Circuit Board	PN1 (PN1/8)	PN1シート	(XT155C0)		
*	NX007810	Circuit Board	PN2 (PN2/8)	PN2シート	(XT155C0)		
*	NX007820	Circuit Board	PN3 (PN3/8)	PN3シート	(XT155C0)		
*	NX007830	Circuit Board	ENC (PN4/8)	ENCシート	(XT155C0)		
*	NX007920	Circuit Board	BL (PN5/8)	BLシート	(XT155C0)		
*	NX007930	Circuit Board	PB (PN6/8)	PBシート	(XT155C0)		
*	VV854500	Circuit Board	AM	AMシート	(XS972B0)		
*	--	Circuit Board	AM (AM1/4)	AMシート	(XS972B0)		
*	--	Circuit Board	VR (AM2/4)	VRシート	(XS972B0)		
*	--	Circuit Board	HP (AM3/4)	HPシート	(XS972B0)		
*	--	Circuit Board	SW (AM4/4)	SWシート	(XS972B0)		
	EP600190	Bind Head Tapping Screw-B	3.0X8 MFZN2BL	+バインドBタイト			01
	UA654100	Mylar Capacitor	0.0100 50V J	マイラーコン			01
	UA654180	Mylar Capacitor	0.0180 50V J	マイラーコン			01
	UA654470	Mylar Capacitor	0.0470 50V J	マイラーコン			01
	UA654560	Mylar Capacitor	0.0560 50V J	マイラーコン			
	UA654680	Mylar Capacitor	0.0680 50V J	マイラーコン			01
	VR168300	Monolithic Mylar Capacitor	ECQ-V1H104JL3	積層マイラーコン			01
	VR168400	Monolithic Mylar Capacitor	ECQ-V1H124JL3	積層マイラーコン			01
	VR168900	Monolithic Mylar Capacitor	ECQ-V1H274JL3	積層マイラーコン			01
	VR169300	Monolithic Mylar Capacitor	ECQ-V1H564JL3	積層マイラーコン			01
	VR169400	Monolithic Mylar Capacitor	ECQ-V1H684JL3	積層マイラーコン			
	VU838100	Monolithic Mylar Capacitor	ECQ-V1H105JL3	積層マイラーコン			
	FG612470	Ceramic Capacitor-B	470P 50V K	セラコンB			01
	FG613150	Ceramic Capacitor-B	1500P 50V K	セラコンB			01
	FG613560	Ceramic Capacitor-B	5600P 50V K	セラコン(B)			01
	FG651220	Ceramic Capacitor-SL	22P 50V J	セラコン(SL)			01
	FG652100	Ceramic Capacitor-SL	100P 50V J	セラコン(SL)			01
	VT757800	Monolithic Ceramic Cap.	1.000 25V Z	積層セラコン			01
	UJ827330	Electrolytic Cap.	33.00 10.0V	ケミコン			01
	UJ828100	Electrolytic Cap.	100.00 10.0V	ケミコン			01
	UJ837100	Electrolytic Cap.	10.00 16.0V	ケミコン			01
	UJ837470	Electrolytic Cap.	47.00 16.0V	ケミコン			01
	UJ838100	Electrolytic Cap.	100.00 16.0V	ケミコン			01
	UJ848100	Electrolytic Cap.	100.00 25.0V	ケミコン			01
	UJ865470	Electrolytic Cap.	0.47 50.0V	ケミコン			01
	UJ866100	Electrolytic Cap.	1.00 50.0V	ケミコン			01
	VT848900	Electrolytic Cap.	6800 25.0V	ケミコン			03
	UN837100	Electrolytic Cap.-BP	10.00 16.0V	BPケミコン			01
	UN866330	Electrolytic Cap.-BP	3.30 50.0V	BPケミコン			01
	VC694800	Semiconductive Cera. Cap.	0.1000 25V Z	半導体セラコン			01
	VB835000	Coil	FL5R200QNT	コイル20U			01
	HF753220	Carbon Resistor	2.2 1/4 J	カーボン抵抗			01
	HF755100	Carbon Resistor	100.0 1/4 J	カーボン抵抗			01
	HF755150	Carbon Resistor	150.0 1/4 J	カーボン抵抗			01
	HF755330	Carbon Resistor	330.0 1/4 J	カーボン抵抗			01
	HF755560	Carbon Resistor	560.0 1/4 J	カーボン抵抗			01
	HF755680	Carbon Resistor	680.0 1/4 J	カーボン抵抗			01
	HF756100	Carbon Resistor	1.0K 1/4 J	カーボン抵抗			01
	HF756220	Carbon Resistor	2.2K 1/4 J	カーボン抵抗			01
	HF756270	Carbon Resistor	2.7K 1/4 J	カーボン抵抗			01
	HF756330	Carbon Resistor	3.3K 1/4 J	カーボン抵抗			01
	HF756470	Carbon Resistor	4.7K 1/4 J	カーボン抵抗			01
	HF757100	Carbon Resistor	10.0K 1/4 J	カーボン抵抗			01
	HF757120	Carbon Resistor	12.0K 1/4 J	カーボン抵抗			01
	HF757180	Carbon Resistor	18.0K 1/4 J	カーボン抵抗			01
	HF757220	Carbon Resistor	22.0K 1/4 J	カーボン抵抗			01
	HF757270	Carbon Resistor	27.0K 1/4 J	カーボン抵抗			01
	HF757470	Carbon Resistor	47.0K 1/4 J	カーボン抵抗			01
	HF758100	Carbon Resistor	100.0K 1/4 J	カーボン抵抗			01
	HF758470	Carbon Resistor	470.0K 1/4 J	カーボン抵抗			01
	XB247A00	IC	UPC4570HA	IC	OP AMP		01

* New Parts (新規部品)

ランク：Japan only

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	ランク
		XQ619A00	IC	LA4705NA	I C	POWER AMP 17W		05
*		XT676A00	IC	AN77L09-TA	I C	REGULATOR +9V		
		XF751A00	IC	M5227P	I C	EQUALIZER		04
		LB918020	Base Post Connector	XH 2P TE	ベースツキポスト			01
		LB918040	Base Post Connector	XH 4P TE	ベースツキポスト			01
		VF728200	Connector	5214 10P TE	コネクタ			01
		VI878200	Cable Holder	51048 4P TE	ケーブルホルダー			00
		VI878300	Cable Holder	51048 5P TE	ケーブルホルダー			01
		VI878800	Cable Holder	51048 10P TE	ケーブルホルダー			01
		VK024900	Wire Trap	52147 5P TE	ワイヤートラップ			01
		VK025300	Wire Trap	52147 9P TE	ワイヤートラップ			01
		VL723600	Diode	20E1-FC4	ダイオード			01
*		VY717100	Diode	LT2A02-E	ダイオード			
*		VV856400	Heat Sink		放熱板			
		---	Connector Assembly	DM-PSW	DM-PSW束線	(VY83200)		
		--	GND Wire Assembly	L=200	アース束線	(VZ49400)		
		--	Jumper Wire	0.55	ジャンパー線	(VA07890)		
		--	Connector Assembly	AM-PSW	AM-PSW束線	(VY83190)		
		--	Connector Assembly	AM-VOL	AM-VOL束線	(VY83210)		
		--	Connector Assembly	DM-VOL	DM-VOL束線	(VY83220)		
		--	GND Wire	L=30	アース線	(VZ58840)		
		VA078900	Jumper Wire	0.55	ジャンパー線			
	JK701	LB101870	Phone Jack	YKB21-5006	ホーンコネクタ	PHONES		03
*	JK701	VV943300	Phone Jack	HTJ064-04A	ホーンコネクタ	PHONES		
	SW301	VY980400	Push Switch	SDDLB1 J,UC,CEE	プッシュSW	STAND BY/ON		03
*	VR301	VZ048400	Rotary Variable Resistor	A10.0K XV0141GPVN2	二連ロータリーVR	MASTER VOLUME		
*		VV860700	Circuit Board	DM	DM シート	(XT154C0)		
*		EP600190	Bind Head Screw	3.0X8 MFZN2BL	+バインドBタイト			
		UA654470	Mylar Capacitor	0.0470 50V J	マイラーコン			01
		UB012470	Monolithic Ceramic Cap.	B 470P 50V K	チップ積層セラコン			01
		UB051100	Monolithic Ceramic Cap.	SL 10P 50V D	チップ積層セラコン			01
		UB051270	Monolithic Ceramic Cap.	SL 27P 50V J	チップ積層セラコン			01
		UB052100	Monolithic Ceramic Cap.	SL 100P 50V J	チップ積層セラコン			01
		UB052170	Monolithic Ceramic Cap.	B 100P 50V K	チップ積層セラコン			01
		UB044100	Monolithic Ceramic Cap.	F 0.010 50V Z	チップ積層セラコン			01
		UJ827470	Electrolytic Cap.	47.00 10.0V	ケミコン			01
		UJ828100	Electrolytic Cap.	100.00 10.0V	ケミコン			01
		UJ866100	Electrolytic Cap.	1.00 50.0V	ケミコン			01
		UJ867100	Electrolytic Cap.	10.00 50.0V	ケミコン			01
		UJ819100	Electrolytic Cap.	1000 6.3V	ケミコン			01
		VN381200	Coil	SNT-D20TF	コイル SN 10uH			03
		VR243700	Chip Inductance	56U LEM2520 T 560J	巻線チップインダクタ			01
		VS740100	Chip Inductance	BLM21B751S 2125	チップインダクタ			03
		RD250000	Carbon Resistor (chip)	0.0 0.0 J	チップ抵抗			01
		RD254220	Carbon Resistor (chip)	22.0 0.1 J	チップ抵抗			01
		RD255100	Carbon Resistor (chip)	100.0 0.1 J	チップ抵抗			01
		RD255180	Carbon Resistor (chip)	180.0 0.1 J	チップ抵抗			01
		RD255220	Carbon Resistor (chip)	220.0 0.1 J	チップ抵抗			01
		RD255330	Carbon Resistor (chip)	330.0 0.1 J	チップ抵抗			01
		RD255680	Carbon Resistor (chip)	680.0 0.1 J	チップ抵抗			01
		RD256100	Carbon Resistor (chip)	1.0K 0.1 J	チップ抵抗			01
		RD256150	Carbon Resistor (chip)	1.5K 0.1 J	チップ抵抗			01
		RD256330	Carbon Resistor (chip)	3.3K 0.1 J	チップ抵抗			01
		RD257100	Carbon Resistor (chip)	10.0K 0.1 J	チップ抵抗			01
		RD257220	Carbon Resistor (chip)	22.0K 0.1 J	チップ抵抗			01
		RD257390	Carbon Resistor (chip)	39.0K 0.1 J	チップ抵抗			01
		RD257470	Carbon Resistor (chip)	47.0K 0.1 J	チップ抵抗			01
		RD258100	Carbon Resistor (chip)	100.0K 0.1 J	チップ抵抗			01
		RD258470	Carbon Resistor (chip)	470.0K 0.1 J	チップ抵抗			01
		RD259100	Carbon Resistor (chip)	1.0M 0.1 J	チップ抵抗			01
		XI124A00	IC	PQ05RF1	I C	REGULATOR +5V		03
		XS516A00	IC	UPC2933T	I C	REGULATOR +3.3V		03
*		XT170A00	IC	S-81250SGUP-DQD-T1	I C	REGULATOR +5V		
		XP226A00	IC	IC-PST591DMT	I C	RESET		03
		XE462A00	IC	TC74HC139AF-TP1	I C	DECODER		02
		XK452A00	IC	HD74AC32FPEL	I C	OR		02
		XQ042A00	IC	SN74HC374ANSR	I C	D-FF		03
		XI939A00	IC	HD63266F	I C	FDC		09
		XS724A00	IC	TC203C060AF-001	I C	SWP00M		09

* New Parts（新規部品）

ランク：Japan only

	REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	ランク
		XS936A00	IC	HD6437043E00F	I C	CPU		11
		XM901B00	IC	HM628128BLFP-7SL	I C	SRAM 1M		12
		XS374A00	IC	MB81C4256A-70PJ	I C	DRAM 1M		08
		XS438A00	IC	M5M44260CTP-7	I C	DRAM 4M		16
		XS681A00	IC	M5M51008BFP-70LLT	I C	SRAM 1M		11
		XS915A00	IC	LH64256CK-70	I C	DRAM 1M		08
*		XT324100	IC	KM23C16000C-KF63A9	I C	ROM 16M		
*		XT325100	IC	KM23C16000B-KF63B0	I C	ROM 16M		
*		XT615A00	IC		I C	ROM 32M(WAVE)		
*		XT776A00	IC	UPD424260G5-70	I C	DRAM 4M		
		XM145A00	IC	UPD63200GS	I C	DA CONVERTER		07
		XP867A00	IC	UPD63200GS-E1	I C	DA CONVERTER		07
		LB918030	Base Post Connector	XH 3P TE	ベースツキポスト			01
		VF667600	Connector	52147 15P TE	コネクタ			01
		VF728300	Connector	52147 6P TE	コネクタ			01
		VK024800	Wire Trap	52147 4P TE	ワイヤートラップ			01
		VK024900	Wire Trap	52147 5P TE	ワイヤートラップ			01
		VK025200	Wire Trap	52147 8P TE	ワイヤートラップ			01
		VK025700	Wire Trap	52147 13P TE	ワイヤートラップ			01
		VK025800	Wire Trap	52147 14P TE	ワイヤートラップ			01
		VQ391300	Connector	34P TE	コネクタ			03
		VT685200	Quartz Crystal Unit	33.8688M SMD-49	水晶振動子			04
		VV762900	Quartz Crystal Unit	7M SMD-49	水晶振動子			03
		VQ274900	Ceramic Resonator	16M CSACS16.00MX24	セラミック振動子			03
		VB493900	Diode	MA221	ダイオード			01
*		VY677600	Digital Transistor	DTC123JKA TP	デジタルトランジスタ			
*		VY677700	Digital Transistor	DTB123YK TP	デジタルトランジスタ			
*		VY842800	Circuit Board	JACK	JACKシート	(XS969B0)		
		FG644100	Ceramic Capacitor-F	0.0100 50V Z	セラコン F			01
		UJ817470	Electrolytic Cap.	47.00 6.3V	ケミコン			01
		UJ837100	Electrolytic Cap.	10.00 16.0V	ケミコン			01
		VI486800	Line Filter	SU10VD-20020	ラインフィルター			03
		VB835000	Coil	FL5R200QNT	コイル 20U			01
		VF968800	Coil	SBT-0260TF	コイル SB 60uH			01
		GE300670	Ferrite Bead	BL02RN2-R62T4	フェライトビーズ			02
		HF755100	Carbon Resistor	100.0 1/4 J	カーボン抵抗			01
		HF755220	Carbon Resistor	220.0 1/4 J	カーボン抵抗			01
		HF756100	Carbon Resistor	1.0K 1/4 J	カーボン抵抗			01
		HF756150	Carbon Resistor	1.5K 1/4 J	カーボン抵抗			01
		HF756470	Carbon Resistor	4.7K 1/4 J	カーボン抵抗			01
		HF757100	Carbon Resistor	10.0K 1/4 J	カーボン抵抗			01
		HF757220	Carbon Resistor	22.0K 1/4 J	カーボン抵抗			01
		HF757470	Carbon Resistor	47.0K 1/4 J	カーボン抵抗			01
		IG142250	IC	SN74HCU04N	I C	INVERTER		01
		XP094A00	IC	MC34051P	I C	LINE TRANSCEIVER		05
		VQ665200	Slide Switch	SSSF144-S06N-0	スライドSW	Host Select(MAC,PC1,PC2,MIDI)		03
		KB003240	Fuse	5.00A S	ヒューズ			01
		VI878600	Cable Holder	51048 8P TE	ケーブルホルダー			04
		VI878700	Cable Holder	51048 9P TE	ケーブルホルダー			01
		VP206500	Fuse Holder	EYF-52BC	ヒューズホルダ			01
		IC174070	Transistor	2SC1740S R,S	トランジスタ			01
		VB941200	Diode	1SS133,1SS176	ダイオード			01
		VG181900	Photo Coupler	PC-900V	フォトカプラ			03
	--	--	Jumper Wire	0.55	ジャンパー線	(VD04170)		
		--	Connector Assembly	AM-JACK	AM-JACK束線	(VY83240)		
		--	Jack Connector Assembly	JACK	JACK束線Ass'y	(VZ49400)		
	JK01	VB312600	Phone Jack	YKB21-5012	ホーンコネクタ(黒)	SUSTAIN		02
*	JK01	VV943400	Phone Jack	JY6314-01-130	ホーンコネクタ(黒)	SUSTAIN		
	JK02	VJ107200	DIN Connector	5P YKF51-5050	DIN コネクタ	MIDI IN		01
	JK03	VJ107200	DIN Connector	5P YKF51-5050	DIN コネクタ	MIDI OUT		01
	JK04	VM761000	DIN Connector	DIN 8P MD-S810	複合コネクタ	TO HOST		03
	JK06	VB312600	Phone Jack	YKB21-5012	ホーンコネクタ(黒)	AUX OUT R		02
*	JK06	VV943400	Phone Jack	JY6314-01-130	ホーンコネクタ(黒)	AUX OUT R		
	JK07	VC687500	Phone Jack	YKB21-5014	ホーンコネクタ(黒)	AUX OUT L/L+R		01
	JK008	VC664500	Connector	HEC2305	電源コネクタ	DC IN		01
	JK010	LB101870	Phone Jack	YKB21-5006	ホーンコネクタ	FOOT VOL		03
*	JK010	VV943300	Phone Jack	HTJ064-04A	ホーンコネクタ	FOOT VOL		
		VU648100	Circuit Board	MK-L	MKーLシート			09

* New Parts (新規部品)

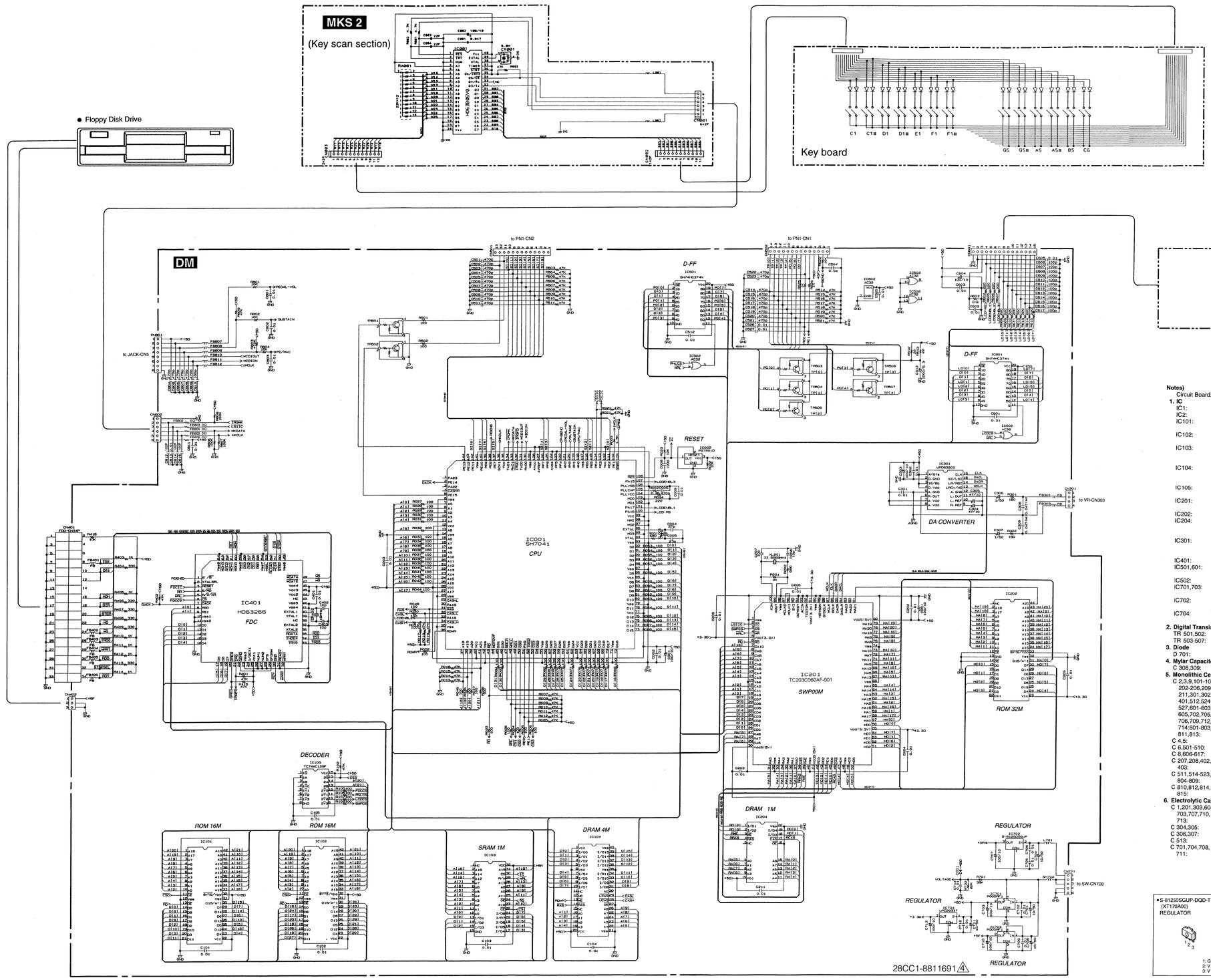
ランク：Japan only

REF NO.	PART NO.	DESCRIPTION		部品名	REMARKS	QTY	ランク
	VK025100	Wire Trap	52147 7P TE	ワイヤートラップ			01
	VK025600	Wire Trap	52147 12P TE	ワイヤートラップ			01
	VB941200	Diode	1SS133,1SS176	ダイオード			01
	VU648200	Circuit Board	MK-H	MK-Hシート			09
	VK024900	Wire Trap	52147 5P TE	ワイヤートラップ			01
	VK025600	Wire Trap	52147 12P TE	ワイヤートラップ			01
	VB941200	Diode	1SS133,1SS176	ダイオード			01
	VU494600	Circuit Board	MKS2 16M	MKS2シート	(XR736C0)(XS829A0)		10
	FG651220	Ceramic Capacitor-SL	22P 50V J	セラコン(SL)			01
	UJ828100	Electrolytic Cap.	100.00 10.0V	ケミコン			01
	VD930900	Semiconductive Cera. Cap.	0.1000 25V M	半導体セラコン			01
	HF456470	Carbon Resistor	4.7K 1/4 J	カーボン抵抗			01
	HF457470	Carbon Resistor	47.0K 1/4 J	カーボン抵抗			01
	VH373200	Resistor Array	RGLE12X473J	抵抗アレイ			01
	XR951A00	IC	HD63B05V0F07P	IC	CPU		06
	VF728300	Connector	52147 6P TE	コネクタ			01
	VK024900	Wire Trap	52147 5P TE	ワイヤートラップ			01
	VK025100	Wire Trap	52147 7P TE	ワイヤートラップ			01
	VK025600	Wire Trap	52147 12P TE	ワイヤートラップ			01
	VN002100	Ceramic Resonator	CST8.00MTW140	セラミック振動子			02
	VQ305500	Ceramic Resonator	8.00M EFOEC8004T3	セラミック振動子			02
	--	Vibration-proof Tape	10X64X0.5	防振テープ	(VK34680)		
	--	Jumper Wire	0.55	ジャンパー線	(VA07890)		
*	NX007910	Circuit Board	PN1 (PN1/8)	PN1シート	(XT155C0)		
*	NX007810	Circuit Board	PN2 (PN2/8)	PN2シート	(XT155C0)		
*	NX007820	Circuit Board	PN3 (PN3/8)	PN3シート	(XT155C0)		
*	NX007830	Circuit Board	ENC (PN4/8)	ENCシート	(XT155C0)		
*	NX007920	Circuit Board	BL (PN5/8)	BLシート	(XT155C0)		
*	NX007930	Circuit Board	PB (PN6/8)	PBシート	(XT155C0)		
	VY719300	Lamp	0.5W T4.2C-8 5.5V9	ランプ5.5V			02
	VT513600	Light Touch Switch	EVQ 22C 05B	ライトタッチSW 2端子			01
	VI878000	Cable Holder	51048 2P TE	ケーブルホルダー			01
	VI878100	Cable Holder	51048 3P TE	ケーブルホルダー			01
	VI878400	Cable Holder	51048 6P TE	ケーブルホルダー			01
	VI878900	Cable Holder	51048 11P TE	ケーブルホルダー			01
	VI879100	Cable Holder	51048 13P TE	ケーブルホルダー			01
	VI879200	Cable Holder	51048 14P TE	ケーブルホルダー			01
	VB941200	Diode	1SS133,1SS176	ダイオード			01
*	VY843600	Lamp Holder		ランプホルダ			
	--	Connector Assembly	PB	PB束線	(VY83150)		
	--	Jumper Wire	0.55	ジャンパー線	(VA07890)		
	--	Connector Assembly	PN-DM 1	PN-DM束線1	(VY83110)		
	--	Connector Assembly	PN-DM 2	PN-DM束線2	(VY83120)		
	--	Connector Assembly	PN1-PN2	PN1-PN2束線	(VY83130)		
	--	Connector Assembly	PN2-PN3	PN2-PN3束線	(VY83140)		
	--	Connector Assembly	BL	BL束線	(VY83180)		
	--	Connector Assembly	RE	RE束線	(VY83170)		
30	VU481300	Encoder	REB161 PVB 15F	16形エンコーダ	Dial		03
100	VT432100	Rotary Variable Resistor	B10K EVJ05DF25B14	ロータリーVR	PITCH BEND		03
120	VC341300	LED	SLZ-190B-01 RE	LED	REVOICE		01
130	VI100100	LED	SLZ-190B-11-T1 RE	LED	ACCOMPANIMENT ON/OFF,		01
140	VT940900	LED	SLZ-190B-02-T1 RE	LED	SYNC(START,STOP),INTRO, MAIN/AUTO FILL(A,B), RECORD,START/STOP ENDING		01
	XT523A00	Speaker	12.0cm 4ohm 10W	スピーカー			07
	VY859300	loppy Disk Driver	D359T7	3.5"FDD			16
	VZ086800	LCD	DM153A-**	液晶ディスプレイ			

* New Parts (新規部品)

ランク：Japan only

■ PSR-630 CIRCUIT DIAGRAM (回路図) <DM,MKS2>



Notes)
Circuit Board: MKS2 16M (VU494600) XR736C0 or XS892A0

1. IC
IC1: HD63B05V0F07P (XR951A00) CPU
2. Ceramic Capacitor-SL
C 1,2: 22P 50V J (FG651220)
3. Semiconductive Cera. Cap.
C 4: 0.1000 25V M (VD930900)
4. Electrolytic Cap.
C 3: 100.00 10.0V (UJ828100)
5. Carbon Resistor
R 1,2: 4.7K 1/4 J (HF456470)
R 3: 47.0K 1/4 J (HF457470)
6. Resistor Array
RA 1: RGLE12X473J (VH373200)
7. Ceramic Resonator
CL 1: CST8.00MTW140 (VN002100) or 8.00M EFOEC8004 (VQ305500)
8. Connector
CN 1: 52147 6P (VF728300) to DM-CN802
9. Wire Trap
CN 2: 52147 12P (VK025600) to MK-L
CN 3: 52147 7P (VK025100) to MK-L
CN 4: 52147 5P (VK024900) to MK-H
10. Jumper Wire
0.55 (--)

Notes)
Circuit Board: DM (VV860700) XT154C0

1. IC
IC1: HD6437043E00F (XS936A00) CPU
IC2: IC-PST591DMT (XP226A00) RESET
IC101: KM23C16000C-KF63 (XT324100) ROM 16M
IC102: KM23C16000B-KF63 (XT325100) ROM 16M
IC103: HM628128BLFP-7SL (XM901B00) or M5M51008BFP-70LL (XS681A00) SRAM 1M
IC104: M5M44260CTP-7 (XS438A00) or UPD424260G5-70 (XT776A00) DRAM 4M
IC105: TC74HC139AF-TP1 (XE462A00) DECODER
IC201: TC203C060AF-001 (XS724A00) SWP00M
IC202: (XT615A00) ROM 32M(WAVE)
IC204: MB81C4256A-70PJ (XS374A00) or LH64256CK-70 (XS915A00) DRAM 1M
IC301: UPD63200GS (XM145A00) or UPD63200GS-E1(XP867A00) DA CONVERTER
IC401: HD63266F (X939A00) FDC
IC501,601: SN74HC374ANSR (XQ042A00) D-FF
IC502: HD74AC32FPEL (XK452A00) OR
IC701,703: PQ05RF1 (X1124A00) REGULATOR +5V
IC702: S-81250SGUP-DQD- (XT170A00) REGULATOR +5V
IC704: UPC2933T (XS516A00) REGULATOR +3.3V
2. Digital Transistor
TR 501,502: DTC123JKA TP (VY677600)
TR 503-507: DTB123YK TP (VY677700)
3. Diode
D 701: MA221 (VB493900)
4. Mylar Capacitor
C 308,309: 0.0470 50V J (UA654470)
5. Monolithic Ceramic Cap.
C 2,3,9,101-105, 202-206,209, 211,301,302, 401,512,524-527,601-603, 605,702,705, 706,709,712, 714-801-803, 811,813: F 0.010 50V Z (UB044100)
C 4,5: SL 27P 50V J (UB051270)
C 6,501-510: B 470P 50V K (UB012470)
C 8,606-617: SL 100P 50V J (UB052100)
C 207,208,402, 403: SL 10P 50V D (UB051100)
C 511,514-523, 804-809: B 470P 50V K (UB012470)
C 810,812,814, 815: B 100P 50V K (UB052170)
6. Electrolytic Cap.
C 1,201,303,604, 703,707,710, 713: 100.00 10.0V (UJ828100)
C 304,305: 47.00 10.0V (UJ827470)
C 306,307: 1.00 50.0V (UJ866100)
C 513: 1000 6.3V (UJ819100)
C 701,704,708, 711: 10.00 50.0V (UJ867100)
7. Coil
SN 702: SNT-D20TF (VN381200)
8. Chip Inductance
L 701: 56U LEM2520 T 56 (VR243700)
FB 301,303,401-406,807-812: BLM21B751S 2125 (VS740100)
9. Carbon Resistor (chip)
FB 802-806: 0.0 0.0 J (RD250000)
R 1,202: 680.0 0.1 J (RD255680)
R 2: 3.3K 0.1 J (RD256330)
R 3: 1.5K 0.1 J (RD256150)
R 4-6,25,26-32: 100.0 0.1 J (RD255100)
R 7-17: 47.0K 0.1 J (RD257470)
R 18-21,85,102, 401,402,415, 503,504: 47.0K 0.1 J (RD257470)
R 22,23,416,522, 801,802,804: 10.0K 0.1 J (RD257100)
R 24,604-613: 220.0 0.1 J (RD255220)
R 33-43: 100.0 0.1 J (RD255100)
R 44-54: 100.0 0.1 J (RD255100)
R 55-65: 100.0 0.1 J (RD255100)
R 66-76: 100.0 0.1 J (RD255100)
R 77-84,105-107: 100.0 0.1 J (RD255100)
R 108,501,502: 100.0 0.1 J (RD255100)
R 201: 1.0M 0.1 J (RD259100)
R 301,302: 180.0 0.1 J (RD255180)
R 403,405,410-412,414,525, 526: 1.0K 0.1 J (RD256100)
R 404,406-409, 413: 330.0 0.1 J (RD255330)
R 505-511,514-517: 47.0K 0.1 J (RD257470)
R 512,513: 22.0 0.1 J (RD255220)
R 518-521,809: 47.0K 0.1 J (RD257470)
R 603: 0.0 0.0 J (RD250000)
R 614,615: 220.0 0.1 J (RD255220)
R 701: 39.0K 0.1 J (RD257390)
R 702: 22.0K 0.1 J (RD257220)
R 803: 470.0K 0.1 J (RD258470)
R 806-808: 100.0K 0.1 J (RD258100)
10. Quartz Crystal Unit
XL 1: 7M SMD-49 (VV762900)
XL 201: 33.8688M SMD-49 (VT685200)
11. Ceramic Resonator
CR 401: 16M CSACS16.00MX (VQ274900)
12. Base Post Connector
CN 402: XH- 3P (LB918030) to FDD power
13. Connector
CN 401: 34P (VQ391300) to FDD
CN 601: 52147 15P (VF667600) to LCD
CN 802: 52147 6P (VF728300) to MKS2-CN1
14. Wire Trap
CN 301: 52147 4P (VK024800) to VR(AM2/4)-CN303
CN 501: 52147 15P (VK025700) to PN1(PN1/8)-CN2
CN 502: 52147 14P (VK025800) to PN1(PN1/8)-CN1
CN 701: 52147 5P (VK024900) to SW(AM4/4)-CN708
CN 801: 52147 8P (VK025200) to JACK-JK5
15. Bind Head Screw
3.0X8 MFZN2BL (EP600190)

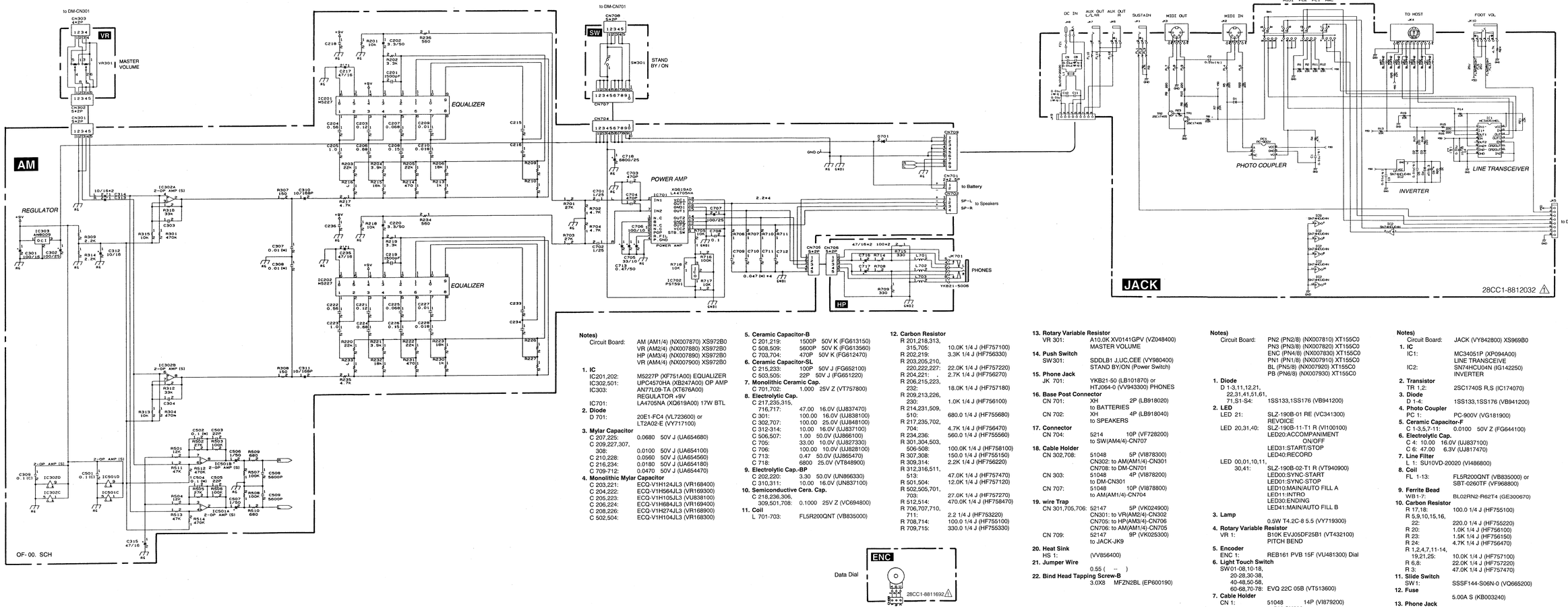
● S-81250SGUP-DQD-T1 (XT170A00) REGULATOR
1: GND 2: V in 3: V out

● μPC2933T(XS516A00) REGULATOR +3.3V
1: V in 2: GND 3: V out

● PQ05RF1 (X1124A00) REGULATOR +5V
1: IN 2: OUT 3: GND 4: ON/OFF cont.

PSR-630

■ PSR-630 CIRCUIT DIAGRAM (回路図) <AM,HP,SW,VR,JACK,PN1,PN2,PN3,PB,BL,ENC>



Notes)
Circuit Board: AM (AM1/4) (NX007870) XS972B0
VR (AM2/4) (NX007880) XS972B0
HP (AM3/4) (NX007890) XS972B0
VR (AM4/4) (NX007900) XS972B0

1. IC
IC201,202: M5227P (XF751A00) EQUALIZER
IC302,501: UPC4570HA (XB247A00) OP AMP
IC303: AN7TL09-TA (XT676A00) REGULATOR +9V
IC701: LA4705NA (XQ619A00) 17W BTL

2. Diode
D 701: 20E1-FC4 (VL723600) or LT2A02-E (VY717100)

3. Mylar Capacitor
C 207,225: 0.0680 50V J (UA654680)
C 209,227,307, 308: 0.0100 50V J (UA654100)
C 210,228: 0.0560 50V J (UA654560)
C 216,234: 0.0180 50V J (UA654180)
C 709-712: 0.0470 50V J (UA654470)

4. Monolithic Mylar Capacitor
C 203,221: ECQ-V1H124JL3 (VR168400)
C 204,222: ECQ-V1H564JL3 (VR169300)
C 205,223: ECQ-V1H105JL3 (VU838100)
C 206,224: ECQ-V1H684JL3 (VR169400)
C 208,226: ECQ-V1H274JL3 (VR168900)
C 502,504: ECQ-V1H104JL3 (VR168300)

5. Ceramic Capacitor-B
C 201,219: 1500P 50V K (FG613150)
C 508,509: 5600P 50V K (FG613560)
C 703,704: 470P 50V K (FG612470)

6. Ceramic Capacitor-SL
C 215,233: 100P 50V J (FG652100)
C 503,505: 22P 50V J (FG651220)

7. Monolithic Ceramic Cap.
C 701,702: 1.000 25V Z (VT757800)

8. Electrolytic Cap.
C 217,235,315, 716,717: 47.00 16.0V (UJ837470)
C 301: 100.00 16.0V (UJ838100)
C 302,707: 100.00 25.0V (UJ848100)
C 312-314: 10.00 16.0V (UJ837100)
C 506,507: 1.00 50.0V (UJ866100)
C 705: 33.00 10.0V (UJ827330)
C 706: 100.00 10.0V (UJ828100)
C 713: 0.47 50.0V (UJ865470)
C 718: 6800 25.0V (VT848900)

9. Electrolytic Cap.-BP
C 202,220: 3.30 50.0V (UN866330)
C 310,311: 10.00 16.0V (UN837100)

10. Semiconductive Cera. Cap.
C 218,236,306, 309,501,708: 0.1000 25V Z (VC694800)

11. Coil
L 701-703: FL5R200QNT (VP835000)

12. Carbon Resistor
R 201,218,313, 315,705: 10.0K 1/4 J (HF757100)
R 202,219: 3.3K 1/4 J (HF756330)
R 203,205,210, 220,222,227: 22.0K 1/4 J (HF757220)
R 204,221: 2.7K 1/4 J (HF756270)
R 206,215,223, 232: 18.0K 1/4 J (HF757180)
R 209,213,226, 230: 1.0K 1/4 J (HF756100)
R 214,231,509, 510: 680.0 1/4 J (HF755680)
R 217,235,702, 704: 4.7K 1/4 J (HF756470)
R 234,236: 560.0 1/4 J (HF755560)
R 301,304,503, 506-508: 100.0K 1/4 J (HF758100)
R 307,308: 150.0 1/4 J (HF755150)
R 309,314: 2.2K 1/4 J (HF756220)
R 312,316,511, 513: 47.0K 1/4 J (HF757470)
R 501,504: 12.0K 1/4 J (HF757120)
R 502,505,701, 703: 27.0K 1/4 J (HF757270)
R 512,514: 470.0K 1/4 J (HF758470)
R 706,707,710, 711: 2.2 1/4 J (HF753220)
R 708,714: 100.0 1/4 J (HF755100)
R 709,715: 330.0 1/4 J (HF755330)

13. Rotary Variable Resistor
VR 301: A10.0K XV0141GPV (VZ048400) MASTER VOLUME

14. Push Switch
SW301: SDDLB1 J,UC,CEE (VY980400) STAND BY/ON (Power Switch)

15. Phone Jack
JK 701: YKB21-50 (LB101870) or HTJ064-0 (VV943300) PHONES

16. Base Post Connector
CN 701: XH 2P (LB918020) to BATTERIES
CN 702: XH 4P (LB918040) to SPEAKERS

17. Connector
CN 704: 5214 10P (VF728200) to SW(AM4/4)-CN707

18. Cable Holder
CN 302,708: 51048 5P (VI878300) CN302: to AM(AM1/4)-CN301 CN708: to DM-CN701
CN 303: 51048 4P (VI878200) to DM-CN301
CN 707: 51048 10P (VI878800) to AM(AM1/4)-CN704

19. wire Trap
CN 301,705,706: 52147 5P (VK024900) CN301: to VR(AM2/4)-CN302 CN705: to HP(AM3/4)-CN706 CN706: to AM(AM1/4)-CN705
CN 709: 52147 9P (VK025300) to JACK-JK9

20. Heat Sink
HS 1: (VV856400)

21. Jumper Wire
0.55 (--)

22. Bind Head Tapping Screw-B
3.0X8 MFZN2BL (EP600190)

Notes)
Circuit Board: PN2 (PN2/8) (NX007810) XT155C0
PN3 (PN3/8) (NX007820) XT155C0
ENC (PN4/8) (NX007830) XT155C0
PN1 (PN1/8) (NX007910) XT155C0
BL (PN5/8) (NX007920) XT155C0
PB (PN6/8) (NX007930) XT155C0

1. Diode
D 1-3,11,12,21, 22,31,41,51,61, 71,S1-S4: 1SS133,1SS176 (VB941200)

2. LED
LED 21: SLZ-190B-01 RE (VC341300) REVOICE
LED 20,31,40: SLZ-190B-11-T1 R (VI100100) LED20:ACCOMPANIMENT ON/OFF LED31:START/STOP LED40:RECORD
LED 00,01,10,11, 30,41: SLZ-190B-02-T1 R (VT940900) LED00:SYNC-START LED01:SYNC-STOP LED10:MAIN/AUTO FILL A LED11:INTRO LED30:ENDING LED41:MAIN/AUTO FILL B

3. Lamp
0.5W T4.2C-8 5.5 (VY719300)

4. Rotary Variable Resistor
VR 1: B10K EVJ05DF25B1 (VT432100) PITCH BEND

5. Encoder
ENC 1: REB161 PVB 15F (VU481300) Dial

6. Light Touch Switch
SW01-08,10-18, 20-28,30-38, 40-48,50-58, 60-68,70-78: EVQ 22C 05B (VT513600)

7. Cable Holder
CN 1: 51048 14P (VI879200) to DM-CN502
CN 2: 51048 13P (VI879100) to DM-CN501
CN 3A,3B: 51048 11P (VI878900) CN3A: to PN2(PN2/8)-CN3B CN3B: to PN1(PN1/8)-CN3A
CN 4A,4B: 51048 6P (VI878400) CN4A: to PN3(PN3/8)-CN4B CN4B: to PN2(PN2/8)-CN4A
CN 5A,5B,6A,6B: 51048 3P (VI878100) CN5A: to ENC(PN4/8)-CN5B CN5B: to PN1(PN1/8)-CN3A CN6A: to PB(PN6/8)-CN6B CN6B: to PN1(PN1/8)-CN6A
CN 8A,8B: 51048 2P (VI878000) CN8A: to BL(PN5/8)-CN8B CN8B: to PN1(PN1/8)-CN8A

8. Lamp Holder
(VY843600)

9. Connector Assembly
W1: 14P PN-DM 1(--) to DM-CN502
W2: 13P PN-DM 2(--) to DM-CN501
W3: 11P PN1-PN2(--)
W4: 6P PN2-PN3(--)
W5: 3P PN1-PB(--)
W7: 3P PN1-ENC(--)
W8: 2P PN1-BL(--)

Notes)
Circuit Board: JACK (VY842800) XS969B0

1. IC
IC1: MC34051P (XP094A00) LINE TRANSCEIVE
IC2: SN74HCU04N (IG142250) INVERTER

2. Transistor
TR 1,2: 2SC1740S R,S (IC174070)

3. Diode
D 1-4: 1SS133,1SS176 (VB941200)

4. Photo Coupler
PC 1: PC-900V (VG181900)

5. Ceramic Capacitor-F
C 1-3,5,7-11: 0.0100 50V Z (FG644100)

6. Electrolytic Cap.
C 4: 10.00 16.0V (UJ837100)
C 6: 47.00 6.3V (UJ817470)

7. Line Filter
L 1: SU10VD-20020 (VI486800)

8. Coil
FL 1-13: FL5R200QNT (VB835000) or SBT-0260TF (VF968800)

9. Ferrite Bead
WB 1-7: BL02RN2-R62T4 (GE300670)

10. Carbon Resistor
R 17,18: 100.0 1/4 J (HF755100)
R 5,9,10,15,16, 22: 220.0 1/4 J (HF755220)
R 20: 1.0K 1/4 J (HF756100)
R 23: 1.5K 1/4 J (HF756150)
R 24: 4.7K 1/4 J (HF756470)
R 1,2,4,7,11-14, 19,21,25: 10.0K 1/4 J (HF757100)
R 6,8: 22.0K 1/4 J (HF757220)
R 3: 47.0K 1/4 J (HF757470)

11. Slide Switch
SW 1: SSSF144-S06N-0 (VQ665200)

12. Fuse
5.00A S (KB003240)

13. Phone Jack
JK 1: YKB21-50 (VB312600) or JY6314-01-1 (VV943400) SUSTAIN
JK 6: YKB21-50 (VB312600) or JY6314-01-1 (VV943400) AUX OUT R
JK 7: YKB21-50 (VC687500) AUX OUT L/L+R
JK 10: YKB21-50 (LB101870) or HTJ064-0 (VV943300) FOOT VOL

14. Connector
JK 8: HEC23 (VC664500) DC IN

15. DIN Connector
JK 2: 5P YKF51-50 (VJ107200) MIDI IN
JK 3: 5P YKF51-50 (VJ107200) MIDI OUT
JK 4: DIN 8P MD-S8 (VM761000) TO HOST

16. Cable Holder
JK 5: 51048 8P (VI878600) to DM-CN801
JK 9: 51048 9P (VI878700) to AM(AM1/4)-CN107

17. Fuse Holder
EYF-52B (VP206500)

18. Jack Connector Assembly
JACK (--)