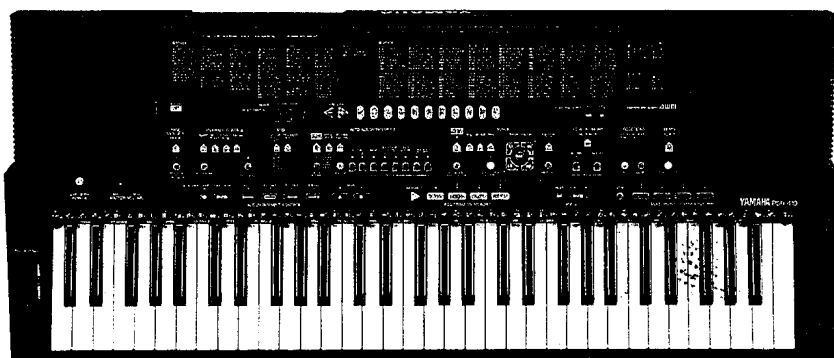
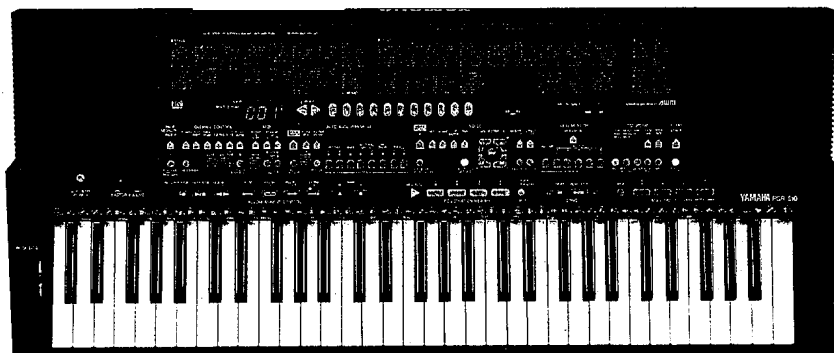


PORTATONE PSR-410 PSR-510

SERVICE MANUAL



PSR-410



PSR-510

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IMPORTANT NOTICE

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

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

IMPORTANT: The 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 principle-agent relationship of any form.

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

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground 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.

■ SPECIFICATIONS

● PSR-410

Keyboards:

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

VOICE:

AWM128 voices: 01~128

Polyphony: 28

KEYBOARD PERCUSSION: 1~8

VOL: 00~24

OCTAVE: -2~2

PAN: -7~7

ONE TOUCH SETTING

ORCHESTRATION: R1/R2/L1/L2

HARMONY: TYPE 01~10, ON/OFF

Setup:

POWER: ON/OFF

MASTER VOLUME: MIN~MAX

PAGE MEMORY:

PAGE #: 1~4

MIDI BULK DUMP/PAGE COPY

OVERALL CONTROL:

TEMPO: 040~240

METRONOME: ON/OFF

SPLIT POINT

TRANSPOSE: -12~12

TUNING: -16~16

TOUCH RESPONSE ON/OFF

PITCH BEND: -12~12

AUTO ACCOMPANIMENT:

80 styles

AUTO ACCOMP: ON/OFF

FINGERING: 1~5

ACCOMP VOLUME: 00~24

REVOICE

TRACK: RHYTHM 1/2, BASS, RHYTHMIC CHORD 1/2,

PAD CHORD, PHRASE 1/2

ACCOMPANIMENT CONTROL: SYNC-START/STOP,

START/STOP, INTRO, FILL IN 1, FILL IN 2, ENDING,

MAIN A/B

REGISTRATION MEMORY:

MEMORIZE

1~4

MULTI PADS:

STOP

1~4 (including 2 chord-match types).

DEMO:

SONG #: ALL, 1~5

START/STOP

SONG MEMORY:

MEASURE #

TRACK: ACCOMP, MELODY

SONG:

RESET, PLAY/STOP

RECORDING:

REC, CLEAR

ARE YOU SURE ?:

YES, NO

MULTI DISPLAY:

Number Buttons: [+], [-], [0]~[9], [+/-]

MIDI:

RECEIVE CH/CL/COM, TRANSMIT CH

Auxiliary Jacks:

DC IN, HEADPHONES/AUX OUT, SUSTAIN PEDAL,

MIDI IN/OUT

Main Amplifiers:

4.5W x 2 (when using PA-5 AC power adaptor)

1.5W x 2 (when using batteries)

HEADPHONES/AUX OUT output: 50Ω impedance.

Speakers:

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

Batteries:

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

Rated Voltage:

DC 10-12V

Dimensions (W x D x H):

939mm x 397mm x 113mm (37" x 15-5/8" x 4-1/2")

Weight:

6.0kg (13.2 lbs.) excluding batteries

Supplied Accessories:

- Music Stand
- Owner's Manual

Optional Accessories:

- Headphones HPE-3
- Keyboard Stand L-2C
- AC Power Adaptor PA-3, PA-4, PA-5, PA-40
- Foot switch FC4, FC5

● PSR-510

Keyboards:

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

VOICE:

AWM128 voices: 01~128

Polyphony: 28

KEYBOARD PERCUSSION: 1~8

VOL: 00~24

OCTAVE: -2~2

DSP DEPTH: 00~15

PAN: -7~7

ONE TOUCH SETTING

ORCHESTRATION: R1/R2/L1/L2

HARMONY: TYPE 01~10, ON/OFF

EFFECT: TYPE 01~12, ON/OFF

Setup:

POWER: ON/OFF

MASTER VOLUME: MIN~MAX

PAGE MEMORY:

PAGE #: 1~4

MIDI BULK DUMP/PAGE COPY

OVERALL CONTROL:

TEMPO: 040~240

METRONOME: ON/OFF

SPLIT POINT

TRANSPOSE: -12~12

TUNING: -16~16

DSP TYPE: 1~8

TOUCH: SENSE 1~5, TOUCH RESPONSE ON/OFF

PITCH BEND: -12~12

AUTO ACCOMPANIMENT:

103 styles: 01~99, 00 in pages 1~4.

AUTO ACCOMP: ON/OFF

FINGERING: 1~5

ACCOMP VOLUME: 00~24

REVOICE

TRACK: RHYTHM 1/2, BASS, RHYTHMIC CHORD 1/2,

PAD CHORD, PHRASE 1/2

ACCOMPANIMENT CONTROL: SYNC-START/STOP,

START/STOP, FADE IN/OUT, INTRO, FILL IN 1, FILL IN 2,

ENDING, MAIN A/B

REGISTRATION MEMORY:

MEMORIZE

1~4

FREEZE

MULTI PADS:

STOP

1~4 (including 2 chord-match types).

DEMO:

SONG #: ALL, 1~6

START/STOP

SONG MEMORY:

MEASURE #

TRACK: ACCOMP, MELODY 1~5

SONG:

RESET (STEP BWD), PLAY/STOP (STEP FWD)

RECORDING:

REC, REWRITE SETTING, CLEAR, STEP REC,

QUANTIZE, GATE TIME, STEP SIZE

ARE YOU SURE ?:

YES, NO

MULTI DISPLAY:

Number Buttons: [+], [-], [0]~[9], [+/-]

Data Dial

MIDI:

RECEIVE CH/CL/COM, TRANSMIT CH L/R (LOCAL/MIDI OUT)

Auxiliary Jacks:

DC IN, HEADPHONES/AUX OUT, SUSTAIN PEDAL,

MIDI IN/OUT

Main Amplifiers:

4.5W x 2 (when using PA-5 AC power adaptor)

1.5W x 2 (when using batteries)

HEADPHONES/AUX OUT output: 50Ω impedance.

Speakers:

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

Batteries:

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

Rated Voltage:

DC 10-12V

Dimensions (W x D x H):

939mm x 397mm x 113mm (37" x 15-5/8" x 4-1/2")

Weight:

6.0kg (13.2 lbs.) excluding batteries

Supplied Accessories:

- Music Stand
- Foot Pedal*
- Owner's Manual

Optional Accessories:

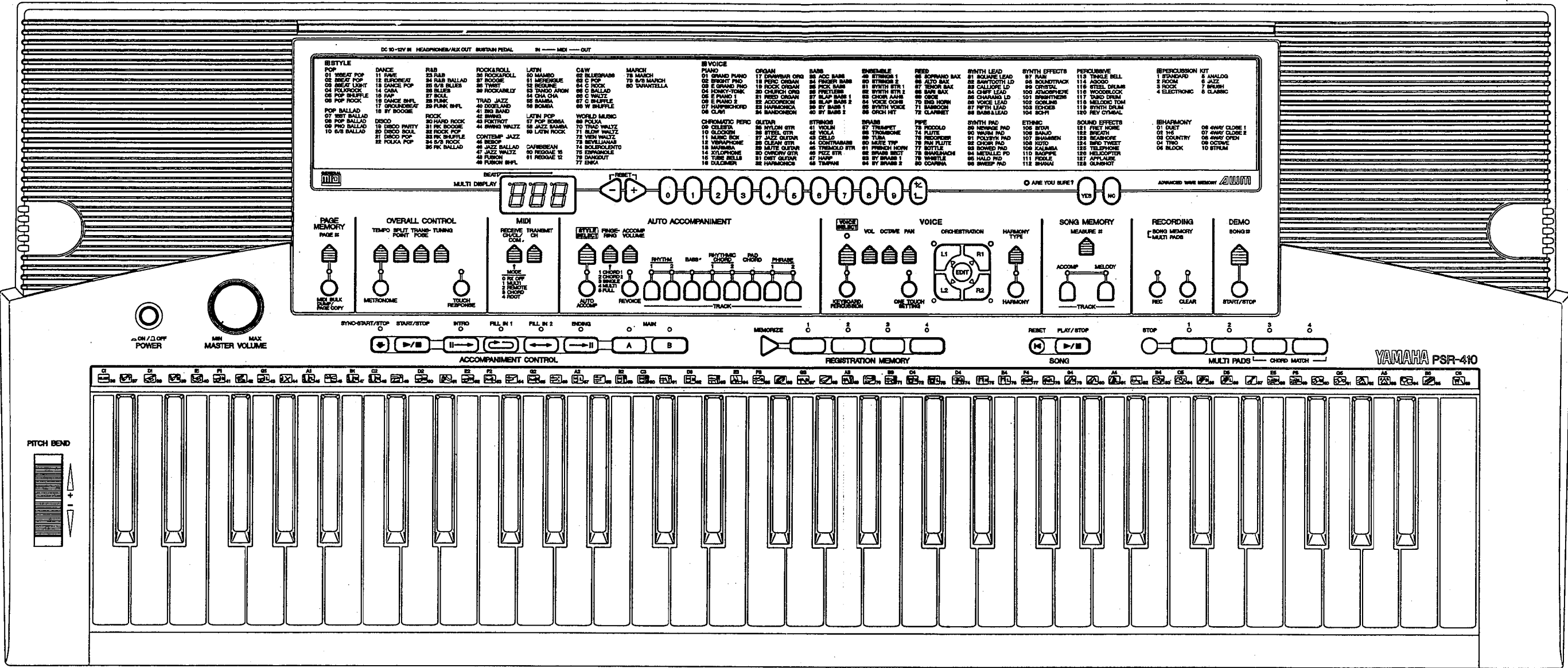
- Headphones HPE-3
- Keyboard Stand L-2C
- AC Power Adaptor PA-3, PA-4, PA-5*, PA-40
- Foot switch FC4, FC5

* Foot pedal and PA-5 are included only in PSR-510M package.

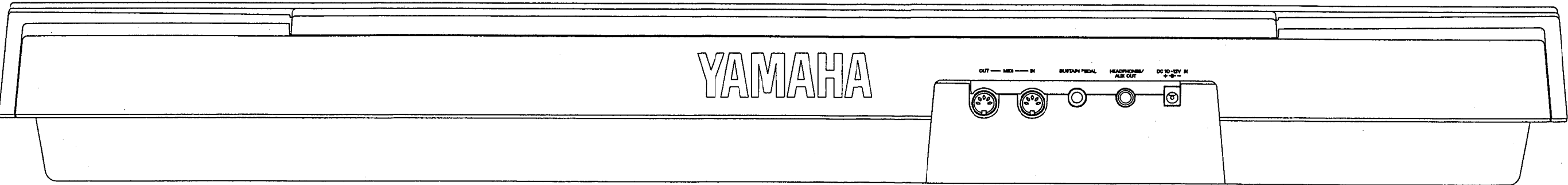
PANEL LAYOUT

(PSR-410)

● Front Panel

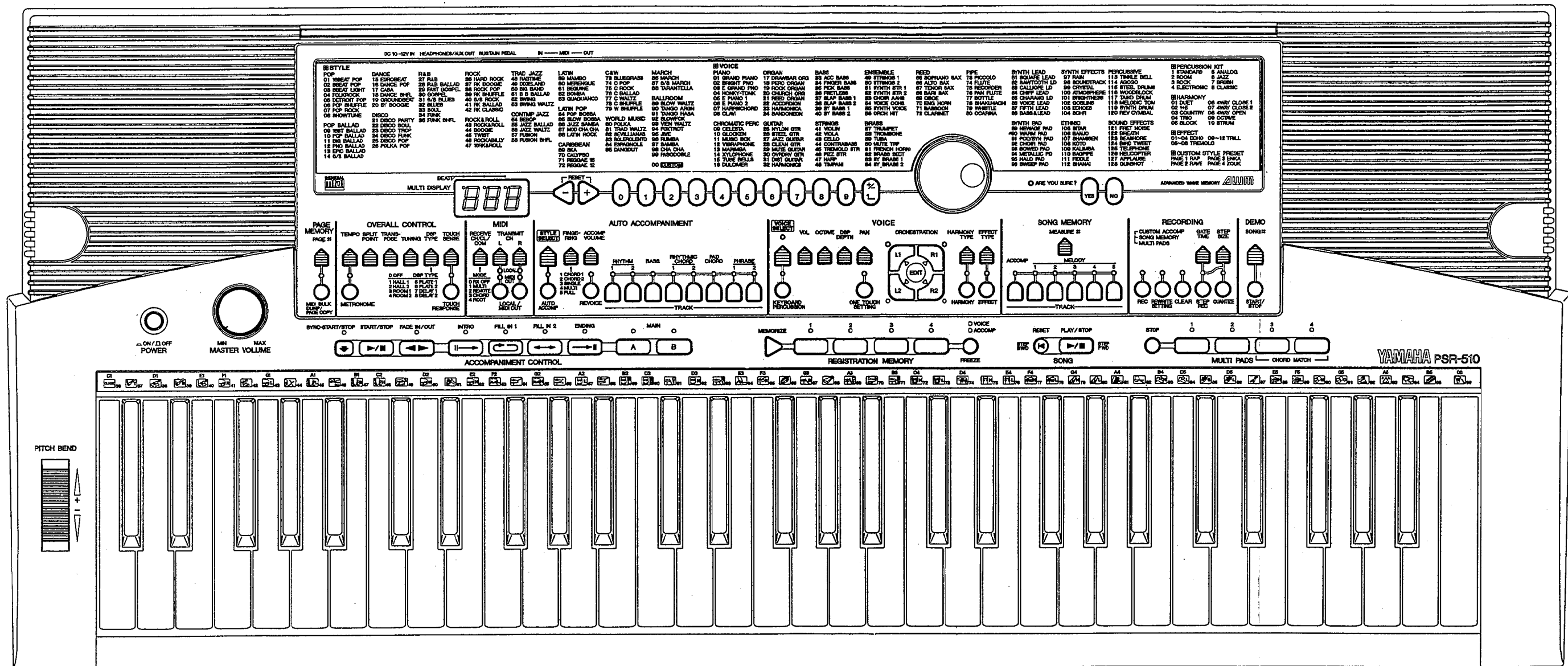


● Rear Panel

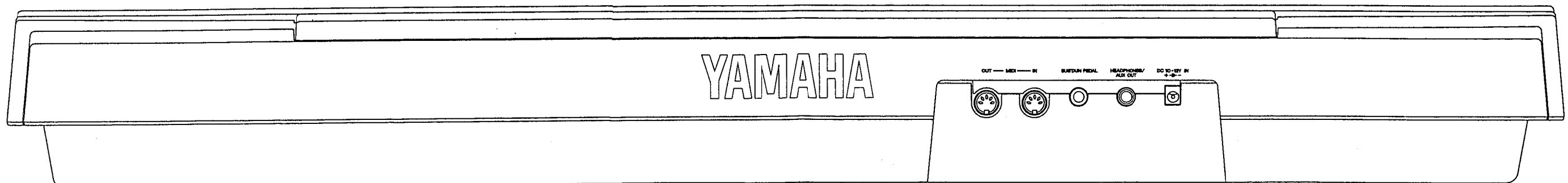


(PSR-510)

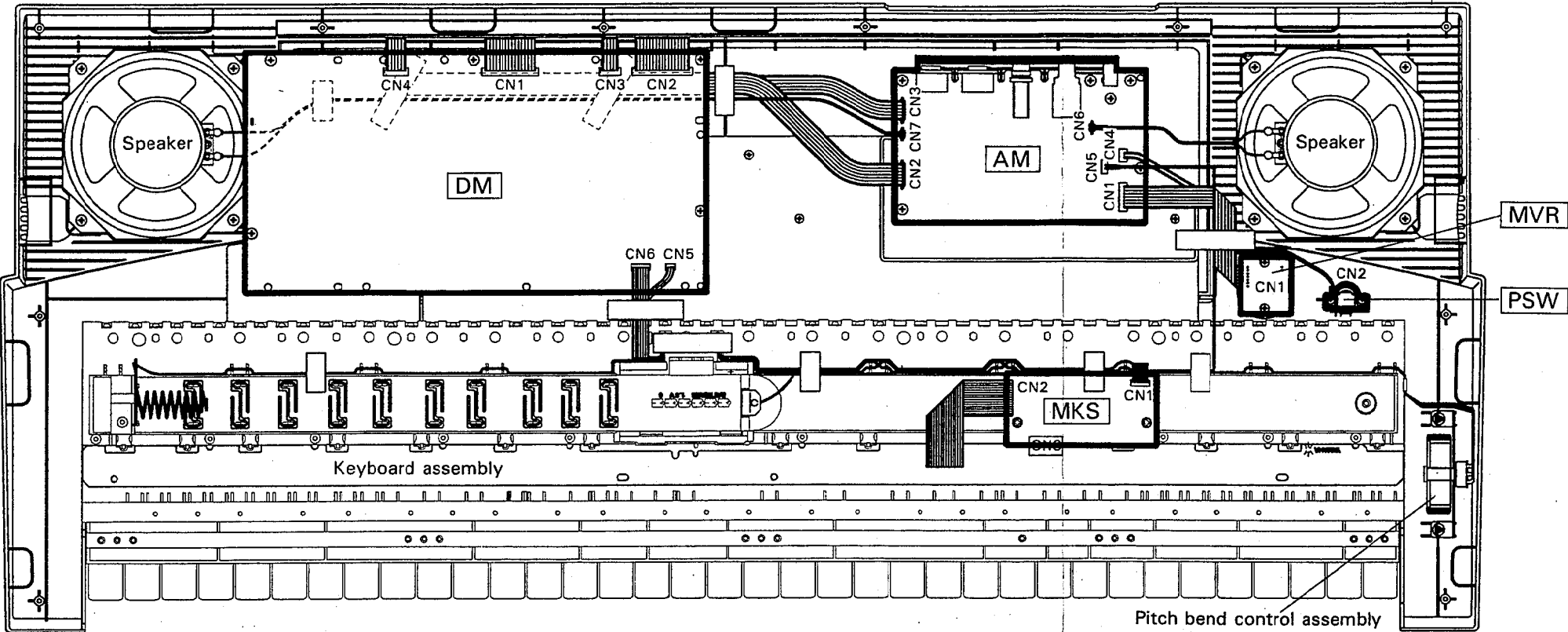
● Front Panel



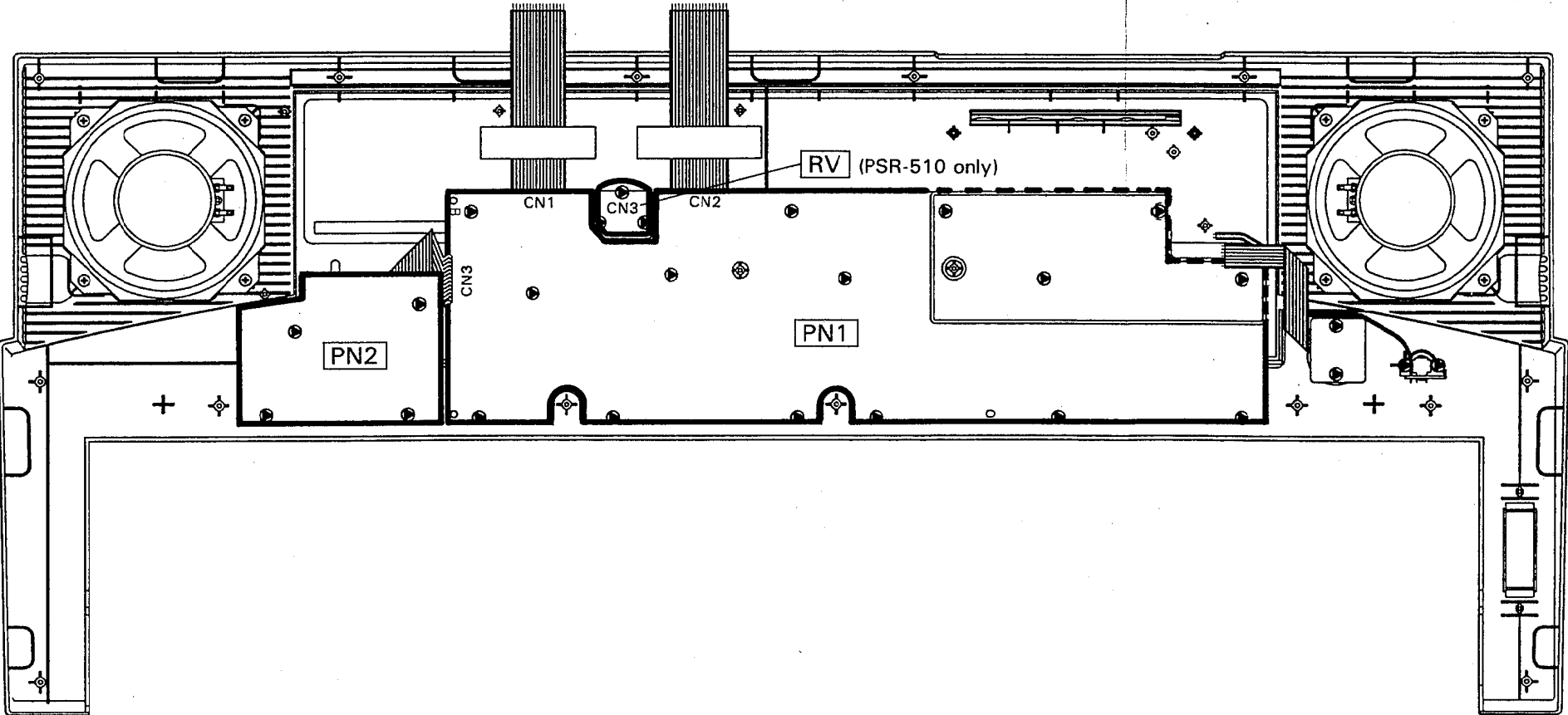
● Rear Panel



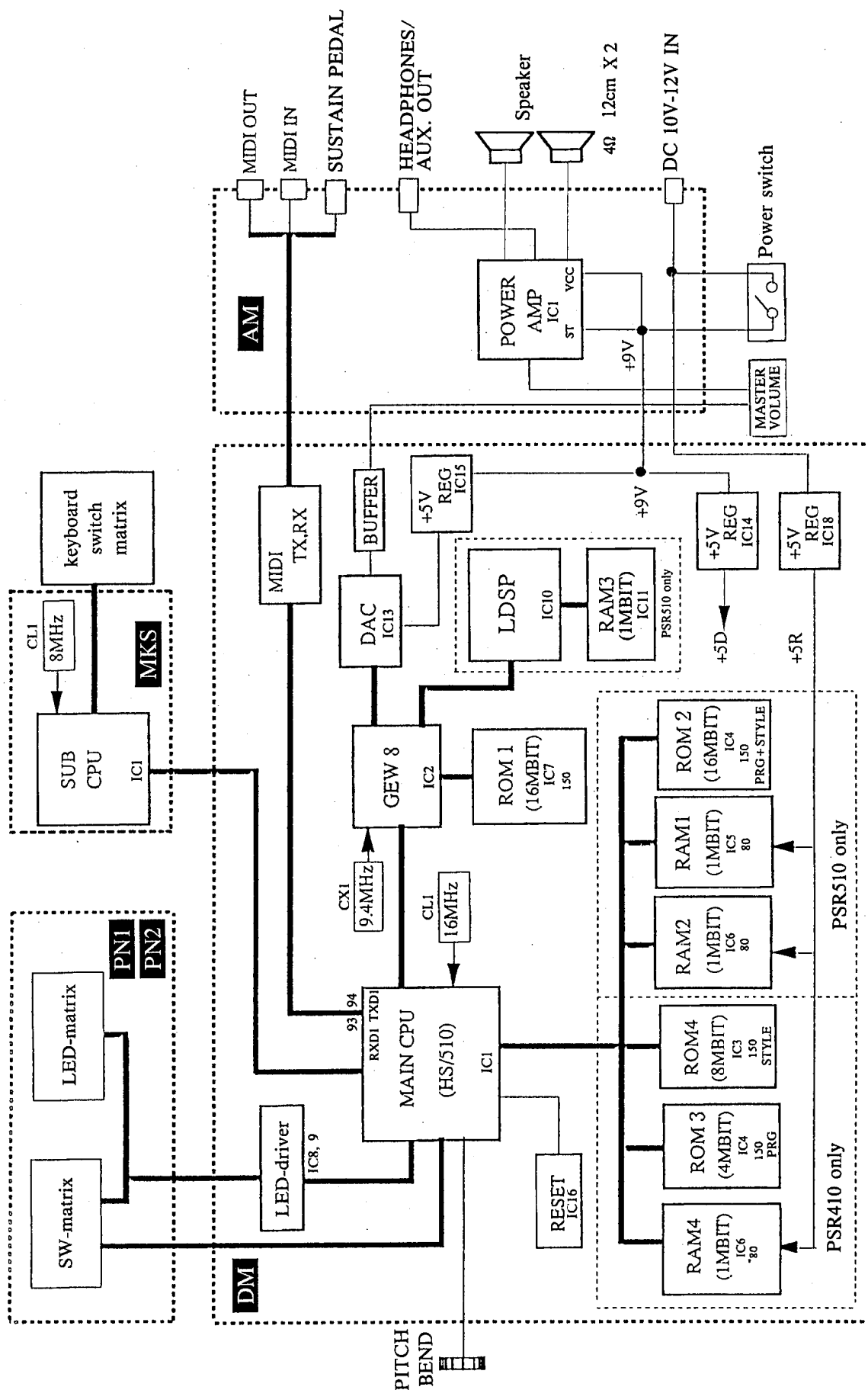
■ CIRCUI T BOARD LAYOUT



* DM circuit board, AM circuit board and keyboard assembly have been removed.



SR-410/PSR-510



■ DISASSEMBLY PROCEDURE

1. Lower Case Assembly Removal

- 1-1. Remove the battery cover.
- 1-2. Remove the four (4) screws marked [510] and fifteen (15) screws marked [500], then the lower case assembly can be removed. (Fig. 1)

* This will give you access to the circuit boards as shown in the figure 2.

- (1) AM circuit board
- (2) PSW circuit board
- (3) MVR circuit board
- (4) Speakers
- (5) Pitch bend control assembly
- (6) MKS circuit board

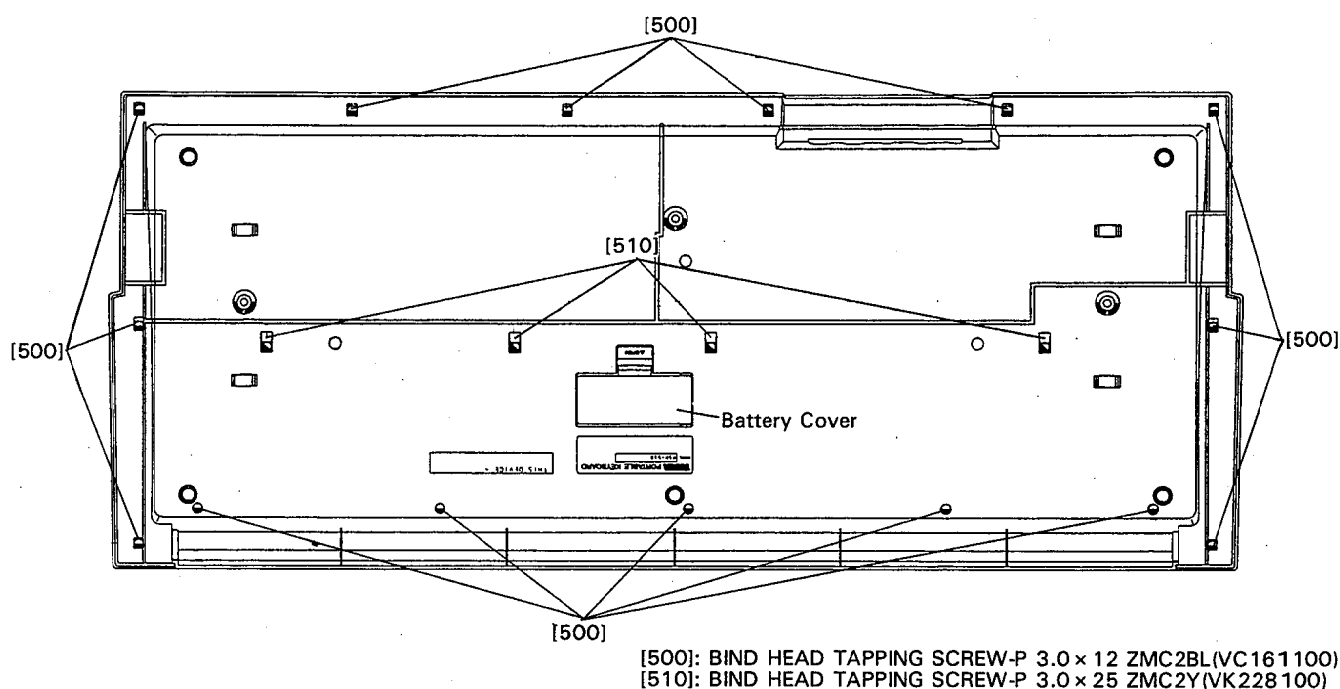


Fig. 1

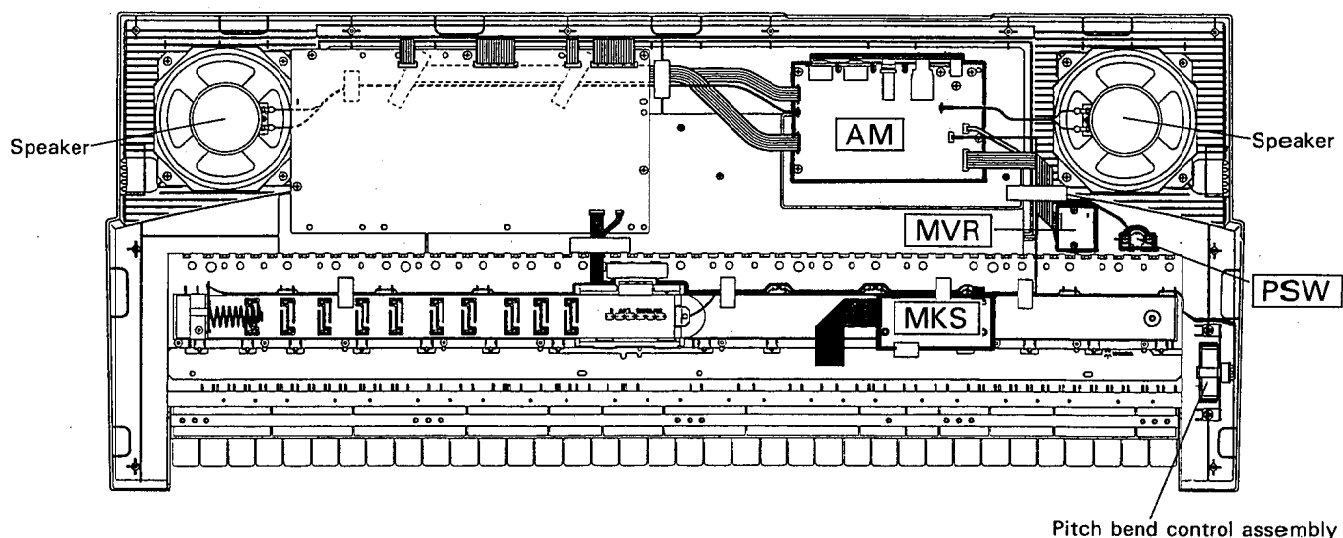


Fig. 2

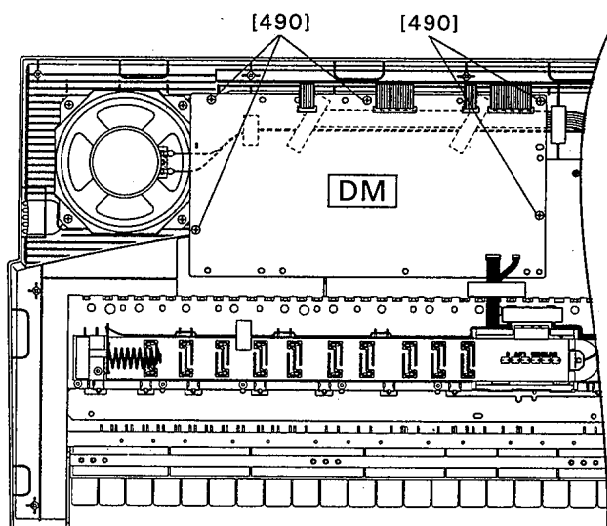
2. DM circuit Board Removal

- 2-1. Remove the lower case assembly. (see procedure 1)
- 2-2. Remove the nine (9) screws marked [530], (fig.3) (German and U.S model only)
- 2-3. Remove the five (5) screws marked [490], then the DM circuit board can be removed. (Fig.3)

3. RV circuit board Removal (PSR-510 only)

- 3-1. Remove the lower case assembly. (see procedure 1)
- 3-2. Remove the DM circuit board. (see procedure 2)
- 3-3. Remove the three (3) screws marked [490A], then the RV circuit board can be removed. (Fig. 4)

• Japanese, British and General model



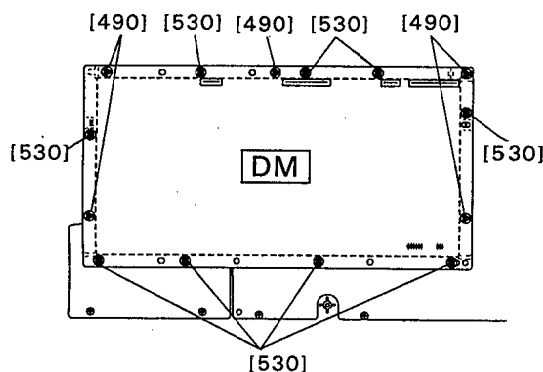
4. PN1 Circuit Board Removal

- 4-1. Remove the lower case assembly. (see procedure 1)
- 4-2. Remove the DM circuit board. (see procedure 2)
- 4-3. Remove the AM circuit board. (Fig. 2)
- 4-4. Remove the four (4) screws marked [490B], then remove the shield sheet. (Fig. 4)
- 4-5. Remove the eleven (11) screws marked [490C], then the PN1 circuit board can be removed. (Fig. 4)

5. PN2 Circuit Board Removal

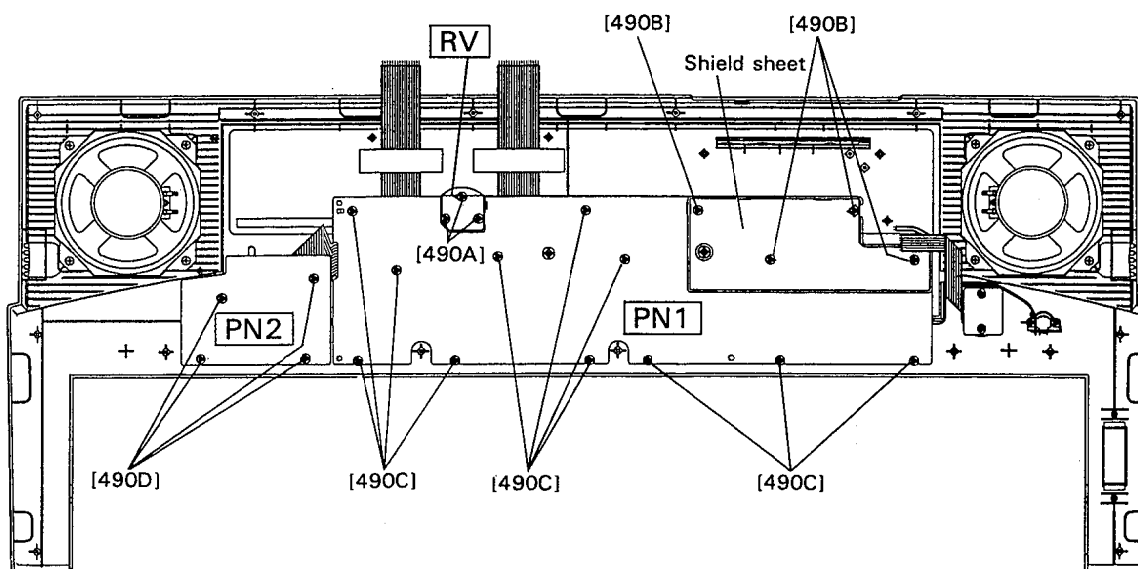
- 5-1. Remove the lower case assembly. (see procedure 1)
- 5-2. Remove the DM circuit board. (see procedure 2)
- 5-3. Remove the four (4) screws marked [490D], then the PN2 circuit board can be removed. (Fig. 4)

• German and U.S. model



[490]: BIND HEAD TAPPING SCREW-P 2.6×8 ZMC2Y(EP620100)
 [530]: BIND HEAD TAPPING SCREW-S 2.6×6 ZMC2BL (VQ396300)

Fig. 3

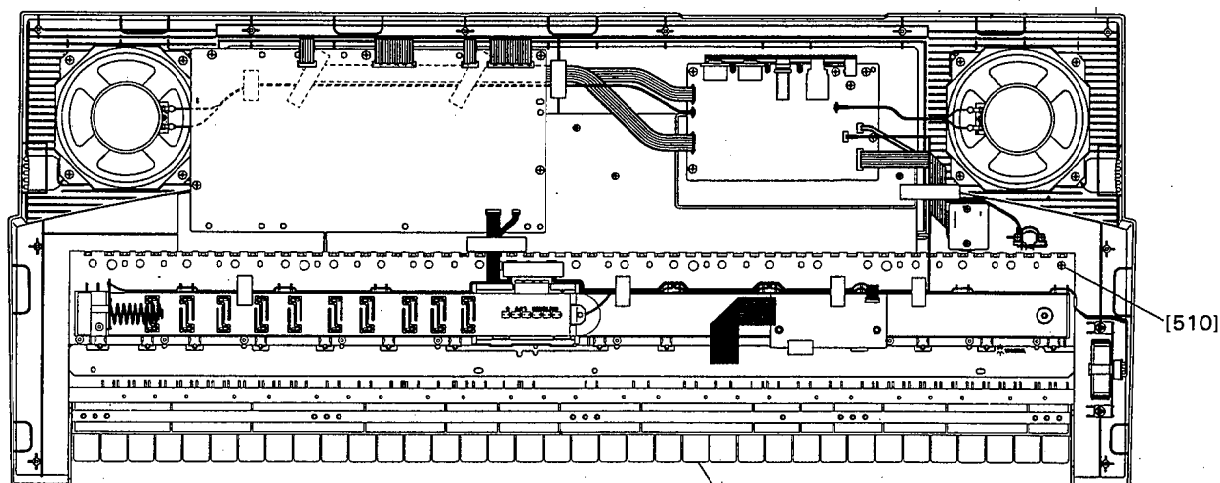


[490]: BIND HEAD TAPPING SCREW-P 2.6×8 ZMC2Y(EP6 20100)

Fig. 4

6. Keyboard Assembly Removal

- 6-1. Remove the lower case assembly. (see procedure 1)
- 6-2. Remove the one (1) screw marked [510], then the keyboard assembly can be removed. (Fig. 5)



[510]: BIND HEAD TAPPING SCREW-P 3.0×25 ZMC2Y(VK228100) Keyboard assembly

Fig. 5

7. Disassembling Keyboard Assembly

- 7-1. MK Circuit Board and Rubber Contact Removal
Remove the fifteen (15) MK circuit board retaining hooks by pressing them in the direction of the arrow, and then remove the MK circuit board.

The rubber contact can be removed by pulling it up. (Fig. 6)

- 7-2. White And Black Keys Removal (Fig. 7)

Remove the twenty-one (21) screws marked [140].

Remove the black keys in order of lower notes. Then remove the white keys DFA and C' and finally remove the white keys CEGB in order of higher notes.

When removing keys, lift the front end and slide it toward you.

8. Assembling The Keyboard Assembly

- 8-1. Fitting The White And Black Keys (Fig. 7)

Fit the white keys CEGB in order of lower notes. Fit the white keys DFA and C'.

Then, fit the black keys in order of higher notes and tighten the twenty-one (21) screws marked [140].

- 8-2. Fitting The Rubber Contact And MK Circuit Board (Fig. 8, 9, 10)

Fit the rubber contact while pushing the keys up as shown in figure 8.

Securely fit the arrow-indicated area of the rubbercontact as shown in figure 9.

When fitting the rubber contact, raise both ends of the frame so that keys of the keyboard doesnot push up the rubber contact.

Then fit the MK circuit board into the hooks as shown in figure 10.

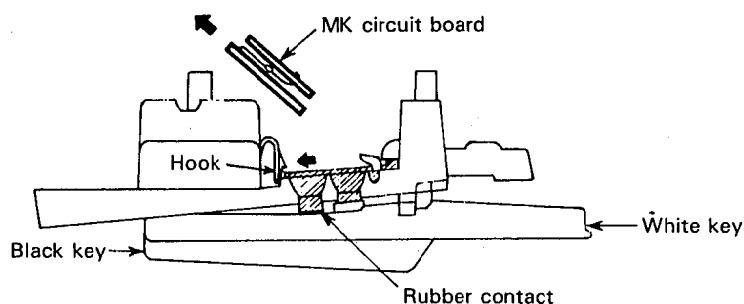


Fig. 6

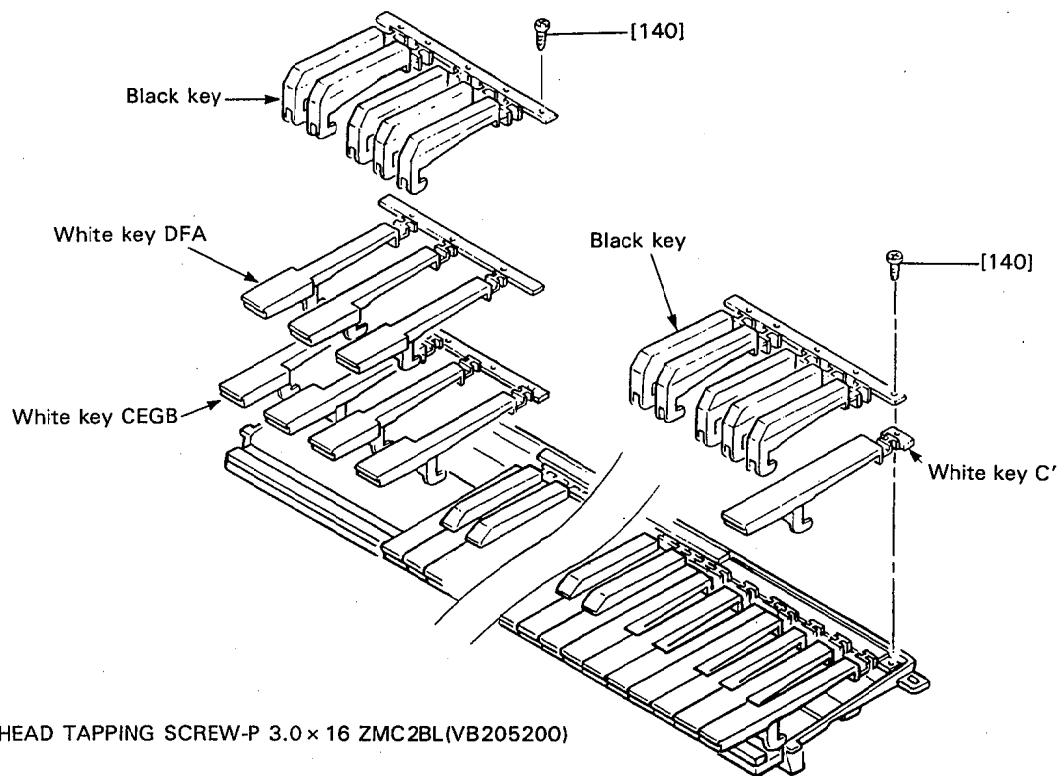


Fig. 7

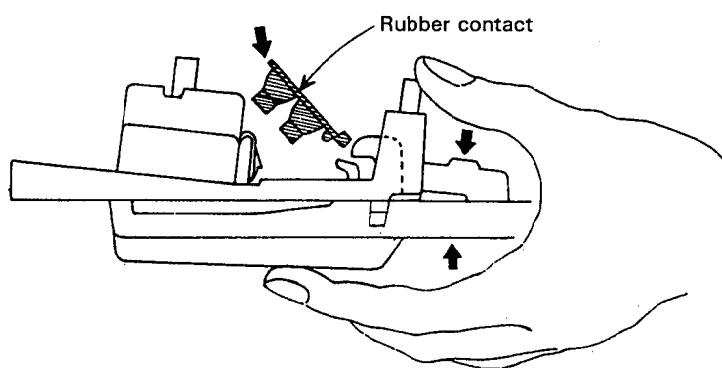


Fig. 8

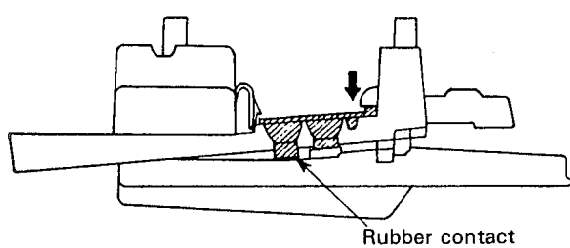


Fig. 9

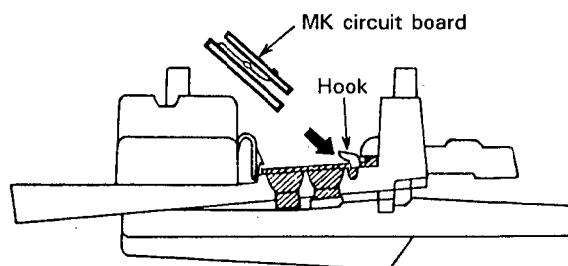


Fig. 10

LSI PIN DESCRIPTION

• HD6415108F10 <H8/510> (XJ797A00) CPU

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	<u>RES</u>	I	Reset	57	P41	I/O	Port 4
2	<u>NMI</u>	I	Non-maskable interrupt	58	P42	I/O	
3	VSS		Ground	59	P43	I/O	
4	D0	I/O	Data bus	60	P44	I/O	
5	D1	I/O		61	P45	I/O	Ground
6	D2	I/O		62	P46	I/O	
7	D3	I/O		63	P47	I/O	
8	D4	I/O		64	VSS		
9	D5	I/O		65	P50	I/O	Power supply
10	D6	I/O		66	P51	I/O	
11	D7	I/O		67	P52	I/O	
12	D8	I/O		68	P53	I/O	
13	D9	I/O	Ground	69	P54	I/O	Port 6
14	D10	I/O		70	P55	I/O	
15	D11	I/O		71	P56	I/O	
16	D12	I/O		72	P57	I/O	
17	D13	I/O	Address bus	73	P60	I/O	Ground
18	D14	I/O		74	P61	I/O	
19	D15	I/O		75	P62	I/O	
20	VSS			76	P63	I/O	
21	A0	O	Address bus	77	P64	I/O	Analog ground
22	A1	O		78	P65	I/O	
23	A2	O		79	P66	I/O	
24	A3	O		80	P67	I/O	
25	A4	O		81	VSS		Analog signal input
26	A5	O		82	AVSS		
27	A6	O		83	AN0	I	
28	A7	O		84	AN1	I	
29	A8	O		85	AN2	I	Analog power supply
30	A9	O		86	AN3	I	
31	A10	O	(Ground)	87	AVCC		
32	A11	O		88	VCC		
33	A12	O		89	P80/IRQ0	I/O	Port 8
34	A13	O		90	P81/IRQ1	I/O	
35	A14	O		91	P82/SCK1	I/O	
36	A15	O		92	P83/SCK2	I/O	
37	VSS			93	P84/RXD1	I/O	Ground
38	A16	O		94	P85/TXD1	I/O	
39	A17	O		95	P86/RXD2	I/O	
40	A18	O		96	P87/TXD2	I/O	
41	A19	O	Ground	97	VSS		Clock
42	A20	O		98	EXTAL		
43	A21	O		99	XTAL		
44	A22	O		100	VSS		Ground
45	A23	O	Ground	101	ø	O	
46	VSS			102	E	O	
47	P30/WAIT	I/O		103	AS	O	
48	P31	I/O	Port 3	104	RD	O	Address strobe
49	P32	I/O		105	HWR	O	
50	P33	I/O		106	LWR	O	
51	P34	I/O		107	RFSH	I	Read control
52	P35	I/O	Power supply	108	VCC		
53	P36	I/O		109	MDO	I	
54	P37	I/O		110	MD1	I	
55	VCC		Port 4	111	MD2	I	Mode select
56	P40	I/O		112	STBY	I	

• HD63B05VOD73P (XJ450A00) CPU (SUB)

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

• YMW-258-F (XJ427A00) GEW8 (AWM & FM Tone Generator)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	NC		Ground	41	Vss		Ground
2	Vss			42	NC		
3	D0			43	Vss		Ground
4	D7		CPU data bus	44	AB0		
5	A0		CPU address bus	45	DB7		
6	A1			46	AB1		Voice memory address bus
7	A2			47	AB2		
8	A3		Chip select	48	AB10		
9	CS			49	AB3		
10	RD		Read control	50	AB4		
11	WR		Write control	51	AB11		
12	XIN		Clock	52	AB5		
13	XOUT		Initial clear	53	AB9		
14	IC			54	AB6		
15	TST0			55	AB8		Ground
16	TST1		Test pin	56	AB7		
17	Vss		Ground	57	AB13		
18	DITHER			58	AB12		
19	DACLD			59	AB14		
20	DACDCLK		Data output, L channel	60	AB15		
21	DACRD		Bit clock output to DAC	61	AB17		
22	DACLE		Data output, R channel	62	Vss		
23	NC		Word clock output to DAC	63	Vss		
24	DACMC			64	Vss		
25	CH27			65	Vss		Voice memory address bus
26	DSPSYW		System clock output to DAC	66	AB16		
27	DSPSEND			67	AB18		
28	DSPRET			68	AB19		
29	DSPIC		Not used	69	AB20		
30	DSPCDS			70	AB21		
31	DSPCLK			71	MRD(MWR)		Memory read control
32	VDD		Power supply	72	VDD		Power supply
33	DB3			73	MWR(MRD)		Memory write control
34	DB2			74	D3		CPU data bus
35	DB4		Voice memory data bus	75	D4		
36	DB1			76	D2		
37	DB5			77	D5		
38	DB0			78	D1		
39	DB6		Ground	79	D6		Ground
40	NC			80	Vss		

• YM3413 (XE449A00) LDSP (Digital Signal Processor)

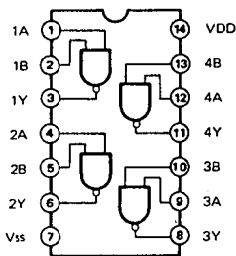
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	VDD		DC supply (+5V)	21	A5	O	
2	D7	I/O		22	A6	O	
3	D6	I/O		23	A7	O	
4	D5	I/O		24	A8	O	
5	D4	I/O		25	A9	O	
6	D3	I/O		26	A10	O	
7	D2	I/O		27	A11	O	
8	D1	I/O		28	A12	O	
9	D0	I/O		29	A13	O	
10	SI0	I	Serial data input	30	A14	O	
11	SI1	I		31	A15	O	
12	SYW	I	Sync pulse	32	A16	O	
13	WE	O	Write enable	33	SO0	O	Serial data output
14	OE	O	Output enable	34	XCLK	I	Clock
15	A0	O		35	IC	I	Initial Clear
16	A1	O		36	CRS	I	CD counter reset
17	A2	O	Address bus	37	CDI	I	CD input
18	A3	O		38	CDo	O	CD output
19	A4	O		39	SO1	O	Serial data output
20	Vss		Ground	40	CLK	I	Clock

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

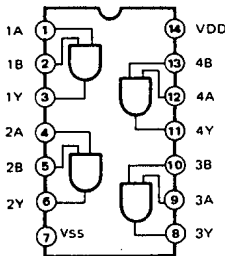
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	4/8F	I	4/8 fs selection	9	R.REF		R-ch voltage reference
2	D.GND		Digital GND	10	L.REF		L-ch voltage reference
3	16 BIT	I	16 bit/18 bit selection	11	L.OUT	O	L-ch output
4	D.VDD		Digital VDD	12	A.GND		Analog GND
5	A.GND		Analog GND	13	WDCK	I	WORD clock
6	R.OUT	O	R-ch output	14	RSI	I	R-ch series input
7	A.VDD		Analog VDD	15	SI/LSI	I	Series input/L-ch series input
8	A.VDD			16	CLK	I	Clock

■ IC BLOCK DIAGRAM

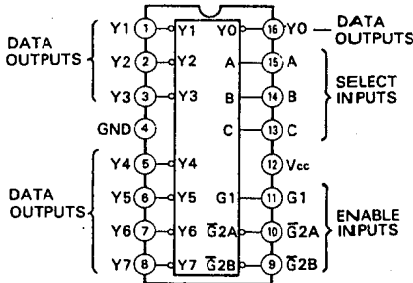
• SN74HC00N (IR000050)
Quad 2 Input NAND



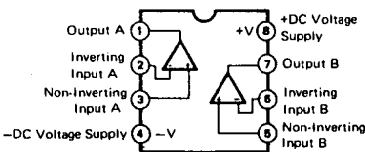
• HD74HC08P2IN (IR000810)
• SN74HC08N (IR000850)
Quad 2 Input AND



• 74AC11138 (XM724A00)
3 to 8 Decoder/Demultiplexer

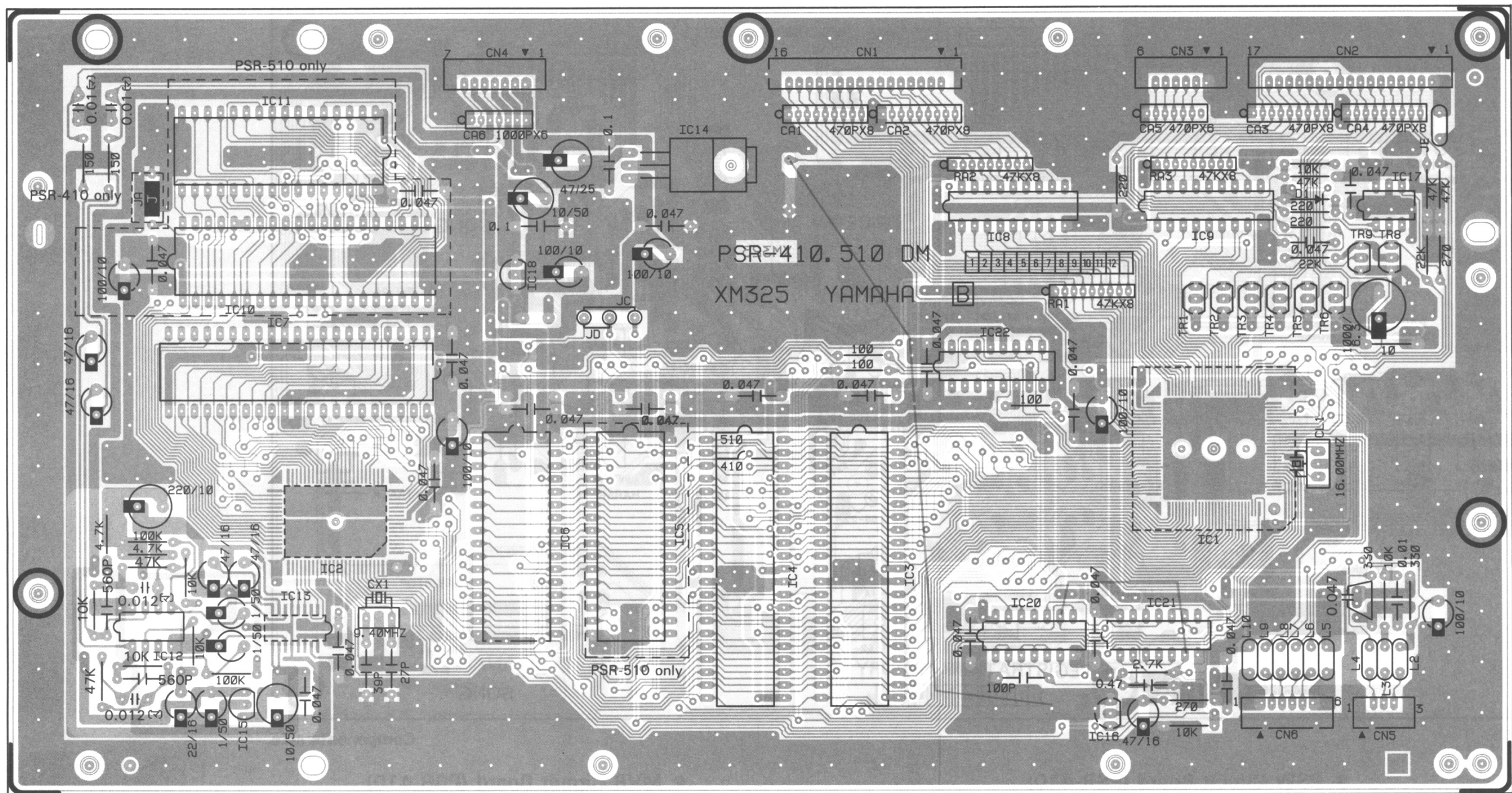


• μPC4570C (XC520A00)
Dual Operational Amplifier



CIRCUIT BOARDS

DM Circuit Board (PSR-410, PSR-510)

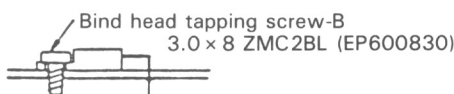


Components side

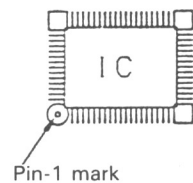
PSR-410	IC3	XM981A00 (STYLE)	XM981A00 (STYLE)
	IC4	XM979A00 (PROGRAM)	XN042A00 (PROGRAM)
PSR-510	IC3	XM980A00 (STYLE)	X
	IC4	XM978A00 (PROGRAM)	XN043A00 (PROGRAM+STYLE)

* A spare part for IC3 (STYLE) and IC4 (PROGRAM) is IC4 (STYLE + PROGRAM) XN043A00. Remove the IC3 when installing this spare part. (PSR-510 only)

IC14 installation



IC1, IC2, IC13 installation



XXX	XXX = Ω	Carbon resistor
XXX (7)	XXX μ F XXXP = pF	Mylar cap.
XXX	XXX μ F XXXP = pF	Ceramic cap.
XXX	XXX μ F	Electrolytic cap.

Notes)

Circuit Board : DM (VQ272300) XM325B0 (PSR-410) D, U
DM (VQ272400) XM325B0 (PSR-410) J, B, X

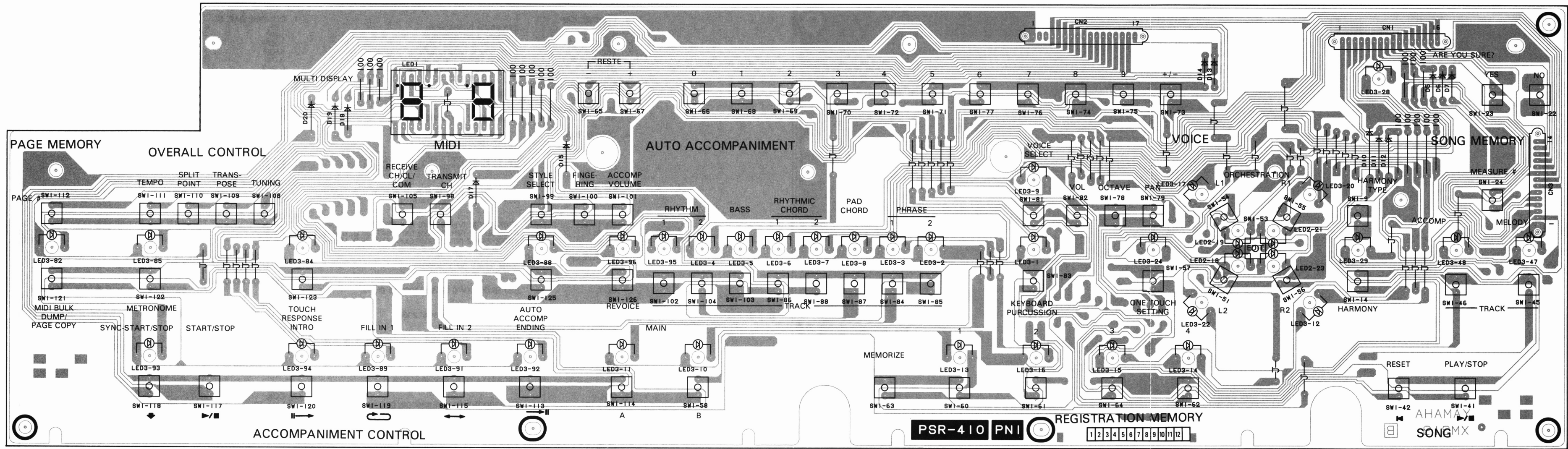
- CERAMIC CAP.
27P: 27P 50V J (VD840600)
39P: 39P 50V J (VD840800)
100P: 100P 50V K (VD841300)
560P: 560P 50V K (VD842300)
0.01: 10000P 16V N (VD843800)
0.047: 47000P 16V Z (VK392400)
- MONOLITHIC CERA. CAP.
0.1: 0.100 50V Z (VI307100)
- RESISTOR ARRAY
RA 1~3: RGL8X473J (VF238600)
- CONNECTOR
CN 1: 52147-16P TE to PN1-CN 1
CN 2: 52147-17P TE to PN1-CN 2
CN 3: 52147-6P TE (VF728300) to AM-CN 3
CN 6: 52147-6P TE (VF728300) to MKS-CN 1
- WIRE TRAP
CN 4: 52147-7P TE to AM-CN 2
CN 5: 52147-3P TE to Pitch Bend
- CERAMIC CAP. ARRAY
CA 1~4: 470P 50V M (VH285600) EXF-P8471ZF D, U only
CA 5: 470P 50V M (VH285500) EXF-P6471ZF D, U only
CA 6: 1000P 50V Z (VP823800) EXF-P6102ZF D, U only
- QUARTZ CRYSTAL UNIT
CX 1: 9.4M AT-49 (VN271300)
- CERAMIC RESONATOR
CL 1: CST16.00MXW0 (VK966200) 16.0MHz
- DIODE
D 1: 1SS133, 1SS176 (VB941200)
- DIGITAL TRANSISTOR
TR 1~6: DTC114ES (VD678700)
TR 8: DTB123ES TP (VJ337600)
- TRANSISTOR
TR 9: 2SC2603 E, F (IC260320) or
2SC3311A Q, R, S (VH800600)
- COIL
L 2~10: FL5R200QNT 20 μ (VB835000) D, U only or
SBT-0260TF 60 μ (VF968800) D, U only
- IC
IC 1: HD6415108F10 (XJ797A00) CPU
IC 2: YMW258-F (XJ427A00) GEW8
IC 3: (XM981A00) ROM 8M (STYLE)
IC 4: TC574200D-120 (XM979A00) ROM 4M or
(XN042A00) ROM 4M (PROGRAM)
IC 6: TC518128APL-80 (XJ446A00) PSRAM 1M
IC 7: HN624017PZ11 (XM984A00) ROM 16M (VOICE)
IC12: UPC4570C (XC520A00) OP AMP
IC13: UPD63200GS (XM145A00) DAC
IC14: UPC24M05HF (XH730A00) REGULATOR +5V
IC15: AN8005-(TA) (XL559A00) REGULATOR +5V
IC16: RE5VL45CA-TZ (XM618A00) RESET or
RE5VA45CA-TZ (XM717A00) RESET
IC18: S-81350HG-T (XM939A00) REGULATOR +5V
IC20: SN74HC08N (I000080) AND
IC21: SN74HC00N (I000050) NAND
IC22: 74AC11138 (XM724A00) DEC DEMP
- TRANSISTOR ARRAY
IC 8: AN90B22 (VH480900) LED DRIVER
IC 9: AN90B22 (VH480900) LED DRIVER
- PHOTO COUPLER
IC17: PC-900V (VG181900) PHOTO COUPLER
- JUMPER WIRE
JC, JF: 0.55 (VA078900)
L 2~10: 0.55 (VA078900) J, B, X only

Notes)

Circuit Board : DM (VQ121400) XM325B0 (PSR-510) D, U
DM (VQ148500) XM325B0 (PSR-510) J, B, X

- CERAMIC CAP.-SL
27P: 27P 50V J (VD840600)
39P: 39P 50V J (VD840800)
100P: 100P 50V K (VD841300)
560P: 560P 50V K (VD842300)
0.01: 10000P 16V N (VD843800)
0.047: 47000P 16V Z (VK392400)
- MONOLITHIC CERA. CAP.
0.1: 0.10 50V Z T=52 (VI307100)
- RESISTOR ARRAY
RA 1~3: RGL8X473J (VF238600)
- CONNECTOR
CN 1: 52147-16P TE to PN1-CN 1
CN 2: 52147-17P TE to PN1-CN 2
CN 3: 52147-6P TE (VF728300) to AM-CN 3
CN 6: 52147-6P TE (VF728300) to MKS-CN 1
- WIRE TRAP
CN 4: 52147-7P TE to AM-CN 2
CN 5: 52147-3P TE to Pitch Bend
- CERAMIC CAP. ARRAY
CA 1~4: 470P 50V M (VH285600) EXF-P8471ZF D, U only
CA 5: 470P 50V M (VH285500) EXF-P6471ZF D, U only
CA 6: 1000P 50V Z (VP823800) EXF-P6102ZF D, U only
- QUARTZ CRYSTAL UNIT
CX 1: 9.4M AT-49 (VN271300)
- CERAMIC RESONATOR
CL 1: CST16.00MXW0 (VK966200) 16.0MHz
- DIODE
D 1: 1SS133, 1SS176 (VB941200)
- DIGITAL TRANSISTOR
TR 1~6: DTB123ES TP (VJ337600)
TR 8: DTC114ES (VD678700)
- TRANSISTOR
TR 9: 2SC3311A Q, R, S (VH800600) or
2SC2603 E, F (IC260320)
- COIL
L 2~10: FL5R200QNT 20 μ (VB835000) D, U only or
SBT-0260TF 60 μ (VF968800) D, U only
- IC
IC 1: HD6415108F10 (XJ797A00) CPU
IC 2: YMW258-F (XJ427A00) GEW8
IC 3: (XM980A00) ROM 8M (STYLE)
IC 4: TC574200D-120 (XM978A00) ROM 4M
(PROGRAM) or
(XN043A00) ROM 16M (PROGRAM+STYLE)
IC 5: TC518128APL-80 (XJ446A00) PSRAM 1M
IC 6: TC518128APL-80 (XJ446A00) PSRAM 1M
IC 7: HN624017PZ11 (XM984A00) ROM 16M (VOICE)
IC10: YM3413 (XE449A00) LDSP
IC11: CAT548128L-10RS (XM605A00) PSRAM 1M
IC12: UPC4570C (XC520A00) OPAMP
IC13: UPD63200GS (XM145A00) DAC
IC14: UPC24M05HF (XH730A00) REGULATOR +5V
IC15: AN8005-(TA) (XL559A00) REGULATOR +5V
IC16: RE5VL45CA-TZ (XM618A00) RESET
RE5VA45CA-TZ (XM717A00) RESET
IC18: S-81350HG-T (XM939A00) REGULATOR +5V
IC20: HD74HC08P 2IN (I000810) AND
IC21: SN74HC00N (I000050) NAND
IC22: 74AC11138 (XM724A00) DEC DEMP
- TRANSISTOR ARRAY
IC 8, 9: AN90B22 (VH480900) LED DRIVER
- PHOTO COUPLER
IC17: PC-900V (VG181900) PHOTO COUPLER
- JUMPER WIRE
JC, JF: 0.55 (VA078900)
L 2~10: 0.55 (VA078900) J, B, X only

● PN1 Circuit Board (PSR-410)

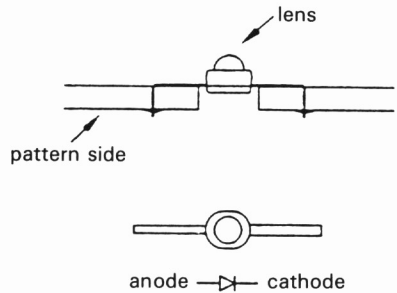


Components side

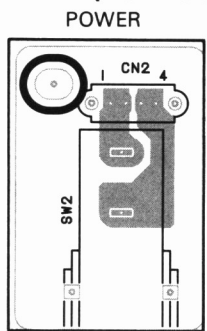
Notes)

- Circuit Board : PN1 (NX006430) XM319B0 (PSR-410)
1. TACT SWITCH
SW1: SKHVBLO42A H=7 (VQ371700) 69pcs
 2. DIODE
D 1: 1SS133, 1SS176 (VB941200)
 3. LED
LED2-18, 19, 21, 23:
LED3- 1~17, 20, 22,
24, 28, 29, 47,
48, 82, 84, 85,
88, 89, 91~96:
LT-1E21A GR (VE234500) ORCHESTRATION-EDIT
LT1D21A RE (VB254500) 35pcs
 4. CABLE HOLDER
CN 1:
CN 2:
CN 3:
51048-16P TE to DM-CN 1
51048-17P TE to DM-CN 2
51048-14P TE to PN2
 5. LED DISPLAY
LED1:
LB-603VLF (VL086000) or
SL-9351S (VQ323900)
 6. JUMPER WIRE
J:
0.55 (VA078900)

● LED installation



● PSW Circuit Board (PSR-410)

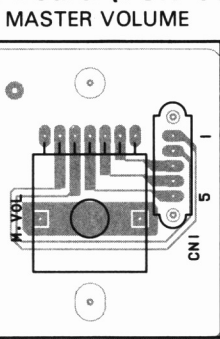


Components side

Notes)

- Circuit Board : PSW (NX006440) XM319B0 (PSR-410)
1. PUSH SWITCH
SW 2: SDDLBT00007X (VQ670600)POWER
 2. CABLE HOLDER
CN 2:
51048-4P TE to AM-CN 4

● MVR Circuit Board (PSR-410)



Components side

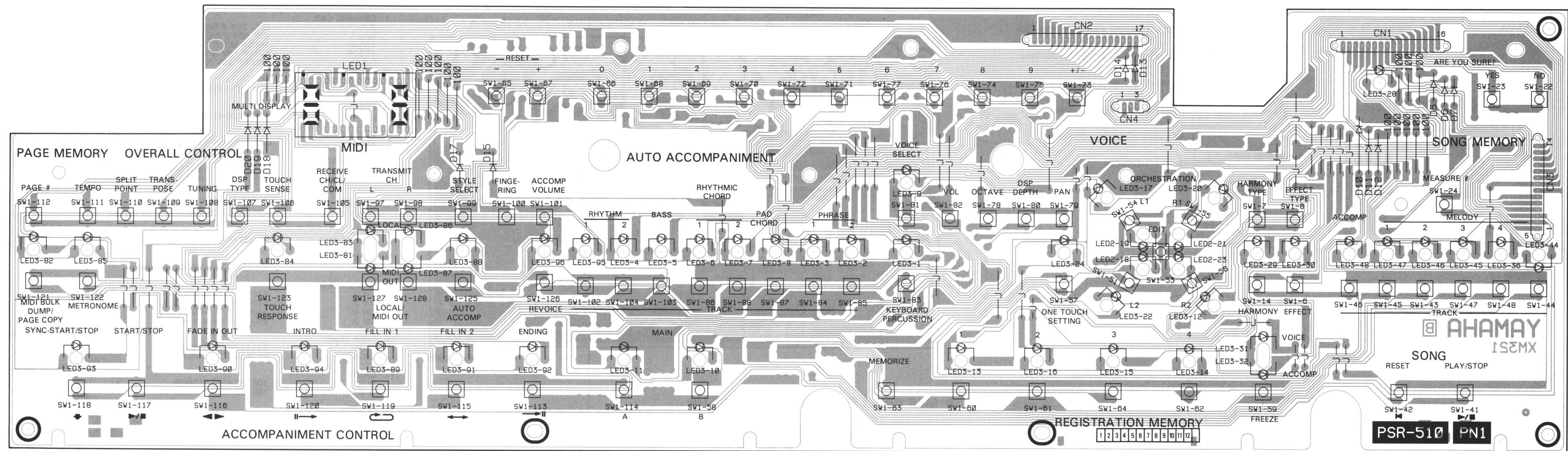
Notes)

- Circuit Board : MVR (NX006450) XM319B0 (PSR-410)
1. VARIABLE RESISTOR
M.VOL: A10K x 2 (VQ320200) MASTER VOLUME
 2. CABLE HOLDER
CN 1:
51048-5P TE AM-CN 1

PN1, PSW, MVR: 2NA-VQ36930



- **PN1 Circuit Board (PSR-510)**

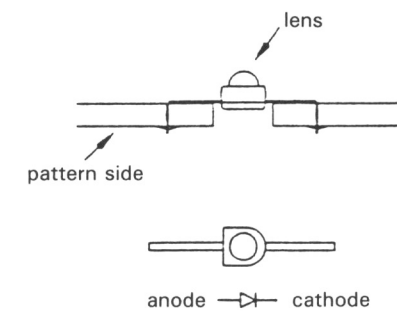


Components side

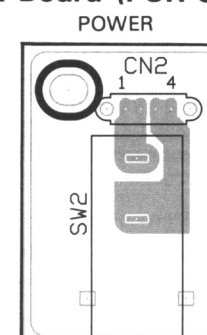
Notes)

Circuit Board :	PN1 (NX006390) XM321B0 (PSR-510)
1. TACT SWITCH SW1:	SKHVBLO42A H=7 (VQ371700) 83pcs
2. DIODE D 1:	1SS133, 1SS176 (VB941200)
3. LED LED2-18, 19, 21, 23: LED3- 1~17, 20~22, 24, 28~32, 36, 44~48, 82~96:	SLN-210MTT12 GR (VP218300) ORCHESTRATION-EDIT SLN-210VCT12 RE (VJ348700) 47pcs
4. CABLE HOLDER CN 1: CN 2: CN 3: CN 4:	51048-16P TE to DM-CN 1 51048-17P TE to DM-CN 2 51048-14P TE to PN 2 51048-3P TE to RV-CN 3
5. LED DISPLAY LED1:	LB-603VLF (VL086000) or SL-9351S (VQ323900)
6. JUMPER WIRE J:	0.55 (VA078900)

- LED installation



- **PSW Circuit Board (PSR-510)**

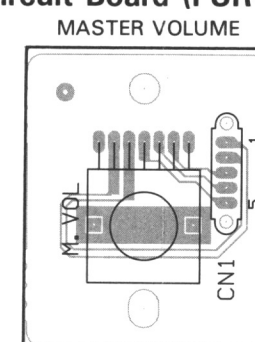


Components side

Notes)

Circuit Board :	PSW (NX006400) XM321B0 (PSR-510)
1. PUSH SWITCH SW 2:	SDDL B100007X(VQ670600) POWER
2. CABLE HOLDER CN 2:	51048-4P TE to AM-CN 4

- **MVR Circuit Board (PSR-510)**

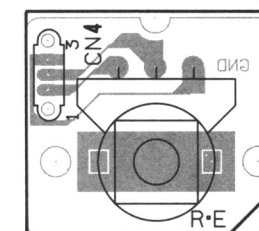


Components side

Notes)

Circuit Board :	MVR (NX006410) XM321B0 (PSR-510)
1. VARIABLE RESISTOR M.VOL:	A10K x 2 (VQ320200) MASTER VOLUME
2. CABLE HOLDER CN 1:	51048-5P TE AM-CN 1

- **RV Circuit Board (PSR-510)**

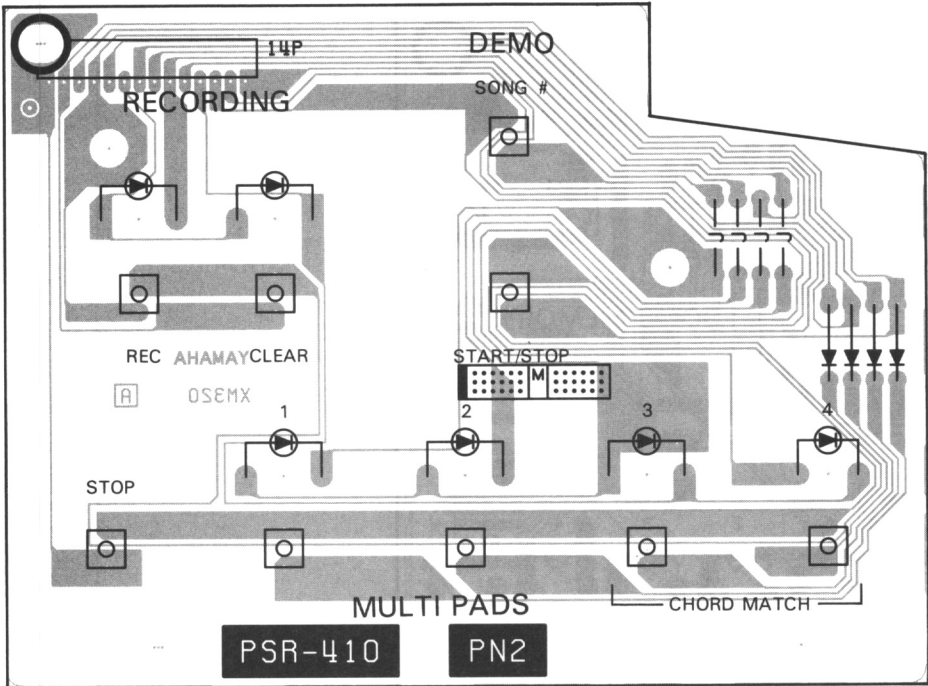


Components side

Notes)

Circuit Board :	RV (NX006420) XM321B0 (PSR-510)
1. ROTARY ENCODER	EVQ WP5 F15 24B (VQ371800)
2. CABLE HOLDER CN 3:	51048-3P TE to PN1-CN 4

● PN2 Circuit Board (PSR-410)

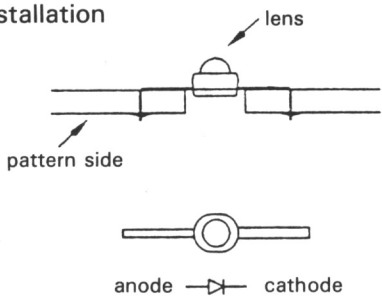


Components side

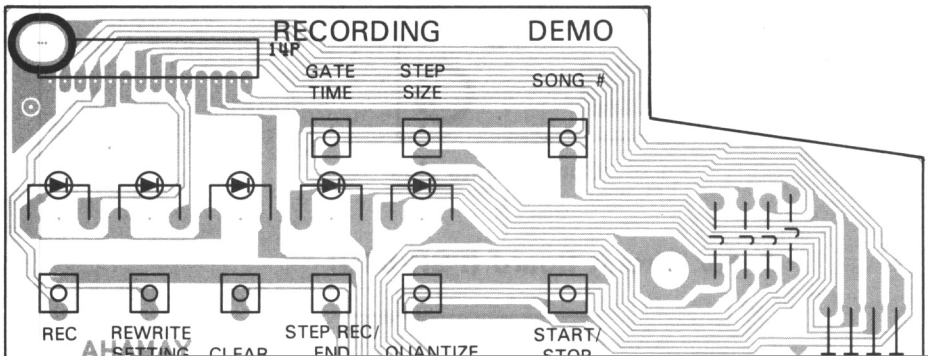
Notes)

- Circuit Board : PN2 (VQ369500) XM320A0 (PSR-410)
1. TACT SWITCH SW: SKHVBLO42A H=7 (VQ371700) 9pcs
 2. JUMPER CONNECTOR 14P: 52151-1410 14P to PN1
 3. DIODE D 1~4: 1SS133, 176, HSS104 (VD631600)
 4. LED LED: LT1D21A RE (VB254500) 6pcs
 5. JUMPER WIRE J-: 0.55 (VA078900)

● LED installation



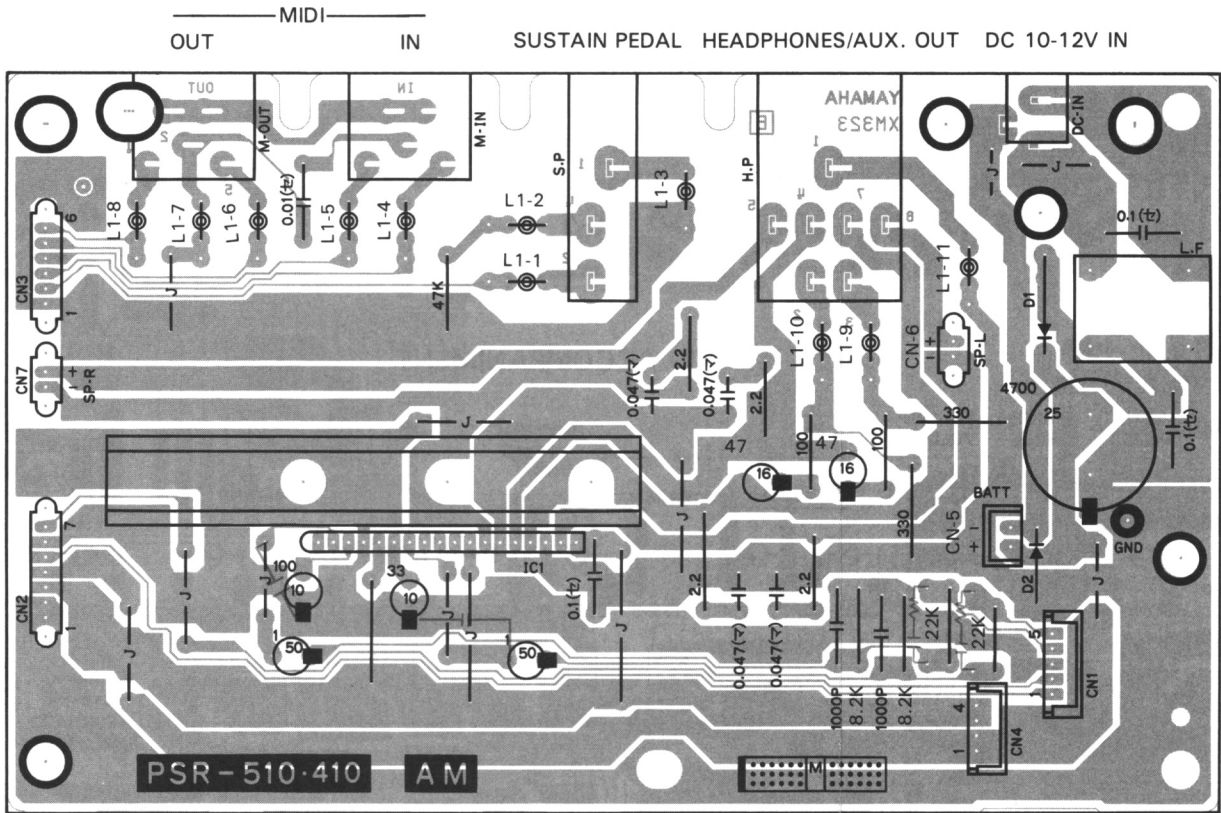
● PN2 Circuit Board (PSR-510)



Notes)

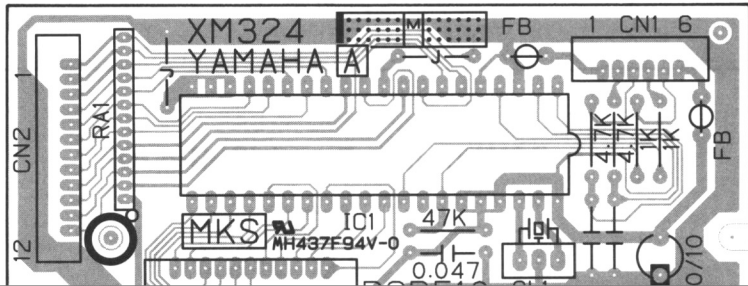
- Circuit Board : PN2 (VQ369000) XM322A0 (PSR-510)
1. TACT SWITCH SW: SKHVBLO42A H=7 (VQ371700) 14pcs
 2. JUMPER CONNECTOR 14P: 52151-1410 14P to PN1
 3. DIODE D 1~4: 1SS133, 176, HSS104 (VD631600)
 4. LED LED: SLN-210VCT12 RE (VJ348700) 9pcs
 5. JUMPER WIRE J-: 0.55 (VA078900)

● AM Circuit Board (PSR-410, PSR-510)



Components side

● MKS Circuit Board (PSR-410, PSR-510)



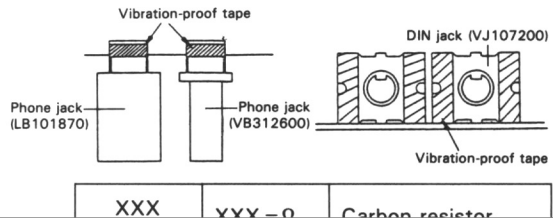
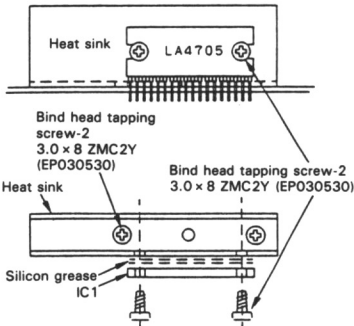
Notes)

- Circuit Board : MKS (VQ305200) XM324A0 (PSR-410, PSR-510)
1. CERAMIC CAP. 22P: 22P 50V J (VD840500)
0.047: 47000P 16V Z (VK392400)
 2. COIL FB: BL03RN2-R62T4 (VL409500) 0.45μ

Notes)

- Circuit Board : AM (VQ369100) XM323B0 (PSR-410, PSR-510)
1. CERAMIC CAP. 0.1: 0.1μ 25V Z (VD829400)
47P: 47P 50V J (VD840900)
1000P: 1000P 50V K (VD842600)
4700P: 4700P 16V N (VD843400)
0.01: 10000P 16V N (VD843800)
 2. LINE FILTER L.F: SU10VD-10020 (VH227500)
 3. COIL L 1~11: FL5R200QNT 20μ (VB835000)
 4. IC IC 1: LA4705 15W BTL (XM593A00) POWER AMP
 5. PHONE JACK S.P: YKB21-5012 (VB312600) SUSUTAIN PEDAL
H.P: YKB21-5006 (LB101870) HEADPHONES/AUX OUT
 6. CONNECTOR DC-IN: HEC2305 (VC664500) DC 10-12V IN
 7. DIN JACK M-IN, M-OUT: 5P YKF51-5050 (VJ107200) MIDI IN,OUT
 8. BASE POST CONNECTOR CN 5: XH-2P TE (LB918020) to Battery
 9. CABLE HOLDER CN 2: 51048-7P TE to DM-CN 4
CN 3: 51048-6P TE to DM-CN 3
CN 6: 51048-2P TE to Speaker-L
CN 7: 51048-2P TE to Speaker-R
 10. WIRE TRAP CN 1: 52147-5P TE to MVR-CN 1
CN 4: 52147-4P TE to PSW-CN 2
 11. DIODE D 1: 20E1-FC4 (VL723600)
D 2: 1SR139-100A (VH530100)
 12. JUMPER WIRE J: 0.55 (VA078900)

● IC1 installation



■ TEST PROGRAM

TYPE OF TEST PROGRAM MODE

There are three test modes as follows:

MODES 1 AND 2

- TEST 0. CPU/IRQ 0 (INTERRUPT REQUEST) OPERATING TEST
- TEST 1. KEYBOARD DETECT CPU TEST
- TEST 2. CPU PERIPHERAL TEST
 - 2-1 RAM TEST
 - 2-2 PROGRAM ROM VERIFY
 - 2-3 STYLE ROM VERIFY
 - 2-4 TONE GENERATOR VOICE ROM VERIFY
- TEST 3. PANEL, MIDI, AND KEYBOARD TEST
 - 3-1 PANEL SWITCH AND LED TEST
 - 3-2 PITCH BEND WHEEL TEST
 - 3-3 FOOT PEDAL TEST
 - 3-4 KEYBOARD CONTACT POINT TEST
 - 3-5 DSP TEST
 - 3-6 MIDI IN/OUT TEST
 - 3-7 ROTARY ENCODER TEST
- TEST 4. ROM VERSION INDICATION

MODE 3

- TEST 1. KEYBOARD DETECT CPU TEST
- TEST 2. RAM BACKUP FUNCTION TEST

* Difference in the CPU peripheral test between mode 1 and mode 2

Mode 1 — Circuit test for each memory address line

Test time: About one second

Mode 2 — Entire memory address test

Test time: About one minute

* When Mode 2 or Mode 3 is entered, the content of the RAM in the backup area will be overwritten.

* The error and execution messages will appear in the MULTI DISPLAY.

MODE 1

HOW TO ENTER THE TEST PROGRAM

While holding down two white keys on the right end of the keyboard (C6 and B5), turn on the power. The test proceeds automatically.

TEST 0. CPU IC1 (H8/510)/IRQ 0 (INTERRUPT REQUEST) OPERATING TEST

When the test program is started, if there is an IRQ 0 detection flag and there is irregular data, an "Er0" error will be displayed.

If this happens, turn the machine's power off.

After turning the power off then on again, execute the data comparison operation test and check the IRQ 0 detection flag, by overwriting the irregular data in the IRQ 0 detection flag and restarting the test program.

Error: Er0

* When the test program is first started, the error will be displayed. However, if when the power is turned off and on again, and the test program restarted, but the error is not displayed again, it is operating normally.

TEST 1. KEYBOARD DETECT CPU TEST

Check to see if data is sent from the CPU for touch detection.

If data is not sent, or if abnormal data is sent, an error occurs.

If keyboard contact detection is abnormal, the system does not enter test mode.

Correct operation indicates that the selected test mode has been entered.

Error: Er1

TEST 2. CPU PERIPHERAL TEST

2-1 RAM (IC5, 6) TEST

This test checks whether or not particular data can be written in and read from each RAM address bus. (Address line connection check)

Error: Er2

* Even when an error is indicated, you can proceed to the next test by pressing the RESET + key. However, RAM will not be operative and the test operation quality is not guaranteed.

2-2 PROGRAM ROM (IC4) VERIFY

Adds the address of each bus and verifies the results. (Connection check)

Error: Er3

* Even when an error is indicated, you can proceed to the next test by pressing the RESET + key. However, ROM will not be operative and the test operation quality is not guaranteed.

2-3 STYLE ROM (IC3 or IC4) VERIFY (IC3 style program has been included in IC4 on the half way of the production, and IC3 will be deleted). Adds the address of each bus and verifies the results. (Connection check)

Error: Er4

* Even when an error is indicated, you can proceed to the next test by pressing the RESET + key.

2-4 TONE GENERATOR VOICE ROM (IC7) VERIFY

Adds the address of each bus and verifies the results. (Connection check)

Error: Er5

* Even when an error is indicated, you can proceed to the next test by pressing the RESET + key.

TEST 3. PANEL, MIDI, AND KEYBOARD TEST

3-1 PANEL SWITCH AND LED TEST

A sine wave is generated when you press the panel switch. At the same time, MIDI note ON/OFF messages for the note number at the same pitch as the sine wave are transmitted via Channel 1.

The sine wave is at a level 9dB lower than the maximum level.

Pressing the switches turn the corresponding LEDs ON.

Pressing a numeric key pad displays the number on the left digit of the MULTI DISPLAY. Each press of the switch moves the number to the right. The number on the right-most digit will return to the left most digit.

If two or more switches are turned on, the MULTI DISPLAY will show "— — —". At the same time, MIDI note ON/OFF messages of note number 127 will be transmitted via Channel 4.

Sound will be produced for as long as the switch is held down.

The YES switch produces sounds only from the L channel, and the NO switch produces sounds only from the R channel.

3-2 PITCH BEND WHEEL TEST

Turning the pitch bend wheel forward generates a sine wave of C4. At the same time, MIDI note ON/OFF messages for the note number at the same pitch as the sine wave are transmitted via Channel 3. The sound of sine wave is generated only when the pitch bend volume value exceeds 117/127.

Turning the pitch bend wheel toward you generates a sine wave of C3. At the same time, MIDI note ON/OFF messages for the note number at the same pitch as the sine wave are transmitted via Channel 3. The sound of sine wave is generated only when the pitch bend volume value is 113/127 or lower.

If the panel switch is detected to be ON when the wheel is not centered, the MULTI DISPLAY will show "Er6". The wheel is regarded as centered when the pitch bend volume value falls between 58/127 and 69/127.

3-3 FOOT PEDAL TEST

Connecting the foot pedal (which is usually ON, but turns OFF when pressed) to the connector generates a sine wave of D4. At the same time, MIDI note ON/OFF messages for the note number at the same pitch as the sine wave are transmitted via Channel 4. The pedal is regarded as connected if the pedal AD value is 31/255 or lower.

Pressing the pedal generates a sine wave of D3. At the same time, MIDI note ON/OFF messages for the note number at the same pitch as the sine wave are transmitted via Channel 4. The pedal is regarded as pressed if the pedal AD value is 127/255 or higher.

Disconnecting the pedal will stop the sound. If the reverse type of foot pedal is used (normally OFF, but turns ON when pressed), a D3 sine wave is generated when the pedal is connected to the terminal and is not pressed, and a D4 sine wave is generated when it is pressed.

3-4 KEYBOARD CONTACT POINT TEST

Play scales. Tonal color will change depending on the velocity.

Velocity	Tonal color
1-10	CLICK
11-128	Sine wave
127	CLICK

As you play the keyboard, the MULTI DISPLAY will show the corresponding velocities (1 ~ 127).

If a sine wave is generated, this item passes the test. If not, this item fails the test.

At the same time, MIDI note ON/OFF messages for the note number at the same pitch as the sine wave are transmitted via Channel 2. (The CLICK sound will appear in Channel 10.)

3-5 DSP (IC10) TEST

The sounds from the keyboard are generated through the DSP IC.

If the DSP is defective, the sound played from the keyboard may be distorted or muted.

3-6 MIDI IN/OUT TEST

Connect the MIDI IN and MIDI OUT connectors using the MIDI cable. A sine wave at a pitch of A3 and A4 should be generated alternately with a cycle of 250msec for voicing and muting.

3-7 ROTARY ENCODER TEST

If the rotary encoder is detected to turn one round, the number of turns will be shown on the MULTI DISPLAY. Turning the encoder clockwise will increase the number, and turning it counter-clockwise will decrease the number.

TEST 4. ROM VERSION INDICATION

Pressing the following switches will show the ROM versions on the MULTI DISPLAY.

ROM	Integer	Decimal
Program (IC4)	PAGE switch	MIDI BULK DUMP
Style (IC3)	STYLE switch	AUTO ACCOMP
Tone generator (IC7)	VOICE switch	KEYBOARD PERCUSSION

* IC3 style program has been included in IC4 on the half way of the production, and IC3 will be deleted. (PSR-510 only)

END OF TEST

The test is ended when you turn off the power.

MODE 2

HOW TO ENTER THE TEST PROGRAM

While holding down three white keys on the right end of the keyboard (C6, B5, and A5), turn on the power. The test proceeds automatically.

TEST 0. CPU IC1 (H8/510)/IRQ 0 (INTERRUPT REQUEST) OPERATING TEST

When the test program is started, if there is an IRQ 0 detection flag and there is irregular data, an "Er0" error will be displayed.

If this happens, turn the machine's power off.

After turning the power off then on again, execute the data comparison operation test and check the IRQ 0 detection flag, by overwriting the irregular data in the IRQ 0 detection flag and restarting the test program.

Error: Er0

* When the test program is first started, the error will be displayed. However, if when the power is turned off and on again, and the test program restarted, but the error is not displayed again, it is operating normally.

TEST 1. KEYBOARD DETECT CPU TEST (The

display will show 1 during the test.)

Check to see if data is sent from the CPU for touch detection.

If data is not sent, or if abnormal data is sent, an error occurs.

If keyboard contact detection is abnormal, the system does not enter test mode.

Correct operation indicates that the selected test mode has been entered.

Error: Er1

TEST 2. CPU PERIPHERAL TEST

2-1 RAM (IC5, 6) TEST (The display will show

2 during the test.)

Particular data is written for all RAM addresses, and the content of the addresses is read to compare with the written data.

Error: Er2

* Even when an error is indicated, you can proceed to the next test by pressing the RESET + key. However, RAM will not be operative and the test operation quality is not guaranteed.

2-2 PROGRAM ROM (IC4) VERIFY (The display

will show: 3 during the test.)

Adds all addresses and verifies the results.

Error: Er3

- * Even when an error is indicated, you can proceed to the next test by pressing the RESET + key. However, RAM will not be operative and the test operation quality is not guaranteed.

2-3 STYLE ROM (IC3 or IC4) VERIFY (IC3 style program has been included in IC4 on the half way of the production, and IC3 will be deleted).

(The display will show 4 during the test.)

Adds all addresses and verifies the results.

Error: Er4

- * Even when an error is indicated, you can proceed to the next test by pressing the RESET + key.

2-4 TONE GENERATOR VOICE ROM (IC7)

VERIFY (The display will show 5 during the test.)

Adds all addresses and verifies the results.

Error: Er5

- * Even when an error is indicated, you can proceed to the next test by pressing the RESET + key.

TEST 3 and TEST 4 are the same as MODE 1.

END OF TEST

The test is ended when you turn off the power.

MODE 3**HOW TO ENTER THE TEST PROGRAM**

While holding down two white keys on the right end of the keyboard (C6 and B5) and the white key (C2), turn on the power. Error Er2 will be shown on the display. Turn off the power, then turn it on again to check the display.

TEST 1. KEYBOARD DETECT CPU TEST (The display will show 1 during the test.)

Check to see if data is sent from the CPU for touch detection.

If data is not sent, or if abnormal data is sent, an error occurs.

If keyboard contact detection is abnormal, the system does not enter test mode.

Correct operation indicates that the selected test mode has been entered.

Error: Er1

TEST 2. RAM (IC5,6) BACKUP FUNCTION TEST

Write particular data in the area where the backup data is stored. Turn off the power, then turn it on again, and check if the backup data remains.

When Mode 3 is entered, "Er2" is shown. Turn the power off, and turn it on again.

In correct operation: PAS

Error: Er1

- * If the unit passes test Mode 3, the test program will end.

END OF TEST

The test is ended when you turn off the power.

OUTPUT LEVEL CHECK

Check the output level. (VOICE: CHURCH ORG, VOICE NO.: 020, TOUCH: OFF) Set the [MASTER VOLUME] at the maximum level.

Confirm that a signal of $-12 \pm 3\text{dBm}$ is output from the HEADPHONES/AUX OUT connector (output impedance 75 ohms) when you press the keys C3, D3, E3, F3, G3, A3, and B3 simultaneously (load resistance 30 ohms).

Use the level gauge (JIS C curve filter) for the test.

NOISE LEVEL CHECK

Confirm that S/N ratio at all the output connectors and speaker connectors is 63dB or higher.

Use the same procedure as the output level check. (However, a load value is not specified.) Measure the noise level when no sound is produced.

■ MIDI DATA FORMAT

- *1. The following modes can be set individually for each channel via the panel control:
 - Mode 00: Reception OFF.
 - Mode 01: Direct tone generator control.
 - Mode 02: Same as keyboard note on/off operation.
 - Mode 03: Same as auto-accompaniment chord fingering.
 - Mode 04: Same as the lowest-note (bass note) played in the auto-accompaniment chord fingering.
- *2. Channel pressure handled as vibrato.
- *3. For bank selection transmission only the MSB changes. The LSB is fixed at 00H.
- *4. Bank select reception.
 - The bank select MSB is used for melody voice and rhythm voice switching.
 - The bank select LSB is ignored.
 - 00H: GM melody voice.
 - 7FH: GM rhythm voice.

The default for channel 10 is 7FH. Other channels are 00H.
 When the bank select MSB is 01H ... 7EH, all subsequent key-ons received will be ignored.
 No voice change will occur when only a bank select is received.
 When a program change is received the latest bank select value is used.
- *5. Portamento control is effective only when Reception is set in the Multi mode.
- *6. A pitch bend sensitivity message is transmitted when a panel pitch bend range setting is made.
 - Pitch bend sensitivity: BnH, 64H, 00H, 65H, 00H
- *7. RPN receives the following data:
 - Pitch bend sensitivity: BnH, 64H, 00H, 65H, 00H
Default: 02H, 00H
 - Fine tuning: BnH, 64H, 01H, 65H, 00H
Default: 40H, 00H
 - Coarse tuning: BnH, 64H, 02H, 65H, 00H
Default: 40H, 00H
 - Null: BnH, 64H, 7FH, 65H, 7FH
- *8. Reset all controllers.
 - Pitch bend, channel pressure, modulation, expression, sustain, and sostenuto are returned to their default values.
 - All RPN data is set to NULL.
 - Portamento is reset.
- *9. GM melody voices 0 through 127 become panel voices 1 through 128.
 Rhythm voices 0, 8, 16, 24, 32, 40, and 48 become panel voices 1 through 8.
- *10. Exclusive.
 - <GM1 System ON> F0H, 7EH, 7FH, 09H, 01H, F7H
All parameters except MIDI Master Tuning are reset to their default values.
 - <MIDI Master Volume> F0H, 7FH, 7FH, 04H, 01H, II, mm, F7H
Allows the volume of all channels to be changed simultaneously (universal system exclusive).
 mm is used as the MIDI Master Volume value (II is ignored).
 The default value for mm is 7FH.
 This message is receive-only.

<MIDI Master Tuning>

F0H, 43H, 1nH, 27H, 30H, 00H, 00H, mm, II, cc, F7H
 Allows the pitch of all channels to be changed simultaneously (panel tuning).
 mmII is used as the MIDI Master Tuning value, and the actual tuning is shown by the expression:

$$T = M \times 200 / 256 - 100$$

Where T is the actual tuning value in cents. M is decimal value represented by 1-byte using bits 0...3 of mm as the MSB and bits 0...3 of II as the LSB.

The default values of mm and II are 07H and 0FH, respectively. n and cc are also recognized.

This value is not reset by a GM System ON or Reset All Controllers message.

This message is transmitted and received.

● PSR-410

<Bulk Dump>

bl and bh represent the total byte count as bl+bh*128.

CS: Checksum.

Multi pad: F0H, 43H, 76H, 12H, bl, bh, <Data>, cs, F7H

Song memory: F0H, 43H, 76H, 16H, bl, bh, <Data>, cs, F7H

Registration memory: F0H, 43H, 76H, 14H, bl, bh, <Data>, cs, F7H

<Panel Control>

Dual data change: F0H, 43H, 76H, 17H, 04H, <Data>, F7H

Dual ON/OFF: F0H, 43H, 76H, 17H, 05H, <Data>, F7H

Harmony: F0H, 43H, 76H, 17H, 0EH, <Data>, F7H

Chord/Bass: F0H, 43H, 76H, 17H, 0BH, <Data>, F7H

*11. Internal/external clock selectable.

*12. Operation when a start/stop command is received is determined by the RECEIVE CHANNEL, CLOCK, AND COMMAND panel settings.

0. Start/stop command ignored.

1. Auto-accompaniment start/stop.

2. Song memory start/stop.

Continue neither transmitted nor received.

● PSR-510

<Bulk Dump>

bl and bh represent the total byte count as bl+bh*128.

CS: Checksum.

Custom accomp: F0, 43, 76, 11, bl, bh, <Data>, cs, F7

Multi pad: F0H, 43H, 76H, 12H, bl, bh, <Data>, cs, F7H

Song memory: F0H, 43H, 76H, 16H, bl, bh, <Data>, cs, F7H

Registration memory: F0H, 43H, 76H, 14H, bl, bh, <Data>, cs, F7H

<Panel Control>

Dual data change: F0H, 43H, 76H, 17H, 04H, <Data>, F7H

Dual ON/OFF: F0H, 43H, 76H, 17H, 05H, <Data>, F7H

Harmony: F0H, 43H, 76H, 17H, 0EH, <Data>, F7H

DSP type: F0, 43, 76, 17, 0E, 00, 01, 05, 00, dt, F7

Effect: F0, 43, 76, 17, 0E, 00, 04, 10, 0n, 00, F7

(*1) F0, 43, 76, 17, 0E, 00, 04, 10, 0n, 01, F7

F0, 43, 76, 17, 0E, 00, 04, 0F, 0n, ht, F7

Chord/Bass: F0H, 43H, 76H, 17H, 0BH, <Data>, F7H

*11. Internal/external clock selectable.

*12. Operation when a start/stop command is received is determined by the RECEIVE CHANNEL, CLOCK, AND COMMAND panel settings.

0. Start/stop command ignored.

1. Auto-accompaniment start/stop.

2. Song memory start/stop.

Continue neither transmitted nor received.

(※1) Effective only in Multi mode channel.

[Portable Keyboard]

Model: PSR-410/PSR-510

MIDI Implementation Chart

Date: 1993. 6. 15

Version: 1.00

Function		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1~16 CH 1~16 CH	1~16 CH (*1) 1~16 CH (*1)	
Mode	Default Messages Altered	Mode 3 × *****	(*1) × ×	
Note Number	: True voice	0~127 *****	0~127 0~127	
Velocity	Note on Note off	○ 9nH, v=1~127 × 9nH, v=0	○ 9nH, v=1~127 × 9nH, v=0 or 8nH	
After Touch	key's Ch's	× ×	× ○ (*2)	
Pitch Bender		○	○	
Control Change	0, 32 1 6, 38 7 10 11 64 66 84 90 91 96 97 100, 101 120 121	○ (*3) × ○ ○ ○ ○ ○ × ○ × ○ × × × ○ (*6) ○ ×	○ (*4) ○ ○ ○ ○ ○ ○ ○ ○ (*5) ○ ○ ○ ○ ○ (*7) ○ ○ (*8)	Bank select MSB, LSB Modulation depth Data entry MSB, LSB Volume Pan Expression Sustain Sostenuto Portamento control Dry send level Reverb send level RPN data increment RPN data decrement RPN MSB, LSB All sound off Reset all controllers
Program Change	: True #	○ 0~127 *****	○ 0~127 0~127 (*9)	
System Exclusive		○ (*10)	○ (*10)	
System	: Song Position : Song Select Common : Tune	× × ×	× × ×	
System	: Clock Real Time : Commands	○ ○ (*12)	○ (*11) ○ (*12)	
Aux	: Local ON/OFF : All Notes Off Messages : Active Sense : Reset	× × ○ ×	× ○ ○ ×	

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

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

○: Yes
×: No

PORTATONE

PSR-410

PARTS LIST

■ CONTENTS

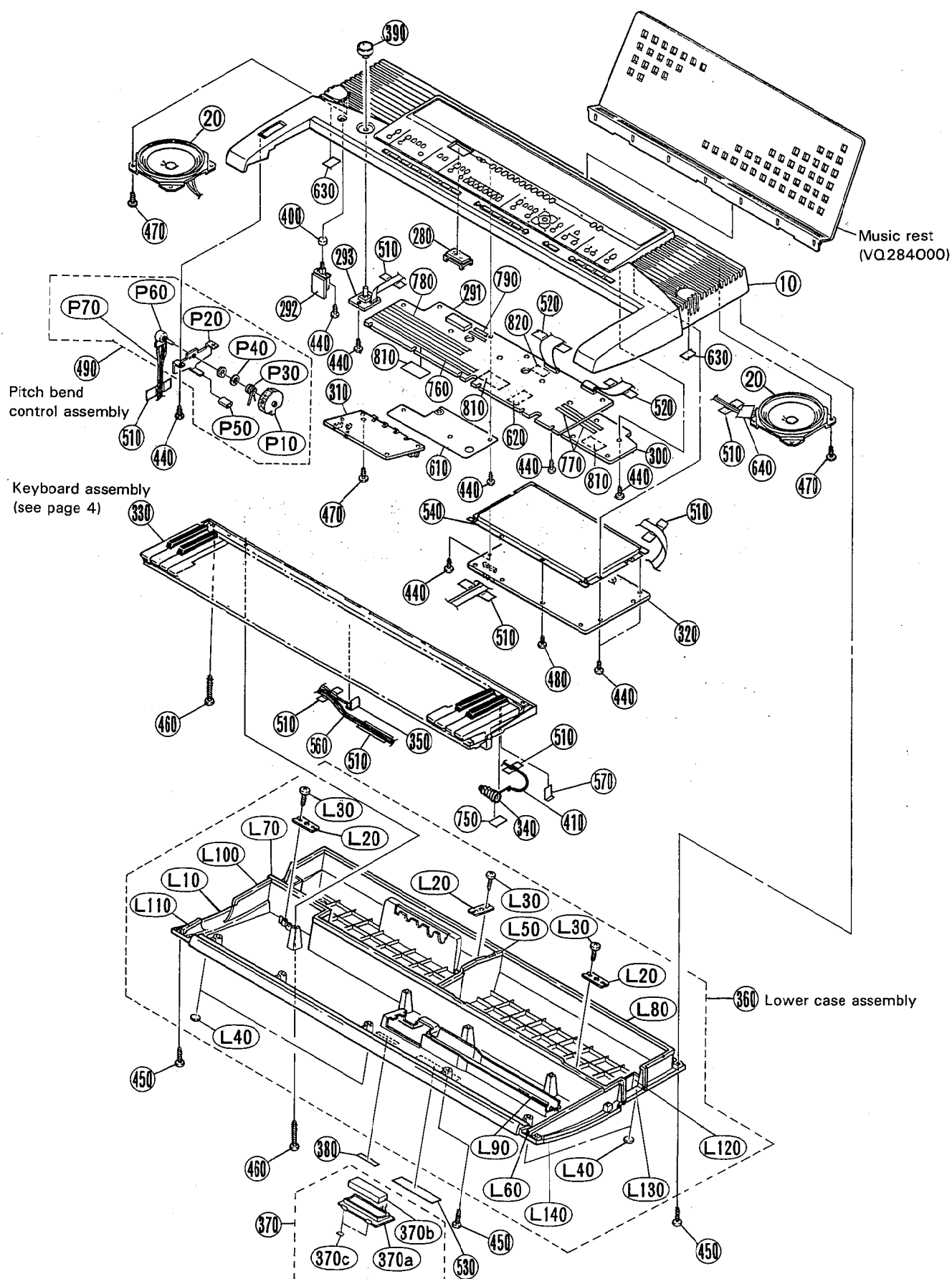
OVERALL ASSEMBLY.....	1
KEYBOARD ASSEMBLY.....	4
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Note) DESTINATION ABBREVIATIONS

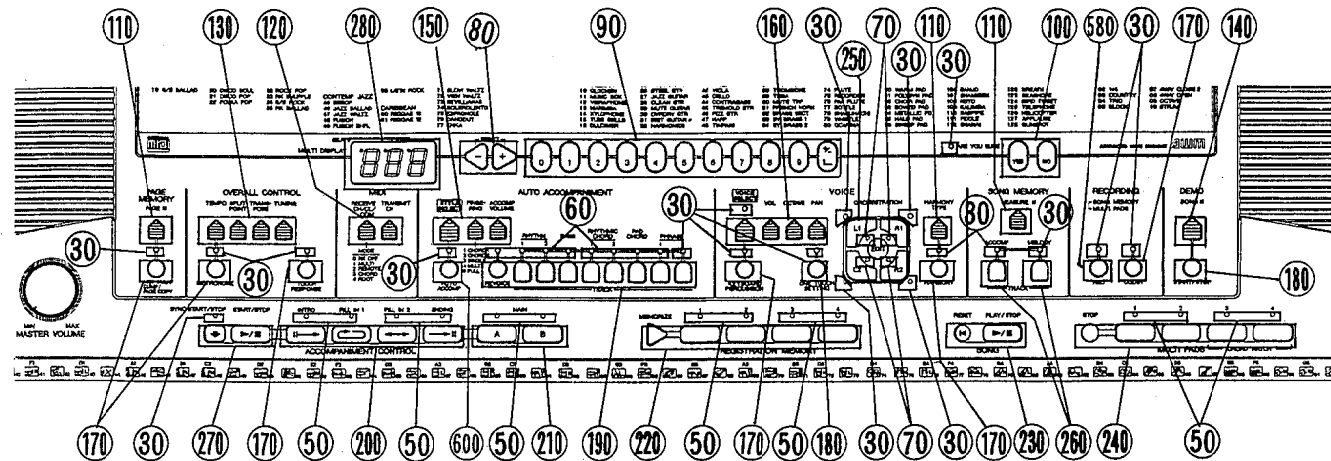
J : Japanese model	A : Australian model
U : U.S.A. model	E : European model
C : Canadian model	D : German model
X : General model	B : British model
M : South African model	I : Indonesian model
H : North European model	O : Chinese model

- The numbers with "pc. " or "pcs " in "Remarks " show quantities for each unit.
- The parts with "—" in "Part No." are not available as spare parts.

OVERALL ASSEMBLY



PSR-410



● LOWER CASE ASSEMBLY

Ref. No.	Part No.	Description	部品名	Remarks	ランク
* L10	VQ289900	<LOWER CASE ASSEMBLY>	<下ケース A s s y>	PSR410 (VQ28450)	15
L20	AA056250	LOWER CASE	下ケース成形品	3pcs	01
L30	EP600280	HOLDER, LEG	脚取り付け金具	6pcs	01
L40	CB043750	BIND HEAD TAPPING SCREW-P	+ バインド P タイ	5pcs	01
L50	---	FOOT	ゴム足	5pcs	01
L60	---	SPACER TAPE	スペーサーテープ	1pc. (VQ28460)	
L70	---	SPACER TAPE	スペーサーテープ	1pc. (VQ28470)	
L80	---	SPACER TAPE	スペーサーテープ	1pc. (VQ28480)	
L90	---	SPACER TAPE	スペーサーテープ	1pc. (VQ28490)	
L100	---	VIBRATION-PROOF TAPE	防振テープ	2pcs (VJ79040)	
L110	---	SPACER TAPE	スペーサーテープ	1pc. (VQ50410)	
L120	---	SPACER TAPE	スペーサーテープ	1pc. (VQ54610)	
L130	---	PACKING TAPE	シーリングテープ B	4pcs (VQ93680)	
L140	---	PACKING TAPE	シーリングテープ C	2pcs (VQ93690)	
L150	---	VIBRATION-PROOF TAPE-D	防振テープ D	2pcs (VR08090)	

*New Parts (新規部品)

ランク : Japan only

● PITCH BEND CONTROL ASSEMBLY

Ref. No.	Part No.	Description	部品名	Remarks	ランク
P10	VL398300	<PITCH BEND ASSEMBLY>	<ピッチベンド A s s y>	PSR410 (VQ38060)	03
P20	VL398400	WHEEL	ホイール	ホイール金具	03
P30	VL398500	ANGLE BRACKET	ホイール金具	ホイールスプリング	03
P40	VL483100	WHEEL SPRING	ホイール金具	C S 形止め輪	01
P50	---	WHEEL RING	ホイール金具	10.0	
P60	---	TUBE	ホイールチューブ	(VL48320)	
P70	VL491200	VARIABLE RESISTOR	ロータリー V R	B10.0K EWH 9UAF	03
P80	---	CONNECTOR ASSEMBLY	P B 束線	(VR14540)	
P90	---	VIBRATION-PROOF TAPE	防振テープ	(VL99740)	

*New Parts (新規部品)

ランク : Japan only

2

● OVERALL ASSEMBLY

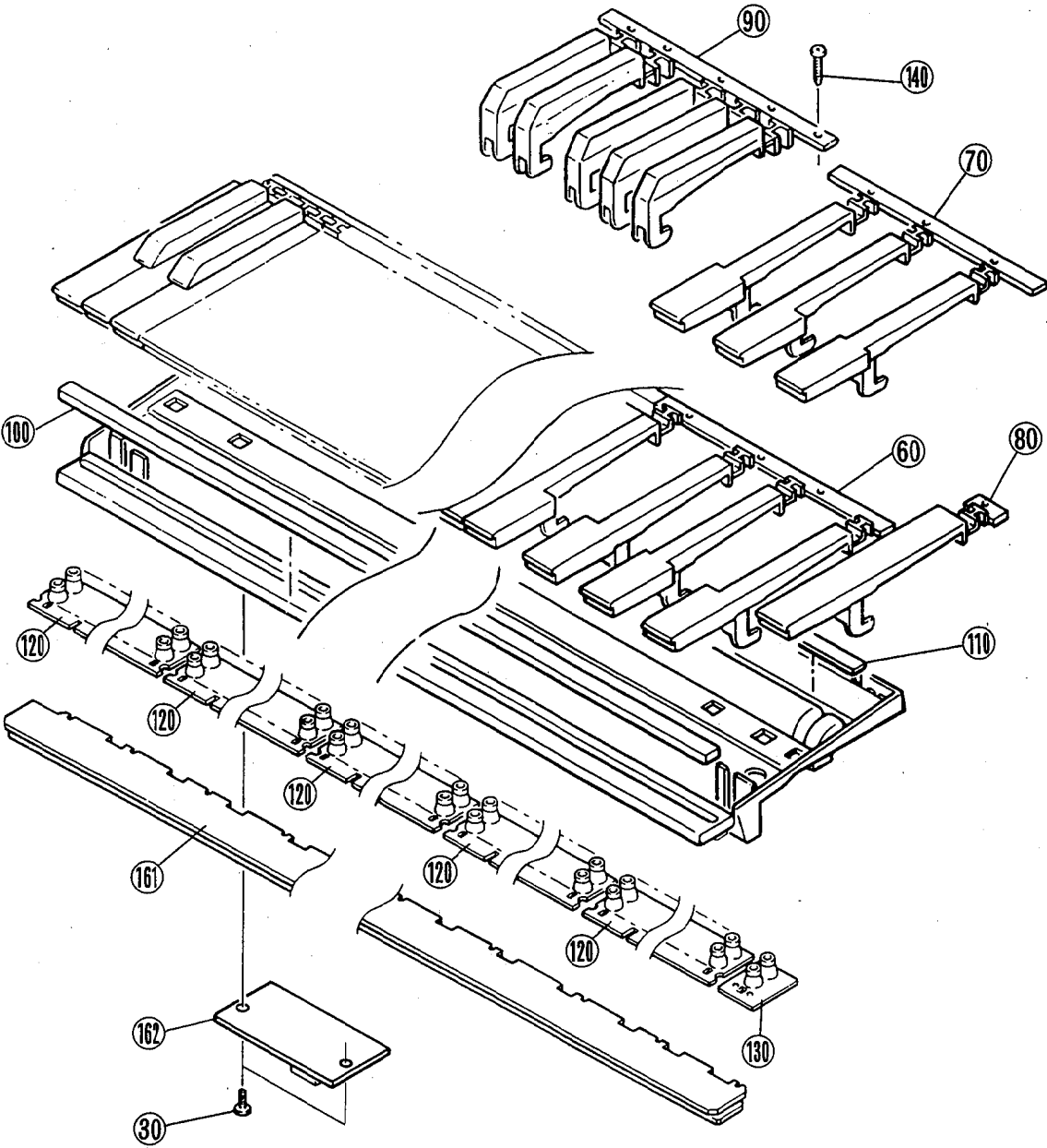
Ref. No.	Part No.	Description	部 品 名	Remarks	ランク
* 10	VQ383000	<OVERALL ASSEMBLY>	<総組立>	PSR410	16
20	XJ840A00	UPPER CASE ASSEMBLY	上ケース A s s y	2pcs	06
* 30	VQ285400	SPEAKER	スピーカ	20pcs	03
* 50	VQ285600	LENS-a	レンズ a	1 レン	03
* 60	VQ285800	LENS-b	レンズ b	2 レン	03
* 70	VQ285800	LENS-c	レンズ c	4 レン	03
* 80	VQ286000	KEY TOP-A	キー トップ A	1pc.	03
* 90	VQ286100	KEY TOP-B	キー トップ B	1pc.	05
* 100	VQ286200	KEY TOP-C	キー トップ C	1pc.	03
* 110	VQ286300	KEY TOP-D	キー トップ D	3pcs	03
* 120	VQ286400	KEY TOP-E	キー トップ E	1pc.	03
* 130	VQ286600	KEY TOP-G	キー トップ G	1pc.	03
* 140	VQ286800	KEY TOP-I	キー トップ I	1pc.	03
* 150	VQ286900	KEY TOP-J	キー トップ J	1pc.	03
* 160	VQ287700	KEY TOP-K	キー トップ K	1pc.	03
* 170	VQ287900	KEY TOP-M	キー トップ M	7pcs	03
* 180	VQ288000	KEY TOP-MM	キー トップ MM	2pcs	03
* 190	VQ288600	KEY TOP-R	キー トップ R	1pc.	03
* 200	VQ288800	KEY TOP-T	キー トップ T	1pc.	04
* 210	VQ288900	KEY TOP-U	キー トップ U	1pc.	03
* 220	VQ289100	KEY TOP-VV	キー トップ V V	1pc.	04
* 230	VQ289200	KEY TOP-W	キー トップ W	1pc.	03
* 240	VQ289300	KEY TOP-X	キー トップ X	1pc.	03
* 250	VQ289400	KEY TOP-Y	キー トップ Y	1pc.	04
* 260	VQ289500	KEY TOP-Z	キー トップ Z	2pcs	03
* 270	VQ289600	KEY TOP-ZZ	キー トップ Z Z	1pc.	03
* 280	VQ219000	LED COVER	L E D カバー	1pc.	
* 291	NX006430	CIRCUIT BOARD	P N 1 シート		
* 292	NX006440	CIRCUIT BOARD	P S W シート		
* 293	NX006450	CIRCUIT BOARD	M V R シート		
* 300	VQ389500	CIRCUIT BOARD	P N 2 シート		
* 310	VQ389100	CIRCUIT BOARD	A M シート		
* 320	VQ272300	CIRCUIT BOARD	D M シート	D,U	24
* 320	VQ272400	CIRCUIT BOARD	D M シート	J,B,X	38
* 330	VQ383800	KEYBOARD ASSEMBLY	C61 K6	1 6 L 鍵盤 A s s y	26
* 340	VN218200	SPRING TERMINAL	端子板	1pc.	03
* 350	BB005490	TERMINAL	端子板	1pc.	01
* 360	VQ289900	LOVER CASE ASSEMBLY	ス A s s y		15
* 370	VJ189900	BATTERY COVER ASSEMBLY	バッテリーカバー A s s y		03
* 370a	CB047850	BATTERY COVER	バッテリーカバー		02
* 370b	CB047750	BATTERY CUSHION	バッテリークッション		01
* 370c	--	VIBRATION-PROOF PAD	防振パッド	2pcs (CA01485)	
* 380	--	LABEL	規格・製番 ラベル N	J,B,X (VQ43200)	
* 380	--	LABEL	規格・製番 ラベル F	D,U (VQ43210)	
* 390	VQ218900	KNOB	V ツマミ	MASTER VOLUME	
* 400	VQ218800	KNOB	ブッシュ	POWER	
* 410	--	CONNECTOR ASSEMBLY	電池線 A s s y	1pc. (VQ39480)	
* 440	EP620100	BIND HEAD TAPPING SCREW-P	+ バインド P タイ	30pcs	01
* 450	VC161100	BIND HEAD TAPPING SCREW-P	+ バインド P タイ	15pcs	01
* 460	VK228100	BIND HEAD TAPPING SCREW-P	+ バインド P タイ	5pcs	01
* 470	VK228200	TRUS HEAD TAPPING SCREW-P	+ トラス P タイ	14pcs	01
* 480	VQ396300	BIND HEAD TAPPING SCREW-S	+ バインド S タイ	D,U only 9pcs	01
* 490	--	PITCH BEND CONTROL ASS'Y	ピッチベンド A s s y	1pc. (VQ38060)	
* 510	VA126100	FILAMENT TAPE	粘着テープ	15pcs	03
* 520	--	FILAMENT TAPE	粘着テープ	2pcs (VF29880)	
* 530	--	LABEL	F C C 承認 ラベル	U only (VP60330)	
* 540	VQ399700	SHIELD BOX-U	シールドボックス U	D,U only	06
* 560	VR144000	CONNECTOR ASSEMBLY	M K S ケーブル	J,B,X	
* 560	VQ789900	CONNECTOR ASSEMBLY	M K S ケーブル	D,U	07
* 570	--	VIBRATION-PROOF TAPE	防振テープ	1pc. (VJ86150)	
* 580	VQ509400	KEY TOP-MMM	キー トップ M M M	1pc.	03
* 600	VQ592000	KEY TOP-MMM	キー トップ M M M	1pc.	03
* 610	--	SHIELD SHEET	シールドシート	(VQ76060)	
* 620	--	INSULATION SHEET	絶縁シート	(VQ91590)	
* 630	--	FILTER	ポートフィルター	2pcs (VR06610)	
* 640	--	VIBRATION-PROOF TAPE-A	防振テープ A	1pc. (VR13000)	
* 750	--	VIBRATION-PROOF TAPE-F	防振テープ F	1pc. (VR12940)	
* 760	--	VIBRATION-PROOF TAPE-G	防振テープ G	2pcs (VR12950)	
* 770	--	VIBRATION-PROOF TAPE-H	防振テープ H	4pcs (VR12960)	
* 780	--	VIBRATION-PROOF TAPE-I	防振テープ I	2pcs (VR12970)	
* 790	--	VIBRATION-PROOF TAPE-J	防振テープ J	2pcs (VR12980)	
* 810	--	SPACER TAPE-A	スペーサーテープ A	3pcs (VR08170)	
* 820	--	SPACER TAPE-B	スペーサーテープ B	1pc. (VR08190)	
* 820	--	SPACER TAPE-C	スペーサーテープ C	1pc. (VR08200)	
* VQ284000	<ACCESSORIES>	MUSIC REST	<付属品>		08
* VQ375100	JAPANESE GUIDE SHEET		和文シート	J only	
* VR205500	CHINESE GUIDE SHEET		中文シート	0 only	
--	AC ADAPTOR		A C アダプター	J only (VE13660)	
--	AC ADAPTOR		A C アダプター	0 only (VE13740)	

*New Parts (新規部品)

ランク : Japan only

3

KEYBOARD ASSEMBLY



Ref. No.	Part No.	Description	部品名	Remarks	ランク
* 30	VQ383800	<KEYBOARD ASSEMBLY>	C61 K6	PSR410	26
40	EP600280	BIND HEAD TAPPING SCREW-P	3.0X8 ZMC2Y	+ バインド P タイ	01
50	--	FILAMENT TAPE	12X60	粘着テープ	2pcs (VM72270)
60	VH180900	FRAME	C61	フレーム	(VG49510)
70	VH181000	WHITE KEY	CEGB	白鍵 C E G B	5pcs
80	VH181100	WHITE KEY	DFA	白鍵 D F A	5pcs
90	VH181200	BLACK KEY	C'	白鍵 C'	1pc.
100	VH181300	FELT		黒鍵	5pcs
110	VH181400	RUBBER SHEET		フェルト	1pc.
120	VH181500	RUBBER CONTACT	2X12KEYS	ゴムシート	1pc.
130	VH181600	RUBBER CONTACT		接点ゴム	5pcs
140	VB205200	BIND HEAD TAPPING SCREW-P	3.0X16 ZMC2BL	接点ゴム	1pc.
150	VQ305200	CIRCUIT BOARD	MKS	+ バインド P タイ	21pcs
160	VL319900	CIRCUIT BOARD	MK	M K S シート	with .SUB-P.C.B
170				M K シート	13

*New Parts (新規部品)

ランク：Japan only

ELECTRICAL PARTS

Ref. No.	Part No.	Description	部品名	Remarks	ランク
* 20	VQ272300	<ELECTRICAL PARTS>	DM	<電気部品>	PSR410
21	VQ272400	CIRCUIT BOARD	DM	DM シート	D,U
22	NX006430	CIRCUIT BOARD	PN1	DM シート	J,B,X
23	NX006440	CIRCUIT BOARD	PSV	PN1 シート	
24	NX006450	CIRCUIT BOARD	MVR	PSW シート	
25	VQ369500	CIRCUIT BOARD	PN2	MVR シート	
26	VQ369100	CIRCUIT BOARD	AM	PN2 シート	
27	VQ305200	CIRCUIT BOARD	MKS	AM シート	
28	VL319900	CIRCUIT BOARD	MK	M K S シート	with SUB-P.C.B
29				M K シート	13
30	VQ272300	CIRCUIT BOARD	DM	DM シート	D,U
31	VQ272400	CIRCUIT BOARD	DM	DM シート	J,B,X
32	--	CORD BINDER	L=201	DM シート	
33	EP600830	BIND HEAD TAPPING SCREW-B	3.0X8 ZMC2BL	インシュロックタイ	(CB03991)
34	UA654100	MYLAR CAP.	0.0100 50V J	+ バインド B タイ	1pc.
35	UA654120	MYLAR CAP.	0.0120 50V J	マイラーコン	01
36	VH285500	CERAMIC CAP. ARRAY	470P 50V M	マイラーコン	01
37	VH285600	CERAMIC CAP. ARRAY	470P 50V M	セラコンアレイ	D,U EXF-P6471ZF
38	VP823800	CERAMIC CAP. ARRAY	1000P 50V Z	セラコンアレイ	D,U EXF-P6471ZF
39	VD840600	CERAMIC CAP.-SL	27P 50V J	C ネットワーク	D,U EXF-P6102ZF
40	VD840800	CERAMIC CAP.-SL	39P 50V J	円筒セラ (S L)	
41	VD841300	CERAMIC CAP.-B	100P 50V K	円筒セラ (S L)	
42	VD842300	CERAMIC CAP.-B	560P 50V K	円筒セラ (B)	
43	VD843800	CERAMIC CAP.-Y	10000P 16V N	円筒セラ (B)	
44	VK392400	CERAMIC CAP.-F	47000P 16V Z	円筒セラ (Y)	
45	V1307100	MONOLITHIC CERA. CAP.	0.100 50V Z	円筒セラ (F)	
46	VF238600	RESISTOR ARRAY	RGLE8X473J	積層セラコン	
47	--	CONNECTOR	52147-17P TE	抵抗アレイ	(VF66770)
48	VF728300	CONNECTOR	52147-6P TE	抵抗アレイ	
49	--	CONNECTOR	52147-16P TE	コネクタ	(VJ86160)
50	--	WIRE TRAP	52147-3P TE	ワイヤートラップ	(VK02470)
51	--	WIRE TRAP	52147-7P TE	ワイヤートラップ	(VK02510)
52	VK405200	IC SOCKET	DICF-40CS-E	IC ソケット	
53	VK863100	IC SOCKET	DICF-42CS-E	IC ソケット	
54	VN271300	QUARTZ CRYSTAL UNIT	9.4M AT-49	水晶振動子	16.0MHz
55	VK966200	CERAMIC RESONATOR	CST16.00MXV0	セラミック振動子	
56	VB941200	DIODE	1SS133,1SS176	ダイオード	
57	VD678700	DIGITAL TRANSISTOR	DTC114ES	デジタルトランジスタ	
58	VJ337800	DIGITAL TRANSISTOR	DTB123ES TP	デジタルトランジスタ	
59	VA078900	JUMPER WIRE	0.55	ジャンパー線	
60	IC260320	TRANSISTOR	2SC2603 E,F	ジャンパースタ	
61	VH800600	TRANSISTOR	2SC3311A Q,R,S	トランジスタ	
62	VB835000	COIL	FL5R200QNT 20u	トランジスタ	
63	VF968800	COIL	SBT-0260TF 60u	コイル	
64	IC1 JX797A00	IC	HD6415108F10	IC	CPU
65	IC2 JX427A00	IC	YMW258-F	IC	GEV8
66	IC3 XH981A00	IC		IC	ROM 8M (STYLE)
67	IC4 XH979A00	IC	TC574200D-120	IC	ROM 4M (PROGRAM)
68	IC4 XH042A00	IC		IC	ROM 4M (PROGRAM)
69	IC6 XJ448A00	IC	TC518128APL-80	IC	PSRAM 1M
70	IC7 XH984A00	IC	HN624017PZ11	IC	ROM 16M (VOICE)
71	IC8 VH480900	TRANSISTOR ARRAY	AN90B22	IC	LED DRIVER
72	IC9 VH480900	TRANSISTOR ARRAY	AN90B22	IC	LED DRIVER
73	IC12 XC520A00	IC	UPC4570C	IC	OP AMP
74	IC13 XN145A00	IC	UPD63200GS	IC	DAC
75	IC14 XH730A00	IC	UPC24M05HF	IC	REGULATOR +5V
76	IC15 XL559A00	IC	AN8005-(TA)	IC	REGULATOR +5V
77	IC16 XN618A00	IC	RE5VL45CA-TZ	IC	RESET
78	IC16 XH717A00	IC	RE5VA45CA-TZ	IC	RESET
79	IC17 VG181900	PHOTO COUPLER	PC-900V	IC	PHOTO COUPLER
80	IC18 XH939A00	IC	S-81350HG-T	IC	REGULATOR +5V
81	IC20 IR000850	IC	SN74HC08N	IC	AND
82	IC21 IR000050	IC	SN74HC00N	IC	NAND
83	IC22 XH724A00	IC	74AC11138	IC	DEC DEMP
84	NX006430	CIRCUIT BOARD	PN1	PN1 シート	
85	VQ371700	TACT SWITCH	SKHVBLO42A H=7	タクトスイッチ	
86	--	CABLE HOLDER	51048-14P TE	ケーブルホルダー	(VI87920)
87	--	CABLE HOLDER	51048-16P TE	ケーブルホルダー	(VI87940)
88	--	CABLE HOLDER	51048-17P TE	ケーブルホルダー	(VI87950)
89	VB941200	DIODE	1SS133,1SS176	ダイオード	
90	VB254500	LED	LT1D21A RE	LED	
91	VE234500	LED	LT-1E21A GR	LED	
92	VA078900	JUMPER WIRE	0.55	ジャンパー線	
93	--	FLAT CABLE	14P L=160	ケーブル	(VQ78080)
94	--	FLAT CABLE	16P L=150	ケーブル	(VR16190)
95	--	FLAT CABLE	17P L=150	ケーブル	(VR16130)
96	VL086000	LED DISPLAY	LB-603VLF	LED ディスプレイ	

*New Parts (新規部品)

ランク：Japan only

Ref. No.	Part No.	Description	部 品 名	Remarks	ランク
*	VQ323900	LED DISPLAY	SL-9351S	L E D ディスプレイ	05
*	NX006440	CIRCUIT BOARD	PSW	P S W シート	POWER (VI87820)
*	VQ670600	PUSH SWITCH	SDDL8100007X	プッシュスイッチ	
*	--	CABLE HOLDER	51048-4P TE	ケーブルホルダー	
*	--	FLAT CABLE	4P L=280	ケーブル	(VR16240)
*	NX006450	CIRCUIT BOARD	MVR	M V R シート	MASTER VOLUME (VI87830)
*	VQ320200	VARIABLE RESISTOR	A10Kx2	二連ロータリー V R	
*	--	CABLE HOLDER	51048-5P TE	ケーブルホルダー	
*	--	FLAT CABLE	5P L=170	ケーブル	(VR16270)
*	VQ369500	CIRCUIT BOARD	PN2	P N 2 シート	01
*	VQ371700	TACT SWITCH	SKHVBLO42A H=7	タクトスイッチ	
*	--	JUMPER CONNECTOR	52151-1410 14P	ジャンパコネクタ	
*	VD631600	DIODE	1SS133,176,	ダイオード	HSS104
*	VB254500	LED	LTID21A RE	L E D	01
*	VA078900	JUMPER WIRE	0.55	ジャンパー線	01
*	VQ369100	CIRCUIT BOARD	AM	A M シート	01
*	EP030530	BIND HEAD TAPPING SCREW-2	3.0X8 ZMC2Y	＋バインド T P 2 種溝	
*	UA654470	MYLAR CAP.	0.0470 50V J	マイラーコン	
*	VD829400	CERAMIC CAP.-F	0.1U 25V Z	円筒セラ (F)	01
*	VD840900	CERAMIC CAP.-SL	47P 50V J	円筒セラ (S L)	01
*	VD842600	CERAMIC CAP.-B	1000P 50V K	円筒セラ (B)	01
*	VD843400	CERAMIC CAP.-X	4700P 16V N	円筒セラ (X)	01
*	VD843800	CERAMIC CAP.-Y	10000P 16V N	円筒セラ (Y)	01
*	VH227500	LINE FILTER	SU10VD-10020	ラインフィルター	03
*	VB835000	COIL	FL5R200QNT 20u	コイル	01
*	XH593A00	IC	LA4705 15W BTL	I C	POWER AMP 06
*	LB101870	PHONE JACK	YKB21-5006	ホーンジャック	HEADPHONES/AUX. 03
*	VB312600	PHONE JACK	YKB21-5012	ホーンジャック (黒)	SUSUTAIN PEDAL 02
*	VC664500	CONNECTOR	HEC2305	電源コネクタ	DC IN 01
*	VJ107200	DIN JACK	5P YKF51-5050	D I N ジャック	MIDI IN/OUT 01
*	LB918020	BASE POST CONNECTOR	XH-2P TE	ベースツキボスト	01
*	--	CABLE HOLDER	51048-2P TE	ケーブルホルダー	(VI87800)
*	--	CABLE HOLDER	51048-6P TE	ケーブルホルダー	(VI87840)
*	--	CABLE HOLDER	51048-7P TE	ケーブルホルダー	(VI87850)
*	--	WIRE TRAP	52147-4P TE	ワイヤートラップ	(VK02480)
*	--	WIRE TRAP	52147-5P TE	ワイヤートラップ	(VK02490)
*	VH530100	DIODE	1SR139-100A	ダイオード	01
*	VL723600	DIODE	20E1-FC4	ダイオード	
*	VL456900	HEAT SINK	3.5X35X0.5	放熱板	
*	--	VIBRATION-PROOF TAPE	4X20X0.5	防振テープ	(VM92820)
*	--	VIBRATION-PROOF TAPE	4X20X0.5	防振テープ	(VM96040)
*	VA078900	JUMPER WIRE	0.55	ジャンパー線	(VR16110)
*	--	FLAT CABLE	7P L=500	ケーブル	
*	--	FLAT CABLE	6P L=330	ケーブル	
*	--	WIRES	2P L=150	ケーブル	(VQ78070)
*	--	WIRES	2P L=500	ケーブル	(VQ78040)
*	--	WIRES	1P L=60	ケーブル	(VQ78050)
*	--	WIRES	1P L=60	ケーブル	(VQ57380)
*	VQ305200	CIRCUIT BOARD	MKS	M K S シート	01
*	VD840500	CERAMIC CAP.-SL	22P 50V J	円筒セラ (S L)	
*	VK392400	CERAMIC CAP.-F	47000P 16V Z	円筒セラ (F)	
*	VL409500	COIL	BL03RN2-R62T4	コイル	0.45u 01
*	VL674500	RESISTOR ARRAY	RGLE12X223J	抵抗アレイ	01
*	XJ450A00	IC	HD63B05VOD73P	I C	CPU (SUB) 07
*	VF728300	CONNECTOR	52147-8P TE	コネクタ	01
*	--	WIRE TRAP	52147-11P TE	ワイヤートラップ	(VK02550)
*	--	WIRE TRAP	52147-12P TE	ワイヤートラップ	(VK02560)
*	--	VIBRATION-PROOF TAPE	10X84X0.5	防振テープ	(VK34680)
CR1	VA078900	JUMPER WIRE	0.55	ジャンパー線	8.00MHz 02
CR1	VN002100	CERAMIC RESONATOR	CST8.00MTW140	セラミック振動子	
CR1	VQ305500	CERAMIC RESONATOR	EF0EC8004T3	セラミック振動子	
*	VL319900	CIRCUIT BOARD	MK	M K シート	with SUB-P.C.B 13
*	VB941200	DIODE	1SS133,1SS176	ダイオード	
*	--	GND WIRE	AVG22 34mm BL	アース線	
*	--	CUSHION		シート・クッション	(VI12660) (VH58600)
*	--	FLAT CABLE	11P	ケーブル	(VL31910)
*	--	FLAT CABLE	12P	ケーブル	(VL31920)
*	--	WIRE	1P L=210mm	ケーブル	(VL74540)
*	VA078900	JUMPER WIRE	0.55	ジャンパー線	
*	XJ840A00	SPEAKER	12.0cm 4ohm 6W	スピーカ	2pcs 06

*New Parts (新規部品)

ランク: Japan only

PORTATONE

PSR-510

PARTS LIST

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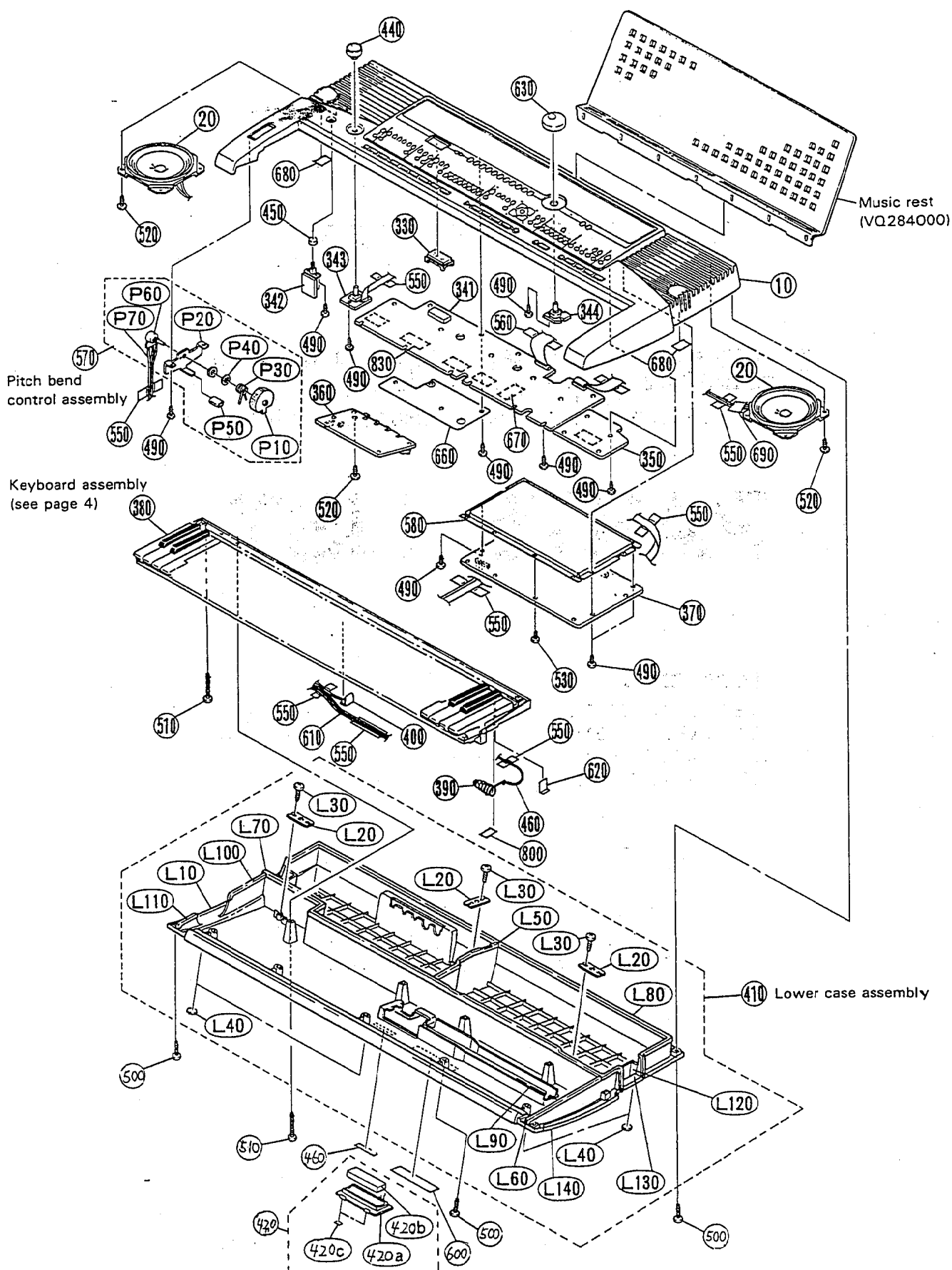
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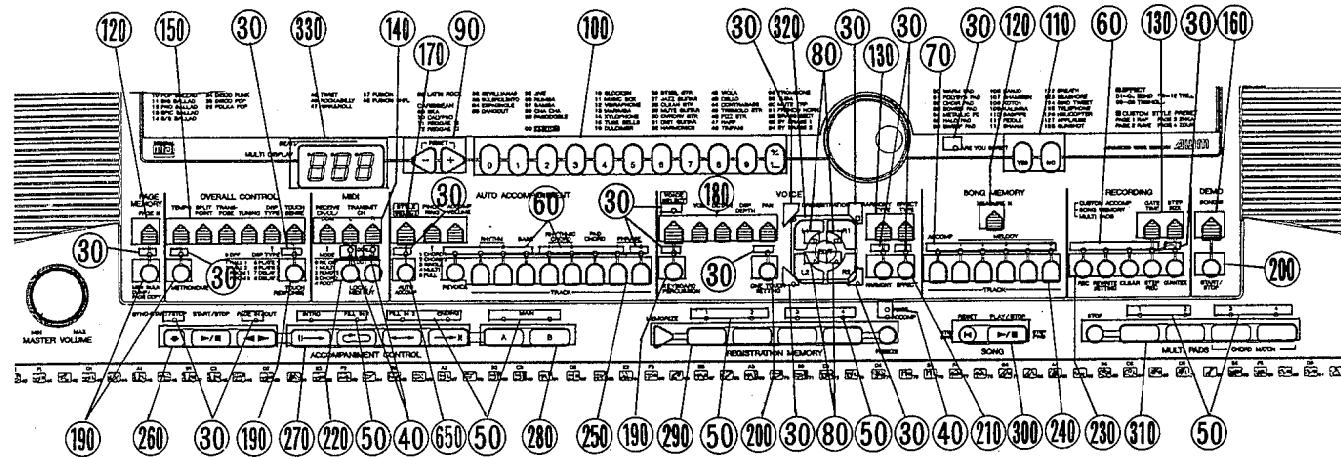
Note) DESTINATION ABBREVIATIONS

J : Japanese model	A : Australian model
U : U.S.A. model	E : European model
C : Canadian model	D : German model
X : General model	B : British model
M : South African model	I : Indonesian model
H : North European model	

- The numbers with "pc." or "pcs" in "Remarks" show quantities for each unit.
- The parts with "—" in "Part No." are not available as spare parts.

OVERALL ASSEMBLY





● LOWER CASE ASSEMBLY

Ref. No.	Part No.	Description	部品名	Remarks	ランク
* L10	VQ289900	<LOWER CASE ASSEMBLY>	<下ケース A s s y>	PSR510	15
L20	AA056250	LOWER CASE	下ケース成形品	(VQ28450)	
L30	EP600280	HOLDER, LEG	脚取り付け金具	3pcs	01
L40	CB043750	BIND HEAD TAPPING SCREW-P	+ バインド P タイ	8pcs	01
L50	---	FOOT	ゴム足	5pcs	01
L60	---	SPACER TAPE	スペーサーテープ	1pc. (VQ28460)	
L70	---	SPACER TAPE	スペーサーテープ	1pc. (VQ28470)	
L80	---	SPACER TAPE	スペーサーテープ	1pc. (VQ28480)	
L90	---	SPACER TAPE	スペーサーテープ	1pc. (VQ28490)	
L100	---	VIBRATION-PROOF TAPE	防振テープ	2pcs (VJ78040)	
L110	---	SPACER TAPE	スペーサーテープ	1pc. (VQ50410)	
L120	---	SPACER TAPE	スペーサーテープ	1pc. (VQ54610)	
L130	---	PACKING TAPE	シーリングテープ B	4pcs (VQ93680)	
L140	---	PACKING TAPE	シーリングテープ C	2pcs (VQ93690)	
L150	---	VIBRATION-PROOF TAPE-D	防振テープ D	2pcs (VR08090)	

*New Parts (新規部品)

ランク : Japan only

● PITCH BEND CONTROL ASSEMBLY

Ref. No.	Part No.	Description	部品名	Remarks	ランク
* P10	VL398300	<PITCH BEND ASSEMBLY>	<ピッチベンド Assy>	PSR510 (VQ38060)	03
P20	VL398400	WHEEL	ホイール		03
P30	VL398500	ANGLE BRACKET	ホイール金具		03
P40	VL483100	WHEEL SPRING	ホイールスプリング		01
P50	---	WHEEL RING	C S 形止め輪		
P60	---	TUBE	ホイールチューブ	(VL48320)	
P70	VL491200	VARIABLE RESISTOR	ロータリー V R	(VR14540)	03
P80	---	CONNECTOR ASSEMBLY	P B 束線	(VL99740)	
P100	---	VIBRATION-PROOF TAPE	防振テープ		

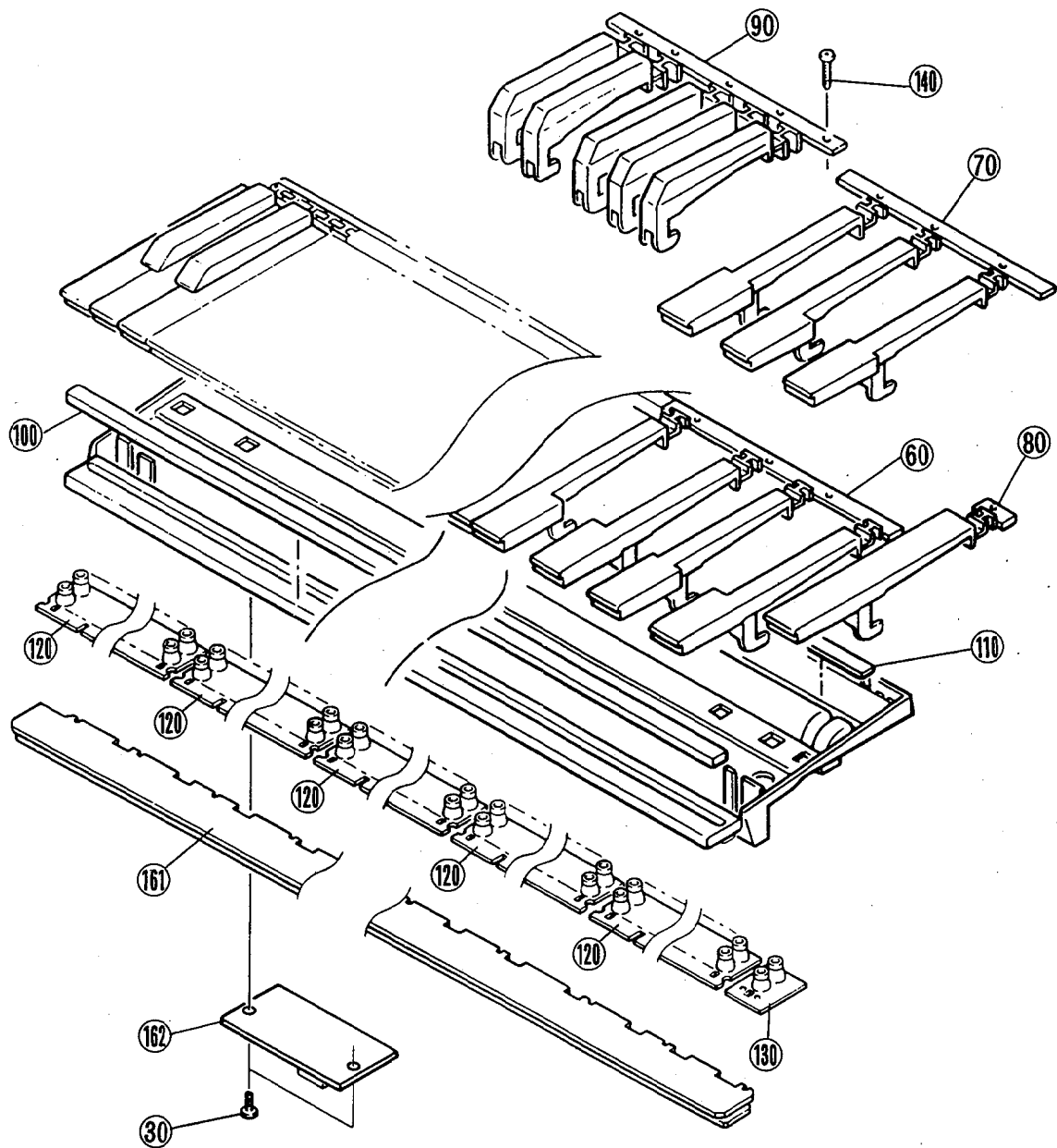
*New Parts (新規部品)

ランク : Japan only

● OVERALL ASSEMBLY

Ref. No.	Part No.	Description	部品名	Remarks	ランク
		<OVERALL ASSEMBLY>	<総組立>	PSR510	
10	VQ285300	UPPER CASE ASSEMBLY	上ケース A s s y		16
20	XJ840A00	SPEAKER	スピーカ	2pcs	06
30	VQ285400	LENS-a	レンズ a	18pcs	03
40	VQ285500	LENS-b	レンズ b タテ 2 レン	3pcs	03
50	VQ285600	LENS-c	レンズ c	7pcs	03
60	VQ285800	LENS-e	レンズ e	3pcs	03
70	VQ285900	LENS-f	レンズ f	1pc.	03
80	VQ297900	LENS-h	レンズ h サン カク	4pcs	03
90	VQ286000	KEY TOP-A	キー トップ A	1pc.	03
100	VQ286100	KEY TOP-B	キー トップ B	1pc.	05
110	VQ286200	KEY TOP-C	キー トップ C	1pc.	03
120	VQ286300	KEY TOP-D	キー トップ D	2pcs	03
130	VQ286400	KEY TOP-E	キー トップ E	2pcs	03
140	VQ286500	KEY TOP-F	キー トップ F	1pc.	03
150	VQ286700	KEY TOP-H	キー トップ H	1pc.	03
160	VQ286800	KEY TOP-I	キー トップ I	1pc.	03
170	VQ286900	KEY TOP-J	キー トップ J	1pc.	03
180	VQ287800	KEY TOP-L	キー トップ L	1pc.	03
190	VQ287900	KEY TOP-M	キー トップ M	4pcs	03
200	VQ288000	KEY TOP-MM	キー トップ M M	2pcs	03
210	VQ288100	KEY TOP-N	キー トップ N	1pc.	03
220	VQ288300	KEY TOP-O	キー トップ O	1pc.	03
230	VQ288400	KEY TOP-P	キー トップ P	1pc.	03
240	VQ288500	KEY TOP-Q	キー トップ Q	1pc.	03
250	VQ288600	KEY TOP-R	キー トップ R	1pc.	03
260	VQ288700	KEY TOP-S	キー トップ S	1pc.	04
270	VQ288800	KEY TOP-T	キー トップ T	1pc.	04
280	VQ288900	KEY TOP-U	キー トップ U	1pc.	03
290	VQ289000	KEY TOP-V	キー トップ V	1pc.	04
300	VQ289200	KEY TOP-W	キー トップ W	1pc.	03
310	VQ289300	KEY TOP-X	キー トップ X	1pc.	03
320	VQ289400	KEY TOP-Y	キー トップ Y	1pc.	04
330	VQ219000	LED COVER	L E D カバ ー	1pc.	
341	NX006390	CIRCUIT BOARD	P N 1 シ ー ト		
342	NX006400	CIRCUIT BOARD	P S W シ ー ト		
343	NX006410	CIRCUIT BOARD	M V R シ ー ト		
344	NX006420	CIRCUIT BOARD	R V シ ー ト		
350	VQ369000	CIRCUIT BOARD	P N 2 シ ー ト		
360	VQ369100	CIRCUIT BOARD	A M シ ー ト		
370	VQ121400	CIRCUIT BOARD	D M シ ー ト	D,U	28
370	VQ148500	CIRCUIT BOARD	D M シ ー ト	J,B,X	46
380	VQ383800	KEYBOARD ASSEMBLY	1 6 L 鍵 盤 A s s y		26
390	VN218200	SPRING TERMINAL	接 点 板	1pc.	03
400	BB005490	TERMINAL	端 子 板	1pc.	01
410	VQ289900	LOWER CASE ASSEMBLY	下 ケ ー ス A s s y		15
420	V1189900	BATTERY COVER ASSEMBLY	バ ッ テ リ ー カ バ ー A s s y		03
420a	CB047850	BATTERY COVER	バ ッ テ リ ー カ バ ー		02
420b	CB047750	BATTERY CUSHION	バ ッ テ リ ー ク ッ シ ョ ン		01
420c	--	VIBRATION-PROOF PAD	防 振 パ ッ ド	2pcs (CA01485)	
430	--	LABEL	規 格 ・ 製 番 ラ ベ ル N	J,B,X (VQ29000)	
430	--	LABEL	規 格 ・ 製 番 ラ ベ ル F	D,U (VQ29010)	
440	VQ218900	KNOB	V - ツ マ ミ	MASTER VOLUME	
450	VQ218800	KNOB	プ ー シ ャ ッ ヌ	POWER (VQ39480)	
460	--	CONNECTOR ASSEMBLY	電 池 線 A s s y		
490	EP620100	BIND HEAD TAPPING SCREW-P	+ バ イ ン ド P タ イ ト	33pcs	01
500	VC161100	BIND HEAD TAPPING SCREW-P	+ バ イ ン ド P タ イ ト	15pcs	01
510	VK228100	BIND HEAD TAPPING SCREW-P	+ バ イ ン ド P タ イ ト	5pcs	01
520	VK228200	TRUS HEAD TAPPING SCREW-P	+ バ イ ラ ン ド P タ イ ト	14pcs	01
530	VQ396300	BIND HEAD TAPPING SCREW-S	+ バ イ ン ド S タ イ ト	D,U only 9pcs	01
550	VA126100	FILAMENT TAPE	粘 着 テ ー プ	15pcs	03
560	--	FILAMENT TAPE	粘 着 テ ー プ A s s y	2pcs (VF29880)	
570	--	PITCH BEND CONTROL ASS'Y	ビ ッ チ ル ド ボ ッ ク ス U	(VQ38060)	
580	VQ399700	SHIELD BOX-U	F C C 承 認 ラ ベ ル	D,U only	06
600	--	LABEL	F C C 承 認 ラ ベ ル	U only (VP60330)	
610	VR144000	CONNECTOR ASSEMBLY	M K S ケ ー ブ ル	J,B,X	
610	VQ789900	CONNECTOR ASSEMBLY	M K S ケ ー ブ ル	D,U	
620	--	VIBRATION-PROOF TAPE	防 振 テ ー プ	1pc. (VJ86150)	07
630	VL921100	ENCODER KNOB	エ ン コ ー ダ ー ツ マ ミ		03
650	VQ592000	KEY TOP-MMM	キ ー ト ッ プ M M M M		03
660	--	SHIELD SHEET	シ ー ル ド シ ー ト	(VQ76060)	
670	--	INSULATION SHEET	絶 縁 シ ー ト	(VQ91590)	
680	--	FILTER	ボ ー ト フィ ル タ ー	2pcs (VR06610)	
690	--	VIBRATION-PROOF TAPE-A	防 振 ス ポ ン ジ A	1pc. (VR13000)	
800	--	VIBRATION-PROOF TAPE-F	防 振 テ ー プ F	1pc. (VR12940)	
830	--	SPACER TAPE-A	ス ペ ー サ ー ス ポ ン ジ A	5pcs (VR08170)	
		<ACCESSORIES>	<付 属 品>		
	VQ284000	MUSIC REST	譜 面 立 て		08
	VQ284100	JAPANESE GUIDE SHEET	和 文 シ ー ト	J	
	--	AC ADAPTOR	A C ア ダ プ タ ー	J only (VE13660)	
	--	AC ADAPTOR	A C ア ダ プ タ ー	PSR510M (VE13680)	
	VL508100	PEDAL ASSEMBLY	ペ ダ ル A s s y	PSR510M only	

KEYBOARD ASSEMBLY

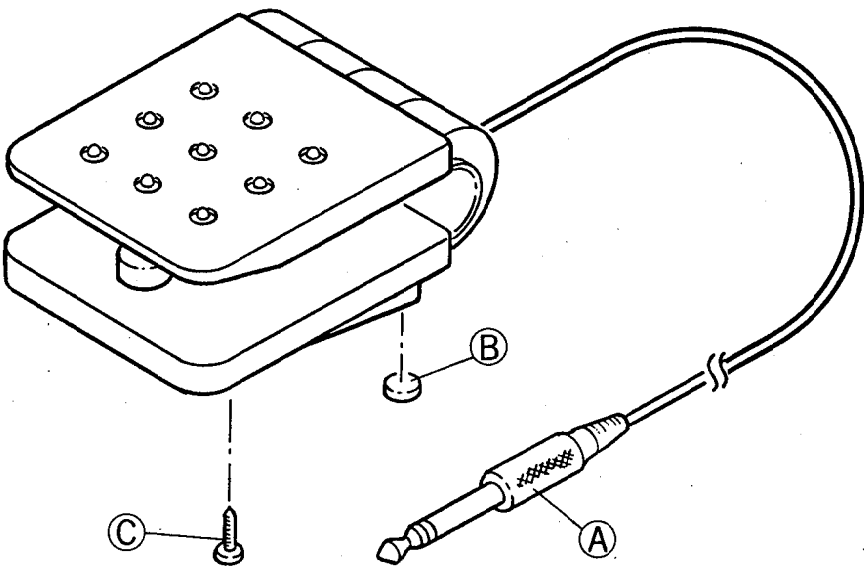


Ref. No.	Part No.	Description	部品名	Remarks	ランク
* 30	VQ383800	<KEYBOARD ASSEMBLY>	C61 K6	PSR510	26
40	EP600280	BIND HEAD TAPPING SCREW-P	3.0X8 ZNC2Y	+ バインド P タイ	01
50	--	FILAMENT TAPE	12X60	粘着テープ	
60	VH180900	FRAME	C61	フレーム	
70	VH181000	WHITE KEY	CEGB	白鍵 C E G B	03
80	VH181100	WHITE KEY	DFA	白鍵 D F A	03
90	VH181200	BLACK KEY	C'	白鍵 C'	01
100	VH181300	FELT		黒鍵	03
110	VH181400	RUBBER SHEET		フェルト	03
120	VH181500	RUBBER CONTACT	2X12KEYS	ゴムシート	01
130	VH181600	RUBBER CONTACT	2X1KEY	接点ゴム	05
140	VB205200	BIND HEAD TAPPING SCREW-P	3.0X16 ZNC2BL	接点ゴム	03
161	VQ305200	CIRCUIT BOARD	MKS	+ バインド P タイ	01
162	VL319900	CIRCUIT BOARD	MK	M K シート	13

*New Parts (新規部品)

ランク : Japan only

PEDAL ASSEMBLY



* The pedal assembly is a supplied accessory of a PSR-510M released in the U.S.A.

Ref. No.	Part No.	Description	部品名	Remarks	ランク
	VL508100	<PEDAL ASSEMBLY>		<ペダル A s s y>	10
A	VL508600	PEDAL CORD		ペダルコード	05
B	VL508900	FOOT		ゴム足	03
C	EP620150	BIND HEAD TAPPING SCREW	2.6X5 ZNC2Y	+ バインド P タイ	01

*New Parts (新規部品)

ランク : Japan only

■ ELECTRICAL PARTS

Ref. No.	Part No.	Description	部 品 名	Remarks	ランク
	VQ121400	<ELECTRICAL PARTS>	<電気部品>	PSR510	
	VQ148500	CIRCUIT BOARD	DMシート	D,U	28
	NX006390	CIRCUIT BOARD	DMシート	J,B,X	46
	NX006400	CIRCUIT BOARD	PN1シート		
	NX006410	CIRCUIT BOARD	PSWシート		
	NX006420	CIRCUIT BOARD	MVRシート		
	VQ389000	CIRCUIT BOARD	RVシート		
	VQ369100	CIRCUIT BOARD	PN2シート		
	VQ305200	CIRCUIT BOARD	AMシート		
	VL318900	CIRCUIT BOARD	MKSシート		
	VL318900	CIRCUIT BOARD	MKシート	with SUB-P.C.B	13
	VQ121400	CIRCUIT BOARD	DMシート	D,U	28
	VQ148500	CIRCUIT BOARD	DMシート	J,B,X	46
	EP600830	BIND HEAD TAPPING SCREW-B	3.0X8 ZMC2BL	+バインドBタイト	01
	UA654100	MYLAR CAP.	0.0100 50V J	マイラーコン	01
	UA654120	MYLAR CAP.	0.0120 50V J	マイラーコン	01
	VH285500	CERAMIC CAP. ARRAY	470P 50V M	セラコンアレイ	02
	VH285600	CERAMIC CAP. ARRAY	470P 50V M	セラコンアレイ	02
	VP823800	CERAMIC CAP. ARRAY	1000P 50V Z	Cネットワーク	01
	VD840800	CERAMIC CAP.-SL	27P 50V J	円筒セラ(SL)	
	VD840800	CERAMIC CAP.-SL	39P 50V J	円筒セラ(SL)	
	VD841300	CERAMIC CAP.-B	100P 50V K	円筒セラ(B)	
	VD842300	CERAMIC CAP.-B	560P 50V K	円筒セラ(B)	01
	VD843800	CERAMIC CAP.-Y	10000P 16V N	円筒セラ(Y)	01
	VK392400	CERAMIC CAP.-F	47000P 16V Z	円筒セラ(F)	01
	VI307100	MONOLITHIC CERA. CAP.	0.10 50V Z T=52	積層セラコン	01
	VF238600	RESISTOR ARRAY	RGLE8X473J	抵抗アレイ	01
	--	CONNECTOR	52147-17P TE	コネクタ	
	VF728300	CONNECTOR	52147-6P TE	コネクタ	(VF66770) 01
	--	CONNECTOR	52147-16P TE	コネクタ	(VJ86160) 01
	--	WIRE TRAP	52147-3P TE	ワイヤートラップ	(VK02470) 01
	--	WIRE TRAP	52147-7P TE	ワイヤートラップ	(VK02510) 01
	VK405200	IC SOCKET	DICF-40CS-E	ICソケット	03
	VK863100	IC SOCKET	DICF-42CS-E	ICソケット	03
	VN271300	QUARTZ CRYSTAL UNIT	9.4M AT-49	水晶振動子	03
	VK966200	CERAMIC RESONATOR	CST16.00MXW0	セラミック振動子	02
	VB941200	DIODE	1SS133,1SS176	ダイオード	01
	VD678700	DIGITAL TRANSISTOR	DTC114ES	デジタルトランジスタ	03
	VJ337600	DIGITAL TRANSISTOR	DTB123ES TP	デジタルトランジスタ	01
	VA078900	JUMPER WIRE	0.55	ジャンパー線	J,B,X only
TR9	IC260320	TRANSISTOR	2SC2603 E,F	トランジスタ	01
TR9	VH800600	TRANSISTOR	2SC3311A Q,R,S	トランジスタ	01
100	VB835000	COIL	FL5R200QNT 20u	コイル	01
100	VF968800	COIL	SBT-0260T 60u	コイル	01
	IC1 XJ797A00	IC	HD6415108F10	IC	CPU 09
	IC2 XJ427A00	IC	YMW258-F	IC	GEW8 09
	IC3 XM980A00	IC		IC	ROM 16M (STYLE) 16
	IC4 XM978A00	IC	TC574200D-120	IC	ROM 4M (PROGRAM) 16
	IC4 XN043A00	IC		IC	16M (PROGRAM+STYL) 16
	IC5 XJ446A00	IC	TC518128APL-80	IC	PSRAM 1M 16
	IC6 XJ446A00	IC	TC518128APL-80	IC	PSRAM 1M 16
	IC7 XM984A00	IC	HN824017PZ11	IC	ROM 16M (VOICE) 02
	IC8 VH480900	TRANSISTOR ARRAY	AN90B22	トランジスタアレイ	LED DRIVER 02
	IC9 VH480900	TRANSISTOR ARRAY	AN90B22	トランジスタアレイ	LED DRIVER 02
	IC10 XE449A00	IC	YM3413	IC	LDSP 11
	IC11 XM805A00	IC	CAT548128L-10RS	IC	PSRAM 1M 12
	IC12 XC520A00	IC	UPC4570C	IC	OPAMP 01
	IC13 XM145A00	IC	UPD63200GS	IC	DAC 07
	IC14 XH730A00	IC	UPC24H05HF	IC	REGULATOR +5V 03
	IC15 XL559A00	IC	AN8005-(TA)	IC	REGULATOR +5V 03
	IC16 XM818A00	IC	RE5VL45CA-TZ	IC	RESET 03
	IC16 XM717A00	IC	RE5VA45CA-TZ	IC	RESET 03
	IC17 VG181900	PHOTO COUPLER	PC-900V	フォトカプラ	PHOTO COUPLER 03
	IC18 XM939A00	IC	S-81350HG-T	IC	REGULATOR +5V 03
	IC20 IR000810	IC	HD74HC08P 2IN	IC	AND 01
	IC21 IR000050	IC	SN74HC00N	IC	NAND 03
	IC22 XM724A00	IC	74AC11138	IC	DEC DEMP 02
	NX006390	CIRCUIT BOARD	PN1	PN1シート	</

*New Parts (新規部品)

ランク : Japan only

PSR-510

Ref. No.	Part No.	Description	部 品 名	Remarks	ランク
* --	VL086000	FLAT CABLE	ケーブル	(VR16190)	05 05
--	VQ323900	FLAT CABLE	ケーブル	(VR16130)	
--		LED DISPLAY	L E D ディスプレイ		
--		LED DISPLAY	L E D ディスプレイ		
* --	NX008400	CIRCUIT BOARD	PSW シート	POWER (VI87820) (VR16240)	03
--	VQ670600	PUSH SWITCH	プッシュスイッチ		
--		CABLE HOLDER	ケーブルホルダー		
--		FLAT CABLE	ケーブル		
* --	NX008410	CIRCUIT BOARD	MVR シート	MASTER VOLUME (VI87830) (VR16270)	
--	VQ320200	VARIABLE RESISTOR	ニ連ロータリー V R		
--		CABLE HOLDER	ケーブルホルダー		
--		FLAT CABLE	ケーブル		
* --	NX008420	CIRCUIT BOARD	RV シート	(VI87810) (VR16210)	04
--	VQ371800	ROTARY ENCODER	16 形エンコーダ		
--		CABLE HOLDER	ケーブルホルダー		
--		FLAT CABLE	ケーブル		
* --	VQ369000	CIRCUIT BOARD	PN2 シート	HSS104 (VP21690)	01 01 01
--	VQ371700	TACT SWITCH	タクトスイッチ		
--	VD631600	JUMPER CONNECTOR	ジャンパコネクタ		
--	VJ348700	DIODE	ダイオード		
--	VA078900	LED	L E D		
--		JUMPER WIRE	ジャンパー線		
* --	VQ369100	CIRCUIT BOARD	AM シート	01 01	
--	EP030530	BIND HEAD TAPPING SCREW-2	+ バインド T P 2 種薄		
--	UA654470	MYLAR CAP.	マイラーコン		
--					
* --	VD829400	CERAMIC CAP.-F	円筒セラ (F)	01 01 01 01	
--	VD840900	CERAMIC CAP.-SL	円筒セラ (S L)		
--	VD842800	CERAMIC CAP.-B	円筒セラ (B)		
--	VD843400	CERAMIC CAP.-X	円筒セラ (X)		
--	VD843800	CERAMIC CAP.-Y	円筒セラ (Y)		
* --	VH227500	LINE FILTER	SU10VD-10020	POWER AMP HEADPHONES/AUX. SUSUTAIN PEDAL	03 01 06 03 02
--	VB835000	COIL	FL5R200QNT 20u		
--	XN593A00	IC	LA4705 15W BTL		
--	LB101870	PHONE JACK	YKB21-5006		
--	VB121800	PHONE JACK	YKB21-5012	ホーンジャック (黒)	
--	VC664500	CONNECTOR	HEC2305	電源コネクタ	DC IN MIDI IN/OUT
--	VJ107200	DIN JACK	5P YKF51-5050	D I N ジャック	
--	LB918020	BASE POST CONNECTOR	XH-2P TE	ベースツキポスト	
--		CABLE HOLDER	51048-2P TE	ケーブルホルダー	
--		CABLE HOLDER	51048-6P TE	ケーブルホルダー	(VI87800) (VI87840)
--		CABLE HOLDER	51048-7P TE	ケーブルホルダー	(VI87850)
--		WIRE TRAP	52147-4P TE	ワイヤートラップ	(VK02480)
--		WIRE TRAP	52147-5P TE	ワイヤートラップ	(VK02490)
--	VH530100	DIODE	1SR139-100A	ダイオード	01 01
--	VL723600	DIODE	20E1-FC4	ダイオード	
--	VL456900	HEAT SINK		放熱板	04
--		VIBRATION-PROOF TAPE	3.5X35X0.5	防振テープ	(VM92820)
--		VIBRATION-PROOF TAPE	4X20X0.5	防振テープ	(VM96040)
--	VA078900	JUMPER WIRE	0.55	ジャンパー線	
--		FLAT CABLE	7P L=500	ケーブル	(VR16110)
--		FLAT CABLE	6P L=330	ケーブル	(VQ78070)
--		WIRES	2P L=150	ケーブル	(VQ78040)
--		WIRES	2P L=500	ケーブル	(VQ78050)
--		WIRE	1P L=60	ケーブル	(VQ57380)
* --	VQ305200	CIRCUIT BOARD	MKS	M K S シート	01 01 01
--	VD840500	CERAMIC CAP.-SL	22P 50V J		
--	VK392400	CERAMIC CAP.-F	47000P 16V Z	円筒セラ (S L)	
--	VL409500	COIL	BL03RN2-R62T4	円筒セラ (F)	
--	VL674500	RESISTOR ARRAY	RGLE12X223J	抵抗アレイ	0.45u
--	XJ450A00	IC	HD63B05V0D73P	I C	CPU (SUB)
--	VF728300	CONNECTOR	52147-6P TE	コネクタ	
--		WIRE TRAP	52147-11P TE	ワイヤートラップ	
--		WIRE TRAP	52147-12P TE	ワイヤートラップ	
--		VIBRATION-PROOF TAPE	10X64X0.5	防振テープ	(VK02550) (VK02560) (VK34680)
CR1 --	VA078900	JUMPER WIRE	0.55	ジャンパー線	8.00MHz
CR1 --	VN002100	CERAMIC RESONATOR	CST8.00MTW140	セラミック振動子	
--	VQ305500	CERAMIC RESONATOR	EFOEC8004T3	セラミック振動子	
--	VL319900	CIRCUIT BOARD	MK	M K シート	with SUB-P.C.B
--	VB941200	DIODE	1SS133,1SS176	ダイオード	01
--		GND WIRE	AVG22 34mm BL	アース線	
--		CUSHION		シート・クッション	
--		FLAT CABLE	11P	ケーブル	
--		FLAT CABLE	12P	ケーブル	(VL31920)
--		WIRE	1P L=210mm	ケーブル	(VL74540)
--	VA078900	JUMPER WIRE	0.55	ジャンパー線	
--	XJ840A00	SPEAKER	12.0cm 4ohm 6W	スピーカ	2pcs 06

*New Parts (新規部品)

ランク: Japan only