PORTABLE PIANO

YPR-50

SERVICE MANUAL



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SK 001630

YAMAHA
HAMAMATSU, JAPAN
1.83K-756 Printed in Japan '99.9

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 or 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 bus in the unit (heavy gauge black wires connect to this bus).

IMPORTANT: Turn the unit OFF during disassembly and part 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 WHATSOEVER!

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

Keyboard
76 standard-size keys (E0-G6) with touch response

Voices
5 panel voices (max. polyphony: 32)

Piano Stayle
20 styles

Fingering: Multi Fingering

Overall controls
Start, Stop, Select

Song controls
Start, Stop, Pause, Fast Forward, Rewind, Part

Panel controls
DEMO, Tempo up, Tempo down
Metronome, Start, Stop

Preset songs
20 songs

Amplifier
3.0 W + 3.0 W

MIDI
IN/OUT

Auxiliary jacks
PHONES/OUTPUT, DC IN 10-12V, MIDI IN/OUT,
DAMPER

Speakers
12 cm x 2

Power consumption
UL/CSA 6.6 W (when using PA-3B power adaptor)
CE 7.3 W (when using PA-3B power adaptor)

Power supply
Adaptor: Yamaha PA-3B AC power adaptor
Rated Voltage DC 10 to 12 V
Rated Current 700 mA
Batteries: Six "D" size, SUM-1, R-20 or equicalent batteries

Dimensions
1188 x 780 x 485 mm
(W x H x D, not including the Keyboard stand)
(46-3/4" x 17-1/8" x 5-7/16")

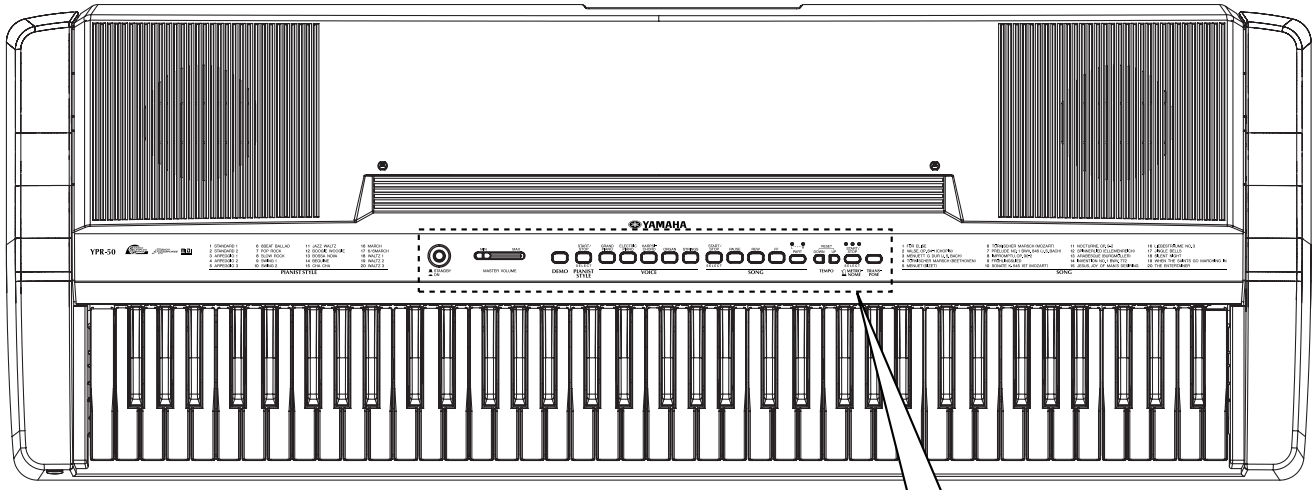
1188 x 138 x 435 mm
(W x H x D, not including the Keyboard stand)
(46-3/4" x 5-7/16" x 17-1/8")

Weught
13.8 Kg (including the Keyboard stand)
(30 lbs, 7 oz.)

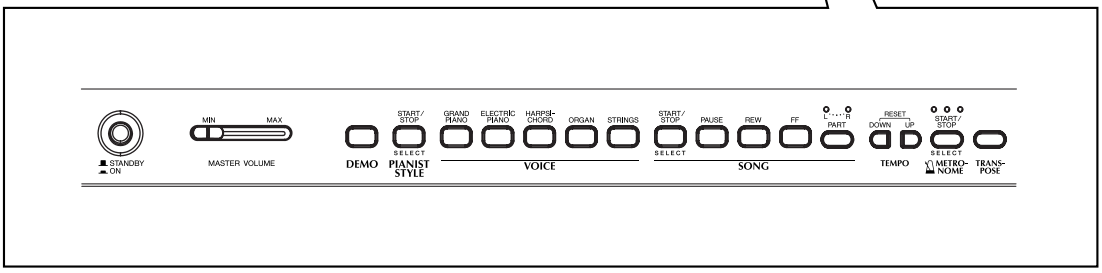
7.5 Kg (not including the Keyboard stand)
(16 lbs, 9 oz.)

PANEL LAYOUT

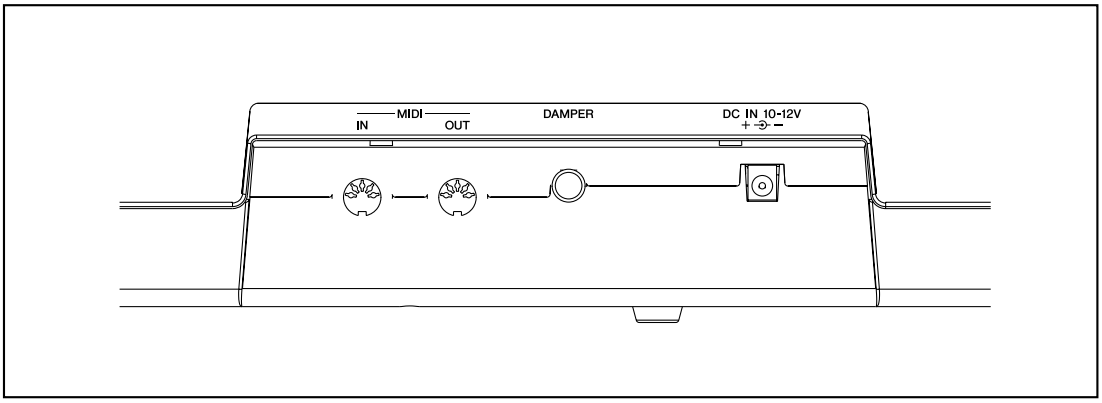
• Top View



• Control Panel



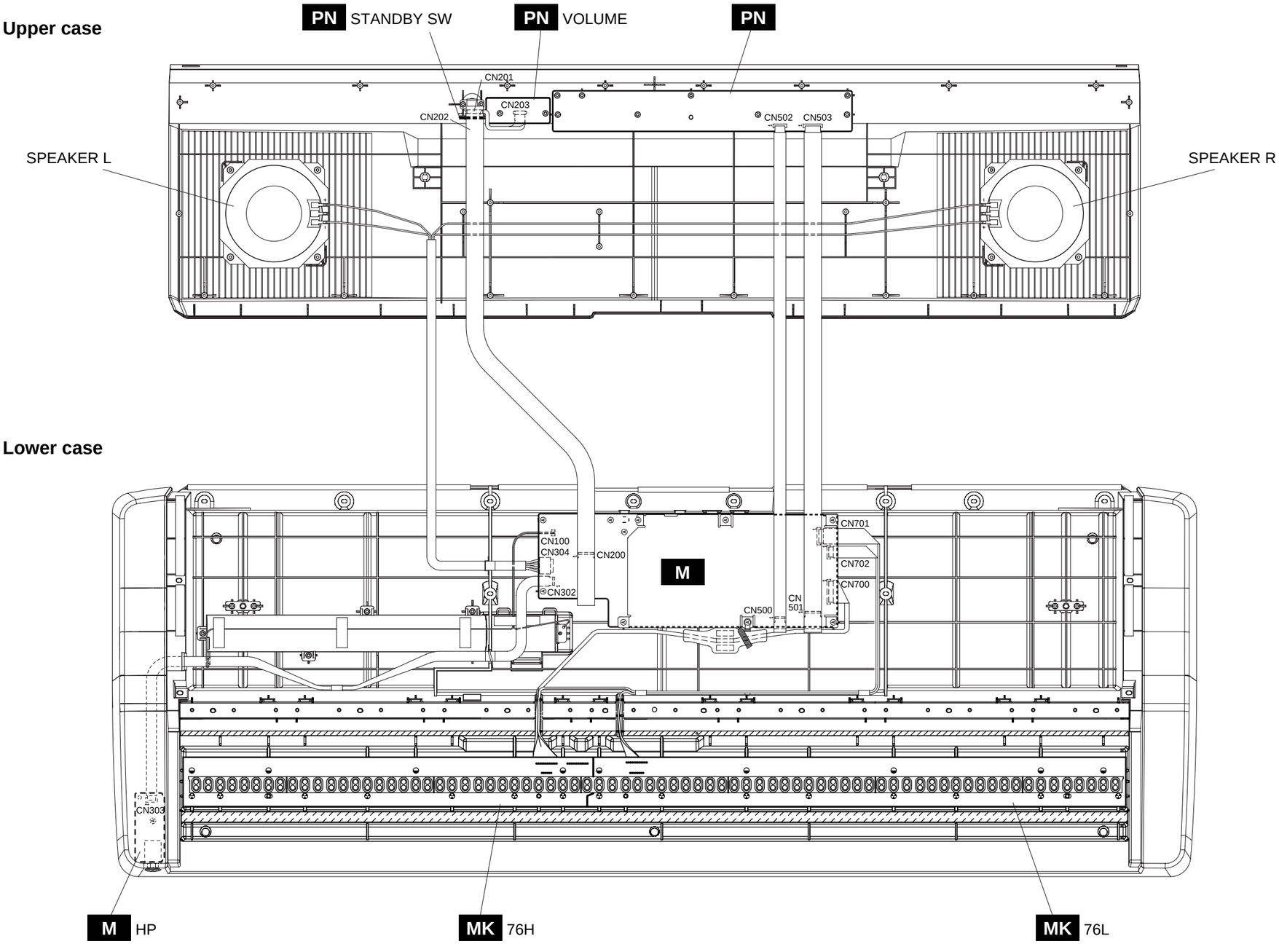
• Rear Panel



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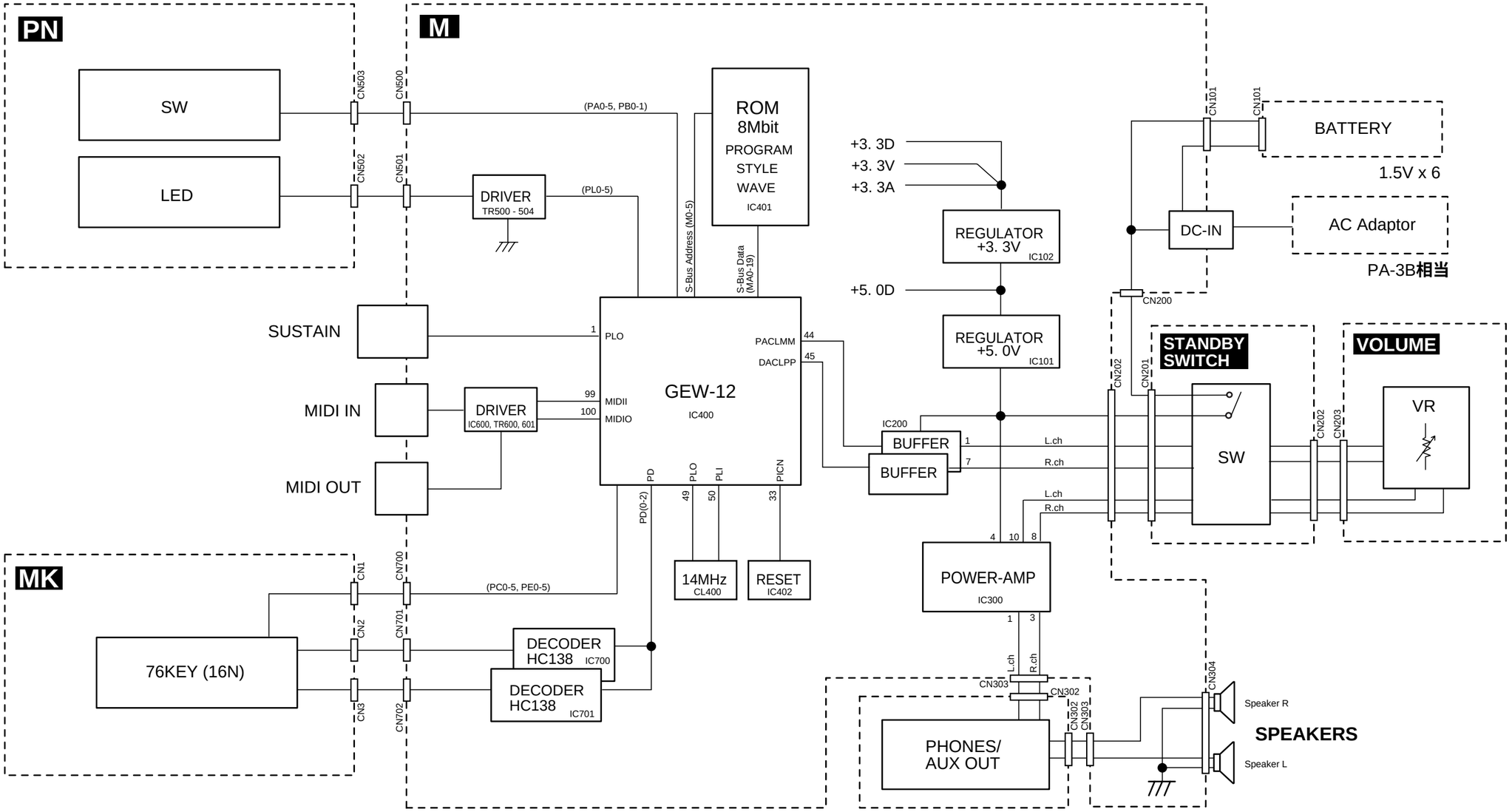
■ CIRCUIT BOARD LAYOUT & WIRING

• **Upper case**



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■BLOCK DIAGRAM



DISASSEMBLY PROCEDURE

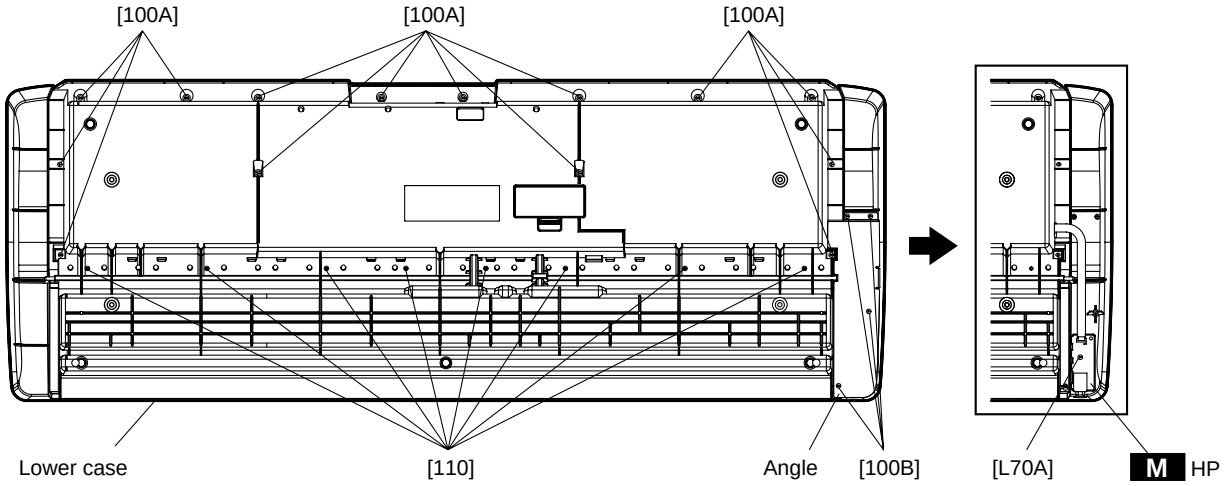
1 M Circuit Board (HP)

1-1 Remove the four (4) screws marked [100B]. The HP blind angle can then be removed. (Fig. 1)

1-2 Remove the one (1) screws marked [L70A]. The HP circuit board can then be removed. (Fig. 2)

2 Top Cover

2-1 Remove the fourteen (14) screws marked [100A] and the eight (8) screws marked [110]. The top cover can then be removed. (Fig. 1)



[100]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)
[110]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL (VU481600)

(Fig. 1)

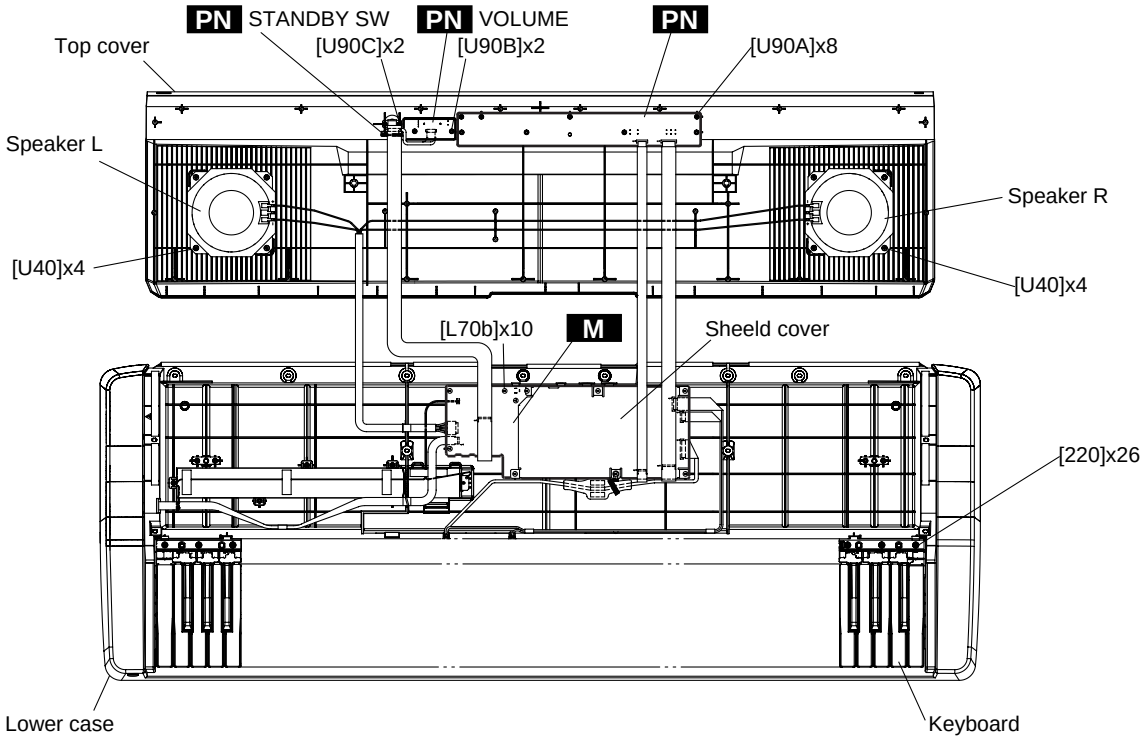
[L70]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)

(Fig. 2)

3 Circuit Board and Unit

Remove the following screws, each circuit board and unit can then be removed.

Circuit Board & Unit	Ref. No.	Screw	Prat No.	Fig.	QTY
M Circuit Board	[L70B]	Bind Head Tapping Screw-B 3.0X8 MFZN2BL	EP600190	3	10
PN Circuit Board	[U90A]	Bind Head Tapping Screw-B 3.0X8 MFZN2BL	EP600190	3	8
PN Circuit Board(VOLUME)	[U90B]	Bind Head Tapping Screw-B 3.0X8 MFZN2BL	EP600190	3	2
	--	Knob	--	3	1
PN Circuit Board(STANDBY SW)	[U90c]	Bind Head Tapping Screw-B 3.0X8 MFZN2BL	EP600190	3	2
Speaker	[U40]	Bind Head Tapping Screw-B 4.0X8 MFZN2BL	EG340190	3	4

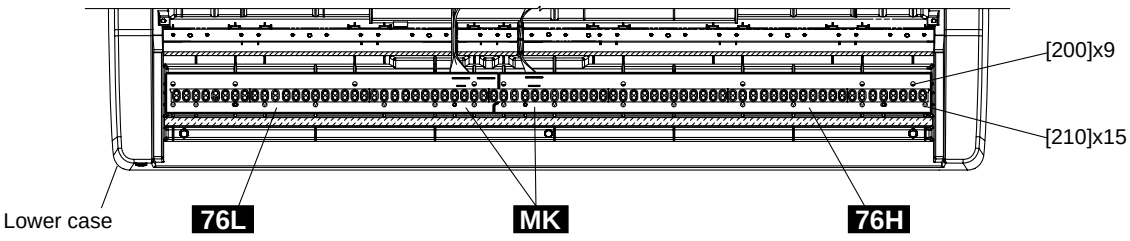


[L70]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)
[U40]: Bind Head Tapping Screw-B 4.0X8 MFZN2BL (EG340190)
[U90]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)
[220]: Bind Head Tapping Screw-P 3.0X20 MFZN2 (VT069800)

(Fig. 3)

4 MK Circuit Board Assembly

4-1 Remove the top cover. (See Procedure 1.)
4-2 Remove the twenty-six (26) screws marked [220]. The all key can then be removed. (Fig. 4)
4-3 Remove the nine (9) screws marked [200] and the fifteen (15) screws marked [210]. The MK circuit can then be removed. (Fig. 4)



[200]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y (EP600250)
[210]: Bind Head Tapping Screw-P 3.0X12 MFZNBL (VZ313100)
(Fig. 4)

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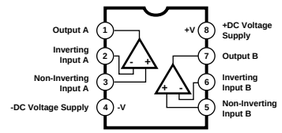
■ LSI PIN DESCRIPTION

● **YMW728B-F** (XV762A00) **GEW12** (AWM Tone Generator) IC400

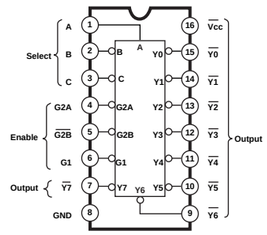
PIN No.	NAME	I/O	FUNCTION	PIN No.	NAME	I/O	FUNCTION
1	PL0	I/O	Port L	51	DAC_Vdd		Power supply
2	PL1	I/O		52	SYI	I	Synch. signal
3	PL2	I/O		53	ICN	I	Inicial Clear
4	PL3	I/O		54	Vss		Ground
5	PL4	I/O		55	MA19	O	Memory address bus
6	PL5	I/O		56	MA18	O	
7	PL6	I/O		57	MA8	O	
8	Vdd		Power supply	58	Vdd		Power supply
9	PA0	I/O	Port A	59	MA17	O	Memory address bus
10	PA1	I/O		60	MA9	O	
11	PA2	I/O		61	MA7	O	
12	PA3	I/O		62	MA10	O	
13	PA4	I/O		63	MA6	O	
14	PA5	I/O		64	MA11	O	
15	PB0	I/O	Port B	65	Vss		Ground
16	PB1	I/O		66	MA5	O	Memory address bus
17	PB2	I/O		67	MA12	O	
18	PB3	I/O		68	MA4	O	
19	PB4	I/O		69	MA13	O	
20	PB5	I/O		70	MA3	O	
21	Vss		Ground	71	MA14	O	
22	PC0	I/O	Port C	72	Vdd		Power supply
23	PC1	I/O		73	MA2	O	Memory address bus
24	PC2	I/O		74	MA15	O	
25	PC3	I/O		75	MA1	O	
26	PC4	I/O		76	MA16	O	
27	PC5	I/O		77	MA0	O	
28	PD0	I/O	Port D	78	MA20	O	
29	PD1	I/O		79	Vss		Ground
30	PD2	I/O		80	ROMLOEN	O	OEN pin
31	PD3	I/O		81	MD15	I/O	Memory address bus
32	PD4	I/O		82	MD0	I/O	
33	PD5	I/O		83	MD7	I/O	
34	Vdd		Power supply	84	MD8	I/O	
35	PE0	I/O	Port E	85	MD14	I/O	
36	PE1	I/O		86	MD1	I/O	
37	PE2	I/O		87	MD6	I/O	
38	PE3	I/O		88	MD9	I/O	
39	PE4	I/O		89	Vdd		Power supply
40	PE5	I/O		90	MD13	I/O	Memory address bus
41	TESTE	I	Test Mode E	91	MD2	I/O	
42	TESTD	I	Test Mode D	92	MD5	I/O	
43	Vss		Ground	93	MD10	I/O	
44	DACLMM	O	1 bit DAC Output L (-)	94	MD12	I/O	
45	DACLPP	O	1 bit DAC Output L (+)	95	MD3	I/O	
46	DACRPP	O	1 bit DAC Output R (+)	96	MD4	I/O	
47	DACRMM	O	1 bit DAC Output R (-)	97	MD11	I/O	
48	DAC_Vss		Ground	98	Vss		Ground
49	X_O	O	Crystal quarts Output	99	MIDII	I	MIDI Input
50	X_I	I	Crystal quarts Input	100	MIDIO	O	MIDI Output

■ IC BLOCK DIAGRAM

● **μPC4570G2** (XF291A00)
Operational Amplifier
IC200



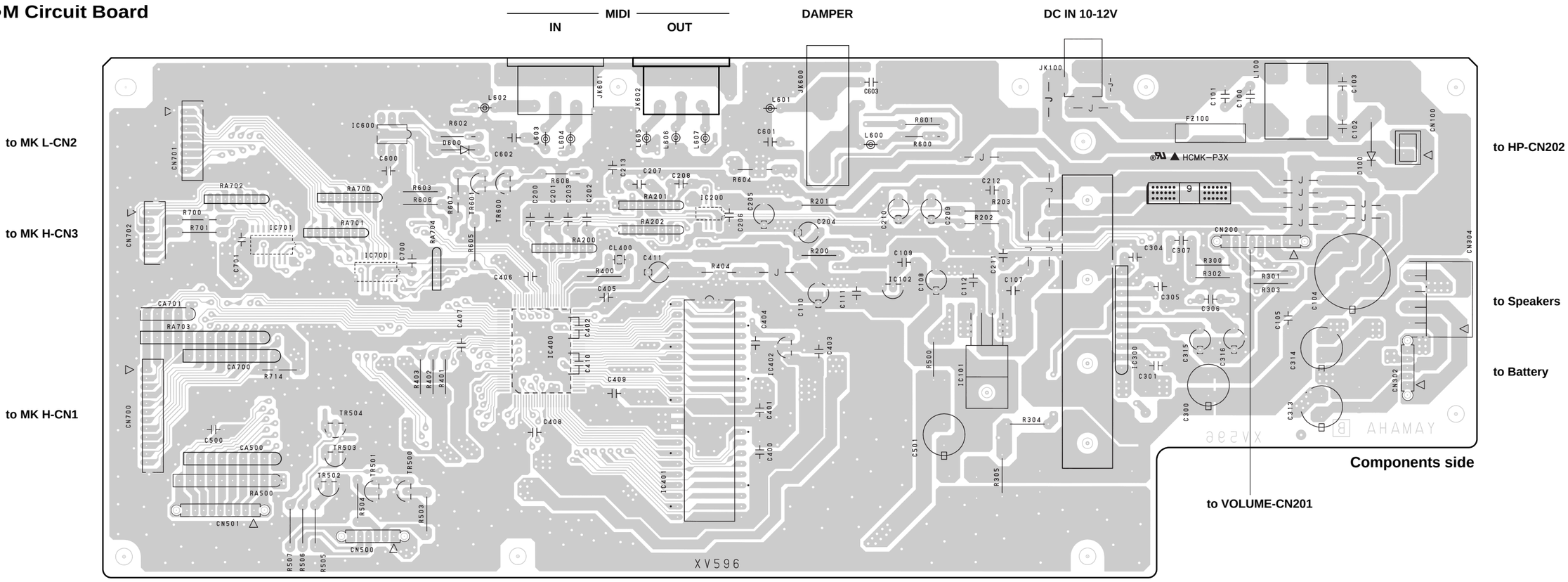
● **SN74HC138N** (XL097A00)
Decoder
IC700, IC701



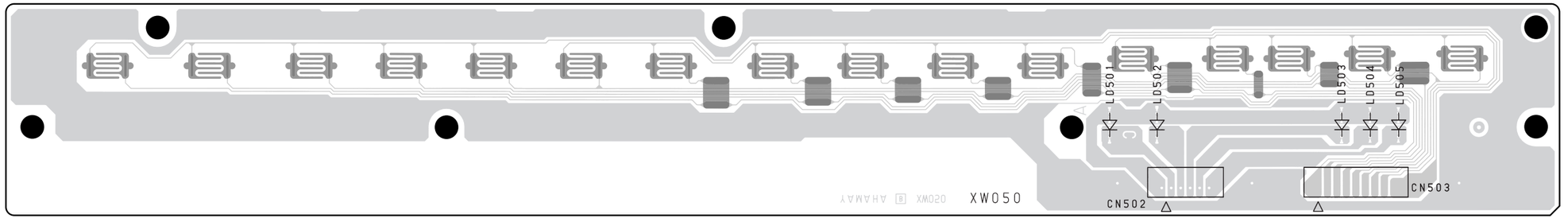
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■CIRCUIT BOARDS

●M Circuit Board



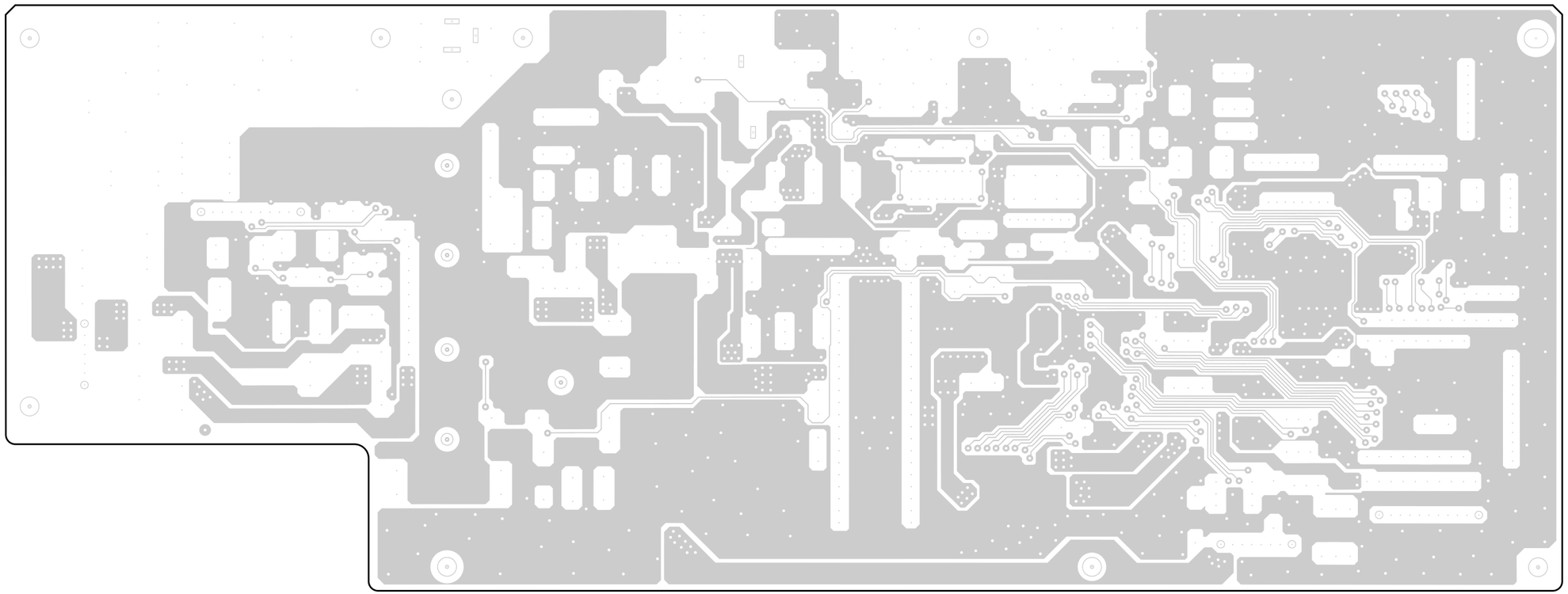
●PN Circuit Board



M: 2NA-V311690
PN: 2NA-V374760

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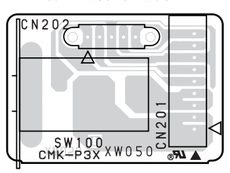
●M Circuit Board



Pattern side

●PN Circuit Board (STADBY SW)

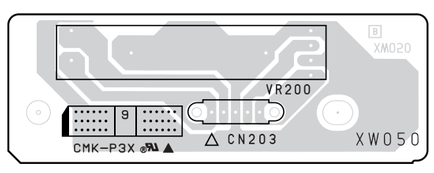
to PN2/3-CN203



to M-CN200

Components side

●PN Circuit Board (VOLUME)

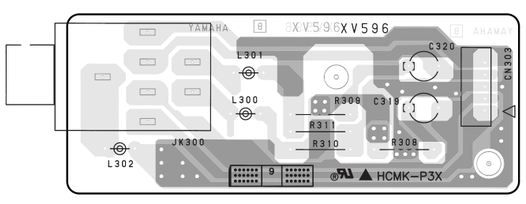


to PN3/3-CN202

Components side

●M Circuit Board (HP)

HEADPHONE



to M-CN100

Components side

M: 2NA-V311690
PN: 2NA-V374760

■ TEST PROGRAM

A. PREPARATION

For testing, the following measuring instruments and jig are required.

A-1 Measuring instruments: level gauge (with JIS-C filter) and frequency counter
Note 1: input impedance should be 1 M ohms or more
Note 2: unless otherwise specified, use a stereo plug with a 30-ohm load, connector, and measure at the [PHONES/OUTPUT] terminal

A-2 Jig: foot switch (FC4 or FC5) and MIDI cable

B. HOW TO ENTER THE TEST PROGRAM

While holding down the keys [C2#], [F2] and [G2#], turn on the power switch. When the test program is activated, all LEDs light up.

C. PROCEEDING THROUGH THE TEST PROGRAM

C-1 Press the [DEMO] button. Select a test item by either pressing the key designated for the test, or by pressing the [TEMPO Up/Down] button.
The selected test item will then be carried out.

C-2 If the test result is judged to be NG, press the [DEMO] button to return to the selection menu.

C-3 To proceed to the next test item, press the [DEMO] button.

1-1 Test program

By pressing the following keys, the test specified for each key will be carried out. (The volume is to set at maximum.)

E0: 1-2 ROM Version Check
F0: 1-3 ROM CheckÇP
G0: 1-4 RAM Check 1
D1: 1-5 7G1 Check
B0: 1-6 R Ch Output Level Check
C1: 1-7 L Ch Output Level Check
A0: 1-8 Panel Switch Check
E1: 1-9 DAC Noise Check
F1: 1-10 Pedal Check
G1: 1-11 MIDI Check
A1: 1-12 ROM Check 2
B1: 1-13 RAM Check 2
C2: 1-14 Test Mode Exit

1-2 Displaying the ROM version

Press the [E0] key.
For Ver. 1.00, the LED to the right of the [METRONOME] lights up.
For Ver. 2.00, the LED in the middle of the [METRONOME] lights up.

1-3 ROM Check 1

Press the [F0] key.
When OK, the LED to the left of the [METRONOME] will light up.
When NG, the C4 will beeps and the LED to the left of the [METRONOME] will blink.
Press the [DEMO] button to return to the selection menu.

1-4 RAM Check 1

Press the [G0] key.
When OK, the LED on the [SONG PART/L] will light up.
When NG, the C1 will beep and the LED on the [SONG PART/L] will blink.
Press the [DEMO] button to return to the selection menu.

1-5 Sound Source 1 Check (Auto Scaling)

Sounds are produced from C2 to D#3.
Press the [D1] key.
If you press the [VOICE] button, normal tone scaling is activated. Each push at the [VOICE] button changes the tone.

1-6 Output Level R Check

Press the [B0] key.
Turn up the master volume to maximum, and connect the level gauge to the Land R [PHONES/OUTPUT] terminals, with the load being 30 ohms.
R channel
L side - 60.0 dBm or less
R side - 19.0 +/- 2dBm
Sine wave level: 440.0 +/- 1.76 Hz or less
Press the [DEMO] button to stop the sound and return to the selection menu.

1-7 Output Level L Check

Press the [C1] key.
Turn up the master volume to maximum, and connect the level gauge to the Land R [HEADPHONE] terminals , with the load being 30 ohms.
L channel
L side: - 19.0 +/- 2 dBm
R side: - 60.0 dBm or less
Sine wave level: 440.0 +/- 1.76 Hz or less
*When the master volume is set at maximum, the level becomes 80.0 dBm or less for both the L and R channels.

1-8 DAC Noise Check

Press the [E1] key.
Pressing any key will automatically produce a PIANO sound, at a minimum volume , with the SUSTAIN on, and PAN centered.
Check for any noise.

1-9 SW/LED Check

Press the [A0] key.
Press the panel buttons, in order, from the left [DEMO] button to the [TRANSPOSE] button.
If more than one button is pressed, noise is produced.
When pressing the LED button, the LED will also light up.
When NG, the C4 will beep and the LED to the left of the [METRONOME] will blink.

1-10 Pedal 1 Check

Press the [F1] key.
Insert the foot pedal into the jack.
If OFF is detected, the C4 will beep, causing all LEDs to go out.
If ON is detected, the C3 will beep, causing all LEDs to light up.

1-11 MIDI Check

Press the [G1] key.
Connect the [MIDI IN] and [MIDI OUT] terminals using a MIDI cable.
When OK, the C4 will beep and the LED in the middle of the [METRONOME] will light up.
When NG, the C4 will beep and the LED in the middle of the [METRONOME] will blink.

1-12 ROM Check 2

Press the [A1] key.
When OK, the LED on the [SONG PART/R] will light up.
When OK, the LED on the right of the [METRONOME] lights up.
For NG, C4 beeps and LED on the left of the [METRONOME] blinks.
Press the [DEMO] button to return to the selection status.

1-13 RAM Check 2

Press the [B1] key.
When OK, the LED on the [SONG PART/R] will light up.
When NG, the C4 will beep and the LED on the [SONG PART/R] will blink.
Press the [DEMO] button to return to the selection menu.

1-14 Test Mode Exit

Press the [C2] key or the [DEMO] button.
This brings the test mode to an end and brings the program back to normal mode.

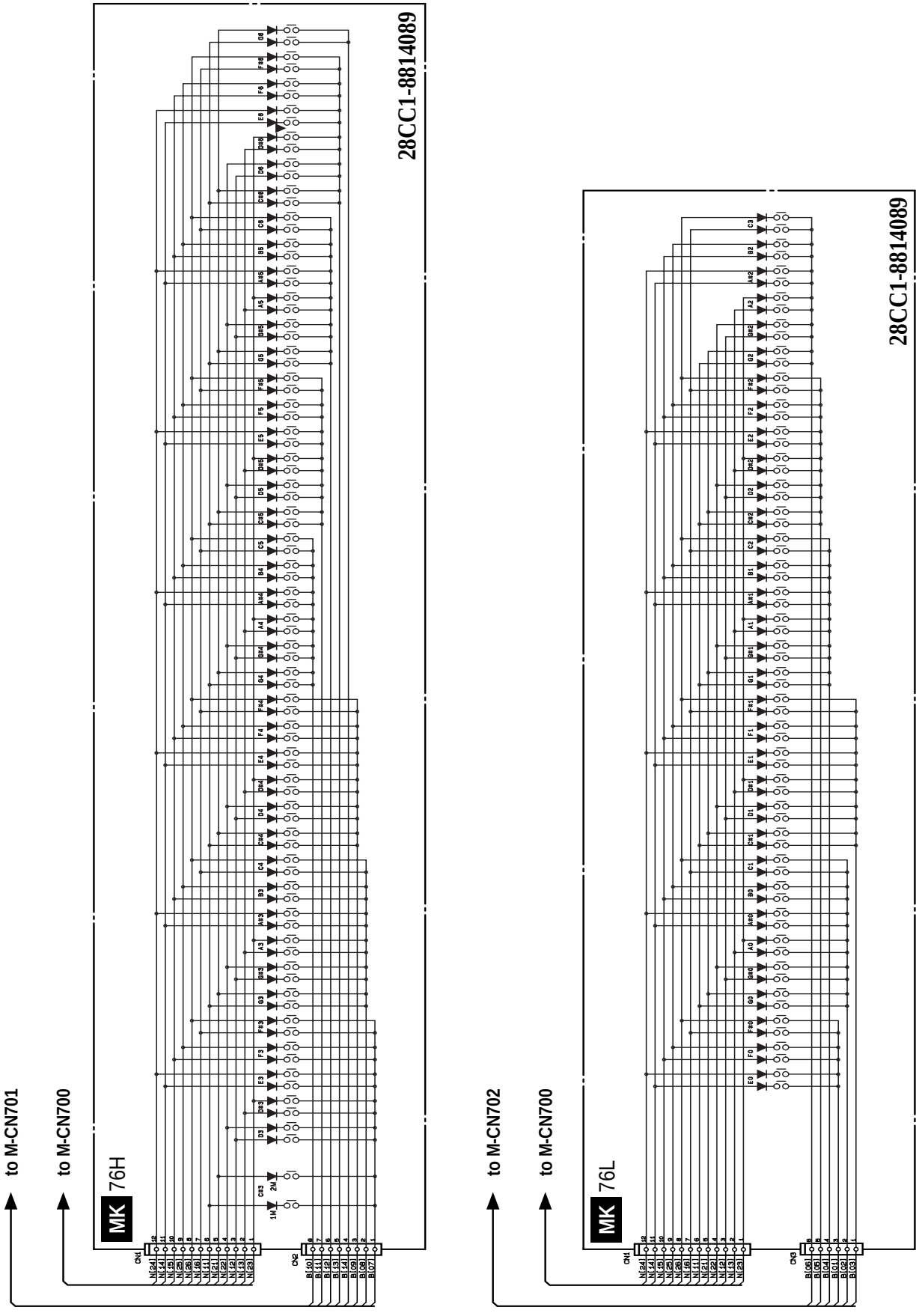
[Portable Keyboard] / Model: YPR-50

Date:10. May1999
Version: 1.0

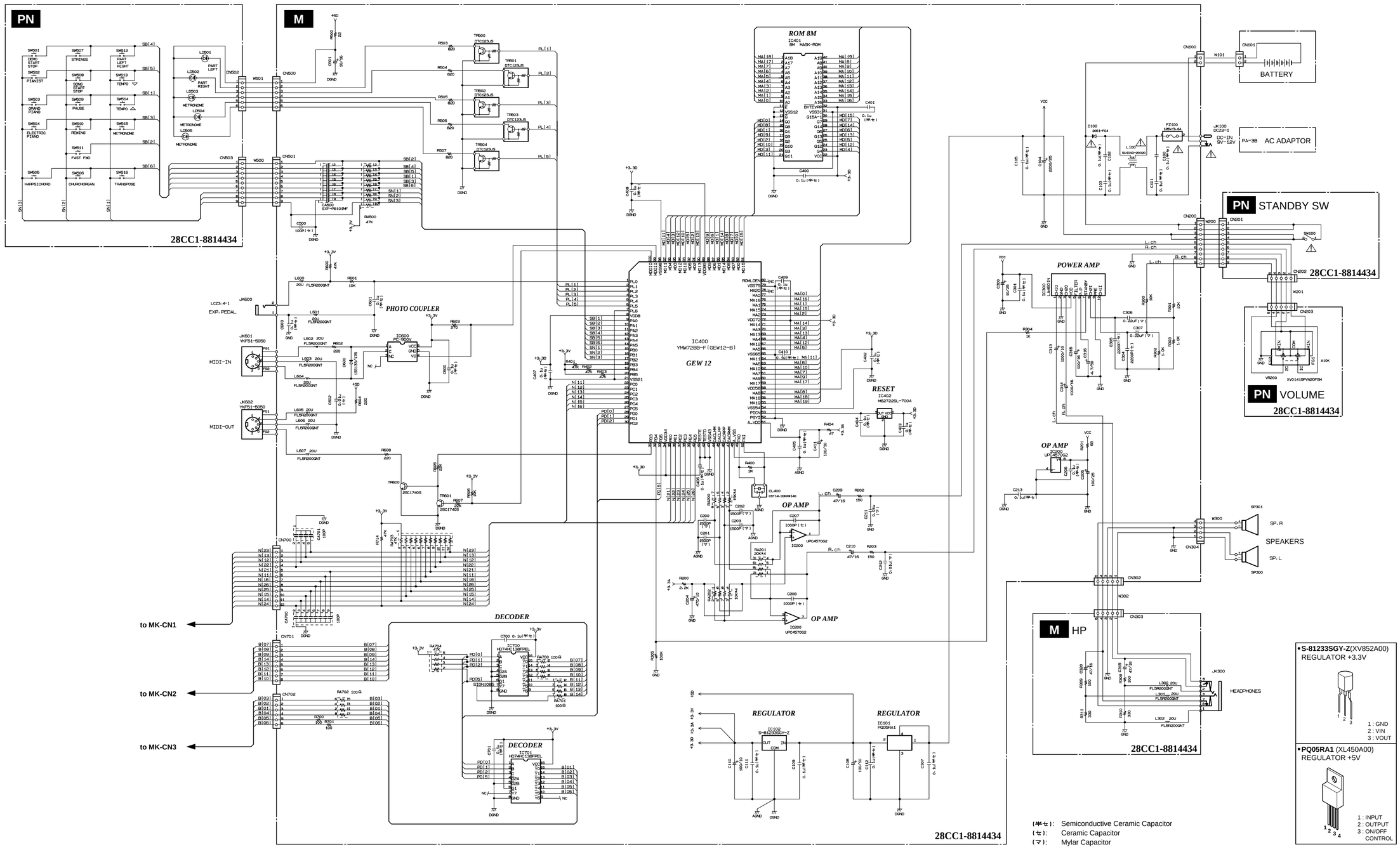
Function		Transmit	Receive	Remarks
Basic Channel	Default Changed	1-7,10 ‘	1-7,10 ‘	
Mode	Default Messages Altered	3 ‘ **********	3 ‘ ‘	
Note Number	 True Voice	0-127 **********	0-127 0-127	
Velocity	Note ON Note OFF	Ø 9nH, v=1-127 *1 Ø 9nH, v=0	Ø 9nH, v=1-127 Ø 9nH, v=0 or 8nH	
After Touch	Key's Ch's	‘ ‘	‘ ‘	
Pitch Bend		‘	‘	
Control Change	0, 32 1 6, 38 7 10 11 64 66 84 91 96 97 100, 101 120 121	Ø *2 ‘ ‘ Ø Ø ‘ Ø ‘ Ø ‘ ‘ ‘ ‘ ‘ ‘ ‘	Ø *2 ‘ ‘ Ø Ø ‘ Ø ‘ Ø ‘ ‘ ‘ ‘ ‘ ‘ ‘	Bank Select MSB, LSB Modulation Depth Data Entry MSB, LSB Volume Pan Expression Sustain Sostenuto Portamento Controllers Reverb Depth RPN Inc RPN Dec RPN LSB, MSB All Sound Off Reset All Controllers
Program Change	 Change: True #	‘ *2 **********	Ø *2 *2	
System Exclusive		Ø *3	Ø *3	
System : : **Common** :	Song Position Song Select Tune	‘ ‘ ‘	‘ ‘ ‘	
System **Real Time**	Clock Commands	‘ ‘	‘ ‘	
Aux **Messages**	Local ON/OFF All Notes OFF Active Sense Reset	‘ ‘ Ø ‘	‘ ‘ Ø ‘	
Notes		*1 Depending on the selected voice, the transmitted velocity value may differ, even for notes played with identical strength. *2 Program change and other like channel messages received will not affect the YPR-50 panel settings or what is being played on the keyboard. *3 < GM System on > F0H,7EH,7FH, 09H, 01H, F7H All data is restored to the default values. *4 MIDI does not function (transmit/receive) during song playback.		

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

■OVERALL CIRCUIT DIAGRAM, MK(76H, 76L)



■OVERALL CIRCUIT DIAGRAM, M (M, HP), PN (PN, STANDBY SW, VOLUME)



YPR-50

PORTABLE PIANO

YPR-50

PARTS LIST

■**CONTENTS**

OVERALL ASSEMBLY 2
UPPER CASE ASSEMBLY 3
LOWER CASE ASSEMBLY 4
KEYBOARD ASSEMBLY 5
FOOT PEDAL 6
KEYBOARD STAND SET: LW-14 7
ELECTRICAL PARTS 8

Notes: DESTINATION ABBREVIATIONS

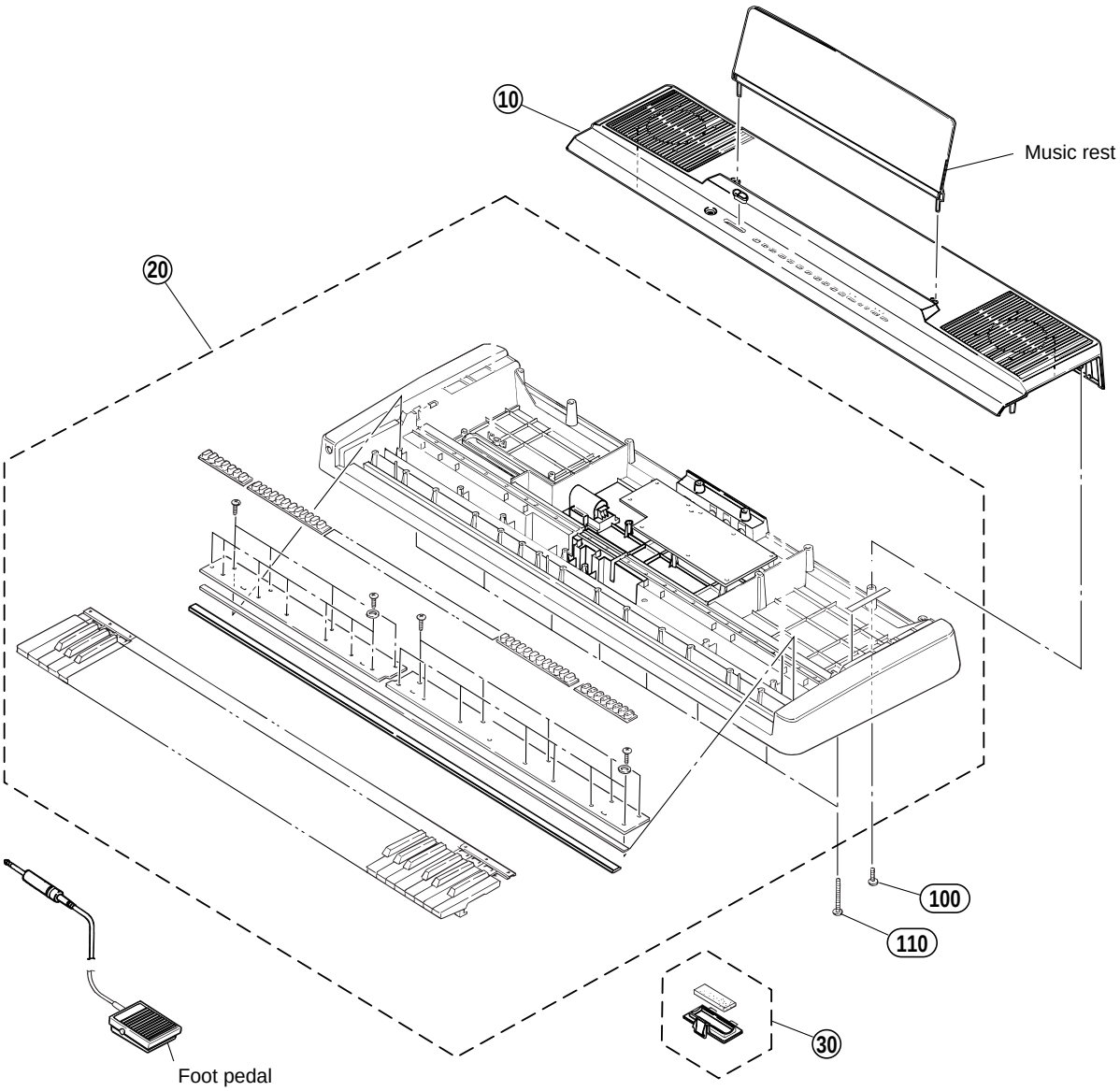
A: Australian model	J: Japanese model
B: British model	U: U.S. model
C: Canadian model	V: General export model (110V)
E: European model	W: General export model (220V)
H: North European model	X: General export model
I: Indonesian model	Y: Export model

- The numbers in "QTY" shows quantities for each unit.
- The parts with "--" in "Parts No." are not available as spare parts.
- The mark " } " in the remarks column indicates that these parts are interchangeable.
- The second letter of the shaded ( ) part number is I, not one.

■**WARNING**

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

OVERALL ASSEMBLY

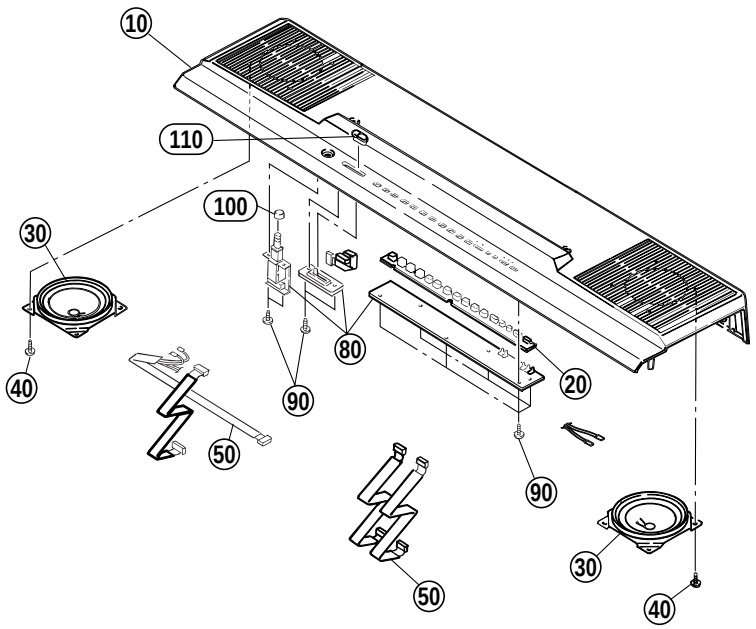


REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
		OVERALL ASSEMBLY			YPR-50			
	--	Overall Assembly	PT		U,W,C	(V411460)		
	--	Overall Assembly	PT		J	(V411470)		
10	--	Upper Case Assembly			U,W,C	(V411560)		
10	--	Upper Case Assembly			J	(V411570)		
20	--	Lower Case Assembly				(V411640)		
30	**VI189900**	Battery Cover Assembly	BL					03
100	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL				14	01
110	**VU481600**	Bind Head Tapping Screw-B	3.0X25 MFZN2BL				8	01
		ACCESSORIES						
	VM485100	Music Rest						09
	--	Foot Pedal	FC-5			(VJ07000)		
	--	Keyboard Stand Set	LW-14		U,W,C	(V411700)		
	VT368600	AC Adapter	PA-3B JP		J			09

*: New parts

RANK: Japan only

■ UPPER CASE ASSEMBLY

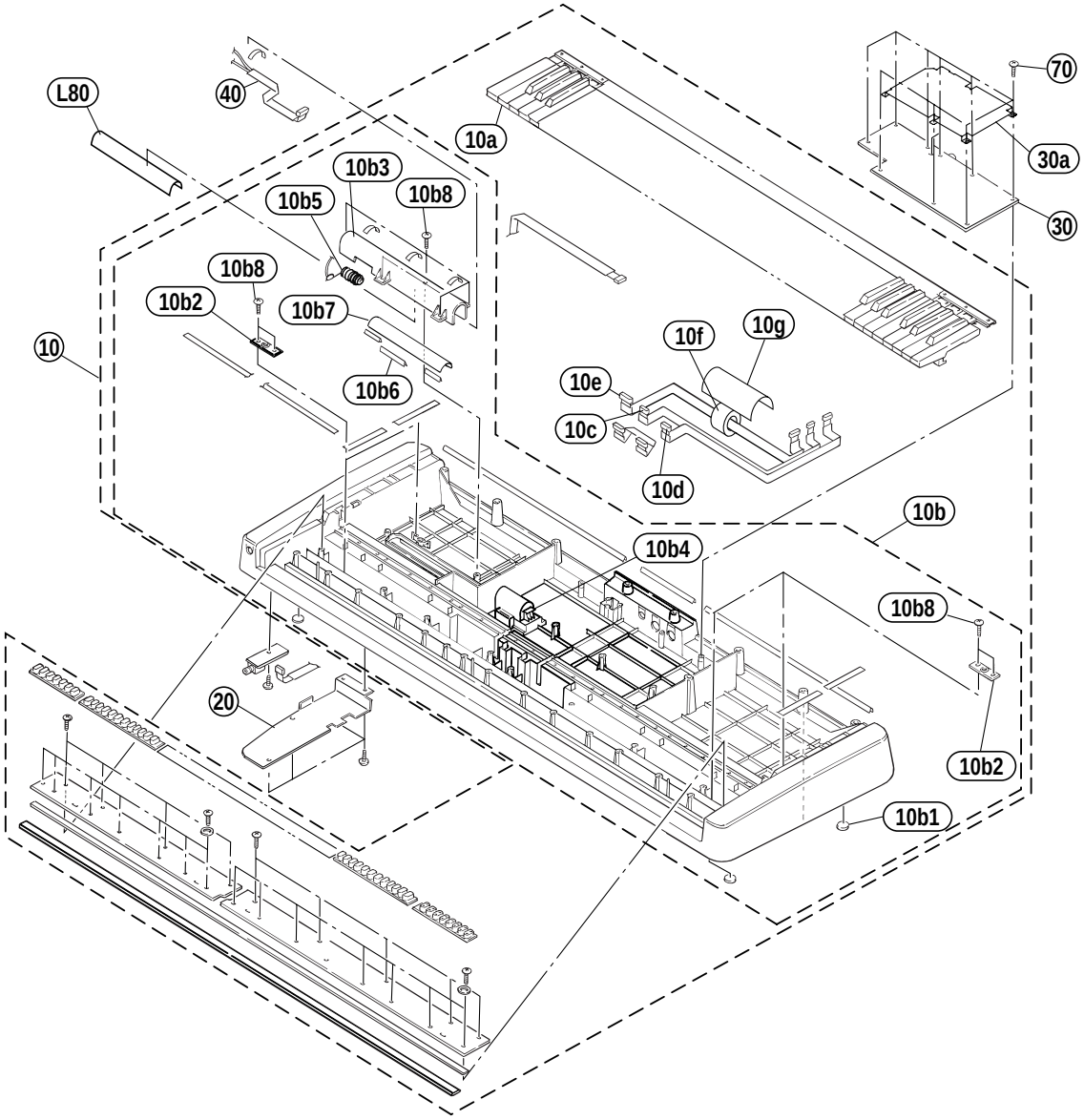


	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			UPPER CASE ASSEMBLY			YPR-50		
		--	Upper Case Assembly			U,W,C (V411560)		
		--	Upper Case Assembly			J (V411570)		
*	10	**V4116000**	Upper Case			U,W,C		
*	10	**V4116100**	Upper Case			J		
*	20	**V4116300**	Rubber Key					
	30	**XQ764A00**	Speaker	12.0cm 4 ohm 8W			2	05
	40	**EG340190**	Bind Head Tapping Screw-B	4.0X8 MFZN2BL			8	01
	50	--	Connector Assembly	SP 4P L=1200		(V324960)		
*	80	**V3747700**	Circuit Board	PN				
	90	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			11	01
	100	**VQ218800**	Knob					03
	110	**VS179900**	Slide Knob					03

*: New parts

RANK: Japan only

LOWER CASE ASSEMBLY

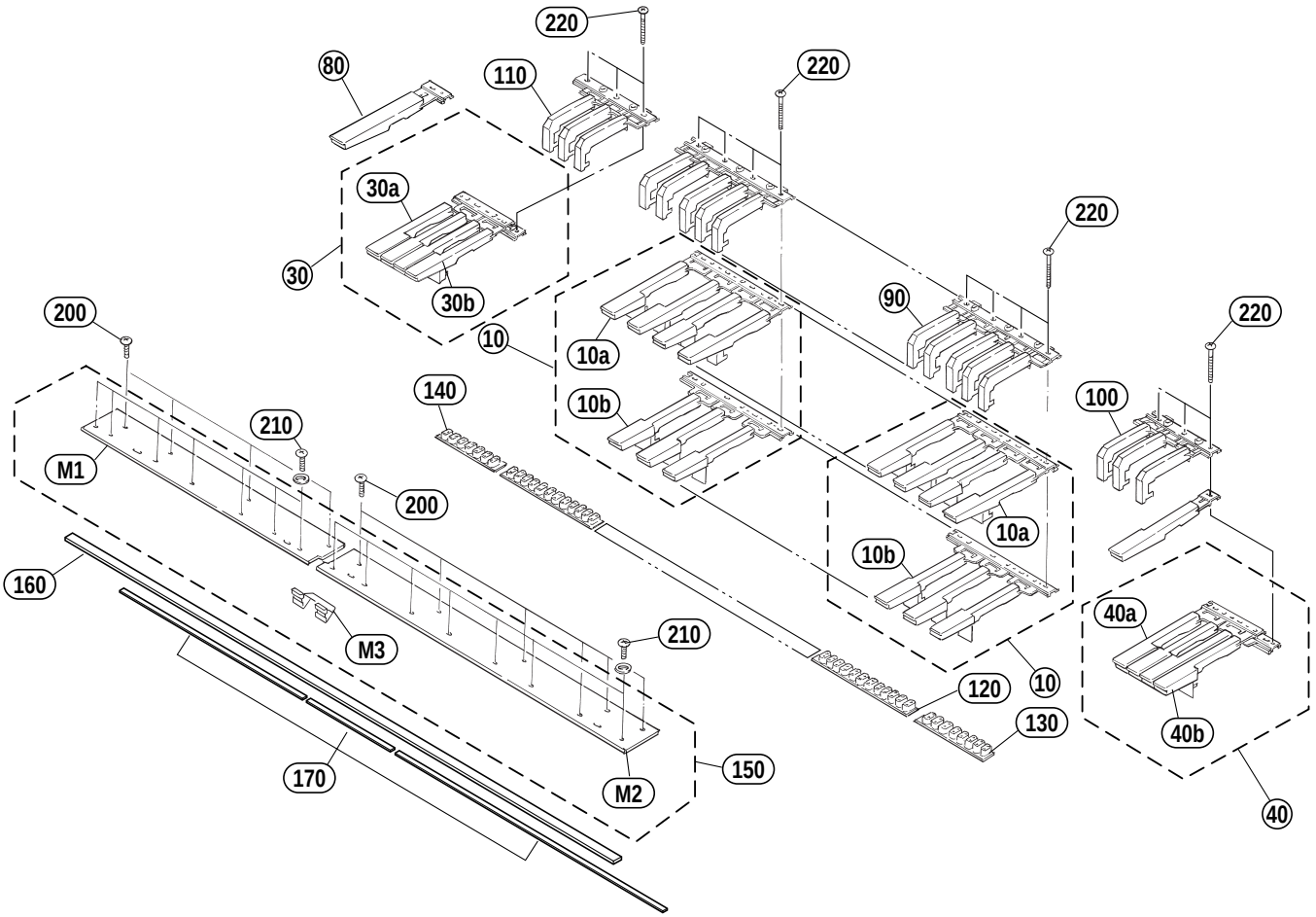


	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			LOWER CASE ASSEMBLY			YPR-50		
		--	Lower Case Assembly			(V411640)		
	10	--	Lower Case Sub Assembly			(V411650)		
*	10a	**V3410700**	Keyboard Assembly	16N E76 P2M				
*	10b	**V4116600**	Lower Case					
	10b1	**CB043750**	Foot	BL T1.6			5	01
	10b2	**AA056250**	Holder, Leg				4	01
	10b3	**CB044900**	Battery Case	BL				04
	10b4	**BB005570**	Terminal	+				01
	10b5	**AA054880**	Spring Terminal	-				02
	10b6	--	Vibration-proof Tape	50X8X0.5		(VD38260)	3	
	10b7	--	Vibration-proof Tape	BL		(VN40060)		
	10b8	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			13	01
	10c	--	Connector Assembly	12P L=620		(V372870)		
	10d	--	Connector Assembly	8P L=620		(V372880)		
	10e	--	Connector Assembly	6P L=670		(V372890)		
*	10f	**V4877900**	Ferrite Core					
	10g	--	Cushion			(V487450)		
	20	--	Cover	HP		(V412200)		
*	30	**V3116900**	Circuit Board	M				
	30a	--	Seelde Cover			(V486740)		
	40	--	Connector Assembly	BATTERY 2P L=620		(V324810)		
	70	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			15	01
	80	**VA126100**	Adhesive Tape	12X50			13	03

*: New parts

RANK: Japan only

KEYBOARD ASSEMBLY

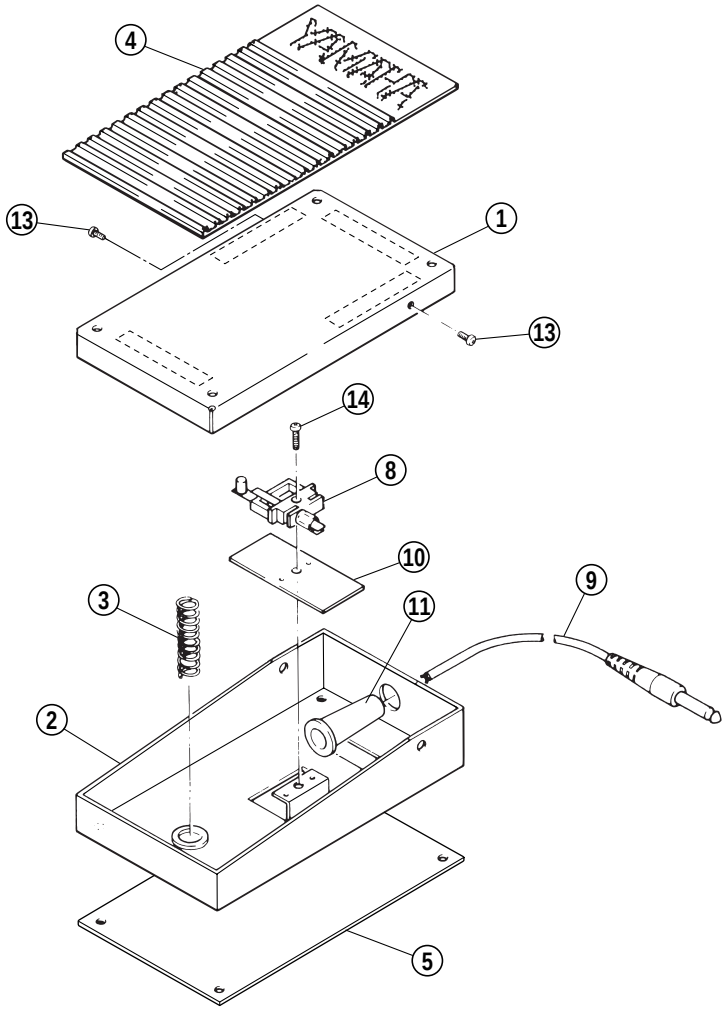


	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			KEYBOARD ASSEMBLY			YPR-50		
*		**V3410700**	Keyboard Assembly	16N E76 P2M				
*	10	**V34107A0**	White Key	16N CEGBDFA				
	10a	--	White Key	16N CEGB		(V341260)	5	
	10b	--	White Key	16N DFA		(V341270)	5	
*	30	**V34107B0**	White Key	16N FGAB				
	30a	--	White Key	16N GB		(V341300)		
	30b	--	White Key	16N FA		(V341310)		
*	40	**V34107C0**	White Key	16N CDEF				
	40a	--	White Key	16N DF		(V341290)		
	40b	--	White Key	16N CF		(V341280)		
*	70	**V3413200**	White Key	16N G				
*	80	**V3413300**	White Key	16N E				
	90	**VZ271700**	Black Key	16N			5	06
*	100	**V3413400**	Black Key	16N 76H				
*	110	**V3413500**	Black Key	16N 76L				
*	120	**V3413600**	Rubber Contact	16N-2M OCT 2M			5	
*	130	**V3413700**	Rubber Contact	16N-2M 76H 2M				
*	140	**V3413800**	Rubber Contact	16N-2M 76L 2M				
*	150	**V4045500**	MK Circuit Board Assembly	16N2M E76 P2				
*	150a	**V3414200**	Circuit Board	76H				
*	150b	**V3414300**	Circuit Board	76L				
*	160	**V3414000**	Felt	76L 1036 11 WH				
*	170	**V3414100**	Rubber Sheet	16N 76H				
*	180	**V4101900**	Rubber Sheet	16N 76M				
*	190	**V4102000**	Rubber Sheet	16N 76L				
	200	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			9	01
*	210	**VZ313100**	Bind Head Tapping Screw-P	SP 3.0X12 MFZNBL			15	01
	220	**VT069800**	Bind Head Tapping Screw-P	3.0X20 MFZN2			26	01

*: New parts

RANK: Japan only

FOOT PEDAL

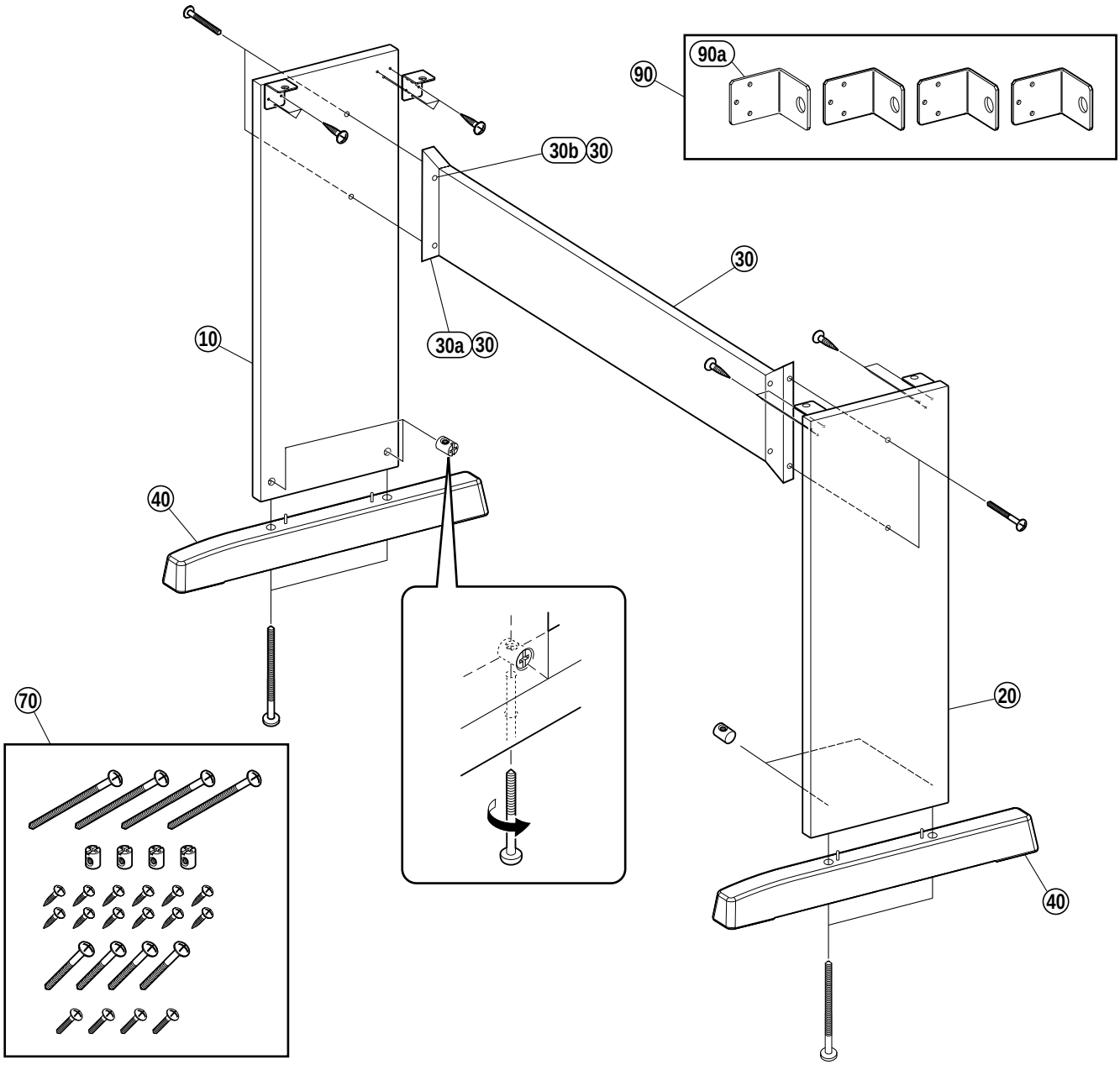


REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		FOOT PEDAL			YPR-50		
	--	Foot Pedal	FC-5		(VJ07000)		
1	**AA812880**	Upper Pedal Cover					05
2	**AA812890**	Lower Pedal Cover					03
3	**AA812900**	Pedal Spring					03
4	**CB815140**	Upper Cover Mat					03
5	**CB815150**	Lower Cover Mat					05
8	**NB037130**	Switch Assembly					05
9	**MI801120**	Cord	1.9M 2P 6.3				05
10	**CA800450**	Fiber Washer					01
11	--	Tube	AWG#4 M5.2		(CH00219)		
13	**EZ000400**	Screw				2	01
14	**EE630060**	Pan Head Screw	3.0X12 MFZN2Y				01

*: New parts

RANK: Japan only

KEYBOARD STAND: LW-14



	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			KEYBOARD STAND SET			YPR-50		
		--	Keyboard Stand Set	LW-14		U,W,C (V411700)		
*	10	**V4116800**	Side Board	LEFT				
*	20	**V4116900**	Side Board	RIGHT				
*	30	**V4117100**	Back Board Assembly					
	30a	--	Back Board Stand			(V411720)		
	30b	--	Angle Bracket			(V457940)	2	
	30c	**EP030260**	Bind Head Tapping Screw-1	3.5X16 MFZN2BL			8	01
*	40	**V4116700**	Stand Base				2	
*	70	**V4117400**	Screw Set					
	90	--	Stay Set			(V450040)		
	90a	**VN973100**	Angle Bracket, ST				4	04

*: New parts

RANK: Japan only

■ ELECTRICAL PARTS

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			ELECTRICAL PARTS			YPR-50		
*		**V3116900**	Circuit Board	M		(XV596A0)		
*		**V3747700**	Circuit Board	PN		(XW050A0)		
*		**V3414200**	Circuit Board	76H		(XV814A0)		
*		**V3414300**	Circuit Board	76L		(XV815A0)		
*		**V3116900**	Circuit Board	M		(XV596A0)		
		EP600190	Bind Head Tapping Screw-B	3.0X8 MFZN2BL				01
		VK863100	IC Socket	DICF-42CS-E				03
		--	Heat Sink			(V371890)		
		--	Jumper Wire	0.55		(VA07890)		
	C100	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	-103	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C104	**UR749220**	Electrolytic Cap.	2200 25.0V				03
	C105	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C107	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C108	**UR828100**	Electrolytic Cap.	100.00 10.0V				01
	C109	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C110	**UR828100**	Electrolytic Cap.	100.00 10.0V				01
	C111	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C112	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C200	**UA353150**	Mylar Capacitor	1500P 50V J				
	-203	**UA353150**	Mylar Capacitor	1500P 50V J				
	C204	**UR828470**	Electrolytic Cap.	470.00 10.0V				01
	C205	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
	C206	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C207	**FG613100**	Ceramic Capacitor-B	1000P 50V K				01
	C208	**FG613100**	Ceramic Capacitor-B	1000P 50V K				01
	C209	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
	C210	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
	C211	**UA654100**	Mylar Capacitor	0.0100 50V J				01
	C212	**UA654100**	Mylar Capacitor	0.0100 50V J				01
	C213	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C300	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C301	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C304	**FG613220**	Ceramic Capacitor-B	2200P 50V K				01
	C305	**FG613220**	Ceramic Capacitor-B	2200P 50V K				01
	C306	**VR168700**	Monolithic Mylar Capacitor	ECQ-V1H224JL3				01
	C307	**VR168700**	Monolithic Mylar Capacitor	ECQ-V1H224JL3				01
	C313	**UR839100**	Electrolytic Cap.	1000 16.0V				01
	C314	**UR839100**	Electrolytic Cap.	1000 16.0V				01
	C315	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
	C316	**UR866470**	Electrolytic Cap.	4.70 50.0V				01
	C319	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
	C320	**UR837470**	Electrolytic Cap.	47.00 16.0V				01
	C400	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	-410	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C411	**UR828100**	Electrolytic Cap.	100.00 10.0V				01
	C500	**FG652100**	Ceramic Capacitor-SL	100P 50V J				01
	C501	**UR837100**	Electrolytic Cap.	10.00 16.0V				01
	C600	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C601	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C602	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	C700	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	C701	**VC694800**	Semiconductive Cera. Cap.	0.1000 25V Z				01
	CA500	**VZ905700**	Ceramic Capacitor Array	100P 50V M				01
	CA700	**VZ905700**	Ceramic Capacitor Array	100P 50V M				01
	CA701	**VF127200**	Ceramic Capacitor Array	100PX4 50V M				01
*	CL400	**V4139800**	Ceramic Resonator	14M EFOEX1405X3				01
	CN100	**LB918020**	Base Post Connector	XH 2P TE				01
	CN200	**VI878700**	Cable Holder	51048 9P TE				01
	CN302	**VI878300**	Cable Holder	51048 5P TE				01
	CN303	**VK024900**	Wire Trap	52147 5P TE				01
	CN304	**LB933040**	Base Post Connector	VH- 4P SE				01
	CN500	**VI878300**	Cable Holder	51048 5P TE				01
	CN501	**VI878700**	Cable Holder	51048 9P TE				01
	CN700	**VK025600**	Wire Trap	52147 12P TE				01
	CN701	**VK025200**	Wire Trap	52147 8P TE				01
	CN702	**VF728300**	Wire Trap	52147 6P TE				01
	D100	**VL723600**	Diode	20E1-FC4				01

*: New parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	D100	**VY717100**	Diode	LT2A02-E				01
	D600	**VB941200**	Diode	1SS133,1SS176				01
	FZ100	**V2559600**	Fuse	3.00A J				01
	IC101	**XL450A00**	IC	PQ05RA1		REGULATOR +5V 1.0A		03
	IC102	**XV852A00**	IC	S-81233SGY-Z		REGULATOR +3.3V		
	IC200	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC300	**XV435A00**	IC	LA4601N		POWER AMP. 7.0W 2CH		03
	IC400	**XV762A00**	IC	YMW728B-F		GEW12		
*	IC401	**XW131A00**	IC	MSM27C802CZ		ROM 8M		
*	IC402	**XW484A00**	IC	M62722SL-700A		RESET		
	IC600	**VG181900**	Photo Coupler	PC-900V				03
	IC700	**XL097A00**	IC	HD74HC138FPEL		DECODER		02
	IC701	**XL097A00**	IC	HD74HC138FPEL		DECODER		02
	JK100	**VC664500**	Connector	HEC2305				01
	JK300	**LB101870**	Phone Jack	YKB21-5006				03
	JK600	**VC687500**	Phone Jack	YKB21-5014 BL				01
	JK601	**VJ107200**	DIN Connector	5P YKF51-5050				01
	JK602	**VJ107200**	DIN Connector	5P YKF51-5050				01
	L100	**VI486800**	Line Filter	SU10VD-20020				03
	L300	**VB835000**	Coil	FL5R200QNT 20u				01
	-302	**VB835000**	Coil	FL5R200QNT 20u				01
	L600	**VB835000**	Coil	FL5R200QNT 20u				01
	-607	**VB835000**	Coil	FL5R200QNT 20u				01
	R200	**HF756220**	Carbon Resistor	2.2K 1/4 J				01
	R201	**HF754680**	Carbon Resistor	68.0 1/4 J				01
	R202	**HF755150**	Carbon Resistor	150.0 1/4 J				01
	R203	**HF755150**	Carbon Resistor	150.0 1/4 J				01
	R300	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R301	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R302	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
	-304	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
	R305	**HF758100**	Carbon Resistor	100.0K 1/4 J				01
	R308	**HF755100**	Carbon Resistor	100.0 1/4 J				01
	R309	**HF755100**	Carbon Resistor	100.0 1/4 J				01
	R310	**HF755330**	Carbon Resistor	330.0 1/4 J				01
	R311	**HF755330**	Carbon Resistor	330.0 1/4 J				01
	R400	**HF759100**	Carbon Resistor	1.0M 1/4 J				01
	R401	**HF757470**	Carbon Resistor	47.0K 1/4 J				01
	-403	**HF757470**	Carbon Resistor	47.0K 1/4 J				01
	R404	**HF754470**	Carbon Resistor	47.0 1/4 J				01
	R500	**HF754220**	Carbon Resistor	22.0 1/4 J				01
	R503	**HF755820**	Carbon Resistor	820.0 1/4 J				01
	-507	**HF755820**	Carbon Resistor	820.0 1/4 J				01
	R600	**HF757470**	Carbon Resistor	47.0K 1/4 J				01
	R601	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R602	**HF755220**	Carbon Resistor	220.0 1/4 J				01
	R603	**HF755270**	Carbon Resistor	270.0 1/4 J				01
	R604	**HF755220**	Carbon Resistor	220.0 1/4 J				01
	R605	**HF757220**	Carbon Resistor	22.0K 1/4 J				01
	R606	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R607	**HF757220**	Carbon Resistor	22.0K 1/4 J				01
	R608	**HF755220**	Carbon Resistor	220.0 1/4 J				01
	R700	**HF755100**	Carbon Resistor	100.0 1/4 J				01
	R701	**HF755100**	Carbon Resistor	100.0 1/4 J				01
	R714	**HF757470**	Carbon Resistor	47.0K 1/4 J				01
*	RA200	**V3821200**	Resistor Array	EXB-Z8V153J				
*	RA201	**V3820600**	Resistor Array	EXB-Z8V203J				
*	RA202	**V3820500**	Resistor Array	EXB-Z8V103J				
*	RA500	**V3820400**	Resistor Array	EXB-F10E473J				
	RA700	**VS033000**	Resistor Array	EXB Z8V101J 100 X4				01
	-702	**VS033000**	Resistor Array	EXB Z8V101J 100 X4				01
	RA703	**VC953400**	Resistor Array	EXB-F12E473J				01
	RA704	**VG733400**	Resistor Array	EXB-Z05E 47K X 4				01
	TR500	**VK165500**	Digital Transistor	DTC123JS TP				01
	-504	**VK165500**	Digital Transistor	DTC123JS TP				01
	TR600	**IC174070**	Transistor	2SC1740S R,S				01
	TR601	**IC174070**	Transistor	2SC1740S R,S				01
	W200	**--**	Connector Assembly	POWER 9P L=350		(V324800)		
	W302	**--**	Connector Assembly	H•P 5P L=750		(V324940)		
	W500	**--**	Connector Assembly	PN1 9P L=300		(V373000)		

*: New parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	W501	--	Connector Assembly	PN2 6P L=300		(V427070)		
*		**V3747700**	Circuit Board	PN		(XW050A0)		
	CN201	**VK025300**	Wire Trap	52147 9P TE				01
	CN202	**VI878300**	Cable Holder	51048 5P TE				01
	CN203	**VI878300**	Cable Holder	51048 5P TE				01
	CN502	**VK026500**	Wire Trap	52151 6P SE				01
	CN503	**VK025300**	Wire Trap	52147 9P TE				01
	LD501	**VD180000**	LED	SLZ-190B-03 RE				01
	LD502	**VD180000**	LED	SLZ-190B-03 RE				01
	LD503	**VG778600**	LED	SLZ290B-03-T2 GR				01
	-505	**VG778600**	LED	SLZ290B-03-T2 GR				01
	SW100	**VY980400**	Push Switch	SDDLB1 J,UC,CEE				03
	VR200	**VK369000**	Slide Variable Resistor	A 10.0K RS30112A9				03
	W201	--	Connector Assembly	V. R 5P L=130		(V324900)		
*		**V3414200**	Circuit Board	76H		(XV814A0)		
		VB941200	Diode	1SS133,1SS176				01
		VK025200	Wire Trap	52147 8P TE				01
		VK025600	Wire Trap	52147 12P TE				01
*		**V3414300**	Circuit Board	76L		(XV815A0)		
		VB941200	Diode	1SS133,1SS176				01
		VF728300	Wire Trap	52147 6P TE				01
		VK025600	Wire Trap	52147 12P TE				01
		XQ764A00	Speaker	12.0cm 4 ohm 8W				05
		VT368600	AC Adapter	PA-3B JP		J		09

*: New parts

RANK: Japan only