PORTATONE

PSR-E303/YPT-300

SERVICE MANUAL



PSR-E303



YPT-300

CONTENTS

SPECIFICATIONS 3
PANEL LAYOUT 4
CIRCUIT BOARD LAYOUT & WIRING 5
BLOCK DIAGRAM 6
DISASSEMBLY PROCEDURE 7
LSI PIN DESCRIPTION 11
IC BLOCK DIAGRAM 13
CIRCUIT BOARDS 14
TEST PROGRAM 18
BACKUP & INITIALIZATION 20
TRANSFERRING DATA BETWEEN
THE PSR-E303/YPT-300 and a COMPUTER 21
MIDI IMPLEMENTATION CHART 23
MIDI DATA FORMAT 24
PARTS LIST
OVERALL CIRCUIT DIAGRAM

PK 001734

YAMAHA
HAMAMATSU, JAPAN

Copyright (c) Yamaha Corporation. All rights reserved.

PDF-K467 '05.05

IMPORTANT NOTICE

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

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

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

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

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

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

WARNING: CHEMICAL CONTENT NOTICE!

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

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

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

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

■ WARNING

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

■ SAVING DATA

Saving and backing up your data

The panel settings and some other types of data will be lost if the power is turned off before they are saved.

Be sure to save data you want to keep to the internal Flash Memory before turning off the power.

Saved data may be lost due to malfunction or incorrect operation. Save the important data to your computer.

SPECIFICATIONS

Keyboards
• 61 standard-size keys (C1-C6), with Touch Response

Display
• LCD display (backlit)

Setup
• STANDBY/ON
• MASTER VOLUME: MIN-MAX

Panel Controls
• [L]/[REC TRACK 2], [R]/[REC TRACK 1], [LISTEN & LEARN], [TIMING], [WAITING], [A-B REPEAT]/[ACMP ON/OFF], [REW]/[INTRO/ENDING/rit.], [FF]/[[MAIN/AUTO FILL], [TEMPO/TAP], [REC], [PAUSE]/[SYNC START], [START/STOP], [SONG], [STYLE], [VOICE], [FUNCTION], [PORTABLE GRAND], [SOUND EFFECT KIT], [REVERB ON/OFF], [DEMO], [METRONOME ON/OFF], [SPLIT ON/OFF], [DUAL ON/OFF], [HARMONY ON/OFF], [TOUCH ON/OFF], number buttons [0]-[9], [+/ YES], [–/ NO]

Voice
• 108 panel voices + 12 drum kits + 1 sound effect kit + 359 XGlite voices + 2 XGlite optional voices
• Polyphony: 32
• DUAL
• SPLIT

Style
• 106 preset Styles
• Style Control:
ACMP ON/OFF, SYNC START, START/STOP, INTRO/ENDING/rit., MAIN/AUTO FILL
• Fingering: Multi fingering
• Style Volume

Education Feature
• Chord Dictionary
• Lesson 1-3

Function
• Style Volume, Song Volume, Transpose, Tuning, Split Point, Touch Sensitivity, Main voice (Volume, Octave, Chorus Send Level), Dual voice (Voice, Volume, Octave, Chorus Send Level), Split voice (Voice, Volume, Octave, Chorus Send Level), Reverb Type, Reverb level, Chorus Type, Panel Sustain, Harmony Type, Harmony Volume, PC mode (PC1/PC2/Off), Local On/Off, External Clock, Initial Setup Send, Time Signature, Metronome Volume, Lesson Track (R), Lesson Track (L), Demo Cancel

Effects
• Reverb: 9 types
• Chorus: 4 types
• Harmony: 26 types

Song
• 102 Preset Songs + 5 User Songs + Flash Memory
• Song Clear
• Song Volume

Recording
• Song
User Song: 5 Songs
Recording Tracks: 1, 2

MIDI
• Local On/Off
• Initial Setup Send
• External Clock
• PC mode

Auxiliary jacks
• PHONES/OUTPUT, DC IN 12V, MIDI IN/OUT, SUSTAIN

Amplifier
• 2.5W + 2.5W

Speakers
• 12cm x 2

Power Consumption
• 10W (When using PA-3C power adaptor)

Power Supply
• Adaptor: Yamaha PA-3B/3C AC power adaptor
• Batteries: Six “AA” size, LR6 or equivalent batteries

Dimensions (W x D x H)
• 945 x 370 x 128 mm
(37-1/4" x 14-5/8" x 5-1/16")

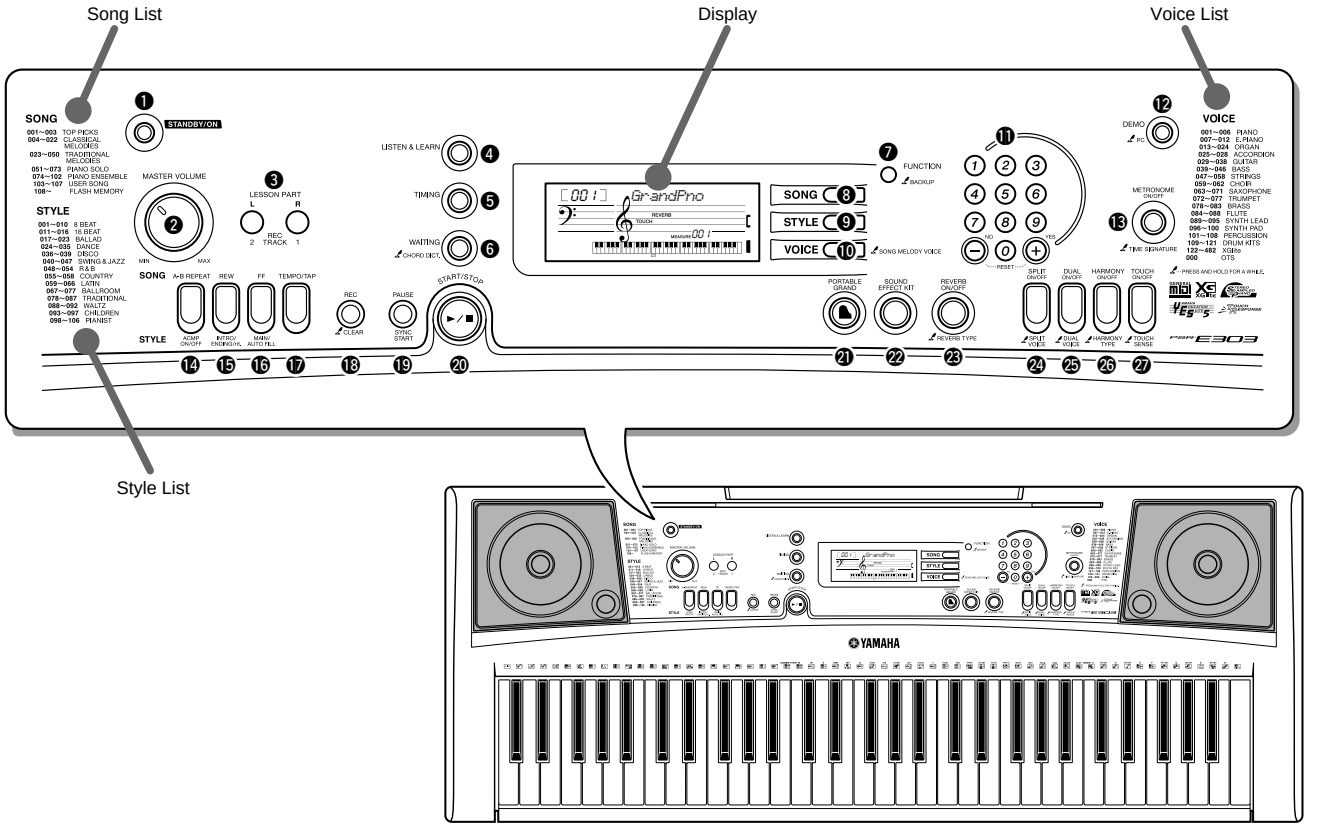
Weight
• 4.9kg (10 lbs. 13 oz.) (not including batteries)

Supplied Accessories
• Music Rest
• Owner’s Manual

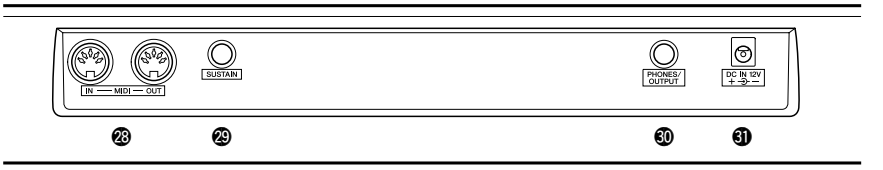
Optional Accessories
• AC Power Adaptor: PA-3B/PA-3C
• USB-MIDI Interface: UX16
• Footswitch: FC4/FC5
• Keyboard Stand: L-2C/L-2L
• Headphones: HPE-150/HPE-30

PANEL LAYOUT

● Front Panel



● Rear Panel



Front Panel

❶ [STANDBY/ON] switch
❷ [MASTER VOLUME] control

When the lesson mode

❸ LESSON PART
[L] button
[R] button

When the recording mode

❸ [REC TRACK 2] button
[REC TRACK 1] button

---

❹ [LISTEN & LEARN] button
❺ [TIMING] button
❻ [WAITING] button
❼ [FUNCTION] button
❽ [SONG] button
❾ [STYLE] button
❿ [VOICE] button
⓫ Number buttons [0]-[9], [+/YES], [-/NO]
⓬ [DEMO] button
⓭ [METRONOME ON/OFF] button

When the Song mode

⓮ [A-B REPEAT] button
⓯ [REW] button
⓰ [FF] button
⓳ [PAUSE] button

When the Style mode

⓮ [ACMP ON/OFF] button
⓯ [INTRO/ENDING/rit.] button
⓰ [MAIN/AUTO FILL] button
⓳ [SYNC START] button

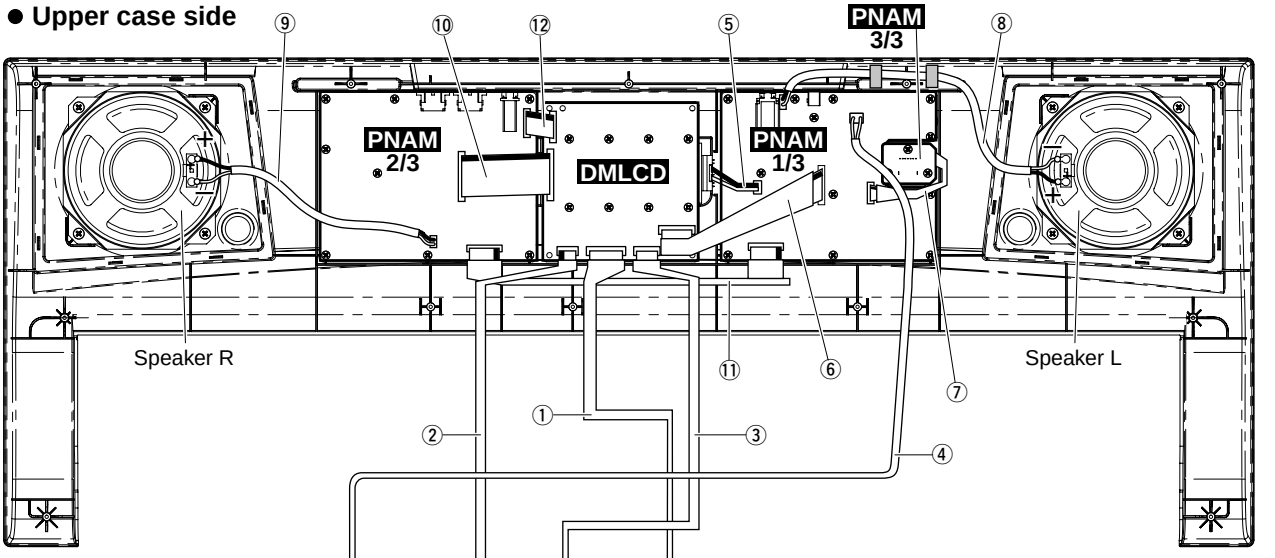
⓱ [TEMPO/TAP] button
⓲ [REC] button
⓴ [START/STOP] button
㉑ [PORTABLE GRAND] button
㉒ [SOUND EFFECT KIT] button
㉓ [REVERB ON/OFF] button
㉔ [SPLIT ON/OFF] button
㉕ [DUAL ON/OFF] button
㉖ [HARMONY ON/OFF] button
㉗ [TOUCH ON/OFF] button

Rear Panel

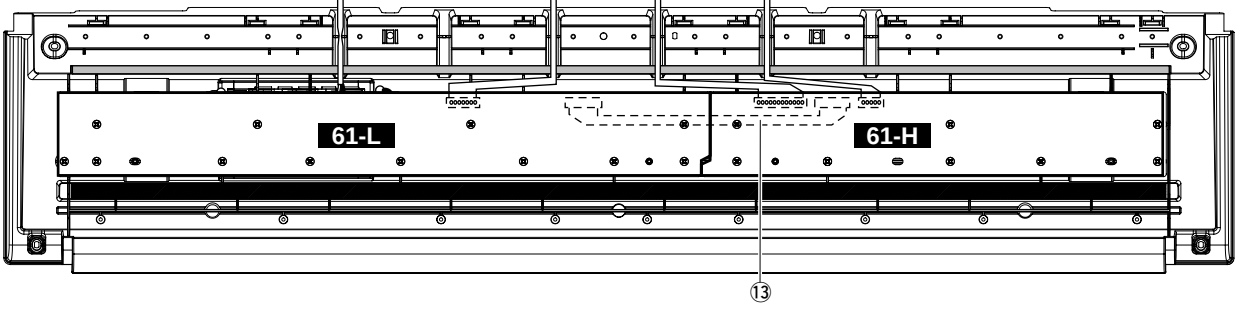
㉘ MIDI IN/OUT terminals
㉙ SUSTAIN jack
㉚ PHONES/OUTPUT jack
㉛ DC IN 12V jack

CIRCUIT BOARD LAYOUT & WIRING

● **Upper case side**



● **Lower case side**

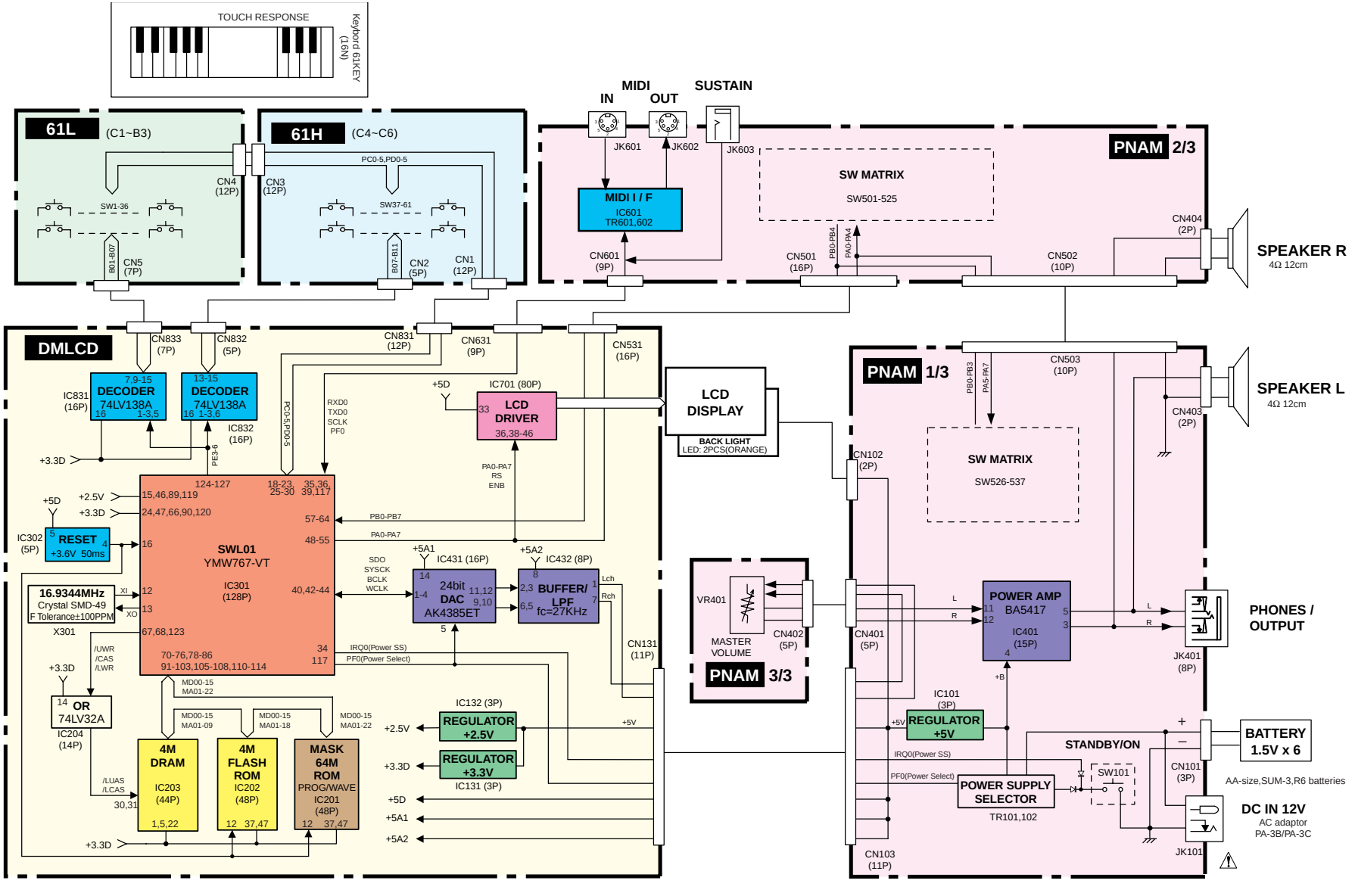


No.	Location	Parts No.	Connector Assembly	Destination						Remarks
①	30	WE138500	MK1	61H-CN1	*1	*4	DMLCD-CN831	*1	*4	12P
②	40	WE138700	MK2	61H-CN2	*1	*4	DMLCD-CN832	*1	*4	5P
③	50	WE138800	MK3	61L-CN5	*1	*4	DMLCD-CN833	*1	*4	3P
④	120	(WE15140)	BATT	Battery terminal A	*2	*7	PNAM1/3-CN101	*1	*6	3P
				Battery terminal B	*2	*7				
⑤	230	(WE14140)	BL	Back light assembly ±	*2	*5	PNAM1/3-CN102	*1	*4	2P
⑥	WA103	(WE13910)	AM	PNAM1/3-CN103	*3	*4	DMLCD-CN131	*1	*4	11P L=170
⑦	WA401	(WE13900)	VOL	PNAM1/3-CN401	*3	*4	PNAM3/3-CN402	*3	*4	5P L=120
⑧	WA403	(WE14120)	SPL	PNAM1/3-CN403	*3	*5	Speaker-L ±	*2	*5	2P L=280
⑨	WA404	(WE14130)	SPR	PNAM2/3-CN404	*3	*5	Speaker-R ±	*2	*5	2P L=220
⑩	WA501	(WE14080)	PN1	PNAM2/3-CN501	*3	*4	DMLCD-CN531	*1	*4	16P L=100
⑪	WA502	(WE13970)	PN2	PNAM1/3-CN503	*3	*4	PNAM2/3-CN502	*3	*4	10P L=340
⑫	WA601	(WE14060)	JACK	PNAM2/3-CN601	*3	*4	DMLCD-CN631	*1	*4	9P L=70
⑬	150c	V8696200		61H-CN3	*1	*4	61L-CN4	*1	*4	12P L=210

*The parts with "( )" in "**Part No.**" are not available as spare parts.
*1: Installation
*2: Manual soldering
*3: Dip soldering
*4: Edge mark is adjusted to Pin 1 mark (△ mark).
*5: Edge mark is adjusted to + mark (+ mark).
*6: Red wire is adjusted to Pin 1 mark (△ mark).
*7: Battery terminal A (Black wire), Battery terminal B (Red wire)

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

BLOCK DIAGRAM



28CA1-8834545

DISASSEMBLY PROCEDURE

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

1. Lower Case Assembly

(Time required: About 1 minute)

1-1 Remove the five (5) screws marked [240A], two (2) screws marked [270A], and two (2) screws marked [320]. The lower case assembly can then be removed. (Fig. 1)

2. DMLCD circuit board

(Time required: About 3 minutes)

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

2-2 Remove the eight (8) screws marked [240B]. The DMLCD circuit board can then be removed. (Fig. 2)

* When installing the DMLCD circuit board, tighten the screws 1 through 8 in numerical order. (Fig. 2)
* If the DMLCD circuit board is replaced, execute the "Factory Set" in the test program.

3. LCD (Time required: About 3 minutes)

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

3-2 Remove the DMLCD circuit board. (See procedure 2)

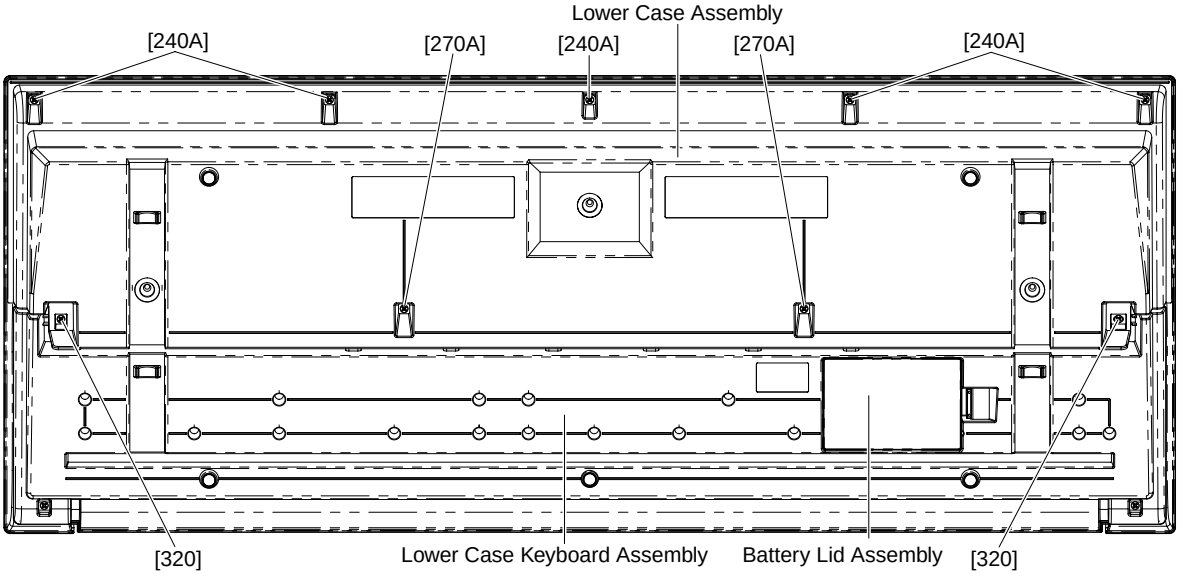
3-3 Remove the LCD holder and rubber connector.

3-4 Remove the back light assembly. (Fig. 4)

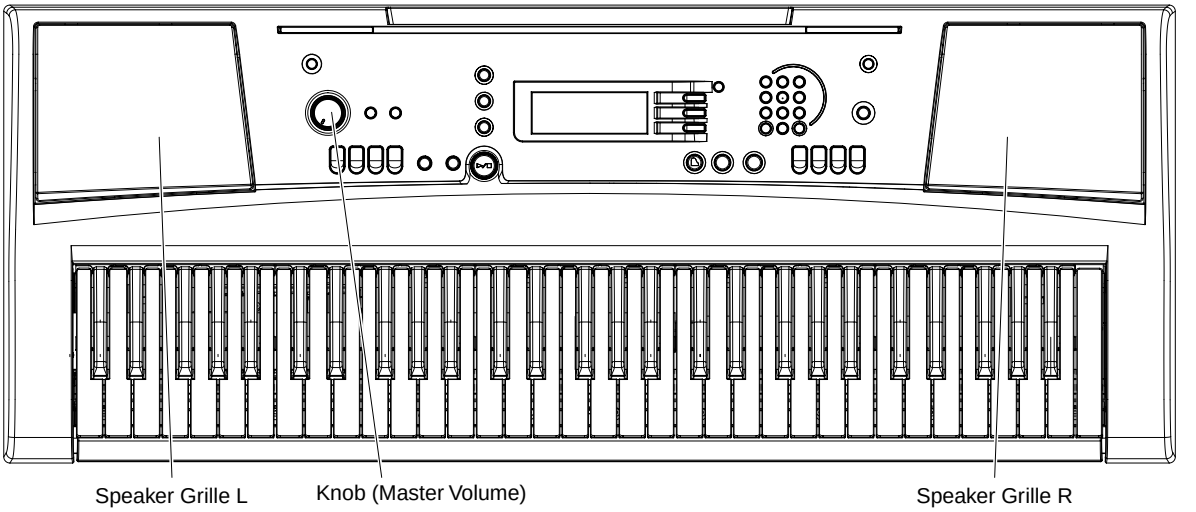
3-5 Remove the LCD. (Fig. 4)

* When attaching the rubber connector, set the conductive part to face inside. (Fig. 4)

● **Bottom view**



● **Top view**



[240]: Bind Head Tapping Screw-B 3.0X12 MFZN2Y (VE683000)
[270]: Bind Head Tapping Screw-B 3.0X30 MFZN2Y (V7213700)
[320]: Bind Head Tapping Screw-B 3.0X20 MFZN2Y (VI064600)

(Fig.1)

4. PNAM Circuit Board (1/3, 2/3, 3/3)

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

4-2 PNAM Circuit Board 3/3
(Time required: About 2 minutes)

4-2-1 Remove the volume knob from the control panel surface. (Fig. 1, 3)

4-2-2 Remove the three (3) screws marked [150A]. The PNAM circuit board 3/3 can then be removed. (Fig. 2)

4-3 PNAM Circuit Board 1/3
(Time required: About 3 minutes)

4-3-1 Remove the PNAM circuit board 3/3.

4-3-2 Remove the twelve (12) screws marked [150B]. The PNAM circuit board 1/3 can then be removed. (Fig. 2)

4-4 PNAM circuit board (2/3)
(Time required: About 3 minutes)

4-4-1 Remove the nine (9) screws marked [150C]. The PNAM circuit board 2/3 can then be removed. (Fig. 2)

5. Speaker (Time required: About 3 minutes)

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

5-2 Remove the four (4) screws marked [30]. The speaker can then be removed. (Fig. 2)

* The right and left speakers can be removed in the same way.

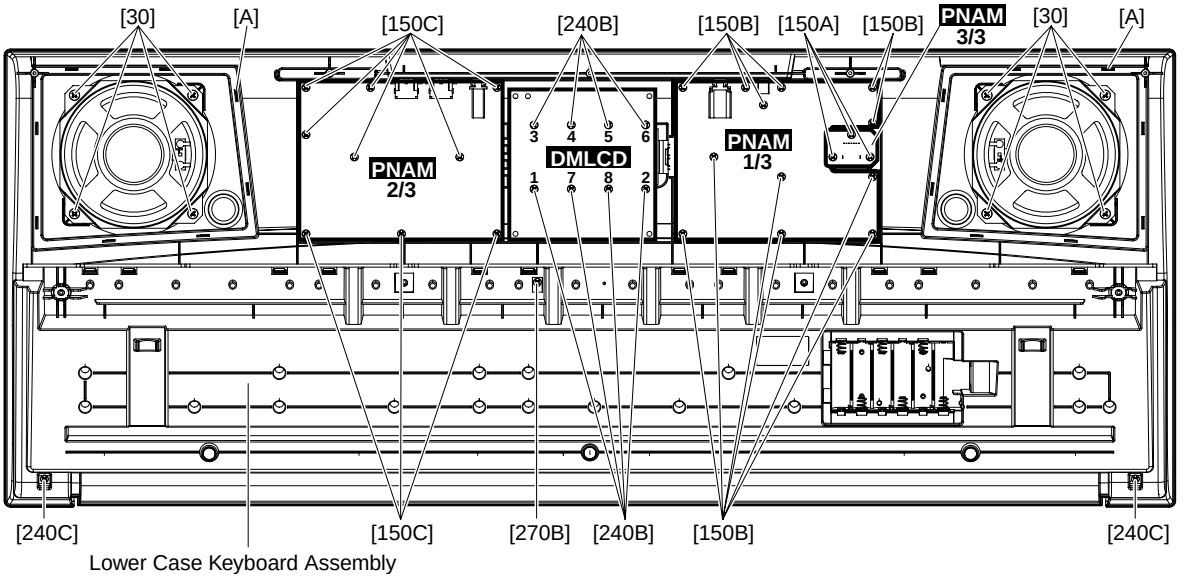
6. SP Grille (Time required: About 3 minutes)

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

6-2 Set the four (4) [A]s parallel to the groove in the upper case assembly and remove the SP grille. (Fig. 2)

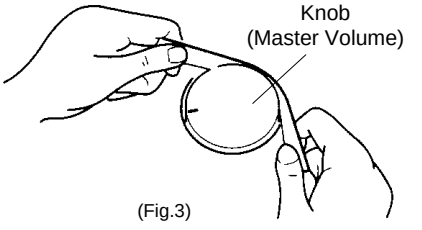
* The right and left SP grilles can be removed in the same way.

● **Bottom view**

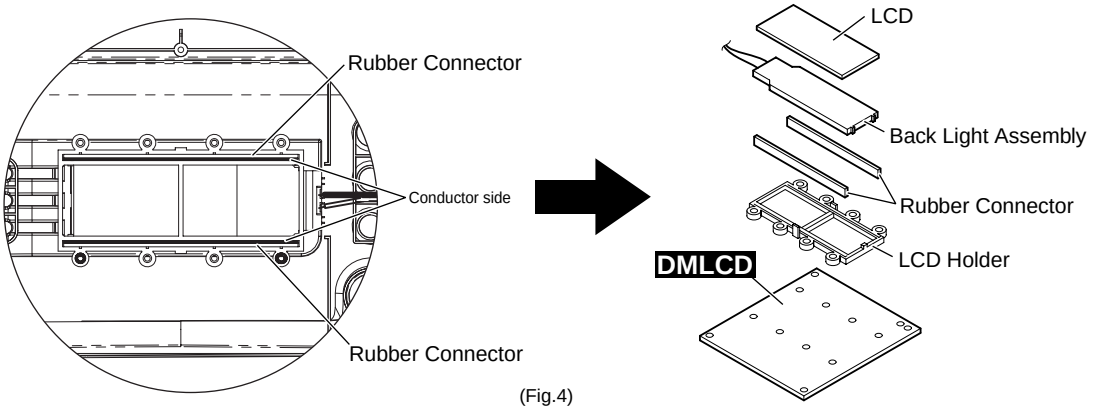


[30]: Bind Head Tapping Screw-B 4.0X8 MFZN2Y (EP640410)
[150]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y (EP600250)
[240]: Bind Head Tapping Screw-B 3.0X12 MFZN2Y (VE683000)
[270]: Bind Head Tapping Screw-B 3.0X30 MFZN2Y (V7213700)

(Fig.2)



(Fig.3)



(Fig.4)

7. Lower Case Keyboard Assembly

(Time required: About 2 minutes)

7-1 Remove the lower case assembly. (See procedure 1)

7-2 Remove the two (2) screws marked [240C] and screw marked [270B]. The lower case keyboard assembly can then be removed. (Fig. 2)

8. Keyboard Assembly

8-1 Remove the lower case keyboard assembly. (See procedure 7)

8-2 White and black keys for one octave unit are integrated as a set. There are five sets in total. Remove the four (4) screws marked [200A]. The keyboard can then be removed. (Fig. 5) There are two (2) hooks at the back of the black keys. (Photo.1) Press the hook for the black key and lift a little, and pull forward to remove the hook for the black key to lift it.

8-3 To remove the white key C6, remove the screw marked [200B], press the hook at the back to lift a little, and pull forward to remove the hook to lift it. (Fig. 5)

9. Rubber Contact

9-1 Remove the lower case keyboard assembly. (See procedure 7)

9-2 Remove the keyboard corresponding to the rubber contacts to be removed. (See procedure 8)

9-3 Remove the rubber contacts. (Photo. 2)

10. Circuit Board 61L, Circuit Board 61H

10-1 Remove the lower case keyboard assembly. (See procedure 7)

10-2 Circuit Board 61L

(Time required: About 6 minutes)

10-2-1 Remove the keyboards from C1 to B3. (See procedure 8)

10-2-2 Remove the four (4) screws marked [180A], and eight (8) screws marked [190A]. The circuit board 61L can then be removed. (Fig. 6-1)

* When installing the circuit board 61L, tighten the screws 1 through 12 in numerical order. (Fig. 6-2)

10-3 Circuit Board 61H

(Time required: About 5 minutes)

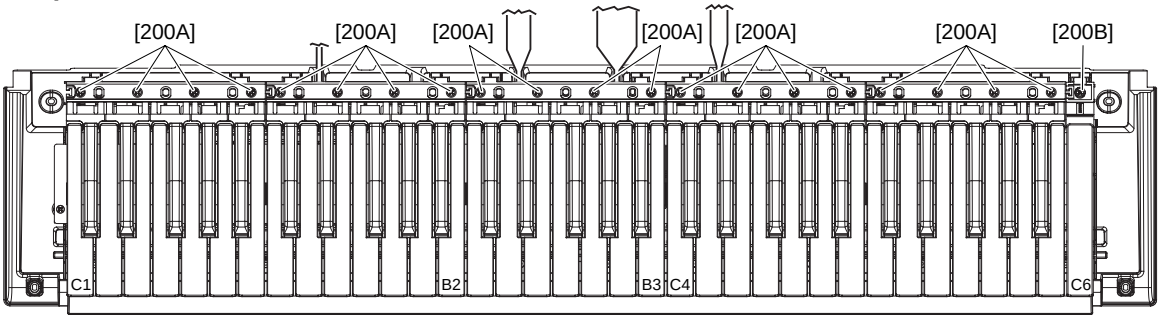
10-3-1 Remove the keyboards from C4 to C6. (See procedure 8)

10-3-2 Remove the three (3) screws marked [180B], and five (5) screws marked [190B]. The circuit board 61H can then be removed. (Fig. 6-1)

* When installing the circuit board 61H, tighten the screws 1 through 8 in numerical order. (Fig. 6-2)

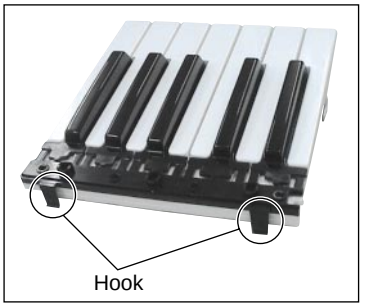
<Lower case keyboard assembly>

● **Top view**

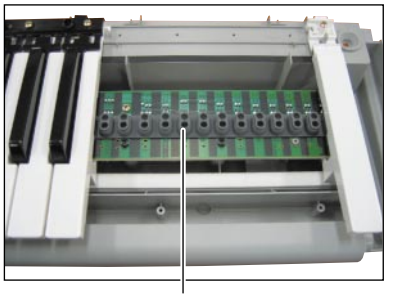


[200]: Bind Head Tapping Screw-P 3.0X20 MFZN2Y (EP600680)

(Fig.5)



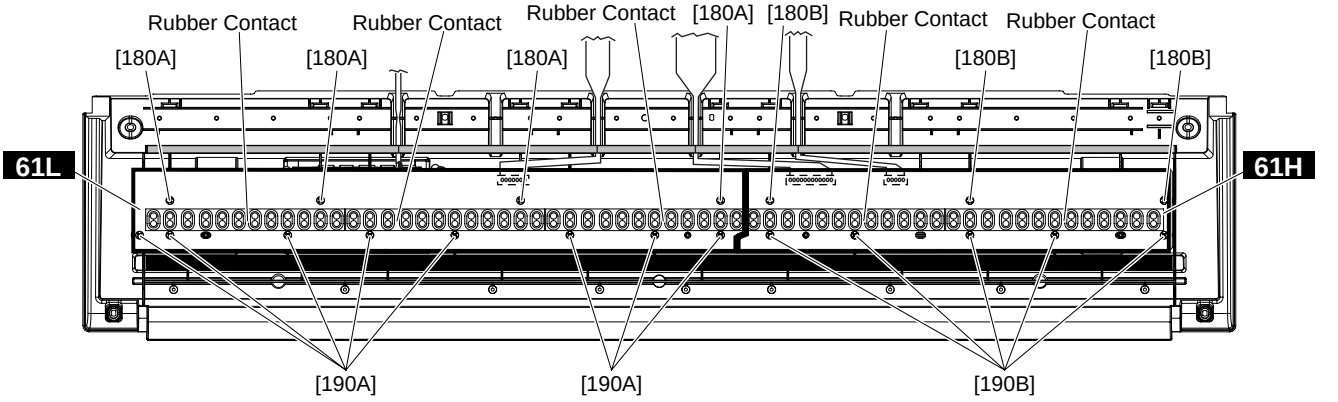
(Photo.1)



Rubber Contact

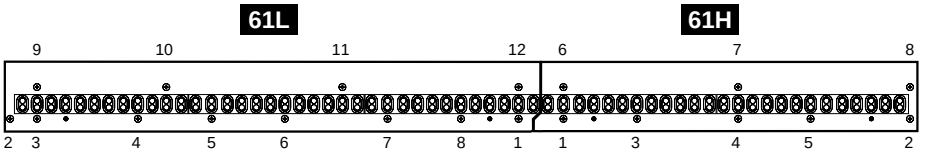
(Photo.2)

● **Top view**



[180]: Bind Head Tapping Screw-B 3.0X8 MFZN2Y (EP600250)
[190]: Bind Head Tapping Screw-P SP 3.0X12 MFZNBL (VZ313100)

(Fig.6-1)



(Fig.6-2)

11. How to Remove Spring Terminals

A Spring Terminal A, Spring Terminal B

11-1 Remove the lower case keyboard assembly. (See procedure 7)

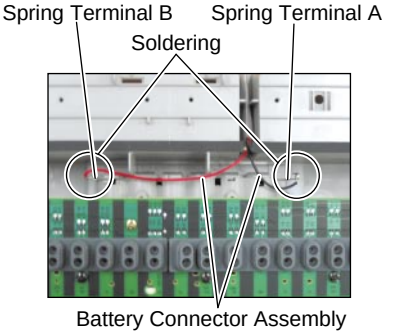
11-2 Remove the keyboards from C1 to B2. (See procedure 8)

11-3 Remove the battery connector assembly soldered to the spring terminal A and spring terminal B. (Photo. 3)

11-4 Reverse the lower case keyboard assembly and remove the battery lid assembly. (Fig. 1)

11-5 Lift the spring terminal A a little and slide it in the upper right direction to remove it. (Fig. 7)

11-6 Remove the hook for the spring terminal B to pull it out from inside. (Fig. 7)

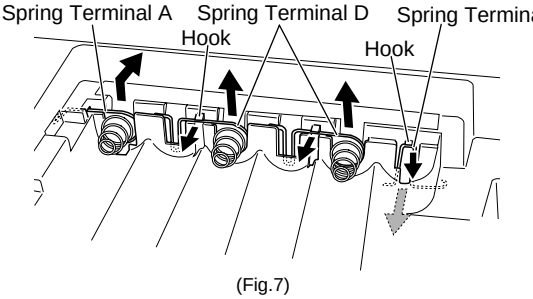


(Photo.3)

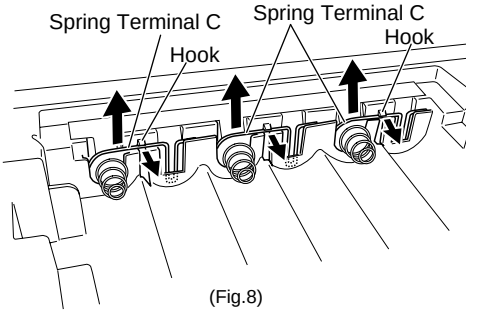
B Spring Terminal C, Spring Terminal D

11-1 Remove the battery lid assembly at the bottom side of the lower case keyboard assembly.

11-2 Remove the hooks to pull out the spring terminal C and spring terminal D. (Fig. 7, 8)



(Fig.7)



(Fig.8)

■ LSI PIN DESCRIPTION

● **YMW767-VTZ** (X6055A00) **CPU** (Central Processing Unit)

DMLCD: IC301

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	V_{SS}		Ground	65	V_{SS}		Ground
2	TESTN (SCMD)	I	TEST Pin	66	IOV_{DD}		Power supply
3	PLLBPN	I	PLL bypass	67	LBN/LWRN/PF6	O	Low byte enable
4	$PLLV_{DD}$		Power supply	68	UBN/UWRN/PF7	O	Upper byte enable
5	CIN		Condenser connect	69	RDN/PF4	O	Read enable
6	$PLLV_{SS}$		Ground	70	MD00	I/O	
7	TRSTN	I		71	MD08	I/O	
8	TMS	I		72	MD01	I/O	
9	TCK	I	JTAG	73	MD09	I/O	Memory data bus
10	TDI	I		74	MD02	I/O	
11	TDO	O		75	MD10	I/O	
12	XI	I		76	MD03	I/O	
13	XO	O	Crystal oscillator	77	V_{SS}		Ground
14	V_{SS}		Ground	78	MD11	I/O	
15	V_{DD}		Power supply	79	MD04	I/O	
16	ICN	I	Initial clear	80	MD12	I/O	
17	ECSN	I	Chip select	81	MD05	I/O	
18	EWRN/PD5	I	Write enable	82	MD13	I/O	Memory data bus
19	ERDN/PD4	I	Read enable	83	MD06	I/O	
20	EA3/PD3	I		84	MD14	I/O	
21	EA2/PD2	I		85	MD07	I/O	
22	EA1/PD1	I	Address bus	86	MD15	I/O	
23	EA0/PD0	I		87	WRN/PF5	O	
24	IOV_{DD}		Power supply	88	V_{SS}		Ground
25	ED0/PC0	I/O		89	V_{DD}		Power supply
26	ED1/PC1	I/O		90	IOV_{DD}		Power supply
27	ED2/PC2	I/O		91	MA17	O	
28	ED3/PC3	I/O		92	MA16	O	
29	ED4/PC4	I/O	Data bus /	93	MA15	O	
30	ED5/PC5	I/O		94	MA14	O	
31	ED6/PC6	I/O		95	MA13	O	
32	ED7/PC7	I/O		96	MA12	O	
33	V_{SS}		Ground	97	MA11	O	Memory address bus
34	IRQ0N/PH0	I	Interrupt request	98	MA10	O	
35	TxD0	O	Serial port 0	99	MA09	O	
36	RxD0	I		100	MA08	O	
37	TxD1/PG2	O	Serial port 1 /	101	MA07	O	
38	RxD1/PH1	I		102	MA06	O	
39	SCLK1/PH2	I	EXT Clock /	103	MA05	O	
40	SDO	O	Serial data	104	V_{SS}		Ground
41	SDI/PH3	I	Serial data /	105	MA04	O	
42	BCLK	O	Bit clock	106	MA03	O	Memory address bus
43	WCLK/SYO	O	Word clock	107	MA02	O	
44	SYSCLK/PG3	O	System clock	108	MA01	O	
45	V_{SS}		Ground	109	CS0N/PG0	O	Chip select /
46	V_{DD}		Power supply	110	MA18	O	Memory address bus
47	IOV_{DD}			111	MA19	O	
48	PA0	I/O		112	MA21/PF1	O	Memory address bus
49	PA1	I/O		113	MA22/PF2	O	
50	PA2	I/O		114	MA20	O	Memory address bus
51	PA3	I/O		115	MA23/PF3	O	Memory address bus
52	PA4	I/O	Parallel port A	116	CSIN/PG1	O	Chip select /
53	PA5	I/O		117	MA00/PF0	O	Memory address bus
54	PA6	I/O		118	V_{SS}		Ground
55	PA7	I/O		119	V_{DD}		Power supply
56	V_{SS}		Ground	120	IOV_{DD}		Power supply
57	PB0	I/O		121	CS2N/PE0	O	Chip select /
58	PB1	I/O		122	CS3N/PE1	O	Chip select /
59	PB2	I/O		123	CS4N/CASN/PE2	O	Chip select /
60	PB3	I/O	Parallel port B	124	CS5N/PE3	O	Chip select /
61	PB4	I/O		125	CS50RDN/PE4	O	Chip select /
62	PB5	I/O		126	CS51WRN/PE5	O	Chip select /
63	PB6	I/O		127	CS52WRN/PE6	O	Chip select /
64	PB7/SYI	I/O	Parallel port B /	128	CS53WRN/RASN/PE7	O	Chip select /

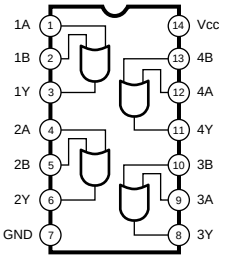
- **NT3881DF-01** (X3148A00) **LCD DRIVER**
- **ML9040A-B01GAZ03A** (XZ987A00) **LCD DRIVER**
- **NT3881EFG-01** (X6247A00) **LCD DRIVER**

DMLCD: IC701

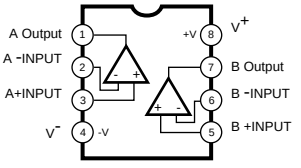
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	S22	O	Segment signal output for LCD driving	41	DB2	I/O	Data interface
2	S21	O		42	DB3	I/O	
3	S20	O		43	DB4	I/O	
4	S19	O		44	DB5	I/O	
5	S18	O		45	DB6	I/O	
6	S17	O		46	DB7	I/O	
7	S16	O		47	C1	O	Common signal output for LCD driving
8	S15	O		48	C2	O	
9	S14	O		49	C3	O	
10	S13	O		50	C4	O	
11	S12	O		51	C5	O	
12	S11	O		52	C6	O	
13	S10	O		53	C7	O	
14	S9	O		54	C8	O	
15	S8	O		55	C9	O	
16	S7	O		56	C10	O	
17	S6	O		57	C11	O	
18	S5	O		58	C12	O	
19	S4	O		59	C13	O	
20	S3	O		60	C14	O	
21	S2	O		61	C15	O	
22	S1	O		62	C16	O	
23	Vss		Ground	63	S40	O	Segment signal output for LCD driving
24	OSC1	I	Oscillator	64	S39	O	
25	OSC2	O	Oscillator	65	S38	O	
26	V1		Power supply	66	S37	O	
27	V2			67	S36	O	
28	V3			68	S35	O	
29	V4			69	S34	O	
30	V5			70	S33	O	
31	CLK1	O	Data latch clock	71	S32	O	
32	CLK2	O	Data shift clock	72	S31	O	
33	Vdd		Power supply (+5 V)	73	S30	O	
34	M	O	Altamated signal for LCD driver outout	74	S29	O	
35	D	O	Display data interface	75	S28	O	
36	RS	I		76	S27	O	
37	R/W	I	Read/write	77	S26	O	
38	E	I	Enable	78	S25	O	
39	DB0	I/O	Data interface	79	S24	O	
40	DB1	I/O	Data interface	80	S23	O	

■ IC BLOCK DIAGRAM

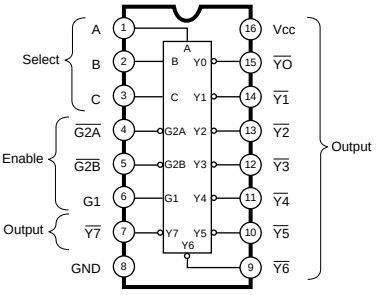
- **HD74LV32AFPEL** (IS003200)
  Quad 2 Input OR
  DMLCD: IC204



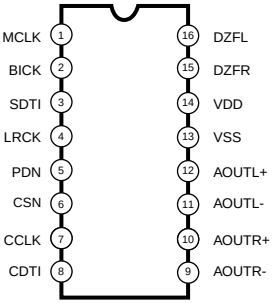
- **NJM4580E** (X2331A00)
  Dual Operational Amplifier
  DMLCD: IC432

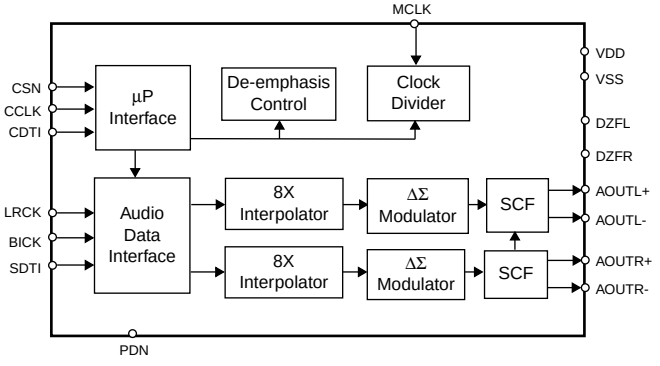


- **SN74LV138ANSR** (ISO013810)
  DECODER
  DMLCD: IC831,832



- **AK4385ET** (X6040A00)
  D/A Converter
  DMLCD: IC431



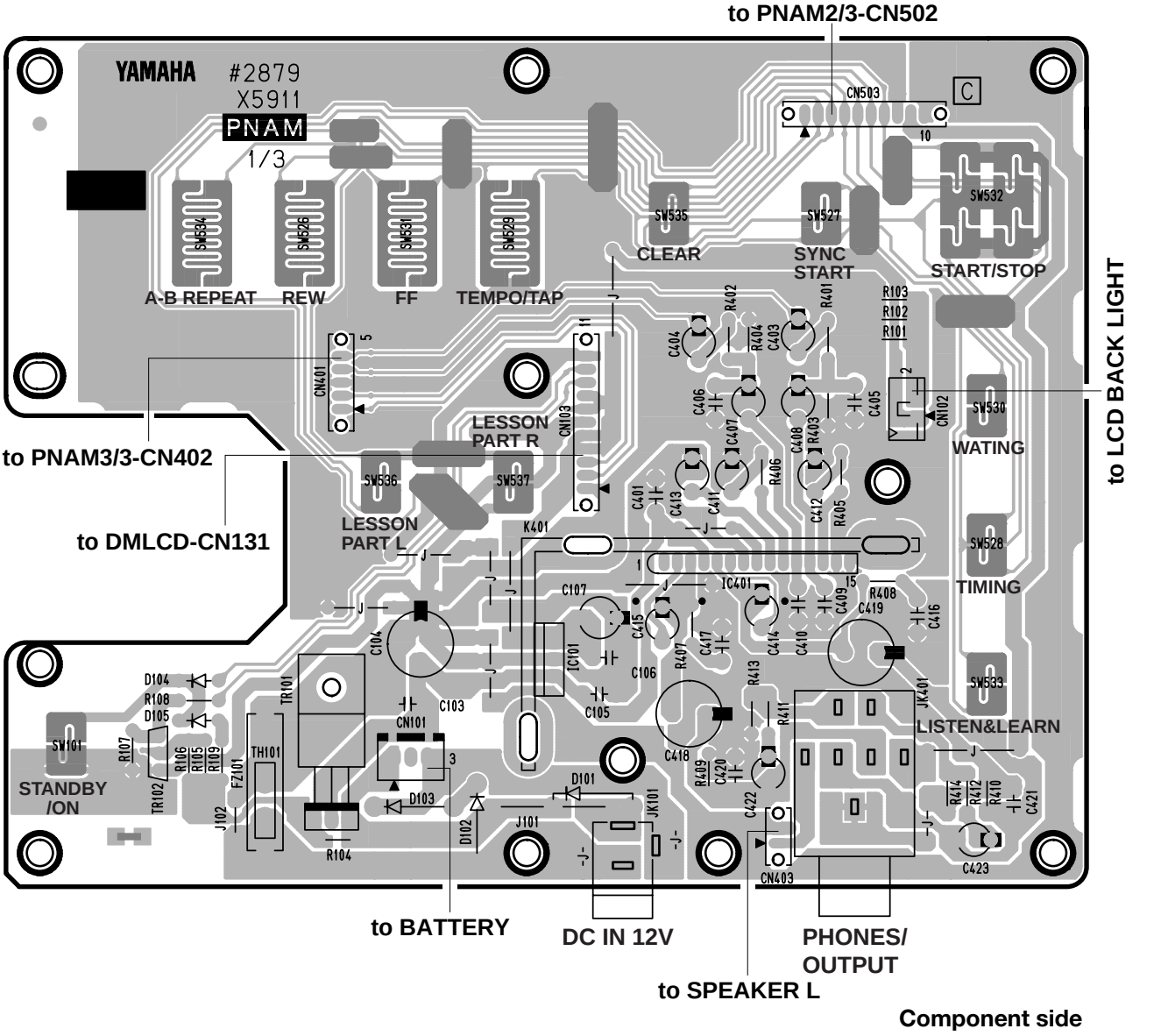


■ CIRCUIT BOARDS

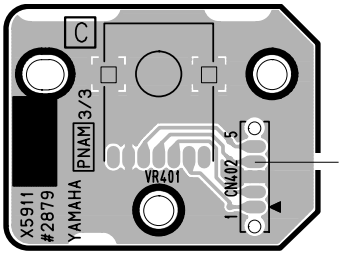
DMLCD Circuit Board (X5910C0) **16**
PNAM 1/3 Circuit Board (X5911C0) **14**
PNAM 2/3 Circuit Board (X5911C0) **15**
PNAM 3/3 Circuit Board (X5911C0) **15**
61H Circuit Board (X2335C0) **17**
61L Circuit Board (X2336B0) **17**

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

• PNAM1/3 Circuit Board

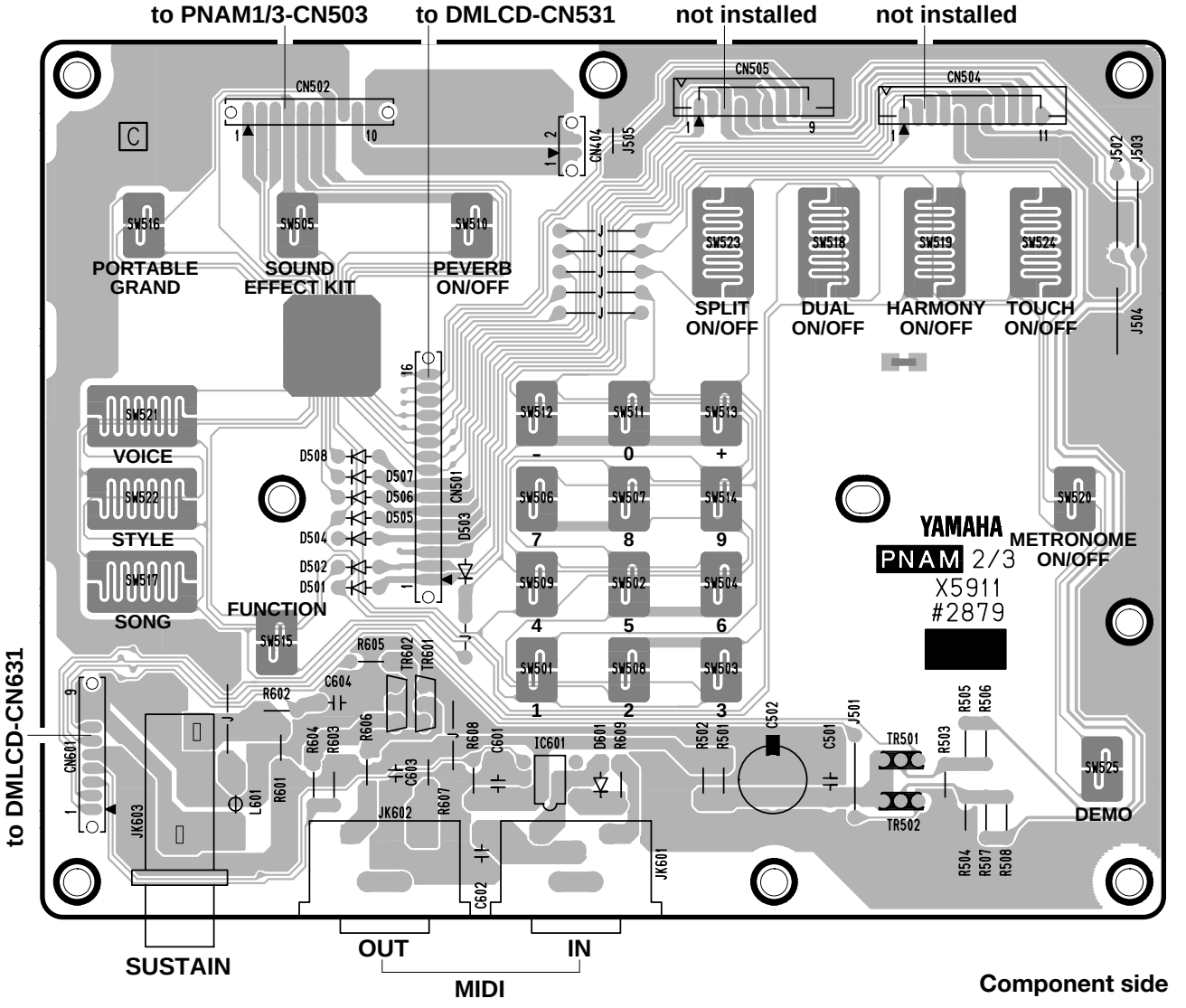


• PNAM3/3 Circuit Board



Component side

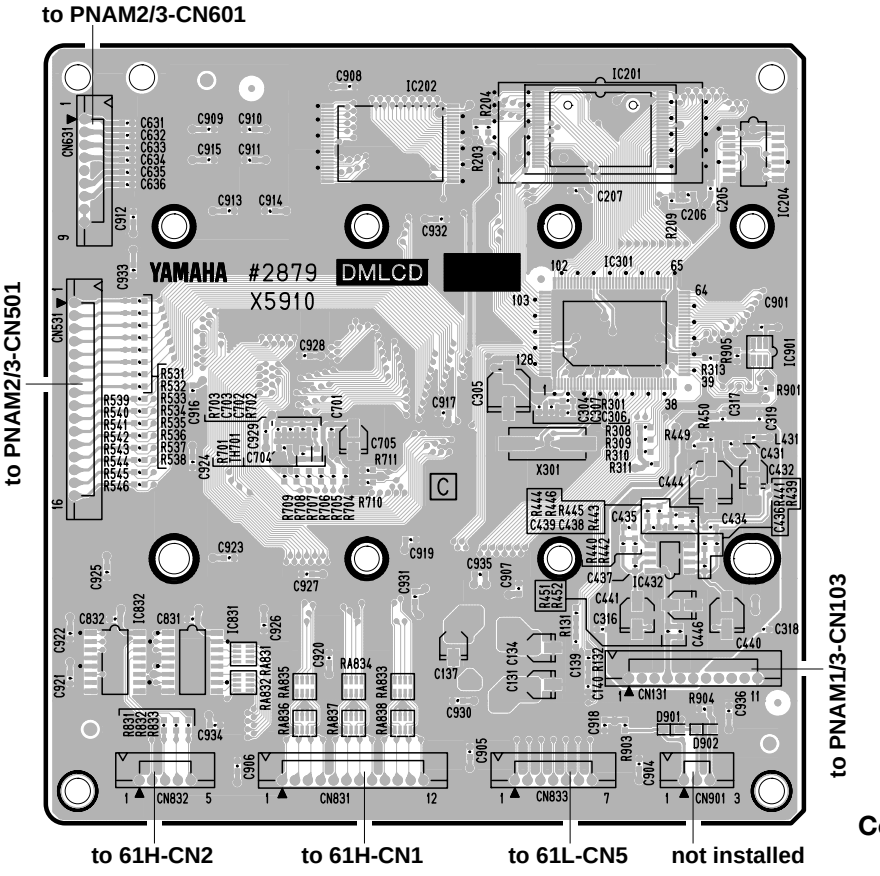
• PNAM2/3 Circuit Board



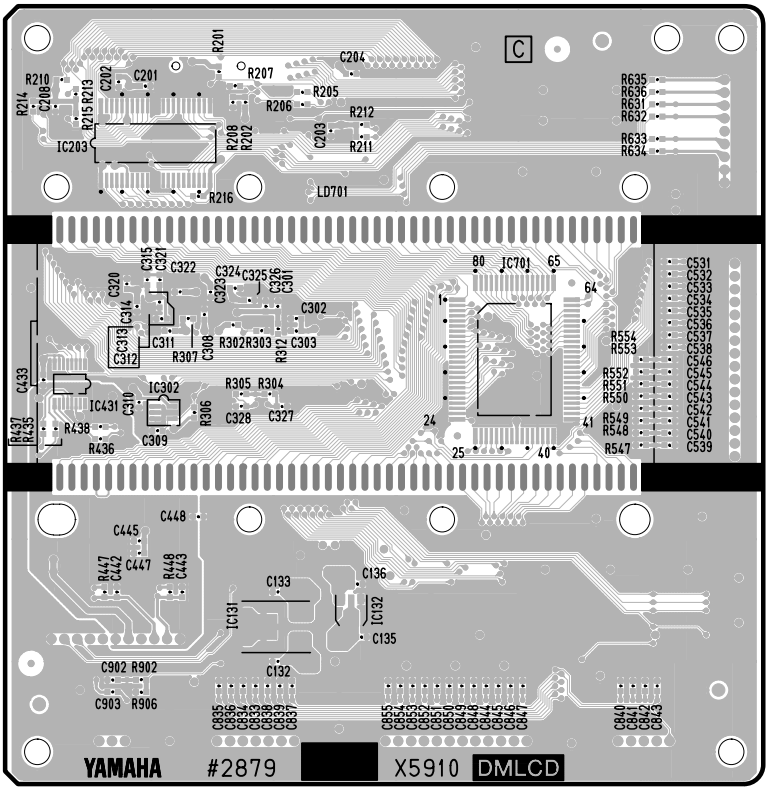
Component side

PNAM2/3: 2NA-WE00540 1
PNAM3/3: 2NA-WE00540 1

• DMLCD Circuit Board

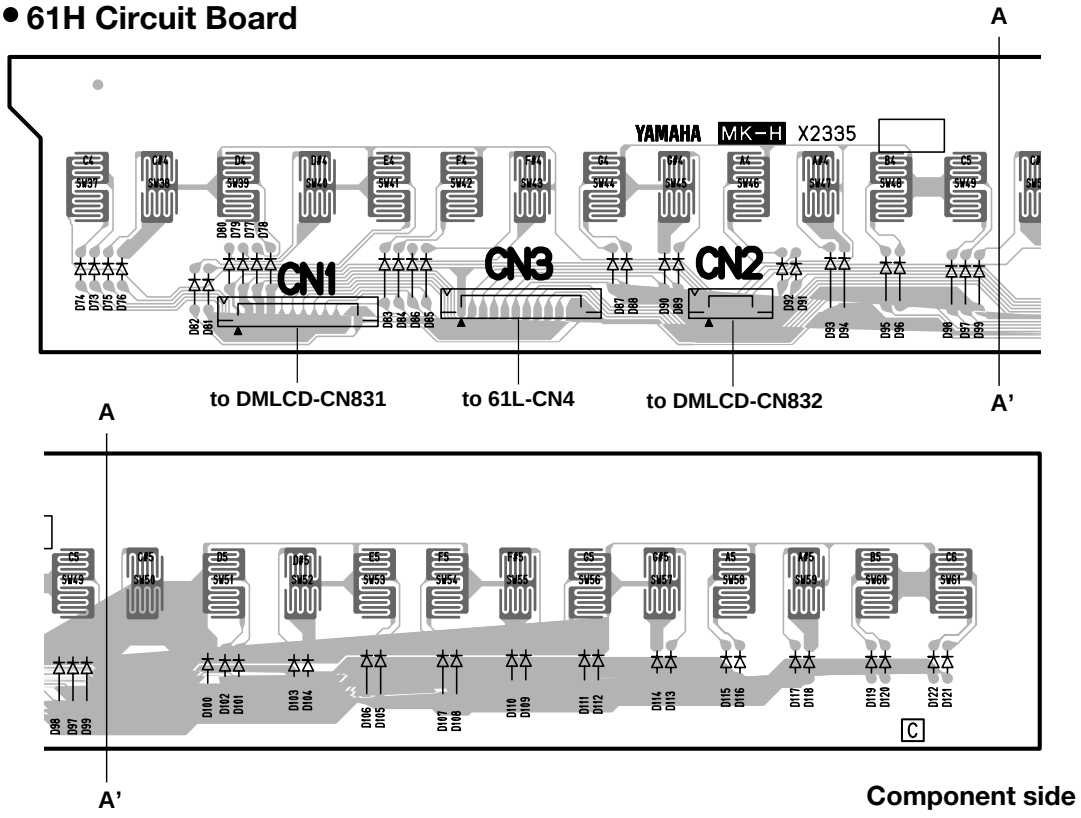


Component side

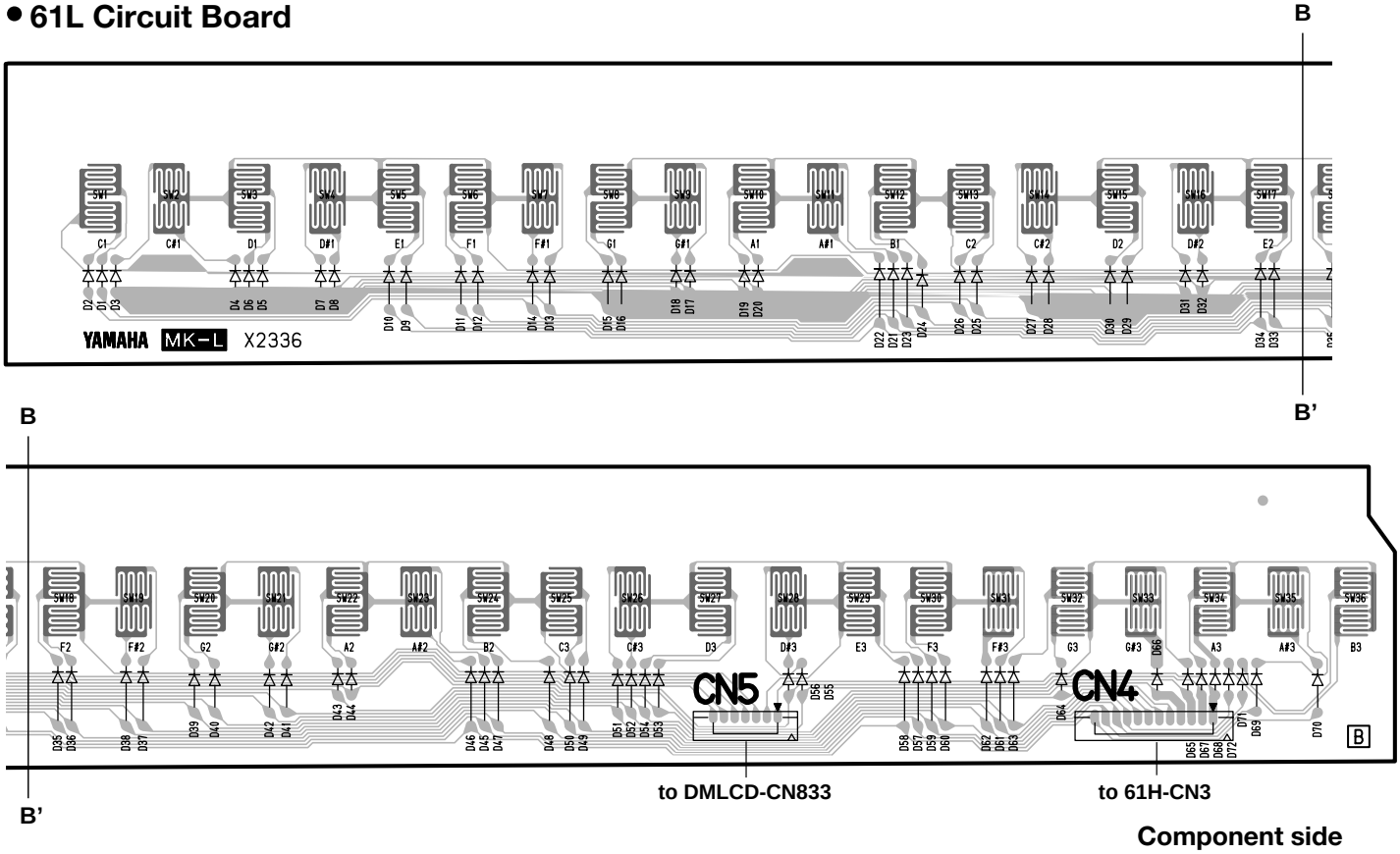


Pattern side

• 61H Circuit Board



• 61L Circuit Board



61H: 2NAKB-V869540
61L: 2NAKB-V869520

TEST PROGRAM

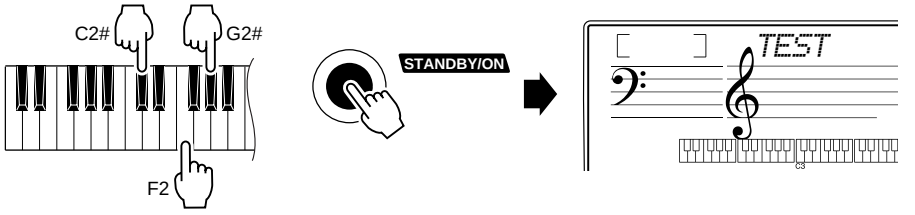
∗ If the test number 47 “Factory Set” is executed, the data already set will be lost.

1 Preparation

1) Use an AC adaptor PA-3C or PA-32.
2) Measuring device: Frequency counter, which can detect thousandth digit, Level meter (with JIS-C filter)
   Note: Connect a load resistor of 33Ω to the terminal [PHONES/OUTPUT]. Input impedance of the measuring device should be 1MΩ or more.
3) Jig: Foot switch (FC-4 or FC-5), MIDI cable

2 Start-up the Test Program

Holding down the keys [C2#], [F2], [G2#] simultaneously, press the [STANDBY / ON] switch.



3 Test Procedure

1) When the test program is started, “**TEST**” will be displayed on the LCD.
2) Press the [–] or [+] button of the number buttons to select a test program item.
3) Press the [START/STOP] button to execute the test.

If the result is OK or test item is completed, press the [START/STOP] button again to return to the item selection display.
Press the [–] or [+] button of the number buttons to select the next test item.
A cursor (“__”) is shown below the first character of the item for which the test results are OK.
If the results are NG, press the lowest key in the keyboard (white key C1) to return to the item selection display.

4 Test program list

(dBu=dBm)

Test No.	LCD display	Test descriptions, judging conditions, etc.
1	**001 : Version**	Displays version of the ROM. “[∗∗∗] **Prog**” is displayed on the LCD. [∗∗∗] : Version
2	**002 : Rom Chk1**	ROM connected to the bus of the CPU is checked. Make sure that “**Rom OK**” is displayed on the LCD.
3	**003 : Ram Chk1**	RAM connected to the bus of the CPU is checked. Make sure that “**Ram OK**” is displayed on the LCD.
4	**006 : FRomChk1**	FROM connected to the bus of the CPU is checked. Make sure that “**FRom OK**” is displayed on the LCD.
5	**011 : TG1 Chk**	Plays each key automatically in the order of scale (auto-scaling). (32 notes from C2 to G4 will be played.) Check that there is no abnormal sounds or noise. When the auto-scaling is finished, “**TG1 End**” will be shown. Press a key to play a sound. (Single note, the key pressed first will be played)
6	**013 : Pit Chk**	Connect the frequency counter to the [PHONES/OUTPUT] terminal. (Either L or R) Checks pitch. (440.14Hz±0.22Hz) Check that the correct signal is output.
7	**014 : Output R**	Connect the level meter (with JIS-C filter) to the L/R terminals of the [PHONES/OUTPUT]. (33Ω of load) Set the [MASTER VOLUME] to the maximum level and check the output level. • PHONES L: –45.0dBu or less • PHONES R: –1.5dBu±2dB
8	**015 : Output L**	Connect the level meter (with JIS-C filter) to the L/R terminals of the [PHONES/OUTPUT]. (33Ω of load) Set the [MASTER VOLUME] to the maximum level and check the output level. • PHONES L: –1.5dBu±2dB • PHONES R: –45.0dBu or less

Test No.	LCD display	Test descriptions, judging conditions, etc.
9	**019 : Noise**	Connect the level meter (with JIS-C filter) to the L/R terminals of the [PHONES/OUTPUT]. (33Ω of load) Set the [MASTER VOLUME] to the maximum level and check the noise. • PHONES L, R: –73.0dBu or less
10	**020 : SW Chk**	Checks switches on the panel. Press the switches as shown in the LCD. When the switch is pressed, a sound is played at the prescribed pitch. (Refer to the Switch test item list.) Make sure that "**SW OK**" is displayed on the LCD when all the switches are pressed. To cancel the operation halfway, use the [lowest key on the keyboard] to return to the selection display.
11	**028 : LCD On**	Make sure that the entire LCD is lit .
12	**029 : LCD Off**	Make sure that all the dots are turned off on the LCD.
13	**031 : PD1 Chk**	Connect a footswitch (FC-4 or FC-5) to the [SUSTAIN] terminal. Make sure that C3 is played when the [START/STOP] button is pressed and C4 is played when the pedal is depressed The sound will stop when the pedal is released. Make sure that "**PD1 OK**" is displayed on the LCD when finished.
14	**037 : MIDI Chk**	Connect the [MIDI IN] jack and [MIDI OUT] jack with a MIDI cable and then execute the test. Make sure that C4 is played and "**MIDI OK**" is displayed on the LCD.
15	**041 : Rom Chk2**	Checks the ROM connected to the CPU bus. Make sure that "**Rom OK**" is displayed on the LCD. It will take about 10 seconds for the check.
16	**042 : Ram Chk2**	Checks the RAM connected to the CPU bus. Make sure that "**Ram OK**" is displayed on the LCD.
17	**045 : FRomChk2**	Checks the FROM connected to the CPU bus. Make sure that "**FRom OK**" is displayed on the LCD. It will take about 30 seconds for the check.
18	**047 : Factory Set**	Initializes the entire backup area to reset to the factory default. "**Fact**" is displayed on the LCD during the test. "**Fact End**" is displayed on the LCD when the test is finished.
19	**048 : TEST Exit**	Execute this to leave the test program and change to the play mode.

Switch test item list

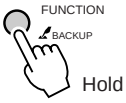
Turn	SW Name	LCD Display	Note Number
1	LEFT	Left	C1
2	RIGHT	Right	C#1
3	LISTEN & LEARN	Listen	D1
4	TIMING	Timing	D#1
5	WAITING	Waiting	E1
6	FUNCTION	Function	F1
7	SONG	Song	F#1
8	STYLE	Style	G1
9	VOICE	Voice	G#1
10	TENKEY 1	Tenkey 1	A1
11	TENKEY 2	Tenkey 2	A#1
12	TENKEY 3	Tenkey 3	B1
13	TENKEY 4	Tenkey 4	C2
14	TENKEY 5	Tenkey 5	C#2
15	TENKEY 6	Tenkey 6	D2
16	TENKEY 7	Tenkey 7	D#2
17	TENKEY 8	Tenkey 8	E2
18	TENKEY 9	Tenkey 9	F2
19	TENKEY –	Tenkey –	F#2

Turn	SW Name	LCD Display	Note Number
20	TENKEY 0	Tenkey 0	G2
21	TENKEY +	Tenkey +	G#2
22	DEMO	Demo	A2
23	METRONOME	Metro	A#2
24	A-B REPEAT	AB Rep	B2
25	REW	Rew	C3
26	FF	FF	C#3
27	TEMPO/TAP	Temp/TAP	D3
28	REC	Record	D#3
29	PAUSE	Pause	E3
30	START/STOP	StartStp	F3
31	PORTABLE GRAND	GP	F#3
32	SOUND EFFECT	SoundEff	G3
33	REVERB ON/OFF	Reverb	G#3
34	SPLIT ON/OFF	Split	A3
35	DUAL ON/OFF	Dual	A#3
36	HARMONY ON/OFF	Harmony	B3
37	TOUCH ON/OFF	Touch	C4

BACKUP & INITIALIZATION

● Backup

Some internal parameters will revert to their default values if not saved before the power is turned off.
In order to backup these parameters press and hold the [FUNCTION] button for longer than a second.



Hold for longer than a second.

● Parameters that are saved in backup:

- User Songs*
- Touch Response on/off setting
- The following Function settings: Tuning, Split Point, Touch Sensitivity, Style Volume, Song Volume, Metronome Volume, Demo Cancel, Panel Sustain

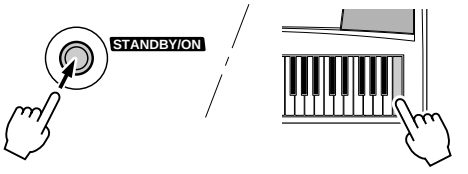
* The User Songs are automatically backed up when recording is completed, ensuring that the data is not deleted even when you fail to backup.

● Initialization

This function erases all backup data in the instrument's flash memory and restores the initial default settings.
The following initialization procedures are provided.

<Backup Clear>

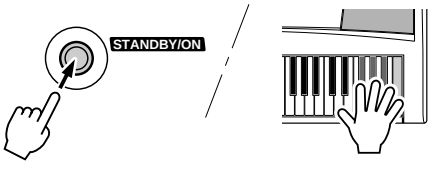
To clear data backed up to the internal flash memory (described above), turn the power on by pressing the [STANDBY/ON] switch while holding the highest white key on the keyboard. The backed up data will be erased and the default values restored.



⚠ • When you execute the Backup Clear operation, backup parameters will be cleared. You can save the backup parameters (containing the five User Songs) by using Musicsoft Downloader to transfer them to a computer.

<Flash Clear>

To clear Song data that has been transferred to the internal flash memory from a computer, simultaneously hold down the highest white key and the three highest black keys on the keyboard and turn the power on by pressing the [STANDBY/ON] switch.



⚠ • When you execute the Flash Clear operation, Song data you have pur-chased and downloaded will also be cleared. Make sure to save your impor-tant data by transferring to a computer using Musicsoft Downloader.

TRANSFERRING DATA BETWEEN THE PSR-E303/YPT-300 and a COMPUTER

The PSR-E303/YPT-300 includes 102 preset Songs, but you can load other Songs from your computer and use them in the same way as the preset Songs as long as the loaded Song is SMF format 0*.
Loaded Song data will be stored in Song numbers beginning with 108.
In order to perform the operations described in this section you will need to use a computer connected to the Internet to download the free Musicsoft Downloader application from the URL listed below.

* The SMF (Standard MIDI File) format is one of the most common and widely compatible sequence formats used for storing sequence data. Most commercially available MIDI sequence data is provided in SMF Format 0.

Installing Musicsoft Downloader

You can download the “Musicsoft Downloader” application from the following website. Make sure that your computer has an Internet connection.

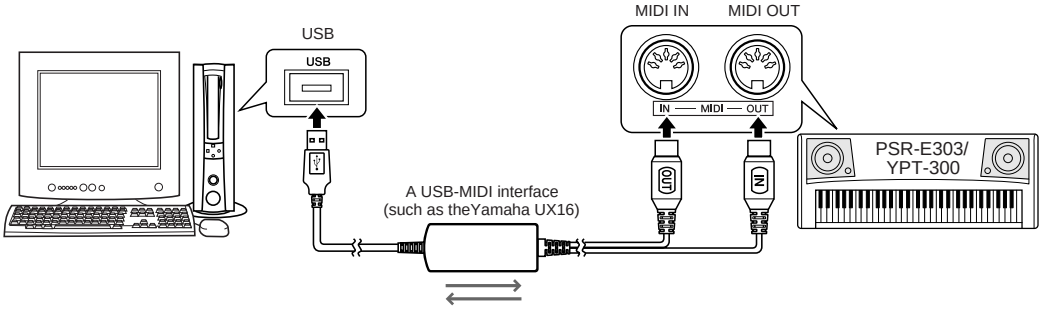
http://music.yamaha.com/download/

- **The minimum computer requirements for Musicsoft Downloader operation are as follows:**
  - OS : Windows 98SE/Me/2000/XP Home Edition/XP Professional
  - CPU : 233 MHz or higher; Intel® Pentium®/Celeron® processor family (500 MHz or more is recommended)
  - Memory : 64 MB or more (256 MB or more is recommended)
  - Hard Disk : at least 128 MB of free space (at least 512 MB of free space is recommended)
  - Display : 800 x 600 HighColor (16-bit)
  - Other : Microsoft® Internet Explorer®5.5 or higher

NOTE: Visit the Yamaha website for more information on the latest version of Musicsoft Downloader (version 5.2.0 or higher) and how to install it.

Connecting a personal computer

After installing the Musicsoft Downloader application on your computer, connect the PSR-E303/YPT-300 as described below.
A Yamaha UX16 or similar USB-MIDI interface (sold separately) will be necessary for MIDI connection between the PSR-E303/YPT-300 and a USB-equipped computer.
Make sure to purchase a Yamaha UX16 or a quality USB-MIDI interface at a musical instrument store, computer store or electrical appliance store.
If you use the UX16 interface, install the driver supplied with the interface on your computer.



Transferring data from a computer

You can transmit Song files from your computer to your PSR-E303/YPT-300's Flash Memory.
For details about how to transmit Song data using the Musicsoft Downloader application, refer to the Online help topic "Transferring Data Between the Computer and Instrument (for unprotected data)" of the Musicsoft Downloader.

● Data that can be loaded to the PSR-E303/YPT-300 from a computer

- Songs : 99 Songs max (Song numbers 108-)
- Data : 373 kilobytes
- Data Format : SMF Format 0
- File : 05PK.USR (user file)
  ***.MID (MIDI Song)

NOTE: The Musicsoft Downloader application may not be able to access the instrument in the following cases:
- During Style playback
- During Song playback

⚠
- Use the power adaptor when transferring data. The data can be corrupted if the batteries fail during the transfer.
- Never turn the power off and never plug/unplug the AC power adaptor during data transmission. Not only will the data fail to be transferred and saved, but operation of the flash memory may become unstable and its contents may disappear completely when the power is turned on or off.

NOTE: Close the window to exit from the Musicsoft Downloader and re-enable control of the instrument.

Transferring a user file from the PSR-E303/YPT-300 to a computer

You can transfer backup data, including the five User Songs stored to the instrument, to a computer as a "user file" by using Musicsoft Downloader. For details about how to transmit Song data using the Musicsoft Downloader application, refer to the Online help topic "Transferring Data Between the Computer and Instrument (for unprotected data)" in the application.

● Data that can be transferred to a computer from the PSR-E303/YPT-300

- User file (05PK.USR: backup data containing five User Songs)
- Songs transferred from a computer

NOTE:
- Preset Song data cannot be transmitted from the PSR-E303/YPT-300.
- Do not rename the user file on the computer. If you do so, it will not be recognized when transferred to the instrument.

⚠
- The backup data, including the five User Songs is transmitted/received as a single file. As a result, all backup data (including the five Songs) will be overwritten every time you transmit or receive. Keep this in mind when transferring data.

YAMAHA [PORTATONE] Date:15-Nov-2004
Model YPT-300/PSR-E303 MIDI Implementation Chart Version:1.0

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

*1 Refer to #2 on page 24.

Mode 1 : OMNI ON , POLY Mode 2 : OMNI ON ,MONO o : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF,MONO x : No

MIDI DATA FORMAT

NOTE:

1 By default (factory settings) the instrument ordinarily functions as a 16-channel multi-timbral tone generator, and incoming data does not affect the panel voices or panel settings. However, the MIDI messages listed below do affect the panel voices, auto accompaniment, and songs.
- *MIDI Master Tuning*
- *System exclusive messages for changing the Reverb Type and Chorus Type.*

2 Messages for these control change numbers cannot be transmitted from the instrument itself. However, they may be transmitted when playing the accompaniment, song or using the Harmony effect.

3 Exclusive
<GM System ON> F0H, 7EH, 7FH, 09H, 01H, F7H
- *This message automatically restores all default settings for the instrument, with the exception of MIDI Master Tuning.*

<MIDI Master Volume> F0H, 7FH, 7FH, 04H, 01H, ll, mm, F7H
- *This message allows the volume of all channels to be changed simultaneously (Universal System Exclusive).*
- *The values of "mm" is used for MIDI Master Volume. (Values for "ll" are ignored.)*

<MIDI Master Tuning> F0H, 43H, 1nH, 27H, 30H, 00H, 00H, mm, ll, cc, F7H
- *This message simultaneously changes the tuning value of all channels.*
- *The values of "mm" and "ll" are used for MIDI Master Tuning.*
- *The default value of "mm" and "ll" are 08H and 00H, respectively. Any values can be used for "n" and "cc."*

<Reverb Type> F0H, 43H, 1nH, 4CH, 02H, 01H, 00H, mmH, llH, F7H
- *mm : Reverb Type MSB*
- *ll : Reverb Type LSB*

Refer to the Effect Map (page 78) for details.

<Chorus Type> F0H, 43H, 1nH, 4CH, 02H, 01H, 20H, mmH, llH, F7H
- *mm : Chorus Type MSB*
- *ll : Chorus Type LSB*

Refer to the Effect Map (page 78) for details.

4 When the accompaniment is started, an FAH message is transmitted. When accompaniment is stopped, an FCH message is transmitted.When the clock is set to External, both FAH (accompaniment start) and FCH (accompaniment stop) are recognized.

5 Local ON/OFF
<Local ON> Bn, 7A, 7F
<Local OFF> Bn, 7A, 00
Value for "n" is ignored.

Effect map

* When a Type LSB value is received that corresponds to no effect type, a value corresponding to the effect type (coming the closest to the specified value) is automatically set.
* The numbers in parentheses in front of the Effect Type names correspond to the number indicated in the display.

• REVERB

TYPE MSB	TYPE LSB								
	0	1	2	8	16	17	18	19	20
0	No Effect								
1	(01)Hall1				(02)Hall2	(03)Hall3			
2	Room					(04)Room1		(05)Room2	
3	Stage				(06)Stage1	(07)Stage2			
4	Plate				(08)Plate1	(09)Plate2			
5...127	No Effect								

• CHORUS

TYPE MSB	TYPE LSB								
	0	1	2	8	16	17	18	19	20
0...63	No Effect								
64	Thru								
65	Chorus		(2)Chorus2						
66	Celeste					(1)Chorus1			
67	Flanger			(3)Flanger1		(4)Flanger2			
68...127	No Effect								

PORTATONE

PSR-E303 / YPT-300

PARTS LIST

CONTENTS

OVERALL ASSEMBLY 2-3
LOWER CASE KEYBOARD ASSEMBLY 4
KEYBOARD ASSEMBLY 5
ELECTRICAL PARTS 6-10

Notes : DESTINATION ABBREVIATIONS

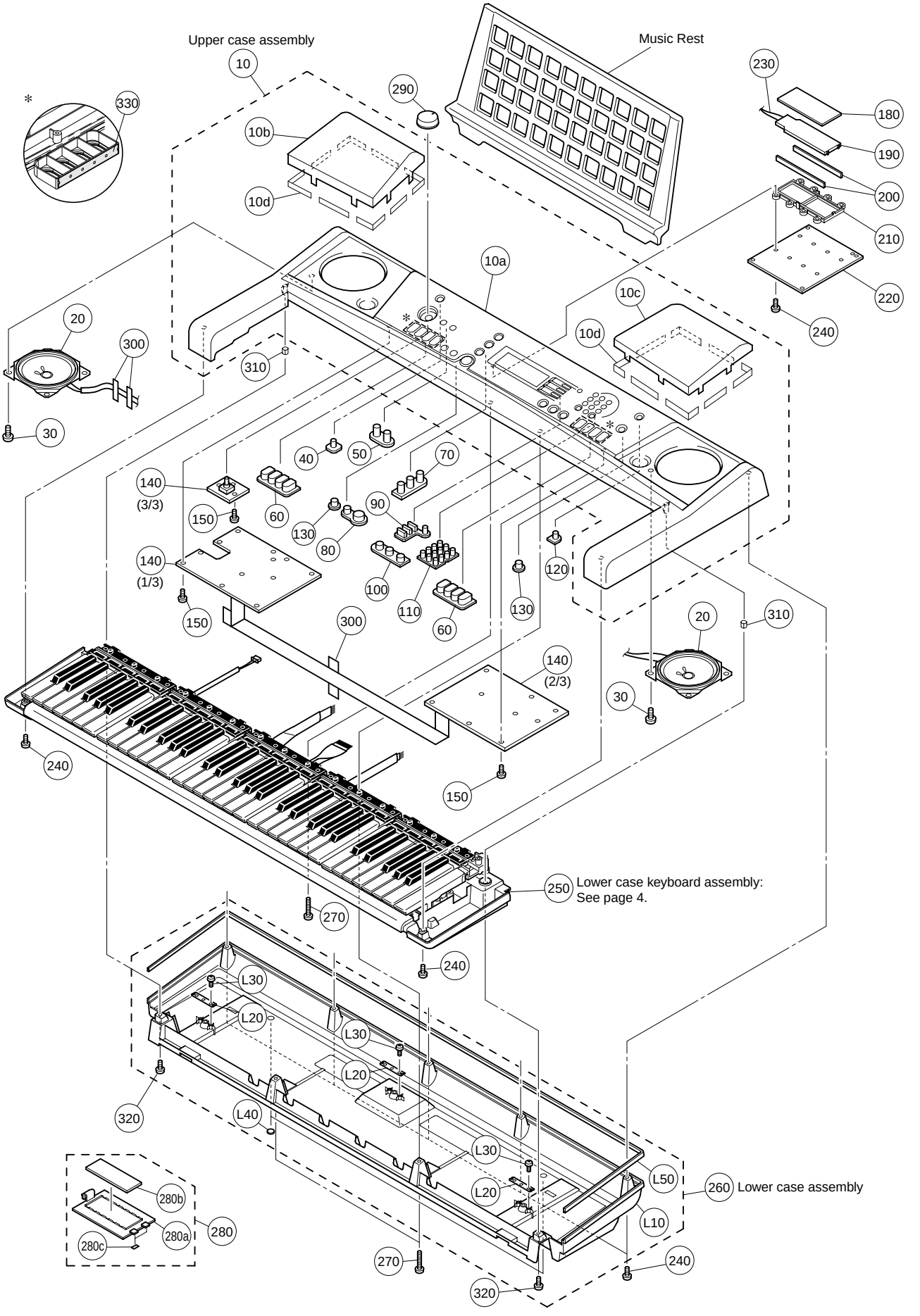
A : Australian model	M : South African model
B : British model	O : Chinese model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W: General export model (220V)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

WARNING

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

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

OVERALL ASSEMBLY

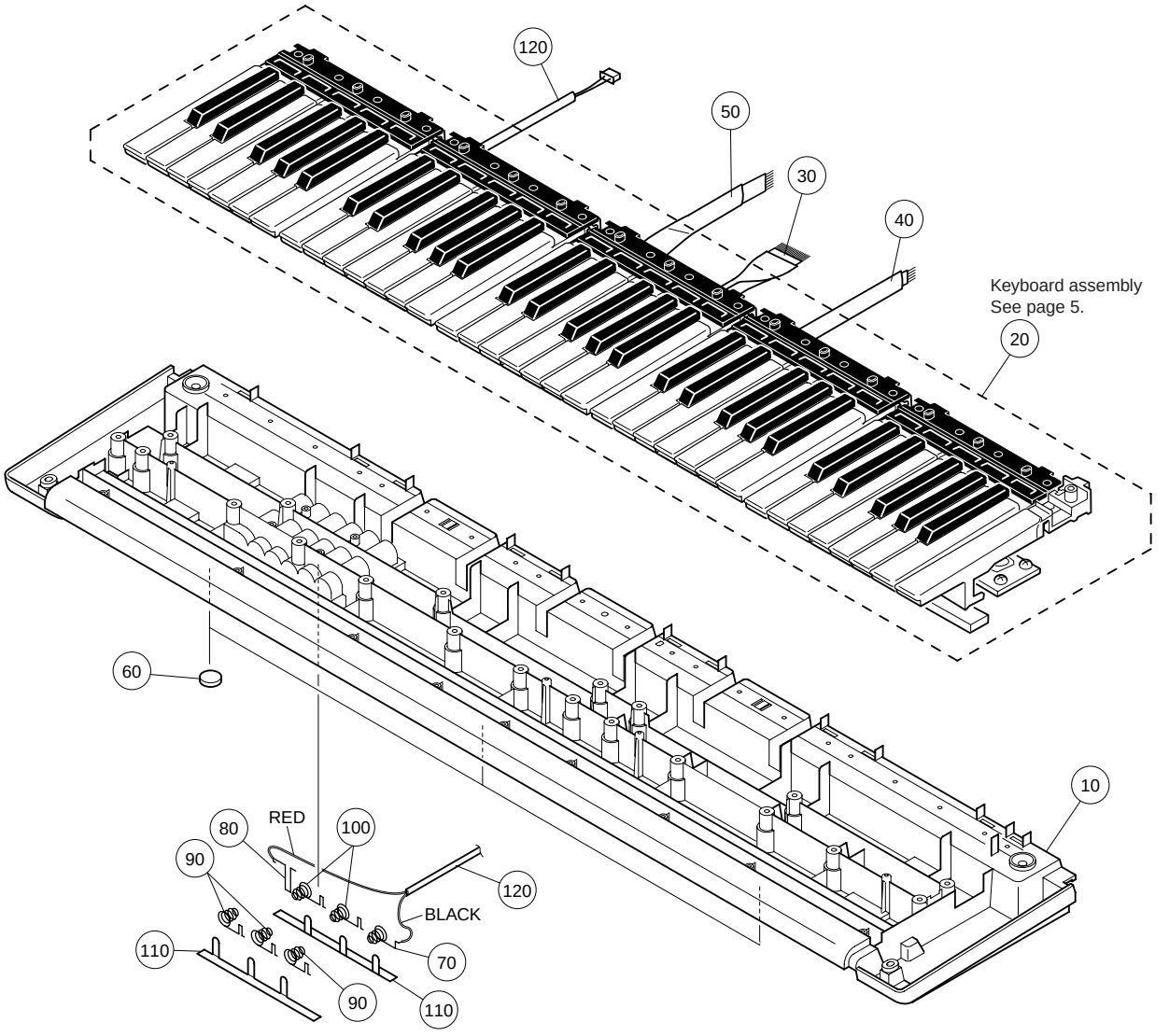


	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			OVERALL ASSEMBLY			PSR-E303/YPT-300		
		--	Overall Assembly	FE		PSR-E303 (WD54870)		
		--	Overall Assembly	FE		YPT-300 (WD54860)		
*	10	WD548900	Upper Case Assembly			PSR-E303		
*	10	WD548800	Upper Case Assembly			YPT-300		
	10a	--	Upper Case			PSR-E303 (WD54930)		
	10a	--	Upper Case			YPT-300 (WD54920)		
*	10b	WD550200	Speaker Grille L					
*	10c	WD550300	Speaker Grille R					
	10d	--	Nonwoven Fabric Cloth			PSR-E303 (WF25430)	16	
	10d	--	Nonwoven Fabric Cloth			YPT-300 (WF25430)	16	
*	20	X6553A00	Speaker	12.0cm 4ohm 3W			2	
	30	EP640410	Bind Head Tapping Screw-B	4.0X8 MFZN2Y			8	01
*	40	WD893400	Panel Switch	x1		STANDBY/ON		
*	50	WD893600	Panel Switch	x2		LESSON PART L,R		
*	60	WD893700	Panel Switch	x4		A-B REPEAT,...,TEMPO/TAP SPLIT ON/OFF,...,TOUCH ON/OFF	2	
*	70	WD893800	Panel Switch	x3		LISTEN&LEARN,...,WAITING		
*	80	WD893900	Panel Switch	x2		PAUSE,START/STOP		
*	90	WD894000	Panel Switch	x4		SONG,STYLE,VOICE,FUNCTION		
*	100	WD894100	Panel Switch	x3		PORTABLE GRAND,...,REVERB ON/OFF		
*	110	WD894200	Panel Switch	x12		0-9,–,+		
*	120	WD894400	Panel Switch	x1		DEMO		
*	130	WD894500	Panel Switch	x1		METRONOME ON/OFF,REC	2	
*	140	WE005400	Circuit Board	PNAM		1/3,2/3,3/3		
	150	EP600250	Bind Head Tapping Screw-B	3.0X8 MFZN2Y			24	01
*	180	WD570800	LCD	TTR TYPE-05B				
*	190	WE200200	Back Light Assembly					
	200	V7838000	Rubber Connector	105X10.7)-0.35WZ		}	2	03
	200	V8917500	Rubber Connector			}	2	
	210	V7172300	LCD Holder					01
*	220	WE005300	Circuit Board	DMLCD				
	230	--	Connector Assembly	BL 2P L=70		(WE14140)		
	240	VE683000	Bind Head Tapping Screw-B	3.0X12 MFZN2Y			15	01
	250	--	Lower Case Keyboard Assembly			(WD89530)		
*	260	WD895200	Lower Case Assembly					
	270	V7213700	Bind Head Tapping Screw-B	3.0X30 MFZN2Y			3	01
*	280	WD896000	Battery Lid Assembly					
	280a	--	Battery Cover			(WD87980)		
	280b	--	Battery Cushion	WHITE		(WD87990)		
	280c	--	Nonwoven Fabric Cloth	10X4		(WD88000)	2	
	290	V8361300	Knob	V		MASTER VOLUME		01
	300	VA126100	Adhesive Tape	12X50		}	3	03
	300	--	Adhesive Tape	MY7# 12X50		} (WB79380)	3	
	310	--	Nonwoven Fabric Cloth	22X8		(WF25440)	2	
	320	VI064600	Bind Head Tapping Screw-B	3.0X20 MFZN2Y			2	01
	330	--	Nonwoven Fabric Cloth			(WF25430)	2	
*		WD895200	Lower Case Assembly					
	L10	--	Lower Case			(WD83970)		
	L20	VI104400	Holder				3	
	L30	EP600250	Bind Head Tapping Screw-B	3.0X8 MFZN2Y			6	01
	L40	CB043750	Foot	T1.6			2	01
	L50	--	Cushion	650X15X1		(WE45790)	2	
			ACCESSORIES					
		WA649300	Music Rest					04
⚠		V2693500	AC Adaptor			O		
*		WD568200	Chinese Guide Sheet			PSR-E303 O		
*		WD568100	Chinese Guide Sheet			YPT-300 O		

✻: New Parts

RANK: Japan only

LOWER CASE KEYBOARD ASSEMBLY

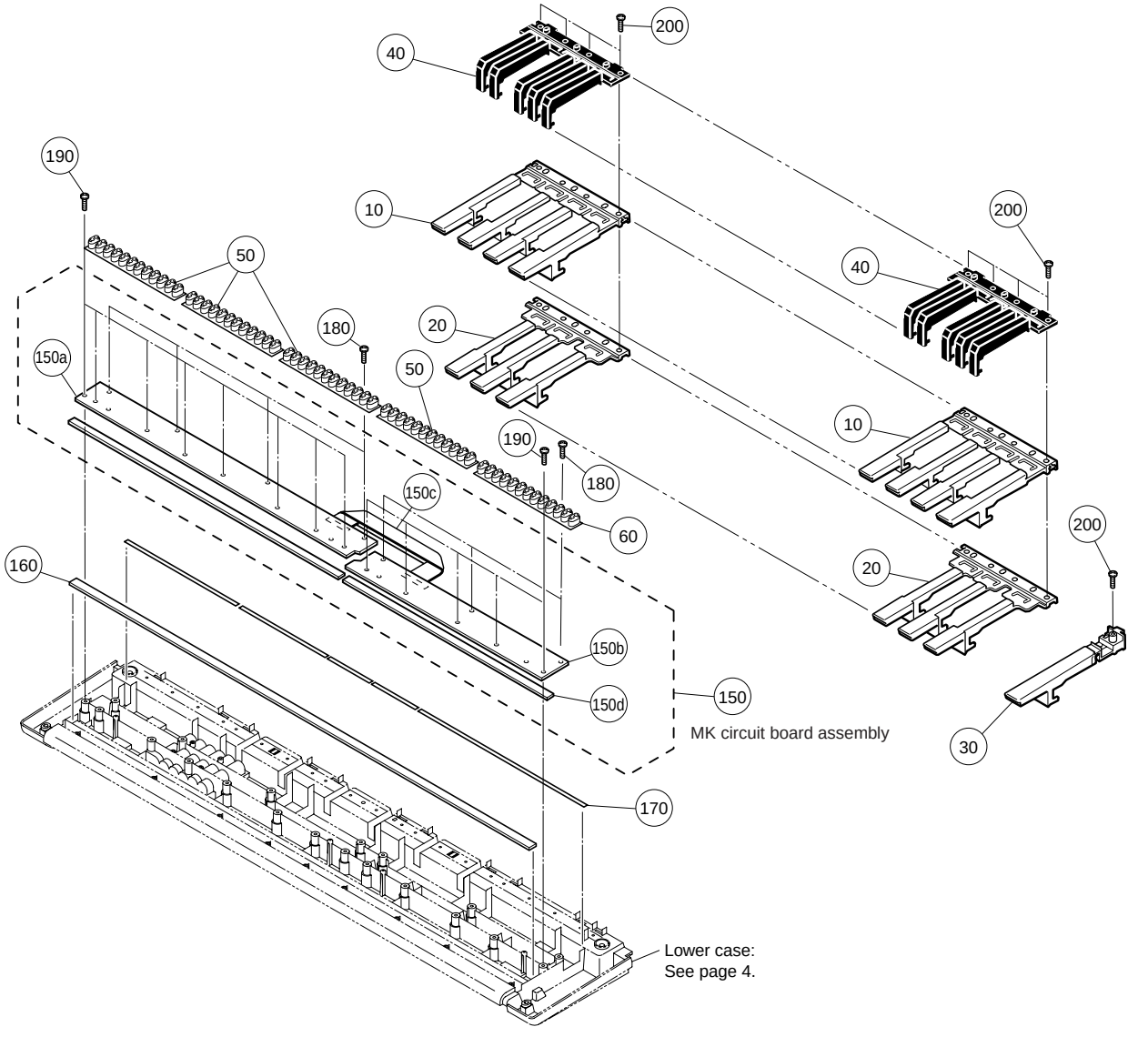


	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		--	LOWER CASE KEYBOARD ASSEMBLY			PSR-E303/YPT-300 (WD89530)		
*	10	**WD843300**	Lower Case					
	20	--	Keyboard Assembly	16N C61 P2M		(WE12670)		
*	30	**WE138500**	Connector Assembly	MK1 12P L=220				
*	40	**WE138700**	Connector Assembly	MK2 5P L=250				
*	50	**WE138800**	Connector Assembly	MK3 7P L=190				
	60	**CB043750**	Foot	T1.6			3	01
*	70	**WD879200**	Spring Terminal A					
*	80	**WD879300**	Spring Terminal B					
*	90	**WD879400**	Spring Terminal C				3	
*	100	**WD879700**	Spring Terminal D				2	
	110	--	Nonwoven Fabric Cloth			(WD89680)	2	
	120	--	Connector Assembly	BATT		(WE15140)		

*: New Parts

RANK: Japan only

KEYBOARD ASSEMBLY



REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	--	KEYBOARD ASSEMBLY	16N C61 P2M		PSR-E303/YPT-300 (WE12670)		
10	**WB125200**	White Key	CEGB			5	02
20	**WB125300**	White Key	DFA			5	02
30	**V4760300**	White Key	C		C6		02
40	**VZ271700**	Black Key	16N			5	06
50	**V3413600**	Rubber Contact	16N-2M OCT 2M			4	04
60	**V7477400**	Rubber Contact	M 13K 2M		C5-C6		04
150	--	MK Circuit Board Assembly	16N2M C61 P2		(V869560)		
150a	**V8695300**	Circuit Board	61L 16N2M C61 P2				04
150b	**V8695500**	Circuit Board	61H 16N2M C61 P2				04
150c	**V8696200**	Connector Assembly	16N-2M-C61 L=210				01
150d	**VZ302900**	Felt U					02
160	**VZ303000**	Felt L					02
170	**VH181400**	Rubber Sheet					01
180	**EP600250**	Bind Head Tapping Screw-B	3.0X8 MFZN2Y			7	01
190	**VZ313100**	Bind Head Tapping Screw-P	SP 3.0X12 MFZNBL			13	01
200	**EP600680**	Bind Head Tapping Screw-P	3.0X20 MFZN2Y			21	01

✻: New Parts

RANK: Japan only

■ ELECTRICAL PARTS

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			ELECTRICAL PARTS			PSR-E303/YPT-300		
*		**WE005300**	Circuit Board	DMLCD		(WE00520)(X5910C0)		
*		**WE005400**	Circuit Board	PNAM		1/3,2/3,3/3 (X5911C0)		
		V8695500	Circuit Board	61H 16N2M C61 P2		(V869540)(X2335C0)		04
		V8695300	Circuit Board	61L 16N2M C61 P2		(V869520)(X2336B0)		04
*		**WE005300**	Circuit Board	DMLCD		(WE00520)(X5910C0)		
	C0131	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0132	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0133	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0134	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0135	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0136	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0137	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0139	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.				01
	C0140	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.				01
	C0201	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	-0208	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0301	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	-0304	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0305	**UF028100**	Electrolytic Cap. (chip)	100 10V				01
	C0306	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J RECT.				01
	C0307	**US063470**	Ceramic Capacitor-B (chip)	4700P 50V K RECT.				01
	C0308	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0309	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.				01
	C0310	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	-0315	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0317	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0319	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	-0326	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0327	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J RECT.				01
	C0328	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J RECT.				01
	C0431	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0432	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0433	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0434	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.				01
	C0435	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.				01
	C0436	**US062680**	Ceramic Capacitor-SL(chip)	680P 50V J RECT.				01
	-0439	**US062680**	Ceramic Capacitor-SL(chip)	680P 50V J RECT.				01
	C0440	**UF066470**	Electrolytic Cap. (chip)	4.7 50V UWX1H4				01
	C0441	**UF066470**	Electrolytic Cap. (chip)	4.7 50V UWX1H4				01
	C0442	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.				01
	C0443	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.				01
	C0444	**UF028100**	Electrolytic Cap. (chip)	100 10V				01
	C0445	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0446	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0447	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0531	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.				01
	-0546	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.				01
	C0631	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.				01
	-0636	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J RECT.				01
	C0701	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	-0704	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0705	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C0831	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0832	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0833	**US061470**	Ceramic Capacitor-CH(chip)	47P 50V J RECT.				01
	-0843	**US061470**	Ceramic Capacitor-CH(chip)	47P 50V J RECT.				01
	C0904	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	-0908	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0912	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	C0916	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	-0936	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.				01
	CN131	**VK025500**	Wire Trap	52147 11P TE				01
	CN531	**VJ861600**	Wire Trap	52147 16P TE				01
	CN631	**VK025300**	Wire Trap	52147 9P TE				01
	CN831	**VK025600**	Wire Trap	52147 12P TE				01
	CN832	**VK024900**	Wire Trap	52147 5P TE				01
	CN833	**VK025100**	Wire Trap	52147 7P TE				01
*	IC131	**X5889A00**	IC	BA33BC0FP		REGULATOR +3.3V		

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	IC132	**X3679A00**	IC	RH5RZ25CA-T1		REGULATOR +2.5V		03
*	IC201	**X6054100**	IC	MX23L6415TC-90		MASK ROM 64M PROG./WAVE		
	IC202	**X2310A00**	IC	MX29LV400BTC-70		FLASH ROM 4M		06
	IC202	**X4490A00**	IC	MBM29LV400BC-70PFT				08
	IC203	**X2726A00**	IC	GLT440L16-40TC		DRAM 4M		05
	IC204	**IS003200**	IC	HD74LV32AFPEL		OR		01
*	IC301	**X6055A00**	IC	YMW767-VTZ		CPU		
	IC302	**X4374A00**	IC	S-80136ANMC-JCV-T2		RESET		
*	IC302	**X5888A00**	IC	BD45365G				
*	IC431	**X6040A00**	IC	AK4385ET		DAC		
	IC432	**X2331A00**	IC	NJM4580E TE2		OP AMP		01
	IC701	**X3148A00**	IC	NT3881DF-01		LCD DRIVER		05
	IC701	**XZ987A00**	IC	ML9040A-B01GAZ03A				05
*	IC701	**X6247A00**	IC	NT3881EFG-01				
	IC831	**IS013810**	IC	SN74LV138ANSR		DECODER		01
	IC832	**IS013810**	IC	SN74LV138ANSR		DECODER		01
	L0431	**VY657200**	Chip Inductance	600 BK1608HM601				01
	R0131	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.				01
	R0132	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.				01
	R0201	**RD357470**	Carbon Resistor (chip)	47.0K 63M J RECT.				01
	R0204	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.				
	R0206	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.				
	R0207	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.				01
	R0208	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.				01
	R0209	**RD357470**	Carbon Resistor (chip)	47.0K 63M J RECT.				01
	-0215	**RD357470**	Carbon Resistor (chip)	47.0K 63M J RECT.				01
	R0301	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.				01
	R0302	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.				01
	R0304	**RD359100**	Carbon Resistor (chip)	1.0M 63M J RECT.				01
	R0305	**RD355470**	Carbon Resistor (chip)	470.0 63M J RECT.				01
	R0306	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.				01
	R0307	**RD357470**	Carbon Resistor (chip)	47.0K 63M J RECT.				01
	R0308	**RD357470**	Carbon Resistor (chip)	47.0K 63M J RECT.				01
	R0310	**RD357470**	Carbon Resistor (chip)	47.0K 63M J RECT.				01
	R0311	**RD358470**	Carbon Resistor (chip)	470.0K 63M J RECT.				01
	R0312	**RD358470**	Carbon Resistor (chip)	470.0K 63M J RECT.				01
	R0313	**RD354470**	Carbon Resistor (chip)	47.0 63M J RECT.				01
	R0435	**RD356820**	Carbon Resistor (chip)	8.2K 63M J RECT.				01
	-0438	**RD356820**	Carbon Resistor (chip)	8.2K 63M J RECT.				01
	R0439	**RD356390**	Carbon Resistor (chip)	3.9K 63M J RECT.				01
	-0446	**RD356390**	Carbon Resistor (chip)	3.9K 63M J RECT.				01
	R0447	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.				01
	R0448	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.				01
	R0449	**RD356120**	Carbon Resistor (chip)	1.2K 63M J RECT.				01
	R0450	**RD356150**	Carbon Resistor (chip)	1.5K 63M J RECT.				01
	R0451	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.				01
	R0531	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.				01
	-0538	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.				01
	R0539	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.				01
	-0546	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.				01
	R0547	**RD357330**	Carbon Resistor (chip)	33.0K 63M J RECT.				01
	-0554	**RD357330**	Carbon Resistor (chip)	33.0K 63M J RECT.				01
	R0631	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.				01
	-0636	**RD356100**	Carbon Resistor (chip)	1.0K 63M J RECT.				01
	R0701	**RD356150**	Carbon Resistor (chip)	1.5K 63M J RECT.				01
	R0702	**RD355220**	Carbon Resistor (chip)	220.0 63M J RECT.				01
	R0703	**RD354680**	Carbon Resistor (chip)	68.0 63M J RECT.				01
	R0704	**RF457910**	Carbon Resistor (chip)	91.0K D RECT.				
	R0705	**RD356220**	Carbon Resistor (chip)	2.2K 63M J RECT.				01
	-0709	**RD356220**	Carbon Resistor (chip)	2.2K 63M J RECT.				01
	R0710	**RD357100**	Carbon Resistor (chip)	10.0K 63M J RECT.				01
	R0711	**RD357470**	Carbon Resistor (chip)	47.0K 63M J RECT.				01
	R0831	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.				01
	-0833	**RD355100**	Carbon Resistor (chip)	100.0 63M J RECT.				01
	R0901	**RD357470**	Carbon Resistor (chip)	47.0K 63M J RECT.				01
	R0905	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.				01
	R0906	**RD350000**	Carbon Resistor (chip)	0 63M J RECT.				01
	RA831	**RE045100**	Resistor Array	100X4				01
	RA832	**RE045100**	Resistor Array	100X4				01
	RA833	**RE046100**	Resistor Array	1KX4				01

✻: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	-835	**RE046100**	Resistor Array	1KX4				01
	RA836	**RE047100**	Resistor Array	10KX4				01
	-838	**RE047100**	Resistor Array	10KX4				01
	TH701	**V9140600**	Thermistor (chip)	ERTJ1VT152J 1.5K				
*	X0301	**WE194400**	Quartz Crystal Unit	16.9344MHz HC-49S-SM				
*		**WE005400**	Circuit Board	PNAM		1/3,2/3,3/3 (X5911C0)		
		EP600190	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			3	01
		--	Jumper Wire	0.55 TIN		(VA07890)		
	10	**--**	Silicon Grease	G-746		(0412125)		
	10	**--**	Silicon Grease	X-113A G746		(VA79810)		
	C0103	**VM902400**	Semiconductor Ceramic Cap.	0.1000 25V Z FORM.				01
*	C0104	**V3510100**	Electrolytic Cap.	1000.0 25.0V TP				
	C0104	**UR849100**	Electrolytic Cap.	1000 25.0V RX TP				01
	C0105	**VM902400**	Semiconductor Ceramic Cap.	0.1000 25V Z FORM.				01
	C0106	**VM902400**	Semiconductor Ceramic Cap.	0.1000 25V Z FORM.				01
	C0107	**UR828220**	Electrolytic Cap.	220.00 10.0V RX TP				01
*	C0107	**V3507400**	Electrolytic Cap.	220.00 10.0V TP				
	C0401	**VM902400**	Semiconductor Ceramic Cap.	0.1000 25V Z FORM.				01
	C0403	**UR866100**	Electrolytic Cap.	1.00 50.0V RX TP				01
*	C0403	**V3511900**	Electrolytic Cap.	1.00 50.0V TP				
	C0404	**UR866100**	Electrolytic Cap.	1.00 50.0V RX TP				01
*	C0404	**V3511900**	Electrolytic Cap.	1.00 50.0V TP				
	C0407	**UR866100**	Electrolytic Cap.	1.00 50.0V RX TP				01
*	C0407	**V3511900**	Electrolytic Cap.	1.00 50.0V TP				
	C0408	**UR866100**	Electrolytic Cap.	1.00 50.0V RX TP				01
*	C0408	**V3511900**	Electrolytic Cap.	1.00 50.0V TP				
*	C0409	**VR025800**	Ceramic Capacitor-2B	470P 63V K FORMING				
	C0409	**FG612470**	Ceramic Capacitor-B	470P 50V K RX TP				01
*	C0410	**VR025800**	Ceramic Capacitor-2B	470P 63V K FORMING				
	C0410	**FG612470**	Ceramic Capacitor-B	470P 50V K RX TP				01
	C0411	**UR837470**	Electrolytic Cap.	47.00 16.0V RX TP				01
	-0413	**UR837470**	Electrolytic Cap.	47.00 16.0V RX TP				01
*	C0411	**V3508400**	Electrolytic Cap.	47.00 16.0V TP				
*	-0413	**V3508400**	Electrolytic Cap.	47.00 16.0V TP				
	C0414	**UR838100**	Electrolytic Cap.	100.00 16.0V RX TP				01
*	C0414	**V3508500**	Electrolytic Cap.	100.00 16.0V TP				
	C0415	**UR838100**	Electrolytic Cap.	100.00 16.0V RX TP				01
*	C0415	**V3508500**	Electrolytic Cap.	100.00 16.0V TP				
	C0416	**UA355150**	Mylar Capacitor	0.1500 50V J RX TP				
	C0416	**UA655150**	Mylar Capacitor	0.1500 50V J RX TP				01
	C0416	**--**	Mylar Capacitor	0.1500 50V J		(V551560)		
	C0416	**--**	Mylar Capacitor	0.15 100V K FORM.		(VS88690)		
	C0416	**VR168500**	Monolithic Mylar Capacitor	ECQ-V1H154JL3				01
	C0417	**UA355150**	Mylar Capacitor	0.1500 50V J RX TP				
	C0417	**UA655150**	Mylar Capacitor	0.1500 50V J RX TP				01
	C0417	**--**	Mylar Capacitor	0.1500 50V J		(V551560)		
	C0417	**--**	Mylar Capacitor	0.15 100V K FORM.		(VS88690)		
	C0417	**VR168500**	Monolithic Mylar Capacitor	ECQ-V1H154JL3				01
	C0418	**UR838470**	Electrolytic Cap.	470.00 16.0V RX TP				01
*	C0418	**V3508800**	Electrolytic Cap.	470.00 16.0V TP				
	C0419	**UR838470**	Electrolytic Cap.	470.00 16.0V RX TP				01
*	C0419	**V3508800**	Electrolytic Cap.	470.00 16.0V TP				
	C0422	**UR837470**	Electrolytic Cap.	47.00 16.0V RX TP				01
*	C0422	**V3508400**	Electrolytic Cap.	47.00 16.0V TP				
	C0423	**UR837470**	Electrolytic Cap.	47.00 16.0V RX TP				01
*	C0423	**V3508400**	Electrolytic Cap.	47.00 16.0V TP				
	C0601	**VM902400**	Semiconductor Ceramic Cap.	0.1000 25V Z FORM.				01
*	C0602	**VQ175700**	Ceramic Capacitor-2	0.01 63V Z FORMING				
	C0602	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z RX TP				01
	C0603	**VM902400**	Semiconductor Ceramic Cap.	0.1000 25V Z FORM.				01
*	C0604	**VR025000**	Ceramic Capacitor-2B	100P 63V K FORMING				
*	C0604	**VR028200**	Ceramic Capacitor-SL	100P 63V J FORMING				
	C0604	**FG652100**	Ceramic Capacitor-SL	100P 50V J RX TP				01
	CN101	**LB918030**	Base Post Connector	XH 3P TE				01
	CN102	**VK024600**	Wire Trap	52147 2P TE				01
	CN103	**VI878900**	Cable Holder	51048 11P TE				01
*	CN103	**VY668800**	Cable Holder	51048 11P TE				
	CN401	**VI878300**	Cable Holder	51048 5P TE				01
*	CN401	**VZ341700**	Cable Holder	51048 5P TE				

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	CN402	**VI878300**	Cable Holder	51048 5P TE				01
*	CN402	**VZ341700**	Cable Holder	51048 5P TE				
	CN403	**VI878000**	Cable Holder	51048 2P TE				01
*	CN403	**VY668300**	Cable Holder	51048 2P TE				
	CN404	**VI878000**	Cable Holder	51048 2P TE				01
*	CN404	**VY668300**	Cable Holder	51048 2P TE				
	CN501	**VI879400**	Cable Holder	51048 16P TE				01
*	CN501	**VY669100**	Cable Holder	51048 16P TE				
	CN502	**VI878800**	Cable Holder	51048 10P TE				01
*	CN502	**VY668700**	Cable Holder	51048 10P TE				
	CN503	**VI878800**	Cable Holder	51048 10P TE				01
*	CN503	**VY668700**	Cable Holder	51048 10P TE				
	CN601	**VI878700**	Cable Holder	51048 9P TE				01
*	CN601	**VZ341900**	Cable Holder	51048 9P TE				
	D0101	**VV731400**	Diode	2A02M FORMING				
	D0101	**V8603100**	Diode	2A02GM				
	D0104	**VB941200**	Diode	1SS133,1SS176				01
	D0104	**VV437800**	Diode	1N4148(DO-34)				01
	D0105	**VB941200**	Diode	1SS133,1SS176				01
	D0105	**VV437800**	Diode	1N4148(DO-34)				01
	D0501	**VB941200**	Diode	1SS133,1SS176				01
	-0508	**VB941200**	Diode	1SS133,1SS176				01
	D0501	**VV437800**	Diode	1N4148(DO-34)				01
	-0508	**VV437800**	Diode	1N4148(DO-34)				01
	D0601	**VB941200**	Diode	1SS133,1SS176				01
	D0601	**VV437800**	Diode	1N4148(DO-34)				01
*	IC101	**X5887A00**	IC	BA50BC0T		REGULATOR +5V		
	IC401	**XV771A00**	IC	BA5417		POWER AMP 2.5Wx2		03
	IC601	**WA645200**	Photo Coupler	PC900V0NSZX				04
	J0102	**--**	Jumper Wire	0.55 TIN		(VA07890)		
⚠	JK101	**LB302260**	Connector	HEC0470-01-630		DC IN 12V		02
⚠	JK101	**V6557600**	Connector	HTJ-020-05AZ				04
	JK401	**LB101870**	Phone Jack	JACK YKB21-5006		PHONES/OUTPUT		03
	JK401	**VV943300**	Phone Jack	HTJ064-04A				02
	JK601	**VJ107200**	DIN Connector	JACK5P YKF51-5050N		MIDI IN		01
	JK601	**VZ085800**	DIN Connector	5P HDC-052S-01				01
	JK602	**VJ107200**	DIN Connector	JACK5P YKF51-5050N		MIDI OUT		01
	JK602	**VZ085800**	DIN Connector	5P HDC-052S-01				01
	JK603	**VC687500**	Phone Jack black	JACK YKB21-5014		SUSTAIN		01
*	JK603	**WE245200**	Phone Jack black	JY-6314-01-020				
	K0401	**--**	Heat Sink			(V561400)		
*	L0601	**V7634400**	Coil 20uH	BD-FL20-03				
	L0601	**VB835000**	Coil 20uH	FL5R200QNT RX TP				01
	L0601	**VT279200**	Coil 20uH	FL5R200QN FORMING				
*	R0101	**V2548300**	Carbon Resistor	180.0 1/6J 26TP				
*	R0102	**V2548300**	Carbon Resistor	180.0 1/6J 26TP				
*	R0104	**V2551200**	Carbon Resistor	47.0K 1/6J 26TP				
*	R0105	**V2549800**	Carbon Resistor	3.3K 1/6 J 26TP				
*	R0107	**V2550400**	Carbon Resistor	10.0K 1/6J 26TP				
*	R0108	**V2550800**	Carbon Resistor	22.0K 1/6J 26TP				
*	R0109	**V2550500**	Carbon Resistor	12.0K 1/6J 26TP				
*	R0401	**V2550400**	Carbon Resistor	10.0K 1/6J 26TP				
*	-0404	**V2550400**	Carbon Resistor	10.0K 1/6J 26TP				
*	R0405	**V2548800**	Carbon Resistor	470.0 1/6J 26TP				
*	R0406	**V2548800**	Carbon Resistor	470.0 1/6J 26TP				
	R0407	**WD556700**	Flame Proof C. Resistor	2.2 1/4 J				01
	R0408	**WD556700**	Flame Proof C. Resistor	2.2 1/4 J				01
*	R0409	**V2548600**	Carbon Resistor	330.0 1/6J 26TP				
*	R0410	**V2548600**	Carbon Resistor	330.0 1/6J 26TP				
*	R0411	**V2548000**	Carbon Resistor	100.0 1/6J 26TP				
*	R0412	**V2548000**	Carbon Resistor	100.0 1/6J 26TP				
*	R0601	**V2551200**	Carbon Resistor	47.0K 1/6J 26TP				
*	R0602	**V2549200**	Carbon Resistor	1.0K 1/6 J 26TP				
*	R0603	**V2550400**	Carbon Resistor	10.0K 1/6J 26TP				
*	R0604	**V2550600**	Carbon Resistor	15.0K 1/6J 26TP				
*	R0605	**V2550000**	Carbon Resistor	4.7K 1/6 J 26TP				
*	R0606	**V2547600**	Carbon Resistor	47.0 1/6J 26TP				
*	R0607	**V2547600**	Carbon Resistor	47.0 1/6J 26TP				
*	R0608	**V2549200**	Carbon Resistor	1.0K 1/6 J 26TP				
*	R0609	**V2548400**	Carbon Resistor	220.0 1/6J 26TP				

*: New Parts

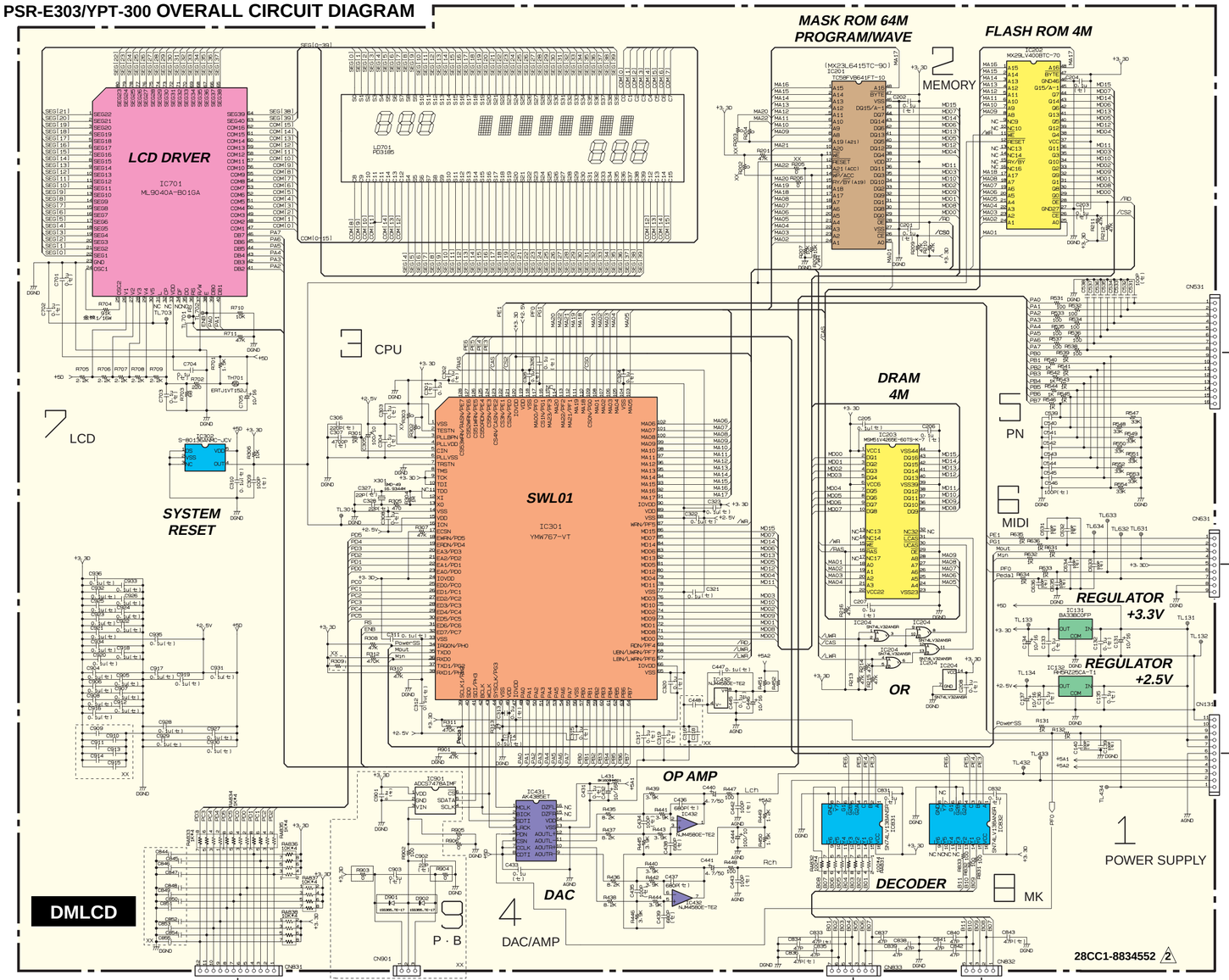
RANK: Japan only

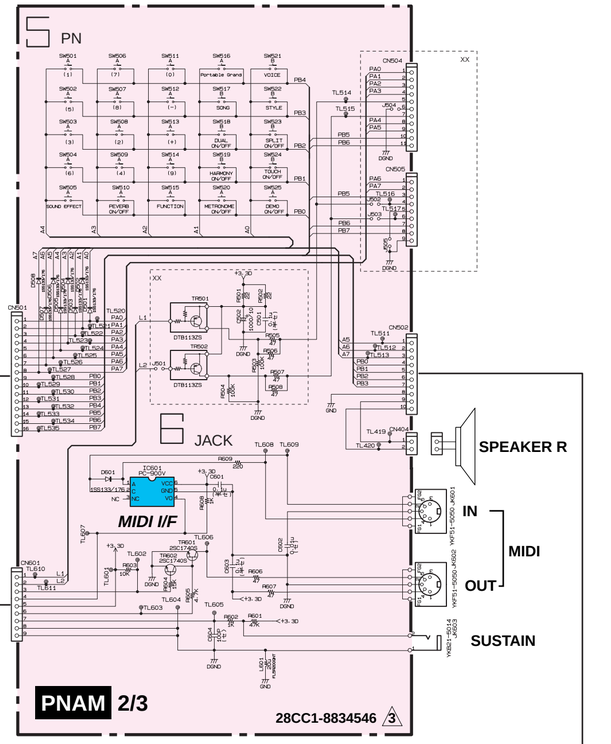
	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	TR101	**WD926900**	Transistor	2SB1342				
	TR102	**IC174070**	Transistor	2SC2SC1740S R,S				01
	TR601	**IC174070**	Transistor	2SC2SC1740S R,S				01
	TR602	**IC174070**	Transistor	2SC2SC1740S R,S				01
	VR401	**WC709800**	Rotary Variable Resistor	A 5.0K XV014111YG		MASTER VOLUME		02
	WA103	--	Connector Assembly	AM 11P L=170		(WE13910)		
	WA401	--	Connector Assembly	VOL 5P L=120		(WE13900)		
	WA403	--	Connector Assembly	SPL 2P L=280		(WE14120)		
	WA404	--	Connector Assembly	SPR 2P L=220		(WE14130)		
	WA501	--	Connector Assembly	PN1 16P L=100		(WE14080)		
	WA502	--	Connector Assembly	PN2 10P L=340		(WE13970)		
	WA601	--	Connector Assembly	JACK 9P L=70		(WE14060)		
		V8695500	Circuit Board	61H 16N2M C61 P2		(V869540)(X2335C0)		04
	CN01	**VK025600**	Wire Trap	52147 12P TE				01
	CN02	**VK024900**	Wire Trap	52147 5P TE				01
	CN03	**VK025600**	Wire Trap	52147 12P TE				01
	D073	**VV437800**	Diode	1N4148(DO-34)				01
	-122	**VV437800**	Diode	1N4148(DO-34)				01
		V8695300	Circuit Board	61L 16N2M C61 P2		(V869520)(X2336B0)		04
	CN04	**VK025600**	Wire Trap	52147 12P TE				01
	CN05	**VK025100**	Wire Trap	52147 7P TE				01
	D001	**VV437800**	Diode	1N4148(DO-34)				01
	-072	**VV437800**	Diode	1N4148(DO-34)				01
*		**X6553A00**	Speaker	12.0cm 4ohm 3W			2	
*		**WD570800**	LCD	TTR TYPE-05B				

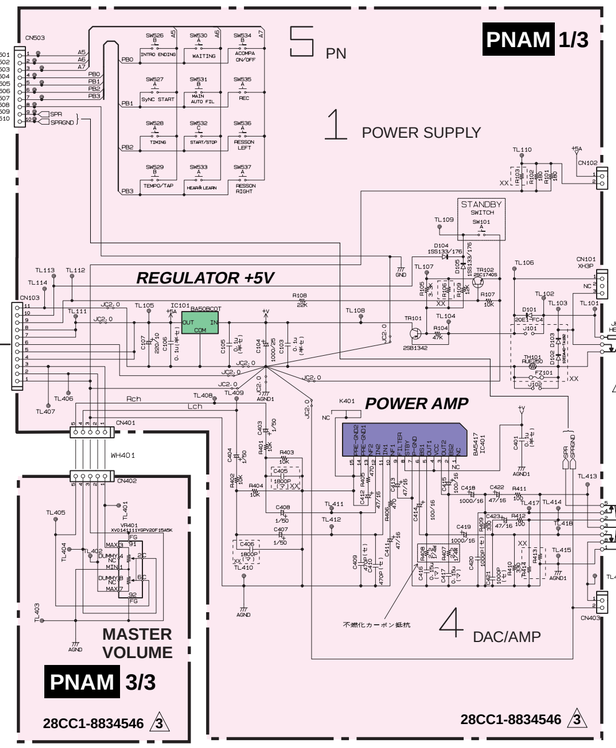
*: New Parts

RANK: Japan only

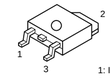
■ PSR-E303/YPT-300 OVERALL CIRCUIT DIAGRAM



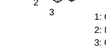




- BA33BC0FP (X5889A00)
  REGULATOR +3.3V
  DMLCD: IC131

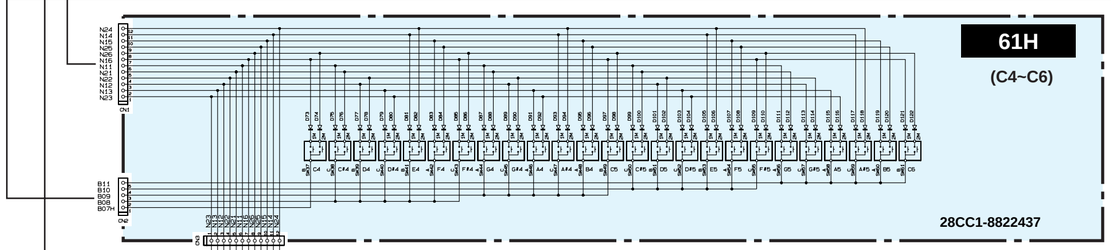


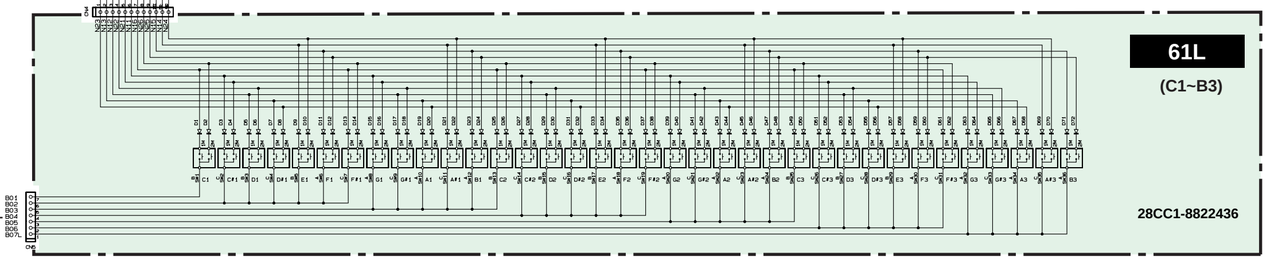
- RH5RZ25CA (X3679A00)
  REGULATOR +2.5V
  DMLCD: IC132



- BA50BC0T (X5887A00)
  REGULATOR +5V
  PNAM1/3: IC101







（セ）: Ceramic Capacitor　（半セ）: Semiconductive Ceramic Capacitor
（マ）: Mylar Capacitor　金被 : Metal Film Resistor
不燃化カーボン抵抗: Flame Proof C.Resistor
XX: Not installed
Note : See parts list for details of circuit board component parts.

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

PSR-E303/YPT-300