

# MP-70

## KSC-34-BK

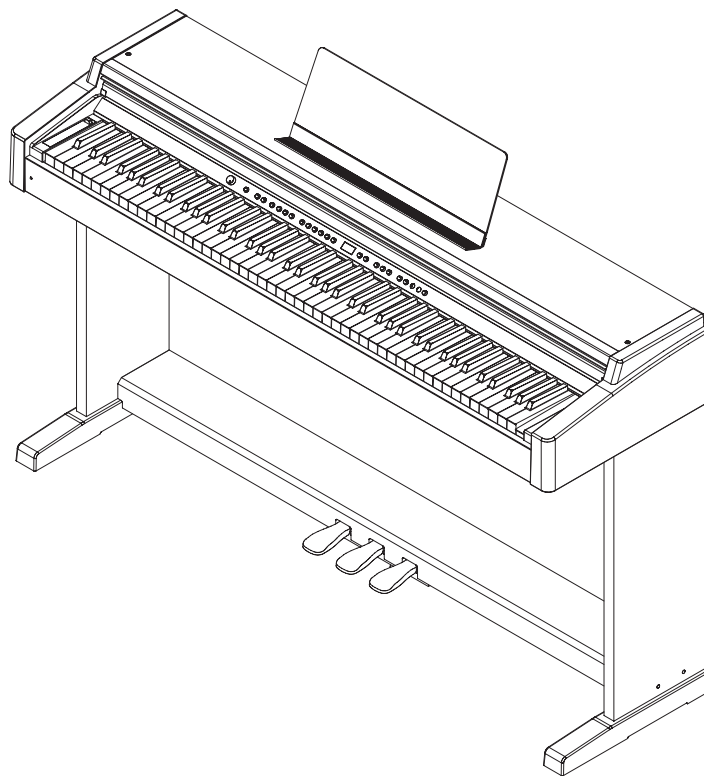
DIGITAL PIANO

# SERVICE NOTES

*Issued by RJA*

## TABLE CONTENTS

TABLE CONTENTS.....	1	BLOCK DIAGRAM.....	26
CAUTIONARY NOTES .....	2	CIRCUIT BOARD(MAIN) .....	28
SPECIFICATIONS.....	3	CIRCUIT DIAGRAM(MAIN 1/4) .....	30
LOCATION OF CONTROLS .....	4	CIRCUIT DIAGRAM(MAIN 2/4) .....	32
LOCATION OF CONTROLS PARTS LIST .....	4	CIRCUIT DIAGRAM(MAIN 3/4) .....	34
EXPLODED VIEW .....	6	CIRCUIT DIAGRAM(MAIN 4/4) .....	36
EXPLODED VIEW PARTS LIST .....	7	CIRCUIT BOARD(PANEL) .....	38
EXPLODED VIEW (View 1,2,Rear).....	8	CIRCUIT DIAGRAM(PANEL).....	40
EXPLODED VIEW (View 1,2,Rear) PARTS LIST .....	9	CIRCUIT BOARD(AMP).....	42
EXPLODED VIEW (View 3,4,Bottom) .....	10	CIRCUIT DIAGRAM(PABM).....	44
EXPLODED VIEW (View 3,4,Bottom)		CIRCUIT DIAGRAM(PHONES).....	46
	PARTS LIST....		
EXPLODED VIEW (Fig.A).....	12	<b>PIANO STAND (KSC-34-BK)</b>	
EXPLODED VIEW (Fig.A) PARTS LIST.....	12	STAND EXPLODED VIEW .....	48
EXPLODED VIEW (Fig.B) .....	13	STAND EXPLODED VIEW PARTS LIST .....	49
EXPLODED VIEW (Fig.B) PARTS LIST .....	13	HOW TO ASSEMBLE	
KEYBOARD EXPLODED VIEW / PARTS LIST .....	14	THE STAND (Disassembling).....	50
WIRING DIAGRAM.....	16	PARTS LIST(STAND).....	51
DISASSEMBLY PROCEDURE .....	18	ERROR MESSAGES .....	52
PARTS LIST.....	19		
CHECKING THE VERSION			
NUMBER / TEST MODE.....	24		



**Copyright © 2006 ROLAND CORPORATION**

All rights reserved. No part of this publication may be reproduced in any form without the written permission of ROLAND CORPORATION.

**Roland**

17058419E0

Printed in Japan (0000) (TP-M)

## CAUTIONARY NOTES

---

**Before beginning the procedure, please read through this document.**

### USER DATA

Any performance that has been recorded is deleted when the power to the MP-70 is turned off.

A performance cannot be restored once it's been deleted.

If you do not want a performance to be deleted, use Song Backup (Owner's Manual p. 31).

### PARTS LIST

A component whose part code is \*\*\*\*\* cannot be supplied as a service part because one of the following reasons applies.

- Because it is supplied as an assembled part (under a different part code).
- Because a number of circuit boards are grouped together and supplied as a single circuit board (under a different part code).
- Because supply is prohibited due to copyright restrictions.
- Because reissuance is restricted.
- Because the part is made to order (at current market price).

### CIRCUIT DIAGRAM

In the circuit diagram, 'NIU' is an abbreviation for 'NOT IN USE'.

The circuit board and circuit-board diagram show silkscreened indications, but no components are mounted.

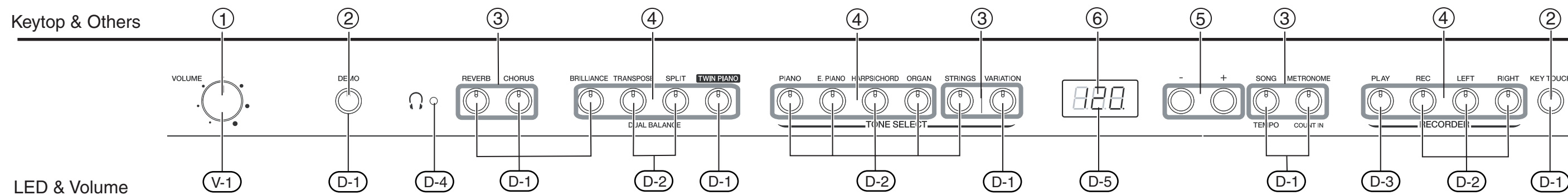
# SPECIFICATIONS

<b>Keyboard</b>	
Keyboard	88 keys (Compact Progressive Hammer Action Keyboard)
Touch Sensitivity	Preset 4 levels
Keyboard Modes	Whole, Dual (volume balance adjustable), Split (split point adjustable), Twin Piano
<b>Sound Generator</b>	
Max. Polyphony	64 voices
Tones	15 tones in 5 groups
Temperament	7 types, tonic selectable
Stretched Tuning	2 types
Master Tuning	415.3 Hz - 466.2 Hz (adjustable in increments of 0.1 Hz)
Transpose	Key Transpose (-6 - +5 in semitones)
Effects	Reverb (8 levels), Chorus (8 levels), Sympathetic Resonance (for Piano only, 8 levels)
<b>Metronome</b>	
Beat	2/2, 0/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 3/8, 6/8, 9/8, 12/8
Volume	8 levels
<b>Recorder</b>	
Tracks	2 tracks
Song	1 song
Note Storage	Approx. 5000 notes
Tempo	Quarter note = 20 - 250
Resolution	96 ticks per quarter note
Control	Play/Stop, Rec, Tempo, All Song Play, Track Select, Song Backup
Preset Songs	66 songs + 7 Tone demo songs
<b>Others</b>	
Rated Power Output	25 W x 2
Speakers	12 cm x 2
Display	Beat LED 7 segments, 3 characters (LED) Headphones indicator
Control	Volume, Brilliance (3 levels)
Pedals	Damper, Soft, Sostenuto
Other Functions	Panel Lock, Tone Lock, Song Backup
Connectors	Output jacks (L/Mono, R), Input jacks (L/Mono, R), Headphones jack x 2 (Stereo), MIDI In connector, MIDI Out connector, Pedal jack
Power Supply	AC 117 V
Power Consumption	55 W
Dimensions (including piano stand)	1,392 (W) x 422 (D) x 818 (H) mm / 54-13/16 (W) x 16-5/8 (D) x 32-1/4 (H) inches 1,392 (W) x 422 (D) x 987 (H) mm / 54-13/16 (W) x 16-5/8 (D) x 38-7/8 (H) inches (including music rest)
Weight (including piano stand)	42kg / 93 lbs
Accessories	Owner's Manual (#73234590) Power Cord (#02238801) Headphones (#*****) Headphones Hook (#03901267)

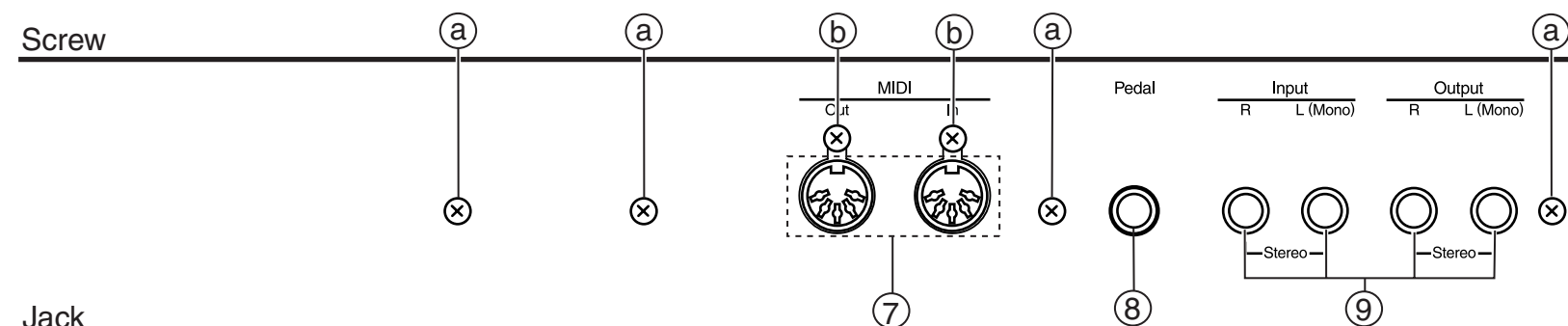
\* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

# LOCATION OF CONTROLS

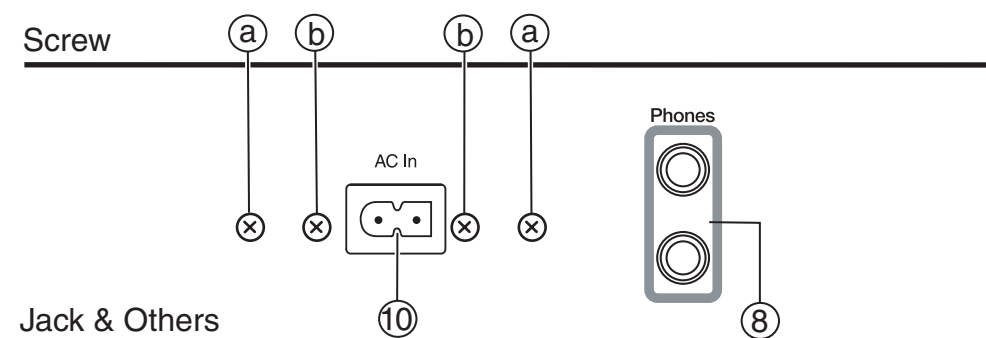
## FRONT PANEL



## REAR PANEL



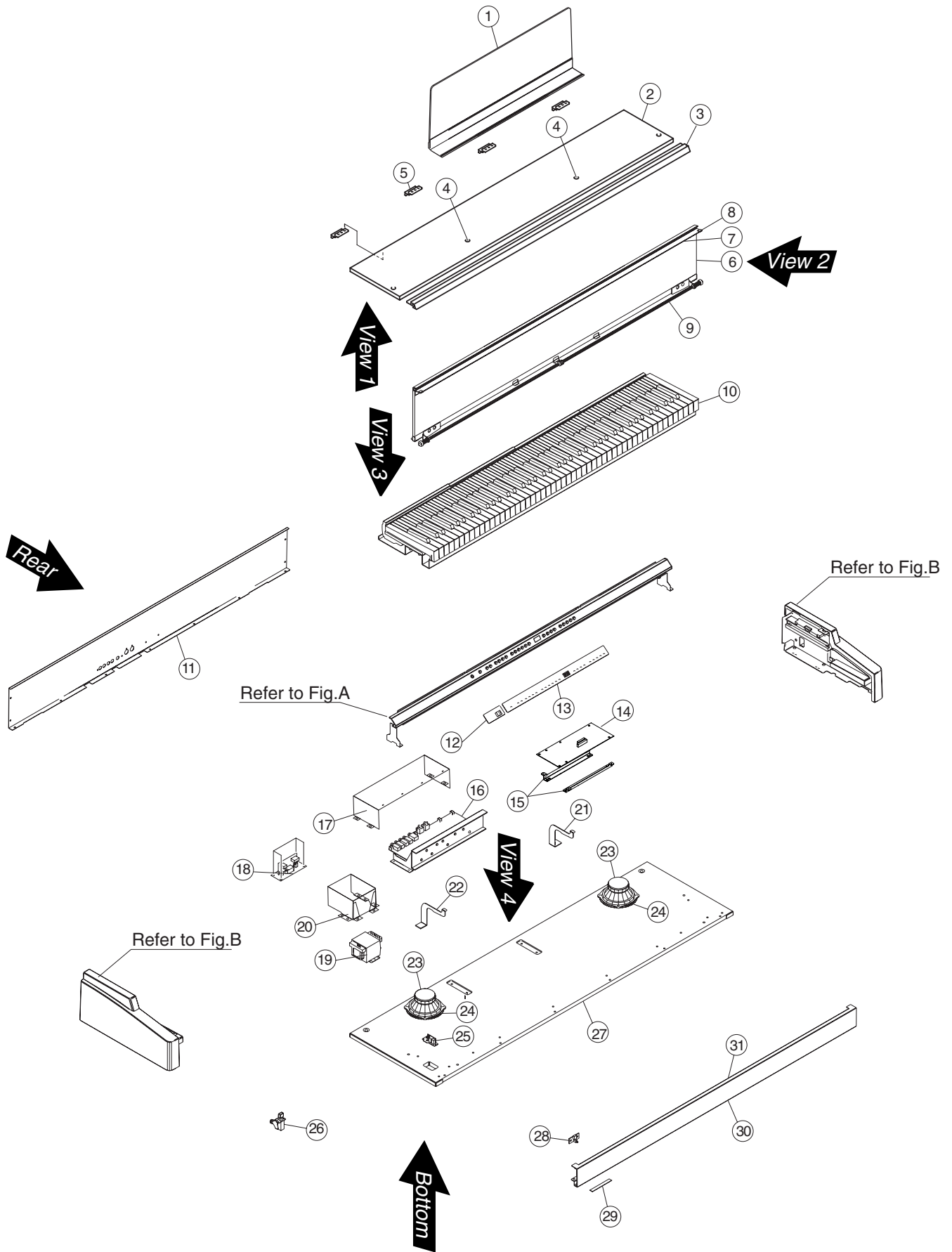
## BOTTOM PANEL



# LOCATION OF CONTROLS PARTS LIST

No	PART CODE	PART NAME	DESCRIPTION1	Q'TY
1	03676078	R R-KNOB	S-ELA-A BLK/LWG	1
2	02016278	Y C-KEYTOP	MD1H BLK	2
3	02016289	Y C-KEYTOP	MD2H BLK	3
4	02010456	Y C-KEYTOP	MD4H BLK	3
5	02016245	Y C-KEYTOP	MX2H BLK	1
D-1	01239867	LED (RED/GREEN)CLR	SML72423C TP15	9
D-2	01904112	LED(RED)	SLR-342VCT32 N.P.Q RANK	10
D-3	15029348	LED (GREEN)	SLR-342MCT32	1
D-4	00899023	LED	LNJ282RKRXE	1
D-5	00451423	7SEG LED	LB-303VA	1
V-1	13289251	POTENTIOMETER	RK14K12CO 10KB W /CENTER TAP	1
6	02901545	DISPLAY COVER		1
7	13429676	MIDI CONNECTOR	YKF51-5048N (TWIN)	1
8	13449252	6.5MM JACK	YKB21-5006 (STEREO W/SW)	3
9	13449283	6.5MM JACK	HLJ7101-01-3010	4
10	02230989	AC INLET	M1934(INL-19) 5/2.5A 125/250V	1
a	40011501	SCREW M3X8	PAN MACHINE W/SW BZC	6
b	40011312	SCREW 3X8	BINDING TAPTITE P BZC	4
(all Switch)	01340290	SWITCH	TACT SWITCH EVQ11A05R H=5.0	22

# EXPLODED VIEW

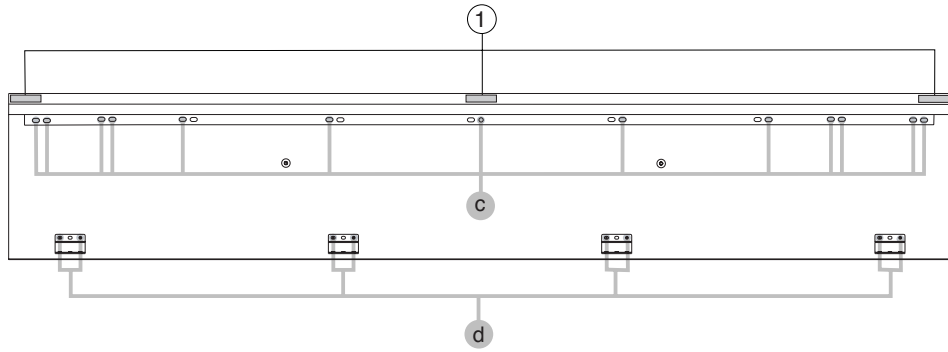


## EXPLODED VIEW PARTS LIST

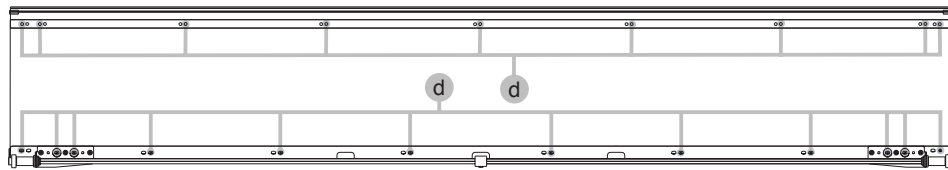
No	PART CODE	PART NAME	DESCRIPTION1	Q'TY
1	72452145	MUSIC REST ASSY		1
2	04232301	TOP BOARD	BOARD	1
3	01568678	TOP BLIND		1
4	00890923	BUSHING	D-71	2
5	00900478	TOP BOARD HOLDER		4
6	04232312	LID BOARD	BOARD	1
7	03344789	LID BLIND		1
8	00900378	LID BLIND CAP		2
9	71127201	LID SHAFT ASSY		1
10	72908512	KEYBOARD ASSY	CPA-5 KBD 88P-B	1
11	03344823	REAR PANEL		1
12	72786067	VOLUME BOARD ASSY		1
13	72785856	PANEL BOARD ASSY		1
14	73231456	MAIN BOARD ASSY		1
15	04013123	PWB HOLDER		2
16	73231423	PABM ANALOG PHANTOM	UNIT	1
17	04234434	PABM COVER	COVER	1
18	72787867	INLET BOARD 100/117		1
19	02896045	TRANSFORMER	UNIVERSAL	1
20	04234412	TRANS COVER	COVER	1
21	01907601	CENTER HOLDER		1
22	04234456	CENTER HOLDER	HOLDER	1
23	02896112	FULL-RANGE SPEAKER	PD-12355AON	2
24	01566467	SPEAKER COVER		2
25	72896789	PHONES BOARD ASSY		1
26	72454101	POWER SW ASSY		1
27	04232334	BOTTOM BOARD	BOARD	1
28	72014589	LED BOARD ASSY		1
29	40346189	PHONES LABEL		1
30	03344845	LOWER BLIND		1
31	01346323	LID CUSHION		1

# EXPLODED VIEW (View 1,2,Rear)

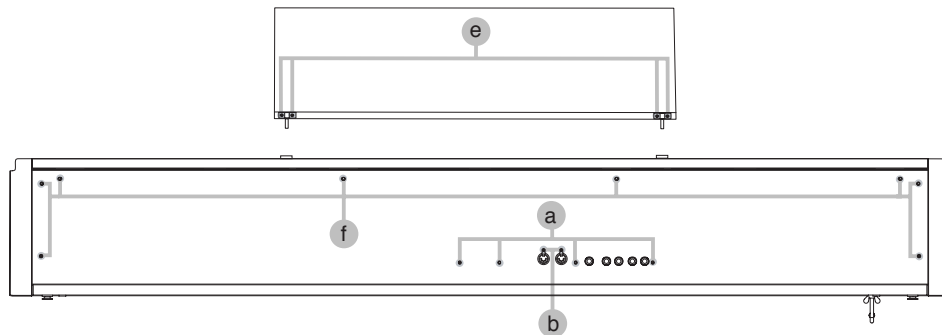
View1



View2



Rear



# EXPLODED VIEW (View 1,2,Rear) PARTS LIST

## View 1

No	PART CODE	PART NAME	DESCRIPTION1	Q'TY
1	01566378	CUSHION		3
c	40239401	SCREW M3.5X8	BINDING TAPPING A BZC	13
d	40010645	SCREW M4X8	TRUSS TAPPING A1 FE BZC	8

## View 2

No	PART CODE	PART NAME	DESCRIPTION1	Q'TY
d	40010645	SCREW M4X8	TRUSS TAPPING A1 FE BZC	21

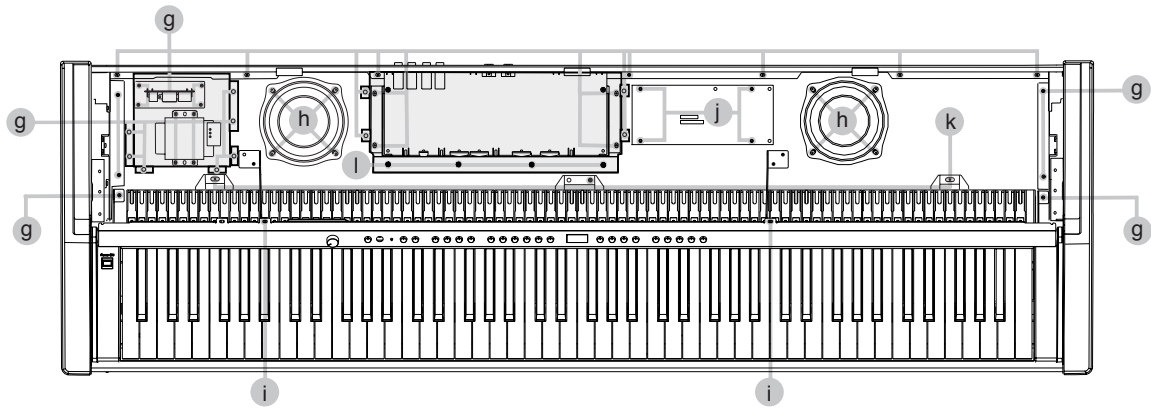
## Rear

No	PART CODE	PART NAME	DESCRIPTION1	Q'TY
e	40011090	SCREW 3X6	BINDING TAPTITE B BZC	4
f	40011123	SCREW 4X8	BINDING TAPTITE B BZC	8
a	40011501	SCREW M3X8	PAN MACHINE W/SW BZC	4
b	40011312	SCREW 3X8	BINDING TAPTITE P BZC	2

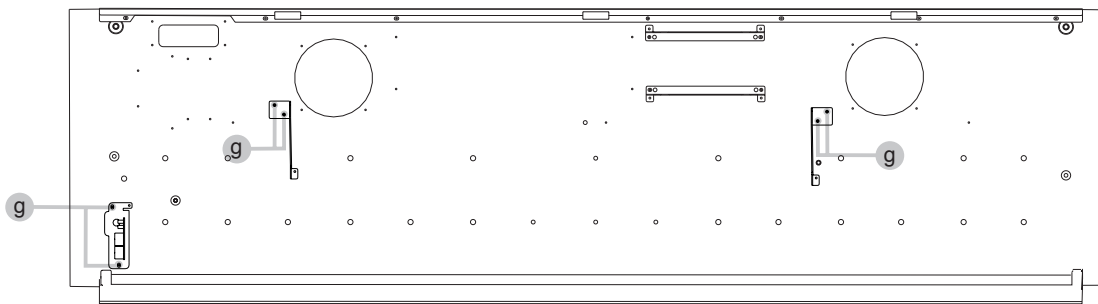


# EXPLODED VIEW (View 3,4,Bottom)

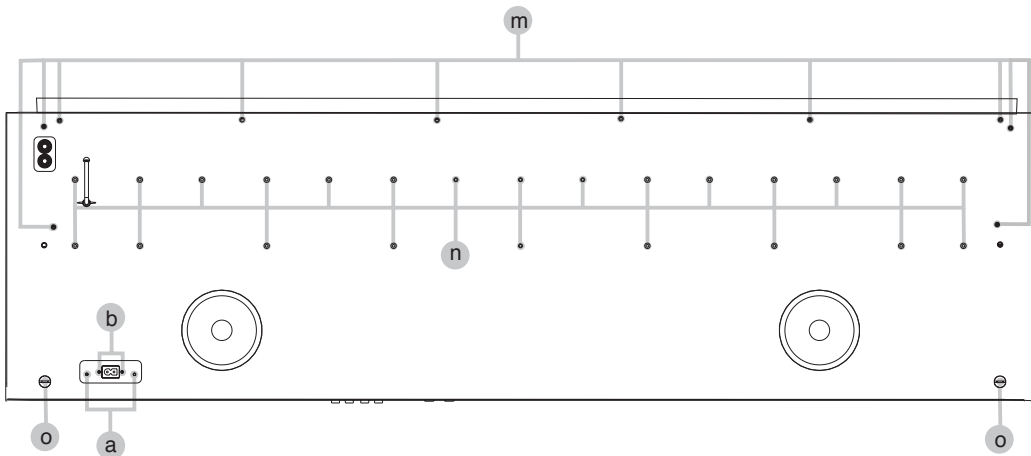
View3



View4



Bottom



## EXPLODED VIEW (View 3,4,Bottom) PARTS LIST

### View 3

No	PART CODE	PART NAME	DESCRIPTION1	Q'TY
g	40012101	SCREW 4X14	TRUSS TAPPING A1 FE ZC	36
h	40346201	SCREW 4X20	TRUSS TAPPING TWIN BZC	8
i	40011101	SCREW 3X8	BINDING TAPTITE B BZC	6
j	40011056	SCREW 3X6	BINDING TAPTITE B ZC	4
k	40346190	SCREW 4X16	TRUSS TAPPING TWIN BZC	3

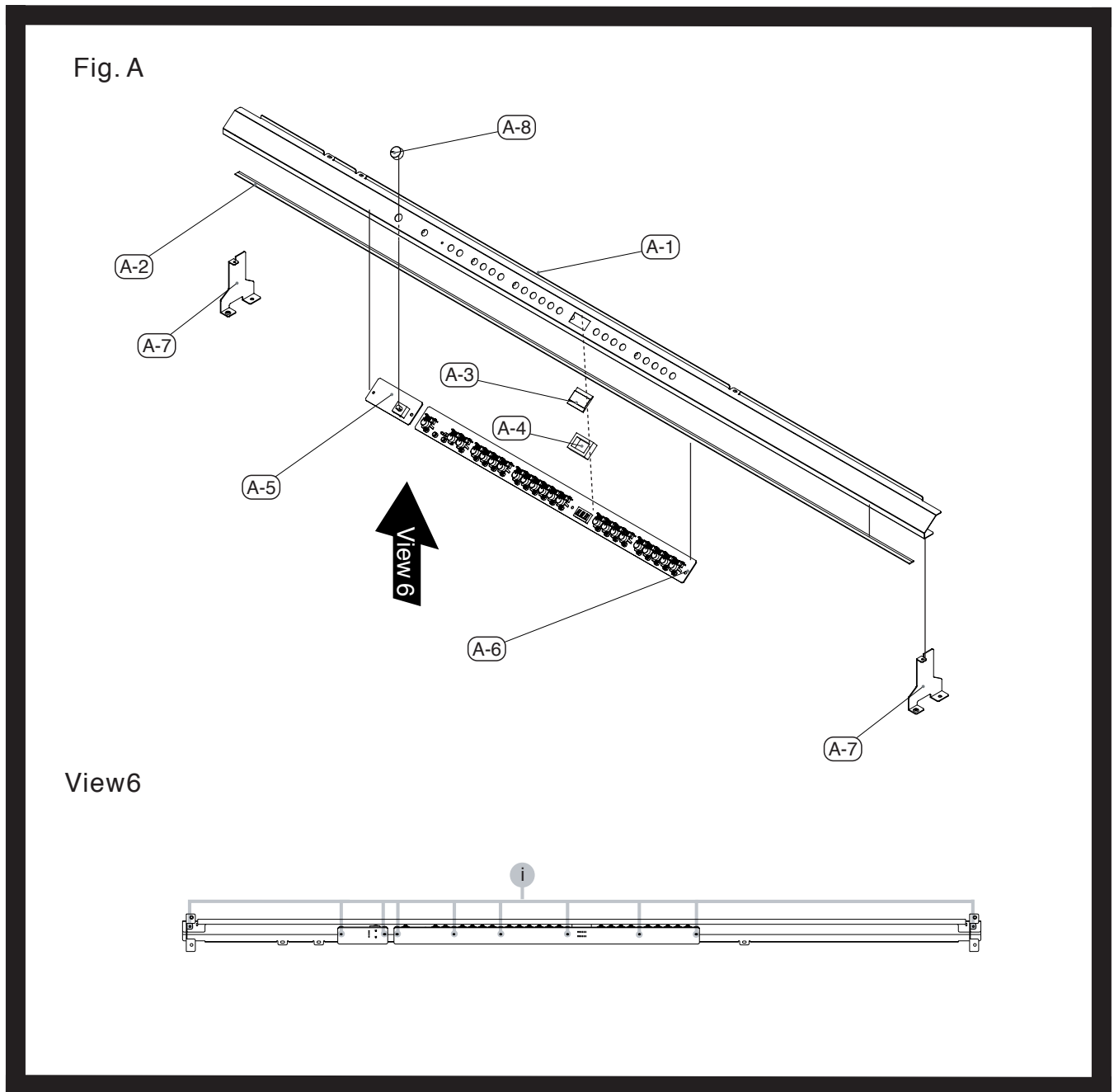
### View 4

No	PART CODE	PART NAME	DESCRIPTION1	Q'TY
g	40012101	SCREW 4X14	TRUSS TAPPING A1 FE ZC	6

### Bottom

No	PART CODE	PART NAME	DESCRIPTION1	Q'TY
a	40011501	SCREW M3X8	PAN MACHINE W/SW BZC	2
b	40011312	SCREW 3X8	BINDING TAPTITE P BZC	2
m	40128512	SCREW 4X25X20	PAN WASHER HEAD TAPTITE B BZC	10
n	40563345	SCREW H4X25X17	TAPTITE P W BZC W=12.5	24
o	22285342	CONNECTING PIN	228-342	2

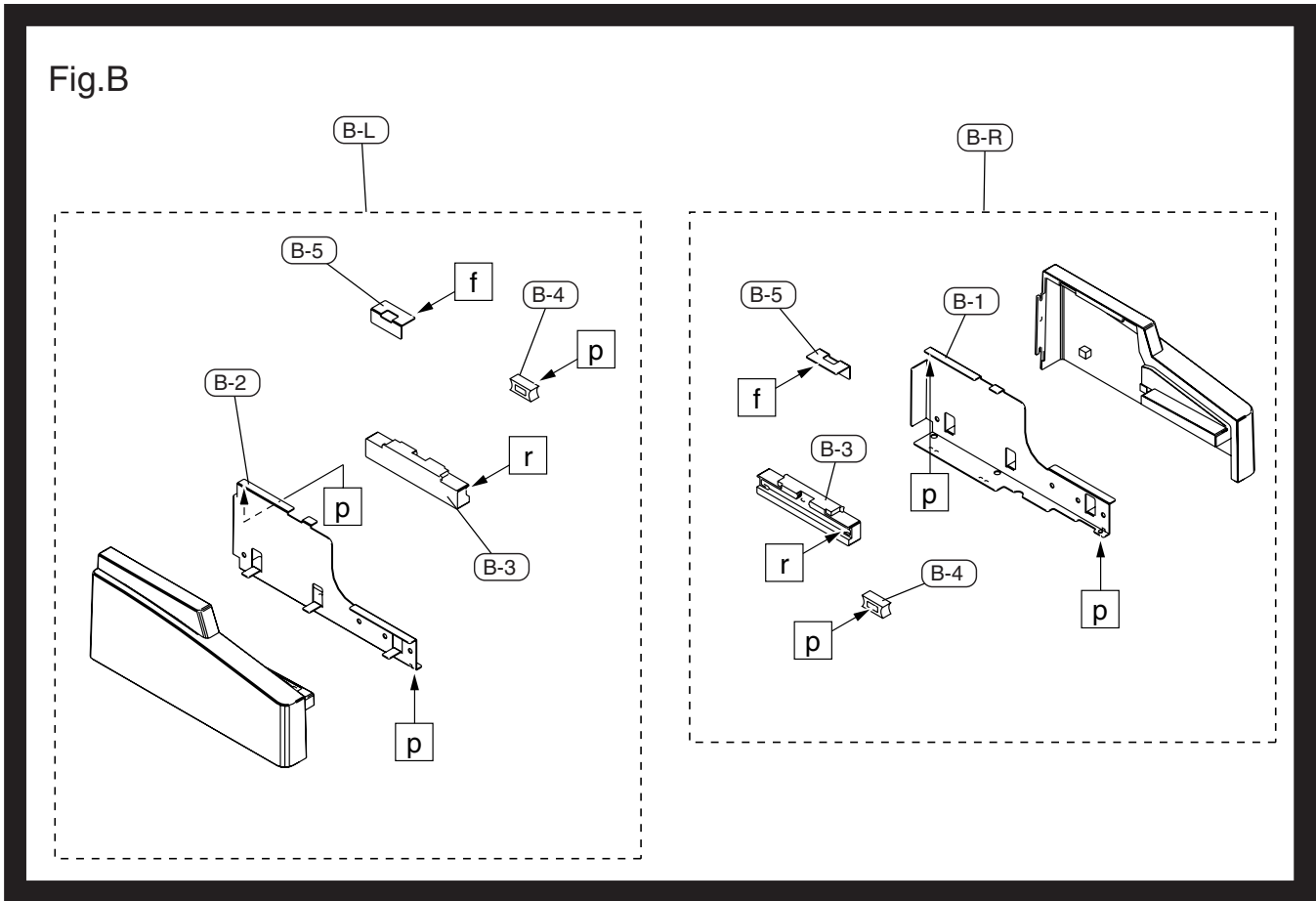
# EXPLODED VIEW (Fig.A)



# EXPLODED VIEW (Fig.A) PARTS LIST

No	PART CODE	PART NAME	DESCRIPTION1	Q'TY
A-1	04234445	FRONT PANEL EXP	ENGLISH	1
A-2	03012323	KEY FELT		1
A-3	02901545	DISPLAY COVER		1
A-4	02901567	ISOLATOR LED		1
A-5	72786067	VOLUME BOARD ASSY		1
A-6	72785856	PANEL BOARD ASSY		1
A-7	01566101	PANEL HOLDER		2
A-8	03676078	R R-KNOB	S-ELA-A BLK/LWG	1
i	40011101	SCREW 3X8	BINDING TAPITTE B BZC	10

# EXPLODED VIEW (Fig.B)

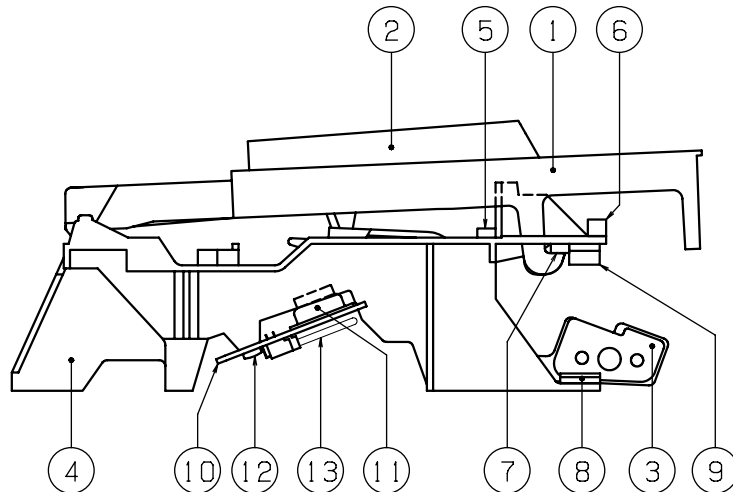


# EXPLODED VIEW (Fig.B) PARTS LIST

No	PART CODE	PART NAME	DESCRIPTION1	Q'TY
B-R	72230789	CASING	SIDE PANEL (R) ASSY	1
NOTE: 'SIDE PANEL (R) ASSY' includes the following parts.				
B-1	01565945	CHASSIS	SIDE HOLDER R	1
B-3	01565923	LID RAIL C		1
B-4	01017134	CASING	LID RAIL STOPPER	1
B-5	01566145	CHASSIS	TOP HOLDER	1
B-L	72230778	CASING	SIDE PANEL (L) ASSY	1
NOTE: 'SIDE PANEL (L) ASSY' includes the following parts.				
B-2	01565912	CHASSIS	SIDE HOLDER L	1
B-3	01565923	LID RAIL C		1
B-4	01017134	CASING	LID RAIL STOPPER	1
B-5	01566145	CHASSIS	TOP HOLDER	1
f	40011123	SCREW 4X8	BINDING TAPTITE B BZC	2
p	40011312	SCREW 3X8	BINDING TAPTITE P BZC	6
r	40340323	SCREW M3X30	BINDING TAPTITE B ZC	6

# KEYBOARD EXPLODED VIEW / PARTS LIST

Please refer to the Service Notes for CPA-5 (17058188E0), when you repair the keyboard section.



72908512

No.	PART CODE	PART NAME	Qty.
1	03232934	CPA-5 N-KEY A	7
	03232945	CPA-5 N-KEY B	8
	03232956	CPA-5 N-KEY C	7
	03232967	CPA-5 N-KEY D	7
	03232978	CPA-5 N-KEY E	7
	03232989	CPA-5 N-KEY F	7
	03232990	CPA-5 N-KEY G	7
	03233001	CPA-5 N-KEY A'	1
	03233012	CPA-5 N-KEY C'	1
2	03233023	CPA-5 SHARP KEY	36
3	03234112	CPA-5 HAMMER-1 for Natural key A0 to F#2	13
	03234123	CPA-5 HAMMER-2 for Natural key G2 to E4	13
	03234134	CPA-5 HAMMER-3 for Natural key F4 to D6	13
	03234145	CPA-5 HAMMER-4 for Natural key D#6 to C8	13
	03236790	CPA-5 HAMMER-5 for Sharp key A0 to E4	18
	03236801	CPA-5 HAMMER-6 for Sharp key F4 to C8	18
	72342434	CPA-5 CHASSIS ASSY	1
4	03127190	CPA-5 CHASSIS 88P	1
5	03340078	CPA-5 KEY CUSHION A	1
6	03340089	CPA-5 KEY CUSHION B	1
7	03340090	CPA-5 KEY CUSHION C	1
8	03340101	CPA-5 HAMMER CUSHION A	1
9	03340112	CPA-5 HAMMER CUSHION B	1
10	72342445	CPA-588 PWB LOW ASSY	1
	72342456	CPA-588 PWB MID ASSY	1
	72342467	CPA-588 PWB HI ASSY	1
	*11	03235801	CPA-5 RUBBER SWITCH 12P
12	40011278	SCREW 3X8 BINDING TAPTITE P FE BZC	22
13	02016989	BNCD-P=1.25-K-16-80	1

Item 11 marked \* is includes in each unit of 10

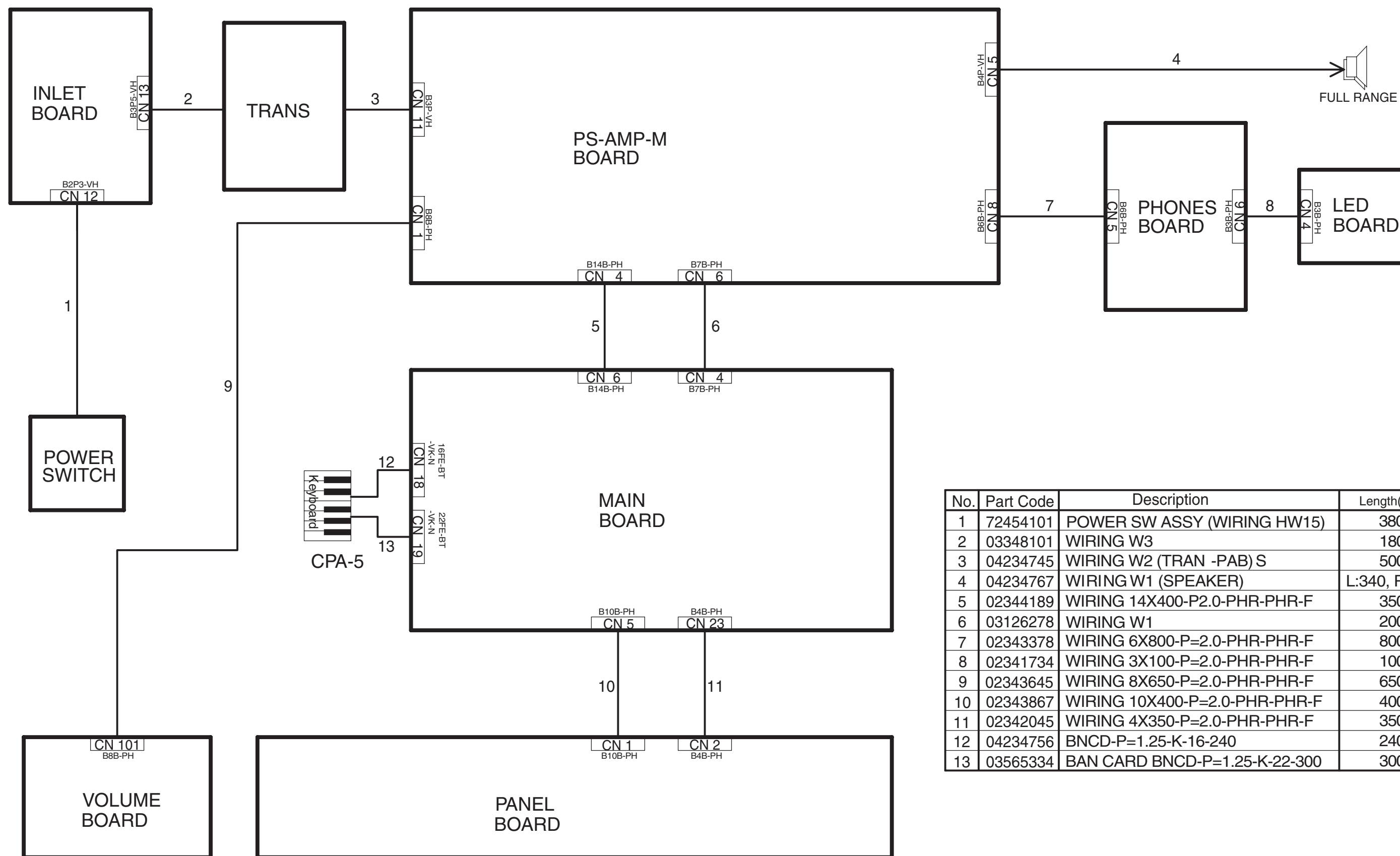
The following parts (connect the MAIN BOARD ASSY and KEYBOARD ASSY) do not include the keyboard Assy.

No.	PART CODE	PART NAME	Qty.
	03565334	BNCD-P=1.25-K-22-300	1
	04234756	BNCD-P=1.25-K-16-240	1



WIRING DIAGRAM

WIRING DIAGRAM



No.	Part Code	Description	Length(mm)
1	72454101	POWER SW ASSY (WIRING HW15)	380
2	03348101	WIRING W3	180
3	04234745	WIRING W2 (TRAN -PAB) S	500
4	04234767	WIRING W1 (SPEAKER)	L:340, R:450
5	02344189	WIRING 14X400-P2.0-PHR-PHR-F	350
6	03126278	WIRING W1	200
7	02343378	WIRING 6X800-P=2.0-PHR-PHR-F	800
8	02341734	WIRING 3X100-P=2.0-PHR-PHR-F	100
9	02343645	WIRING 8X650-P=2.0-PHR-PHR-F	650
10	02343867	WIRING 10X400-P=2.0-PHR-PHR-F	400
11	02342045	WIRING 4X350-P=2.0-PHR-PHR-F	350
12	04234756	BNCD-P=1.25-K-16-240	240
13	03565334	BAN CARD BNCD-P=1.25-K-22-300	300

---

## DISASSEMBLY PROCEDURE

---

When removing major parts, use the following procedure.

After servicing, make sure that the wiring is in the original state and original location.

If you remove fasteners, be sure to firmly tighten them to their original state.

### Removing the top board

1. Remove the screws (4 pcs.) from the rear side of the top board.
2. Remove the (Right side and left side) screws from the top side of the top board. (2 pcs.)
3. Remove the top board by pulling it out toward the front side.

### Removing the lid board

1. Remove the top board.
2. Remove the "Lid Rail Stopper and screw" attached to the side panel. (One from either left or right.)
3. Remove the top holder (2 pcs.) stopper side.
4. Align the gear of the lid shaft to the notch of the lid rail, and lift it upward.

### Removing the side panel

1. Remove the top board.
2. Remove the lid board.
3. Remove the screws (two each from left or right) from the rear of the side panel.
4. Remove the bottom board screws (two each from left or right) from the chassis side of the side panel.
5. Remove the bottom board screws (two each from left or right) from the chassis bottom of the side panel.

### Removing the rear panel

1. Remove the top board.
2. Remove the screws (two each from left and right) from the rear of the side panel.
3. Remove the amp board assembly. (We explain how to remove this assembly by the another section.)
4. Remove the screws (8 pcs.) that fasten the bottom board to the rear panel.
5. Remove the screws (6 pcs.) from the rear of the amp board assembly.

### Removing the front panel / panel circuit board / key top

1. Remove the top board.
2. Cut the wiring fasteners of the center holder (four insu-lock ties).
3. Remove the center holder fastening screws (2 pcs.) from the front panel.
4. Remove the holder screws (2 pcs.) from the left and right of the front panel inside the chassis.
5. Remove the holder screws (2 pcs.) from the left and right of the front panel under the chassis.
6. If you are exchanging the circuit board or servicing the key top, remove the screws (7 pcs.) that fasten the circuit board.

### Removing the lower blind

1. Remove the top board.
2. Remove both left and right side panels.
3. Remove the screws (2 pcs.) that fasten the lower blind to the bottom board.
4. Disconnect the LED board wiring from the connector of the phones board.
5. Remove the screws (2 pcs.) that fasten the lower blind and bottom board below the side panel.
6. Remove the bottom board screws (6 pcs.) from the front bottom of the chassis.

### Removing the keyboard

1. Remove the top board.
2. Remove the front panel.
3. Remove the keyboard chassis screws (3 pcs.) from inside the chassis.
4. Remove the bottom board black screws (24 pcs.) from the rear bottom of the chassis.

### Removing the trans

1. Remove the top board.
2. Remove the trans cover (7 pcs).
3. Remove the trans fastening screws (4 pcs).



After servicing is completed, firmly fasten the wiring in its original state. You must use the specified components to fasten the wiring.

### Removing the amp board assembly

1. Remove the top board.
2. Remove the pabm cover (8 pcs).
3. Unplug the wiring from the connectors of the amp board. (CN1, CN4, CN6, CN8, CN5, CN11)
4. Free the wiring from the left and right wiring restraints.
5. Remove the screws (4 pcs.) that fasten the amp board assembly to the bottom board.
6. Remove the screws (6 pcs.) from the rear side of the amp board assembly.



# PARTS LIST

**SAFETY PRECAUTIONS:**  
The parts marked  $\Delta$  have safety-related characteristics. Use only listed parts for replacement.

Due to one or more of the following reasons, parts with parts code \*\*\*\*\* cannot be supplied as service parts.

- Part supplied only as a component in a complete assembly
- Copyright does not permit the part to be supplied
- Part is sold commercially

NOTE: The parts marked # are new. (initial parts) The description "Q'TY" means a necessary number of the parts per one product.

## CASING

	02901545	DISPLAY COVER		1
#	04234445	FRONT PANEL EXP	PANEL	1
	01566467	SPEAKER COVER		2
!	#	04234412	TRANS COVER	COVER
!	#	04234434	PABM COVER	COVER
	03344823	REAR PANEL		1
	01017134	LID RAIL STOPPER		2
	72230778	SIDE PANEL (L) ASSY		1
	NOTE: 'SIDE PANEL (L) ASSY' includes the following parts.			
	01565912	SIDE HOLDER L		1
	*****	SIDE PANEL L	PANEL	1
	01565923	LID RAIL C		1
	03016523	LID RAIL C SPACER		1
	40012290	SCREW M4X6	BINDING TAPTITE-B FE ZC	2
	40340323	SCREW M3X30	BINDING TAPTITE B ZC	5
	40011312	SCREW 3X8	BINDING TAPTITE P BZC	5
	40017378	COATING CLIP	CS-7	2
	72230789	SIDE PANEL (R) ASSY		1
	NOTE: 'SIDE PANEL (R) ASSY' includes the following parts.			
	01565945	SIDE HOLDER R		1
	*****	SIDE PANEL R	PANEL	1
	01565923	LID RAIL C		1
	03016523	LID RAIL C SPACER		1
	40340323	SCREW M3X30	BINDING TAPTITE B ZC	5
	40011312	SCREW 3X8	BINDING TAPTITE P BZC	5
	72452145	MUSIC REST ASSY		1
	NOTE: 'MUSIC REST ASSY' includes the following parts.			
	*****	MRH HOLDER	HOLDER	2
	*****	MUSIC REST	MUSIC REST	1
	*****	MUSIC REST HOLDER	MUSIC REST	1
	40011090	SCREW 3X6	BINDING TAPTITE B BZC	4
	03344845	LOWER BLIND		1
#	04232334	BOTTOM BOARD	BOARD	1
	01568678	TOP BLIND		1
#	04232301	TOP BOARD	BOARD	1
	03344789	LID BLIND		1
#	04232312	LID BOARD	BOARD	1
	00900378	LID BLIND CAP		2

## CHASSIS

	00900478	TOP BOARD HOLDER		4
	01566145	TOP HOLDER		2
	01907601	CENTER HOLDER		1
#	04234456	CENTER HOLDER	HOLDER	1
	04013123	PWB HOLDER		2
	01566101	PANEL HOLDER		2
	71127201	LID SHAFT ASSY		1

## KNOB, BUTTON

	02016289	Y C-KEYTOP	MD2H BLK	4
	02016245	Y C-KEYTOP	MX2H BLK	1
	02010456	Y C-KEYTOP	MD4H BLK	3
	03676078	R R-KNOB	S-ELA-A BLK/LWG	1
	12499175	BUTTON	JSPUE001A	1

## SWITCH

	01340290	TACT SWITCH EVQ11A05R H=5.0	SWITCH	SW23,SW18,SW21,SW24,SW22,SW19,SW10,SW1,SW4,SW5,SW6,SW7,SW20,SW9,SW17,SW11,SW12,SW13,SW14,SW15,SW16,SW8 on PANEL	22
!	72454101	POWER SW ASSY			1

<b>JACK, EXT TERMINAL</b>					
	13449252	6.5MM JACK	YKB21-5006 (STEREO W/SW)	JK6 on PABM ,JK306,JK305 on Phones	3
	13429676	MIDI CONNECTOR	YKF51-5048N (TWIN)	JK5 on PABM	1
	13449283	6.5MM JACK	HLJ7101-01-3010	JK2,JK3,JK4,JK1 on PABM	4
<b>DISPLAY UNIT</b>					
	00451423	LB-303VA	7SEG LED	LED99 on PANEL	1
	NOTE: Replacement LB-303VA should be made on a unit base.				
<b>SPEAKER, BUZZER</b>					
!	02896112	PD-12355AON	FULL-RANGE SPEAKER		2
<b>KEYBOARD ASSY</b>					
	72908512	KEYBOARD ASSY	CPA-5 KBD 88P-B		1
	NOTE: See 'KEYBOARD PARTS LIST' for details.				
<b>PCB ASSY</b>					
#	73231456	MAIN BOARD ASSY	UNIT		1
	72785856	PANEL BOARD ASSY			1
	72786067	VOLUME BOARD ASSY			1
	72014589	LED BOARD ASSY			1
	72896789	PHONES BOARD ASSY			1
	NOTE: 'PHONES BOARD ASSY' includes the following parts.				
	01563567	WIRING	W44		1
	01459167	PHONES HOLDER			1
	22150756	JACK NUT 2	PLASTIC/BLK		2
#	73231423	PABM ANALOG PHANTOM	UNIT		1
	NOTE: 'PABM ANALOGPHANTOM ' includes the following parts.				
!	#	04234423	HEATSINK	HEATSINK	1
		22195975	TR HOLDER	219-975	1
		01454001	IC HOLDER		4
		03677623	HEATSINK HOLDER L		1
		03677634	HEATSINK HOLDER R		1
!		40013734	FUSE LABEL H191	T2.5A /250V	1
		40011067	SCREW 3X8	BINDING TAPTITE B FE ZC	2
		40012301	SCREW 4X8	BINDING TAPTITE B FE ZC	4
		40455490	SCREW M3X12	PAN PAN MACHINE W/SW+SMALL PW	9
		40017378	COATING CLIP	CS-7	2
#		73231478	TRANS BOARD ASSY	UNIT	1
!	#	04234745	WIRING W2(TRANS-PAB)	WIRING	1
		72787867	INLET BOARD 100/117		1
	NOTE: 'INLET BOARD 100/117' includes the following parts.				
!		02679112	INLET HOLDER		1
		*****	PABM INLET BOARD	Assy(Unit)	1
		40011312	SCREW 3X8	BINDING TAPTITE P BZC	2
		40011501	SCREW M3X8	PAN MACHINE W/SW BZC	2
<b>IC</b>					
	15169304H0	IC (TTL 6INVERTERS)	HD74LS04P	IC9 on PABM	1
	15189189	IC (BIPOLAR OP AMP)	UPC4570HA	IC11,IC1,IC2,IC6 on PABM	4
	15189250	IC (BIPOLAR OP AMP)	M5218AL-TG1Z	IC7,IC3,IC5 on PABM	3
!	02898567	REGULATOR	NJM78M05FA	IC12 on PABM	1
!	15199191	IC (V.REG)	NJM78M12FA	IC13 on PABM	1
!	15199192	IC (V.REG)	NJM79M12FA	IC14 on PABM	1
	15199904	IC (RESET)	M51953BL-600Y	IC4 on PABM	1
	03122589	IC (PHOTO CUPLR)	PC910LKN5Z0F	IC8 on PABM	1
<b>TRANSISTOR</b>					
	15119132	TRANSISTOR	2SA1015-GR(TPE2.F)	Q18,Q22,Q27 on PABM	3
	15119615	TRANSISTOR	2SB647CTZ	Q5,Q11 on PABM	2
!	02126367	TRANSISTOR	2SB1016AY	Q1,Q7 on PABM	2
	15129151	TRANSISTOR	2SC1815-GR(TPE2.F)	Q16,Q25,Q28,Q30,Q15 on PABM	5
	15129152	TRANSISTOR	2SC2878-A(TPE2.F)	Q9,Q14,Q10,Q3,Q13,Q4 on PABM	6
	15129623	TRANSISTOR	2SD667CTZ	Q2,Q8 on PABM	2
!	02126378	TRANSISTOR	2SD1407AY	Q6,Q12 on PABM	2
	15139124	TRANSISTOR	2SK363-GR(TPE2.F)	Q26,Q29,Q21,Q17 on PABM	4
	15119163	TRANSISTOR	RN2227(TPE4.F)	Q19,Q20 on PABM	2
	15129164	DIGITAL TRANSISTOR	DTC114ESATP	Q32 on PABM	1
<b>DIODE</b>					
	00899023	LED	LNJ282RKRXE	LED3 on PANEL	1
	01904112	LED(RED)	SLR-342VCT32 N.P.Q RANK	LED11,LED10,LED12,LED13,LED8,LED14, LED21,LED22,LED23,LED7 on PANEL	10

DIODE					
	15029348	LED (GREEN)	SLR-342MCT32	LED20 on PANEL	1
	01239867	LED (RED/GREEN)CLR	SML72423C TP15	LED1,LED15,LED19,LED24,LED9,LED4,LED5,LED6,LED18 on PANEL	9
	15029281	LED (RED)	GL-3PR8	LED1 on LED	1
	15019126	SWITCHING DIODE	1SS133 T-77	D12,D22,D21,D20,D19,D18,D17,D16,D13,D23,D11,D10,D9,D8,D7,D6,D5,D4,D3,D2,D1,D15 on PABM	22
!	15039142	RECTIFIER DIODE	S5688G(TPB5.Q) 1A/400V	D30,D33,D31,D27,D14,D24,D28 on PABM	7
!	15039176	BRIDGE DIODE	D3SBA20 4A/200V	D29 on PABM	1
RESISTOR					
	13749189	CARBON RESISTOR	SR50TR 101 J (1/2W)		4
	13749793T0	CARBON RESISTOR	SR25TRE 681 J 680 OHM 1/4W	R75,R85,R56,R55,R50,R38,R20,R19,R15,R3 on PABM ,R338 on Phones	11
	13749769T0	CARBON RESISTOR	SR25TRE 680 J	R117,R98 on PABM	2
	13749773T0	CARBON RESISTOR	SR25TRE 101 J	R122,R129,R106,R97,R62,R45,R28,R8,R131 on PABM	9
	13749775T0	CARBON RESISTOR	SR25TRE 121 J	R93 on PABM	1
	13749781T0	CARBON RESISTOR	SR25TRE 221 J	R105,R149 on PABM	2
	13749783T0	CARBON RESISTOR	SR25TRE 271 J	R67,R135,R136 on PABM	3
	13749785T0	CARBON RESISTOR	SR25TRE 331 J	R14,R86,R76,R49,D35 on PABM	5
	13749795T0	CARBON RESISTOR	SR25TRE 821 J	R51,R71,R81,R16 on PABM	4
	13749797T0	CARBON RESISTOR	SR25TRE 102 J	R114,R61,R132,R94,R35,R27,R25,R1,R59 on PABM	9
	13749803T0	CARBON RESISTOR	SR25TRE 182 J	R30,R64 on PABM	2
	13749807T0	CARBON RESISTOR	SR25TRE 272 J	R4,R39 on PABM	2
	13749809T0	CARBON RESISTOR	SR25TRE 332 J 1/6W	R112,R127,R91,R87,R77,R37,R128 on PABM	7
	13749815T0	CARBON RESISTOR	SR25TRE 562 J	R6,R43,R52,R65,R70,R74,R80,R84 on PABM	8
	13749817T0	CARBON RESISTOR	SR25TRE 682 J	R116,R78,R121,R88,R123 on PABM	5
	13749821T0	CARBON RESISTOR	SR25TRE 103 J	R146,R147,R140,R113,R111,R109,R95,R92,R148 on PABM	9
	13749823T0	CARBON RESISTOR	SR25TRE 123 J	R2,R36 on PABM	2
	13749825T0	CARBON RESISTOR	SR25TRE 153 J	R7,R79,R82,R72,R44,R69 on PABM	6
	13749827T0	CARBON RESISTOR	SR25TRE 183 J	R17,R53 on PABM	2
	13749833T0	CARBON RESISTOR	SR25TRE 333 J	R63,R58,R130,R118,R103,R5,R41,R29,R24,R90 on PABM	10
	13749841T0	CARBON RESISTOR	SR25TRE 683 J	R68,R110,R100,R73,R66,R60,R57,R34,R32,R26,R23,R83 on PABM	12
	13749845T0	CARBON RESISTOR	SR25TRE104J	R107,R126 on PABM	2
	13749861T0	CARBON RESISTOR	SR25TRE 474 J	R125,R104 on PABM	2
	13749865T0	CARBON RESISTOR	SR25TRE 684 J	R96,R120,R101,R46,R9,R115 on PABM	6
	01450978	FUSE RESISTOR	RF50S T52 0R1 OHM J	R47,R10 on PABM	2
!	01561290	FUSE RESISTOR	RF2S L20 8R2 OHM J	R137 on PABM	1
POTENTIOMETER					
	13289251	POTENTIOMETER	RK14K12CO 10KB W/CENTER TAP	VR101 on VOLUME	1
CAPACITOR					
	01453278	CERAMIC CAPACITOR	DE2E3KH472MB3B	C106 on Inlet	1
!	03019023	CHEMICAL CAPACITOR	RC2-16V330MF1#-T2	C1,C5,C6 on PANEL	3
	13529132	CERAMIC CAPACITOR	RPEF11H104Z2M1A01A	C85,C114,C115,C90,C87,C86,C75,C70,C65,C34,C54,C79,C119 on PABM ,C111 on VOLUME,C1 on Phones	15
	03234489	CHEMICAL CAPACITOR	RC2-25V101MG1#-T2	C108,C110 on VOLUME	2
	03124990	CERAMIC CAPACITOR	RPE2C1H330J2M1Y01A	C51,C61,C50,C32,C10,C62 on PABM	6
	13549251M0	POLYEST. CAPACITOR	ECQ-M1H471JF3 470PF/50V	C35,C14 on PABM	2
	13549253	POLYEST. CAPACITOR	ECQ-B1H681JF3	C41,C20 on PABM	2
	13549274M0	POLYEST. CAPACITOR	ECQ-B1H393JF3	C22,C43 on PABM	2
	13549276M0	POLYEST. CAPACITOR	ECQ-B1H563JF3	C7,C28 on PABM	2
	13549277M0	POLYEST. CAPACITOR	ECQ-B1H683JF3	C29,C8,C17,C27 on PABM	4
	13549279M0	POLYEST. CAPACITOR	ECQ-B1H104JF3	C93,C94,C98,C99,C103,C104 on PABM	6
	13549343	POLYEST. CAPACITOR	ECQ-B1H151KF3	C31,C9 on PABM	2
	13549347	POLYEST. CAPACITOR	ECQ-B1H331KF3 330PF	C63,C68,C67,C52,C56,C57 on PABM	6
	03230345	M.POLYEST CAPACITOR	ECQE1A473JF	C101 on PABM	1
	01239378	M.POLYEST. CAPACITOR	ECQV1H104JL3	C25,C46 on PABM	2
	01239390	M.POLYEST. CAPACITOR	ECQV1H334JL3	C76,C78,C81,C83 on PABM	4
	02782901	CHEMICAL CAPACITOR	RE3-50V010MB-T2	C39 on PABM	1
	02782934	CHEMICAL CAPACITOR	RE3-35V330ME3#-T2	C45,C55,C91,C89,C88,C74,C73,C72,C71,C66,C64,C60,C3,C1,C48,C42,C37,C36,C16,C6,C4,C53,C49 on PABM	23
	02895378	CHEMICAL CAPACITOR	RE3-35V101MB-T2	C82,C77,C40,C33,C12,C19 on PABM	6
!	02895389	CHEMICAL CAPACITOR	RE3-35V102M15#-T4	C92 on PABM	1
	02895390	CHEMICAL CAPACITOR	RE3-35V331MA-T2	C95,C107,C100,C105 on PABM	4
	02895934	CHEMICAL CAPACITOR	R2B-35V100M-T2	C84,C108,C117 on PABM	3
!	01340389	BLOCK CAPACITOR	ECOS1VP682BB	C97,C102 on PABM	2

FUSE, FUSE HOLDER					
!	03670534	FUSE	5ST 1.25 1.25A /250V	1	
!	03564690	FUSE	5ST 2.5 2.5A /250V	2	
CONNECTOR					
!	13369585	CONNECTOR	B3P5-VH(LF)(SN) 7A /250V	CN13 on Inlet	1
!	13369898	CONNECTOR	B2P3-VH(LF)(SN) 7A /250V	CN12 on Inlet	1
	13369541	CONNECTOR	B10B-PH-K-S(LF)(SN)	CN1 on PANEL	1
	13369567	CONNECTOR	B4B-PH-K-S JST(LF)(SN)(4P)	CN2 on PANEL	1
	13369504	CONNECTOR	B8B-PH-K-S JST(LF)(SN)	CN1 on PABM ,CN101 on VOLUME	2
	13369663	CONNECTOR	JST S3B-PH-K-S(LF)(SN)(3P)	CN4 on LED	1
	13369566	CONNECTOR	B6B-PH-K-S JST(LF)(SN)(6P)	CN8 on PABM ,CN5 on Phones	2
	13369568	CONNECTOR	JST B3B-PH-K-S(LF)(SN)	CN6 on Phones	1
	13369503	CONNECTOR	B7B-PH-K-S(LF)(SN)JST	CN6 on PABM	1
	13369563	CONNECTOR	B14B-PH-K-S (LF)(SN)JST	CN4 on PABM	1
!	13369586	CONNECTOR	B3P-VH	CN11 on PABM	1
!	13369913	CONNECTOR	B4P-VH 4P(LF)(SN) 7A /250V	CN5 on PABM	1
	01908667	CONNECTOR	22FE-BT-VK-N	CN19 on Main board	1
	01908645	CONNECTOR	16FE-BT-VK-N	CN18 on Main board	1
WIRING, CABLE					
	02341734	WIRING	3X100-P2.0-PHR-PHR-F	1	
	02342045	WIRING	4X350-P2.0-PHR-PHR-F	1	
	02343378	WIRING	6X800-P2.0-PHR-PHR-F	1	
	02343645	WIRING	8X650-P2.0-PHR-PHR-F	1	
	02343867	WIRING	10X400-P2.0-PHR-PHR-F	1	
	02344189	WIRING	14X400-P2.0-PHR-PHR-F	1	
!	03126278	WIRING W1		1	
!	03348101	WIRING	W3(INLET-TRANS)	1	
!	# 04234767	WIRING	WIRING W1(SPEAKER)	1	
	03565334	BAN CARD	BNCD-P=1.25-K-22-300	1	
	# 04234756	WIRING	BNCD-P=1.25-K-16-240	1	
TRANSFORMER					
!	02896045	TRANSFORMER	UNIVERSAL	1	
AC INLET, OUTLET					
!	02230989	AC INLET	M1934(INL-19) 5/2.5A 125/250V	1	
SCREW					
	40011101	SCREW 3X8	BINDING TAPTITE B BZC	12	
	40012101	SCREW 4X14	TRUSS TAPPING A1 FE ZC	39	
	40346201	SCREW 4X20	TRUSS TAPPING TWIN BZC	8	
	40340301	SCREW M4X16	OVAL TPB1 BZC	2	
	40128512	SCREW 4X25X20	PAN WASHER HEAD TAPTITE B BZC	10	
	40011056	SCREW 3X6	BINDING TAPTITE B ZC	4	
	40011123	SCREW 4X8	BINDING TAPTITE B BZC	12	
	40011312	SCREW 3X8	BINDING TAPTITE P BZC	6	
	40011501	SCREW M3X8	PAN MACHINE W /SW BZC	4	
	40017656	SCREW M4X15 PAN HEAD	DOUBLE SEMS FE ZC	4	
	40012145	SCREW 4X14	TRUSS TAPPING A BZC	1	
	40346190	SCREW 4X16	TRUSS TAPPING TWIN BZC	3	
	40563345	SCREW H4X25X17	TAPTITE P W BZC W=12.5	24	
	22285342	CONNECTING PIN	228-342	2	
	40239401	SCREW M3.5X8	BINDING TAPPING A BZC	34	
	40010645	SCREW M4X8	TRUSS TAPPING A1 FE BZC	8	
	22150756	JACK NUT 2	PLASTIC /BLK	2	
PACKING					
	22675516	PACKING SHEET		1	
	01566389	PAD L		1	
	01566390	PAD R		1	
	02019334	PAD CARTON LOWER		1	
	02019434	PAD CARTON UPPER		1	
	03344889	PAD UPPER		1	
	# 04232290	PACKING CASE	PACKING CASE	1	
MISCELLANEOUS					
	00890923	BUSHING	D-71	2	
	01011534	CUSHION		2	
	01346323	LID CUSHION		1	
	01566378	CUSHION		3	
	02901567	ISOLATOR LED		1	

<b>MISCELLANEOUS</b>				
	03012323	KEY FELT		1
	03015156	PANEL SHEET		1
	03676190	PWB SPACER		1
	12189823	FUSE HOLDER	CNT47-0003A	FH1,FH2,FH5,FH6 on PABM ,FH4,FH3 on Inlet 6
	12199584	GROUNDING TERMINAL	M1698	TER7,TER10,TER12,TER11,TER5,TER4,TER3,TER6 on PABM ,TER9,TER8 on Inlet 10
	22165385	LED SPACER	LDS-80P	1
	40016523	INSULOK TIE 100M/M T-18R	((1000 PCS ORDERING PER))	
	40017378	COATING CLIP	CS-7	10
	40122434	DOUBLE-FACED TAPE	#500 W7MM 20M 30P	
	40122490	DOUBLE-FACED TAPE	#500 W5MM 20M 40P	
	40122612	NITTO ACETATE TAPE #5	BLACK W10MM 30M 20P	
	40122634	GREASE	G-424F 14KG	
	40122778	TAPE W10MM 30M	NITTO ADHESIVE TAPE #156	
	40123134	SILICON GREASE	TSK5422L 1KG	
	40129145	CELLOPHANE TAPE	18MMX35M	
	40236856	GREASE FOR KEY	FLOIL G-953 1L(G)	
	40346189	PHONES LABEL		1
	40349801	INSULOK TIE	T18R-V0 (94V-0)	
	40231345	KONISHI BOND CYEREX100 330ML	BOND	
<b>ACCESSORIES (STANDARD)</b>				
!	02238801	AC CORD SET	120V 2P-2P SJT2.5M	1
#	73234590	OWNER'S MANUAL	ENGLISH	1
	03901267	PHONES HOOK		1

# CHECKING THE VERSION NUMBER / TEST MODE

## Required Items

- MIDI cable (1.5m or longer) (Part No.23485229)
- Headphones

## Entering Test Mode

Turn on the power. Then while holding down the [Rec] button and [Right] button, press the [Demo] button.

## Quitting Test Mode

Turn off the power.

## Skipping

When finished with each test, press the [Demo] button to proceed to the next item.

To interrupt a test and proceed to the next item, hold down the [Key Touch] button and press the [Demo] button.

## Test Items

### 1. Checking the product type indication

Verify that the seven-segment LED indicates "70".

### 2. Device check

During this check, the seven-segment LED will indicate "dEv".

If an error is found, the seven-segment LED and the instrument LEDs will be in the states shown below.

Error location	7seg LED indication	Blinking LED
Flash Memory	"E.01"	[Piano]
RAM	"E.02"	[E.Piano]
Wave ROM	"E.03"	[Harpsi]
Effect RAM	"E.04"	[Organ]

If there are no errors, you will automatically proceed to the next test item.

If an error occurs, use the [Demo] button to proceed to the next test item.

### 3. Version indication

The program version is shown in the seven-segment LED.

You can use [+]/[-] to check the Version/Build No.

Press the [Demo] button to proceed to the next test item.

### 4. SW/LED check

Initially, all LEDs will be lit. As you sequentially press the buttons starting from the left edge, a piano sound will be heard and the corresponding LED will go dark. When all buttons have been checked, you will automatically proceed to the next test item.

- \* For two-color LEDs, verify that the LED changes from orange -> green -> unlit each time you press the button.

The MP-70 uses two-color LEDs for the following nine LEDs.

[Demo], [Brilliance], [Variation], [Song], [Metronome], and [Key Touch]

- \* The "Phones LED" does not have a button.

Verify that the [Demo] button LED is dark, and then press the [Demo] button once again and verify that the "Phones LED" goes dark.

- \* The [+ ] and [- ] buttons do not have an LED.

Press the [-] button and verify that the seven-segment LED goes partially dark. Then press the [+] button and verify that the seven-segment LED goes completely dark.

### 5. Effect check

The seven-segment LED will indicate "Snd."

The following buttons will blink. Each time you press a button, the corresponding sound will be heard.

[Piano]	Piano - Direct
[E.Piano]	Piano - Chorus
[Harpsi]	Piano - Reverb
[Organ]	Piano - Resonance

Press the [Demo] button to proceed to the next test item.

### 6. Panning check

The seven-segment LED will indicate "Pan."

The following buttons will blink. Each time you press a button, the corresponding sound will be heard.

[Piano]	Sine wave from the left channel
[E.Piano]	Square wave from the right channel
[Harpsi]	Sine wave from the left and right channels

### 7. Pedal, MIDI, and Phonesense check

The seven-segment LED will indicate "Ad".

The following buttons/LEDs will blink (or lights).

The buttons/LEDs correspond to test items as follows.

"Phones LED"	Lighting	Phonesense check
[Piano]	Blinking	Soft pedal check
[E.Piano]	Blinking	Sostenuto pedal check
[Harpsi]	Blinking	Damper pedal check
[Organ]	Blinking	MIDI check

First, perform the Phonesense check.

Make sure that headphones are not inserted.

(When entering this check mode with headphones inserted, "Phones LED" will blink.)

With headphones not inserted, verify that "Phones LED" lights.

Next, insert headphones and verify that "Phones LED" goes dark, and then unplug the headphones and verify that "Phones LED" lights.

Next, perform the pedal check.

When you press the soft pedal, the seven-segment LED will indicate "10," the [Piano] button will light, and a bell sound will be heard.

Then when you release the pedal, the [Piano] button will go dark and the seven-segment LED will indicate "0".

Check the sostenuto pedal and damper pedal in the same way.

Finally, perform the MIDI check.

Connect one MIDI cable in a loop between the MIDI IN connector and the MIDI OUT connector.

Verify that the [Organ] button lights when you make the connection, and goes dark when you unplug the MIDI cable.

### 8. Factory reset

Press the [Demo] button to execute the factory reset, or press the [Play] button to skip it.

### 9. End of test

The seven-segment LED will indicate "End" and all LEDs will blink.

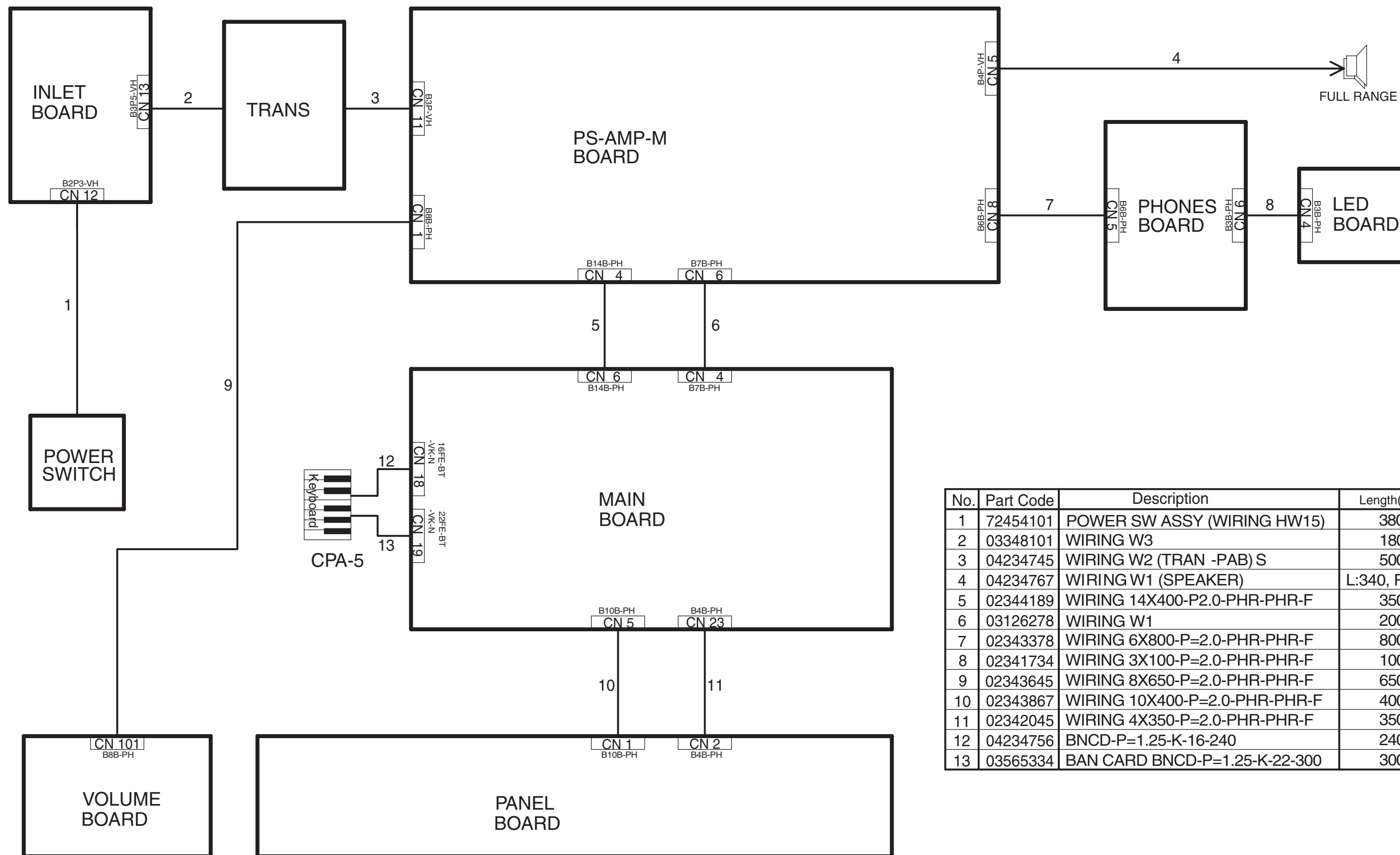
To exit test mode, turn off the power.

If you press the [Demo] button, you will return to the first test.



WIRING DIAGRAM

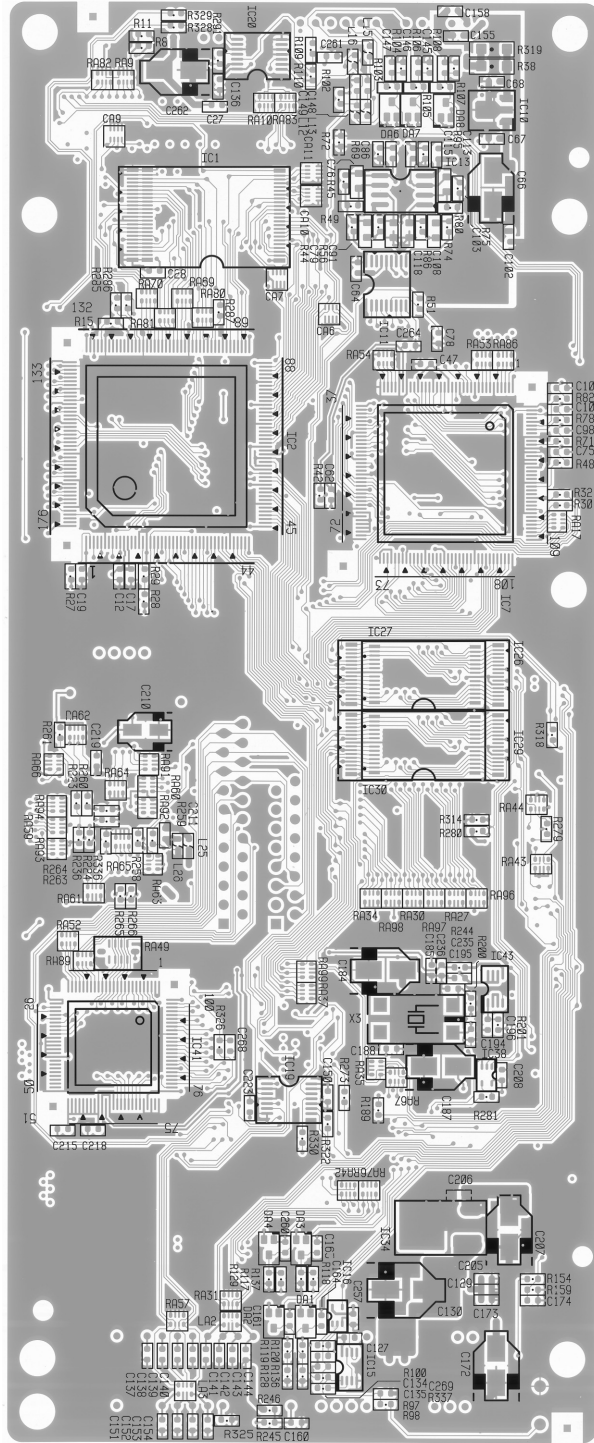
WIRING DIAGRAM



No.	Part Code	Description	Length(mm)
1	72454101	POWER SW ASSY (WIRING HW15)	380
2	03348101	WIRING W3	180
3	04234745	WIRING W2 (TRAN -PAB) S	500
4	04234767	WIRING W1 (SPEAKER)	L:340, R:450
5	02344189	WIRING 14X400-P2.0-PHR-PHR-F	350
6	03126278	WIRING W1	200
7	02343378	WIRING 6X800-P=2.0-PHR-PHR-F	800
8	02341734	WIRING 3X100-P=2.0-PHR-PHR-F	100
9	02343645	WIRING 8X650-P=2.0-PHR-PHR-F	650
10	02343867	WIRING 10X400-P=2.0-PHR-PHR-F	400
11	02342045	WIRING 4X350-P=2.0-PHR-PHR-F	350
12	04234756	BNCD-P=1.25-K-16-240	240
13	03565334	BAN CARD BNCD-P=1.25-K-22-300	300



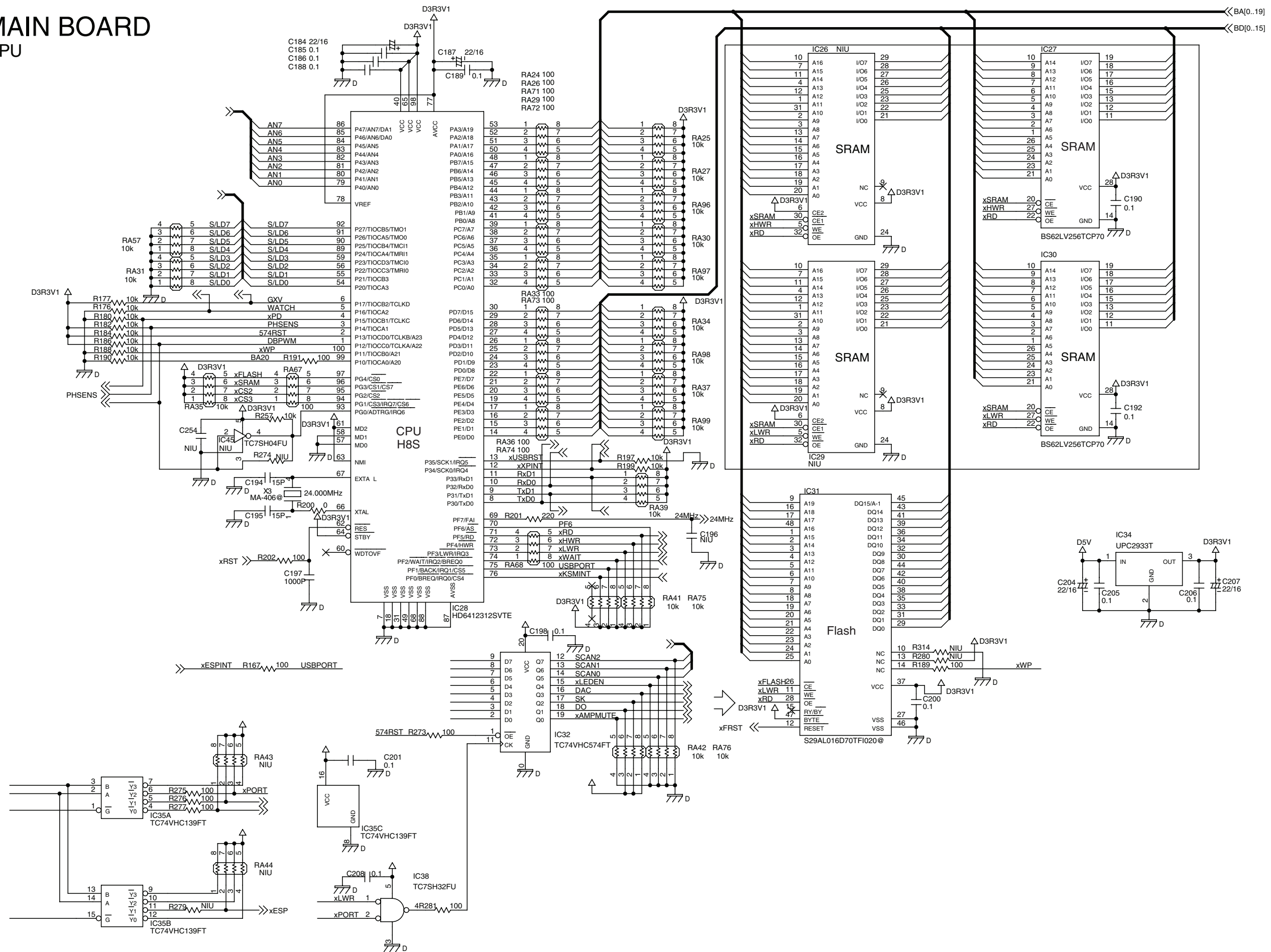




View from foil side

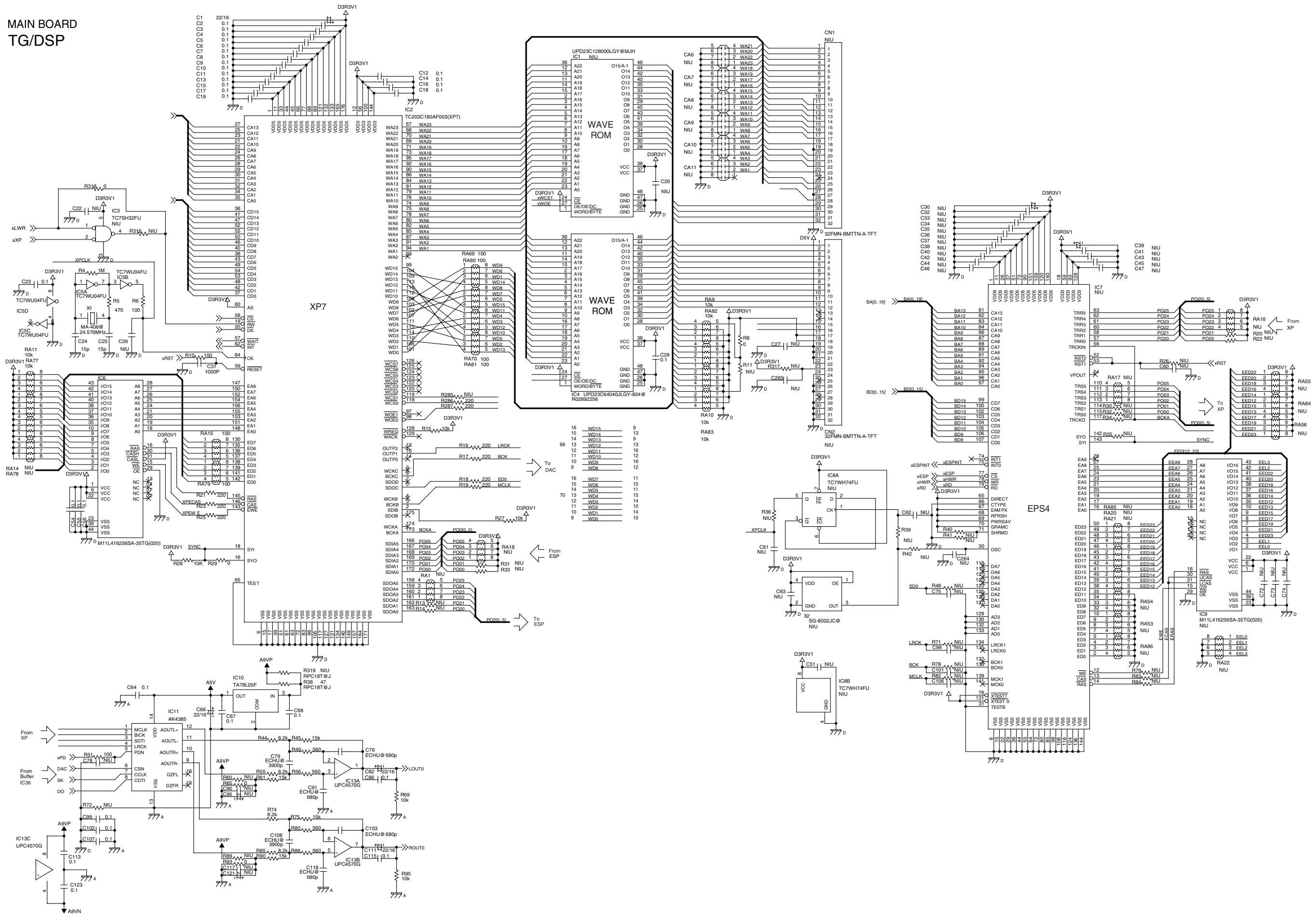
# CIRCUIT DIAGRAM(MAIN 1/4)

## MAIN BOARD CPU



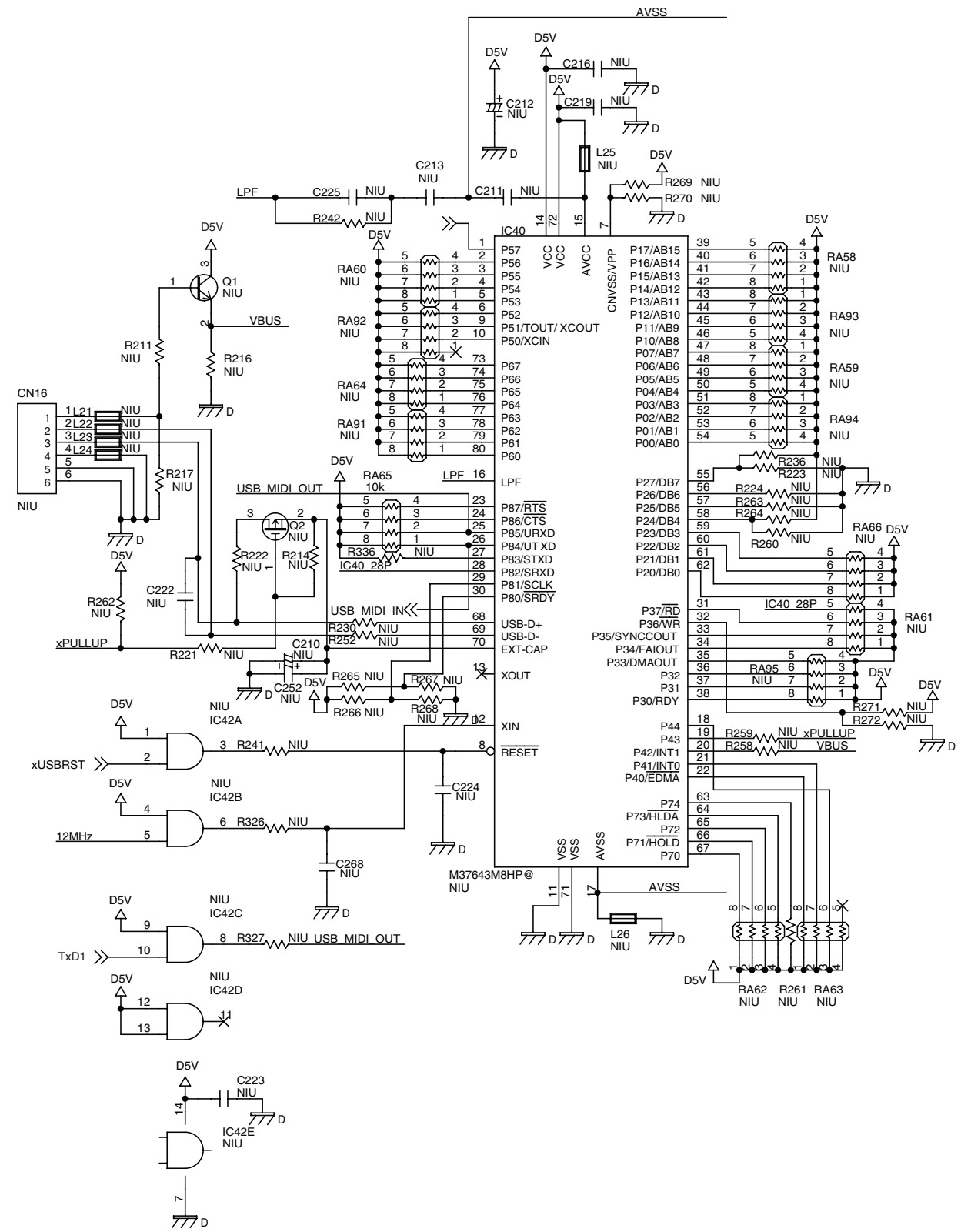
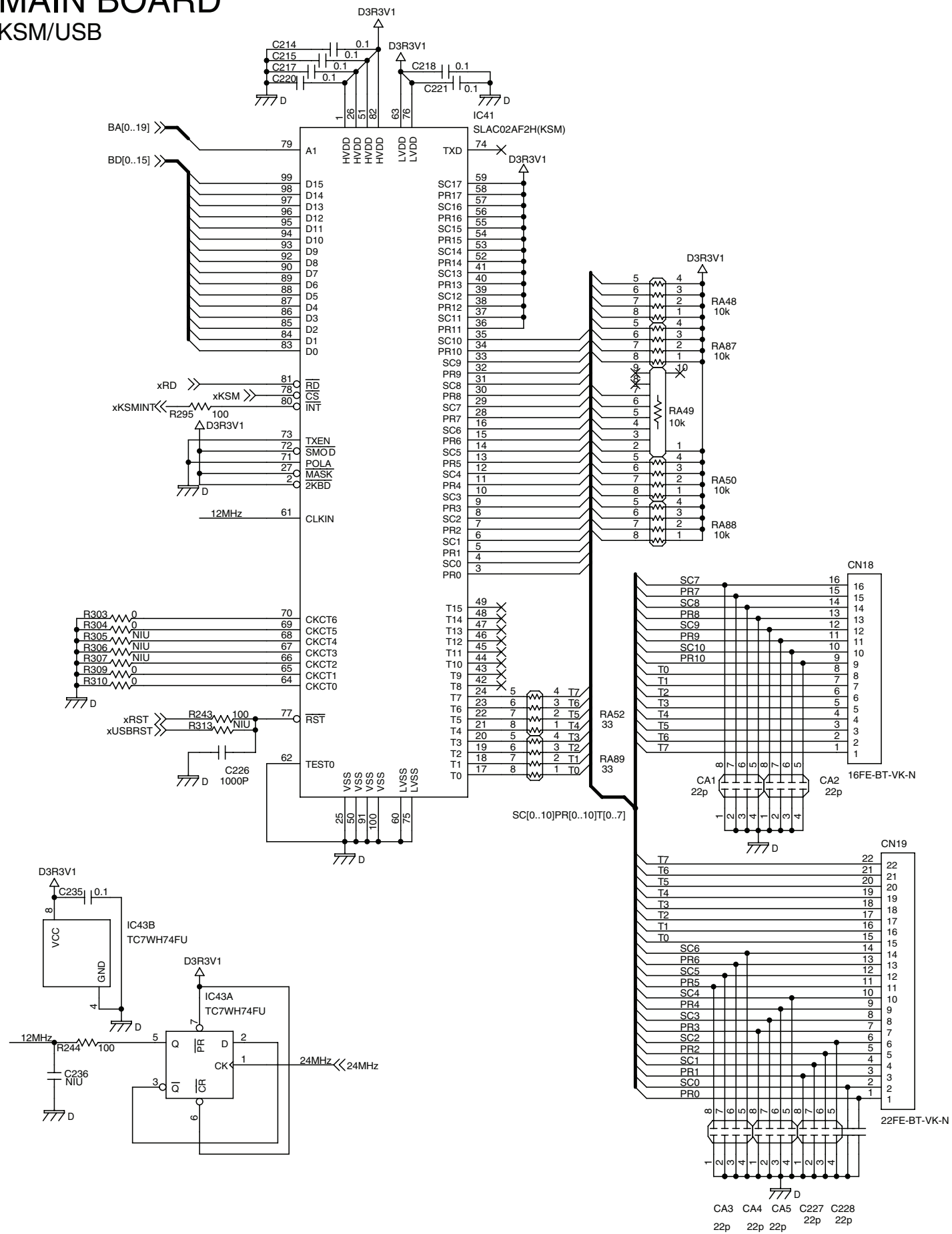
# CIRCUIT DIAGRAM(MAIN 2/4)

MAIN BOARD  
TG/DSP



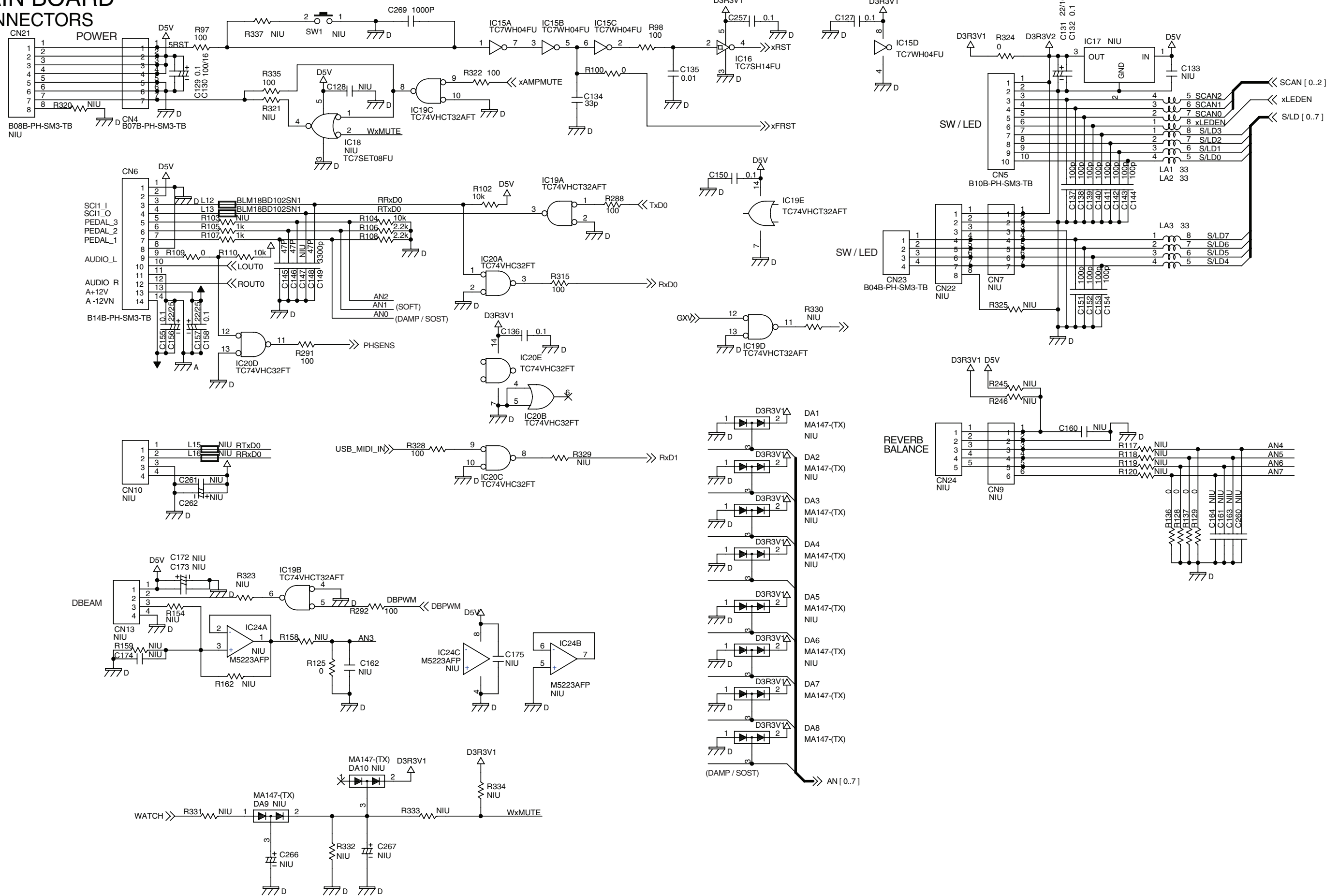
# CIRCUIT DIAGRAM(MAIN 3/4)

## MAIN BOARD KSM/USB

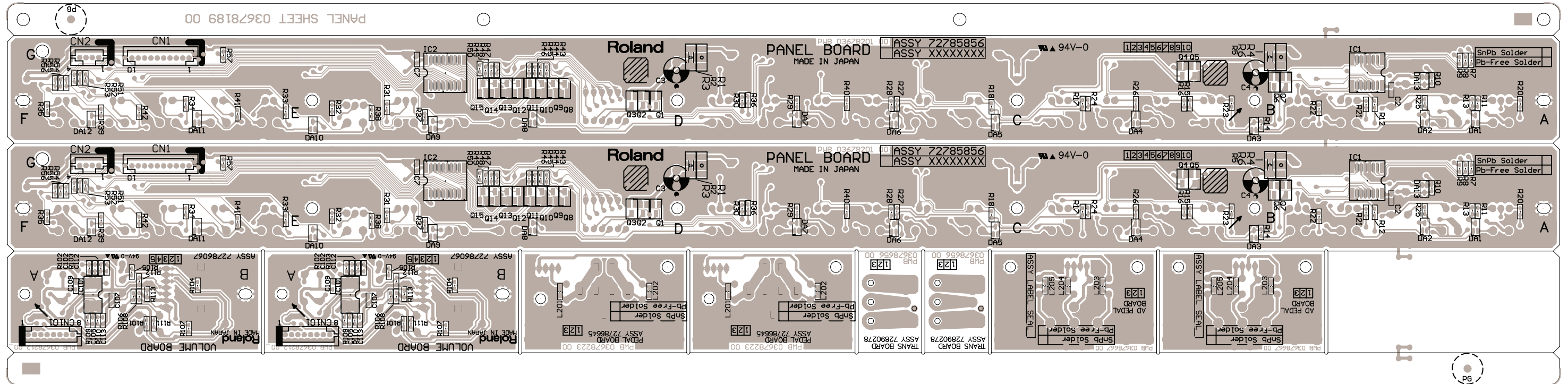
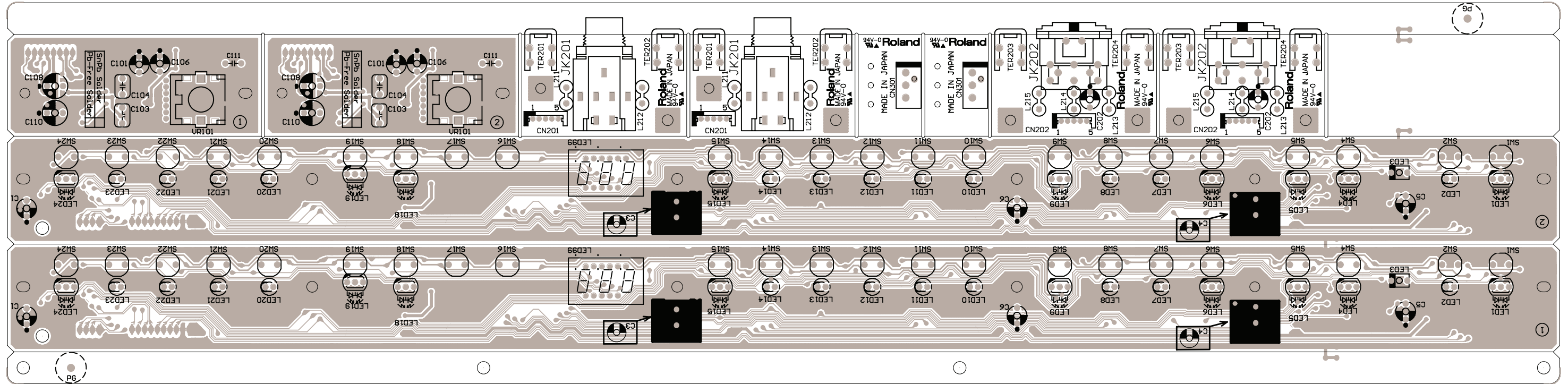


# CIRCUIT DIAGRAM(MAIN 4/4)

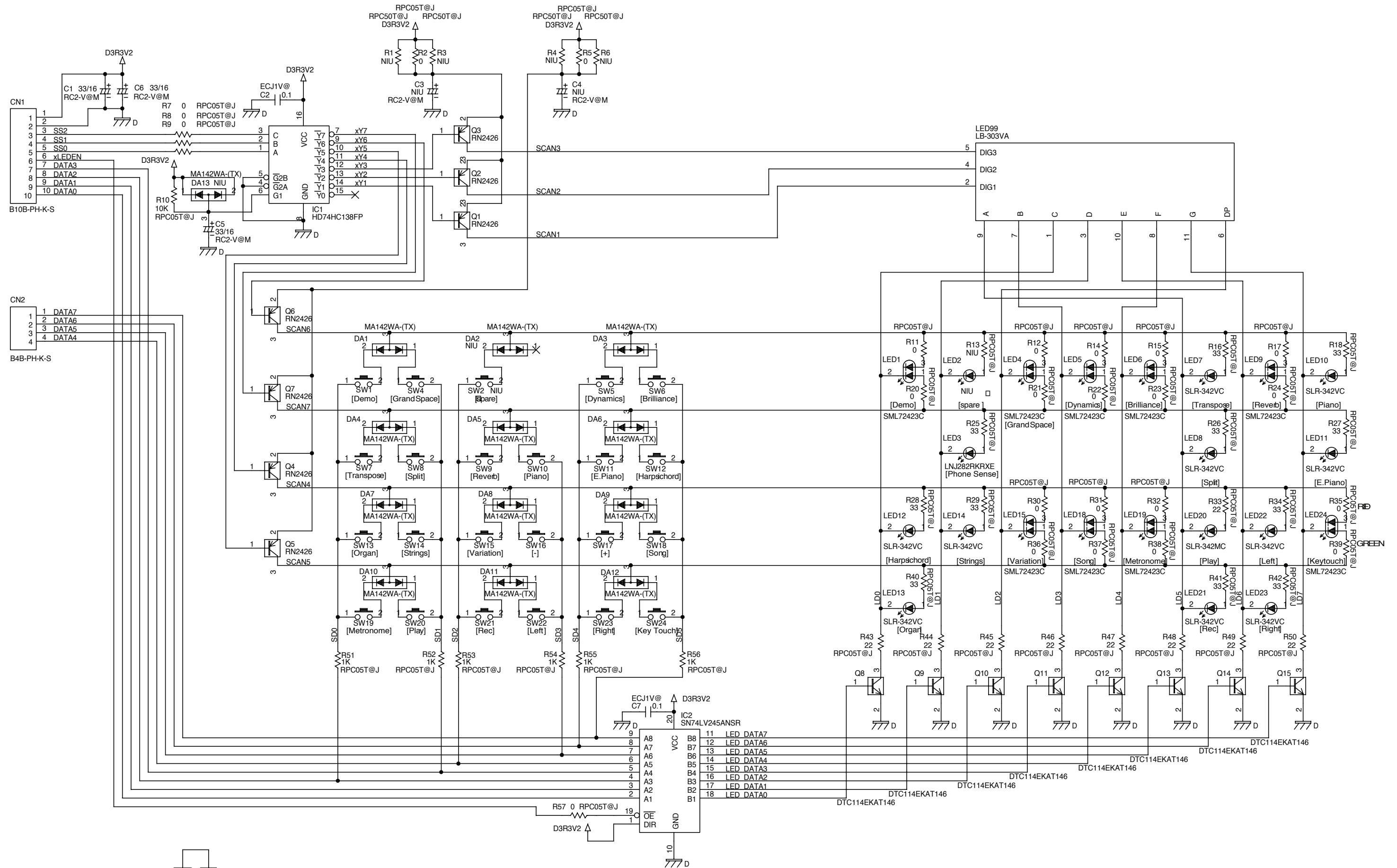
## MAIN BOARD CONNECTORS



# CIRCUIT BOARD(PANEL)



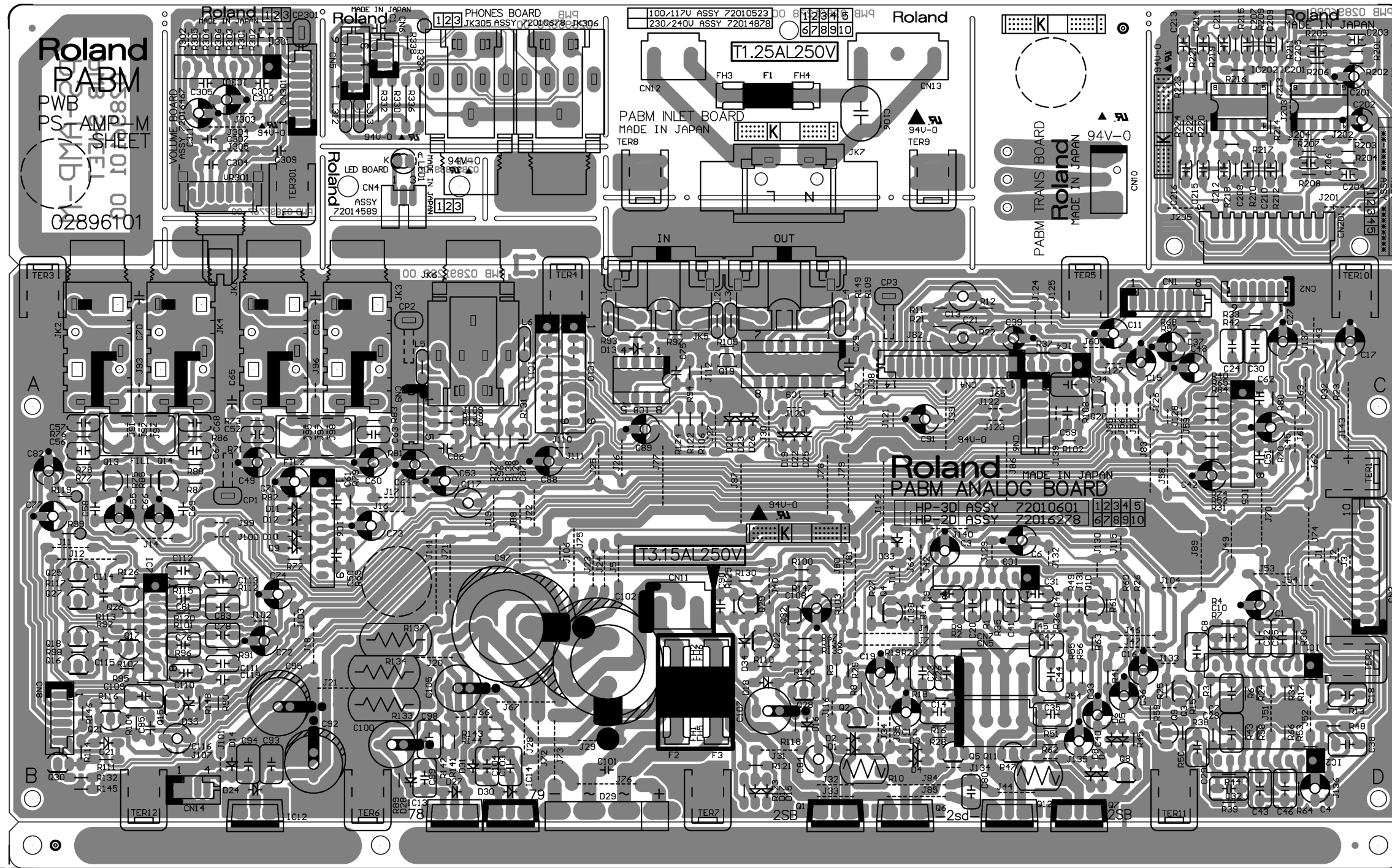
# CIRCUIT DIAGRAM(PANEL)



\* All Tact Switches : EVQ11A05R

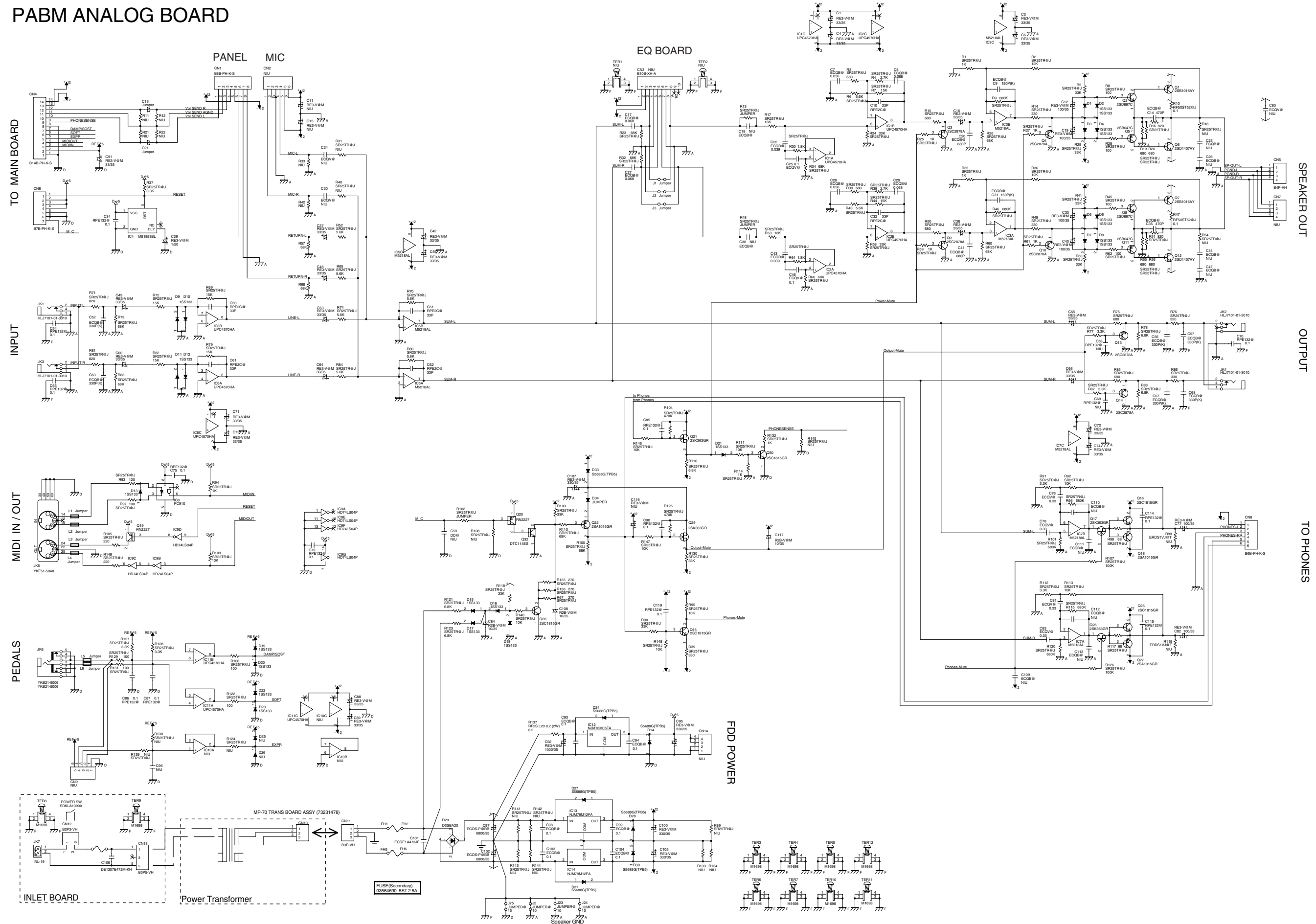


# CIRCUIT BOARD(AMP)



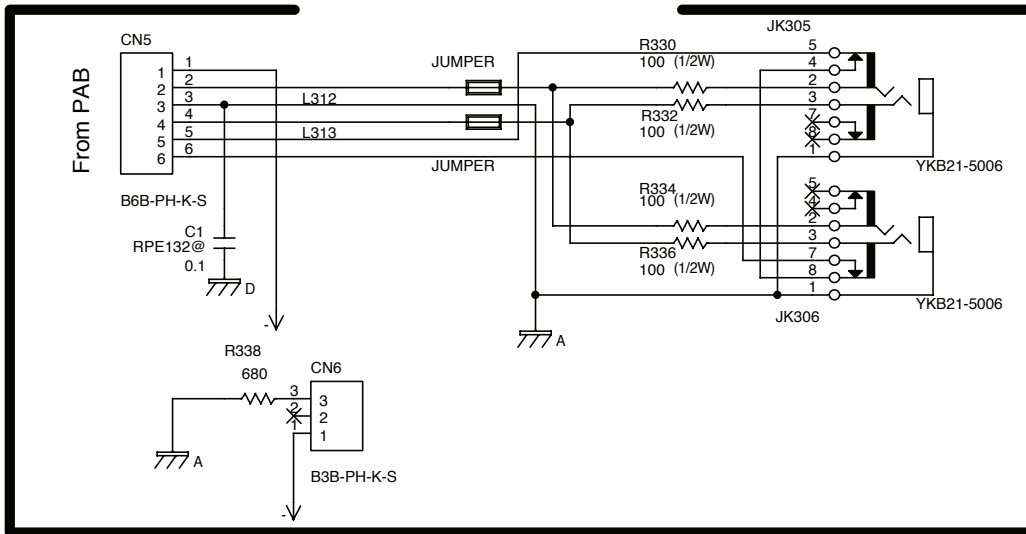
# CIRCUIT DIAGRAM(PABM)

## PABM ANALOG BOARD

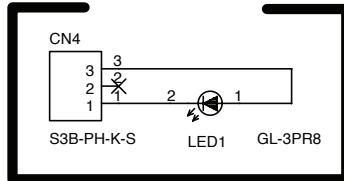


# CIRCUIT DIAGRAM(PHONES)

## PHONES BOARD



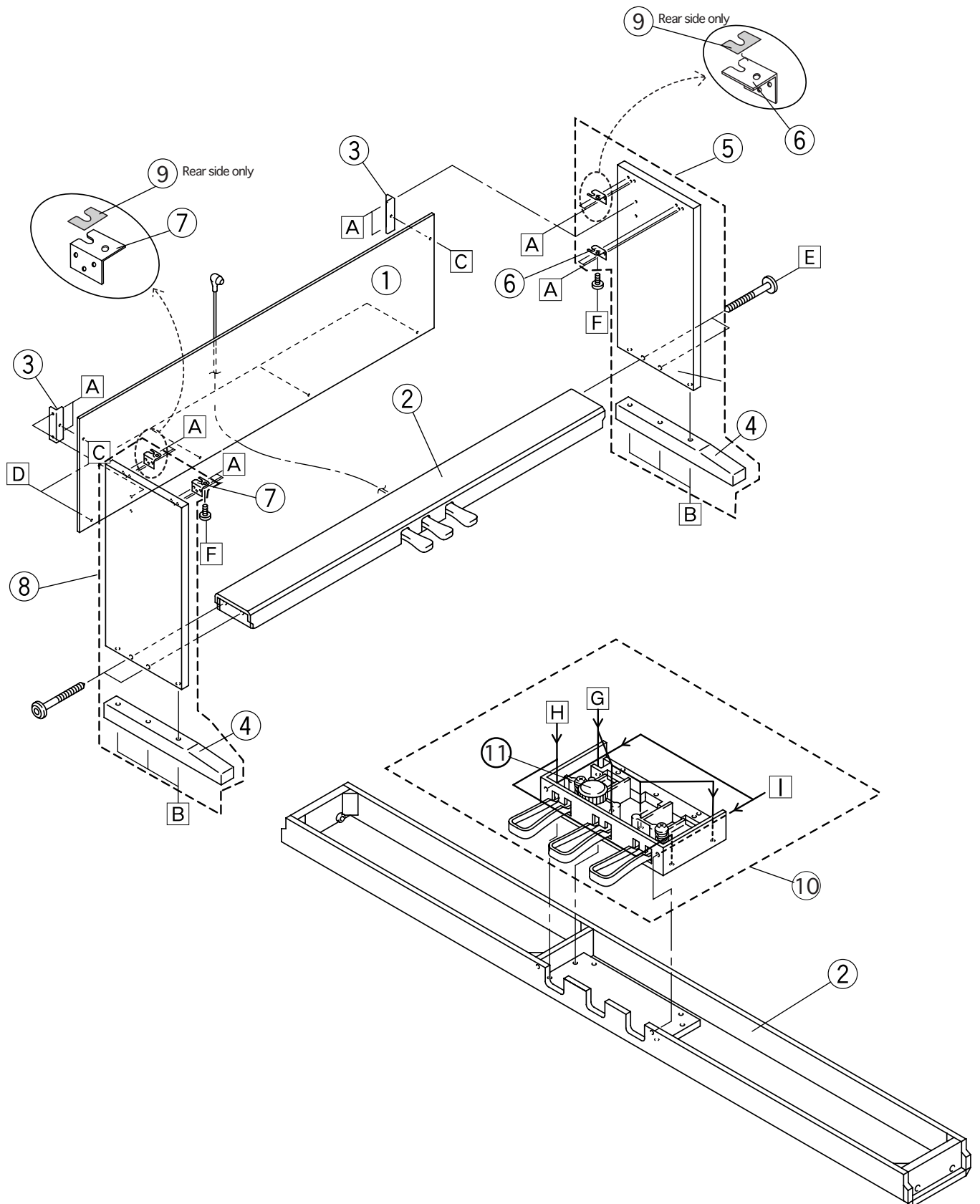
## LED BOARD





# PIANO STAND (KSC-34-BK)

## STAND EXPLODED VIEW



# STAND EXPLODED VIEW PARTS LIST

No	PART CODE	PART NAME	DESCRIPTION	Q'TY
1	04233067	REAR BOARD		1
2	04233090	PEDAL BOARD	BOARD	1
3	01568334	REAR HOLDER		2
4	01566001	TOE BLOCK		2
5	73235423	SIDE BOARD R ASSY		1
6	22205518	JOINT HOLDER R	220-518	2
7	22205517	JOINT HOLDER L	220-517	2
8	73235434	SIDE BOARD L ASSY		1
9	01128578	HOLDER CUSHION		2
10	71907712	PEDAL UNIT		1
11	02563001	ADJUST BOLT		1
A	40010678	SCREW 4X20	TRUSS TAPPING A FE BZC	16
B	40010701	SCREW 4X35	TRUSS TAPPING A FE BZC	6
C	40127701	SCREWM4X16	PAN HEAD C-TIGHT BZC W/WASHER	2
D	40010689	SCREW 4X25	TRUSS TAPPING A1 FE BZC	4
E	40017712	JOINT BOLT 6X60	JCB-H17 FE BZC	4
F	40010589	SCREW 5X20	TRUSS ORIGINAL BZC	2
G	40012123	SCREW 4X25	TRUSS TAPPING A1 FE ZC	4
H	40012923	SCREW M4X25	PAN MACHINE W/SW+PW ZC	2
I	40011556	SCREW 3.1X10	ROUND HEAD WOOD ZC	2

# HOW TO ASSEMBLE THE STAND (Disassembling)

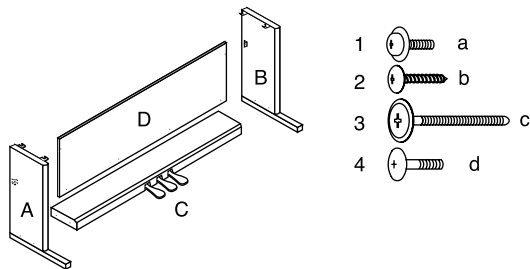


Make sure that another person is on hand to help with the assembly and setup. When assembling or moving the piano, be careful not to allow your hands to be caught or pinched, and take care not to drop the instrument on your feet. To move the piano, lift it carefully—all the while keeping it level. Small parts, such as screws, make sure to put them in a safe place out of children's reach, so there is no chance of them being swallowed accidentally.

\* When disassemble the stand unit by carrying out assembly, step in reverse order.

## Part Check

Before you begin assembling the stand, check that all the parts were supplied. You will also need to have a Phillips screwdriver.



- A: Side Board (left)
  - B: Side Board (right)
  - C: Pedal Board
  - D: Rear Board
- 1: Screw a (4 x 16 mm) x 2
  - 2: Screw b (4 x 25 mm) x 4
  - 3: Screw c (M6 x 60 mm) x 4
  - 4: Screw d (M5 x 20 mm) x 2

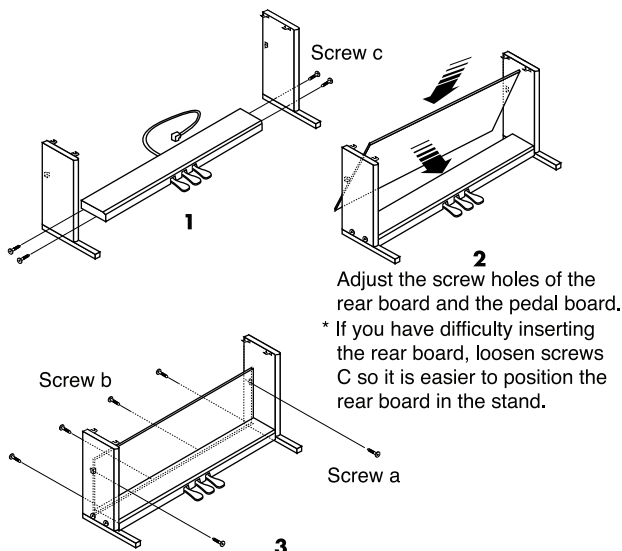
## Assembly Procedure

- \* Fasten each screw tightly, then place the stand in a stable and horizontal place.
- \* Do not allow the pedal cord or power cable to get twisted or pinched while assembling the stand.

## Stand Assembly

At first, assemble the entire stand in a temporary fashion, without really tightening the screws. Then, after checking the overall alignment of the boards (and gently shifting certain parts where necessary), go around and tightly fasten each of the screws.

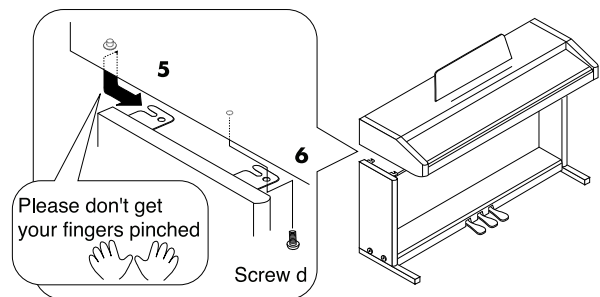
1. Attach the side boards for the right and left sides to the pedal board (so that the metal parts face inside) using screws "c" (M6 x 60 mm).
2. Place the rear board as shown below and adjust the screw holes of the rear board and the pedal board.
3. Attach the rear board to the metal parts on the side boards from the front using screws "a" (4 x 16 mm). For clamping the rear board, press each upper portion of both side boards. Then, fasten it to the pedal board from the back using screws "b" (4 x 25 mm).
4. Go around and tighten all the screws, while at the same time correcting the orientation of any piece that needs it, until everything fits together properly.



## Installing the Piano on the Stand

5. Align the protruding screws (one each at right and left) on the bottom of the piano with the openings in the metal fittings on the side board, then slide the piano forward until the screws are held in place.
6. Fasten the piano to the stand with the screw "d" (M5 X 20 mm) (one each for the right and left).

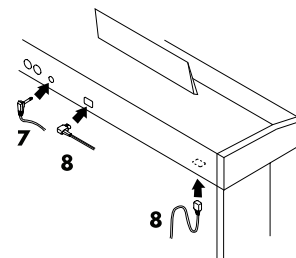
\* When handling the piano, firmly grasp it at the front and back. Be careful, so you do not get your fingers pinched.



## Connecting the Pedal and Power Cords

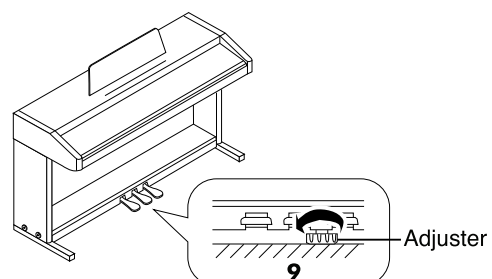
7. Connect the pedal cord to the Pedal jack on the rear of the piano.
8. Connect the power cord to the power inlet on the piano, then plug the other end into a wall socket.

\* The power cord connector varies depending on the model. For details, refer to the Owner's Manual for your model.



## Adjusting the Adjuster

9. Lower the adjuster at the bottom of the pedal board (by rotating it), so that the adjuster touches the floor. If you have the piano placed on a carpet, lower it until it pushes into the carpet.



## When Moving the Piano

Disconnect the power cord and raise the stand's adjuster. Then lift the piano while keeping it level, and move it with care, so that you do not drop it on your feet, or get your hands caught.

# PARTS LIST(STAND)

**SAFETY PRECAUTIONS:**  
The parts marked  $\Delta$  have safety-related characteristics. Use only listed parts for replacement.

Due to one or more of the following reasons, parts with parts code \*\*\*\*\* cannot be supplied as service parts.

- Part supplied only as a component in a complete assembly
- Copyright does not permit the part to be supplied
- Part is sold commercially

NOTE: The parts marked # are new. (initial parts)      The description "Q'TY" means a necessary number of the parts per one product.

## CASING

#	04233067	REAR BOARD		1
#	04233090	PEDAL BOARD	BOARD	1
	71907712	SW PEDAL UNIT		1
	NOTE: 'SW PEDAL UNIT' includes the following parts.			
	02563001	ADJUST BOLT		1
#	73235423	SIDE BRD R ASSY		1
	NOTE: 'SIDE BRD R ASSY' includes the following parts.			
#	*****	SIDE BOARD R		1
	01128578	HOLDER CUSHION		1
	01566001	TOE BLOCK		1
	01568334	REAR HOLDER		1
	22205518	JOINT HOLDER R	220-518	2
	40010678	SCREW 4X20	TRUSS TAPPING A FE BZC	8
	40010701	SCREW 4X35	TRUSS TAPPING A FE BZC	3
#	73235434	SIDE BRD L ASSY		1
	NOTE: 'SIDE BRD L ASSY' includes the following parts.			
#	*****	SIDE BOARD L		1
	01128578	HOLDER CUSHION		1
	01566001	TOE BLOCK		1
	01568334	REAR HOLDER		1
	22205517	JOINT HOLDER L	220-517	2
	40010678	SCREW 4X20	TRUSS TAPPING A FE BZC	8
	40010701	SCREW 4X35	TRUSS TAPPING A FE BZC	3

## SCREW

	40012123	SCREW 4X25	TRUSS TAPPING A1 FE ZC	4
	40011323	SCREW 3X10	BINDING TAPTITE P BZC	1
	40012923	SCREW M4X25	PAN MACHINE W/SW+PW ZC	2
	40011556	SCREW 3.1X10	ROUND HEAD WOOD ZC	2

## PACKING

#	04233123	PACKING CASE		1
---	----------	--------------	--	---

## MISCELLANEOUS

	40016512	INSULOK TIE	80M/M T-18S	2
	40016578	VINYL TIE 150M/M		1
	40016545	LOCKING TOOL FOR INSULOK TIE	SKM-1	2

## ACCESSORIES (STANDARD)

	40349734	LEAFLET MANUAL(COPY)	ENGLISH/JAPANESE	1
#	73236856	SCREW SET		1
	NOTE: 'SCREW SET' includes the following parts.			
	40010589	SCREW 5X20	TRUSS ORIGINAL BZC	2
	40010689	SCREW 4X25	TRUSS TAPPING A1 FE BZC	4
	40127701	SCREWM4X16	PAN HEAD C-TIGHT BZC W/WASHER	2
	40017712	JOINT BOLT 6X60	JCB-H17 FE BZC	4



## **ERROR MESSAGES**

---

<b>Display</b>	<b>Meaning</b>
<b>E.32</b>	The amount of performance information is too large, and further recording is not possible.
<b>E.41</b>	A problem such as a loose MIDI cable occurred. Make sure the MIDI cables are correctly hooked up.

\* Error messages are indicated by an E. before the number. Press any button, and you can cancel the error message.