

HP-535

ROLAND PIANO DIGITAL

SERVICE NOTES

First Edition

Issued by RJA

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GENERAL VIEW /

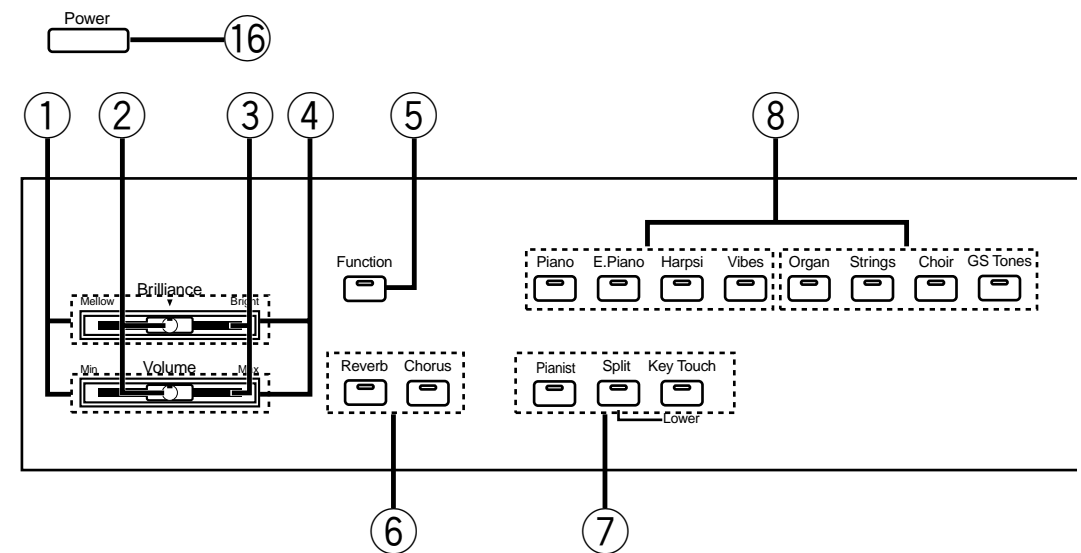


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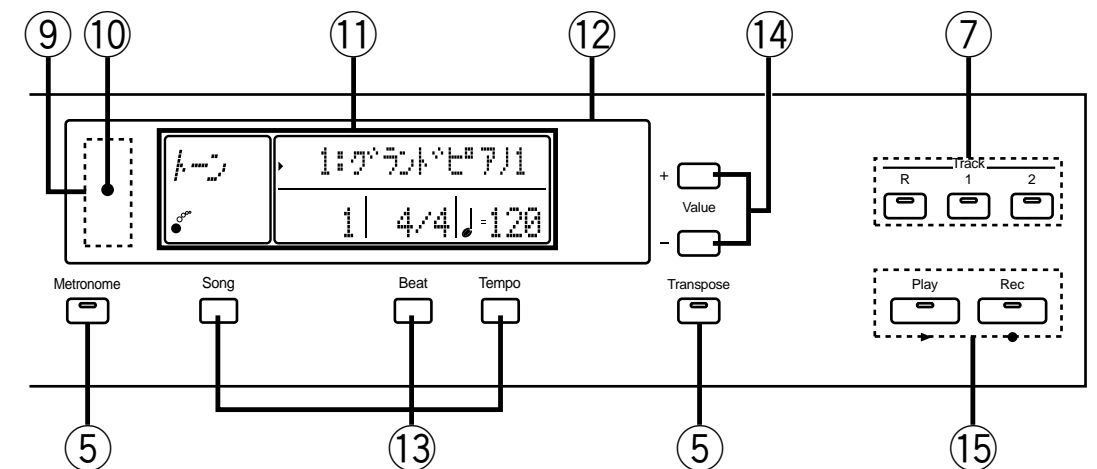
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PANEL LAYOUT

FRONT VIEW



REAR VIEW



PANEL LAYOUT PARTS LIST

①	00671556	SLIDE POT. EWANNKX10B14	⑭	00900189	D S-KEYTOP SX1H BLK
②	22485192	I S-KNOB S BLK/LCG	⑮	22495278	D S-KEYTOP MD2H BLK
③	22245194	POT DUST COVER M 1H		15039245	LED SEL6210S TPS
④	32225353	I S-ESCT SX1V BLK L=30	⑯	22495576	A S BUTTON LX BLK
⑤	00900145	D S-KEYTOP SD1H BLK		13129139	AC PUSH SWITCH SDDL1-A-D-2 TV-5 5A/250V
	15039245	LED SEL6210S TPS			
⑥	00900156	D S-KEYTOP SD2H BLK			
	15039245	LED SEL6210S TPS			
⑦	00900167	D S-KEYTOP SD3H BLK			
	15039245	LED SEL6210S TPS (Pianist, Split)			
	01121689	LED SPR-325MVWT31 (Key Touch)			
⑧	00900178	D S-KEYTOP SD4H BLK			
	15039245	LED SEL6210S TPS			
⑨	01346390	ISOLATOR LED SPONGE			
⑩	01121689	LED SPR-325MVWT31			
⑪	71013990	LCD UNIT			
⑫	01346201	DISPLAY COVER			
⑬	01125901	D S-KEYTOP SX1H-A BLK			

SPECIFICATIONS

HP-535 :ROLAND DIGITAL PIANO

<Keyboard>

- **Keyboard**
:88 keys Hammer action mechanism
- **TouchSensitivity**
:Preset:3 Levels, User Programs:60 levels
- **Keyboard Mode**
:Whole
:Split(adjustable split point)
:Dual
:Pianist
:Manual Drum/SFX

<Sound Source> Conforms to GM/GS

- **Max.Polyphony**
:64 voices
- **Tones**
:8 groups 263 variations (incl.8 drum sets,1 SFX set)
- **Temperament**
:7 types, selectable tonic
- **Stretched Tuning**
:2 types
- **Master Tuning**
:415.3 Hz ~ 466.2 Hz (0.1 Hz Step)
- **Transpose**
:Key Transpose (-6~+5 Half-steps)
:Playback Transpose (-6~+5 Half-steps)
- **Effects**
:Reverb(10 levels), Chorus(10 levels)
:Sympathetic Resonance(10 levels)

<Arranger>

- **Music Styles**
:22 Pianist Styles
- **Control**
:Start/Stop
:Intro/Ending

<Composer>

- **Metronome**
: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:10 levels
:Metronome Pattern:11 patterns
:Sounds:4 types
- **Tracks**
:3 tracks
- **Song**
:1 song
- **Note Storage**
:Approx. 30,000 notes
- **Tempo**
:Quarter note = 20~250
- **Resolution**
:120 ticks per quarter note
- **Control**
:Song Select, Play/Stop, Rec, AllSongPlay
:Track Select, PlaybackBalance, CountIn

<Others>

- **Rated Power Output**
:30 W x 2
- **Speakers**
:20cm x 2 ,5cm x 2
- **Display**
:Beat Indicator
:Large custom LCD, Bouncing Ball
- **Language**
:English / Japanese
- **Control**
:Volume
:Microphone Volume, Microphone Echo
:Brilliance
- **Pedals**
:Damper(half-pedal recognition)
:Soft(half-pedal recognition)
:Sostenuto(Function assignable)

- **Other Functions**
:Panel Lock
- **Connectors**
:Output jacks (Stereo/Mono)
:Input jacks (Stereo/Mono)
:Microphone jack(with echo)
:Headphone jack x2 (Stereo)
:MIDI IN connector x2 / MIDI OUT connector
:Computer connector
:Pedal Connector (8 pin DIN type)
- **Power supply**
:AC117V/AC230V/AC240V
- **PowerConsumption**
:90W(117V)/68W(230V)/68W(240V)
- **Cabinet finish**
:Satin Mahogany
- **Dimensions(including Piano Stand)**
:1,445 mm(W) x 528 mm(D) x 920 mm(H)
:56-15/16(W) x 20-3/4 (D) x 36-1/4(H)
- **Weights(including piano Stand)**
:69.2 kg / 152 lbs 9 oz
- **Accessories**
:Owner's manual English (71015401)
:Power cord 100V: (13499219)
117V: (13499220)
230V: (13499221)
240V: (13499222)
:Euro converter plug (230V only) (00905234)

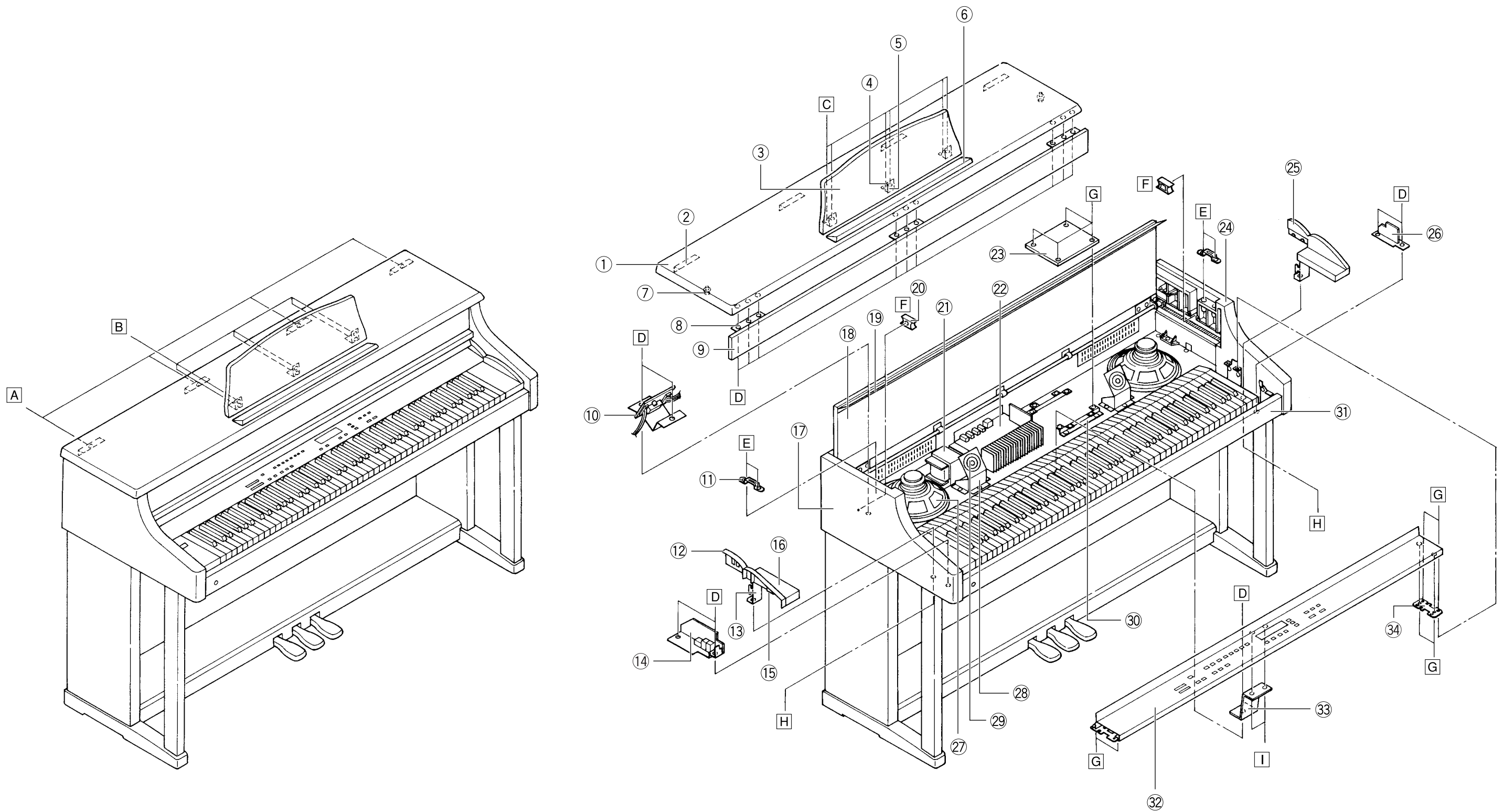
PARTS LIST OF EXPLODED

No.	Pno.	Part Name	No.	Pno.	Part Name
①	01346167	TOP BOARD	㉔	01346212	FRONT PANEL
②	00900478	TOP BOARD HOLDER	㉕	00900289	CENTER HOLDER
③	01346190	MUSIC REST	㉖	00900567	PANEL HOLDER FP
④	22325182	MR HINGE ASSY	Ⓐ	40011123	BINDING TAPTITE B 4 x 8 BZC
⑤	01234656	HINGE CUSHION A	Ⓑ	40011312	BINDING TAPTITE P 3 x 8 BZC
⑥	01452490	MUSIC STOPPER	Ⓒ	40012178	TPA BIND 3 x 12 BZC
⑦	00239367	SHOULDER SCREW 1165	Ⓓ	40012145	TPA TRUSS 4 x 14 BZC
⑧	01346256	UPPER HOLDER	Ⓔ	40012490	PAN TAPTITE P 4 x 10 BZC
⑨	01346234	UPPER BLIND	Ⓕ	40011323	PAN TAPTITE P 3 x 10 BZC
⑩	71011878	PAB3 INLET 100/117V	Ⓖ	40011056	BINDING TAPTITE B 3 x 6 ZC
⑪	00900534	BRACKET	Ⓗ	40128512	BINDING TAPTITE B WH 4 x 25 x 20 BZC W=11
⑫	01455767	END BLOCK L	①	40011101	BINDING TAPTITE B 3 x 8 BZC
⑬	01344467	SW HOLDER			
⑭	71011867	PAB3 FRONT JACK BRD			
⑮	13129139	AC PUSH SWITCH			
⑯	22495576	A S-BUTTON LX BLK			
⑰	71012234	SIDE PANEL L ASSY			
⑱	01346178	LID BOARD			
⑲	71015512	LID BLIND ASSY			
⑳	01017134	LID RAIL STOPPER			
㉑	01450212	PWR TRANS 01450212 UNIVERSAL			
㉒	71121767	PAB3 ANALOG PHANTOM			
㉓	71018067	MAIN BOARD ASSY			
㉔	71012223	SIDE PANEL R ASSY			
㉕	01455778	END BLOCK R			
㉖	71011901	MIC BOARD ASSY			
㉗	01349778	FULL-RANGE PD-20103A3			
㉘	00904145	TW HOLDER			
㉙	00904090	TWEETER TW-5104A			
㉚	00900467	PWB HOLDER			
㉛	01346245	LOWER BLIND			

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

A EXPLODED VIEW

B
C
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NOTE
The cushion under the UPPER BLIND is #01452501 UPPER BLIND CUSHION.

PARTS LIST

SAFETY PRECAUTION:
The parts marked Δ have safety-related characteristics.
Use only listed parts for replacement.

CONSIDERATIONS ON PARTS ORDERING
When ordering any parts listed in the parts list, please specify the following items in the order sheet.

Ex.	QTY	PART NUMBER	DESCRIPTION	MODEL NUMBER
	10	22575241	Sharp key	C-20/50
	15	2247017300	Knob (orange)	DAC-15D

Failure to completely fill the above items with correct number and description will result in delayed or even undelivered replacement.

FJB : FRONT JACK BOARD
PAB : PAB ANALOG BOARD
MIC : MIC BOARD
PLB : PANEL L BOARD
PRB : PANEL R BOARD
MB : MAIN BOARD
EB : EQ BOARD
IB : INLET BOARD
LBB : LCD B BOARD
LAB : LCD A BOARD

NOTE : The parts marked # are new (initial parts).

CASING

#	01346167	TOP BOARD
#	01346190	MUSIC REST
	22325182	MR HINGE ASSY
#	01452490	MUSIC STOPPER
#	01346178	LID BOARD
#	01346334	LID BLIND CUSHION
#	01346189	LID BLIND
#	01346234	UPPER BLIND
#	01346245	LOWER BLIND
#	01346223	REAR PANEL
#	01346212	FRONT PANEL
	32225353	I S-ESCT SX1V BLK L=30
	00341778	KEY FELT
	01346201	DISPLAY COVER
	00890990	ROLAND BADGE 12 GOLD
	01455767	END BLOCK L
	01455778	END BLOCK R
	01234656	HINGE CUSHION A
#	01452501	UPPER BLIND CUSHION
	00121945	SPEAKER COVER
#	71015512	LID BLIND ASSY
#	01346323	LID CUSHION
#	71012267	BOTTOM BOARD ASSY
		NOTE : BOTTOM BOARD includes the following parts.
	00569156	CUSHION T1*25*1200
	01011534	CUSHION
71012223	HP-535	SIDE PANEL R ASSY
		NOTE : SIDE PANEL R ASSY includes the following parts.
	*****	SIDE PANEL R
	00900523	SIDE PLATE R
	00900534	BRACKET
	00900512	HP-530 PANEL HOLDER R
71012234		SIDE PANEL L ASSY
		NOTE : SIDE PANEL L ASSY includes the following parts.
	*****	SIDE PANEL L
	00900501	SIDE PLATE L
	00900490	PANEL HOLDER L
	00900534	BRACKET

CHASSIS

01017134	LID RAIL STOPPER
00900356	LID ANGLE
00900390	LID SHAFT
22175664	LID GEAR
00900478	TOP BOARD HOLDER
00900289	CENTER HOLDER

00900467	PWB HOLDER
22245194	POT DUST COVER M 1H
22145199	SHAFT STAY L
22145901	SHAFT STAY R
01011390	SHAFT CUSHION
00900567	PANEL HOLDER FP
01346267	BLIND ANGLE
00904145	TW-HOLDER
01344467	SW HOLDER
01346256	UPPER HOLDER
00129367	INLET HOLDER
12339355	SWITCH COVER
01346390	ISOLATOR LED SPONGE

721128-18

KNOB, BUTTON

22495576	A S-BUTTON LX BLK	POWER SWITCH
00900145	D S-KEYTOP SD1H BLK	
00900156	D S-KEYTOP SD2H BLK	
00900167	D S-KEYTOP SD3H BLK	
00900178	D S-KEYTOP SD4H BLK	
00900189	D S-KEYTOP SX1H BLK	
# 01125901	D S-KEYTOP SX1H-A BLK	
22495278	D S-KEYTOP MD2H BLK	
22485192	I S-KNOB S BLK/LCG	

SWITCH

13169752	EVQ 213 05R TACT SWITCH	AC PUSH SWITCH	SW1,3-10,12,13,15-17 on PLB , SW2-4,7,8 on PRB, SW2-4,8 on LBB
13169626	SKHJAB 005A		SW1,5,7 on LBB
13129139	SDDL1-A-D-2 TV-5 5A/250V	AC PUSH SWITCH	
13159363	SSSF124-S09N-1	SLIDE SWITCH	SW301 on FJB

JACK, SOCKET

13449283	HLJ7101-01-3010	JACK 6.5MM	JK1-4 on PAB
13449252	YKB21-5006	JACK	JK1 on MIC, JK301,302 on FJB
00340223	YKF51-5031	DIN SOCKET	JK5 on PAB
13429911	DIN TCS7927-28-401	DIN SOCKET	JK304 on FJB
13429676	YKF51-5048	MIDI	JK6 on PAB
13429672	YKF51-5047	MIDI	JK303 on FJB

SPEAKER

00904090	TW-5104A	TWEETER
01349778	PD-20103A3	FULL-RANGE

DISPLAY UNIT

71013990	LCD UNIT
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KEYBOARD ASSY

71017401	PA-4A88-C2 KEYBOARD ASSY
	NOTE : For details, please refer to KEYBOARD PARTS LIST (page 19).

PCB ASSY

# [E] 71018067	MAIN BOARD ASSY
# 71012201	PANEL R BOARD ASSY
	NOTE : PANEL R BOARD ASSY includes the following parts.
#	01452734 14X350-P2.0-51065-51015-F WIRING CN2 on PRB
#	01452723 15X400-P2.0-51065-51015-F WIRING CN3 on PRB
#	01452712 10X100-P2.0-51065-51015-F WIRING CN1 on PRB
71013490	PANEL L BOARD ASSY
	NOTE : PANEL L BOARD ASSY includes the following parts.
	01450045 8X400-P2.0-51065-51015-F WIRING CN4 on PLB
	01450034 12X400-P2.0-51065-51015-F WIRING CN3 on PLB
	01450023 9X350-P2.0-51065-51015-F WIRING CN1 on PLB

71121767 PAB3 ANALOG PHANTOM
NOTE : PAB3 ANALOG PHANTOM includes the following PWBs.

***** PAB3 EQ BOARD ASSY
***** PAB3 ANALOG BOARD
NOTE : PAB3 ANALOG BOARD includes the following parts.

22195975	TR HOLDER		
22195973	POWER AMP HOLDER		
01349990	WIRING W4	WIRING	CN501 on PAB
01349978	7X250-P2.0-PH-SAN-F	WIRING	CN7 on PAB
01349912	12X130-P2.0-PH-SAN-F	WIRING	CN16 on PAB
01346423	HEATSINK		
01346412	PAB HOLDER		

71011867 PAB3 FRONT JACK BRD
NOTE : PAB3 FRONT JACK BOARD includes the following parts.

01344545	JACK HOLDER
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71011901 MIC BOARD ASSY
NOTE : MIC BOARD ASSY includes the following parts.

22150756	JACK NUT 2
01344489	MIC HOLDER

71011878 PAB3 INLET 100/117V
NOTE1: PAB3 INLET 100/117V includes the following parts.

23425740	INL-8 10A/125V 2P PO	AC INLET
12559444	5x20 SB 4 4A/125V	FUSE
00129367	INLET HOLDER	

NOTE2: Replacemant INLET BOARD PAB3 INLET ASSY is for 100/117V version exclusive use.
When using PAB3 INLET ASSY for 230/240V version, be sure to make the following modifications.
1. INLET BOARD FOR 100/117V version differs from 230V version in FUSE system.
Replace fuse (F1 on INLET BOARD) to specific one. (#12559550 FUSE 5x20 S506 1.6A T1.6AL250V for 230V version) See TABLE A.
2. For safety standards, place fuse seal (#40013712 FUSE SEAL T1.6AL250V #407) at the proper place of the INLET BOARD. The location of fuse seal is over the following printing (see fig A) of the PWB. When necessary, please order fuse seal separarty from INLET BOARD.

TABLE A	
100V/117V	FUSE 5 x 20 SB 4 4A/125V
230V/240V	FUSE 5 x 20 S506 1.6A T1.6AL250V

Fig.A
3.15A/125V

71012167 LCD B BOARD ASSY
NOTE : LCD B BOARD ASSY includes the following parts.

#	01454301	LED SPACER LH-36-5
#	01453267	DISPLAY HOLDER

IC		
01344278	CPU HD6437034AD72F	IC3 on MB
00232567	DAC PCM69AU-1/T2	IC5 on MB
01126612	DRAM TC514260DJS-60(YEL)	IC22,23 on MB
01126778	EEPROM 24LC01BT-I/SN	IC32 on MB
01344245	MASK ROM LHMNOPYL WAVE	IC18 on MB
00129278	CUSTOM IC SSC1080F0B	IC1 on MB
00343823	CUSTOM IC M60205-0601FP	IC8 on MB
00897078	CUSTOM IC RA01-005 (TC170C200AF-005)	IC13 on MB
00899756	LCD-DRIVER NJU6417CFC1	IC1 on LAB
15199923	LCD-DRIVER SED1278F0A	IC2 on LAB
15229706S0	PHOTO CUPLR PC910X	IC10 on PAB, IC302 on FJB
15199904	IC M51953BL-600Y	IC13 on PAB, IC9 on PLB
01238012	DIGITAL ECHO IC M65850P	IC2 on MIC
00780645	IC M5M34051P RS422 TRANSCEIVER	IC303 on FJB
00456856	TR-ARRAY TD62593AP	IC2 on PLB
15289402	REGULATOR TA78L05F(TE12L)	IC6 on MB
00236067	REGULATOR AN79M12F	IC3 on PAB
01344512	REGULATOR UPC24A05HF	IC2 on PAB
15199221	REGULATOR AN78M12F	IC5 on PAB
15199231	REGULATOR UPC78L05J-T	IC1 on MIC
15189184	BIPOLAR OP NE5532	IC201,202 in EB
15289105	BIPOLAR OP UPC4570G2-T2	IC4,12 on MB
01340467	POWER AMP STK401-040	IC12 on PAB
15189189	BIPOLAR OP UPC4570HA	IC6-9 on PAB
15189250	BIPOLAR OP M5218AL	IC1,4 on PAB, IC5, 8 on PLB
00127490	CMOS TC7W08F(TE12L)	IC19 on MB
01349590	CMOS TC7WU04FU(TE12L)	IC7 on MB
15259885	CMOS TC7S32F(TE85L)	IC11 on MB
15169550T0	CMOS TC74HC138AP	IC3,4 on PLB
15169556T0	CMOS TC74HC574AP	IC1 on PLB
15169515	CMOS TC74HC00AP	IC301 on FJB
15169304H0	TTL HD74LS04P	IC11 on PAB

CAPACITOR		
01340389	BLOCK CAPACITOR ECOS1VP682BB	C39,51 on PAB
15359206R0	CERAMIC CAPACITOR GRM40F104Z25PT10	C1-7 on LAB
01452189	CERAMIC CAPACITOR ECKDBE472ZF	C5,44 on PAB
13639144M0	CHEMICAL CAPACITOR ECA1CM682	C22 on PAB
13519452	CERAMIC CAPACITOR DD306-959F104Z25	C1,3,4,24 on PLB
01453278	CERAMIC CAPACITOR DE1307E 472M-KH	

TRANSISTOR		
00898201	TRANSISTOR RN2421(TE85L)	Q1 on MB
15119132	TRANSISTOR 2SA1015-GR(TPE2)	Q3,4,10,15 on PAB
15119163	TRANSISTOR RN2227(TPE4)	Q14,20,23 on PAB
15119615	TRANSISTOR 2SB647CTZ	Q17 on PAB
15129151	TRANSISTOR 2SC1815-GR(TPE2)	Q2,5,13,18,19 on PAB
15129152	TRANSISTOR 2SC2878-A(TPE2)	Q1,8 on PAB
15129168	TRANSISTOR DTC124ESATP	Q22,21 on PAB
15129623	TRANSISTOR 2SD667CTZ	Q16 on PAB
15139124	TRANSISTOR 2SK363-GR(TPE2)	Q6,7,11,12 on PAB
15119163	TRANSISTOR RN2227(TPE4)	Q1-3 on PLB, Q1-3 on PRB, Q301 on FJB

DIODE		
01121323	ARRAY DIODE DA204U T106	D2-4 on MB
15019126	SWITCING DIODE 1SS133 T-77	D5-8,12,18,22-24 on PAB
15019444	ZENER DIODE MTZJ T-77 9.1B	D17,20,21 on PAB
15039176	BRIDGE DIODE D3SBA20 4A/200V	D1,15 on PAB
15039159T0	RECTIFIER DIODE S5688G(TPA3)	D3,4,9-11,13,14,19 on PAB
15019126	SWITCING DIODE 1SS133 T-77	D1,4-13,15-17,20,21 on PLB, D2-4,7,8 on PRB, D1,2,4-8 on LBB, D1-4 on MIC, D302 on FJB
15019685	ZENER DIODE MTZJ T-77 27C	D303-308 on FJB

OPTICAL DEVICE			
#	01346489	LED LNJ308G8LRA	D1-72 on LAB
	01121689	LED SPR-325MVWT31	LED17 on PLB
	15039245	LED SEL6210S TP5	LED1,4-13,15,16 on PLB, LED2-4, 6,7 on PRB
	01121689	LED SPR-325MVWT31	LED2 on LBB

15039245	LED SEL6210S TP5	LED1,3 on LBB
01345445	LED L-1384AD/1ID	D301 on FJB

RESISTOR

00126112	R ARRAY EXBV8V101JV	RA2,3,5,19,30-32,38-40 on MB
01011845	R-ARRAY EXBV8VR000V	RA29 on MB
01013578	R-ARRAY EXBV8V470JV	RA24-27 on MB
15399965	R-ARRAY RCE9A103JAG7A	RA1,4,6-12,28 on MB
15409113	R-ARRAY EXBV8V103JV	RA13-18,20-23,34,35 on MB
00120778	MTL.FILM RESISTOR MCR50 JZH J 8R2	R1 on LAB
01014278	CARBON RESISTOR ERDS1VJ331T	R1,2 on PAB

POTENTIOMETER

00671556	30M/M SLIDE POT. EWANNKX10B14(10KBX2)	VR1,2 on PLB
01348189	12M/M ROTARY POT. EVJ05HEB1B14	VR1,2 on MIC

CRYSTAL

00894023	MA-406 20.000MHZ TE24	X3 on MB
00901912	MA-406 24.576MHZ TE24	X2 on MB

RELAY

00899245	RELAY G5Z-2A DC12V/5A	RL1 on PAB
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FILTER

01455623	FERRITE-BEAD N201Z2102T01	L1-21 on MB
12449380	FERRITE-BEAD EXC ELDR25V	L301-311 on FJB

FUSE,FUSE HOLDER

40013712	FUSE SEAL T1.6AL250V #407	on IB
12189823	FUSE HOLDER CNT47-0003A	FH1-8 on PAB, FH401,402 on IB
12559550	FUSE 5X20 S506 1.6A T1.6AL250V	F1 on IB
12559444	FUSE 5X20 SB 4 4A/125V	F5 on PAB, F1 on IB
12559445	FUSE 5X20 SB 5 5A/125V	F3,4 on PAB

CONNECTOR

	01347923	GROUNDING TERMINAL MEP1866-A	TER1,2 on PAB
	12199584	GROUNDING TERMINAL M1698	TER3,4 on PAB
	13379152	FFC IL-FPC-16ST-N	CN3 on MB
	13379151	FFC IL-FPC-14ST-N	CN4 on MB
	13369516	B9B-PH-K-S JST	CN9 on MB, CN302 on FJB
	13369890	B8P-VH 7A/250V	CN9 on PAB
	13369504	B8B-PH-K-S JST	CN1 on PAB, CN301 on FJB
	13369503	B7B-PH-K-S JST	CN10 on MB
	13369981	B5P-VH 7A/250V	CN2 on PAB
	13369567	B4B-PH-K-S JST	CN4 on PAB
	13369585	B3P5-VH 7A/250V	CN402 on IB
	13369898	B2P3-VH 7A/250V	CN402 on IB
	13369564	B12B-PH-K-S JST	CN11 on MB
	01344567	B10B-XH-A	CN15 on PAB
#	01451556	53313-1415	CN5 on MB, CN1 on LAB
	13369937	53253-1510	CN5 on PLB
	13369936	53253-1410	CN6 on PLB
	13369934	53253-1210	CN6 on MB
	13369932	53253-1010	CN1 on LBB
	13369931	53253-0910	CN7 on MB
	13369930	53253-0810	CN13 on PAB
	13369928	53253-0610	CN11 on PAB
	01344578	10JQ-ST	CN201 on EB

WIRING, CABLE

	01450056	WIRING 6X1050-P2.0-51065-51065-F	
	01450067	WIRING 9X1050-P2.0-PH-PH-F-S	
	01450078	WIRING 8X800-P2.0-PH-PH-F	
	01450089	WIRING W3	
#	01452745	WIRING 14X250-P2.0-51089-51089-F	
#	01452756	WIRING W1	
	01450090	WIRING W2	
#	01346090	LCD HOUSING	

TRANSFORMER

01450212	PWR TRANS 01450212 UNIVERSAL
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AC INLET

23425740	AC INLET INL-8 10A/125V 2P PO	JK401 on IB
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SCREW

40012634	WOOD ANCHOR NUT B M8 x 13.5 ZC	
40011723	WOOD ANCHOR NUT B M5 x 12 ZC	
40011712	WOOD ANCHOR NUT B M4 x 11.5 ZC	
40012145	TRUSS TAPPING A 4 x 14 BZC	
40012090	TRUSS TAPPING A 4 x 2 ZC	
40012034	TRUSS MACHINE SCREW M4 x18 BZC	
00239367	SHOULDER SCREW 1165	
40011956	PLAIN WASHER 3 x 10 x 0.8 ZC	
40012490	PAN TAPTITE P 4 x 10 BZC	
40011312	PAN TAPTITE P 3 x 8 BZC	
40011323	PAN TAPTITE P 3 x 10 BZC	
40011256	PAN TAPTITE P 2 x 6 ZC	
40231090	PAN TAPPING A 6 x 12 ZC	
40012923	PAN MACHINE SCREW W/SW+PW M4 x 25 ZC	
40121923	PAN MACHINE SCREW W/SW+PW M4 x 18 ZC	
40012867	PAN MACHINE SCREW W/SW+PW M3 x 8 ZC	
40013056	PAN MACHINE SCREW W/SW+PW M3 x 6 ZC	
40012901	PAN MACHINE SCREW W/SW+PW M3 x 20 ZC	
40012890	PAN MACHINE SCREW W/SW+PW M3 x 16 ZC	
40011490	PAN MACHINE SCREW W/SW M3 x 6 BZC	
22285342	HP-5500 CONNECTING PIN	
40128512	BINDING TAPTITE B WH 4 x 25 x 20 BZC W=11	
40011123	BINDING TAPTITE B 4 x 8 BZC	
40011101	BINDING TAPTITE B 3 x 8 BZC	
40011056	BINDING TAPTITE B 3 x 6 ZC	
40011112	BINDING TAPTITE B 3 x 10 BZC	
40012178	BINDING TAPPING A 3 x 12 BZC	
#	40239401	BINDING TAPPING A 3.5 x 8 BZC
#	40239378	BINDING TAPPING A 3.5 x 6 ZC
00568756	PA-4A STOP SCREW	

PACKING CASE

01560178	PACKING CASE	FOR PACKING
01346345	PAD L FOR PACKING	
01346356	PAD R FOR PACKING	
01560189	PAD CARTON LOWER	FOR PACKING
01560190	PAD CARTON UPPER	FOR PACKING
01234589	PACKING SHEET	FOR PACKING
01452123	PACKING SHEET T2*250*1600	FOR PACKING
01454845	PACKING SHEET T1*220*750	FOR PACKING

MISCELLANEOUS

40017378	COATING CLIP	
40016523	INSULOCK TIE	100M/M T-18R
40017089	CAUTION SEAL CSA COVER	
40124690	CAUTION SEAL FUSE	

ACCESSORIES

71015401	OWNER'S MANUAL SET ENGLISH	
71011790	OWNER'S MANUAL SET JAPANESE	
13499219	AC CORD SET 100V DC-382-J01 VFF2P	
13499220	AC CORD SET 120V UC-713-J01 SJT2P18AWG60	
13499221	AC CORD SET 230V EC-511-E07 H03VVH2-F 2P	
13499222	AC CORD SET 240VA SC-078-J02 ES206-75HMA	
00905234	EURO CONVERTER PLUG ECP01-5A	
40239667	LEAFLET	
40239434	PIANIST TEMPLATE JAPANESE	100V version only @ æ { & p l V [g

TEST MODE

Note!: When you enter item 8), the user setting data will be set to the factory settings.

Required items

- MIDI cable (1.5m or longer Part No.23485229 1.5m)
- Computer test cable for SOUND CANVAS SC-88 (Part No.17049906)
- Microphone
- Oscilloscope

1. Entering test mode

After turning on the power, press the [Function] button to enter Function mode.

(The LED of each button will blink.)

Then while holding down the [Track 2] button and the [Play] button, press the [Function] button. The following display will appear, and you will enter test mode.

JIG	HP535	V***	B***
		***	C**

V*** : version number

B*** : build number

*** : destination region (DOM: 100V specs, EXP: export specs)

C*** : CPU build number

* (Build number) and (CPU build number) are generally not displayed in the LCD, but some units of the initial production lot do display these. This number are displayed for Factory Purpose only, please ignore when you execute test mode.

Press the [Function] button to move to item 2.

* To advance to the next item you will generally use the [Function] button.

For some items, you will advance automatically, so refer to the explanation of each item.

* If you wish to exit test mode during this procedure, turn off the power.

2. Device check and display of ROM version, etc.

During the device check, the following display will appear.

DEVIC	Testing...

If a problem is found, the following error display will appear.

DEVICE	(Error content)
LCD display	Faulty content
Err PROGRAM ROM	Program (flush or mask ROM) fault
Err DRAM	Work DRAM read/write fault
Err Wave ROM	Wave ROM data content fault
Err RAM for DSP	DSP RAM read/write fault
Err EEPROM	EEPROM read/write fault
Err DATA ROM	DATA ROM data content fault
Err DATA TYPE	DATA ROM type check fault

If an error display appears, press the [Function] button to advance the test mode.

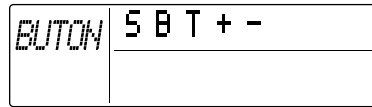
If the test results were OK, the following display will appear.



Press the [Function] button to advance to item 3.

3. Button and LED check

All LEDs will light, and the following display will appear.



Note: If you wish to check item 3, do not press the [Function] button first.
If you press the [Function] button first, you will advance to item 4.

Once you begin the checking process for this test item, it is not possible to advance to the next item before testing all buttons.

Press the following buttons, and confirm that a sound is heard and that the button LED goes dark.

[piano] [E.piano] [Harpsi] [Vibes] [Organ] [Strings] [Choir] [GSTones] [Reverb] [Chorus][Pianist][Split] [Transpose] [Track R] [Track 1] [Track 2] [Play] [Rec] [Function]

Press the following button twice, and confirm that a sound is heard and that the button LED changes from orange to green to dark.

[Key Touch]

Press the following button twice, and confirm that a sound is heard and that the button LED changes from orange to green to dark, and that the button LED goes dark the second time.

[Metronome]

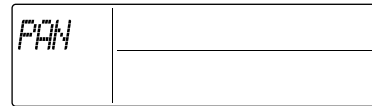
* Press the following buttons, and confirm that a sound is heard and that the characters shown in the LCD ("S" for [Song], "B" for [Beat], "T" for [Tempo], "+" for [Value+] and "-" for [Value-]) disappear.

[Song] [Beat] [Tempo] [Value+] [Value-]

If all buttons are normal, you will automatically advance to item 4.

4. Checking the effect sound and speaker panning etc.

The following display will appear.



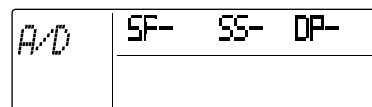
Press the following buttons to check the effect sound and the panning etc.

BUTTON	PANNING	TONE	EFFECT	INDICATION of LCD
[piano]	CENTER	PIANO	none	DRY
[E. piano]	CENTER	PIANO	CHORUS	CHORUS
[Harpsi]	CENTER	PIANO	REVERB	REVERB
[Vibes]	CENTER	PIANO	RESONANCE	RESONANCE
[Organ]	LEFT	440Hz sine wave	none	PAN L
[Strings]	RIGHT	440Hz square wave	none	PAN R
[Choir]	CENTER	440Hz sine wave	none	PAN LR

If you press the [Function] button you will advance to item 5).

5. Pedal operation check

The following display will appear.



At this time, you can move to item 6 by pressing [Function].

Slowly press each of the three pedals ([Soft Pedal], [Sostenuto], [Damper]) one at a time, and confirm that the value in the LCD changes from 0--9, and that the metronome sound is heard when the display reaches "9."

INDICATION of LCD	Names of the pedals
SS (value)	Soft Pedal
SF (value)	Sostenute
DP (value)	Damper

If no problem is found when each of the three pedals are operated, you will automatically advance to the following item.

6. Serial interface check

The following display will appear.

MIDI	Mc-- P1-- P2--
	▶ FM-- ▶ RM--

• MIDI operation check

Set the computer switch to the MIDI position. " ε" symbol will be displayed at the left of "MI" in the LCD. Using a MIDI cable, connect the MIDI IN located under the keyboard to the MIDI OUT located at the back of the piano. If the test result is OK, the LCD will indicate "OK" as follows.

MIDI	Mc-- P1-- P2--
	▶ FMOK ▶ RM--

Using a MIDI cable, connect the MIDI IN located at the back of the piano to MIDI OUT.

If the test result is OK, the LCD will indicate "OK" as follows.

MIDI	Mc-- P1-- P2--
	▶ FM-- ▶ RMOK

• Computer interface operation check

(1) Mac: Settings for connection to a Macintosh.

Set the computer switch to Mac. An underline will be displayed below Mc in the LCD.

Connect a computer test cable (part no. 17049906) to the Computer connector under the keyboard.

Check both ends of the white conductor (signal) and black conductor (ground) of the test cable by oscilloscope, and confirm that a 1 MHz clock is present.

Now turn on the switch of the computer test cable. If the result is normal, the OK will appear in the LCD as follows.

MIDI	<u>Mc</u> OK P1-- P2--
	▶ FM-- ▶ RM--

Turn off the switch of the test cable.

If the result is OK, the following display will appear in the LCD.

MIDI	Mc-- P1-- P2--
	▶ FM-- ▶ RM--

(2) PC1: Settings for connection to a PC-9800.

Set the computer switch to PC1. An underline will be displayed below P1 in the LCD.

Connect a computer test cable (part no. 17049906) to the Computer connector under the keyboard, and turn on the switch of the computer test cable. If the result is OK, the following display will appear.

MIDI	Mc-- <u>P1</u> OK P2--
	▶ FM-- ▶ RM--

Turn off the switch of the test cable.

If the result is OK, the following display will appear in the LCD.

MIDI	Mc-- P1-- P2--
	▶ FM-- ▶ RM--

(3) PC2: Settings for connection to an IBM-compatible computer

An underline will be displayed below P2 in the LCD.

Set the computer switch to PC2. The Song LED at the right of the display will light.

Connect a computer test cable (part no. 17049906) to the Computer connector under the keyboard, and turn on the switch of the computer test cable. If the result is OK, the following display will appear.

MIDI	Mc-- P1-- P2 <u>OK</u>
	▶ FM-- ▶ RM--

Turn off the switch of the test cable.

If the result is OK, the following display will appear in the LCD.

MIDI	Mc-- P1-- P2--
	▶ FM-- ▶ RM--

Press the [Function] button to proceed to item 7.

7. LCD check

When you enter this mode, the entire LCD will go dark.

Next, press the [Function] button and confirm that the LCD lights entirely.

Then press the [Transpose] button to proceed to item 8.

8. Destination region setting

The following display will appear.

DEST	***
	D E

Now press the [Beat] button to select DOM (Japanese) specifications, or press the [Tempo] button to select EXP (export) specifications.

* When you enter this setting, the HP-535 will automatically return to the factory settings.

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

9. Exiting test mode

To exit test mode, turn off the power.

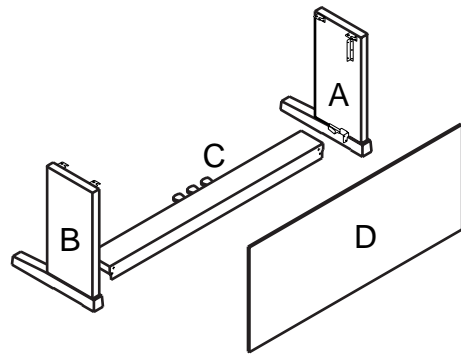
10. Mic check

After exiting test mode, connect a mic to the Mic In jack located under the keyboard, and rotate the knobs (Mic Volume and Mic Echo) to verify that each function operates correctly.


STAND ASSEMBLY (KS-505)


1. 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

 Screw a (4 x 20 mm) x 8

 Screw b (4 x 25 mm) x 4

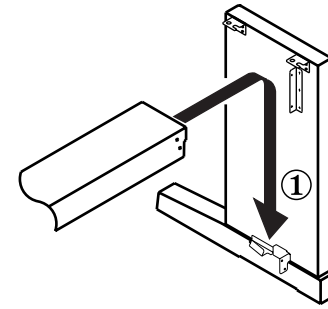
 Screw c (M5 x 20 mm) x 2

CAUTION

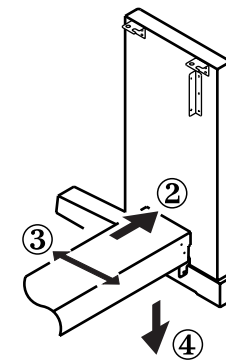
- Make sure that another person is on hand to help with the assembly and setup.
- When assembling the piano stand, do not apply excessive pressure on any part. To do so can cause metal parts to get bent out of shape, and may damage wooden parts.
- Be very careful, when you assemble and move the piano, to make sure that you do not drop it on your hands or feet.
- To move the piano, lift it carefully—all the while keeping it level.
- 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.
- 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.

2. Fixing the Pedal Board and Side Boards

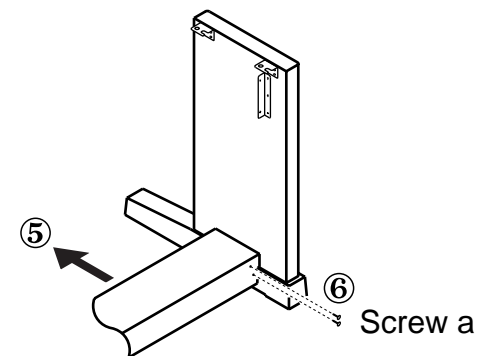
; Position the Pedal Board so it rests on top of the metal fitting at the bottom of the Side Board ①.



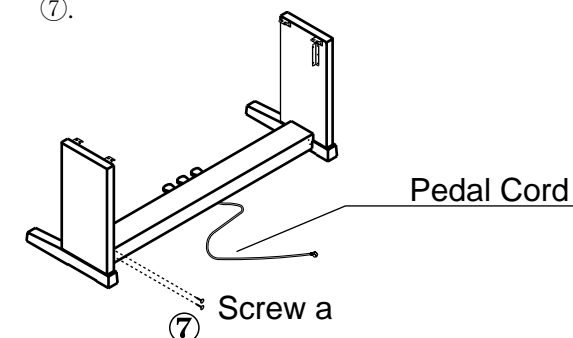
; Move the Pedal Board so it is in close contact with the Side Board ②, then while shifting it forward or backward as necessary ③, push it down until it has been grasped firmly by the metal fitting ④.



; Push the Pedal Board in the direction of the arrow ⑤, then fasten it with screws "a" ⑥.

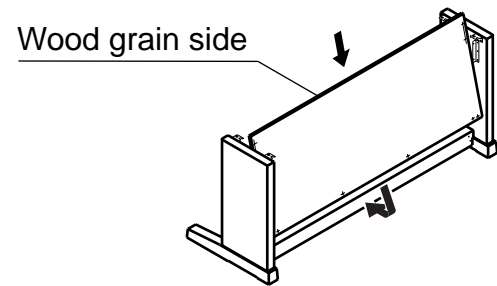


; In the same manner, fasten the other side with screws "a" ⑦.

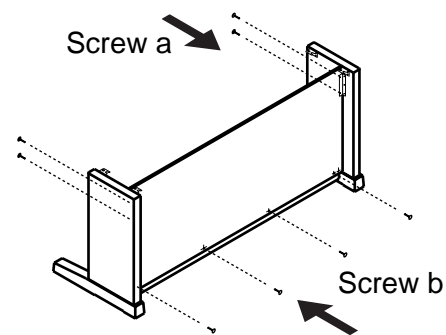


3. Fitting the Rear Board

- Position the Rear Board so the side on which the wood-grain is visible faces the same direction as the three pedals, as shown in the illustration.



- Using screws "a," fasten the Rear Board to the Side Boards at right and left (two screws each at right and left). Then, fasten the Rear Board to the Pedal Board with screws "b" (four places). Observe the direction shown by the arrow in the illustration.

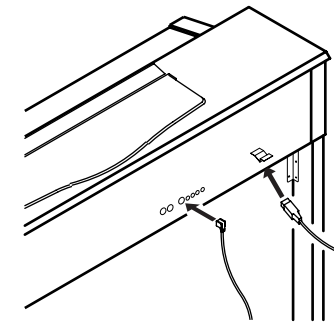


4. Installing the Piano on the Stand

- Align the joint 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.
- Fasten the piano to the stand with the screw "c" (M5 X 20 mm) (one each for the right and left).

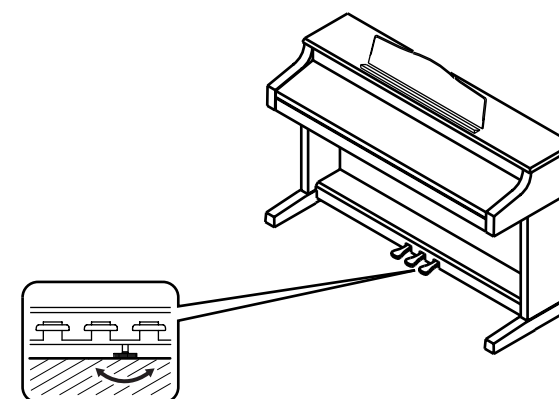
5. Connecting the Pedal and Power Cords

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



6. Adjusting the Adjuster

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



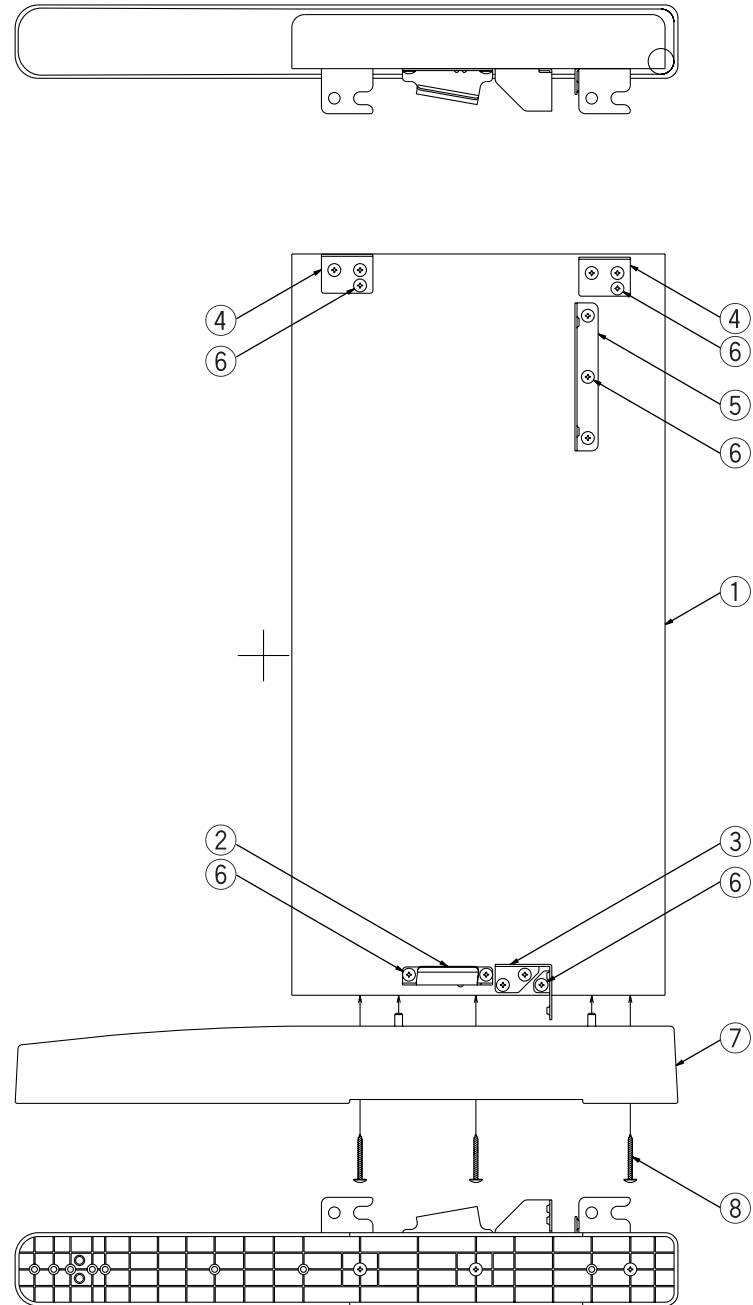
When Moving the Piano

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.

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

STAND EXPLODED VIEW

71019545 SIDE BOARD L ASSY 117/230/240V ONLY
 (71019556 SIDE BOARD R ASSY)

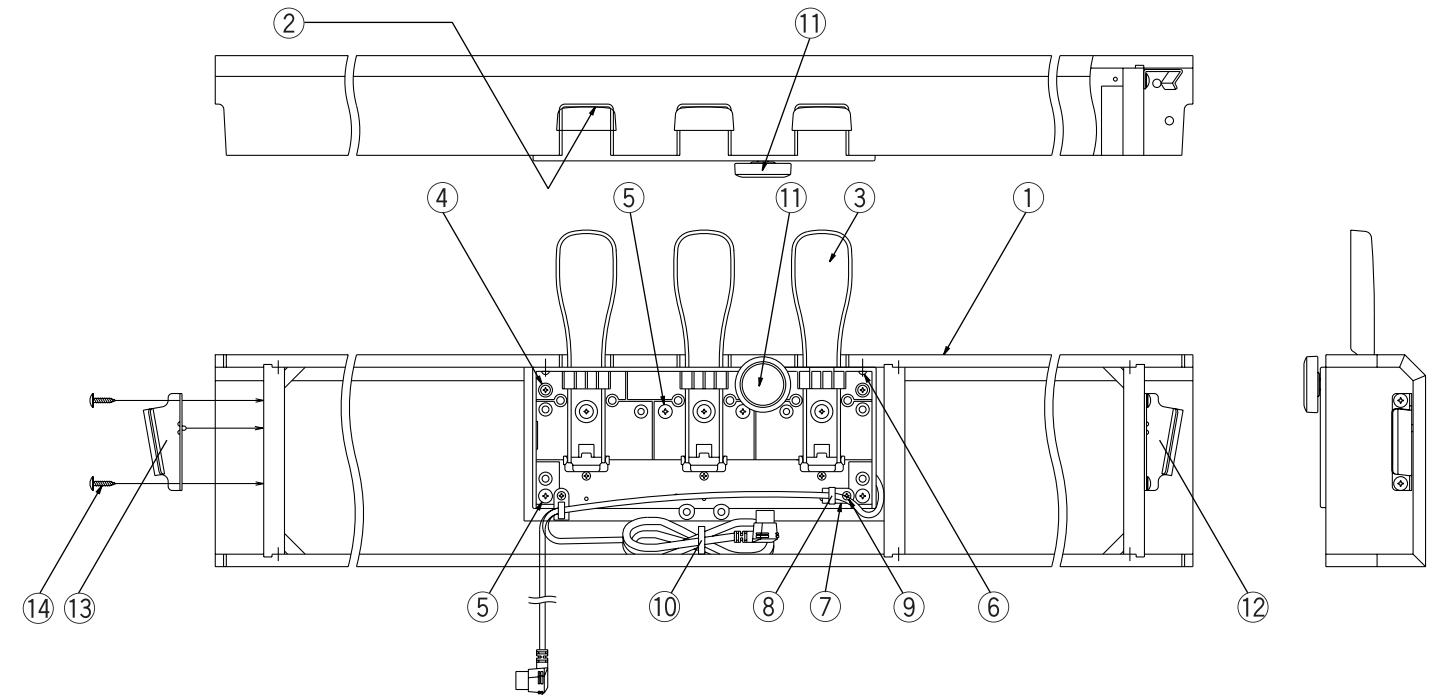


The items bracketed by () are parts for SIDE PANEL ASSY R

No.	Pno.	Part Name
①	*****	SIDE BOARD L (***** SIDE BOARD R)
②	01451878	SIDE HOLDER L (01451889 SIDE HOLDER R)
③	01451934	REAR HOLDER L (01451945 REAR HOLDER R)
④	22205517	JOINT HOLDER L (22205518 JOINT HOLDER R)
⑤	22125675	ANGLE
⑥	40010678	4*20mm TRUSS HEAD TAPPING A1 Fe BZC
⑦	01452834	TOE BLOCK
⑧	40010701	4*35mm TRUSS HEAD TAPPING A1 Fe BZC

STAND EXPLODED VIEW

71120045 PEDAL BOARD ASSY 117/230/240V ONLY
 71019823 PEDAL UNIT



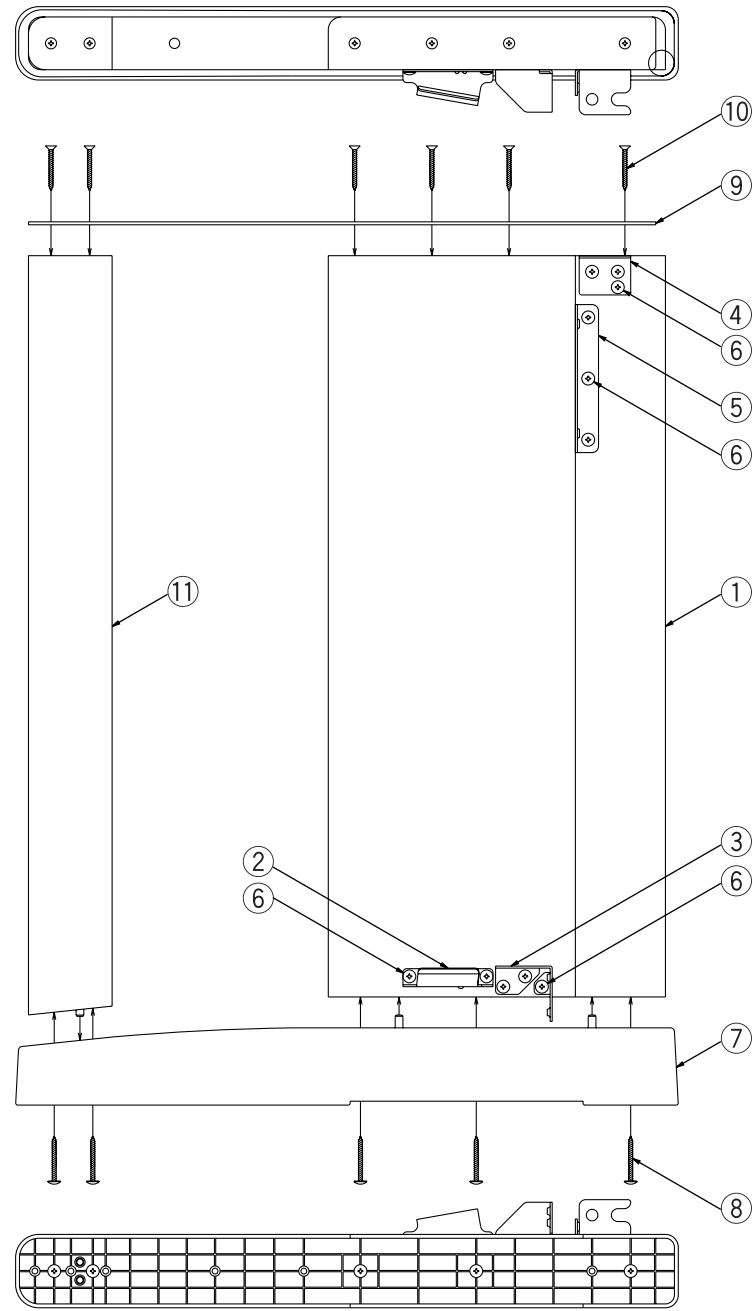
No.	Pno.	Part Name
①	71120045	PEDAL BOARD ASSY
②	22245308	PEDAL BOARD FELT
③	71018623	PEDAL CENTER ASSY
④	40012923	4 × 25mm DOUBLE SEMS Fe ZC
⑤	40012123	4 × 25mm TRUSS HEAD TAPPING A1 Fe BZC
⑥	40011556	3.1 × 10mm ROUND WOOD ZC
⑦	40016545	SKM-1 TIE HOLDER
⑧	40016512	INSULOCK TIE T-18S
⑨	40011323	3 × 10mm BINDING HEAD P TITE Fe BZC
⑩	40016578	VINYL TIE 150mm
⑪	22285396	ADJUST BOLT
⑫	01451878	SIDE HOLDER L
⑬	01451889	SIDE HOLDER R
⑭	40010634	4 × 16mm TRUSS HEAD TAPPING A1 Fe BZC

STAND PARTS LIST

Parts No.	Description	71019923	KS-505/KS-505D SCREW SET
01451867	REAR BOARD		NOTE : SCREW SET includes the following parts.
# 71019556	SIDE BOARD R ASSY	@ :	SCREW SET " " L i • B
	NOTE : SIDE BOARD R ASSY includes the following parts.		
	@ : SIDE BOARD R ASSY " " L i • B		
	***** SIDE BOARD R	40010589	5 x 20mm TRASS HEAD FeBZC x 2
#	01452834 TOE BLOCK	40010689	4 x 25mm TRUSS HEAD TAPPING A1 Fe BZC x 4
	01451945 REAR HOLDER R	40239278	4 x 20mm PAN WASHER HEAD TAPTITE C BZC x 8
	01451889 SIDE HOLDER R		
	22125675 ANGLE		
	22205518 JOINT HOLDER R	40010634	4 x 16mm TRUSS HEAD TAPPING A1 Fe ZC
	40010678 4 x 20mm TRUSS HEAD TAPPING A1 Fe BZC	40012123	4 x 25mm TRUSS HEAD TAPPING A1 Fe ZC
	40010701 4 x 35mm TRUSS HEAD TAPPING A1 Fe BZC	40011323	3 x 10mm BINDING HEAD P TITE Fe BZC
		40012923	4 x 25mm DOUBLE SEMS Fe ZC
# 71019545	SIDE BOARD L ASSY	40011556	3.1 x 10mm ROUND WOOD ZC
	NOTE : SIDE BOARD L ASSY includes the following parts.	40016512	INSULOCK TIE 80M/M T-18S
	@ : SIDE BOARD L ASSY " " L i • B	40016578	VINYL TIE 150M/
	***** SIDE BOARD L	40016545	SKM-1 TIE HOLDER
#	01452834 TOE BLOCK	# 40239212	LEAFLET
	01451934 REAR HOLDER L	# 01452801	PACKING CASE
	01451878 SIDE HOLDER L		
	22125675 ANGLE		
	22205517 JOINT HOLDER L		
	40010678 4 x 20mm TRUSS HEAD TAPPING A1 Fe BZC		
	40010701 4 x 35mm TRUSS HEAD TAPPING A1 Fe BZC		
71120045	PEDAL BOARD ASSY		
	NOTE : PEDAL BOARD ASSY includes the following parts.		
	@ : PEDAL BOARD ASSY " " L i • B		
	22245308 PEDAL BOARD FELT		
	40011701 WOOD ANCHOR NUT M4 x 9.5 ZC		
71019823	PEDAL UNIT		
	NOTE : PEDAL UNIT includes the following parts.		
	@ : PEDAL UNIT " " L i • B		
71018601	CONNECT CODE		
	NOTE : CONNECT CORD includes the following parts.		
	@ : CONNECT CORD " " L i • B		
	15229728 PHOTO INTERUPTER GP2S24B		
	15119112 TRANSISTOR 2SA1015-Y		
	13299199 TRIMMER EVND8AA03B13		
	00907045 PEDAL CABLE		
71018623	PEDAL CENTER ASSY		
	NOTE : PEDAL CENTER ASSY includes the following parts.		
	@ : PEDAL CENTER ASSY " " L i • B		
	***** PEDAL CENTER		
01451667	FELT		
22285396	ADJUST BOLT		
00907045	PEDAL CABLE		
00904190	PEDAL CHASSIS		
00908023	FELT L		
00904223	COILED SPRING		
00908034	6 x 35mm JOINT BOLT		
00677978	6 x 12mm JOINT NUT		
40011278	3 x 8mm BINDING HEAD P-TITE FeBC		
40011334	3 x 12mm BINDING HEAD P-TIGHT Fe BZC		

STAND EXPLODED VIEW

71018878 SIDE PANEL L ASSY 100V ONLY
 (71018889 SIDE PANEL R ASSY)

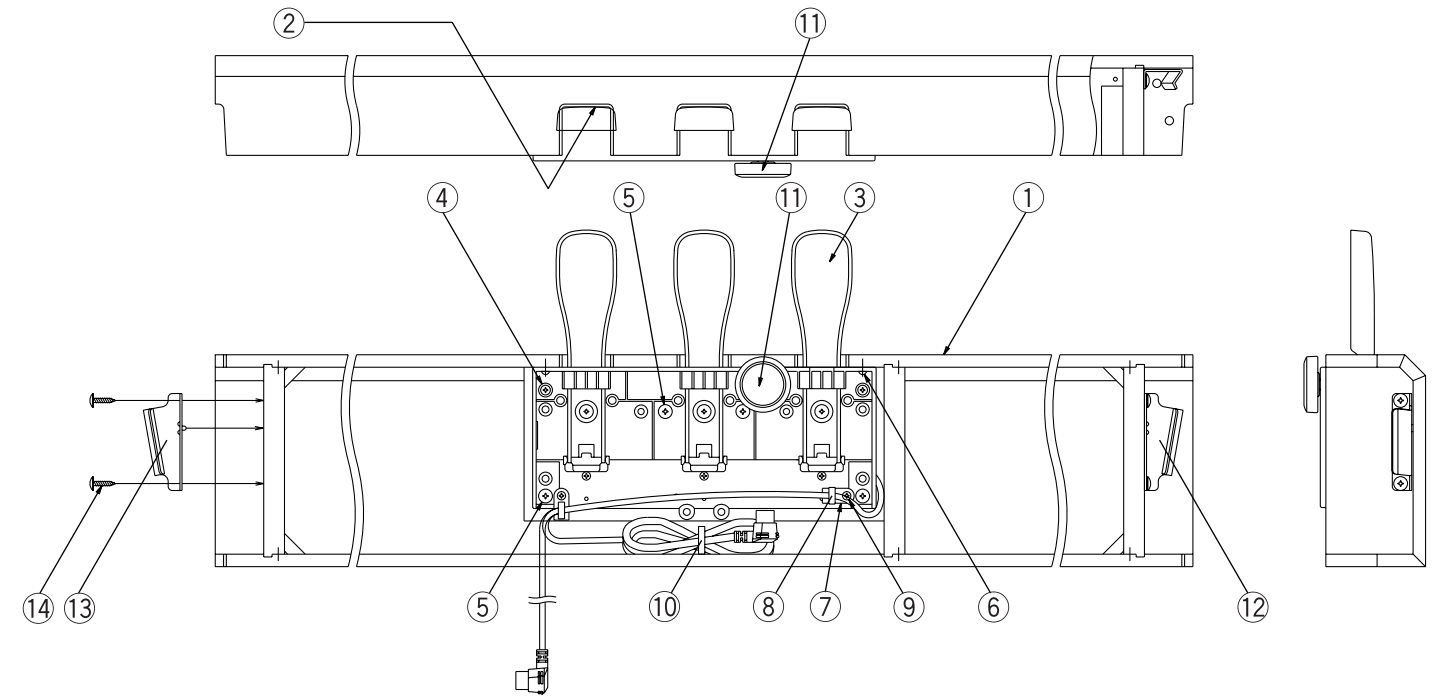


The items bracketed by () are parts for SIDE PANEL ASSY R

No.	Pno.	Part Name
①	*****	SIDE BOARD L (***** SIDE BOARD R)
②	01451878	SIDE HOLDER L (01451889 SIDE HOLDER R)
③	01451934	REAR HOLDER L (01451945 REAR HOLDER R)
④	22205517	JOINT HOLDER L (22205518 JOINT HOLDER R)
⑤	22125675	ANGLE
⑥	40010678	4 x 20mm TRUSS HEAD TAPPING A1 Fe BZC
⑦	01451901	TOE BLOCK
⑧	40010701	4 x 35mm TRUSS HEAD TAPPING A1 Fe BZC
⑨	00900045	JOINT HOLDER
⑩	40019601	4 x 35mm FLAT HEAD TAPPING A1 Fe BZC
⑪	01451912	LEG

STAND EXPLODED VIEW

71120045 PEDAL BOARD ASSY 100V ONLY
 71019823 PEDAL UNIT

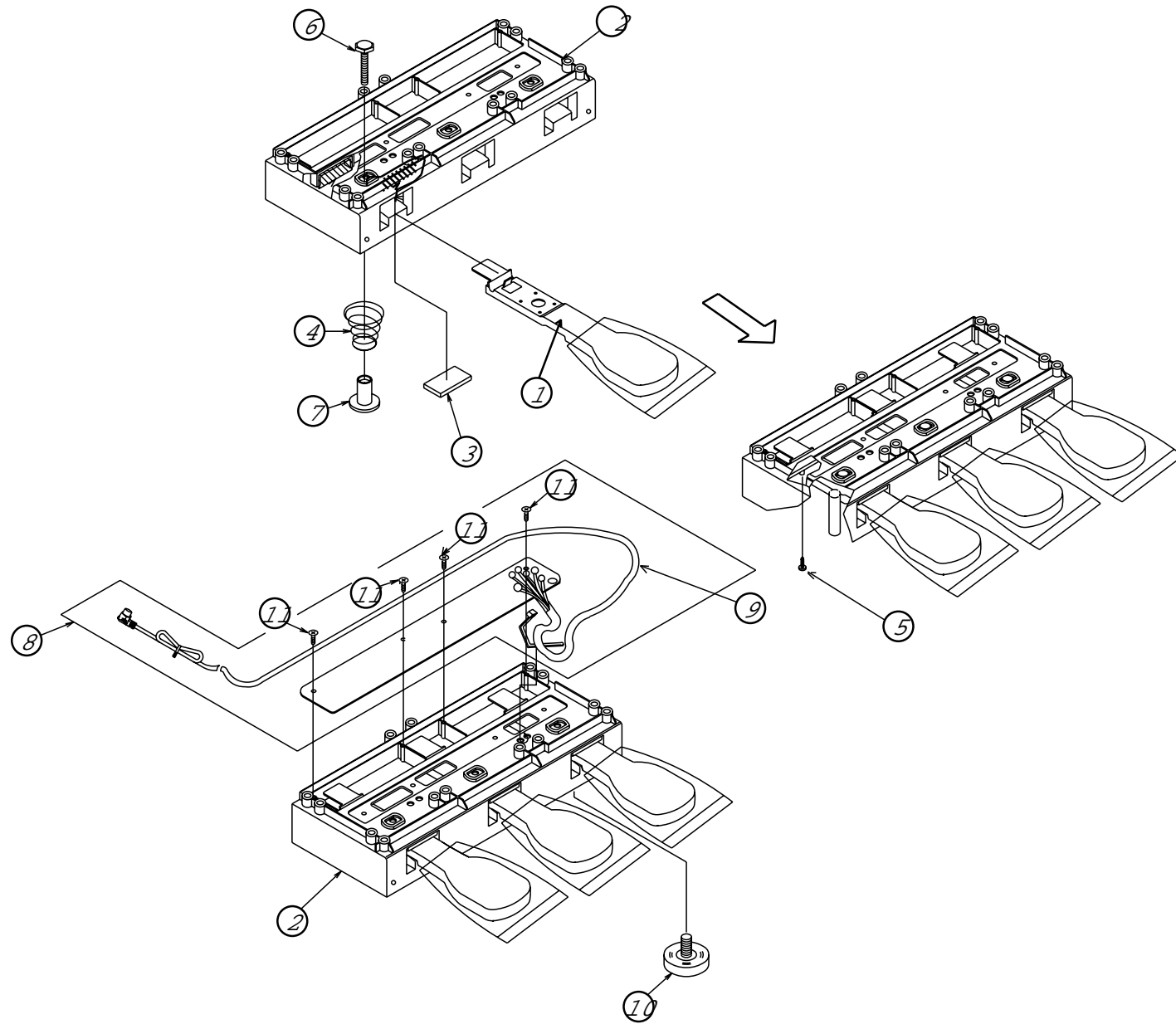


No.	Pno.	Part Name
①	71120045	PEDAL BOARD ASSY
②	22245308	PEDAL BOARD FELT
③	71018623	PEDAL CENTER ASSY
④	40012923	4 x 25mm DOUBLE SEMS Fe ZC
⑤	40012123	4 x 25mm TRUSS HEAD TAPPING A1 Fe BZC
⑥	40011556	3.1 x 10mm ROUND WOOD ZC
⑦	40016545	SKM-1 TIE HOLDER
⑧	40016512	INSULOCK TIE T-18S
⑨	40011323	3 x 10mm BINDING HEAD P TITE Fe BZC
⑩	40016578	VINYL TIE 150mm
⑪	22285396	ADJUST BOLT
⑫	01451878	SIDE HOLDER L
⑬	01451889	SIDE HOLDER R
⑭	40010634	4 x 16mm TRUSS HEAD TAPPING A1 Fe BZC

STAND PARTS LIST

Parts No.	Description	00677978	6*12mm JOINT NUT
# 01451867	REAR BOARD	40011278	3*8mm BINDING HEAD P-TITE FeBC
71018889	SIDE BOARD R ASSY	40011334	3*12mm BINDING HEAD P-TIGHT Fe BZC
	NOTE : SIDE BOARD R ASSY includes the following parts.	# 71019923	KS-505/KS-505D SCREW SET
	@ : SIDE BOARD R ASSY ~ " L i • B		NOTE : SCREW SET includes the following parts.
	***** SIDE BOARD R	@ : SCREW SET ~ " L i • B	
#	01451901 TOE BLOCK	40010589	5 x 20mm TRASS HEAD FeBZC x2
#	01451945 REAR HOLDER R	40010689	4 x 25mm TRUSS HEAD TAPPING A1 Fe BZC x4
#	01451889 SIDE HOLDER R	# 40239278	4 x 20mm PAN WASHER HEAD TAPTITE C BZC x8
	01451912 LEG		
	22125675 ANGLE		
	00900045 JOINT HOLDER		
	22205518 JOINT HOLDER R	40010634	4 x 16mm TRUSS HEAD TAPPING A1 Fe ZC
	40010678 4x20mm TRUSS HEAD TAPPING A1 Fe BZC	40012123	4 x 25mm TRUSS HEAD TAPPING A1 Fe ZC
	40010701 4x35mm TRUSS HEAD TAPPING A1 Fe BZC	40011323	3 x 10mm BINDING HEAD P TITE Fe BZC
	40019601 4x35mm FLAT HEAD TAPPING A1 Fe BZC	40012923	4 x 25mm DOUBLE SEMS Fe ZC
		40011556	3.1 x 10mm ROUND WOOD ZC
71018878	SIDE BOARD L ASSY	40016512	INSULOCK TIE 80M/M T-18S
	NOTE : SIDE BOARD L ASSY includes the following parts.	40016578	VINYL TIE 150M/M
	@ : SIDE BOARD L ASSY ~ " L i • B	40016545	SKM-1 TIE HOLDER
	***** SIDE BOARD L	40239023	LEAFLET
#	01451901 TOE BLOCK	# 01451856	PACKING CASE
#	01451934 REAR HOLDER L	00898189	HEAD PHONE RH-30
#	01451878 SIDE HOLDER L	01567034	STOOL(MAHOGANAY)
#	01451912 LEG		
	22125675 ANGLE		
	00900045 JOINT HOLDER		
	22205517 JOINT HOLDER L		
	40010678 4x20mm TRUSS HEAD TAPPING A1 Fe BZC		
	40010701 4x35mm TRUSS HEAD TAPPING A1 Fe BZC		
	40019601 4x35mm FLAT HEAD TAPPING A1 Fe BZC		
# 71120045	PEDAL BOARD ASSY		
	NOTE : PEDAL BOARD ASSY includes the following parts.		
	@ : PEDAL BOARD ASSY ~ " L i • B		
	22245308 PEDAL BOARD FELT		
	40011701 WOOD ANCHOR NUT M4*9.5 ZC		
71019823	PEDAL UNIT		
	NOTE : PEDAL UNIT includes the following parts.		
	@ : PEDAL UNIT ~ " L i • B		
71018601	CONNECT CODE		
	NOTE : CONNECT CORD includes the following parts.		
	@ : CONNECT CORD ~ " L i • B		
	15229728 PHOTO INTERUPTER GP2S24B		
	15119112 TRANSISTOR 2SA1015-Y		
	13299199 TRIMMER EVND8AA03B13		
	00907045 PEDAL CABLE		
71018623	PEDAL CENTER ASSY		
	NOTE : PEDAL CENTER ASSY includes the following parts.		
	@ : PEDAL CENTER ASSY ~ " L i • B		
	***** PEDAL CENTER		
	01451667 FELT		
22285396	ADJUST BOLT		
00907045	PEDAL CABLE		
00904190	PEDAL CHASSIS		
00908023	FELT L		
00904223	COILED SPRING		
00908034	6*35mm JOINT BOLT		

PEDAL UNIT EXPLODED VIEW



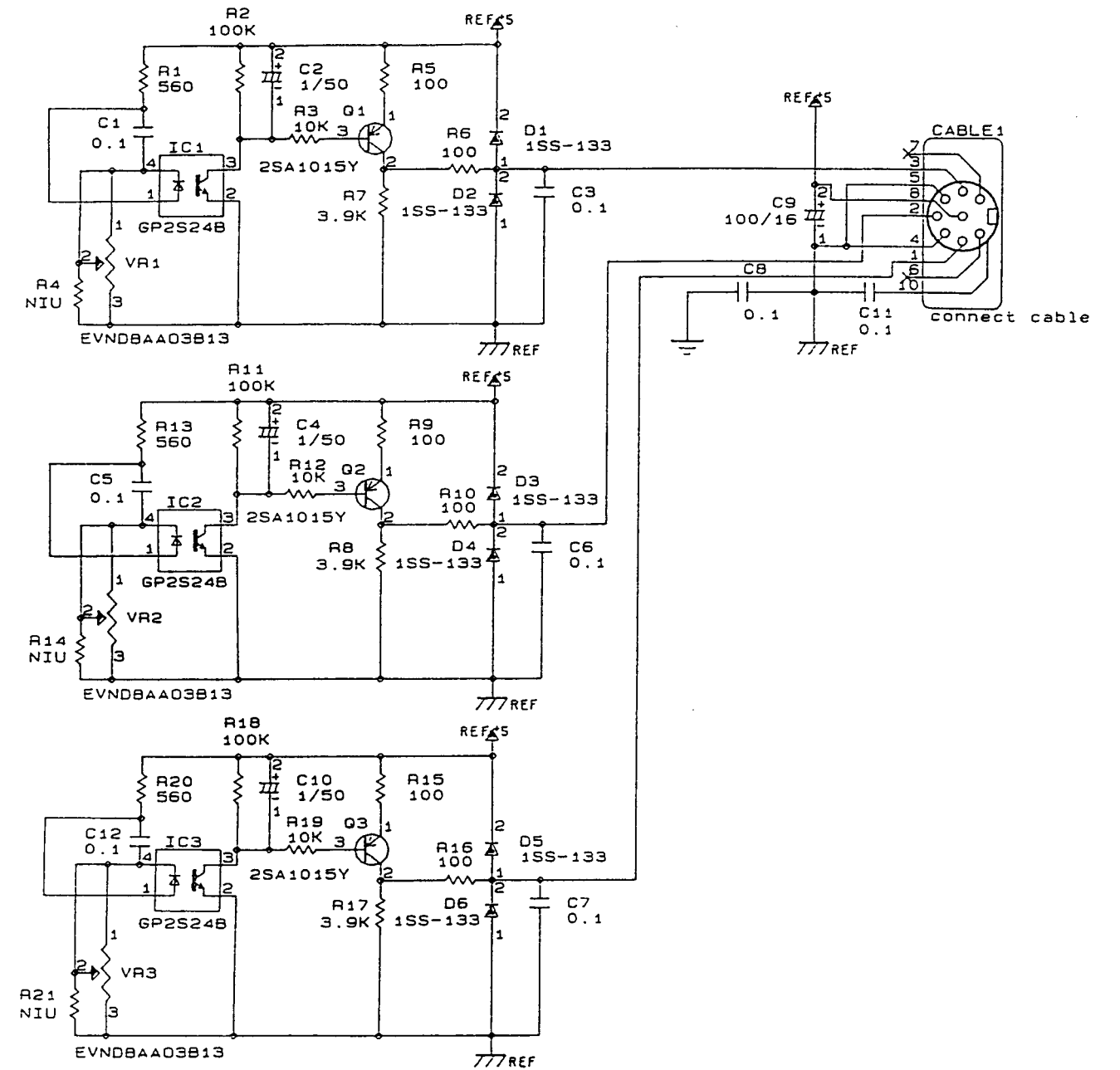
PARTS LIST

No.	Parts No.	Part Name
①	71018623	PEDAL CENTER
②	00904190	PEDAL CHASSIS
③	00908023	FELT L
④	00904223	COILED SPRING
⑤	40011334	3 × 12mm Binding Head P-TITE Fe BZC
⑥	00908034	6 × 35mm JOINT BOLT
⑦	00677978	6 × 12mm JOINT NUT
⑧	71018601	CONNECT CORD
⑨	00907045	PEDAL CABLE
⑩	22285396	ADJUST BOLT
⑪	40011278	3 × 8mm Binding Head P-TITE Fe ZC

CONNECT BOARD PARTS LIST

15229728	GP2S24B	PHOTO INTERRUPTER
15119112	2SA1015Y	TRANSISTOR
13299199	EVND8AA03B13	TRIMMER

CONNECT BOARD CIRCUIT DIAGRAM



KEYBOARD DISASSEMBLY

Removing PA-4A key

While holding the front end of the key, insert the tip of long-nose pliers into the U-groove on the shaft side (shaded area in Fig.1) and hold down the key in the direction of arrow A.

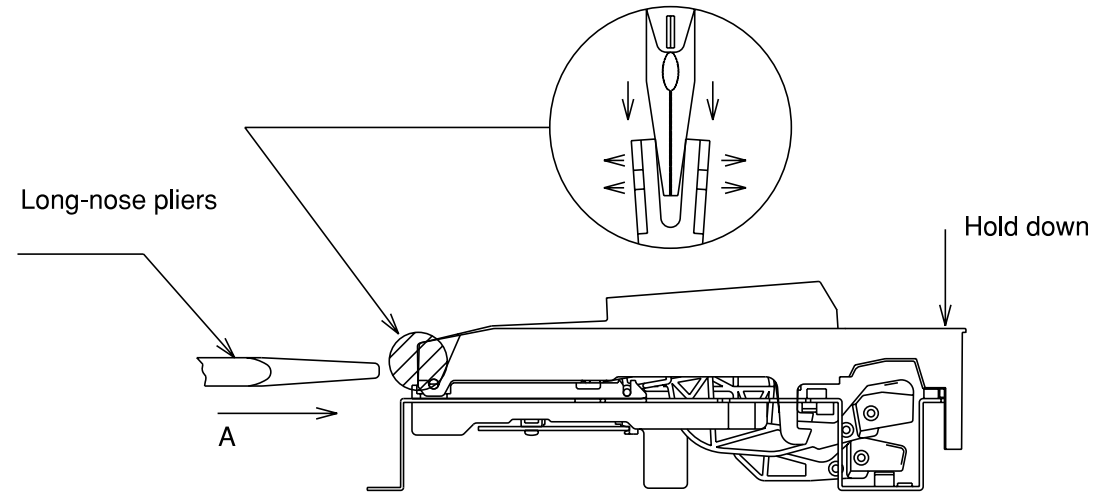


Fig.1

Installing the PA-4A key

While placing the front inner wall of the key against the guide, pass the foot through the hole of the chassis, as shown in Fig.2. Then press the dotted area of the key in the direction of arrow.

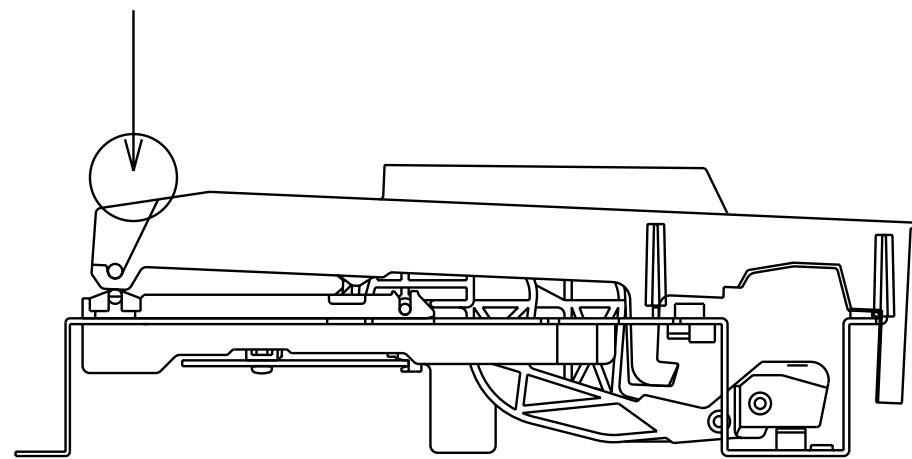


Fig.2

Installing the PA-4A board

As shown in Fig.3, place the board against the hook part a of the sub-shassis, and screw the board into the sub-shassis.

Screw in order, from the round hole (positioning hole) on the connector side.

Be sure to screw manually. (Care should be taken to avoid screw damage.)

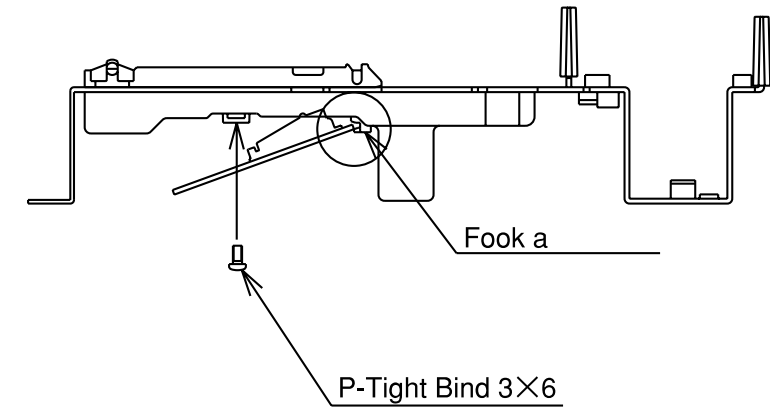


Fig.3

Greasing points

After the key or hammer has been replaced, the specified grease must be applied to the following 4 points as shown in Fig.4.

Fig.4

1. Froir GP-1RS....gray (PNo. 17049544)
 - (a) Key and hammer bearing section
 - (b) Key and hammer joint section (actuator section)
2. Froir G-336A....white (PNo. 17049543)
 - (a) Side of guide bushing for white key and black key

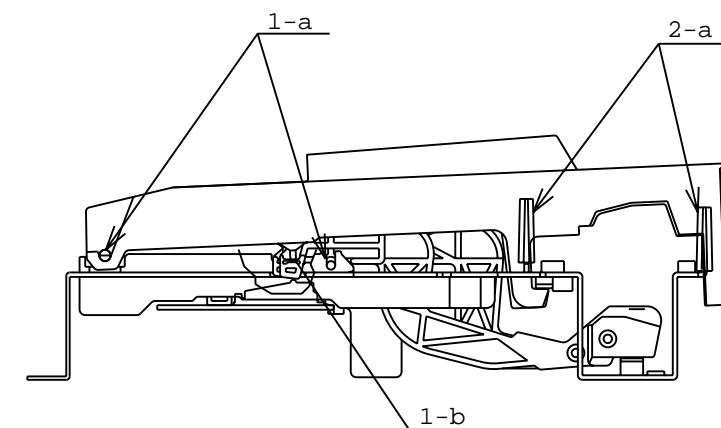


Fig.4

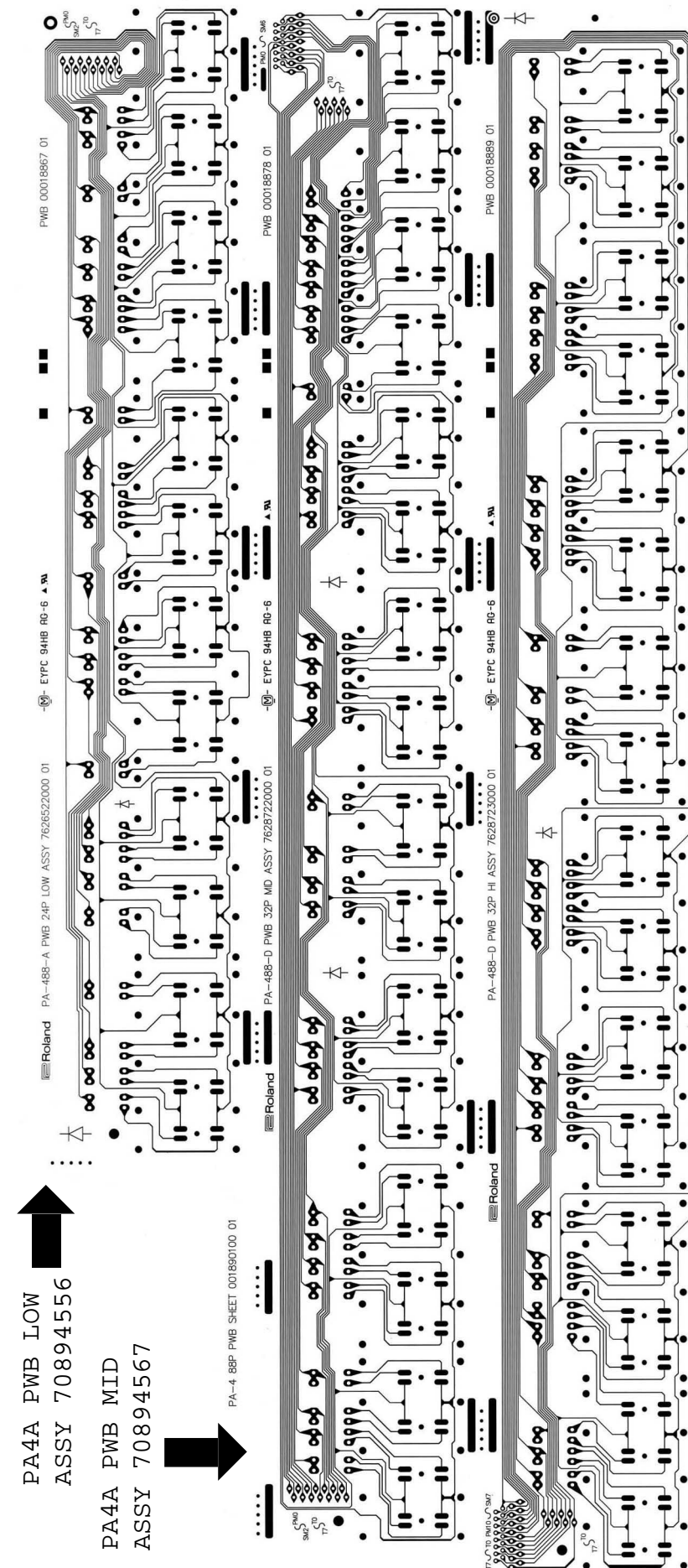
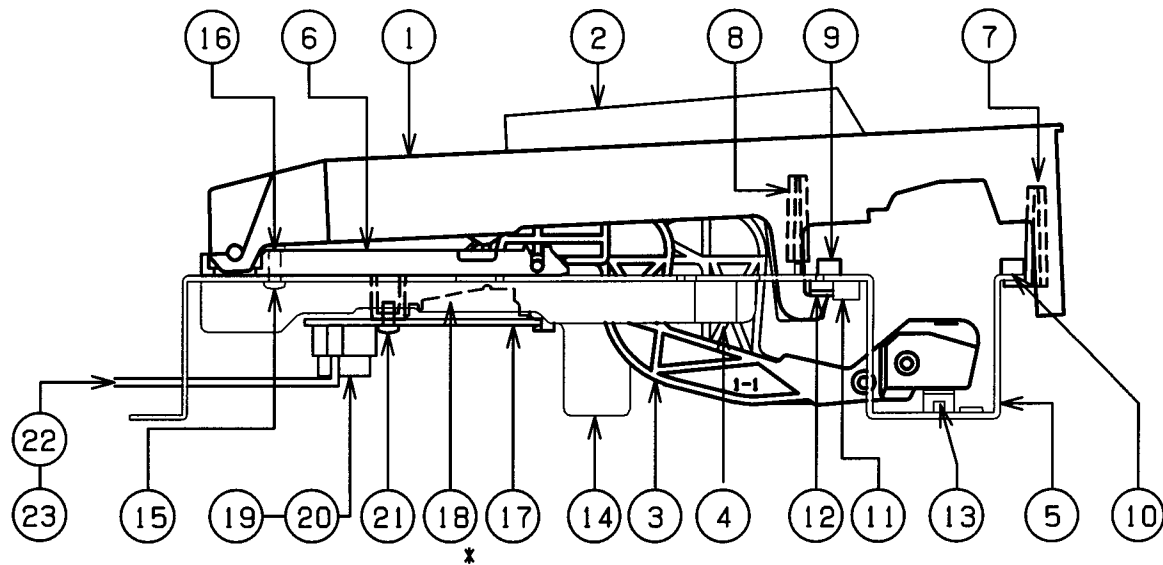
KEYBOARD PARTS LIST

HP-335/535/245/555G-KR-575/575P
 PA-4A88-C2 KEYBOARD ASSY PARTS LIST
 71017401

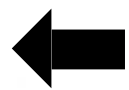
No.	PARTS No.	PARTS NAME	Qty.
1	00455501	PA-4A N-KEY A	7/ 1
	00455512	PA-4A N-KEY B	8/ 1
	00455534	PA-4A N-KEY C	7/ 1
	00455545	PA-4A N-KEY D	7/ 1
	00455556	PA-4A N-KEY E	7/ 1
	00455578	PA-4A N-KEY F	7/ 1
	00455589	PA-4A N-KEY G	7/ 1
	00458689	PA-4A N-KEY A'	1/ 1
	00458690	PA-4A N-KEY C'	1/ 1
2	32575291	PA-4 S-KEY	36/ 1
3	00458178	PA-4A N-KEY HAMMER	52/ 1
4	00458189	PA-4A S-KEY HAMMER	36/ 1
	*****	PA-4A CHASSIS 88P-CK ASSY	1/ 1
5	00453401	PA-4A CHASSIS 88P	1/ 1
6	01019690	PA-4A SUB CHASSIS A	7/ 1
	01019701	PA-4A SUB CHASSIS B	1/ 1
7	22155784	PA-4 GUIDE BUSHING A	52/ 1
8	00019912	PA-4 GUIDE BUSHING S-KEY	36/ 1
9			
10	22265498	PA-4 CUSHION A	2/ 1
11	00452145	PA-4 CUSHION U ZUREN DBK-2	1/ 1
12	00564867	PA-4A CUSHION I	1/ 1
13	01237089	PA-4A CUSHION RZA	1/ 1
14	00561890	PA-4A CHANNEL	8/ 1
15	40011067	BINDING TAPTITE B 3X8 ZC	16/ 1
16	40012256	BINDING TAPTITE B 3X10 ZC	30/ 1
17	70894556	PA-4A PWB LOW ASSY	1/ 1
	70894567	PA-4A PWB MID ASSY	1/ 1
	70894578	PA-4A PWB HI ASSY	1/ 1
*	22185247	PA-4 RUBBER SWITCH 12P	8/ 1
19	23475965	FUJI CARD 14X70-A5.0BB-P1.25-HBL8	1/ 1
20	23475342	FUJI CARD 8X60-A5.0BB-P1.25-H8	1/ 1
21	40011267	BINDING TAPTITE P 3X6 ZC	10/ 1
22	00347201	FUJI CARD 14X180-A6.0BBR-P1.25-HBL10-S	1/ 1
23	00347234	FUJI CARD 16X180-A6.0BBR-P1.25-HBL10-S	1/ 1

Item 18 marked * is included in each unit of item 17.

KEYBOARD PA-4A88-C2 CIRCUIT BOARD

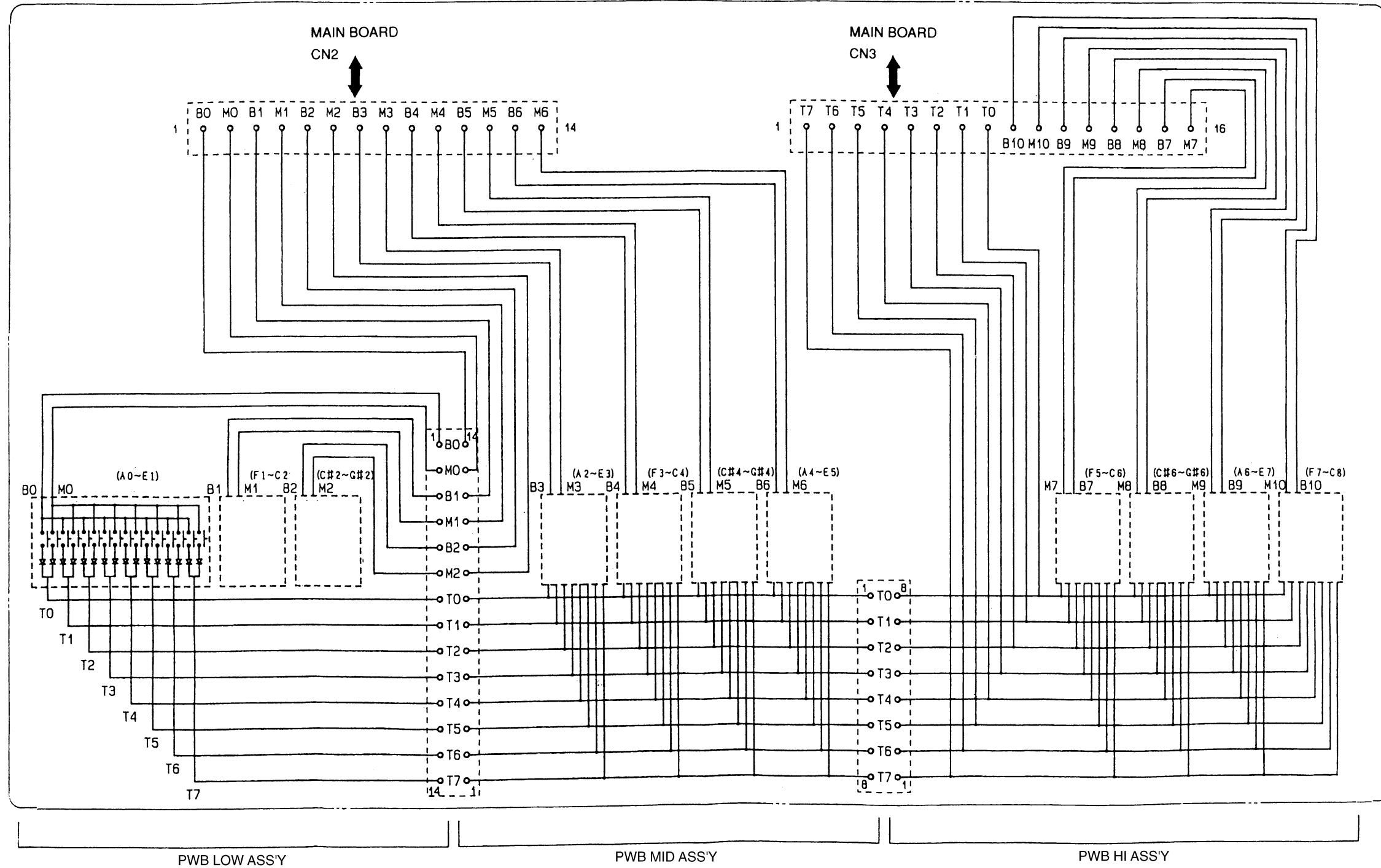


View from components side.



PA4A PWB HI
 ASSY 70894578

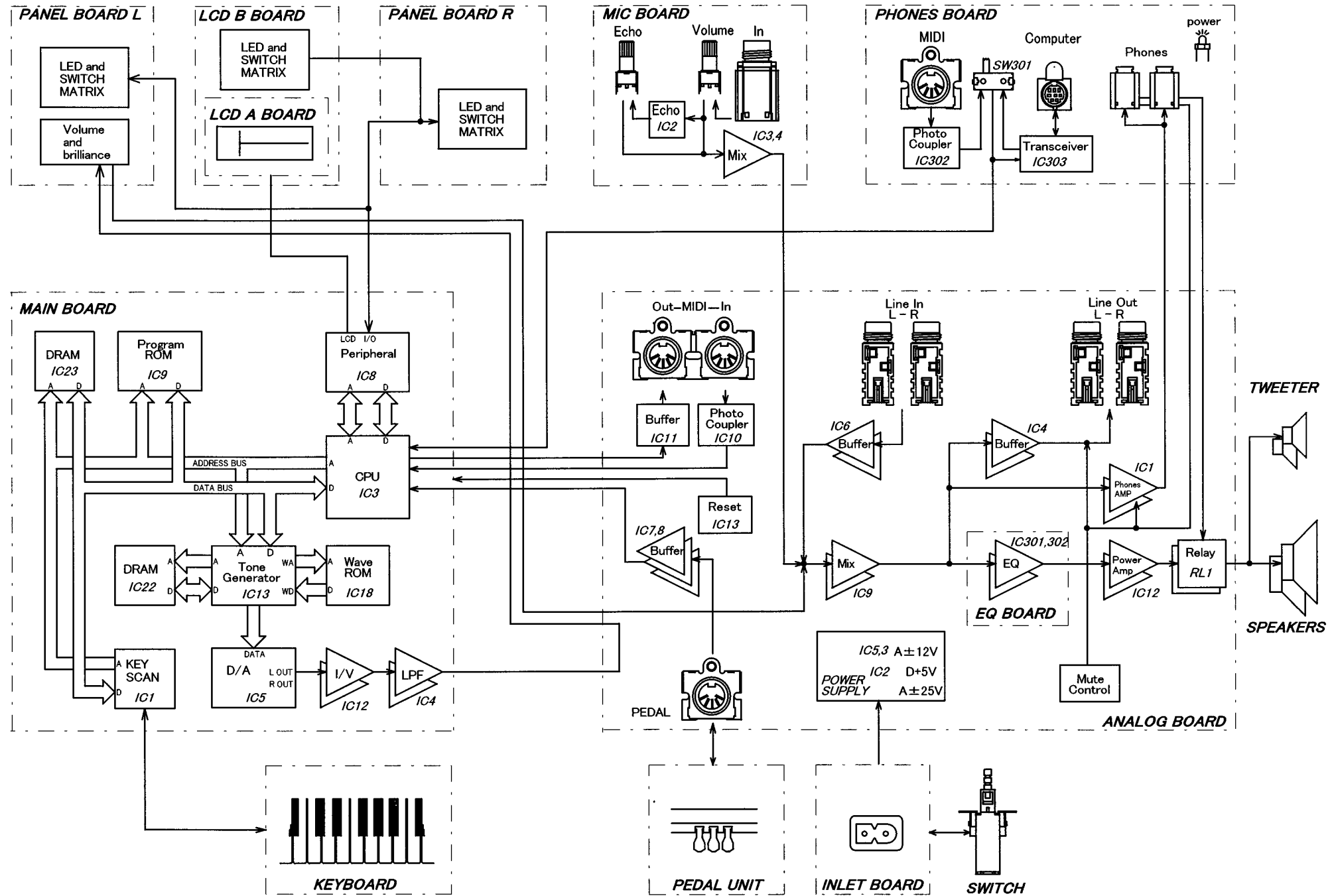
KEYBOARD PA-4A88-C2 CIRCUIT DIAGRAM



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

A BLOCK DIAGRAM

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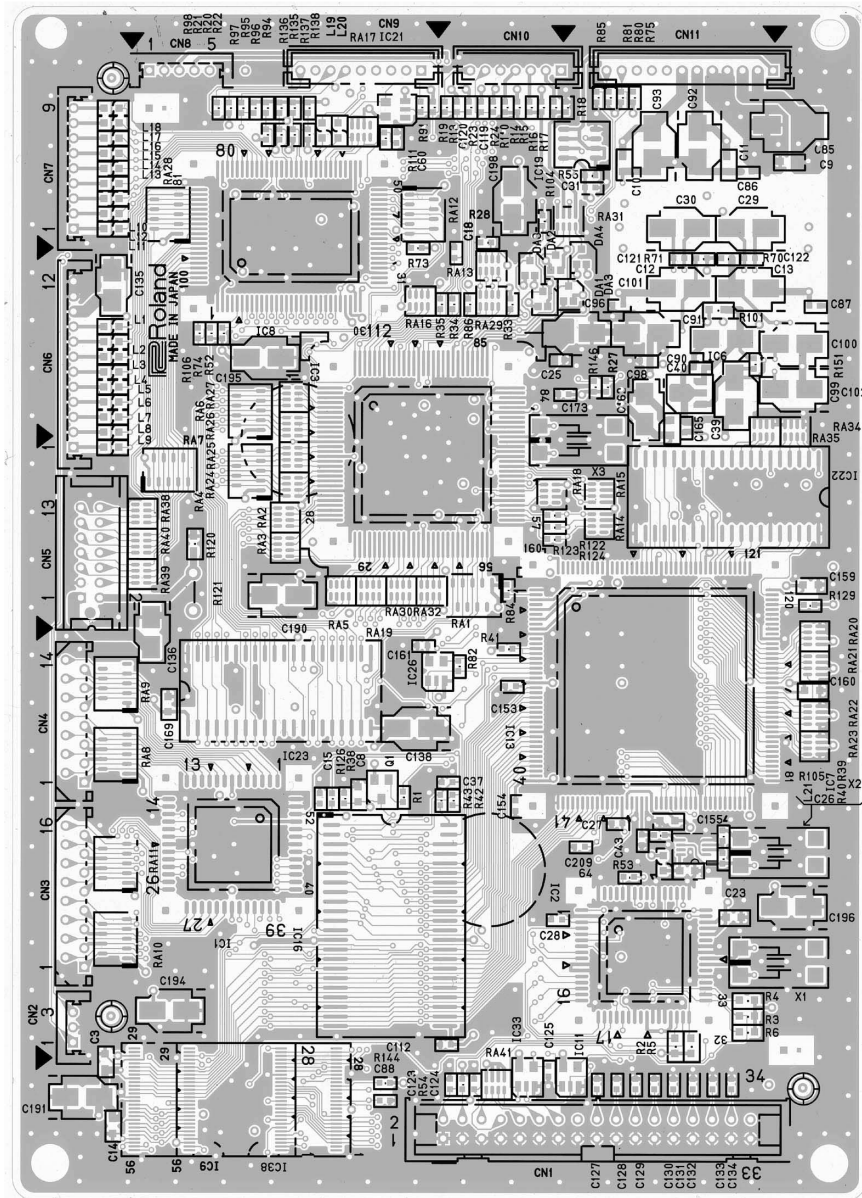


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

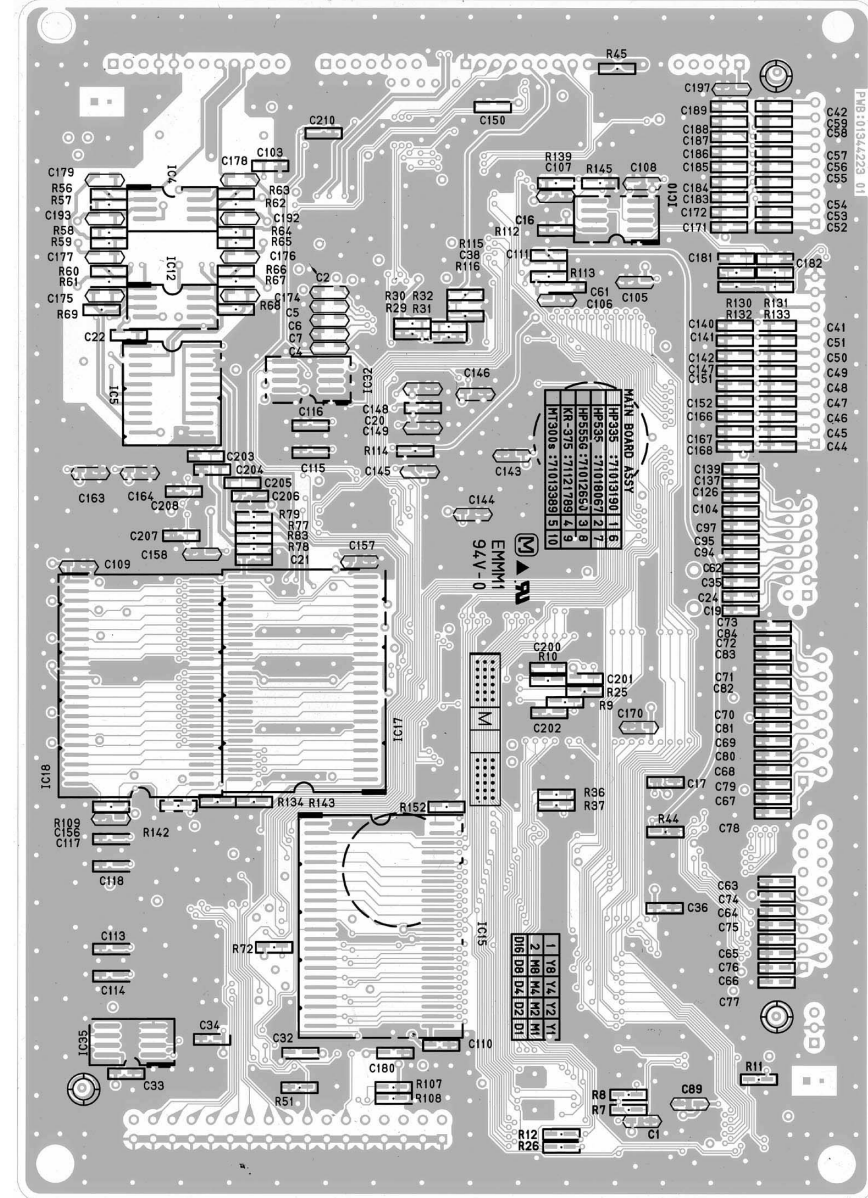
A CIRCUIT BOARD (MAIN)

ASSY 71018067

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View from components side.

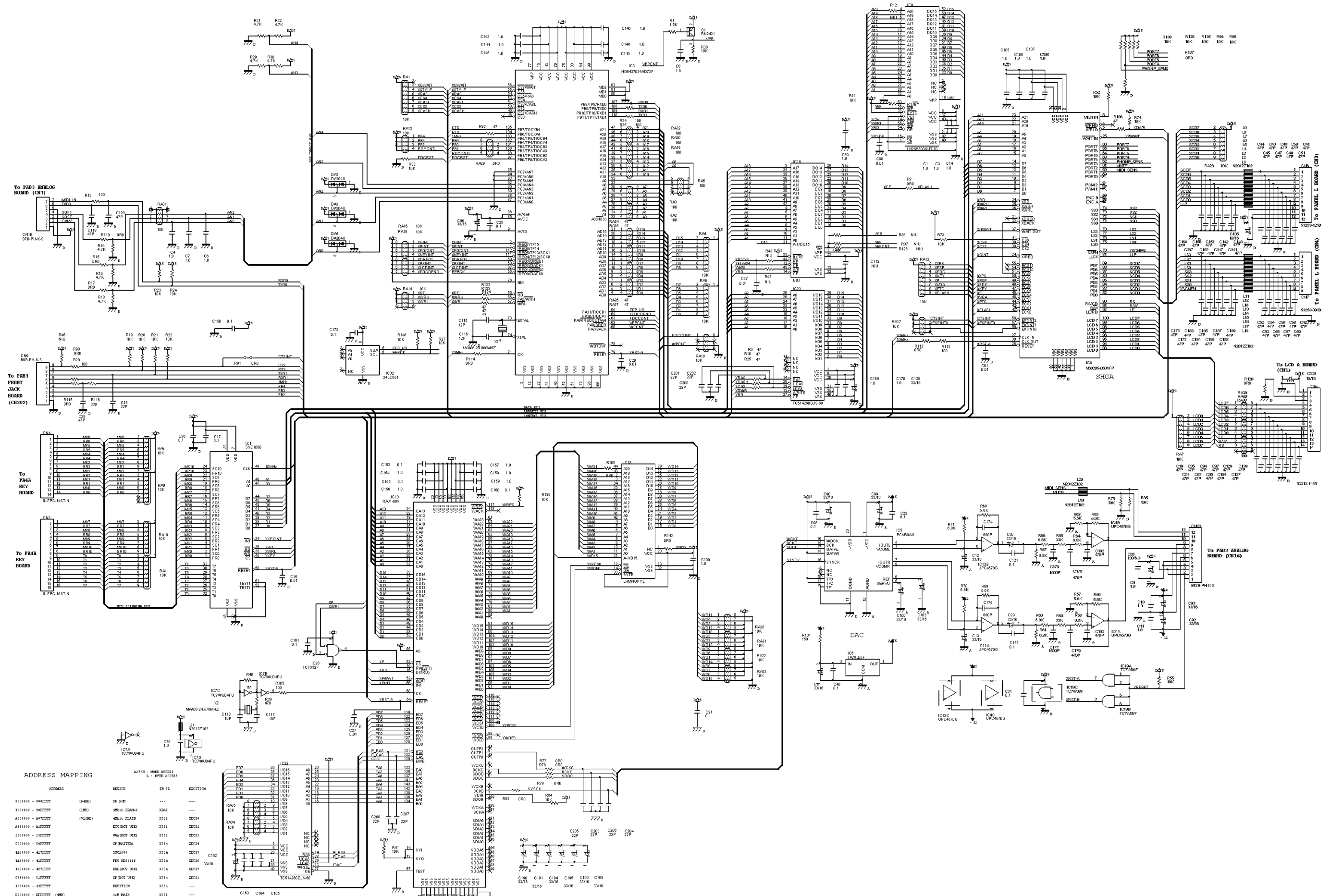


View from foil side.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

A CIRCUIT DIAGRAM (MAIN)

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ADDRESS MAPPING

ADDRESS	DEVICE	CS	DATA
000000 - 000FFF	(64KB)	3B 30M	...
000000 - 000FFF	(128)	0B14 DRAM-1	...
000000 - 000FFF	(512KB)	0B14 DRAM-2	...
000000 - 000FFF

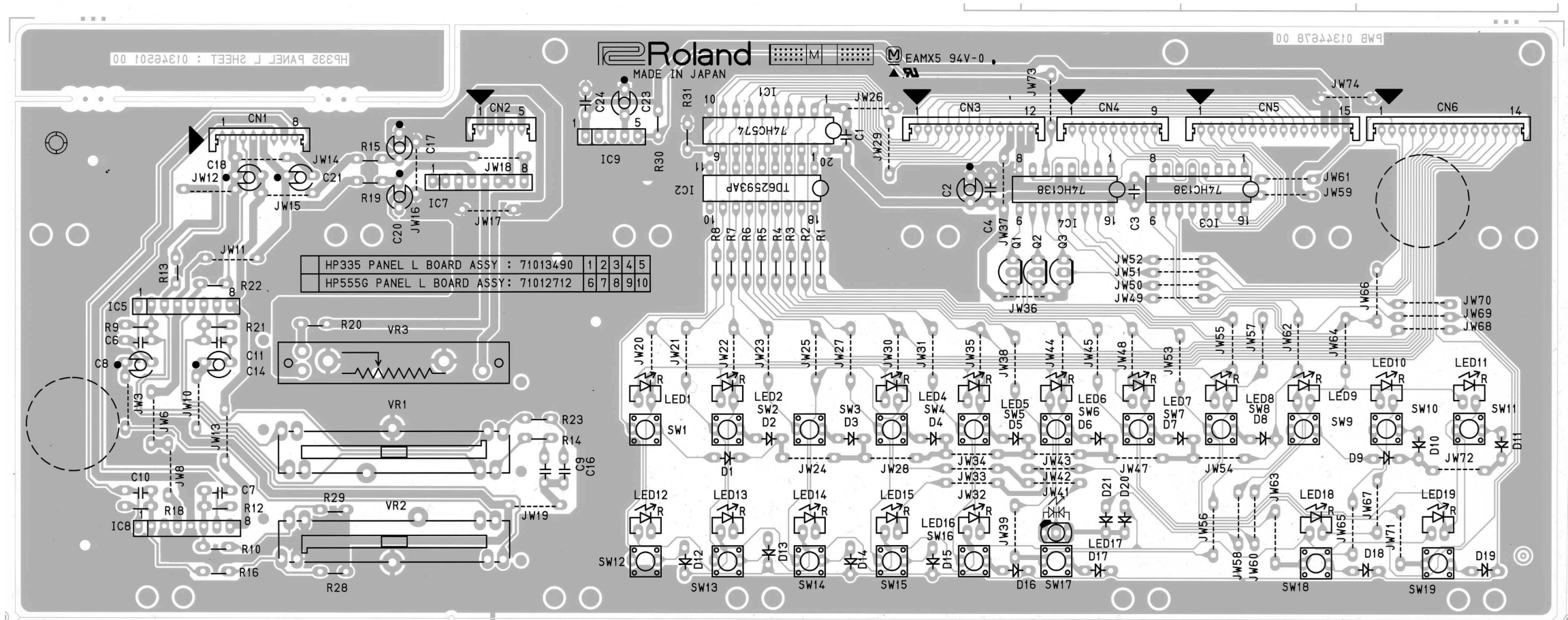
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

A CIRCUIT BOARD (PANEL L)

ASSY 71013490

NOTE
 PANEL R BOARD ASSY includes the following parts.

# 01452734	14X350-P2.0-51065-51015-F	WIRING	CN2 on PRB
# 01452723	15X400-P2.0-51065-51015-F	WIRING	CN3 on PRB
# 01452712	10X100-P2.0-51065-51015-F	WIRING	CN1 on PRB



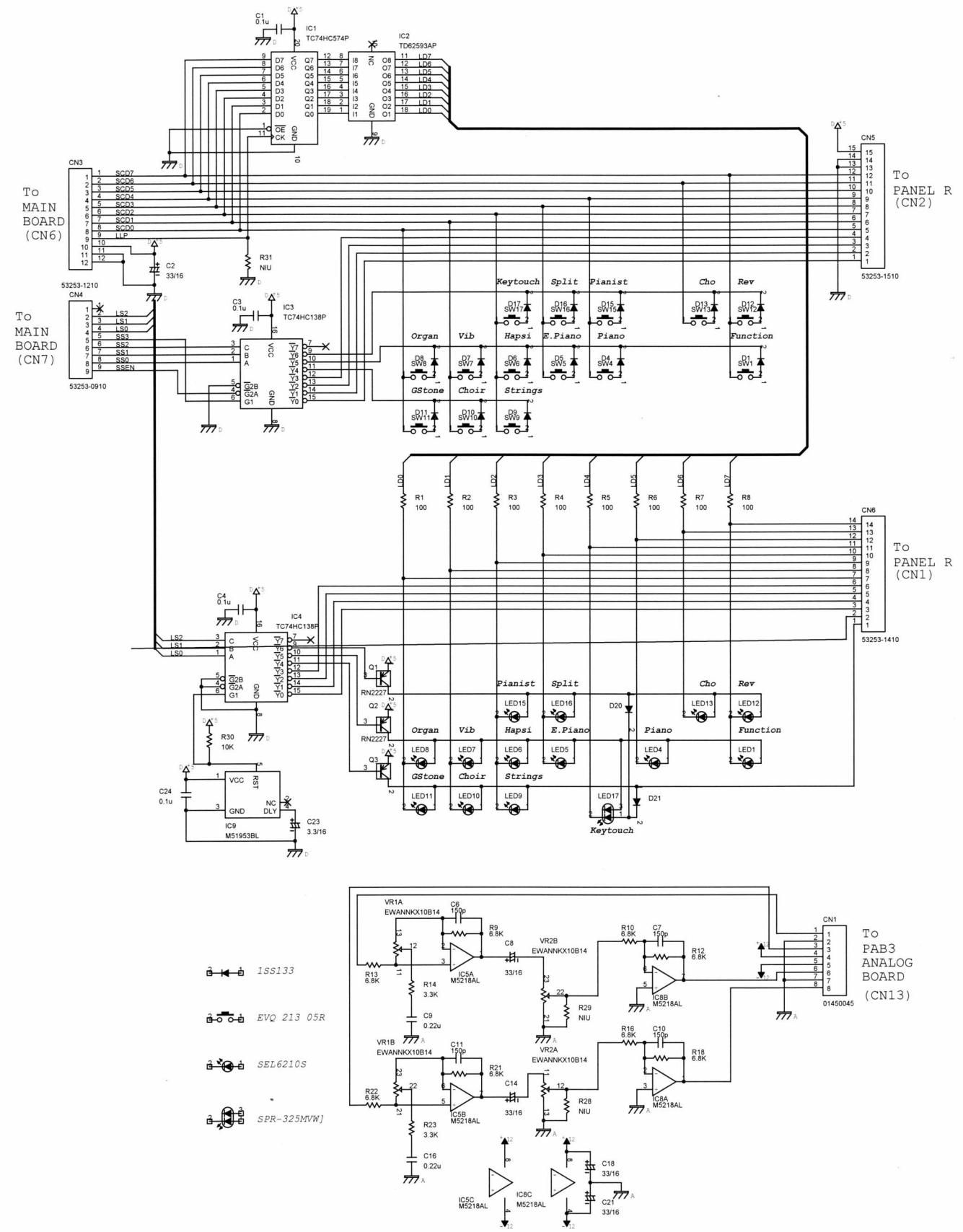
View from components side.

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A CIRCUIT DIAGRAM (PANEL L)

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

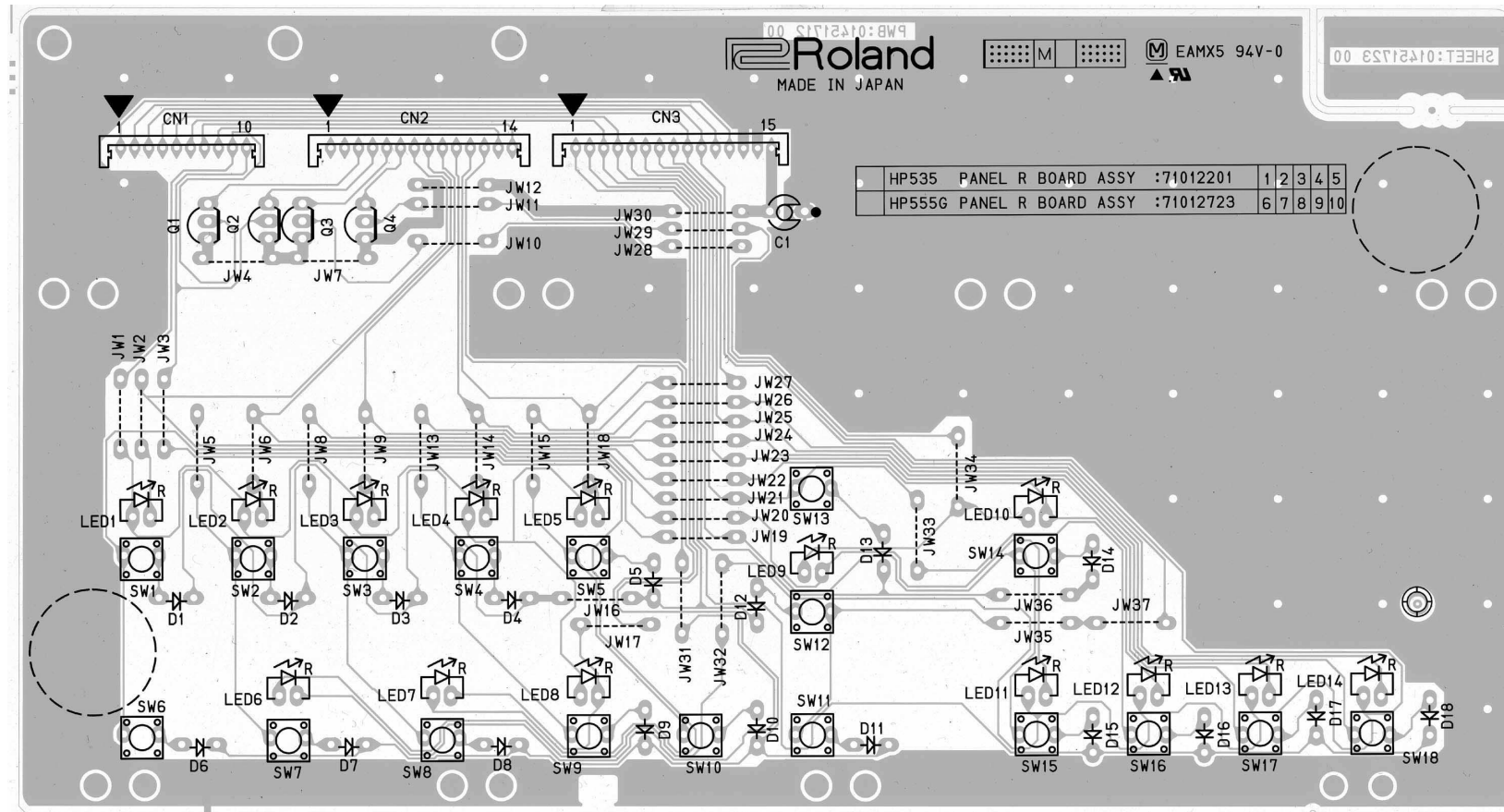
A CIRCUIT BOARD (PANEL R)

ASSY 71012201

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NOTE
 PANEL L BOARD ASSY includes the following parts.

01450045	8X400-P2.0-51065-51015-F	WIRING	CN4 on PLB
01450034	12X400-P2.0-51065-51015-F	WIRING	CN3 on PLB
01450023	9X350-P2.0-51065-51015-F	WIRING	CN1 on PLB



View from components side.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

A **CIRCUIT DIAGRAM (PANEL R)**

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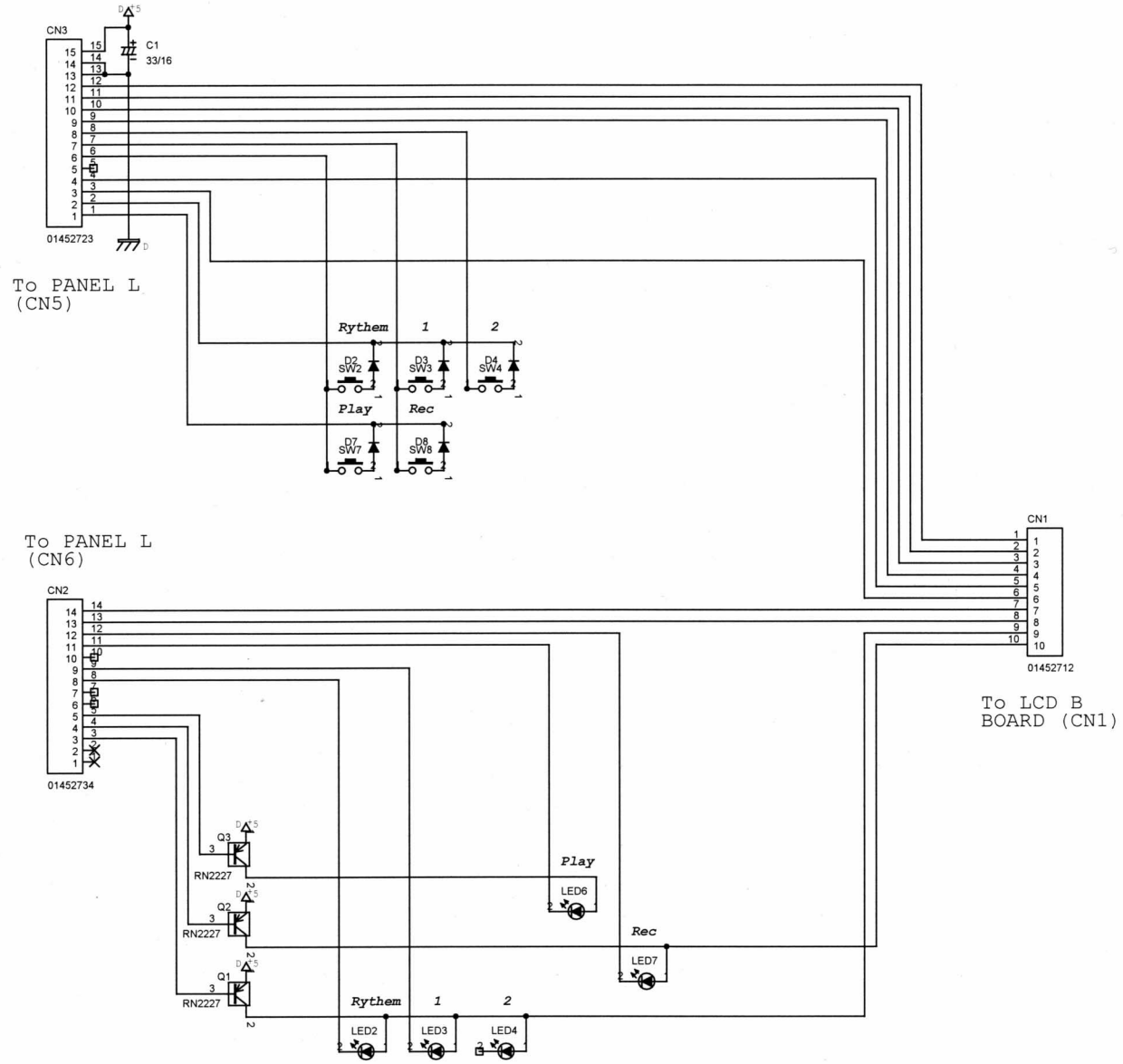
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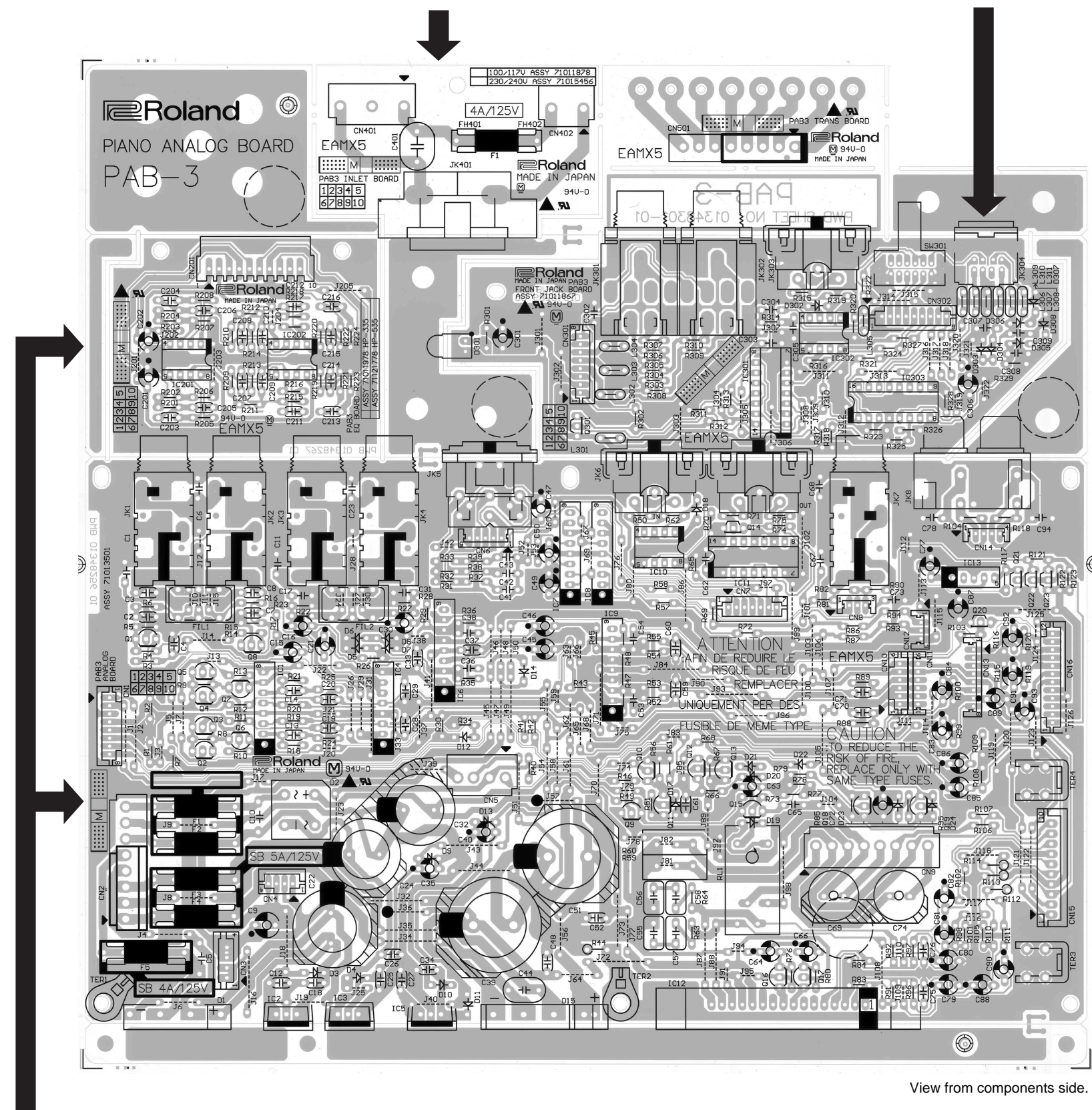
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

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CIRCUIT BOARD (FRONT JACK, ANALOG ,INLET)

71011878 PAB3 INLET 100/117V

71011867 FRONT JACK BOARD



71121767 PAB3 ANALOG PHANTOM

View from components side.

NOTE

PAB3 ANALOG PHANTOM includes the following parts.

- ***** PAB3 EQ BOARD ASSY
- ***** PAB3 ANALOG BOARD
- NOTE : PAB3 ANALOG BOARD includes the following parts.
- 22195975 TR HOLDER
- 22195973 POWER AMP HOLDER
- 01349990 WIRING W4
- 01349978 7 x 250-P2.0-PH-SAN-F
- 01349912 12 x 130-P2.0-PH-SAN-F
- 01346423 HEATSINK
- 01346412 PAB HOLDER

NOTE

PAB3 FRONT JACK BOARD includes the following parts.

- 01344545 JACK HOLDER

NOTE

PAB3 INLET 100/117V includes the following parts.

- 23425740 INL-8 10A/125V 2P PO AC INLET
- 12559444 5x20 SB 4 4A/125V FUSE
- 00129367 INLET HOLDER

Replacment INLET BOARD PAB3 INLET ASSY is for 100/117V version exclusive use. When using PAB3 INLET ASSY for 230/240V version, be sure to make the following modifications.

1. INLET BOARD FOR 100/117V version differs from 230V version in FUSE system. Replace fuse (F1 on INLET BOARD) to specific one. (#12559550 FUSE 5x20 S506 1.6A T1.6AL250V for 230V version) See TABLE A.
2. For safety standards, place fuse seal (#40013712 FUSE SEAL T1.6AL250V #407) at the proper place of the INLET BOARD. The location of fuse seal is over the following printing (see fig A) of the PWB. When necessary, please order fuse seal separarty from INLET BOARD.

TABLE A

100V/117V	FUSE 5 x 20 SB 4 4A/125V
230V/240V	FUSE 5 x 20 S506 1.6A T1.6AL250V

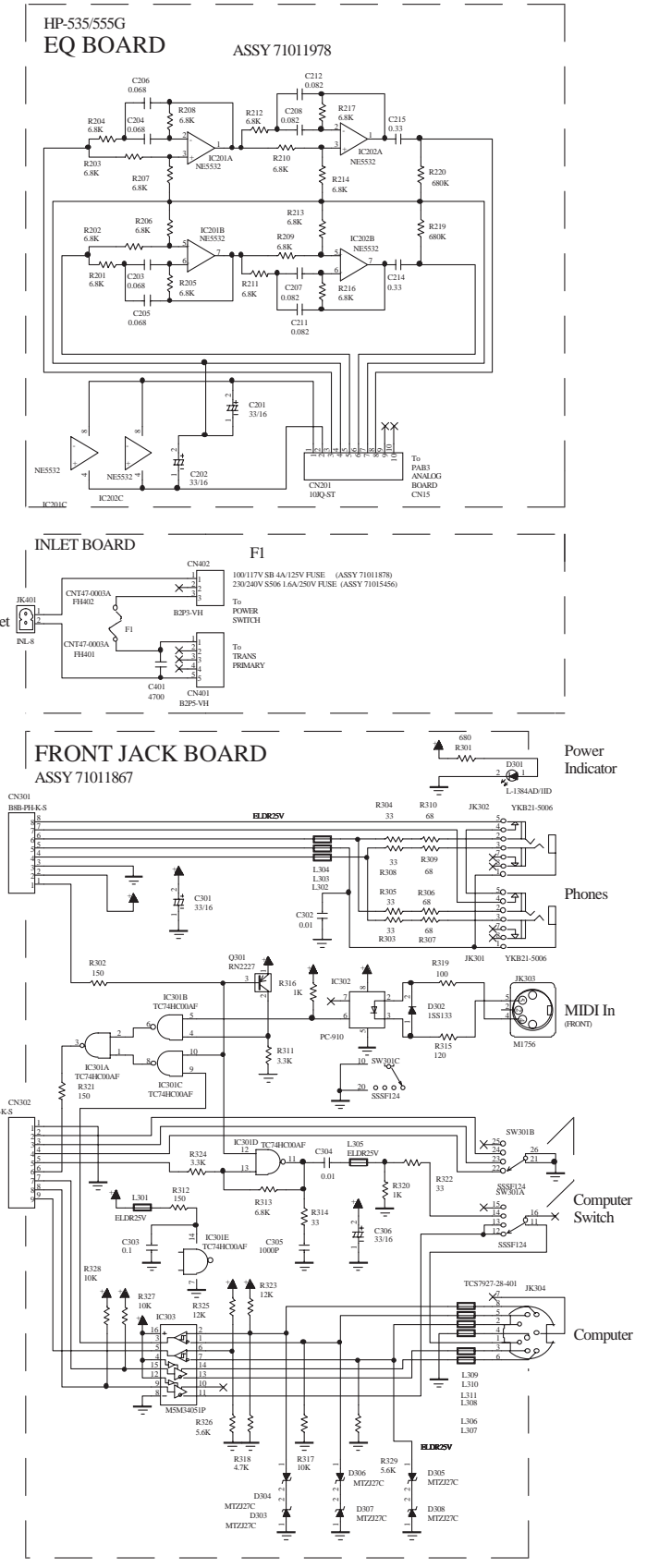
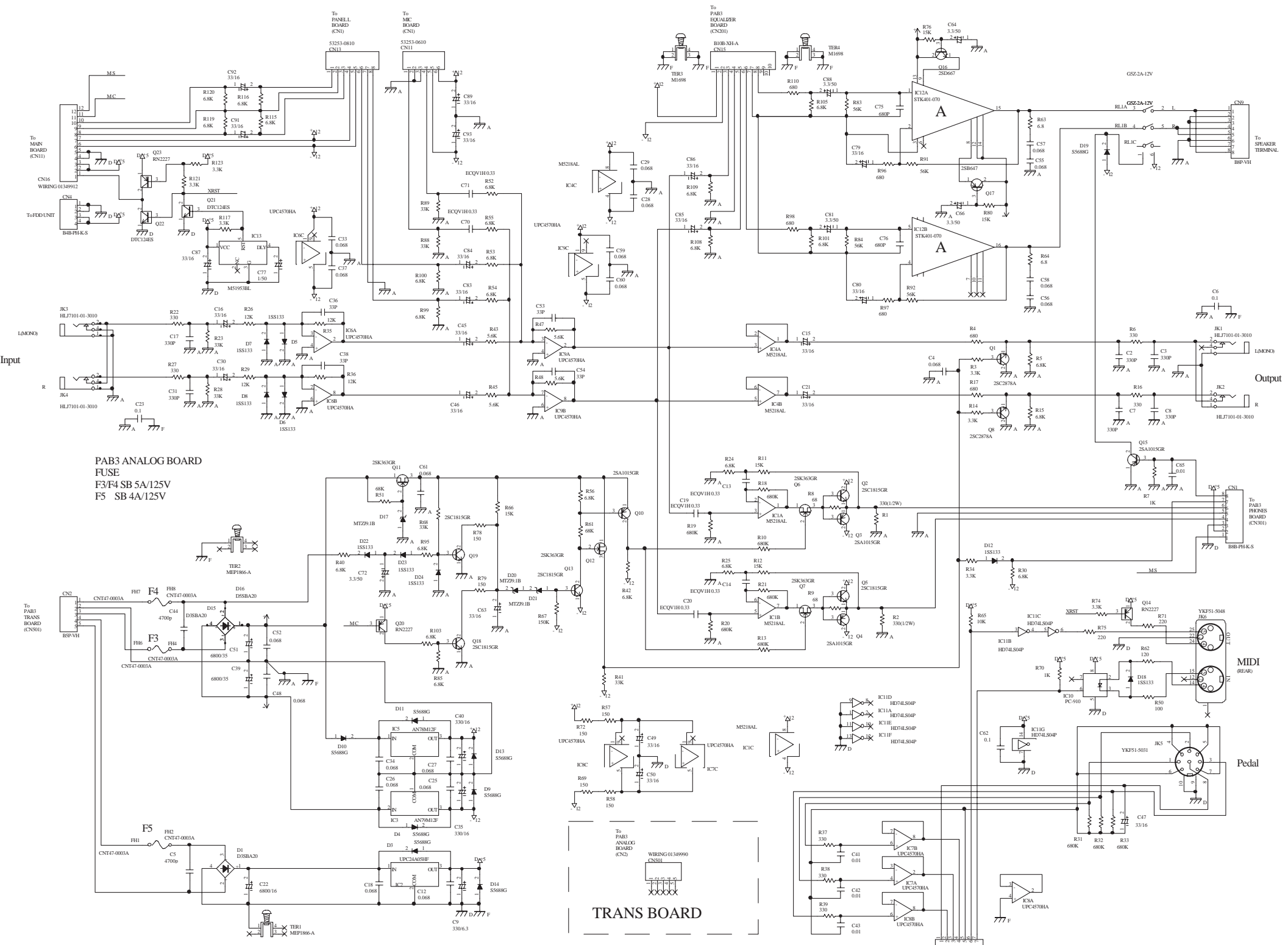
Fig.A

3.15A/125V

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

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CIRCUIT DIAGRAM (FRONT JACK, ANALOG, INLET)

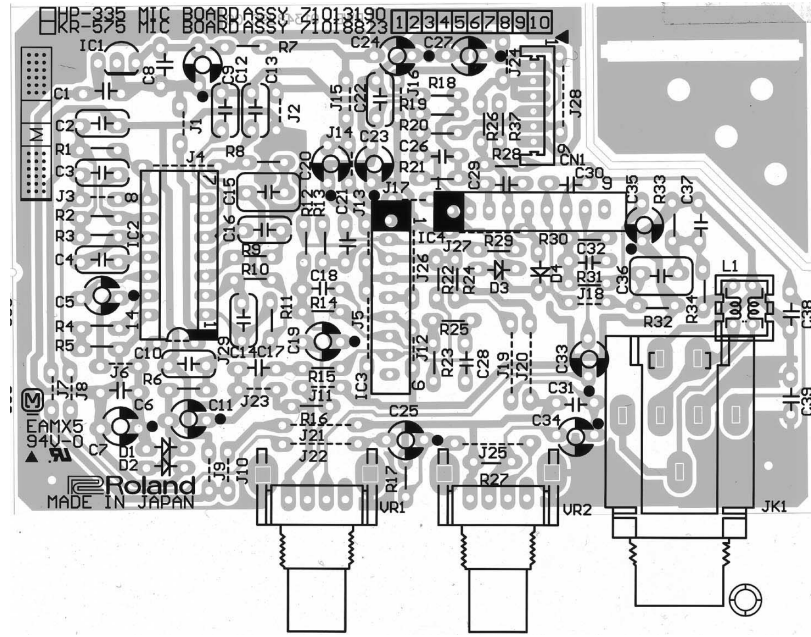


PIANO ANALOG BOARD

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

A CIRCUIT BOARD (MIC)

ASSY 71011901



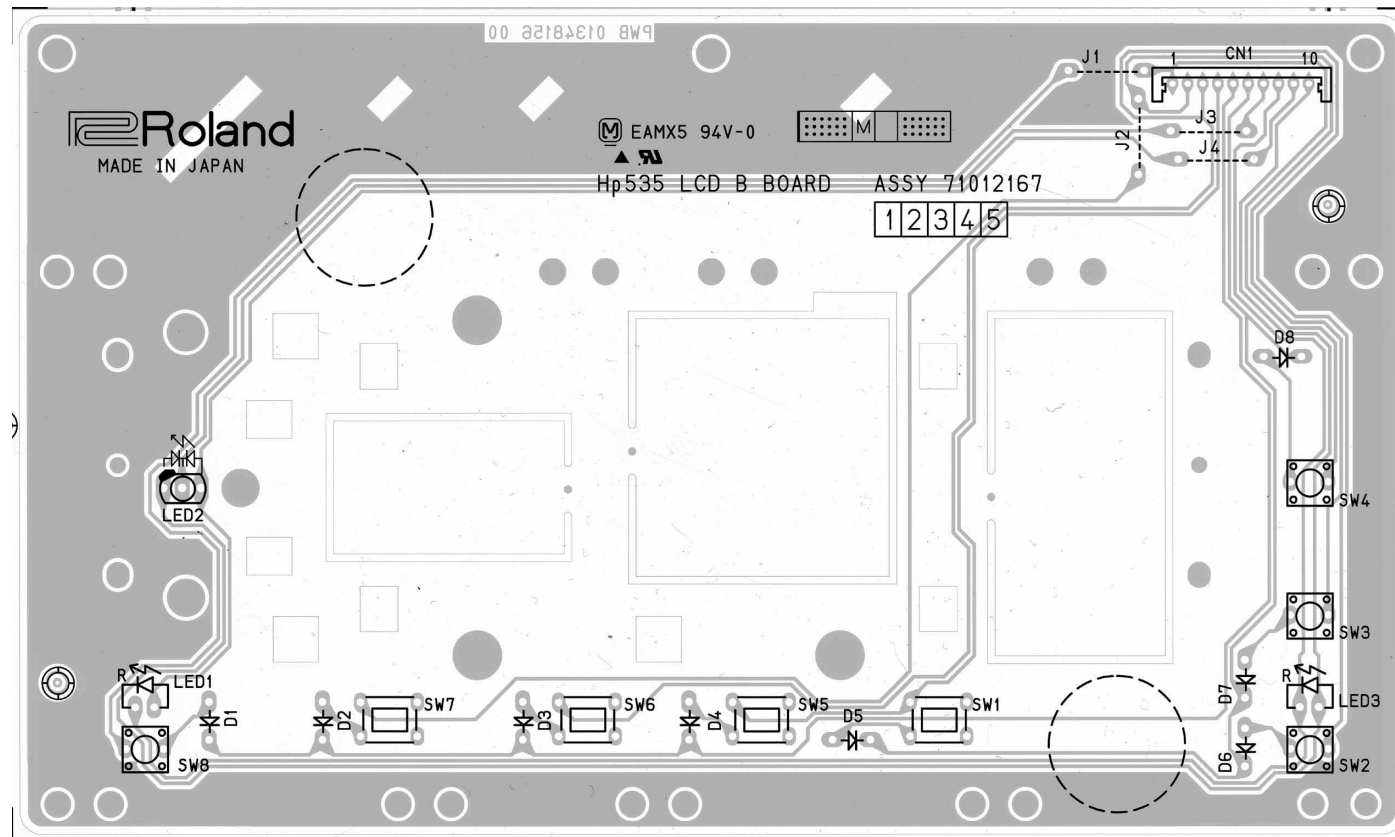
View from components side.

NOTE
 MIC BOARD ASSY includes the following parts.

22150756	JACK NUT 2
01344489	MIC HOLDER

K CIRCUIT BOARD (LCD B)

ASSY 71012167



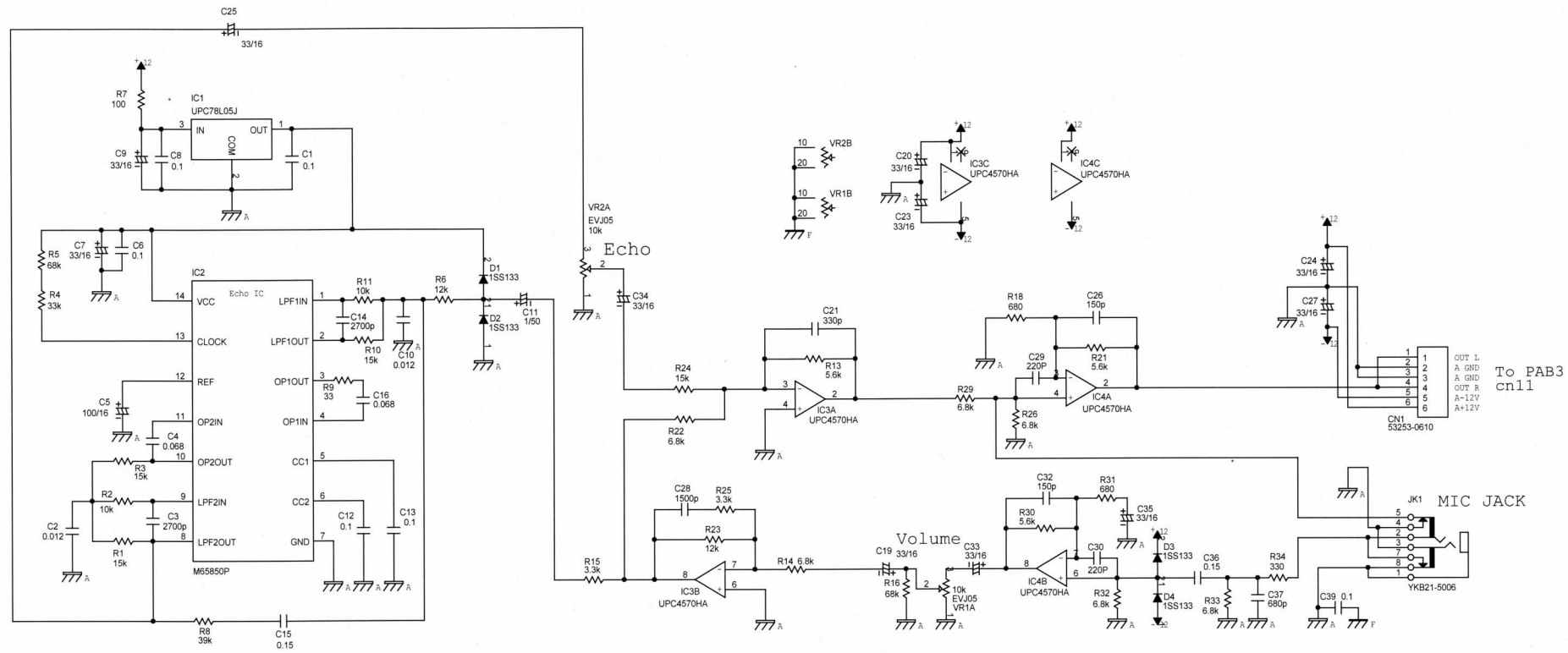
View from components side.

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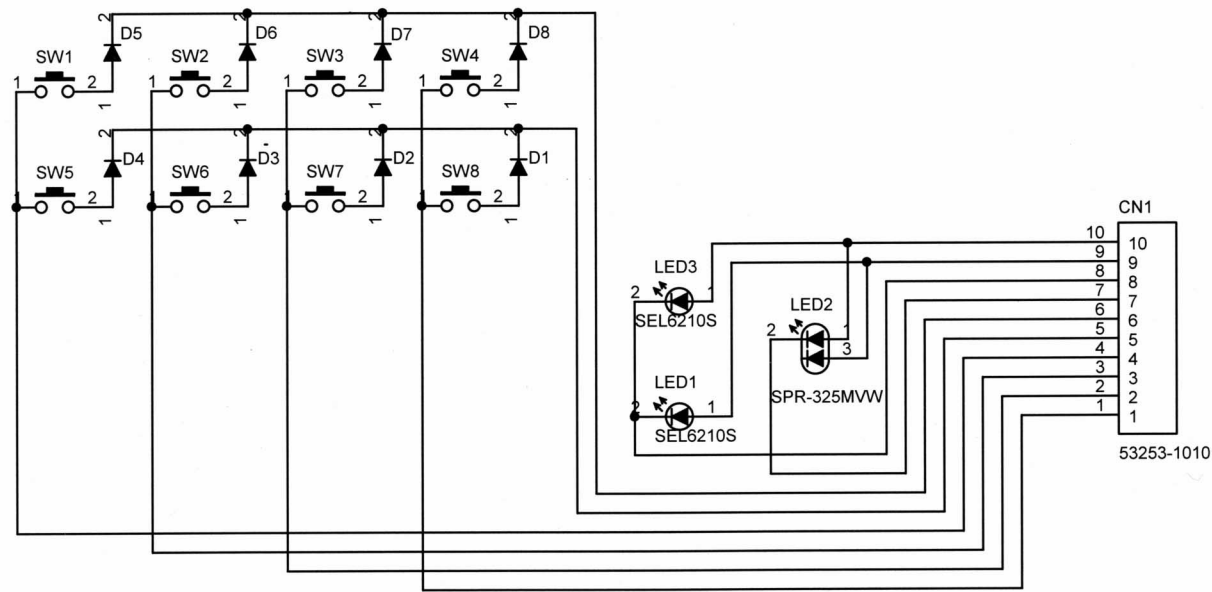
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

A CIRCUIT DIAGRAM (MIC)

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L CIRCUIT DIAGRAM (LCD B)



HP-535: To PANEL R (CN1)
HP-555G: To PANEL R (CN1)
KR-375: To PANEL R (CN11)

SW2,SW3,SW4,SW8 : EVQ 213 05R
SW1,SW5,SW7 : SKHJAB 005A
ALL DIODES : 1SS133
D3,SW6 : NIU