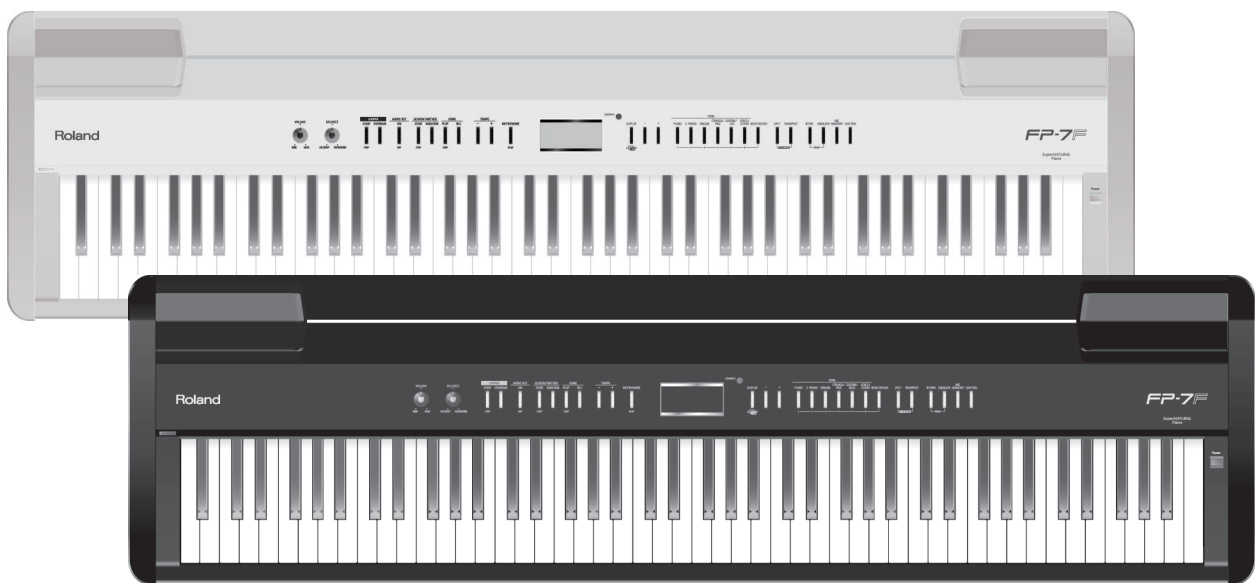


FP-7F-BK
KSC-44-BKJ

SERVICE NOTES
Issued by RJA

FP-7F-WH
KSC-44-WHJ



Revise Information

Apr. 19, 2011 p. 5 Corrected an error.

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Cautionary Notes

Before beginning the procedure, please read through this document. The matters described may differ according to the model.

Back Up User Data!

User data may be lost during the course of the procedure. Refer to “**Data Backup and Restore Operations**” (p. 27) in the Service Notes and save the data. After completing the procedure, restore the backed-up data to the product.

Part Replacement

When replacing components near the power-supply circuit or a heat-generating circuit (such as a circuit provided with a heat sink or including a cement resistor), carry out the procedure according to the instructions with respect to the part number, direction, and attachment position (mounting so as to leave an air gap between the component and the circuit board, etc.).

Parts List

A component whose part code is ***** will not 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).
- Because it is carried in electronic data on the Roland web site.
- Because it is a package or an accessory irrelevant to the function maintenance of the main body.
- Because it can be replaced with an article on the market. (battery or etc.)

Circuit Diagram

In the circuit diagram, “NIU” is an abbreviation for “Not in Use,” and “UnPop” is an abbreviation for “Unpopulated.” They both mean non-mounted components. The circuit board and circuit board diagram show silk-screened indications, but no components are mounted.

Specifications

FP-7F: Digital Piano

FP-7F-BK

FP-7F-WH

Keyboard

Keyboard

88 keys (PHA III Ivory Feel-S Keyboard with Escapement)

Touch Sensitivity

Touch: 100 levels, Fixed Touch

Hammer Response: Off, 1–10

Keyboard Mode

Whole

Dual (volume balance adjustable)

Split (split point adjustable)

Sound Generator

(conforms to GM2/GS/XG lite)

Piano Sound

SuperNATURAL Piano Sound

Piano Effects

Open/Close Lid (0–6)

Cabinet Resonance (Off, 1–10)

Hammer Noise (-2–2)

Damper Noise (Off, 1–10)

Duplex Scale (Off, 1–10)

Damper Resonance (Off, 1–10)

String Resonance (Off, 1–10)

Key Off Resonance (Off, 1–10)

Max. Polyphony

128 voices

Tone

351 tones (including 8 drum sets, 1 SFX set)

Temperaments

8 types, selectable temperament key

Stretched Tuning

Off

Preset

User tuning (adjustable in individual notes: -50.0–+50.0 cent)

Master Tuning

415.3 Hz–466.2 Hz (adjustable in increments of 0.1 Hz)

Transpose

-6–+5 (in semitones)

Effects

Reverb: Off, 1–10

Only for Organ Tones: Rotary Speaker Effect (Slow, Fast)

Only for Mic input: Harmony (Off, 3 types), Reverb (Off, 1–10)

Equalizer

4-band Digital Equalizer

Metronome

Tempo

Quarter Note= 10–500

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

Recorder

Song

1 Song

Note Storage

Approx. 30,000 notes

Tempo

Quarter Note = 10–500

Resolution

120 ticks per quarter note

Playable Software

Standard MIDI Files (Format 0/1),

Roland Original Format (i-Format)

Transpose

-6–+5 (in semitones)

Session Partner

Rhythm

80 types x 2 variations

Chord Progression

Automatic or input with keyboard (User Programmable)

Audio

Playable Software

Audio File (WAV 44.1 kHz/16-bit Linear Format),
Audio CDs (CD-DA) (when using optional CD drive)

Audio Playback

Center Cancel
Audio Playback Speed: 75–125%
Playback Transpose: -6–+5 (in semitones)

Internal Memory

Songs

Max. 99 songs

Save Song

Standard MIDI Files (Format 0)

External Memory

External Storage

USB Memory (Optional)

Songs

Max. 999 songs

Save Song

Standard MIDI Files (Format 0)

Internal Songs

Internal Songs

74 songs

Display

Display

Graphic LCD 128 x 64 dots (with backlit)

Others

Registration

To Internal Memory: 30 x max. 25 sets,
To External Memory: 30 x max. 99 sets

Other Functions

Looper, Audio Key, V-LINK, Tone Demo

Connectors

External Memory Connector
USB (MIDI) Connector
PEDAL Jacks (DAMPER/R, SOFT/L (FC1)*, SOSTENUTO/C (FC2)*): 1/4-inch phone type (* Assignable)
OUTPUT Jacks (L/MONO, R): 1/4-inch phone type
INPUT Jacks (L/MONO, R): 1/4-inch phone type
MIX IN Jack: Stereo miniature phone type
PHONES Jack x 2: Stereo 1/4-inch phone type
MIDI Connectors (IN, OUT)
MIC INPUT Jack: 1/4-inch phone type
DC IN Jack

Rated Power Output

~~12 W~~ 13 W x 2

Speakers

8cm x 12 cm x 2 (with speaker box)

Volume Level (SPL)

100 dB

* This value was measured according to the method that is based on Roland's technical standard.

Control

Volume, Balance, Mic Volume, LCD Contrast, SPEAKER Switch

Power Supply

DC 12 V (AC Adaptor)

Power Consumption

26 W

Finish

Black, White

Dimensions

1,346 (W) x 375 (D) x 137 (H) mm
53 x 14-13/16 x 5-7/16 inches
1,346 (W) x 397 (D) x 949 (H) mm
53 x 15-11/16 x 37-3/8 inches
(FP-7F with dedicated stand KSC-44 and music rest)

Weight

24.0 kg / 52 lbs 15 oz
36.6 kg / 80 lbs 12 oz
(FP-7F with dedicated stand KSC-44 and music rest)

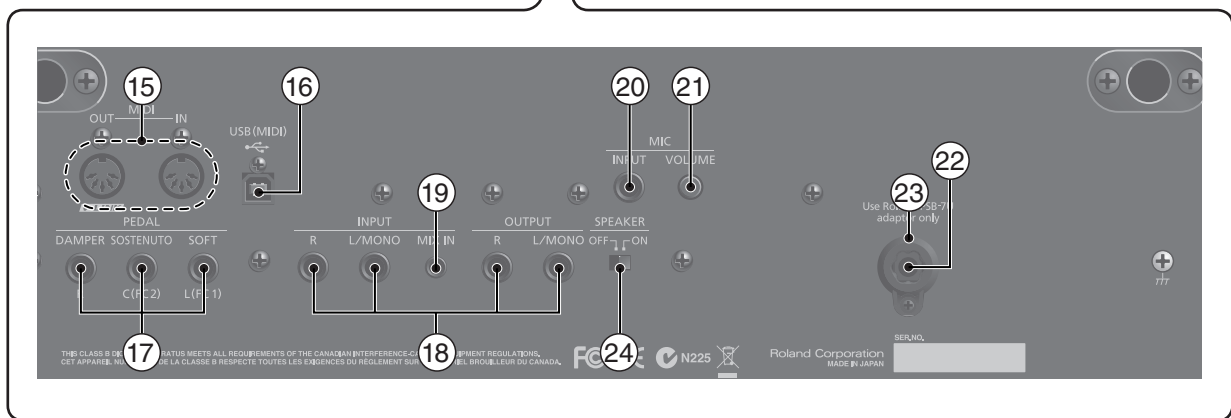
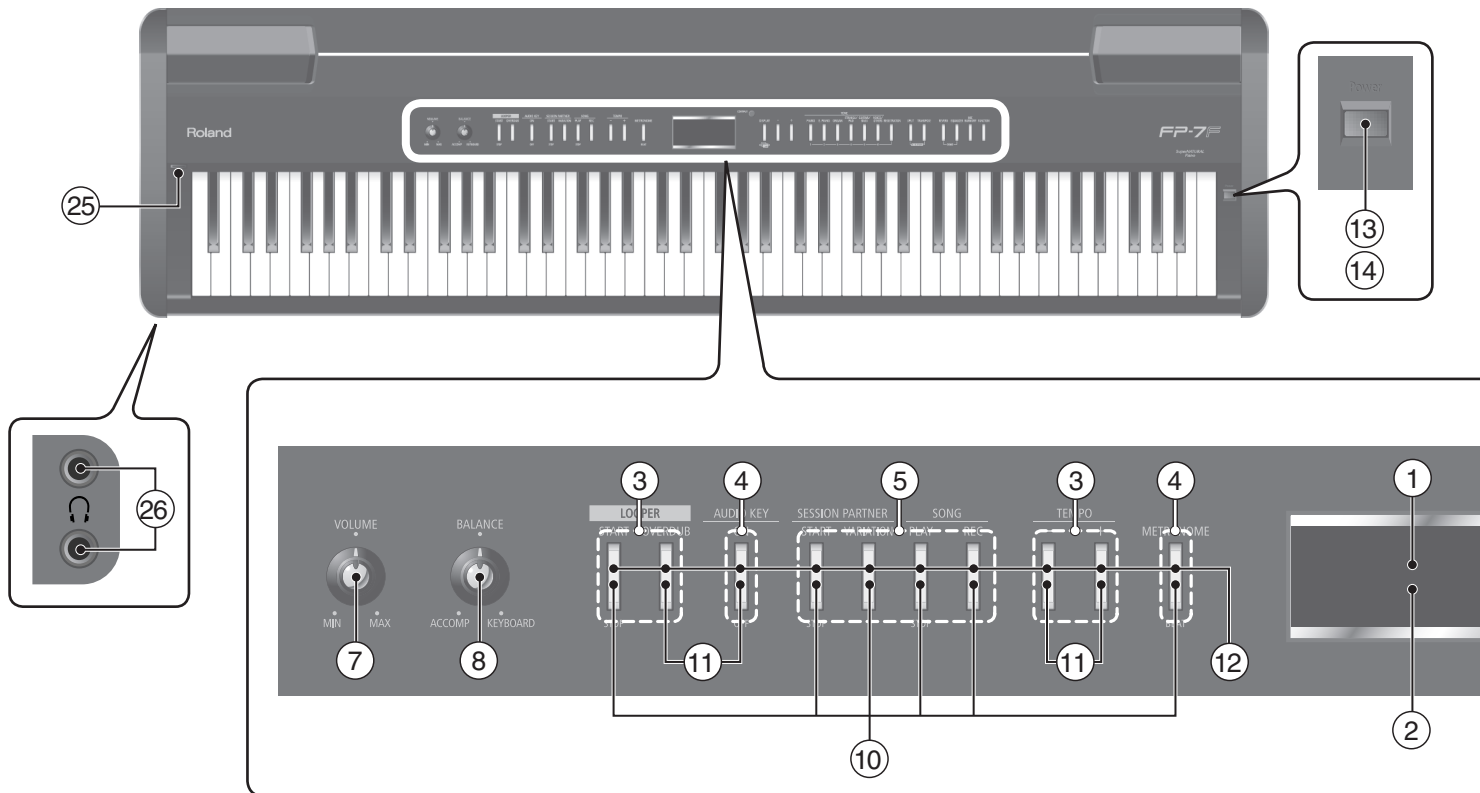
Accessories

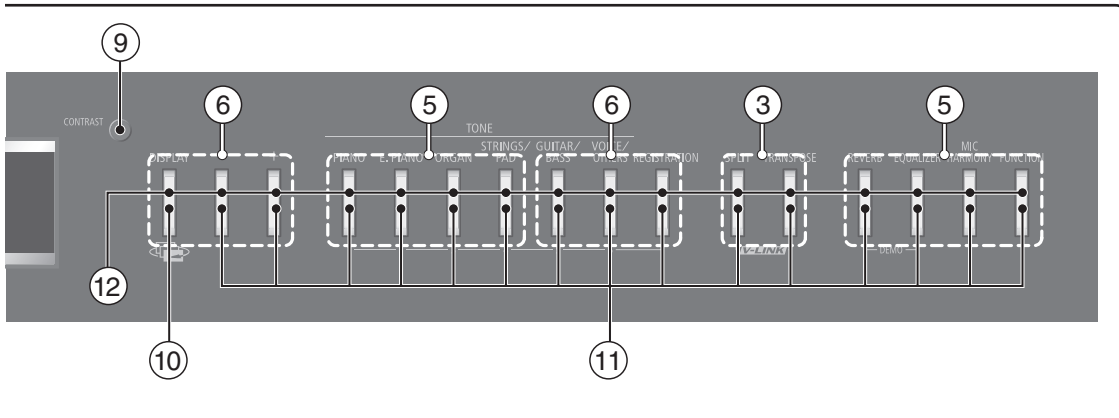
Owner's Manual (#5100016174)
AC Adaptor (#04236112)
Power Cord (#5100012293, #02562456, #03453012, #01903356, #03785590)
Music Rest (#73341367, #5100015842)
Pedal (capable of continuous detection) (*****)

* Printed matters will not be supplied after the end of the production. Then, download the electronic file from the Roland web site.

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

Location of Controls

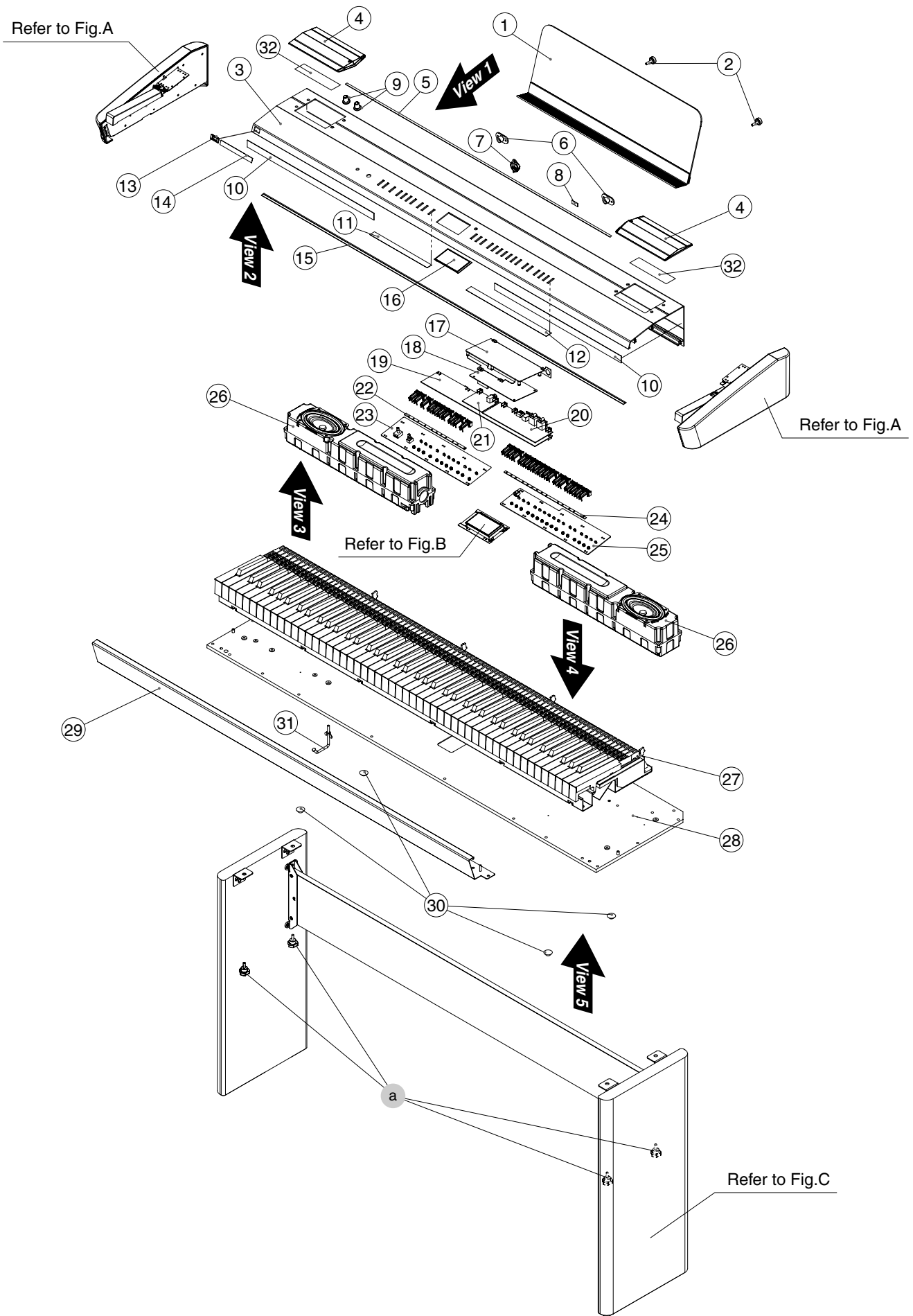




Location of Controls Parts List

No.	Part Code	Part Name	Description	Q'ty
1	5100010000	LCD	CMF2P0458-E	1
2	5100015608	DISPLAY COVER		1
3	04347867	ZA S-KEYTOP	LX2H CLR	3
4	04347878	ZA S-KEYTOP	LX1H CLR	2
5	04347189	ZA S-KEYTOP	LX4H CLR	3
6	04347856	ZA S-KEYTOP	LX3H CLR	2
7	02451045	14M/M ROTARY POTENTIOMETER	RK14K12C0 10KBX2 CT	1
	04124267	J R-KNOB SF-ELA BLK/SLV	990-05045-10-08 (for BK)	1
	5100012091	J R-KNOB	SF-B WHT/SLV (for WH)	1
8	5100017221	ROTARY POTENTIOMETER	RK09L114001N	1
	04124267	J R-KNOB SF-ELA BLK/SLV	990-05045-10-08 (for BK)	1
	5100012091	J R-KNOB	SF-B WHT/SLV (for WH)	1
9	5100016276	ROTARY POTENTIOMETER	RK09K1130AXM	1
10	04902023	LED (RED/GREEN)	SPI-325MUWT31	7
11	01784556	LED (RED)	SLI-343URCT32W	19
12	01340290	TACT SWITCH	EVQ11A05R	26
13	73236978	SWITCH ASSY		1
14	12499175	BUTTON	JSPUE0011A (for BK)	1
	5100016090	BUTTON	JSPUE0013A (for WH)	1
15	13429676	MIDI CONNECTOR	YKF51-5048N (TWIN)	1
16	02781101	USB CONNECTOR B TYPE FEMALE	YKF45-0020N	1
17	13449252	6.5MM JACK	YKB21-5006 (STEREO W/SW)	3
18	13449146	6.5MM JACK	YKB21-5012 (W/SW)	4
19	04452945	3.5MM JACK	YKB21-5344N	1
20	13449169	6.5MM JACK	YKB21-5078	1
21	13279884	POTENTIOMETER	RK09K1110A0J 10KB	1
22	02900312	DC JACK	HEC0470-01-640	1
23	5100009656	DC PLUG SUPPORTER		1
24	13159180	SWITCH	SSSF112500	1
25	04560101	USB CONNECTOR A TYPE FEMALE	UAR27-4K5J00	1
26	13449252	6.5MM JACK	YKB21-5006 (STEREO W/SW)	2
	40016756	JACK NUT	HLJ0999-01-360 HEX M12	2

Exploded View (All)

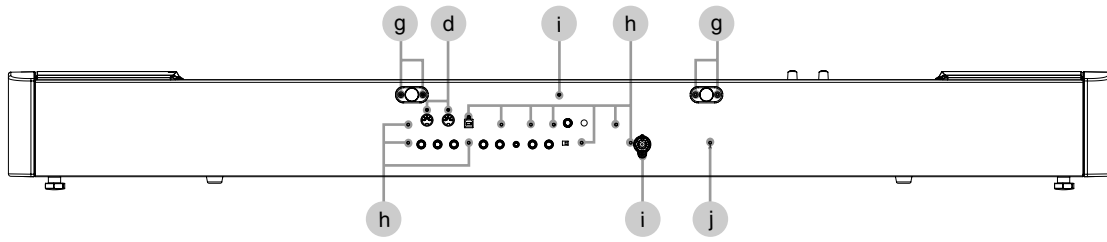


Exploded View (All) Parts List

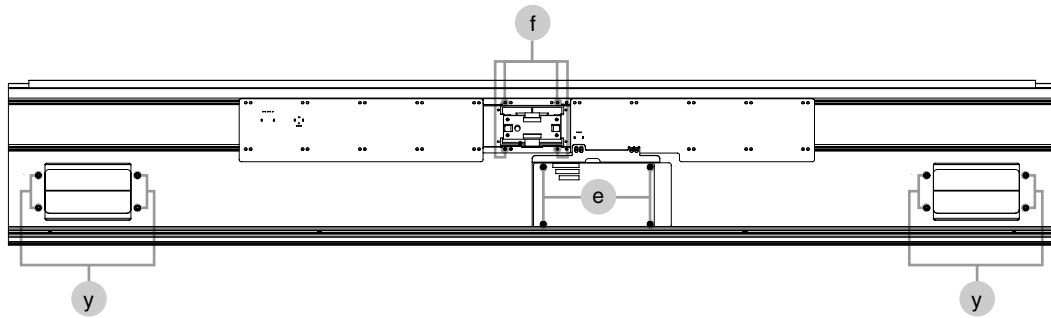
No.	Part Code	Part Name	Description	Q'ty	
1	73341367	MUSIC REST ASSY		1	for BK
	5100015842	MUSIC REST ASSY		1	for WH
2	40346089	KNOB BOLT M5X19	N-3 BLACK	2	
3	5100015604	TOP PANEL		1	for BK
	5100015846	TOP PANEL		1	for WH
4	04348145	GRILLE		2	for BK
	5100015853	GRILLE		2	for WH
5	04454612	TOP PANEL TAPE		1	
6	22135354	MUSIC REST HOLDER	213-354	2	
7	5100009656	DC PLUG SUPPORTER		1	
8	40678156	LABEL	USB CAUTION(MIDI)	1	
9	04124267	J R-KNOB SF-ELA BLK/SLV	990-05045-10-08	2	for BK
	5100012091	J R-KNOB	SF-B WHT/SLV	2	for WH
10	04454634	CUSHION	SPEAKER CUSHION	2	
11	04453223	CUSHION	KEYTOP CUSHION L	1	
12	04453234	CUSHION	KEYTOP CUSHION R	1	
13	04348134	USB ESCUTCHEON		1	for BK
	5100015854	USB ESCUTCHEON		1	for WH
14	5100017087	LABEL AUDIO KEY	BLACK	1	for BK
	5100017088	LABEL AUDIO KEY	WHITE	1	for WH
15	03450812	KEY FELT		1	
16	5100015608	DISPLAY COVER		1	
17	5100015607	MAIN BOARD HOLDER		1	
18	5100015268	MAIN BOARD ASSY TOTAL		1	
	5100016322	JACKAMP SHEET ASSY		1	
	* This unit includes the following parts.				
19	*****	JACKAMP BOARD ASSY		1	
	*****	USB HOST BOARD ASSY	Refer to Exploded View (Fig.A) (p. 12).	1	
	5100016099	PANEL SHEET ASSY		1	
	* This unit includes the following parts.				
20	*****	MIDI USB-F BOARD ASSY		1	
23	*****	PANEL L BOARD ASSY		1	
25	*****	PANEL R BOARD ASSY		1	
	*****	PHONES BOARD ASSY	Refer to Exploded View (Fig.A) (p. 12).	1	
21	5100016103	MIC BOARD ASSY		1	
22	04454645	CUSHION	TACT SW CUSHION L	1	
24	04454656	CUSHION	TACT SW CUSHION R	1	
26	04346012	SPEAKER BOX ASSY		2	
27	5100017594	KEYBOARD ASSY	PHA3-C	1	
28	04348045	BOTTOM BOARD		1	
29	04348056	BLIND		1	for BK
	5100015850	BLIND		1	for WH
30	12359105	RUBBER FOOT W	RS-09 235-105	4	
31	03901267	PHONES HOOK		1	
32	04454623	SPEAKER COVER		2	for BK
	5100017239	SPEAKER COVER		2	for WH
a	40233845	KNOB BOLT M5X15	KT-B1	4	

Plain View (All)

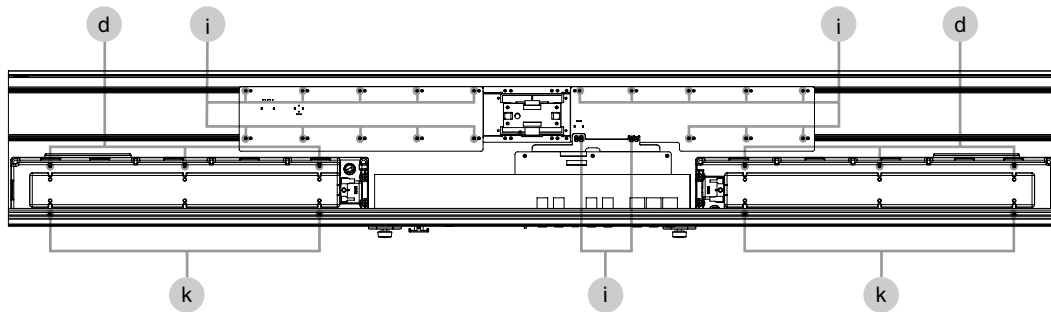
View 1



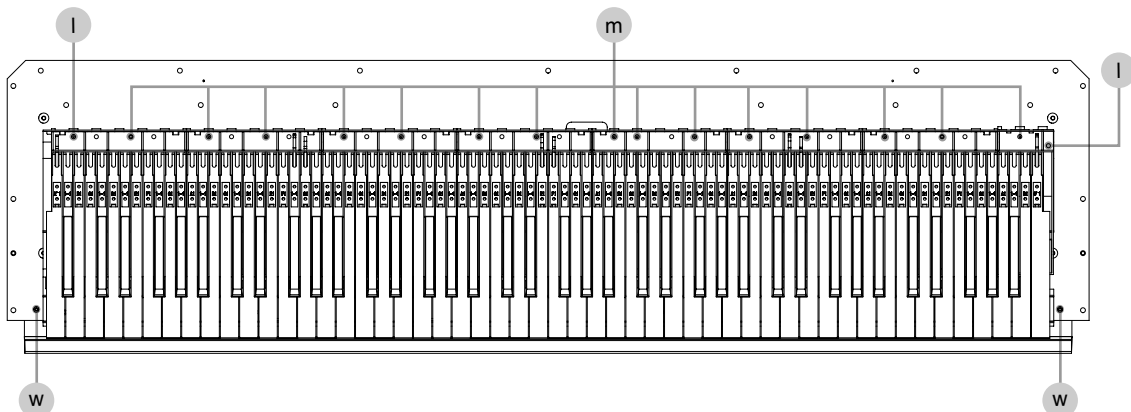
View 2

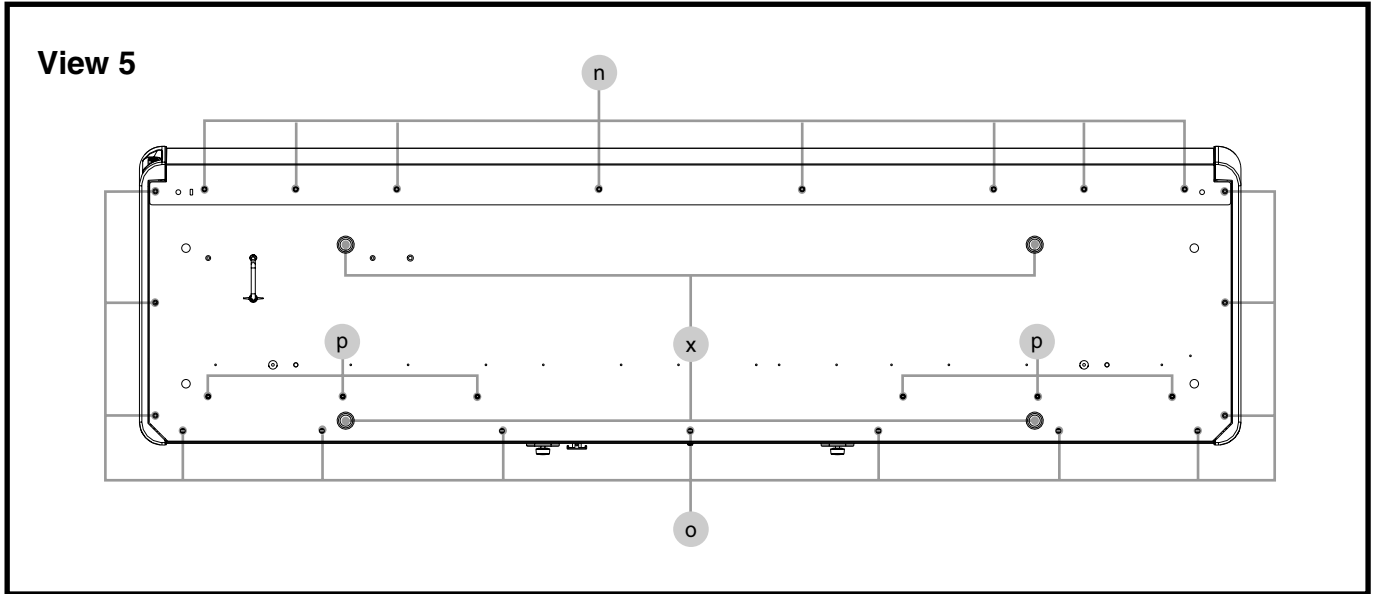


View 3



View 4





Plain View (All) Parts List

View 1

No.	Part Code	Part Name	Description	Q'ty
d	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	2
g	40011156	SCREW 3X8	FLAT TAPTITE B BZC	4
h	40237101	SCREW M3X8	PAN MACHINE W/SW+SMALL PW BZC	10
i	40011101	SCREW 3X8	BINDING TAPTITE B BZC	2
j	40230590	SCREW M3X10	BINDING MACHINE NI	1

View 2

No.	Part Code	Part Name	Description	Q'ty
e	40017934	SCREW M3X6	PAN MACHINE W/SW+PW(L) FE ZC	4
f	40011101	SCREW 3X8	BINDING TAPTITE B BZC	4
y	40677945	SCREW 4X6	BINDING TAPTITE P FE ZC	8

View 3

No.	Part Code	Part Name	Description	Q'ty
d	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	6
i	40011101	SCREW 3X8	BINDING TAPTITE B BZC	20
k	40677323	SCREW 3X20	FLAT TAPTITE P FE ZC	4

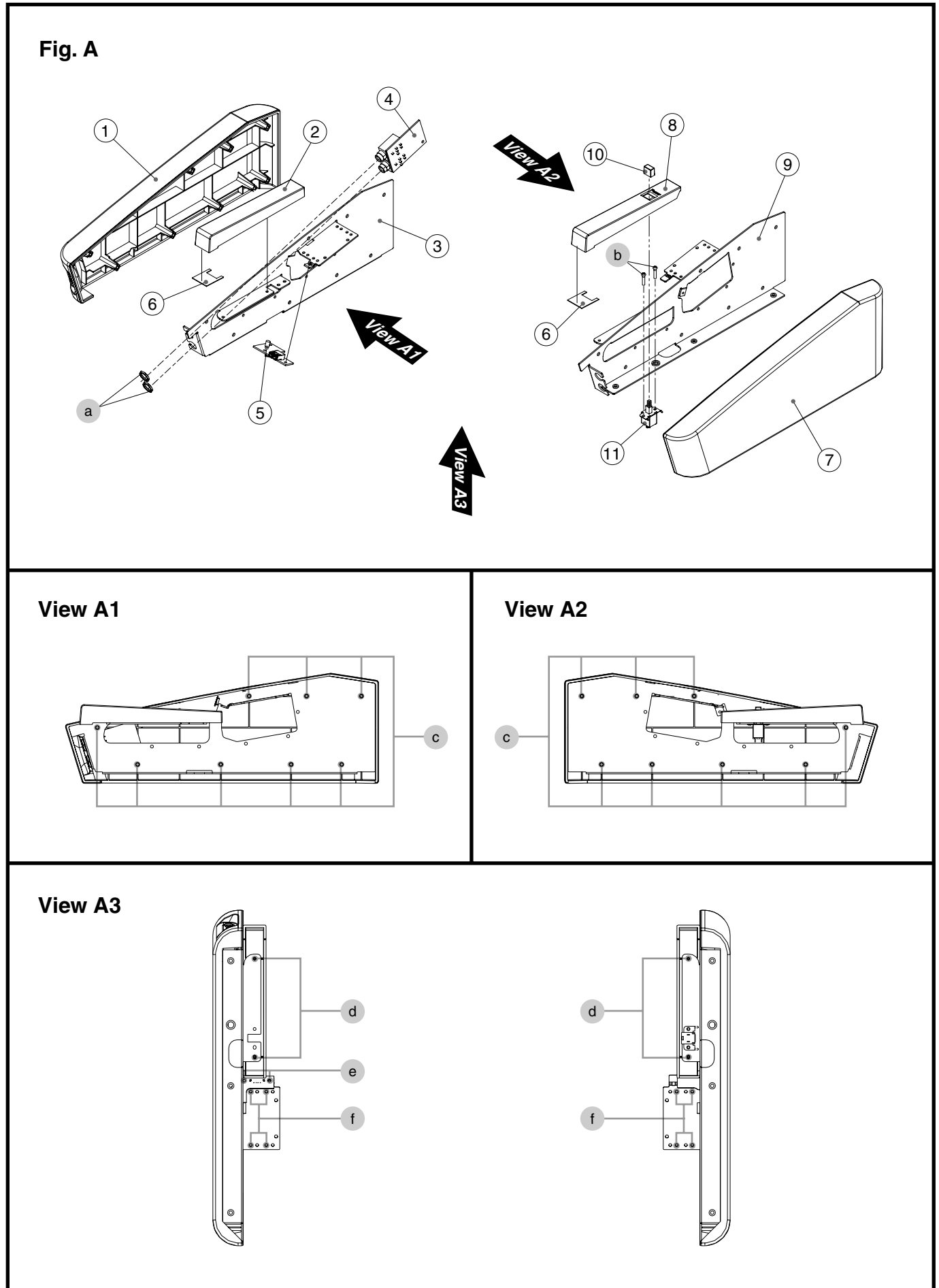
View 4

No.	Part Code	Part Name	Description	Q'ty
l	40560289	SCREW M4X18	PAN MACHINE W/SW+PW ZC PAN	2
m	40346190	SCREW 4X16	TRUSS TAPPING TWIN ZC	15
w	40011767	FLANGE HEX NUT M4	FE ZC	2

View 5

No.	Part Code	Part Name	Description	Q'ty
n	40010134	SCREW M4X20	TRUSS MACHINE BZC	8
o	40127278	SCREW 4X16	TRUSS TAPTITE B BZC	13
p	40564778	SCREW 4X20	BINDING TAPTITE P WH BZC W12.5	6
x	40010734	SCREW 3X12	BINDING HEAD TAPPING A FE ZC	4

Exploded View (Fig.A)



Exploded View (Fig.A) Parts List

Fig.A

No.	Part Code	Part Name	Description	Q'ty	
1	04348112	SIDE PANEL L		1	for BK
	5100015851	SIDE PANEL L		1	for WH
2	04348078	END BLOCK L		1	for BK
	5100019560	END BLOCK L		1	for WH
	* This unit includes the following parts.				
6	*****	SLIDE SHEET			
3	04348090	SIDE HOLDER L		1	for BK
	5100015848	SIDE HOLDER L		1	for WH
4	*****	PHONES BOARD ASSY	included in Panel Sheet Assy (#5100016099)	1	
5	*****	USB HOST BOARD ASSY	included in Jackamp Sheet Assy (#5100016322)	1	
7	04348101	SIDE PANEL R		1	for BK
	5100015852	SIDE PANEL R		1	for WH
8	04348067	END BLOCK R		1	for BK
	5100019561	END BLOCK R		1	for WH
	* This unit includes the following parts.				
6	*****	SLIDE SHEET			
9	04348089	SIDE HOLDER R		1	for BK
	5100015849	SIDE HOLDER R		1	for WH
10	12499175	BUTTON	JSPUE0011A	1	for BK
	5100016090	BUTTON	JSPUE0013A	1	for WH
11	73236978	SWITCH ASSY		1	
a	40016756	JACK NUT	HLJ0999-01-360 HEX M12	2	
b	40237101	SCREW M3X8	PAN MACHINE W/SW+SMALL PW BZC	2	

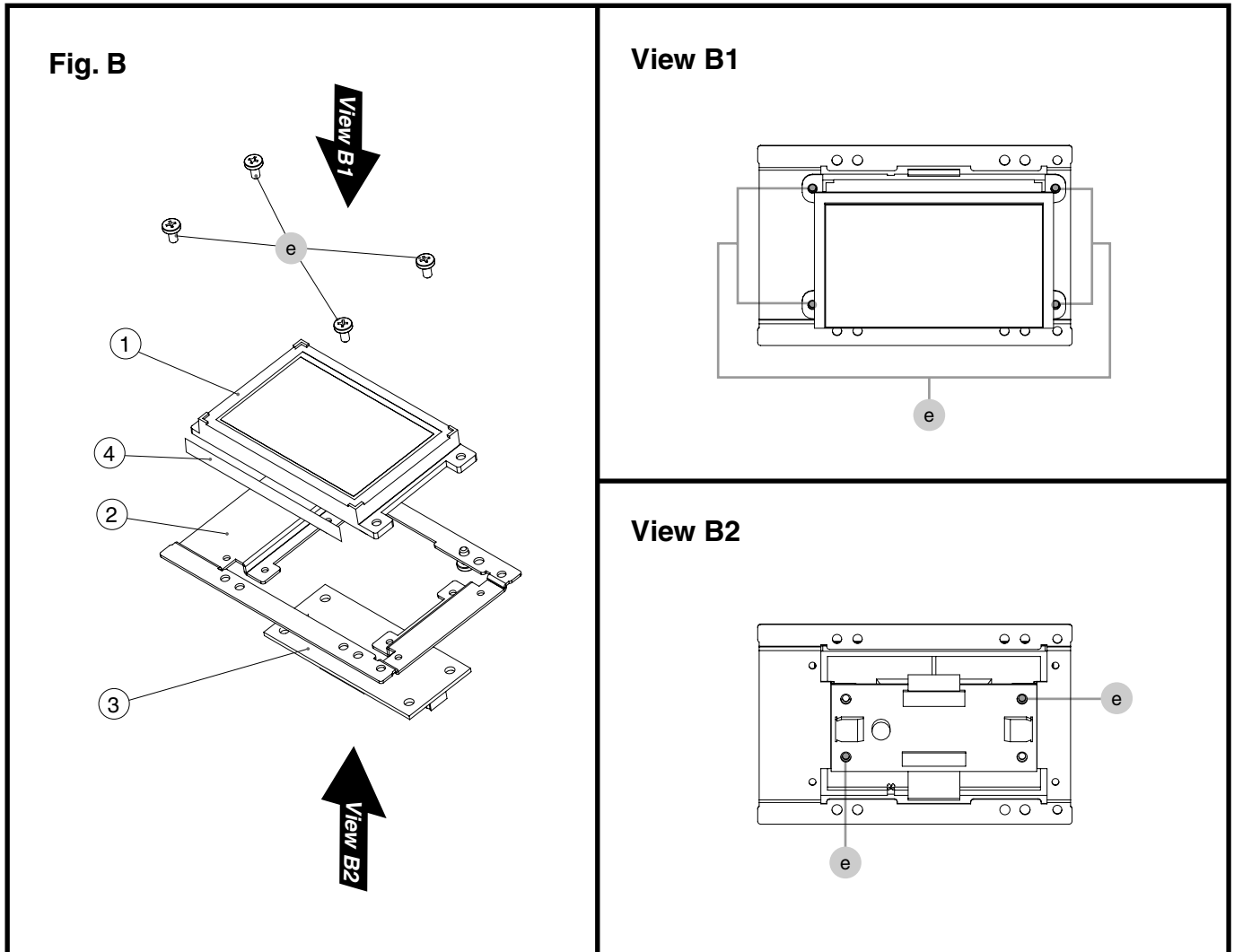
View A1, A2

No.	Part Code	Part Name	Description	Q'ty
c	40238501	SCREW 4X8	BINDING TAPTITE P FE BZC	16

View A3

No.	Part Code	Part Name	Description	Q'ty
d	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	4
e	40011056	SCREW 3X6	BINDING TAPTITE B ZC	2
f	40011101	SCREW 3X8	BINDING TAPTITE B BZC	8

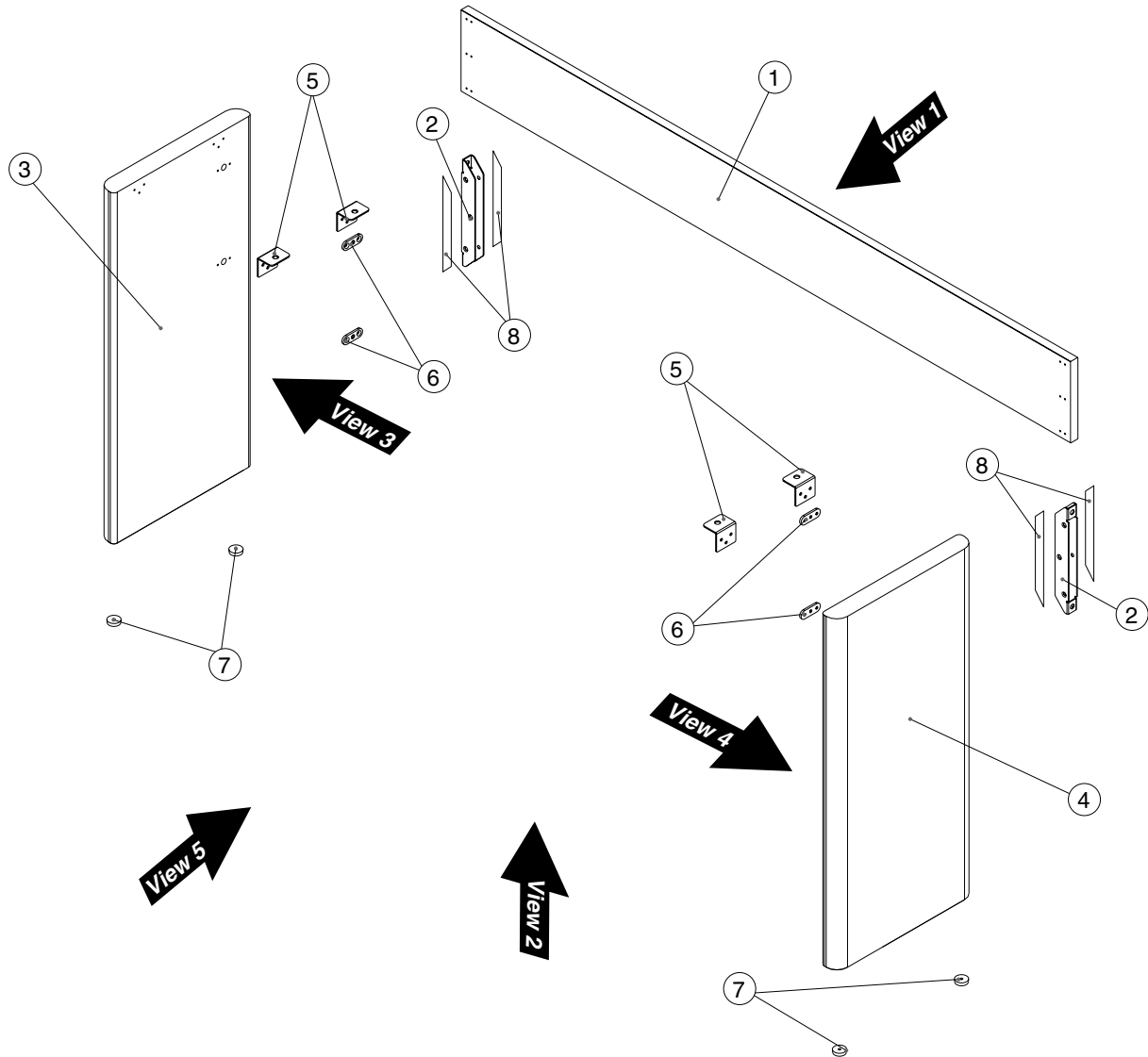
Exploded View (Fig.B)



Exploded View (Fig.B) Parts List

No.	Part Code	Part Name	Description	Q'ty
1	5100010000	LCD	CMF2P0458-E	1
2	5100015605	LCD HOLDER		1
3	5100016115	LCD BOARD ASSY		1
4	5100002621	DISPLAY CUSHION		1
e	40011056	SCREW 3X6	BINDING TAPTITE B ZC	6

Exploded View (Stand)



Exploded View (Stand) Parts List

No.	Part Code	Part Name	Description	Q'ty
1	04453189	CENTER BOARD		1 for BKJ
	04455778	CENTER BOARD		1 for WHJ
2	04453156	CENTER BOARD HOLDER		2 for BKJ
	04455801	CENTER BOARD HOLDER		2 for WHJ
3	5100015611	SIDE BOARD L		1 for BKJ
	5100015612	SIDE BOARD L		1 for WHJ
4	5100015613	SIDE BOARD R		1 for BKJ
	5100015614	SIDE BOARD R		1 for WHJ
5	5100015615	ANGLE		4 for BKJ
	5100015616	ANGLE		4 for WHJ
6	03341356	PLATE		4 for BKJ
	04457456	PLATE		4 for WHJ
7	02674578	S-PANEL FOOT		4
8	5100016292	CENTER HOLDER LABEL	4 PCS/SHEET	1 only for WHJ

Plane View (Stand)

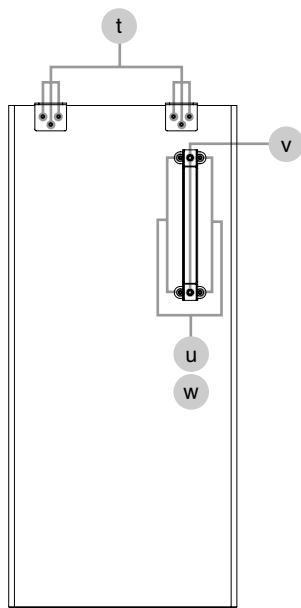
View 1



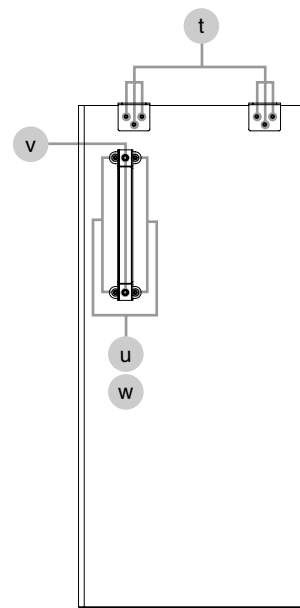
View 2

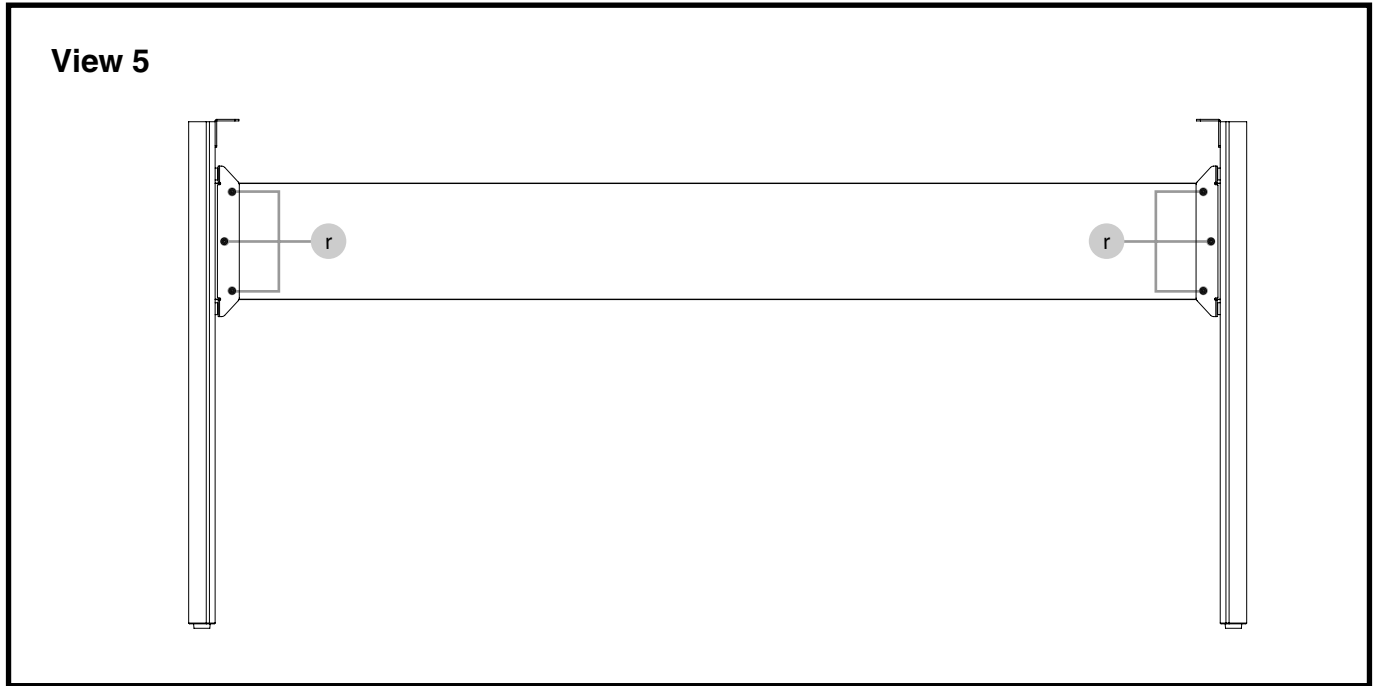


View 3



View 4





Plane View (Stand) Parts List

View 1

No.	Part Code	Part Name	Description	Q'ty
r	40677189	SCREW 4X14	FLAT TAPPING A BZC	6

View 2

No.	Part Code	Part Name	Description	Q'ty
s	40675701	SCREW 3.5X16	BINDING TAPPING A FE BZC	4

View 3, 4

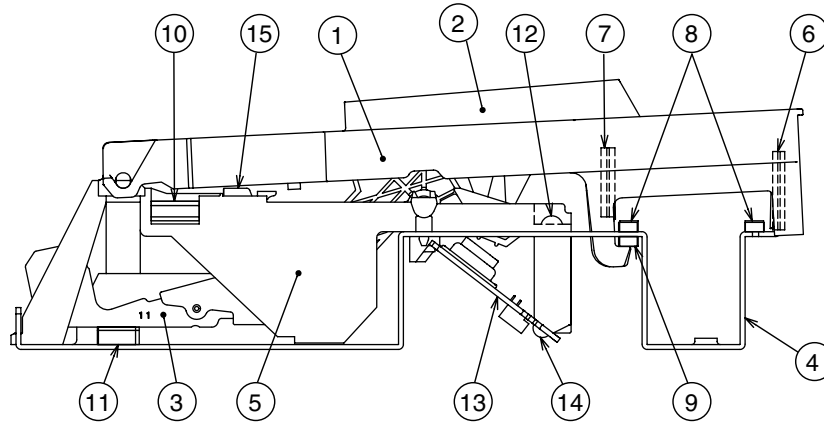
No.	Part Code	Part Name	Description	Q'ty
t	40010667	SCREW 4X16	TRUSS TAPPING A FE BZC	12
	40677623	SCREW 4X16	TRUSS TAPPING A FE NI	12
u	40677190	SCREW 4X20	FLAT TAPPING A FE BZC	8
v	5100015690	SCREW M6X18	ORIGINAL TRUSS TC BZC	4
w	40678689	SCREW LABEL	8 PCS/SHEET	1

for BKJ
for WHJ
only for WHJ

View 5

No.	Part Code	Part Name	Description	Q'ty
r	40677189	SCREW 4X14	FLAT TAPPING A BZC	6

Keyboard Parts List (PHA3-C)



No.	Part Code	Part Name	Description	Q'ty
	5100017594	KEYBOARD ASSY	PHA3-C	
1	5100014796	N-KEY A	PHA3	7
	5100014797	N-KEY B	PHA3	8
	5100014798	N-KEY C	PHA3	7
	5100014799	N-KEY D	PHA3	7
	5100014800	N-KEY E	PHA3	7
	5100014801	N-KEY F	PHA3	7
	5100014802	N-KEY G	PHA3	7
	5100014803	N-KEY A'	PHA3	1
	5100014804	N-KEY C'	PHA3	1
2	5100015909	SHARP KEY	PHA3	36
3	73561001	HAMMER-1	PHA2	24
	73561012	HAMMER-2	PHA2	24
	73561023	HAMMER-3	PHA2	24
	73561034	HAMMER-4	PHA2	16
4	*****	PA-5 CHASSIS 88P		1
5	02895767	SUB CHASSIS	PA-5 12P	7
	02895778	SUB CHASSIS	PA-5 4P	1
6	01894923	GUIDE BUSHING C		52
7	00019912	GUIDE BUSHING S-KEY	PA-4	36
8	5100012563	KEY CUSHION A		2
9	02904401	KEY CUSHION B		1
10	02016945	HAMMER CUSHION B	PA-5	1
11	02904390	HAMMER CUSHION D	PA-5	1
12	40012256	SCREW 3X10	BINDING TAPTITE B FE ZC	37
13	5100014683	PWB ASSY SET	PHA3-B	1
14	40011267	SCREW 3X6	BINDING TAPTITE P FE ZC	22
15	04347623	JACK 12P	PHA2	8

* The cables (#5100017225, #5100017226, #5100017227) aren't included in this unit (#5100017594).

* For disassembly and maintenance of keyboard, refer to the SERVICE NOTES FOR PHA3.

Disassembly Procedure

1. As shown in the photo, stand the unit upright with the Rear Panel facing down.



2. Remove the screws shown by white circles in the photo (**Plain View (All)** (p. 11) **View A5-o, p**).

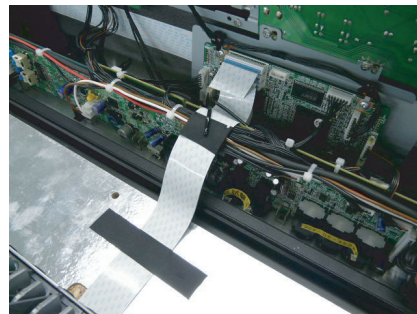


* Perform the operation while supporting the Bottom Board and Side Panels with your hands to keep them from coming loose.

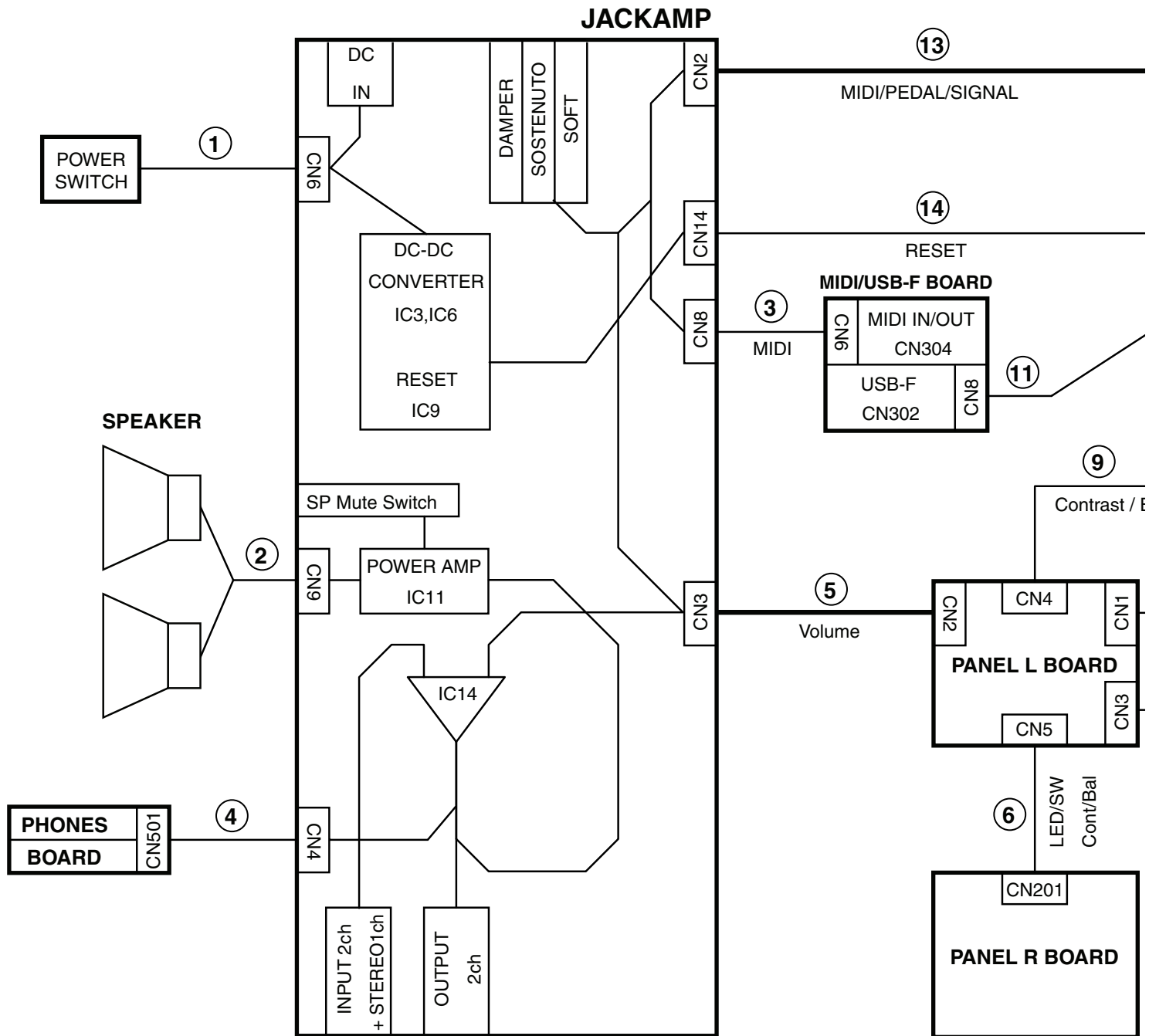
3. Detach the Bottom Board from the Top Panel and Side Panels.

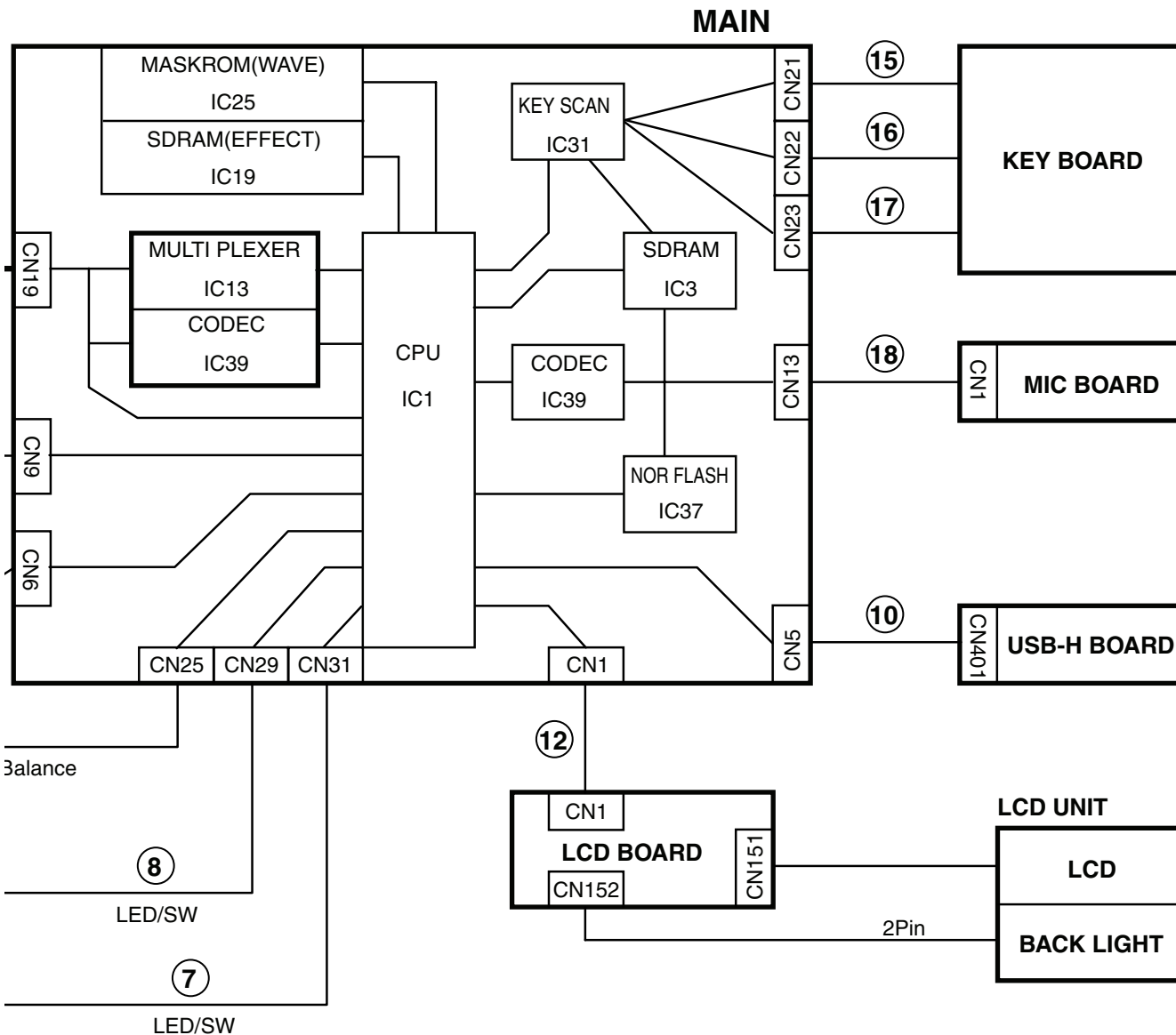


* Take care to ensure that the BAN card connecting the Main Board and the Keyboard is not pulled.



Wiring Diagram/Block Diagram





Wiring Parts List

No.	Part Code	Part Name	Description	Q'ty
1	*****	WIRING	W16(SW) * included in Switch Assy (#73236978)	1
2	04347978	WIRING	W5(SPEAKER)	1
3	03565923	WIRING	5X60-P2.0-PHR-PHR-F	1
4	02343412	WIRING	6X950-P2.0-PHR-PHR-F	1
5	02343612	WIRING	8X500-P2.0-PHR-PHR-F	1
6	04347923	WIRING	FWR-P=1.25-K1-22-550	1
7	02343578	WIRING	8X300-P2.0-PHR-PHR-F	1
8	02343834	WIRING	10X250-P2.0-PHR-PHR-F	1
9	02018578	WIRING	7X500-P2.0-PH-PH-F	1
10	04347945	WIRING	W7(USB HOST)	1
11	02343223	WIRING	6X100-P2.0-PHR-PHR-F	1
12	5100017419	WIRING	9X200-P2.0-PHR-PHR-F	1
13	02344156	WIRING	14X250-P2.0-PHR-PHR-F	1
14	02895334	WIRING	7X250-P2.0-PHR-PHR-F	1
15	5100017225	WIRING	FWR-P=1.25-K1-18-850	1
16	5100017226	WIRING	FWR-P=1.25-K1-20-500	1
17	5100017227	WIRING	FWR-P=1.25-K1-22-950	1
18	02343223	WIRING	6X100-P2.0-PHR-PHR-F	1

Parts List (FP-7F-BK/WH)

Safety Precautions:
The parts marked Δ 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

	04348045	BOTTOM BOARD		1
#	5100015604	TOP PANEL	for BK	1
	04348056	BLIND	for BK	1
	04348112	SIDE PANEL L	for BK	1
	04348101	SIDE PANEL R	for BK	1
	04348078	END BLOCK L	for BK	1
	04348067	END BLOCK R	for BK	1
#	5100015846	TOP PANEL	for WH	1
#	5100015850	BLIND	for WH	1
#	5100015851	SIDE PANEL L	for WH	1
#	5100015852	SIDE PANEL R	for WH	1
#	5100019560	END BLOCK L	for WH	1
#	5100019561	END BLOCK R	for WH	1

CHASSIS

#	5100015605	LCD HOLDER		1
#	5100015607	MAIN BOARD HOLDER		1
	04348090	SIDE HOLDER L	for BK	1
	04348089	SIDE HOLDER R	for BK	1
#	5100015848	SIDE HOLDER L	for WH	1
#	5100015849	SIDE HOLDER R	for WH	1

KNOB, BUTTON

	04347878	ZA S-KEYTOP	LX1H CLR	2
	04347867	ZA S-KEYTOP	LX2H CLR	3
	04347856	ZA S-KEYTOP	LX3H CLR	2
	04347189	ZA S-KEYTOP	LX4H CLR	3
	04124267	J R-KNOB SF-ELA BLK/SLV	990-05045-10-08	2
	12499175	BUTTON	JSPUE0011A	1
	5100012091	J R-KNOB	SF-B WHT/SLV	2
#	5100016090	BUTTON	JSPUE0013A	1

SWITCH

	73236978	SWITCH ASSY		1
	13159180	SWITCH	SSSF112500	1
	01340290	TACT SWITCH	EVQ11A05R	26

JACK, EXT TERMINAL

	04560101	USB CONNECTOR A TYPE FEMALE	UAR27-4K5J00	1
	02781101	USB CONNECTOR B TYPE FEMALE	YKF45-0020N	1
	04452945	3.5MM JACK	YKB21-5344N	1
	13449169	6.5MM JACK	YKB21-5078	1
	13449252	6.5MM JACK	YKB21-5006 (STEREO W/SW)	5
	13449146	6.5MM JACK	YKB21-5012 (W/SW)	4
	13429676	MIDI CONNECTOR	HINDI	1
	02900312	DC JACK	HEC0470-01-640	1

DISPLAY UNIT

	5100010000	LCD	CMF2P0458-E	1
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SPEAKER, BUZZER

	04346012	SPEAKER BOX ASSY		2
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KEYBOARD ASSY

	5100017594	KEYBOARD ASSY	PHA3-C	1
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PWB ASSY				
#	5100015268	MAIN BOARD ASSY TOTAL		1
#	5100016099	PANEL SHEET ASSY		1
		* This unit includes the following parts.		
	*****	PANEL L BOARD ASSY		1
	*****	PANEL R BOARD ASSY		1
	*****	MIDI USB-F BOARD ASSY		1
	*****	PHONES BOARD ASSY		1
#	5100016103	MIC BOARD ASSY		1
#	5100016115	LCD BOARD ASSY		1
#	5100016322	JACKAMP SHEET ASSY		1
		* This unit includes the following parts.		
	*****	JACKAMP BOARD ASSY		1
	*****	USB HOST BOARD ASSY		1
DIODE				
	04902023	LED (RED/GREEN)	SPI-325MUWT31	7
	01784556	LED (RED)	SLI-343URCT32W	19
POTENTIOMETER				
	02451045	14M/M ROTARY POTENTIOMETER	RK14K12C0 10KBX2 CT	1
	13279884	POTENTIOMETER	RK09K1110A0J 10KB	1
#	5100017221	ROTARY POTENTIOMETER	RK09L114001N	1
#	5100016276	ROTARY POTENTIOMETER	RK09K1130AXM	1
WIRING, CABLE				
	04347945	WIRING	W7(USB HOST)	1
	04347978	WIRING	W5(SPEAKER)	1
	03565923	WIRING	5X60-P2.0-PHR-PHR-F	1
	02343223	WIRING	6X100-P2.0-PHR-PHR-F	1
	02343412	WIRING	6X950-P2.0-PHR-PHR-F	1
	02895334	WIRING	7X250-P2.0-PHR-PHR-F	1
	02018578	WIRING	7X500-P2.0-PH-PH-F	1
	02343578	WIRING	8X300-P2.0-PHR-PHR-F	1
	02343612	WIRING	8X500-P2.0-PHR-PHR-F	1
#	5100017419	WIRING	9X200-P2.0-PHR-PHR-F	1
	02343834	WIRING	10X250-P2.0-PHR-PHR-F	1
	02344156	WIRING	14X250-P2.0-PHR-PHR-F	1
#	5100017225	WIRING	20624 FWR-P=1.25-K1-18-850	1
#	5100017226	WIRING	20624 FWR-P=1.25-K1-20-500	1
	04347923	WIRING	FWR-P=1.25-K-22-550	1
#	5100017227	WIRING	20624 FWR-P=1.25-K1-22-950	1
SCREWS				
	40011056	SCREW 3X6	BINDING TAPTITE B ZC	8
	40011156	SCREW 3X8	FLAT TAPTITE B BZC	4
	40011101	SCREW 3X8	BINDING TAPTITE B BZC	3
	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	12
	40010734	SCREW 3X12	BINDING HEAD TAPPING A FE ZC	4
	40677323	SCREW 3X20	FLAT TAPTITE P FE ZC	4
	40677945	SCREW 4X6	BINDING TAPTITE P FE ZC	8
	40238501	SCREW 4X8	BINDING TAPTITE P FE BZC	16
	40127278	SCREW 4X16	TRUSS TAPTITE B BZC	13
	40346190	SCREW 4X16	TRUSS TAPPING TWIN ZC	15
	40564778	SCREW 4X20	BINDING TAPTITE P WH BZC W12.	6
	40017934	SCREW M3X6	PAN MACHINE W/SW+PW(L) FE ZC	4
	40237101	SCREW M3X8	PAN MACHINE W/SW+SMALL PW BZC	10
	40230590	SCREW M3X10	BINDING MACHINE NI	1
	40560289	SCREW M4X18	PAN MACHINE W/SW+PW ZC PAN	2
	40010134	SCREW M4X20	TRUSS MACHINE BZC	8
	40346089	KNOB BOLT M5X19	N-3 BLACK	2
	40011767	FLANGE HEX NUT M4	FE ZC	2
	40016756	JACK NUT	HLJ0999-01-360 HEX M12	2

MISCELLANEOUS

	04348145	GRILLE		for BK	2
#	5100015853	GRILLE		for WH	2
	04454623	SPEAKER COVER		for BK	2
#	5100017239	SPEAKER COVER		for WH	2
	04348134	USB ESCUTCHEON		for BK	1
#	5100015854	USB ESCUTCHEON		for WH	1
#	5100015608	DISPLAY COVER			1
	22135354	MUSIC REST HOLDER	213-354		2
	5100009656	DC PLUG SUPPORTER			1
	03450812	KEY FELT			1
#	5100002621	DISPLAY CUSHION			1
	04454634	CUSHION	SPEAKER CUSHION		2
	04454645	CUSHION	TACT SW CUSHION L		1
	04454656	CUSHION	TACT SW CUSHION R		1
	04453223	CUSHION	KEYTOP CUSHION L		1
	04453234	CUSHION	KEYTOP CUSHION R		1
	12359105	RUBBER FOOT W	RS-09 235-105		4
	12199584	GROUNDING TERMINAL	M1698		5
	02890945	CLAMP	LWSM-0605		3
	40016523	INSULOK TIE 100M/M T-18R	(1000 PCS ORDERING PER)		13
	40017378	COATING CLIP	CS-7		2
	40120967	COATING CLIP	CS-3		11
#	40676445	ADJUST LABEL			1
	40678156	LABEL	USB CAUTION(MIDI)		1
	5100017087	LABEL AUDIO KEY	BLACK	for BK	1
	5100017088	LABEL AUDIO KEY	WHITE	for WH	1
	04454612	TOP PANEL TAPE			1
	40122490	DOUBLE-FACED TAPE	#500 W5MM 20M 40P		-
	40345056	DOUBLE-FACED TAPE	#500 W10MM 20M 20P(CM)		-
	40122901	DOUBLE-FACED TAPE	#501F W10MM 20M 20P (CM)		-
	40122923	DOUBLE FACED ADHESIVE TAPE	NITTO NO.501F W20MM 20M		-
	40232123	ACETATE TAPE	NITTO #5 BLACK W20MM 30M 20P		-
	17041858	GREASE FOR KEY	MOLYKOTE G-1039 (50 GRAM)		-
	17049543	GREASE FOR KEY	FLOIL G-336A WHITE (93 GRAM)		-
	17041428	GREASE FOR KEY	FLOIL CR-125L WHITE 100CC		-

ACCESSORIES (Standard)

	73341367	MUSIC REST ASSY		for BK	1
#	5100015842	MUSIC REST ASSY		for WH	1
	△	04236112	AC ADAPTOR	PSB-7U(S)DC WITHOUT AC CORD	1
	△	01903334	AC CORD SET PSE	100V 1.0M FOR PSB	1
	△	5100012293	AC CORD SET	117VBL 1.0M FOR PSB	1
	△	02562456	AC CORD SET	120V 1.0M (NON POLAR)	1
	△	03453012	AC CORD SET	CCC CERT 220V 2P-2P 2.5M BLAC	1
	△	01903356	AC CORD SET	230V 1.0M FOR PSB	1
	△	03785590	AC CORD SET	SC-078-NA05 240VA	1
	△	00905234	EURO CONVERTER PLUG	ECP01-5A	1
#	5100016173	OWNER'S MANUAL	JAPANESE		1
#	5100016174	OWNER'S MANUAL	ENGLISH		1

Parts List (KSC-44-BKJ/WHJ)

Safety Precautions:
The parts marked Δ 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

#	04453189	CENTER BOARD		for BKJ	1
#	5100015611	SIDE BOARD L		for BKJ	1
#	5100015613	SIDE BOARD R		for BKJ	1
#	04455778	CENTER BOARD		for WHJ	1
#	5100015612	SIDE BOARD L		for WHJ	1
#	5100015614	SIDE BOARD R		for WHJ	1

CHASSIS

#	04453156	CENTER BOARD HOLDER		for BKJ	2
#	5100015615	ANGLE		for BKJ	4
#	03341356	PLATE		for BKJ	4
#	04455801	CENTER BOARD HOLDER	WH	for WHJ	2
#	5100015616	ANGLE		for WHJ	4
#	04457456	PLATE		for WHJ	4

SCREWS

	40675701	SCREW 3.5X16	BINDING TAPPING A FE BZC		4
	40677189	SCREW 4X14	FLAT TAPPING A BZC		12
	40010667	SCREW 4X16	TRUSS TAPPING A FE BZC	for BKJ	12
	40677623	SCREW 4X16	TRUSS TAPPING A FE NI	for WHJ	12
	40677190	SCREW 4X20	FLAT TAPPING A FE BZC		8

MISCELLANEOUS

	02674578	S-PANEL FOOT			4
	03901267	PHONES HOOK			1
#	5100015690	SCREW M6X18	ORIGINAL TRUSS TC BZC		4
	40233845	KNOB BOLT M5X15	KT-B1		4
#	5100016292	CENTER HOLDER LABEL	4 PCS/SHEET	only for WHJ	1
#	40678689	SCREW LABEL	8 PCS/SHEET	only for WHJ	1

Status of Settings after Various Operations

	Factory Reset (p. 28).	Formatting the Internal Memory (p. 26).	Factory Reset in Test Mode (p. 30).	System Update (p. 29).	Backup method
Items Stored by Memory Backup (Owner's Manual, p. 91)	Deleted (returned to factory defaults)	Retained	Deleted (returned to factory defaults)	Retained	None (Note down on paper.)
Settings Stored Immediately When Edited (Owner's Manual, p. 91)	Deleted (returned to factory defaults)	Retained	Deleted (returned to factory defaults)	Retained	None (Note down on paper.)
Registrations stored to [Registration] buttons (Owner's Manual, p. 50)	Deleted (returned to factory defaults)	Retained	Deleted (returned to factory defaults)	Retained	Save in USB memory device Refer to " Backing Up Registrations Assigned to the [REGISTRATION] Button " (p. 27).
Registration sets saved in the internal memory (Owner's Manual, p. 68)	Retained	Deleted	Deleted	Retained	Copy to USB memory device Refer to " Backing Up Registrations Saved in the internal Memory " (p. 27).
Songs saved in the internal memory (Owner's Manual, p. 56)	Retained	Deleted	Deleted	Retained	Copy to USB memory device Refer to " Data Backup " (p. 27).

Verifying the Version Number

1. Hold down the [+] and [-] buttons to the right of the [DISPLAY] button and switch on the power.
The version is displayed.
2. Switch off the power.

Formatting a USB Memory Device

1. Insert a USB memory device into the external memory connector (at the left edge of the top panel).
2. Press the [FUNCTION] button.
3. Press the [+] and [-] buttons to select **File Menu**, then press the [PIANO] button.

A screen like the one shown below is displayed.



4. Press the [+] and [-] buttons to select **Format Media**, then press the [PIANO] button.

A screen like the one shown below is displayed.



5. Press the [+] and [-] buttons to select **External Memory**, then press the [PIANO] button.

* Selecting **Internal Memory** causes the internal memory to be formatted.

A confirmation message is displayed.



6. To execute formatting, press the TEMPO [+] button. To cancel, press the TEMPO [-] button.

Pressing the TEMPO [+] button executes formatting.

* Be very sure never to switch off the power while the message **Executing...** is displayed.

Data Backup and Restore Operations

Items Required

- USB memory devices (recommended: M-UF1G or M-UF2G) x 3
- * Prepare one for song data and two for registration sets.
- * Refer to **Formatting a USB Memory Device** (p. 26) and format ahead of time.

Data Backup

Backing Up Song Data

This backs up song data saved in the internal memory to a USB memory device.

1. Insert a formatted USB memory device into the external memory connector (at the left edge of the top panel).
2. Press the [FUNCTION] button.
3. Press the [+] and [-] buttons to select **File Menu**, then press the [PIANO] button.
4. Press the [+] and [-] buttons to select **Copy Song**, then press the [PIANO] button.
5. Press the [+] and [-] buttons to select **Internal Memory**, then press the [PIANO] button.
This selects the internal memory as the copy-source memory. When the internal memory is selected as the copy source, the USB memory device is automatically selected as the copy-destination memory.
6. Press the [+] and [-] buttons to select **Copy All**, then press the [PIANO] button.
This makes the setting for copying all songs.
* When **Copy All** has been selected, all the songs in the copy source are copied to **Empty** locations in the copy destination in order from the front. The **Empty** locations in the copy source are not replicated.
7. Press the [+] and [-] buttons to select **1: (Empty)**.
This makes the setting to copy all songs, starting at **1** on the USB memory device.
8. Pressing the [PIANO] button displays a confirmation message.
To carry out copying, press the TEMPO [+] button. To cancel, press the TEMPO [-] button.
Pressing the TEMPO [+] button executes copying (backup) of the song data.
* Be very sure never to switch off the power while the message **Executing...** is displayed.

Backing Up Registrations Assigned to the [REGISTRATION] Button

This takes 30 registrations assigned to the [REGISTRATION] button and backs them up onto a USB memory device as a single set.

1. Insert a formatted USB memory device into the external memory connector (at the left edge of the top panel).
2. Press the [FUNCTION] button.
3. Press the [+] and [-] buttons to select **Registration**, then press the [PIANO] button.
4. Press the [+] and [-] buttons to select **Save Regist. Set**, then press the [PIANO] button.
5. Press the [VOICE/OTHERS] button.
6. Press the [+] and [-] buttons to select **External Memory**, then press the [PIANO] button.
This selects the USB memory device as the copy-destination memory.

7. Press the [+] and [-] buttons to select **001: (Not Used)**.
This sets **001** as the copy-destination number.
8. Press the [PIANO] button.
Copying (backup) of the registration set is carried out.
* Be very sure never to switch off the power while the message **Executing...** is displayed.

Backing Up Registrations Saved in the Internal Memory

This backs up registration sets saved in the internal memory to a USB memory device.

1. Insert a formatted USB memory device into the external memory connector (at the left edge of the top panel).
2. Press the [FUNCTION] button.
3. Press the [+] and [-] buttons to select **Registration**, then press the [PIANO] button.
4. Press the [+] and [-] buttons to select **Copy Regist. Set**, then press the [PIANO] button.
5. Press the [+] and [-] buttons to select **Internal Memory**, then press the [PIANO] button.
This selects the internal memory as the copy-source memory. When the internal memory is selected as the copy source, the USB memory device is automatically selected as the copy-destination memory.
6. Press the [+] and [-] buttons to select **All**, then press the [PIANO] button.
This makes the setting for copying all registration sets.
* When **All** has been selected, all the registration sets in the copy source are copied to **Not Used** locations in the copy destination in order from the front. The **Not Used** locations in the copy source are not replicated.
7. Press the [+] and [-] buttons to select **001: (Not Used)**.
This makes the setting to copy all registration sets, starting at **001** on the USB memory device.
8. Press the [PIANO] button.
Copying (backup) of the registration sets is carried out.
* Be very sure never to switch off the power while the message **Executing...** is displayed.

Data Restore Operations

Restoring Song Data

1. Insert the USB memory device containing the backed-up song data into the external memory connector (at the left edge of the top panel).
2. Press the [FUNCTION] button.
3. Press the [+] and [-] buttons to select **File Menu**, then press the [PIANO] button.
4. Press the [+] and [-] buttons to select **Copy Song**, then press the [PIANO] button.
5. Press the [+] and [-] buttons to select **External Memory**, then press the [PIANO] button.
This selects the USB memory device as the copy-source memory. When the USB memory device is selected as the copy source, the internal memory is automatically selected as the copy-destination memory.
6. Press the [+] and [-] buttons to select **Copy All**, then press the [PIANO] button.
This makes the setting for copying all songs.
* When **Copy All** has been selected, all the songs in the copy source are copied to **Empty** locations in the copy destination in order from the front. The **Empty** locations in the copy source are not replicated.
7. Press the [+] and [-] buttons to select **1: ????????**.
This makes the setting to copy all songs, starting at **1** in the internal memory.

8. Pressing the [PIANO] button displays a confirmation message. To carry out copying, press the TEMPO [+] button. To cancel, press the TEMPO [-] button.
- Pressing the TEMPO [+] button executes copying (restoring) of the song data.
- * *Be very sure never to switch off the power while the message **Executing...** is displayed.*

Restoring Registrations to the [REGISTRATION] Buttons

1. Insert the USB memory device containing backed-up registrations from the [REGISTRATION] button into the external memory connector (at the left edge of the top panel).
 2. Press the [FUNCTION] button.
 3. Press the [+] and [-] buttons to select **Registration**, then press the [PIANO] button.
 4. Press the [+] and [-] buttons to select **Load Regist. Set**, then press the [PIANO] button.
 5. Press the [+] and [-] buttons to select **External Memory**, then press the [PIANO] button.
This selects the USB memory device as the copy-source memory.
 6. Press the [+] and [-] buttons to select **001: ????????**.
This sets **001** as the copy-source number.
 7. Pressing the [PIANO] button displays a confirmation message. To carry out copying, press the TEMPO [+] button. To cancel, press the TEMPO [-] button.
Pressing the TEMPO [+] button executes copying (restoring) of the registration set.
- * *Be very sure never to switch off the power while the message **Executing...** is displayed.*

Restoring Registrations to the Internal Memory

1. Insert the USB memory device containing backed-up registrations from the internal memory into the external memory connector (at the left edge of the top panel).
 2. Press the [FUNCTION] button.
 3. Press the [+] and [-] buttons to select **Registration**, then press the [PIANO] button.
 4. Press the [+] and [-] buttons to select **Copy Regist. Set**, then press the [PIANO] button.
 5. Press the [+] and [-] buttons to select **External Memory**, then press the [PIANO] button.
This selects the USB memory device as the copy-source memory. When the USB memory device is selected as the copy source, the internal memory is automatically selected as the copy-destination memory.
 6. Press the [+] and [-] buttons to select **All**, then press the [PIANO] button.
This makes the setting for copying all registration sets.
- * *When **All** has been selected, all the registration sets in the copy source are copied to **Not Used** locations in the copy destination in order from the front. The **Not Used** locations in the copy source are not replicated.*
7. Press the [+] and [-] buttons to select **001: ????????**.
This makes the setting to copy all registration sets, starting at **001** in internal memory.
 8. Pressing the [PIANO] button displays a confirmation message. To carry out copying, press the TEMPO [+] button. To cancel, press the TEMPO [-] button.
Pressing the TEMPO [+] button executes copying (restoring) of the registration set.
- * *Be very sure never to switch off the power while the message **Executing...** is displayed.*

Writing Down the Values of the Setting Items

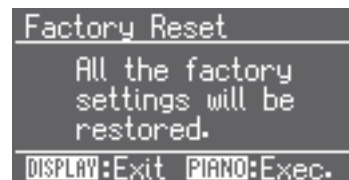
The setting items indicated below are returned to their factory defaults when a factory reset, a system update, or the Test Mode is executed. These setting items cannot be backed up to the external media, so write them down on a piece of paper.

- Items stored by Memory Backup (Owner's Manual, p. 91)
- Settings stored immediately when edited (Owner's Manual, p. 91)

Performing a Factory Reset

* *Executing a factory reset causes items stored by Memory Backup (Owner's Manual, p. 91) and registration settings to be reset to their factory defaults. Song data and registration sets saved in internal memory are not lost.*

1. Press the [FUNCTION] button.
2. Press the [+] and [-] buttons to select **Factory Reset**, then press the [PIANO] button.
A screen like the one shown below is displayed.

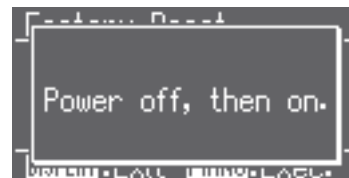


3. Press the [PIANO] button.
A confirmation message is displayed.



4. To execute the factory reset, press the TEMPO [+] button. To cancel, press the TEMPO [-] button.
Pressing the TEMPO [+] button executes the factory reset.
- * *Be very sure never to switch off the power while the message **Executing...** is displayed.*

When the factory reset is finished, the screen shown below appears.



5. Reset the power.

Updating the System

Items Required

- Computer (running Windows)
- USB memory device (recommended: M-UF1G or M-UF2G)
- Update files (obtained via Service Net)

Procedure

1. Format the USB memory device on the FP-7F. (Refer to **Formatting a USB Memory Device** (p. 26).)
2. Copy the update files (the entire **R026_FP7F** folder) to the root directory of the USB memory device.
3. Make sure the unit's power is switched off, then insert the USB memory device into the external memory connector (at the left edge of the top panel).
4. Hold down the [REC] button and switch on the power.
 - * *Continue to hold down the button until the on-screen **Roland** logo disappears. The update starts.*
5. Verify that the message **SUCCESS** is displayed, then switch off the power.
6. Detach the USB memory device.

Test Mode

Items Required

- Pedal (DP-8 or DP-10)
- Amp-equipped monitor speakers
- Headphones
- Microphone
- MIDI cable
- USB cable
- Audio cable
- USB memory device (compatible with high-speed specifications; recommended: M-UF1G or UF-2G)

Entering the Test Mode

Hold down [PIANO], [E.PIANO], and [STRINGS/PAD] at the same time and switch on the power. Continue to hold down the buttons until the on-screen **Roland** logo disappears (approximately 5 seconds).

Quitting the Test Mode

Switch off the power.

Moving Between Test Items

Holding down [FUNCTION] and pressing [LOOPER START] quits the current test and makes execution advance to the next test item.

Holding down [FUNCTION] and pressing [LOOPER OVERDUB] quits the current test and returns execution to the previous test item.

Test Items

1. **ROM Version Check** (p. 30)
2. **Destination Setting** (p. 30)
3. **Factory Reset** (p. 30)
4. **DSP Check** (p. 30)
5. **Switch/LED Check** (p. 30)
6. **Sound Check** (p. 31)
7. **MIDI & USB Check** (p. 31)
8. **Headphones Sense Check** (p. 31)
9. **Mic Sense Check** (p. 31)
10. **Pedal Check** (p. 31)
11. **Control Check** (p. 32)
12. **LCD Check** (p. 32)
13. **Device Check** (p. 32)
14. **Version Display** (p. 32)
15. **Ending** (p. 32)

1. ROM Version Check



A screen like the one in the figure above appears, and all LEDs on the panel light up.

After checking the version and destination information, press [METRONOME] to advance to the next test item.

2. Destination Setting



This makes the setting for the product's destination.

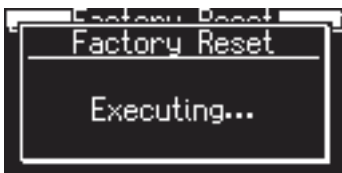
Press [PIANO] or [E.PIANO] to select the destination, then press [METRONOME] to advance to the next test item.

- To set the destination to Japan: Press [E.PIANO].
- To set the destination to outside Japan: Press [PIANO].

Setting the destination causes the next test item (3. Factory Reset) to be executed automatically.

To advance to the next test item without changing the setting for the destination, hold down [FUNCTION] and press [LOOPER START].

3. Factory Reset



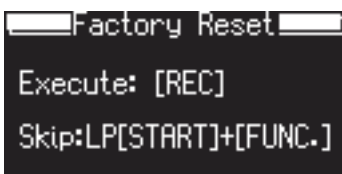
This returns the settings to their factory defaults.

* When the setting for the destination has been made, this item is executed automatically.

NOTE

Performing a factory reset erases all settings, registration items, and songs. For more information, refer to "Status of Settings after Various Operations" (p. 26).

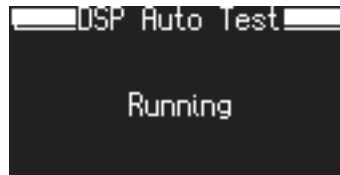
A display like the one shown below appears on the screen, and [REC] flashes.



To execute the factory reset, press [REC]. When the factory reset has finished, execution automatically advances to the next test item.

To advance to the next test item without executing a factory reset, hold down [FUNCTION] and press [LOOPER START].

4. DSP Check



This automatically checks the operation of the sound generator.

If no error occurs, execution automatically advances to the next test item.

If an error occurs, the location of the error appears on the display.

- WX: Errors in the sound-generator chip
- WX DRAM: Errors outside of the sound-generator chip

5. Switch/LED Check

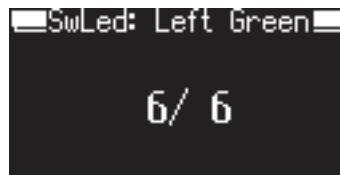
This checks the operation of LED-equipped switches.

The switch to be checked is indicated by its LED, which flashes. Press the switches as instructed.

The number of remaining switches is displayed on the screen.



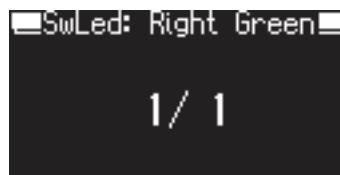
LEDs that light up red (left side of the panel)



LEDs that light up green (left side of the panel)



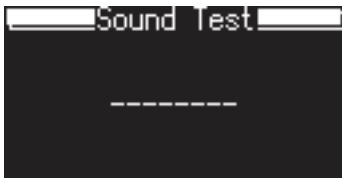
LEDs that light up red (right side of the panel)



LEDs that light up green (right side of the panel)

When checking of all switches and LEDs has been finished, execution automatically advances to the next test item.

6. Sound Check



This performs checking for sound production.

The [PIANO], [E.PIANO], [ORGAN], [SPLIT], and [FUNCTION] buttons flash.

Connect the amp-equipped monitor speakers to the **OUTPUT L/MONO** and **R** jacks as required.

Pressing each button shown below makes the corresponding sound play and makes the state of the button change to lighted.

Button	Tone
[PIANO]	Sine wave (left channel)
[E.PIANO]	Rectangular wave (right channel)
[ORGAN]	Sine wave (left and right)
[SPLIT]	Piano (direct sound)
[FUNCTION]	Piano (reverb)

Verify that all sounds are produced correctly by the built-in speakers and the amp-equipped monitor speakers.

Verify that the sine wave shows no audible distortion.

When all of the buttons just described have been pressed, the sound check is complete.

Press [METRONOME] to advance to the next test item.

7. MIDI & USB Check



Connect the **MIDI IN** and **MIDI OUT** connectors using a MIDI cable (loop connection). Verify that the message displayed on the screen changes between **MIDI: Disconnected** and **MIDI: Connected** when the connections are made and broken.

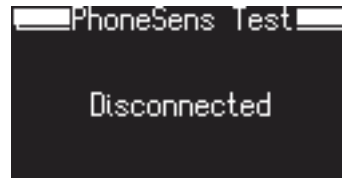
Connect the USB cable to the external memory connector (at the left edge of the top panel) and the **USB (MIDI)** connector. Verify that the message displayed on the screen changes between **USB: Disconnected** and **USB: Connected** when the connections are made and broken.

Connect the USB memory device to the external memory connector, and verify that the screen display changes from -- to **OK**.

* The message **OK** does not appear if the USB memory device is not compatible with high-speed specifications. In such cases, ****** is displayed and execution does not advance to the next test item.

When necessary testing finishes, execution automatically advances to the next test item.

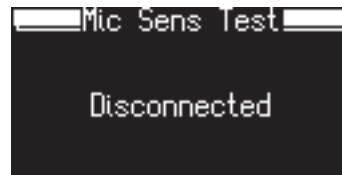
8. Headphones Sense Check



Verify that the screen display changes between **Disconnected** and **Connected** when the headphones plug is inserted and unplugged.

Press [METRONOME] to advance to the next test item.

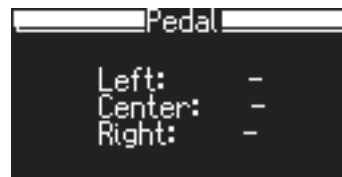
9. Mic Sense Check



Connect the microphone to the **MIC INPUT** jack. Verify that the screen display changes between **Disconnected** and **Connected** when the microphone plug is inserted and unplugged.

When the **Connected** and **Disconnected** states have been detected, execution automatically advances to the next test item.

10. Pedal Check



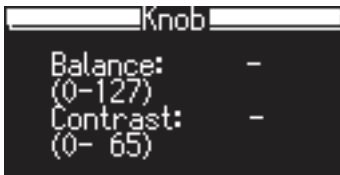
Connect the pedal to the **PEDAL SOFT** jack, slowly depress the toe and heel of the pedal, and verify that the screen display changes between **Left: 0** and **Left: 127**.

Also test the **PEDAL SOSTENUTO** and **PEDAL DAMPER** jacks in the same way.

* When the plug is connected to the third jack, the connection noise may be mistakenly detected, causing execution to advance to the next test item. If this happens, hold down [FUNCTION] and press [LOOPER OVERDUB] to go back to the previous test item, then retest the misdetected jack.

When testing of all pedals has finished, execution automatically advances to the next test item.

11. Control Check



Turn the **BALANCE** control clockwise all the way, and verify that **127** is displayed on the screen. At this time, the metronome plays a strong beat. In the same way, turn the control all the way counterclockwise, and verify that **0** is displayed.

Turn the **CONTRAST** control clockwise all the way, and verify that **65** is displayed on the screen. At this time, the metronome plays a strong beat. In the same way, turn the control all the way counterclockwise, and verify that **0** is displayed.

When the minimum and maximum values have been detected, execution automatically advances to the next test item.

12. LCD Check



Before conducting this test, adjust the **CONTRAST** control to its center position.

Press [PIANO], and verify that the all screen pixels are switched on (white display) and the button LED stops flashing and lights up steadily. Press [E.PIANO], and verify that all screen pixels go dark (black display) and the button LED stops flashing and lights up steadily.

Press [ORGAN], and verify that the lower half of the screen displays a vertical-band pattern and the button LED stops flashing and lights up steadily.

Press [METRONOME] to advance to the next test item.

13. Device Check



If no error occurs, press [METRONOME] to advance to the next test item. If an error occurs, the location of the error is displayed on the screen.

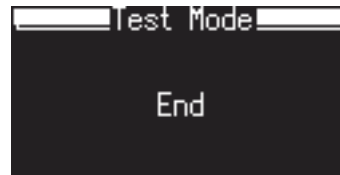
14. Version Display



The version and destination information is displayed again. Verify that the destination is correct.

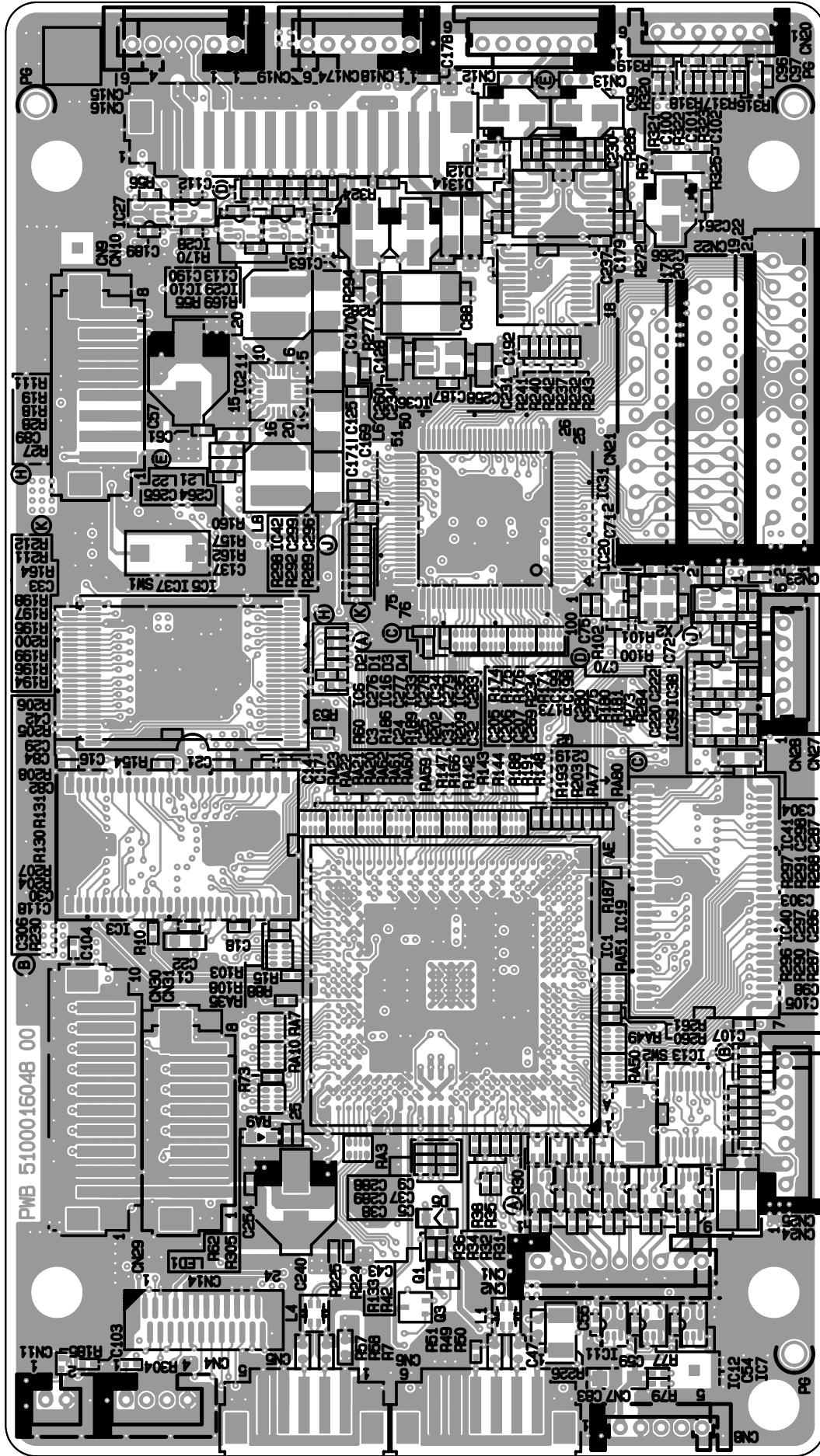
Press [METRONOME] to advance to the next item.

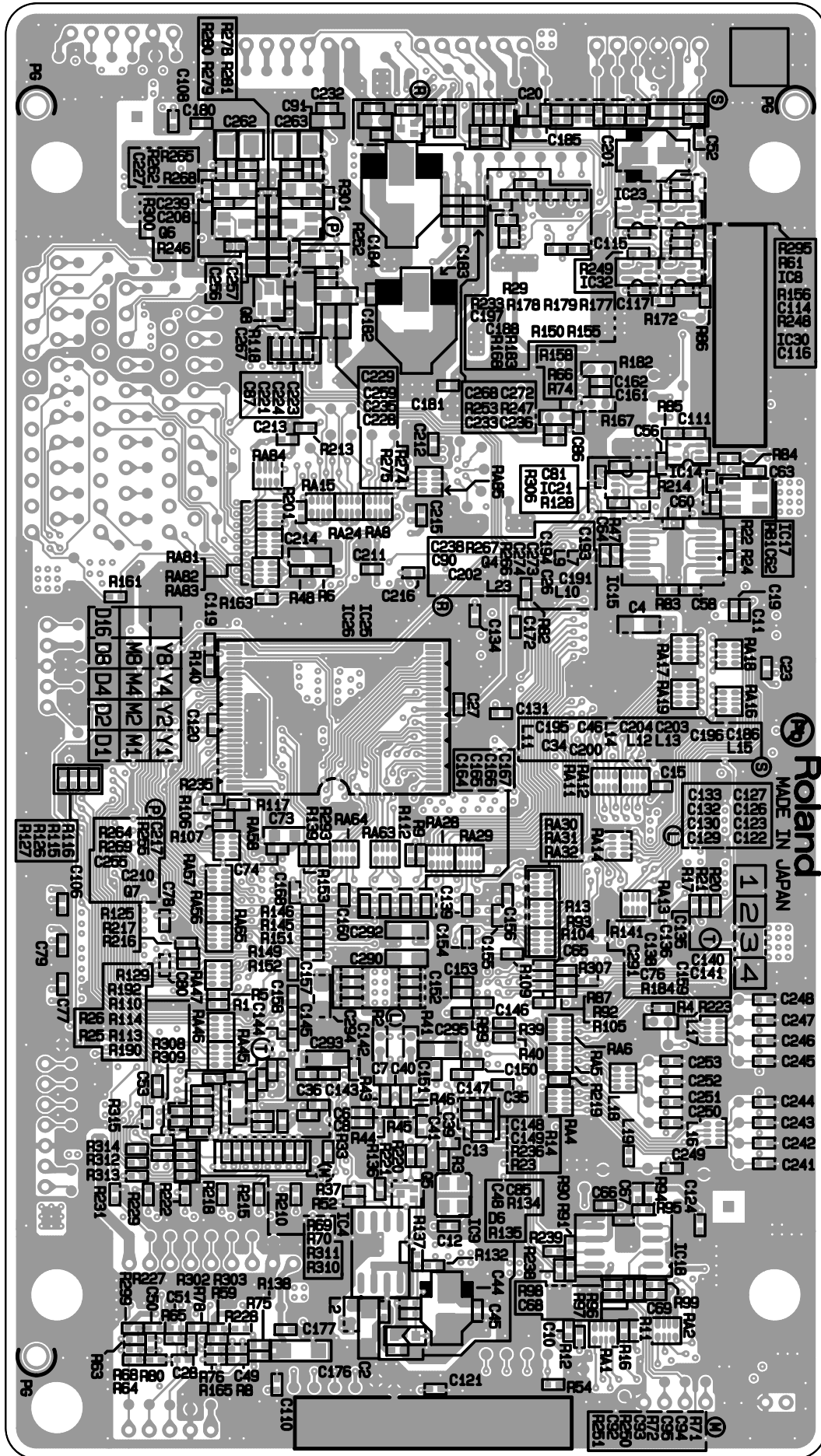
15. Ending



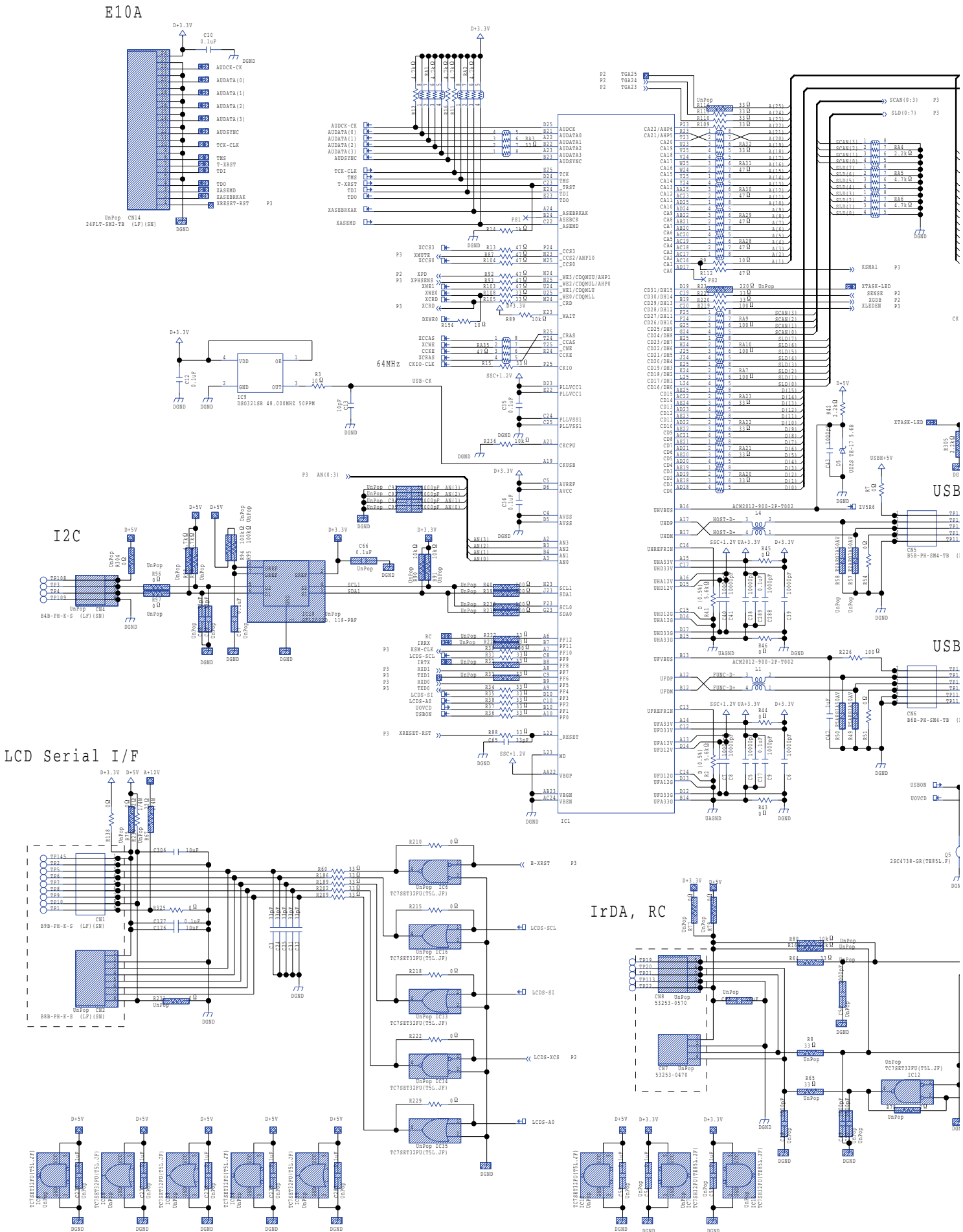
When testing has finished, the message **End** is displayed. Switch off the power to quit the Test mode.

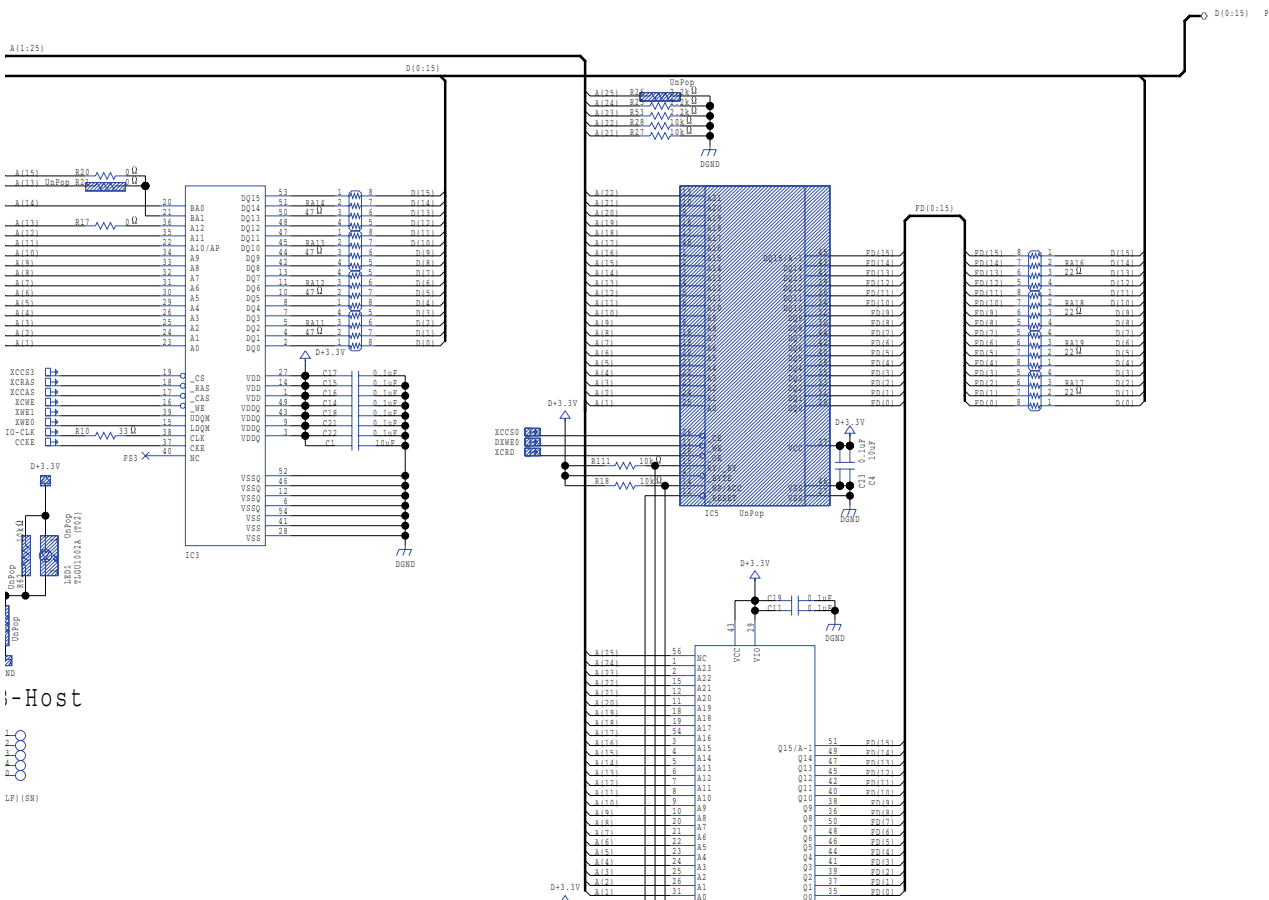
Circuit Board (Main Board)





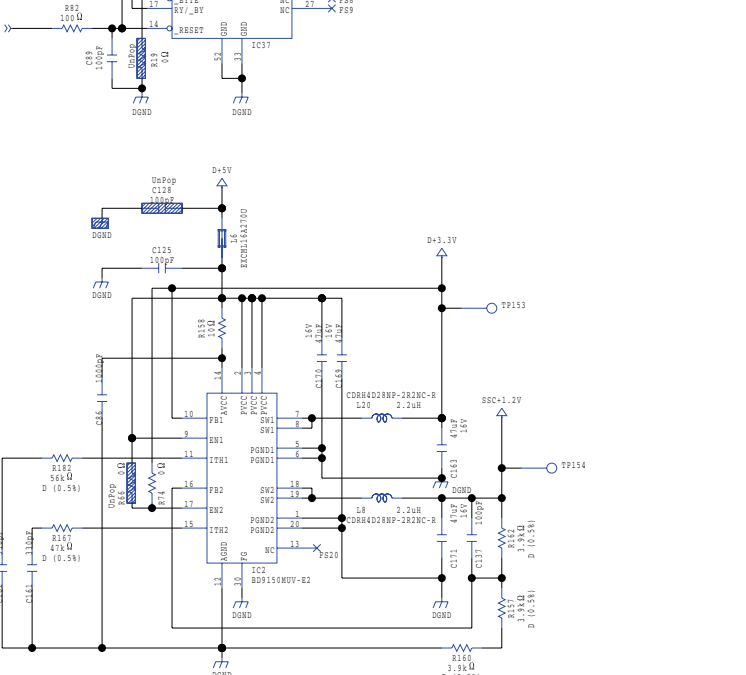
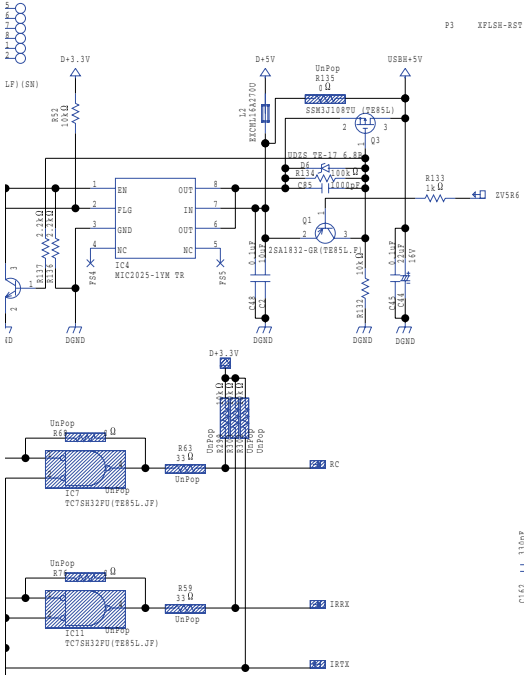
Circuit Diagram (Main Board: 1/3)



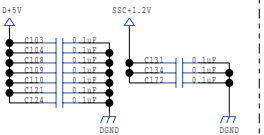


Host

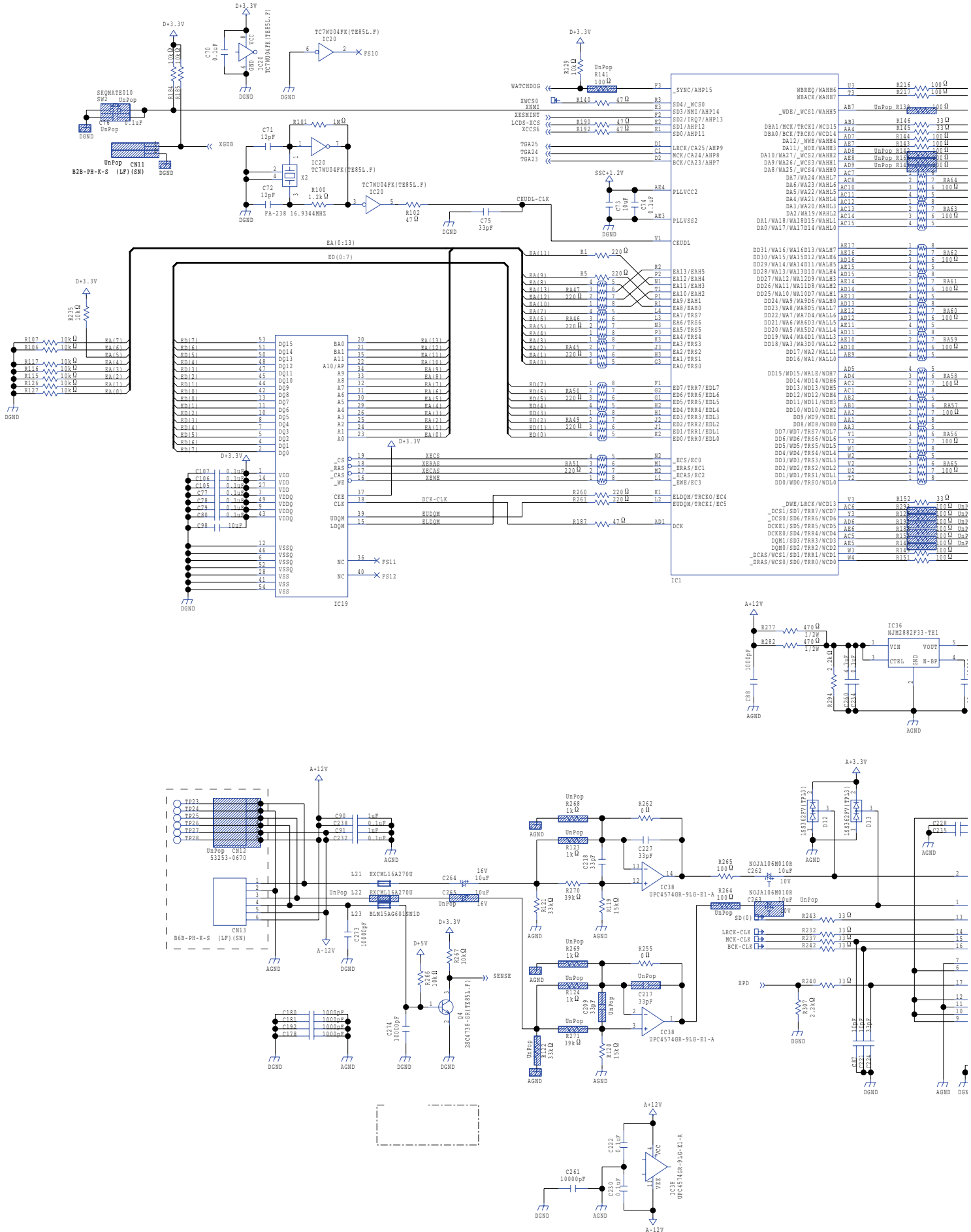
Function

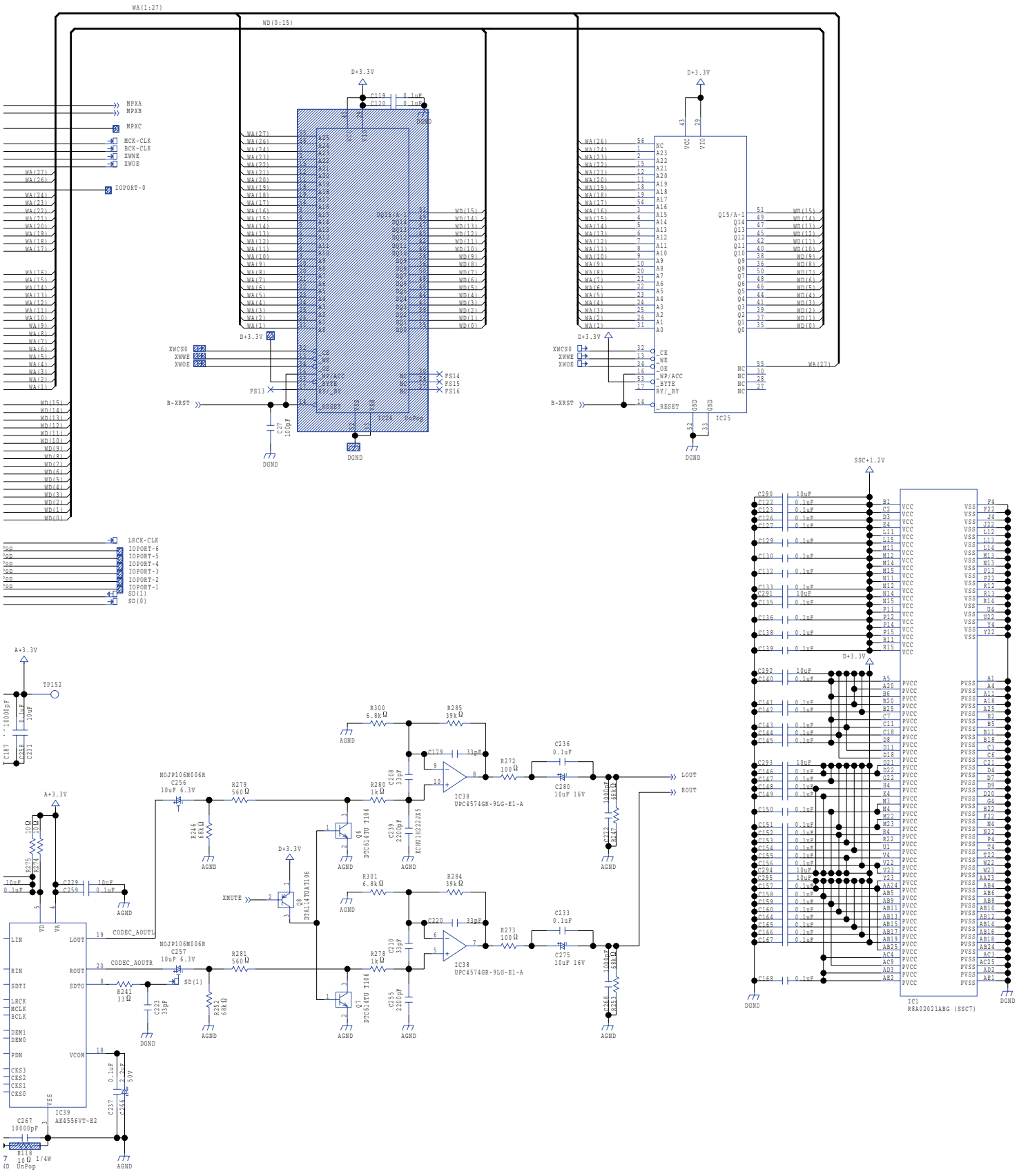


Plane Analysis



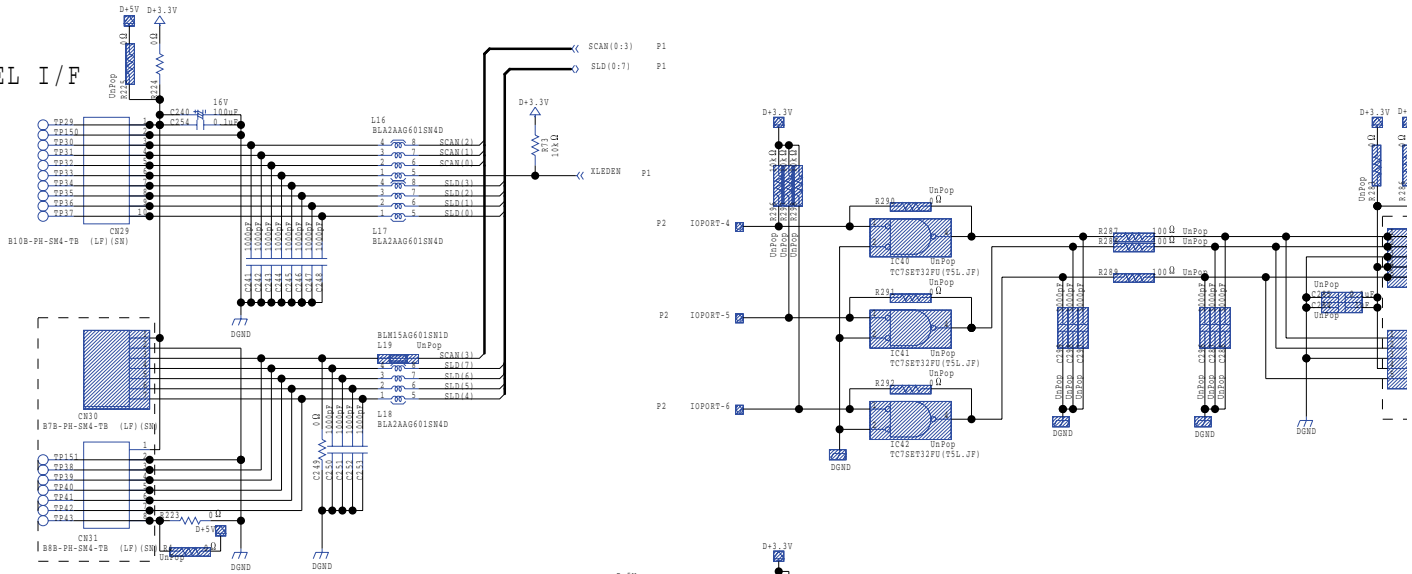
Circuit Diagram (Main Board: 2/3)



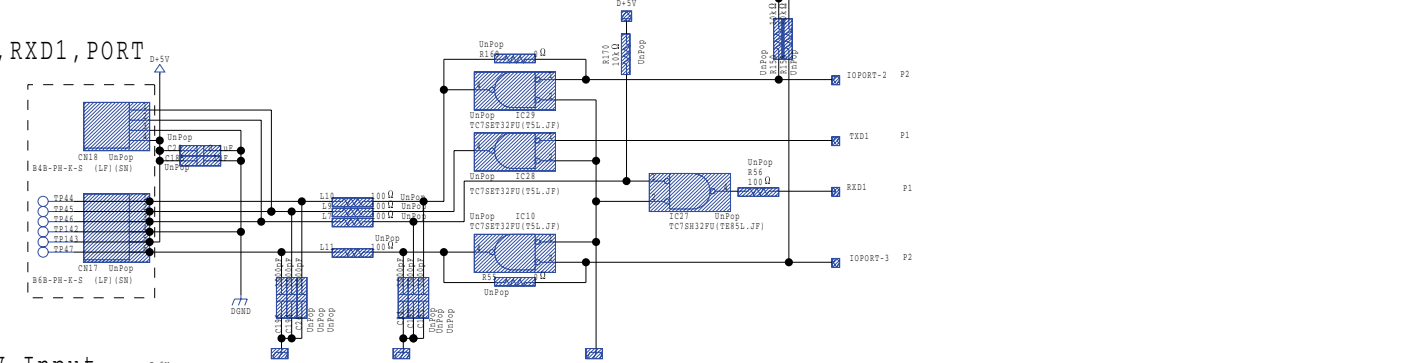


Circuit Diagram (Main Board: 3/3)

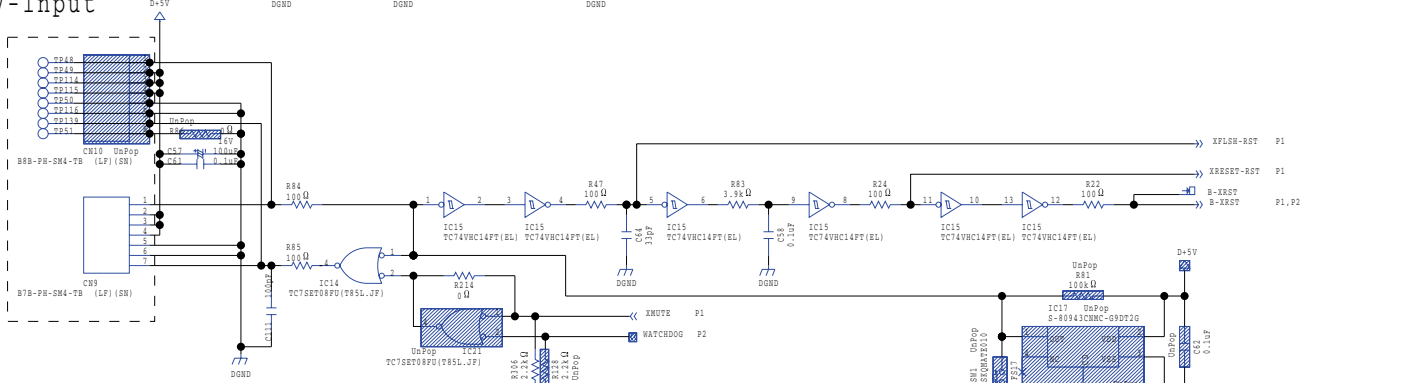
PANEL I/F



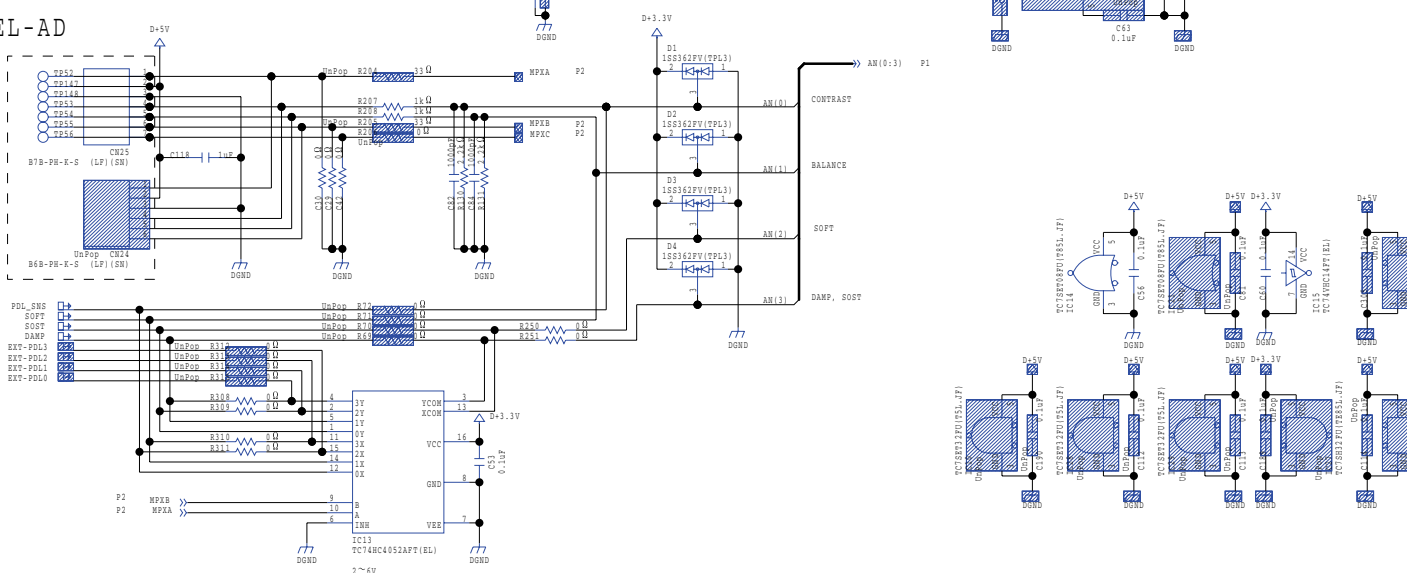
TXD1, RXD1, PORT



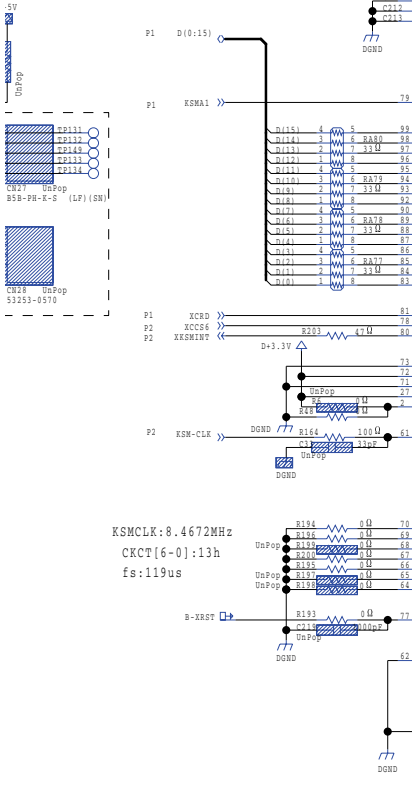
D+5V-Input



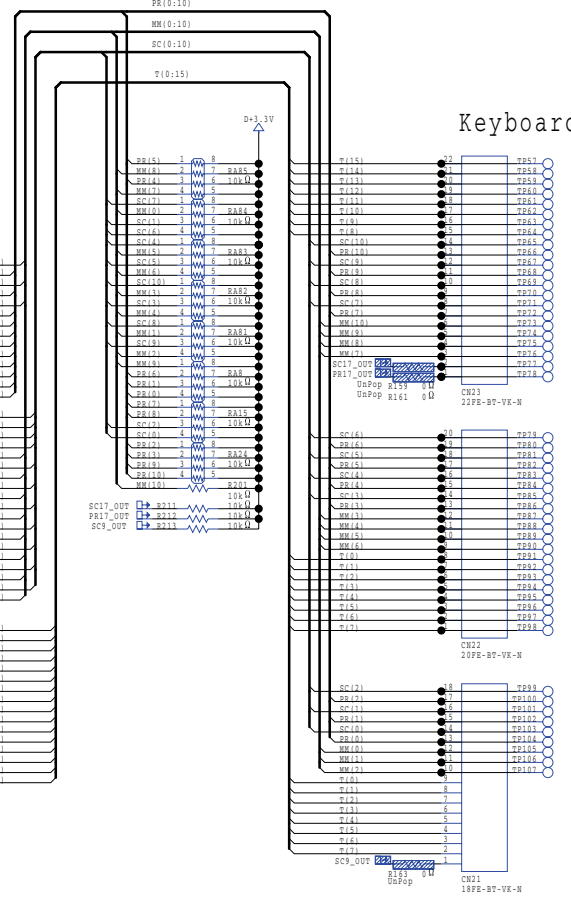
PANEL-AD



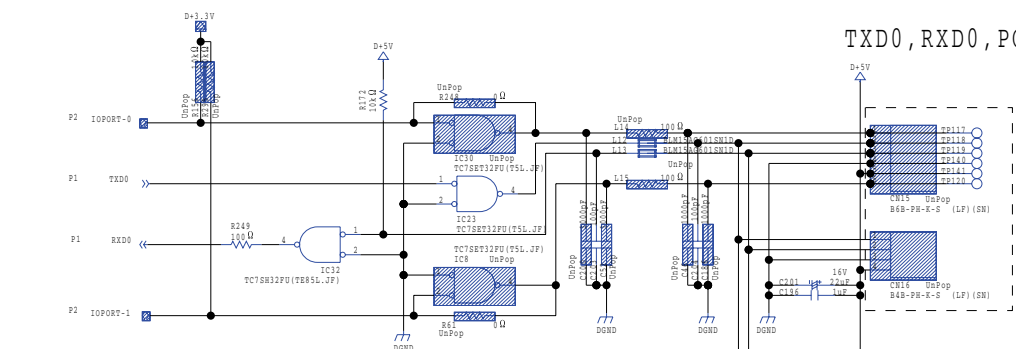
PORT



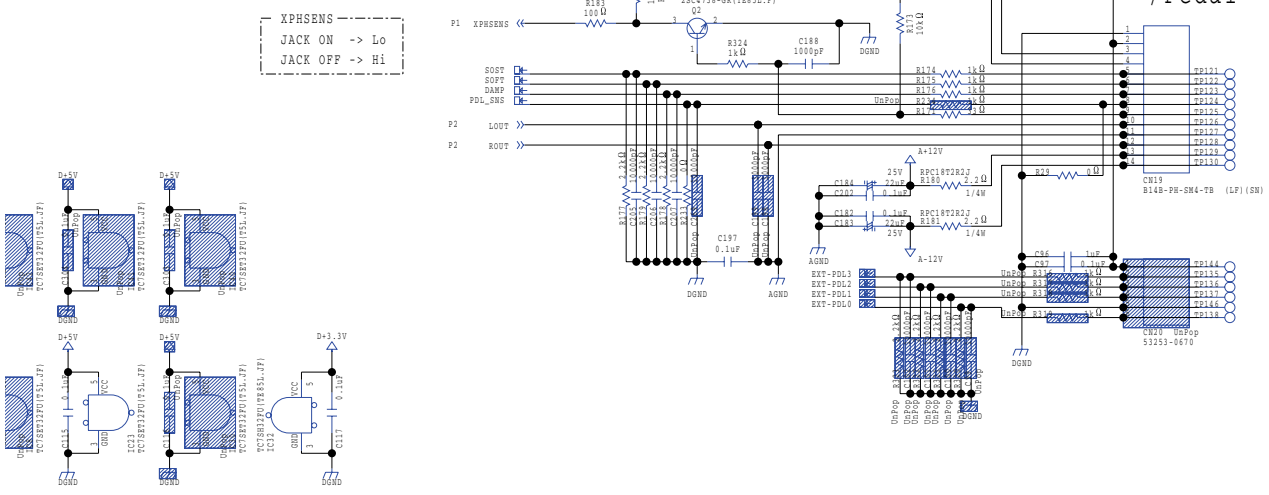
Keyboard



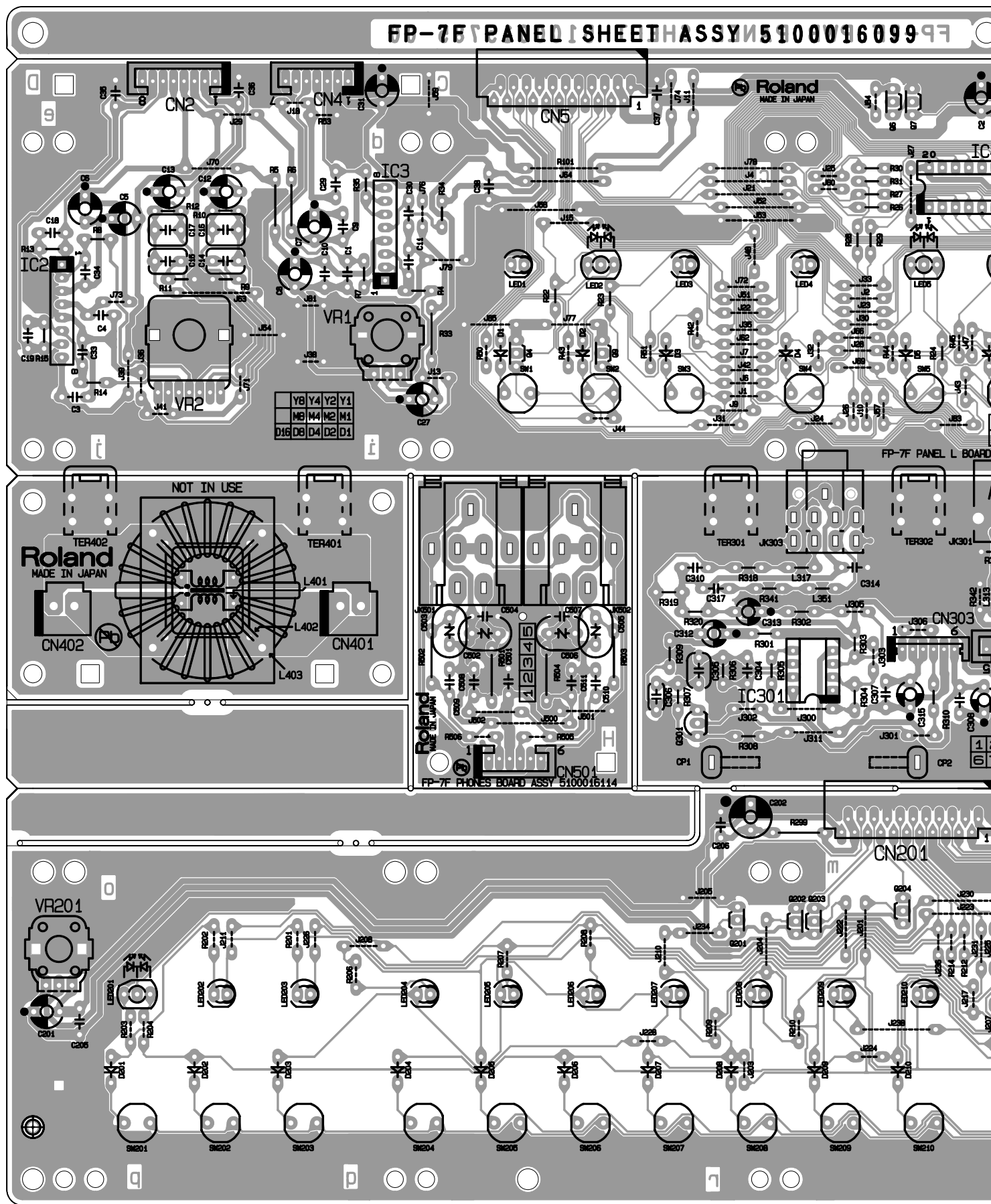
TXD0, RXD0, PORT

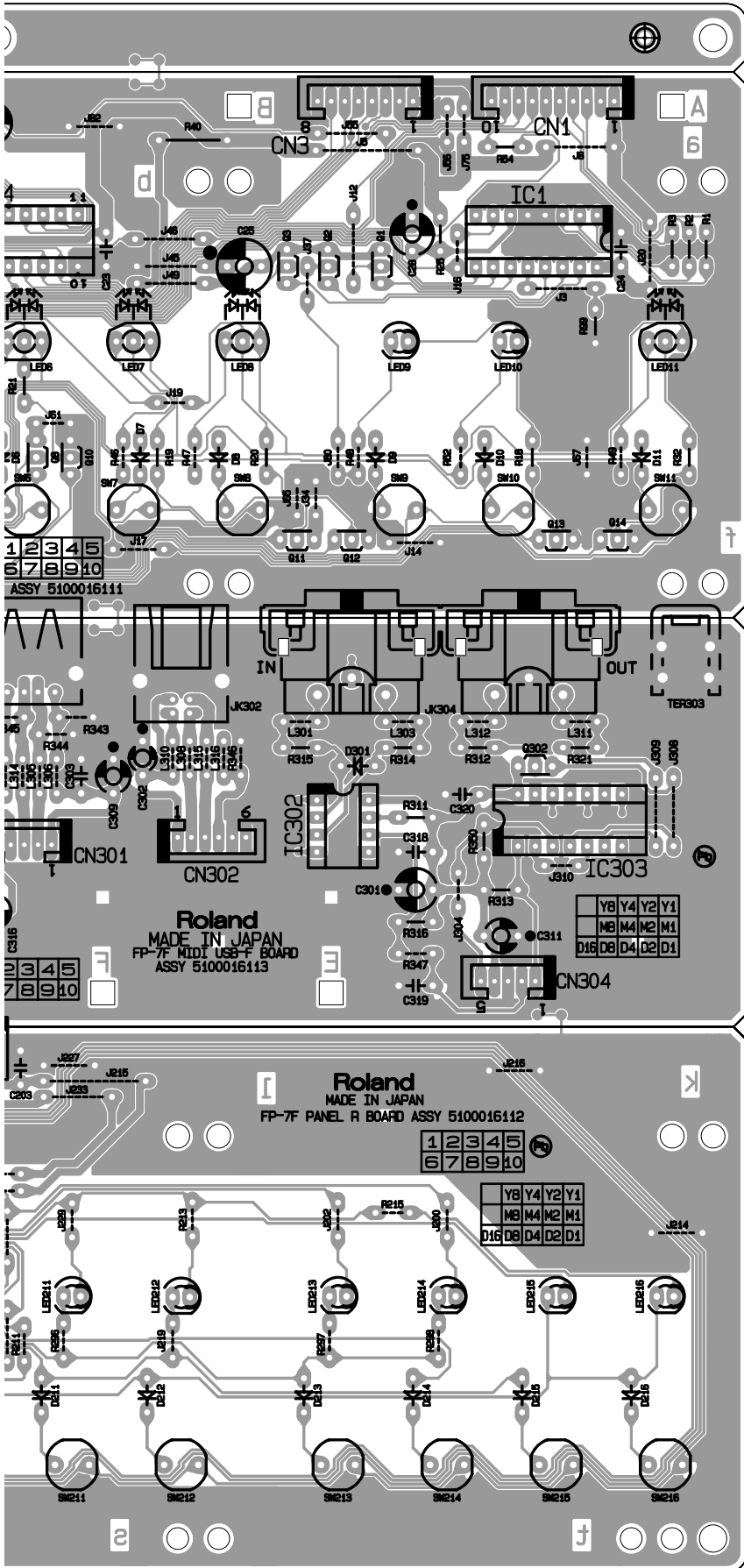


Audio-Out / Pedal

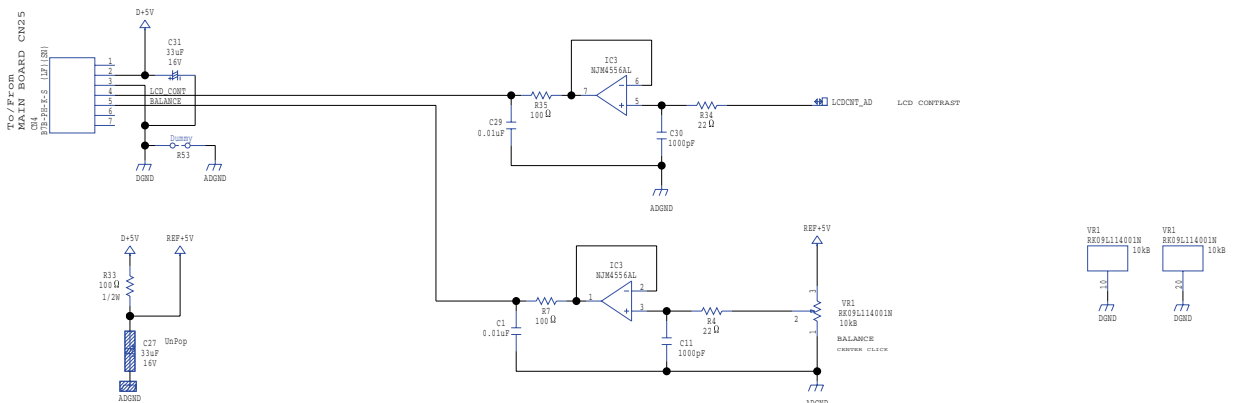
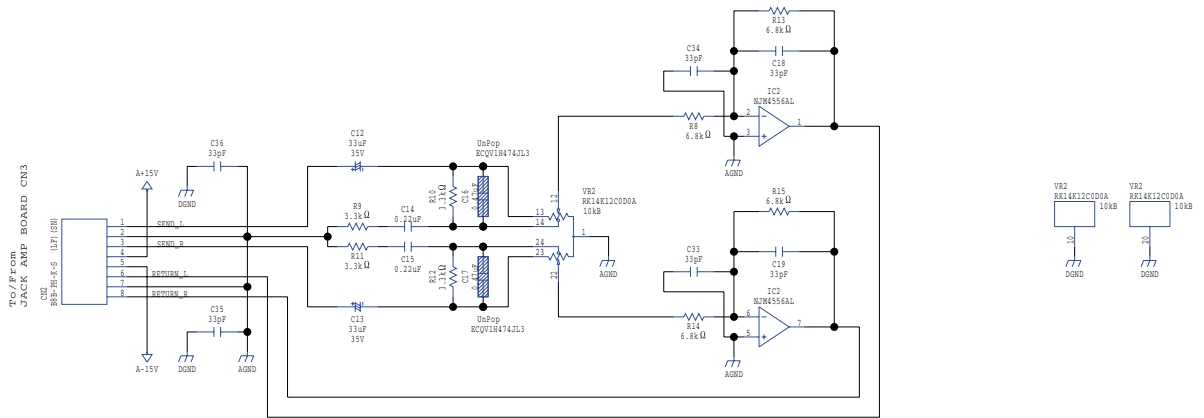
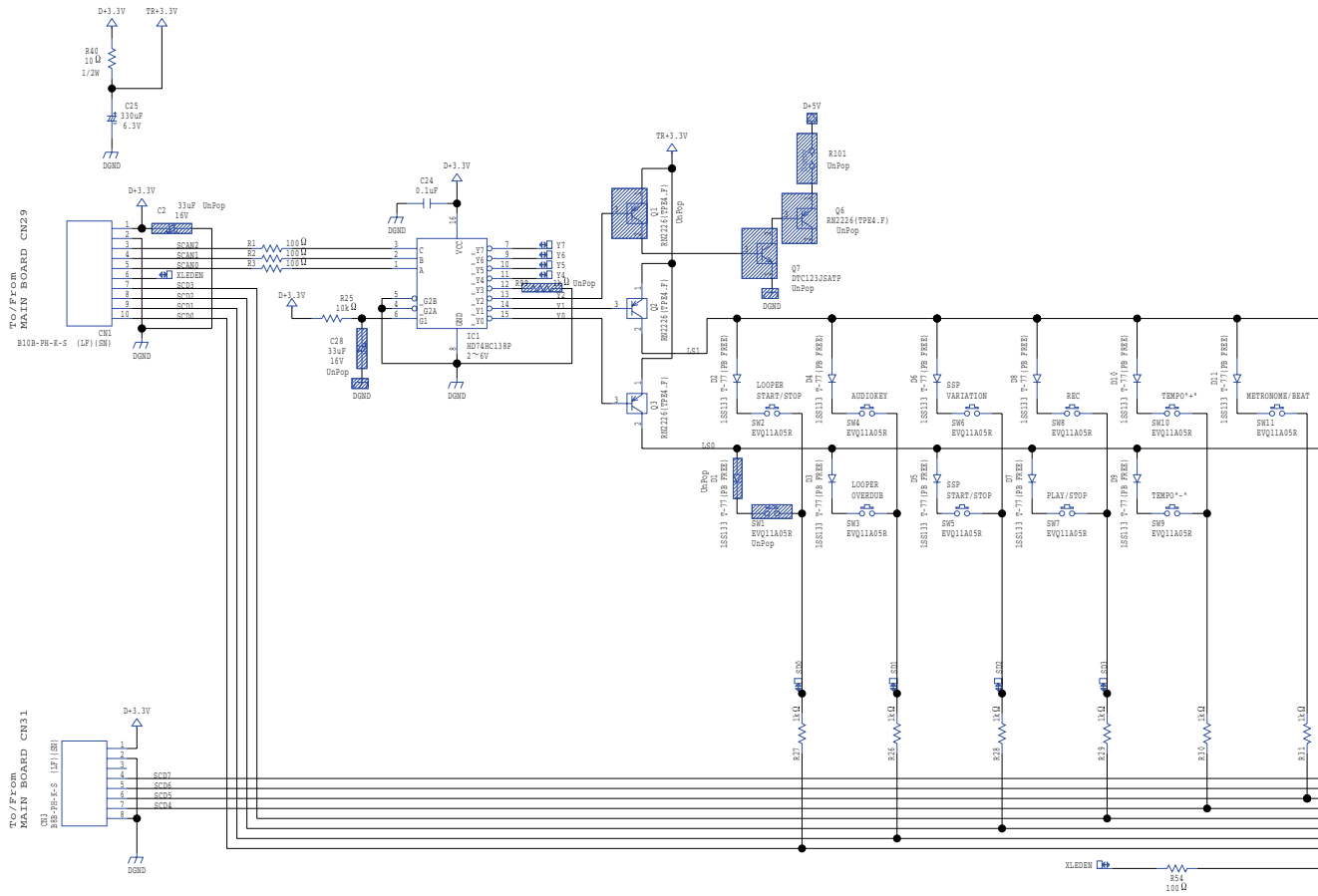


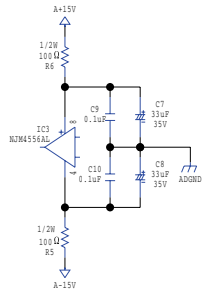
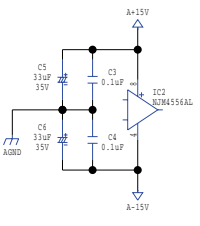
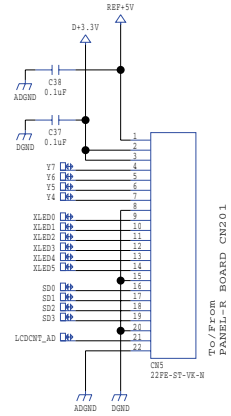
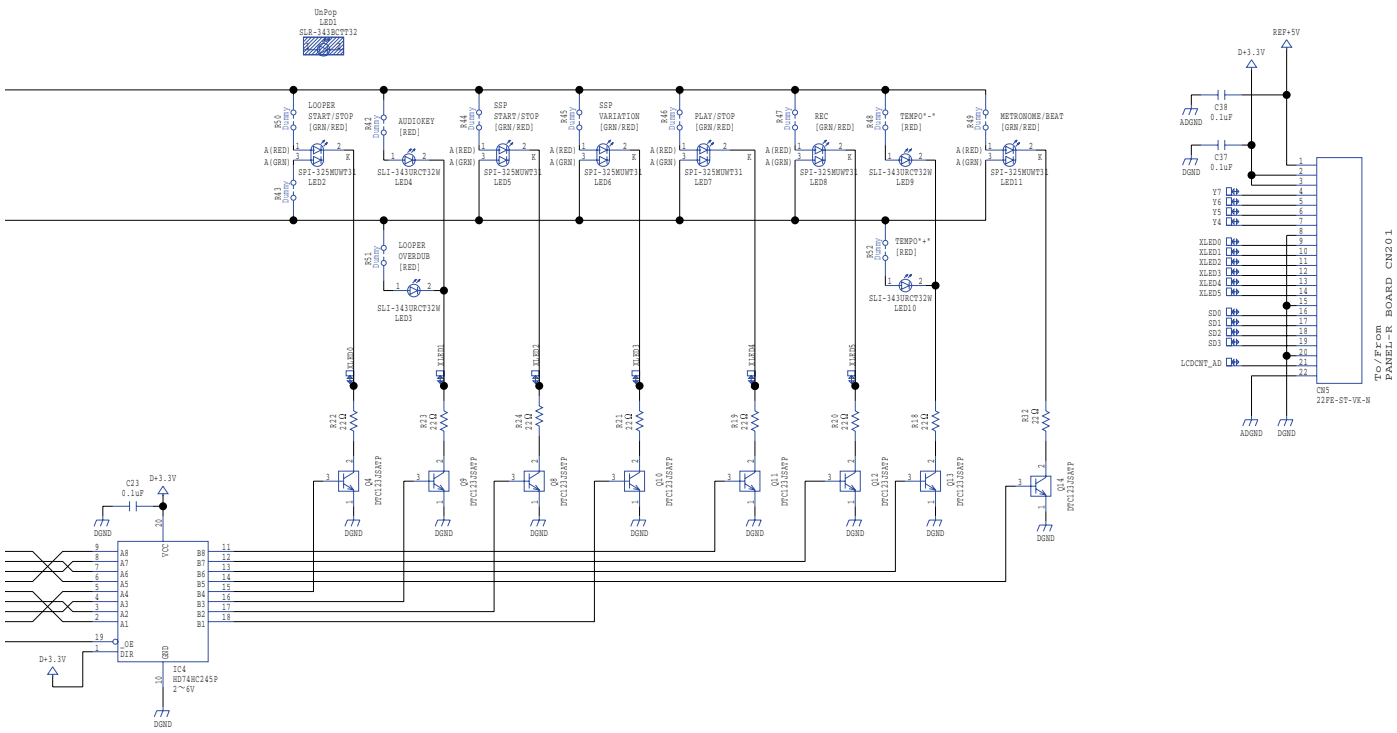
Circuit Board (Panel L/R, MIDI USB-F, Phones Board)



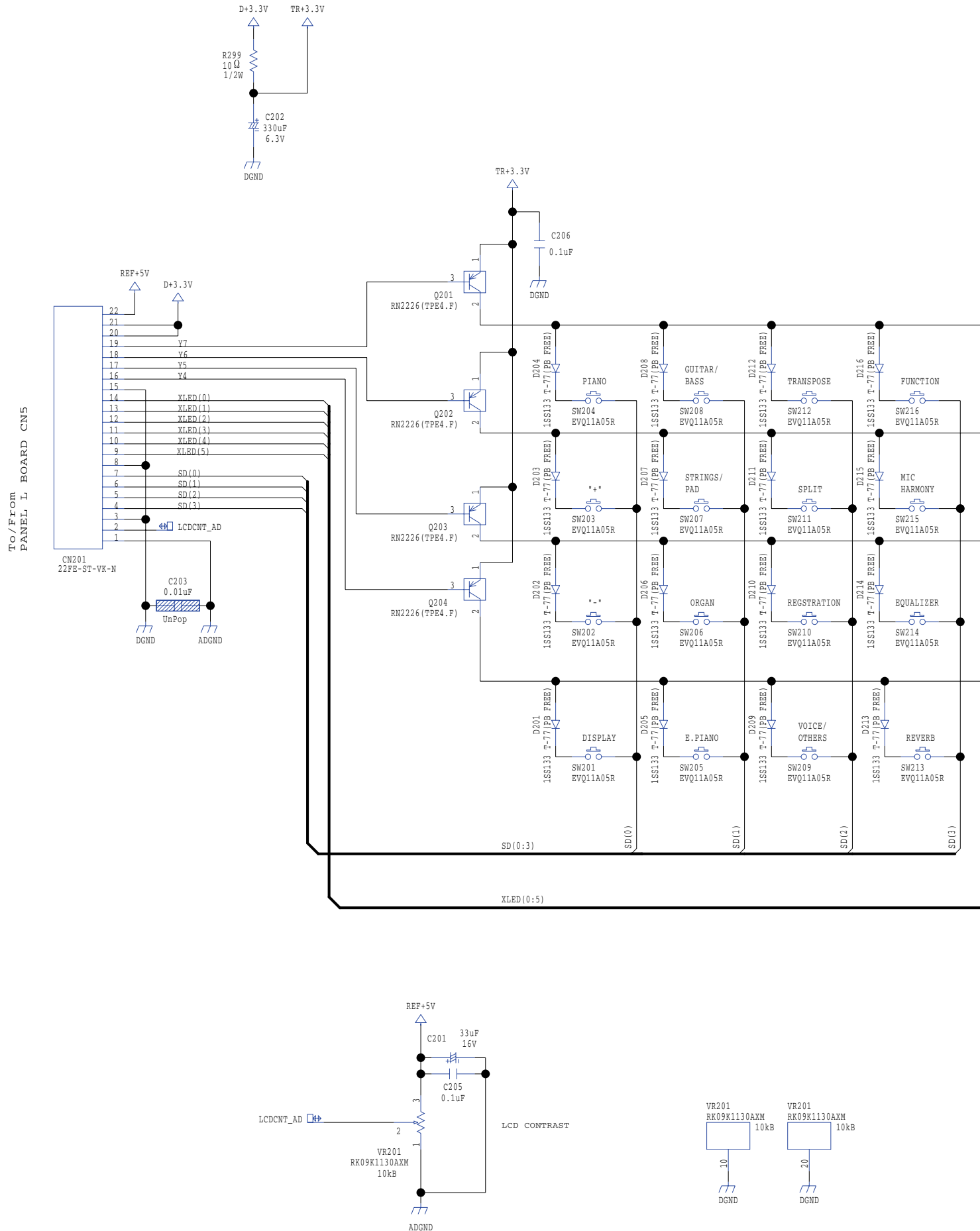


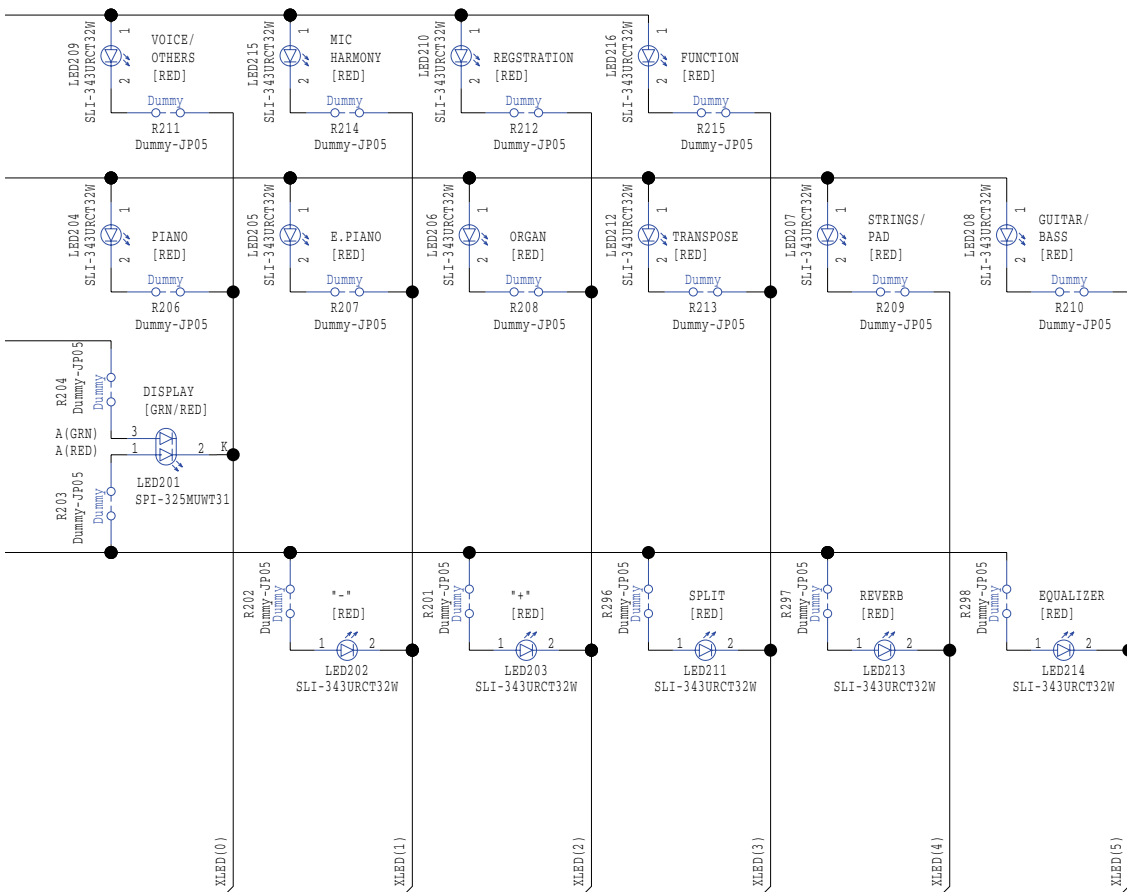
Circuit Diagram (Panel L Board)



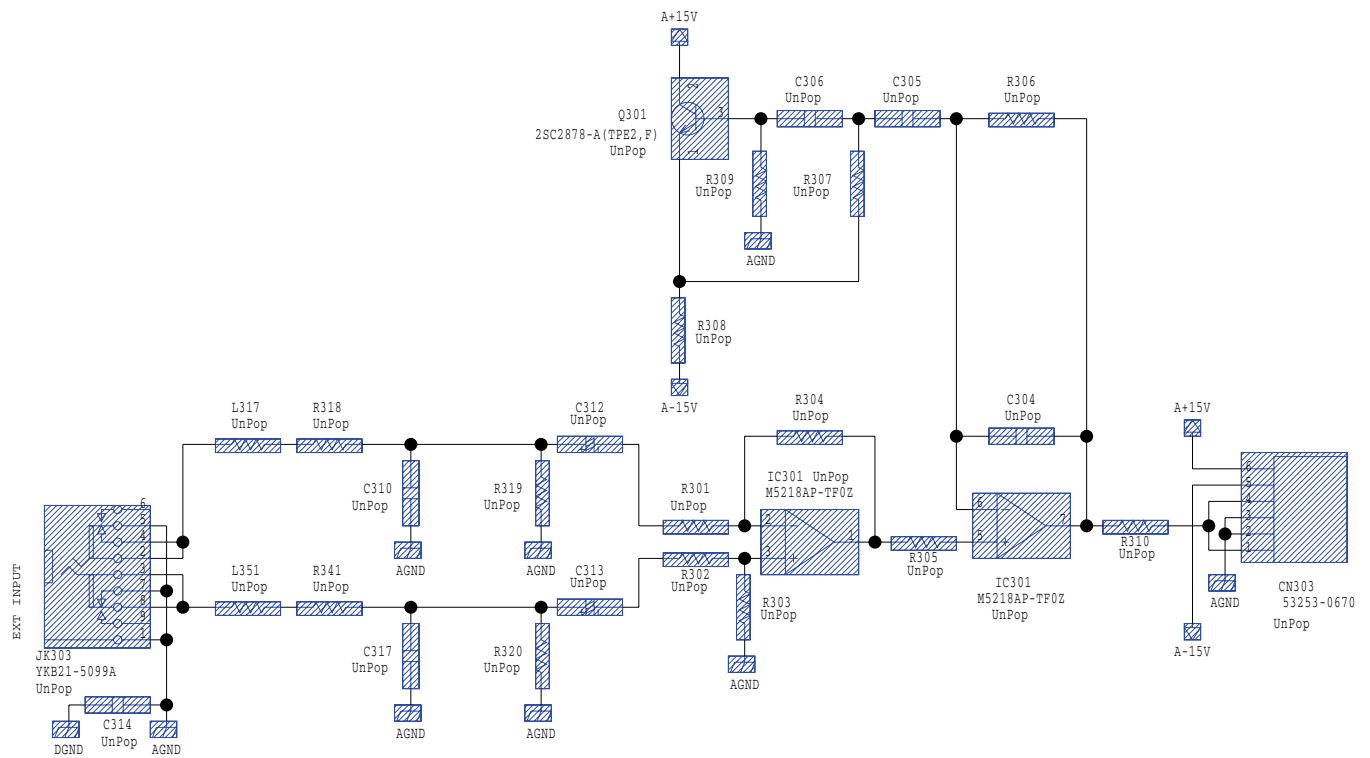
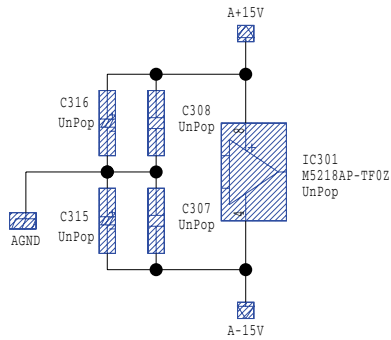
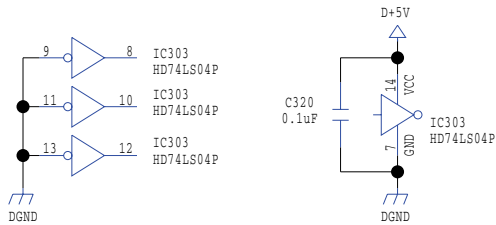
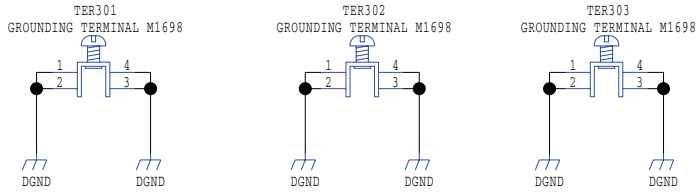


Circuit Diagram (Panel R Board)





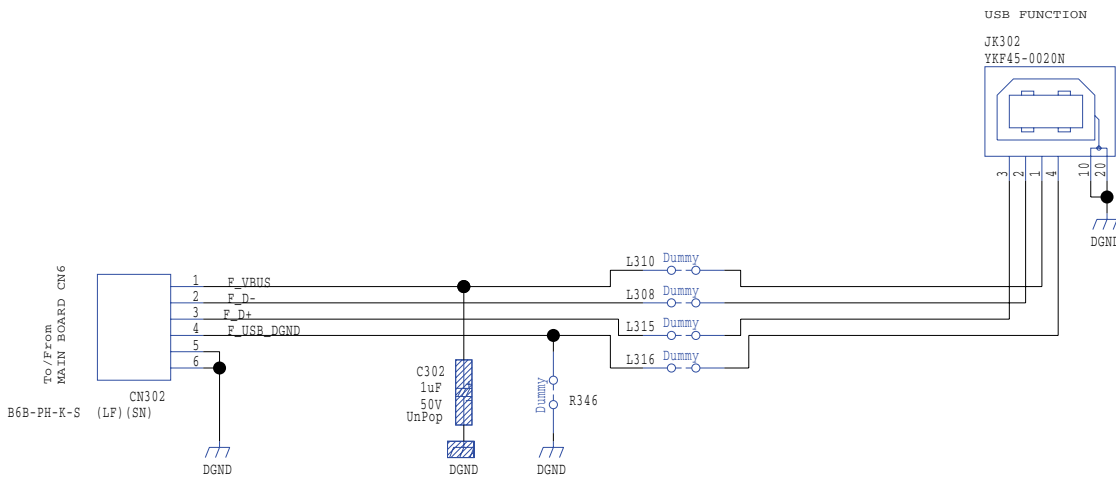
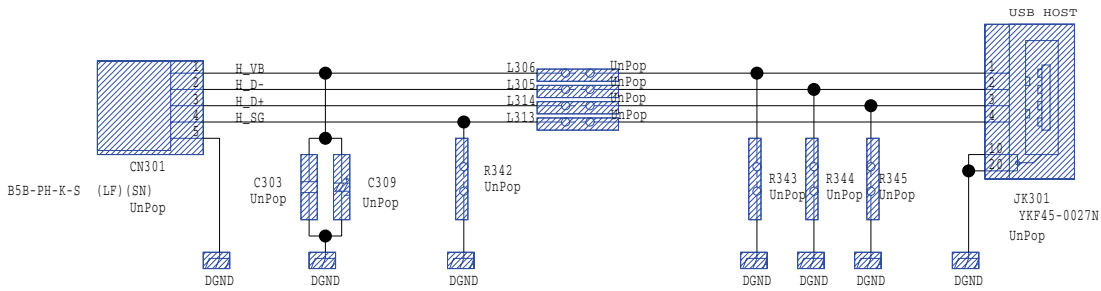
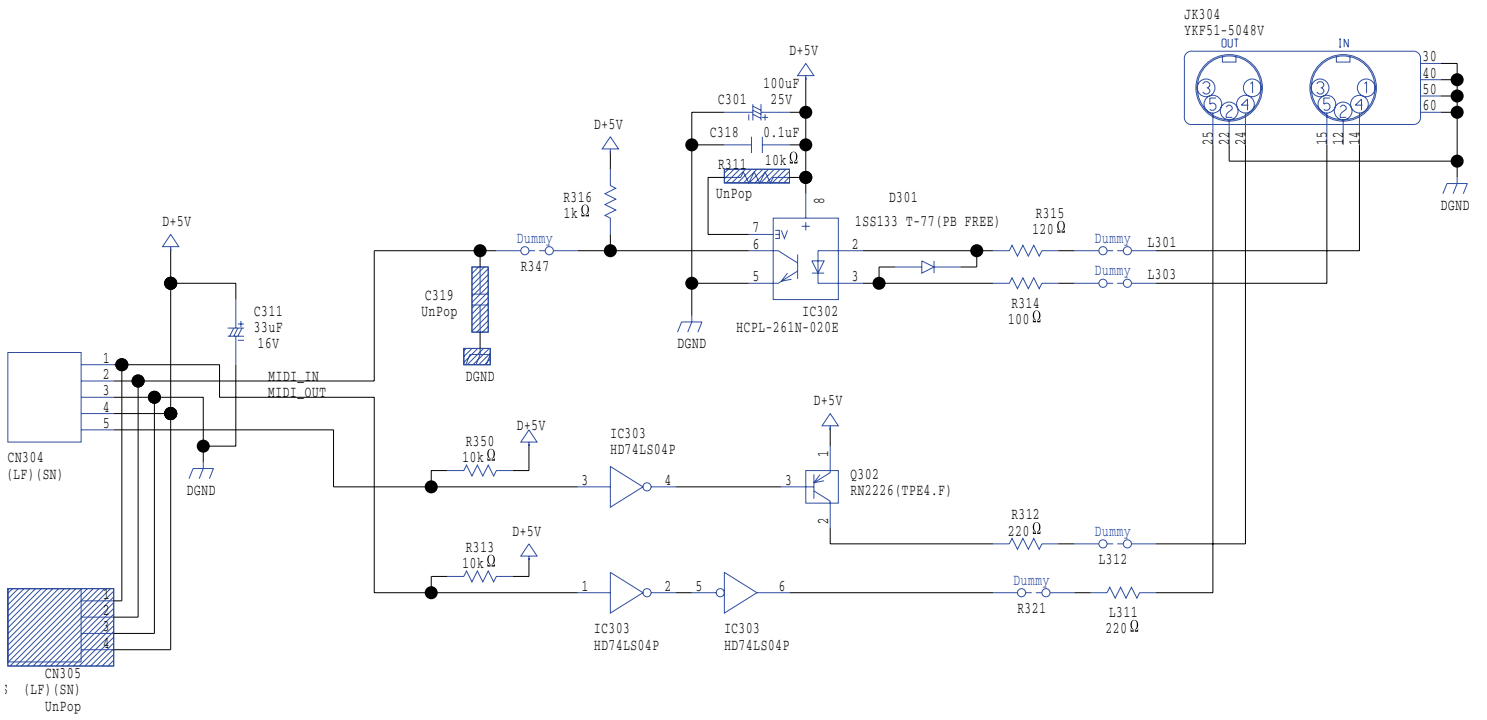
Circuit Diagram (MIDI USB-F Board)



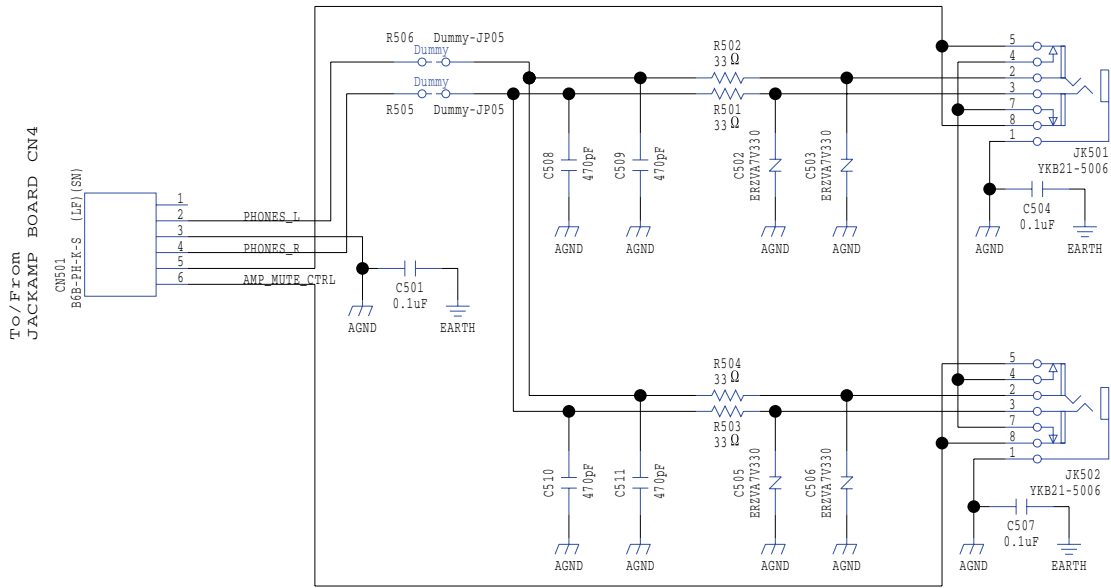
PC/Fr-08
JACK AMP BOARD CN8

B5B-PH-K-S

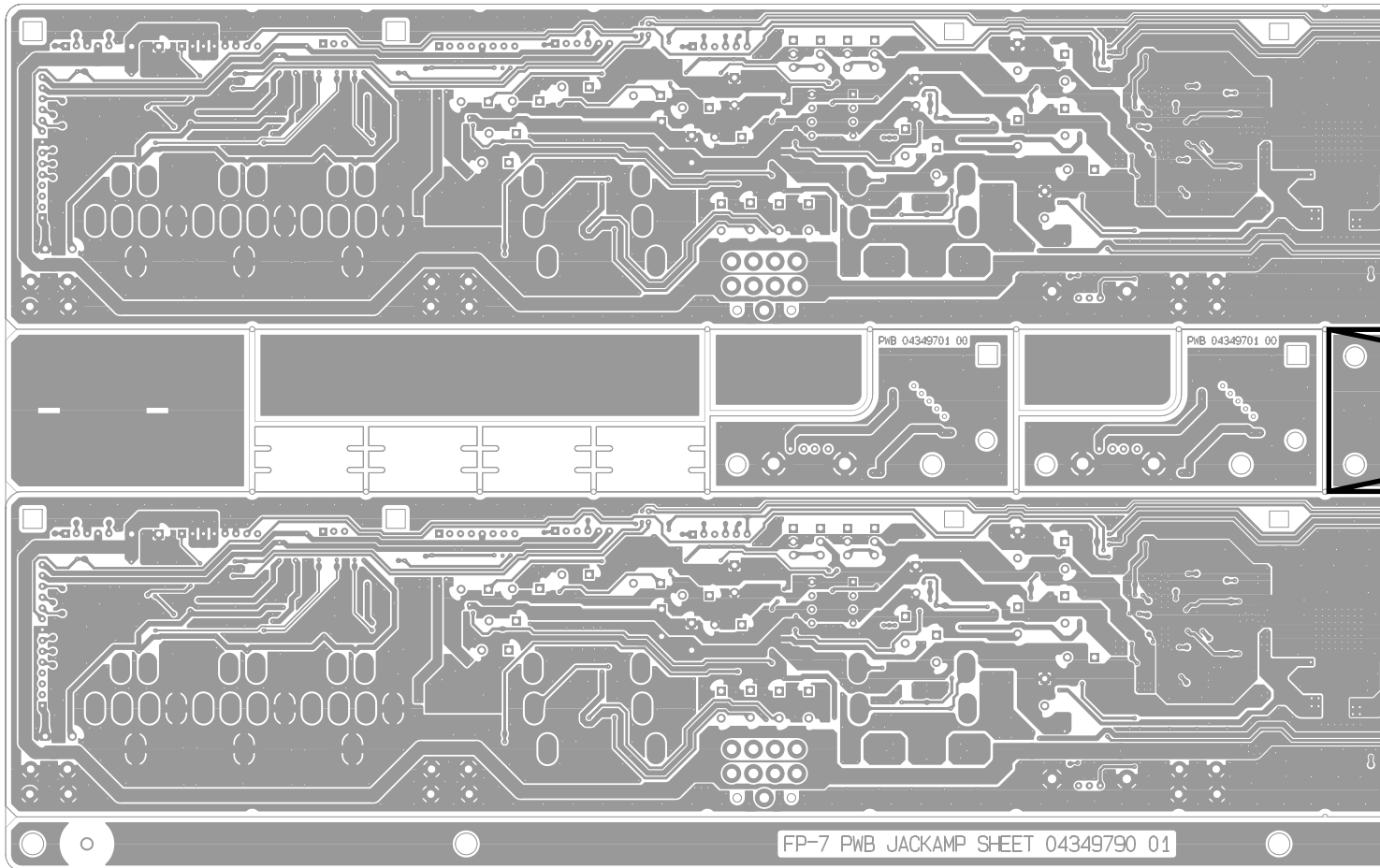
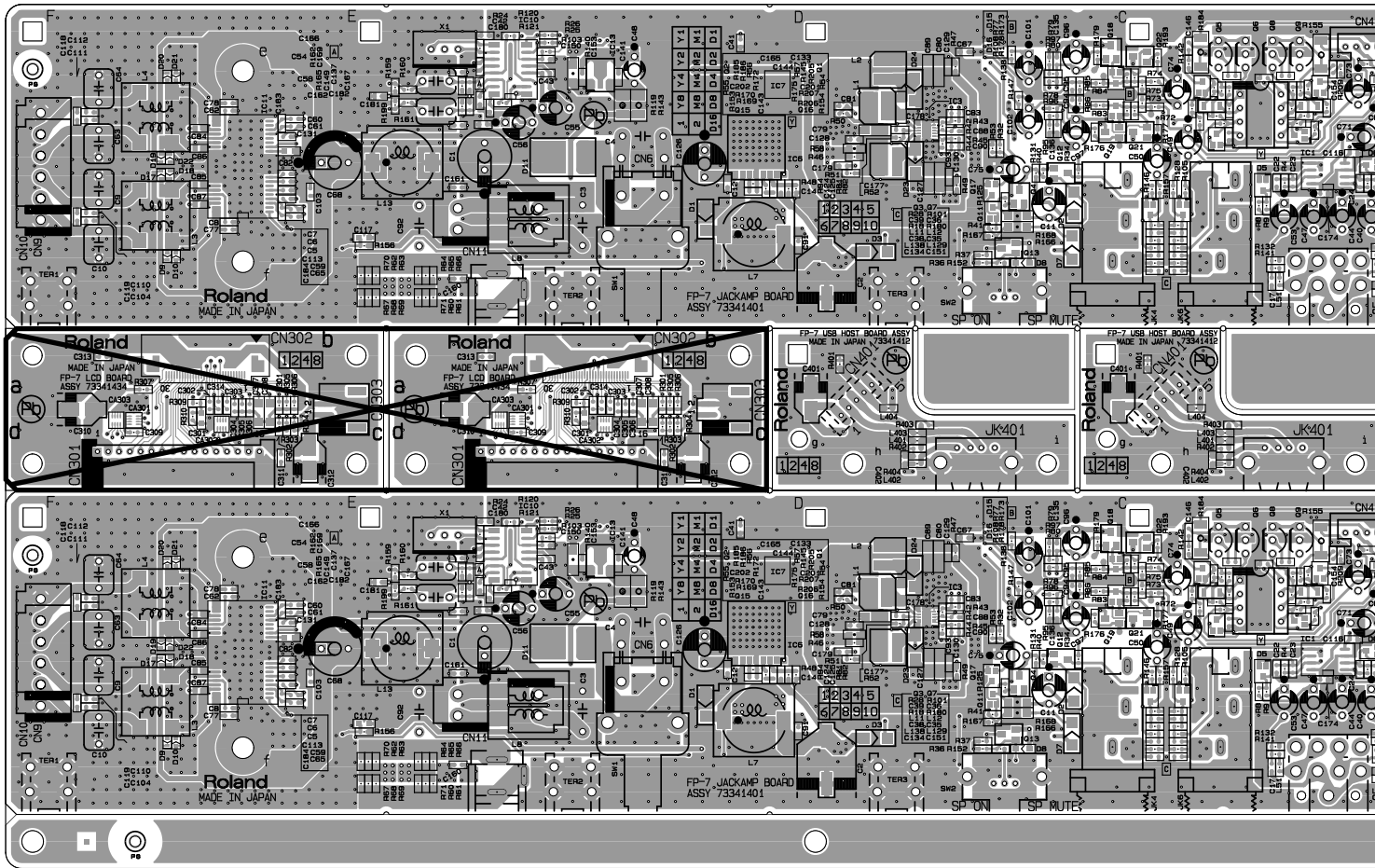
B4B-PH-K-S



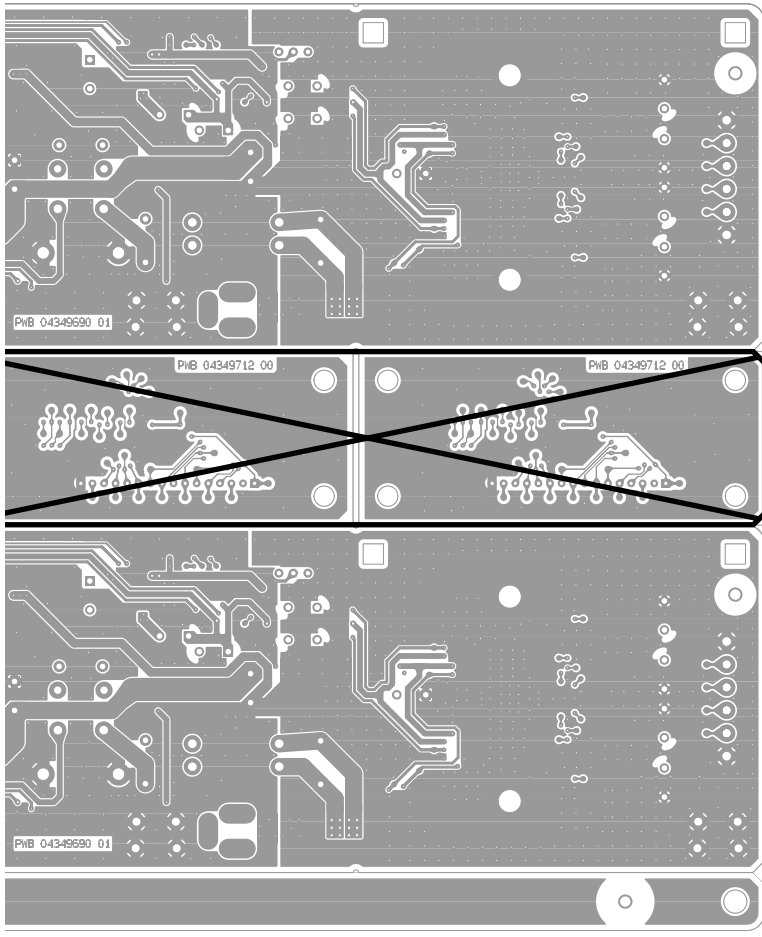
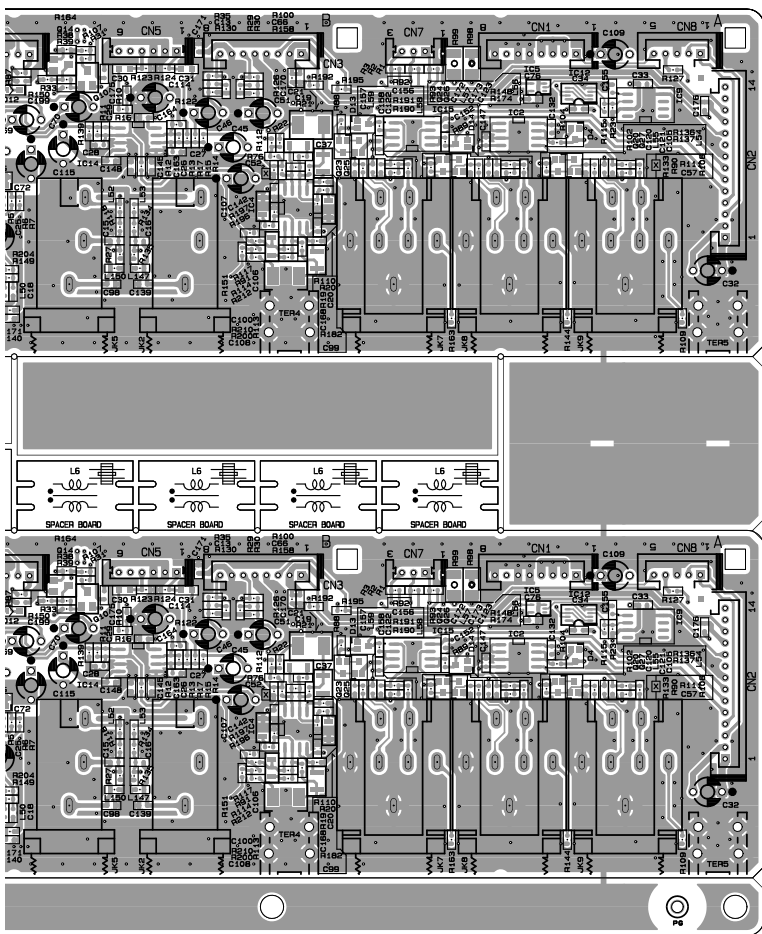
Circuit Diagram (Phones Board)



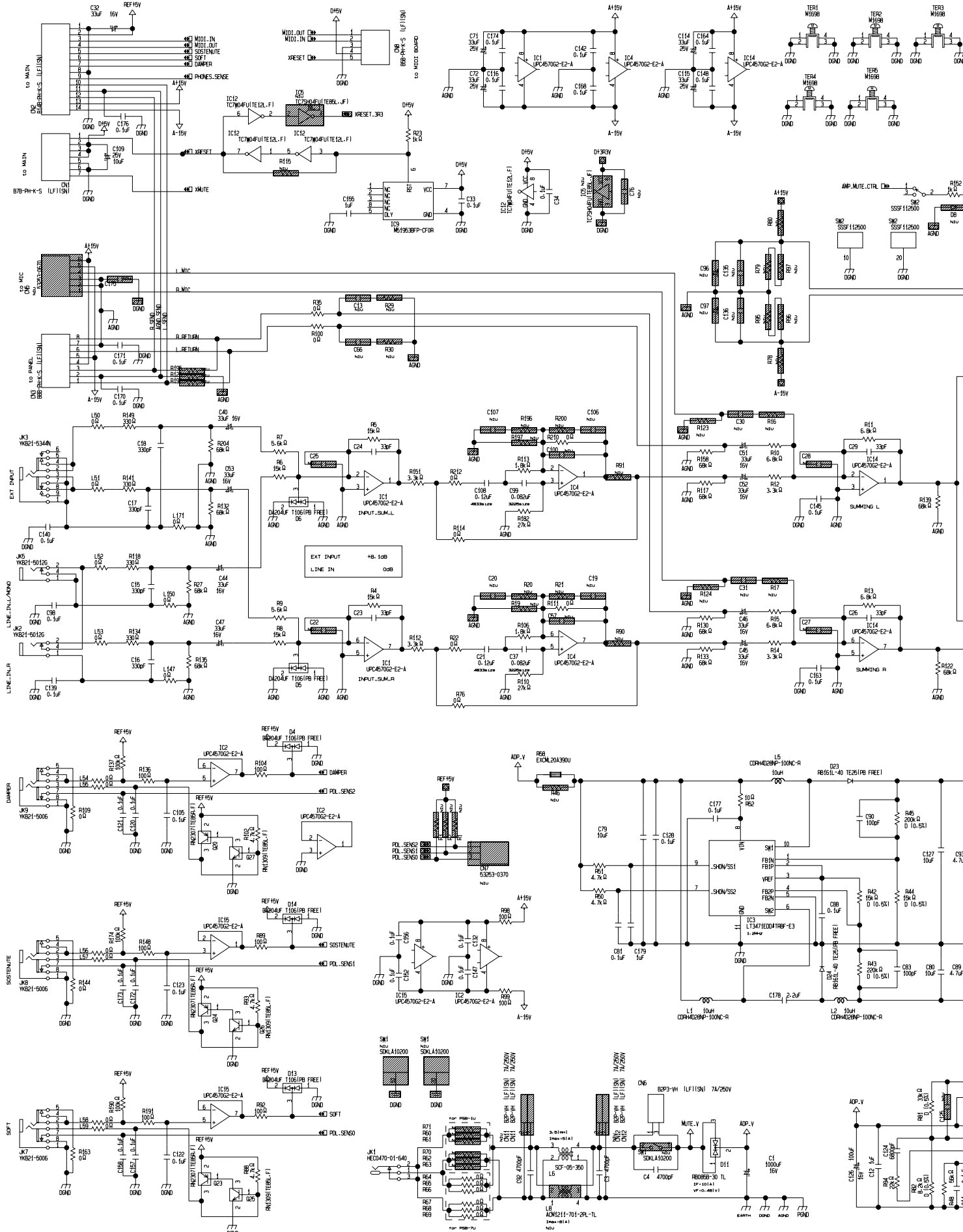
Circuit Board (Jack Amp, USB Host Board)

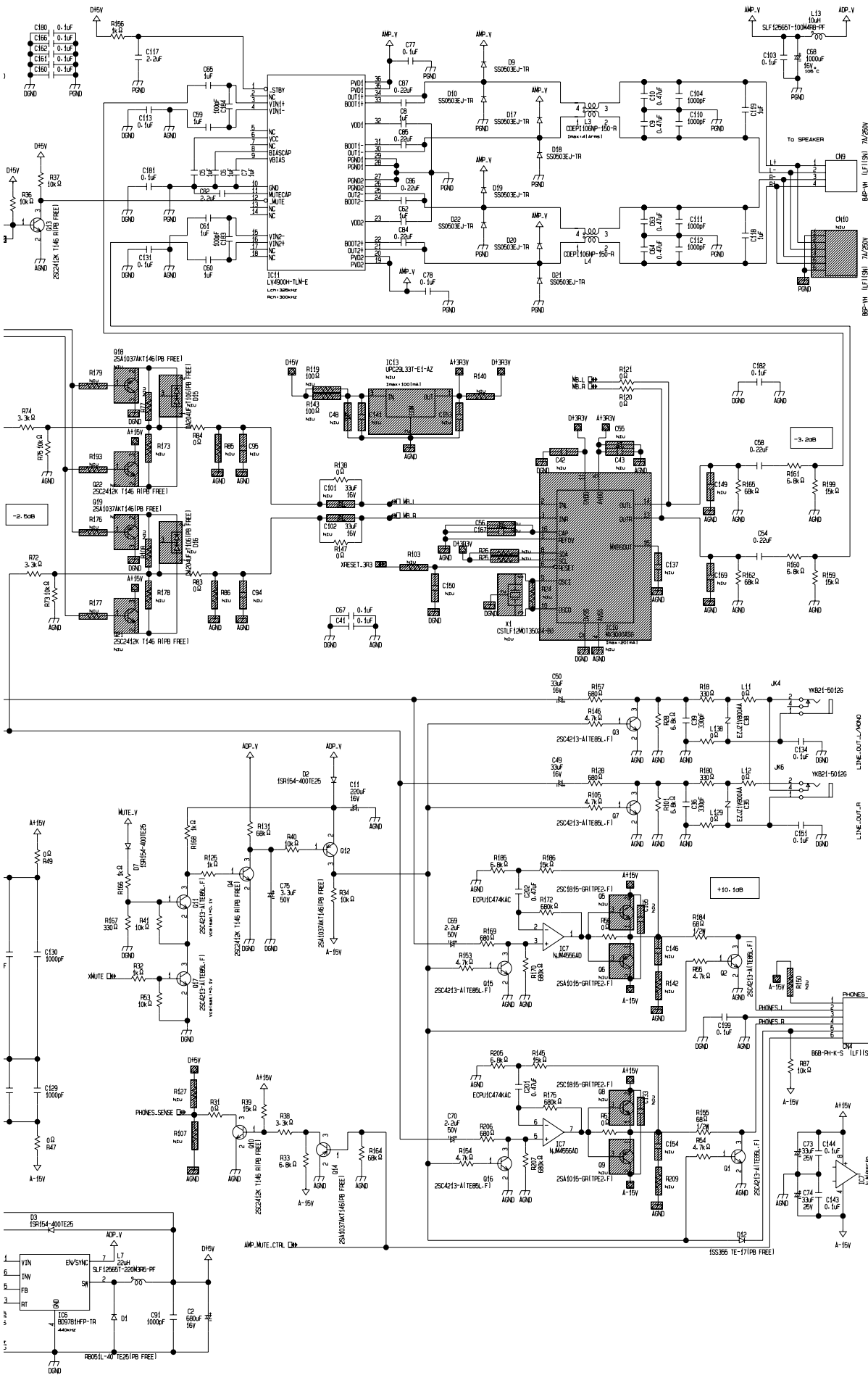


FP-7 PWB JACKAMP SHEET 04349790 01

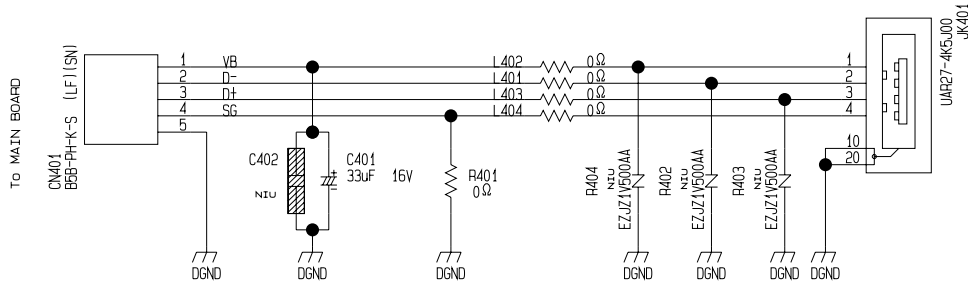


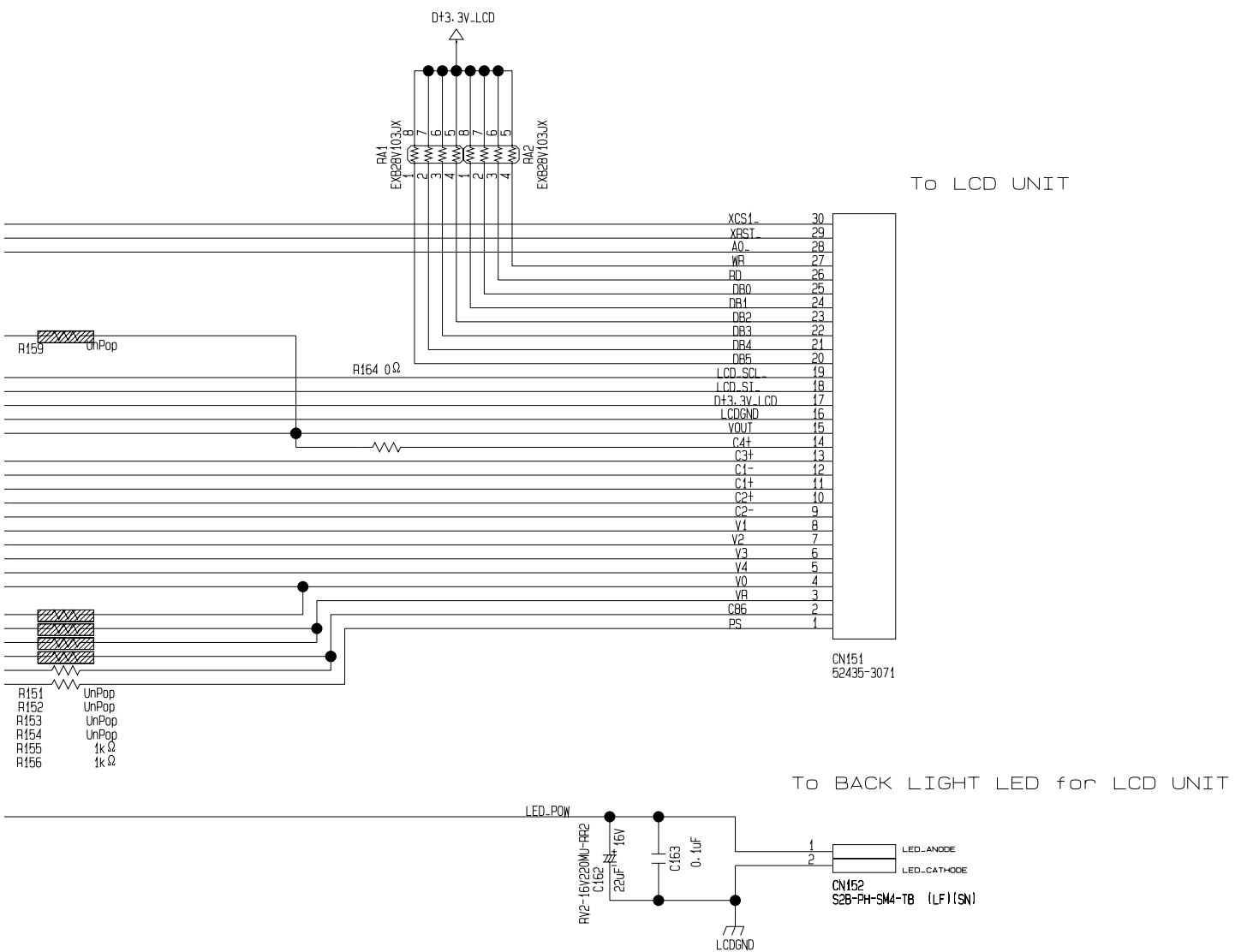
Circuit Diagram (Jack Amp Board)



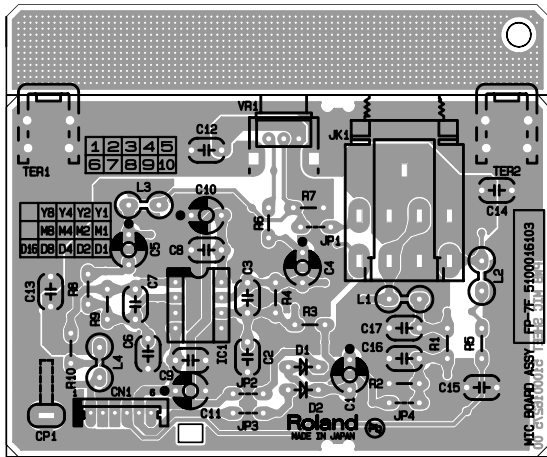


Circuit Diagram (USB Host Board)





Circuit Board (Mic Board)



Circuit Diagram (Mic Board)

