

DIGITAL PIANO

SERVICE NOTES

Issued by RJA

F-140R-CB/WH/CBL/WHL



F-140R-WH/WHL



F-140R-CB/CBL

Revise Information

Jan. 7, 2016 p. 5, p. 20, p. 32

Changed parts supply unit.

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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. 33) 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

Roland F-140R: Digital Piano

Keyboard

Keyboard

88 keys (PHA-4 Standard Keyboard: with Escapement and Ivory Feel)

Touch Sensitivity

Key Touch: 5 types, fixed touch

Keyboard Mode

Whole

Dual (volume balance adjustable)

Split (split point adjustable, volume balance adjustable)

Twin Piano

Pedals

Damper (capable of continuous detection)

Soft (capable of continuous detection)

Sostenuto (function assignable)

Sound Generator

Piano Sound

SuperNATURAL Piano Sound

MIDI Format

Conforms to GM2, GS, XGLite

Max. Polyphony

128 voices

Tones

Grand Piano: 11 tones

Other: 305 tones (including 8 drum sets, 1 SFX set)

Stretched Tuning

2 types (Always On)

Master Tuning

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

Transpose

Key Transpose: -6+5 (in semitones)

Effects

Ambience (Off, 10 levels)

Brilliance (21 levels)

Only for Piano Tones:

Damper Resonance (Always On)

String Resonance (Always On)

Key Off Resonance (Always On)

Metronome

Tempo

Quarter note = 10–500

(When rhythm function turns on: Quarter note = 20–250)

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

SMF Recorder

Parts

1 part

Save Song

Standard MIDI Files (Format 0)

Note Storage

Approx. 30,000 notes

Control

Song Select

Play/Stop

Rec

Rewinding

Fast-forwarding

Top of song

Part Mute

Tempo

All Songs Play

Count-in

Song Balance

Tempo

Quarter note = 10–500

(When rhythm function turns on: Quarter note = 20–250)

Resolution

120 ticks per quarter note

Rhythm

Rhythms

72 types x 2 variations

Controls

Rhythm Select
Start/Stop
Sync Start
Intro/Ending
Fill In
Variation
Leading Bass
Auto Fill
Rhythm Part

Audio

Playback

File Format: Audio File (WAV 44.1 kHz, 16-bit linear format)

Control

Song Select
Play/Stop
Rewinding
Fast-forwarding
Top of song
All Songs Play
Song Balance
Center Cancel

Internal Memory

Save Song

Standard MIDI Files (Format 0)

Songs

Max. 10 songs

External Memory

External Storage

USB Flash Memory

Playable Software

Standard MIDI Files (Format 0, 1)
Audio File (WAV, 44.1 kHz, 16-bit linear format)

Save Song

Standard MIDI Files (Format 0)

Bluetooth

MIDI, Turning music sheet: Bluetooth Ver 4.0)

Other

Internal Songs

Piano Masterpieces: 69 songs
Czerny: 100 songs
Hanon: 20 songs

Display

7 segments x 3 LED

Keyboard Lid

Folding type

Other Functions

Panel Lock
Auto Off

Connectors

DC In jack
Input jack: Stereo miniature phone type
Output jack: Stereo miniature phone type
USB COMPUTER port: USB Type B
USB MEMORY port: USB Type A
Phones jacks x 2: Stereo miniature phone type, Stereo 1/4-inch phone type

Rated Power Output

12 W x 2

Volume Level (SPL)

103 dB
(This value was measured according to the method that is based on Roland's technical standard.)

Speakers

12 cm (4-3/4 inches) x 2

Headphones

Effects: Headphones 3D Ambience

Controls

Volume
(with the speaker volume and the headphones volume automatically select function, with the volume limit function)

Power Supply

AC Adaptor

Power Consumption

9 W (3–22 W)
9 W: Average power consumption while piano is played with volume at center position
3 W: Power consumption immediately after power-up; nothing being played
22 W: Rated power consumption

Dimensions (including piano stand)

With Lid Closed:

1,361 (W) x 305 (D) x 778 (H) mm

53-5/8 (W) x 12-1/16 (D) x 30-11/16 (H) inches

With Lid Closed, Stabilizers mounted:

1,361 (W) x 345 (D) x 778 (H) mm

53-5/8 (W) x 13-5/8 (D) x 30-11/16 (H) inches

With Lid Open:

1,361 (W) x 305 (D) x 910 (H) mm

53-5/8 (W) x 12-1/16 (D) x 35-7/8 (H) inches

With Lid Open, Stabilizers mounted:

1,361 (W) x 345 (D) x 910 (H) mm

53-5/8 (W) x 13-5/8 (D) x 35-7/8 (H) inches

Weight (including piano stand)

34.5 kg

76 lbs 1 oz

* Actual weight can vary slightly from that indicated due to the fact that wooden parts are involved.

Accessories

Owner's manual (#5100047263)

Leaflet "USING THE UNIT SAFELY" (#*****)

Assembly manual (#*****)

AC Adaptor (#04236112)

Power Cord (for AC Adaptor) (#02562456, #5100012293, #5100019558, #5100039367, #5100018086, #01903356, #5100033404)

Headphone hook (#5100046646)

~~Stabilizer (Left: #5100046681, Right: #5100046682)~~

Stabilizer (Left: #5100021794, Right: #5100021795)

Screw set:

Screw (M6 x 18 mm) (#5100015690) x 6

Screw (M5 x 20 mm) (#40679101) x 6

Screw (M4 x 16 mm) (#40126267) x 2

Screw (4 x 14 mm) (#40012145) x 6

Options (sold separately)

Headphones

USB Flash Memory (*1)

Audio Cable

USB Cable

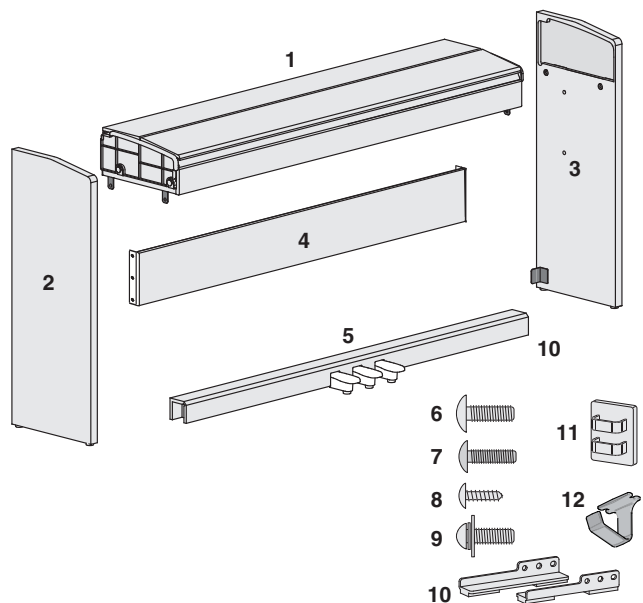
*1 Use USB Flash Memory sold by Roland. We cannot guarantee operation if other products are used.

* 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.

Contents of the Unit and Stand

The unit and stand consist of the following parts.



1: Piano main unit (#*****)

2: Side Board (left) (#*****)

3: Side Board (right) (#*****)

4: Center Board (#*****)

5: Pedal Board (#*****)

6: Screws (M6 x 18mm) (#5100015690) x 6

7: Screws (M5 x 20mm) (#40679101) x 6

8: Screws (4 x 14mm) (#40012145) x 6

9: Screws (M4 x 16mm) (#40126267) x 2

~~10: Stabilizers (Left: #5100046681, Right: #5100046682)~~

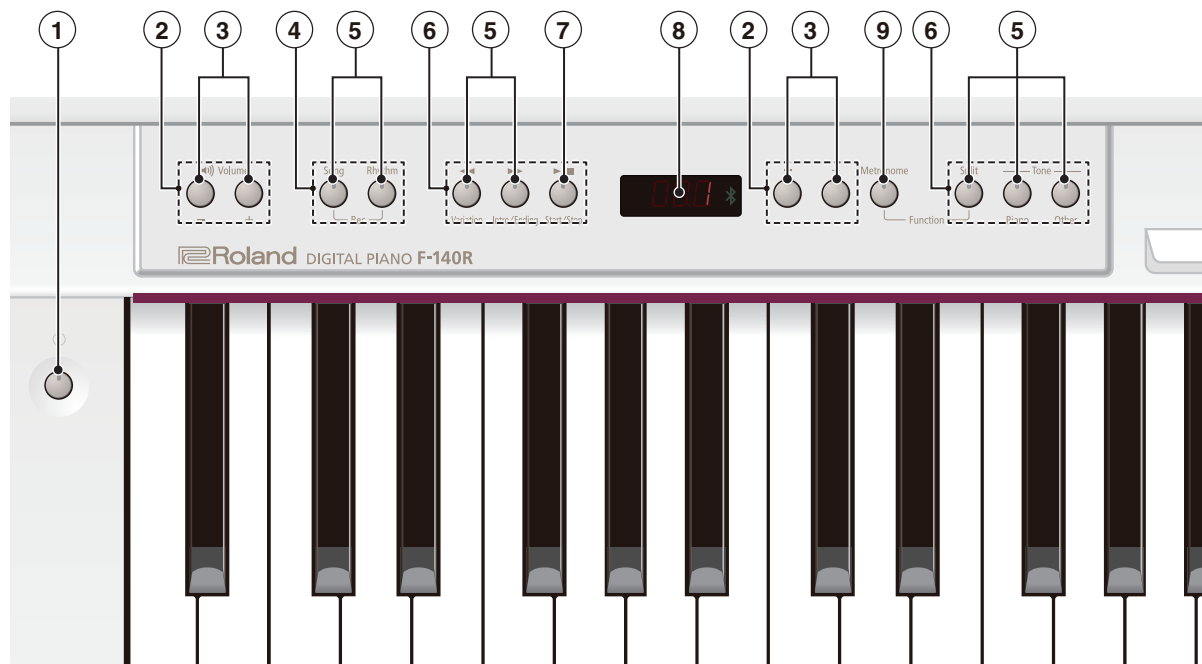
10: Stabilizers (Left: #5100021794, Right: #5100021795)

11: Cord Clamps (#03015001) x 2

12: Headphone hook (#5100020982)

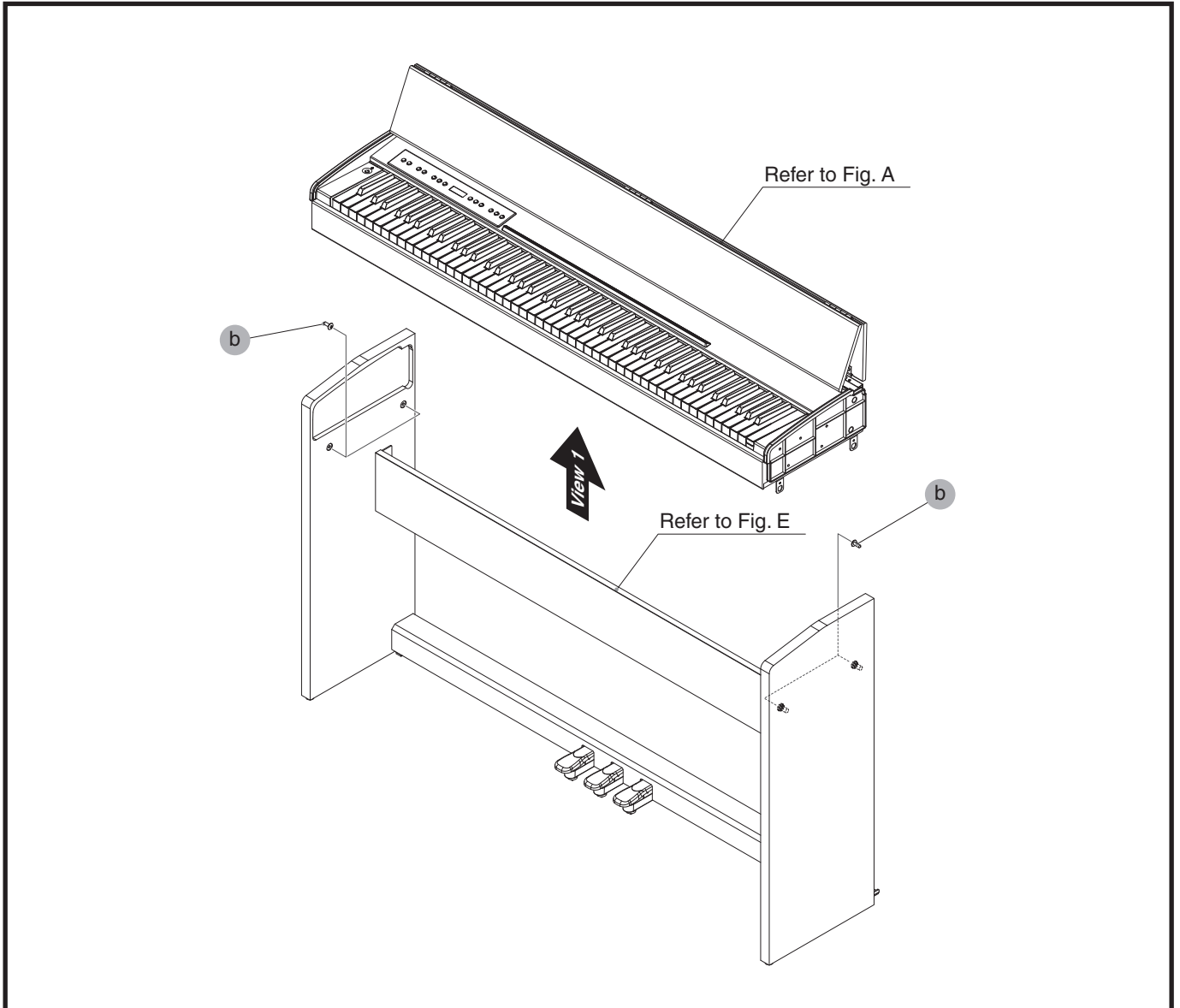
* Cushions (#5100047673) (#*****) is attached on 10. Stabilizer.

Location of Controls (Top)

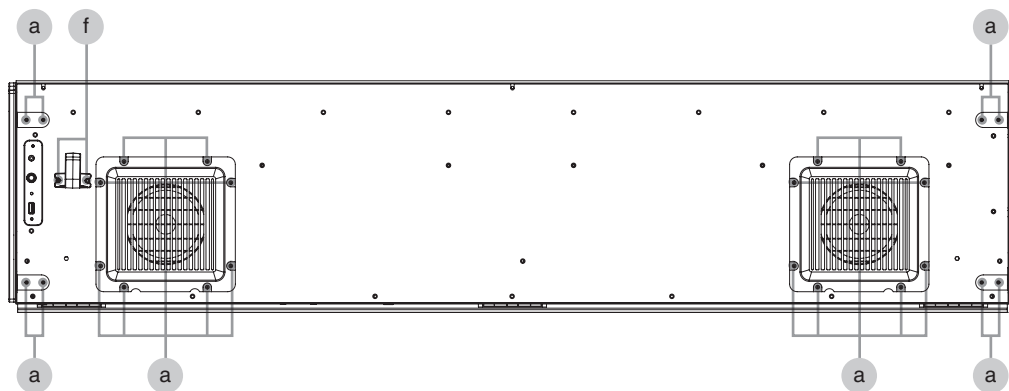


No.	Part Code	Part Name	Description		Q'ty
1	02016278	Y C-KEYTOP	MD1H BLK	for CB	1
	5100028829	Y C-KEYTOP	MD1H WHT	for WH	1
	02781634	TACT SWITCH	SKRGAED010		1
2	04121578	LED(GREEN)	SLR-343MCT32		1
	5100039041	Y C-KEYTOP	MX4H BLK	for CB	1
3	5100028893	Y C-KEYTOP	MX4H WHT	for WH	1
	02781634	TACT SWITCH	SKRGAED010		4
4	02016289	Y C-KEYTOP	MD2H BLK	for CB	1
	5100028825	Y C-KEYTOP	MD2H WHT	for WH	1
5	02781634	TACT SWITCH	SKRGAED010		7
	03230656	LED(RED)	SLR-343VCT32		7
6	02016290	Y C-KEYTOP	MD3H BLK	for CB	2
	5100028830	Y C-KEYTOP	MD3H WHT	for WH	2
7	02781634	TACT SWITCH	SKRGAED010		1
	04121578	LED(GREEN)	SLR-343MCT32		1
8	5100046656	DISPLAY COVER			1
	5100047130	LED ISOLATOR			1
	5100020884	LED	A-303SR-A Q/W		1
	510000607	LED (GREEN)	SLI-343MCT32		1
9	02016278	Y C-KEYTOP	MD1H BLK	for CB	1
	5100028829	Y C-KEYTOP	MD1H WHT	for WH	1
	02781634	TACT SWITCH	SKRGAED010		1
	04902023	LED (RED/GREEN)	SPI-325MUWT31		1

Exploded View (All)

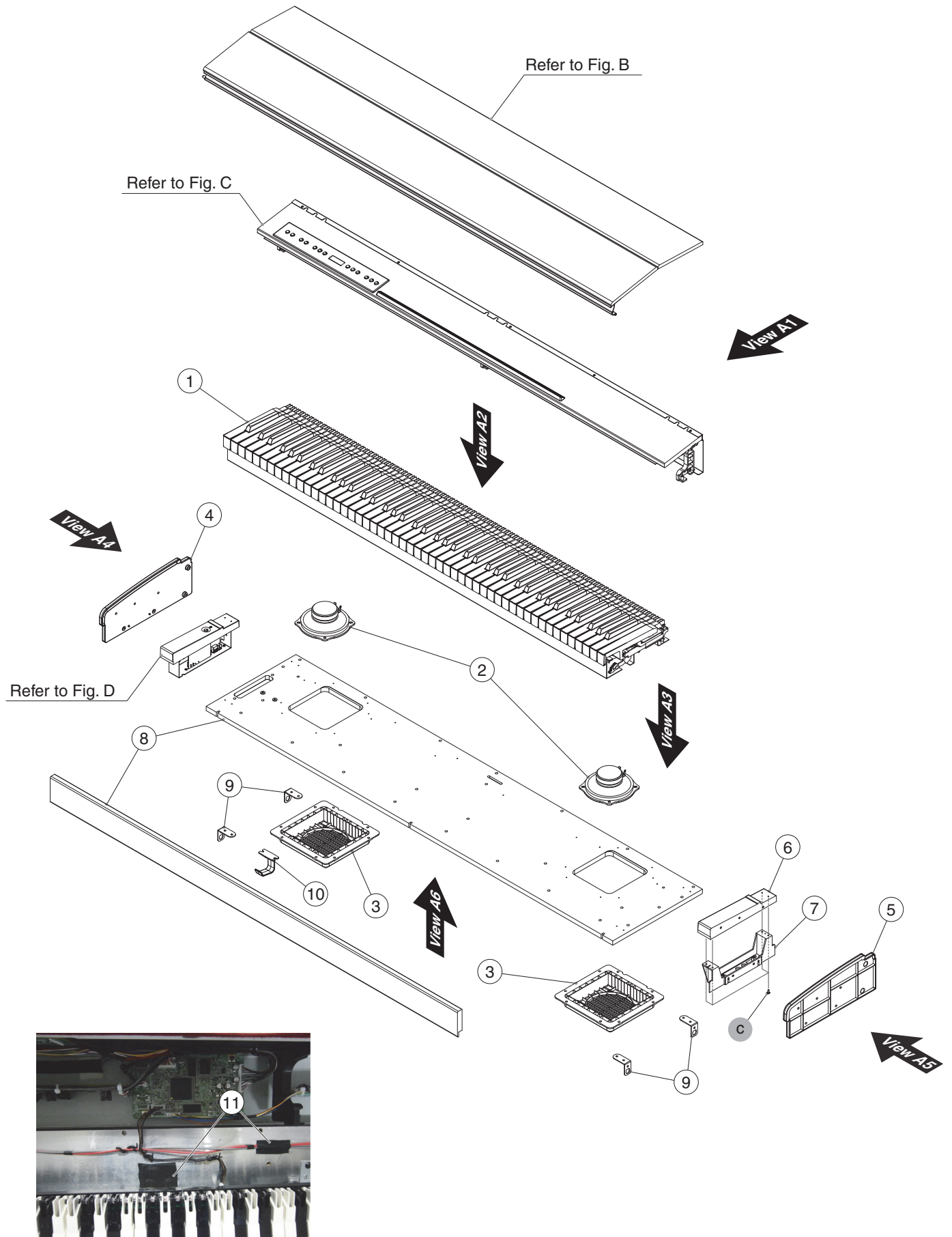


View 1



No.	Part Code	Part Name	Description	Q'ty
a	40012145	SCREW 4X14	TRUSS TAPPING A FE BZC	24
b	5100015690	SCREW M6X18	ORIGINAL TRUSS TC BZC	4
f	40126267	SCREW M4X16	PAN MACHINE W/SW+PW FE BZC	2

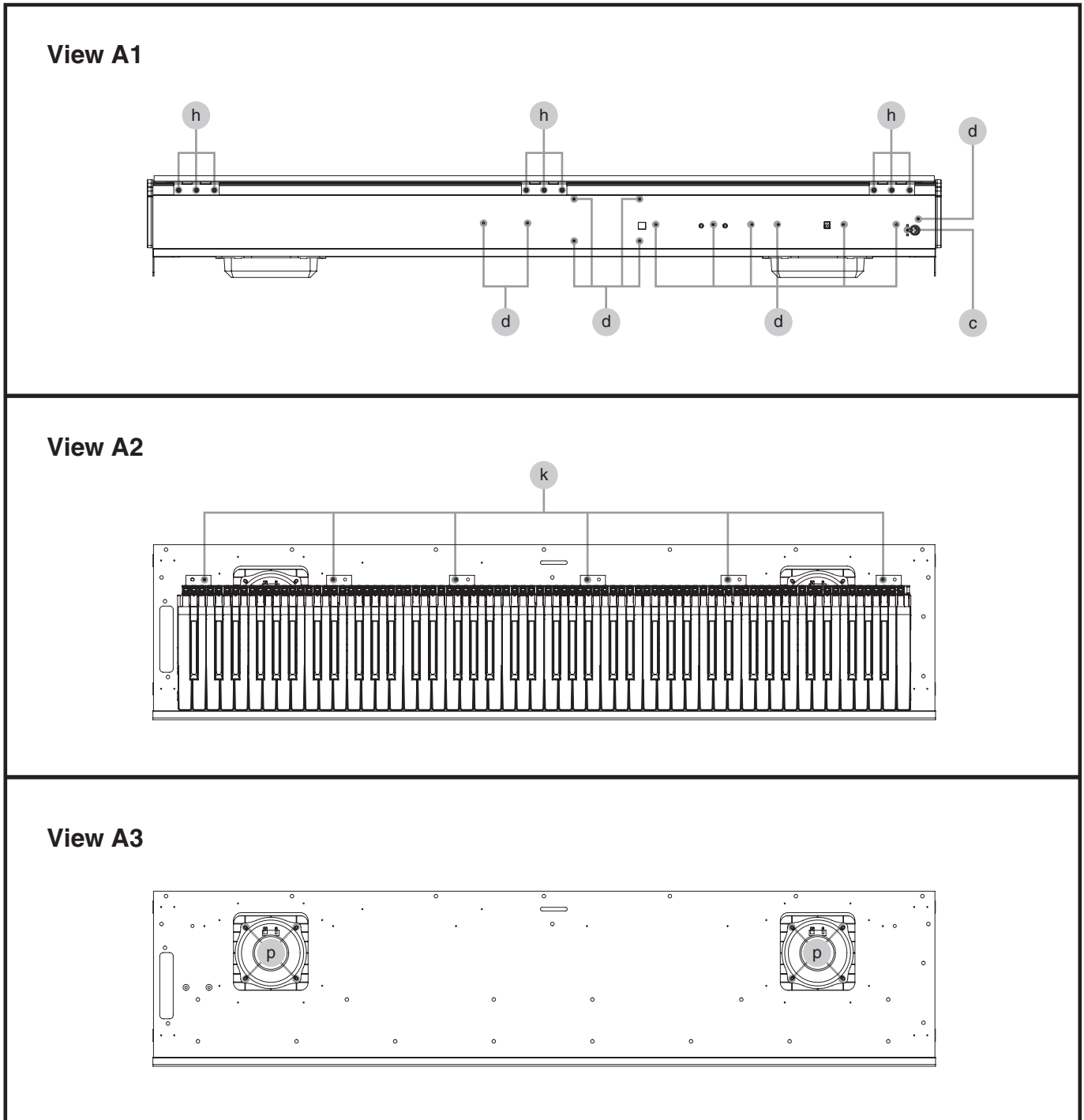
Exploded View (Fig.A)



Exploded View (Fig.A) Parts List

No.	Part Code	Part Name	Description	Q'ty	
1	5100034009	KEYBOARD ASSY	PX-7B	1	
2	5100047143	SPEAKER	F1204-E34C	2	
3	5100046653	SPEAKER COVER		2	
4	5100046647	LID GUIDE L	for CB	1	
	5100046649	LID GUIDE L	for WH	1	
5	5100046648	LID GUIDE R	for CB	1	
	5100046650	LID GUIDE R	for WH	1	
6	5100046642	END BLOCK R	for CB	1	
	5100046644	END BLOCK R	for WH	1	
7	5100046652	END BLOCK HOLDER R		1	
8	5100047678	BOTTOM BOARD ASSY	BOTTOM + LOWER BLIND	for CB	1
	5100047679	BOTTOM BOARD ASSY	BOTTOM + LOWER BLIND	for WH	1
9	5100046678	ANGLE BAR		4	
10	5100046646	PHONES HOOK		1	
11	40232123	ACETATE TAPE	NITTO #5 BLACK W20MM 30M 20P	-	
c	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	4	

Plain View (Fig.A) (1)



View A1

No.	Part Code	Part Name	Description	Q'ty
d	40237101	SCREW M3X8	PAN MACHINE W/SW+SMALL PW BZC	13
c	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	1
h	40010245	SCREW 3X6	MACHINE BINDING BZC	9

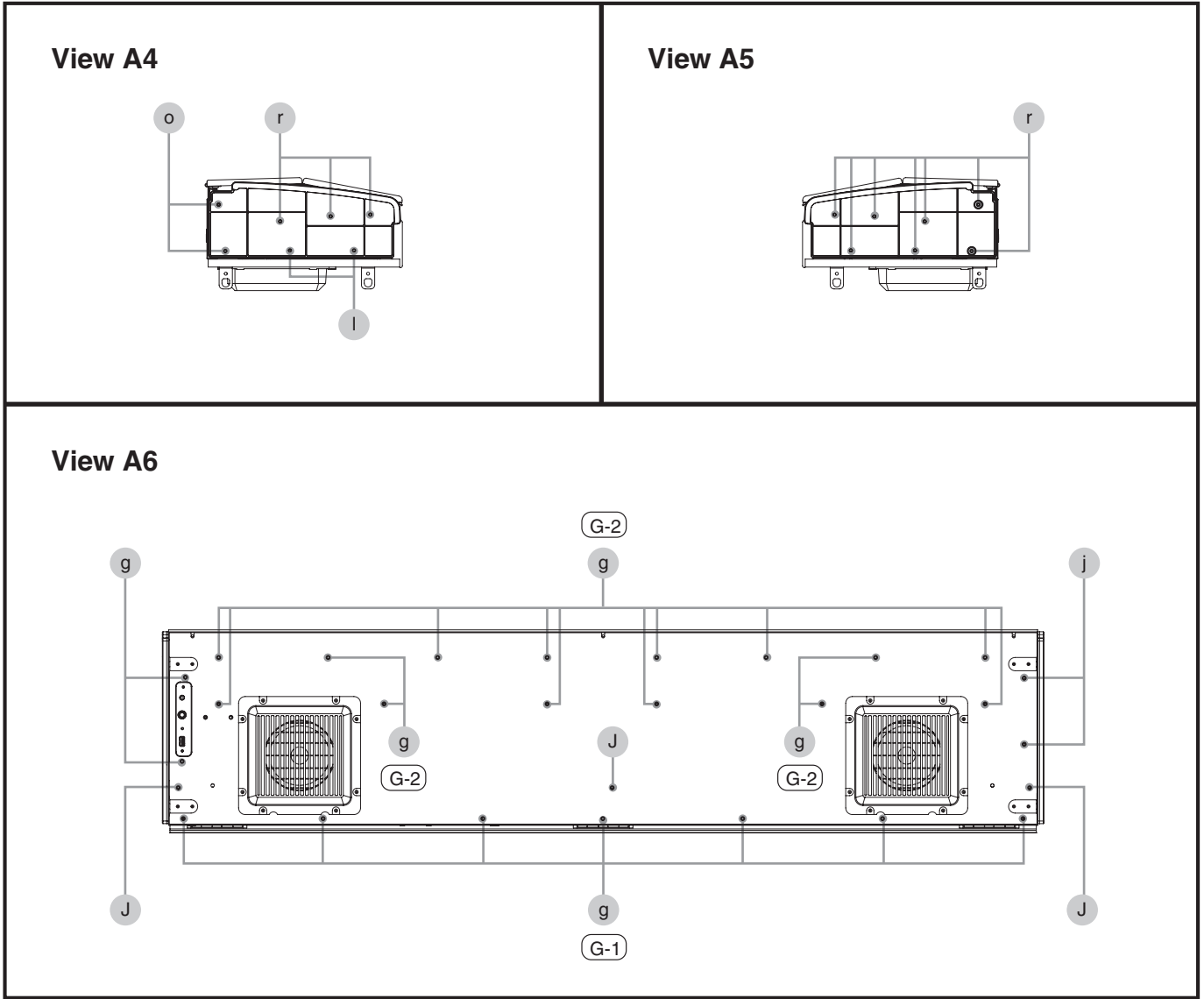
View A2

No.	Part Code	Part Name	Description	Q'ty
k	40127545	SCREW 4X10	TRUSS TAPPING A FE BZC	6

View A3

No.	Part Code	Part Name	Description	Q'ty
p	5100047746	SCREW 4X14	BINDING TAPTITE P BZC	8

Plain View (Fig.A) (2)



View A4

No.	Part Code	Part Name	Description	Q'ty
l	40011123	SCREW 4X8	BINDING TAPTITE B FE BZC	2
o	40567034	SCREW 4X20	BINDING TAPTITE P BZC	2
r	40012501	SCREW 4X12	BINDING TAPTITE P FE BZC	3

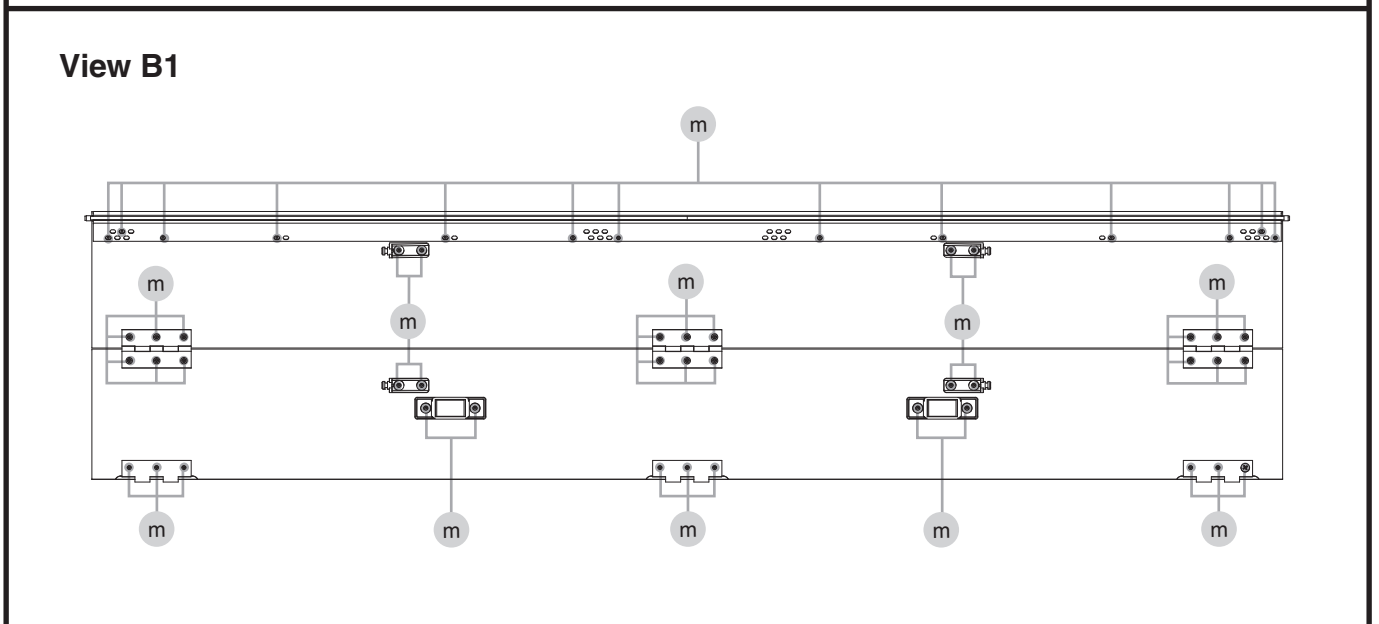
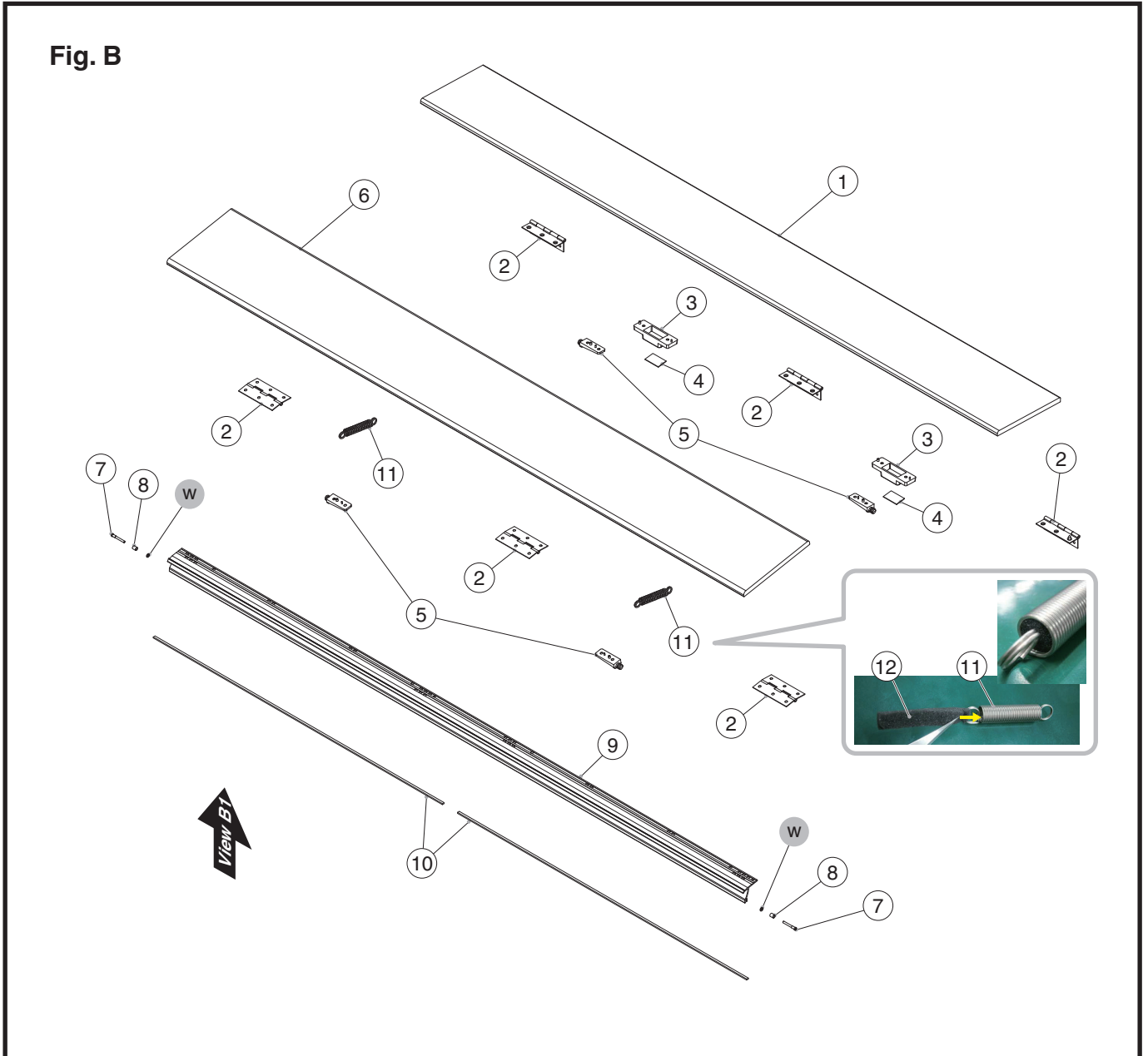
View A5

No.	Part Code	Part Name	Description	Q'ty
r	40012501	SCREW 4X12	BINDING TAPTITE P FE BZC	7

View A6

No.	Part Code	Part Name	Description	Q'ty
g	40564767	SCREW 4X20	VWH TAPTITE B W12.5 BZC	23
J, j	40563345	SCREW H4X25X17	TAPTITE P W BZC W=12.5	5

Exploded View (Fig.B)



Exploded View (Fig.B) Parts List

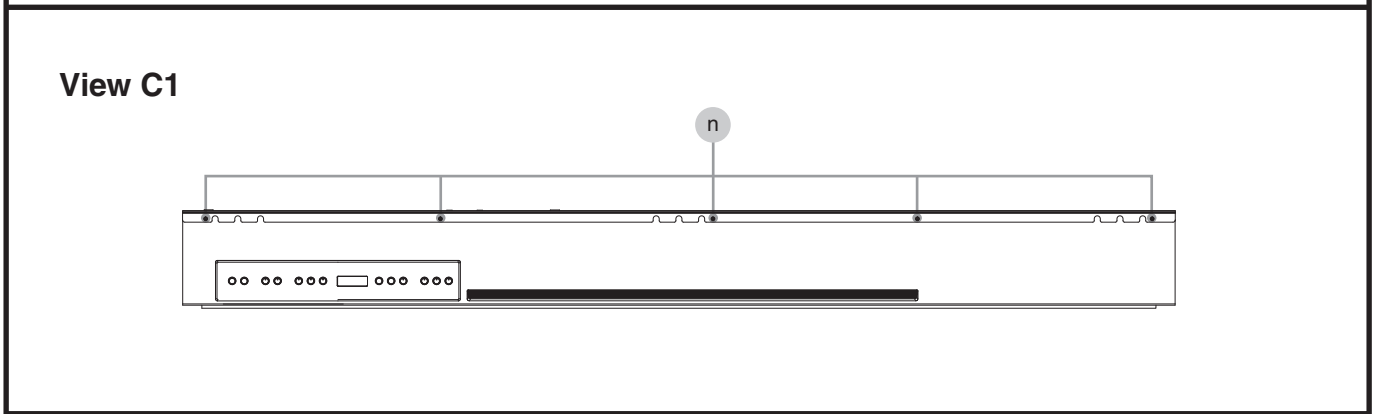
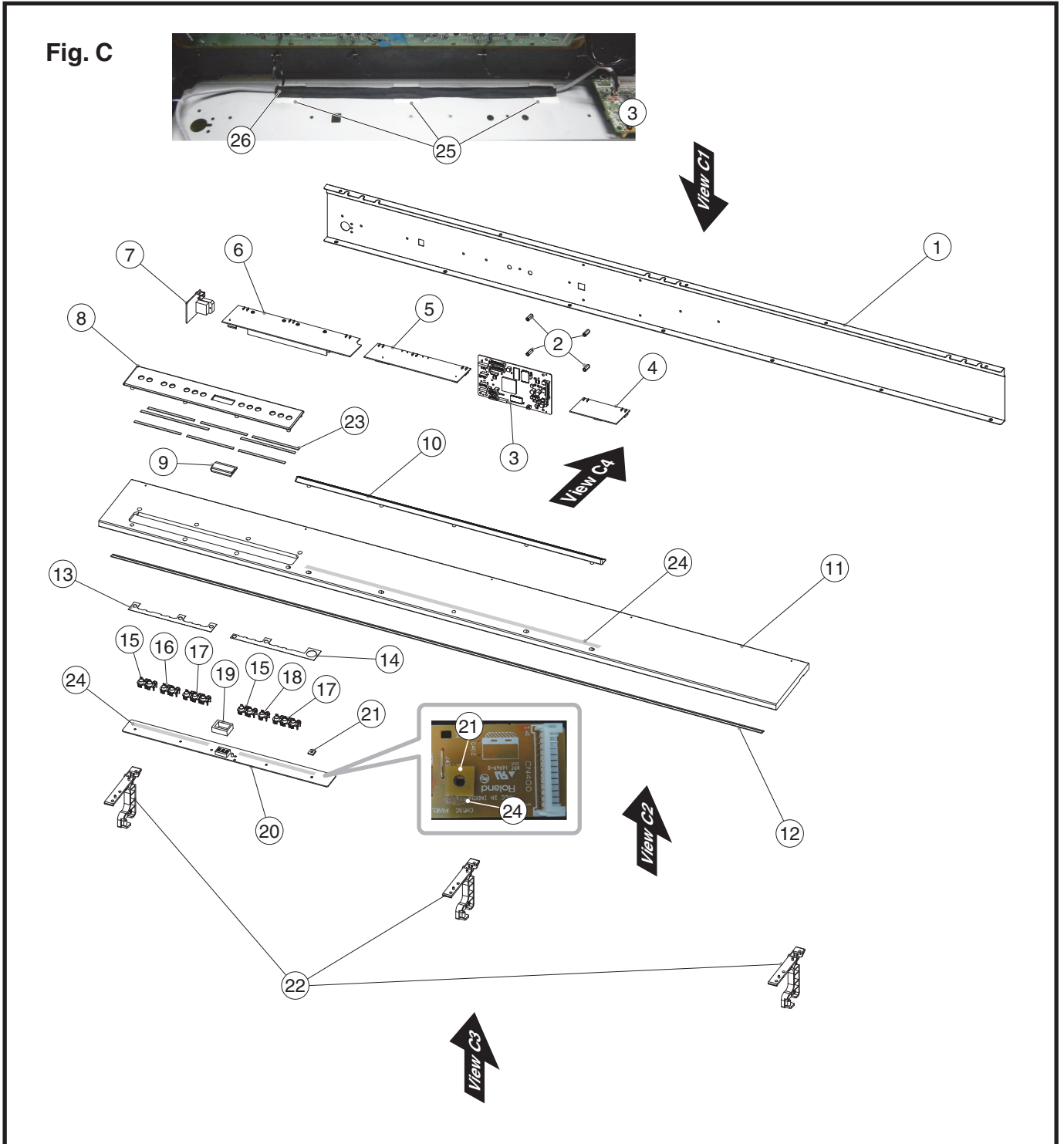
Fig.B

No.	Part Code	Part Name	Description	Q'ty
1	5100046614	REAR LID BOARD		1
	5100046617	REAR LID BOARD		1
2	5100006370	HINGE	NSB25529	6
3	5100046651	LID SPACER		2
4	5100047129	LID STAY CUSHION		2
5	5100046657	SPRING HOLDER		4
6	5100046607	FRONT LID BOARD		1
	5100046616	FRONT LID BOARD		1
7	5100047120	GUIDE PIN		2
8	5100046655	LID GUIDE BUSH		2
9	5100046674	LID BLIND		1
10	5100047126	LID BLIND CUSHION		2
11	5100047119	LID SPRING		2
12	5100048444	SPRING CUSHION		2
w	40569512	WASHER T1X3.2X6		2

View B1

No.	Part Code	Part Name	Description	Q'ty
m	40010645	SCREW 4X8	TRUSS TAPPING A FE BZC	52

Exploded View (Fig.C)



Exploded View (Fig.C) Parts List

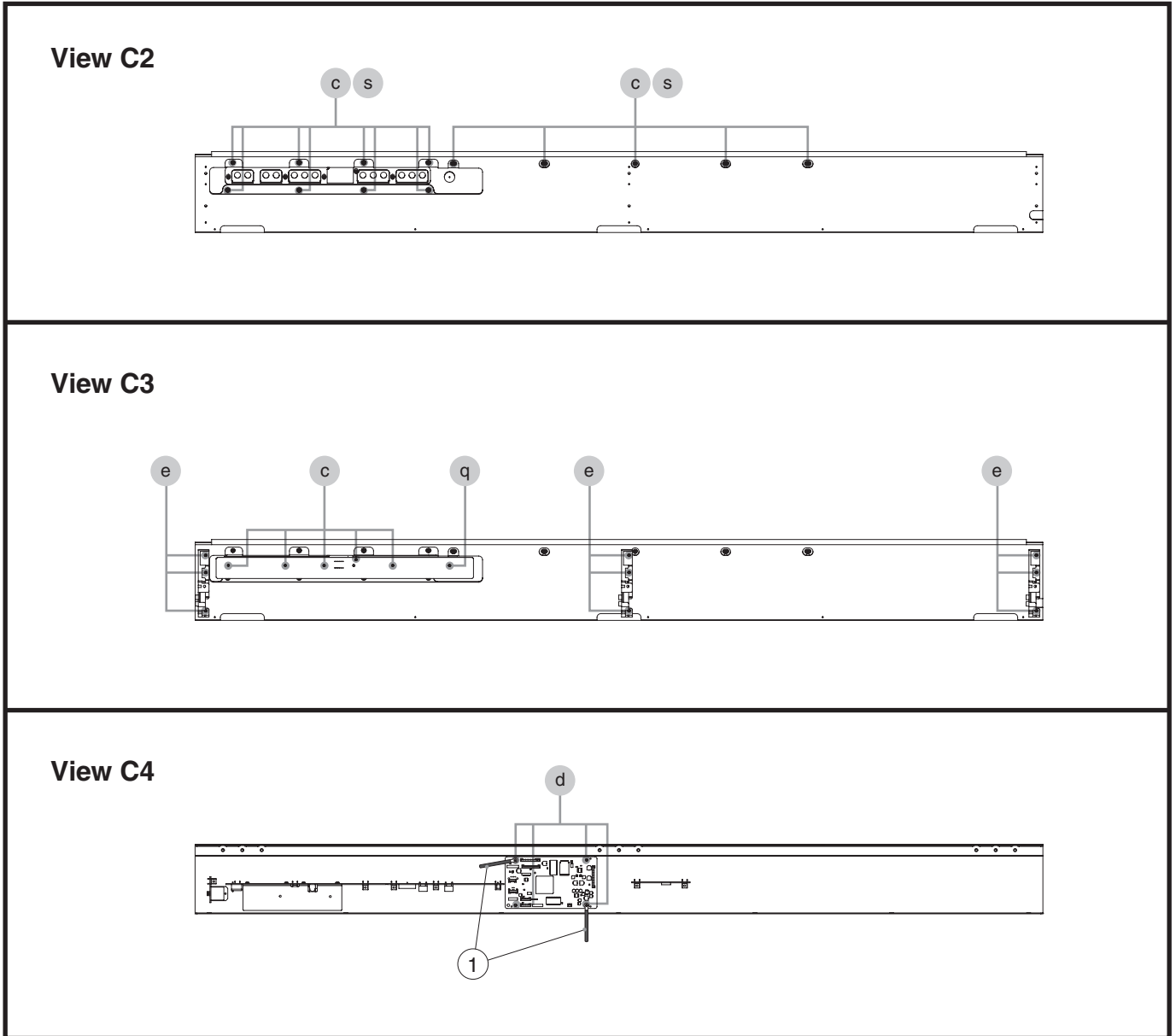
Fig.C

No.	Part Code	Part Name	Description		Q'ty
1	5100046675	REAR PANEL		for CB	1
	5100046676	REAR PANEL		for WH	1
2	5100035970	STANDOFF	M3-L5.5-H14.5		4
3	5100046731	MAIN BRD ASSY			1
4	5100045246	BT LE BOARD ASSY			1
	5100046747	JACKAMP SHEET ASSY			1
		* This unit includes the following parts.			
5	*****	JACK BOARD			1
6	*****	AMP BOARD			1
7	*****	DIN-PEDAL BOARD			1
20	*****	PANEL BOARD			1
	*****	PW-SW2 BOARD		Refer to Exploded View (Fig.D) (p. 19)	1
	*****	PHONES2 BOARD		Refer to Exploded View (Fig.D) (p. 19)	1
	*****	USB-H BOARD		Refer to Exploded View (Fig.D) (p. 19)	1
8	5100046639	PANEL COVER		for CB	1
	5100046640	PANEL COVER		for WH	1
9	5100046656	DISPLAY COVER			1
10	5100046637	MUSIC STOPPER		for CB	1
	5100046638	MUSIC STOPPER		for WH	1
11	5100047680	TOP PANEL ASSY		for CB	1
	5100047681	TOP PANEL ASSY		for WH	1
12	03012323	KEY FELT			1
13	5100047127	TACT SW CUSHION L			1
14	5100047128	TACT SW CUSHION R			1
15	5100039041	Y C-KEYTOP	MX4H BLK	for CB	1
	5100028893	Y C-KEYTOP	MX4H WHT	for WH	1
16	02016289	Y C-KEYTOP	MD2H BLK	for CB	1
	5100028825	Y C-KEYTOP	MD2H WHT	for WH	1
17	02016290	Y C-KEYTOP	MD3H BLK	for CB	2
	5100028830	Y C-KEYTOP	MD3H WHT	for WH	2
18	02016278	Y C-KEYTOP	MD1H BLK	for CB	1
	5100028829	Y C-KEYTOP	MD1H WHT	for WH	1
19	5100047130	LED ISOLATOR			1
21	*****	SPACER		Refer to Circuit Board (Jack, Panel, Amp, Phones2, PW-SW2, DIN-Pedal, USB-H Board) (p. 46)	1
22	5100046654	CENTER HOLDER			3
23	5100021076	DOUBLE SIDED ADHESIVE TAPE	NITTO #5000NS W5MM		-
24	40122434	DOUBLE-FACED TAPE	#500 W7MM 20M 30P		-
25	40122556	DOUBLE FACED ADHESIVE TAPE	#575X W30MM 30M 10P 30CM		-
26	40232123	ACETATE TAPE	NITTO #5 BLACK W20MM 30M 20P		-

View C1

No.	Part Code	Part Name	Description	Q'ty
n	5100009190	SCREW 3X10	FLAT TAPPING A FE BZC	5

Plain View (Fig.C)



View C2

No.	Part Code	Part Name	Description	Q'ty
c	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	13
s	40011989	WASHER 4X10X0.8	FE BZC	13

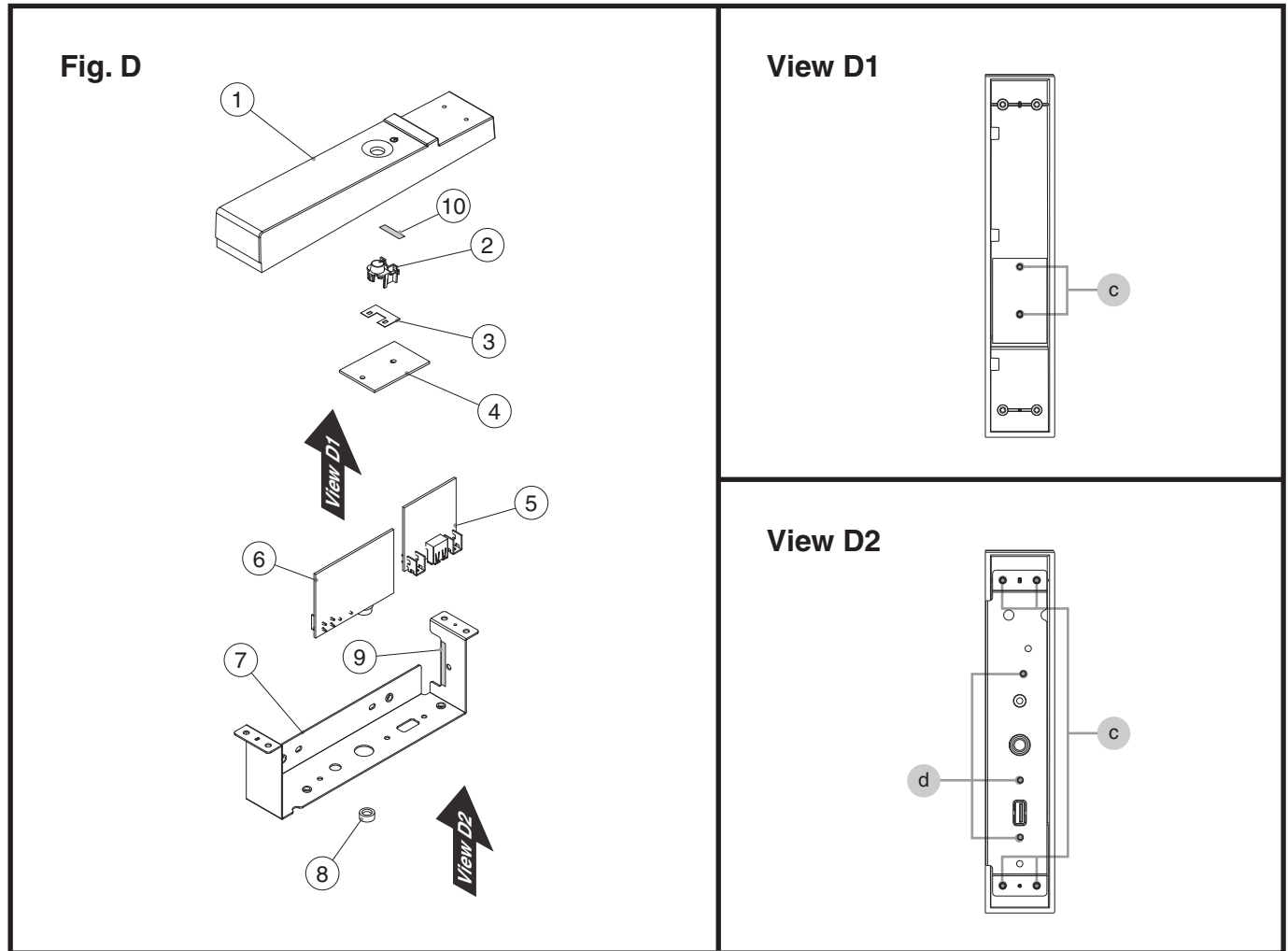
View C3

No.	Part Code	Part Name	Description	Q'ty
c	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	5
e	40010656	SCREW 4X12	TRUSS TAPPING A FE BZC	9
q	40010789	SCREW 3X10	BINDING TAPPING A FE BZC	1

View C4

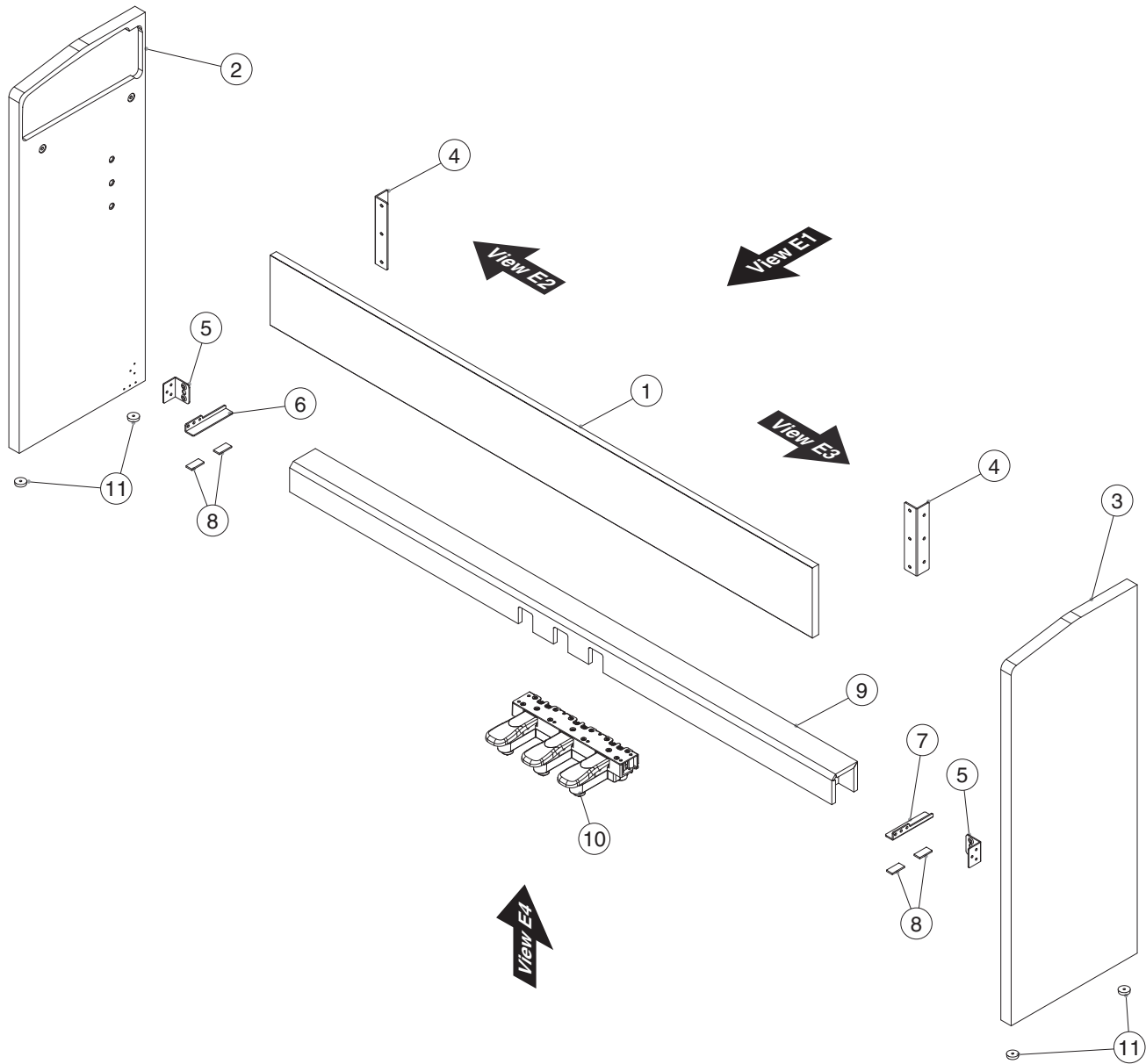
No.	Part Code	Part Name	Description	Q'ty
1	40017378	COATING CLIP	CS-7	2
d	40237101	SCREW M3X8	PAN MACHINE W/SW+SMALL PW BZC	4

Exploded View (Fig.D)



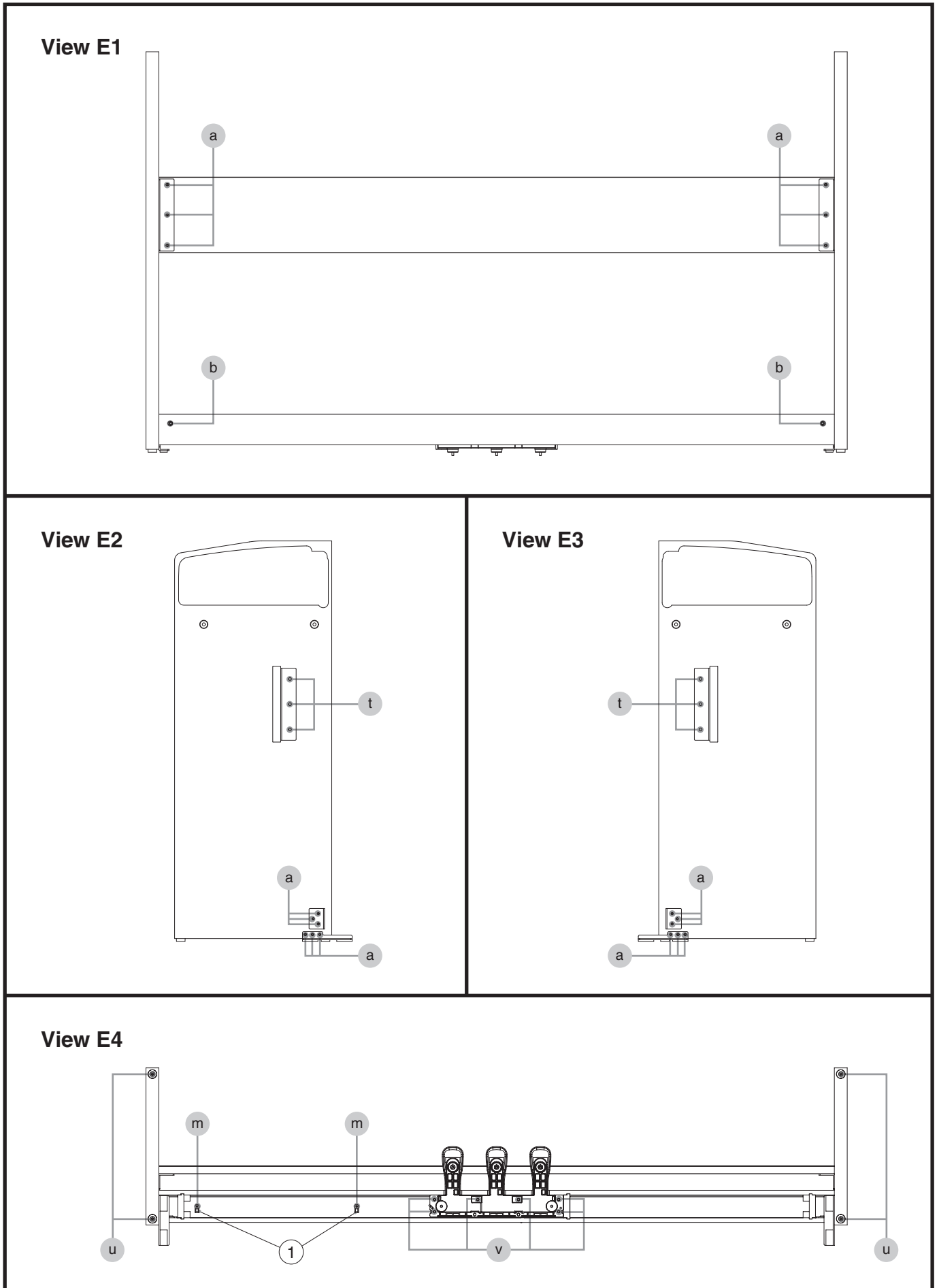
No.	Part Code	Part Name	Description		Q'ty
1	5100046641	END BLOCK L		for CB	1
	5100046643	END BLOCK L		for WH	1
2	02016278	Y C-KEYTOP	MD1H BLK	for CB	1
	5100028829	Y C-KEYTOP	MD1H WHT	for WH	1
3	5100047131	TACT SW CUSHION Y			1
	5100046747	JACKAMP SHEET ASSY			1
		* This unit includes the following parts.			
4	*****	PW-SW2 BOARD			1
5	*****	USB-H BOARD			1
6	*****	PHONES2 BOARD			1
	*****	JACK BOARD		Refer to Exploded View (Fig.C) (p. 16)	1
	*****	AMP BOARD		Refer to Exploded View (Fig.C) (p. 16)	1
	*****	PANEL BOARD		Refer to Exploded View (Fig.C) (p. 16)	1
	*****	DIN-PEDAL BOARD		Refer to Exploded View (Fig.C) (p. 16)	1
7	5100046680	END BLOCK HOLDER L			1
8	40783356	JACK NUT	M12 T2 //14 ZC		1
9	40122789	ACETATE TAPE	NITTO #156A W15MM 30M		-
10	5100021076	DOUBLE SIDED ADHESIVE TAPE	NITTO #5000NS W5MM		-
c	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC		6
d	40237101	SCREW M3X8	PAN MACHINE W/SW+SMALL PW BZC		3

Exploded View (Fig.E)



No.	Part Code	Part Name	Description	Q'ty
1	5100046609	CENTER BOARD	for CB	1
	5100046619	CENTER BOARD	for WH	1
2	5100046610	SIDE BOARD L	for CB	1
	5100046620	SIDE BOARD L	for WH	1
3	5100046611	SIDE BOARD R	for CB	1
	5100046621	SIDE BOARD R	for WH	1
4	5100046679	CENTER BOARD HOLDER		2
5	5100046677	PEDAL HOLDER		2
6	5100046681	STAND HOLDER L		1
7	5100046682	STAND HOLDER R		1
8	5100047673	STAND HOLDER CUSHION		4
	5100021794	STAND HOLDER L		1
	* This unit includes the following parts.			
6	*****	STAND HOLDER L		1
8	*****	STAND HOLDER CUSHION		2
	5100021795	STAND HOLDER R		1
	* This unit includes the following parts.			
7	*****	STAND HOLDER R		1
8	*****	STAND HOLDER CUSHION		2
9	5100046608	PEDAL BOARD	for CB	1
	5100046618	PEDAL BOARD	for WH	1
10	5100006011	CP-3 DIN PEDAL UNIT (F-110)		1
11	5100047118	FOOT		4

Plain View (Fig.E)



Plain View (Fig.E) Parts List

View E1

No.	Part Code	Part Name	Description	Q'ty
a	40012145	SCREW 4X14	TRUSS TAPPING A FE BZC	6
b	5100015690	SCREW M6X18	ORIGINAL TRUSS TC BZC	2

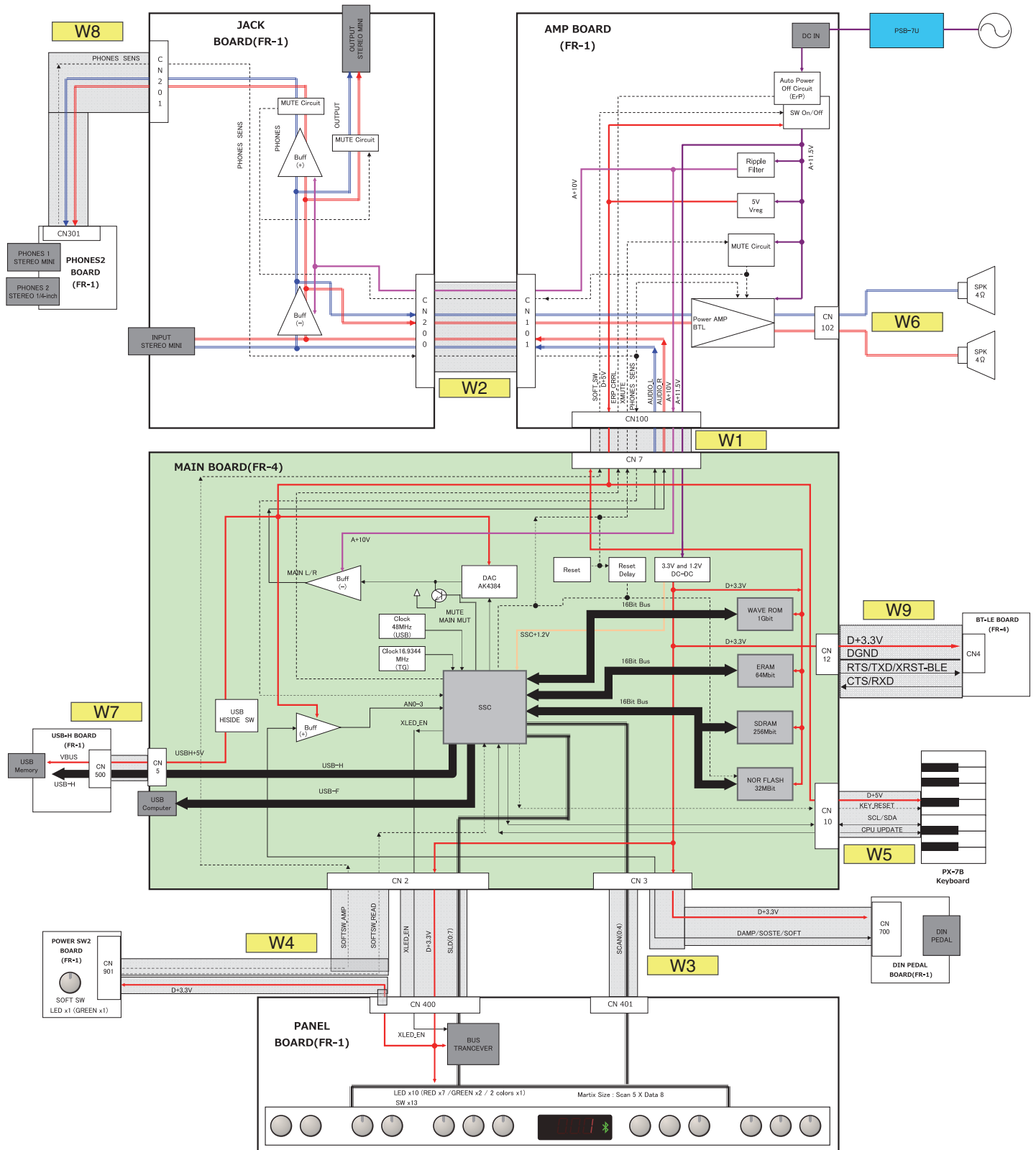
View E2, 3

No.	Part Code	Part Name	Description	Q'ty
a	40012145	SCREW 4X14	TRUSS TAPPING A FE BZC	12
t	40679101	SCREW M5X20	TRUSS MACHINE FE BZC	6

View E4

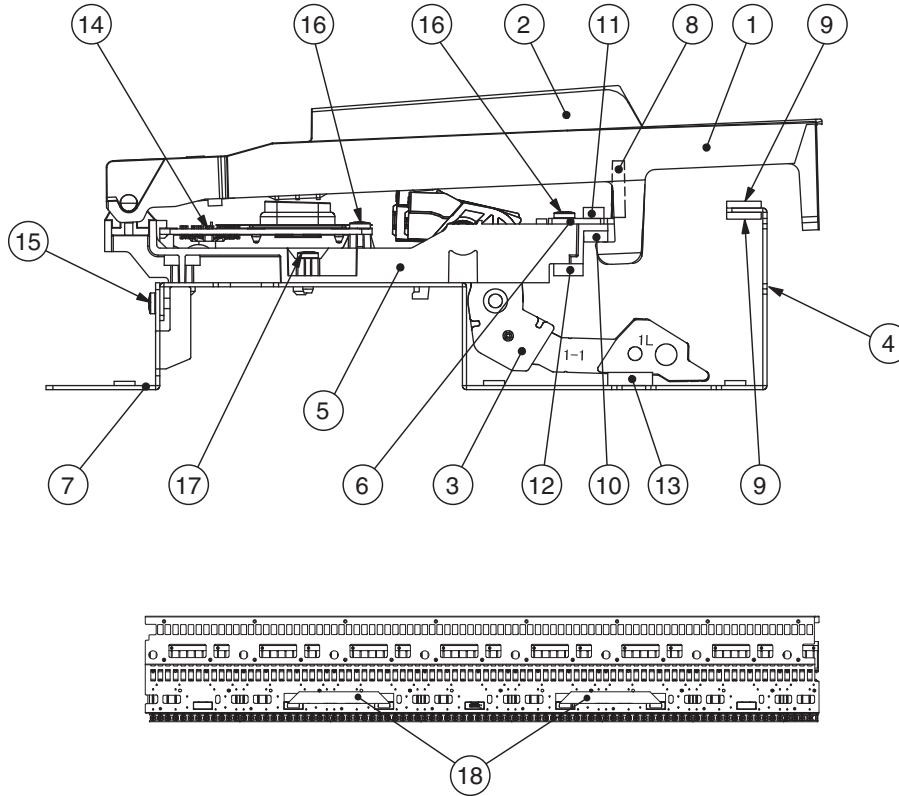
No.	Part Code	Part Name	Description	Q'ty
1	40677478	LOCKING TOOL FOR INSULOK TIE	SKM-2	2
m	40010645	SCREW 4X8	TRUSS TAPPING A FE BZC	2
u	40675701	SCREW 3.5X16	BINDING TAPPING A FE BZC	4
v	40782023	SCREW M4X40	PAN MACHINE W/SW ZC	6

Wiring Diagram/Block Diagram



No.	Part Code	Part Name	Description	Q'ty
W1	5100047146	WIRING	W01 (MAIN-AMP)	1
W2	5100047150	WIRING	W02 (AMP-JACK)	1
W3	5100047147	WIRING	W03 (MAIN-PEDAL)	1
W4	5100047152	WIRING	W04 (MAIN-POWER)	1
W5	5100047148	WIRING	1061#28 7X280-PHR-PHR-F	1
W6	5100047154	WIRING	W06 (SP)	1
W7	5100047153	WIRING	W07 (USBH)	1
W8	5100047155	WIRING	W08 (PHONES)	1
W9	5100047156	WIRING	W09 (BLE)	1

Keyboard Parts List (PX-7B)



No.	Part Code	Part Name	Description	Q'ty
	5100034009	KEYBOARD ASSY	PX-7B	
1	5100016416	N-KEY C	PX-7 (C6200269R0)	7
	5100016417	N-KEY D	PX-7 (C6200270R0)	7
	5100016418	N-KEY E	PX-7 (C6200271R0)	7
	5100016419	N-KEY F	PX-7 (C6200272R0)	7
	5100016420	N-KEY G	PX-7 (C6200273R0)	7
	5100016421	N-KEY A	PX-7 (C6200274R0)	7
	5100016422	N-KEY B	PX-7 (C6200275R0)	8
	5100016423	N-KEY A DASH	PX-7 (C6200276R0)	1
	5100016424	N-KEY C DASH	PX-7 (C6200277R0)	1
2	5100016425	S-KEY	PX-7 (C6200278R0)	36
3	5100016251	HAMMER-1 FOR N-KEY	PX-7 (61100160)	13
	5100016252	HAMMER-2 FOR N-KEY	PX-7 (61100170)	13
	5100016253	HAMMER-3 FOR N-KEY	PX-7 (61100180)	13
	5100016254	HAMMER-4 FOR N-KEY	PX-7 (61100190)	13
	5100016255	HAMMER-1 FOR S-KEY	PX-7 (611001A0)	9
	5100016256	HAMMER-2 FOR S-KEY	PX-7 (611001B0)	9
	5100016257	HAMMER-3 FOR S-KEY	PX-7 (611001C0)	9
	5100016258	HAMMER-4 FOR S-KEY	PX-7 (611001D0)	9
4	*****	CHASSIS 88P	PX-7	1
5	*****	SUB CHASSIS 12P	PX-7	7
	*****	SUB CHASSIS 4P	PX-7	1
6	*****	GUIDE HOLDER	PX-7	1
7	5100016412	KEYBOARD HOLDER	PX-7 (C6300217R0)	6
8	5100016262	GUIDE BUSHING	PX-7	88
9	5100019110	KEY CUSHION A	PX-7 (C5000254R0)	2
10	5100019663	KEY CUSHION B	PX-7	1
11	5100028252	KEY CUSHION E	PX-7	1
12	5100019111	HAMMER CUSHION A	PX-7	1
13	5100019664	HAMMER CUSHION B	PX-7	1
14	5100037315	PWB SET	PX-7B	1
15	40011056	SCREW 3X6	BINDING TAPTITE B ZC	12
16	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	52
17	40012256	SCREW 3X10	BINDING TAPTITE B FE ZC	60
18	5100033937	FLAT CABLE	A-1.0-20X230-4/8-0.7X0.05	2

* The cable (#5100047148) is not included in this unit (#5100034009).

* For disassembly and maintenance of the keyboard, refer to the Service Notes for PX-7B.

Disassembly Procedure

NOTE

- When disassembling the unit, a table or stand for temporary placement of the unit may become necessary. To ensure safe operations, we recommend providing a table or stand assured of supporting 20.75 kg or more, and space measuring at least 1.5 m wide.
- To prevent accidents, when performing disassembly of the unit, be sure to first switch off the power to the unit and unplug the power cord.

* To remove the main components, disassemble in the sequence described below. After completing servicing, take care to ensure that the wiring is restored to its original state and placement. Tightly re-secure all removed hardware fixtures.

Removing the Lid Board

1. Remove the 9 screws securing the Lid Board. (Plain View (Fig.A) (1) (p. 12), h in View A1)



2. Lift up the Lid Board, then slant the front and rear of it and take off the guide from the rail.



Removing the Main Unit from the Side Boards

1. Push the main unit down over the front side and disconnect the pedal cable.



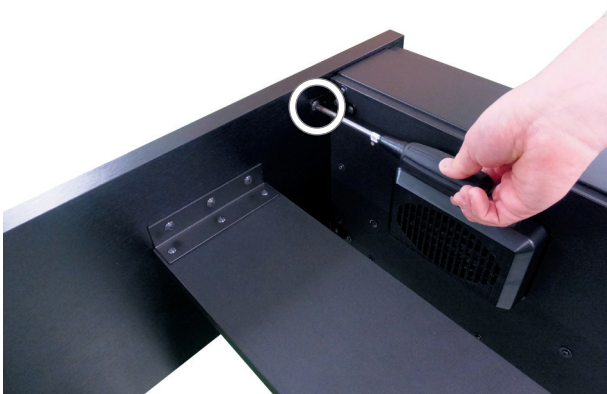
2. Loosen the all screws securing the Pedal Board, Center Board and the main unit.



Pedal Board (one screw each on the left and right)



Center Board (six screws each on the left and right)



Main unit (two screws each on the left and right)

3. Detach the Pedal Board and the Center Board from the Side Board.

* The Pedal Board and the Center Board may fall when the screws are removed. To prevent them from falling, support them by hand when you carry out this operation.



4. Support the main unit so that it does not fall down and detach the Side Boards.

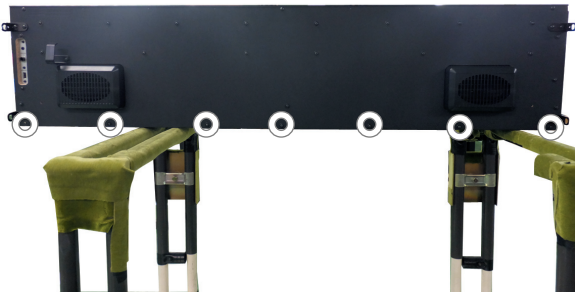


Detaching the Top Panel

1. Remove the screws (7 each on the left and right) securing the Lid Guide. (Plain View (Fig.A) (2) (p. 13), l, o and r in View A4 and A5)



2. Remove the screws (x 7) securing the Rear Panel from underneath. (Plain View (Fig.A) (2) (p. 13), G-1 in View A6)



3. Remove the screws (x 3) securing the Center Holder from underneath. (Plain View (Fig.A) (2) (p. 13), J in View A6)

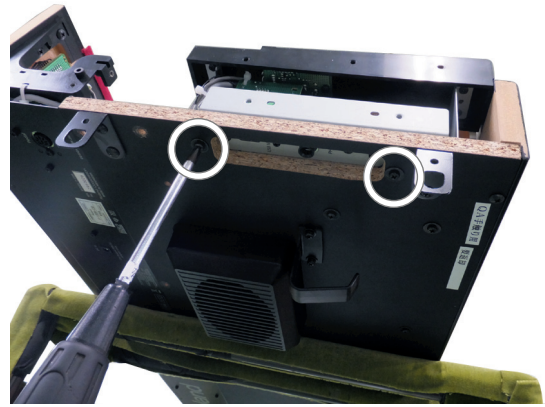


4. Slowly tilt the Top Panel and Rear Panel toward the rear and detach them.

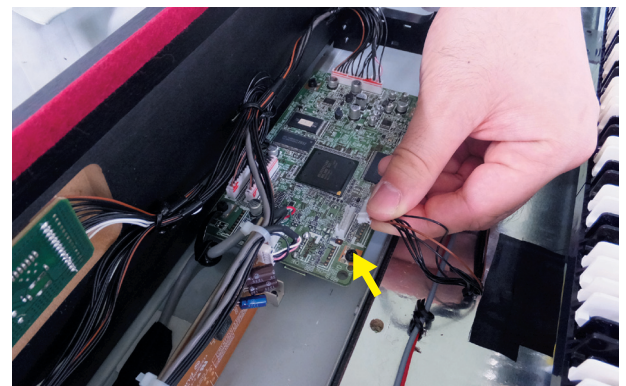


Separating the Top and Bottom

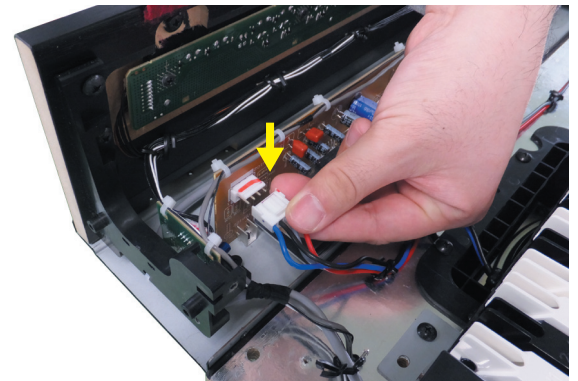
1. Remove the screws (x 2) securing End Block L from underneath.



2. Disconnect the wiring (x 1) connecting the Main Board to the keyboard.

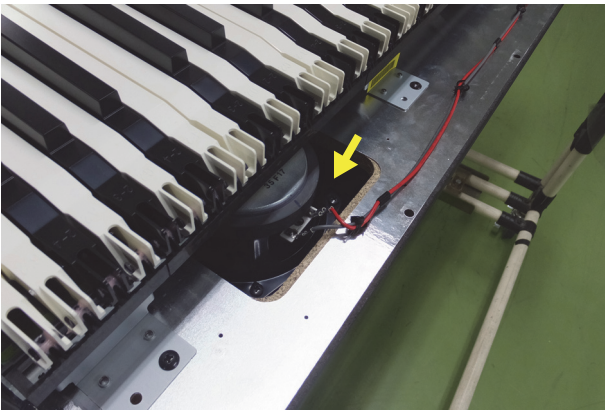


3. Disconnect the wiring (x 1) connecting the Amp Board to the speakers.

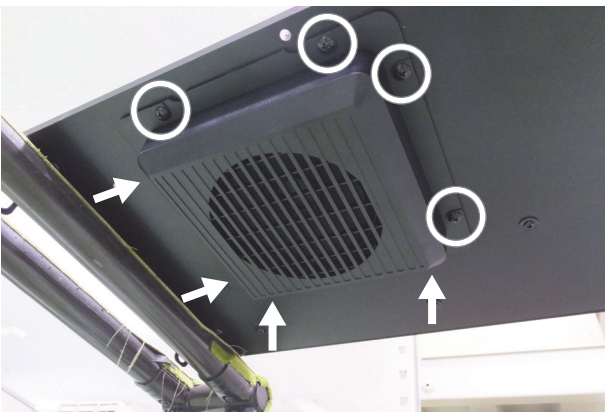


Detaching the Speakers

1. Detach the Top Panel (as described earlier).
2. Disconnect the wiring connected to the speaker.



3. Remove the screws (x 8) securing the Speaker Cover.



4. Detach the Speaker Cover and the speaker.

Removing the Keyboard

1. Separate the Top and Bottom (as described earlier).
2. Remove the screws (x 6) securing the keyboard from above. (Plain View (Fig.A) (1) (p. 12), k in View A2)



3. Remove the screws (x 14) securing the keyboard from underneath. (Plain View (Fig.A) (2) (p. 13), G-2 in View A6)



4. Detach the keyboard.

Parts List

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.

- Supply is prohibited due to copyright restrictions.
- It is carried in electronic data on the Roland web site.
- The part is made to order (at current market price).
- It can be replaced with an article on the market. (battery or etc.)
- It is a package or an accessory irrelevant to the function maintenance of the main body.
- A number of circuit boards are grouped together and supplied as a single circuit board (under a different part code).
- Reissuance is restricted.
- It is supplied as an assembled part (under a different part code).

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

CASING					
#	5100047680	TOP PANEL ASSY		for CB	1
#	5100046637	MUSIC STOPPER		for CB	1
#	5100046607	FRONT LID BOARD		for CB	1
#	5100046614	REAR LID BOARD		for CB	1
#	5100046641	END BLOCK L		for CB	1
#	5100046642	END BLOCK R		for CB	1
#	5100046639	PANEL COVER		for CB	1
#	5100046608	PEDAL BOARD		for CB	1
#	5100046675	REAR PANEL		for CB	1
#	5100047678	BOTTOM BOARD ASSY	BOTTOM + LOWER BLIND	for CB	1
#	5100046609	CENTER BOARD		for CB	1
#	5100046610	SIDE BOARD L		for CB	1
#	5100046611	SIDE BOARD R		for CB	1
#	5100047681	TOP PANEL ASSY		for WH	1
#	5100046638	MUSIC STOPPER		for WH	1
#	5100046616	FRONT LID BOARD		for WH	1
#	5100046617	REAR LID BOARD		for WH	1
#	5100046643	END BLOCK L		for WH	1
#	5100046644	END BLOCK R		for WH	1
#	5100046640	PANEL COVER		for WH	1
#	5100046618	PEDAL BOARD		for WH	1
#	5100046676	REAR PANEL		for WH	1
#	5100047679	BOTTOM BOARD ASSY	BOTTOM + LOWER BLIND	for WH	1
#	5100046619	CENTER BOARD		for WH	1
#	5100046620	SIDE BOARD L		for WH	1
#	5100046621	SIDE BOARD R		for WH	1
#	5100046674	LID BLIND			1
CHASSIS					
#	5100046678	ANGLE BAR			4
#	5100046679	CENTER BOARD HOLDER			2
#	5100046654	CENTER HOLDER			3
#	5100046680	END BLOCK HOLDER L			1
#	5100046652	END BLOCK HOLDER R			1
#	5100046657	SPRING HOLDER			4
#	5100046677	PEDAL HOLDER			2
#	5100046653	SPEAKER COVER			2
KNOB, BUTTON					
	02016278	Y C-KEYTOP	MD1H BLK	for CB	2
	02016289	Y C-KEYTOP	MD2H BLK	for CB	1
	02016290	Y C-KEYTOP	MD3H BLK	for CB	2
	5100039041	Y C-KEYTOP	MX4H BLK	for CB	1
	5100028829	Y C-KEYTOP	MD1H WHT	for WH	2
	5100028825	Y C-KEYTOP	MD2H WHT	for WH	1
	5100028830	Y C-KEYTOP	MD3H WHT	for WH	2
	5100028893	Y C-KEYTOP	MX4H WHT	for WH	1
SWITCH					
	02781634	TACT SWITCH	SKRGAED010		14
JACK, EXT TERMINAL					
	04452945	3.5MM JACK	YKB21-5344N		1
	02456390	3.5MM JACK	STEREO YKB21-5290		2
	13449252	6.5MM JACK	YKB21-5006 (STEREO W/SW)		1
	02900312	DC JACK	HEC0470-01-640		1
	00340223	DIN SOCKET	YKF51-5031		1
#	5100047748	USB CONNECTOR	YKF45-0016P		1
	04459190	USB CONNECTOR A TYPE FE-MALE	YKF45-0033N		1

SPEAKER, BUZZER				
#	5100047143	SPEAKER	F1204-E34C	2
KEYBOARD ASSY				
	5100034009	KEYBOARD ASSY	PX-7B	1
PWB ASSY				
#	5100046731	MAIN BRD ASSY		1
#	5100046747	JACKAMP SHEET ASSY		1
		<i>* This unit includes the following parts.</i>		
	*****	JACK BOARD		1
	*****	AMP BOARD		1
	*****	PANEL BOARD		1
	*****	PHONES2 BOARD		1
	*****	DIN-PEDAL BOARD		1
	*****	USB-H BOARD		1
	*****	PW-SW2 BOARD		1
	5100045246	BT LE BOARD ASSY		1
DIODE				
	5100020884	LED	A-303SR-A Q/W	1
	510000607	LED (GREEN)	SLI-343MCT32	1
	04121578	LED (GREEN)	SLR-343MCT32	2
	03230656	LED (RED)	SLR-343VCT32	7
	04902023	LED (RED/GREEN)	SPI-325MUWT31	1
WIRING, CABLE				
#	5100047146	WIRING	W01 (MAIN-AMP)	1
#	5100047150	WIRING	W02 (AMP-JACK)	1
#	5100047147	WIRING	W03 (MAIN-PEDAL)	1
#	5100047152	WIRING	W04 (MAIN-POWER)	1
#	5100047154	WIRING	W06 (SP)	1
#	5100047153	WIRING	W07 (USBH)	1
#	5100047155	WIRING	W08 (PHONES)	1
#	5100047156	WIRING	W09 (BLE)	1
#	5100047148	WIRING	1061#28 7X280-PHR-PHR-F	1
	5100005700	DIN PEDAL CABLE		1
SCREWS				
	40237101	SCREW M3X8	PAN MACHINE W/SW+SMALL PW BZC	20
	40782023	SCREW M4X40	PAN MACHINE W/SW ZC	6
	40675701	SCREW 3.5X16	BINDING TAPPING A FE BZC	4
	40010245	SCREW 3X6	MACHINE BINDING BZC	9
	40011056	SCREW 3X6	BINDING TAPTITE B ZC	1
	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	29
	5100009190	SCREW 3X10	FLAT TAPPING A FE BZC	5
	40010789	SCREW 3X10	BINDING TAPPING A FE BZC	1
	40010645	SCREW 4X8	TRUSS TAPPING A FE BZC	54
	40011123	SCREW 4X8	BINDING TAPTITE B FE BZC	2
	40127545	SCREW 4X10	TRUSS TAPPING A FE BZC	6
	40010656	SCREW 4X12	TRUSS TAPPING A FE BZC	9
	40012501	SCREW 4X12	BINDING TAPTITE P FE BZC	10
	40012145	SCREW 4X14	TRUSS TAPPING A FE BZC	36
#	5100047746	SCREW 4X14	BINDING TAPTITE P BZC	8
	40564767	SCREW 4X20	VWH TAPTITE B W12.5 BZC	23
	40567034	SCREW 4X20	BINDING TAPTITE P BZC	2
	40563345	SCREW H4X25X17	TAPTITE P W BZC W=12.5	5
	40783356	JACK NUT	M12 T2 //14 ZC	1
	5100035970	STANDOFF	M3-L5.5-H14.5	4
	40011989	WASHER 4X10X0.8	FE BZC	13
	40569512	WASHER T1X3.2X6		2
MISCELLANEOUS				
	5100006011	CP-3 DIN PEDAL UNIT (F-110)		1
#	5100046656	DISPLAY COVER		1
	04781901	FELT		6
#	5100047118	FOOT		4
	12199584	GROUNDING TERMINAL	M1698	12
#	5100047120	GUIDE PIN		2
	5100006370	HINGE	NSB25529	6
	03012323	KEY FELT		1
#	5100047130	LED ISOLATOR		1
#	5100047126	LID BLIND CUSHION		2
#	5100046655	LID GUIDE BUSH		2
#	5100046647	LID GUIDE L		1

for CB

MISCELLANEOUS

#	5100046649	LID GUIDE L		for WH	1
#	5100046648	LID GUIDE R		for CB	1
#	5100046650	LID GUIDE R		for WH	1
#	5100046651	LID SPACER			2
#	5100047119	LID SPRING			2
#	5100047129	LID STAY CUSHION			2
	5100027814	LOCKING CABLE	TIE CV-100V0K		21
	40016545	LOCKING TOOL FOR INSU- LOK TIE	SKM-1		1
#	5100048444	SPRING CUSHION			2
#	5100047127	TACT SW CUSHION L			1
#	5100047128	TACT SW CUSHION R			1
#	5100047131	TACT SW CUSHION Y			1
	40017378	COATING CLIP	CS-7		2
	40677478	LOCKING TOOL FOR INSU- LOK TIE	SKM-2		2
	40018790	VINYL TIE	120M/M BLK		1
	40122556	DOUBLE FACED ADHESIVE TAPE	#575X W30MM 30M 10P 30CM		-
	5100021076	DOUBLE SIDED ADHESIVE TAPE	NITTO #5000NS W5MM		-
	40122434	DOUBLE-FACED TAPE	#500 W7MM 20M 30P		-
	40232123	ACETATE TAPE	NITTO #5 BLACK W20MM 30M 20P		-
	40122789	ACETATE TAPE	NITTO #156A W15MM 30M		-
	17049543	GREASE FOR KEY	FLOIL G-336A WHITE (93 GRAM)		-
	17041858	GREASE FOR KEY	MOLYKOTE G-1039 (50 GRAM)		-
	40122445	ADHESIVE CEMEDINE SU- PER-X	NO.8008 170G/135ML		-

ACCESSORIES (Standard)

#	5100047264	OWNER'S MANUAL	MULTILANGUAGE		1
#	5100047263	OWNER'S MANUAL	JAPANESE		1
	04236112	AC ADAPTOR	PSB-7U(S)DC WITHOUT AC CORD		1
△	01903334	AC CORD SET PSE	100V 1.0M FOR PSB	for 100V	1
△	02562456	AC CORD SET	120V 1.0M (NON POLAR)	for 117VU, 117VU/CS	1
△	5100012293	AC CORD SET	117VBL 1.0M FOR PSB	for 117VBL	1
△	5100019558	AC CORD SET	220V CCC SP505A-IS037 1.0M	for 220VCN	1
△	5100039367	AC CORD	SP021A+IS037 220VK 2.5M 2P	for 230VK	1
△	5100018086	AC CORD SET	230VE 1.0M FOR EPS	for 230VE	1
△	01903356	AC CORD SET	230V 1.0M FOR PSB	for 230VEU	1
△	5100033404	AC CORD SET	240V SP501-IS037 PSB 1.0M	for 240VA	1
#	5100046681	STAND HOLDER L			1
#	5100046682	STAND HOLDER R			1
	5100021794	STAND HOLDER L			1
	5100021795	STAND HOLDER R			1
	03015001	CORD CLAMP	BLK		2
	5100028675	HEAD-PHONE	RH-25A (SERVICE ONLY)	only for Japan	1
#	5100046646	PHONES HOOK			1
#	5100047673	STAND HOLDER CUSHION			4
	5100015690	SCREW M6X18	ORIGINAL TRUSS TC BZC		6
	40679101	SCREW M5X20	TRUSS MACHINE FE BZC		6
	40012145	SCREW 4X14	TRUSS TAPPING A FE BZC		6
	40126267	SCREW M4X16	PAN MACHINE W/SW+PW FE BZC		2

Data Backup and Restore Operations

Status of User Data after Various Operations

	Parameters Stored by Memory Backup (Owner's Manual, p. 2, 8, 11 and 12)	Parameters Stored Immediately after Changing (Owner's Manual, p. 12 and 13)	Songs Saved in Built-in Memory (Owner's Manual, p. 6)
Function-mode factory reset (Refer to p. 33)	Deleted (returned to factory defaults)	Deleted (returned to factory defaults)	Deleted
Test-mode factory reset (Refer to p. 35.)	Deleted (returned to factory defaults)	Deleted (returned to factory defaults)	Deleted
System update (Refer to p. 34.)	Retained	Retained	Retained
Backup Method	None (Note down on paper.*1)	None (Note down on paper.*1)	None (*2)

*1 Follow the procedure described at the referenced locations of the owner's manual and make a written note of the settings.

*2 No method exists for backing up the user's song data. Operations such as replacing the Main Board or executing a factory reset cause the song data to be lost.


A List of Parameters Stored by Memory Backup

Setting Items	Owner's Manual
Ambience	p. 2
Brilliance	p. 2
Split Point	p. 2
Song Balance	p. 8
Dual Balance	p. 8
Split Balance	p. 8
Key touch	p. 11
Twin Piano mode	p. 11
Transpose Mode	p. 11
Headphones 3D Ambience	p. 11
Master Tuning	p. 11
Stretch Tuning	p. 11
Leading Bass (Bass Inversion)	p. 12
Chord Recognition When Split Is On	p. 12
Bluetooth Function	p. 12
Bluetooth Page-Turning/MIDI Switching	p. 12
Bluetooth Page-Turning Pedal Assignment	p. 12

A List of Parameters Stored Immediately after Changing

Setting Items	Owner's Manual
Auto Off	p. 12
Volume Limit	p. 13

Verifying the Version

- Hold down **-** and **+** and press  to turn on the power. The version appears on the 7-segment LED display.
 - Press **+** or **-** to switch the version to display.
- * At this time, the following buttons light up corresponding to respective versions.

Version	Button
System Program	Split
BLE	Piano
Keyboard CPU	Other




- Turn off the power.

Performing a Factory Reset

* Executing a factory reset resets all settings to their factory-default values and erases all songs recorded in the internal memory. Also, these data cannot be backed up.

- Hold down **Metronome** and **Split** and turn on the power. Continue to hold down the buttons until the message **Sur** appears on the 7-segment LED display.



- To execute the factory reset, press  / . To cancel the operation, press . When the factory reset finishes, the message **End** appears on the 7-segment LED display.



* Never turn off the power until the message **End** appears on the 7-segment LED display.

- Turn off the power.

Updating the System

Items Required

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

Procedure

1. Connect the USB memory device to the computer and copy the entire folder that is the update file (**R067_F140R**) to the root directory of the USB memory device.
2. While the power to the unit is turned off, insert the USB memory device into the **USB MEMORY** connector.
3. Hold down **Metronome** and turn on the power. Continue to hold down the buttons until the message **UPd** appears on the 7-segment LED display.

When the message **End** appears on the 7-segment LED display, the update has finished.


4. Turn off the power and disconnect the USB memory device.

Test Mode


Items Required

- USB memory device (supports high speed, recommended: M-UF2G)
- USB cable
- Headphones (miniature stereo phone plug and 1/4-inch stereo phone plug)
- Amp-equipped monitor speaker
- Audio cable (Stereo miniature phone plug <-> 1/4-inch monaural phone plug x 2)
- Audio device or electronic musical instrument equipped with audio output jacks

Entering the Test Mode

Hold down **Split**, **Piano** and **Other** at the same time and press  . Continue to hold down the buttons until the version appears on the 7-segment LED display.

Quitting the Test Mode

Press and hold  .

Skipping Test Items

Holding down **Other** and pressing **Song** quits the current test item and advances operation to the next test item.

Holding down **Other** and pressing **Rhythm** quits the current test item and returns operation to the previous test item.

Test Items

1. **Version Check** (p. 34)
2. **Model Setting** (p. 34)
3. **Destination Setting** (p. 35)
4. **Factory Reset** (p. 35)
5. **DSP Test** (p. 35)
6. **Sound Test** (p. 35)
7. **Bluetooth Test** (p. 36)
8. **Button Check** (p. 36)
9. **Button/LED Check** (p. 36)
10. **USB check** (p. 36)
11. **Jacks Sense** (p. 36)
12. **Pedal Check** (p. 36)
13. **7-segment LED Check** (p. 37)
14. **Device Test** (p. 37)
15. **Verification of the Model, Destination and Version** (p. 37)
16. **Verification of the Power Off** (p. 37)

17. **Bluetooth Test** (p. 37)

* 17. **Bluetooth Test** is executed in the normal mode.

1. Version Check



The version appears on the 7-segment LED display.





Use **+** or **-** to cycle through the system program version, boot version, keyboard CPU version, BLE version, model, destination, builder, build number, boot build number, all LEDs lighting, and all LEDs flashing. Verify the version, model and destination.


Press **Metronome** to advance to the next test item.

2. Model Setting



Press the following buttons to make the setting for the model of the unit being tested.

Button	Model
Piano +  / 	F-140R-*
Other +  / 	F-140R-**L

* The correct model name for the unit being tested—whether the model name has **L** at the end of it or not—can be determined whether  next to the 7-segment LED flashes or not when the unit starts up in the normal mode.

Flashing (without **L**): has the Bluetooth function.

Not flashing (with **L**): does not have the Bluetooth function.

* A sign for color variation (**CB** or **WH**) is not displayed.

Press **Metronome** to advance to the next test item.

If changing the model setting is not necessary, hold down **Other** and press **Song**.

3. Destination Setting



Press one of the buttons shown in the chart below to set the destination of the unit being tested.

Button	Destination
Piano + ▶/■	This sets the destination to outside Japan.
Other + ▶/■	This sets the destination to Japan.



When the destination has been set and press **Metronome**, the following test item (**4. Factory Reset** (p. 35)) is executed automatically.

If changing the destination setting is not necessary, hold down **Other** and press **Song**.

4. Factory Reset



When the destination has been set, this item is executed automatically.

* Executing a factory reset returns the parameters saved by the Memory Backup function to their factory defaults, and erases songs recorded in the internal memory.

A display like the one shown above appears and ▶/■ flashes.

To execute the factory reset, press ▶/■. Fct display flashes while the factory reset is in progress. 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 Other and press Song.

5. DSP Test



This tests the operations of the sound source. dsp display flashes while testing is in progress.

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

If an error occurs, **Err** is displayed, and the button corresponding to the location of the error flashes.

Piano	Checksum error of the internal RAM for the sound-source device
Other	Checksum error of the external RAM for the sound-source device

6. Sound Test



Buttons written in the following chart flash.

Connect the amp-equipped monitor speakers to the **Output** jack and connect the audio device or the digital instrument to the **Input** jack.

Pressing each button shown below makes the corresponding sound play, and releasing the button makes the sound stop and the button lights up.

* In this test, the volume level is set automatically and it cannot be adjusted by pressing the **Volume** buttons.

Button	Tone	Output Destination
Song	Piano (direct sound)	
Rhythm	Piano (reverb)	
Variation	Sine wave	L channel of Output jack L channel of PHONES jacks (x 2) L channel of speaker
Intro/Ending	Sine wave	R channel of Output jack R channel of PHONES jacks (x 2) R channel of speaker
▶/■	Sine wave	L/R channel of Output jack L/R channel of PHONES jacks (x 2) L/R channel of speaker
Split (Mute Check)	-	-

* Verify that the sine wave is free of audible distortion.

Input audio signal via the **Input** jack and verify that the sound is output from the internal speakers.

When all checks have finished, **Metronome** flashes.

Press **Metronome** to advance to the next test item.

7. Bluetooth Test

Skip this test item in servicing. (**Other + Song**)

8. Button Check

This tests the operation of switches with no LEDs.
 All LEDs light up at this time.
 Press buttons displayed on the 7-segment LED display.
 Sequence: **Volume -** -> **Volume +** -> -> +



When testing for all switches has finished, execution automatically advances to the next test item.

9. Button/LED Check

This tests the operation of switches with LEDs.
 The switches to be tested are indicated at random by flashing LED. Press the buttons according to the indication. The number of remaining switches is displayed on the 7-segment LED.

LEDs that light up red (8)



Song, Rhythm, Variation, Intro/Ending, Metronome, Split, Piano, Other

LEDs that light up green (x 2 at left side of the panel)



▶/■, **Metronome**

When testing for all switches and LEDs has finished, execution automatically advances to the next test item.

10. USB check

USB Connector Check



Using the USB cable, connect the **USB Computer** connector to the **USB MEMORY** connector.
 Verify that the display of the right digit changes from _ (disconnected) to 0 (connected).

USB Memory Device Test

Connect the USB memory device to the **USB MEMORY** connector.
 Verify that the display of the center digit changes from _ (disconnected) to 0 (connected).

* 0 does not appear if the USB memory device does not support the high speed. In such cases, a screen like the one shown below is displayed and execution does not advance to the next test item.



When the required checks have finished, execution automatically advances to the next test item.

11. Jacks Sense



Insert a plug in succession to each jack of **PHONES** (x 2).
 Verify that the display of the left digit changes from _ (disconnected) to 0 (connected) according to the state of the jack.

Press **Metronome** to advance to the next test item.

12. Pedal Check



The three digits of the 7-segment LED have the following meaning.

Digit	Corresponding Pedal
Left	Soft pedal check
Center	Sostenuto pedal check
Right	Damper pedal check

Depress each pedal slowly, then when it is fully depressed, slowly release it.
 Depending on the depth to which you depress the pedal, the 7-segment LED will change through the following states.

Change of the indication when depressing ->



<- Change of the indication when releasing



* Depressing pedals at two or more locations at the same time results in an error. If this happens, go back to the previous item (**Other + Rhythm**) and redo the operation.



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

13. 7-segment LED Check



The message **8.8.8** appears on the 7-segment LED display.

Pressing **▶/■** once makes **8** appear at the leftmost digit only.

Pressing the button repeatedly makes **8** appear next at the center, and then at the right.



Press **Metronome** to advance to the next test item.

14. Device Test



During checking, the message **dEv** lights up on the display. Wait without touching the keyboard or any buttons.

If no error occurs, **Metronome** flashes. Press the button to advance to the next test item.

If an error occurs, **Err** is displayed on the 7-segment LED display, and the button corresponding to the location of the error flashes.

Button	Error description
Piano	Program ROM check error
Other	Wave ROM check error

If more than one error occur, the corresponding multiple buttons flash.

15. Verification of the Model, Destination and Version

Verify that the model has been set correctly.



F-140R-**



F-140R-**L

Pressing **Metronome** changes the display of the Destination, Version, Boot version and Keyboard CPU version in sequence. Make sure each display is correct.

When the Keyboard CPU version is displayed, press **Metronome** to advance to the next test item.

16. Verification of the Power Off

A screen like the one shown below appears.



Press and hold **⏻**, and verify that the power to the unit is turned off.

The **⏻** LED goes off.

When the power is turned off, the testing in the Test Mode is completed.

The following tests are performed in the normal mode. Turn on the power.

17. Bluetooth Test

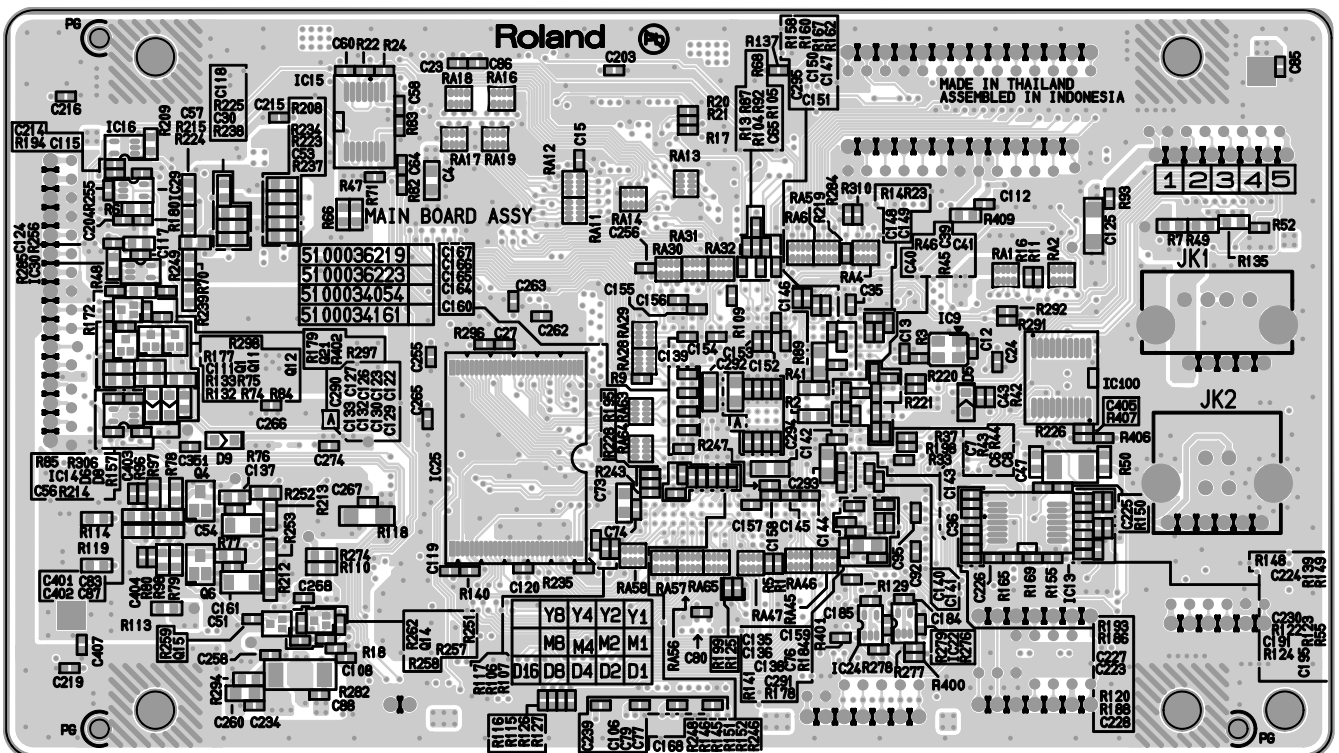
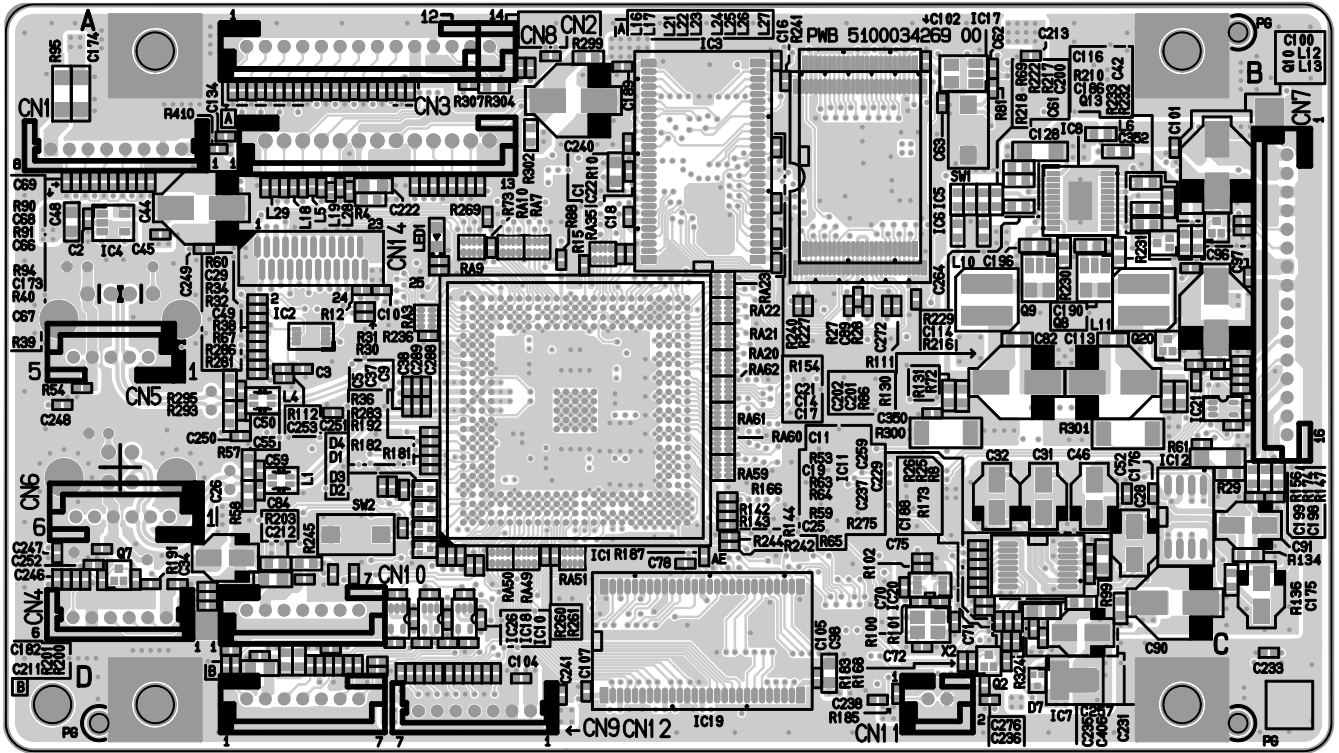
This tests the Bluetooth function.

When executing the procedure below, refer to "Using the Bluetooth Functionality" in owner's manual.

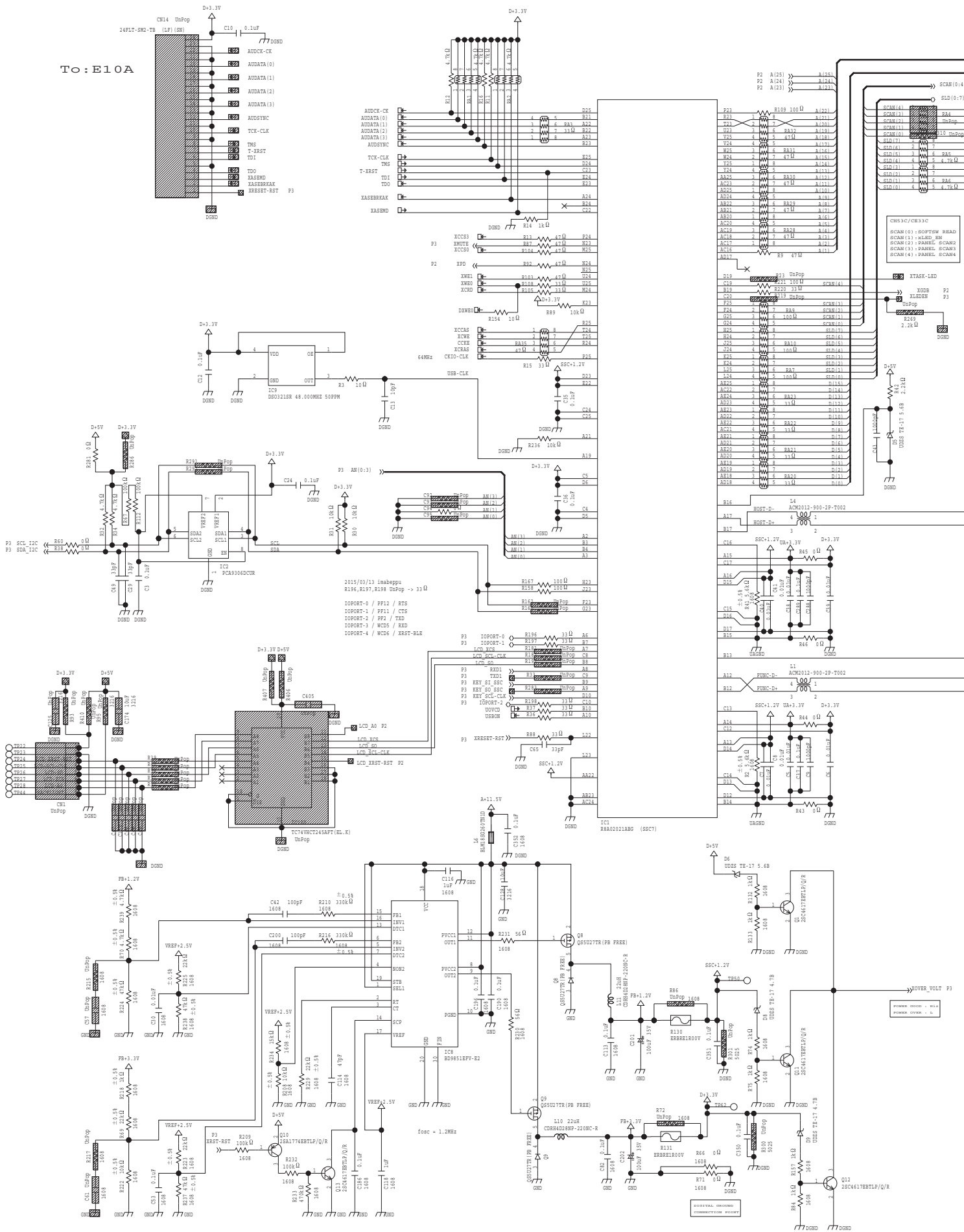
1. Pair the mobile device with Bluetooth function.
2. Install the Music Score Application or the software available MIDI data transmit and receive to the mobile device with Bluetooth function and verify that each application operates correctly.
3. Follow the procedure in **Performing a Factory Reset** (p. 33) to execute a factory reset.

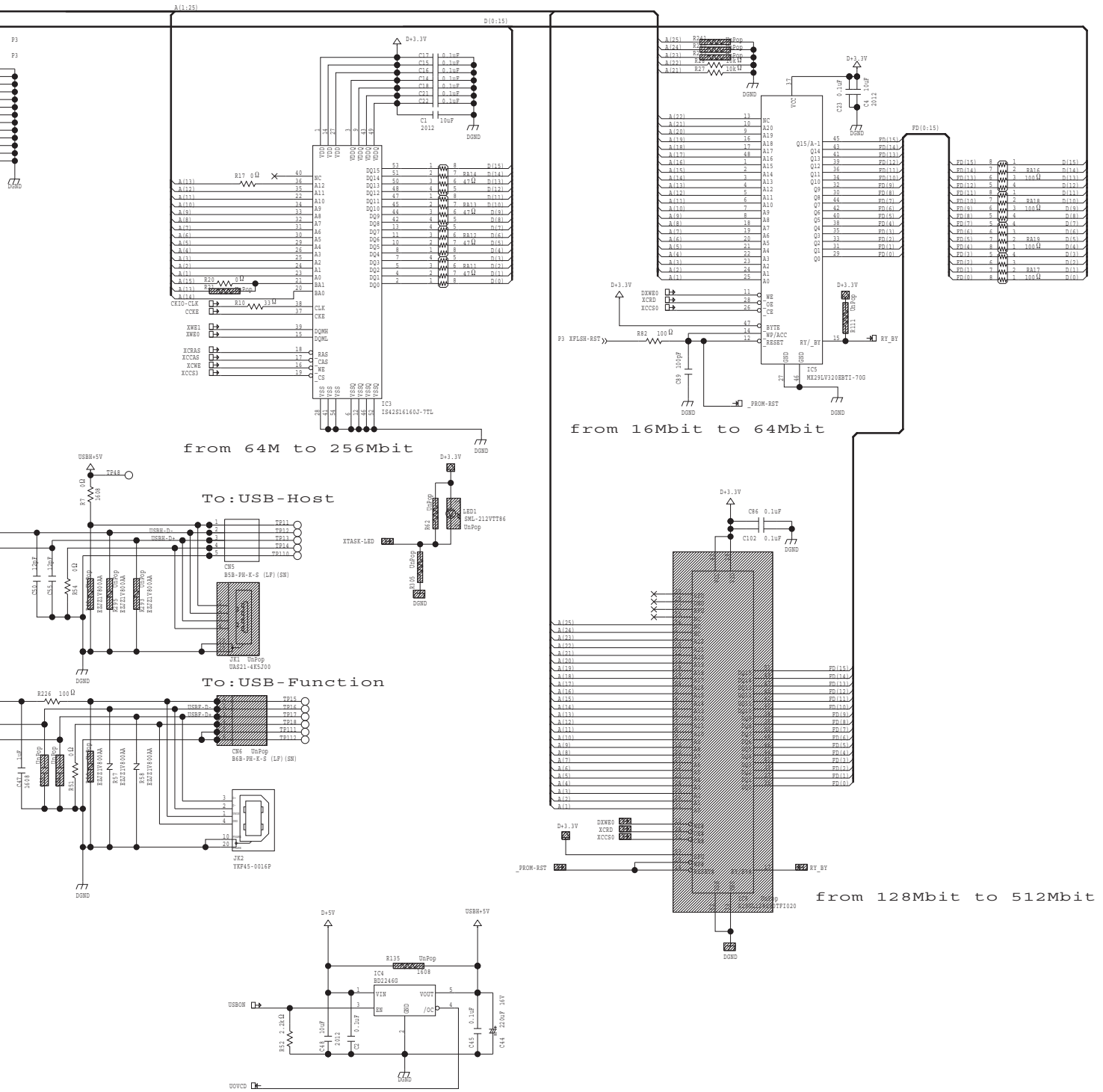
* *Executing the factory reset can erase the information of the Bluetooth device used for testing. However, the information of the Bluetooth device paired by the customer is also erased. When returning the product to the customer, request him/her to pair by himself/herself again.*

Circuit Board (Main Board)

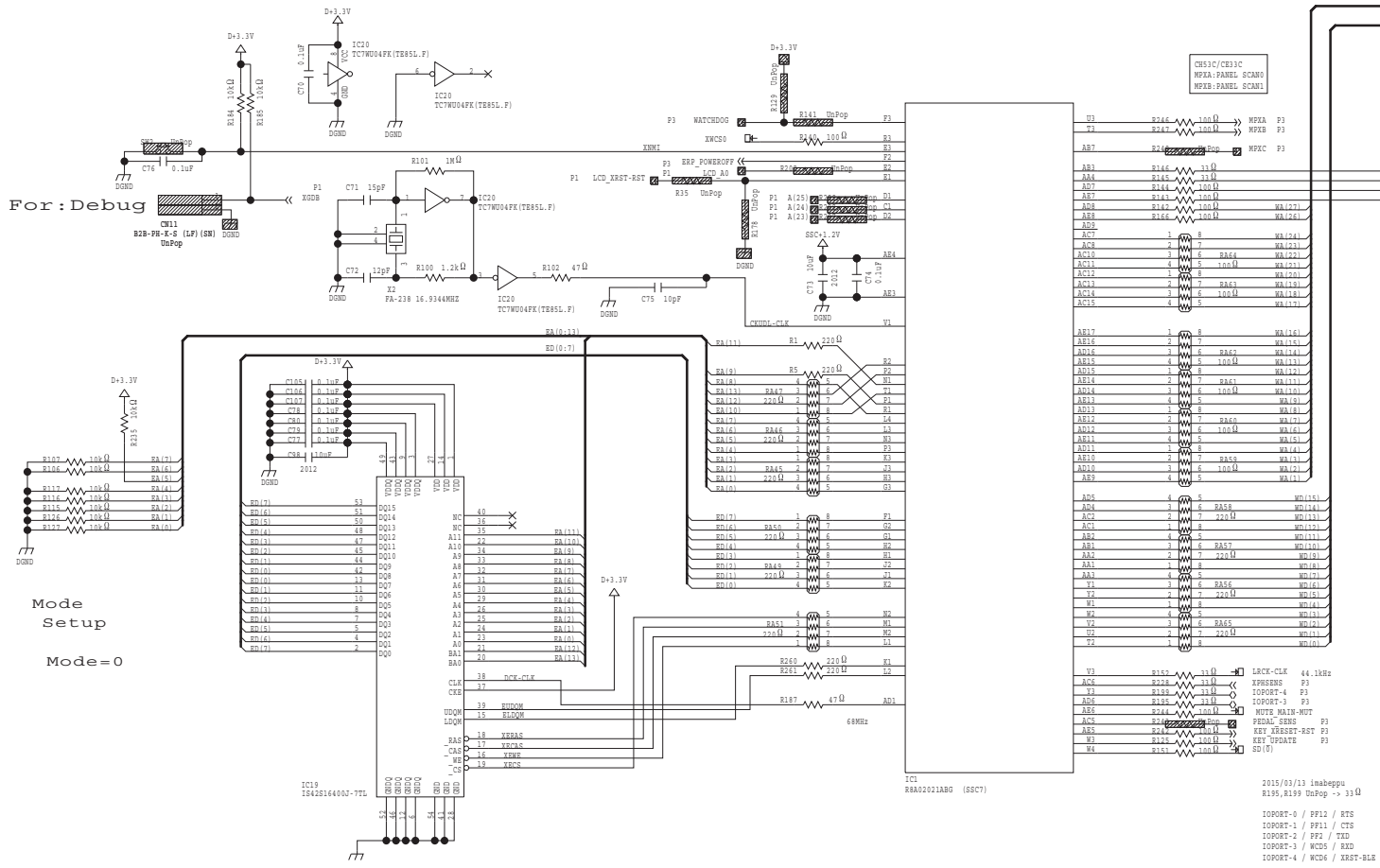


Circuit Diagram (Main Board: 1/3)

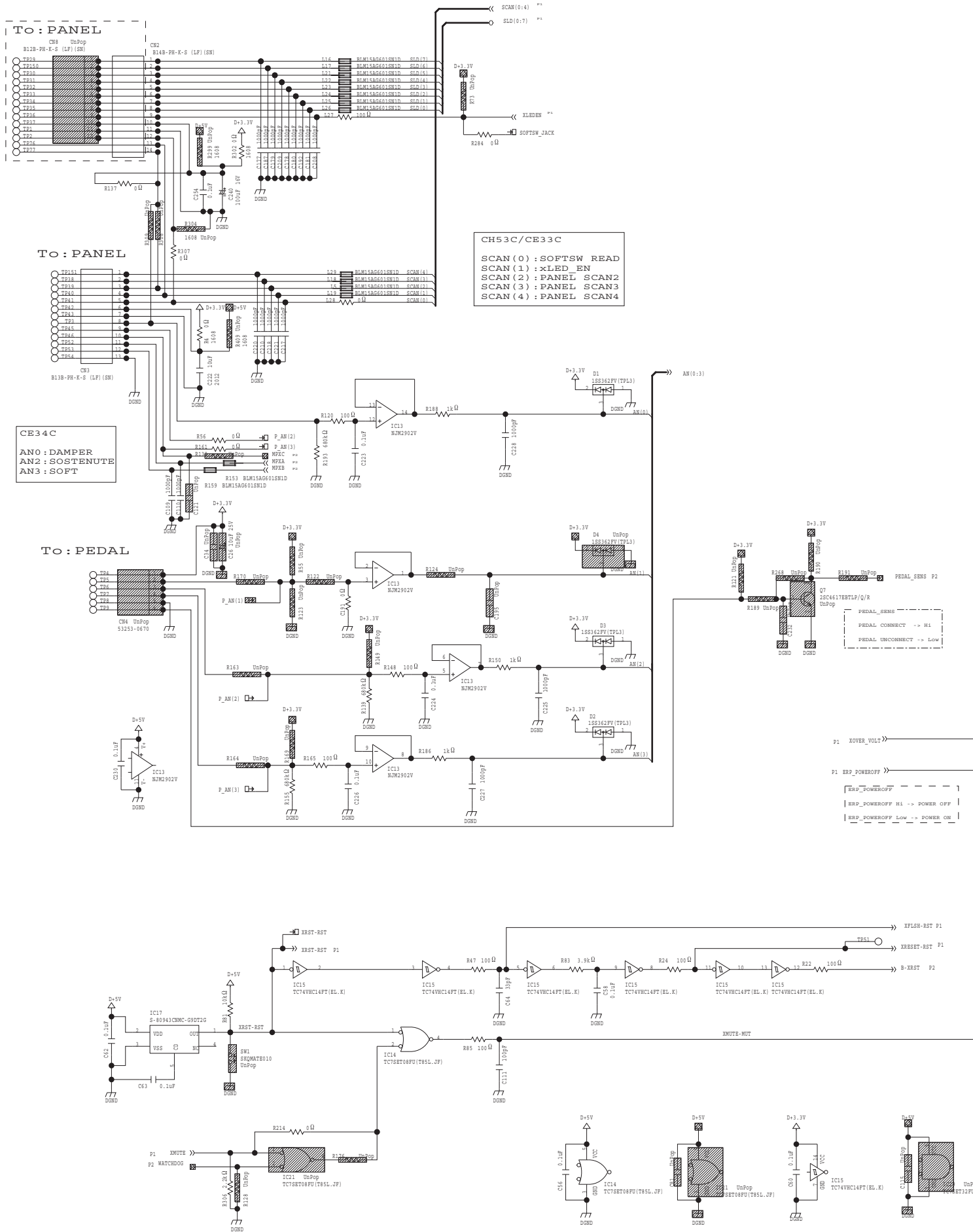


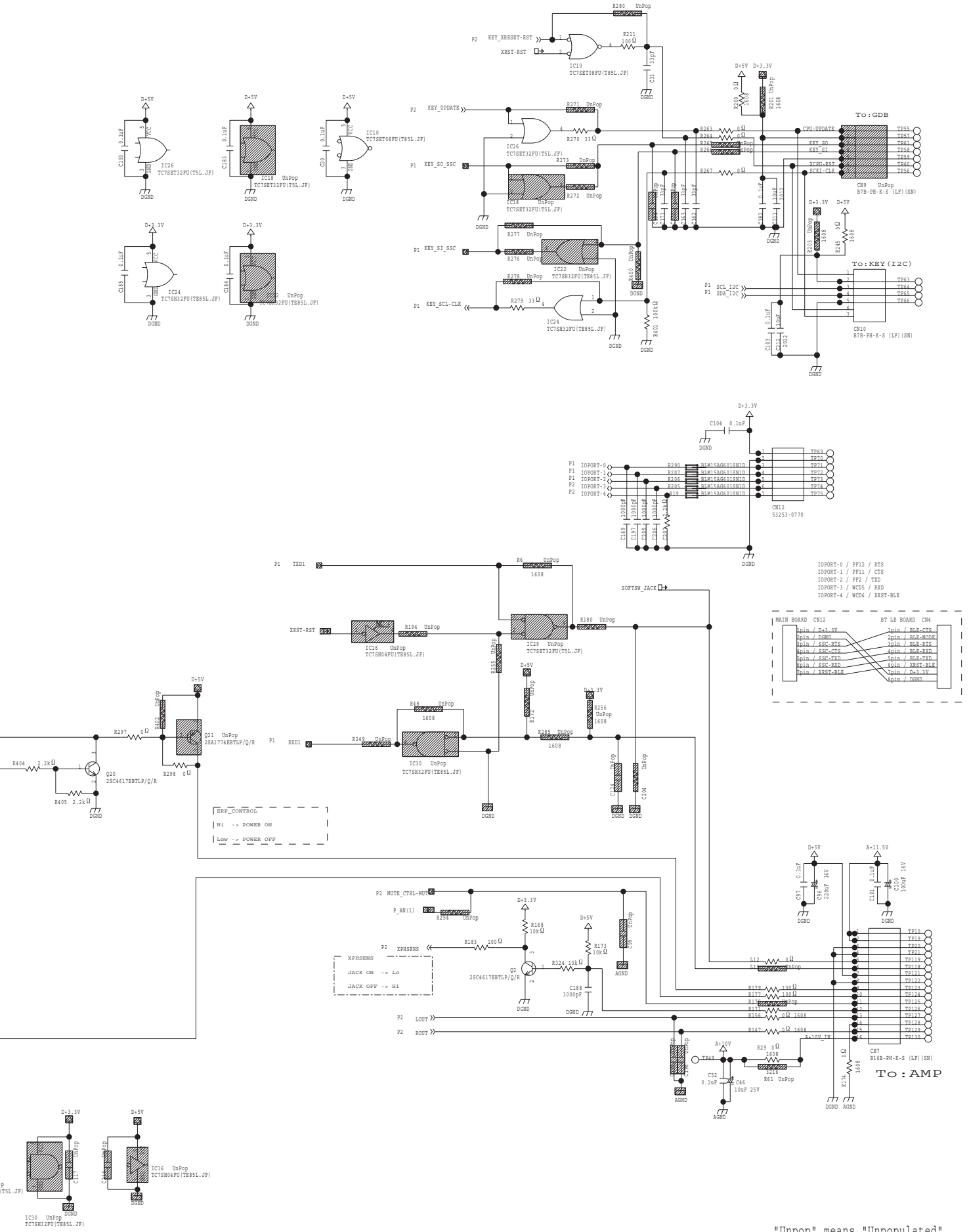


Circuit Diagram (Main Board: 2/3)



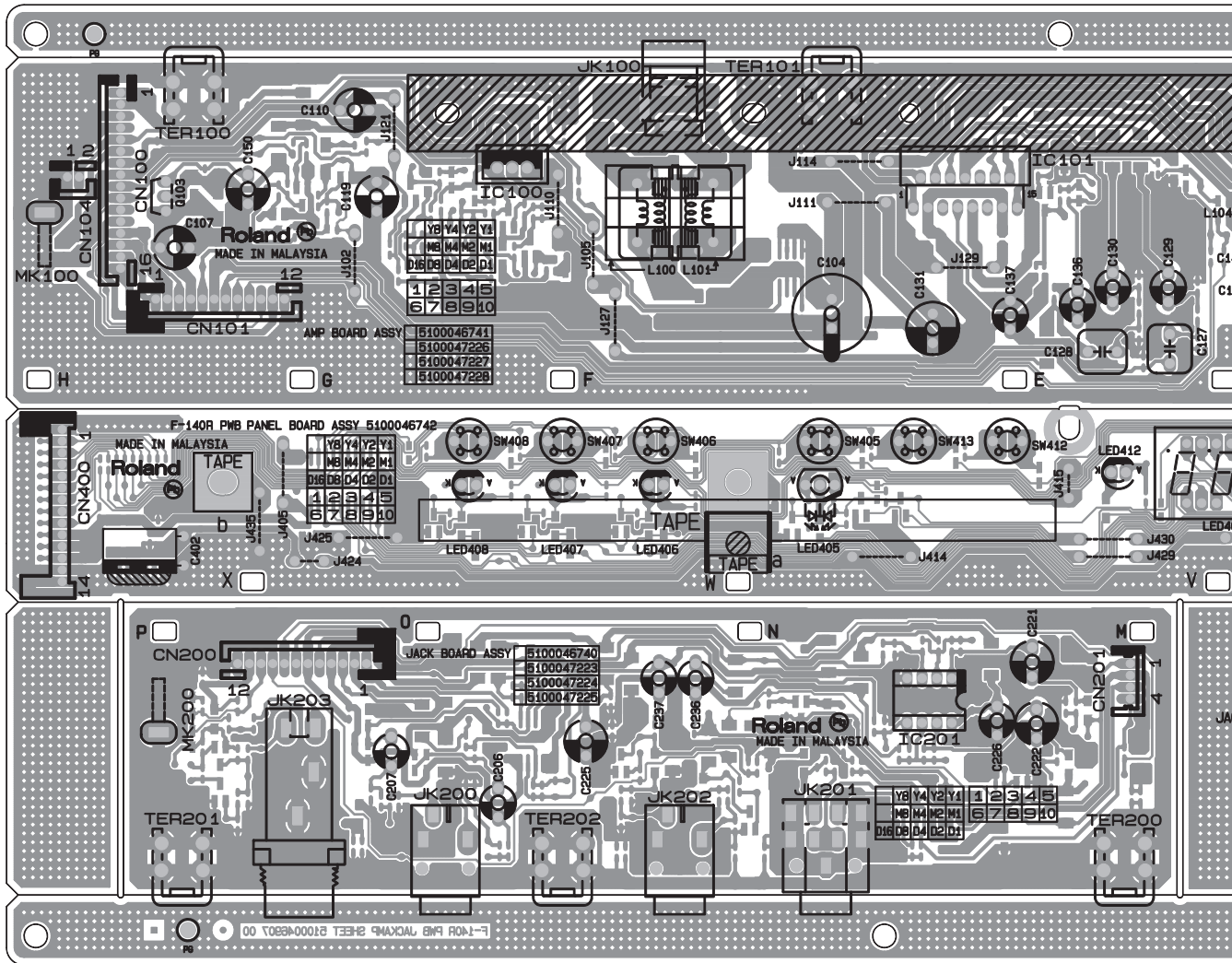
Circuit Diagram (Main Board: 3/3)

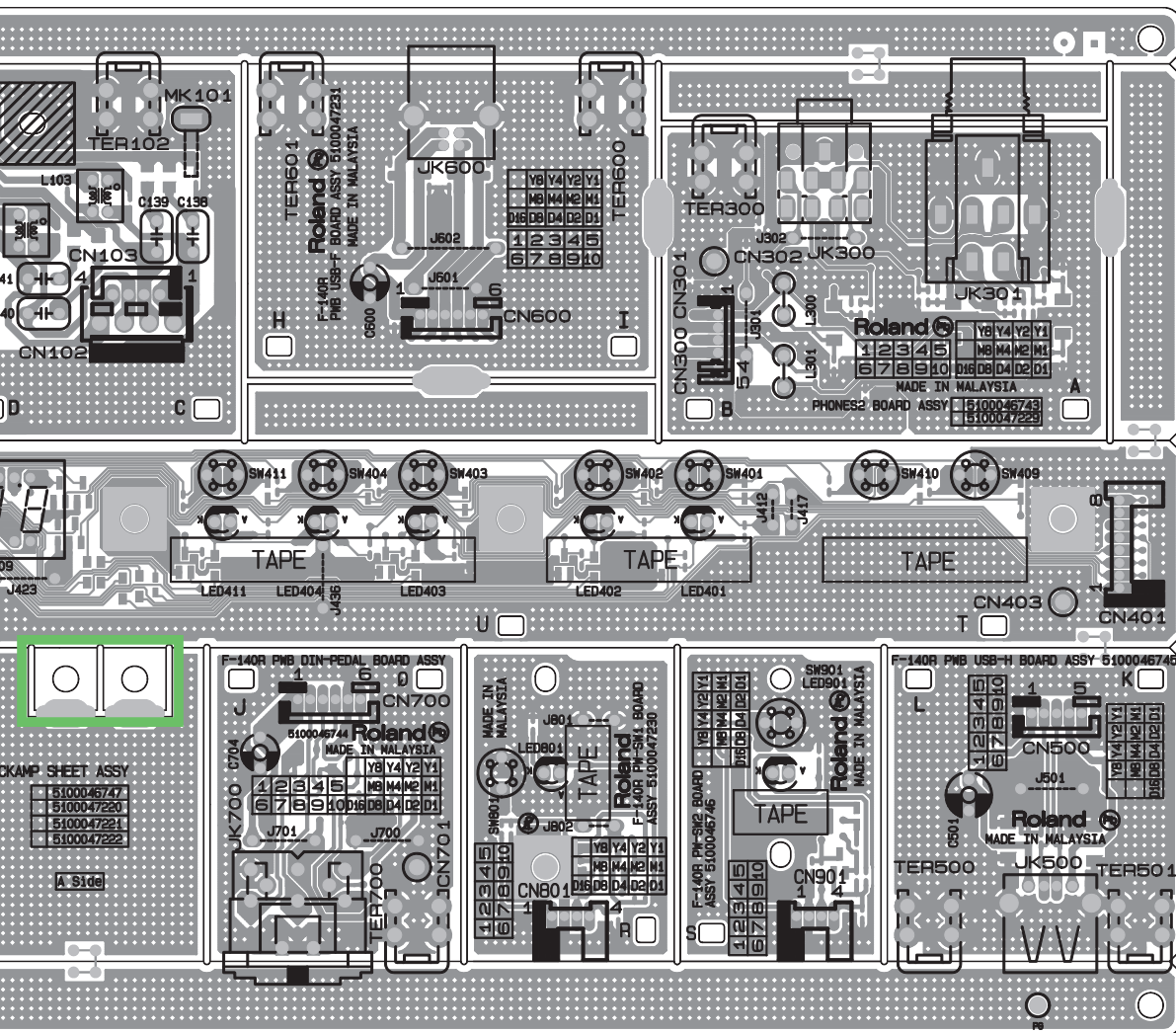




"Unpop" means "Unpopulated".

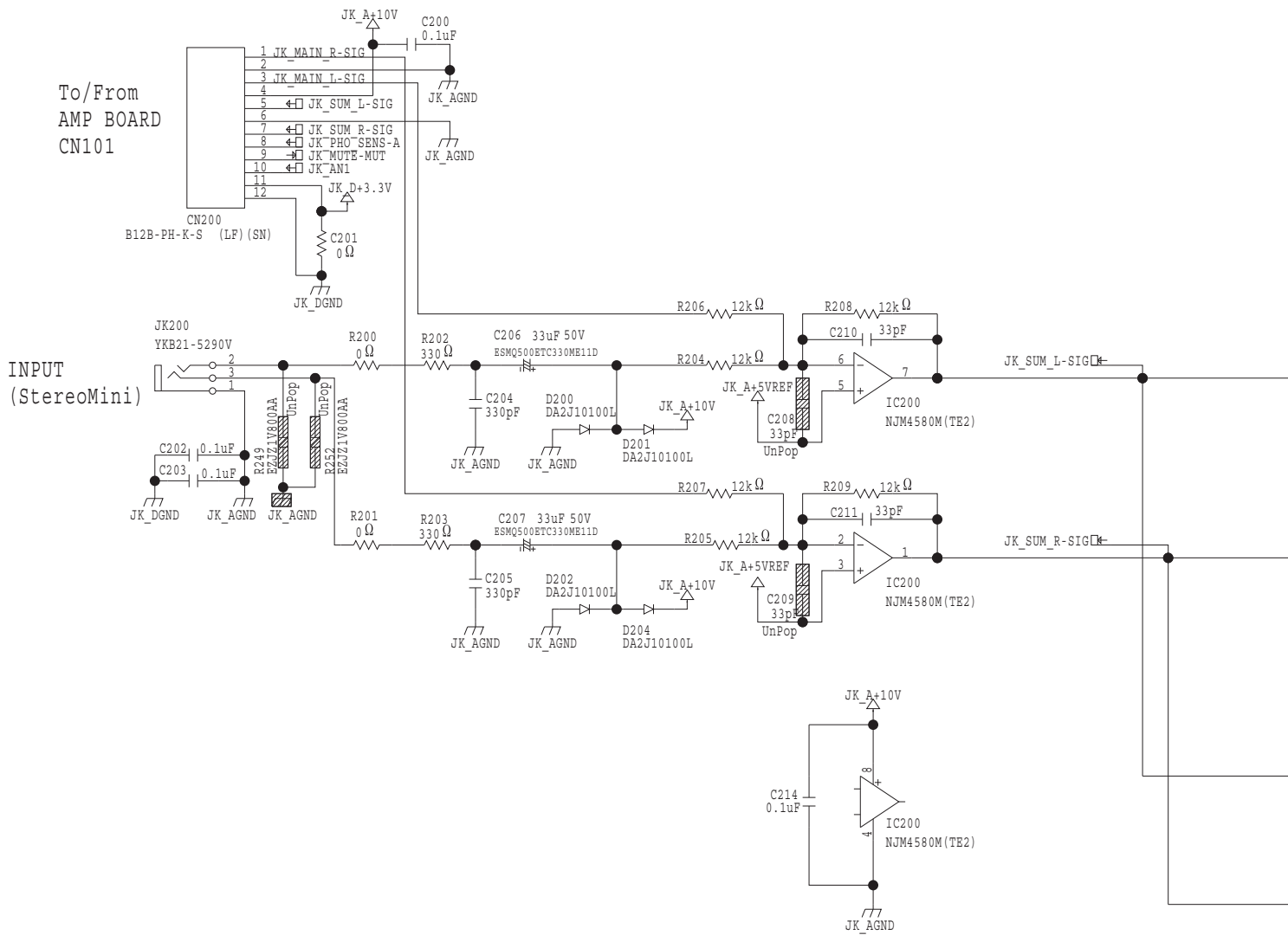
Circuit Board (Jack, Panel, Amp, Phones2, PW-SW2, DIN-Pedal, USB-H Board)



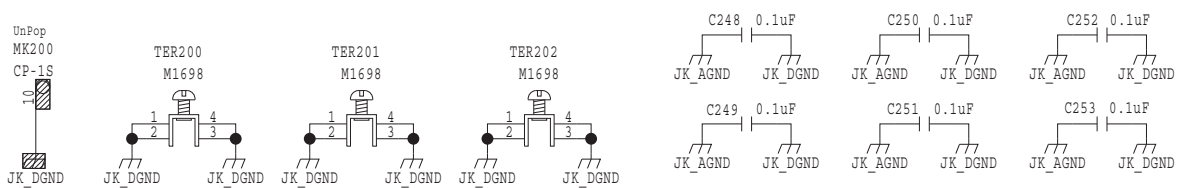


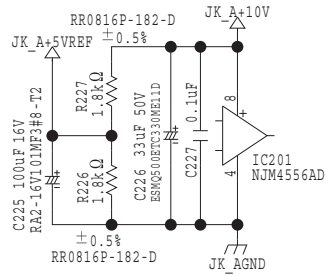
* Use the breakaway board in the green box as a circuit board spacer (**Exploded View (Fig.C)** (p. 16), 21).

Circuit Diagram (Jack Board)

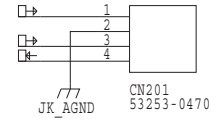


JK_AN1





JK_PHO_L-SIG
JK_PHO_R-SIG
JK_PHO_SENS-B



To/From
PHONES BOARD
CN301

PHONES1
(StereoMini)

JK201 UnPop
YKB21-5344N

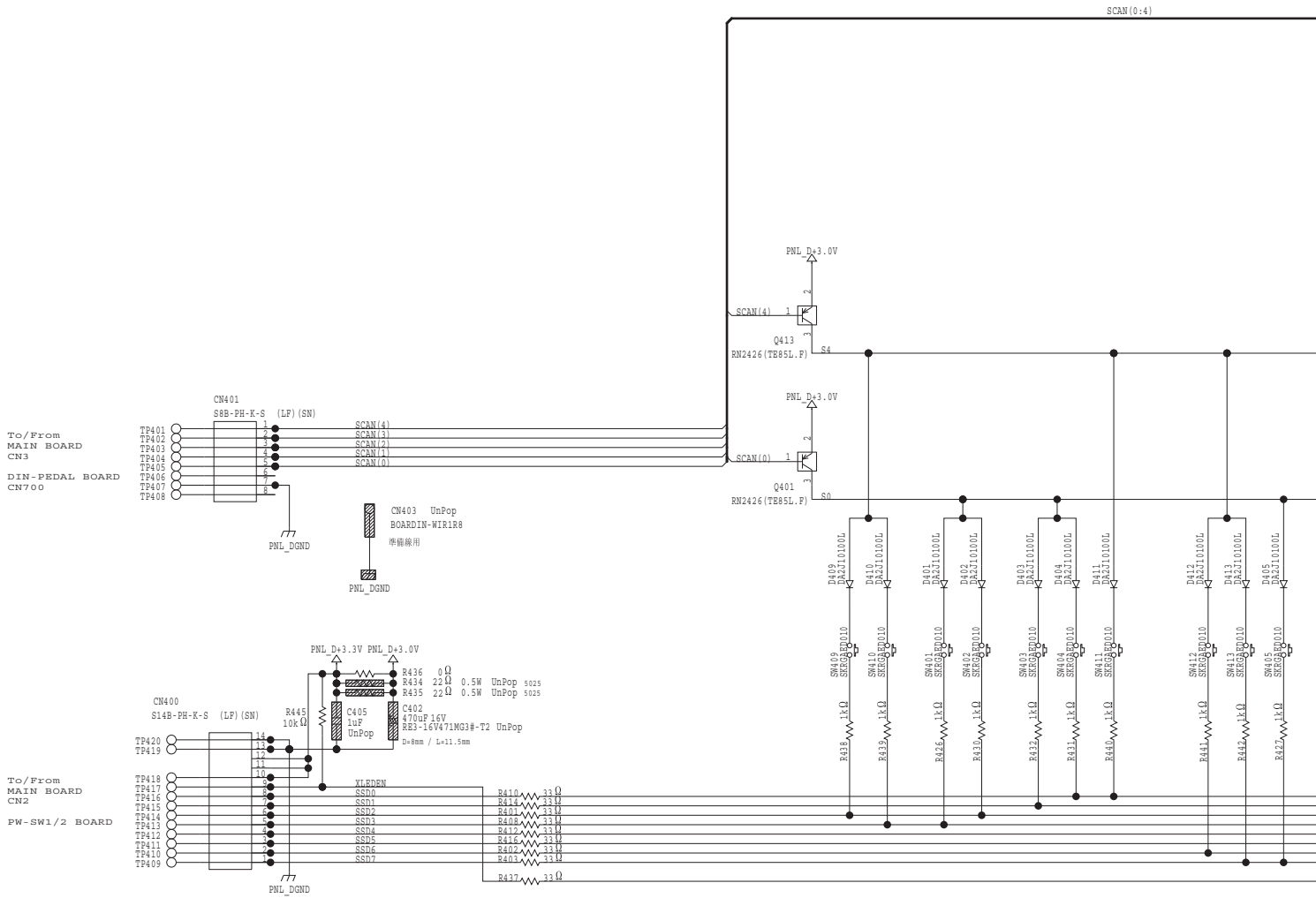
OUTPUT
(StereoMini)

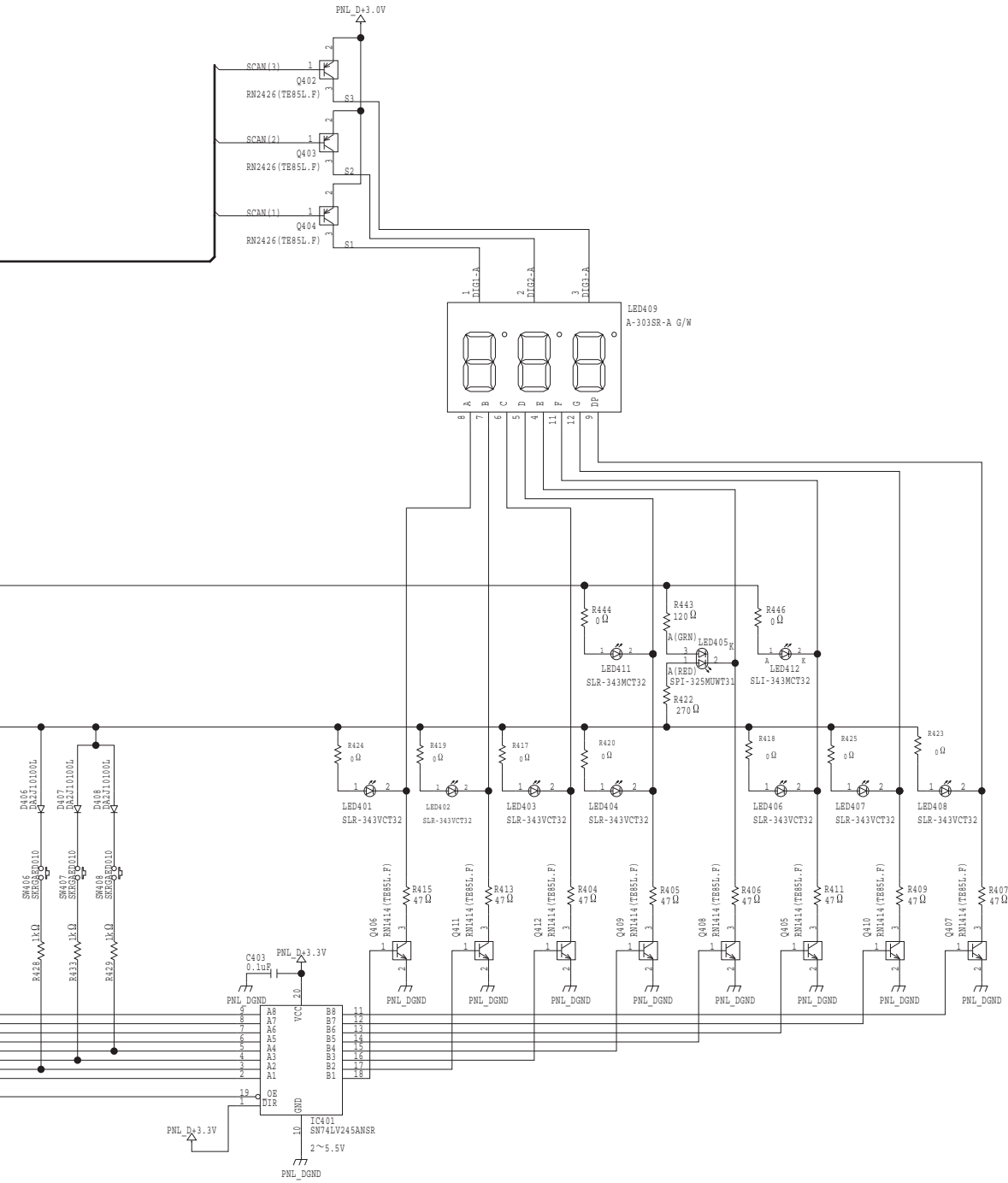
JK202 UnPop
YKB21-5290V

DAMPER PEDAL
(PHONE)

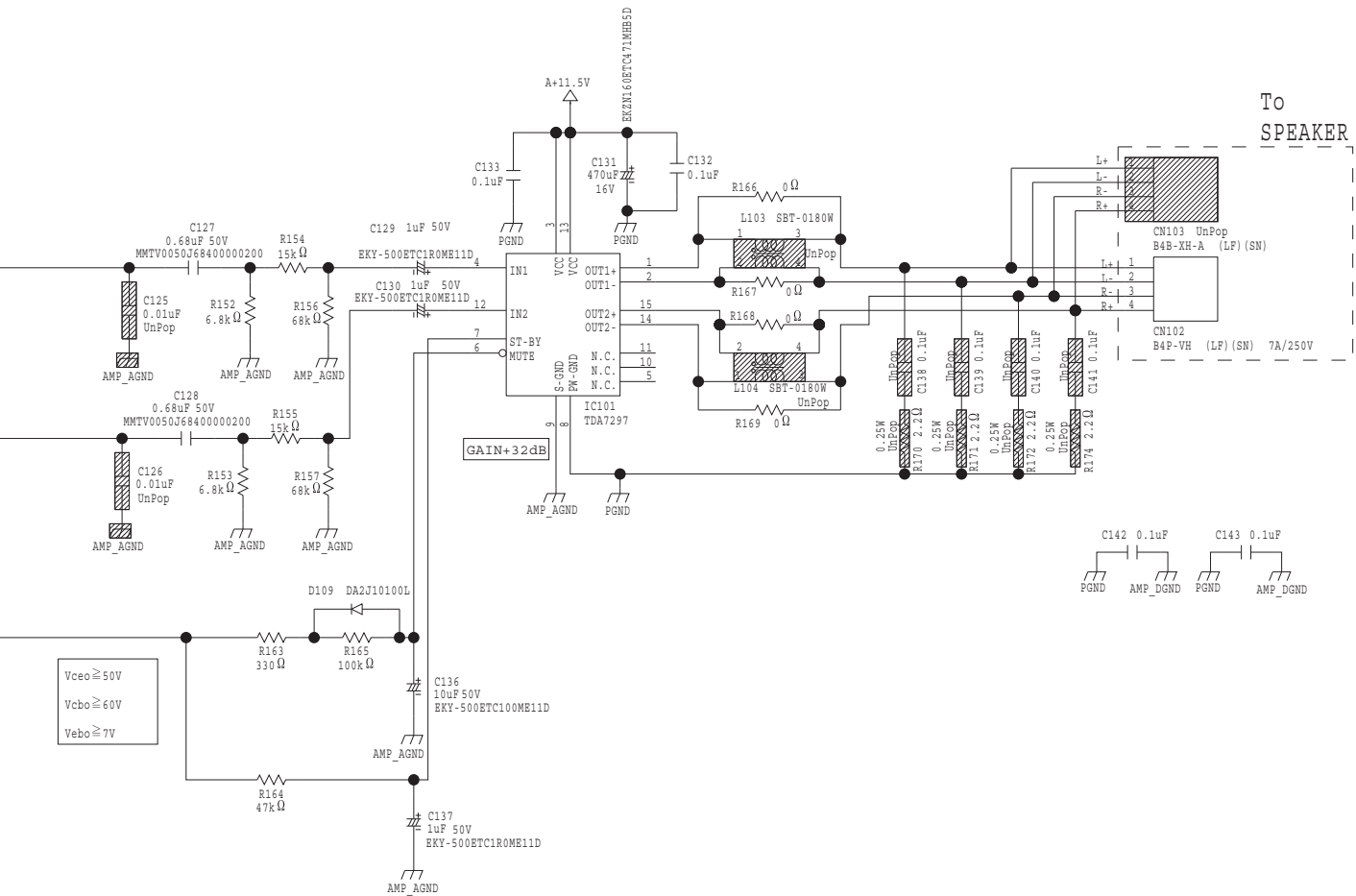
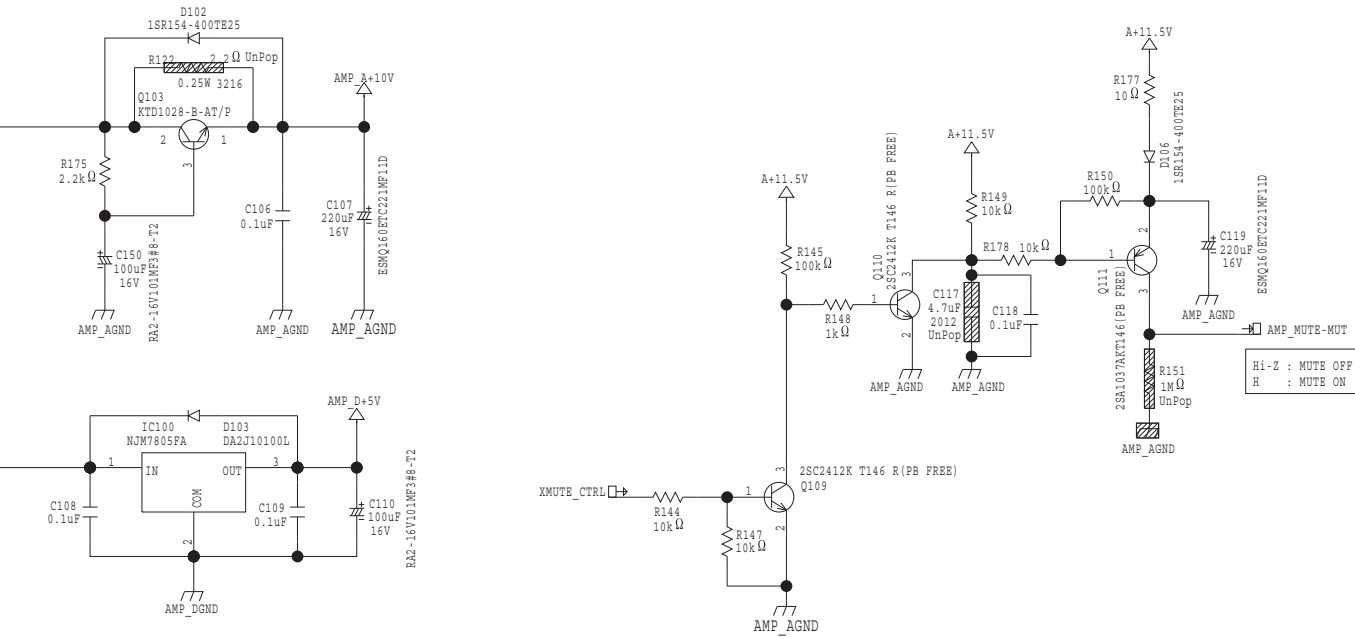
"UnPop" means "Unpopulated".

Circuit Diagram (Panel Board)



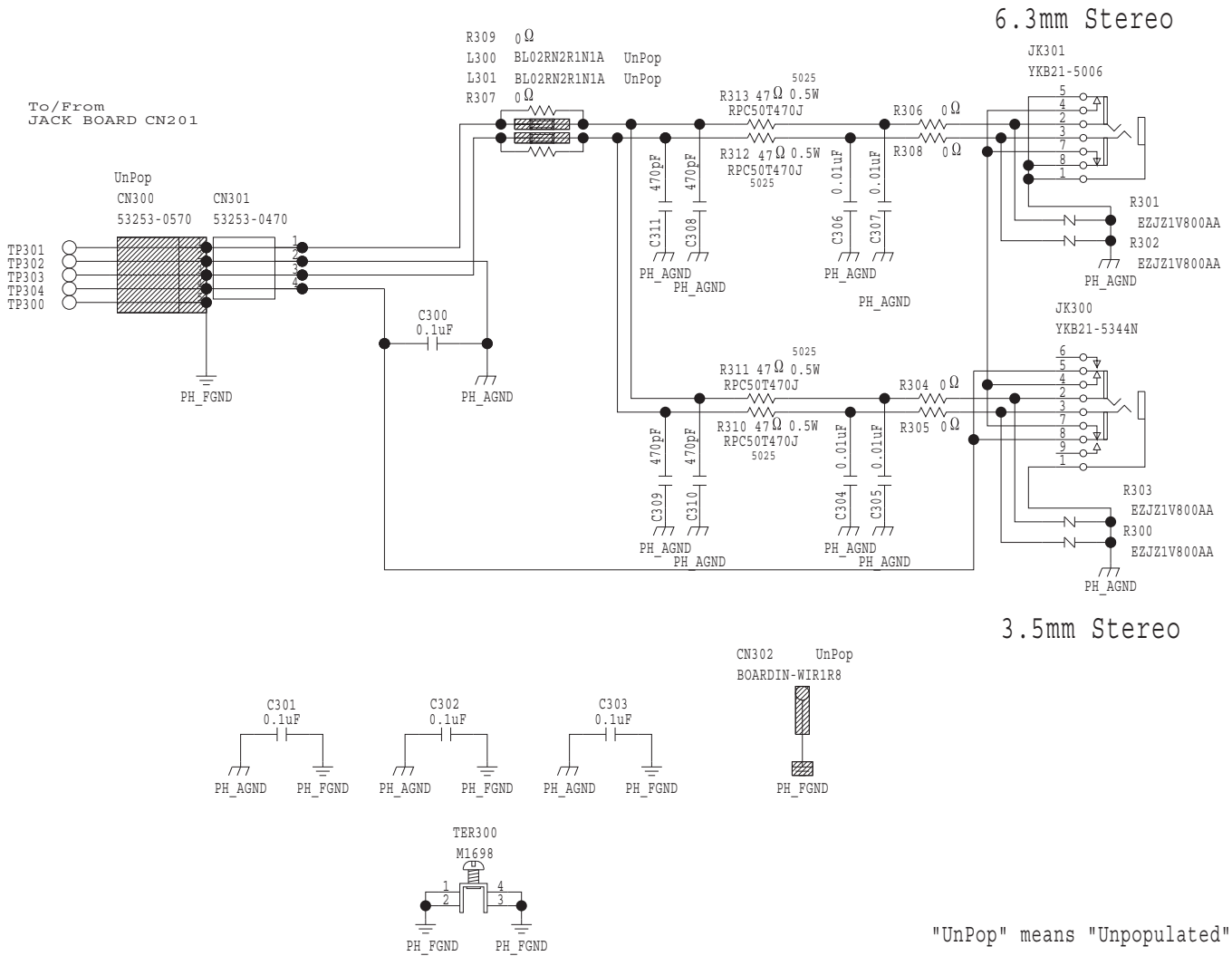


"UnPop" means "Unpopulated".

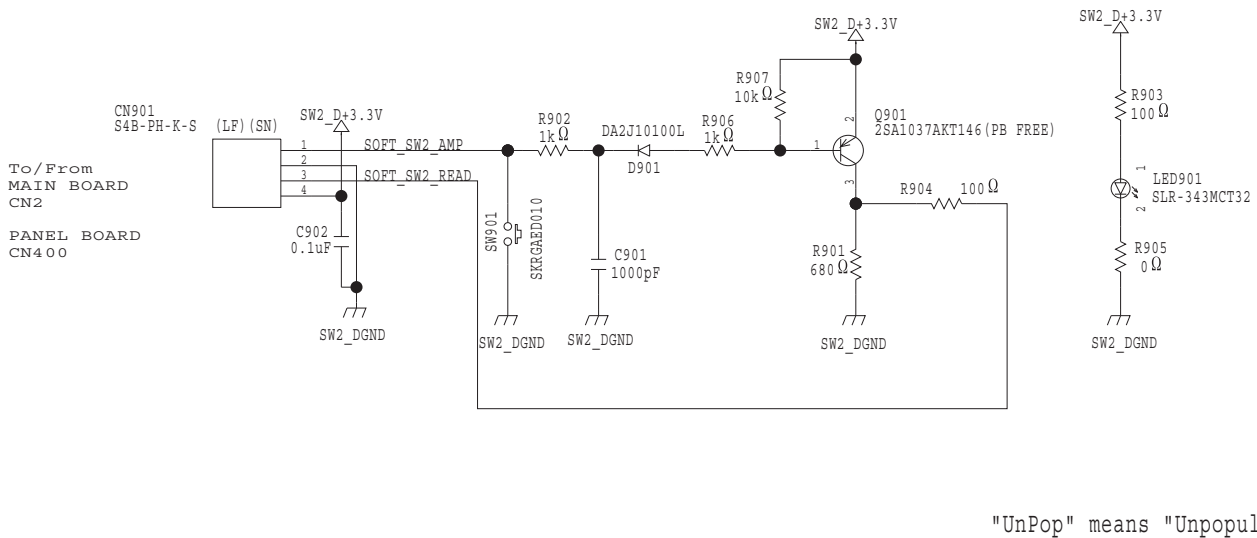


"UnPop" means "Unpopulated".

Circuit Diagram (Phones2 Board)



Circuit Diagram (PW-SW2 Board)



Circuit Board (BT LE Board)

