Roland Digital Piano RP102-BK/BKL

SERVICE NOTES *Issued by RJA*



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17057134E0 CC-KWS

Table of Contents

Cautionary Notes	2
Specifications	3
Contents of the Unit and Stand	
Location of Controls	
Location of Controls Parts List	
Exploded View (Total)	
Exploded View (Fig. A)	
Exploded View (Fig. A) Parts List	
Plain View (Fig. A) (1)	
Plain View (Fig. A) (1) Parts List	11
Plain View (Fig. A) (2)	12
Plain View (Fig. A) (2) Parts List	12
Exploded View (Fig. B)	13
Exploded View (Fig. B) Parts List	
Plain View (Fig. B)	
Plain View (Fig. B) Parts List	14
Exploded View (Fig. C)	15
Exploded View (Fig. C) Parts List	15
Exploded View (Fig. D)	16
Exploded View (Fig. D) Parts List	16
Exploded View (Fig. E)	17
Exploded View (Fig. E) Parts List	
Exploded View (Fig. F)	
Exploded View (Fig. F) Parts List	
Exploded View (Fig. G)	
Exploded View (Fig. G) Parts List	19
Plain View (Fig. G) (1)	
Plain View (Fig. G) (1) Parts List	20
Plain View (Fig. G) (2)	21
Plain View (Fig. G) (2) Parts List	21
Wiring Diagram/Block Diagram	22
Keyboard Parts List (PX-7C)	24
Disassembly Procedure	25
Greasing Point	
Parts List	
Notation of Buttons and LEDs	32
Verifying the Version	32
Data Backup and Restore Operations	32
Performing a Factory Reset	33
Updating the System	
Test Mode	
Circuit Board (Panel, DIN-Pedal, Phones Board)	37
Circuit Diagram (Panel Board)	38
Circuit Diagram (DIN-Pedal Board)	
Circuit Diagram (Phones Board)	42

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. 32) 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.
- $\bullet \quad \mbox{Because}$ 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.

There are cases that the circuit diagrams are omitted. This omission will happen to the highly integrated digital circuit boards (e.g. Main Board etc) that are virtually impossible to repair nor analyze.

Roland Japan Warranty

Please send the problem report with followings when the defect occurred within one year from production and within one month from the first customer's purchase.

- Model name:
- Serial number:
- Version:
- Purchase date by the first customer: yyyy/mm/dd
- Symptom:
- Frequency: always, sometimes or seldom
- Confirmed the symptom at your service dept: Yes/No

Please send the problem report to rjasc@roland.co.jp.

Specifications

Roland RP102: 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

Twin Piano

Pedals

Damper (Pedal switch, capable of halfpedal detection)

Soft (Pedal switch)

Sostenuto (Pedal switch)

Sound Generator

Piano Sound

SuperNATURAL Piano Sound

Max. Polyphony

128 voices

Tones

Piano: 4 tones Other: 11 tones

Stretched Tuning

1 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

Volume

100 levels

Internal Memory

Internal Songs

Listening: 9 songs

Piano Masterpieces: 40 songs

Easy Piano: 8 songs

Czerny: 100 songs

Hanon: 20 songs

Scale: 36 songs

Bluetooth

MIDI, Turning music sheet

Bluetooth Ver 4.0

Other

Keyboard Lid

Slide type

Other Functions

Auto Off

Connectors

DC In jack

USB COMPUTER port: USB Type B

Update port: USB Type A

Phones jacks (usable as output jack) x 2: Stereo miniature phone type, Stereo 1/4-inch phone type

Rated Power Output

6 W x 2

Volume Level (SPL)

99 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

Controls

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

Power Supply

AC adaptor

Power Consumption

4 W (3-10 W)

 $4\,W\!:$ Average power consumption while piano is played with volume at center position

 $3\ W\!:$ Power consumption immediately after power-up; nothing being played $10\ W\!:$ Rated power consumption

Dimensions (including piano stand)

With Music Rest:

1,379 (W) x 413 (D) x 977 (H) mm

54-5/16 (W) x 16-5/16 (D) x 38-1/2 (H) inches

Without Music Rest:

1,379 (W) x 423 (D) x 817 (H) mm

54-5/16 (W) x 16-11/16 (D) x 32-3/16 (H) inches

Weight (including piano stand)

37.8 kg

83 lbs 6 oz

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

Accessories

Owner's Manual (#5100056916)

Leaflet "Stand Assembly" (#******)

AC Adaptor (#5100047495)

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

Music rest (#5100056005)

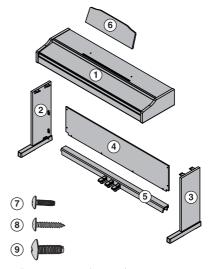
Options (sold separately)

Headphones

- * 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.

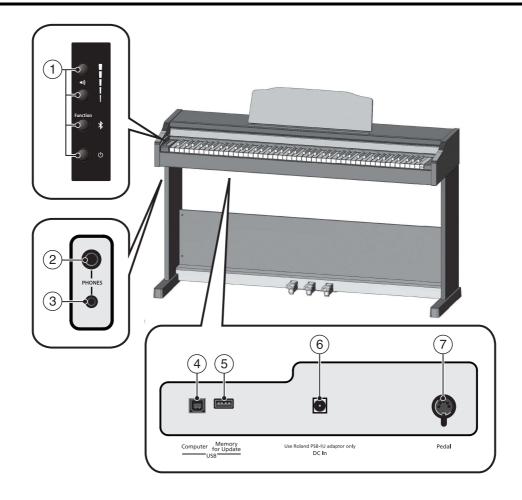
Contents of the Unit and Stand

The unit and stand consist of the following parts.



- 1: Piano main unit (#******)
- 2: Side Board (left) (#******)
- 3: Side Board (right) (#*******)
- 4: Rear Panel (#5100056009)
- 5: Pedal Board (#******)
- 6: Music rest (#5100056005)
- 7: Screw (4 x 14 mm) (#40127267) x 4
- 8: Screw (4 x 20 mm) (#40010678) x 4
- 9: Screw (M6 x 180 mm) (#5100047133) x 4
- * For detail information, refer to pages following after **Exploded View (Total)** (p. 7).

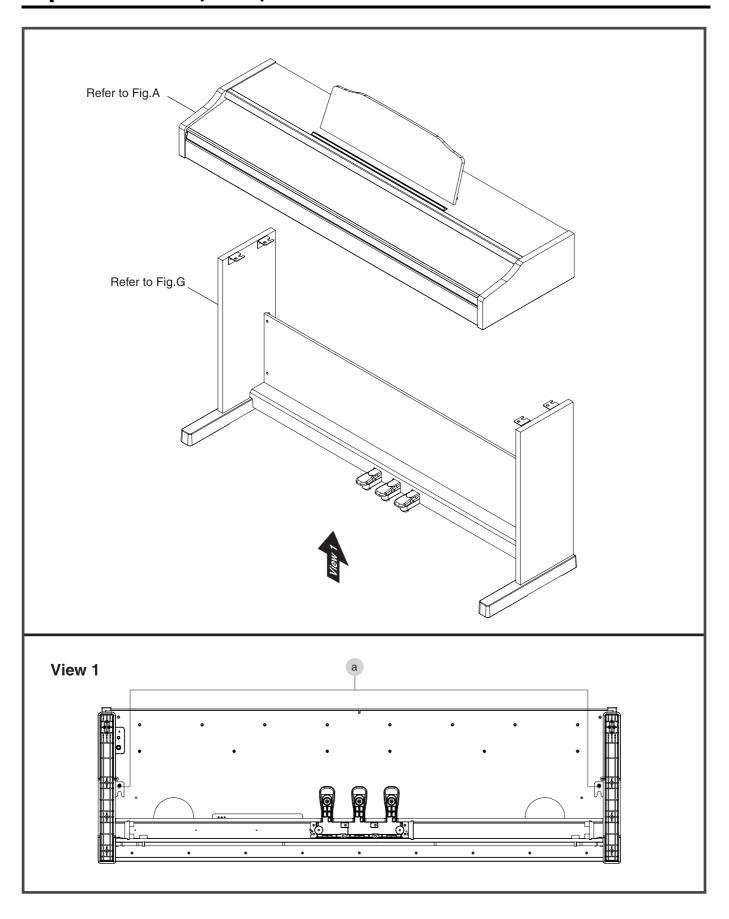
Location of Controls



Location of Controls Parts List

No.	Part Code	Part Name	Description	Q'ty
1	5100057496	KEY TOP CUSHION		1
	5100039041	Y C-KEYTOP	MX4H BLK	1
	02781634	TACT SWITCH	SKRGAED010	4
2	13449252	6.5MM JACK	YKB21-5006 (STEREO W/SW)	1
3	04452945	3.5MM JACK	YKB21-5344N	1
4	04459190	USB CONNECTOR A TYPE FEMALE	YKF45-0033N	1
5	5100009531	USB CONNECTOR B TYPE FEMALE	YKF45-0044N	1
6	13449711	AC ADAPTOR JACK	HEC0470-01-630	1
7	00340223	DIN SOCKET	YKF51-5031	1

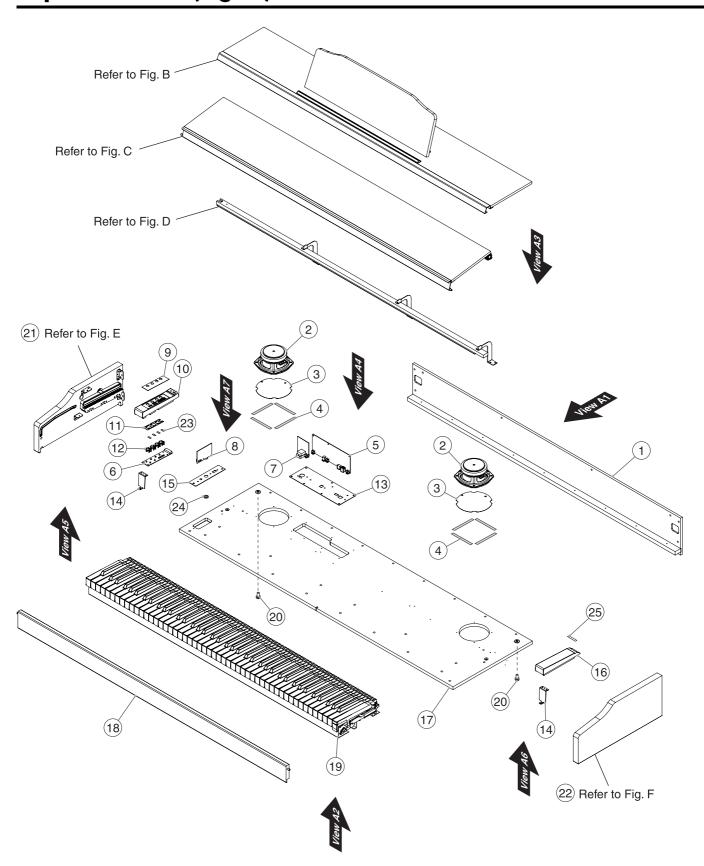
Exploded View (Total)



View 1

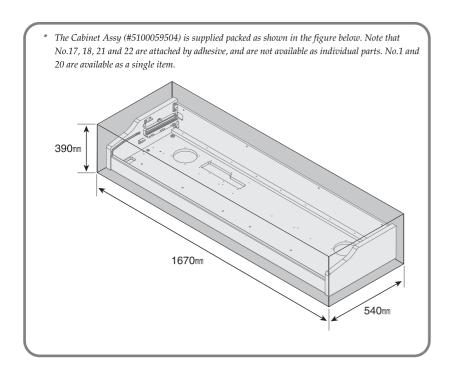
No.	Part Code	Part Name	Description	Q'ty
a	5100047133	SCREW M6X18	TRUSS MACHINE TC BZC	2

Exploded View (Fig. A)

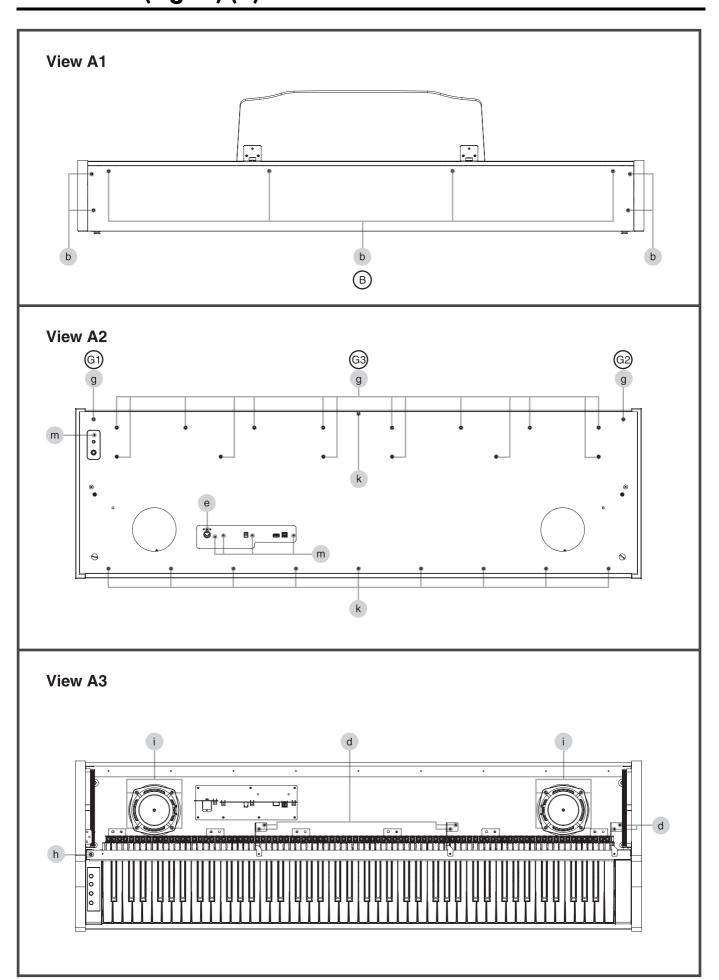


Exploded View (Fig. A) Parts List

No.	Part Code	Part Name	Description		Q't
	5100059504	CABINET ASSY			1
	* This unit in	cludes the following parts.			
1	5100056009	REAR PANEL			1
17	*****	BOTTOM BOARD			1
18	*****	LOWER BLIND			1
20	5100052164	CONNECTING PIN			2
21	*****	SIDE PANEL L		Refer to Exploded View (Fig. E) (p. 17).	1
22	*****	SIDE PANEL R		Refer to Exploded View (Fig. F) (p. 18).	1
2	5100047143	SPEAKER	F1204-E34C		2
3	5100052189	SPEAKER COVER			2
4	40122612	ACETATE TAPE	NITTO #5 BLACK W10MM 30M 20P		-
5	5100055257	MAIN BOARD ASSY			1
	5100055275	PANEL SHEET ASSY			1
	* This unit in	cludes the following parts.			
6	*****	PANEL BOARD			1
7	*****	DIN-PEDAL BOARD			1
8	*****	PHONES BOARD			1
9	5100056029	PANEL COVER			1
10	5100056024	END BLOCK			1
11	5100057496	KEY TOP CUSHION			1
12	5100039041	Y C-KEYTOP	MX4H BLK		1
13	5100055962	BOTTOM JACK HOLDER			1
14	5100051972	END BLOCK HOLDER			2
15	5100052182	PHONES HOLDER			1
16	5100051980	END BLOCK			1
19	5100054674	KEYBOARD ASSY	PX-7C SV SERVICE ASSY		1
23	5100011185	ADHESIVE TAPE	#501L W5MM 50M		-
24	40783356	JACK NUT	M12 T2 //14 ZC		1
25	5100052176	END BLOCK FELT			1



Plain View (Fig. A) (1)



Plain View (Fig. A) (1) Parts List

View A1

No.	Part Code	Part Name	Description	Q'ty
b	40127267	SCREW 4X14	TRUSS TAPTITE S FE BZC	8

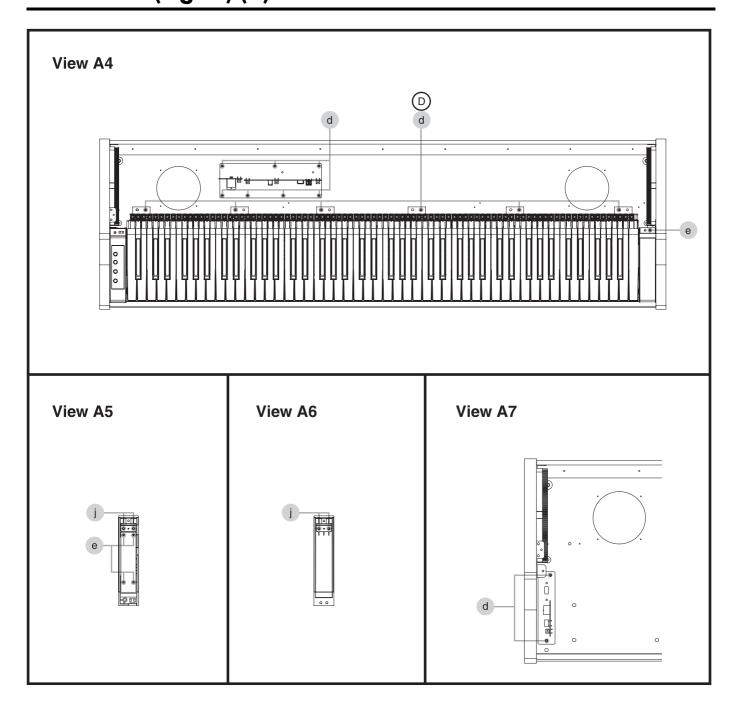
View A2

No.	Part Code	Part Name	Description	Q'ty
e	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	1
g	40564767	SCREW 4X20	VWH TAPTITE B W12.5 BZC	16
m	40237101	SCREW M3X8	PAN MACHINE W/SW+SMALL PW BZC	5
k	40010689	SCREW 4X25	TRUSS TAPPING A FE BZC	10

View A3

No.	Part Code	Part Name	Description	Q'ty
d	40127545	SCREW 4X10	TRUSS TAPPING A FE BZC	6
i	40010667	SCREW 4X16	TRUSS TAPPING A FE BZC	8
h	40782023	SCREW M4X40	PAN MACHINE W/SW ZC	1

Plain View (Fig. A) (2)



Plain View (Fig. A) (2) Parts List

View A4

No.	Part Code	Part Name	Description	Q'ty
d	40127545	SCREW 4X10	TRUSS TAPPING A FE BZC	13
e	40011123	SCREW 4X8	BINDING TAPTITE B FE BZC	1

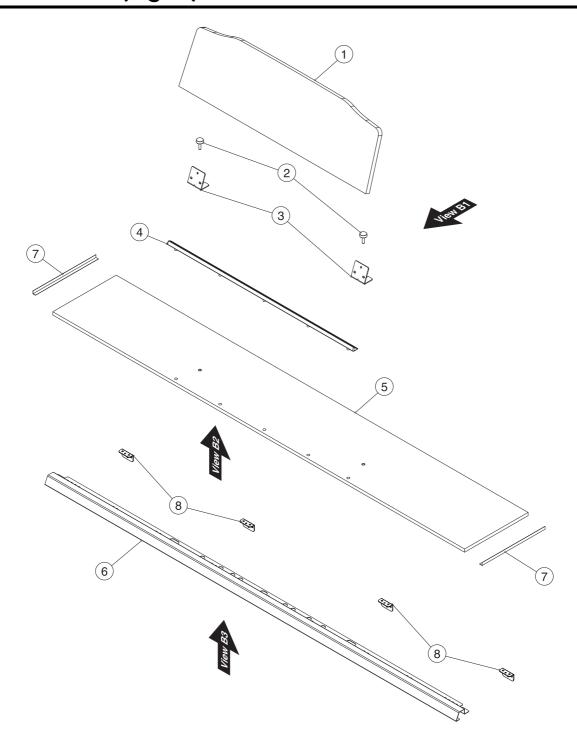
View A5, A6

No.	Part Code	Part Name	Description	Q'ty
e	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	4
i	40238501	SCREW 4X8	BINDING TAPTITE P FE BZC	4

View A7

No.	Part Code	Part Name	Description	Q'ty
d	40127545	SCREW 4X10	TRUSS TAPPING A FE BZC	2

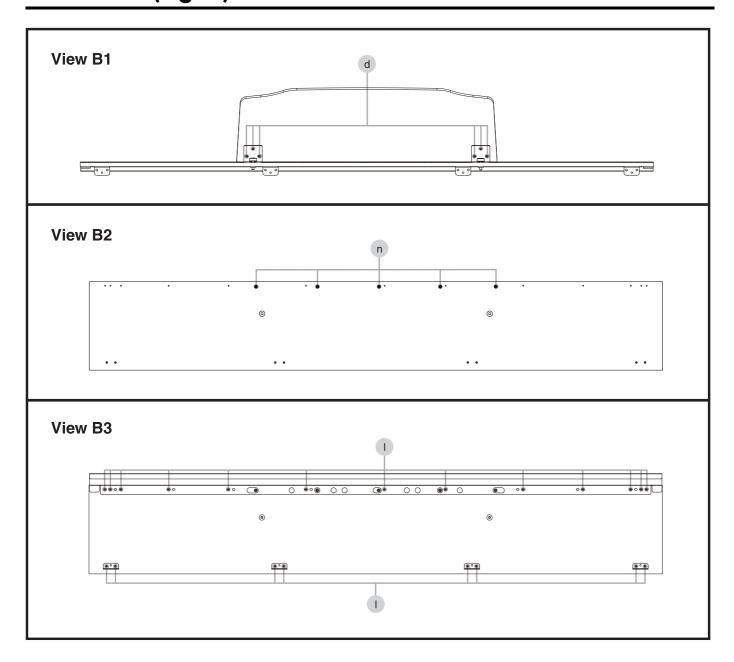
Exploded View (Fig. B)



Exploded View (Fig. B) Parts List

1	E1000E(00E			Q'ty
-	5100056005	MUSIC REST		1
2	40346089	KNOB BOLT M5X19	N-3 BLACK	2
3	5100052169	MR ANGLE		2
4	5100046637	MUSIC STOPPER		1
5	5100056006	TOP BOARD		1
6	5100056058	TOP BOARD BLIND		1
7	40232123	ACETATE TAPE	NITTO #5 BLACK W20MM 30M 20P	-
8	5100051973	ANGLE		4

Plain View (Fig. B)



Plain View (Fig. B) Parts List

View B1

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

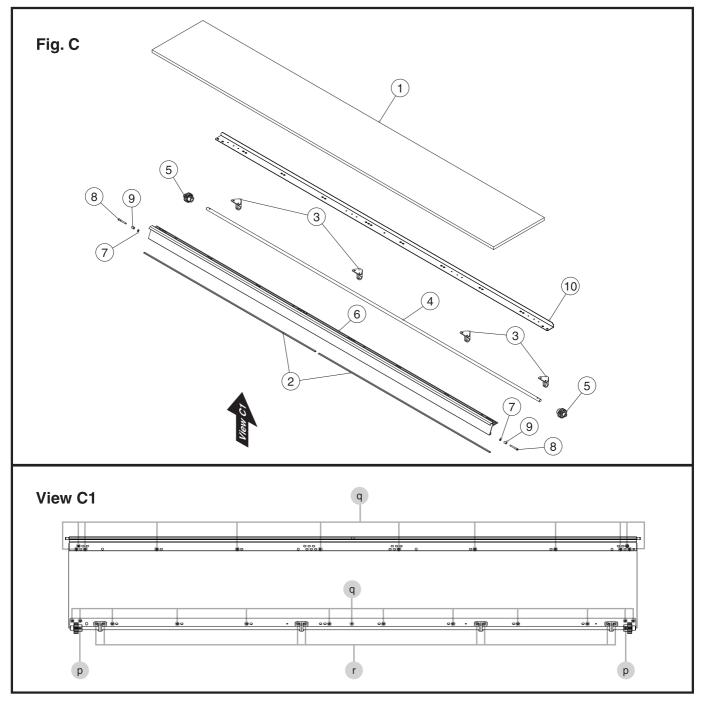
View B2

No.	Part Code	Part Name	Description	Q'ty
n	40011989	WASHER 4X10X0.8	FE BZC	5
	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	5

View B3

No.	Part Code	Part Name	Description	Q'ty
1	40010645	SCREW 4X8	TRUSS TAPPING A FE BZC	21

Exploded View (Fig. C)



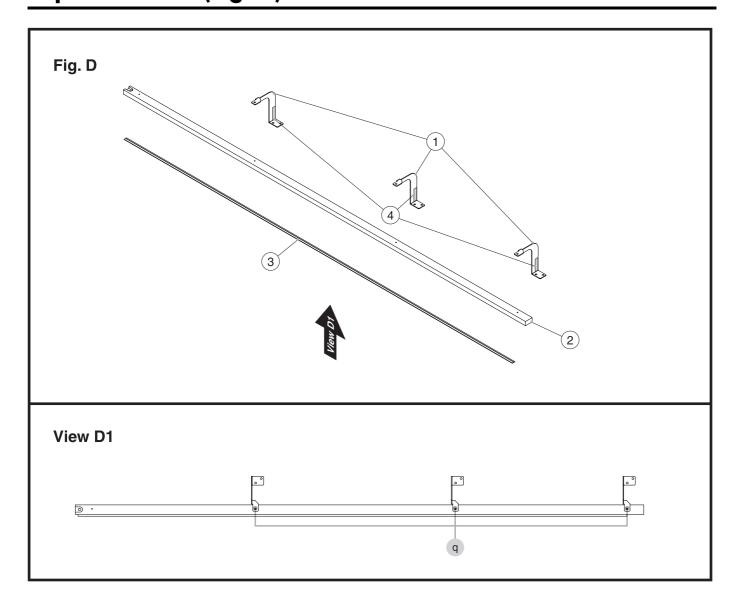
Exploded View (Fig. C) Parts List

No.	Part Code	Part Name	Description	Q'ty
1	5100056010	LID BOARD		1
2	5100047126	LID BLIND CUSHION		2
3	5100052172	LID SHAFT STAY BUSH		4
4	5100052170	LID SHAFT		1
5	5100051975	LID GEAR		2
6	5100052165	LID BLIND		1
7	40569512	WASHER T1X3.2X6		2
8	5100047120	GUIDE PIN		2
9	5100046655	LID GUIDE BUSH		2
10	5100052384	LID ANGLE		1

View C1

No.	Part Code	Part Name	Description	Q'ty
p	40012967	SCREW M3X10	PAN MACHINE W/SW+PW(7.8MM) BZC	2
q	40239401	SCREW 3.5X8	BINDING TAPPING A BZC	25
r	40011101	SCREW 3X8	BINDING TAPTITE B BZC	8

Exploded View (Fig. D)



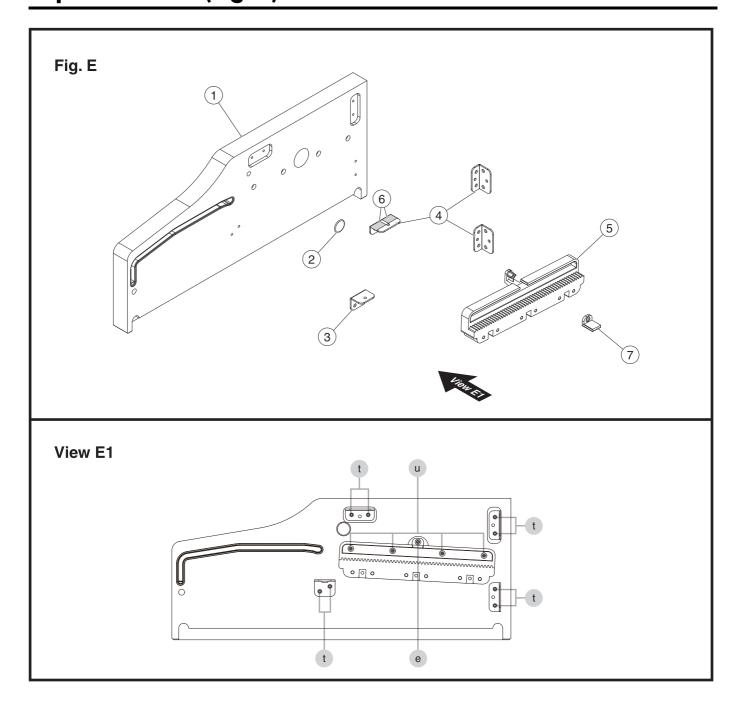
Exploded View (Fig. D) Parts List

No.	Part Code	Part Name	Description	Q'ty
1	5100056023	CENTER HOLDER		3
2	5100056031	FRONT PANEL		1
3	03012323	KEY FELT		1
4	40122789	ACETATE TAPE	NITTO #156A W15MM 30M	-

View D1

No.	Part Code	Part Name	Description	Q'ty
q	40239401	SCREW 3.5X8	BINDING TAPPING A BZC	3

Exploded View (Fig. E)



Exploded View (Fig. E) Parts List

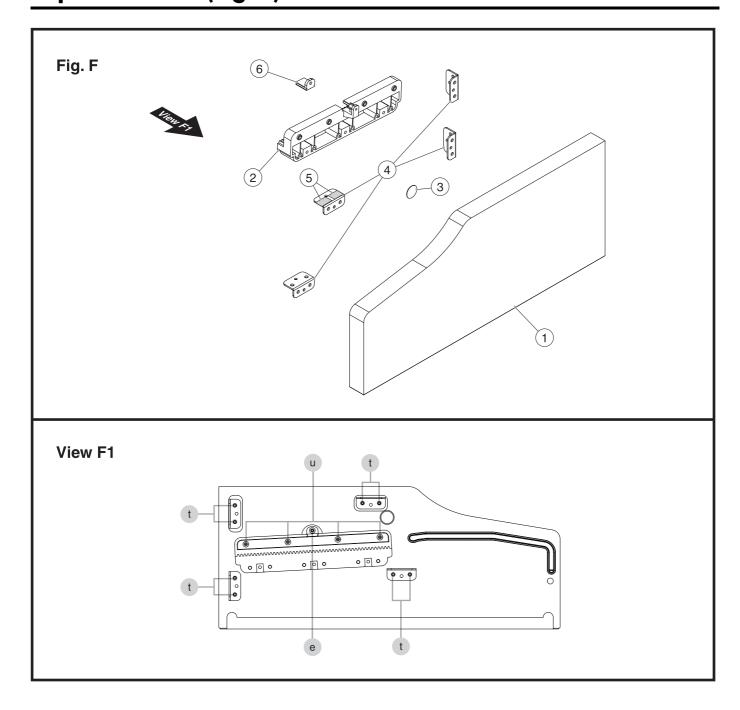
No.	Part Code	Part Name	Description	Q'ty
1	*****	SIDE PANEL L		1
2	40455345	FREE CAP 8 BLK		1
3	5100056022	END BLOCK ANGLE L		1
4	5100051973	ANGLE		3
5	5100056025	LID RAIL		1
6	5100052171	FELT		2
7	5100051974	LID RAIL STOPPER		1

 $^{^{\}ast}$ No. 1 through 6 are included in the Cabinet Assy (#5100059504), but 7 is not included.

View E1

No.	Part Code	Part Name	Description	Q'ty
e	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	1
t	40012145	SCREW 4X14	TRUSS TAPPING A FE BZC	8
u	40563023	SCREW 3X16	FLAT TAPPING A ZC	4

Exploded View (Fig. F)



Exploded View (Fig. F) Parts List

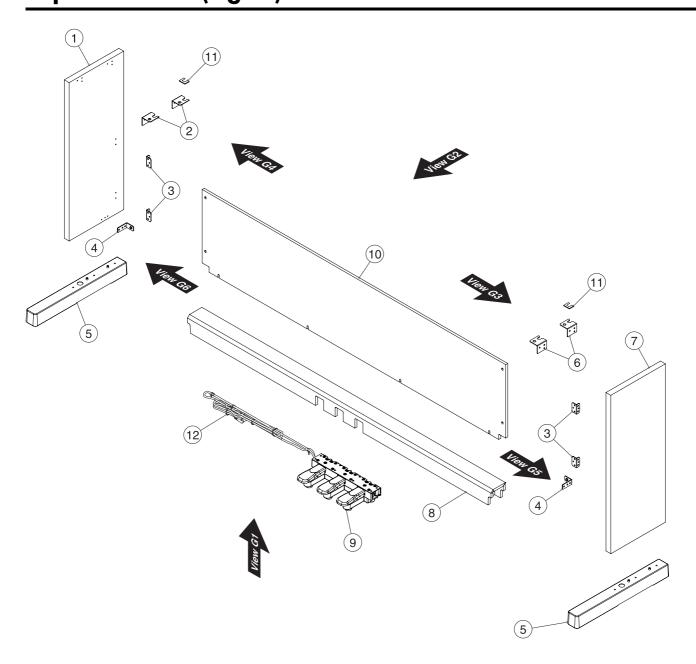
No.	Part Code	Part Name	Description	Q'ty
1	*****	SIDE PANEL R		1
2	5100056025	LID RAIL		1
3	40455345	FREE CAP 8 BLK		1
4	5100051973	ANGLE		4
5	5100052171	FELT		2
6	5100051974	LID RAIL STOPPER		1

^{*} No. 1 through 5 are included in the Cabinet Assy (#5100059504), but 6 is not included.

View E1

No.	Part Code	Part Name	Description	Q'ty
e	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	1
t	40012145	SCREW 4X14	TRUSS TAPPING A FE BZC	8
u	40563023	SCREW 3X16	FLAT TAPPING A ZC	4

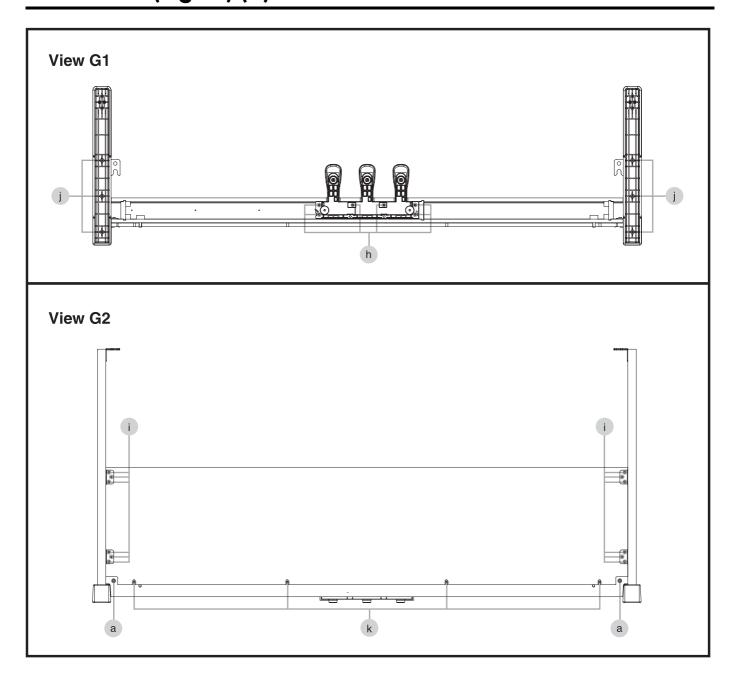
Exploded View (Fig. G)



Exploded View (Fig. G) Parts List

No.	Part Code	Part Name	Description	Q'ty
1	5100056013	SIDE BOARD L FOR STAND		1
2	5100051350	JOINT HOLDER L		2
3	5100052173	REAR ANGLE		4
4	5100056021	PEDAL HOLDER		2
5	5100051996	TOE BLOCK		2
6	5100051351	JOINT HOLDER R		2
7	5100056015	SIDE BOARD R FOR STAND		1
8	5100056020	PEDAL BOARD		1
9	5100049614	DIN PEDAL UNIT		1
	* This unit inc	cludes the following parts.		
12	5100050329	DIN PEDAL CABLE		1
	5100049452	FELT		6
10	5100056016	REAR BOARD FOR STAND		1
11	5100052175	HOLDER CUSHION		2

Plain View (Fig. G) (1)



Plain View (Fig. G) (1) Parts List

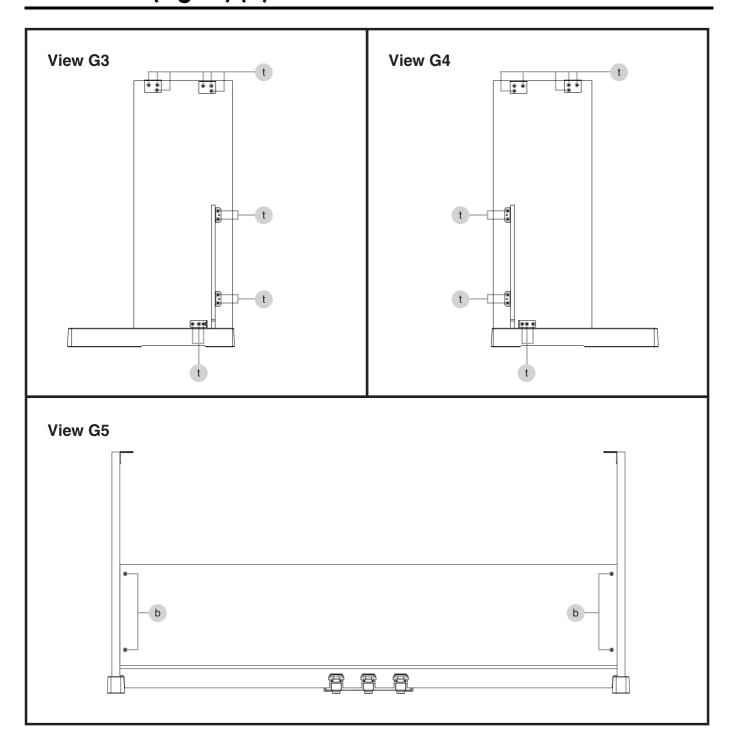
View G1

No.	Part Code	Part Name	Description	Q'ty
j	40017634	SCREW 4X40	TRUSS TAPPING A FE BZC	6
h	40782023	SCREW M4X40	PAN MACHINE W/SW ZC	6

View G2

No.	Part Code	Part Name	Description	Q'ty
a	5100047133	SCREW M6X18	TRUSS MACHINE TC BZC	2
k	40010678	SCREW 4X20	TRUSS TAPPING A FE BZC	4

Plain View (Fig. G) (2)



Plain View (Fig. G) (2) Parts List

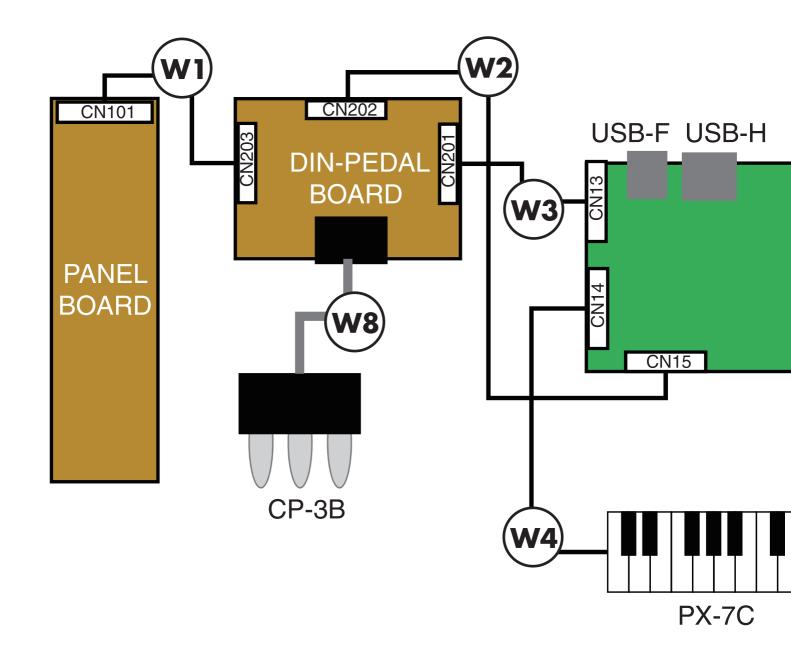
۷i	ew	G3,	G4

No.	Part Code	Part Name	Description	Q'ty
t	40012145	SCREW 4X14	TRUSS TAPPING A FE BZC	26

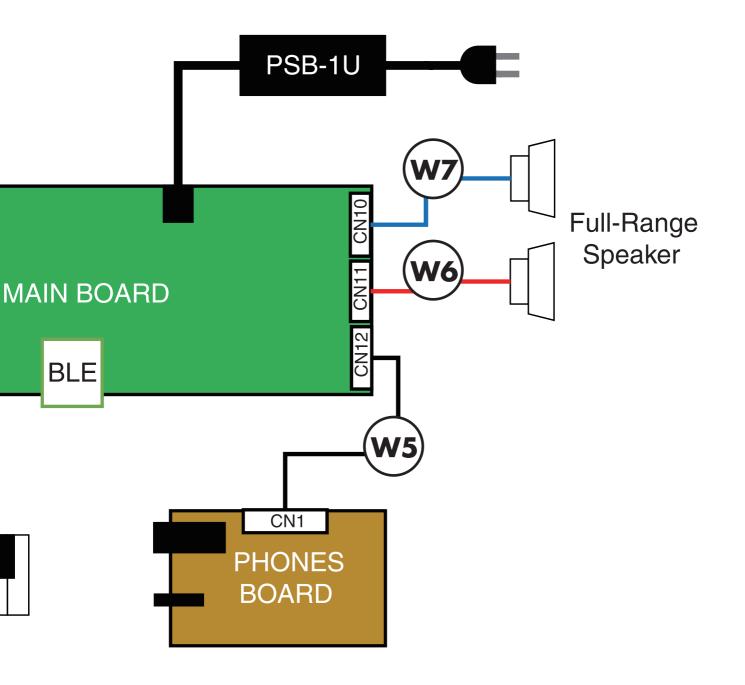
View G5

No.	Part Code	Part Name	Description	Q'ty
b	40127267	SCREW 4X14	TRUSS TAPTITE S FE BZC	4

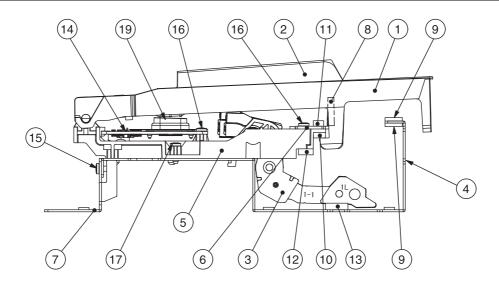
Wiring Diagram/Block Diagram

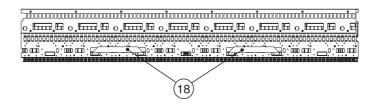


No.	Part Code	Part Name	Description	Q'ty
W1	5100056950	WIRING	1061#28 11X550-PHR-PHR-F	1
W2	5100056948	WIRING	1061#28 8X350-PHR-PHR-F	1
W3	5100056949	WIRING	1061#28 10X280-PHR-PHR-F	1
W4	5100052813	WIRING	1061#28 7X250-PHR-PHR-F	1
W5	5100056947	WIRING	1061#28 5X610-PHR-PHR-F	1
W6	5100056918	WIRING	W02 (SPR)	1
W7	5100056917	WIRING	W01 (SPL)	1
W8	5100050329	DIN PEDAL CABLE		1



Keyboard Parts List (PX-7C)





No.	Part Code	Part Name	Description	Q'ty
	5100054674	KEYBOARD ASSY	PX-7C SV SERVICE ASSY	
1	5100046363	N-KEY C	PX-7C	7
	5100046364	N-KEY D	PX-7C	7
	5100046365	N-KEY E	PX-7C	7
	5100046366	N-KEY F	PX-7C	7
	5100046367	N-KEY G	PX-7C	7
	5100046361	N-KEY A	PX-7C	7
	5100046362	N-KEY B	PX-7C	8
	5100046368	N-KEY A DASH	PX-7C	1
	5100046369	N-KEY C DASH	PX-7C	1
2	5100055829	S-KEY EBONY	PX-7C	36
3	5100048710	HAMMER-1 FOR N-KEY	PX-7C	13
	5100048711	HAMMER-2 FOR N-KEY	PX-7C	13
	5100048712	HAMMER-3 FOR N-KEY	PX-7C	13
	5100048713	HAMMER-4 FOR N-KEY	PX-7C	13
	5100048714	HAMMER-1 FOR S-KEY	PX-7C	9
	5100048715	HAMMER-2 FOR S-KEY	PX-7C	9
	5100048716	HAMMER-3 FOR S-KEY	PX-7C	9
	5100048717	HAMMER-4 FOR S-KEY	PX-7C	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	5100046729	KEYBOARD HOLDER	PX-7C	6
8	5100046717	GUIDE BUSHING	PX-7C	88
9	5100048726	KEY STOP CUSHION A	PX-7C	2
10	5100019663	KEY CUSHION B	PX-7	1
11	5100048727	KEY STOP CUSHION B	PX-7	1
12	5100019111	HAMMER CUSHION A	PX-7	1
13	5100019664	HAMMER CUSHION B	PX-7	1
14	5100057436	PWB ASSY SET	(PX-7C)	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	5100048969	FLAT CABLE	SML2CD-20X222-BDX8(BL)-P1.0-S4	2
19	5100047674	RUBBER SWITCH	12P	8

^{*} The cable (#5100052813) isn't included in this unit (#5100054674).

^{*} For disassembly and maintenance of keyboard, refer to the Service Notes for PX-7B/PX-7C.

Disassembly Procedure

- * 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 27 kg or more, and space measuring at least 1.5m 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.

Detaching the Top Board

 Remove the 2 screws from the back of the Music Rest and detach the Music Rest from the Top Board.



 Remove the 4 screws from the back. (Plain View (Fig. A) (1) (p. 10), B in View A1)



3. Lift up the Top Board and remove it.



Detaching the Lid Board

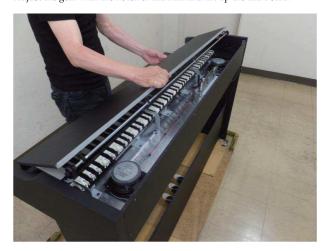
- 1. Remove the Top Board. (as described earlier)
- Remove one screw each from the left and right sides of the Side Panel and detach the stopper.



3. Remove the 2 screws each on the left and right securing the Angle in place.



4. Adjust the gear with the notch of Lid Rail and lift up the Lid Board.

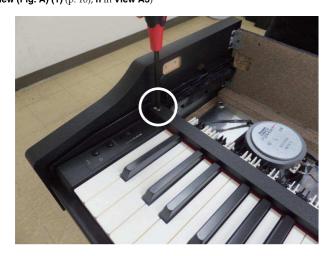


- Angle the Lid Board diagonally front to back and detach the gear from the Lid Rail.
 - * Be careful not to scratch the Side Panel at this time.



Detaching the Front Panel

- 1. Remove the Top Board. (as described earlier)
- $\begin{tabular}{ll} \bf 2. & Remove the Lid board. (as described above) \\ 3. Remove the 1 screw securing the Front Panel to the End Block (L). ({\bf Plain View (Fig. A) (1)} (p. 10), h in {\bf View A3}) \\ \end{tabular}$



3. Remove the 6 screws securing the Center Holder (x 3) to the Bottom Board. (**Plain View (Fig. A) (1)** (p. 10), **d** in **View A3**)



. Detach the Front Panel.

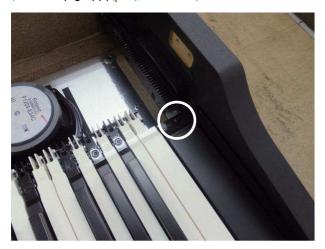
Detaching the End Block

- 1. Remove the Top Board. (as described above)
- **2.** Remove the Lid board. (as described above)
- 3. Detach the Front Panel. (as described above)
- **4.** Remove the 1 screw securing the End Block (L) in place from underneath. (**Plain View (Fig. A) (1)** (p. 10), **G1** in **View A2**)

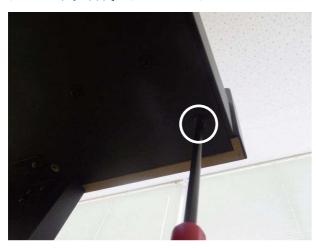




Remove the 1 screw securing the End Block (R) in place from above.
 (Plain View (Fig. A) (2) (p. 12), e in View A4)



Remove the 1 screw securing the End Block (R) in place from underneath.
 (Plain View (Fig. A) (1) (p. 10), G2 in View A2)



Detaching the Keyboard

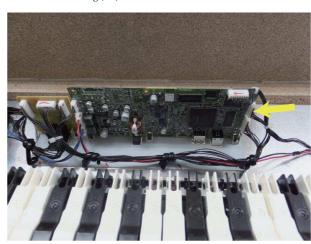
- **1.** Remove the Top Board. (as described above)
- 2. Remove the Lid board. (as described above)
- **3.** Detach the Front Panel. (as described above)
- **4.** Remove the left and right End Blocks. (as described above)
- Remove the 14 screws securing the keyboard in place from underneath.
 (Plain View (Fig. A) (1) (p. 10), G3 in View A2)



6. Remove the 6 screws securing the keyboard in place from above. (**Plain View (Fig. A) (2)** (p. 12), **D** in **View A4**)



7. Disconnect the wiring (x 1) from the Main Board and cut a cable tie.



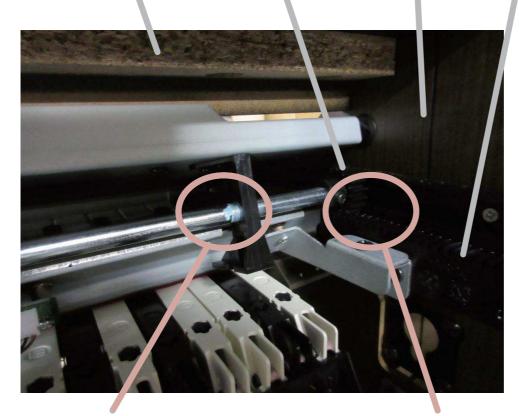
Greasing Point

LID BOARD

LID GEAR

SIDE PANEL

LID RAIL



17042113 GREASE FOR KEY FLOIL G-424F WHITE 100CC Apply the grease to right and left side, and move LID for spreading grease equally around the LID GEAR. 17048053 GREASE FOR LID RAIL FLOIL G-953 100CC (PINK) The grease must be applies to the place which is in contact with LID GEAR uniformly.

Parts List

Safety Precautions:

The parts marked ∆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.
- · Reissuance is restricted.
- It is supplied as an assembled part (under a different part code).
- 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).

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

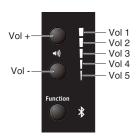
#	5100059504	CABINET ASSY		1		
11	5100039304	MUSIC STOPPER		1		
#	5100040037	TOP BOARD		1		
#	5100056058	TOP BOARD BLIND		1		
#	5100056038	LID BOARD		1		
#						
	5100052165	LID BLIND		1		
	5100051980	END BLOCK		1		
#	5100056024	END BLOCK				
#	5100056031	FRONT PANEL		1		
#	5100056009	REAR PANEL		1		
	5100052189	SPEAKER COVER		2		
#	5100056020	PEDAL BOARD		1		
#	5100056016	REAR BOARD FOR STAND				
#	5100056013	SIDE BOARD L FOR STAND		1		
#	5100056015	SIDE BOARD R FOR STAND		1		
	5100051996	TOE BLOCK		2		
01140010						
CHASSIS	5100051973	ANGLE				
#	5100051973	CENTER HOLDER		3		
#	5100055962	BOTTOM JACK HOLDER		1		
#	5100055022	END BLOCK ANGLE L		1		
π	5100050022			2		
	5100051372		END BLOCK HOLDER			
		•	JOINT HOLDER L			
	5100051351	JOINT HOLDER R		2		
	5100052384	LID ANGLE		1		
	5100052170	LID SHAFT		1		
	5100052169	MR ANGLE		2		
#	5100056021	PEDAL HOLDER		2		
	5100052182	PHONES HOLDER		1		
	5100052173	REAR ANGLE		4		
KNOB, BUT	TTON					
,	5100039041	Y C-KEYTOP	MX4H BLK	1		
SWITCH						
<u> </u>	02781634	TACT SWITCH	SKRGAED010	4		
JACK, EXT	TERMINAL 04452945	3.5MM JACK	YKB21-5344N	1		
		-				
	13449252	6.5MM JACK	YKB21-5006 (STEREO W/SW)	1		
	13449711	AC ADAPTOR JACK	HEC0470-01-630	1		
	00340223	DIN SOCKET	YKF51-5031	1		
	04459190	USB CONNECTOR A TYPE FEMALE	YKF45-0033N	1		
	5100009531	USB CONNECTOR B TYPE FEMALE	YKF45-0044N	1		
SPEAKER,	BUZZER					
	5100047143	SPEAKER	F1204-E34C	2		
KEYBOARI	D ACCV					
VE I DOAKI	5100054674	KEYBOARD ASSY	PX-7C SV SERVICE ASSY	1		

PWB ASSY				
#	5100055257	MAIN BOARD ASSY		1
#	5100055275 * This unit i	PANEL SHEET ASSY includes the following parts.		1
	*****	PANEL BOARD		1
	*****	DIN-PEDAL BOARD PHONES BOARD		1
WIRING, CABI #	5100056947	WIRING	1061#28 5X610-PHR-PHR-F	1
	5100052813	WIRING	1061#28 7X250-PHR-PHR-F	1
#	5100056948	WIRING	1061#28 8X350-PHR-PHR-F	1
#	5100056949	WIRING	1061#28 10X280-PHR-PHR-F	1
#	5100056950	WIRING	1061#28 11X550-PHR-PHR-F	1
#	5100056917 5100056918	WIRING WIRING	W01 (SPL) W02 (SPR)	1 1
π	5100050318	DIN PEDAL CABLE	W02 (31 K)	1
	5100048969	FLAT CABLE	SML2CD-20X222-BDX8(BL)-P1.0-S4	2
CODEWC				
SCREWS	40010645	SCREW 4X8	TRUSS TAPPING A FE BZC	21
	40010667	SCREW 4X16	TRUSS TAPPING A FE BZC	8
	40010689	SCREW 4X25	TRUSS TAPPING A FE BZC	10
	40011056	SCREW 3X6	BINDING TAPTITE B ZC	1
	40011101	SCREW 3X8	BINDING TAPTITE B BZC	8
	40011123	SCREW 4X8	BINDING TAPTITE B FE BZC	2
	40011312 40011989	SCREW 3X8 WASHER 4X10X0.8	BINDING TAPTITE P FE BZC FE BZC	12 5
	40011989	SCREW 4X14	TRUSS TAPPING A FE BZC	46
	40012967	SCREW M3X10	PAN MACHINE W/SW+PW(7.8MM)	2
	40017634	SCREW 4X40	BZC TRUSS TAPPING A FE BZC	6
	40127267	SCREW 4X14	TRUSS TAPTITE S FE BZC	8
	40127545	SCREW 4X10	TRUSS TAPPING A FE BZC	28
	40237101	SCREW M3X8	PAN MACHINE W/SW+SMALL PW BZC	5
	40238501 40239401	SCREW 4X8 SCREW 3.5X8	BINDING TAPTITE P FE BZC BINDING TAPPING A BZC	4 28
	40563023	SCREW 3.346	FLAT TAPPING A ZC	8
	40564767	SCREW 4X20	VWH TAPTITE B W12.5 BZC	18
	40346089	KNOB BOLT M5X19	N-3 BLACK	2
	40569512	WASHER T1X3.2X6		2
	40782023	SCREW M4X40	PAN MACHINE W/SW ZC	7
	40783356	JACK NUT	M12 T2 //14 ZC	1
MISCELLANE				
#	5100056029	DANIEL COVED		4
		PANEL COVER		1
	5100049614	DIN PEDAL UNIT		1
	5100049614 5100052164	DIN PEDAL UNIT CONNECTING PIN		1 2
	5100049614 5100052164 5100047120	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN		1
	5100049614 5100052164	DIN PEDAL UNIT CONNECTING PIN		1 2 2
#	5100049614 5100052164 5100047120 5100051975	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR		1 2 2 2
#	5100049614 5100052164 5100047120 5100051975 5100046655	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH		1 2 2 2 2 2
#	5100049614 5100052164 5100047120 510005175 5100046655 5100056025 5100051974 5100052172	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL STOPPER LID SHAFT STAY BUSH		1 2 2 2 2 2 2 2 2 4
#	5100049614 5100052164 5100047120 5100051975 5100046655 5100056025 5100051974 5100052172 5100052176	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL STOPPER LID SHAFT STAY BUSH END BLOCK FELT		1 2 2 2 2 2 2 2 2 4 1
#	5100049614 5100052164 5100047120 5100051975 5100046025 5100056025 5100051974 5100052172 5100052176 03012323	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL STOPPER LID SHAFT STAY BUSH END BLOCK FELT KEY FELT		1 2 2 2 2 2 2 2 4 1
#	5100049614 5100052164 5100047120 5100051975 5100056025 5100056025 5100051974 5100052172 5100052176 03012323 5100052171	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL STOPPER LID SHAFT STAY BUSH END BLOCK FELT KEY FELT		1 2 2 2 2 2 2 4 1 1
#	5100049614 5100052164 5100047120 5100051975 5100056025 51000501974 5100052172 5100052176 03012323 5100052171 5100049452	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT		1 2 2 2 2 2 2 2 4 1 1 1 4
#	5100049614 5100052164 5100047120 5100051975 5100056025 5100051974 5100052172 5100052176 03012323 5100052171 5100049452 40455345	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL STOPPER LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT FELT FREE CAP 8 BLK		1 2 2 2 2 2 2 2 4 1 1 1 4 6
	5100049614 5100052164 5100047120 5100051975 5100046655 5100056025 5100052174 5100052176 03012323 5100052171 5100049452 40455345 5100052175	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT FELT FREE CAP 8 BLK HOLDER CUSHION		1 2 2 2 2 2 2 2 4 1 1 4 6 2 2
	5100049614 5100052164 5100047120 5100051975 5100056025 5100051974 5100052172 5100052176 03012323 5100052171 5100049452 40455345	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL STOPPER LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT FELT FREE CAP 8 BLK		1 2 2 2 2 2 2 2 4 1 1 1 4 6
	5100049614 5100052164 5100047120 5100051975 5100046655 5100056025 5100052174 5100052172 5100052176 03012323 5100052171 5100049452 40455345 5100052175 5100057496	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT FREE CAP 8 BLK HOLDER CUSHION KEY TOP CUSHION	CS-7	1 2 2 2 2 2 2 4 1 1 1 4 6 2 2
	5100049614 5100052164 5100051975 5100046655 5100056025 5100056025 5100052172 5100052176 03012323 5100052171 5100049452 40455345 5100052175 5100057496 5100047126	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL STOPPER LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT FELT FELT FREE CAP 8 BLK HOLDER CUSHION LID BLIND CUSHION	CS-7 (1000 PCS ORDERING PER)	1 2 2 2 2 2 2 4 1 1 1 4 6 2 2 2
	5100049614 5100052164 5100051975 5100046025 5100056025 5100051974 5100052172 5100052176 03012323 5100052171 5100052171 5100052175 5100052175 5100052175 5100057496 5100047126 40017378 40016523 40016545	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL STOPPER LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT FELT FELT FREE CAP 8 BLK HOLDER CUSHION LID BLIND CUSHION COATING CLIP	(1000 PCS ORDERING PER) SKM-1	1 2 2 2 2 2 2 4 1 1 1 4 6 2 2 2 1 2
	5100049614 5100052164 5100051975 5100056025 5100056025 5100051974 5100052172 5100052176 03012323 5100052171 5100052171 5100049452 40455345 5100052175 5100057496 5100047126 40017378 40016523 40016545 40122789	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GEAR LID GUIDE BUSH LID RAIL LID RAIL LID RAIL STOPPER LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT FELT FREE CAP 8 BLK HOLDER CUSHION KEY TOP CUSHION LID BLIND CUSHION COATING CLIP INSULOK TIE 100M/M T-18R LOCKING TOOL FOR INSULOK TIE ACETATE TAPE	(1000 PCS ORDERING PER) SKM-1 NITTO #156A W15MM 30M	1 2 2 2 2 2 2 4 1 1 1 4 6 2 2 2 1 2 6 7
	5100049614 5100052164 5100051975 5100056025 5100056025 5100051974 5100052172 5100052176 03012323 5100052171 5100049452 40455345 5100052175 5100057496 5100047126 40017378 40016523 40016545 40122789 40122612	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT FELT FREE CAP 8 BLK HOLDER CUSHION KEY TOP CUSHION LID BLIND CUSHION COATING CLIP INSULOK TIE 100M/M T-18R LOCKING TOOL FOR INSULOK TIE ACETATE TAPE	(1000 PCS ORDERING PER) SKM-1 NITTO #156A W15MM 30M NITTO #5 BLACK W10MM 30M 20P	1 2 2 2 2 2 2 4 1 1 1 4 6 2 2 2 1 2 6 7
	5100049614 5100052164 5100051975 5100051975 5100056025 5100051974 5100052172 5100052176 03012323 5100052171 5100052171 5100049452 40455345 5100052175 5100057496 5100047126 40017378 40016523 40016545 40122789 40122612 40232123	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT FELT FELT FREE CAP 8 BLK HOLDER CUSHION KEY TOP CUSHION LID BLIND CUSHION COATING CLIP INSULOK TIE 100M/M T-18R LOCKING TOOL FOR INSULOK TIE ACETATE TAPE ACETATE TAPE	(1000 PCS ORDERING PER) SKM-1 NITTO #156A W15MM 30M NITTO #5 BLACK W10MM 30M 20P NITTO #5 BLACK W20MM 30M 20P	1 2 2 2 2 2 2 4 1 1 1 4 6 2 2 2 1 2 6 7
	5100049614 5100052164 510005755 5100051975 5100056025 5100051974 5100052172 5100052176 03012323 5100052171 5100049452 40455345 5100052175 5100052175 5100057496 5100047126 40017378 40016523 40016545 40122789 40122612 40232123 5100011185	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT FELT FELT FELT FELT FELT FIET CAP 8 BLK HOLDER CUSHION LID BLIND CUSHION LID BLIND CUSHION COATING CLIP INSULOK TIE 100M/M T-18R LOCKING TOOL FOR INSULOK TIE ACETATE TAPE ACETATE TAPE ACETATE TAPE ACHERICAN GUIDE SUSHION CONNECTION OF THE SUSHION OF	(1000 PCS ORDERING PER) SKM-1 NITTO #156A W15MM 30M NITTO #5 BLACK W10MM 30M 20P NITTO #5 BLACK W20MM 30M 20P #501L W5MM 50M	1 2 2 2 2 2 2 4 1 1 1 4 6 2 2 2 1 2 6 7
#	5100049614 5100052164 5100051975 5100056025 5100056025 5100052172 5100052176 03012323 5100052171 510004452 40455345 5100052175 5100052175 5100057496 5100047126 40017378 40016523 40016545 40122789 40122612 40232123 5100011185 17041858	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL LID RAIL STOPPER LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT FELT FELT FREE CAP 8 BLK HOLDER CUSHION LID BLIND CUSHION LID BLIND CUSHION COATING CLIP INSULOK TIE 100M/M T-18R LOCKING TOOL FOR INSULOK TIE ACETATE TAPE ACETATE TAPE ACETATE TAPE ADHESIVE TAPE GREASE FOR KEY	(1000 PCS ORDERING PER) SKM-1 NITTO #156A W15MM 30M NITTO #5 BLACK W10MM 30M 20P NITTO #5 BLACK W20MM 30M 20P #501L W5MM 50M MOLYKOTE G-1039 (50 GRAM)	1 2 2 2 2 2 2 4 1 1 1 4 6 2 2 2 1 2 6 7
	5100049614 5100052164 510005755 5100051975 5100056025 5100051974 5100052172 5100052176 03012323 5100052171 5100049452 40455345 5100052175 5100052175 5100057496 5100047126 40017378 40016523 40016545 40122789 40122612 40232123 5100011185	DIN PEDAL UNIT CONNECTING PIN GUIDE PIN LID GEAR LID GUIDE BUSH LID RAIL LID RAIL LID SHAFT STAY BUSH END BLOCK FELT KEY FELT FELT FELT FELT FELT FELT FELT FIET CAP 8 BLK HOLDER CUSHION LID BLIND CUSHION LID BLIND CUSHION COATING CLIP INSULOK TIE 100M/M T-18R LOCKING TOOL FOR INSULOK TIE ACETATE TAPE ACETATE TAPE ACETATE TAPE ACHERICAN GUIDE SUSHION CONNECTION OF THE SUSHION OF	(1000 PCS ORDERING PER) SKM-1 NITTO #156A W15MM 30M NITTO #5 BLACK W10MM 30M 20P NITTO #5 BLACK W20MM 30M 20P #501L W5MM 50M	1 2 2 2 2 2 2 4 1 1 1 4 6 2 2 2 1 2 6 7

ACC	ACCESSORIES (Standard)							
	Δ	5100047495	AC ADAPTOR WITHOUT AC CORD	PSB-1U(S)_2 (FOR EXEPT JAPAN)		1		
	Δ	5100012293	AC CORD SET	117VBL 1.0M FOR PSB	for 117VBL	1		
	Δ	02562456	AC CORD SET	120V 1.0M (NON POLAR)	for 117VU, 117VU/CS	1		
	Δ	5100019558	AC CORD SET	220V CCC SP505A-IS037 1.0M	for 220VCN	1		
	Δ	5100039367	AC CORD SET	SP021A+IS037 220VK 2.5M 2P	for 220VK	1		
	Δ	01903356	AC CORD SET	230V 1.0M FOR PSB	for 230VEU	1		
	Δ	5100018086	AC CORD SET	230VE 1.0M FOR EPS	for 230VE	1		
	Δ	5100033404	AC CORD SET	240V SP501-IS037 PSB 1.0M	for 240VA	1		
#		5100056916	OWNER'S MANUAL	MULTILANGUAGE		1		
#		5100058642	OWNER'S MANUAL	CHINESE		1		
#		5100056005	MUSIC REST			1		
		40127267	SCREW 4X14	TRUSS TAPTITE S FE BZC		4		
		40010678	SCREW 4X20	TRUSS TAPPING A FE BZC		4		
		5100047133	SCREW M6X18	TRUSS MACHINE TC BZC		4		

Notation of Buttons and LEDs

In this service notes, names of buttons and LEDs are described as follows.



Verifying the Version

- 1. Hold down Vol + and turn on the power.
- 2. When Vol 1 lights up, release your finger.

 $\mbox{\sc Vol 2}$ through $\mbox{\sc 5}$ light up or go dark to display the Program version as shown below.

Program (Vol 1 flashes)

	V	Version		
2	3	4	5	
-	-	-	0	1.00
-	-	0	-	1.01
-	-	0	0	1.02
-	0	-	-	1.03
-	0	-	0	1.04
-	0	0	-	1.05
-	0	0	0	1.06
0	-	-	-	1.07
0	-	-	0	1.08
О	-	0	-	1.09
О	-	0	0	1.10
О	0	-	-	1.11
О	0	-	0	1.12
О	0	0	-	1.13
О	0	0	0	1.14

o: lights, -: goes dark

3. Press Vol +.

Vol 1 lights up

 $\mbox{\sc Vol 2}$ through $\mbox{\sc 5}$ light up or go dark to display the Bluetooth LE version as shown below.

Bluetooth LE (Vol 1 lights up)

	٧		Version	
2	3	4	5	
-	-	-	0	1.02
-	-	0	-	1.03
-	-	0	0	1.04
-	0	-	-	1.05
-	0	-	0	1.06
-	0	0	-	1.07
-	0	0	0	1.08
0	-	-	-	1.09
0	-	-	0	1.10
0	-	0	-	1.11
О	-	0	0	1.12
О	0	-	-	1.13
О	0	-	0	1.14
О	0	0	-	1.15
О	0	0	0	1.16

o: lights, -: goes dark

* To return to the display of the Program Version (step 2) at this time, press Vol -.

4. Press **Vol +**.

Vol 1 goes dark.

Vol 2 through 5 light up or go dark to display the Keyboard version as

Keyboard (Vol 1 goes dark)

	Vol					
2	3	4	5			
-	-	-	О	1.01		
-	-	0	-	1.02		
-	-	0	0	1.03		
-	0	-	-	1.04		
-	0	-	О	1.05		
-	0	o	-	1.06		
-	0	0	0	1.07		
О	-	-	-	1.08		
О	-	-	О	1.09		
О	-	o	-	1.10		
О	-	o	О	1.11		
О	0	-	-	1.12		
0	0	-	0	1.13		
0	0	0	-	1.14		
0	0	0	0	1.15		

o: lights, -: goes dark

- * To return to the display of the BLE Version (step 3) at this time, press Vol -.
- **5.** Turn off the power.

Data Backup and Restore Operations

Items Required

- Computer
- USB memory device

Backup Operation

- 1. Format a USB memory device using the FAT32 file system.
- **2.** Connect the USB memory device just described to the **Memory for Update** connector on the unit.
- **3.** Hold down **Vol +** and turn on the power.
- **4.** When **Vol 1** lights up, release your finger.

The version information is displayed.

5. Hold down **Function** and press C1, E1 and G1 on the keyboard in this order. (The leftmost: A0)

The LEDs become the following state.

Vol 1: Flashing

Vol 2: Flashing

Vol 3: Light

Vol 4: Dark

Vol 5: Dark

🕻 : Dark

- **6.** To execute the backup operation, press **Vol +**. To cancel, press **Function**. When **Vol 1** through **5** flash, the back up operation has finished.
- **7.** Detach the USB memory device and turn off the power.
 - * If the backup operation fails, **Vol 1**, **3**, **5**, and **2**, **4** flash alternately. Format the USB memory device again and redo the operation from step **1**.
 - * After finishing the backup operation, the file of RO72R_BAK.BIN is made in the root folder of the USB memory device. For the fail of the restore operation, copy the file to the computer.
 - * Pairing information of Bluetooth can not be backed up. When returning the product to the customer, request him/her to pair by himself/herself again.

Restore Operation

- Connect the USB memory device containing the backed-up user data to the Memory for Update connector.
- 2. Hold down Vol + and turn on the power.
- **3.** When **Vol 1** lights up, release your finger.

The version information is displayed.

4. Hold down **Function** and press F1, A1 and C2 on the keyboard in this order. (The leftmost: A0)

The LEDs become the following state.

Vol 1: Dark

Vol 2: Dark

Vol 3: Light

Vol 4: Flashing

Vol 5: Flashing

🕻 : Dark

- To execute the restore operation, press Vol -. To cancel, press Function.
 When Vol 1 through 5 flash, the restore operation has finished.
- **6.** Detach the USB memory device and turn off the power.
 - * If the restore operation fails, Vol 1, 3, 5, and 2, 4 flash alternately. In this case, format the USB memory device again, copy R072R_BAK.BIN which has been copied to the computer to the root folder of the USB memory device and redo the operation from step 1.

Performing a Factory Reset

- 1. Hold down **Vol +** and **Function** and turn on the power.
- 2. When LEDs become the following state, release your fingers.

Vol 1: Flashing

Vol 2: Flashing

Vol 3: Dark

Vol 4: Light

Vol 5: Light

 To execute the factory reset, press Vol +. To cancel, press Vol - or Function.

Vol 1 through **3** flash while the factory reset is in progress. Never switch off the power while execution is in progress.

When the factory reset has finished, the Vol 1 through 5 flash.

4. Reset the power.

Updating the System

Items Required

- Computer
- USB memory device
- Update file (obtained via Service Net)

Procedure

- 1. Format a USB memory device using the FAT32 file system.
- Copy the update file (R072_UPA.BIN) to the root folder of the USB memory device just described.
- Connect the USB memory device just described to the Memory for Update connector on the unit.

4. Hold down **Function** and turn on the power.

The update starts. While the update is in progress, **Vol 1** through **5** flash and go dark repeatedly in sequence. The time required to update is approximately 2 minutes.

* Never switch off the power or detach the USB memory device while the update is in progress.

When Vol 1 through 5 flash, the restore operation has finished.

5. Detach the USB memory device and reset the power.

Test Mode

Items Required

- USB memory device
- USB cable
- Headphones (with 1/4-inch phone plug and miniature phone plug)
- Music score application (piaScore or etc.)
- ' Install this to the mobile device with Bluetooth function just described.

Entering the Test Mode

- 1. Hold down Vol +, Vol and Function and turn on the power.
- 2. When Vol 1 through 5 light up, release your fingers.

Quitting the Test Mode

Turn off the power.

Skipping the Test Items

Holding down **Function** and pressing **Vol +** quits the current test item and advances operation to the next test item.

Holding down **Function** and pressing **Vol** - quits the current test item and returns operation to the previous test item.

Test Items

- **1. LED Test** (p. 34)
- 2. Verifying the Version $(p.\,34)$
- 3. Bluetooth Function Setting (p. 34)
- 4. Destination Setting (p. 34)
- **5. BLE Test** (p. 34)
- 6. Switches and LEDs Test (p. 34)
- **7. Sound Test** (p. 35)
- 8. Mute Test (p. 35)
- 9. Pedal Test (p. 35)
- $\textbf{10. USB Test}\ (p.\ 35)$
- 11. Jacks Sense Test (p. 35)
- 12. Device Test (p. 36)
- 13. Verifying Setting of Bluetooth Function and Destination $\left(p.\,36\right)$
- 14. Factory Reset (p. 36)
- 15. Bluetooth Test (p. 36)
- * **15. Bluetooth Test** is executed in the normal mode.

1. LED Test

This tests the operation of each LED.

- 1. Verify that 1 through 5 light up and \$\frac{1}{8}\$ flashes.
- **2.** Press **Function** to advance to the next test item.

2. Verifying the Version

This item verifies the various versions and whether the Bluetooth function is enable or not.

When the unit enters this test item, **Vol 5** flashes momentarily and the unit says "ichi" in Japanese.

 Press Vol + several times to verify that the unit says in the sequence shown below

"ichi" -> "ni" -> "san" -> "bow-wow" -> "mew-mew" -> "ding"

- Press Vol + several times to verify that the unit says in the reverse of the sequence shown above.
- **3.** Press **Vol +** or **Vol -** to let the unit say "ichi."

At this time, each LED lights up or goes dark to display the Program version as shown in the tables below.

Integer Portion of the Version Number	Vol 1	Vol 2
0	-	-
1	-	0
2	О	-
3	o	0

Decimal Portion of the Version Number	Vol 3	Vol 4	Vol 5	*
00	-	-	-	-
01	-	-	-	O
02	-	-	0	-
03	-	-	0	0
04	-	0	-	-
05	-	0	-	0
06	-	0	0	-
07	-	0	0	0
08	О	-	-	-
09	О	-	-	О
10	О	-	0	-
11	0	-	0	0
12	О	0	-	-
13	О	0	-	0
14	О	0	0	-
15	0	0	0	О

o: lights, -: goes dark

(Example) for ver. 1.01

Vol 1: Dark

Vol 2: Light

Vol 3: Dark

Vol 4: Dark

Vol 5: Dark

🗱 : Light

4. Press **Vol** + or **Vol** - to let the unit say "ni."

At this time, each LED lights up or goes dark to display the Loader version as shown in the tables of step ${\bf 3}$.

5. Press Vol + or Vol - to let the unit say "san."

At this time, each LED lights up or goes dark to display the Keyboard CPU version as shown in the tables of step $\bf 3$.

6. Press **Vol +** or **Vol -** to let the unit say "bow-wow."

At this time, each LED lights up or goes dark to display the Bluetooth LE version as shown in the tables of step $\bf 3$.

7. Press **Vol** + or **Vol** - to let the unit say "mew-mew."

At this time, lighting of **Vol 1** or **Vol 2** indicates whether the Bluetooth function is enable or not.

Vol 1 lights up: Bluetooth function is enable.

Vol 2 lights up: Bluetooth function is not enable.

8. Press **Vol +** or **Vol -** to let the unit say "ding."

At this time, lighting of $\mbox{Vol 3}$ or $\mbox{Vol 4}$ indicates the destination set to the unit being tested.

Vol 3 lights up: Other than Japan

Vol 4 lights up: Japan

9. Press **Function** to advance to the next test item.

3. Bluetooth Function Setting

This item sets the unit to have or not have the Bluetooth function. When the unit enters this test item, **Vol 4** flashes momentarily.

Vol 1 and Vol 2 flash.

- **1.** To set that Bluetooth function is enable (RP102-BK), press **Vol +**. To set that Bluetooth function is not enable (RP102-BKL), press **Vol -**.
 - # flashes.
 - * For the correct model name, refer to the model name sticker affixed to the center back on the bottom of the unit.
- **2.** Press **Function** to advance to the next test item.

4. Destination Setting

This makes the setting for the product's destination for the unit being tested.

When the unit enters this test item, Vol 4 and Vol 5 flash momentarily.

Vol 3 and Vol 4 flash.

- To set the destination to outside Japan, press Vol +. To set the destination to Japan, press Vol -.
 - * flashes.
- **2.** Press **Function** to advance to the next test item.

5. BLE Test

When the unit enters this test item, **Vol 3** flashes momentarily.

This test is not executed in servicing. Press **Function** to advance to the next test item.

6. Switches and LEDs Test

This item tests the operation of the switches and LEDs.

When the unit enters this test item, Vol 3 and Vol 5 flash momentarily.

Vol 1 flashes.

 Press Vol + and verify that the LEDs flash in the sequence shown below with each press.

Vol 1 -> Vol 2 -> Vol 3 -> Vol 4 -> Vol 5

- * Pressing **Vol +** produces the piano sound.
- 2. While Vol 5 is flashing, press Vol -.
 - * flashes
- 3. Press Function to advance to the next test item.

7. Sound Test

This item tests the output of speakers and the **PHONES** jack. When the unit enters this test item, **Vol 3** and **Vol 4** flash momentarily.

Vol 1 flashes and Vol 2 through 4 light up.

 Press Vol - and verify that the LEDs flash in the sequence shown below with each press.

Vol 1 -> Vol 2 -> Vol 3 -> Vol 4 -> Vol 1 (repeated)

- 2. Press Vol to make Vol 1 flash
- Press Vol + and verify that the piano sound with no effect are produced from the left and right speakers.
- 4. Press Vol to make Vol 2 flash.
- Press Vol + and verify that the piano sound with reverb are produced from the left and right speakers.
- 6. Press Vol to make Vol 3 flash.
- Press Vol + and verify that the sound is produced from the left speaker only.
- **8.** Press **Vol -** to make **Vol 4** flash.
- Press Vol + and verify that the sound is produced from the right speaker only.
- **10.** Connect the headphones to the **PHONES** jack (1/4-inch).
- 11. Verify in the same way as steps 2 through 9.
- **12.** Connect the headphones to the **PHONES** jack (miniature).
- 13. Verify in the same way as steps 2 through 9.
- **14.** Disconnect the headphones, and press **Function** to advance to the next test item.

8. Mute Test

This item tests the mute operations of speakers and the **PHONES** jack. When the unit enters this test item, **Vol 3** through **Vol 5** flash momentarily.

Vol 1 flashes and Vol 2 and Vol 3 light up.

 Press Vol - and verify that the LEDs flash in the sequence shown below with each press.

Vol 1 -> Vol 2 -> Vol 3 -> Vol 1 (repeated)

- 2. Press Vol to make Vol 1 flash
- **3.** Hold down any key to produce sound and press **Vol +** to verify that sound from the left and right speakers are muted.
- **4.** Press **Vol -** to make **Vol 2** flash and verify in the same as step **3**.
- **5.** Press **Vol -** to make **Vol 3** flash and verify in the same as step **3**.
- **6.** Connect the headphones to the **PHONES** jack (1/4-inch).
- 7. Verify in the same way as steps 2 through 4.
- **8.** Press **Vol -** to make **Vol 3** flash.
- **9.** Hold down any key to produce sound and press **Vol** + to verify that sound are not muted and sine wave sound are added.
- 10. Connect the headphones to the PHONES jack (miniature).
- 11. Verify in the same way as steps 7 through 9.
- **12.** Disconnect the headphones, and press **Function** to advance to the next test item.

9. Pedal Test

This item tests the operation of pedals.

When the unit enters this test item, Vol 2 flashes momentarily.

All LEDs go dark.

1. Slowly depress the soft pedal (left).

Vol 1 lights up.

2. Slowly release it.

Vol 1 goes dark.

3. Slowly depress the sostenuto pedal (center).

Vol 2 lights up.

4. Slowly release it.

Vol 2 goes dark.

5. Slowly depress the damper pedal (right).

Vol 4 lights up, and then Vol 3 lights up also.

6. Slowly release it.

Vol 3 goes dark, and then Vol 4 goes dark also.

7. Press **Function** to advance to the next test item.

10. USB Test

This item tests the operations of the USB (**Computer** and **Memory for Update**) connectors.

When the unit enters this test item, Vol 2 and Vol 5 flash momentarily.

 Connect the USB memory device to the USB Memory for Update connector.

Vol 1 lights up.

2. Detach the USB memory device.

Vol 1 goes dark.

 Using the USB cable, connect the USB Computer connector to the USB Memory for Update connector.

Vol 2 lights up.

4. Detach the USB cable.

Vol 2 goes dark.

5. Press **Function** to advance to the next test item.

11. Jacks Sense Test

This item tests the switch operation of **PHONES** jack (1/4-inch and miniature).

When the unit enters this test item, **Vol 2** and **Vol 4** flash momentarily.

- Connect the headphones to the PHONES jack (1/4-inch).
 Vol 1 lights up.
- 2. Detach the headphones.

Vol 1 goes dark.

3. Connect the headphones to the **PHONES** jack (miniature).

Vol 1 lights up.

4. Detach the headphones.

Vol 1 goes dark.

Press Function to advance to the next test item.

12. Device Test

This item tests the operation of each device automatically. When the unit enters this test item, **Vol 2**, **Vol 4** and **Vol 5** flash momentarily.

Vol 1 through **5** are lighting while testing is in progress. When the testing is completed correctly, **Vol 1** through **5** go dark.

When the result is not OK, Vol 1 through 5 flash.

When **Vol +** is pressed, the test result for each device is displayed in the following sequence.

General Result -> Program ROM0 -> Program ROM1 -> Effect RAM -> Wave ROM -> Keyboard CPU -> Bluetooth LE

At this time, the test result for each device (OK or not OK) is displayed by lighting (OK) or flashing (not OK) as shown in the table below.

	Vol 1	Vol 2	Vol 3	Vol 4	Vol 5
General Result	*	*	*	*	*
Program ROM0	-	-	-	-	0/*
Program ROM1	-	-	-	0/*	-
Effect RAM	-	-	-	0/*	0/*
Wave ROM	-	-	0/*	-	-
Keyboard CPU	-	-	0/*	-	0/*
Bluetooth LE	-	-	0/*	o/*	-

o: light (OK), -: dark, *: flashing (not OK)

When all devices are OK, \$\mathbb{x}\$ flashes.

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

13. Verifying Setting of Bluetooth Function and Destination

This item verifies the setting of the Bluetooth function and the destination.

When the unit enters this test item, **Vol 2** and **Vol 3** flash momentarily.

 Verify the setting of the Bluetooth function by the status of Vol 1 and Vol 2.

Vol 1 lights up: Bluetooth function is enable. Vol 2 lights up: Bluetooth function is not enable.

2. Verify the setting of the destination by the status of Vol 3 and Vol 4.

Vol 3 lights up: Other than Japan

Vol 4 lights up: Japan

3. Press **Function** to advance to the next test item.

14. Factory Reset

This performs a factory reset.

When the unit enters this test item, **Vol 2**, **Vol 3** and **Vol 5** flash momentarily.

1. Press Vol +.

The factory reset is executed.

Vol 1 through **5** are lighting while testing is in progress.

When the testing is finished, **Vol 1** through **5** go dark and **\$** flashes.

2. Press Function

Vol 1 through **5** and **\$** go dark.

3. Turn off the power.

This completes the testing in the Test Mode.

The following tests are performed in the normal mode.

15. Bluetooth Test

- 1. On the iPhone, enter **Settings** and set **Bluetooth** to off.
- **2.** Place an iPhone near the RP102.
- **3.** Turn on the power to the RP102.
- Hold down Function of the RP102 and press C#7 on the keyboard. (the rightmost key is C8.)

The Bluetooth function of the RP102 becomes on.

5. Hold down **Function** and press E7 on the keyboard. (the rightmost key is C8.)

Page Turn and MIDI function of the RP102 becomes Page Turn.

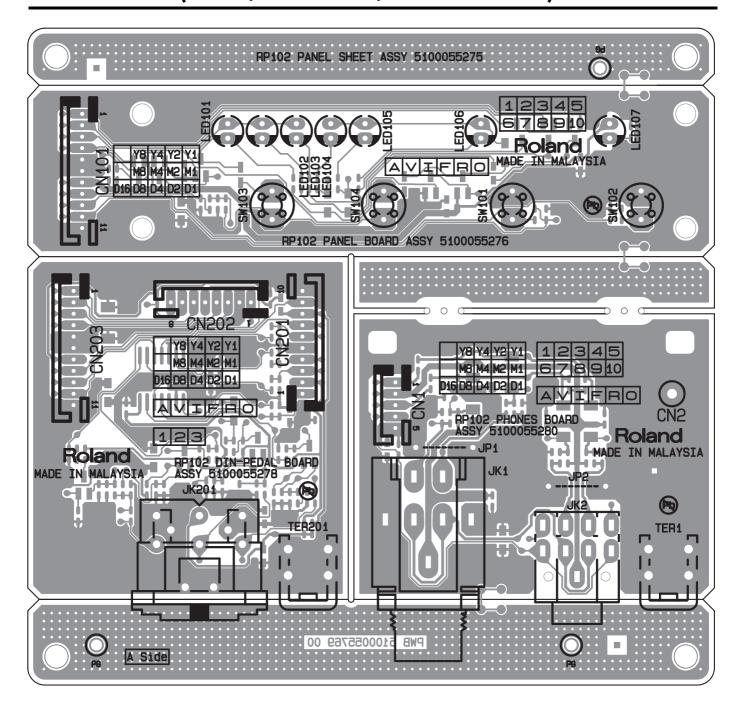
- **6.** On the iPhone, enter **Settings** and set **Bluetooth** to on.
- Tap RP102 displayed on the Bluetooth screen, and when you are requested to pair, tap Pair.

Connected is displayed at the right of RP102.

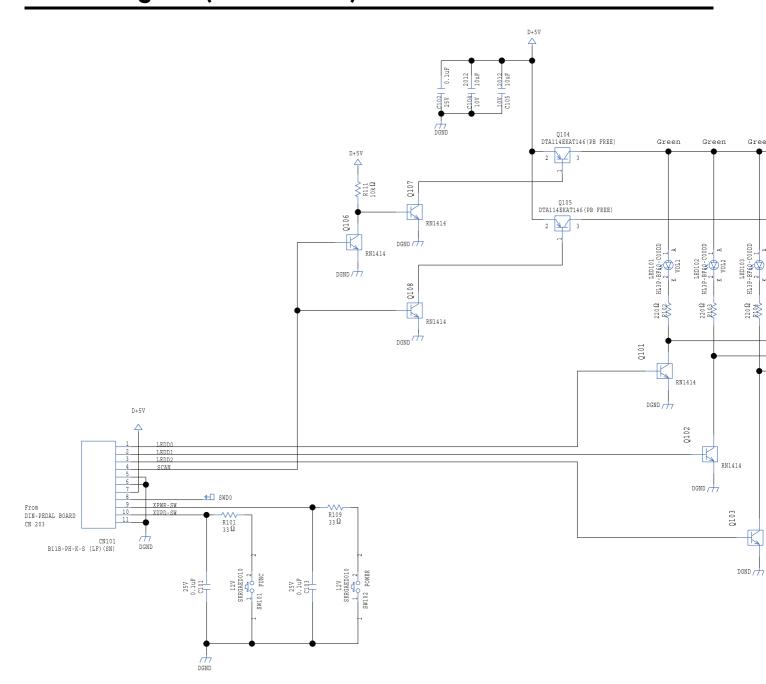
This completes pairing.

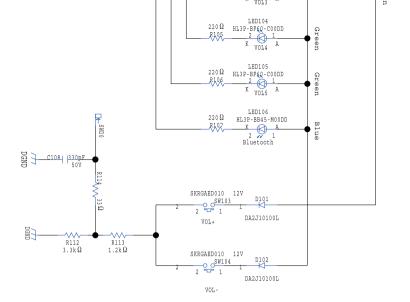
- **8.** Start piaScore on the iPhone.
- **9.** Tap any score to spread it on the screen.
- **10.** Depress the center or left pedal of the RP102 to verify that it is possible to turn pages. (regular order by the center pedal and reverse order by the left pedal)
- **11.** Tap **Settings** and **Bluetooth** on the iPhone, and tap ① at the right of **RP102**, and then tap **Forget This Device**.
- **12.** Follow the procedure in **Performing a Factory Reset** (p. 33) to execute a factory reset.
 - * By executing the factory reset, the pairing information of the mobile device with Bluetooth function which was used for the inspection is deleted from the RP102. 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 (Panel, DIN-Pedal, Phones Board)

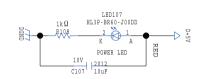


Circuit Diagram (Panel Board)

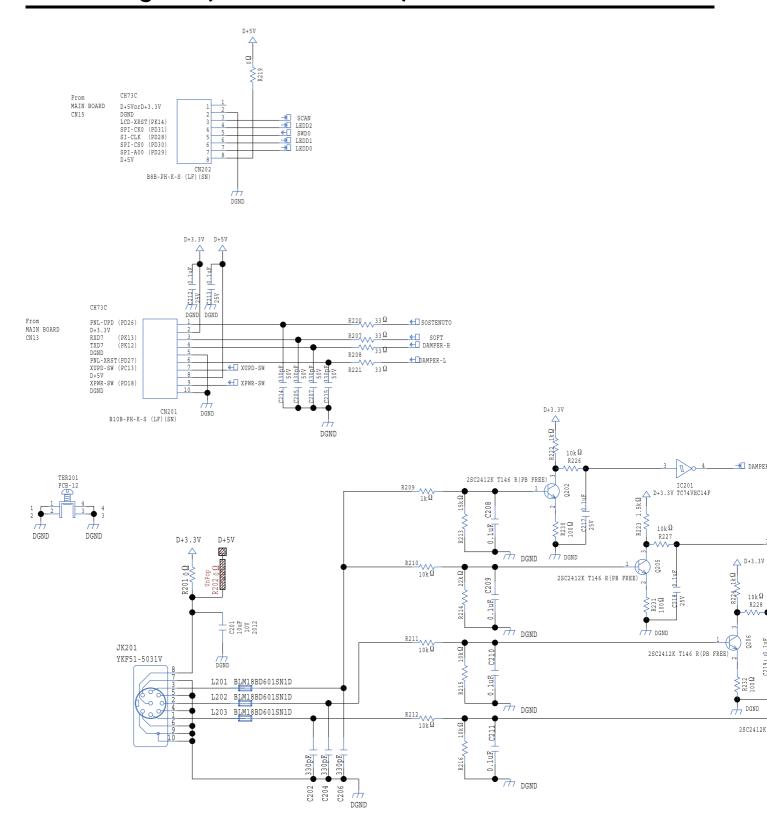


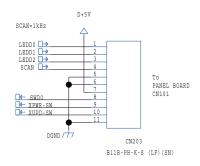


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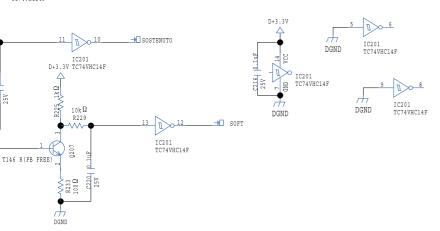


Circuit Diagram (DIN-Pedal Board)









Circuit Diagram (Phones Board)

