

CASIO®

SERVICE MANUAL

& PARTS LIST (without price)

PX-3BK/PX-3SBK

MAY. 2010/MAY. 2011



PX-3BK

ELECTRONIC KEYBOARD

Ver. 4 : Sep. 2011

CONTENTS

SPECIFICATIONS.....	1
BLOCK AND WIRING DIAGRAM	2
PCB INFORMATION.....	3
CIRCUIT DESCRIPTION	4
PRINTED CIRCUIT BOARDS.....	6
DISASSEMBLY.....	12
DIAGNOSTIC PROGRAM	39
EXPLODED VIEW.....	50
PARTS LIST.....	52
SCHEMATIC DIAGRAMS.....	60

SPECIFICATIONS

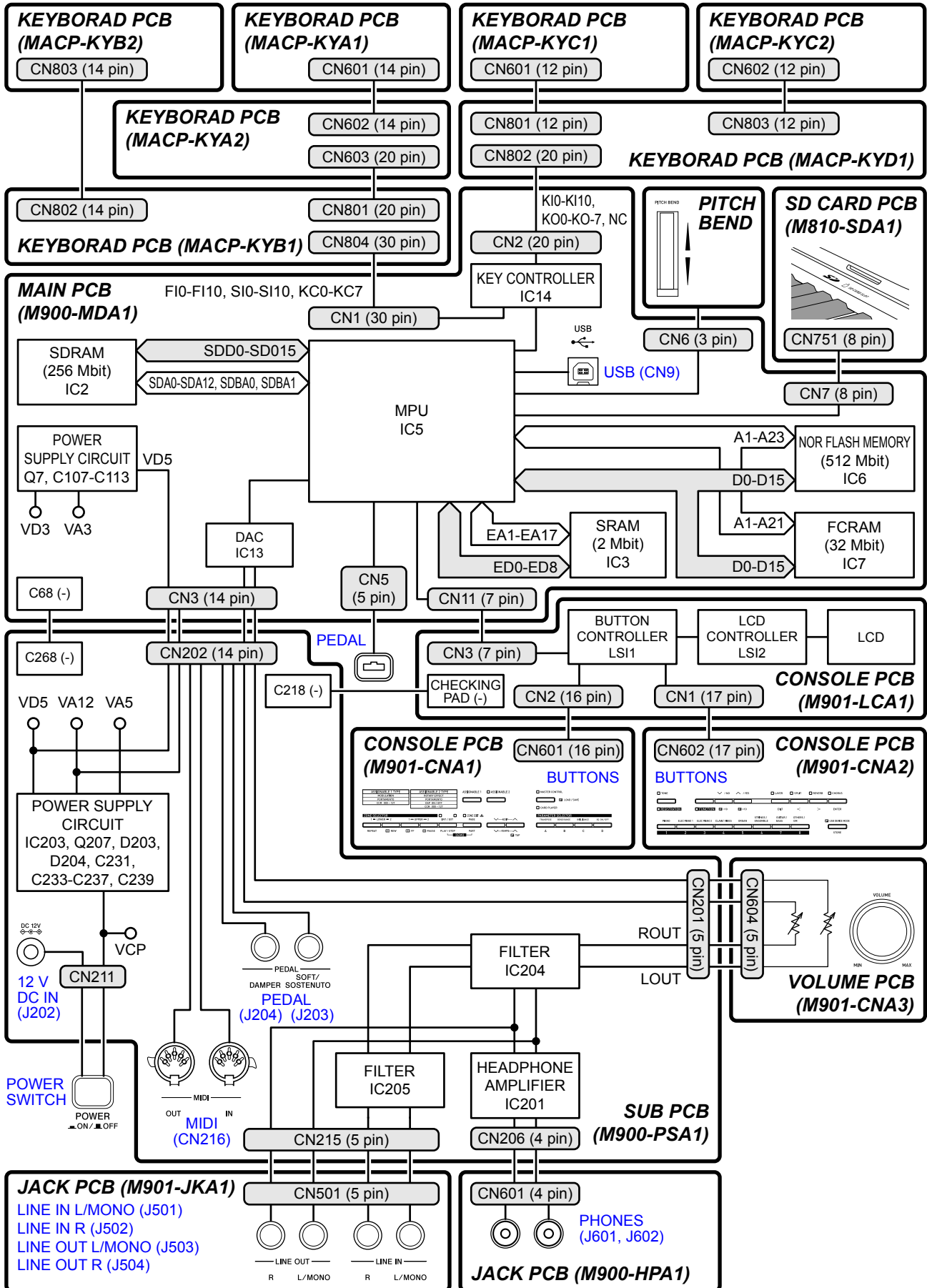
PX-3 series is not equipped with speakers.

Headphones or musical instrument amplifier are necessary when repairing PX-3 series.

Keyboard	88-key piano keyboard, with Touch Response (3 types)
Maximum Polyphony	128 notes
Tones	250 (with Layer and Split)
Effects	DSP, Reverb (4 types), Chorus (4 types), Brilliance (-3 to 0 to 3), Acoustic Resonance
Mixer	UPPER 1, UPPER 2, LOWER 1, LOWER 2; The volume level of each zone can be adjusted independently.
Assignable buttons	2
Demo Songs	4 original songs (played back sequentially and repeatedly)
Registration	8 areas × 8 banks
Pedals	Damper, Soft/Sostenuto (switchable)
Other Functions	Transpose: ± 1 octave (-12 to 0 to 12) Tuning: A4 = 440.0 Hz ± 99 cents Octave Shift: ± 2 octaves Temperaments: 17 types Stretch Tune Panel Lock
MIDI	16 multi-timbre received, GM Level 1 standard
Pitch Bend Wheel	Pitch Bend Range: 00 to 12 semitones
SD Memory Card	SD memory card slot Supported SD Memory Cards: Up to 2 GB Functions: SMF playback, file storage, file recall, card format
Inputs/Outputs	PHONES jacks: Stereo mini jacks × 2 Pedal Jacks: Standard jacks × 2 MIDI OUT/IN terminals LINE OUT R, L/MONO jacks: Standard jacks × 2 Output impedance: 2.3 KΩ Output voltage: 1.8 V (RMS) MAX LINE IN R, L/MONO jacks: Standard jacks × 2 Input impedance: 9.0 KΩ Input voltage: 200 mV Power: 12 V DC USB port: Type B Pedal connector (for optional SP-32 only)
Power Requirements	AC Adaptor: AD-A12150LW
Power Consumption	12 V $\overline{=}$ 18 W
Dimensions	132.2 (W) × 28.6 (D) × 13.5 (H) cm (52 ¹ / ₁₆ × 11 ¹ / ₄ × 5 ⁵ / ₁₆ inch)
Weight	Approximately 10.8 kg (23.8 lbs)

* Based on 1 KB = 1024 bytes, 1 MB = 1024² bytes

BLOCK AND WIRING DIAGRAM

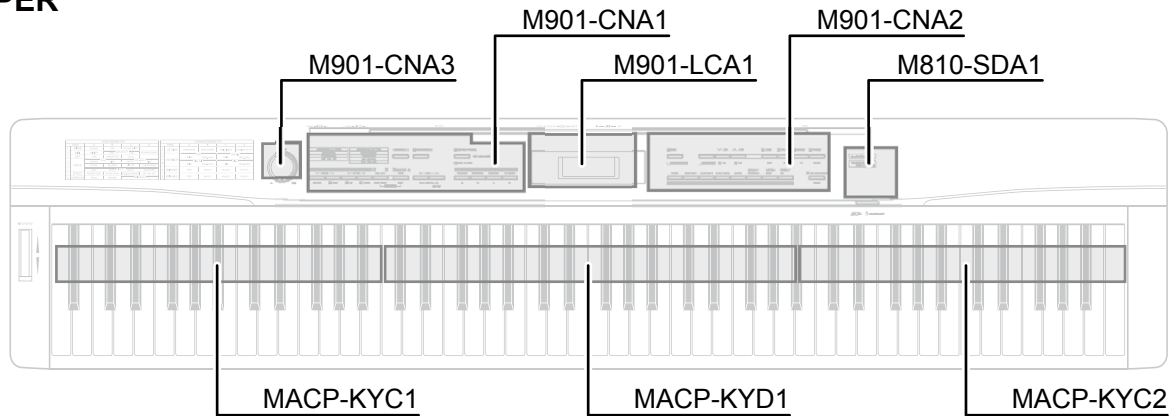


PX-3 series is not equipped with speakers.

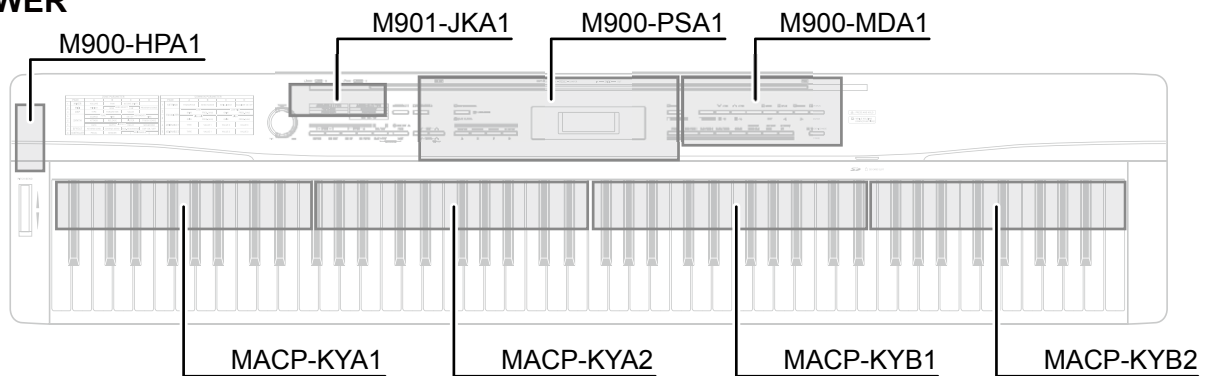
Headphones or musical instrument amplifier are necessary when repairing PX-3 series.

PCB INFORMATION

UPPER



LOWER



Classification	Parts Name	PCB Name	Components
Main PCB	PCB ASSY/MAIN	M900-MDA1	MPU, Reset IC, SDRAM (256 Mbit), Flash Memory (512 Mbit), FCRAM (32 Mbit), SRAM (2 Mbit), Power Supply Circuit, Key Controller, USB Port, Pitch Bend
Sub PCB	PCB ASSY/PSA1	M900-PSA1	DC 12 V Terminal, Power Supply Circuit, Filter, Pedal Jacks, MIDI Jacks
Console PCBs	BL-ASSY	M901-LCA1	LCD, LCD Controller, Button Controller
	PCB ASSY/CNA1	M901-CNA1	Buttons
	PCB ASSY/CNA2	M901-CNA2	Buttons
Volume PCB	PCB ASSY/CNA3	M901-CNA3	Main Volume
Jack PCBs	PCB ASSY/JKA1	M901-JKA1	LINE IN Jacks, LINE OUT Jacks
	PCB ASSY/HPA1	M900-HPA1	PHONES Jacks
SD Card PCB	PCB ASSY/SDA1	M810-SDA1	SD Card Slot
Keyboard PCBs	PCB ASSY/KYA	MACP-KYA1	Keyboard
		MACP-KYA2	
	PCB ASSY/KYB	MACP-KYB1	
		MACP-KYB2	
	PCB ASSY/KYC, KYD	MACP-KYC1	
		MACP-KYC2	
	MACP-KYD1		

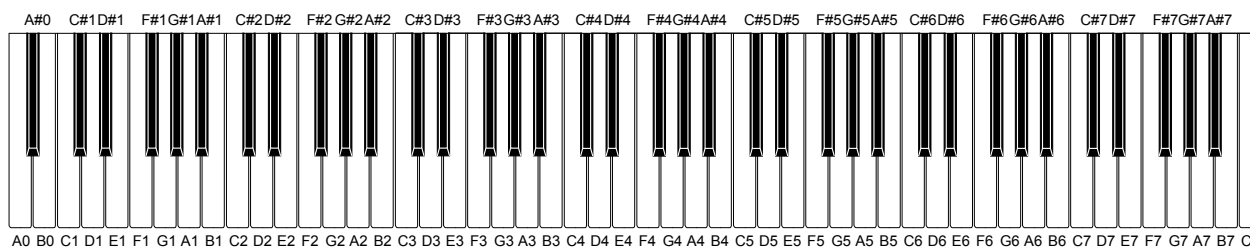
CIRCUIT DESCRIPTION

■ KEY MATRIX

	KC0	KC1	KC2	KC3	KC4	KC5	KC6	KC7
F10	A0①	A0#①	B0①	C1①	C1#①	D1①	D1#①	E1①
SI0	A0②	A0#②	B0②	C1②	C1#②	D1②	D1#②	E1②
F11	F1①	F1#①	G1①	G1#①	A1①	A1#①	B1①	C2①
SI1	F1②	F1#②	G1②	G1#②	A1②	A1#②	B1②	C2②
F12	C2#①	D2①	D2#①	E2①	F2①	F2#①	G2①	G2#①
SI2	C2#②	D2②	D2#②	E2②	F2②	F2#②	G2②	G2#②
F13	A2①	A2#①	B2①	C3①	C3#①	D3①	D3#①	E3①
SI3	A2②	A2#②	B2②	C3②	C3#②	D3②	D3#②	E3②
F14	F3①	F3#①	G3①	G3#①	A3①	A3#①	B3①	C4①
SI4	F3②	F3#②	G3②	G3#②	A3②	A3#②	B3②	C4②
F15	C4#①	D4①	D4#①	E4①	F4①	F4#①	G4①	G4#①
SI5	C4#②	D4②	D4#②	E4②	F4②	F4#②	G4②	G4#②
F16	A4①	A4#①	B4①	C5①	C5#①	D5①	D5#①	E5①
SI6	A4②	A4#②	B4②	C5②	C5#②	D5②	D5#②	E5②
F17	F5①	F5#①	G5①	G5#①	A5①	A5#①	B5①	C6①
SI7	F5②	F5#②	G5②	G5#②	A5②	A5#②	B5②	C6②
F18	C6#①	D6①	D6#①	E6①	F6①	F6#①	G6①	G6#①
SI8	C6#②	D6②	D6#②	E6②	F6②	F6#②	G6②	G6#②
F19	A6①	A6#①	B6①	C7①	C7#①	D7①	D7#①	E7①
SI9	A6②	A6#②	B6②	C7②	C7#②	D7②	D7#②	E7②
F110	F7①	F7#①	G7①	G7#①	A7①	A7#①	B7①	C8①
SI10	F7②	F7#②	G7②	G7#②	A7②	A7#②	B7②	C8②

	KO0	KO1	KO2	KO3	KO4	KO5	KO6	KO7
KI0	A0③	A0#③	B0③	C1③	C1#③	D1③	D1#③	E1③
KI1	F1③	F1#③	G1③	G1#③	A1③	A1#③	B1③	C2③
KI2	C2#③	D2③	D2#③	E2③	F2③	F2#③	G2③	G2#③
KI3	A2③	A2#③	B2③	C3③	C3#③	D3③	D3#③	E3③
KI4	F3③	F3#③	G3③	G3#③	A3③	A3#③	B3③	C4③
KI5	C4#③	D4③	D4#③	E4③	F4③	F4#③	G4③	G4#③
KI6	A4③	A4#③	B4③	C5③	C5#③	D5③	D5#③	E5③
KI7	F5③	F5#③	G5③	G5#③	A5③	A5#③	B5③	C6③
KI8	C6#③	D6③	D6#③	E6③	F6③	F6#③	G6③	G6#③
KI9	A6③	A6#③	B6③	C7③	C7#③	D7③	D7#③	E7③
KI10	F7③	F7#③	G7③	G7#③	A7③	A7#③	B7③	C8③

■ NOMENCLATURE OF KEYS



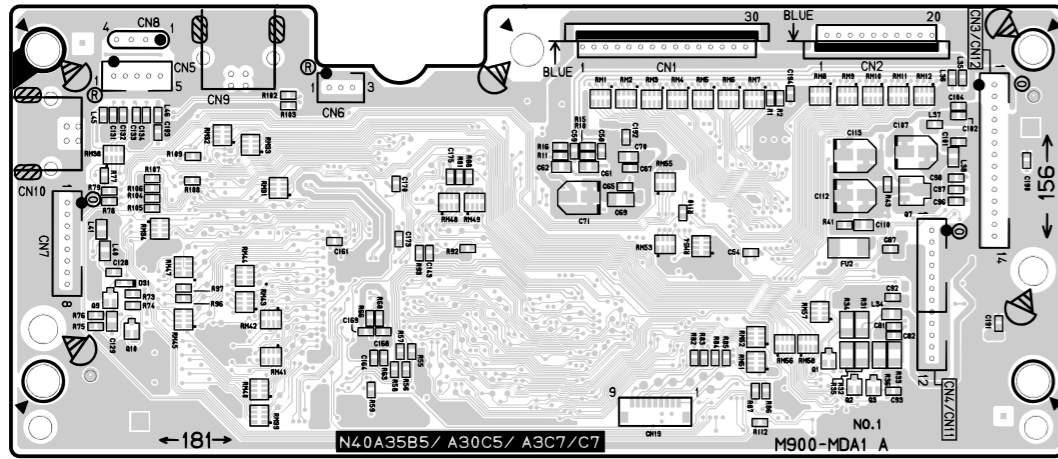
■ BUTTON MATRIX

	KC0	KC1	KC2	KC3
KI0	ZONE SELECTOR (LOWER 1), REPEAT	INT/EXT, PLAY/STOP	ZONE SELECTOR (UPPER 1), ►► FF	EDIT v, TEMPO v
KI1	ZONE EDIT, PAGE, PART	ZONE SELECTOR (LOWER 2), ◀◀ REW	EDIT ^, TEMPO ^	ZONE SELECTOR (UPPER 2), PAUSE
KI2	ASSIGNABLE 2	PARAMETER SELECTOR (TRANSPOSE, A)	MASTER CONTROL, CARD PLAYER, LOAD/SAVE	PARAMETER SELECTOR (BRILLIANCE, C)
KI3	PARAMETER SELECTOR (BEND RANGE, B)	ASSIGNABLE 1	PARAMETER SELECTOR (EQ ON/OFF, D)	—

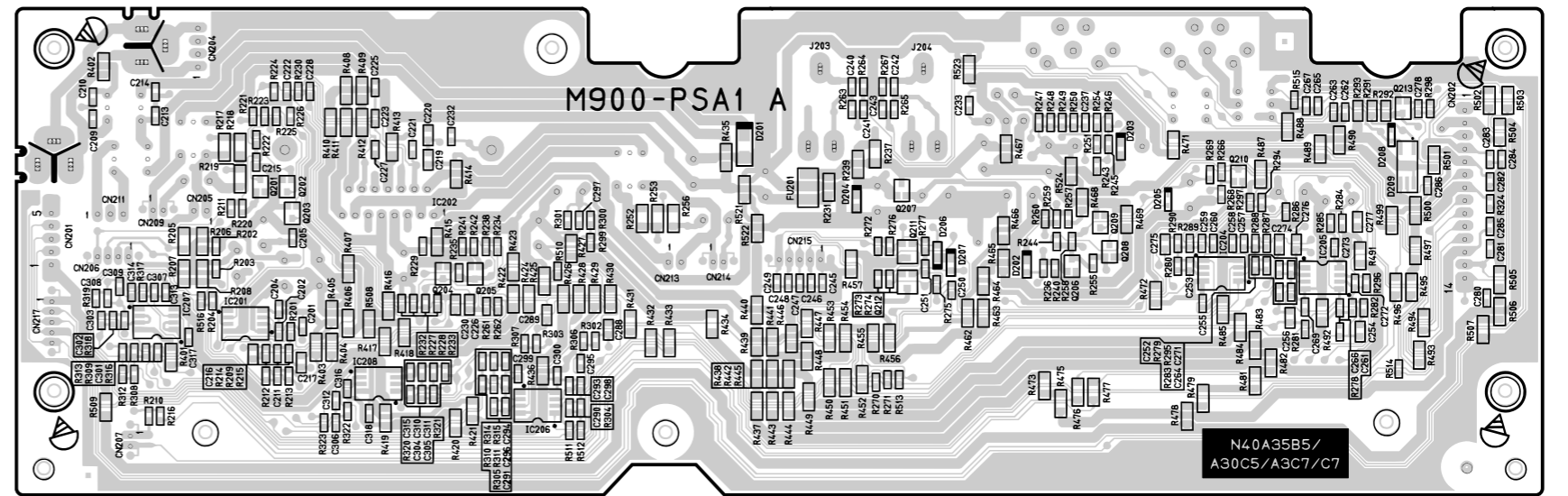
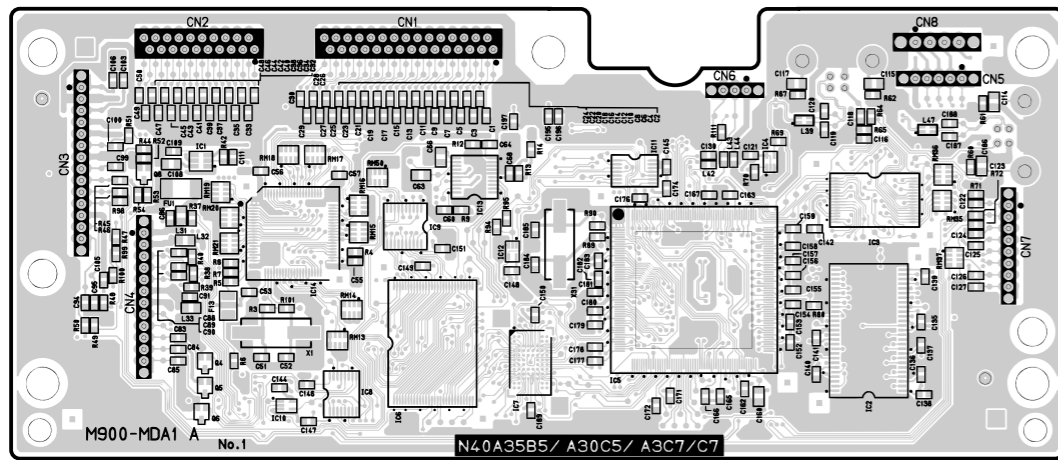
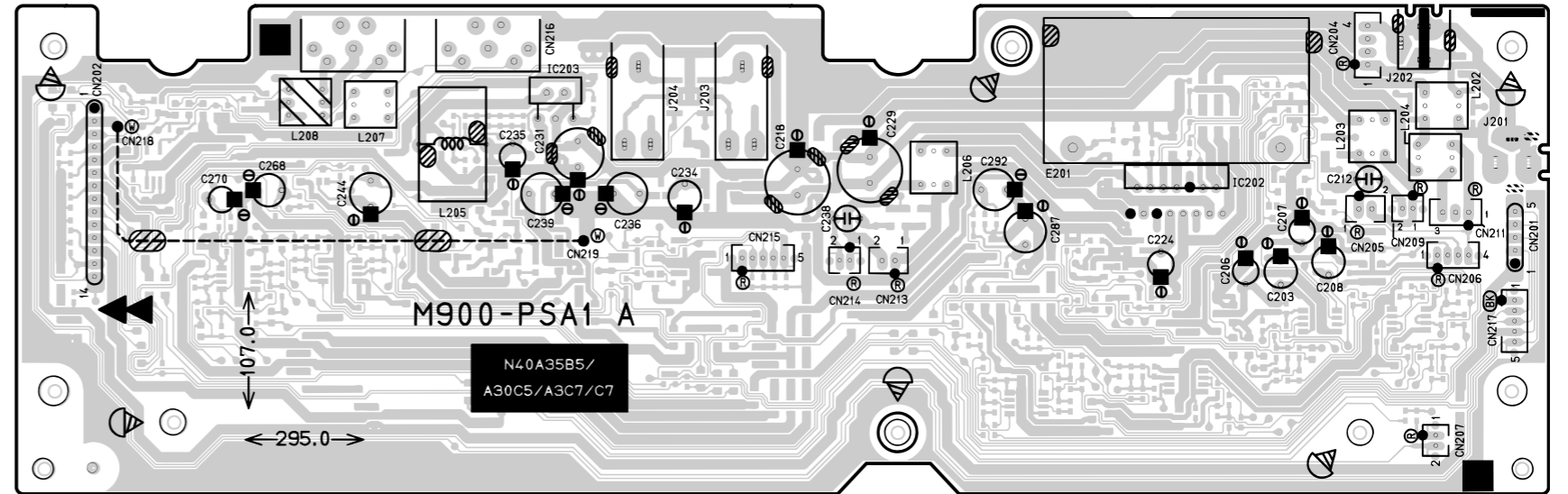
	2KC0	2KC1	2KC2	2KC3	2KC4
2KI4	PIANO, 1	ORGAN, 5	ELEC PIANO 2, 3	GUITAR/BASS, 7	STORE, USB DEVICE MODE
2KI5	STRINGS/ ENSEMBLE, 6	ELEC PIANO 1, 2	OTHERS/GM, 8	CLAVI/VIBES, 4	—
2KI6	TONE, REGISTRATION	LAYER, EXIT	v / NO	REVERB, >	—
2KI7	SPLIT, <	FUNCTION	CHORUS, ENTER	^ / YES	—

PRINTED CIRCUIT BOARDS

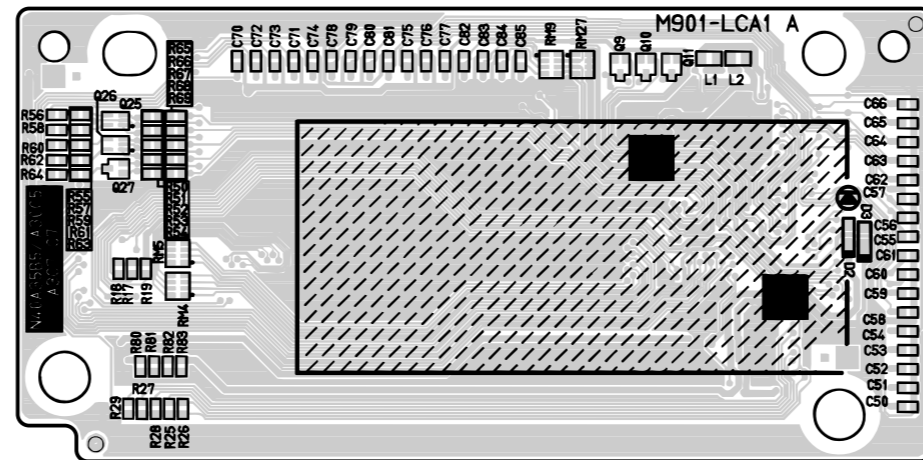
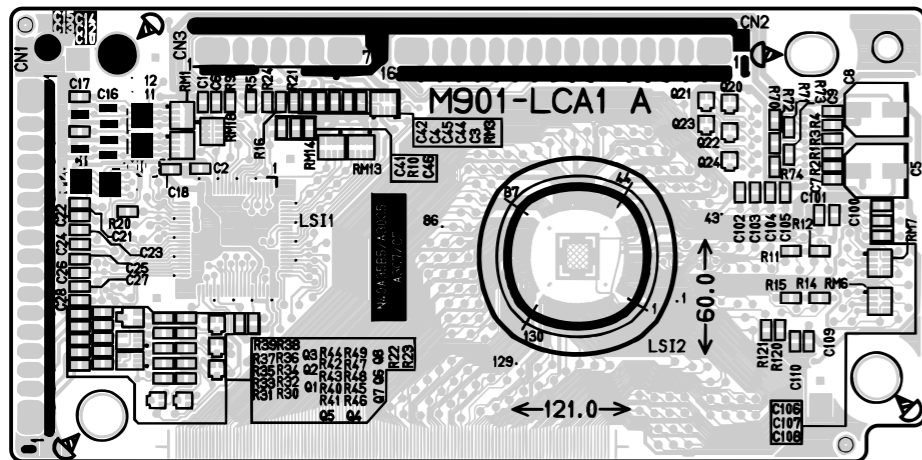
Main PCB M900-MDA1



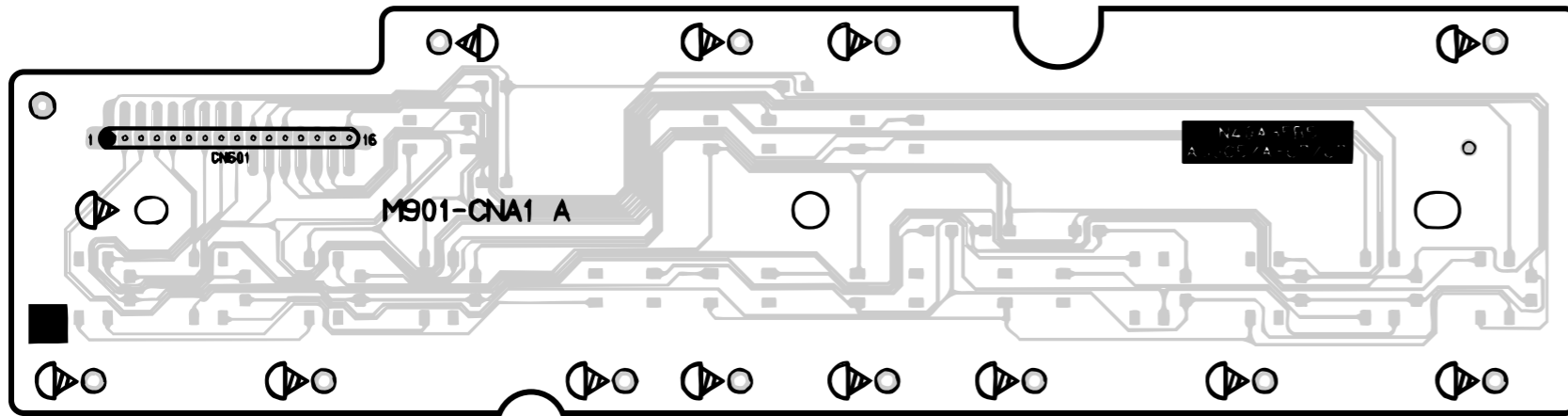
Sub PCB M900-PSA1



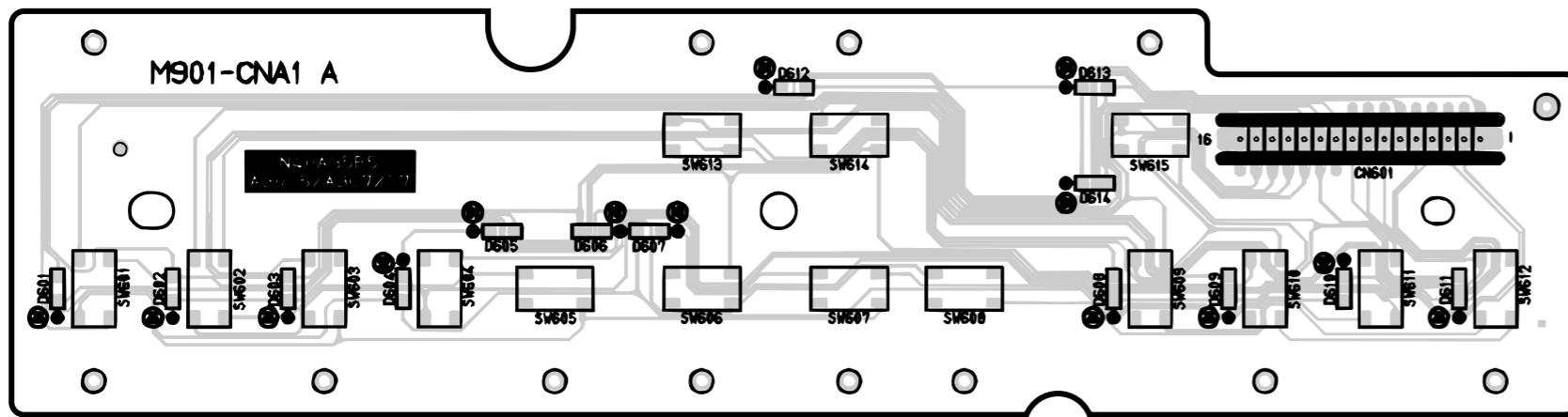
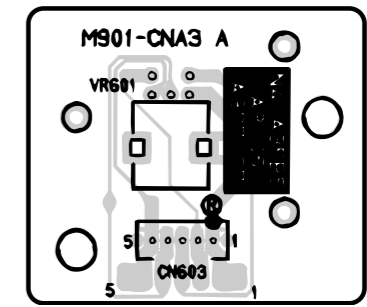
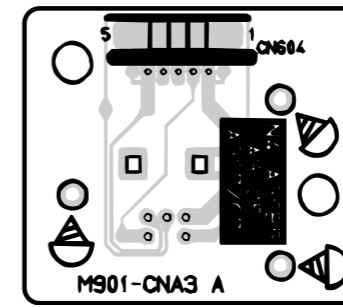
Console PCB M901-LCA1



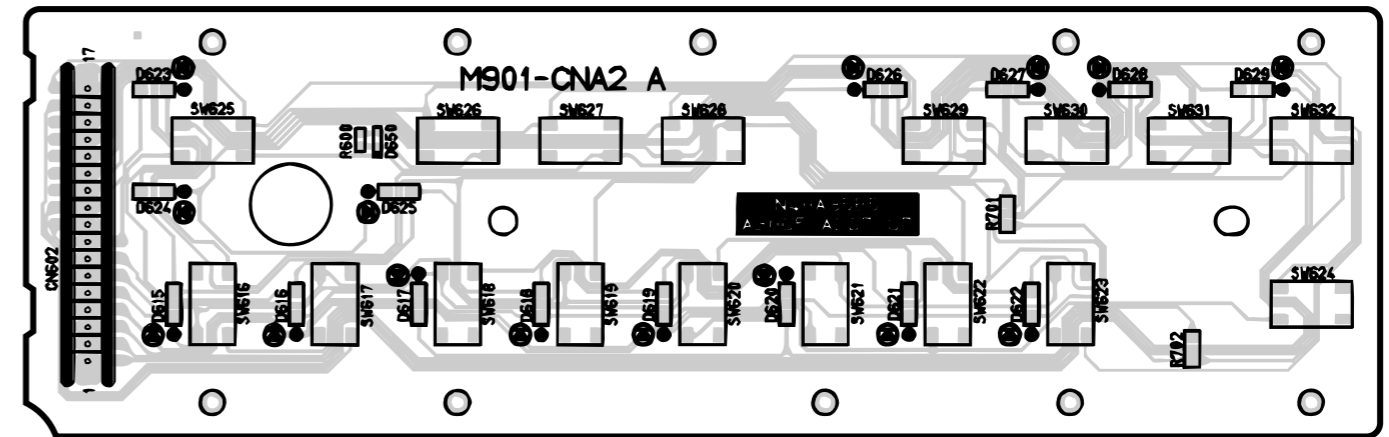
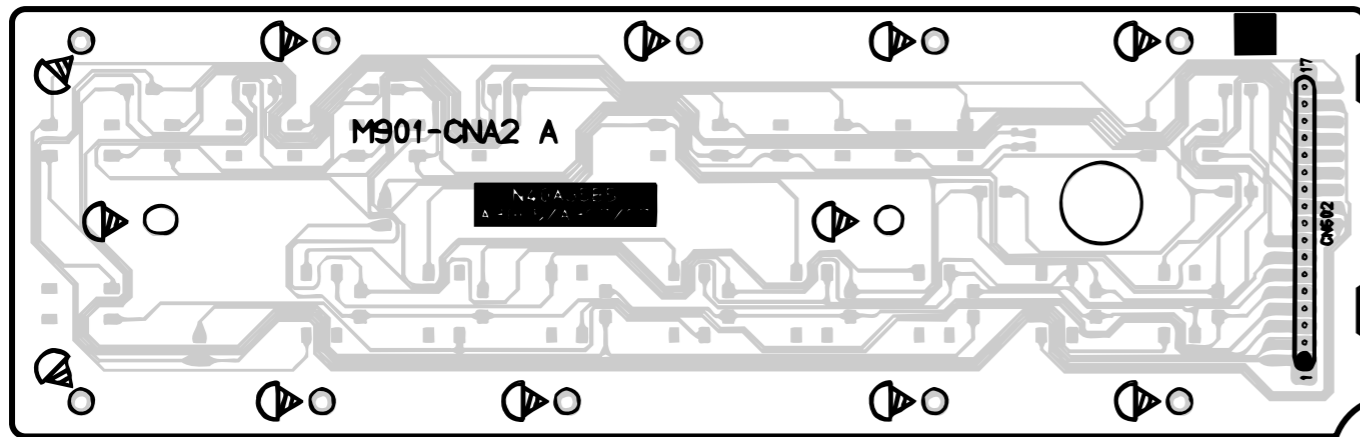
Console PCB M901-CNA1



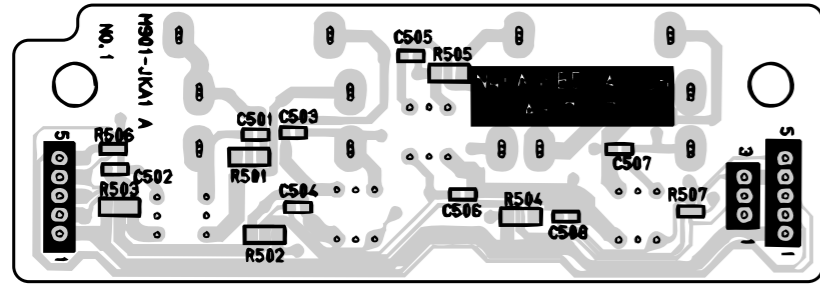
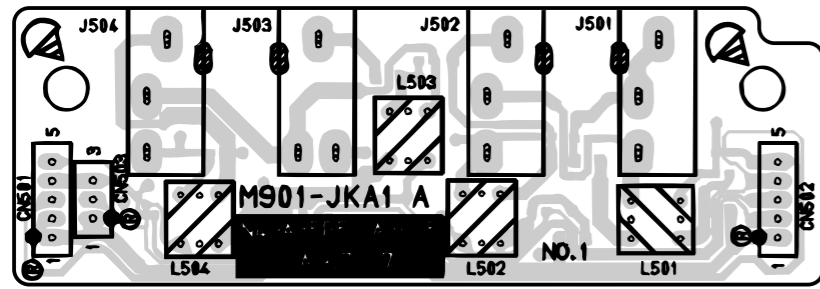
Volume PCB M901-CNA3



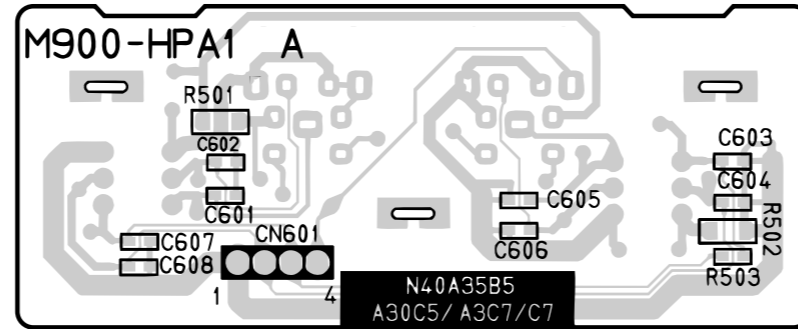
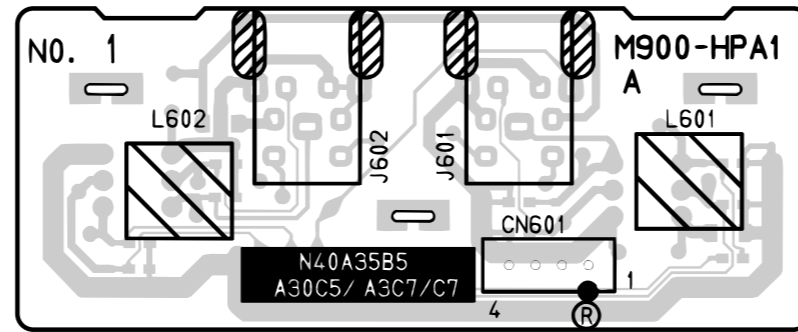
Console PCB M901-CNA2



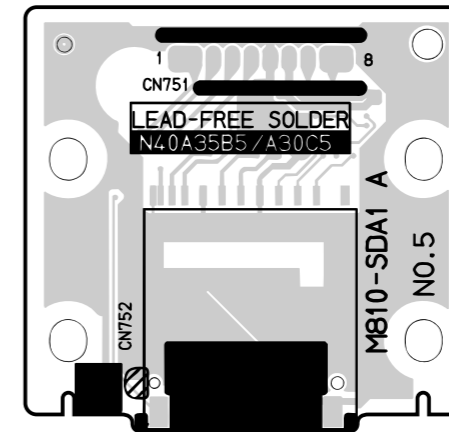
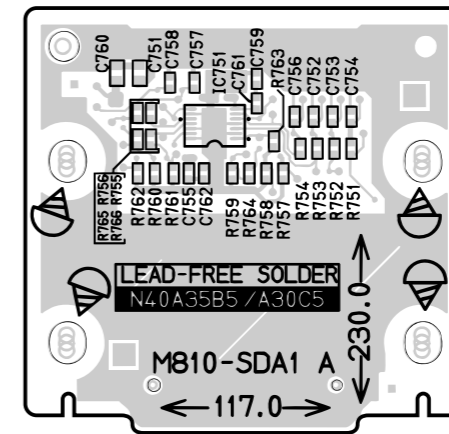
Jack PCB M901-JKA1



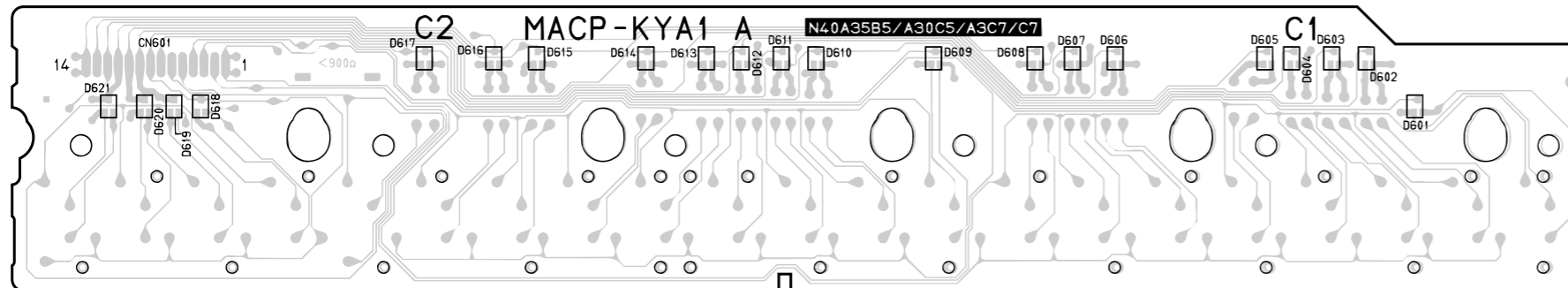
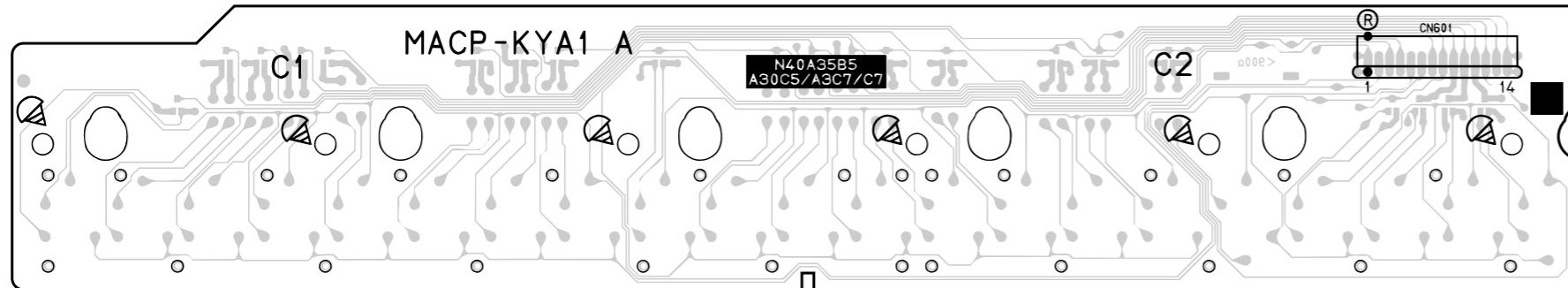
Jack PCB M900-HPA1



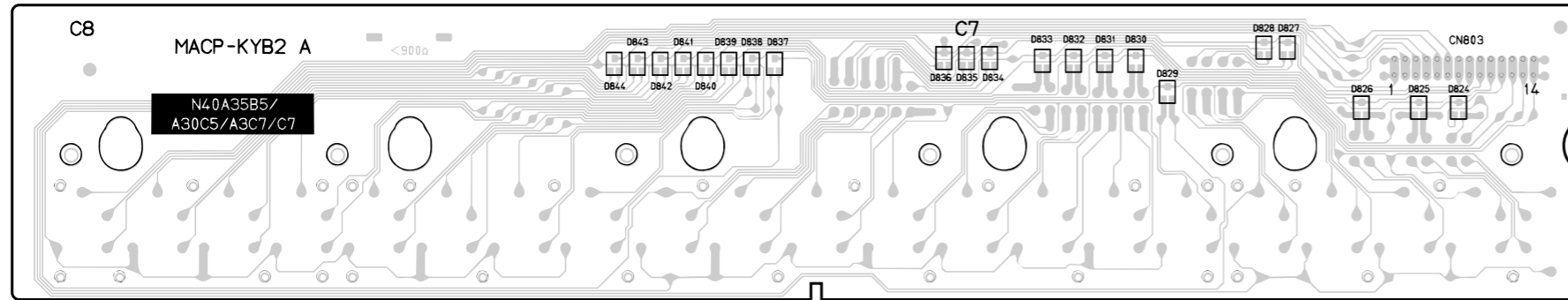
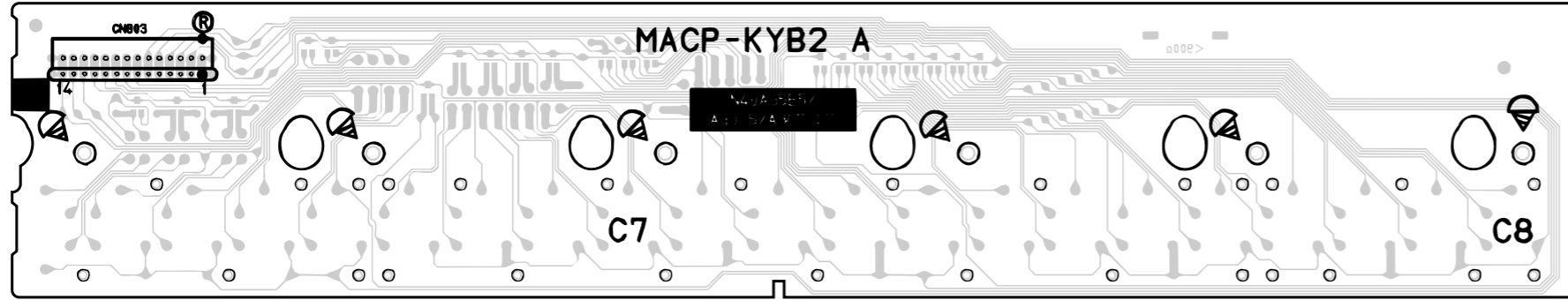
SD Card PCB M810-SDA1



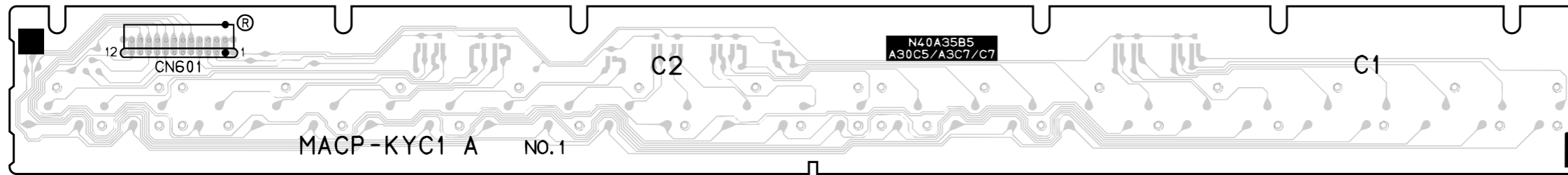
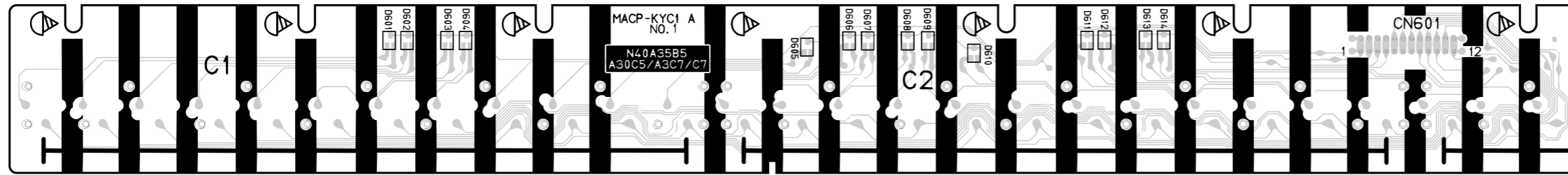
Keyboard PCB MACP-KYA1



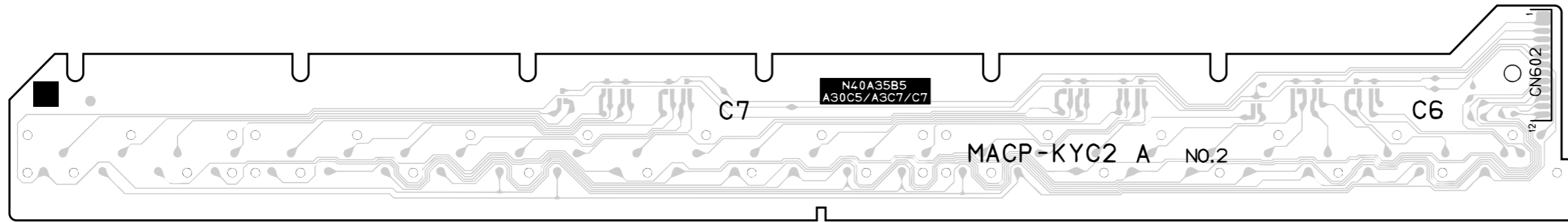
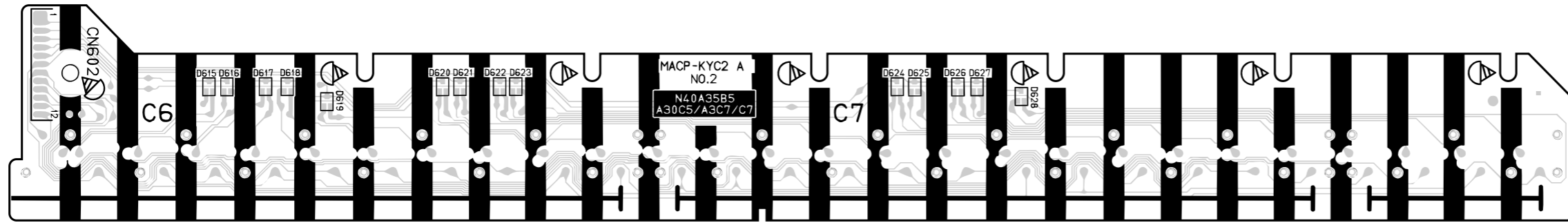
Keyboard PCB MACP-KYB2



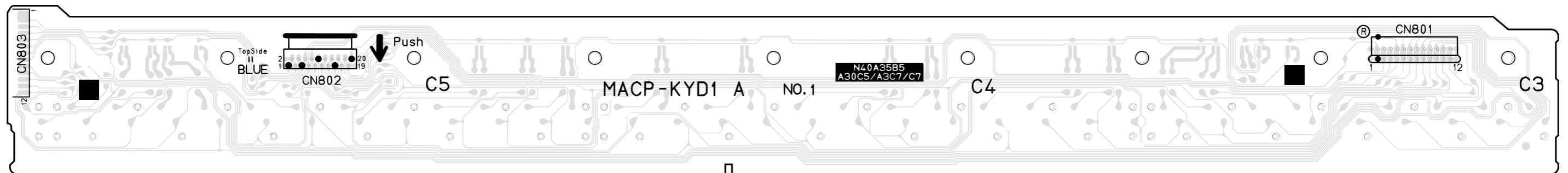
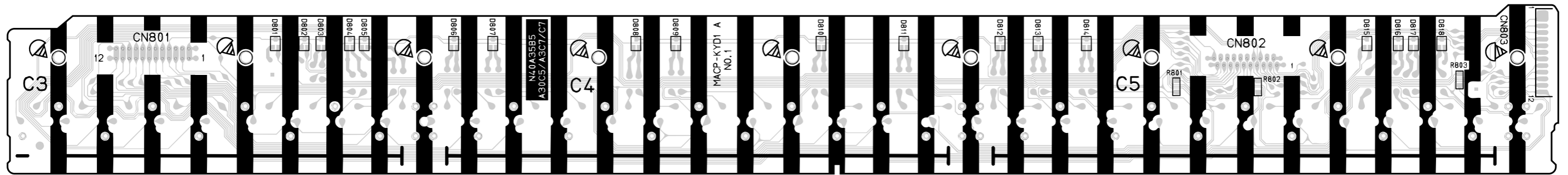
Keyboard PCB MACP-KYC1



Keyboard PCB MACP-KYC2



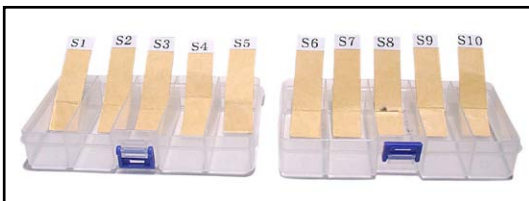
Keyboard PCB MACP-KYD1



DISASSEMBLY

■ CAUTION

- The photos show a prototype. The appearance of the instrument, such as color, may differ from the actual model.
Furthermore, PX-3 series is not equipped with speakers and tweeters.
- To avoid damages to the instrument and the floor, lay the instrument on a mattress or blanket before starting disassembling.
- There are several kinds of screws. Be sure to use the correct type of screws when reassembling. It is advisable to sort the screws as shown below after removing them.



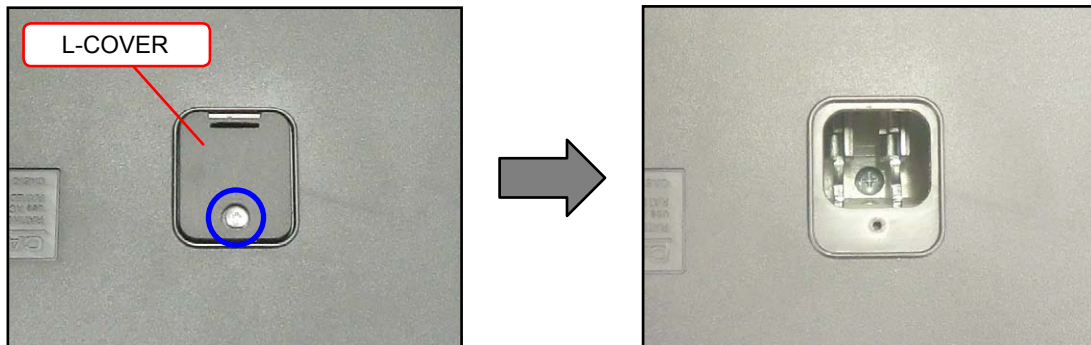
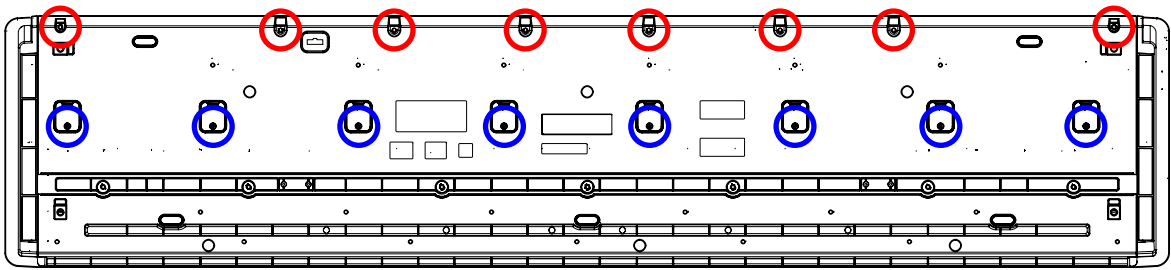
- If a screw cap is attached to a screw, be sure to reattach the screw cap when reassembling.

■ Before Starting Repair or Servicing

- Remove the AC adaptor or the AC cord.
- Remove accessories such as the music stand.
- Remove the pedal unit plug from the pedal connector.

■ Removing the main panel

- (1) Undo 16 screws and remove eight L-COVERs on the bottom surface of the main unit.



- (2) You will see a screw inside when you remove an L-COVER. Undo and remove the screw through each opening (eight screws in total).

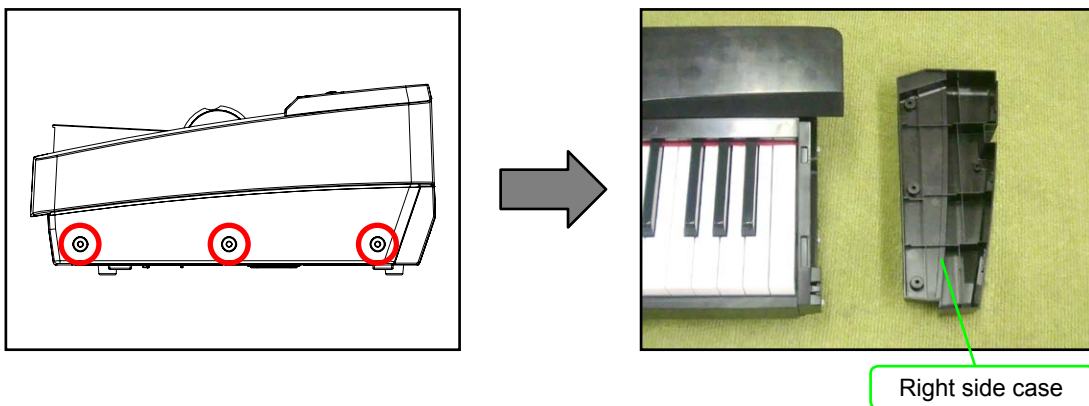
NOTE: Do not drop the screws inside the main unit.

NOTE: Do not touch the hammer with the screwdriver while loosening the screws.



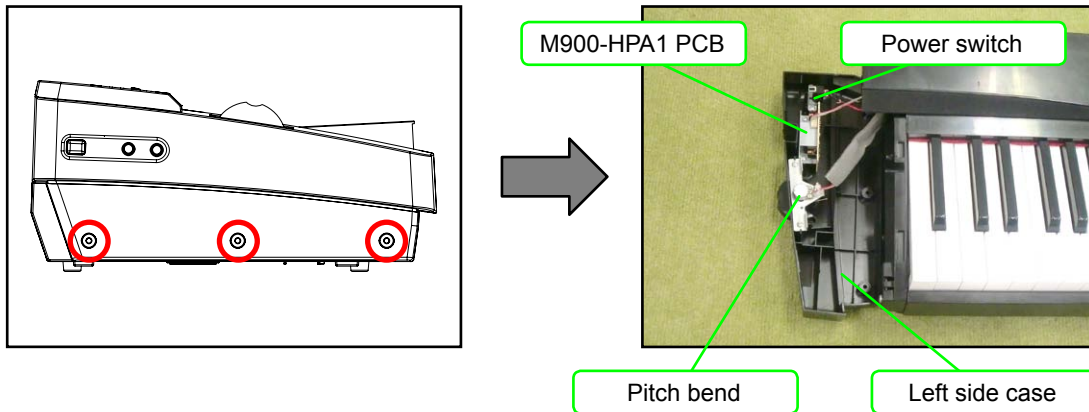
- (3) Place the main unit with the keys facing up. Undo three screws on the right side case.

- (4) Remove the right side case.

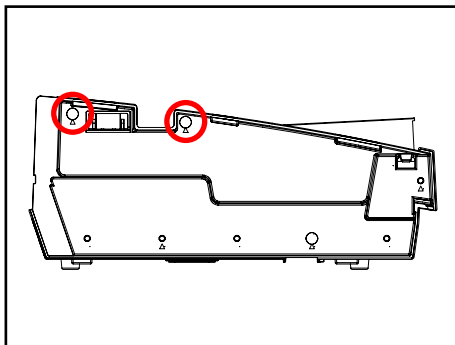


- (5) Undo three screws on the left side case.
- (6) Remove the left side case.

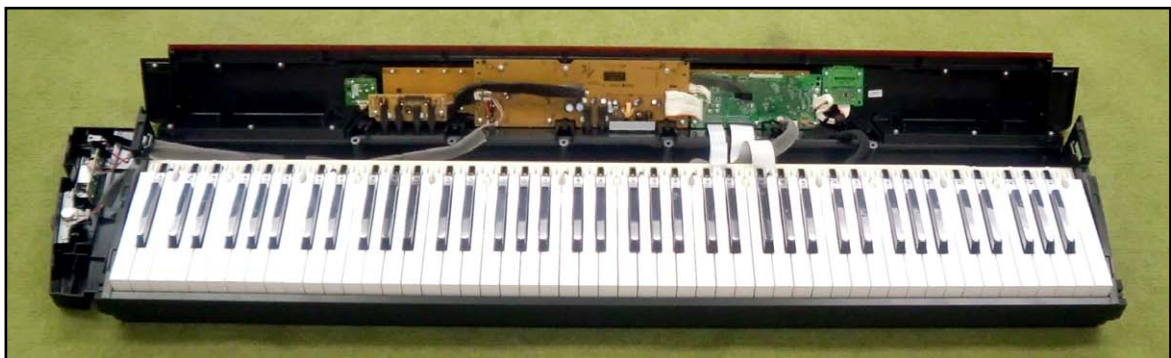
NOTE: The power switch, the M900-HPA1 PCB and the pitch bend are assembled to the left side case. Do not pull the left side case forcibly.



- (7) Undo and remove two screws from each side case (S-CASE-IL and S-CASE-IR).

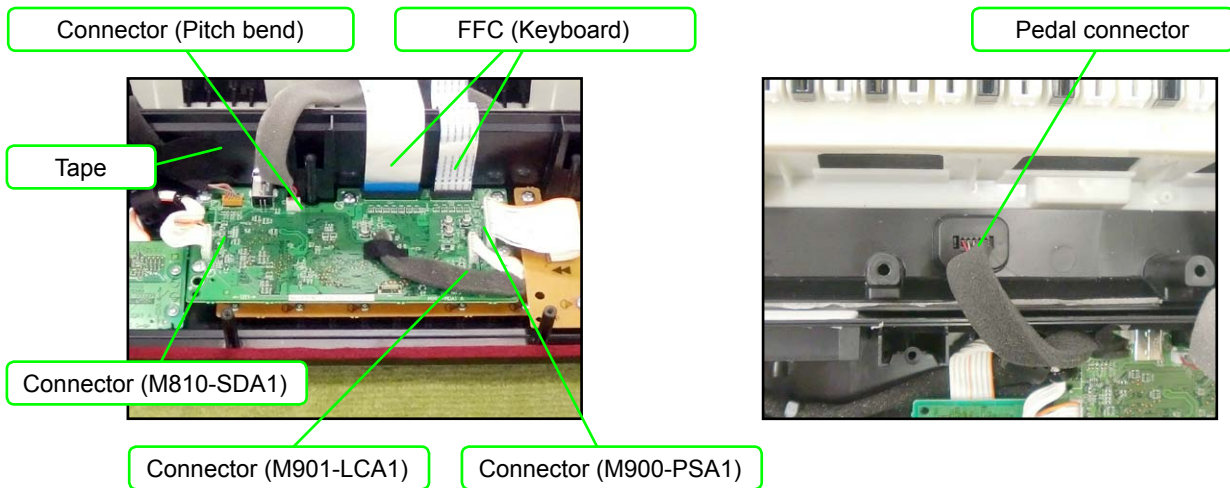


- (8) Remove the main panel.

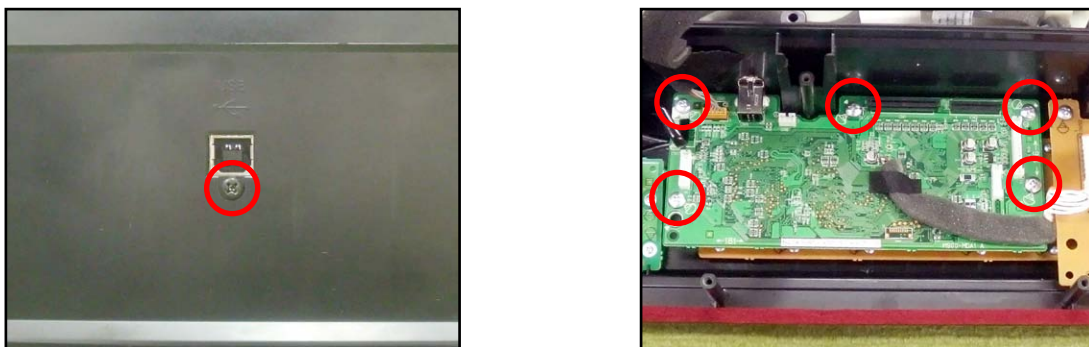


■ Removing the main PCB (M900-MDA1)

- (1) Release the locks and remove two FFCs.
- (2) Remove four connectors.
- (3) Remove the pedal connector connected to the lower case.
- (4) Remove the tape fixing the pedal connector cable in place.

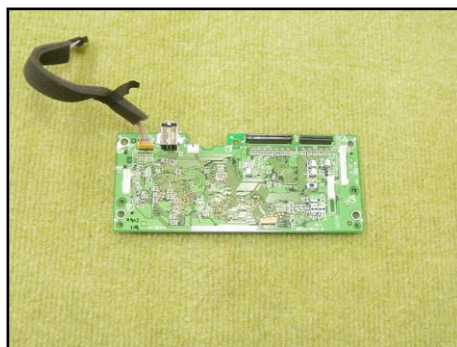
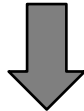
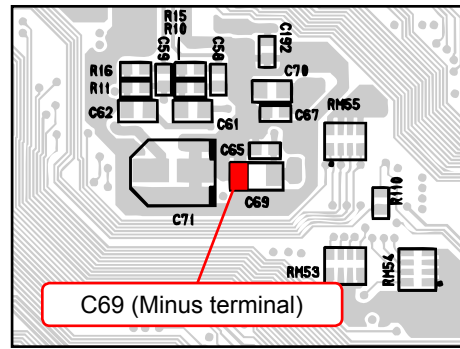
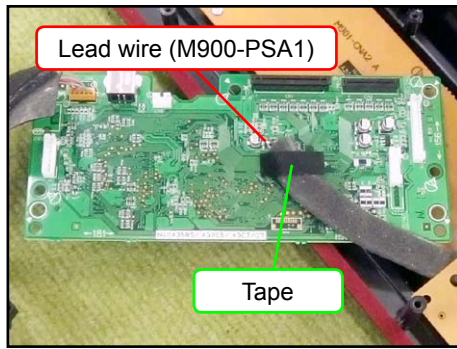


- (5) Undo the screw below the USB jack on the back of the main unit.
- (6) Undo five screws ~~and then remove the main PCB (M900-MDA1).~~



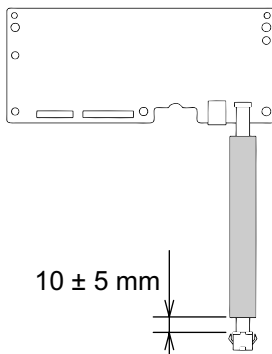
- (7) Remove the tape and unsolder the lead wire.

NOTE: When reassembling, solder the lead wire on the main PCB to C69 (the minus terminal).



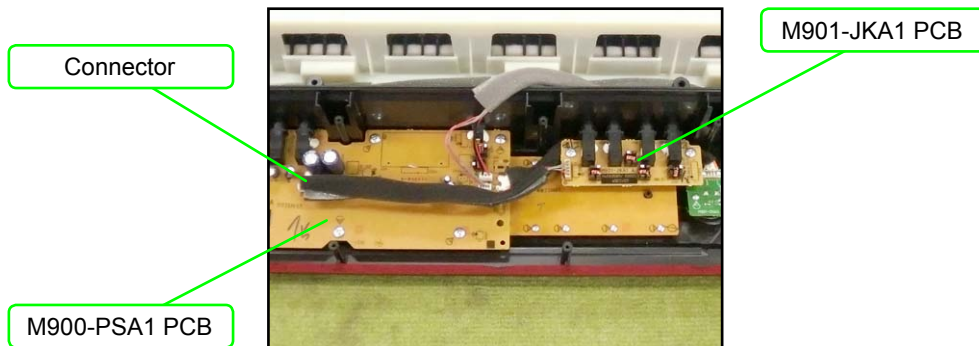
<Caution when replacing with a new part>

To attach sponge to the cable to the M900-MDA1 PCB, refer to the illustration below for its position.

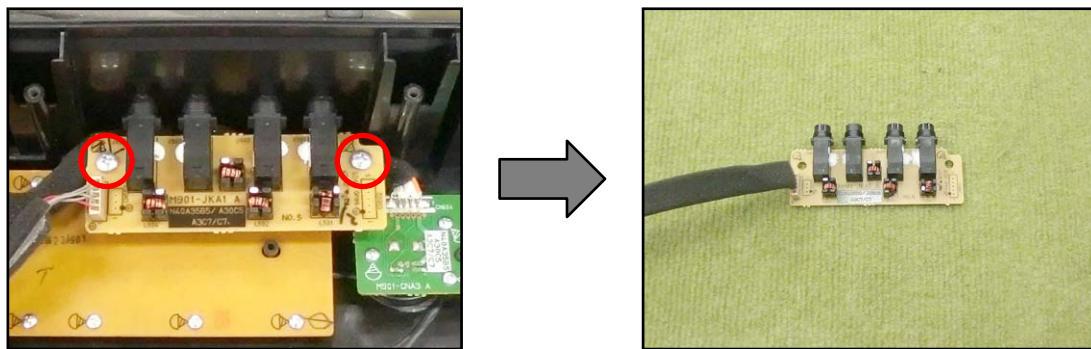


■ Removing the jack PCB (M901-JKA1)

- (1) Disconnect the M901-JKA1 PCB from the M900-PSA1 PCB by disengaging the connector between them.

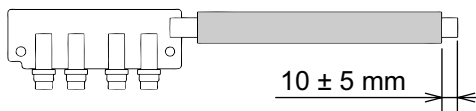


- (2) Undo two screws and then remove the M901-JKA1 PCB.



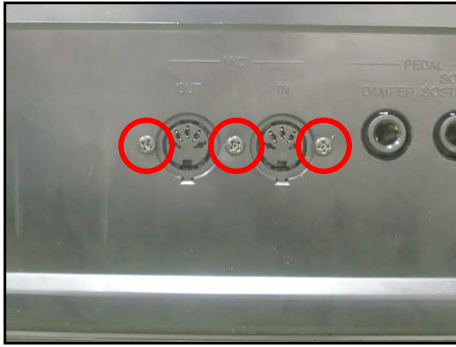
<Caution when replacing with a new part>

To attach sponge to the cable to the M901-JKA1 PCB, refer to the illustration below for its position.

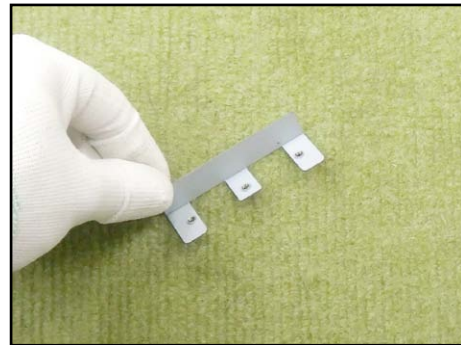
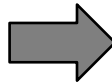
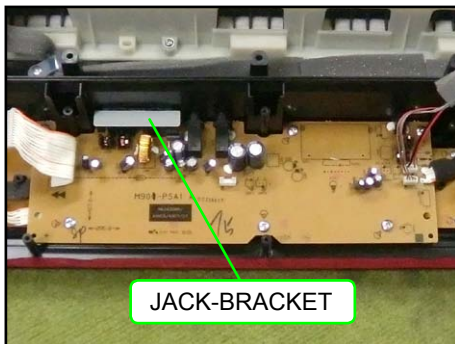


■ Removing the sub PCB (M900-PSA1)

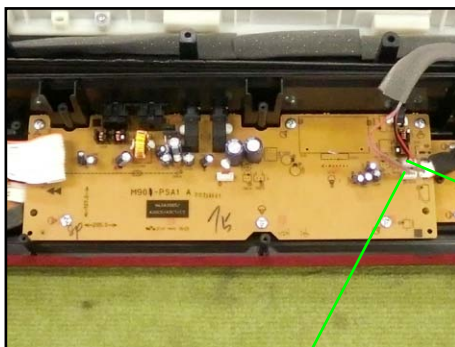
- (1) Undo three screws next to the MIDI jack on the back of the main unit.



- (2) Remove the jack-bracket.



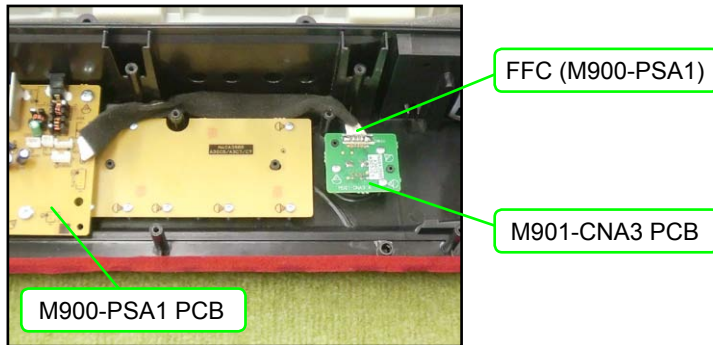
- (3) Remove two connectors.



Connector (Power switch)

Connector (M900-HPA1)

- (4) Unsolder the FFC connected to the M901-CNA3 PCB.



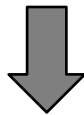
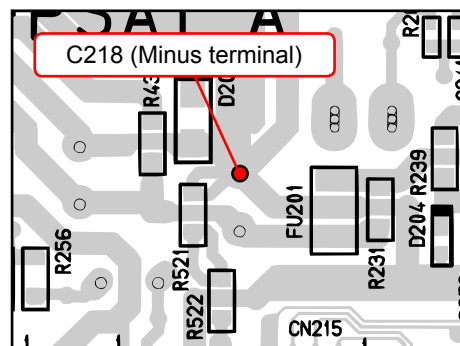
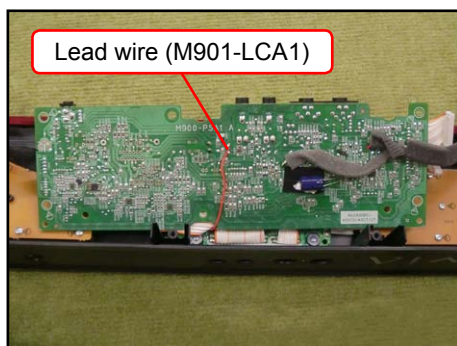
- (5) Undo six screws.



- (6) Turn over the M900-PSA1 PCB and unsolder the lead wire.

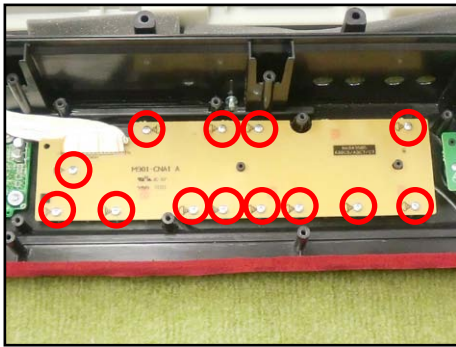
NOTE: When turning over the PCB, be careful not to pull the lead wire too much.

NOTE: When reassembling, solder the lead wire on the sub PCB to C218 (the minus terminal).

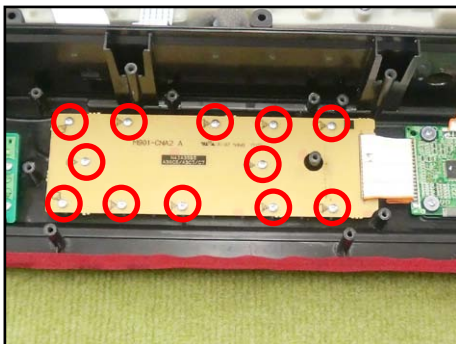


■ Removing the console PCB (M901-CNA1/CNA2, M901-LCA1)

- (1) Undo 13 screws on the M901-CNA1 PCB.

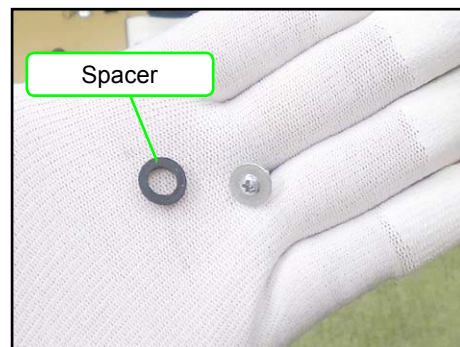
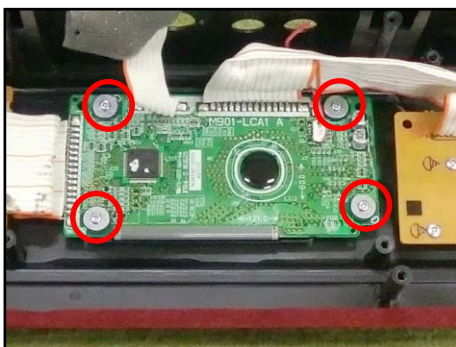


- (2) Undo 12 screws on the M901-CNA2 PCB.

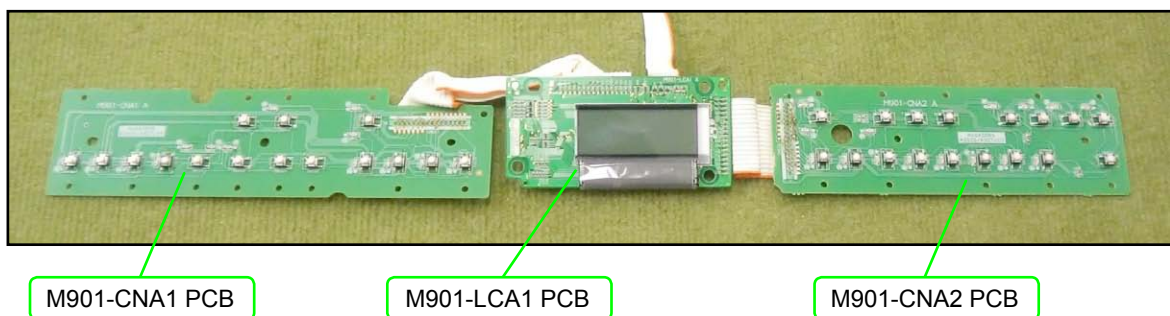


- (3) Undo four screws on the M901-LCA1 PCB.

NOTE: The spacer may come loose in this step. Be sure to place the spacer back in place when reassembling.

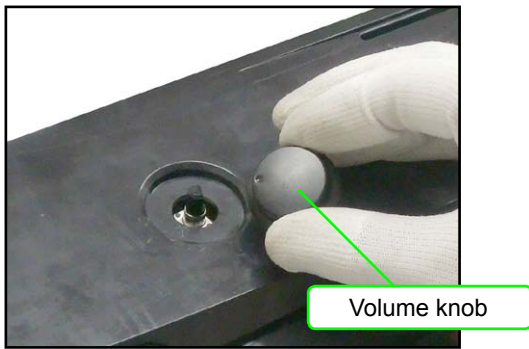


- (4) Remove the M901-CNA1 PCB, M901-CNA2 PCB and M901-LCA1 PCB.

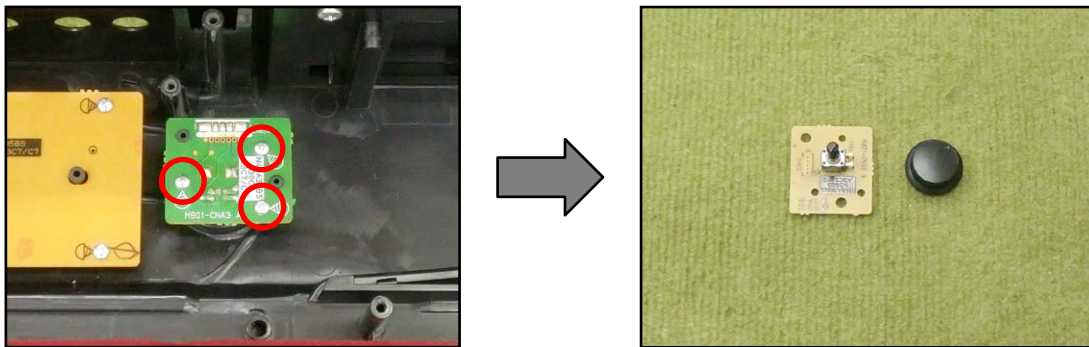


■ Removing the volume PCB (M901-CNA3)

- (1) Disengage the volume knob on the front of the main panel.



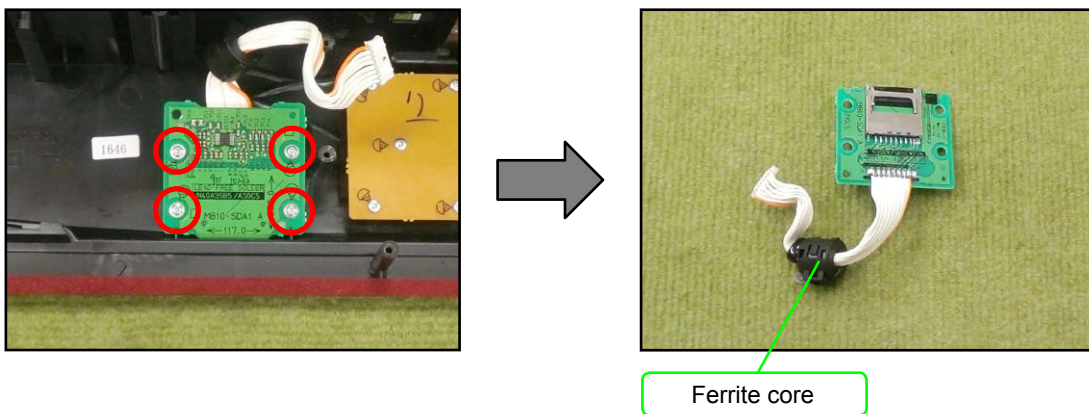
- (2) Undo three screws and then remove the M901-CNA3 PCB.



■ Removing the SD card PCB (M810-SDA1)

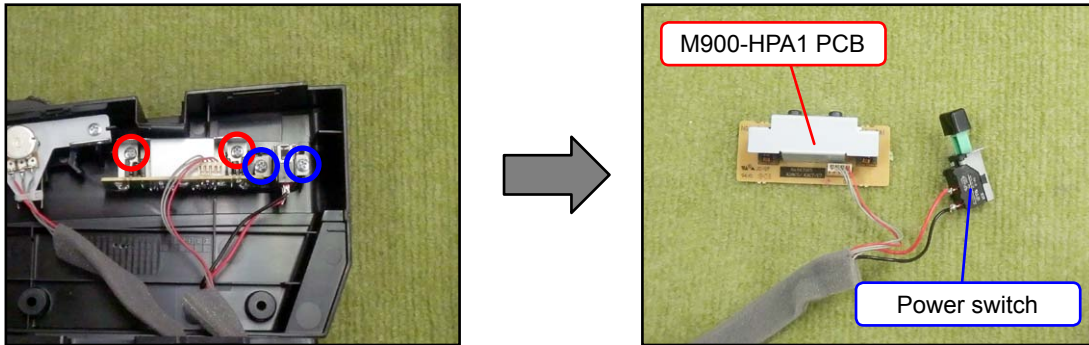
- (1) Undo four screws and then remove the M810-SDA1.

NOTE: When reassembling, be sure to run the FFC through the ferrite core.



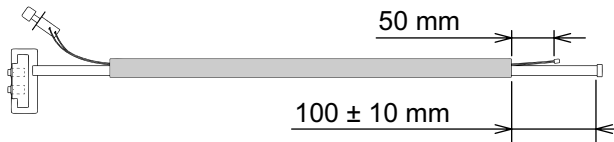
■ Removing the power switch and the jack PCB (M900-HPA1)

- (1) Remove four screws on the left side case, and disengage the jack PCB (M900-HPA1) and the power switch.



<Caution when replacing with a new part>

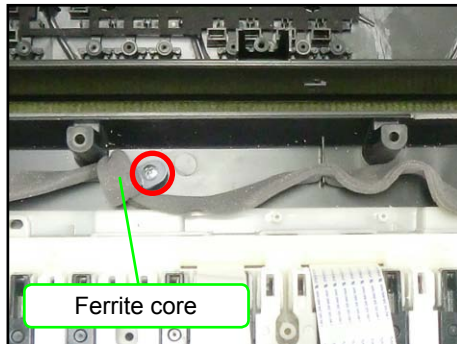
To attach sponge to the cables to the M900-HPA1 PCB and the power switch, refer to the illustration below for its position.



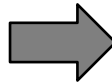
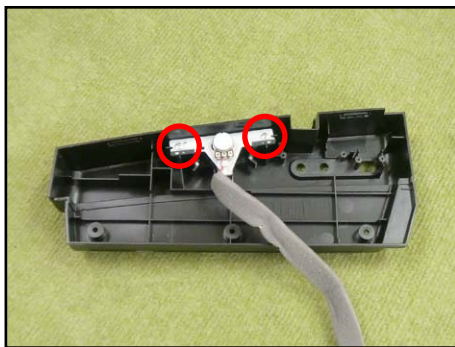
■ Removing the pitch bend

- (1) Undo and remove a screw fastening the ferrite core, which wraps around the pitch bend cable.

NOTE: When reassembling, be sure to wrap the ferrite core around the pitch bend cable.

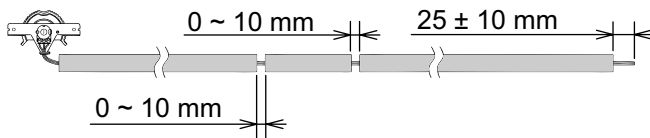


- (2) Undo two screws and then remove the pitch bend.



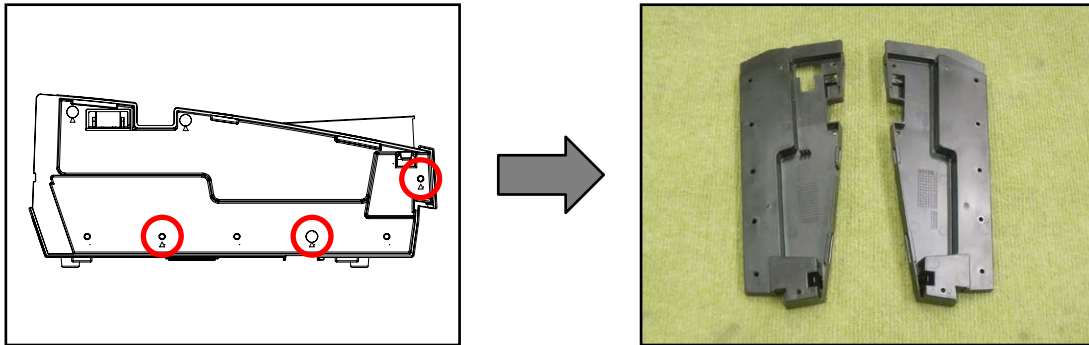
<Caution when replacing with a new part>

To attach sponge to the cable to the pitch bend, refer to the illustration below for its position.

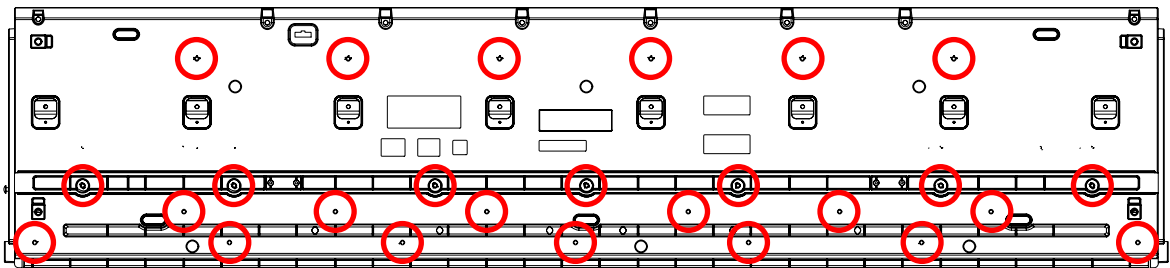


■ Removing the KY-ASSY

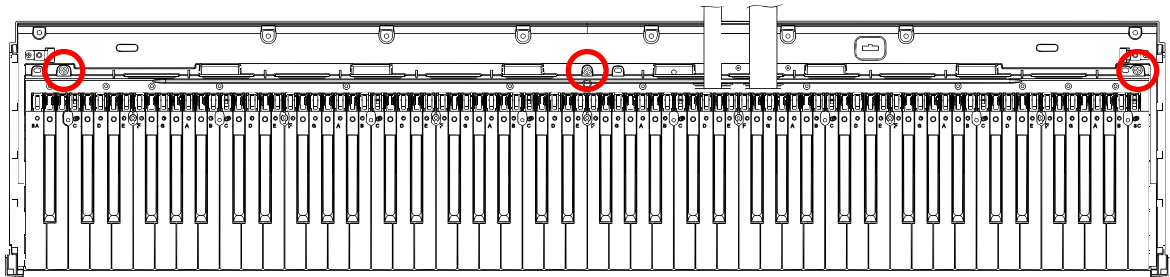
- (1) Undo all three screws from either side case (S-CASE-IL and S-CASE-IR), and then remove both side cases.



- (2) Undo 26 screws on the bottom of the main unit.



- (3) Place the main unit with the keys facing up.
- (4) Undo three screws and then remove the KY-ASSY.



■ Removing the keys

<Removing the keys>

To remove the keys, you will need two of the tools described below.

Before removing a black key, you must first remove both white keys on either side of the black key.

White keys may be removed with the same procedures as removing black keys.

<Tool>

The tool used in the photos in this section was converted from a gardening ID tag. The size and shape of an ID tag accord to the dimensions below.

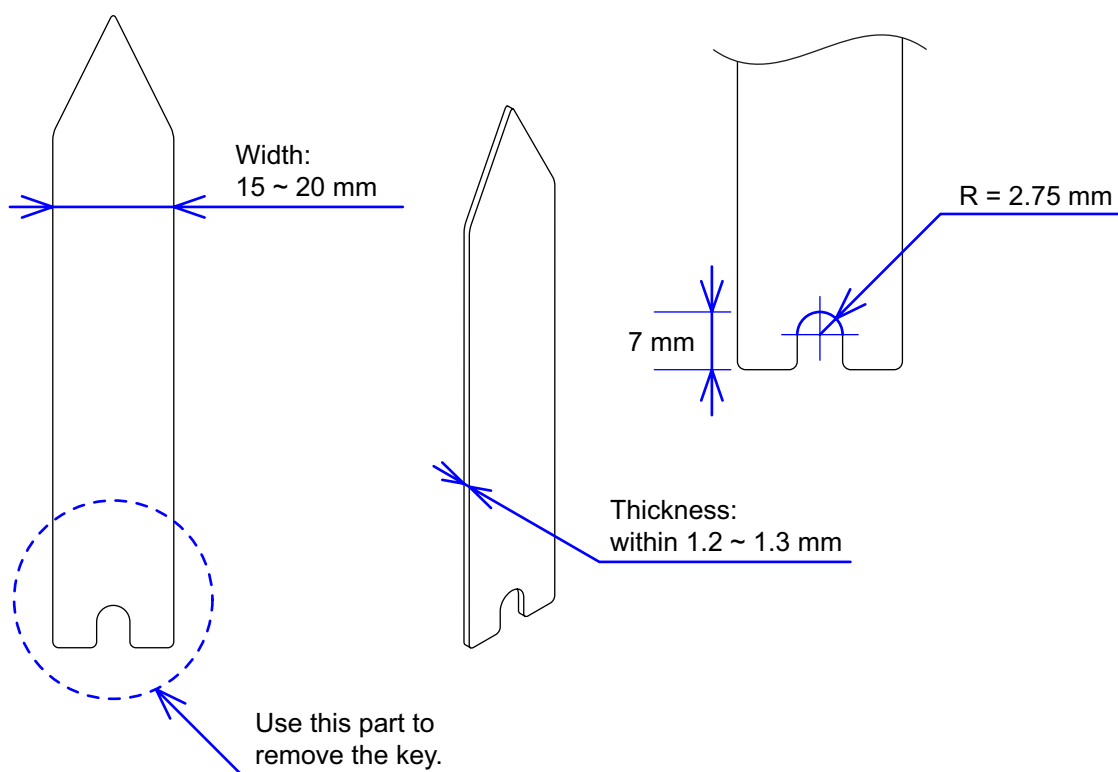
<Note on shaping an ID tag>

The thickness of the tool must be within 1.2 ~ 1.3 mm.

If the tool is too thin, removing keys become difficult.

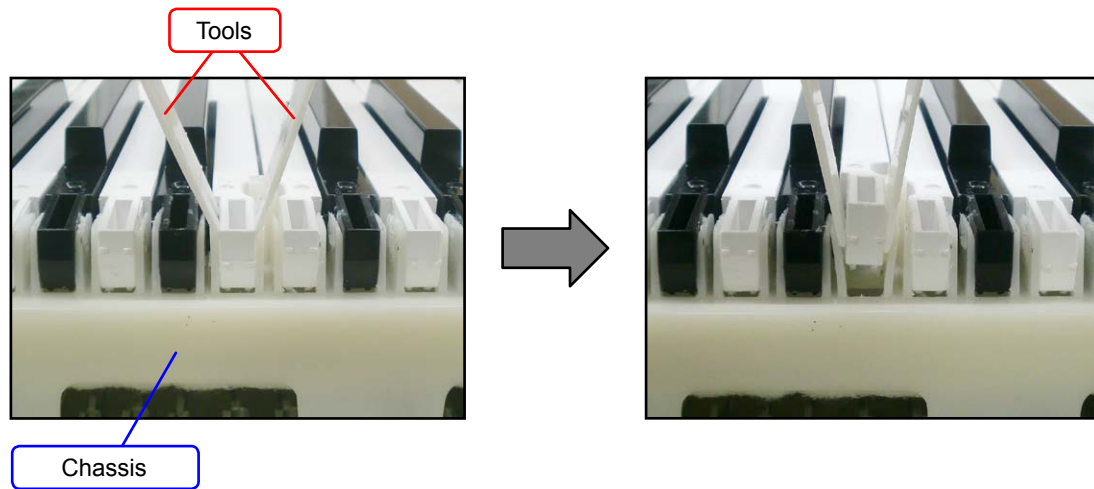
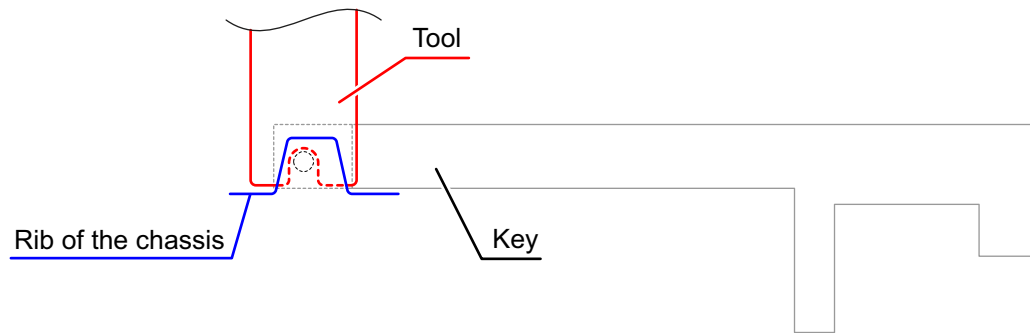
If the tool is too thick, it may damage the rib of the chassis.

<Tool dimensions>



- (1) Insert the two tools between the rib of the chassis and a key.
- (2) When the tools are inserted to a certain depth, the key begins to be lifted and can then be removed.

<Cross-section image>



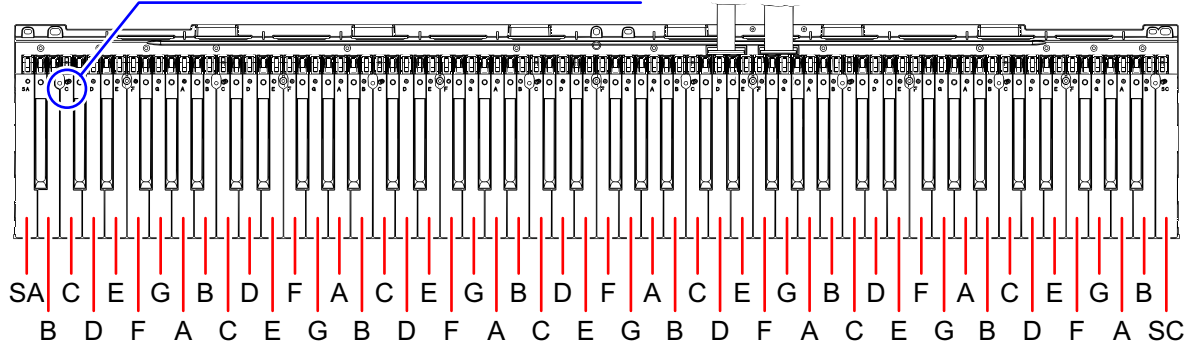
<Installing the keys>

Refer to the illustration below for the location of each white key.

Be sure to install each key at its designated location.

All black keys are the same. A black key may be installed at any correct black-key location.

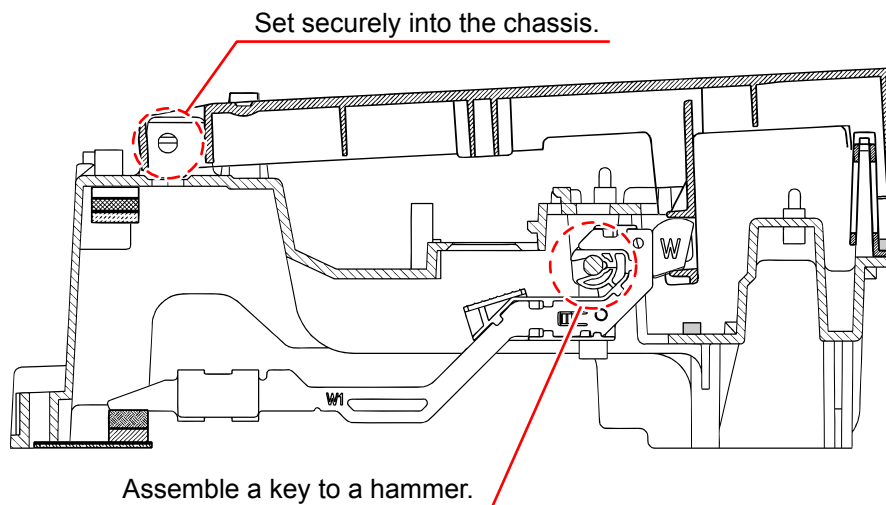
A code is indicated at the foot of each key.



Install a black key before installing the white keys on either of its sides.

Follow the same procedures below to install a black or white key.

- (1) Assemble a key to a hammer.
- (2) Press the protrusion of the chassis firmly into the keyhole.
- (3) Press the key to see if it moves properly.

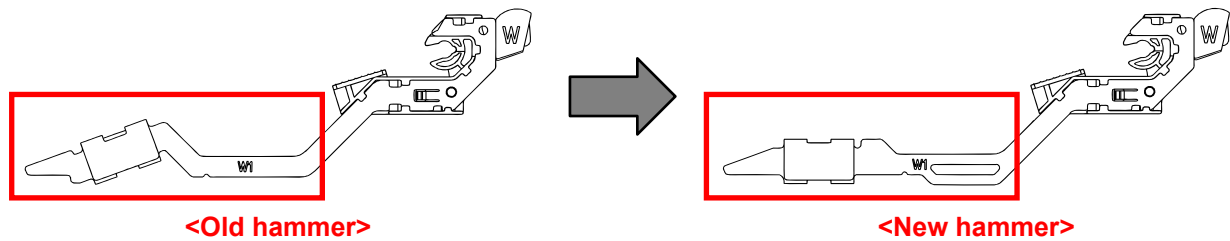


■ About the hammers

The design of the hammers installed in the PX-3BK was modified after the mass production. The operation of the newly designed hammer is completely compatible with that of the old one. New and old hammers may be installed in one single unit. The installation and removal procedures are the same.

NOTE: When an old type of hammers is to be replaced, the new type of hammers has priority in shipping.

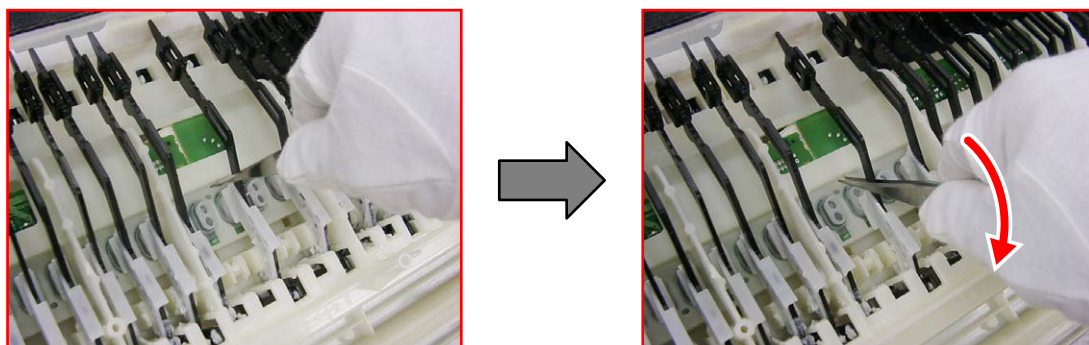
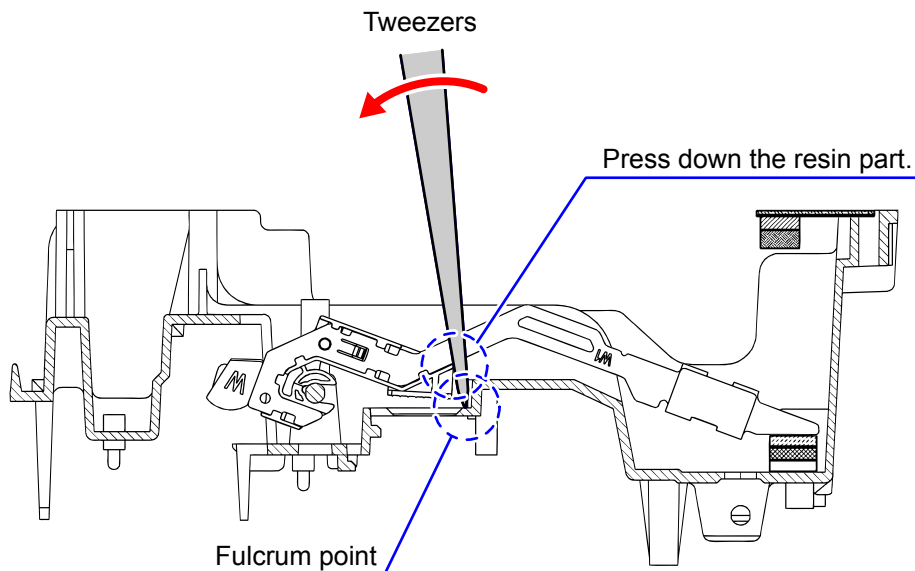
NOTE: The new types of hammers are installed in PX-3SBK since the beginning of mass production.



■ Removing the hammers

- (1) Place the chassis upside down so that the hammers are visible.
- (2) Press the chassis with the tip of tweezers.
- (3) While catching a hammer with tweezers, set the tweezers against the resin part of the chassis.
- (4) Using the chassis-tweezer contact as a fulcrum point, press down against the resin part in the direction of the red arrow in the illustration below, and then disengage the hammer.

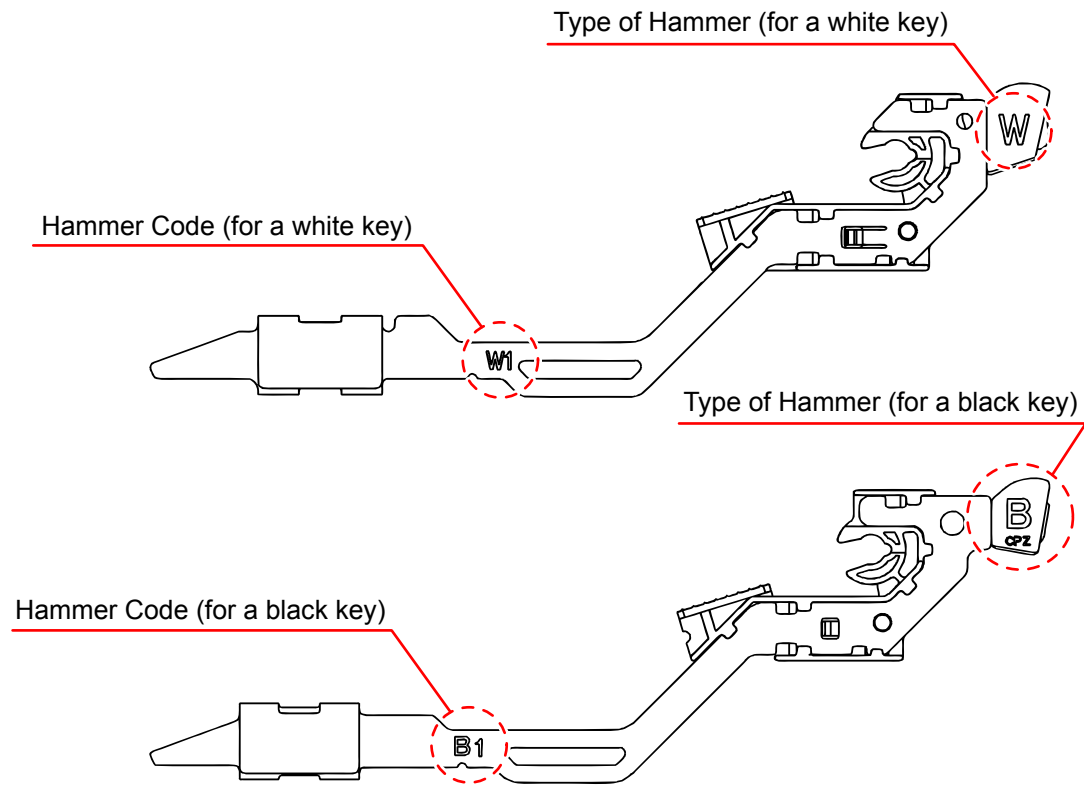
NOTE: You must press the resin part of the hammer.
Pressing on the metal part of the hammer may damage the area connected to the resin.



<Kinds of hammers>

There are several kinds of hammers.

The type of a hammer may be identified by the code engraved on it.



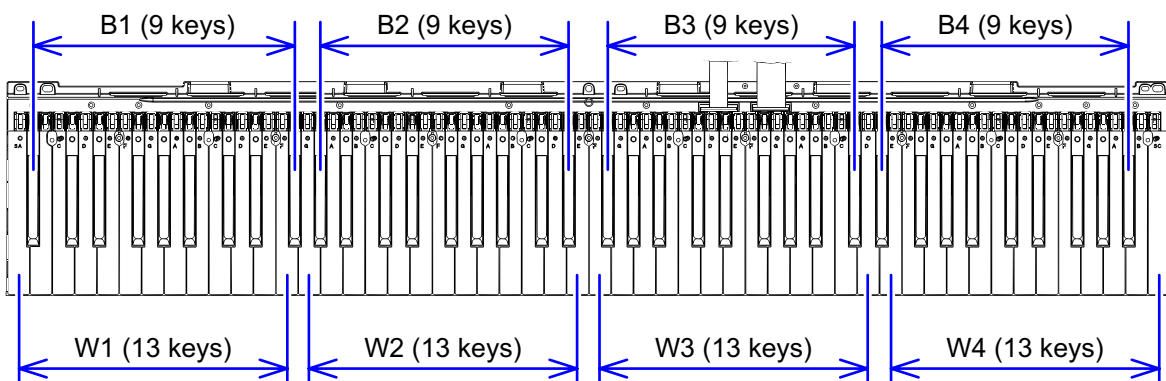
Type of Hammer: "W" for a white key, "B" for a black key.
 Hammer Code: The hammers for white keys are coded W1, W2, W3, and W4.
 The hammers for black keys are coded B1, B2, B3, and W4.

<Location to install the hammer>

A hammer must be installed at the correct location according to its type.

The combination of hammers and keys are shown below.

<Hammers for black keys>



<Hammers for white keys>

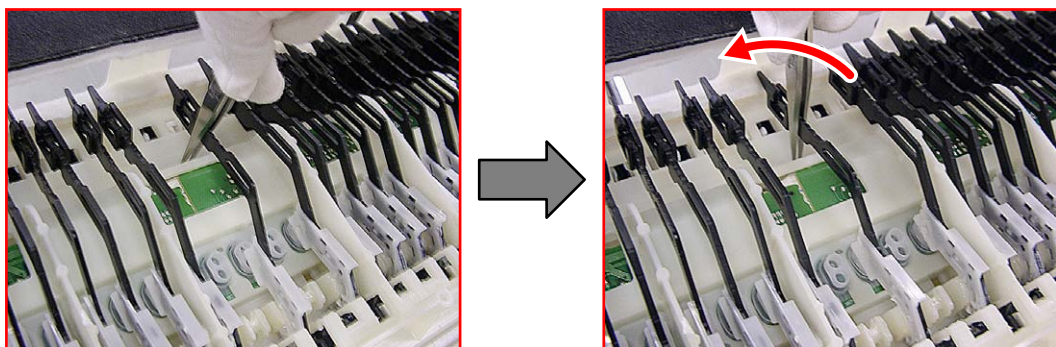
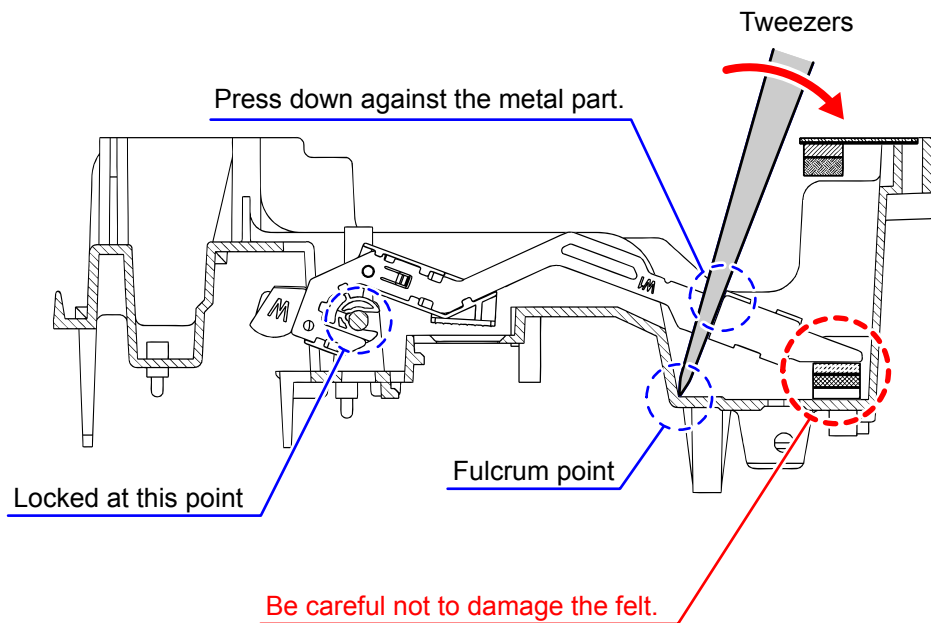
<Installing the hammers>

Be sure to install each hammer at its designated location. If a hammer does not move smoothly, check if it is installed at the correct location.

Follow the same procedures shown below to install a hammer for both black and white keys.

- (1) Use the tweezers to set a hammer at its correct location.
- (2) Press the chassis with the tip of tweezers.
- (3) Using the chassis-tweezers contact as a fulcrum point, press down the metal part of the hammer in the direction of the red arrow in the illustration below, and then install the hammer.

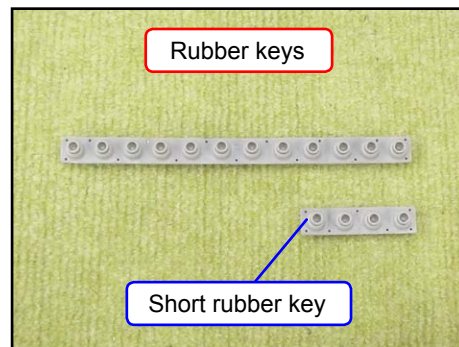
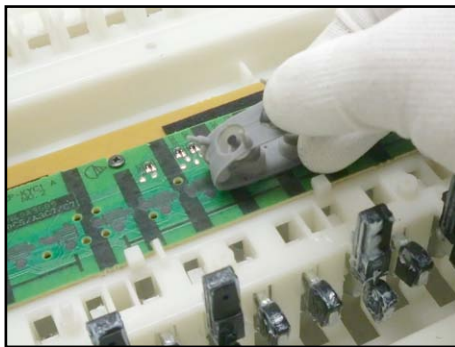
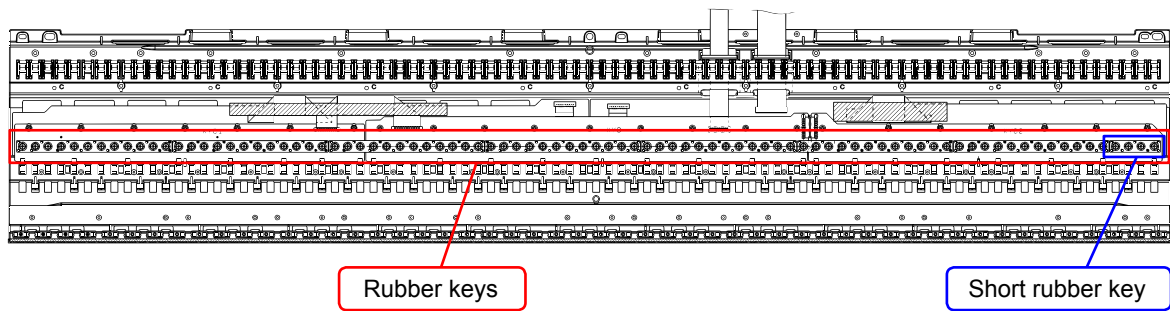
NOTE: When installing, do not damage the felt.



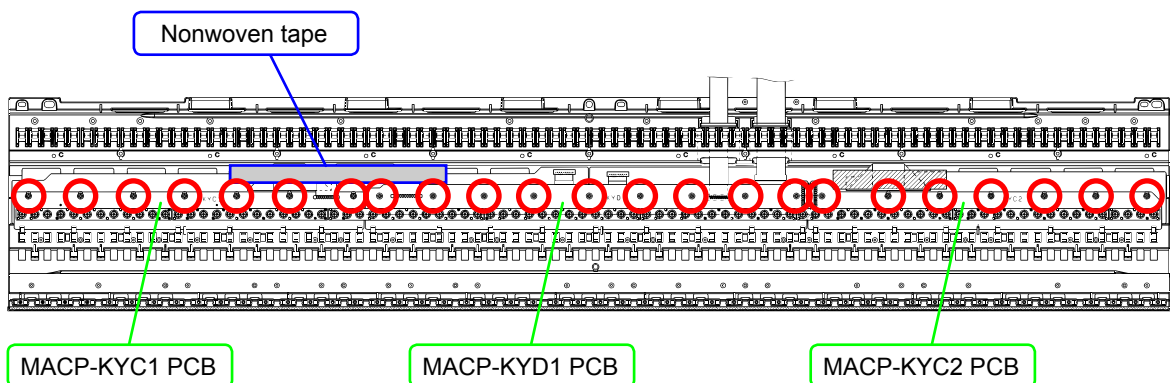
■ Removing the keyboard PCBs (MACP-KYC1/KYC2, KYD1)

- (1) Remove eight rubber keys.

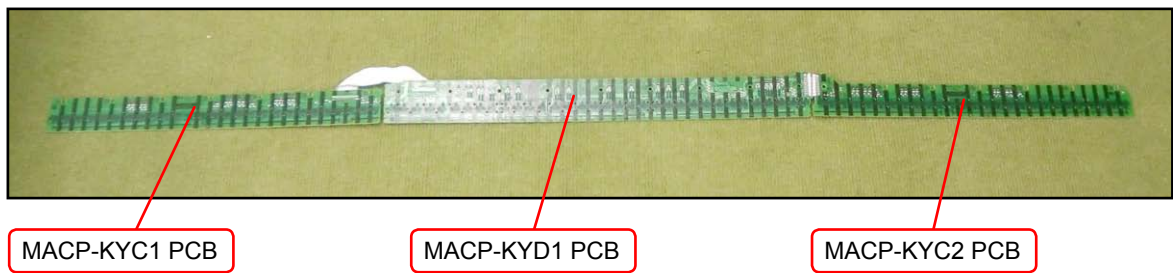
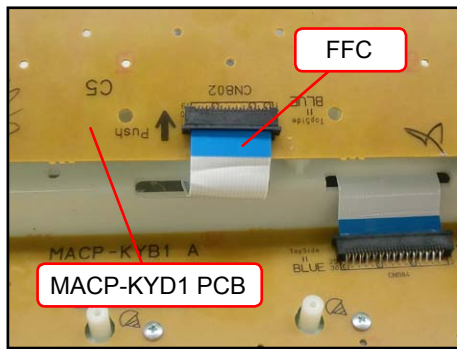
NOTE: One rubber key is shorter than the others.



- (2) Remove the nonwoven tape.
- (3) Undo 23 screws.

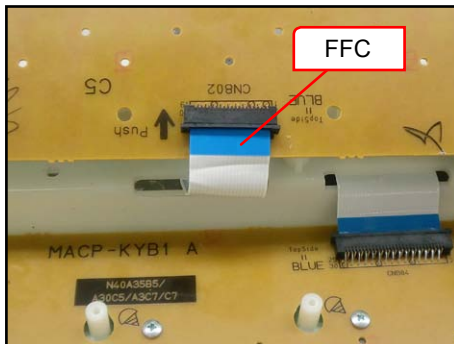


- (4) Locate the FFC connected on the back of the MACP-KYD1 PCB. Unlock the connector to remove the FFC, and then disengage the MACP-KYC1 PCB, the KYC2 PCB, and the MACP-KYD1 PCB.

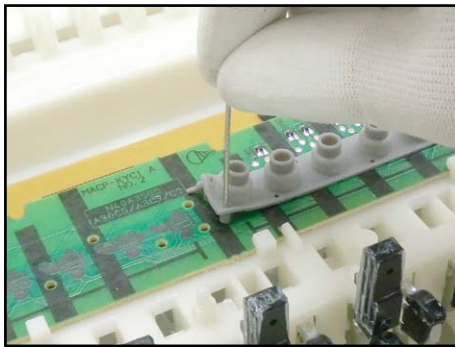


<Installing the keyboard PCBs (MACP-KYC1/KYC2, KYD1)>

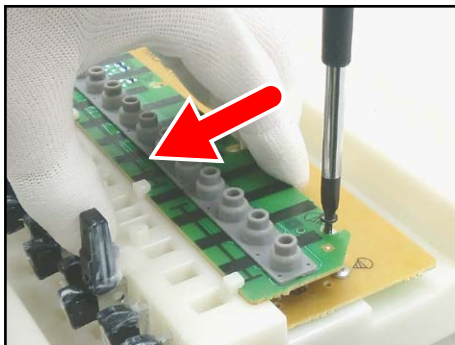
- (1) Connect the FFC to the MACP-KYD1 PCB and lock the connector.
Be sure to connect it securely.



- (2) Install eight rubber keys.
Be sure to install the short rubber key at the correct location.
Lightly insert the tip of a rubber key into the PCB first, and then, press it in using the end of a paper clip. Do not press the rubber key forcefully to avoid damaging the rubber key.

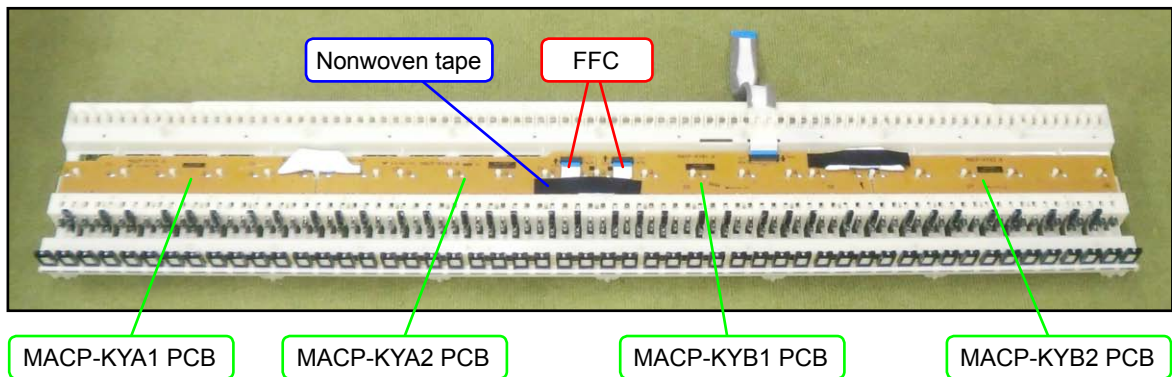


- (3) Secure the MACP-KYC1 PCB, the KYC2 PCB, and the MACP-KYD1 PCB with 23 screws.
Press the PCBs lightly in the direction of the red arrow in the illustration below while tightening a screw.

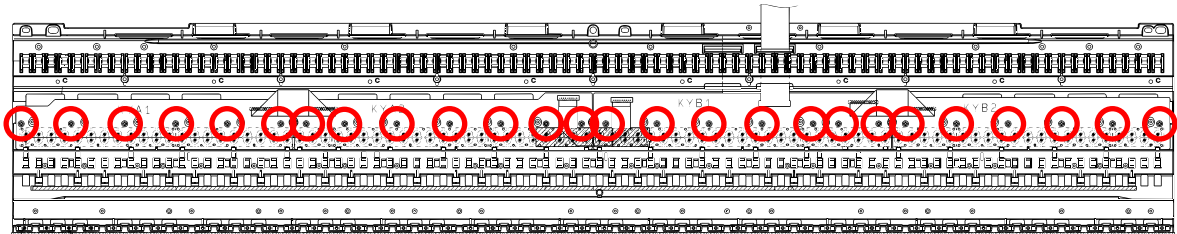


■ Removing the keyboard PCBs (MACP-KYA1/KYA2, KYB1/KYB2)

- (1) Remove the nonwoven tape. Unlock the connector and disengage the FFC connecting the MACP-KYA2 PCB and the MACP-KYB1.

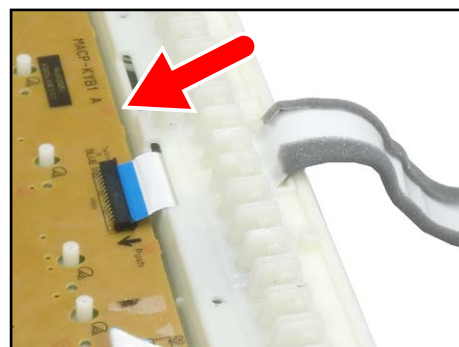
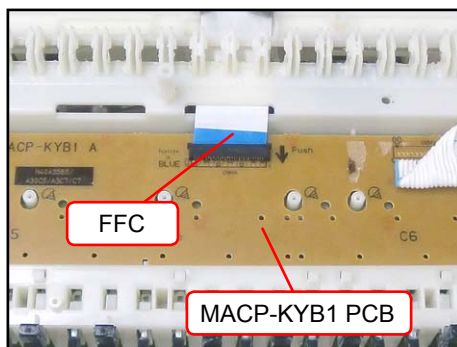


- (2) Undo 26 screws.



- (3) Unlock the connector and disengage the FFC connected to the MACP-KYB1 PCB.

NOTE: When removing the FFC, be careful not to pull it too much in the direction of the red arrow in the illustration, or the PLATE on the back may come loose.

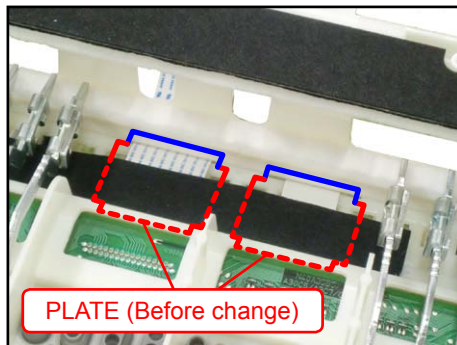


<If the PLATE comes off>

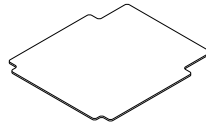
The PLATE is a transparent plastic plate. If the plate comes off, put it on the place where the FFC is, and insert its end into place where the blue line is shown in the image.

NOTE: The design of the PLATE was modified after the mass production.

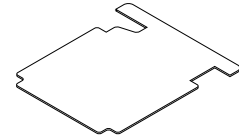
The new types of plates are installed in PX-3SBK since the beginning of mass production.



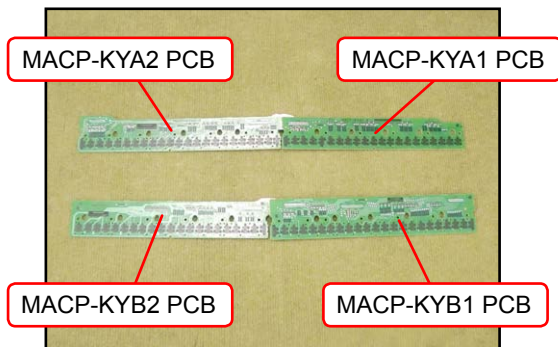
<Before change>



<After change>

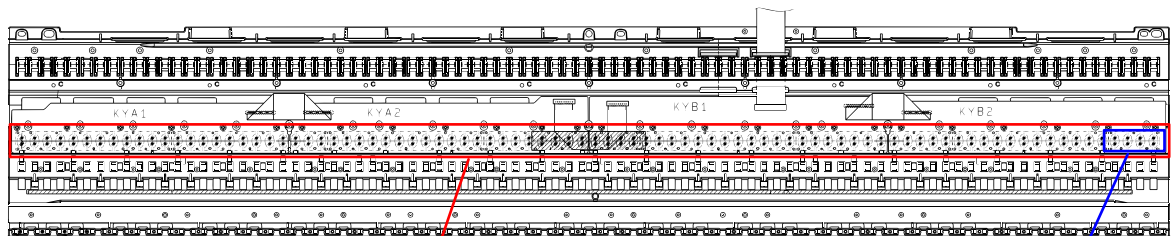


- (4) Remove the keyboard PCBs (MACP-KYA1/KYA2, KYB1/KYB2).



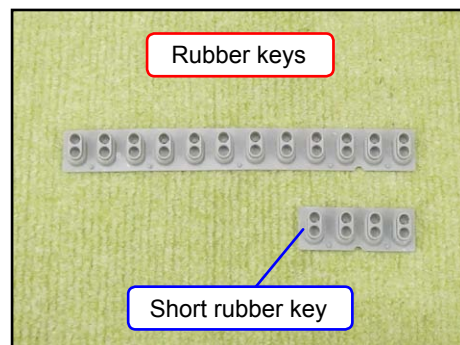
- (5) Remove eight rubber keys.

NOTE: One rubber key is shorter than the others.



Rubber keys

Short rubber key



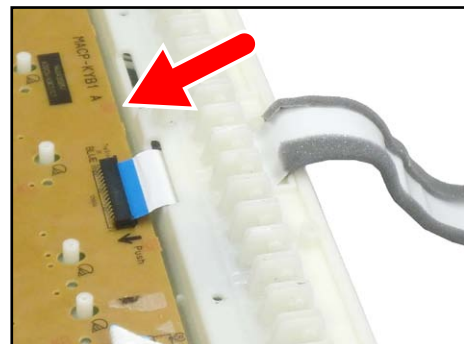
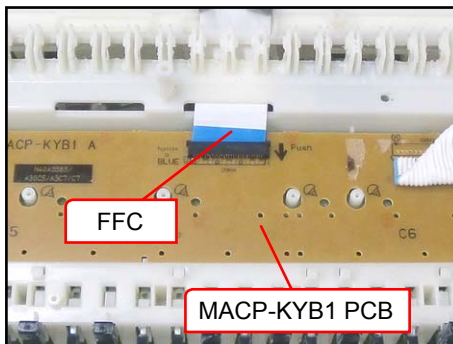
<Installing the keyboard PCBs (MACP-KYA1/KYA2, KYB1/KYB2)>

- (1) Place eight rubber keys on the chassis.
Be sure to place the short rubber key in the correct location.



- (2) Connect the FFC to the MACP-KYB1 PCB and lock the connector.

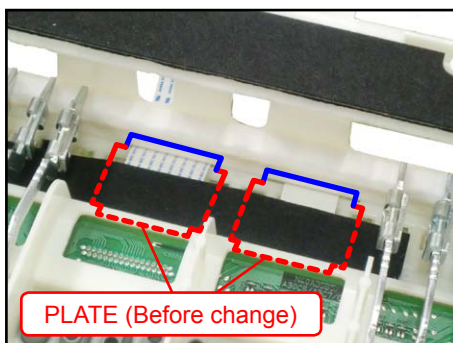
NOTE: When connecting the FFC, be careful not to pull it too much in the direction of the red arrow in the illustration, or the PLATE on the back may come loose.



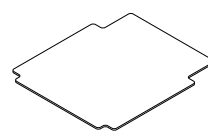
<If the PLATE comes off>

The PLATE is a transparent plastic plate. If the plate comes off, put it on the place where the FFC is, and insert its end into place where the blue line is shown in the image.

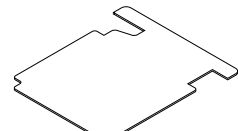
NOTE: The design of the PLATE was modified after the mass production. The new types of plates are installed in PX-3SBK since the beginning of mass production.



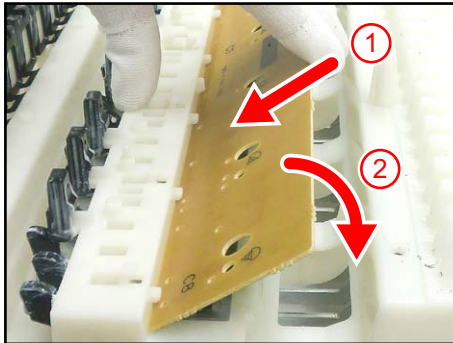
<Before change>



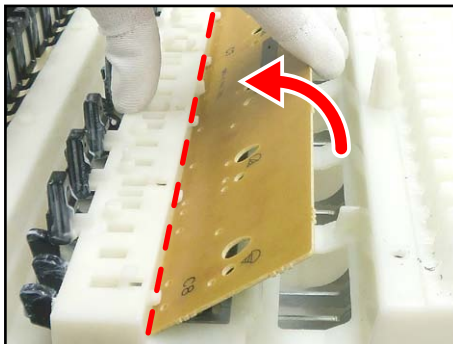
<After change>



- (3) Insert the MACP-KYA1/KYA2 PCB and MACP-KYB1/KYB2 PCB at an angle against the chassis, and place them while paying attention not to misalign the rubber keys.



- (4) While placing the PCBs, the contact with the rubber keys may come out of alignment. Align them against the red dotted line in the illustration below, lift the PCB once in the direction of the red arrow, and then place them again.



- (5) Secure the MACP-KYA1/KYA2 PCBs, and the MACP-KYB1/KYB2 PCBs with 26 screws. Press the PCBs lightly in the direction of the red arrow in the illustration below while tightening a screw.



DIAGNOSTIC PROGRAM

■ Initial Setting

- (1) Connect the AC adaptor.
- (2) Connect the pedal (SP-3 or SP-32).

Even if a pedal unit is unavailable for the test, all the tests except for the pedal check may be performed.

NOTE: SP-3 is the pedal unit that comes with PX-3 series.

Connect it to the DAMPER PEDAL jack or the SOFT/SOSTENUTO PEDAL jack in the back of the main unit.

NOTE: SP-32 is a pedal unit sold separately.

Connect it to the pedal connector on the bottom of the main unit.

To use SP-32, you will need the stand CS-67P, sold separately.

- (3) Connect external speakers to the PX-3 series and turn the main volume to maximum.

NOTE: Connect the external speakers to the LINE OUT R terminal and the LINE OUT L/MONO terminal. For details on how to connect to the speakers, refer to the user's manual of PX-3 series.

NOTE: PX-3 series is not equipped with speakers. The tone sounding during the test needs to be checked with the sound through external speakers or headphones. Be sure to connect the PX-3 series to either external speakers or headphones.

- (4) Have a PC and a USB cable ready. (They will be used in the USB check.)

Operating System: Windows® XP (SP2 or later) *1

Windows Vista® *2

Windows® 7 *3

Mac OS® X (10.3.9, 10.4.11 or later, 10.5.6 or later, 10.6.2 or later)

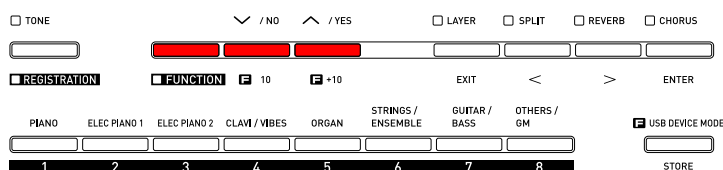
*1: Windows XP Home Edition/Windows XP Professional (32 bit)

*2: Windows Vista (32 bit)

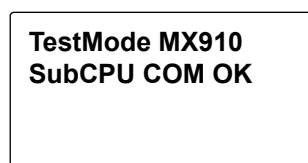
*3: Windows 7 (32 bit, 64 bit)

■ How to start the diagnostic program

- (1) Hold down the "FUNCTION", "v / NO" and "^ / YES" buttons at the same time, to turn the power ON.



When the Sub CPU check is performed, the confirmation chord C6 sounds and the test results are displayed as shown below.



- (2) Release the "FUNCTION", "v / NO" and "^ / YES" buttons.

Be sure to turn off the power when the test is finished.

■ Test Items

After starting the diagnostic program, pushing the test button will enable these items to be tested.

Test Items	Buttons	Note
RAM check	PIANO	
ROM check Flash Memory check	ELEC PIANO 1	Check SUM test, Read/Write test
ROM Version check	ELEC PIANO 2	
LED check	CLAVI/VIBES	
LCD check	ORGAN	
Button check	STRINGS/ENSEMBLE	
Bender check	GUITAR/BASS	
Key check	REPEAT	External speaker (Headphones)
Pedal check	GUITAR/BASS	Pedal (SP-3, SP-32)
Headphones check	A	Headphones
MIDI check	B	MIDI cable
USB check	C	PC, USB cable
SD Card check	D	SD card

■ Diagnostic program

RAM check

- (1) Press the "PIANO" button to perform the "RAM check".
The confirmation chord C6 sounds, and "OK" appears on the LCD.

TestMode MX910
RAM CHECK
RAM:OK

ROM check and Flash Memory check (Check SUM test, Read/Write test)

- (1) Press the "ELEC PIANO 1" button to perform the "ROM check".
The confirmation chord C6 sounds, and "OK" appears on the LCD.

TestMode MX910
IROM CHECK
IROM:OK

- (2) Press the "STORE" button to perform the "Flash Memory check (Check SUM test)".
The check will be completed in approximately 15 seconds.
The confirmation chord C6 sounds, and "OK" appears on the LCD.

TestMode MX910
FLASH CHECK
FLSH:OK

- (3) Press the "MASTER CONTROL" button to perform the "Flash Memory check (Read/Write test)".
The confirmation chord C6 sounds, and "OK" appears on the LCD.

TestMode MX910
FLASH R/W TEST
FLSH:OK

ROM version check

- (1) Press the "ELEC PIANO 2" button to perform the "ROM version check".
Check that the ROM version is as shown in the right.

ROM VERSION
IROM:01.11
FLSH:01.11
SUBC:01.01

LED check

Press the "CLAVI/VIBES" button to perform the "LED check".
 Check that the following LEDs are lit.
 "REPEAT", "REW", "FF", "PAUSE", "INT/EXT (Left/Right)",
 "ZONE EDIT"

<PX-3BK>

ASSIGNABLE 1 TYPE		ASSIGNABLE 2 TYPE		ASSIGNABLE 1	<input type="checkbox"/> ASSIGNABLE 2
MODULATION		ROTARY EFFECT		<input type="text"/>	<input type="text"/>
PORTAMENTO		PORTAMENTO		<input type="text"/>	<input type="text"/>
CC# 000 - 127		DSP ON / OFF		<input type="text"/>	<input type="text"/>
		CC# 000 - 127			

MASTER CONTROL
 LOAD / SAVE
 CARD PLAYER

ZONE SELECTOR
 1 - LOWER - 2 1 - UPPER - 2 INT / EXT ZONE EDIT

REPEAT REW FF PAUSE PLAY / STOP PART ZONE EDIT

- EDIT -
 - TEMPO - TAP

PARAMETER SELECTOR
 TRANSPOSE BEND RANGE BRILLIANCE EQ ON / OFF

A B C D

TestMode MX910
 LED CHECK
 LEFT BLOCK

<PX-3SBK>

ASSIGNABLE 1 TYPE		ASSIGNABLE 2 TYPE		ASSIGNABLE 1	<input type="checkbox"/> ASSIGNABLE 2
MODULATION		ROTARY EFFECT		<input type="text"/>	<input type="text"/>
PORTAMENTO		PORTAMENTO		<input type="text"/>	<input type="text"/>
CC# 000 - 127		DSP ON / OFF		<input type="text"/>	<input type="text"/>
		CC# 000 - 127			

MASTER CONTROL
 LOAD / SAVE
 CARD PLAYER

ZONE SELECTOR
 1 - LOWER - 2 1 - UPPER - 2 INT / EXT ZONE EDIT

REPEAT REW FF PAUSE PLAY / STOP PART ZONE EDIT

- EDIT -
 - TEMPO - TAP

PARAMETER SELECTOR
 TRANSPOSE BEND RANGE BRILLIANCE EQ ON / OFF

A B C D

(2) Press the "STORE" button.
 Check that the following LEDs are lit.
 "ASSIFNABLE 2", "MASTER CONTROL", "CARD PLAYER",
 "A", "B", "C", "D"

<PX-3BK>

ASSIGNABLE 1 TYPE		ASSIGNABLE 2 TYPE		ASSIGNABLE 1	<input checked="" type="checkbox"/> ASSIGNABLE 2
MODULATION		ROTARY EFFECT		<input type="text"/>	<input type="text"/>
PORTAMENTO		PORTAMENTO		<input type="text"/>	<input type="text"/>
CC# 000 - 127		DSP ON / OFF		<input type="text"/>	<input type="text"/>
		CC# 000 - 127			

MASTER CONTROL
 LOAD / SAVE
 CARD PLAYER

ZONE SELECTOR
 1 - LOWER - 2 1 - UPPER - 2 INT / EXT ZONE EDIT

REPEAT REW FF PAUSE PLAY / STOP PART ZONE EDIT

- EDIT -
 - TEMPO - TAP

PARAMETER SELECTOR
 TRANSPOSE BEND RANGE BRILLIANCE EQ ON / OFF

A B C D

TestMode MX910
 LED CHECK
 PARAMETER BLOCK

<PX-3SBK>

ASSIGNABLE 1 TYPE		ASSIGNABLE 2 TYPE		ASSIGNABLE 1	<input checked="" type="checkbox"/> ASSIGNABLE 2
MODULATION		ROTARY EFFECT		<input type="text"/>	<input type="text"/>
PORTAMENTO		PORTAMENTO		<input type="text"/>	<input type="text"/>
CC# 000 - 127		DSP ON / OFF		<input type="text"/>	<input type="text"/>
		CC# 000 - 127			

MASTER CONTROL
 LOAD / SAVE
 CARD PLAYER

ZONE SELECTOR
 1 - LOWER - 2 1 - UPPER - 2 INT / EXT ZONE EDIT

REPEAT REW FF PAUSE PLAY / STOP PART ZONE EDIT

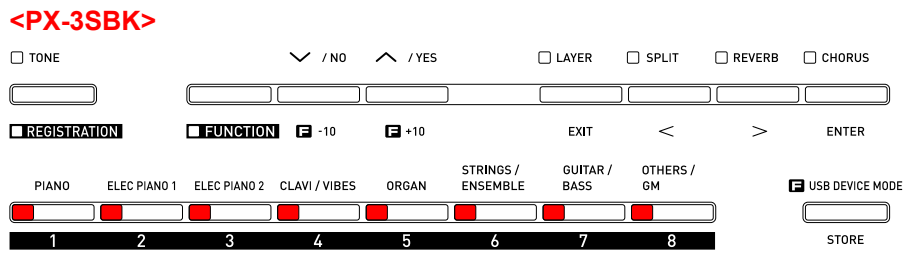
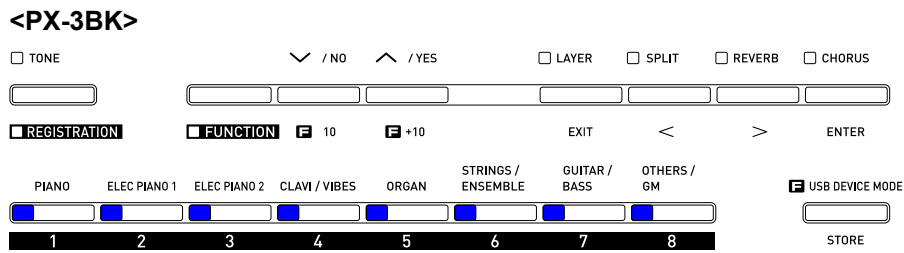
- EDIT -
 - TEMPO - TAP

PARAMETER SELECTOR
 TRANSPOSE BEND RANGE BRILLIANCE EQ ON / OFF

A B C D

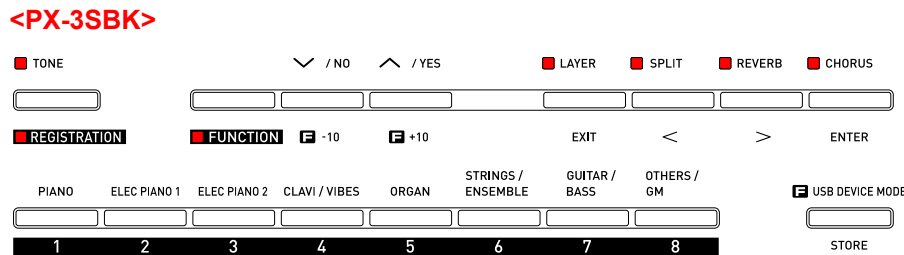
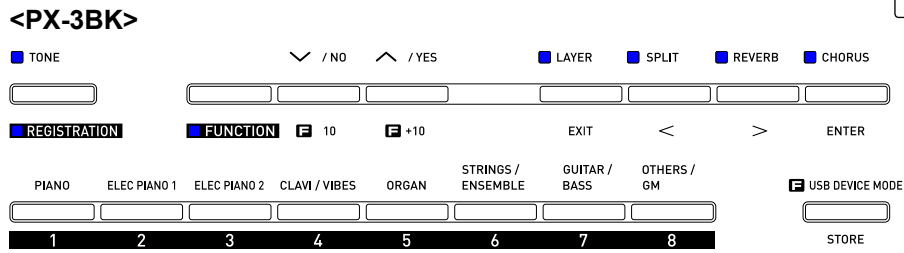
- (3) Press the "STORE" button.
 Check that the following LEDs are lit.
 "PIANO", "ELEC PIANO 1", "ELEC PIANO 2", "CLAVI/VIBES",
 "ORGAN", "STRINGS/ENSEMBLE", "GUITAR/BASS",
 "OTHERS/GM"

**TestMode MX910
 LED CHECK
 TONE BLOCK**



- (4) Press the "STORE" button.
 Check that the following LEDs are lit.
 "TONE", "REGISTRATION", "FUNCTION",
 "LAYER", "SPLIT", "REVERB", "CHORUS"

**TestMode MX910
 LED CHECK
 RIGHT BLOCK**



- (5) Press the "STORE" button.
 Check that the following LEDs are lit.
 "REPEAT", "PAUSE", "INT/EXT (Right)", "ZONE EDIT",
 "ASSIGNABLE 2", "MASTER CONTROL", "A",
 "TONE", "FUNCTION", "LAYER", "SPLIT", "REVERB", "PIANO"
<PX-3BK>

**TestMode MX910
 LED CHECK
 SPEC MAX**

ASSIGNABLE 1 TYPE
MODULATION
PORTAMENTO
CC# 000 - 127

ASSIGNABLE 2 TYPE
ROTARY EFFECT
PORTAMENTO
DSP ON / OFF
CC# 000 - 127

ASSIGNABLE 1 ASSIGNABLE 2

MASTER CONTROL

LOAD / SAVE

CARD PLAYER

ZONE SELECTOR
 1 - LOWER - 2 1 - UPPER - 2 INT / EXT PAGE

ZONE EDIT

PARAMETER SELECTOR
 TRANSPOSE BEND RANGE BRILLIANCE EQ ON / OFF

REPEAT

REW

FF

PAUSE

PLAY / STOP

PART

DEMO

- EDIT -

- TEMPO -

TAP

A

B

C

D

TONE
 / NO / YES

LAYER
 SPLIT
 REVERB
 CHORUS

REGISTRATION
 FUNCTION
 10
 +10
 EXIT
<
>
ENTER

USB DEVICE MODE
 STORE

PIANO
 ELEC PIANO 1
 ELEC PIANO 2
 CLAVI / VIBES
 ORGAN
 STRINGS / ENSEMBLE
 GUITAR / BASS
 OTHERS / GM

1 2 3 4 5 6 7 8

<PX-3SBK>

ASSIGNABLE 1 TYPE
MODULATION
PORTAMENTO
CC# 000 - 127

ASSIGNABLE 2 TYPE
ROTARY EFFECT
PORTAMENTO
DSP ON / OFF
CC# 000 - 127

ASSIGNABLE 1 ASSIGNABLE 2

MASTER CONTROL

LOAD / SAVE

CARD PLAYER

ZONE SELECTOR
 1 - LOWER - 2 1 - UPPER - 2 INT / EXT PAGE

ZONE EDIT

PARAMETER SELECTOR
 TRANSPOSE BEND RANGE BRILLIANCE EQ ON / OFF

REPEAT

REW

FF

PAUSE

PLAY / STOP

PART

DEMO

- EDIT -

- TEMPO -

TAP

A

B

C

D

TONE
 / NO / YES

LAYER
 SPLIT
 REVERB
 CHORUS

REGISTRATION
 FUNCTION
 -10
 +10
 EXIT
<
>
ENTER

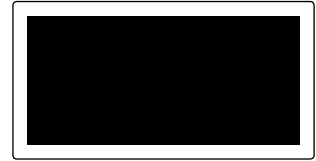
USB DEVICE MODE
 STORE

PIANO
 ELEC PIANO 1
 ELEC PIANO 2
 CLAVI / VIBES
 ORGAN
 STRINGS / ENSEMBLE
 GUITAR / BASS
 OTHERS / GM

1 2 3 4 5 6 7 8

LCD check

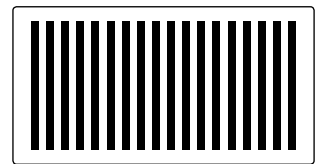
- (1) Press the "ORGAN" button to perform the "LCD check".
Check that all dots are lit.



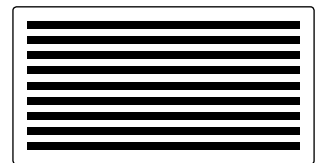
- (2) Press the "STORE" button.
Check that all dots are turned off.



- (3) Press the "STORE" button.
Check that vertical stripes with 1-dot intervals are shown.



- (4) Press the "STORE" button.
Check that horizontal stripes with 1-dot intervals are shown.



Button check

- (1) Press the "STRINGS/ENSEMBLE" button to select the "Button check".

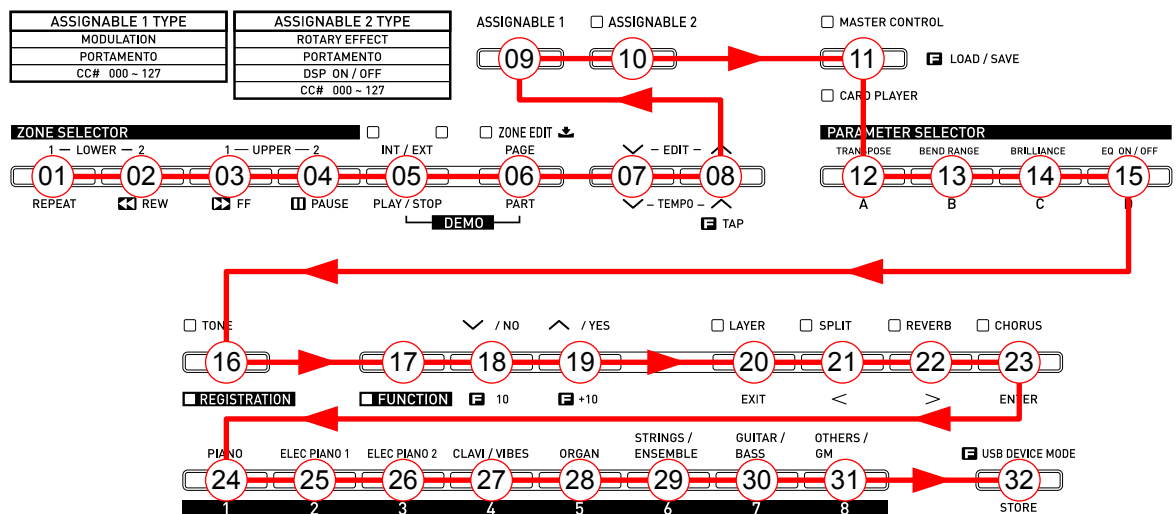
**TestMode MX910
SWITCH CHECK**

- (2) Press the button in the order indicated in the illustration below.
If the button function is OK:

The confirmation chord C6, sounds, and the button number will be displayed.

If a button function is not operating properly or a button is pressed in a wrong order:

An error tone (F2) sounds, and the button number will be displayed.



- (3) Press the "STORE" button the last.
The confirmation chords C4, E4, G4 sound.

TestMode MX910
SWITCH CHECK
OK:32

Bender check

- (1) Press the "GUITAR/BASS" button to perform the "Bender check".
The message shown in the right appears.

Sf00 St00 Dp00
BenderOK
Note00 Vel00

- (2) Turn the bender wheel upward.
The confirmation chord C6 sounds and the message shown in the right appears.

Sf00 St00 Dp00
BenderFF
Note00 Vel00

- (3) Return the bender wheel to the original position.
The message shown in the right appears.

Sf00 St00 Dp00
Bender80
Note00 Vel00

- (4) Turn the bender wheel downward.
The confirmation chord C6 sounds and the message shown in the right appears.

Sf00 St00 Dp00
Bender00
Note00 Vel00

- (5) Return the bender wheel to the original position.
The message shown in the right appears.

Sf00 St00 Dp00
Bender80
Note00 Vel00

Key check

NOTE: Connect either external speakers or headphones to the main unit before performing the steps below.

NOTE: Check all white and black keys.

- (1) Press the "REPEAT" button to select the "Key check".
(2) Press a key to see if the tone sounds as follows.

TestMode MX910
KEY CHECK 1

Key	External Speaker (Headphones)	
	Left	Right
Press a key half way	Test tone sounds. (C4: approx 500 Hz)	—
Press a key all the way	Test tone sounds. (C4: approx 500 Hz)	Test tone sounds. (C6: approx 2 kHz)

Pedal check

- (1) Press the "GUITAR/BASS" button to select the "Pedal check".

NOTE: The procedures following this step differ according to the type of the pedal unit.

**Sf00 St00 Dp00
BenderOK
Note00 Vel00**

<Pedal Check for SP-3>

- (1) Connect the SP-3 pedal unit to the "SOFT/SOSTENUTO" jack and step on a pedal.

The confirmation chord G4 sounds.

**Sf7F St00 Dp00
BenderOK
Note00 Vel00**

- (2) Connect the SP-3 pedal unit to the "DAMPER" jack and step on a pedal.

The confirmation chord C4 sounds.

**Sf00 St00 Dp7F
BenderOK
Note00 Vel00**

<Pedal Check for SP-32>

- (1) Press the "SOFT" pedal.

The confirmation chord E4 sounds.

**Sf7F St00 Dp00
BenderOK
Note00 Vel00**

- (2) Press the "SOSTENUTO" pedal.

The confirmation chord G4 sounds.

**Sf00 St7F Dp00
BenderOK
Note00 Vel00**

- (3) Press the "DAMPER" pedal (ON HALF).

The confirmation chord C4 sounds.

**Sf00 St00 Dp40
BenderOK
Note00 Vel00**

- (4) Press the "DAMPER" pedal firmly (ON FULL).

The confirmation chord C4 sounds.

**Sf00 St00 Dp7F
BenderOK
Note00 Vel00**

Headphones check

NOTE: When checking headphones, test both PHONE jacks.

- (1) Press the "A" button to select the "Headphones check".

**TestMode MX910
HEADPHONE CHECK
HP:NG**

- (2) Connect the headphones to the phones jack.
Check that "OK" appears on the LCD.
- (3) Press any key.
Check that you can hear the test chord A4 through the headphones.
- (4) Remove the headphones from the jack.

**TestMode MX910
HEADPHONE CHECK
HP:OK**

MIDI check

- (1) Connect the MIDI IN jack to the MIDI OUT jack with a MIDI cable.
- (2) Press the "B" button to perform "MIDI check".
The confirmation chord C6 sounds and the message shown in the right appears.
- (3) Disconnect the MIDI cable.

**TestMode MX910
MIDI CHECK
MIDI:OK**

USB check

- (1) Connect PX-3 to the computer with a USB cable.
- (2) Press the "C" button to perform the "USB check".
The confirmation chord C6 sounds and the message shown in the right appears.
- (3) Disconnect the USB cable.

**TestMode MX910
USB CHECK
USB:OK**

SD Card check

- (1) Insert an SD card into the SD card slot.
- (2) Press the "D" button to perform the "SD Card check".
The confirmation chord C6 sounds and the message shown in the right appears.
- (3) Remove the SD card.

**TestMode MX910
SDCARD CHECK
SDCARD:OK**

Operation after replacing the main PCB or the keyboard parts

Make sure to perform the following procedure after replacing the main PCB or the keyboard parts.

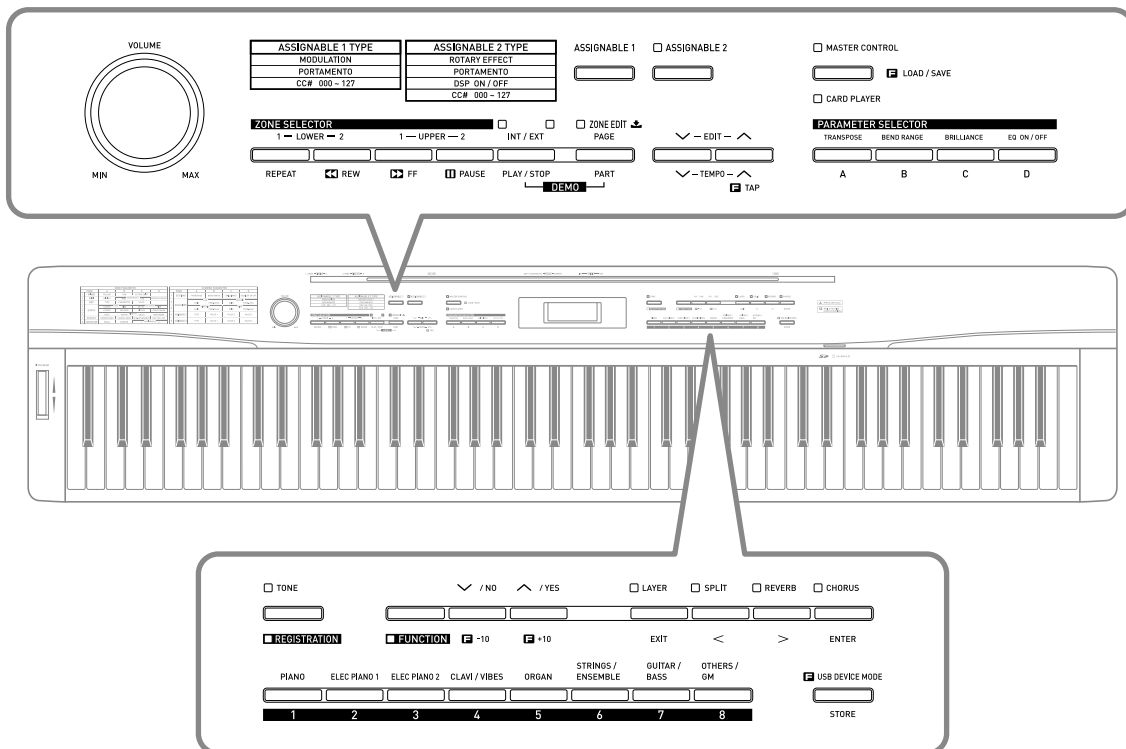
Applicable parts number on the Parts List:

No.1 for the main PCB, No. **38** to **70** for the KY-ASSY or the KY-ASSY component parts

<Procedure>

- (1) Hold down the "v / NO", " ^ / YES", and "STORE" buttons at the same time, to turn the power ON.
The following LEDs are lit.
"TONE", "FUNCTION", "LAYER", "CHORUS", "PIANO", "ELEC PIANO 1", "ELEC PIANO 2"
"STRINGS/ENSEMBLE", "GUITAR/BASS", "OTHERS/GM"
- (2) Release the "v / NO", " ^ / YES", and "STORE" buttons.
All the LEDs turn off except "TONE" and "LAYER" LEDs.
- (3) Press the "LAYER" button.
The "LAYER" and "STRINGS/ENSEMBLE" LEDs are lit.
- (4) Press the "STRINGS/ENSEMBLE" button.
The "LAYER" and "GUITAR/BASS" LEDs are lit.
- (5) Press the "GUITAR/BASS" button.
The "LAYER" and "OTHERS/GM" LEDs are lit.
- (6) Press the "OTHERS/GM" button.
The following LEDs are lit.
"LAYER", "OTHERS/GM", "FUNCTION", "CHORUS"
- (7) Press the "STORE" button.
- (8) Press the "POWER" button to turn off the power.

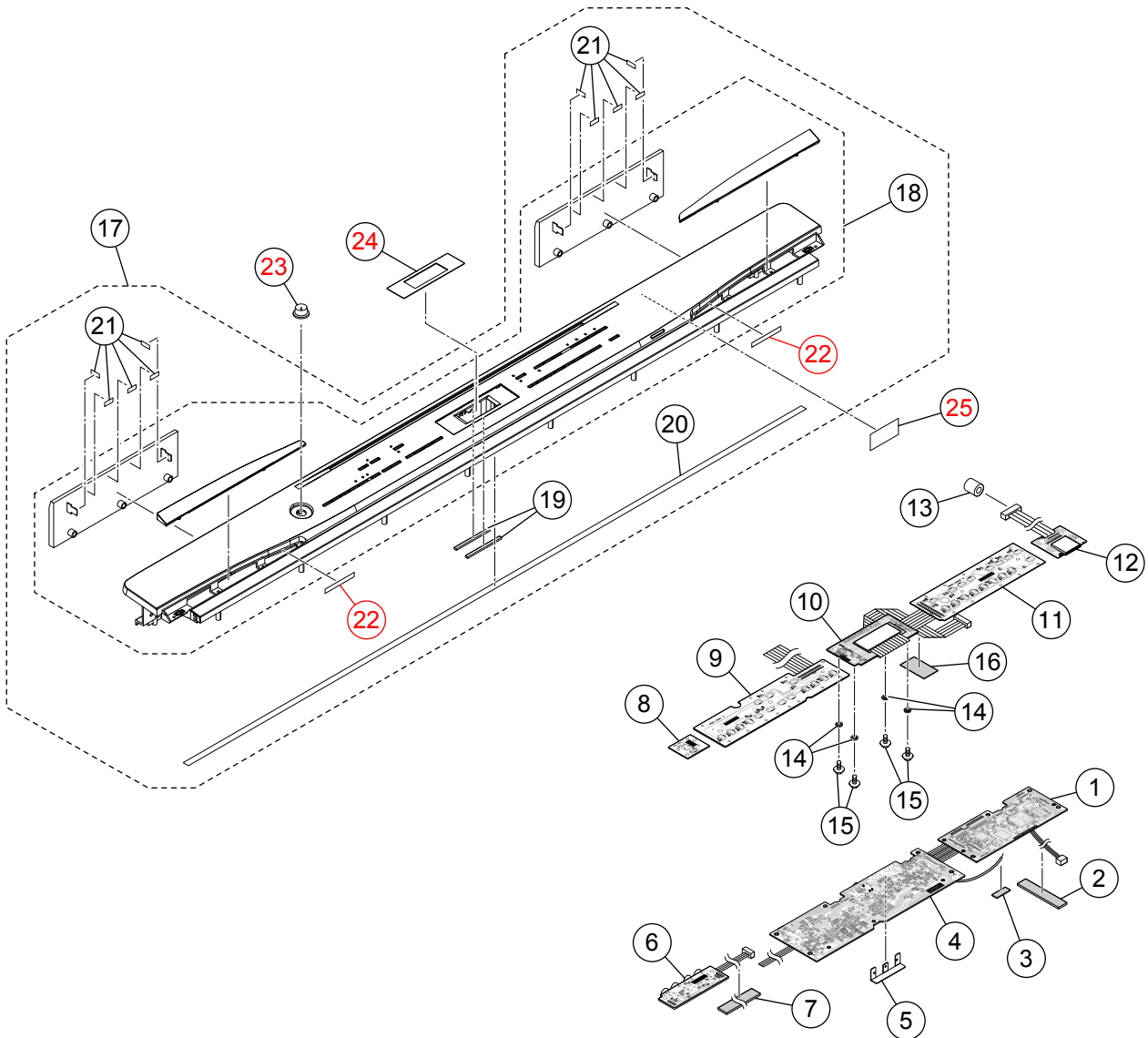
<Button & LED Layout>



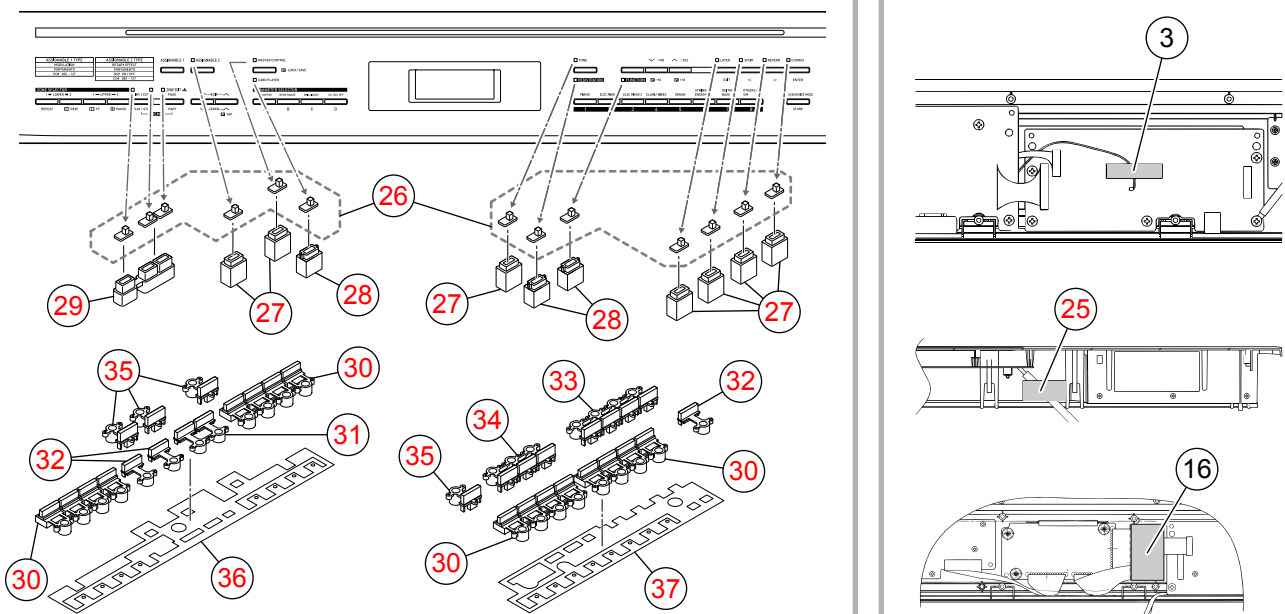
EXPLODED VIEW

PX-3 series is not equipped with speakers.

Headphones or musical instrument amplifier are necessary when repairing PX-3 series.



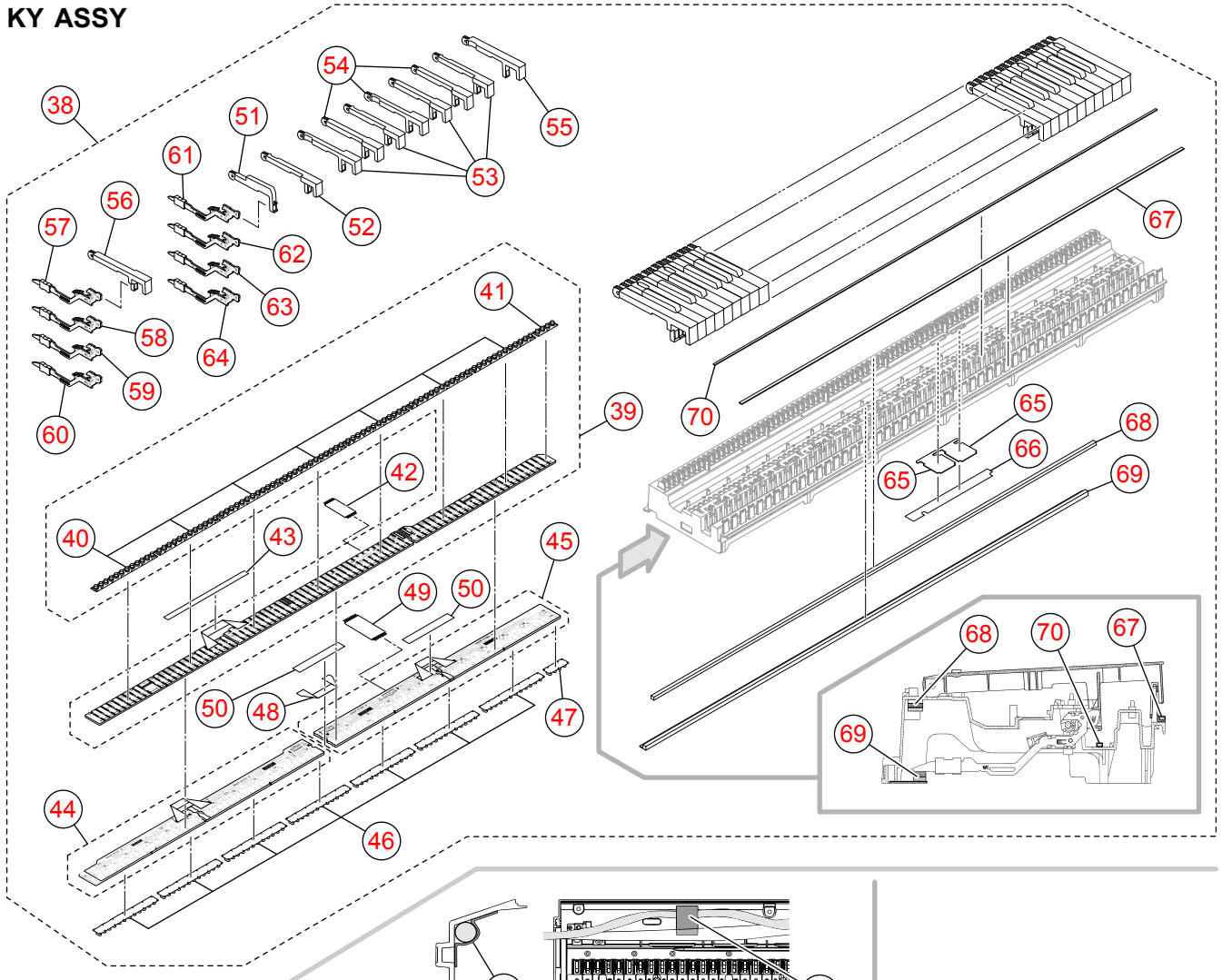
BUTTONS & BUTTON LEDs



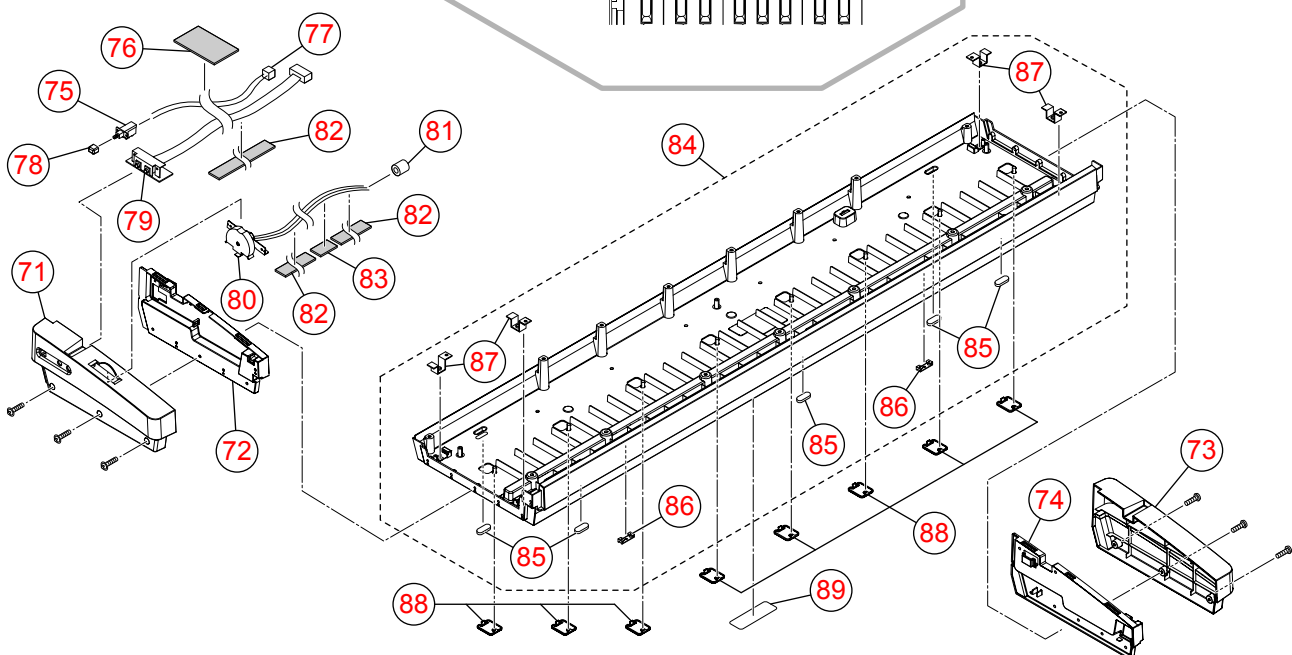
PX-3 series is not equipped with speakers.

Headphones or musical instrument amplifier are necessary when repairing PX-3 series.

KY ASSY



SIDE & BOTTOM



PARTS LIST

PX-3BK/PX-3SBK

Notes:

1. Prices and specifications are subject to change without prior notice.
2. Refer to the latest "Parts Price Code" at "PARTS FINDER" on the Casio Service WEB site (<https://www.servicecasio.com>).
3. As for spare parts order and supply, refer to the "GUIDEBOOK for Spare parts Supply", published separately.
4. The numbers in item column correspond to the same numbers in drawing.

1 PX-3_BLACK_DI
2 PX-3_BLACK_EU

3 PX-3_BLACK_UK
4 PX-3_BLACK_US

5 PX-3S_BLACK_DI
6 PX-3S_BLACK_EU

7 PX-3S_BLACK_UK
8 PX-3S_BLACK_US

N	Item	Code No.	Parts Name	Specification	Q'ty								Price Code	R	Remarks
					1	2	3	4	5	6	7	8			
Main PCB (MDA1)															
	1	10367702	PCB ASSY/MAIN	TK-RJM510525*001	1	1	1	1	1	1	1	1		B	Main PCB
	2	69261580	SPONGE-35-150	M440499-1	1	1	1	1	1	1	1	1		X	
	3	69255120	FABRIC TAPE-10-30	M440396-1	1	1	1	1	1	1	1	1		X	
	CN9	10257512	CONNECTOR	UBR23-4K5G00	1	1	1	1	1	1	1	1		C	USB connector
	IC11	10226394	IC	TC74VHC08FT(EL.K)	1	1	1	1	1	1	1	1		X	
	IC10	10206819	IC	TC7SZ32FU(TE85L.F)	1	1	1	1	1	1	1	1		X	
	IC13	10256338	IC	CS4351-CZZR	1	1	1	1	1	1	1	1		X	
	IC1	10241413	IC	R1151N001C-TR-F	1	1	1	1	1	1	1	1		X	
	IC8	10123002	IC	TC74VHC174FT(EL)	1	1	1	1	1	1	1	1		X	
	IC9	10258396	IC	TC74VHC541FT(EL.K)	1	1	1	1	1	1	1	1		X	
	IC4	10197554	IC	TC7SZ126FU(TE85L.F)	1	1	1	1	1	1	1	1		X	
	IC5	10255468	LSI	MB91F036PFF-GE1	1	1	1	1	1	1	1	1		C	
	IC14	10333782	LSI	UPD65943GK-F659EUA	1	1	1	1	1	1	1	1		C	
	IC6	10335496	MEMORY	S29GL512P10TFCR20D	1	1	1	1	1	1	1	1		C	
	IC3	10197390	MEMORY	LP62S2048AX70LLTFQ	1	1	1	1	1	1	1	1		C	
	IC2	10333111	MEMORY	MD56V82160-6TAZ03B	1	1	1	1	1	1	1	1		C	
	D31	10276977	DIODE	L1SS400T1G	1	1	1	1	1	1	1	1		X	
	L39	10193074	COIL	DLW21HN181SQ2L	1	1	1	1	1	1	1	1		X	
	Q8,Q9	69409403	TRANSISTOR	2SA1576AT106R	2	2	2	2	2	2	2	2		X	
	Q7	22592764	TRANSISTOR	2SB1188T100Q	1	1	1	1	1	1	1	1		X	
	Q10	69300298	TRANSISTOR	2SC4081T106R	1	1	1	1	1	1	1	1		X	
	X1,X31	10334293	RESONATOR	9C12000163	2	2	2	2	2	2	2	2		X	

PX-3 series is not equipped with speakers.

Headphones or musical instrument amplifier are necessary when repairing PX-3 series.

1 PX-3_BLACK_DI
2 PX-3_BLACK_EU

3 PX-3_BLACK_UK
4 PX-3_BLACK_US

5 PX-3S_BLACK_DI
6 PX-3S_BLACK_EU

7 PX-3S_BLACK_UK
8 PX-3S_BLACK_US

N	Item	Code No.	Parts Name	Specification	Q'ty								Price Code	R	Remarks
					1	2	3	4	5	6	7	8			
Sub PCB (PSA1)															
	4	10366628	PCB ASSY/PSA1	TK-RJM510451*001	1	1	1	1	1	1	1	1		C	PSA1 PCB
	5	10169597	BRACKET/JACK	RJM504221-001V01	1	1	1	1	1	1	1	1		X	
	J203,J204	10206815	CONNECTOR	JY-6314*01-030	2	2	2	2	2	2	2	2		C	JACK for PEDAL
	J202	10334294	CONNECTOR	KM02022ABMP	1	1	1	1	1	1	1	1		A	DC JACK
	CN216	10207671	CONNECTOR	HDC-052SP-02	1	1	1	1	1	1	1	1		X	MIDI IN, OUT
	IC203	10201503	IC	PQ1CG21H2FZH	1	1	1	1	1	1	1	1		X	
	IC201	10343240	IC	BH3544F-E2	1	1	1	1	1	1	1	1		X	
	IC204,IC205	10211950	IC	NJM2068M-D(TE1)	2	2	2	2	2	2	2	2		X	
	Q201,Q203, Q206-Q210,Q213	69300298	TRANSISTOR	2SC4081T106R	8	8	8	8	8	8	8	8		X	
	Q211,Q212	10305853	TRANSISTOR	KTD1304-RTK/P	2	2	2	2	2	2	2	2		X	
	L208	10231919	COIL	RB53-856396NP	1	1	1	1	1	1	1	1		X	
	L202,L204,L207	10231920	COIL	RB53-856397NP	3	3	3	3	3	3	3	3		X	
	L205	10232457	COIL	R1I7-860400NP	1	1	1	1	1	1	1	1		X	
	D209	10314562	PHOTO COUPLER	QCPL-M614-500E	1	1	1	1	1	1	1	1		X	
	D205,D208	10276977	DIODE	L1SS400T1G	2	2	2	2	2	2	2	2		X	
	D204	10334295	DIODE	LUDZS12BT1G	1	1	1	1	1	1	1	1		X	
	D206,D207	10308381	DIODE	LUDZS7.5BT1G	2	2	2	2	2	2	2	2		X	
	D202	10363271	DIODE	LUDZS9.1BT1G	1	1	1	1	1	1	1	1		X	
	D203	10210387	DIODE	RSX101VA-30TR	1	1	1	1	1	1	1	1		X	
	D201	10294394	DIODE	SK34A	1	1	1	1	1	1	1	1		X	
Jack PCB (JKA1)															
	6	10346443	PCB ASSY/JKA1	TK-RJM509715*001	1	1	1	1	1	1	1	1		C	JKA1 PCB
	7	69263990	SPONGE-35-190	M440556-1	1	1	1	1	1	1	1	1		X	
	J503	10206815	CONNECTOR	JY-6314*01-030	1	1	1	1	1	1	1	1		B	LINE OUT (L)
	J501,J502,J504	10206816	CONNECTOR	JY-6314*01-130	3	3	3	3	3	3	3	3		B	LINE IN, OUT (R)
	L501-L504	10231920	COIL	RB53-856397NP	4	4	4	4	4	4	4	4		X	

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1 PX-3_BLACK_DI
2 PX-3_BLACK_EU

3 PX-3_BLACK_UK
4 PX-3_BLACK_US

5 PX-3S_BLACK_DI
6 PX-3S_BLACK_EU

7 PX-3S_BLACK_UK
8 PX-3S_BLACK_US

N	Item	Code No.	Parts Name	Specification	Q'ty								Price Code	R	Remarks
					1	2	3	4	5	6	7	8			
Console PCB (CNA1)															
N	8	10346447	PCB ASSY/CNA3	TK-RJM509711*001	1	1	1	1	1	1	1	1	1	X	CNA3 PCB
	VR601	10123103	VARIABLE RESISTOR	RK09K12C0D1B	1	1	1	1	1	1	1	1	1	B	Main volume
	9	10366629	PCB ASSY/CNA1	TK-RJM510454*001	1	1	1	1						X	CNA1 PCB (for PX-3BK)
	9	10346445	PCB ASSY/CNA1	TK-RJM509707*001					1	1	1	1		X	CNA1 PCB (for PX-3SBK)
	SW601-SW615	10337110	SWITCH	TP-1138A-10-100GF	15	15	15	15	15	15	15	15		X	
	D601-D604, D606-D614	10363781	LED	26-21/B1	13	13	13	13						X	for PX-3BK
	D605	10363783	LED	SML013WBDW1	1	1	1	1						X	for PX-3BK
	D601-D604, D606-D614	10336974	LED	26-21/R1					13	13	13	13		X	for PX-3SBK
	D605	10336975	LED	26-21/Y1					1	1	1	1		X	for PX-3SBK
	10	10366630	BL-ASSY	TK-RJM509840*002	1	1	1	1						X	LCD, LCA1 PCB (for PX-3BK)
	10	10397105	BL-ASSY	TK-RJM509840*003					1	1	1	1		X	LCD, LCA1 PCB (for PX-3SBK)
	D2	10336988	LED	HSW1142LT-13-TR	1	1	1	1	1	1	1	1		X	
	LS11	10291684	LSI	D78F1153GK-GAK-AX	1	1	1	1	1	1	1	1		X	
	Q3,Q27	69409403	TRANSISTOR	2SA1576AT106R	2	2	2	2	2	2	2	2		X	
	Q1,Q2,Q25,Q26	10178530	TRANSISTOR	2SA1873-GR(TE85L.F	4	4	4	4	4	4	4	4		X	
	Q4-Q8,Q20-Q24	10092467	TRANSISTOR	DTC123JETL	10	10	10	10	10	10	10	10		X	
Q9-Q11	10209027	TRANSISTOR	KTC4076-Y-RTK/P	3	3	3	3	3	3	3	3		X		
D3	10308381	DIODE	LUDZS7.5BT1G	1	1	1	1	1	1	1	1		X		
11	10366631	PCB ASSY/CNA2	TK-RJM510457*001	1	1	1	1						X	CNA2 PCB (for PX-3BK)	
11	10346446	PCB ASSY/CNA2	TK-RJM509709*001					1	1	1	1		X	CNA2 PCB (for PX-3SBK)	
SW616-SW632	10337110	SWITCH	TP-1138A-10-100GF	17	17	17	17	17	17	17	17		X		
D615-D629	10363781	LED	26-21/B1	15	15	15	15						X	for PX-3BK	
D615-D629	10336974	LED	26-21/R1					15	15	15	15		X	for PX-3SBK	
D650	10276977	DIODE	L1SS400T1G	1	1	1	1	1	1	1	1		X		
12	10310734	PCB ASSY/SDA1	TK-RJM508899*001	1	1	1	1	1	1	1	1		X	SDA1 PCB	
13	10208428	FERRITE-CORE	CTRC-0813(B)	1	1	1	1	1	1	1	1		X		
14	10337091	SPACER-M900	RJM509862-001V01	4	4	4	4	4	4	4	4		X	for LCD PCB	
15	10203750	SCREW	M411279-001V04	4	4	4	4	4	4	4	4		X	for LCD PCB	
16	69265810	SPONGE-35-60	M440593-1	1	1	1	1	1	1	1	1		X		

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1 PX-3_BLACK_DI
2 PX-3_BLACK_EU

3 PX-3_BLACK_UK
4 PX-3_BLACK_US

5 PX-3S_BLACK_DI
6 PX-3S_BLACK_EU

7 PX-3S_BLACK_UK
8 PX-3S_BLACK_US

N	Item	Code No.	Parts Name	Specification	Q'ty								Price Code	R	Remarks
					1	2	3	4	5	6	7	8			
Panel Unit															
N	17	1036632	PANEL ASSY	TK-RJM510449*001	1	1	1	1						X	for PX-3BK
	17	10397106	PANEL ASSY	TK-RJM510449*002					1	1	1	1		X	for PX-3SBK
	18	10369689	PANEL SUB ASSY	RJM510543*001V01	1	1	1	1						X	for PX-3BK
N	18	10396839	PANEL SUB ASSY	RJM510543*002V01					1	1	1	1		X	for PX-3SBK
	19	10337092	CUSHION	RJM509868-001V01	2	2	2	2	2	2	2	2		X	
	20	10363260	KY FELT	RJM509922-002V01	1	1	1	1	1	1	1	1		X	
	21	69276630	FABRIC TAPE-8-15	M440832-1	10	10	10	10	10	10	10	10		X	
N	22	10262597	D-TAPE-3-50	RJM507716-001V01	2	2	2	2	2	2	2	2		X	
	23	10269765	KNOB/ROTARY	M341109-008V01	1	1	1	1	1	1	1	1		X	
	24	10337079	PLATE/DISPLAY	RJM509588-001V01	1	1	1	1	1	1	1	1		X	
	25	10047591	FABRIC TAPE-30-60	M441248-1	1	1	1	1	1	1	1	1		X	
	26	10337054	COVER/LED	RJM509410-001V01	13	13	13	13	13	13	13	13		X	
	27	10337055	SPACER/LED/A	RJM509411-001V01	7	7	7	7	7	7	7	7		X	
	28	10337056	SPACER/LED/B	RJM509412-001V01	3	3	3	3	3	3	3	3		X	
	29	10337057	SPACER/LED/C	RJM509413-001V01	1	1	1	1	1	1	1	1		X	
	30	10337051	BUTTON/TACT/A	RJM509408-001V01	4	4	4	4	4	4	4	4		X	
	31	10337029	BUTTON/TACT/B	RJM509396-001V01	1	1	1	1	1	1	1	1		X	
	32	10337030	BUTTON/TACT/B	RJM509396-002V01	3	3	3	3	3	3	3	3		X	
	33	10337031	BUTTON/TACT/C	RJM509397-001V01	1	1	1	1	1	1	1	1		X	
	34	10337032	BUTTON/TACT/C	RJM509397-002V01	1	1	1	1	1	1	1	1		X	
	35	10337033	BUTTON/TACT/C	RJM509397-003V01	4	4	4	4	4	4	4	4		X	
	36	10346399	FABRIC TAPE	RJM509545-001V02	1	1	1	1	1	1	1	1		X	
	37	10346400	FABRIC TAPE	RJM509546-001V02	1	1	1	1	1	1	1	1		X	

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1 PX-3_BLACK_DI
2 PX-3_BLACK_EU

3 PX-3_BLACK_UK
4 PX-3_BLACK_US

5 PX-3S_BLACK_DI
6 PX-3S_BLACK_EU

7 PX-3S_BLACK_UK
8 PX-3S_BLACK_US

N	Item	Code No.	Parts Name	Specification	Q'ty								Price Code	R	Remarks
					1	2	3	4	5	6	7	8			
Keyboard Assy															
	38	10347077	KEY UNIT	TK-RJM510156*002	1	1	1	1						B	for PX-3BK
	38	10348588	KEY UNIT	TK-RJM510156*004					1	1	1	1		B	for PX-3SBK
	39	10340880	PCB ASSY/KYC, KYD	TK-RJM509609*001	1	1	1	1	1	1	1	1		C	KYC,KYDPCB
	D601-D628	10301580	DIODE	LM1MA142WAT1G	28	28	28	28	28	28	28	28		X	
	D801-D818	10301580	DIODE	LM1MA142WAT1G	18	18	18	18	18	18	18	18		X	
	40	10355627	RUBBER CONTACT/AG1	RJM509219-002V02	7	7	7	7	7	7	7	7		A	
	41	10355628	RUBBER CONTACT/GC1	RJM509220-002V02	1	1	1	1	1	1	1	1		A	
	42	10336109	CABLE	UL2896-20-280-MACP	1	1	1	1	1	1	1	1		X	
	43	10334298	FABRIC TAPE-15X270	M411937-001V01	1	1	1	1	1	1	1	1		X	
	44	10341198	PCB ASSY/KYA	TK-RJM509622*001	1	1	1	1	1	1	1	1		C	
	45	10341199	PCB ASSY/KYB	TK-RJM509624*001	1	1	1	1	1	1	1	1		C	
	D601-D644	10294400	DIODE	LM1MA142WKT1G	44	44	44	44	44	44	44	44		X	
	D801-D844	10294400	DIODE	LM1MA142WKT1G	44	44	44	44	44	44	44	44		X	
	46	10362570	RUBBER CONTACT/AG2	RJM509217-002V03	7	7	7	7	7	7	7	7		A	
	47	10362571	RUBBER CONTACT/GC2	RJM509218-002V02	1	1	1	1	1	1	1	1		A	
	48	10336111	CABLE	UL2896-20-120-MACP	1	1	1	1	1	1	1	1		X	
	49	10336108	CABLE	UL2896-30-265-MACP	1	1	1	1	1	1	1	1		X	
	50	10164446	FABRIC TAPE-20-120	RJM502073-002V01	2	2	2	2	2	2	2	2		X	
	51	40135317	BLACK KEY	RJM502797-001V01	36	36	36	36						A	for PX-3BK
	51	10354018	BLACK KEY	RJM502797-003V03	36	36	36	36	36	36	36	36		A	for PX-3SBK
	52	40135428	WHITE KEY/B	RJM502794-001V01	4	4	4	4						A	for PX-3BK
	52	10354015	WHITE KEY/B	RJM502794-003V04	1	1	1	1	1	1	1	1		A	for PX-3SBK
	53	40135426	WHITE KEY/CEGB	RJM502862-001V01	7	7	7	7						A	for PX-3BK
	53	10338012	WHITE KEY/CEGB	RJM502862-003V03	7	7	7	7	7	7	7	7		A	for PX-3SBK
	54	40135427	WHITE KEY/DFA	RJM502863-001V01	7	7	7	7						A	for PX-3BK
	54	10338013	WHITE KEY/DFA	RJM502863-003V03	7	7	7	7	7	7	7	7		A	for PX-3SBK
	55	40337004	WHITE KEY/SC	RJM502796-003V03	4	4	4	4						A	for PX-3BK
	55	10354017	WHITE KEY/SC	RJM502796-004V05	1	1	1	1	1	1	1	1		A	for PX-3SBK
	56	40337003	WHITE KEY/SA	RJM502795-003V03	4	4	4	4						A	for PX-3BK
	56	10348668	WHITE KEY/SA	RJM502795-004V04	1	1	1	1	1	1	1	1		A	for PX-3SBK

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1 PX-3_BLACK_DI
2 PX-3_BLACK_EU

3 PX-3_BLACK_UK
4 PX-3_BLACK_US

5 PX-3S_BLACK_DI
6 PX-3S_BLACK_EU

7 PX-3S_BLACK_UK
8 PX-3S_BLACK_US

N	Item	Code No.	Parts Name	Specification	Q'ty								Price Code	R	Remarks
					1	2	3	4	5	6	7	8			
N	57	10341062	HAMMER ASSY/W1	TK-RJM509600*001	13	13	13	13	13	13	13	13		C	
	58	10341063	HAMMER ASSY/W2	TK-RJM509601*001	13	13	13	13	13	13	13	13		C	
	59	10341064	HAMMER ASSY/W3	TK-RJM509602*001	13	13	13	13	13	13	13	13		C	
	60	10341065	HAMMER ASSY/W4	TK-RJM509603*001	13	13	13	13	13	13	13	13		C	
	61	10341066	HAMMER ASSY/B1	TK-RJM509604*001	9	9	9	9	9	9	9	9		C	
	62	10341067	HAMMER ASSY/B2	TK-RJM509605*001	9	9	9	9	9	9	9	9		C	
	63	10341068	HAMMER ASSY/B3	TK-RJM509606*001	9	9	9	9	9	9	9	9		C	
	64	10341069	HAMMER ASSY/B4	TK-RJM509607*001	9	9	9	9	9	9	9	9		C	
	65	10388000	PLATE-901	RJM510952-001V01	2	2	2	2	2	2	2	2		X	
	66	10343387	FABRIC TAPE	RJM510100-001V01	1	1	1	1	1	1	1	1		X	
	67	10138691	FELT/KEY/LOWER	RJM503562-001V01	1	1	1	1	1	1	1	1		X	
	68	10334393	FELT/HUMMER/UPPER	RJM509655-001V01	1	1	1	1	1	1	1	1		X	
	69	10294093	FELT/HUMMER/LOWER	TK-RJM507910*001	1	1	1	1	1	1	1	1		X	
	70	10340855	FELT/KEY/LOWER	RJM510067-001V01	1	1	1	1	1	1	1	1		X	
Case Unit															
	71	10363262	S-CASE-L-M910	RJM509404-004V01	1	1	1	1	1	1	1	1		X	
	72	10337046	S-CASE-IL-M901	RJM509406-002V01	1	1	1	1	1	1	1	1		X	
	73	10363263	S-CASE-R-M910	RJM509405-004V01	1	1	1	1	1	1	1	1		X	
	74	10337049	S-CASE-IR-M901	RJM509407-002V01	1	1	1	1	1	1	1	1		X	
	75	10334406	SWITCH	SDDL1017U	1	1	1	1	1	1	1	1		C	for Power
	76	10047591	HIMELON-30-60	M441248-1	1	1	1	1	1	1	1	1		X	
	77	10342354	HARNESS	EF-EH3P065M900	1	1	1	1	1	1	1	1		X	
	78	69245260	PW-BUTTON-358	M340318-1	1	1	1	1	1	1	1	1		X	Key top
	79	10341075	PCB ASSY/HPA1	TK-RJM509834*001	1	1	1	1	1	1	1	1		C	HPA1 PCB
	J601,J602	10208979	CONNECTOR	JY-3567*01-070	2	2	2	2	2	2	2	2		B	
	L601,L602	10231919	COIL	RB53-856396NP	2	2	2	2	2	2	2	2		X	
	80	10346440	BND-ASSY	TK-RJM504468*007	1	1	1	1	1	1	1	1		X	Pitch bend
	81	10204256	FERRITE CORE	TRCN16-13	1	1	1	1	1	1	1	1		X	
	82	10187096	SPONGE-40-510	RJM505302-001V01	3	3	3	3	3	3	3	3		X	
	83	10078918	SPONGE-40-100	M440962-001V01	1	1	1	1	1	1	1	1		X	

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1 PX-3_BLACK_DI
2 PX-3_BLACK_EU

3 PX-3_BLACK_UK
4 PX-3_BLACK_US

5 PX-3S_BLACK_DI
6 PX-3S_BLACK_EU

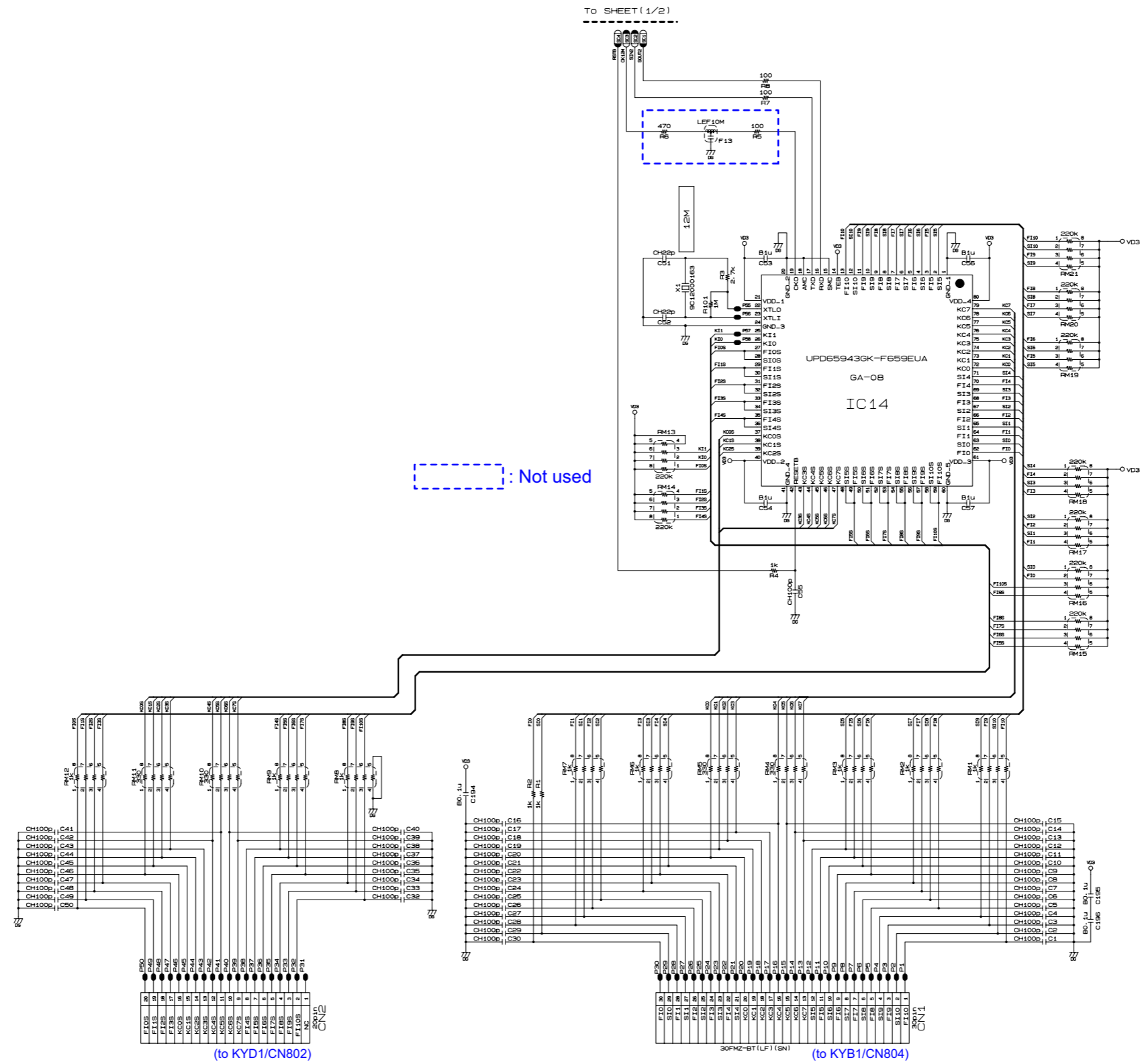
7 PX-3S_BLACK_UK
8 PX-3S_BLACK_US

N	Item	Code No.	Parts Name	Specification	Q'ty								Price Code	R	Remarks
					1	2	3	4	5	6	7	8			
N	84	10366633	L-CASE-ASSY(M910)	TK-RJM510463*001	1	1	1	1	1	1	1	1		X	
	85	10133655	RUBBER-FOOT-M412	RJM503180-001V01	5	5	5	5	5	5	5	5		X	
	86	10359076	BRACKET-B-M404	RJM505932-001V02	2	2	2	2	2	2	2	2		X	
	87	10201510	BRACKET-C-M404	RJM505933-001V01	4	4	4	4	4	4	4	4		X	
	88	10337052	L-COVER-M900	RJM509409-001V01	8	8	8	8	8	8	8	8		X	
N	89	10363769	RATING-ST-M910	RJM504373-034V01	1	1	1	1						X	for PX-3BK
	89	10396706	RATING-ST-M915A	RJM504373-049V02					1	1	1	1		X	for PX-3SBK
Accessories															
N	-	10392266	AC-ADAPTOR	AD-A12150LW-F3	1	1	1	1	1	1	1	1		A	Without CORD
	-	10361066	CORD	UC2LT-M006A	1			1	1			1		C	US type
	-	10361067	CORD	EC2LT-M002A	1	1			1	1				C	EU type
	-	10361068	CORD	KC2LT-M002A	1				1					C	Korea type
	-	10361069	CORD	AUC2LT-M002A	1				1					C	Australia type
	-	10361070	CORD	BC2LT-M002A			1				1			C	UK type
	-	10342718	MUSIC-STAND	RJM508666-001V04	1	1	1	1	1	1	1	1		C	
	-	10209207	DUST-COVER	RJM506261-001V01	1				1					X	
-	10133504	PEDAL SP-3	TK-RJM503195*001	1	1	1	1	1	1	1	1		X		

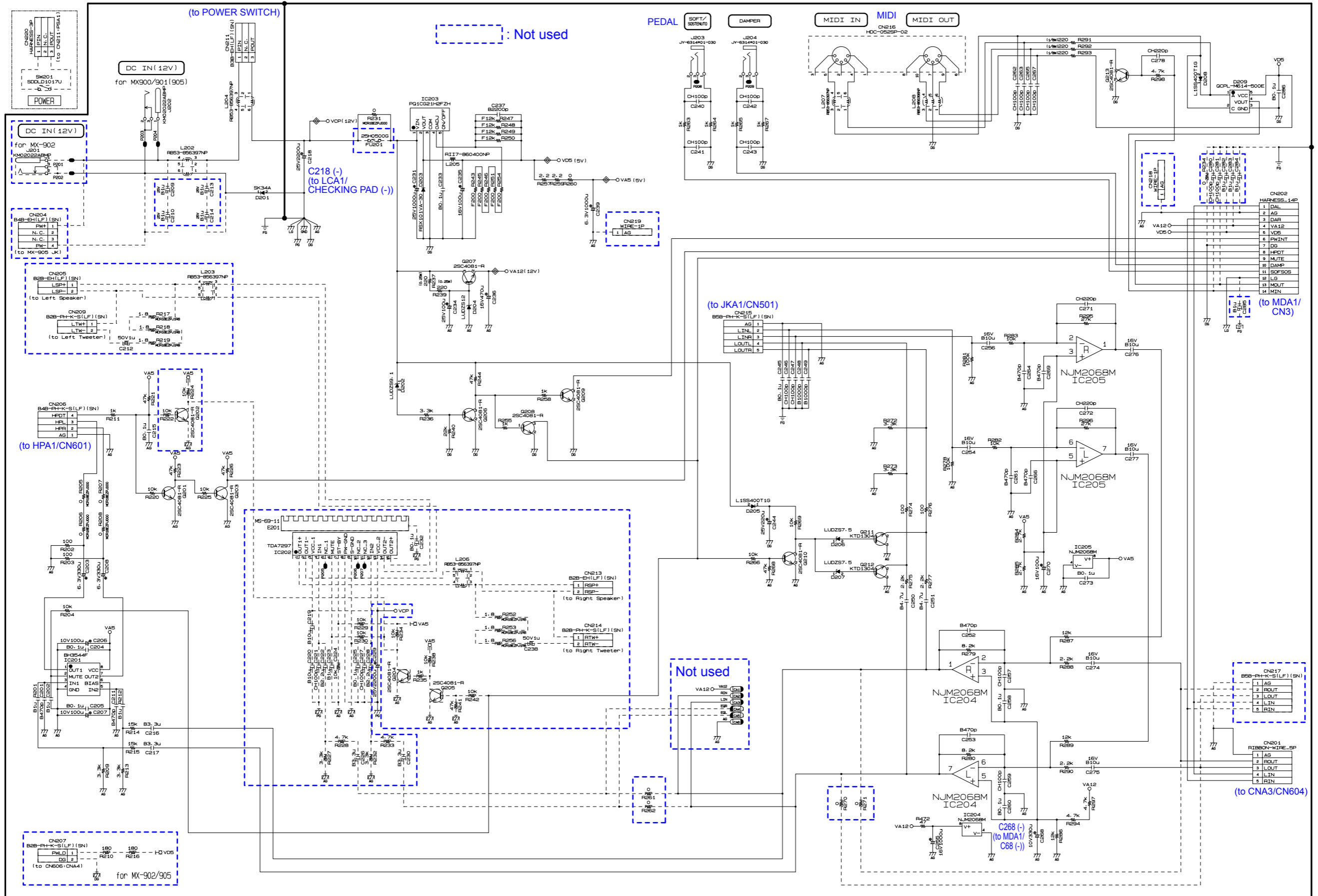
PX-3 series is not equipped with speakers.

Headphones or musical instrument amplifier are necessary when repairing PX-3 series.

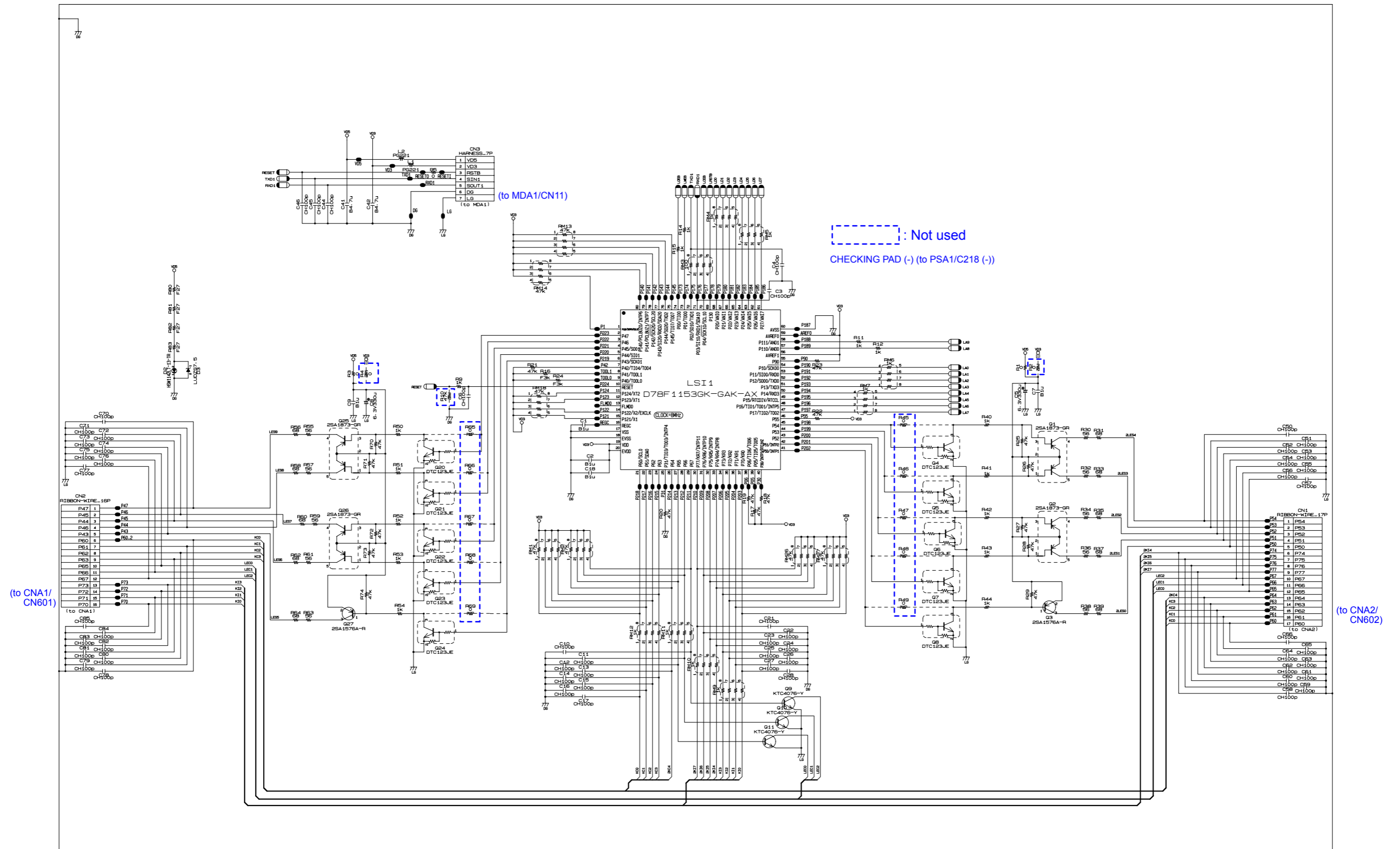
Main PCB M900-MDA1 (2/2)



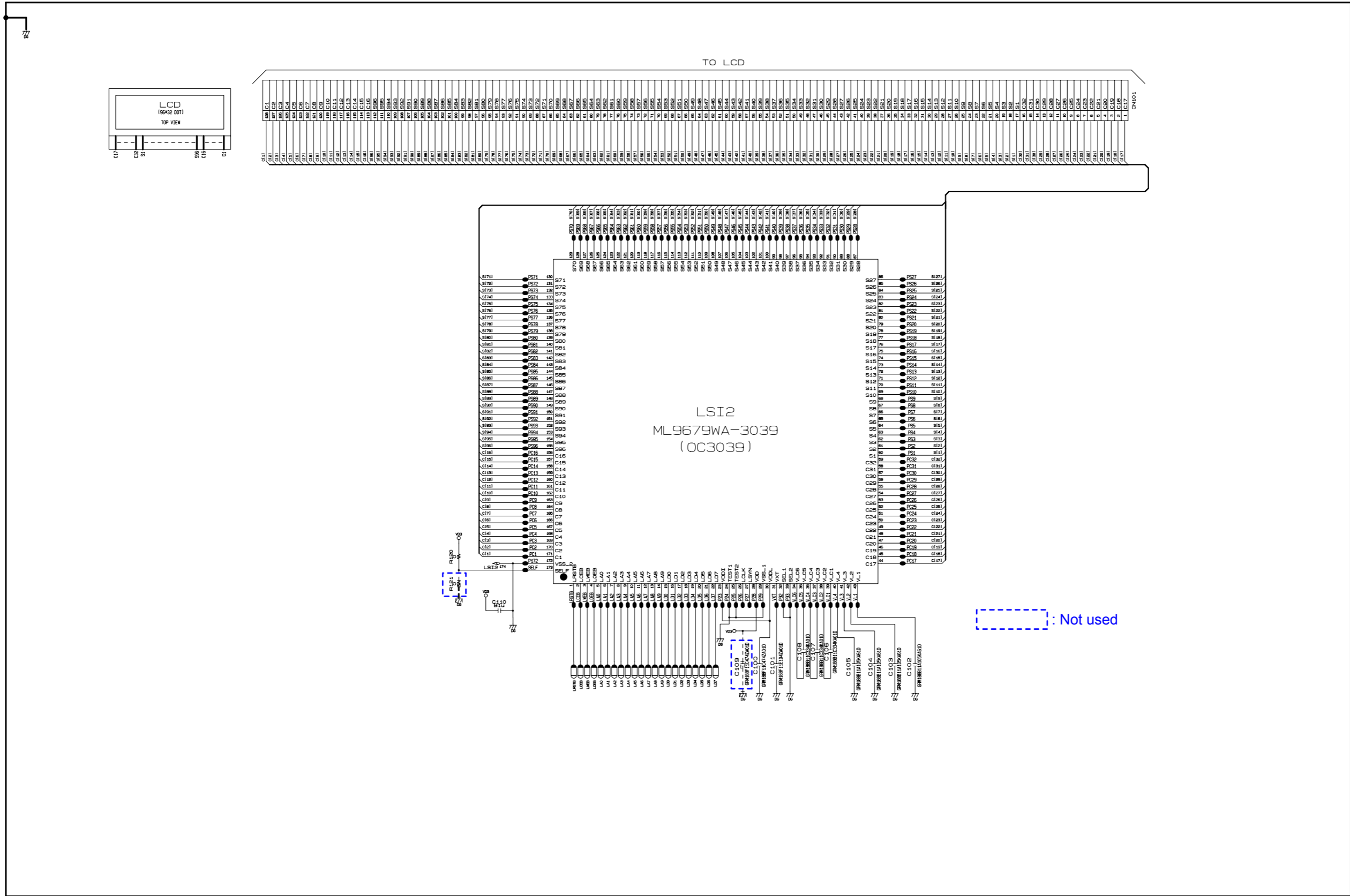
Sub PCB M900-PSA1



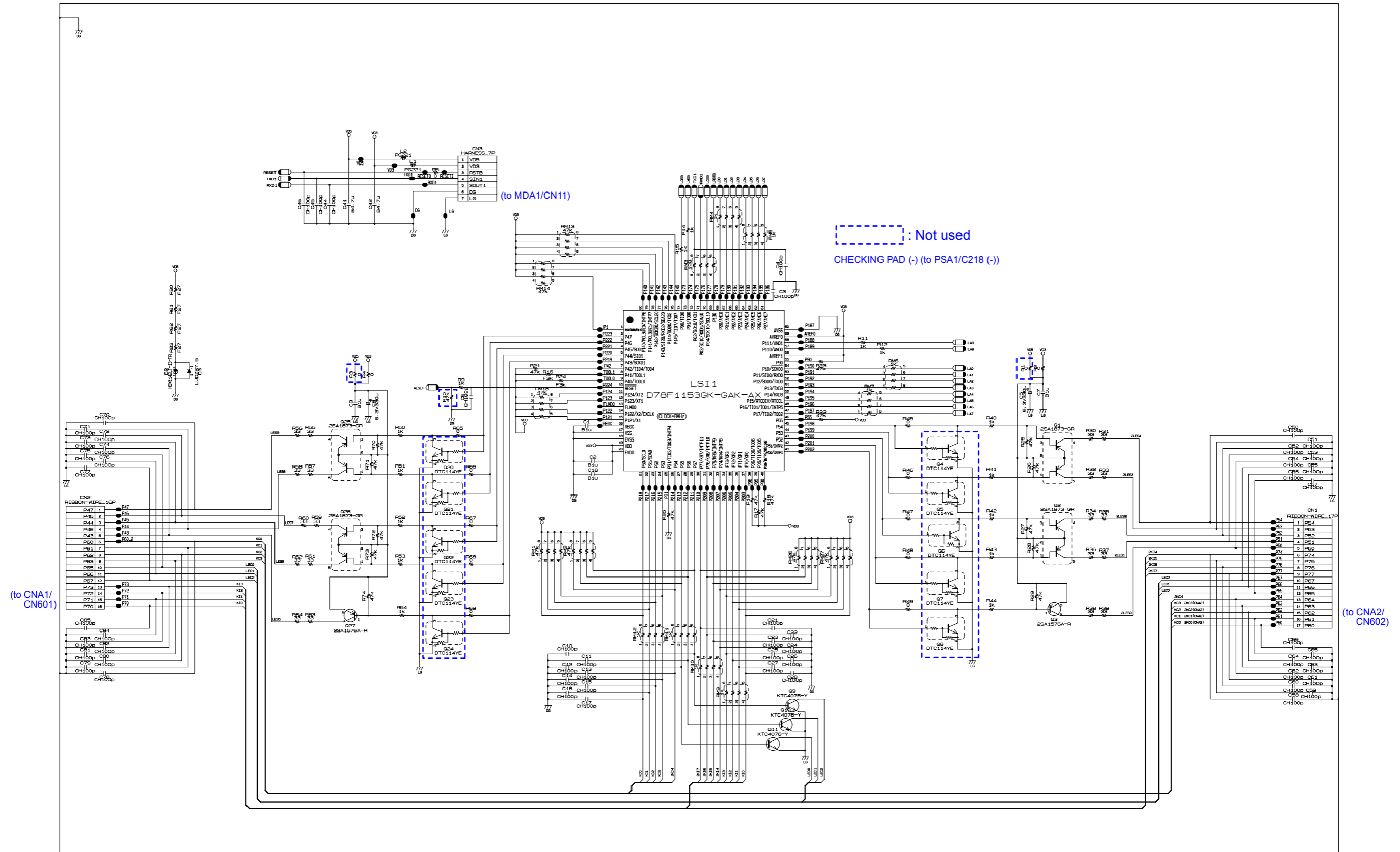
Console PCB M901-LCA1 for PX-3BK (1/2)



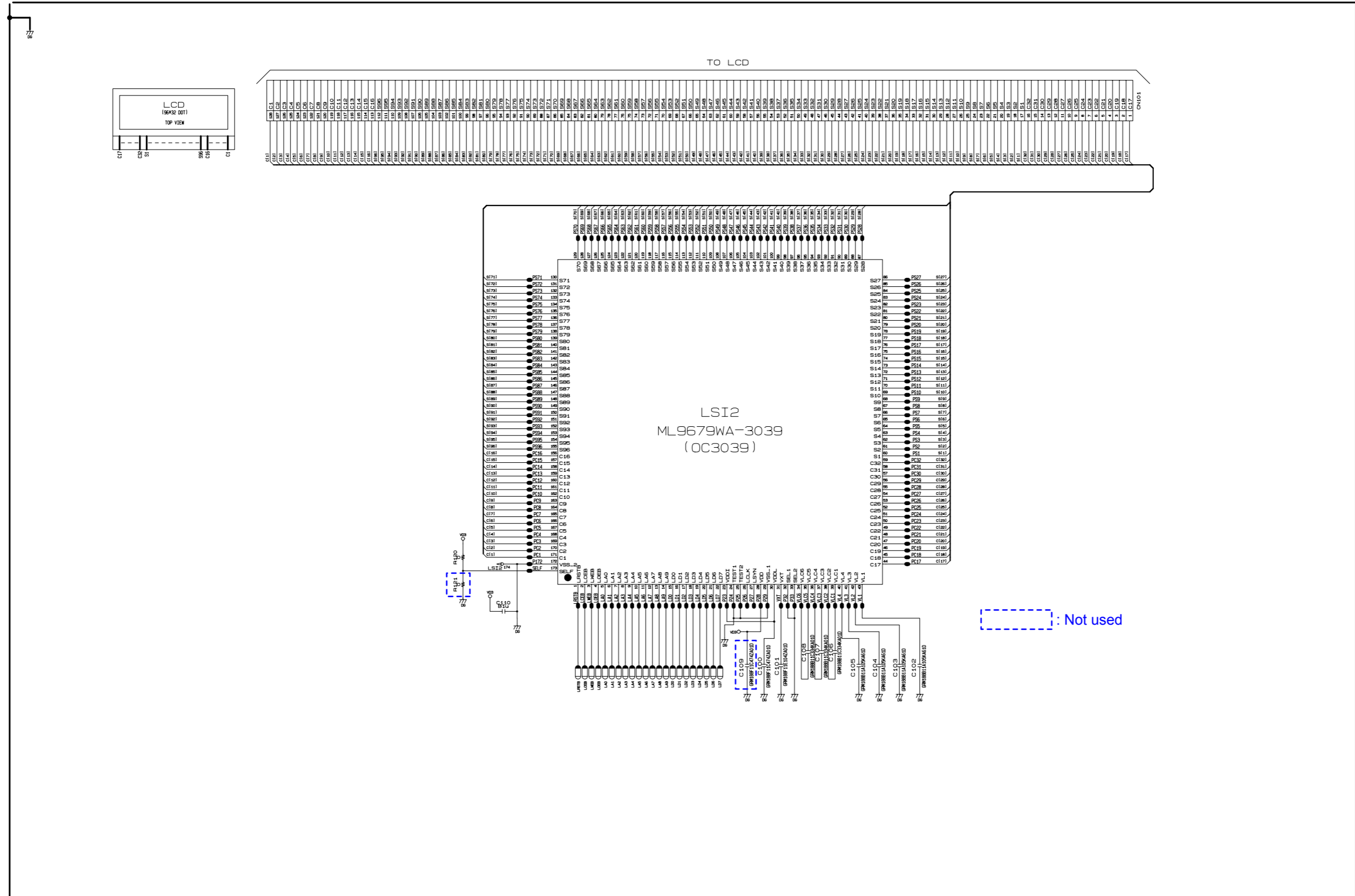
Console PCB M901-LCA1 for PX-3BK (2/2)



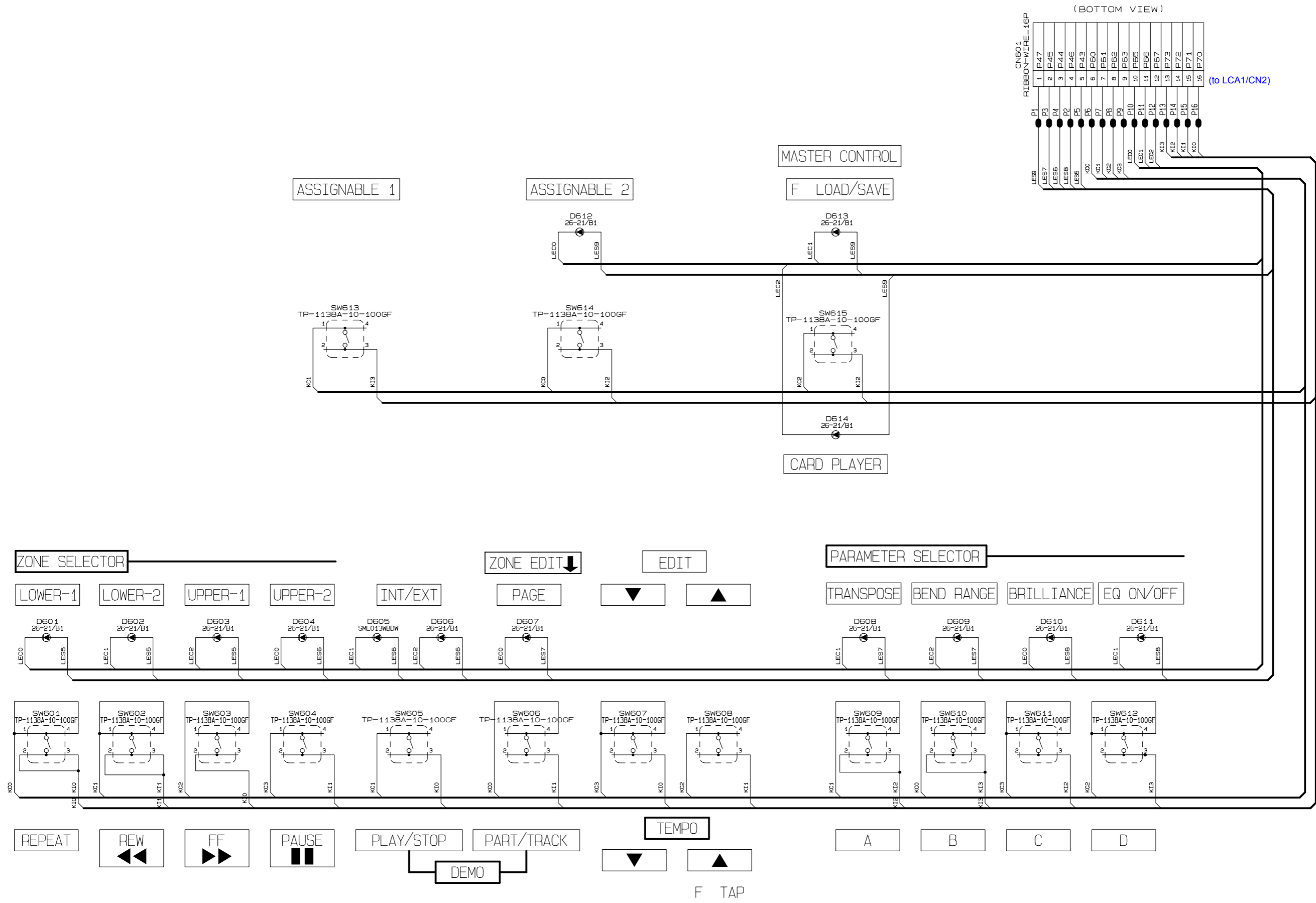
Console PCB M901-LCA1 for PX-3SBK (1/2)



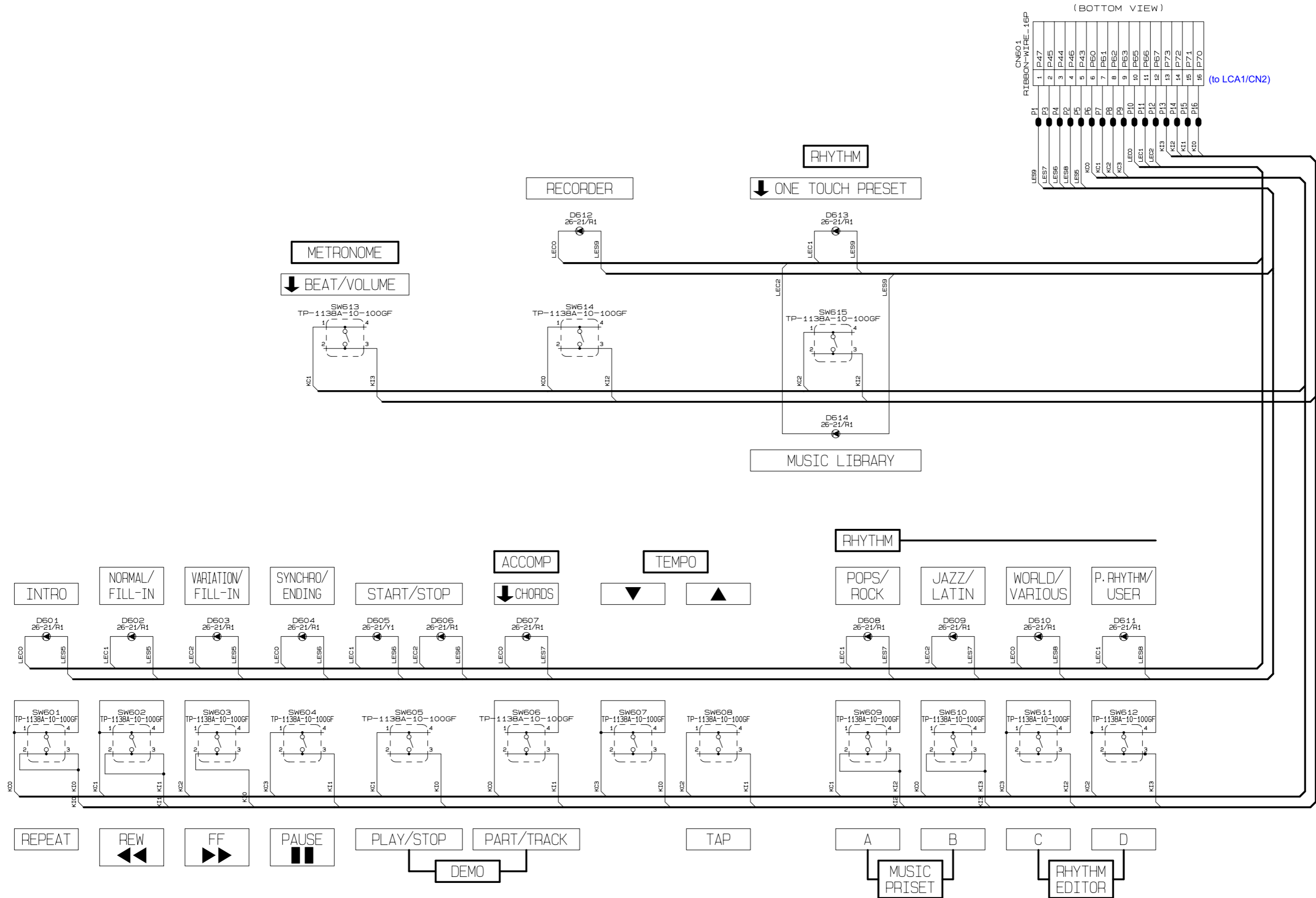
Console PCB M901-LCA1 for PX-3SBK (2/2)



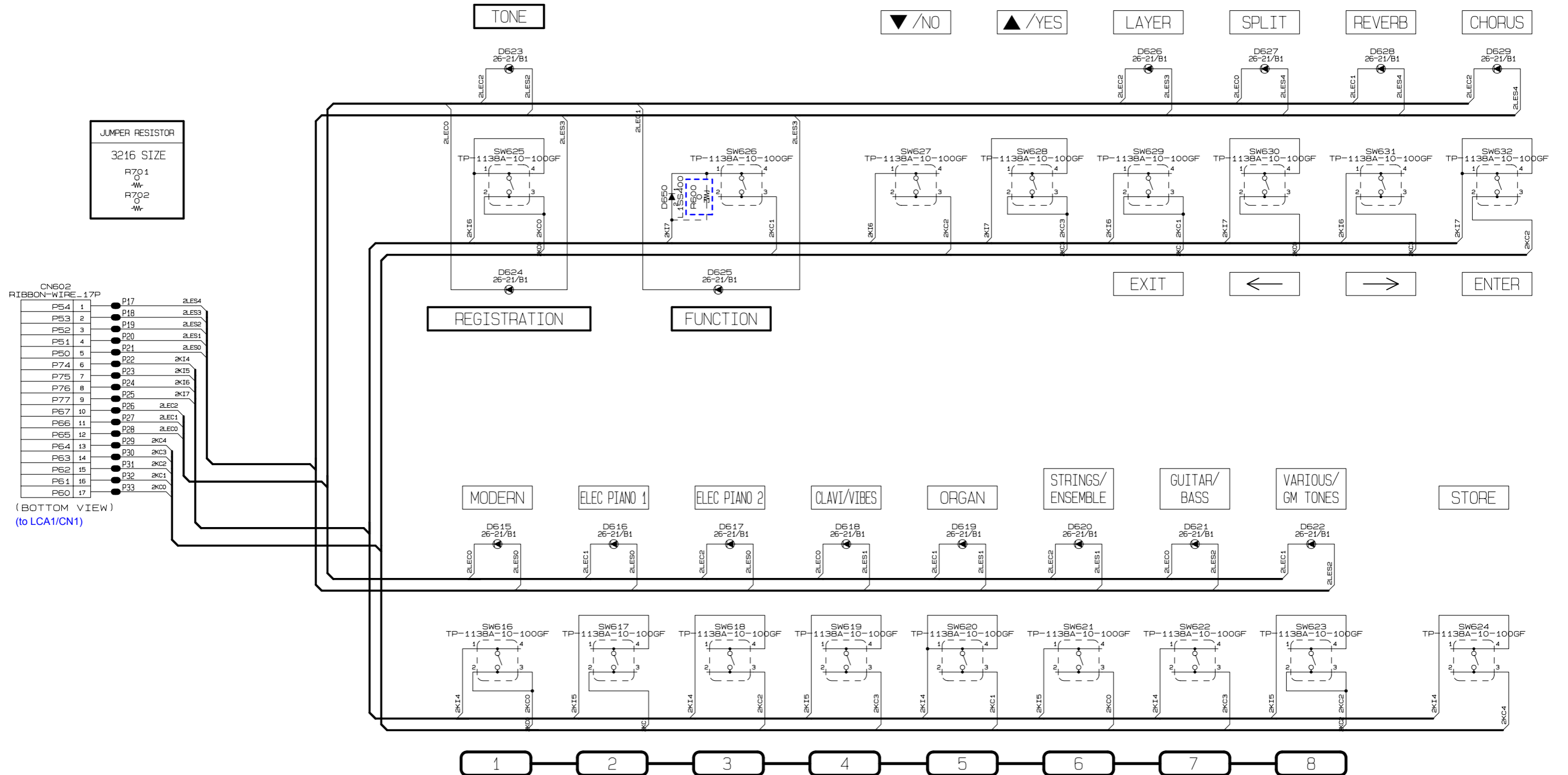
Console PCB M901-CNA1 for PX-3BK



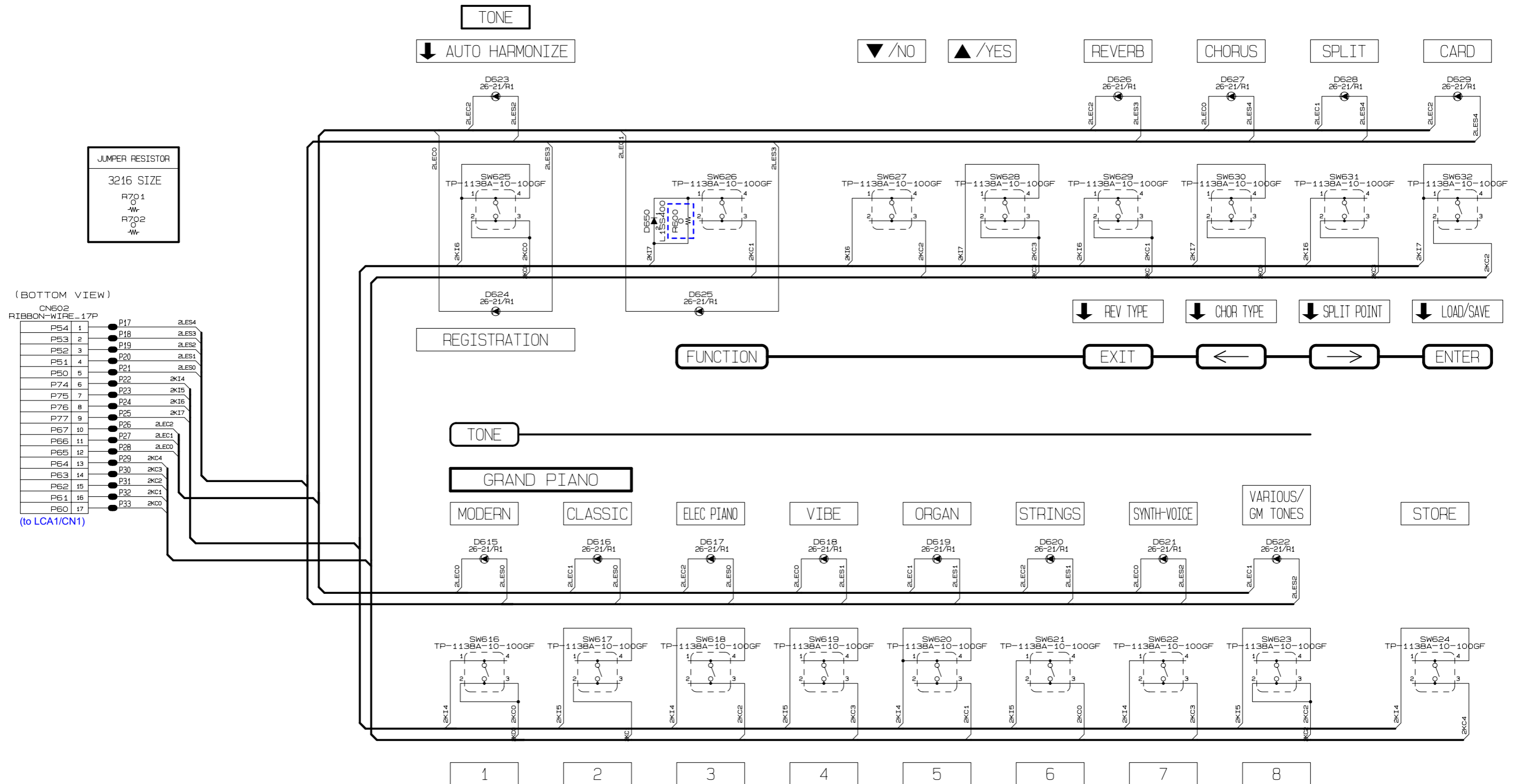
Console PCB M901-CNA1 for PX-3SBK



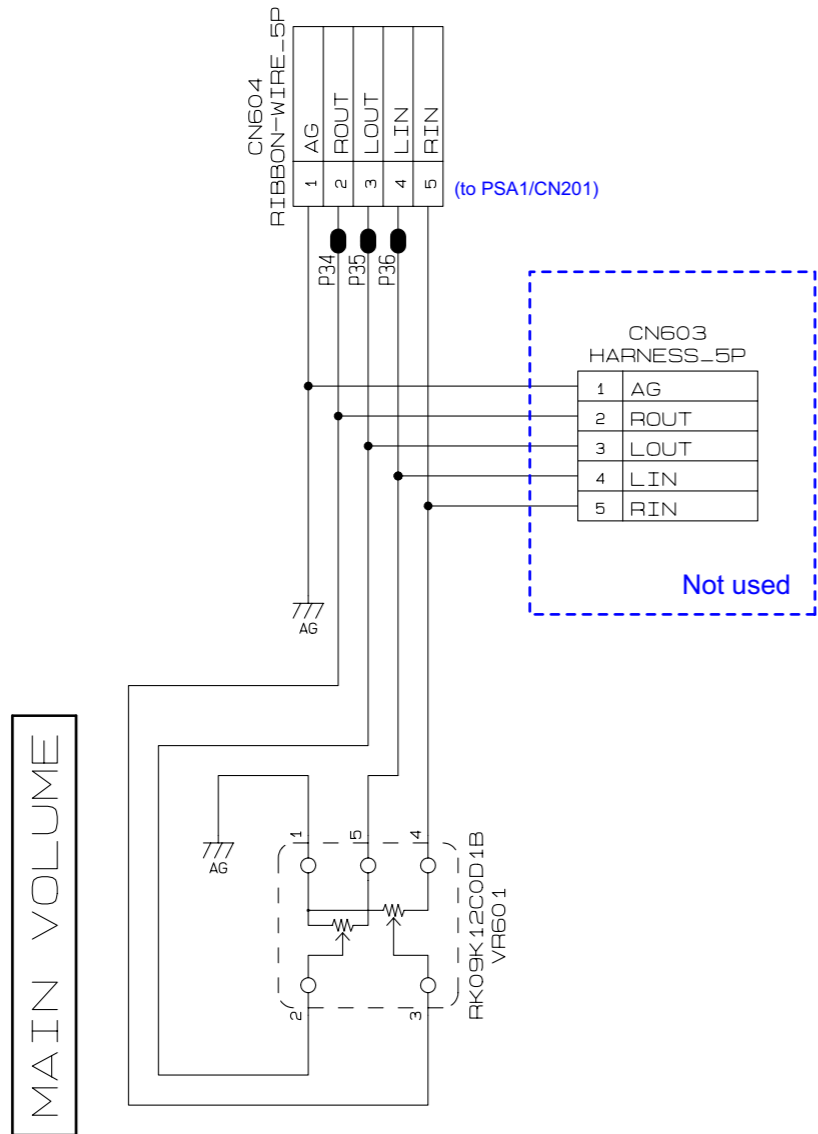
Console PCB M901-CNA2 for PX-3BK



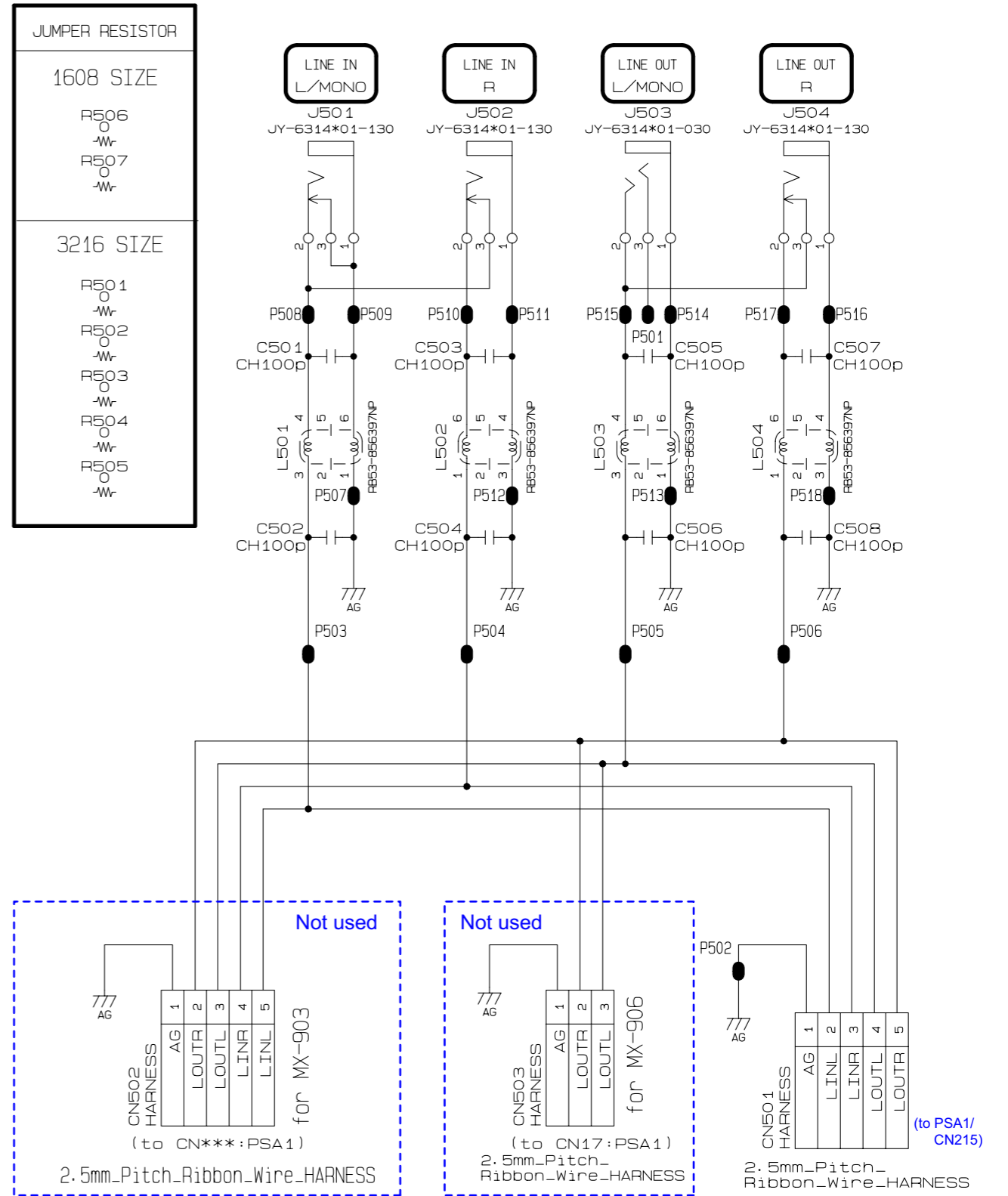
Console PCB M901-CNA2 for PX-3SBK



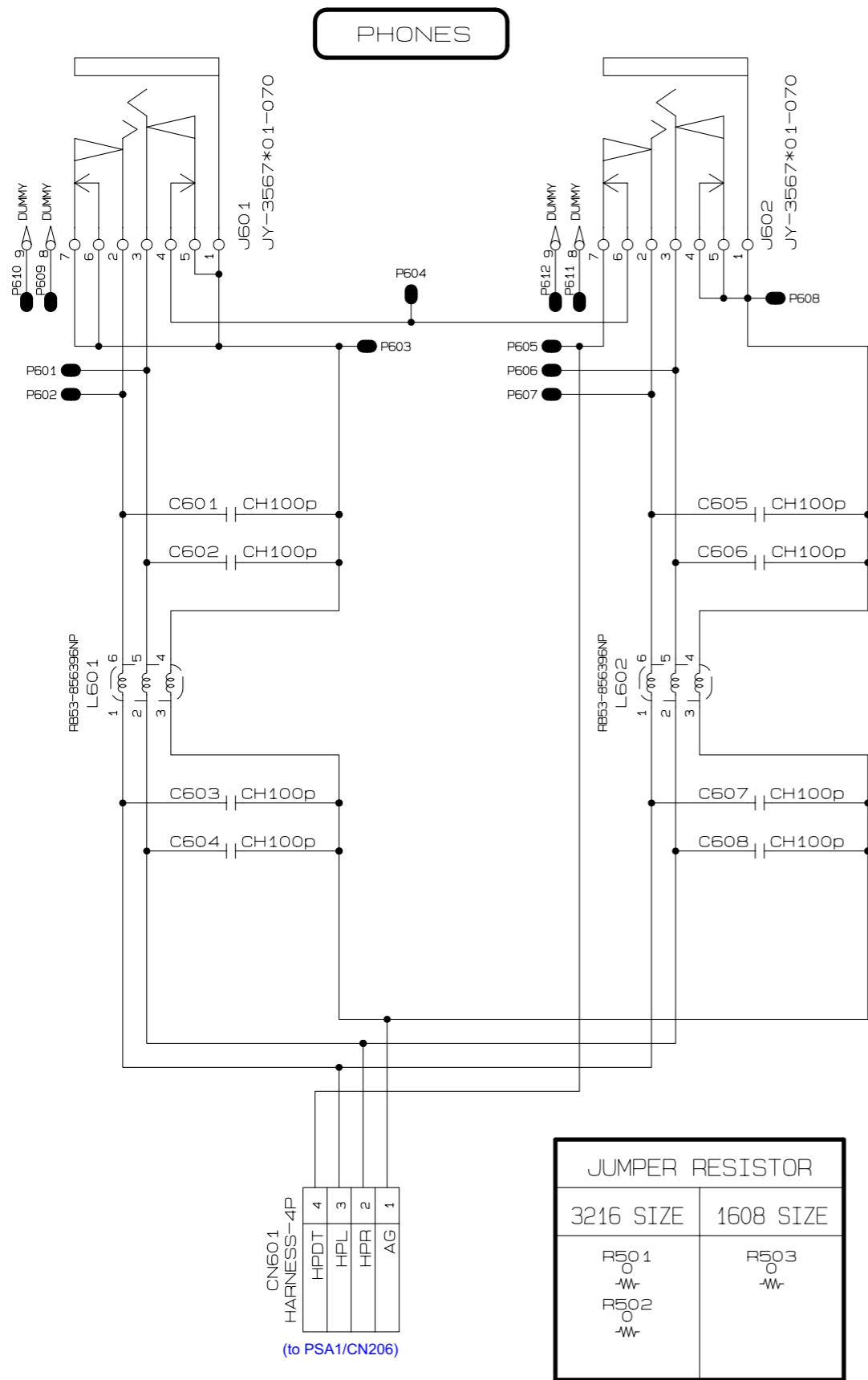
Jack PCB M901-CNA3



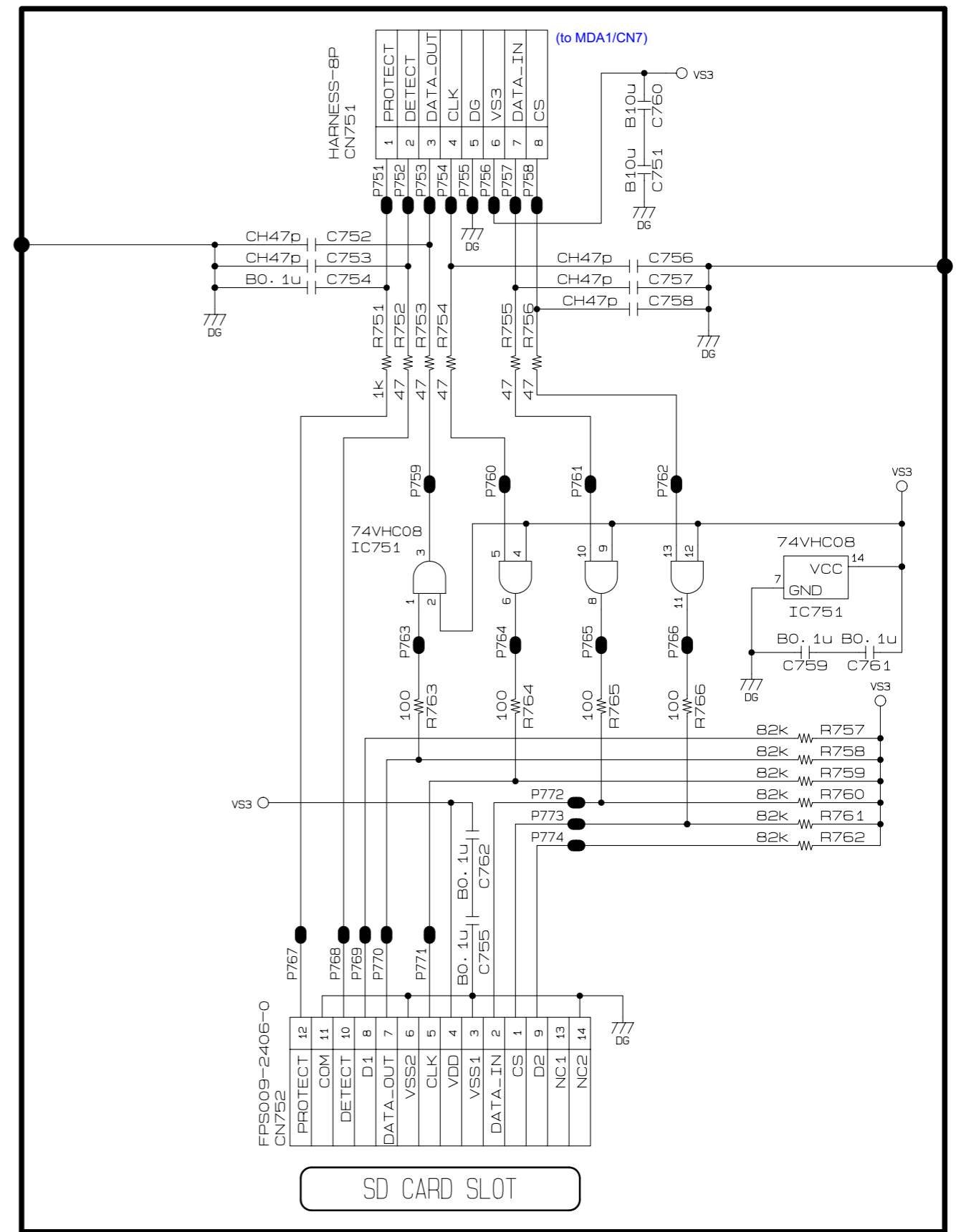
Jack PCB M901-JKA1



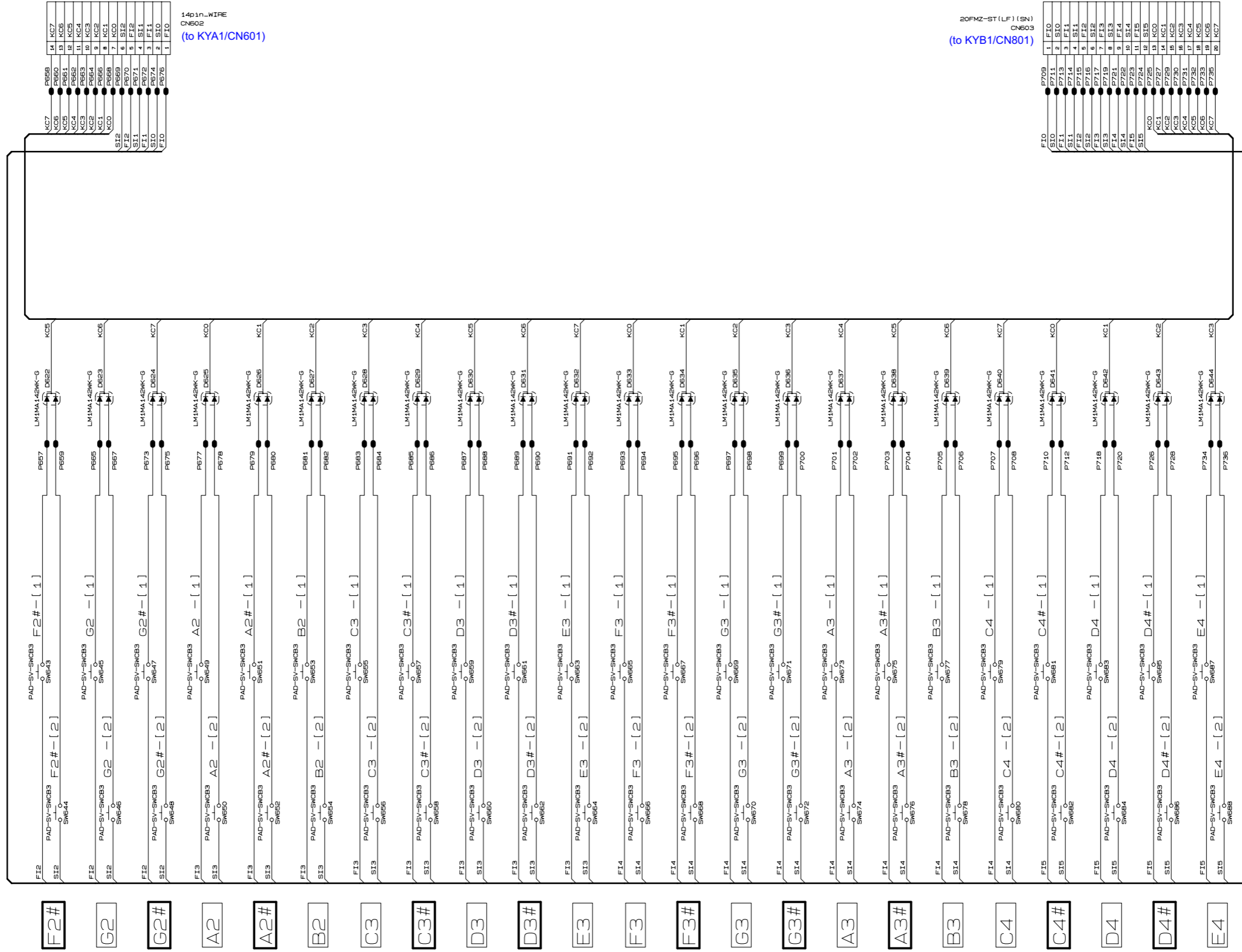
Jack PCB M900-HPA1



SD Card PCB M810-SDA1

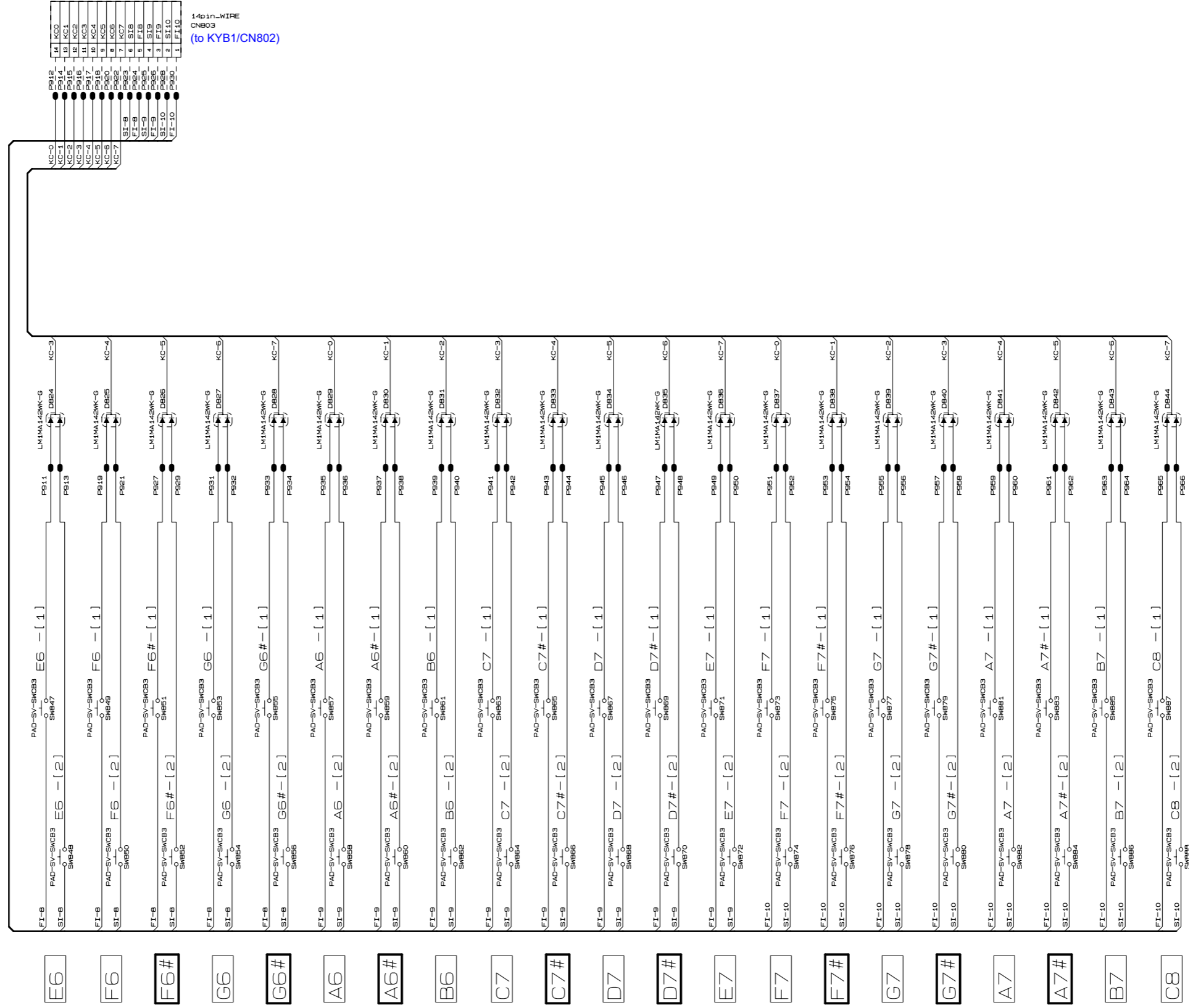


PWB-MACP-KYA2



Keyboard PCB MACP-KYB2

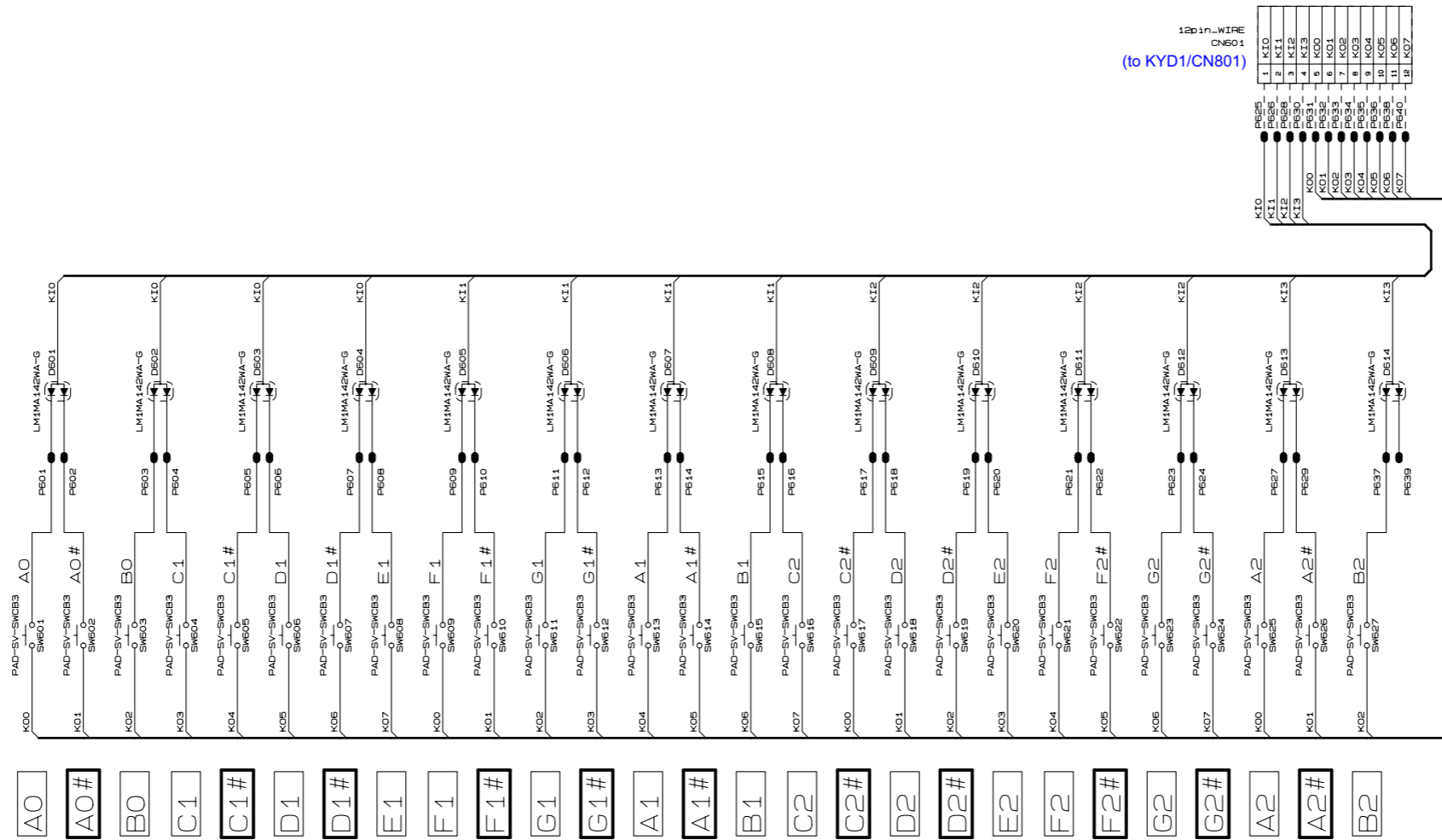
PWB-MACP-KYB2



14pin_WIRE
CN803
(to KYB1/CN802)

Keyboard PCB MACP-KYC1

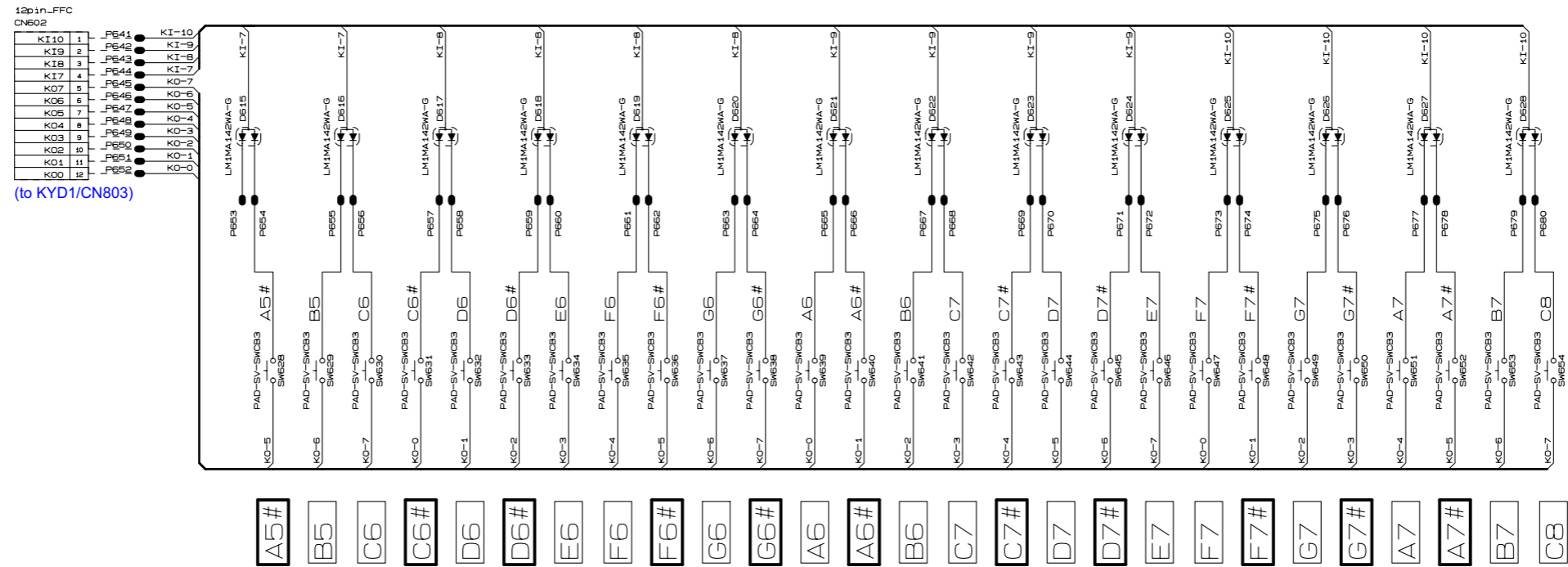
PWB-MACP-KYC1



12pin WIRE
CN801
(to KYD1/CN801)

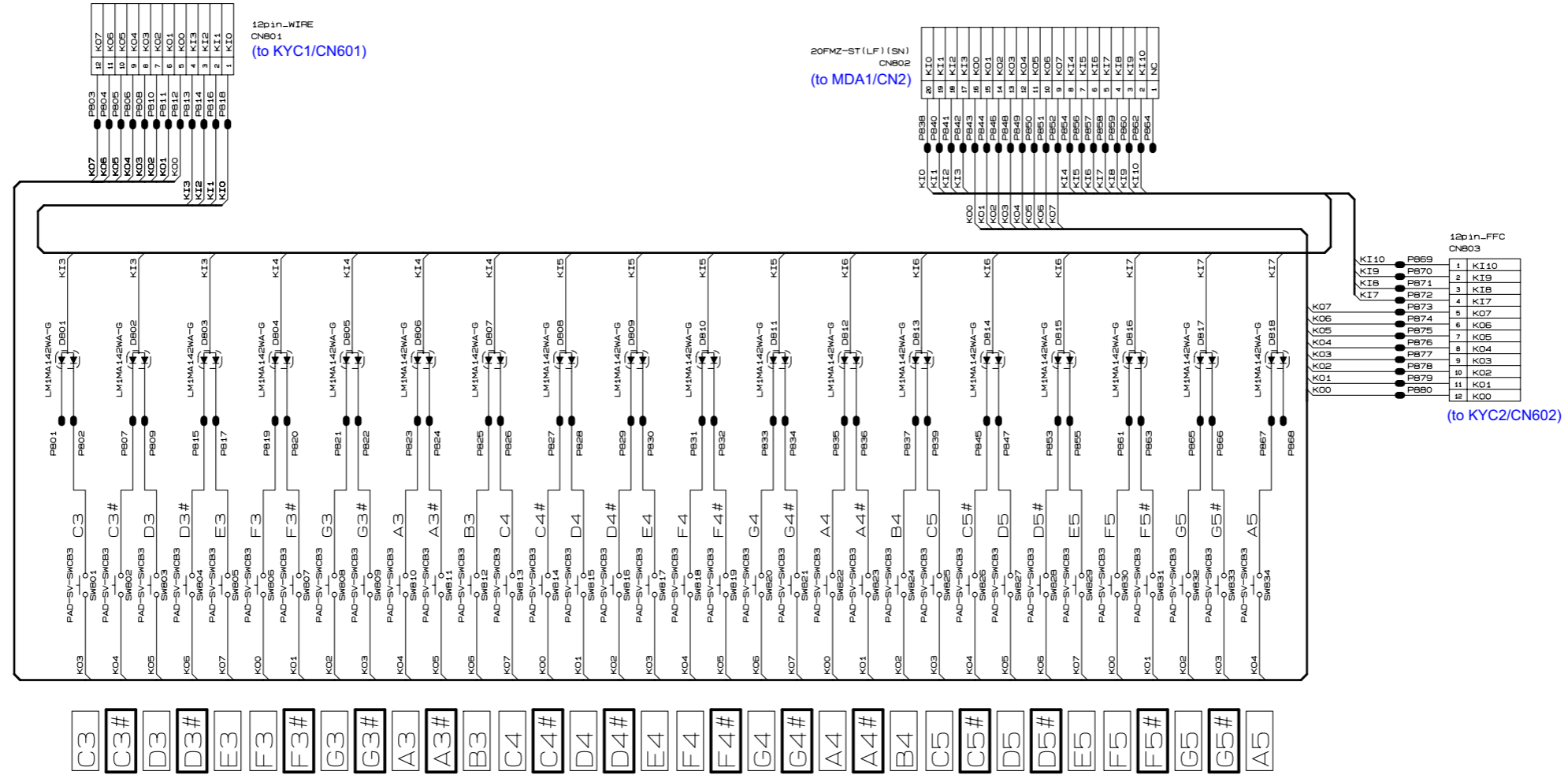
Keyboard PCB MACP-KYC2

PWB-MACP-KYC2



Keyboard PCB MACP-KYD1

PWB-MACP-KYD1



CHIP JUMPER (0 ohm)
3216type

Ver. 1 : May. 2009

- Correction of the DISASSEMBLY (P15)

Ver. 2 : Dec. 2010

- Correction of the PARTS LIST (P53 and P54)

Ver. 3 : May. 2011

- Addition of the new model (PX-3SBK)
- Correction of the CONTENTS
- Correction of the DISASSEMBLY (P28 to P31, P36 and P37)
- Correction of the DIAGNOSTIC PROGRAM (P42 to P44 and P49)
- Correction of the EXPLODED VIEW (P50 and P51)
- Correction of the PARTS LIST (P52 to P59)
- Correction of the SCHEMATIC DIAGRAMS (P63 to P70)

Ver. 4 : Sep. 2011

- Correction of the PARTS LIST (P57 and P59)

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