

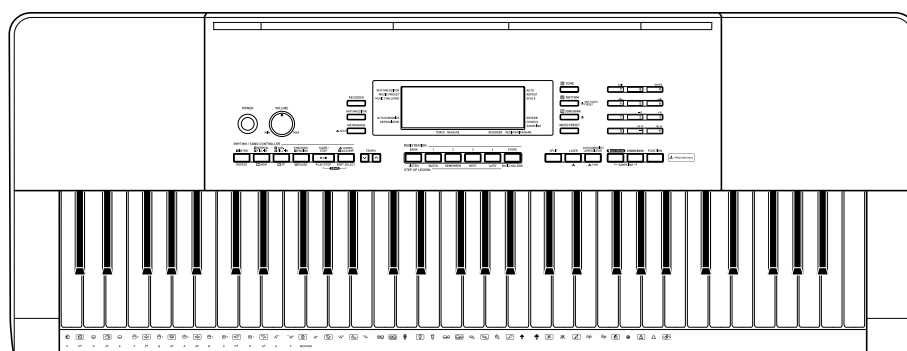
CASIO®

SERVICE MANUAL & PARTS LIST

(without price)

CTK-4200

JUL. 2011



CTK-4200

ELECTRONIC KEYBOARD

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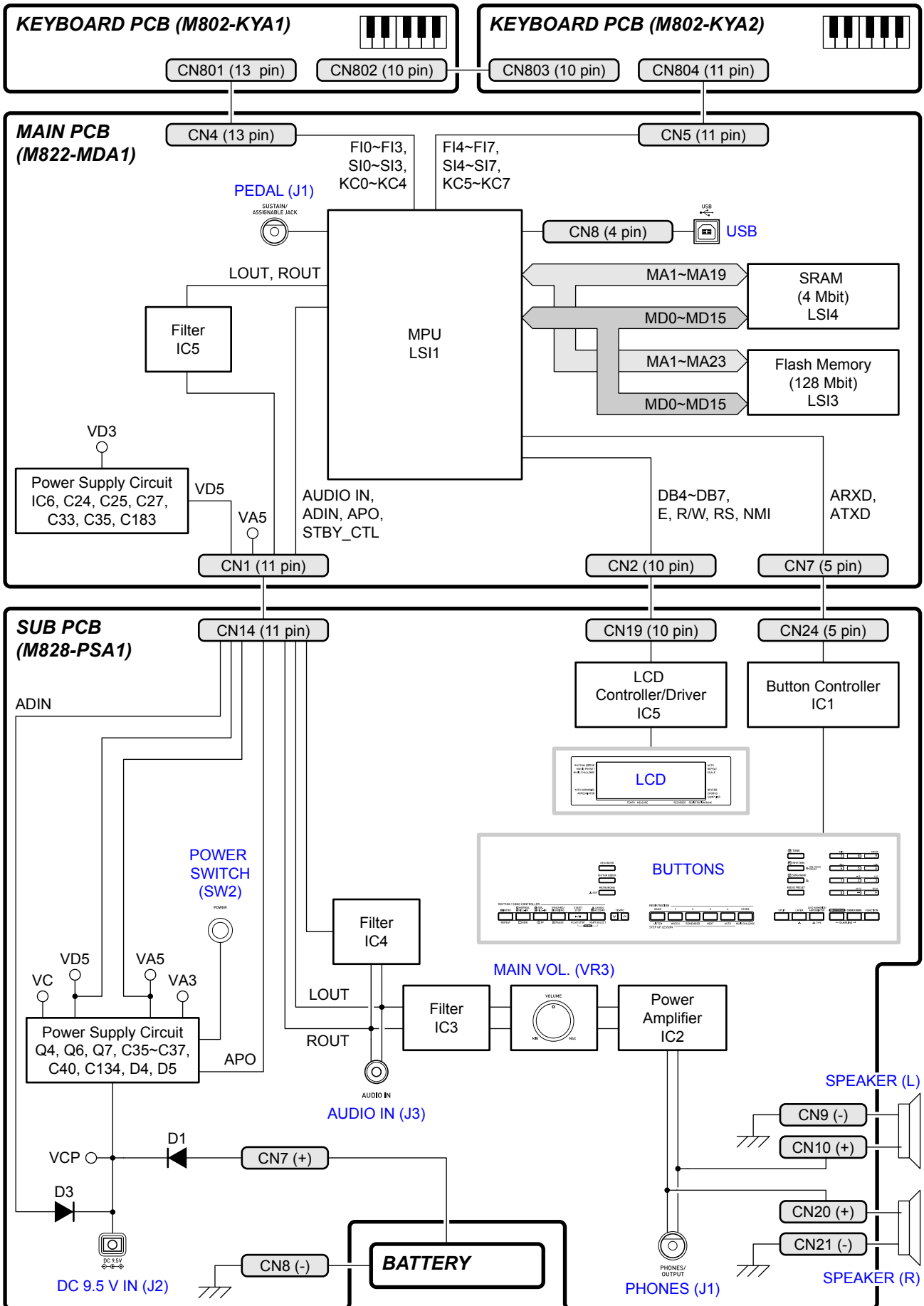
SPECIFICATIONS

Keyboard	61 standard size keys
Touch Response	2 types, Off
Maximum Polyphony	48 notes (24 for certain tones)
Tones	
Built-in Tones	600
Sampling Tones	Up to 8 (Melody Sampling: 5, Drum Sampling: 3)*
Functions	Up to 10 seconds Layer, Split, Piano/Organ button
Reverb	1 to 10, Off
Chorus	1 to 5, Off
Metronome	
Beats per Measure	0, 2 to 6
Tempo Range	30 to 255
Song Bank	
Built-in Songs	152
User Songs	Up to 10*
Step Up Lesson	
Lessons	4 (Listen, Watch, Remember, Auto)
Lesson Part	L, R, LR
Functions	Repeat, Voice Fingering Guide, Note Guide, Performance Evaluation
Music Challenge	20 notes
Auto Accompaniment	
Built-in Rhythms	180
User Rhythms	Up to 10 (Accompaniment Edit)*
Chord Book Function	Chord guide
Registration	32 (4 setups × 8 banks)
Recorder	Real-time recording, playback
Keyboard Play	5 songs, 6 tracks
Playing Along with a Built-in Songs	1 song (L, R, LR)
Memory Capacity	Approximately 12,000 notes (total for 6 songs)
Other Functions	
Transpose	±1 octaves (-12 to +12 semitones)
Octave Shift	Upper/Lower ±2 octaves
Tuning	A4 = 415.5 to 465.9 Hz (Initial Default: 440.0 Hz)
Preset Scales	17
Music Preset	305
One Touch Preset	180
Auto Harmonize	12 types
Arpeggiator	90 types
MIDI	16 multi-timbre received, GM Level 1 standard

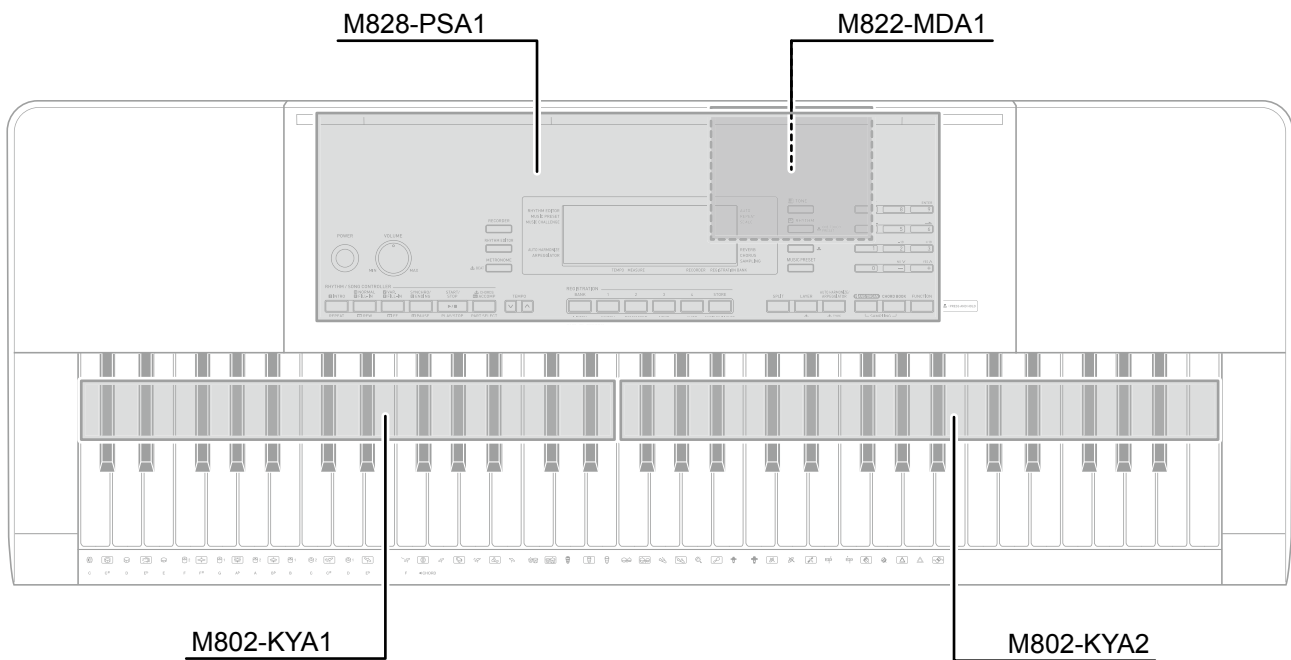
Musical Information Function	Tone, Rhythm, Song Bank numbers and names, staff notation, fingering, pedal operation, tempo, measure and beat number, chord name, etc.
Inputs/Outputs	
USB port	TYPE B
Sustain/Assignable jack	Standard jack (sustain, sostenuto, soft, rhythm)
Phones/Output jack	Stereo standard jack
	Output Impedance: 140 Ω , Output Voltage: 4.5 V (RMS) MAX
Audio In jack	Stereo mini jack
	Input Impedance: 9 k Ω , Input Sensitivity: 200 mV
Power Jack	9.5 V DC
Power Supply	2-way
Batteries	6 AA-size zinc-carbon batteries or alkaline batteries
Battery Life	Approximately 3 hours continuous operation on alkaline batteries
AC Adaptor	AD-E95100L
Auto Power Off	Approximately 6 minutes (during battery operation) or 30 minutes (during AC adaptor operation) without any operation, Auto Power Off can be disabled.
Speakers	12cm \times 2 (Output: 2.5W + 2.5W)
Power Consumption	9.5 V \approx 7.7 W
Dimensions	94.8 \times 35.0 \times 10.3 cm (37 $\frac{5}{16}$ \times 13 $\frac{3}{4}$ \times 4 $\frac{1}{16}$ inch)
Weight	Approximately 4.3 kg (9.5 lbs) (without batteries)

* This data is stored in a shared memory area with a total capacity of approximately 320 Kbytes (1 Kbyte = 1,024 bytes).

BLOCK AND WIRING DIAGRAM



PCB INFORMATION



Classification	Parts Name	PCB Name	Components
Main PCB	PCB UNIT/MAIN	M822-MDA1	MPU, SRAM (4 Mbit), Flash Memory (128 Mbit), Power Supply Circuit, Filter, SUSTAIN/ASSIGNABLE Jack, USB Port
Sub PCB	BACK LIGHT UNIT	M828-PSA1	Power Supply Circuit, Power Amplifier, Filters, LCD Controller/Driver, Button Controller, LCD, Buttons, Power Switch, Main Volume, DC 9.5 V Terminal, AUDIO IN Jack, PHONES/OUTPUT Jack
Keyboard PCB	PCB UNIT/KYA	M802-KYA1	Keyboard
		M802-KYA2	

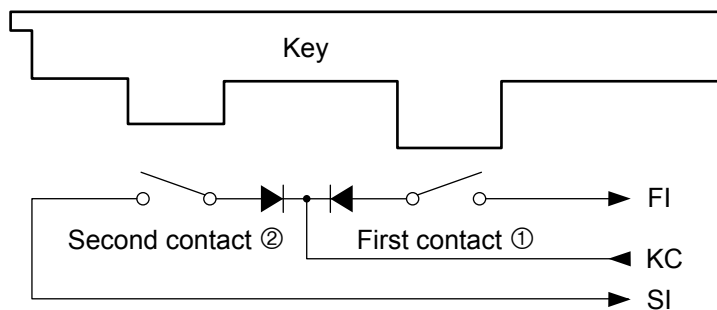
CIRCUIT DESCRIPTION

■ KEY MATRIX

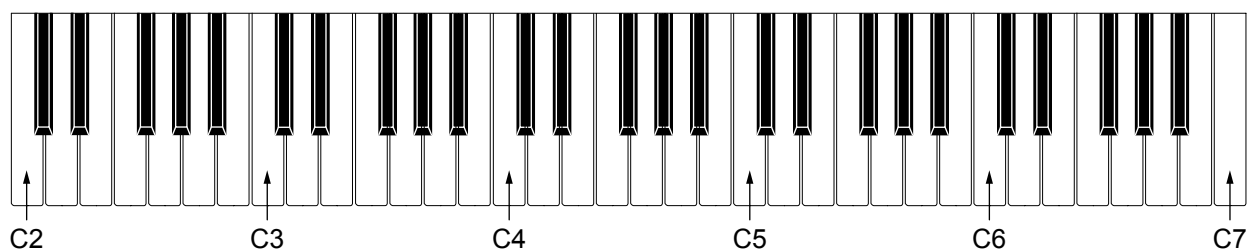
	KC0	KC1	KC2	KC3	KC4	KC5	KC6	KC7
FI0	C2①	C2#①	D2①	D2#①	E2①	F2①	F2#①	G2①
SI0	C2②	C2#②	D2②	D2#②	E2②	F2②	F2#②	G2②
FI1	G2#①	A2①	A2#①	B2①	C3①	C3#①	D3①	D3#①
SI1	G2#②	A2②	A2#②	B2②	C3②	C3#②	D3②	D3#②
FI2	E3①	F3①	F3#①	G3①	G3#①	A3①	A3#①	B3①
SI2	E3②	F3②	F3#②	G3②	G3#②	A3②	A3#②	B3②
FI3	C4①	C4#①	D4①	D4#①	E4①	F4①	F4#①	G4①
SI3	C4②	C4#②	D4②	D4#②	E4②	F4②	F4#②	G4②
FI4	G4#①	A4①	A4#①	B4①	C5①	C5#①	D5①	D5#①
SI4	G4#②	A4②	A4#②	B4②	C5②	C5#②	D5②	D5#②
FI5	E5①	F5①	F5#①	G5①	G5#①	A5①	A5#①	B5①
SI5	E5②	F5②	F5#②	G5②	G5#②	A5②	A5#②	B5②
FI6	C6①	C6#①	D6①	D6#①	E6①	F6①	F6#①	G6①
SI6	C6②	C6#②	D6②	D6#②	E6②	F6②	F6#②	G6②
FI7	G6#①	A6①	A6#①	B6①	C7①			
SI7	G6#②	A6②	A6#②	B6②	C7②			

Each key has two contacts, the first contact ① and second contact ②.

NOTE: The diagram below illustrates how the contacts work.



■ NOMENCLATURE OF KEYS

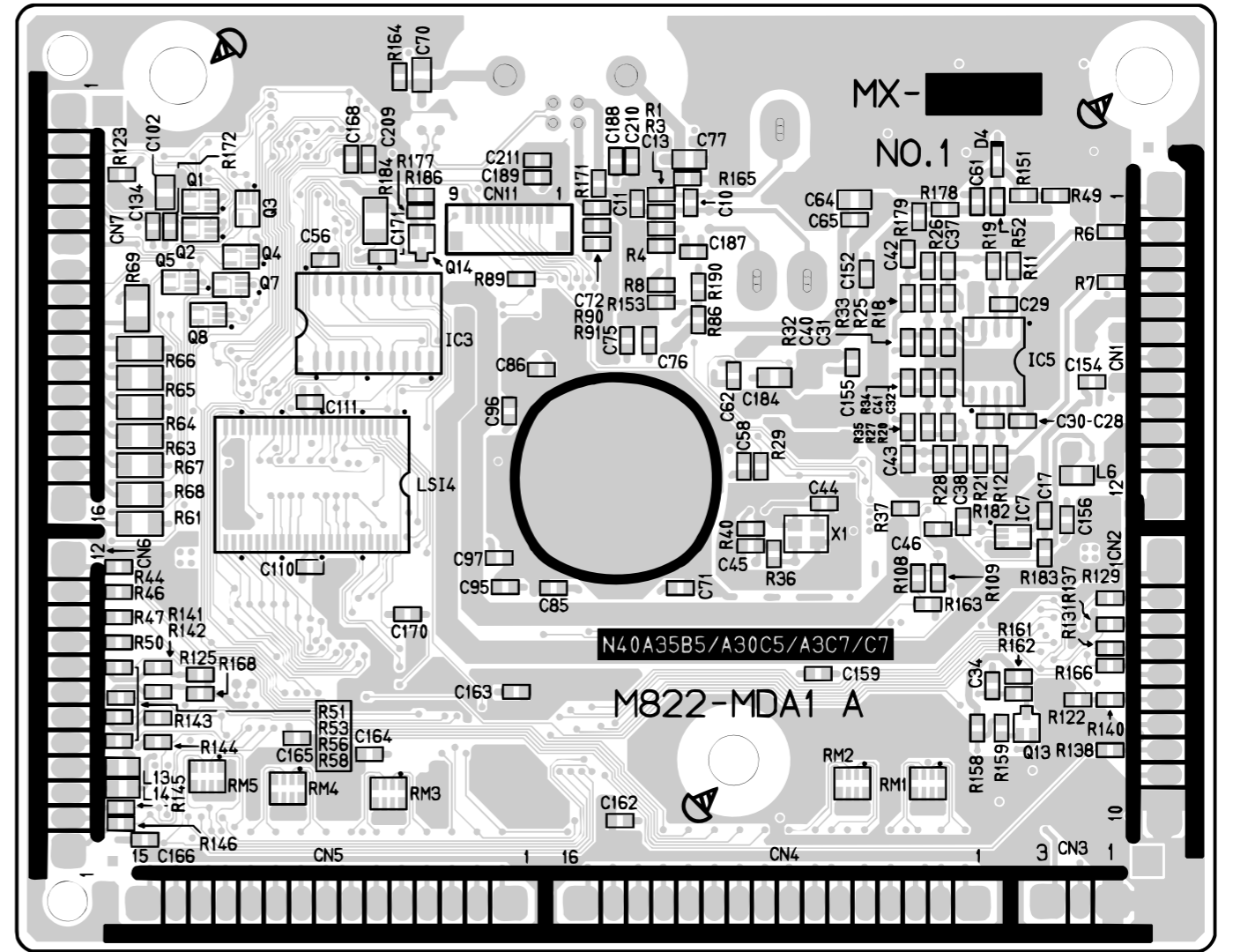
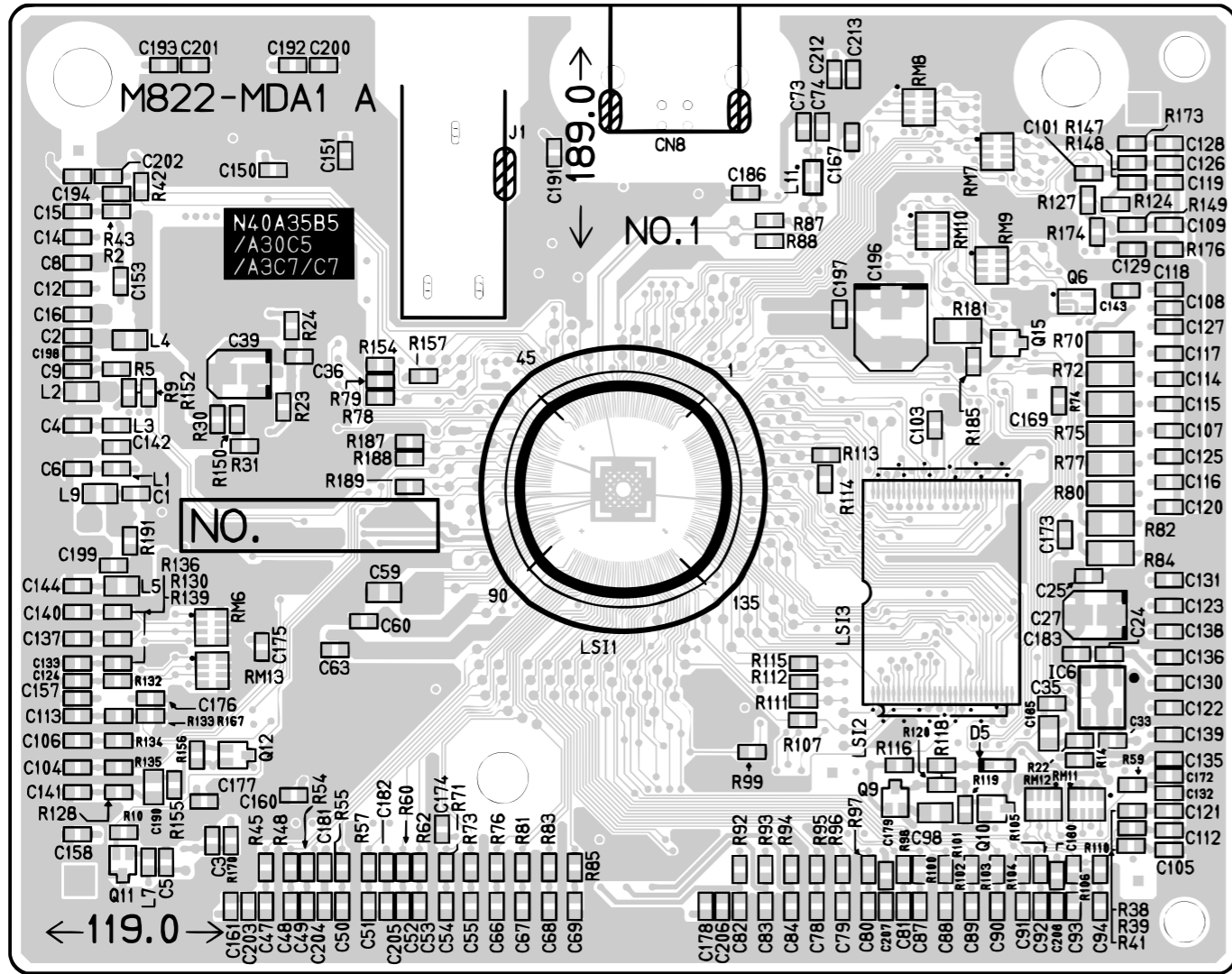


■ BUTTON MATRIX

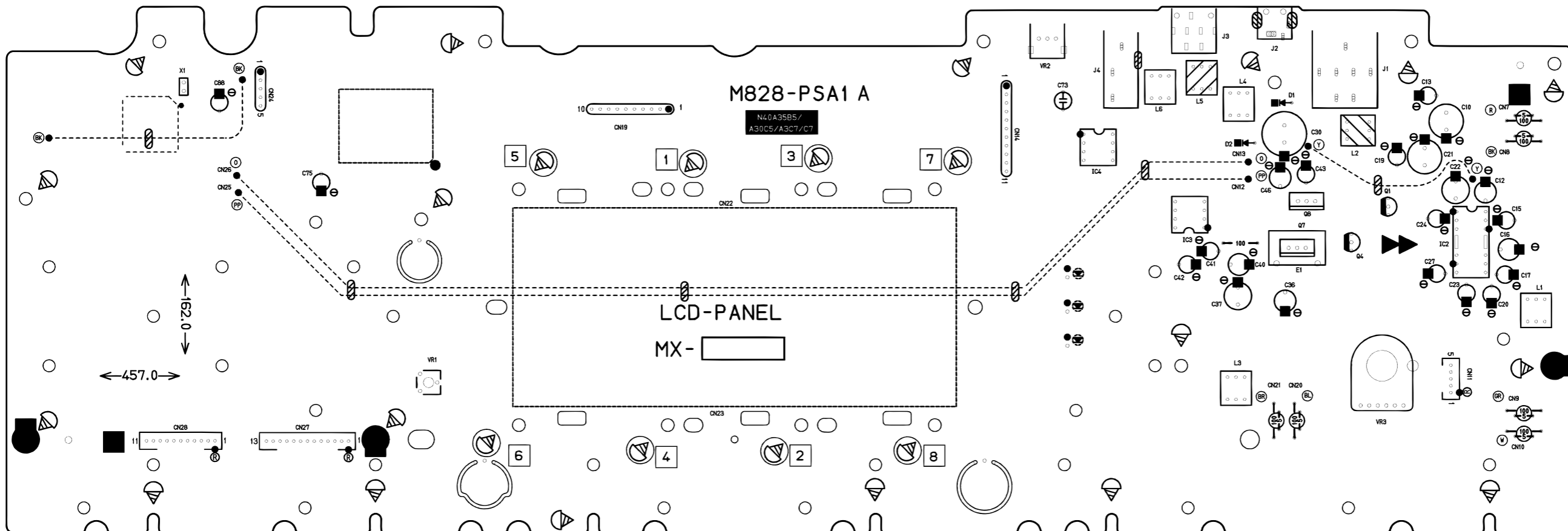
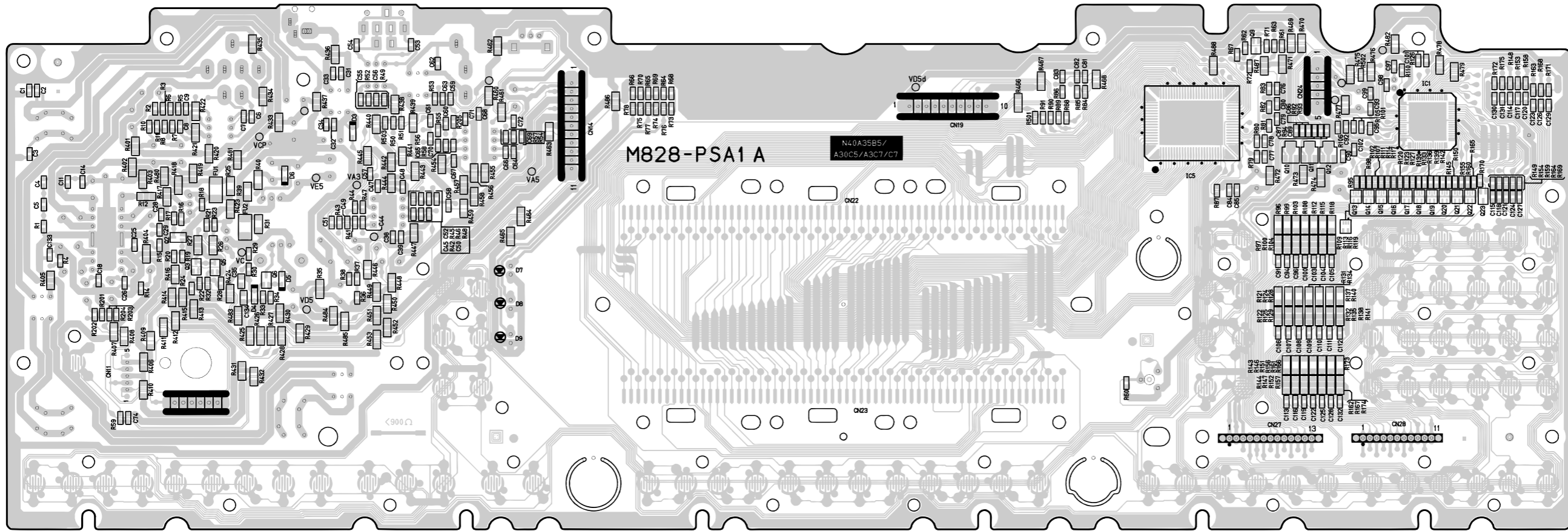
	SW00	SW01	SW02	SW03	SW04	SW05	SW06
SWI0	BANK, LISTEN	Area1, WATCH	RHYTHM, ⬇ ONE TOUCH PRESET	MUSIC PRESET	4	8	9
SWI1	Area2, REMEMBER	Area3, NEXT	SONG BANK	TONE	7	5	6
SWI2	Area4, AUTO	STORE, MUSIC CHALLENGE			1	2	+
SWI3	⬇ CHORDS, ACCOMP, PART SELECT	VAR./ FILL-IN, FF	TEMPO ⬇	RECORDER	0	-	3
SWI4	NORMAL/ FILL-IN, REW	START/ STOP, PLAY/ STOP		TEMPO ^	SPLIT	CHORD BOOK	AUTO HARMONIZE/ ARPEGGIATOR, ⬇ TYPE
SWI5	INTRO, REPEAT	SYNCHRO/ ENDING, PAUSE	METRONOME, ⬇ BEAT	RHYTHM EDITOR	LAYER	PIANO/ ORGAN	FUNCTION

PRINTED CIRCUIT BOARDS

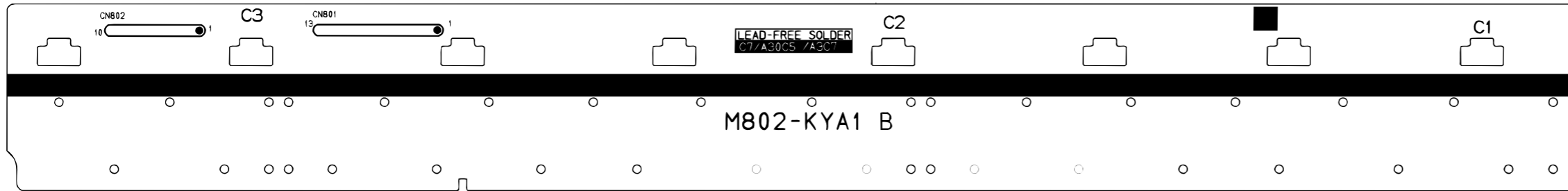
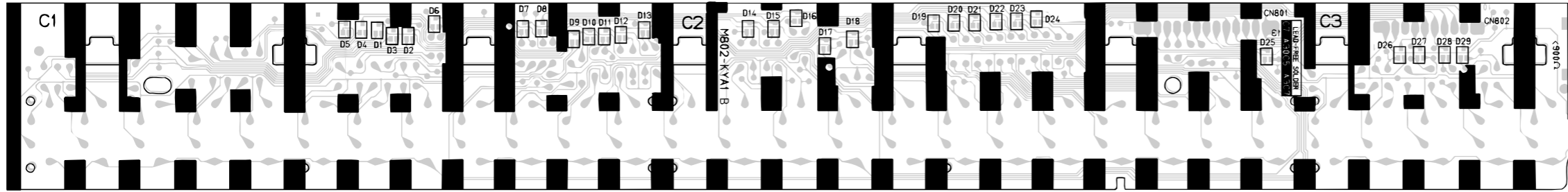
Main PCB: M822-MDA1



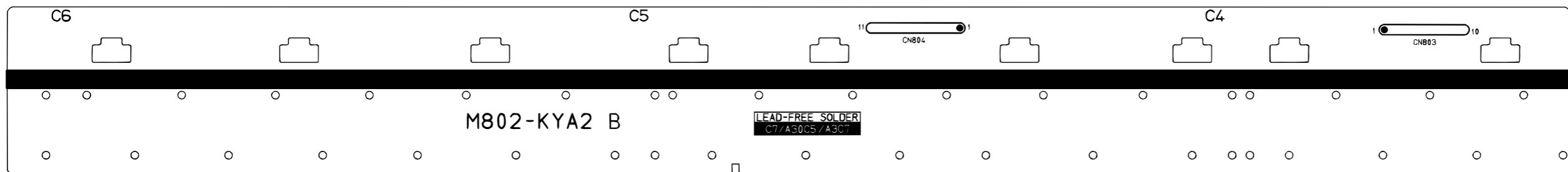
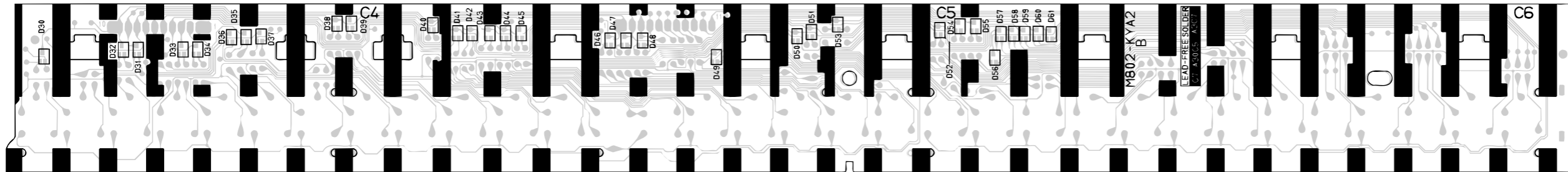
Sub PCB: M828-PSA1



Keyboard PCB: M802-KYA1



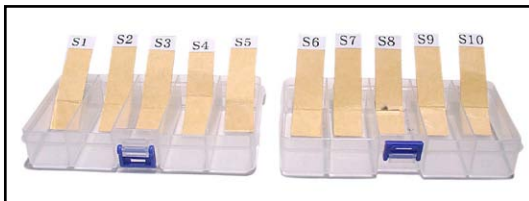
Keyboard PCB: M802-KYA2



DISASSEMBLY

■ CAUTION

- The photos show a prototype. The appearance of the instrument, such as color, may differ from the actual model.
- 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.



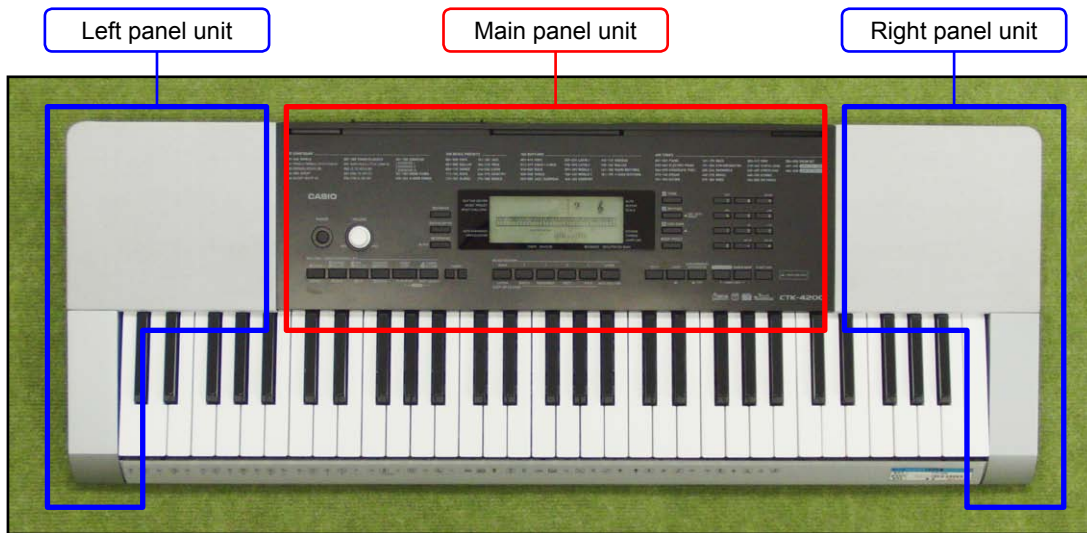
- If a screw cap is attached to a screw, be sure to reattach the screw cap when reassembling.

■ BEFORE STARTING REPAIR OR SERVICING

- Remove the AC adaptor, AC cord or batteries.
- Remove accessories such as the music stand.

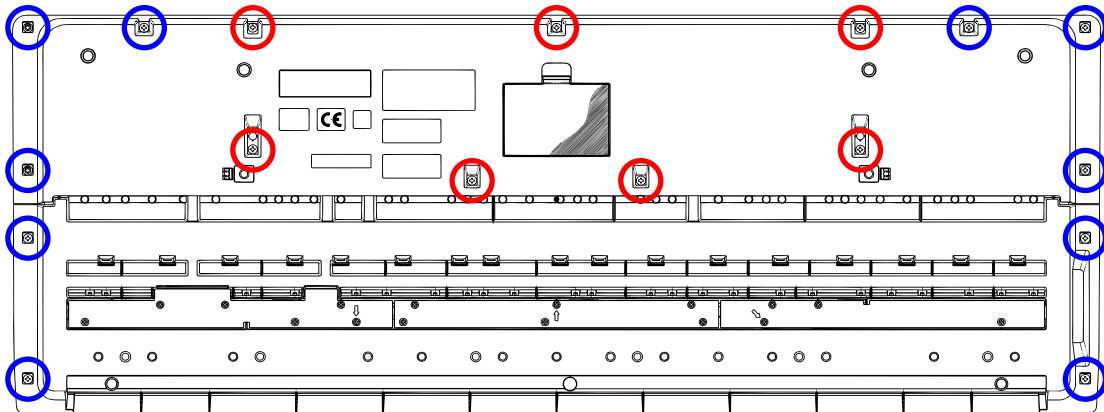
■ DISASSEMBLY

A. REMOVE THE PANEL UNITS



A-1. Undo 17 or seven screws on the bottom surface of the main unit.

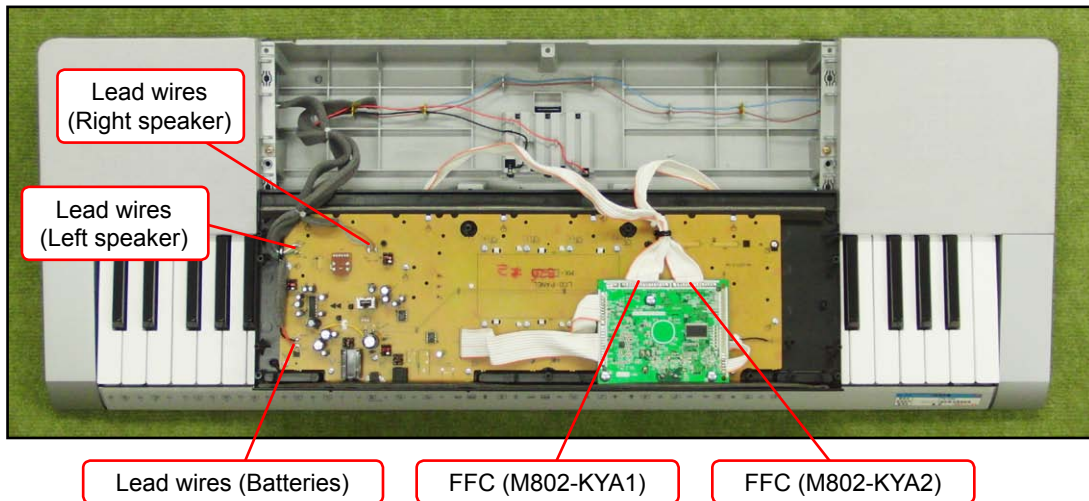
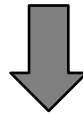
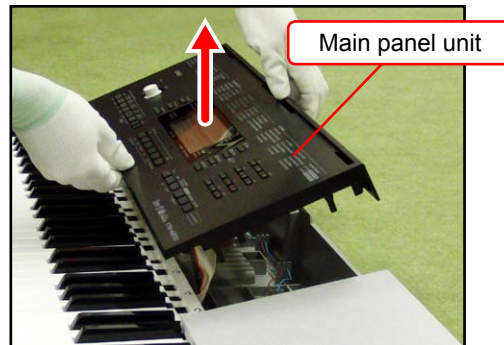
NOTE: To remove only the main panel unit, undo seven screws indicated with red circles in the illustration below.



A-2. Place the main unit with the keys facing up.

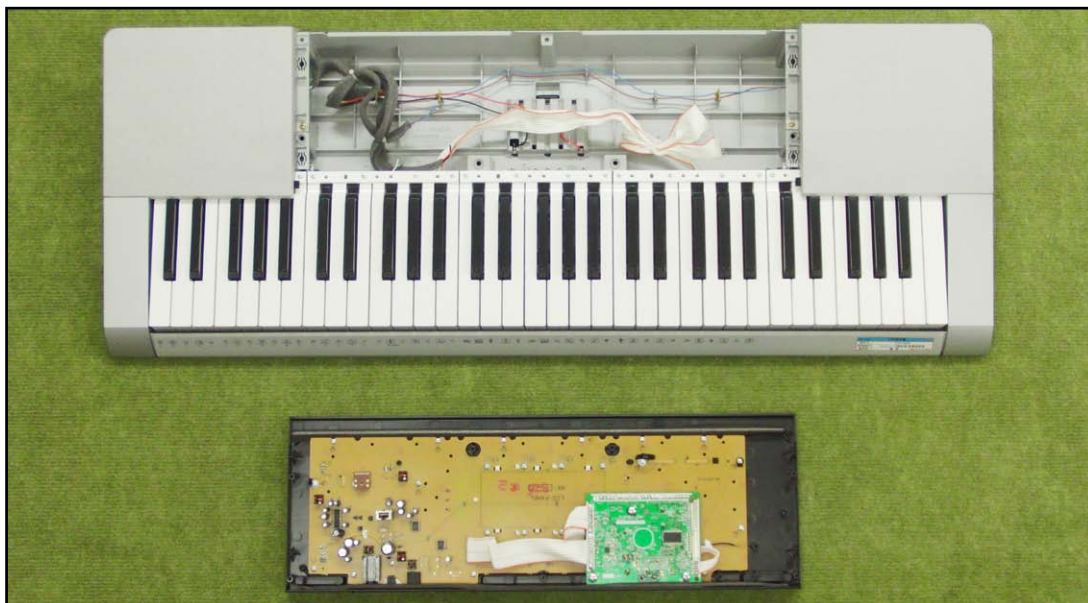
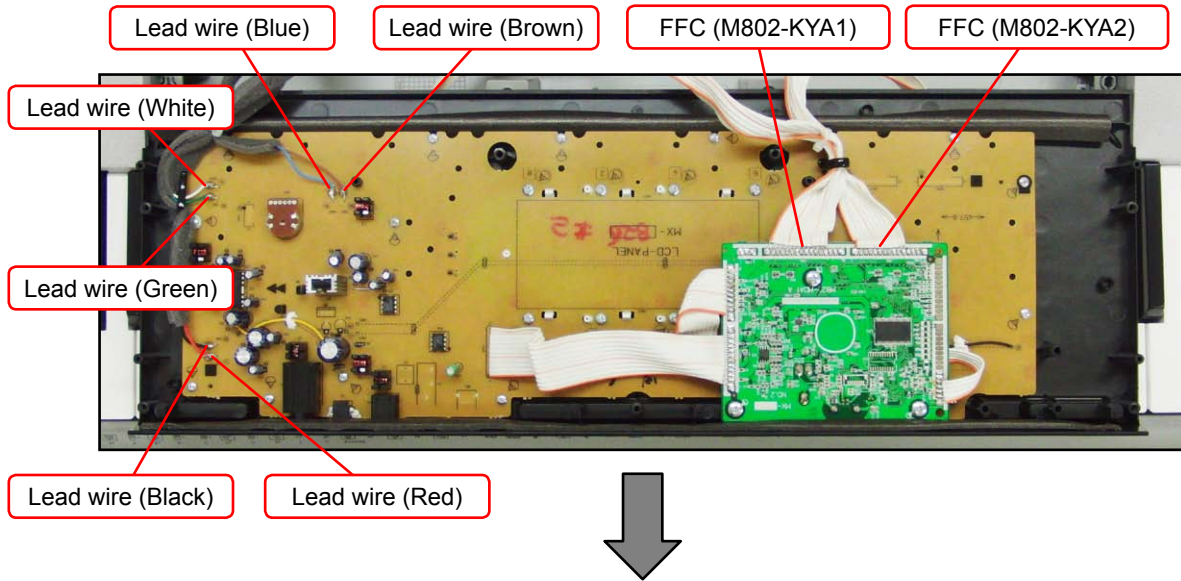
A-3. Lift the main panel unit and turn it over.

NOTE: The main panel unit is connected to the lower case unit with the lead wires and FFCs. Use caution when turn over the main panel unit.



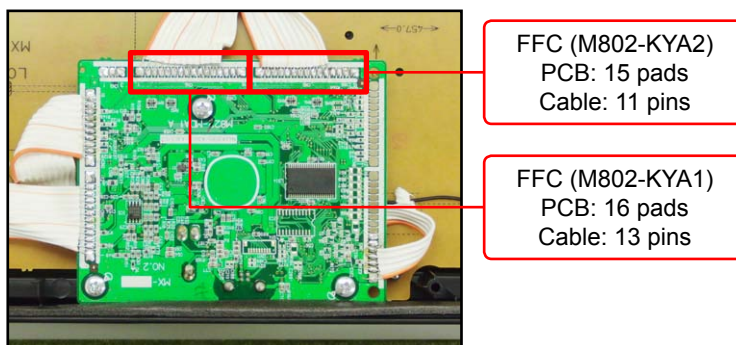
A-4. Unsolder six lead wires and two FFCs.

A-5. Remove the main panel unit.

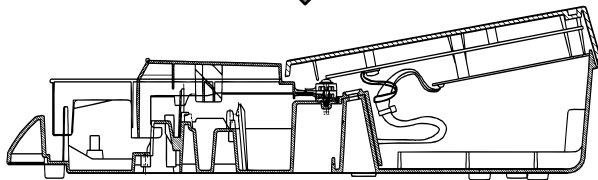
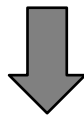
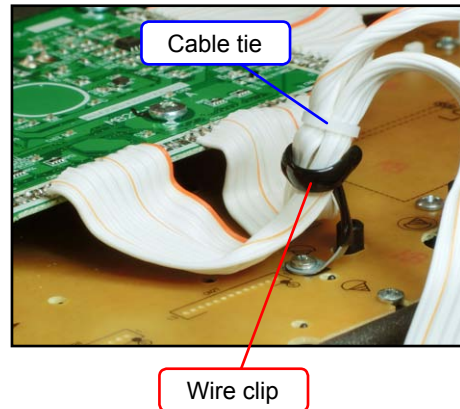
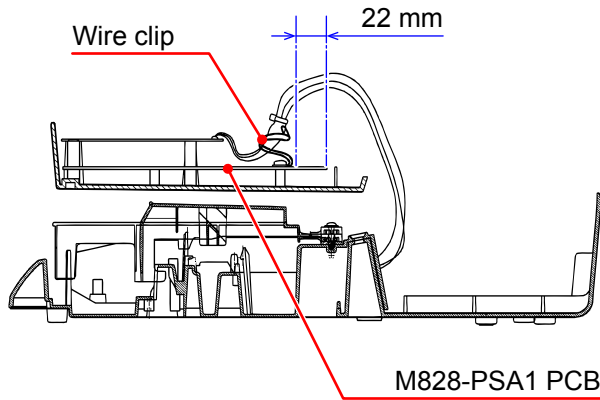


<Notes On Assembly>

- The number of pins on the PCB pad differs from that on the cable. Solder in the way that No.1 pin on the cable (orange) is connected to No.1 pad on the PCB.



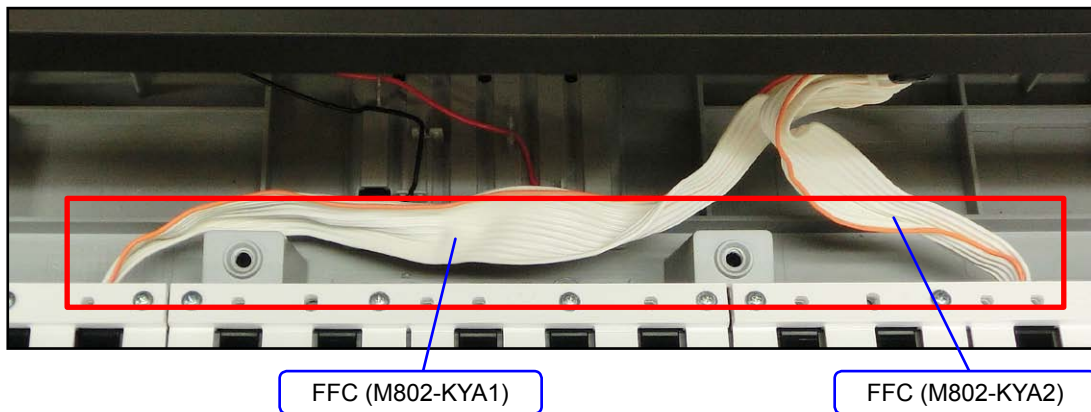
- Use wire clips to arrange the two FFCs for the keyboard PCB as shown below.



- Arrange the two FFCs for the keyboard PCB so that they are positioned in the space indicated with a red rectangle in the photo below.

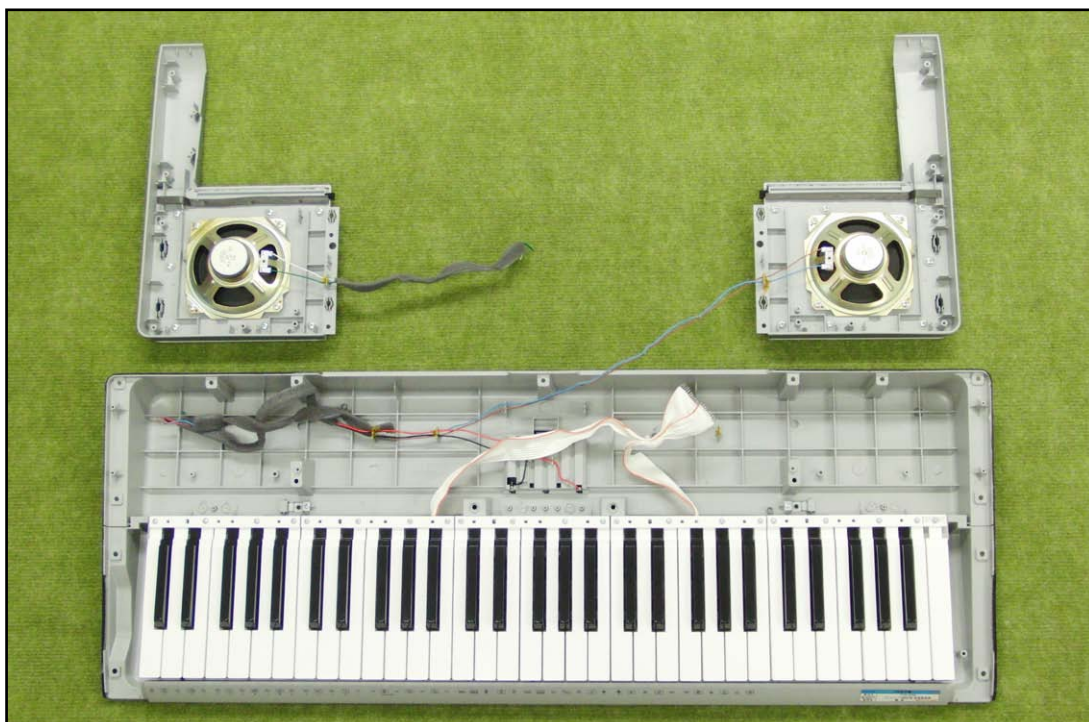
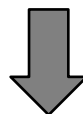
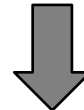
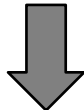
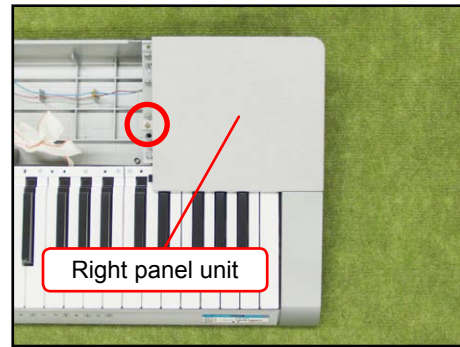
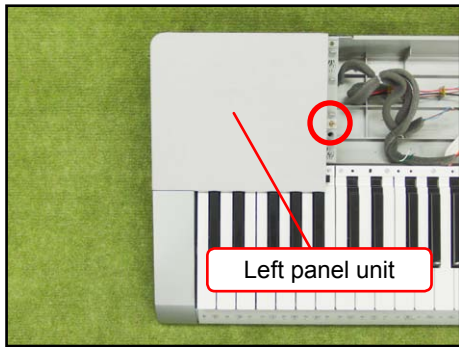
NOTE: Arrange the FFC for the M802-KYA1 PCB between the battery box and the case (keyboard side).

NOTE: Arrange the FFC for the M802-KYA2 PCB in parallel to the M822-MDA1 PCB so that the FFC is not placed under the M822-MDA1 PCB when the main panel is assembled.



A-6. Undo one screw and then remove the right panel unit.

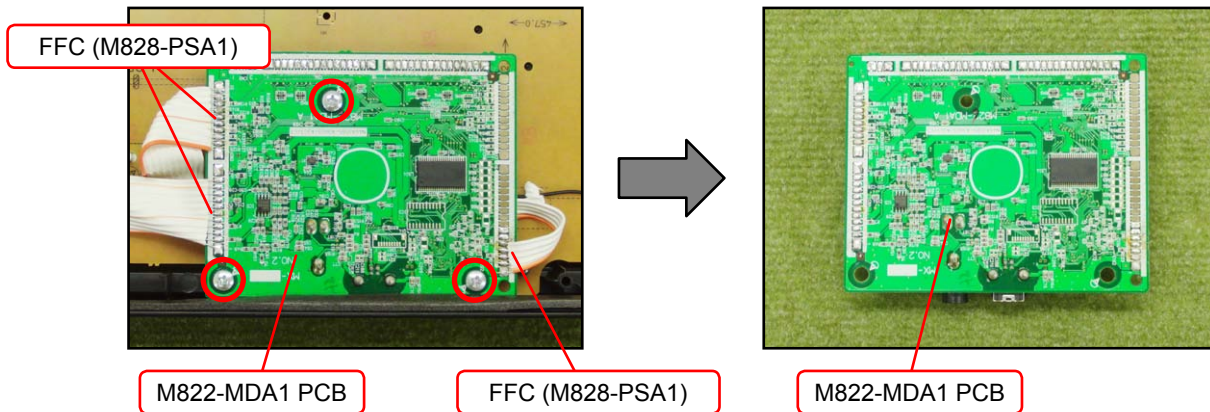
A-7. Undo one screw and then remove the left panel unit.



B. REMOVE THE M822-MDA1 PCB (MAIN PCB)

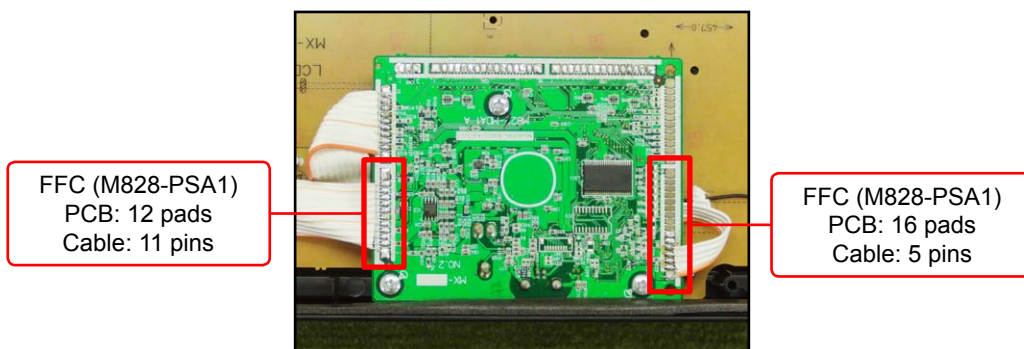
B-1. Unsolder three FFCs.

B-2. Undo three screws and then remove the M822-MDA1 PCB.



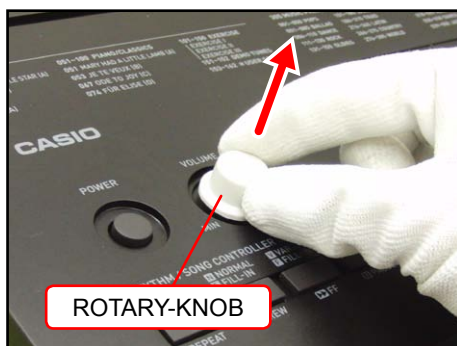
<Notes On Assembly>

- The number of pins on the PCB pad differs from that on the cable. Solder in the way that No.1 pin on the cable (orange) is connected to No.1 pad on the PCB.



C. REMOVE THE BACK-LIGHT-UNIT

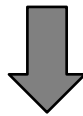
C-1. Remove the ROTARY-KNOB.



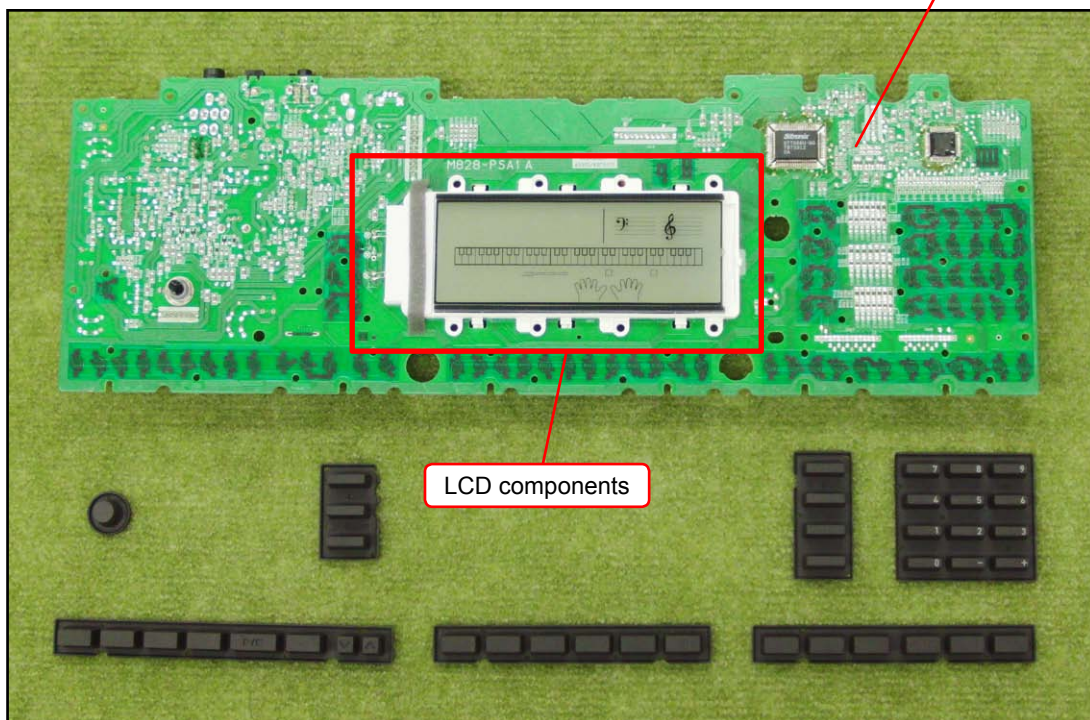
- C-2. Undo 26 screws and then remove the BACK-LIGHT-UNIT, LCD components and rubber keys.
NOTE: There are two types of screws. Be sure to use the correct screw when reassembling.



BACK-LIGHT-UNIT



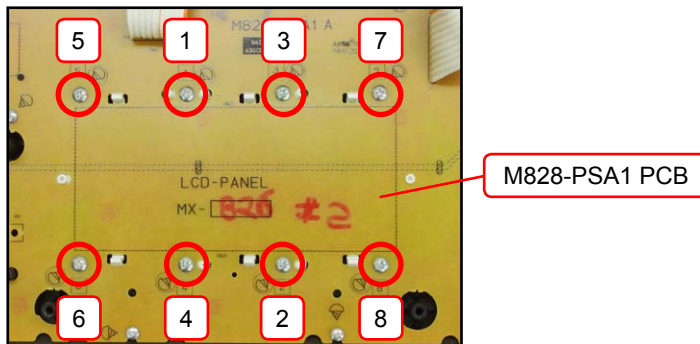
BACK-LIGHT-UNIT



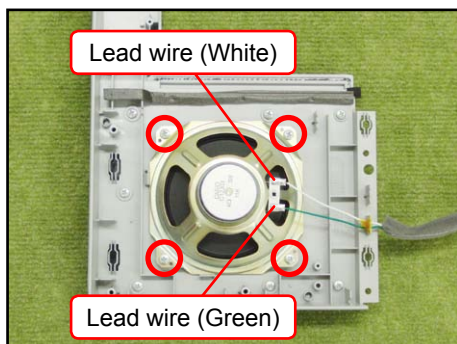
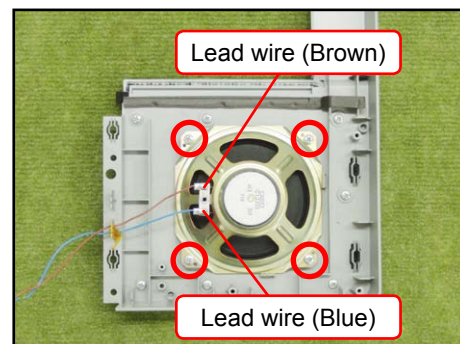
LCD components

<Notes On Assembly>

- To install the M828-PSA1 PCB of BACK-LIGHT-UNIT, tighten the screws for the LCD part in the order indicated with the numbers below. If not tighten correctly, it may cause the LCD display errors.

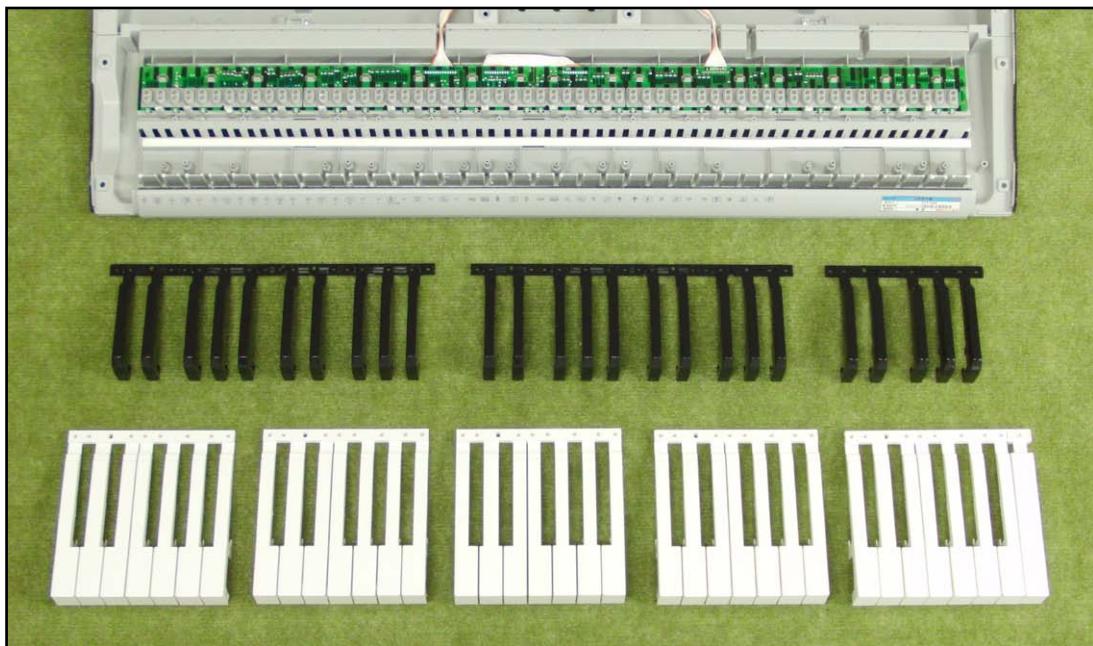
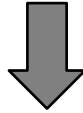
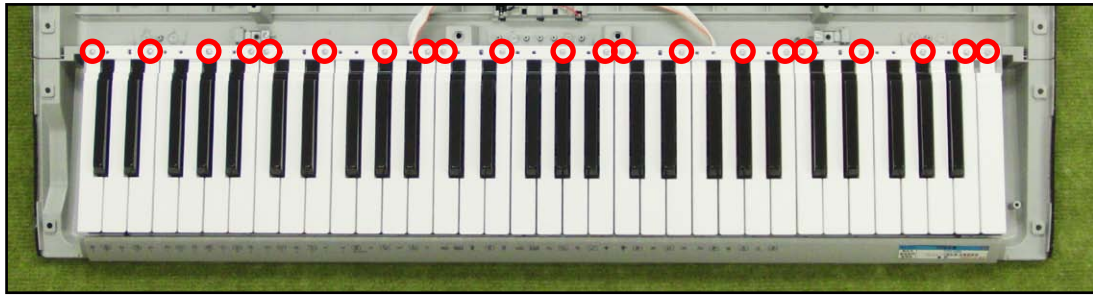
**D. REMOVE THE SPEAKER**

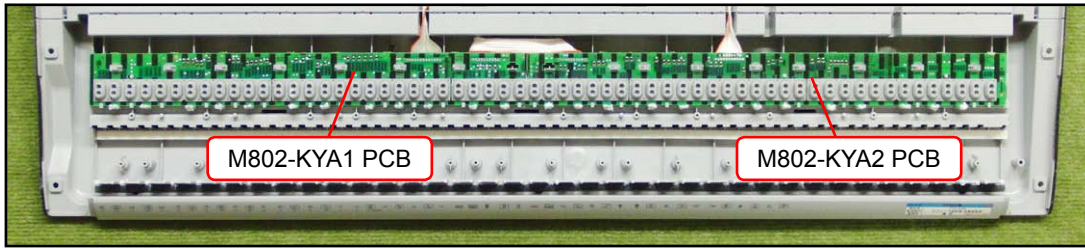
- D-1. Unsolder two lead wires.
- D-2. Undo four screws and then remove the SPEAKER.

<Left speaker>**<Right speaker>**

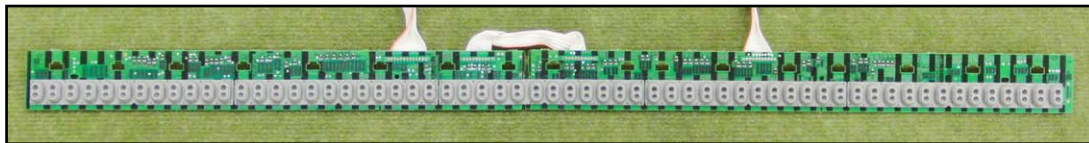
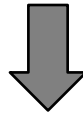
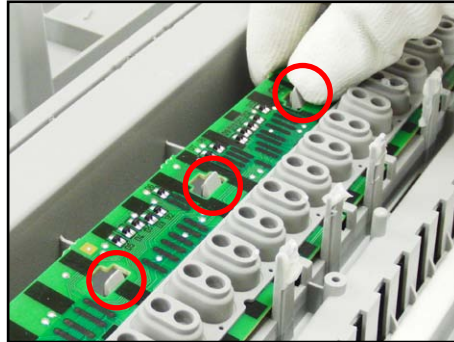
E. REMOVE THE KEYBOARD

E-1. Undo 21 screws and then remove the keys.



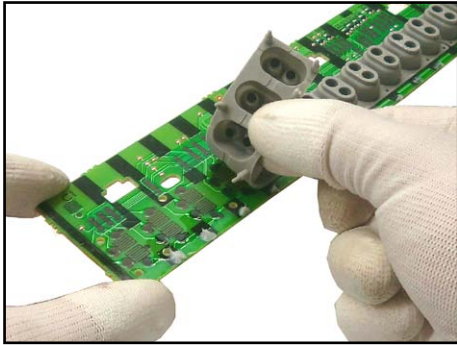
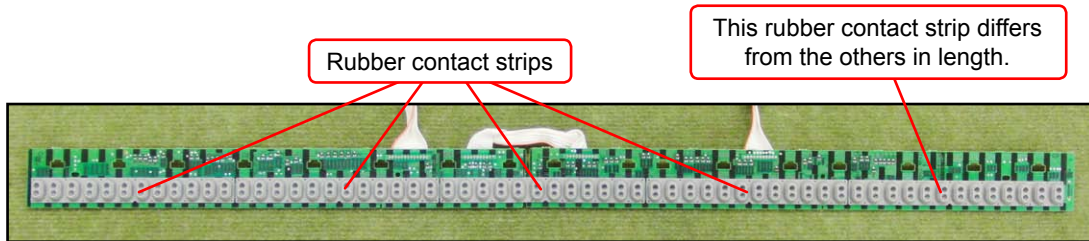
F. REMOVE THE M802-KYA1/KYA2 PCBs (KEYBOARD PCB)

F-1. Disengage the hooks and then remove the M802-KYA1/KYA2 PCBs.



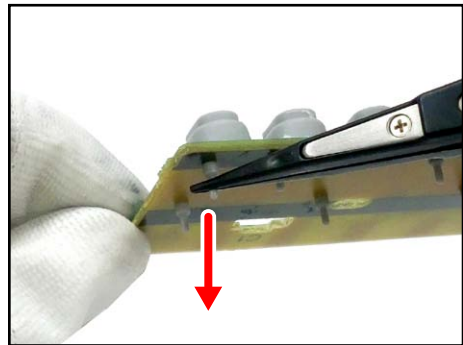
F-2. Remove five rubber contact strips.

NOTE: One rubber contact strip differs in length.



<How To Install Rubber Contact Strips>

- Lightly insert the tip of a rubber contact strip into the PCB. Pull the tip from the back of the PCB and install it using a tool such as tweezers. Do not forcibly pull it.



DIAGNOSTIC PROGRAM

■ PREPARATION

- (1) Connect the AC adaptor.

NOTE: The AC adaptor (AD-E95100L) for the CTK-4200_DI and CTK-4200_UK is sold separately and does not come with the product. If you do not have the AC adaptor, use six AA-size dry batteries with enough capacity.

NOTE: “AC ADAPTOR CHECK” cannot be performed unless the AC adaptor is connected.

- (2) Turn the main volume to the maximum.

- (3) Connect the pedal (SP-3 or SP-20) to the SUSTAIN/ASSIGNABLE jack.

NOTE: SP-3 and SP-20 pedals are sold separately.

“PEDAL CHECK” cannot be performed unless the pedal is connected.

- (4) Have a PC and a USB cable ready.

NOTE: “USB CHECK” cannot be performed without a PC and a USB cable.

Operating System: Windows® XP (SP2 or later) *1
Windows Vista® *2
Windows 7® *3
Mac OS® X (10.3.9, 10.4.11, 10.5.8 or later, 10.6.6 or later)

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

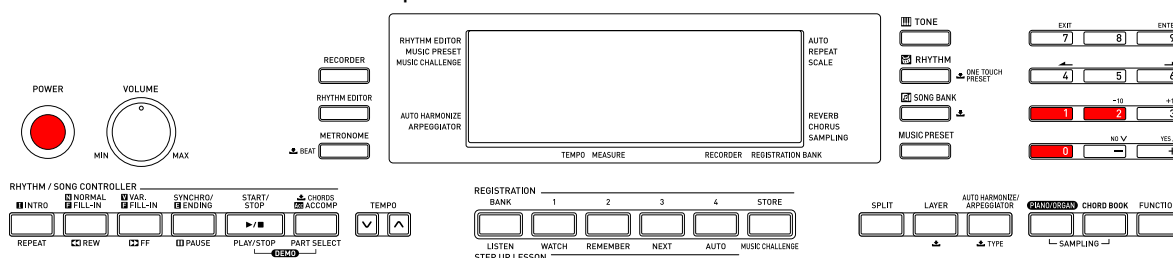
*2: Windows Vista (32 bit)

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

■ HOW TO START THE DIAGNOSTIC PROGRAM

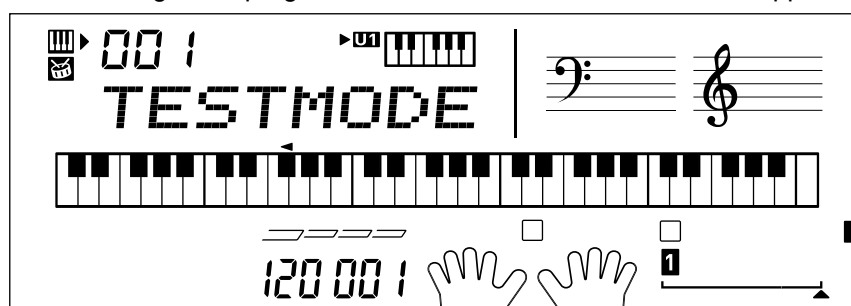
- (1) Hold down the “0”, “1” and “2” buttons at the same time, to turn the power ON.

NOTE: Be sure to turn OFF the power when the test is finished.



- (2) Release the “0”, “1” and “2” buttons.

- (3) After the diagnostic program is launched, the test mode screen appears.

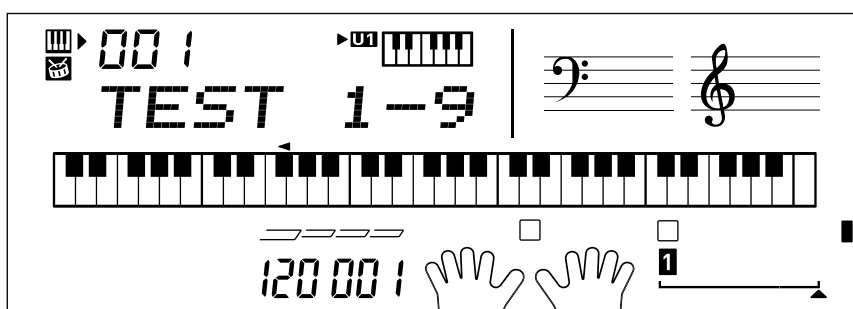


■ TEST ITEMS

Pressing a test button after the diagnostic program was launched or while on the main screen enables the corresponding test item to be tested.

Test Items	Buttons	Note
A. BUTTON CHECK	1	
B. AC ADAPTOR CHECK	3	AC adaptor
C. ROM CHECK	5	
D. RAM CHECK	6	
E. ROM VERSION & MODEL CHECK	9	
F. LCD CHECK	2	
G. PEDAL CHECK	RHYTHM	Pedal (SP-3 or SP-20)
H. USB CHECK		PC, USB cable

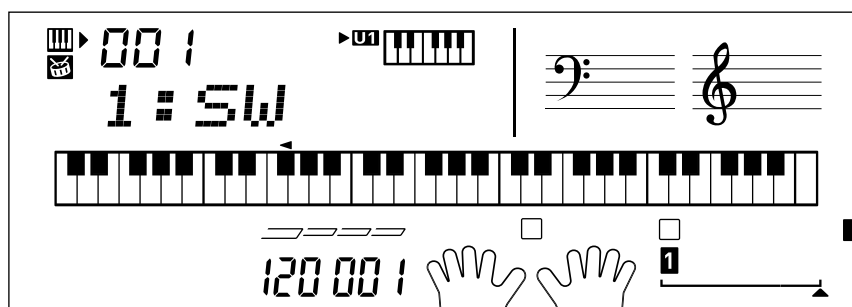
<Test Mode Main Screen>



■ TEST PROCEDURES

A. BUTTON CHECK

A-1. Press the "1" button to select the "BUTTON CHECK".

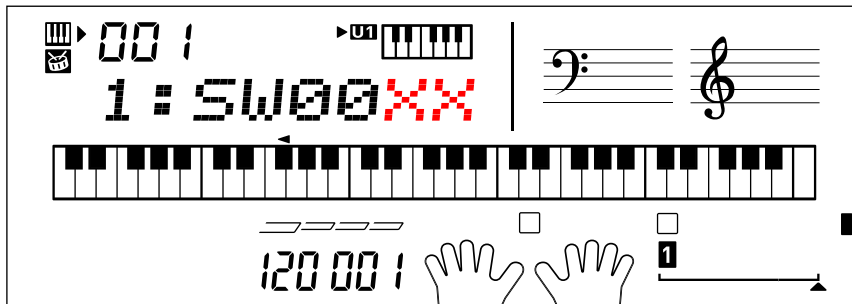


A-2. Press the button in the order indicated in the illustration.

NOTE: You cannot cancel this check procedure mid-way.

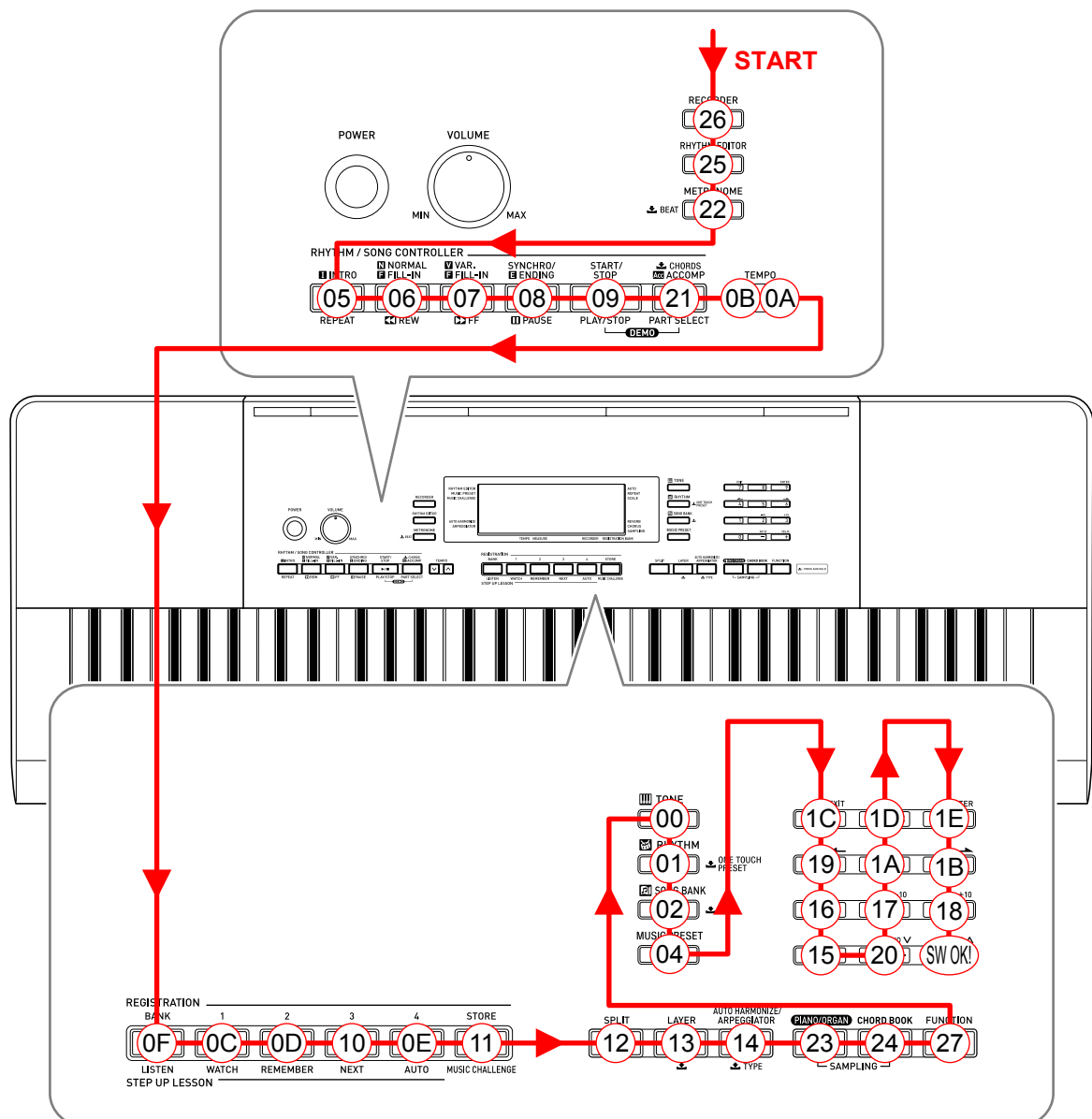
<If the result passes>

The confirmation chord sounds and “1:SW00XX” is displayed on the LCD with “XX” indicating the corresponding button number in the illustration.



<If the result fails>

If there is a button failure or the buttons are pressed in a wrong sequence, an error tone sounds and the button number which you pressed will be displayed on the LCD.



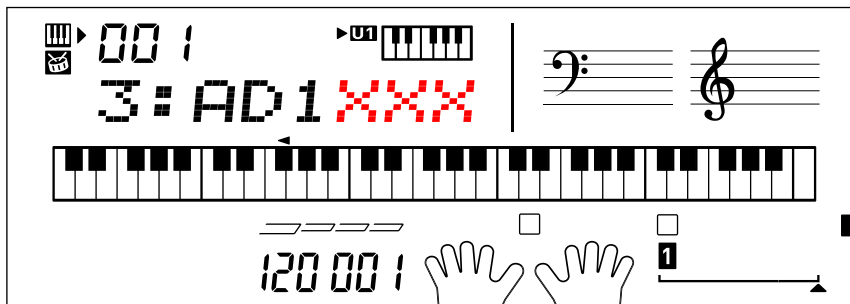
- A-3. When the “+” button is pressed at the end, a confirmation chord sounds and “1:SW OK!” is displayed on the LCD.
- A-4. Check to see if the LCD is as shown below.



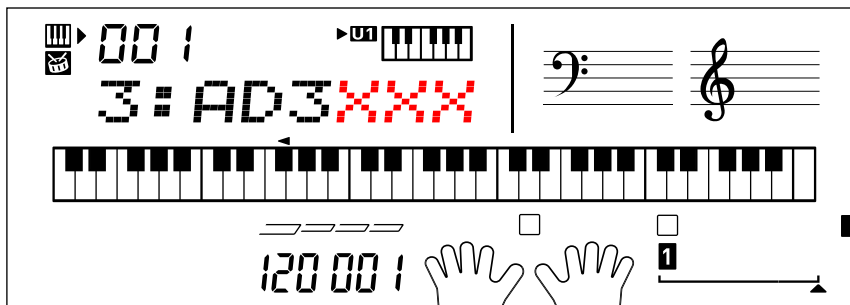
- A-5. Press the “0” button to return to the main screen.

B. AC ADAPTOR CHECK

- B-1. Press the “3” button to select the “AC ADAPTOR CHECK”.
- B-2. Make sure that a value “XXX” shown in the illustration is in the range of 000 to 3FF.



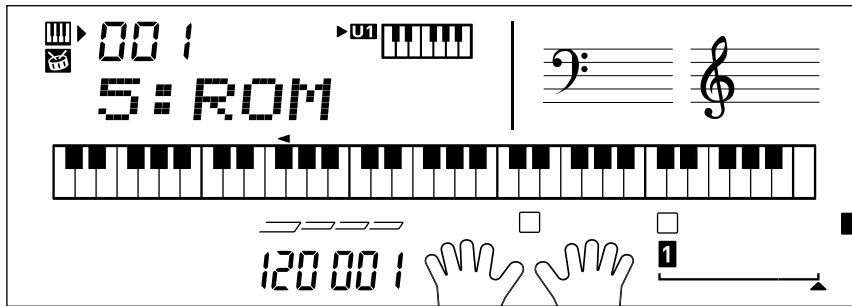
- B-3. Press the “3” button again.
- B-4. Make sure that a value “XXX” shown in the illustration is in the range of 000 to 1FF.



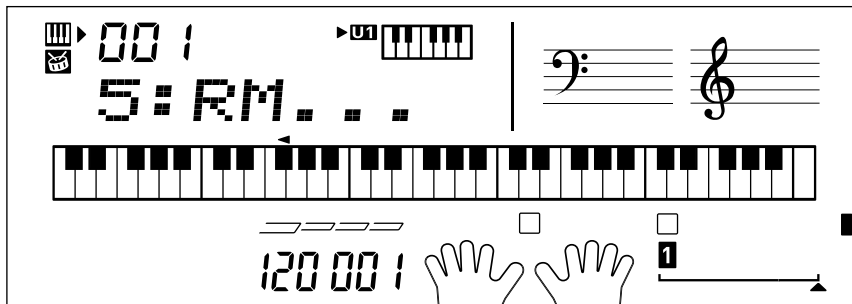
- B-5. Press the “0” button to return to the main screen.

C. ROM CHECK

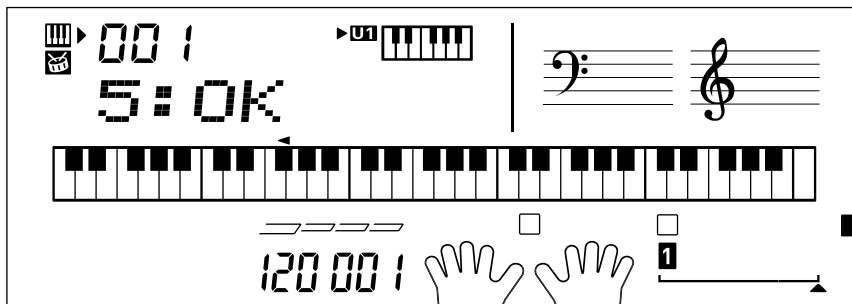
C-1. Press the "5" button to select the "ROM CHECK".



C-2. Press the "1" button to perform the check.



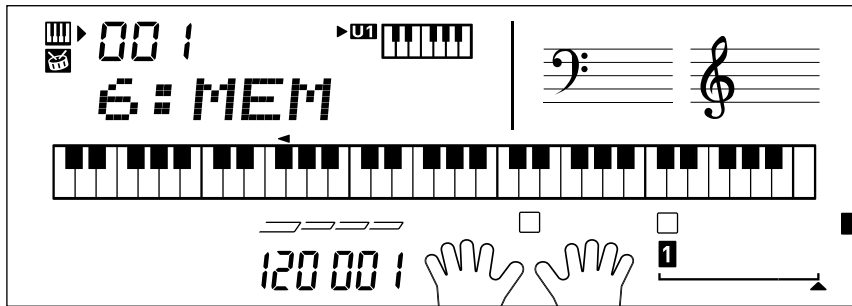
C-3. Check to see if the LCD is as shown below.



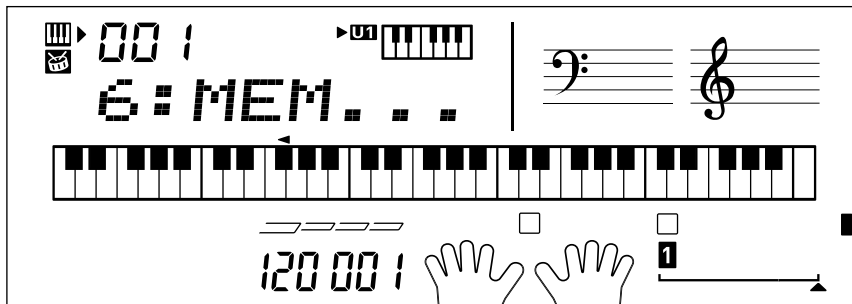
C-4. Press the "0" button to return to the main screen.

D. RAM CHECK

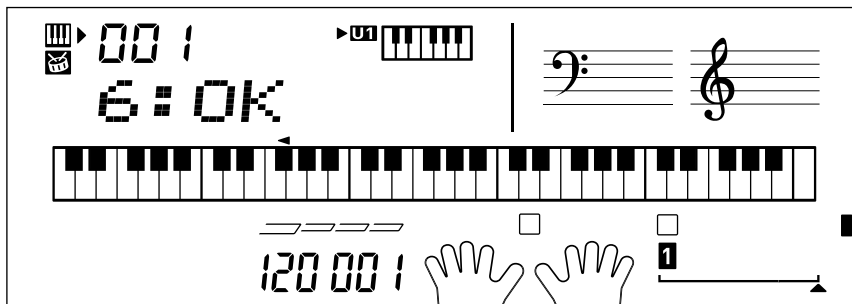
D-1. Press the “6” button to select the “RAM CHECK”.



D-2. Press the “1” button to perform the check.



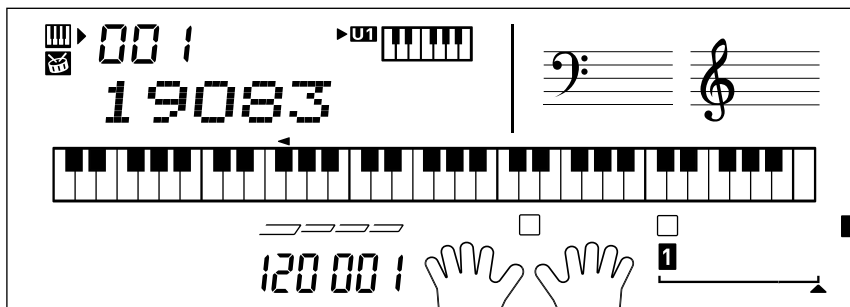
D-3. Check to see if the LCD is as shown below.



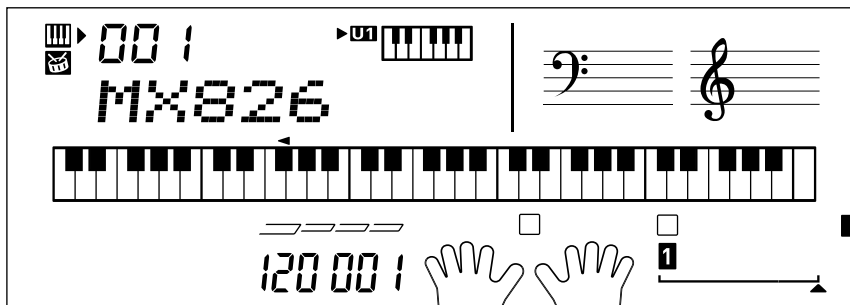
D-4. Press the “0” button to return to the main screen.

E. ROM VERSION & MODEL CHECK

- E-1. Press the “9” button to perform the “ROM VERSION CHECK”.
The ROM version appears on the LCD.
- E-2. Check that the ROM version is “19083”.



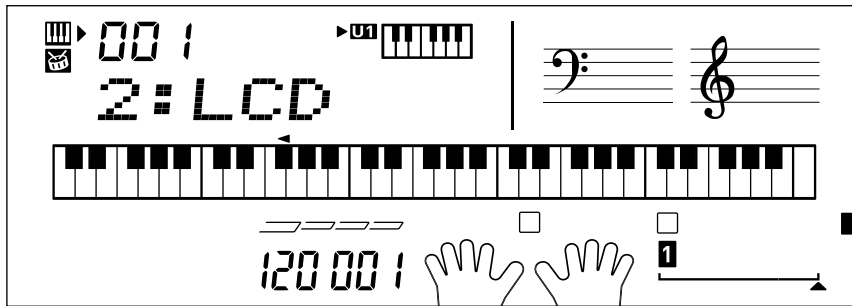
- E-3. Press the “9” button to perform the “MODEL CHECK”.
The model name appears on the LCD.
- E-4. Check that the model name is “MX826”.



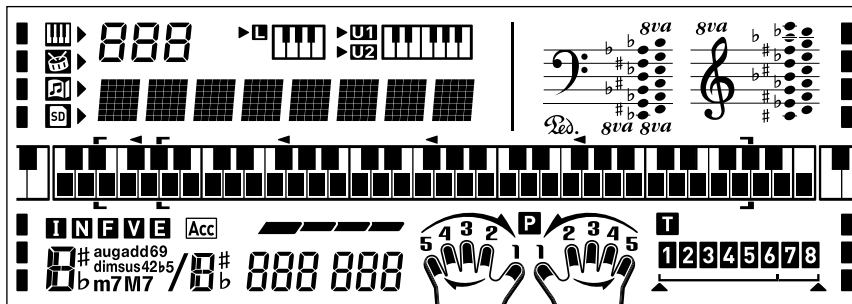
- E-5. Press the “0” button to return to the main screen.

F. LCD CHECK

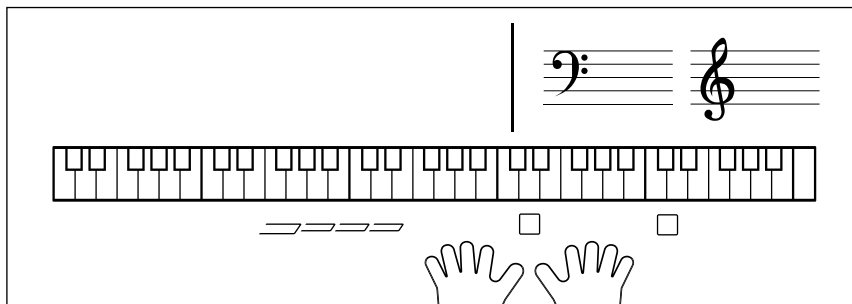
F-1. Press the “2” button to select the “LCD CHECK”.



F-2. Press the “2” button and check to see if all LCDs are lit.



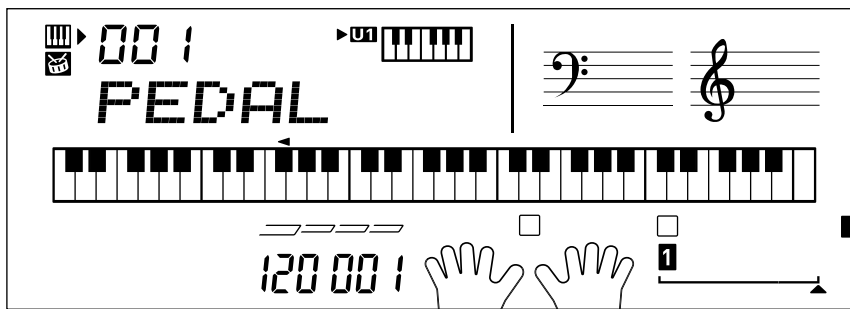
F-3. Press the “2” button and check to see if all LCDs are turned off.



F-4. Press the “0” button to return to the main screen.

G. PEDAL CHECK

G-1. Press the “RHYTHM” button to select the “PEDAL CHECK”.



G-2. Press the pedal.

G-3. Check to see if the LCD is as shown below.



G-4. Press the “0” button to return to the main screen.

H. USB CHECK

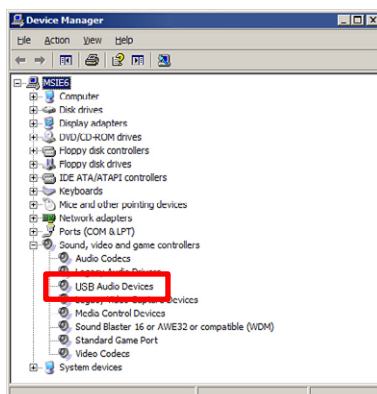
NOTE: The following procedures are for a PC with Windows XP.

H-1. Connect the main unit to the PC with a USB cable.

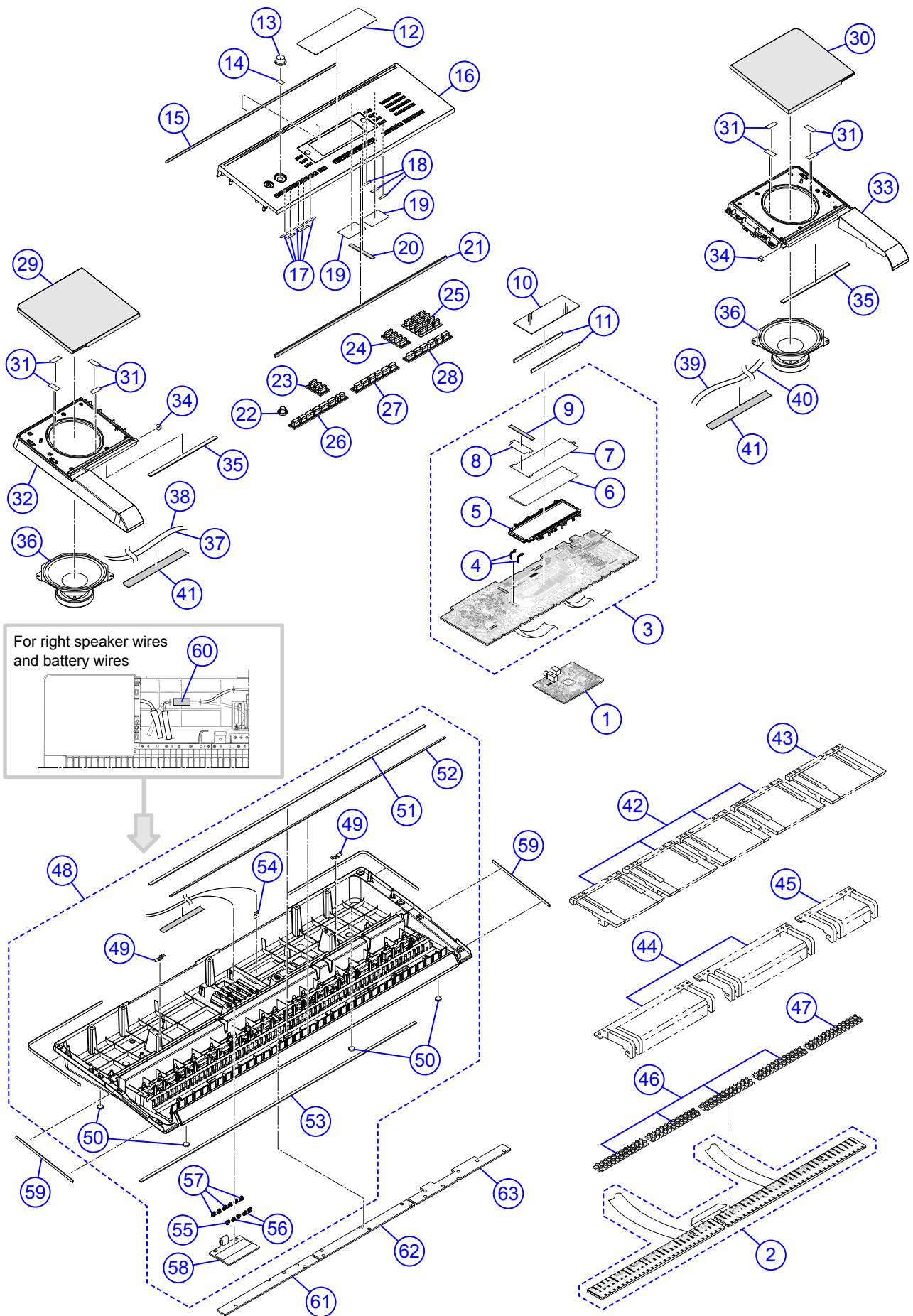
H-2. Open the windows “Device Manager”, and then make sure “USB Audio Devices” is listed under “Sound, video and game controllers”.

H-3. Disconnect the USB cable.

H-4. Verify “USB Audio Devices” is not listed under “Sound, video and game controllers”.



EXPLODED VIEW



PARTS LIST

CTK-4200

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: CTK-4200_DI
- 2: CTK-4200_EU
- 3: CTK-4200_UK
- 4: CTK-4200_US

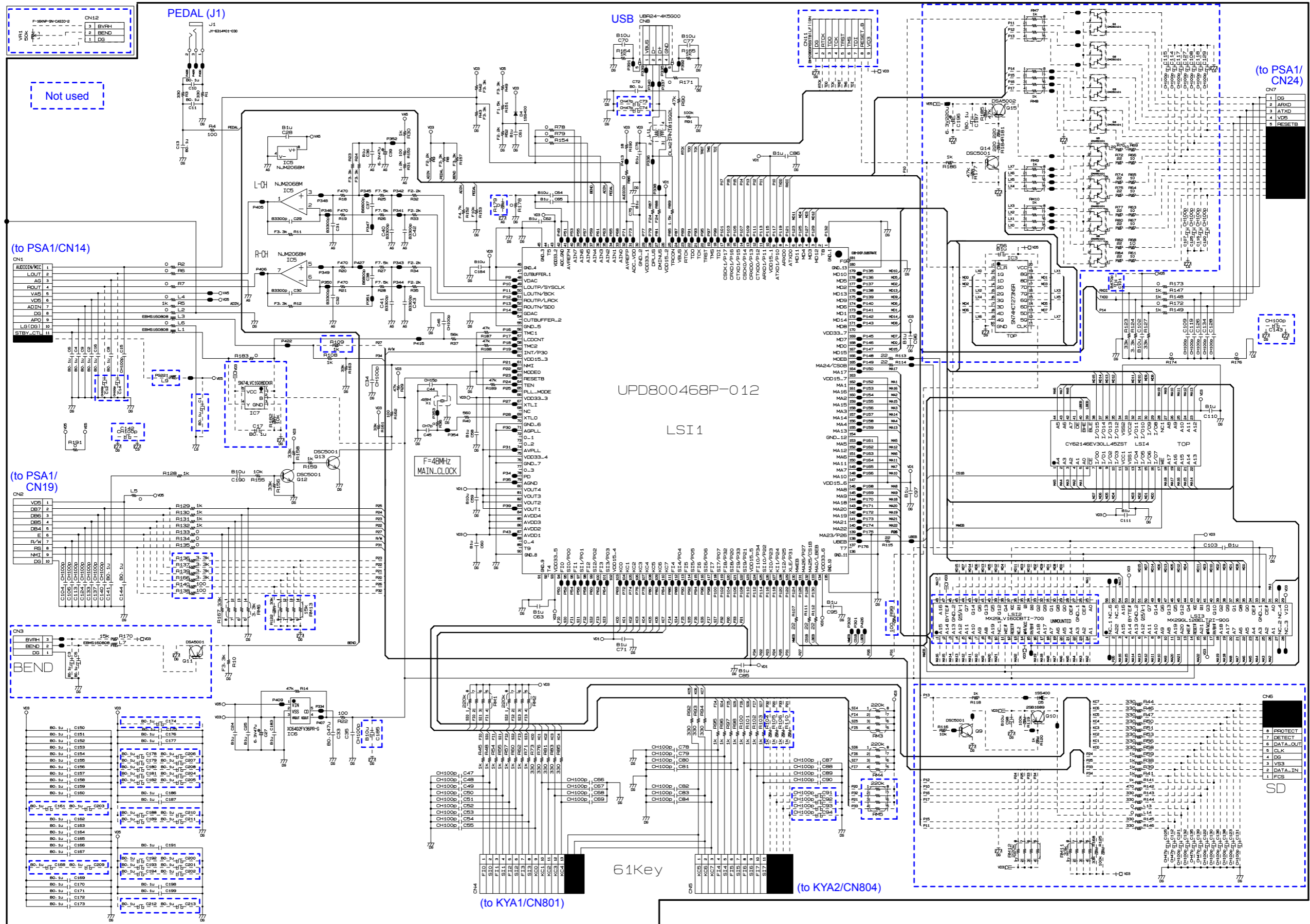
N	Item	Code No.	Parts Name	Specification	Q'ty				Price Code	R	Remarks
					1	2	3	4			
MAIN PCB											
N	1	10402681	PCB UNIT/MAIN	TK-RJM511401*001	1	1	1	1		A	MDA1
	CN8	10236624	CONNECTOR/USB	UBR24-4K5G00	1	1	1	1		C	
	J1	10206815	JACK/SUSTAIN	JY-6314*01-030	1	1	1	1		C	
	D4	10009218	DIODE	1SS400TE61	1	1	1	1		X	
	IC5	10211950	IC	NJM2068M-D(TE1)	1	1	1	1		X	
N	IC6	10398240	IC	XC6402FV36PR-G	1	1	1	1		X	
	L11	10193074	COIL	DLW21HN181SQ2L	1	1	1	1		X	
	LSI4	10256784	LSI/MEMORY	CY62146EV30LL45ZST	1	1	1	1		C	
N	LSI3	10396648	LSI/MEMORY	MX29GL128ELT2I-90G	1	1	1	1		C	
N	Q12,Q13	10399706	TRANSISTOR	DSC500100L	2	2	2	2		X	
	X1	10375016	RESONATOR	7V48080006	1	1	1	1		X	
KEYBOARD PCB											
	2	10313200	PCB UNIT/KYA	TK-RJM508618*002	1	1	1	1		C	KYA1/KYA2
	D1-D61	10294400	DIODE	LM1MA142WKT1G	61	61	61	61		X	
BACK LIGHT UNIT (including amp, power and console circuit)											
N	3	10402680	BACK LIGHT UNIT	TK-RJM511354*001	1	1	1	1		X	
	IC3,IC4	10206677	IC	NJM2068D-D	2	2	2	2		X	
	IC2	10300598	IC	TA8227APL-D12-H-T	1	1	1	1		X	
	IC5	10222381	LSI	ST7066U-0A-QG	1	1	1	1		C	
	IC1	10159709	LSI	UPD65881GK-1019ETA	1	1	1	1		C	
	J2	35015103	JACK/DC	HEC3110-01-010	1	1	1	1		A	
	J1	10305218	JACK/PHONE	JY-6316B*01-070	1	1	1	1		B	
	J3	10305131	JACK/AUDIO IN	ST-3529B	1	1	1	1		B	
	L2,L5	10231919	COIL	RB53-856396NP	2	2	2	2		X	
	L1,L3,L4	10231920	COIL	RB53-856397NP	3	3	3	3		X	
	Q7	10206835	TRANSISTOR	KTA1046-Y-U/P	1	1	1	1		X	
N	VR3	10407264	VARIABLE RESISTOR	F164KPD-1N-CASIO-3	1	1	1	1		B	Main volume
	X1	10093909	RESONATOR	CSBLA1M00J58-B0	1	1	1	1		X	
	D3,D5	23901820	DIODE	1SS355TE-17	2	2	2	2		X	
	D1,D2	10261170	DIODE	SRT14-A2	2	2	2	2		X	
	D4	23603102	DIODE	UDZSTE-175.1B	1	1	1	1		X	
N	Q2,Q3,Q5, Q6,Q9	10399706	TRANSISTOR	DSC500100L	5	5	5	5		X	
	Q1	10217742	TRANSISTOR	KTA1270-Y-AT/P	1	1	1	1		X	
	Q4	10206675	TRANSISTOR	KTA1273-Y-AT/P	1	1	1	1		X	
	4	10308432	LED	SLR343BD2T3F	2	2	2	2		X	
	5	10131110	REFLECTOR	RJM502577-001V01	1	1	1	1		X	
	6	10248119	BACK LIGHT PLATE	RJM506818-001V01	1	1	1	1		X	
	7	10250780	FILM	RJM507061-001V01	1	1	1	1		X	
	8	10131094	TOP PIECE	RJM502565-001V01	1	1	1	1		X	
	9	10270485	SPONGE/8X75	M441167-001V01	1	1	1	1		X	
PANEL UNIT											
N	10	10402929	LCD	ZAS-TY012723DN00	1	1	1	1		X	
	11	10203058	RUBBER CONNECTOR/for LCD	RJM505822-001V01	2	2	2	2		X	
N	12	10402055	DISPLAY PLATE	RJM511149-001V01	1	1	1	1		X	
N	13	10402614	KNOB/ROTARY	RJM502503-025V03	1	1	1	1		C	
	14	10214317	DOUBLE FACED TAPE/6X10	RJM506386-001V01	1	1	1	1		X	
	15	10136565	PACKING/8X510	M441190-002V01	1	1	1	1		X	
N	16	10402629	CASE/PANEL	RJM511111-001V01	1	1	1	1		X	
N	17	69265720	FABRIC TAPE/5X30	M440583-1	5	5	5	5		X	
N	18	10113739	FABRIC TAPE/5.5X22	RJM502452-001V01	3	3	3	3		X	
	19	10305409	SHEET/V-ZERO	RJM508951-001V01	2	2	2	2		X	
	20	10270485	SPONGE/8X75	M441167-001V01	1	1	1	1		X	
	21	10263728	PACKING	M441117-001V02	1	1	1	1		X	

- 1: CTK-4200_DI
 2: CTK-4200_EU
 3: CTK-4200_UK
 4: CTK-4200_US

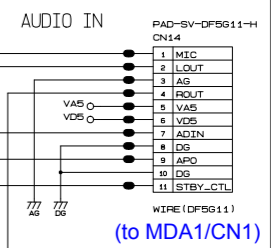
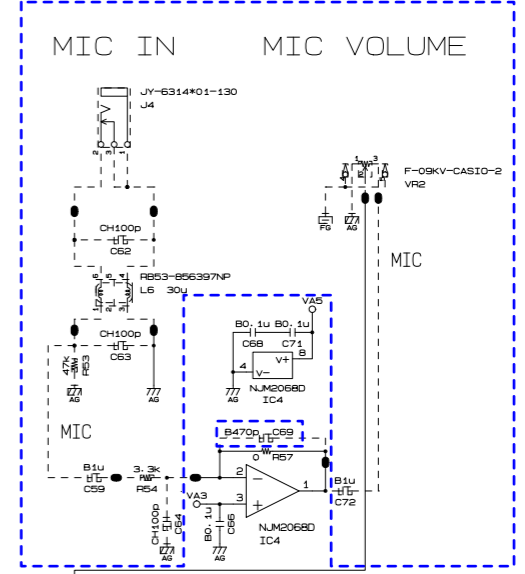
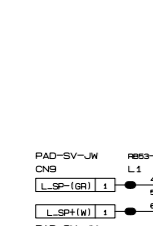
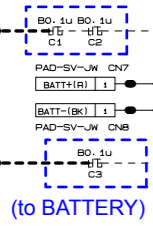
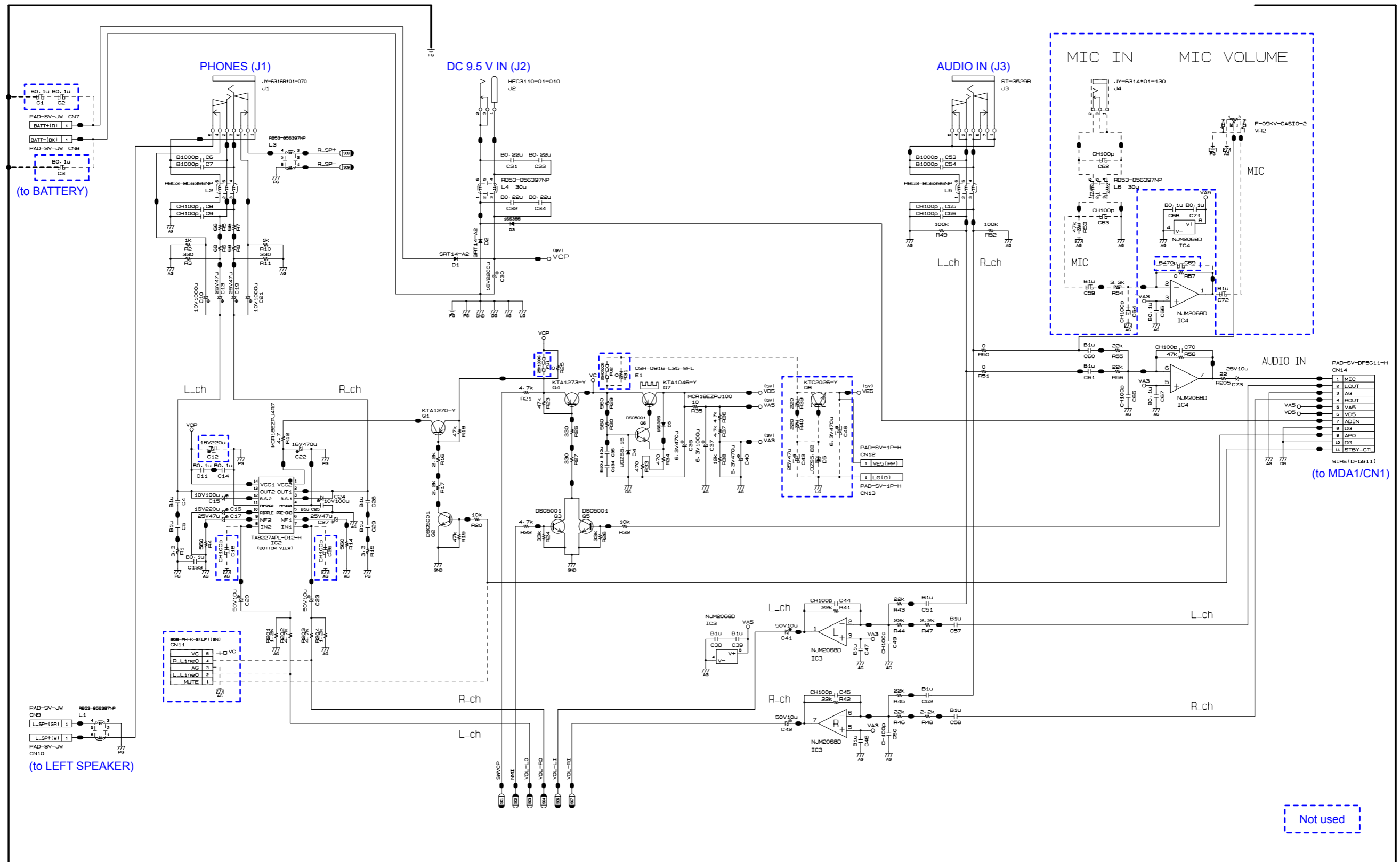
N	Item	Code No.	Parts Name	Specification	Q'ty				Price Code	R	Remarks
					1	2	3	4			
N	22	10402632	RUBBER BUTTON/A	RJM511139-001V01	1	1	1	1		X	
N	23	10402634	RUBBER BUTTON/B	RJM511140-001V01	1	1	1	1		X	
N	24	10402636	RUBBER BUTTON/C	RJM511141-001V01	1	1	1	1		X	
N	25	10402638	RUBBER BUTTON/D	RJM511142-001V01	1	1	1	1		X	
N	26	10402640	RUBBER BUTTON/E	RJM511143-001V01	1	1	1	1		X	
N	27	10402642	RUBBER BUTTON/F	RJM511144-001V01	1	1	1	1		X	
N	28	10402644	RUBBER BUTTON/G	RJM511145-001V01	1	1	1	1		X	
SIDE PANEL UNIT											
N	29	10402648	SPEAKER COVER UNIT/LEFT	RJM511355*001	1	1	1	1		X	
N	30	10402650	SPEAKER COVER UNIT/RIGHT	RJM511356*001	1	1	1	1		X	
N	31	10190385	FABRIC TAPE/12X30	RJM504470-002V01	8	8	8	8		X	
N	32	10402626	CASE/SIDE PANEL/LEFT	RJM511039-001V01	1	1	1	1		X	
N	33	10402627	CASE/SIDE PANEL/RIGHT	RJM511040-001V01	1	1	1	1		X	
	34	69196290	FABRIC TAPE/20X10	M411742-001	2	2	2	2		X	
	35	10405274	PACKING/8X200	RJM511196-002V01	2	2	2	2		X	
	36	10272063	SPEAKER	C12J03	2	2	2	2		X	
N	37	10402600	WIRE/WHITE	1007TASC24350W3030	1	1	1	1		X	for Left speaker (+)
N	38	10402599	WIRE/GREEN	1007TASC24350G3030	1	1	1	1		X	for Left speaker (-)
N	39	10377007	WIRE/BLUE	1007TASC24850B3030	1	1	1	1		X	for Right speaker (+)
N	40	10377008	WIRE/BROWN	1007TASC24850T3030	1	1	1	1		X	for Right speaker (-)
N	41	69265830	SPONGE/35X260	M440589-1	2	2	2	2		X	for Speaker wires
KEYBOARD UNIT											
	42	10399802	WHITE KEY/CB	RJM507243*004V03	4	4	4	4		A	
	43	10399803	WHITE KEY/CS	RJM507244*004V03	1	1	1	1		B	
	44	10289646	BLACK KEY/10p	RJM506595-005V02	2	2	2	2		A	
	45	10289647	BLACK KEY/5p	RJM506595-006V02	1	1	1	1		B	
	46	10269451	RUBBER CONTACT/CB	RJM507656-001V01	4	4	4	4		A	
	47	10270393	RUBBER CONTACT/CS	RJM507657-001V01	1	1	1	1		B	
MAIN CASE UNIT											
N	48	10402679	CASE UNIT/MAIN	TK-RJM511358*001	1	1	1	1		X	
	49	10284332	BRACKET/for STAND	M440866-001V02	2	2	2	2		X	
	50	69226920	RUBBER FOOT	M41361-6	4	4	4	4		X	
N	51	10373683	FELT/LOWER LIMIT/KEYBOARD	RJM508593-001V02	1	1	1	1		X	
	52	10317116	FELT/DAMPER/KEYBOARD	RJM509138-001V01	1	1	1	1		X	
N	53	10373681	FELT/UPPER LIMIT/KEYBOARD	M440342-001V03	1	1	1	1		X	
N	54	10400576	BATTERY TERMINAL/+	RJM511046-001	1	1	1	1		X	
N	55	10380432	BATTERY TERMINAL/-	M440002-001V03	1	1	1	1		X	
	56	69271060	BATTERY TERMINAL/A	M440676-1	2	2	2	2		X	
	57	69271070	BATTERY TERMINAL/B	M440677-1	3	3	3	3		X	
	58	10286819	BATTERY COVER	TK-M340884*027	1	1	1	1		X	
	59	10214396	PACKING/7X180	RJM506032-001V01	2	2	2	2		X	
N	60	69307179	SPONGE/30X35	M441046-1	1	1	1	1		X	
N	61	10381069	LOWER COVER/A	RJM508655-001V04	1	1	1	1		X	
N	62	10381070	LOWER COVER/B	RJM508656-001V04	1	1	1	1		X	
N	63	10381071	LOWER COVER/C	RJM508657-001V04	1	1	1	1		X	
ACCESSORIES											
	-	10025472	MUSIC STAND	M141071-1	1	1	1	1		C	
N	-	10399696	AC ADAPTOR	AD-E95100LG-P2		1				B	
N	-	10408260	AC ADAPTOR	AD-E95100LU-P2				1		B	

SCHEMATIC DIAGRAMS

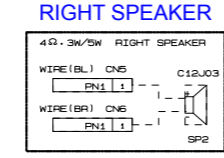
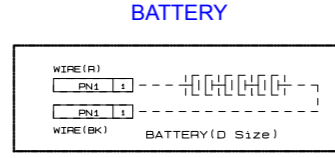
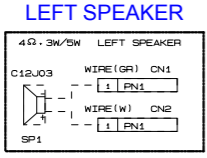
Main PCB: M822-MDA1



Sub PCB: M828-PSA1 (1/2)



Not used



Sub PCB: M828-PSA1 (2/2)

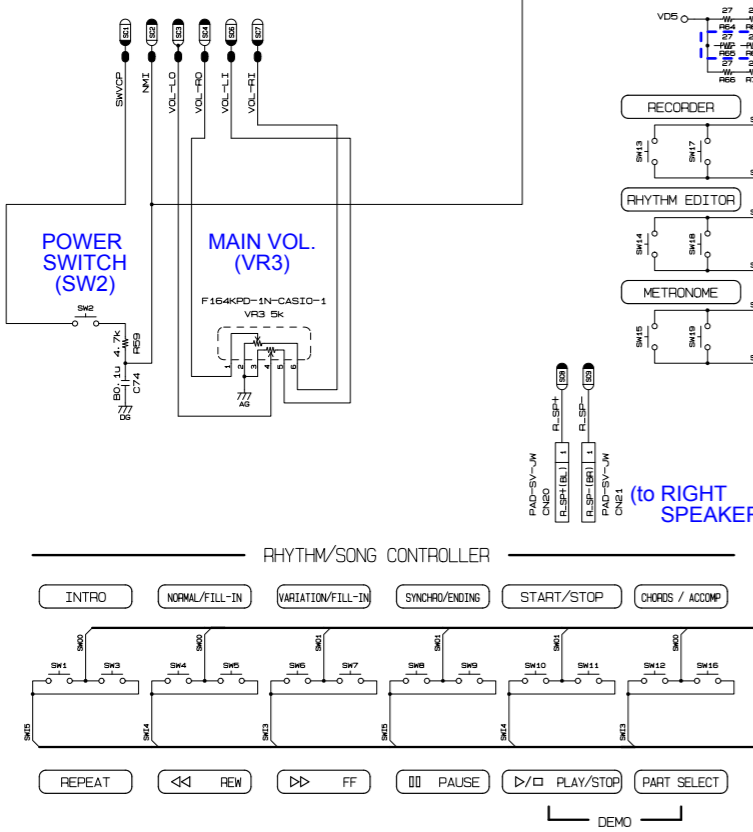
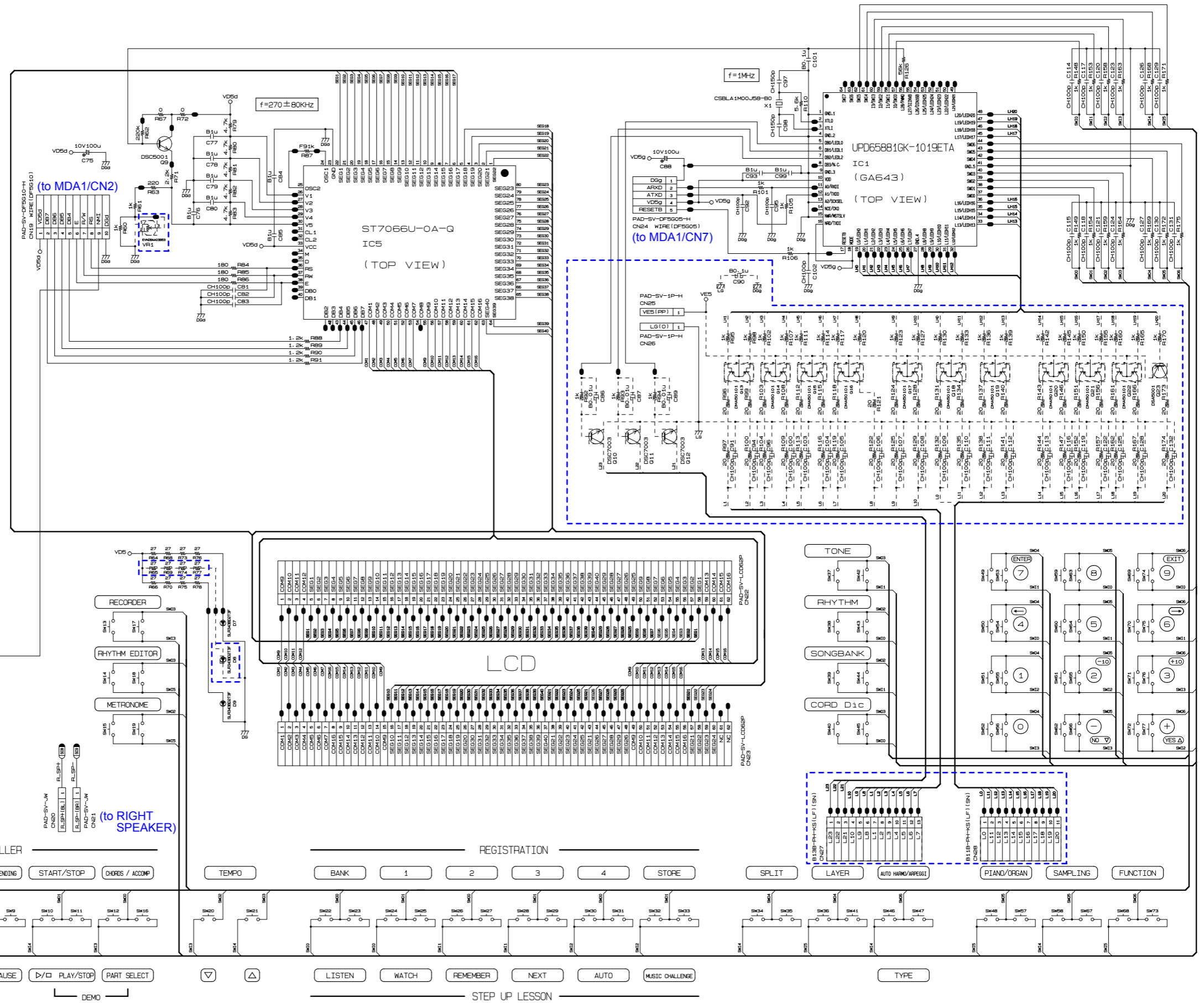
JUMPER RESISTOR MCR03BEZPJ000

$0_{WM}R501$	$0_{WM}R502$	$0_{WM}R503$
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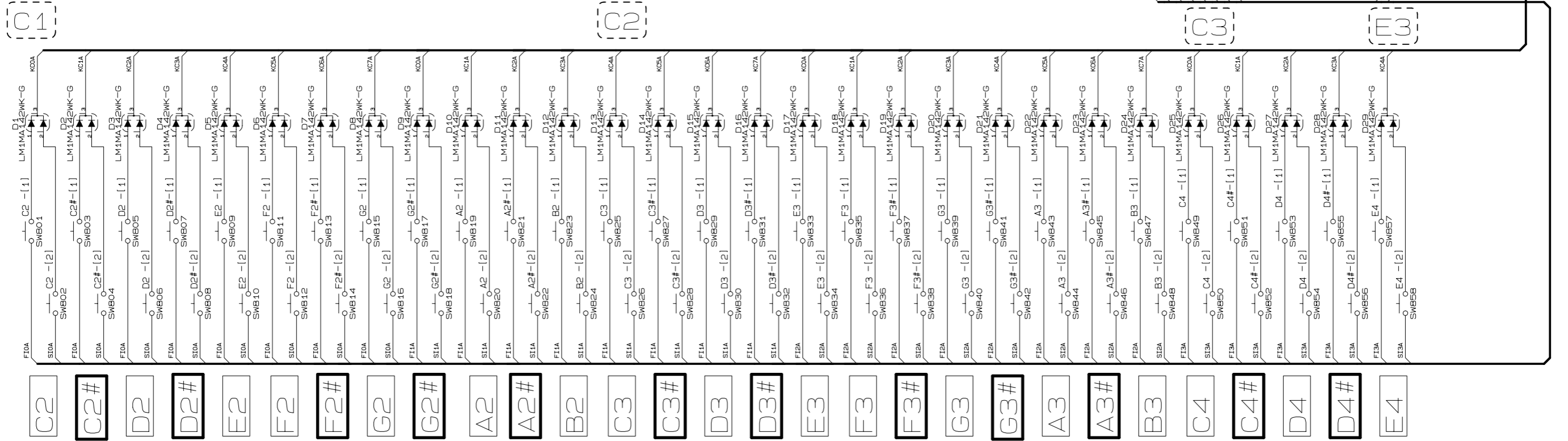
JUMPER RESISTOR MCR1BEZPJ000

$0_{WM}R401$	$0_{WM}R402$	$0_{WM}R403$	$0_{WM}R404$	$0_{WM}R405$
$0_{WM}R406$	$0_{WM}R407$	$0_{WM}R408$	$0_{WM}R409$	$0_{WM}R410$
$0_{WM}R411$	$0_{WM}R412$	$0_{WM}R413$	$0_{WM}R414$	$0_{WM}R415$
$0_{WM}R416$	$0_{WM}R417$	$0_{WM}R418$	$0_{WM}R419$	$0_{WM}R420$
$0_{WM}R421$	$0_{WM}R422$	$0_{WM}R423$	$0_{WM}R424$	$0_{WM}R425$
$0_{WM}R426$	$0_{WM}R427$	$0_{WM}R428$	$0_{WM}R429$	$0_{WM}R430$
$0_{WM}R431$	$0_{WM}R432$	$0_{WM}R433$	$0_{WM}R434$	$0_{WM}R435$
$0_{WM}R436$	$0_{WM}R437$	$0_{WM}R438$	$0_{WM}R439$	$0_{WM}R440$
$0_{WM}R441$	$0_{WM}R442$	$0_{WM}R443$	$0_{WM}R444$	$0_{WM}R445$
$0_{WM}R446$	$0_{WM}R447$	$0_{WM}R448$	$0_{WM}R449$	$0_{WM}R450$
$0_{WM}R451$	$0_{WM}R452$	$0_{WM}R453$	$0_{WM}R454$	$0_{WM}R455$
$0_{WM}R456$	$0_{WM}R457$	$0_{WM}R458$	$0_{WM}R459$	$0_{WM}R460$
$0_{WM}R461$	$0_{WM}R462$	$0_{WM}R463$	$0_{WM}R464$	$0_{WM}R465$
$0_{WM}R466$	$0_{WM}R467$	$0_{WM}R468$	$0_{WM}R469$	$0_{WM}R470$
$0_{WM}R471$	$0_{WM}R472$	$0_{WM}R473$	$0_{WM}R474$	$0_{WM}R475$
$0_{WM}R476$	$0_{WM}R477$	$0_{WM}R478$	$0_{WM}R479$	$0_{WM}R480$
$0_{WM}R481$	$0_{WM}R482$	$0_{WM}R483$	$0_{WM}R484$	$0_{WM}R485$
$0_{WM}R486$	$0_{WM}R487$	$0_{WM}R488$	$0_{WM}R489$	$0_{WM}R490$

Not used



Keyboard PCB: M802-KYA1



M802-KYA1

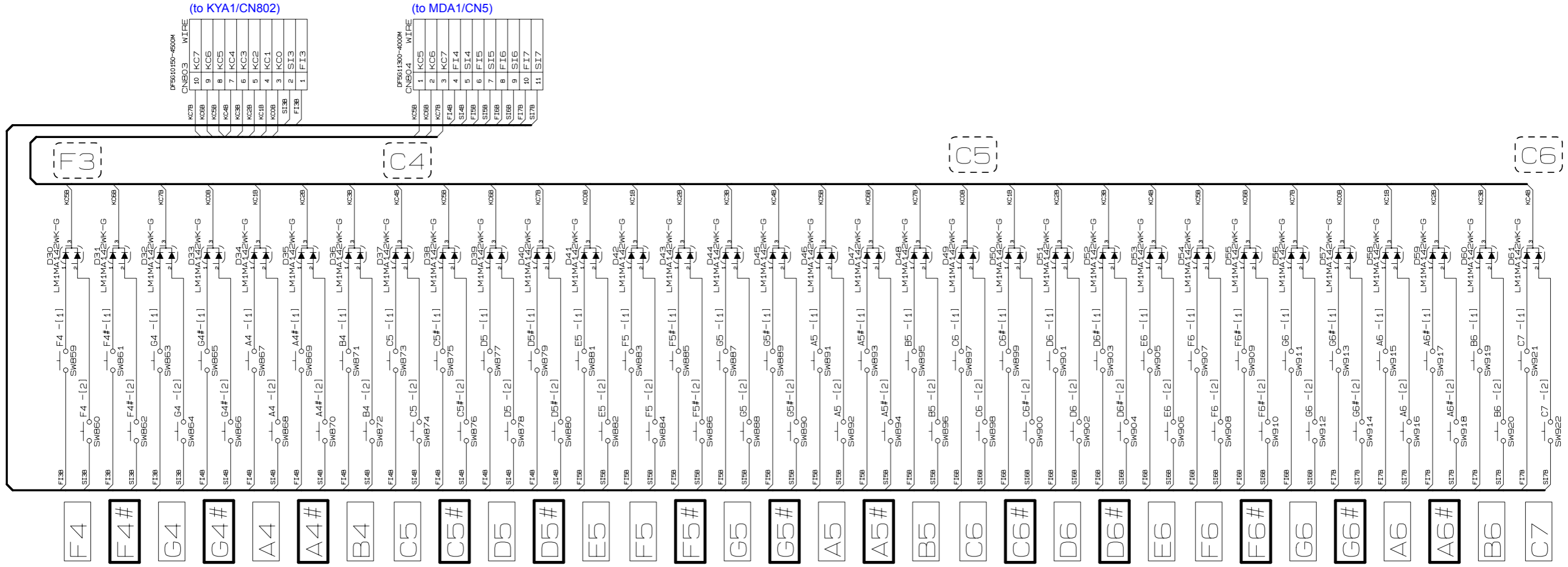
(to MDA1/CN4)

(to KYA2/CN803)

DF5613460-400M	CNBO1	WIREF
1	F10A	F10
2	S10A	S10
3	F11A	F11
4	S11A	S11
5	F12A	F12
6	S12A	S12
7	F13A	F13
8	K10A	S13
9	K11A	KC0
10	K12A	KC1
11	K13A	KC2
12	K14A	KC3
13	K15A	KC4

DF5610150-4600M	CNBO2	WIREF
1	F13A	F13
2	S13A	S13
3	K10A	KC0
4	K11A	KC1
5	K12A	KC2
6	K13A	KC3
7	K14A	KC4
8	K15A	KC5
9	K16A	KC6
10	K17A	KC7

Keyboard PCB: M802-KYA2



(to KYA1/CN802)

DF5610150-400M	CN803	WIRE
KC7B	10	KC7
KC6B	9	KC6
KC5B	8	KC5
KC4B	7	KC4
KC3B	6	KC3
KC2B	5	KC2
KC1B	4	KC1
KC0B	3	KC0
SI3B	2	SI3
FI3B	1	FI3

(to MDA1/CN5)

DF5611300-400M	CN804	WIRE
KC5B	1	KC5
KC6B	2	KC6
KC7B	3	KC7
FI4B	4	FI4
SI4B	5	SI4
FI5B	6	FI5
SI5B	7	SI5
FI6B	8	FI6
SI6B	9	SI6
FI7B	10	FI7
SI7B	11	SI7

M802-KYA2

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