

Genos

DIGITAL WORKSTATION / **OPTION SPEAKER / GNS-MS01**

SERVICE MANUAL



Genos



GNS-MS01

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IMPORTANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

WARNING : Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

IMPORTANT : This presentation or sale of this manual to any individual or firm does not constitute authorization certification, recognition of any applicable technical capabilities, or establish a principal-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING : Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground bus in the unit (heavy gauge black wires connect to this bus.)

IMPORTANT : Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.


WARNING: This product contains chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHAT SO EVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/ flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

■ WARNING

Components having special characteristics are marked  and must be replaced with parts having specification equal to those originally installed.

■ SAVING DATA



Be sure to perform it

- Edited Song/Style/Voice/MIDI setup data, etc. are lost when you turn off the power to the instrument without saving. This also occurs when the power is turned off by the Auto Power Off function. Save the data to the instrument, or to USB flash drive/an external device such as a computer. Saving the data to USB flash drive/an external device is even more secure, since the data in the instrument may be lost due to some failure, an operation mistake, etc. Before using a USB flash drive.
- To protect against data loss through USB flash drive damage, we recommend that you save your important data onto spare USB flash drive or an external device such as a computer as backup data.
- System Setup data (data other than the edited Song/Style/Voice/MIDI setup data, etc.) is automatically stored, when you change the settings in a display page and then exit from that page. However, the data is lost if you turn off the power without properly exiting from the relevant display. For information about the System Setup data, refer to the Parameter Chart of the Data List on the website.
- If the power switch is not turned on for longer than about a week, the time (clock) setting may be lost.

SPECIFICATIONS

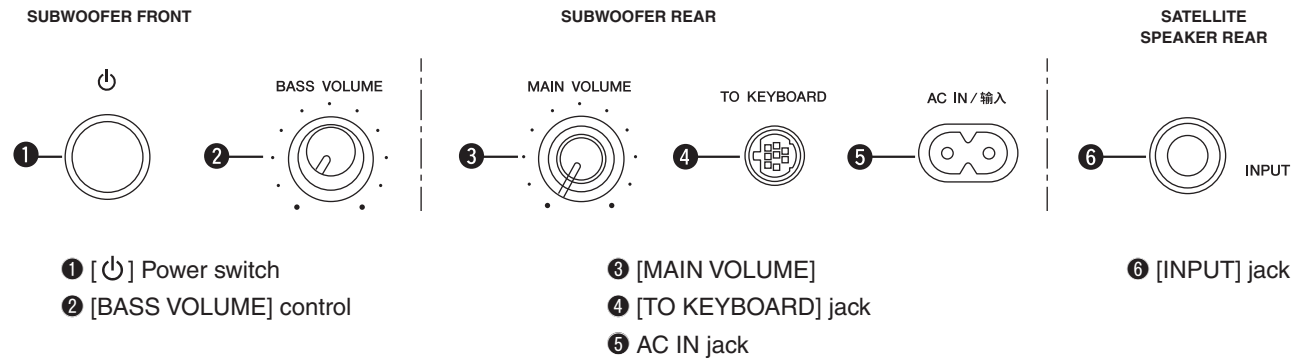
Product Name			Digital Keyboard
Size/Weight	Dimensions (W x D x H)		1234 mm x 456 mm x 138 mm (48-9/16" x 17-15/16" x 5-7/16")
	Weight		13.0 kg (28 lbs., 11 oz.)
Control Interface	Keyboard	Number of Keys	76
		Type	Organ (FSX), Initial Touch/Aftertouch
		Touch Response	Normal, Easy1, Easy2, Soft1, Soft2, Hard1, Hard2
	Other Controllers	Joystick	Yes
		Knobs	6 (Assignable)
		Sliders	9 (Assignable), Cross Fader
		Articulation Switches	ART. 1, ART. 2, ART. 3
	Main Display	Type	TFT Color Wide VGA LCD
		Size	800 x 480 dots 9 inch
		Touch Screen	Yes
		Language	English, German, French, Spanish, Italian
	Sub Display	Type	OLED (LIVE CONTROL View)
		Size	589 x 48 dots
		Language	English
	Panel	Language	English
Voices	Tone Generation	Tone Generation Technology	AWM Stereo Sampling, AEM technology
	Polyphony		256 (max.)
	Preset	Number of Voices	1,652 Voices + 58 Drum/SFX Kits
		Featured Voices	10 Revo! Drums/SFX, 76 Ensemble, 390 Super Articulation!, 75 Super Articulation2!, 82 MegaVoice, 40 Sweet!, 81 Cool!, 160 Live!, 24 Organ Flutes!
	Compatibility		XG, GS, GM, GM2 (for Song playback)
Effects	Part		Right 1, Right 2, Right 3, Left
	Reverb		59 Preset + 3 User
	Chorus		107 Preset + 3 User
	DSP		Variation: 358 Preset(with VCM) + 3 User Insertion 1–28: 358 Preset(with VCM) + 10 User
	Master Compressor		5 Preset + 5 User
	Master EQ		5 Preset + 2 User
	Vocal Harmony		54 Preset + 60 User (*) * The User number represents the total of Vocal Harmony and Synth Vocoder.
	Synth Vocoder		20 Preset + 60 User (*) * The User number represents the total of Vocal Harmony and Synth Vocoder.
	Others		Mic Effect: Noise Gate, Compressor, 3 Band EQ, Vocal Effect: 23
Styles	Preset	Number of Styles	550
		Featured Styles	491 Pro, 39 Session, 10 Free Play, 10 DJ
		Fingering	Single Finger, Fingered, Fingered On Bass, Multi Finger, All Fingered, Full Keyboard, All Full Keyboard
		Style Control	INTRO x 3, MAIN VARIATION x 4, FILL x 4, BREAK, ENDING x 3
	Other Features	One Touch Setting (OTS)	4 for each Style
	Compatibility		Style File Format (SFF), Style File Format GE (SFF GE)
Expandability	Expansion Voice		Yes (approx. 1.8 GB)
	Expansion Style		Yes (Internal Memory)
Songs (MIDI)	Preset	Number of Preset Songs	9 Demo Songs, 11 Preset Songs
	Recording	Number of Tracks	16
		Data Capacity	approx. 300 KB per Song
		Function	Quick Recording, Multi Track Recording, Step Recording
	Format	Playback	SMF (Format 0, Format 1), XF
		Recording	SMF (Format 0)
Songs (Audio)	Recording	Data Capacity	approx. 0.8 GB (80 minutes) per Song
	Format	Playback	WAV (44.1kHz, 16bit, stereo), MP3 (44.1kHz, 64/96/128/256/320kbps, stereo)
		Recording	WAV (44.1kHz, 16bit, stereo)
	Time Stretch		Yes
	Pitch Shift		Yes
	Vocal Cancel		Yes

Multi Pads	Number of Multi Pad Banks		448 Banks x 4 Pads		
	Audio Link		Yes		
Functions	Voices	Harmony	Yes		
		Arpeggio	Yes		
		Panel Sustain	Yes		
		Mono/Poly	Yes		
	Styles	Style Creator	Yes		
		OTS Information	Yes		
	Songs	Score Display Function	Yes		
		Lyrics Display Function	Yes		
		Lesson/Guide	Follow Lights, Any Key, Karao-Key, Your Tempo		
	Multi Pads	Multi Pad Creator	Yes		
	Registration Memory	Number of Buttons	10		
		Control	Registration Sequence, Freeze		
	Playlist	Number of Records	2,500 (max.) Records per Playlist file		
	Search		Registration Bank		
	Demo		Yes		
	Overall Controls	Metronome	Yes		
		Tempo Range	5 – 500, Tap Tempo		
		Transpose	-12 – 0 – +12		
		Tuning	414.8 – 440.0 – 466.8 Hz (approx. 0.2Hz increments)		
		Octave Button	Yes		
		Scale Type	9 Types		
	Miscellaneous	Direct Access	Yes		
		Text/Image Display Function	Yes		
		Wallpaper Customization	Yes		
Storage and Connectivity	Storage	Internal Memory (User Drive)	Yes (approx. 58 GB)		
		External Drives	USB flash drive		
	Connectivity	Headphones	Standard stereo phone jack (PHONES)		
		Microphone	Yes (Combo Jack), Phantom Power (+48V) available		
		MIDI	MIDI A (IN/OUT), MIDI B (IN/OUT)		
		AUX IN	L/L+R, R		
		LINE OUT	MAIN (L/L+R, R), SUB (1, 2), SUB (3, 4 / AUX OUT)		
		DIGITAL OUT (Audio)	Yes (coaxial)		
		FOOT PEDAL	1 (SUSTAIN), 2 (ART.1), 3 (VOLUME), Function Assigna		
		USB TO DEVICE	Yes (x 3)		
		USB TO HOST	Yes		
		Wireless LAN	Yes (*) • Standards: IEEE802.11b/g/n (IEEE802.11n 5GHz: not compatible) • Range of transmit frequency (channels): Models for United States and Canada: 2400–2472 MHz (Channels 1–11) Others: 2400–2483.5 MHz (Channels 1–13) • Maximum RF output power: 14 dBm • Security: WEP, WPA2-PSK(AES), WPA/WPA2 mixed PSK * May not be included, depending on your area. Check with your Yamaha dealer.		
		Power Supply		Auto Power Off	Yes
		Included Accessories		• Owner's Manual • AC Power Cord • Music Rest, two Music Rest Brackets • Online Member Product Registration	
Separately Sold Accessories (May not be available depending on your area.)		• Option Speaker: GNS-MS01 • Headphones: HPH-50, HPH-100, HPH-150 • Footswitch: FC4A, FC5 • Foot Controller: FC7 • Wireless MIDI Adaptor: UD-BT01, MD-BT01 • Keyboard Stand: L-7B			

SPECIFICATIONS (GNS-MS01)

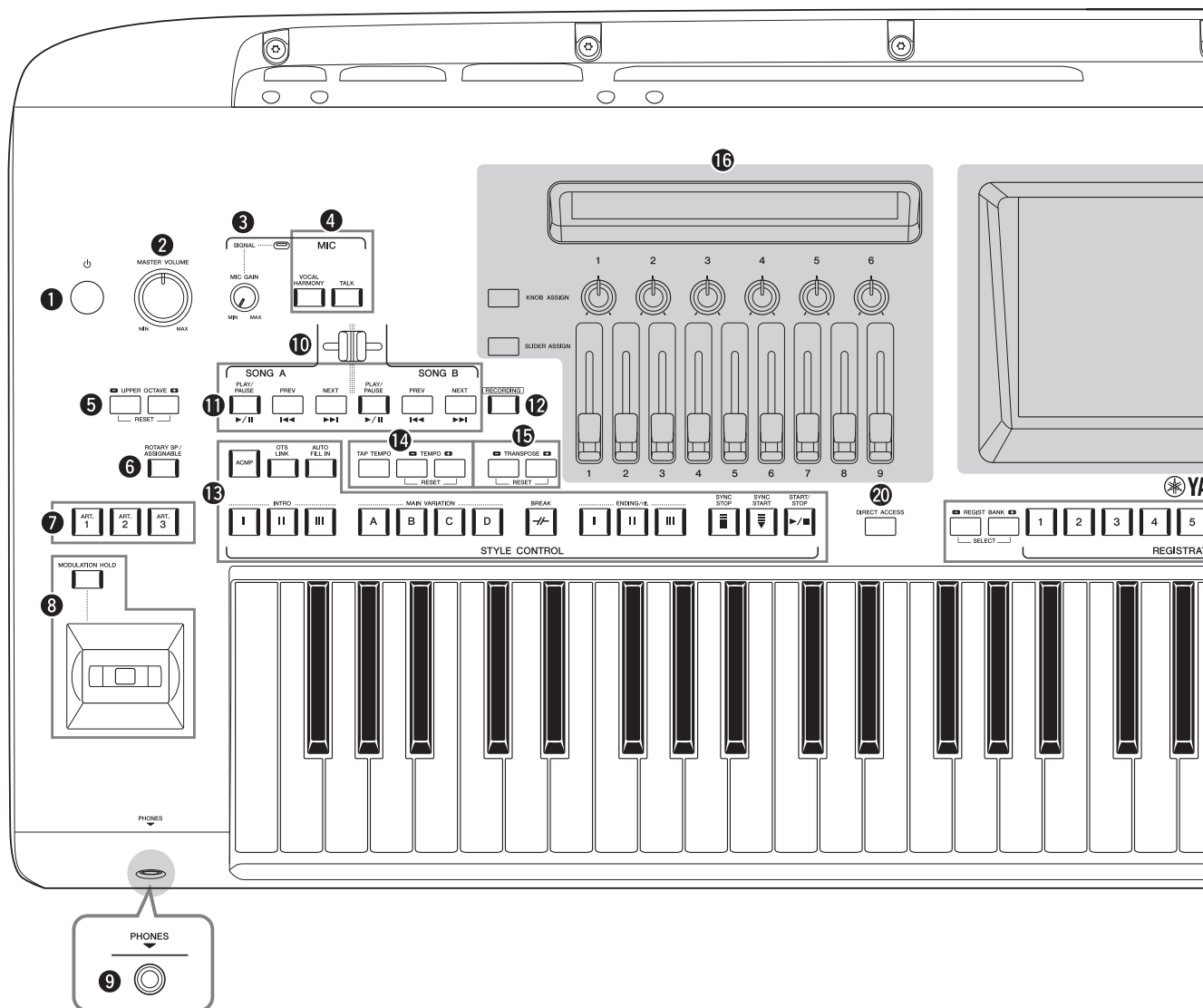
Output power	Satellite speakers 20 W + 20 W (1k Hz, 4 Ω) Subwoofer 40 W (100 Hz, 8 Ω)
Frequency response	40 Hz to 20 kHz (-10 dB)
Speaker unit	Satellite speakers Tweeter 2 cm (0.8") dome Midrange 8 cm (3") cone, magnetic shielding Subwoofer 16 cm (6.5") cone
Power supply	120-240 V ~ , 50/60 Hz
Dimensions (W x D x H)	Satellite speakers 110 (4.3") x 179 (7") x 157 (6.2") mm Subwoofer 351 (13.8") x 343 (13.5") x 221 (8.7") mm
Weight	Satellite speakers 1.1 kg (2 lbs., 7 oz.) x 2 Subwoofer 6.5 kg (14 lbs., 5 oz.)
Accessories	Speaker bracket x 2, 8-pin mini DIN cable x 1, phone cable x 2, AC power cord, Owner's Manual

PANEL LAYOUT (GNS-MS01)

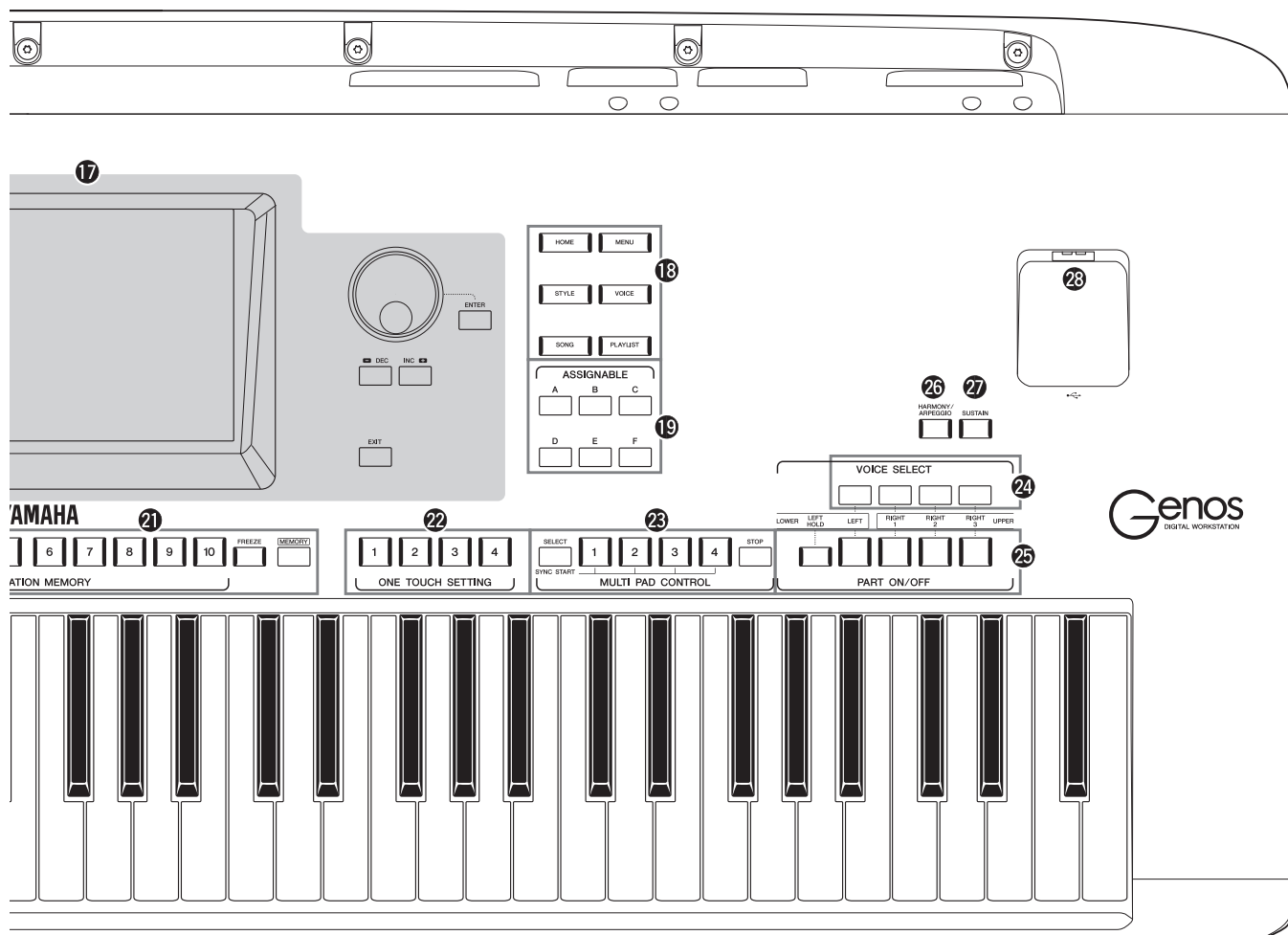


PANEL LAYOUT

• Top Panel



- | | |
|--------------------------------------|-------------------------------------|
| ① [⏻] (Standby/On) switch | ⑨ [PHONES] jack |
| ② [MASTER VOLUME] dial | ⑩ Cross Fader |
| ③ [MIC GAIN] knob | ⑪ SONG A/SONG B buttons |
| ④ MIC buttons | ⑫ [RECORDING] button |
| ⑤ UPPER OCTAVE buttons | ⑬ STYLE CONTROL buttons |
| ⑥ [ROTARY SP /ASSIGNABLE] button | ⑭ [TAP TEMPO]/TEMPO buttons |
| ⑦ [ART. 1]/[ART. 2]/[ART. 3] buttons | ⑮ TRANSPOSE buttons |
| ⑧ Joystick, [MODULATION HOLD] button | ⑯ LIVE CONTROL (view/knobs/sliders) |



17 Touch LCD and related controls

18 Gateway buttons

19 ASSIGNABLE buttons

20 DIRECT ACCESS button

21 REGISTRATION MEMORY buttons

22 ONE TOUCH SETTING buttons

23 MULTI PAD CONTROL buttons

24 VOICE SELECT buttons

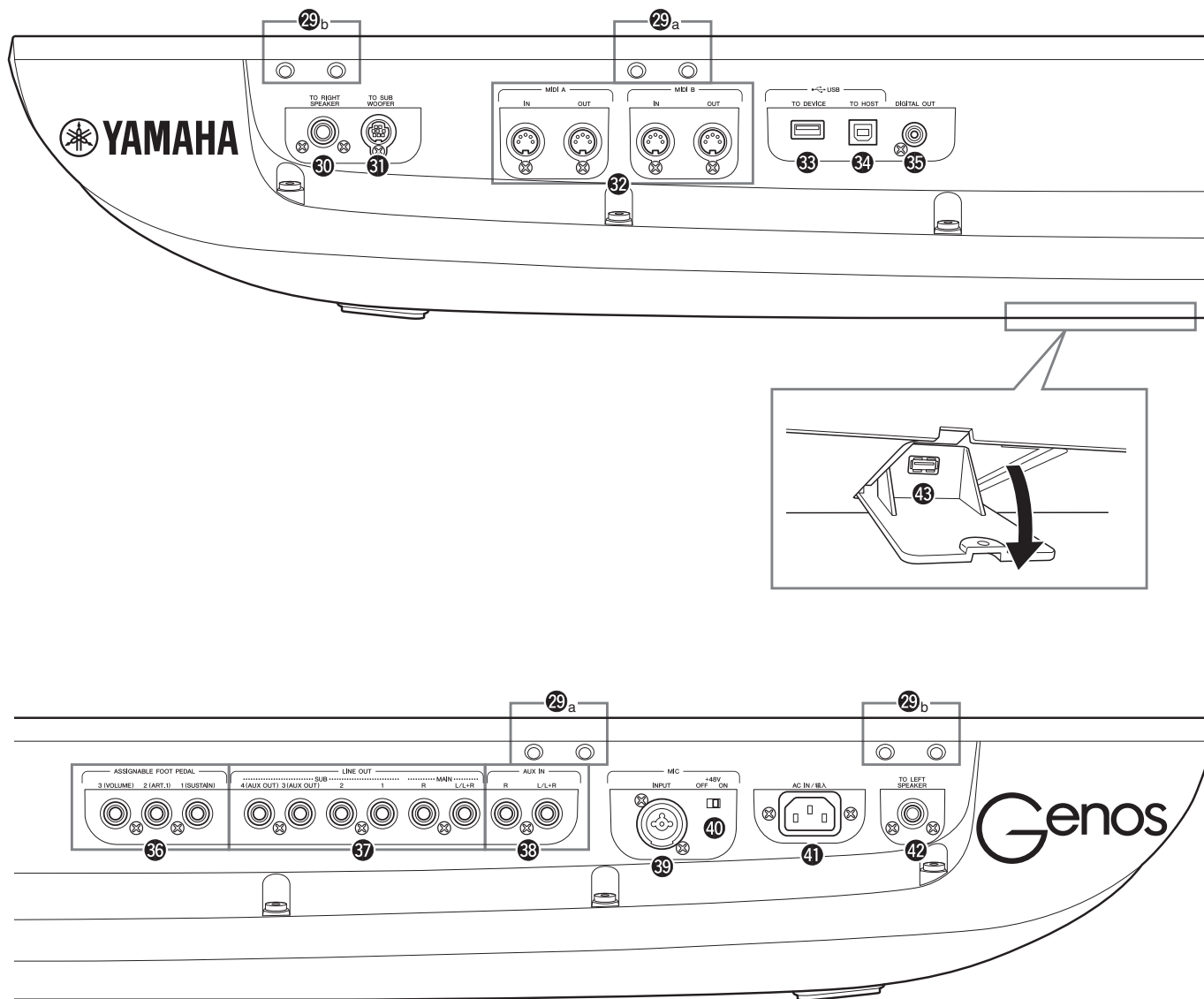
25 PART ON/OFF buttons

26 [HARMONY/ARPEGGIO] button

27 [SUSTAIN] button

28 [USB TO DEVICE] terminal

• Rear Panel and Bottom



29a Slots (For the Music Rest Brackets)

29b Slots (For the Speaker Brackets of Optional GNS-MS01 speaker)

30 [TO RIGHT SPEAKER] jack
(For the Optional set of Speaker)

31 [TO SUB WOOFER] terminal
(For the Optional set of Speaker)

32 MIDI terminals

33 [USB TO DEVICE] terminal

34 [USB TO HOST] terminal

35 [DIGITAL OUT] jack

36 ASSIGNABLE FOOT PEDAL jacks

37 LINE OUT jacks

38 AUX IN jacks

39 MIC INPUT jack

40 [+48V] switch

41 AC IN jack

42 [TO LEFT SPEAKER] jack
(For the Optional set of Speaker)

43 [USB TO DEVICE] terminal

DISASSEMBLY PROCEDURE

Caution:

- If you want to turn the instrument or upper case unit upside down, prepare supporting materials and put the both end portions of the instrument or upper case unit on the supporting materials. (Fig. A)

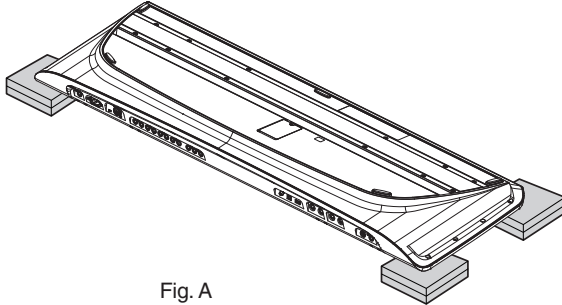
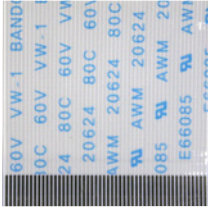


Fig. A

- **Notes on Flat Cable**
Contacts are visible from the back. Pay attention not to insert and install the cable to the connector inversely. (Photo A)



Front Side



Back Side

Photo A

- During reassembly, reinstall the cord holder, GND wire and ferrite core that were removed during disassembly as they were before removal.
- During assembly, pay attention that connectors, cables or the like are not pinched by circuit boards, frames, etc.

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1. Separation Upper Case Assembly and Lower Case Assembly

(Time required: About 5 minutes)

1-1 Remove the six (6) screws marked [220], the fifteen (15) screws marked [230A], and the seven (7) screws marked [240A], then lift up the back of the upper case assembly slightly, slide it forward, and remove the upper case assembly while being careful of the connector assembly. (Fig. 1, Photo 1)

1-2 Remove all of the wire bundles that connect the upper case assembly and the lower case assembly, then separate the upper case assembly from the lower case assembly. (Fig. 1)

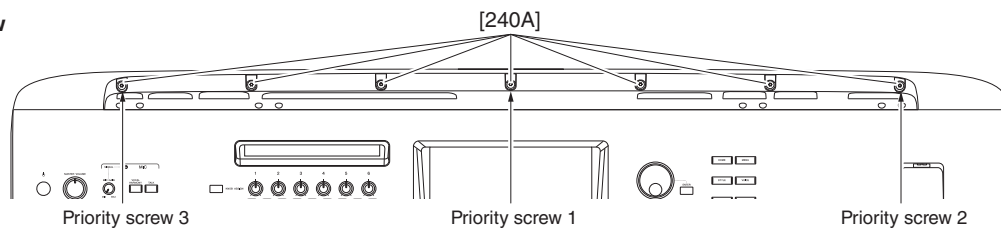
* **When installing the upper case assembly and lower case assembly, first tighten the three (3) priority screws in order as shown in Fig. 1.**

* **When installing the upper case assembly and lower case assembly, tighten marked [220] before marked [230A]. (Fig. 1)**



Photo 1

• Top View



• Bottom View

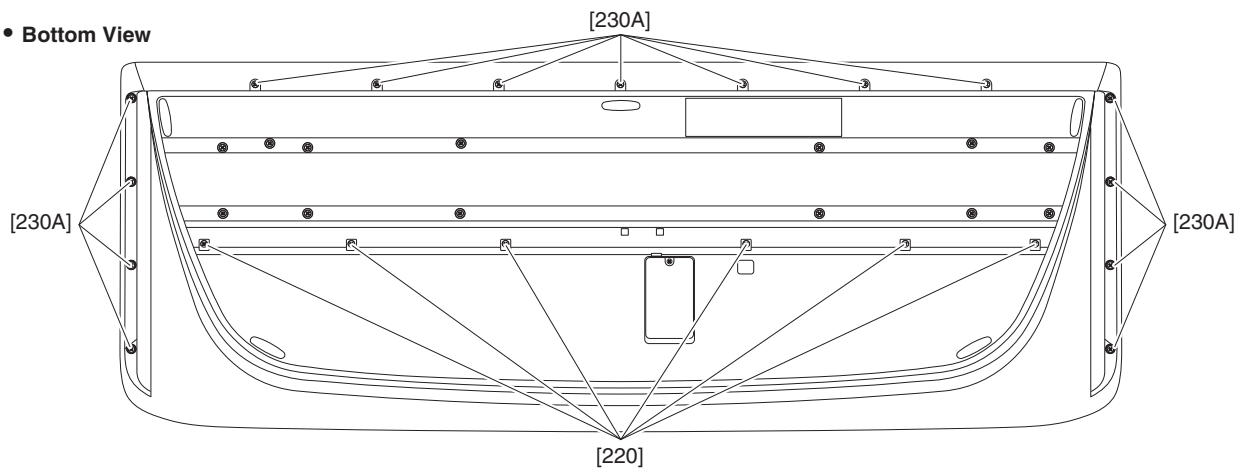


Fig. 1

Disassembly of the Upper case assembly.

* Before disassembly, remove the upper case assembly in advance.
(See procedure 1 on page 10.)

2. DM Circuit Board

(Time required: About 8 minutes)

- 2-1 Remove the seven (7) screws marked [920A]. The DM cover can then be removed. (Fig. 2)
- 2-2 Remove the four (4) screws marked [920B] and the five (5) screws marked [950A]. The DM circuit board can then be removed. (Fig. 4)

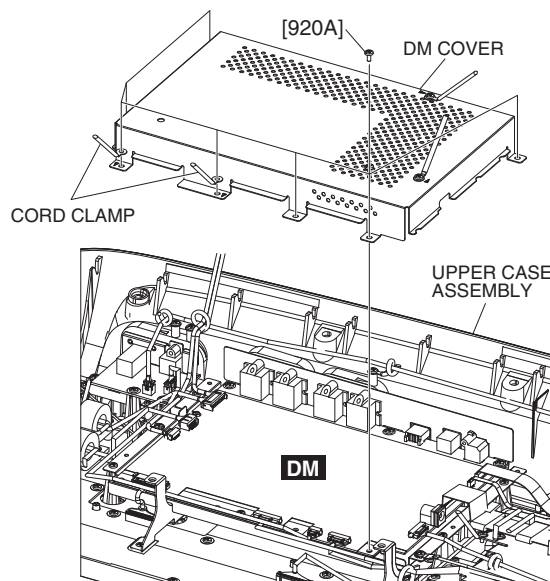


Fig. 2

3. CONNECTOR ASSEMBLY POWER

(AC INLET) (Time required: About 6 minutes)

- 3-1 Remove the two (2) screws marked [950B] and the screw marked [990]. The CONNECTOR ASSEMBLY POWER (Include AC INLET) can then be removed. (Fig. 3, Fig. 4)

4. MIC Circuit Board

(Time required: About 7 minutes)

- 4-1 Remove the two (2) screws marked [920C], the screw marked [920D] and the screw marked [990]. The MIC angle can then be removed. (Fig. 3)
- 4-2 Remove the three (3) screws marked [920E] and the two (2) screws marked [950C]. The MIC circuit Board can then be removed. (Fig. 4)

* When installing the MIC circuit board, tighten the priority screw marked [920E] as shown in Fig. 4.

5. AJACK Circuit Board

(Time required: About 7 minutes)

- 5-1 Remove the screw [920D], the three (3) screws marked [930A] and the six (6) screws marked [950D]. The AJACK circuit board can then be removed. (Fig. 3, Fig. 4)
- * The cushion FFC is not part of the AJACK circuit board. When replacing the AJACK circuit board, be sure to remove this part and attach it to the new AJACK circuit board. (Fig. 5)

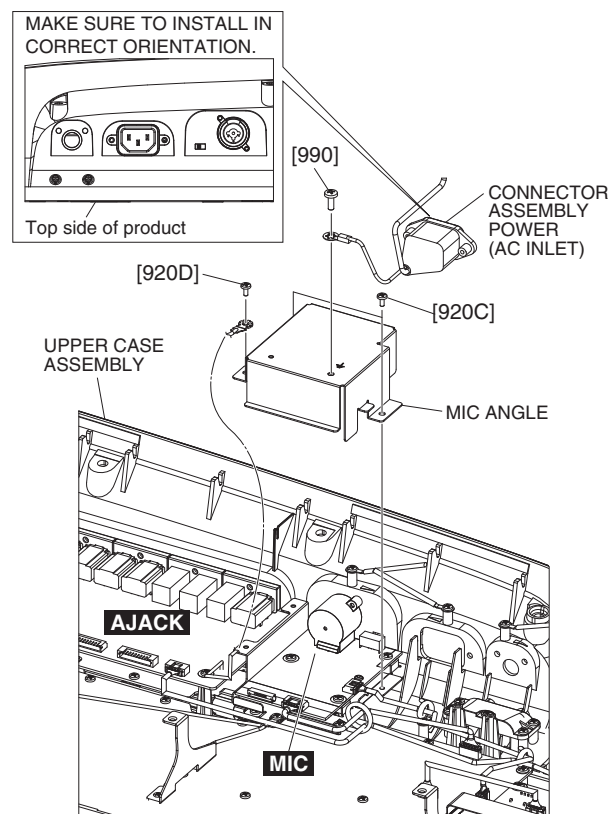


Fig. 3

6. OSPR Circuit Board

(Time required: About 6 minutes)

- 6-1 Remove the two (2) screws marked [930B] and the three (3) screws marked [950E]. The OSPR circuit board can then be removed. (Fig. 4)

7. OSPL Circuit Board

(Time required: About 6 minutes)

- 7-1 Remove the two (2) screws marked [930C] and the two (2) screws marked [950F]. The OSPL circuit board can then be removed. (Fig. 4)

8. USB Circuit Board (FRONT)

(Time required: About 6 minutes)

- 8-1 Remove the four (4) screws marked [920F]. The USB circuit board can then be removed. (Fig. 4)

9. PNL2 Circuit Board

(Time required: About 6 minutes)

- 9-1 Remove the five (5) screws marked [930D]. The PNL2 circuit board can then be removed. (Fig. 4)

10. HP Circuit Board

(Time required: About 6 minutes)

- 10-1 Remove the three (3) screws marked [930E]. The HP circuit board can then be removed. (Fig. 4)

11. JOYSTICK with WIRE

(Time required: About 6 minutes)

- 11-1 Remove the four (4) screws marked [940]. The JOYSTICK can then be removed. (Fig. 4)

12. LCD-IF Circuit Board

(Time required: About 6 minutes)

- 12-1 Remove the four (4) screws marked [920G]. The LCD-IF circuit board can then be removed. (Fig. 4)

13. MVR Circuit Board

(Time required: About 7 minutes)

- 13-1 Before disassembly, remove the MVR knob. (Fig. 6)

- 13-2 Remove the four (4) screws marked [930F]. The MVR circuit board can then be removed. (Fig. 4)

* The Cushion SW is not part of the MVR circuit board. (Fig. 4)

14. PT2 Circuit Board, WIRELESS LAN MODULE : Destination U, E, B

(Time required: About 6 minutes)

- 14-1 Remove the two (2) screws marked [930G]. The PT2 circuit board and WIRELESS LAN MODULE can then be removed. (Fig. 4, Photo 2)

* The UD cushion is not part of the PT2 circuit board. (Photo 2)

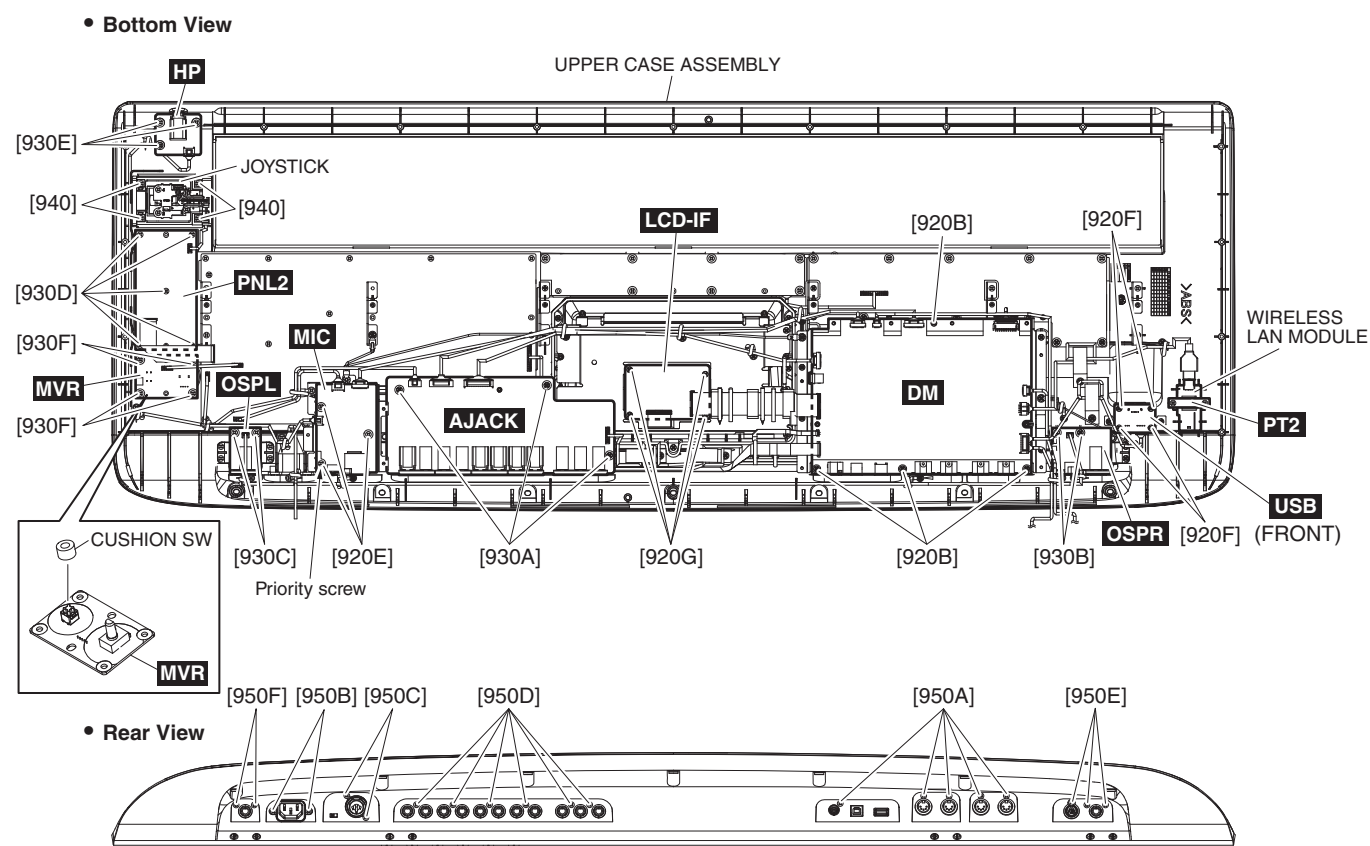


Fig. 4

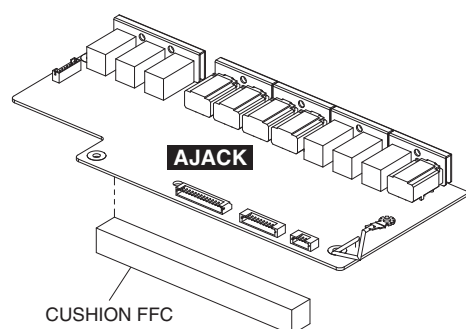


Fig. 5

• Top View

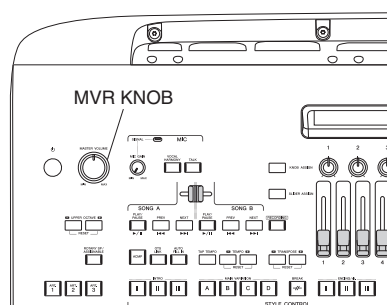


Fig. 6

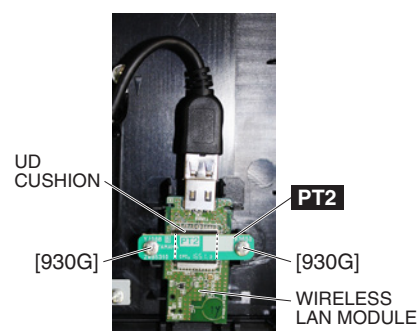


Photo 2

15. ENC Assembly

(Time required: About 11 minutes)

- 15-1 Before disassembly, remove the encder knob. (Fig. 7)
- 15-2 Remove the DM circuit board. (See procedure 2.)
- 15-3 Remove the four (4) screws marked [930H] and the screw marked [920H] and the two (2) screws marked [920I]. The DM angle can then be removed. (Fig. 8)
- 15-4 Remove the three (3) screws marked [930I]. The ENC assembly can then be removed. (Fig. 12)
- 15-5 Remove the hexagonal nut marked [A] and the washer marked [B]. The ENC circuit board can then be removed from the ENC stay. (Fig. 12)

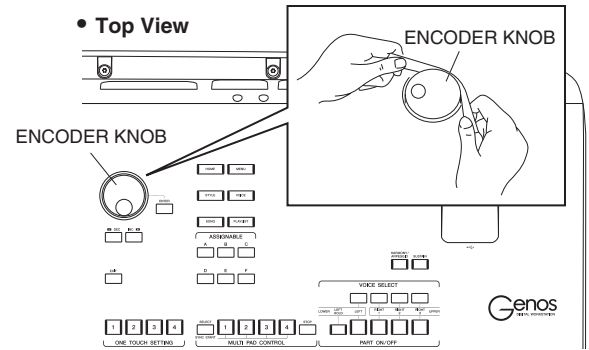


Fig. 7

16. LCD Assembly

(Time required: About 9 minutes)

- 16-1 Remove the DM cover. (See procedure 2-1.)
- 16-2 Remove the AJACK circuit board. (See procedure 5.)
- 16-3 Remove the screw marked [920H] and the four (4) screws marked [930J]. The LCD shield can then be removed. (Fig. 9)
- * **The LCD shield can be removed without removing the LCD-IF circuit board.**
- * **When installing the LCD shield, first attach the LCD shield to the LCD escutcheon, and press the LCD shield in the arrow direction, and then tighten with the screw [930J]. (Fig.9)**

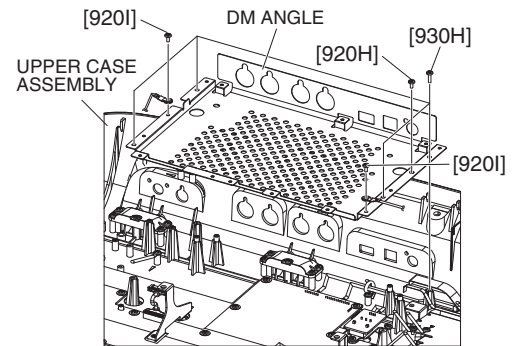


Fig. 8

- 16-4 Remove the LCD assembly. (Fig. 9)

17. PNR Circuit Board

(Time required: About 12 minutes)

- 17-1 Remove the DM circuit board. (See procedure 2.)
- 17-2 Remove the DM angle. (See procedure 15-3.)
- 17-3 Remove the four (4) screws marked [930K]. The two (2) panel stays can then be removed. (Fig. 12)
- 17-4 Remove the fifteen (15) screws marked [930L]. The PNR circuit board can then be removed. (Fig. 12)

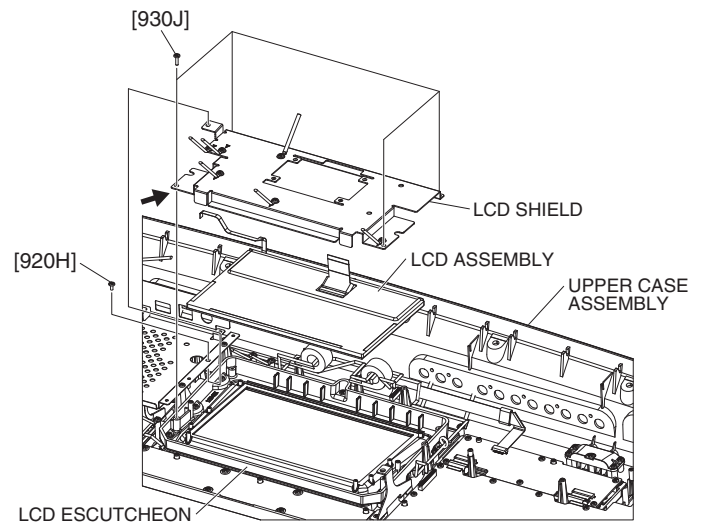


Fig. 9

18. PNC Circuit Board

(Time required: About 7 minutes)

- 18-1 Remove the two (2) screws marked [930M]. The panel stay can then be removed. (Fig. 12)
- 18-2 Remove the seven (7) screws marked [930N]. The PNC circuit board can then be removed. (Fig. 12)

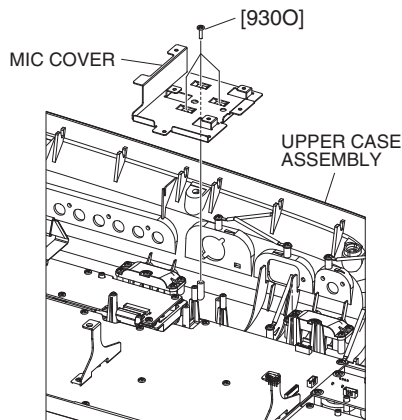


Fig. 10

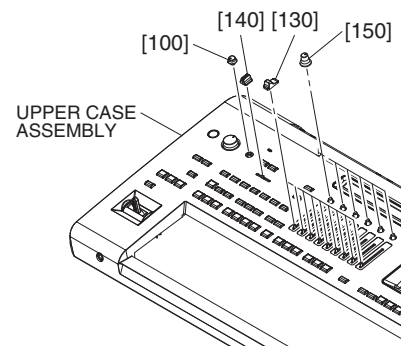


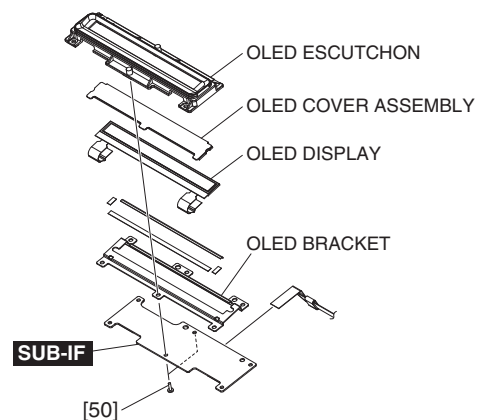
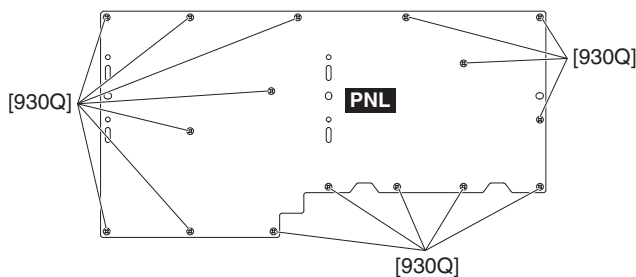
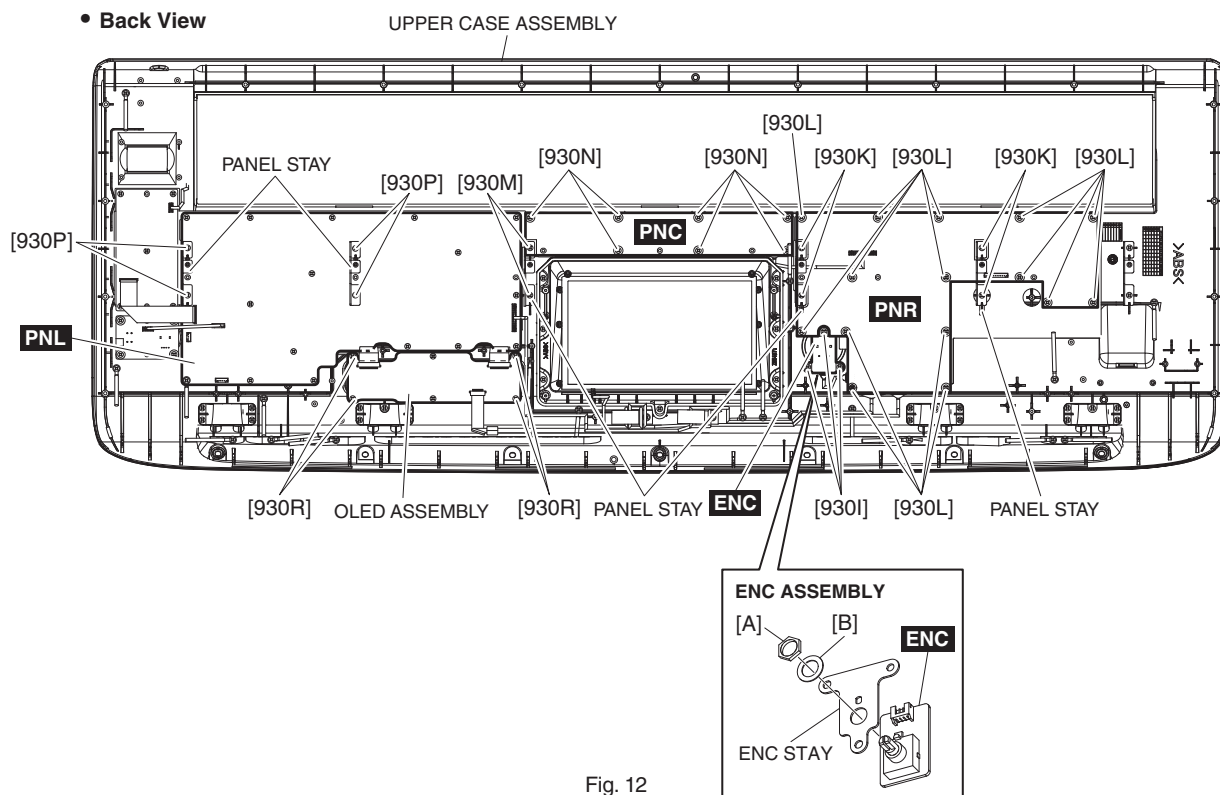
Fig. 11

19. PNL Circuit Board**(Time required: About 16 minutes)**

- 19-1 Before disassembly, Remove the MIC knob marked [100], the nine (9) slider knobs marked [130], the slider knob marked [140] and the six (6) VR knobs marked [150]. (Fig. 11)
- 19-2 Remove the MIC circuit board . (See procedure 4.)
- 19-3 Remove the AJACK circuit board . (See procedure 5.)
- 19-4 Remove the three (3) screws marked [930O]. The MIC cover can then be removed. (Fig. 10)
- 19-5 Remove the four (4) screws marked [930P]. The two (2) panel stays can then be removed. (Fig. 12)
- 19-6 Remove the sixteen (16) screws marked [930Q]. The PNL circuit board can then be removed. (Fig. 13)

20. SUB-IF Circuit Board, OLED Display**(Time required: About 11 minutes)**

- 20-1 Remove the MIC circuit board. (See procedure 4.)
- 20-2 Remove the AJACK circuit board . (See procedure 5.)
- 20-3 Remove the MIC cover. (See procedure 19-4.)
- 20-4 Remove the four (4) screws marked [930R]. The OLED assembly can then be removed. (Fig. 12)
- 20-5 Remove the two (2) screws marked [50]. The SUB-IF circuit board and OLED display can then be removed. (Fig. 14)



Disassembly of the Lower case assembly.

* Before disassembly, remove the lower case assembly in advance.
(See procedure 1 on page 10.)

21. JCT Circuit Board

(Time required: About 6 minutes)

- 21-1 Remove the three (3) screws marked [450A]. The JCT circuit board can then be removed. (Fig. 15)

* **When installing the JCT circuit board, first tighten the two (2) priority screws marked [450A] in order as shown in Fig. 15.**

22. USB Circuit Board (BOTTOM)

(Time required: About 6 minutes)

- 22-1 Remove the four (4) screws marked [450B]. The lower usb bracket can then be removed. (Fig. 15)
- 22-2 Remove the four (4) screws marked [50c]. The USB circuit board can then be removed. (Fig. 15, Photo 3)

* **Before disassembly, disconnect the USB device underneath the instrument. (Fig. 17)**

23. PT1 Circuit Board

(Time required: About 6 minutes)

- 23-1 Remove the two (2) screws marked [450C]. The PT1 circuit board can then be removed. (Fig. 15, Photo 3)

24. AC Adaptor (PA-300C)

(Time required: About 6 minutes)

- 24-1 Remove the six (6) screws marked [450D]. The AC adaptor bracket can then be removed. (Fig. 15)

- 24-2 Remove the AC adaptor. (Fig. 15)

* **The felt marked [160] are not parts of the AC adaptor. When replacing the AC adaptor, install the new felt marked [160] in the same way as they were before removal. (Fig. 16)**

25. Keyboard Unit (Time required: About 8 minutes)

- 25-1 Remove the twelve (12) screws marked [230B]. (Fig. 17)

- 25-2 Remove the five (5) screws marked [450E]. The MK unit can then be removed. (Fig. 15)

- 25-3 Remove the screw marked [40d] and the screw marked [40e]. The data line filter and wire harness clamp can then be removed from the keyboard unit. (Fig. 18)

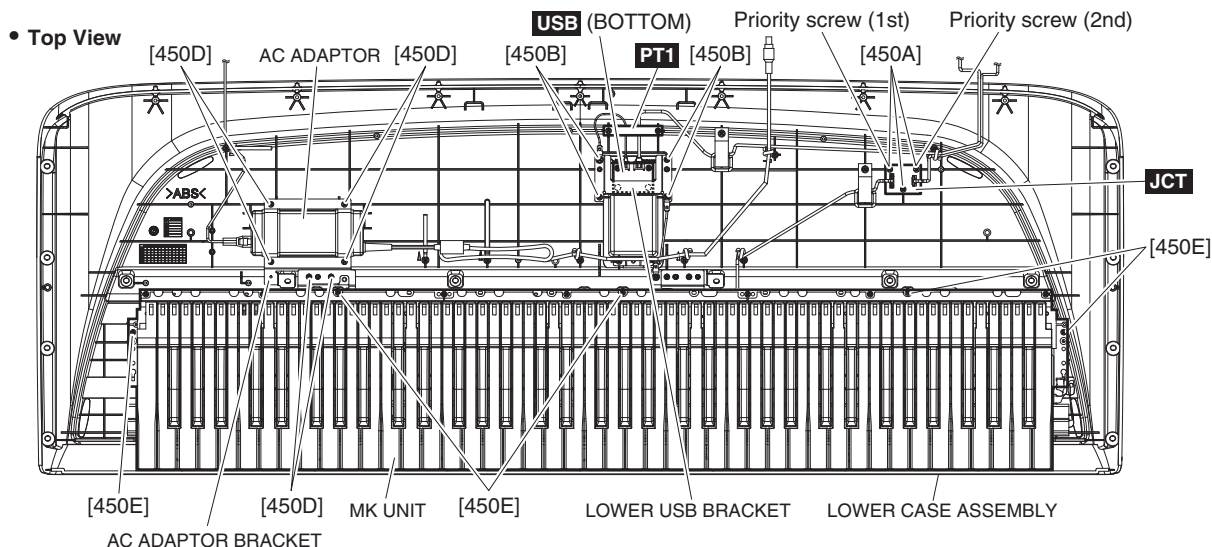


Fig. 15

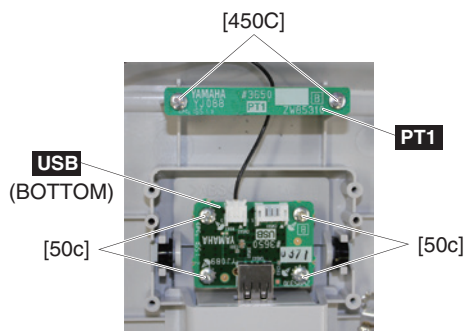


Photo 3

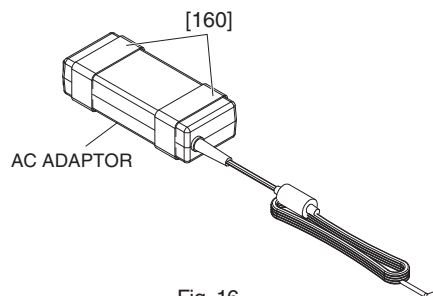


Fig. 16

• Bottom View

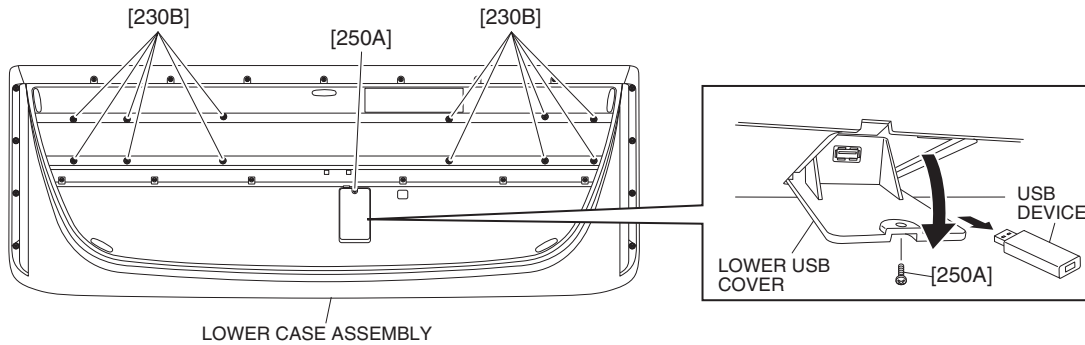


Fig. 17

• Bottom View

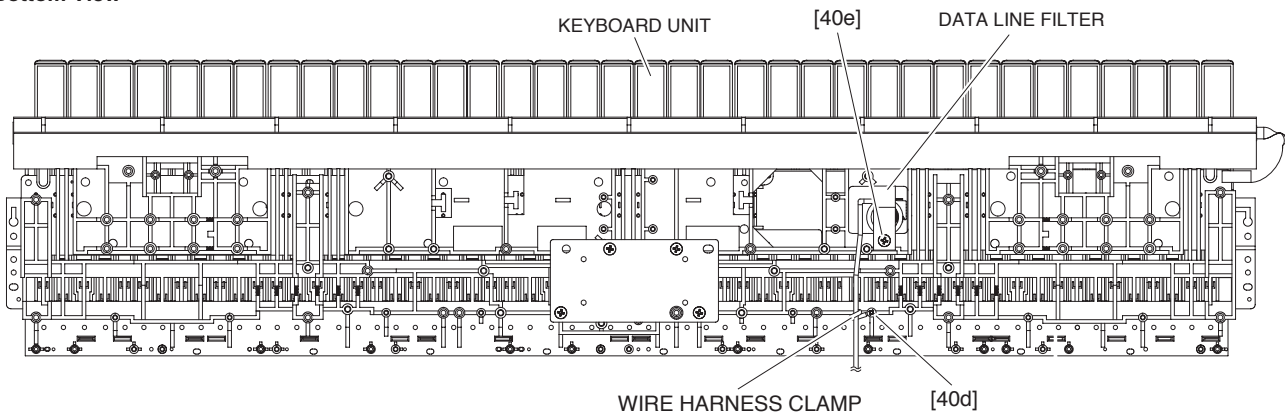


Fig. 18

26. Keys (White and Black Keys)

26-1 Remove the MK unit. (See procedure 25-2.)

26-2 Remove the key stoppers corresponding to the keys to be replaced. (Table 1, Fig. 19)

26-3 White key

26-3-1 Place the white key in the horizontal position and remove it, lifting while pushing rearward. (Photo 4)

* **At this time, a key guide cap may come off together. (Photo 6)**

26-4 Black key

26-4-1 Remove the white keys on the right and left sides of the black key to be removed. (Photo 4)

26-4-2 Place the black key in the horizontal position and remove it, lifting while pushing rearward. (Photo 5)



Photo 4

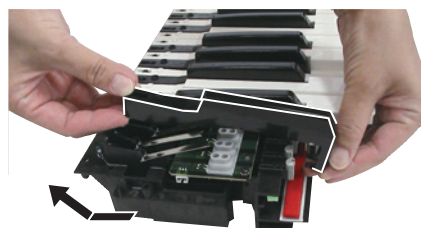


Photo 5

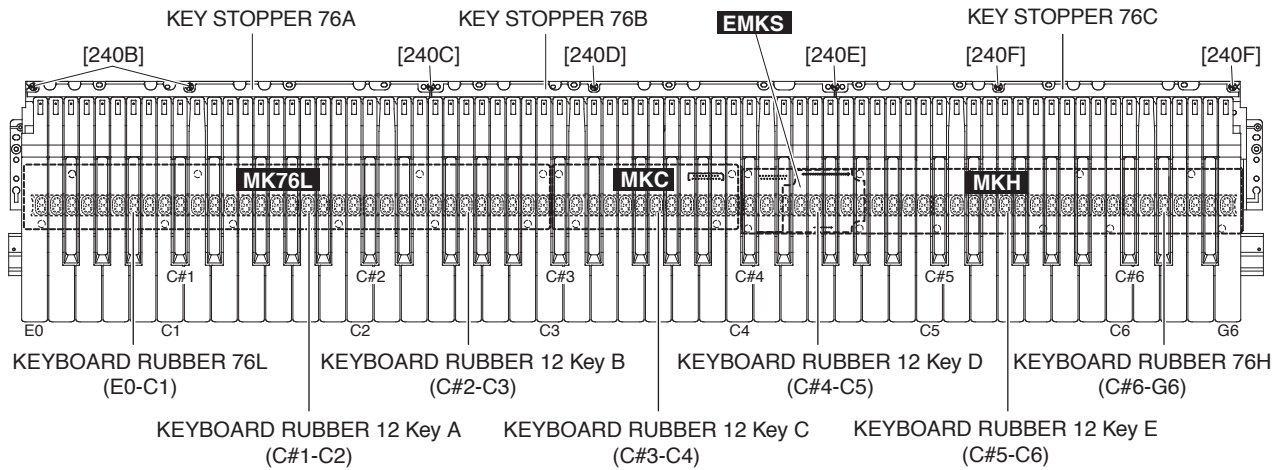


Fig. 19

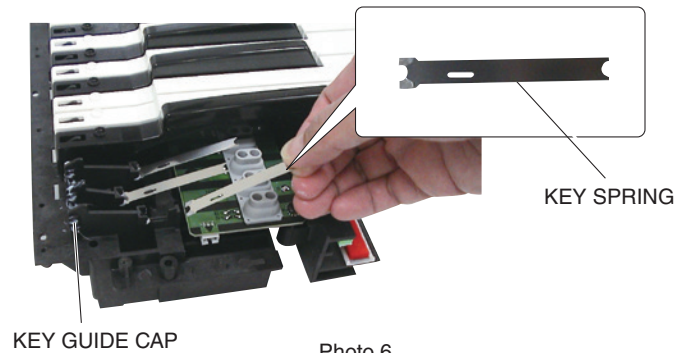


Photo 6

Table 1

	KEY STOPPER 76A	KEY STOPPER 76B	KEY STOPPER 76C
REMOVE SCREW	[240B] X 2, [240C] X 1	[240C] X 1, [240D] X 1 [240E] X 1	[240E] X 1, [240F] X 2

27. Installing Keys (White and Black Keys)

27-1 Black key

- 27-1-1 With the white keys to the right and left sides removed, lower the front end of the horizontal black key and fit it into the frame while pushing it rearward.

* **At this time, pay attention not to bend the key guide cap by lowering the front portion of the key too much. (Photo 6)**

27-2 White key

- 27-2-1 After installing the black keys, install the white keys in the same way as the black keys.

(See procedure 27-1.)

- 27-3 Install the removed key stoppers.

(Table 1, Fig. 19)

28. Disassembling Keyboard Unit

- 28-1 Remove the MK unit. (See procedure 25-2.)

28-2 Keyboard Rubber

- 28-2-1 Remove the key stoppers and keys listed in the table 2, corresponding to the keyboard rubbers to be removed. (Table 2, fig. 19) (See procedure 26.)

- 28-2-2 Pull out the keyboard rubber. (Fig. 19)

* **The orientation of keyboard rubber on the keyboard is previously designated. Pay attention not to install the keyboard rubber inversely. (Fig. 20)**

* **When installing the keyboard rubber, push it with the end of a clip. (Photo 7)**

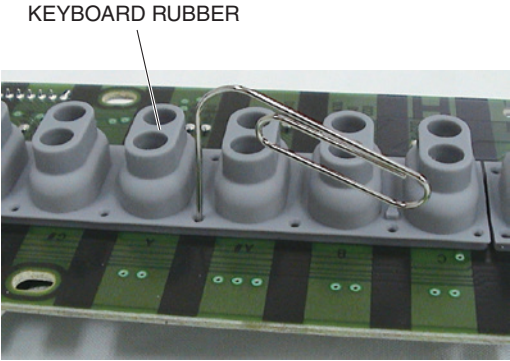


Photo 7

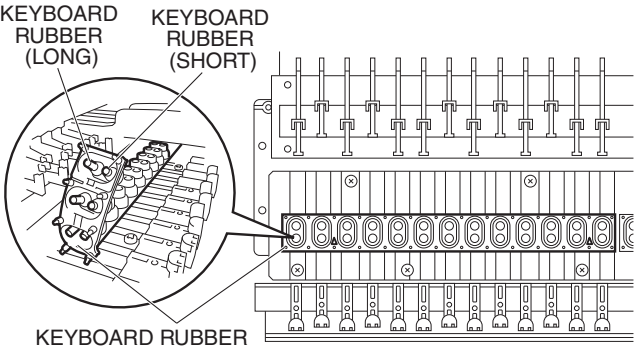


Fig. 20

Table 2

	KEYBOARD RUBBER 76L	KEYBOARD RUBBER 12KEY A	KEYBOARD RUBBER 12KEY B	KEYBOARD RUBBER 12KEY C	KEYBOARD RUBBER 12KEY D	KEYBOARD RUBBER 12KEY E	KEYBOARD RUBBER 76H
APPLICATION CIRCUIT BOARD	MK76L	MK76L	MK76L	MKC	MKH	MKH	MKH
REMOVE KEY STOPPER	76A	76A	76A,76B	76B	76B,76C	76C	76C
REMOVE KEY	E0-C-1	C#1-C2	C#2-C3	C#3-C4	C#4-C5	C#5-C6	C#6-G6

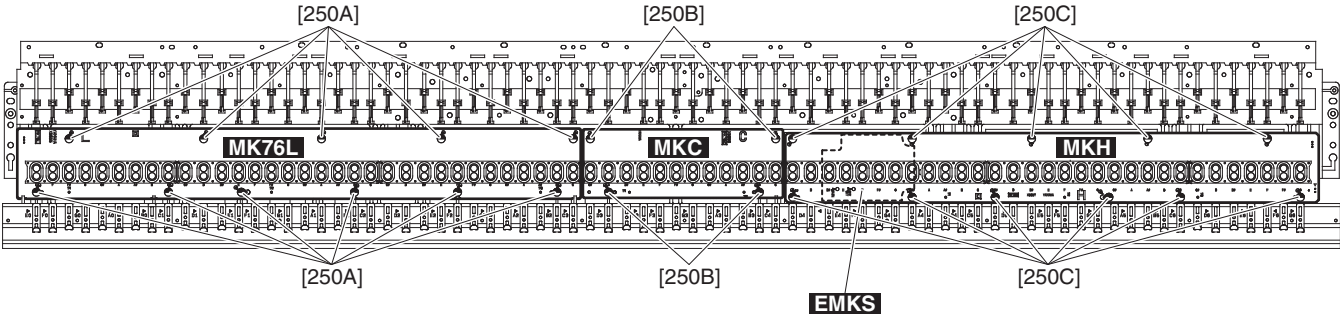


Fig. 21

- 28-3 **MK76L Circuit Board**
(Time required: About 16 minutes)
- 28-3-1 Remove the key stopper 76 A and key stopper 76 B.
(Table 1, Fig. 19)
- 28-3-2 Remove the keys and the key springs from E0 to C3.
(See procedure 26.)
- 28-3-3 Remove the eleven (11) screws marked [250A] and disconnect the connector from the underside of the keyboard unit. The MK76L circuit board can then be removed. (Fig. 21, Photo 8)
- * **The keyboard rubbers are not parts of the MK76L circuit board. When replacing the MK76L circuit board, remove the keyboard rubbers from the circuit board and install them to new circuit board.**

- 28-4 **MKC Circuit Board**
(Time required: About 16 minutes)
- 28-4-1 Remove the key stopper 76 B. (Table 1, Fig. 19)
- 28-4-2 Remove the keys and the key springs from C3 to C4.
(See procedure 26.)
- 28-4-3 Remove the four (4) screws marked [250B] and disconnect the connector from the underside of the keyboard unit. The MKC circuit board can then be removed. (Fig. 21, Photo 8)
- * **The keyboard rubber is not part of the MKC circuit board. When replacing the MKC circuit board, remove the keyboard rubber from the circuit board and install them to new circuit board.**

28-5 **MKH Circuit Board, EMKS Circuit Board**
(Time required: About 16 minutes)

28-5-1 Remove the key stopper 76B and key stopper 76C.
 (Table 1, Fig. 19)

28-5-2 Remove the keys and key springs from C4 to G6.
 (See procedure 26.)

28-5-3 Remove the eleven (11) screws marked [250C] and disconnect the connectors from the underside of the keyboard. The MKH circuit board can then be removed.
 (Fig. 21, Photo 8)

* **The EMKS circuit board is a part of the MKH circuit board and is soldered to the MKH circuit board at connectors. (Fig.22)**

* **The keyboard rubbers are not parts of the MKH circuit board. When replacing the MKH circuit board, remove the keyboard rubbers from the circuit board and install them to new circuit board.**

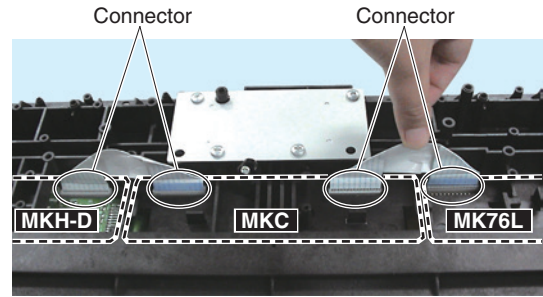


Photo 8

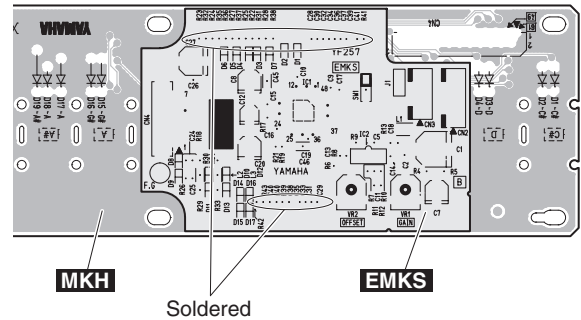


Fig. 22

CIRCUIT BOARDS

AJACK Circuit Board (YH862C0)22/23

DM Circuit Board (YH786C0)24/26

EMKS Circuit Board (YF257C0)21

ENC Circuit Board (YJ089C0)20

HP Circuit Board (YH862C0)21

JCT Circuit Board (YJ089C0)28

LCD-IF Circuit Board (YJ088C0)28

MIC Circuit Board (YJ088C0)29

MK76L Circuit Board (X5655D0)32/33

MKC Circuit Board (X5656D0)31

MKH Circuit Board (X5657C0)34/35

MVR Circuit Board (YJ089C0)30

OSPL Circuit Board (YH862C0)31

OSPR Circuit Board (YH862C0)30

PNC Circuit Board (YJ089C0)36/37

PNL Circuit Board (YJ088C0)38/40

PNL2 Circuit Board (YJ089C0)36/37

PNR Circuit Board (YJ089C0)42/43

PT1 Circuit Board (YJ088C0)45

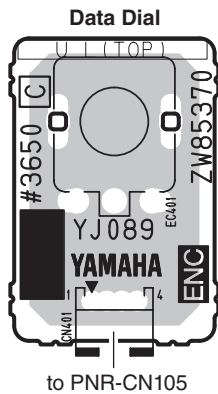
PT2 Circuit Board (YJ088C0)45

SUB-IF Circuit Board (YJ088C0)44

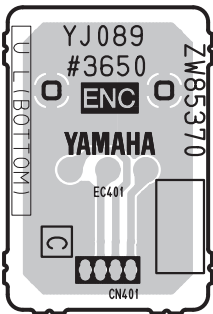
USB Circuit Board (FRONT/BOTTOM) (YJ089C0)45

Note: See parts list for details of circuit board component parts.

ENC Circuit Board



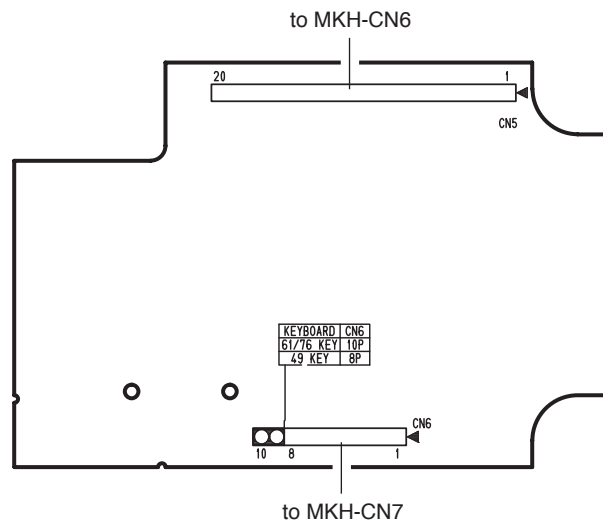
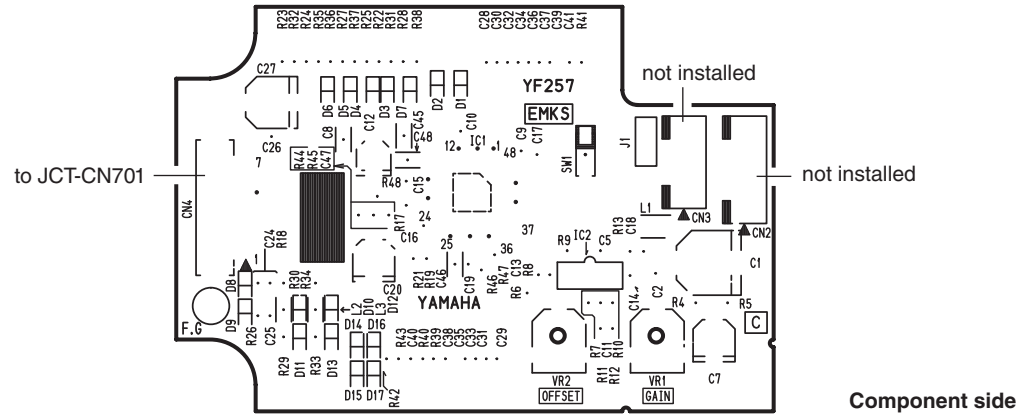
Component side



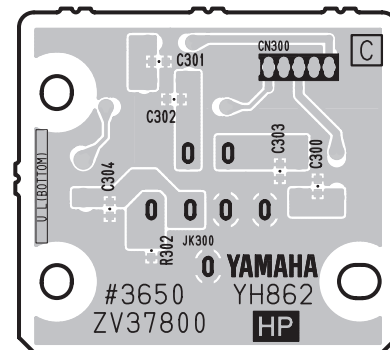
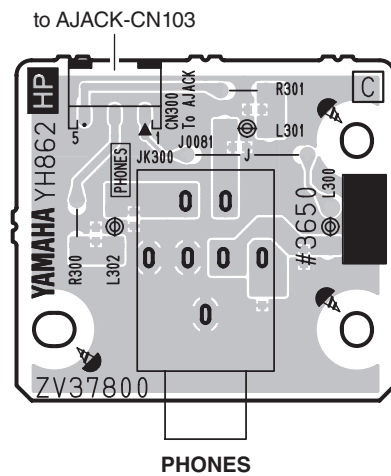
Pattern side

2NA-ZW85370

• EMKS Circuit Board

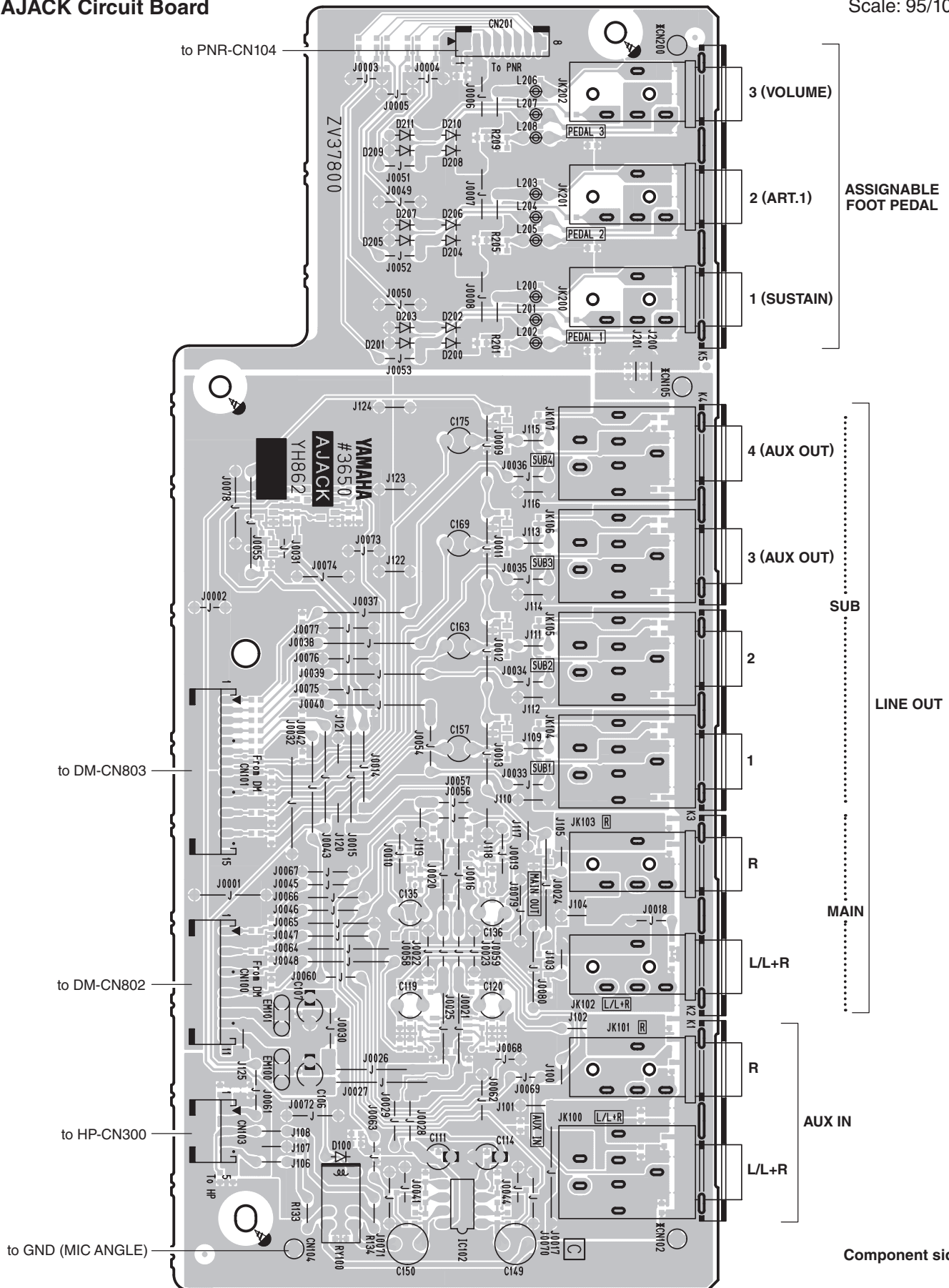


• HP Circuit Board



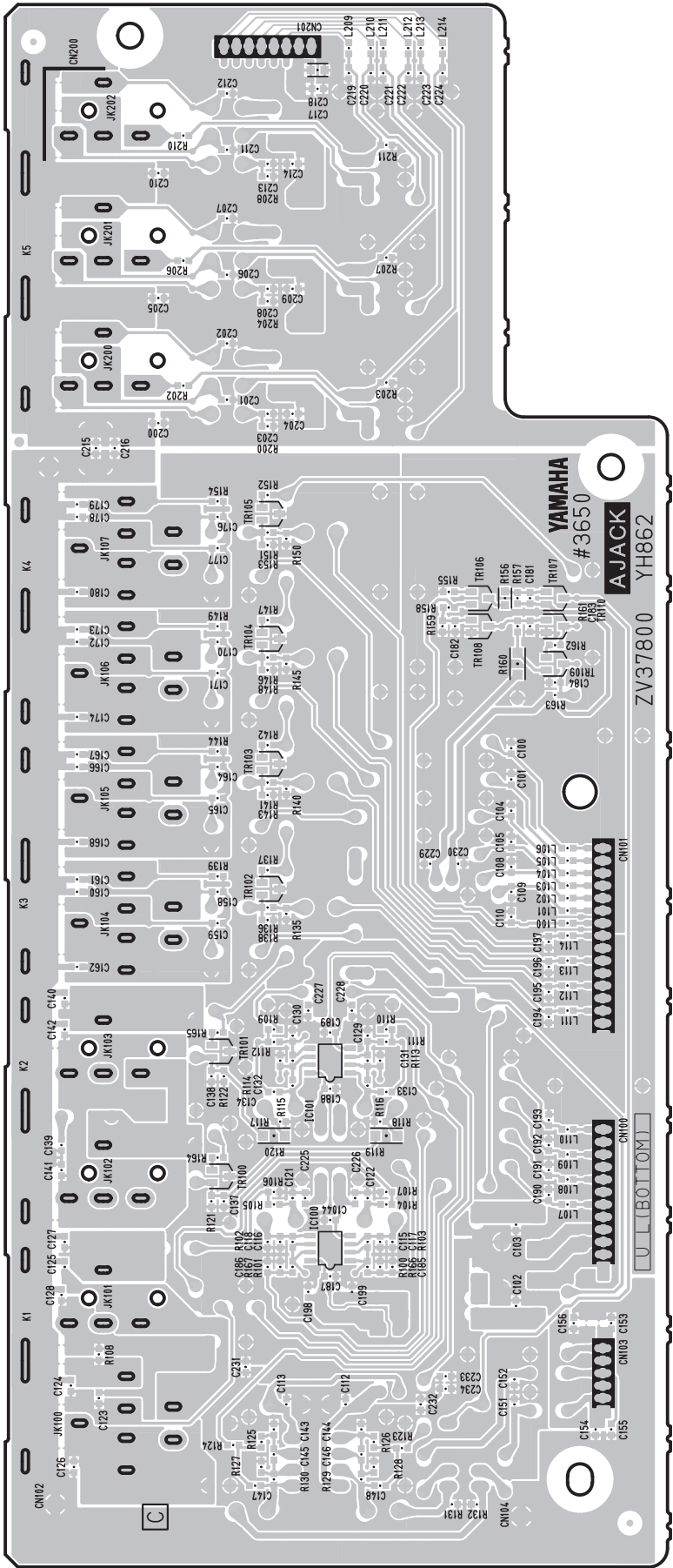
EMKS: 2NAKZ-ZF60830 
 HP : 2NA-ZV37800

ASSIGNABLE FOOT PEDAL



2NA-ZV37800

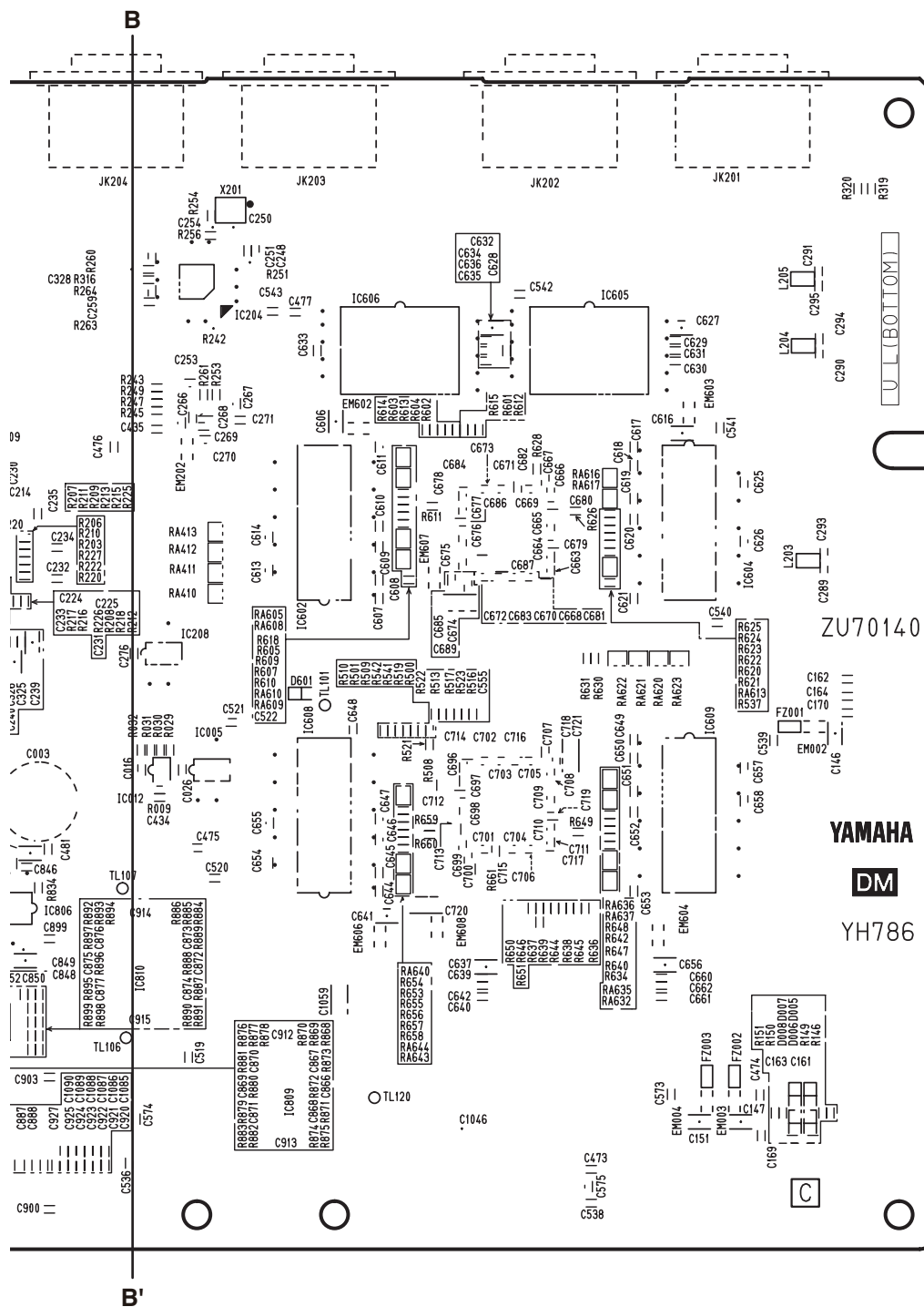
• AJACK Circuit Board





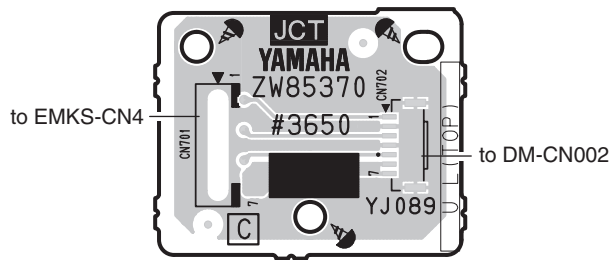




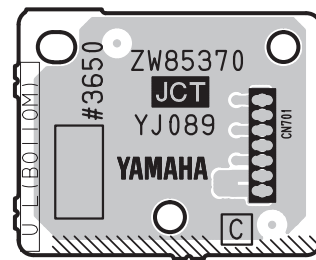


Pattern side

• JCT Circuit Board

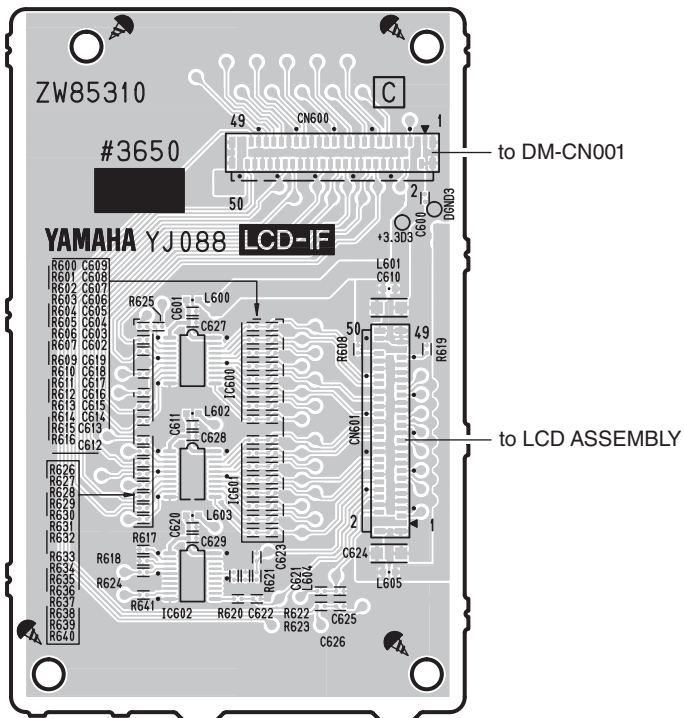


Component side

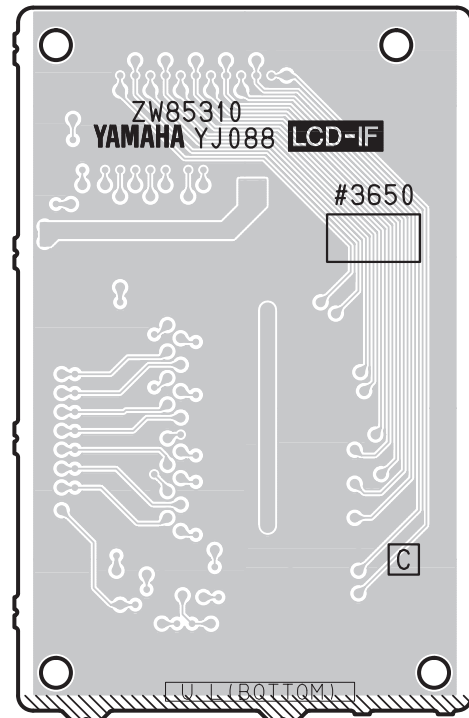


Pattern side

• LCD-IF Circuit Board



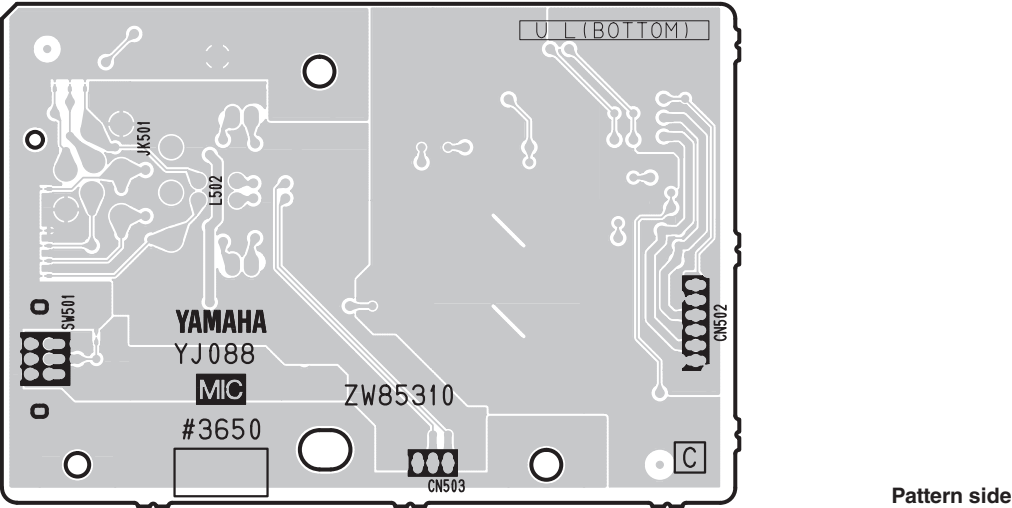
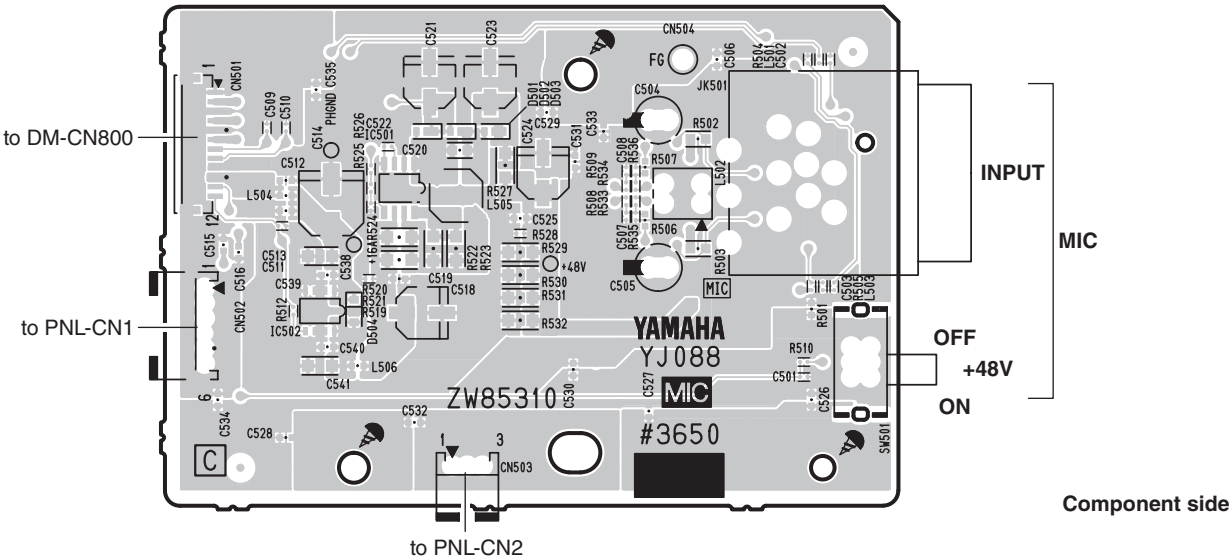
Component side



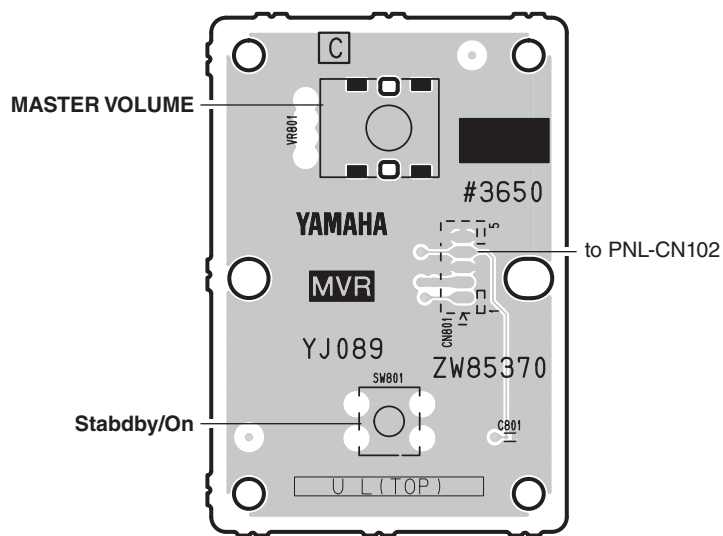
Pattern side

JCT : 2NA-ZW85370
LCD-IF: 2NA-ZW85310

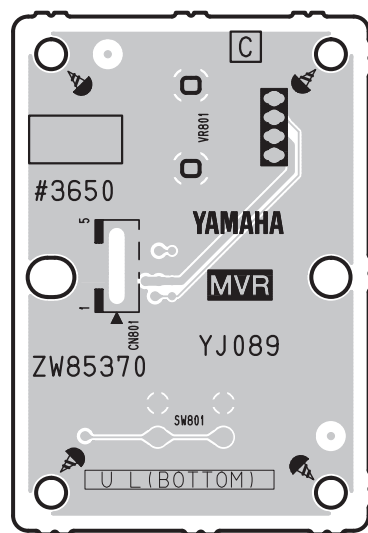
• MIC Circuit Board



• MVR Circuit Board

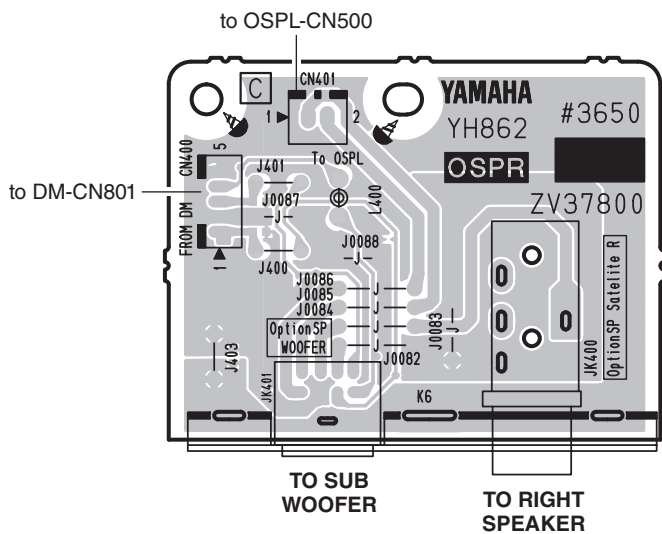


Component side

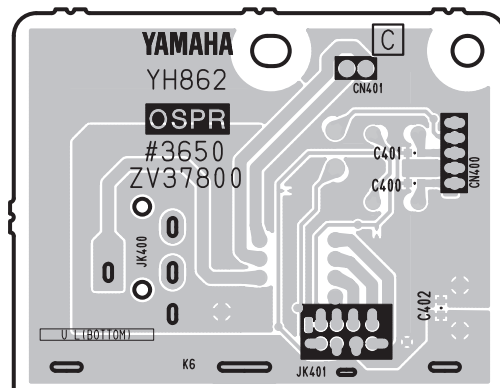


Pattern side

• OSPR Circuit Board



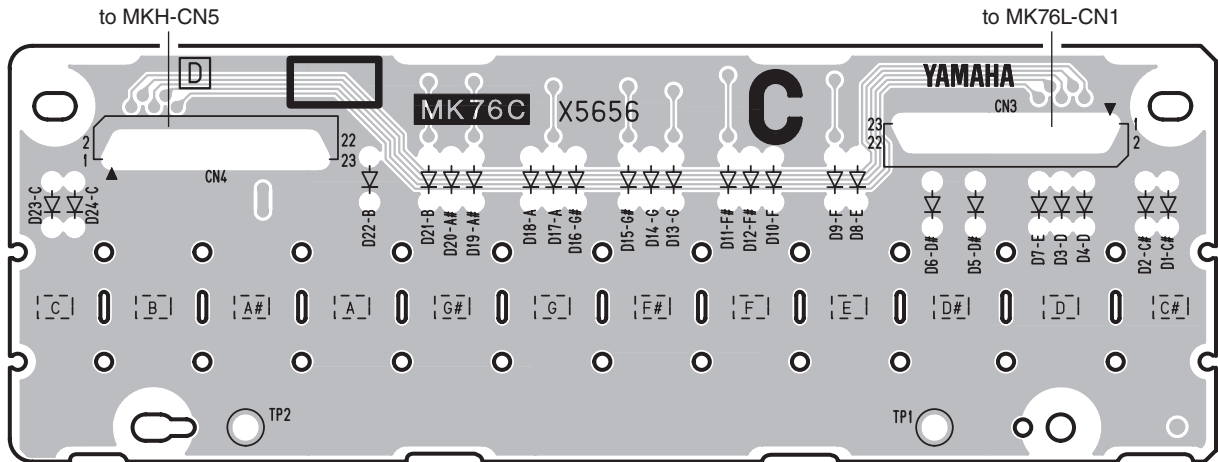
Component side



Pattern side

MVR : 2NA-ZW85370
OSPR: 2NA-ZV37800

• MKC Circuit Board

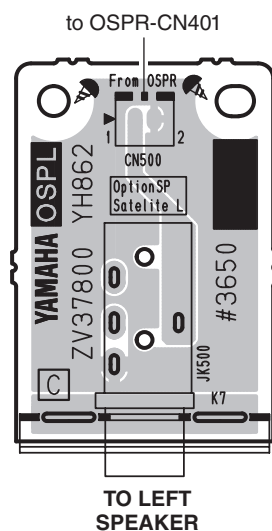


Component side



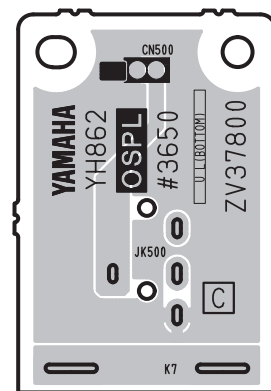
Pattern side

• OSPL Circuit Board



TO LEFT
SPEAKER

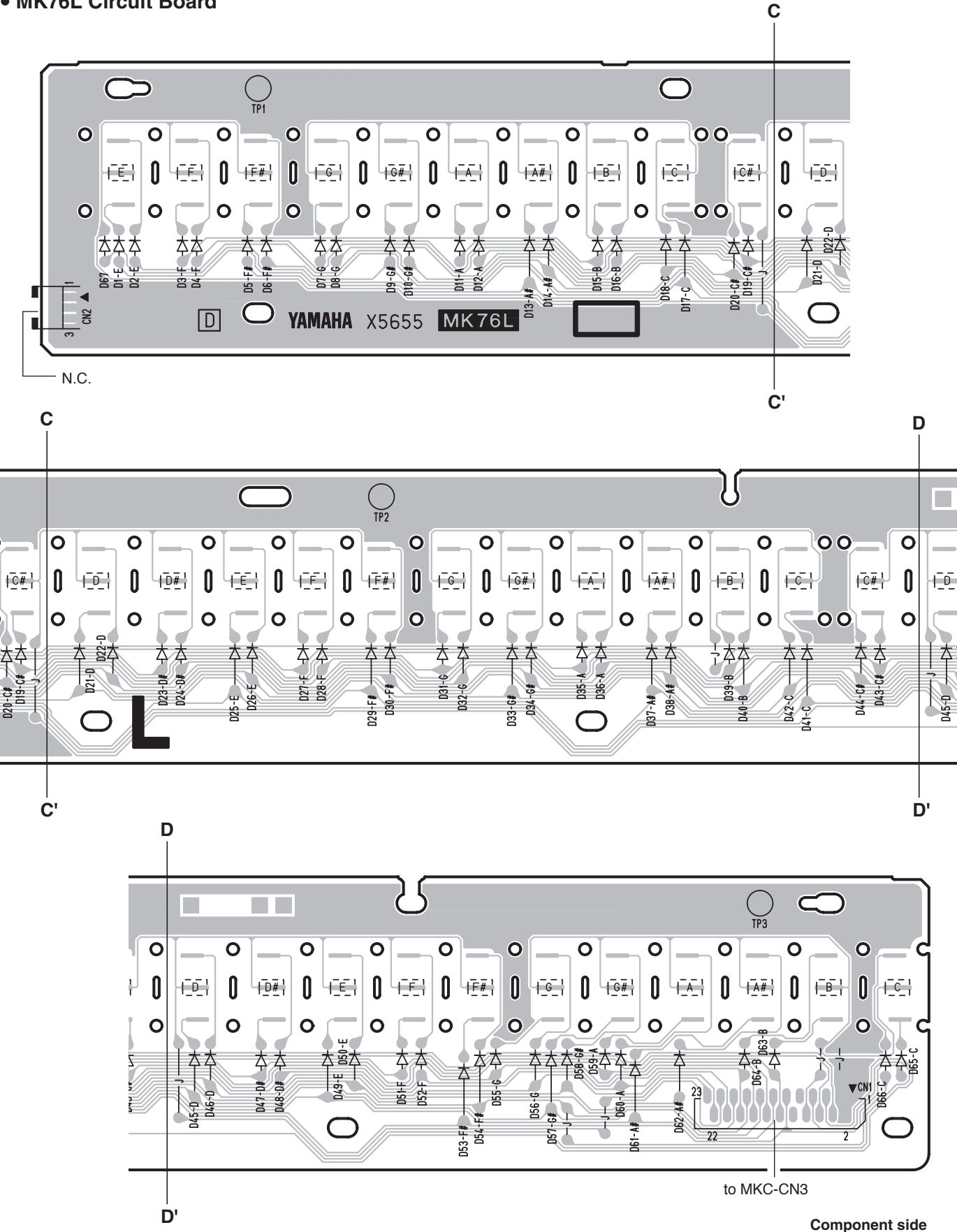
Component side



Pattern side

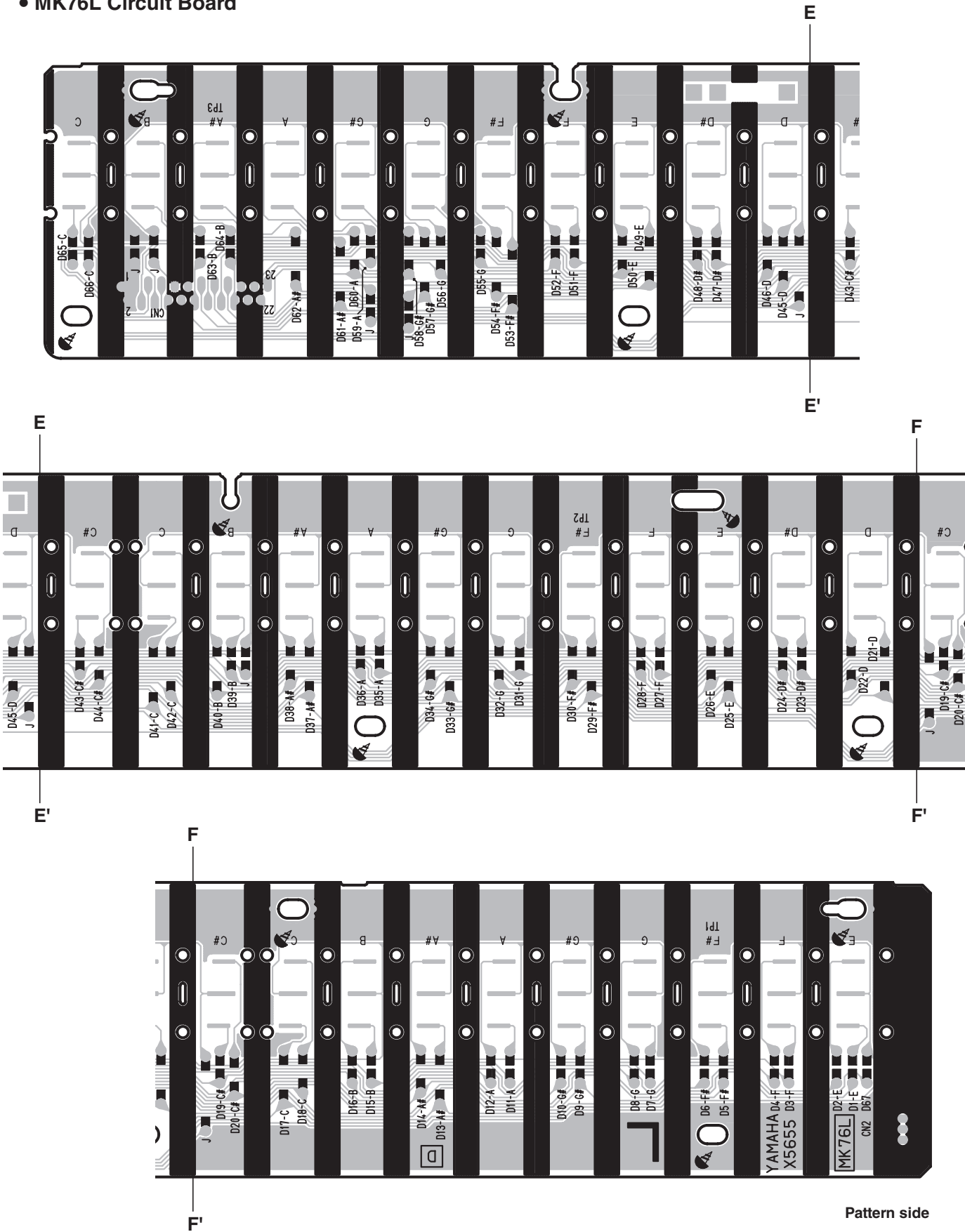
MKC : 2NAKZ-WD80700 
OSPL: 2NA-ZV37800

• MK76L Circuit Board

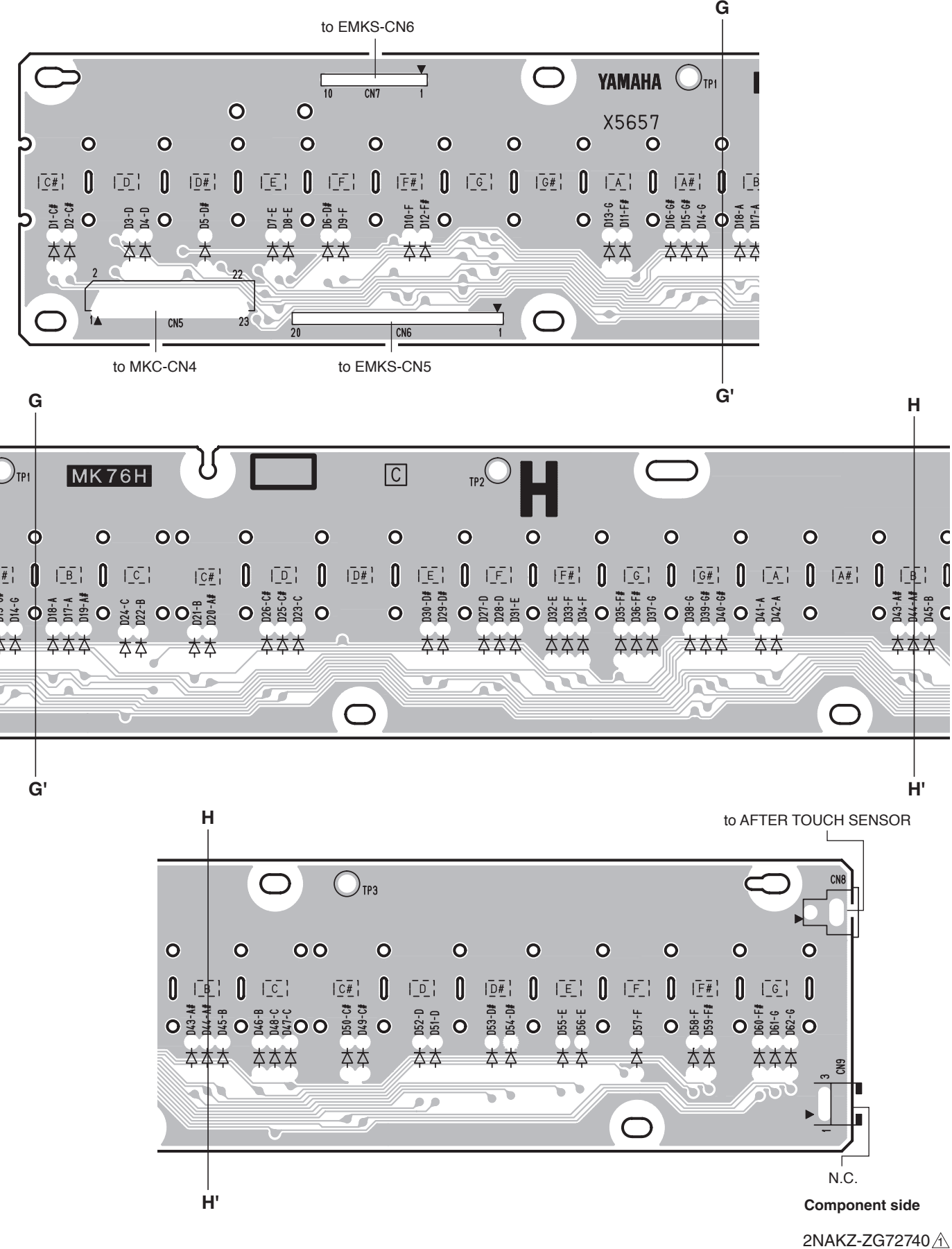


Component side
2NAKZ-WD80730

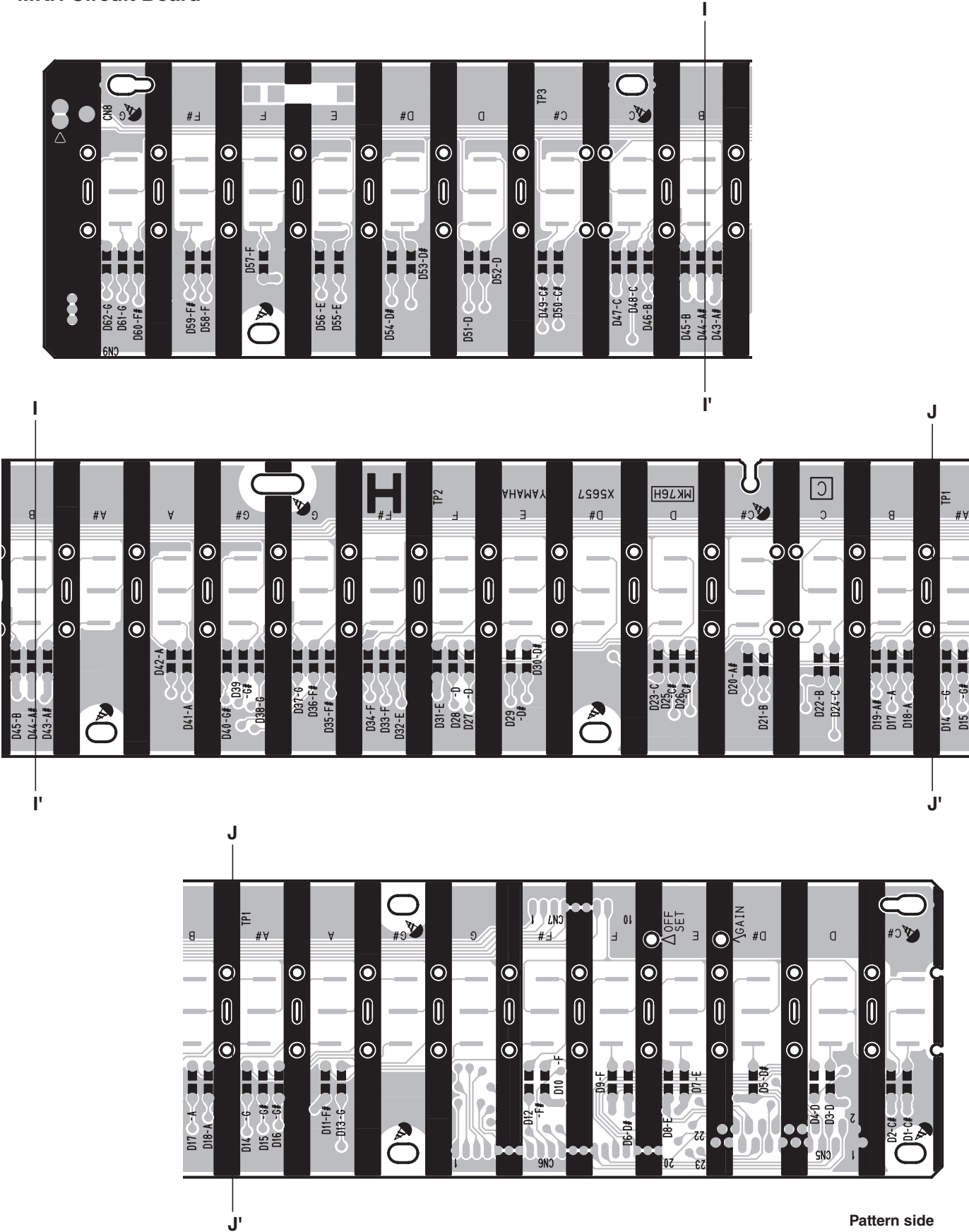
• MK76L Circuit Board



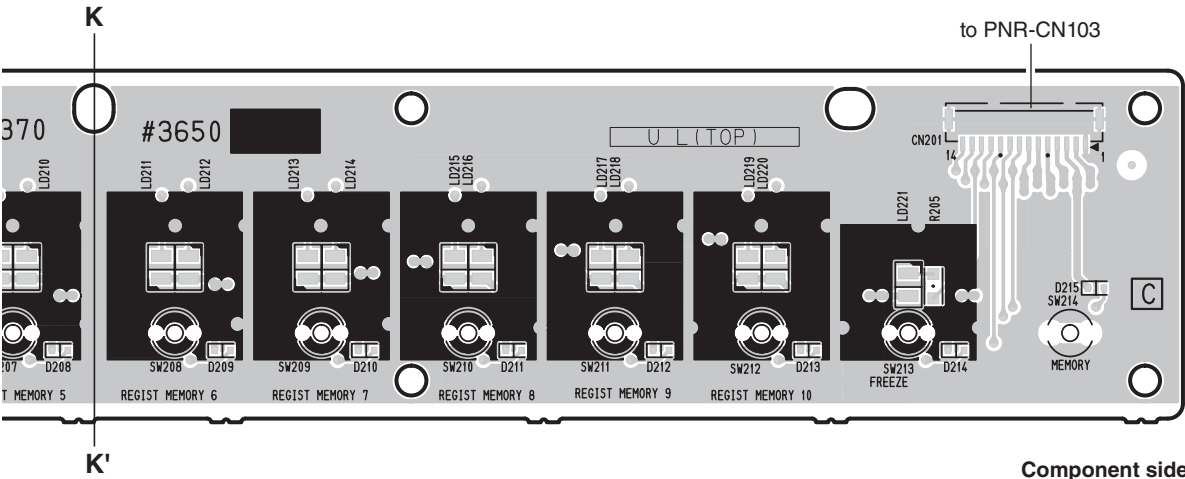
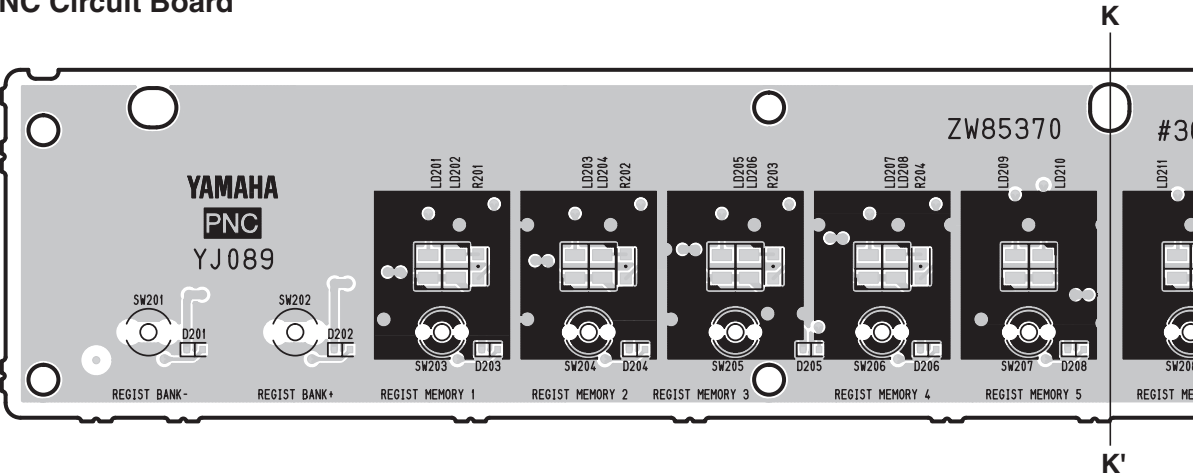
• MKH Circuit Board



• MKH Circuit Board

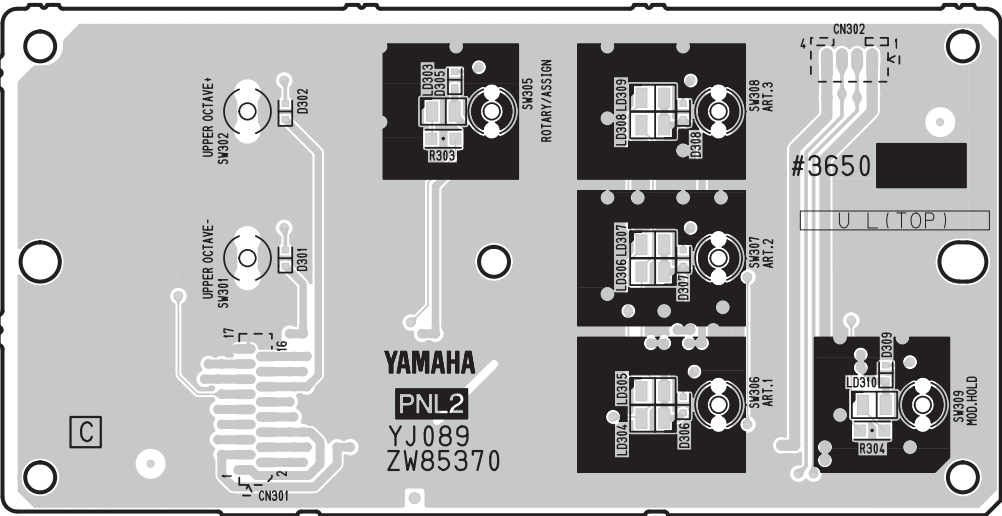


• PNC Circuit Board



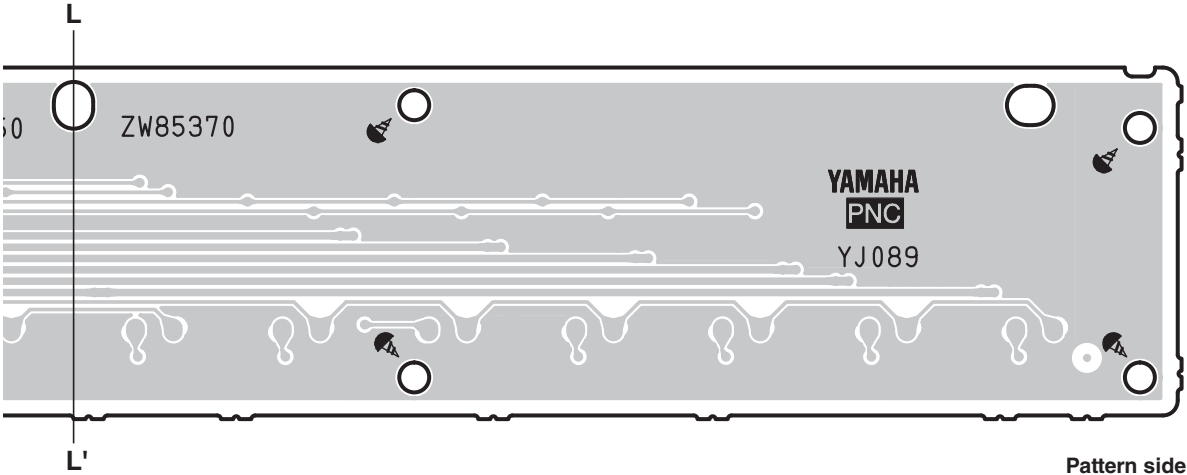
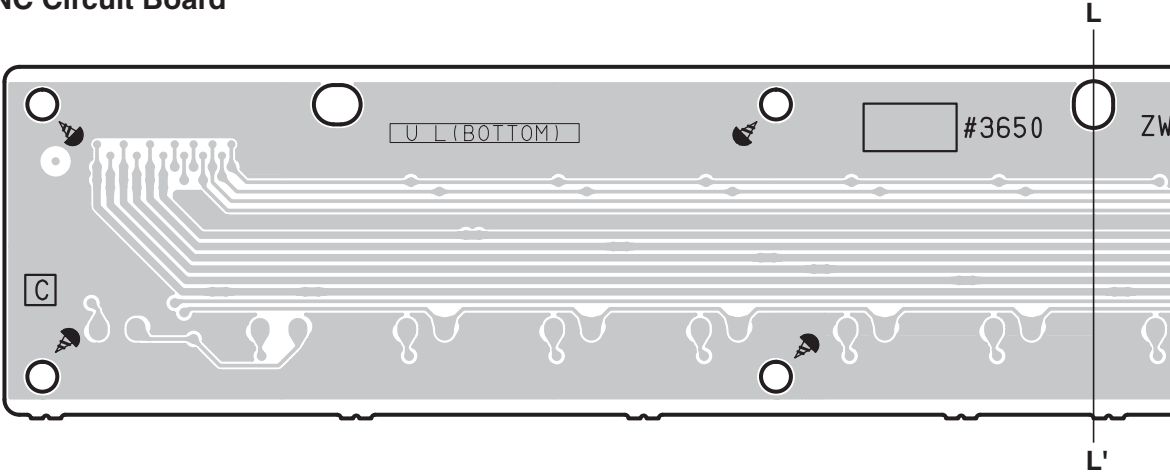
Component side

• PNL2 Circuit Board



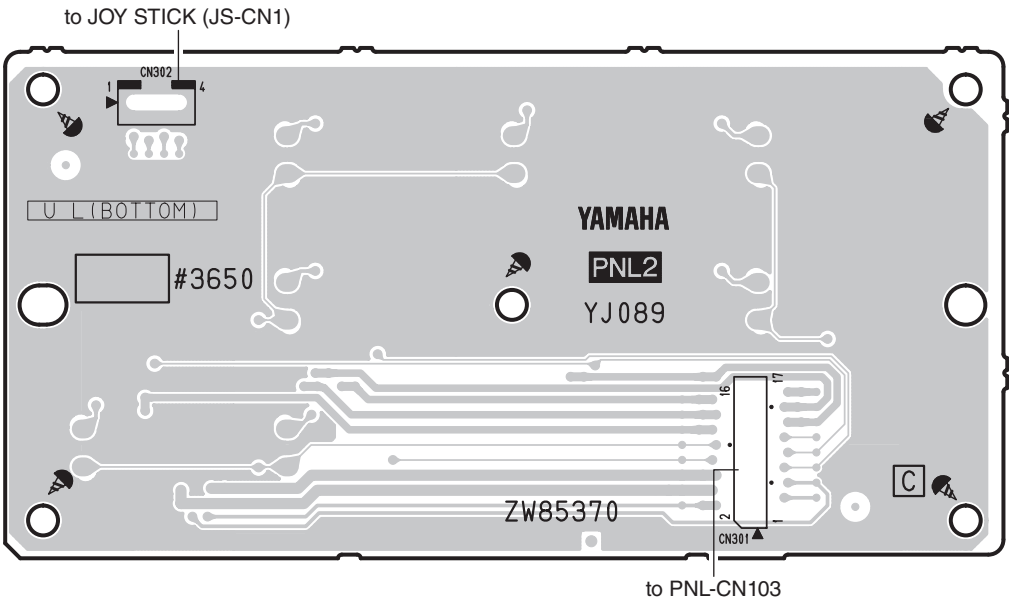
Component side

• PNC Circuit Board



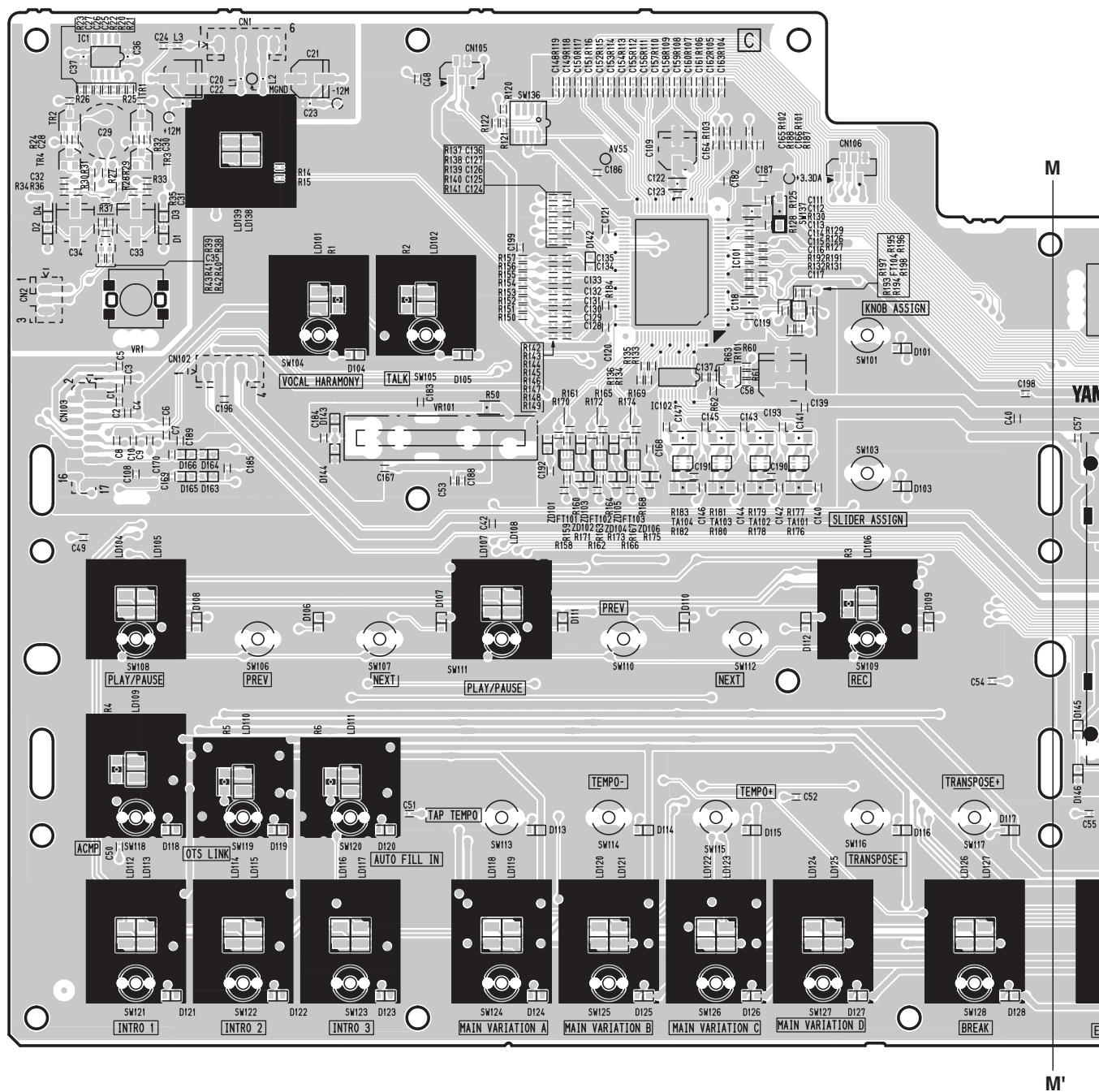
Pattern side

• PNL2 Circuit Board



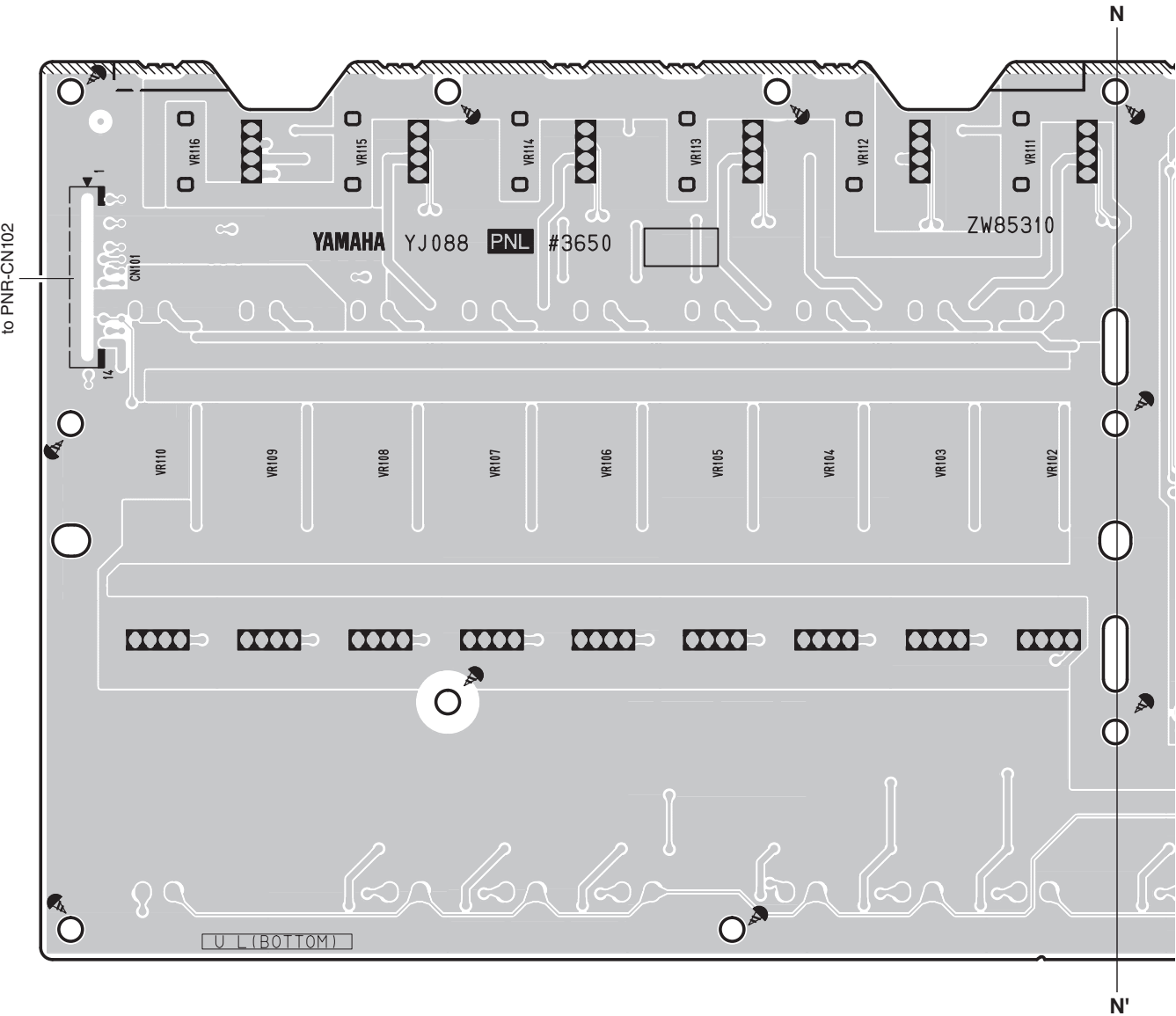
Pattern side

• PNL Circuit Board

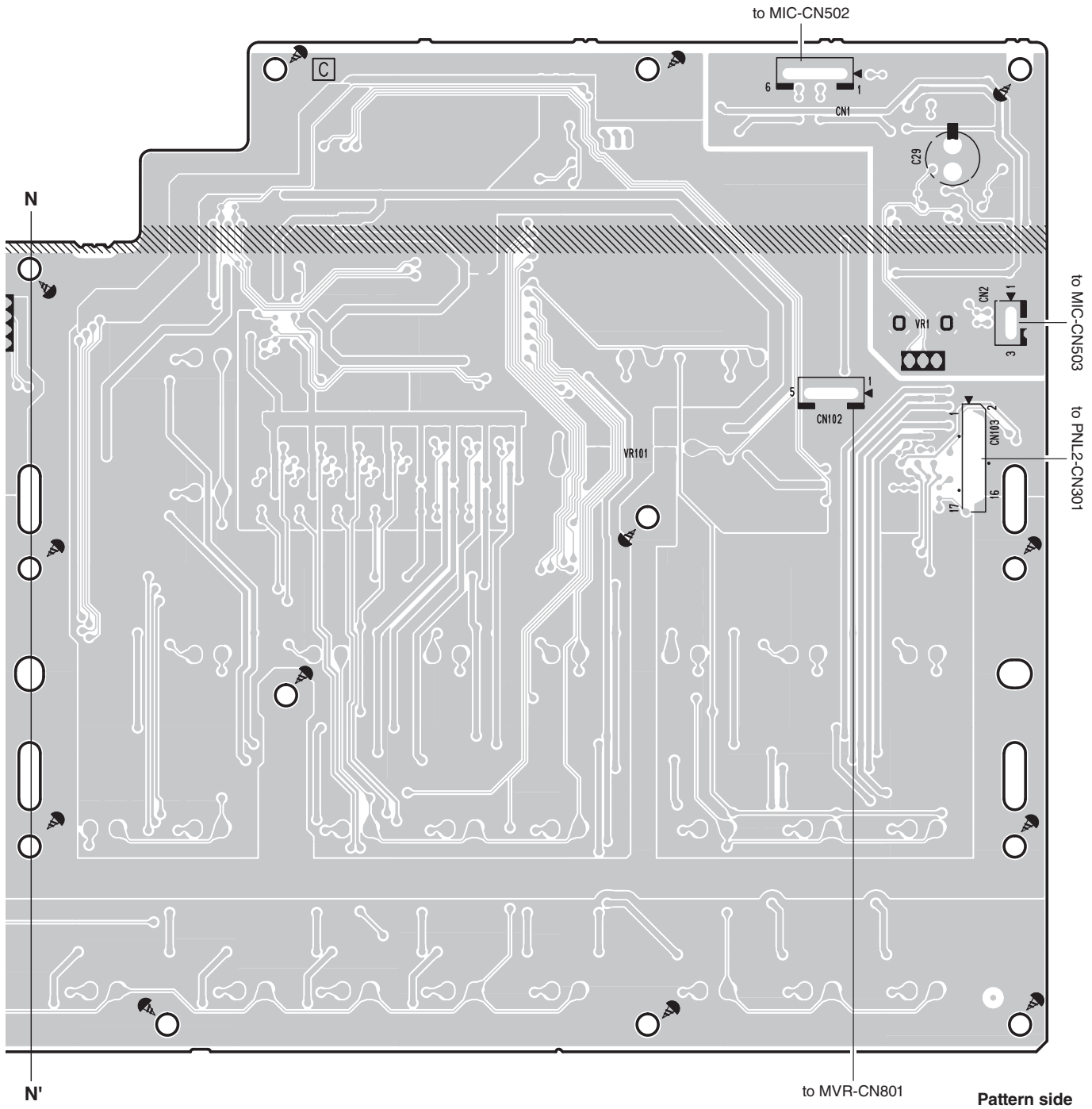




• PNL Circuit Board

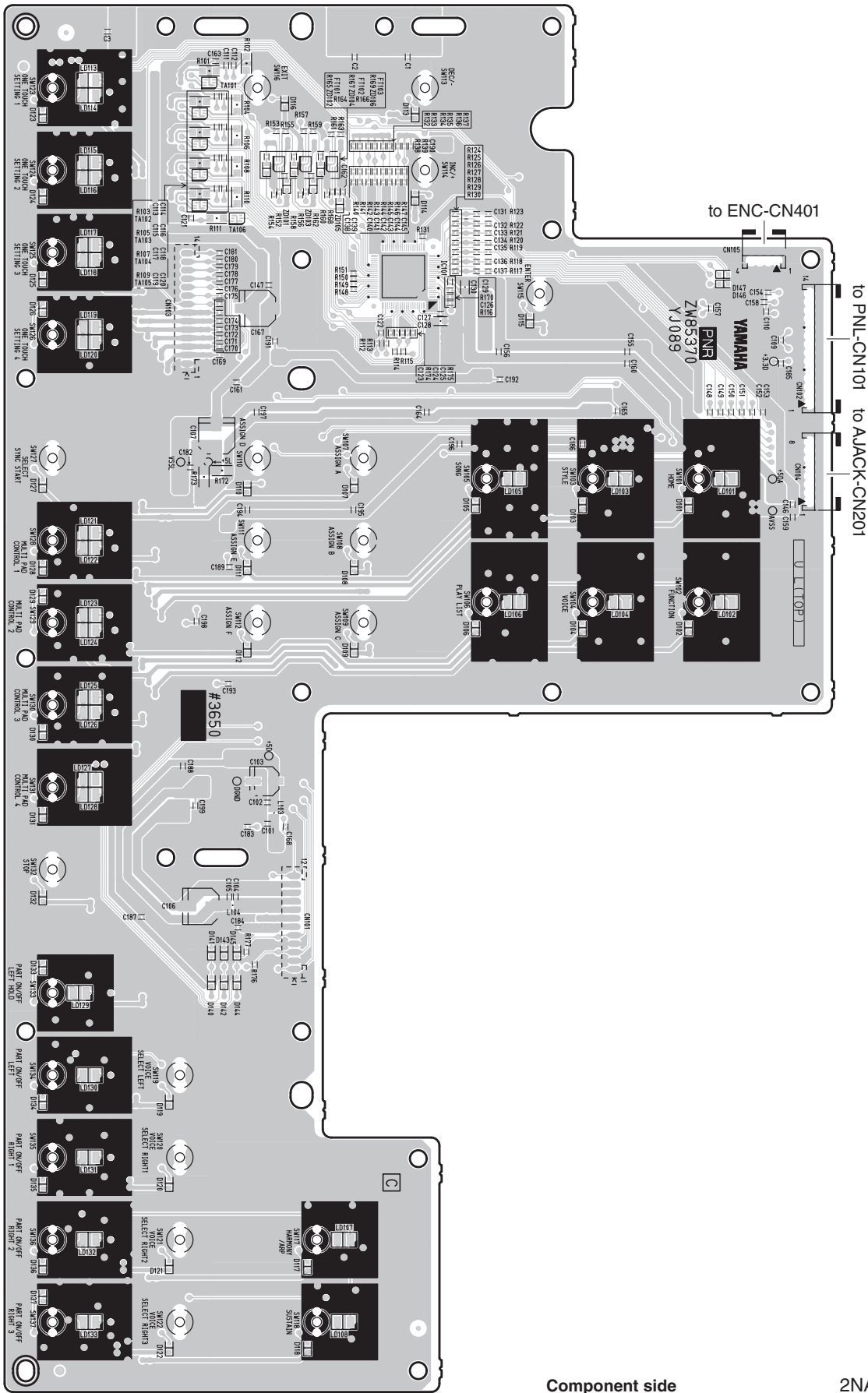


Scale: 90/100



• PNR Circuit Board

Scale: 72/100

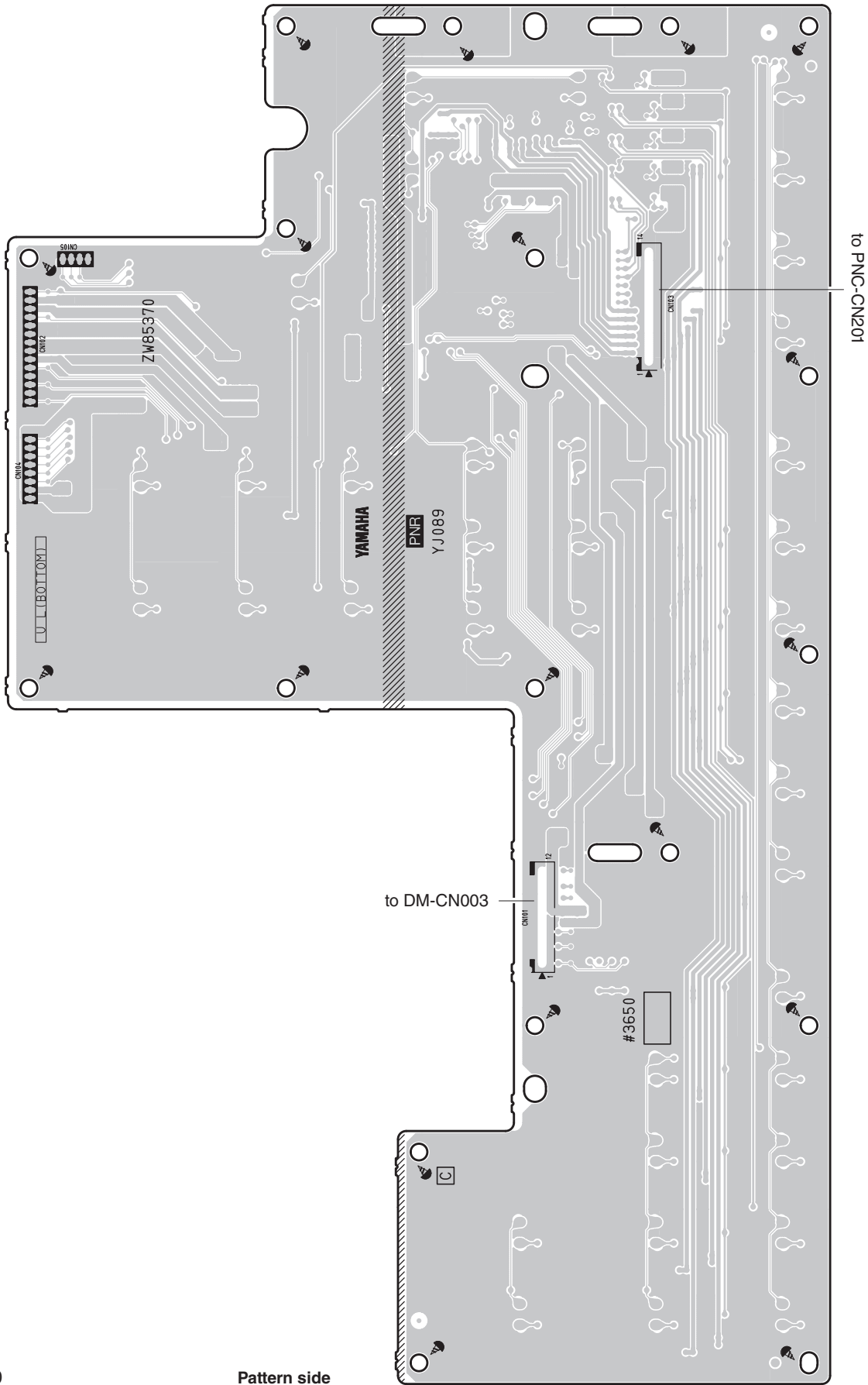


Component side

2NA-ZW85370

• PNR Circuit Board

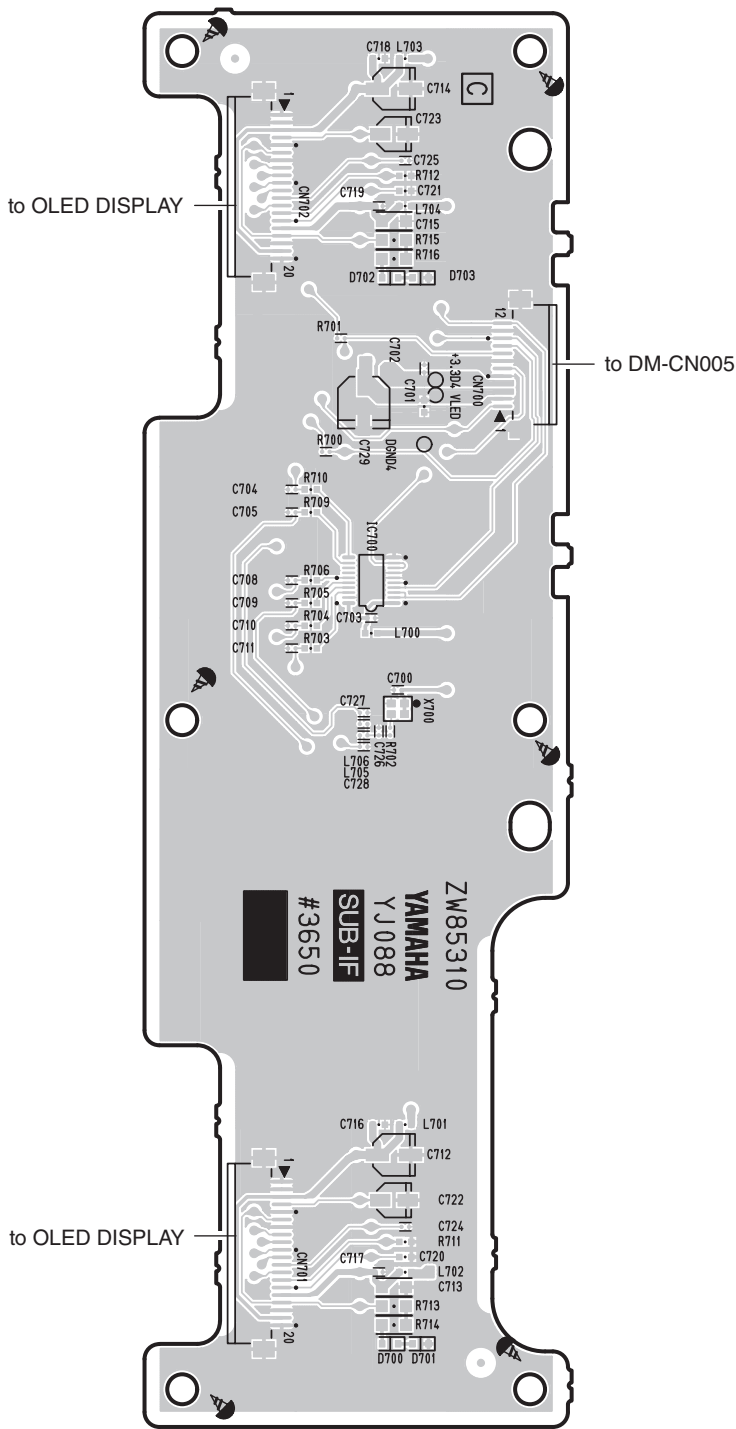
Scale: 72/100



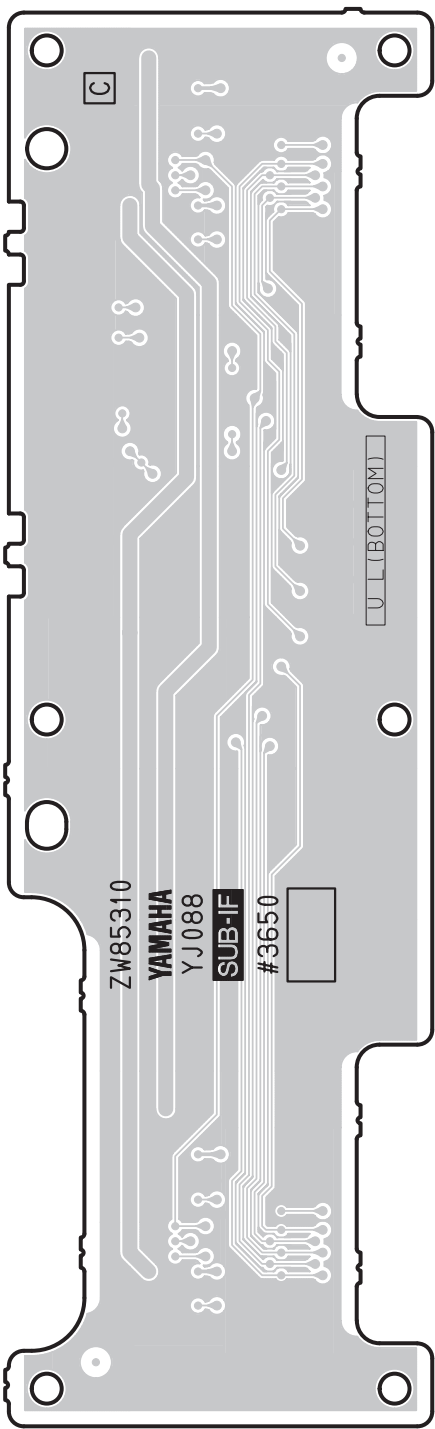
2NA-ZW85370

Pattern side

• SUB-IF Circuit Board



Component side



Pattern side

• PT1 Circuit Board



Component side



Pattern side

• PT2 Circuit Board

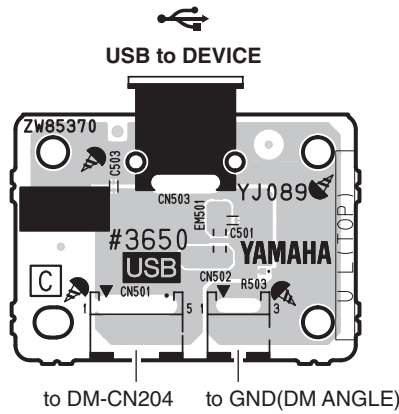


Component side

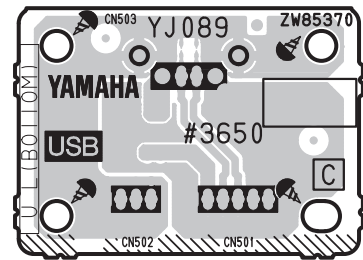


Pattern side

• USB Circuit Board (FRONT)

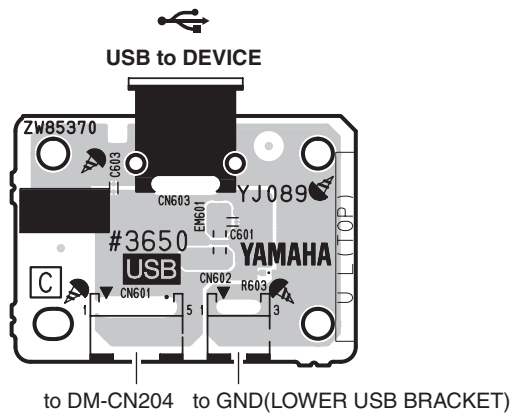


Component side

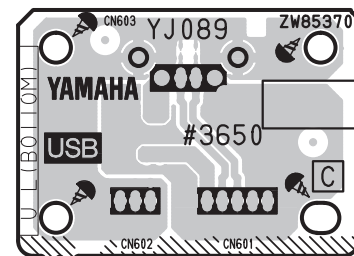


Pattern side

• USB Circuit Board (BOTTOM)



Component side



Pattern side

PT1/PT2: 2NA-ZW85310
USB : 2NA-ZW85370

■ TEST PROGRAM

** If you execute Test No. 60 Factory Set, the setting data and user data will be lost. Be sure to save these data for backup in advance. (See page 68.)*

1. Measurement condition

1-1. Environment

Perform tests under following conditions.

Ordinary temperature (5°C to 40°C)

Ordinary humidity (20% to 90%)

If the test results deviate from the test standard range, however, re-test under such conditions as the ordinary temperature (5°C to 40°C) and ordinary humidity (30% to 90% relative humidity).

1-2. Power voltage

The voltage should be $\pm 10\%$ of the power voltage of the destination.

1-3. Measuring instrument

Make sure that the instruments used for inspections have enough accuracy and precision.

Use the instruments with more than 1M-ohms input impedance.

- Level meter (using JIS-C filter)
- Frequency counter (should be capable of measuring to three places of decimals)
- Oscilloscope
- Oscillator

1-4. Test jig

Following jigs are required for testing.

- Optional speaker (GNS-MS01)
- MIDI cable
- USB cable (A-B type)
- USB flash drive (with operation described in Home Page confirmed)
- Foot controller (FC7)
- Microphone (XLR or 1/4" phone plug connectors)
- Powered speaker (which can be connected to the LINE OUT jacks)

1-5. Terminal condition

Measure the values at the PHONES jack by using a stereo plug unless otherwise specified.

PHONES :	Install a stereo plug (L/R ch: 33-ohms load)
AUX IN :	Install a monaural plug (L (L+R)/R ch)
LINE OUT MAIN :	Install a monaural plug (L (L+R)/R ch: 10k-ohms load)
LINE OUT SUB 1 to 4 :	Install a monaural plug (10k-ohms load)
MIC INPUT :	Install the XLR or a monaural plug
TO SUB WOOFER :	Install a 8-pin mini DIN plug (L/R ch: 10k-ohms load) (Lch (1pin-2pin), Rch (6pin-2pin))

1-6. Control condition

Unless otherwise specified, set control knobs as follows. Set others in the default state by turning on the power.

MASTER VOLUME : Max

1-7. Measurement unit

0 dBu = 0.775 Vrms

2. Test mode

2-1. Starting Up Test mode

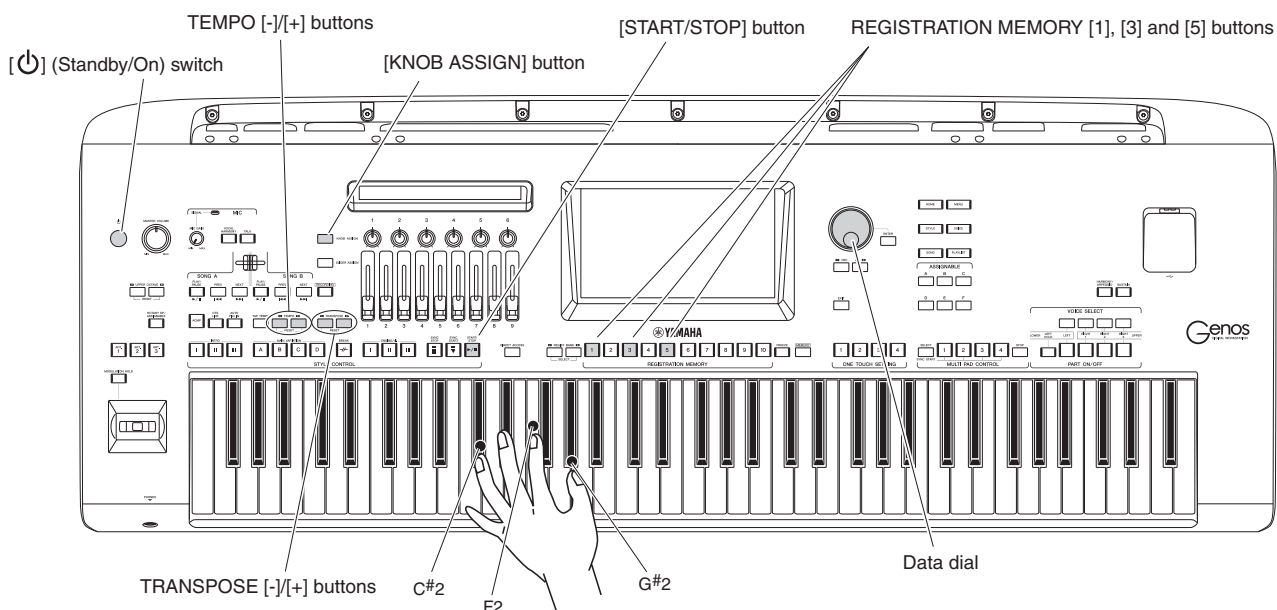
There are two methods to start up the Test mode.

Method 1

- 1) While pressing keys [C#2], [F2], [G#2] (C#2 major chord) simultaneously, turn on the [⏻] (Standby/On) switch.
- 2) When Test mode started successfully, “TEST” is shown on the LCD.

Method 2

- 1) While pressing the buttons REGISTRATION MEMORY [1], REGISTRATION MEMORY [3] and REGISTRATION MEMORY [5] simultaneously, turn on the [⏻] (Standby/On) switch.
- 2) When Test mode started successfully, “TEST” is shown on the LCD.



2-2. Selection/execution of Test items

- 1) Select an item with the TEMPO [-]/[+] buttons or Data dial.
 - * When selecting a test item, the first item (No. 001) can be switched to the last item (No. 061) by pressing the TEMPO [-] button or turning the Data dial counterclockwise. Similarly, the last item (No. 061) can be returned to the first item (No. 001) by pressing the TEMPO [+] button or turning the Data dial clockwise.
- 2) Press the [START/STOP] button to execute the test item. For details, refer to the explanation page for each Test Program item.

2-3. If the test result shows “OK”

To return to the display of test item selection, press the [START/STOP] button.

* Test item the result of which was OK is shown with an asterisk (*) at the left of the name.

2-4. If the test result shows “NG”

To return to the display of test item selection, press the [KNOB ASSIGN] button or the lowest key.

3. Test program list

LCD display	Test items and judging conditions
001 : Version	<p>Indicates the model name, designated country information and each ROM version (*.**).</p> <p>1) Press the [START/STOP] button, and the versions are shown on the LCD.</p> <p>Model Name : Genos MAIN ROM : * . ** WAVE ROM : * . **</p> <p>Hardware ID : ***** Confirm that an 11 digit alphanumeric is shown.</p> <p>2) Press the [START/STOP] button to exit the TEST item.</p>
002 : Memory Check1 All	<p>Executes the simplified check of all the memories (test No. 003 to 008) at one time. (It will take about 10 seconds.)</p> <p>1) Press the [START/STOP] button, and then the result is shown on the LCD If no problem is found: OK If any problem is found: * * * * * (IC * * *) NG</p> <p>2) Confirm that “OK” is shown on the LCD.</p> <p>3) Press the [START/STOP] button to exit the TEST item. If the result is OK: tests No. 003 to 008 can be skipped. If the result is NG: the test stops when first detecting NG is found. To check details, execute the test from No. 003 to 008.</p>
003 : ROM Check1	<p>Executes the simplified check of the ROM connected to the CPU.</p> <p>1) Press the [START/STOP] button, and then the result is shown on the LCD If no problem is found: OK If any problem is found: XXX ROM (IC * * *) NG</p> <p>2) Confirm that “OK” is shown on the LCD.</p> <p>3) Press the [START/STOP] button to exit the TEST item.</p>
004 : RAM Check1	<p>Executes the simplified check of the RAM connected to the CPU.</p> <p>1) Press the [START/STOP] button, and then the result is shown on the LCD If no problem is found: OK If any problem is found: MAIN SDRAM (IC * * * , * * *) NG</p> <p>2) Confirm that “OK” is shown on the LCD.</p> <p>3) Press the [START/STOP] button to exit the TEST item.</p>
005 : USER ROM Check	<p>Executes the simplified check of the USER ROM.</p> <p>1) Press the [START/STOP] button, and then the result is shown on the LCD If no problem is found: OK If any problem is found: NG</p> <p>2) Confirm that “OK” is shown on the LCD.</p> <p>3) Press the [START/STOP] button to exit the TEST item.</p>
006 : Wave ROM Check1	<p>Executes the simplified check of the Wave ROM. (It will take about 10 seconds.)</p> <p>1) Press the [START/STOP] button, and then the result is shown on the LCD If no problem is found: OK If any problem is found: Wave X (IC * * * , * * *) NG</p> <p>2) Confirm that “OK” is shown on the LCD.</p> <p>3) Press the [START/STOP] button to exit the TEST item.</p>
007 : Wave RAM Check1	<p>Executes the simplified check of the Wave RAM.</p> <p>1) Press the [START/STOP] button, and then the result is shown on the LCD If no problem is found: OK If any problem is found: WaveRAM1 (IC * * *) NG</p> <p>2) Confirm that “OK” is shown on the LCD.</p> <p>3) Press the [START/STOP] button to exit the TEST item.</p>

[illegible]

LCD display	Test items and judging conditions
012 : Output L Check	<p>Checks each output level from the L channel of the jacks.</p> <ol style="list-style-type: none"> 1) Install the optional speaker GNS-MS01 to the Genos. 2) Connect the level meter to an output jack. 3) Set the [MASTER VOLUME] dial to the maximum position. 4) Press the [START/STOP] button to produce the C5 sine wave sound. 5) Measure the output level and confirm that the measured values are within the specified range. <p>[PHONES] (33Ω load)</p> <p>L: -1.5 ± 2 dBu R: -50.0 dBu or less</p> <p>[LINE OUT MAIN] (10kΩ load)</p> <p>L/L+R: $+10.0 \pm 2$ dBu R: -60.0 dBu or less</p> <p>L/L+R: $+4.5 \pm 2$ dBu R (Unconnected)</p> <p>[TO SUB WOOFER] (10kΩ load)</p> <p>Lch (1pin-2pin): $+10.0 \pm 2$ dBu Rch (6pin-2pin): -60.0 dBu or less</p> <p>* When disconnecting the plug from the PHONES jack, the sound is produced from the L side satellite speaker (GNS-MS01).</p> <ol style="list-style-type: none"> 6) Press the [START/STOP] button to stop the sound and to exit the TEST item.
013 : Output Sub-1 Check	<p>Checks whether the [LINE OUT SUB 1] jack works properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to produce the C5 sine wave sound. “Not Inserted” is shown on the LCD. 2) Connect the plug to the [LINE OUT SUB 1] jack, and “Inserted” is shown on the LCD. 3) Set the [MASTER VOLUME] dial to the maximum position. 4) Measure the output level and confirm that the measured values are within the specified range. <p>[LINE OUT SUB 1] (10kΩ load)</p> <p>$+5.0 \pm 2$ dBu</p> <ol style="list-style-type: none"> 5) Disconnect the plug, and “Not Inserted” is shown on the LCD. 6) Press the [START/STOP] button to stop the sound and to exit the TEST item.
014 : Output Sub-2 Check	<p>Checks whether the [LINE OUT SUB 2] jack works properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to produce the C5 sine wave sound. “Not Inserted” is shown on the LCD. 2) Connect the plug to the [LINE OUT SUB 2] jack, and “Inserted” is shown on the LCD. 3) Set the [MASTER VOLUME] dial to the maximum position. 4) Measure the output level and confirm that the measured values are within the specified range. <p>[LINE OUT SUB 2] (10kΩ load)</p> <p>$+5.0 \pm 2$ dBu</p> <ol style="list-style-type: none"> 5) Disconnect the plug, and “Not Inserted” is shown on the LCD. 6) Press the [START/STOP] button to stop the sound and to exit the TEST item.
015 : Output Sub-3 Check	<p>Checks whether the [LINE OUT SUB 3] jack works properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to produce the C5 sine wave sound. “Not Inserted” is shown on the LCD. 2) Connect the plug to the [LINE OUT SUB 3] jack, and “Inserted” is shown on the LCD. 3) Set the [MASTER VOLUME] dial to the maximum position. 4) Measure the output level and confirm that the measured values are within the specified range. <p>[LINE OUT SUB 3] (10kΩ load)</p> <p>$+5.0 \pm 2$ dBu</p> <ol style="list-style-type: none"> 5) Disconnect the plug, and “Not Inserted” is shown on the LCD. 6) Press the [START/STOP] button to stop the sound and to exit the TEST item.

LCD display	Test items and judging conditions
016 : Output Sub-4 Check	<p>Checks whether the [LINE OUT SUB 4] jack works properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to produce the C5 sine wave sound. “Not Inserted” is shown on the LCD. 2) Connect the plug to the [LINE OUT SUB 4] jack, and “Inserted” is shown on the LCD. 3) Set the [MASTER VOLUME] dial to the maximum position. 4) Measure the output level and confirm that the measured values are within the specified range. [LINE OUT SUB 4] (10kΩ load) +5.0 ± 2 dBu 5) Disconnect the plug, and “Not Inserted” is shown on the LCD. 6) Press the [START/STOP] button to stop the sound and to exit the TEST item.
017 : SP MUTE Check	<p>Checks whether the SP MUTE for the [TO SUB WOOFER] terminal, [TO LEFT SPEAKER] jack and [TO RIGHT SPEAKER] jack works properly or not.</p> <ol style="list-style-type: none"> 1) Install the optional speaker GNS-MS01 to the Genos. 2) Press the [START/STOP] button to produce the C5 sine wave sound. “OFF” is shown on the LCD. 3) Press the TRANSPOSE [+] button, and the SP MUTE circuit is activated and “ON” is shown on the LCD. Confirm that the optional speaker GNS-MS01 are muted. 4) Press the TRANSPOSE [-] button, and the SP MUTE circuit is deactivated and “OFF” is shown on the LCD. Confirm that muting of the optional speaker GNS-MS01 is cancelled. 5) Press the [START/STOP] button to stop the sound and to exit the TEST item. <p>Caution: While this test is executed, connection/disconnection of the headphone is not detected. (Sound comes out of the speaker even if the headphone is connected.)</p>
018 : DAC MUTE 1 Check	<p>Checks whether the DAC MUTE for the DAC IC’s output works properly or not.</p> <ol style="list-style-type: none"> 1) Install the optional speaker GNS-MS01 to the Genos. 2) Press the [START/STOP] button to produce the C5 sine wave sound. “OFF” is shown on the LCD. 3) Press the TRANSPOSE [+] button, and the DAC MUTE circuit is activated and “ON” is shown on the LCD. Confirm that the optional speaker GNS-MS01, [PHONES] jack and [LINE OUT MAIN] jack are muted. 4) Press the TRANSPOSE [-] button, and the DAC MUTE circuit is deactivated and “OFF” is shown on the LCD. Confirm that muting of the optional speaker GNS-MS01, [PHONES] jack and [LINE OUT MAIN] jack is cancelled. 5) Press the [START/STOP] button to stop the sound and to exit the TEST item. <p>Caution: When checking the output of the optional speaker GNS-MS01, do not insert any plug to the PHONES jack.</p>
019 : DAC MUTE 2 Check	<p>Checks whether the DAC MUTE 1 for the DAC IC’s output works properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to produce the C5 sine wave sound. “OFF” is shown on the LCD. 2) Press the TRANSPOSE [+] button, and the DAC MUTE 1 circuit is activated and “ON” is shown on the LCD. Confirm that the [LINE OUT SUB 1 to 4] jacks are muted. 3) Press the TRANSPOSE [-] button, and the DAC MUTE 1 circuit is deactivated and “OFF” is shown on the LCD. Confirm that muting of the [LINE OUT SUB 1 to 4] jacks is cancelled. 4) Press the [START/STOP] button to stop the sound and to exit the TEST item.

LCD display	Test items and judging conditions
020 : MUTE Check	<p>Checks whether the MUTE for all outputs works properly or not.</p> <ol style="list-style-type: none"> 1) Install the optional speaker GNS-MS01 to the Genos. 2) Press the [START/STOP] button to produce the C5 sine wave sound. “OFF” is shown on the LCD. 3) Press the TRANSPOSE [+] button, and the muting circuit is activated and “ON” is shown on the LCD. Confirm that the optional speaker GNS-MS01 and all output jacks (PHONES, LINE OUT MAIN, LINE OUT SUB 1 to 4, DIGITAL OUT) are muted. 4) Press the TRANSPOSE [-] button, and the muting circuit is deactivated and “OFF” is shown on the LCD. Confirm that muting of the optional speaker GNS-MS01 and all output jacks (PHONES, LINE OUT MAIN, LINE OUT SUB 1 to 4, DIGITAL OUT) is cancelled. <p>At this time, check that the MUTE relay for the headphones is not stuck.</p> <ol style="list-style-type: none"> 5) Press the TRANSPOSE [+] button to activate the MUTE circuit. 6) Set the [MASTER VOLUME] dial to the maximum position. 7) Measure the output levels and confirm that the measured values are within the specified range. <p>[LINE OUT MAIN] (10kΩ load) L/L+R: -30.0 dBu or less R: -30.0 dBu or less [LINE OUT SUB 1 to 4] (10kΩ load) -35.0 dBu or less</p> <ol style="list-style-type: none"> 8) Press the [START/STOP] button to stop the sound and to exit the TEST item. <p>Caution: When checking the output of the optional speaker GNS-MS01, do not insert any plug to the PHONES jack.</p>
021 : Emergency Circuit Check	<p>Checks whether the Fail-Safe Circuit for digital volume control works properly or not.</p> <ol style="list-style-type: none"> 1) Install the optional speaker GNS-MS01 to the Genos. 2) Press the [START/STOP] button to produce the A3 sine wave sound. “OFF” is shown on the LCD. 3) Press the TRANSPOSE [+] button, and the Fail-Safe Circuit function is activated and “ON” is shown on the LCD. <p>Confirm that the optional speaker GNS-MS01 and all output jacks (PHONES, LINE OUT MAIN, LINE OUT SUB 1 to 4, DIGITAL OUT) are muted.</p> <ol style="list-style-type: none"> 4) Press the TRANSPOSE [-] button, and the Fail-Safe Circuit function is deactivated and “OFF” is shown on the LCD. Confirm that muting of the optional speaker GNS-MS01 and all output jacks (PHONES, LINE OUT MAIN, LINE OUT SUB 1 to 4, DIGITAL OUT) is cancelled. <p>At this time, check that the MUTE relay for the headphones is not stuck.</p> <p>If the Fail-Safe Circuit is not detected, “NG” is shown on the LCD.</p> <ol style="list-style-type: none"> 5) Press the [START/STOP] button to stop the sound and to exit the TEST item. <p>Caution: When checking the output of the optional speaker GNS-MS01, do not insert any plug to the PHONES jack.</p>
022 : RTC Check	<p>Checks connection of the RTC (Real Time Clock) and the date and time set in it.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to have the result shown on the LCD. <p>If no problem is found: OK</p> <p>Date: 'YY/MM/DD Time: hh:mm:ss The date and time are shown. Initial value (Date: 2017/01/01 Time: 00:00:00)</p> <p>If any problem is found: NG</p> <ol style="list-style-type: none"> 2) Press the [START/STOP] button to exit the TEST item.

LCD display	Test items and judging conditions
023 : McASP Check	<p>Checks whether the five McASP signal lines, which are defined Line-A, Line-B and Line-C in this test, are connected properly.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to produce the A3 sine wave sound, and “Line-A” is shown on the LCD. A sound is produced on the LEFT side for the LINE of McASP-CPU0 and on the RIGHT side for the LINE of McASP-CPU1. 2) Press the TRANSPOSE [+] button to produce the C5 sine wave sound, and “Line-B” is shown on the LCD. A sound is produced on the LEFT side for the LINE of McASP-CPU1 and on the RIGHT side for the LINE of McASP-CPU2. 3) Press the TRANSPOSE [+] button to produce the C4 sine wave sound, and “Line-C” is shown on the LCD. A sound is produced on the LEFT side for the LINE of McASP-CPU3 and on the RIGHT side for the LINE of McASP-CPU4. 4) Press the [START/STOP] button to stop the sound and to exit the TEST item. <p>NOTE: You can check the Line-A, Line-B and Line-C alternatively by using the TRANSPOSE [-][+] buttons.</p>
024 : AUX-IN Check	<p>Checks whether the [AUX IN] jack works properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button. “Not Inserted” is shown on the LCD. 2) Connect the plug to the [AUX IN L/L+R] jack, and “Inserted” is shown on the LCD. 3) Disconnect the plug, and “Not Inserted” is shown on the LCD. 4) Press the [START/STOP] button to exit the TEST item.
025 : MIC 1 Check	<p>Checks whether a microphone (with the 1/4” phone plug connector) is plugged into the [MIC INPUT] jack properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button. “Not Inserted” is shown on the LCD. 2) Connect the plug to the [MIC INPUT] jack, and “Inserted” is shown on the LCD. 3) Disconnect the plug, and “Not Inserted” is shown on the LCD. 4) Press the [START/STOP] button to exit the TEST item.
026 : MIC 2 Check	<p>Checks whether a microphone (with the XLR plug connector) is plugged into the [MIC INPUT] jack and PHANTOM SW work properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button. “Not Inserted” is shown on the LCD. 2) Set the [+48V] switch to off. 3) Connect the XLR plug to the [MIC INPUT] jack. “Inserted” and “PHANTOM SW:OFF” are shown on the LCD. 4) Turn the [+48V] switch on, and “PHANTOM SW:ON” is shown on the LCD. 5) Disconnect the XLR plug, and “Not Inserted” is shown on the LCD. 6) Press the [START/STOP] button to exit the TEST item.

LCD display	Test items and judging conditions
027 : SW, LED Check	<p>Checks whether each panel button with its LED (if available) works properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to start the test. “Push * * *” is shown on the LCD. <p>NOTE: The “ * * * ” means the name of the button which should be pressed.</p> <ol style="list-style-type: none"> 2) Press the button specified on the LCD one by one. If the correct button is pressed, “ * * * On” is shown on the LCD and the sound of the note assigned to the pressed button will be produced. Also, the LED (if available) lights. Regarding what note and LED are assigned, refer to the Switch Test Sequence on page 63. <p>NOTE:</p> <ul style="list-style-type: none"> • “NG [pressed button name] On” will be shown on the LCD if the wrong button is pressed. • “Over Two Sw” will be shown on the LCD if two or more buttons are pressed. <ol style="list-style-type: none"> 3) After all the buttons are checked and “Dial Down 50” appears on the LCD, check the Data dial. Rotate the dial counter-clockwise until “Dial UP xx” appears on the LCD. 4) Rotate the dial clockwise until “End” appears on the LCD. 5) Press the [START/STOP] button to exit the TEST item. <p>NOTE: You can exit this test by pressing the lowest key. Also, you can exit the test by pressing the [KNOB AS-SIGN] button after the button is tested.</p>
028 : All LED On	<p>Checks whether all the LED lamps light properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to start the test. All the LED lamps are turned on, and “- -” is shown on the LCD. 2) Confirm that all the LED lamps light and there are no extremely bright LED and dark LED. 3) Press the [START/STOP] button to exit the TEST item and to turn off all the LED lamps.
029 : Red LED On	<p>Checks whether all the orange LED lamps light properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to start the test. All the orange LED lamps are turned on, and “- -” is shown on the LCD. 2) Confirm that all the orange LED lamps light and there are no extremely bright LED and dark LED. 3) Press the [START/STOP] button to exit the TEST item and to turn off all the orange LED lamps.
030 : Blue/Green LED On	<p>Checks whether all the blue and green LED lamps light properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to start the test. All the blue/green LED lamps are turned on, and “- -” is shown on the LCD. 2) Confirm that all the blue/green LED lamps light and there are no extremely bright LED and dark LED. 3) Press the [START/STOP] button to exit the TEST item and to turn off all the blue/green LED lamps.
031 : Other LED On	<p>Checks whether all the other (white) LED lamps light properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to start the test. All the other (white) LED lamps are turned on, and “- -” is shown on the LCD. 2) Confirm that all the other (white) LED lamps light and there are no extremely bright LED and dark LED. 3) Press the [START/STOP] button to exit the TEST item and to turn off all the other (white) LED lamps.
032 : All LCD On	<p>Checks whether all the LCD dots are turned on (black) properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to start the test. 2) Check that all the dots of the LCD are turned on (black). 3) Press the [START/STOP] button to exit the TEST item.
033 : All LCD Off	<p>Checks whether all the LCD dots are turned off (white) properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to start the test. 2) Check that all the dots of the LCD are turned off (white). 3) Press the [START/STOP] button to exit the TEST item.

LCD display	Test items and judging conditions
034 : LCD Pattern Check	<p>Checks whether the color pattern of the LCD is shown properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to start the test. 2) Use the TRANSPOSE [-][+] buttons to call up the color patterns. Check whether the following patterns are shown on the LCD properly or not. <ul style="list-style-type: none"> • RGB • Rainbow • Flicker Noise (horizontal) • Flicker Noise (vertical) 3) Press the [START/STOP] button to exit the TEST item, and the LCD indication returns to the normal state.
035 : LCD Backlight Off Check	<p>Checks whether the LCD backlight is turned ON/OFF properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to start the test. The LCD backlight is turned off. 2) Use the TRANSPOSE [-][+] buttons to turn on/off the LCD backlight. 3) Press the [START/STOP] button to exit the TEST item, and the LCD indication returns to the normal state.
036 : Sub Display Check	<p>Checks whether the LIVE CONTROL view (sub display) is shown properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to start the test. 2) Use the TRANSPOSE [-][+] buttons to call up the sub display patterns. Check whether the following patterns are shown on the sub display properly or not. <ul style="list-style-type: none"> • ON (white) • Gray scale • Oblique line • Checkered pattern 3) Press the [START/STOP] button to exit the TEST item. At this time, check that the sub display turns off (in black). The LIVE CONTROL view indication returns to the normal state.
037 : Main Volume Check	<p>Checks whether the MASTER VOLUME dial works properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button. “Main Volume MIN xx” is shown on the LCD. 2) Rotate the [MASTER VOLUME] dial to the minimum position. The value: 0 to 255 is shown on the LCD depending on the [MASTER VOLUME] dial position. When the minimum value is detected, “Main Volume MAX 0” is shown on the LCD. 3) Rotate the [MASTER VOLUME] dial to the maximum position. When the maximum value is detected, “OK” is shown on the LCD. 4) Press the [START/STOP] button to exit the TEST item.
038 : Knob Check	<p>Checks whether the six LIVE CONTROL knobs work properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button. “Knob 1 MIN (xxx)” is shown on the LCD. 2) Rotate the [LIVE CONTROL] knob to the minimum / maximum / center positions. If the knob fails to operate properly, “NG” is shown on the LCD. 3) Check Knobs 1 to 6 according to the instruction on the LCD. When all knobs are checked, “OK” is shown on the LCD. 4) Press the [START/STOP] button to exit the TEST item.
039 : Slider Check	<p>Checks whether the Cross Fader and nine LIVE CONTROL sliders work properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button. “[CROSS FADER] LEFT (xxx)” is shown on the LCD. 2) Move the Cross Fader (left and right position) and 9 LIVE CONTROL sliders to the minimum / maximum positions. If the fader (slider) fails to operate properly, “NG” is shown on the LCD. 3) Check the Cross Fader and 9 LIVE CONTROL sliders (from S1 to S9) according to the instruction on the LCD. When the fader and all sliders are checked, “OK” is shown on the LCD. 4) Press the [START/STOP] button to exit the TEST item. <p>NOTE: If the slider position is “000”, it is necessary to raise the slider once and then move it to the minimum position.</p>

LCD display	Test items and judging conditions
040 : Joystick Calibration	<p>Calibrates the [Joystick] value depending on the position.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button. “Joystick Left H:xxx V:xxx” is shown on the LCD. V: vertical direction H: horizontal direction The value: 0 to 255 is shown on the LCD depending on the [Joystick] control position. 2) Move the [Joystick] to the left to the minimum position to produce the C3 beep. (While “Joystick Left Keep” is shown on the LCD, keep the [Joystick] at the left position.) “Joystick Right H:0 V:xxx” is shown on the LCD. 3) Move the [Joystick] to the right to the maximum position to produce the D3 beep. (While “Joystick Right Keep” is shown on the LCD, keep the [Joystick] at the right position.) “Joystick Center H:255 V:xxx” is shown on the LCD. 4) Release the [Joystick] to the center position to produce the E3 beep. “Joystick Down H:xxx V:xxx” is shown on the LCD. 5) Move the [Joystick] to the lower to the minimum position to produce the F3 beep. (While “Joystick Down Keep” is shown on the LCD, keep the [Joystick] at the lower position.) “Joystick Up H:xxx V:0” is shown on the LCD. 6) Move the [Joystick] to the upper to the maximum position to produce the G3 beep. (While “Joystick Up Keep” is shown on the LCD, keep the [Joystick] at the upper position.) “Joystick Center H:xxx V:255” is shown on the LCD. 7) Release the [Joystick] to the center position to produce the C4 beep. After the calibration data is written, “OK” is shown on the LCD. If writing the calibration data fails, “NG” is shown on the LCD. 8) Press the [START/STOP] button to exit the TEST item. <p>NOTE: If testing is executed before the calibration is completed, “No Calibration” is shown on the LCD, proceed to Step 2) as is. This means that the calibration has never been executed.</p>
041 : Joystick Check	<p>Checks whether the Joystick works properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button. “Joystick Left V:128 H:128” is shown on the LCD. 2) Move the [Joystick] to the left to the minimum position to produce the C3 beep. “Joystick Right H:0 V:128” is shown on the LCD. 3) Move the [Joystick] to the right to the maximum position to produce the D3 beep. “Joystick Center H:255 V:128” is shown on the LCD. 4) Release the [Joystick] to the center position to produce the E3 beep. “Joystick Down H:128 V:128” is shown on the LCD. 5) Move the [Joystick] to the lower to the minimum position to produce the F3 beep. “Joystick Up H:128 V:0” is shown on the LCD. 6) Move the [Joystick] to the upper to the maximum position to produce the G3 beep. “Joystick Center H:128 V:255” is shown on the LCD. 7) Release the [Joystick] to the center position to produce the C4 beep. “OK” is shown on the LCD. 8) Press the [START/STOP] button to exit the TEST item. <p>NOTE: The test item 041: Joystick Check is for checking only and not for execution of the calibration. If the “No Calibration” message is shown on the LCD, it is necessary to execute the test item 040: Joystick Calibration.</p>

LCD display	Test items and judging conditions
042 : Pedal1 Check	<p>Checks whether the Foot Pedal plugged into [ASSIGNABLE FOOT PEDAL 1] jack works properly or not.</p> <ol style="list-style-type: none"> 1) Connect the foot pedal (FC7) to [ASSIGNABLE FOOT PEDAL 1] jack. 2) Press the [START/STOP] button to start the test. “Pedal1 Down” is shown on the LCD. When the pedal is not detected, “No Pedal” is shown on the LCD. 3) Press the pedal to the maximum position to produce the C3 sound. “Pedal1 Up” is shown on the LCD. 4) Press the pedal to the minimum position to produce the G3 sound. “Pedal1 Out” is shown on the LCD. 5) Disconnect the pedal from the [ASSIGNABLE FOOT PEDAL 1] jack to produce the C4 sound. “OK” is shown on the LCD. 6) Press the [START/STOP] button to exit the TEST item.
043 : Pedal2 Check	<p>Checks whether the Foot Pedal plugged into [ASSIGNABLE FOOT PEDAL 2] jack works properly or not.</p> <ol style="list-style-type: none"> 1) Connect the foot pedal (FC7) to [ASSIGNABLE FOOT PEDAL 2] jack. 2) Press the [START/STOP] button to start the test. “Pedal2 Down” is shown on the LCD. When the pedal is not detected, “No Pedal” is shown on the LCD. 3) Press the pedal to the maximum position to produce the C3 sound. “Pedal2 Up” is shown on the LCD. 4) Press the pedal to the minimum position to produce the G3 sound. “Pedal2 Out” is shown on the LCD. 5) Disconnect the pedal from the [ASSIGNABLE FOOT PEDAL 2] jack to produce the C4 sound. “OK” is shown on the LCD. 6) Press the [START/STOP] button to exit the TEST item.
044 : Pedal3 Check	<p>Checks whether the Foot Pedal plugged into [ASSIGNABLE FOOT PEDAL 3] jack works properly or not.</p> <ol style="list-style-type: none"> 1) Connect the foot pedal (FC7) to [ASSIGNABLE FOOT PEDAL 3] jack. 2) Press the [START/STOP] button to start the test. “Pedal3 Down” is shown on the LCD. When the pedal is not detected, “No Pedal” is shown on the LCD. 3) Press the pedal to the maximum position to produce the C3 sound. “Pedal3 Up” is shown on the LCD. 4) Press the pedal to the minimum position to produce the G3 sound. “Pedal3 Out” is shown on the LCD. 5) Disconnect the pedal from the [ASSIGNABLE FOOT PEDAL 3] jack to produce the C4 sound. “OK” is shown on the LCD. 6) Press the [START/STOP] button to exit the TEST item.
045 : MIDI Check	<p>Checks whether the MIDI terminals work properly or not.</p> <ol style="list-style-type: none"> 1) Connect the single MIDI cable to the MIDI A IN and OUT terminals, then connect the other MIDI cable to the MIDI B IN and OUT terminals. 2) Press the [START/STOP] button to start the test. First, the MIDI A terminals are checked. If no problem is found, the C3 sound is produced for a second, and “OK” is shown on the LCD. Second, the MIDI B terminals are checked. If no problem is found, the C4 sound is produced for a second, and “OK” is shown on the LCD. If any problem is found, “NG” is shown on the LCD. 3) Press the [START/STOP] button to exit the TEST item. 4) Disconnect the two MIDI cables from the terminals.

LCD display	Test items and judging conditions
046 : USB to Device/Host Check	<p>Checks whether the [USB TO DEVICE] and [USB TO HOST] terminals work properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button first. “Connect Device-Host” is shown on the LCD. 2) Using the USB cable, connect the [USB TO DEVICE] terminal and [USB TO HOST] terminal. Confirm that “OK” is shown on the LCD and the C4 sound is produced for a second. * If connection is not confirmed after waiting for 30 seconds, “NG” is shown on the LCD. 3) Press the [START/STOP] button to exit the TEST item. 4) Disconnect the USB cable.
047 : USB Storage Device Check	<p>Checks whether or not the instrument can access the three USB flash devices (Front, Rear, Bottom) connected to the [USB TO DEVICE] terminals.</p> <ol style="list-style-type: none"> 1) Insert the three USB flash drives (Front, Rear, Bottom) and press the [START/STOP] button. 2) Confirm that “OK” is shown on the LCD. <ul style="list-style-type: none"> If no media is inserted, “NO DISK” is shown. If the media is unformatted, “UNFORMAT DISK” is shown. If the media is protected, “PROTECT DISK” is shown. If failed in reading/writing, “NG” is shown. 3) Press the [START/STOP] button to exit the TEST item. 4) Disconnect the USB flash drives (Front, Rear, Bottom).
048 : Wi-Fi Adaptor Check	<p>Checks the built-in USB wireless LAN adaptor for connection, destination (U/Other), version and MAC address.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to have the result shown on the LCD. (It will take about 15 seconds.) If no problem is found : <ul style="list-style-type: none"> Destination : U Version : * . * . * MAC Address : ** : ** : ** : ** : ** : ** <p>If the adaptor is not connected: Not Connected If the USB wireless LAN adaptor fails to operate properly, “NG” is shown on the LCD. If the version is not obtained: Version Failed If the destination is not obtained: Destination Failed If the MAC address is not obtained: MAC Address Failed If the PING check fails: PING Check Failed</p> 2) Press the [START/STOP] button to exit the TEST item.
049 : Keyboard Type Check	<p>Checks whether this instrument can recognize the keyboard type correctly or not.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to start the test. 2) Confirm that “OK (FSX76)” is shown on the LCD. 3) Press the [START/STOP] button to exit the TEST item.
050 : Touch Check	<p>Checks whether the initial touch and after touch works properly or not.</p> <ol style="list-style-type: none"> 1) Press the [START] button, and “Touch Start” is shown on the LCD. The initial touch value and after touch value are shown on the LCD. 2) Press a key of the keyboard. When the after touch value MAX (127) is detected, the C3 sound is produced for a second. 3) Release the key to produce the C4 sound for a second. 4) Check that “OK” is shown on the LCD. If the after touch fails to operate properly, “NG” is shown on the LCD. 5) Press the [START] button to exit the TEST item.
051 : ROM Check2	<p>Executes the complete check of the ROM connected to the CPU. (It will take about 20 seconds.)</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button, and then the result is shown on the LCD. <ul style="list-style-type: none"> If no problem is found: OK If any problem is found: MAIN ROM (IC * * *) NG 2) Confirm that “OK” is shown on the LCD. 3) Press the [START/STOP] button to exit the TEST item.

LCD display	Test items and judging conditions
052 : Wave ROM Check2	<p>Executes the complete check of the Wave ROM. (It will take about 9 minutes 50 seconds.)</p> <ol style="list-style-type: none"> Press the [START/STOP] button, and then the result is shown on the LCD. If no problem is found: OK If any problem is found: Wave X (IC * * * , * * *) NG Confirm that “OK” is shown on the LCD. Press the [START/STOP] button to exit the TEST item.
053 : Wave RAM Check2	<p>Executes the complete check of the Wave RAM. (It will take about 50 seconds.)</p> <ol style="list-style-type: none"> Press the [START/STOP] button, and then the result is shown on the LCD. If no problem is found: OK If any problem is found: WaveRAM1 (IC * * *) NG Confirm that “OK” is shown on the LCD. Press the [START/STOP] button to exit the TEST item.
054 : Effect RAM Check2	<p>Executes the complete check of the Effect RAM . (It will take about 1 minute 5 seconds.)</p> <ol style="list-style-type: none"> Press the [START/STOP] button, and then the result is shown on the LCD. If no problem is found: OK If any problem is found: Effect1 TG1 (IC * * *) NG Effect2 TG2 (IC * * *) NG Confirm that “OK” is shown on the LCD. Press the [START/STOP] button to exit the TEST item.
055 : Panel PCB Check 1	<p>This test is for the PNC, PNL2, PNR and ENC circuit boards only to check whether each panel button with its LED (if available) works properly or not. Refer to “027: SW, LED Check” for details as the operation is similar. Regarding what note and LED are assigned, refer to the Panel PCB division check 1 on page 64.</p>
056 : Panel PCB Check 2	<p>This test is for the PNL and PNL2 circuit boards only to check whether each panel button with its LED (if available) works properly or not. Refer to “027: SW, LED Check” for details as the operation is similar. Regarding what note and LED are assigned, refer to the Panel PCB division check 2 on page 64.</p>
057 : Touch Screen Check	<p>Checks whether touch panel works properly or not.</p> <ol style="list-style-type: none"> Press the [START/STOP] button, and “□” mark and “Touch Screen Left Upper” is shown on the LCD (touch panel). Touch the center (red point) of the “□” mark at the upper left. Touch the center (red point) of each “□” mark in the order of upper right, lower right, lower left and center according to the instruction on the LCD. Confirm that “OK” appears on the LCD upon completion. Press the [START/STOP] button to exit the TEST item. <p>NOTE: As calibration is also done during this check, the calibration data is stored in the MAIN ROM.</p>
058 : USER ROM Format	Only for the factory inspection.
059 : Hardware ID write	Only for the factory inspection.

LCD display	Test items and judging conditions
060 : Factory Set	<p>Initializes all the backup areas and the time of the RTC (Red Time Clock) to restore factory default. The actual Factory Set has not been executed yet at this timing, but will be executed next time the power is turned on or 061 Test Exit.</p> <p>Caution: Note that all user data will be cleared. Before executing the factory reset procedure, be sure to save the important data as a backup in the USB flash drive. (Refer to page 68)</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button to restore initial data and “OK” is shown on the LCD. 2) Press the [START/STOP] button to exit from this test. <p>* When the power is turned on next time, “Force Format Mode” is shown on the LCD. After restarting, the instrument returns to the play mode and the Home display appears.</p> <p>NOTE: Never turn off the power until the Home display appears. Doing so may cause a malfunction. (It will take about 30 seconds.)</p>
061 : Test Exit	<p>Enables to exit from the Test mode and to enter the normal mode.</p> <ol style="list-style-type: none"> 1) Press the [START/STOP] button. The Test mode will end, then the Genos will be restarted. <p>NOTE: Never turn off the power until the Home display appears. Doing so may cause a malfunction.</p>

4. Other Inspections

4-1. AUX IN

Take measurement with the Test Program [024: AUX-IN Check] selected.

Check that each terminal output is as shown in the table below when a signal is inputted into AUX IN.

INPUT	LINE OUT MAIN (10k-ohms load)	
	L/L+R	R
AUX IN L/L+R: Sine wave (1 kHz, 0 dBu) AUX IN R: No input (Connected the plug)	+12.0 \pm 2 dBu	-55.0 dBu or less
AUX IN L/L+R: No input (Connected the plug) AUX IN R: Sine wave (1 kHz, 0 dBu)	-55.0 dBu or less	+12.0 \pm 2 dBu
AUX IN L/L+R: No input (Connected the plug) AUX IN R: No input (Connected the plug)	-80.0 dBu or less	-80.0 dBu or less
AUX IN L/L+R: Sine wave (1 kHz, 0 dBu) AUX IN R: Unconnected the plug	+12.0 \pm 2 dBu	+12.0 \pm 2 dBu

4-2. MIC 1

Take measurement with the Test Program [025: MIC 1 Check] selected.

Check that terminal output is as shown in the table below when a signal is inputted into MIC INPUT.

INPUT	LINE OUT MAIN (10k-ohms load)
	L/L+R
Set the [MIC GAIN] knob to the maximum position. MIC INPUT: Sine wave (1 kHz, -45 dBu)	+15.0 \pm 2 dBu
Set the [MIC GAIN] knob to the minimum position. MIC INPUT: Sine wave (1 kHz, -45 dBu)	-22.5 \pm 3 dBu

4-3. MIC 2

Take measurement with the Test Program [026: MIC 2 Check] selected.

Check that terminal output is as shown in the table below when a signal is inputted into MIC INPUT.

INPUT	LINE OUT MAIN (10k-ohms load)
	L/L+R
Set the [MIC GAIN] knob to the maximum position. Set the [48V] switch to off. MIC INPUT: Sine wave (1 kHz, -45 dBu)	+12.5 \pm 2 dBu

Check the voltage of the Phantom power source.

- 1) Disconnect the oscillator from the [MIC INPUT] jack.
- 2) Turn the [+48V] switch on.
- 3) Confirm that +48V (45.8 – 50V) is output at the [MIC INPUT] jack.
HOT (2pin)–GND (1pin)
COLD (3pin)–GND (1pin)

4-4. Noise Level Check

- 1) Do not connect anything to the [AUX IN] jack.
- 2) Connect the level meter (using the JIS-C filter) to an output jack.
- 3) Set the [MASTER VOLUME] dial to the maximum position.
- 4) Measure the output voltage and confirm that the measured values are within specification as follows:

[PHONES] (33 Ω load)

L: -90.0 dBu or less

R: -90.0 dBu or less

[LINE OUT MAIN] (10k Ω load)

L/L+R: -90.0 dBu or less

R: -90.0 dBu or less

[LINE OUT SUB 1] (10k Ω load)

-90.0 dBu or less

[LINE OUT SUB 2] (10k Ω load)

-90.0 dBu or less

[LINE OUT SUB 3] (10k Ω load)

-90.0 dBu or less

[LINE OUT SUB 4] (10k Ω load)

-90.0 dBu or less

[TO SUB WOOFER] (10k Ω load)

Lch (1pin–2pin): -90.0 dBu or less

Rch (6pin–2pin): -90.0 dBu or less

5. INITIAL SETTING

- [MASTER VOLUME] dial: MIN
- [MIC GAIN] knob: MIN
- Cross Fader (Landscape orientation): CENTER
- Six LIVE CONTROL knobs: CENTER
- Nine LIVE CONTROL sliders (Portrait orientation): MAX (Upper side)
- [+48V] switch: OFF

● Switch Test Sequence

Turn	SW Name/Display	LED made to turn on	Note No.
1	UPPER OCTAVE –	MIC LED (ORANGE)(GREEN)	C2
2	UPPER OCTAVE +	–	C#2
3	ROTARY SP/ASSIGNABLE	ROTARY SP/ASSIGNABLE (ORANGE)	D2
4	ART.1	ART.1 (ORANGE)(BLUE)	D#2
5	ART.2	ART.2 (ORANGE)(BLUE)	E2
6	ART.3	ART.3 (ORANGE)(BLUE)	F2
7	MODULATION HOLD	MODULATION HOLD (ORANGE)	F#2
8	VOCAL HARMONY	VOCAL HARMONY (ORANGE)	G2
9	TALK	TALK (ORANGE)	G#2
10	KNOB ASSIGN	–	A2
11	SLIDER ASSIGN	–	A#2
12	SONG A PLAY/PAUSE	PLAY/PAUSE (ORANGE)(BLUE)	B2
13	SONG A PREV	–	C3
14	SONG A NEXT	–	C#3
15	SONG B PLAY/PAUSE	PLAY/PAUSE (ORANGE)(BLUE)	D3
16	SONG B PREV	–	D#3
17	SONG B NEXT	–	E3
18	RECORDING	RECORDING (ORANGE)	F3
19	ACMP	ACMP (ORANGE)	F#3
20	OTS LINK	OTS LINK (ORANGE)	G3
21	AUTO FILL IN	AUTO FILL IN (ORANGE)	G#3
22	TAP TEMPO	–	A3
23	TEMPO –	–	A#3
24	TEMPO +	–	B3
25	TRANSPOSE –	–	C4
26	TRANSPOSE +	–	C#4
27	INTRO I	INTRO I (ORANGE)(BLUE)	D4
28	INTRO II	INTRO II (ORANGE)(BLUE)	D#4
29	INTRO III	INTRO III (ORANGE)(BLUE)	E4
30	MAIN VARIATION A	MAIN VARIATION A (ORANGE)(BLUE)	F4
31	MAIN VARIATION B	MAIN VARIATION B (ORANGE)(BLUE)	F#4
32	MAIN VARIATION C	MAIN VARIATION C (ORANGE)(BLUE)	G4
33	MAIN VARIATION D	MAIN VARIATION D (ORANGE)(BLUE)	G#4
34	BREAK	BREAK (ORANGE)(BLUE)	A4
35	ENDING/rit. I	ENDING/rit. 1 (ORANGE)(BLUE)	A#4
36	ENDING/rit. II	ENDING/rit. 2 (ORANGE)(BLUE)	B4
37	ENDING/rit. III	ENDING/rit. 3 (ORANGE)(BLUE)	C5
38	SYNC STOP	SYNC STOP (ORANGE)	C#5
39	SYNC START	SYNC START (ORANGE)	D5
40	START/STOP	START/STOP (ORANGE)(BLUE)	D#5
41	DIRECT ACCESS	–	E5
42	REGIST. BANK –	–	F5
43	REGIST. BANK +	–	F#5
44	REG. MEM. 1	REG. MEM. 1 (ORANGE)(BLUE)	G5
45	REG. MEM. 2	REG. MEM. 2 (ORANGE)(BLUE)	G#5
46	REG. MEM. 3	REG. MEM. 3 (ORANGE)(BLUE)	A5
47	REG. MEM. 4	REG. MEM. 4 (ORANGE)(BLUE)	A#5
48	REG. MEM. 5	REG. MEM. 5 (ORANGE)(BLUE)	B5
49	REG. MEM. 6	REG. MEM. 6 (ORANGE)(BLUE)	C2
50	REG. MEM. 7	REG. MEM. 7 (ORANGE)(BLUE)	C#2
51	REG. MEM. 8	REG. MEM. 8 (ORANGE)(BLUE)	D2
52	REG. MEM. 9	REG. MEM. 9 (ORANGE)(BLUE)	D#2
53	REG. MEM. 10	REG. MEM. 10 (ORANGE)(BLUE)	E2
54	FREEZE	FREEZE (ORANGE)	F2
55	MEMORY	–	F#2
56	ENTER	–	G2
57	DEC/–	–	G#2
58	INC/+	–	A2
59	EXIT	–	A#2
60	HOME	HOME (WHITE)	B2
61	FUNCTION	FUNCTION (WHITE)	C3
62	STYLE	STYLE (WHITE)	C#3
63	VOICE	VOICE (WHITE)	D3

Turn	SW Name/Display	LED made to turn on	Note No.
64	SONG	SONG (WHITE)	D#3
65	PLAYLIST	PLAYLIST (WHITE)	E3
66	ASSIGNABLE A	–	F3
67	ASSIGNABLE B	–	F#3
68	ASSIGNABLE C	–	G3
69	ASSIGNABLE D	–	G#3
70	ASSIGNABLE E	–	A3
71	ASSIGNABLE F	–	A#3
72	HARMONY / ARPPEGIO	HARMONY / ARPPEGIO (ORANGE)	B3
73	SUSTAIN	SUSTAIN (ORANGE)	C4
74	VOICE SELECT LEFT	–	C#4
75	VOICE SELECT RIGHT 1	–	D4
76	VOICE SELECT RIGHT 2	–	D#4
77	VOICE SELECT RIGHT 3	–	E4
78	OTS 1	OTS 1 (ORANGE)(BLUE)	F4
79	OTS 2	OTS 2 (ORANGE)(BLUE)	F#4
80	OTS 3	OTS 3 (ORANGE)(BLUE)	G4
81	OTS 4	OTS 4 (ORANGE)(BLUE)	G#4
82	M.PAD SELECT	–	A4
83	M.PAD 1	M.PAD 1 (ORANGE)(BLUE)	A#4
84	M.PAD 2	M.PAD 2 (ORANGE)(BLUE)	B4
85	M.PAD 3	M.PAD 3 (ORANGE)(BLUE)	C5
86	M.PAD 4	M.PAD 4 (ORANGE)(BLUE)	C#5
87	M.PAD STOP	–	D5
88	LEFT HOLD	LEFT HOLD (ORANGE)	D#5
89	PART ON/OFF LEFT	PART ON/OFF LEFT (ORANGE)	E5
90	PART ON/OFF RIGHT1	PART ON/OFF RIGHT1 (ORANGE)	F5
91	PART ON/OFF RIGHT2	PART ON/OFF RIGHT2 (ORANGE)	F#5
92	PART ON/OFF RIGHT3	PART ON/OFF RIGHT3 (ORANGE)	G5

● **Panel PCB division check 1**
(PNC, PNL2, PNR and ENC circuit boards)

Turn	SW Name/Display	LED made to turn on	Note No.
1	MEMORY	—	F#2
2	FREEZE	FREEZE (ORANGE)	F2
3	REG. MEM. 10	REG. MEM. 10 (ORANGE)(BLUE)	E2
4	REG. MEM. 9	REG. MEM. 9 (ORANGE)(BLUE)	D#2
5	REG. MEM. 8	REG. MEM. 8 (ORANGE)(BLUE)	D2
6	REG. MEM. 7	REG. MEM. 7 (ORANGE)(BLUE)	C#2
7	REG. MEM. 6	REG. MEM. 6 (ORANGE)(BLUE)	C2
8	REG. MEM. 5	REG. MEM. 5 (ORANGE)(BLUE)	B5
9	REG. MEM. 4	REG. MEM. 4 (ORANGE)(BLUE)	A#5
10	REG. MEM. 3	REG. MEM. 3 (ORANGE)(BLUE)	A5
11	REG. MEM. 2	REG. MEM. 2 (ORANGE)(BLUE)	G#5
12	REG. MEM. 1	REG. MEM. 1 (ORANGE)(BLUE)	G5
13	REGIST. BANK +	—	F#5
14	REGIST. BANK —	—	F5
15	UPPER OCTAVE +	—	C#2
16	ROTARY SP/ASSIGNABLE	ROTARY SP/ASSIGNABLE (ORANGE)	D2
17	ART.3	ART.3 (ORANGE)(BLUE)	F2
18	UPPER OCTAVE —	—	C2
19	ART.2	ART.2 (ORANGE)(BLUE)	E2
20	ART.1	ART.1 (ORANGE)(BLUE)	D#2
21	MODULATION HOLD	MODULATION HOLD (ORANGE)	F#2
22	HOME	HOME (WHITE)	B2
23	FUNCTION	FUNCTION (WHITE)	C3
24	STYLE	STYLE (WHITE)	C#3
25	VOICE	VOICE (WHITE)	D3
26	SONG	SONG (WHITE)	D#3
27	PLAYLIST	PLAYLIST (WHITE)	E3
28	ENTER	—	G2
29	DEC/—	—	G#2
30	INC/+	—	A2
31	EXIT	—	A#2
32	ASSIGNABLE A	—	F3
33	ASSIGNABLE B	—	F#3
34	ASSIGNABLE C	—	G3
35	ASSIGNABLE D	—	G#3
36	ASSIGNABLE E	—	A3
37	ASSIGNABLE F	—	A#3
38	HARMONY / ARPPEGIO	HARMONY / ARPPEGIO (ORANGE)	B3
39	SUSTAIN	SUSTAIN (ORANGE)	C4
40	VOICE SELECT LEFT	—	C#4
41	VOICE SELECT RIGHT 1	—	D4
42	VOICE SELECT RIGHT 2	—	D#4
43	VOICE SELECT RIGHT 3	—	E4
44	OTS 1	OTS 1 (ORANGE)(BLUE)	F4
45	OTS 2	OTS 2 (ORANGE)(BLUE)	F#4
46	OTS 3	OTS 3 (ORANGE)(BLUE)	G4
47	OTS 4	OTS 4 (ORANGE)(BLUE)	G#4
48	M.PAD SELECT	—	A4
49	M.PAD 1	M.PAD 1 (ORANGE)(BLUE)	A#4
50	M.PAD 2	M.PAD 2 (ORANGE)(BLUE)	B4
51	M.PAD 3	M.PAD 3 (ORANGE)(BLUE)	B5
52	M.PAD 4	M.PAD 4 (ORANGE)(BLUE)	B6
53	M.PAD STOP	—	B7
54	LEFT HOLD	LEFT HOLD (ORANGE)	B8
55	PART ON/OFF LEFT	PART ON/OFF LEFT (ORANGE)	B9
56	PART ON/OFF RIGHT1	PART ON/OFF RIGHT1 (ORANGE)	B10
57	PART ON/OFF RIGHT2	PART ON/OFF RIGHT2 (ORANGE)	B11
58	PART ON/OFF RIGHT3	PART ON/OFF RIGHT3 (ORANGE)	B12

● **Panel PCB division check 2**
(PNL and PNL2 circuit boards)

Turn	SW Name/Display	LED made to turn on	Note No.
1	VOCAL HARMONY	VOCAL HARMONY(ORANGE)	G2
2	TALK	TALK(ORANGE)	G#2
3	KNOB ASSIGN	—	A2
4	SLIDER ASSIGN	—	A#2
5	SONG A PLAY/PAUSE	PLAY/PAUSE (ORANGE)(BLUE)	B2
6	SONG A PREV	—	C3
7	SONG A NEXT	—	C#3
8	SONG B PLAY/PAUSE	PLAY/PAUSE (ORANGE)(BLUE)	D3
9	SONG B PREV	—	D#3
10	SONG B NEXT	—	E3
11	RECORDING	RECORDING (ORANGE)	F3
12	ACMP	ACMP (ORANGE)	F#3
13	OTS LINK	OTS LINK (ORANGE)	G3
14	AUTO FILL IN	AUTO FILL IN (ORANGE)	G#3
15	TAP TEMPO	—	A3
16	TEMPO -	—	A#3
17	TEMPO +	—	B3
18	TRANSPOSE -	—	C4
19	TRANSPOSE +	—	C#4
20	INTRO I	INTRO I (ORANGE)(BLUE)	D4
21	INTRO II	INTRO II (ORANGE)(BLUE)	D#4
22	INTRO III	INTRO III (ORANGE)(BLUE)	E4
23	MAIN VARIATION A	MAIN VARIATION A (ORANGE)(BLUE)	F4
24	MAIN VARIATION B	MAIN VARIATION B (ORANGE)(BLUE)	F#4
25	MAIN VARIATION C	MAIN VARIATION C (ORANGE)(BLUE)	G4
26	MAIN VARIATION D	MAIN VARIATION D (ORANGE)(BLUE)	G#4
27	BREAK	BREAK (ORANGE)(BLUE)	A4
28	ENDING/rit. I	ENDING/rit. 1 (ORANGE)(BLUE)	A#4
29	ENDING/rit. II	ENDING/rit. 2 (ORANGE)(BLUE)	B4
30	ENDING/rit. III	ENDING/rit. 3 (ORANGE)(BLUE)	C5
31	SYNC STOP	SYNC STOP (ORANGE)	C#5
32	SYNC START	SYNC START (ORANGE)	D5
33	START/STOP	START/STOP (ORANGE)(BLUE)	D#5
34	DIRECT ACCESS	—	E5
35	UPPER OCTAVE +	—	C#2
36	ROTARY/ASSIGN	ROTARY/ASSIGN(ORANGE)	D2
37	ART.3	ART.3 (ORANGE)(BLUE)	F2
38	UPPER OCTAVE -	—	C2
39	ART.2	ART.2 (ORANGE)(BLUE)	E2
40	ART.1	ART.1 (ORANGE)(BLUE)	D#2
41	MODULATION HOLD	MODULATION HOLD (ORANGE)	F#2

SYSTEM RESET

The SYSTEM RESET of this product can be performed by the following two operations:

1. Turning on the power switch while pressing a specified key, or
2. Operation on the UTILITY screen on the display.

● When turning on the power switch while pressing a specified key

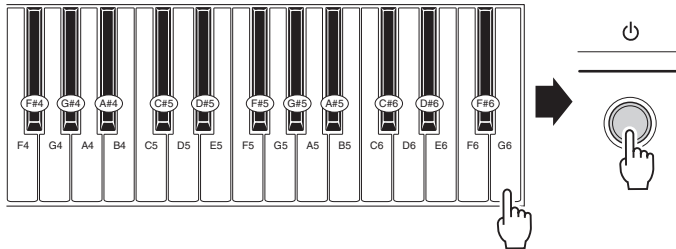
1 System Backup Clear

Turn on the power while pressing the highest key.

This resets the backed-up system data to start.

The Language, Owner Name, and Main Picture data are not initialized.

‘Initializing system setup’ appears on the start-up screen.

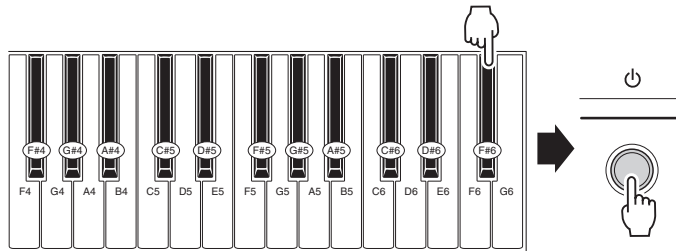


2 Regist Backup Clear

Turn on the power while pressing the key next to the highest key.

This resets the backed-up regist data to start.

‘Initializing regist setup’ appears on the start-up screen.



3 Factory Setup

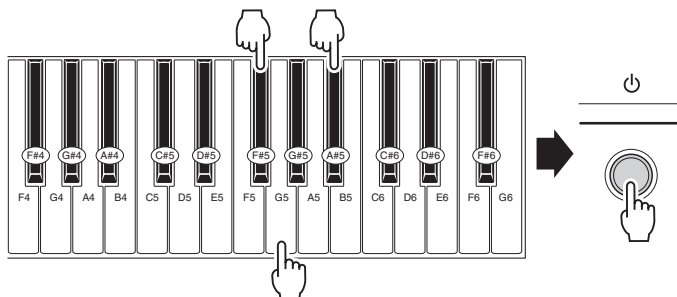
Turn on the power while pressing F#5, G5, and A#5.

This is the same function as the Factory Set in the test mode.

NOTE: All User Drive data are deleted (except those stored in the external USB memory).

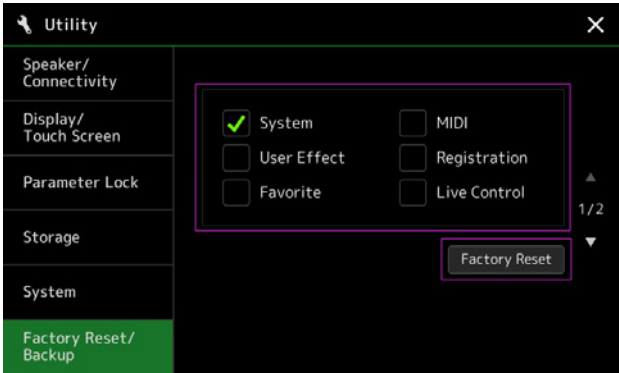
Make sure to back up User Data in the external USB memory advance.

It is displayed in the startup screen in order to ‘Force Format Mode’ → ‘Initializing regist setup’ → ‘Initializing system setup’.



● Operation on the UTILITY screen on the display

1 Call up the display via [MENU] → [Utility] → [Factory Reset/Backup] → page 1.



2 Select the item you wish to reset to factory settings.

- * Default Value: Only System is checked
- * Check marks are reset to default values when the power is turned on, and retained as long as it is on.

Item

SYSTEM	<ul style="list-style-type: none">• Sets most parameters belonging to System Setup to default values.• Exceptions: Language, Owner Name, and Lyric/Text Background are not reset to default values by Factory Reset.
MIDI	<ul style="list-style-type: none">• Deletes the user area of MIDI Setting.
USER Effect	<ul style="list-style-type: none">• Sets all USER Effects to default values.
Registration	<ul style="list-style-type: none">• Deletes everything in the current Registration Memory.
Favorite	<ul style="list-style-type: none">• Deletes all Favorites.
Live Control	<ul style="list-style-type: none">• Deletes all Live Control settings.

3 When the [Factory Reset] button is pressed, a message box to confirm the order will appear.
Press the [Yes] button to stop and reset the song, style, and M. Pad currently playing.

DATA BACKUP AND RESTORE

Data Backup

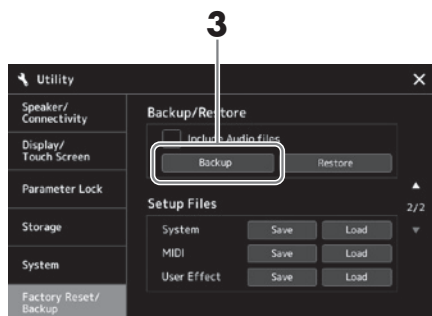
You can back up all data in the User drive of this instrument (except for Protected Songs) and all settings to the USB flash drive as a single file. This procedure is recommended for data security and backup in case of damage.

- 1 Connect the USB flash drive to the [USB TO DEVICE] terminal as backup destination.

NOTE

- You can back up User data such as Voice, Song, Style, and Registration Memory by copying them individually to a USB flash drive.
- You can save the System settings, MIDI settings, User Effect settings, and Playlist Records individually.

- 2 Call up the display via [MENU] → [Utility] → [Factory Reset/ Backup] → Page 2/2



If you want to include the audio files to the backup file:

Before going on to step 3, enter a checkmark by touching the “Include Audio files” checkbox.

- 3 Touch [Backup] to save the backup file to the USB flash drive.

Restoring the Backup file

To do this, touch [Restore] in step 3 above. When the operation is complete, the instrument will be restarted automatically.

NOTE

- Completing the backup/restore operation may take a few minutes. Do not turn off the power during backup or restoring. If you turn off the power during backup or restoring, data may be lost or damaged.

DM CIRCUIT BOARD CHECK METHOD

The DM Circuit Board is provided with test points for service check purposes.
Check the test points on the DM Circuit Board if the following symptoms appear.

Symptoms and check items

- ① No [POWER] indicator with Power SW turns on. → Test Point 1 to 5 sequentially
- ② No sound or distorted sound → Test Point 6 and 10, and output check items from 1 to 13 an applicable output.

Test Point

NO.	Test Point	Supply Voltage Name	Circuit	Judgment criteria	GND Point	Measured by	Parts with possible defects
①	+16D	+16D	16V power for digital circuit	16.0V±0.5V	DGND (TL1044)	Multimeter	FT800
②	TL1053	+12D	12V power for digital circuit	12.0V±0.3V	DGND (TL1044)	Multimeter	IC908
③	TL1038	+5D	5 V power for digital circuit	5.1V±0.1V	DGND (TL1044)	Multimeter	IC906
④	TL1040	+3.3D	3.3V power for digital circuit	3.3V±0.1V	DGND (TL1044)	Multimeter	IC906
⑤	NRESET	RESET	Reset signal for DM circuit board	5V±0.5V	DGND (TL1044)	Multimeter	IC006, TR001
⑥	TL1045	+16A	16V power for analog circuit	16.0V±0.5V	AGND (TL1046)	Multimeter	FT800
⑦	TL1039	+12A	12V power for analog circuit	12.0V±0.5V	AGND (TL1046)	Multimeter	IC903
⑧	TL1043	-14A	-14V power for analog circuit	-13.8V±0.5V	AGND (TL1046)	Multimeter	IC902
⑨	TL1041	-12A	-12V power for analog circuit	-12.0V±0.5V	AGND (TL1046)	Multimeter	IC904
⑩	TL852	+5A	5V power for analog circuit	5.0V±0.2V	AGND (TL1046)	Multimeter	IC905

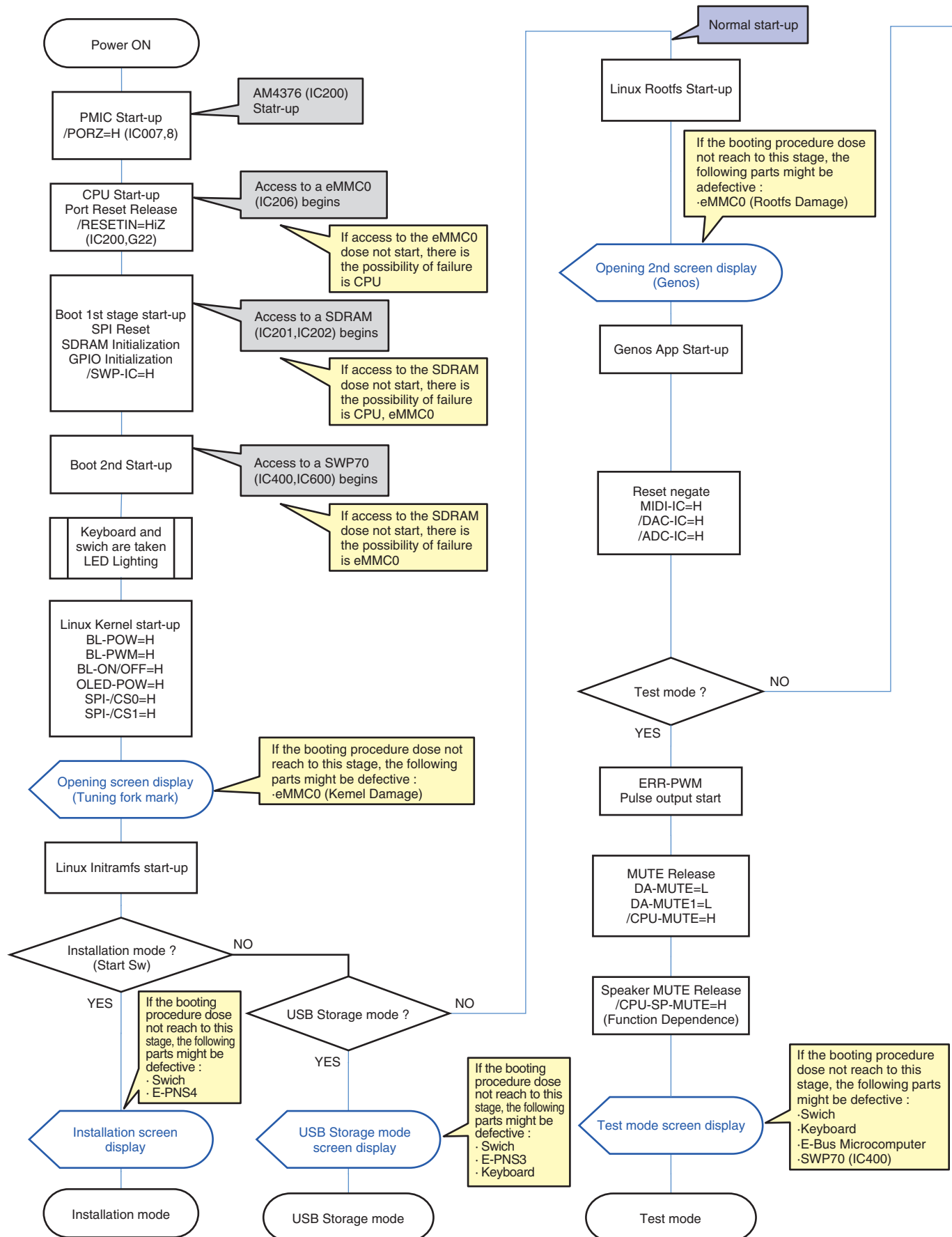
Output terminal check

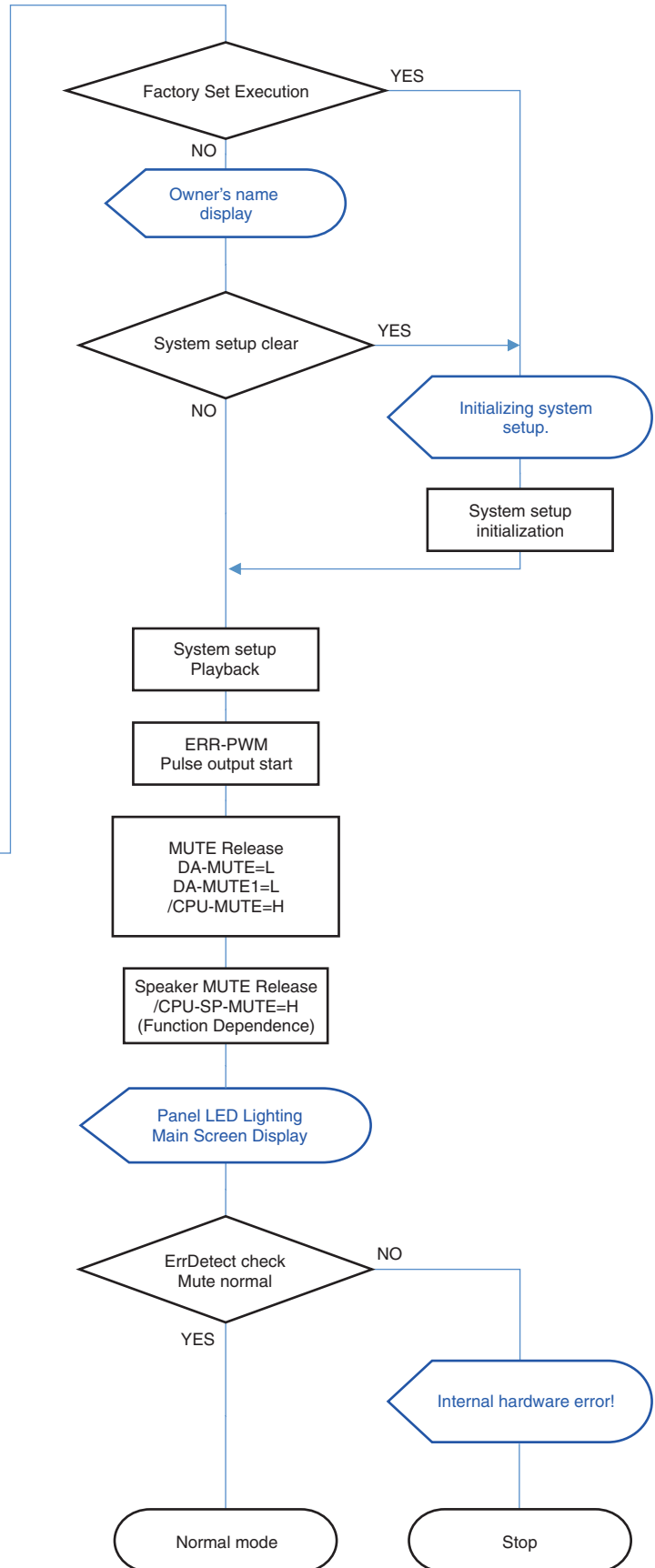
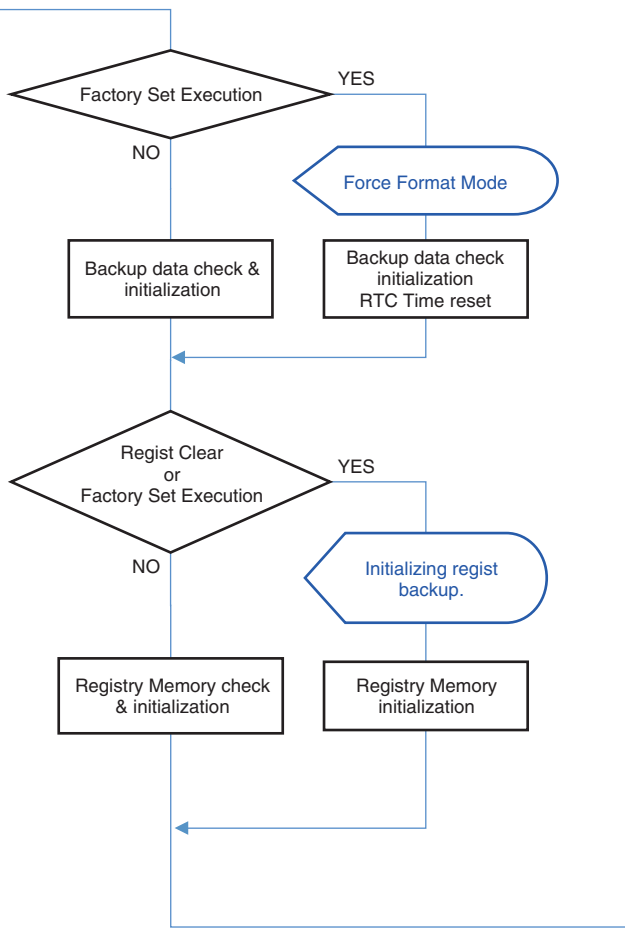
OUTPUT	MAIN Lch	MAIN Rch	SUB1	SUB2	SUB3/ AUX OUT L	SUB4/ AUX OUT R	S.WOOFER Lch	S.WOOFER Rch	Parts with possible defects
Test Point	MAINL	MAINR	SUB1	SUB2	SUB3	SUB4	TL800	TL801	
1	×	×	×	×	×	×	×	×	IC400, IC200 (DAC-/IC)
2	×	×	○	○	○	○	×	×	IC804, IC808, IC200 (DA-MUTE)
3	×	○	○	○	○	○	×	○	IC808
4	○	×	○	○	○	○	○	×	IC808
5	○	○	×	×	×	×	○	○	IC200 (DA-MUTE1)
6	○	○	×	×	○	○	○	○	IC805, IC809
7	○	○	×	○	○	○	○	○	IC809
8	○	○	○	×	○	○	○	○	IC809
9	○	○	○	○	×	×	○	○	IC806, IC810
10	○	○	○	○	×	○	○	○	IC810
11	○	○	○	○	○	×	○	○	IC810
12	○	○	○	○	○	○	×	○	IC807
13	○	○	○	○	○	○	○	×	IC807

Note: "○" mark expresses normalcy and "×" mark expresses a failed state.



START-UP SEQUENCE





TROUBLESHOOTING

Overall	
A click or pop is heard when the power is turned on or off.	This is normal. Electrical current is being applied to the instrument.
The power is automatically turned off.	This is normal and due to the Auto Power Off function. If necessary, set the parameter of the Auto Power Off function.
Noise is heard from the instrument.	Noise may be heard if a mobile phone is used near the instrument or if the phone is ringing. Turn off the mobile phone, or use it further away from the instrument.
Noise is heard from the instrument's speakers or headphones when using the instrument with an iPhone/iPad app.	When you use the instrument along with an iPhone/iPad app, we recommend that you set "Airplane Mode" to "ON" on your iPhone/iPad in order to avoid noise caused by communication.
In the LCD, there are some specific points that are always lit or unlit.	These are the result of defective pixels and occasionally occur in TFT-LCDs; they do not indicate a problem in operation.
There is a slight difference in sound quality among different notes played on the keyboard.	This is normal and is a result of the instrument's sampling system.
Some Voices have a looping sound.	
Some noise or vibrato is noticeable at higher pitches, depending upon the Voice.	
The overall volume is too low, or, no sound is heard.	The master volume may be set too low. Set it to an appropriate level with the [MASTER VOLUME] dial.
	All keyboard parts are set to off. Use the PART ON/OFF [RIGHT 1]/[RIGHT 2]/[RIGHT 3]/[LEFT] button to turn it on.
	The volume of individual parts may be set too low. Raise the volume in the Mixer display.
	Make sure the desired channel is set to on in the Mixer display.
	Headphones are connected, disabling the speaker output. Unplug the headphones.
	Connect the footswitch to the appropriate jack.
The sound is distorted or noisy.	Check whether the external speaker is connected and the volume control is adjusted properly.
	The volume may be turned up too high. Make sure all relevant volume settings are appropriate.
The sound is distorted or noisy.	This may be caused by certain effects or filter resonance settings. Check the effect or filter settings and change them accordingly in the Mixer display, referring to the Reference Manual on the website.
Not all simultaneously played notes sound.	You are probably exceeding the maximum polyphony of the instrument. When the maximum polyphony is exceeded, the least important notes (such as soft notes and notes currently decaying) will stop sounding first.
The keyboard volume is lower than the Style/Song playback volume.	The volume of the keyboard parts may be set too low. Raise the volume in the Mixer display.
The Main display does not appear even when turning the power on.	This may occur if a USB flash drive has been installed to the instrument. Installation of some USB flash drive may result a long interval between turning the power on and appearance of the Home display. To avoid this, turn the power on after disconnecting the device.
Some characters of the file/folder name are garbled.	The language settings have been changed. Set the appropriate language for the file/folder names.
An existing file is not shown.	The file extension (.MID, etc.) may have been changed or deleted. Manually rename the file, adding the appropriate extension, on a computer.
	Data files with names of more than 50 characters cannot be handled by the instrument. Rename the file, reducing the number of characters to 50 or less.
Style	
The Style does not start even when the [START/STOP] button is pressed.	The Rhythm channel of the selected Style may not contain any data. Turn the [ACMP] button on and play the left-hand section on the keyboard to sound the accompaniment part of the Style.
Only the rhythm channel plays.	Make sure the Auto Accompaniment function is turned on; press the [ACMP] button.
	Make sure to play keys in the chord range of the keyboard.
Styles in a USB flash drive cannot be selected.	If the size of the Style data is large (about 120 KB or greater), the Style cannot be selected because the data is too large to be read by the instrument.

Style playback seems to “skip” when the keyboard is played.	You are probably exceeding the maximum polyphony of the instrument. The instrument can play up to 256 notes at the same time—including RIGHT 1/RIGHT 2/RIGHT 3/LEFT Voices, Style, Song, and Multi Pad notes. When the maximum polyphony is exceeded, the least important notes (such as soft notes and notes currently decaying) will stop sounding first.
Style does not change even when a different chord is played, or the chord is not recognized.	Make sure to play notes on the left-hand section of the keyboard.
Voice	
The Voice selected from the Voice Selection display does not sound.	Check whether the selected part is turned on or not.
A strange “flanging” or “doubling” sound occurs. The sound is slightly different each time the keys are played.	The RIGHT 1 and RIGHT 2 parts are set to “ON,” and both parts are set to play the same Voice. Turn off the RIGHT 2 part or change the Voice of one of the parts.
The sound is slightly different each time the keys are played.	If you are routing the MIDI OUT on the Genos to a sequencer and back to the MIDI IN, you may need to set Local Control setting to “off” in the System page of the MIDI display (refer to the Reference Manual on the website).
Some Voices will jump an octave in pitch when played in the upper or lower registers.	This is normal. Some voices have a pitch limit which, when reached, causes this type of pitch shift.
Song	
MIDI Songs cannot be selected.	If the size of the Song data is large (about 300 KB or greater), the Song cannot be selected because the data is too large to be read by the instrument.
	In the Dual Player mode, two MIDI Songs cannot be selected for SONG A and SONG B. Select Audio Song for either side.
	MIDI Songs cannot be played back during MIDI recording operation. Stop MIDI Recording when you want to play back a MIDI Song.
Audio Songs cannot be selected.	The file format may not be compatible with the instrument. Compatible formats are: MP3 and WAV. DRM protected files cannot be played back.
The sound of a song is too low, or a song cannot be heard.	Check the position of the Cross Fader. If the Cross Fader is set to the right position, you cannot hear the song of SONG A side. If this is the case, adjust the Cross Fader to the center position.
Song playback does not start.	The Song has been stopped at the end of the Song data. Return to the beginning of the Song by pressing the SONG [PREV] button.
The Song playback volume differs depending on the selected song.	The volume of MIDI Songs and Audio Songs are set independently. Adjust the volume in the Mixer display after selecting a Voice.
(MIDI) The measure number is different from that of the score in the Song Position display, shown by pressing and holding the [PREV]/[NEXT] buttons.	This happens when playing back music data for which a specific, fixed tempo is set.
(MIDI) When playing back a Song, some channels do not play.	Playback of these channels may be set to off. Turn playback on for those channels that are set to off.
(MIDI) The tempo, beat, measure and music notation are not displayed correctly.	Some Song data for the instrument has been recorded with special “free tempo” settings. For such Song data, the tempo, beat, measure and music notation will not be displayed correctly.
(Audio) Recorded file is played back at a different volume compared to when it was recorded.	The audio playback volume has been changed. Setting the volume value to 90 plays back the file at the same volume as when it was recorded.
In the Audio Recording function, an error message appears and audio cannot be recorded to the internal User drive.	The data on the User drive is fragmented and cannot be used as is. Since there is no defragmentation function in the Audio Recording, the drive can only be defragmented by formatting it. To do this, first back up the data by using the data backup function, then format the drive, and finally restore the backup data. Performing this backup/restore operation effectively defragments the drive, allowing you to use it again.
Mixer	
The sound seems strange or different than expected when changing a rhythm Voice (drum kit, etc.) of the Style or Song from the Mixer.	When changing the rhythm/percussion Voices (drum kits, etc.) of the Style and Song from the VOICE parameter, the detailed settings related to the drum voice are reset, and in some cases you may be unable to restore the original sound. You can restore the original sound by selecting the same Song or Style again.
Microphone/Vocal Harmony	
The microphone input signal cannot be recorded.	The microphone input signal cannot be recorded by MIDI recording. Record by using Audio recording.
Harmony can be heard in addition to the microphone sound.	Vocal Harmony is set to on. Turn Vocal Harmony off.

The Vocal Harmony effect sounds distorted or out-of-tune.	<p>Your vocal microphone may be picking up extraneous sounds, such as the Style sound from the instrument. In particular, bass sounds can cause mistracking of the Vocal Harmony. To remedy this:</p> <ul style="list-style-type: none"> • Sing as closely to the microphone as possible. • Use a directional microphone. • Turn down the Master volume, Style volume, or Song volume control. • Separate the microphone from the external speakers as far as possible.
The Vocal Harmony effect is not applied even when it is turned on.	<p>In the Chordal mode, Vocal Harmony is added only when chords are detected. Try one of the following:</p> <ul style="list-style-type: none"> • Turn on the [ACMP ON/OFF] button and play chords in the chord section during Style playback. • Turn on the Left part and play chords in the left hand section. • Play back a Song which contains chords. • Set the “Stop ACMP” parameter to something other than “Disabled” via [MENU] → [Style Setting] → [Setting]. For details, refer to the Reference Manual on the website.
ASSIGNABLE FOOT PEDAL jacks	
The on/off setting of the footswitch connected to the ASSIGNABLE FOOT PEDAL jack is reversed.	Turn the instrument's power off, then turn it on again making sure not to press the footswitch.
AUX IN jacks	
Sound input to the AUX IN jacks is interrupted.	The output volume of the external device connected to this instrument is too low. Increase the output volume of the external device. The volume level reproduced via this instrument can be adjusted by using the [MASTER VOLUME] dial.



PARTS LIST

■ CONTENTS



OVERALL ASSEMBLY	2
UPPER CASE ASSEMBLY	4
LOWER CASE ASSEMBLY	8
OLED ASSEMBLY	10
KEYBOARD UNIT	11
ELECTRICAL PARTS	13-19

Notes : DESTINATION ABBREVIATIONS

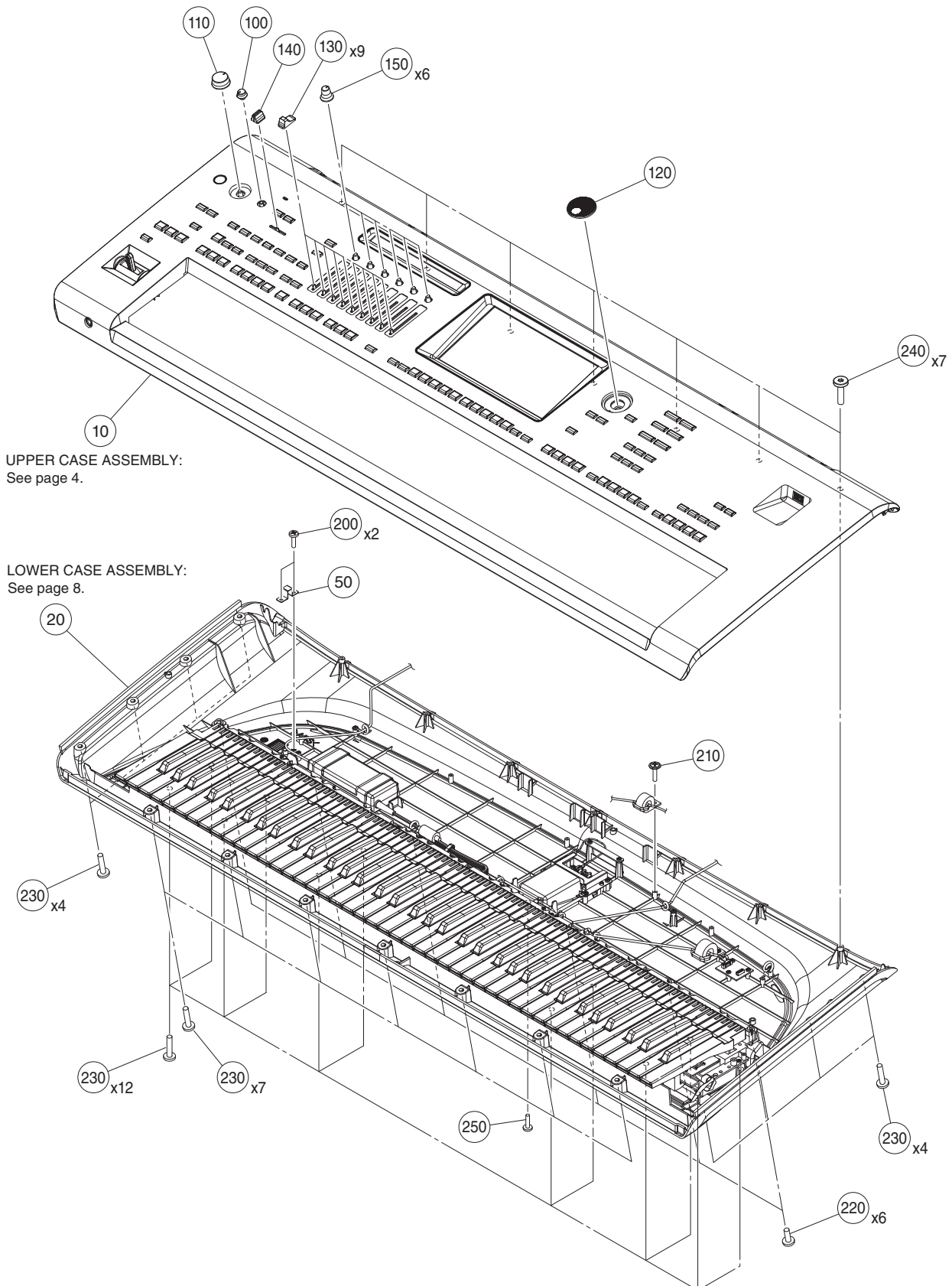
A : Australian model	O : Chinese model
B : British model	P : Brazilian model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W : General export model (220V)
I : Indonesian model	N,X: General export model
J : Japanese model	Y : Export model
K : Korean model	Z : Indian model
M : Malaysian model	

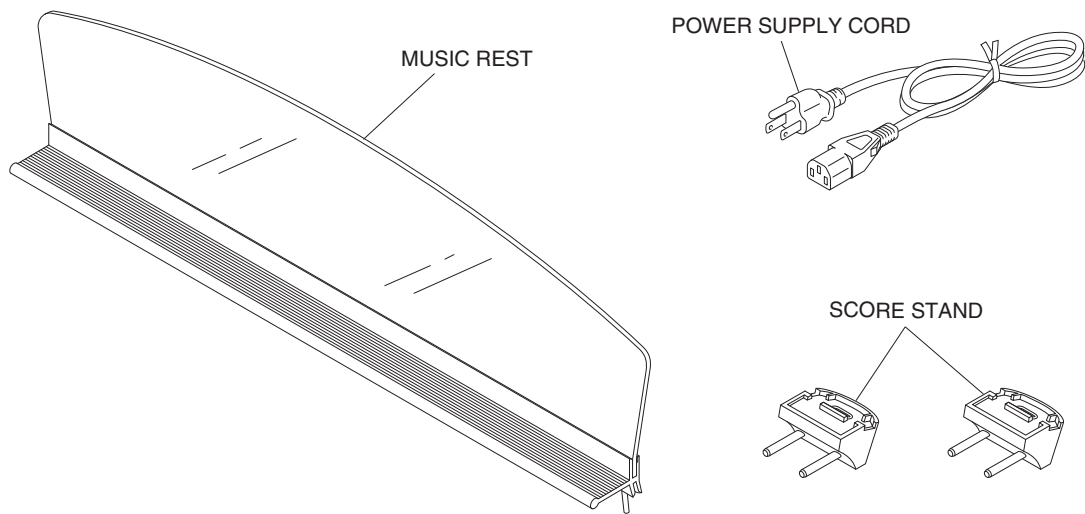
■ WARNING

Components having special characteristics are marked  and must be replaced with parts having specification equal to those originally installed.

- The numbers “QTY” show quantities for each unit.
- The parts with “-” in “PART NO.” are not available as spare parts.
- This mark “ } ” in the REMARKS column means these parts are interchangeable.
- The second letter of the shaded () part number is O, not zero.
- The second letter of the shaded () part number is I, not one.

OVERALL ASSEMBLY

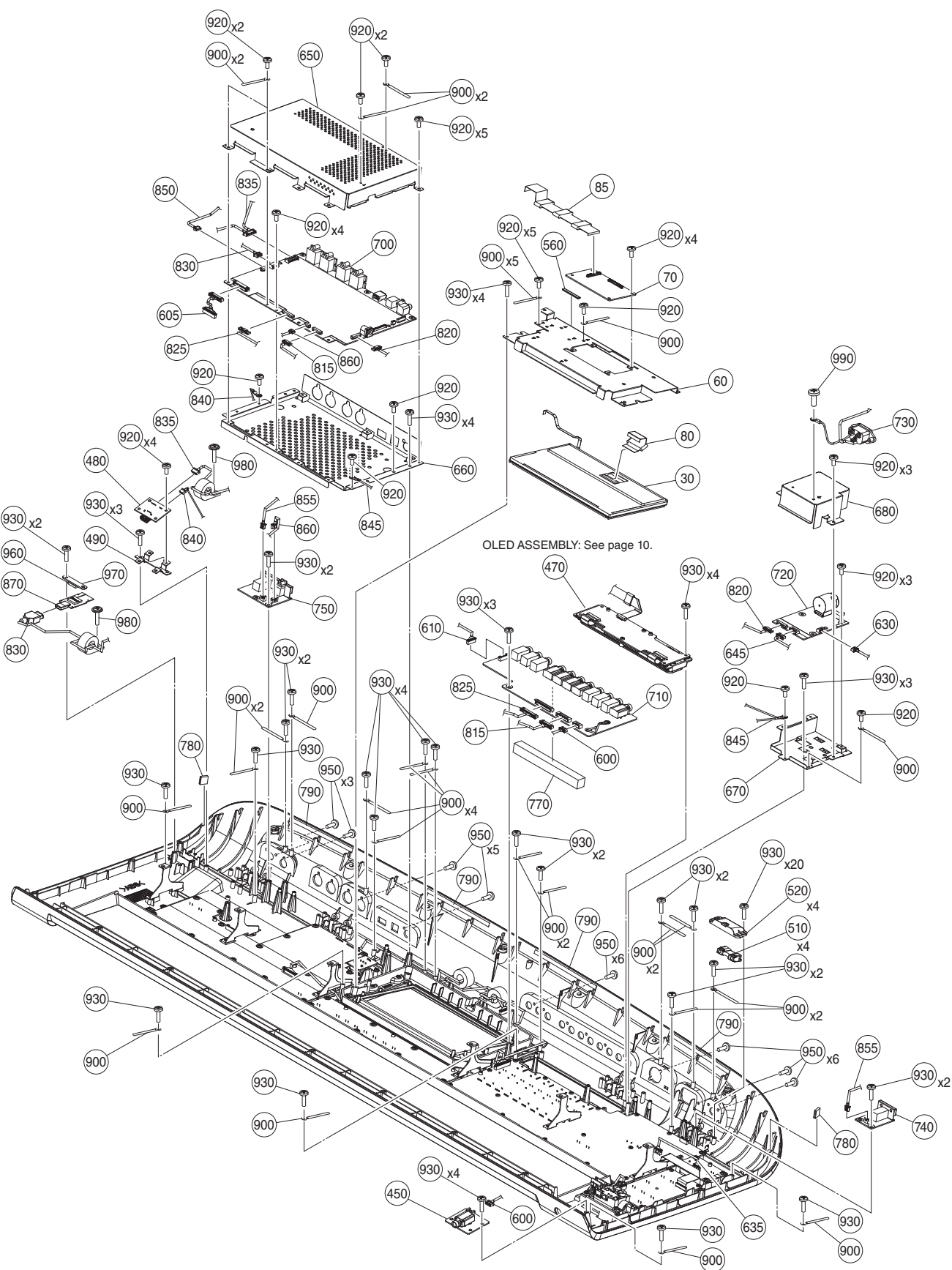




REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY
	--	OVERALL ASSEMBLY	総 組 立	Genos	
	--	OVERALL ASSEMBLY	総 組 立	E,B (ZW70980)	
	--	OVERALL ASSEMBLY	総 組 立	U (ZW70990)	
	--	OVERALL ASSEMBLY	総 組 立	O,P,Y (ZW71000)	
10	--	UPPER CASE ASSEMBLY	上 ケース A s s ' y	E,B (ZW70910)	
10	--	UPPER CASE ASSEMBLY	上 ケース A s s ' y	U (ZW70920)	
10	--	UPPER CASE ASSEMBLY	上 ケース A s s ' y	O,P,Y (ZW70930)	
20	--	LOWER CASE ASSEMBLY	下 ケース A s s ' y	(ZW69650)	
50	--	AC CABLE BRACKET	A C 束 線 金 具	(ZX07690)	
* 100	ZW569100	MIC KNOB	M I C ツ マ ミ	MIC GAIN	
* 110	ZW569000	MVR KNOB	M V R ツ マ ミ	MASTER VOLUME	
* 120	ZW569210	ENCODER KNOB	エン コーダ ツ マ ミ	Data dial	
* 130	ZW567110	SLIDER KNOB	ス ラ イ ダー ノ ブ	LIVE CONTROL Sliders 1-9	9
* 140	ZW569310	SLIDER KNOB X	ス ラ イ ダー ノ ブ X	Cross Fader	
150	ZW567010	VR KNOB	V R ツ マ ミ	LIVE CONTROL Knobs 1-6	6
200	WE774201	BIND HEAD TAPPING SCREW-B	B タ イ ト + B I N D		2
210	WF00210R	PW HEAD TAPPING SCREW-B	B タ イ ト + P W H		
220	WE966500	BIND HEAD SCREW	小 ネ ジ + B I N D		6
230	WF15410R	BIND HEAD TAPPING SCREW-B	B タ イ ト + B I N D		27
* 240	ZW572700	LOW HEAD TAPPING SCREW-B	B タ イ ト + 低 頭 C A P		7
250	WF304401	SCREW MACHINE +BIND	小 ネ ジ + B I N D		
		ACCESSORIES	付 属 品		
	WC249601	POWER SUPPLY CORD	電 源 コー ド	E,Y	
	WV195200	POWER SUPPLY CORD	電 源 コー ド セ ッ ト	B	
	WC249500	POWER SUPPLY CORD	電 源 コー ド	U	
	WU795000	POWER SUPPLY CORD	電 源 コー ド セ ッ ト	P	
	WC90130R	POWER SUPPLY CORD	電 源 コー ド セ ッ ト	O	
* 2	ZW773200	MUSIC REST BAGGED	譜 面 板 袋 入 り		
* 2	ZW758800	SCORE STAND BAGGED	譜 面 板 ス タ ン ド 袋 入 り		

*: New Parts





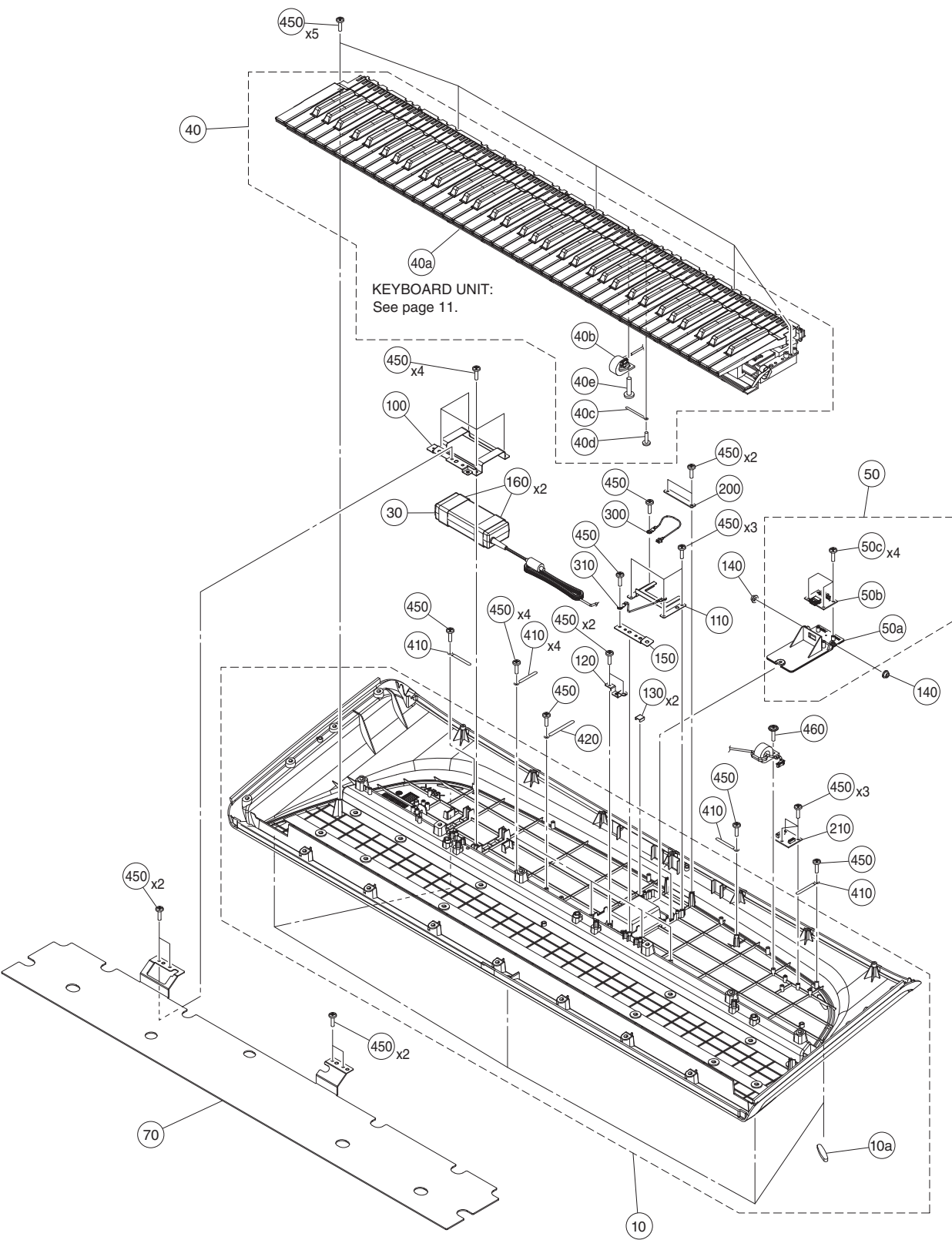
REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY
	--	UPPER CASE ASSEMBLY		上 ケース A s s ' y	Genos	
	--	UPPER CASE ASSEMBLY		上 ケース A s s ' y	E,B (ZW70910)	
	--	UPPER CASE ASSEMBLY		上 ケース A s s ' y	U (ZW70920)	
	--	UPPER CASE ASSEMBLY		上 ケース A s s ' y	O,P,Y (ZW70930)	
* 10	ZW546300	UPPER CASE		上 ケース 印刷品		
* 20	ZW546710	LCD ESCUTCHEON		L C D エスカッション		
* 30	ZW807700	LCD ASSEMBLY		L C D A s s ' y		
* 60	--	LCD SHIELD		L C D シールド	(ZW57030)	
* 70	ZW853300	CIRCUIT BOARD	(DIV) PNL(2) LCD-IF	シート L C D - I F		
* 80	ZX440400	FFC CABLE	FFC-LF2 50P L=60	F F C - L F 2 束線		
* 85	ZX440600	FFC CABLE	FFC-LF3 50P L=150	F F C - L F 3 束線		
* 90	ZW915700	BUTTON ART	x3	ボ タ ン A R T 印刷品	ART. 1-3	
* 95	ZW915800	BUTTON ACMP	x1	ボ タ ン A C M P 印刷品	ACMP	
* 100	ZW915600	BUTTON R 1	x3	ボ タ ン R 印刷品 1	INTRO,ENDING/rit.	2
* 110	ZW915900	BUTTON BRE	x1	ボ タ ン B R E 印刷品	BREAK	
* 120	ZW568200	BUTTON M AD	x4	ボ タ ン M A D 印刷品	MAIN VARIATION A-D	
* 125	ZW916000	BUTTON 5	x1	ボ タ ン 5 印刷品	REGISTRATION MEMORY 5	
* 140	ZW916200	BUTTON 6	x1	ボ タ ン 6 印刷品	REGISTRATION MEMORY 6	
* 145	ZW916300	BUTTON STA	x3	ボ タ ン S T A 印刷品	SYNC STOP,SYNC START,START/STOP	
* 150	ZW568500	BUTTON M 14	x4	ボ タ ン M 1 4 印刷品	REGISTRATION MEMORY 1-4,	3
					ONE TOUCH SETTING 1-4,	
* 160	ZW568600	BUTTON M 710	x4	ボ タ ン M 7 1 0 印刷品	REGISTRATION MEMORY 7-10	
* 170	ZW567300	BUTTON M	x4	ボ タ ン M 成形品	PART ON/OFF LEFT-RIGHT3	
* 200	ZW567600	BUTTON L HF	x2	ボ タ ン L H F 印刷品	HOME,MENU	
* 210	ZW567700	BUTTON L SV	x2	ボ タ ン L S V 印刷品	STYLE,VOICE	
* 215	ZW567800	BUTTON L SP	x2	ボ タ ン L S P 印刷品	SONG,PLAYLIST	
* 220	ZW929300	BUTTON S2	SINGLE	ボ タ ン S 2 1 連	ROTARY SP/ASSIGNABLE,MODULATION HOLD, PLAY/PAUSE(SONG A/B),RECORDING, FREEZE,LEFT HOLD	7
* 225	ZW567500	BUTTON S2	x2	ボ タ ン S 2 成形品	VOCAL HARMONY,TALK,OTS LINK,AUTO FILL IN HARMONY/ARPEGGIO,SUSTAIN	3
* 230	ZW929510	BUTTON S1	SINGLE	ボ タ ン S 1 1 連	PREV/NEXT(SONG A/B),KNOB ASSIGN, SLIDER ASSIGN,DIRECT ACCESS, MEMORY,EXIT,ENTER,SELECT SYNC START/ STOP(MULTI PAD CONTROL)	12
* 235	ZW929610	BUTTON S1	DOUBLE	ボ タ ン S 1 2 連	UPPER OCTAVE,TRANSPOSE, REGIST BANK,DEC,INC	4
* 240	ZW567410	BUTTON S1	x4	ボ タ ン S 1 成形品	VOICE SELECT	
* 245	ZX493310	BUTTON S1	TRIPLE	ボ タ ン S 1 3 連	TAP TEMPO,TEMPO +/-,ASSIGNABLE A-F	3
* 260	ZW547200	START BUTTON		電 源 ボ タ ン	Standby/On	
* 280	ZW566910	MIC LENS		M I C レ ン ズ	SIGNAL	
* 290	--	CUSHION SW	FU FORM	ク ッ シ ョ ン S W	(ZZ79220)	
* 300	--	NONWOVEN FABRIC CLOTH AL		不 織 布 A L	(ZW57210)	
* 310	--	NONWOVEN FABRIC CLOTH AL2		不 織 布 A L 2	(ZW57220)	
* 320	--	NONWOVEN FABRIC CLOTH AR		不 織 布 A R	(ZW57230)	
* 330	--	NONWOVEN FABRIC CLOTH AC		不 織 布 A C	(ZW57240)	
* 340	--	NONWOVEN FABRIC CLOTH BL		不 織 布 B L	(ZZ27380)	
* 350	--	NONWOVEN FABRIC CLOTH BR		不 織 布 B R	(ZZ27390)	
* 360	--	NONWOVEN FABRIC CLOTH BC		不 織 布 B C	(ZZ27400)	
* 370	--	NONWOVEN FABRIC CLOTH JS		不 織 布 J S	(ZW81140)	
* 380	--	NONWOVEN FABRIC CLOTH SL1		不 織 布 S L 1	(ZW81150)	
* 390	--	NONWOVEN FABRIC CLOTH SL2		不 織 布 S L 2	(ZW81160)	
* 400	ZY986700	CIRCUIT BOARD	(DIV) PNL(0) PNL	シ ー ト P N L		
* 410	ZW853800	CIRCUIT BOARD	(DIV) PNR(1) PNC	シ ー ト P N C		
* 420	ZY986800	CIRCUIT BOARD	(DIV) PNR(0) PNR	シ ー ト P N R		
* 430	ZW854100	CIRCUIT BOARD	(DIV) PNR(4) MVR	シ ー ト M V R		
* 440	ZW853900	CIRCUIT BOARD	(DIV) PNR(2) PNR2	シ ー ト P N L 2		
* 450	ZV380400	CIRCUIT BOARD	(DIV) JK(1) HP	シ ー ト H P		
* 460	--	ENC ASSEMBLY		E N C A s s ' y	(ZW81170)	
* 460a	--	ENC STAY		E N C 固 定 金 具	(ZW81290)	
* 460b	ZW854000	CIRCUIT BOARD	(DIV) PNR(3) ENC	シ ー ト E N C		
* 470	--	OLED ASSEMBLY		有 機 E L A s s ' y	(ZW81420)	
* 480	ZW854400	CIRCUIT BOARD	(DIV) PNR(6) USB	シ ー ト U S B		
* 490	--	FRONT USB BRACKET		フ ロ ン ト U S B 金 具	(ZW57060)	
* 500	--	PANEL STAY		パ ネ ル ス テ イ	(ZW57070)	6
* 510	ZW547400	ROD STABILIZER		ス タ ビ ラ イ ザ ー		4
* 520	ZW547310	ROD HOLDER		ロ ッ ド ホ ル ダ ー		4
* 530	--	JOYSTICK WITH WIRE		J S 束 線 付 き	(ZW82500)	
* 530a	WW997300	JOYSTICK		ジ ョ イ ス テ ィ ッ ク		

*: New Parts

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY
530b	--	CONNECTOR ASSEMBLY	JST PH4P L=160	J S T 束 線	(ZW10880)
560	--	NONWOVEN FABRIC CLOTH	不 織 布	(ZW82570)	2
570	--	NONWOVEN FABRIC CLOTH PNL	不 織 布 P N L	(ZX49190)	2
580	--	NONWOVEN FABRIC CLOTH	不 織 布	(ZY57550)	2
600	--	CONNECTOR ASSEMBLY	PH3 5P L=750	P H 3 束 線	(ZW10670)
605	--	CONNECTOR ASSEMBLY	PH4 PH 12P L=40	P H 4 束 線	(ZW10700)
610	--	CONNECTOR ASSEMBLY	PH5 LF 8P L=460	P H 5 _ L F 束 線	(ZX28590)
615	--	CONNECTOR ASSEMBLY	GHPH4 GH/PH 14P L=120	G H P H 4 束 線	(ZW10840)
620	--	CONNECTOR ASSEMBLY	PH6 4P L=50	P H 6 束 線	(ZW10720)
625	--	CONNECTOR ASSEMBLY	PH7 LF PH 14P L=620	P H 7 _ L F 束 線	(ZX40950)
630	--	CONNECTOR ASSEMBLY	MIC 3P L=205	M I C 束 線	(ZW10850)
635	--	CONNECTOR ASSEMBLY	PH8 5P L=100	P H 8 束 線	(ZW10760)
640	ZW110000	FFC CABLE	ESL-PNF 17P L=120	F F C ケーブル	
645	--	CONNECTOR ASSEMBLY	PH9 6P L=145	P H 9 束 線	(ZW10770)
650	--	DM COVER		D M カバ ー	(ZZ91570)
660	--	DM ANGLE		D M ア ン グ ル	(ZZ86480)
670	--	MIC COVER		M I C カバ ー	(ZW57160)
680	--	MIC ANGLE		M I C ア ン グ ル	(ZW57150)
700	ZU701400	CIRCUIT BOARD	DM(H)	D M シー ト (H)	
710	ZY986900	CIRCUIT BOARD	(DIV) JK(0) AJACK	シ ー ト A J A C K	
720	ZW853200	CIRCUIT BOARD	(DIV) PNL(1) MIC	シ ー ト M I C	
730	ZW338000	CONNECTOR ASSEMBLY	POWER 3P	電 源 束 線	AC INLET
740	ZV380600	CIRCUIT BOARD	(DIV) JK(3) OSPL	シ ー ト O S P L	
750	ZV380500	CIRCUIT BOARD	(DIV) JK(2) OSPR	シ ー ト O S P R	
770	--	CUSHION FFC	PU FOAM	ク ッ シ ョ ン F F C	(ZW82590)
780	--	CUSHION PE	30X12X1	ク ッ シ ョ ン P E	(ZP28370)
790	--	CUSHION PE	130X6X1	ク ッ シ ョ ン P E	(ZY97390)
815	--	CONNECTOR ASSEMBLY	GHPH2 GH/PH 11P L=510	G H P H 2 束 線	(ZW10820)
820	--	CONNECTOR ASSEMBLY	GH1 GH 12P L=530	G H 1 束 線	(ZW10790)
825	--	CONNECTOR ASSEMBLY	GHPH3 GH/PH 15P L=540	G H P H 3 束 線	(ZW10830)
830	--	CONNECTOR ASSEMBLY	USB1 LF 5P L=375	U S B 1 _ L F 束 線	U,E,B (ZW12180)
835	--	CONNECTOR ASSEMBLY	USB2 LF 10P-5P/5P L=730/240	U S B 2 _ L F 束 線	(ZW12200)
840	--	CONNECTOR ASSEMBLY	GND2 3P L=125	G N D 2 束 線	(ZW10950)
845	--	WIRING ASSEMBLY	GND8 LUG 1P L=500+60	G N D 8 束 線	(ZY48450)
850	--	CONNECTOR ASSEMBLY	GH2 GH 7P L=400	G H 2 束 線	(ZW10800)
855	--	CONNECTOR ASSEMBLY	XH2 XH 2P L=1050	X H 2 束 線	(ZW10630)
860	--	CONNECTOR ASSEMBLY	GHPH1 GH/PH 5P L=360	G H P H 1 束 線	(ZW10810)
870	ZW969100	WIRELESS LAN MODULE	UD-WL01 WITH LABEL	無 線 ド ン グ ル E	E,B
870	ZW969200	WIRELESS LAN MODULE	UD-WL01 WITH LABEL	無 線 ド ン グ ル U	U
900	--	CORD CLAMP	CS-3U	束 線 止 め	(ZA95500)
920	WE774001	BIND HEAD SCREW	3.0X6 MFZN2W3	小 ネ ジ + B I N D	
930	WE774201	BIND HEAD TAPPING SCREW-B	3.0X10 MFZN2W3	B タ イ ト + B I N D	
940	WE97340R	BIND HEAD TAPPING SCREW-B	3.0X16 MFZN2W3	B タ イ ト + B I N D	
950	WE972201	BIND HEAD TAPPING SCREW-B	3.0X10 MFZN2B3	B タ イ ト + B I N D	
960	--	UD CUSHION		U D ク ッ シ ョ ン	U,E,B (ZW92920)
970	ZW853600	CIRCUIT BOARD	(DIV) PNL(5) PT2	シ ー ト P T 2	U,E,B
980	WF00210R	PW HEAD TAPPING SCREW-B	3.0X12 MFZN2W3	B タ イ ト + P W H	U,E,B
980	WF00210R	PW HEAD TAPPING SCREW-B	3.0X12 MFZN2W3	B タ イ ト + P W H	O,PY
990	WE966500	BIND HEAD SCREW	4.0X10 MFZN2W3	小 ネ ジ + B I N D	

*: New Parts

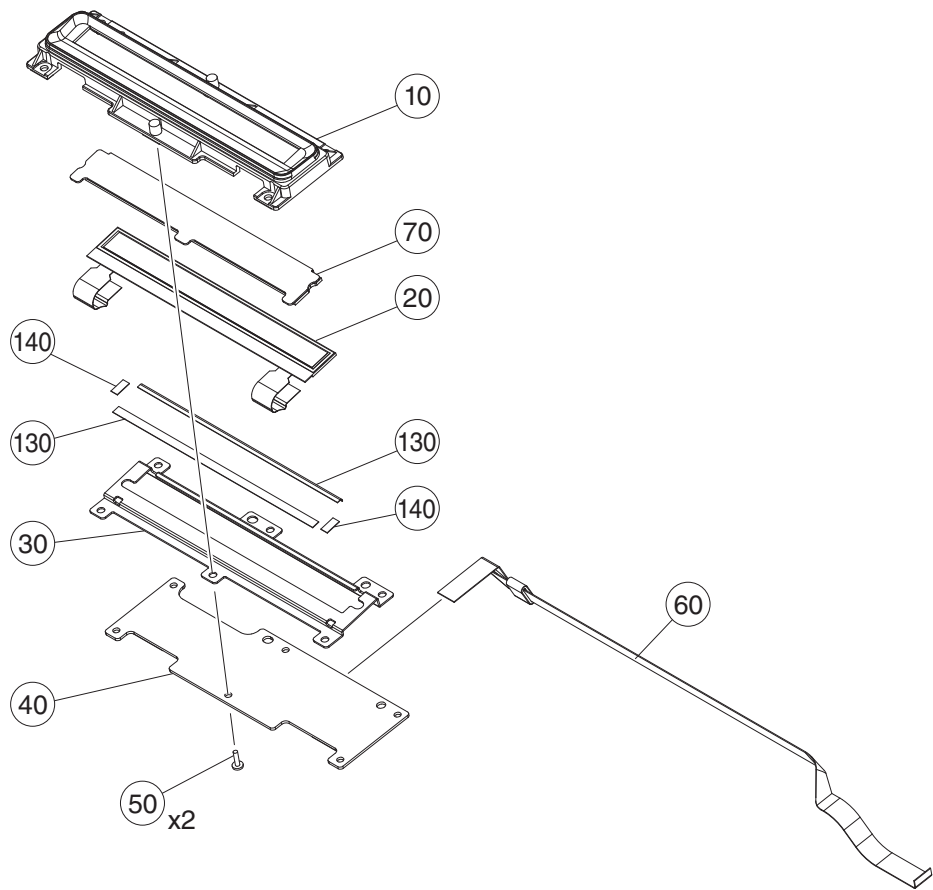
■ LOWER CASE ASSEMBLY



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*: New Parts

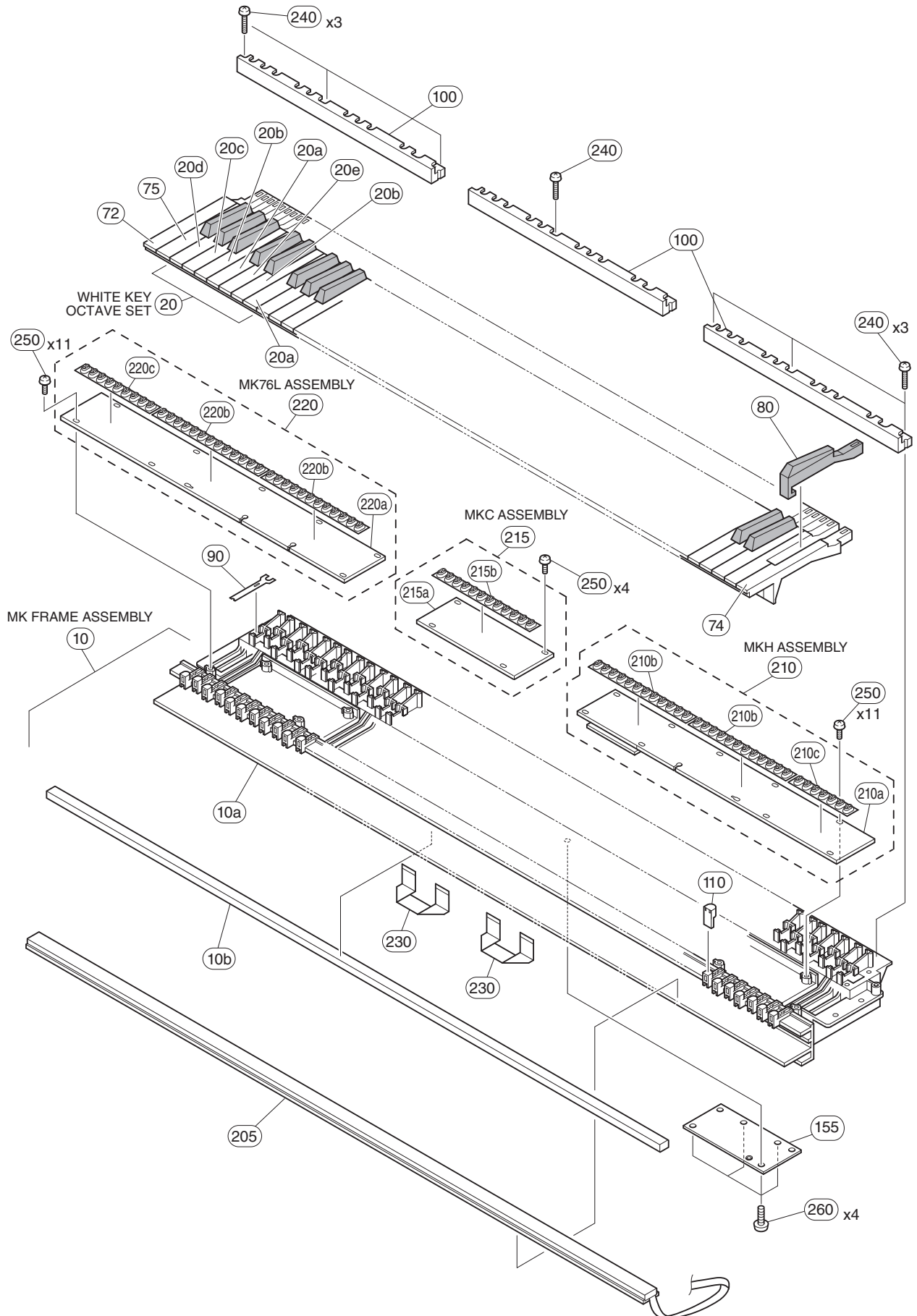
OLED ASSEMBLY



REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY
	--	OLED ASSEMBLY	有機 E L A s s ' y	Genos	
* 10	ZW546810	OLED ASSEMBLY	有機 E L A s s ' y	(ZW81420)	
* 20	ZZ750900	OLED ESCUTCHEON	有機 D エスカッション	Sub Display	
30	--	OLED BRACKET	有機 E L 固 定 金 具	(ZW57040)	
* 40	ZW853400	CIRCUIT BOARD	シ ー ト S U B - I F		
50	WE774201	BIND HEAD TAPPING SCREW-B	B タ イ ト + B I N D		2
* 60	ZX440200	CONNECTOR ASSEMBLY	F F C - L F 1 束 線		
70	ZZ084300	OLED COVER ASSEMBLY	有機 E L カバ A s s ' y		
130	--	NONWOVEN FABRIC CLOTH	不 織 布	(ZW82470)	2
140	--	NONWOVEN FABRIC CLOTH	不 織 布	(ZW94280)	2

*: New Parts

KEYBOARD UNIT



*: New Parts

ELECTRICAL PARTS

DM

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY
		ELECTRICAL PARTS	電 気 部 品	Genos	
* ZU701400	CIRCUIT BOARD	DM(H)	D M シ ー ト (H)	(YH786C0)	
* ZY986900	CIRCUIT BOARD	(DIV) JK(0) AJACK	シ ー ト A J A C K	(ZV37800)(YH862C0)	
* ZV380400	CIRCUIT BOARD	(DIV) JK(1) HP	シ ー ト H P	(ZV37800)(YH862C0)	
* ZV380500	CIRCUIT BOARD	(DIV) JK(2) OSPR	シ ー ト O S P R	(ZV37800)(YH862C0)	
* ZV380600	CIRCUIT BOARD	(DIV) JK(3) OSPL	シ ー ト O S P L	(ZV37800)(YH862C0)	
WD807300	CIRCUIT BOARD	MK76L	M K 7 6 L シ ー ト	(X5655D0)	
WD807100	CIRCUIT BOARD	MKC	M K C シ ー ト	(WD80700)(X5656D0)	
ZG727400	CIRCUIT BOARD	MKH	M K H シ ー ト	(X5657C0)	
ZF608600	CIRCUIT BOARD	EMKS	E M K S シ ー ト	(ZF60830)(YF257C0)	
* ZY986700	CIRCUIT BOARD	(DIV) PNL(0) PNL	シ ー ト P N L	(ZW85310)(YJ088C0)	
* ZW853200	CIRCUIT BOARD	(DIV) PNL(1) MIC	シ ー ト M I C	(ZW85310)(YJ088C0)	
* ZW853300	CIRCUIT BOARD	(DIV) PNL(2) LCD-IF	シ ー ト L C D - I F	(ZW85310)(YJ088C0)	
* ZW853400	CIRCUIT BOARD	(DIV) PNL(3) SUB-IF	シ ー ト S U B - I F	(ZW85310)(YJ088C0)	
* ZW853500	CIRCUIT BOARD	(DIV) PNL(4) PT1	シ ー ト P T 1	(ZW85310)(YJ088C0)	
* ZW853600	CIRCUIT BOARD	(DIV) PNL(5) PT2	シ ー ト P T 2	U,E,B (ZW85310)(YJ088C0)	
* ZY986800	CIRCUIT BOARD	(DIV) PNR(0) PNR	シ ー ト P N R	(ZW85370)(YJ089C0)	
* ZW853800	CIRCUIT BOARD	(DIV) PNR(1) PNC	シ ー ト P N C	(ZW85370)(YJ089C0)	
* ZW853900	CIRCUIT BOARD	(DIV) PNR(2) PNL2	シ ー ト P N L 2	(ZW85370)(YJ089C0)	
* ZW854000	CIRCUIT BOARD	(DIV) PNR(3) ENC	シ ー ト E N C	(ZW85370)(YJ089C0)	
* ZW854100	CIRCUIT BOARD	(DIV) PNR(4) MVR	シ ー ト M V R	(ZW85370)(YJ089C0)	
* ZW854200	CIRCUIT BOARD	(DIV) PNR(5) JCT	シ ー ト J C T	(ZW85370)(YJ089C0)	
* ZW854400	CIRCUIT BOARD	(DIV) PNR(6) USB	シ ー ト U S B	(ZW85370)(YJ089C0)	
* ZU701400	CIRCUIT BOARD	DM(H)	D M シ ー ト (H)	(YH786C0)	
C003	WK625900	CAPACITOR	ダ イ ナ キ ャ ッ プ	TO DEVICE	
CN201	WH780300	USB CONNECTOR	U S B リ セ ブ タ ク ル	TO HOST	
CN202	V680260R	USB CONNECTOR	U S B ジ ャ ッ ク		
FT800	ZA675500	FET	F E T		
JK201	ZF234100	DIN CONNECTOR	D I N コ ネ ク タ	MIDI A IN	
JK202	ZF234100	DIN CONNECTOR	D I N コ ネ ク タ	MIDI A OUT	
JK203	ZF234100	DIN CONNECTOR	D I N コ ネ ク タ	MIDI B IN	
JK204	ZF234100	DIN CONNECTOR	D I N コ ネ ク タ	MIDI B OUT	
JK401	V7705200	PIN JACK	ピンジャック 1P	DIGITAL OUT	
* JK800	ZS513600	CONNECTOR	電 源 コ ネ ク タ	DC IN +16V	
C167	WP093500	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン U A		
C278	WV584900	ELECTROLYTIC CAPACITOR	ケ ミ コ ン R V D		
-280	WV584900	ELECTROLYTIC CAPACITOR	ケ ミ コ ン R V D		
C288	WV584900	ELECTROLYTIC CAPACITOR	ケ ミ コ ン R V D		
C812	WP095300	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン U A		
C817	WN561600	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン		
C818	WN561600	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン		
C824	WP095300	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン U A		
C825	WP095300	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン U A		
* C832	WP092400	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン U A		
* C833	WP092400	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン U A		
C859	WP095600	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン U A		
C929	WP095600	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン U A		
C950	--	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン C D	(WM91990)	
C1013	--	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン C D	(WM91990)	
C1025	WP093500	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン U A		
C1026	WP093500	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン U A		
C1031	WZ224600	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン U D		
C1032	WZ224600	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン U D		
C1045	--	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン C D	(WM91990)	
C1092	--	ELECTROLYTIC CAPACITOR	チ ッ プ ケ ミ コ ン C D	(WM91990)	
* IC003	YJ025A00	IC	I	C RTC	
IC006	X7701A00	IC	I	C SYSTEM RESET	
* IC007	YH796A00	IC	I	C PMIC (CPU POWER)	
IC200	--	IC	I	C CPU	(YH795A0)
IC201	--	IC	I	C SDRAM 4Gbit(512MB)	(YH843A0)
IC202	--	IC	I	C SDRAM 4Gbit(512MB)	(YH843A0)
IC205	--	IC	I	C MMC (STORAGE) 64GB	(YH968A0)
IC206	--	IC	I	C MMC (MAIN) 4GB	(YJ247D0)
IC210	YD235A00	IC	I	C HIGH SIDE SW	
-212	YD235A00	IC	I	C	
IC214	ZM214700	PHOTO COUPLER	フ ォ ト カ プ ラ		
IC215	ZM214700	PHOTO COUPLER	フ ォ ト カ プ ラ		
IC400	--	IC	I	C SWP70 MASTER	(YF447B0)
IC401	YG645A00	IC	I	C CPLD	

*: New Parts

DM and AJACK/HP/OSPR/OSPL

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY
IC402	XU996A0R	IC	AM26LS31CNSR	LINE DRIVER	
IC600	--	IC	YMW832-CZ	SWP70 SLAVE (YF447B0)	
* IC601	YJ172A00	IC	W29N08GV5IAA	NAND FLASH 8Gbit(1GB) WAVE DATA	
* IC603	YJ172A00	IC	W29N08GV5IAA	NAND FLASH 8Gbit (1GB) WAVE DATA	
* IC607	YJ245B00	IC	W29N08GV5IAA	NAND FLASH 8Gbit (1GB) WAVE DATA	
* IC610	YJ246B00	IC	W29N08GV5IAA	NAND FLASH 8Gbit (1GB) WAVE DATA	
IC611	YG505A00	IC	ISL80019IRZ-T	DC-DC CONVERTER	
IC800	X5219A0R	IC	AK5381VT-E2	ADC	
IC801	X5219A0R	IC	AK5381VT-E2	ADC	
IC803	X3505A02	IC	NJM2068M-D(Te2)	OP AMP	
IC902	YF015A00	IC	LT3505EDD#TRPBF	DC-DC CONVERTER	
IC906	YD766A00	IC	ISL85033IRTZ-T	DC-DC CONVERTER	
L403	ZC791000	TRANSFORMER	CPFC85		
R193	RD153220	CARBON RESISTOR (CHIP)	2.2 1/4 J TP	チ ッ プ 抵 抗	
R194	RD153220	CARBON RESISTOR (CHIP)	2.2 1/4 J TP	チ ッ プ 抵 抗	
R300	RD15522R	CARBON RESISTOR (CHIP)	220.0 1/4 J TP	チ ッ プ 抵 抗	
-303	RD15522R	CARBON RESISTOR (CHIP)	220.0 1/4 J TP	チ ッ プ 抵 抗	
R525	RD15522R	CARBON RESISTOR (CHIP)	220.0 1/4 J TP	チ ッ プ 抵 抗	
R526	RD154390	CARBON RESISTOR (CHIP)	39.0 1/4 J TP	チ ッ プ 抵 抗	
R527	RD154390	CARBON RESISTOR (CHIP)	39.0 1/4 J TP	チ ッ プ 抵 抗	
R1032	RD156221	CARBON RESISTOR (CHIP)	2.2K 1/4 J TP	チ ッ プ 抵 抗	
R1033	RD156221	CARBON RESISTOR (CHIP)	2.2K 1/4 J TP	チ ッ プ 抵 抗	
* TH001	ZX447800	CIRCUIT PROTECTOR	FSMD016-1206-R	リ セ ッ タ ブ ル ヒ ュ ー ズ	
* X001	ZX407500	RESONATOR QUARTZ	32.768K	水 晶 振 動 子	
* X002	ZP699900	RESONATOR QUARTZ	24.0MHz DSX321G	水 晶 振 動 子	
* X003	ZV579900	RESONATOR QUARTZ	32.768K DSO221SR	水 晶 発 振 器	
X401	WM284900	RESONATOR QUARTZ	22.5792MHz DSX321G	水 晶 振 動 子	
FZ001	WR761300	CHIP FUSE	FAST-ACTING 1.25A	チ ッ プ ヒ ュ ー ズ	
FZ002	WR761300	CHIP FUSE	FAST-ACTING 1.25A	チ ッ プ ヒ ュ ー ズ	
FZ003	WR761300	CHIP FUSE	FAST-ACTING 1.25A	チ ッ プ ヒ ュ ー ズ	
IC004	YC019A00	IC	S-80944CNNB-G9ET2G	SYSTEM RESET	
IC203	YF761A00	IC	TPS51206DSQR	DDR3 VTT	
IC204	YC486A00	IC	GL852G-MNG03	USB 2.0 MTT HUB CONTROLLER	
IC209	YD235A00	IC	R5524N002A-TR-FE	HIGH SIDE SW	
IC602	X4943E00	IC	W9825G6KH-6	SDRAM 32MB (WAVE WORK)	
IC604	YA658C00	IC	W9864G6KH-5	SDRAM 64Mbi + (8MB) (DSP)	
IC605	YJ172A00	IC	W29N08GV5IAA	NAND FLASH 8Gbit (1GB) WAVE DATA	
* IC606	YJ172A00	IC	W29N08GV5IAA	NAND FLASH 8Gbit (1GB) WAVE DATA	
IC608	YA658C00	IC	W9864G6KH-5	SDRAM 64Mbit (8MB)(DSP)	
IC609	X4943E00	IC	W9825G6KH-6	SDRAM 256Mbit (32MB)	
IC802	X3505A02	IC	NJM2068M-D(Te2)	OP AMP	
IC804	YG888A00	IC	AK4490EQ	DAC	
IC805	X8324A00	IC	AK4396VF-E2	DAC	
IC806	X8324A00	IC	AK4396VF-E2	ADC	
IC807	X3505A02	IC	NJM2068M-D(Te2)	OP AMP	
-810	X3505A02	IC	NJM2068M-D(Te2)	OP AMP	
IC903	X2600A0R	IC	NJM78M12DL1A(Te1)	REGULATOR +12V	
IC904	X2593A0R	IC	NJM79M12DL1A(Te1)	REGULATOR -12V	
IC905	YF520A00	IC	R1190S050B-E2-FE	REGULATOR +5V	
IC908	YG824A00	IC	R1501S120B-E2-FE	REGULATOR +12V	
R1024	RD156221	CARBON RESISTOR (CHIP)	2.2K 1/4 J TP	チ ッ プ 抵 抗	
R1026	RD156221	CARBON RESISTOR (CHIP)	2.2K 1/4 J TP	チ ッ プ 抵 抗	
X201	WK192600	RESONATOR QUARTZ	12MHz DSX321G	水 晶 振 動 子	
* --	ZY986900	CIRCUIT BOARD	(DIV) JK(0) AJACK	シ ー ト A J A C K	(ZV37800)(YH862C0)
* --	ZV380400	CIRCUIT BOARD	(DIV) JK(1) HP	シ ー ト H P	(ZV37800)(YH862C0)
* --	ZV380500	CIRCUIT BOARD	(DIV) JK(2) OSPR	シ ー ト O S P R	(ZV37800)(YH862C0)
* --	ZV380600	CIRCUIT BOARD	(DIV) JK(3) OSPL	シ ー ト O S P L	(ZV37800)(YH862C0)
CN104	--	WIRING ASSEMBLY	GND5 LUG-B_IN L=60	G N D 5 束 線	(ZW10980)
IC102	XQ824A00	IC	NJM4556AD	OP AMP	
JK100	WJ306202	PHONE CONNECTOR	MSJ-064-15A B AG	ホ ー ン コ ネ ク タ	AUX IN L/L+R
JK101	VS11540R	PHONE CONNECTOR	LGR4609-7100F BL	ホ ー ン コ ネ ク タ (黒)	AUX IN R
JK102	VS11540R	PHONE CONNECTOR	LGR4609-7100F BL	ホ ー ン コ ネ ク タ (黒)	LINE OUT MAIN L/L+R
JK103	VS11540R	PHONE CONNECTOR	LGR4609-7100F BL	ホ ー ン コ ネ ク タ (黒)	LINE OUT MAIN R
JK104	WJ306202	PHONE CONNECTOR	MSJ-064-15A B AG	ホ ー ン コ ネ ク タ	LINE OUT SUB 1
JK105	WJ306202	PHONE CONNECTOR	MSJ-064-15A B AG	ホ ー ン コ ネ ク タ	LINE OUT SUB 2
JK106	WJ306202	PHONE CONNECTOR	MSJ-064-15A B AG	ホ ー ン コ ネ ク タ	LINE OUT SUB 3(AUX OUT)
JK107	WJ306202	PHONE CONNECTOR	MSJ-064-15A B AG	ホ ー ン コ ネ ク タ	LINE OUT SUB 4(AUX OUT)
JK200	VS11540R	PHONE CONNECTOR	LGR4609-7100F BL	ホ ー ン コ ネ ク タ (黒)	ASSIGNABLE FOOT PEDAL 1(SUSTAIN)
JK201	VS11540R	PHONE CONNECTOR	LGR4609-7100F BL	ホ ー ン コ ネ ク タ (黒)	ASSIGNABLE FOOT PEDAL 2(ART.1)

*: New Parts

AJACK/HP/OSPR/OSPL and MK76L and MKC and MKH and EMKS and PNL/MIC/LCD-IF/SUB-IF/PT1/PT2

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY
JK202	VS11540R	PHONE CONNECTOR	LGR4609-7100F BL	ホ ー ン コ ネ ク タ (黒)	ASSIGNABLE FOOT PEDAL 3(VOLUME)
JK300	WJ306202	PHONE CONNECTOR	MSJ-064-15A B AG	ホ ー ン コ ネ ク タ	PHONES
JK400	VS11540R	PHONE CONNECTOR	LGR4609-7100F BL	ホ ー ン コ ネ ク タ (黒)	TO RIGHR SPEAKER
JK401	VI342901	DIN CONNECTOR	MINI TCS7927-18-401	ミ ニ D I N コ ネ ク タ	TO SUB WOOFER
JK500	VS11540R	PHONE CONNECTOR	LGR4609-7100F BL	ホ ー ン コ ネ ク タ (黒)	TO LEFT SPEAKER
K1	--	CONNECTOR PLATE 2P		ジャ ッ ク 金 具 2 P	(ZW57110)
-4	--	CONNECTOR PLATE 2P		ジャ ッ ク 金 具 2 P	(ZW57110)
K5	--	CONNECTOR PLATE 3P		ジャ ッ ク 金 具 3 P	(ZW57120)
K6	--	CONNECTOR PLATE OSPR		ジャ ッ ク 金 具 O S P R	(ZW57100)
K7	--	CONNECTOR PLATE OSPL		ジャ ッ ク 金 具 O S P L	(ZW57090)
RY100	V8616500	RELAY	DC G6S-2 12V	リ レ ー 1 2 V	
C106	UR838103	ELECTROLYTIC CAPACITOR	100.00 16.0V RX TP	ケ ミ コ ン	
C107	UR838103	ELECTROLYTIC CAPACITOR BP	100.00 16.0V RX TP	ケ ミ コ ン	
C111	UR838103	ELECTROLYTIC CAPACITOR	100.00 16.0V RX TP	ケ ミ コ ン	
C114	UR838103	ELECTROLYTIC CAPACITOR	100.00 16.0V RX TP	ケ ミ コ ン	
C119	UN86647R	ELECTROLYTIC CAPACITOR BP	4.70 50.0V RX TP	B P ケ ミ コ ン	
C120	UN86647R	ELECTROLYTIC CAPACITOR BP	4.70 50.0V RX TP	B P ケ ミ コ ン	
C135	UN86647R	ELECTROLYTIC CAPACITOR BP	4.70 50.0V RX TP	B P ケ ミ コ ン	
C136	UN86647R	ELECTROLYTIC CAPACITOR BP	4.70 50.0V RX TP	B P ケ ミ コ ン	
C149	UN848100	ELECTROLYTIC CAPACITOR BP	100.00 25.0V RX TP	B P ケ ミ コ ン	
C150	UN848100	ELECTROLYTIC CAPACITOR BP	100.00 25.0V RX TP	B P ケ ミ コ ン	
C157	UN86647R	ELECTROLYTIC CAPACITOR BP	4.70 50.0V RX TP	B P ケ ミ コ ン	
C163	UN86647R	ELECTROLYTIC CAPACITOR BP	4.70 50.0V RX TP	B P ケ ミ コ ン	
C169	UN86647R	ELECTROLYTIC CAPACITOR BP	4.70 50.0V RX TP	B P ケ ミ コ ン	
C175	UN86647R	ELECTROLYTIC CAPACITOR BP	4.70 50.0V RX TP	B P ケ ミ コ ン	
IC100	X3505A02	IC	NJM2068M-D(TE2)	I C	OP AMP
IC101	X3505A02	IC	NJM2068M-D(TE2)	I C	OP AMP
R119	RD155682	CARBON RESISTOR (CHIP)	680.0 1/4 J TP	チ ッ プ 抵 抗	
R120	RD155682	CARBON RESISTOR (CHIP)	680.0 1/4 J TP	チ ッ プ 抵 抗	
R160	RD155682	CARBON RESISTOR (CHIP)	680.0 1/4 J TP	チ ッ プ 抵 抗	
D100	VD631601	DIODE	1SS133,176,HSS104	ダ イ オ ー ド	
D200	VD631601	DIODE	1SS133,176,HSS104	ダ イ オ ー ド	
D201	VD631601	DIODE	1SS133,176,HSS104	ダ イ オ ー ド	
D204	VD631601	DIODE	1SS133,176,HSS104	ダ イ オ ー ド	
D205	VD631601	DIODE	1SS133,176,HSS104	ダ イ オ ー ド	
D208	VD631601	DIODE	1SS133,176,HSS104	ダ イ オ ー ド	
D209	VD631601	DIODE	1SS133,176,HSS104	ダ イ オ ー ド	
R133	HF45433R	CARBON RESISTOR	33.0 1/4 J AX TP	カ ー ボ ン 抵 抗	
R134	HF45433R	CARBON RESISTOR	33.0 1/4 J AX TP	カ ー ボ ン 抵 抗	
R201	HF45422R	CARBON RESISTOR	22.0 1/4 J AX TP	カ ー ボ ン 抵 抗	
R205	HF45422R	CARBON RESISTOR	22.0 1/4 J AX TP	カ ー ボ ン 抵 抗	
R209	HF45422R	CARBON RESISTOR	22.0 1/4 J AX TP	カ ー ボ ン 抵 抗	
R300	HF45468R	CARBON RESISTOR	68.0 1/4 J AX TP	カ ー ボ ン 抵 抗	
R301	HF45468R	CARBON RESISTOR	68.0 1/4 J AX TP	カ ー ボ ン 抵 抗	
D0001	WD807300	CIRCUIT BOARD	MK76L	M K 7 6 L シ ー ト	(X5655D0)
-0067	VB941201	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド	
	VB941201	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド	
	WD807100	CIRCUIT BOARD	MKC	M K C シ ー ト	(WD80700)(X5656D0)
D0001	VB941201	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド	
-0024	VB941201	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド	
	ZG727400	CIRCUIT BOARD	MKH	M K H シ ー ト	(X5657C0)
	ZF608600	CIRCUIT BOARD	EMKS	E M K S シ ー ト	(ZF60830)(YF257C0)
D0001	VB941201	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド	
-0062	VB941201	DIODE	1SS133,1SS176 TE-5	ダ イ オ ー ド	
	ZF608600	CIRCUIT BOARD	EMKS	E M K S シ ー ト	(ZF60830)(YF257C0)
C1	UF118471	CAPACITOR	470 6.3V	チ ッ プ ケ ミ コ ン	
C7	UF017472	CAPACITOR	47 6.3V	チ ッ プ ケ ミ コ ン	
C12	UF04647R	CAPACITOR	4.7 25V	チ ッ プ ケ ミ コ ン	
C27	UF018101	CAPACITOR	100 6.3V	チ ッ プ ケ ミ コ ン	
IC1	YF210A00	IC	MB9AF131KAPMC-G-10	I C	E-VKS2
IC2	X2538A00	IC	NJM2100V(TE2)	I C	OP AMP
VR1	WS613600	VR TRIMMER	B 470K FUSE 3P VZ0	半 固 定 V R	GAIN
VR2	WS613500	VR TRIMMER	B 330K FUSE 3P VZ0	半 固 定 V R	OFFSET
*	ZY986700	CIRCUIT BOARD	(DIV) PNL(0) PNL	シ ー ト P N L	(ZW85310)(YJ088C0)
*	ZW853200	CIRCUIT BOARD	(DIV) PNL(1) MIC	シ ー ト M I C	(ZW85310)(YJ088C0)

*: New Parts

*: New Parts

PNL/MIC/LCD-IF/SUB-IF/PT1/PT2 and PNR/PNC/PNL2/ENC/MVR/JCT/USB

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY
LD128	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ プ L E D	
* LD129	ZW802200	LED ORENGE	ASMT-UJB4-ZV3C2	チ ッ プ L E D	
LD130	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ プ L E D	
* LD131	ZW802200	LED ORENGE	ASMT-UJB4-ZV3C2	チ ッ プ L E D	
LD132	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ プ L E D	
* LD133	ZW802200	LED ORENGE	ASMT-UJB4-ZV3C2	チ ッ プ L E D	
* -135	ZW802200	LED ORENGE	ASMT-UJB4-ZV3C2	チ ッ プ L E D	
LD136	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ プ L E D	
* LD137	ZW802200	LED ORENGE	ASMT-UJB4-ZV3C2	チ ッ プ L E D	
* LD138	ZW802200	LED ORENGE	ASMT-UJB4-ZV3C2	チ ッ プ L E D	
* LD139	ZY947000	LED GREEN	ASMT-UGB5-ZW7Y2	チ ッ プ L E D	
R1	RD15000R	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チ ッ プ 抵 抗	
-8	RD15000R	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チ ッ プ 抵 抗	
R50	RD154560	CARBON RESISTOR (CHIP)	56.0 1/4 J TP	チ ッ プ 抵 抗	
-59	RD154560	CARBON RESISTOR (CHIP)	56.0 1/4 J TP	チ ッ プ 抵 抗	
R176	RD155151	CARBON RESISTOR (CHIP)	150.0 1/4 J TP	チ ッ プ 抵 抗	
R177	RD154560	CARBON RESISTOR (CHIP)	56.0 1/4 J TP	チ ッ プ 抵 抗	
R178	RD155151	CARBON RESISTOR (CHIP)	150.0 1/4 J TP	チ ッ プ 抵 抗	
R179	RD154560	CARBON RESISTOR (CHIP)	56.0 1/4 J TP	チ ッ プ 抵 抗	
R180	RD155151	CARBON RESISTOR (CHIP)	150.0 1/4 J TP	チ ッ プ 抵 抗	
R181	RD154560	CARBON RESISTOR (CHIP)	56.0 1/4 J TP	チ ッ プ 抵 抗	
R182	RD155151	CARBON RESISTOR (CHIP)	150.0 1/4 J TP	チ ッ プ 抵 抗	
R183	RD155151	CARBON RESISTOR (CHIP)	150.0 1/4 J TP	チ ッ プ 抵 抗	
R185	RD15000R	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チ ッ プ 抵 抗	
R502	WJ117700	CARBON RESISTOR (CHIP)	6.8K 1/4 WD	チ ッ プ 抵 抗	
R503	WJ117700	CARBON RESISTOR (CHIP)	6.8K 1/4 WD	チ ッ プ 抵 抗	
R520	RD153220	CARBON RESISTOR (CHIP)	2.2 1/4 J TP	チ ッ プ 抵 抗	
R521	RD153220	CARBON RESISTOR (CHIP)	2.2 1/4 J TP	チ ッ プ 抵 抗	
R522	RD15612R	CARBON RESISTOR (CHIP)	1.2K 1/4 J TP	チ ッ プ 抵 抗	
R523	RD15612R	CARBON RESISTOR (CHIP)	1.2K 1/4 J TP	チ ッ プ 抵 抗	
R527	RD15447R	CARBON RESISTOR (CHIP)	47.0 1/4 J TP	チ ッ プ 抵 抗	
R529	RD15722R	CARBON RESISTOR (CHIP)	22.0K 1/4 J TP	チ ッ プ 抵 抗	
R530	RD15722R	CARBON RESISTOR (CHIP)	22.0K 1/4 J TP	チ ッ プ 抵 抗	
R713	RD15000R	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チ ッ プ 抵 抗	
R714	RD153101	CARBON RESISTOR (CHIP)	1.0 1/4 J TP	チ ッ プ 抵 抗	
R715	RD15000R	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チ ッ プ 抵 抗	
R716	RD153101	CARBON RESISTOR (CHIP)	1.0 1/4 J TP	チ ッ プ 抵 抗	
* X700	ZV751500	RESONATOR QUARTZ	2M DSO221SHF	水 晶 発 振 器	
C504	ZF740700	ELECTROLYTIC CAPACITOR	4700 50.0V 2.5MM	ケ ミ コ ン	
C505	ZF740700	ELECTROLYTIC CAPACITOR	4700 50.0V 2.5MM	ケ ミ コ ン	
SW101	WE952000	SWITCH PUSH	SKRGAED010	タ ク ト S W	
SW103	WE952000	SWITCH PUSH	SKRGAED010	タ ク ト S W	
-135	WE952000	SWITCH PUSH	SKRGAED010	タ ク ト S W	
*	ZY986800	CIRCUIT BOARD	(DIV) PNR(0) PNR	シ ー ト P N R	(ZW85370)(YJ089C0)
*	ZW853800	CIRCUIT BOARD	(DIV) PNR(1) PNC	シ ー ト P N C	(ZW85370)(YJ089C0)
*	ZW853900	CIRCUIT BOARD	(DIV) PNR(2) PNL2	シ ー ト P N L 2	(ZW85370)(YJ089C0)
*	ZW854000	CIRCUIT BOARD	(DIV) PNR(3) ENC	シ ー ト E N C	(ZW85370)(YJ089C0)
*	ZW854100	CIRCUIT BOARD	(DIV) PNR(4) MVR	シ ー ト M V R	(ZW85370)(YJ089C0)
*	ZW854200	CIRCUIT BOARD	(DIV) PNR(5) JCT	シ ー ト J C T	(ZW85370)(YJ089C0)
*	ZW854400	CIRCUIT BOARD	(DIV) PNR(6) USB	シ ー ト U S B	(ZW85370)(YJ089C0)
CN503	WH382500	USB CONNECTOR	UAR27 4P SE	U S B コ ネ ク タ	TO DEVICE (FRONT)
CN603	WH382500	USB CONNECTOR	UAR27 4P SE	U S B コ ネ ク タ	TO DEVICE (BOTTOM)
EC401	VU48130R	ROTARY ENCODER	REB161(9X5)PVB15FH	1 6 形 エ ン コ ー ダ	Data dial
* SW801	ZV372800	SWITCH PUSH	SKPFAAA010	タ ク ト S W	Standby/On
VR801	VQ67050R	VR ROTARY	B 10K RK11K1130A0M	ロ ー タ リ ー ボ リ ュ ー ム	MASTER VOLUME
C103	UF038103	ELECTROLYTIC CAPACITOR	100 16V	チ ッ プ ケ ミ コ ン	
C106	UF12822R	ELECTROLYTIC CAPACITOR	220 10V	チ ッ プ ケ ミ コ ン	
C107	UF12822R	ELECTROLYTIC CAPACITOR	220 10V	チ ッ プ ケ ミ コ ン	
IC101	YD841C00	IC	TMP89FW24AFG-7R00	I C	E-PNS3a
LD101	ZH930000	LED WHITE	ASMT-UWB1-ZX3B2	チ ッ プ L E D	
-106	ZH930000	LED WHITE	ASMT-UWB1-ZX3B2	チ ッ プ L E D	
* LD107	ZW802200	LED ORENGE	ASMT-UJB4-ZV3C2	チ ッ プ L E D	
* LD108	ZW802200	LED ORENGE	ASMT-UJB4-ZV3C2	チ ッ プ L E D	
LD113	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ プ L E D	
* LD114	ZW802200	LED ORENGE	ASMT-UJB4-ZV3C2	チ ッ プ L E D	
LD115	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ プ L E D	
* LD116	ZW802200	LED ORENGE	ASMT-UJB4-ZV3C2	チ ッ プ L E D	
LD117	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ プ L E D	
* LD118	ZW802200	LED ORENGE	ASMT-UJB4-ZV3C2	チ ッ プ L E D	

*: New Parts

PNR/PNC/PNL2/ENC/MVR/JCT/USB

REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY
LD119	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD120	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD121	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD122	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD123	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD124	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD125	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD126	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD127	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD128	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
* -133	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD201	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD202	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD203	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD204	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD205	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD206	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD207	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD208	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD209	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD210	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD211	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD212	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD213	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD214	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD215	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD216	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD217	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD218	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD219	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD220	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
* LD221	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
* LD303	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD304	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD305	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD306	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD307	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
LD308	ZH928900	LED BLUE	ASMT-UBB5-ZT3Y2	チ ッ ブ L E D		
* LD309	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
* LD310	ZW802200	LED ORENCE	ASMT-UJB4-ZV3C2	チ ッ ブ L E D		
R101	RD15482R	CARBON RESISTOR (CHIP)	82.0 1/4 J TP	チ ッ ブ 抵 抗		
R102	RD154560	CARBON RESISTOR (CHIP)	56.0 1/4 J TP	チ ッ ブ 抵 抗		
R103	RD155151	CARBON RESISTOR (CHIP)	150.0 1/4 J TP	チ ッ ブ 抵 抗		
R104	RD154560	CARBON RESISTOR (CHIP)	56.0 1/4 J TP	チ ッ ブ 抵 抗		
R105	RD155151	CARBON RESISTOR (CHIP)	150.0 1/4 J TP	チ ッ ブ 抵 抗		
-107	RD155151	CARBON RESISTOR (CHIP)	150.0 1/4 J TP	チ ッ ブ 抵 抗		
R108	RD154560	CARBON RESISTOR (CHIP)	56.0 1/4 J TP	チ ッ ブ 抵 抗		
R109	RD155151	CARBON RESISTOR (CHIP)	150.0 1/4 J TP	チ ッ ブ 抵 抗		
R110	RD154560	CARBON RESISTOR (CHIP)	56.0 1/4 J TP	チ ッ ブ 抵 抗		
R111	RD155151	CARBON RESISTOR (CHIP)	150.0 1/4 J TP	チ ッ ブ 抵 抗		
R172	RD15000R	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チ ッ ブ 抵 抗		
R201	RD15000R	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チ ッ ブ 抵 抗		
-205	RD15000R	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チ ッ ブ 抵 抗		
R303	RD15000R	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チ ッ ブ 抵 抗		
R304	RD15000R	CARBON RESISTOR (CHIP)	0.0 1/4 J TP	チ ッ ブ 抵 抗		
SW101	WE952000	SWITCH PUSH	SKRGAED010	タ ク ト S W		
-137	WE952000	SWITCH PUSH	SKRGAED010	タ ク ト S W		
SW201	WE952000	SWITCH PUSH	SKRGAED010	タ ク ト S W		
-214	WE952000	SWITCH PUSH	SKRGAED010	タ ク ト S W		
SW301	WE952000	SWITCH PUSH	SKRGAED010	タ ク ト S W		
-309	WE952000	SWITCH PUSH	SKRGAED010	タ ク ト S W		
*	ZW807700	LCD ASSEMBLY		L C D A s s ' y		
*	ZZ750900	OLED DISPLAY	DP-0105-004-NR-KK	有 機 イ ー エ ル	Sub Display	
	WW997300	JOYSTICK		ジ ョ イ ス テ ィ ッ ク		
*	ZW338000	CONNECTOR ASSEMBLY	POWER 3P	電 源 束 線	AC INLET	
*	ZW587800	AC ADAPTOR	PA-300C	A C ア ダ プ タ ー		

*: New Parts

[illegible]

*: New Parts

GNS-MS01

PARTS LIST

■ CONTENTS



COMPLETE ASSEMBLY	2
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Notes : DESTINATION ABBREVIATIONS

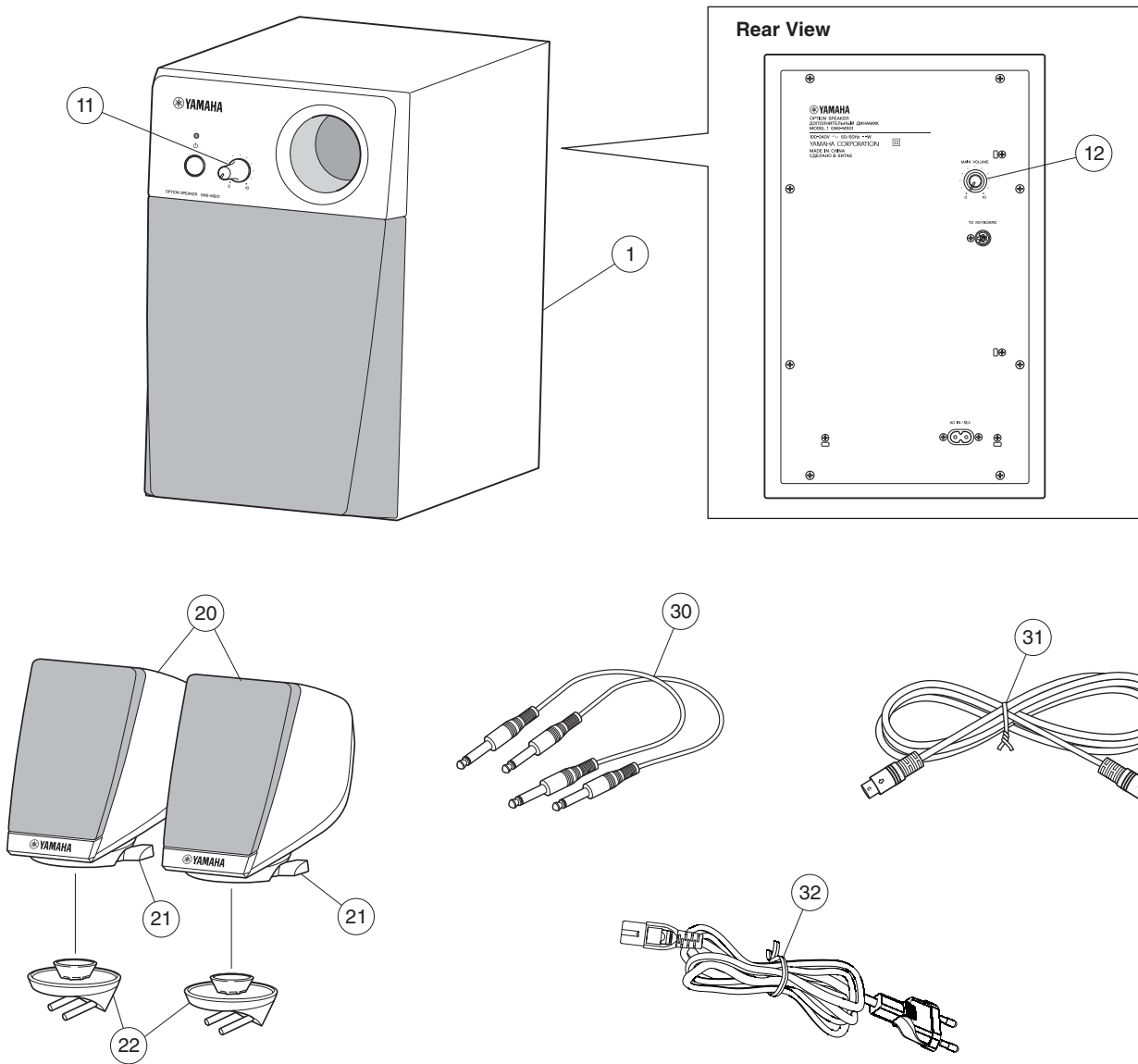
A : Australian model	O : Chinese model
B : British model	P : Brazilian model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W : General export model (220V)
I : Indonesian model	N,X: General export model
J : Japanese model	Y : Export model
K : Korean model	Z : Indian model
M : Malaysian model	

■ WARNING

Components having special characteristics are marked  and must be replaced with parts having specification equal to those originally installed.

- The numbers “QTY” show quantities for each unit.
- The parts with “-” in “PART NO.” are not available as spare parts.
- This mark “ } ” in the REMARKS column means these parts are interchangeable.
- The second letter of the shaded () part number is O, not zero.
- The second letter of the shaded () part number is I, not one.

COMPLETE ASSEMBLY



REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY
		COMPLETE ASSEMBLY	同 梱 品 セ ッ ト	GNS-MS01	
* 1	ZY528500	WOOFER UNIT E	ウーハーユニット E	E,B,A,P	
* 1	ZY528600	WOOFER UNIT U	ウーハーユニット U	U	
* 1	ZY528700	WOOFER UNIT CHN	ウーハーユニット C	O	
* 11	ZY503800	BASS VOLUME KNOB	ベ ー ス V R ノ ブ	BASS VOLUME	
* 12	ZY503900	MASTER VOLUME KNOB	マ ス タ ー V R ノ ブ	MAIN VOLUME	
* 20	ZY516500	SATELLITE SPEAKER	サ テ ラ イ ト ス ピ ー カ ー		2
* 21	ZY516700	LEVER	レ バ		2
* 22	ZY516800	SPEAKER STAND ASSEMBLY	ス ピ ー カ ス タ ン ド		2
* 30	ZY516900	PHONE CABLE	フ ォ ン ケ ー ブ ル		2
* 31	ZY517000	SYSTEM CABLE	シ ス テ ム ケ ー ブ ル		
* 32	ZY517100	POWER SUPPLY CORD	電 源 コ ー ド U	U	
* 32	ZY517200	POWER SUPPLY CORD	電 源 コ ー ド E	E	
* 32	ZY517300	POWER SUPPLY CORD	電 源 コ ー ド B	B	
* 32	ZY517400	POWER SUPPLY CORD	電 源 コ ー ド P	P	
* 32	ZY517500	POWER SUPPLY CORD	電 源 コ ー ド A	A	
* 32	ZY517600	POWER SUPPLY CORD	電 源 コ ー ド O	O	

*: New Parts



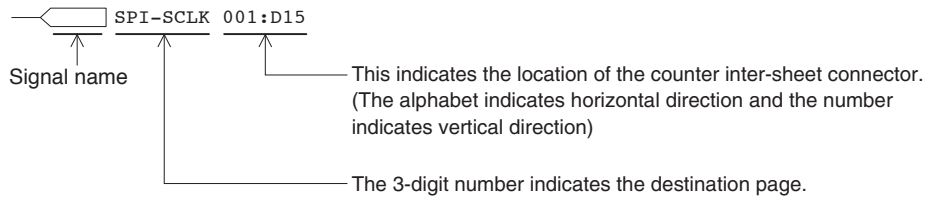
CIRCUIT DIAGRAM

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CIRCUIT DIAGRAM	
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Notation for Circuit Diagrams

1. How to identify inter-sheet connectors



2. Connection of connectors

(Example)

to PNR-CN101
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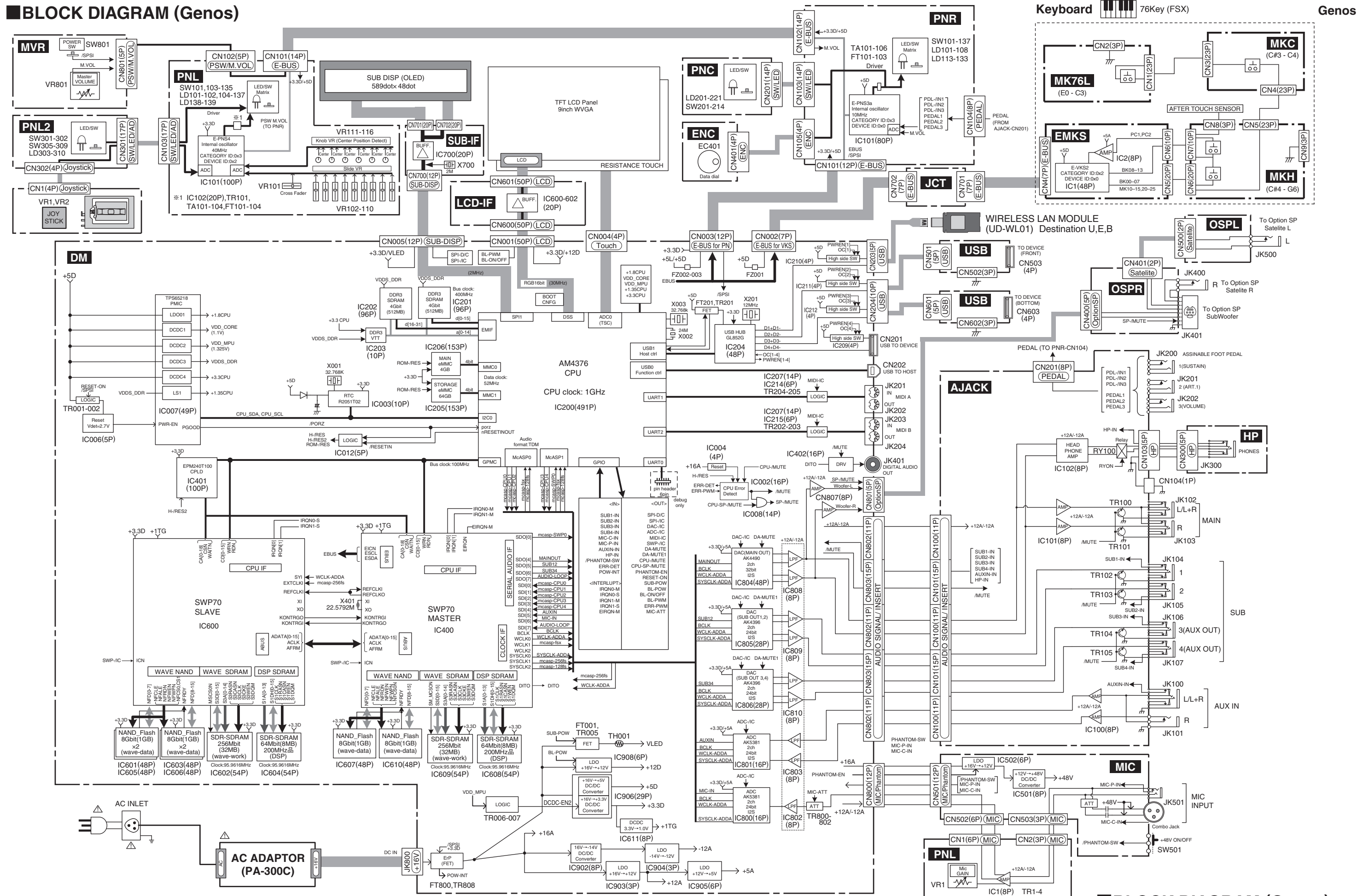
Page 15 are the page of a circuit diagram.
P1 is indicates the location of the counter inter-sheet connector.
(The alphabet indicates horizontal direction and the number indicates vertical direction)

■ WARNING

Components having special characteristics are marked  and must be replaced with parts having specification equal to those originally installed.

Note: See parts list for details of circuit board component parts.

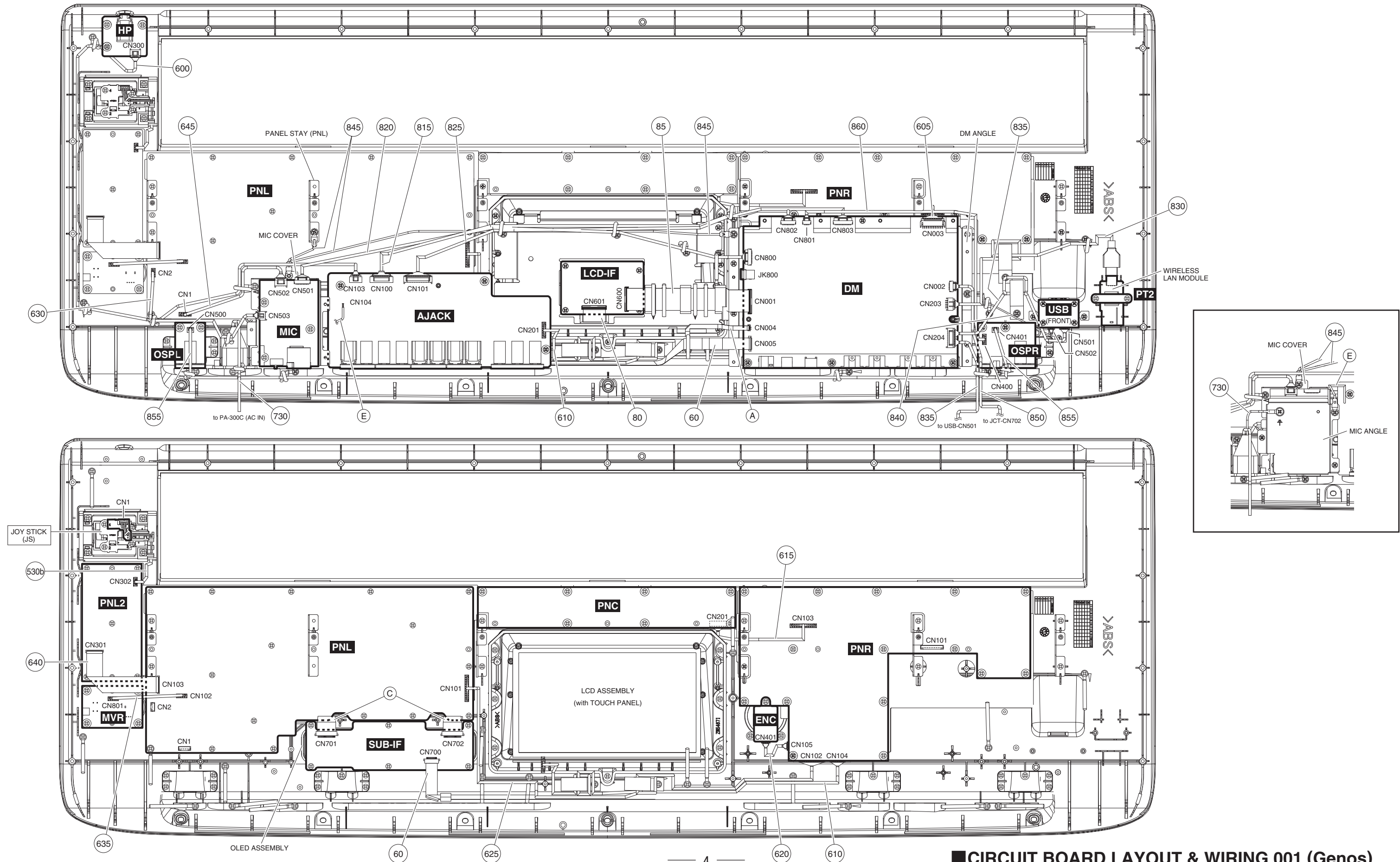
■ BLOCK DIAGRAM (Genos)



■CIRCUIT BOARD LAYOUT & WIRING 001 (Genos)

Genos

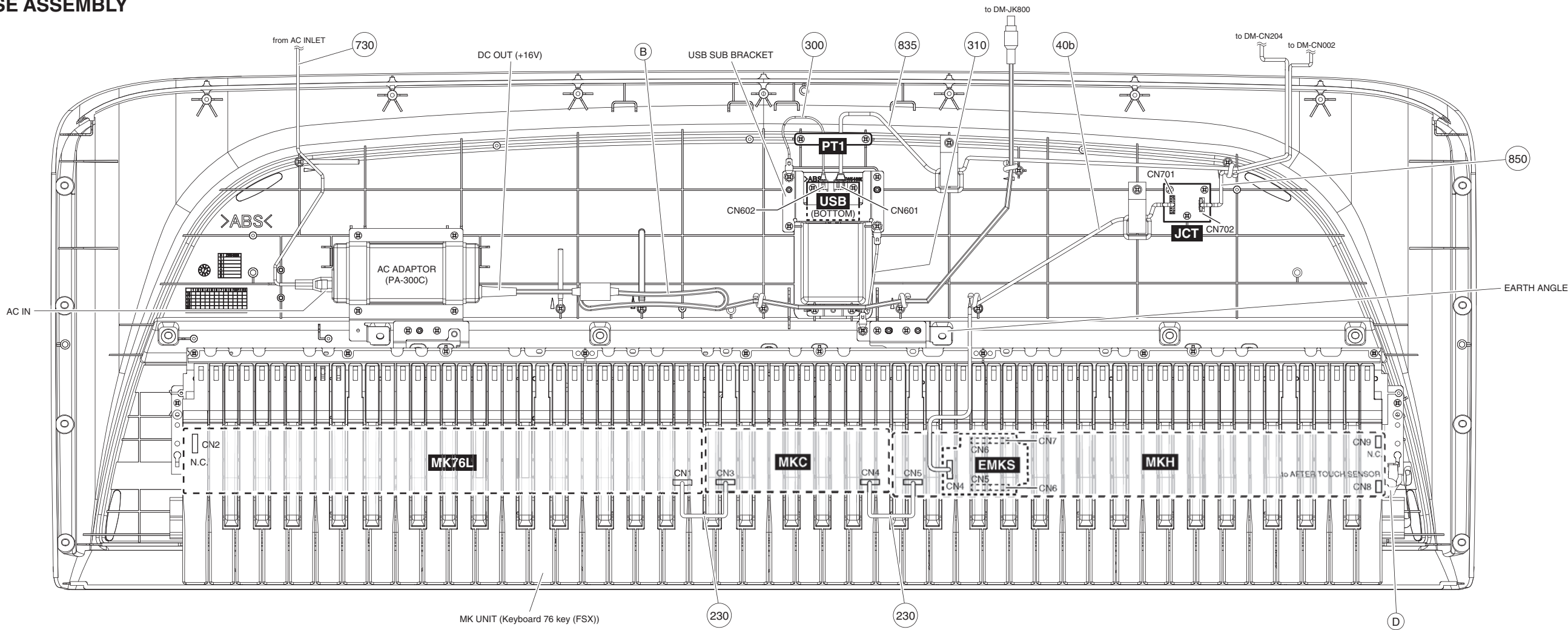
UPPER CASE ASSEMBLY



■CIRCUIT BOARD LAYOUT & WIRING 002 (Genos)

Genos

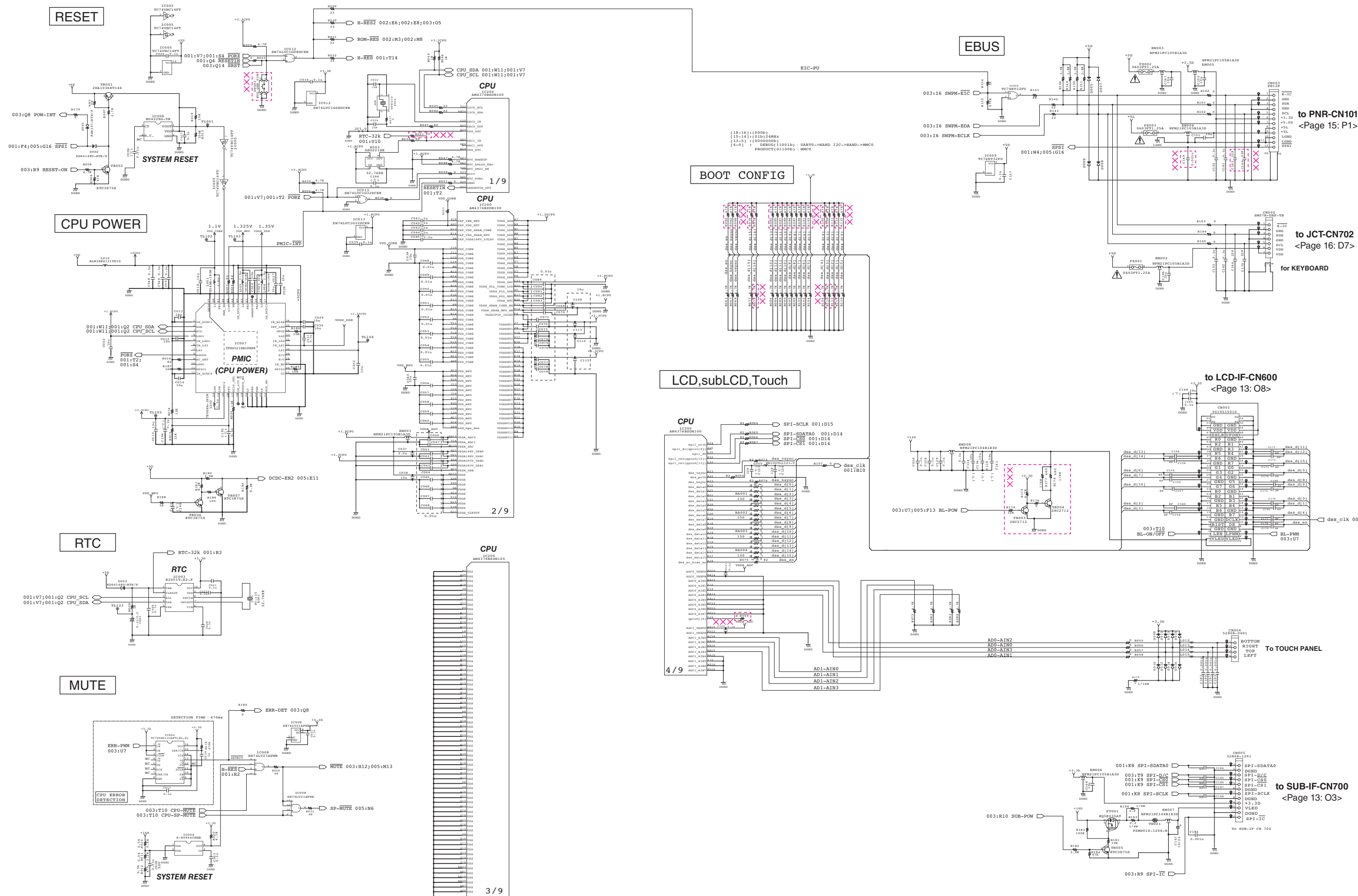
LOWER CASE ASSEMBLY



LOCATION NO.	UNIT NAME	PARTS NO.	CONNECTOR ASSEMBLY	DESTINATION		REMARKS	LOCATION NO.	UNIT NAME	PARTS NO.	CONNECTOR ASSEMBLY	DESTINATION		REMARKS
80	UPPER CASE ASSEMBLY	ZX440400	FFC-LF2	LCD-IF-CN601	LDC ASSEMBLY	50P L=60	835	UPPER CASE ASSEMBLY	(ZW12200)	USB2 LF	DM-CN204	USB-CN501(FRONT)/USB-CN601(BOTTOM)	10P-5P/5P L=730/240
85		ZX440600	FFC-LF3	DM-CN001	LCD-IF-CN600	50P L=150	840		(ZW10950)	GND2	USB-CN502	GND(DM ANGLE)	3P-LUG L=125
530b		(ZW10880)	JST	PNL2-CN302	JOYSTICK(JS)-CN1	4P L=160	845		(ZY48450)	GND8	GND(MIC COVER)	GND(PANEL STAY(PNL)/DM ANGLE)	LUG 1P/LUG 2P L=500+60
600		(ZW10670)	PH3	AJACK-CN103	HP-CN300	5P L=750	850		(ZW10800)	GH2	DM-CN002	JCT-CN702	7P L=400
605		(ZW10700)	PH4	DM-CN003	PNR-CN101	12P L=40	855		(ZW10630)	XH2	OSPR-CN401	OSPL-CN500	2P L=1050
610		(ZX28590)	PH5 LF	AJACK-CN201	PNR-CN104	8P L=460	860		(ZW10810)	GHPH1	DM-CN801	OSPR-CN400	5P L=360
615		(ZW10840)	GHPH4	PNR-CN103	PNC-CN201	14P L=120	A	LOWER CASE ASSEMBLY	--	LCD ASSEMBLY	TOUCH PANEL	DM-CN004	4P
620		(ZW10720)	PH6	PNR-CN105	ENC-CN401	4P L=50	300		(ZW10960)	GND3	USB-CN602	GND(LOWER USB BRACKET)	3P-LUG L=150
625		(ZX40950)	PH7 LF	PNL-CN101	PNR-CN102	14P L=620	310		(ZW91420)	GND6	GND(EARTH ANGLE)	GND(LOWER USB BRACKET)	LUG-LUG L=85
630		(ZW10850)	MIC	MIC-CN503	PNL-CN2	3P L=205	B		ZW587800	AC ADAPTOR	DC OUT(+16V)	DM-JK800	PA-300C
635		(ZW10760)	PH8	PNL-CN102	MVR-CN801	5P L=100	60	OLED ASSEMBLY	ZX440200	FFC-LF1	DM-CN005	SUB-IF-CN700	12P L=410
640		ZW110000	FFC CABLE	PNL-CN103	PNL2-CN301	17P L=120	C		--	OLED DISPLAY	SUB-IF-CN701/CN702		20Px2
645		(ZW10770)	PH9	MIC-CN502	PNL-CN1	6P L=145	40b	KEYBOARD UNIT	(ZX28570)	PH2 LF	EMKS-CN4	JCT-CN701	7P L=730
730		ZW338000	POWER	AC INLET	PA-300C(AC IN)/GND	3P	230		WF12750R	FFC CABLE	MK76L-CN1	MKC-CN3	23P L=114
815		(ZW10820)	GHPH2	DM-CN802	AJACK-CN100	11P L=510	D		--	PC SENSOR	MKC-CN4	MKH-CN5	
820		(ZW10790)	GH1	DM-CN800	MIC-CN501	12P L=530	E		(ZW10980)	GND5	AJACK-CN104	AFTER TOUCH SENSOR	3P
825		(ZW10830)	GHPH3	DM-CN803	AJACK-CN101	15P L=540						GND(MIC ANGLE)	LUG-B_IN L=60
830		(ZW12180)	USB1 LF	DM-CN203	WIRELESS LAN MODULE	5P L=375 (U,E,B)							

The parts that correspond to the number with () are not prepared as service parts.

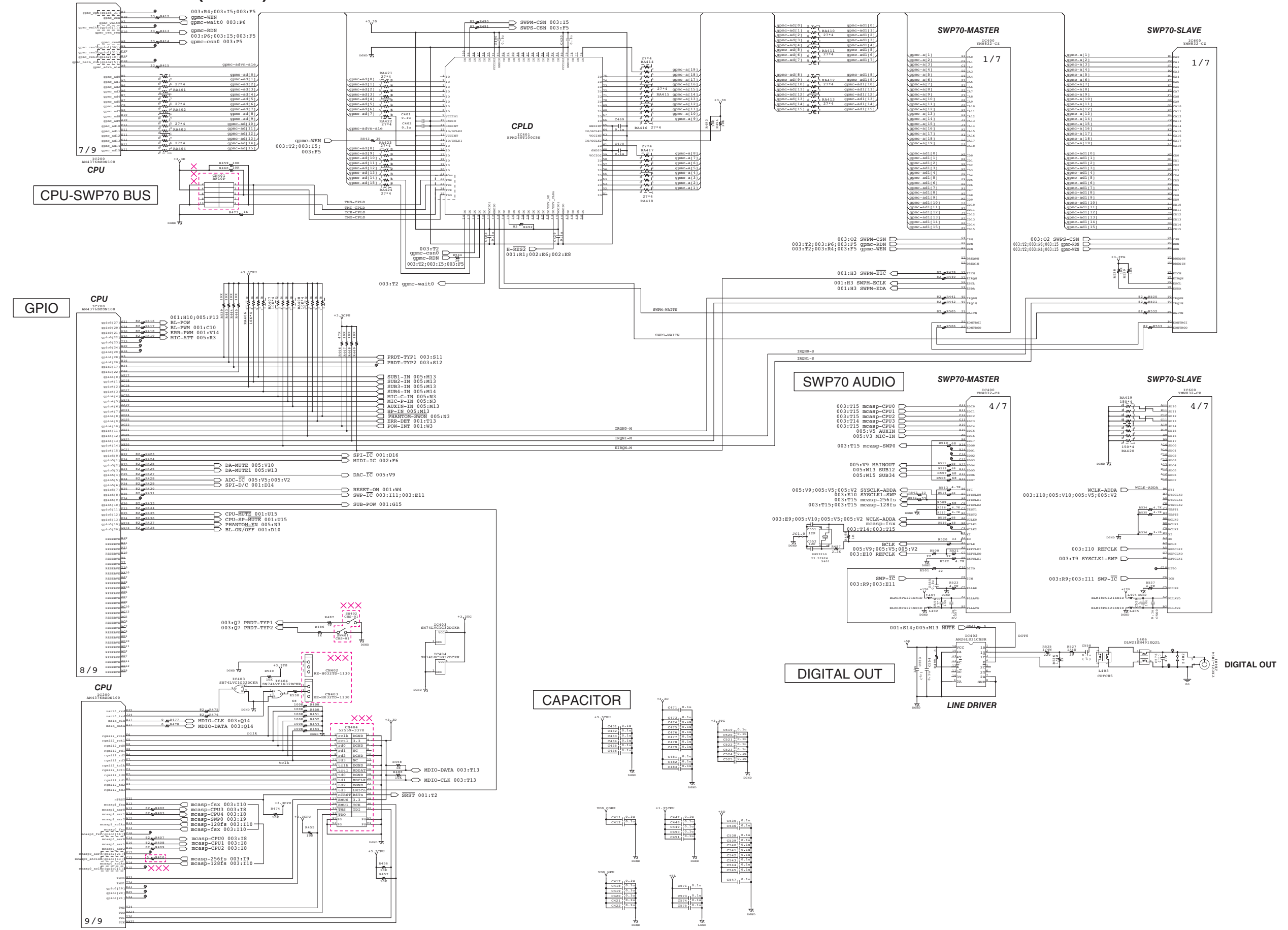
■DM 001 CIRCUIT DIAGRAM (Genos)





DM 003 CIRCUIT DIAGRAM (Genos)

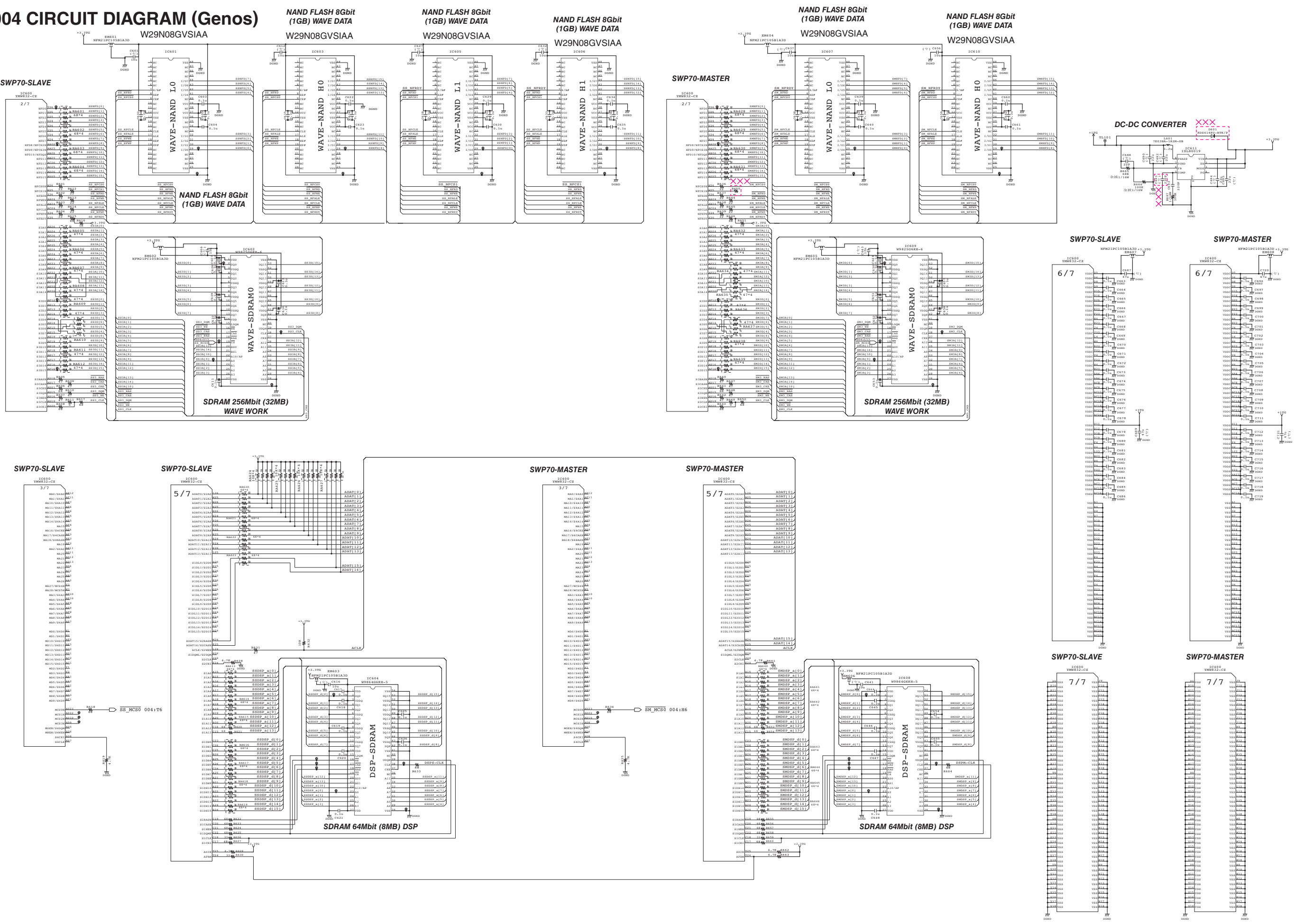
Genos



DEBUG JTAG

DM 004 CIRCUIT DIAGRAM (Genos)

Genos



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DM 005 CIRCUIT DIAGRAM (Genos)

Genos

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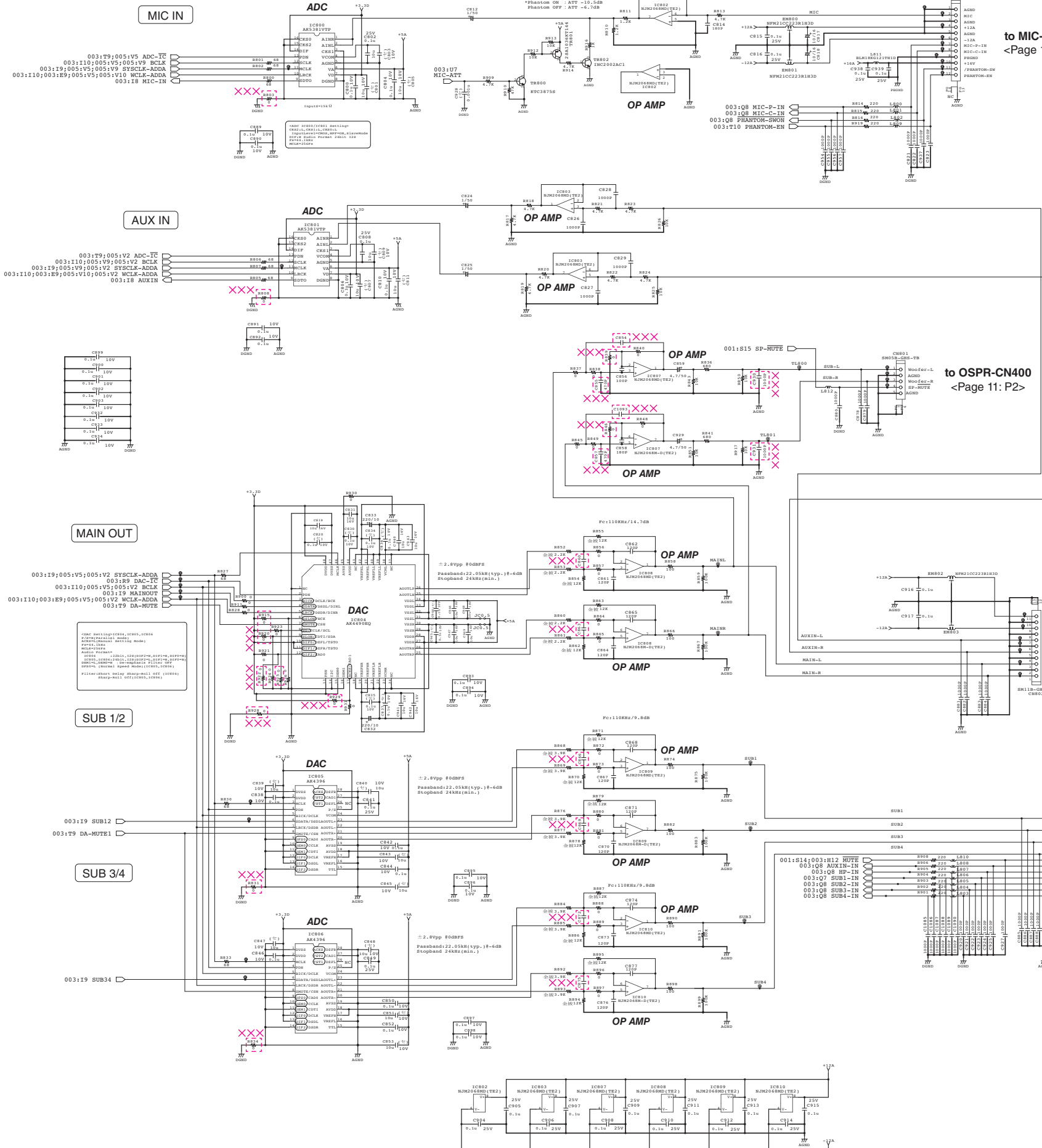
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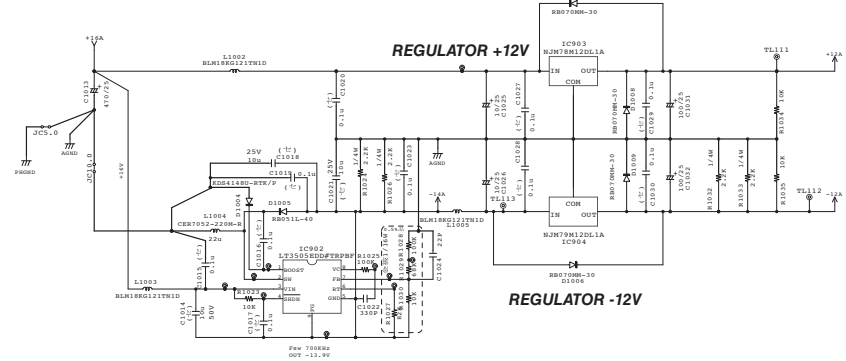
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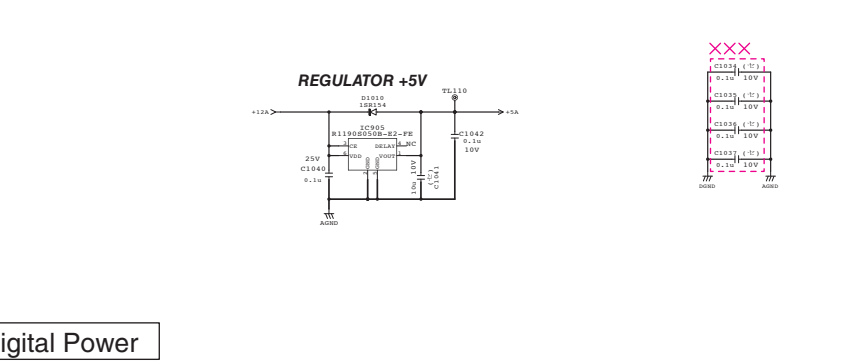
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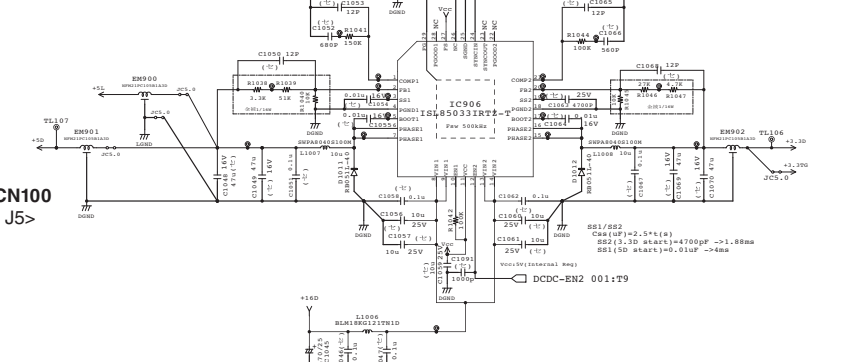
Analog Power



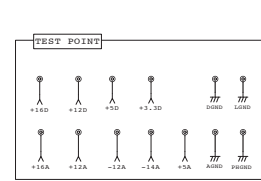
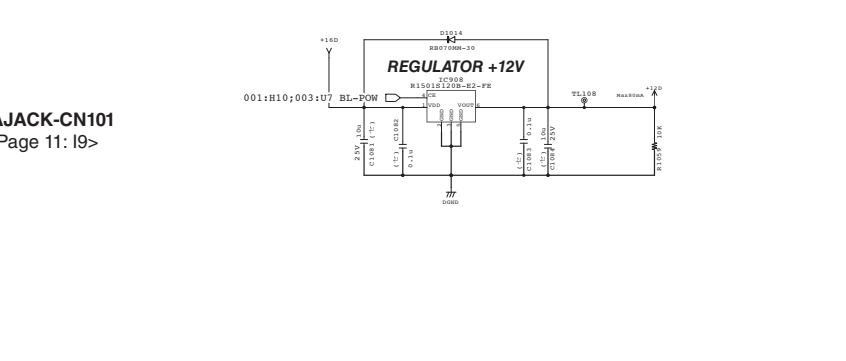
Digital Power



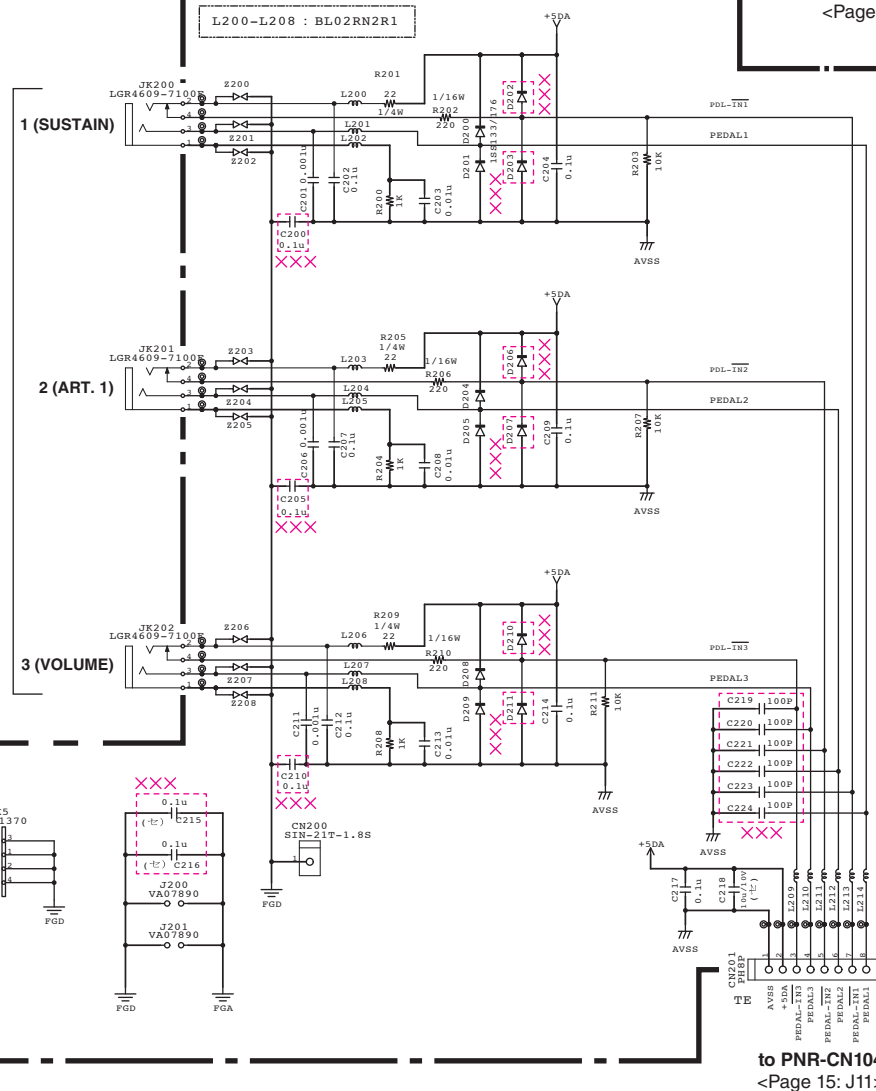
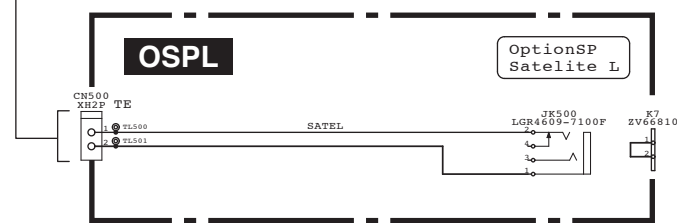
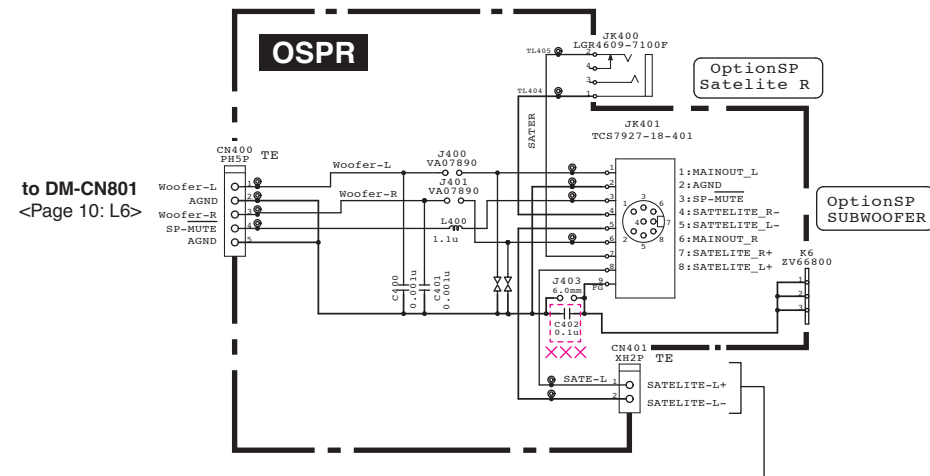
DC-DC CONVERTER



DC IN(+16V)

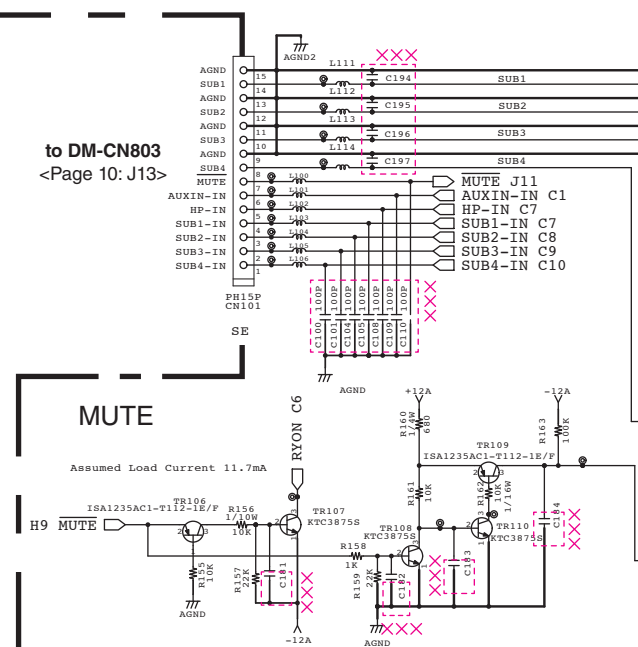
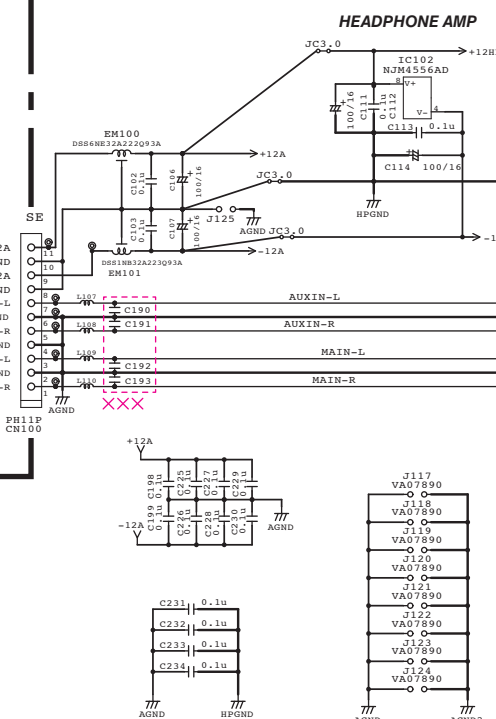
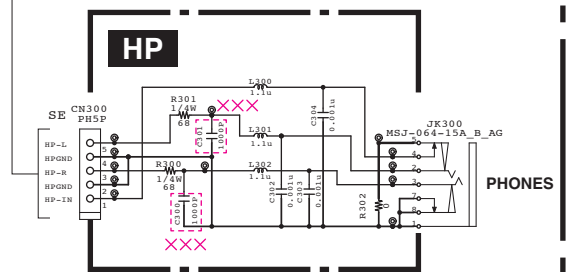


■ JK (AJACK, HP, OSPL, OSPR) CIRCUIT DIAGRAM (Genos)



ASSIGNABLE FOOT PEDAL

to DM-CN802
<Page 10: J10>



to DM-CN803
<Page 10: J13>

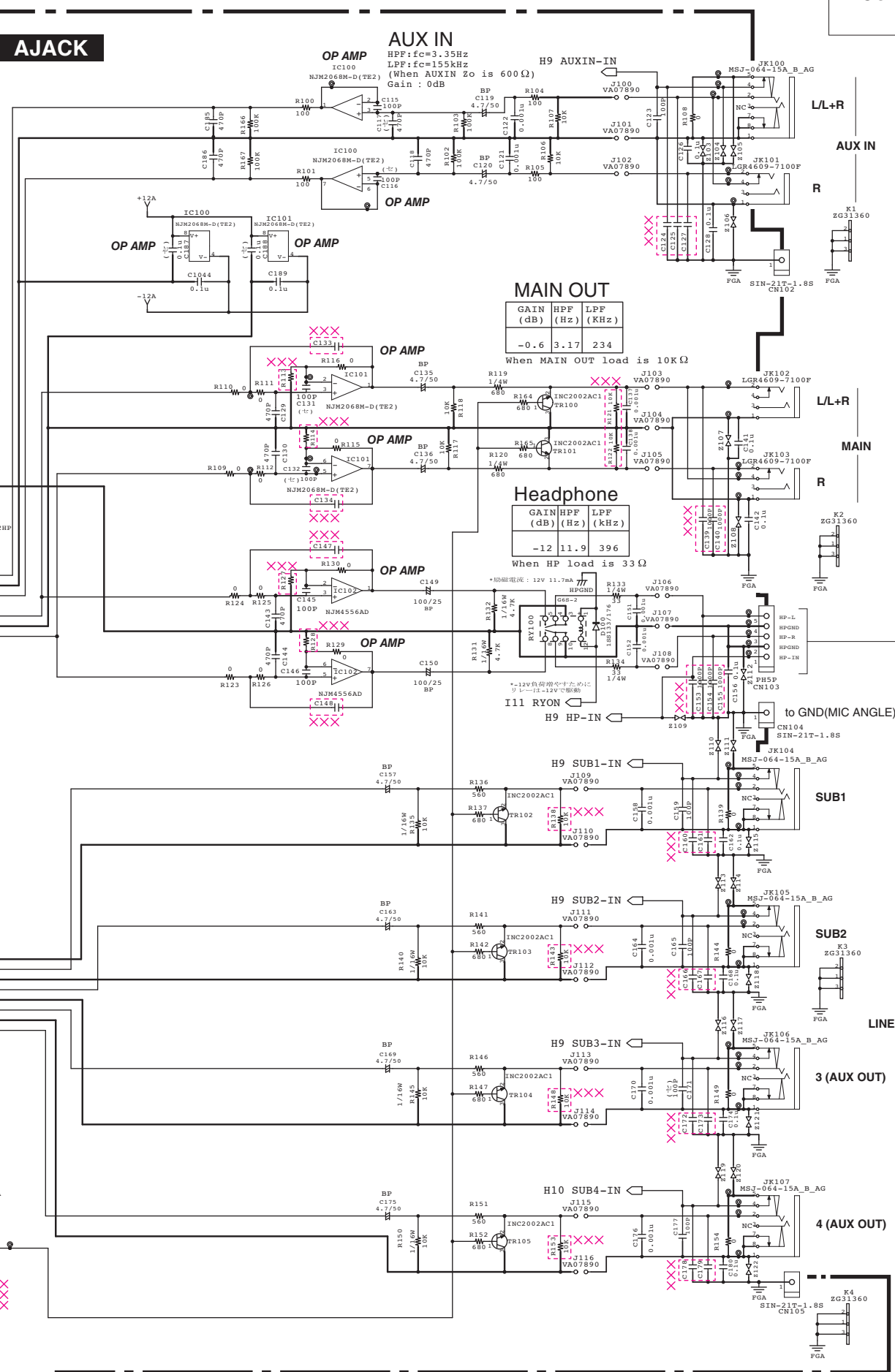
MUTE

Assumed Load Current 11.7mA

to PNR-CN104
<Page 15: J11>

28CC1-2001176013

XXX: Not installed

AJACK

Genos

K IN

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LINE OUT

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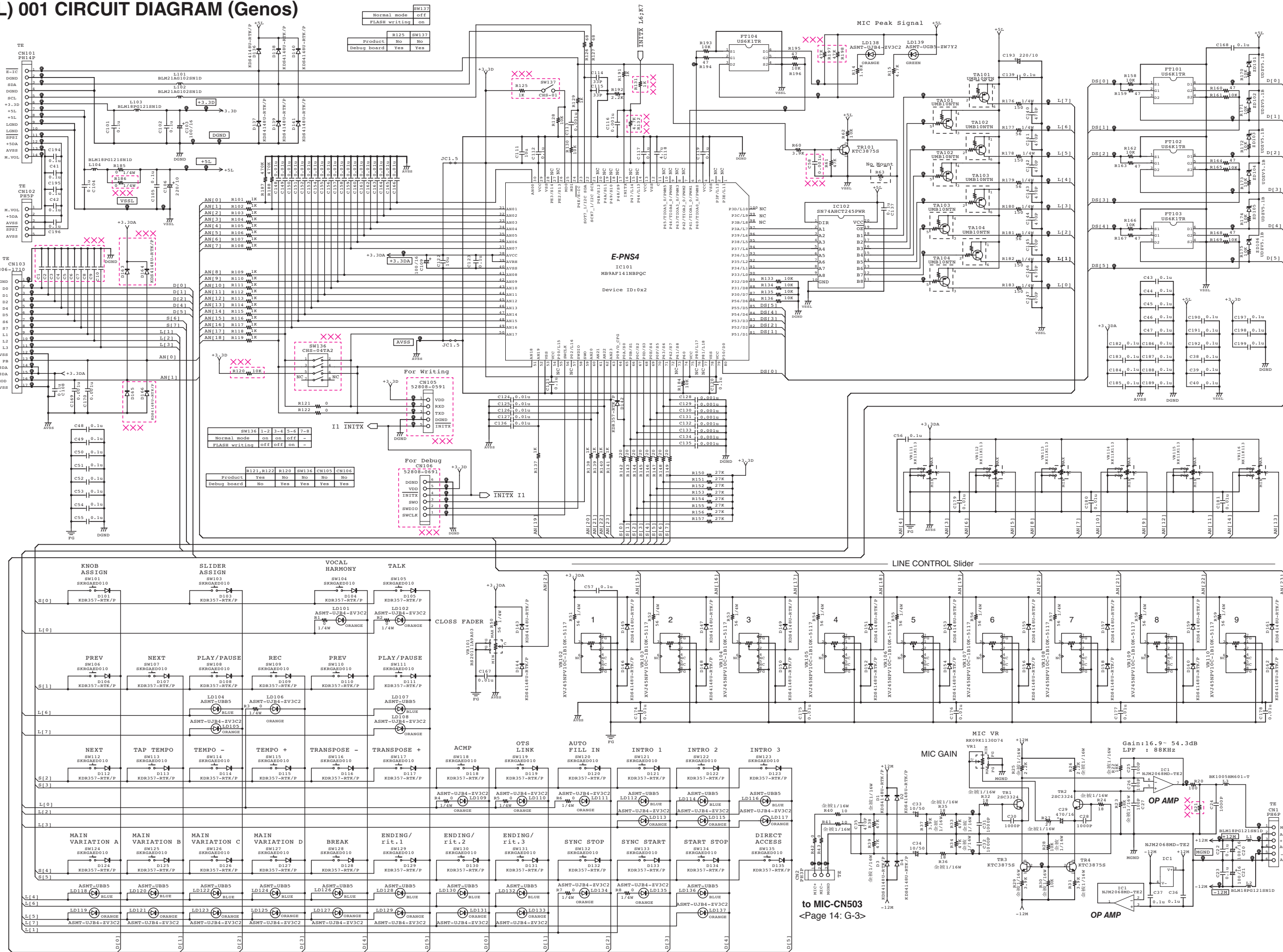
PNL (PNL) 001 CIRCUIT DIAGRAM (Genos)

Genos

to PNR-CN102
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to MVR-CN801
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to PNL2-CN301
<Page 16: B3>

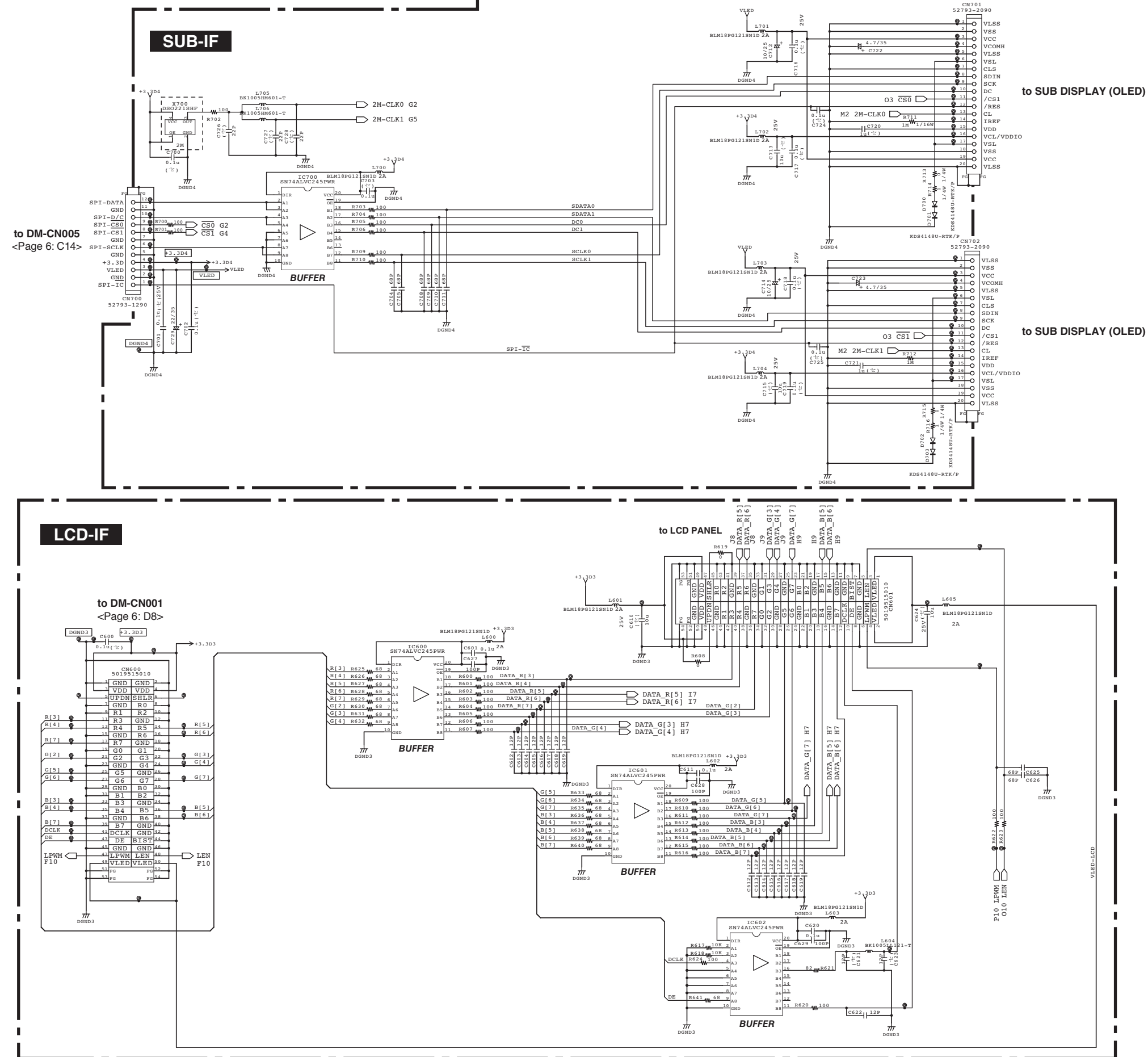


to MIC-CN502
<Page 14: G3>

to MIC-CN503
<Page 14: G-3>

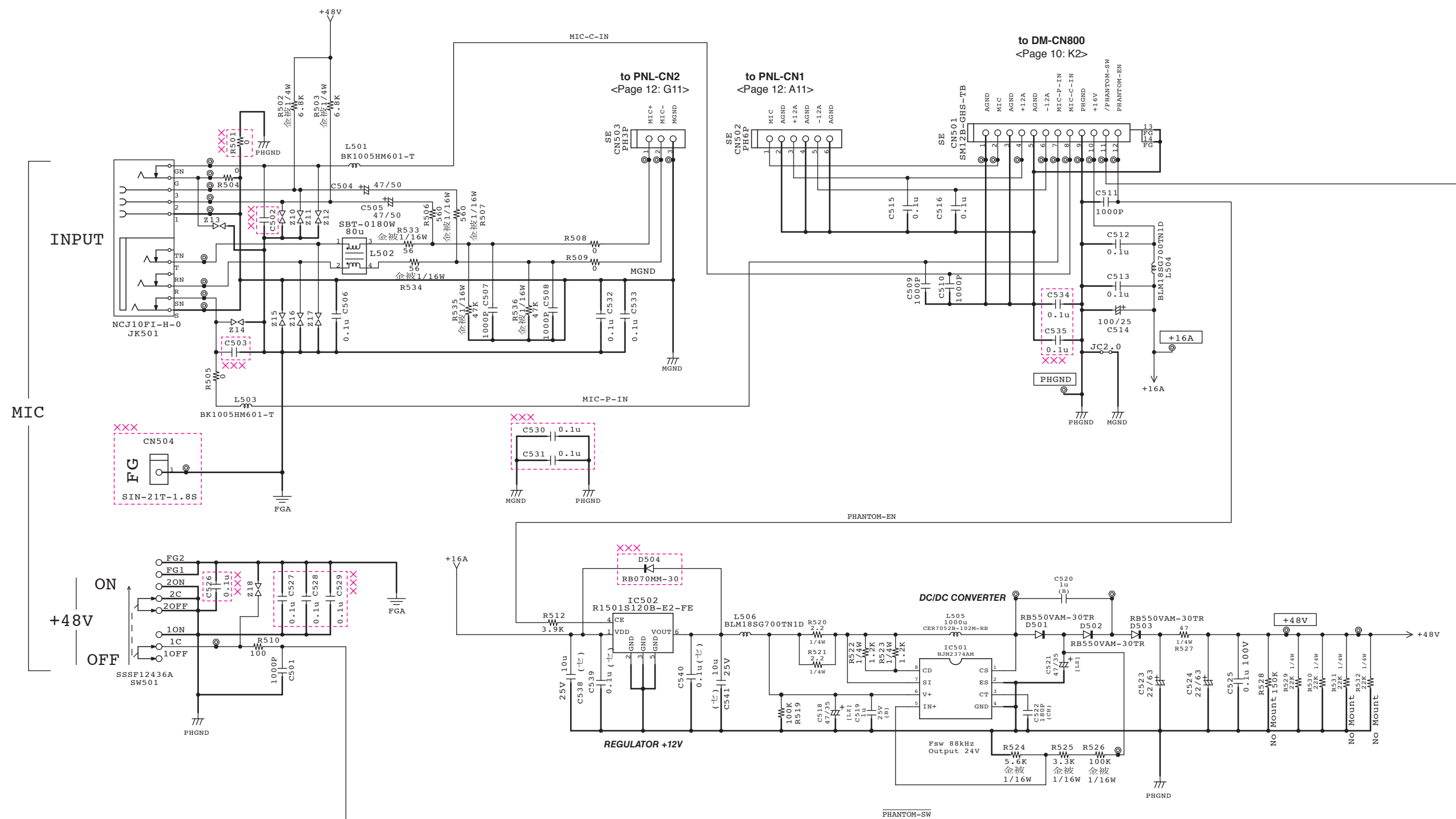
■ PNL (SUB-IF, LCD-IF) 002 CIRCUIT DIAGRAM (Genos)

Genos



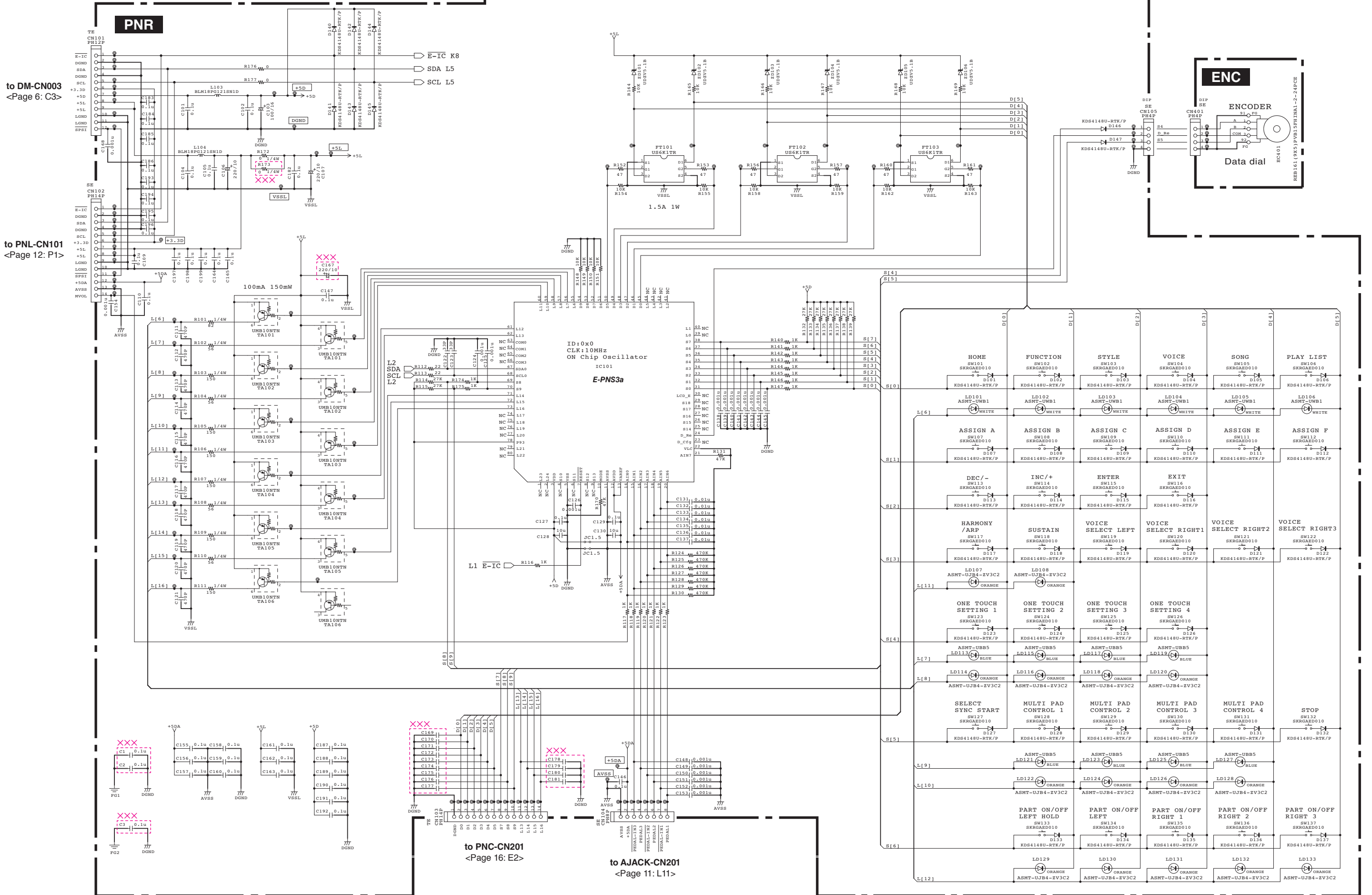
PNL (MIC) 003 CIRCUIT DIAGRAM (Genos)

Genos



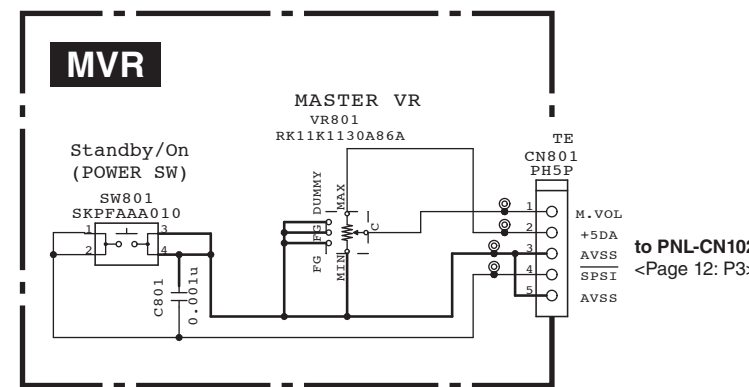
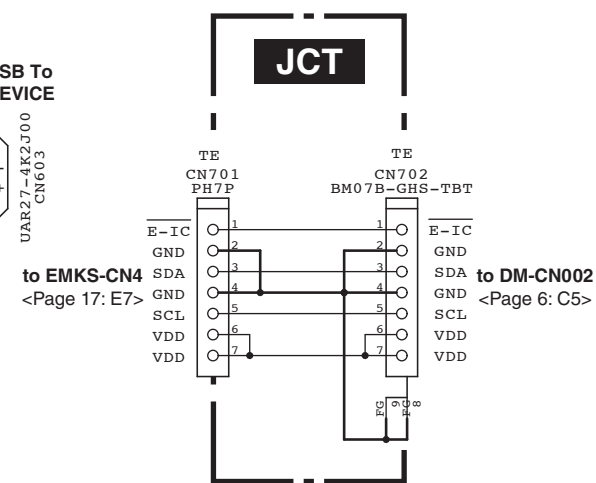
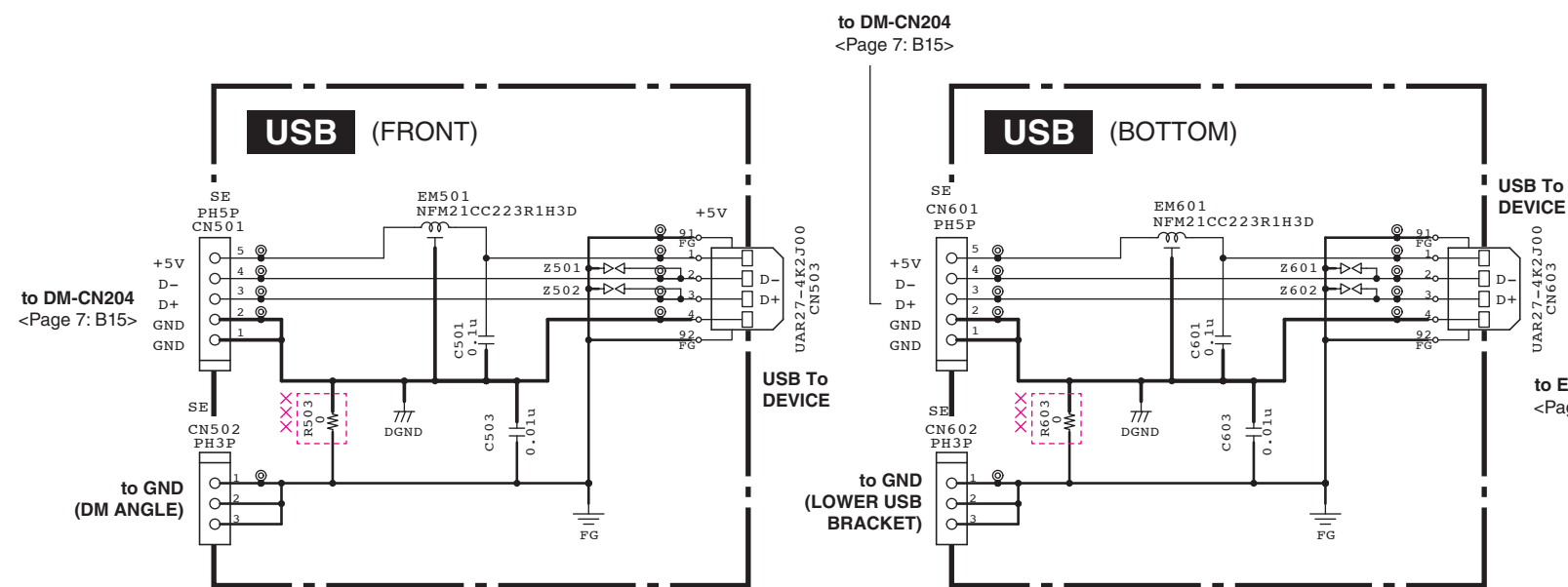
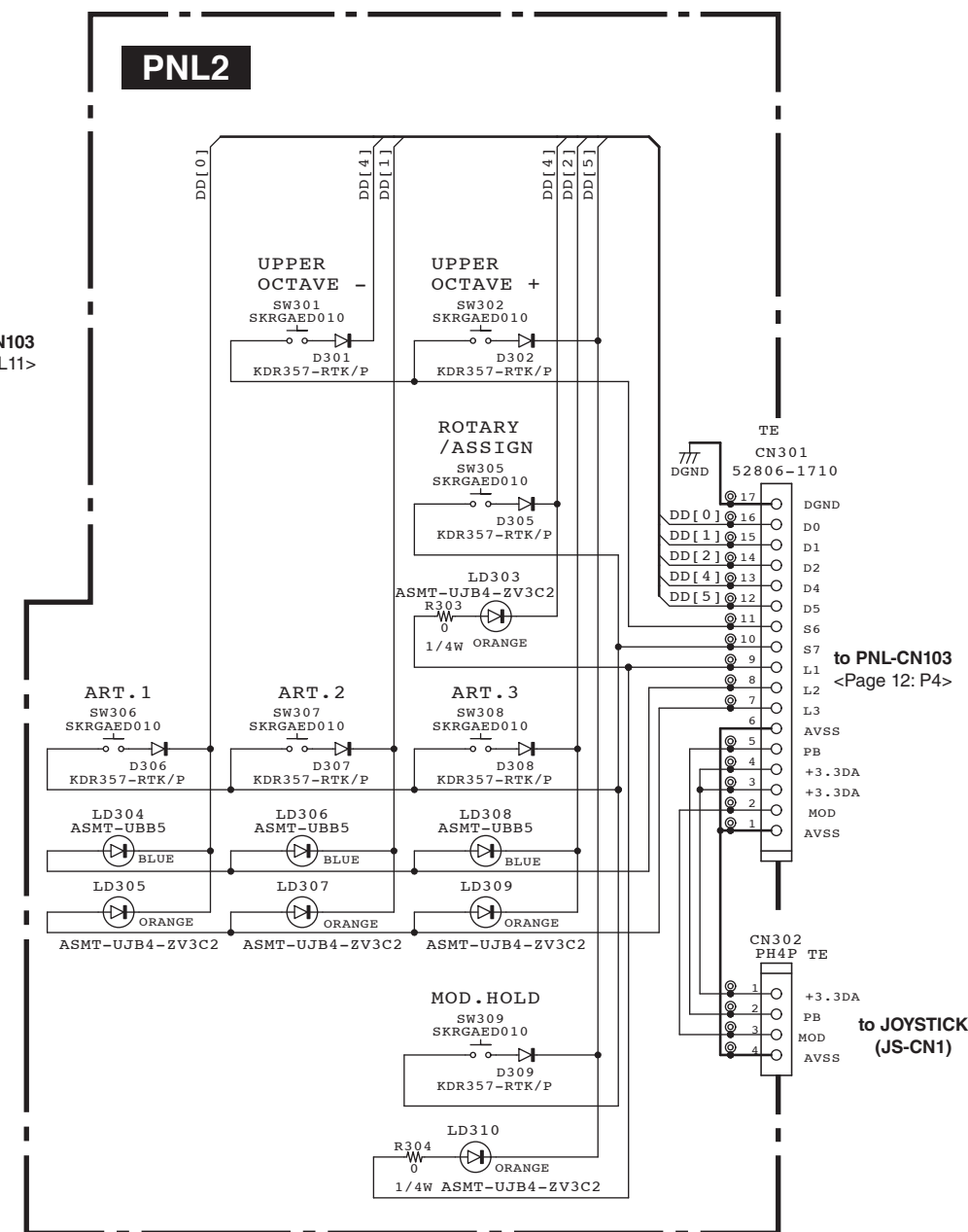
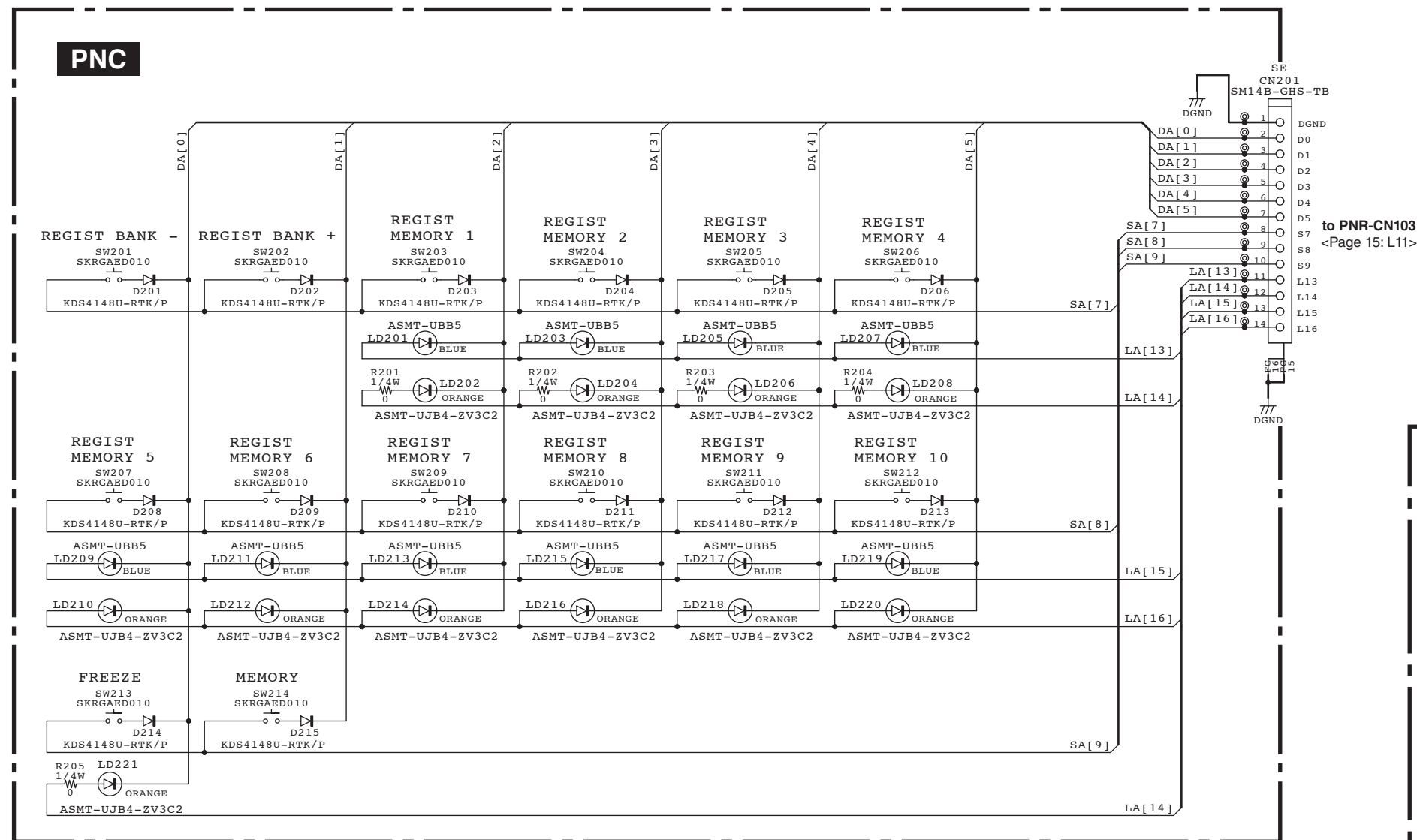
PNR (PNR, ENC) 001 CIRCUIT DIAGRAM (Genos)

Genos



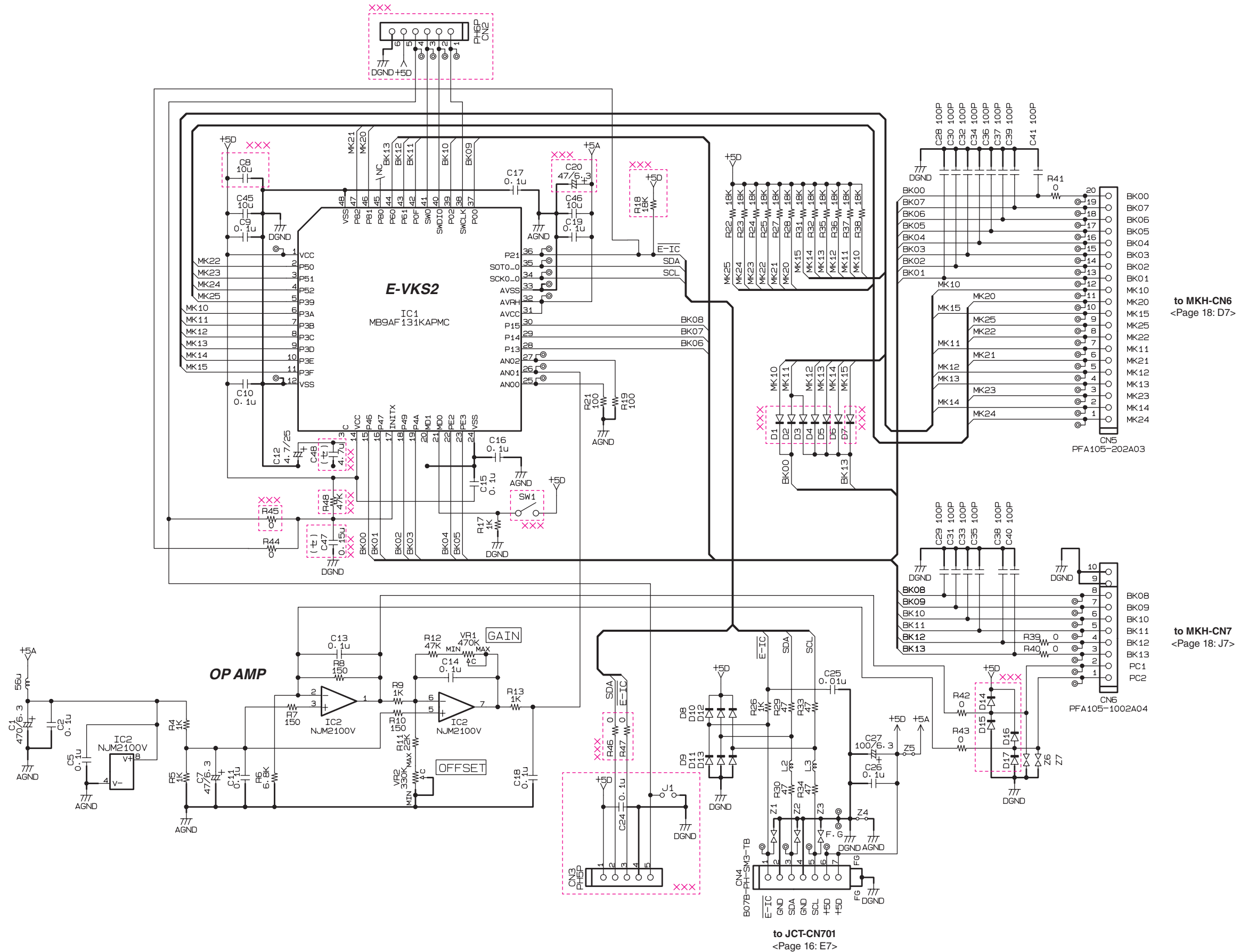
PNR (PNC, PNL2, JCT, MVR, USB) 002 CIRCUIT DIAGRAM (Genos)

Genos



EMKS CIRCUIT DIAGRAM (Genos)

Genos



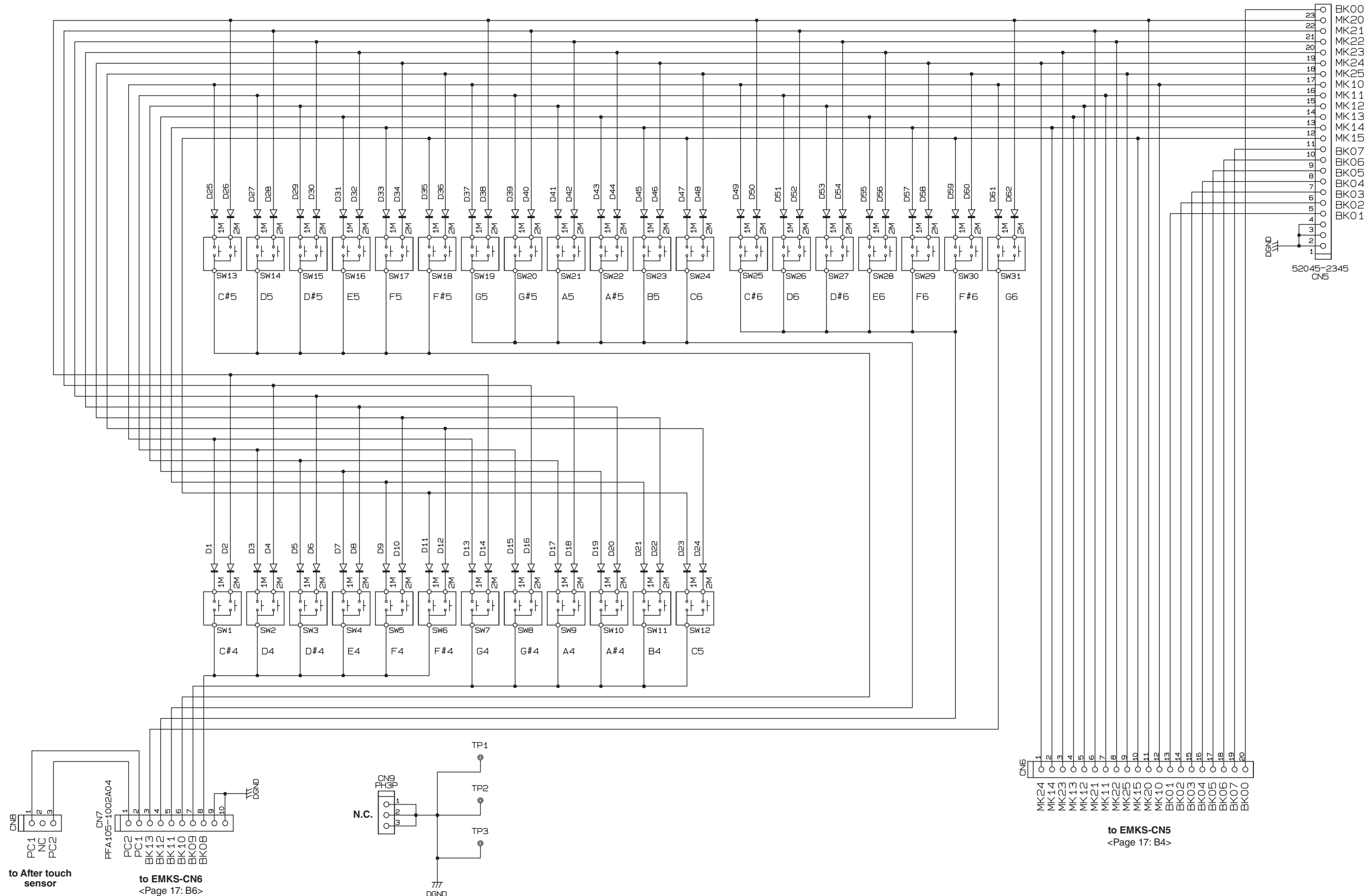
to MKH-CN6
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to MKH-CN7
<Page 18: J7>

to JCT-CN701
<Page 16: E7>

■MKH CIRCUIT DIAGRAM (Genos)

Genos

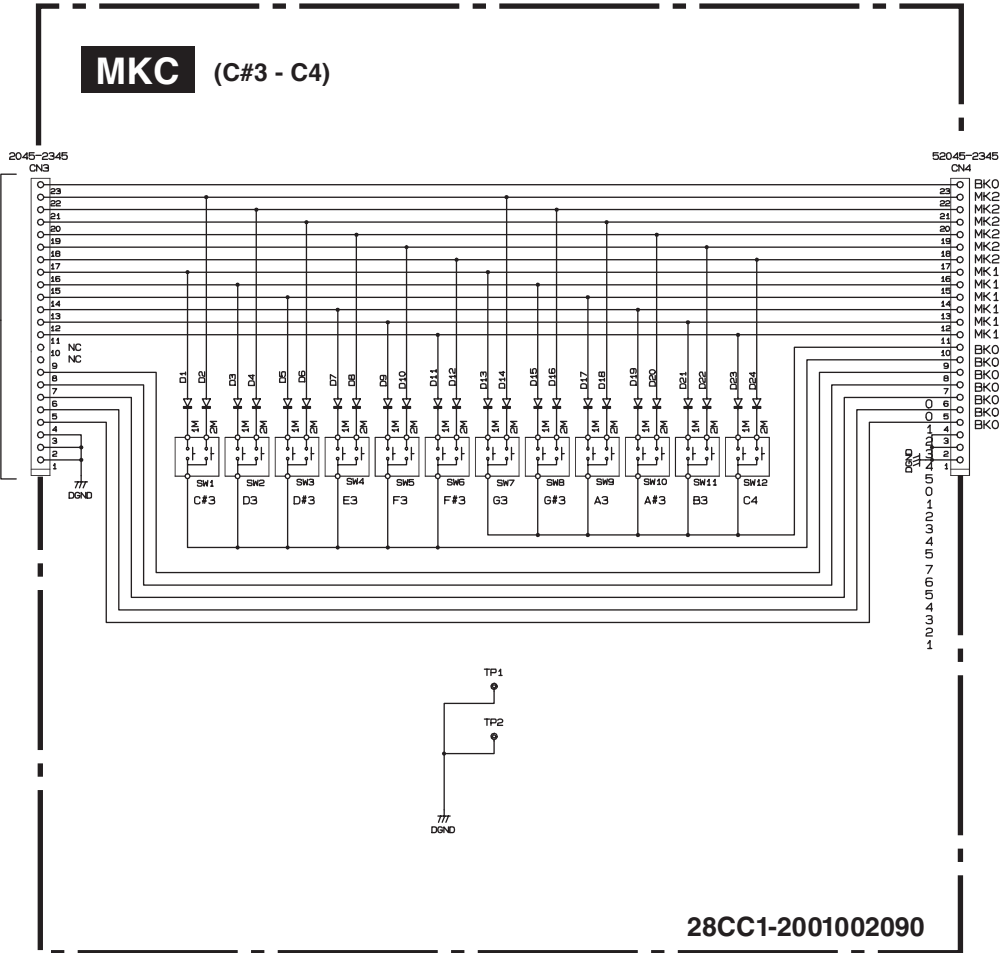
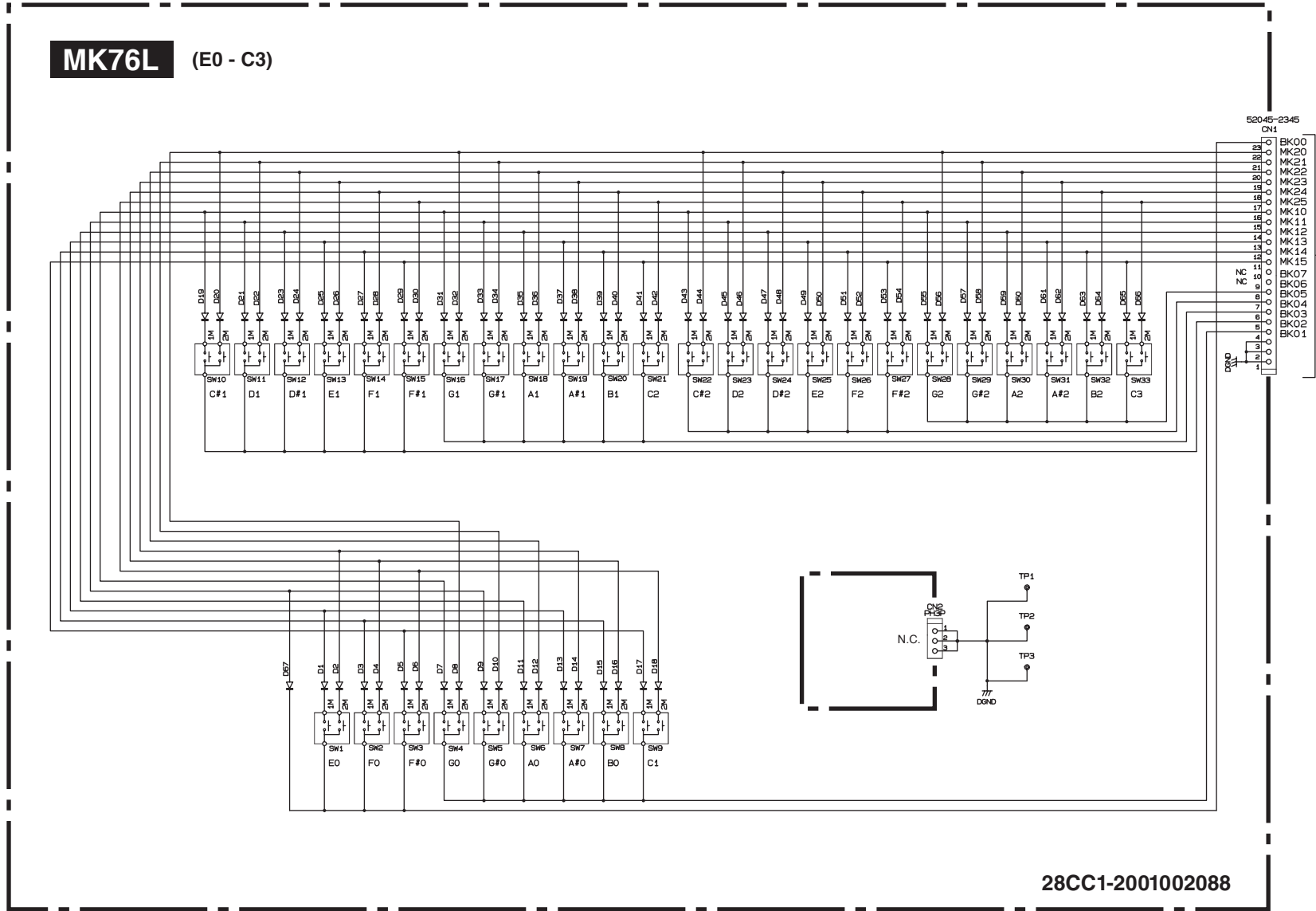


to MKC-CN4
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to EMKS-CN5
<Page 17: B4>

(C#4 - G6)

■MKH CIRCUIT DIAGRAM (Genos)



to MKH-CN5
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