DIGITAL WORKSTATION

# PSR-S770
# PSR-S970

# SERVICE MANUAL

PSR-S770

PSR-S970

## CONTENTS




PK 001917

YAMAHA
HAMAMATSU, JAPAN

## 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 belived 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.

### IMPORTANT NOTICE FOR THE UNITED KINGDOM

**Connecting the Plug and Cord**

IMPORTANT. The wires in this mains lead are coloured in accordance with the following code:

BLUE : NEUTRAL
BROWN : LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured makings identifying the terminals in your plug proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

Making sure that neither core is connected to the earth terminal of the three pin plug.

(2 wires)

## ■ 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**

- The edited Songs/Styles/Voices/Multi Pads and MIDI settings are lost when you turn off the power to the instrument. This also occurs when the power is turned off by the Auto Power Off function. Save the edited data to the instrument, or to a USB flash drive. However, the data saved to the instrument may be lost due to some failure, an operation mistake, etc. Save your important data onto 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.

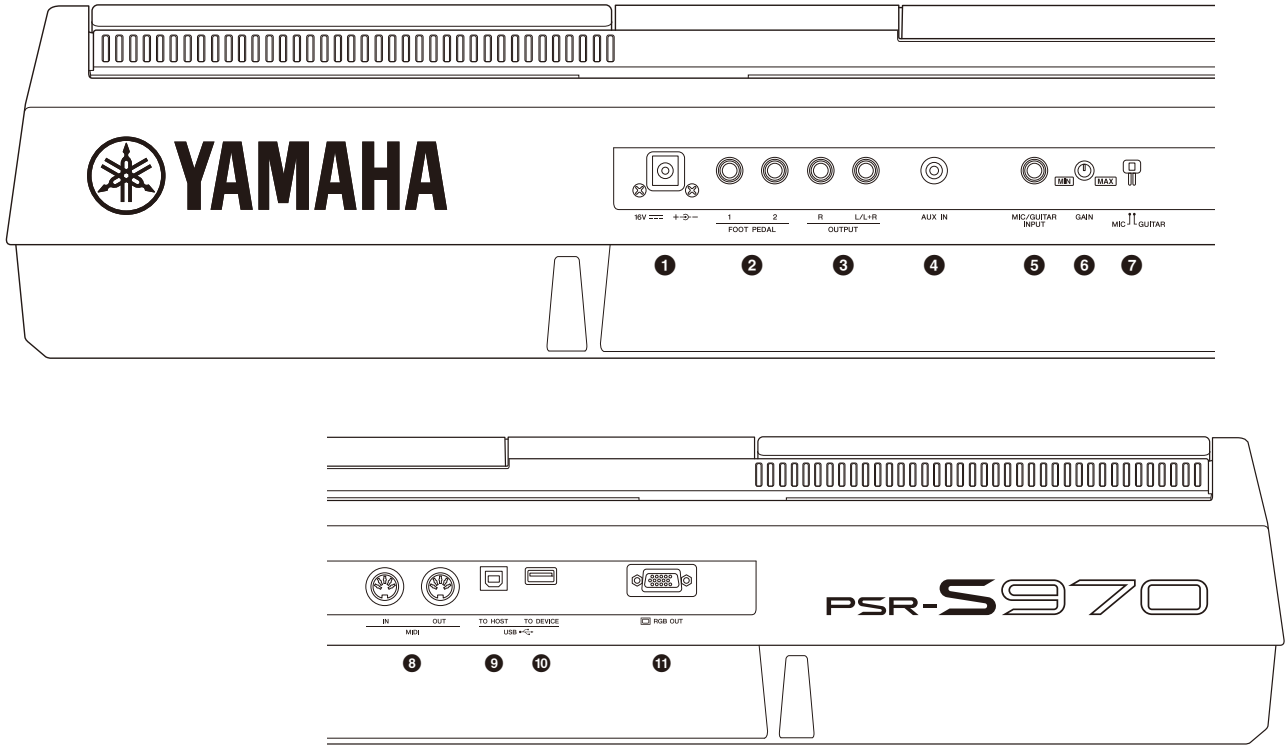
# ■ SPECIFICATIONS

| | | | PSR-S970 | PSR-S770 |
|---|---|---|---|---|
| Product name | | | Digital Keyboard | Digital Keyboard |
| Size/Weight | Dimensions (W x D x H) | | 1,002 mm x 437 mm x 148 mm (39-7/16" x 17-3/16" x 5-13/16") | 1,002 mm x 437 mm x 148 mm (39-7/16" x 17-3/16" x 5-13/16") |
| | Weight | | 11.6 kg (25 lbs., 9 oz.) | 11.1 kg (24 lbs., 8 oz.) |
| Control Interface | Keyboard | Number of Keys | 61 | 61 |
| | | Type | Organ | Organ |
| | | Touch Response | Hard 2, Hard 1, Medium, Soft 1, Soft 2 | Hard 2, Hard 1, Medium, Soft 1, Soft 2 |
| | Other Controllers | Pitch Bend Wheel | Yes | Yes |
| | | Modulation Wheel | Yes | Yes |
| | | Knobs | 2 (Assignable) | 2 (Assignable) |
| | Display | Type | TFT Color Wide VGA LCD | TFT Color Wide VGA LCD |
| | | Size | 7 inch | 7 inch |
| | | Language | English, German, French, Spanish, Italian | English, German, French, Spanish, Italian |
| | Panel | Language | English | English |
| Voices | Tone Generation | Tone Generation Technology | AWM Stereo Sampling | AWM Stereo Sampling |
| | Polyphony | Number of Polyphony (max.) | 128 | 128 |
| | Preset | Number of Voices | 989 Voices + 41 Drum/SFX Kits + 480 XG Voices | 830 Voices + 36 Drum/SFX Kits + 480 XG Voices |
| | | Featured Voices | 131 S.Art!, 30 MegaVoices, 31 Sweet!, 74 Cool!, 89 Live!, 30 Organ Flutes! | 67 S.Art!, 23 MegaVoices, 27 Sweet!, 64 Cool!, 71 Live!, 20 Organ Flutes! |
| | Compatibility | | XG, GS (for Song playback), GM, GM2 | XG, GS (for Song playback), GM, GM2 |
| | Part | | Right 1, Right 2, Left | Right 1, Right 2, Left |
| Effects | Reverb Block | | 52 Preset + 3 User | 52 Preset + 3 User |
| | Chorus Block | | 106 Preset + 3 User | 106 Preset + 3 User |
| | DSP Block | | 322 Preset (with VCM) + 10 User | 295 Preset + 10 User |
| | Master Compressor | | 5 Preset + 2 User | 5 Preset + 2 User |
| | Master EQ | | 5 Preset + 2 User | 5 Preset + 2 User |
| | Part EQ | | 27 Parts | 27 Parts |
| | Mic/Guitar Effects | | Noise Gate, Compressor, 3Band EQ | Noise Gate, Compressor, 3Band EQ |
| | Vocal Harmony | Number of Presets | Vocal Harmony: 44<br>Synth Vocoder: 10 | - |
| | | Number of User Settings | 60<br>* The number is the total of Vocal Harmony and Synth Vocoder | - |
| | | Vocal Effect | 23 | - |
| Styles | Preset | Number of Styles | 450 | 360 |
| | | Featured Styles | 40 +Audio, 366 Pro, 31 Session, 10 DJ, 3 Free Play | 322 Pro, 27 Session, 10 DJ, 1 Free Play |
| | | Fingering | Single Finger, Fingered, Fingered On Bass, Multi Finger, AI Fingered, Full Keyboard, AI Full Keyboard | Single Finger, Fingered, Fingered On Bass, Multi Finger, AI Fingered, Full Keyboard, AI Full Keyboard |
| | | Style Control | INTRO x 3, MAIN VARIATION x 4, FILL x 4, BREAK, ENDING x 3 | INTRO x 3, MAIN VARIATION x 4, FILL x 4, BREAK, ENDING x 3 |
| | Other Features | Music Finder (Max.) | 2,500 | 1,200 |
| | | One Touch Setting (OTS) | 4 for each Style | 4 for each Style |
| | Compatibility | | Style File Format (SFF), Style File Format GE (SFF GE) | Style File Format (SFF), Style File Format GE (SFF GE) |
| Songs (MIDI) | Preset | Number of Preset Songs | 5 preset sample Songs | 5 preset sample Songs |
| | Recording | Number of Tracks | 16 | 16 |
| | | Data Capacity | approx. 300 KB/Song | approx. 300 KB/Song |
| | | Recording Function | Quick Recording, Multi Track Recording, Step Recording | Quick Recording, Multi Track Recording, Step Recording |
| | Data Format | Playback | SMF (Format 0 & 1), XF | SMF (Format 0 & 1), XF |
| | | Recording | SMF (Format 0) | SMF (Format 0) |
| Multi Pads | Preset | Number of Multi Pad Banks | 188 banks x 4 Pads | 188 banks x 4 Pads |
| | Audio | Audio Link | Yes | Yes |
| Functions | Voices | Harmony | Yes | Yes |
| | | Arpeggio | Yes | Yes |
| | | Panel Sustain | Yes | Yes |
| | | Mono/Poly | Yes | Yes |
| | | Voice Information | Yes | Yes |
| | Styles | Style Creator | Yes | Yes |
| | | Style Recommender | Yes | Yes |
| | | OTS Information | Yes | Yes |

| | | | PSR-S970 | PSR-S770 |
|---|---|---|---|---|
| Functions | Songs | Song Creator | Yes | Yes |
| | | Score Display Function | Yes | Yes |
| | | Lyrics Display Function | Yes | Yes |
| | | Text Display Function | Yes | Yes |
| | | Wallpaper Customization | Yes | Yes |
| | | Guide | Follow Lights, Any Key, Karao-Key, Your Tempo | Follow Lights, Any Key, Karao-Key, Your Tempo |
| | | Performance Assistant Technology (P.A.T.) | Yes | Yes |
| | Multi Pads | Multi Pad Creator | Yes | Yes |
| | Registration Memory | Number of Buttons | 8 | 8 |
| | | Control | Registration Sequence, Freeze | Registration Sequence, Freeze |
| | USB Audio Player/Recorder | Playback Format | .wav (WAV format: 44.1 kHz sample rate, 16 bit resolution, stereo)<br>.mp3 (MPEG-1 Audio Layer-3: 44.1/48.0 kHz sample rate, 64–320 kbps and variable bit rate, mono/stereo) | .wav (WAV format: 44.1 kHz sample rate, 16 bit resolution, stereo)<br>.mp3 (MPEG-1 Audio Layer-3: 44.1/48.0 kHz sample rate, 64–320 kbps and variable bit rate, mono/stereo) |
| | | Recording Format | .wav (WAV format: 44.1 kHz sample rate, 16 bit resolution, stereo) | .wav (WAV format: 44.1 kHz sample rate, 16 bit resolution, stereo) |
| | | Recording Time (max.) | 80 minutes/Song | 80 minutes/Song |
| | | Time Stretch | Yes | Yes |
| | | Pitch Shift | Yes | Yes |
| | | Vocal Cancel | Yes | Yes |
| | Demonstration | | Yes | Yes |
| | Overall Controls | Metronome | Yes | Yes |
| | | Tempo | 5 – 500 | 5 – 500 |
| | | Transpose | -12 – 0 – +12 | -12 – 0 – +12 |
| | | Tuning | 414.8 – 440.0 – 466.8 Hz | 414.8 – 440.0 – 466.8 Hz |
| | | Octave Button | Yes | Yes |
| | | Scale Type | 9 types | 9 types |
| | Miscellaneous | Direct Access | Yes | Yes |
| Expandability (Expansion Packs) | Expansion Voice | | Yes (approx. 512 MB max.) | Yes (approx. 160 MB max.) |
| | Expansion Style | | Yes (internal memory) | Yes (internal memory) |
| | Expansion Audio Style | | Yes (approx. 128 MB max.) | - |
| Storage and Connectivity | Storage | Internal Memory | Yes (approx. 13 MB max.) | Yes (approx. 13 MB max.) |
| | | External Drives | USB flash drive | USB flash drive |
| | Connectivity | DC IN | 16 V | 16 V |
| | | Headphones | Standard stereo phone jack | Standard stereo phone jack |
| | | Microphone/Guitar | Yes | Yes |
| | | MIDI | IN, OUT | IN, OUT |
| | | AUX IN | Stereo mini jack | Stereo mini jack |
| | | OUTPUT | L/L+R, R | L/L+R, R |
| | | RGB OUT | Yes | - |
| | | FOOT PEDAL | 1 (SUSTAIN), 2 (ARTICULATION 1), Function assignable | 1 (SUSTAIN), 2 (ARTICULATION 1), Function assignable |
| | | USB TO DEVICE | Yes | Yes |
| | | USB TO HOST | Yes | Yes |
| Amplifiers/ Speakers | Amplifiers | | 15 W x 2 | 15 W x 2 |
| | Speakers | | 13 cm x 2 + 2.5 cm (dome) x 2 | 13 cm x 2 + 5 cm x 2 |
| Power Supply | Power Supply | Adaptor | PA-300C or an equivalent recommended by Yamaha | PA-300C or an equivalent recommended by Yamaha |
| | Power Consumption | | 20 W | 19 W |
| | Auto Power Off | | Yes | Yes |
| Included Accessories | | | • Owner's Manual<br>• Online Member Product Registration<br>• Music rest<br>• AC power adaptor* (PA-300C or an equivalent recommended by Yamaha), power cord*<br>* May not be included depending on your area. | • Owner's Manual<br>• Online Member Product Registration<br>• Music rest<br>• AC power adaptor* (PA-300C or an equivalent recommended by Yamaha), power cord*<br>* May not be included depending on your area. |
| Separately Sold Accessories (May not be available depending on your area.) | | | • AC adaptor: PA-300C or an equivalent recommended by Yamaha<br>• Headphones: HPE-160/170<br>• Footswitches: FC4/FC4A/FC5<br>• Foot controller: FC7<br>• USB MIDI Interface for iPhone/iPod touch/iPad: i-UX1<br>• MIDI Interface for iPhone/iPod touch/iPad: i-MX1<br>• USB wireless LAN adaptor: UD-WL01<br>• USB-MIDI Interface: UX16<br>• Keyboard stand: L-6/L-7<br>(The exterior size of the PSR-S970/S770 is beyond the limits as described in the L-6 Assembly Instructions. However, we have determined through tests that the stand can be safely used for the instrument.) | • AC adaptor: PA-300C or an equivalent recommended by Yamaha<br>• Headphones: HPE-160/170<br>• Footswitches: FC4/FC4A/FC5<br>• Foot controller: FC7<br>• USB MIDI Interface for iPhone/iPod touch/iPad: i-UX1<br>• MIDI Interface for iPhone/iPod touch/iPad: i-MX1<br>• USB wireless LAN adaptor: UD-WL01<br>• USB-MIDI Interface: UX16<br>• Keyboard stand: L-6/L-7<br>(The exterior size of the PSR-S970/S770 is beyond the limits as described in the L-6 Assembly Instructions. However, we have determined through tests that the stand can be safely used for the instrument.) |

# ■ PANEL LAYOUT

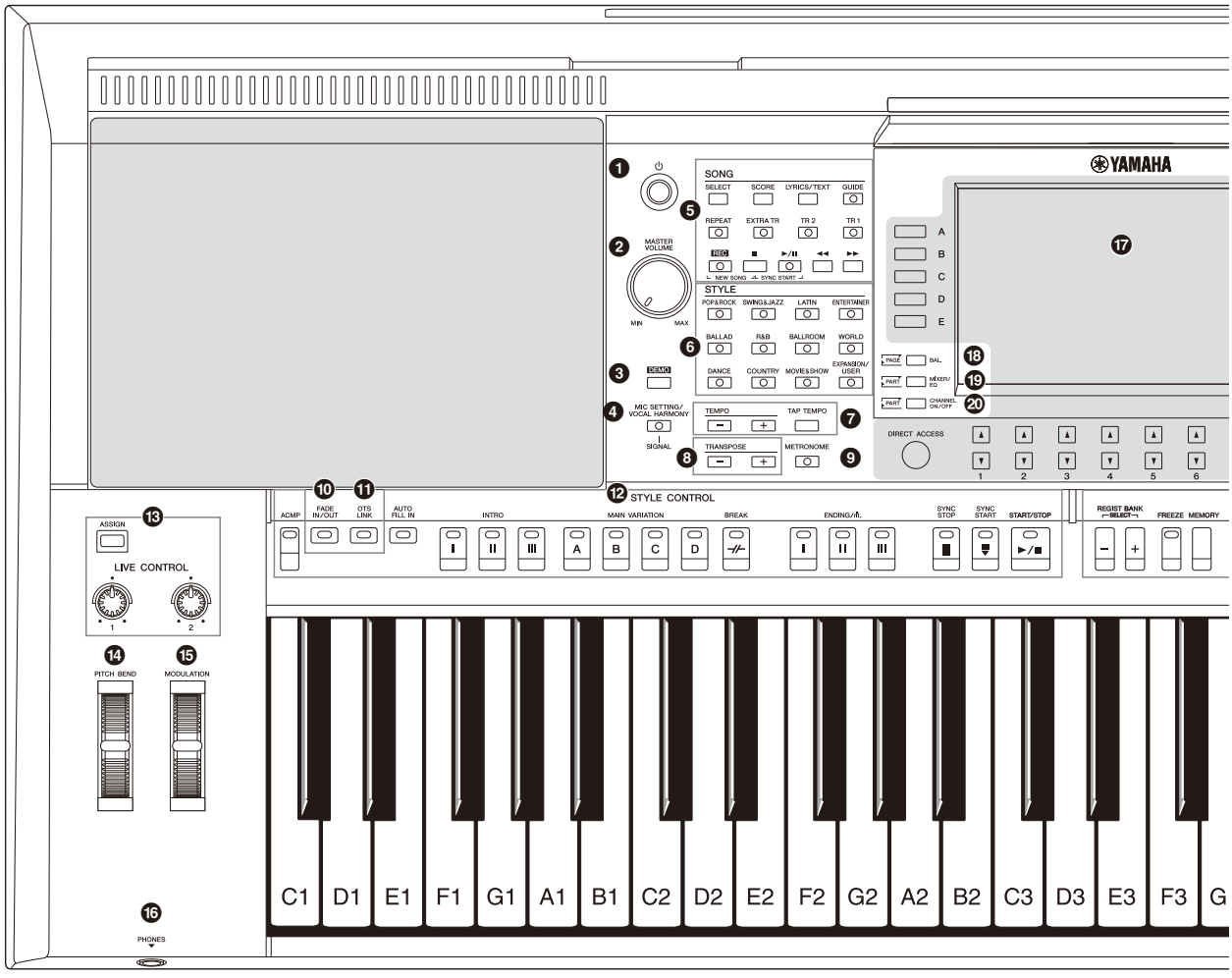
## • Rear Panel




## ■ Rear Panel

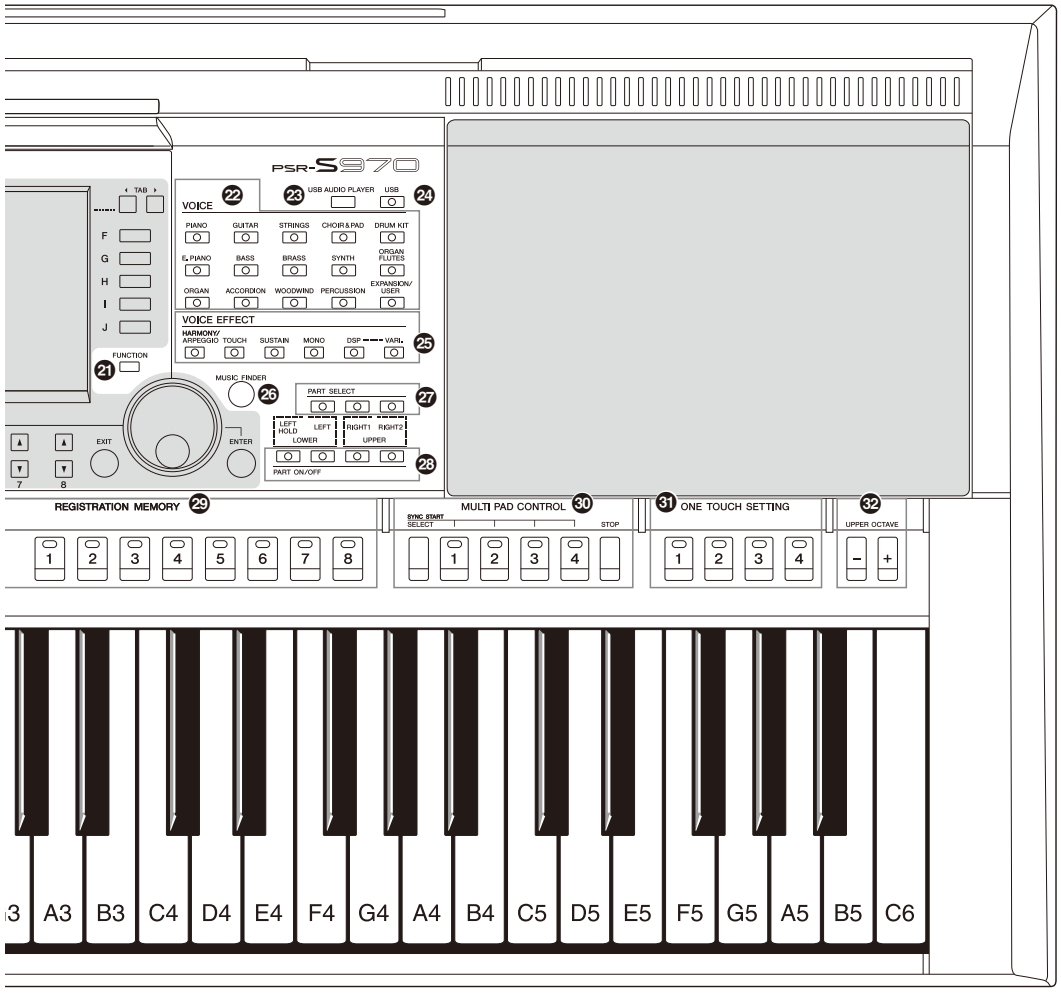
❶ DC IN jack
❷ FOOT PEDAL [1]/[2] jacks
❸ OUTPUT [L/L+R]/[R] jacks
❹ [AUX IN] jack
❺ [MIC/GUITAR INPUT] jack
❻ [GAIN] knob
❼ [MIC GUITAR] switch
❽ MIDI [IN]/[OUT] terminals
❾ [USB TO HOST] terminal
❿ [USB TO DEVICE] terminal
⓫ [RGB OUT] terminal (PSR-S970)

## • Front Panel




### ■ Front Panel

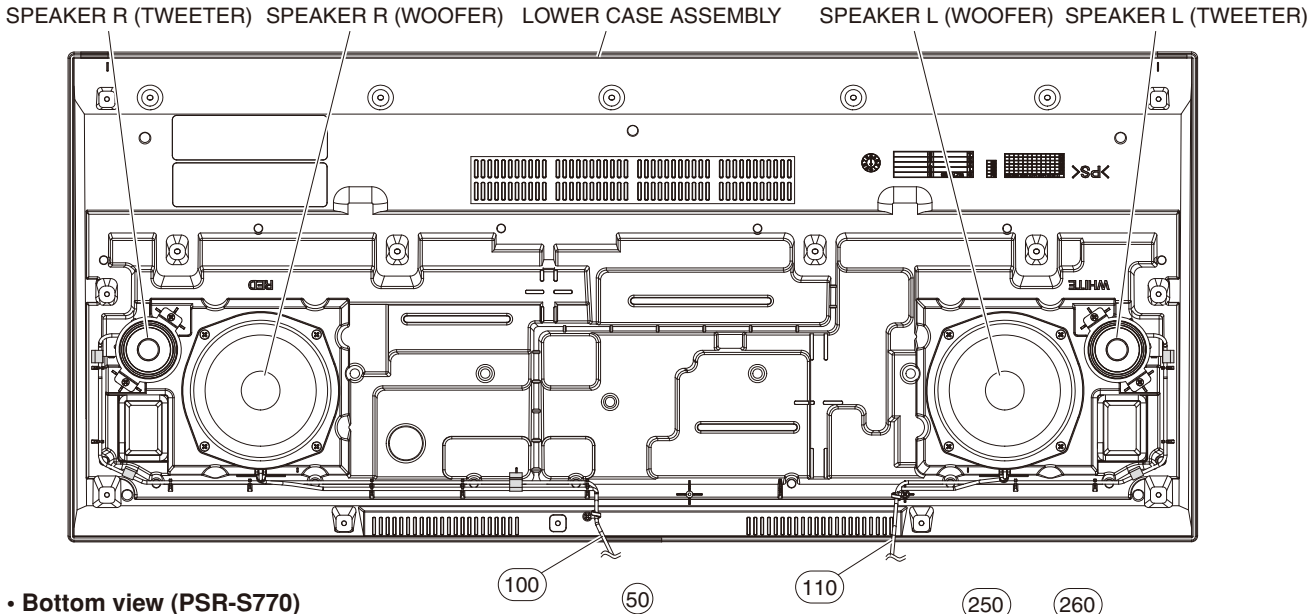
❶ [ ⏻ ] (Standby/On) switch
❷ [MASTER VOLUME] dial
❸ [DEMO] button
❹ [MIC SETTING/VOCAL HARMONY] button (PSR-S970) / [MIC SETTING] button (PSR-S770)
❺ SONG buttons
❻ STYLE category selection buttons
❼ [TAP TEMPO]/TEMPO buttons
❽ TRANSPOSE buttons
❾ [METRONOME] button
❿ [FADE IN/OUT] button
⓫ [OTS LINK] button
⓬ STYLE CONTROL buttons
⓭ [ASSIGN] button, LIVE CONTROL knobs
⓮ [PITCH BEND] wheel
⓯ [MODULATION] wheel
⓰ [PHONES] jack
⓱ LCD and related controls
⓲ [BAL.] button
⓳ [MIXER/EQ] button
⓴ [CHANNEL ON/OFF] button
㉑ [FUNCTION] button
㉒ VOICE category selection buttons
㉓ [USB AUDIO PLAYER] button



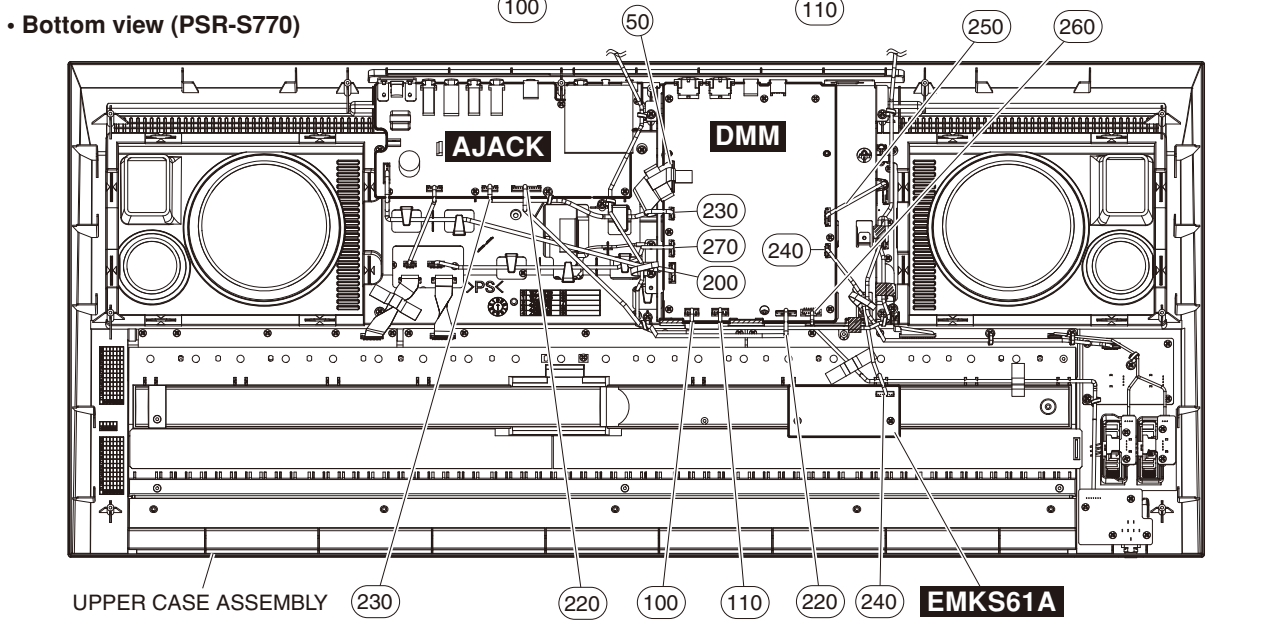

㉔ [USB] button
㉕ VOICE EFFECT buttons
㉖ [MUSIC FINDER] button
㉗ PART SELECT buttons
㉘ PART ON/OFF buttons
㉙ REGISTRATION MEMORY buttons
㉚ MULTI PAD CONTROL buttons
㉛ ONE TOUCH SETTING buttons
㉜ UPPER OCTAVE buttons

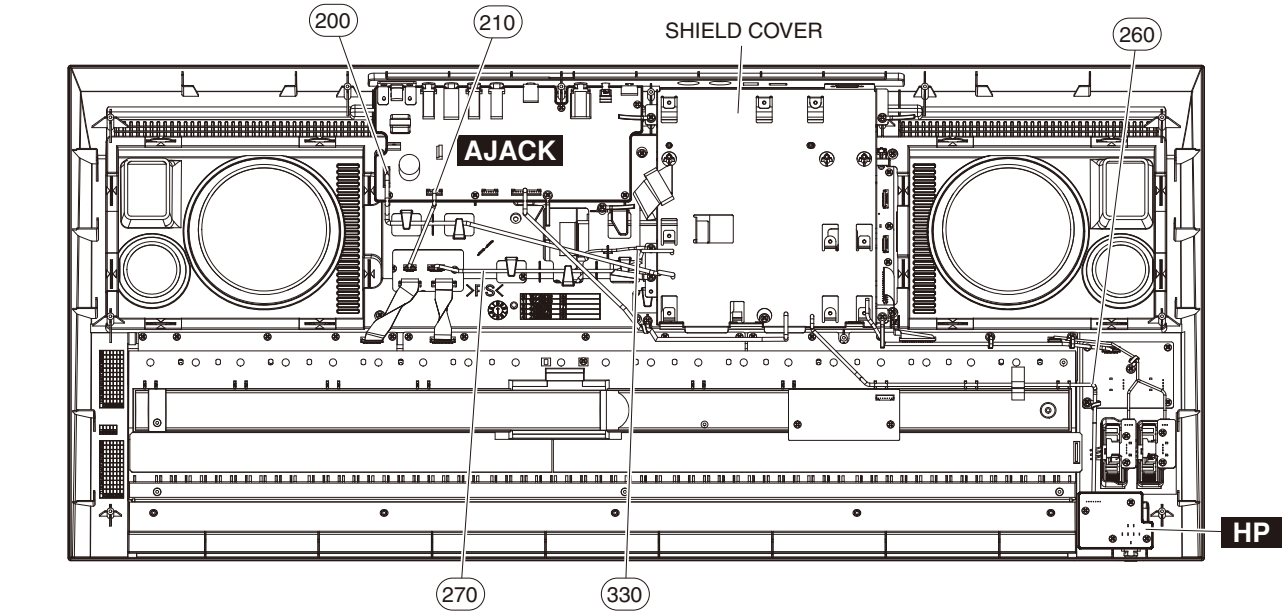
# ■ CIRCUIT BOARD LAYOUT & WIRING

**• Top view (PSR-S770)**

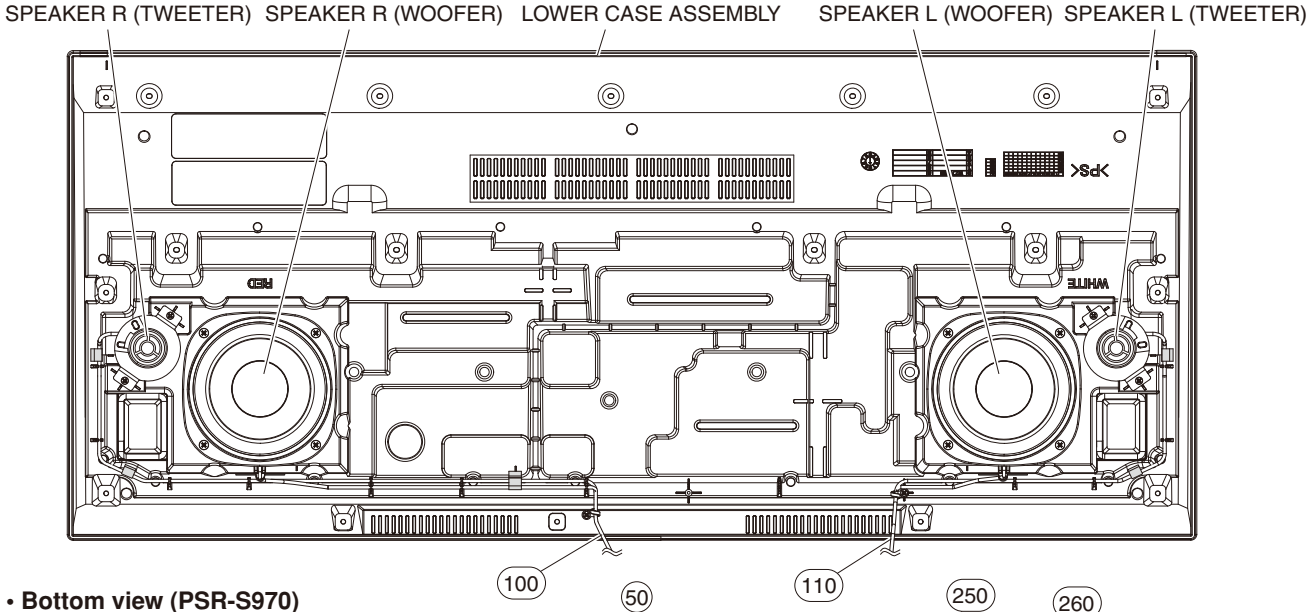



**• Bottom view (PSR-S770)**

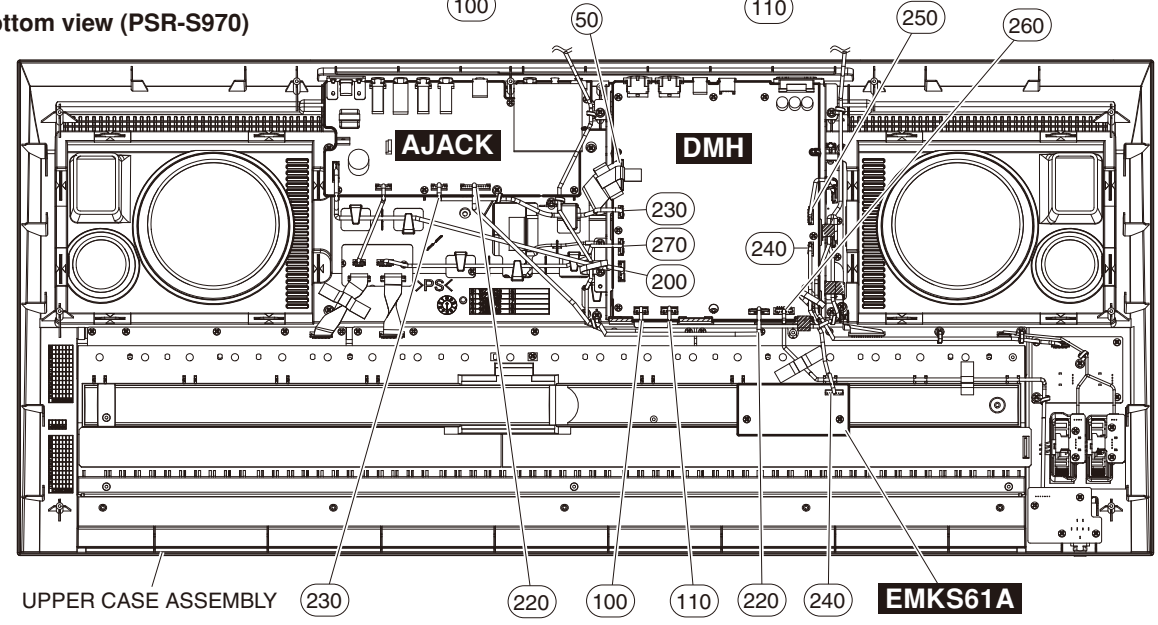


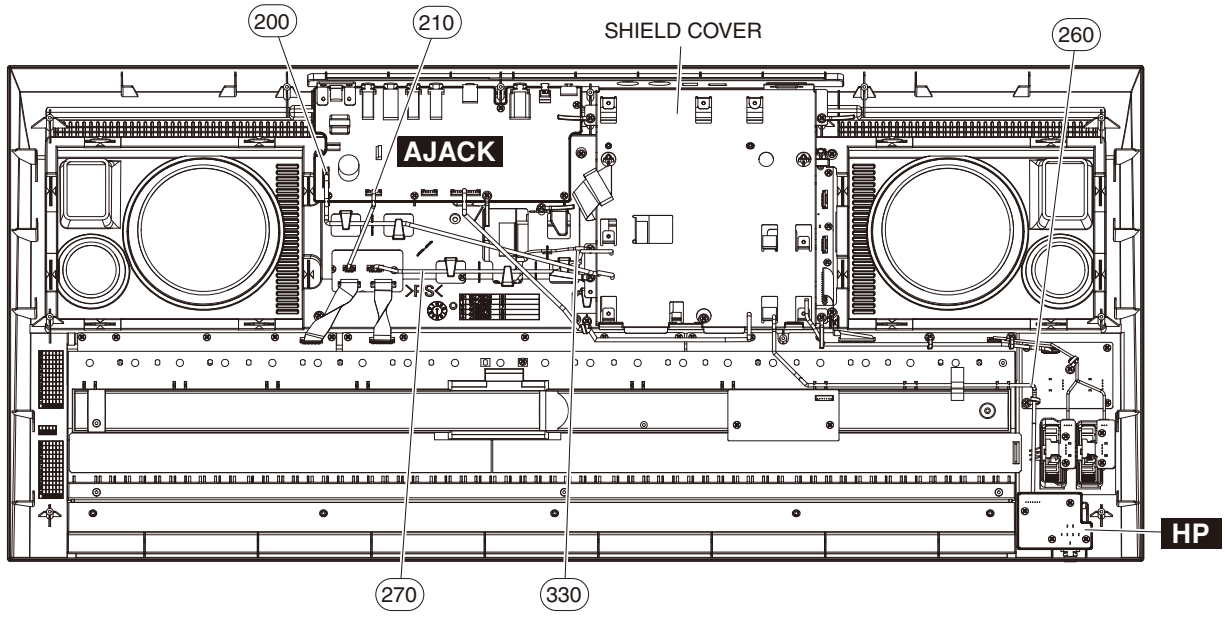



• **Top view (PSR-S970)**

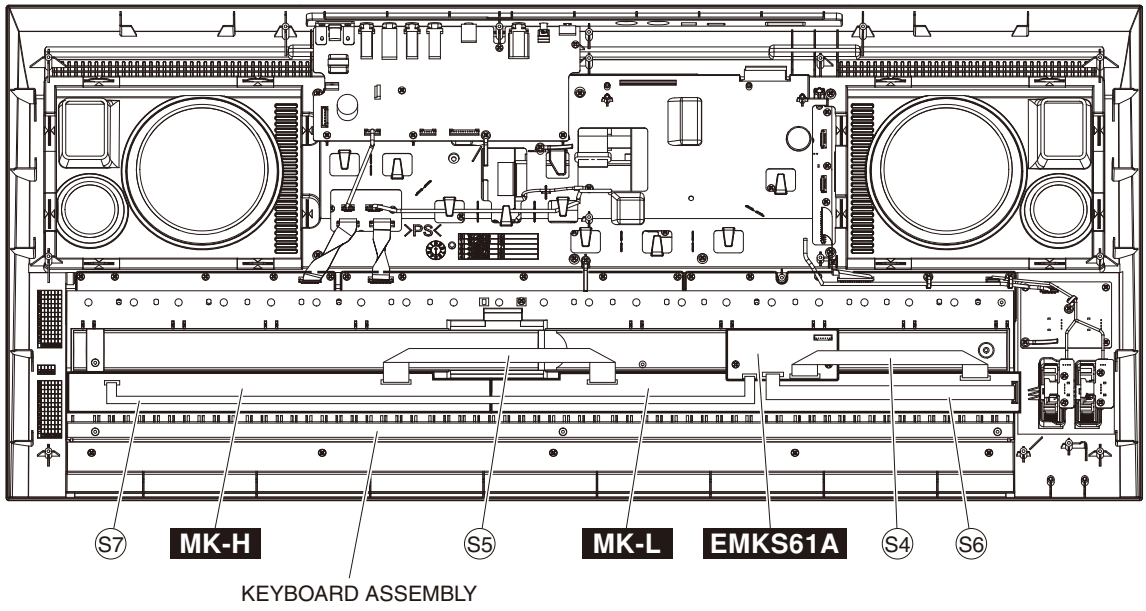



• **Bottom view (PSR-S970)**

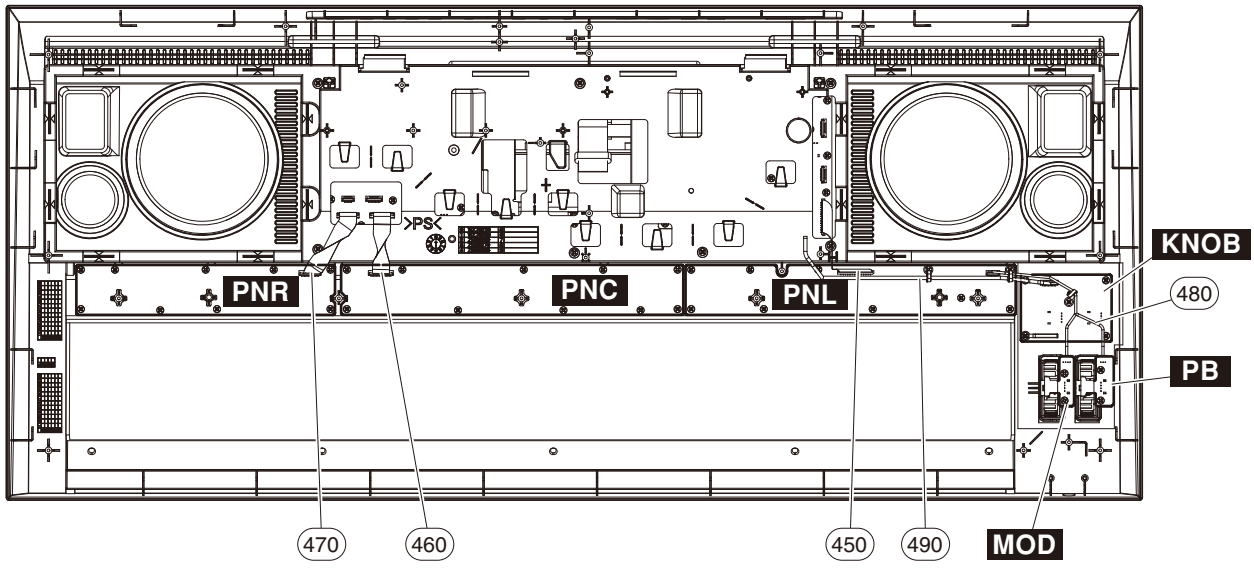


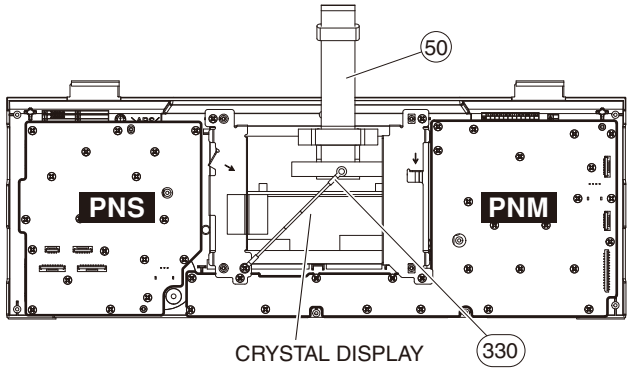
• **Bottom view**




• **UPPER CASE ASSEMBLY**




• **CENTER PANEL ASSEMBLY**



## ● PSR-S770

| Unit Name | Location | Parts No. | Parts Name | Connection | Remarks |
|---|---|---|---|---|---|
| OVERALL ASSEMBLY | 200 | (ZP69140) | Connector Assembly XH S | DMM CN802 - AJACK CN102 | 6P L=320 |
| | 210 | (ZP44110) | Connector Assembly PH-GH S | AJACK CN104 - PNS CN202 | 6P L=110 |
| | 220 | (ZP44070) | Connector Assembly PH-GH S | DMM CN803 - AJACK CN100 | 12P L=335 |
| | 230 | (ZP44090) | Connector Assembly PH-GH S | DMM CN004 - AJACK CN101 | 7P/6P L=210 |
| | 240 | (ZP44100) | Connector Assembly PH-GH S | DMM CN003 - EMKS61A CN1 | 7P L=180 |
| | 250 | (ZP44120) | Connector Assembly GH S | DMM CN002 - PNM CN100 | 10P L=110 |
| | 260 | (ZP44170) | Connector Assembly PH S | DMM CN805 - HP CN200 | 7P L=430 |
| | 270 | (ZP44130) | Connector Assembly GH S | DMM CN005 - PNS CN203 | 9P L=250 |
| UPPER CASE ASSEMBLY | 450 | ZA581500 | Connector Assembly FFC S | PNM CN101 - PNL CN102 | 29P L=130 |
| | 460 | (ZP44140) | Connector Assembly GH S | PNS CN201 - PNC CN200 | 15P L=100 |
| | 470 | (ZP44150) | Connector Assembly GH S | PNS CN200 - PNR CN300 | 13P L=110 |
| | 480 | (ZT25170) | Connector Assembly PBMOD S | PB CN401 - / MOD CN402 - PNL CN101 | 4P/3P-7P L=145 |
| | 490 | (ZP44180) | Connector Assembly KNOB | KNOB CN400 - PNM CN402 | 10P-9P L=390 |
| CENTER PANEL ASSEMBLY | 50 | ZP442000 | Wiring Assembly FFC S LF | DMM CN401 - LCD | 50P L=150 |
| | 330 | (WJ01350) | Connector Assembly GROUND3 | LCD FIXTURE R - SHIELD COVER | L=80 |
| LOWER CASE ASSEMBLY | 100 | (ZA58080) | Connector Assembly SPR S | DMM CN801-SP Rch (Wo, Tw) | 4P L=780 |
| | 110 | (ZA58110) | Connector Assembly SPL S | DMM CN800-SP Lch (Wo, Tw) | 5P L=660 |
| KEYBOARD ASSEMBLY | S4 | VU95890R | Cable | EMKS61A CN2 - MK-L | 12P L=190 |
| | S5 | VU65950R | Cable | MK-M - MK-L | 12P |
| | S6 | VU65940R | Cable | EMKS61A CN4 - MK-L | 7P |
| | S7 | VU65960R | Cable | EMKS61A CN3 - MK-H | 5P |

## ● PSR-S970

| Unit Name | Location | Parts No. | Parts Name | Connection | Remarks |
|---|---|---|---|---|---|
| OVERALL ASSEMBLY | 200 | (ZP69140) | Connector Assembly XH S | DMH CN802 - AJACK CN102 | 6P L=320 |
| | 210 | (ZP44110) | Connector Assembly PH-GH S | AJACK CN104 - PNS CN202 | 6P L=110 |
| | 220 | (ZP44070) | Connector Assembly PH-GH S | DMH CN803 - AJACK CN100 | 12P L=335 |
| | 230 | (ZP44090) | Connector Assembly PH-GH S | DMH CN004 - AJACK CN101 | 7P/6P L=210 |
| | 240 | (ZP44100) | Connector Assembly PH-GH S | DMH CN003 - EMKS61A CN1 | 7P L=180 |
| | 250 | (ZP44120) | Connector Assembly GH S | DMH CN002 - PNM CN100 | 10P L=110 |
| | 260 | (ZP44170) | Connector Assembly PH S | DMH CN805 - HP CN200 | 7P L=430 |
| | 270 | (ZP44130) | Connector Assembly GH S | DMH CN005 - PNS CN203 | 9P L=250 |
| UPPER CASE ASSEMBLY | 450 | ZA581500 | Connector Assembly FFC S | PNM CN101 - PNL CN102 | 29P L=130 |
| | 460 | (ZP44140) | Connector Assembly GH S | PNS CN201 - PNC CN200 | 15P L=100 |
| | 470 | (ZP44150) | Connector Assembly GH S | PNS CN200 - PNR CN300 | 13P L=110 |
| | 480 | (ZT25170) | Connector Assembly PBMOD S | PB CN401 - / MOD CN402 - PNL CN101 | 4P/3P-7P L=145 |
| | 490 | (ZP44180) | Connector Assembly KNOB | KNOB CN400 - PNM CN402 | 10P-9P L=390 |
| CENTER PANEL ASSEMBLY | 50 | ZP442000 | Wiring Assembly FFC S LF | DMH CN401 - LCD | 50P L=150 |
| | 330 | (WJ01350) | Connector Assembly GROUND3 | LCD FIXTURE R - SHIELD COVER | L=80 |
| LOWER CASE ASSEMBLY | 100 | (ZA58080) | Connector Assembly SPR S | DMH CN801-SP Rch (Wo, Tw) | 4P L=780 |
| | 110 | (ZA58110) | Connector Assembly SPL S | DMH CN800-SP Lch (Wo, Tw) | 5P L=660 |
| KEYBOARD ASSEMBLY | S4 | VU95890R | Cable | EMKS61A CN2 - MK-L | 12P L=190 |
| | S5 | VU65950R | Cable | MK-M - MK-L | 12P |
| | S6 | VU65940R | Cable | EMKS61A CN4 - MK-L | 7P |
| | S7 | VU65960R | Cable | EMKS61A CN3 - MK-H | 5P |

* The parts with "( )" in "**Part No.**" are not available as spare parts.

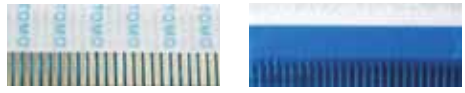
**Caution:** Be sure to attach the removed filament tape just as it was before removal.

# ■ DISASSEMBLY PROCEDURE

## Precautions

* **Disassembly or assembly should be performed on a cloth so as not to damage the LCD.**
* **Install the filament tape and the harness clamp in the same way as they were before removal.**

* **Notes on Flat Cable**
  **Contacts are visible from the back. Pay attention not to insert and install the cable to the connector inversely. (Photo 1)**



Front Side Back Side

Photo 1

## 1. Bottom Board Assembly

**(Time required: About 4 minutes)**

Remove the twenty-two (22) screws marked [450]. The bottom board assembly can then be removed. (Fig. 1)

## 2. Lower Case Assembly

**(Time required: About 4 minutes)**

Remove the nine (9) screws marked [400], the five (5) screws marked [410] and the four (4) screws marked [420A]. The lower case assembly can then be removed. (Fig. 2)

**<Bottom view>**

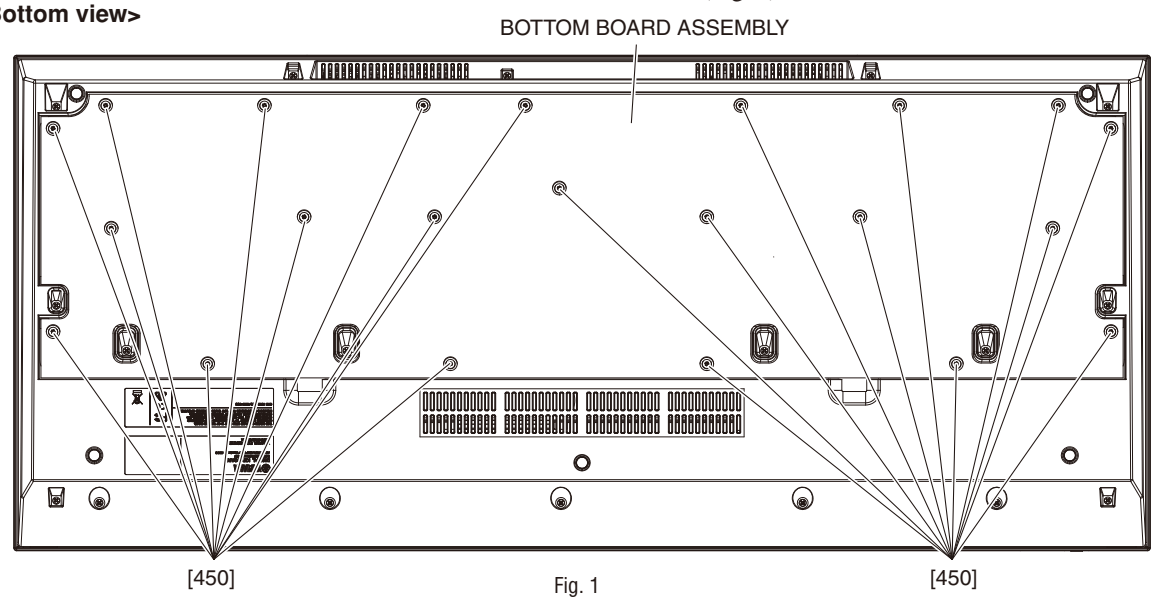



Fig. 1

**<Bottom view>**

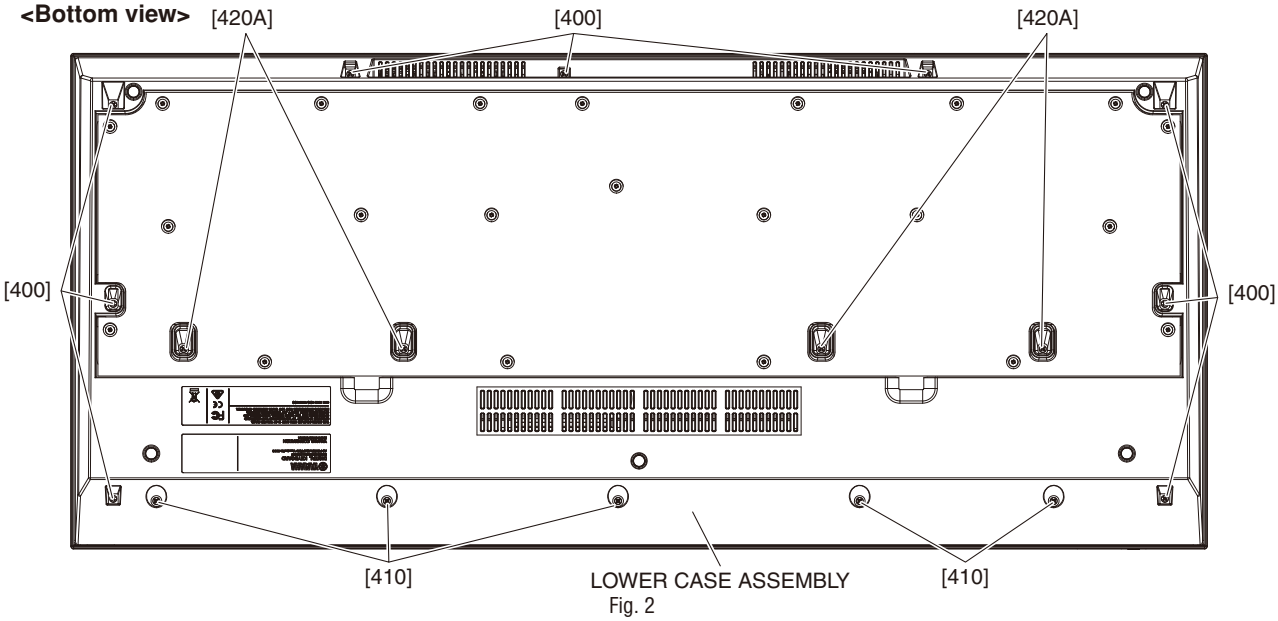



Fig. 2

## 3. DMM/DMH Circuit Board

**(Time required: About 5 minutes)**

3-1. Remove the lower case assembly. (See procedure 2.)

3-2. **PSR-S770:** Remove the seven (7) screws marked [440A]. The DMM circuit board can then be removed. (Fig. 3)

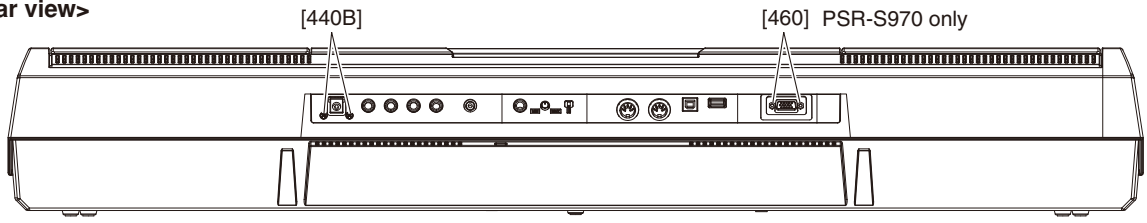
**PSR-S970:** Remove the two (2) hexagonal lock screws marked [460] on the rear and the seven (7) screws marked [440A]. The DMH circuit board can then be removed. (Fig. 3)

* ***After replacing the DMM/DMH circuit board, make sure to execute the " Factory Set" in the Test program.***

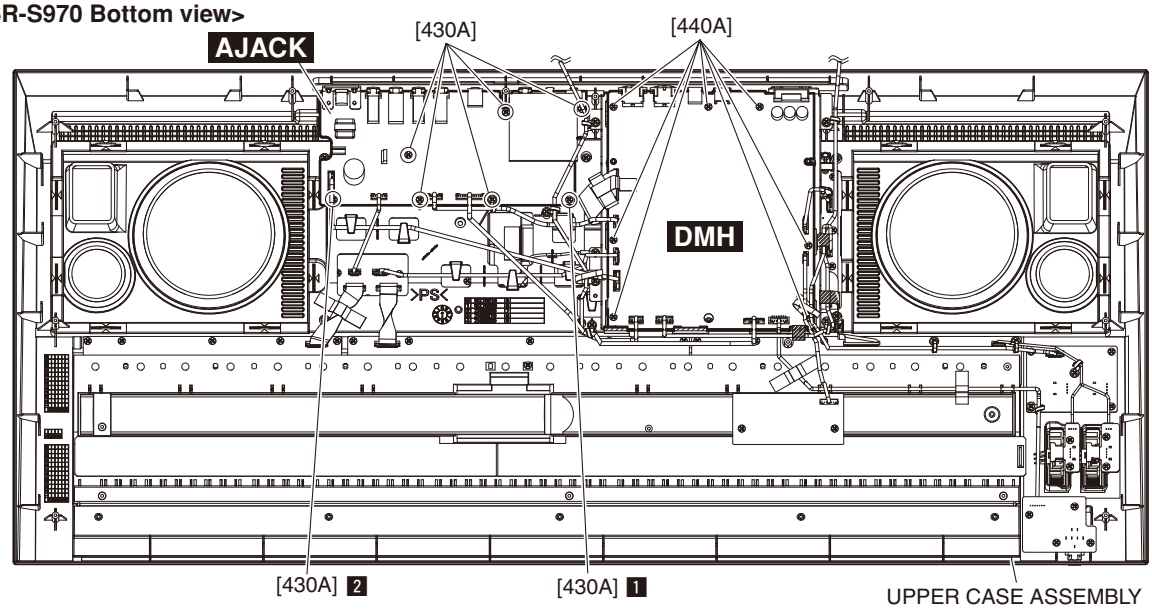
* ***Hardware ID is stored in the Backup ROM on the DMM/DMH circuit board. If the DMM/DMH circuit board is replaced, Hardware ID will be changed.***

* ***After replacing the DMH circuit board, be sure to execute the test "068: NAND ROM Check2." (p.48) (PSR-S970 only)***

**<Rear view>**




**<PSR-S970 Bottom view>**




**<PSR-S770 Bottom view>**

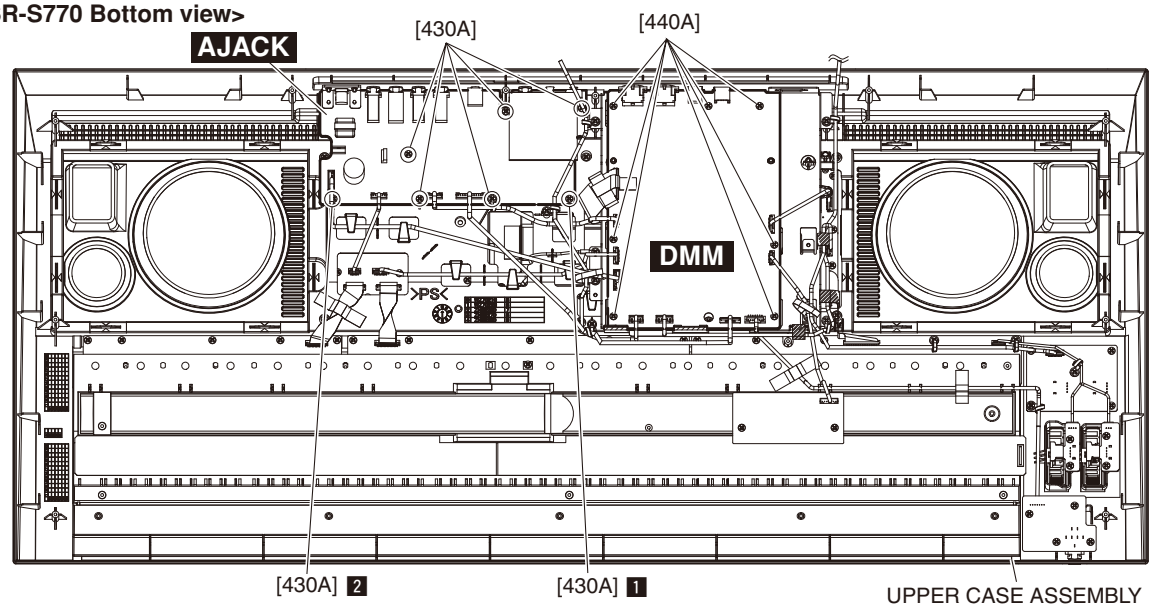



Fig. 3

## 4. AJACK Circuit Board

**(Time required: About 5 minutes)**

4-1. Remove the lower case assembly. (See procedure 2.)

4-2. Remove the two (2) screws marked [440B] on the rear and the seven (7) screws marked [430A]. The AJACK circuit board can then be removed. (Fig. 3)

* ***When installing the AJACK circuit board, tighten the screws 1 and 2 shown in Fig. 3 in numerical order and then tighten the other screws.***

## 5. Center Panel Assembly

**(Time required: About 6 minutes)**

5-1. Remove the lower case assembly. (See procedure 2.)

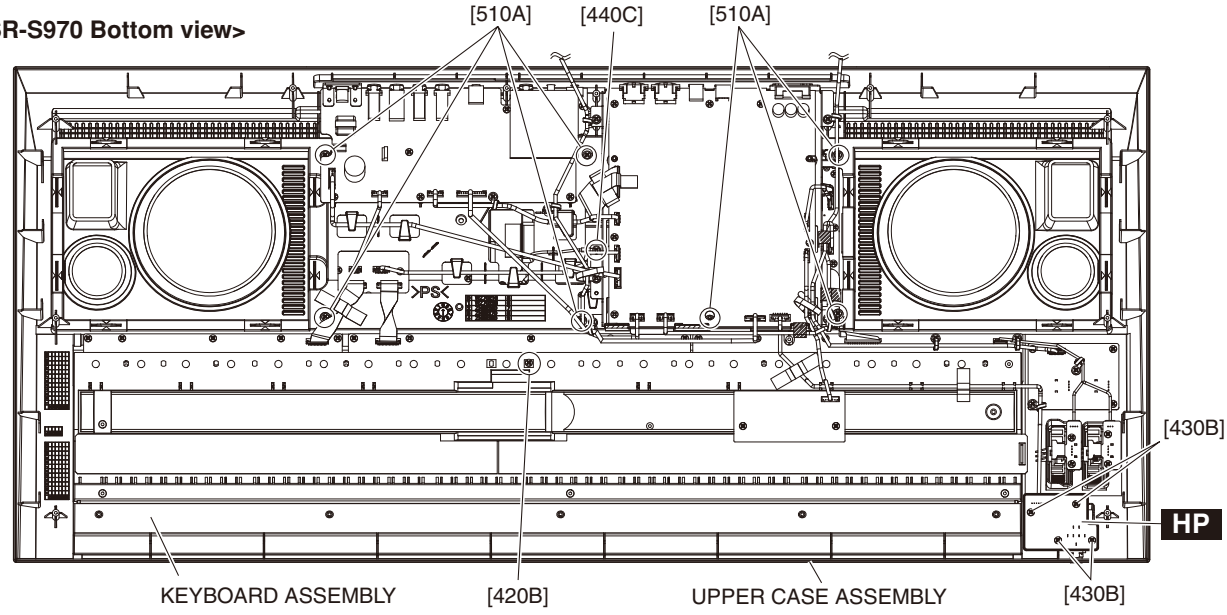
5-2. Remove the seven (7) screws marked [510A] and the screw marked [440C]. (Fig. 4)

5-3. Remove the encoder and volume knobs. (Fig. 5)

5-4. Remove the screw marked [510B]. The center panel assembly can then be removed. (Fig. 5)

* ***When installing the center panel assembly, fit claws of the center panel into the holes in the upper case and install the center panel in the arrow direction. (Fig. 6)***

**<PSR-S970 Bottom view>**




**<PSR-S770 Bottom view>**

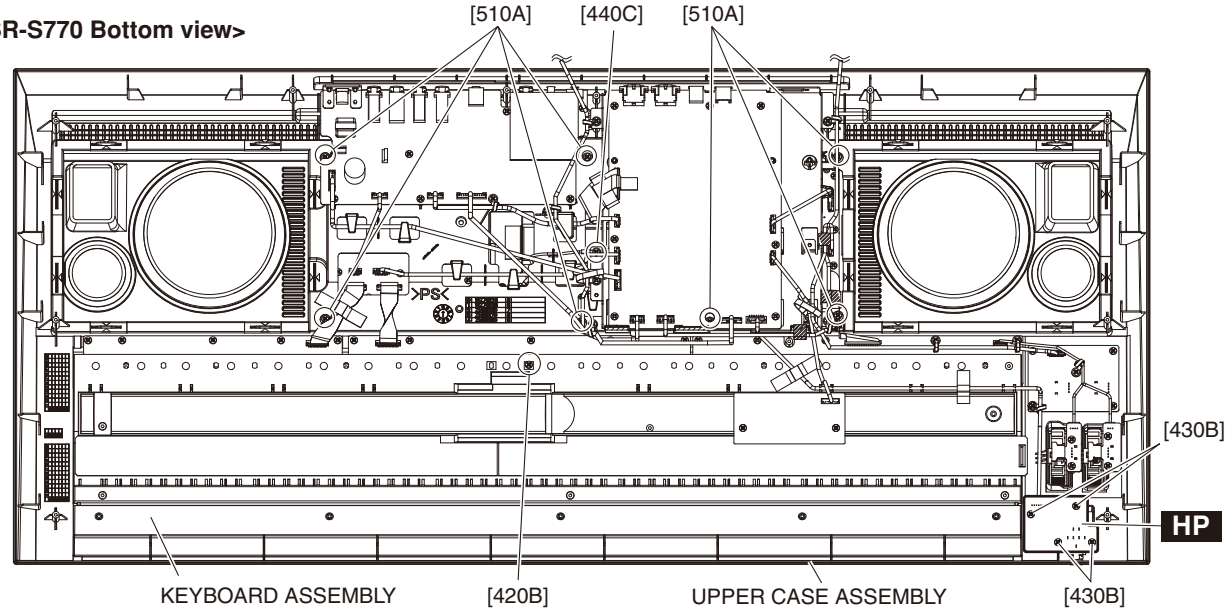



Fig. 4

**<Top view>**

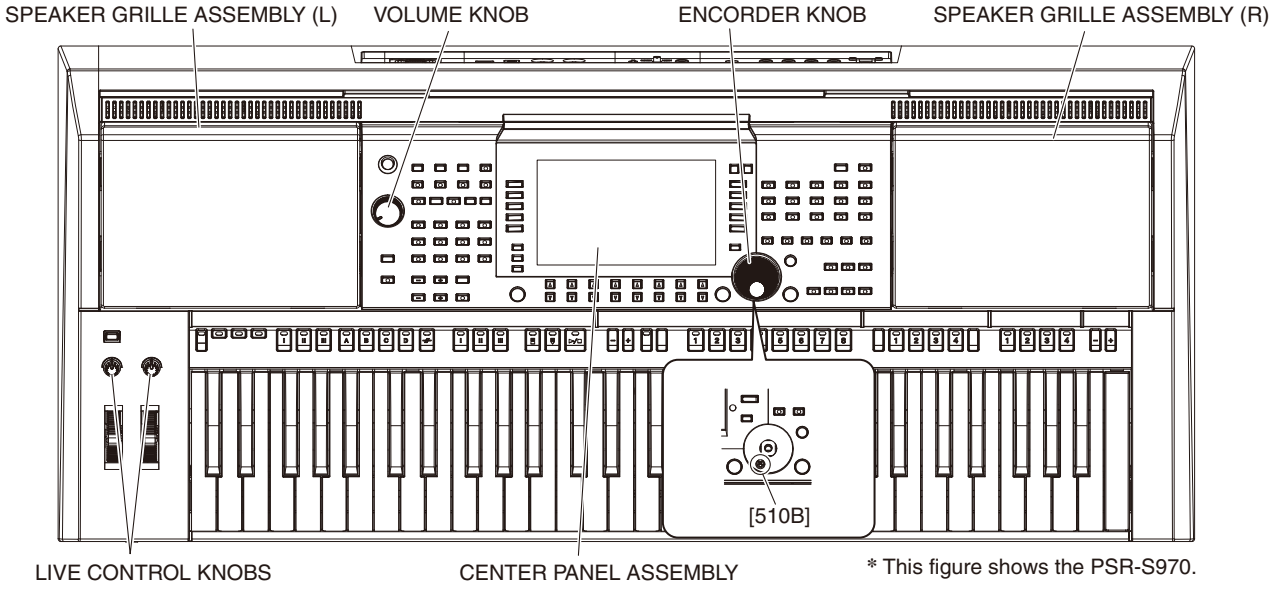



Fig. 5

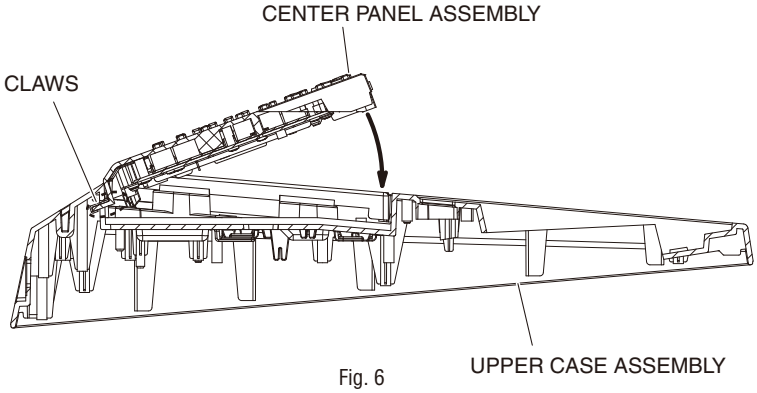



Fig. 6

● **CENTER PANEL ASSEMBLY**

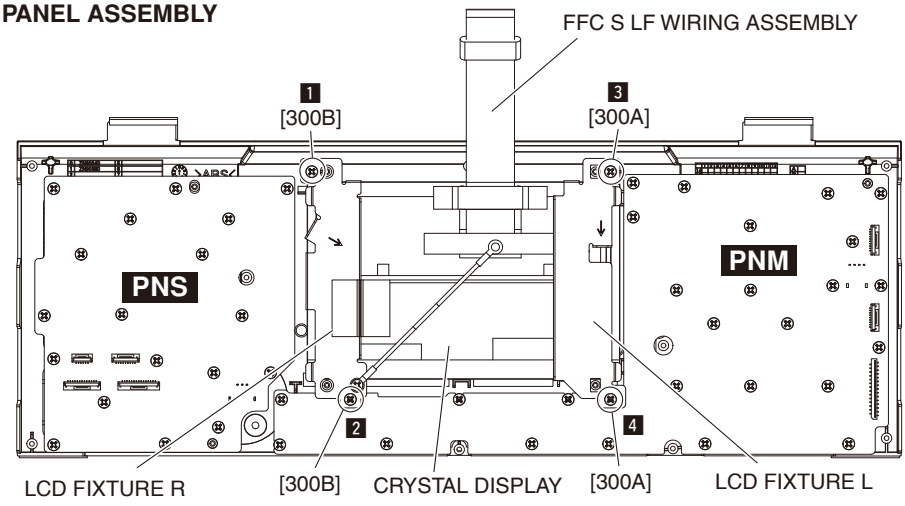



Fig. 7

## 6. Crystal Display

**(Time required: About 7 minutes)**

6-1. Remove the lower case assembly. (See procedure 2.)
6-2. Remove the center panel assembly. (See procedure 5.)
6-3. Remove the two (2) screws marked [300A]. The LCD fixture L can then be removed. (Fig. 7)
6-4. Remove the two (2) screws marked [300B]. The LCD fixture R can then be removed. (Fig. 7)

* ***When installing the LCD fixture L and R, tighten screws while pushing it in the arrow direction.***

* ***When installing the LCD fixture L and R, tighten screws in the order of 1 to 4 as shown in Fig. 7.***

6-5. Remove the crystal display.
6-6. Remove the FFC S LF wiring assembly. (Fig. 7)

## 7. PNS Circuit Board

**(Time required: About 9 minutes)**

7-1. Remove the lower case assembly. (See procedure 2.)
7-2. Remove the center panel assembly. (See procedure 5.)
7-3. Remove the eighteen (18) screws marked [300C]. The PNS circuit board can then be removed. (Fig. 8)

* ***When installing the PNS circuit board, fit the PNS circuit board to the positioning pins at 2 locations shown in Fig. 8 first, tighten the screws 1 and 2 in that order and then tighten the other screws.***

## 8. PNM Circuit Board

**(Time required: About 10 minutes)**

8-1. Remove the lower case assembly. (See procedure 2.)
8-2. Remove the center panel assembly. (See procedure 5.)
8-3. Remove the LCD fixture L. (See procedure 6-3.)
8-4. Remove the LCD fixture R. (See procedure 6-4.)
8-5. Remove the twenty-six (26) screws marked [300D]. The PNM circuit board can then be removed. (Fig. 8)

* ***When installing the PNM circuit board, apply the PNM circuit board to the positioning marks at 3 locations shown in Fig. 8 first, tighten the screws 1 and 2 in that order and then tighten the other screws.***

## 9. HP Circuit Board

**(Time required: About 4 minutes)**

9-1. Remove the lower case assembly. (See procedure 2.)
9-2. Remove the four (4) screws marked [430B]. The HP circuit board can then be removed. (Fig. 4)

## 10. Keyboard Assembly

**(Time required: About 4 minutes)**

10-1. Remove the lower case assembly. (See procedure 2.)
10-2. Remove the screw marked [420B]. The keyboard assembly can then be removed. (Fig. 4)

## 11. Wheel Assembly, PB Circuit Board

**(Time required: About 4 minutes)**

11-1. Remove the lower case assembly. (See procedure 2.)
11-2. Remove the two (2) screws marked [500A]. The PB circuit board can then be removed with the wheel assembly. (Fig. 9)

* ***The wheel assembly is not part of the PB circuit board. When replacing the PB circuit board, remove the wheel assembly from the PB circuit board, and install it on the new circuit board.***

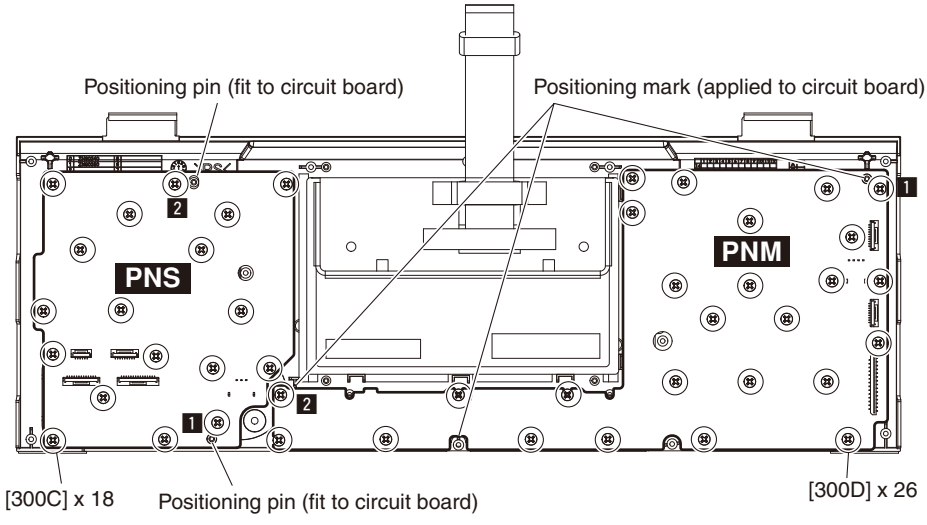



Fig. 8

## 12. Wheel, MOD Circuit Board

**(Time required: About 4 minutes)**

12-1. Remove the lower case assembly. (See procedure 2.)

12-2. Remove the two (2) screws marked [500B]. The MOD circuit board can then be removed with the wheel. (Fig. 9)

* ***The wheel is not part of the MOD circuit board. When replacing the MOD circuit board, remove the wheel from the MOD circuit board, and install it on the new circuit board.***

## 13. PNL Circuit Board

**(Time required: About 5 minutes)**

13-1. Remove the lower case assembly. (See procedure 2.)

13-2. Remove the keyboard assembly. (See procedure 10.)

13-3. Remove the ten (10) screws marked [500C]. The PNL circuit board can then be removed. (Fig. 9)

* ***When installing the PNL circuit board, tighten the screws 1 and 2 shown in Fig. 9 in numerical order and then tighten the other screws.***

## 14. PNC Circuit Board

**(Time required: About 5 minutes)**

14-1. Remove the lower case assembly. (See procedure 2.)

14-2. Remove the keyboard assembly. (See procedure 10.)

14-3. Remove the ten (10) screws marked [500D]. The PNC circuit board can then be removed. (Fig. 9)

* ***When installing the PNC circuit board, tighten the screws 1 and 2 shown in Fig. 9 in numerical order and then tighten the other screws.***

## 15. PNR Circuit Board

**(Time required: About 5 minutes)**

15-1. Remove the lower case assembly. (See procedure 2.)

15-2. Remove the keyboard assembly. (See procedure 10.)

15-3. Remove the nine (9) screws marked [500E]. The PNR circuit board can then be removed. (Fig. 9)

* ***When installing the PNR circuit board, tighten the screws 1 and 2 shown in Fig. 9 in numerical order and then tighten the other screws.***

## 16. KNOB Circuit Board

**(Time required: About 4 minutes)**

16-1. Remove the lower case assembly. (See procedure 2.)

16-2. Remove the LIVE CONTROL knobs. (Fig. 5)

16-3. Remove the five (5) screws marked [500F]. The KNOB circuit board can then be removed. (Fig. 9)

**• UPPER CASE ASSEMBLY**

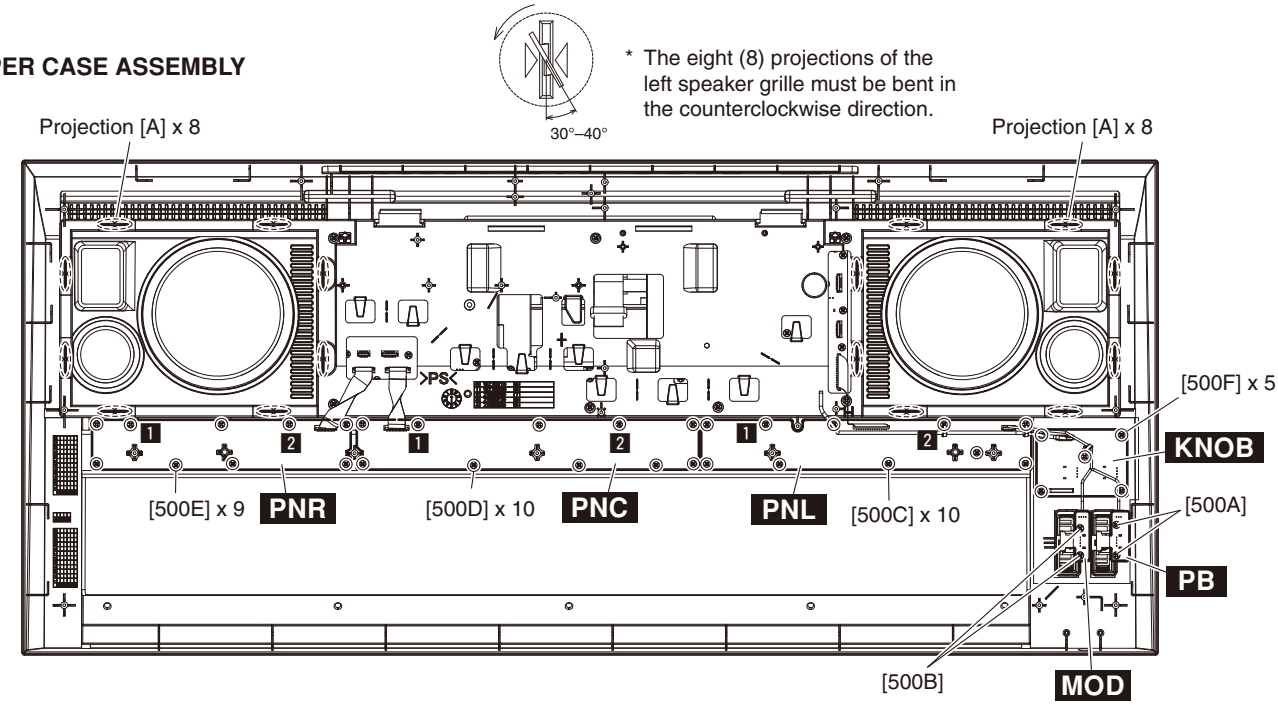



Fig. 9

## 17. Tweeter

**(Time required: About 4 minutes)**

17-1. Remove the lower case assembly. (See procedure 2.)

17-2. Remove the two (2) screws marked [210]. The tweeter can then be removed. (Fig. 10)

* ***The left and right tweeters can be removed in the same method.***

## 18. Woofer

**(Time required: About 4 minutes)**

18-1. Remove the lower case assembly. (See procedure 2.)

18-2. Remove the four (4) screws marked [200]. The woofer can then be removed. (Fig. 10)

* ***The left and right woofers can be removed in the same method.***

## 19. Speaker Grille Assembly

**(Time required: About 5 minutes)**

19-1. Remove the lower case assembly. (See procedure 2.)

19-2. Restraighten the eight (8) projections marked [A] to come off the slots of the upper case assembly. (Fig. 9)

19-3. Remove the speaker grille assembly. (Fig. 5)

* ***The left and right speaker grille assembly can be removed in the same method.***

* ***The eight (8) projections of the speaker grille must be bent in the counterclockwise direction.***

**• Top view**

* This figure shows the PSR-S770.

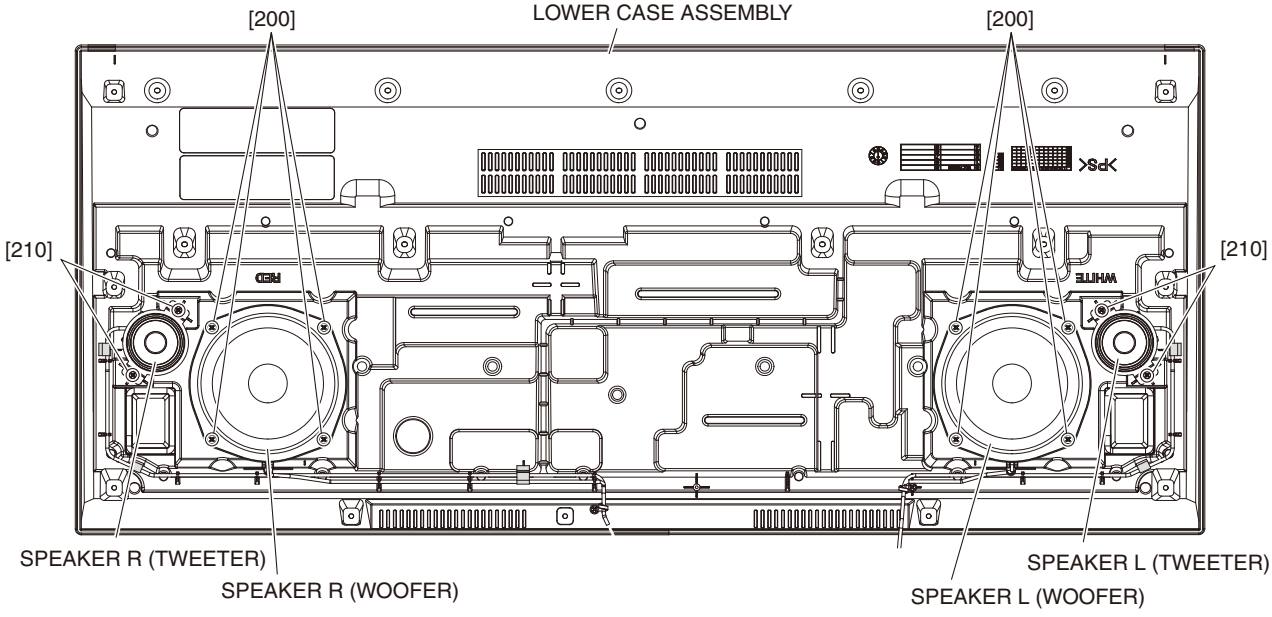



Fig. 10

## 20. Disassembling the Keyboard Assembly

20-1. Remove the lower case assembly. (See procedure 2.)
20-2. Remove the keyboard assembly. (See procedure 10.)

20-3. **EMKS61A Circuit Board**
**(Time required: About 5 minutes)**
20-3-1. Remove the two (2) screws marked [30]. The EMKS61A circuit board can then be removed. (Fig. 11)

20-4. **MK-L Circuit Board**
**(Time required: About 6 minutes)**
20-4-1. Remove the EMKS61A circuit board. (See procedure 20-3.)
20-4-2. Remove the MK-L circuit board while pressing the eight (8) hooks A in the direction of the arrow. (Fig. 12)

20-5. **MK-H Circuit Board**
**(Time required: About 6 minutes)**
20-5-1. Remove the MK-H circuit board while pressing the seven (7) hooks A in the direction of the arrow. (Fig. 12)

20-6. **Rubber Contact**
20-6-1. Remove the rubber contact. (Fig. 12) (Photo 2)

20-7. **White and Black Keys**
20-8. Remove the twenty-one (21) screws marked [140K], then remove the black keys from the lower notes. (Fig. 13)
20-8-1. Remove the white keys DFA and C'. (Fig. 13)
20-8-2. Remove the while keys CEGB from the higher notes. (Fig. 13)

* ***Lift the front portion of the keys and slide them towards you. The keys can then be removed from the assembly.***

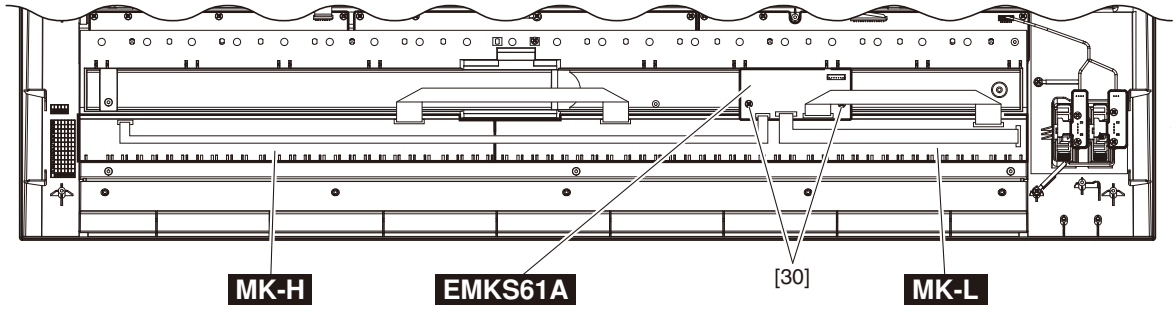



Fig. 11

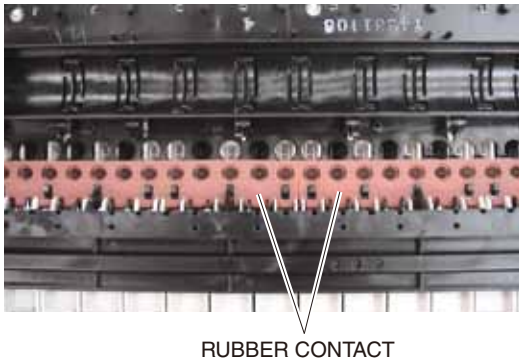



Photo 2

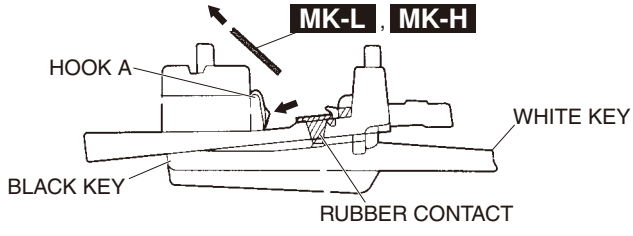



Fig. 12

## 21. Assembling the Keyboard Assembly

21-1. Install the white keys CEGB from the lower notes. (Fig. 13)

21-2. Install the white keys DFA and C'. (Fig. 13)

21-3. Install the black keys from the higher notes, and tighten the twenty-one (21) screws marked [140K]. (Fig. 13)

* ***To install the white and black keys, insert the projections of the keys into the respective slots [C] on the frame first. (Photo 3, Photo 4, Photo 5)***

21-4. Install the rubber contacts while pulling the keys up. (Fig. 14, Fig. 15)

* ***When fitting the rubber contacts, raise both ends of the frame so that keys do not push the rubber contact up.***

21-5. Install the MK-L and MK-H circuit boards in the assembly so that the hooks B hold it. (Fig. 16)

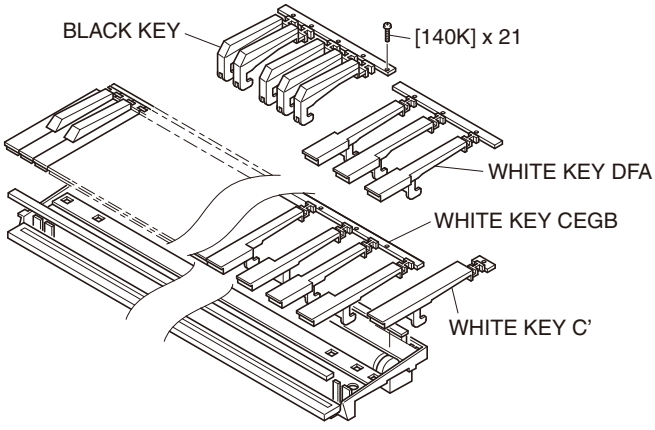



Fig. 13

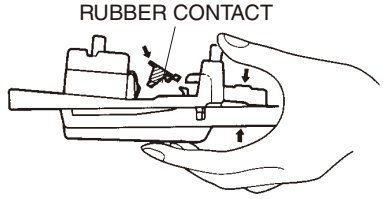



Fig. 14

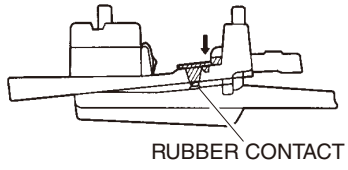



Fig. 15

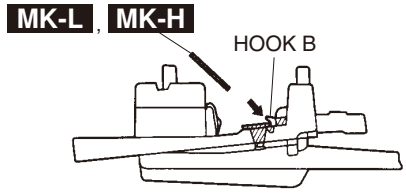



Fig. 16

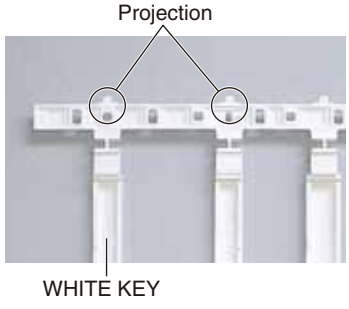



Photo 3

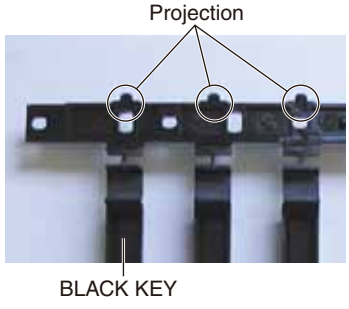



Photo 4

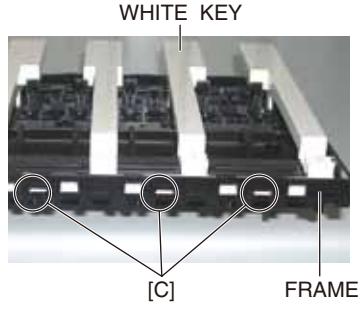


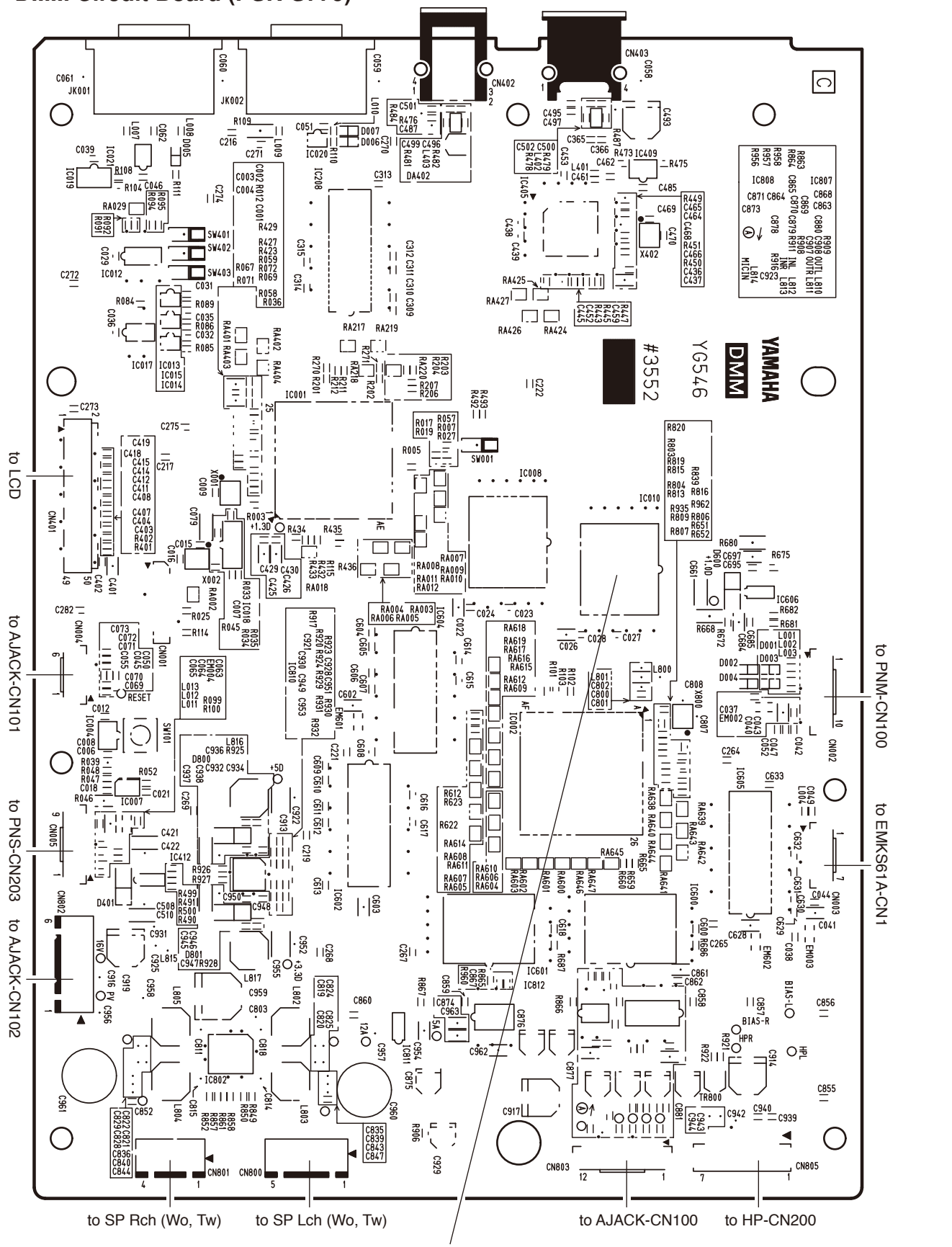

Photo 5

# ■ CIRCUIT BOARDS



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

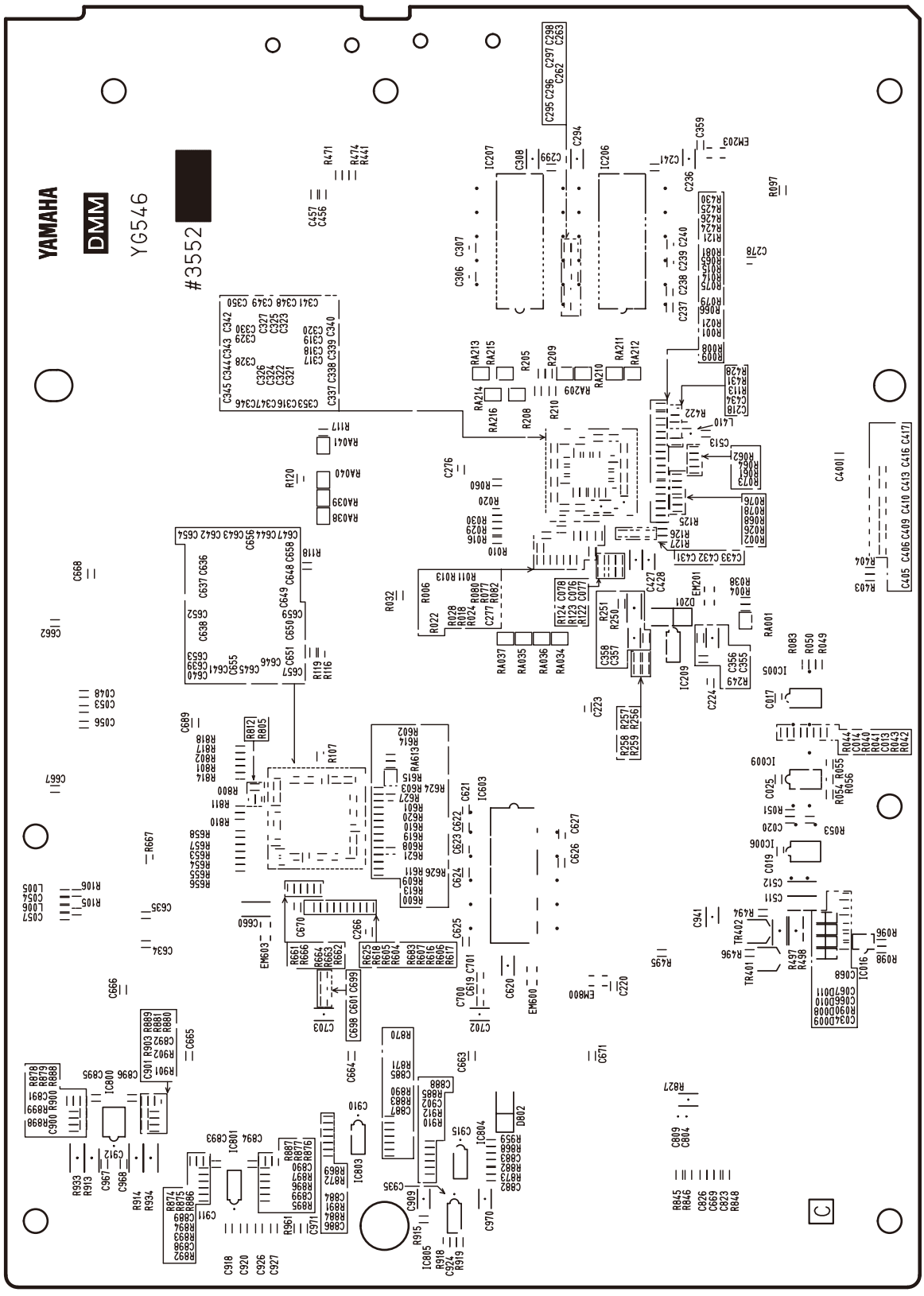
## ● DMM Circuit Board (PSR-S770)




**Component side**

The Backup ROM, IC010, cannot be replaced individually with new one because the IC010 has a "Hardware ID" which is exclusive or unique to each DMM circuit board. A Hardware ID cannot be exported or imported due to Copy protection.

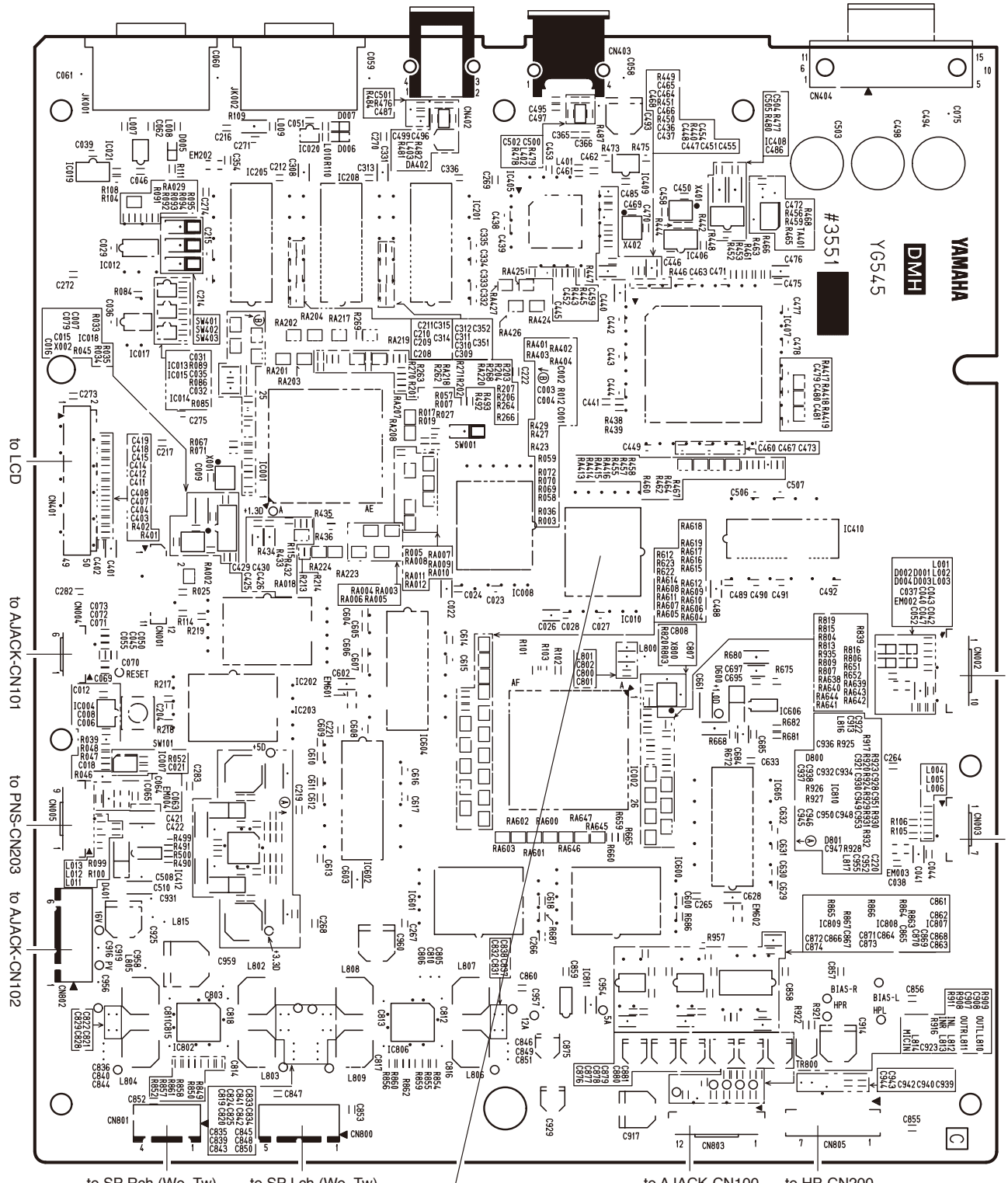
## • DMM Circuit Board (PSR-S770)




**Pattern side**

## ● DMH Circuit Board (PSR-S970)

Scale: 90/100



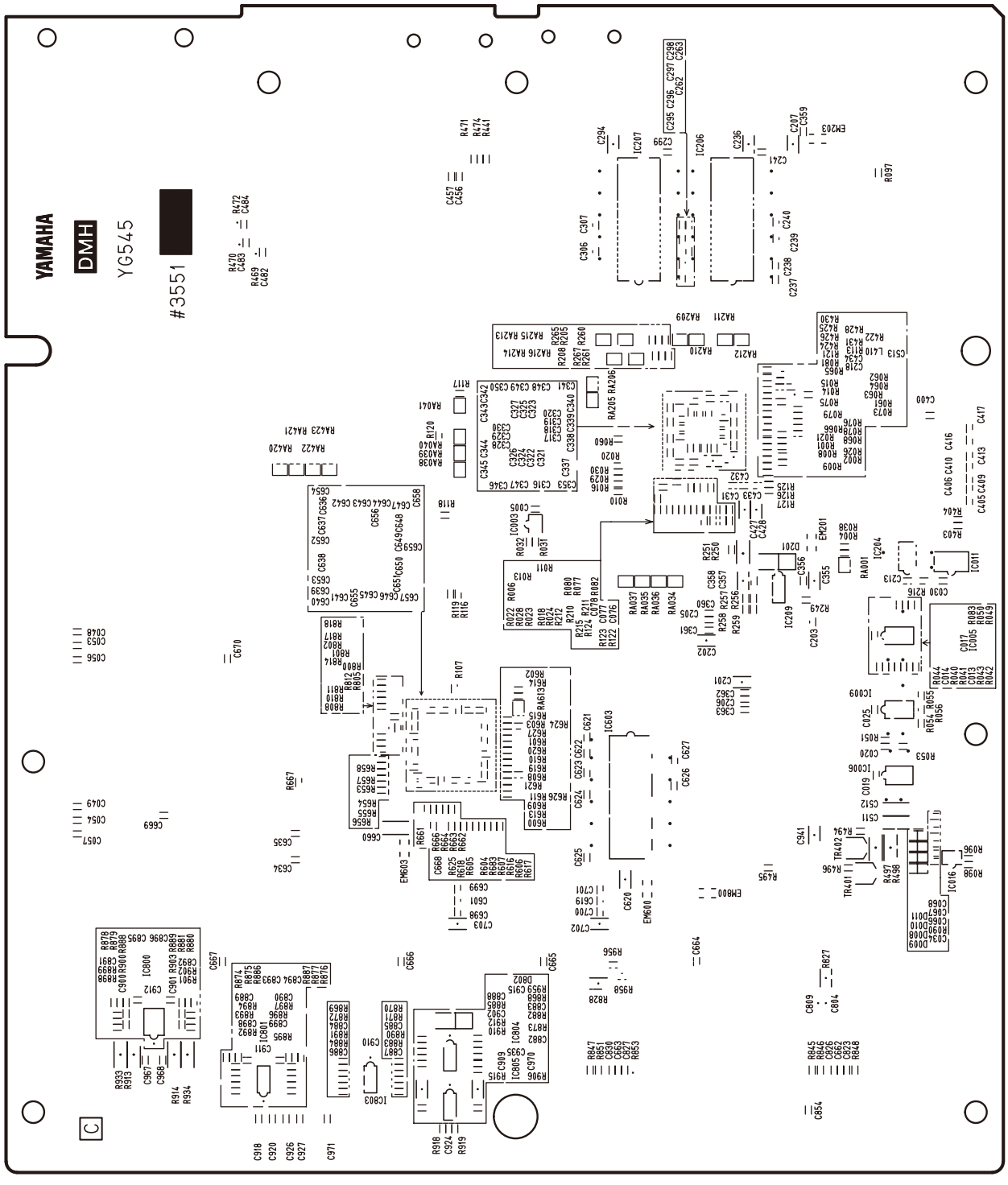

**Component side**

* The Backup ROM, IC010, cannot be replaced individually with new one because the IC010 has a "Hardware ID" which is exclusive or unique to each DMH circuit board. A Hardware ID cannot be exported or imported due to Copy protection.

* After replacing the DMH circuit board, be sure to execute the test "068: NAND ROM Check2." (p.48)

## ● DMH Circuit Board (PSR-S970)

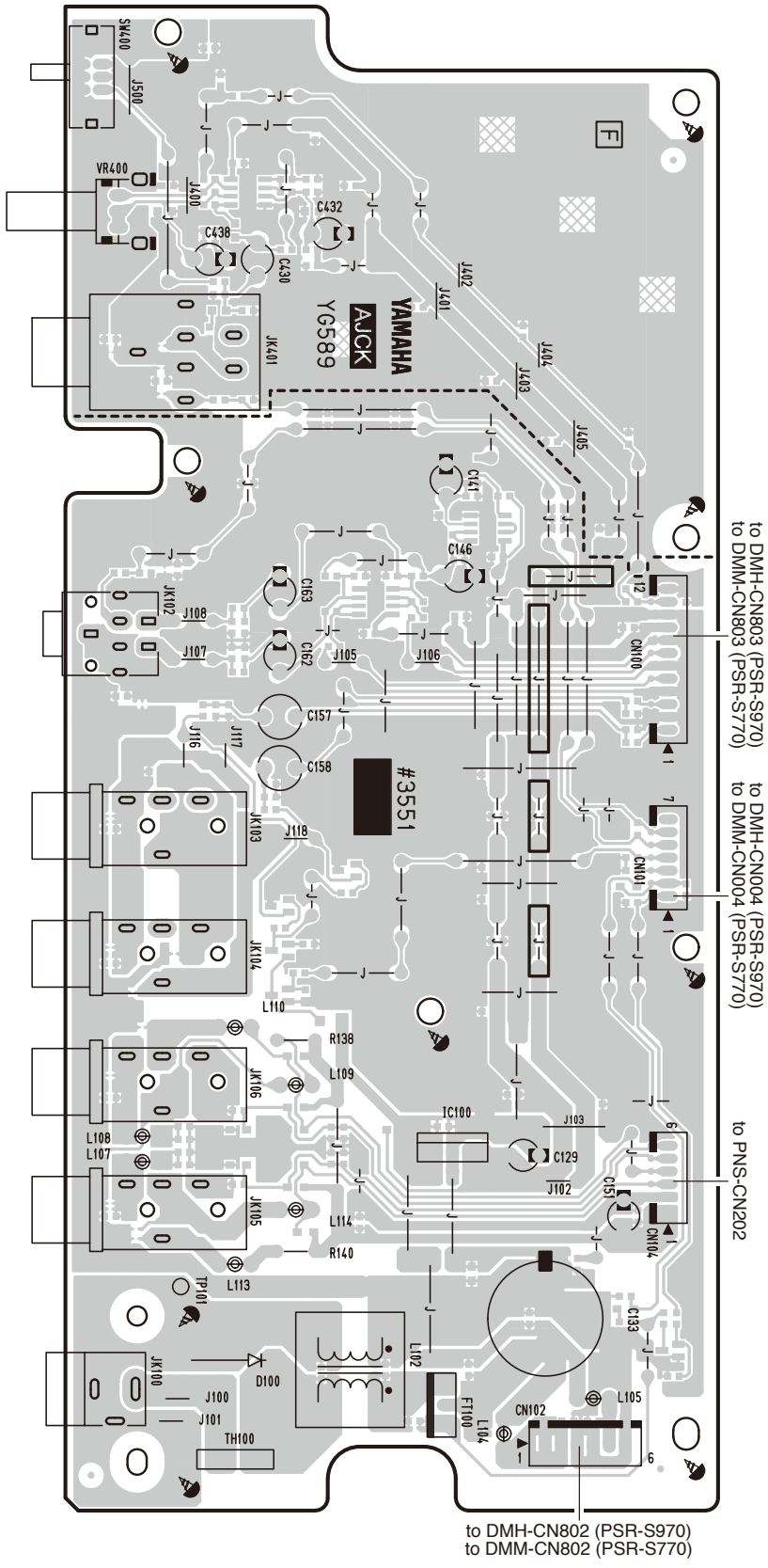
Scale: 90/100




**Pattern side**

## ● AJACK Circuit Board

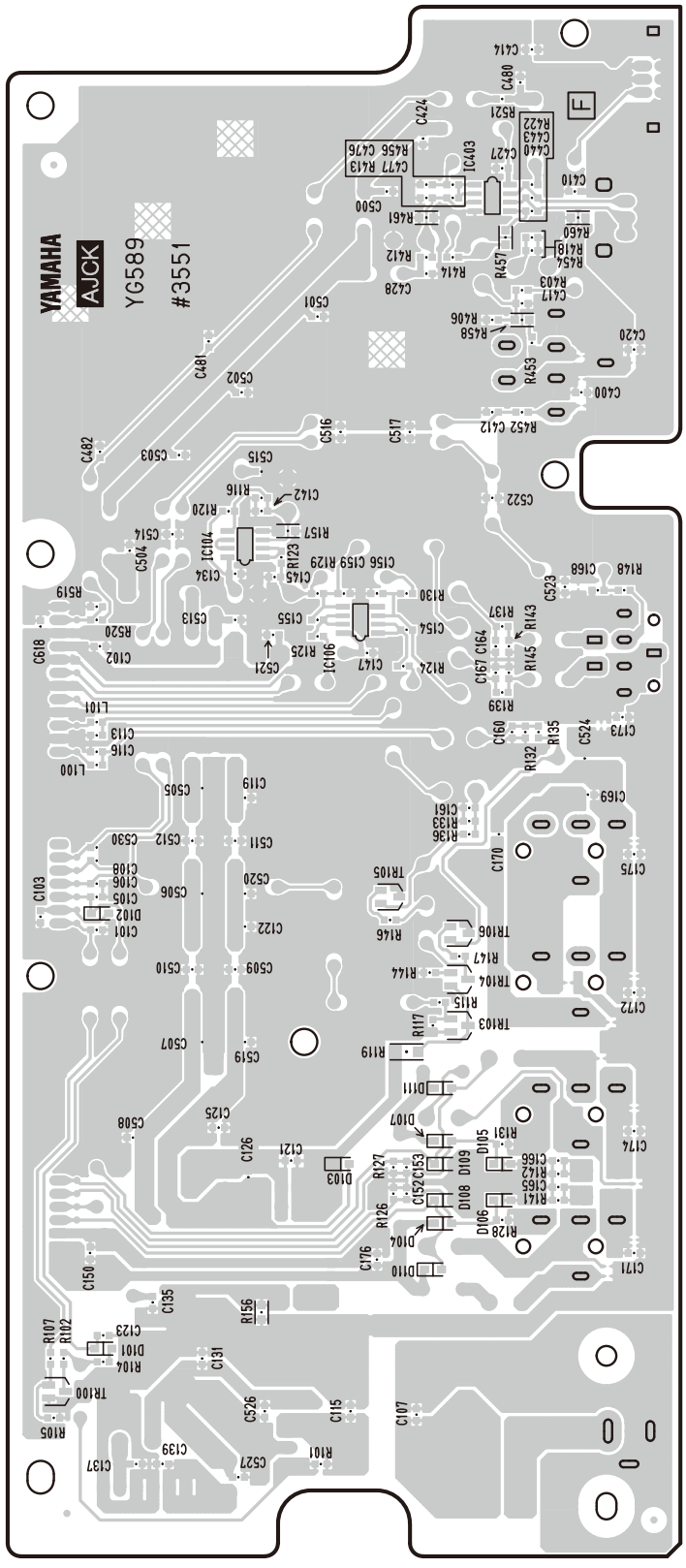
Scale: 90/100




**Component side**

## ● AJACK Circuit Board

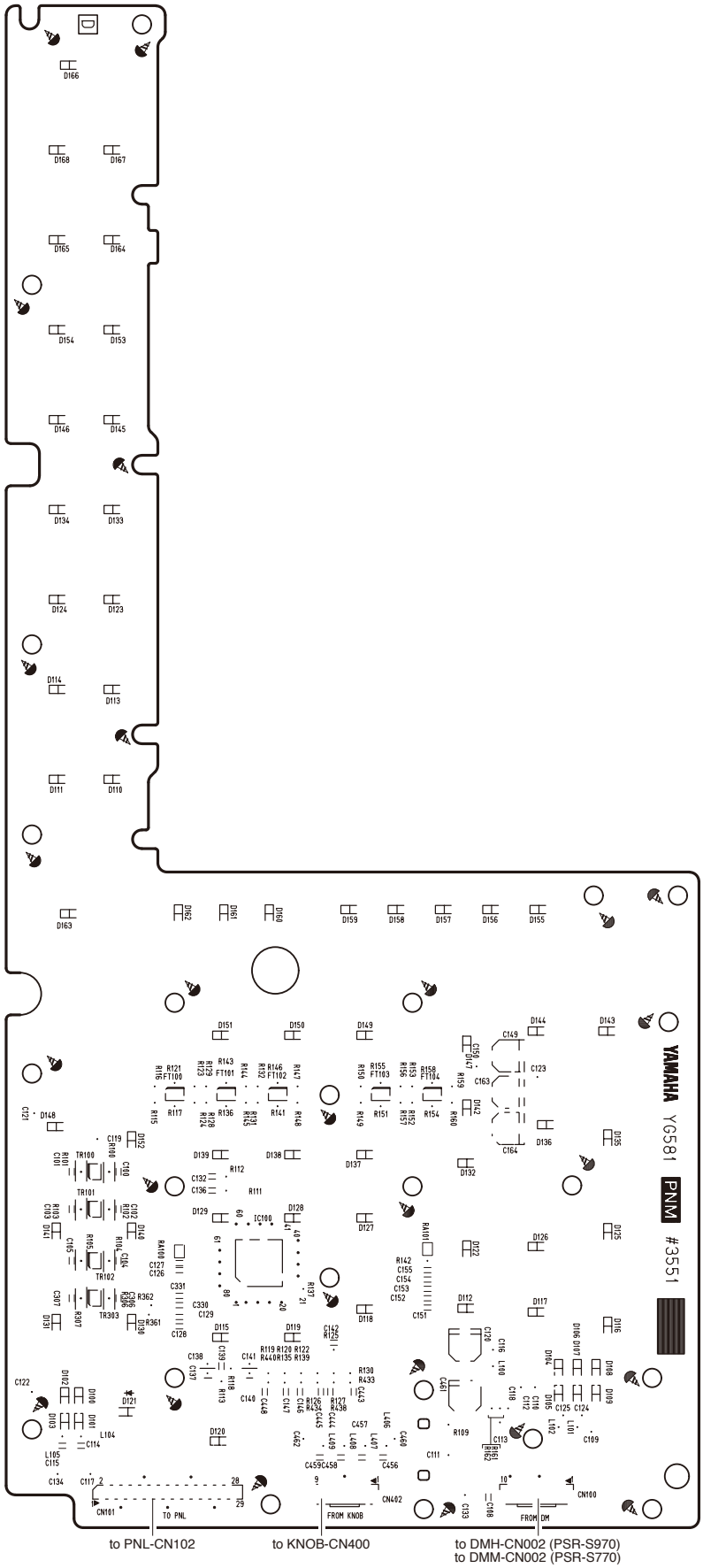
Scale: 90/100




**Pattern side**

## ● PNM Circuit Board

Scale: 70/100

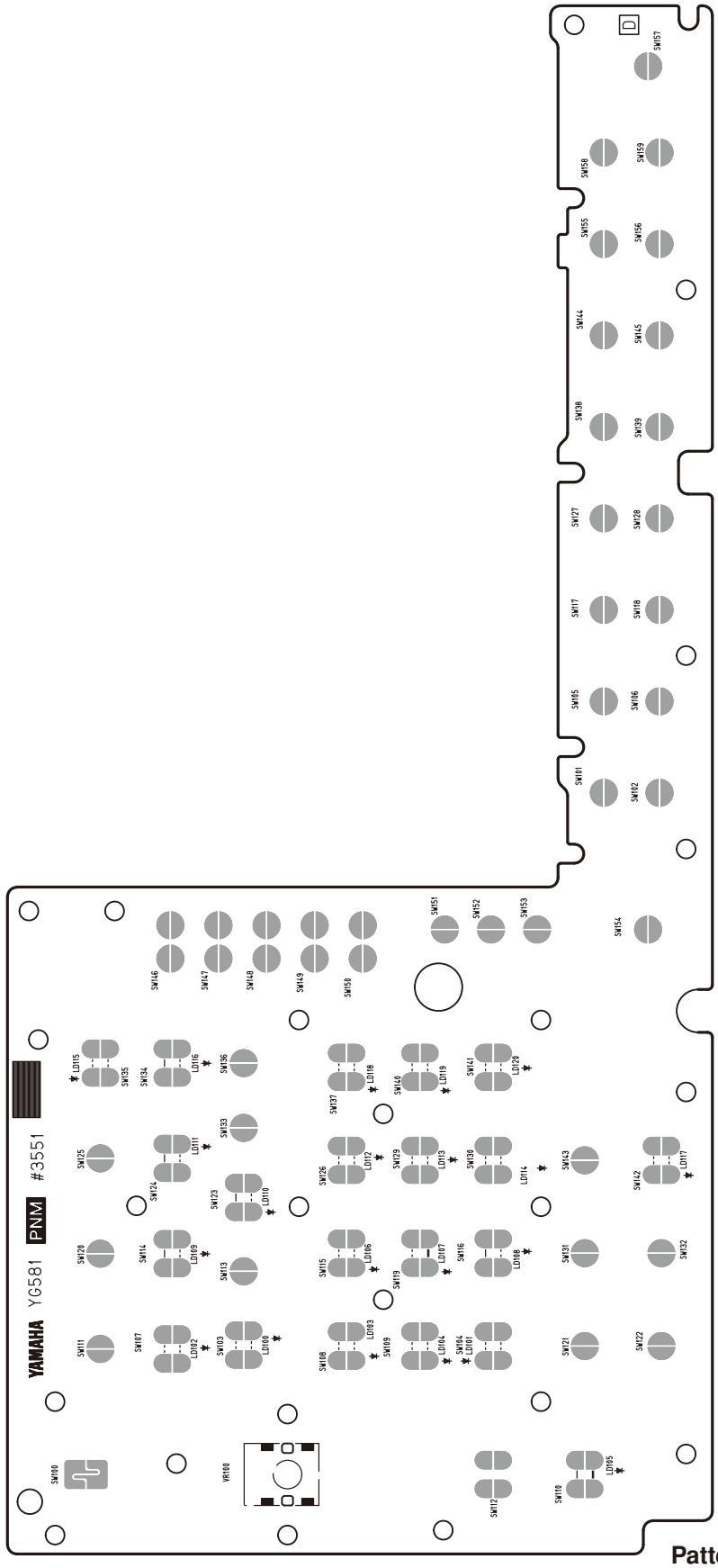



**Component side**

2NA-ZN43310 ⚠4

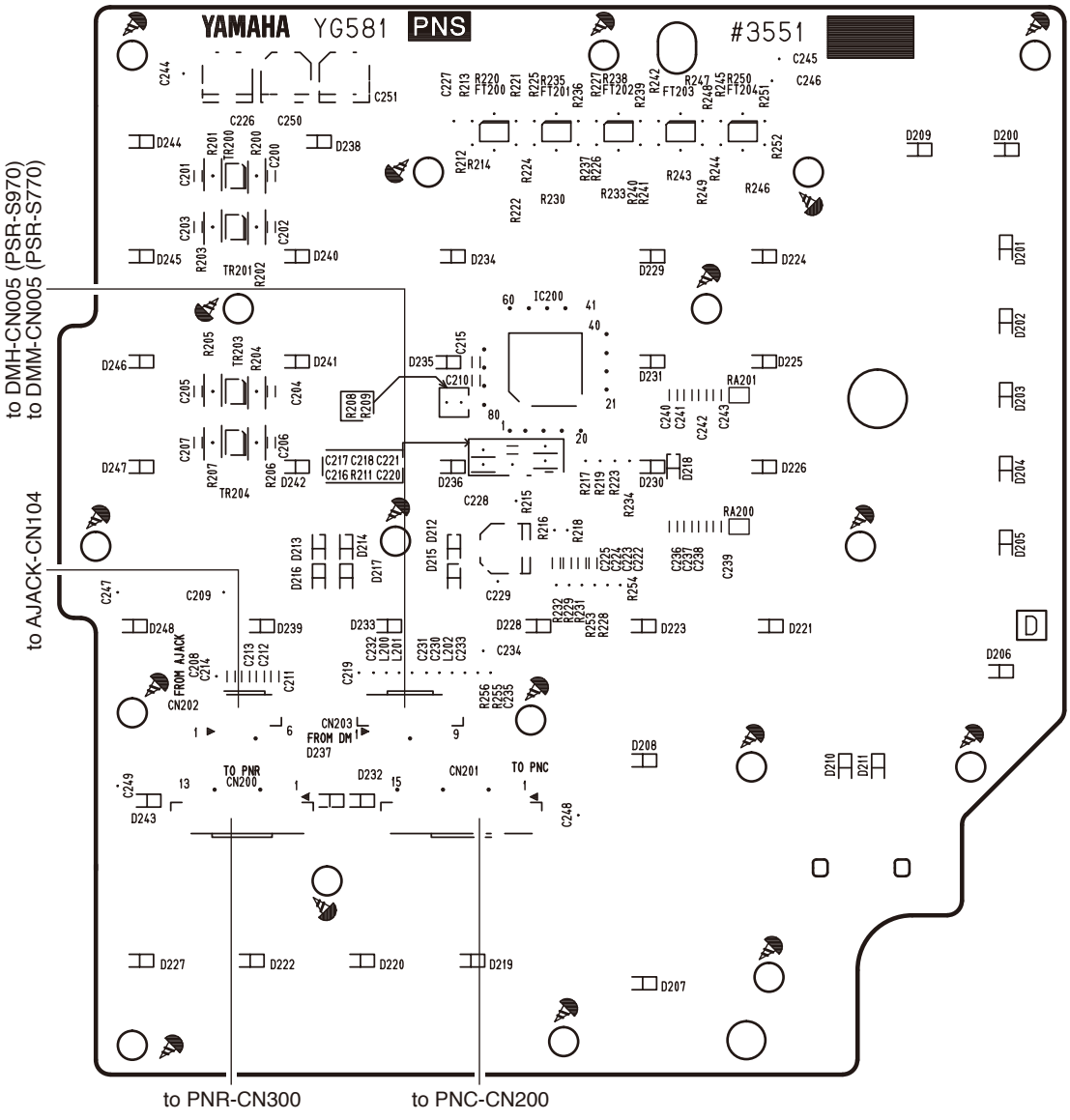
## ● PNM Circuit Board

Scale: 70/100



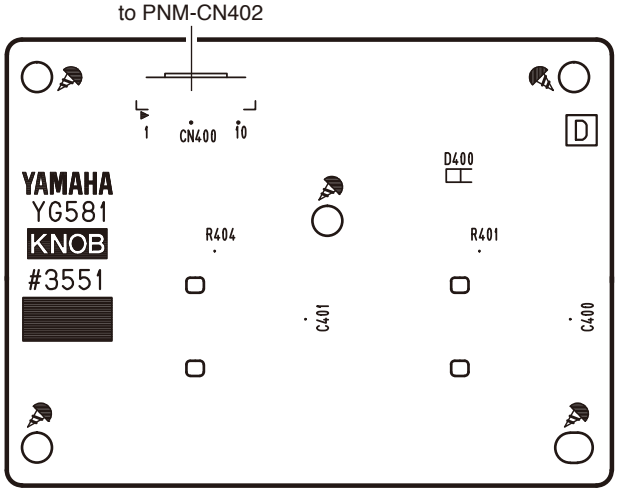

**Pattern side**

## ● PNS Circuit Board



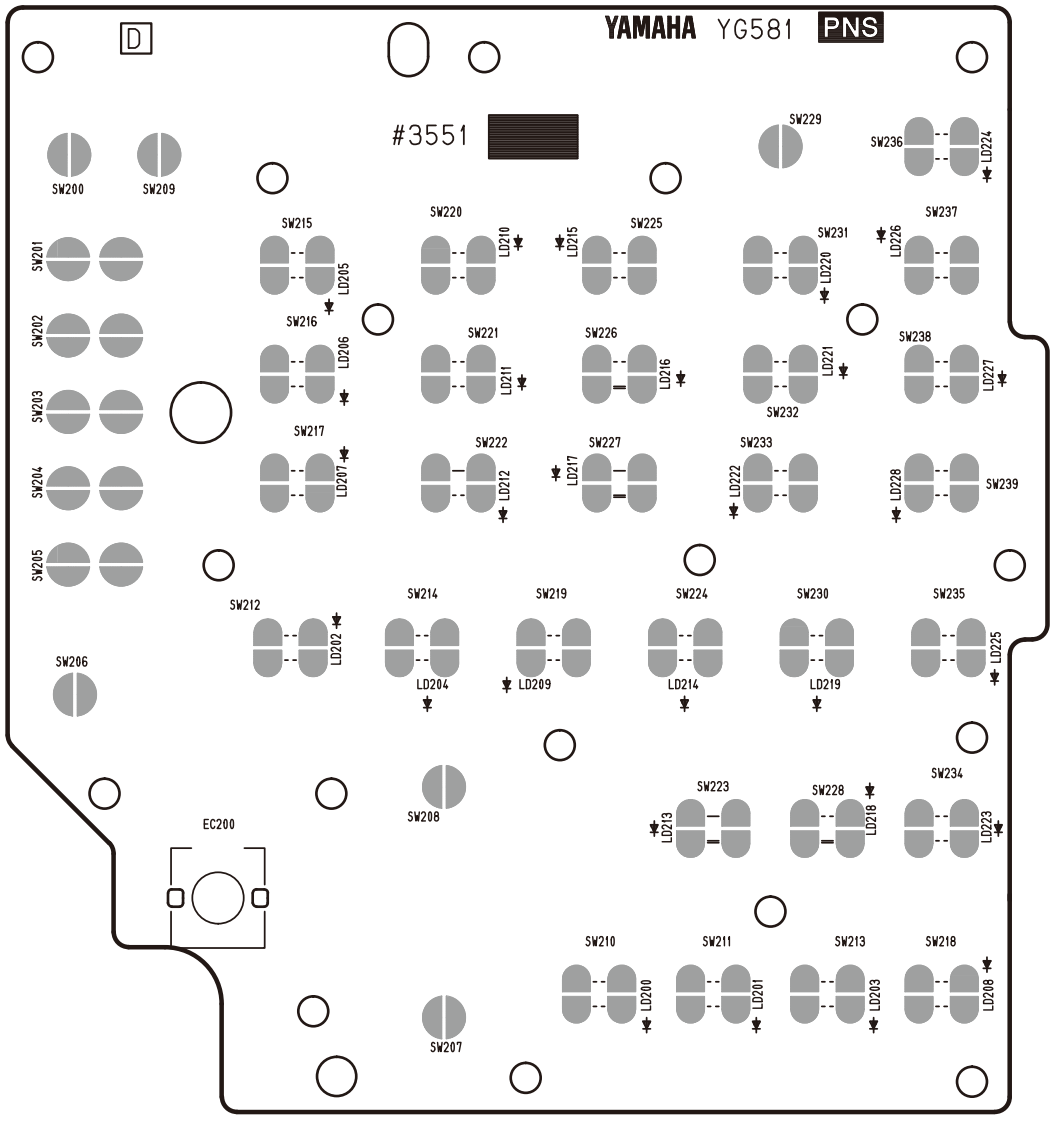

**Component side**

## ● KNOB Circuit Board



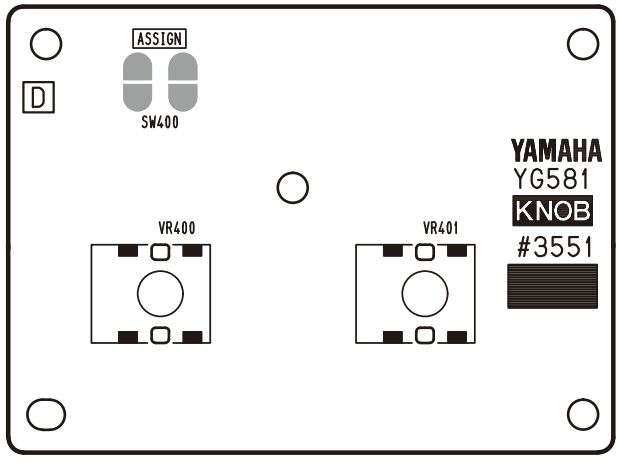

**Component side**

## ● PNS Circuit Board




**Pattern side**

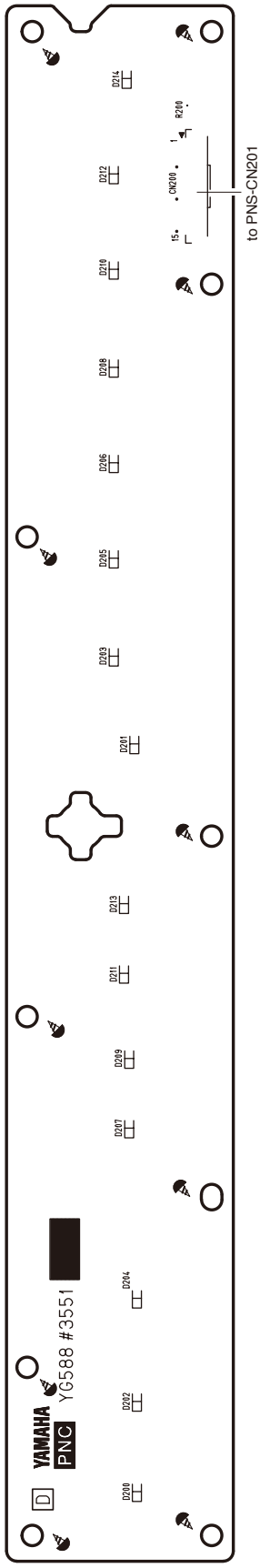
## ● KNOB Circuit Board



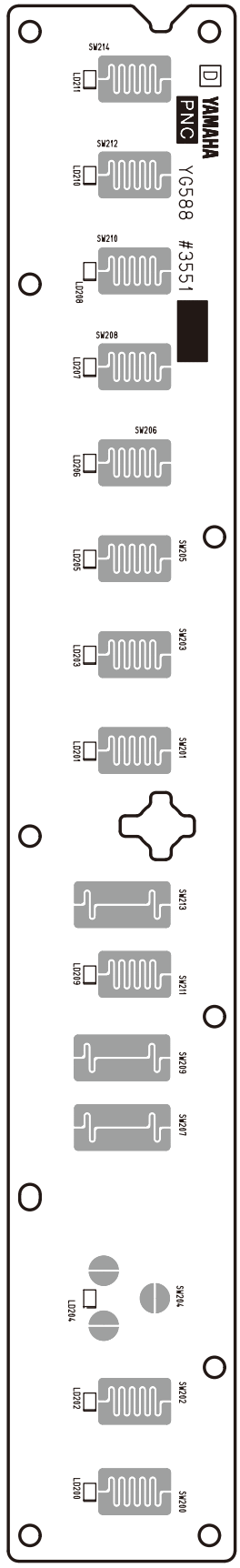

**Pattern side**

## ● PNC Circuit Board

Scale: 75/100



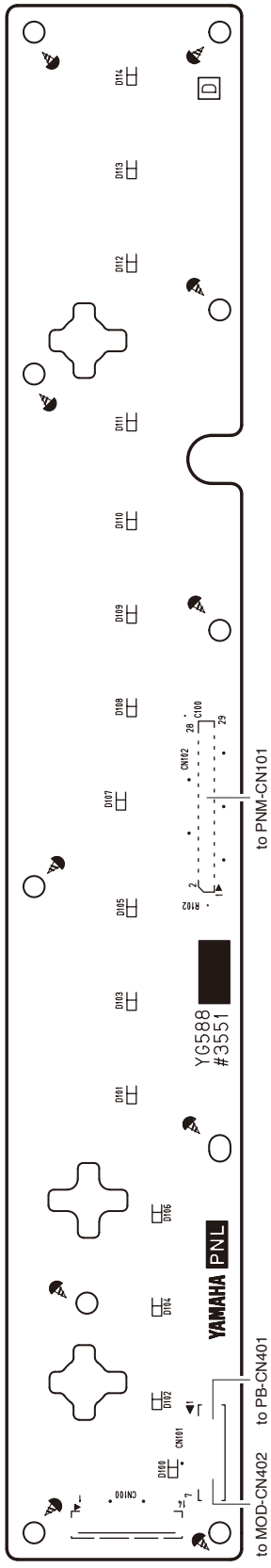

Component side



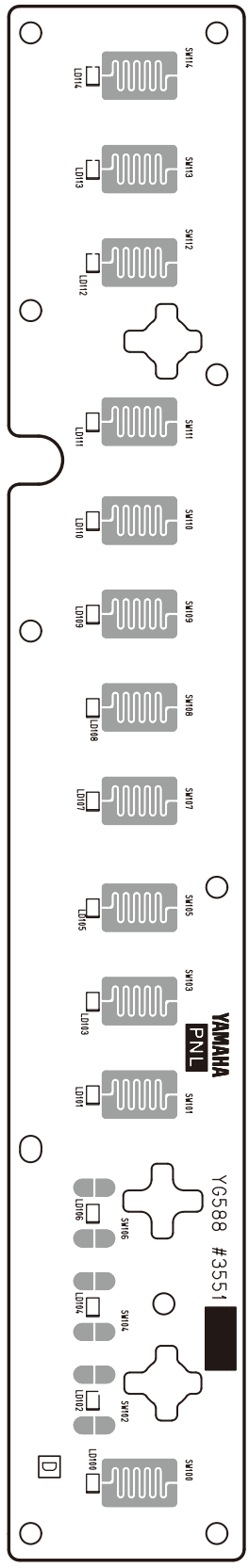

Pattern side

## ● PNL Circuit Board

Scale: 75/100



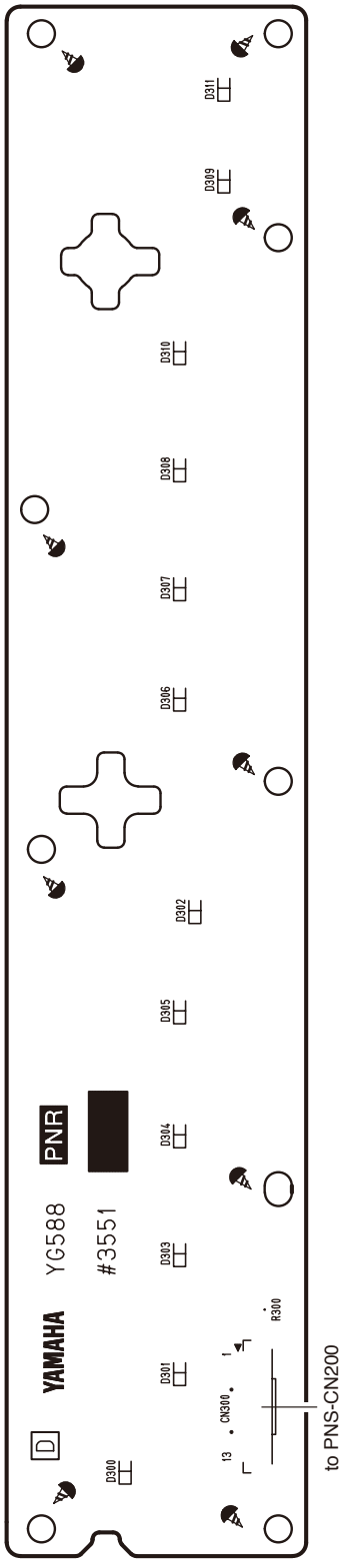

**Component side**



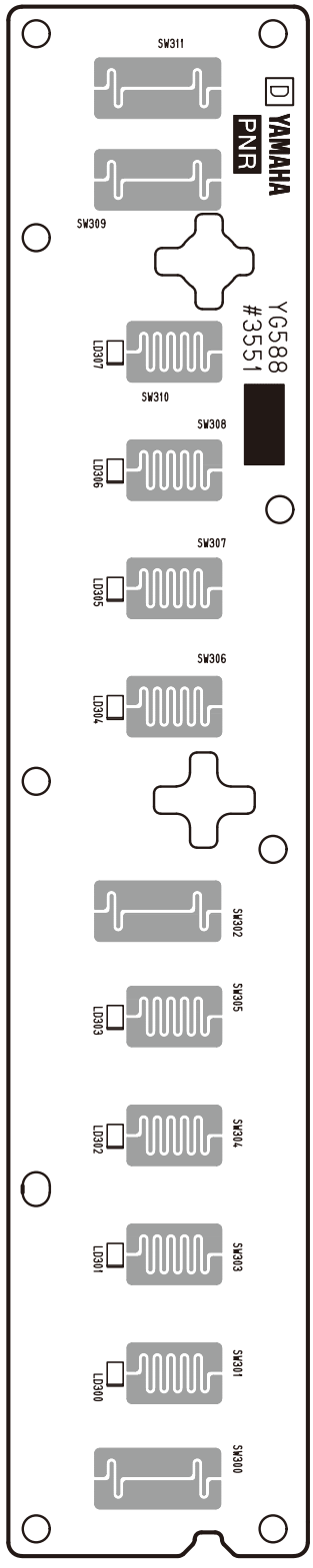

**Pattern side**

## ● PNR Circuit Board

Scale: 90/100

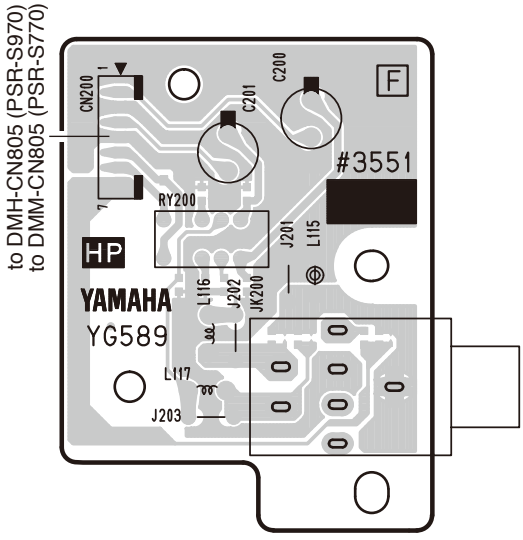



Component side

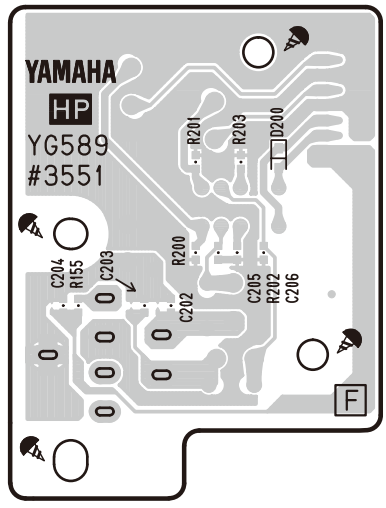



Pattern side

## ● HP Circuit Board

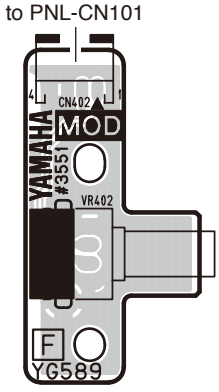



Component side

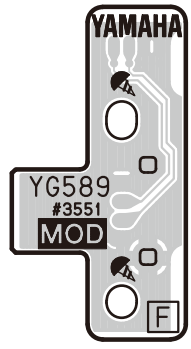



Pattern side

## ● MOD Circuit Board

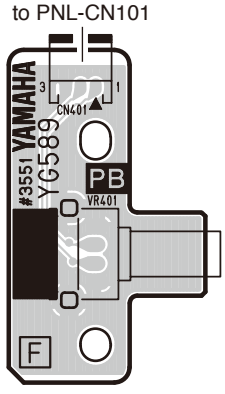



Component side

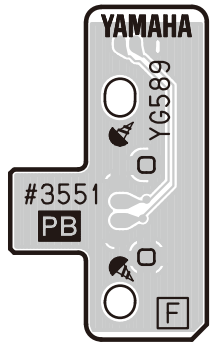



Pattern side

## ● PB Circuit Board



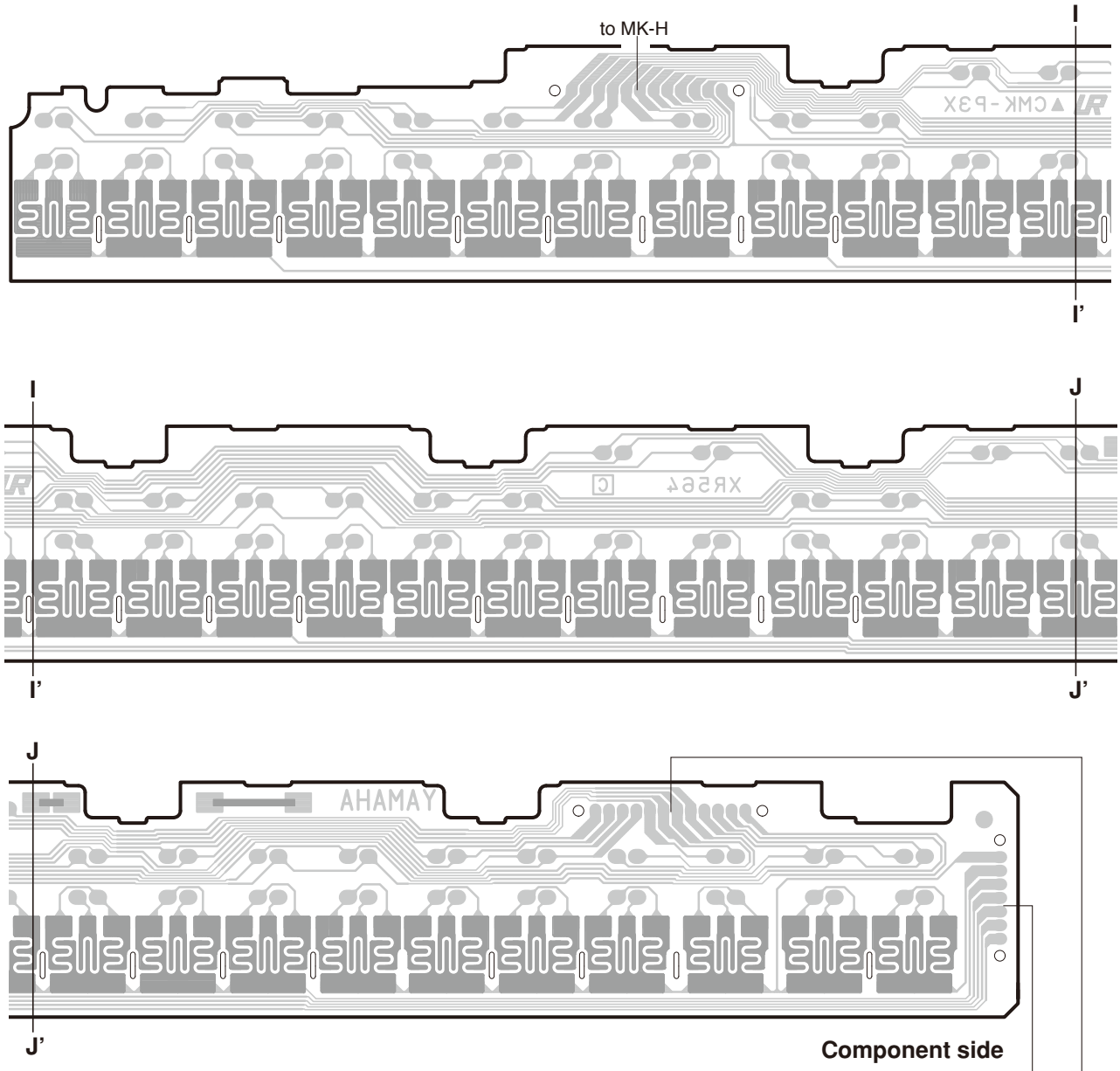

Component side



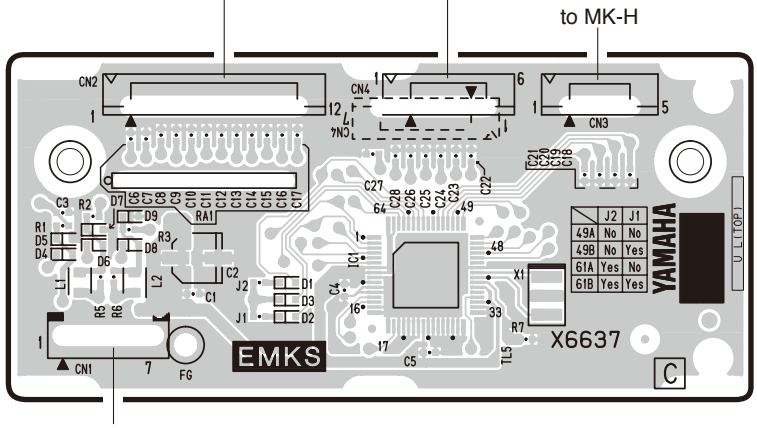

Pattern side

## ● MK-L Circuit Board

Scale: 90/100



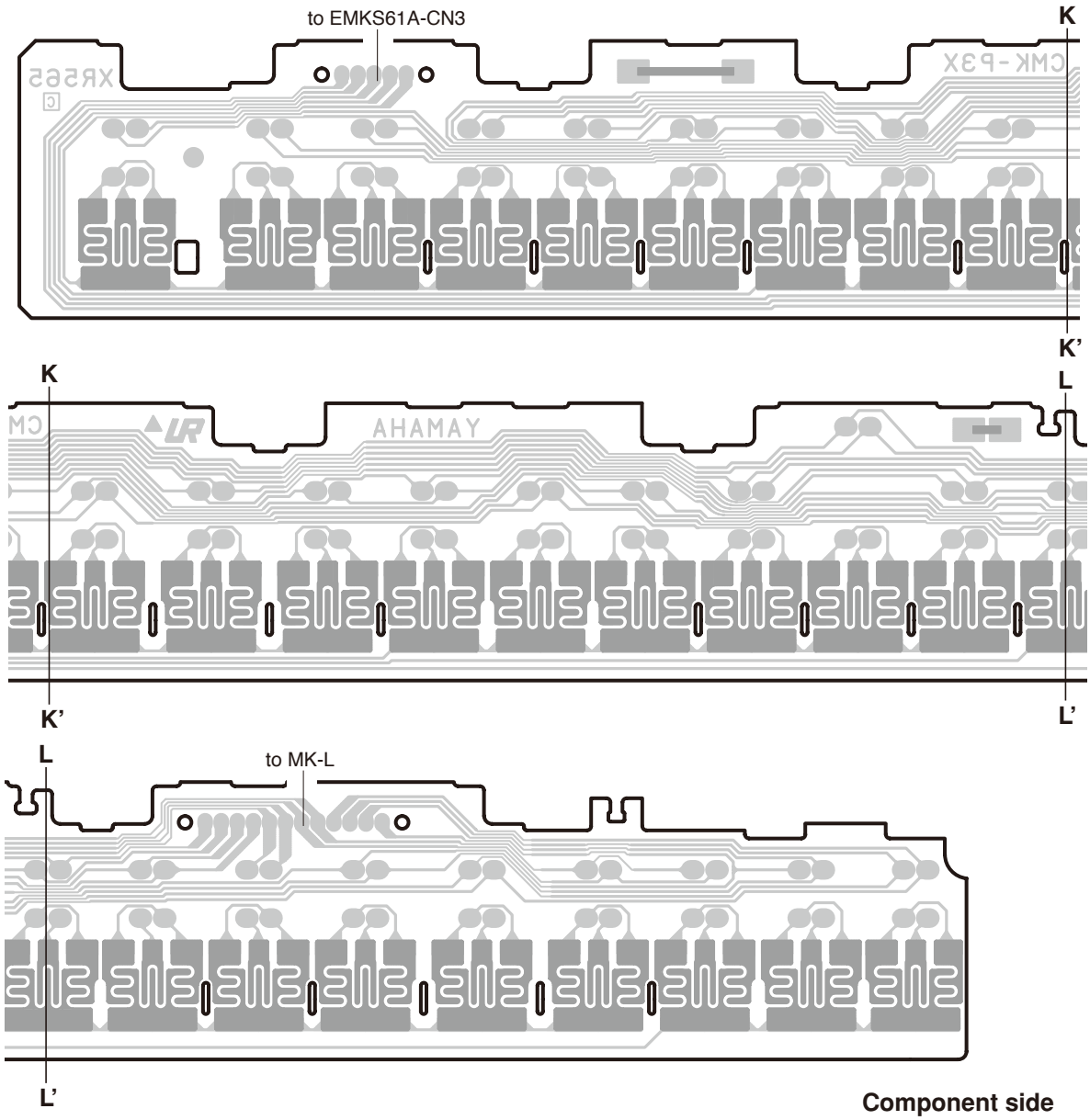

## ● EMKS61A Circuit Board




EMKS61A: 2NA-WF31010
MK-L: 2NA-VV58380

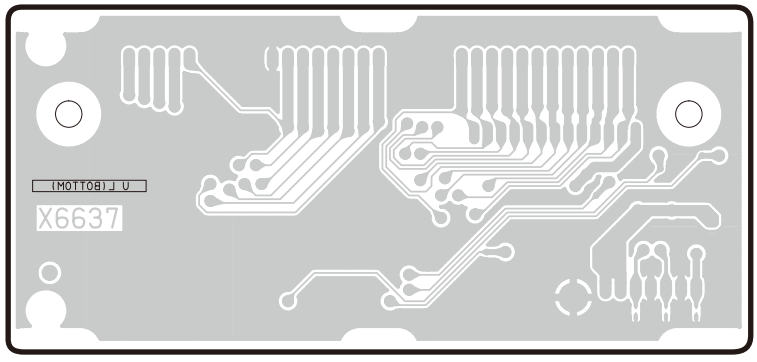
## ● MK-H Circuit Board

Scale: 90/100




Component side

## ● EMKS61A Circuit Board




Pattern side

EMKS61A: 2NA-WF31010
MK-H: 2NA-VV58390

# ■ TEST PROGRAM

**** If you execute Test No. 81 Factory Set, the setting data and user data will be lost. Be sure to save these data for backup in advance. (See page 64.)***

## 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

Use PA-300C for the AC adaptor.
The AC power should be 50Hz or 60Hz and the capacity should be 500VA or more.
The voltage should be ±10% of the rating voltage of the adaptor being used.

### 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.
- MIDI cable
- USB cable (A-B type)
- USB flash drive
- Foot controller (FC7)
- Stereo mini-plug cable (for AUX IN)
- Monaural phone plug cable (for MIC/GUITAR INPUT jack)
- RGB input display

### 1-5. Terminal condition

Unless otherwise specified, take measurement at the PHONES jack. (Use a stereo plug.)

| | |
|---|---|
| PHONES : | Install a measuring plug (L/R ch: 33-ohms load) |
| AUX IN : | Install a measuring plug |
| OUTPUT [L/L+R]/[R] : | Install a measuring plug (L/R ch: 10k-ohms load) |
| FOOT PEDAL [1]/[2]: | Connect the foot controller (FC7) |

### 1-6. Control condition

Unless otherwise specified, set control knobs as follows.
MASTER VOLUME : Max
Set others in the default state when the power is turned on.

### 1-7. Measurement unit

0 dBu = 0.775 Vrms

# 2. Test mode

## 2-1. Starting Up Test mode

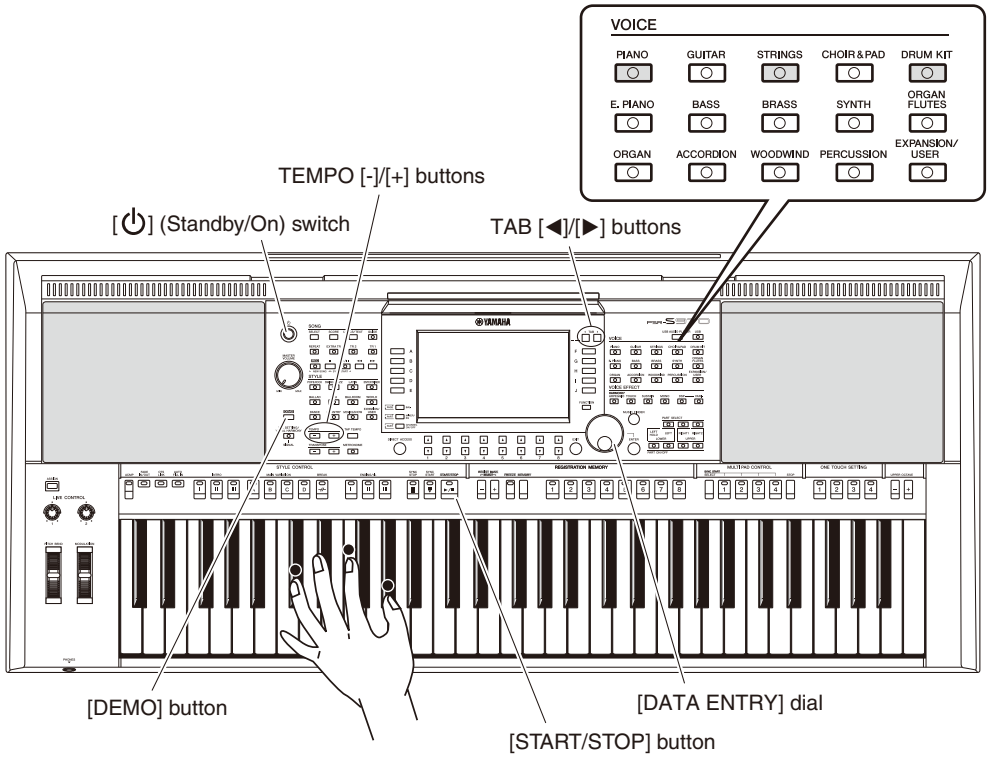
There are two methods to start up the Test mode.

### 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 [PIANO], [STRINGS] and [DRUM KIT] 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 ENTRY] dial.

**** When selecting a test item, the first item (No. 001) can be switched to the last item (No. 083) by pressing the TEMPO [-] button or turning the [DATA ENTRY] dial counterclockwise. Similarly, the last item (No. 083) can be returned to the first item (No. 001) by pressing the TEMPO [+] button or turning the [DATA ENTRY] 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 [DEMO] button or the lowest key.

## 3. Test program list

| LCD display | Test items and judging conditions |
|---|---|
| **001 : Version** | Indicates the model name, designated country information and each ROM version (***.****).<br>1) Press the [START/STOP] button, and the versions are shown on the LCD.<br>**PSR-S770**<br>**Model Name : PSR-S770 (E)**<br>**Main Prog ROM : ＊.＊＊**<br>**Wave Data ROM : ＊.＊＊**<br>**Hardware ID : ＊＊＊＊＊＊＊＊＊＊＊**<br>Confirm that an 11 digit alphanumeric is shown.<br>**PSR-S970**<br>**Model Name : PSR-S970 (E)**<br>**Main Prog ROM : ＊.＊＊**<br>**Wave Data ROM : ＊.＊＊**<br>**NAND Data ROM : ＊.＊＊**<br>**Hardware ID : ＊＊＊＊＊＊＊＊＊＊＊**<br>Confirm that an 11 digit alphanumeric is shown.<br>2) Switch the pages with the TAB [◀] [▶] buttons as the menu contains two pages.<br>**PSR-S770**<br>**Main Boot : ＊.＊＊**<br>**Main Program : ＊.＊＊**<br>**Bitmap1 : ＊.＊＊**<br>**Contents1 : ＊.＊＊**<br>**Wave1 : ＊.＊＊**<br>**PSR-S970**<br>**Main Boot : ＊.＊＊**<br>**Main Program : ＊.＊＊**<br>**Bitmap1 : ＊.＊＊**<br>**Contents1 : ＊.＊＊**<br>**Wave1 : ＊.＊＊**<br>**Audio Style : ＊.＊＊**<br>3) Press the [START/STOP] button to exit the TEST item. |
| **002 : Memory Check1 All** | Executes the simplified check of all the memories (test No. 003 to 009) at one time.<br>(It will take 6 seconds.)<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: The same message will be showned as tests No. 003 to 009.<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item.<br>If the result is OK: tests No. 003 to 009 can be skipped.<br>If the result is NG: the test stops when any problem is found. To check details, execute the test from No. 003 to 009. |
| **003 : ROM Check1** | Executes the simplified check of the ROM connected to the CPU bus.<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **MAIN PROG ROM (IC＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |

| LCD display | Test items and judging conditions |
|---|---|
| **004 : NAND ROM Check1 (PSR-S970 only)** | Executes the simplified check of the NAND ROM connected to the CPU bus.<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **NAND ROM (IC＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **005 : RAM Check1** | Executes the simplified check of the RAM connected to the CPU bus.<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **MAIN SDRAM (IC＊＊＊,＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **006 : Backup ROM Check1** | Executes the simplified check of the Backup ROM. (It will take about 4 seconds.)<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **BACKUP (IC＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **007 : Wave ROM Check1** | Executes the simplified check of the Wave ROM.<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **Wave (IC＊＊＊,＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **008 : Wave RAM Check1** | Executes the simplified check of the Wave RAM.<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **Wave RAM (IC＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **009 : Effect RAM Check1** | Executes the simplified check of the Effect RAM.<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **Effect 1 TG1 (IC＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **012 : IRQ Check** | Checks whether the IRQ and DREQ communication between the Main CPU and SWP70 is executed properly or not.<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **NG (IRQ＊)**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **014 : Pitch Check** | Checks whether the output from this instrument is correct pitch or not.<br>1) Connect the frequency counter to the PHONES jack at either L or R.<br>2) Set the [MASTER VOLUME] control to the maximum position.<br>3) Press the [START/STOP] button to produce the A3 sine wave sound.<br>4) Measure the frequency and confirm that the measured value is 440.943Hz ± 0.2Hz.<br>5) Press the [START/STOP] button to stop the sound and to exit the TEST item. |

| LCD display | Test items and judging conditions |
|---|---|
| **015 : Output R Check** | Checks each output level from the R channel of the jacks.<br>1) Connect the level meter to an output jack.<br>2) Set the [MASTER VOLUME] control to the maximum position.<br>3) Press the [START/STOP] button to produce the C5 sine wave sound.<br>4) Measure the output level and confirm that the measured values are within the specified range.<br>[PHONES] (33Ω load)<br>PHONES L: -56.0 dBu or less PHONES R: -0.34 ± 2 dBu<br>[OUTPUT] (10kΩ load)<br>L/L+R; -60.0 dBu or less R: +5.3 ± 2 dBu<br>**** When disconnecting the plug from the OUTPUT R jack, the sound is produced from OUTPUT L/L+R jack.***<br>**** When disconnecting the plug from the PHONES jack, the sound is produced from the speaker.***<br>5) Press the [START/STOP] button to stop the sound and to exit the TEST item. |
| **016 : Output L Check** | Checks each output level from the L channel of the jacks.<br>1) Connect the level meter to an output jack.<br>2) Set the [MASTER VOLUME] control to the maximum position.<br>3) Press the [START/STOP] button to produce the C5 sine wave sound.<br>4) Measure the output level and confirm that the measured values are within the specified range.<br>[PHONES] (33Ω load)<br>PHONES L: -0.34 ± 2 dBu PHONES R: -56.0 dBu or less<br>[OUTPUT] (10kΩ load)<br>L/L+R: +5.3 ± 2 dBu R: -60.0 dBu or less<br>**** When disconnecting the plug from the PHONES jack, the sound is produced from the speaker.***<br>5) Press the [START/STOP] button to stop the sound and to exit the TEST item. |
| **017 : EQ Low Check (PSR-S770 only)** | Checks the low-frequency sound.<br>1) Press the [START/STOP] button to produce the C1 sine wave sound.<br>2) Press the [START/STOP] button to stop the sound and to exit the TEST item. |
| **018 : EQ Mid Check (PSR-S770 only)** | Checks the middle-frequency sound.<br>1) Press the [START/STOP] button to produce the C4 sine wave sound.<br>2) Press the [START/STOP] button to stop the sound and to exit the TEST item. |
| **019 : EQ High Check (PSR-S770 only)** | Checks the high-frequency sound.<br>1) Press the [START/STOP] button to produce the C7 sine wave sound.<br>2) Press the [START/STOP] button to stop the sound and to exit the TEST item. |
| **020 : MultiAMP Low Check (PSR-S970 only)** | Checks whether the multi-amplifier on the LOW frequency side work properly or not.<br>1) Press the [START/STOP] button to produce the 1kHz sine wave sound.<br>2) Check that the sound is produced from the right and left woofers.<br>3) Press the [START/STOP] button to stop the sound and to exit the TEST item. |
| **021 : MultiAMP Hight Check (PSR-S970 only)** | Checks whether the multi-amplifier on the HIGH frequency side work properly or not.<br>1) Press the [START/STOP] button to produce the D#7 sine wave sound.<br>2) Check that the sound is produced from the right and left tweeters.<br>3) Press the [START/STOP] button to stop the sound and to exit the TEST item. |
| **022 : SP MUTE Check** | Checks whether the SP MUTE for the Speakers works properly or not.<br>1) Press the [START/STOP] button to produce the C5 sine wave sound. "**OFF**" is shown on the LCD.<br>2) Press the TAB [▶] button to activate the SP MUTE circuit.<br>"**ON**" is shown on the LCD and the speakers are muted.<br>3) Press the TAB [◀] button to cancel the SP MUTE circuit.<br>"**OFF**" is shown on the LCD and the C5 sound is produced.<br>4) Press the [START/STOP] button to stop the sound and to exit the TEST item.<br>**Caution:**<br>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.) |

| LCD display | Test items and judging conditions |
|---|---|
| **023 : DAC MUTE Check** | Checks whether the DAC MUTE for the DAC IC's output works properly or not.<br>1) Press the [START/STOP] button to produce the C5 sine wave sound. "**OFF**" is shown on the LCD.<br>2) Press the TAB [▶] button to activate the DAC MUTE circuit.<br>"**ON**" is shown on the LCD, and all the output from the speakers, PHONES, and OUTPUT jacks are muted.<br>3) Press the TAB [◀] button to cancel the DAC MUTE circuit.<br>"**OFF**" is shown on the LCD and the C5 sound is produced.<br>4) Press the [START/STOP] button to stop the sound and to exit the TEST item. |
| **024 : MUTE Check** | Checks whether the MUTE for all outputs works properly or not.<br>1) Press the [START/STOP] button to produce the C5 sine wave sound. "**OFF**" is shown on the LCD.<br>2) Press the TAB [▶] button to activate the MUTE circuit.<br>"**ON**" is shown on the LCD, and all the output from the speakers, PHONES, and OUTPUT jacks are muted.<br>3) Press the TAB [◀] button to cancel the MUTE circuit. At this time, check that the muting relay on the HP circuit board works properly.<br>"**OFF**" is shown on the LCD and the C5 sound is produced.<br>4) Press the TAB [▶] button to activate the MUTE circuit.<br>5) Connect the level meter to the OUTPUT jacks.<br>6) Measure the output levels and confirm that the measured values are within the specified range.<br>[OUTPUT] (10kΩ load)<br>L/L+R: -35.0 dBu or less R: -35.0 dBu or less<br>7) Press the [START/STOP] button to stop the sound and to exit the TEST item.<br>**Caution:**<br>When checking the output of the speakers, do not insert any plug to the PHONES jack. |
| **025 : Emergency Circuit Check** | Checks whether the Fail-Safe Circuit for digital volume control works properly or not.<br>1) Press the [START/STOP] button to produce the A3 sine wave sound. "**OFF**" is shown on the LCD.<br>2) Press the TAB [▶] button to activate the Fail-Safe Circuit function.<br>"**ON**" is shown on the LCD, and all the output from the speakers, PHONES, and OUTPUT jacks are muted.<br>3) Press the TAB [◀] button to cancel the Fail-Safe Circuit function. At this time, check that the muting relay on the HP circuit board works properly.<br>"**OFF**" is shown on the LCD and the A3 sound is produced.<br>4) Press the [START/STOP] button to stop the sound and to exit the TEST item.<br>**Caution:**<br>When checking the output of the speakers, do not insert any plug to the PHONES jack. |

| LCD display | Test items and judging conditions |
|---|---|
| **026 : SIOF Check** | Checks whether the two SIOF circuits, which are defined Line-A and Line-B in this test, are connected properly. Also, checks whether the control ports of AUDIO clock are connected properly.<br>1) Press the [START/STOP] button to start the test of Line-A and AUDIO-clock ports. "**Line-A**" is shown on the LCD. If there is no problem, the beep of the A3 sine wave will be repeated from the L channel. The sound is produced and "**ON**" appears on the LCD while the clock turns ON state. The sound stops and "**OFF**" appears on the LCD while the clock turns OFF state. If there is a problem, the A3 sound is produced continuously and "**ON**" appears on the LCD, or no sound is there and "**OFF**" appears on the LCD.<br>2) Press the TAB [▶] button to start the test of Line-B and AUDIO-clock ports. "**Line-B**" is shown on the LCD. If there is no problem, the beep of the C5 sine wave will be repeated from the R channel. The sound is produced and "**ON**" appears on the LCD while the clock turns ON state. The sound stops and "**OFF**" appears on the LCD while the clock turns OFF state. If there is a problem, the C5 sound is produced continuously and "**ON**" appears on the LCD, or no sound is there and "**OFF**" appears on the LCD.<br>3) Press the [START/STOP] button to stop the sound and to exit the TEST item.<br>***NOTE:***<br>You can check the Line-A and Line-B alternatively by using the TAB [◀][▶] buttons. |
| **028 : AUX-IN Check** | Checks whether the AUX IN jack works properly or not.<br>1) Press the [START/STOP] button. "**Not Inserted**" is shown on the LCD.<br>2) Connect the plug to the AUX IN jack. "**Inserted**" is shown on the LCD.<br>3) Disconnect the plug. "**Not Inserted**" is shown on the LCD.<br>4) Press the [START/STOP] button to exit the TEST item. |
| **030 : MIC Check** | Checks whether the MIC/GUITAR INPUT jack works properly or not.<br>1) Press the [START/STOP] button. "**Not Inserted**" is shown on the LCD.<br>2) Connect the plug to the MIC/GUITAR INPUT jack. "**Inserted**" is shown on the LCD.<br>3) Disconnect the plug. "**Not Inserted**" is shown on the LCD.<br>4) Press the [START/STOP] button to exit the TEST item. |
| **031 : SW, LED Check** | Checks whether each panel button with its LED (if available) works properly or not.<br>1) Press the [START/STOP] button to start the test. "**Push ＊＊＊**" is shown on the LCD. The LCD shows you the should-be-pressed button.<br>***NOTE:*** The "＊＊＊" means each button name.<br>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 51.<br>***NOTE:***<br>• "**NG [pressed button name] On**" will be shown on the LCD if the wrong button is pressed.<br>• "**Over Two Sw**" will be shown on the LCD if two or more buttons are pressed.<br>3) After all the buttons are completed and "**Dial DOWN 50**" appears on the LCD, check the [DATA ENTRY] dial. Rotate the dial counter-clockwise until "**Dial UP xx**" appears on the LCD.<br>4) Rotate the dial clockwise until "**End**" appears on the LCD.<br>5) Press the [START/STOP] button to exit the TEST item.<br>***NOTE:***<br>You can exit this test by pressing the lowest key. Also, you can exit the test by pressing the [ASSIGN] button after the button is tested. |

| LCD display | Test items and judging conditions |
|---|---|
| **032 : All LED On** | Checks whether all the LED lamps light properly or not.<br>1) Press the [START/STOP] button to start the test.<br>All the LED lamps are turned on, and "**- -**" is shown on the LCD.<br>2) Confirm that all the LED lamps light.<br>3) Press the [START/STOP] button to exit the TEST item and to turn off all the LED. |
| **033 : Red LED On** | Checks whether all the red LED lamps light properly or not.<br>1) Press the [START/STOP] button to start the test.<br>All the red LED lamps are turned on, and "**- -**" is shown on the LCD.<br>2) Confirm that all the red LED lamps light.<br>3) Press the [START/STOP] button to exit the TEST item and to turn off all the red LED. |
| **034 : Green LED On** | Checks whether all the green LED lamps light properly or not.<br>1) Press the [START/STOP] button to start the test.<br>All the green LED lamps are turned on, and "**- -**" is shown on the LCD.<br>2) Confirm that all the green LED lamps light.<br>3) Press the [START/STOP] button to exit the TEST item and to turn off all the green LED. |
| **037 : All LCD On** | Checks whether all the LCD dots are turned on (black) properly or not.<br>1) Press the [START/STOP] button to start the test.<br>2) Check that all the dots of the LCD are turned on (black).<br>3) Press the [START/STOP] button to exit the TEST item. |
| **038 : All LCD Off** | Checks whether all the LCD dots are turned off (white) properly or not.<br>1) Press the [START/STOP] button to start the test.<br>2) Check that all the dots of the LCD are turned off (white).<br>3) Press the [START/STOP] button to exit the TEST item. |
| **040 : LCD Pattern Check** | Checks whether the color pattern of the LCD is shown properly or not.<br>1) Press the [START/STOP] button to start the test.<br>2) Use the TAB [◀][▶] buttons to call up the color patterns.<br>Check whether the following patterns are shown on the LCD properly or not.<br>• RGB<br>• Rainbow<br>• Flicker Noise (horizontal)<br>• Flicker Noise (vertical)<br>3) Press the [START/STOP] button to exit the TEST item. |
| **041 : LCD Backlight Off Check** | Checks whether the LCD backlight is turned ON/OFF properly or not.<br>1) Press the [START/STOP] button to start the test.<br>The LCD backlight is turned off.<br>2) Use the TAB [◀][▶] buttons to turn on/off the LCD Backlight.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **042 : Main Volume Check** | Checks whether the MASTER VOLUME control works properly or not.<br>1) Press the [START/STOP] button. "**Main Volume MIN xx**" is shown on the LCD.<br>2) Rotate the [MASTER VOLUME] control to the minimum position.<br>The value: 0 to 255 is shown on the LCD depending on the [MASTER VOLUME] control position.<br>When the minimum value is detected, "**Main Volume MAX 0**" is shown on the LCD.<br>3) Rotate the [MASTER VOLUME] control to the maximum position.<br>When the maximum value is detected, "**OK 255**" is shown on the LCD.<br>4) Press the [START/STOP] button to exit the TEST item. |

| LCD display | Test items and judging conditions |
|---|---|
| **044 : Pitch Bend Wheel Check** | Checks whether the PITCH BEND wheel control works properly or not.<br>1) Press the [START/STOP] button. "**Pitch Bend Up 128**" is shown on the LCD.<br>2) Roll the [Pitch Bend] wheel upward to the maximum position to produce the G3 beep. "**Pitch Bend Down 255**" is shown on the LCD.<br>3) Roll the [Pitch Bend] wheel downward to the minimum position to produce the C3 beep. "**Pitch Bend Center 0**" is shown on the LCD.<br>4) Release the [Pitch Bend] wheel to the center position to produce the C4 beep. "**OK 128**" is shown on the LCD.<br>5) Press the [START/STOP] button to exit the TEST item. |
| **045 : Modulation Wheel Check** | Checks whether the MODULATION Wheel control works properly or not.<br>1) Press the [START/STOP] button. "**Modulation Up xxx**" is shown on the LCD.<br>2) Roll the [MODULATION] wheel upward to the maximum position to produce the G3 beep. "**Modulation Down 255**" is shown on the LCD.<br>3) Roll the [MODULATION] wheel downward to the minimum position to produce the C4 beep. "**OK**" is shown on the LCD.<br>4) Press the [START/STOP] button to exit the TEST item. |
| **046 : LiveControl Check** | Checks whether the Live Control [1]/[2] knobs work properly or not.<br>1) Press the [START/STOP] button. "**LiveControl 1 MIN (xx)**" is shown on the LCD.<br>2) Rotate the [LIVE CONTROL 1] control to the minimum position. The value: 0 to 255 is shown on the LCD depending on the [LIVE CONTROL 1] control position. When the minimum value is detected, "**LiveControl 1 MAX (0)**" is shown on the LCD.<br>3) Rotate the [LIVE CONTROL 1] control to the maximum position. When the maximum value is detected, "**LiveControl 1 Center (255)**" is shown on the LCD.<br>4) Rotate the [LIVE CONTROL 1] control to the center position. When the center value is detected, "**LiveControl 2 MIN (xx)**" is shown on the LCD.<br>5) Rotate the [LIVE CONTROL 2] control to the minimum position. When the minimum value is detected, "**LiveControl 2 MAX (0)**" is shown on the LCD.<br>6) Rotate the [LIVE CONTROL 2] control to the maximum position. When the maximum value is detected, "**LiveControl 2 Center (255)**" is shown on the LCD.<br>7) Rotate the [LIVE CONTROL 2] control to the center position. When the center value is detected, "**OK**" is shown on the LCD.<br>8) Press the [START/STOP] button to exit the TEST item. |
| **053 : Pedal1 Check** | Checks whether the Foot Pedal plugged into FOOT PEDAL1 jack works properly or not.<br>1) Connect the foot pedal (FC7) to FOOT PEDAL 1 jack.<br>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.<br>3) Press the pedal to the maximum position to produce the C3 sound. "**Pedal1 Up**" is shown on the LCD.<br>4) Press the pedal to the minimum position to produce the G3 sound. "**Pedal1 Out**" is shown on the LCD.<br>5) Disconnect the pedal from the FOOT PEDAL 1 jack to produce the C4 sound. "**OK**" is shown on the LCD.<br>6) Press the [START/STOP] button to exit the TEST item. |

| LCD display | Test items and judging conditions |
|---|---|
| **054 : Pedal2 Check** | Checks whether the Foot Pedal plugged into FOOT PEDAL2 jack works properly or not.<br>1) Connect the foot pedal (FC7) to FOOT PEDAL 2 jack.<br>2) Press the [START/STOP] button to start the test.<br>"**Pedal2 Down**" is shown on the LCD.<br>When the pedal is not detected, "**No Pedal**" is shown on the LCD.<br>3) Press the pedal to the maximum position to produce the C3 sound.<br>"**Pedal2 Up**" is shown on the LCD.<br>4) Press the pedal to the minimum position to produce the G3 sound.<br>"**Pedal2 Out**" is shown on the LCD.<br>5) Disconnect the pedal from the FOOT PEDAL 2 jack to produce the C4 sound.<br>"**OK**" is shown on the LCD.<br>6) Press the [START/STOP] button to exit the TEST item. |
| **056 : MIDI Check** | Checks whether the MIDI terminals work properly or not.<br>1) Connect the single MIDI cable to MIDI IN and OUT terminals.<br>2) Press the [START/STOP] button to start the test.<br>If no problem is found, the C4 sine wave sound is produced for a second and "**OK**" is shown on the LCD. If any problem is found, "**NG**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item.<br>4) Disconnect the MIDI cable from the terminals. |
| **059 : RGB Out Check (PSR-S970 only)** | Checks whether the RGB terminal work properly or not.<br>1) Connect the appropriate display monitor to [RGB] terminal.<br>2) Press the [START/STOP] button to start the test.<br>Confirm that the display monitor displays the RGB color bar code and RGB text.<br>3) Press the [START/STOP] button to exit the TEST item.<br>4) Disconnect the RGB cable from the terminals. |
| **060 : USB to Device/Host Check** | Checks whether the USB [TO DEVICE] and USB [TO HOST] terminals work properly or not.<br>1) Press the [START/STOP] button first. "**Connect Device-Host**" is shown on the LCD.<br>2) Using the USB cable, connect the USB [TO DEVICE] terminal and USB [TO HOST] terminal.<br>Confirm that "**OK**" is shown on the LCD and the C4 sound is produced for a second.<br>3) Press the [START/STOP] button to exit the TEST item.<br>4) Disconnect the USB cable. |
| **061 : USB Storage Device Check** | Checks whether or not the instrument can access the USB memory device connected to the USB [TO DEVICE] terminal.<br>1) Insert the USB flash drive and press the [START/STOP] button.<br>2) Confirm that "**OK**" is shown on the LCD.<br>If no media is inserted, "**NO DISK**" will be displayed.<br>If the media is unformatted, "**UNFORMAT DISK**" will be displayed.<br>If the media is protected, "**PROTECT DISK**" will be displayed.<br>If failed in reading/writing, "**NG**" will be displayed.<br>3) Press the [START/STOP] button to exit the TEST item.<br>4) Disconnect the USB flash memory. |
| **063 : Keyboard Type Check** | Checks whether this instrument can recognize the keyboard type correctly or not.<br>1) Press the [START/STOP] button to start the test.<br>2) Confirm that "**OK (16M)**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **067 : ROM Check2** | Executes the complete check of the ROM. (It will take about 10 seconds.)<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **MAIN PROG ROM (IC＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |

| LCD display | Test items and judging conditions |
|---|---|
| **068 : NAND ROM Check2 (PSR-S970 only)** | Executes the complete check of the NAND ROM. (It will take about 5 minutes.)<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **NAND ROM (IC＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **069 : RAM Check2** | Executes the complete check of the RAM.<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **MAIN SDRAM (IC＊＊＊,＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **070 : Backup ROM Check2** | Executes the complete check of the Backup ROM. (It will take about 1 minute 30 seconds.)<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **BACKUP (IC＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item.<br>***NOTE: The power must not be turned off while testing, because the original data will be re-written at the end of this test.*** |
| **071 : Wave ROM Check2** | Executes the complete check of the Wave ROM. (It will take about 1 minutes 30 seconds.)<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **Wave TG (IC＊＊＊,＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **072 : Wave RAM Check2** | Executes the complete check of the Wave RAM. (It will take about 20 seconds.)<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **Wave RAM (IC＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **073 : Effect RAM Check2** | Executes the complete check of the Effect RAM . (It will take about 30 seconds.)<br>1) Press the [START/STOP] button to start the test.<br>OK: **OK**<br>NG: **Effect 1 TG1 (IC＊＊＊) NG**<br>2) Confirm that "**OK**" is shown on the LCD.<br>3) Press the [START/STOP] button to exit the TEST item. |
| **074 : Panel PCB Check 1** | This test is for the PNC, PNL, and PNR circuit boards only to check whether each panel button with its LED (if available) works properly or not.<br>Refer to the "031: SW, LED Check" for details as the operation is similar.<br>Regarding what note and LED are assigned, refer to the Panel PCB division check 1 on page 52. |
| **075 : Panel PCB Check 2** | This test is for the PNM and PNS circuit boards only to check whether each panel button with its LED (if available) works properly or not.<br>Refer to the "031: SW, LED Check" for details as the operation is similar.<br>Regarding what note and LED are assigned, refer to the Panel PCB division check 2 on page 53. |

| LCD display | Test items and judging conditions |
|---|---|
| **081 : Factory Set** | To initialize all the backup areas to restore factory default.<br>The actual Factory Set has not been executed yet at this timing, but will be executed next time the power is turned on.<br>***Caution:***<br>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 64)<br>1) Press the [START/STOP] button to restore initial data and "**OK**" is shown on the LCD.<br>2) Press the [START/STOP] button to exit from this test.<br>* When the power is turned on next time, "**Force Format Mode**" is shown on the LCD. After restarting, the instrument return to the play mode and the main screen appears.<br>***NOTE: Never turn off the power until the Main display appears. Doing so may cause a malfunction. (It will take about 20 seconds.)*** |
| **083 : Test Exit** | Let's you exit from the Test mode to the normal mode.<br>1) Press the [START/STOP] button. The Test mode will end, then the PSR-S770/PSR-S970 will be restarted.<br>***NOTE: Never turn off the power until the Main display appears. Doing so may cause a malfunction.*** |

# 4. Other Inspections

## 4-1. AUX IN

Take measurement with the Test Program [028: 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 \ OUTPUT | PHONES (33 Ω load) | |
|---|---|---|
| | L | R |
| AUX IN L: Sine wave (1 kHz, 0 dBu)<br>AUX IN R: No input | +1.6 ± 2 dBu | -56.0 dBu or less |
| AUX IN L: No input<br>AUX IN R: Sine wave (1 kHz, 0 dBu) | -56.0 dBu or less | +1.6 ± 2 dBu |

## 4-2. Noise Level Check

1) Do not connect anything to the [AUX IN] and [MIC/GUITAR INPUT] jacks.
2) Connect the level meter (using the JIS-C fi lter) to the L/R [PHONES] and L/R [OUTPUT] jacks.
3) Turn the master volume to the maximum position.
4) Measure the output voltage and confirm that the measured values are within specification as follows:

<PHONES>
L: -90.0 dBu or less
R: -90.0 dBu or less

<OUTPUT>
L: -90.0 dBu or less
R: -90.0 dBu oe less

## 4-3. MIC/GUITAR INPUT

1) Take measurement with the Test Program [030: MIC Check] selected.
2) Do not connect anything to the [AUX IN] jack.
3) Connect the level meter (using the JIS-C filter) to the L/R [PHONES]. (33 ohms load)
4) Turn the master volume to the maximum position.
5) Set the [MIC GUITAR] switch to “GUITAR” and set the [GAIN] knob to the maximum posision.
6) Apply a 1kHz sine wave -30dBu to the [MIC/GUITAR INPUT] jack via a 100kΩ resistor.
7) Measure the output voltage and confirm that the measured values are within specification as follows:

<PHONES>
L: +0.9 ± 3 dBu
R: +0.9 ± 3 dBu

8) Set the [MIC GUITAR] switch to “MIC.”
9) Measure the output voltage and confirm that the measured values are within specification as follows:

<PHONES>
L: –15.6 ± 3 dBu
R: –15.6 ± 3 dBu

10) Set the [GAIN] knob to the minimum posision.
11) Measure the output voltage and confirm that the measured values are within specification as follows:

<PHONES>
L: –49.1 ± 3 dBu
R: –49.1 ± 3 dBu

## ● Switch Test Sequence

| Turn | SW Name/Display | LED made to turn on | Note No. |
|---|---|---|---|
| 1 | SELECT | - | C2 |
| 2 | SCORE | - | C#2 |
| 3 | LYRICS/TEXT | - | D2 |
| 4 | GUIDE | GUIDE | D#2 |
| 5 | REPEAT | REPEAT | E2 |
| 6 | EXTRA TR | EXTRA TR (RED, GREEN) | F2 |
| 7 | TR 2 | TR2 LEFT (RED, GREEN) | F#2 |
| 8 | TR 1 | TR1 RIGHT (RED, GREEN) | G2 |
| 9 | REC | REC | G#2 |
| 10 | STOP | - | A2 |
| 11 | PLAY/PAUSE | PLAY/PAUSE (RED, GREEN) | A#2 |
| 12 | REW | - | B2 |
| 13 | FF | - | C3 |
| 14 | POP & ROCK | POP & ROCK | C#3 |
| 15 | SWING & JAZZ | SWING & JAZZ | D3 |
| 16 | LATIN | LATIN | D#3 |
| 17 | ENTERTAINER | ENTERTAINER | E3 |
| 18 | BALLAD | BALLAD | F3 |
| 19 | R & B | R & B | F#3 |
| 20 | BALLROOM | BALLROOM | G3 |
| 21 | WORLD | WORLD | G#3 |
| 22 | DEMO | - | A3 |
| 23 | DANCE | DANCE | A#3 |
| 24 | COUNTRY | COUNTRY | B3 |
| 25 | MOVIE & SHOW | MOVIE & SHOW | C4 |
| 26 | EXPANSION USER | EXPANSION USER | C#4 |
| 27 | MIC SETTING (PSR-S770) | MIC SETTING (RED, GREEN) | D4 |
| | MIC SET & VOC HARM (PSR-S970) | MIC SET & VOC HARM (RED, GREEN) | |
| 28 | TEMPO - | - | D#4 |
| 29 | TEMPO + | - | E4 |
| 30 | TAP TEMPO | - | F4 |
| 31 | TRANSPOSE - | - | F#4 |
| 32 | TRANSPOSE + | - | G4 |
| 33 | METRONOME | METRONOME | G#4 |
| 34 | ASSIGN | - | A4 |
| 35 | ACMP | ACMP | A#4 |
| 36 | FADE IN/OUT | FADE IN/OUT | B4 |
| 37 | OTS LINK | OTS LINK | C5 |
| 38 | AUTO FILL IN | AUTO FILL IN | C#5 |
| 39 | INTRO I | INTRO 1 (RED, GREEN) | D5 |
| 40 | INTRO II | INTRO 2 (RED, GREEN) | D#5 |
| 41 | INTRO III | INTRO 3 (RED, GREEN) | E5 |
| 42 | MAIN A | MAIN A (RED, GREEN) | F5 |
| 43 | MAIN B | MAIN B (RED, GREEN) | F#5 |
| 44 | MAIN C | MAIN C (RED, GREEN) | G5 |
| 45 | MAIN D | MAIN D (RED, GREEN) | G#5 |
| 46 | BREAK | BREAK (RED, GREEN) | A5 |
| 47 | ENDING/rit. I | ENDING/rit. 1 (RED, GREEN) | A#5 |
| 48 | ENDING/rit. II | ENDING/rit. 2 (RED, GREEN) | B5 |
| 49 | ENDING/rit. III | ENDING/rit. 3 (RED, GREEN) | C2 |
| 50 | SYNC STOP | SYNC STOP | C#2 |
| 51 | SYNC START | SYNC START | D2 |
| 52 | START/STOP | START/STOP (RED, GREEN) | D#2 |
| 53 | A | - | E2 |
| 54 | B | - | F2 |
| 55 | C | - | F#2 |
| 56 | D | - | G2 |
| 57 | E | - | G#2 |
| 58 | BALANCE | - | A2 |
| 59 | MIXING CONSOLE | - | A#2 |
| 60 | CHANNEL ON/OFF | - | B2 |
| 61 | DIRECT ACCESS | - | C3 |
| 62 | TAB < | - | C#3 |
| 63 | TAB > | - | D3 |
| 64 | F | - | D#3 |
| 65 | G | - | E3 |
| 66 | H | - | F3 |
| 67 | I | - | F#3 |
| 68 | J | - | G3 |
| 69 | FUNCTION | - | G#3 |
| 70 | 1-U | - | A3 |
| 71 | 2-U | - | A#3 |
| 72 | 3-U | - | B3 |
| 73 | 4-U | - | C4 |
| 74 | 5-U | - | C#4 |
| 75 | 6-U | - | D4 |
| 76 | 7-U | - | D#4 |
| 77 | 8-U | - | E4 |
| 78 | 1-L | - | F4 |
| 79 | 2-L | - | F#4 |
| 80 | 3-L | - | G4 |
| 81 | 4-L | - | G#4 |
| 82 | 5-L | - | A4 |
| 83 | 6-L | - | A#4 |
| 84 | 7-L | - | B4 |
| 85 | 8-L | - | C5 |
| 86 | EXIT | | C#5 |
| 87 | USB AUDIO PLAYER | - | D5 |
| 88 | USB | USB | D#5 |
| 89 | PIANO | PIANO | E5 |
| 90 | GUITAR | GUITAR | F5 |
| 91 | STRINGS | STRINGS | F#5 |
| 92 | CHOIR & PAD | CHOIR & PAD | G5 |
| 93 | DRUM KIT | DRUM KIT | G#5 |
| 94 | E.PIANO | E.PIANO | A5 |
| 95 | BASS | BASS | A#5 |
| 96 | BRASS | BRASS | B5 |
| 97 | SYNTH | SYNTH | C2 |
| 98 | ORGAN FLUTES | ORGAN FLUTES | C#2 |
| 99 | ORGAN | ORGAN | D2 |
| 100 | ACCORDION | ACCORDION | D#2 |
| 101 | WOODWIND | WOODWIND | E2 |
| 102 | PERCUSSION | PERCUSSION | F2 |
| 103 | EXPANSION USER | EXPANSION USER | F#2 |
| 104 | HARMONY / ARPEGGIO | HARMONY / ARPEGGIO | G2 |
| 105 | TOUCH | TOUCH | G#2 |
| 106 | SUSTAIN | SUSTAIN | A2 |
| 107 | MONO | MONO | A#2 |
| 108 | DSP | DSP | B2 |
| 109 | VARI. | VARI. | C3 |
| 110 | MUSIC FINDER | - | C#3 |
| 111 | PART SELECT LEFT | PART SELECT LEFT | D3 |
| 112 | PART SELECT RIGHT1 | PART SELECT RIGHT1 | D#3 |
| 113 | PART SELECT RIGHT2 | PART SELECT RIGHT2 | E3 |
| 114 | ENTER | - | F3 |
| 115 | LEFT HOLD | LEFT HOLD | F#3 |
| 116 | PART ON/OFF LEFT | PART ON/OFF LEFT | G3 |
| 117 | PART ON/OFF RIGHT1 | PART ON/OFF RIGHT1 | G#3 |
| 118 | PART ON/OFF RIGHT2 | PART ON/OFF RIGHT2 | A3 |
| 119 | REGIST BANK - | - | A#3 |
| 120 | REGIST BANK + | - | B3 |
| 121 | FREEZE | - | C4 |
| 122 | MEMORY | - | C#4 |
| 123 | REGIST. MEMORY 1 | REGIST. MEMORY 1 (RED, GREEN) | D4 |
| 124 | REGIST. MEMORY 2 | REGIST. MEMORY 2 (RED, GREEN) | D#4 |

| Turn | SW Name/Display | LED made to turn on | Note No. |
|---|---|---|---|
| 125 | REGIST. MEMORY 3 | REGIST. MEMORY 3 (RED, GREEN) | E4 |
| 126 | REGIST. MEMORY 4 | REGIST. MEMORY 4 (RED, GREEN) | F4 |
| 127 | REGIST. MEMORY 5 | REGIST. MEMORY 5 (RED, GREEN) | F#4 |
| 128 | REGIST. MEMORY 6 | REGIST. MEMORY 6 (RED, GREEN) | G4 |
| 129 | REGIST. MEMORY 7 | REGIST. MEMORY 7 (RED, GREEN) | G#4 |
| 130 | REGIST. MEMORY 8 | REGIST. MEMORY 8 (RED, GREEN) | A4 |
| 131 | M.PAD SELECT | - | A#4 |
| 132 | M.PAD 1 | M.PAD 1 (RED, GREEN) | B4 |
| 133 | M.PAD 2 | M.PAD 2 (RED, GREEN) | C5 |
| 134 | M.PAD 3 | M.PAD 3 (RED, GREEN) | C#5 |
| 135 | M.PAD 4 | M.PAD 4 (RED, GREEN) | D5 |
| 136 | M.PAD STOP | - | D#5 |
| 137 | OTS 1 | OTS 1 (RED, GREEN) | E5 |
| 138 | OTS 2 | OTS 2 (RED, GREEN) | F5 |
| 139 | OTS 3 | OTS 3 (RED, GREEN) | F#5 |
| 140 | OTS 4 | OTS 4 (RED, GREEN) | G5 |
| 141 | UPPER OCTAVE - | - | G#5 |
| 142 | UPPER OCTAVE + | - | A5 |

## ● Panel PCB division check 1 (PNC, PNL and PNR circuit boards)

| Turn | SW Name/Display | LED made to turn on | Note No. |
|---|---|---|---|
| 1 | REGIST. MEMORY 8 | REGIST. MEMORY 8 (RED, GREEN) | G#4 |
| 2 | REGIST. MEMORY 7 | REGIST. MEMORY 7 (RED, GREEN) | G4 |
| 3 | REGIST. MEMORY 6 | REGIST. MEMORY 6 (RED, GREEN) | F#4 |
| 4 | REGIST. MEMORY 5 | REGIST. MEMORY 5 (RED, GREEN) | F4 |
| 5 | REGIST. MEMORY 4 | REGIST. MEMORY 4 (RED, GREEN) | E4 |
| 6 | REGIST. MEMORY 3 | REGIST. MEMORY 3 (RED, GREEN) | D#4 |
| 7 | REGIST. MEMORY 2 | REGIST. MEMORY 2 (RED, GREEN) | D4 |
| 8 | REGIST. MEMORY 1 | REGIST. MEMORY 1 (RED, GREEN) | C#4 |
| 9 | MEMORY | - | C4 |
| 10 | FREEZE | - | B3 |
| 11 | REGIST BANK + | - | A#3 |
| 12 | REGIST BANK - | - | A3 |
| 13 | START/STOP | START/STOP (RED, GREEN) | D2 |
| 14 | SYNC START | SYNC START | C#2 |
| 15 | SYNC STOP | SYNC STOP | C2 |
| 16 | ENDING/rit. III | ENDING/rit. 3 (RED, GREEN) | B5 |
| 17 | ENDING/rit. II | ENDING/rit. 2 (RED, GREEN) | A#5 |
| 18 | ENDING/rit. I | ENDING/rit. 1 (RED, GREEN) | A5 |
| 19 | BREAK | BREAK (RED, GREEN) | G#5 |
| 20 | MAIN D | MAIN D (RED, GREEN) | G5 |
| 21 | MAIN C | MAIN C (RED, GREEN) | F#5 |
| 22 | MAIN B | MAIN B (RED, GREEN) | F5 |
| 23 | MAIN A | MAIN A (RED, GREEN) | E5 |
| 24 | INTRO III | INTRO 3 (RED, GREEN) | D#5 |
| 25 | INTRO II | INTRO 2 (RED, GREEN) | D5 |
| 26 | INTRO I | INTRO 1 (RED, GREEN) | C#5 |
| 27 | AUTO FILL IN | AUTO FILL IN | C5 |
| 28 | OTS LINK | OTS LINK | B4 |
| 29 | FADE IN/OUT | FADE IN/OUT | A#4 |
| 30 | ACMP | ACMP | A4 |
| 31 | UPPER OCTAVE + | - | G#5 |
| 32 | UPPER OCTAVE - | - | G5 |
| 33 | OTS 4 | OTS 4 (RED, GREEN) | F#5 |
| 34 | OTS 3 | OTS 3 (RED, GREEN) | F5 |
| 35 | OTS 2 | OTS 2 (RED, GREEN) | E5 |
| 36 | OTS 1 | OTS 1 (RED, GREEN) | D#5 |
| 37 | M.PAD STOP | - | D5 |
| 38 | M.PAD 4 | M.PAD 4 (RED, GREEN) | C#5 |
| 39 | M.PAD 3 | M.PAD 3 (RED, GREEN) | C5 |
| 40 | M.PAD 2 | M.PAD 2 (RED, GREEN) | B4 |
| 41 | M.PAD 1 | M.PAD 1 (RED, GREEN) | A#4 |
| 42 | M.PAD SELECT | - | A4 |

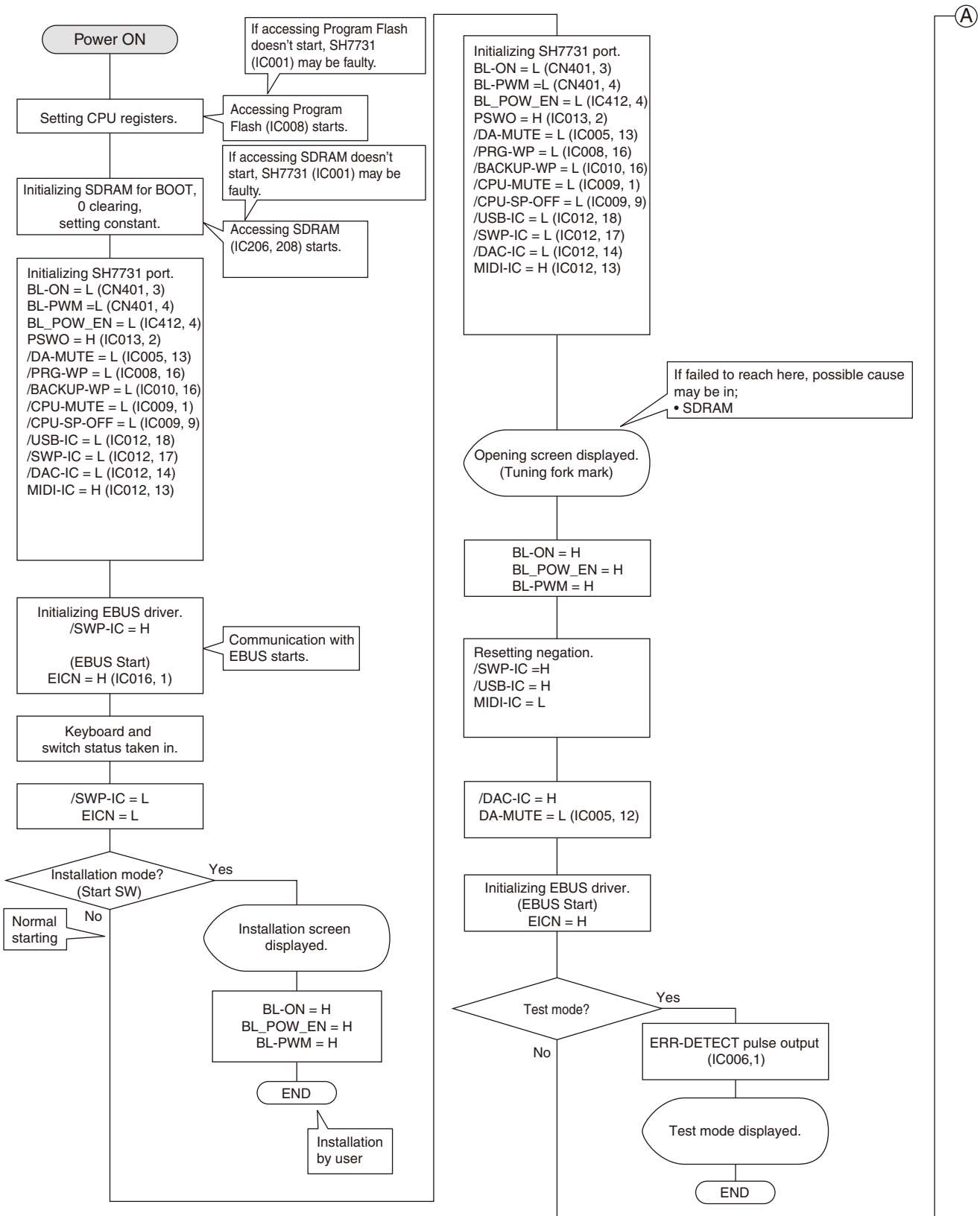
## ● Panel PCB division check 2 (PNM and PNS circuit boards)

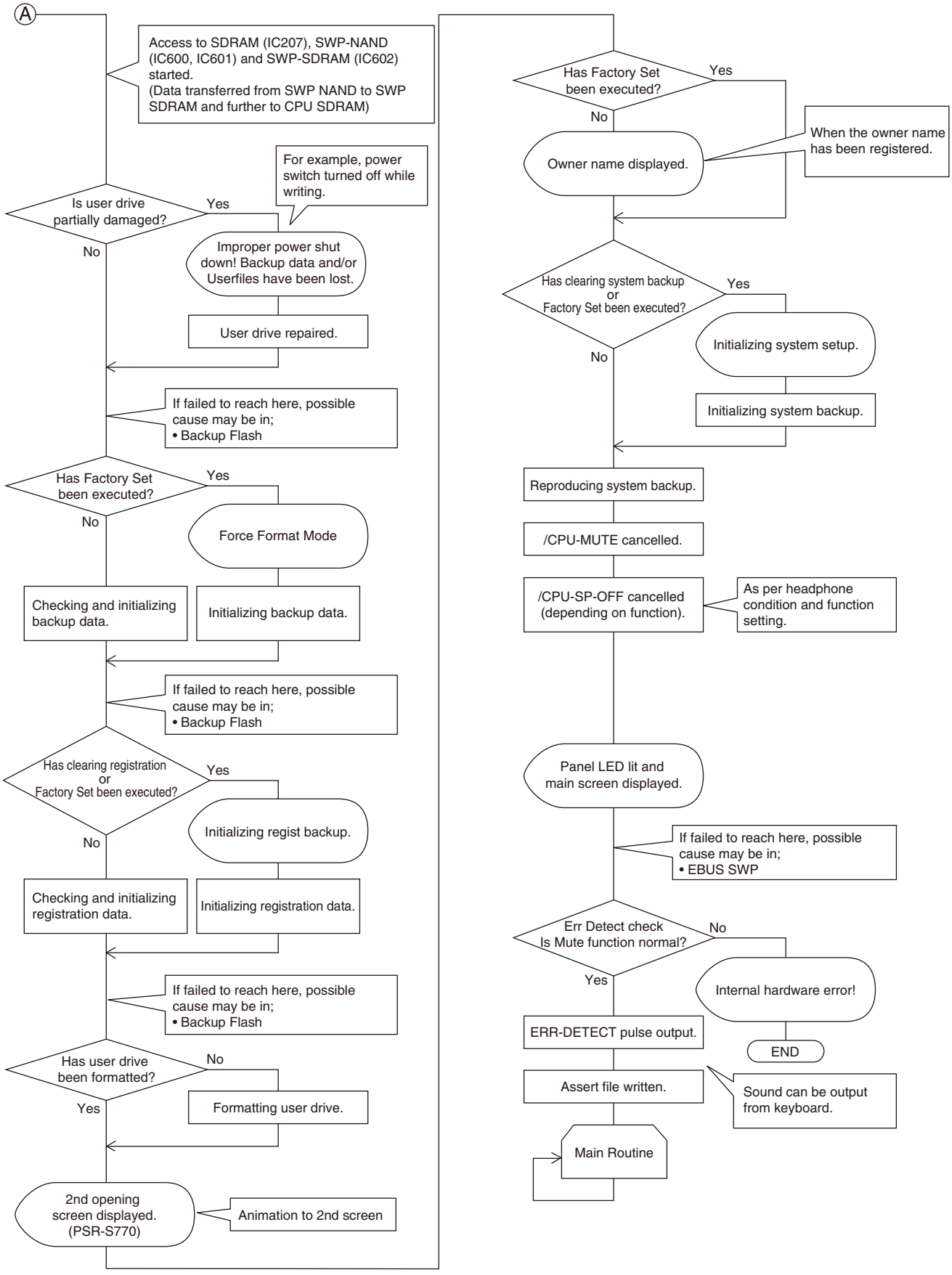
| Turn | SW Name/Display | LED made to turn on | Note No. |
|---|---|---|---|
| 1 | SELECT | - | C2 |
| 2 | SCORE | - | C#2 |
| 3 | LYRICS/TEXT | - | D2 |
| 4 | GUIDE | GUIDE | D#2 |
| 5 | REPEAT | REPEAT | E2 |
| 6 | EXTRA TR | EXTRA TR (RED, GREEN) | F2 |
| 7 | TR 2 | TR2 LEFT (RED, GREEN) | F#2 |
| 8 | TR 1 | TR1 RIGHT (RED, GREEN) | G2 |
| 9 | REC | REC | G#2 |
| 10 | STOP | - | A2 |
| 11 | PLAY/PAUSE | PLAY/PAUSE (RED, GREEN) | A#2 |
| 12 | REW | - | B2 |
| 13 | FF | - | C3 |
| 14 | POP & ROCK | POP & ROCK | C#3 |
| 15 | SWING & JAZZ | SWING & JAZZ | D3 |
| 16 | LATIN | LATIN | D#3 |
| 17 | ENTERTAINER | ENTERTAINER | E3 |
| 18 | BALLAD | BALLAD | F3 |
| 19 | R & B | R & B | F#3 |
| 20 | BALLROOM | BALLROOM | G3 |
| 21 | WORLD | WORLD | G#3 |
| 22 | DEMO | - | A3 |
| 23 | DANCE | DANCE | A#3 |
| 24 | COUNTRY | COUNTRY | B3 |
| 25 | MOVIE & SHOW | MOVIE & SHOW | C4 |
| 26 | EXPANSION USER | EXPANSION USER | C#4 |
| 27 | MIC SETTING (PSR-S770) | MIC SETTING (RED, GREEN) | D4 |
| | MIC SET & VOC HARM (PSR-S970) | MIC SET & VOC HARM (RED, GREEN) | |
| 28 | TEMPO - | - | D#4 |
| 29 | TEMPO + | - | E4 |
| 30 | TAP TEMPO | - | F4 |
| 31 | TRANSPOSE - | - | F#4 |
| 32 | TRANSPOSE + | - | G4 |
| 33 | METRONOME | METRONOME | G#4 |
| 34 | A | - | D#2 |
| 35 | B | - | E2 |
| 36 | C | - | F2 |
| 37 | D | - | F#2 |
| 38 | E | - | G2 |
| 39 | BALANCE | - | G#2 |
| 40 | MIXING CONSOLE | - | A2 |
| 41 | CHANNEL ON/OFF | - | A#2 |
| 42 | DIRECT ACCESS | - | B2 |
| 43 | 1-U | - | G#3 |
| 44 | 2-U | - | A3 |
| 45 | 3-U | - | A#3 |
| 46 | 4-U | - | B3 |
| 47 | 5-U | - | C4 |
| 48 | 6-U | - | C#4 |
| 49 | 7-U | - | D4 |
| 50 | 8-U | - | D#4 |
| 51 | 1-L | - | E4 |
| 52 | 2-L | - | F4 |
| 53 | 3-L | - | F#4 |
| 54 | 4-L | - | G4 |
| 55 | 5-L | - | G#4 |
| 56 | 6-L | - | A4 |
| 57 | 7-L | - | A#4 |
| 58 | 8-L | - | B4 |
| 59 | EXIT | - | C5 |
| 60 | TAB < | - | C3 |
| 61 | TAB > | - | C#3 |
| 62 | F | - | D3 |
| 63 | G | - | D#3 |
| 64 | H | - | E3 |
| 65 | I | - | F3 |
| 66 | J | - | F#3 |
| 67 | FUNCTION | - | G3 |
| 68 | USB AUDIO PLAYER | - | C#5 |
| 69 | USB | USB | D5 |
| 70 | PIANO | PIANO | D#5 |
| 71 | GUITAR | GUITAR | E5 |
| 72 | STRINGS | STRINGS | F5 |
| 73 | CHOIR & PAD | CHOIR & PAD | F#5 |
| 74 | DRUM KIT | DRUM KIT | G5 |
| 75 | E.PIANO | E.PIANO | G#5 |
| 76 | BASS | BASS | A5 |
| 77 | BRASS | BRASS | A#5 |
| 78 | SYNTH | SYNTH | B5 |
| 79 | ORGAN FLUTES | ORGAN FLUTES | C2 |
| 80 | ORGAN | ORGAN | C#2 |
| 81 | ACCORDION | ACCORDION | D2 |
| 82 | WOODWIND | WOODWIND | D#2 |
| 83 | PERCUSSION | PERCUSSION | E2 |
| 84 | EXPANSION USER | EXPANSION USER | F2 |
| 85 | HARMONY / ARPEGGIO | HARMONY / ARPEGGIO | F#2 |
| 86 | TOUCH | TOUCH | G2 |
| 87 | SUSTAIN | SUSTAIN | G#2 |
| 88 | MONO | MONO | A2 |
| 89 | DSP | DSP | A#2 |
| 90 | VARI. | VARI. | B2 |
| 91 | MUSIC FINDER | - | C3 |
| 92 | PART SELECT LEFT | PART SELECT LEFT | C#3 |
| 93 | PART SELECT RIGHT1 | PART SELECT RIGHT1 | D3 |
| 94 | PART SELECT RIGHT2 | PART SELECT RIGHT2 | D#3 |
| 95 | ENTER | - | E3 |
| 96 | LEFT HOLD | LEFT HOLD | F3 |
| 97 | PART ON/OFF LEFT | PART ON/OFF LEFT | F#3 |
| 98 | PART ON/OFF RIGHT1 | PART ON/OFF RIGHT1 | G3 |
| 99 | PART ON/OFF RIGHT2 | PART ON/OFF RIGHT2 | G#3 |
| 100 | ASSIGN | - | A3 |

# ■ INITIAL SETTING

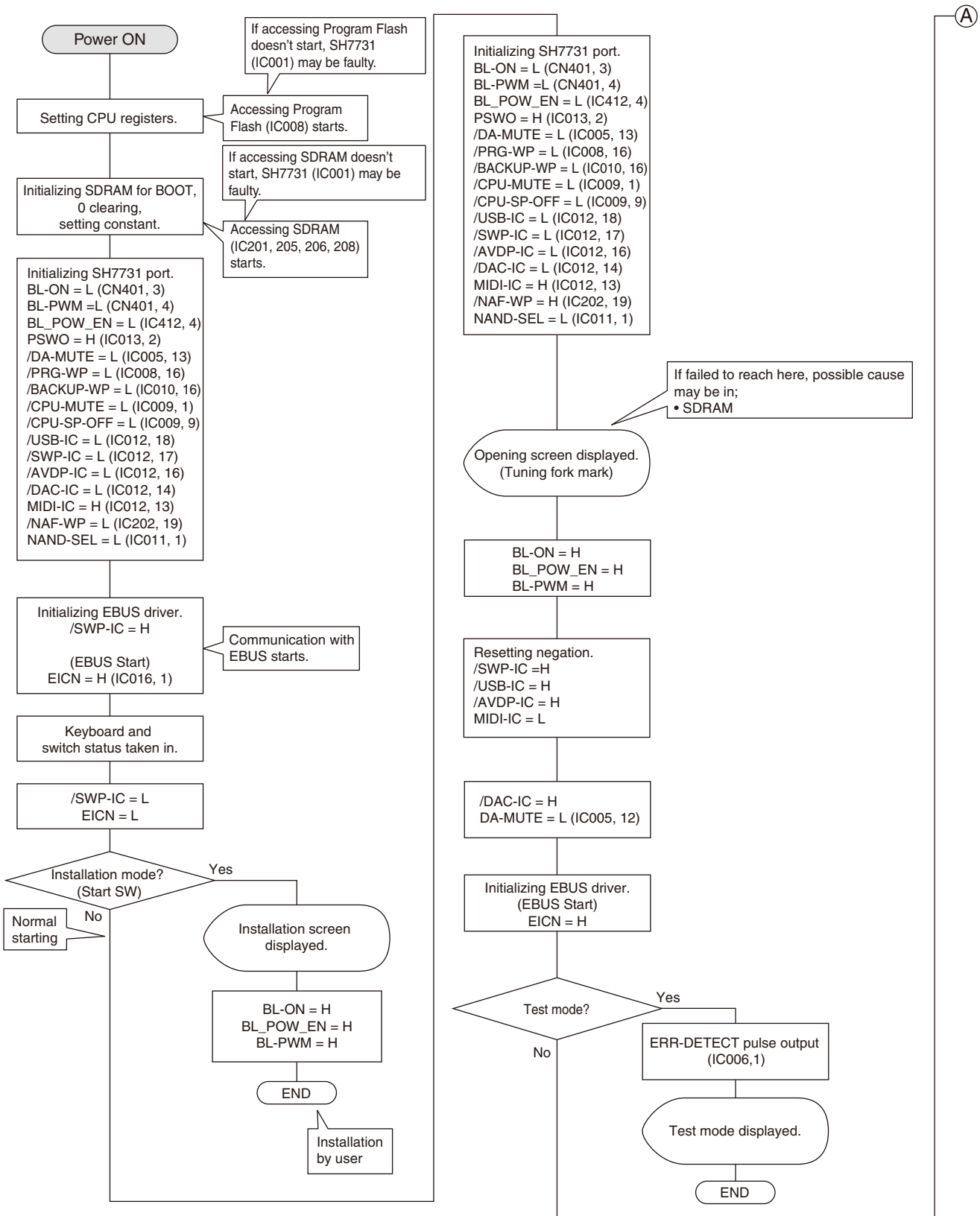
- [MASTER VOLUME] dial: MIN
- LIVE CONTROL 1, 2 knobs: CENTER
- [MODULATION] wheel: MIN
- [GAIN]: MIN
- [MIC/GUITAR]: MIC

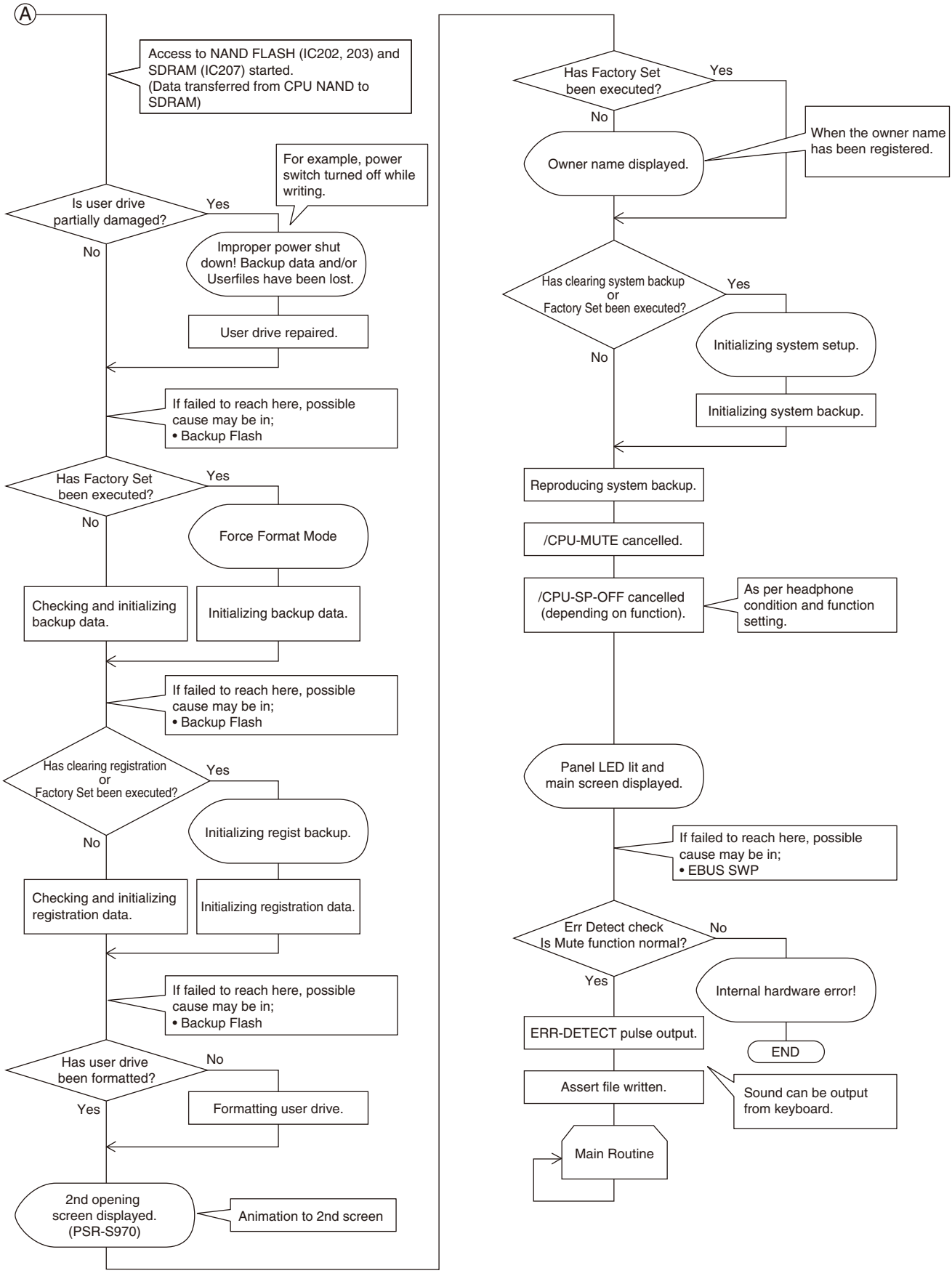
# ■ PSR-S770 SYSTEM BOOTING FLOWCHART




A
Access to SDRAM (IC207), SWP-NAND (IC600, IC601) and SWP-SDRAM (IC602) started.
(Data transferred from SWP NAND to SWP SDRAM and further to CPU SDRAM)
Is user drive partially damaged?
Yes
No
For example, power switch turned off while writing.
Improper power shut down! Backup data and/or Userfiles have been lost.
User drive repaired.
If failed to reach here, possible cause may be in;
• Backup Flash
Has Factory Set been executed?
Yes
No
Force Format Mode
Checking and initializing backup data.
Initializing backup data.
If failed to reach here, possible cause may be in;
• Backup Flash
Has clearing registration or Factory Set been executed?
Yes
No
Initializing regist backup.
Checking and initializing registration data.
Initializing registration data.
If failed to reach here, possible cause may be in;
• Backup Flash
Has user drive been formatted?
No
Yes
Formatting user drive.
2nd opening screen displayed. (PSR-S770)
Animation to 2nd screen
Has Factory Set been executed?
Yes
No
When the owner name has been registered.
Owner name displayed.
Has clearing system backup or Factory Set been executed?
Yes
No
Initializing system setup.
Initializing system backup.
Reproducing system backup.
/CPU-MUTE cancelled.
/CPU-SP-OFF cancelled (depending on function).
As per headphone condition and function setting.
Panel LED lit and main screen displayed.
If failed to reach here, possible cause may be in;
• EBUS SWP
Err Detect check Is Mute function normal?
No
Yes
Internal hardware error!
END
ERR-DETECT pulse output.
Assert file written.
Sound can be output from keyboard.
Main Routine

# ■ PSR-S970 SYSTEM BOOTING FLOWCHART




A
Access to NAND FLASH (IC202, 203) and SDRAM (IC207) started. (Data transferred from CPU NAND to SDRAM)
Is user drive partially damaged?
Yes
No
For example, power switch turned off while writing.
Improper power shut down! Backup data and/or Userfiles have been lost.
User drive repaired.
If failed to reach here, possible cause may be in; • Backup Flash
Has Factory Set been executed?
Yes
No
Force Format Mode
Checking and initializing backup data.
Initializing backup data.
If failed to reach here, possible cause may be in; • Backup Flash
Has clearing registration or Factory Set been executed?
Yes
No
Initializing regist backup.
Checking and initializing registration data.
Initializing registration data.
If failed to reach here, possible cause may be in; • Backup Flash
Has user drive been formatted?
No
Yes
Formatting user drive.
2nd opening screen displayed. (PSR-S970)
Animation to 2nd screen
Has Factory Set been executed?
Yes
No
When the owner name has been registered.
Owner name displayed.
Has clearing system backup or Factory Set been executed?
Yes
No
Initializing system setup.
Initializing system backup.
Reproducing system backup.
/CPU-MUTE cancelled.
/CPU-SP-OFF cancelled (depending on function).
As per headphone condition and function setting.
Panel LED lit and main screen displayed.
If failed to reach here, possible cause may be in; • EBUS SWP
Err Detect check Is Mute function normal?
No
Yes
Internal hardware error!
END
ERR-DETECT pulse output.
Assert file written.
Sound can be output from keyboard.
Main Routine

# ■ PSR-S770 DMM CIRCUIT BOARD CHECK METHOD

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

## Symptoms and check items

(1) No LCD display with Power SW ON --> Check items ① to ⑦ sequentially.
(2) No sound or distorted sound --> Check items ① , ⑧ to ⑬ sequentially and OUTPUT check items.

### Test Point

| NO. | Test Point | Circuit | Judgment criteria | Measured by | Parts with possible defects |
|---|---|---|---|---|---|
| ① | PV | Power supply for Power amplifier IC | More than 14.0V | Multimeter | TH100 or FT100 (On AJACK circuit board) |
| ② | 16V | Power supply for digital circuit | More than 14.0V | Multimeter | TH100 or FT100 (On AJACK circuit board) |
| ③ | +5D | 5V power for digital circuit | 5.0V±0.5V | Multimeter | IC810 |
| ④ | +3.3D | 3.3V power for digital circuit | 3.3V±0.3V | Multimeter | IC810 |
| ⑤ | +1.3D | 1.3V power for CPU | 1.3V±0.1V | Multimeter | IC209 |
| ⑥ | +1.0D | 1.0V power for TG | 1.0V±0.1V | Multimeter | IC606 |
| ⑦ | RESET | CPU & memory reset signal | 3.3V±0.3V | Multimeter | IC004 |
| ⑧ | 12A | 12V power for analog circuit | 12V±1V | Multimeter | IC100 (On AJACK circuit board) |
| ⑨ | 5A | 5V power for analog circuit | 5.0V±0.5V | Multimeter | IC811 |
| ⑩ | OUTL | AUX output L channel | There shall be audio output without distortion. | Signal Checker | IC801 or IC807 |
| ⑪ | OUTR | AUX output R channel | There shall be audio output without distortion. | Signal Checker | IC801 or IC807 |
| ⑫ | HPL | HP output L channel | There shall be audio output without distortion. | Signal Checker | IC800 or IC807 |
| ⑬ | HPR | HP output R channel | There shall be audio output without distortion. | Signal Checker | IC800 or IC807 |

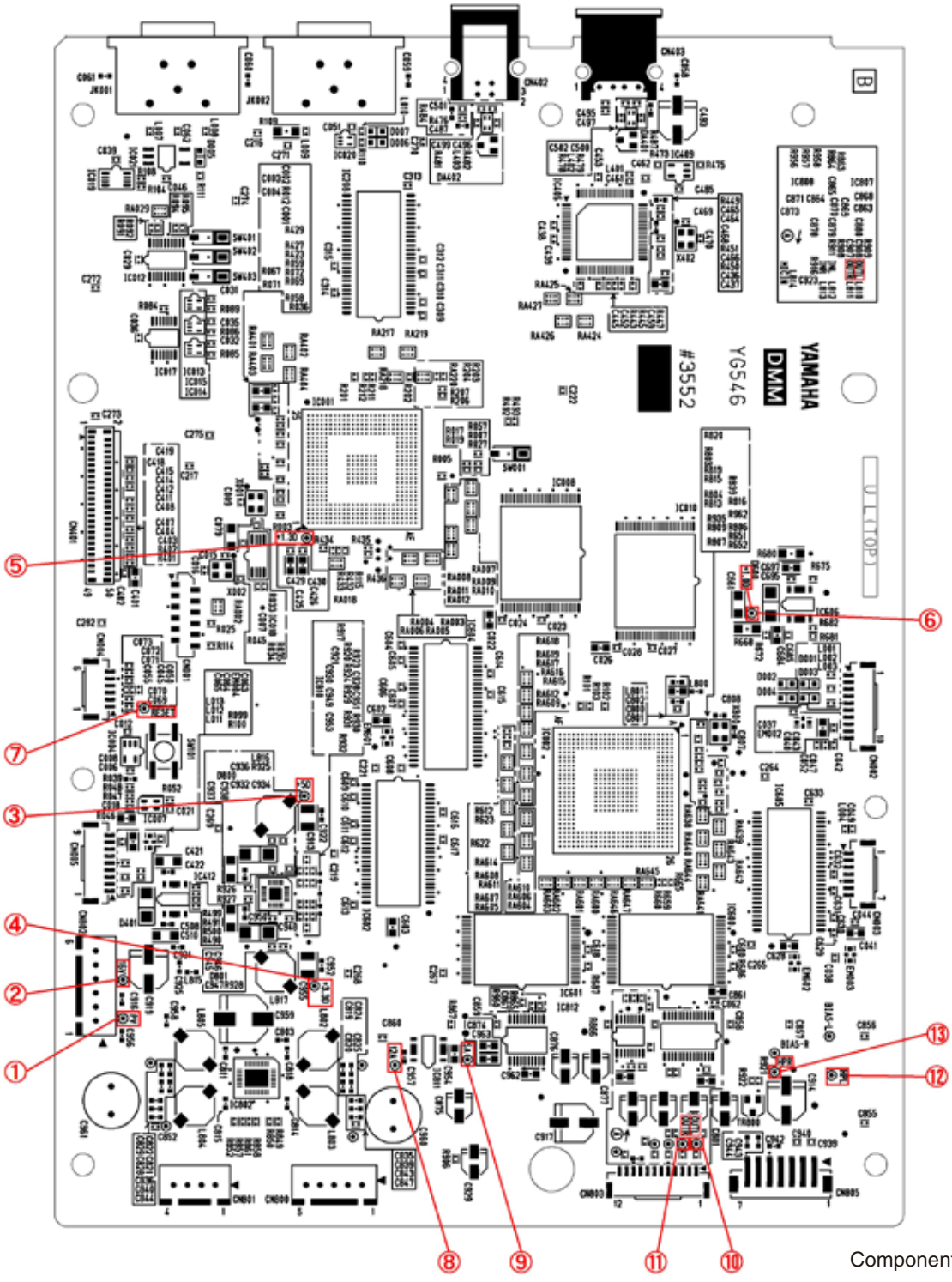
Note1: Use the standard AC adapter PA-300C for check operation.

### Output states

| NO. | SPEAKER | PHONES | OUTPUT | Parts with possible defects |
|---|---|---|---|---|
| 1 | × | × | × | IC001, IC002, IC007 or CPU Error Detect Circuit |
| 2 | × | ○ | ○ | IC802, SP-/MUTE Signal or HP JACK |
| 3 | ○ | × | × | IC807 or IC805 |
| 4 | ○ | × | ○ | IC800, TR800 or RY200 (On HP circuit board) |
| 5 | ○ | ○ | × | IC801 or TR103-TR106 (On AJACK circuit board) |

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

### DMM Circuit Board (ZN123800)




Component side

# ■ PSR-S970 DMH CIRCUIT BOARD CHECK METHOD

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

## Symptoms and check items

(1) No LCD display with Power SW ON --> Check items ① to ⑦ sequentially.
(2) No sound or distorted sound --> Check items ① , ⑧ to ⑬ sequentially and OUTPUT check items.

### Test Point

| NO. | Test Point | Circuit | Judgment criteria | Measured by | Parts with possible defects |
|---|---|---|---|---|---|
| ① | PV | Power supply for Power amplifier IC | More than 14.0V | Multimeter | TH100 or FT100 (On AJACK circuit board) |
| ② | 16V | Power supply for digital circuit | More than 14.0V | Multimeter | TH100 or FT100 (On AJACK circuit board) |
| ③ | +5D | 5V power for digital circuit | 5.0V±0.5V | Multimeter | IC810 |
| ④ | +3.3D | 3.3V power for digital circuit | 3.3V±0.3V | Multimeter | IC810 |
| ⑤ | +1.3D | 1.3V power for CPU | 1.3V±0.1V | Multimeter | IC209 |
| ⑥ | +1.0D | 1.0V power for TG | 1.0V±0.1V | Multimeter | IC606 |
| ⑦ | RESET | CPU & memory reset signal | 3.3V±0.3V | Multimeter | IC004 |
| ⑧ | 12A | 12V power for analog circuit | 12V±1V | Multimeter | IC100 (On AJACK circuit board) |
| ⑨ | 5A | 5V power for analog circuit | 5.0V±0.5V | Multimeter | IC811 |
| ⑩ | OUTL | AUX output L channel | There shall be audio output without distortion. | Signal Checker | IC801 or IC807 |
| ⑪ | OUTR | AUX output R channel | There shall be audio output without distortion. | Signal Checker | IC801 or IC807 |
| ⑫ | HPL | HP output L channel | There shall be audio output without distortion. | Signal Checker | IC800 or IC807 |
| ⑬ | HPR | HP output R channel | There shall be audio output without distortion. | Signal Checker | IC800 or IC807 |

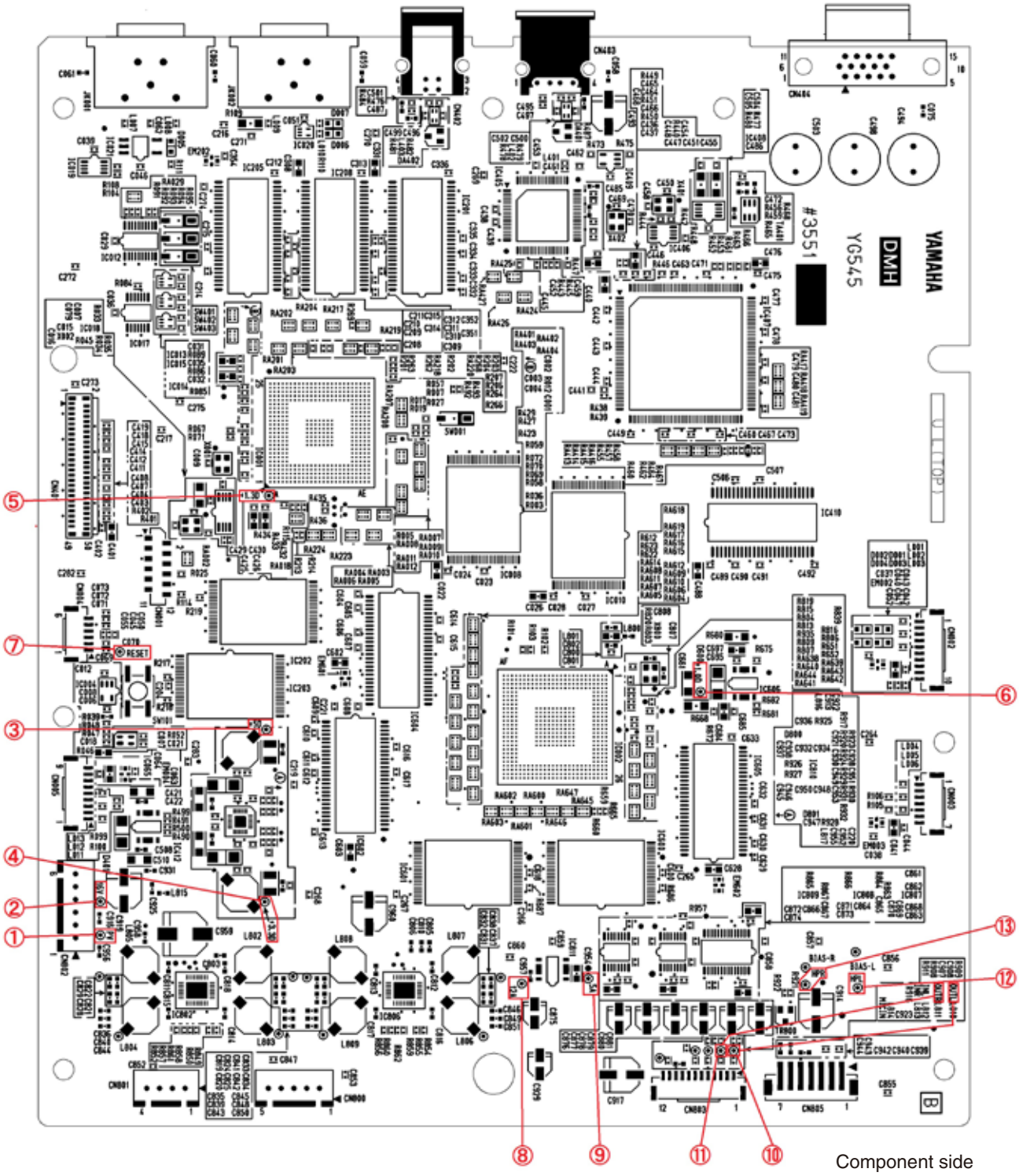
Note1: Use the standard AC adapter PA-300C for check operation.

### Output states

| NO. | Tweeter | Woofer | PHONES | OUTPUT | Parts with possible defects |
|---|---|---|---|---|---|
| 1 | × | × | × | × | IC001, IC002, IC007 or Error Detect Circuit |
| 2 | × | × | ○ | ○ | IC001, SP-/MUTE Signal or HP JACK |
| 3 | ○ | × | ○ | ○ | IC802 |
| 4 | × | ○ | ○ | ○ | IC806 |
| 5 | ○ | ○ | × | × | IC807 or IC805 |
| 6 | ○ | ○ | × | ○ | IC800, TR800 or RY200 (On HP circuit board) |
| 7 | ○ | ○ | ○ | × | IC801 or TR103-TR106 (On AJACK circuit board) |

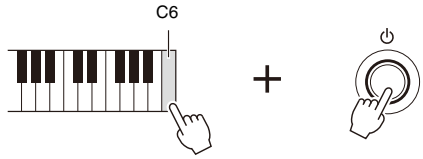
Note: " ○ " mark expresses normalcy and " × " mark expresses a failed state.

## DMH Circuit Board (ZN123700)



# ■ RESETTING TO THE FACTORY-PROGRAMMED SETTINGS

While holding the right-most key (C6) on the keyboard, turn the power on. This resets the settings of the entire instrument (referred to as the System Setup parameters) to their factory default settings. Refer to the "Parameter Chart" in the Data List on the website for details about which parameters belong to System Setup.




**NOTE**

The recorded Songs, Expansion Packs, and other files saved to this instrument are not deleted by this operation.

You can also reset specified settings to the factory default value or delete all files and folders in the USER drive. Call up the operation display: [FUNCTION] → TAB [▶] MENU 2 → [G] SYSTEM → TAB [▶] RESET. For details, refer to the Reference Manual on the website, Chapter 11.

# ■ DATA BACKUP

You can back up all data saved in the USER drive (except Protected Songs and Expansion Voices/Styles) and all settings of the instrument to a USB flash drive as a single file.

**1 Connect a USB flash drive to the [USB TO DEVICE] terminal for the backup destination.**

**NOTE**

You can also back up files in the USER drive, such as Voice, Song, Style, Multi Pad and Registration Memory, by copying them individually to a USB flash drive as desired.

**2 Call up the operation display.**

[FUNCTION] → TAB [▶] MENU 2 → [G] SYSTEM → TAB [◀][▶] BACKUP/RESTORE


**NOTE**

You can also back up System settings, MIDI settings, User Effect settings, and Music Finder Records individually as desired. Call up the operation display: [FUNCTION] → TAB [▶] MENU 2 → [G] SYSTEM → TAB [◀][▶] SETUP FILES. For more information, refer to the Reference Manual on the website, Chapter 11.

**3 Press the [G] (BACK UP) button to save the data to the USB flash drive.**

When confirmation messages appear, follow the on-display instructions.

**NOTE**

Completing the back up/restore operation may take a few minutes.

## Restoring the Backup File

To do this, press the [I] (RESTORE) button in the BACKUP/RESTORE page (see above). When confirmation messages appear, follow the on-display instructions. When the operation is completed, the instrument will be restarted automatically.

**NOTICE**

**Move the Protected Songs (saved to the USER drive) to a USB flash drive before restoring. If the Songs are not moved, the operation deletes the data.**

# ■ VERSION UPGRADE

Download the version upgrade program from the Yamaha official website.

## ● List of the updating Flash ROM

| | | | |
|---|---|---|---|
| PSR-S770 | Main Program | DMM | IC008 |
| | Wave Data | | IC600, IC601 |
| PSR-S970 | Main Program | DMH | IC008 |
| | NAND Data | | IC202, IC203 |
| | Wave Data | | IC600, IC601 |

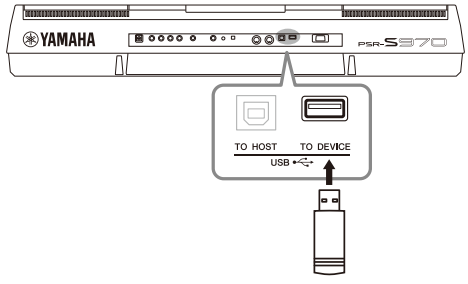
## ● File name

| | |
|---|---|
| PSR-S770 | PSR-S770SETUP.PRG |
| PSR-S970 | PSR-S970SETUP.PRG |

## ● How to Install

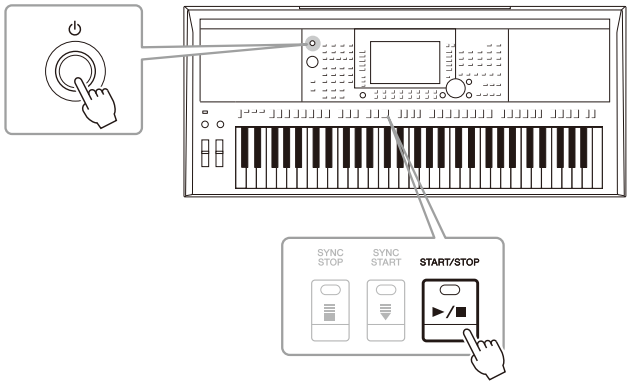
⚠ Never turn the instrument off while installing.
It may break the boot Flash ROM device.
Particularly, turning off the power immediately after staring installation may cause damage to the boot.
If operation still fails even after re-installation, the DMM/DMH circuit board must be replaced.
Never pull off the USB flash drive from the instrument while installing.

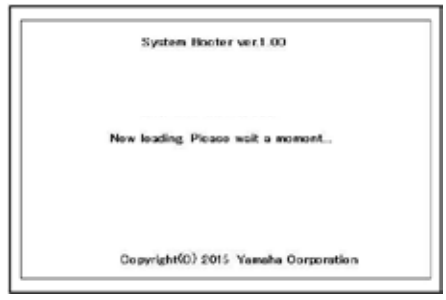
1 Insert the USB flash drive to the instrument.




* This figure shows the PSR-S970.

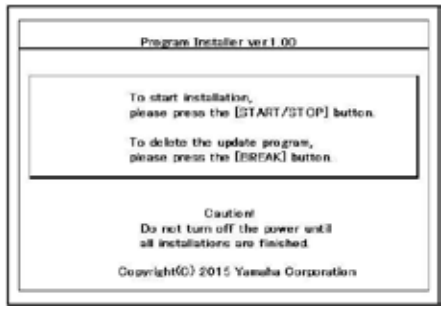
2 While holding down the [START/STOP] button, press the [⏻] (Standby/On) switch to start up installation mode.



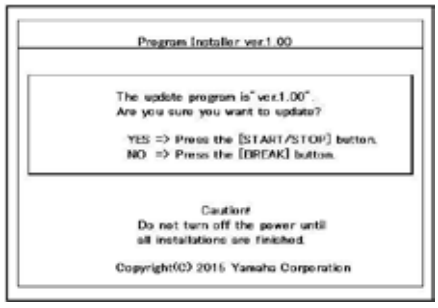



* Follow the display on the LCD for this operation.

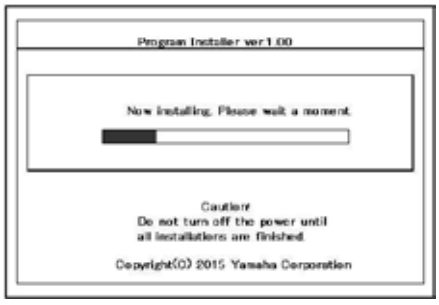
3 Press the [START/STOP] button to start the installations.



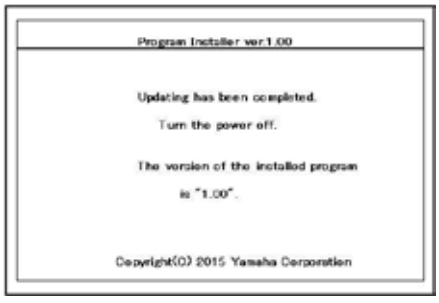

4 Press the [START/STOP] button again.




5 A progress bar for installation will appear.




6 When the installation is complete, the following message appears with a new firmware version.




7 Press the [⏻] (Standby/On) switch to turn the power off. Remove the USB flash drive from the instrument.

# DIGITAL WORKSTATION

# PSR-S770
# PSR-S970

# PARTS LIST

## ■ CONTENTS



**Notes : DESTINATION ABBREVIATIONS**

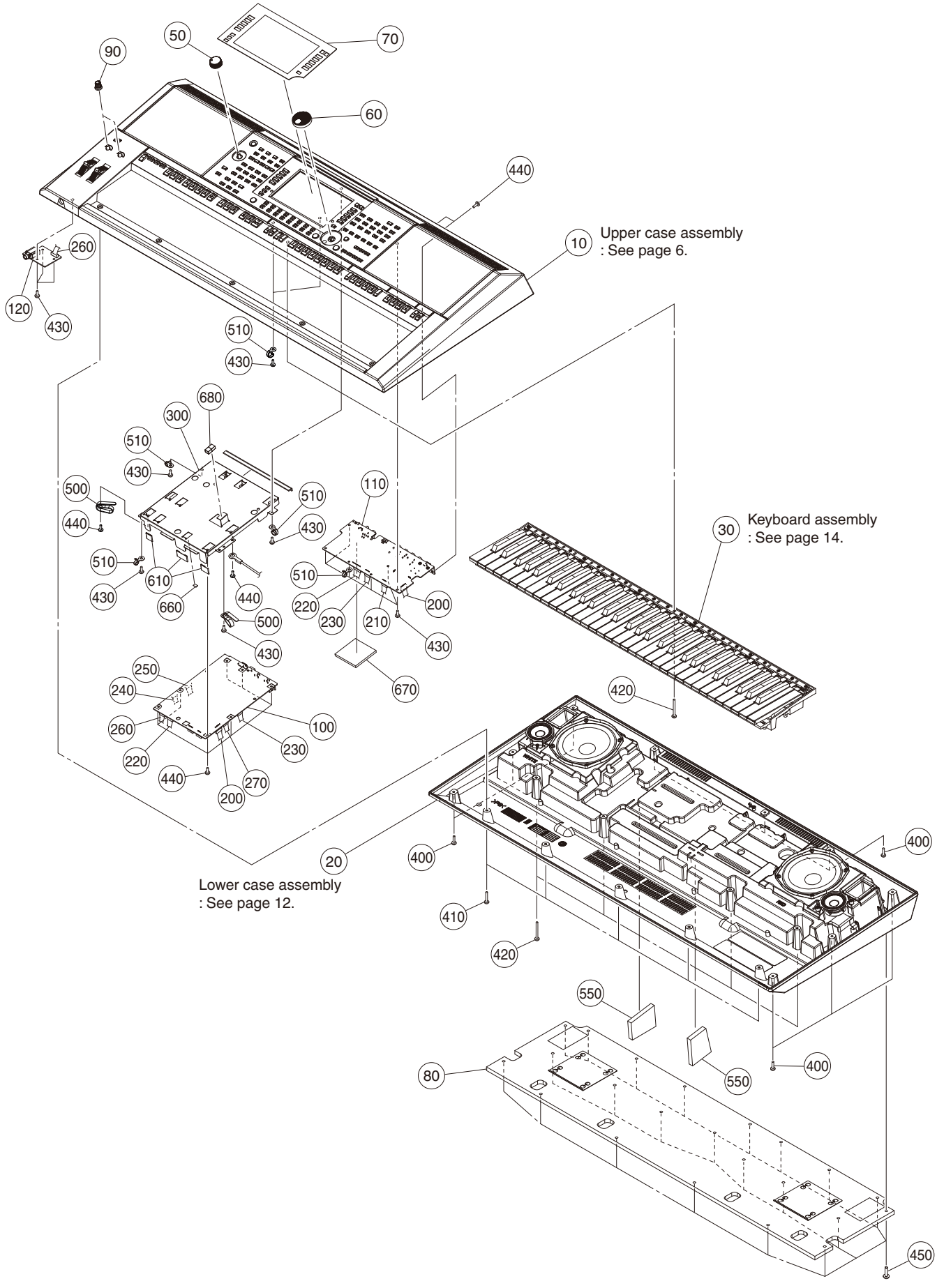
| | | | |
|---|---|---|---|
| A : | Australian model | M : | South African model |
| B : | British model | O : | Chinese model |
| C : | Canadian model | P : | Blazillian model |
| D : | German model | Q : | South-east Asia model |
| E : | European model | T : | Taiwan model |
| F : | French model |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

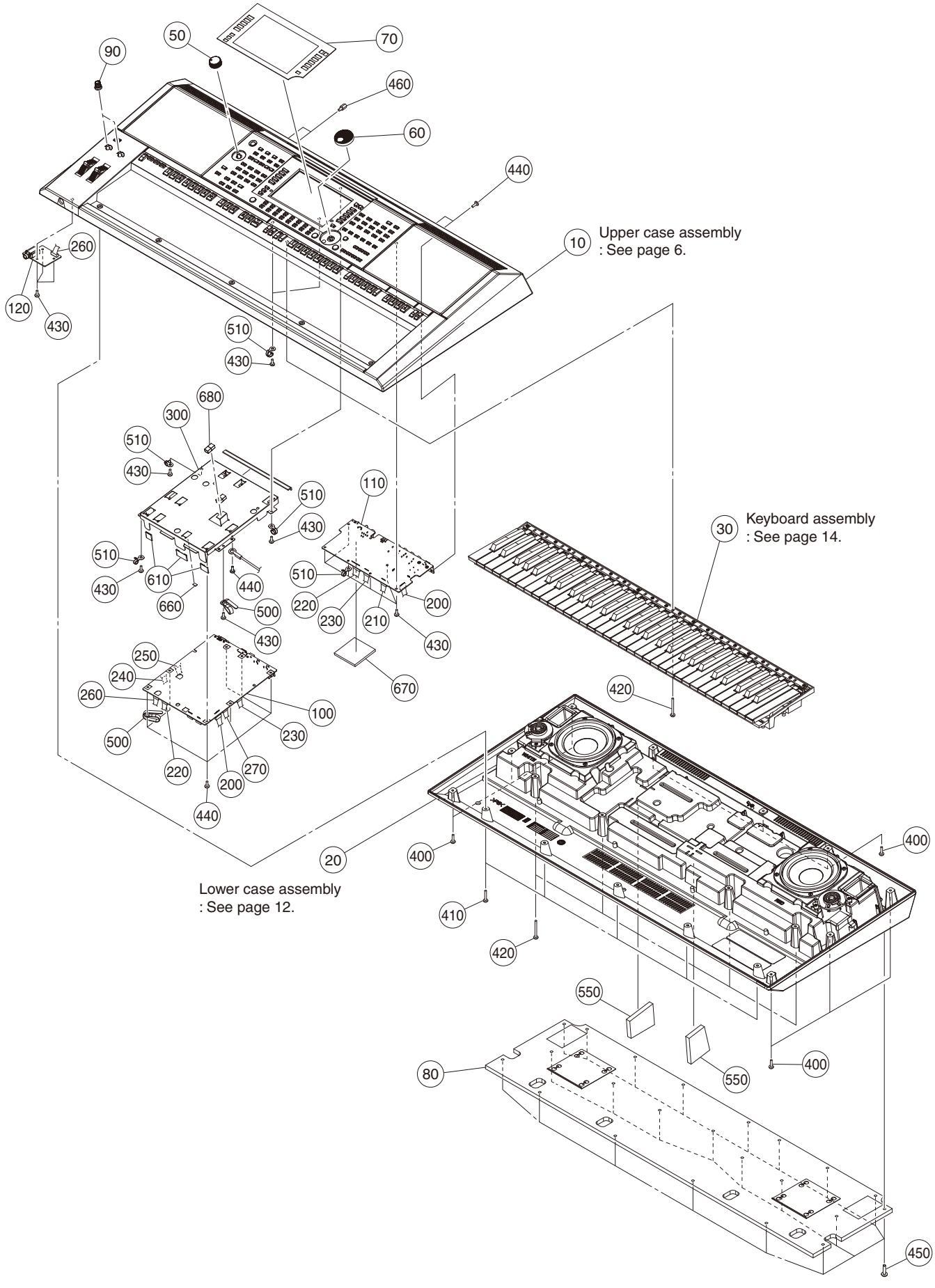
# ■ PSR-S770 OVERALL ASSEMBLY



| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| | | | OVERALL ASSEMBLY | | 総組立 | PSR-S770 | |
| | | -- | OVERALL ASSEMBLY | | 総組立 | (ZP45870) | |
| | 10 | -- | UPPER CASE ASSEMBLY | | 上ケースAss'y | (ZP36040) | |
| | 20 | -- | LOWER CASE ASSEMBLY | | 下ケースAss'y | (ZP54100) | |
| | 30 | **WB91420R** | KEYBOARD ASSEMBLY | 16M C61-2M-EBUS | 16M鍵盤EMKSA | | |
| | 50 | **WZ703600** | VOLUME KNOB BLACK | | ボリュームツマミ | MASTER VOLUME | |
| | 60 | **ZA304900** | ENCODER KNOB BLACK | | エンコーダー成形品 | Data entry | |
| * | 70 | **ZN937800** | LCD COVER | | LCDカバー印刷品 | | |
| | 80 | **ZC650700** | BOTTOM BOARD ASSEMBLY | | 底板Ass'y | | |
| * | 90 | **ZN982100** | KNOB PLASTIC SHAFT BLACK/GRAY | | ノブプラ軸用 | | 2 |
| * | 100 | **ZN123800** | CIRCUIT BOARD | DMM | DMMシート | | |
| * | 110 | **ZP451400** | CIRCUIT BOARD | AJACK | AJACKシート | | |
| * | 120 | **ZP451500** | CIRCUIT BOARD | HP | HPシート | | |
| | 200 | -- | CONNECTOR ASSEMBLY | XH S XH6P L=320 | XH S束線 | (ZP69140) | |
| | 210 | -- | CONNECTOR ASSEMBLY | PH-GH S PH6P-GH6P L=110 | PH-GH S束線 | (ZP44110) | |
| | 220 | -- | CONNECTOR ASSEMBLY | PH-GH S PH12P-GH12P L=335 | PH-GH S束線 | (ZP44070) | |
| | 230 | -- | CONNECTOR ASSEMBLY | PH-GH S PH7P-GH6P L=210 | PH-GH S束線 | (ZP44090) | |
| | 240 | -- | CONNECTOR ASSEMBLY | PH-GH S PH7P-GH7P L=180 | PH-GH S束線 | (ZP44100) | |
| | 250 | -- | CONNECTOR ASSEMBLY | GH S GH10P L=110 | GH S束線 | (ZP44120) | |
| | 260 | -- | CONNECTOR ASSEMBLY | PH S PH7P L=430 | PH S束線 | (ZP44170) | |
| | 270 | -- | CONNECTOR ASSEMBLY | GH S GH9P L=250 | GH S束線 | (ZP44130) | |
| | 300 | -- | SHIELD COVER | | シールドカバー | (ZN89430) | |
| | 400 | **WE98740R** | BIND HEAD TAPPING SCREW-B | 3.0X12 MFZN2W3 | Bタイト十BIND | | 9 |
| | 410 | **WE97340R** | BIND HEAD TAPPING SCREW-B | 3.0X16 MFZN2W3 | Bタイト十BIND | | 5 |
| | 420 | **WF491001** | BIND HEAD TAPPING SCREW-B | 3.0X30 MFZN2W3 | Bタイト十BIND | | 5 |
| | 430 | **WE774301** | BIND HEAD TAPPING SCREW-B | 3.0X8 MFZN2W3 | Bタイト十BIND | | 17 |
| | 440 | **WE983600** | BIND HEAD SCREW | 3.0X8 MFZN2B3 | 小ネジ十BIND | | 11 |
| | 450 | **WF15410R** | BIND HEAD TAPPING SCREW-B | 4.0X16 MFZN2W3 | Bタイト十BIND | | 22 |
| | 500 | -- | CLIP, WIRE | | 束線止め | (CB81751) | 2 |
| | 510 | -- | CORD CLAMPER | | 束線止め | (CB83620) | 6 |
| | 550 | -- | SOUND ABSORBENT FELT | | 吸音材 | (ZA69910) | 2 |
| | 600 | -- | FILAMENT TAPE | 12X50 | 粘着テープ | (VA12610) | 8 |
| | 610 | -- | ADHESIVE TAPE | 15X30 | アセテートクロス粘着テープ | (WG52680) | |
| | 660 | -- | GASKET | L8X5 | ガスケット | (ZP35400) | |
| | 670 | -- | AJACK CUSHION | | AJACKクッション | (ZC65880) | |
| | 680 | -- | SOFT GASKET | L10 | ソフトガスケット | (ZF66010) | 2 |
| | | | | | | | |
| | | | ACCESSORIES | | 付属品 | | |
| | | **ZF451800** | MUSIC REST WITH BAG BLACK | | 譜面板袋入り | | |
| ⚠ | | **WU691400** | AC ADAPTOR | PA-300C | ACアダプター | | |
| ⚠ | | **V2917100** | POWER SUPPLY CORD SET | E 2P 2.5m 2.5A | 電源コードセット | E,I | |
| ⚠ | | **V3126501** | POWER SUPPLY CORD SET | B 2P 2.5m | 電源コードセット | B | |
| ⚠ | | **ZC295100** | POWER SUPPLY CORD SET | UC 2P 7A 2.44m | 電源コードセット | U | |
| ⚠ | | **WU795100** | POWER SUPPLY CORD SET | BRA 2P 2.5m 2.5A | 電源コードセット | P | |
| ⚠ | | **ZN855800** | POWER SUPPLY CORD SET | AS 2P 2.5m | 電源コードセット | A | |
| ⚠ | | **WC90170R** | POWER SUPPLY CORD SET | GB 2P 2.5m | 電源コードセット | O | |

*: New Parts

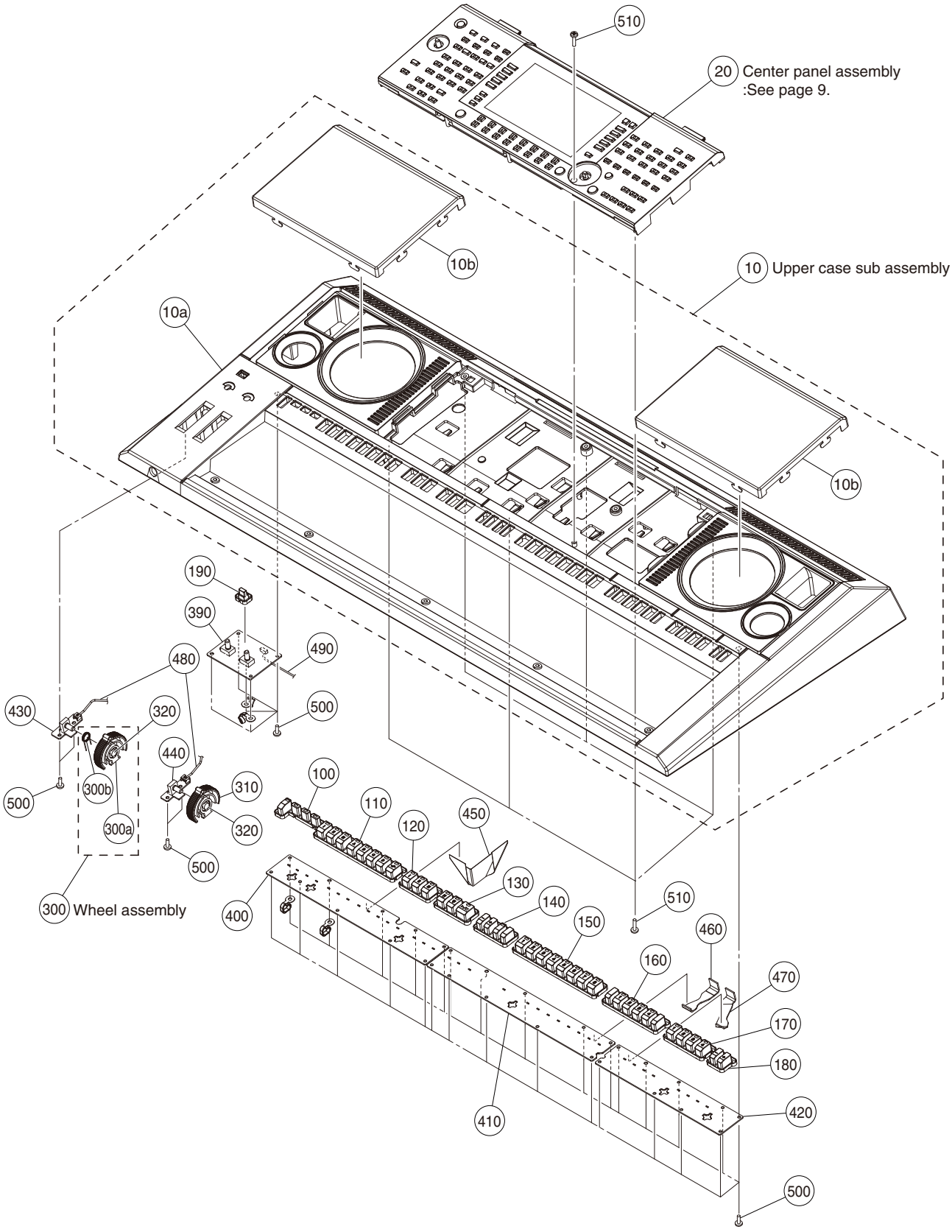
# ■ PSR-S970 OVERALL ASSEMBLY



| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| | | | OVERALL ASSEMBLY | | 総組立 | PSR-S970 | |
| | | -- | OVERALL ASSEMBLY | | 総組立 | (ZP34940) | |
| | 10 | -- | UPPER CASE ASSEMBLY | | 上ケースAss'y | (ZP35000) | |
| | 20 | -- | LOWER CASE ASSEMBLY | | 下ケースAss'y | (WZ89860) | |
| | 30 | **WB91420R** | KEYBOARD ASSEMBLY | 16M C61-2M-EBUS | 16M鍵盤EMKSA | | |
| | 50 | **WZ703600** | VOLUME KNOB BLACK | | ボリュームツマミ | MASTER VOLUME | |
| * | 60 | **ZH887500** | ENCODER KNOB | | エンコーダーツマミ | Data entry | |
| * | 70 | **ZN937800** | LCD COVER | | LCDカバー印刷品 | | |
| | 80 | **ZC650700** | BOTTOM BOARD ASSEMBLY | | 底板Ass'y | | |
| * | 90 | **ZN982100** | KNOB PLASTIC SHAFT BLACK/GRAY | | ノブプラ軸用 | | 2 |
| * | 100 | **ZN123700** | CIRCUIT BOARD | DMH | DMHシート | | |
| * | 110 | **ZP451400** | CIRCUIT BOARD | AJACK | AJACKシート | | |
| * | 120 | **ZP451500** | CIRCUIT BOARD | HP | HPシート | | |
| | 200 | -- | CONNECTOR ASSEMBLY | XH S XH6P L=320 | XH S束線 | (ZP69140) | |
| | 210 | -- | CONNECTOR ASSEMBLY | PH-GH S PH6P-GH6P L=110 | PH-GH S束線 | (ZP44110) | |
| | 220 | -- | CONNECTOR ASSEMBLY | PH-GH S PH12P-GH12P L=335 | PH-GH S束線 | (ZP44070) | |
| | 230 | -- | CONNECTOR ASSEMBLY | PH-GH S PH7P-GH6P L=210 | PH-GH S束線 | (ZP44090) | |
| | 240 | -- | CONNECTOR ASSEMBLY | PH-GH S PH7P-GH7P L=180 | PH-GH S束線 | (ZP44100) | |
| | 250 | -- | CONNECTOR ASSEMBLY | GH S GH10P L=110 | GH S束線 | (ZP44120) | |
| | 260 | -- | CONNECTOR ASSEMBLY | PH S PH7P L=430 | PH S束線 | (ZP44170) | |
| | 270 | -- | CONNECTOR ASSEMBLY | GH S GH9P L=250 | GH S束線 | (ZP44130) | |
| | 300 | -- | SHIELD COVER PRINT | | シールドカバー印刷 | (ZN89640) | |
| | 400 | **WE98740R** | BIND HEAD TAPPING SCREW-B | 3.0X12 MFZN2W3 | Bタイト十BIND | | 9 |
| | 410 | **WE97340R** | BIND HEAD TAPPING SCREW-B | 3.0X16 MFZN2W3 | Bタイト十BIND | | 5 |
| | 420 | **WF491001** | BIND HEAD TAPPING SCREW-B | 3.0X30 MFZN2W3 | Bタイト十BIND | | 5 |
| | 430 | **WE774301** | BIND HEAD TAPPING SCREW-B | 3.0X8 MFZN2W3 | Bタイト十BIND | | 17 |
| | 440 | **WE983600** | BIND HEAD SCREW | 3.0X8 MFZN2B3 | 小ネジ十BIND | | 10 |
| | 450 | **WF15410R** | BIND HEAD TAPPING SCREW-B | 4.0X16 MFZN2W3 | Bタイト十BIND | | 22 |
| | 460 | **V670660R** | HEXAGONAL LOCK SCREW | HFS-4S-B1W | 6角ロックネジ | | 2 |
| | 500 | -- | CLIP, WIRE | | 束線止め | (CB81751) | 2 |
| | 510 | -- | CORD CLAMPER | | 束線止め | (CB83620) | 6 |
| | 550 | -- | SOUND ABSORBENT FELT | | 吸音材 | (ZA69910) | 2 |
| | 600 | -- | FILAMENT TAPE | 12X50 | 粘着テープ | (VA12610) | 8 |
| | 610 | -- | ADHESIVE TAPE | 15X30 | アセテートクロス粘着テープ | (WG52680) | |
| | 660 | -- | GASKET | L8X5 | ガスケット | (ZP35400) | |
| | 670 | -- | AJACK CUSHION | | AJACKクッション | (ZC65880) | |
| | 680 | -- | SOFT GASKET | L10 | ソフトガスケット | (ZF66010) | 2 |
| | | | | | | | |
| | | | ACCESSORIES | | 付属品 | | |
| | | **ZF451800** | MUSIC REST WITH BAG BLACK | | 譜面板袋入り | | |
| ⚠ | | **WU691400** | AC ADAPTOR | PA-300C | ACアダプター | | |
| ⚠ | | **V2917100** | POWER SUPPLY CORD SET | E 2P 2.5m 2.5A | 電源コードセット | E,I | |
| ⚠ | | **V3126501** | POWER SUPPLY CORD SET | B 2P 2.5m | 電源コードセット | B | |
| ⚠ | | **ZC295100** | POWER SUPPLY CORD SET | UC 2P 7A 2.44m | 電源コードセット | U | |
| ⚠ | | **ZG891000** | POWER SUPPLY CORD SET | K 2P 2.5A | 電源コードセット | K | |
| ⚠ | | **WU795100** | POWER SUPPLY CORD SET | BRA 2P 2.5m 2.5A | 電源コードセット | P | |
| ⚠ | | **ZN855800** | POWER SUPPLY CORD SET | AS 2P 2.5m | 電源コードセット | A | |
| ⚠ | | **WC90170R** | POWER SUPPLY CORD SET | GB 2P 2.5m | 電源コードセット | O | |

*: New Parts

# ■ UPPER CASE ASSEMBLY



## ● PSR-S770

| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| | | | UPPER CASE ASSEMBLY | | 上ケースAss'y | PSR-S770 | |
| | | -- | UPPER CASE ASSEMBLY | | 上ケースAss'y | (ZP36040) | |
| * | 10 | ZP361100 | UPPER CASE SUB ASSEMBLY | | 上ケースサブAss'y | | |
| | 10a | -- | UPPER CASE | | 上ケース印刷品 | (ZN89340) | |
| | 10b | ZA325300 | SPEAKER GRILLE | | SPグリル塗装品 | | 2 |
| | 20 | -- | CENTER PANEL ASSEMBLY | | Cパネル Ass'y | (ZP36170) | |
| | 100 | ZC188200 | SWITCH ASSEMBLY A | X4 | スイッチAss'y A | ACMP, FADE IN/OUT, OTS LINK, AUTO FILL IN | |
| | 110 | WZ962000 | SWITCH ASSEMBLY B | X8 | スイッチAss'y B | INTRO, MAIN VARIATION, BREAK | |
| | 120 | WZ962100 | SWITCH ASSEMBLY C | X3 | スイッチAss'y C | ENDING/rit. | |
| | 130 | WZ962200 | SWITCH ASSEMBLY D | X3 | スイッチAss'y D | SYNC STOP, SYNC START, START/STOP | |
| | 140 | WZ962300 | SWITCH ASSEMBLY E | X4 | スイッチAss'y E | REGIST BANK (-,+), FREEZE, MEMORY | |
| | 150 | WZ962400 | SWITCH ASSEMBLY F | X8 | スイッチAss'y F | REGISTRATION MEMORY (1-8) | |
| | 160 | WZ962500 | SWITCH ASSEMBLY G | X6 | スイッチAss'y G | MULTI PAD CONTROL (SELECT, 1-4, STOP) | |
| | 170 | WZ962600 | SWITCH ASSEMBLY H | X4 | スイッチAss'y H | ONE TOUCH SETTING (1-4) | |
| | 180 | WZ960300 | PANEL SWITCH I | X2 | PNスイッチ I | UPPER OCTAVE (-,+) | |
| * | 190 | ZN912100 | PANEL SWITCH L1 | X1 | PNスイッチ L1 | | |
| | 300 | VY79310R | WHEEL ASSEMBLY | | ホイールAss'y | | |
| | 300a | -- | WHEEL | | ホイール | (VY75080) | |
| | 300b | -- | WHEEL SPRING | | ホイールバネ | (VT44010) | |
| | 310 | -- | WHEEL | | ホイール | (VY75080) | |
| | 320 | TX920280 | GREASE | G-31KA 50g | グリス | (VE96850) | |
| * | 390 | ZP451300 | CIRCUIT BOARD | KNOB | KNOBシート | | |
| * | 400 | ZP450700 | CIRCUIT BOARD | PNL | PNLシート | | |
| * | 410 | ZP450800 | CIRCUIT BOARD | PNC | PNCシート | | |
| * | 420 | ZP450900 | CIRCUIT BOARD | PNR | PNRシート | | |
| * | 430 | ZP451600 | CIRCUIT BOARD | PB | PBシート | | |
| * | 440 | ZP451700 | CIRCUIT BOARD | MOD | MODシート | | |
| * | 450 | ZA581500 | WIRING ASSEMBLY | FFC S 29P P=1.0 L=130 | FFC S束線 | | |
| | 460 | -- | CONNECTOR ASSEMBLY | GH S GH15P L=100 | GH S束線 | (ZP44140) | |
| | 470 | -- | CONNECTOR ASSEMBLY | GH S GH13P L=110 | GH S束線 | (ZP44150) | |
| | 480 | -- | CONNECTOR ASSEMBLY | PBMOD S PH4P/3P-GH7P L=145 | PBMOD S束線 | (ZT25170) | |
| | 490 | -- | CONNECTOR ASSEMBLY | KNOB GH10P-GH9P L=390 | KNOB束線 | (ZP44180) | |
| | 500 | WE774301 | BIND HEAD TAPPING SCREW-B | 3.0X8 MFZN2W3 | Bタイト十BIND | | 38 |
| | 510 | WE98740R | BIND HEAD TAPPING SCREW-B | 3.0X12 MFZN2W3 | Bタイト十BIND | | 8 |

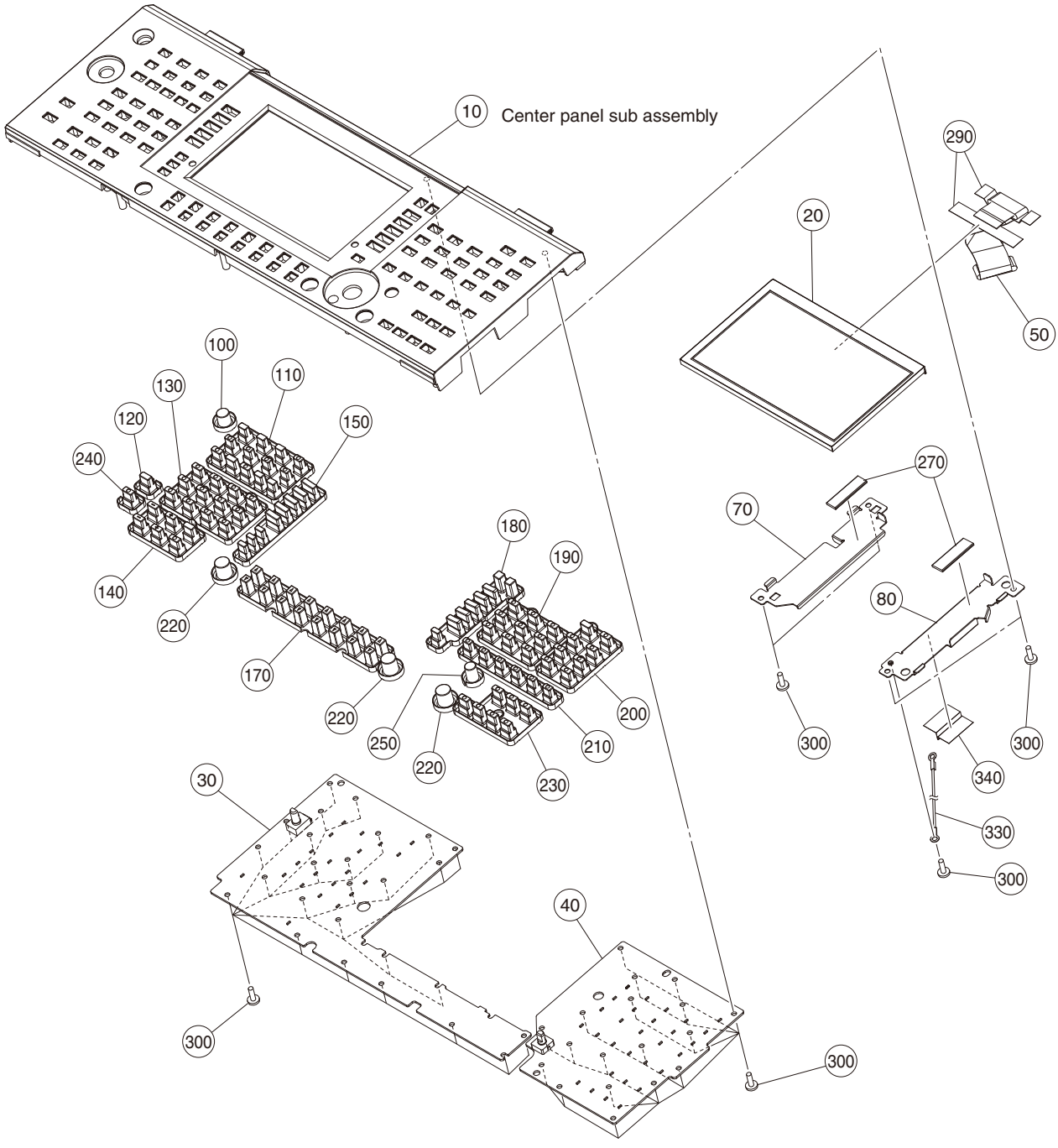
*: New Parts

## ● PSR-S970

| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| | | | UPPER CASE ASSEMBLY | | 上ケースAss'y | PSR-S970 | |
| | | -- | UPPER CASE ASSEMBLY | | 上ケースAss'y | (ZP35000) | |
| * | 10 | ZP350400 | UPPER CASE SUB ASSEMBLY | | 上ケースサブAss'y | | |
| | 10a | -- | UPPER CASE | | 上ケース印刷品 | (ZN89330) | |
| | 10b | ZA325300 | SPEAKER GRILLE | | SPグリル塗装品 | | 2 |
| | 20 | -- | CENTER PANEL ASSEMBLY | | CパネルAss'y | (ZP35080) | |
| | 100 | ZC188200 | SWITCH ASSEMBLY A | X4 | スイッチAss'y A | ACMP, FADE IN/OUT, OTS LINK, AUTO FILL IN | |
| | 110 | WZ962000 | SWITCH ASSEMBLY B | X8 | スイッチAss'y B | INTRO, MAIN VARIATION, BREAK | |
| | 120 | WZ962100 | SWITCH ASSEMBLY C | X3 | スイッチAss'y C | ENDING/rit. | |
| | 130 | WZ962200 | SWITCH ASSEMBLY D | X3 | スイッチAss'y D | SYNC STOP, SYNC START, START/STOP | |
| | 140 | WZ962300 | SWITCH ASSEMBLY E | X4 | スイッチAss'y E | REGIST BANK (-,+), FREEZE, MEMORY | |
| | 150 | WZ962400 | SWITCH ASSEMBLY F | X8 | スイッチAss'y F | REGISTRATION MEMORY (1-8) | |
| | 160 | WZ962500 | SWITCH ASSEMBLY G | X6 | スイッチAss'y G | MULTI PAD CONTROL (SELECT, 1-4, STOP) | |
| | 170 | WZ962600 | SWITCH ASSEMBLY H | X4 | スイッチAss'y H | ONE TOUCH SETTING (1-4) | |
| | 180 | WZ960300 | PANEL SWITCH I | X2 | PNスイッチ I | UPPER OCTAVE (-,+) | |
| * | 190 | ZN912100 | PANEL SWITCH L1 | X1 | PNスイッチ L1 | | |
| | 300 | VY79310R | WHEEL ASSEMBLY | | ホイールAss'y | | |
| | 300a | -- | WHEEL | | ホイール | (VY75080) | |
| | 300b | -- | WHEEL SPRING | | ホイールバネ | (VT44010) | |
| | 310 | -- | WHEEL | | ホイール | (VY75080) | |
| | 320 | TX920280 | GREASE | G-31KA 50g | グリス | (VE96850) | |
| * | 390 | ZP451300 | CIRCUIT BOARD | KNOB | KNOBシート | | |
| * | 400 | ZP450700 | CIRCUIT BOARD | PNL | PNLシート | | |
| * | 410 | ZP450800 | CIRCUIT BOARD | PNC | PNCシート | | |
| * | 420 | ZP450900 | CIRCUIT BOARD | PNR | PNRシート | | |
| * | 430 | ZP451600 | CIRCUIT BOARD | PB | PBシート | | |
| * | 440 | ZP451700 | CIRCUIT BOARD | MOD | MODシート | | |
| * | 450 | ZA581500 | WIRING ASSEMBLY | FFC S 29P P=1.0 L=130 | FFC S束線 | | |
| | 460 | -- | CONNECTOR ASSEMBLY | GH S GH15P L=100 | GH S束線 | (ZP44140) | |
| | 470 | -- | CONNECTOR ASSEMBLY | GH S GH13P L=110 | GH S束線 | (ZP44150) | |
| | 480 | -- | CONNECTOR ASSEMBLY | PBMOD S PH4P/3P-GH7P L=145 | PBMOD S束線 | (ZT25170) | |
| | 490 | -- | CONNECTOR ASSEMBLY | KNOB GH10P-GH9P L=390 | KNOB束線 | (ZP44180) | |
| | 500 | WE774301 | BIND HEAD TAPPING SCREW-B | 3.0X8 MFZN2W3 | Bタイト十BIND | | 38 |
| | 510 | WE98740R | BIND HEAD TAPPING SCREW-B | 3.0X12 MFZN2W3 | Bタイト十BIND | | 8 |

*: New Parts

# ■ CENTER PANEL ASSEMBLY



## ● PSR-S770

| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| | | | CENTER PANEL ASSEMBLY | | ＣパネルＡｓｓ’ｙ | PSR-S770 | |
| | | -- | CENTER PANEL ASSEMBLY | | Ｃパネルアッセンブリ | (ZP36170) | |
| * | 10 | **ZP361800** | CENTER PANEL SUB ASSEMBLY | | Ｃパネルサブアッセンブリ | | |
| * | 20 | **ZN547100** | CRYSTAL DISPLAY | M070SWP1 R5 | 液晶ディスプレイ | | |
| * | 30 | **ZP451000** | CIRCUIT BOARD | PNM | ＰＮＭシート | | |
| * | 40 | **ZP451200** | CIRCUIT BOARD | PNS | ＰＮＳシート | | |
| * | 50 | **ZP442000** | WIRING ASSEMBLY | FFC S LF 50P P=0.5 L=150 | ＦＦＣ Ｓ ＬＦ束線 | | |
| | 70 | -- | LCD FIXTURE L | LEFT | ＬＣＤ固定金具 Ｌ | (ZN89200) | |
| | 80 | -- | LCD FIXTURE R | RIGHT | ＬＣＤ固定金具 Ｒ | (ZN89220) | |
| | 100 | **WZ960400** | PANEL SWITCH J | X1 | ＰＮスイッチ Ｊ | STANDBY/ON | |
| * | 110 | **ZP351400** | SWITCH ASSEMBLY K | X13 | スイッチアッセンブリ Ｋ | SONG (SELECT-►►) | |
| * | 120 | **ZN912100** | PANEL SWITCH L1 | X1 | ＰＮスイッチ Ｌ１ | DEMO | |
| * | 130 | **ZP351600** | SWITCH ASSEMBLY M | X12 | スイッチアッセンブリ Ｍ | STYLE (POP&ROCK-EXPANSION/USER) | |
| * | 140 | **ZP351900** | SWITCH ASSEMBLY N | X6 | スイッチアッセンブリ Ｎ | TEMPO (-,+), TAP TEMPO, TRANSPOSE (-,+), METRONOME | |
| * | 150 | **ZN912400** | PANEL SWITCH O1 | X8 | ＰＮスイッチ Ｏ１ | A-E, BAL., MIXER/EQ,CHANNEL ON/OFF | |
| * | 170 | **ZN912500** | PANEL SWITCH Q1 | X16 | ＰＮスイッチ Ｑ１ | 1-8 (▲/▼) | |
| * | 180 | **ZN912600** | PANEL SWITCH R1 | X8 | ＰＮスイッチ Ｒ１ | TAB◄►, F-J, FUNCTION | |
| * | 190 | **ZP353400** | SWITCH ASSEMBLY S | X9 | スイッチアッセンブリ Ｓ | VOICE (PIANO-WOODWIND) | |
| * | 200 | **ZP353500** | SWITCH ASSEMBLY T | X8 | スイッチアッセンブリ Ｔ | USB AUDIO PLAYER, USB, VOICE (CHOIR&PAD-EXPANSION/USER) | |
| * | 210 | **ZP353700** | SWITCH ASSEMBLY U | X6 | スイッチアッセンブリ Ｕ | VOICE EFFECT (HARMONY/ARPEGGIO-VARI.) | |
| | 220 | **WZ961600** | PANEL SWITCH V | X1 | ＰＮスイッチ Ｖ | DIRECT ACCESS,EXIT,ENTER | 3 |
| * | 230 | **ZP353800** | SWITCH ASSEMBLY W | X7 | スイッチアッセンブリ Ｗ | PART SELECT, PART ON/OFF (LEFT HOLD, LEFT, RIGHT1&2) | |
| * | 240 | **ZP353900** | SWITCH ASSEMBLY X | X1 | スイッチアッセンブリ Ｘ | MIC SETTING | |
| * | 250 | **ZN913200** | PANEL SWITCH Y1 | X1 | ＰＮスイッチ Ｙ１ | MUSIC FINDER | |
| | 270 | -- | GASKET | | ガスケット | (ZS77820) | 2 |
| | 290 | -- | FILAMENT TAPE | 12X70 | 粘着テープ | (V255510) | 2 |
| | 300 | **WE774301** | BIND HEAD TAPPING SCREW-B | 3.0X8 MFZN2W3 | Ｂタイト十ＢＩＮＤ | | 49 |
| | 330 | -- | CONNECTOR ASSEMBLY | GROUND3 | アース線 3 | (WJ01350) | |
| | 340 | -- | EL ADHESIVE TAPE | | 導電性粘着テープ | (WA53090) | |

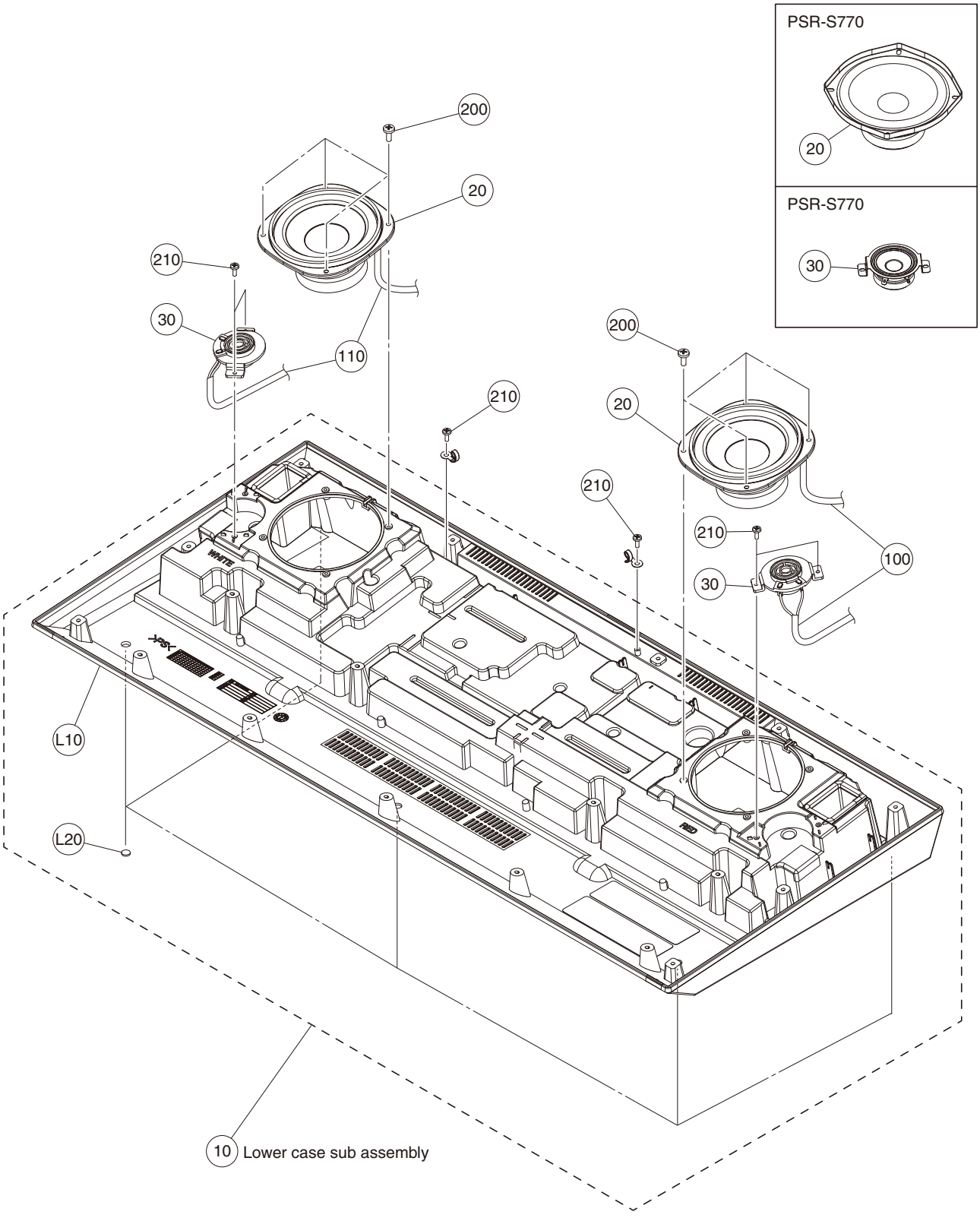
*: New Parts

## ● PSR-S970

| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| | | | CENTER PANEL ASSEMBLY | | Ｃパネル Ａｓｓ’ｙ | PSR-S970 | |
| | | -- | CENTER PANEL ASSEMBLY | | Ｃパネル Ａｓｓ’ｙ | (ZP35080) | |
| * | 10 | **ZP350900** | CENTER PANEL SUB ASSEMBLY | | Ｃパネルサブ Ａｓｓ’ｙ | | |
| * | 20 | **ZN547100** | CRYSTAL DISPLAY | M070SWP1 R5 | 液晶ディスプレイ | | |
| * | 30 | **ZP451000** | CIRCUIT BOARD | PNM | ＰＮＭシート | | |
| * | 40 | **ZP451200** | CIRCUIT BOARD | PNS | ＰＮＳシート | | |
| * | 50 | **ZP442000** | WIRING ASSEMBLY | FFC S LF 50P P=0.5 L=150 | ＦＦＣ Ｓ ＬＦ束線 | | |
| | 70 | -- | LCD FIXTURE L | LEFT | ＬＣＤ固定金具 Ｌ | (ZN89200) | |
| | 80 | -- | LCD FIXTURE R | RIGHT | ＬＣＤ固定金具 Ｒ | (ZN89220) | |
| | 100 | **WZ960400** | PANEL SWITCH J | X1 | ＰＮスイッチ Ｊ | STANDBY/ON | |
| * | 110 | **ZP351400** | SWITCH ASSEMBLY K | X13 | スイッチ Ａｓｓ’ｙ Ｋ | SONG (SELECT-►►) | |
| * | 120 | **ZN912100** | PANEL SWITCH L1 | X1 | ＰＮスイッチ Ｌ１ | DEMO | |
| * | 130 | **ZP351600** | SWITCH ASSEMBLY M | X12 | スイッチ Ａｓｓ’ｙ Ｍ | STYLE (POP&ROCK-EXPANSION/USER) | |
| * | 140 | **ZP351900** | SWITCH ASSEMBLY N | X6 | スイッチ Ａｓｓ’ｙ Ｎ | TEMPO (-,+), TAP TEMPO, TRANSPOSE (-,+), METRONOME | |
| * | 150 | **ZN912400** | PANEL SWITCH O1 | X8 | ＰＮスイッチ Ｏ１ | A-E, BAL., MIXER/EQ,CHANNEL ON/OFF | |
| * | 170 | **ZN912500** | PANEL SWITCH Q1 | X16 | ＰＮスイッチ Ｑ１ | 1-8 (▲/▼) | |
| * | 180 | **ZN912600** | PANEL SWITCH R1 | X8 | ＰＮスイッチ Ｒ１ | TAB◄►, F-J, FUNCTION | |
| * | 190 | **ZP353400** | SWITCH ASSEMBLY S | X9 | スイッチ Ａｓｓ’ｙ Ｓ | VOICE (PIANO-WOODWIND) | |
| * | 200 | **ZP353500** | SWITCH ASSEMBLY T | X8 | スイッチ Ａｓｓ’ｙ Ｔ | USB AUDIO PLAYER, USB, VOICE (CHOIR&PAD-EXPANSION/USER) | |
| * | 210 | **ZP353700** | SWITCH ASSEMBLY U | X6 | スイッチ Ａｓｓ’ｙ Ｕ | VOICE EFFECT (HARMONY/ARPEGGIO-VARI.) | |
| | 220 | **WZ961600** | PANEL SWITCH V | X1 | ＰＮスイッチ Ｖ | DIRECT ACCESS,EXIT,ENTER | 3 |
| * | 230 | **ZP353800** | SWITCH ASSEMBLY W | X7 | スイッチ Ａｓｓ’ｙ Ｗ | PART SELECT, PART ON/OFF (LEFT HOLD, LEFT, RIGHT1&2) | |
| * | 240 | **ZP353900** | SWITCH ASSEMBLY X | X1 | スイッチ Ａｓｓ’ｙ Ｘ | MIC SETTING/VOCAL HARMONY | |
| * | 250 | **ZN913200** | PANEL SWITCH Y1 | X1 | ＰＮスイッチ Ｙ１ | MUSIC FINDER | |
| | 270 | -- | GASKET | | ガスケット | (ZS77820) | 2 |
| | 290 | -- | FILAMENT TAPE | 12X70 | 粘着テープ | (V255510) | 2 |
| | 300 | **WE774301** | BIND HEAD TAPPING SCREW-B | 3.0X8 MFZN2W3 | Ｂタイト＋ＢＩＮＤ | | 49 |
| | 330 | -- | CONNECTOR ASSEMBLY | GROUND3 | アース線 3 | (WJ01350) | |
| | 340 | -- | EL ADHESIVE TAPE | | 導電性粘着テープ | (WA53090) | |

*: New Parts

# ■ LOWER CASE ASSEMBLY




* This figure shows the PSR-S970.

## ● PSR-S770

| REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|
| | | LOWER CASE ASSEMBLY | | 下ケースAss'y | PSR-S770 | |
| | -- | LOWER CASE ASSEMBLY | | 下ケースAss'y | (ZP54100) | |
| 10 | **WZ899400** | LOWER CASE SUB ASSEMBLY | | 下ケースサブAss'y | | |
| 20 | **YE178A00** | SPEAKER | 13.0cm 4ohm 20W | スピーカ | WOOFER | 2 |
| 30 | **YD681A00** | LOUD SPEAKER | 5.0cm 6ohm 10W | スピーカ | TWEETER | 2 |
| 100 | -- | CONNECTOR ASSEMBLY | SPR S XH4P-RECEP L=780 | SPR S束線 | (ZA58080) | |
| 110 | -- | CONNECTOR ASSEMBLY | SPL S XH5P-RECEP L=660 | SPL S束線 | (ZA58110) | |
| 200 | **WE97450R** | BIND HEAD TAPPING SCREW-B | 4.0X10 MFZN2W3 | Bタイト十BIND | | 8 |
| 210 | **WE774301** | BIND HEAD TAPPING SCREW-B | 3.0X8 MFZN2W3 | Bタイト十BIND | | 6 |
| | | | | | | |
| | **WZ899400** | LOWER CASE SUB ASSEMBLY | | 下ケースサブAss'y | | |
| L10 | -- | LOWER CASE BLACK | | 下ケース成形品 | (WZ70280) | |
| L20 | **CB043753** | RUBBER FOOT BLACK | T1.6 | ゴム脚 | | 5 |

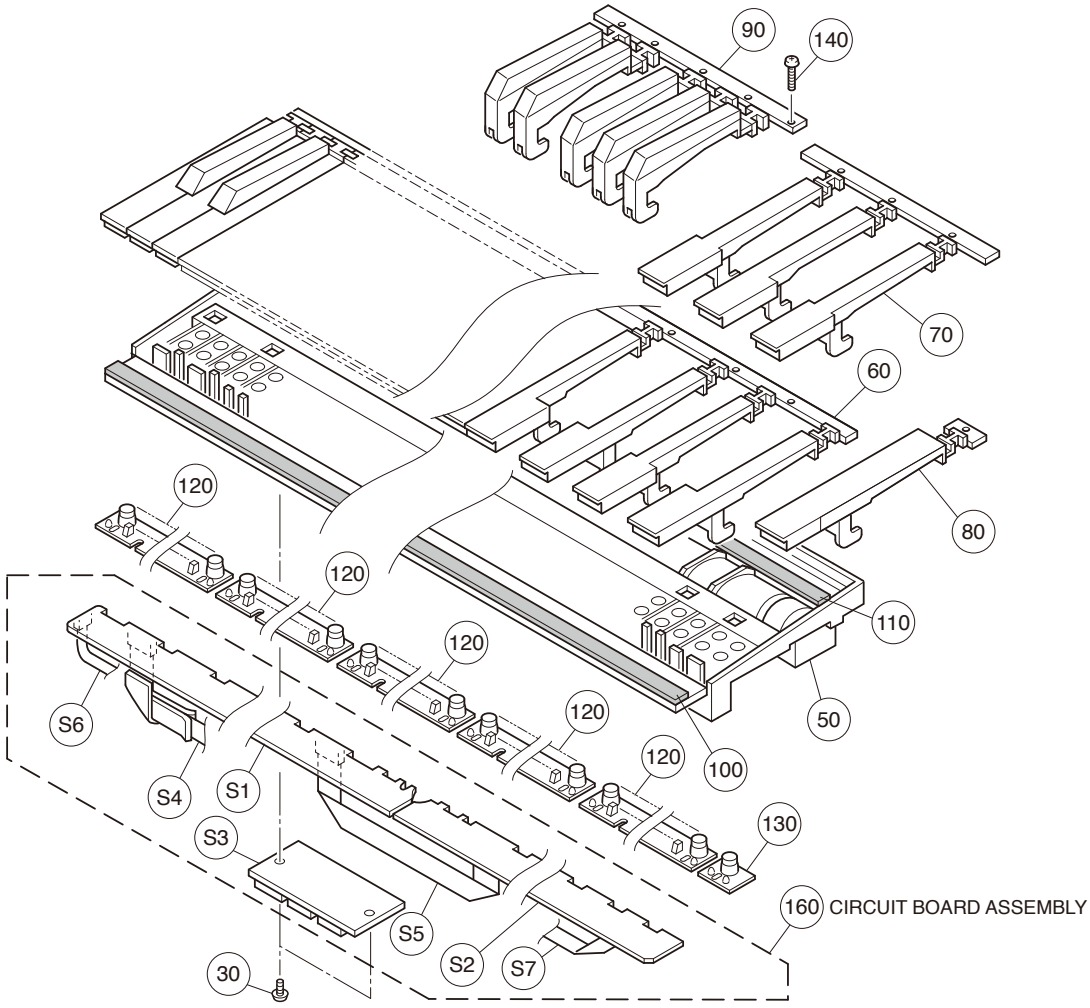
✻: New Parts

## ● PSR-S970

| REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|
| | | LOWER CASE ASSEMBLY | | 下ケースAss'y | PSR-S970 | |
| | -- | LOWER CASE ASSEMBLY | | 下ケースAss'y | (WZ89860) | |
| 10 | **WZ899400** | LOWER CASE SUB ASSEMBLY | | 下ケースサブAss'y | | |
| 20 | **YE177A00** | SPEAKER | 13.0cm 4ohm 35W | スピーカ | WOOFER | 2 |
| 30 | **YE179A00** | SPEAKER | 2.5cm 4ohm 20W | スピーカ | TWEETER | 2 |
| 100 | -- | CONNECTOR ASSEMBLY | SPR S XH4P-RECEP L=780 | SPR S束線 | (ZA58080) | |
| 110 | -- | CONNECTOR ASSEMBLY | SPL S XH5P-RECEP L=660 | SPL S束線 | (ZA58110) | |
| 200 | **WE97450R** | BIND HEAD TAPPING SCREW-B | 4.0X10 MFZN2W3 | Bタイト十BIND | | 8 |
| 210 | **WE774301** | BIND HEAD TAPPING SCREW-B | 3.0X8 MFZN2W3 | Bタイト十BIND | | 6 |
| | | | | | | |
| | **WZ899400** | LOWER CASE SUB ASSEMBLY | | 下ケースサブAss'y | | |
| L10 | -- | LOWER CASE BLACK | | 下ケース成形品 | (WZ70280) | |
| L20 | **CB043753** | RUBBER FOOT BLACK | T1.6 | ゴム脚 | | 5 |

✻: New Parts

# ■ KEYBOARD ASSEMBLY




| REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|
| | | KEYBOARD ASSEMBLY | | 16M鍵盤EMKSA | PSR-S770/PSR-S970 | |
| | **WB91420R** | KEYBOARD ASSEMBLY | 16M C61-2M-EBUS | 16M鍵盤EMKSA | | |
| 30 | **WF266600** | BIND HEAD TAPPING SCREW-P | 3.0X8 MFZN2B3 | Pタイト十BIND | | 2 |
| 50 | **--** | KEYBOARD FRAME BLACK | C61 16M | フレーム | (VU32860) | |
| 60 | **VH180900** | WHITE KEY | CEGB 16L | 白鍵CEGB | | 5 |
| 70 | **VH181000** | WHITE KEY | DFA 16L | 白鍵DFA | | 5 |
| 80 | **VH181102** | WHITE KEY | C' 16L | 白鍵C' | | |
| 90 | **VH181202** | BLACK KEY | | 黒鍵 | | 5 |
| 100 | **VH181300** | FELT | 16L C-61 | フェルト | | |
| * 110 | **ZH086100** | CUSHION SHEET | 16L,16M | クッションシート | | |
| 120 | **VU328401** | KEYBOARD RUBBER CONTACT | CT 2M 12KEYS | 接点ゴム | | 5 |
| 130 | **VU328501** | KEYBOARD RUBBER CONTACT | 16M C' 2M 1KEY | 接点ゴム | | |
| 140 | **WE973000** | BIND HEAD TAPPING SCREW-P | 3.0X16 MFZN2W3 | Pタイト十BIND | | 21 |
| 140 | **WE983200** | BIND HEAD TAPPING SCREW-P | 3.0X16 MFZN2B3 | Pタイト十BIND | | 21 |
| 150 | **TX920280** | GREASE | G-31KA 50g | グリス | (VE96850) | |
| 160 | **--** | CIRCUIT BOARD ASSEMBLY | 16M C61 P2M EBUS | 鍵盤SWシート | (WB91430) | |
| | | | | | | |
| | **--** | CIRCUIT BOARD ASSEMBLY | 16M C61 P2M EBUS | 鍵盤SWシート | (WB91430) | |
| S1 | **VU648101** | CIRCUIT BOARD | MK-L | MKーLシート | | |
| S2 | **VU648200** | CIRCUIT BOARD | MK-H | MKーHシート | | |
| S3 | **WF310500** | CIRCUIT BOARD | EMKS61A(E-BUS) | EMKS61Aシート | | |
| S4 | **VU95890R** | CABLE | 12P L=190 | ケーブル | | |
| S5 | **VU65950R** | CABLE | 12P | ケーブル | | |
| S6 | **VU65940R** | CABLE | 7P | ケーブル | | |
| S7 | **VU65960R** | CABLE | 5P | ケーブル | | |

*: New Parts

# ■ PSR-S770 ELECTRICAL PARTS

## AJACK/HP/MOD/PB

| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| | | | ELECTRICAL PARTS | | 電気部品 | PSR-S770 | |
| * | | **ZP451400** | CIRCUIT BOARD | AJACK | AJACKシート | (ZN43330)(YG589F0) | |
| * | | **ZP451500** | CIRCUIT BOARD | HP | HPシート | (ZN43330)(YG589F0) | |
| * | | **ZP451700** | CIRCUIT BOARD | MOD | MODシート | (ZN43330)(YG589F0) | |
| * | | **ZP451600** | CIRCUIT BOARD | PB | PBシート | (ZN43330)(YG589F0) | |
| * | | **ZN123800** | CIRCUIT BOARD | DMM | DMMシート | (YG546C0) | |
| | | **WF310500** | CIRCUIT BOARD | EMKS61A(E-BUS) | EMKS61Aシート | (WF31010)(X6637C0) | |
| * | | **ZP451300** | CIRCUIT BOARD | KNOB | KNOBシート | (ZN43310)(YG581D0) | |
| * | | **ZP451000** | CIRCUIT BOARD | PNM | PNMシート | (ZN43310)(YG581D0) | |
| * | | **ZP451200** | CIRCUIT BOARD | PNS | PNSシート | (ZN43310)(YG581D0) | |
| | | **VU648200** | CIRCUIT BOARD | MK-H | MK-Hシート | (VU64800)(XR565C0) | |
| | | **VU648101** | CIRCUIT BOARD | MK-L | MK-Lシート | (VU64790)(XR564C0) | |
| * | | **ZP450800** | CIRCUIT BOARD | PNC | PNCシート | (ZN43320)(YG588D0) | |
| * | | **ZP450700** | CIRCUIT BOARD | PNL | PNLシート | (ZN43320)(YG588D0) | |
| * | | **ZP450900** | CIRCUIT BOARD | PNR | PNRシート | (ZN43320)(YG588D0) | |
| | | | | | | | |
| * | | **ZP451400** | CIRCUIT BOARD | AJACK | AJACKシート | (ZN43330)(YG589F0) | |
| * | | **ZP451500** | CIRCUIT BOARD | HP | HPシート | (ZN43330)(YG589F0) | |
| * | | **ZP451700** | CIRCUIT BOARD | MOD | MODシート | (ZN43330)(YG589F0) | |
| * | | **ZP451600** | CIRCUIT BOARD | PB | PBシート | (ZN43330)(YG589F0) | |
| | | **--** | DC JACK PLATE | | DCジャック金具塗装品 | (ZN88960) | |
| | | **WE774301** | BIND HEAD TAPPING SCREW-B | 3.0X8 MFZN2W3 | Bタイト＋BIND | | 2 |
| | C133 | **UR749680** | ELECTROLYTIC CAPACITOR | 6800 25.0V FORM. | ケミコン | | |
| ⚠ | D100 | **V9917100** | DIODE | S3V60-5004P15 FOR. | ダイオード | | |
| | FT100 | **ZA675500** | FET KB-290 | TJ20A10M3 SUTO | FET | | |
| | IC100 | **XJ602A00** | IC | NJM78M12FA | IC | REGULATOR +12V | |
| | JK100 | **V814980R** | DC CONNECTOR | DJ-0735-029 | 電源コネクタ | DC IN | |
| | JK102 | **VB23040R** | PHONE CONNECTOR | YKB21-5352N | ホーンコネクタ | AUX IN | |
| | JK102 | **ZA590000** | PHONE CONNECTOR | JACK MINI STEREO | ホーンコネクタ | | |
| | JK103 | **VS11540R** | PHONE CONNECTOR BLACK | LGR4609-7100F | ホーンコネクタ（黒） | OUTPUT L/L+R | |
| | JK104 | **VS11540R** | PHONE CONNECTOR BLACK | LGR4609-7100F | ホーンコネクタ（黒） | OUTPUT R | |
| | JK105 | **VS11540R** | PHONE CONNECTOR BLACK | LGR4609-7100F | ホーンコネクタ（黒） | FOOT PEDAL 1 | |
| | JK106 | **VS11540R** | PHONE CONNECTOR BLACK | LGR4609-7100F | ホーンコネクタ（黒） | FOOT PEDAL 2 | |
| | JK200 | **WJ306200** | PHONE CONNECTOR | MSJ-064-15A B AG | ホーンコネクタ | PHONES | |
| | JK401 | **WJ306200** | PHONE CONNECTOR | MSJ-064-15A B AG | ホーンコネクタ | MIC/GUITART INPUT | |
| | L102 | **--** | LINE FILTER | UF1815SG-800Y3R0-0 | ラインフィルター | (ZC24080) | |
| | L107 | **--** | COIL | SBT-0240TF TATETE | コイル | (ZK72630) | |
| | -110 | **--** | COIL | SBT-0240TF TATETE | コイル | (ZK72630) | |
| | L113 | **--** | COIL | SBT-0240TF TATETE | コイル | (ZK72630) | |
| | L114 | **--** | COIL | SBT-0240TF TATETE | コイル | (ZK72630) | |
| | L116 | **--** | COIL | 10uH SBT-0210T | コイル | (VT73340) | |
| | L117 | **--** | COIL | 10uH SBT-0210T | コイル | (VT73340) | |
| | RY200 | **V824560R** | RELAY | DC ATX203 12V | リレー | | |
| | RY200 | **V8616501** | RELAY | DC G6S-2 12V | リレー 12V | | |
| | RY200 | **WB17080R** | RELAY | DC NA-12W-K 12V | リレー 12V | | |
| | RY200 | **WB751900** | RELAY | DC EC2-12NU-F 12V | リレー 12V | | |
| | SW400 | **VQ545800** | SLIDE SWITCH | SSSF121900 | スライドSW | MIC GUITAR | |
| ⚠ | TH100 | **VV45800R** | PROTECTOR SWITCH | RUEF250 2.50A 30V | ポリスイッチ | | |
| | VR400 | **ZA774900** | ROTARY VARIABLE RESISTOR | A 10.0K RK09K1110D | ロータリーVR | GAIN | |
| | VR401 | **WZ510000** | ROTARY VARIABLE RESISTOR | B 10.0K RK11K1110D | ロータリーVR | PITCH BEND | |
| | VR402 | **WZ510000** | ROTARY VARIABLE RESISTOR | B 10.0K RK11K1110D | ロータリーVR | MODULATION | |
| | IC104 | **X5482A00** | IC | NE5532DR | IC | OP AMP | |
| | IC106 | **X5482A00** | IC | NE5532DR | IC | OP AMP | |
| | IC403 | **X5482A00** | IC | NE5532DR | IC | OP AMP | |
| | R119 | **RD156390** | CARBON RESISTOR (CHIP) | 3.9K 1/4 J TP | チップ抵抗 | | |
| | TR100 | **VJ927100** | TRANSISTOR | 2SC2712-Y(TE85R,F) | トランジスタ 2SC | | |
| | TR103 | **VJ927100** | TRANSISTOR | 2SC2712-Y(TE85R,F) | トランジスタ 2SC | | |
| | TR104 | **VJ92720R** | TRANSISTOR | 2SA1162-Y(TE85R,F) | トランジスタ 2SA | | |
| | TR105 | **WC883401** | TRANSISTOR | 2SD2704 K TP | トランジスタ 2SD | | |
| | TR106 | **WC883401** | TRANSISTOR | 2SD2704 K TP | トランジスタ 2SD | | |
| | C129 | **UR838101** | ELECTROLYTIC CAPACITOR | 100.00 16.0V RX TP | ケミコン | | |
| | C141 | **UR837470** | ELECTROLYTIC CAPACITOR | 47.00 16.0V RX TP | ケミコン | | |
| | C146 | **UR838101** | ELECTROLYTIC CAPACITOR | 100.00 16.0V RX TP | ケミコン | | |
| | C151 | **UR837470** | ELECTROLYTIC CAPACITOR | 47.00 16.0V RX TP | ケミコン | | |
| | C157 | **UN867100** | ELECTROLYTIC CAPACITOR BP | 10.00 50.0V RX TP | BPケミコン | | |
| | C158 | **UN867100** | ELECTROLYTIC CAPACITOR BP | 10.00 50.0V RX TP | BPケミコン | | |
| | C162 | **UR867100** | ELECTROLYTIC CAPACITOR | 10.00 50.0V RX TP | ケミコン | | |
| | C163 | **UR867100** | ELECTROLYTIC CAPACITOR | 10.00 50.0V RX TP | ケミコン | | |
| | C200 | **UR848220** | ELECTROLYTIC CAPACITOR | 220.00 25.0V RX TP | ケミコン | | |
| | C201 | **UR848220** | ELECTROLYTIC CAPACITOR | 220.00 25.0V RX TP | ケミコン | | |

*: New Parts

# AJACK/HP/MOD/PB and DMM

| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| | C430 | **UN866470** | ELECTROLYTIC CAPACITOR BP | 4.70 50.0V RX TP | BPケミコン | | |
| | C432 | **UR867100** | ELECTROLYTIC CAPACITOR | 10.00 50.0V RX TP | ケミコン | | |
| | C438 | **UR867100** | ELECTROLYTIC CAPACITOR | 10.00 50.0V RX TP | ケミコン | | |
| | R138 | **HF454220** | CARBON RESISTOR | 22.0 1/4 J AX TP | カーボン抵抗 | | |
| | R140 | **HF454220** | CARBON RESISTOR | 22.0 1/4 J AX TP | カーボン抵抗 | | |
| | | | | | | | |
| * | | **ZN123800** | CIRCUIT BOARD | DMM | DMMシート | (YG546C0) | |
| | C960 | **VQ755900** | ELECTROLYTIC CAPACITOR BP | 3.30 50.0V TATEJI | BPケミコン | | |
| | C961 | **VQ755900** | ELECTROLYTIC CAPACITOR BP | 3.30 50.0V TATEJI | BPケミコン | | |
| | CN402 | **V6802600** | USB JACK | USB 4P SE | USBジャック | USB TO HOST | |
| | CN403 | **WH780300** | USB RECEPTACLE | UBA 4P SE | USBリセプタクル | USB TO DEVICE | |
| | JK001 | **VJ10720R** | DIN CONNECTOR | 5P YKF51-5050N | DINコネクタ | MIDI IN | |
| | JK001 | **VZ085800** | DIN CONNECTOR | 5P HDC-052SP-01 | DINコネクタ | | |
| | JK002 | **VJ10720R** | DIN CONNECTOR | 5P YKF51-5050N | DINコネクタ | MIDI OUT | |
| | JK002 | **VZ085800** | DIN CONNECTOR | 5P HDC-052SP-01 | DINコネクタ | | |
| | D201 | **VT532500** | DIODE | 1SR154-400 TE-25 1A 400V | ダイオード | | |
| | D802 | **VT532500** | DIODE | 1SR154-400 TE-25 1A 400V | ダイオード | | |
| | IC206 | **X4943D00** | IC | W9825G6JH-6 | IC | SDR-SDRAM 256M WORK | |
| | IC207 | **X3584E00** | IC | W9812G6JH-6 | IC | SDR-SDRAM 128M WORK | |
| * | IC209 | **YG611A00** | IC | RP132S001D-E2-FE | IC | REGULATOR +1.3V | |
| | IC800 | **X5049A0R** | IC | NJM4556AM-TE1 | IC | OP AMP | |
| | IC801 | **X5482A00** | IC | NE5532DR | IC | OP AMP | |
| | IC803 | **X5482A00** | IC | NE5532DR | IC | OP AMP | |
| | -805 | **X5482A00** | IC | NE5532DR | IC | OP AMP | |
| | R250 | **RD150000** | CARBON RESISTOR (CHIP) | 0.0 1/4 J TP | チップ抵抗 | | |
| | R256 | **RA156680** | METAL FILM RESISTOR (CHIP) | 6.8K 63M D RECT. | チップ金被抵抗 | | |
| | R257 | **RA156680** | METAL FILM RESISTOR (CHIP) | 6.8K 63M D RECT. | チップ金被抵抗 | | |
| | R258 | **RA157100** | METAL FILM RESISTOR (CHIP) | 10.0K 63M D RECT. | チップ金被抵抗 | | |
| | R259 | **RA157120** | METAL FILM RESISTOR (CHIP) | 12.0K 63M D RECT. | チップ金被抵抗 | | |
| | R497 | **RD155680** | CARBON RESISTOR (CHIP) | 680.0 1/4 J TP | チップ抵抗 | | |
| | R498 | **RD155680** | CARBON RESISTOR (CHIP) | 680.0 1/4 J TP | チップ抵抗 | | |
| | R868 | **RA156150** | METAL FILM RESISTOR (CHIP) | 1.5K 63M D RECT. | チップ金被抵抗 | | |
| | R874 | **RA156270** | METAL FILM RESISTOR (CHIP) | 2.7K 63M D RECT. | チップ金被抵抗 | | |
| | -881 | **RA156270** | METAL FILM RESISTOR (CHIP) | 2.7K 63M D RECT. | チップ金被抵抗 | | |
| | R886 | **RA156820** | METAL FILM RESISTOR (CHIP) | 8.2K 63M D RECT. | チップ金被抵抗 | | |
| | -889 | **RA156820** | METAL FILM RESISTOR (CHIP) | 8.2K 63M D RECT. | チップ金被抵抗 | | |
| | R892 | **RA156820** | METAL FILM RESISTOR (CHIP) | 8.2K 63M D RECT. | チップ金被抵抗 | | |
| | R893 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R894 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R895 | **RA156820** | METAL FILM RESISTOR (CHIP) | 8.2K 63M D RECT. | チップ金被抵抗 | | |
| | R896 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R897 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R898 | **RA156820** | METAL FILM RESISTOR (CHIP) | 8.2K 63M D RECT. | チップ金被抵抗 | | |
| | R899 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R900 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R901 | **RA156820** | METAL FILM RESISTOR (CHIP) | 8.2K 63M D RECT. | チップ金被抵抗 | | |
| | R902 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R903 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R913 | **RD15468R** | CARBON RESISTOR (CHIP) | 68.0 1/4 J TP | チップ抵抗 | | |
| | R914 | **RD15468R** | CARBON RESISTOR (CHIP) | 68.0 1/4 J TP | チップ抵抗 | | |
| | R933 | **RD15468R** | CARBON RESISTOR (CHIP) | 68.0 1/4 J TP | チップ抵抗 | | |
| | R934 | **RD15468R** | CARBON RESISTOR (CHIP) | 68.0 1/4 J TP | チップ抵抗 | | |
| | R959 | **RA156150** | METAL FILM RESISTOR (CHIP) | 1.5K 63M D RECT. | チップ金被抵抗 | | |
| | C493 | **WV584900** | ELECTROLYTIC CAPACITOR | 150.00 10.0V CHIP | ケミコンRVD | | |
| | C875 | **WN422600** | ELECTROLYTIC CAPACITOR(CHIP) | 1.00 50.0V TP | チップケミコンUD | | |
| * | C876 | **ZH232500** | ELECTROLYTIC CAPACITOR(CHIP) | 10.00 25.0V CHIP | チップケミコンUD | | |
| * | -881 | **ZH232500** | ELECTROLYTIC CAPACITOR(CHIP) | 10.00 25.0V CHIP | チップケミコンUD | | |
| | C914 | **WN422300** | ELECTROLYTIC CAPACITOR(CHIP) | 47.00 35.0V TP | チップケミコンUD | | |
| | C917 | **WQ574000** | ELECTROLYTIC CAPACITOR(CHIP) | 100 25V RVS-25V101 | チップケミコン | | |
| | C919 | **WQ574000** | ELECTROLYTIC CAPACITOR(CHIP) | 100 25V RVS-25V101 | チップケミコン | | |
| * | C929 | **ZH232500** | ELECTROLYTIC CAPACITOR(CHIP) | 10.00 25.0V CHIP | チップケミコンUD | | |
| | C959 | **ZC041800** | ELECTROLYTIC CAPACITOR(CHIP) | 220.00 25.0V | チップケミコンCL | | |
| | D401 | **VT532500** | DIODE | 1SR154-400 TE-25 1A 400V | ダイオード | | |
| | D600 | **VT532500** | DIODE | 1SR154-400 TE-25 1A 400V | ダイオード | | |
| | D800 | **V6267600** | DIODE | RB051L-40 TP | ダイオード | | |
| | D801 | **V6267600** | DIODE | RB051L-40 TP | ダイオード | | |
| | IC001 | **--** | IC | R8A77310D333BG | IC | MAIN CPU (YC170A0) | |
| | IC002 | **--** | IC | YMW832-CZ | IC | SWP70 (YF447B0) | |
| | IC004 | **X7701A00** | IC | BU4229G-TR | IC | SYSTEM RESET | |
| | IC007 | **YC019A00** | IC | S-80944CNNB-G9ET2G | IC | SYSTEM RESET | |

*: New Parts

## DMM and EMKS61A and KNOB/PNM/PNS

| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| * | IC008 | **YG840B00** | IC | S29GL512S10TFI020 | I C | NOR FLASH ROM 512M MAIN PROGRAM | |
| | IC010 | **--** | IC | S29GL128S90TFI020 | I C | NOR FLASH ROM 128M BACKUP (YA121B0) | |
| * | IC018 | **YG621A00** | IC | MB88155PFT-G-112 | I C | SPREAD SPECTRUM CLOCK GENERATOR | |
| | IC021 | **VR90370R** | PHOTO COUPLER | HCPL-M600-500E | フォトカプラ | | |
| | IC208 | **X4943D00** | IC | W9825G6JH-6 | I C | SDR-SDRAM 256M WORK | |
| | IC405 | **YD546A00** | IC | UPD720150GK-9EU-A | I C | USB CONTROLLER | |
| | IC409 | **YD235A00** | IC | R5524N002A-TR-FE | I C | USB HIGH SIDE POWER SWITCH | |
| * | IC412 | **YG554A00** | IC | R1517S001C-E2-FE | I C | REGULATOR +12V | |
| * | IC600 | **YG841B00** | IC | S34ML02G100TFI000 | I C | NAND FLASH ROM 2G WAVE-L | |
| * | IC601 | **YG842B00** | IC | S34ML02G100TFI000 | I C | NAND FLASH ROM 2G WAVE-H | |
| | IC602 | **X4943D00** | IC | W9825G6JH-6 | I C | SDR-SDRAM 256M WAVE-WORK | |
| * | IC605 | **YA658C00** | IC | W9864G6KH-5 | I C | SDR-SDRAM 64M DSP | |
| * | IC606 | **YG611A00** | IC | RP132S001D-E2-FE | I C | REGULATOR +1.0V | |
| | IC802 | **YD652A00** | IC | YDA164C-QZE2 | I C | POWER AMPLIFIER 20Wx2 | |
| | IC807 | **X8324A00** | IC | AK4396VF-E2 | I C | DAC | |
| | IC808 | **X7585A01** | IC | AK5357ET-E2 | I C | ADC | |
| | IC810 | **YD766A00** | IC | ISL85033IRTZ-T | I C | DC-DC CONVERTER | |
| | IC811 | **YF520A00** | IC | R1190S050B-E2-FE | I C | REGULATOR +5V | |
| | IC812 | **X7357B00** | IC | PCM1803ADBR | I C | ADC | |
| | R046 | **VI196800** | METAL FILM RESISTOR (CHIP) | 5.6K 1/10 D RECT. | チップ金被抵抗 | | |
| | R047 | **RA156220** | METAL FILM RESISTOR (CHIP) | 2.2K 63M D RECT. | チップ金被抵抗 | | |
| | R048 | **RA155470** | METAL FILM RESISTOR (CHIP) | 470.0 63M D RECT. | チップ金被抵抗 | | |
| | R109 | **RD15447R** | CARBON RESISTOR (CHIP) | 47.0 1/4 J TP | チップ抵抗 | | |
| | R668 | **RD150000** | CARBON RESISTOR (CHIP) | 0.0 1/4 J TP | チップ抵抗 | | |
| | R680 | **RD150000** | CARBON RESISTOR (CHIP) | 0.0 1/4 J TP | チップ抵抗 | | |
| | R681 | **RA156120** | METAL FILM RESISTOR (CHIP) | 1.2K 63M D RECT. | チップ金被抵抗 | | |
| | R682 | **RA156470** | METAL FILM RESISTOR (CHIP) | 4.7K 63M D RECT. | チップ金被抵抗 | | |
| | R917 | **RA156330** | METAL FILM RESISTOR (CHIP) | 3.3K 63M D RECT. | チップ金被抵抗 | | |
| | R920 | **RA157510** | METAL FILM RESISTOR (CHIP) | 51.0K 63M D RECT. | チップ金被抵抗 | | |
| | R923 | **RA157100** | METAL FILM RESISTOR (CHIP) | 10.0K 63M D RECT. | チップ金被抵抗 | | |
| | R930 | **RA157100** | METAL FILM RESISTOR (CHIP) | 10.0K 63M D RECT. | チップ金被抵抗 | | |
| | R931 | **RA157270** | METAL FILM RESISTOR (CHIP) | 27.0K 63M D RECT. | チップ金被抵抗 | | |
| | R932 | **RA156470** | METAL FILM RESISTOR (CHIP) | 4.7K 63M D RECT. | チップ金被抵抗 | | |
| | X001 | **ZF320500** | QUARTZ CRYSTAL UNIT | 32.768KHz DSO321SR | 水晶発振器 | | |
| | X002 | **WN318100** | RESONATOR QUARTZ | 20MHz DSX321G | 水晶振動子 | | |
| | X402 | **WG415900** | QUARTZ CRYSTAL UNIT | 30MHz DSX321G | 水晶振動子 | | |
| | X800 | **WM284900** | QUARTZ CRYSTAL UNIT | 22.5792MHz DSX321G | 水晶振動子 | | |
| | | | | | | | |
| | | **WF310500** | CIRCUIT BOARD | EMKS61A(E-BUS) | EMKS61Aシート | (WF31010)(X6637C0) | |
| | C0002 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| | IC001 | **X003120R** | IC | UPD780031AYGK-N04 | I C | E-LKS | |
| | X0001 | **V615050R** | CERAMIC RESONATOR | 8.38MHz EFOS8384E5 | セラミック振動子 | } | |
| | X0001 | **WU956300** | CERAMIC RESONATOR | 8.38MHz CSTCC8M38G56 | セラミック振動子 | } | |
| | | | | | | | |
| * | | **ZP451300** | CIRCUIT BOARD | KNOB | KNOBシート | (ZN43310)(YG581D0) | |
| * | | **ZP451000** | CIRCUIT BOARD | PNM | PNMシート | (ZN43310)(YG581D0) | |
| * | | **ZP451200** | CIRCUIT BOARD | PNS | PNSシート | (ZN43310)(YG581D0) | |
| | EC200 | **WZ590700** | ENCODER | EC12E24204A2 | 12形エンコーダ | Data entry | |
| | VR100 | **VQ67050R** | ROTARY VARIABLE RESISTOR | B 10K RK11K1130A0M | ロータリーボリューム | MASTER VOLUMR | |
| | VR400 | **VQ032500** | ROTARY VARIABLE RESISTOR | B 10.0K RK11K113 | ロータリーVR | LIVE CONTROL 1 | |
| | VR401 | **VQ032500** | ROTARY VARIABLE RESISTOR | B 10.0K RK11K113 | ロータリーVR | LIVE CONTROL 2 | |
| | LD100 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | REC | |
| | LD101 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | DANCE | |
| | LD102 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | REPEAT | |
| | LD103 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | POP&ROCK | |
| | LD104 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | BALLAD | |
| | LD105 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | MIC SETTING | |
| | LD106 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | SWIMG&JAZZ | |
| | LD107 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | R&B | |
| | LD108 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | COUNTRY | |
| | LD109 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | EXTRA TR | |
| | LD110 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | PLAY/PAUSE | |
| | LD111 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | TR2 | |
| | LD112 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | LATIN | |
| | LD113 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | BALLROOM | |
| | LD114 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | MOVIE&SHOW | |
| | LD115 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | GUIDE | |
| | LD116 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | TR1 | |
| | LD117 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | METRONOME | |
| | LD118 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | ENTERTAINER | |

*: New Parts

## KNOB/PNM/PNS and MK-H and MK-L and PNC/PNL/PNR

| REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|
| LD119 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | WORLD | |
| LD120 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | EXPANSION/USER | |
| LD200 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ON/OFF LEFT HOLD | |
| LD201 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ON/OFF LEFT | |
| LD202 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | HERMONY/ARPEGGIO | |
| LD203 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ON/OFF RIGHT1 | |
| LD204 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | TOUCH | |
| LD205 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | PIANO | |
| LD206 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | E.PIANO | |
| LD207 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ORGAN | |
| LD208 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ON/OFF RIGHT2 | |
| LD209 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | SUSTAIN | |
| LD210 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | GUITAR | |
| LD211 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | BASS | |
| LD212 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ACCORDION | |
| LD213 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | SELECT LEFT | |
| LD214 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | MONO | |
| LD215 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | STRINGS | |
| LD216 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | BRASS | |
| LD217 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | WOODWIND | |
| LD218 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | SELECT RIGHT1 | |
| LD219 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | DSP | |
| LD220 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | CHOIR&PAD | |
| LD221 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | SYNTH | |
| LD222 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | PERCUSSION | |
| LD223 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | SELECT RIGHT2 | |
| LD224 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | USB | |
| LD225 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | VARI | |
| LD226 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | DRUM KIT | |
| LD227 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ORGAN FLUTES | |
| LD228 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | EXPANSION/USER | |
| C120 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C149 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C163 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C164 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C226 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C228 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C250 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C251 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C461 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| FT100 | **ZA683700** | FET | US6K1TR | FET | | |
| -104 | **ZA683700** | FET | US6K1TR | FET | | |
| FT100 | **ZA777500** | FET | US6K4TR TAPE | FET | | |
| -104 | **ZA777500** | FET | US6K4TR TAPE | FET | | |
| FT200 | **ZA683700** | FET | US6K1TR | FET | | |
| -204 | **ZA683700** | FET | US6K1TR | FET | | |
| FT200 | **ZA777500** | FET | US6K4TR TAPE | FET | | |
| -204 | **ZA777500** | FET | US6K4TR TAPE | FET | | |
| IC100 | **YD841B00** | IC | TMP89FW24AFG-7KH4 | IC | E-PNS3a | |
| IC200 | **YD841B00** | IC | TMP89FW24AFG-7KH4 | IC | E-PNS3a | |
| R100 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| R101 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| R102 | **RD155120** | CARBON RESISTOR (CHIP) | 120.0 1/4 J TP | チップ抵抗 | | |
| R103 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| R104 | **RD155120** | CARBON RESISTOR (CHIP) | 120.0 1/4 J TP | チップ抵抗 | | |
| R105 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| R200 | **RD155120** | CARBON RESISTOR (CHIP) | 120.0 1/4 J TP | チップ抵抗 | | |
| R201 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| -205 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| R206 | **RD155120** | CARBON RESISTOR (CHIP) | 120.0 1/4 J TP | チップ抵抗 | | |
| R207 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| | | | | | | |
| | **VU648200** | CIRCUIT BOARD | MK-H | MK-H シート | (VU64800)(XR565C0) | |
| | **VB941200** | DIODE | 1SS133,1SS176 TE-5 | ダイオード | A#3-C6 | 54 |
| | | | | | | |
| | **VU648101** | CIRCUIT BOARD | MK-L | MK-L シート | (VU64790)(XR564C0) | |
| | **VB941200** | DIODE | 1SS133,1SS176 TE-5 | ダイオード | C1-A3 | 68 |
| | | | | | | |
| * | **ZP450800** | CIRCUIT BOARD | PNC | PNC シート | (ZN43320)(YG588D0) | |
| * | **ZP450700** | CIRCUIT BOARD | PNL | PNL シート | (ZN43320)(YG588D0) | |

*: New Parts

# PNC/PNL/PNR

| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| * | | **ZP450900** | CIRCUIT BOARD | PNR | PNRシート | (ZN43320)(YG588D0) | |
| | LD100 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | ACMP | |
| | LD101 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | INTRO I | |
| | LD102 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | FADE IN/OUT | |
| | LD103 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | INTRO II | |
| | LD104 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | OTS LINK | |
| | LD105 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | INTRO III | |
| | LD106 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | AUTO FILL IN | |
| | LD107 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | MAIN A | |
| | LD108 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | MAIN B | |
| | LD109 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | MAIN C | |
| | LD110 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | MAIN D | |
| | LD111 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | BREAK | |
| | LD112 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | ENDING I | |
| | LD113 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | ENDING II | |
| | LD114 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | ENDING III | |
| | LD200 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | SYNC STOP | |
| | LD201 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 1 | |
| | LD202 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | SYNC START | |
| | LD203 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 2 | |
| | LD204 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | START/STOP | |
| | LD205 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 3 | |
| | LD206 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 4 | |
| | LD207 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 5 | |
| | LD208 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 6 | |
| | LD209 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | FREEZE | |
| | LD210 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 7 | |
| | LD211 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 8 | |
| | LD300 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | PAD CTRL 1 | |
| | LD301 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | PAD CTRL 2 | |
| | LD302 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | PAD CTRL 3 | |
| | LD303 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | PAD CTRL 4 | |
| | LD304 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | OTS 1 | |
| | LD305 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | OTS 2 | |
| | LD306 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | OTS 3 | |
| | LD307 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | OTS 4 | |
| | | | | | | | |
| * | | **ZN547100** | CRYSTAL DISPLAY | M070SWP1 R5 | 液晶ディスプレイ | | |
| | | | | | | | |
| | | **YE178A00** | SPEAKER | 13.0cm 4ohm 20W | スピーカ | | 2 |
| | | **YD681A00** | LOUD SPEAKER | 5.0cm 6ohm 10W | スピーカ | | 2 |

✻: New Parts

# ■ PSR-S970 ELECTRICAL PARTS

## AJACK/HP/MOD/PB

| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| | | | ELECTRICAL PARTS | | 電気部品 | PSR-S970 | |
| * | | **ZP451400** | CIRCUIT BOARD | AJACK | AJACKシート | (ZN43330)(YG589F0) | |
| * | | **ZP451500** | CIRCUIT BOARD | HP | HPシート | (ZN43330)(YG589F0) | |
| * | | **ZP451700** | CIRCUIT BOARD | MOD | MODシート | (ZN43330)(YG589F0) | |
| * | | **ZP451600** | CIRCUIT BOARD | PB | PBシート | (ZN43330)(YG589F0) | |
| * | | **ZN123700** | CIRCUIT BOARD | DMH | DMHシート | (YG545C0) | |
| | | **WF310500** | CIRCUIT BOARD | EMKS61A(E-BUS) | EMKS61Aシート | (WF31010)(X6637C0) | |
| * | | **ZP451300** | CIRCUIT BOARD | KNOB | KNOBシート | (ZN43310)(YG581D0) | |
| * | | **ZP451000** | CIRCUIT BOARD | PNM | PNMシート | (ZN43310)(YG581D0) | |
| * | | **ZP451200** | CIRCUIT BOARD | PNS | PNSシート | (ZN43310)(YG581D0) | |
| | | **VU648200** | CIRCUIT BOARD | MK-H | MK－Hシート | (VU64800)(XR565C0) | |
| | | **VU648101** | CIRCUIT BOARD | MK-L | MK－Lシート | (VU64790)(XR564C0) | |
| * | | **ZP450800** | CIRCUIT BOARD | PNC | PNCシート | (ZN43320)(YG588D0) | |
| * | | **ZP450700** | CIRCUIT BOARD | PNL | PNLシート | (ZN43320)(YG588D0) | |
| * | | **ZP450900** | CIRCUIT BOARD | PNR | PNRシート | (ZN43320)(YG588D0) | |
| | | | | | | | |
| * | | **ZP451400** | CIRCUIT BOARD | AJACK | AJACKシート | (ZN43330)(YG589F0) | |
| * | | **ZP451500** | CIRCUIT BOARD | HP | HPシート | (ZN43330)(YG589F0) | |
| * | | **ZP451700** | CIRCUIT BOARD | MOD | MODシート | (ZN43330)(YG589F0) | |
| * | | **ZP451600** | CIRCUIT BOARD | PB | PBシート | (ZN43330)(YG589F0) | |
| | | **--** | DC JACK PLATE | | DCジャック金具塗装品 | (ZN88960) | |
| | | **WE774301** | BIND HEAD TAPPING SCREW-B | 3.0X8 MFZN2W3 | Bタイト＋BIND | | 2 |
| | C133 | **UR749680** | ELECTROLYTIC CAPACITOR | 6800 25.0V FORM. | ケミコン | | |
| ⚠ | D100 | **V9917100** | DIODE | S3V60-5004P15 FOR. | ダイオード | | |
| | FT100 | **ZA675500** | FET KB-290 | TJ20A10M3 SUTO | FET | | |
| | IC100 | **XJ602A00** | IC | NJM78M12FA | IC | REGULATOR +12V | |
| | JK100 | **V814980R** | DC CONNECTOR | DJ-0735-029 | 電源コネクタ | DC IN | |
| | JK102 | **VB23040R** | PHONE CONNECTOR | YKB21-5352N | ホーンコネクタ | AUX IN | |
| | JK102 | **ZA590000** | PHONE CONNECTOR | JACK MINI STEREO | ホーンコネクタ | | |
| | JK103 | **VS11540R** | PHONE CONNECTOR BLACK | LGR4609-7100F | ホーンコネクタ（黒） | OUTPUT L/L+R | |
| | JK104 | **VS11540R** | PHONE CONNECTOR BLACK | LGR4609-7100F | ホーンコネクタ（黒） | OUTPUT R | |
| | JK105 | **VS11540R** | PHONE CONNECTOR BLACK | LGR4609-7100F | ホーンコネクタ（黒） | FOOT PEDAL 1 | |
| | JK106 | **VS11540R** | PHONE CONNECTOR BLACK | LGR4609-7100F | ホーンコネクタ（黒） | FOOT PEDAL 2 | |
| | JK200 | **WJ306200** | PHONE CONNECTOR | MSJ-064-15A B AG | ホーンコネクタ | PHONES | |
| | JK401 | **WJ306200** | PHONE CONNECTOR | MSJ-064-15A B AG | ホーンコネクタ | MIC/GUITART INPUT | |
| | L102 | **--** | LINE FILTER | UF1815SG-800Y3R0-0 | ラインフィルター | (ZC24080) | |
| | L107 | **--** | COIL | SBT-0240TF TATETE | コイル | (ZK72630) | |
| | -110 | **--** | COIL | SBT-0240TF TATETE | コイル | (ZK72630) | |
| | L113 | **--** | COIL | SBT-0240TF TATETE | コイル | (ZK72630) | |
| | L114 | **--** | COIL | SBT-0240TF TATETE | コイル | (ZK72630) | |
| | L116 | **--** | COIL | 10uH SBT-0210T | コイル | (VT73340) | |
| | L117 | **--** | COIL | 10uH SBT-0210T | コイル | (VT73340) | |
| | RY200 | **V824560R** | RELAY | DC ATX203 12V | リレー | | |
| | RY200 | **V8616501** | RELAY | DC G6S-2 12V | リレー 12V | | |
| | RY200 | **WB17080R** | RELAY | DC NA-12W-K 12V | リレー 12V | | |
| | RY200 | **WB751900** | RELAY | DC EC2-12NU-F 12V | リレー 12V | | |
| | SW400 | **VQ545800** | SLIDE SWITCH | SSSF121900 | スライドSW | MIC GUITAR | |
| ⚠ | TH100 | **VV45800R** | PROTECTOR SWITCH | RUEF250 2.50A 30V | ポリスイッチ | | |
| | VR400 | **ZA774900** | ROTARY VARIABLE RESISTOR | A 10.0K RK09K1110D | ロータリーVR | GAIN | |
| | VR401 | **WZ510000** | ROTARY VARIABLE RESISTOR | B 10.0K RK11K1110D | ロータリーVR | PITCH BEND | |
| | VR402 | **WZ510000** | ROTARY VARIABLE RESISTOR | B 10.0K RK11K1110D | ロータリーVR | MODULATION | |
| | IC104 | **X5482A00** | IC | NE5532DR | IC | OP AMP | |
| | IC106 | **X5482A00** | IC | NE5532DR | IC | OP AMP | |
| | IC403 | **X5482A00** | IC | NE5532DR | IC | OP AMP | |
| | R119 | **RD156390** | CARBON RESISTOR (CHIP) | 3.9K 1/4 J TP | チップ抵抗 | | |
| | TR100 | **VJ927100** | TRANSISTOR | 2SC2712-Y(TE85R,F) | トランジスタ 2SC | | |
| | TR103 | **VJ927100** | TRANSISTOR | 2SC2712-Y(TE85R,F) | トランジスタ 2SC | | |
| | TR104 | **VJ92720R** | TRANSISTOR | 2SA1162-Y(TE85R,F) | トランジスタ 2SA | | |
| | TR105 | **WC883401** | TRANSISTOR | 2SD2704 K TP | トランジスタ 2SD | | |
| | TR106 | **WC883401** | TRANSISTOR | 2SD2704 K TP | トランジスタ 2SD | | |
| | C129 | **UR838101** | ELECTROLYTIC CAPACITOR | 100.00 16.0V RX TP | ケミコン | | |
| | C141 | **UR837470** | ELECTROLYTIC CAPACITOR | 47.00 16.0V RX TP | ケミコン | | |
| | C146 | **UR838101** | ELECTROLYTIC CAPACITOR | 100.00 16.0V RX TP | ケミコン | | |
| | C151 | **UR837470** | ELECTROLYTIC CAPACITOR | 47.00 16.0V RX TP | ケミコン | | |
| | C157 | **UN867100** | ELECTROLYTIC CAPACITOR BP | 10.00 50.0V RX TP | BPケミコン | | |
| | C158 | **UN867100** | ELECTROLYTIC CAPACITOR BP | 10.00 50.0V RX TP | BPケミコン | | |
| | C162 | **UR867100** | ELECTROLYTIC CAPACITOR | 10.00 50.0V RX TP | ケミコン | | |
| | C163 | **UR867100** | ELECTROLYTIC CAPACITOR | 10.00 50.0V RX TP | ケミコン | | |
| | C200 | **UR848220** | ELECTROLYTIC CAPACITOR | 220.00 25.0V RX TP | ケミコン | | |
| | C201 | **UR848220** | ELECTROLYTIC CAPACITOR | 220.00 25.0V RX TP | ケミコン | | |

*: New Parts

# AJACK/HP/MOD/PB and DMH

| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| | C430 | **UN866470** | ELECTROLYTIC CAPACITOR BP | 4.70 50.0V RX TP | BPケミコン | | |
| | C432 | **UR867100** | ELECTROLYTIC CAPACITOR | 10.00 50.0V RX TP | ケミコン | | |
| | C438 | **UR867100** | ELECTROLYTIC CAPACITOR | 10.00 50.0V RX TP | ケミコン | | |
| | R138 | **HF454220** | CARBON RESISTOR | 22.0 1/4 J AX TP | カーボン抵抗 | | |
| | R140 | **HF454220** | CARBON RESISTOR | 22.0 1/4 J AX TP | カーボン抵抗 | | |
| | | | | | | | |
| * | | **ZN123700** | CIRCUIT BOARD | DMH | DMHシート | (YG545C0) | |
| | C494 | **UN838220** | ELECTROLYTIC CAPACITOR BP | 220.00 16.0V RX TP | BPケミコン | | |
| | C498 | **UN838220** | ELECTROLYTIC CAPACITOR BP | 220.00 16.0V RX TP | BPケミコン | | |
| | C503 | **UN838220** | ELECTROLYTIC CAPACITOR BP | 220.00 16.0V RX TP | BPケミコン | | |
| | CN402 | **V6802600** | USB JACK | USB 4P SE | USB ジャック | USB TO HOST | |
| | CN403 | **WH780300** | USB RECEPTACLE | UBA 4P SE | USB リセプタクル | USB TO DEVICE | |
| * | CN404 | **ZS548800** | D-SUB CONNECTOR | 15P SE | D－Sub コネクタ | | |
| | JK001 | **VJ10720R** | DIN CONNECTOR | 5P YKF51-5050N | DIN コネクタ | MIDI IN | |
| | JK001 | **VZ085800** | DIN CONNECTOR | 5P HDC-052SP-01 | DIN コネクタ | | |
| | JK002 | **VJ10720R** | DIN CONNECTOR | 5P YKF51-5050N | DIN コネクタ | MIDI OUT | |
| | JK002 | **VZ085800** | DIN CONNECTOR | 5P HDC-052SP-01 | DIN コネクタ | | |
| | D201 | **VT532500** | DIODE | 1SR154-400 TE-25 1A 400V | ダイオード | | |
| | D802 | **VT532500** | DIODE | 1SR154-400 TE-25 1A 400V | ダイオード | | |
| | IC206 | **X3584E00** | IC | W9812G6JH-6 | IC | SDR-SDRAM 128M WORK | |
| | IC207 | **X4943D00** | IC | W9825G6JH-6 | IC | SDR-SDRAM 256M WORK | |
| * | IC209 | **YG611A00** | IC | RP132S001D-E2-FE | IC | REGULATOR +1.3V | |
| | IC800 | **X5049A0R** | IC | NJM4556AM-TE1 | IC | OP AMP | |
| | IC801 | **X5482A00** | IC | NE5532DR | IC | OP AMP | |
| | IC803 | **X5482A00** | IC | NE5532DR | IC | OP AMP | |
| | -805 | **X5482A00** | IC | NE5532DR | IC | OP AMP | |
| | R250 | **RD150000** | CARBON RESISTOR (CHIP) | 0.0 1/4 J TP | チップ抵抗 | | |
| | R256 | **RA156680** | METAL FILM RESISTOR (CHIP) | 6.8K 63M D RECT. | チップ金被抵抗 | | |
| | R257 | **RA156680** | METAL FILM RESISTOR (CHIP) | 6.8K 63M D RECT. | チップ金被抵抗 | | |
| | R258 | **RA157100** | METAL FILM RESISTOR (CHIP) | 10.0K 63M D RECT. | チップ金被抵抗 | | |
| | R259 | **RA157120** | METAL FILM RESISTOR (CHIP) | 12.0K 63M D RECT. | チップ金被抵抗 | | |
| | R497 | **RD155680** | CARBON RESISTOR (CHIP) | 680.0 1/4 J TP | チップ抵抗 | | |
| | R498 | **RD155680** | CARBON RESISTOR (CHIP) | 680.0 1/4 J TP | チップ抵抗 | | |
| | R868 | **RA156150** | METAL FILM RESISTOR (CHIP) | 1.5K 63M D RECT. | チップ金被抵抗 | | |
| | R874 | **RA156270** | METAL FILM RESISTOR (CHIP) | 2.7K 63M D RECT. | チップ金被抵抗 | | |
| | -881 | **RA156270** | METAL FILM RESISTOR (CHIP) | 2.7K 63M D RECT. | チップ金被抵抗 | | |
| | R886 | **RA156820** | METAL FILM RESISTOR (CHIP) | 8.2K 63M D RECT. | チップ金被抵抗 | | |
| | -889 | **RA156820** | METAL FILM RESISTOR (CHIP) | 8.2K 63M D RECT. | チップ金被抵抗 | | |
| | R892 | **RA156820** | METAL FILM RESISTOR (CHIP) | 8.2K 63M D RECT. | チップ金被抵抗 | | |
| | R893 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R894 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R895 | **RA156820** | METAL FILM RESISTOR (CHIP) | 8.2K 63M D RECT. | チップ金被抵抗 | | |
| | R896 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R897 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R898 | **RA156820** | METAL FILM RESISTOR (CHIP) | 8.2K 63M D RECT. | チップ金被抵抗 | | |
| | R899 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R900 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R901 | **RA156820** | METAL FILM RESISTOR (CHIP) | 8.2K 63M D RECT. | チップ金被抵抗 | | |
| | R902 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R903 | **RA156180** | METAL FILM RESISTOR (CHIP) | 1.8K 63M D RECT. | チップ金被抵抗 | | |
| | R913 | **RD15468R** | CARBON RESISTOR (CHIP) | 68.0 1/4 J TP | チップ抵抗 | | |
| | R914 | **RD15468R** | CARBON RESISTOR (CHIP) | 68.0 1/4 J TP | チップ抵抗 | | |
| | R933 | **RD15468R** | CARBON RESISTOR (CHIP) | 68.0 1/4 J TP | チップ抵抗 | | |
| | R934 | **RD15468R** | CARBON RESISTOR (CHIP) | 68.0 1/4 J TP | チップ抵抗 | | |
| | R959 | **RA156150** | METAL FILM RESISTOR (CHIP) | 1.5K 63M D RECT. | チップ金被抵抗 | | |
| | C493 | **WV584900** | ELECTROLYTIC CAPACITOR | 150.00 10.0V CHIP | ケミコン RVD | | |
| | C875 | **WN422600** | ELECTROLYTIC CAPACITOR(CHIP) | 1.00 50.0V TP | チップケミコン UD | | |
| * | C876 | **ZH232500** | ELECTROLYTIC CAPACITOR(CHIP) | 10.00 25.0V CHIP | チップケミコン UD | | |
| * | -881 | **ZH232500** | ELECTROLYTIC CAPACITOR(CHIP) | 10.00 25.0V CHIP | チップケミコン UD | | |
| | C914 | **WN422300** | ELECTROLYTIC CAPACITOR(CHIP) | 47.00 35.0V TP | チップケミコン UD | | |
| | C917 | **WQ574000** | ELECTROLYTIC CAPACITOR(CHIP) | 100 25V RVS-25V101 | チップケミコン | | |
| | C919 | **WQ574000** | ELECTROLYTIC CAPACITOR(CHIP) | 100 25V RVS-25V101 | チップケミコン | | |
| * | C929 | **ZH232500** | ELECTROLYTIC CAPACITOR(CHIP) | 10.00 25.0V CHIP | チップケミコン UD | | |
| | C959 | **ZC041800** | ELECTROLYTIC CAPACITOR(CHIP) | 220.00 25.0V | チップケミコン CL | | |
| | C960 | **WQ574000** | ELECTROLYTIC CAPACITOR(CHIP) | 100 25V RVS-25V101 | チップケミコン | | |
| | D401 | **VT532500** | DIODE | 1SR154-400 TE-25 1A 400V | ダイオード | | |
| | D600 | **VT532500** | DIODE | 1SR154-400 TE-25 1A 400V | ダイオード | | |
| | D800 | **V6267600** | DIODE | RB051L-40 TP | ダイオード | | |
| | D801 | **V6267600** | DIODE | RB051L-40 TP | ダイオード | | |
| | IC001 | **--** | IC | R8A77310D333BG | IC | MAIN CPU (YC170A0) | |

✻: New Parts

## DMH and EMKS61A and KNOB/PNM/PNS

| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| | IC002 | -- | IC | YMW832-CZ | IC | SWP70 (YF447B0) | |
| | IC004 | **X7701A00** | IC | BU4229G-TR | IC | SYSTEM RESET | |
| | IC007 | **YC019A00** | IC | S-80944CNNB-G9ET2G | IC | SYSTEM RESET | |
| * | IC008 | **YG830C00** | IC | S29GL512S10TFI020 | IC | NOR FLASH ROM 512M BOOT/PROGRAM | |
| | IC010 | -- | IC | S29GL128S90TFI020 | IC | NOR FLASH ROM 128M BACKUP (YA121B0) | |
| * | IC018 | **YG621A00** | IC | MB88155PFT-G-112 | IC | SPREAD SPECTRUM CLOCK GENERATOR | |
| | IC021 | **VR90370R** | PHOTO COUPLER | HCPL-M600-500E | フォトカプラ | | |
| | IC201 | **X3584E00** | IC | W9812G6JH-6 | IC | SDR-SDRAM 128M WORK | |
| * | IC202 | **YG836B00** | IC | S34ML04G100TFI000 | IC | NAND FLASH ROM 4G AUDIO STYLE-L | |
| * | IC203 | **YG837B00** | IC | S34ML02G100TFI000 | IC | NAND FLASH ROM 2G AUDIO STYLE-H | |
| | IC205 | **X3584E00** | IC | W9812G6JH-6 | IC | SDR-SDRAM 128M WORK | |
| | IC208 | **X3584E00** | IC | W9812G6JH-6 | IC | SDR-SDRAM 128M WORK | |
| | IC405 | **YD546A00** | IC | UPD720150GK-9EU-A | IC | USB CONTROLLER | |
| | IC407 | **X6356B00** | IC | YGV628B-VZ | IC | RGB CONTROLLER AVDP7 | |
| | IC409 | **YD235A00** | IC | R5524N002A-TR-FE | IC | USB HIGH SIDE POWER SWITCH | |
| | IC410 | **X5693D00** | IC | M12L16161A-7TG2Q | IC | SDR-SDRAM 16M GRAPHIC | |
| * | IC412 | **YG554A00** | IC | R1517S001C-E2-FE | IC | REGULATOR +12V | |
| * | IC600 | **YG838B00** | IC | S34ML08G101TFI000 | IC | NAND FLASH ROM 8G WAVE-L | |
| * | IC601 | **YG839B00** | IC | S34ML08G101TFI000 | IC | NAND FLASH ROM 8G WAVE-H | |
| | IC602 | **X4943D00** | IC | W9825G6JH-6 | IC | SDR-SDRAM 256M WAVE-WORK | |
| * | IC605 | **YA658C00** | IC | W9864G6KH-5 | IC | SDR-SDRAM 64M DSP | |
| * | IC606 | **YG611A00** | IC | RP132S001D-E2-FE | IC | REGULATOR +1.0V | |
| | IC802 | **YD652A00** | IC | YDA164C-QZE2 | IC | POWER AMPLIFIER 20Wx2 | |
| | IC806 | **YD652A00** | IC | YDA164C-QZE2 | IC | POWER AMPLIFIER 20Wx2 | |
| | IC807 | **X8324A00** | IC | AK4396VF-E2 | IC | DAC | |
| | IC808 | **X5219A0R** | IC | AK5381VT-E2 | IC | ADC | |
| | IC809 | **X7585A01** | IC | AK5357ET-E2 | IC | ADC | |
| | IC810 | **YD766A00** | IC | ISL85033IRTZ-T | IC | DC-DC CONVERTER | |
| | IC811 | **YF520A00** | IC | R1190S050B-E2-FE | IC | REGULATOR +5V | |
| | R046 | **VI196800** | METAL FILM RESISTOR (CHIP) | 5.6K 1/10 D RECT. | チップ金被抵抗 | | |
| | R047 | **RA156220** | METAL FILM RESISTOR (CHIP) | 2.2K 63M D RECT. | チップ金被抵抗 | | |
| | R048 | **RA155470** | METAL FILM RESISTOR (CHIP) | 470.0 63M D RECT. | チップ金被抵抗 | | |
| | R109 | **RD15447R** | CARBON RESISTOR (CHIP) | 47.0 1/4 J TP | チップ抵抗 | | |
| | R440 | **RA156680** | METAL FILM RESISTOR (CHIP) | 6.8K 63M D RECT. | チップ金被抵抗 | | |
| | R477 | **RD15433R** | CARBON RESISTOR (CHIP) | 33.0 1/4 J TP | チップ抵抗 | | |
| | R480 | **RD15433R** | CARBON RESISTOR (CHIP) | 33.0 1/4 J TP | チップ抵抗 | | |
| | R668 | **RD150000** | CARBON RESISTOR (CHIP) | 0.0 1/4 J TP | チップ抵抗 | | |
| | R680 | **RD150000** | CARBON RESISTOR (CHIP) | 0.0 1/4 J TP | チップ抵抗 | | |
| | R681 | **RA156120** | METAL FILM RESISTOR (CHIP) | 1.2K 63M D RECT. | チップ金被抵抗 | | |
| | R682 | **RA156470** | METAL FILM RESISTOR (CHIP) | 4.7K 63M D RECT. | チップ金被抵抗 | | |
| | R917 | **RA156330** | METAL FILM RESISTOR (CHIP) | 3.3K 63M D RECT. | チップ金被抵抗 | | |
| | R920 | **RA157510** | METAL FILM RESISTOR (CHIP) | 51.0K 63M D RECT. | チップ金被抵抗 | | |
| | R923 | **RA157100** | METAL FILM RESISTOR (CHIP) | 10.0K 63M D RECT. | チップ金被抵抗 | | |
| | R930 | **RA157100** | METAL FILM RESISTOR (CHIP) | 10.0K 63M D RECT. | チップ金被抵抗 | | |
| | R931 | **RA157270** | METAL FILM RESISTOR (CHIP) | 27.0K 63M D RECT. | チップ金被抵抗 | | |
| | R932 | **RA156470** | METAL FILM RESISTOR (CHIP) | 4.7K 63M D RECT. | チップ金被抵抗 | | |
| | TA401 | **V273190R** | TRANSISTOR (PAIR) | IMX9 | ペアトランジスタ | | |
| | X001 | **ZF320500** | QUARTZ CRYSTAL UNIT | 32.768KHz DSO321SR | 水晶発振器 | | |
| | X002 | **WN318100** | RESONATOR QUARTZ | 20MHz DSX321G | 水晶振動子 | | |
| | X401 | **WN318100** | RESONATOR QUARTZ | 20MHz DSX321G | 水晶振動子 | | |
| | X402 | **WG415900** | QUARTZ CRYSTAL UNIT | 30MHz DSX321G | 水晶振動子 | | |
| | X800 | **WM284900** | QUARTZ CRYSTAL UNIT | 22.5792MHz DSX321G | 水晶振動子 | | |
| | | | | | | | |
| | | **WF310500** | CIRCUIT BOARD | EMKS61A(E-BUS) | EMKS61Aシート | (WF31010)(X6637C0) | |
| | C0002 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| | IC001 | **X003120R** | IC | UPD780031AYGK-N04 | IC | E-LKS | |
| | X0001 | **V615050R** | CERAMIC RESONATOR | 8.38MHz EFOS8384E5 | セラミック振動子 | | |
| | X0001 | **WU956300** | CERAMIC RESONATOR | 8.38MHz CSTCC8M38G56 | セラミック振動子 | | |
| | | | | | | | |
| * | | **ZP451300** | CIRCUIT BOARD | KNOB | KNOBシート | (ZN43310)(YG581D0) | |
| * | | **ZP451000** | CIRCUIT BOARD | PNM | PNMシート | (ZN43310)(YG581D0) | |
| * | | **ZP451200** | CIRCUIT BOARD | PNS | PNSシート | (ZN43310)(YG581D0) | |
| | EC200 | **WZ590700** | ENCODER | EC12E24204A2 | 12形エンコーダ | Data entry | |
| | VR100 | **VQ67050R** | ROTARY VARIABLE RESISTOR | B 10K RK11K1130A0M | ロータリーボリューム | MASTER VOLUMR | |
| | VR400 | **VQ032500** | ROTARY VARIABLE RESISTOR | B 10.0K RK11K113 | ロータリーVR | LIVE CONTROL 1 | |
| | VR401 | **VQ032500** | ROTARY VARIABLE RESISTOR | B 10.0K RK11K113 | ロータリーVR | LIVE CONTROL 2 | |
| | LD100 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | REC | |
| | LD101 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | DANCE | |
| | LD102 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | REPEAT | |
| | LD103 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | POP&ROCK | |

*: New Parts

## KNOB/PNM/PNS

| REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|
| LD104 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | BALLAD | |
| LD105 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色 LED | MIC SETTING/VOCAL HARMONY | |
| LD106 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | SWIMG&JAZZ | |
| LD107 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | R&B | |
| LD108 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | COUNTRY | |
| LD109 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色 LED | EXTRA TR | |
| LD110 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色 LED | PLAY/PAUSE | |
| LD111 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色 LED | TR2 | |
| LD112 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | LATIN | |
| LD113 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | BALLROOM | |
| LD114 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | MOVIE&SHOW | |
| LD115 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | GUIDE | |
| LD116 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色 LED | TR1 | |
| LD117 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | METRONOME | |
| LD118 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ENTERTAINER | |
| LD119 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | WORLD | |
| LD120 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | EXPANSION/USER | |
| LD200 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ON/OFF LEFT HOLD | |
| LD201 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ON/OFF LEFT | |
| LD202 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | HERMONY/ARPEGGIO | |
| LD203 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ON/OFF RIGHT1 | |
| LD204 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | TOUCH | |
| LD205 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | PIANO | |
| LD206 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | E.PIANO | |
| LD207 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ORGAN | |
| LD208 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ON/OFF RIGHT2 | |
| LD209 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | SUSTAIN | |
| LD210 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | GUITAR | |
| LD211 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | BASS | |
| LD212 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ACCORDION | |
| LD213 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | SELECT LEFT | |
| LD214 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | MONO | |
| LD215 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | STRINGS | |
| LD216 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | BRASS | |
| LD217 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | WOODWIND | |
| LD218 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | SELECT RIGHT1 | |
| LD219 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | DSP | |
| LD220 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | CHOIR&PAD | |
| LD221 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | SYNTH | |
| LD222 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | PERCUSSION | |
| LD223 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | SELECT RIGHT2 | |
| LD224 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | USB | |
| LD225 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | VARI | |
| LD226 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | DRUM KIT | |
| LD227 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | ORGAN FLUTES | |
| LD228 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップ LED | EXPANSION/USER | |
| C120 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C149 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C163 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C164 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C226 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C228 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C250 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C251 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| C461 | **UF038100** | ELECTROLYTIC CAPACITOR(CHIP) | 100 16V | チップケミコン | | |
| FT100 | **ZA683700** | FET | US6K1TR | FET | | |
| -104 | **ZA683700** | FET | US6K1TR | FET | | |
| FT100 | **ZA777500** | FET | US6K4TR TAPE | FET | | |
| -104 | **ZA777500** | FET | US6K4TR TAPE | FET | | |
| FT200 | **ZA683700** | FET | US6K1TR | FET | | |
| -204 | **ZA683700** | FET | US6K1TR | FET | | |
| FT200 | **ZA777500** | FET | US6K4TR TAPE | FET | | |
| -204 | **ZA777500** | FET | US6K4TR TAPE | FET | | |
| IC100 | **YD841B00** | IC | TMP89FW24AFG-7KH4 | IC | E-PNS3a | |
| IC200 | **YD841B00** | IC | TMP89FW24AFG-7KH4 | IC | E-PNS3a | |
| R100 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| R101 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| R102 | **RD155120** | CARBON RESISTOR (CHIP) | 120.0 1/4 J TP | チップ抵抗 | | |
| R103 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| R104 | **RD155120** | CARBON RESISTOR (CHIP) | 120.0 1/4 J TP | チップ抵抗 | | |

✻: New Parts

## KNOB/PNM/PNS and MK-H and MK-L and PNC/PNL/PNR

| | REF NO. | PART NO. | DESCRIPTION | | 部品名 | REMARKS | QTY |
|---|---|---|---|---|---|---|---|
| | R105 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| | R200 | **RD155120** | CARBON RESISTOR (CHIP) | 120.0 1/4 J TP | チップ抵抗 | | |
| | R201 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| | -205 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| | R206 | **RD155120** | CARBON RESISTOR (CHIP) | 120.0 1/4 J TP | チップ抵抗 | | |
| | R207 | **RD15518R** | CARBON RESISTOR (CHIP) | 180.0 1/4 J TP | チップ抵抗 | | |
| | | | | | | | |
| | | **VU648200** | CIRCUIT BOARD | MK-H | MK－Hシート | (VU64800)(XR565C0) | |
| | | **VB941200** | DIODE | 1SS133,1SS176 TE-5 | ダイオード | A#3-C6 | 54 |
| | | | | | | | |
| | | **VU648101** | CIRCUIT BOARD | MK-L | MK－Lシート | (VU64790)(XR564C0) | |
| | | **VB941200** | DIODE | 1SS133,1SS176 TE-5 | ダイオード | C1-A3 | 68 |
| | | | | | | | |
| * | | **ZP450800** | CIRCUIT BOARD | PNC | PNCシート | (ZN43320)(YG588D0) | |
| * | | **ZP450700** | CIRCUIT BOARD | PNL | PNLシート | (ZN43320)(YG588D0) | |
| * | | **ZP450900** | CIRCUIT BOARD | PNR | PNRシート | (ZN43320)(YG588D0) | |
| | LD100 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | ACMP | |
| | LD101 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | INTRO I | |
| | LD102 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | FADE IN/OUT | |
| | LD103 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | INTRO II | |
| | LD104 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | OTS LINK | |
| | LD105 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | INTRO III | |
| | LD106 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | AUTO FILL IN | |
| | LD107 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | MAIN A | |
| | LD108 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | MAIN B | |
| | LD109 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | MAIN C | |
| | LD110 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | MAIN D | |
| | LD111 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | BREAK | |
| | LD112 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | ENDING I | |
| | LD113 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | ENDING II | |
| | LD114 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | ENDING III | |
| | LD200 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | SYNC STOP | |
| | LD201 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 1 | |
| | LD202 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | SYNC START | |
| | LD203 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 2 | |
| | LD204 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | START/STOP | |
| | LD205 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 3 | |
| | LD206 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 4 | |
| | LD207 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 5 | |
| | LD208 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 6 | |
| | LD209 | **WJ491700** | LED (CHIP) AMBER | BL-HJF36J-TRB | チップLED | FREEZE | |
| | LD210 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 7 | |
| | LD211 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | REG 8 | |
| | LD300 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | PAD CTRL 1 | |
| | LD301 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | PAD CTRL 2 | |
| | LD302 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | PAD CTRL 3 | |
| | LD303 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | PAD CTRL 4 | |
| | LD304 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | OTS 1 | |
| | LD305 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | OTS 2 | |
| | LD306 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | OTS 3 | |
| | LD307 | **WJ491600** | LED (CHIP) AMBER/Y.GREEN | BL-HJFGE36J-TRB | チップ2色LED | OTS 4 | |
| | | | | | | | |
| * | | **ZN547100** | CRYSTAL DISPLAY | M070SWP1 R5 | 液晶ディスプレイ | | |
| | | | | | | | |
| | | **YE177A00** | SPEAKER | 13.0cm 4ohm 35W | スピーカ | WOOFER | 2 |
| | | **YE179A00** | SPEAKER | 2.5cm 4ohm 20W | スピーカ | TWEETER | 2 |

*: New Parts

## DIGITAL WORKSTATION

# PSR-S770
# PSR-S970

# CIRCUIT DIAGRAM

■ **CONTENTS**



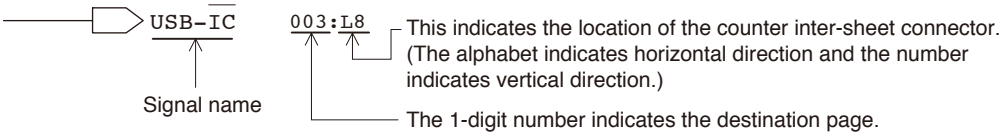
**Note : See parts list for details of circuit board conponent parts.**

■ **WARNING**

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

### Notation for Circuit Diagrams

1. How to identify inter-sheet connectors




2. Connection of connectors.

(Example) to PNM-CN100
<Page 16: P-2>

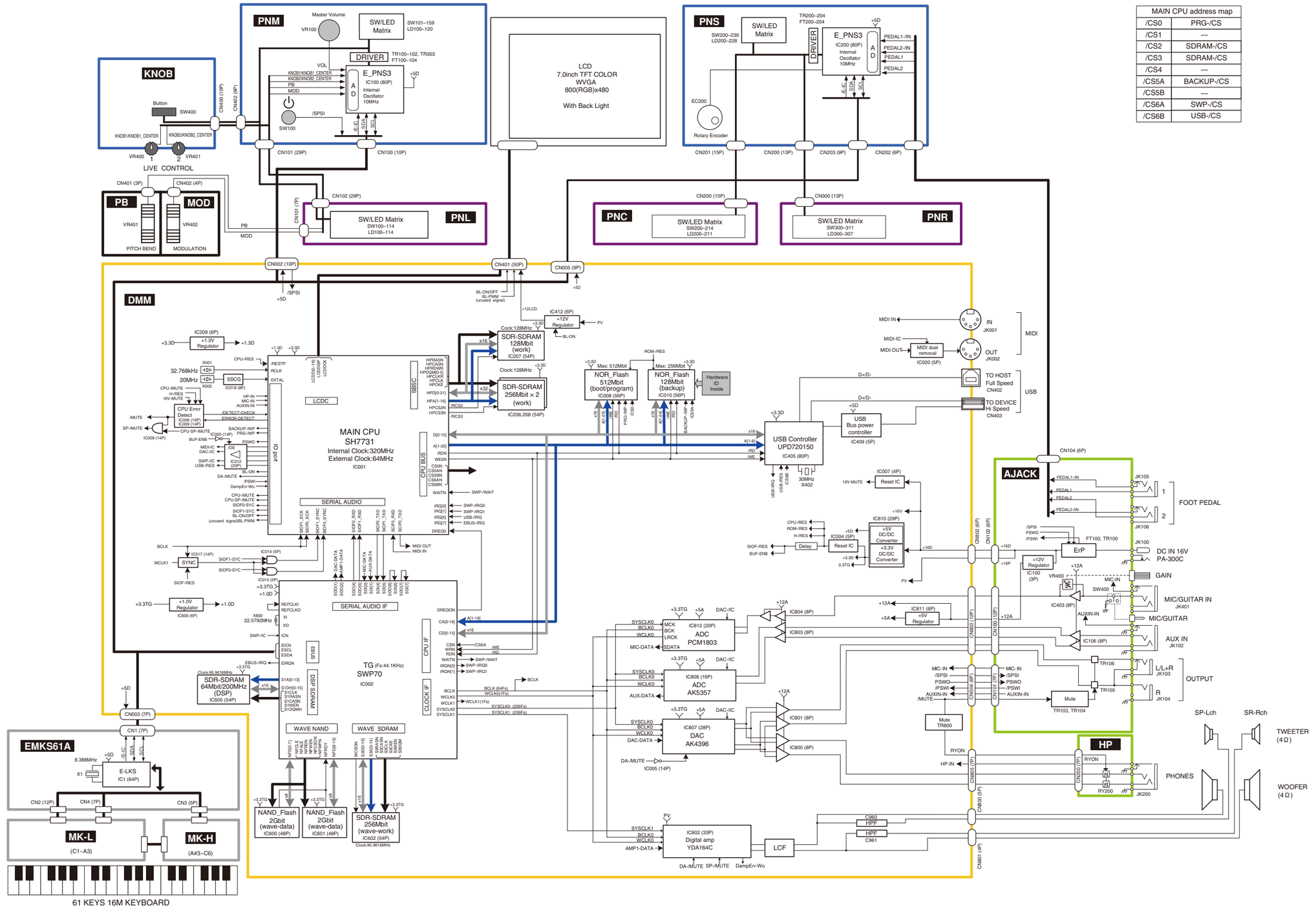
Page 16 are the page of a circuit diagram.

P-2 is indicates the location of the counter inter-circuit board connector.
(The alphabet indicates horizontal direction and the number indicates vertical direction.)

# ■ PSR-S770 BLOCK DIAGRAM



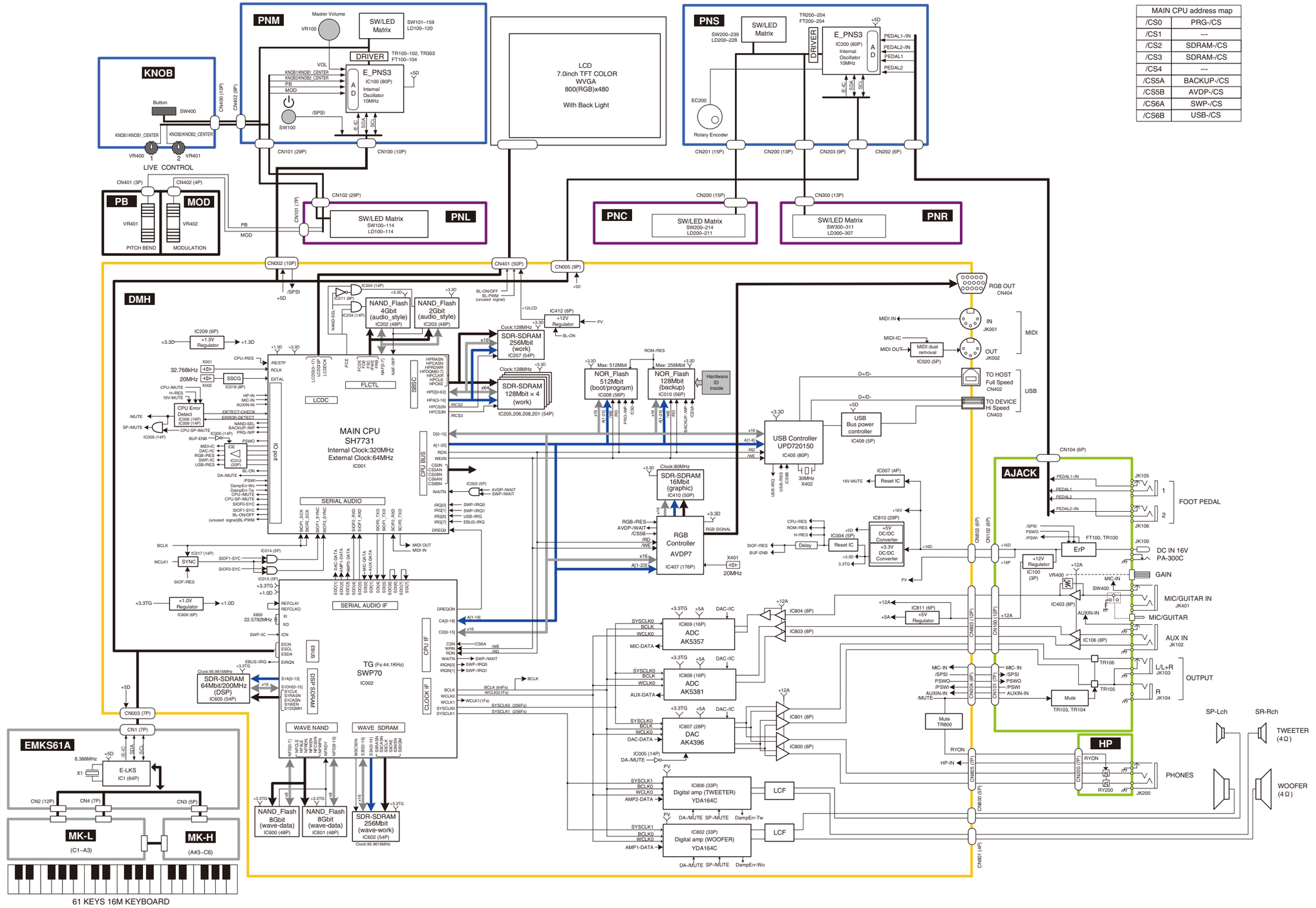
| MAIN CPU address map | |
|---|---|
| /CS0 | PRG-/CS |
| /CS1 | --- |
| /CS2 | SDRAM-/CS |
| /CS3 | SDRAM-/CS |
| /CS4 | --- |
| /CS5A | BACKUP-/CS |
| /CS5B | --- |
| /CS6A | SWP-/CS |
| /CS6B | USB-/CS |



# ■ PSR-S970 BLOCK DIAGRAM



| MAIN CPU address map | |
|---|---|
| /CS0 | PRG-/CS |
| /CS1 | --- |
| /CS2 | SDRAM-/CS |
| /CS3 | SDRAM-/CS |
| /CS4 | --- |
| /CS5A | BACKUP-/CS |
| /CS5B | AVDP-/CS |
| /CS6A | SWP-/CS |
| /CS6B | USB-/CS |



# ■ DMM 001 CIRCUIT DIAGRM (PSR-S770)

MAIN CPU

NOR FLASH ROM 512M BOOT/PROGRAM

NOR FLASH ROM 128M BACKUP

SWP70

OR

to PNM-CN100 <Page 16: P-2>

to PNS-CN203 <Page 17: K-12>

to EMKS61A-CN1 <Page 20: J-3>

MIDI

to AJACK-CN101 <Page 15: O-6>

MAIN CPU

SINGLE SHOT

AND

AND

SPREAD SPECTRUM CLOCK GENERATOR

SYSTEM RESET

INVERTER

INVERTER

INVERTER

INVERTER

JTAG-ICE

MAIN CPU

OR GATE

D-FF

AND

TRANSCEIVER

INVERTER

Photo Coupler

INVERTER

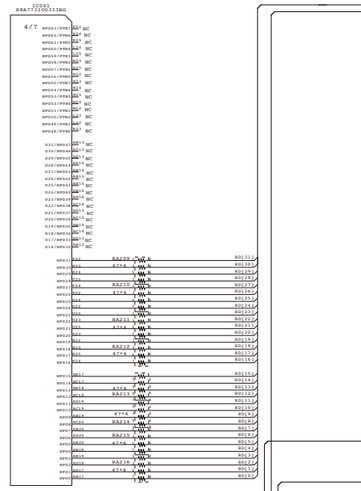
OR GATE

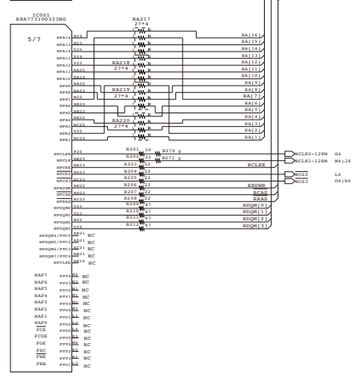
SYSTEM RESET

# ■ DMM 002 CIRCUIT DIAGRM (PSR-S770)

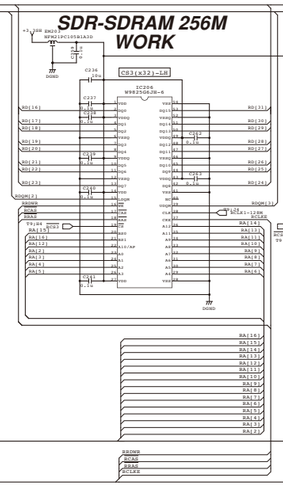


## MAIN CPU

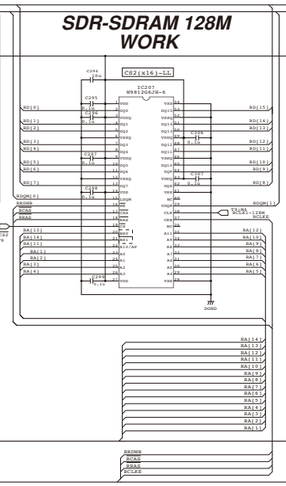




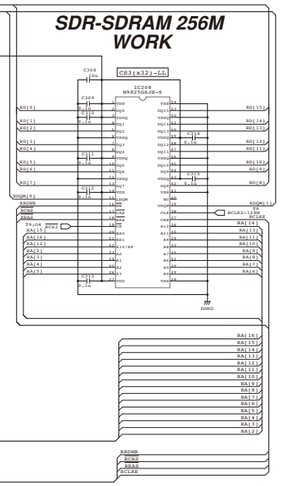
## SDR-SDRAM 256M WORK



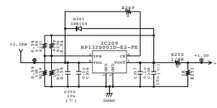
## SDR-SDRAM 128M WORK

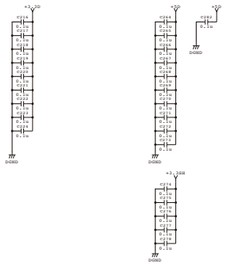


## SDR-SDRAM 256M WORK

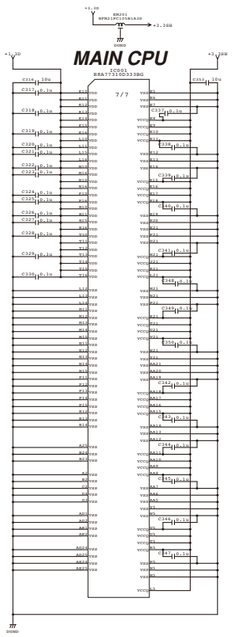


## REGULATOR +1.3V



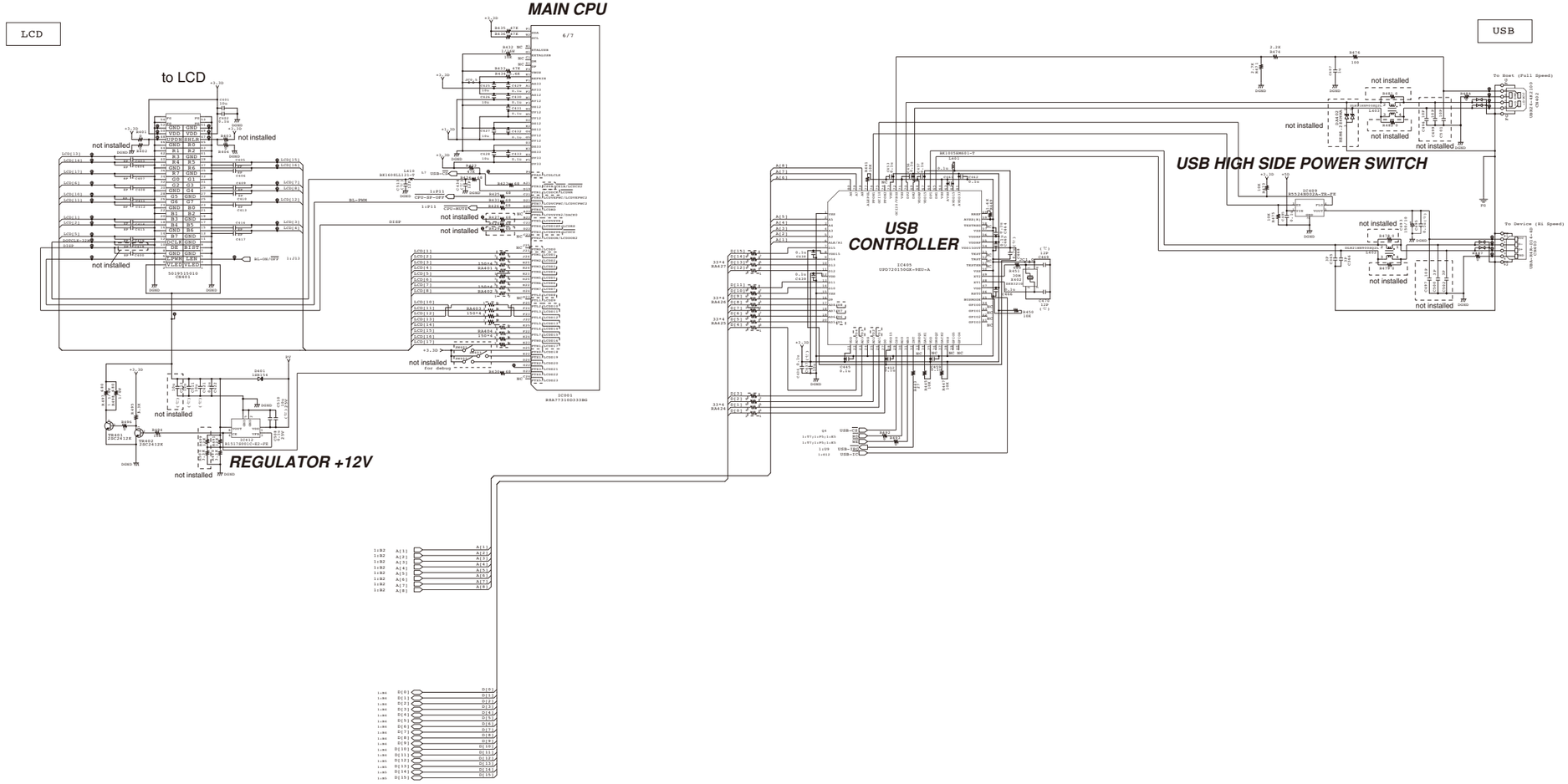


## MAIN CPU



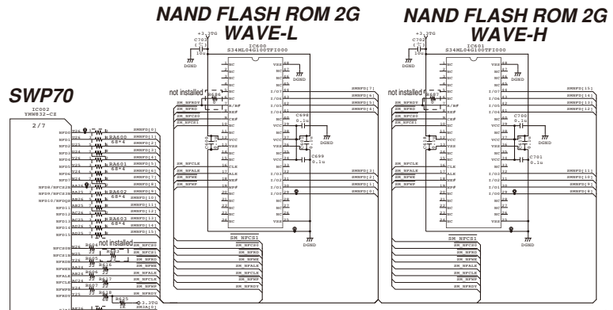
# ■ DMM 003 CIRCUIT DIAGRM (PSR-S770)





# ■ DMM 004 CIRCUIT DIAGRM (PSR-S770)

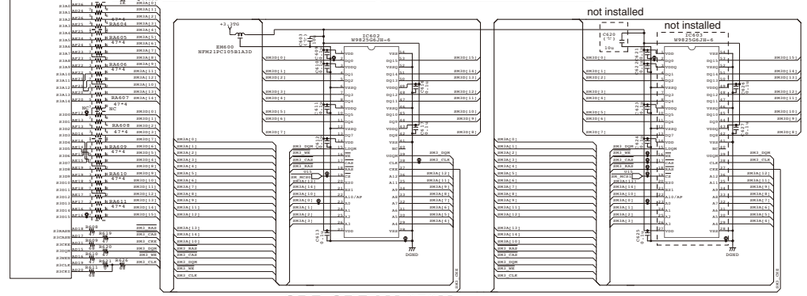
NAND FLASH ROM 2G
WAVE-L



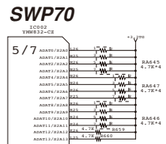

NAND FLASH ROM 2G
WAVE-H



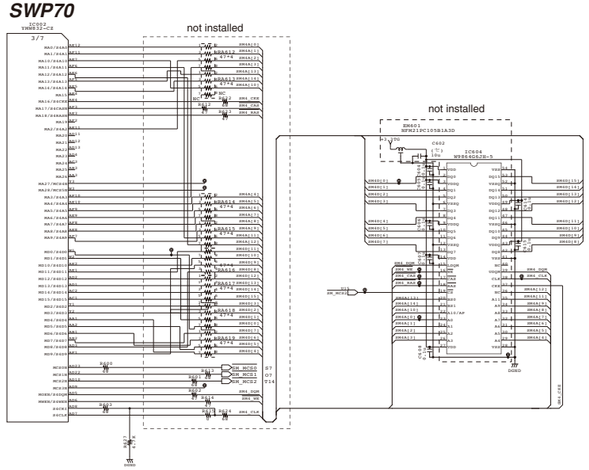

SDR-SDRAM 256M
WAVE-WORK



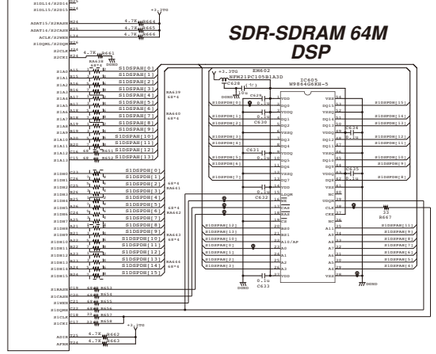

SWP70



SWP70

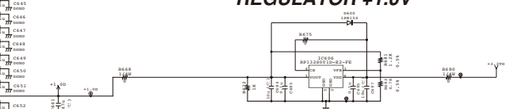



SDR-SDRAM 64M
DSP

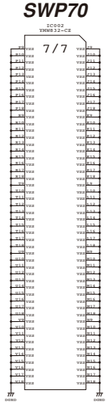


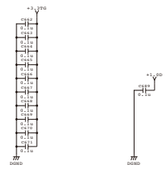
SWP70

REGULATOR +1.0V

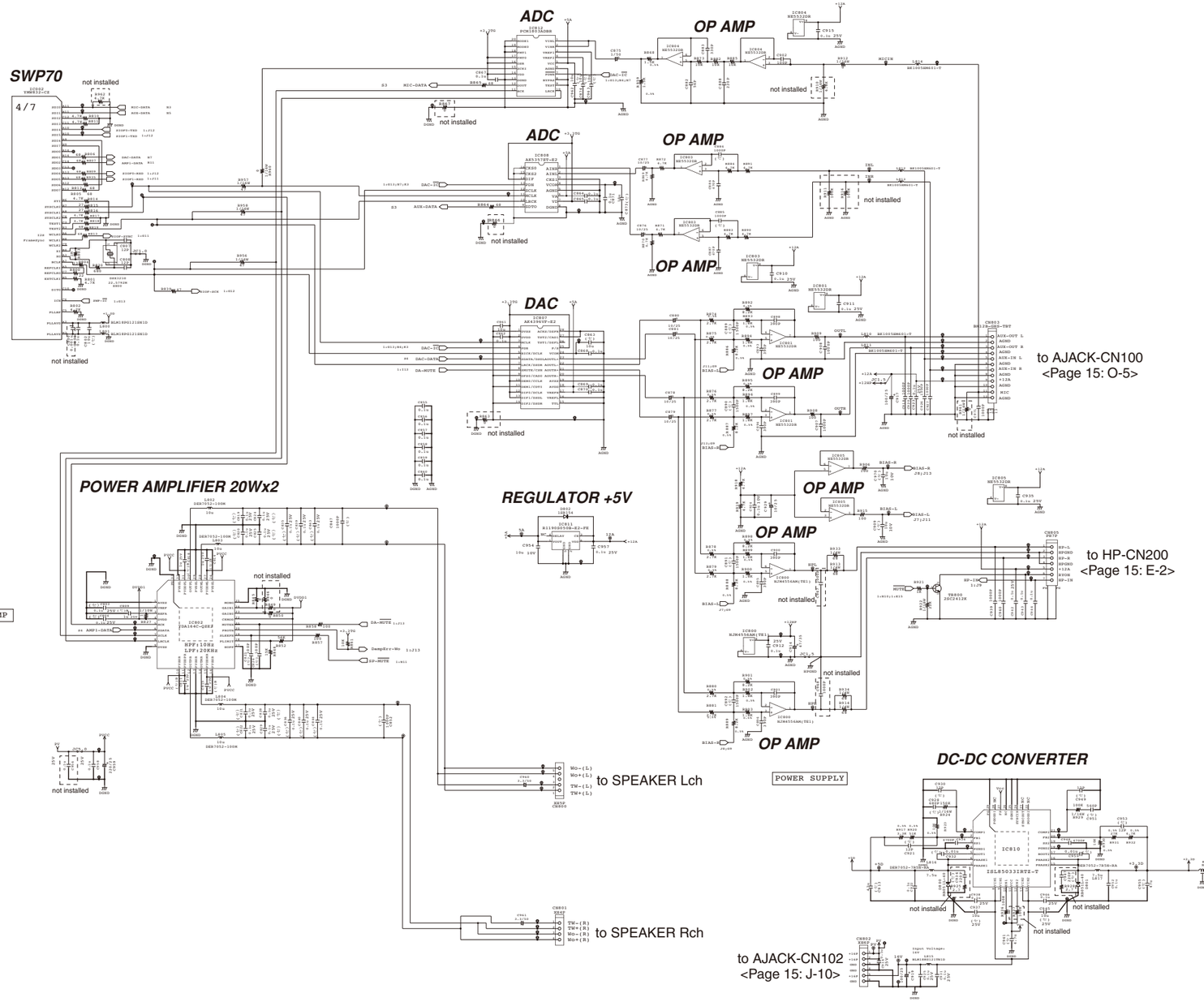


SWP70





# ■ DMM 005 CIRCUIT DIAGRM (PSR-S770)



# ■ DMH 001 CIRCUIT DIAGRM (PSR-S970)

MAIN CPU

NOR FLASH ROM 512M BOOT/PROGRAM

NOR FLASH ROM 128M BACKUP

SWP70

OR

to PNM-CN100 <Page 16: P-2>

to PNS-CN203 <Page 17: K-12>

to EMKS61A-CN1 <Page 20: J-3>

to AJACK-CN101 <Page 15: O-6>

MAIN CPU

AND

SPREAD SPECTRUM CLOCK GENERATOR

SINGLE SHOT

AND

AND

SYSTEM RESET

JTAG-ICE

INVERTER

INVERTER

INVERTER

INVERTER

SYSTEM RESET

MAIN CPU

OR GATE

D-FF

AND

TRANSCEIVER

INVERTER

INVERTER

Photo Coupler

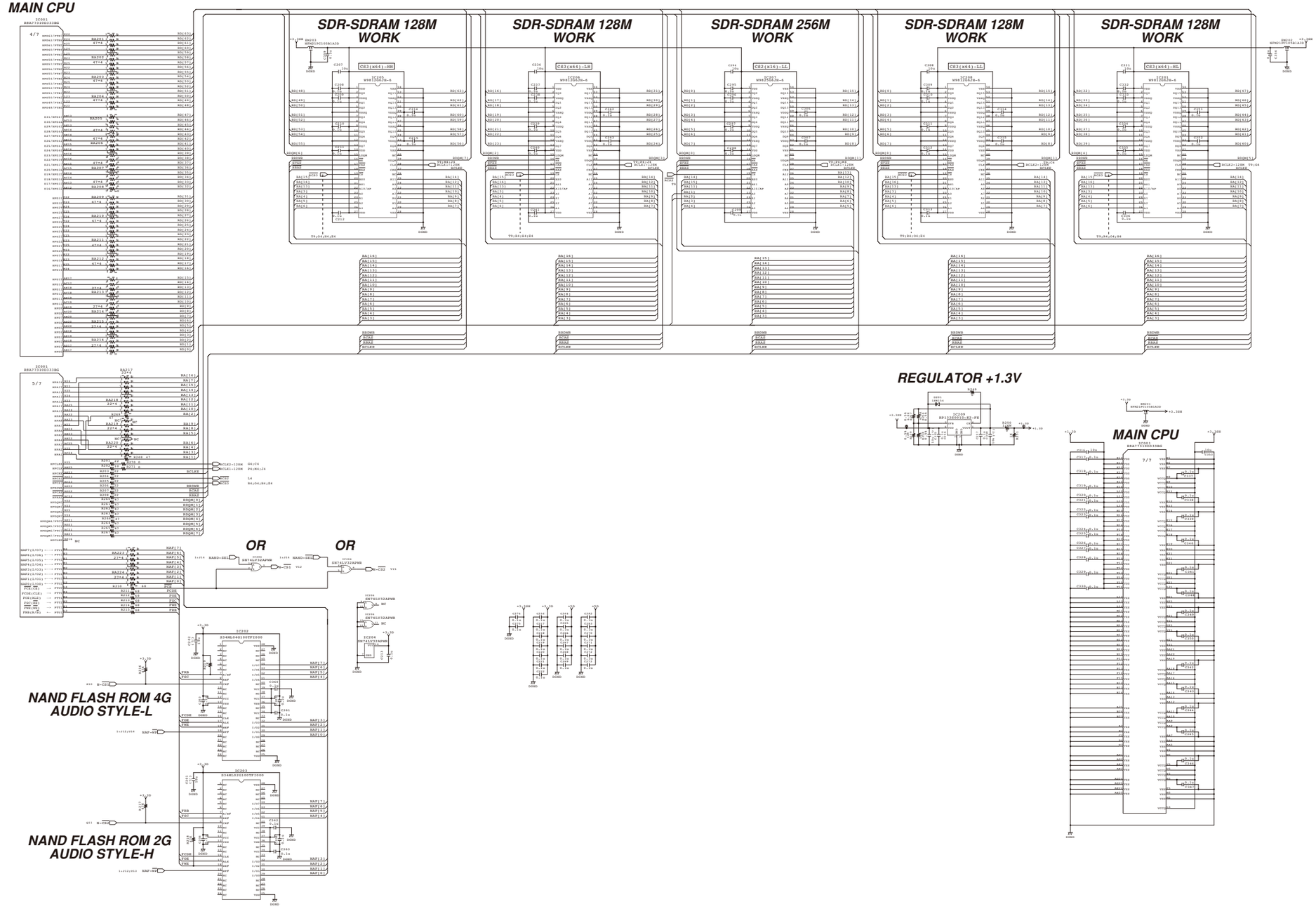
OR GATE

MIDI

# ■ DMH 002 CIRCUIT DIAGRM (PSR-S970)





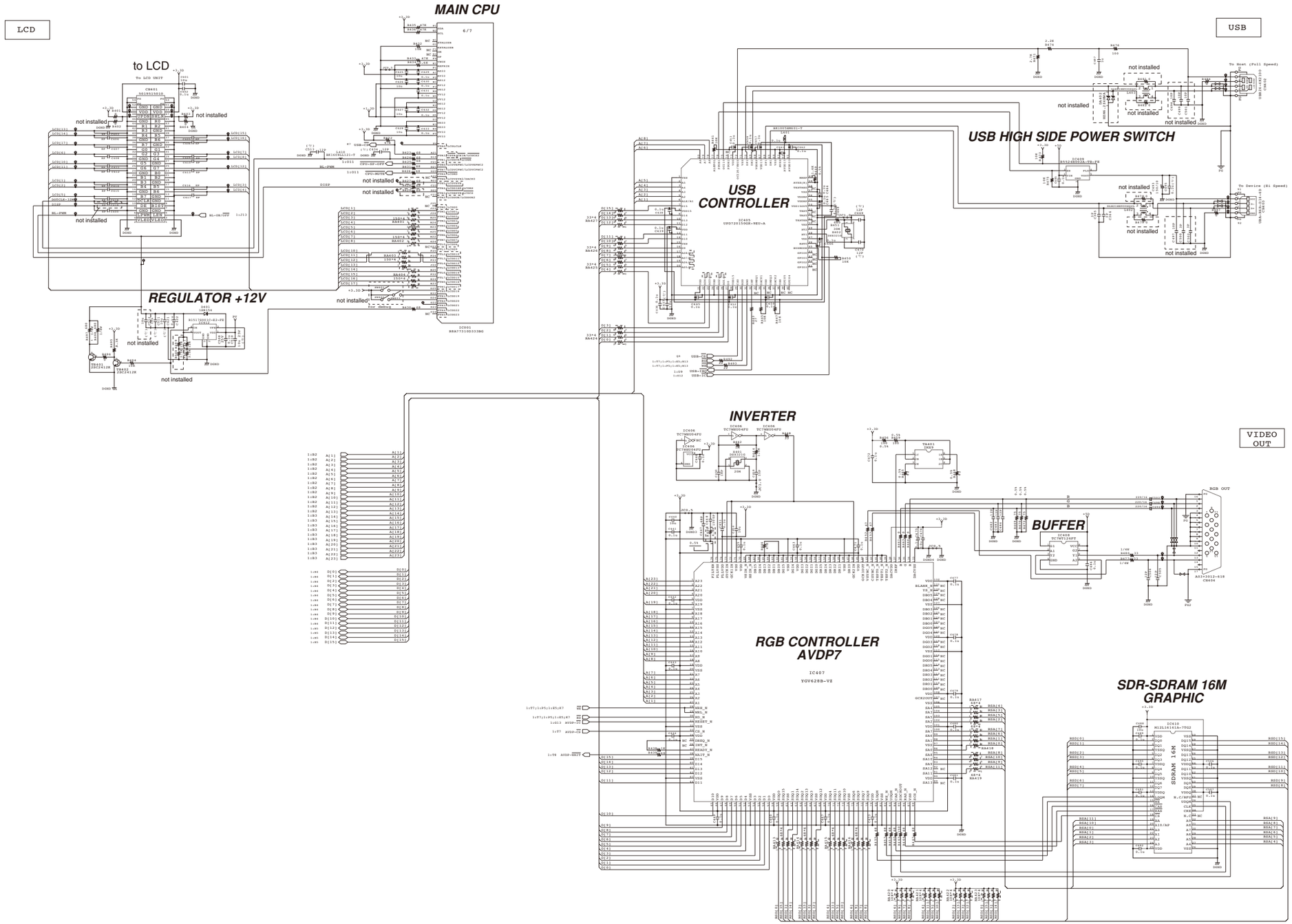




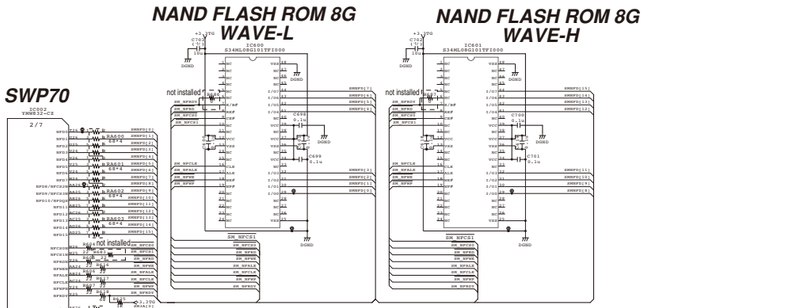


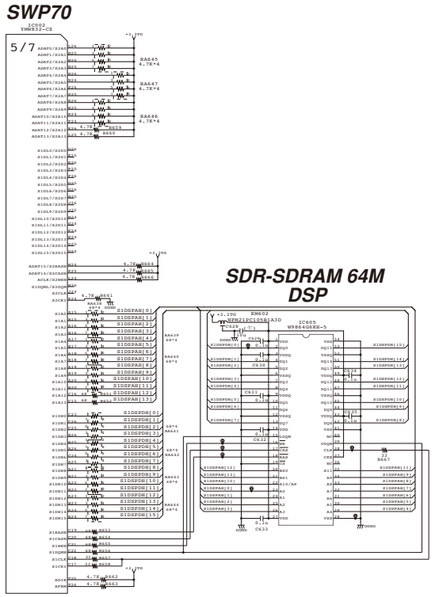

■ DMH 002 CIRCUIT DIAGRM (PSR-S970)

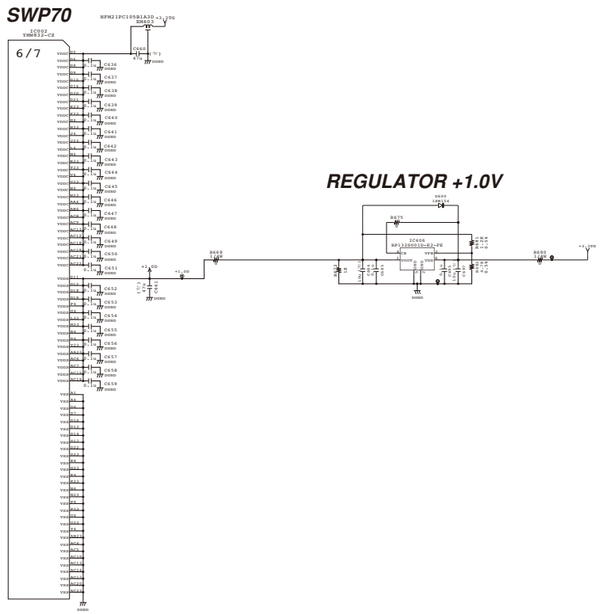
# ■ DMH 003 CIRCUIT DIAGRM (PSR-S970)

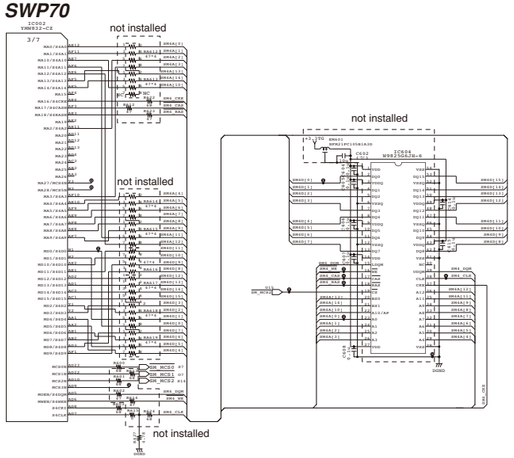


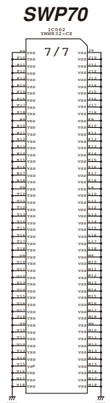
# ■ DMH 004 CIRCUIT DIAGRM (PSR-S970)

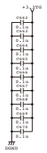


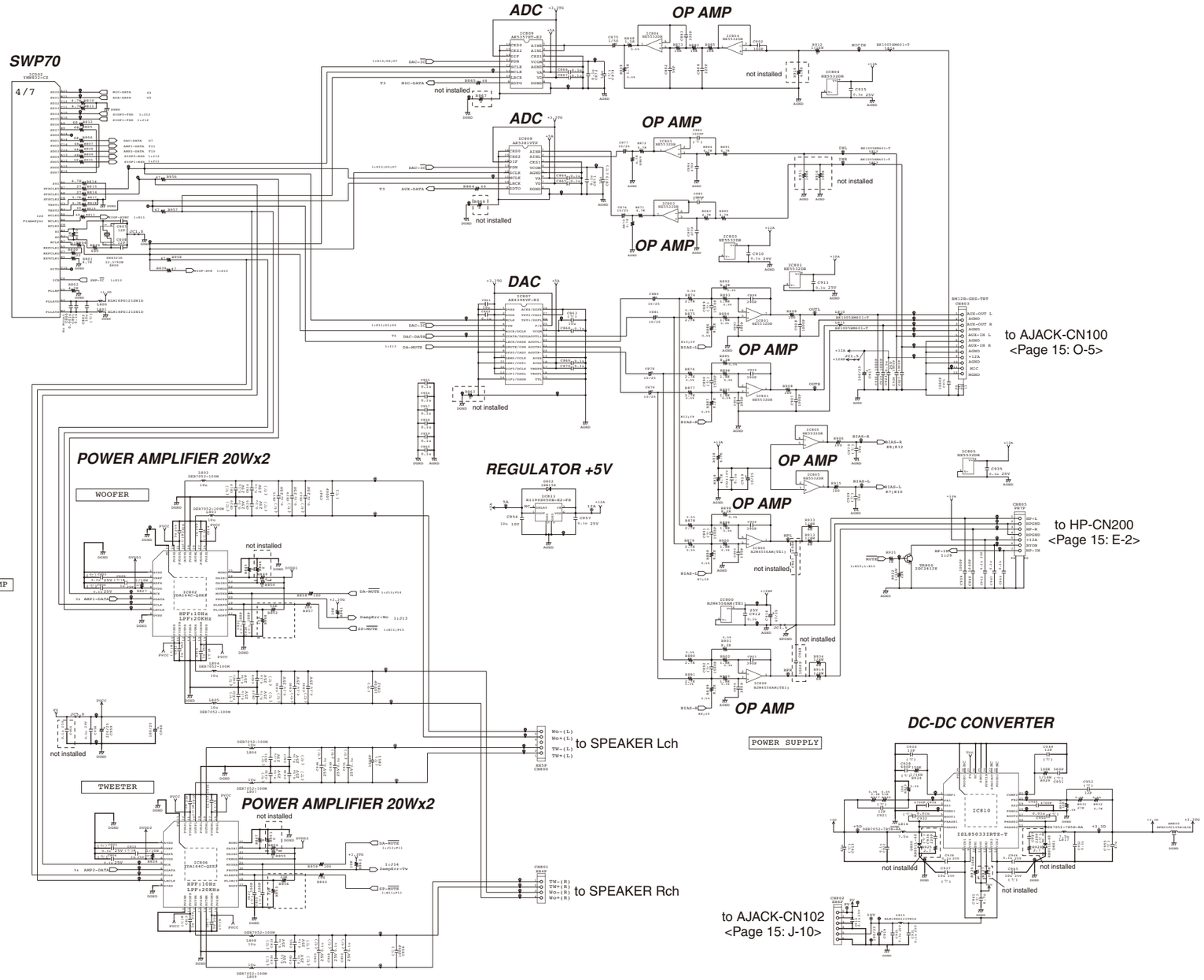



28CC1-2001145930-4 /1



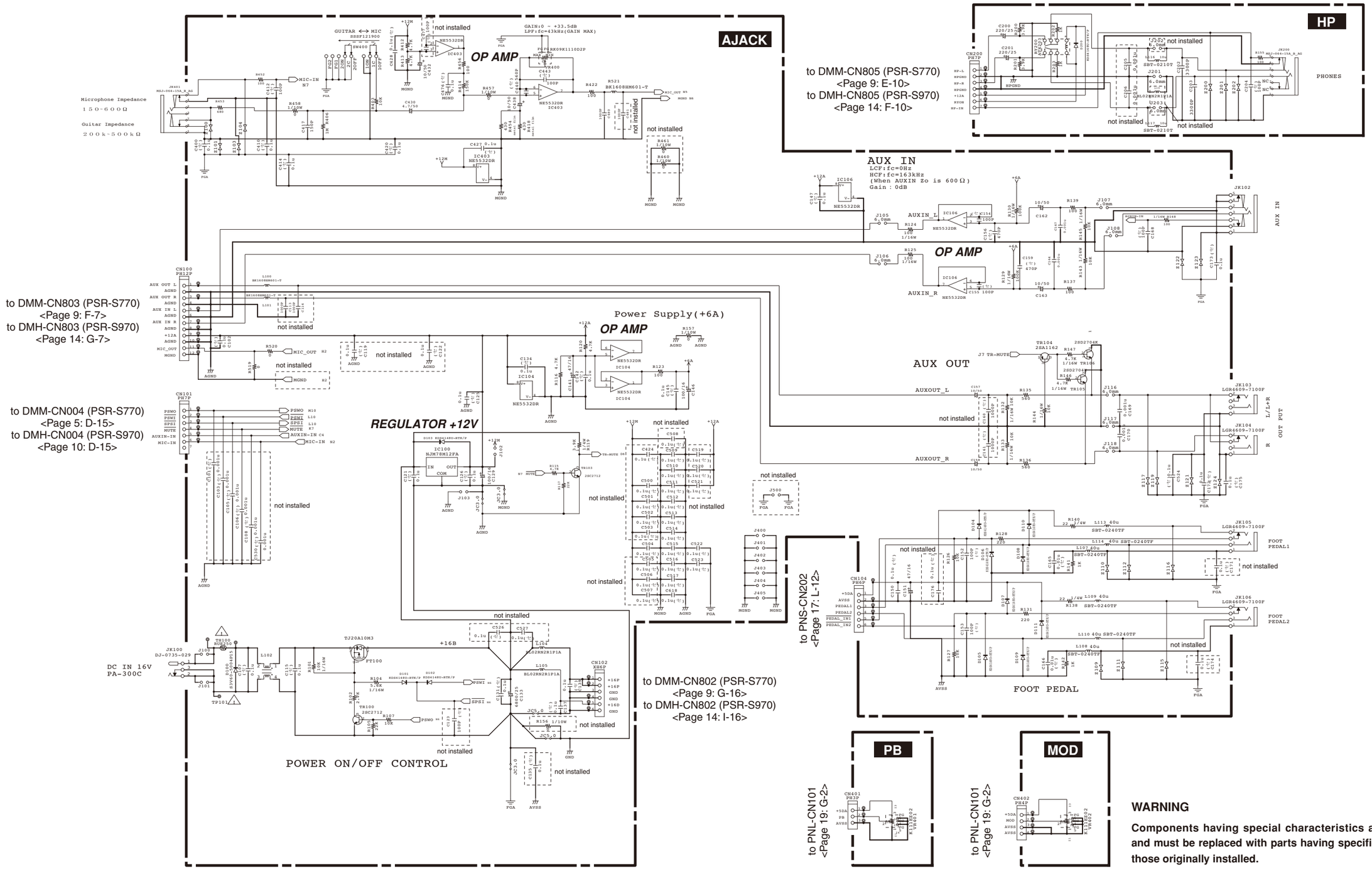
■ DMH 004 CIRCUIT DIAGRM (PSR-S970)

# ■ DMH 005 CIRCUIT DIAGRM (PSR-S970)



# ■ AJACK CIRCUIT DIAGRAM (PSR-S770/PSR-S970)






**WARNING**

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

**28CC1-2001145936 ⚠3**

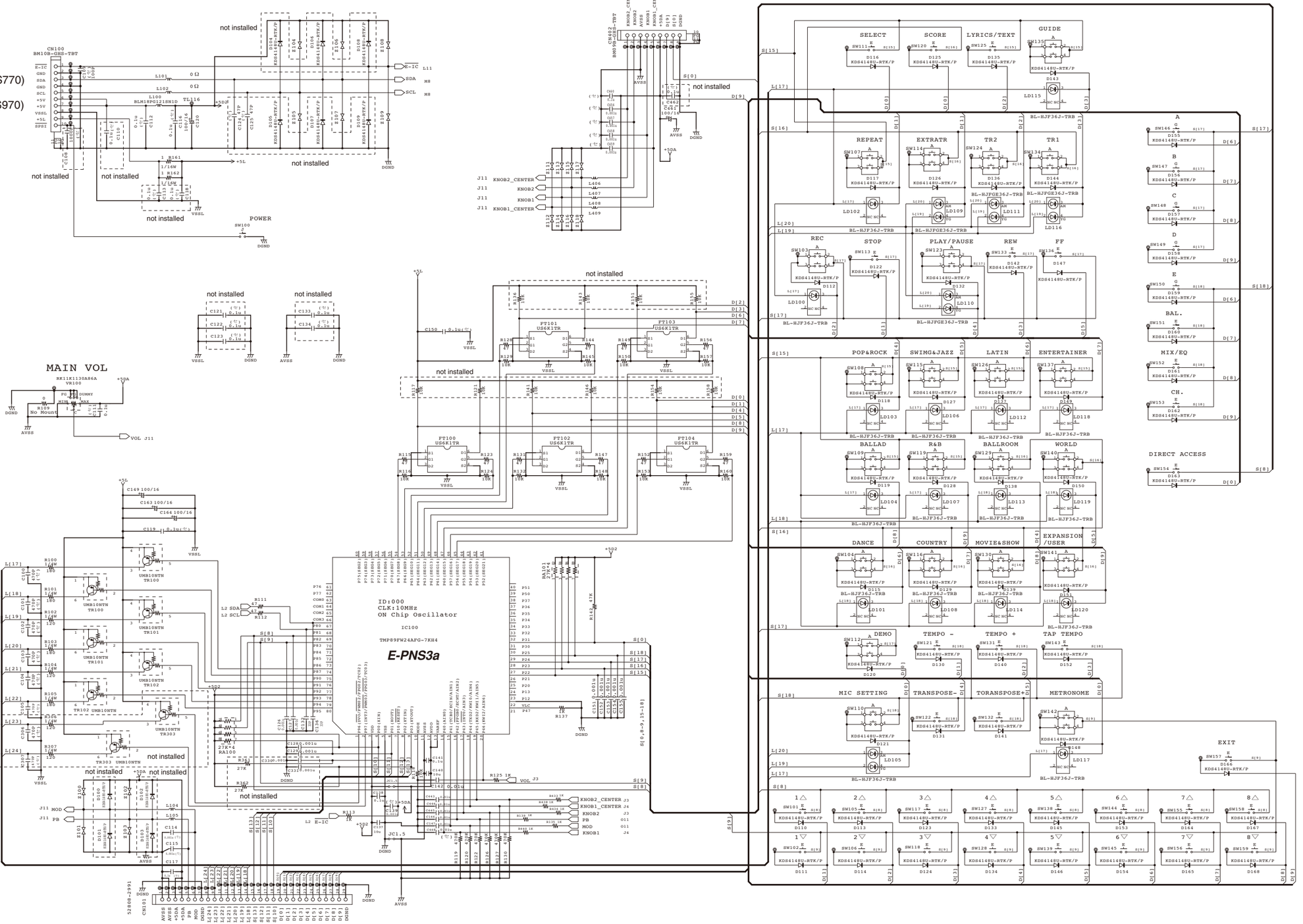


■ AJACK CIRCUIT DIAGRAM (PSR-S770/PSR-S970)

# ■ PN1 001 (PNM) CIRCUIT DIAGRAM (PSR-S770/PSR-S970)

to KNOB-CN400
<Page 18: B-3>

to DMM-CN002 (PSR-S770)
<Page 5: D-7>
to DMH-CN002 (PSR-S970)
<Page 10: D-7>



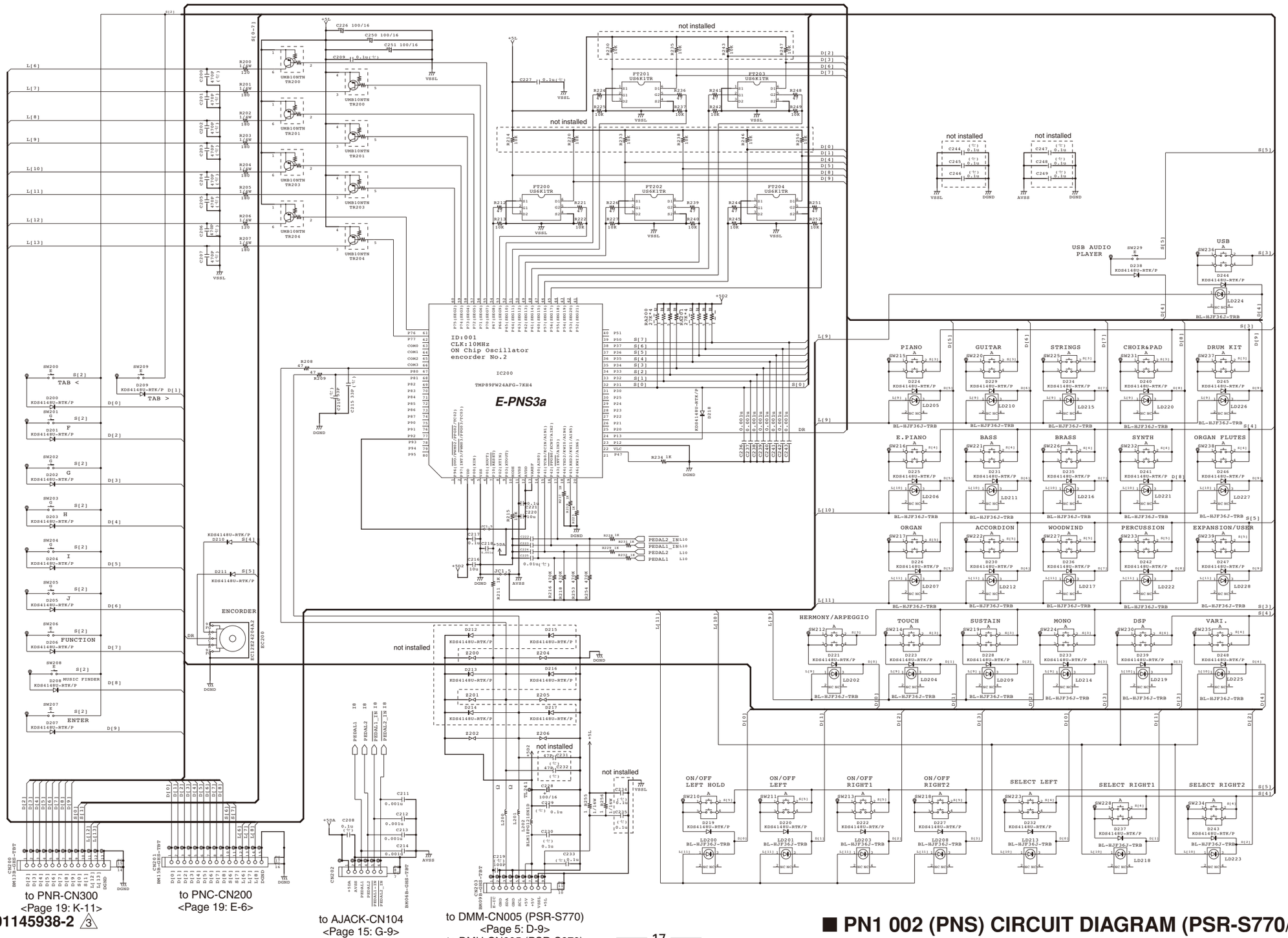

to PNL-CN102
<Page 19: D-2>

28CC1-2001145938-1 ②

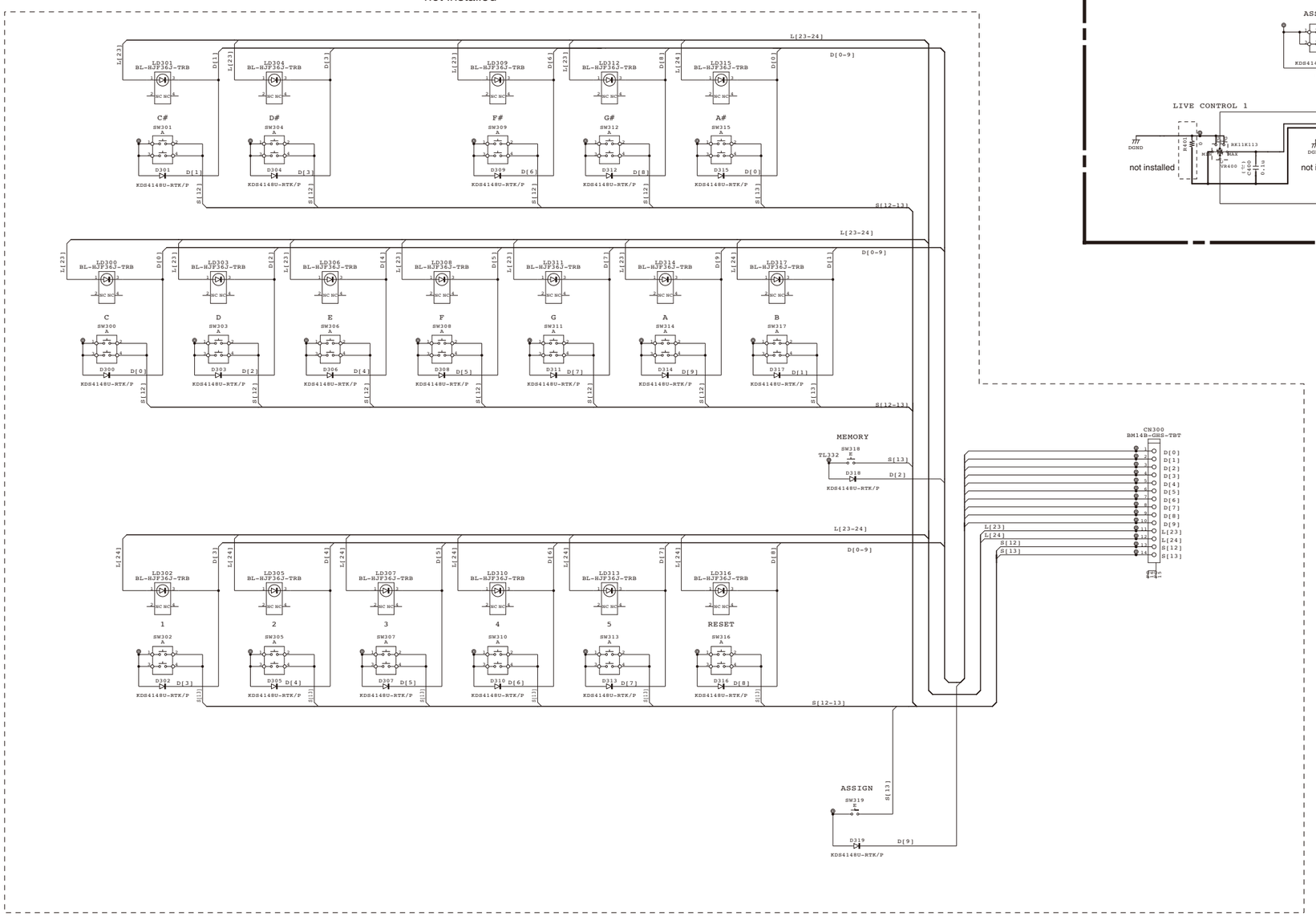
■ PN1 001 (PNM) CIRCUIT DIAGRAM (PSR-S770/PSR-S970)

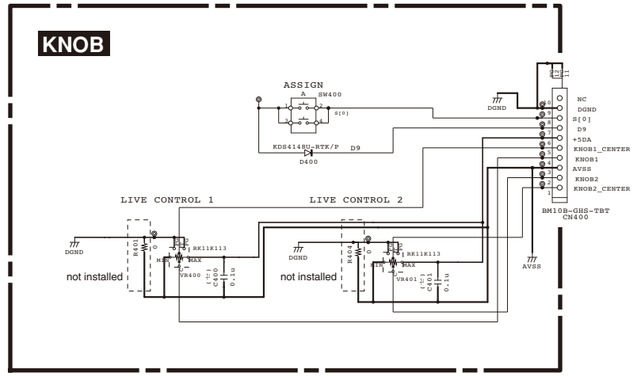
# ■ PN1 002 (PNS) CIRCUIT DIAGRAM (PSR-S770/PSR-S970)





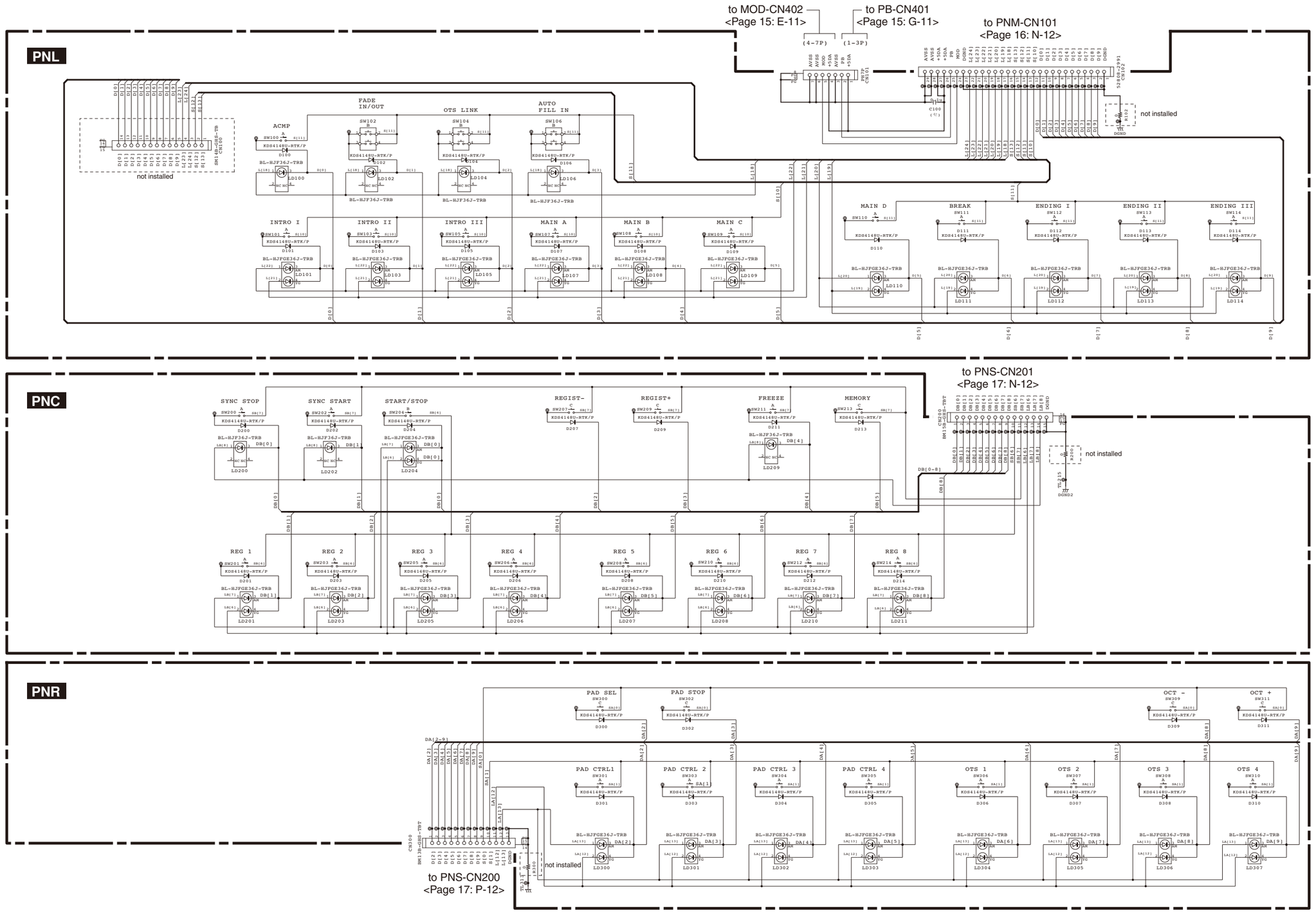
# ■ PN1 003 (KNOB) CIRCUIT DIAGRAM (PSR-S770/PSR-S970)



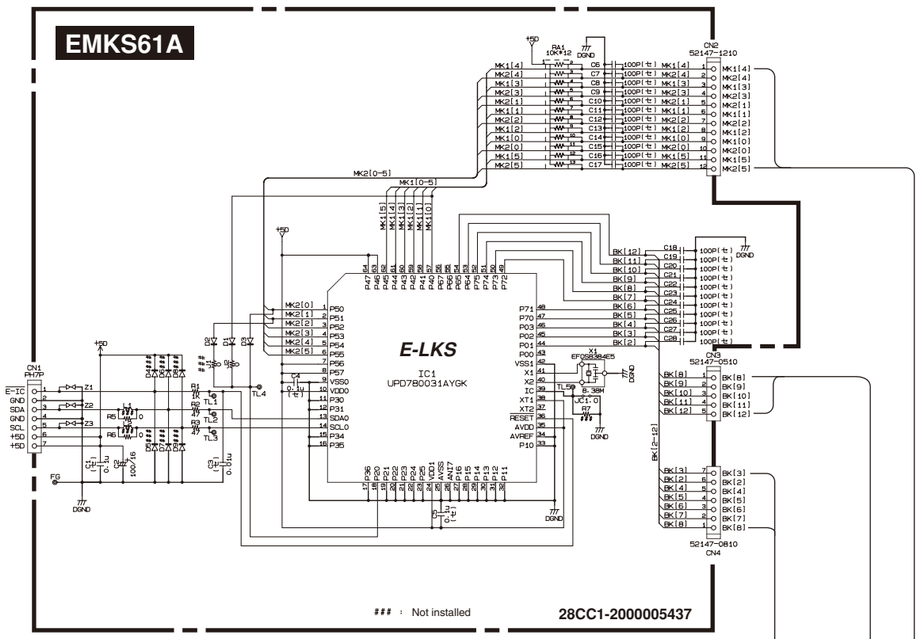

to PNM-CN402
<Page 16: I-1>

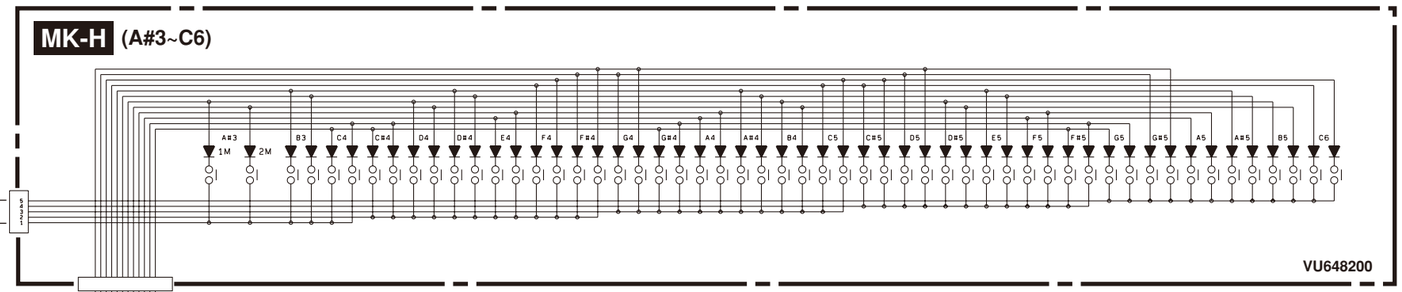
# ■ PN2 (PNC/PNL/PNR) CIRCUIT DIAGRAM (PSR-S770/PSR-S970)

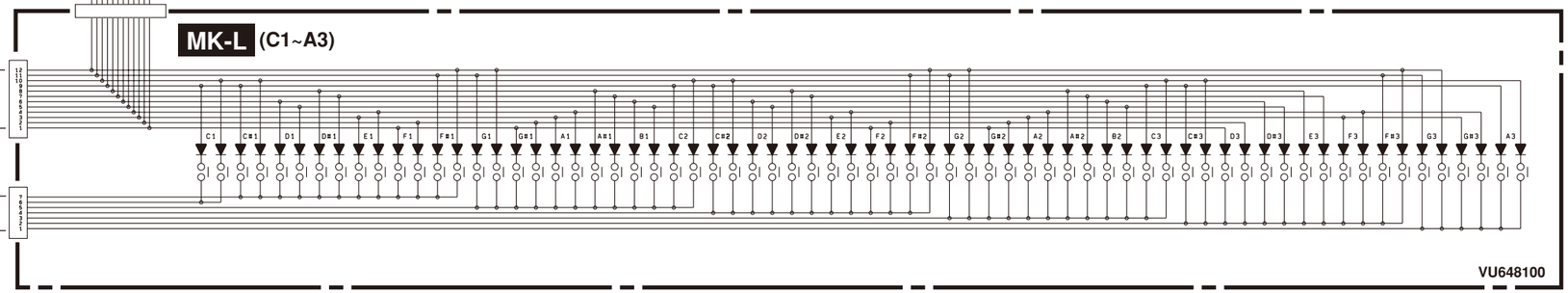


# ■ EMKS61A, MK-H, MK-L CIRCUIT DIAGRAM (PSR-S770/PSR-S970)

to DMM-CN003 (PSR-S770)
<Page 5: D-11>
to DMH-CN003 (PSR-S970)
<Page 10: D-11>






■ EMKS61A, MK-H, MK-L CIRCUIT DIAGRAM (PSR-S770/PSR-S970)