

# EMX 62M

POWERED MIXER

## SERVICE MANUAL



EMX62M

- OPTION  
RK-88 RACK MOUNT KIT

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This document is printed on chlorine free (ECF) paper with soy ink.

## IMPORTANT NOTICE

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

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

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

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

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

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

## WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical / electronic and / or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and / 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

**WARNING:** THIS APPARATUS MUST BE EARTHED

**IMPORTANT:** The wires in this main lead are coloured in accordance with the following code:  
 GREEN-AND-YELLOW: EARTH  
 BLUE: NEUTRAL  
 BROWN: LIVE


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

The GREEN-and-YELLOW wire must be connected to the terminal in the plug that is marked with the letter E or the safety earth symbol (or coloured GREEN or GREEN-and-YELLOW).

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

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

### ■ WARNING

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

This applies only to products distributed by Yamaha Kemble Music (U. K.) Ltd.

## SPECIFICATIONS

### ● General specifications

|   |   |   |
|---|---|---|
| <b>Maximum output power</b>   | 135 W/8Ω @0.5% THD at 1 kHz (SPEAKERS OUT)<br>200 W/4Ω @0.5% THD at 1 kHz (SPEAKERS OUT)<br>175 mW/40Ω @0.5% THD at 1 kHz (PHONES OUT)  |   |
| <b>Frequency response</b>   | 20 Hz–20 kHz +1 dB, –3 dB @ 1 W output into 8Ω (SPEAKERS OUT)<br>20 Hz–20 kHz +1 dB, –3 dB @ +4 dB output into 10 kΩ (MAIN OUT, MONITOR OUT, EFFECT OUT)  |   |
| <b>Total harmonic distortion</b>  | Less than 0.5% @20 Hz–20 kHz, 100 W output into 4Ω (SPEAKERS OUT)<br>Less than 0.3% @20 Hz–20 kHz, +14 dB output into 10 kΩ (MAIN OUT, MONITOR OUT, EFFECT OUT)   |   |
| <b>Hum &amp; noise<br/>(Average, Rs=150Ω)<br/>(with 20 Hz–20 kHz BPF)</b> | –124 dB equivalent input noise, –68 dB residual output noise (SPEAKERS OUT)   |   |
|   | –88 dB residual output noise (MAIN OUT, MONITOR OUT)  |   |
|   | –79dB (83 dB S/N)<br>(MAIN OUT, MONITOR OUT)  | Master level control: nominal level<br>Channel level controls: minimum        |
|   | –69 dB (73 dB S/N)<br>(MAIN OUT, MONITOR OUT)   | Master level control: nominal level<br>1 channel level control: nominal level |
|   | –75 dB (79 dB S/N)<br>(EFFECT OUT)  | All channel level controls: minimum   |
| <b>Maximum voltage gain</b>   | –69 dB (73 dB S/N)<br>(EFFECT OUT)  |   |
|   | 1 channel level control: nominal level  |   |
|   | 86 dB CH IN (Lo-Z) to SPEAKERS OUT (CH1–4)<br>66 dB CH IN (Lo-Z) to MAIN OUT, MONITOR OUT (CH1–4)<br>66 dB CH IN (Lo-Z) to EFFECT OUT (CH1–4)<br>48 dB CH IN (Lo-Z) to REC OUT (CH1–4)<br>56 dB CH IN (Hi-Z) to MAIN OUT, MONITOR OUT (CH1–4)<br>26 dB LINE IN to MAIN OUT (CH5)<br>26 dB AUX IN to MAIN OUT<br>22 dB 2TR IN to MAIN OUT<br>46 dB Super Hi-z IN to MAIN OUT (CH6) |   |
|   | Crosstalk at 1 kHz  |   |
|   | 65 dB adjacent input, 65 dB input to output   |   |
| <b>Input channel equalization</b>   | ±15 dB Maximum<br>HIGH                    10 kHz shelving *<br>LOW                     100 Hz shelving *<br>* Turn over/roll-off frequency of shelving: 3 dB below maximum variable level.  |   |
| <b>Meters</b>   | 5 points LED Meter (–10, –5, 0, +3, +6 dB) MAIN OUT   |   |
| <b>Graphic equalizer</b>  | 7 bands (125, 250, 500, 1k, 2k, 4k, 8k Hz) MAIN OUT<br>±12 dB Maximum   |   |
| <b>Internal digital effect</b>  | 3 programs (VOCAL REVERB, LARGE HALL, SMALL HALL)   |   |
| <b>Phantom power</b>  | +15 V (balanced input)  |   |
| <b>Limiter</b>  | Comp. : THD≥0.5% (SPEAKERS OUT)   |   |
| <b>LIMIT indicator</b>  | Turn on. : THD≥0.5% (SPEAKERS OUT)  |   |
| <b>Protection circuit<br/>(Power amp)</b>                                 | POWER switch on/off mute<br>DC detection<br>Temp (Heatsink Temp≥90°C)   |   |
| <b>Foot switch (FC5)</b>  | DIGITAL EFFECT MUTE : on/off  |   |
| <b>Optional accessories</b>   | RK-88, FC5  |   |
| <b>Power requirement</b>  | USA and Canada: 120 V AC 60 Hz<br>Europe: 230 V AC 50 Hz<br>Other: 240 V AC 50 Hz   |   |
| <b>Power consumption</b>  | 110 W   |   |
| <b>Dimensions (WxHxD)</b>   | 482 x 305 x 328 mm  |   |
| <b>Weight</b>   | 12 kg   |   |
| <b>Supplied accessories</b>   | AC power cord, Owner's Manual   |   |

### ● Input specifications

| Input connectors           | PAD | Actual load impedance | Nominal impedance    | Input level               |                  |                      | Connector type                 |
|----------------------------|-----|-----------------------|----------------------|---------------------------|------------------|----------------------|--------------------------------|
|                            |     |                       |                      | Sensitivity* <sup>1</sup> | Nominal level    | Max. before clipping |                                |
| CH INPUT (Lo-Z)<br>(CH1–4) | OFF | 3 k $\Omega$          | 50–600 $\Omega$ Mics | –62 dB (0.616 mV)         | –50 dB (2.45 mV) | –20 dB (77.5 mV)     | XLR-3-31 type* <sup>2</sup>    |
|                            | ON  |                       | 600 $\Omega$ Lines   | –32 dB (19.5 mV)          | –20 dB (77.5 mV) | +10 dB (2.45 V)      |                                |
| CH INPUT (Hi-Z)<br>(CH1–4) | OFF | 10 k $\Omega$         | 50–600 $\Omega$ Mics | –52 dB (1.95 mV)          | –40 dB (7.75 mV) | –10 dB (245 mV)      | Phone jack (TRS)* <sup>2</sup> |
|                            | ON  |                       | 600 $\Omega$ Lines   | –22 dB (61.6 mV)          | –10 dB (245 mV)  | +20 dB (7.75 V)      |                                |
| LINE IN (CH5) (1–2)        |     | 10 k $\Omega$         | 600 $\Omega$ Line    | –22 dB (61.6 mV)          | –10 dB (245 mV)  | +20 dB (7.75 V)      | Phone jack* <sup>3</sup>       |
| Super Hi-Z IN (CH6) (1–2)  |     | 470 k $\Omega$        | 1k $\Omega$          | –42 dB (6.16 mV)          | –30 dB (24.5 mV) | 0 dB (0.775 V)       | Phone jack* <sup>3</sup>       |
| AUX IN                     |     | 10 k $\Omega$         | 600 $\Omega$ Line    | –22 dB (61.6 mV)          | –10 dB (245 mV)  | +20 dB (7.75 V)      | Phone jack* <sup>3</sup>       |
| 2TR IN (1–2)               |     | 10 k $\Omega$         | 600 $\Omega$ Line    | –22 dBV (79.4 mV)         | –10 dBV (316 mV) | +17.8 dBV (7.76 V)   | Phono jack                     |

\*1. Sensitivity is the lowest level that can produce an output of +4 dB (1.23 V) or the nominal output level when the unit is set at maximum gain.  
(All level controls are at maximum position.)

\*2. Balanced.

\*3. Unbalanced.

- 0 dB= 0.775 Vrms, 0 dBV= 1 Vrms.

### ● Output specifications

| Output connectors   | Actual source impedance | Nominal impedance    | Output level     |                      | Connector type |
|---------------------|-------------------------|----------------------|------------------|----------------------|----------------|
|                     |                         |                      | Nominal          | Max. before clipping |                |
| SPEAKERS OUT (1, 2) | 0.1 $\Omega$            | 4/8 $\Omega$ Speaker | 40 W/4 $\Omega$  | 200 W/4 $\Omega$     | Phone jack     |
| MAIN OUT            | 600 $\Omega$            | 10 k $\Omega$ Lines  | +4 dB (1.23 V)   | +20 dB (7.75 V)      | Phone jack     |
| MONITOR OUT         | 600 $\Omega$            | 10 k $\Omega$ Lines  | +4 dB (1.23 V)   | +20 dB (7.75 V)      | Phone jack     |
| EFFECT OUT          | 600 $\Omega$            | 10 k $\Omega$ Lines  | +4 dB (1.23 V)   | +20 dB (7.75 V)      | Phone jack     |
| PHONES OUT          | 35 $\Omega$             | 40 $\Omega$ Phones   | 33 mW            | 175 mW               | Phone jack     |
| REC OUT (1, 2)      | 600 $\Omega$            | 10 k $\Omega$ Lines  | –10 dBV (316 mV) | +10 dBV (3.16 V)     | Phono jack     |

• PHONE JACKS are unbalanced.

- 0 dB= 0.775 Vrms, 0 dBV= 1 Vrms.



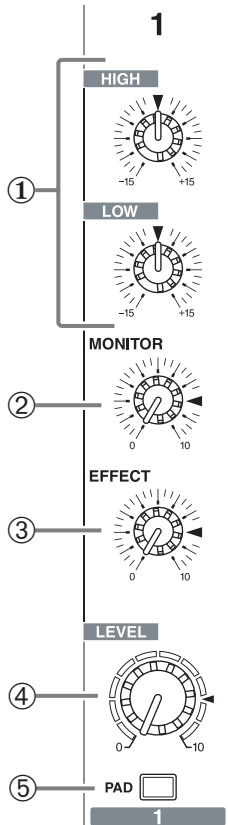


# ■ PANEL LAYOUT

## ● CONTROL PANEL

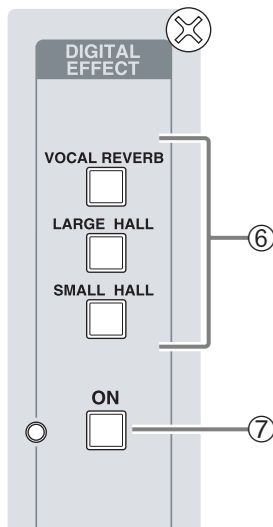
### 1. CONTROL SECTION

#### • Channel Control



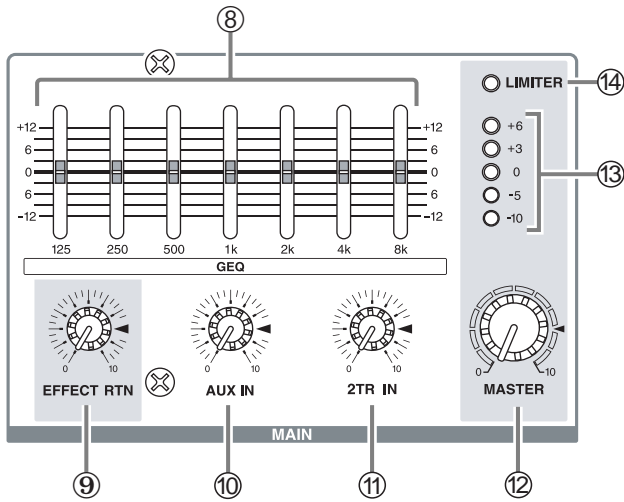
- ① Equalizer (HIGH, LOW)
- ② MONITOR control
- ③ EFFECT control
- √ LEVEL control
- ⑤ PAD switch (CH1-4)

#### • Digital Effect



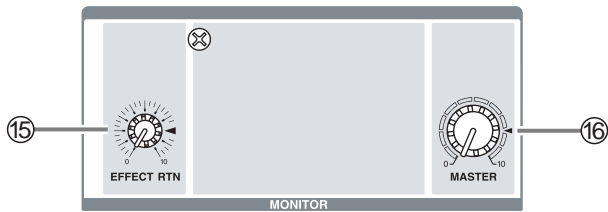
- ≈ EFFECT select switch
- △ ON switch, indicator

• MAIN



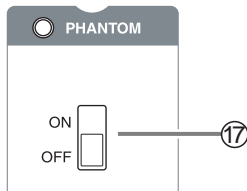
- ⑧ Graphic Equalizer
- ⑨ EFFECT RTN control
- ⑩ AUX IN control
- ⑪ 2TR IN control
- ⑫ MASTER control
- ⑬ Peak Level Indicator
- ⑭ LIMITER indicator

• MONITOR



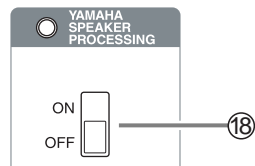
- ⑮ EFFECT RTN control
- ⑯ MASTER control

• PHANTOM switch, indicator



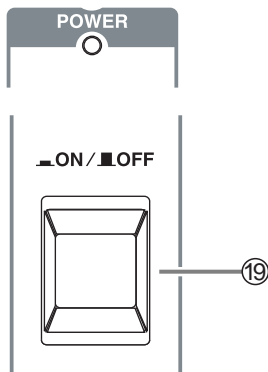
- ⑰ PHANTOM ON/OFF switch

• YAMAHA SPEAKER PROCESSING



- ⑱ ON/OFF switch

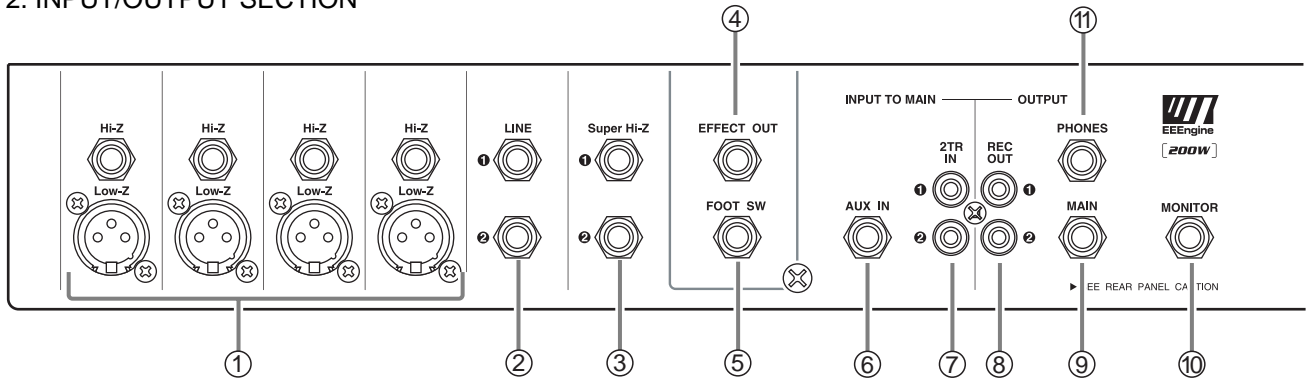
• POWER switch, indicator



- ⑲ POWER ON/OFF switch, indicator

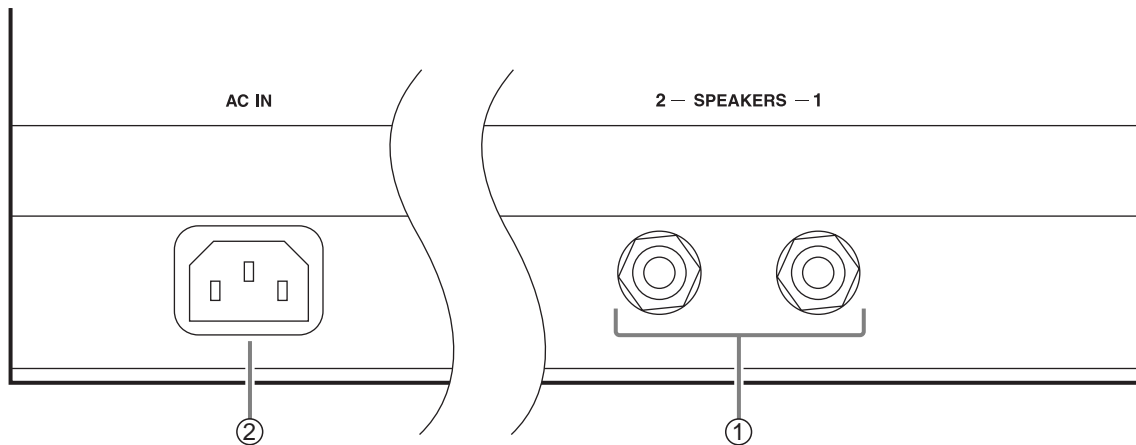


2. INPUT/OUTPUT SECTION



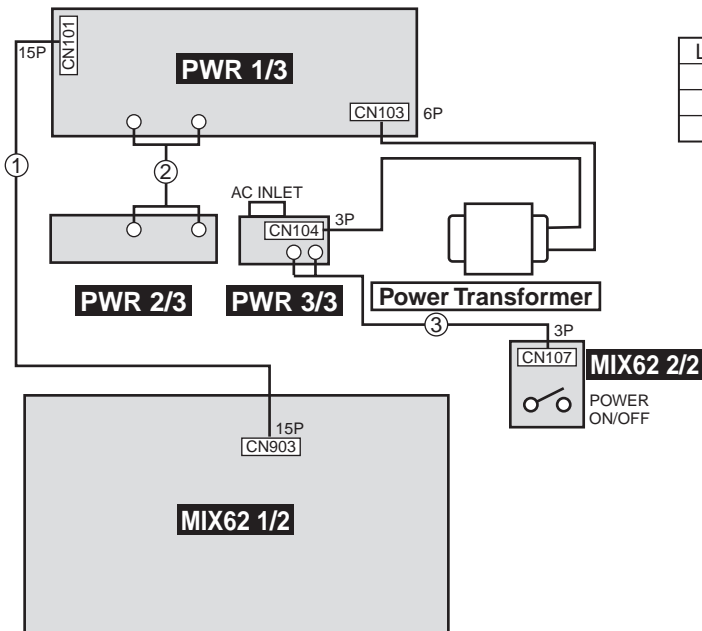
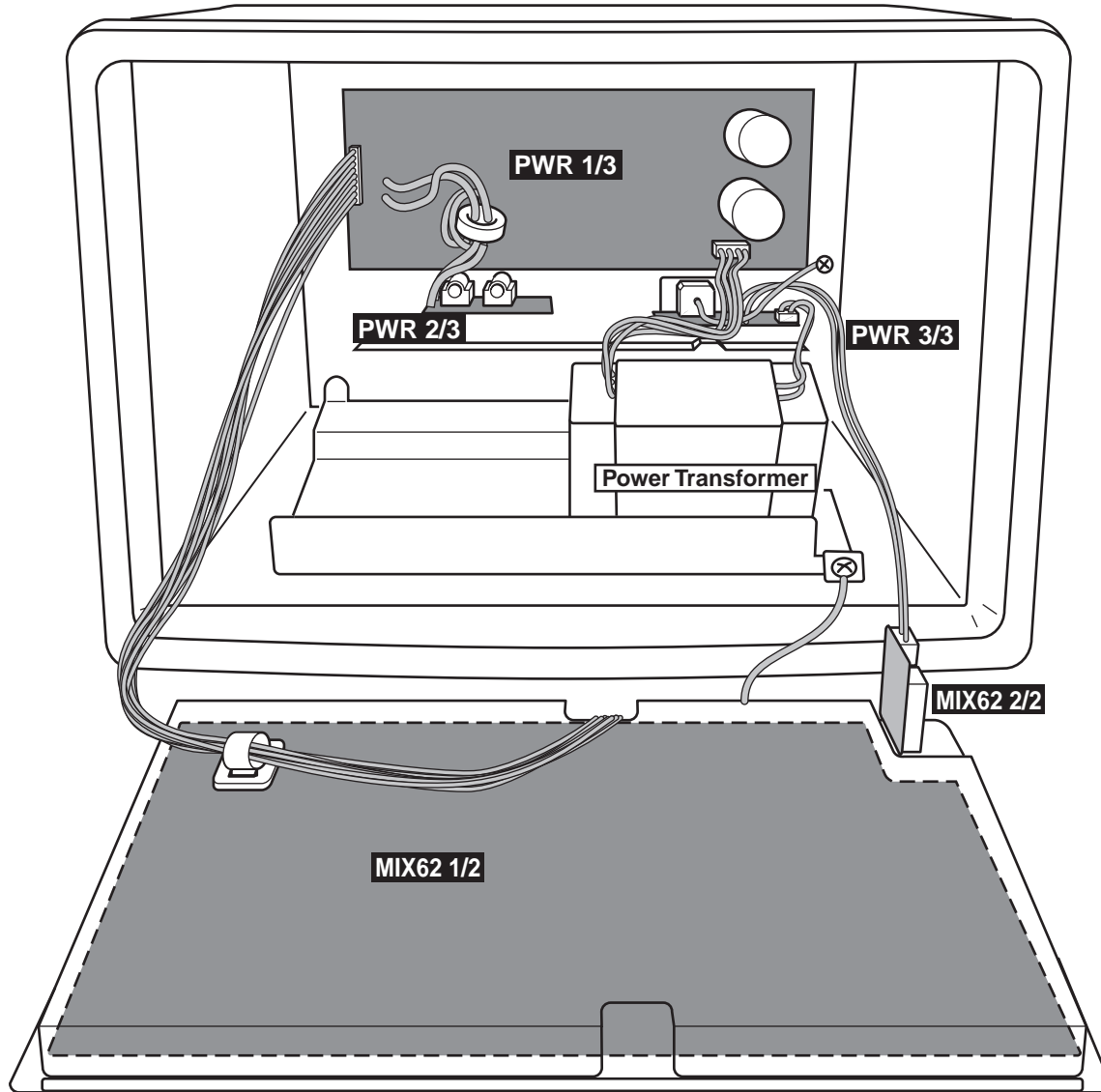
- ① INPUT terminal (Hi-Z, Low-Z) (CH1-4)
- ② INPUT terminal (LINE 1, 2) (CH5)
- ③ INPUT terminal (Super Hi-Z) (CH6)
- ④ EFFECT OUT terminal
- ⑤ FOOT SW terminal
- ⑥ INPUT TO MAIN terminal (AUX IN)
- ⑦ INPUT TO MAIN terminal (2TR IN)
- ⑧ OUTPUT terminal (REC OUT)
- ⑨ OUTPUT terminal (MAIN)
- ⑩ OUTPUT terminal (MONITOR)
- ⑪ OUTPUT terminal (PHONES)

● REAR PANEL



- ① SPEAKERS 1, 2 terminal
- ② AC IN socket

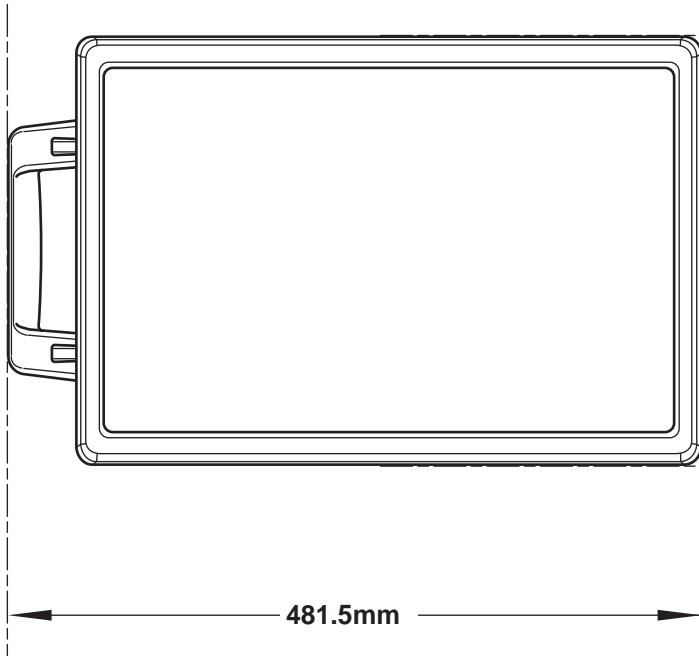
## ■ CIRCUIT BOARD LAYOUT & WIRING



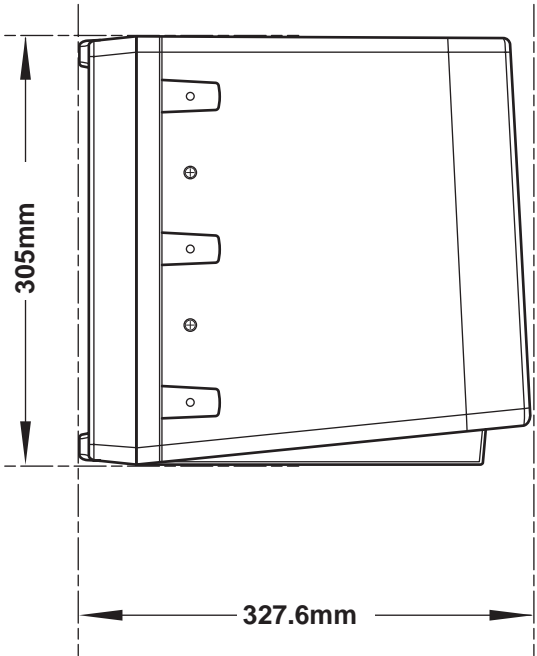
| Location | Connector Assembly | Remarks             | Parts No. |
|----------|--------------------|---------------------|-----------|
| 1        | MIX621/2-PWR1/3    | 2426&2426 14P L=700 | (V842610) |
| 2        | PWR1/3-PWR2/3      | B&B2P               | (V828330) |
| 3        | PWR3/3-MIX622/2    | PSW                 | V8272900  |

## ■ DIMENSIONS

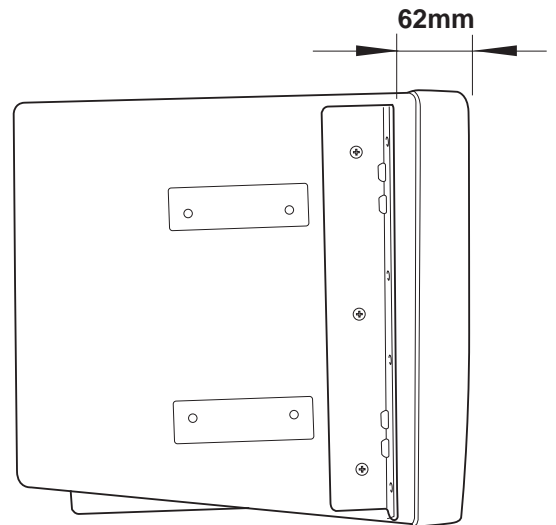
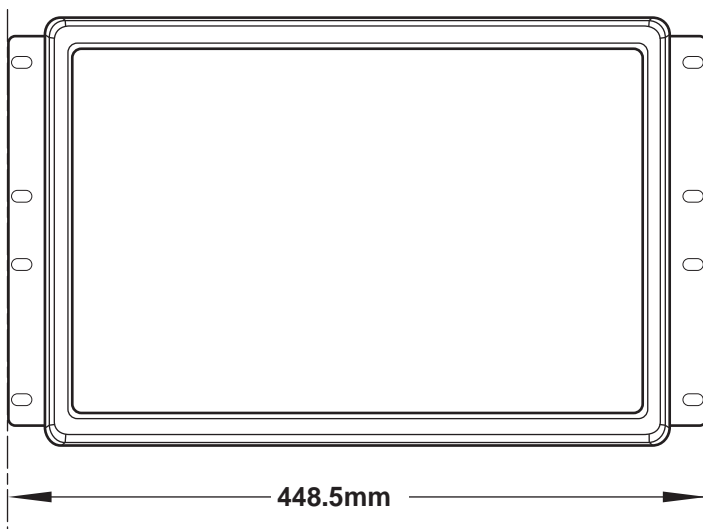
● Front View



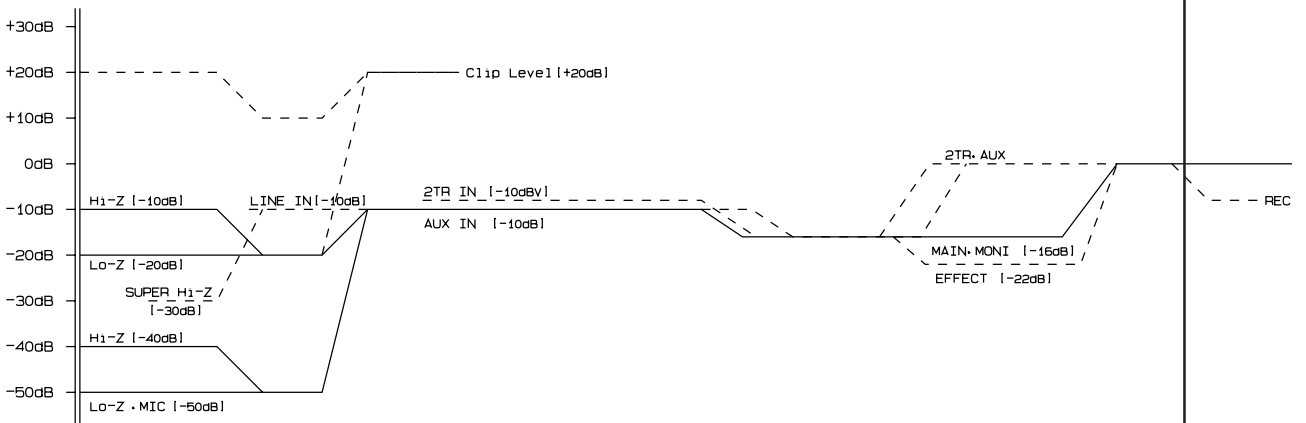
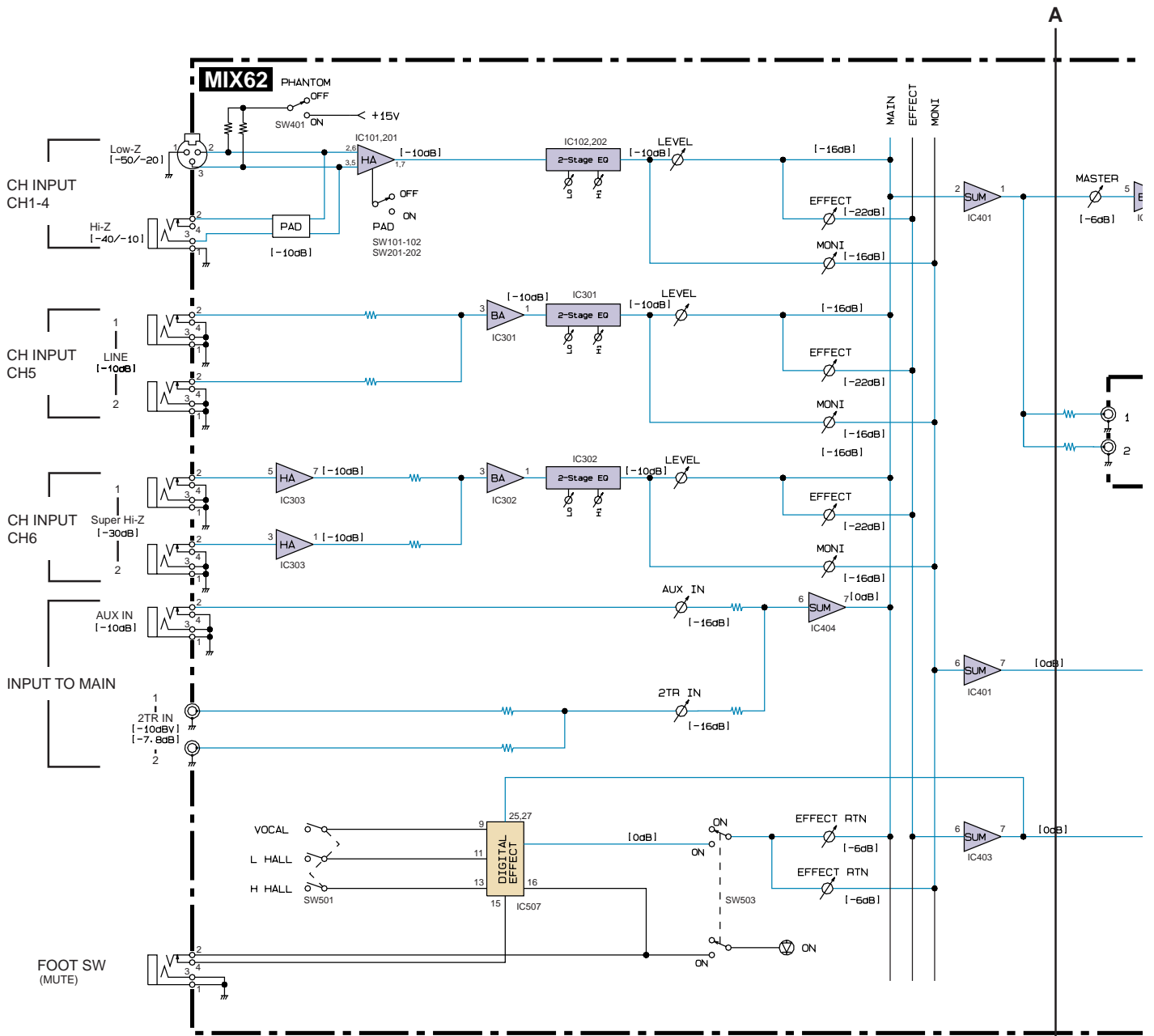
● Side View

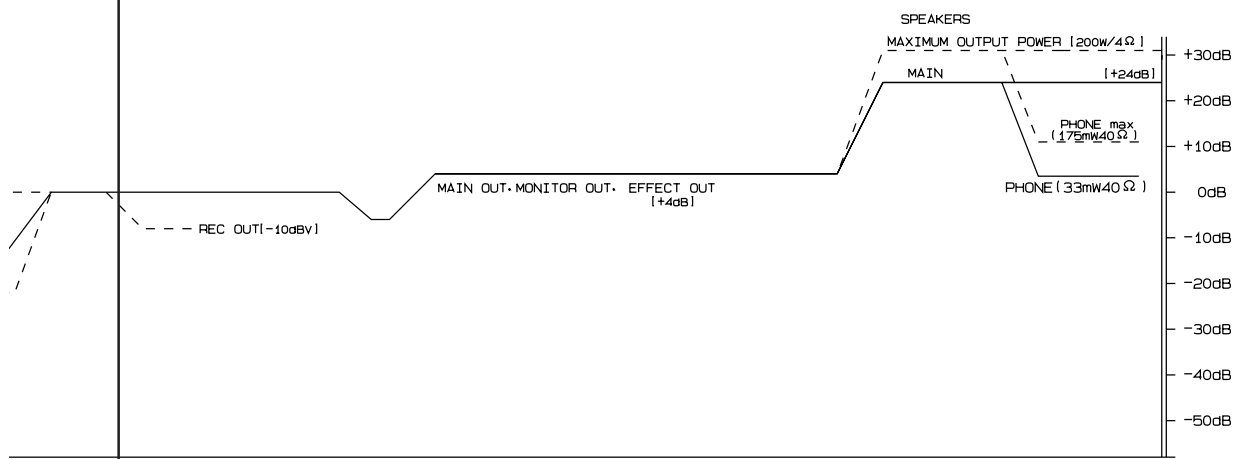
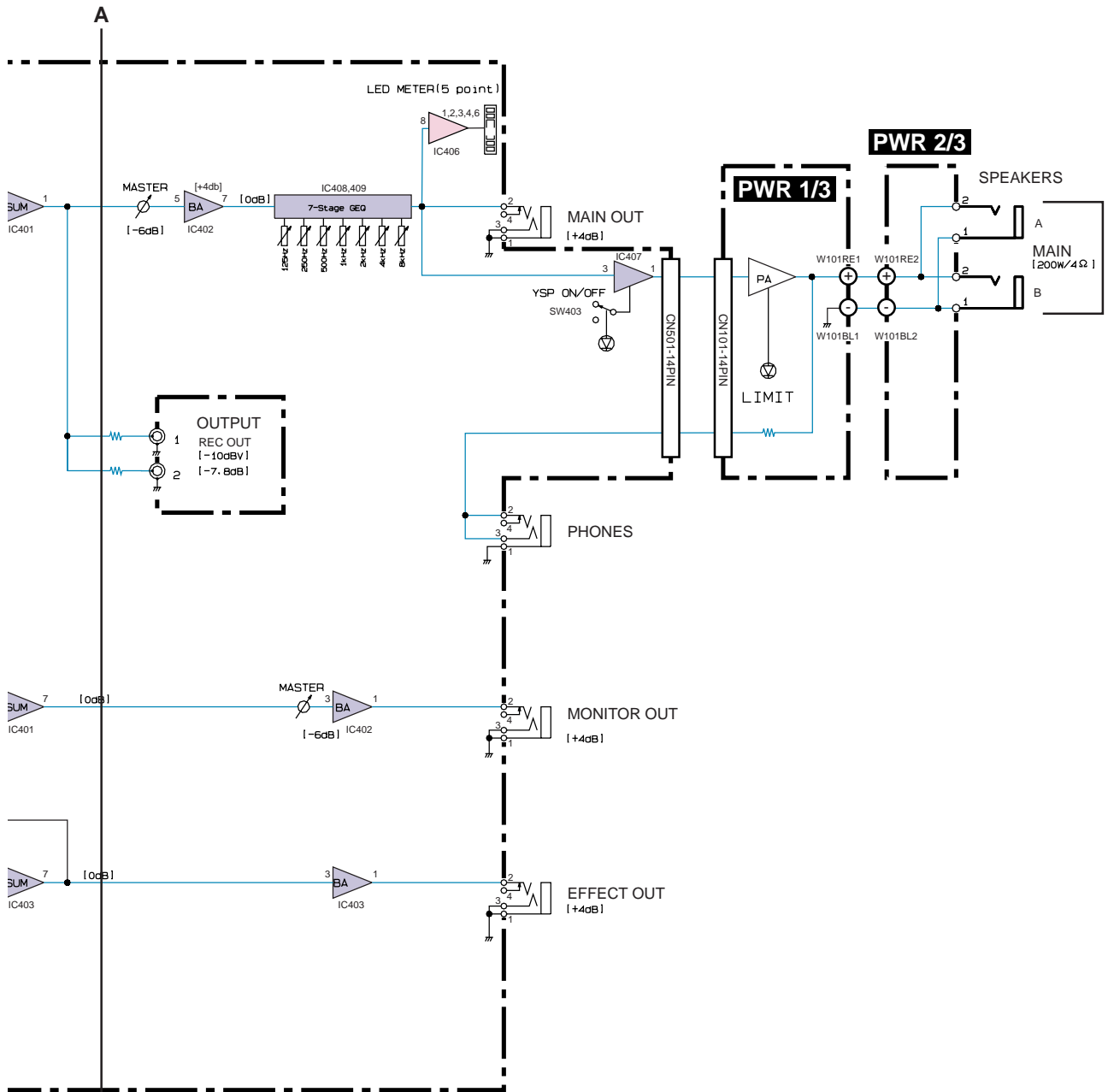


● Front View with Rack Mount Adaptor



# BLOCK & LEVEL DIAGRAM





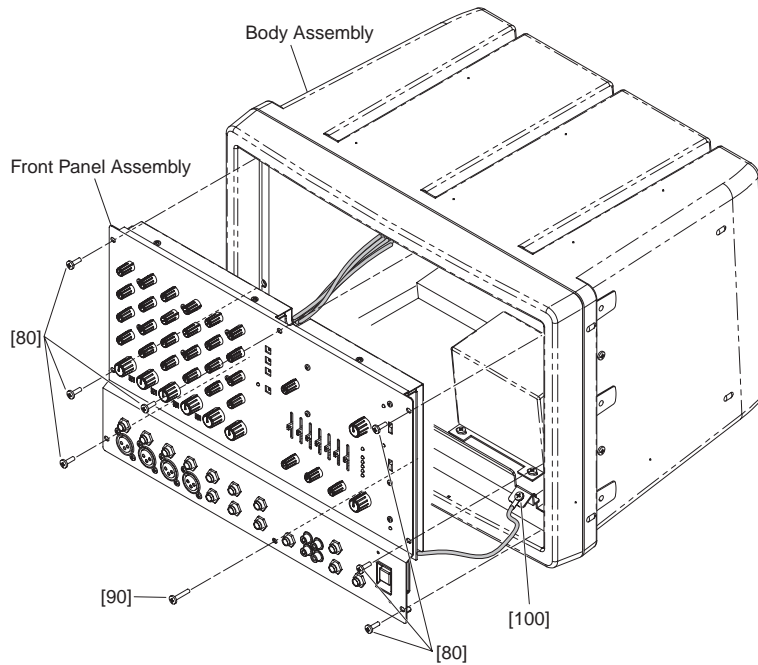
38CA1-8822112

## ■ DISASSEMBLY PROCEDURE

### 1. Front Panel Assembly

(Time required: about 3 min)

- 1-1. Remove the seven (7) screws marked [80] and the screw marked [90]. (Fig.1)
- 1-2. Hold volume knobs and pull the panel to the front. (Fig.1)
- 1-3. Remove the screw marked [100]. The front panel assembly can then be removed. (Fig.1)



(Fig. 1)

[80]: Bind Head Screw 4.0X12 MFZN2BL (VB132700)

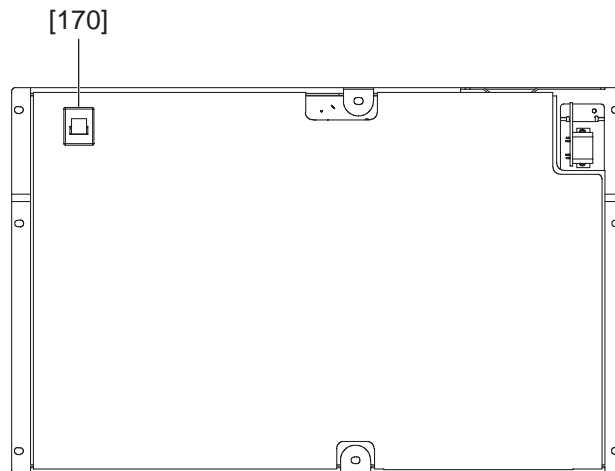
[90]: Bind Head Screw 4.0X20 MFZN2BL (VB403600)

[100]: Bind Head Screw A4.0X8 MFZN2BL (VP156800)

### 2. MIX62 Circuit Board 1/2

(Time required: about 16 min)

- 2-1. Remove the front panel assembly. (See Procedure 1)
- 2-2. Remove the cable from the cord binder marked [170]. (Fig.2)

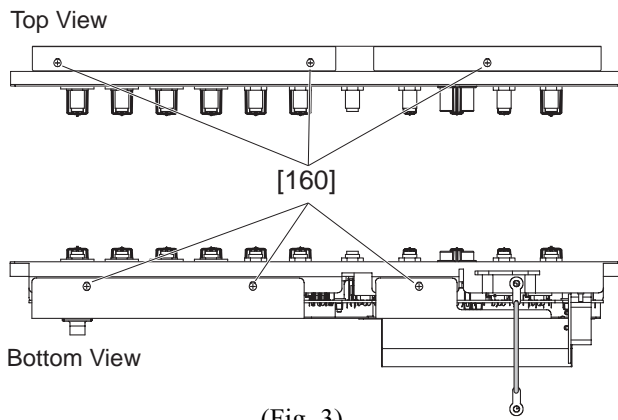


(Fig. 2)

[170]: Cord Binder TS-0708 KSS (VZ765100)

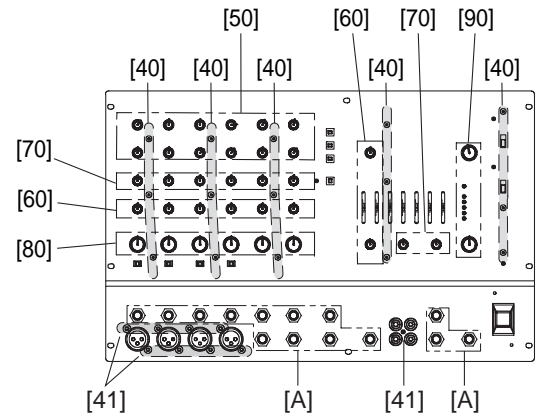
- 2-3. Remove the six (6) screws marked [160] to remove the shield plate. (Fig.3)
- 2-4. Remove the fifteen (15) screws marked [40], the nine (9) screws marked [41], and the fourteen (14) hexagonal nuts marked [A]. (Fig.4)
- 2-5. Remove the twelve (12) knobs marked [50], eight (8) knobs marked [60], the eight (8) knobs marked [70], and the eight (8) knobs marked [80].  
The mix62 circuit board 1/2 can then be removed. (Fig.4)

Note: When placing the front panel assembly on the table, take care not to weight the MIX62 circuit board 2/2. (Fig.5)



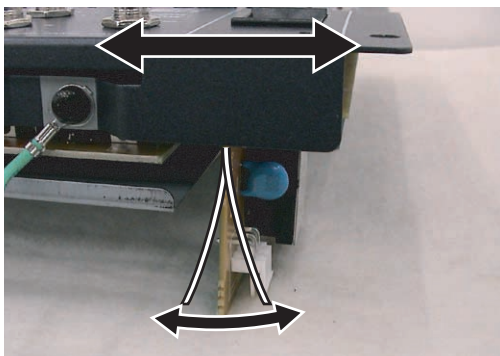
(Fig. 3)

[160] Bind Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)



(Fig. 4)

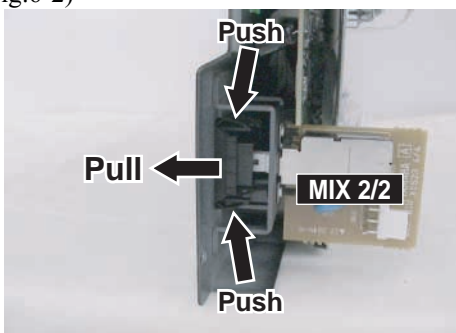
- [40]: Screw 3X25 MFZNBL (V3289800)
- [41]: Bonding Tapping Screw-B 3.0X8 MFZN2BL (VN413300)
- [50]: Knob GREEN/M-GRAY (V6225300)
- [60]: Knob L-GRAY/M-GRAY (V6225600)
- [70]: Knob BLUE/M-GRAY (V6225400)
- [80]: Knob L-GRAY/D-GRAY (V6225700)
- [90]: Bind Head Screw 3.0X8 MFZN2BL (VB659000)



(Fig. 5)

**3. MIX62 Circuit Board 2/2**  
**(Time required: about 4 min)**

- 3-1. Remove the front panel assembly. (See Procedure 1)
- 3-2. Pinch slightly the stopper of the power switch escutcheon with a pleyer, and pull it to the front to remove. (Fig.6-1)
- 3-3. Remove the two (2) screws marked [90]. (Fig.6-2)
- 3-4. Remove the power switch knob marked [110]. The MIX62 circuit board 2/2 can then be removed. (Fig.6-2)



(Fig. 6-1)



(Fig. 6-2)

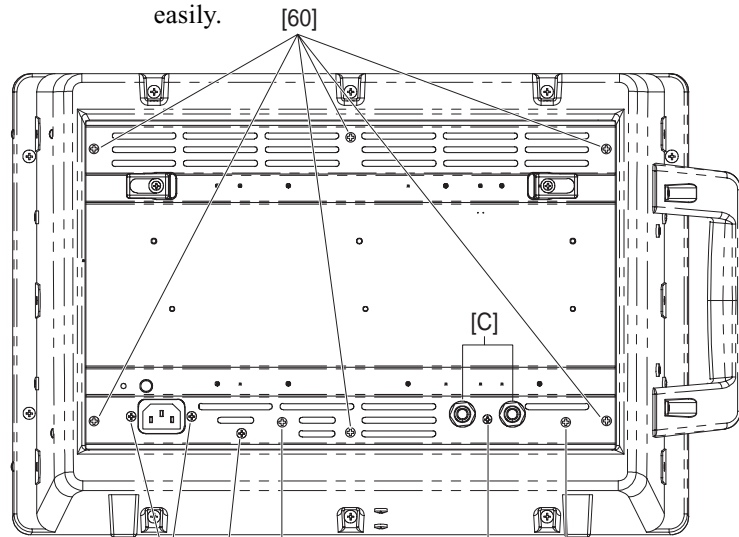
[90]: Bind Head Screw 3.0X8 MFZN2BL (VB659000)

[110]: Power Switch Knob MX12/4 (VU859000)

**4. Rear Panel Assembly**  
**(Time required: about 5 min)**

- 4-1. Remove the front panel assembly. (See Procedure 1)
- 4-2. Remove the six (6) screws marked [60] and the two (2) screws marked [44]. (Fig.7)
- 4-3. Hold the cord holder and pull the rear panel to the front to remove. (Fig.8)

Note: When reinstalling, install the rear panel assembly and the front panel assembly in that order to connect the power supply connector easily.



(Fig. 7)



(Fig. 8)

- [44]: Bind Head Tapping Screw-B 4.0X8 MFZN2BL (EG340190)
- [60]: Bind Head Screw 4.0X12 MFZN2BL (VB132700)
- [90]: Bind Head Tapping Screw-B 3.0X12 MFZN2BL (VQ074600)
- [100]: Bonding Head Tapping Screw-B 3.0X8 MFZN2BL (VN413300)

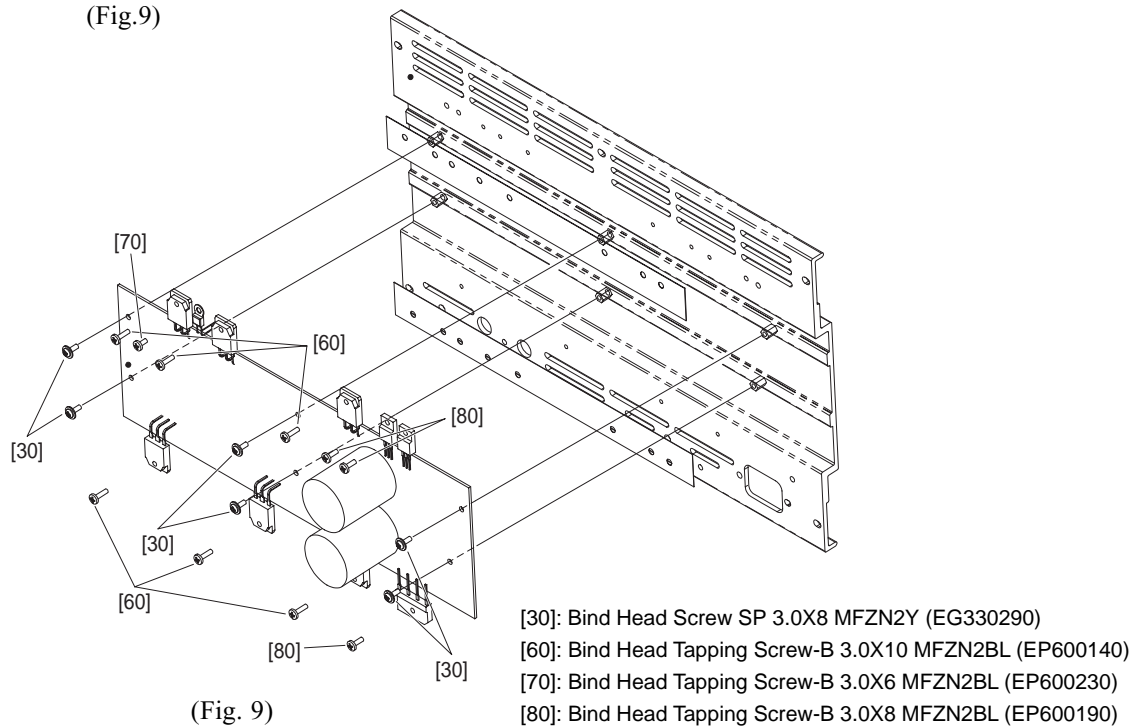


**5. PWR Circuit Board 2/3**  
**(Time required: about 7 min)**

- 5-1. Remove the rear panel assembly. (See Procedure 4)
- 5-2. Remove the screw marked [100] and the two (2) hexagonal nuts marked [C]. The PWR circuit board 2/3 can then be removed. (Fig.7)

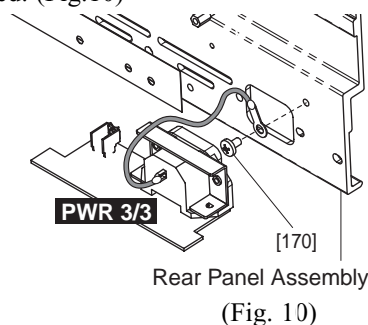
**6. PWR Circuit Board 1/3**  
**(Time required: about 9 min)**

- 6-1. Remove the rear panel assembly. (See Procedure 4)
- 6-2. Remove the PWR circuit board 2/3. (See Procedure 5)
- 6-3. Remove the six (6) screws marked [30], the six (6) screws marked [60], the screw marked [70] and the three (3) screws marked [80].  
 The PWR circuit board 1/3 can then be removed. (Fig.9)



**7. PWR Circuit Board 3/3**  
**(Time required: about 6 min)**

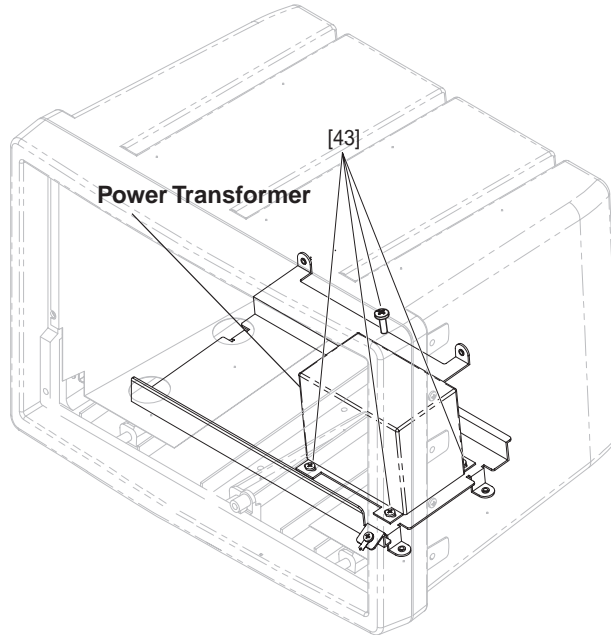
- 7-1. Remove the rear panel assembly. (See Procedure 4)
- 7-2. Remove the two (2) screws marked [90] and the screw marked [100]. (Fig.7)
- 7-3. Remove the screw marked [170]. The PWR circuit board 3/3 can then be removed. (Fig.10)



[170]: Bind Head Screw A4.0X6 MFZN2BL (EG340290)

**8. Power Transformer  
(Time required: about 6 min)**

- 8-1. Remove the rear panel assembly. (See Procedure 4)
- 8-2. Remove the four (4) screws marked [43]. The power transformer can then be removed. (Fig.11)



(Fig. 11)

[43]: Bind Head Tapping Screw-B 4.0X8 MFZN2BL (EG340190)

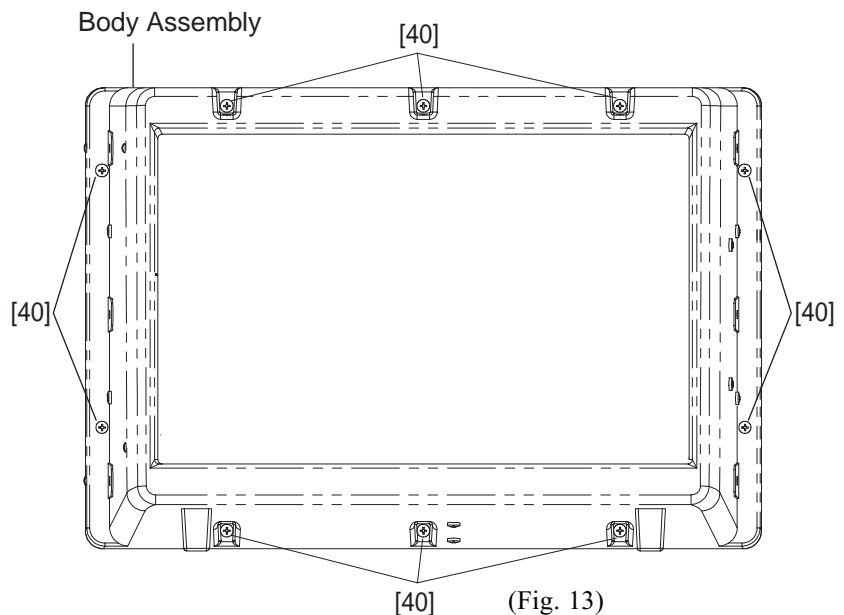
**9. Front Frame (Time required: about 6 min)**

- 9-1. Remove the front panel assembly. (See Procedure 1)
- 9-2. Remove the four (4) screws marked [50] to remove the handle assembly. (Fig.12)
- 9-3. Remove the ten (10) screws marked [40]. The front frame can then be removed. (Fig.13)



(Fig. 12)

[50]: Bind Head Screw 4.0X16 MFZN2BL (EG340110)



(Fig. 13)

[40]: Bind Head Tapping Screw-P 4.0X30 MFZN2BL (V8322700)

## LSI PIN DESCRIPTION

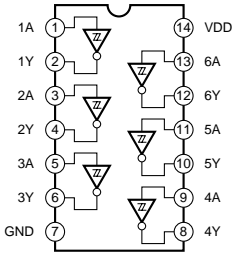
● YSS234 (XN299A00) Digital Sound Processor

MIX62: IC507

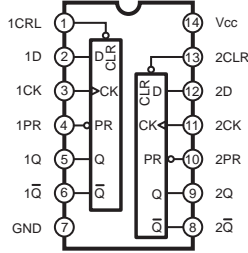
| PIN NO. | NAME  | I/O | FUNCTION                         | PIN NO. | NAME  | I/O | FUNCTION                       |
|---------|-------|-----|----------------------------------|---------|-------|-----|--------------------------------|
| 1       | MD4   | I/O | External RAM interface data      | 33      | AVDD  | -   | DC A+5Vs bus                   |
| 2       | MD3   | I/O |                                  | 34      | VDD   | -   | DC D+5V                        |
| 3       | MD0   | I/O |                                  | 35      | TST0  | -   | DC D+5V                        |
| 4       | MD1   | I/O |                                  | 36      | TST1  | -   | DC D+5V                        |
| 5       | MD2   | I/O |                                  | 37      | DOEN  | -   | DC D+5V                        |
| 6       | MCKO  | O   | Master clock output              | 38      | SDO1  | O   | N.C.                           |
| 7       | XO    | O   | Crystal oscillator connection    | 39      | SDO0  | O   | N.C.                           |
| 8       | XI    | I   | Crystal oscillator connection    | 40      | WC    | O   | N.C.                           |
| 9       | ER0   | I   | Early refraction preset select   | 41      | BCO   | O   | N.C.                           |
| 10      | ER1   | I   |                                  | 42      | MA0   | O   | External RAM interface address |
| 11      | ER2   | I   |                                  | 43      | MA1   | O   |                                |
| 12      | REV0  | I   | Effect select                    | 44      | MA2   | O   |                                |
| 13      | REV1  | I   |                                  | 45      | MA3   | O   |                                |
| 14      | REV2  | I   |                                  | 46      | MA4   | O   |                                |
| 15      | MUTEN | I   |                                  | DC D+5V | 47    | MA5 |                                |
| 16      | ICN   | I   | Initial clear                    | 48      | MA6   | O   |                                |
| 17      | PRG   | I   | DC D+5V                          | 49      | MA7   | O   |                                |
| 18      | MODE  | I   | Preset mode (H=DC +5V)           | 50      | MA12  | O   |                                |
| 19      | VSS   | -   | Ground                           | 51      | MA14  | O   |                                |
| 20      | AVSS  | -   | Ground                           | 52      | VSS   | -   | Ground                         |
| 21      | CVA   | -   | N.C.                             | 53      | MA10  | O   | External RAM interface address |
| 22      | AORL  | O   | N.C.                             | 54      | MA011 | O   |                                |
| 23      | AORR  | O   | N.C.                             | 55      | MA09  | O   |                                |
| 24      | CHL   | I   | Sample hold capacitor connection | 56      | MA8   | O   |                                |
| 25      | AIL   | I   | Lch ADC input                    | 57      | MA13  | O   |                                |
| 26      | VDD   | -   | DC D+5V                          | 58      | VDD   | -   | DC D+5V                        |
| 27      | AIR   | I   | Rch ADC input                    | 59      | WEN   | I   | Write enable                   |
| 28      | CHR   | I   | Sample hold capacitor connection | 60      | OEN   | I   | Output enable                  |
| 29      | AOFL  | O   | Lch DAC output                   | 61      | CEN   | I   | Chip select                    |
| 30      | AOFR  | O   | Rch DAC output                   | 62      | MD7   | I/O | External RAM interface data    |
| 31      | AVDD  | -   | DC A+5V                          | 63      | MD6   | I/O |                                |
| 32      | CVB   | I   | Rch midpoint voltage             | 64      | MD5   | I/O |                                |

## IC BLOCK DIAGRAM

- **74HC14DT** (X2166A00)  
Hex Inverter  
MIX62: IC504

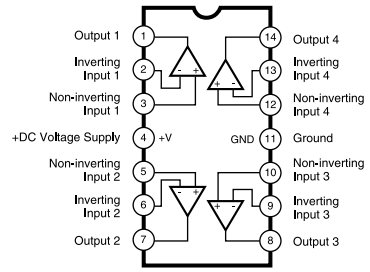


- **74HC74DT** (X2167A00)  
Dual D-Type Flip-Flop  
MIX62: IC505

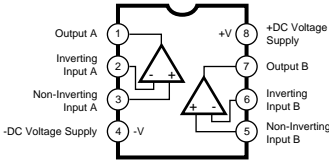


| INPUTS |     |     |   | OUTPUTS        |                 |
|--------|-----|-----|---|----------------|-----------------|
| PR     | CLR | CLK | D | Q              | Q̄              |
| L      | H   | X   | X | H              | L               |
| H      | L   | X   | X | L              | H               |
| L      | L   | X   | X | H              | H               |
| H      | H   | ↑   | H | H              | L               |
| H      | H   | ↑   | L | L              | H               |
| H      | H   | L   | X | Q <sub>a</sub> | Q̄ <sub>a</sub> |

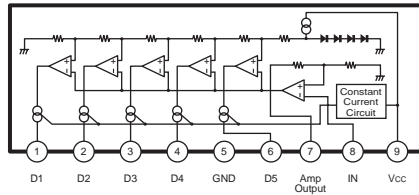
- **NJM2060M (TE2) OP** (XM560A00)  
Quad Operational Amplifier  
MIX62: IC408, IC409



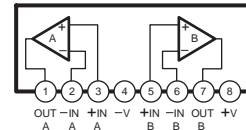
- **NJM2068MD-T1** (XJ553A00)
- **NJM4558MT-1** (IG103520)
- **TL072CPSR** (XV423A00)  
Dual Operational Amplifier  
MIX62: IC101, IC102, IC201, IC202  
IC301, IC302, IC303, IC401  
IC402, IC403, IC404, IC407  
IC501, IC502, IC503



- **LB1423N** (XZ348A00)  
LED Driver  
MIX62: IC406



- **NJM4558L-D** (XQ212A00)  
OP AMP  
PWR 1/3: IC101

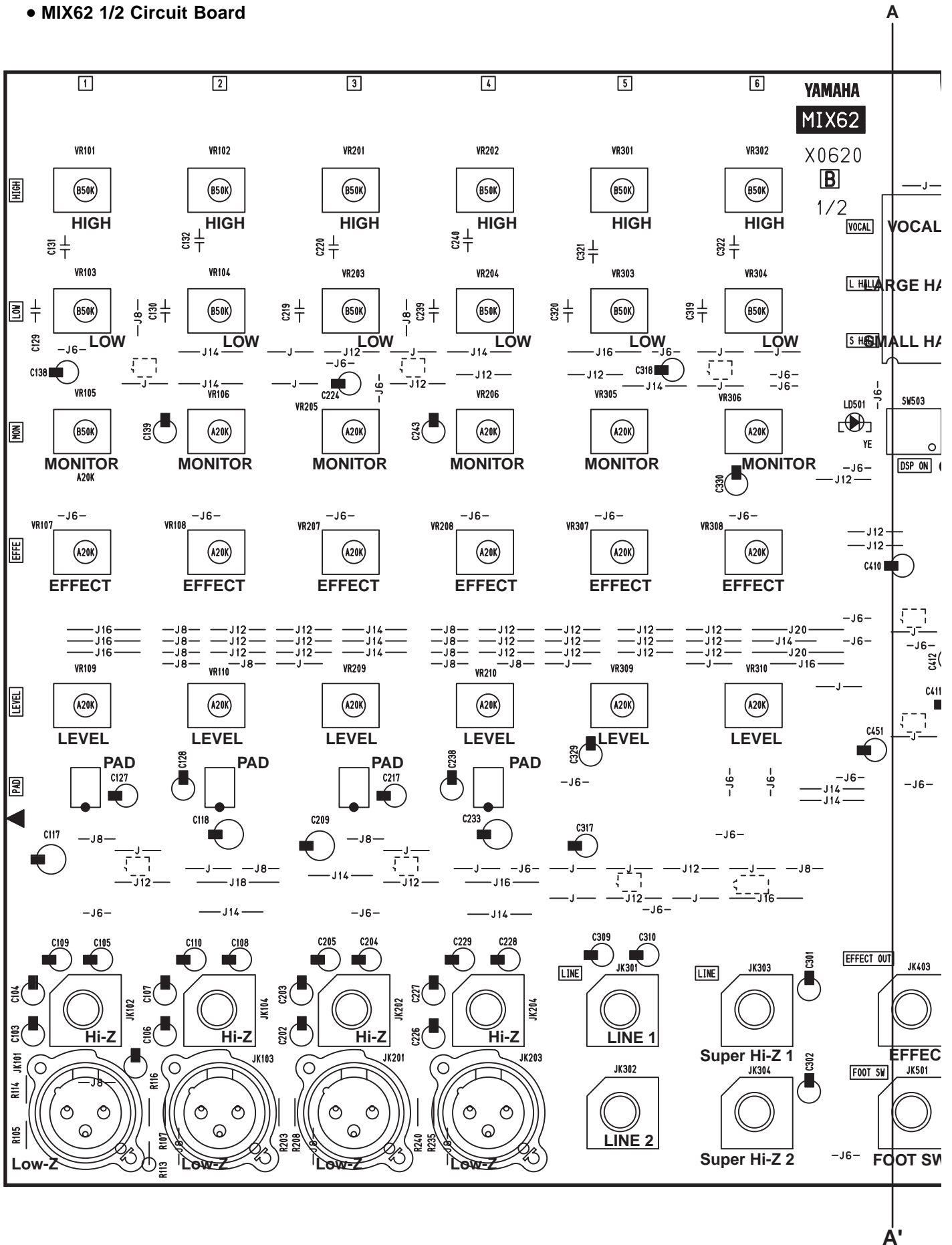


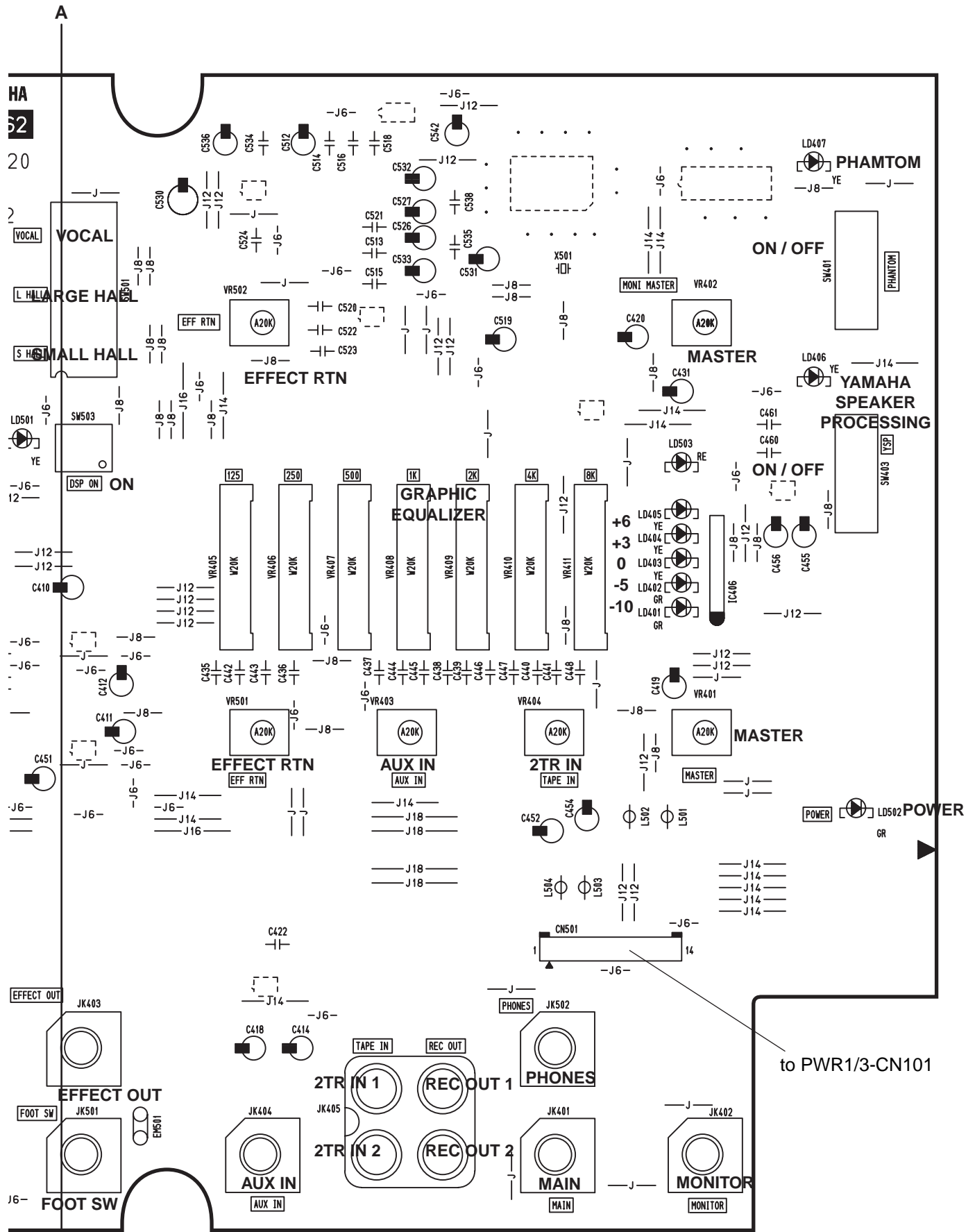
## ■ CIRCUIT BOARDS

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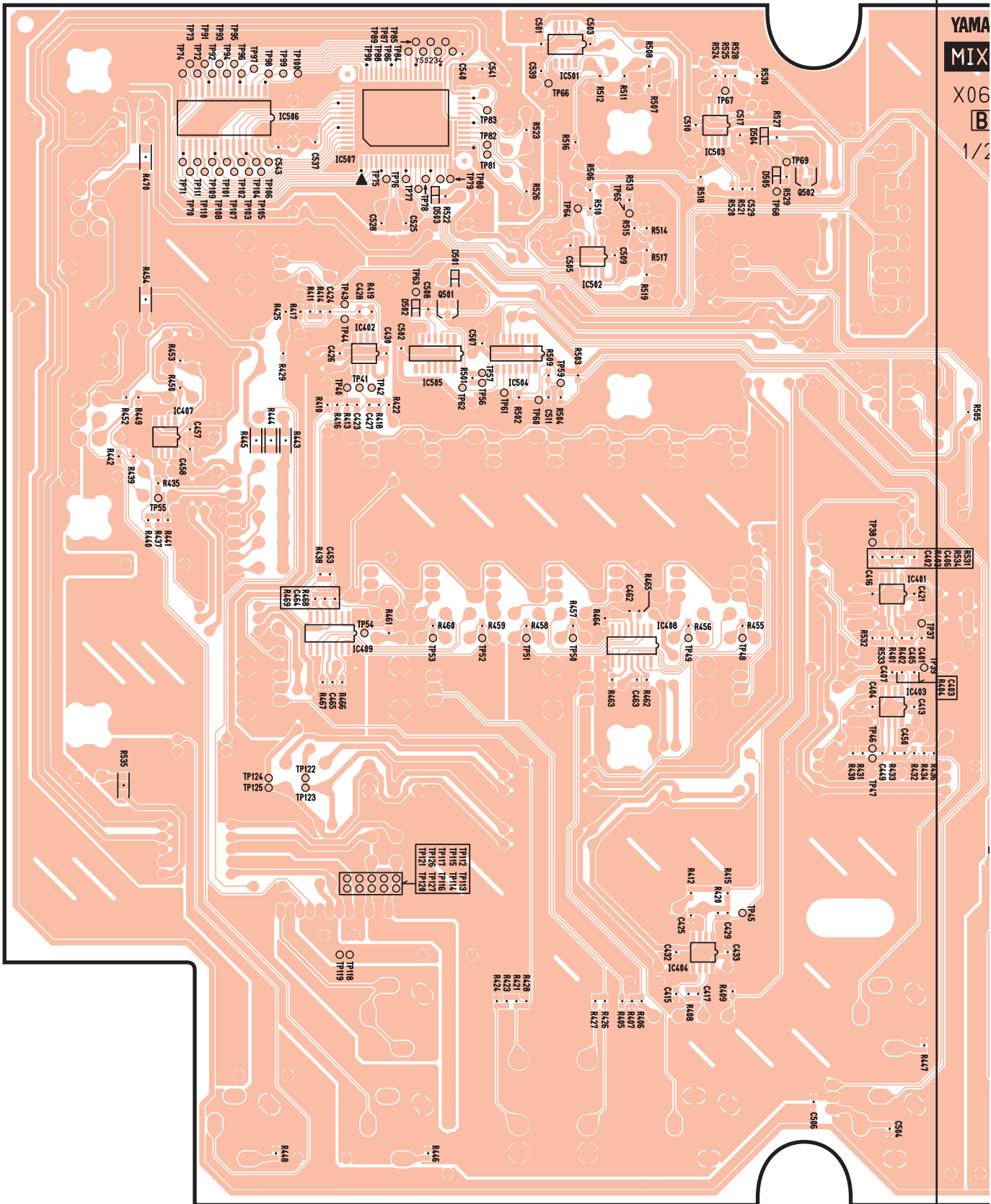
• MIX62 1/2 Circuit Board



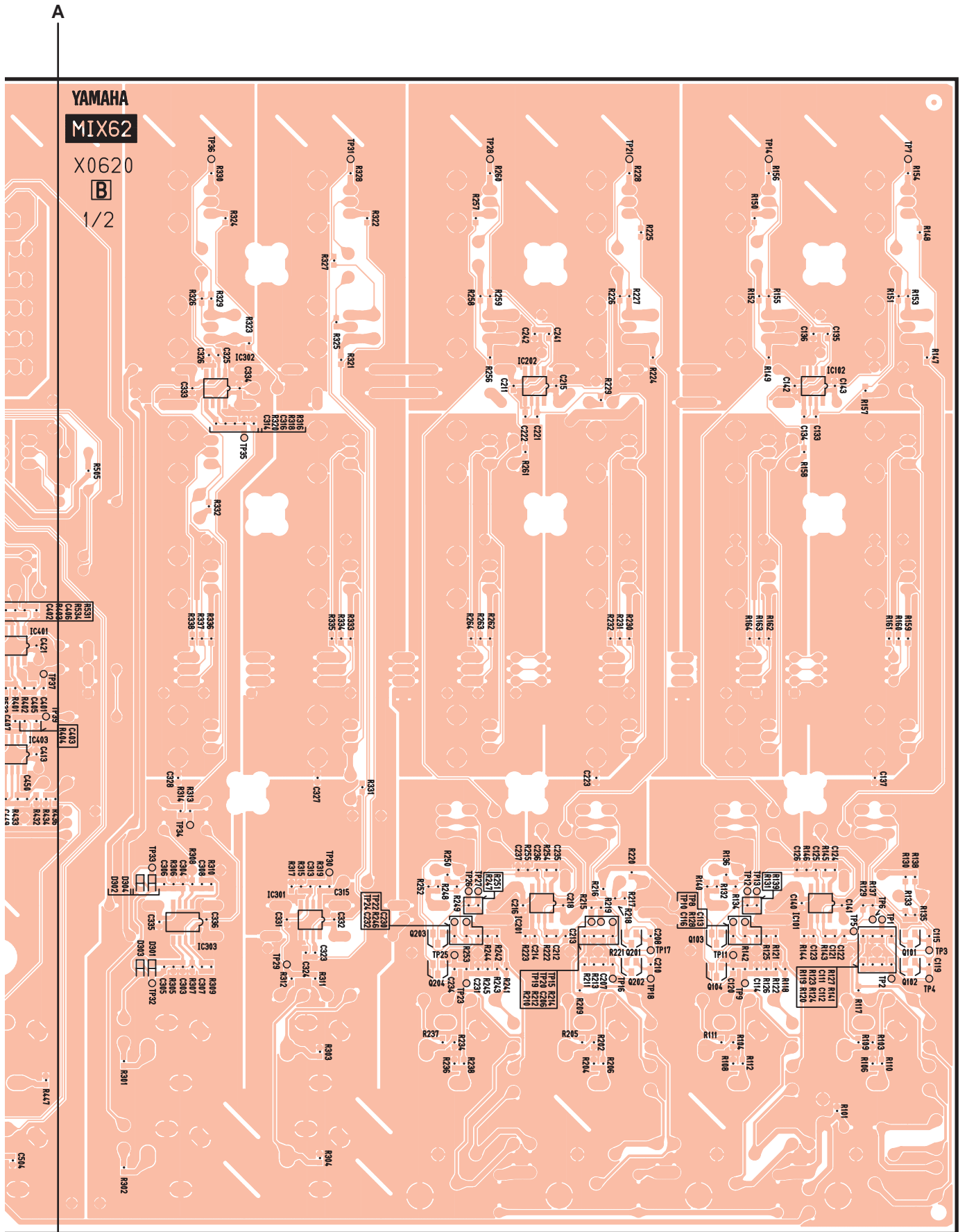


Component side

• MIX62 1/2 Circuit Board

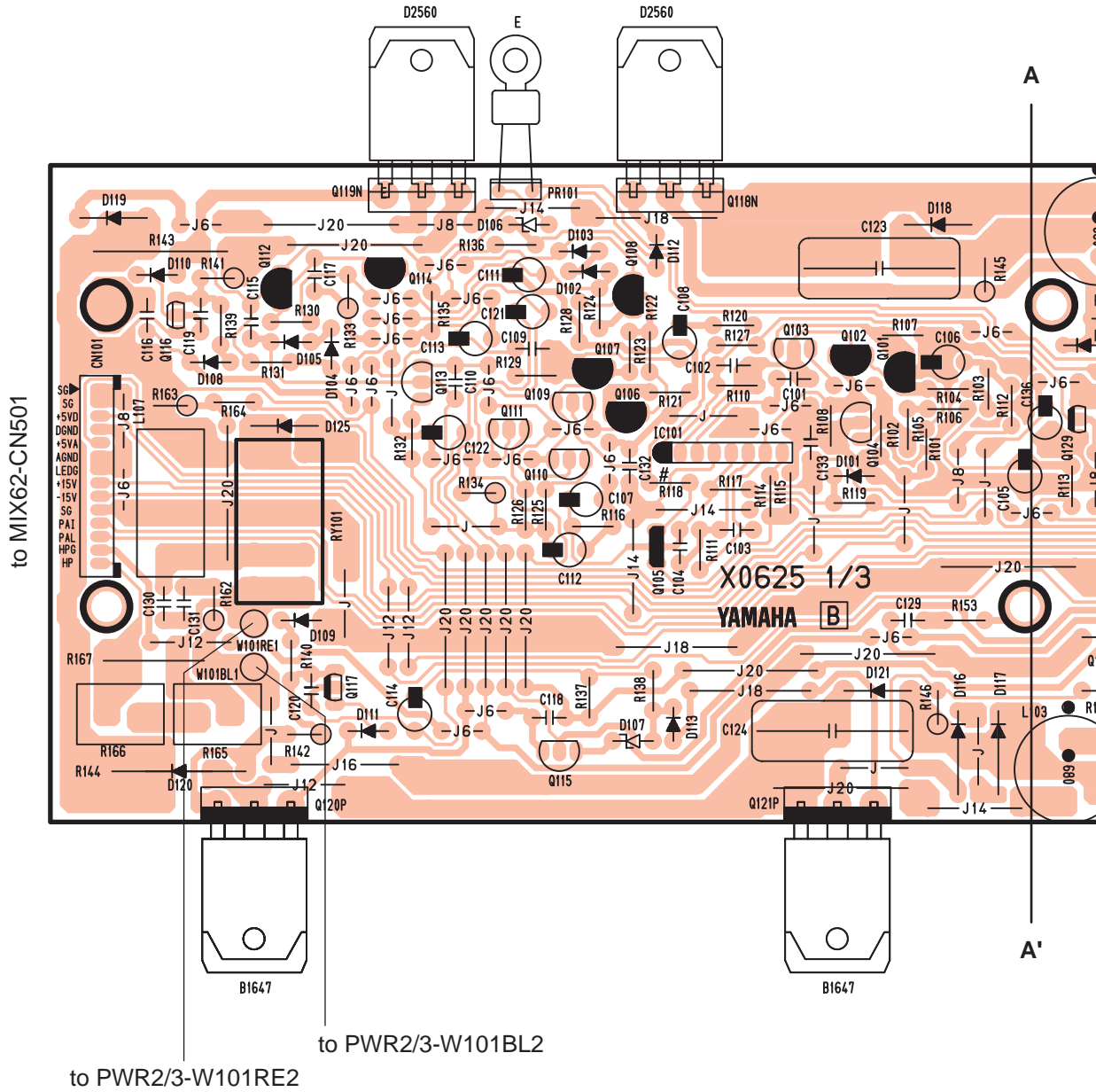


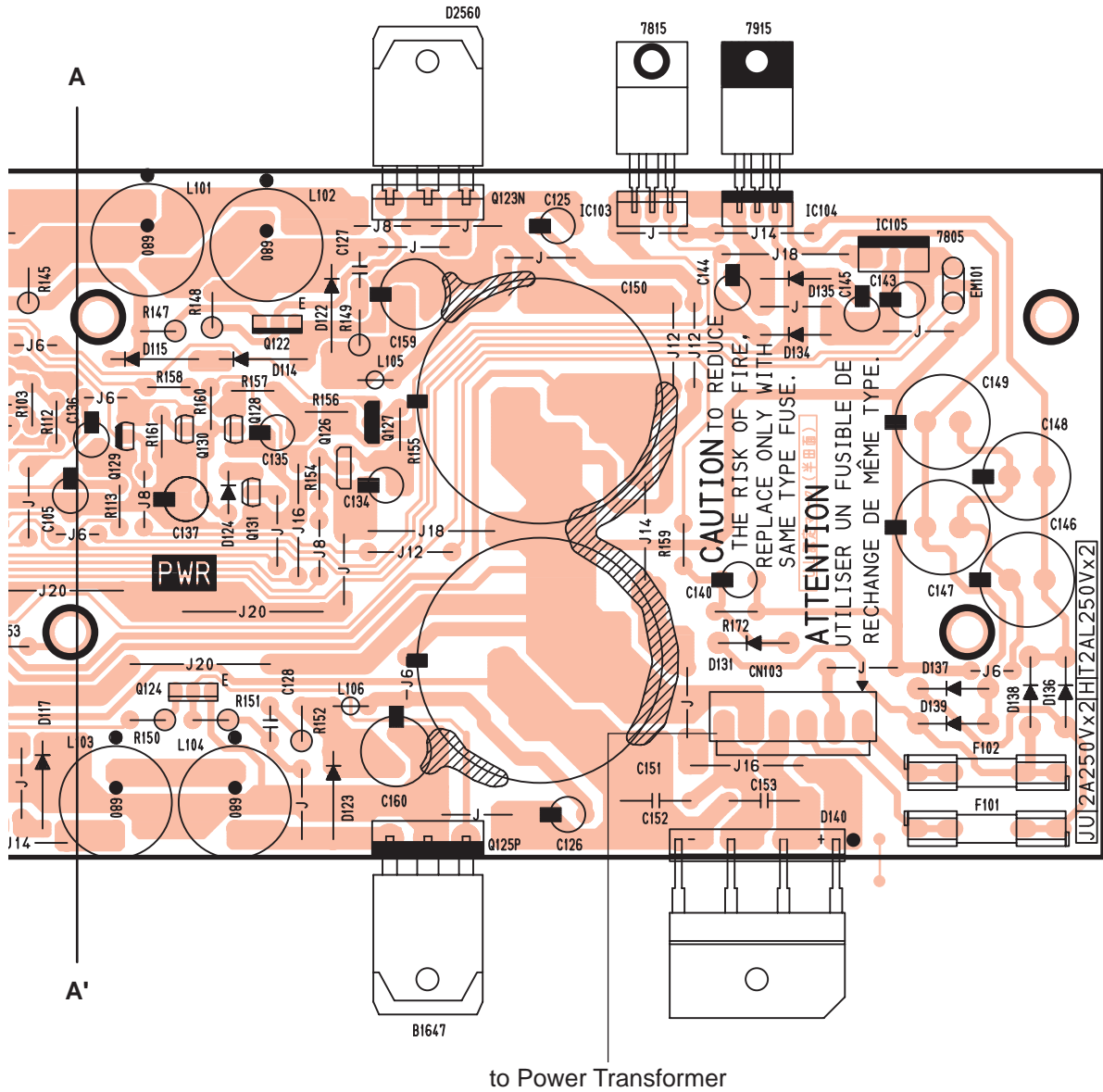




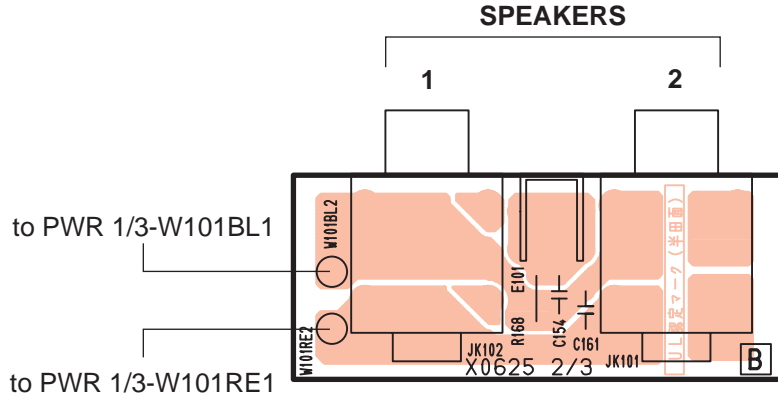
Pattern side

• PWR 1/3 Circuit Board

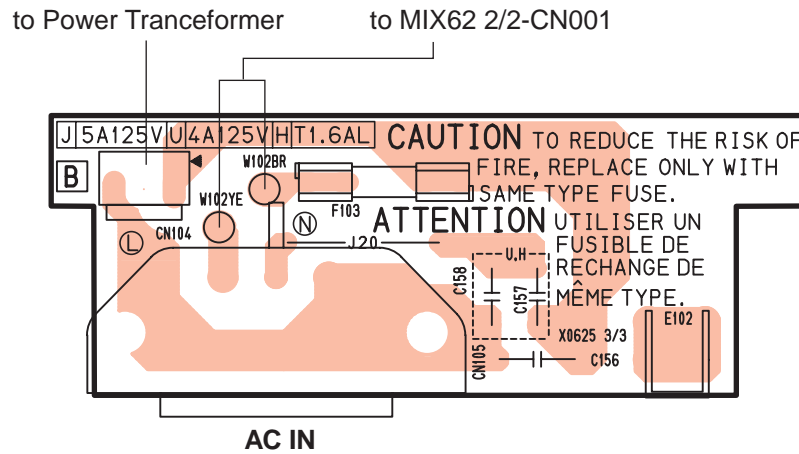




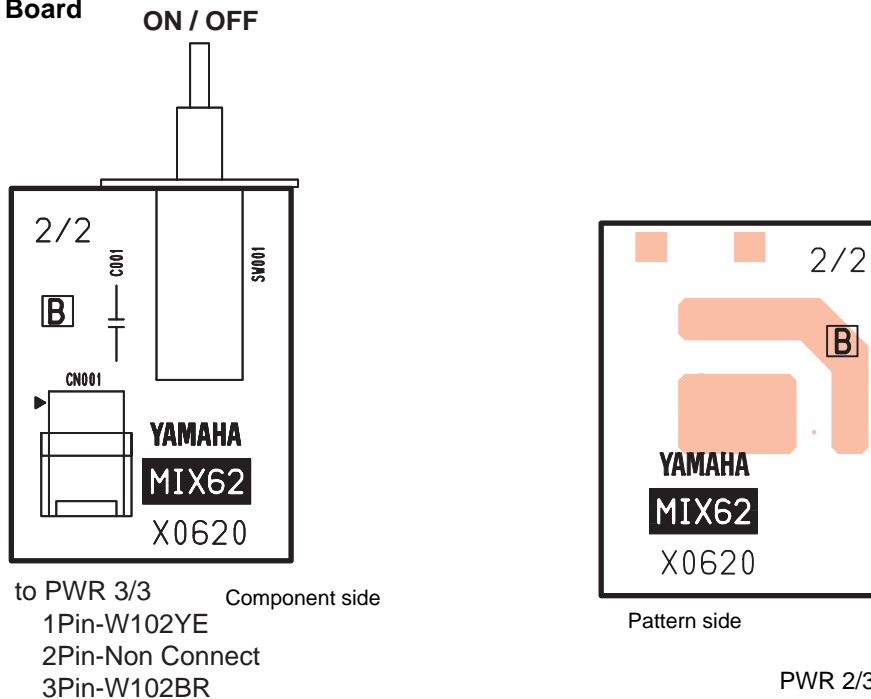
• PWR 2/3 Circuit Board



• PWR 3/3 Circuit Board



• MIX62 2/2 Circuit Board



PWR 2/3: 3NA-V826840 ▲

PWR 3/3: 3NA-V826840 ▲

PMIX62 2/2: 3NA-V826700 ▲

# INSPECTIONS

## 0. PREPARATION

- (1) Measuring instruments
- Oscillator (Ballance output type, Output impedance 150Ω)
  - Oscilloscope (Input impedance 100kΩ)
  - Level meter (Input impedance 100kΩ)
  - Distortion Meter

- (2) Notes for measuring
- Noise level must be measured by using DIN AUDIO FILTER.
  - 0dB is equal to 0.775V.

## 1. Power Indicator Check

Confirm that the power indicator LED lights up while the power is ON.

## 2. Mixer Check

### 2.1 Preparation

- Except otherwise indicated, input signal should be 1kHz sine curve and output impedance of signal source should be 150Ω.
- Connect the load of 10kΩ to MAIN OUT, MONITOR OUT, EFFECT OUT and REC OUT terminal and connect the load of 40Ω to PHONES OUT.
- Set each control as follows.

#### CH INPUT 1-4

|                               |        |
|-------------------------------|--------|
| EQ (HIGH, LOW) level control: | CENTER |
| MONITOR level control:        | MAX    |
| EFFECT level control:         | MAX    |
| LEVEL control:                | MAX    |
| PAD switch:                   | OFF    |

#### CH INPUT 5-6

|                               |        |
|-------------------------------|--------|
| EQ (HIGH, LOW) level control: | CENTER |
| MONITOR level control:        | MAX    |
| EFFECT level control:         | MAX    |
| LEVEL control:                | MAX    |

#### EFFECT

|                           |     |
|---------------------------|-----|
| DIGITAL EFFECT ON switch: | OFF |
|---------------------------|-----|

#### MAIN

|                                   |        |
|-----------------------------------|--------|
| GRAPHIC EQUALIZER (7 band) fader: | CENTER |
| EFFECT RTN level control:         | MAX    |
| AUX IN level control:             | MAX    |
| 2TR IN level control:             | MAX    |
| MASTER (MAIN) level control:      | MAX    |

#### MONITOR

|                              |     |
|------------------------------|-----|
| EFFECT RTN level control:    | MAX |
| MASTER (MAIN) level control: | MAX |

|                 |     |
|-----------------|-----|
| PHANTOM switch: | OFF |
|-----------------|-----|

|                                   |     |
|-----------------------------------|-----|
| YAMAHA SPEAKER PROCESSING switch: | OFF |
|-----------------------------------|-----|

## 2.2 Gain Check

On condition of 2.1, confirm that the output level of each terminal meets the table 2.2-1.

Table 2.2-1

[unit: dBs]

| INPUT      | INPUT LEVEL     | MAIN OUT | MONITOR OUT | EFFECT OUT | REC OUT | PHONES OUT |
|------------|-----------------|----------|-------------|------------|---------|------------|
| Low-Z      | -62             | +4±2     | +4±2        | +4±2       | -13.8±2 | +3.4±2     |
|            | -32<br>(PAD ON) |          |             |            |         |            |
| Hi-Z       | -52             | +4±2     | -           | -          | -       | -          |
| LINE       | -22             | +4±2     | -           | -          | -       | -          |
| Super Hi-Z | -42             | +4±2     | -           | -          | -       | -          |
| AUX        | -22             | +4±2     | -           | -          | -       | -          |
| 2TR        | -22             | +4±2     | -           | -          | -       | -          |

## 2.3 Frequency Characteristic Check

At each terminal of the Table 2.2-1, confirm that the output level for 20Hz, 20kHz signal are within +1, -3dB from the level for 1kHz signal.

## 2.4 EQ Response Characteristic Check

On condition of 2.1, set the LOW, HIGH controls according to the table 2.4-1, and measure the output level of MAIN OUT and MONITOR OUT.

Then confirm that output level variations from center click position meet the table 2.4-1.

When output level does not meet the table, change the input frequency until the output level meets the table.

If the frequency variation is within ±20% of the rated value, the result can be regarded as OK.

Table 2.4-1

[unit: dB]

| EQ   | VR Setting | INPUT FREQUENCY | RANGE OF VARIATION |
|------|------------|-----------------|--------------------|
| HIGH | MAX        | 10kHz           | +12±2              |
|      | MIN        |                 | -12±2              |
| LOW  | MAX        | 100Hz           | +12±2              |
|      | MIN        |                 | -12±2              |

## 2.5 GEQ Response Characteristic Check

On condition of 2.1, set the GEQ faders to MIN or MAX, and measure the output levels of MAIN OUT and MONITOR OUT.

Then confirm that output level variations from center click position meet the table 2.5-1.

When the output level does not meet the table, change the input frequency until the output level meets the table.

If the frequency variation is within ±20% from the rated value, the result can be regarded as OK.

Table 2.5-1

[unit: dB]

|                 |                 | 125   | 250   | 500   | 1k   | 2k   | 4k   | 8k   |
|-----------------|-----------------|-------|-------|-------|------|------|------|------|
| INPUT FREQUENCY |                 | 125Hz | 250Hz | 500Hz | 1KHz | 2KHz | 4KHz | 8KHz |
| Variations      | (for fader MAX) | +12±2 |       |       |      |      |      |      |
|                 | (for fader MIN) | -12±2 |       |       |      |      |      |      |

## 2.6 LED Meter Check

When the output level of MAIN OUT and MONITOR OUT meets the Table 2.6-1, confirm that the corresponding LED meter starts to light up.

Table 2.6-1

[unit: dBs]

| LED          | +6    | +3   | 0    | -5   | -10    |
|--------------|-------|------|------|------|--------|
| OUTPUT LEVEL | +10±2 | +7±2 | +4±2 | -1±2 | -6±2.5 |

## 2.7 Distortion Rate Check

On condition of 2.1, set the INPUT and MASTER volume for each terminal to nominal position.

Then, confirm that the distortion rate is within 0.3% when the output level is +14dBs. (except REC OUT and PHONES OUT)

## 2.8 Maximum Output Level Check

At MAIN OUT, MONITOR OUT, EFFECT OUT terminals on condition of 2.7, confirm that the output level of +20dBs can be gained with the distortion rate less than 1%.

## 2.9 EIN Check

Note: This measurement should be performed by using DIN AUDIO FILTER.

On condition of 2.1, set the LEVEL control for measuring channel to maximum and set the LEVEL control for other channels to minimum.

Connect the 150Ω load between the Low-Z and the MIC of input channel, and confirm that the noise level of MAIN OUT is less than -58dB.

However, less than -56dB as for CH6.

If noise level is more than the rated value, find the noise level converted from the input level for each channel.

Then confirm that the noise level is less than -124dB as for CH1-5, and less than -122dB as for CH6.

## 2.10 Remaining Noise Check

On condition of 2.1, set the LEVEL control of all input channels to minimum.

Set the MASTER control of MAIN and MONITOR to maximum or minimum, and measure the noise level of MAIN OUT, MONITOR OUT, and EFFECT OUT.

Then, confirm that the noise levels are less than the values shown in the table 2.10-1.

Table 2.10-1 [unit: dBs]

| MASTER VR | MAIN OUTPUT(L,R) | MONITOR OUTPUT | EFFECT OUT |
|-----------|------------------|----------------|------------|
| MAX       | -71              | -71            | -73        |
| MIN       | -88              | -88            | -          |

## 2.11 PHANTOM Check

Connect the 2.7kΩ load between the pin1 and pin2 of Low-Z or MIC, and short-circuit the pin2 and pin3 of them.

Then, confirm that the load voltage is  $10 \pm 1.5V$  when the PHANTOM switch is ON.

## 2.12 DIGITAL EFFECT Check

- Confirm that the ON LED lights up when DIGITAL EFFECT switch is ON, and that the LED goes out when the switch is OFF.
- Apply the music source (vocal etc), and confirm the effect aurally.
- Turn on the DIGITAL EFFECT ON switch, and confirm that sound effect can be switched on or off by using a foot switch.

## 2.13 Stability Check

Note: This measurement should be performed with a load resistance connected to power amplifier output. (See 3.1)

- At each input terminal, connect 10pF~0.1μF capacitor in parallel to the load resistance, and confirm that the system works normally without oscillation etc.
- Set all VR and EQ faders to maximum, and confirm that the system works normally. (Especially, does not oscillate when the EQ HIGH is set to maximum)

### **3. Power Amplifier Check**

#### **3.1 Preparation**

- INPUT terminal: CH 5 LINE 1
- OUTPUT terminal: SPEAKERS 1
- Load Resistance:  $4\Omega$  (more than 200W)  
Except otherwise indicated, the load resistance should be connected only for the power amplifier check.
- Set the LEVEL control of CH1-4, 6 to minimum.
- Except the above, same as the setting of 2.1.

#### **3.2 Power ON Mute Check**

Turn on the power and confirm that the mute system is released and the relay is switched on after  $2.5\pm 1$  seconds.

#### **3.3 Output Terminal D.C. Voltage Check**

Ground input terminal and confirm that the D.C. voltage of output terminal is  $0\pm 100\text{mV}$ .

#### **3.4 Gain Check**

- Apply -26dBs signal into the input terminal and confirm that the output level of  $20.0\pm 2.0\text{dBs}$  can be gained.
- Confirm that the same output level can be gained at SPEAKERS 2 output.

#### **3.5 Frequency Response Check**

- YAMAHA SPEAKERS PROCESSING Switch OFF  
Apply -26dBs signal into input terminal, and confirm that the output level for 20Hz, 20kHz signal are within +1, -3dB from the level for 1kHz signal.
- YAMAHA SPEAKERS PROCESSING Switch ON  
Apply 70Hz / -26dB signal into input terminal, and confirm that the output level is within  $6.5\pm 2\text{dB}$  from the level for 1kHz input with YAMAHA SPEAKERS PROCESSING switch OFF.  
Besides, confirm that the LED lights up when YAMAHA SPEAKERS PROCESSING switch is ON and that LED goes out when the switch is OFF.

#### **3.6 Harmonic Distortion Rate Check**

Note: This measurement should be finished in 30 seconds.

- Apply 1kHz signal into input terminal, and confirm that output level of  $200\text{W}/4\Omega$  (31.2dBs) can be gained with harmonic distortion rate less than 0.5%.
- Apply 20Hz, 1kHz and 20kHz signal into input terminal, and confirm that output level of  $100\text{W}/4\Omega$  (28.2dBs) can be gained with harmonic distortion rate less than 0.5%.

#### **3.7 Remaining Noise Check**

Set the MASTER (MAIN) to minimum, and confirm that the noise level of output terminal is less than -68dBs.

Note: Take care not to be affected by inductive noise.

This measurement should be performed by using DIN AUDIO FILTER.



### 3.8 Stability Check

(1) Connect 10pF~0.47μF capacitor in parallel to the 4Ω load resistance and apply rectangle signal of 10kHz/-26dBs.

Then, confirm that overshoot and ringing are as follows.

Overshoot:  $V_p/V_o \leq 1.8$

Ringing: within 5 waves

(2) Connect 10μH~0.47H inductor in series to the 4Ω load resistance and apply rectangle signal of 10kHz/-26dBs.

Then, confirm that overshoot and ringing meet the same condition as (1).

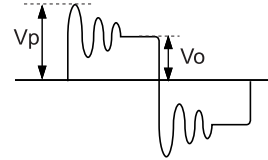
(3) Remove the 4Ω load resistance and connect only 10pF~0.47μF capacitor as load, and apply rectangle signal of 10kHz/-26dBs.

Then confirm that the system does not oscillate.

Besides, confirm that overshoot and ringing are as follows.

Overshoot:  $V_p/V_o \leq 2.5$

Ringing: within 7 waves



### 3.9 Protection Circuit Check

- Apply 10Hz signal until output level is saturated, and confirm that the protection circuit works and the relay does not open.
- Apply 1Hz,  $V_{p-p} = 6V(8.7dBs)$  signal, and confirm that the protection circuit starts to work in 2 seconds to cut off the signal.
- Stop applying the input signal, and confirm that the system automatically resumes in 5 seconds.

### 3.10 PC LIMITER Circuit and LIMITER Circuit Check

Connect 1Ω(±5%, 100W) load and apply -20dBs signal into input terminal.

Mesure the output level and confirm that  $V_{p-p} \leq 20V$  and the waveform is not a rectangle.

### 3.11 LIMITER Indicator Check

Apply 1kHz/-10.8dBs signal, and confirm that LIMITER indicator lights up.

### 3.12 Efficiency Check

Adjust the input level so that the output level of SPEAKER becomes 10V (22.2dBs).

Then confirm that the primary power is  $100 \pm 20W$ .

## 4. Miscellaneous

### 4.1 Power Supply Voltage Variation

Change the voltage of power supply in the range of  $\pm 10\%$ , and confirm that the system works normally.



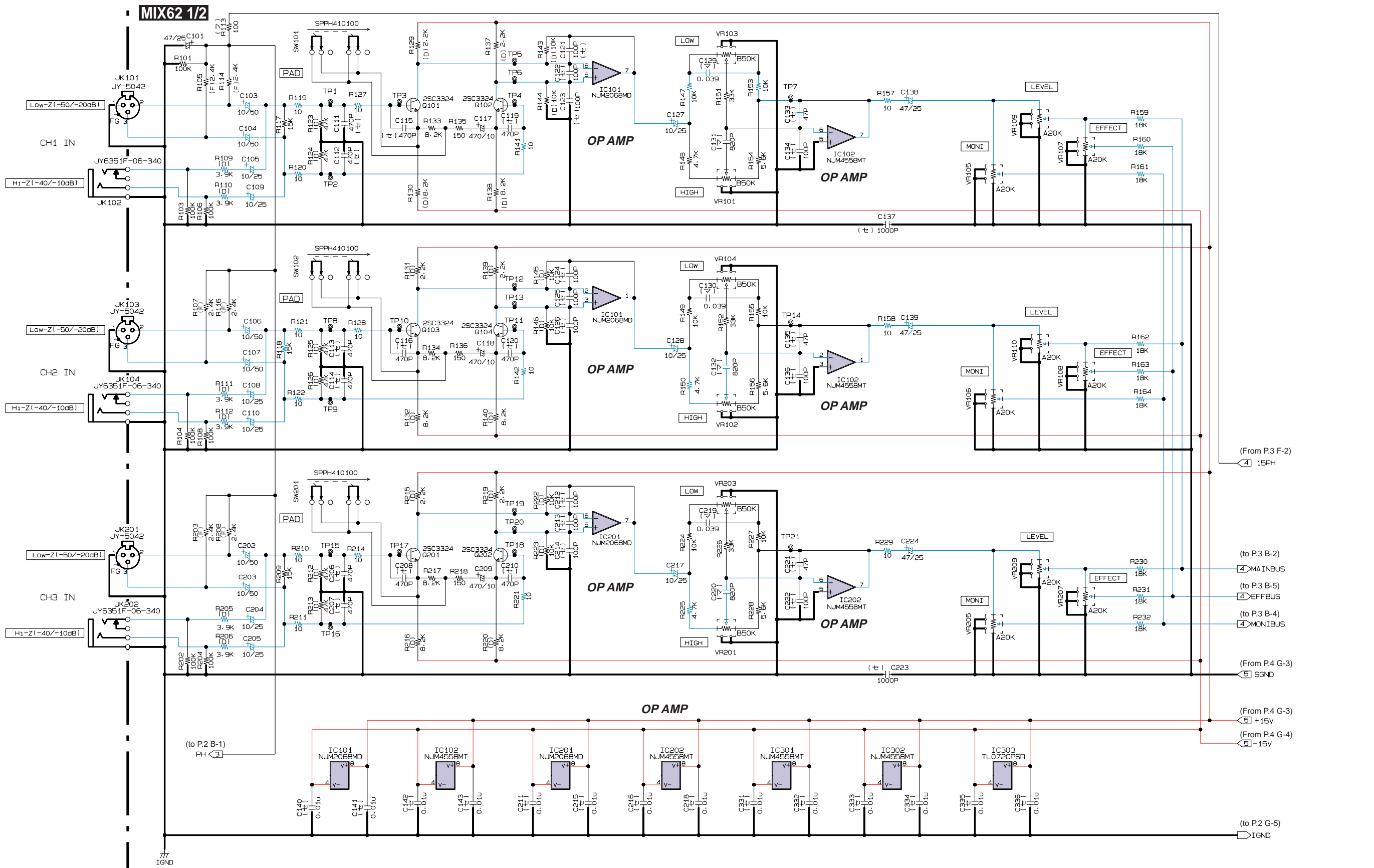








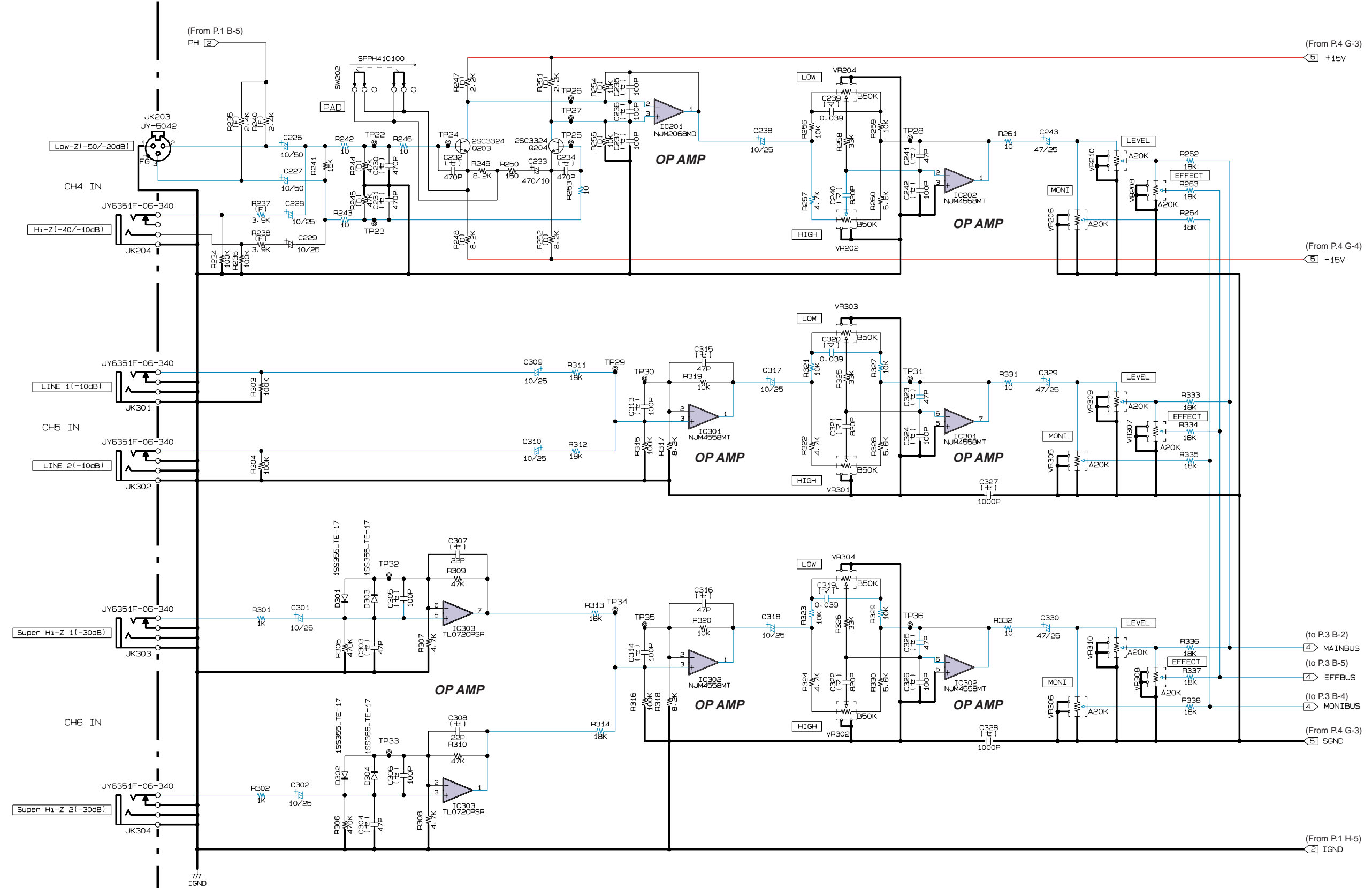
# EMX62M OVERALL CIRCUIT DIAGRAM 1/5 (MIX62 1/2 (1/4))



(フ) : Flame Proof Carbon Resistor (不燃化カーボン抵抗)  
 (マ) : Mylar Capacitor (マイラーコンデンサー)  
 (セ) : Ceramic Capacitor (セラミックコンデンサー)

38CC1-8822116-2 1

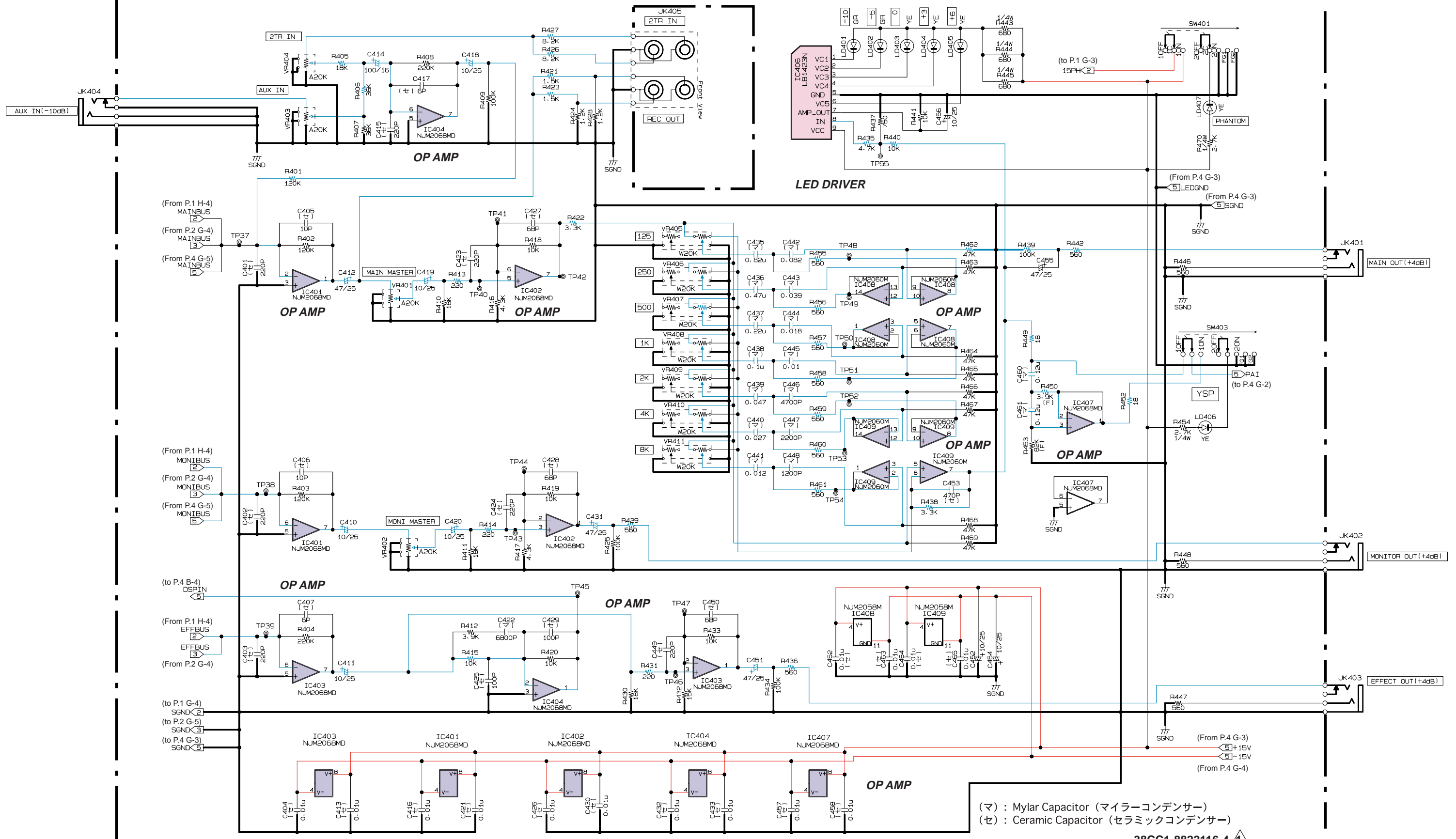
# EMX62M CIRCUIT DIAGRAM 2/5 (MIX62 1/2 (2/4))



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 (セ) : Ceramic Capacitor (セラミックコンデンサー)

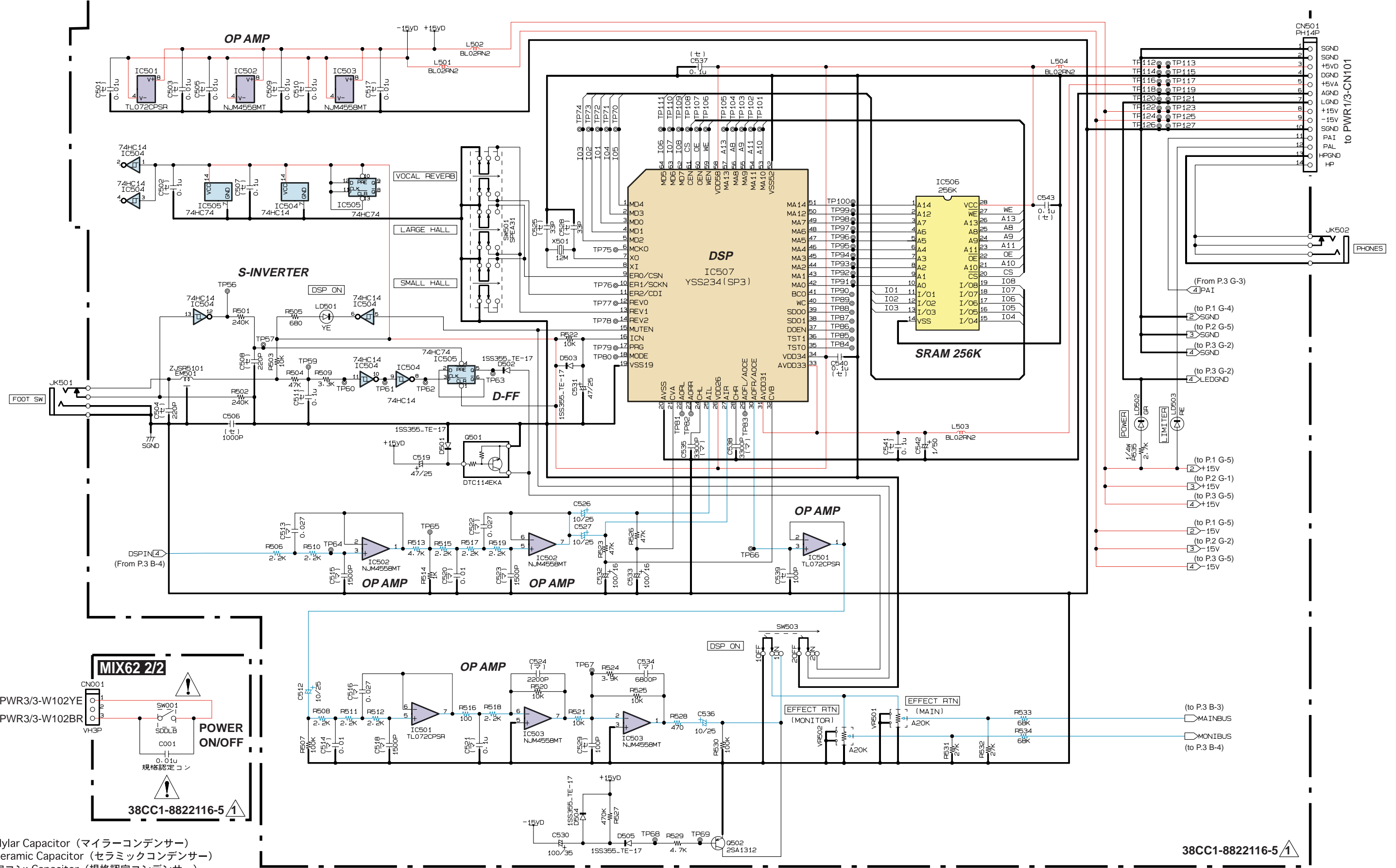


# EMX62M EMX62M CIRCUIT DIAGRAM 3/5 (MIX62 1/2 (3/4))



(マ) : Mylar Capacitor (マイラーコンデンサー)  
 (セ) : Ceramic Capacitor (セラミックコンデンサー)

# EMX62M CIRCUIT DIAGRAM 4/5 (MIX62 1/2 (4/4))

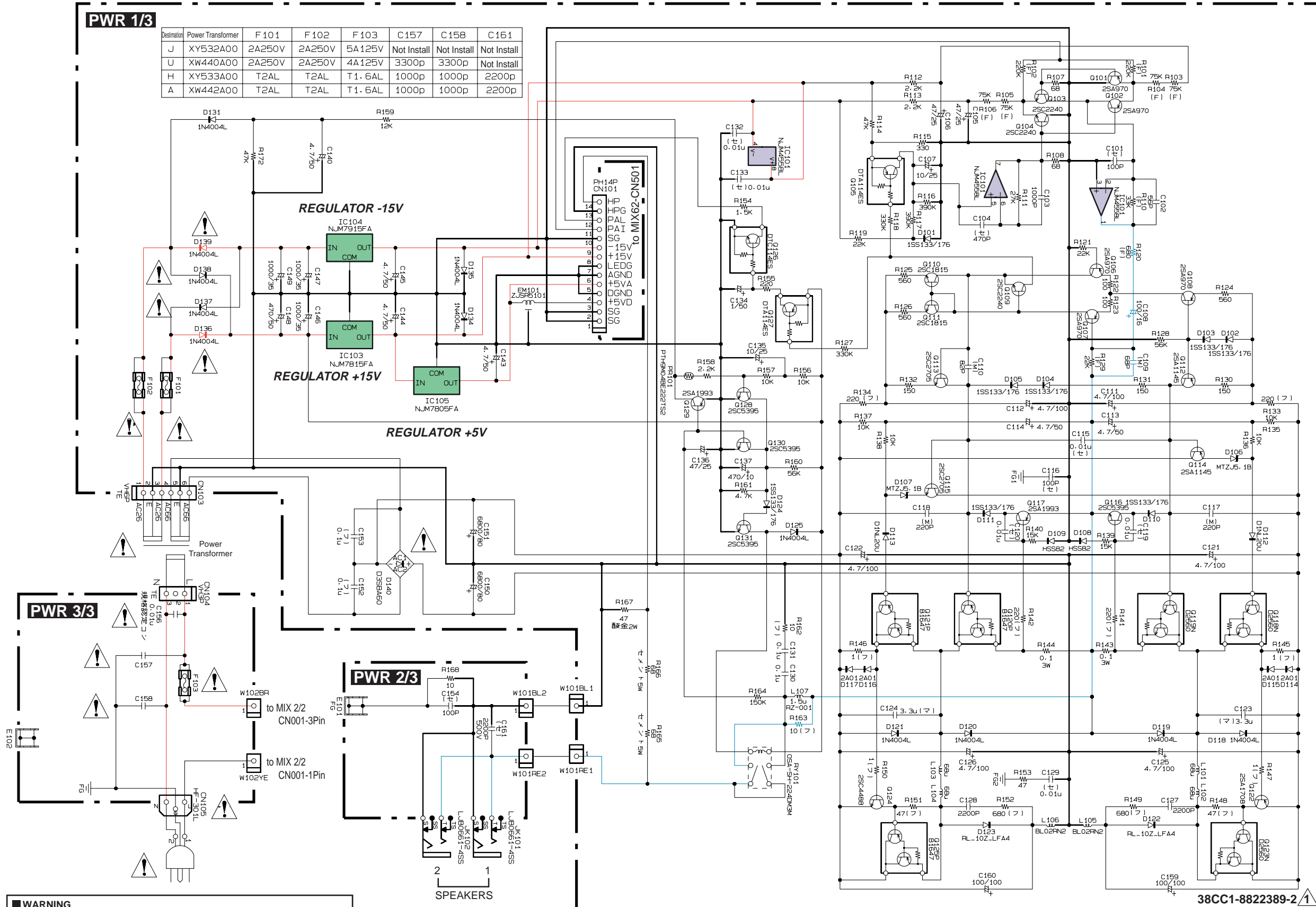


(マ) : Mylar Capacitor (マイラーコンデンサー)  
 (セ) : Ceramic Capacitor (セラミックコンデンサー)  
 規格認定コン: Capacitor (規格認定コンデンサー)

38CC1-8822116-5

# EMX62M CIRCUI DIAGRAM 5/5 (PWR1/3, PWR2/3, PWR3/3)

| Designator | Power Transformer | F101   | F102   | F103   | C157        | C158        | C161        |
|------------|-------------------|--------|--------|--------|-------------|-------------|-------------|
| J          | XY532A00          | 2A250V | 2A250V | 5A125V | Not Install | Not Install | Not Install |
| U          | XW440A00          | 2A250V | 2A250V | 4A125V | 3300p       | 3300p       | Not Install |
| H          | XY533A00          | T2AL   | T2AL   | T1.6AL | 1000p       | 1000p       | 2200p       |
| A          | XW442A00          | T2AL   | T2AL   | T1.6AL | 1000p       | 1000p       | 2200p       |



- NJM7815FA(XD853A00) REGULATOR +15V PWR1/3: IC103
- NJM7815FA(XD854A00) REGULATOR -15V PWR1/3: IC104
- NJM7805FA(XJ607A00) REGULATOR +5V PWR1/3: IC105
- D35BA60 (V8151400) DIODE STACK 4.0A 600V PWR1/3: D140
- 1SS133, 1SS176, H5S104 (V831600) DIODE PWR1/3: D101-105, D110, D111, D124
- MTZ J 5.1B 5.1V (V8437400) ZENER DIODE PWR1/3: D106, D107
- M48AL (VJ801600) DIODE PWR1/3: D118-D121, D125-139

PWR3/3: 38CC1-8822389-2

PWR2/3: 38CC1-8822389-2

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

• Resistor (抵抗)  
 (フ) : Flame Proof Carbon Resistor (不燃化カーボン抵抗)  
 (セメント) : Wire Wound Resistor (セメント抵抗)  
 酸金: Metal Oxide Film Resistor (酸化金属被膜抵抗)

• Capacitor (コンデンサー)  
 (マ) : Mylar Capacitor (マイラーコンデンサー)  
 (セ) : Ceramic Capacitor (セラミックコンデンサー)  
 規格認定コン: Capacitor (規格認定コンデンサー)  
 (フ) : Polyester Film Capacitor (フィルムコンデンサー)

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

# EMX 62M

POWERED MIXER

# PARTS LIST

## RACK MOUNT KIT

### RK-88

#### ■ CONTENTS

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#### Note) DESTINATION ABBREVIATIONS

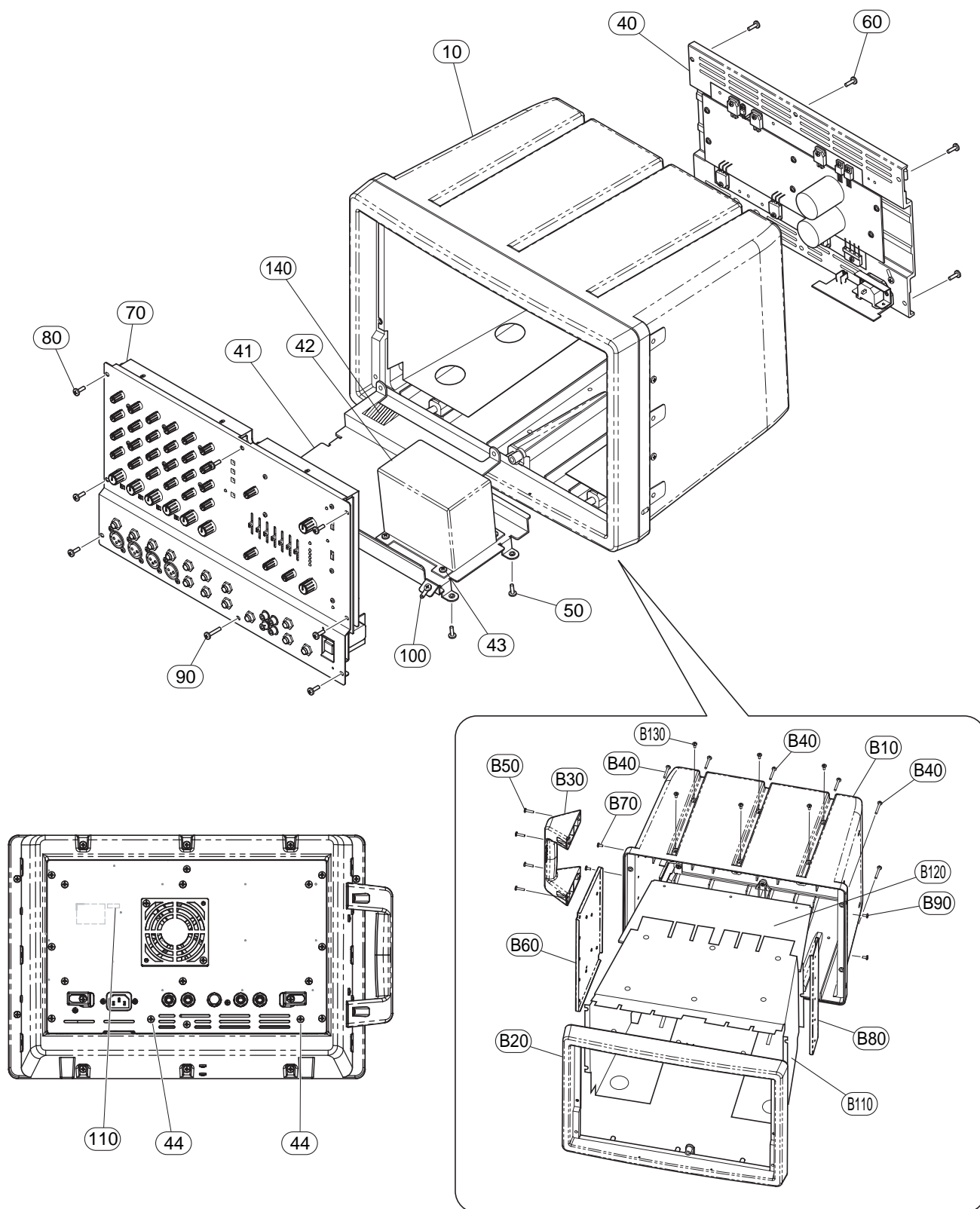
|                         |                                |
|-------------------------|--------------------------------|
| A: Australian model     | M: South African model         |
| B: British model        | O: Chinese model               |
| C: Canadian model       | Q: South-east Asia model    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

#### ■ WARNING

Components having special characteristics are marked  $\triangle$  and must be replaced with parts having specifications equal to those originally installed.

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

■ OVERALL ASSEMBLY



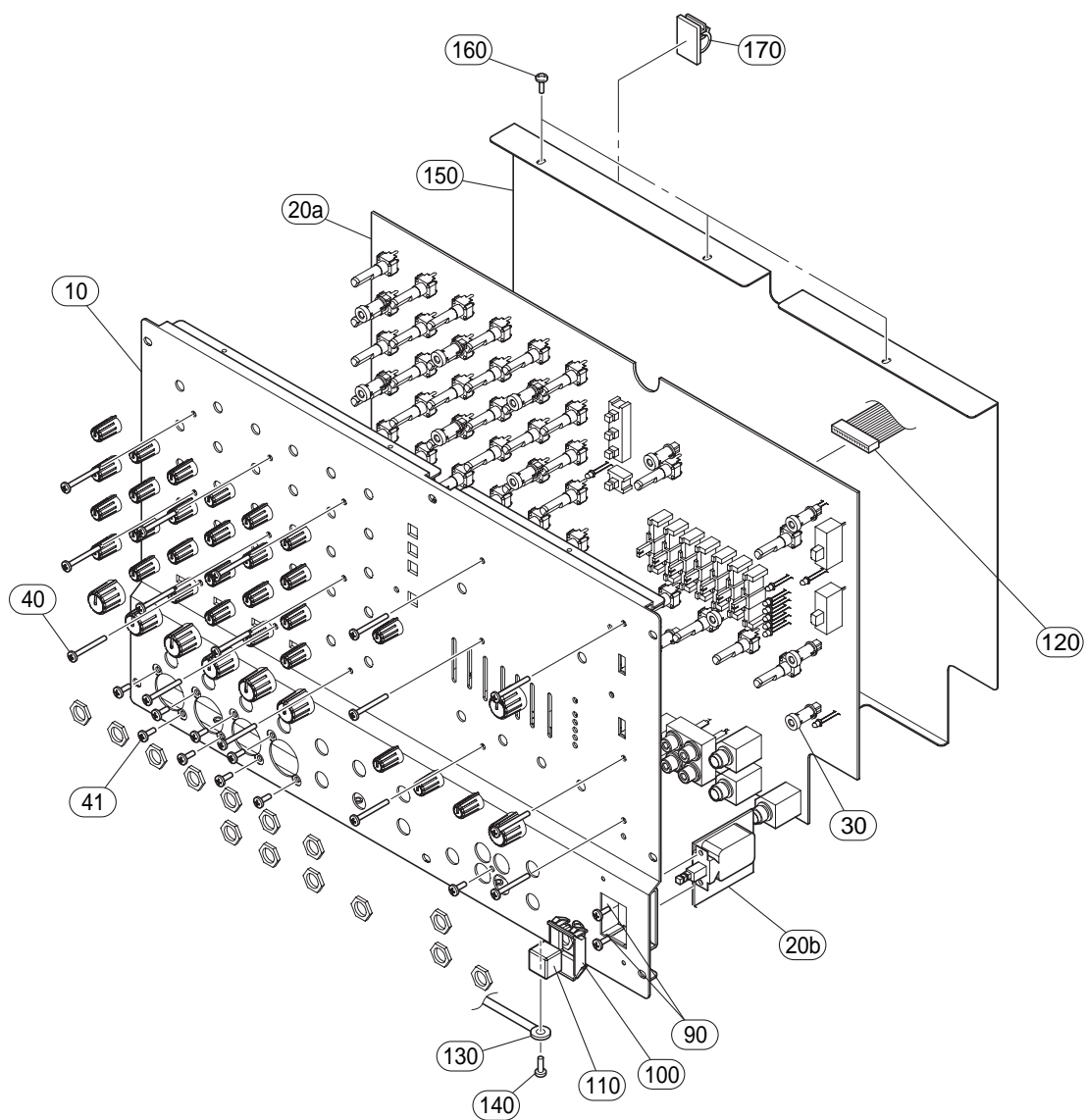
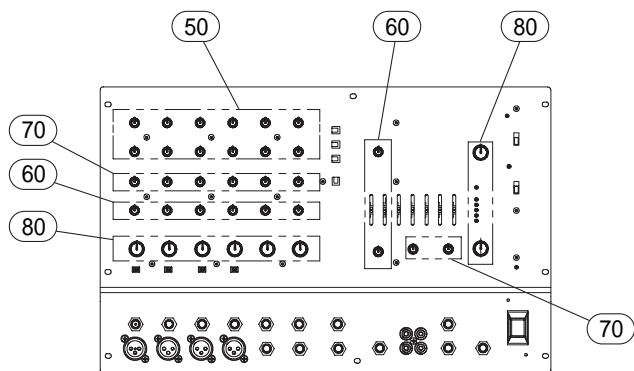
| REF NO. | PART NO.        | DESCRIPTION                               |                  | REMARKS         | QTY | RANK |
|---------|-----------------|---|------------------|-----------------|-----|------|
|         | --              | OVERALL ASSEMBLY                          |                  |                 |     |      |
|         | --              | Overall Assembly                          | J                | J (V833030)     |     |      |
|         | --              | Overall Assembly                          | U                | U,V (V833040)   |     |      |
|         | --              | Overall Assembly                          | H                | H,B,W (V833050) |     |      |
|         | --              | Overall Assembly                          | A                | A (V833060)     |     |      |
| 10      | --              | Body Assembly                             | J COM            | (V832150)       |     |      |
| 40      | --              | Rear Panel Assembly                       | J                | J (V833130)     |     |      |
| 40      | --              | Rear Panel Assembly                       | U                | U (V833140)     |     |      |
| 40      | --              | Rear Panel Assembly                       | H                | H (V833150)     |     |      |
| 40      | --              | Rear Panel Assembly                       | A                | A (V833160)     |     |      |
| *       | 41              | <b>V8150100</b> Holder, Transformer       | FORTE B62        |                 |     |      |
| △       | 42              | <b>XW440A00</b> Power Transformer         | UL CSA           | U,V             |     | 15   |
| △       | 42              | <b>XW442A00</b> Power Transformer         | AS               | A               |     | 15   |
| △       | 42              | <b>XY532A00</b> Power Transformer         | A                | J               |     | 15   |
| △       | 42              | <b>XY533A00</b> Power Transformer         | CE               | H,B,W           |     | 15   |
|         | 43              | <b>EG340190</b> Bind Head Tapping Screw-B | 4.0X8 MFZN2BL    |                 | 4   | 01   |
|         | 44              | <b>EG340190</b> Bind Head Tapping Screw-B | 4.0X8 MFZN2BL    |                 | 2   | 01   |
|         | 50              | <b>VR138400</b> Bind Head Tapping Screw-B | 4.0X12 MFZN2BL   |                 | 6   | 01   |
|         | 60              | <b>VB132700</b> Bind Head Screw           | 4.0X12 MFZN2BL   |                 | 6   | 01   |
|         | 70              | -- Front Panel Assembly                   | J COM            | (V833170)       |     |      |
|         | 80              | <b>VB132700</b> Bind Head Screw           | 4.0X12 MFZN2BL   |                 | 7   | 01   |
|         | 90              | <b>VB403600</b> Bind Head Screw           | 4.0X20 MFZN2BL   |                 |     | 01   |
|         | 100             | <b>VP156800</b> Bind Head Screw           | A4.0X8 MFZN2BL   |                 |     | 01   |
|         | 110             | <b>VA039300</b> Label, Date Code          |                  | U               |     | 03   |
|         | 140             | -- Insulation Sheet                       | 35X25            | (V946180)       |     |      |
|         |                 | BODY ASSEMBLY                             |                  |                 |     |      |
|         | --              | Body Assembly                             | J COM            | (V832150)       |     |      |
| *       | B10             | <b>V8322500</b> Body Assembly, Sub        | J COM            |                 |     |      |
| *       | B20             | <b>V8322600</b> Front Frame, Sub          | J COM            |                 |     |      |
| *       | B30             | <b>V8419500</b> Handle Assembly           | J COM            |                 |     |      |
| *       | B40             | <b>V8322700</b> Bind Head Tapping Screw-P | 4.0X30 MFZN2BL   |                 | 10  |      |
| *       | B50             | <b>EG340110</b> Bind Head Screw           | 4.0X16 MFZN2BL   |                 | 4   | 01   |
| *       | B60             | <b>V8396900</b> Side Plate                | LEFT             |                 |     |      |
| *       | B70             | <b>EG340360</b> Bind Head Screw           | 4.0X8 MFZN2BL    |                 | 4   | 01   |
| *       | B80             | <b>V8397000</b> Side Plate                | RIGHT            |                 |     |      |
| *       | B90             | <b>EG340360</b> Bind Head Screw           | 4.0X8 MFZN2BL    |                 | 2   | 01   |
| *       | B110            | <b>V8183300</b> Shield Sheet              |                  |                 |     |      |
| *       | B120            | -- Reinforcement Plate                    |                  | (V850510)       |     |      |
| *       | B130            | <b>EG340360</b> Bind Head Screw           | 4.0X8 MFZN2BL    |                 | 6   | 01   |
|         |                 | ACCESSORIES                               |                  |                 |     |      |
|         | <b>V6283900</b> | AC Cord                                   | BS H05VV-F3X0.75 | B               |     |      |
|         | <b>V6284300</b> | AC Cord                                   | UC SJT           | U, V            |     |      |
|         | <b>V6284400</b> | AC Cord                                   | E H05VV-FX3 0.75 | H, W, A         |     |      |
|         | <b>V7240300</b> | AC Cord                                   | J VCTF 0.75X3    | J               |     |      |
|         | <b>V5290300</b> | Speaker Cable Set                         | HJ & HJ 5m       | J               | 2   | 05   |

\*: New Parts

RANK: Japan only



# FRONT PANEL ASSEMBLY



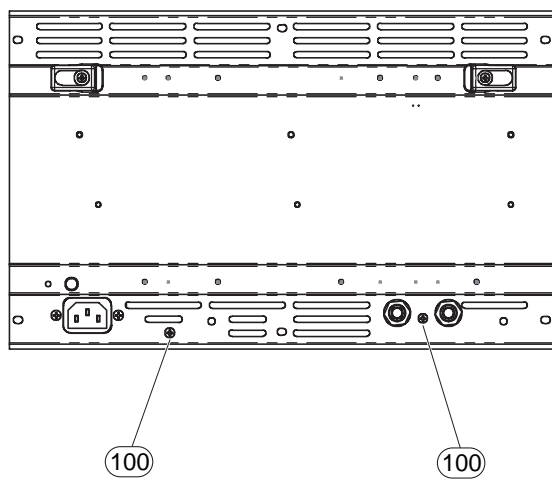
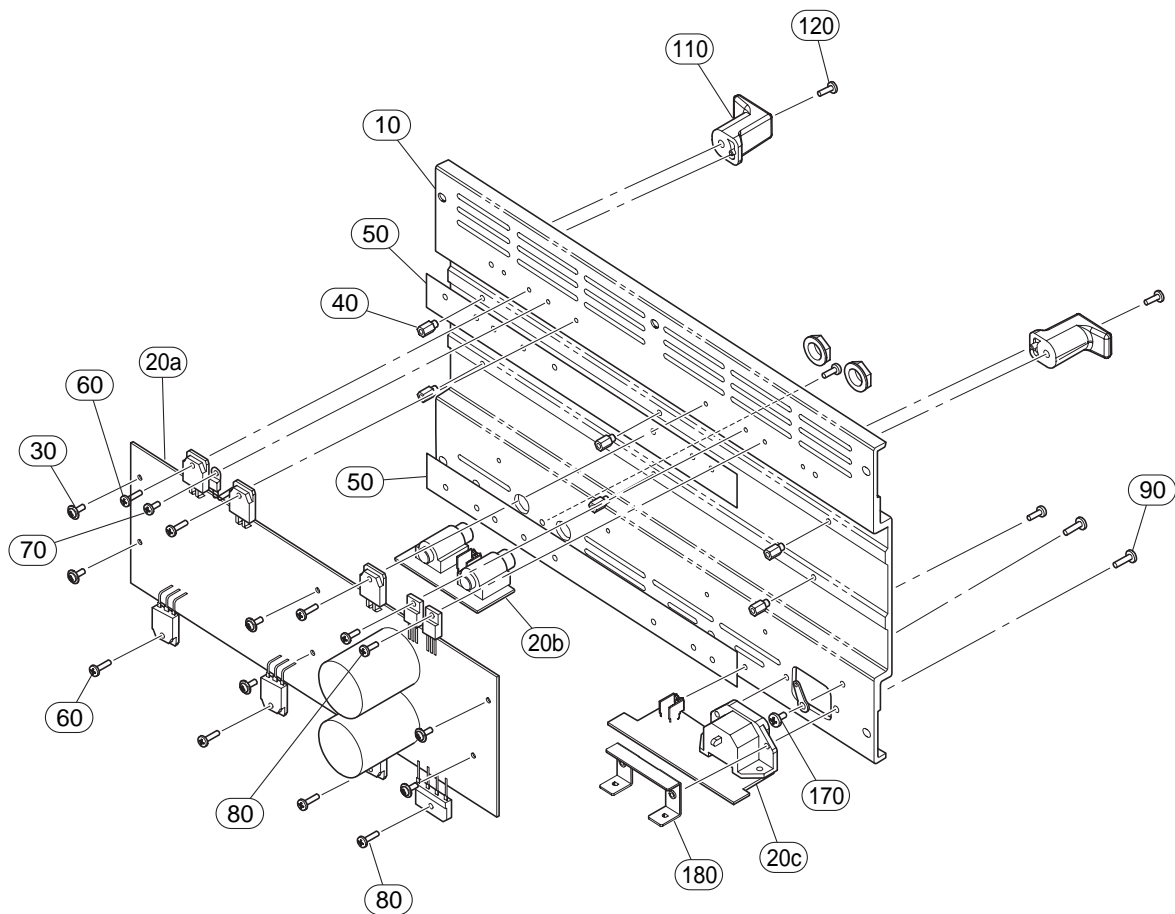
| REF NO. | PART NO.        | DESCRIPTION               |                    | REMARKS                  | QTY | RANK |
|---------|-----------------|---------------------------|--------------------|--------------------------|-----|------|
|         | --              | FRONT PANEL ASSEMBLY      |                    |                          |     |      |
|         | --              | Front Panel Assembly      | J COM              | (V833170)                |     |      |
| * 10    | <b>V8332700</b> | Front Panel               |                    |                          |     |      |
| * 20a   | <b>AAX33320</b> | Circuit Board             | MIX62 1/2          | (V826700)                |     |      |
| * 20b   | <b>AAX33330</b> | Circuit Board             | MIX62 2/2          | (V826700)                |     |      |
| 30      | <b>V3291600</b> | PCB Support               | NEW NIFCO BL       |                          | 15  | 01   |
| 40      | <b>V3289800</b> | Screw                     | 3X25 MFZNBL        | HIGH (CH1-6), LOW(CH1-6) | 15  | 01   |
| 41      | <b>VN413300</b> | Bonding Tapping Screw-B   | 3.0X8 MFZN2BL      | EFFECT(CH1-6),           | 9   | 01   |
| 50      | <b>V6225300</b> | Knob                      | GREEN/M-GRAY       | EFFECT RTN               | 12  | 01   |
| 60      | <b>V6225600</b> | Knob                      | L-GRAY/M-GRAY      | (MONITOR,MAIN)           | 8   | 01   |
| 70      | <b>V6225400</b> | Knob                      | BLUE/M-GRAY        | MONITOR(CH1-6),          | 8   | 01   |
| 80      | <b>V6225700</b> | Knob                      | L-GRAY/D-GRAY      | AUX IN, 2TR IN           | 8   | 01   |
| 90      | <b>VB659000</b> | Bind Head Screw           | 3.0X8 MFZN2BL      | MASTER (MONITOR, MAIN)   | 2   | 01   |
| 100     | <b>VU859100</b> | Escutcheon, Power Switch  | MX12/4             |                          |     | 02   |
| 110     | <b>VU859000</b> | Power Switch Knob         | MX12/4             |                          |     | 01   |
| 120     | --              | Connector Assembly        | 2426&2426 14P 700L | POWER ON/OFF             |     |      |
| 130     | --              | Wiring Assembly           | GND                | (V842610)                |     |      |
| 140     | <b>VP156800</b> | Bind Head Screw           | A4.0X8 MFZN2BL     | (V827280)                |     | 01   |
| * 150   | <b>V8412800</b> | Shield Plate              |                    |                          |     |      |
| 160     | <b>EP600230</b> | Bind Head Tapping Screw-B | 3.0X6 MFZN2BL      |                          | 6   | 01   |
| 170     | <b>VZ765100</b> | Cord Binder               | TS-0708 KSS        |                          |     | 02   |

\*: New Parts

RANK: Japan only



# REAR PANEL ASSEMBLY



| REF NO. | PART NO. | DESCRIPTION                               |                 | REMARKS       | QTY | RANK |
|---------|----------|---|-----------------|---------------|-----|------|
|         | --       | REAR PANEL ASSEMBLY                       |                 |               |     |      |
|         | --       | Rear Panel Assembly                       | J               | J (V833130)   |     |      |
|         | --       | Rear Panel Assembly                       | U               | U (V833140)   |     |      |
|         | --       | Rear Panel Assembly                       | H               | H (V833150)   |     |      |
|         | --       | Rear Panel Assembly                       | A               | A (V833160)   |     |      |
| *       | 10       | <b>V8332200</b> Rear Panel                | J               |               |     |      |
| *       | 10       | <b>V8332300</b> Rear Panel                | U               |               |     |      |
| *       | 10       | <b>V8332400</b> Rear Panel                | H               |               |     |      |
| *       | 10       | <b>V8332500</b> Rear Panel                | A               |               |     |      |
| *       | 20a      | <b>AA32940</b> Circuit Board              | PWR B62 1/4     | J,U (V826840) |     |      |
| *       | 20a      | <b>AA32950</b> Circuit Board              | PWR B62 1/4     | H,A (V826860) |     |      |
| *       | 20b      | <b>AA32960</b> Circuit Board              | PWR B62 2/4     | J,U (V826840) |     |      |
| *       | 20b      | <b>AA32970</b> Circuit Board              | PWR B62 2/4     | H,A (V826860) |     |      |
| *       | 20c      | <b>AA32990</b> Circuit Board              | PWR B62 4/4     | J (V826840)   |     |      |
| *       | 20c      | <b>AA33000</b> Circuit Board              | PWR B62 4/4     | U (V826850)   |     |      |
| *       | 20c      | <b>AA33010</b> Circuit Board              | PWR B62 4/4     | H,A (V826860) |     |      |
|         | 30       | <b>EG330290</b> Bind Head Screw           | SP 3.0X8 MFZN2Y |               | 6   | 01   |
|         | 40       | <b>VV086500</b> Support                   | H=7.4 B=5.5     |               | 6   | 01   |
| *       | 50       | <b>V8476500</b> Insulation Sheet          |                 |               | 2   |      |
|         | 60       | <b>EP600140</b> Bind Head Tapping Screw-B | 3.0X10 MFZN2BL  |               | 6   | 01   |
|         | 70       | <b>EP600230</b> Bind Head Tapping Screw-B | 3.0X6 MFZN2BL   |               |     | 01   |
|         | 80       | <b>EP600190</b> Bind Head Tapping Screw-B | 3.0X8 MFZN2BL   |               | 3   | 01   |
|         | 90       | <b>VQ074600</b> Bind Head Tapping Screw-B | 3.0X12 MFZN2BL  |               | 2   | 01   |
|         | 100      | <b>VN413300</b> Bonding Tapping Screw-B   | 3.0X8 MFZN2BL   |               | 2   | 01   |
|         | 110      | <b>V4773400</b> Holder, Cord              |                 |               | 2   |      |
|         | 120      | <b>VR138400</b> Bind Head Tapping Screw-B | 4.0X12 MFZN2BL  |               | 2   | 01   |
|         | 170      | <b>EG340290</b> Bind Head Screw           | A4.0X6 MFZN2BL  |               |     | 01   |
| *       | 180      | <b>V8098800</b> Angle Bracket, AC Inlet   |                 |               |     |      |

\*: New Parts

RANK: Japan only

# ELECTRICAL PARTS

| REF NO. | PART NO. | DESCRIPTION      |                          | REMARKS  | QTY | RANK |
|---------|----------|------------------|--------------------------|--|-----|------|
|         |          | ELECTRICAL PARTS |                          |  |     |      |
| *       | AAX33320 | Circuit Board    | MIX62 1/2                | (V826700)(X0620B0)                                 |     |      |
| *       | AAX33330 | Circuit Board    | MIX62 2/2                | (V826700)(X0620B0)                                 |     |      |
| *       | AAX32940 | Circuit Board    | PWR B62 1/3              | J, U (V826840)(X0625B0)                            |     |      |
| *       | AAX32950 | Circuit Board    | PWR B62 1/3              | H, A (V826860)(X0625B0)                            |     |      |
| *       | AAX32960 | Circuit Board    | PWR B62 2/3              | J, U (V826840)(X0625B0)                            |     |      |
| *       | AAX32970 | Circuit Board    | PWR B62 2/3              | H, A (V826860)(X0625B0)                            |     |      |
| *       | AAX32990 | Circuit Board    | PWR B62 3/3              | J (V826840)(X0625B0)                               |     |      |
| *       | AAX33000 | Circuit Board    | PWR B62 3/3              | U (V826850)(X0625B0)                               |     |      |
| *       | AAX33010 | Circuit Board    | PWR B62 3/3              | H, A (V826860)(X0625B0)                            |     |      |
|         |          |                  |                          |  |     |      |
| *       | AAX33320 | Circuit Board    | MIX62 1/2                | (V826700)(X0620B0)                                 |     |      |
| *       | AAX33330 | Circuit Board    | MIX62 2/2                | (V826700)(X0620B0)                                 |     |      |
| *       | VU860700 | Button           | CD-GRAY/WHITE            | VOCAL REVERB, LARGE HALL,<br>SMALL HALL, EFFECT ON | 4   | 01   |
|         |          |                  |                          |  |     |      |
| *       | VV307300 | LED Spacer       |                          |  | 10  | 01   |
| *       | V4467500 | Button           | CD-GRAY/WHITE            | PAD (CH1-4)  | 4   | 01   |
|         |          |                  |                          |  |     |      |
|         | 20 --    | Jumper Wire      | 0.60                     | (VV29140)  |     |      |
|         | 30 --    | Jumper Wire      | 0.60 TP                  | (V829020)  |     |      |
|         | C001     | V6113500         | Electrolytic Cap.        | 1000P 400V J.U.C.S                                 |     |      |
|         | C101     | UR847470         | Electrolytic Cap.        | 47.00 25.0V  |     | 01   |
|         | C103     | VV488800         | Electrolytic Cap. LLM    | 10.00 50.0V  |     | 01   |
|         | C104     | VV488800         | Electrolytic Cap. LLM    | 10.00 50.0V  |     | 01   |
|         | C105     | UR847100         | Electrolytic Cap.        | 10.00 25.0V  |     | 01   |
|         | C106     | VV488800         | Electrolytic Cap. LLM    | 10.00 50.0V  |     | 01   |
|         | C107     | VV488800         | Electrolytic Cap. LLM    | 10.00 50.0V  |     | 01   |
|         | C108     | UR847100         | Electrolytic Cap.        | 10.00 25.0V  |     | 01   |
|         | -110     | UR847100         | Electrolytic Cap.        | 10.00 25.0V  |     | 01   |
|         | C111     | UX062470         | Ceramic Capacitor (chip) | 470P 50V J   |     |      |
|         | -116     | UX062470         | Ceramic Capacitor (chip) | 470P 50V J   |     |      |
|         | C117     | UR828470         | Electrolytic Cap.        | 470.00 10.0V                                       |     | 01   |
|         | C118     | UR828470         | Electrolytic Cap.        | 470.00 10.0V                                       |     | 01   |
|         | C119     | UX062470         | Ceramic Capacitor (chip) | 470P 50V J   |     |      |
|         | C120     | UX062470         | Ceramic Capacitor (chip) | 470P 50V J   |     |      |
|         | C121     | UX062100         | Ceramic Capacitor (chip) | 100P 50V J   |     | 01   |
|         | -126     | UX062100         | Ceramic Capacitor (chip) | 100P 50V J   |     | 01   |
|         | C127     | UR847100         | Electrolytic Cap.        | 10.00 25.0V  |     | 01   |
|         | C128     | UR847100         | Electrolytic Cap.        | 10.00 25.0V  |     | 01   |
|         | C129     | UA954390         | Mylar Capacitor          | 0.0390 50V J                                       |     | 01   |
|         | C130     | UA954390         | Mylar Capacitor          | 0.0390 50V J                                       |     | 01   |
|         | C131     | VV190000         | Mylar Capacitor          | 820P 50V J   |     | 01   |
|         | C132     | VV190000         | Mylar Capacitor          | 820P 50V J   |     | 01   |
|         | C133     | UX061470         | Ceramic Capacitor (chip) | 47P 50V J  |     |      |
|         | C134     | UX062100         | Ceramic Capacitor (chip) | 100P 50V J   |     | 01   |
|         | C135     | UX061470         | Ceramic Capacitor (chip) | 47P 50V J  |     |      |
|         | C136     | UX062100         | Ceramic Capacitor (chip) | 100P 50V J   |     | 01   |
|         | C137     | UX063100         | Ceramic Capacitor (chip) | 1000P 50V K  |     | 01   |
|         | C138     | UR847470         | Electrolytic Cap.        | 47.00 25.0V  |     | 01   |
|         | C139     | UR847470         | Electrolytic Cap.        | 47.00 25.0V  |     | 01   |
|         | C140     | UX064100         | Ceramic Capacitor (chip) | 0.0100 50V K                                       |     | 01   |
|         | -143     | UX064100         | Ceramic Capacitor (chip) | 0.0100 50V K                                       |     | 01   |
|         | C202     | VV488800         | Electrolytic Cap. LLM    | 10.00 50.0V  |     | 01   |
|         | C203     | VV488800         | Electrolytic Cap. LLM    | 10.00 50.0V  |     | 01   |
|         | C204     | UR847100         | Electrolytic Cap.        | 10.00 25.0V  |     | 01   |
|         | C205     | UR847100         | Electrolytic Cap.        | 10.00 25.0V  |     | 01   |
|         | C206     | UX062470         | Ceramic Capacitor (chip) | 470P 50V J   |     |      |
|         | -208     | UX062470         | Ceramic Capacitor (chip) | 470P 50V J   |     |      |
|         | C209     | UR828470         | Electrolytic Cap.        | 470.00 10.0V                                       |     | 01   |
|         | C210     | UX062470         | Ceramic Capacitor (chip) | 470P 50V J   |     |      |
|         | C211     | UX064100         | Ceramic Capacitor (chip) | 0.0100 50V K                                       |     | 01   |
|         | C212     | UX062100         | Ceramic Capacitor (chip) | 100P 50V J   |     | 01   |
|         | -214     | UX062100         | Ceramic Capacitor (chip) | 100P 50V J   |     | 01   |
|         | C215     | UX064100         | Ceramic Capacitor (chip) | 0.0100 50V K                                       |     | 01   |
|         | C216     | UX064100         | Ceramic Capacitor (chip) | 0.0100 50V K                                       |     | 01   |
|         | C217     | UR847100         | Electrolytic Cap.        | 10.00 25.0V  |     | 01   |
|         | C218     | UX064100         | Ceramic Capacitor (chip) | 0.0100 50V K                                       |     | 01   |
|         | C219     | UA954390         | Mylar Capacitor          | 0.0390 50V J                                       |     | 01   |
|         | C220     | VV190000         | Mylar Capacitor          | 820P 50V J   |     | 01   |
|         | C221     | UX061470         | Ceramic Capacitor (chip) | 47P 50V J  |     |      |
|         | C222     | UX062100         | Ceramic Capacitor (chip) | 100P 50V J   |     | 01   |

\*: New Parts

RANK: Japan only

| REF NO. | PART NO.        | DESCRIPTION              |              | REMARKS | QTY | RANK |
|---------|-----------------|--------------------------|--------------|---------|-----|------|
| C223    | <b>UX063100</b> | Ceramic Capacitor (chip) | 1000P 50V K  |         |     | 01   |
| C224    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V  |         |     | 01   |
| C226    | <b>VV488800</b> | Electrolytic Cap. LLM    | 10.00 50.0V  |         |     | 01   |
| C227    | <b>VV488800</b> | Electrolytic Cap. LLM    | 10.00 50.0V  |         |     | 01   |
| C228    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C229    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C230    | <b>UX062470</b> | Ceramic Capacitor (chip) | 470P 50V J   |         |     |      |
| -232    | <b>UX062470</b> | Ceramic Capacitor (chip) | 470P 50V J   |         |     |      |
| C233    | <b>UR828470</b> | Electrolytic Cap.        | 470.00 10.0V |         |     | 01   |
| C234    | <b>UX062470</b> | Ceramic Capacitor (chip) | 470P 50V J   |         |     |      |
| C235    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J   |         |     | 01   |
| -237    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J   |         |     | 01   |
| C238    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C239    | <b>UA954390</b> | Mylar Capacitor          | 0.0390 50V J |         |     | 01   |
| C240    | <b>VV190000</b> | Mylar Capacitor          | 820P 50V J   |         |     | 01   |
| C241    | <b>UX061470</b> | Ceramic Capacitor (chip) | 47P 50V J    |         |     |      |
| C242    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J   |         |     | 01   |
| C243    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V  |         |     | 01   |
| C301    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C302    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C303    | <b>UX061470</b> | Ceramic Capacitor (chip) | 47P 50V J    |         |     |      |
| C304    | <b>UX061470</b> | Ceramic Capacitor (chip) | 47P 50V J    |         |     |      |
| C305    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J   |         |     | 01   |
| C306    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J   |         |     | 01   |
| C307    | <b>UX061220</b> | Ceramic Capacitor (chip) | 22P 50V J    |         |     | 01   |
| C308    | <b>UX061220</b> | Ceramic Capacitor (chip) | 22P 50V J    |         |     | 01   |
| C309    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C310    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C313    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J   |         |     | 01   |
| C314    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J   |         |     | 01   |
| C315    | <b>UX061470</b> | Ceramic Capacitor (chip) | 47P 50V J    |         |     |      |
| C316    | <b>UX061470</b> | Ceramic Capacitor (chip) | 47P 50V J    |         |     |      |
| C317    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C318    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C319    | <b>UA954390</b> | Mylar Capacitor          | 0.0390 50V J |         |     | 01   |
| C320    | <b>UA954390</b> | Mylar Capacitor          | 0.0390 50V J |         |     | 01   |
| C321    | <b>VV190000</b> | Mylar Capacitor          | 820P 50V J   |         |     | 01   |
| C322    | <b>VV190000</b> | Mylar Capacitor          | 820P 50V J   |         |     | 01   |
| C323    | <b>UX061470</b> | Ceramic Capacitor (chip) | 47P 50V J    |         |     |      |
| C324    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J   |         |     | 01   |
| C325    | <b>UX061470</b> | Ceramic Capacitor (chip) | 47P 50V J    |         |     |      |
| C326    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J   |         |     | 01   |
| C327    | <b>UX063100</b> | Ceramic Capacitor (chip) | 1000P 50V K  |         |     | 01   |
| C328    | <b>UX063100</b> | Ceramic Capacitor (chip) | 1000P 50V K  |         |     | 01   |
| C329    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V  |         |     | 01   |
| C330    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V  |         |     | 01   |
| C331    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| -336    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C401    | <b>UX062220</b> | Ceramic Capacitor (chip) | 220P 50V J   |         |     | 01   |
| -403    | <b>UX062220</b> | Ceramic Capacitor (chip) | 220P 50V J   |         |     | 01   |
| C404    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C405    | <b>UX061100</b> | Ceramic Capacitor (chip) | 10P 50V D    |         |     | 01   |
| C406    | <b>UX061100</b> | Ceramic Capacitor (chip) | 10P 50V D    |         |     | 01   |
| C407    | <b>UX060600</b> | Ceramic Capacitor (chip) | 6P 50V C     |         |     | 01   |
| C410    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C411    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C412    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V  |         |     | 01   |
| C413    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C414    | <b>UR838100</b> | Electrolytic Cap.        | 100.00 16.0V |         |     | 01   |
| C415    | <b>UX062220</b> | Ceramic Capacitor (chip) | 220P 50V J   |         |     | 01   |
| C416    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C417    | <b>UX060600</b> | Ceramic Capacitor (chip) | 6P 50V C     |         |     | 01   |
| C418    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| -420    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C421    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C422    | <b>UA953680</b> | Mylar Capacitor          | 6800P 50V J  |         |     | 01   |
| C423    | <b>UX062220</b> | Ceramic Capacitor (chip) | 220P 50V J   |         |     | 01   |
| C424    | <b>UX062220</b> | Ceramic Capacitor (chip) | 220P 50V J   |         |     | 01   |
| C425    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J   |         |     | 01   |
| C426    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |

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| REF NO. | PART NO.        | DESCRIPTION              |              | REMARKS | QTY | RANK |
|---------|-----------------|--------------------------|--------------|---------|-----|------|
| C427    | <b>UX061680</b> | Ceramic Capacitor (chip) | 68P 50V J    |         |     | 01   |
| C428    | <b>UX061680</b> | Ceramic Capacitor (chip) | 68P 50V J    |         |     | 01   |
| C429    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J   |         |     | 01   |
| C430    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C431    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V  |         |     | 01   |
| C432    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C433    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C435    | <b>UA655820</b> | Mylar Capacitor          | 0.8200 50V J |         |     | 01   |
| C436    | <b>UA655470</b> | Mylar Capacitor          | 0.4700 50V J |         |     | 01   |
| C437    | <b>UA655220</b> | Mylar Capacitor          | 0.2200 50V J |         |     | 01   |
| C438    | <b>V5868900</b> | Mylar Capacitor          | 0.1 50V J    |         |     |      |
| C439    | <b>UA954470</b> | Mylar Capacitor          | 0.0470 50V J |         |     | 01   |
| C440    | <b>UA954270</b> | Mylar Capacitor          | 0.0270 50V J |         |     | 01   |
| C441    | <b>UA954120</b> | Mylar Capacitor          | 0.0120 50V J |         |     |      |
| C442    | <b>UA954820</b> | Mylar Capacitor          | 0.0820 50V J |         |     | 01   |
| C443    | <b>UA954390</b> | Mylar Capacitor          | 0.0390 50V J |         |     | 01   |
| C444    | <b>UA954180</b> | Mylar Capacitor          | 0.0180 50V J |         |     | 01   |
| C445    | <b>UA954100</b> | Mylar Capacitor          | 0.0100 50V J |         |     | 01   |
| C446    | <b>UA953470</b> | Mylar Capacitor          | 4700P 50V J  |         |     | 01   |
| C447    | <b>UA953220</b> | Mylar Capacitor          | 2200P 50V J  |         |     | 01   |
| C448    | <b>UA953120</b> | Mylar Capacitor          | 1200P 50V J  |         |     | 01   |
| C449    | <b>UX062220</b> | Ceramic Capacitor (chip) | 220P 50V J   |         |     | 01   |
| C450    | <b>UX061680</b> | Ceramic Capacitor (chip) | 68P 50V J    |         |     | 01   |
| C451    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V  |         |     | 01   |
| C452    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C453    | <b>UX062470</b> | Ceramic Capacitor (chip) | 470P 50V J   |         |     |      |
| C454    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C455    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V  |         |     | 01   |
| C456    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C457    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C458    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C460    | <b>UA655120</b> | Mylar Capacitor          | 0.1200 50V J |         |     | 01   |
| C461    | <b>UA655120</b> | Mylar Capacitor          | 0.1200 50V J |         |     | 01   |
| C462    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| -465    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C501    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C502    | <b>UX145100</b> | Ceramic Capacitor (chip) | 0.1000 25V Z |         |     | 01   |
| C503    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C504    | <b>UX062220</b> | Ceramic Capacitor (chip) | 220P 50V J   |         |     | 01   |
| C505    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C506    | <b>UX063100</b> | Ceramic Capacitor (chip) | 1000P 50V K  |         |     | 01   |
| C507    | <b>UX145100</b> | Ceramic Capacitor (chip) | 0.1000 25V Z |         |     | 01   |
| C508    | <b>UX062220</b> | Ceramic Capacitor (chip) | 220P 50V J   |         |     | 01   |
| C509    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C510    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C511    | <b>UX145100</b> | Ceramic Capacitor (chip) | 0.1000 25V Z |         |     | 01   |
| C512    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C513    | <b>UA954270</b> | Mylar Capacitor          | 0.0270 50V J |         |     | 01   |
| C514    | <b>UA954100</b> | Mylar Capacitor          | 0.0100 50V J |         |     | 01   |
| C515    | <b>UA953150</b> | Mylar Capacitor          | 1500P 50V J  |         |     | 01   |
| C516    | <b>UA954270</b> | Mylar Capacitor          | 0.0270 50V J |         |     | 01   |
| C517    | <b>UX064100</b> | Ceramic Capacitor (chip) | 0.0100 50V K |         |     | 01   |
| C518    | <b>UA953150</b> | Mylar Capacitor          | 1500P 50V J  |         |     | 01   |
| C519    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V  |         |     | 01   |
| C520    | <b>UA954100</b> | Mylar Capacitor          | 0.0100 50V J |         |     | 01   |
| C521    | <b>V5868900</b> | Mylar Capacitor          | 0.1 50V J    |         |     |      |
| C522    | <b>UA954270</b> | Mylar Capacitor          | 0.0270 50V J |         |     | 01   |
| C523    | <b>UA953150</b> | Mylar Capacitor          | 1500P 50V J  |         |     | 01   |
| C524    | <b>UA953220</b> | Mylar Capacitor          | 2200P 50V J  |         |     | 01   |
| C525    | <b>UX061330</b> | Ceramic Capacitor (chip) | 33P 50V J    |         |     |      |
| C526    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C527    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V  |         |     | 01   |
| C528    | <b>UX061330</b> | Ceramic Capacitor (chip) | 33P 50V J    |         |     |      |
| C529    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J   |         |     | 01   |
| C530    | <b>UR858100</b> | Electrolytic Cap.        | 100.00 35.0V |         |     | 01   |
| C531    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V  |         |     | 01   |
| C532    | <b>UR838100</b> | Electrolytic Cap.        | 100.00 16.0V |         |     | 01   |
| C533    | <b>UR838100</b> | Electrolytic Cap.        | 100.00 16.0V |         |     | 01   |
| C534    | <b>UA953680</b> | Mylar Capacitor          | 6800P 50V J  |         |     | 01   |
| C535    | <b>UA953330</b> | Mylar Capacitor          | 3300P 50V J  |         |     | 01   |

\*: New Parts

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| REF NO. | PART NO.        | DESCRIPTION              |                   | REMARKS                                     | QTY | RANK |
|---------|-----------------|--------------------------|-------------------|---|-----|------|
| C536    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V       |   |     | 01   |
| C537    | <b>UX145100</b> | Ceramic Capacitor (chip) | 0.1000 25V Z      |   |     | 01   |
| C538    | <b>UA953330</b> | Mylar Capacitor          | 3300P 50V J       |   |     | 01   |
| C539    | <b>UX062100</b> | Ceramic Capacitor (chip) | 100P 50V J        |   |     | 01   |
| C540    | <b>UX145100</b> | Ceramic Capacitor (chip) | 0.1000 25V Z      |   |     | 01   |
| C541    | <b>UX145100</b> | Ceramic Capacitor (chip) | 0.1000 25V Z      |   |     | 01   |
| C542    | <b>UR866100</b> | Electrolytic Cap.        | 1.00 50.0V        |   |     | 01   |
| C543    | <b>UX145100</b> | Ceramic Capacitor (chip) | 0.1000 25V Z      |   |     | 01   |
| CN001   | <b>LB933030</b> | Base Post Connector      | VH- 3P SE         |   |     | 01   |
| CN501   | <b>VV067400</b> | Connector Base Post      | M2426XX 14P TE    |   |     |      |
| D301    | <b>VT332900</b> | Diode                    | 1SS355 TE-17      |   |     | 01   |
| -304    | <b>VT332900</b> | Diode                    | 1SS355 TE-17      |   |     | 01   |
| D501    | <b>VT332900</b> | Diode                    | 1SS355 TE-17      |   |     | 01   |
| -505    | <b>VT332900</b> | Diode                    | 1SS355 TE-17      |   |     | 01   |
| EM501   | <b>VV056900</b> | Noise Filter             | ZJSR5101-223TA    |   |     | 01   |
| IC101   | <b>XJ553A00</b> | IC                       | NJM2068MD-T1      | OP AMP                                      |     | 02   |
| IC102   | <b>IG103520</b> | IC                       | NJM4558M(T1)      | OP AMP                                      |     | 03   |
| IC201   | <b>XJ553A00</b> | IC                       | NJM2068MD-T1      | OP AMP                                      |     | 02   |
| IC202   | <b>IG103520</b> | IC                       | NJM4558M(T1)      | OP AMP                                      |     | 03   |
| IC301   | <b>IG103520</b> | IC                       | NJM4558M(T1)      | OP AMP                                      |     | 03   |
| IC302   | <b>IG103520</b> | IC                       | NJM4558M(T1)      | OP AMP                                      |     | 03   |
| IC303   | <b>XV423A00</b> | IC                       | TL072CPSR         | OP AMP                                      |     | 02   |
| IC401   | <b>XJ553A00</b> | IC                       | NJM2068MD-T1      | OP AMP                                      |     | 02   |
| -404    | <b>XJ553A00</b> | IC                       | NJM2068MD-T1      | OP AMP                                      |     | 02   |
| IC406   | <b>XZ348A00</b> | IC                       | LB1423N           | LED DRIVER                                  |     | 02   |
| IC407   | <b>XJ553A00</b> | IC                       | NJM2068MD-T1      | OP AMP                                      |     | 02   |
| IC408   | <b>XM560A00</b> | IC                       | NJM2060M(TE2)OP   | OP AMP                                      |     |      |
| IC409   | <b>XM560A00</b> | IC                       | NJM2060M(TE2)OP   | OP AMP                                      |     |      |
| IC501   | <b>XV423A00</b> | IC                       | TL072CPSR         | OP AMP                                      |     |      |
| IC502   | <b>IG103520</b> | IC                       | NJM4558M(T1)      | OP AMP                                      |     | 03   |
| IC503   | <b>XJ553A00</b> | IC                       | NJM2068MD-T1      | OP AMP                                      |     | 02   |
| IC504   | <b>X2166A00</b> | IC                       | 74HC14DT          | S-INVERTER                                  |     |      |
| IC505   | <b>X2167A00</b> | IC                       | 74HC74DT          | dff   |     |      |
| IC506   | <b>XR115A00</b> | IC                       | UPD43256BGU-70L   | SRAM 256K                                   |     | 08   |
| IC507   | <b>XN299A00</b> | IC                       | YSS234(SP3)       | DSP   |     | 11   |
| JK101   | <b>V6127200</b> | XLM Connector            | JY-5042           | Low-Z (CH1)                                 |     | 03   |
| JK102   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | Hi-Z (CH1)                                  |     | 02   |
| JK103   | <b>V6127200</b> | XLM Connector            | JY-5042           | Low-Z (CH2)                                 |     | 03   |
| JK104   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | Hi-Z (CH2)                                  |     | 02   |
| JK201   | <b>V6127200</b> | XLM Connector            | JY-5042           | Low-Z (CH3)                                 |     | 03   |
| JK202   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | Hi-Z (CH3)                                  |     | 02   |
| JK203   | <b>V6127200</b> | XLM Connector            | JY-5042           | Low-Z (CH4)                                 |     | 03   |
| JK204   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | Hi-Z (CH4)                                  |     | 02   |
| JK301   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | LINE 1 (CH5)                                |     | 02   |
| JK302   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | LINE 2 (CH5)                                |     | 02   |
| JK303   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | Super Hi-Z 1 (CH6)                          |     | 02   |
| JK304   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | Super Hi-Z 2 (CH6)                          |     | 02   |
| JK401   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | OUTPUT MAIN                                 |     | 02   |
| JK402   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | OUTPUT MONITOR                              |     | 02   |
| JK403   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | EFFECT OUT                                  |     | 02   |
| JK404   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | AUX IN                                      |     | 02   |
| JK405   | <b>V4807600</b> | Pin Jack                 | RJ-1130A-01-0320A | 2TR IN 1, 2TR IN 2,<br>REC OUT 1, REC OUT 2 |     | 03   |
| JK501   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | FOOT SW                                     |     | 02   |
| JK502   | <b>V2886000</b> | Phone Jack               | JY-6351J-06-340   | PHONES                                      |     | 02   |
| L501    | <b>GE300670</b> | Ferrite Bead             | BL02RN2-R62T4     |   |     | 02   |
| -504    | <b>GE300670</b> | Ferrite Bead             | BL02RN2-R62T4     |   |     | 02   |
| LD401   | <b>V8840200</b> | LED                      | L34GD-TNB5/13.6   | -10   |     |      |
| LD402   | <b>V8840200</b> | LED                      | L34GD-TNB5/13.6   | -5  |     |      |
| LD403   | <b>V8840400</b> | LED                      | L34YD-TNB5/13.6   | 0   |     |      |
| LD404   | <b>V8840400</b> | LED                      | L34YD-TNB5/13.6   | +3  |     |      |
| LD405   | <b>V8840400</b> | LED                      | L34YD-TNB5/13.6   | +6  |     |      |
| LD406   | <b>V8840400</b> | LED                      | L34YD-TNB5/13.6   | YSP   |     |      |
| LD407   | <b>V8840400</b> | LED                      | L34YD-TNB5/13.6   | PHANTOM                                     |     |      |
| LD501   | <b>V8840400</b> | LED                      | L34YD-TNB5/13.6   | DSP ON                                      |     |      |
| LD502   | <b>V8840200</b> | LED                      | L34GD-TNB5/13.6   | POWER                                       |     |      |
| LD503   | <b>V8840100</b> | LED                      | L34HD-TNB5/13.6   | LIMITER                                     |     |      |
| Q101    | <b>V7421700</b> | Transistor (chip)        | 2SC2SC3324 GR,BL  |   |     |      |
| -104    | <b>V7421700</b> | Transistor (chip)        | 2SC2SC3324 GR,BL  |   |     |      |
| Q201    | <b>V7421700</b> | Transistor (chip)        | 2SC2SC3324 GR,BL  |   |     |      |

\*: New Parts

RANK: Japan only

| REF NO. | PART NO.        | DESCRIPTION             | REMARKS          | QTY | RANK |
|---------|-----------------|-------------------------|------------------|-----|------|
| * -204  | <b>V7421700</b> | Transistor (chip)       | 2SC2SC3324 GR,BL |     |      |
| Q501    | <b>VV655400</b> | Digital Transistor      | DTC114EKA TP     |     | 01   |
| * Q502  | <b>V7421800</b> | Transistor              | 2SA2SA1312 GR,BL |     |      |
| R101    | <b>RG008100</b> | Carbon Resistor (chip)  | 100K 0.1 J       |     |      |
| R103    | <b>RG008100</b> | Carbon Resistor (chip)  | 100K 0.1 J       |     |      |
| R104    | <b>RG008100</b> | Carbon Resistor (chip)  | 100K 0.1 J       |     |      |
| R105    | <b>V2440200</b> | Metal Film Resistor     | 2.4K 1/4 F       |     | 01   |
| R106    | <b>RG008100</b> | Carbon Resistor (chip)  | 100K 0.1 J       |     |      |
| R107    | <b>V2440200</b> | Metal Film Resistor     | 2.4K 1/4 F       |     | 01   |
| R108    | <b>RG008100</b> | Carbon Resistor (chip)  | 100K 0.1 J       |     |      |
| * R109  | <b>RF356390</b> | Carbon Resistor (chip)  | 3.9K D 1608      |     |      |
| * -112  | <b>RF356390</b> | Carbon Resistor (chip)  | 3.9K D 1608      |     |      |
| R113    | <b>VV276800</b> | Flame Proof C. Resistor | 100 1/4 J        |     | 01   |
| R114    | <b>V2440200</b> | Metal Film Resistor     | 2.4K 1/4 F       |     | 01   |
| R116    | <b>V2440200</b> | Metal Film Resistor     | 2.4K 1/4 F       |     | 01   |
| * R117  | <b>RG007150</b> | Carbon Resistor (chip)  | 15K 0.1 J        |     |      |
| * R118  | <b>RG007150</b> | Carbon Resistor (chip)  | 15K 0.1 J        |     |      |
| R119    | <b>RG004100</b> | Carbon Resistor (chip)  | 10 0.1 J         |     |      |
| -122    | <b>RG004100</b> | Carbon Resistor (chip)  | 10 0.1 J         |     |      |
| * R123  | <b>RF357470</b> | Carbon Resistor (chip)  | 47.0K D 1608     |     |      |
| * -126  | <b>RF357470</b> | Carbon Resistor (chip)  | 47.0K D 1608     |     |      |
| R127    | <b>RG004100</b> | Carbon Resistor (chip)  | 10 0.1 J         |     |      |
| R128    | <b>RG004100</b> | Carbon Resistor (chip)  | 10 0.1 J         |     |      |
| * R129  | <b>RF356220</b> | Carbon Resistor (chip)  | 2.2K D 1608      |     |      |
| * R130  | <b>RF356820</b> | Carbon Resistor (chip)  | 8.2K D 1608      |     |      |
| * R131  | <b>RF356220</b> | Carbon Resistor (chip)  | 2.2K D 1608      |     |      |
| * R132  | <b>RF356820</b> | Carbon Resistor (chip)  | 8.2K D 1608      |     |      |
| R133    | <b>RG006820</b> | Carbon Resistor (chip)  | 8.2K 0.1 J       |     |      |
| R134    | <b>RG006820</b> | Carbon Resistor (chip)  | 8.2K 0.1 J       |     |      |
| R135    | <b>RG005150</b> | Carbon Resistor (chip)  | 150 0.1 J        |     |      |
| * R136  | <b>RG005150</b> | Carbon Resistor (chip)  | 150 0.1 J        |     |      |
| * R137  | <b>RF356220</b> | Carbon Resistor (chip)  | 2.2K D 1608      |     |      |
| * R138  | <b>RF356820</b> | Carbon Resistor (chip)  | 8.2K D 1608      |     |      |
| * R139  | <b>RF356220</b> | Carbon Resistor (chip)  | 2.2K D 1608      |     |      |
| * R140  | <b>RF356820</b> | Carbon Resistor (chip)  | 8.2K D 1608      |     |      |
| R141    | <b>RG004100</b> | Carbon Resistor (chip)  | 10 0.1 J         |     |      |
| R142    | <b>RG004100</b> | Carbon Resistor (chip)  | 10 0.1 J         |     |      |
| R143    | <b>RF357100</b> | Carbon Resistor (chip)  | 10.0K D 1608     |     | 01   |
| -146    | <b>RF357100</b> | Carbon Resistor (chip)  | 10.0K D 1608     |     | 01   |
| R147    | <b>RG007100</b> | Carbon Resistor (chip)  | 10K 0.1 J        |     |      |
| R148    | <b>RG006470</b> | Carbon Resistor (chip)  | 4.7K 0.1 J       |     |      |
| R149    | <b>RG007100</b> | Carbon Resistor (chip)  | 10K 0.1 J        |     |      |
| R150    | <b>RG006470</b> | Carbon Resistor (chip)  | 4.7K 0.1 J       |     |      |
| R151    | <b>RG007330</b> | Carbon Resistor (chip)  | 33K 0.1 J        |     |      |
| R152    | <b>RG007330</b> | Carbon Resistor (chip)  | 33K 0.1 J        |     |      |
| R153    | <b>RG007100</b> | Carbon Resistor (chip)  | 10K 0.1 J        |     |      |
| R154    | <b>RG006560</b> | Carbon Resistor (chip)  | 5.6K 0.1 J       |     |      |
| R155    | <b>RG007100</b> | Carbon Resistor (chip)  | 10K 0.1 J        |     |      |
| R156    | <b>RG006560</b> | Carbon Resistor (chip)  | 5.6K 0.1 J       |     |      |
| R157    | <b>RG004100</b> | Carbon Resistor (chip)  | 10 0.1 J         |     |      |
| R158    | <b>RG004100</b> | Carbon Resistor (chip)  | 10 0.1 J         |     |      |
| R159    | <b>RG007180</b> | Carbon Resistor (chip)  | 18K 0.1 J        |     |      |
| -164    | <b>RG007180</b> | Carbon Resistor (chip)  | 18K 0.1 J        |     |      |
| R202    | <b>RG008100</b> | Carbon Resistor (chip)  | 100K 0.1 J       |     |      |
| R203    | <b>V2440200</b> | Metal Film Resistor     | 2.4K 1/4 F       |     | 01   |
| R204    | <b>RG008100</b> | Carbon Resistor (chip)  | 100K 0.1 J       |     |      |
| * R205  | <b>RF356390</b> | Carbon Resistor (chip)  | 3.9K D 1608      |     |      |
| * R206  | <b>RF356390</b> | Carbon Resistor (chip)  | 3.9K D 1608      |     |      |
| R208    | <b>V2440200</b> | Metal Film Resistor     | 2.4K 1/4 F       |     | 01   |
| * R209  | <b>RG007150</b> | Carbon Resistor (chip)  | 15K 0.1 J        |     |      |
| R210    | <b>RG004100</b> | Carbon Resistor (chip)  | 10 0.1 J         |     |      |
| R211    | <b>RG004100</b> | Carbon Resistor (chip)  | 10 0.1 J         |     |      |
| * R212  | <b>RF357470</b> | Carbon Resistor (chip)  | 47.0K D 1608     |     |      |
| * R213  | <b>RF357470</b> | Carbon Resistor (chip)  | 47.0K D 1608     |     |      |
| R214    | <b>RG004100</b> | Carbon Resistor (chip)  | 10 0.1 J         |     |      |
| * R215  | <b>RF356220</b> | Carbon Resistor (chip)  | 2.2K D 1608      |     |      |
| * R216  | <b>RF356820</b> | Carbon Resistor (chip)  | 8.2K D 1608      |     |      |
| R217    | <b>RG006820</b> | Carbon Resistor (chip)  | 8.2K 0.1 J       |     |      |
| * R218  | <b>RG005150</b> | Carbon Resistor (chip)  | 150 0.1 J        |     |      |
| * R219  | <b>RF356220</b> | Carbon Resistor (chip)  | 2.2K D 1608      |     |      |

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| REF NO. | PART NO. | DESCRIPTION                     | REMARKS      | QTY | RANK |
|---------|----------|---------------------------------|--------------|-----|------|
| *       | R220     | RF356820 Carbon Resistor (chip) | 8.2K D 1608  |     |      |
|         | R221     | RG004100 Carbon Resistor (chip) | 10 0.1 J     |     |      |
|         | R222     | RF357100 Carbon Resistor (chip) | 10.0K D 1608 |     | 01   |
|         | R223     | RF357100 Carbon Resistor (chip) | 10.0K D 1608 |     | 01   |
|         | R224     | RG007100 Carbon Resistor (chip) | 10K 0.1 J    |     |      |
|         | R225     | RG006470 Carbon Resistor (chip) | 4.7K 0.1 J   |     |      |
|         | R226     | RG007330 Carbon Resistor (chip) | 33K 0.1 J    |     |      |
|         | R227     | RG007100 Carbon Resistor (chip) | 10K 0.1 J    |     |      |
|         | R228     | RG006560 Carbon Resistor (chip) | 5.6K 0.1 J   |     |      |
|         | R229     | RG004100 Carbon Resistor (chip) | 10 0.1 J     |     |      |
|         | R230     | RG007180 Carbon Resistor (chip) | 18K 0.1 J    |     |      |
|         | -232     | RG007180 Carbon Resistor (chip) | 18K 0.1 J    |     |      |
|         | R234     | RG008100 Carbon Resistor (chip) | 100K 0.1 J   |     |      |
|         | R235     | V2440200 Metal Film Resistor    | 2.4K 1/4 F   |     | 01   |
|         | R236     | RG008100 Carbon Resistor (chip) | 100K 0.1 J   |     |      |
| *       | R237     | RF356390 Carbon Resistor (chip) | 3.9K D 1608  |     |      |
| *       | R238     | RF356390 Carbon Resistor (chip) | 3.9K D 1608  |     |      |
|         | R240     | V2440200 Metal Film Resistor    | 2.4K 1/4 F   |     | 01   |
| *       | R241     | RG007150 Carbon Resistor (chip) | 15K 0.1 J    |     |      |
|         | R242     | RG004100 Carbon Resistor (chip) | 10 0.1 J     |     |      |
|         | R243     | RG004100 Carbon Resistor (chip) | 10 0.1 J     |     |      |
| *       | R244     | RF357470 Carbon Resistor (chip) | 47.0K D 1608 |     |      |
| *       | R245     | RF357470 Carbon Resistor (chip) | 47.0K D 1608 |     |      |
|         | R246     | RG004100 Carbon Resistor (chip) | 10 0.1 J     |     |      |
| *       | R247     | RF356220 Carbon Resistor (chip) | 2.2K D 1608  |     |      |
| *       | R248     | RF356820 Carbon Resistor (chip) | 8.2K D 1608  |     |      |
|         | R249     | RG006820 Carbon Resistor (chip) | 8.2K 0.1 J   |     |      |
|         | R250     | RG005150 Carbon Resistor (chip) | 150 0.1 J    |     |      |
| *       | R251     | RF356220 Carbon Resistor (chip) | 2.2K D 1608  |     |      |
| *       | R252     | RF356820 Carbon Resistor (chip) | 8.2K D 1608  |     |      |
|         | R253     | RG004100 Carbon Resistor (chip) | 10 0.1 J     |     |      |
|         | R254     | RF357100 Carbon Resistor (chip) | 10.0K D 1608 |     | 01   |
|         | R255     | RF357100 Carbon Resistor (chip) | 10.0K D 1608 |     | 01   |
|         | R256     | RG007100 Carbon Resistor (chip) | 10K 0.1 J    |     |      |
|         | R257     | RG006470 Carbon Resistor (chip) | 4.7K 0.1 J   |     |      |
|         | R258     | RG007330 Carbon Resistor (chip) | 33K 0.1 J    |     |      |
|         | R259     | RG007100 Carbon Resistor (chip) | 10K 0.1 J    |     |      |
|         | R260     | RG006560 Carbon Resistor (chip) | 5.6K 0.1 J   |     |      |
|         | R261     | RG004100 Carbon Resistor (chip) | 10 0.1 J     |     |      |
|         | R262     | RG007180 Carbon Resistor (chip) | 18K 0.1 J    |     |      |
|         | -264     | RG007180 Carbon Resistor (chip) | 18K 0.1 J    |     |      |
|         | R301     | RG006100 Carbon Resistor (chip) | 1.0K 0.1 J   |     |      |
|         | R302     | RG006100 Carbon Resistor (chip) | 1.0K 0.1 J   |     |      |
|         | R303     | RG008100 Carbon Resistor (chip) | 100K 0.1 J   |     |      |
|         | R304     | RG008100 Carbon Resistor (chip) | 100K 0.1 J   |     |      |
|         | R305     | RG008470 Carbon Resistor (chip) | 470K 0.1 J   |     |      |
|         | R306     | RG008470 Carbon Resistor (chip) | 470K 0.1 J   |     |      |
|         | R307     | RG006470 Carbon Resistor (chip) | 4.7K 0.1 J   |     |      |
|         | R308     | RG006470 Carbon Resistor (chip) | 4.7K 0.1 J   |     |      |
|         | R309     | RG007470 Carbon Resistor (chip) | 47K 0.1 J    |     |      |
|         | R310     | RG007470 Carbon Resistor (chip) | 47K 0.1 J    |     |      |
|         | R311     | RG007180 Carbon Resistor (chip) | 18K 0.1 J    |     |      |
|         | -314     | RG007180 Carbon Resistor (chip) | 18K 0.1 J    |     |      |
|         | R315     | RG008100 Carbon Resistor (chip) | 100K 0.1 J   |     |      |
|         | R316     | RG008100 Carbon Resistor (chip) | 100K 0.1 J   |     |      |
|         | R317     | RG006820 Carbon Resistor (chip) | 8.2K 0.1 J   |     |      |
|         | R318     | RG006820 Carbon Resistor (chip) | 8.2K 0.1 J   |     |      |
|         | R319     | RG007100 Carbon Resistor (chip) | 10K 0.1 J    |     |      |
|         | -321     | RG007100 Carbon Resistor (chip) | 10K 0.1 J    |     |      |
|         | R322     | RG006470 Carbon Resistor (chip) | 4.7K 0.1 J   |     |      |
|         | R323     | RG007100 Carbon Resistor (chip) | 10K 0.1 J    |     |      |
|         | R324     | RG006470 Carbon Resistor (chip) | 4.7K 0.1 J   |     |      |
|         | R325     | RG007330 Carbon Resistor (chip) | 33K 0.1 J    |     |      |
|         | R326     | RG007330 Carbon Resistor (chip) | 33K 0.1 J    |     |      |
|         | R327     | RG007100 Carbon Resistor (chip) | 10K 0.1 J    |     |      |
|         | R328     | RG006560 Carbon Resistor (chip) | 5.6K 0.1 J   |     |      |
|         | R329     | RG007100 Carbon Resistor (chip) | 10K 0.1 J    |     |      |
|         | R330     | RG006560 Carbon Resistor (chip) | 5.6K 0.1 J   |     |      |
|         | R331     | RG004100 Carbon Resistor (chip) | 10 0.1 J     |     |      |
|         | R332     | RG004100 Carbon Resistor (chip) | 10 0.1 J     |     |      |

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| REF NO. | PART NO.        | DESCRIPTION            | REMARKS      | QTY | RANK |
|---------|-----------------|------------------------|--------------|-----|------|
| R333    | <b>RG007180</b> | Carbon Resistor (chip) | 18K 0.1 J    |     |      |
| -338    | <b>RG007180</b> | Carbon Resistor (chip) | 18K 0.1 J    |     |      |
| * R401  | <b>RG008120</b> | Carbon Resistor (chip) | 120K 0.1 J   |     |      |
| * -403  | <b>RG008120</b> | Carbon Resistor (chip) | 120K 0.1 J   |     |      |
| R404    | <b>RG008220</b> | Carbon Resistor (chip) | 220K 0.1 J   |     |      |
| R405    | <b>RG007180</b> | Carbon Resistor (chip) | 18K 0.1 J    |     |      |
| * R406  | <b>RG007360</b> | Carbon Resistor (chip) | 36K 0.1 J    |     |      |
| * R407  | <b>RG007360</b> | Carbon Resistor (chip) | 36K 0.1 J    |     |      |
| R408    | <b>RG008220</b> | Carbon Resistor (chip) | 220K 0.1 J   |     |      |
| R409    | <b>RG008100</b> | Carbon Resistor (chip) | 100K 0.1 J   |     |      |
| R410    | <b>RG007180</b> | Carbon Resistor (chip) | 18K 0.1 J    |     |      |
| R411    | <b>RG007180</b> | Carbon Resistor (chip) | 18K 0.1 J    |     |      |
| * R412  | <b>RG006390</b> | Carbon Resistor (chip) | 3.9K 0.1 J   |     |      |
| R413    | <b>RG005220</b> | Carbon Resistor (chip) | 220 0.1 J    |     |      |
| R414    | <b>RG005220</b> | Carbon Resistor (chip) | 220 0.1 J    |     |      |
| R415    | <b>RG007100</b> | Carbon Resistor (chip) | 10K 0.1 J    |     |      |
| * R416  | <b>RG006430</b> | Carbon Resistor (chip) | 4.3K 0.1 J   |     |      |
| * R417  | <b>RG006430</b> | Carbon Resistor (chip) | 4.3K 0.1 J   |     |      |
| R418    | <b>RG007100</b> | Carbon Resistor (chip) | 10K 0.1 J    |     |      |
| -420    | <b>RG007100</b> | Carbon Resistor (chip) | 10K 0.1 J    |     |      |
| R421    | <b>RG006150</b> | Carbon Resistor (chip) | 1.5K 0.1 J   |     |      |
| R422    | <b>RG006330</b> | Carbon Resistor (chip) | 3.3K 0.1 J   |     |      |
| R423    | <b>RG006150</b> | Carbon Resistor (chip) | 1.5K 0.1 J   |     |      |
| * R424  | <b>RG006120</b> | Carbon Resistor (chip) | 1.2K 0.1 J   |     |      |
| R425    | <b>RG008100</b> | Carbon Resistor (chip) | 100K 0.1 J   |     |      |
| R426    | <b>RG006820</b> | Carbon Resistor (chip) | 8.2K 0.1 J   |     |      |
| R427    | <b>RG006820</b> | Carbon Resistor (chip) | 8.2K 0.1 J   |     |      |
| * R428  | <b>RG006120</b> | Carbon Resistor (chip) | 1.2K 0.1 J   |     |      |
| R429    | <b>RG005560</b> | Carbon Resistor (chip) | 560 0.1 J    |     |      |
| R430    | <b>RG007180</b> | Carbon Resistor (chip) | 18K 0.1 J    |     |      |
| R431    | <b>RG005220</b> | Carbon Resistor (chip) | 220 0.1 J    |     |      |
| * R432  | <b>RG007150</b> | Carbon Resistor (chip) | 15K 0.1 J    |     |      |
| R433    | <b>RG007100</b> | Carbon Resistor (chip) | 10K 0.1 J    |     |      |
| R434    | <b>RG008100</b> | Carbon Resistor (chip) | 100K 0.1 J   |     |      |
| R435    | <b>RG006470</b> | Carbon Resistor (chip) | 4.7K 0.1 J   |     |      |
| R436    | <b>RG005560</b> | Carbon Resistor (chip) | 560 0.1 J    |     |      |
| * R437  | <b>RG005750</b> | Carbon Resistor (chip) | 750 0.1 J    |     |      |
| R438    | <b>RG006330</b> | Carbon Resistor (chip) | 3.3K 0.1 J   |     |      |
| R439    | <b>RG008100</b> | Carbon Resistor (chip) | 100K 0.1 J   |     |      |
| R440    | <b>RG007100</b> | Carbon Resistor (chip) | 10K 0.1 J    |     |      |
| R441    | <b>RG007100</b> | Carbon Resistor (chip) | 10K 0.1 J    |     |      |
| R442    | <b>RG005560</b> | Carbon Resistor (chip) | 560 0.1 J    |     |      |
| * R443  | <b>RG205680</b> | Carbon Resistor (chip) | 680 1/4 J    |     |      |
| * -445  | <b>RG205680</b> | Carbon Resistor (chip) | 680 1/4 J    |     |      |
| R446    | <b>RG005560</b> | Carbon Resistor (chip) | 560 0.1 J    |     |      |
| -448    | <b>RG005560</b> | Carbon Resistor (chip) | 560 0.1 J    |     |      |
| * R449  | <b>RG004180</b> | Carbon Resistor (chip) | 18 0.1 J     |     |      |
| * R450  | <b>RF356390</b> | Carbon Resistor (chip) | 3.9K D 1608  |     |      |
| * R452  | <b>RG004180</b> | Carbon Resistor (chip) | 18 0.1 J     |     |      |
| * R453  | <b>RF357820</b> | Carbon Resistor (chip) | 82.0K D 1608 |     |      |
| * R454  | <b>RG206270</b> | Carbon Resistor (chip) | 2.7K 1/4 J   |     |      |
| R455    | <b>RG005560</b> | Carbon Resistor (chip) | 560 0.1 J    |     |      |
| -461    | <b>RG005560</b> | Carbon Resistor (chip) | 560 0.1 J    |     |      |
| R462    | <b>RG007470</b> | Carbon Resistor (chip) | 47K 0.1 J    |     |      |
| -469    | <b>RG007470</b> | Carbon Resistor (chip) | 47K 0.1 J    |     |      |
| * R470  | <b>RG206270</b> | Carbon Resistor (chip) | 2.7K 1/4 J   |     |      |
| * R501  | <b>RG008240</b> | Carbon Resistor (chip) | 240K 0.1 J   |     |      |
| * R502  | <b>RG008240</b> | Carbon Resistor (chip) | 240K 0.1 J   |     |      |
| R503    | <b>RG007100</b> | Carbon Resistor (chip) | 10K 0.1 J    |     |      |
| R504    | <b>RG007470</b> | Carbon Resistor (chip) | 47K 0.1 J    |     |      |
| R505    | <b>RG005680</b> | Carbon Resistor (chip) | 680 0.1 J    |     |      |
| R506    | <b>RG006220</b> | Carbon Resistor (chip) | 2.2K 0.1 J   |     |      |
| R507    | <b>RG008100</b> | Carbon Resistor (chip) | 100K 0.1 J   |     |      |
| R508    | <b>RG006220</b> | Carbon Resistor (chip) | 2.2K 0.1 J   |     |      |
| R509    | <b>RG006330</b> | Carbon Resistor (chip) | 3.3K 0.1 J   |     |      |
| R510    | <b>RG006220</b> | Carbon Resistor (chip) | 2.2K 0.1 J   |     |      |
| -512    | <b>RG006220</b> | Carbon Resistor (chip) | 2.2K 0.1 J   |     |      |
| R513    | <b>RG006470</b> | Carbon Resistor (chip) | 4.7K 0.1 J   |     |      |
| R514    | <b>RG006100</b> | Carbon Resistor (chip) | 1.0K 0.1 J   |     |      |
| R515    | <b>RG006220</b> | Carbon Resistor (chip) | 2.2K 0.1 J   |     |      |

\*: New Parts

RANK: Japan only

| REF NO. | PART NO.        | DESCRIPTION              | REMARKS          | QTY                                     | RANK |
|---------|-----------------|--------------------------|------------------|---|------|
| R516    | <b>RG005100</b> | Carbon Resistor (chip)   | 100 0.1 J        |   |      |
| R517    | <b>RG006220</b> | Carbon Resistor (chip)   | 2.2K 0.1 J       |   |      |
| -519    | <b>RG006220</b> | Carbon Resistor (chip)   | 2.2K 0.1 J       |   |      |
| R520    | <b>RG007100</b> | Carbon Resistor (chip)   | 10K 0.1 J        |   |      |
| -522    | <b>RG007100</b> | Carbon Resistor (chip)   | 10K 0.1 J        |   |      |
| R523    | <b>RG007470</b> | Carbon Resistor (chip)   | 47K 0.1 J        |   |      |
| * R524  | <b>RG006390</b> | Carbon Resistor (chip)   | 3.9K 0.1 J       |   |      |
| R525    | <b>RG007100</b> | Carbon Resistor (chip)   | 10K 0.1 J        |   |      |
| R526    | <b>RG007470</b> | Carbon Resistor (chip)   | 47K 0.1 J        |   |      |
| R527    | <b>RG008470</b> | Carbon Resistor (chip)   | 470K 0.1 J       |   |      |
| R528    | <b>RG005470</b> | Carbon Resistor (chip)   | 470 0.1 J        |   |      |
| R529    | <b>RG006470</b> | Carbon Resistor (chip)   | 4.7K 0.1 J       |   |      |
| R530    | <b>RG008100</b> | Carbon Resistor (chip)   | 100K 0.1 J       |   |      |
| R531    | <b>RG007270</b> | Carbon Resistor (chip)   | 27K 0.1 J        |   |      |
| R532    | <b>RG007270</b> | Carbon Resistor (chip)   | 27K 0.1 J        |   |      |
| R533    | <b>RG007680</b> | Carbon Resistor (chip)   | 68K 0.1 J        |   |      |
| R534    | <b>RG007680</b> | Carbon Resistor (chip)   | 68K 0.1 J        |   |      |
| * R535  | <b>RG206270</b> | Carbon Resistor (chip)   | 2.7K 1/4 J       |   |      |
| * SW001 | <b>V8996200</b> | Push Switch              | SFDLB11P7U-YL    | POWER ON/OFF                            |      |
| SW101   | <b>V6962600</b> | Push Switch              |                  | PAD (CH1)                               | 02   |
| SW102   | <b>V6962600</b> | Push Switch              |                  | PAD (CH2)                               | 02   |
| SW201   | <b>V6962600</b> | Push Switch              |                  | PAD (CH3)                               | 02   |
| SW202   | <b>V6962600</b> | Push Switch              |                  | PAD (CH4)                               | 02   |
| SW401   | <b>V3483200</b> | Slide Switch             | SS001P022BQcPA6  | PHANTOM ON/OFF                          | 03   |
| SW403   | <b>V3483200</b> | Slide Switch             | SS001P022BQcPA6  | YSP ON/OFF                              | 03   |
| SW501   | <b>VU804900</b> | Push Switch              | SPEA31MC16-YL    | VOCAL REVERB, LARGE HALL,<br>SMALL HALL | 05   |
| SW503   | <b>VU805000</b> | Push Switch              | SPEA12MC15-YL    | DSP ON                                  | 03   |
| * VR101 | <b>V8264700</b> | Rotary Variable Resistor | B 50.0K XV09213P | HIGH (CH1)                              |      |
| * VR102 | <b>V8264700</b> | Rotary Variable Resistor | B 50.0K XV09213P | HIGH (CH2)                              |      |
| * VR103 | <b>V8264700</b> | Rotary Variable Resistor | B 50.0K XV09213P | LOW (CH1)                               |      |
| * VR104 | <b>V8264700</b> | Rotary Variable Resistor | B 50.0K XV09213P | LOW (CH2)                               |      |
| * VR105 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | MONITOR (CH1)                           |      |
| * VR106 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | MONITOR (CH2)                           |      |
| * VR107 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | EFFECT (CH1)                            |      |
| * VR108 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | EFFECT (CH2)                            |      |
| * VR109 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | LEVEL (CH1)                             |      |
| * VR110 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | LEVEL (CH2)                             |      |
| * VR201 | <b>V8264700</b> | Rotary Variable Resistor | B 50.0K XV09213P | HIGH (CH3)                              |      |
| * VR202 | <b>V8264700</b> | Rotary Variable Resistor | B 50.0K XV09213P | HIGH (CH4)                              |      |
| * VR203 | <b>V8264700</b> | Rotary Variable Resistor | B 50.0K XV09213P | LOW (CH3)                               |      |
| * VR204 | <b>V8264700</b> | Rotary Variable Resistor | B 50.0K XV09213P | LOW (CH4)                               |      |
| * VR205 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | MONITOR (CH3)                           |      |
| * VR206 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | MONITOR (CH4)                           |      |
| * VR207 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | EFFECT (CH3)                            |      |
| * VR208 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | EFFECT (CH4)                            |      |
| * VR209 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | LEVEL (CH3)                             |      |
| * VR210 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | LEVEL (CH4)                             |      |
| * VR301 | <b>V8264700</b> | Rotary Variable Resistor | B 50.0K XV09213P | HIGH (CH5)                              |      |
| * VR302 | <b>V8264700</b> | Rotary Variable Resistor | B 50.0K XV09213P | HIGH (CH6)                              |      |
| * VR303 | <b>V8264700</b> | Rotary Variable Resistor | B 50.0K XV09213P | LOW (CH5)                               |      |
| * VR304 | <b>V8264700</b> | Rotary Variable Resistor | B 50.0K XV09213P | LOW (CH6)                               |      |
| * VR305 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | MONITOR (CH5)                           |      |
| * VR306 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | MONITOR (CH6)                           |      |
| * VR307 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | EFFECT (CH5)                            |      |
| * VR308 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | EFFECT (CH6)                            |      |
| * VR309 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | LEVEL (CH5)                             |      |
| * VR310 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | LEVEL (CH6)                             |      |
| * VR401 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | MASTER (MAIN)                           |      |
| * VR402 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | MASTER (MONITOR)                        |      |
| * VR403 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | AUX IN                                  |      |
| * VR404 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | 2TR IN                                  |      |
| VR405   | <b>VV044600</b> | Slide Variable Resistor  | RS20H11KD017-YL  | 125                                     | 03   |
| VR406   | <b>VV044600</b> | Slide Variable Resistor  | RS20H11KD017-YL  | 250                                     | 03   |
| VR407   | <b>VV044600</b> | Slide Variable Resistor  | RS20H11KD017-YL  | 500                                     | 03   |
| VR408   | <b>VV044600</b> | Slide Variable Resistor  | RS20H11KD017-YL  | 1k                                      | 03   |
| VR409   | <b>VV044600</b> | Slide Variable Resistor  | RS20H11KD017-YL  | 2k                                      | 03   |
| VR410   | <b>VV044600</b> | Slide Variable Resistor  | RS20H11KD017-YL  | 4k                                      | 03   |
| VR411   | <b>VV044600</b> | Slide Variable Resistor  | RS20H11KD017-YL  | 8k                                      | 03   |
| * VR501 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P | EFFECT RTN (MAIN)                       |      |

\*: New Parts

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EMX62M

| REF NO. | PART NO.        | DESCRIPTION              |                    | REMARKS                 | QTY | RANK |
|---------|-----------------|--------------------------|--------------------|-------------------------|-----|------|
| * VR502 | <b>V8264600</b> | Rotary Variable Resistor | A 20.0K XV09213P   | EFFECT RTN (MONITOR)    |     |      |
| X501    | <b>QU007700</b> | Ceramic Resonator        | 12M CSA12.0MTZ     |                         |     | 03   |
| *       | <b>AAX32940</b> | Circuit Board            | PWR B62 1/3        | J, U (V826840)(X0625B0) |     |      |
| *       | <b>AAX32950</b> | Circuit Board            | PWR B62 1/3        | H, A (V826860)(X0625B0) |     |      |
| *       | <b>AAX32960</b> | Circuit Board            | PWR B62 2/3        | J, U (V826840)(X0625B0) |     |      |
| *       | <b>AAX32970</b> | Circuit Board            | PWR B62 2/3        | H, A (V826860)(X0625B0) |     |      |
| *       | <b>AAX32990</b> | Circuit Board            | PWR B62 3/3        | J (V826840)(X0625B0)    |     |      |
| *       | <b>AAX33000</b> | Circuit Board            | PWR B62 3/3        | U (V826850)(X0625B0)    |     |      |
| *       | <b>AAX33010</b> | Circuit Board            | PWR B62 3/3        | H, A (V826860)(X0625B0) |     |      |
|         | --              | Wiring Assembly          | SGND               | (V676790)               |     |      |
|         | --              | Jumper Wire              | 0.60 TP            | (V829020)               |     |      |
|         | --              | Jumper Wire              | 0.60               | (VV29140)               |     |      |
|         | <b>VV319600</b> | Fuse Holder              | CQ-05CT            |                         |     | 01   |
| C101    | <b>VZ353500</b> | Ceramic Capacitor-SL     | 100P 50V J         |                         |     | 01   |
| C102    | <b>VZ353300</b> | Ceramic Capacitor-SL     | 56P 50V J          |                         |     | 01   |
| C103    | <b>VZ353900</b> | Ceramic Cap.-B           | 1000P 50V K        |                         |     | 01   |
| C104    | <b>VZ353800</b> | Ceramic Cap.-B           | 470P 50V K         |                         |     | 01   |
| C105    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V        |                         |     | 01   |
| C106    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V        |                         |     | 01   |
| C107    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V        |                         |     | 01   |
| C108    | <b>UR838100</b> | Electrolytic Cap.        | 100.00 16.0V       |                         |     | 01   |
| C109    | <b>FU451680</b> | Mica Capacitor           | 68P 500V J         |                         |     | 01   |
| C110    | <b>FU451820</b> | Mica Capacitor           | 82P 500V J         |                         |     | 01   |
| C111    | <b>UR896470</b> | Electrolytic Cap.        | 4.7 100.0V         |                         |     |      |
| C112    | <b>UR896470</b> | Electrolytic Cap.        | 4.7 100.0V         |                         |     |      |
| C113    | <b>UR866470</b> | Electrolytic Cap.        | 4.70 50.0V         |                         |     | 01   |
| C114    | <b>UR866470</b> | Electrolytic Cap.        | 4.70 50.0V         |                         |     | 01   |
| C115    | <b>VZ354000</b> | Ceramic Capacitor-F      | 0.0100 50V Z       |                         |     | 01   |
| C116    | <b>VZ353500</b> | Ceramic Capacitor-SL     | 100P 50V J         |                         |     | 01   |
| C117    | <b>FU452220</b> | Mica Capacitor           | 220P 500V J        |                         |     | 02   |
| C118    | <b>FU452220</b> | Mica Capacitor           | 220P 500V J        |                         |     | 02   |
| C119    | <b>VZ354000</b> | Ceramic Capacitor-F      | 0.0100 50V Z       |                         |     | 01   |
| C120    | <b>VZ354000</b> | Ceramic Capacitor-F      | 0.0100 50V Z       |                         |     | 01   |
| C121    | <b>UR896470</b> | Electrolytic Cap.        | 4.7 100.0V         |                         |     |      |
| C122    | <b>UR896470</b> | Electrolytic Cap.        | 4.7 100.0V         |                         |     |      |
| C123    | <b>VV082200</b> | Polyester Film Cap.      | 3.3000 100V M      |                         |     | 03   |
| C124    | <b>VV082200</b> | Polyester Film Cap.      | 3.3000 100V M      |                         |     | 03   |
| C125    | <b>UR896470</b> | Electrolytic Cap.        | 4.7 100.0V         |                         |     |      |
| C126    | <b>UR896470</b> | Electrolytic Cap.        | 4.7 100.0V         |                         |     |      |
| C127    | <b>VZ354300</b> | Ceramic Capacitor-E      | 0.0022 500 M       |                         |     | 01   |
| C128    | <b>VZ354300</b> | Ceramic Capacitor-E      | 0.0022 500 M       |                         |     | 01   |
| C129    | <b>VZ354000</b> | Ceramic Capacitor-F      | 0.0100 50V Z       |                         |     | 01   |
| C130    | <b>VZ354600</b> | Monolithic Ceramic Cap.  | 0.10 50V Z         |                         |     | 01   |
| C131    | <b>VZ354600</b> | Monolithic Ceramic Cap.  | 0.10 50V Z         |                         |     | 01   |
| C132    | <b>VZ354000</b> | Ceramic Capacitor-F      | 0.0100 50V Z       |                         |     | 01   |
| C133    | <b>VZ354000</b> | Ceramic Capacitor-F      | 0.0100 50V Z       |                         |     | 01   |
| C134    | <b>UR866100</b> | Electrolytic Cap.        | 1.00 50.0V         |                         |     | 01   |
| C135    | <b>UR847100</b> | Electrolytic Cap.        | 10.00 25.0V        |                         |     | 01   |
| C136    | <b>UR847470</b> | Electrolytic Cap.        | 47.00 25.0V        |                         |     | 01   |
| C137    | <b>UR828470</b> | Electrolytic Cap.        | 470.00 10.0V       |                         |     | 01   |
| C140    | <b>UR866470</b> | Electrolytic Cap.        | 4.70 50.0V         |                         |     | 01   |
| C143    | <b>UR866470</b> | Electrolytic Cap.        | 4.70 50.0V         |                         |     | 01   |
| -145    | <b>UR866470</b> | Electrolytic Cap.        | 4.70 50.0V         |                         |     | 01   |
| C146    | <b>V5482000</b> | Electrolytic Cap.        | 1000 35.0V         |                         |     |      |
| C147    | <b>V5482000</b> | Electrolytic Cap.        | 1000 35.0V         |                         |     |      |
| C148    | <b>VV714300</b> | Electrolytic Cap.        | 470 50.0V          |                         |     | 01   |
| C149    | <b>V5482000</b> | Electrolytic Cap.        | 1000 35.0V         |                         |     |      |
| C150    | <b>V8349500</b> | Electrolytic Cap.        | 6800 80V           |                         |     | 08   |
| C151    | <b>V8349500</b> | Electrolytic Cap.        | 6800 80V           |                         |     | 08   |
| C152    | <b>VV082300</b> | Polyester Film Cap.      | 0.1000 250V M      |                         |     | 01   |
| C153    | <b>VV082300</b> | Polyester Film Cap.      | 0.1000 250V M      |                         |     | 01   |
| C154    | <b>VZ353500</b> | Ceramic Capacitor-SL     | 100P 50V J         |                         |     | 01   |
| C156    | <b>V8099100</b> | Capacitor                | 0.01 400V J.U.C.S  |                         |     |      |
| C157    | <b>V6113500</b> | Capacitor                | 1000P 400V J.U.C.S | H, A                    |     | 01   |
| C157    | <b>V6185400</b> | Capacitor                | 3300P 400V J.U.C.S | U                       |     | 01   |
| C158    | <b>V6113500</b> | Capacitor                | 1000P 400V J.U.C.S | H, A                    |     | 01   |
| C158    | <b>V6185400</b> | Capacitor                | 3300P 400V J.U.C.S | U                       |     | 01   |
| C159    | <b>V5307900</b> | Electrolytic Cap.        | 100 100.0V         |                         |     |      |
| C160    | <b>V5307900</b> | Electrolytic Cap.        | 100 100.0V         |                         |     |      |



\*: New Parts

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| REF NO. | PART NO. | DESCRIPTION         |                    | REMARKS        | QTY | RANK |
|---------|----------|---------------------|--------------------|----------------|-----|------|
| C161    | VZ354300 | Ceramic Capacitor-E | 0.0022 500 M       | H              |     | 01   |
| CN101   | VV067400 | Connector Base Post | M2426XX 14P TE     |                |     |      |
| CN103   | LB932060 | Base Post Connector | VH- 6P TE          |                |     | 01   |
| CN104   | LB932030 | Base Post Connector | VH- 3P TE          |                |     | 01   |
| CN105   | V5817000 | AC Inlet            | HF-301L            |                |     |      |
| D101    | VD631600 | Diode               | 1SS133,176,HSS104  |                |     | 01   |
| -105    | VD631600 | Diode               | 1SS133,176,HSS104  |                |     | 01   |
| D106    | VG437400 | Zener Diode         | MTZ J 5.1B 5.1V    |                |     | 01   |
| D107    | VG437400 | Zener Diode         | MTZ J 5.1B 5.1V    |                |     | 01   |
| D108    | VQ469600 | Diode               | HSS82              |                |     | 01   |
| D109    | VQ469600 | Diode               | HSS82              |                |     | 01   |
| D110    | VD631600 | Diode               | 1SS133,176,HSS104  |                |     | 01   |
| D111    | VD631600 | Diode               | 1SS133,176,HSS104  |                |     | 01   |
| D112    | VN478200 | Diode               | D1NL20U            |                |     | 01   |
| D113    | VN478200 | Diode               | D1NL20U            |                |     | 01   |
| D114    | VV082000 | Diode               | 2A01               |                |     | 01   |
| -117    | VV082000 | Diode               | 2A01               |                |     | 01   |
| D118    | VU801600 | Diode               | 1N4004L 26         |                |     | 01   |
| -121    | VU801600 | Diode               | 1N4004L 26         |                |     | 01   |
| D122    | V4096300 | Diode               | RL 10Z LFA4        |                |     | 01   |
| D123    | V4096300 | Diode               | RL 10Z LFA4        |                |     | 01   |
| D124    | VD631600 | Diode               | 1SS133,176,HSS104  |                |     | 01   |
| D125    | VU801600 | Diode               | 1N4004L 26         |                |     | 01   |
| D131    | VU801600 | Diode               | 1N4004L 26         |                |     | 01   |
| D134    | VU801600 | Diode               | 1N4004L 26         |                |     | 01   |
| -139    | VU801600 | Diode               | 1N4004L 26         |                |     | 01   |
| D140    | V8151400 | Diode Stack         | D3SBA60 4.0A 600V  |                |     |      |
| E101    | VV075700 | Terminal Plate      |                    |                |     | 01   |
| E102    | VV075700 | Terminal Plate      |                    |                |     | 01   |
| EM101   | VV056900 | Noise Filter        | ZJSR5101-223TA     |                |     | 01   |
| F101    | VV070600 | Fuse                | TDS 2A 250V J/U/C  | J, U           |     | 01   |
| F101    | VV071500 | Fuse                | TSD 2A 250V SEMKO  | H, A           |     | 01   |
| F102    | VV070600 | Fuse                | TDS 2A 250V J/U/C  | J, U           |     | 01   |
| F102    | VV071500 | Fuse                | TSD 2A 250V SEMKO  | H, A           |     | 01   |
| F103    | VV071000 | Fuse                | TDS 4A 125V J/U/C  | U              |     | 01   |
| F103    | VV071400 | Fuse                | TSD 1.6A 250V SEMK | H, A           |     | 01   |
| F103    | VZ897900 | Fuse                | TDS 5A 125V J/U/C  | J              |     | 01   |
| IC101   | XQ212A00 | IC                  | NJM4558L-D         | OP AMP         |     | 03   |
| IC103   | XD853A00 | IC                  | NJM7815FA          | REGULATOR +15V |     | 03   |
| IC104   | XD854A00 | IC                  | NJM7915FA          | REGULATOR -15V |     | 03   |
| IC105   | XJ607A00 | IC                  | NJM7805FA          | REGULATOR +5V  |     | 02   |
| JK101   | V8102300 | Phone Jack          | STJACK LJB0661     | SPEAKERS 1     |     |      |
| JK102   | V8102300 | Phone Jack          | STJACK LJB0661     | SPEAKERS 2     |     |      |
| L101    | V0030700 | Coil                | LHL16NB680K        |                |     | 04   |
| -104    | V0030700 | Coil                | LHL16NB680K        |                |     | 04   |
| L105    | GE300670 | Ferrite Bead        | BL02RN2-R62T4      |                |     | 02   |
| L106    | GE300670 | Ferrite Bead        | BL02RN2-R62T4      |                |     | 02   |
| L107    | VR150900 | Coil                | RZ-001 21MM        |                |     | 02   |
| PR101   | VL965100 | Positive Thermistor | PTH9M04BE222TS2    |                |     | 04   |
| Q101    | IA097030 | Transistor          | 2SA970 GR,BL       |                |     | 01   |
| Q102    | IA097030 | Transistor          | 2SA970 GR,BL       |                |     | 01   |
| Q103    | IC224030 | Transistor          | 2SC2240 GR,BL      |                |     | 01   |
| Q104    | IC224030 | Transistor          | 2SC2240 GR,BL      |                |     | 01   |
| Q105    | VD678500 | Digital Transistor  | DTA114ES           |                |     | 01   |
| Q106    | IA097030 | Transistor          | 2SA970 GR,BL       |                |     | 01   |
| -108    | IA097030 | Transistor          | 2SA970 GR,BL       |                |     | 01   |
| Q109    | IC224030 | Transistor          | 2SC2240 GR,BL      |                |     | 01   |
| Q110    | IC1815M0 | Transistor          | 2SC1815 Y,GR       |                |     | 01   |
| Q111    | IC1815M0 | Transistor          | 2SC1815 Y,GR       |                |     | 01   |
| Q112    | VE198700 | Transistor          | 2SA1145 O,Y        |                |     | 01   |
| Q113    | VE198800 | Transistor          | 2SC2705 O,Y        |                |     | 01   |
| Q114    | VE198700 | Transistor          | 2SA1145 O,Y        |                |     | 01   |
| Q115    | VE198800 | Transistor          | 2SC2705 O,Y        |                |     | 01   |
| Q116    | V2797700 | Transistor          | 2SC5395 E,F        |                |     | 01   |
| Q117    | V2797600 | Transistor          | 2SA1993 E,F        |                |     | 01   |
| Q118N   | VV081700 | Pair Transistor     | B1647/D2560        |                |     | 08   |
| Q119N   | VV081700 | Pair Transistor     | B1647/D2560        |                |     | 08   |
| Q120P   | VV081700 | Pair Transistor     | B1647/D2560        |                |     | 08   |
| Q121P   | VV081700 | Pair Transistor     | B1647/D2560        |                |     | 08   |
| Q122    | VP872600 | Transistor          | 2SA1708 S,T        |                |     | 01   |

\*: New Parts

RANK: Japan only

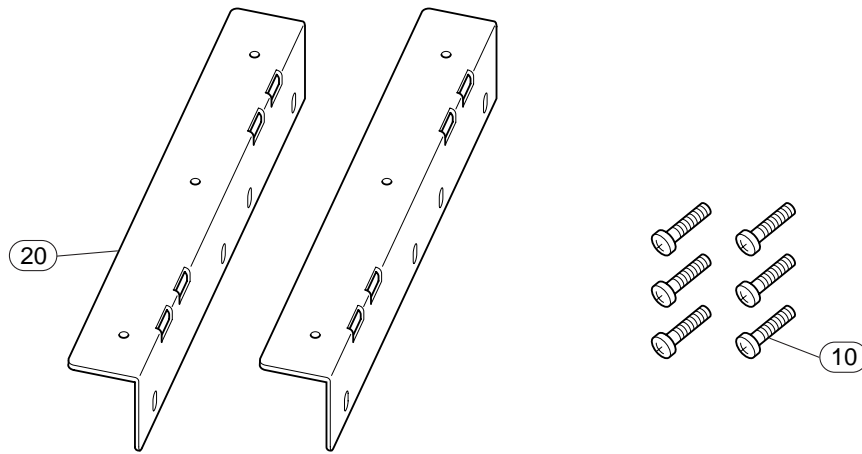
| REF NO. | PART NO. | DESCRIPTION               |              | REMARKS | QTY | RANK |
|---------|----------|---------------------------|--------------|---------|-----|------|
| Q123N   | VV081700 | Pair Transistor           | B1647/D2560  |         |     | 08   |
| Q124    | VP872700 | Transistor                | 2SC4488 S,T  |         |     | 01   |
| Q125P   | VV081700 | Pair Transistor           | B1647/D2560  |         |     | 08   |
| Q126    | VD678700 | Digital Transistor        | DTC114ES     |         |     | 01   |
| Q127    | VD678500 | Digital Transistor        | DTA114ES     |         |     | 01   |
| Q128    | V2797700 | Transistor                | 2SC5395 E,F  |         |     | 01   |
| Q129    | V2797600 | Transistor                | 2SA1993 E,F  |         |     | 01   |
| Q130    | V2797700 | Transistor                | 2SC5395 E,F  |         |     | 01   |
| Q131    | V2797700 | Transistor                | 2SC5395 E,F  |         |     | 01   |
| R101    | VV313500 | Metal Film Resistor       | 220K 1/4 F   |         |     | 01   |
| R102    | VV313500 | Metal Film Resistor       | 220K 1/4 F   |         |     | 01   |
| R103    | HB027750 | Metal Film Resistor       | 75.0K 1/4 F  |         |     |      |
| -106    | HB027750 | Metal Film Resistor       | 75.0K 1/4 F  |         |     |      |
| R107    | HF454680 | Carbon Resistor           | 68.0 1/4 J   |         |     | 01   |
| R108    | HF454680 | Carbon Resistor           | 68.0 1/4 J   |         |     | 01   |
| R110    | VV066000 | Metal Film Resistor       | 33K 1/4 F    |         |     | 01   |
| R111    | HF457270 | Carbon Resistor           | 27.0K 1/4 J  |         |     | 01   |
| R112    | HF456220 | Carbon Resistor           | 2.2K 1/4 J   |         |     | 01   |
| R113    | HF456220 | Carbon Resistor           | 2.2K 1/4 J   |         |     | 01   |
| R114    | HF457470 | Carbon Resistor           | 47.0K 1/4 J  |         |     | 01   |
| R115    | HF455330 | Carbon Resistor           | 330.0 1/4 J  |         |     | 01   |
| R116    | HF458390 | Carbon Resistor           | 390.0K 1/4 J |         |     | 01   |
| R117    | HF458390 | Carbon Resistor           | 390.0K 1/4 J |         |     | 01   |
| R118    | HF458330 | Carbon Resistor           | 330.0K 1/4 J |         |     | 01   |
| R119    | HF457220 | Carbon Resistor           | 22.0K 1/4 J  |         |     | 01   |
| R120    | VV312800 | Metal Film Resistor       | 680.0 1/4 F  |         |     | 01   |
| R121    | HF457220 | Carbon Resistor           | 22.0K 1/4 J  |         |     | 01   |
| R122    | HF455100 | Carbon Resistor           | 100.0 1/4 J  |         |     | 01   |
| R123    | HF455100 | Carbon Resistor           | 100.0 1/4 J  |         |     | 01   |
| R124    | HF455560 | Carbon Resistor           | 560.0 1/4 J  |         |     | 01   |
| -126    | HF455560 | Carbon Resistor           | 560.0 1/4 J  |         |     | 01   |
| R127    | HF458330 | Carbon Resistor           | 330.0K 1/4 J |         |     | 01   |
| R128    | HF457560 | Carbon Resistor           | 56.0K 1/4 J  |         |     | 01   |
| R129    | VV312900 | Metal Film Resistor       | 22K 1/4 F    |         |     | 01   |
| R130    | HF455150 | Carbon Resistor           | 150.0 1/4 J  |         |     | 01   |
| -132    | HF455150 | Carbon Resistor           | 150.0 1/4 J  |         |     | 01   |
| R133    | VV313800 | Flame Proof C. Resistor   | 220.0 1/4 J  |         |     | 01   |
| R134    | VV313800 | Flame Proof C. Resistor   | 220.0 1/4 J  |         |     | 01   |
| R135    | HF457100 | Carbon Resistor           | 10.0K 1/4 J  |         |     | 01   |
| -138    | HF457100 | Carbon Resistor           | 10.0K 1/4 J  |         |     | 01   |
| R139    | HF457150 | Carbon Resistor           | 15.0K 1/4 J  |         |     | 01   |
| R140    | HF457150 | Carbon Resistor           | 15.0K 1/4 J  |         |     | 01   |
| R141    | VV313800 | Flame Proof C. Resistor   | 220.0 1/4 J  |         |     | 01   |
| R142    | VV313800 | Flame Proof C. Resistor   | 220.0 1/4 J  |         |     | 01   |
| R143    | VR412900 | Metal Film Resistor       | 0.10 3W J    |         |     | 01   |
| R144    | VR412900 | Metal Film Resistor       | 0.10 3W J    |         |     | 01   |
| R145    | VV557800 | Flame Proof C. Resistor   | 1.0 1/4 J    |         |     | 01   |
| -147    | VV557800 | Flame Proof C. Resistor   | 1.0 1/4 J    |         |     | 01   |
| R148    | VV313700 | Flame Proof C. Resistor   | 47.0 1/4 J   |         |     | 01   |
| R149    | VV313900 | Flame Proof C. Resistor   | 680.0 1/4 J  |         |     | 01   |
| R150    | VV557800 | Flame Proof C. Resistor   | 1.0 1/4 J    |         |     | 01   |
| R151    | VV313700 | Flame Proof C. Resistor   | 47.0 1/4 J   |         |     | 01   |
| R152    | VV313900 | Flame Proof C. Resistor   | 680.0 1/4 J  |         |     | 01   |
| R153    | HF454470 | Carbon Resistor           | 47.0 1/4 J   |         |     | 01   |
| R154    | HF456150 | Carbon Resistor           | 1.5K 1/4 J   |         |     | 01   |
| R155    | HF455220 | Carbon Resistor           | 220.0 1/4 J  |         |     | 01   |
| R156    | HF457100 | Carbon Resistor           | 10.0K 1/4 J  |         |     | 01   |
| R157    | HF457100 | Carbon Resistor           | 10.0K 1/4 J  |         |     | 01   |
| R158    | HF456220 | Carbon Resistor           | 2.2K 1/4 J   |         |     | 01   |
| R159    | HF457120 | Carbon Resistor           | 12.0K 1/4 J  |         |     | 01   |
| R160    | HF457560 | Carbon Resistor           | 56.0K 1/4 J  |         |     | 01   |
| R161    | HF456470 | Carbon Resistor           | 4.7K 1/4 J   |         |     | 01   |
| R162    | VV058500 | Flame Proof C. Resistor   | 10.0 1/4 J   |         |     | 01   |
| R163    | VV058500 | Flame Proof C. Resistor   | 10.0 1/4 J   |         |     | 01   |
| R164    | HF458150 | Carbon Resistor           | 150.0K 1/4 J |         |     | 01   |
| R165    | V4996300 | Wire Wound Resistor       | 68.0 5W K    |         |     |      |
| R166    | V4996300 | Wire Wound Resistor       | 68.0 5W K    |         |     |      |
| R167    | V4566800 | Metal Oxide Film Resistor | 47 2W J      |         |     |      |
| R168    | HF454100 | Carbon Resistor           | 10.0 1/4 J   |         |     | 01   |
| R172    | HF457470 | Carbon Resistor           | 47.0K 1/4 J  |         |     | 01   |

\*: New Parts

RANK: Japan only



■ RK-88 RACK MOUNT KIT



| REF NO. | PART NO.        | DESCRIPTION                   |                | REMARKS   | QTY | RANK |
|---------|-----------------|-------------------------------|----------------|-----------|-----|------|
| 10      | <b>VB132700</b> | RACK MOUNT KIT                |                | RK-88     | 6   | 01   |
| 20      | --              | Bind Head Screw<br>Rack Angle | 4.0X12 MFZN2BL | (V840830) | 2   |      |

\*: New Parts

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