

# MSP Powered Monitor Speaker

## series MSP7 STUDIO

### SERVICE MANUAL



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ECO-PULP



このサービスマニュアルはエコパルプ  
エコパルプ (ECF: 無塩素系漂白パルプ) を使用しています。

PA 011845

200612-66150



HAMAMATSU, JAPAN

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## IMPORTANT NOTICE

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

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

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

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

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

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

## WARNING: 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 mains 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 mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:


The wire which is coloured GREEN and YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol  or colored GREEN or colored GREEN and YELLOW.

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

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

## ■ WARNING

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

 印の部品は、安全を維持するために重要な部品です。交換する場合は、安全のために必ず指定の部品をご使用ください。

## ■ SPECIFICATIONS (総合仕様)

### General Specifications

Type .....	Biamp 2-way Powered Speaker
Crossover Frequency .....	2.5 kHz
	LF: 30 dB/oct, HF: 30 dB/oct
Overall Frequency Response .....	45 Hz - 40 kHz (-10 dB)
Maximum Output Level .....	106 dB, 1 m on Axis
Dimensions (W x H x D) .....	218 x 330 x 235 mm
	(8-9/16" x 13" x 9-1/4")
Weight .....	12.2 kg
Magnetic Shielding .....	Yes

### Speaker Section

Components LF .....	6.5" cone
HF .....	1.0" dome
Enclosure Type .....	Bass-Reflex
Material .....	PP

### Amplifier Section

Output Power* .....	LF: 80 W
	THD = 0.05 %, RL = 4 Ω
	HF: 50 W
	THD = 0.05 %, RL = 6 Ω
S/N, IHF-A filter .....	≥ 99 dB, LEVEL = Max.
Input Sensitivity	
XLR-3-31 .....	+4 dBu, LEVEL = Center
	-6 dBu, LEVEL = Max.
Input Connectors, Impedance	
	XLR-3-31 (balanced), 10 kΩ
Controls	
LEVEL control ....	31 Positions Detent type VR
	(Min. = -∞ Attenuation)
LOW CUT switch ....	FLAT / 80 Hz (12 dB/oct) /
	100 Hz (12 dB/oct)
HIGH TRIM .....	+1.5/0/-1.5 dB at 15 kHz
LOW TRIM .....	+1.5/0/-1.5/-3 dB at 45 Hz
POWER switch .....	ON/OFF
Indicators	
LED .....	Green: Power On
	Red: Clipping
Power Consumption .....	100 W

### AC Code

Length .....	2.5 m
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### Accessories

AC cord x 1, Non-skid pads x 2

\* These specifications apply to rated power supplies of 120, 230 and 240 V.

### 総合仕様

形式 .....	バイ・アンプ2ウェイパワード・スピーカー
クロスオーバー周波数 .....	2.5 kHz
	LF : 30 dB/oct、HF : 30 dB/oct
再生周波数帯域 .....	45 Hz~40 kHz (-10 dB)
最大出力音圧レベル .....	106 dB、1 m on Axis
最大外形寸法(W×H×D) .....	218 x 330 x 235 mm
質量 .....	12.2 kg
防磁型 .....	Yes

### スピーカー部

スピーカーユニット LF .....	16 cmコーン(防磁型)
HF .....	2.5 cmドーム(防磁型)
エンクロージャー 方式 .....	バスレフ型
材質 .....	PP

### アンプ部

定格最大出力* .....	LF : 80 W
	THD = 0.05 %、RL = 4 Ω
	HF : 50 W
	THD = 0.05 %、RL = 6 Ω
S/N、IHF-A filter .....	≥ 99 dB、LEVEL = Max.
入力感度	
XLR-3-31 ....	+4 dBu、LEVEL = Center
	-6 dBu、LEVEL = Max.
入力端子、インピーダンス ....	XLR-3-31 (balanced)、10 kΩ
コントロール	
レベルコントロール .....	31 Positions
	Detent type VR
	(Min. = -∞ Attenuation)
LOW CUT スイッチ .....	FLAT /
	80 Hz (12 dB/oct) /
	100 Hz (12 dB/oct)
HIGH TRIM .....	+1.5/0/-1.5 dB
	at 15 kHz
LOW TRIM .....	+1.5/0/-1.5/-3 dB
	at 45 Hz
POWER switch .....	ON/OFF
インジケーター	
LED .....	緑色 : Power On
	赤 : Clipping
消費電力 .....	100 W

### 電源コード

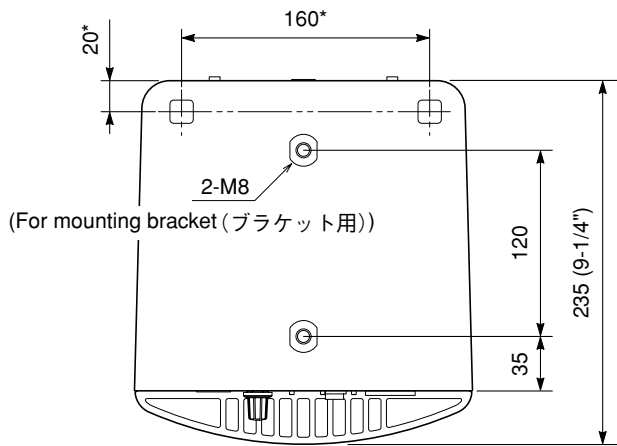
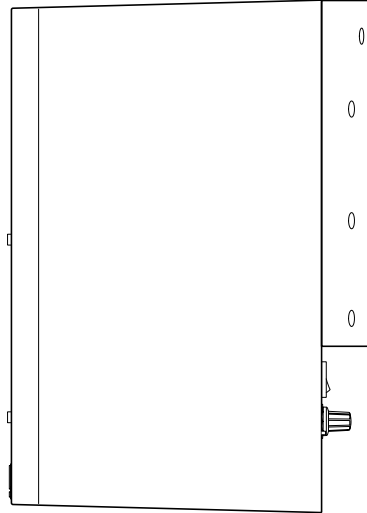
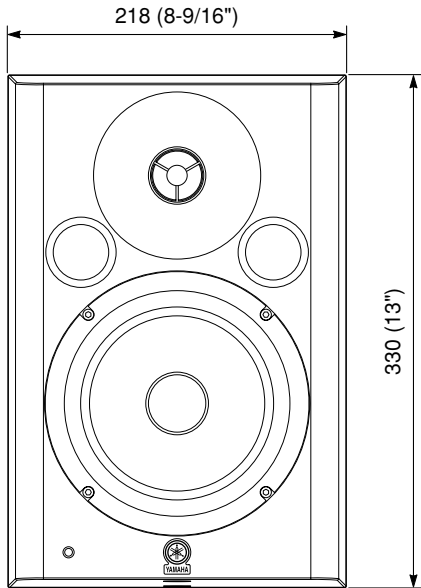
長さ .....	2.5 m
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### 付属品

電源コード、ゴム脚(2個)

\* これらの規格値は定格電圧100 V供給時に適用されます。

## ■ DIMENSIONS (寸法図)

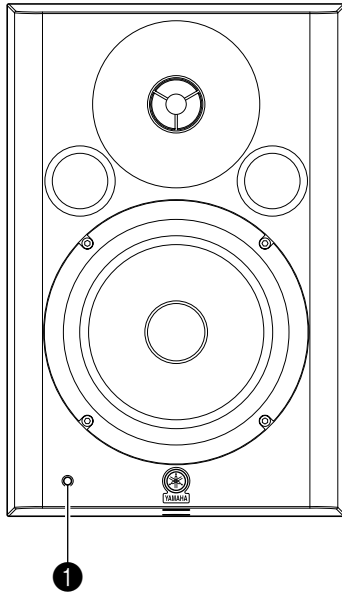


\* Non-skid pad positions. (ゴム脚貼付位置)

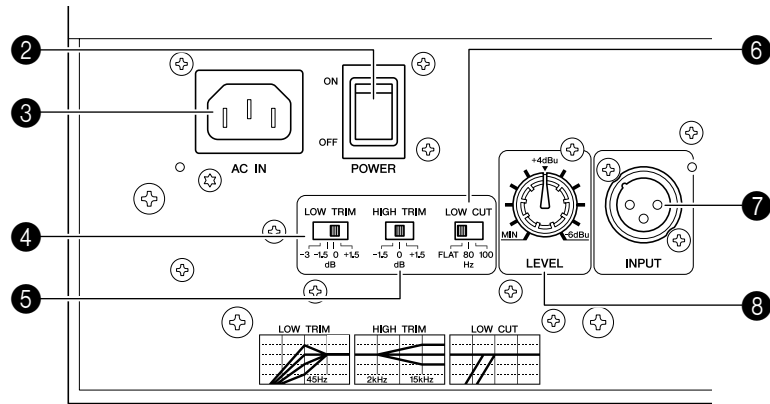
Unit: mm  
単位: mm

## ■ PANEL LAYOUT (パネルレイアウト)

### • Front Panel (フロントパネル)



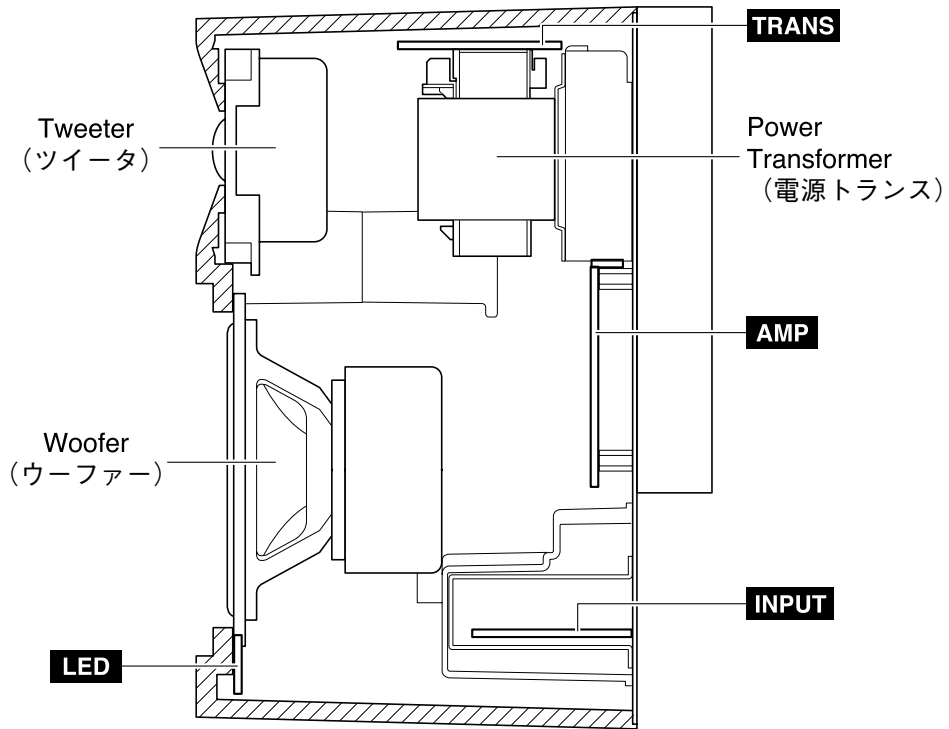
### • Rear Panel (リアパネル)



- ① POWER indicator
- ② POWER switch
- ③ AC IN connector
- ④ LOW TRIM switch
- ⑤ HIGH TRIM switch
- ⑥ LOW CUT switch
- ⑦ INPUT connector
- ⑧ LEVEL control

- ① POWERインジケータ
- ② POWERスイッチ
- ③ AC IN端子
- ④ LOW TRIMスイッチ
- ⑤ HIGH TRIMスイッチ
- ⑥ LOW CUTスイッチ
- ⑦ INPUT端子
- ⑧ LEVELコントロール

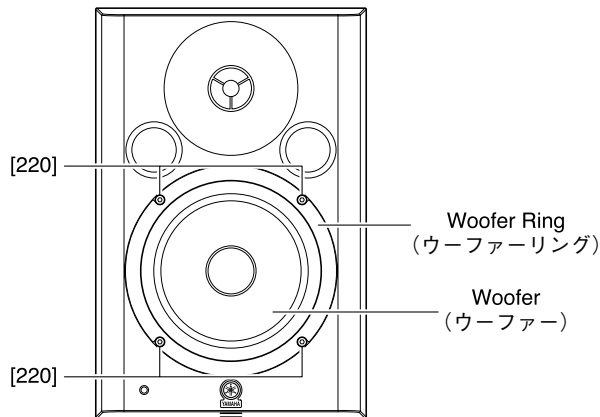
## ■ CIRCUIT BOARD LAYOUT (ユニットレイアウト)



## ■ DISASSEMBLY PROCEDURE (分解手順)

### 1. Woofer (Time required: About 1 minute)

- 1-1 Remove the four (4) hexagonal socket screws marked [220]. The woofer and woofer ring can then be removed. (Fig. 1)



[220]: Hexagonal Socket Tapping Screw-P 4x20 (WG341100) 六角穴付Pタイト

Fig. 1 (図 1)

### 1. ウーファー (所要時間：約1分)

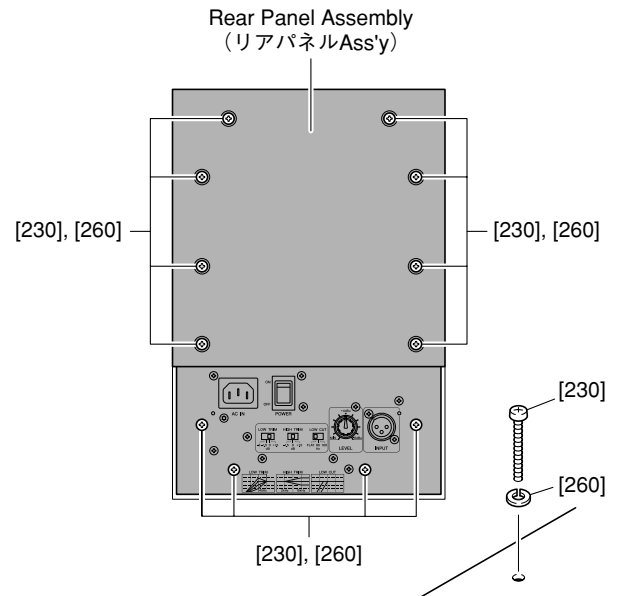
- 1-1 [220]の六角穴付ネジ4本を外し、ウーファーとウーファーリングを外します。(図 1)

### 2. Rear panel Assembly (Time required: About 2 minutes)

- 2-1 Remove the twelve (12) screws marked [230] and twelve (12) spring washers marked [260]. The rear panel assembly can then be removed. (Fig. 2)

### 2. リアパネルAss'y (所要時間：約2分)

- 2-1 [230]のネジ12本と[260]のスプリングワッシャー12個を外し、リアパネルAss'yを外します。(図 2)



[230]: Bind Head Tapping Screw-P 5x25 (WJ286300) + バインドPタイト

[260]: Spring Washer M5xM8.9x1.0 (WJ478800) スプリングワッシャー

Fig. 2 (図 2)

### 3. Tweeter (Time required: About 3 minutes)

- 3-1 Remove the rear panel assembly. (See procedure 2)  
3-2 Remove the four (4) screws marked [A]. The tweeter can then be removed. (Fig. 3)

### 3. ツィータ (所要時間：約3分)

- 3-1 リアパネルAss'yを外します。(2項参照)  
3-2 [A]のネジ4本を外し、ツィータを外します。(図 3)

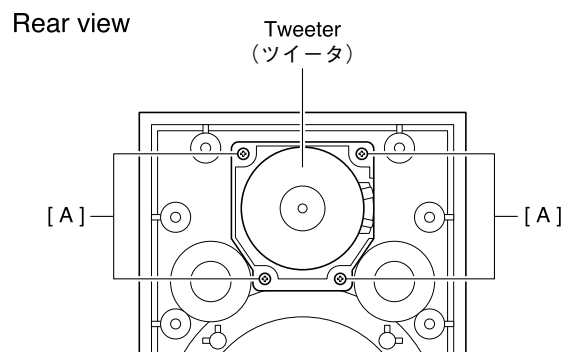


Fig. 3 (図 3)

#### 4. Power Transformer, TRANS Circuit Board (Time required: About 3 minutes)

- 4-1 Remove the rear panel assembly. (See procedure 2)  
 4-2 Remove the three (3) screws marked [B] and screw marked [C]. The power transformer with TRANS circuit board can then be removed. (Fig. 4)  
 4-3 Unsolder the power transformer mounting solder (9 locations) and separate the power transformer from the TRANS circuit board.

\* The power transformer is not a component of the TRANS circuit board.

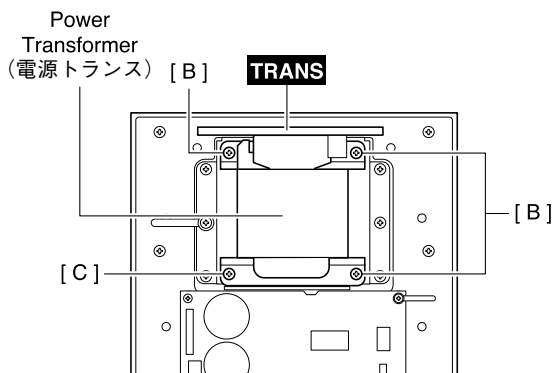


Fig. 4(図4)

#### 4. 電源トランス、TRANSシート (所要時間：約3分)

- 4-1 リアパネルAss'yを外します。(2項参照)  
 4-2 [B]のネジ3本、[C]のネジを外し、電源トランスとTRANSシートを外します。(図4)  
 4-3 電源トランス取付部分のハンダ(9ヶ所)を外して、電源トランスとTRANSシートを分離します。  
 ※ 電源トランスはTRANSシートの構成部品ではありません。

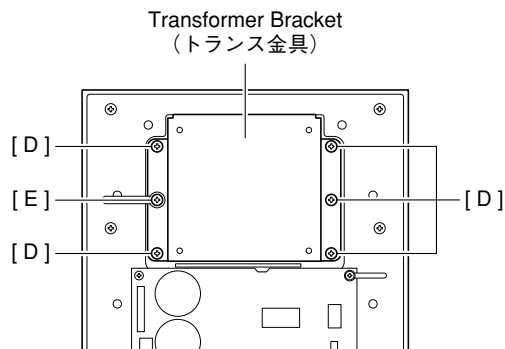


Fig. 5(図5)

#### 5 AMP Circuit Board, INPUT Circuit Board (Time required: About 5 minutes each)

- 5-1 Remove the rear panel assembly. (See procedure 2)  
 5-2 Remove the three (3) screws marked [B] and screw marked [C]. The power transformer can then be removed. (Fig. 4)  
 5-3 Remove the five (5) screws marked [D] and screw marked [E]. The transformer bracket can then be removed. (Fig. 5)

##### 5-4 AMP Circuit Board:

- 5-4-1 Remove the two (2) screws marked [F] and the four (4) screws marked [G]. The AMP circuit board can then be removed. (Fig. 6)

#### 5 AMPシート、INPUTシート (所要時間：各約5分)

- 5-1 リアパネルAss'yを外します。(2項参照)  
 5-2 [B]のネジ3本と[C]のネジを外し、電源トランスを外します。(図4)  
 5-3 [D]のネジ5本と[E]のネジを外し、トランス金具を外します。(図5)

##### 5-4 AMPシート：

- 5-4-1 [F]のネジ2本と[G]のネジ4本を外し、AMPシートを外します。(図6)

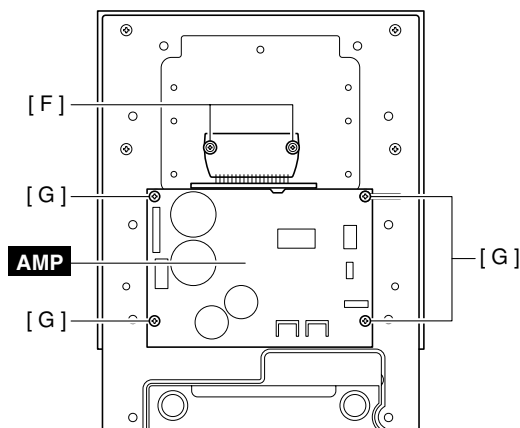
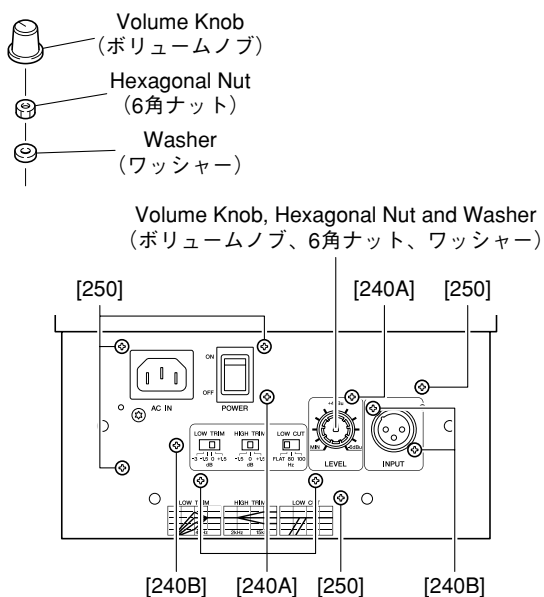


Fig. 6(図6)



### 5-5 INPUT Circuit Board:

- 5-5-1 Remove the volume knob, hexagonal nut and washer. (Fig. 7)
- 5-5-2 Remove the five (5) screws marked [250]. The mold case can then be removed. (Fig. 7)
- 5-5-3 Remove the four (4) screws marked [240A]. The shield bracket can then be removed. (Fig. 7)
- 5-5-4 Remove the three (3) screws marked [240B]. The INPUT circuit board can then be removed. (Fig. 7)



- [240A/B]: Bonding Tapping Screw-B 3x8 (WJ286400) + ボンディングBタイト
- [250]: Bind Head Tapping Screw-B 3x12 (WJ286600) + バインドBタイト

Fig. 7(図 7)

### 5-5 INPUTシート:

- 5-5-1 ボリュームノブ、六角ナット、ワッシャーを外します。(図 7)
- 5-5-2 [250]のネジ5本を外し、モールドケースを外します。(図 7、8)
- 5-5-3 [240A]のネジ4本を外し、シールドブラケットを外します。(図 7、9)
- 5-5-4 [240B]のネジ3本を外し、INPUTシートを外します。(図 7、9)

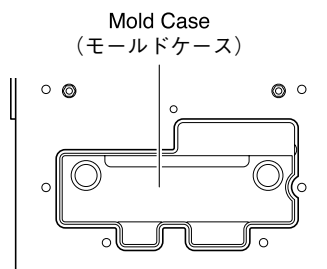


Fig. 8(図 8)

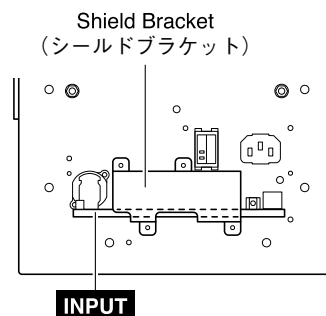


Fig. 9(図 9)

## 6. LED Circuit Board

### (Time required: About 2 minutes each)

- 6-1 Remove the rear panel assembly. (See procedure 2)
- 6-2 Remove the two (2) screws marked [H]. The LED circuit board can then be removed. (Fig. 10)

## 6. LEDシート(所要時間:約2分)

- 6-1 リアパネルAss'yを外します。(2項参照)
- 6-2 [H]のネジ2本を外し、LEDシートを外します。(図 10)

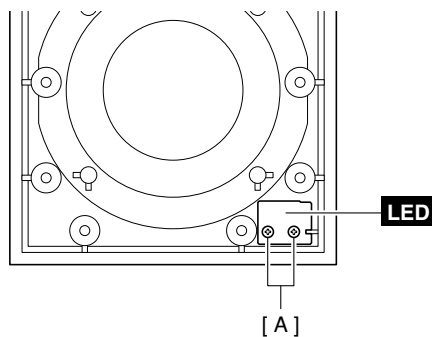


Fig. 10(図 10)

**7. Heat Sink (Time required: About 6 minutes)**

- 7-1 Remove the rear panel assembly. (See procedure 2)
  - 7-2 Remove the power transformer and the bracket trans. (See procedure 5-2, 5-3)
  - 7-3 Remove the AMP circuit board. (See procedure 5-4)
  - 7-4 Remove the eight (8) screws marked [I] and screw marked [J]. The heat sink can then be removed. (Fig. 11)
- \* Pull the heat sink lightly away from the rear panel to remove it.

**7. ヒートシンク(所要時間：約6分)**

- 7-1 リアパネルAss'yを外します。(2項参照)
  - 7-2 電源トランスとトランス金具を外します。(5-2、5-3項参照)
  - 7-3 AMPシートを外します。(5-4項参照)
  - 7-4 [I]のネジ8本と[J]のネジを外し、ヒートシンクを外します。(図11)
- ※ 軽く力を加えれば、容易にヒートシンクを外すことができます。

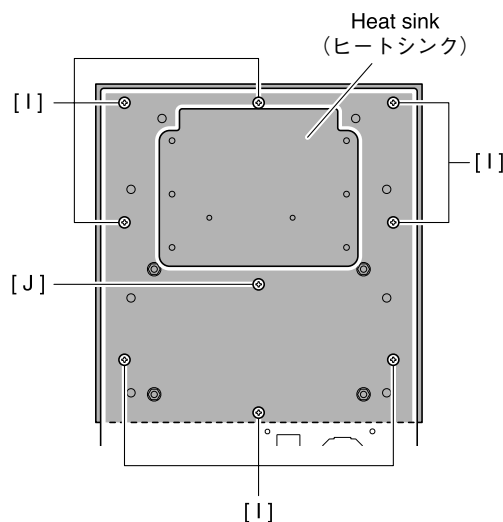


Fig. 11 (図 11)

**8. Power Switch (Time required: About 2 minutes)**

- 8-1 Remove the rear panel assembly. (See procedure 2)
- 8-2 Remove the INPUT circuit board. (See procedure 5-5)
- 8-3 Press the claw to remove the power switch. (Fig. 12)

**8. POWERスイッチ(所要時間：約2分)**

- 8-1 リアパネルAss'yを外します。(2項参照)
- 8-2 INPUTシートを外します。(5-5項参照)
- 8-3 ツメを押さえながらPOWERスイッチを外します。(図12)

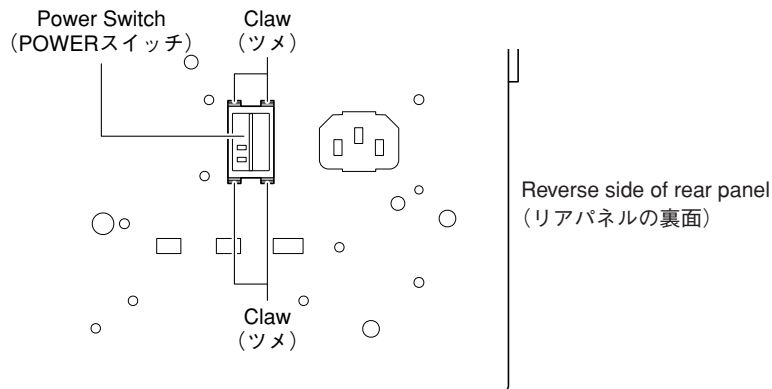


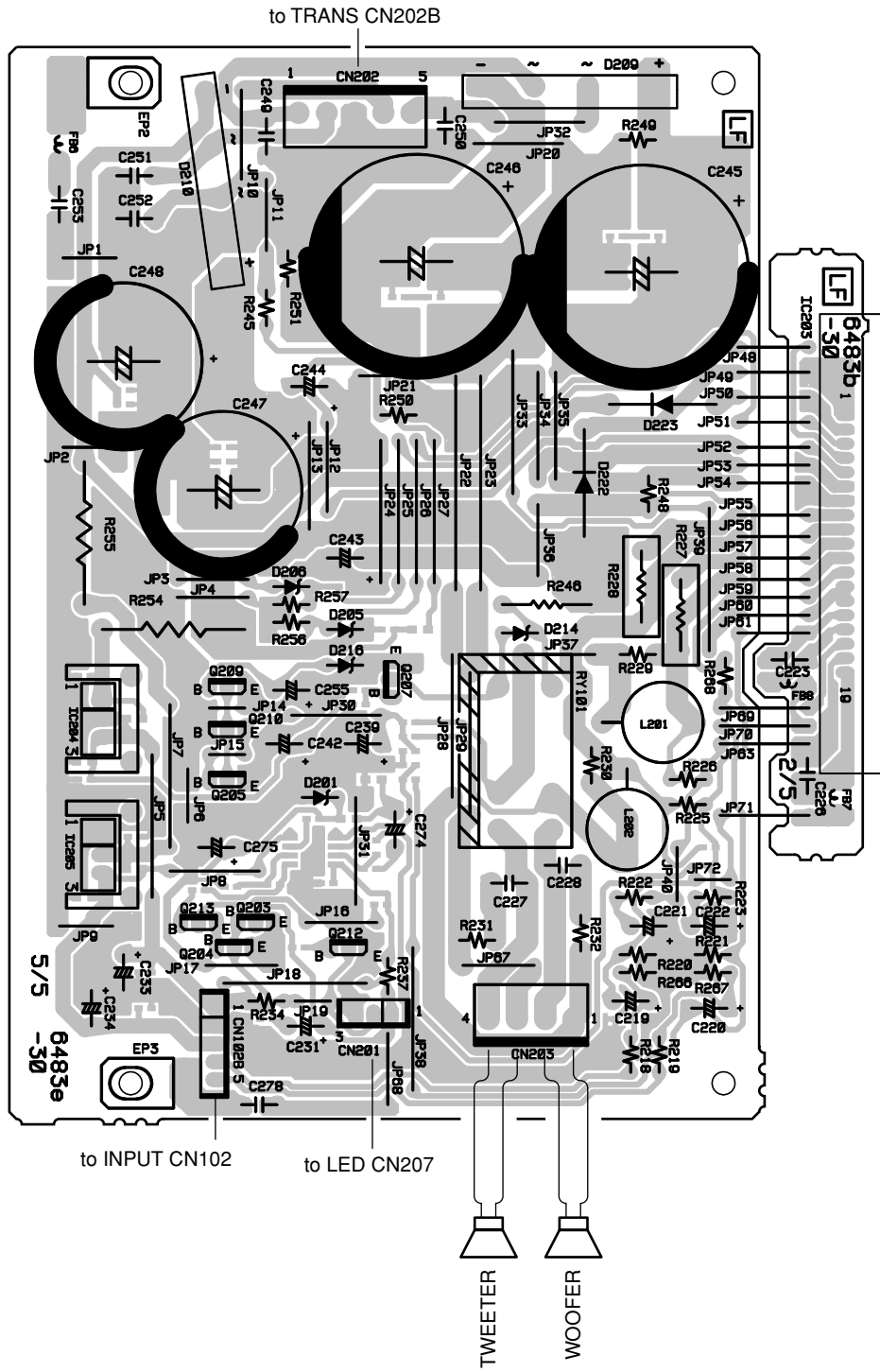
Fig. 12 (図 12)

## ■ CIRCUIT BOARDS (シート基板図)

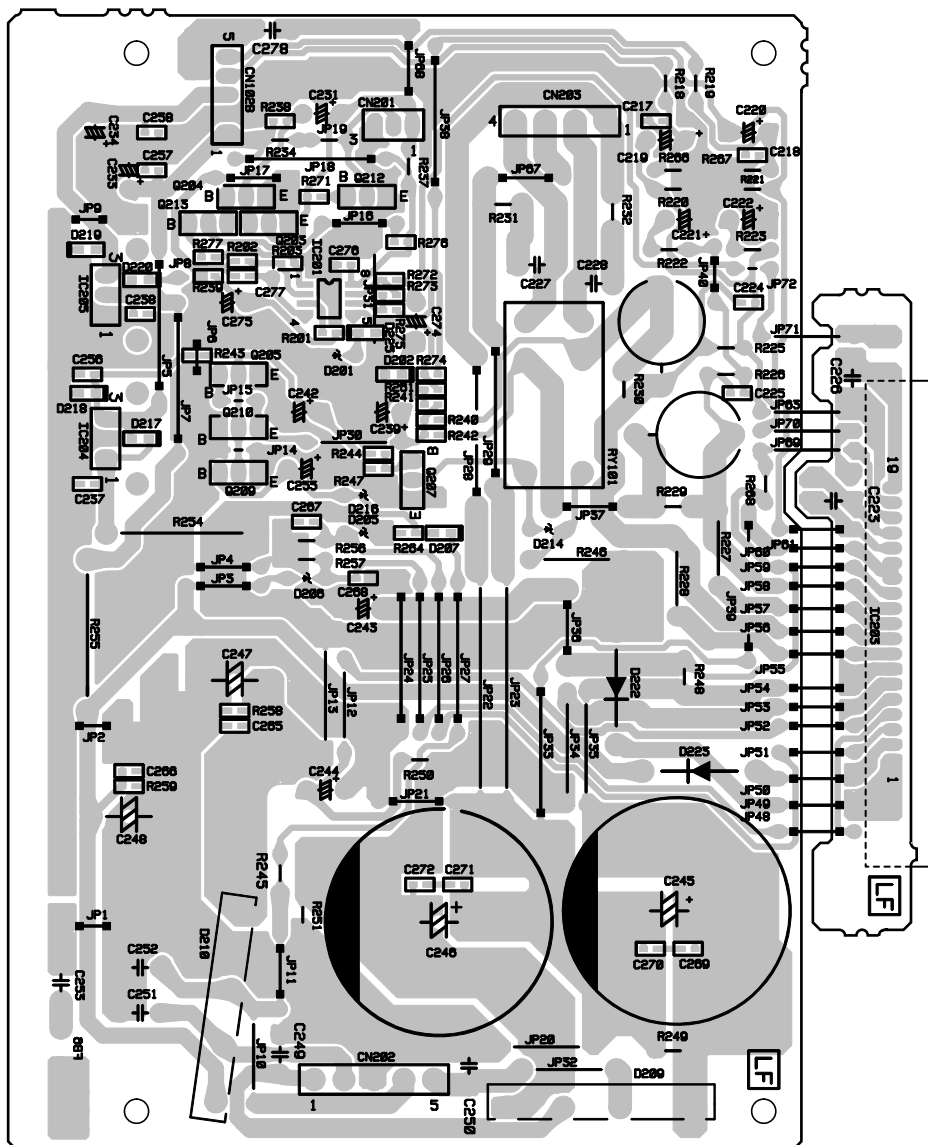
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• AMP Circuit Board

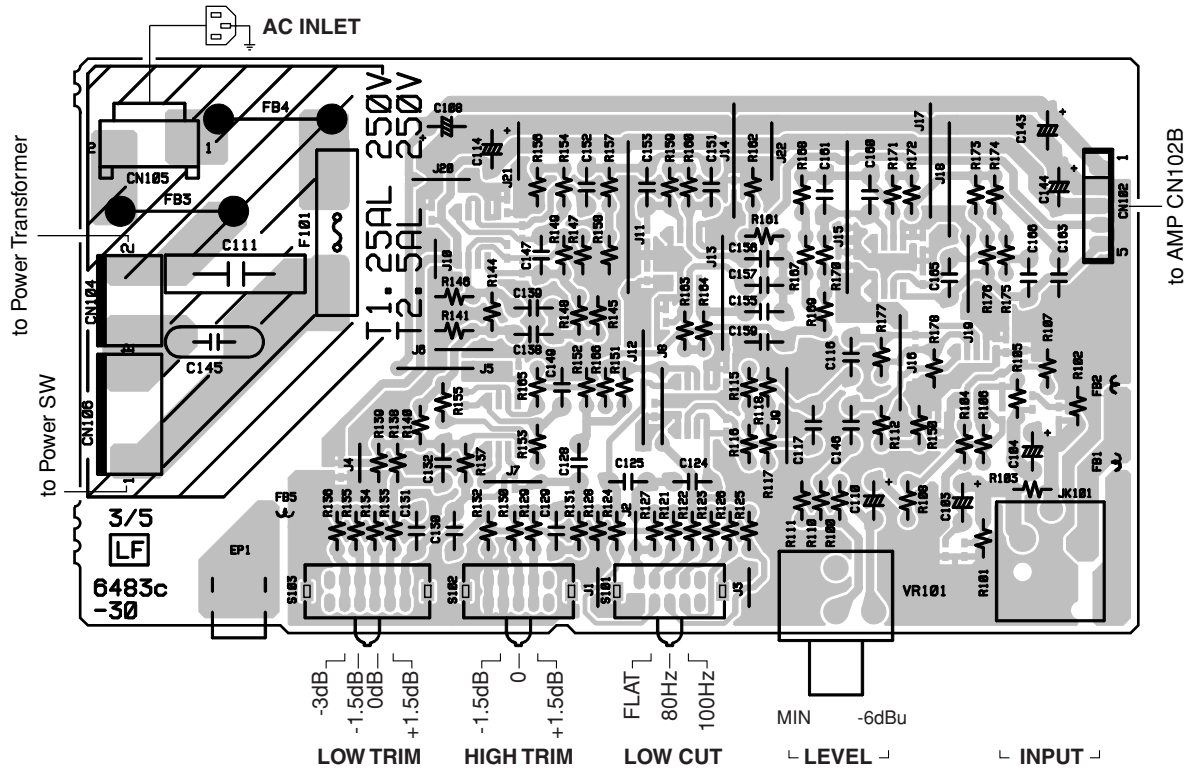


- AMP Circuit Board

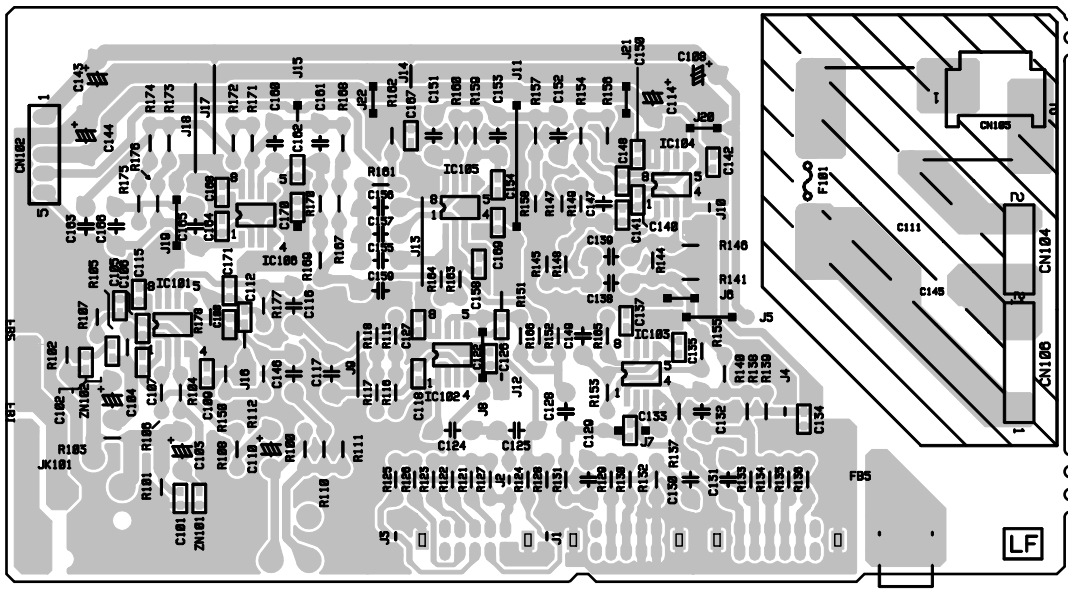


Pattern side (パターン側)

• INPUT Circuit Board

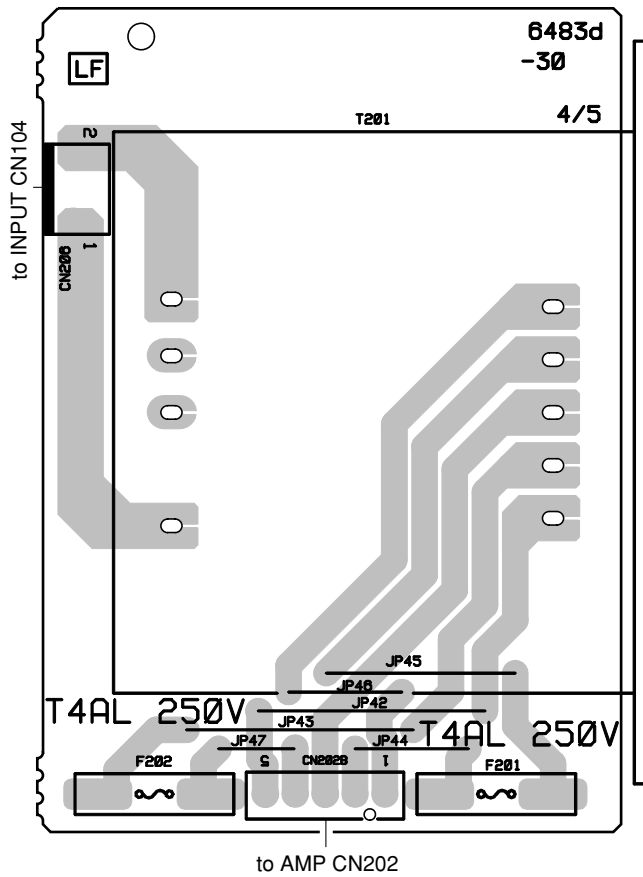


Component side (部品側)

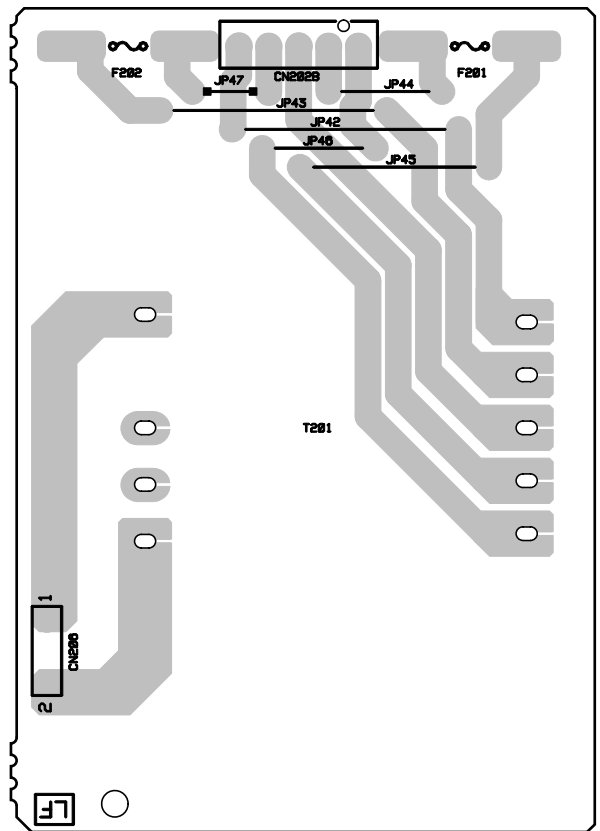


Pattern side (パターン側)

• TRANS Circuit Board

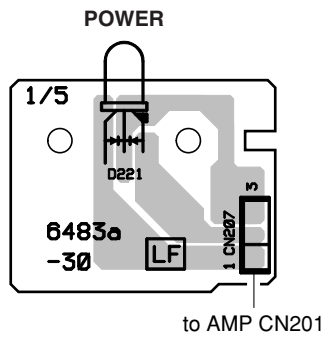


Component side (部品側)

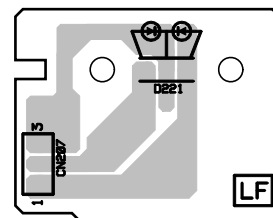


Pattern side (パターン側)

• LED Circuit Board



Component side (部品側)



Pattern side (パターン側)

## ■ INSPECTIONS (検査)

Measuring Voltage [測定電圧]

AC100 V, 50/60 Hz (J)  
 AC120 V, 60 Hz (U, C, T)  
 AC240 V, 50 Hz (A)  
 AC230 V, 50 Hz (B)  
 AC230 V, 50 Hz (H)  
 AC230 V, 60 Hz (K)  
 AC230 V, 50 Hz (O)

Load [負荷]

LF 4 Ω  
 HF 6 Ω

LEVEL VR [レベル VR]

MAX.

Tone-control SW [トーンコントロール SW]

HIGH TRIM, LOW TRIM: 0 position, LOW CUT: FLAT

### 1. Electric performance (電気性能)

No.	ITEM (項目)	INPUT CONDITIONS (入力条件)	OUTPUT CONDITIONS (出力条件)	LIMIT (限界値)		
1	Output Power (定格出力)	INPUT 400 Hz	LF: 80 W (27.3 dBu) OUTPUT	< 0.05 %		
		INPUT 5 KHz	HF: 50 W (27.0 dBu) OUTPUT DIN AUDIO Filter	< 0.05 %		
2	GAIN (利得)	INPUT -6 dBu 1 KHz	LF SP-OUT	27.3 dBu ± 2 dB		
3	Frequency Response (周波数特性)	INPUT HIGH TRIM: 0 LOW TRIM: 0	20 Hz	REF: LF OUTPUT 1 KHz 1 W	LF SP-OUT	-21.0 ± 3 dB
			60 Hz	REF: LF OUTPUT 1 KHz 1 W	LF SP-OUT	+6 ± 2 dB
			400 Hz	REF: LF OUTPUT 1 KHz 1 W	LF SP-OUT	+2.5 ± 2 dB
			2 KHz	REF: LF OUTPUT 1 KHz 1 W	LF SP-OUT	+3 ± 2 dB
				HF SP-OUT	-12.5 ± 3 dB	
			4 KHz	REF: LF OUTPUT 1 KHz 1 W	LF SP-OUT	-23 ± 3 dB
HF SP-OUT	-2 ± 2 dB					
4	Tone-control Characteristic (トーンコントロール特性)	LOW = -3 REF: 60 Hz	REF: LF OUTPUT LOW TRIM: 0	-3 ± 1.5 dB		
				LOW = -1.5 REF: 60 Hz	-1.5 ± 1 dB	
				LOW = +1.5 REF: 60 Hz	+1.5 ± 1 dB	
				HIGH = -1.5 REF: 15 KHz	REF: HF OUTPUT HIGH TRIM: 0	-1.5 ± 1 dB
					HIGH = +1.5 REF: 15 KHz	+1.5 ± 1 dB
				LOW CUT= 80 Hz REF: 80 Hz	REF: LF OUTPUT LOW CUT: FLAT	-3 ± 2 dB
						LOW CUT = 100 Hz REF: 100 Hz
				5	Noise Level Residual Noise (残留雑音)	LEVEL VR = MIN. HIGH TRIM: 0 LOW TRIM: 0
HF SP-OUT DIN AUDIO Filter	< -60 dBu					
6	MAX. Noise	LEVEL VR = MAX. HIGH TRIM: 0 LOW TRIM: 0	LF SP-OUT DIN AUDIO Filter	< -60 dBu		
			HF SP-OUT DIN AUDIO Filter	< -60 dBu		
7	DC Voltage	No Signal	HF SP-OUT	< ±50 mV		
			LF SP-OUT			

(NOTE): 0 dBu = 0.775 V



## 2. Muting operation (Muting動作)

Turn ON or OFF the power switch and check the relay operation time and the pop noise obtained at SP terminal is within the range specified in the following table.

パワースイッチをON/OFFにした時のリレーの動作時間と、SP端子間に現れるポップノイズはLF、HF共に下表の範囲であることを確認します。

INPUT	POWER SWITCH	Relay operation time (リレー動作時間)	Noise output voltage(ノイズ出力電圧)
			LF, HF SP-OUT
Non-signal (無信号)	OFF → ON	2.0 ± 1.5 sec	≤ 0.1 Vp-p
	ON → OFF	1.0 +1.5/-1.0 sec	≤ 0.1 Vp-p

## 3. Protection circuit operation (保護回路動作)

3-1 Input DC +3 V to the base terminal of Q205 through the 2.2 kΩ resistance and check the relay turns off at once.

3-1 Q205のベースに2.2 kΩを介してDC +3 Vを印加した時リレーが即刻OFFになることを確認します。

3-2 Input DC -3 V to the base terminal of Q210 through the 2.2 kΩ resistance and check the relay turns off at once.

3-2 Q210のベースに2.2 kΩを介してDC -3 Vを印加した時リレーが即刻OFFになることを確認します。

## 4. Clipping level indication (クリップレベル表示)

Input the 100 Hz signal to the input terminal and check the color of the power indicator is changed from green to red when the output level obtained at LF-SP OUT is 31 dBu.

100 Hzを入力し、LF-SP OUTの出力レベルが31 dBuとなるようにしたとき、LEDが緑から赤色に変化することを確認します。

## 5. Stability (安定度)

5-1 Vary the power supply voltage ±10 % and check the oscillation or the like does not occur.

5-1 電源電圧を±10%変化させたとき、発振等を生じないことを確認します。

5-2 Connect the following capacitors to the output terminal and check the oscillation or the like does not occur.

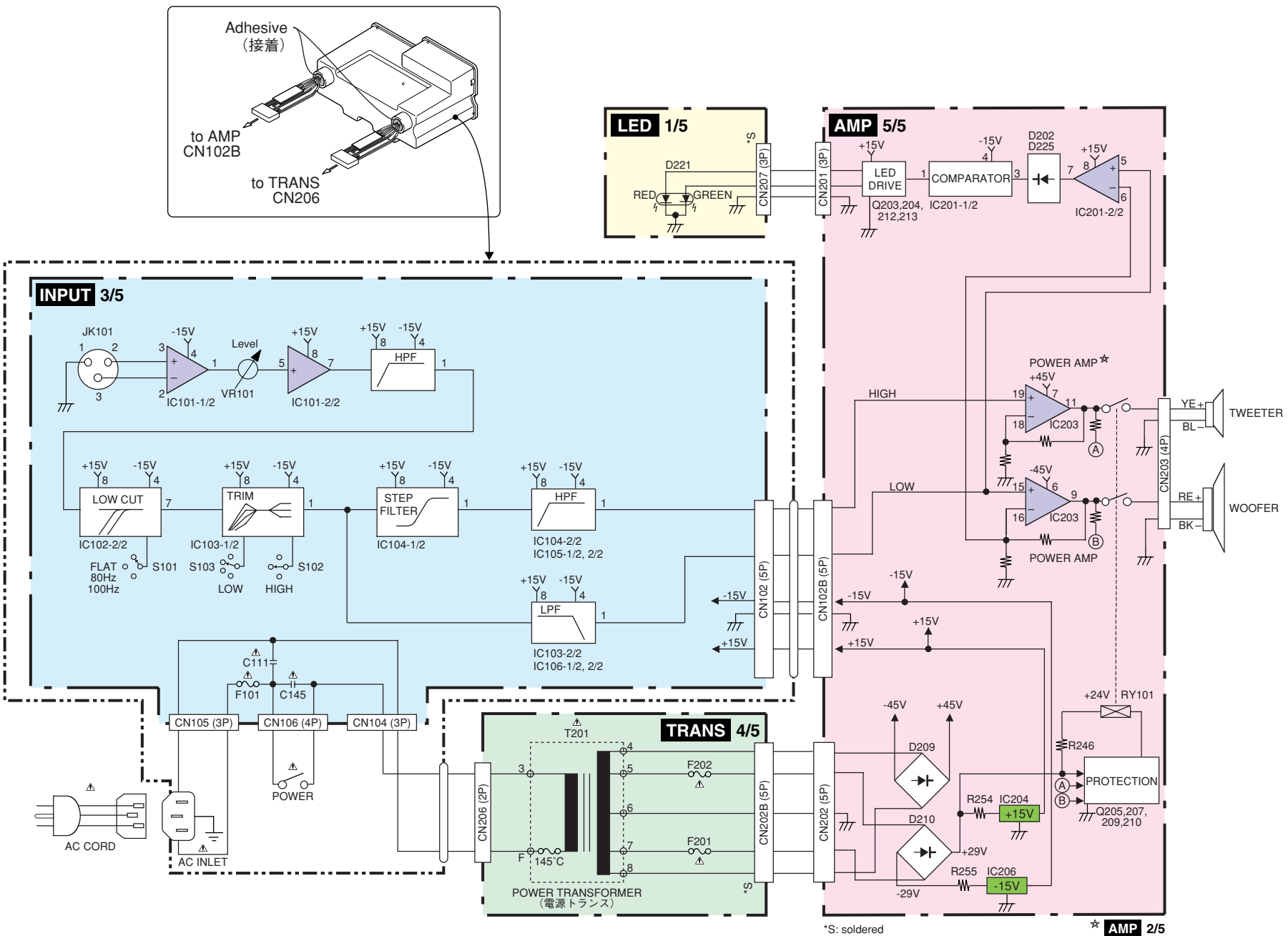
5-2 スピーカー端子に下記容量負荷を接続し、発振等を生じないことを確認します。

	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Capacity 容量	47 p	100 p	330 p	470 p	1000 p	3300 p	4700 p	0.01 μ	0.033 μ	0.047 μ

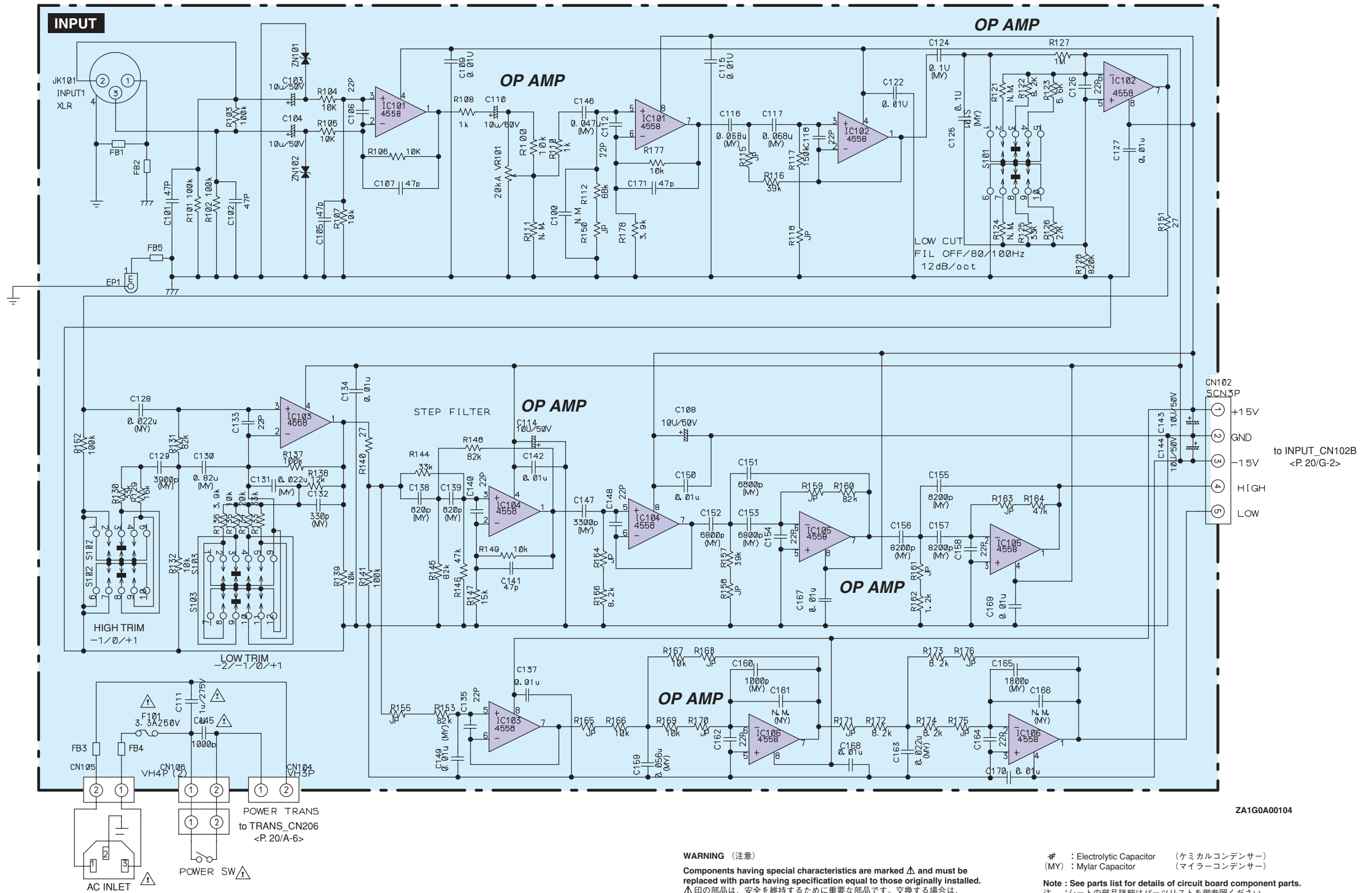
## 6. Factory Settings (出荷時の設定)

POWER : OFF  
 LOW TRIM : 0  
 HIGH TRIM : 0  
 LOW CUT : FLAT  
 LEVEL control : MIN.

# BLOCK DIAGRAM (ブロックダイアグラム)



■ CIRCUIT DIAGRAM 1/2 (INPUT 1/2)



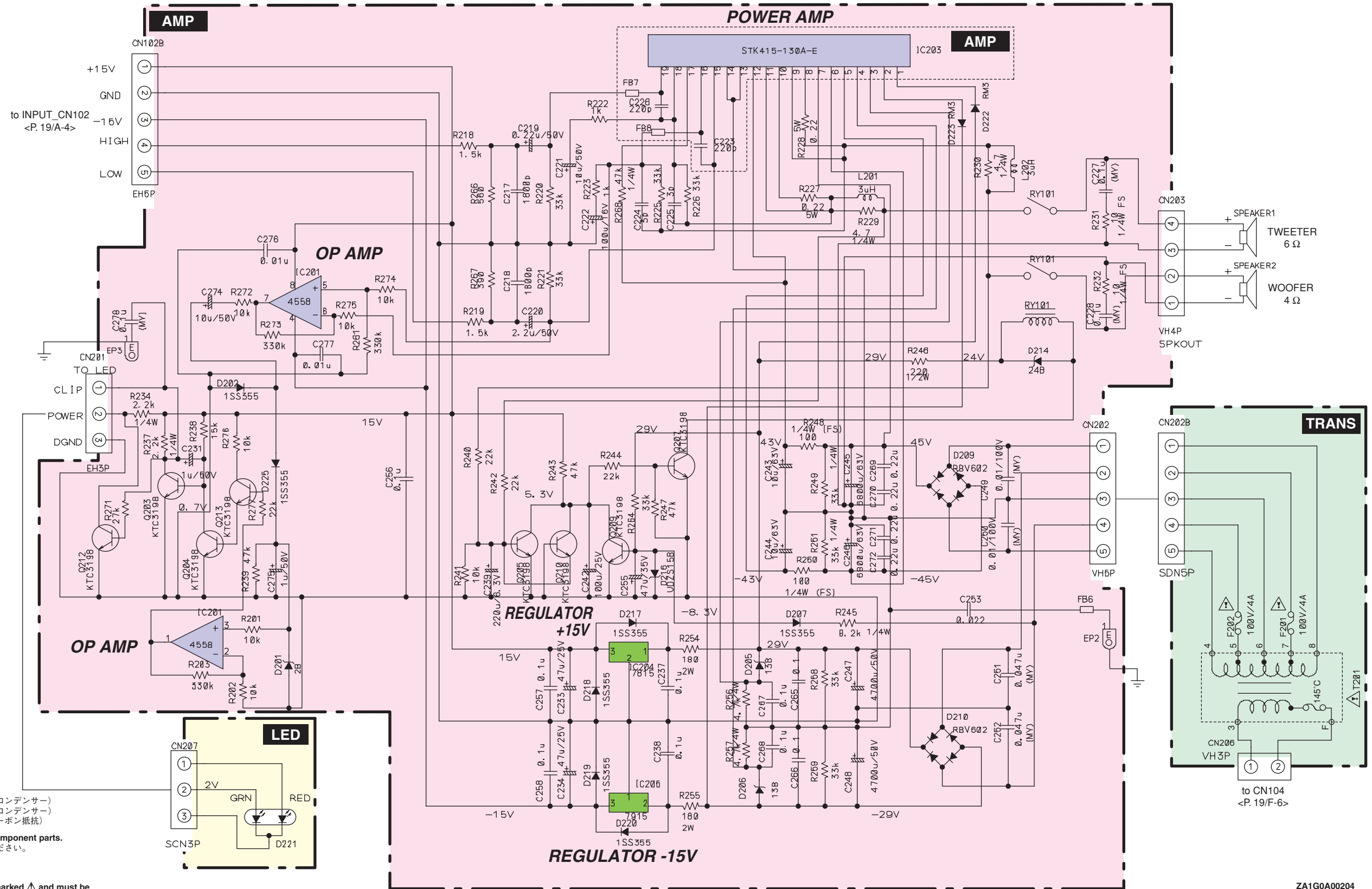
WARNING (注意)

Components having special characteristics are marked  $\Delta$  and must be replaced with parts having specification equal to those originally installed.  $\Delta$ 印の部品は、安全を維持するために重要な部品です。交換する場合は、安全のために必ず指定の部品をご使用ください。

# : Electrolytic Capacitor (ケミカルコンデンサー)  
(MY) : Mylar Capacitor (マイラーコンデンサー)

Note : See parts list for details of circuit board component parts.  
注 : シートの部品詳細はパーツリストを御参照ください。

1 ■ CIRCUIT DIAGRAM 2/2 (INPUT 2/2)



# : Electrolytic Capacitor (ケミカルコンデンサー)  
 (MY) : Mylar Capacitor (マイラーコンデンサー)  
 (FS) : Flame Proof Carbon Resistor (不燃化カーボン抵抗)

Note : See parts list for details of circuit board component parts.  
 注 : シートの部品詳細はパーツリストを御参照ください。

WARNING (注意)

Components having special characteristics are marked  $\Delta$  and must be replaced with parts having specification equal to those originally installed.  
 $\Delta$ 印の部品は、安全を維持するために重要な部品です。交換する場合は、安全のために必ず指定の部品をご使用ください。

ZA1G0A00204

# Powered Monitor Speaker

# MSP7 STUDIO

# PARTS LIST

## ■ CONTENTS (目次)

OVERALL ASSEMBLY (総組立) .....	2
ELECTRICAL PARTS (電気部品) .....	4

## Notes: 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
K : Korean model	

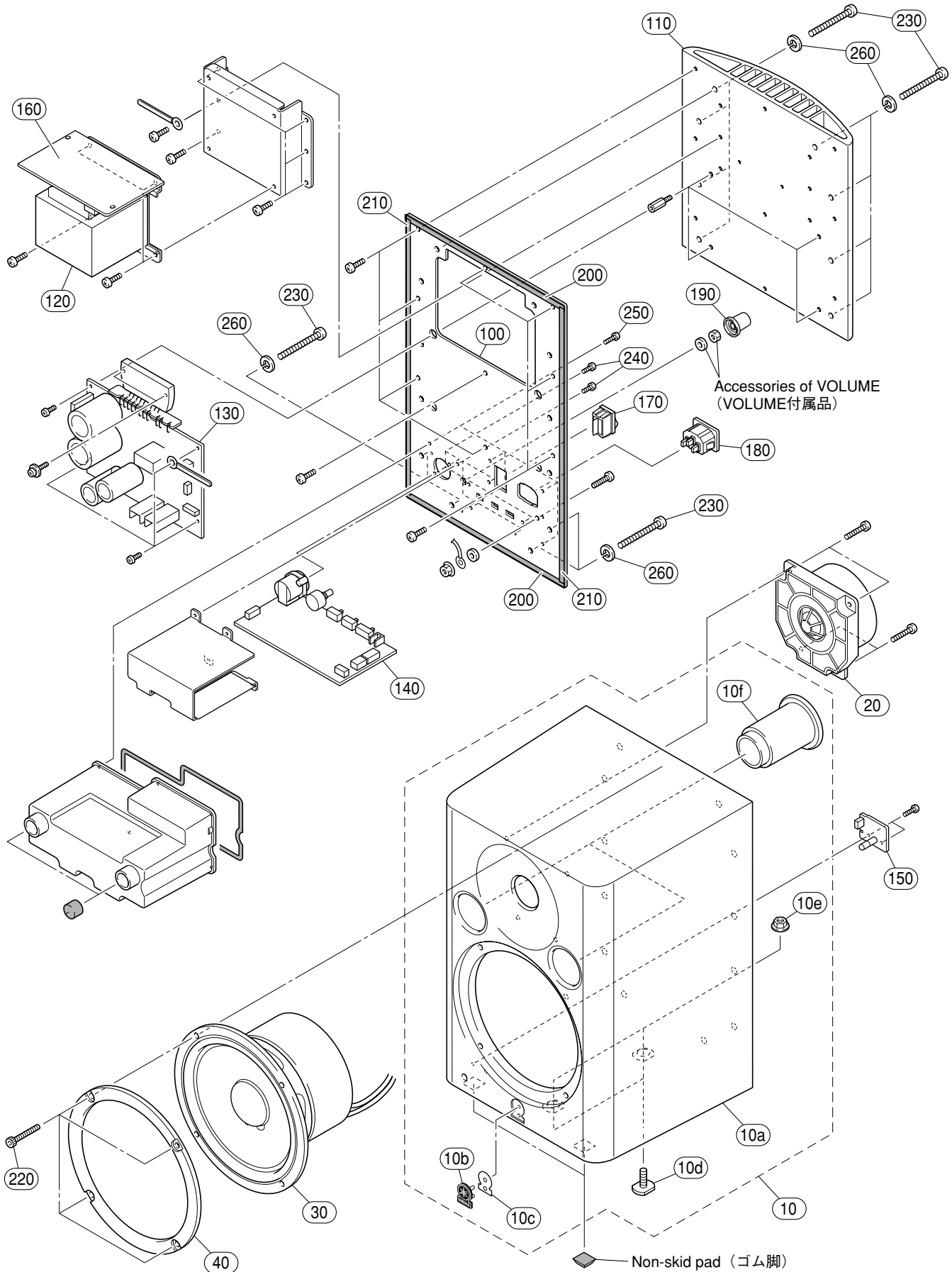
## ■ WARNING (注意)

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

$\triangle$  印の部品は、安全を維持するために重要な部品です。交換する場合は、安全のために必ず指定の部品をご使用ください。

- The numbers "QTY" show quantities for each unit.
- The parts with "--" in "PART NO." are not available as spare parts.
- This mark "}" in the REMARKS column means these parts are interchangeable.
- The second letter of the shaded (■) part number is O, not zero.
- The second letter of the shaded (■) part number is I, not one.
- 部品価格ランクは、変更になることがあります。
- QTY 欄に記されている数字は、各ユニット当たりの使用個数です。
- PART NO. が "--" の部分は、サービス用部品として準備されておりません。
- REMARKS 欄の「}」マークの部品は、併用部品です。
- 網掛けの付いた PART NO. の 2 番目の文字は「ゼロ」ではなく、「オー」です。
- 網掛けの付いた PART NO. の 2 番目の文字は「イチ」ではなく、「アイ」です。

# OVERALL ASSEMBLY (総組立)



REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY	RANK
		OVERALL ASSEMBLY	総組立	MSP7 STUDIO		
		Overall Assembly	総組立	J		
		Overall Assembly	総組立	U		
		Overall Assembly	総組立	H		
		Overall Assembly	総組立	B		
		Overall Assembly	総組立	A		
		Overall Assembly	総組立	K		
		Overall Assembly	総組立	T		
		Overall Assembly	総組立	O		
* 10	WJ281100	Enclosure Assembly	エンクロージャ A s s y			
* 10a	WJ280200	Cabinet	キャビネット		439276	
* 10b	WJ279900	Badge	バッジ		447802	
* 10c	WJ281300	Tape Sheet	テープシート		446786	
* 10d	WJ286100	Bolt	ボルト		410784	2
* 10e	WJ285700	Nut	ナット	M12 CR3	410781	2
* 10f	WJ280300	Duct	ダクト		440787	2
* 20	X8357A00	Speaker	スピーカ	2.5cm 6ohms	TWEETER	450109
* 30	X8358A00	Speaker	スピーカ	16cm 4ohms	WOOFER	450132
* 40	WJ278800	Woofer Ring	ウーファリング		448361	
* 100	WJ276900	Rear Panel	リアパネル		449572	
* 110	WJ277000	Heat Sink	ヒートシンク	J	453156	
* 110	WJ277100	Heat Sink	ヒートシンク	U/C	453157	
* 110	WJ277300	Heat Sink	ヒートシンク	B,H	453159	
* 110	WJ277600	Heat Sink	ヒートシンク	A	453158	
* 110	WJ277500	Heat Sink	ヒートシンク	K	453164	
* 110	WJ277200	Heat Sink	ヒートシンク	TT	453163	
* 110	WJ277400	Heat Sink	ヒートシンク	CHN	453161	
* 120	WJ271400	Power Transformer	電源トランス	J	443275	
* 120	WJ271500	Power Transformer	電源トランス	U,C,T	443276	
* 120	WJ271700	Power Transformer	電源トランス	B,H,CHN,K	H,B,K,O	443278
* 120	WJ271800	Power Transformer	電源トランス	A	A	443277
* 130	WJ273400	Circuit Board	A M P シート	AMP (MAIN2/5,5/5)	(WJ27330,WJ27380)	
* 140	WJ273500	Circuit Board	I N P U T シート	INPUT (MAIN3/5)	J,U,T	(WJ27330)
* 140	WJ294700	Circuit Board	I N P U T シート	INPUT (MAIN3/5)	H,B,A,K,O	(WJ27380)
* 150	WJ294900	Circuit Board	L E D シート	LED (MAIN1/5)	(WJ27330,WJ27380)	
* 160	WJ294800	Circuit Board	T R A N S シート	TRANS (MAIN4/5)	(WJ27330,WJ27380)	
* 170	WJ272400	Power Switch	パワースイッチ	JW-M11RKK	POWER ON/OFF	058288
* 180	WJ279800	AC Inlet	A C インレット	SS-120-2.0A-4.0A		446341
* 190	WJ272300	Knob Volume	ボリュームノブ		LEVEL VOLUME	443611
* 200	WJ271100	Cushion	クッション	6x210x1		449530
* 210	WJ271200	Cushion	クッション	8x322x1		449532
* 220	WG341100	Hex.Socket Tapping Screw-P	六角穴付Pタイト	4x20 NI-BL	for WOOFER	433189
* 230	WJ286300	Bind Head Tapping Screw-P	十バインドPタイト	5x25 NI-BL	for REAR PANEL	422354
* 240	WJ286400	Bonding Tapping Screw-B	十ボンディングBタイト	3x8 NI-BL	for CIRCUIT BOARD	414198
* 250	WJ286600	Bind Head Tapping Screw-B	十バインドBタイト	3x12 NI-BL	for MOLD COVER	417372
* 260	WJ478800	Spring Washer	スプリングワッシャー	M5xM8.9x11.0	for REAR PANEL	421892
		ACCESSORIES	付 属 品	MSP7 STUDIO		
* 1	WG261700	AC Cord	電源コード	J	414427	08
* 1	WG261800	AC Cord	電源コード	U	369532	08
* 1	WG262000	AC Cord	電源コード	H,A,K	417976	08
* 1	WH221600	AC Cord	電源コード	B	417977	12
* 1	WH667300	AC Cord	電源コード	T	444018	
* 1	WG262200	AC Cord	電源コード	CHN	414426	12
* 1	WJ370800	Non-skid Pad	ゴム脚		443664	2

\*: New Parts

RANK: Japan only

# ELECTRICAL PARTS (電気部品)

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY	RANK
*		ELECTRICAL PARTS	電 気 部 品	MSP7 STUDIO		
*	WJ273400	Circuit Board	A M P シ ー ト	(WJ27330,WJ27380)		
*	WJ273500	Circuit Board	I N P U T シ ー ト	J,U,T (WJ27330)		
*	WJ294700	Circuit Board	I N P U T シ ー ト	H,B,A,K,O (WJ27380)		
*	WJ294900	Circuit Board	L E D シ ー ト	(WJ27330,WJ27380)		
*	WJ294800	Circuit Board	T R A N S シ ー ト	(WJ27330,WJ27380)		
* ⚠	WJ273400	Circuit Board	A M P シ ー ト	(WJ27330,WJ27380)		
* ⚠	IC203 X8345A00	IC	I C	POWER 443279		
*	WJ273500	Circuit Board	I N P U T シ ー ト	J,U,T (WJ27330)		
*	WJ294700	Circuit Board	I N P U T シ ー ト	H,B,A,K,O (WJ27380)		
* ⚠	F101 WJ272500	Fuse	ヒ ュ ー ズ	J,U,T 386499		
* ⚠	F101 WJ272600	Fuse	ヒ ュ ー ズ	H,B,A,K,O 044013		
*	JK101 WJ273000	XLR Connector	X L R コ ネ ク タ	INPUT 350274		
*	VR101 WJ270800	Rotary Variable Resistor	ロ ー タ リ ー V R	LEVEL VOLUME 443239		
*	WJ294900	Circuit Board	L E D シ ー ト	(WJ27330,WJ27380)		
*	WJ294800	Circuit Board	T R A N S シ ー ト	(WJ27330,WJ27380)		
* ⚠	F201 WJ272700	Fuse	ヒ ュ ー ズ	052551		
* ⚠	F202 WJ272700	Fuse	ヒ ュ ー ズ	052551		
*	X8357A00	Speaker	ス ビ ー カ	TWEETER 450109		
*	X8358A00	Speaker	ス ビ ー カ	WOOFER 450132		
* ⚠	WJ271400	Power Transformer	電 源 ト ラ ン ス	J 443275		
* ⚠	WJ271500	Power Transformer	電 源 ト ラ ン ス	U,T 443276		
* ⚠	WJ271700	Power Transformer	電 源 ト ラ ン ス	H,B,K,O 443278		
* ⚠	WJ271800	Power Transformer	電 源 ト ラ ン ス	A 443277		
* ⚠	WJ272400	Power Switch	パ ワ ー ス イ ッ チ	POWER ON/OFF 058288		
* ⚠	WG261700	AC Cord	電 源 コ ー ド	J 414427		08
* ⚠	WG261800	AC Cord	電 源 コ ー ド	U 369532		08
* ⚠	WG262000	AC Cord	電 源 コ ー ド	H,A,K 417976		08
* ⚠	WH221600	AC Cord	電 源 コ ー ド	B 417977		12
* ⚠	WH667300	AC Cord	電 源 コ ー ド	T 444018		
* ⚠	WG262200	AC Cord	電 源 コ ー ド	O 414426		12

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