

MSP Powered Monitor Speaker

series MSP5 STUDIO

SERVICE MANUAL



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このサービスマニュアルはエコバルブ
エコバルブ (ECF: 無塩素系漂白バルブ) を使用しています。

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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: 24 dB/oct, HF: 24 dB/oct
Overall Frequency Response	50 Hz - 40 kHz (-10 dB)
Maximum Output Level	101 dB, 1 m on Axis
Dimensions (W x H x D)	179 x 279 x 208 mm
	(7-1/2" x 11" x 8-3/16")
Weight	7.9 kg
Magnetic Shielding	Yes

Speaker section

Components LF	5" cone (Magnetic Shielding)
HF	1.0" dome (Magnetic Shielding)
Enclosure Type	Bass-reflex
Material	PP

Amplifier section

Output Power*	LF: 40 W
	THD = 0.02 %, RL = 4 Ω
	HF: 27 W
	THD = 0.02 %, RL = 6 Ω
S/N, IHF-A filter	≥ 94 dB, LEVEL = Max.
Input Sensitivity	
XLR-3-31	+4 dBu, LEVEL = Center
	-6 dBu, LEVEL = Max.
PHONE	-10 dBu, LEVEL = Center
	-20 dBu, LEVEL = Max.
Input Connectors, Impedance	
	XLR-3-31 (balanced), 10 kΩ
	PHONE (unbalanced), 10 kΩ
Controls	
LEVEL control	31 Positions Detent type VR
	(Min = -∞ Attenuation)
HIGH TRIM	+1.5/0/-1.5 dB at 15 kHz
LOW TRIM	+1.5/0/-1.5/-3 dB at 60 Hz
POWER switch	ON/OFF
Indicators	
LED	Green: Power On
	Red: Clipping
Power Consumption	60 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: 24 dB/oct、HF: 24 dB/oct
再生周波数帯域	50 Hz~40 kHz(-10 dB)
最大出力音圧レベル	101 dB、1 m on Axis
最大外形寸法(W×H×D)	179 x 279 x 208 mm
質量	7.9 kg
防磁型	Yes

スピーカー部

スピーカーユニット LF	12 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: 40 W
	THD = 0.02 %、RL = 4 Ω
	HF: 27 W
	THD = 0.02 %、RL = 6 Ω
S/N、IHF-A filter	≥ 94 dB、LEVEL = Max.
入力感度	
XLR-3-31	+4 dBu、LEVEL = Center
	-6 dBu、LEVEL = Max.
PHONE	-10 dBu、LEVEL = Center
	-20 dBu、LEVEL = Max.
入力端子、インピーダンス	
	XLR-3-31 (balanced)、10 kΩ
	PHONE (unbalanced)、10 kΩ
コントロール	
レベルコントロール	31 Positions
	Detent type VR
	(Min = -∞ Attenuation)
HIGH TRIM	+1.5/0/-1.5 dB
	at 15 kHz
LOW TRIM	+1.5/0/-1.5/-3 dB
	at 60 Hz
POWER switch	ON/OFF
インジケーター	
LED	緑色: Power On
	赤: Clipping
消費電力	60 W

電源コード

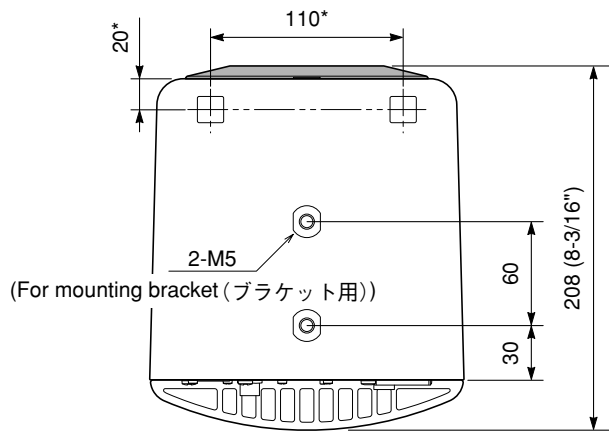
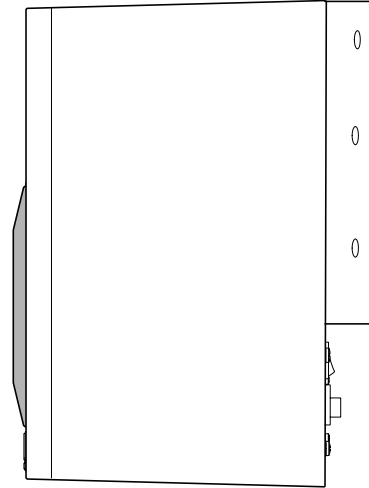
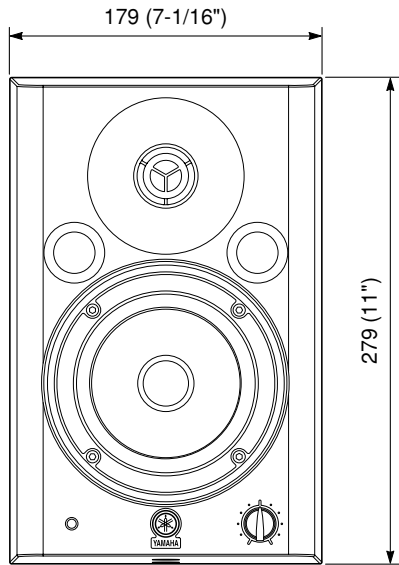
長さ	2.5 m
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付属品

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)

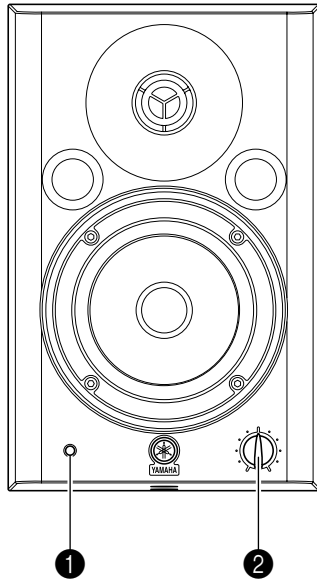


* Non-skid pad positions. (ゴム脚貼付位置)

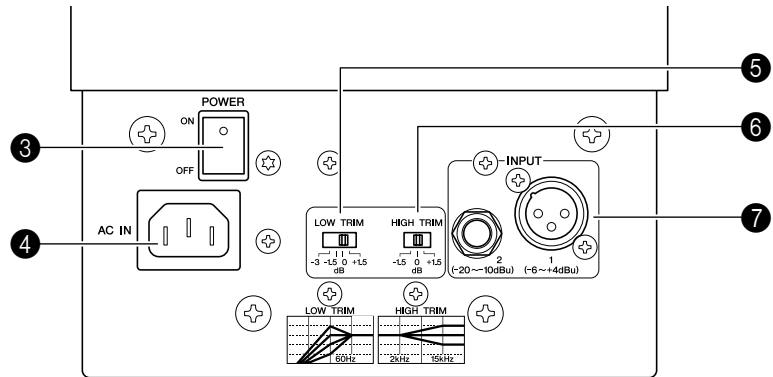
Unit: mm
単位: mm

■ PANEL LAYOUT (パネルレイアウト)

• Front Panel (フロントパネル)



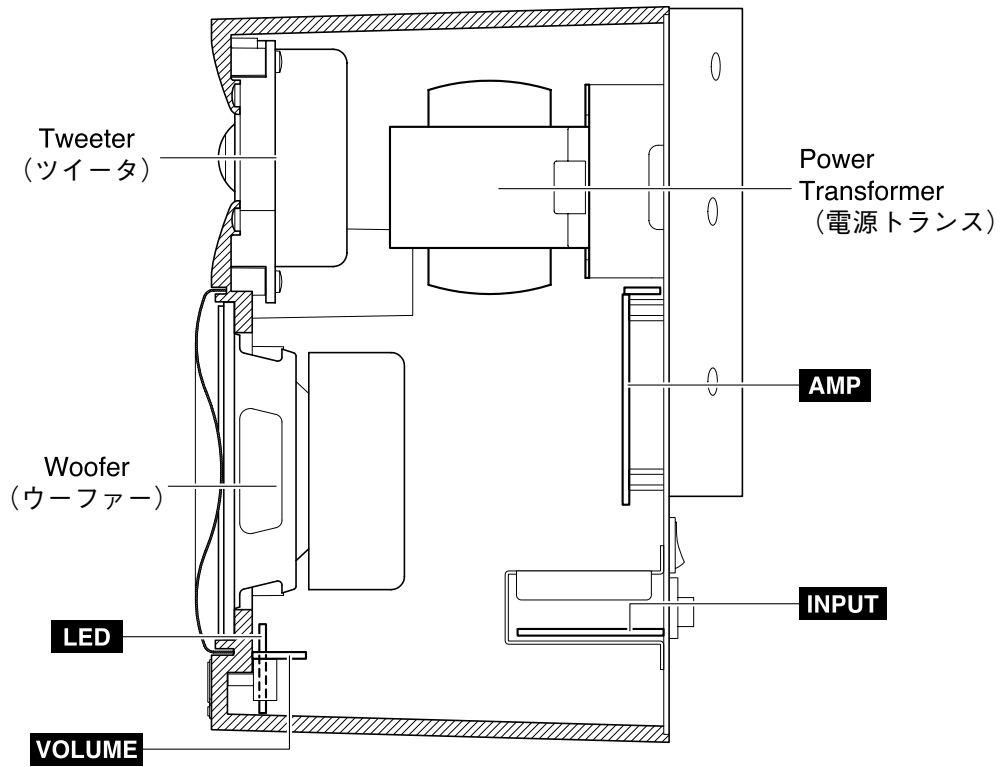
• Rear Panel (リアパネル)



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

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

■ CIRCUIT BOARD LAYOUT (ユニットレイアウト)

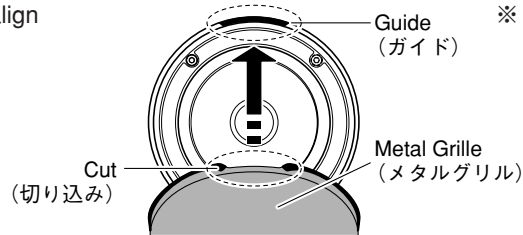


■ DISASSEMBLY PROCEDURE (分解手順)

1. Woofer (Time required: About 1 minute)

- 1-1 Remove the metal grille. (Fig. 1)
 1-2 Remove the four (4) hexagonal socket screws marked [200]. The woofer can then be removed. (Fig. 1)

* When installing the metal grille, align the cut with the guide.



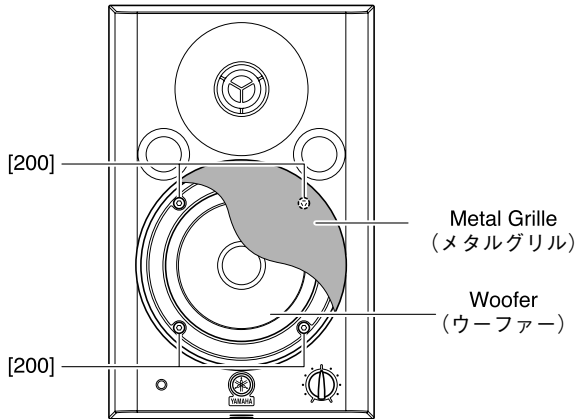
1. ウーファー (所要時間：約1分)

- 1-1 メタルグリルを外します。(図1)
 1-2 [200]の六角穴付ネジ4本を外し、ウーファーを外します。(図1)

※ メタルグリルの取付時には、切り込みをガイドに合わせてください。

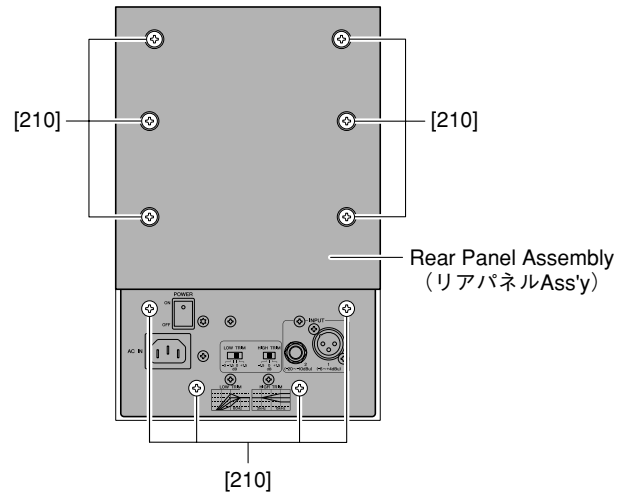
2. Rear panel Assembly (Time required: About 2 minutes)

- 2-1 Remove the ten (10) screws marked [210].
 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 [210]のネジ10本を外し、リアパネルAss'yを外します。(図2)



[200]: Hexagonal Socket Tapping Screw-P 4x14 (WJ271000) 六角穴付Pタイト

Fig. 1 (図1)

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

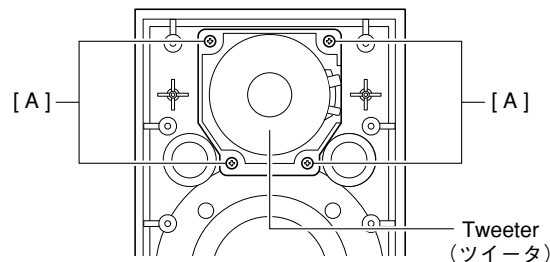
Fig. 2 (図2)

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)

* Pull the tweeter lightly away from the cabinet to remove it.

Rear view



3. ツイータ (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、ツイータを外します。(図3)
 ※ 軽く手前に力を加えれば容易に外せます。

Fig. 3 (図3)

**4. Power Transformer
(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 can then be removed. (Fig. 4)

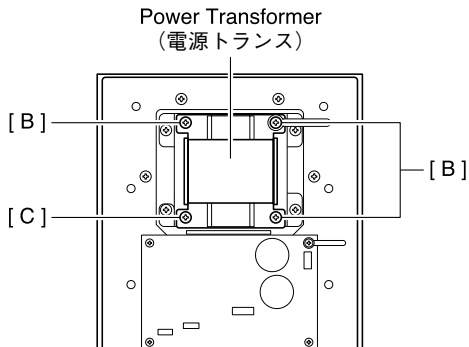


Fig. 4 (図 4)

4. 電源トランス(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、電源トランスを外します。(図 4)

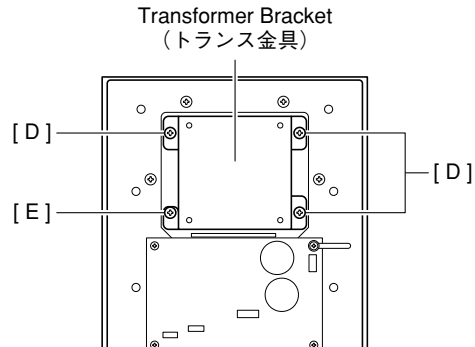


Fig. 5 (図 5)

**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 three (3) 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3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)

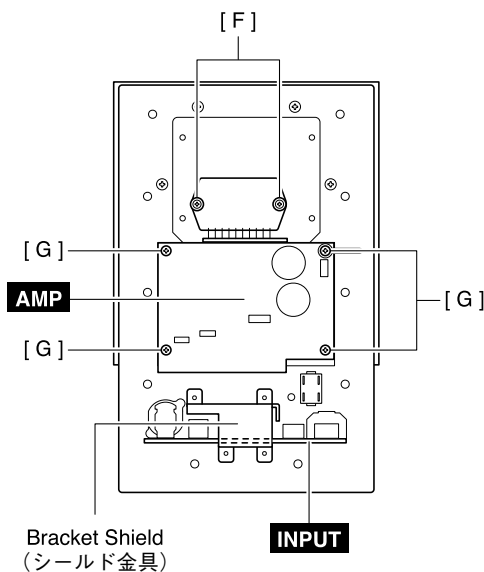
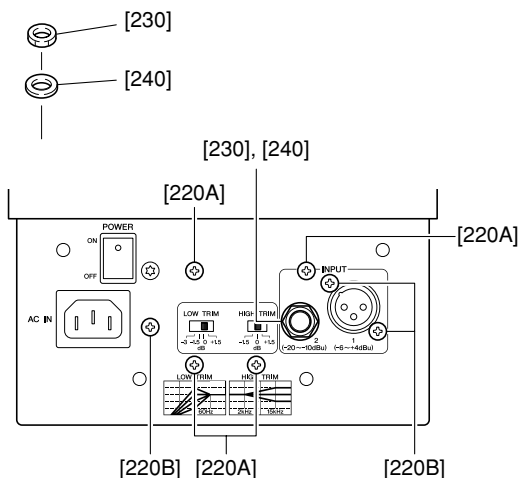


Fig. 6 (図 6)

5-5 INPUT Circuit Board:

- 5-5-1 Remove the four (4) screws marked [220A]. The bracket shield can then be removed. (Fig. 7)
- 5-5-2 Remove the three (3) screws marked [220B], the nut marked [230], and the washer marked [240]. The INPUT circuit board can then be removed. (Fig. 7)

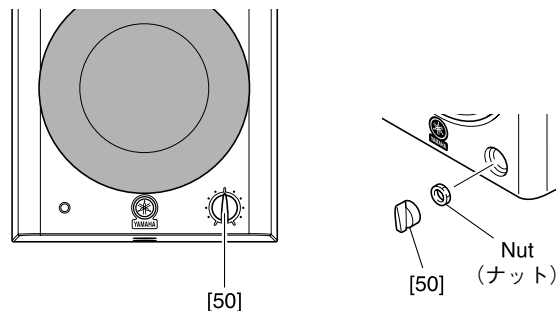


- [220A/B]: Bonding Tapping Screw-B 3x8 (WJ286400) +ボンディングBタイト
- [230]: Hexagonal Nut M12 (WJ285500) +六角ナット
- [240]: Washer 12x16x0.6 (WJ286200) +ワッシャー

Fig. 7 (図 7)

5-5 INPUTシート:

- 5-5-1 [220A]のネジ4本を外し、シールド金具を外します。(図 7)
- 5-5-2 [220B]のネジ3本、[230]の六角ナットおよび[240]のワッシャーを外し、INPUTシートを外します。(図 7)



- [50]: Knob Volume (WJ269800) ボリュームノブ

Fig. 8 (図 8)

6. VOLUME Circuit Board (Time required: about 2 minutes)

- 6-1 Remove the rear panel assembly. (See procedure 2)
- 6-2 Remove the knob marked [50] and the nut.
The VOLUME circuit board can then be removed.
(Fig. 8)

6. VOLUME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 [50]のつまみとナットを外し、ボリュームシートを外します。(図 8)

7. LED Circuit Board (Time required: about 2 minutes)

- 7-1 Remove the rear panel assembly. (See procedure 2)
- 7-2 Remove the two (2) screws marked [H]. The LED circuit board can then be removed. (Fig. 9)

7. LEDシート (所要時間: 約2分)

- 7-1 リアパネルAss'yを外します。(2項参照)
- 7-2 [H]のネジ2本を外し、LEDシートを外します。(図 9)

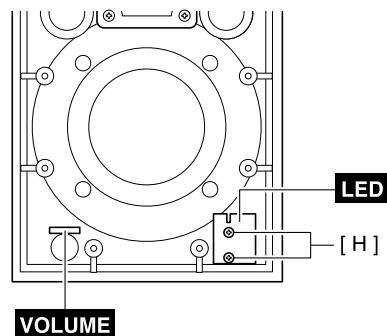


Fig. 9 (図 9)

8. Heat Sink (Time required: about 6 minute)

- 8-1 Remove the rear panel assembly. (See procedure 2)
- 8-2 Remove the power transformer and the bracket trans. (See procedure 5-2, 5-3)
- 8-3 Remove the AMP circuit board. (See procedure 5-4)
- 8-4 Remove the seven (7) screws marked [I] and screw marked [J]. The heat sink can then be removed. (Fig. 10)

* Pull the heat sink lightly away from the rear panel to remove it.

8. ヒートシンク(所要時間：約6分)

- 8-1 リアパネルAss'yを外します。(2項参照)
- 8-2 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)
- 8-3 AMPシートを外します。(5-4項参照)
- 8-4 [I]のネジ7本と[J]のネジを外し、ヒートシンクを外します。(図10)

※ 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。

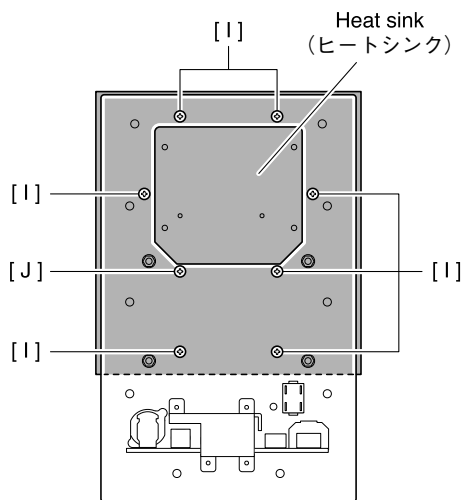


Fig. 10(図10)

9. Power Switch (Time required: About 2 minutes)

- 9-1 Remove the rear panel assembly. (See procedure 2)
- 9-2 Press the claw to remove the power switch. (Fig. 11)

9. POWERスイッチ(所要時間：約2分)

- 9-1 リアパネルAss'yを外します。(2項参照)
- 9-2 ツメを押さえながらPOWERスイッチを外します。(図11)

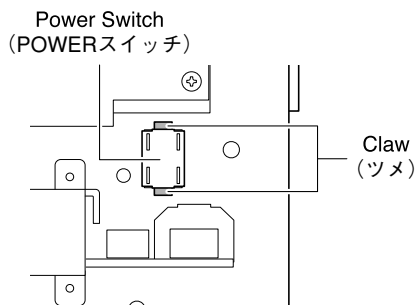
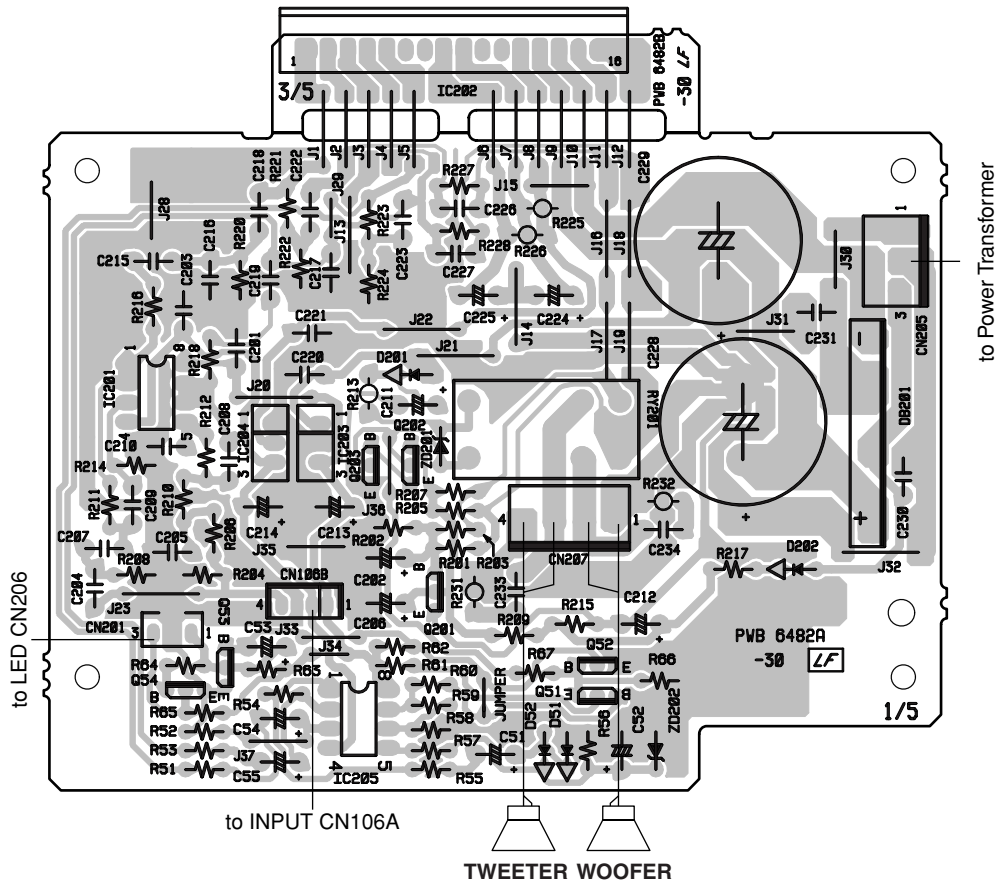


Fig. 11(図11)

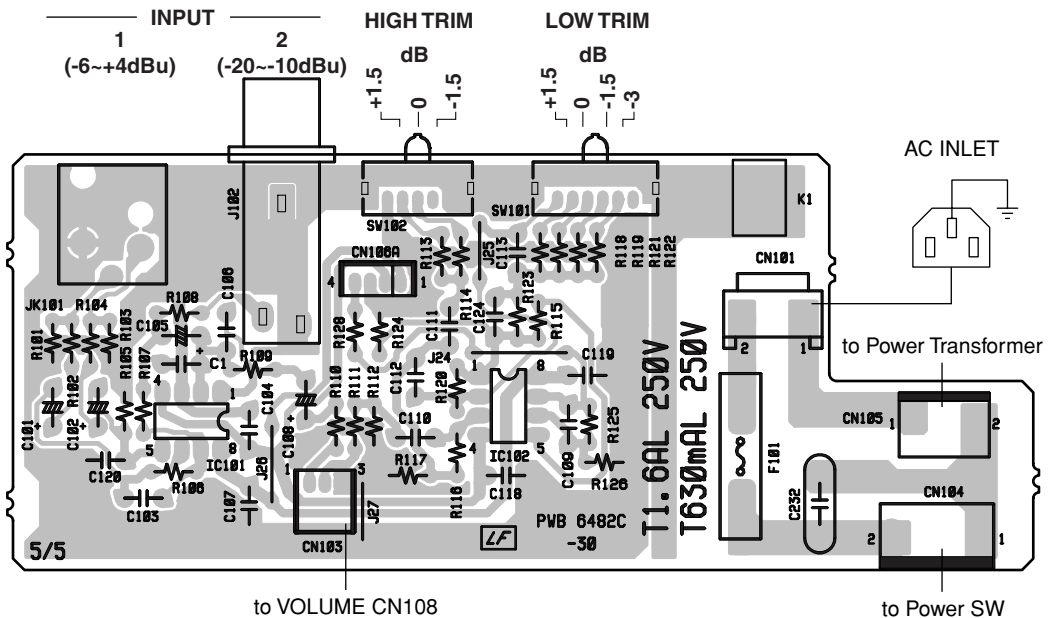
CIRCUIT BOARDS (シート基板図)

- AMP Circuit Board



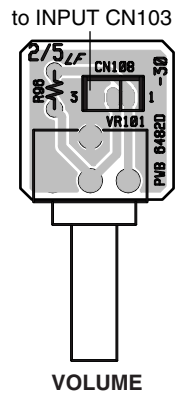
Component side (部品側)

- INPUT Circuit Board



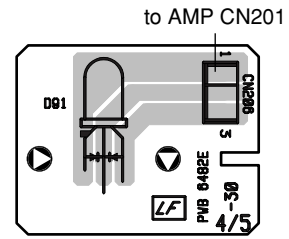
Component side (部品側)

- VOLUME Circuit Board



Component side (部品側)

- LED Circuit Board



Component side (部品側)

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) AC220 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 SW, LOW SW: 0 position.

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)	INPUT1 400 Hz	LF: 24.2 dBu OUTPUT	< 0.02 %		
		INPUT1 10 KHz	HF: 24.2 dBu OUTPUT	< 0.02 %		
2	GAIN (利得)	INPUT1 -6 dBu 400 Hz VR: MAX	LF SP-OUT	24.2 dBu ± 2 dB		
		INPUT1 +4 dBu 400 Hz VR: CENTER		24.2 dBu ± 2 dB		
		INPUT2 -20 dBu 400 Hz VR: MAX		24.2 dBu ± 2 dB		
		INPUT2 -10 dBu 400 Hz VR: CENTER		24.2 dBu ± 2 dB		
3	Frequency Response (周波数特性)	INPUT1 HIGH SW: 0 LOW SW: 0	20 Hz	REF: LF OUTPUT 1 KHz 1 W (WF)	LF SP-OUT	-15 ± 2 dB
			60 Hz	REF: LF OUTPUT 1 KHz 1 W (WF)	LF SP-OUT	-6 ± 1 dB
			400 Hz	REF: LF OUTPUT 1 KHz 1 W (WF)	LF SP-OUT	+1 ± 0.7 dB
			2 KHz	REF: LF OUTPUT 1 KHz 1 W (WF)	LF SP-OUT	0 ± 0.5 dB
				HF SP-OUT	-19 ± 3 dB	
			4 KHz	REF: LF OUTPUT 1 KHz 1 W (WF)	LF SP-OUT	-14.5 ± 2 dB
HF SP-OUT	-3.7 ± 1.2 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 SW: 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 SW: 0	-1.5 ± 1 dB	
					HIGH = +1.5 REF: 15 KHz	+1.5 ± 1 dB
5	Noise Level Residual Noise (残留雑音)	LEVEL VR = MIN. HIGH SW: 0 LOW SW: 0	LF SP-OUT DIN AUDIO Filter		< -70 dBu	
			HF SP-OUT DIN AUDIO Filter		< -70 dBu	
6	MAX. Noise	LEVEL VR = MAX. HIGH SW: 0 LOW SW: 0	LF 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	3.0 ± 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 Q201 through the 2.2 kΩ resistance and check the relay turns off at once.

3-1 Q201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 Q202 through the 2.2 kΩ resistance and check the relay turns off at once.

3-2 Q202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 400 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 terminal is 27 dBu.

400 Hzを入力し、LF-SP OUTの出力レベルが27 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.

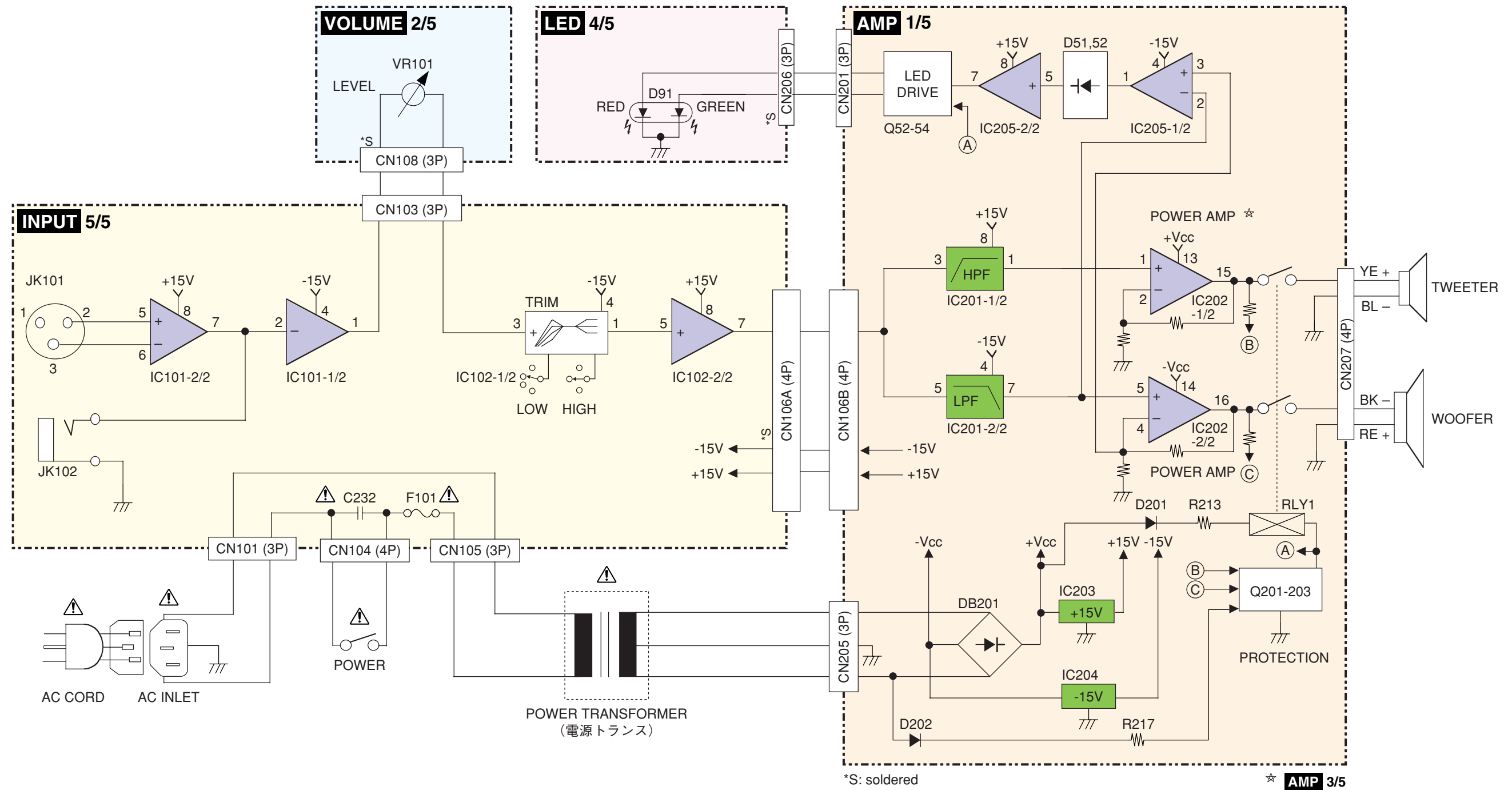
5-2 スピーカー端子に下記容量負荷を接続し、発振等を生じないことを確認します。

	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
 LEVEL control : MIN.

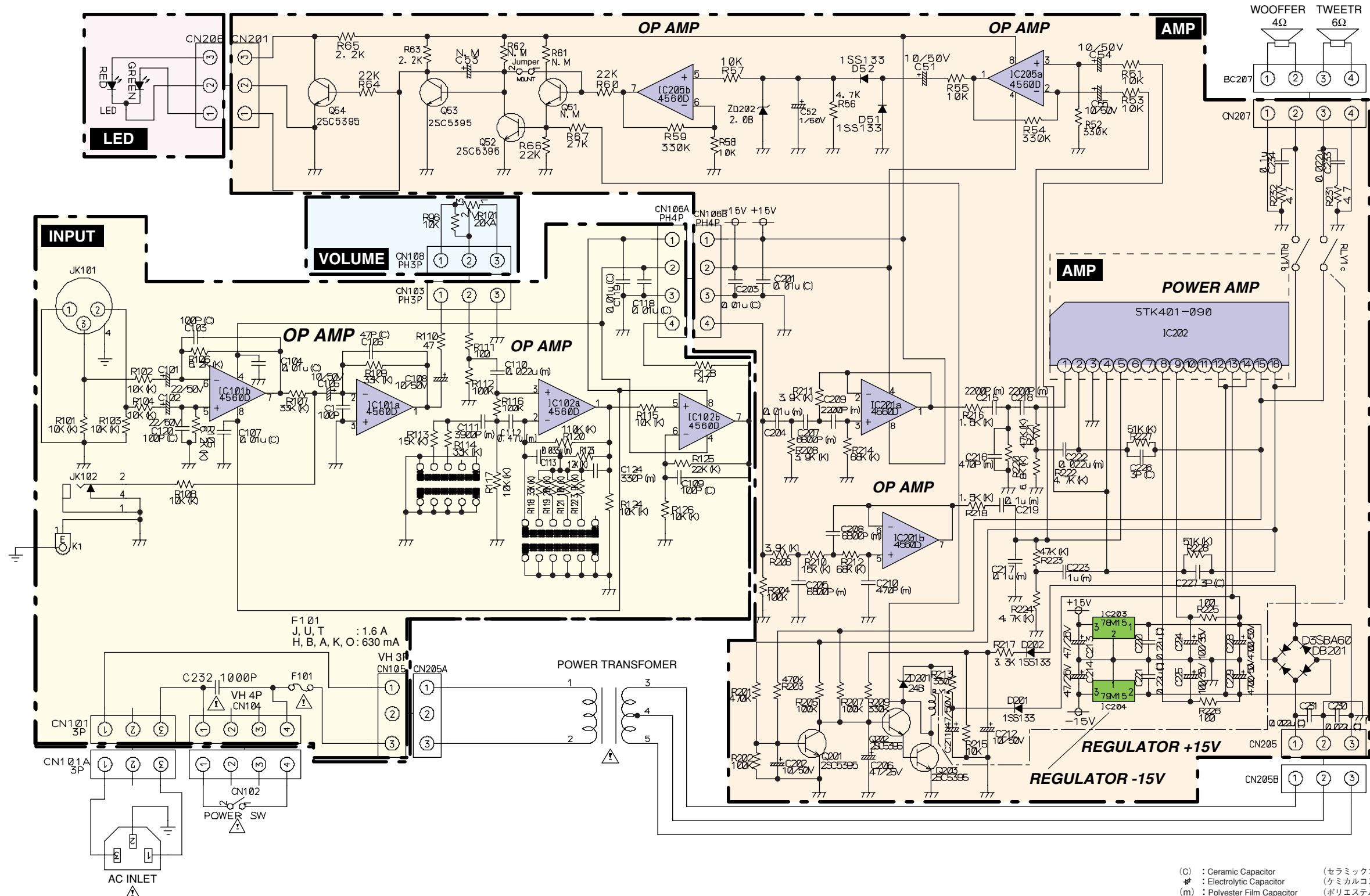
■ BLOCK DIAGRAM (ブロックダイアグラム)



*S: soldered

★ AMP 3/5

■ CIRCUIT DIAGRAM (回路図)



- (C) : Ceramic Capacitor (セラミックコンデンサー)
- ⊗ : Electrolytic Capacitor (ケミカルコンデンサー)
- (m) : Polyester Film Capacitor (ポリエステルフィルムコンデンサー)
- (K) : Metal Film Resistor (金属被膜抵抗)

WARNING (注意)
 Components having special characteristics are marked Δ and must be replaced with parts having specification equal to those originally installed.
 Δ 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。
 N.M : Not installed (実装しません)

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。

ZA1F9A00102

Powered Monitor Speaker

MSP5 STUDIO

PARTS LIST

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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	

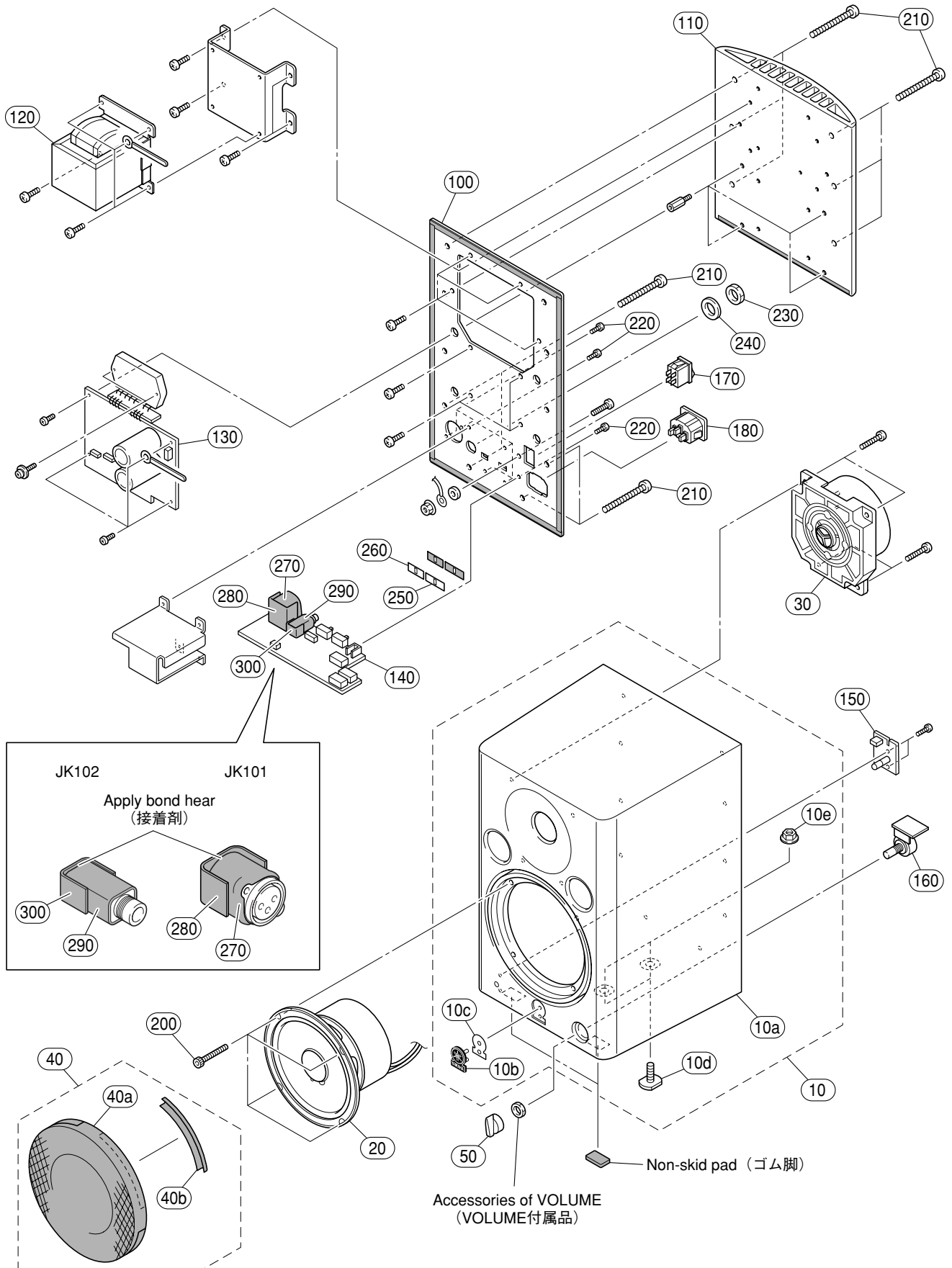
■ WARNING (注意)

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	MSP5 STUDIO			
		Overall Assembly	MSP5 STUDIO J	総 組 立	J			
		Overall Assembly	MSP5 STUDIO U	総 組 立	U			
		Overall Assembly	MSP5 STUDIO H	総 組 立	H			
		Overall Assembly	MSP5 STUDIO B	総 組 立	B			
		Overall Assembly	MSP5 STUDIO A	総 組 立	A			
		Overall Assembly	MSP5 STUDIO K	総 組 立	K			
		Overall Assembly	MSP5 STUDIO T	総 組 立	T			
		Overall Assembly	MSP5 STUDIO O	総 組 立	O			
* 10	WJ281200	Enclosure Assembly		エンクロージャ A s s y				
* 10a	WJ280100	Cabinet		キャビネット		437793		
* 10b	WJ279900	Badge		バッヂ		447802		
* 10c	WJ281300	Tape Sheet		テープシート		446786		
* 10d	WJ286000	Bolt	A274A0-5	ボルト		433645	2	
* 10e	WJ285600	Nut	M8 CR3	ナット		412967	2	
20	XU973A0R	Speaker	12cm 4 ohm	スピーカ	WOOFER	437508	11	
30	XU974A0R	Speaker	2.4cm 6 ohm	スピーカ	TWEETER	443311	11	
* 40	WJ371900	Metal Grille Assembly		メタルグリル A s s y				
* 40a	WJ269900	Metal Grille		メタルグリル		448349		
* 40b	WJ280000	Cushion	10x95x1	クッション		447573	4	
* 50	WJ269800	Knob Volume		ボリュームノブ	LEVEL VOLUME	439134		
* 100	WJ275900	Rear Panel		リアパネル		449567		
* 110	WJ276100	Heat Sink	J	ヒートシンク	J	453791		
* 110	WJ276200	Heat Sink	U/C	ヒートシンク	U	453792		
* 110	WJ276500	Heat Sink	B,H	ヒートシンク	H,B	453794		
* 110	WJ276800	Heat Sink	A	ヒートシンク	A	453793		
* 110	WJ276700	Heat Sink	K	ヒートシンク	K	453798		
* 110	WJ276400	Heat Sink	TT	ヒートシンク	TT	453802		
* 110	WJ276600	Heat Sink	CHN	ヒートシンク	O	453801		
△	* 120	WJ270000	Power Transformer	J	電源トランス	J	420235	
△	* 120	WJ270100	Power Transformer	U/C,TT	電源トランス	U,T	420236	
△	* 120	WJ270200	Power Transformer	B,H,CHN	電源トランス	H,B,O	420237	
△	* 120	WJ270400	Power Transformer	A	電源トランス	A	420238	
△	* 120	WJ270300	Power Transformer	K	電源トランス	K	420239	
* 130	WJ269200	Circuit Board	AMP (MAIN1/5,3/5)	A M P シート				
* 140	WJ269300	Circuit Board	INPUT (MAIN5/5)	I N P U T シート	J,U,T			
* 140	WJ269600	Circuit Board	INPUT (MAIN5/5)	I N P U T シート	H,B,A,K,O			
* 150	WJ269500	Circuit Board	LED (MAIN4/5)	L E D シート				
* 160	WJ269400	Circuit Board	VOLUME(MAIN2/5)	V O L U M E シート				
△	* 170	WG263400	Power Switch	SDDJE30100	パワースイッチ	POWER ON/OFF	381326	06
△	* 180	WJ279800	AC Inlet	SS-120-2.0A-4.0A	A C インレット		446341	
* 200	WJ271000	Hex.Socket Tapping Screw-P	4x14 NI-BL	六角穴付Pタイ	for WOOFER	423333	4	
* 210	WJ286300	Bind Head Tapping Screw-P	5x25 NI-BL	十バインドPタイ	for REAR PANEL	422354	10	
* 220	WJ286400	Bonding Tapping Screw-B	3x8 NI-BL	十ボンディングBタイ	for CIRCUIT BOARD	414198	7	
* 230	WJ285500	Hexagonal Nut	M12 NI-BL	六角ナット	for TRS CONNECTOR	421223		
* 240	WJ286200	Washer	12x16x0.6	ワッシャー	for TRS CONNECTOR	417370		
* 250	WJ371000	Switch Cover		S W カバ		381494		
* 260	WJ371100	Switch Cover		S W カバ		381495		
* 270	WJ371300	Cushion		クッション	for XLR CONNECTOR	354855		
* 280	WJ371400	Cushion		クッション	for XRS CONNECTOR	356440		
* 290	WJ371500	Cushion		クッション	for TRS CONNECTOR	354853		
* 300	WJ371600	Cushion		クッション	for TRS CONNECTOR	354854		
		ACCESSORIES		付 属 品	MSP5 STUDIO			
△	* WG261700	AC Cord	J	電源コード	J	414427	08	
△	* WG261800	AC Cord	U/C	電源コード	U	369532	08	
△	* WG262000	AC Cord	H,A,K	電源コード	H,A,K	417976	08	
△	* WH221600	AC Cord	B	電源コード	B	417977	12	
△	* WH667300	AC Cord	TT	電源コード	T	444018		
△	* WG262200	AC Cord	CHN	電源コード	O	414426	12	
* 300	WJ370700	Non-skid Pad	A1D5A0	ゴム脚		381493	2	

*: New Parts

RANK: Japan only

ELECTRICAL PARTS (電気部品)

REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK	
*	WJ269200	ELECTRICAL PARTS Circuit Board	AMP (MAIN 1/5,3/5)	電 気 部 品 A M P シ ー ト	MSP5 STUDIO (WJ26900,WJ26970) (6482A-30_1/5,3/5)			
*	WJ269300	Circuit Board	INPUT (MAIN 5/5)	I N P U T シ ー ト	J,U,T (WJ26900) (6482C-30_5/5)			
*	WJ269600	Circuit Board	INPUT (MAIN 5/5)	I N P U T シ ー ト	H,B,A,K,O (WJ26970) (6482C-30_5/5)			
*	WJ269500	Circuit Board	LED (MAIN 4/5)	L E D シ ー ト	(WJ26900,WJ26970) (6482E-30_4/5)			
*	WJ269400	Circuit Board	VOLUME(MAIN 2/5)	V O L U M E シ ー ト	(WJ26900,WJ26970) (6482D-30_2/5)			
*	WJ269200	Circuit Board	AMP	A M P シ ー ト	(WJ26900,WJ26970) (6482A-30_1/5,3/5)			
IC202	X8344A00	IC	STK-401-090-E	I C	POWER 381255			
*	WJ269300	Circuit Board	INPUT	I N P U T シ ー ト	J,U,T (WJ26900) (6482C-30_5/5)			
*	WJ269600	Circuit Board	INPUT	I N P U T シ ー ト	H,B,A,K,O (WJ26970) (6482C-30_5/5)			
△	F101	WG275900	Fuse	T1.6A 250V	ヒ ュ ー ズ	J,U,T	331109	02
△	F101	WJ270500	Fuse	T630mA 250V	ヒ ュ ー ズ	H,B,A,K,O	085108	
*	JK101	WJ270600	XLR Connector	NC3FAH1-0	X L R コ ネ ク タ	INPUT1	381261	
*	JK102	WJ270700	TRS Connector	HTJ-064-111	T R S コ ネ ク タ	INPUT2	381260	
*	WJ269500	Circuit Board	LED	L E D シ ー ト	(WJ26900,WJ26970) (6482E-30_4/5)			
*	WJ269400	Circuit Board	VOLUME	V O L U M E シ ー ト	(WJ26900,WJ26970) (6482D-30_2/5)			
VR101	WJ270800	Rotary Variable Resistor	A20k	ロ ー タ リ ー V R	LEVEL VOLUME	443239		
	XU973A0R	Speaker	12cm 4 ohm	ス ピ ー カ	WOOFER	437508	11	
	XU974A0R	Speaker	2.4cm 6 ohm	ス ピ ー カ	TWEETER	443311	11	
△	*	WJ270000	Power Transformer	J	電 源 ト ラ ン ス	J	420235	
△	*	WJ270100	Power Transformer	U/C,TT	電 源 ト ラ ン ス	U,T	420236	
△	*	WJ270200	Power Transformer	B,H,CHN	電 源 ト ラ ン ス	H,B,O	420237	
△	*	WJ270400	Power Transformer	A	電 源 ト ラ ン ス	A	420238	
△	*	WJ270300	Power Transformer	K	電 源 ト ラ ン ス	K	420239	
△		WG263400	Power Switch	SDDJE30100	パ ワ ー ス イ ッ チ	POWER ON/OFF	381326	06
△		WG261700	AC Cord	J	電 源 コ ー ド	J	414427	08
△		WG261800	AC Cord	U/C	電 源 コ ー ド	U	369532	08
△		WG262000	AC Cord	H,A,K	電 源 コ ー ド	H,A,K	417976	08
△		WH221600	AC Cord	B	電 源 コ ー ド	B	417977	12
△		WH667300	AC Cord	TT	電 源 コ ー ド	T	444018	
△		WG262200	AC Cord	CHN	電 源 コ ー ド	O	414426	12

*: New Parts

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