

# DENON

For Europe &  
Taiwan R.O.C. model

Ver. 4

## SERVICE MANUAL MODEL PMA-500AE INTEGRATED STEREO AMPLIFIER

Please refer to the  
MODIFICATION NOTICE.

### 注 意

サービスをおこなう前に、このサービスマニュアルを必ずお読みください。本機は、火災、感電、けがなどに対する安全性を確保するために、さまざまな配慮をおこなっており、また法的には「電気用品安全法」にもとづき、所定の許可を得て製造されています。従ってサービスをおこなう際は、これらの安全性が維持されるよう、このサービスマニュアルに記載されている注意事項を必ずお守りください。

- For purposes of improvement, specifications and design are subject to change without notice.

- 本機の仕様は性能改良のため、予告なく変更することがあります。
- 補修用性能部品の保有期間は、製造打切後8年です。

- Please use this service manual with referring to the operating instructions without fail.

- 修理の際は、必ず取扱説明書を参照の上、作業を行ってください。

- Some illustrations using in this service manual are slightly different from the actual set.

- 本文中に使用しているイラストは、説明の都合上現物と多少異なる場合があります。

DENON

## SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

### LEAKAGE CURRENT CHECK

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

### CAUTION Please heed the points listed below during servicing and inspection.

#### ◎ Heed the cautions!

Spots requiring particular attention when servicing, such as the cabinet, parts, chassis, etc., have cautions indicated on labels or seals. Be sure to heed these cautions and the cautions indicated in the handling instructions.

#### ◎ Caution concerning electric shock!

(1) An AC voltage is impressed on this set, so touching internal metal parts when the set is energized could cause electric shock. Take care to avoid electric shock, by for example using an isolating transformer and gloves when servicing while the set is energized, unplugging the power cord when replacing parts, etc.

(2) There are high voltage parts inside. Handle with extra care when the set is energized.

#### ◎ Caution concerning disassembly and assembly!

Though great care is taken when manufacturing parts from sheet metal, there may in some rare cases be burrs on the edges of parts which could cause injury if fingers are moved across them. Use gloves to protect your hands.

#### ◎ Only use designated parts!

The set's parts have specific safety properties (fire resistance, voltage resistance, etc.). For replacement parts, be sure to use parts which have the same properties. In particular, for the important safety parts that are marked  on wiring diagrams and parts lists, be sure to use the designated parts.

#### ◎ Be sure to mount parts and arrange the wires as they were originally!

For safety reasons, some parts use tape, tubes or other insulating materials, and some parts are mounted away from the surface of printed circuit boards. Care is also taken with the positions of the wires inside and clamps are used to keep wires away from heating and high voltage parts, so be sure to set everything back as it was originally.

#### ◎ Inspect for safety after servicing!

Check that all screws, parts and wires removed or disconnected for servicing have been put back in their original positions, inspect that no parts around the area that has been serviced have been negatively affected, conduct an insulation check on the external metal connectors and between the blades of the power plug, and otherwise check that safety is ensured.

##### (Insulation check procedure)

Unplug the power cord from the power outlet, disconnect the antenna, plugs, etc., and turn the power switch on. Using a 500V insulation resistance tester, check that the insulation resistance between the terminals of the power plug and the externally exposed metal parts (antenna terminal, headphones terminal, microphone terminal, input terminal, etc.) is 1MΩ or greater. If it is less, the set must be inspected and repaired.

### CAUTION Concerning important safety parts

Many of the electric and structural parts used in the set have special safety properties. In most cases these properties are difficult to distinguish by sight, and using replacement parts with higher ratings (rated power and withstand voltage) does not necessarily guarantee that safety performance will be preserved. Parts with safety properties are indicated as shown below on the wiring diagrams and parts lists in this service manual. Be sure to replace them with parts with the designated part number.

(1) Schematic diagrams ... Indicated by the  mark.

(2) Parts lists ... Indicated by the  mark.

Using parts other than the designated parts could result in electric shock, fires or other dangerous situations.

### 注 意 サービス、点検時にはつぎのことご注意願います。

#### ◎ 注意事項をお守りください！

サービスのとき特に注意を必要とする個所についてはキャビネット、部品、シャーシなどにラベルや捺印で注意事項を表示しています。これらの注意書きおよび取扱説明書などの注意事項を必ずお守りください。

#### ◎ 感電に注意！

- (1) このセットは、交流電圧が印加されていますので通電時に内部金属部に触れると感電することがあります。従って通電サービス時には、絶縁トランクの使用や手袋の着用、部品交換には、電源プラグを抜くなどして感電にご注意ください。
- (2) 内部には高電圧の部分がありますので、通電時の取扱には十分ご注意ください。

#### ◎ 分解、組み立て作業時のご注意！

板金部品の端面の『バリ』は、部品製造時に充分管理をしておりますが、板金端面は鋭利となっている箇所が有りますので、部品端面に触れたまま指を動かすとまれに怪我をする場合がありますので十分注意して作業して下さい。手の保護のために手袋を着用してください。

#### ◎ 指定部品の使用！

セットの部品は難燃性や耐電圧など安全上の特性を持ったものとなっています。従って交換部品は、使用されていたものと同じ特性の部品を使用してください。特に配線図、部品表に  印で指定されている安全上重要な部品は必ず指定のものをご使用ください。

#### ◎ 部品の取付けや配線の引きまわしは、元どおりに！

安全上、テープやチューブなどの絶縁材料を使用したり、プリント基板から浮かして取付けた部品があります。また内部配線は引きまわしやクランパーによって発熱部品や高圧部品に接近しないように配慮されていますので、これらは必ず元どおりにしてください。

#### ◎ サービス後は安全点検を！

サービスのために取り外したねじ、部品、配線などが元どおりになっているか、またサービスした個所の周辺を劣化させてしまったところがないなどを点検し、外部金属端子部と、電源プラグの刃の間の絶縁チェックをおこなうなど、安全性が確保されていることを確認してください。

##### (絶縁チェックの方法)

電源コンセントから電源プラグを抜き、アンテナやプラグなどを外し、電源スイッチを入れます。500V 絶縁抵抗計を用いて、電源プラグのそれぞれの端子と外部露出金属部 [アンテナ端子、ヘッドホン端子マイク端子、入力端子など]との間で、絶縁抵抗値が 1 MΩ 以上であること、この値以下のときはセットの点検修理が必要です。

### 注 意 安全上重要な部品について

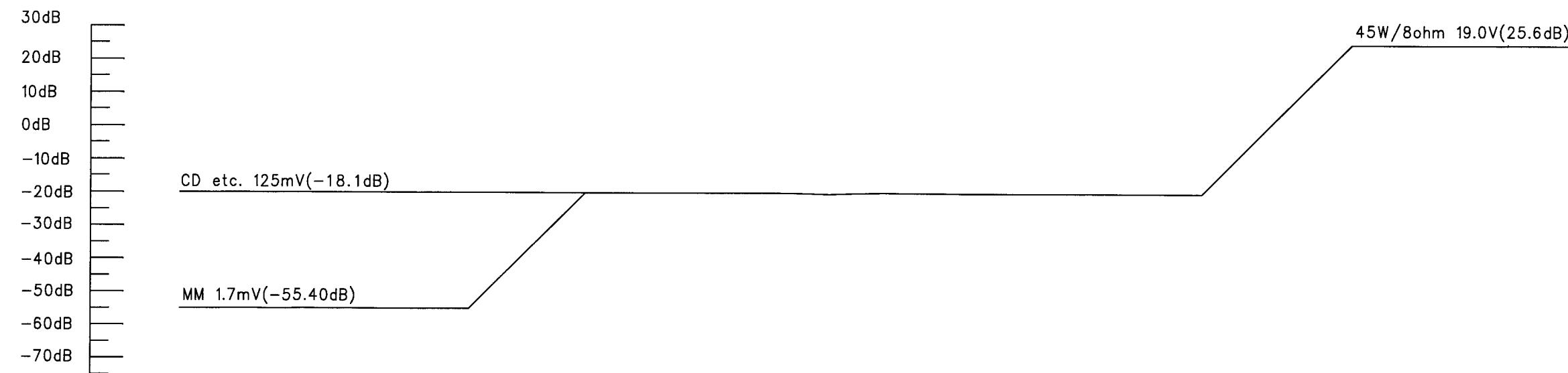
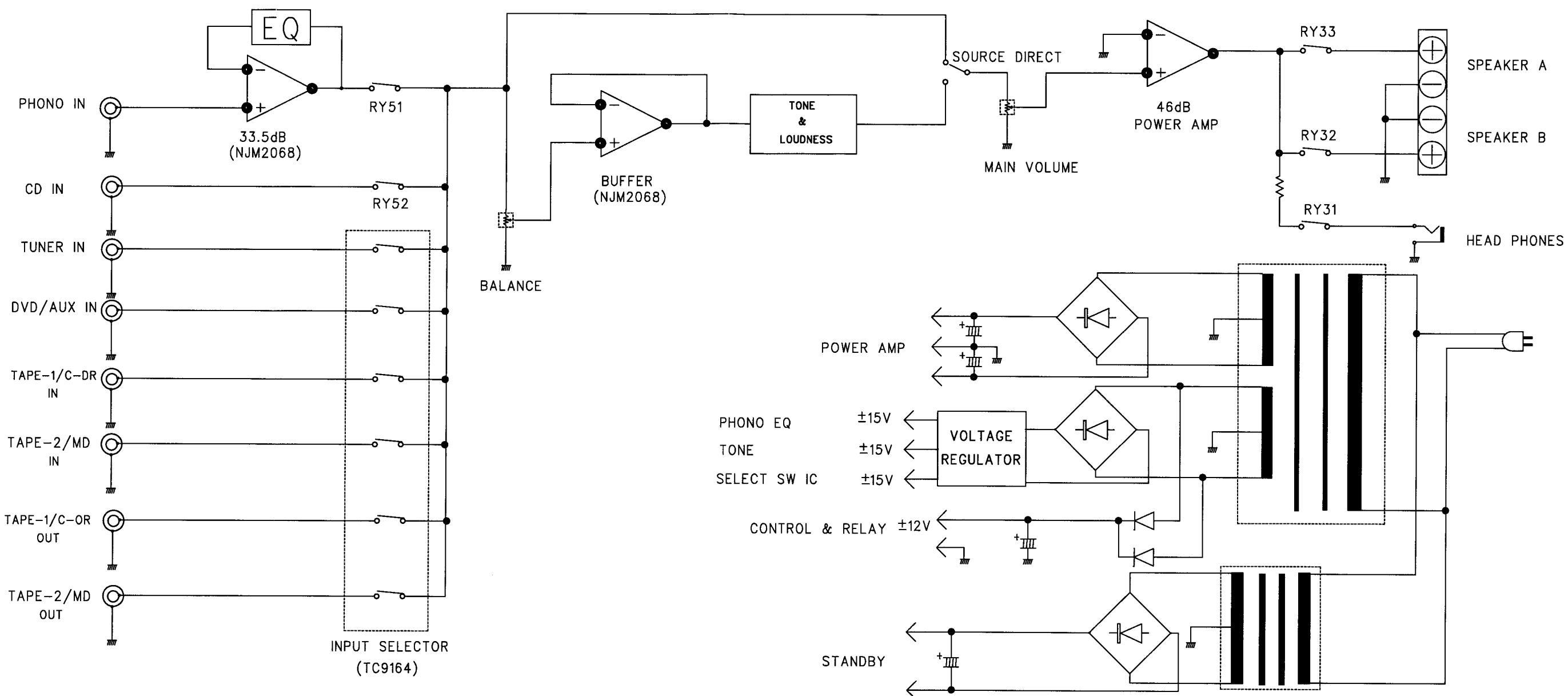
本機に使用している多くの電気部品、および機構部品は安全上、特別な特性を持っています。この特性はほとんどの場合、外観では判別つきにくく、またもとの部品より高い定格（定格電力、耐圧）を持ったものを使用しても安全性が維持されることは、限りません。安全上の特性を持った部品は、このサービスマニュアルの配線図、部品表につきのように表示していますので必ず指定されている部品番号のものを使用願います。

(1) 配線図…マークで表示しています。

(2) 部品表…マークで表示しています。

指定された部品と異なるものを使用した場合には、感電、火災などの危険を生じる恐れがあります。

## BLOCK AND LEVEL DIAGRAM



## ADJUSTMENT

### Idling Current

Required measurement equipment: DC Voltmeter

#### 1. Setup

- (1) Place the unit at an ordinary position avoiding direct air flow from an air-conditioner or fan. Do the adjustment at a temperature between 15 °C (59 °F) and 30 °C (86 °F).
- (2) Set control as follows.
 

• POWER switch	→ OFF ( ■ ).
• VOLUME control	→ fully counterclockwise ( ○ min.)
• SPEAKER terminals	→ open: do not connect the speakers, dummy load etc.

#### 2. Adjustment

- (1) Remove top cover. And then connect DC Voltmeter to the test points CN31 and CN32 of CUP11904 Main P.W.B.
- (2) Connect power cord to AC wall outlet, and turn POWER switch "ON" ( ■ ).
- (3) Right after power on, adjust VR31 and VR32 so that the DC voltmeter reads  $10 \pm 1\text{mV}$ .
- (4) Then after 2 minutes warm up adjust VR31 and VR32 so that the DC voltmeter reads  $10 \pm 1\text{mV}$ .
- (5) And after 10 minutes warm up adjust VR31 and VR32 so that the DC voltmeter reads  $10 \pm 0.5\text{mV}$ .

## 調整

### アイドリング電流

調整に必要な測定器: DC Voltmeter

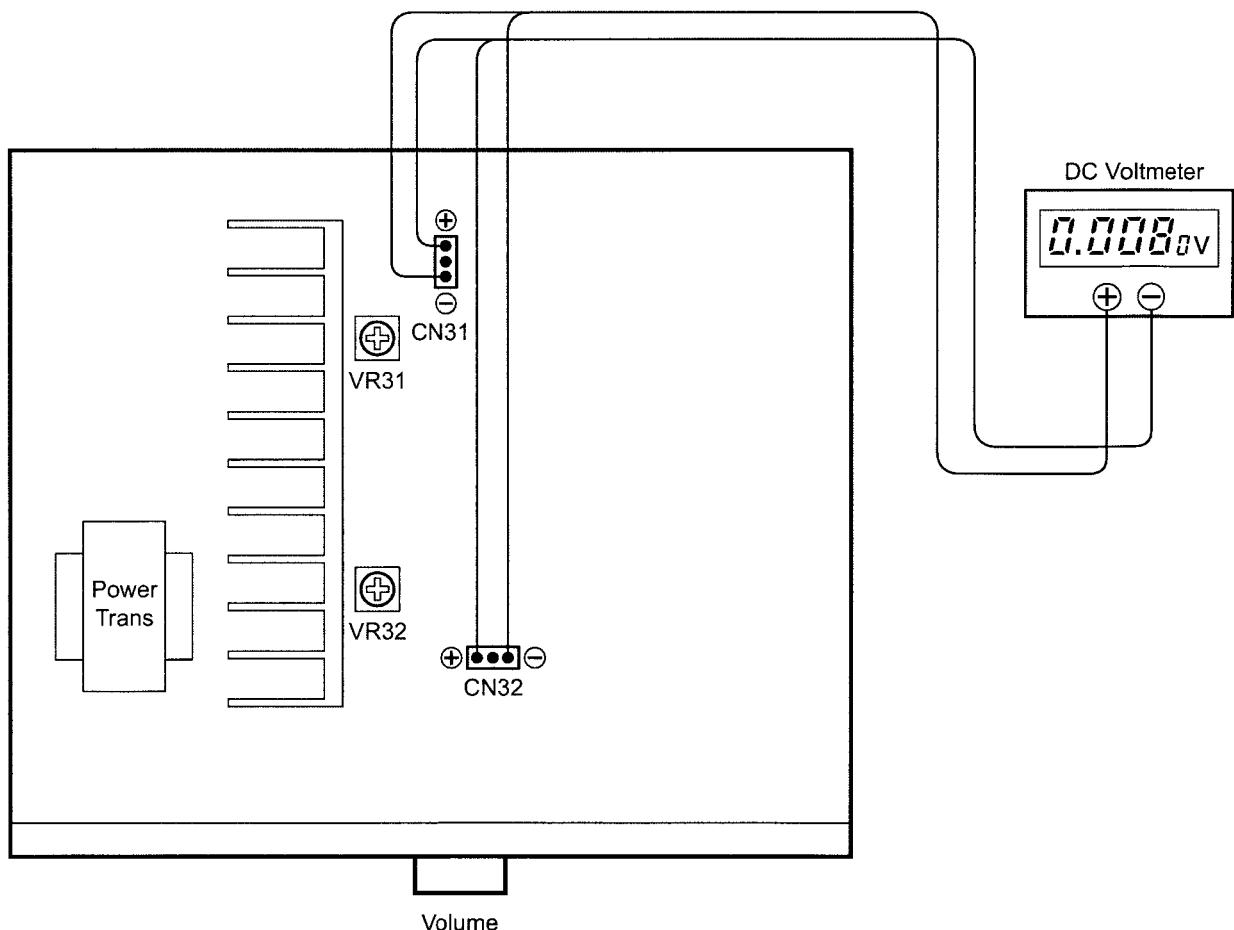
#### 1. 準備

- (1) セットをクーラ、扇風機のそばなど風通しの良い場所を避け、通常の使用状態に置きます。セットの周囲温度は、15～30 °Cで調整をおこないます。
- (2) セットのスイッチ類は、次のようにセットします。
 

・パワースイッチ	→ OFF ( ■ ).
・ボリュウム調整つまみ	→ 最小の反時計方向 ( ○ ) にセットします。
・スピーカ端子	→ 無負荷 (スピーカを接続しません。)

#### 2. 調整

- (1) 上カバーをはずし、CUP11904 メイン基板のテストポート (CN31, CN32) に DC Voltmeter を接続します。
- (2) 電源コードを AC100V (95～105V の範囲でも可) に接続し、電源スイッチを "ON" ( ■ ) にします。
- (3) 通電後にテストポイントの電圧が ( $10 \pm 1\text{mV}$ ) になるよう、VR31・VR32 を調整します。
- (4) 2 分後にテストポイントの電圧が ( $10 \pm 1\text{mV}$ ) になるよう、VR31・VR32 を調整します。
- (5) 10 分後にテストポイントの電圧が ( $10 \pm 0.5\text{mV}$ ) になるよう、VR31・VR32 を調整します。

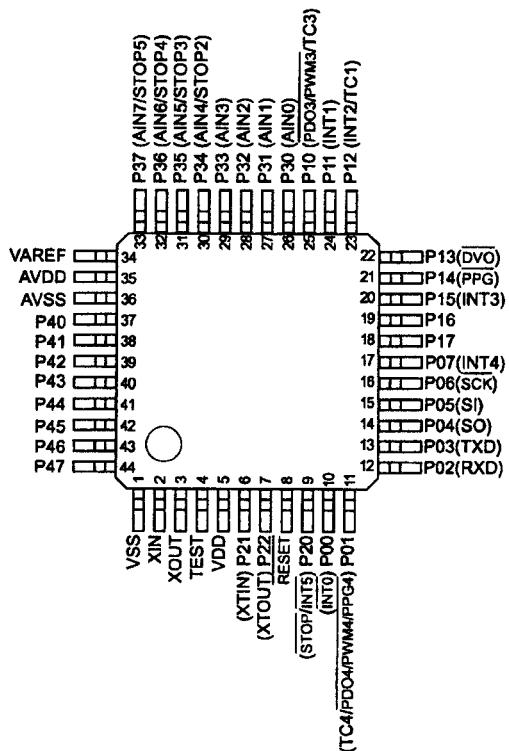


# SEMICONDUCTORS

Only major semiconductors are shown, general semiconductors etc. are omitted to list.  
主な半導体を記載しています。汎用の半導体は記載を省略しています。

## 1. IC's

### TMP86FH47AUG (IC51)



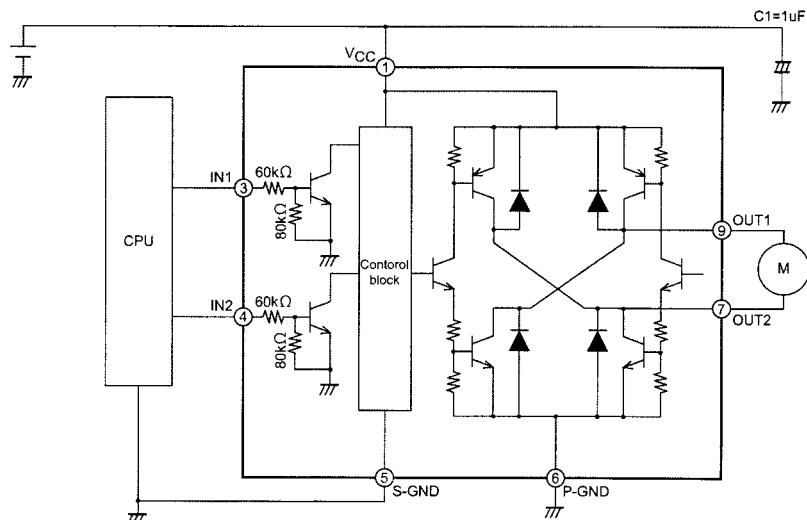
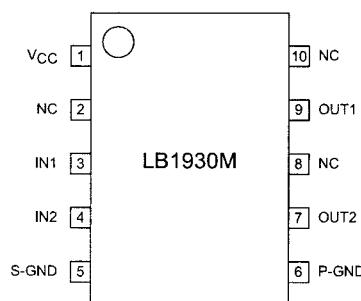
**TMP86FH47AUG Terminal Function**

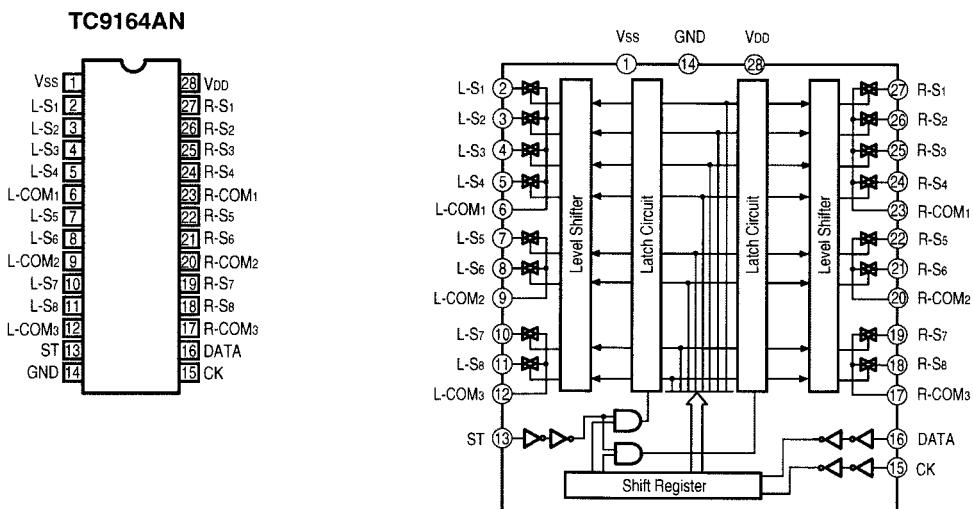
Pin No.	Port Name	I/O	Function
1	VSS		VSS
2	XIN		X IN
3	XOUT		X OUT
4	TEST		TEST
5	VDD		VDD
6	P21	O	MUTE/STANDBY LED
7	P22	O	
8	RESET	I	RESET
9	P20	I	STOP ACT.
10	P00	I	PROTECTOR
11	P01	O	P. DIRECT RELAY
12	P02	I	RXD
13	P03	O	TXD
14	P04	O	DATA
15	P05	O	STROBE
16	P06	O	CLK
17	P07	O	S. DIRECT RELAY
18	P17	I	P. DIRECT SW
19	P16	I	S. DIRECT SW
20	P15		AC RELAY 1
21	P14	O	VOLUME UP
22	P13	O	VOLUME DOWN
23	P12	I	REMOTE IN

Pin No.	Port Name		I/O	Function
24	P11	INT1	I	POWER OFF
25	P10	PDO3/PWM3	TC3	AC RELAY 2
26	P30	AIN0		MODEL
27	P31	AIN1		SP A/B
28	P32	AIN2		REC. SEL
29	P33	AIN3		FUNC. SEL
30	P34	AIN4	STOP2	O H/P MUTE
31	P35	AIN5	STOP3	O SP A
32	P36	AIN6	STOP4	O SP B
33	P37	AIN7	STOP5	
34	VAREF			Vref
35	AVDD			AVDD
36	AVSS			AVSS
37	P40		O	PHONO
38	P41		O	CD
39	P42		O	TUNER
40	P43		O	AUX-1
41	P44		O	AUX-2
42	P45		O	AUX-3
43	P46		O	TAPE-1
44	P47		O	TAPE-2

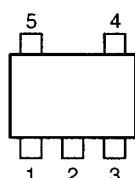
### LB1930 (IC52)

TOP VIEW

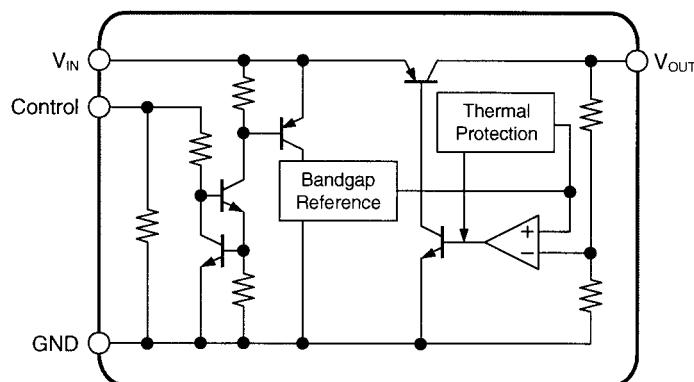
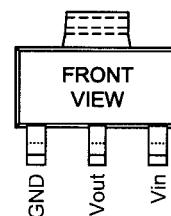
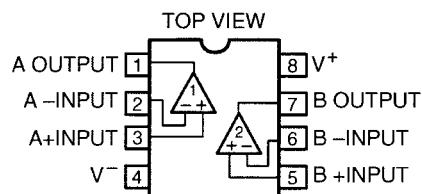


**TC9164AN (IC20)****NJM2831F (IC81)**

TOP VIEW

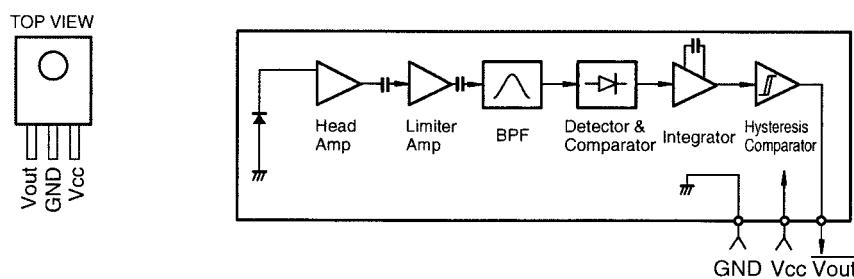


1. CONTROL
2. GND
3. NC
4. V<sub>OUT</sub>
5. V<sub>IN</sub>

**LM1117S (IC53)****NJM2068DD (IC10, 52)****NJM7806FA(S) (IC92)  
KA7812-ABTU (IC91)**

## 2. REMOTE CONTROL SENSOR

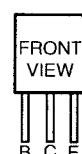
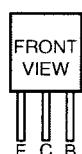
KSM-603TH2A (RC71)



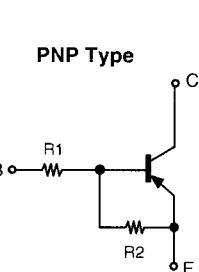
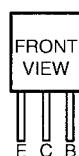
## 3. TRANSISTORS

**KSA916Y**      **KTA1024Y**  
**KSA1175Y**      **KTA1268GR**  
**KSC2316Y**      **KTC3200GR**  
**KSC2785Y**      **KTC3206Y**  
**KSC3198Y**

**2SB1383P**  
**2SD2083P**  
**KTC3114A**



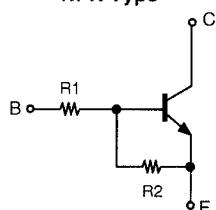
**KRA102M**  
**KRC102M**



	R1	R2
KRA102M	10kohm	10kohm

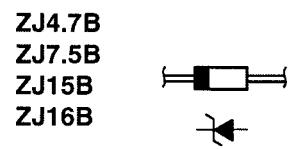
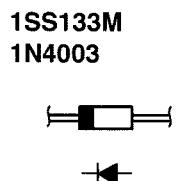
**KRA102M**

**NPN Type**

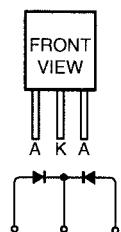


	R1	R2
KRC102M	10kohm	10kohm

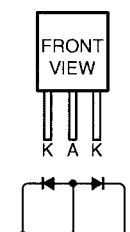
#### 4. DIODES (LED included)



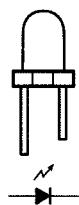
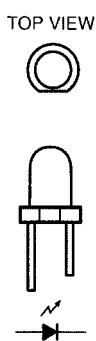
FMG-22S



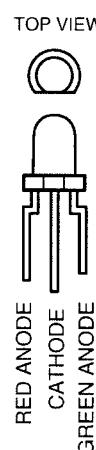
FMG-22R



SEL-2915A (Orange)

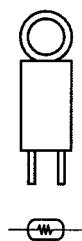


SML1216W (Red/Green)



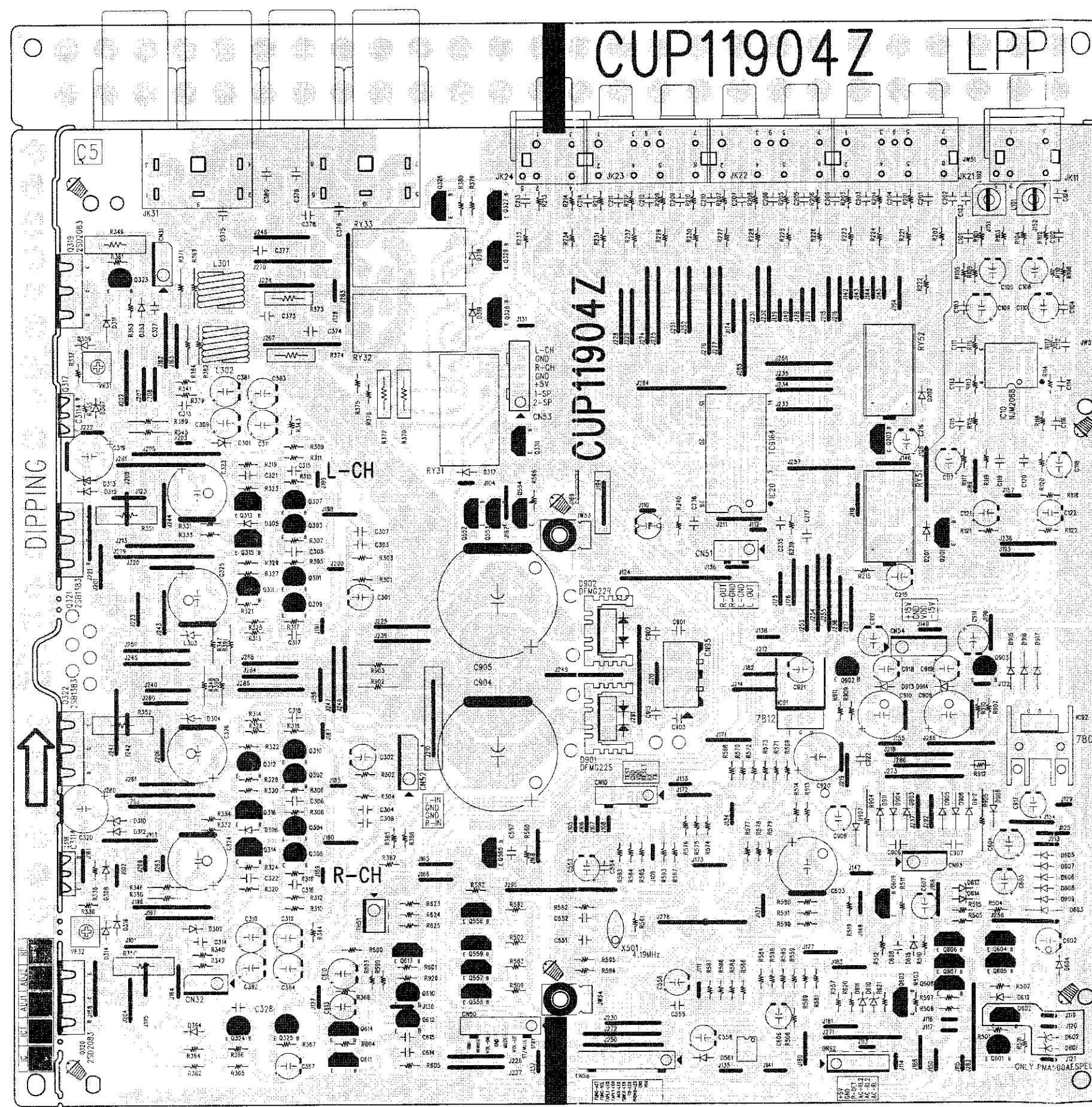
#### 5. POSISTOR

PTFM04BB222QN34 (TH51)

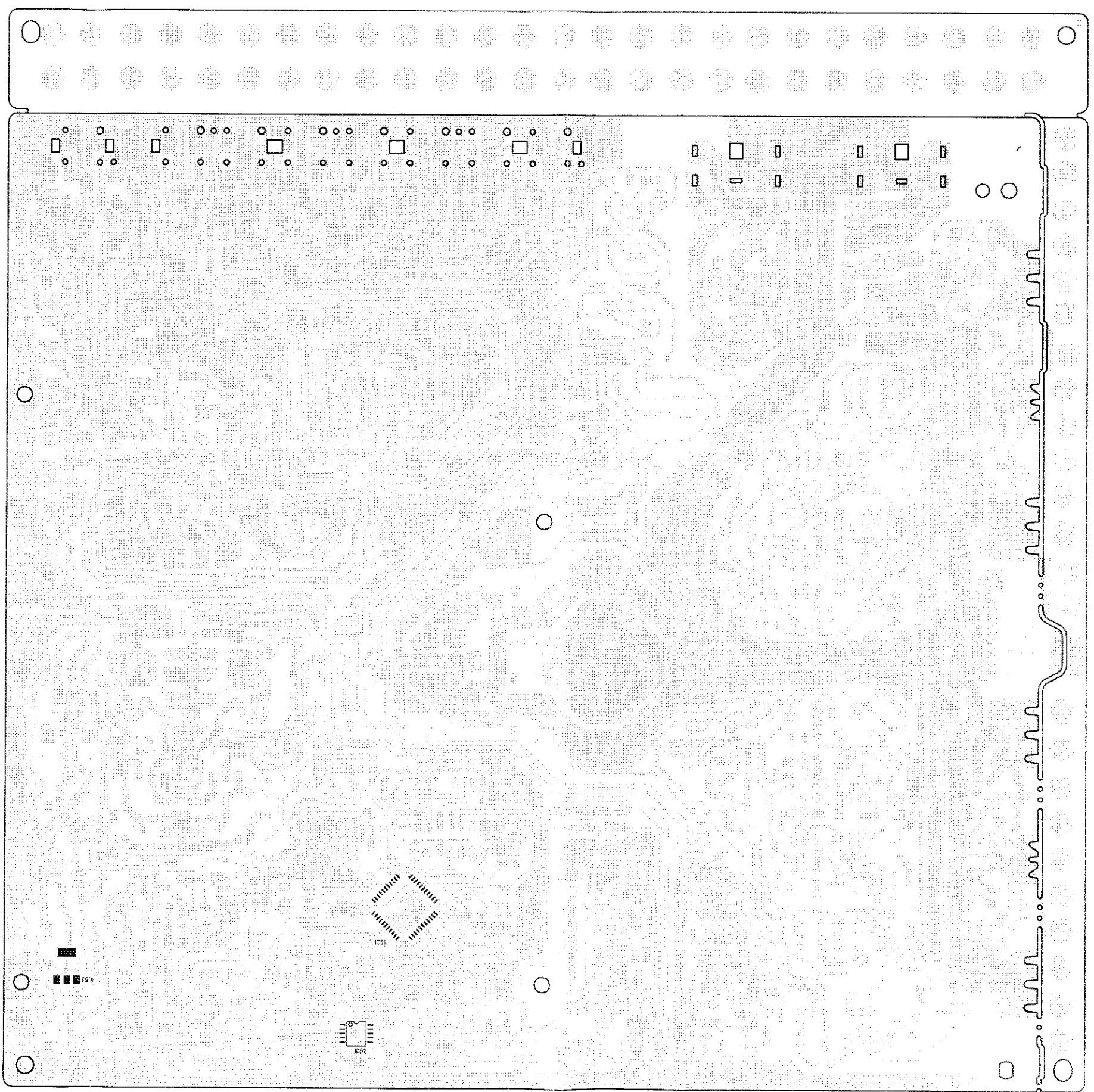


## PRINTED WIRING BOARDS

## MAIN P.W.B. UNIT

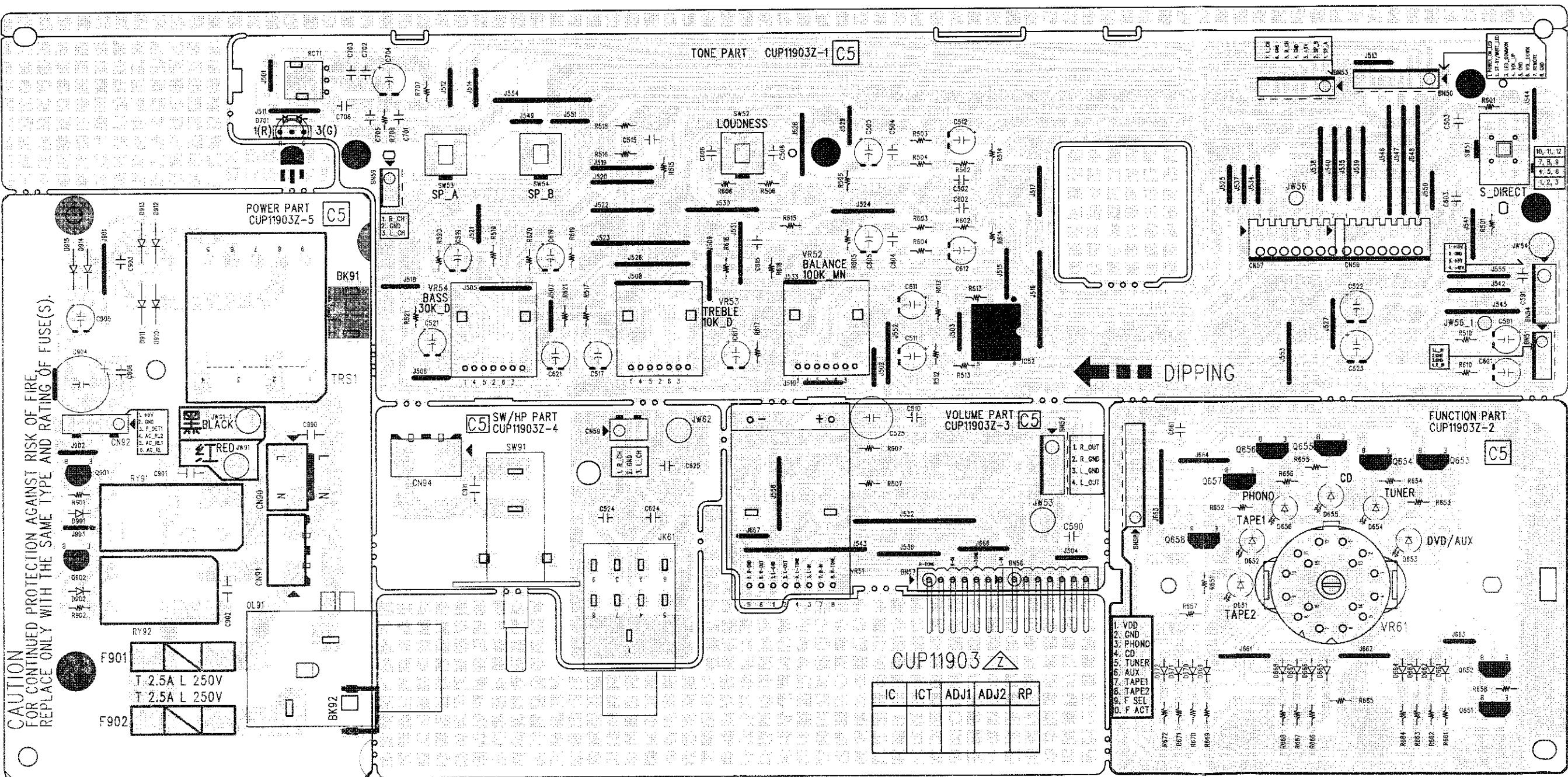


COMPONENT SIDE



FOIL SIDE

## FRONT P.W.B. UNIT



COMPONENT SIDE

## NOTE FOR PARTS LIST

- Part indicated with the mark "nsp" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including General-purpose Carbon Film Resistor in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)
- Not including General-purpose Carbon Chip Resistor in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

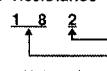
### WARNING:

Parts marked with this symbol  have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.

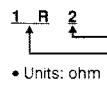
### ● Resistors

Type	RN	14K	2E	182	G	FR
Shape and performance		Power	Resist-ance	Allowable error		Others
RD : Carbon	2B	: 1/8W	F	: ±1%	P : Pulse-resistant type	
RC : Composition	2E	: 1/4W	G	: ±2%	NL : Low-noise type	
RS : Metal oxide film	2H	: 1/2W	J	: ±5%	NB : Non-burning type	
RW : Winding	3A	: 1W	K	: ±10%	FR : Fuse-resistor	
RN : Metal film	3D	: 2W	M	: ±20%	F : Lead wire forming	
RK : Metal mixture	3F	: 3W				
	3H	: 5W				

#### \* Resistance

 ⇒ 1800 ohm = 1.8 kohm  
Indicates number of zeros after effective number.  
2-digit effective number.

• Units: ohm

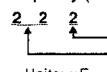
 ⇒ 1.2 ohm  
1-digit effective number.  
2-digit effective number, decimal point indicated by R.

• Units: ohm

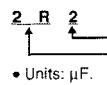
### ● Capacitors

Type	CE	04W	1H	2R2	M	BP
Shape and performance			Dielectric strength	Capacity	Allowable error	Others
CE : Aluminum foil electrolytic	0J	: 6.3V	F	: ±1%	HS : High stability type	
CA : Aluminum solid electrolytic	1A	: 10V	G	: ±2%	BP : Non-polar type	
CS : Tantalum electrolytic	1C	: 16V	J	: ±5%	HR : Ripple-resistant type	
CQ : Film	1E	: 25V	K	: ±10%	DL : For change and discharge	
CK : Ceramic	1V	: 35V	M	: ±20%	HF : For assuring high frequency	
CC : Ceramic	1H	: 50V	Z	: +80%	U : UL part	
CP : Oil	2A	: 100V		-20%	C : CSA part	
CM : Mica	2B	: 125V	P	: +100%	W : UL-CSA type	
CF : Metallized	2C	: 160V		-0%	F : Lead wire forming	
CH : Metallized	2D	: 200V	C	: ±0.25pF		
	2E	: 250V	D	: ±0.5pF		
	2H	: 500V	=	: Others		
	2J	: 630V				

#### \* Capacity (electrolyte only)

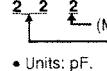
 ⇒ 2200μF  
Indicates number of zeros after effective number.  
2-digit effective number.

• Units: μF

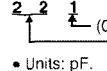
 ⇒ 2.2μF  
1-digit effective number.  
2-digit effective number, decimal point indicated by R.

• Units: μF

#### \* Capacity (except electrolyte)

 ⇒ 2200pF=0.0022μF  
(More than 2) Indicates number of zeros after effective number.  
2-digit effective number.

• Units: pF

 ⇒ 220pF  
(0 or 1) Indicates number of zeros after effective number.  
2-digit effective number.

• When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

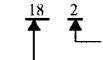
## 部品表について

- nsp 印の部品は常時在庫していませんので供給に長時間を要することがあります。  
場合によっては、供給をお断りすることがあります。
- 部品を発注する際は特に数字の "1" と英字の "I" の区別をはつきり記入してください。
- 部品番号を表示していない部品は供給できません。
- △印の部品は安全上重要な部品です。交換するときは、安全および性能維持のため必ず指定の部品をご使用ください。
- ★印のついている部品は分解図中には記載していません。
- 汎用カーボン抵抗器は記載していません。定数は回路図を参照願います。
- 汎用カーボンチップ抵抗器は記載していません。定数は回路図を参照願います。
- 部品表の抵抗器、コンデンサの品名記号の読み方は表を参照してください。

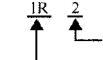
### ● 抵抗器

例)	RN	14K	2E	182	G	FR
	種類	形状特性	電力	抵抗値	許容差	その他
	RD : カーボン	2B : 1/8W	F	: ±1%	P : 耐パルス形	
	RC : 固定体	2E : 1/4W	G	: ±2%	NL : 低雑音形	
	RS : 金属系皮膜	2H : 1/2W	J	: ±5%	NB : 不燃形	
	RW : 卷線	3A : 1W	K	: ±10%	FR : ヒューズ抵抗	
	RN : 金属皮膜	3D : 2W	M	: ±20%	F : リード線成形	
	RK : 金属混合体	3F : 3W				
		3H : 5W				

\* 抵抗値

 ⇒ 1800Ω=1.8kΩ  
有効数字につづく0の数を表す。

2桁の有効数字を表す。

 ⇒ 1.2Ω  
1桁の有効数字を表す。

2桁の有効数字で小数点はRで表す。

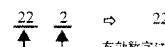
: 単位はΩ

### ● コンデンサ

例)	CE	04W	1H	2R2	M	BP
	種類	形状特性	耐圧	容量	許容差	その他
	CE : アルミ 滲電解	0J	: 6.3V	F	: ±1%	HS : 高安定形
	CA : アルミ 固体電解	1A	: 10V	G	: ±2%	BP : 無極性形
	CS : タンタル電解	1C	: 16V	I	: ±5%	HR : 耐リップル形
	CQ : フィルム	1E	: 25V	K	: ±10%	DL : 充放電対策用
	CK : セラミック	1V	: 35V	L	: ±20%	HF : 高周波保護用
	CP : オイル	2A	: 100V	M	: +80%	U : UL 部品
	CM : マイカ	2B	: 125V	2A	: -20%	C : CSA 部品
	CF : メタライズド	2C	: 160V	2B	: +100%	W : UL-CSA 部品
	CH : メタライズド	2D	: 200V	2C	: -0%	F : リード線成形
		2E	: 250V	2D	: ±0.25pF	
		2H	: 500V	2E	: ±0.5pF	
		2J	: 630V	2H	: 500V	
				2J	: 630V	

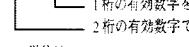
#### \* 容量値

##### ● 電解コンデンサの場合

 ⇒ 2200μF  
有効数字につづく0の数を表す。

2桁の有効数字を表す。

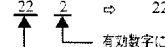
: 単位はμF

 ⇒ 2.2μF  
1桁の有効数字を表す。

2桁の有効数字で小数点はRで表す。

: 単位はμF

##### ● 電解コンデンサ以外の場合

 ⇒ 2200pF=0.0022μF  
有効数字につづく0の数を表す。

(0の数が2以上の場合)

2桁の有効数字を表す。

: 単位はpF

 ⇒ 220pF  
有効数字につづく0の数を表す。

(0の数が0または1の場合)

2桁の有効数字を表す。

: 単位はpF

##### ● 耐圧を交流で表示する場合は、耐圧表示の次に「AC」を表示します。

## **PARTS LIST OF P.W.B. UNIT**

\* 本表に記載されている部品は、補修用部品のため製品に使用している部品とは一部、形状、寸法などが異なる場合があります。  
\* The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

\* "nsp"印の部品は常時在庫していませんので供給に長時間を要することがあります。場合によっては、供給をお断りする場合があります。

\* Part indicated with the mark "nsp" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.

#### **MAIN P.W.B. UNIT ASS'Y**

	Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
<b>SEMICONDUCTORS GROUP</b>							
	IC10		00D 943 0198 207	IC NJM2068DD			*
	IC20		00D 943 0198 401	IC TC9164AN			*
	IC51		00D 943 0196 801	IC TMP86FH47AUG(JZ)			*
	IC52		00D 943 0196 500	IC LB1930M			*
	IC61		00D 943 0038 902	IC 1117S-3.3V			
	IC91		00D 943 0200 302	IC MC7812C			*
	IC92		00D 943 0198 304	IC NJM7806FA			*
	Q201,202		00D 943 0107 804	TR KRC102M		HVTKRC102MT	
	Q301-304		00D 943 0198 906	TR KTC3200GR		HVTKTC3200GRT	*
	Q307-310		00D 943 0198 906	TR KTC3200GR		HVTKTC3200GRT	*
	Q311,312		00D 943 0006 206	TR KTA1268GR		HVTKTA1268GRT	
	Q313,314		00D 943 0198 702	TR KTA1024Y		HVTKTA1024YT	*
	Q315,316		00D 943 0199 002	TR KTC3206YA		HVTKTC3206YAT	*
	Q317,318		00D 943 0198 809	TR KTC3114A		HVTKTC3114A	*
	Q319,320		00D 943 0200 700	TR 2SD2083P		CVT2SD2083P-OKM	*
	Q321,322		00D 943 0197 004	TR 2SB1383P		CVT2SB1383P-OKM	*
	Q323,324		00D 943 0198 906	TR KTC3200GR		HVTKTC3200GRT	*
	Q325		00D 943 0006 206	TR KTA1268GR		HVTKTA1268GRT	*
	Q326		00M HT6 0014 1B1	TR KTA1271			
	Q327-330		00D 943 0107 804	TR KRC102M		HVTKRC102MT	
	Q552		00D 943 0154 200	TR KRA102M		HVTKRA102MT	
	Q553,554		00D 943 0107 804	TR KRC102M		HVTKRC102MT	
	Q556,557		00D 943 0107 804	TR KRC102M		HVTKRC102MT	
	Q558		00D 943 0037 408	TR KSC2785Y		HVTKSC2785YT	
	Q559		00D 943 0107 804	TR KRC102M		HVTKRC102MT	
	Q565		00D 943 0107 804	TR KRC102M		HVTKRC102MT	
	Q601		00D 943 0108 104	TR KTC2874B		HVTKTC2874BT	
	Q602		00D 943 0107 804	TR KRC102M	for EUT	HVTKRC102MT	
	Q603		00D 943 0037 408	TR KSC2785Y		HVTKSC2785YT	
	Q604,605		00D 943 0107 804	TR KRC102M		HVTKRC102MT	
	Q606-608		00D 943 0154 200	TR KRA102M		HVTKRA102MT	
	Q609		00D 943 0037 408	TR KSC2785Y		HVTKSC2785YT	
	Q610		00D 943 0154 404	TR KTC3198Y		HVTKTC3198YT	
	Q611		00D 943 0154 200	TR KRA102M		HVTKRA102MT	
	Q612		00D 943 0154 404	TR KTC3198Y		HVTKTC3198YT	
	Q613		00D 943 0037 408	TR KSC2785Y		HVTKSC2785YT	
	Q614		00D 943 0107 804	TR KRC102M		HVTKRC102MT	
	Q902		00D 943 0059 004	TR KSC2316Y		HVTKSC2316YT	
	Q903		00D 943 0198 605	TR KSA916Y		HVTKSA916YT	*
	D201,202		00D 943 0182 609	DIODE 1SS133		CVD1SS133MT	
	D301-304		00D 943 0195 909	ZENER DIODE ZJ16B		CVDZJ16BT	*
	D305-308		00D 943 0182 609	DIODE 1SS133		CVD1SS133MT	
	D309,310		00D 943 0196 102	ZENER DIODE ZJ3.0B		CVDZJ3.0BT	
	D311		00D 943 0182 502	DIODE 1N4003		CVD1N4003ST	*

	Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
	D312		00D 943 0182 609	DIODE 1SS133	CVD1SS133MT		*
	D313,314		00D 943 0196 102	ZENER DIODE ZJ3.0B	CVDZJ3.0BT		
	D315-319		00D 943 0182 609	DIODE 1SS133	CVD1SS133MT		
	D363,364		00D 943 0182 609	DIODE 1SS133	CVD1SS133MT		
	D561		00D 943 0182 609	DIODE 1SS133	CVD1SS133MT		*
	D601		00D 943 0195 802	ZENER DIODE ZJ10B	for EUT	CVDZJ10BT	*
	D602		00D 943 0196 005	ZENER DIODE ZJ27B	for EUT	CVDZJ27BT	*
	D603		00D 943 0182 502	DIODE 1N4003		CVD1N4003ST	
	D604-609		00D 276 0704 903	DIODE 1SR35-400A			
	D610		00D 943 0196 306	ZENER DIODE ZJ7.5B		CVDZJ7.5BT	*
	D611		00D 943 0196 209	ZENER DIODE ZJ4.7B		CVDZJ4.7BT	*
	D612		00D 943 0182 609	DIODE 1SS133		CVD1SS133MT	
	D613,614		-	WIRE, COPPER		C3A206	
	D615		00D 943 0182 609	DIODE 1SS133		CVD1SS133MT	
	D901		00D 943 0195 608	DIODE FMG-22S(A-K-A)		CVDFMG-22S	*
	D902		00D 943 0195 501	DIODE FMG-22R(K-A-K)		CVDFMG-22R	*
	D903-908		00D 943 0182 502	DIODE 1N4003		CVD1N4003ST	
	D911,912		00D 943 0182 502	DIODE 1N4003		CVD1N4003ST	
	D913,914		00D 943 0195 909	ZENER DIODE ZJ16B		CVDZJ16BT	
	D915-917		00D 943 0182 502	DIODE 1N4003		CVD1N4003ST	
<b>RESISTORS GROUP</b>							
	R345-348		-	RES, CARBON 3.9k ohm 1/4W J		CRD25FJ392T	
	R349-352		00D 943 0194 201	RES, CEMENT 0.22 ohm 5W K		CRF5EKR22H	*
	R369		-	RES, CARBON 22 ohm 1/4W J		CRD25FJ220T	
	R370		00D 943 0200 409	RES, METAL OXIDE 390 ohm 1W J		CRG1ANJ391H	
	R371		-	RES, CARBON 22 ohm 1/4W J		CRD25FJ220T	
	R372		00D 943 0200 409	RES, METAL OXIDE 390 ohm 1W J		CRG1ANJ391H	
	R373,374		00D 943 0200 506	RES, METAL OXIDE 10 ohm 1W J		CRG1ANJ100H	
	R382		-	RES, CARBON 22 ohm 1/4W J		CRD25FJ220T	
	R384		-	RES, CARBON 22 ohm 1/4W J		CRD25FJ220T	
	R388-391		-	RES, CARBON 3.9k ohm 1/4W J		CRD25FJ392T	
	R902,903		-	RES, CARBON 22k ohm 1/4W J		CRD25TJ223T	
	R904,905		00D 943 0194 405	RES, FUSE 0.47 ohm 1W J		CRQ1AJR47H	*
	R912		00D 943 0194 308	RES, FUSE 0.3 ohm 1/6W K		CRQ16AKR30T	*
	VR31,32		00D 943 0196 908	SEMI FIXED RESISTOR 500 ohm		CVN1SA501B01T	*
<b>CAPACITORS GROUP</b>							
	C101-104		-	CAP, CERAMIC 100pF 50V KB		CCKT1H101KB	
	C105,106		-	CAP, ELECT 10uF 50V		CCEA1HH100T	
	C109,110		-	CAP, ELECT 220uF 16V		CCEA1CH221T	
	C111,112		-	CAP, MYLAR 6800pF 50V J		HCQI1H682JZT	
	C113,114		-	CAP, MYLAR 0.018uF 50V J		HCQI1H183JZT	
	C115,116		-	CAP, MYLAR 6800pF 50V J		HCQI1H682JZT	
	C117,118		-	CAP, ELECT 10uF 50V		CCEA1HH100T	
	C119,120		-	CAP, MYLAR 3900pF 50V J		HCQI1H392JZT	
	C121,122		-	CAP, ELECT 22uF 50V		CCEA1HH220T	
	C123,124		-	CAP, CERAMIC 0.1uF 50V ZF		CCFT1H104ZF	
	C215,216		-	CAP, ELECT 10uF 50V		CCEA1HH100T	
	C217		-	CAP, CERAMIC 47pF 50V JC		CCCT1H470JC	
	C235,236		-	CAP, CERAMIC 0.022uF 50V ZF		CCFT1H223ZF	
	C301,302		-	CAP, ELECT 22uF 50V		CCEA1HH220T	
	C303,304		-	CAP, CERAMIC 220pF 50V KB		CCKT1H221KB	*

	Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
	C305,306		-	CAP, CERAMIC 1000pF 50V KB			
	C309-312		00D 943 0188 700	CAP, ELECT 100uF/25V (RA3)	HCBS1H102KBT CCEA1ERA3101T		*
	C313,314		-	CAP, CERAMIC 5pF 50V CC			
	C315-318		-	CAP, MYLAR 3900pF 50V J	CCCT1H050CC HCQI1H392JZT		
	C319,320		00D 943 0189 204	CAP, ELECT 22uF 50V (RFS)	CCEA1HRFS220E		*
	C321,322		-	CAP, CERAMIC 15pF 50V JC	CCCT1H150JC		*
	C323-326		00D 943 0189 301	CAP, ELECT 100uF 63V (RFS)	CCEA1JRFS101E		*
	C327,328		-	CAP, CERAMIC 1000pF 50V KB	CCKT1H102KB		
	C367		-	CAP, ELECT 4.7uF 50V	CCEA1HH4R7T		
	C373-378		-	CAP, MYLAR 0.047uF 50V J	HCQI1H473JZT		
	C379,380		-	CAP, CERAMIC 0.1uF 50V ZF	CCFT1H104ZF		
	C381-384		00D 943 0188 700	CAP, ELECT 100uF/25V (RA3)	CCEA1ERA3101T		*
	C553		-	CAP, ELECT 100uF 16V	CCEA1CH101T		
	C554,555		-	CAP, CERAMIC 0.01uF 50V ZF	CCFT1H103ZF		
	C556		-	CAP, ELECT 100uF 16V	CCEA1CH101T		
	C557		-	CAP, CERAMIC 0.1uF 50V ZF	CCFT1H104ZF		
	C558		-	CAP, ELECT 100uF 16V	CCEA1CH101T		
	C602		-	CAP, ELECT 22uF 50V	CCEA1HH220T		*
	C603		00D 943 0188 302	CAP, ELECT 3300uF 16V	CCEA1CH332E		*
	C604		-	CAP, ELECT 470uF 10V	CCEA1AH471T		
	C605		-	CAP, ELECT 10uF 50V	CCEA1HH100T		
	C606		-	CAP, ELECT 1uF 50V	CCEA1HH1R0T		
	C607		-	CAP, ELECT 2.2uF 50V	CCEA1HH2R2T		*
	C608		-	CAP, CERAMIC 0.01uF 50V ZF	CCFT1H103ZF		
	C610		-	CAP, ELECT 470uF 10V	CCEA1AH471T		
	C613		-	CAP, ELECT 47uF 25V	CCEA1EH470T		
	C614		-	CAP, CERAMIC 0.047uF 50V ZF	CCFT1H473ZF		
	C615		-	CAP, CERAMIC 0.022uF 50V ZF	CCFT1H223ZF		
	C901-903		-	CAP, METALLIZED 0.1uF 100V J	CCME2A104JXT		*
	C904,905		00D 943 0189 408	CAP, ELECT 8200uF 56V (LAO)	CCET56VLAO822N		*
	C906,907		-	CAP, CERAMIC 0.01uF 50V ZF	HCBS1H103ZFT		
	C908		-	CAP, ELECT 0.47uF 50V	CCEA1HHR47T		*
	C909,910		00D 943 0188 603	CAP, ELECT 1000uF 25V	CCEA1EH102E		*
	C911,912		-	CAP, ELECT 100uF 25V	CCEA1EH101T		*
	C915		-	CAP, METALLIZED 0.1uF 100V J	CCME2A104JXT		*
	C917-919		-	CAP, ELECT 47uF 25V	CCEA1EH470T		
	C920		00D 943 0188 603	CAP, ELECT 1000uF 25V	CCEA1EH102E		*
	C921		-	CAP, ELECT 47uF 25V	CCEA1EH470T		
	C922		-	CAP, CERAMIC 0.1uF 50V ZF	CCFT1H104ZF		
<b>OTHERS PARTS GROUP</b>							
	BN92		-	WIRE ASS'Y, 2.0MM/600MM/6P	CWB2B906600EN		*
	CN10		-	WAFER, STRAIGHT, 6PIN	CJP06GA19ZY		*
	CN31,32		-	WAFER	CJP03GA01ZY		
	CN50		-	WAFER, STRAIGHT, 8PIN	CJP08GA19ZY		*
	CN51		-	WAFER, STRAIGHT, 4PIN	CJP04GA19ZY		*
	CN52		-	WAFER, STRAIGHT, 4PIN	CJP04GA01ZY		*
	CN53		-	WAFER, STRAIGHT, 7PIN	CJP07GA19ZY		
	CN54		-	WAFER, STRAIGHT, 4PIN	CJP04GA01ZY		*
	CN58		-	WAFER, STRAIGHT, 10PIN	CJP10GA19ZY		*
	CN93		-	WAFER	CJP03GA01ZY		
	CN95		-	WAFER	CJP03GA90ZY		
	JK11		00D 943 0191 700	2P JACK, IN/OUT	CJJ4N034Z		*

3

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
JK21-23		00D 943 0191 807	4P JACK, IN/OUT		CJJ4P028Z		*
JK24 JK31		00D 943 0191 700 00D 943 0191 904	2P JACK, IN/OUT TERMINAL, SPEAKER		CJJ4N034Z CJJ5Q006Z		*
JW53,54		-	PALTE, EARTH		HJT1A025		*
L101,102 L301,302		00D 943 0193 601 00D 943 0193 106	COIL, TOROIDAL COIL, SPEAKER (0.5uH)		CLU9S004Z CLEY0R5KAK		*
RY31-33 RY51-52		00D 943 0195 006 00D 943 0195 103	RELAY G5PA-28 RELAY		CSL3A017ZU CSL4A013ZE		*
TH51		00D 943 0194 609	POSISTOR PTFM04BB222QN34		CRTPTFM04BB222Q		*
X501		00D 943 0196 403	RESONATOR, CERAMIC CSTLS4M19G56-A0		CVFCSTLS4M19G56-A0		*
		-	BRACKET		CMD1A596		*
		-	HEAT SINK BRACKET		CMD1A597		
		-	HEAT SINK		CMY1A268		
		-	HEAT SINK		CMY2A048		
		-	HEAT SINK		CMY1A218		
		-	HEAT SINK		CMY1A043		
		-	SCREW, SPECIAL		CHD1A012R		
		-	SCREW CTB3+6JR		CTB3+6JR		
		-	SCREW CTW3+8JR		CTW3+8JR		
		-	SCREW CTB3+8J		CTB3+8J		
		-	SCREW CTB3+8JR		CTB3+8JR		

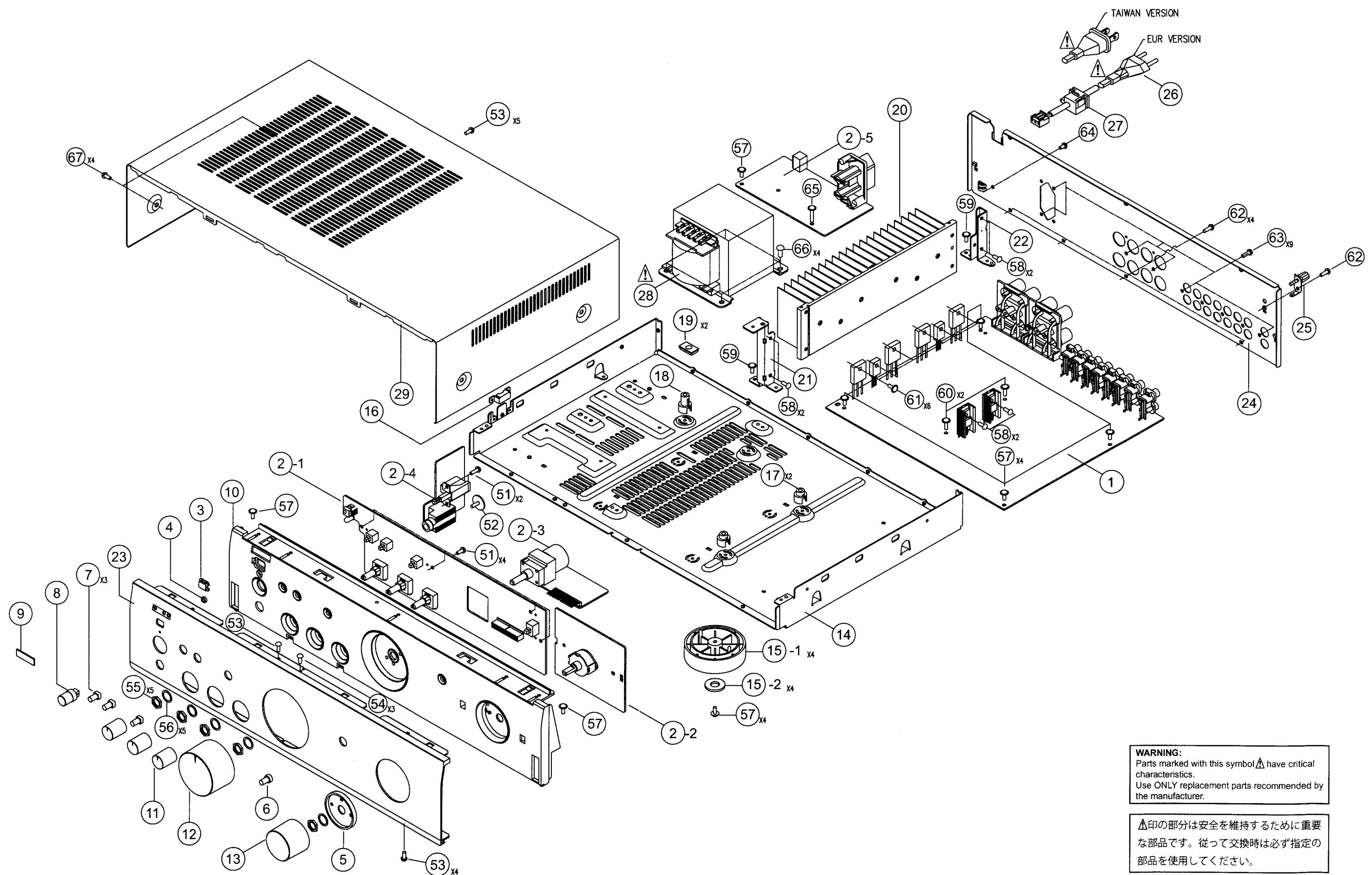
## FRONT P.W.B. UNIT ASS'Y

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
<b>SEMICONDUCTORS GROUP</b>							
IC52		00D 943 0198 207	IC NJM2068DD		HVINJM2068DD		*
Q651-658		00D 943 0154 200	TR KRA102M		HVTKRA102MT		
Q901,902		00D 943 0108 104	TR KTC2874B		HVTKTC2874BT		
D651-656		00D 943 0195 705	LED SEL2915A	Orang	CVDSEL2915A		*
D661-672		00D 943 0182 609	DIODE 1SS133		CVD1SS133MT		
D701		00D 943 0198 100	LED SML1216W	Red/Green	HVDMSL1216W		*
D901,902		00D 943 0182 609	DIODE 1SS133		CVD1SS133MT		
D910-915		00D 943 0182 502	DIODE 1N4003		CVD1N4003ST		
<b>RESISTORS GROUP</b>							
VR51		00D 943 0197 305	VR, MOTOR		CVV9Y13B503Z		*
VR52		00D 943 0197 101	RES, VARIABLE RA1450GOE0D-HA1		CVV2X13M104Z		*
VR53		00D 943 0197 208	VR, TONE D103-Q1-FB200B1		CVV2X18D103Z		*
VR54		00D 943 0215 504	VR, TONE D303-Q1-FB200B1		CVV2X19D303Z		*
VR61		00D 943 0195 200	SW, ROTARY SSRM1C7800		CSRCA001Z		*
<b>CAPACITORS GROUP</b>							
C501		-	CAP, ELECT 10uF 50V		CCEA1HH100T		
C502		-	CAP, CERAMIC 39pF 50V JC		CCCT1H390JC		
C503		-	CAP, MYLAR 3300pF 50V J		HCQI1H332JZT		
C504		-	CAP, MYLAR 0.047uF 50V J		HCQI1H473JZT		
C505		-	CAP, ELECT 0.47uF 50V		CCEA1HHR47T		*
C506		-	CAP, MYLAR 0.033uF 50V J		HCQI1H333JZT		*
C510		-	CAP, CERAMIC 0.01uF 50V ZF		CCFT1H103ZF		
C511		-	CAP, ELECT 4.7uF 50V		CCEA1HH4R7T		
C512		-	CAP, ELECT 10uF 50V		CCEA1HH100T		
C515		-	CAP, MYLAR 0.033uF 50V J		HCQI1H333JZT		*
C517		-	CAP, ELECT 0.22uF 50V		CCEA1HHR22T		
C519		-	CAP, ELECT 0.1uF 50V		CCEA1HH0R1T		
C521		-	CAP, ELECT 0.47uF 50V		CCEA1HHR47T		*
C522,523		-	CAP, ELECT 100uF 25V		CCEA1EH101T		*
C524		-	CAP, CERAMIC 220pF 50V KB		CCKT1H221KB		
C525		-	CAP, ELECT 22uF 16V		CCEA1CN220T		*
C591		-	CAP, CERAMIC 0.1uF 50V ZF		CCFT1H104ZF		
C601		-	CAP, ELECT 10uF 50V		CCEA1HH100T		
C602		-	CAP, CERAMIC 39pF 50V JC		CCCT1H390JC		
C603		-	CAP, MYLAR 3300pF 50V J		HCQI1H332JZT		
C604		-	CAP, MYLAR 0.047uF 50V J		HCQI1H473JZT		
C605		-	CAP, ELECT 0.47uF 50V		CCEA1HHR47T		*
C606		-	CAP, MYLAR 0.033uF 50V J		HCQI1H333JZT		
C611		-	CAP, ELECT 4.7uF 50V		CCEA1HH4R7T		
C612		-	CAP, ELECT 10uF 50V		CCEA1HH100T		
C615		-	CAP, MYLAR 0.033uF 50V J		HCQI1H333JZT		
C617		-	CAP, ELECT 0.22uF 50V		CCEA1HHR22T		*
C619		-	CAP, ELECT 0.1uF 50V		CCEA1HH0R1T		
C621		-	CAP, ELECT 0.47uF 50V		CCEA1HHR47T		
C624		-	CAP, CERAMIC 220pF 50V KB		CCKT1H221KB		
C625		-	CAP, CERAMIC 0.1uF 50V ZF		CCFT1H104ZF		
C661		-	CAP, CERAMIC 0.01uF 50V ZF		CCFT1H103ZF		
C701-703		-	CAP, CERAMIC 0.01uF 50V ZF		CCFT1H103ZF		

4

	Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
	C704		-	CAP, ELECT 220uF 16V			*
	C705		-	CAP, CERAMIC 0.01uF 50V ZF			
	C706		-	CAP, CERAMIC 47pF 50V JC			
	C901,902	00D 943 0024 408	CAP, CERAMIC 0.0047uF/2.5KV				
	C903		-	CAP, CERAMIC 0.1uF 50V ZF			
	C904	00D 943 0188 603	CAP, ELECT 1000uF 25V				*
	C905		-	CAP, ELECT 0.47uF 50V			
	C906		-	CAP, CERAMIC 0.01uF 50V ZF			
<b>OTHERS PARTS GROUP</b>							
	BK91		-	BRACKET, PCB(A)		CMD1A188	*
	BN50		-	WIRE ASS'Y 2.0MM/130MM/8P		CWB2B908130EN	
	BN51		-	WIRE ASS'Y 2.0MM/220MM/4P		CWZPMA500AEBN51	
	BN52		-	WIRE ASS'Y 2.5MM/80MM/4P		CWZPMA500AEBN52	*
	BN53		-	WIRE ASS'Y 2.0MM/270MM/7P		CWB2B907270EN	
	BN54		-	WIRE ASS'Y		CWB1C904220BM	
	BN56,57		-	WAFER		CJP07GF107ZY	
	BN58		-	WIRE ASS'Y		CWB2B910100EN	
	BN59		-	WIRE ASS'Y		CWB2B903080EN	*
	CN56,57		-	WAFER		CJP07HA37ZM	
	CN59		-	WAFER, STRAIGHT, 3PIN		CJP03GA19ZY	
	CN90		-	WAFER		CJP02KA060ZY	
	CN91		-	WAFER		CJP02GA89ZY	*
	CN92		-	WAFER, STRAIGHT, 6PIN		CJP06GA19ZY	
	CN94		-	WAFER		CJP02GA89ZY	
	F901	00D 943 0199 109	FUSE 2.5A/250V	for E2	KBA2C2500TLEY		*
	F901	00D 943 0171 306	FUSE 5A/250V	for EUT for E2	KBA2C5000TLEY		*
	F902	00D 943 0199 109	FUSE 2.5A/250V		KBA2C2500TLEY		
	JK61	00D 943 0198 003	JACK, PHONE		HJJ2E018Z		*
	JW54		-	WIRE ASS'Y(1P)	CWE8202080RV		
	JW62		-	WIRE ASS'Y		CWE8202110RV	*
	JW91		-	WIRE ASS'Y (RED/N.C/BLACK)		CWB4FA32300PU	
	OL91	00D 943 0199 206	OUTLET, AC(EUR/1P)	for E2	KJJ7A022Z		*
	RC71	00D 943 0194 706	SENSOR, REMOTE (KSM603TH2E)		CRVKSM603TH2E		*
	RY91	00D 943 0200 807	RELAY, G2R-14 (DC 5V)		CSL2C002ZE		
	RY92	00D 943 0194 900	RELAY, G5PA-1 (DC 6V)		CSL1E002ZE		
	SW51	00D 943 0194 803	SW, PUSH (JPS-4281SA)		CSH2D013Z		*
	SW52-54	00D 943 0199 400	SW, PUSH (220014)		KSH2B003Z		
	SW91	00D 943 0140 609	SW, PUSH (CSH1A010ZV)		CSH1A010ZV		
	TRS1	00D 943 0193 203	TRANSFORMER, SUB	for E2 for EUT	CLT5I008ZE		*
	TRS1	00D 943 0193 300	TRANSFORMER, SUB		CLT5I008ZS		
		-	HOLDER, FUSE	for F901,902 for EUT, for F901	KJCFC5S		*
		-	LABEL, FUSE (T 5.0A L 250V)		CQT2A243U		

## EXPLODED VIEW



**WARNING:**  
Parts marked with this symbol have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.

印の部分は安全を維持するために重要な部品です。従って交換時は必ず指定の部品を使用してください。

## PARTS LIST OF EXPLODED VIEW

\* 本表に記載されている部品は、補修用部品のため製品に使用している部品とは一部、形状、寸法などが異なる場合があります。

\* The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

\* "nsp" 印の部品は常時在庫していませんので供給に長時間を要することがあります。場合によっては、供給をお断りする場合があります。

\* Part indicated with the mark "nsp" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.

Note: The symbols in the column "Remarks" indicate the following destinations.

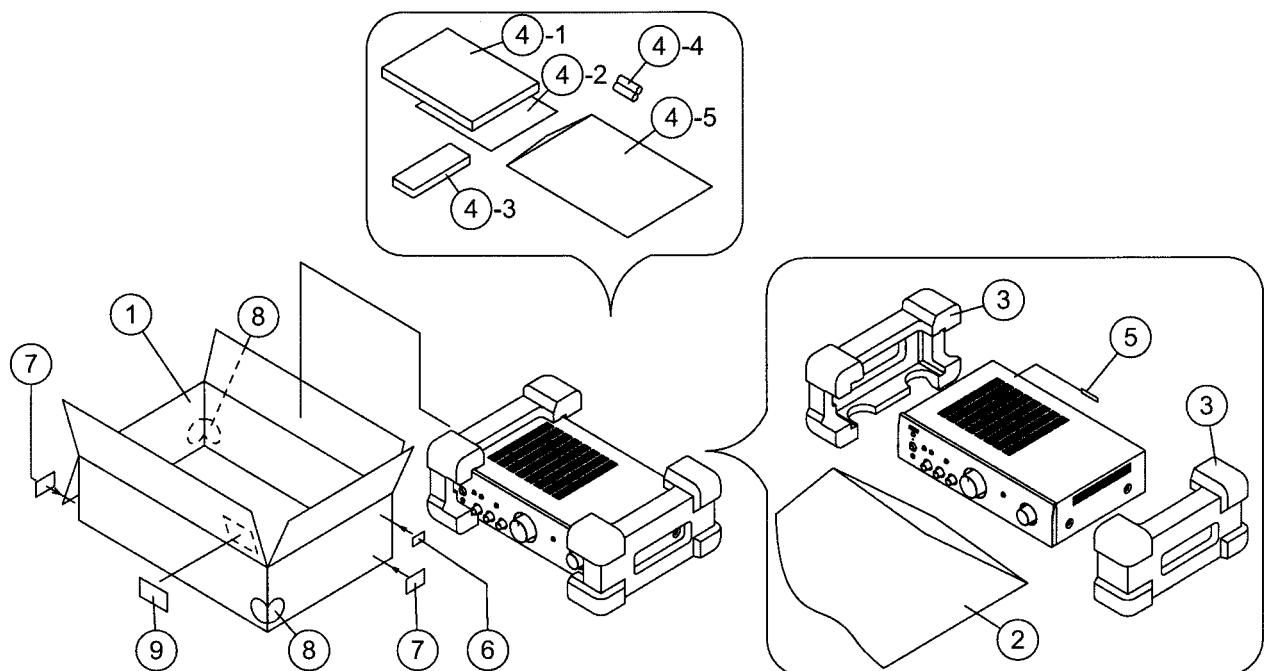
E2: Europe model

EUT: Taiwan R.O.C. model

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
1	nsp	00D 943 0194 309	MAIN PWB ASS'Y	for E2	COP11904B	1	*
	nsp	00D 943 0194 406	MAIN PWB ASS'Y	for EUT	COP11904C	1	*
	nsp	00D 943 0194 105	FRONT PCB ASS'Y	for E2	COP11903B	1	*
	nsp	00D 943 0194 202	FRONT PCB ASS'Y	for EUT	COP11903C	1	*
	-	-	FRONT PWB				
2	2-1	-	INPUT PWB				
	2-2	-	VOLUME PWB				
	2-3	-	JACK PWB				
	2-4	-	POWER PWB				
	2-5	-	WINDOW, REMOCON	Black model	CGU1A396A8	1	*
3	nsp	00D 943 0190 206	WINDOW, REMOCON	Premium Silver model	CGU1A396	1	*
	nsp	00D 943 0190 109	LENS	Black model	CGL1A254	1	*
	nsp	00D 943 0189 903	FUNCTION LENS	Premium Silver model	CGL1A255Z	1	*
	nsp	00D 943 0190 002	FUNCTION LENS	Black model	CGL1A255Y	1	*
	nsp	00D 943 0187 109	DIRECT KNOB	Black model	CBC1A154B2	1	*
6	nsp	00D 943 0187 206	DIRECT KNOB	Premium Silver model	CBC1A154RGG45	1	*
	nsp	00D 943 0201 505	PUSH KNOB	Black model	CBC2A155B2	3	*
	nsp	00D 943 0201 602	PUSH KNOB	Premium Silver model	CBC2A155RGG45	3	*
	nsp	00D 943 0179 502	KNOB, POWER	Black model	CGK1A124ZA	1	*
	nsp	00D 943 0179 609	KNOB, POWER	Premium Silver model	CGK1A124YA	1	*
9	nsp	00D 131 0158 007	DENON BADGE	Black model		1	
	nsp	00D 131 0158 010	DENON BADGE	Premium Silver model		1	
	nsp	00D 943 0201 709	INNER PANEL	Black model	CGW2A425B2	1	*
	nsp	00D 943 0201 806	INNER PANEL	Premium Silver model	CGW2A425RGG45	1	*
	nsp	00D 943 0188 001	ROTARY KNOB	Black model	CBN1A211B2	3	*
11	nsp	00D 943 0188 108	ROTARY KNOB	Premium Silver model	CBN1A211RGG45	3	*
	nsp	00D 943 0187 604	VOLUME KNOB	Black model	CBN1A209B2	1	*
	nsp	00D 943 0187 701	VOLUME KNOB	Premium Silver model	CBN1A209RGG45	1	*
	nsp	00D 943 0187 808	INPUT KNOB	Black model	CBN1A210B2	1	*
	nsp	00D 943 0187 905	INPUT KNOB	Premium Silver model	CBN1A210RGG45	1	*
14	nsp	-	CHASSIS, BOTTOM		CUA1A269	1	*
	15-1	nsp	00D 104 0334 007	FOOT		4	
	15-2	nsp	00D 943 0179 900	CUSHION, FOOT	CHG2A289	4	
	16	nsp	00D 943 0193 902	COVER, SCREW	CMD1A495	1	*
	17	nsp	00D 943 0095 107	HOLDER, PCB	CHE170	2	
18	nsp	00D 943 0191 205	HOLDER, PCB		CHE1A030	1	*
	nsp	00D 943 0094 700	RUBBER		CHG1A113	2	
	nsp	-	HEAT SINK		CMY1A268	1	*
	nsp	-	HEAT SINK BRACKET		CMD1A597	1	*
	nsp	-	BRACKET		CMD1A596	1	*
23	nsp	00D 943 0193 009	FRONT PANEL	Black model	CKM1A179ZC45	1	*
	nsp	00D 943 0192 903	FRONT PANEL	Premium Silver model	CKM1A179YC62	1	*
	nsp	00D 943 0192 602	REAR PANEL	for E2	CKF1A317Z	1	*
	nsp	00D 943 0192 709	REAR PANEL	for EUT	CKF2A317Y	1	*
	nsp	00D 943 0199 303	TERMINAL, GROUND		KMA1A006	1	*
26	nsp	00D 943 0180 407	CORD, POWER(EUR)	for E2	CJA2B043ZA	1	
	nsp	00D 943 0180 504	POWER, CORD	for EUT	CJA2L072ZA	1	
	nsp	00D 943 0095 505	BUSHING, AC CORD		KHR1A028	1	
	nsp	00D 943 0193 407	TRANSFORMER, POWER	for E2	CLT5R037ZE	1	*

	Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
⚠	28		00D 943 0193 504	TRANSFORMER, POWER	for EUT	CLT5R037ZS	1	*
	29	nsp	00D 943 0192 408	TOP CABINET	Black model	CKC1A176S56	1	*
	29	nsp	00D 943 0192 301	TOP CABINET	Premium Silver model	CKC1A176S55	1	*
★	30		00D 943 0193 708	FERRITE CORE(21.2X6.4X12.7)		CLZ9Z028Z	1	*
★	31	nsp	00D 943 0186 401	HEMELON TAPE		CHS1A032	3	*
★	32		00D 943 0164 203	FERRITE, RING		CLZ9W003Z	1	
	★ 33	nsp	00D 943 0191 302	CLAMPER		CHR301	8	
	★ 34			LOCKER		CRE1A037	8	*
★	35	nsp	00D 129 0256 003	CLOTH TAPE (W20)	L=30		1	
★	36	nsp	00D 129 0256 016	CLOTH TAPE (W10)	L=230		1	
★	37	nsp	00D 125 0092 029	BUTYL TAPE (W=15)	L=65		2	
★	38	nsp	00D 125 0096 025	NITOFLON TAPE (W15)	L=65		2	
★	39	nsp	00D 125 0092 016	BUTYL TAPE (W=25)	L=170		1	
★	40	nsp	00D 125 0096 012	NITOFLON TAPE (W25)	L=170		1	
★	41	nsp	00D 125 0097 011	BUTYL TAPE (W25 T2)	L=100		1	
★	42	nsp	00D 125 0096 012	NITOFLON TAPE (W25)	L=100		1	
<b>SCREWS</b>								
	51		-	SCREW, CTB3+10GR		CTB3+10GR	6	
	52		-	SCREW, CTWS3+10GR		CTWS3+10GR	1	
	53		-	DOT SCREW, CTBD3+8JFZR	Black model	CTBD3+8JFZR	10	
	53		-	DOT SCREW, CTBD3+8JFN	Premium Silver model	CTBD3+8JFN	10	
	54		-	SCREW, CTB3+10GFZR	Black model	CTB3+10GFZR	3	
	54		-	SCREW, CTB3+10GFN	Premium Silver model	CTB3+10GFN	3	
	55		-	NUT (M9)			5	
	56		-	WASHER			5	
	57		-	SCREW, CTW3+8JR		CTW3+8JR	11	
	58		-	SCREW, CTB3+8JR		CTB3+8JR	6	
	59		-	SCREW, CTW3+6JR		CTW3+6JR	2	
	60		-	SCREW, CTW3+12JR		CTW3+12JR	2	
	61	nsp	00D 943 0191 001	SCREW, SPECIAL		CHD1A012R	6	*
	62		-	DOT SCREW, CTBD3+8JFZR		CTBD3+8JFZR	5	
	63		-	DOT SCREW, CTBD3+10GFZR		CTBD3+10GFZR	9	
	64		-	SCREW, CTB3+6FFZR		CTB3+6FFZR	1	
	65		-	SCREW, CTW3+18JR		CTW3+18JR	1	
	66		-	SCREW, CTB4+8FR		CTB4+8FR	4	
	67		-	SCREW, CTB4+6FFZR	Black model	CTB4+6FFZR	4	
	67		-	SCREW, CTB4+6FFN	Premium Silver model	CTB4+6FFN	4	

## PACKING VIEW



## PARTS LIST OF PACKING & ACCESSORIES

\* 本表に記載されている部品は、補修用部品のため製品に使用している部品とは一部、形状、寸法などが異なる場合があります。

\* The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

\* "nsp" 印の部品は常時在庫していませんので供給に長時間を要することがあります。場合によっては、供給をお断りする場合があります。

\* Part indicated with the mark "nsp" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.

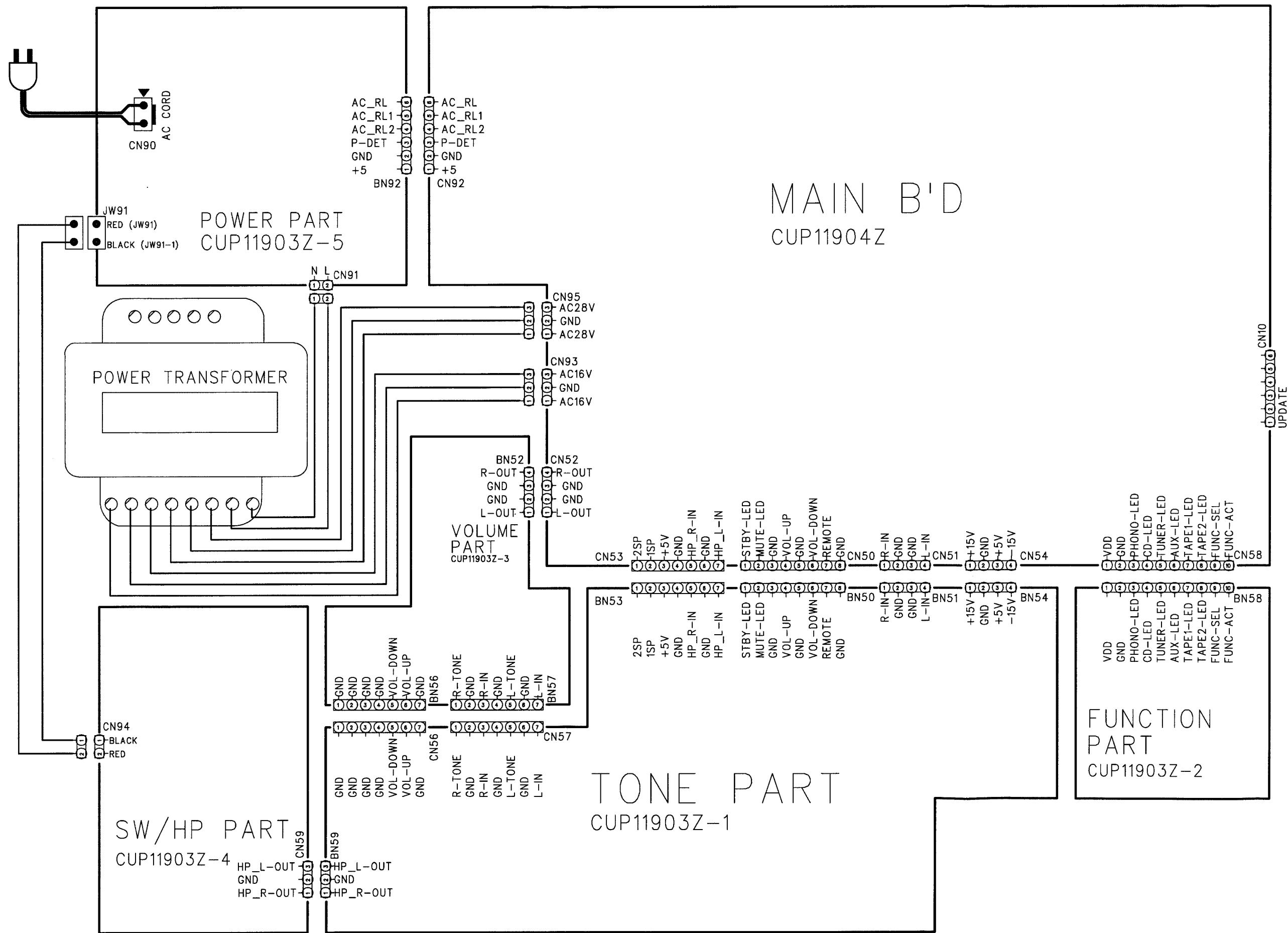
Note: The symbols in the column "Remarks" indicate the following destinations.

E2: Europe model

EUT: Taiwan R.O.C. model

	Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New	
	1	nsp	00D 943 0194 600	CARTON BOX		CPG1A818Z	1	*
	2		-	BAG, POLY (Set)		CPB1A013Y	1	*
	3	nsp	00D 943 0194 707	SNOW PAD		CPS1A747	2	*
	4-1		00D 943 0194 901	MANUAL	for E2	CQX1A1146Z	1	*
	4-1		00D 943 0194 007	MANUAL	for EUT	CQX1A1147Z	1	*
	4-2	nsp	00D 515 0921 607	S.S. LIST (EX)			1	
	4-3		00D 399 1026 019	REMOCON (RC-1022-BK)	Black model		1	*
	4-3		00D 399 1026 006	REMOCON (RC-1022)	Premium Silver model		1	*
	4-4		-	BATTERY (SIZE 'AAA')		CABR03P	2	
	4-5	nsp	00D 943 0001 803	BAG, POLY		CPB1061Y	1	
	5		-	LABEL, SERIAL NO	for E2	CQB1A622	1	
	5		-	LABEL, CHINA	for EUT	CQB1A774Z	1	*
	6		-	LABEL, POS	for E2, Black model	CQB1A773Z	2	
	6		-	LABEL, POS	for E2, P. Silver model	CQB1A773Y	2	
	7		-	LABEL, CONTROL		CQB1A627	2	
	8		00D 943 0194 804	LABEL, COLOR	Premium Silver model	CQB1A676Y	2	*
	9		-	CARTON LABEL	for EUT	CQB1A775Z	1	*

## WIRING DIAGRAM



## NOTE FOR SCHEMATIC DIAGRAM

### WARNING:

Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

### CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

### WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

### NOTICE:

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM

M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD.

P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

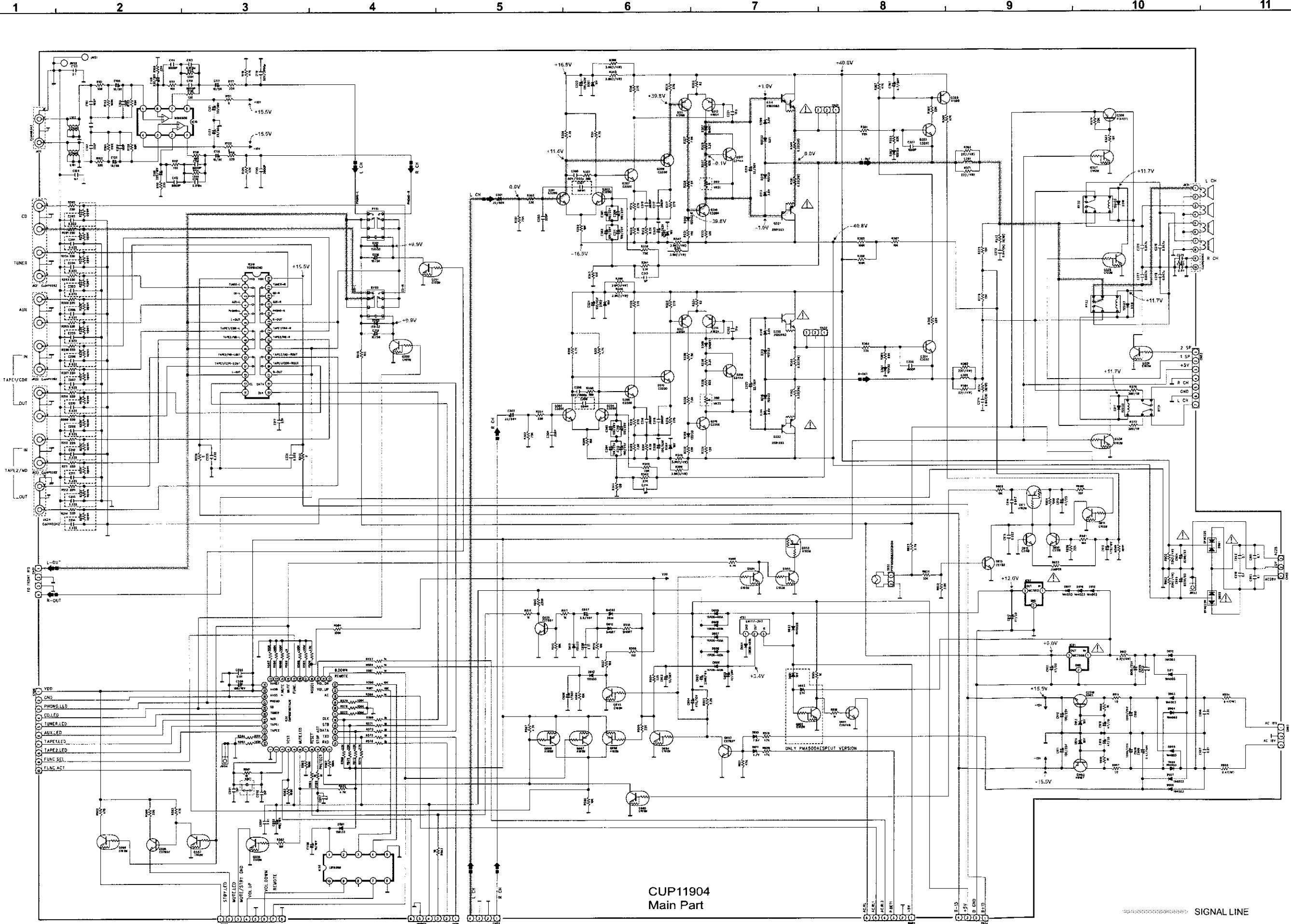
## 配線図について

印の部品は安全を維持するために重要な部品です。従って交換時は必ず指定の部品を使用してください。

### 注)

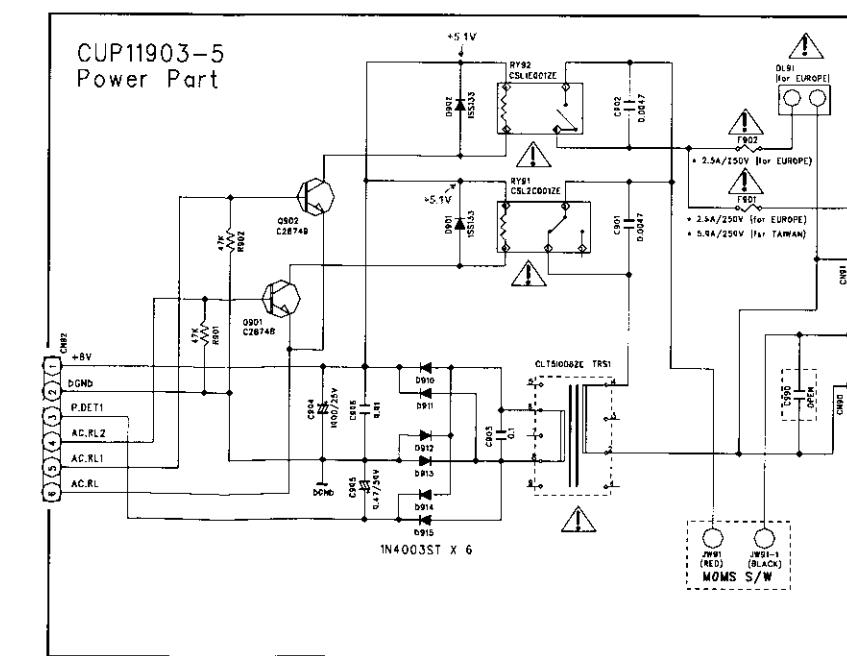
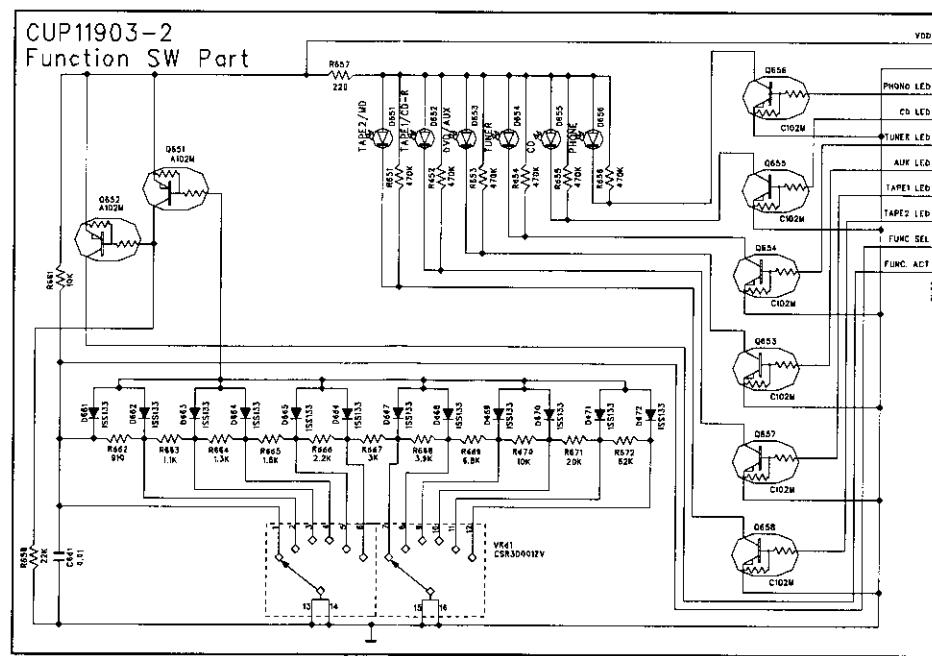
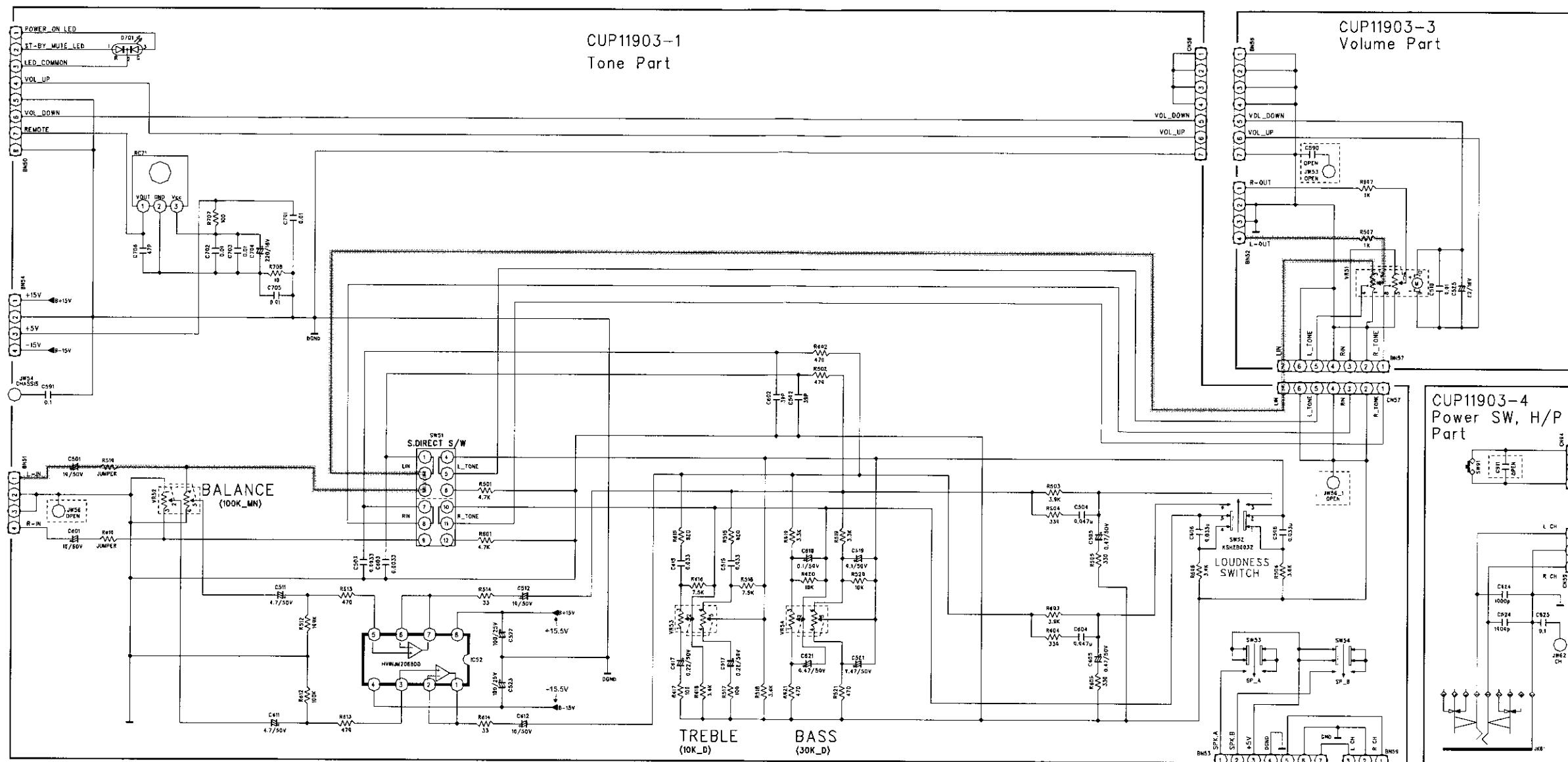
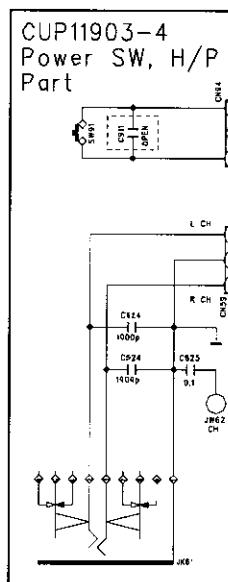
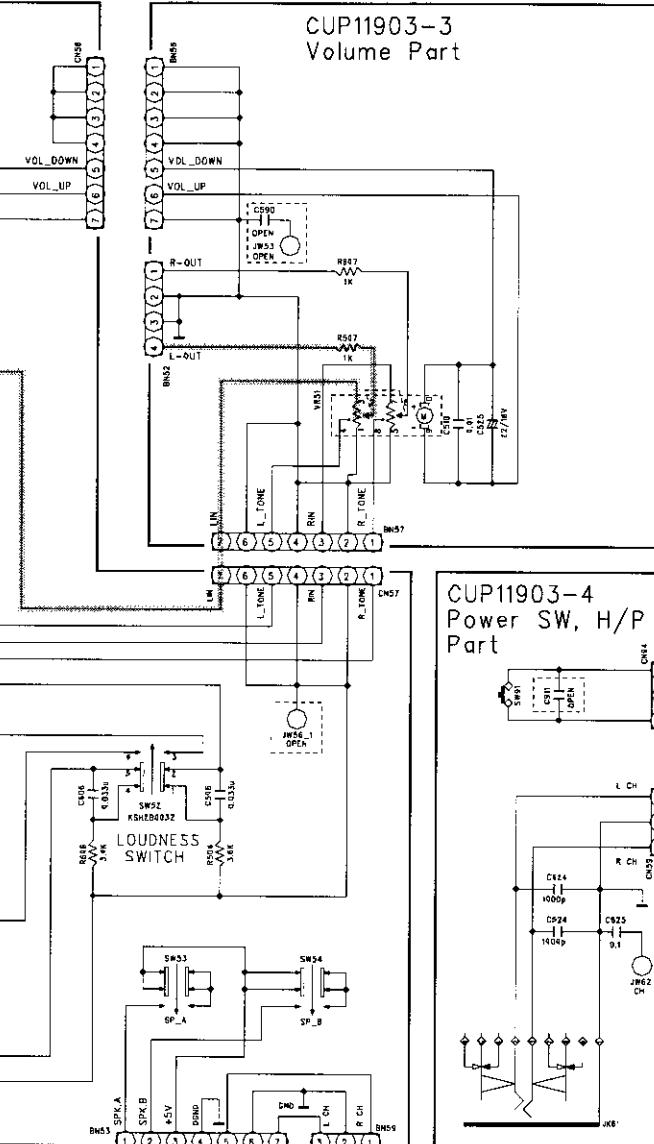
- (1) 指定なき抵抗値は  $\Omega$ 、k は  $k\Omega$ 、M は  $M\Omega$  を示す。
- (2) 指定なきコンデンサーの値は  $\mu F$ 、p は  $pF$  を示す。
- (3) 各部の電圧は無信号の値を示す。
- (4) この配線図は基本配線図です。改良等のため変更することがありますのでご了承ください。

## SCHEMATIC DIAGRAMS (1/2)

SCHEMATIC DIAGRAMS (1/2)  
MAIN UNIT

## SCHEMATIC DIAGRAMS (2/2)

1 2 3 4 5 6 7 8 9 10 11

CUP11903-3  
Volume Part

SIGNAL LINE

**SCHEMATIC DIAGRAMS (2/2)**  
**TONE UNIT**  
**FUNCTION SW UNIT**  
**VOLUME UNIT**  
**POWER SW, H/P UNIT**  
**POWER UNIT**

## DOCUMENTS FOR WEEE

### Details of Recycle parts

\* You have to remove the parts that marked "WEEE Mark ◆" when the recycling processing. (Europe model only)

Ref. No.	WEEE Mark	Part Name	Material	Q'ty
1	◆	MAIN PWB	COMPLEX	1
2-1	◆	FRONT PWB	COMPLEX	1
2-2	◆	INPUT PWB	COMPLEX	1
2-3	◆	VOLUME PWB	COMPLEX	1
2-4	◆	JACK PWB	COMPLEX	1
2-5	◆	POWER PWB	COMPLEX	1
3		WINDOW, REMOCON	PC/PMMA	1
4		LENS	PMMA	1
5		FUNCTION LENS	PMMA	1
6		DIRECT KNOB	ABS	1
7		PUSH KNOB	ABS	3
8	◆	KNOB, POWER	COMPLEX	1
9		BADGE	AL	1
10		INNER PANEL	ABS	1
11		ROTARY KNOB	ABS	3
12		VOLUME KNOB	ABS	1
13		INPUT KNOB	ABS	1
14		CHASSIS, BOTTOM	STEEL	1
15-1		FOOT	ABS	4
15-2		CUSHION , FOOT	PORON	4
16		COVER, SCREW	STEEL	1
17		HOLDER, PCB	ABS	2
18		HOLDER, PCB	ABS	1
19		RUBBER	RUBBER	2
20		HEAT SINK	AL	1
21		HEAT SINK BRACKET	STEEL	1
22		BRACKET	STEEL	1
23		FRONT PANEL	AL	1
24		REAR PANEL	STEEL	1
25	◆	TERMINAL , GROUND	COMPLEX	1
26	◆	CORD, POWER(EUR)	COMPLEX	1
27		BUSHING, AC CORD	PA66	1
28		TRANSFORMER, POWER	COMPLEX	1
29		TOP CABINET	STEEL+PVC	1

### SCREWS

51		SCREW, CTB3+10GR	STEEL	6
52		SCREW, CTWS3+10GR	STEEL	1
53		DOT SCREW, CTBD3+8JFZR	STEEL	10
54		SCREW, CTB3+10GFZR	STEEL	3
55		NUT (M9)	STEEL	5
56		WASHER	STEEL	5
57		SCREW, CTW3+8JR	STEEL	11
58		SCREW, CTB3+8JR	STEEL	6
59		SCREW, CTW3+6JR	STEEL	2
60		SCREW, CTW3+12JR	STEEL	2
61		SCREW, SPECIAL	STEEL	6
62		DOT SCREW, CTBD3+8JFZR	STEEL	5
63		DOT SCREW, CTBD3+10GFZR	STEEL	9
64		SCREW, CTB3+6FFZR	STEEL	1
65		SCREW, CTW3+18JR	STEEL	1
66		SCREW, CTB4+8FR	STEEL	4
67		SCREW, CTB4+6FFZR	STEEL	4

## Exploded view of PMA-500AE unit (Europe model)

You have to remove the parts that marked "WEEE Mark ♦" when the recycling processing.  
(Europe model only)

