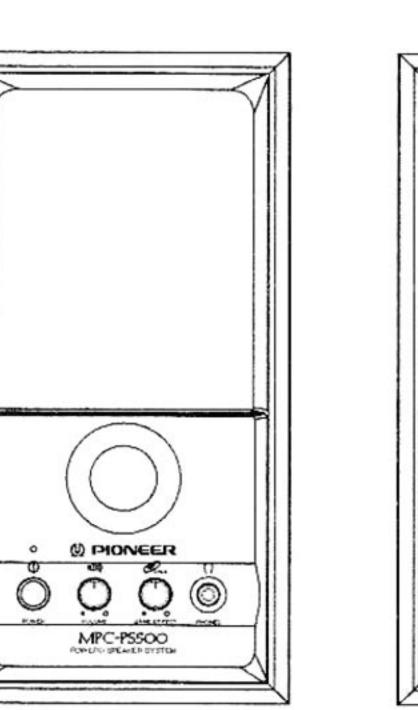
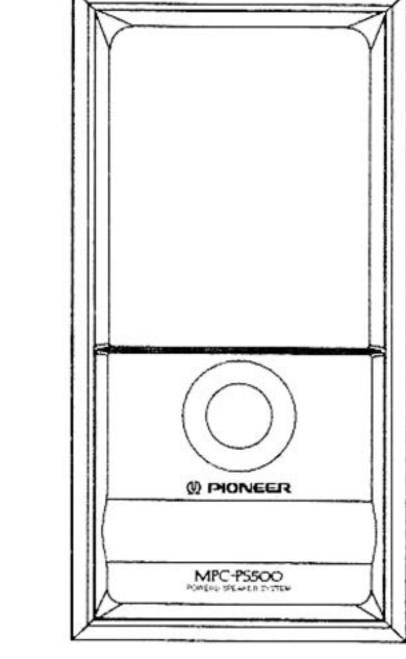
POWERED SPEAKER SYSTEM

Service Manual



(D) PIONEER®

The Art of Entertainment





MPC-PS500M

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Туре	Model		Dower Dequirement	Demontre	
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	MPC-PS500W	MPC-PS500M	Power Requirement	Remarks	
KUXMA	0	0	DC power supply		

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PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan PIONEER ELECTRONICS SERVICE, INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A. PIONEER ELECTRONIC (EUROPE) N.V. Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 501 Orchard Road, #10-00 Lane Crawford Place, Singapore 0923

T-ZZR FEB. 1998 Printed in U.S.A.

1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which

may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols - (fast operating fuse) and/or - (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible - (fusible de type rapide) et/ou - (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

(FOR USA MODEL ONLY)-

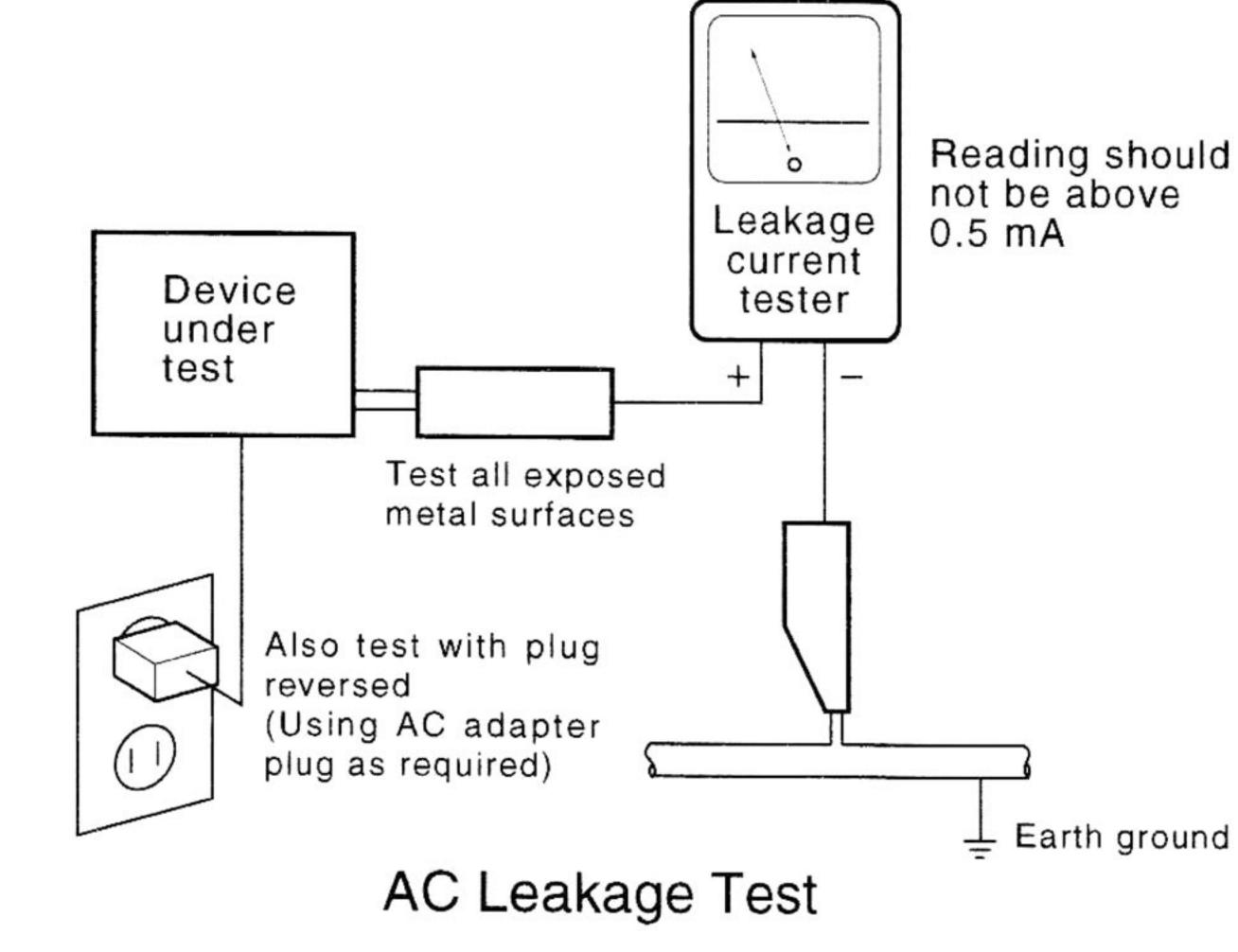
1. SAFETY PRECAUTIONS

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

ANY MEASUREMENTS NOT WITHIN THE LIMITS

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



Reading should

OUTLINED ABOVE ARE INDICATIVE OF A PO-**TENTIAL SHOCK HAZARD AND MUST BE COR-RECTED BEFORE RETURNING THE APPLIANCE** TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a Λ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

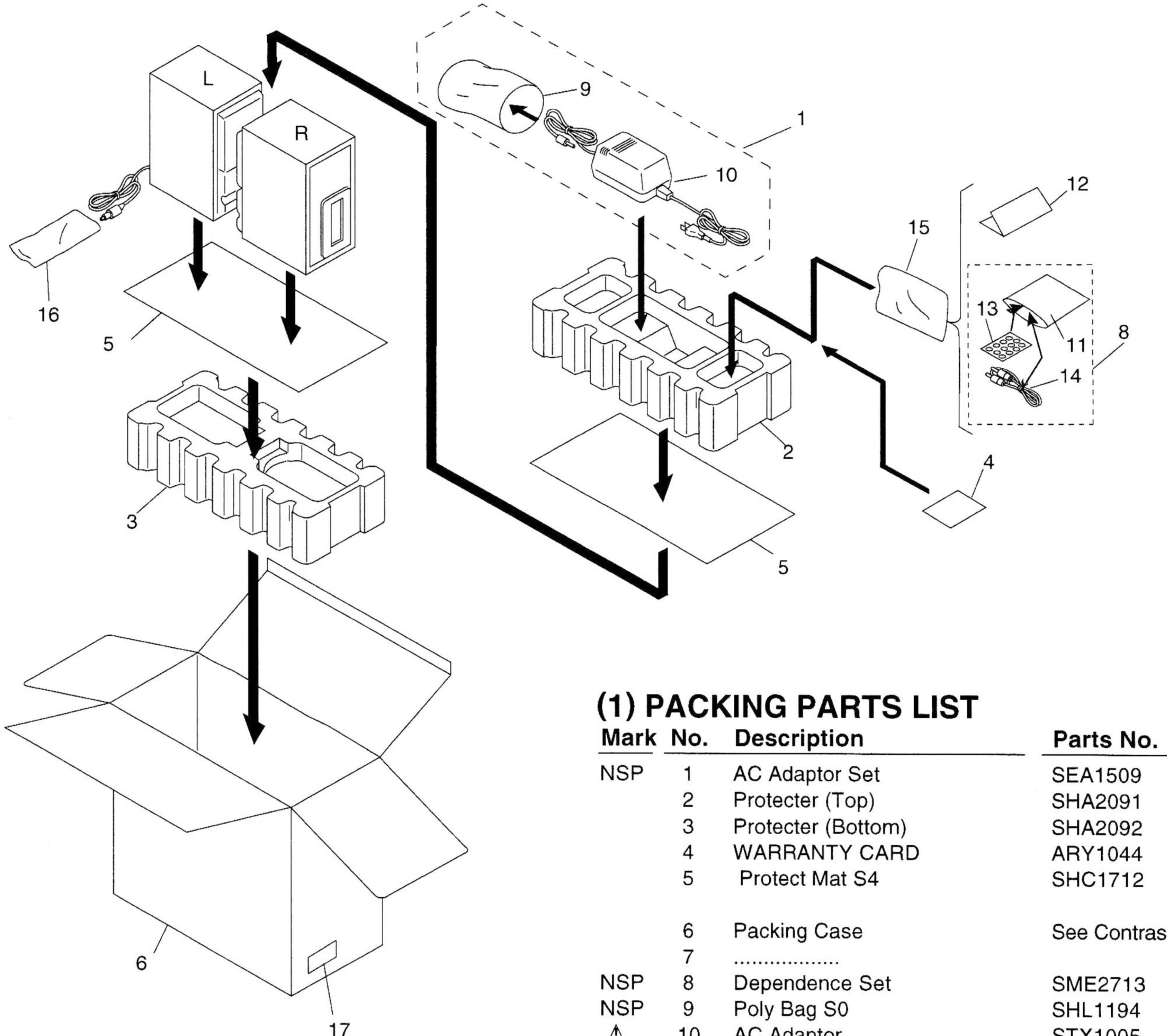
Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. EXPLODED VIEWS AND PARTS LIST

NOTES : • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

- The A mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Screw adjacent to V mark on the product are used for disassembly.

2.1 PACKING



Mark	No.	Description	Parts No.
NSP	1	AC Adaptor Set	SEA1509
	2	Protecter (Top)	SHA2091
	3	Protecter (Bottom)	SHA2092
	4	WARRANTY CARD	ARY1044
	5	Protect Mat S4	SHC1712
	6	Packing Case	See Contrast table(2)
	7	•••••	
NSP	8	Dependence Set	SME2713
NSP	9	Poly Bag S0	SHL1194
\triangle	10	AC Adaptor	STX1005

NSP	11	Poly Bag S1	SHL-137
	12	Operating Instructions(English)	SRA1318
	13	Rubber Cushion	SEC1368

	14	Cord with Mini Plug (2.0m)	SDE1026
NSP	15	Catalogue Bag	E11 - 024

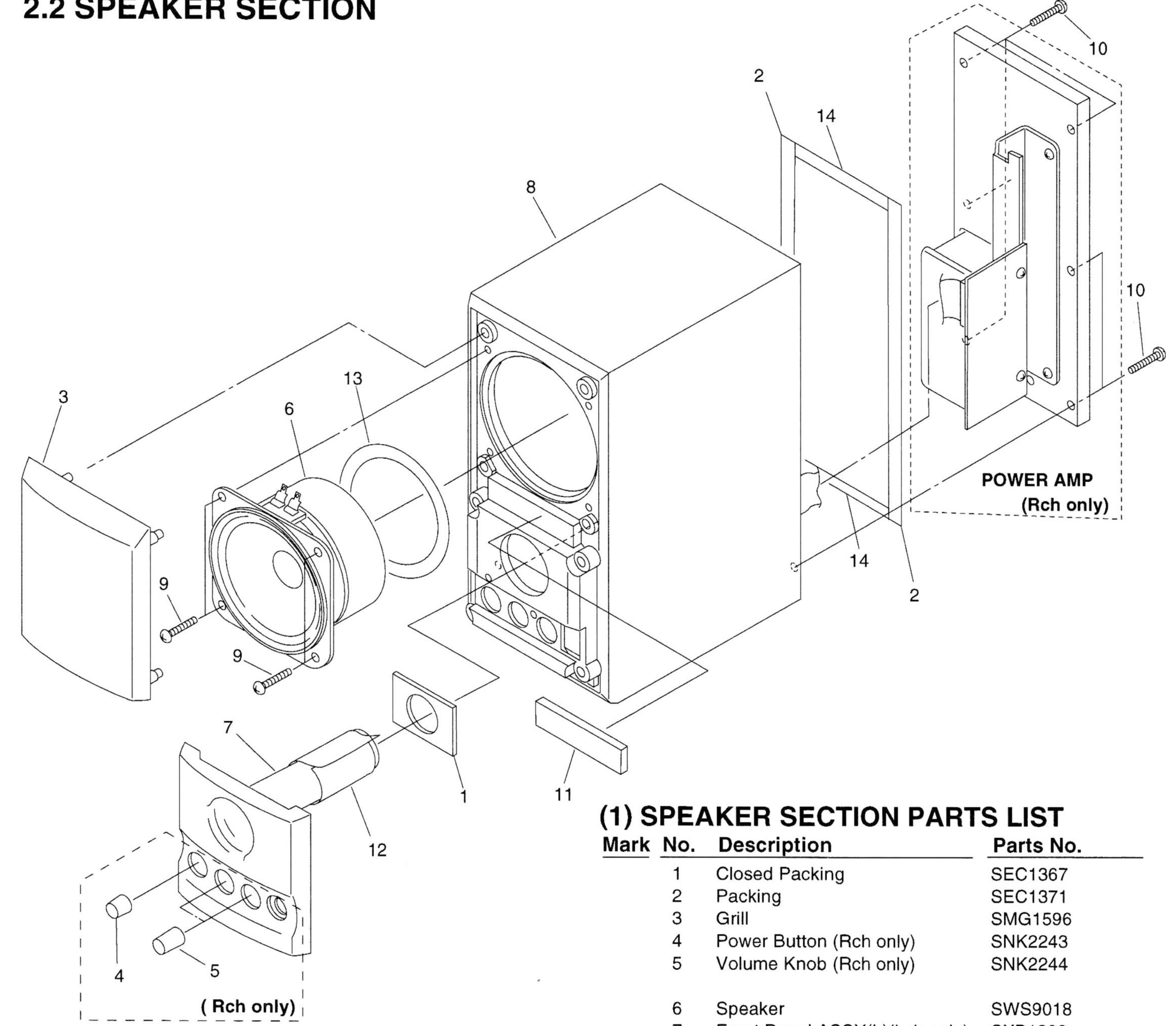
NSP Poly Bag S0 16 SHL1195 Serial Barcode Label NSP See Contrast table(2) 17

(2) PACKING CONTRAST TABLE

MPC-PS500W and MPC-PS500M are constructed the same except for the following:

Mark	No.	Symbol and Description		No.	
			MPC-PS500W	MPC-PS500M	Remarks
NSP	6 17	Packing Case Serial Barcode Label	SHG2068 SAX1341	SHG2069 SAX1342	

2.2 SPEAKER SECTION



Mark	No.	Description	Parts No.
	1	Closed Packing	SEC1367
	2	Packing	SEC1371
	3	Grill	SMG1596
	4	Power Button (Rch only)	SNK2243
	5	Volume Knob (Rch only)	SNK2244
	6	Speaker	SWS9018
	7	Front Panel ASSY(L)(Lch only)	SXB1309
	7	Front Panel ASSY(R)(Rch only)	SXB1310
	8	CS ASSY(L)(Lch only)	See Contrast table (2)
	8	CS ASSY(R)(Rch only)	See Contrast table (2)
	9	Screw (P tight)	BPZ40P120FZB
	10	Screw (Rch only)	BYC30P250FMC

Packing 11

11	Packing	SEC1378
12	Packing	SEC1377
13	Packing	SEC1379
14	Packing	SEC1384

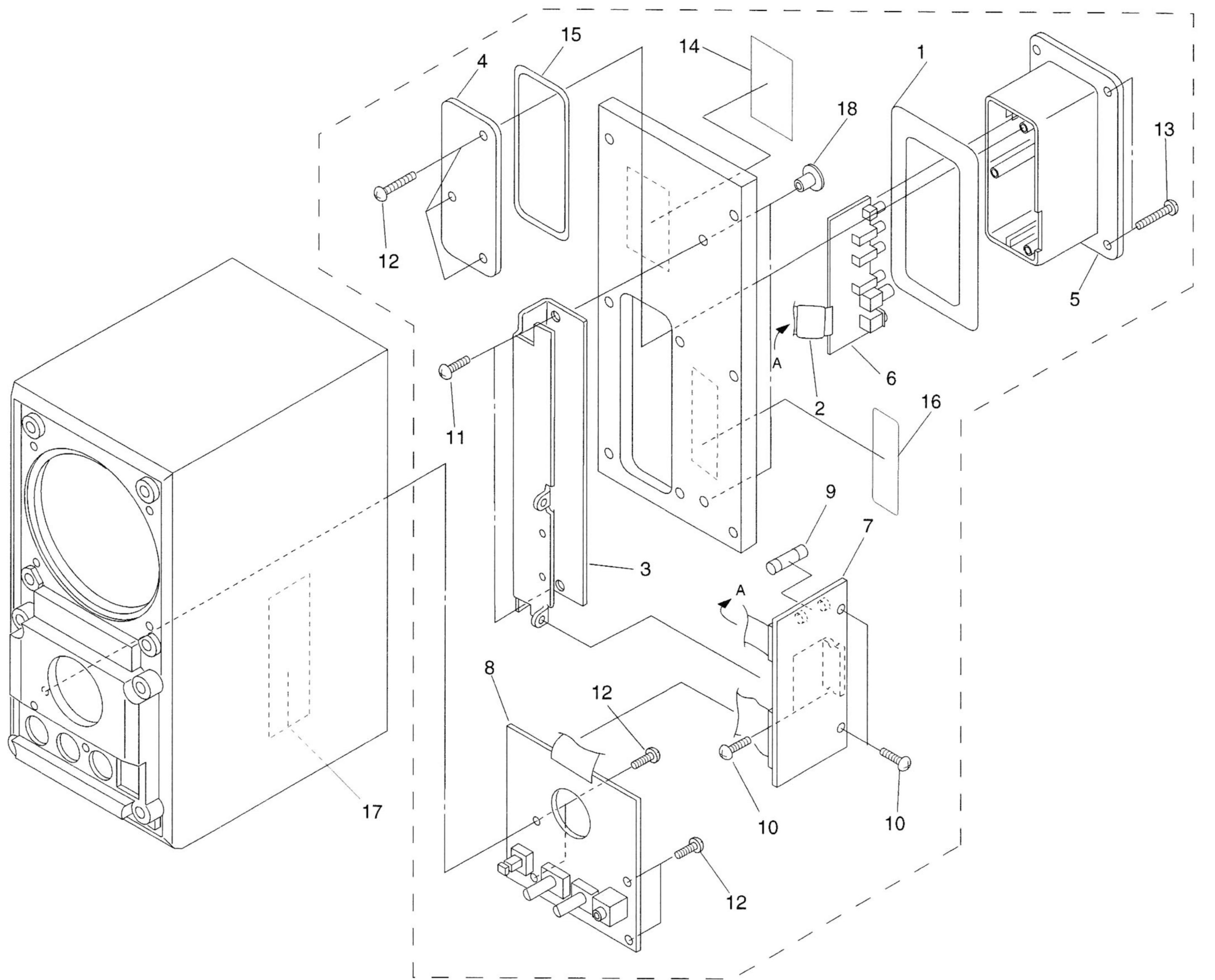
(2) SPEAKER SECTION CONTRAST TABLE

4

MPC-PS500W and MPC-PS500M are constructed the same except for the following:

Mark	No.	Symbol and Decorintion	Part	No.	
	NO.	Symbol and Description	MPC-PS500W	MPC-PS500M	Remarks
	8 8	CS ASSY(L)(Lch only) CS ASSY(R)(Rch only)	SMW1533 SMW1534	SMW1535 SMW1536	

2.3 POWER AMP SECTION (Rch Only)



(1) POWER AMP SECTION PARTS LIST

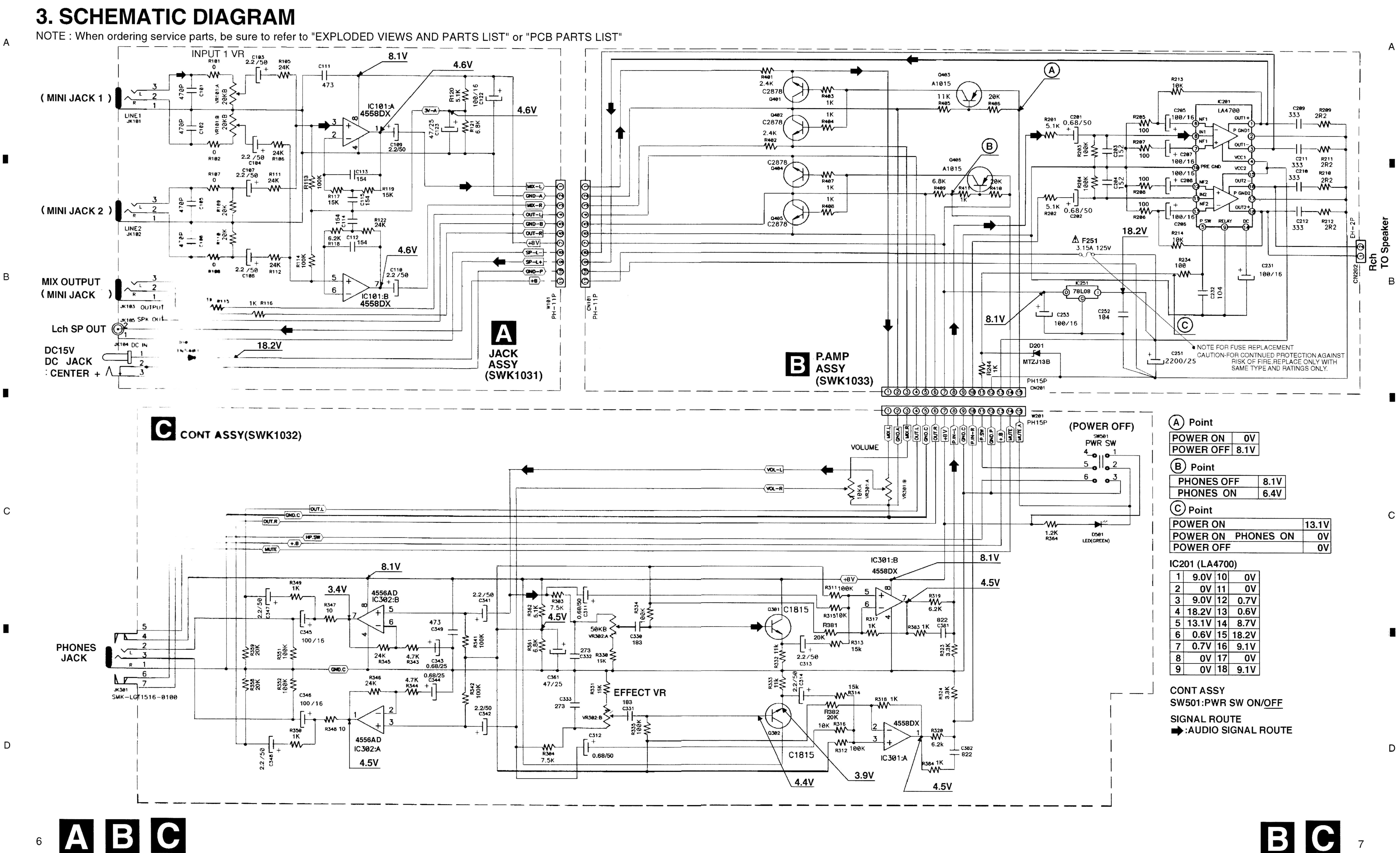
Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	Packing	SEC1369		11	Screw	BPZ40P100FMC
	2	Packing	SEC1370		12	Screw	BPZ30P140FMC
	3	Heat Sink	SNH1040		13	Screw	BYC30P120FMC
	4	Jack Cover	SNK2245	NSP	14	Type Label	See Contrast table (2)
	5	Rear Panel ASSY	SXB1311	NSP	15	Packing	SEC1372
NSP	6	JACK ASSY	SWK1031	NSP	16	Caution Label (Rch Only)	SRR1011
NSP	7	P. AMP ASSY	SWK1033	NSP	17	65 Label (Rch Only)	SRW1055
NSP	8	CONTROL ASSY	SWK1032	NSP	18	Washer	WA84F160M160
\triangle	9	Fuse (3.15A/125V)	VEK1022				
	10						

10 Screw

(2) POWER AMP SECTION CONTRST TABLE

MPC-PS500W and MPC-PS500M are constructed the same except for the following:

Mark	No.	Symbol and Description	Pa	rt No.	
		Cymbol and Description	MPC-PS500W	MPC-PS500M	Remarks
NSP NSP	14 14	Type Label (Lch only) Type Label (Rch only)	SAN2542 SAN2543	SAN2544 SAN2545	



n

MPC-PS500W, MPC-PS500M

4. PCB CONNECTION DIAGRAM

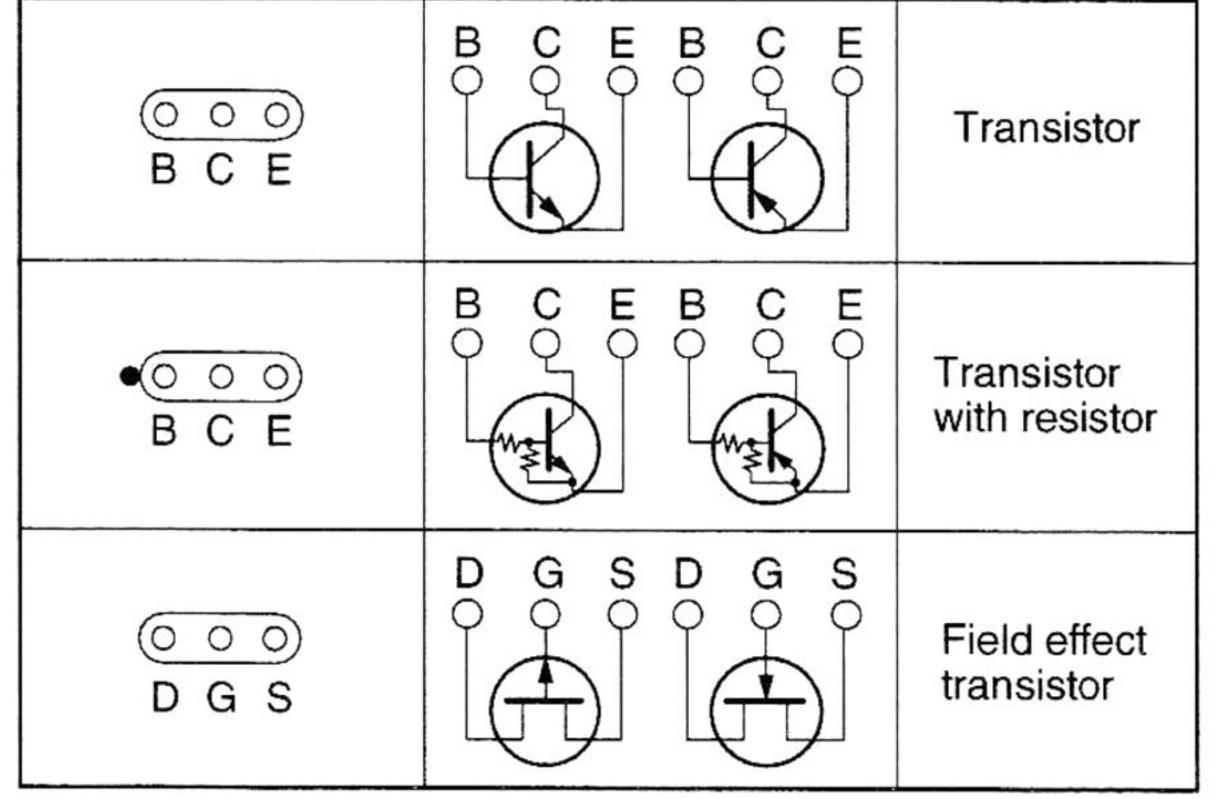
JACK ASSY, CONT ASSY AND P.AMP ASSY

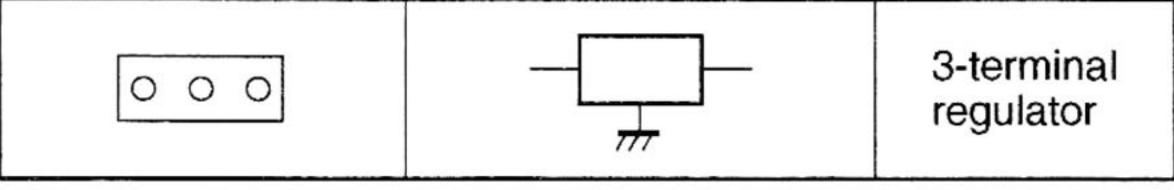
NOTE FOR PCB DIAGRAMS:

- Part numbers in PCB diagrams match those in the schematic diagrams.
- A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name	
		1	

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
<u>000\$000</u>		Resistor array

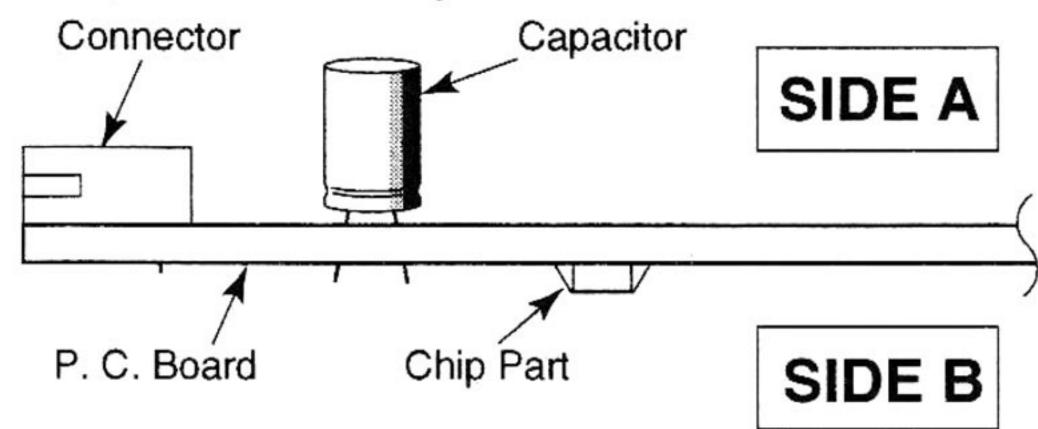




The parts mounted on this PCB include all necessary parts for several destination.

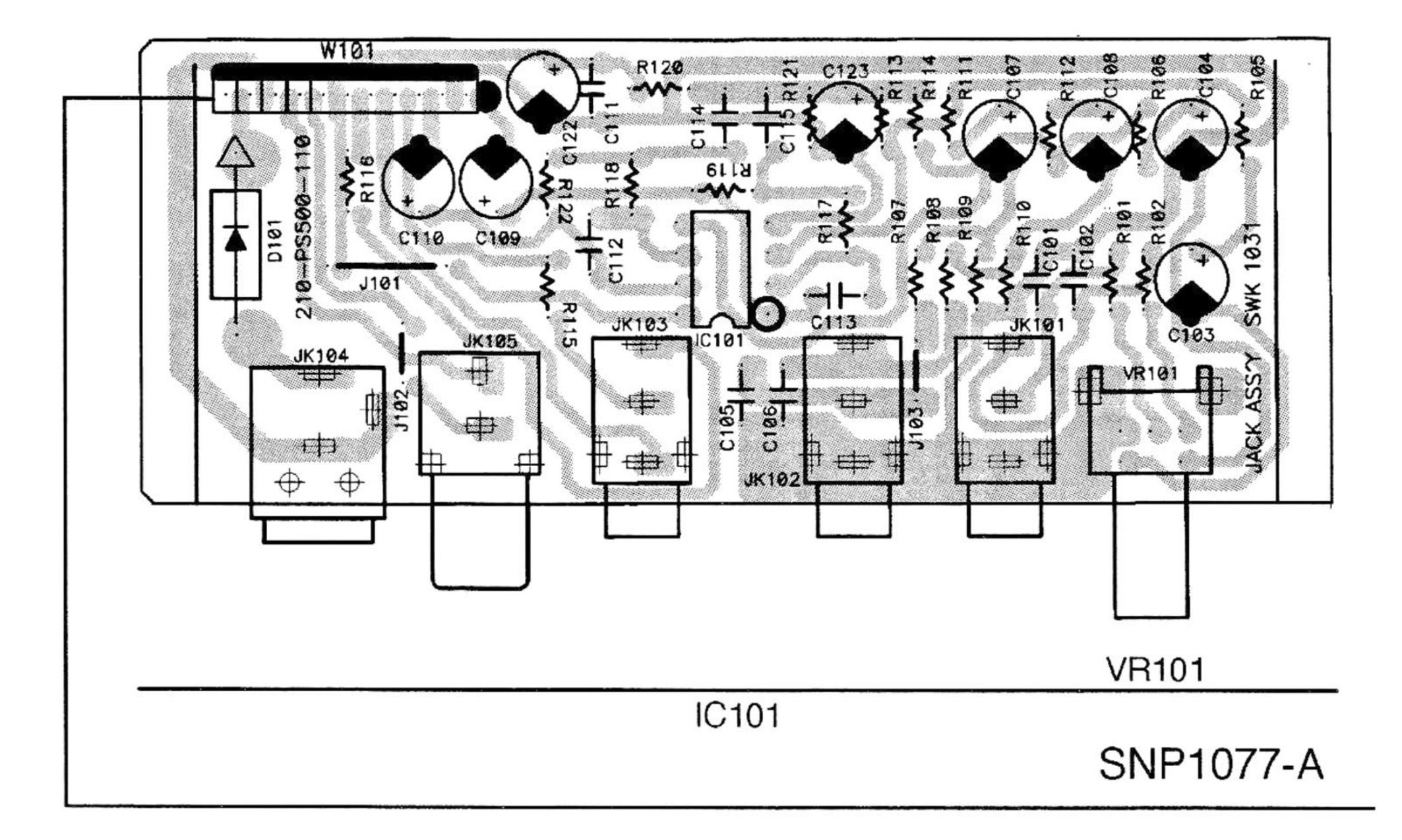
For further information for respective destinations, be sure to check with the schematic diagram.

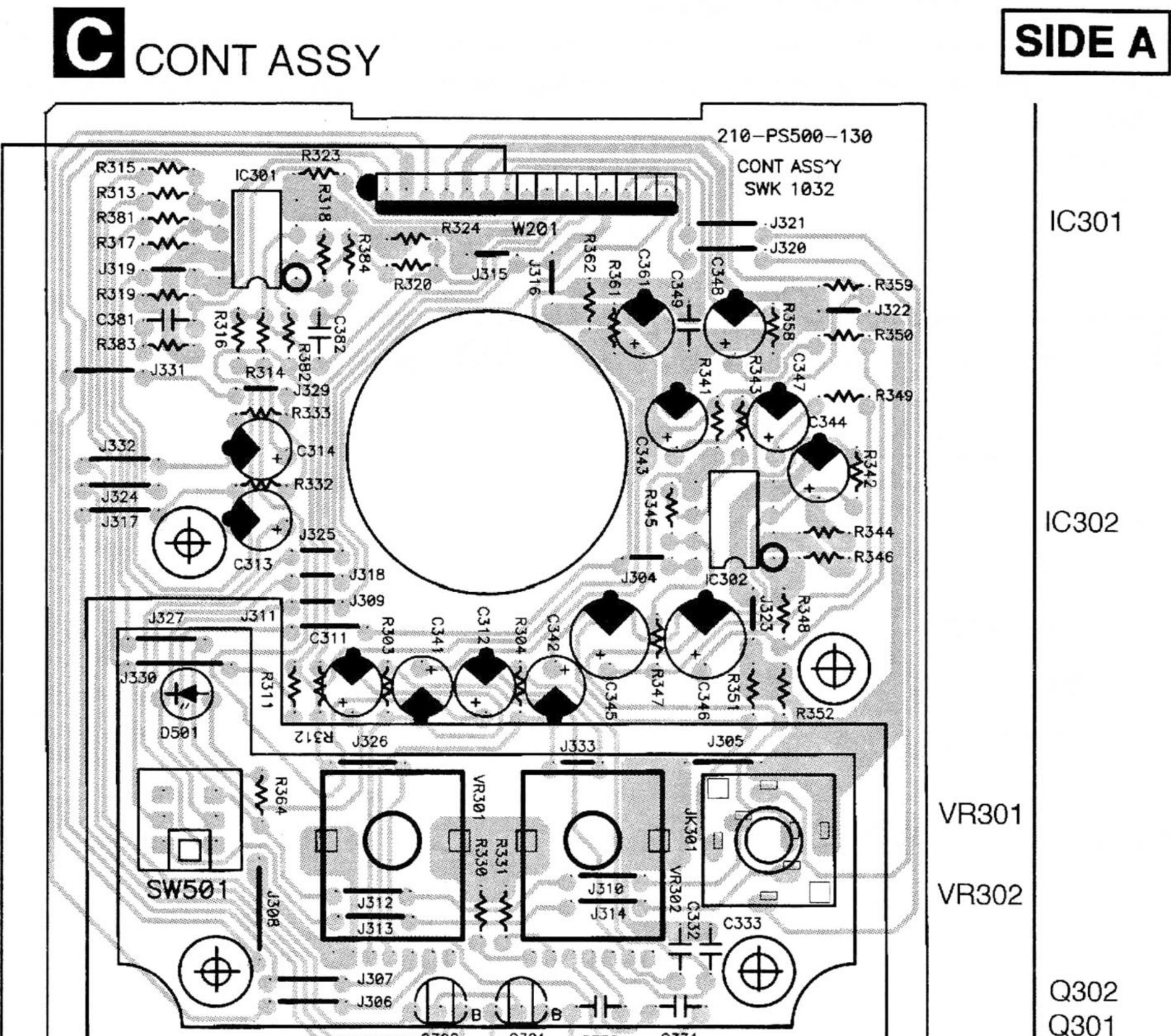
4. Viewpoint of PCB diagrams

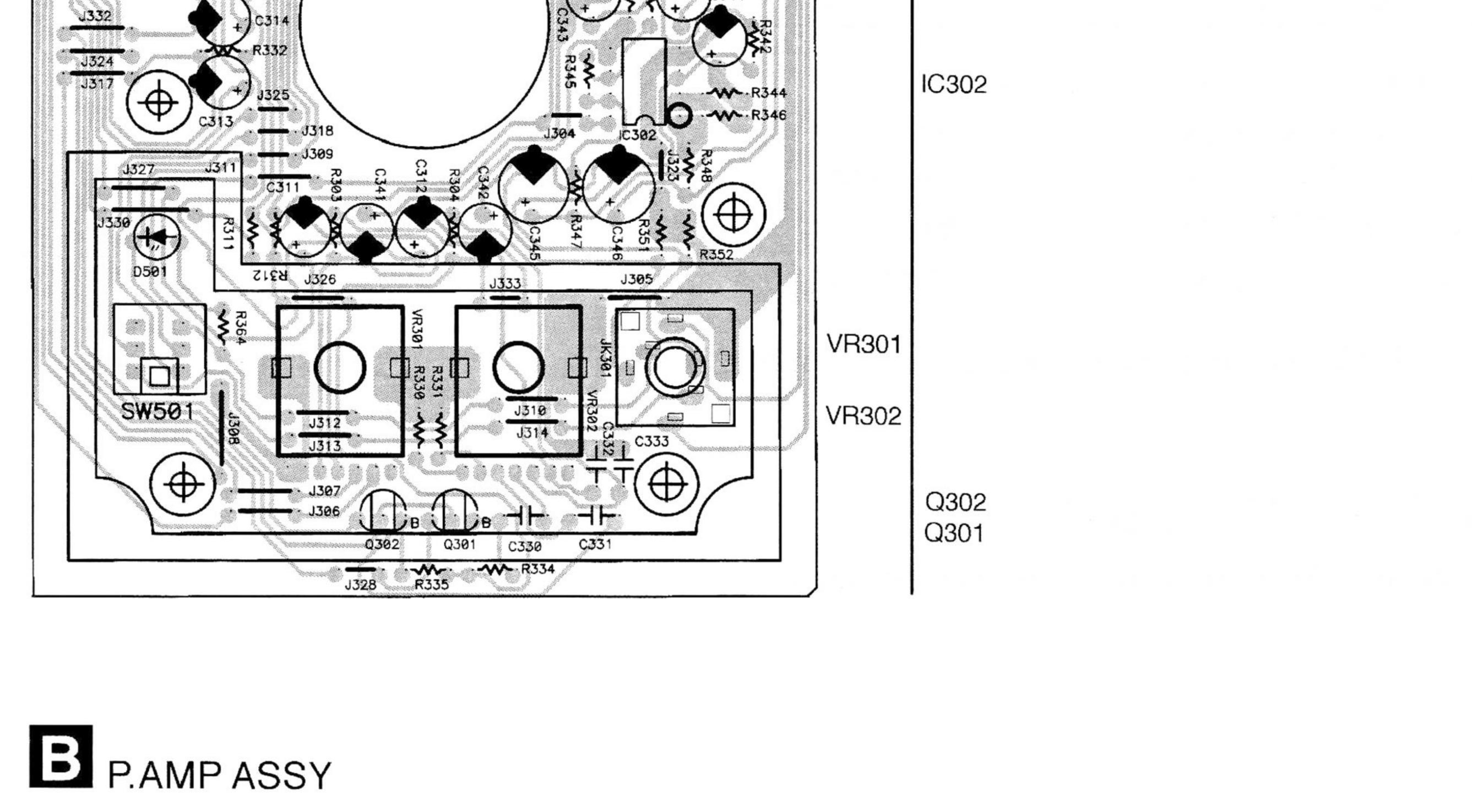


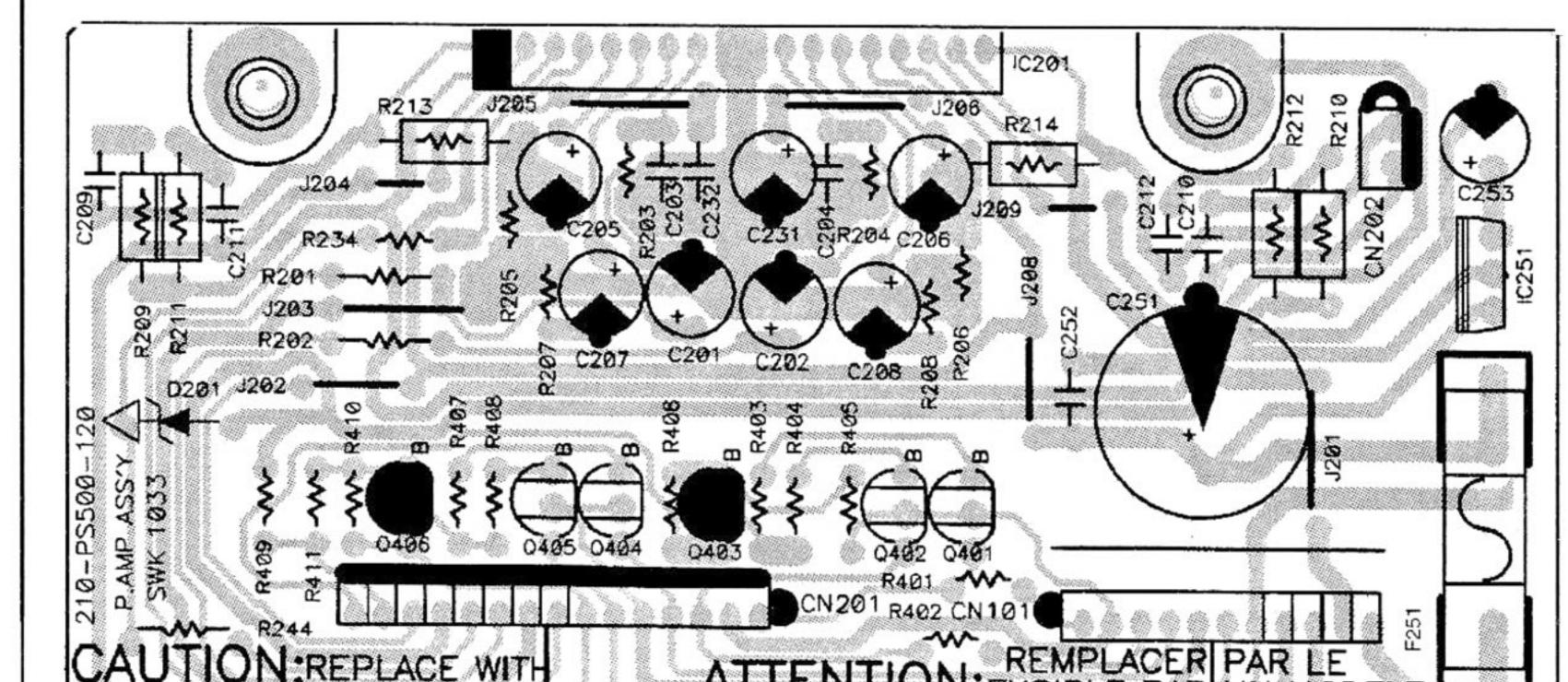
A JACK ASSY

SIDE A









SAME TYPE AND RATINGS		NHON: FUSIBLE PA	R UN MODELE
Q406	Q405 IC201 Q404 Q403	Q402 Q401	IC 25*

5. PCB PARTS LIST

NOTES : • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

- The A mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.
 - *Ex.* 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

$560 \ \Omega \rightarrow 56 \times 10^{1} \rightarrow 561$	<i>RD1/4PU</i> 5 6 1 <i>J</i>
$47k \Omega \rightarrow 47 \times 10^3 \rightarrow 473$	<i>RD1/4PU</i> [4] [7] [3] <i>J</i>
$0.5 \ \Omega \rightarrow R50$	<i>RN2H</i> R 5 0 <i>K</i>

 $\begin{array}{l} 1 \ \Omega \rightarrow 1R0 \\ Ex. \ 2 \end{array} \qquad \begin{array}{l} RSIP \ 1 \ R \ 0 \ K \\ When there are \ 3 \ effective \ digits (such \ as \ in \ high \ precision \ metal \ film \ resistors). \\ 5.62k \ \Omega \rightarrow 562 \times 10^{\ 1} \rightarrow 5621 \\ \end{array}$

Mark No. Description

Parts No.

LIST OF PCB ASSEMBLIES

	MOTHER ASSY	SWK1030
NSP	-CONT ASSY	SWK1032
NSP	-JACK ASSY	SWK1031
NSP	P.AMP ASSY	SWK1033

NOTE : Component parts are not principally supplied.

6. ADJUSTMENT

There is no information to be shown in this chapter.

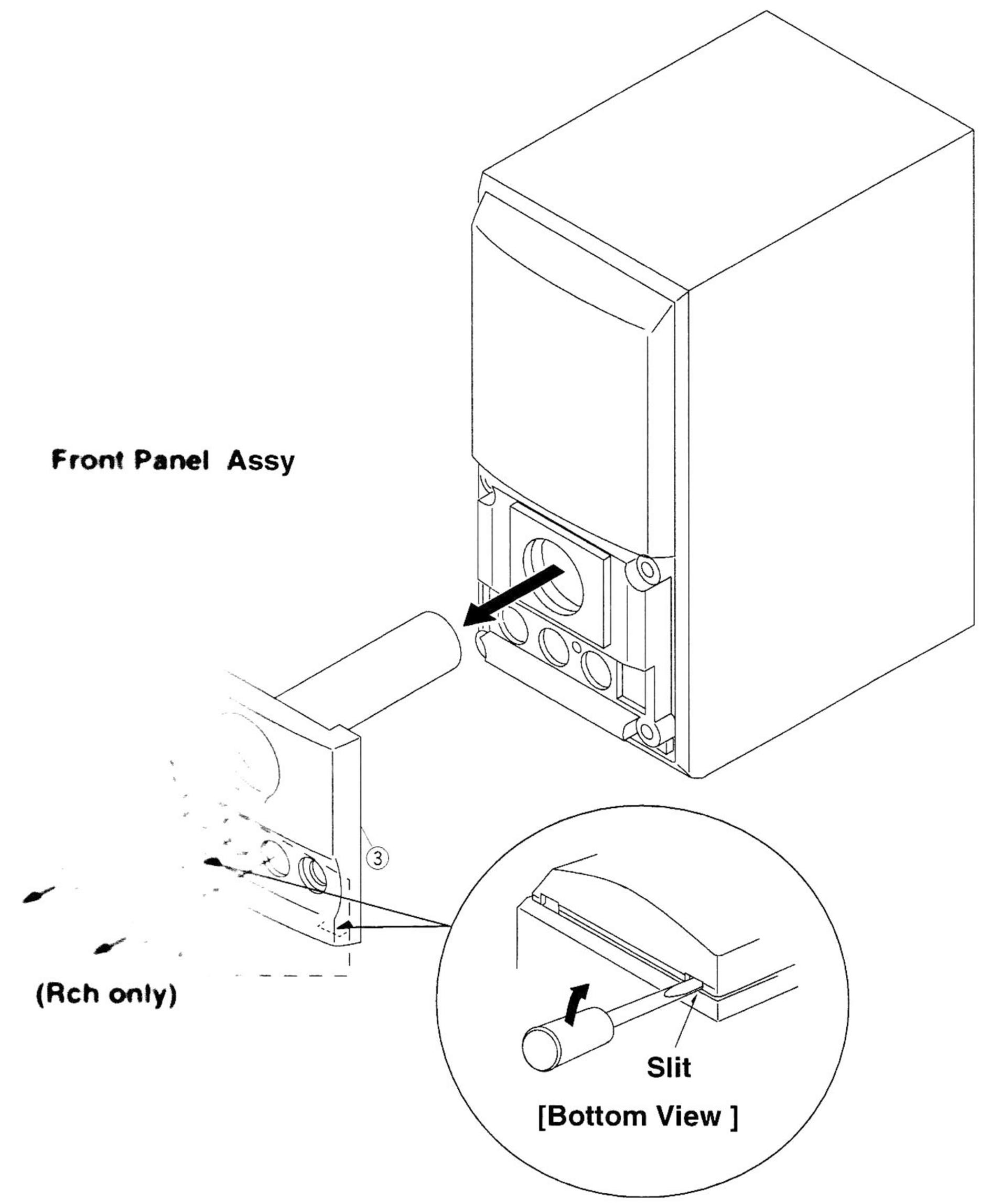
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7. GENERAL INFORMATION

7.1 DISASSEMBLY

FRONT PANEL ASSY SECTION

- 1. Remove Power Button (1) and 2 Volume Knob (2).
- 2. Insert a screwdriver into the slit under the Front panel assy 3 to pry open the front panel gradually and uniformly.

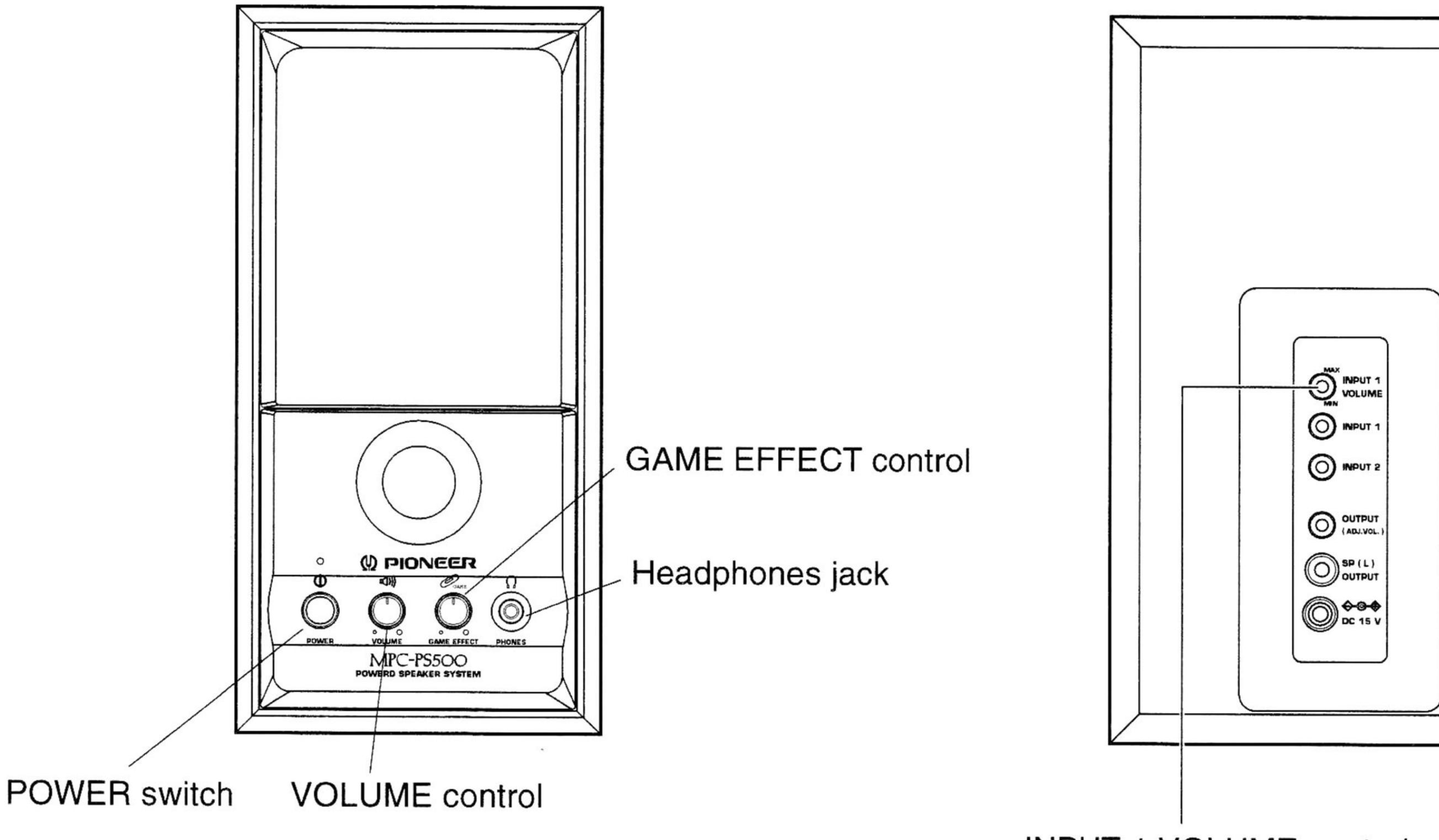


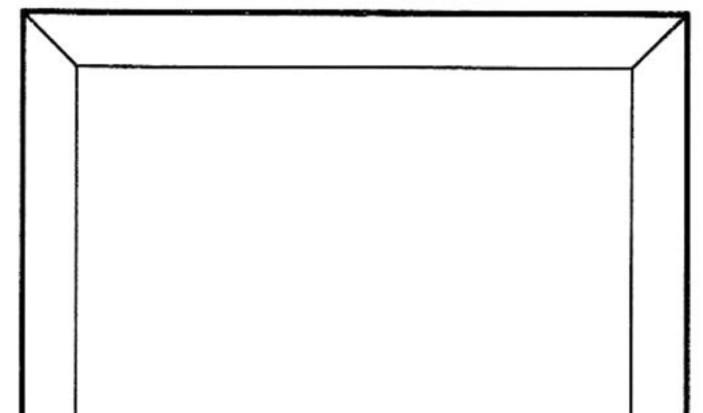
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8. PANEL FACILITES AND SPECIFICATIONS

FRONT PANEL (Right speaker)

(Rwar view)





INPUT 1 VOLUME control

SPECIFICATIONS

Speaker (Magnetically shielded type) 8.7 cm (3 -3/8 inch) x 1 Power 6.5 W + 6.5 W (48Hz - 20kHz,10% T.H.D.,4Ω) Input 1 , 2 (Sensitivity at 1000 Hz / impedance) 300 mV / 20 k Ω Outline Demension 172 (D) mm 4-5 /16 (W) x 8-11/16 (H) x 6-3/4 (D) Inch Power Requirements AC 120 V, 60 Hz Speaker Impedance 4 Ω Accessories 3.5 mm (1/8 lnch) stereo plug connection cord x 1 AC adapter x 1 Rabber cushion (Large x 4 / Small x 4) **Operating instructions x 1** Warranty card x 1

NOTE : Specifications and design subject to possible modification without notice, due to improvements.