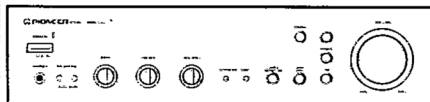


Service Manual



The illustration shows model A-203.

ORDER NO.
ARP2852

STEREO AMPLIFIER **A-203** **A-103**

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

Type	Model		Power Requirement	The voltage can be converted by the following method.
	A-203	A-103		
HEXJ	○	○	AC220—230V	AC240V, *
HBXJ	○	○	AC240V	AC220—230V, *
HEWZXJ	○	○	AC220—230V	AC240V, *
HLXJ	○	○	AC220—230V	AC240V, *
SDXJ	○	○	AC110V/120—127V/220V/240V	With the voltage selector
YPWXJ	—	○	AC240V	—

* : Alter the wiring of the Power-supply block at the primary winding of Power-transformer referring to the "Line Voltage Selection" described in Service Manual.

- For the following: A-203/HBXJ, HEWZXJ, HLXJ and SDXJ; A-103/HBXJ, HEWZXJ, HLXJ, SDXJ and YPWXJ, refer to page 22.

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1. DISASSEMBLY

● CHECKING FOR POWER AMP ASSY

1. Remove the bonnet.
2. Remove the VOLUME knob and unscrew nut the ① (Fig. 1).
3. Unscrew the fastening screws ② of the front panel (2 upper and 5 lower screws.).
4. Unscrew the fastening screws ③ (1 screw) and ④ (2 screws) of the RADIATOR.
5. Lift up the RADIATOR (in the direction of the arrow ⑤) approximately 5mm, and remove it from the chassis hook.
6. Remove the lower hooks ⑥ of the front panel (2 places).
7. Slowly remove the front panel together with the RADIATOR. When doing this, be careful so that the flat cable ⑦ form CN 1 does not get caught.
8. When the VOLUME knob shaft ⑨ has been distanced from the front panel, lower the fins of the RADIATOR as shown in Fig. 2 and raise the shaft.

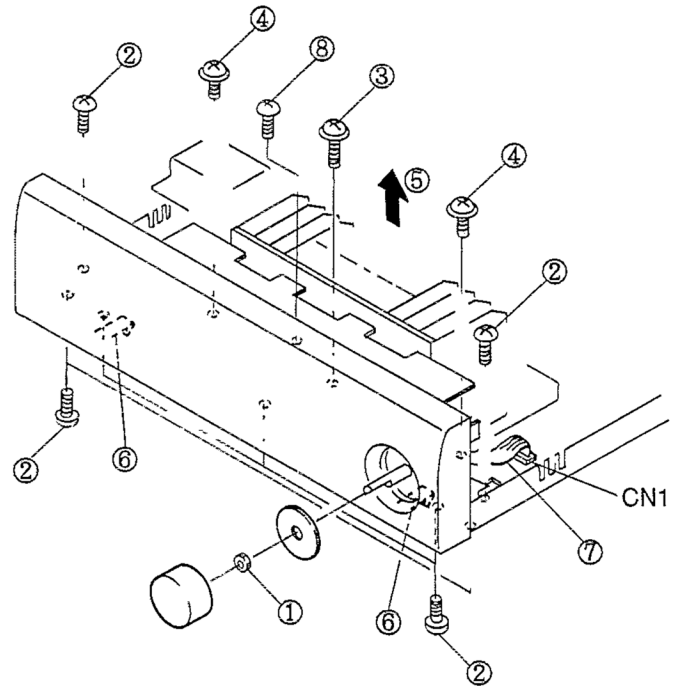


Fig. 1

● HOW TO REMOVE THE POWER AMP ASSY

1. Remove the fastening screw ③ of the RADIATOR (1 screw) and ④ (2 screws) and the center fastening screw ⑧ (1 screw) of the POWER AMP ASSY (Fig. 1).
2. Lift up the RADIATOR (in the direction of the arrow ⑤) approximately 5mm, and remove it from the chassis hook.
3. Pull the RADIATOR backward and remove the POWER AMP ASSY and RADIATOR together.

Note : The CONTROL ASSY of the front panel and the POWER AMP ASSY are connected only with connectors, and they can the refore be easily removed by carrying out the above operations.

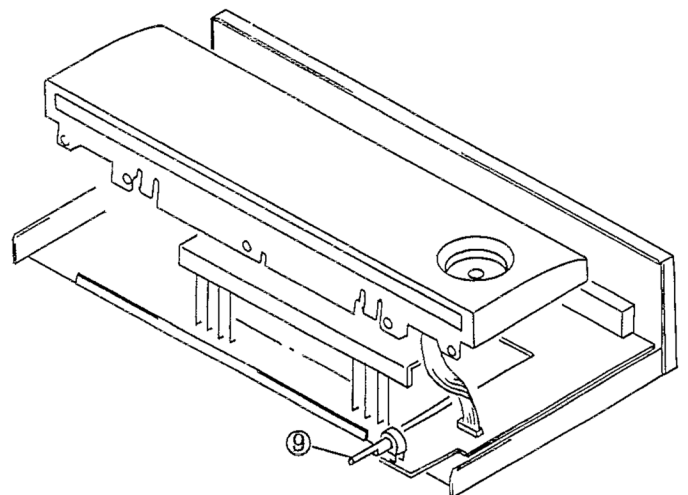


Fig.2

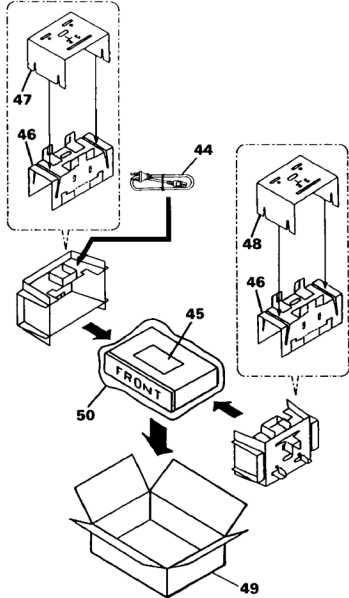
2. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES:
● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
● The Δ 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.
● Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

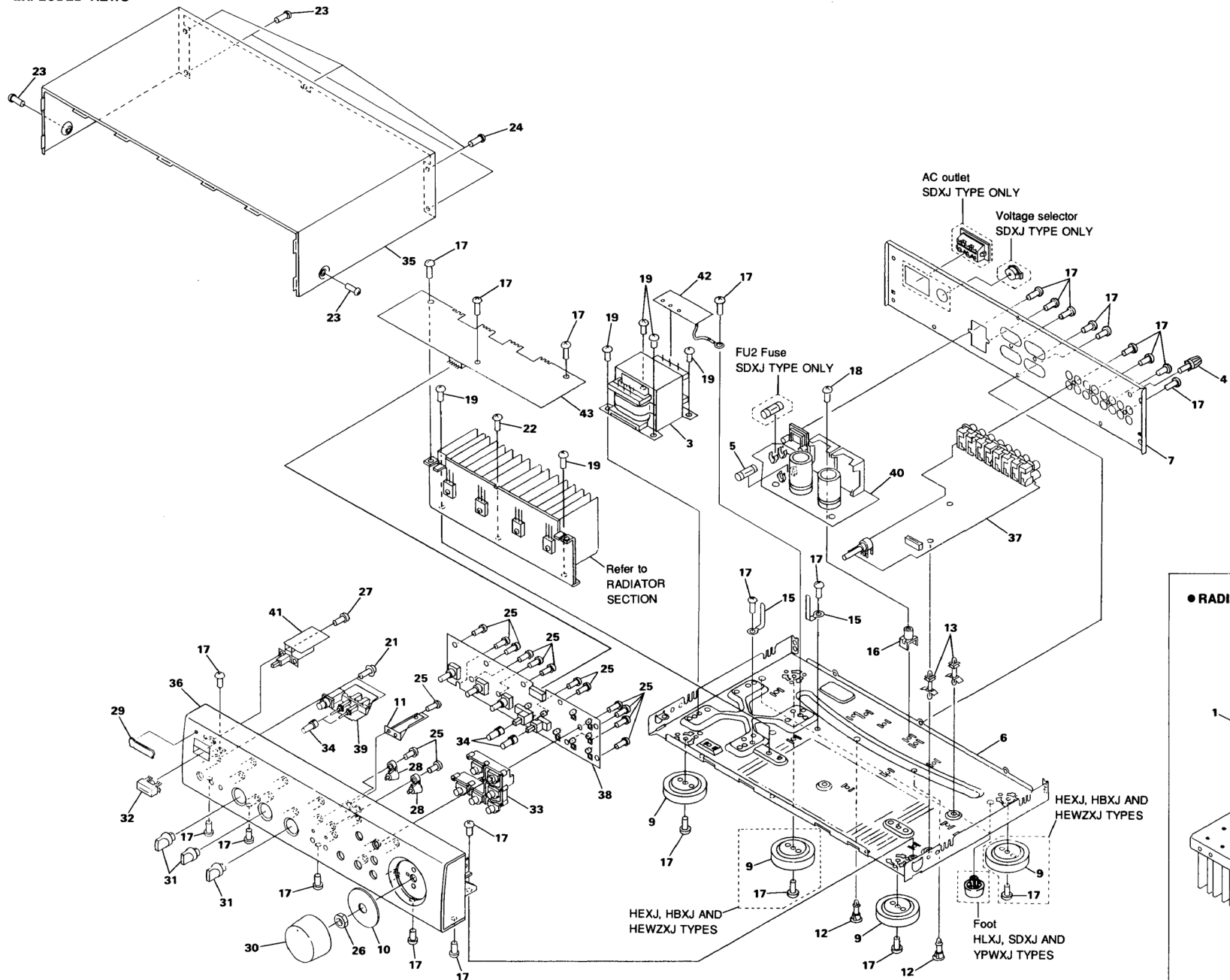
Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.	
△	1	Q3,Q4 TRANSISTOR (For A-203)	2SA1264N	38	CONTROL ASSY	AWZ5493		
△	1	Q3,Q4 TRANSISTOR (For A-103)	2SA1803	39	HEADPHONE ASSY (For A-203)	AWZ5494		
△	2	Q1,Q2 TRANSISTOR (For A-203)	2SC3181N	39	HEADPHONE ASSY (For A-103)	AWZ5498		
				40	SP ASSY (For A-203)	AWZ5495		
				40	SP ASSY (For A-103)	AWZ5499		
△	2	Q1,Q2 TRANSISTOR (For A-103)	2SC4688	41	POWER SW ASSY	AWZ5496		
△	3	T1 POWER TRANSFORMER (For A-203)	ATS1538	42	TRANS ASSY (For A-203)	AWZ5497		
△	3	T1 POWER TRANSFORMER (For A-103)	ATS1540	42	TRANS ASSY (For A-103)	AWZ5538		
				43	POWER AMP ASSY (For A-203)	AWZ5500		
				43	POWER AMP ASSY (For A-103)	AWZ5501		
	4	TERMINAL SCREW	AKE-031	△	44	AC POWER CORD	ADG1154	
△	5	FU1 FUSE (1.25A) (For A-203)	REK1023	45	OPE. INSTRUCTIONS (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	ARE1302		
△	5	FU1 FUSE (800mA) (For A-103)	REK1021	46	PAPER PROTECTOR A	AHA1660		
NSP	6	CHASSIS(MET)	ANA1228	47	PAPER PROTECTOR B	AHA1661		
	7	REAR PANEL (For A-203)	ANC2173	48	PAPER PROTECTOR C	AHA1662		
	7	REAR PANEL (For A-103)	ANC2177	49	PACKING CASE (For A-203)	AHD2672		
NSP	8	RADIATOR (For A-203)	ANH1464	49	PACKING CASE (For A-103)	AHD2673		
NSP	8	RADIATOR (For A-103)	ANH1465	50	PACKING SHEET	AHG1212		
	9	INSULATOR	PNW1912					
	10	RING(MET)	ANG1917					
	11	PCB HOLDER(MET)	ANG1918					
	12	PCB SPACER(PLS)	AEC1566					
	13	PCB SPACER(PLS)	AEC1567					
	14	SHEET (A-203 only)	AEE1014					
	15	BINDER	AEP-215					
	16	PCB MOLD(PP)	AMR2533					
	17	SCREW	ABA-298					
	18	SCREW	ABA1018					
	19	SCREW	ABA1027					
	20	SCREW	ABA1082					
	21	SCREW (STEEL)	ABA1095					
	22	SCREW (STEEL)	ABA1193					
	23	SCREW	BBT30P080FZK					
	24	SCREW	BCZ30P080FZK					
	25	SCREW	BPZ26P080FMC					
	26	NUT	NK70FUC					
	27	SCREW	VPZ30P100FMC					
	28	LED LENS	AAK2552					
	29	NAME PLATE	PAM1608					
	30	ROUND KNOB L (PLS)	AAB1340					
	31	ROUND KNOB S (PLS)	AAB2221					
	32	POWER BUTTON	AAD2539					
	33	FUNCTION BUTTON	AAD2540					
	34	PUSH BUTTON (PLS)	AAD4045					
	35	BONNET CASE	ANE1464					
	36	FRONT PANEL (For A-203)	AMB2231					
	36	FRONT PANEL (For A-103)	AMB2232					
	37	FUNCTION ASSY	AWZ5492					

● PACKING

● PACKING

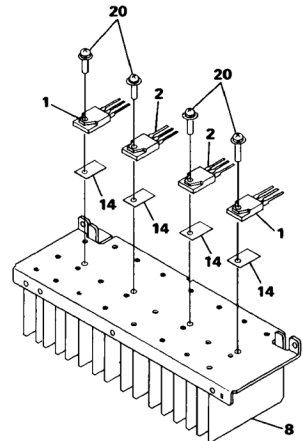


● EXPLODED VIEWS

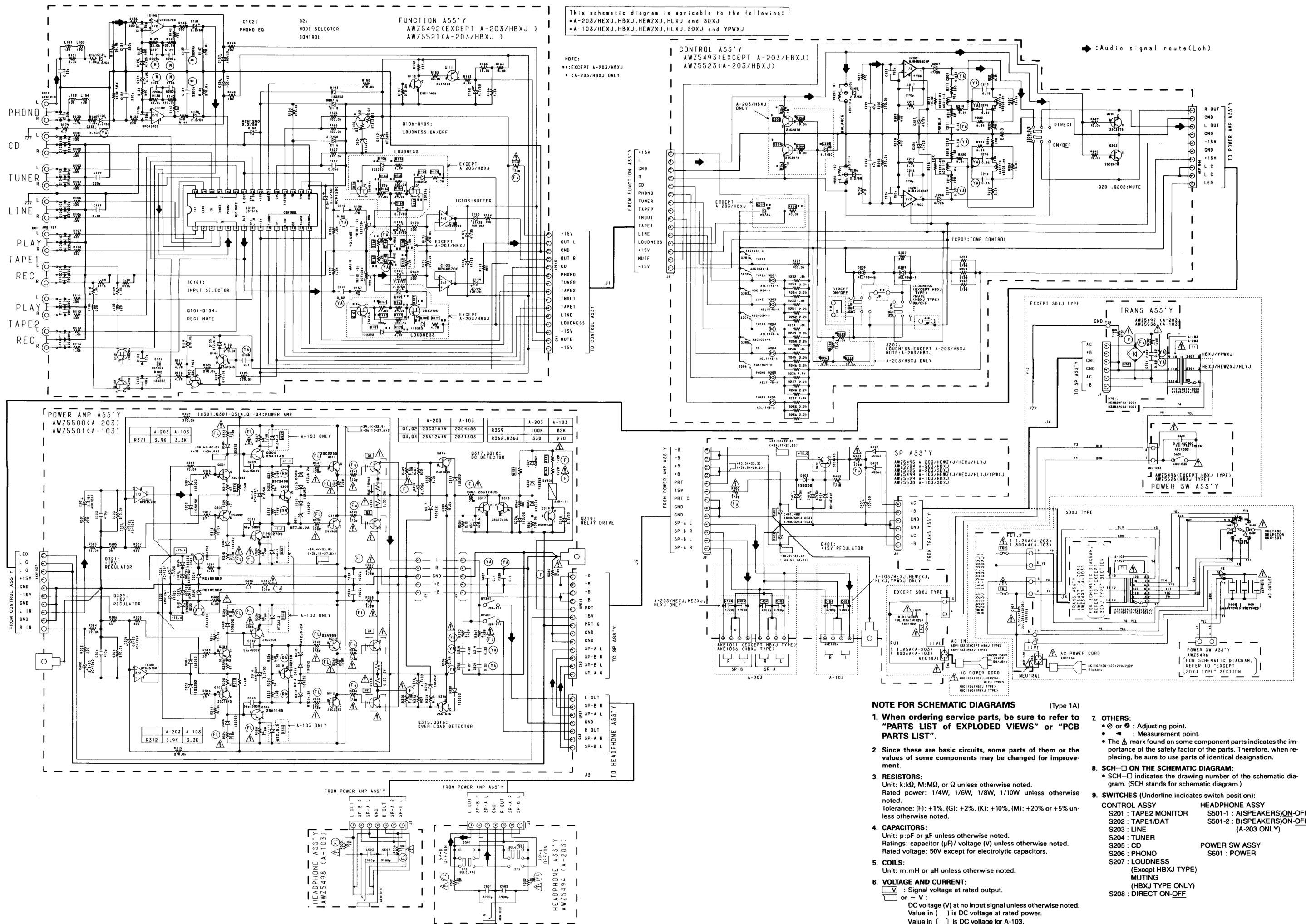


NOTE : Screws adjacent to ▼ mark on product are used for disassembly.

● RADIATOR SECTION



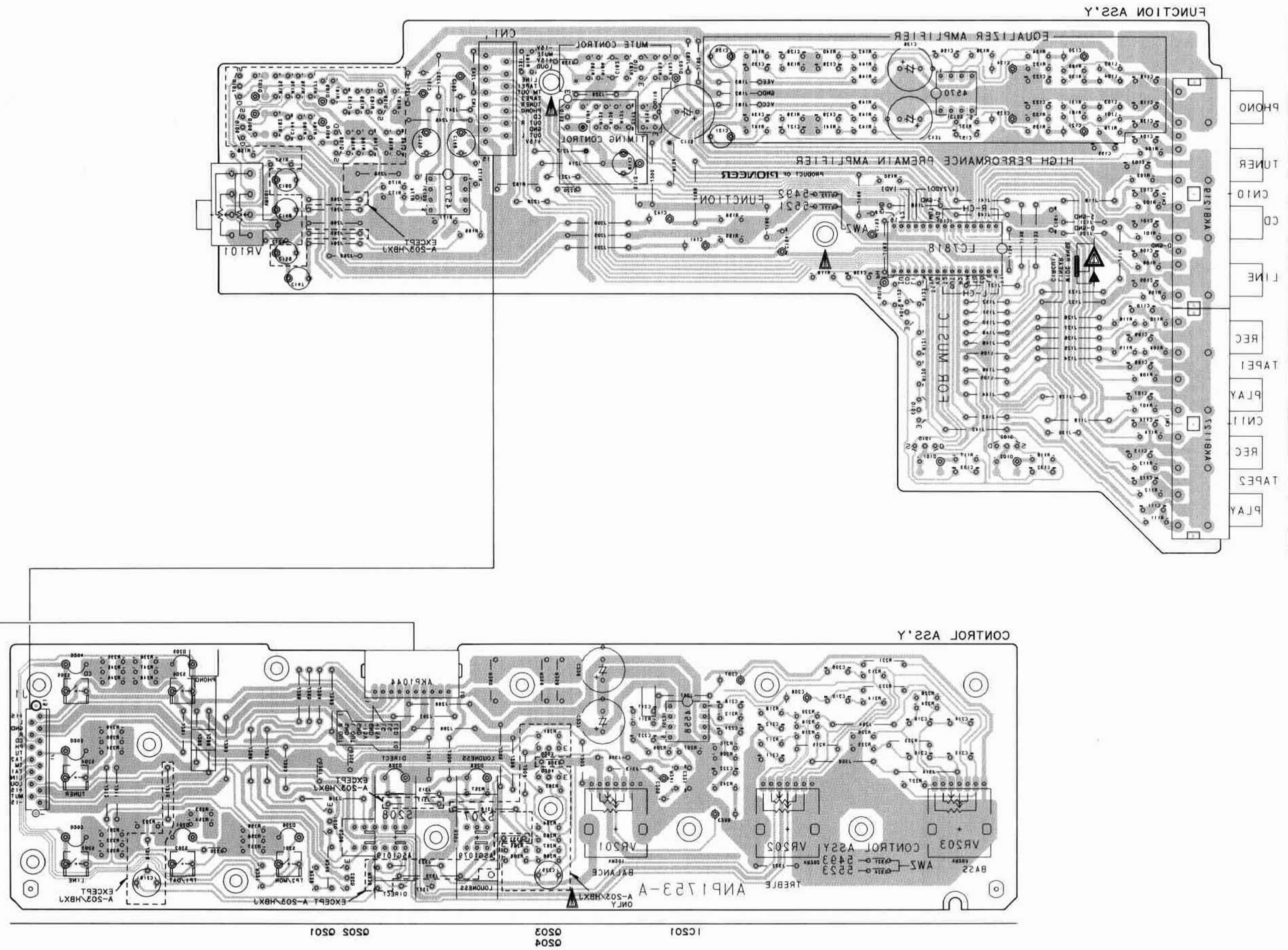
3. SCHEMATIC DIAGRAM



4. PCB CONNECTION DIAGRAMS

• This diagram is viewed from the foil side.

PCB-1



Q111
Q107
Q106
Q105
Q104
Q103
Q102
Q101
Q100
Q099
Q098
Q097
Q096
Q095
Q094
Q093
Q092
Q091
Q090
Q089
Q088
Q087
Q086
Q085
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Q020
Q019
Q018
Q017
Q016
Q015
Q014
Q013
Q012
Q011
Q010
Q009
Q008
Q007
Q006
Q005
Q004
Q003
Q002
Q001

• This diagram is viewed from the mounted parts side.

PCB-1

FUNCTION ASS'Y

EQUALIZER AMPLIFIER

MUTE CONTROL

TIMING CONTROL

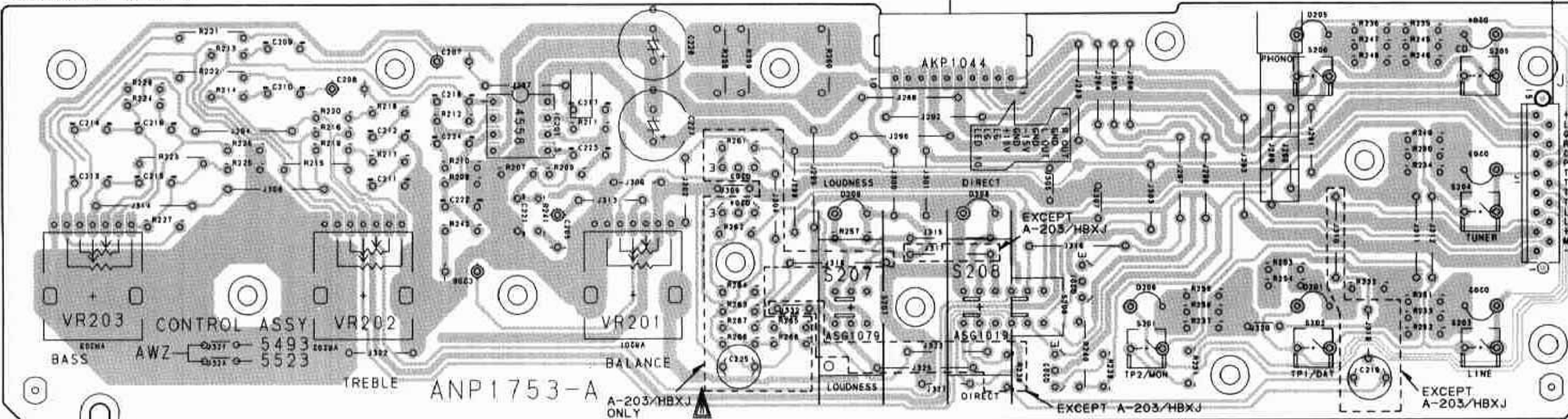
HIGH PERFORMANCE PREMAIN AMPLIFIER

PRODUCT OF PIONEER

FUNCTION

FOR MUSIC

CONTROL ASS'Y



NOTE FOR PCB DIAGRAMS:

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

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
 Q504	 Q504	Transistor
 D203	 D203	Diode
 C513	 C513	Capacitor (Polarized)

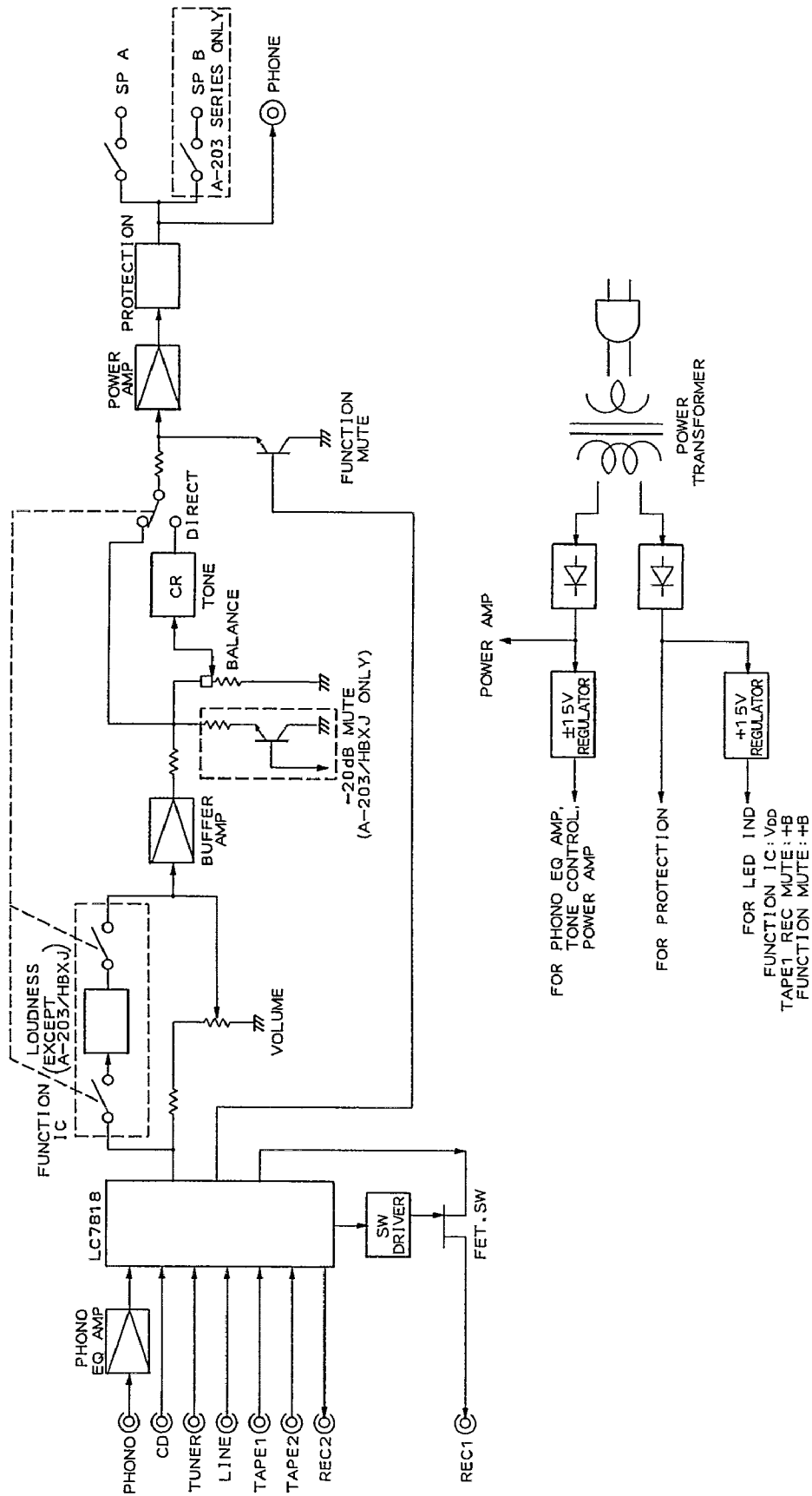
3. The transistor terminal marked with E or  shows the emitter.
4. The diode terminal marked with  or  shows cathode side.
5. The capacitor terminal marked with  or  shows negative terminal.

IC201

Q203
Q204

Q202 Q201

5. BLOCK DIAGRAM



6. PCB PARTS LIST

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ 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.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- 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 Ω →	56 × 10 ¹ →	561	RD1/8PM 5 6 1 J
47k Ω →	47 × 10 ³ →	473	RD1/4PS 4 7 3 J
0.5 Ω →	0R5		RN2H 0 R 5 K
1 Ω →	010		RS1P 0 1 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω →	562 × 10 ¹ →	5621	RN1/4PC 5 6 2 1 F
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Mark	No.	Description	Parts No.	Mark	Mark	No.	Description	Parts No.	Mark
------	-----	-------------	-----------	------	------	-----	-------------	-----------	------

LIST OF ASSEMBLIES

NSP	AF ASSY (For A-203)	AWK1787
	— FUNCTION ASSY	AWZ5492
	— CONTROL ASSY	AWZ5493
	— HEADPHONE ASSY	AWZ5494
	— SP ASSY	AWZ5495
	— POWER SW ASSY	AWZ5496
	— TRANS ASSY	AWZ5497
	— POWER AMP ASSY	AWZ5500
NSP	AF ASSY (For A-103)	AWK1788
	— FUNCTION ASSY	AWZ5492
	— CONTROL ASSY	AWZ5493
	— POWER SW ASSY	AWZ5496
	— HEADPHONE ASSY	AWZ5498
	— SP ASSY	AWZ5499
	— POWER AMP ASSY	AWZ5501
	— TRANS ASSY	AWZ5538

C136, C137	CEAS101M25
C115	CEAS102M16
C120, C121, C130, C131	CEAS2R2M50
C159, C160	CEAS2R2M50
C124, C125, C151, C152	CEAS470M25
C116	CEAS4R7M50
C138	CFTYA104J50
C155	CFTYA473J50
C117	CFTYA563J50
C145, C146	CFTYA823J50
C141, C142	CFTYA824J50
C161	CKCYF103Z50
C126, C127, C134, C135	CQMA222J50
C128, C129	CQMA822J50

RESISTORS

Δ R182	RFA1/4PS4R7J
VR101 (100k - A5 × 2)	ACT1084
Other Resistors	RD1/8PM J

OTHERS

CN11 (PIN JACK - 8P)	AKB1127
CN10 (PIN JACK - 8P)	AKB1219
CN1 CONNECTOR (15P)	KPE15

CONTROL ASSY

SEMICONDUCTORS

IC201	NJM4558DXP
Q201, Q202	2SC2878
D209 (Red)	AEL1065
D208 (Orange)	AEL1084
D201 - D206 (Red)	AEL1148

SWITCHES AND RELAYS

S208	ASG1019
S201 - S206	ASG1034
S207	ASG1079

CAPACITORS

C223, C224	CCCSL151J50
C217, C218	CCCSL271J50
C221, C222	CCCSL470J50
C219	CEANP220M35
C205, C206	CEAS2R2M50

FUNCTION ASSY

SEMICONDUCTORS

IC101	LC7818
IC102, IC103	UPC4570C
Q104, Q111	2SA933S
Q103, Q110	2SC1740S
Q101, Q102, Q106 - Q109	2SK246
Q105	DTA124ES
D101 - D103, D106 - D109	1SS252
D110	MTZJ20
D104, D105	MTZJ8.2

COILS AND FILTERS

L101 - L104	LAU121K
L105, L106	LAU221K

CAPACITORS

C147, C148, C153, C154 (2.2/50)	ACH1260
C149, C150 (47/25)	ACH1261
C132, C133	CCCSL101J50
C156, C157	CCCSL151J50
C101 - C114, C122, C123, C139	CCCSL221J50
C143, C144	CCCSL221J50
C118, C119	CCCSL330J50
C162	CEANP4R7M50

Mark	No.	Description	Parts No.	Mark	Mark	No.	Description	Parts No.	Mark
		C207,C208,C227,C228 C213,C214 C211,C212 C209,C210 C215,C216	CEAS470M25 CFTYA154J50 CFTYA184J50 CFTYA333J50 CFTYA824J50				TRANS ASSY		
							SEMICONDUCTORS		
						D701 (For A-203) D701 (For A-103)		D5SB20F D3SBA20	
		RESISTORS					CAPACITORS		
		R258-R260 VR202,VR203 (10k-20A×2) VR201 (250k-B×2)	RD1/4PM182J ACS1113 ACS1114				C701,C702	CFTYA824J50	
		Other Resistors	RD1/8PM□□□J				RESISTORS		
						△ R702		RFA1/4PS100J	
		OTHERS				△ Other Resistors		RD1/4PM□□□J	
		SOCKET (10P)	AKP1044				POWER AMP ASSY		
		HEADPHONE ASSY					SEMICONDUCTORS		
		SWITCHES AND RELAYS					IC301	UPC4570C	
		S501 (A-203 only)	SUL6LXXS				Q305,Q306	2SA1145	
		CAPACITORS					Q322	2SA1837	
		C501,C502 (A-203 only)	CKCYB392K50				Q313,Q314	2SA965	
		C503,C504 (A-103 only)	CKCYB392K50				Q303,Q304	2SA992	
		RESISTORS					Q317,Q318	2SC1740S	
		△ R501,R502 (A-203 only)	RS2LMF331J				Q301,Q302,Q315,Q316	2SC1845	
		△ R505,R506 (A-103 only)	RS1LMF331J				Q311,Q312	2SC2235	
		OTHERS					Q319	2SC2240	
		JACK (Headphone) (For A-203)	AKN1002				Q309,Q310	2SC2458	
		JACK (Headphone) (For A-103)	AKN1010				Q307,Q308	2SC2705	
		SP ASSY					Q321	2SC4793	
		SEMICONDUCTORS					D301-D308,D313-D322	1SS252	
		Q401	2SC4793				D326,D327	1SS252	
		D405	1SS252				D323	MTZJ13	
		D404	RD16ESB2						
		D402,D403	S5566				D329-D332 (A-103 only)	MTZJ3.3	
		CAPACITORS					D309-D312	MTZJ6.2A	
		△ C409 (0.01/400)	ACG1002				D324,D325	RD16ESB2	
		C401,C402 (6800/50) (For A-203)	ACH1105				SWITCHES AND RELAYS		
		C401,C402 (4700/42) (For A-103)	ACH1269				RY301	ASR-111	
		C407	CEAS101M50				CAPACITORS		
		C410,C411	CEAS470M50				C301,C302,C313,C314 (2.2/50)	ACH1260	
							C331,C332 (47/25)	ACH1261	
		C403,C404	CKCYB472K50				C305,C306,C324,C325 (100/25)	ACH1262	
		C405,C406 (A-203 only)	CKCYB472K50				C309-C312	CCCSL560K500	
		RESISTORS					C326	CEAS101M25	
		△ R401,R403	RFA1/4PS4R7J				C318	CEAS2R2M50	
		Other Resistors	RD1/4PM□□□J				C317	CEAS471M6	
		OTHERS					C315,C316	CEAS4R7M50	
		SCREW	ABA-298				C327,C328	CFTYA104J50	
		SPEAKER TERMINAL 8-P (For A-203)	AKE1011				C319-C322	CFTYA224J50	
		SPEAKER TERMINAL 4-P (For A-103)	AKE1054				C329,C330	CKCYB102K50	
		△ CN6 (AC INLET-1P)	AKP1132				C303,C304	CKCYB471K50	
		POWER SW ASSY					RESISTORS		
		SWITCHES AND RELAYS					△ R347,R348 (0.33/5W)	ACN-139	
		△ S601	ASG1035				△ R362,R363 (For A-203)	RD1/2PMF331J	
		CAPACITORS					△ R362,R363 (For A-103)	RD1/2PMF271J	
		△ C601 (0.01/400)	ACG1002				△ R369,R370	RD1/2PMFL4R7J	
							△ R385	RD1/4PMF100J	
							△ R357	RD1/4PMF101J	
							△ R349,R350	RD1/4PMF222J	
							△ R337-R340	RD1/8MMF101J	
							△ R341,R342	RD1/8MMF271J	
							△ R367,R368	RD1/8MMF4R7J	

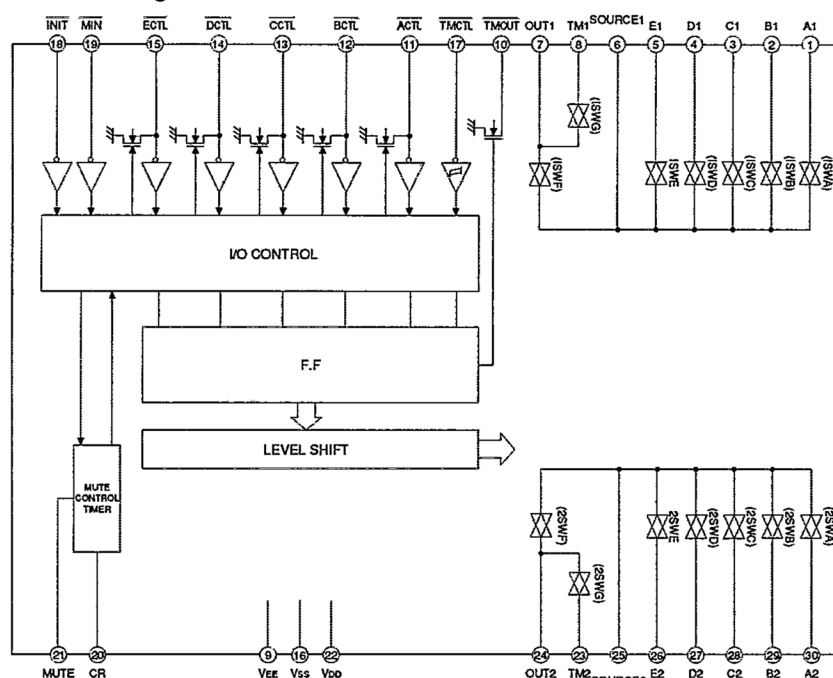
Mark	No.	Description	Parts No.	Mark
△	R323	—R326	RD1/8MMF511J	
△	R327	—R330	RD1/8MMF680J	
	R371,R372	(For A —203)	RDR1/4PM392J	
	R371,R372	(For A —103)	RDR1/4PM332J	
△	R343	—R346	RFA1/4PS4R7J	
	R331,R332		RN1/4PC1501F	
	R335,R336		RN1/4PC6800F	
	Other Resistors		RD1/8PM□□□J	
OTHERS				
	PLUG	(10P)	AKM1037	
	CN2	CONNECTOR(13P)	KPE13	
	CN3	CONNECTOR(7P)	KPE7	

7. IC INFORMATION

● The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ LC7818 (IC101) Input Selector IC

● Block diagram



● Pin Function

No.	Name	Function
1	A1	Audio signal input
2	B1	
3	C1	
4	D1	
5	E1	
6	SOURCE1	Recording output
7	OUT1	Audio signal output
8	TM1	Audio signal input
9	VEE	1. When power supply (+) is used: VSS=VEE=GND 2. When power supply (+-) is used: VSS=GND, VEE=(-)V
10	TMOUT	TM ON/OFF display LED driver output
11	ACTL	Input/output pin for analog switch control and display LED driver output
12	BCCTL	
13	CCTL	
14	DCTL	
15	ECTL	
16	VSS	1. When power supply (+) is used: VSS=VEE=GND 2. When power supply (+-) is used: VSS=GND, VEE=(-)V

No.	Name	Function																					
17	TMCTL	TM control input																					
18	INIT	Mode setting input Operations According to the Combination of INIT and MIN Inputs																					
19	MIN																						
		<table border="1"> <thead> <tr> <th>INIT</th><th>MIN</th><th>Operations</th></tr> </thead> <tbody> <tr> <td>H</td><td>M</td><td>Localization</td></tr> <tr> <td>H</td><td>L</td><td>Backup</td></tr> <tr> <td>H</td><td>H</td><td>Auto function</td></tr> <tr> <td>L</td><td>M</td><td>Mute</td></tr> <tr> <td>L</td><td>L</td><td>Initialize (Circuit A)</td></tr> <tr> <td>L</td><td>H</td><td>Reset</td></tr> </tbody> </table>	INIT	MIN	Operations	H	M	Localization	H	L	Backup	H	H	Auto function	L	M	Mute	L	L	Initialize (Circuit A)	L	H	Reset
INIT	MIN	Operations																					
H	M	Localization																					
H	L	Backup																					
H	H	Auto function																					
L	M	Mute																					
L	L	Initialize (Circuit A)																					
L	H	Reset																					
20	CR	Clock oscillation input/output Connected to C1 and R1																					
21	MUTE	Mute control output																					
22	VDD	Power supply																					
23	TM2	Audio signal input																					
24	OUT2	Audio signal output																					
25	SOURCE2	Recording output																					
26	E2	Audio signal input																					
27	D2																						
28	C2																						
29	B2																						
30	A2																						

8. FOR A-203/HBXJ, HEWZXJ, HLXJ, SDXJ, A-103/HBXJ, HEWZXJ, HLXJ, SDXJ AND YPWXJ

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ 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.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

8.1 CONTRAST OF MISCELLANEOUS PARTS FOR A-203/HBXJ, HEWZXJ, HLXJ AND SDXJ.

A-203/HBXJ, HEWZXJ, HLXJ, SDXJ and A-203/HEXJ have the same construction except for the following:

Mark	Symbol & Description	Part No.					Remarks
		A-203 HEXJ	A-203 HBXJ	A-203 HEWZXJ	A-203 HLXJ	A-203 SDXJ	
NSP	AF assembly	AWK1787	AWK1822	AWK1787	AWK1787	AWK1823	
	FUNCTION assembly	AWZ5492	AWZ5521	AWZ5492	AWZ5492	AWZ5492	
	CONTROL assembly	AWZ5493	AWZ5523	AWZ5493	AWZ5493	AWZ5493	
	SP assembly	AWZ5495	AWZ5524	AWZ5495	AWZ5495	AWZ5525	
	POWER SW assembly	AWZ5496	AWZ5526	AWZ5496	AWZ5496	AWZ5496	
Δ	T1 Power transformer (AC220—230V/240V)	ATS1538	ATS1538	ATS1538	ATS1538	.....	
Δ	T1 Power transformer (AC110V/120—127V/220V/240V)	.....	.....	.....	.....	ATS1539	
Δ	Voltage selector (AC110V/120—127V/220V/240V)	.....	.....	.....	.....	AKX—507	Refer to page5.
Δ	AC outlet	.....	.....	.....	.....	AKP—515	Refer to page5.
Δ	FU2 Fuse (1.25A)	.....	.....	.....	.....	REK1023	Refer to page5.
Δ	AC power cord	ADG1154	ADG1156	ADG1154	ADG1154	ADG1158	
	Rear panel	ANC2173	ANC2174	ANC2172	ANC2201	ANC2175	
	Insulator (for front/rear)	PNW1912	PNW1912	PNW1912	.....	.....	
	Insulator (for front)	.....	.....	.....	DXA1490	DXA1490	
	Foot (for rear)	.....	.....	.....	AEC1505	AEC1505	
	Front panel	AMB2231	AMB2233	AMB2231	AMB2231	AMB2231	
	Operating instructions (English/French/German/Italian/ Swedish/Spanish/Dutch/ Portuguese)	ARE1302	.....	.....	.....	.....	
	Operating instructions (English)	.....	ARB1468	.....	.....	.....	
	Operating instructions (German)	.....	.....	ARC1455	.....	.....	
	Operating instructions (English/Chinese)	.....	.....	.....	ARE1300	.....	
	Operating instructions (English/Spanish/Chinese)	.....	.....	.....	.....	ARE1301	
	Packing case	AHD2672	AHD2672	AHD2672	AHD2701	AHD2701	

FUNCTION ASSEMBLY

AWZ5521 and AWZ5492 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ5492	AWZ5521	
	D106—D109	1 SS252	.....	
	Q106—Q109	2SK246	.....	
	R159, R160	RD1/8PM104J	.....	
	R161, R162	RD1/8PM273J	.....	
	R163, R164	RD1/8PM393J	.....	
	R165—R168	RD1/8PM105J	.....	
	R175—R178	RD1/8PM475J	.....	
	C143, C144	CCCSL221J50	.....	
	C145, C146	CFTXA823J50	.....	
	C159, C160	CEAS2R2M50	.....	

CONTROL ASSEMBLY

AWZ5523 and AWZ5493 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ5493	AWZ5523	
	Q203, Q204	.....	2SC2878	
	R238	RD1/8PM103J	.....	
	R261, R262	.....	RD1/8PM100J	
	R263, R264	.....	RD1/8PM103J	
	R265, R267	.....	RD1/8PM332J	
	R266	.....	RD1/8PM153J	
	R268	.....	RD1/8PM333J	
	C219	CEANP220M35	.....	
	C225	.....	CEANP4R7M50	

SP ASSEMBLY

AWZ5524, AWZ5525 and AWZ5495 have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		AWZ5495	AWZ5524	AWZ5525	
	C403—C406	CKCYB472K50	.....	.....	
	Speaker terminal 8—P	AKE1011	AKE1036	AKE1011	
△	CN6 (AC INLET—1P)	AKP1132	AKP1133	AKP1132	

POWER SW ASSEMBLY

Although AWZ5526 and AWZ5496 are different in part number, they have the same service parts.

8.2 CONTRAST OF MISCELLANEOUS PARTS FOR A-103/HBXJ, HEWZXJ, HLXJ SDXJ AND YPWXJ.

A-103/HBXJ, HEWZXJ, HLXJ, SDXJ, YPWXJ and A-103/HEXJ have the same construction except for the following:

Mark	Symbol & Description	Part No.						Remarks
		A-103 HEXJ	A-103 HBXJ	A-103 HEWZXJ	A-103 HLXJ	A-103 SDXJ	A-103 YPWXJ	
NSP	AF assembly	AWK1788	AWK1825	AWK1788	AWK1788	AWK1826	AWK1788	
	SP assembly	AWZ5499	AWZ5529	AWZ5499	AWZ5499	AWZ5530	AWZ5499	
	POWER SW assembly	AWZ5496	AWZ5526	AWZ5496	AWZ5496	AWZ5496	AWZ5496	
△	T1 Power transformer (AC220—230V/240V)	ATSI540	ATSI540	ATSI540	ATSI540	.....	ATSI540	
△	T1 Power transformer (AC110V/120—127V/220V/240V)	.....	.....	.....	.....	ATSI541	.....	
△	Voltage selector (AC110V/120—127V/220V/240V)	.....	.....	.....	.....	AKX—507	.....	Refer to page5.
△	AC outlet	.....	.....	.....	.....	AKP—515	.....	Refer to page5.
△	FU2 Fuse (800mA)	.....	.....	.....	.....	REK1021	.....	Refer to page5.
△	AC power cord	ADG1154	ADG1156	ADG1154	ADG1154	ADG1158	ADG1160	
	Rear panel	ANC2177	ANC2178	ANC2176	ANC2202	ANC2179	ANC2178	
	Insulator	PNW1912	PNW1912	PNW1912	.....	.....	.....	
	Foot	.....	.....	.....	AEC1505	AEC1505	AEC1505	
	Front panel	AMB2232	AMB2232	AMB2232	AMB2234	AMB2234	AMB2234	
	Operating instructions (English/French/German/Italian/ Swedish/Spanish/Dutch/ Portuguese)	ARE1302	.....	.....	.....	.....	.....	
	Operating instructions (English)	.....	ARB1468	.....	.....	.....	ARB1468	
	Operating instructions (German)	.....	.....	ARC1455	.....	.....	.....	
	Operating instructions (English/Chinese)	.....	.....	.....	ARE1300	.....	.....	
	Operating instructions (English/Spanish/Chinese)	.....	.....	.....	.....	ARE1301	.....	
	Packing case	AHD2673	AHD2673	AHD2673	AHD2702	AHD2702	AHD2673	

SP ASSEMBLY

AWZ5529, AWZ5530 and AWZ5499 have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		AWZ5499	AWZ5529	AWZ5530	
	C403, C404	CKCYB472K50	.....	.....	
△	CN6 (AC INLET—1P)	AKP1132	AKP1133	AKP1132	

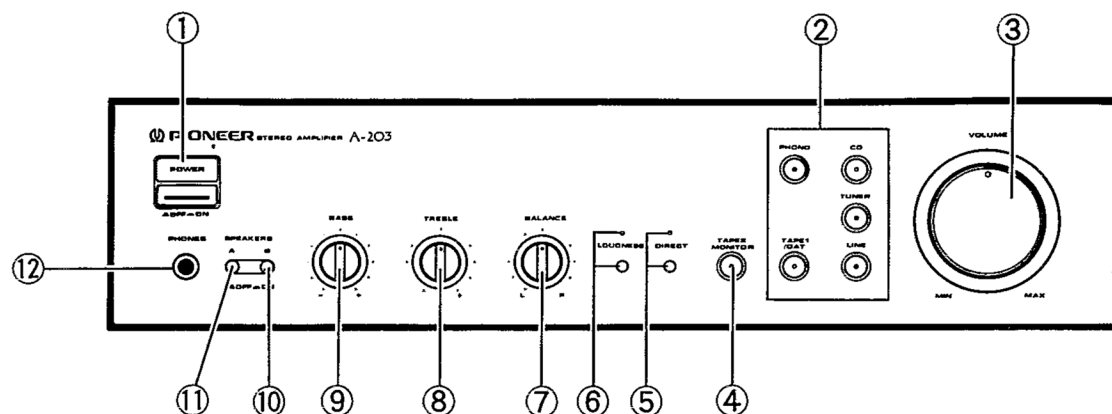
POWER SW ASSEMBLY

Although AWZ5526 and AWZ5496 are different in part number, they have the same service parts.

9. PANEL FACILITIES

1

The illustration shows model A-203.



Model A-103 is not equipped with ⑩ and ⑫.

FRONT PANEL

See Fig. 1

① POWER switch

Press to turn power to the unit ON and OFF.

② Input Selector switch/indicator

Use to select the playback source.

PHONO:

For record playback with a turntable.

CD:

For compact disc playback with a CD player.

TUNER:

For AM or FM broadcast reception with a tuner.

LINE:

Set to this position when listening to the programs from a component connected to the LINE terminals.

TAPE 1/DAT:

For playback with a cassette deck or digital audio tape deck connected to the TAPE 1/DAT terminals.

③ VOLUME control

Use to adjust the volume level.

④ TAPE 2 MONITOR switch/indicator

Use when there is an adaptor component (graphic equalizer, etc.) or cassette deck connected to the TAPE 2 MONITOR terminals.

ON:

Indicator lights when using the adaptor component or listening to the cassette deck.

OFF:

Indicator goes out when not in use.

NOTE:

- When no connections are made to the TAPE 2 MONITOR terminals, or when they are not in use, be sure to set this switch to the OFF position. (No sound will be heard if it is set to the ON position.)
- When the TAPE 2 MONITOR indicator is on and the input selector switch is not set to TAPE 1/DAT, the signals which are input through TAPE 2 MONITOR are then output at TAPE 1/DAT REC OUT.

⑤ DIRECT switch/indicator

Use this switch when you do not wish to pass the output from input terminal equipment through the various frequency adjusting circuits (BASS, TREBLE, BALANCE, LOUDNESS.)

ON:

The indicator lights: The signals input through the input terminals are reproduced without passing through the various frequency adjusting circuits. This results in flat, pure sound which is a more faithful reproduction of the input source.

OFF:

The indicator goes out: The signal passes through the various frequency adjusting circuits.

⑥ MUTING button/indicator (Only U.K. model of A-203)

Use to temporarily cut sound volume.

ON: (Red illumination)

The indicator lights. The sound volume will be reduced -20dB.

OFF:

The indicator goes off. The sound will return to its previous volume.

⑥ LOUDNESS switch/indicator (Except U.K. model of A-203)

Use when listening at low volume levels.

ON:

The indicator lights: Boosts low and high frequencies to give added punch to playback even at low volume levels.

OFF:

The indicator goes off: Should normally be left in this position.

NOTE:

This control does not operate when the DIRECT switch is in the ON position.

⑦ BALANCE control

Should normally be left in the center position. Adjust the balance if the sound is louder from one of the speakers. If the right side is louder, turn toward the L (left) position and if the left side is louder, turn toward the R (right) position.

NOTE:

This control does not operate when the DIRECT switch is in the ON position.

⑧ TREBLE tone control

Use to adjust the high-frequency tone. The center position is the flat (normal) position. When turned to the right, high-frequency tone is emphasized; when turned to the left, high-frequency tone is de-emphasized.

NOTE:

This control does not operate when the DIRECT switch is in the ON position.

⑨ BASS tone control

Use to adjust the low-frequency tone. The center position is the flat (normal) position. When turned to the right, low-frequency tone is emphasized; when turned to the left, low-frequency tone is de-emphasized.

NOTE:

This control does not operate when the DIRECT switch is in the ON position.

⑩ SPEAKERS B selector switch (A-203 only)

Use this switch to listen to the speaker system connected to the SPEAKERS B terminals.

ON (■):

Depressed position: Sound is heard from the speaker system.

OFF (■):

Released position: No sound is heard from the speaker system.

Set to this position when listening with headphones

⑪ SPEAKERS A selector switch (A-203 only)

Use this switch to listen to the speaker system connected to the SPEAKERS A terminals.

ON (■):

Depressed position: Sound is heard from the speaker system.

OFF (■):

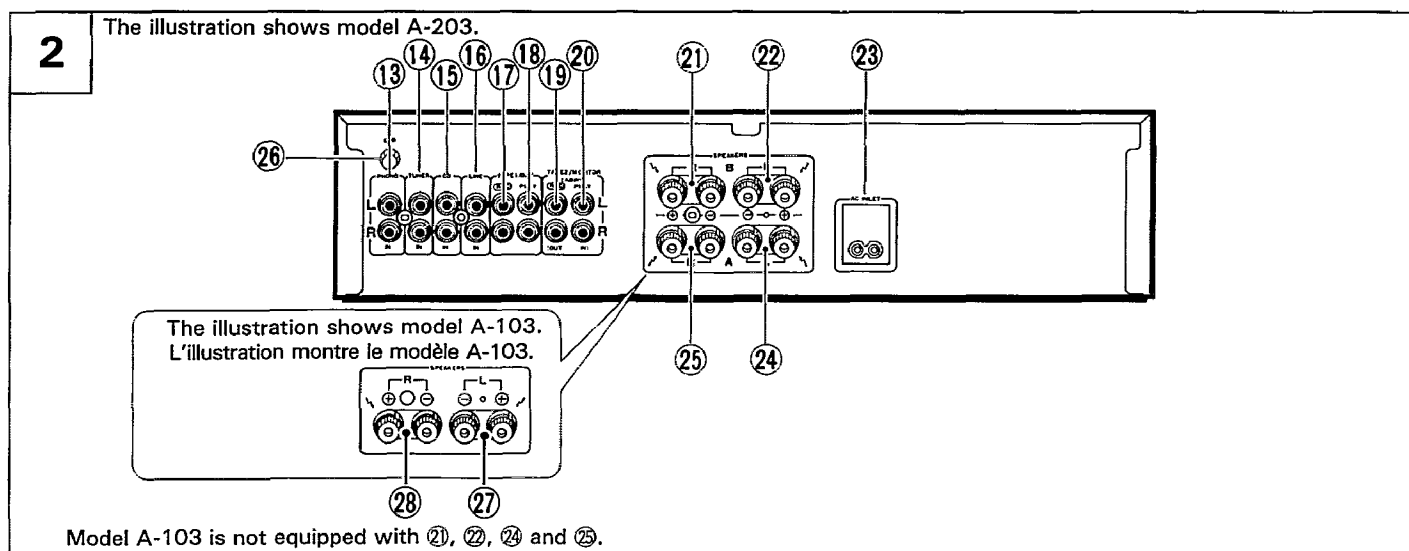
Released position: No sound is heard from the speaker system.

Set to this position when listening with headphones.

⑫ PHONES jack

When using headphones, insert the plug into this jack.

With model A-103 the output to the speakers is cut automatically when connecting headphones.


REAR PANEL
See Fig. 2

- | | |
|---|---|
| ⑬ PHONO terminals | ②② SPEAKERS B terminals (left channel) (A-203 only) |
| ⑭ TUNER terminals | ②③ AC INLET jack
Connect power cord to here and an AC wall socket, or the AC outlet of an audio timer.
If you are going to be away from home for a long period of time, disconnect the unit from the wall socket. |
| ⑮ CD terminals | ②④ SPEAKERS A terminals (left channel) (A-203 only) |
| ⑯ LINE terminals | ②⑤ SPEAKERS A terminals (right channel) (A-203 only) |
| ⑰ TAPE 1/DAT REC terminals | ②⑥ GND (Turntable ground) terminal |
| ⑱ TAPE 1/DAT PLAY terminals | ②⑦ SPEAKERS terminals (left channel) (A-103 only) |
| ⑲ TAPE 2/MONITOR (ADPT) REC(OUT) terminals | ②⑧ SPEAKERS terminals (right channel) (A-103 only) |
| ⑳ TAPE 2/MONITOR (ADPT) PLAY(IN) terminals | |
| ㉑ SPEAKERS B terminals (right channel) (A-203 only) | |

10. SPECIFICATIONS

[A-203]

Amplifier Section

Continuous power output

(both channels driven at 20 Hz to 20 kHz)**

T.H.D. 0.07 %, 8 Ω 35 W + 35 W*

T.H.D. 0.1 %, 4 Ω 40 W + 40 W*

DIN Continuous power output (both channels driven at 1 kHz)

T.H.D. 1.0 %, 8 Ω 45 W + 45 W

T.H.D. 1.0 %, 4 Ω 55 W + 55 W

Dynamic power output (E.I.A. test signal)

4 Ω 66 W

Total harmonic distortion**

20 Hz to 20 kHz, 17.5 W, 8 Ω 0.05 %*

• Above specifications are for when power supply is 230 V.

Input sensitivity/impedance

PHONO (MM) 2.8 mV/50 k Ω

CD, TUNER, LINE, TAPE 1/DAT, TAPE 2 MONITOR 200 mV/50 k Ω

PHONO overload level

1 kHz, T.H.D. 0.1 % (MM) 150 mV

Output level/impedance

TAPE REC, ADPT OUT 200 mV/1 k Ω

Frequency response

PHONO (MM) 20 Hz to 20 kHz ± 0.5 dB

CD, TUNER, LINE, TAPE 1/DAT, TAPE 2 MONITOR,

..... 5 Hz to 100 kHz ± 3 dB*

Tone control

BASS ± 8 dB (100 Hz)

TREBLE ± 8 dB (10 kHz)

Loudness contour (volume control set at -30 dB position)

Australian model only

..... $+5$ dB (100 Hz) / $+3$ dB (10 kHz)

Signal-to-Noise ratio (IHF short circuit, A network)

PHONO (MM, 5 mV input) 82 dB*

CD, TUNER, LINE, TAPE 1/DAT, TAPE 2 MONITOR 105 dB*

Signal-to-Noise ratio (DIN, continuous power/50 mW)

PHONO (MM) 68 dB/64 dB*

CD, TUNER, LINE, TAPE 1/DAT, TAPE 2 MONITOR 85 dB/67 dB*

Power Supply/Miscellaneous

Power requirements AC 220 — 230 Volts, 50/60 Hz

Power consumption 330 W

Dimensions (including knobs and other protruding parts)

..... 420 (W) $\times$ 312 (D) $\times$ 110 (H) mm

Weight (without package) 5.2 kg

Accessories

Operating instructions 1

NOTE:

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

* Measured with the DIRECT switch set to ON.

** Measured by Audio Spectrum Analyzer.

[A-103]

Amplifier Section

Continuous power output

(both channels driven at 20 Hz to 20 kHz)**

T.H.D. 0.1 %, 8 Ω 25 W + 25 W*

DIN Continuous power output (both channels driven at 1 kHz)

T.H.D. 1.0 %, 8 Ω 30 W + 30 W

Total harmonic distortion**

20 Hz to 20 kHz, 12.5 W, 8 Ω 0.05 %*

• Above specifications are for when power supply is 230 V.

Input sensitivity/impedance

PHONO (MM) 2.8 mV/50 k Ω

CD, TUNER, LINE, TAPE 1/DAT, TAPE 2 MONITOR 200 mV/50 k Ω

PHONO overload level

1 kHz, T.H.D. 0.1 % (MM) 150 mV

Output level/impedance

TAPE REC, ADPT OUT 200 mV/1 k Ω

Frequency response

PHONO (MM) 20 Hz to 20 kHz ± 0.5 dB

CD, TUNER, LINE, TAPE 1/DAT, TAPE 2 MONITOR,

..... 5 Hz to 100 kHz ± 3 dB*

Tone control

BASS ± 8 dB (100 Hz)

TREBLE ± 8 dB (10 kHz)

Loudness contour (volume control set at -30 dB position)

..... $+5$ dB (100 Hz) / $+3$ dB (10 kHz)

Signal-to-Noise ratio (IHF short circuit, A network)

PHONO (MM, 5 mV input) 82 dB*

CD, TUNER, LINE, TAPE 1/DAT, TAPE 2 MONITOR 105 dB*

Signal-to-Noise ratio (DIN, continuous power/50 mW)

PHONO (MM) 68 dB/64 dB*

CD, TUNER, LINE, TAPE 1/DAT, TAPE 2 MONITOR 85 dB/67 dB*

Power Supply/Miscellaneous

Power requirements AC 220 — 230 Volts, 50/60 Hz

Power consumption 210 W

Dimensions (including knobs and other protruding parts)

..... 420 (W) $\times$ 312 (D) $\times$ 110 (H) mm

Weight (without package) 4.2 kg

Accessories

Operating instructions 1

NOTE:

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

* Measured with the DIRECT switch set to ON.

** Measured by Audio Spectrum Analyzer.