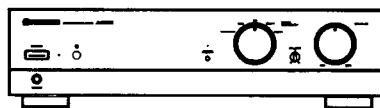


# Service Manual

**PIONEER**  
The Art of Entertainment



ORDER NO.  
**ARP2889**

## STEREO AMPLIFIER **A-300R**

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

Type	Model	Power Requirement	Remarks
	A-300R		
HBWXJ	○	AC 230V	AC 240V, *
HLXJ	○	AC 220V - 230V	AC 240V, *
SDXJ	○	AC 110/120V - 127V/220V/240V	With the voltage selector
YPWXJ	○	AC 240V	—

\* : 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 HLXJ, SDXJ and YPWXJ, refer to page 15.

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O-ZFC APR. 1995 Printed in Japan

# 1. EXPLODED VIEWS, PACKING AND PARTS LIST

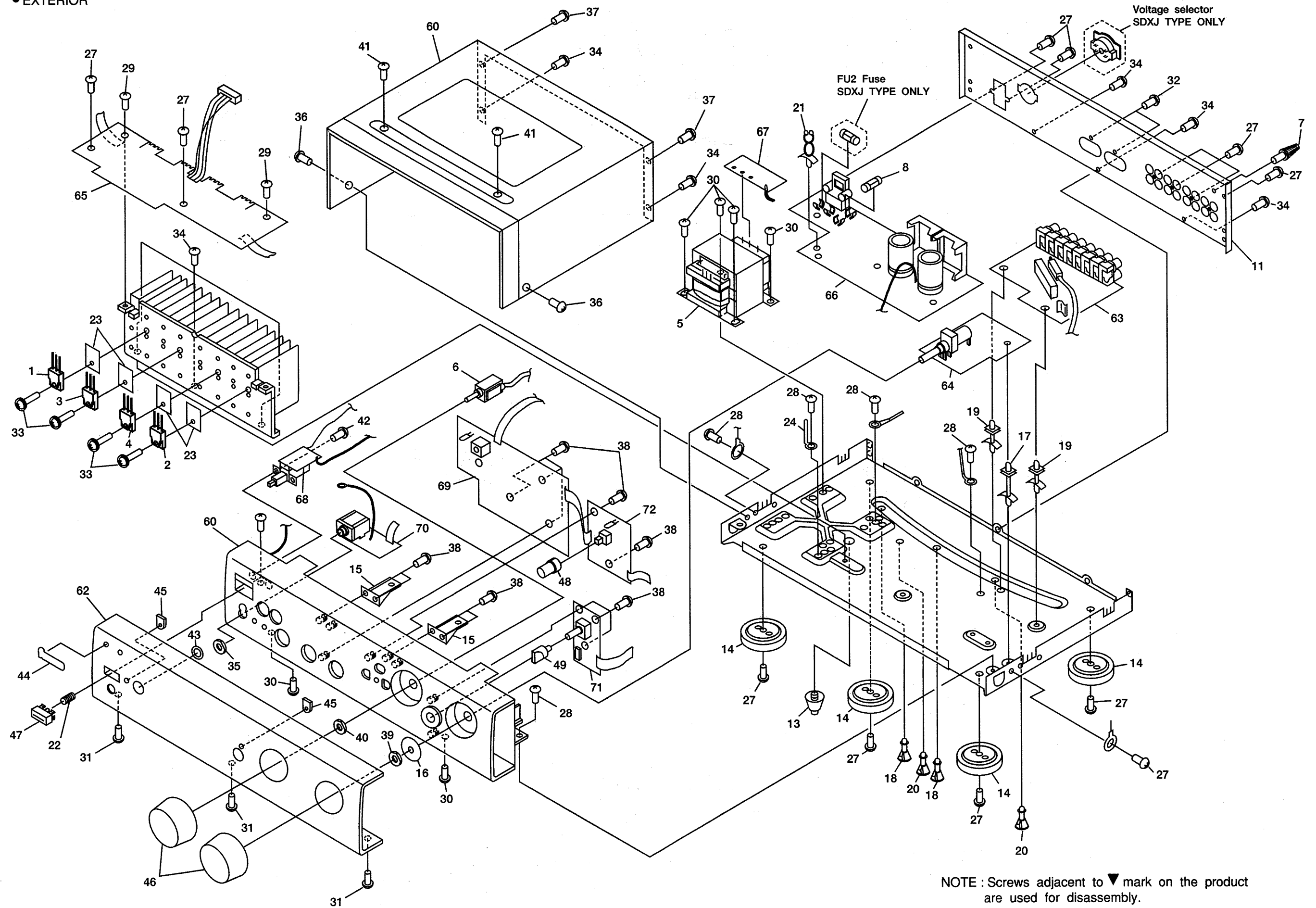
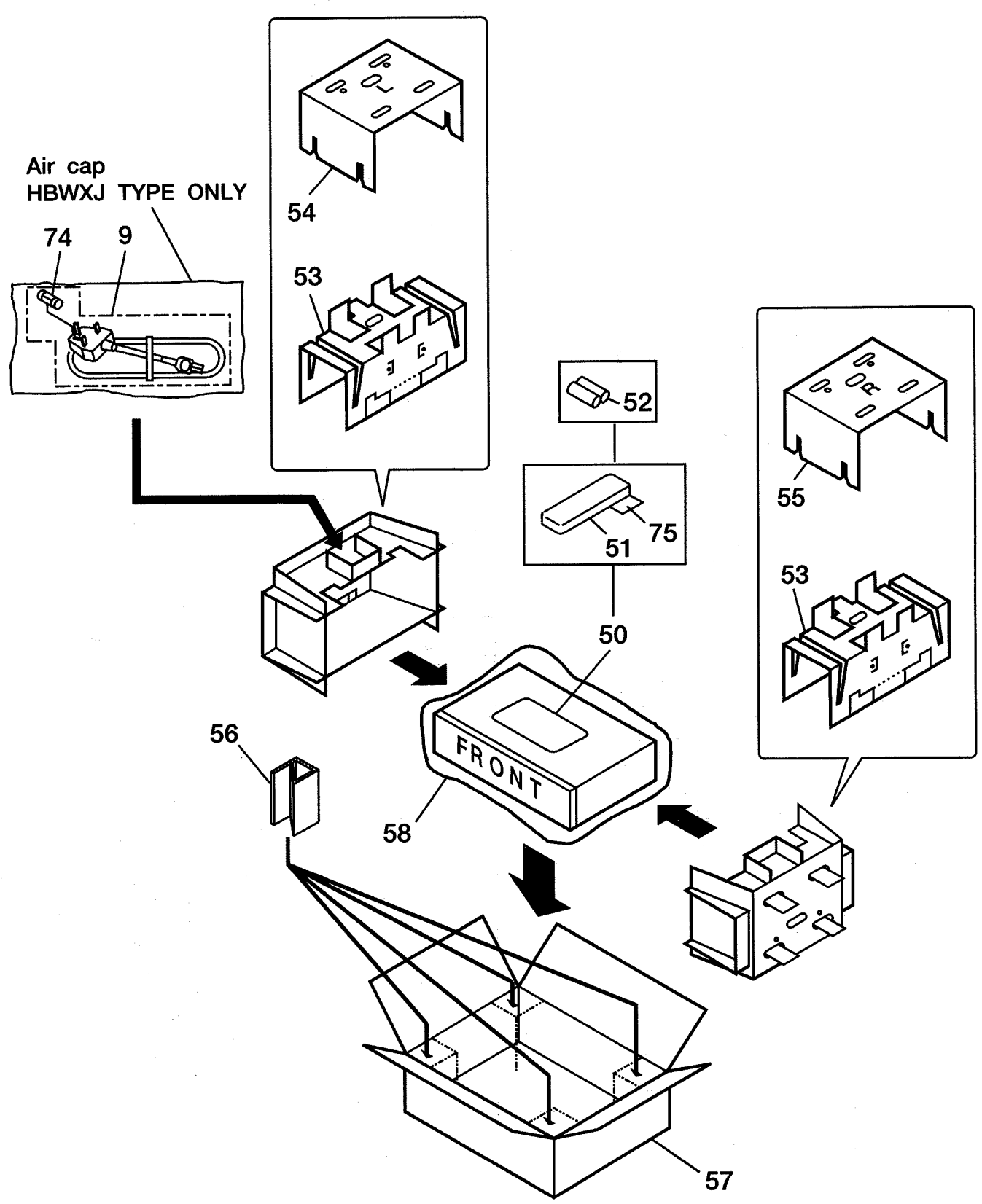
## NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The  $\triangle$  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.

### 1.1 PARTS LIST (FOR A-300R/HBWXJ)

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
$\triangle$	1	Q3 TRANSISTOR	2SA1264N		46	ROTARY KNOB M (MET)	AAB7053
$\triangle$	2	Q4 TRANSISTOR	2SA1264N		47	POWER BUTTON (PLS)	AAD2539
$\triangle$	3	Q1 TRANSISTOR	2SC3181N		48	PUSH BUTTON (PLS)	AAD4045
$\triangle$	4	Q2 TRANSISTOR	2SC3181N		49	KNOB	PAC1707
$\triangle$	5	T1 POWER TRANSFORMER	ATS7072	NSP	50	BONNET CASE (MET)	ANE7055
	6	SWITCH	ASU7001		51	OPE INSTRUCTIONS (English)	ARB7034
	7	TERMINAL SCREW	AKE-031		52	REMO-CON (CU-A016)	AXD7057
$\triangle$	8	FU1 FUSE (1.25A)	REK1023	NSP	53	BATTERY (R6P, AA)	AEX-010
	9	AC POWER CORD	ADG1156		54	PAPER PROTECTOR A	AHA7061
NSP	10	CHASSIS (MET)	ANA1228		55	PAPER PROTECTOR B	AHA7071
	11	REAR PANEL (MET)	ANC7218		56	PAPER PROTECTOR C	AHA7072
NSP	12	RADIATOR (MET)	ANH1464		57	PAPER PROTECTOR D	AHA7073
	13	FOOT	AEC1505		58	PACKING CASE	AHD7142
	14	INSULATOR	PNW1912		59	PACKING SHEET	AHG1212
	15	PCB HOLDER (MET)	ANG1918		60	BONNET CASE (MET)	ANE7056
	16	RING(MET)	ANG7022		61	PANEL BASE (PLS)	AMB7204
NSP	17	PC SPPORT (PLS)	AEC1118		62	FRONT PANEL (MET)	ANB7014
	18	PCB SPACER (PLS)	AEC1566	NSP	63	AF ASSY	AWK7177
	19	PCB SPACER (PLS)	AEC1567		64	INPUT ASSY	AWZ7572
	20	PCB HOLDER	AEC1583	NSP	65	VOLUME ASSY	AWZ7573
	21	WIRE CLAMP	ABH7068		66	AMP ASSY	AWZ7574
	22	SPRING (FE)	AEC7040		67	SP ASSY	AWZ7575
	23	SHEET	AEE1014	NSP	68	TRANS ASSY	AWZ7576
	24	BINDER	AEP-215		69	POWER SW ASSY	AWZ7577
NSP	25	BINDER (BK-1)	Z09-057		70	MPU ASSY	AWZ7578
NSP	26	SERIAL PAPER	RRW-168	NSP	71	HEADPHONE ASSY	AWZ7681
	27	SCREW	ABA-298	NSP	72	BALANCE ASSY	AWZ7682
	28	SCREW (STEEL)	ABA1009	NSP	73	MONITOR SW ASSY	AWZ7683
	29	SCREW (STEEL)	ABA1011	$\triangle$	74	FUSE	AEK1046
	30	SCREW	ABA1027		75	BATTERY COVER	AZN7278
	31	SCREW (STEEL)	ABA1048				
	32	SCREW (STEEL)	ABA1050				
	33	SCREW (STEEL)	ABA1082				
	34	SCREW (STEEL)	ABA1192				
	35	NUT	ABN-065				
	36	SCREW	BBT30P080FZK				
	37	SCREW	BCZ30P080FZK				
	38	SCREW	BPZ26P080FMC				
	39	NUT	NK70FUC				
	40	NUT	NK90FUC				
	41	SCREW (STEEL)	PBA1096				
	42	SCREW	VPZ30P100FMC				
	43	REMOCON WINDOW (PLS)	AAK2457				
	44	NAME PLATE (METAL)	AAM1058				
	45	LED LENS	PNW2019				

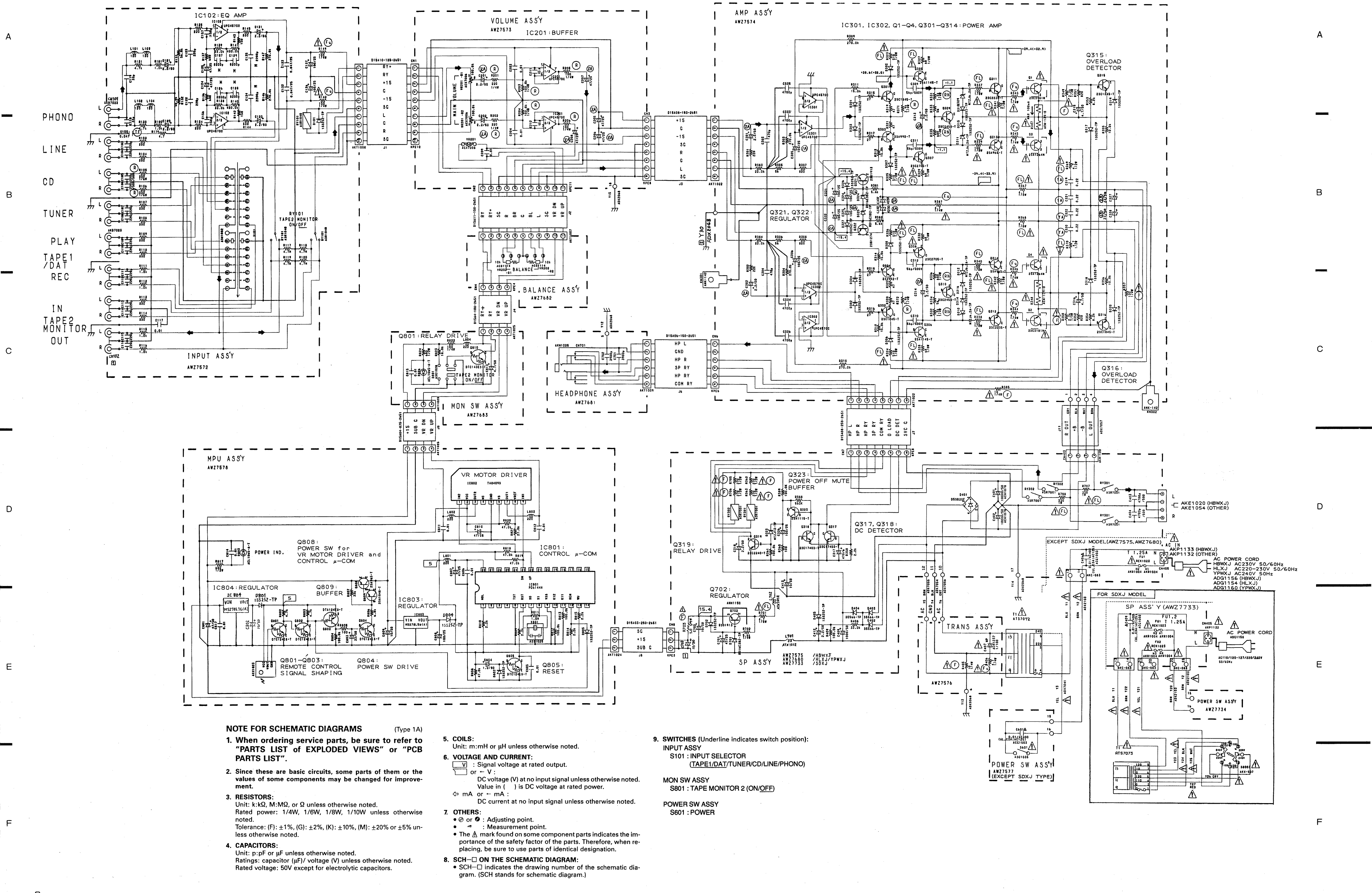
• EXTERIOR



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

# 2. SCHEMATIC DIAGRAM

Signal route (Leh)

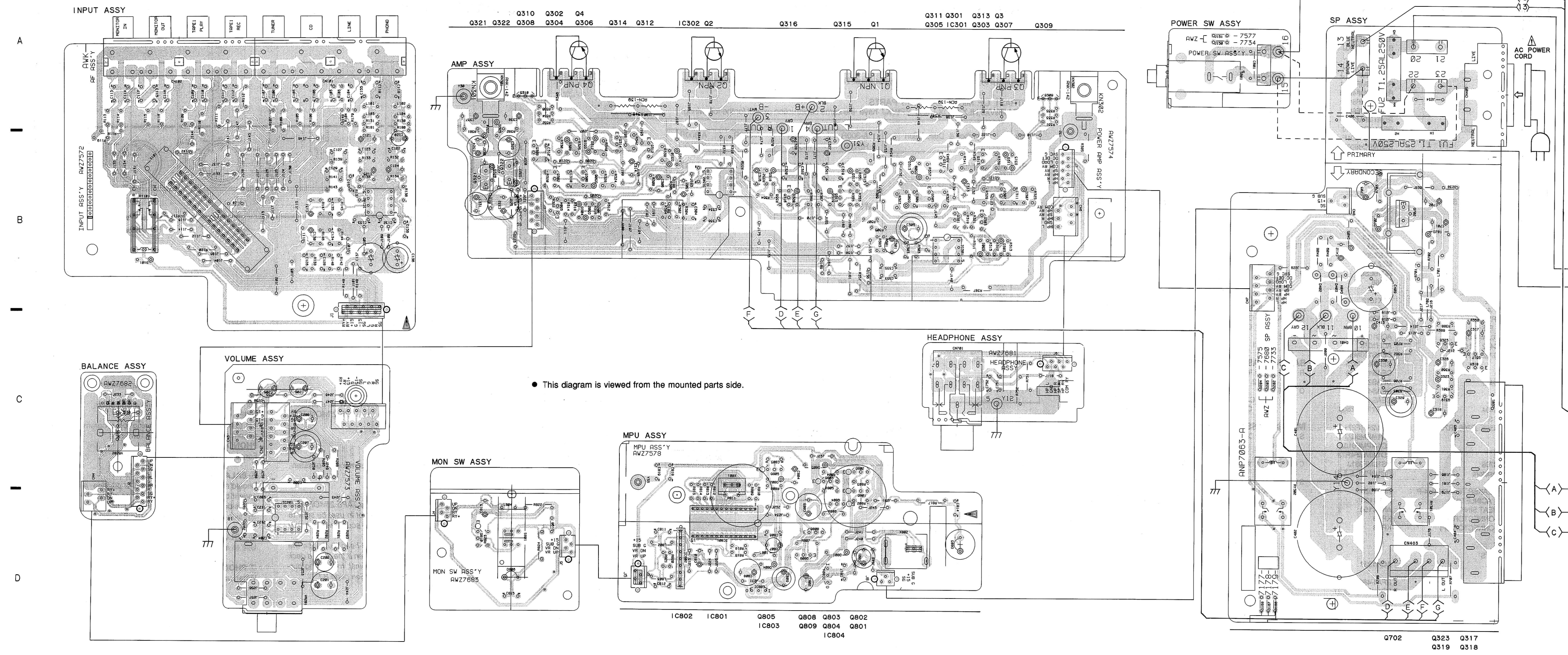


**NOTE FOR SCHEMATIC DIAGRAMS** (Type 1A)

- When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
- Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.
- RESISTORS:**  
Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.  
Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.  
Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
- CAPACITORS:**  
Unit: p:pF or μF unless otherwise noted.  
Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.  
Rated voltage: 50V except for electrolytic capacitors.
- COILS:**  
Unit: m:mH or μH unless otherwise noted.
- VOLTAGE AND CURRENT:**  
V: Signal voltage at rated output.  
or - V:  
DC voltage (V) at no input signal unless otherwise noted.  
Value in ( ) is DC voltage at rated power.  
mA: or - mA:  
DC current at no input signal unless otherwise noted.
- OTHERS:**  
⊙ or ○: Adjusting point.  
⊙: Measurement point.  
The Δ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
- SCH-□ ON THE SCHEMATIC DIAGRAM:**  
SCH-□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
- SWITCHES** (Underline indicates switch position):  
INPUT ASSY  
S101: INPUT SELECTOR (TAPE1/DAT/TUNER/CD/LINE/PHONO)  
MON SW ASSY  
S801: TAPE MONITOR 2 (ON/OFF)  
POWER SW ASSY  
S601: POWER

AC POWER CORD  
AC  
AC1133 (HBWXJ)  
AKP1132 (OTHER)  
AC1136 (HBWXJ)  
AC1137 (HBWXJ)  
AC1138 (HBWXJ)  
AC1139 (HBWXJ)  
AC1140 (HBWXJ)  
AC1141 (HBWXJ)  
AC1142 (HBWXJ)  
AC1143 (HBWXJ)  
AC1144 (HBWXJ)  
AC1145 (HBWXJ)  
AC1146 (HBWXJ)  
AC1147 (HBWXJ)  
AC1148 (HBWXJ)  
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AC1194 (HBWXJ)  
AC1195 (HBWXJ)  
AC1196 (HBWXJ)  
AC1197 (HBWXJ)  
AC1198 (HBWXJ)  
AC1199 (HBWXJ)  
AC1200 (HBWXJ)

### 3. PCB CONNECTION DIAGRAMS

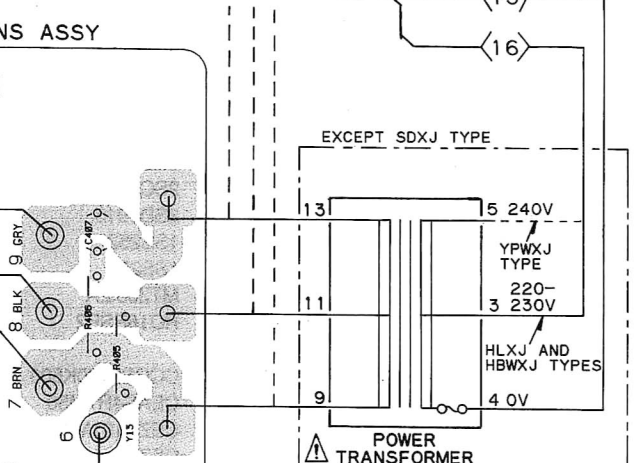
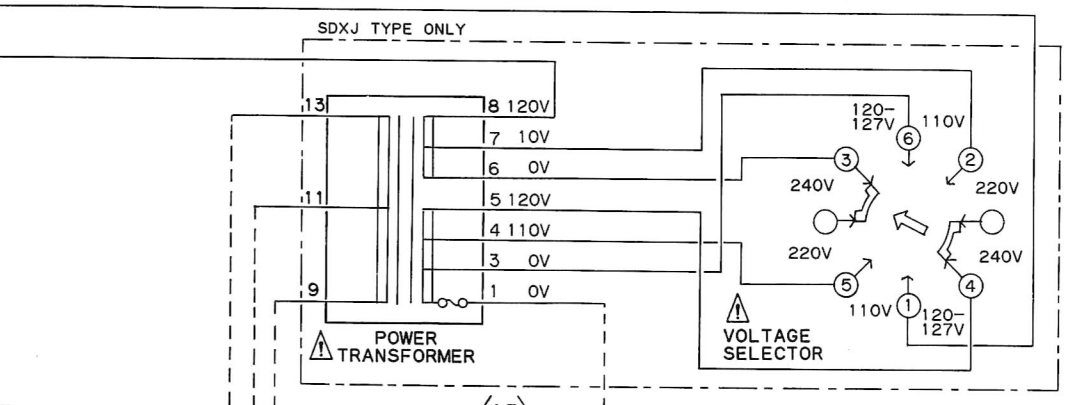


• This diagram is viewed from the mounted parts side.

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
		Transistor
		Diode
		Capacitor (Polarized)

- The transistor terminal marked with E or  $\bar{C}$  shows the emitter.
- The diode terminal marked with  $\ominus$  or  $\bar{C}$  shows cathode side.
- The capacitor terminal marked with  $\ominus$  or  $\bar{C}$  shows negative terminal.
- The parts mounted on each PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.



#### Line Voltage Selection

(For HBWXJ and HLXJ types)

- Line Voltage can be changed by the following modification:
- Disconnect the AC power cord.
  - Remove the cover.
  - Change the connection of the power transformer primary taps.
  - Stick a line voltage label on the rear panel.

Part No.	Description
AAX-193	220V label
AAX-192	240V label

## 4. PCB PARTS LIST (FOR A-300R/HBWXJ)

**NOTES:**

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The 1 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 ohms and 47k ohms (tolerance is shown by J = 5%, and K = 10%).

560 Ω → 56 × 10<sup>1</sup> → 561 ----- RD1/8PM 561 J  
 47k Ω → 47 × 10<sup>3</sup> → 473 ----- RD1/4PS 473 J  
 0.5 Ω → 0R5 ----- RN2H 0R5 K  
 1 Ω → 010 ----- RS1P 010 K

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

5.62k Ω → 562 × 10<sup>1</sup> → 5621 ----- RN1/4PC 5621 F

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
<b>LIST OF ASSEMBLIS</b>				<b>VOLUME ASSY</b>			
NSP AF ASSY				SEMICONDUCTORS			
--- INPUT ASSY				IC201			
NSP --- VOLUME ASSY				CAPACITORS			
--- AMP ASSY				C211 ,C212			
--- SP ASSY				C201 ,C202			
NSP --- TRANS ASSY				C205 ,C208			
--- POWER SW ASSY				C203 ,C204 ,C209			
--- MPU ASSY				RESISTORS			
NSP --- HEADPHONE ASSY				R205 ,R206			
NSP --- BALANCE ASSY				R203 ,R204			
NSP --- MONITOR SW ASSY				R201 ,R202			
				VR201(100K)			
				OTHERS			
				CN1 CONNECTOR(10P)			
				CN2 CONNECTOR(11P)			
				CN3 CONNECTOR(8P)			
				KPE10			
				KPE11			
				KPE8			
<b>INPUT ASSY</b>				<b>AMP ASSY</b>			
SEMICONDUCTORS				SEMICONDUCTORS			
IC102				IC301 ,IC302			
D101				Q305 ,Q306			
COILS AND FILTERS				Q313 ,Q314			
L101 -L104				Q303 ,Q304			
SWITCHES AND RELAYS				Q322			
S101				Q301 ,Q302 ,Q315 ,Q316			
RY101				Q311 ,Q312			
CAPACITORS				Q309 ,Q310			
C156 ,C157				Q307 ,Q308			
C103 ,C104 ,C107 -C116				Q321			
C122 ,C123				D301 -D308 ,D313 -D320			
C105 ,C106				D326 ,D327			
C118 ,C119				D309 -D312			
C136 ,C137				D324 ,D325			
C120 ,C121 ,C130 ,C131				CAPACITORS			
C124 ,C125				C309 -C312			
C155				C315 ,C316			
C117				C305 ,C306 ,C324 ,C325			
C132 ,C133				C331 ,C332			
C126 ,C127 ,C134 ,C135				C301 ,C302 ,C313 ,C314			
C128 ,C129				C337 ,C338			
RESISTORS				C327 ,C328			
R105 ,R106				C319 -C322			
R148 ,R149				C303 ,C304			
Other Resistors				C333 -C336			
OTHERS							
CN101 ,CN102(PIN JACK-8P)				AKB7023			

Mark	No.	Description	Parts No.
<b>RESISTORS</b>			
△	R347 ,R348(0.33/5W)		ACN-139
△	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
△	R323 -R326		RD1/8MMF511J
△	R327 -R330		RD1/8MMF680J
△	R371 ,R372		RDR1/4PM392J
△	R343 -R346 ,R387		RFA1/4PS4R7J
	R331 ,R332		RN1/4PC1501F
	R335 ,R336		RN1/4PC6800F
	Other Resistors		RD1/8PM□□□J
<b>OTHERS</b>			
	CN6 CONNECTOR(6P)		KPE6
<b>SP ASSY</b>			
<b>SEMICONDUCTORS</b>			
	Q323		2SA1115
	Q317 ,Q318		2SC1740S
	Q319		2SC2240
	Q702		2SD1913
	D405 ,D702		1SS252
	D401		D5SB20F
	D323		MTZJ13
	D701		RD16ESB2
	D402 -D404		S5566
<b>COILS AND FILTERS</b>			
	L701 ,L702		ATX1012
<b>SWITCHES AND RELAYS</b>			
	RY301 ,RY302		ASR7001
<b>CAPACITORS</b>			
△	C406 (0.01/400)		ACG1003
	C401 ,C402 (10000/50)		ACH1078
	C413 ,C702 ,C703		CEAS100M50
	C326		CEAS101M25
	C409		CEAS102M50
	C318 ,C412		CEAS2R2M50
	C701		CEAS470M25
	C317		CEAS471M6
	C403 ,C404		CKCYF472Z500
<b>RESISTORS</b>			
△	R362 ,R363 ,R705 ,R706		RD1/2PMF271J
	R702		RD1/4PM562J
△	R703		RD1/4PMF010J
△	R701		RD1/8MMF4R7J
△	R707 ,R708		RS1LMF331J
	Other Resistors		RD1/8PM□□□J
<b>OTHERS</b>			
	403 SPEAKER TERMINAL 4-P		AKE1020
△	CN405 ACINLET(1P)		AKP1133
	1000 HEAT SINK		ANH1150
	CN8 CONNECTOR(3P)		KPE3
	CN7 CONNECTOR(8P)		KPE8
<b>TRANS ASSY</b>			
<b>CAPACITORS</b>			
△	C407		ACH1237
<b>RESISTORS</b>			
△	R406		RFA1/4PS4R7J
	Other Resistors		RD1/4PM□□□J
<b>POWER SW ASSY</b>			
<b>SWITCHES AND RELAYS</b>			
△	S601		ASG1035

Mark	No.	Description	Parts No.
<b>CAPACITORS</b>			
△	C601(0.01/400)		ACG1003
<b>MPU ASSY</b>			
<b>SEMICONDUCTORS</b>			
	IC803 ,IC804		M5278L56(A)
	IC801		PD6144A
	IC802		TA8409S
	Q809		2SA1048
	Q808		2SA965
	Q803		DTA124ES
	Q801 ,Q802 ,Q804 ,Q805		DTC124ES
	D801 ,D802 ,D804 ,D805		1SS252
	D803		AEL1065
<b>COILS AND FILTERS</b>			
	L801 -L803		LAU221K
<b>CAPACITORS</b>			
	C804		CEAS010M50
	C802 ,C809		CEAS100M50
	C808		CEAS101M25
	C803		CEAS330M50
	C807		CEAS470M25
	C801 ,C810		CEAS470M50
	C805 ,C806 ,C811 ,C812 ,C814		CKCYF103Z50
	C817		CKCYF103Z50
<b>RESISTORS</b>			
	R817		RD1/2PM681J
	Other Resistors		RD1/8PM□□□J
<b>OTHERS</b>			
	X801 CERAMIC RESONATOR		ASS1025
	802 REMOTE RECEIVER UNIT		AXX1023
<b>HEADPHONE ASSY</b>			
<b>CAPACITORS</b>			
	C751 ,C752		CKCYB392K50
<b>OTHERS</b>			
	CN701 JACK		AKN1025
<b>BALANCE ASSY</b>			
<b>RESISTORS</b>			
	VR202 (250K)		ACS1114
<b>OTHERS</b>			
	705 CABLE HOLDER		AKT1007
	CN4 CONNECTOR(4P)		KPE4
<b>MONSW ASSY</b>			
<b>SEMICONDUCTORS</b>			
	Q810		DTC143ES
	D806		AEL1065
<b>COILS AND FILTERS</b>			
	L804		LAU221K
<b>SWITCHES AND RELAYS</b>			
	S801		ASG1028
<b>CAPACITORS</b>			
	C813		CEAS4R7M50
	C815		CKCYF103Z50
<b>RESISTORS</b>			
	R824		RD1/2PM681J
	R822		RD1/4PM101J
	Other Resistors		RD1/8PM□□□J

## 5. FOR A-300R/HLXJ,SDXJ AND YPWXJ

### NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The  $\Delta$  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.

### CONTRAST OF MISCELLANEOUS PARTS

A-300R/HBWXJ,HLXJ,SDXJ and YPWXJ have the same construction except for the following:

Mark	Symbol & Description	Part No.				Remarks
		A-300R HBWXJ	A-300R HLXJ	A-300R SDXJ	A-300R YPWXJ	
NSP	AF assembly SP assembly POWER SW assembly	AWK7177 AWZ7575 AWZ7577	AWK7178 AWZ7680 AWZ7577	AWK7179 AWZ7733 AWZ7734	AWK7178 AWZ7680 AWZ7577	
$\Delta$	T1 Power transformer (AC220-230V/240V)	ATS7072	ATS7072	.....	ATS7072	
$\Delta$	T1 Power transformer (AC110v/120-127v/220V/240V)	.....	.....	ATS7073	.....	
$\Delta$	Voltage selector (AC110v/120-127v/220V/240V)	.....	.....	AKX-507	.....	
$\Delta$	FU2 Fuse(1.25A)	.....	.....	REK1023	.....	
$\Delta$	AC power cord Rear panel	ADG1156 ANC7218	ADG1154 ANC7219	ADG1158 ANC7221	ADG1160 ANC7220	
	Operating instructions (English)	ARB7034	ARB7034	ARB7034	ARB7034	
	Operating instructions (Chinese)	.....	ARC7065	ARC7065	.....	
	Operating instructions (Spanish)	.....	.....	ARC7066	.....	
	Packing case	AHD7142	AHD7183	AHD7183	AHD7183	
	Air cap	AHG1087	.....	.....	.....	

### AF ASSEMBLY

AWK7177, AWK7178 and AWK7179 have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		AWK7177	AWK7178	AWK7179	
	LEAD WIRE 1L	ADX7041	.....	ADX2103	

### SP ASSEMBLY

AWZ7575, AWZ7680 and AWZ7733 have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		AWZ7575	AWZ7680	AWZ7733	
$\Delta$	Speaker terminal 4P AC INLET 1P	AKE1020 AKP1133	AKE1054 AKP1132	AKE1054 AKP1132	

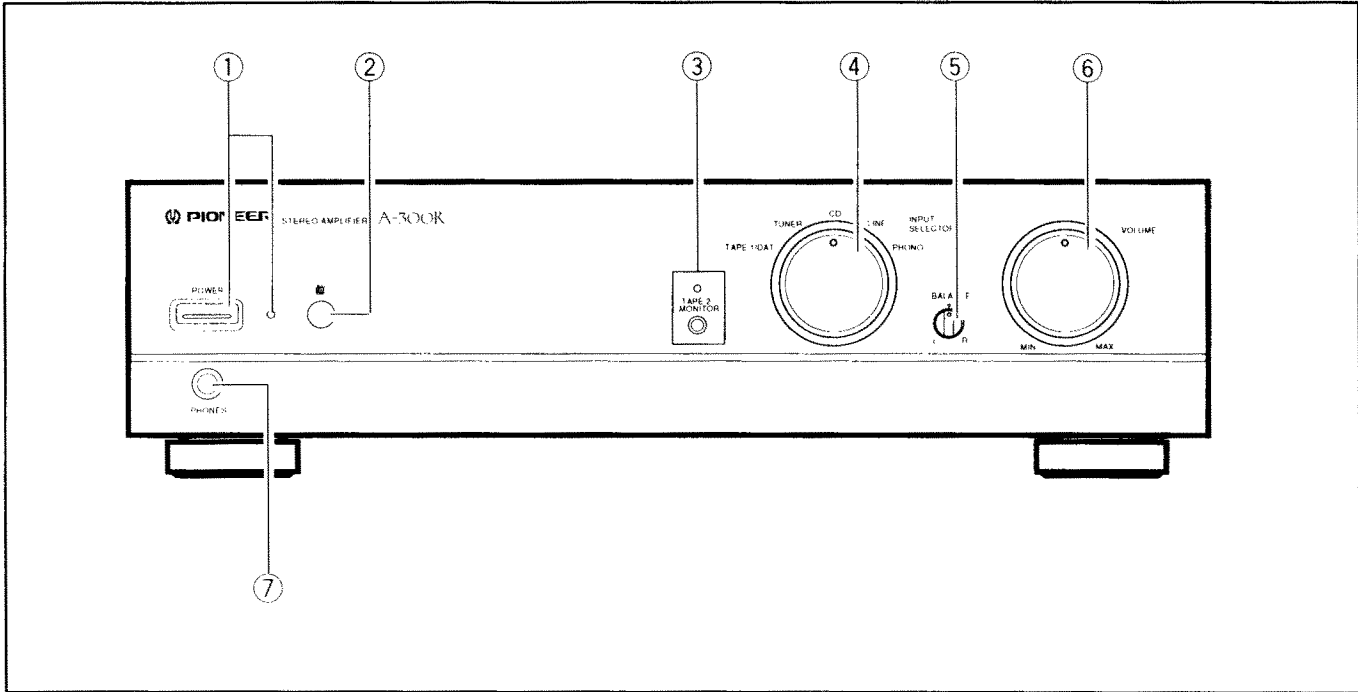
### POWER SW ASSEMBLY

Although AWZ7577 and AWZ7734 are different in part number, they have the same serviceparts.



## 6. PANEL FACILITIES

### FRONT PANEL



#### ① POWER switch/indicator

Press to turn power to the unit ON and OFF. The indicator lights when the power is ON and goes off when the power is OFF.

#### ② Remote control sensor window

#### ③ TAPE 2 MONITOR switch/indicator

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

##### Off:

Indicator goes out when not in use.

##### On:

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

##### NOTE:

- When no connections are made to the TAPE 2/MONITOR (ADPT) 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.)
- To monitor during recording using a 3-head deck, use the TAPE 2/MONITOR (ADPT) terminal. Even if the 3-head deck is connected to the TAPE 1/DAT terminal, monitoring during recording cannot be performed. (See page 8.)

#### ④ INPUT SELECTOR switch

Use to select the playback source.

##### TAPE 1/DAT:

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

##### TUNER:

For AM or FM broadcast reception with a tuner.

##### CD:

For compact disc playback with a CD player.

##### LINE:

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

##### PHONO:

For record playback with a turntable.

#### ⑤ 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.

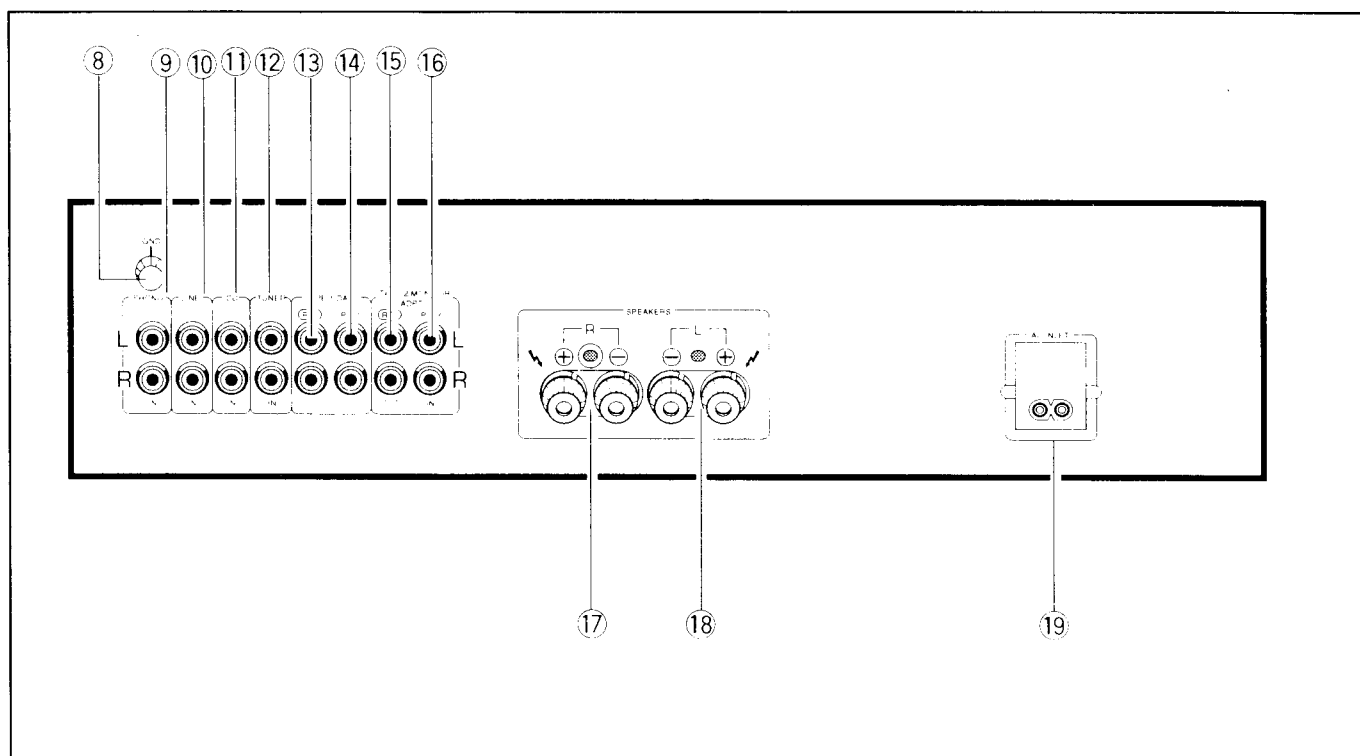
#### ⑥ VOLUME control

Use to adjust the volume level.

#### ⑦ PHONES jack

When using headphones, insert the plug into this jack.

## REAR PANEL



8 **GND (Turntable ground) terminal**

9 **PHONO terminals**

10 **LINE terminals**

11 **CD terminals**

12 **TUNER terminals**

13 **TAPE 1/DAT REC terminals**

14 **TAPE 1/DAT PLAY terminals**

15 **TAPE 2/MONITOR (ADPT) REC (OUT) terminals**

16 **TAPE 2/MONITOR (ADPT) PLAY (IN) terminals**

17 **SPEAKERS terminals (Right channel)**

18 **SPEAKERS terminals (Left channel)**

19 **AC INLET jack**

Connect power cord to here and an AC wall socket, or to 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.

## 7. SPECIFICATIONS

### Amplifier Section

Continuous power output

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

T.H.D. 0.07 %, 8  $\Omega$  ..... 35 W + 35 W

T.H.D. 0.1 %, 4  $\Omega$  ..... 40 W + 40 W

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

T.H.D. 1.0 %, 8  $\Omega$  ..... 45 W + 45 W

T.H.D. 1.0 %, 4  $\Omega$  ..... 55 W + 55 W

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

4  $\Omega$  ..... 66 W

Total harmonic distortion\*

20 Hz to 20 kHz, 17.5 W, 8  $\Omega$  ..... 0.05 %

Input sensitivity/ impedance

PHONO (MM) ..... 2.8 mV/ 50 k $\Omega$

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

..... 200 mV/ 50 k $\Omega$

PHONO overload level

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

Output level/ impedance

TAPE 1/DAT, TAPE 2 MONITOR ..... 200 mV/ 1 k $\Omega$

Frequency response

PHONO (MM) ..... 20 Hz to 20 kHz  $\pm$  0.5 dB

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

..... 5 Hz to 100kHz  $\pm$  0 dB

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

PHONO (MM, 5 mV input) ..... 82dB

CD, TUNER, LINE, TAPE 1/DAT, TAPE 2 MONITOR ..... 107 dB

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

PHONO (MM) ..... 70 dB/ 64 dB

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

..... 88 dB/ 67 dB

### Power Supply/ Miscellaneous

Power requirements

U.K. model ..... AC 230 Volts, 50/60 Hz

Singapore model ..... AC 220 ~ 230 Volts, 50/60 Hz

Australia model ..... AC 240 Volts, 50/60Hz

Multi-voltage model ..... AC 110 V/120~127 V/220 V/240 V  
(switchable), 50/60Hz

Power consumption ..... 330 W

Dimensions (including knobs and other protruding parts)

..... 420 (W) X 310 (D) X 110 (H) mm

Weight (without package) ..... 5.8 kg

### Accessories

Remote control unit ..... 1

Batteries (AA/R6P) ..... 2

Operating instructions ..... 1

Power cord ..... 1

### NOTE:

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

\* Measured by Audio Spectrum Analyzer.