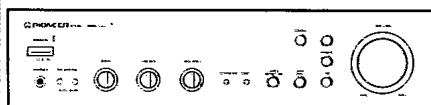


Service Manual



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.

CONTENTS

| | |
|---|----|
| 1. DISASSEMBLY | 2 |
| 2. EXPLODED VIEWS, PACKING AND PARTS LIST ... | 3 |
| 3. SCHEMATIC DIAGRAM | 6 |
| 4. PCB CONNECTION DIAGRAMS | 9 |
| 5. BLOCK DIAGRAM | 17 |
| 6. PCB PARTS LIST | 18 |
| 7. IC INFORMATION | 21 |
| 8. FOR A-203/HBXJ, HEWZXJ, HLXJ SDXJ, A-103/HBXJ, HEWZXJ, HLXJ, SDXJ AND YPWXJ ... | 22 |
| 9. PANEL FACILITIES..... | 25 |
| 10. SPECIFICATIONS..... | 28 |

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.

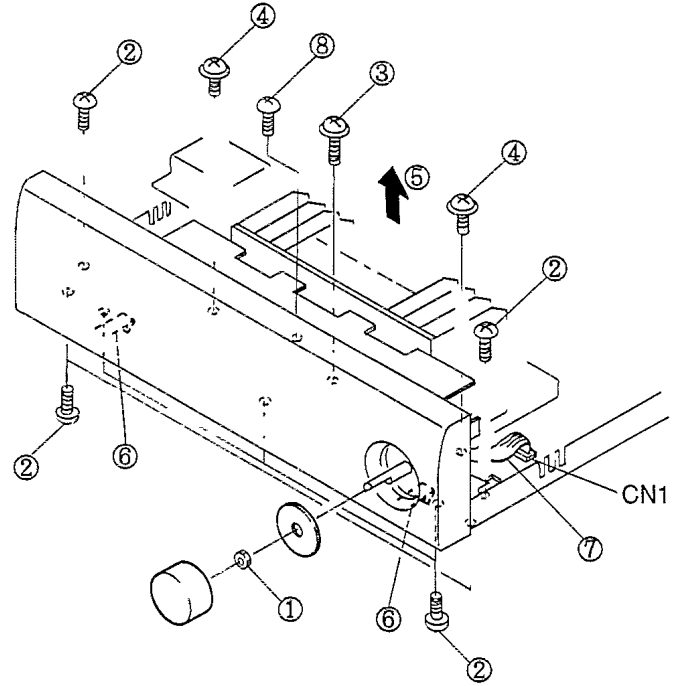


Fig. 1

● 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 be easily removed by carrying out the above operations.

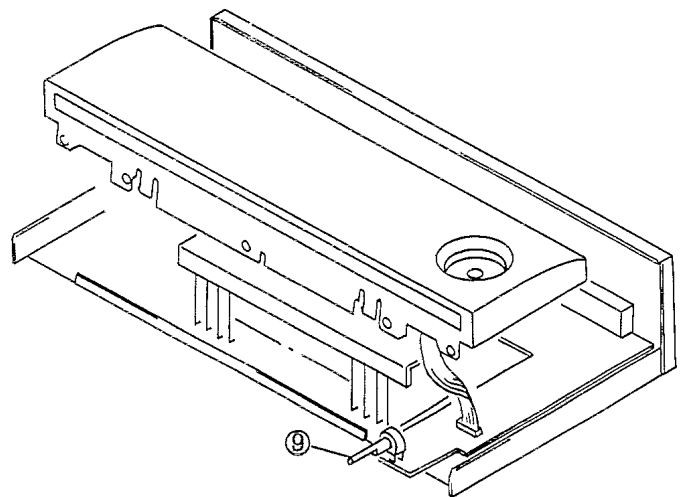


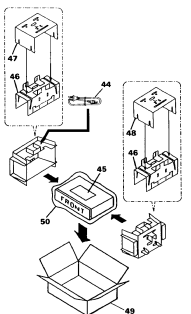
Fig.2

2. EXPLODED VIEWS, PACKING AND PARTS LIST

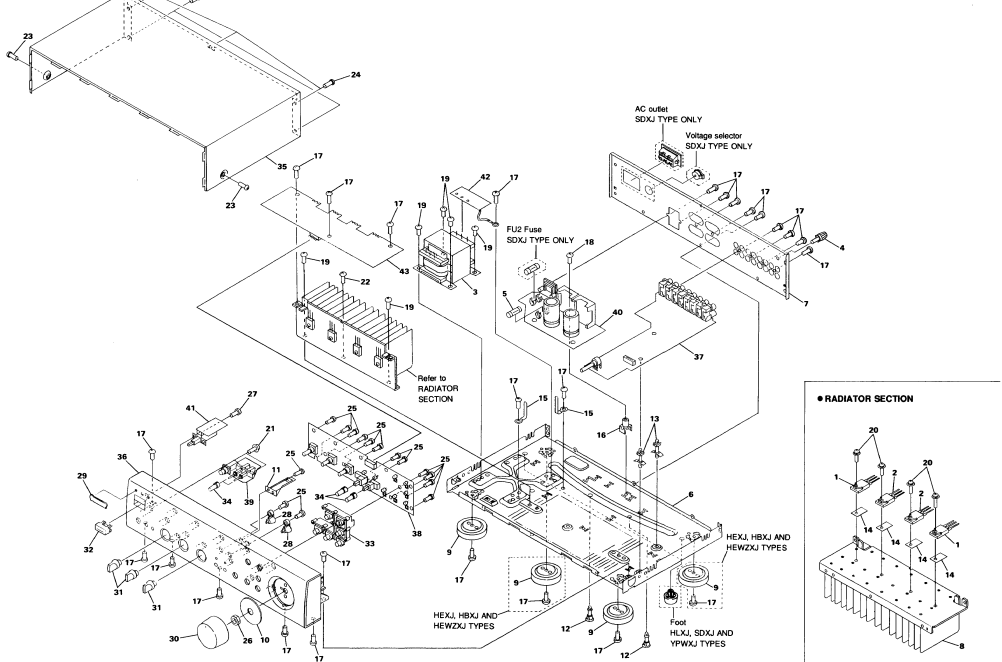
NOTES:
 • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 • The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 • Parts marked 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. |
|----------|----------------------------------|------------|----------|--|-----------|
| Δ 1 | Q1,Q4 TRANSISTOR (For A-203) | 25A1264N | 38 | CONTROL ASSY | AW25493 |
| Δ 1 | Q1,Q4 TRANSISTOR (For A-103) | 25A1803 | 39 | HEADPHONE ASSY (For A-203) | AW25494 |
| Δ 2 | Q1,Q2 TRANSISTOR (For A-203) | 25C3181N | 39 | HEADPHONE ASSY (For A-103) | AW25498 |
| Δ 2 | Q1,Q2 TRANSISTOR (For A-103) | 25C4688 | 40 | SP ASSY (For A-203) | AW25495 |
| Δ 3 | T1 POWER TRANSFORMER (For A-203) | AT38358 | 40 | SP ASSY (For A-103) | AW25499 |
| Δ 3 | T1 POWER TRANSFORMER (For A-103) | AT33540 | 41 | POWER SW ASSY | AW25496 |
| Δ 4 | TERMINAL SCREW (AKE-031) | REK1023 | 42 | TRANS ASSY (For A-203) | AW25497 |
| Δ 5 | FU1 FUSE (1.25A) (For A-203) | REK1023 | 42 | TRANS ASSY (For A-103) | AW25538 |
| Δ 5 | FU1 FUSE (600mA) (For A-103) | REK1021 | 43 | POWER AMP ASSY (For A-203) | AW25508 |
| NSP 6 | CHASSIS(MET) | ANA1228 | 43 | POWER AMP ASSY (For A-103) | AW25501 |
| NSP 7 | REAR PANEL (For A-203) | ANC2173 | 44 | AC POWER CORD | ADG1154 |
| NSP 7 | REAR PANEL (For A-103) | ANC2172 | 45 | OPER. INSTRUCTIONS (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese) | ARE1302 |
| NSP 8 | RADIATOR (For A-203) | ANH1464 | 46 | PAPER PROTECTOR A | AHA1660 |
| NSP 8 | RADIATOR (For A-103) | ANH1465 | 47 | PAPER PROTECTOR B | AHA1661 |
| 9 | INSULATOR | PWV1912 | 48 | PAPER PROTECTOR C | AHA1662 |
| 10 | RING(MET) | ANG1917 | 49 | PACKING CASE (For A-203) | AHD2672 |
| 11 | PCB HOLDER(MET) | ANG1918 | 49 | PACKING CASE (For A-103) | AHD2673 |
| 12 | PCB SPACER(PLS) | AEC1566 | 50 | PACKING SHEET | AHG1312 |
| 13 | PCB SPACER(PLS) | AEC1567 | | | |
| 14 | SHEET (A-203 only) | ABE1014 | | | |
| 15 | BINDER | AEP-215 | | | |
| 16 | PCB MOLD(PP) | AMB2533 | | | |
| 17 | SCREW | ABA-298 | | | |
| 18 | SCREW | ABA1018 | | | |
| 19 | SCREW | ABA1027 | | | |
| 20 | SCREW | ABA1062 | | | |
| 21 | SCREW (STEEL) | ABA1095 | | | |
| 22 | SCREW (STEEL) | ABA1193 | | | |
| 23 | SCREW | BBT30R06ZK | | | |
| 24 | SCREW | BCZ30R06ZK | | | |
| 25 | SCREW | BRZ30R06MC | | | |
| 26 | NUT | BNY30R06MC | | | |
| 27 | SCREW | VYZ30R06MC | | | |
| 28 | LED LENS | ANK2552 | | | |
| 29 | NAME PLATE | PAM1608 | | | |
| 30 | ROUND KNOB L (PLS) | AAB1340 | | | |
| 31 | ROUND KNOB S (PLS) | AAB2221 | | | |
| 32 | POWER BUTTON | AAD2559 | | | |
| 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 | AW25492 | | | |

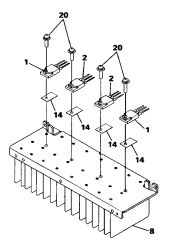
• PACKING



• EXPLODED VIEWS

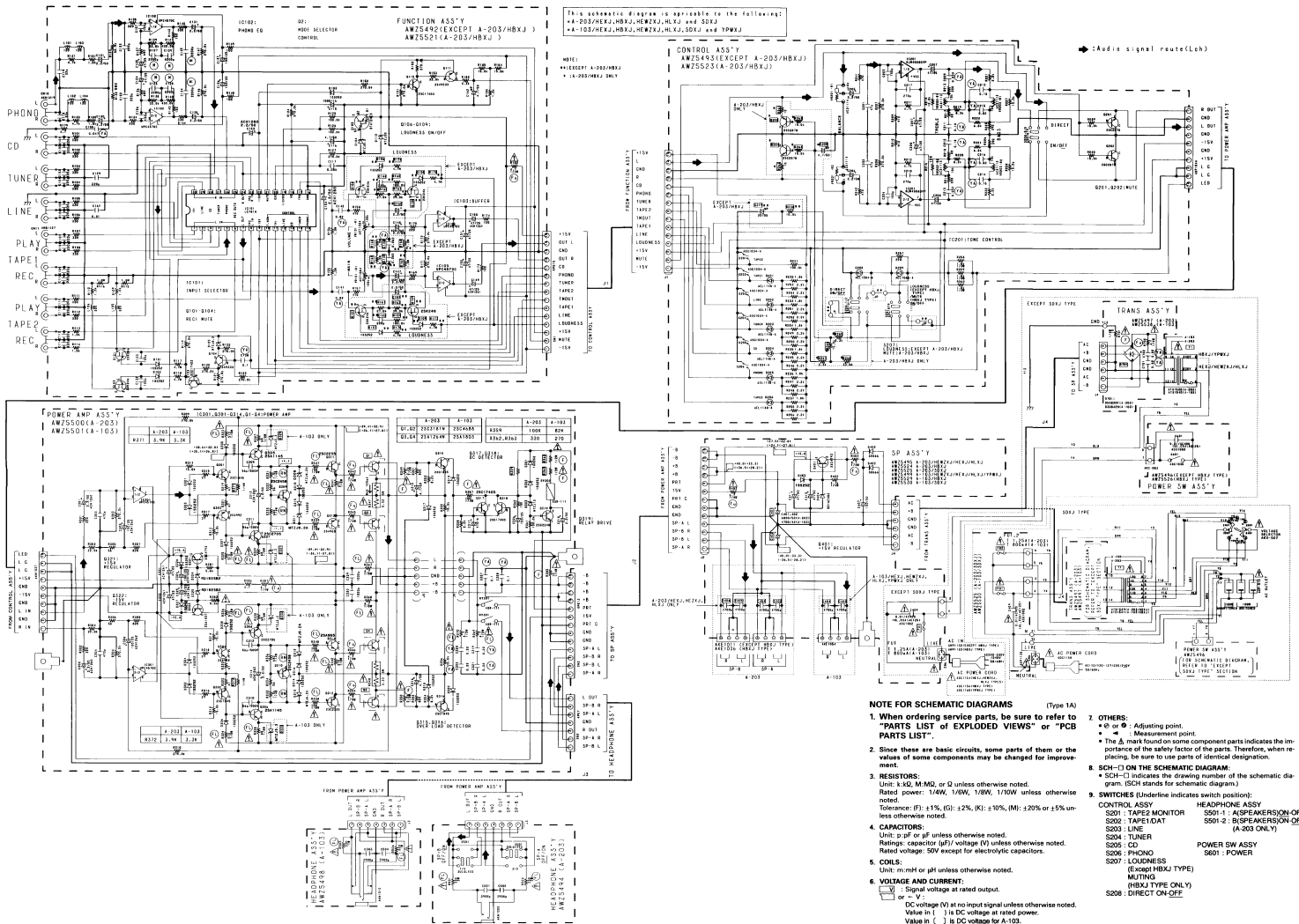


• RADIATOR SECTION



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

3. SCHEMATIC DIAGRAM



NOTE FOR SCHEMATIC DIAGRAMS (Type 1A)

1. When ordering service parts, be sure to refer to "PARTS LIST OF EXPLODED VIEWS" or "PCB PARTS LIST".

2. Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.

3. RESISTORS:
Unit: kΩ, M-Ω, or Ω unless otherwise noted.
Rated power: 1/4W, 1/8W, 1/10W, 1/50W unless otherwise noted.
Tolerance: (F) ±1%, (G) ±2%, (K) ±10%, (M) ±20% or ±5% unless otherwise noted.

4. CAPACITORS:
Unit: μF or pF unless otherwise noted.
Ratings: capacitor (μF//voltage (V)) unless otherwise noted.
Rated voltage: 50V except for electrolytic capacitors.

5. COILS:
Unit: mH or pH unless otherwise noted.

6. VOLTAGE AND CURRENT:
DC voltage (V) at no input signal unless otherwise noted.
Value in () is DC voltage at rated power.
Value in [] is DC voltage for A-103.
mA or -mA
DC current at no input signal unless otherwise noted.

7. OTHERS:
• ⊕ or ⊖ Adjusting point.
• Δ 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.

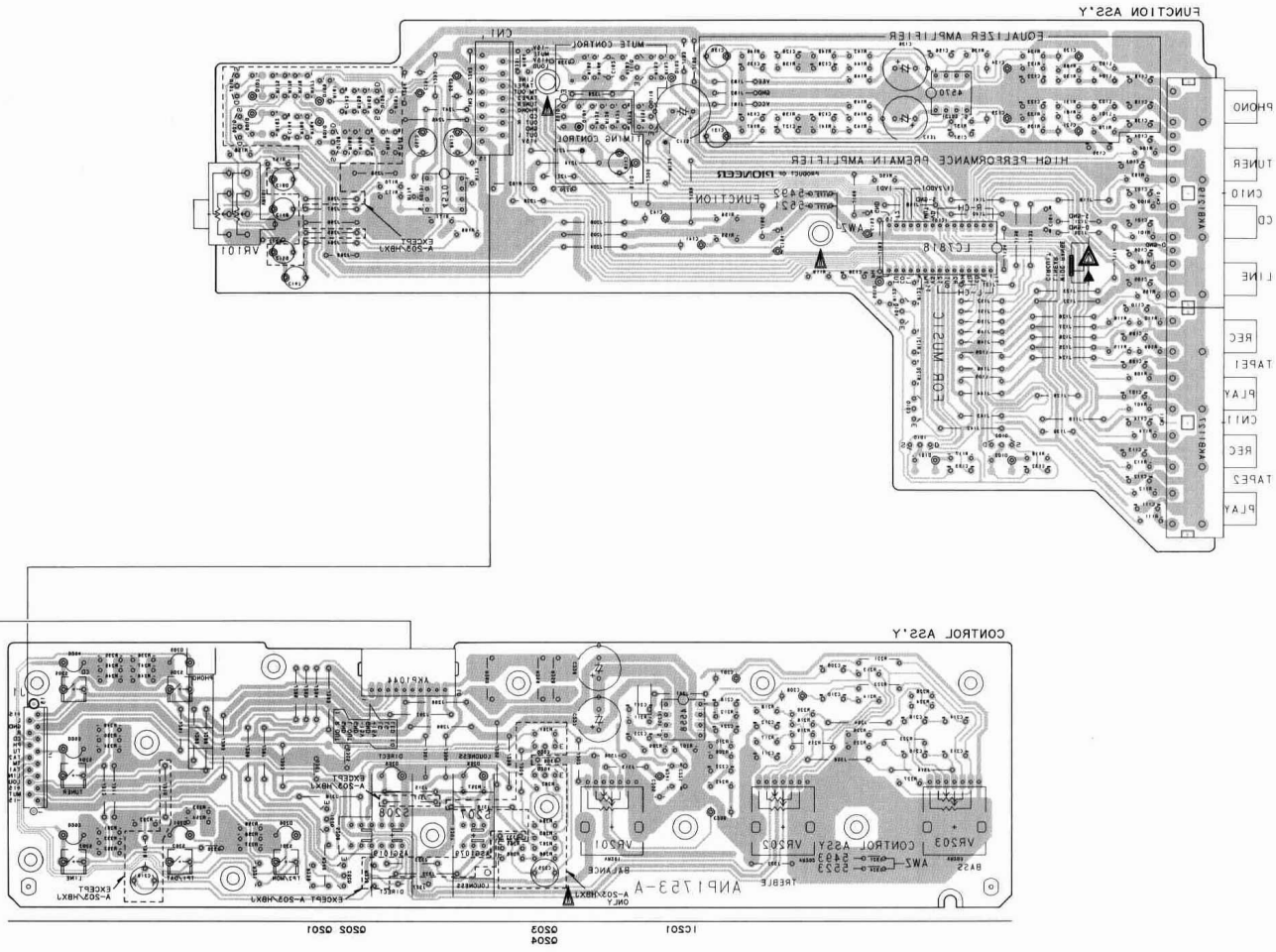
8. SCH-□ ON THE SCHEMATIC DIAGRAM:
• SCH-□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)

9. SWITCHES (underline indicates switch position):
CONTROL ASSY HEADPHONE ASSY
S301 : TAPE2 MONITOR S501-1 : SPEAKERS/ON-OFF
S302 : TAPE1/DATE S501-2 : SPEAKERS/ON-OFF
S303 : LINE S502 : MUTE (A-203 ONLY)
S304 : TUNER S503 : LOUDEST
S305 : CD S504 : PHONO
S306 : PHONO S505 : MUTE (HBKJ TYPE ONLY)
S307 : LOUDEST (HBKJ TYPE ONLY)
S308 : DIRECT ON-OFF

4. PCB CONNECTION DIAGRAMS

● This diagram is viewed from the foil side.

PCB-1



A
11
10
09
08
07
06
05
04
03
02
01

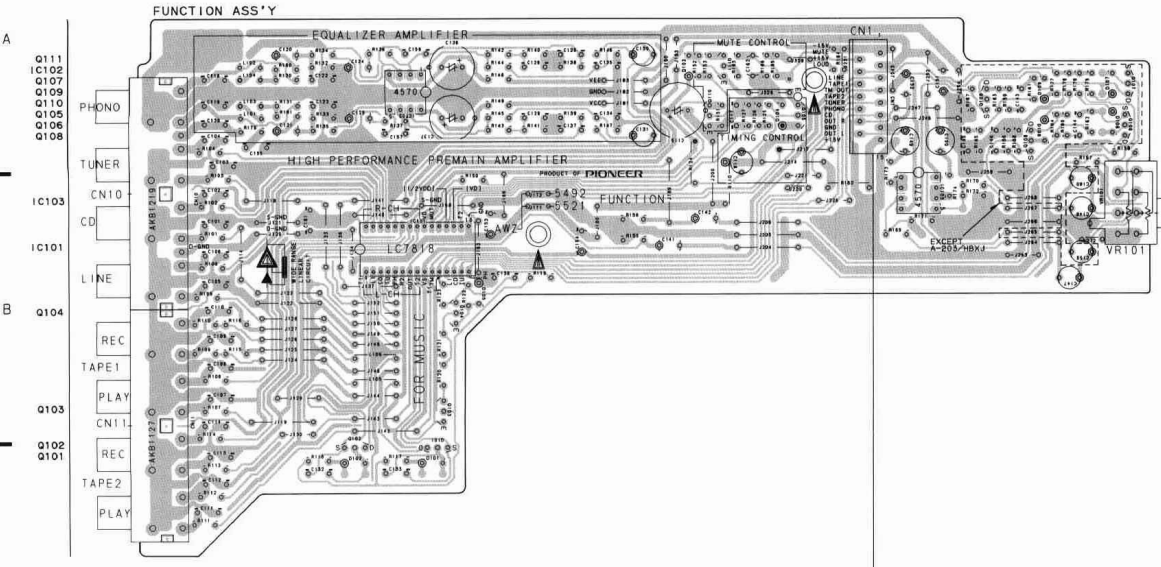
PHONO
TUNER
CD
LINE
REC
TAPE1
PLAY
CMT
REC
TAPE2
PLAY

B
C
D

10
9
8
7
6
5
4
3
2
1

● This diagram is viewed from the mounted parts side.

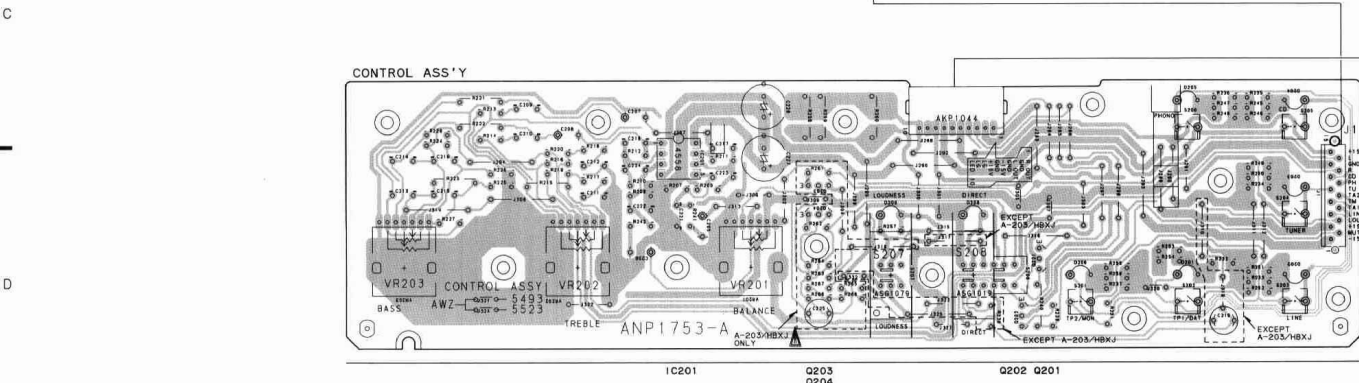
PCB-1



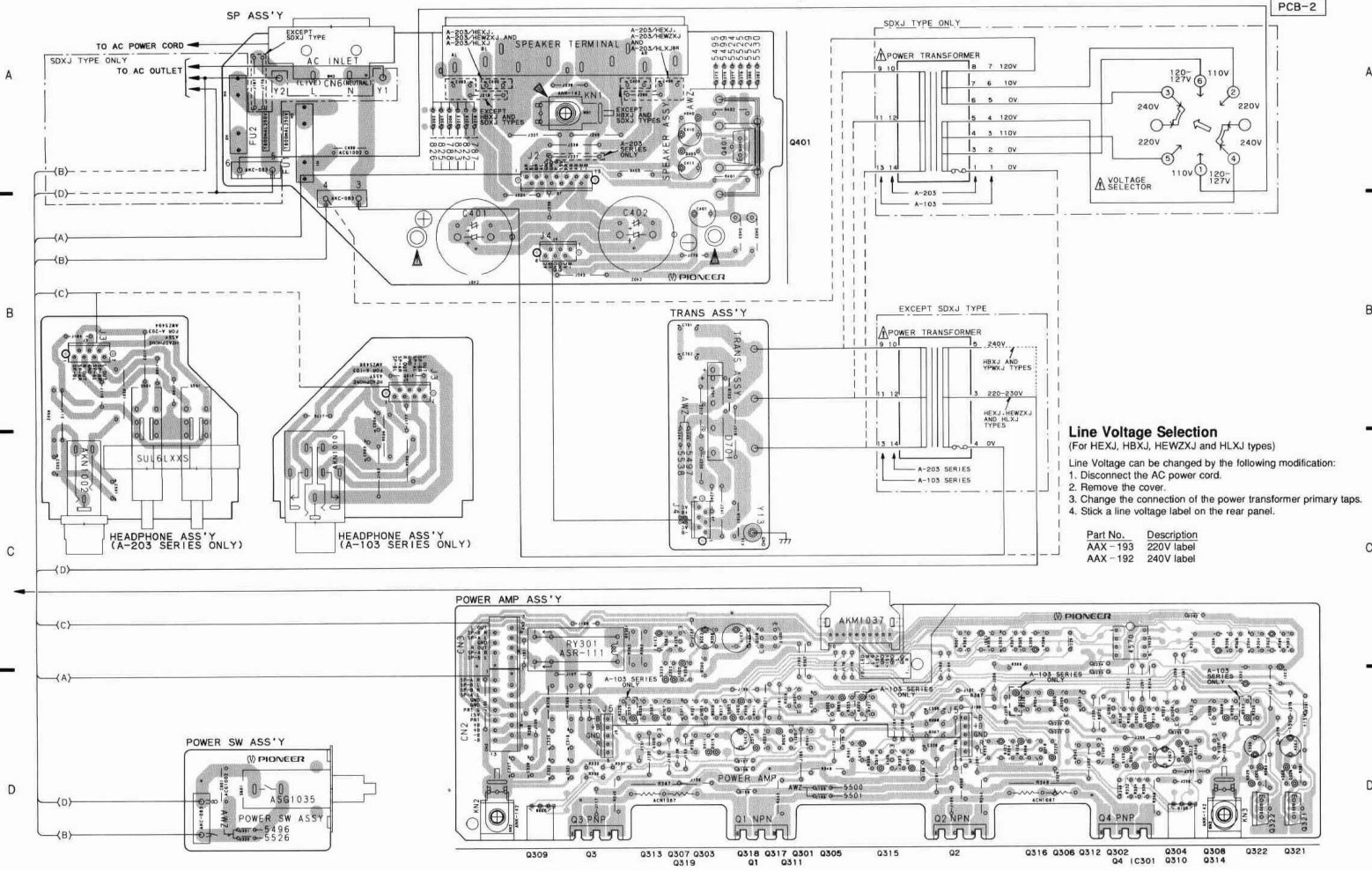
NOTE FOR PCB DIAGRAMS:
 1. Part numbers in PCB diagrams match those in the schematic diagrams.
 2. A comparison between the main parts of PCB and schematic diagrams is shown below.

| Symbol in PCB Diagrams | Symbol in Schematic Diagrams | Part Name |
|------------------------|------------------------------|-----------------------|
| <p>Q504</p> | <p>Q504</p> | Transistor |
| <p>D203</p> | <p>D203</p> | Diode |
| <p>C513</p> | <p>C513</p> | Capacitor (Polarized) |

3. The transistor terminal marked with E or \bar{C} shows the emitter.
 4. The diode terminal marked with \oplus or \bar{C} shows cathode side.
 5. The capacitor terminal marked with \ominus or L shows negative terminal.



• This diagram is viewed from the mounted parts side.



1

2

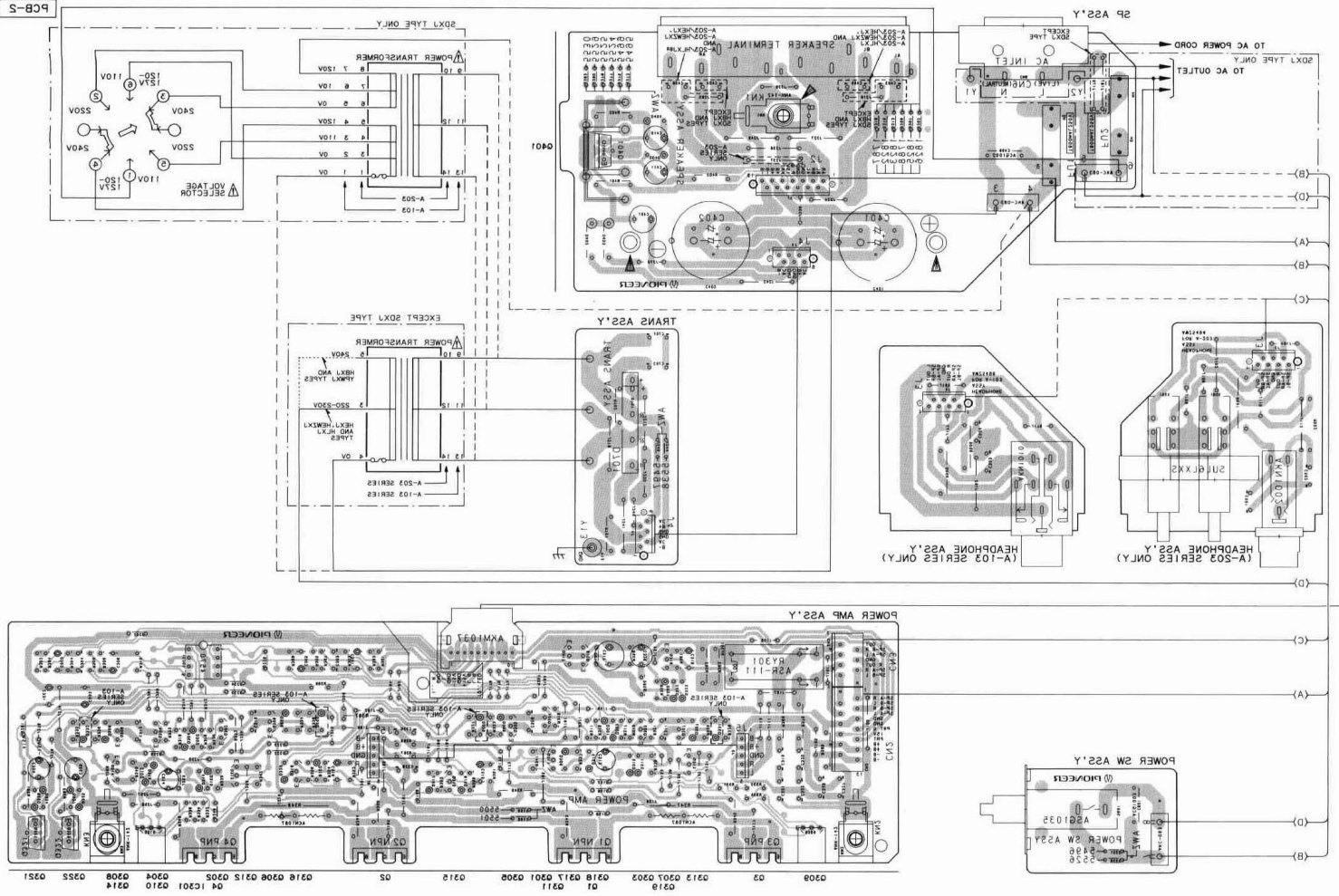
3

4

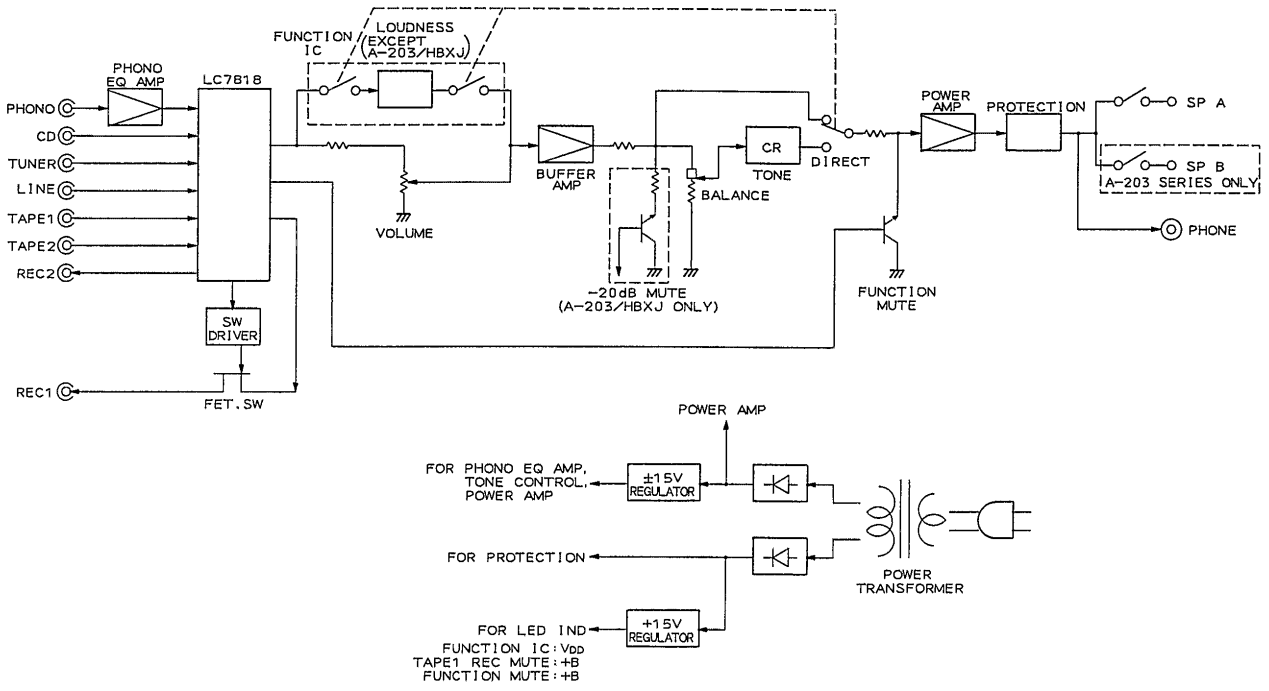
5

6

• This diagram is viewed from the foil side.



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%).

| | | | | | | | |
|------|---|----------------------|-------|-----|-------|---------|---|
| 560Ω | → | 56 × 10 ¹ | → | 561 | ..... | RD1/8PM | 5 6 1 J |
| 47kΩ | → | 47 × 10 ³ | → | 473 | ..... | RD1/4PS | 4 7 3 J |
| 0.5Ω | → | 0R5 | ..... |  |  | RN2H | 0 R 5 K |
| 1Ω | → | 010 | ..... |  |  | RSIP | 0 1 0 K |

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

| | | | | | | | |
|--------|---|-----------------------|---|------|-------|---------|---|
| 5.62kΩ | → | 562 × 10 ¹ | → | 5621 | | RN1/4PC | 5 6 2 1 F |
|--------|---|-----------------------|---|------|-------|---------|---|

| 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 |

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 |

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 |

| 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 | | | |
| | RESISTORS R258-R260 VR202,VR203 (10k-20A×2) VR201 (250k-B×2) | RD1/4PM182J ACS1113 ACS1114 | | SEMICONDUCTORS D701 (For A-203) D701 (For A-103) | | | |
| | Other Resistors | RD1/8PM□□□J | | CAPACITORS C701,C702 | | | |
| | OTHERS SOCKET (10P) | AKP1044 | | RESISTORS △ R702 | | | |
| | HEADPHONE ASSY | | | Other Resistors | | | |
| | SWITCHES AND RELAYS S501 (A-203 only) | SUL6LXXS | | POWER AMP ASSY | | | |
| | CAPACITORS C501,C502 (A-203 only) C503,C504 (A-103 only) | CKCYB392K50 CKCYB392K50 | | SEMICONDUCTORS IC301 Q305,Q306 Q322 Q313,Q314 Q303,Q304 | | | |
| | RESISTORS △ R501,R502 (A-203 only) △ R505,R506 (A-103 only) | RS2LMF331J RS1LMF331J | | Q317,Q318 Q301,Q302,Q315,Q316 Q311,Q312 Q319 Q309,Q310 | | | |
| | OTHERS JACK (Headphone) (For A-203) JACK (Headphone) (For A-103) | AKN1002 AKN1010 | | Q307,Q308 Q321 D301-D308,D313-D322 D326,D327 D323 | | | |
| | SP ASSY | | | D329-D332 (A-103 only) D309-D312 D324,D325 | | | |
| | SEMICONDUCTORS Q401 D405 D404 D402,D403 | 2SC4793 1SS252 RD16ESB2 S5566 | | SWITCHES AND RELAYS RY301 | | | |
| | CAPACITORS △ C409 (0.01/400) C401,C402 (6800/50) (For A-203) C401,C402 (4700/42) (For A-103) C407 C410,C411 | ACG1002 ACH1105 ACH1269 CEAS101M50 CEAS470M50 | | CAPACITORS C301,C302,C313,C314 (2.2/50) C331,C332 (47/25) C305,C306,C324,C325 (100/25) C309-C312 C326 | | | |
| | C403,C404 C405,C406 (A-203 only) | CKCYB472K50 CKCYB472K50 | | C318 C317 C315,C316 C327,C328 C319-C322 | | | |
| | RESISTORS △ R401,R403 | RFA1/4PS4R7J | | C329,C330 C303,C304 | | | |
| | Other Resistors | RD1/4PM□□□J | | RESISTORS △ R347,R348 (0.33/5W) △ R362,R363 (For A-203) △ R362,R363 (For A-103) △ R369,R370 △ R385 | | | |
| | OTHERS SCREW SPEAKER TERMINAL 8-P (For A-203) SPEAKER TERMINAL 4-P (For A-103) △ CN6 (AC INLET-1P) | ABA-298 AKE1011 AKE1054 AKP1132 | | C329,C330 C303,C304 | | | |
| | POWER SW ASSY | | | RESISTORS △ R357 △ R349,R350 △ R337-R340 △ R341,R342 △ R367,R368 | | | |
| | SWITCHES AND RELAYS △ S601 | ASG1035 | | RD1/4PMF101J RD1/4PMF222J RD1/8MMF101J RD1/8MMF271J RD1/8MMF4R7J | | | |
| | CAPACITORS △ C601 (0.01/400) | ACG1002 | | | | | |

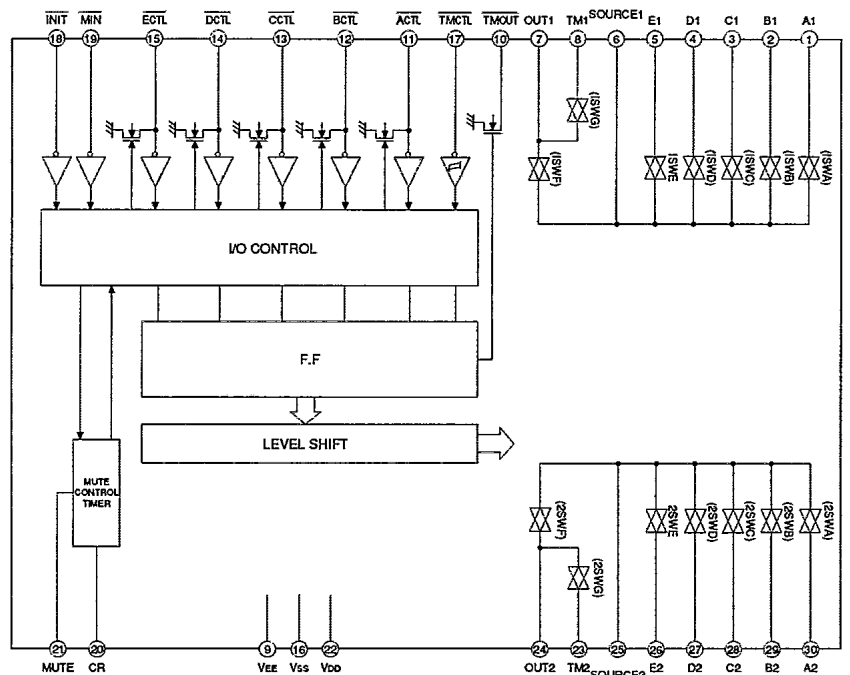
| Mark | No. | Description | Parts No. | Mark |
|---------------|-----------------|--------------------|------------------|-------------|
| △ | R323 | R326 | RD1/8MMF511J | |
| △ | R327 | R330 | RD1/8MMF680J | |
| | R371, R372 | (For A-203) | RDR1/4PM392J | |
| | R371, R372 | (For A-103) | RDR1/4PM332J | |
| △ | 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.

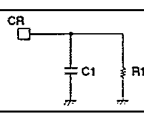
■ LC7818 (IC101) Input Selector IC

● 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 | BCTL | |
| 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) | ATSI538 | ATSI538 | ATSI538 | ATSI538 | ..... |  |
| Δ | T1 Power transformer (AC110V/120—127V/220V/240V) | ..... | ..... | ..... | ..... | ATSI539 | |
| 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 Q106-Q109 | 1SS252 2SK246 | ..... ..... |  |
| | R159, R160 R161, R162 R163, R164 R165-R168 R175-R178 | RD1/8PM104J RD1/8PM273J RD1/8PM393J RD1/8PM105J RD1/8PM475J | ..... ..... ..... ..... ..... |  |
| | C143, C144 C145, C146 C159, C160 | CCCSL221J50 CFTXA823J50 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 R261, R262 R263, R264 R265, R267 R266 | RD1/8PM103J | RD1/8PM100J RD1/8PM103J RD1/8PM332J RD1/8PM153J | |
| | R268 | ..... | RD1/8PM333J | |
| | C219 C225 | CEANP220M35 | 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 | |
| Δ | 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) | ATS1540 | ATS1540 | ATS1540 | ATS1540 | | ATS1540 | Refer to page5. |
| △ | T1 Power transformer (AC110V/120-127V/220V/240V) | ..... | ..... | ..... | ..... | ATS1541 | ..... |  |
| △ | Voltage selector (AC110V/120-127V/220V/240V) | ..... | ..... | ..... | ..... | AKX-507 | ..... |  |
| △ | AC outlet | ..... | ..... | ..... | ..... | AKP-515 | ..... |  |
| △ | FU2 Fuse (800mA) | ..... | ..... | ..... | ..... | REK1021 | ..... |  |
| △ | 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 | |

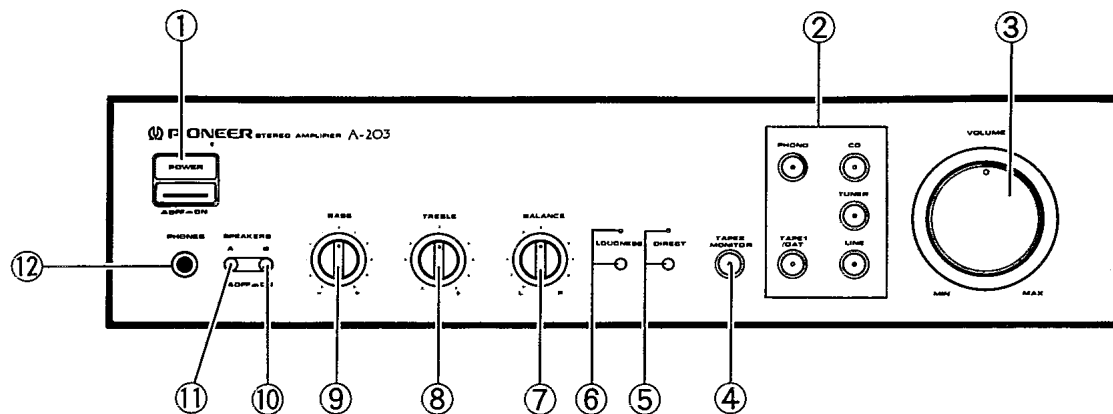
POWER SW ASSEMBLY

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 ⑪.

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 (■):

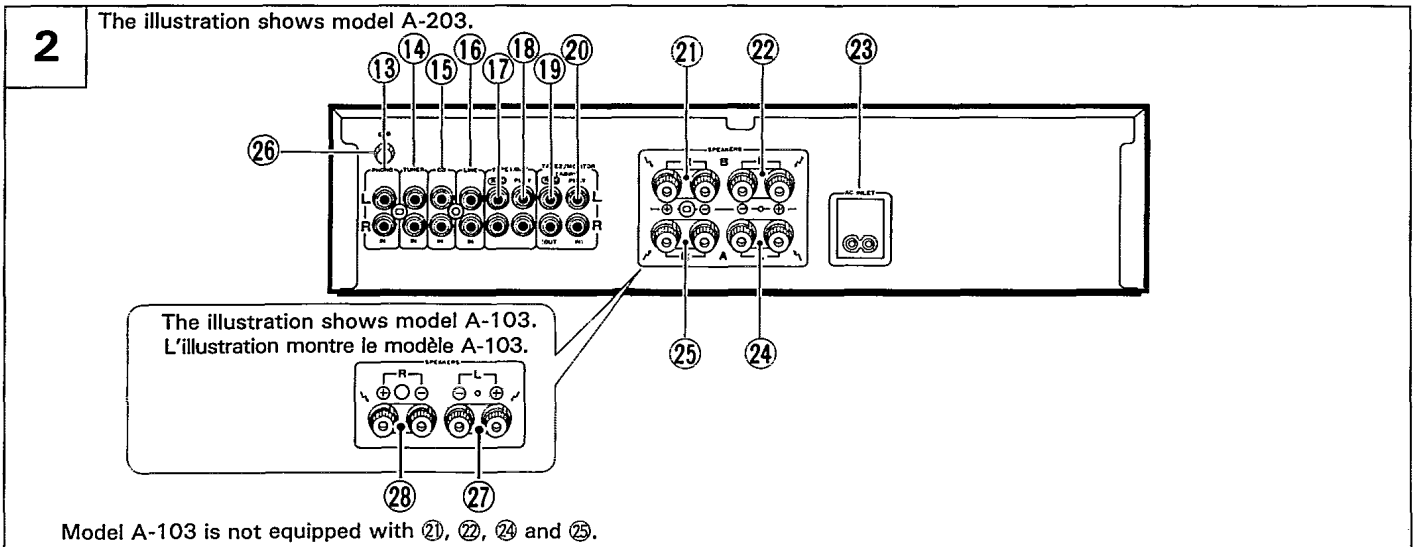
Released position: No sound is heard from the speaker system.

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
- ⑭ TUNER terminals
- ⑮ CD terminals
- ⑯ LINE terminals
- ⑰ TAPE 1/DAT REC terminals
- ⑱ TAPE 1/DAT PLAY terminals
- ⑲ TAPE 2/MONITOR (ADPT) REC(OUT) terminals
- ⑳ TAPE 2/MONITOR (ADPT) PLAY(IN) terminals
- ㉑ SPEAKERS B terminals (right channel) (A-203 only)
- ㉒ SPEAKERS B terminals (left channel) (A-203 only)
- 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.
- ㉔ SPEAKERS A terminals (left channel) (A-203 only)
- ㉕ SPEAKERS A terminals (right channel) (A-203 only)
- ㉖ GND (Turntable ground) terminal
- ㉗ SPEAKERS terminals (left channel) (A-103 only)
- ㉘ SPEAKERS terminals (right channel) (A-103 only)