Type Model Power Requirement

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<tr>
<td>MVXJ</td>
<td>○</td>
<td>–</td>
</tr>
<tr>
<td>MLXJ</td>
<td>–</td>
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<td>SBDXJ</td>
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<tr>
<td>AC220-230V</td>
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<tr>
<td>AC220-230V</td>
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<td>AC110V/120-127V/220V/240V</td>
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CONTENTS

1. SAFETY INFORMATION ........................................... 2
2. EXPLODED VIEWS AND PARTS LIST .............. 3
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM ...... 6
4. PCB CONNECTION DIAGRAM ......................... 16
5. PCB PARTS LIST ............................................... 24
6. ADJUSTMENT .................................................... 27

7. GENERAL INFORMATION ...................................... 28
7.1 DISASSEMBLY .................................................. 28
7.2 IC ............................................................. 29
8. PANEL FACILITIES AND SPECIFICATIONS ...... 30
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
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

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.

1. SAFETY PRECAUTIONS

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

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 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.

(FOR USA MODEL ONLY)
Leakage current tester Reading should not be above 0.5mA
Device under test Test all exposed metal surfaces Also test with plug reversed (Using AC adapter plug as required)

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 △ 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 △ 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.
• Screws adjacent to ◇ mark on the product are used for disassembly.

2.1 PACKING

MVXJ type Only

(1) PACKING PARTS LIST

<table>
<thead>
<tr>
<th>Mark</th>
<th>No.</th>
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NSP

MVXJ type Only

Except MVXJ type

(2) CONTRAST TABLE

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<td>AWX7112</td>
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<td>7</td>
<td></td>
<td>AF Assy</td>
<td>AWX7117</td>
<td></td>
<td>AWX7116</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Fuse (FU1 : 1.25A)</td>
<td>REK1023</td>
<td>REK1023</td>
<td>REK1023</td>
<td>Not used</td>
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</tr>
<tr>
<td>9</td>
<td></td>
<td>Fuse (FU1 : 6.3A)</td>
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<td>Not used</td>
<td>Not used</td>
<td>REK1030</td>
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<td>10</td>
<td></td>
<td>Power Transformer (AC220-230V)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>11</td>
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<td>Power Transformer (AC110V/120-127V/220V/240V)</td>
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<td></td>
<td></td>
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<tr>
<td>12</td>
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<td>Rear Panel</td>
<td>ANC7925</td>
<td>ANC7925</td>
<td>ANC7927</td>
<td>ANC7928</td>
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<td>13</td>
<td></td>
<td>Insulator</td>
<td>PNOW2766</td>
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<td>AMR7198</td>
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<td>25</td>
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<td>Shield Plate</td>
<td>ANK7043</td>
<td>ANK7043</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
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<td>28</td>
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<td>IR Filter</td>
<td>AAK7532</td>
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<td>Not used</td>
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<tr>
<td>38</td>
<td></td>
<td>Front Panel</td>
<td>AMB7710</td>
<td>AMB7710</td>
<td>AMB7711</td>
<td>AMB7711</td>
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<td>Voltage Selector (S2)</td>
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<td>Not used</td>
<td>Not used</td>
<td>Not used</td>
<td>AKX-507</td>
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<tr>
<td>43</td>
<td></td>
<td>Fuse (FU2, FU3 : 1.25A)</td>
<td>Not used</td>
<td>Not used</td>
<td>Not used</td>
<td>REK1032</td>
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<tr>
<td>44</td>
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<td>PVC Cover</td>
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<td>Not used</td>
<td>AAK7541</td>
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<tr>
<td>45</td>
<td></td>
<td>Foot</td>
<td>Not used</td>
<td>Not used</td>
<td>Not used</td>
<td>REC1263</td>
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</tr>
</tbody>
</table>
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

A

1. PHONO
2. TUNER
3. CD
4. LINE
5. TAPE1 / CD-R / MD
6. REC
7. TAPE2 MONITOR
8. REC

B

CN101
CN102

CN203

IC151
RIAA

Q101
Q103

Q327, Q328
FROM UNUSUAL OUTPUT DETECTION

Q501–Q514
VOLUME UP/DOWN

C

S602, S603
S702–S704

FROM FUNCTION SEL
S601

604 SR INPUT

TO PROTECTION RY

D

Q331, Q332, Q334, Q336

FROM UNUSUAL OUTPUT DETECTION

IC101

Q337–Q340

IC601

FRONT R ASSY

Q101

Q103

Q327, Q328
FROM UNUSUAL OUTPUT DETECTION

Q501–Q514
VOLUME UP/DOWN

Q337–Q340

FUNCTION MUTE ON/OFF

VR501

AF ASSY

ON/OFF

FRONT R ASSY

TO FUNCTION SW

FRONT R ASSY

TO FUNCTION SW

FRONT R ASSY

TO FUNCTION SW
Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
3.3 VOLUME and HEADPHONE ASSYS

A
VOLUME ASSY
AWX7118 (MYXJ, MVXJ)
AWX7112 (MLXJ, SBDXJ)

B
HEADPHONE ASSY
AWX7114
3.4 AC PRIMARY ASSY

• NOTE FOR FUSE REPLACEMENT

CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE AND RATINGS ONLY.

AC PRIMARY ASSY
AWX7113 (MYXJ, MVXJ, MLXJ)
AWX7670 (SBDXJ)

TO POWER TRANSFORMER

S801 ASG1035

TO S2 VOLTAGE SELECTOR

LIVE
NEUTRAL

TO AC POWER CORD

S805 DB616EB0
BLU

D805

J805

J801

DB416EB0
LIVE
YEL

H1
H2
AKR7001×2

H4
H3
AKR7001×2

CB1 ACG1020

CB2 ACG7020

FU1 REK1023
T1.25AL250V

FU2 REK1023
T1.25AL250V

FU3 REK1023
T1.25AL250V

CB1 ACG1020

SBDXJ type

MYXJ, MVXJ, MLXJ types

SBDXJ type

SBDXJ type

MYXJ, MVXJ, MLXJ types

SBDXJ type

MYXJ, MVXJ, MLXJ types

MYXJ, MVXJ, MLXJ types

A-209/SBDXJ

NOTES

1. RESISTORS
   INDICATED IN Ohm ±/10W 5% TOLERANCE UNLESS OTHERWISE NOTED
   k: kOhm, M: MOhm

2. CAPACITORS
   INDICATED IN CAPACITY (µF) / VOLTAGE (V) UNLESS OTHERWISE NOTED p: pF
   INDICATED WITHOUT VOLTAGE IS 50V EXCEPT ELECTROLYTIC CAPACITOR.
   TY: CFTYA, CH: CCSQCH, YB: CKSQYB, YF: CKSQYF

3. THE ▲ 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.
3.5 AF ASSY

D: AF ASSY
AWX7117 (MYXJ, MVXJ)  
AWX7116 (MLXJ, SBDXJ)
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491001 MFD. BY LITTELFuse INC. FOR IC454 (AEK7009).

IRF530(S)
IRF9530(S)

C321–C324: R361–R366:
Q333–Q336:

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491001 MFD. BY LITTELFuse INC. FOR IC454 (AEK7009).
3.6 FRON L, FRONT R and OPT ASSYS

OPT ASSY
AWX7125 (MYXJ, MVXJ)

FRONT L ASSY
AWX7123 (MYXJ, MVXJ)
AWX7122 (MLXJ, SBDXJ)

FRONT L ASSY
S702 : LOUDNESS
S703 : SPEAKER A
S704 : SPEAKER B
FRONT R ASSY
AWX7124 (MYXJ, MVXJ)
AWX7121 (MLXJ, SBDXJ)

FRONT R ASSY
S601 : INPUT SELECTOR
CD
TUNER
PHONE
LINE
TAPE1/CD-R/MD
S602 : DIRECT
S603 : TAPE2 MONITOR

NOTES
1. RESISTORS
   INDICATED IN Ohm 1/10k 5% TOLERANCE UNLESS OTHERWISE NOTED
   1k 100k

2. CAPACITORS
   INDICATED IN CAPACITY (uF)/VOLTAGE (V) UNLESS OTHERWISE NOTED p.pF
   INDICATED WITHOUT VOLTAGE IS 15Vp EXCEPT ELECTROLYTIC CAPACITOR

3. THE □ 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.
4. PCB CONNECTION DIAGRAM

4.1 VOLUME ASSY

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.
3. The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.

<table>
<thead>
<tr>
<th>Symbol in PCB Diagrams</th>
<th>Symbol in Schematic Diagrams</th>
<th>Part Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>B C E</td>
<td>B C E</td>
<td>Transistor</td>
</tr>
<tr>
<td>B C E</td>
<td>B C E</td>
<td>Transistor with resistor</td>
</tr>
<tr>
<td>D G S</td>
<td>D G S</td>
<td>Field effect transistor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resistor array</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3-terminal regulator</td>
</tr>
</tbody>
</table>

A VOLUME ASSY

SIDE A

SIDE B
4.2 HEADPHONE and AC PRIMARY ASSYS

B HEADPHONE ASSY

SIDE A (ANP7232-A)

D J551A SIDE B (ANP7232-A)

C AC PRIMARY ASSY

POWER TRANSFORMER

VOLTAGE SELECTOR (SBDXJ Type)

SIDE A

AC POWER CORD

SIDE B

C AC PRIMARY ASSY

(ANP7232-A)
4.3 AF ASSY

POWER TRANSFORMER
SIDE B

Q151
IC151
Q152
Q338,Q337
Q340,Q339
Q102
Q101
Q104
Q103
Q332
Q328,Q327
Q318,Q330
Q322,Q320
Q316,Q314
Q312,Q310
Q304,Q303
Q311,Q309
Q315,Q313
Q321,Q319
Q317,Q329
Q331,Q343
4.4 FRONT L ASSY

FRONT L ASSY

SIDE A

FRONT L ASSY

SIDE B
4.5 FRONT R and OPT ASSYS

**F** FRONT R ASSY

![Diagram of FRONT R ASSY](image)

**G** OPT ASSY

![Diagram of OPT ASSY](image)
## 5. PCB PARTS LIST

**NOTES:**
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The △ 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 Ω → 56 × 10^1 → 561 .............................. RD1/4PU 5 0 1 J
- 47k Ω → 47 × 10^1 → 473 .............................. RD1/4PU 4 7 3 J
- 0.5 Ω → R50 ........................................... RN2H 5 0 K
- 1 Ω → 1R0 ............................................. RS1P 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

### LIST OF WHOLE PCB ASSEMBLIES

<table>
<thead>
<tr>
<th>Mark</th>
<th>Symbol and Description</th>
<th>Part No.</th>
<th>Remarks</th>
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<td>A-209R</td>
<td>A-209R</td>
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<td></td>
<td></td>
<td>/MYXJ</td>
<td>/MVXJ</td>
</tr>
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<td></td>
<td></td>
<td>A-209</td>
<td>A-209</td>
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<td></td>
<td></td>
<td>/MLXJ</td>
<td>/SBDXJ</td>
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<td>NSP</td>
<td>AF COMPLEX ASSY</td>
<td>AWM7357</td>
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<td>AWM7112</td>
<td>AWM7112</td>
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<td>NSP</td>
<td>VOLUME ASSY</td>
<td>AWX7118</td>
<td>AWX7118</td>
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<td>AWX7116</td>
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<td>AWX7116</td>
<td>AWX7116</td>
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### VOLUME ASSY

#### (1) CONTRAST TABLE

AWX7118 and AWX7112 are constructed the same except for the following:

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<th>Symbol and Description</th>
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<td>K5SQYF473Z50</td>
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<td>ACX7038</td>
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#### (2) PARTS LIST FOR AWX7118

#### SEMICONDUCTORS

- Q513, Q514
- Q501, Q510
- Q511
- D505, D506, D509, D510
- D501, D504, D507, D508

#### CAPACITORS

- C501, C502
- C513, C514
- C516
- C503, C504
- C515
- C511

#### RESISTORS

- △ R530
- VR501
- Other Resistors

### HEADPHONE ASSY

#### CAPACITORS

- C551, C552

### AC PRIMARY ASSY

#### (1) CONTRAST TABLE

AWX7113 and AWX7670 are constructed the same except for the following:

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<td>J806</td>
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<td>DB616EB0</td>
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#### (2) PARTS LIST FOR AWX7113

#### SWITCH

- △ S801

### OTHERS

- 16P SOCKET
- CONNECTOR 7P
- PCB BINDER
- 3P CABLE HOLDER
- CORD WITH PLUG
- HEADPHONE JACK
- JUMPER WIRE

### CONTROL ASSY

<table>
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<th>Remarks</th>
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<td>AWX7123</td>
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<td>AWX7124</td>
<td>AWX7121</td>
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<td>AWX7125</td>
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### OTHERS

- 16P SOCKET
- CONNECTOR 7P
- PCB BINDER
- CORD WITH PLUG
- HEADPHONE JACK
- JUMPER WIRE

### CONTROL ASSY

<table>
<thead>
<tr>
<th>Mark</th>
<th>Symbol and Description</th>
<th>Part No.</th>
<th>Remarks</th>
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<td>AWX7111</td>
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</tbody>
</table>

### OTHERS

- 16P SOCKET
- CONNECTOR 7P
- PCB BINDER
- CORD WITH PLUG
- HEADPHONE JACK
- JUMPER WIRE
## CAPACITORS
- C801, C802 (0.01 \( \mu F \)/AC250V) ACG7020

## OTHERS
- CN801 AC INLET AKP7005
- H1, H2 FUSE CLIP AKR7001

### AF ASSY

#### (1) CONTRAST TABLE

AWX7117 and AWX7116 are constructed the same except for the following:

<table>
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<td>Q337</td>
<td>Q338</td>
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<tr>
<td>Q339, Q340</td>
<td>2SC2712</td>
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<td>Q451</td>
<td>2SS174P</td>
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<tr>
<td>D341</td>
<td>UDS551B</td>
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<tr>
<td>C334</td>
<td>CEANP100M16</td>
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<td>C335, C336</td>
<td>CEAT100M50</td>
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<td>C472</td>
<td>D341</td>
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<td>Q393, R394</td>
<td>RS1/10S153J</td>
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<td>R460</td>
<td>RS1/10S2R2J</td>
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<table>
<thead>
<tr>
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<th>Part No.</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>JA401</td>
<td>REMOTE CONTROL JACK</td>
<td>RKV1004</td>
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</table>

#### (2) PARTS LIST FOR AWX7117

### SEMICONDUCTORS

- IC454 (1A) AEK7009
- IC453 BA187M06T
- IC451 BA187M15T
- IC452 NJM79M15FA
- IC101 TC9163AN
- IC301 UPC4570C
- IC151 UPC4570G2
- Q311, Q312, Q329, Q330 2SA1162
- Q337, Q338 2SA1162
- Q313, Q314, Q321, Q322 2SA1255
- Q452 2SA1837
- Q309, Q310, Q327, Q328 2SC2712
- Q339, Q340 2SC2712
- Q315, Q316, Q319, Q320 2SC3318
- Q303, Q304 2SC3326
- Q451 2SC4793
- Q341 2SC5174P
- Q101, Q104 2SK303
- Q151 DTA124EK
- Q152 DTC124EK
- Q153 DTC124ES
- Q331, Q332, Q343 DTC124ES
- Q333, Q336 DTC124ES
- Q317, Q318 IMX1
- Q323, Q324 IRF530(S)
- Q325, Q326 IRF9530(S)
- D101-D104, D151, D301, D310 1SS355
- D401-D404 1SS355
- D451 DSSBA20
- D452-D455, D459, D460 SSS66(G/TPB2)

### RELAYS

- RA401-RA403 ASR7014

### CAPACITORS

- C451 (6800 \( \mu F \)/42V) ACH7080
- C452 (6800 \( \mu F \)/42V) ACH7081
- C313-C316, C337-C340 CCSQCH121J50
- C153, C154 CCSQCH151J50
- C303, C304 CCSQCH221J50
- C334 CEANP100M16
- C471 CEANP100M2A
- C172 CEANP1R0M50
- C333 CEANP470M10
- C155, C156, C167, C168 CEAT100M50
- C317-C320, C335, C336 CEAT100M50
- C453-C458, C465, C466, C469 CEAT100M50
- C461, C462 CEAT101M2A
- C467, C468 CEAT101M50
- C470 CEAT3R3M50
- C169, C170 CEAT470M25
- C459, C460, C463, C464 CEAT470M50
- C157, C158 CEAT471M6R3
- C301, C302, C305, C306 CEBA100M50
- C307, C308 CEBA221M25
- C321-C324 CFTYA224J50
- C173 CFTYA564J50
- C165, C166 CKSQYB222K50
- C111, C113, C171, C341 CKSQYF473Z50
- C472 CKSQYF473Z50
- C159, C160 CQMA243J50
- C161, C162 CQMA823J50

### RESISTORS

- R311, R312 RDR1/4VM152J
- R301, R302 RDR1/4VM240J
- R303, R304 RDR1/4VM651J
- R143 RS1/10S100J
- R133, R134, R171, R172 RS1/10S101J
- R351-R354, R452 RS1/10S101J
- R317, R318, R331, R332 RS1/10S122J
- R357-R360 RS1/10S151J
- R377, R378, R453 RS1/10S153J
- R465-R470 RS1/10S161J
- R361-R366 RS1/10S181J
- R339-R346 RS1/10S212J
- R454 RS1/10S273J
- R460 RS1/10S2R2J
- R355, R356 RS1/10S432J
- R459 RS1/10S470J
- R464 RS1/10S4R7J
- R379, R380 RS1/10S682J
- R451 RS1LMF270J
- R401, R402 RS1LMF331J

---

**Mark** | **No.** | **Description** | **Part No.** | **Remarks**
---|---|---|---|---
CAPACITORS | A-209R, A-209 | | | |
OTHERS | CN801 | AC INLET | AKP7005 | |
| H1, H2 | FUSE CLIP | AKR7001 | | |

**Mark** | **No.** | **Description** | **Part No.** | **Remarks**
---|---|---|---|---
AF ASSY | | | | |

**Mark** | **No.** | **Description** | **Part No.** | **Remarks**
---|---|---|---|---
RELAYS | | | | |

**Mark** | **No.** | **Description** | **Part No.** | **Remarks**
---|---|---|---|---
CAPACITORS | | | | |
**Mark** | **No.** | **Description** | **Part No.** | **Remarks**
---|---|---|---|---
RESISTORS | | | | |
# FRONT R ASSY

## (1) CONTRAST TABLE

AWX7124 and AWX7121 are constructed the same except for the following:

<table>
<thead>
<tr>
<th>Mark Symbol and Description</th>
<th>Part No.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>D614, D616, D621</td>
<td>SS355</td>
<td>Not used</td>
</tr>
<tr>
<td>C611</td>
<td>C611</td>
<td>Not used</td>
</tr>
<tr>
<td>R623</td>
<td>RS1/10S102J</td>
<td>Not used</td>
</tr>
</tbody>
</table>

## (2) PARTS LIST FOR AWX7124

### SEMICONDUCTORS

- IC601: PD5443A
- Q609: 2SA1162
- Q610: 2SC2712
- Q611-Q613, Q615, Q616: DTA124EK
- Q601-Q606, Q608, Q614: DTC124EK
- D608-D612, D614-D621: 1SS355
- D607: SLP6118C51H
- D601-D606: SLP9118C51H

### SWITCHES

- S602, S603: VSG1009
- S601: AX7008

### CAPACITORS

- C602: CEAT102M6R3
- C604: CEJA2R2M50
- C603, C611: CKSQVF103Z50
- C607, C608: CKSQVF104Z25
- C605, C606, C610: CKSQVF473Z50

### RESISTORS

- VR601 (500kΩ): ACS7029
- Other Resistors: RS1/10S102J

### OTHERS

- X601: CERAMIC RESONATOR (4.19MHz)
- CN601: 13P FFC CONNECTOR 9607S-19F
- J602: JUMPER WIRE D15A13-125-2651

## FRONT L ASSY

### (1) CONTRAST TABLE

AWX7123 and AWX7122 are constructed the same except for the following:

<table>
<thead>
<tr>
<th>Mark Symbol and Description</th>
<th>Part No.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q704</td>
<td>DTC124EK</td>
<td>Not used</td>
</tr>
<tr>
<td>Q705</td>
<td>2SC1845</td>
<td>Not used</td>
</tr>
<tr>
<td>D704</td>
<td>1SS355</td>
<td>Not used</td>
</tr>
<tr>
<td>R708</td>
<td>RS1/10S472J</td>
<td>Not used</td>
</tr>
<tr>
<td>R709</td>
<td>RS1/10S223J</td>
<td>Not used</td>
</tr>
<tr>
<td>J603 JUMPER WIRE</td>
<td>D15A03-100J</td>
<td>Not used</td>
</tr>
<tr>
<td>1603 3P CABLE HOLDER</td>
<td>51063-0305</td>
<td>Not used</td>
</tr>
</tbody>
</table>

### (2) PARTS LIST FOR AWX7123

#### SEMICONDUCTORS

- IC751: UPC4570G2
- Q707, Q708: 2SC1845
- Q705: 2SC2712
- Q701-Q704: DTC124EK
- D704: 1SS355
- D701, D703, D705: SLP9118C51H

#### SWITCHES

- S702-S704: VSG1009

#### CAPACITORS

- C753, C754, C761, C762, C767, C768, C765, C766, C759, C760, C757, C758, C701

#### RESISTORS

- R751, R752, VR751, VR752 (30kΩ): RS1/10S101J
- Other Resistors: ACS7028, RS1/10S102J
6. ADJUSTMENT

6.1 IDLE CURRENT ADJUSTMENT

- CAUTION: Heatsinks’ (Q323–Q326) DC level is equal to +B or -B. Don’t touch them or you will be electric shocked.

1. Connect the measuring instrument as shown in Fig.6-1. (R373 or R374)
2. Turn the POWER switch to ON.
3. Adjust VR301 (VR302) so that the voltage between both sides of R373 (R374) becomes 10mV ± 1mV.
4. Ages for 5 minutes.
5. Adjust VR301 (VR302) so that the voltage between both sides of R373 (R374) becomes 11mV ± 1mV.
7. GENERAL INFORMATION
7.1 DISASSEMBLY

1. Unhook lead wires.

2. Use Cutting Pliers.

3. Be careful not to injure the Front Panel.

Diagnose the AF Assy.

Screw for Rear Panel
### 7.2 IC

#### PD5443A (FRONT R ASSY : IC601)

- **REMOTE CONTROL AMP MICROCOMPUTER**
- **Pin Assignment (Top view)**

#### Pin Function

<table>
<thead>
<tr>
<th>No.</th>
<th>Pin name</th>
<th>I/O</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P53</td>
<td>SR</td>
<td>T2</td>
</tr>
<tr>
<td>2</td>
<td>P1/SRDY</td>
<td>STB</td>
<td>P52</td>
</tr>
<tr>
<td>3</td>
<td>P1/CLK</td>
<td>NC</td>
<td>P07</td>
</tr>
<tr>
<td>4</td>
<td>P1/OUT</td>
<td>LOUD</td>
<td>P06</td>
</tr>
<tr>
<td>5</td>
<td>P1/OUT</td>
<td>M-CTRL</td>
<td>P05</td>
</tr>
<tr>
<td>6</td>
<td>P1/SIN</td>
<td>CD-IND</td>
<td>P04</td>
</tr>
<tr>
<td>7</td>
<td>P1/T1</td>
<td>P-CTRL</td>
<td>P03</td>
</tr>
<tr>
<td>8</td>
<td>P1/T0</td>
<td>PH-IND</td>
<td>P02</td>
</tr>
<tr>
<td>9</td>
<td>P0</td>
<td>LI-IND</td>
<td>P01</td>
</tr>
<tr>
<td>10</td>
<td>P1</td>
<td>T1-IND</td>
<td>P00</td>
</tr>
<tr>
<td>11</td>
<td>P2/IN7</td>
<td>SPA-IND</td>
<td>P43</td>
</tr>
<tr>
<td>12</td>
<td>P2/IN6</td>
<td>SPB-IND</td>
<td>P42</td>
</tr>
<tr>
<td>13</td>
<td>P2/IN5</td>
<td>LOU-IND</td>
<td>V-UP</td>
</tr>
<tr>
<td>14</td>
<td>P2/IN4</td>
<td>NC</td>
<td>V-DOWN</td>
</tr>
<tr>
<td>15</td>
<td>P2/IN3</td>
<td>NC</td>
<td>RSEL2</td>
</tr>
<tr>
<td>16</td>
<td>P2/IN2</td>
<td>NC</td>
<td>RSEL1</td>
</tr>
<tr>
<td>17</td>
<td>P2/IN1</td>
<td>DIR-IND</td>
<td>NC</td>
</tr>
<tr>
<td>18</td>
<td>P2/IN0</td>
<td>T2-IND</td>
<td>P31/INT1</td>
</tr>
<tr>
<td>19</td>
<td>P2/IN9</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>20</td>
<td>VREF</td>
<td>V-REF</td>
<td>NC</td>
</tr>
<tr>
<td>21</td>
<td>XIN</td>
<td>XIN</td>
<td>NC</td>
</tr>
<tr>
<td>22</td>
<td>XOUT</td>
<td>XOUT</td>
<td>NC</td>
</tr>
<tr>
<td>23</td>
<td>VSS</td>
<td>VSS</td>
<td>NC</td>
</tr>
<tr>
<td>24</td>
<td>P5/XCOUT</td>
<td>VCC</td>
<td>VCC</td>
</tr>
</tbody>
</table>

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

#### Pin Function

<table>
<thead>
<tr>
<th>No.</th>
<th>Pin name</th>
<th>I/O</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>P5/XCOUT</td>
<td>I</td>
<td>SPEAKER-A KEY input.</td>
</tr>
<tr>
<td>25</td>
<td>RESET</td>
<td>I</td>
<td>Reset pin.</td>
</tr>
<tr>
<td>26</td>
<td>P3/INT0</td>
<td>I</td>
<td>BACK UP detection pin. interrupt specification.</td>
</tr>
<tr>
<td>27</td>
<td>P3/INT1</td>
<td>I</td>
<td>Not used.</td>
</tr>
<tr>
<td>28</td>
<td>P3/CNTR1</td>
<td>I</td>
<td>REC selector input 1.</td>
</tr>
<tr>
<td>29</td>
<td>P3/CNTR2</td>
<td>I</td>
<td>REC selector input 2. interrupt specification.</td>
</tr>
<tr>
<td>30</td>
<td>P40</td>
<td>O</td>
<td>Volume DOWN data output.</td>
</tr>
<tr>
<td>31</td>
<td>P41</td>
<td>O</td>
<td>Volume up data output.</td>
</tr>
<tr>
<td>32</td>
<td>P42</td>
<td>I</td>
<td>FUNCTION selector input 1.</td>
</tr>
<tr>
<td>33</td>
<td>P43</td>
<td>I</td>
<td>FUNCTION selector input 2.</td>
</tr>
<tr>
<td>34</td>
<td>P09</td>
<td>I</td>
<td>WAKE UP input. Key on wake up specification.</td>
</tr>
<tr>
<td>35</td>
<td>P01</td>
<td>O</td>
<td>Not used.</td>
</tr>
<tr>
<td>36</td>
<td>P02</td>
<td>I</td>
<td>DIRECT KEY input. Key on wake up specification.</td>
</tr>
<tr>
<td>37</td>
<td>P03</td>
<td>O</td>
<td>Protection control pin.</td>
</tr>
<tr>
<td>38</td>
<td>P04</td>
<td>I</td>
<td>Output error detection pin</td>
</tr>
<tr>
<td>39</td>
<td>P05</td>
<td>O</td>
<td>MUTING control pin.</td>
</tr>
<tr>
<td>40</td>
<td>P06</td>
<td>I</td>
<td>LOUDNESS KEY input. Key on wake up specification.</td>
</tr>
<tr>
<td>41</td>
<td>P07</td>
<td>O</td>
<td>Not used.</td>
</tr>
<tr>
<td>42</td>
<td>P52</td>
<td>I</td>
<td>TAPE2 KEY input.</td>
</tr>
</tbody>
</table>
8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

[FRONT PANEL]

1. **POWER (OFF/ON) switch**
   - Press to turn power to the unit ON and OFF.
   - This unit cannot be turned ON and OFF using the remote control unit.

2. **REMOTE CONTROL SENSOR window**
   - (on the A-209R only)

3. **VOLUME control**
   - Use to adjust the volume level.

4. **INPUT SELECTOR knob/indicators**
   - Turn the knob clockwise or counterclockwise so that the indicator lights for your desired input source. Turning the knob clockwise causes the lit indicator to right. Turning counterclockwise causes it to left.
   - **CD**: For compact disc playback with a CD player.
   - **TUNER**: For AM or FM broadcast reception with a tuner.
   - **PHONO**: For record playback with a turntable.
   - **LINE**: Set to this position when listening to the program from a component connected to the LINE terminals.
   - **TAPE 1/CD-R/MD**: For playback with a cassette deck, CD recorder or MD recorder connected to TAPE1/CD-R/MD terminals.

5. **TAPE 2 MONITOR button/indicator**
   - Use when there is an adaptor component (graphic equalizer, etc.) or cassette deck connected to the TAPE2 MONITOR terminals.
   - **On**: Indicator lights when using the adaptor component or listening to the cassette deck.
   - **Off**: Indicator goes off when not in use.

**NOTES:**
- When no connections are made to the TAPE2 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 TAPE2 MONITOR indicator is on and the INPUT SELECTOR knob is not set to TAPE1/CD-R/MD, the signals which are input through TAPE 2 MONITOR are then output at TAPE1/CD-R/MD REC OUT.

6. **BALANCE control**
   - Should normally be left in the center position. Adjust 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 button is in the on position.
7 **DIRECT button/indicator**
Use this button 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 passing 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 off: The signal passes through the various frequency adjusting circuits.

**NOTE:**
This button does not operate when the DIRECT button is in the on position.

8 **LOUDNESS button/indicator**
Use when listening at low volume levels.
- **On**: The indicator lights: Boosts low and high frequencies to give added punch to playback even at a low volume level.
- **Off**: The indicator goes off: Should normally be left in this position.

**NOTE:**
This button does not operate when the DIRECT button is in the on position.

9 **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 tones are emphasized; when turned to the left, high-frequency tones are de-emphasized.

**NOTE:**
This control does not operate when the DIRECT button is in the on position.

10 **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 tones are emphasized; when turned to the left, low-frequency tones are de-emphasized.

**NOTE:**
This control does not operate when the DIRECT button is in the on position.

11 **SPEAKERS B (ON/OFF) button/indicator**
Use this button to listen to the speaker system connected to SPEAKERS B terminals.
- **ON**: The indicator lights. Sound is heard from the speaker system.
- **OFF**: The indicator goes off. No sound is heard from the speaker system. Set to this position when listening with headphones.

**NOTE:**
The speakers continue to output sound even when headphones are plugged into this jack. To mute the sound from the speakers, press the SPEAKERS button to OFF.

12 **PHONES jack**
When using headphones, insert the plug into this jack.

**NOTE:**
The speakers continue to output sound even when headphones are plugged into this jack. To mute the sound from the speakers, press the SPEAKERS button to OFF.

13 **SPEAKERS A (ON/OFF) button/indicator**
Use this button to listen to the speaker system connected to SPEAKERS A terminals.
- **ON**: The indicator lights. Sound is heard from the speaker system.
- **OFF**: The indicator goes off. No sound is heard from the speaker system. Set to this position when listening with headphones.
[ REAR PANEL ]

1. GND (Turntable ground) terminal
2. PHONO terminals
3. TUNER terminals
4. CD terminals
5. LINE terminals
6. TAPE 1/CD-R/MD REC (OUT) terminals
7. TAPE 1/CD-R/MD PLAY (IN) terminals
8. TAPE 2 MONITOR REC (OUT) terminals
9. TAPE 2 MONITOR PLAY (IN) terminals
10. SPEAKERS B terminals (Right channel)
11. SPEAKERS B terminals (Left channel)
12. SPEAKERS A terminals (Right channel)
13. SPEAKERS A terminals (Left channel)
14. CONTROL OUT jack
   This jack is for output of control signals when operating other components bearing the mark with the attached remote control unit. (on the A-209R only)
15. 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.

NOTES:
- If you use an other power cord than provided, we cannot assume the liabilities in what may occur as a result of it.
- (The provided power cord has a current capacity of 2.5 A.)
[ REMOTE CONTROL ] (A-209R)

1 CD POWER button
Switches CD player power ON/OFF.

2 TAPE SELECT button
Selects the cassette No. (1 to 6) for multi-cassette changer.

3 DECK II button
To operate Deck II, press this button before pressing the operating buttons. Also, when using a single deck, press this button before pressing the operating buttons.

4 DECK I button
To operate Deck I, press this button before pressing the operating buttons.

5 DISC SELECT button
Press this to select discs on a multi or twin tray compact disc player.

6 Input selector button
Use to select the playback source.
CD : For compact disc playback with a CD player.
TUNER : For AM or FM broadcast reception with a tuner.
PHONO : For record playback with a turntable.
TAPE 1 : For playback with a cassette deck, CD recorder or MD recorder connected to TAPE1/CD-R/MD terminals.
TAPE 2 : For playback with a cassette deck or adaptor connected to TAPE 2 MONITOR terminals.
LINE : For playback with a component connected to the LINE terminal.

7 TUNER POWER button
Switches TUNER power ON/OFF.

8 TAPE POWER button
Switches the cassette deck power ON/OFF.
(Can not turn ON/OFF some cassette decks.)

9 TAPE operation buttons
↑, ↓ : Playback in the direction of the arrows.
■ : Stop
►, ◄ : Tape fast forward/reverse.

10 CD player operation buttons
◄◄ : Returns you to the start of the current track.
(Track search)
►► : Takes you to the start of the next track.
(Track search)
■ : Stop
► : Play

11 STATION + (up), – (down) buttons
Calls each station number in sequence.

12 VOLUME + (up), – (down) buttons
+ ........................................................ Increases the volume.
− ...................................................... Decreases the volume.

NOTE:
When the accessory remote control unit is used to operate other Pioneer components with the mark, it cannot be used to operate functions which do not correspond to the functions listed on the remote control unit.
8.2 SPECIFICATIONS

**Amplifier Section**

Continuous power output (both channels driven at 20 Hz to 20 kHz)**

[A-209R]
- T.H.D. 0.1 %, 8 Ω .......................... 35 W + 35 W*
- T.H.D. 0.15 %, 4 Ω .......................... 45 W + 45 W*

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

[A-209R]
- T.H.D. 1.0 %, 8 Ω .......................... 45 W + 45 W
- T.H.D. 1.0 %, 4 Ω .......................... 60 W + 60 W

Total harmonic distortion**

[A-209R]
- 20 Hz to 20 kHz, 17.5 W, 8 Ω ................. 0.08 %*
- * Power output specification is for when power supply is 230 V.

Input sensitivity/impedance

- PHONO (MM) ........................................... 2.8 mV/50 kΩ
  [A-209R]
  - CD, TUNER, LINE, TAPE1/CD-R/MD, TAPE2 MONITOR
    .................................................. 200 mV/50 kΩ

PHONO (MM) overload level

- 1 kHz, T.H.D. 0.1 % .............................. 150 mV

Output level/impedance

- TAPE1 REC, TAPE2 MONITOR REC ...... 200 mV/1 kΩ

Frequency response

- PHONO (MM) .................. 20 Hz to 20 kHz, ±0.5 dB
  [A-209R]
  - CD, TUNER, LINE, TAPE1/CD-R/MD, TAPE2 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)

- +6 dB (100 Hz)/+4 dB (10 kHz)

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

- PHONO (MM, 5 mV input) ..................... 85 dB*
  [A-209R]
  - CD, TUNER, LINE, TAPE1/CD-R/MD, TAPE2 MONITOR
    ................................................................ 106 dB*

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

- PHONO (MM) ....................................... 71 dB/67 dB*
  [A-209R]
  - CD, TUNER, LINE, TAPE1/CD-R/MD, TAPE2 MONITOR
    ................................................................ 91 dB/71 dB*

** Power Supply/Miscellaneous**

Power requirements ................. AC 220 – 230 V, 50/60 Hz

Power consumption

[A-209R] .................................................. 130 W

Dimensions (including knobs and other protruding parts)

........................................... 420 (W) x 114 (H) x 307 (D) mm

Weight (without package)

[A-209R] .................................................. 4.7 kg

**Accessories**

- Remote control unit .................................................. 1
- Batteries (AA/R6P) .................................................. 2
- Power cord (Rated current 2.5 A) ......................... 1
- Operating instructions ........................................... 1
- Warranty card .................................................... 1

* Measured with DIRECT button set to on.

** Measured by Audio Spectrum Analyzer.

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