

Service Manual

ORDER NO.
RRV2284

STEREO AMPLIFIER

A-109

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-109 | | |
| MYXJ | ○ | AC220-230V | _____ |
| MVXJ | ○ | AC220-230V | _____ |
| MLXJ | ○ | AC220-230V | _____ |
| SBDXJ | ○ | AC110V/120-127V/220V/240V | With the voltage selector |

● This service manual should be used together with the following manual(s):

| Model No. | Order No. | Remarks |
|-------------|-----------|---------|
| A-209R/MYXJ | RRV2283 | |

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1. CONTRAST OF MISCELLANEOUS PARTS

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.

● Screws adjacent to ∇ mark on product are used for disassembly.

● Reference Nos. indicate the pages and Nos. in the service manual for the base model.

● 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 \rightarrow 56 x 10¹ \rightarrow 561 RD1/4PU $\overline{561}J$

47k \rightarrow 47 x 10³ \rightarrow 473 RD1/4PU $\overline{473}J$

0.5 \rightarrow R50 RN2H $\overline{R50}K$

1 \rightarrow 1R0 RS1P $\overline{1R0}K$

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

5.62k \rightarrow 562 x 10¹ \rightarrow 5621 RN1/4PC $\overline{5621}F$

■ CONTRAST TABLE

A-109/MYXJ, MVXJ, MLXJ, SBDXJ and A-209R/MYXJ are constructed the same except for the following :

| Ref. No. | Mark | Symbol and Description | Part No. | | | | | Remarks |
|----------|------|------------------------------------------------------------------------------|-----------------|----------------|----------------|----------------|-----------------|---------|
| | | | A-209R /MYXJ | A-109 /MYXJ | A-109 /MVXJ | A-109 /MLXJ | A-109 /SBDXJ | |
| | | PCB ASSEMBLIES | | | | | | |
| P5- 1 | NSP | CONTROL ASSY | AWG7013 | AWG7011 | AWG7011 | AWG7011 | AWG7011 | *1 |
| P5- 2 | | └ FRONT L ASSY | AWX7123 | AWX7120 | AWX7120 | AWX7120 | AWX7120 | |
| P5- 3 | | └ FRONT R ASSY | AWX7124 | AWX7121 | AWX7121 | AWX7121 | AWX7121 | |
| | | └ OPT ASSY | AWX7125 | Not used | Not used | Not used | Not used | |
| P5- 4 | NSP | AF COMPLEX ASSY | AWM7357 | AWM7353 | AWM7353 | AWM7353 | AWM7509 | *2 |
| P5- 5 | NSP | └ AC PRIMARY ASSY | AWX7113 | AWX7113 | AWX7113 | AWX7113 | AWX7670 | |
| P5- 6 | | └ HEADPHONE ASSY | AWX7114 | AWX7114 | AWX7114 | AWX7114 | AWX7114 | |
| P5- 7 | | └ VOLUME ASSY | AWX7118 | AWX7112 | AWX7112 | AWX7112 | AWX7112 | |
| | | └ AF ASSY | AWX7117 | AWX7111 | AWX7111 | AWX7111 | AWX7111 | |
| | | PACKING SECTION | | | | | | |
| P3- 1 | | Operating Instructions (English) | ARB7236 | ARB7237 | ARB7237 | Not used | Not used | |
| P3- 2 | | Operating Instructions (German) | ARC7322 | ARC7324 | Not used | Not used | Not used | |
| P3- 3 | | Operating Instructions (French/Italian/ Dutch/Swedish/Spanish/Portuguese) | ARC7323 | ARC7325 | Not used | Not used | Not used | |
| P3- 4 | NSP | Warranty Card | ARY7022 | ARY7022 | ARY7022 | Not used | Not used | |
| P3- 5 | NSP | Remote Control Unit (CU-A019) | AXD7193 | Not used | Not used | Not used | Not used | |
| P3- 6 | | Battery Cover | AZN2249 | Not used | Not used | Not used | Not used | |
| P3- 7 | | Dry Cell Battery (R6P,AA) | VEM-013 | Not used | Not used | Not used | Not used | |
| P3-11 | | Packing Case | AHD7869 | AHD7872 | AHD7872 | AHD7873 | AHD7892 | |
| P3-14 | | Operating Instructions (English/Spanish/Chinese) | Not used | Not used | Not used | ARE7269 | ARE7269 | |
| P3-15 | NSP | Caution Label 220V | Not used | Not used | Not used | Not used | ARR1003 | |
| P3-16 | | AC Plug Adapter | Not used | Not used | Not used | Not used | VKX1007 | |
| P3-17 | | Air Cap | Not used | Not used | AHG1087 | Not used | Not used | |
| P3-18 | | ⚠ Power Cord | ADG1154 | ADG1154 | Not used | ADG1154 | ADG1154 | |
| P3-19 | | ⚠ Power Cord with Fuse | Not used | Not used | ADG1156 | Not used | Not used | |
| P3-20 | ⚠ | Fuse (T5A) | Not used | Not used | AEK1046 | Not used | Not used | |
| | | EXTERIOR SECTION | | | | | | |
| P5- 8 | ⚠ | Fuse (FU1 : 1.25A) | REK1023 | Not used | Not used | Not used | Not used | |
| P5- 8 | ⚠ | Fuse (FU1 : 800mA) | Not used | REK1021 | REK1021 | REK1021 | Not used | |
| P5- 8 | ⚠ | Fuse (FU1 : 6.3A) | Not used | Not used | Not used | Not used | REK1030 | |
| P5-11 | ⚠ | Power Transformer (AC220-230V) | ATS7190 | ATS7192 | ATS7192 | ATS7192 | Not used | |
| P5-11 | ⚠ | Power Transformer (AC110V/120-127V/220V/240V) | Not used | Not used | Not used | Not used | ATS7193 | |
| P5-13 | NSP | Rear Panel | ANC7925 | ANC7931 | ANC7931 | ANC7933 | ANC7934 | |
| P5-14 | | Insulator | PNW2766 | PNW2766 | PNW2766 | AMR7198 | AMR7198 | |
| P5-25 | | Shield Plate | ANK7043 | Not used | Not used | Not used | Not used | |
| P5-28 | | IR Filter | AAK7532 | Not used | Not used | Not used | Not used | |
| P5-38 | | Front Panel | AMB7710 | AMB7712 | AMB7712 | AMB7712 | AMB7712 | |

| Ref. No. | Mark | Symbol and Description | Part No. | | | | | Remarks |
|----------|------|-------------------------|-----------------|----------------|----------------|----------------|-----------------|---------|
| | | | A-209R /MYXJ | A-109 /MYXJ | A-109 /MVXJ | A-109 /MLXJ | A-109 /SBDXJ | |
| P5-42 | △ | Voltage Selector (S2) | Not used | Not used | Not used | Not used | AKX-507 | |
| P5-43 | △ | Fuse (FU2, FU3 : 800mA) | Not used | Not used | Not used | Not used | REK1021 | |
| P5-44 | | PVC Cover | Not used | AAK7541 | AAK7541 | AAK7541 | AAK7541 | |
| P5-45 | | Foot | Not used | REC1263 | REC1263 | REC1263 | REC1263 | |

*1 : Refer to “ ■ CONTRAST OF PCB ASSEMBLIES ” and “ 2. SCHEMATIC DIAGRAM ”.

*2 : Refer to A-209/SBDXJ on the service manual RRV2283.

■ CONTRAST OF PCB ASSEMBLIES

DF AF ASSY

AWX7111 and AWX7117 are constructed the same except for the following :

| Mark | Symbol and Description | Part No. | | Remarks |
|------|---------------------------|--------------|-------------|----------------------------------|
| | | AWX7117 | AWX7111 | |
| △ | Q335, Q336 | DTC143ES | Not used | |
| | Q337, Q338 | 2SA1162 | Not used | |
| | Q339, Q340 | 2SC2712 | Not used | |
| | Q341 | 2SC5174P | Not used | |
| | D341 | UDZS5.1B | Not used | |
| △ | D402 | 1SS355 | Not used | |
| | D451 | D5SBA20 | D3SBA20 | |
| | RY402 | ASR7014 | Not used | |
| | C301, C302, C305, C306 | CEBA100M50 | CEAT100M50 | |
| | C307, 308 | CEBA221M25 | CEAT221M25 | |
| △ | C334 | CEANP221M16 | Not used | *1: 6800μF/42V *2: 4700μF/42V |
| | C335, C336 | CEAT100M50 | Not used | |
| | C451 | ACH7080 *1 | ACH7082 *2 | |
| | C452 | ACH7081 *1 | ACH7083 *2 | |
| | C472 | CKSQYF473Z50 | Not used | |
| △ | R301, R302 | RDR1/4VM240J | Not used | |
| | R303, R304 | RDR1/4VM561J | Not used | |
| | R313, R314 | Not used | RS1/10S240J | |
| | R315, R316 | Not used | RS1/10S561J | |
| | R385-R388 | RS1/10S473J | Not used | |
| △ | R389, R390 | RS1/10S471J | Not used | *3: 8P, *4: 4P |
| | R391, R392 | RS1/10S102J | Not used | |
| | R393 | RS1/10S153J | Not used | |
| | R460 | RS1/10S2R2J | Not used | |
| | 401 SPEAKER TERMINAL | AKE1011 *3 | AKE1054 *4 | |
| | HEAT SINK B | ANH1021 | Not used | |
| | JA401 REMOTE CONTROL JACK | RKN1004 | Not used | |

EF FRONT L ASSY

AWX7120 and AWX7123 are constructed the same except for the following :

| Mark | Symbol and Description | Part No. | | Remarks |
|------|------------------------|------------------|-------------|---------|
| | | AWX7123 | AWX7120 | |
| | Q703, Q704 | DTC124EK | Not used | |
| | Q705 | 2SC2712 | Not used | |
| | D702 | Not used | SLP9118C51H | |
| | D703, D705 | SLP9118C51H | Not used | |
| | D704 | 1SS355 | Not used | |
| | S701 | Not used | VSG1009 | |
| | S703, S704 | VSG1009 | Not used | |
| | R705 | RS1/10S271J | Not used | |
| | R708 | RS1/10S472J | Not used | |
| | R709 | RS1/10S223J | Not used | |
| | 1603 3P CABLE HOLDER | 51063-0305 | Not used | |
| | J603 JUMPER WIRE | DA15A03-100-2651 | Not used | |

Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST"

NOTES

1. RESISTORS
INDICATED IN Ohm 1/10W ±5% TOLERANCE UNLESS OTHERWISE NOTED
k : kohm, M : MOhm, F : NON-FRAMABLE TYPE, R : RDR TYPE

2. CAPACITORS
INDICATED IN CAPACITY (uF) / VOLTAGE (V) UNLESS OTHERWISE NOTED p : pF
INDICATED WITHOUT VOLTAGE IS 50V EXCEPT ELECTROLYTIC CAPACITOR.
MA : COMA, MB : COMA, TY : CFTYA, CH : CCSQCH, SL : CCSQSL, YB : CKSQYB, YF : CKSQYF
BA : CIBA

3. INDUCTORS
INDICATED IN H ±5%

4. DIODES
NO MARK DIODES ARE 1SS355

5. VOLTAGE

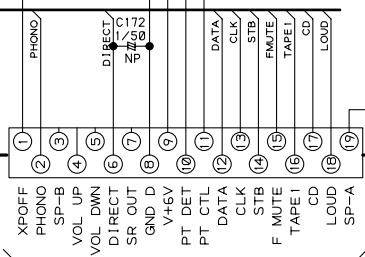
INDICATED IN DC VOLTAGE: NO SIGNAL/DIN POWER OUTPUT
(A-D3: NO SIGNAL/80W*2ch 4ohm)
6. THE Δ MARK FOUND ON SOME COMPONENT PARTS INDICATES
THE IMPORTANCE OF THE SAFETY FACTOR OF THE PART.
THEREFORE, WHEN REPLACING, BE SURE TO USE PARTS OF
IDENTICAL DESIGNATION.

7. TRANSISTOR'S RANK
2SC3138 : (OY) 2SC2712 : (OY) 2SC3326 : (AB)
2SA1255 : (OY) 2SA1162 : (OY) 2SK303 : (34)

CAUTION : FOR CONTINUED PROTECTION AGAINST
RISK OF FIRE, REPLACE ONLY WITH
SAME TYPE NO. 491001 MFD, BY
LITTELFUSE INK. FOR IC454 (AEK7009).

| | |
|------|----------------------|
| C451 | ACH7082 (4700/42) |
| C452 | ACH7083 (4700/42) |

TO POWER
TRANSFORMER

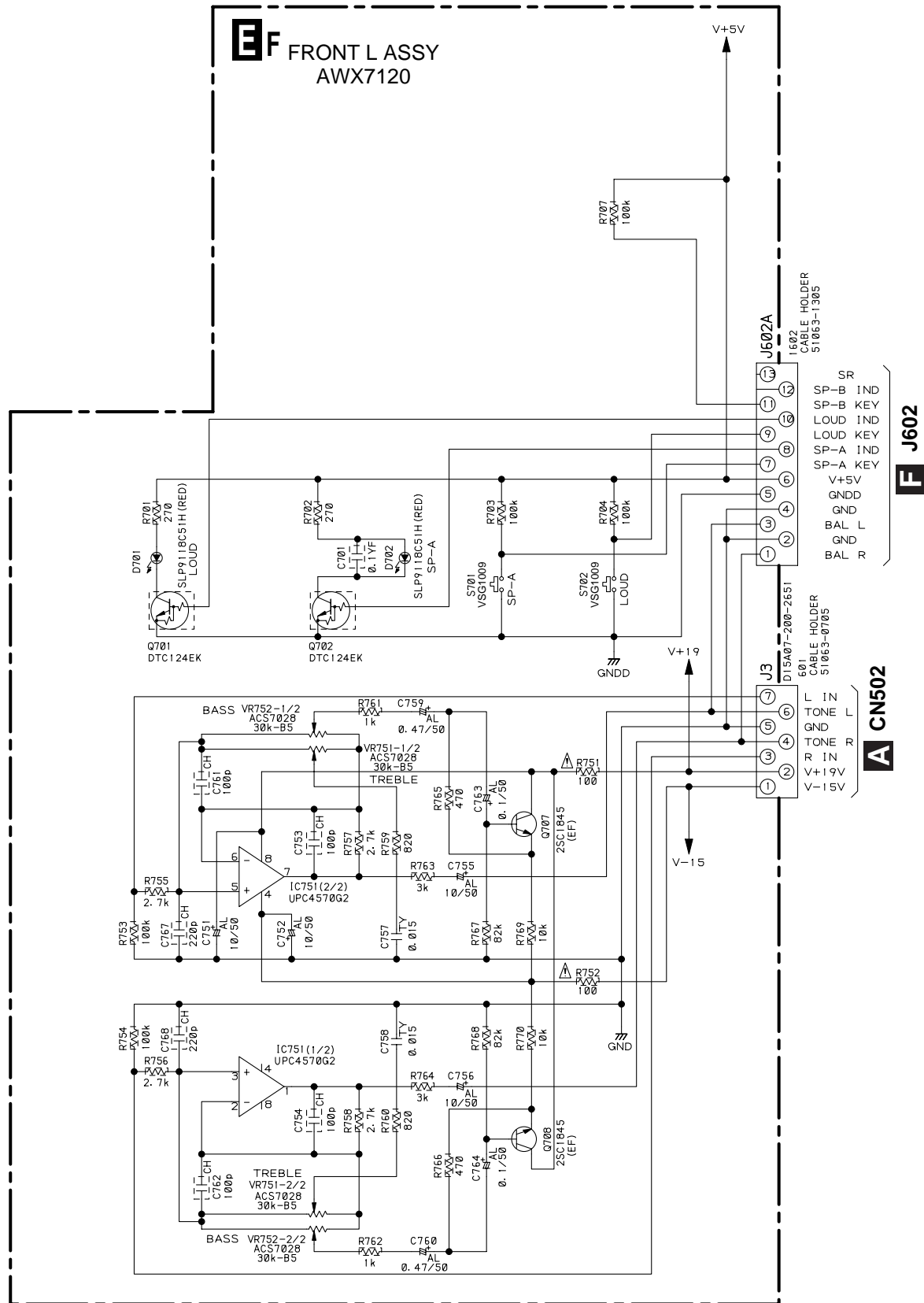


F CN601

B J551

D F

2.2 FRONT L ASSY



FRONT L ASSY
S701 : SPEAKER A
S702 : LOUDNESS