# SEQ-300

# SERVICE MANUAL

*US Model*
*Canadian Model*
*AEP Model*
*UK Model*
*E Model*

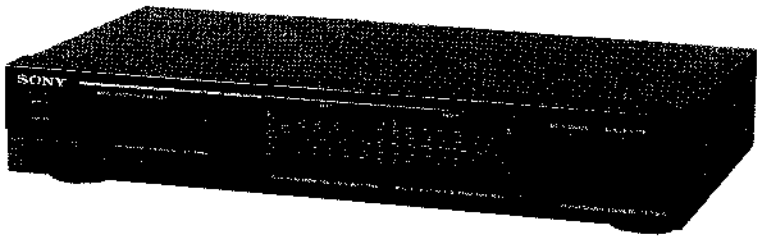



**PHOTO: US Model**

## SPECIFICATIONS

Inputs — LINE IN: Phono jacks, 245 mV (-10 dBs), 50 k ohms
TAPE: Phono jacks, 245 mV (-10 dBs), 50 k ohms

Outputs — LINE OUT: Phono jacks, 245 mV (-10 dBs), Load impedance: more than 10 k ohms
REC OUT: Phono jacks, 245 mV (-10 dBs), Load impedance: more than 10 k ohms

Graphic equalizer
Boost/cut range: ±10 dB
Center frequencies: 60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 14kHz

Frequency response (with EQUALIZATION ON)
LINE IN: 20 Hz to 40 kHz $^{+0}_{-1.5}$ dB

Harmonic distortion
LINE IN: Less than 0.008% (at 1 kHz, 1 V Output)

Signal-to-noise ratio (with EQUALIZATION ON)
LINE IN: Better than 100 dB (A network, 1 V output)

Power requirements
US, Canadian MODEL: 120V AC, 60Hz
AEP MODEL: 220V AC, ~50/60Hz
UK MODEL: 240V AC, ~50/60Hz
E MODEL: 110-120V/220-240V AC, ~50/60Hz

Power consumption
5 W

AC outlet — 100 W, unswitched

Dimensions — Approx. 430 × 80 × 245 mm (w/h/d) (17 × 3¼ × 9¾ inches)

Weight — Approx. 2.3 kg (5 lb 2 oz)

Accessories supplied
Connecting cords (2)

**SAFETY-RELATED COMPONENT WARNING!!**

**COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

**ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!**

**LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.**

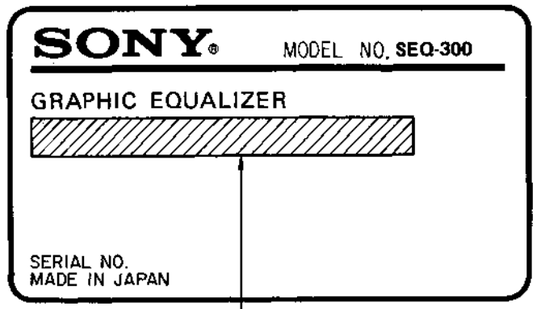
MICROFILM

## GRAPHIC EQUALIZER

SONY®

**MODEL IDENTIFICATION**

*– Specification Label on Jack Plate –*




US, Canadian model: AC 120V 60Hz 5W
AEP model: AC 220V ~50/60Hz 5W
UK model: AC 240V ~50/60Hz 5W
E model: AC 110-120V/220-240V
~50/60Hz 5W

## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

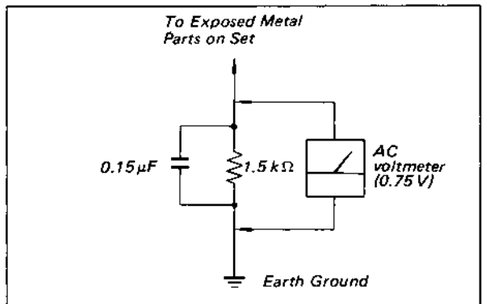



*Fig. A. Using an AC voltmeter to check AC leakage.*

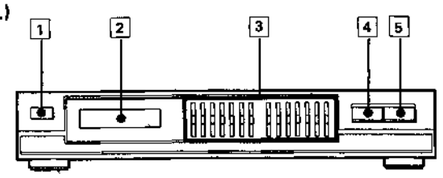




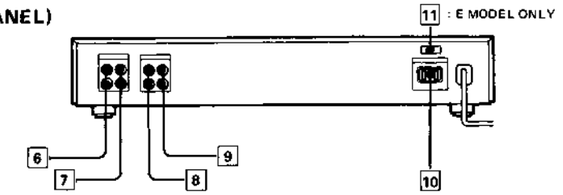
# SECTION 1
# GENERAL

## 1-1. FUNCTION OF CONTROLS

**(FRONT PANEL)**




**(BACK PANEL)**




**1 POWER switch**
**2 7 BAND SPECTRUM ANALYZER**
**3 Graphic equalizer controls**

**Frequency coverage of each equalizer control**

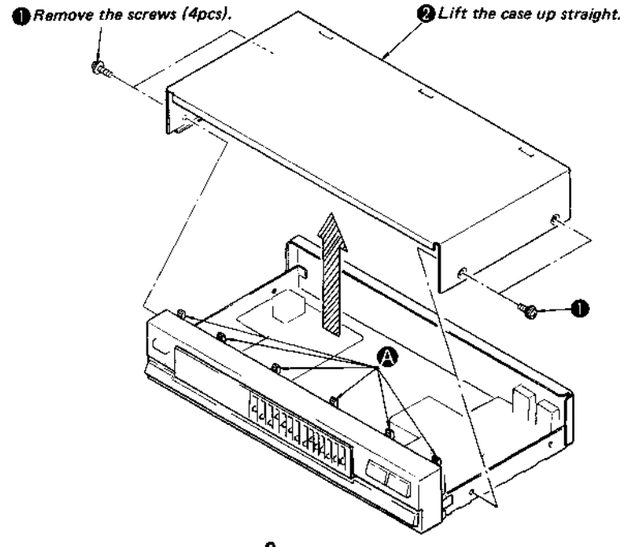
**60 Hz:** Use to boost or cut the bass.
**150 Hz:** This control governs the low-middle range and greatly influences the overall characteristics of the sound.
**400 Hz:** Use to adjust the power, spaciousness and warmth of the sound.
**1 kHz:** Use to provide more presence for vocals.
**2.4 kHz:** Use to boost a brighter sound and to reduce stridency.
**6 kHz:** This control effects the treble. Use to adjust the brightness of the sound and to reduce high frequency noise, such as tape hiss.
**14 kHz:** This control adjusts the general atmosphere rather than the sound itself.
Use to highlight the delicate quality of instrumental sound.

**4 EQUALIZATION switch**
**5 TAPE switch**
**6 REC OUT jack**
**7 TAPE RECORDER IN jack**
**8 LINE IN jack**
**9 LINE OUT jack**
**10 AC OUTLET (UNSWITCHED 100W MAX)**
**11 VOLTAGE SELECTOR: E MODEL ONLY (110-120V/220-240V)**

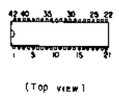
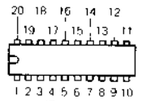
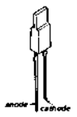
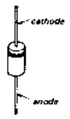
**Note:** Follow the disassembly procedure in the numerical order given.

## 1-2. REMOVAL OF THE CASE

**Precaution:**
When removing the case, lift it up straight with keeping it holizontal as shown below, otherwise 6 claws ( A ) that the front-panel-side of the case hangs on will be broken.



● Semiconductors Lead Layout

| | |
|---|---|
| **LC7566**<br>  <br>(Top view) | **2SC634SP**<br>  |
| **M5218P**<br>  <br>(Top view) | **2SC3622A-L**<br>  |
| **M5229P**<br>  <br>(Top view) | **SEL1524W-C**<br>  |
| **2SA733-P**<br>**2SC945-P**<br>  | **US1060M**<br>**10E2N**<br>**UZL-6M3**<br>  |

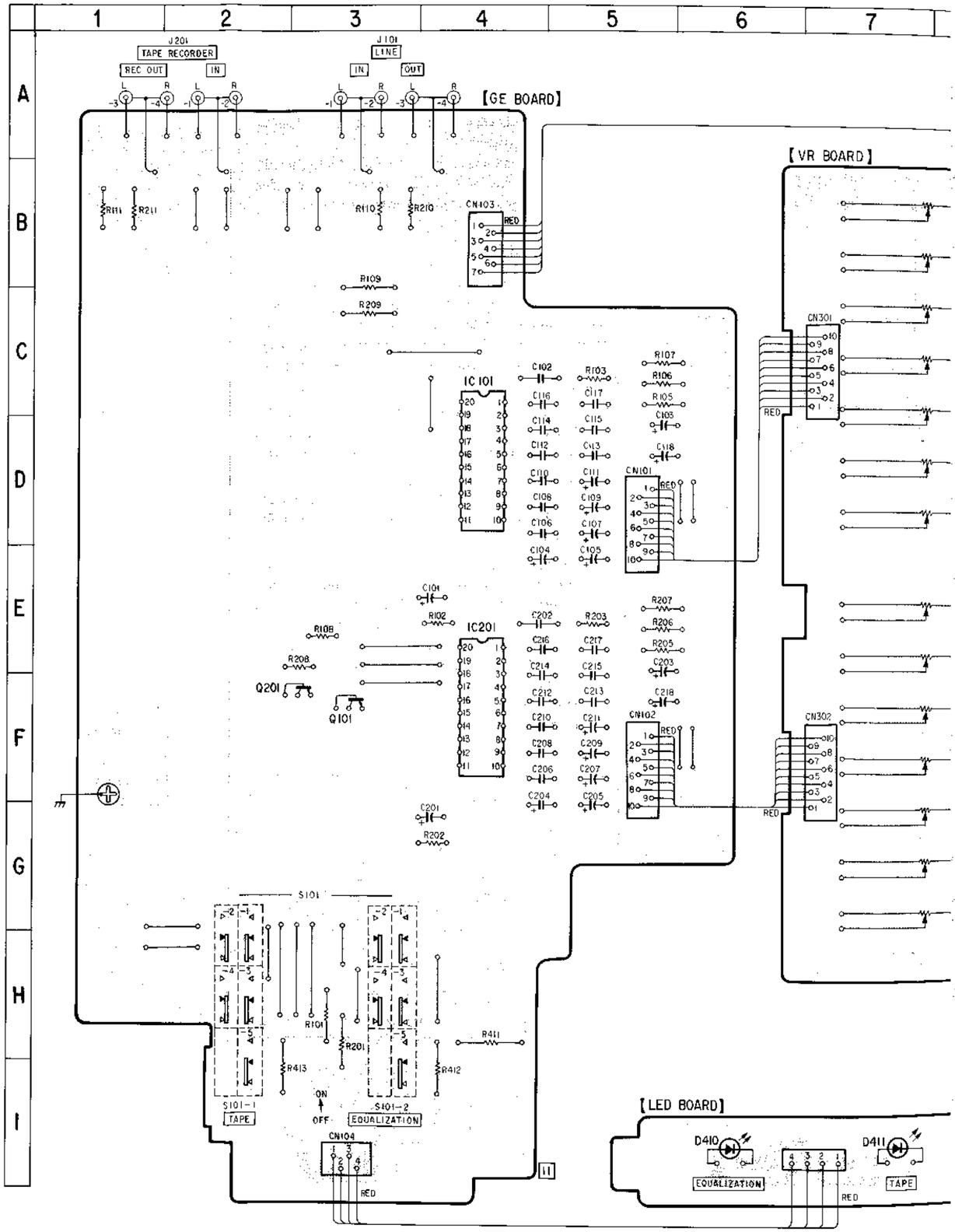
● SEMICONDUCTOR LOCATION

| Ref.No. | Location |
|---|---|
| IC101 | D-4 |
| IC201 | F-4 |
| IC301 | F-13 |
| IC302 | E-10 |
| IC303 | F-10 |
| IC304 | G-10 |
| IC305 | H-10 |
| Q101 | F-3 |
| Q201 | F-3 |
| Q401 | C-11 |
| Q402 | B-11 |
| Q403 | D-11 |
| Q404 | C-10 |
| D301 | E-11 |
| D302 | F-11 |
| D303 | E-9 |
| D304 | E-10 |
| D305 | E-11 |
| D306 | F-9 |
| D307 | F-9 |
| D308 | G-9 |
| D309 | G-9 |
| D310 | H-9 |
| D311 | G-9 |
| D312 | G-11 |
| D313 | G-11 |
| D314 | G-11 |
| D315 | F-11 |
| D316 | E-12 |
| D401 | B-12 |
| D402 | C-12 |
| D403 | C-12 |
| D404 | C-12 |
| D405 | D-12 |
| D406 | D-12 |
| D407 | D-12 |
| D408 | D-11 |
| D409 | D-10 |
| D410 | I-6 |
| D411 | I-7 |

**Note on Mounting Diagram:**

- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.

## 2-2. PRINTED WIRING BOARDS



| 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

【GE BOARD】

【VR BOARD】

【POWER BOARD】

【SW BOARD】

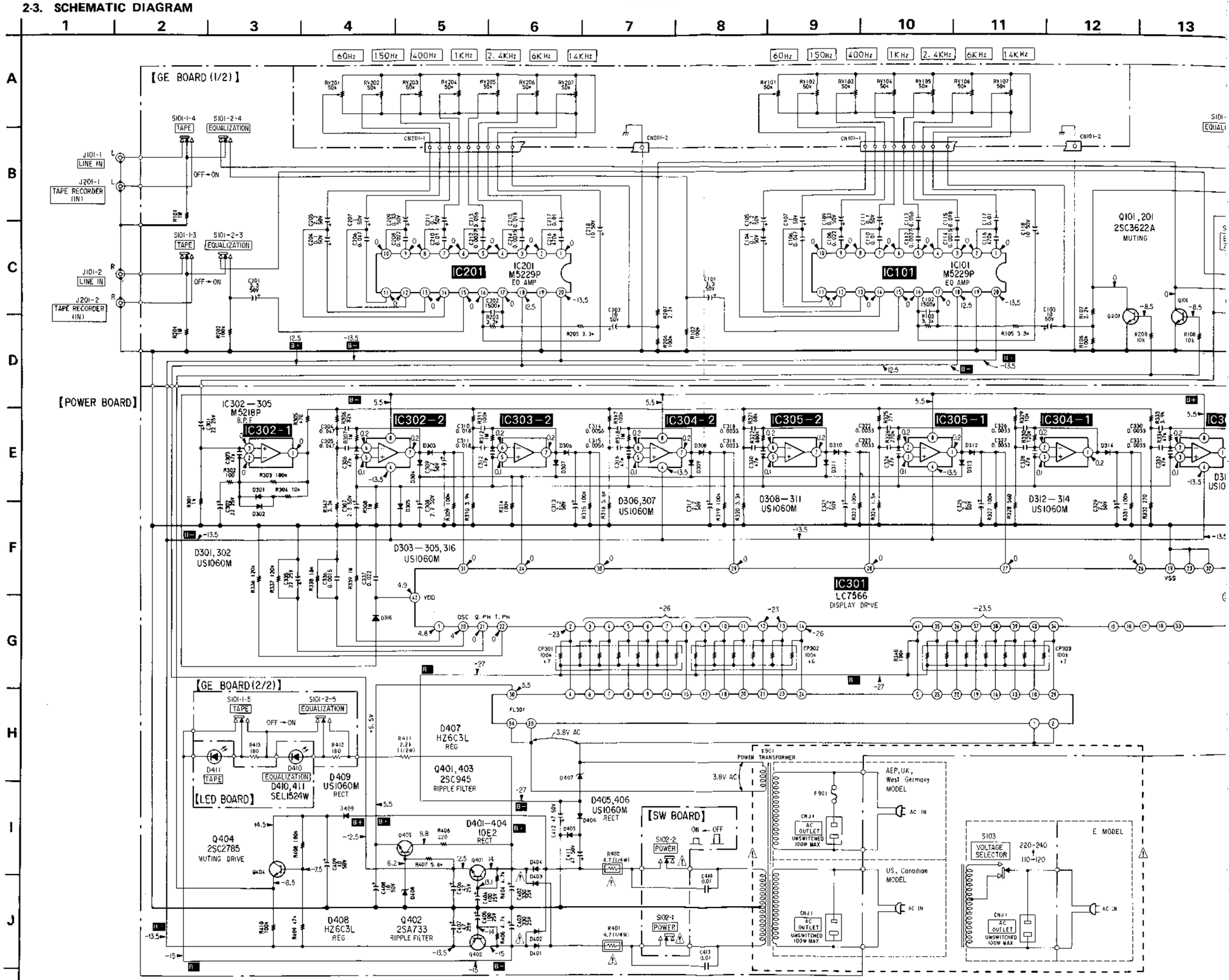
【LED BOARD】

AEP, UK, West Germany MODEL

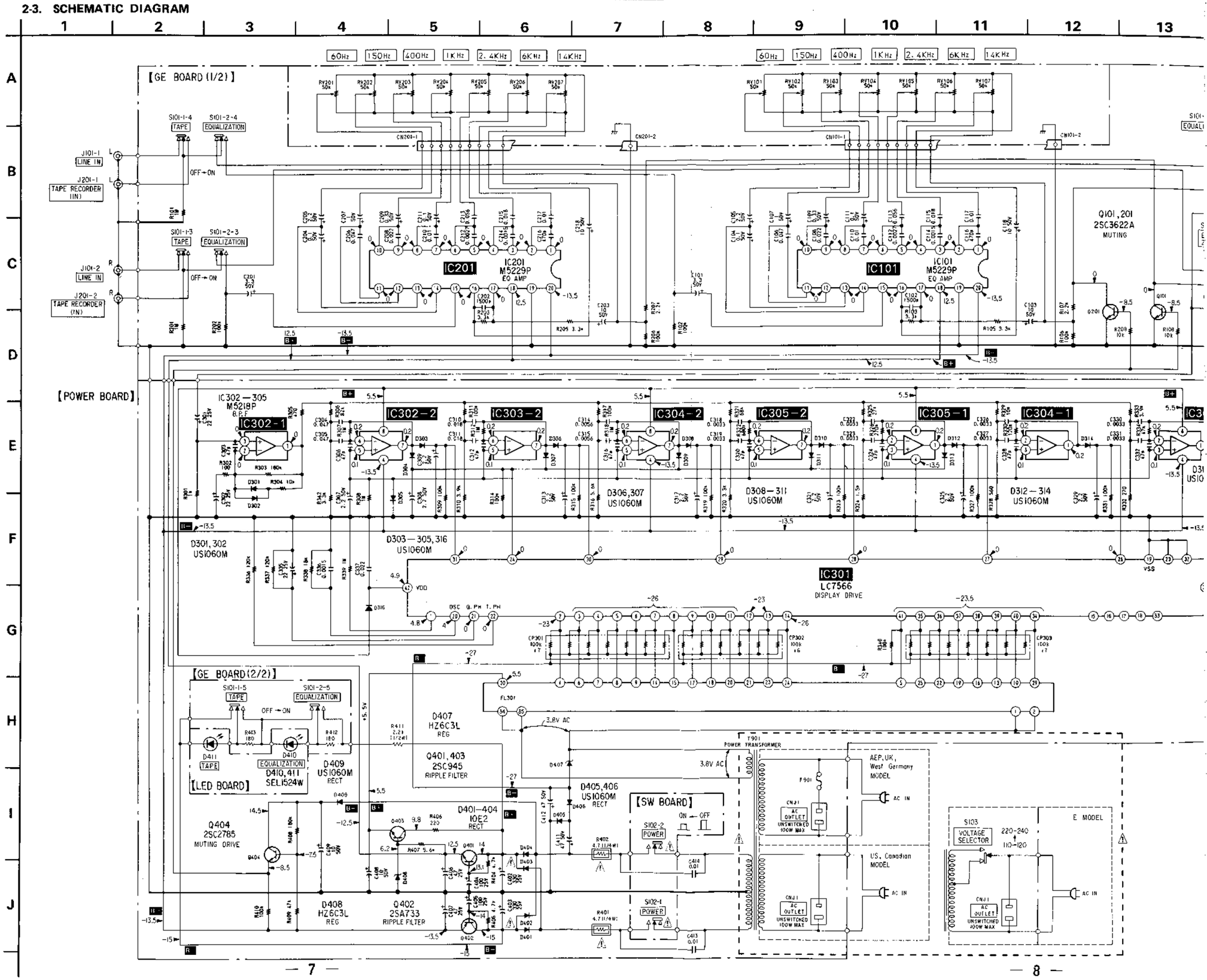
US, Canadian MODEL

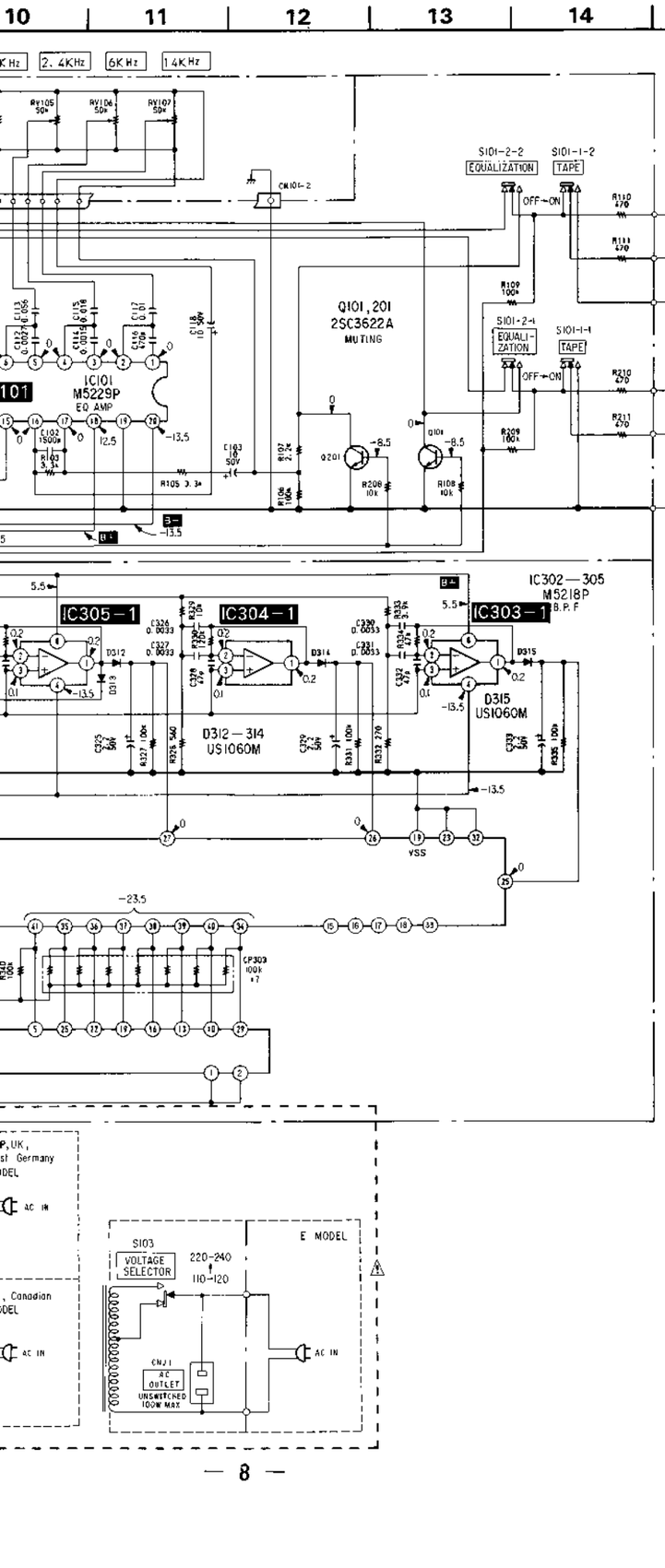
E MODEL

## 2-3. SCHEMATIC DIAGRAM



## 2-3. SCHEMATIC DIAGRAM








**Note on Schematic Diagram:**

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- ⊣ww⊢ : nonflammable resistor.

| Note: | Note: |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. |

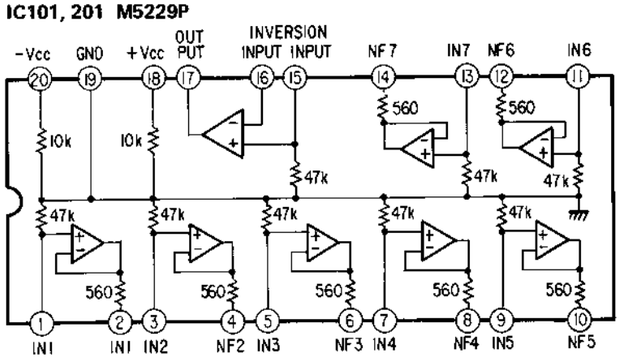
- **Switch**

| Ref. No. | Switch | Position |
|---|---|---|
| S101-1 | TAPE | OFF |
| S101-2 | EQUALIZATION | OFF |
| S102 | POWER | OFF |
| S103 (E MODEL ONLY) | 110-120V/220-240V | 110-120V |

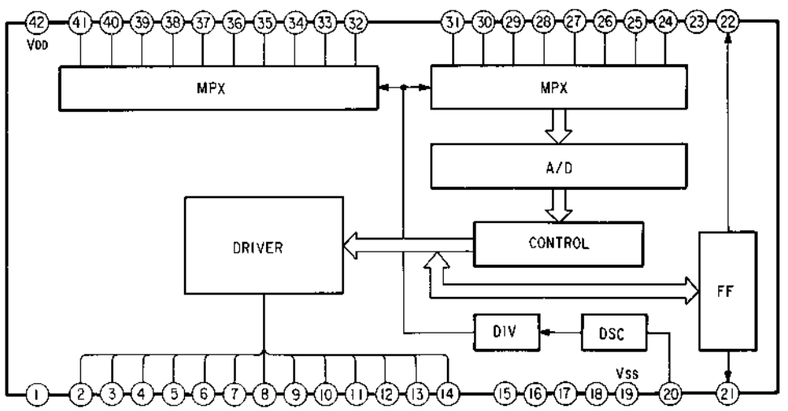
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (50 kΩ/V). Voltage variations may be noted due to normal production tolerances.

## 2-1. IC BLOCK DIAGRAMS

### IC101, 201 M5229P




### IC301 LC7566



# SECTION 3
# EXPLODED VIEWS

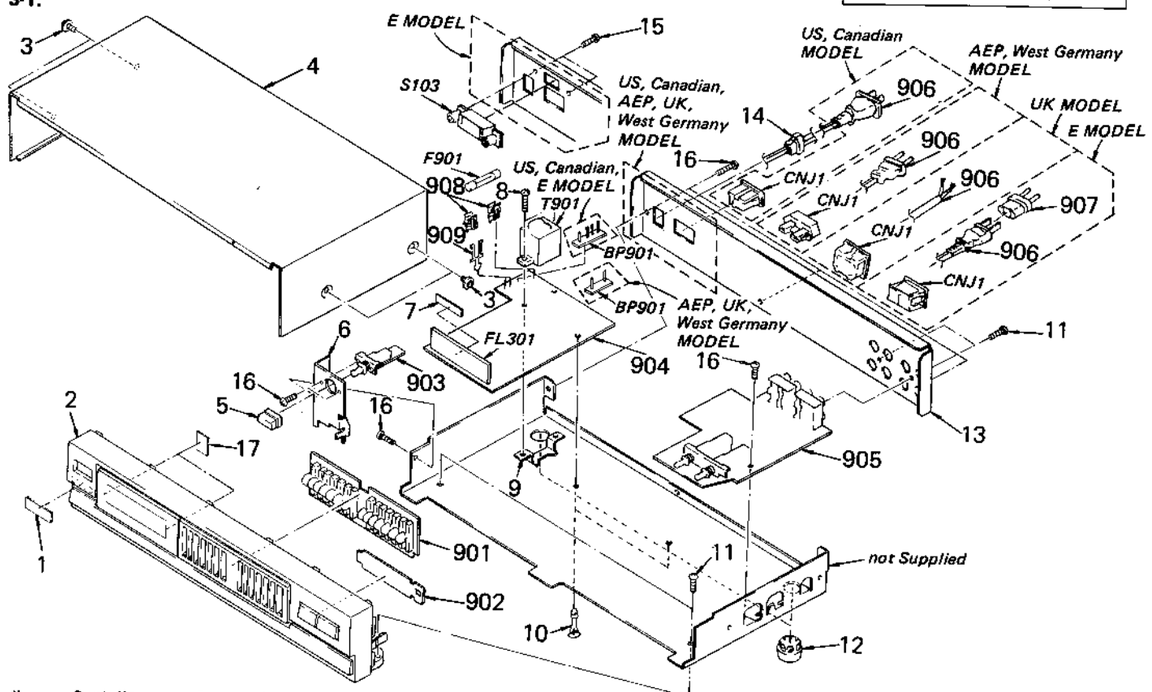
**NOTE:**

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ Cabinet's Color ↑ Parts' Color

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

**3-1.**




| No. | Part No. | Description | Remarks |
|---|---|---|---|
| 1 | 3-701-690-00 | (UK)...LABEL (MADE IN JAPAN) | |
| 2 | X-4905-423-1 | PANEL ASSY, FRONT | |
| 3 | 3-704-366-01 | SCREW (CASE) (M3X8) | |
| 4 | 4-917-050-01 | CASE | |
| 5 | 4-917-460-01 | KNOB, POWER | |
| 6 | *4-917-045-01 | BRACKET (PW) | |
| 7 | 9-911-839-XX | CUSHION (B) | |
| 8 | 7-682-550-04 | SCREW +BVTT 3X12 (S) | |
| 9 | *4-917-044-01 | BRACKET (PT) | |
| 10 | *3-704-198-31 | SUPPORT, PC | |
| 11 | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 N-S | |
| 12 | X-4864-303-0 | FOOT ASSY | |
| 13 | *4-910-819-01 | (US,Canadian)....PANEL, BACK | |
| | *4-910-819-11 | (UK).....PANEL, BACK | |
| | *4-910-819-21 | (AEP).....PANEL, BACK | |
| | *4-910-819-31 | (West Germany)...PANEL, BACK | |
| | *4-910-819-41 | (E).....PANEL, BACK | |
| 14 | *⚠3-703-244-00 | (AEP,UK,West Germany)..BUSHING(2104),CORD | |
| | ⚠3-703-571-11 | (US,Canadian,E)...BUSHING (S) (4516),CORD | |
| 15 | 7-685-534-19 | (E)...SCREW +BTP 2.6X8 TYPE 2 N-S | |
| 16 | 7-682-548-04 | SCREW +BVTT 3X8 (S) | |
| 17 | 9-911-846-XX | CUSHION | |
| 901 | *1-626-133-01 | PC BOARD, VR | |
| 902 | *1-626-132-11 | PC BOARD, LED | |
| 903 | *1-626-134-11 | PC BOARD, SW | |
| 904 | *A-4394-474-A | (US,Canadian)...MOUNTED PCB, POWER | |
| | *A-4394-475-A | (AEP,UK,West Germany) ...MOUNTED PCB, POWER | |
| | *A-4394-476-A | (E).....MOUNTED PCB, POWER | |
| 905 | *A-4388-742-A | MOUNTED PCB, GE | |
| 906 | ⚠1-551-188-XX | (E).....CORD, POWER | |
| | ⚠1-555-750-00 | (AEP,West Germany)...CORD, POWER | |
| | ⚠1-556-035-00 | (UK).....CORD, POWER | |
| | ⚠1-558-945-11 | (US,Canadian)...CORD, POWER (POLAR.SPT-1) | |
| 907 | ⚠1-526-565-00 | (E)....AC PLUG ADAPTOR | |
| 908 | 1-533-183-11 | (AEP,UK,West Germany)...HOLDER, FUSE | |
| 909 | 1-535-416-00 | (AEP,UK,West Germany)...TERMINAL | |
| BP901 | *1-535-139-00 | (AEP,UK,West Germany) ...BASE POST 22MM (10MM PITCH) 2P | |
| BP901 | *1-535-141-00 | (US,Canadian,E) ...BASE POST 22MM (10MM PITCH) 4P | |
| CNJ1 | ⚠1-526-751-11 | (UK).....OUTLET, AC | |
| CNJ1 | ⚠1-526-774-11 | (E).....OUTLET, AC | |
| CNJ1 | ⚠1-526-794-11 | (AEP,West Germany)...OUTLET, AC | |
| CNJ1 | ⚠1-526-882-00 | (US,Canadian)...OUTLET, AC | |
| F901 | ⚠1-532-078-00 | (AEP,UK,West Germany)...FUSE, TIME-LAG | |
| FL301 | 1-519-442-11 | INDICATOR TUBE, FLUORESCENT | |
| S103 | ⚠1-570-046-21 | (E)....SWITCH, VOLTAGE CHANGE (110-120V/220-240V) | |
| T901 | ⚠1-449-235-11 | (US,Canadian)...TRANSFORMER, POWER | |
| T901 | ⚠1-449-236-11 | (E).....TRANSFORMER, POWER | |
| T901 | ⚠1-449-237-11 | (AEP,UK,West Germany)..TRANSFORMER, POWER | |



# SECTION 4
# ELECTRICAL PARTS LIST

**NOTE:**

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The ⚠ mark ⚠ a Repla speci

Les c marqu sécur Ne l pièce

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| 901 | *1-626-133-11 | PC BOARD, VR | | | |
| 902 | *1-626-132-11 | PC BOARD, LED | | | |
| 903 | *1-626-134-11 | PC BOARD, SW | | | |
| 904 | *A-4394-474-A | (US,Canadian)...MOUNTED PCB, POWER | | | |
| | *A-4394-475-A | (AEP,UK,West Germany) ...MOUNTED PCB, POWER | | | |
| | *A-4394-476-A | (E).....MOUNTED PCB, POWER | | | |
| 905 | *A-4388-742-A | MOUNTED PCB, GE | | | |
| 906 | ⚠1-551-188-XX | (E).....CORD, POWER | | | |
| | ⚠1-555-750-00 | (AEP,West Germany)...CORD, POWER | | | |
| | ⚠1-556-035-00 | (UK).....CORD, POWER | | | |
| | ⚠1-558-945-11 | (US,Canadian)...CORD, POWER (POLAR.SPT-1) | | | |
| 907 | ⚠1-526-565-00 | (E)....AC PLUG ADAPTOR | | | |
| 908 | 1-533-183-11 | (AEP,UK,West Germany)...HOLDER, FUSE | | | |
| 909 | 1-535-416-00 | (AEP,UK,West Germany)...TERMINAL | | | |
| BP901 | *1-535-139-00 | (AEP,UK,West Germany)...BASE POST 22MM (10MM PITCH) 2P | | | |
| BP901 | *1-535-141-00 | (US,Canadian,E)...BASE POST 22MM (10MM PITCH) 4P | | | |
| C101 | 1-123-382-00 | ELECT | 3.3MF | 20% | 50V |
| C102 | 1-161-374-11 | CERAMIC | 0.0015MF | 30% | 16V |
| C103 | 1-123-875-11 | ELECT | 10MF | 20% | 50V |
| C104 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C105 | 1-124-257-00 | ELECT | 2.2MF | 20% | 50V |
| C106 | 1-136-161-00 | FILM | 0.047MF | 5% | 50V |
| C107 | 1-123-611-00 | ELECT | 1MF | 20% | 50V |
| C108 | 1-136-157-00 | FILM | 0.022MF | 5% | 50V |
| C109 | 1-124-252-00 | ELECT | 0.33MF | 20% | 50V |
| C110 | 1-136-153-00 | FILM | 0.01MF | 5% | 50V |
| C111 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C112 | 1-130-476-00 | MYLAR | 0.0027MF | 5% | 50V |
| C113 | 1-136-162-00 | FILM | 0.056MF | 5% | 50V |
| C114 | 1-130-473-00 | MYLAR | 0.0015MF | 5% | 50V |
| C115 | 1-136-156-00 | FILM | 0.018MF | 5% | 50V |
| C116 | 1-102-114-00 | CERAMIC | 470PF | 10% | 50V |
| C117 | 1-136-153-00 | FILM | 0.01MF | 5% | 50V |
| C118 | 1-123-875-11 | ELECT | 10MF | 20% | 50V |
| C201 | 1-123-382-00 | ELECT | 3.3MF | 20% | 50V |
| C202 | 1-161-374-11 | CERAMIC | 0.0015MF | 30% | 16V |
| C203 | 1-123-875-11 | ELECT | 10MF | 20% | 50V |
| C204 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C205 | 1-124-257-00 | ELECT | 2.2MF | 20% | 50V |
| C206 | 1-136-161-00 | FILM | 0.047MF | 5% | 50V |
| C207 | 1-123-611-00 | ELECT | 1MF | 20% | 50V |
| C208 | 1-136-157-00 | FILM | 0.022MF | 5% | 50V |
| C209 | 1-124-252-00 | ELECT | 0.33MF | 20% | 50V |
| C210 | 1-136-153-00 | FILM | 0.01MF | 5% | 50V |
| C211 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C212 | 1-130-476-00 | MYLAR | 0.0027MF | 5% | 50V |
| C213 | 1-136-162-00 | FILM | 0.056MF | 5% | 50V |
| C214 | 1-130-473-00 | MYLAR | 0.0015MF | 5% | 50V |
| C215 | 1-136-156-00 | FILM | 0.018MF | 5% | 50V |
| C216 | 1-102-114-00 | CERAMIC | 470PF | 10% | 50V |
| C217 | 1-136-153-00 | FILM | 0.01MF | 5% | 50V |
| C218 | 1-123-875-11 | ELECT | 10MF | 20% | 50V |
| C301 | 1-124-908-11 | ELECT | 100MF | 20% | 16V |
| C302 | 1-124-908-11 | ELECT | 100MF | 20% | 16V |
| C303 | 1-162-215-31 | CERAMIC | 0.0022MF | 10% | 50V |
| C304 | 1-136-161-00 | FILM | 0.047MF | 5% | 50V |
| C305 | 1-136-161-00 | FILM | 0.047MF | 5% | 50V |
| C306 | 1-162-215-31 | CERAMIC | 0.0022MF | 10% | 50V |
| C307 | 1-124-925-11 | ELECT | 4.7MF | 20% | 50V |
| C308 | 1-124-925-11 | ELECT | 4.7MF | 20% | 50V |
| C309 | 1-124-925-11 | ELECT | 4.7MF | 20% | 50V |
| C310 | 1-136-156-00 | FILM | 0.018MF | 5% | 50V |
| C311 | 1-136-156-00 | FILM | 0.018MF | 5% | 50V |
| C312 | 1-162-215-31 | CERAMIC | 0.0022MF | 10% | 50V |
| C313 | 1-124-925-11 | ELECT | 4.7MF | 20% | 50V |
| C314 | 1-130-480-00 | MYLAR | 0.0047MF | 5% | 50V |
| C315 | 1-130-480-00 | MYLAR | 0.0047MF | 5% | 50V |
| C316 | 1-162-215-31 | CERAMIC | 0.0022MF | 10% | 50V |
| C317 | 1-124-925-11 | ELECT | 4.7MF | 20% | 50V |
| C318 | 1-102-123-00 | CERAMIC | 0.022MF | 10% | 50V |
| C319 | 1-102-123-00 | CERAMIC | 0.022MF | 10% | 50V |
| C320 | 1-162-215-31 | CERAMIC | 0.0022MF | 10% | 50V |
| C321 | 1-124-925-11 | ELECT | 4.7MF | 20% | 50V |
| C322 | 1-102-123-00 | CERAMIC | 0.022MF | 10% | 50V |
| C323 | 1-102-123-00 | CERAMIC | 0.022MF | 10% | 50V |
| C324 | 1-162-215-31 | CERAMIC | 0.0022MF | 10% | 50V |
| C325 | 1-124-925-11 | ELECT | 4.7MF | 20% | 50V |
| C326 | 1-102-123-00 | CERAMIC | 0.022MF | 10% | 50V |
| C327 | 1-102-123-00 | CERAMIC | 0.022MF | 10% | 50V |
| C328 | 1-162-215-31 | CERAMIC | 0.0022MF | 10% | 50V |
| C329 | 1-124-925-11 | ELECT | 4.7MF | 20% | 50V |
| C330 | 1-102-123-00 | CERAMIC | 0.022MF | 10% | 50V |
| C331 | 1-102-123-00 | CERAMIC | 0.022MF | 10% | 50V |
| C332 | 1-162-215-31 | CERAMIC | 0.0022MF | 10% | 50V |
| C333 | 1-124-925-11 | ELECT | 4.7MF | 20% | 50V |

# SECTION 4
# ELECTRICAL PARTS LIST

placements in the parts
n the parts specified in
onents used on the set.
ot stocked since they
routine service. Some
d when ordering these

same circuits in a set
machine, only typical
ated and capacitors and
rcuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

| scription | | | |
|---|---|---|---|
| BOARD, VR | | | |
| BOARD, LED | | | |
| BOARD, SW | | | |
| | | | |
| ,Canadian)...MOUNTED PCB, POWER | | | |
| P ,UK ,West Germany) | | | |
| ...MOUNTED PCB, POWER | | | |
| .....MOUNTED PCB, POWER | | | |
| | | | |
| NTED PCB, GE | | | |
| | | | |
| .....CORD, POWER | | | |
| P ,West Germany)...CORD, POWER | | | |
| .....CORD, POWER | | | |
| ,Canadian)...CORD, POWER (POLAR.SPT-1) | | | |
| | | | |
| ....AC PLUG ADAPTOR | | | |
| P ,UK ,West Germany)...HOLDER, FUSE | | | |
| P ,UK ,West Germany)...TERMINAL | | | |
| | | | |
| P ,UK ,West Germany)...BASE POST 22MM (10MM PITCH) 2P | | | |
| ,Canadian ,E)...BASE POST 22MM (10MM PITCH) 4P | | | |
| CT | 3.3MF | 20% | 50V |
| AMIC | 0.0015MF | 30% | 16V |
| CT | 10MF | 20% | 50V |
| | | | |
| CT | 0.1MF | 20% | 50V |
| CT | 2.2MF | 20% | 50V |
| M | 0.047MF | 5% | 50V |
| | | | |
| CT | 1MF | 20% | 50V |
| M | 0.022MF | 5% | 50V |
| CT | 0.33MF | 20% | 50V |
| | | | |
| M | 0.01MF | 5% | 50V |
| CT | 0.1MF | 20% | 50V |
| AR | 0.0027MF | 5% | 50V |
| | | | |
| M | 0.056MF | 5% | 50V |
| AR | 0.0015MF | 5% | 50V |
| M | 0.018MF | 5% | 50V |
| | | | |
| AMIC | 470PF | 10% | 50V |
| M | 0.01MF | 5% | 50V |
| CT | 10MF | 20% | 50V |
| | | | |
| CT | 3.3MF | 20% | 50V |
| AMIC | 0.0015MF | 30% | 16V |
| CT | 10MF | 20% | 50V |
| | | | |
| CT | 0.1MF | 20% | 50V |
| CT | 2.2MF | 20% | 50V |
| M | 0.047MF | 5% | 50V |

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| C207 | 1-123-611-00 | ELECT | 1MF | 20% | 50V |
| C208 | 1-136-157-00 | FILM | 0.022MF | 5% | 50V |
| C209 | 1-124-252-00 | ELECT | 0.33MF | 20% | 50V |
| C210 | 1-136-153-00 | FILM | 0.01MF | 5% | 50V |
| C211 | 1-124-463-00 | ELECT | 0.1MF | 20% | 50V |
| C212 | 1-130-476-00 | MYLAR | 0.0027MF | 5% | 50V |
| C213 | 1-136-162-00 | FILM | 0.056MF | 5% | 50V |
| C214 | 1-130-473-00 | MYLAR | 0.0015MF | 5% | 50V |
| C215 | 1-136-156-00 | FILM | 0.018MF | 5% | 50V |
| C216 | 1-102-114-00 | CERAMIC | 470PF | 10% | 50V |
| C217 | 1-136-153-00 | FILM | 0.01MF | 5% | 50V |
| C218 | 1-123-875-11 | ELECT | 10MF | 20% | 50V |
| C301 | 1-124-908-11 | ELECT | 22MF | 20% | 25V |
| C302 | 1-124-908-11 | ELECT | 22MF | 20% | 25V |
| C303 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V |
| C304 | 1-136-161-00 | FILM | 0.047MF | 5% | 50V |
| C305 | 1-136-161-00 | FILM | 0.047MF | 5% | 50V |
| C306 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V |
| C307 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V |
| C308 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V |
| C309 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V |
| C310 | 1-136-156-00 | FILM | 0.018MF | 5% | 50V |
| C311 | 1-136-156-00 | FILM | 0.018MF | 5% | 50V |
| C312 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V |
| C313 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V |
| C314 | 1-130-480-00 | MYLAR | 0.0056MF | 5% | 50V |
| C315 | 1-130-480-00 | MYLAR | 0.0056MF | 5% | 50V |
| C316 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V |
| C317 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V |
| C318 | 1-102-123-00 | CERAMIC | 0.0033MF | 10% | 50V |
| C319 | 1-102-123-00 | CERAMIC | 0.0033MF | 10% | 50V |
| C320 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V |
| C321 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V |
| C322 | 1-102-123-00 | CERAMIC | 0.0033MF | 10% | 50V |
| C323 | 1-102-123-00 | CERAMIC | 0.0033MF | 10% | 50V |
| C324 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V |
| C325 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V |
| C326 | 1-102-123-00 | CERAMIC | 0.0033MF | 10% | 50V |
| C327 | 1-102-123-00 | CERAMIC | 0.0033MF | 10% | 50V |
| C328 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V |
| C329 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V |
| C330 | 1-102-123-00 | CERAMIC | 0.0033MF | 10% | 50V |
| C331 | 1-102-123-00 | CERAMIC | 0.0033MF | 10% | 50V |
| C332 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V |
| C333 | 1-124-925-11 | ELECT | 2.2MF | 20% | 50V |



| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| C335 | 1-124-908-11 | ELECT | 22MF | 20% | 25V |
| C336 | 1-161-374-11 | CERAMIC | 0.0015MF | 30% | 16V |
| C337 | 1-101-005-00 | CERAMIC | 0.022MF | | 50V |
| C402 | 1-124-479-11 | ELECT | 330MF | 20% | 25V |
| C403 | 1-124-479-11 | ELECT | 330MF | 20% | 25V |
| C404 | 1-124-478-11 | ELECT | 100MF | 20% | 25V |
| C405 | 1-124-478-11 | ELECT | 100MF | 20% | 25V |
| C406 | 1-124-477-11 | ELECT | 47MF | 20% | 25V |
| C407 | 1-124-477-11 | ELECT | 47MF | 20% | 25V |
| C408 | 1-123-875-11 | ELECT | 10MF | 20% | 50V |
| C409 | 1-123-875-11 | ELECT | 10MF | 20% | 50V |
| C411 | 1-124-910-11 | ELECT | 47MF | 20% | 50V |
| C412 | 1-124-910-11 | ELECT | 47MF | 20% | 50V |
| C413 | 1-161-379-00 | CERAMIC | 0.01MF | 30% | 25V |
| C414 | 1-161-379-00 | CERAMIC | 0.01MF | 30% | 25V |
| CN101 | *1-565-363-11 | HOLDER, CABLE (PC BAORD) 10P | | | |
| CN102 | *1-565-363-11 | HOLDER, CABLE (PC BAORD) 10P | | | |
| CN103 | *1-565-361-11 | HOLDER, CABLE (PC BAORD) 7P | | | |
| CN104 | *1-566-840-11 | HOLDER, CABLE (PC BAORD) 4P | | | |
| CN301 | *1-565-363-11 | HOLDER, CABLE (PC BAORD) 10P | | | |
| CN302 | *1-565-363-11 | HOLDER, CABLE (PC BAORD) 10P | | | |
| CN401 | *1-565-361-11 | HOLDER, CABLE (PC BAORD) 7P | | | |
| CN402 | *1-566-840-11 | HOLDER, CABLE (PC BAORD) 4P | | | |
| CN403 | *1-566-840-11 | HOLDER, CABLE (PC BAORD) 4P | | | |
| CNJ1 | ⚠1-526-751-11 | (UK).....OUTLET, AC | | | |
| CNJ1 | ⚠1-526-774-11 | (E).....OUTLET, AC | | | |
| CNJ1 | ⚠1-526-794-11 | (AEP ,West Germany)...OUTLET, AC | | | |
| CNJ1 | ⚠1-526-882-00 | (US ,Canadian).....OUTLET, AC | | | |
| CP301 | 1-233-081-11 | COMPOSITION CIRCUIT BLOCK | | | |
| CP302 | 1-233-081-11 | COMPOSITION CIRCUIT BLOCK | | | |
| CP303 | 1-233-081-11 | COMPOSITION CIRCUIT BLOCK | | | |
| D301 | 8-719-000-26 | DIODE 1S1060M | | | |
| D302 | 8-719-000-26 | DIODE 1S1060M | | | |
| D303 | 8-719-000-26 | DIODE 1S1060M | | | |
| D304 | 8-719-000-26 | DIODE 1S1060M | | | |
| D305 | 8-719-000-26 | DIODE 1S1060M | | | |
| D306 | 8-719-000-26 | DIODE 1S1060M | | | |
| D307 | 8-719-000-26 | DIODE 1S1060M | | | |
| D308 | 8-719-000-26 | DIODE 1S1060M | | | |
| D309 | 8-719-000-26 | DIODE 1S1060M | | | |
| D310 | 8-719-000-26 | DIODE 1S1060M | | | |
| D311 | 8-719-000-26 | DIODE 1S1060M | | | |
| D312 | 8-719-000-26 | DIODE 1S1060M | | | |
| D313 | 8-719-000-26 | DIODE 1S1060M | | | |
| D314 | 8-719-000-26 | DIODE 1S1060M | | | |
| D315 | 8-719-000-26 | DIODE 1S1060M | | | |

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| D316 | 8-719-000-26 | DIODE 1S1060M | | | |
| D401 | ⚠8-719-200-77 | DIODE 10E2N | | | |
| D402 | ⚠8-719-200-77 | DIODE 10E2N | | | |
| D403 | ⚠8-719-200-77 | DIODE 10E2N | | | |
| D404 | ⚠8-719-200-77 | DIODE 10E2N | | | |
| D405 | 8-719-000-26 | DIODE 1S1060M | | | |
| D406 | 8-719-000-26 | DIODE 1S1060M | | | |
| D407 | 8-719-000-63 | DIODE UZL-6M3 | | | |
| D408 | 8-719-000-63 | DIODE UZL-6M3 | | | |
| D409 | 8-719-000-26 | DIODE 1S1060M | | | |
| D410 | 8-719-310-75 | DIODE SEL1524W-C | | | |
| D411 | 8-719-310-75 | DIODE SEL1524W-C | | | |
| F901 | ⚠1-532-078-00 | (AEP ,UK ,West Germany)...FUSE, TIME-LAG | | | |
| FL301 | 1-519-442-11 | INDICATOR TUBE, FLUORESCENT | | | |
| IC101 | 8-759-603-14 | IC M5229P | | | |
| IC201 | 8-759-603-14 | IC M5229P | | | |
| IC301 | 8-759-820-07 | IC LC7566 | | | |
| IC302 | 8-759-601-02 | IC M5218P | | | |
| IC303 | 8-759-601-02 | IC M5218P | | | |
| IC304 | 8-759-601-02 | IC M5218P | | | |
| IC305 | 8-759-601-02 | IC M5218P | | | |
| J101 | 1-565-258-21 | JACK, PIN 4P (LINE IN/OUT) | | | |
| J201 | 1-565-258-21 | JACK, PIN 4P (TAPE RECORDER IN/REC OUT) | | | |
| Q101 | 8-729-107-98 | TRANSISTOR 2SC3622A-L | | | |
| Q201 | 8-729-107-98 | TRANSISTOR 2SC3622A-L | | | |
| Q401 | 8-729-194-57 | TRANSISTOR 2SC945-P | | | |
| Q402 | 8-729-173-37 | TRANSISTOR 2SA733-P | | | |
| Q403 | 8-729-194-57 | TRANSISTOR 2SC945-P | | | |
| Q404 | 8-729-600-27 | TRANSISTOR 2SC634SP | | | |
| R101 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R102 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R103 | 1-249-423-11 | CARBON | 3.3K | 5% | 1/4W |
| R105 | 1-249-423-11 | CARBON | 3.3K | 5% | 1/4W |
| R106 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R107 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R108 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R109 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R110 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R111 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R201 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R202 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R203 | 1-249-423-11 | CARBON | 3.3K | 5% | 1/4W |
| R205 | 1-249-423-11 | CARBON | 3.3K | 5% | 1/4W |
| R206 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |

**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

**Note:**
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| R207 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R208 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R209 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R210 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R211 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R301 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R302 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W |
| R303 | 1-247-885-00 | CARBON | 180K | 5% | 1/4W |
| R304 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R305 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R306 | 1-249-440-11 | CARBON | 82K | 5% | 1/4W |
| R307 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R308 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R309 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R310 | 1-249-424-11 | CARBON | 3.9K | 5% | 1/4W |
| R311 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R312 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R314 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R315 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R316 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W |
| R317 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R318 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R319 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R320 | 1-249-423-11 | CARBON | 3.3K | 5% | 1/4W |
| R321 | 1-249-439-11 | CARBON | 68K | 5% | 1/4W |
| R322 | 1-215-489-00 | CARBON | 680K | 5% | 1/4W |
| R323 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R324 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W |
| R325 | 1-249-434-11 | CARBON | 27K | 5% | 1/4W |
| R326 | 1-247-889-00 | CARBON | 270K | 5% | 1/4W |
| R327 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R328 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W |
| R329 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R330 | 1-247-881-00 | CARBON | 120K | 5% | 1/4W |
| R331 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R332 | 1-249-410-11 | CARBON | 270 | 5% | 1/4W |
| R333 | 1-249-424-11 | CARBON | 3.9K | 5% | 1/4W |
| R334 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R335 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R336 | 1-247-881-00 | CARBON | 120K | 5% | 1/4W |
| R337 | 1-247-881-00 | CARBON | 120K | 5% | 1/4W |
| R338 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W |
| R339 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R340 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R342 | 1-249-423-11 | CARBON | 3.3K | 5% | 1/4W |

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| R401 | ⚠1-249-455-11 | CARBON | 4.7 | 5% | 1/4W F |
| R402 | ⚠1-249-455-11 | CARBON | 4.7 | 5% | 1/4W F |
| R404 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R405 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R406 | 1-247-704-11 | CARBON | 220 | 5% | 1/4W |
| R407 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W |
| R408 | 1-247-885-00 | CARBON | 180K | 5% | 1/4W |
| R409 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R410 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R411 | 1-247-756-11 | CARBON | 2.2K | 5% | 1/2W |
| R412 | 1-247-703-11 | CARBON | 180 | 5% | 1/4W |
| R413 | 1-247-703-11 | CARBON | 180 | 5% | 1/4W |
| RV101 | 1-238-113-11 | RES, VAR, SLIDE 50K (60Hz) | | | |
| RV102 | 1-238-113-11 | RES, VAR, SLIDE 50K (150Hz) | | | |
| RV103 | 1-238-113-11 | RES, VAR, SLIDE 50K (400Hz) | | | |
| RV104 | 1-238-113-11 | RES, VAR, SLIDE 50K (1kHz) | | | |
| RV105 | 1-238-113-11 | RES, VAR, SLIDE 50K (2.4kHz) | | | |
| RV106 | 1-238-113-11 | RES, VAR, SLIDE 50K (6kHz) | | | |
| RV107 | 1-238-113-11 | RES, VAR, SLIDE 50K (14kHz) | | | |
| RV201 | 1-238-113-11 | RES, VAR, SLIDE 50K (60Hz) | | | |
| RV202 | 1-238-113-11 | RES, VAR, SLIDE 50K (150Hz) | | | |
| RV203 | 1-238-113-11 | RES, VAR, SLIDE 50K (400Hz) | | | |
| RV204 | 1-238-113-11 | RES, VAR, SLIDE 50K (1kHz) | | | |
| RV205 | 1-238-113-11 | RES, VAR, SLIDE 50K (2.4kHz) | | | |
| RV206 | 1-238-113-11 | RES, VAR, SLIDE 50K (6kHz) | | | |
| RV207 | 1-238-113-11 | RES, VAR, SLIDE 50K (14kHz) | | | |
| S101 | 1-571-477-11 | SWITCH, PUSH (2 KEY)(TAPE/EQUALIZATION) | | | |
| S102 | ⚠1-570-272-11 | SWITCH, PUSH (1 KEY)(POWER) | | | |
| S103 | ⚠1-570-046-21 | (E)...SWITCH, VOLTAGE CHANGE (110-120V/220-240V) | | | |
| T901 | ⚠1-449-235-11 | (US,Canadian)...TRANSFORMER, POWER | | | |
| T901 | ⚠1-449-236-11 | (E).....TRANSFORMER, POWER | | | |
| T901 | ⚠1-449-237-11 | (AEP,UK,West Germany) ...TRANSFORMER, POWER | | | |

ACCESSORY & PACKING MATERIAL

| | |
|---|---|
| 1-558-787-21 | CORD, CONNECTION |
| 3-703-390-01 | (US)...INSTRUCTION |
| 3-769-966-11 | (AEP,UK,West Germany,E) ...MANUAL, INSTRUCTION |
| 3-769-966-21 | (US,Canadian)...MANUAL, INSTRUCTION |
| 3-769-966-31 | (Canadian).....MANUAL, INSTRUCTION |
| *3-704-339-01 | SHEET (STANDARD), PROTECTION |
| *4-905-461-21 | INDIVIDUAL CARTON |
| *4-910-820-01 | CUSHION |

**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

**Note:**
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

# Troubleshooting Guide

Before going through the check list below, first refer back to the connections and operating procedures.
Should any problem persist after you have made these checks, consult your nearest Sony service facility.

| Symptom | Cause |
|---|---|
| No audio even when the POWER switch is turned on. | • The power cord is disconnected.<br>• The connecting cord is disconnected.<br>• The TAPE switch setting is not correct. |
| No equalization | • The EQUALIZATION switch is set to OFF (the indicator is off).<br>• Connections are not made properly. |
| The program source connected to the amplifier cannot be recorded. | • The TAPE switch is set to ON. |

9-953-155-11

Sony Corporation
Audio Group

English
88C0296-1
Printed in Japan

Published by A/V Engineering Service Dept.