

# TA-H3800

## SERVICE MANUAL

*AEP Model*  
*UK Model*



TA-H3800 is the amplifier section in MHC-3800.

COMPACT  
disc  
DIGITAL AUDIO

### SPECIFICATIONS

#### General

##### Power requirements

European model:  
220 V — 230 V, 50/60 Hz  
U.K. model:  
240 V, 50 Hz

##### Power consumption

170 watts

##### Dimensions

Approx. 225 x 390 x 280 mm  
(w/h/d)  
(8<sup>7</sup>/<sub>8</sub> x 15<sup>3</sup>/<sub>8</sub> x 11<sup>1</sup>/<sub>8</sub> inches)  
incl. projecting parts and  
controls

##### Mass

Approx. 11.7 kg (25 lb 13 oz)

##### Supplied accessories

Remote Commander (1)  
(RM-S380)  
Sony SUM-3 (NS)  
batteries (2)  
AM loop antenna (1)  
FM antenna (1)  
AC power cord (2)  
Flat cord (1)  
Speaker cord (except for  
Europe and U.K.) (2)

##### Continuous RMS power output

50 + 50 watts  
(6 ohms at 1 kHz, DIN)  
65 + 65 watts  
(6 ohms at 1 kHz, 5% THD)

##### Music power output

130 + 130 watts  
(6 ohms at 1 kHz, 10% THD)

##### Inputs

MIX MIC (minijack)  
sensitivity: 1 mV,  
impedance: 600 ohms

##### Outputs

HEADPHONES  
(stereo minijack)  
accepts headphones of  
8 ohms or more.  
SPEAKER  
accepts speakers of 6 to  
16 ohms.  
SURROUND SPEAKER  
accepts speakers of 16  
ohms.

Design and specifications subject to change  
without notice.

#### Note

This appliance conforms with EEC Directive  
87/308/EEC regarding interference  
suppression.

POWER AMPLIFIER  
**SONY®**

## 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 microamperes). 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 2 V AC range are suitable. (See Fig. A)

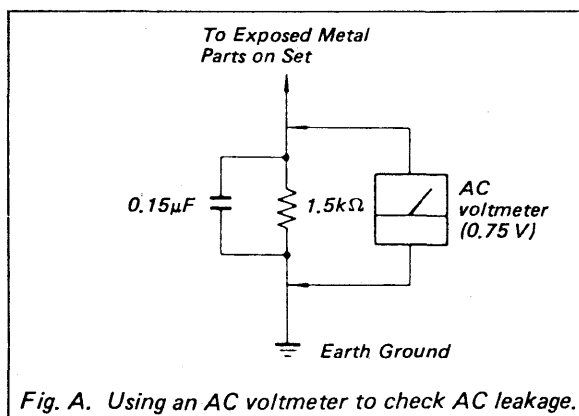


Fig. A. Using an AC voltmeter to check AC leakage.

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### 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.

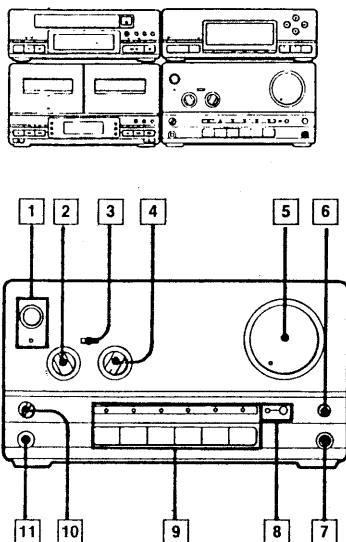
## SECTION 1 GENERAL

### Parts Identification

Refer to the pages indicated in ( ) for use of the buttons.

This section extracted from instruction manual.

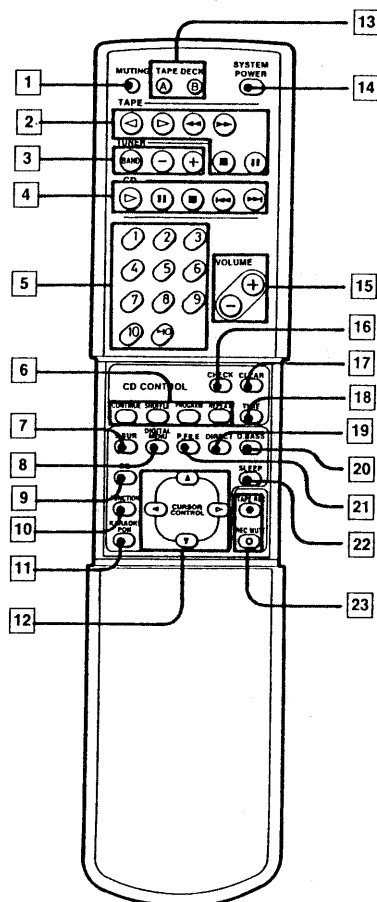
**F**



### Amplifier Section **F**

- 1 SYSTEM POWER button and ON/STANDBY indicator  
The indicator remains lit as long as the AC power cord is connected to the wall outlet.
- 2 FREQUENCY control (32)
- 3 DYNAMIC BASS SYSTEM button (32)
- 4 LEVEL (Bass level) control (32)
- 5 VOLUME control (32)
- 6 Remote control sensor
- 7 HEADPHONES jack (stereo minijack)
- 8 MUTING button and indicator (32)
- 9 FUNCTION selector and indicators
- 10 MIC (microphone) LEVEL control
- 11 MIX MIC (microphone) input jack (minijack).

**G**

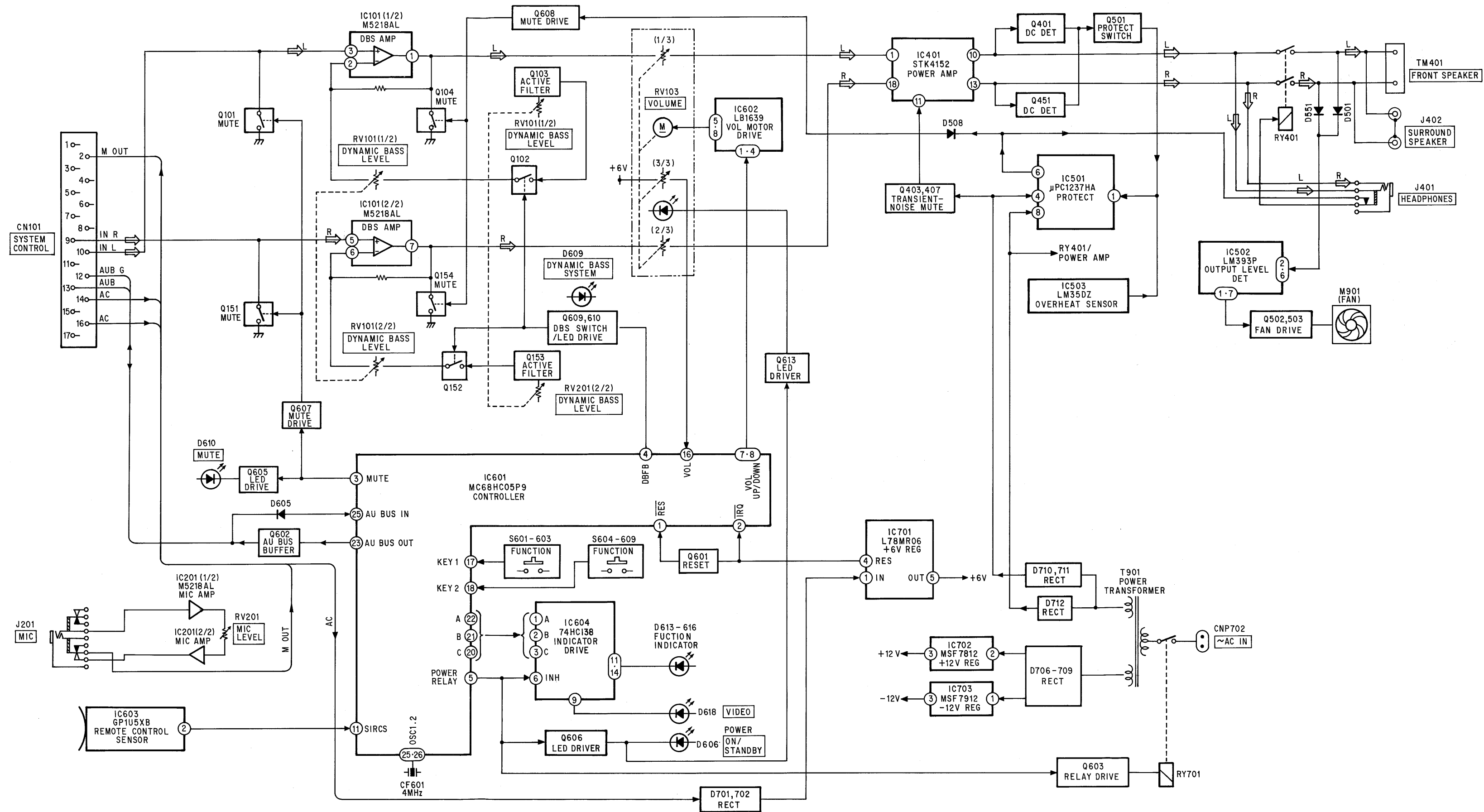


### Remote Commander **G**

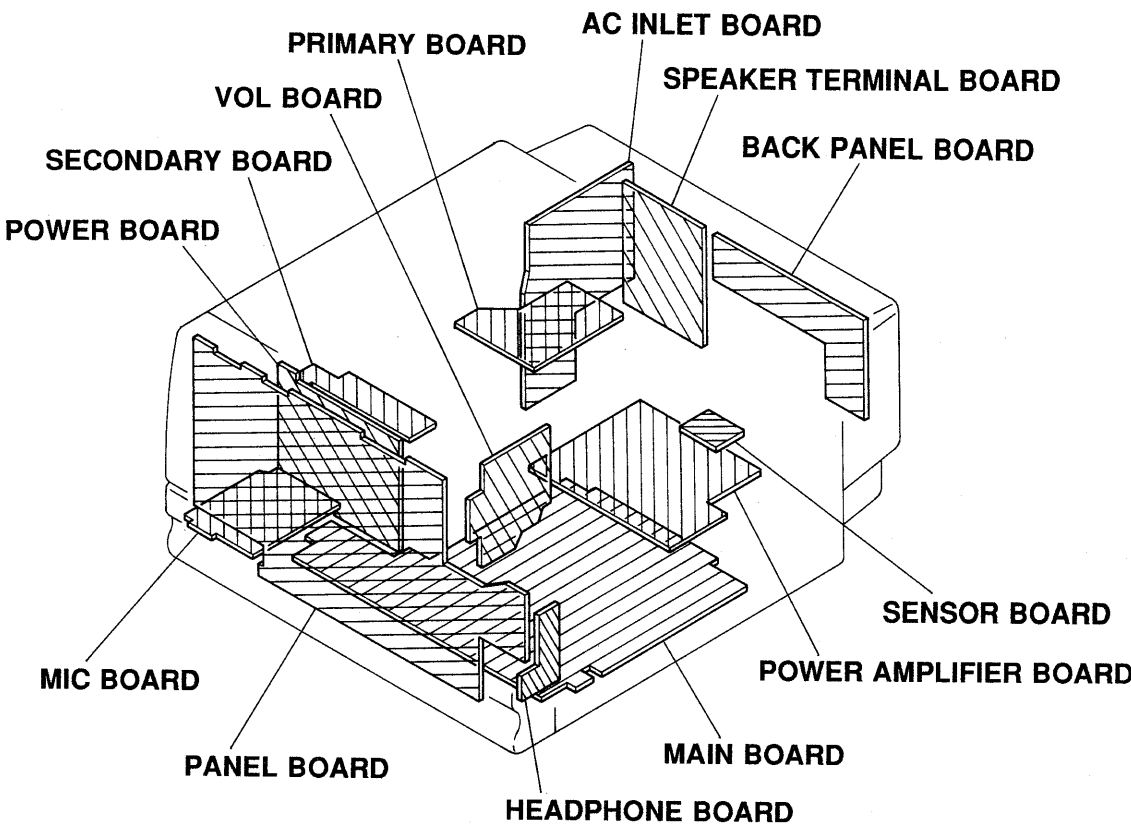
- 1 MUTING button (32)
- 2 Cassette deck operation buttons
- 3 Tuner operation buttons  
BAND button  
-/+ button
- 4 CD player operation buttons
- 5 Tuner/CD player numeric buttons (36, 56)
- 6 CD playing mode buttons
- 7 S-SUR button (96)
- 8 DIGITAL MENU (Digital Sound Menu) button (90)
- 9 EQ button (94)
- 10 FUNCTION button
- 11 KARAOKE PON button (112)
- 12 CURSOR CONTROL buttons
- 13 TAPE DECK A/B buttons (58)
- 14 SYSTEM POWER button
- 15 VOLUME +/- buttons (32)
- 16 CHECK button (48)
- 17 CLEAR button (44, 48)
- 18 TIME button (38)
- 19 DIRECT button (90)
- 20 D. BASS button (32)
- 21 P. FILE button (20)
- 22 SLEEP button (108)
- 23 Recording operation buttons  
TAPE REC ● button (64)  
REC MUTE ○ button (66)

## SECTION 2 DIAGRAMS

### 2-1. BLOCK DAIGRAMS



2-2. CIRCUIT BOARDS LOCATION



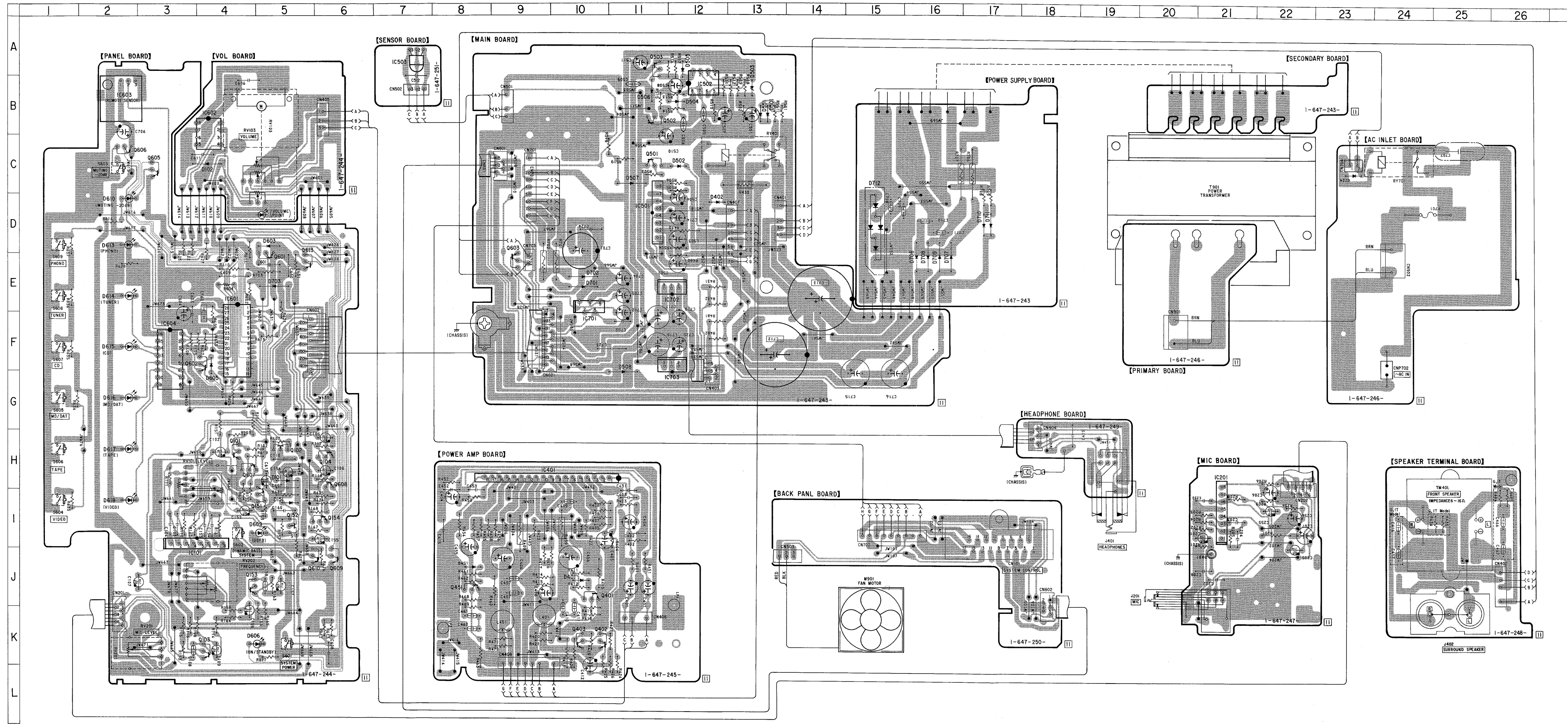
• Semiconductor Location

| Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|
| D101     | H-5      | IC101    | J-3      |
| D102     | C-4      | IC201    | I-21     |
| D151     | I-5      | IC401    | H-9      |
| D401     | J-10     | IC501    | D-11     |
| D402     | D-12     | IC502    | B-12     |
| D451     | J-8      | IC503    | A-7      |
| D501     | B-13     | IC601    | F-4      |
| D502     | C-12     | IC602    | C-4      |
| D503     | B-13     | IC603    | B-2      |
| D504     | B-12     | IC604    | F-3      |
| D505     | A-12     | IC701    | F-10     |
| D506     | B-11     | IC702    | E-12     |
| D507     | C-11     | IC703    | G-12     |
| D508     | G-11     |          |          |
| D551     | B-13     | Q101     | H-4      |
| D603     | E-5      | Q102     | H-5      |
| D605     | G-4      | Q103     | K-4      |
| D606     | K-4      | Q104     | H-6      |
| D609     | I-5      | Q151     | I-5      |
| D610     | D-2      | Q152     | I-5      |
| D613     | E-2      | Q153     | J-4      |
| D614     | E-2      | Q154     | I-6      |
| D615     | F-2      | Q401     | J-10     |
| D616     | G-2      | Q402     | K-10     |
| D617     | H-2      | Q403     | K-10     |
| D618     | I-2      | Q451     | J-8      |
| D701     | E-10     | Q501     | C-11     |
| D702     | E-10     | Q502     | B-11     |
| D703     | E-5      | Q503     | A-11     |
| D704     | C-23     | Q601     | E-5      |
| D706     | E-16     | Q602     | G-4      |
| D707     | E-16     | Q603     | E-9      |
| D708     | E-16     | Q605     | C-3      |
| D709     | E-16     | Q606     | C-2      |
| D710     | D-17     | Q607     | H-4      |
| D711     | D-17     | Q608     | I-6      |
| D712     | D-15     | Q609     | J-6      |
|          |          | Q610     | J-6      |
|          |          | Q613     | E-5      |

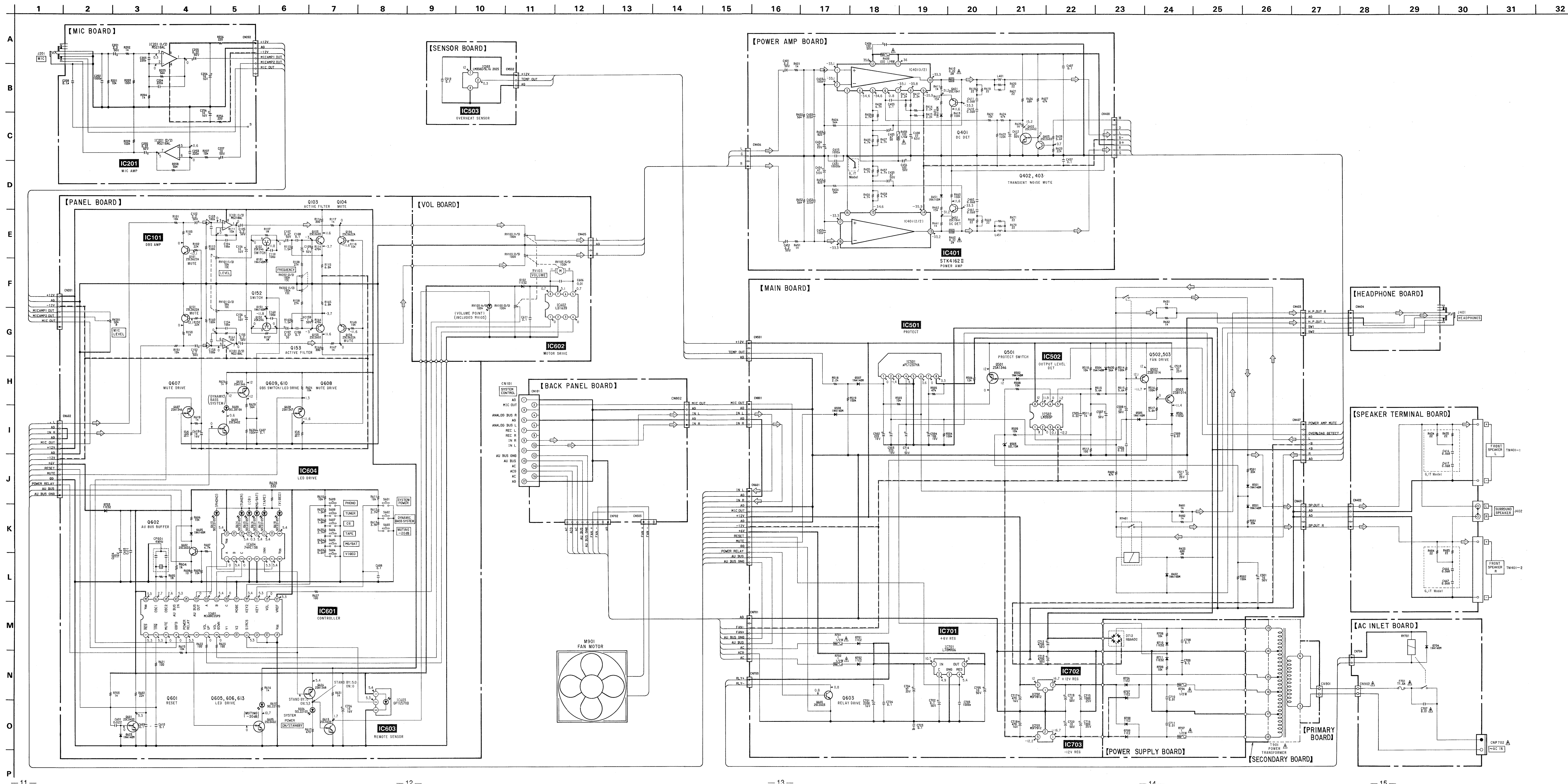
Note on Printed Wiring Boards:

- Note:
- : parts extracted from the component side.
  - : parts extracted from the component side.
  - ▨ : Pattern on the side which is seen.

2-3. PRINTED WIRING BOARDS • Ref to page 16,17 for Semiconductor Lead Layout.

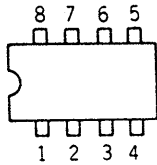


**2-4. SCHEMATIC DIAGRAMS** • Ref to page 16,17 and 18 for Semiconductor Lead Layout and IC Block Diagrams.



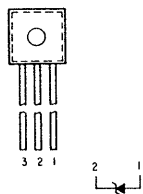
2-5. SEMICONDUCTOR LEAD LAYOUT

LB1639  
μPC393C

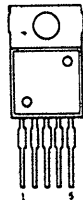


(Top view)

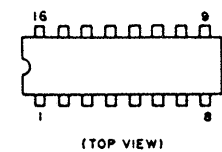
LM35DZ



L78MR06

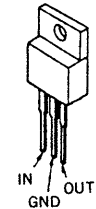


MC68HC05P9SC405644B  
SN74HC138AN

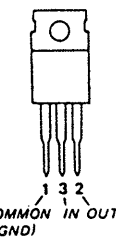


(TOP VIEW)

M5F7812L

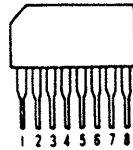


TA7912S

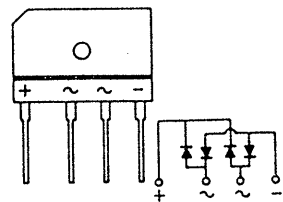


COMMON IN OUT  
(GND)

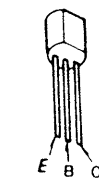
M5218AL  
μPC1237HA



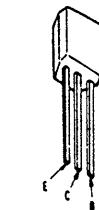
RBA-402



2SB1116



2SC2603-EF  
2SC3622A-LK  
DTA114ES  
DTA144WS  
DTC114ES  
DTC124ES



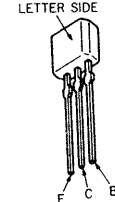
2SC1841-PAFAEA



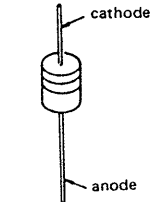
2SK246GR3



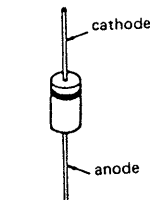
DTA124ES



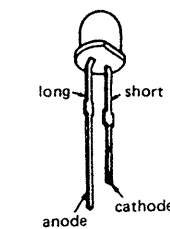
UZL-15M  
11ES2



10E2  
1N4148M

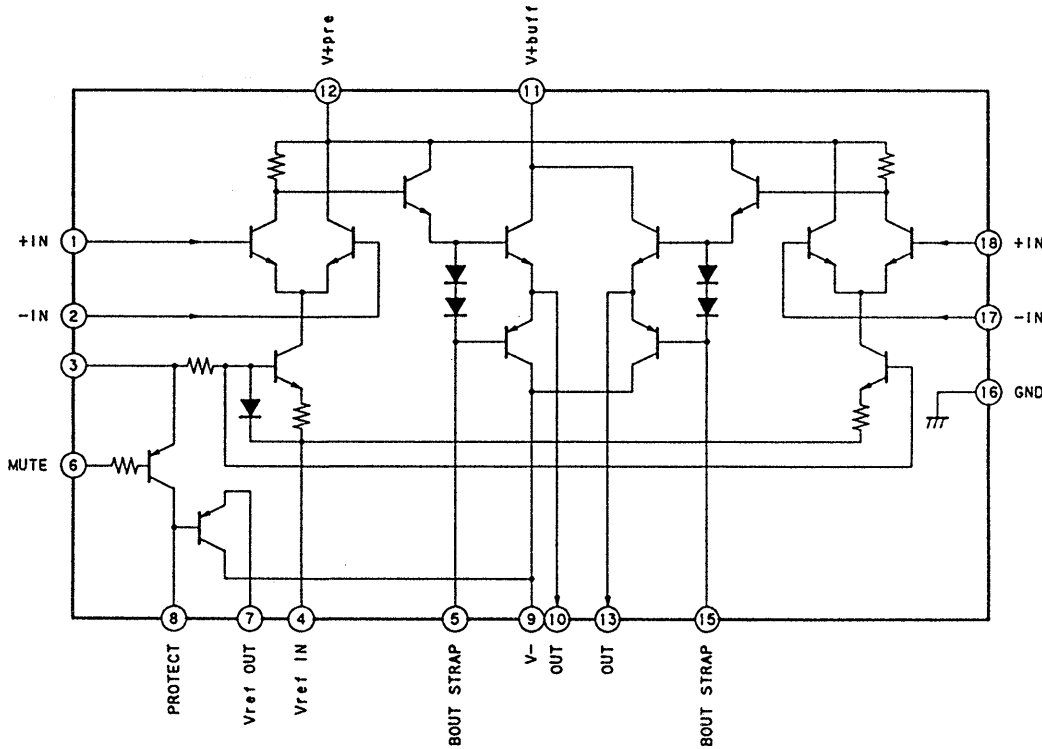


SEL2210S-CD  
SEL2810A

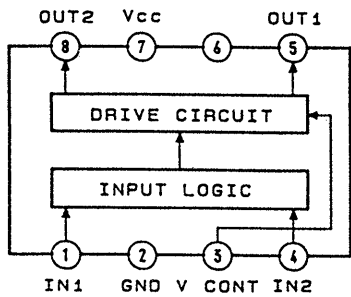


• IC Block Diagrams

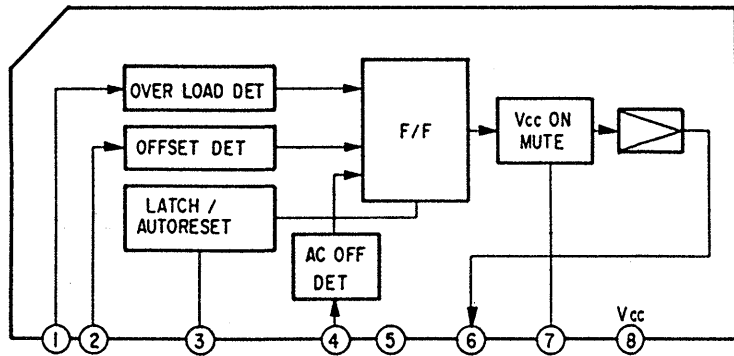
IC401 STK4152MK2K



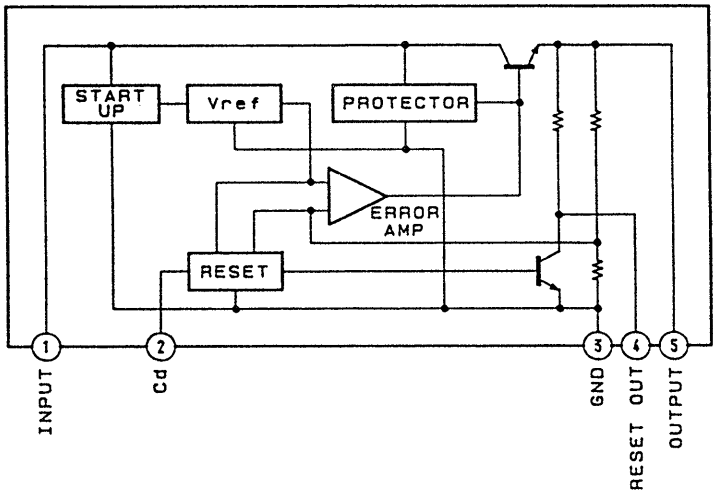
IC602 LB1639



IC501 μPC1237HA



IC701 L78MR06



## EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts

Example:

KNOB, BALANCE (WHITE) . . . (RED)

↑  
Parts color

↑  
Cabinet's color

- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

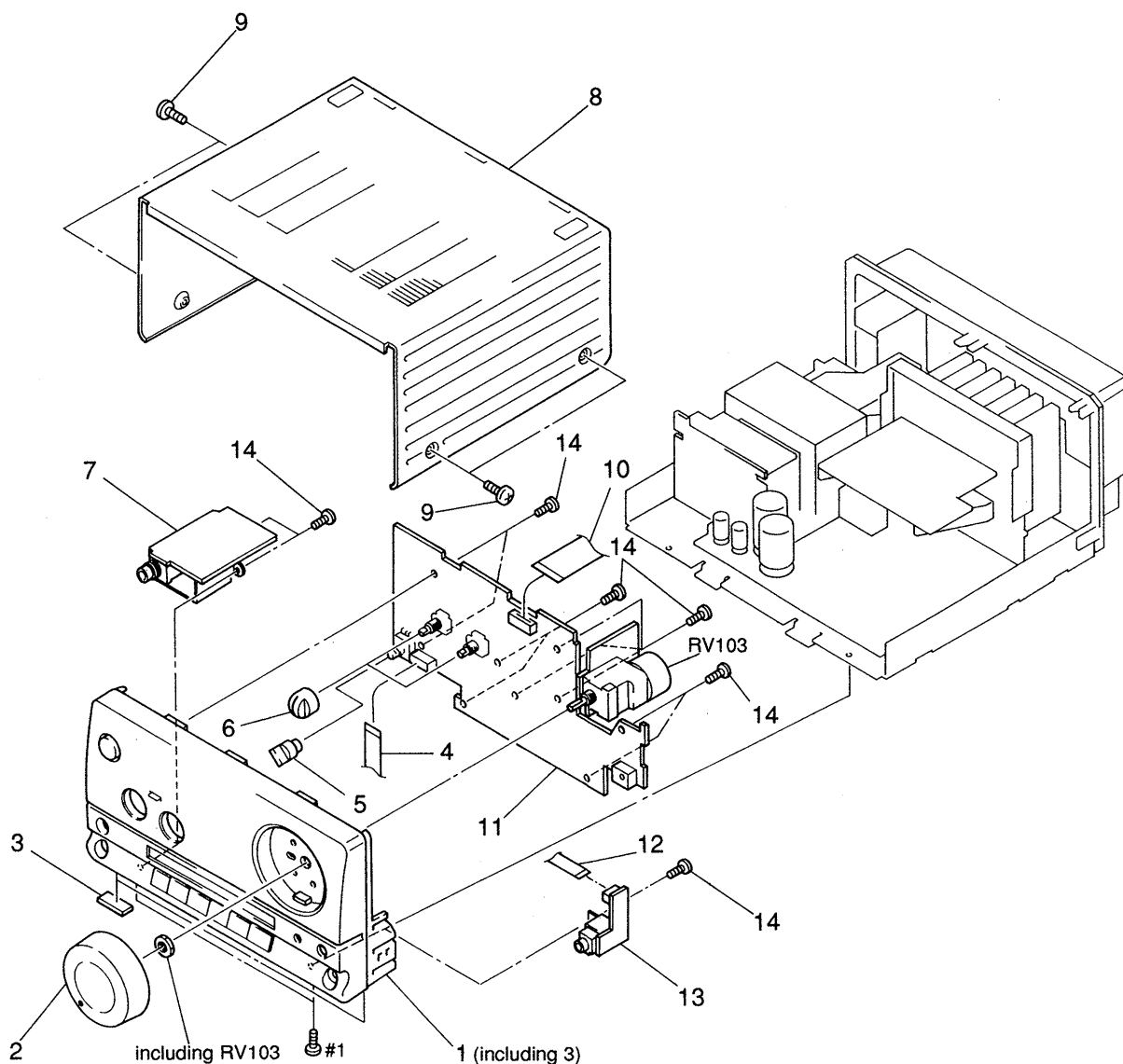
- The mechanical parts with no reference number in the exploded views are not supplied.

- Hardware (# mark) list is given in the last of this parts list.

- Italian, Germany model is abbreviated as IT, G.

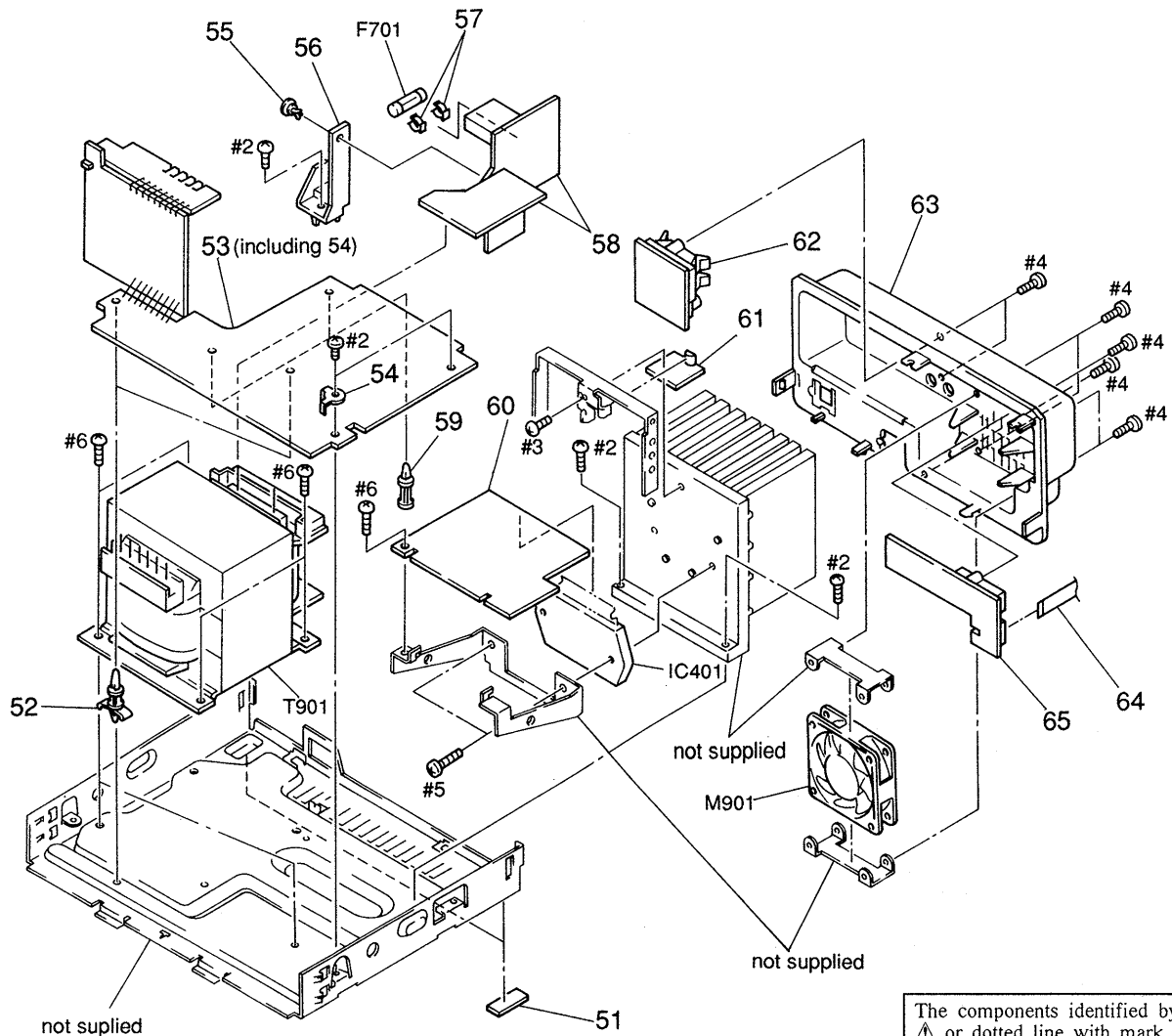
The components identified by mark  or dotted line with mark  are critical for safety.  
Replace only with part number specified.

### 3-1. CASE AND FRONT PANEL ASSEMBLY



| <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>            | <u>Remark</u> | <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>             | <u>Remark</u> |
|-----------------|-----------------|-------------------------------|---------------|-----------------|-----------------|--------------------------------|---------------|
| 1               | X-4943-473-1    | PANEL ASSY, FRONT             |               | 10              | 1-751-032-11    | WIRE (FLAT TYPE) (15 CORE)     |               |
| 2               | X-4942-957-1    | KNOB (VOLUME) ASSY            |               | * 11            | A-4360-229-A    | PANEL BOARD, COMPLETE (AEP)    |               |
| 3               | 4-930-336-31    | FOOT (FELT)                   |               | * 12            | A-4360-239-A    | PANEL BOARD, COMPLETE (UK)     |               |
| 4               | 1-590-033-11    | WIRE, FLAT TYPE (7 CORE)      |               | * 13            | A-4360-243-A    | PANEL BOARD, COMPLETE (G, IT)  |               |
| 5               | 4-954-799-01    | KNOB (MIC LEVEL)              |               | 12              | 1-575-662-11    | WIRE, FLAT TYPE (5 CORE)       |               |
| 6               | 4-954-800-01    | KNOB (FREQUENCY/LEVEL)        |               | * 13            | 1-647-249-11    | HEADPHONE BOARD                |               |
| * 7             | A-4360-230-A    | MIC BOARD, COMPLETE (AEP, UK) |               | 14              | 4-951-620-01    | SCREW (2.6X8), +BVTP           |               |
| * 8             | A-4360-244-A    | MIC BOARD, COMPLETE (G, IT)   |               | RV103           | 1-223-200-11    | RES, VAR, CARBON 10K/100K/100K |               |
| * 8             | 3-382-491-11    | CASE                          |               |                 |                 | (VOLUME)                       |               |
| 9               | 3-363-099-21    | SCREW (CASE 3 TP2)            |               |                 |                 |                                |               |

### 3-2. CHASSIS ASSEMBLY



| Ref.No. | Part No.     | Description                           | Remark | Ref.No.          | Part No.     | Description                             | Remark |
|---------|--------------|---------------------------------------|--------|------------------|--------------|-----------------------------------------|--------|
| 51      | 4-930-336-31 | FOOT (FELT)                           |        | * 60             | A-4360-247-A | POWER AMPLIFIER BOARD, COMPLETE (G, IT) |        |
| * 52    | 4-924-098-11 | HOLDER, PC BOARD                      |        | * 61             | 1-647-251-11 | SENSOR BOARD                            |        |
| * 53    | A-4360-234-A | MAIN BOARD, COMPLETE (AEP)            |        | * 62             | 1-647-248-11 | SPEAKER TERMINAL BOARD                  |        |
| * 54    | A-4360-238-A | MAIN BOARD, COMPLETE (UK)             |        | * 63             | 4-954-256-41 | PANEL, BACK                             |        |
| * 55    | A-4360-242-A | MAIN BOARD, COMPLETE (G, IT)          |        | 64               | 1-751-023-11 | WIRE (FLAT TYPE) (5 CORE)               |        |
| * 56    | 4-942-204-01 | PLATE, GROUND                         |        | * 65             | 1-647-250-11 | BACK PANEL BOARD                        |        |
| * 57    | 4-812-134-11 | RIVET NYLON, 3.5                      |        | $\triangle$ F701 | 1-532-259-00 | FUSE, TIME-LAG (T1. 6A)                 |        |
| * 58    | 4-954-242-01 | BRACKET (IN)                          |        | IC401            | 8-749-900-24 | IC STK4162MK2                           |        |
| * 59    | 1-533-213-31 | HOLDER FUSE                           |        | M901             | 1-541-953-11 | MOTOR, DC FAN                           |        |
| * 60    | 1-647-246-11 | PRIMARY BOARD                         |        | $\triangle$ T901 | 1-423-531-11 | TRANSFORMER, POWER (AEP, G, IT)         |        |
| * 61    | 3-669-610-00 | SPACER                                |        | $\triangle$      | 1-423-532-11 | TRANSFORMER, POWER (UK)                 |        |
| * 62    | A-4360-235-A | POWER AMPLIFIER BOARD, COMPLETE (AEP) |        |                  |              |                                         |        |
| * 63    | A-4360-240-A | POWER AMPLIFIER BOARD, COMPLETE (UK)  |        |                  |              |                                         |        |

AC INLET

BACK PANEL

## SECTION 4

## ELECTRICAL PARTS LIST

HEADPHONE

MAIN

## NOTE:

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

When indicating parts by reference number, please include the board name.

• 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.

• -XX, -X mean standardized parts, so they may have some difference from the original one.

## • RESISTORS

All resistors are in ohms

METAL: Metal-film resistor

METAL OXIDE: Metal Oxide-film resistor

F: nonflammable

• Color Indication of Appearance Parts Example:

KNOB, BALANCE (WHITE) ... (RED)

↑  
Parts color

↑  
Cabinet's color

• Italian, Germany model is abbreviated as IT, G.

• Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

## • SEMICONDUCTORS

In each case, u:  $\mu$ , for example:

uA...:  $\mu$  A..., uPA...:  $\mu$  PA...,

uPB...:  $\mu$  PB..., uPC...:  $\mu$  PC...,

uPD...:  $\mu$  PD...

## • CAPACITORS

uF:  $\mu$  F

## • COILS

uH:  $\mu$  H

• Hardware (# mark) list is given in the last of this parts list.

| Ref. No.        | Part No.     | Description                            | Remark | Ref. No. | Part No.     | Description                           | Remark |
|-----------------|--------------|----------------------------------------|--------|----------|--------------|---------------------------------------|--------|
|                 |              | AC INLET BOARD<br>*****                |        | *        | A-4360-234-A | MAIN BOARD, COMPLETE (AEP)<br>*****   |        |
| *               | 1-533-213-31 | HOLDER, FUSE                           |        | *        | A-4360-238-A | MAIN BOARD, COMPLETE (UK)<br>*****    |        |
|                 |              | < CAPACITOR >                          |        | *        | A-4360-242-A | MAIN BOARD, COMPLETE (G, IT)<br>***** |        |
| $\Delta$ C707   | 1-161-744-00 | CERAMIC 0.01uF 400V                    |        | *        | 3-309-144-31 | HEAT, SINK                            |        |
|                 |              | < CONNECTOR >                          |        | *        | 4-942-204-01 | PLATE, GROUND                         |        |
| * CN704         | 1-564-517-11 | PLUG, CONNECTOR 2P                     |        |          |              | < CAPACITOR >                         |        |
| $\Delta$ *CN902 | 1-751-206-21 | LEAD (WITH CONNECTOR) (2 CORE)         |        | C501     | 1-124-907-11 | ELECT 10uF 20% 50V                    |        |
|                 |              | < CNP >                                |        | C502     | 1-126-923-11 | ELECT 220uF 20% 10V                   |        |
| $\Delta$ CNP702 | 1-526-931-11 | INLET, AC (AC IN)                      |        | C503     | 1-126-923-11 | ELECT 220uF 20% 10V                   |        |
|                 |              | < DIODE >                              |        | C504     | 1-124-443-00 | ELECT 100uF 20% 10V                   |        |
| D704            | 8-719-987-63 | DIODE 1N4148M                          |        | C505     | 1-136-169-00 | FILM 0.22uF 5% 50V                    |        |
|                 |              | < RELAY >                              |        | C506     | 1-136-169-00 | FILM 0.22uF 5% 50V                    |        |
| RY701           | 1-515-720-11 | RELAY                                  |        | C507     | 1-124-903-11 | ELECT 1uF 20% 50V                     |        |
| *****           |              |                                        |        | C508     | 1-124-907-11 | ELECT 10uF 20% 50V                    |        |
| *               | 1-647-250-11 | BACK PANEL BOARD<br>*****              |        | C509     | 1-136-153-00 | FILM 0.01uF 5% 50V                    |        |
|                 |              | < CONNECTOR >                          |        | C510     | 1-124-477-11 | ELECT 47uF 20% 25V                    |        |
| * CN101         | 1-580-740-11 | SOCKET, CONNECTOR 17P (SYSTEM CONTROL) |        | C511     | 1-124-477-11 | ELECT 47uF 20% 25V                    |        |
| * CN503         | 1-564-518-11 | PLUG, CONNECTOR 3P                     |        | C701     | 1-126-768-11 | ELECT 2200uF 20% 16V                  |        |
| CN702           | 1-691-770-11 | PLUG (MICRO CONNECTOR) 8P              |        | C702     | 1-124-463-00 | ELECT 0.1uF 20% 50V                   |        |
| * CN802         | 1-568-824-11 | SOCKET, CONNECTOR 5P                   |        | C703     | 1-162-294-31 | CERAMIC 0.001uF 10% 50V               |        |
| *****           |              |                                        |        | C704     | 1-124-477-11 | ELECT 47uF 20% 25V                    |        |
| *               | 1-647-249-11 | HEADPHONE BOARD<br>*****               |        | C705     | 1-124-907-11 | ELECT 10uF 20% 50V                    |        |
|                 |              | < CONNECTOR >                          |        | C712     | 1-126-138-11 | ELECT 4700uF 20% 50V                  |        |
| * CN404         | 1-568-824-11 | SOCKET, CONNECTOR 5P                   |        | C713     | 1-126-138-11 | ELECT 4700uF 20% 50V                  |        |
|                 |              | < JACK >                               |        | C714     | 1-124-903-11 | ELECT 1uF 20% 50V                     |        |
| J401            | 1-562-837-21 | JACK (HEADPHONES)                      |        | C715     | 1-124-557-11 | ELECT 1000uF 20% 25V                  |        |
| *****           |              |                                        |        | C716     | 1-124-557-11 | ELECT 1000uF 20% 25V                  |        |
|                 |              |                                        |        | C717     | 1-126-935-11 | ELECT 470uF 20% 16V                   |        |
|                 |              |                                        |        | C718     | 1-126-935-11 | ELECT 470uF 20% 16V                   |        |
|                 |              |                                        |        | C719     | 1-124-907-11 | ELECT 10uF 20% 50V                    |        |
|                 |              |                                        |        | C720     | 1-124-907-11 | ELECT 10uF 20% 50V                    |        |
|                 |              |                                        |        | C723     | 1-164-159-11 | CERAMIC 0.1uF 50V                     |        |
|                 |              |                                        |        | C724     | 1-164-159-11 | CERAMIC 0.1uF 50V                     |        |
|                 |              |                                        |        |          |              | < CONNECTOR >                         |        |
|                 |              |                                        |        | CN401    | 1-691-766-11 | PLUG (MICRO CONNECTOR) 4P             |        |
|                 |              |                                        |        | * CN403  | 1-568-824-11 | SOCKET, CONNECTOR 5P                  |        |
|                 |              |                                        |        | CN407    | 1-691-769-11 | PLUG (MICRO CONNECTOR) 7P             |        |

# MAIN

# MIC

| Ref. No.       | Part No.     | Description               | Remark | Ref. No.      | Part No.     | Description                   | Remark |
|----------------|--------------|---------------------------|--------|---------------|--------------|-------------------------------|--------|
| * CN601        | 1-568-834-11 | SOCKET, CONNECTOR 15P     |        | R512          | 1-249-405-11 | CARBON 100 5% 1/4W F          |        |
| CN701          | 1-691-770-11 | PLUG (MICRO CONNECTOR) 8P |        | R513          | 1-249-426-11 | CARBON 5.6K 5% 1/4W           |        |
| * CN703        | 1-564-505-11 | PLUG, CONNECTOR 2P        |        | R514          | 1-249-441-11 | CARBON 100K 5% 1/4W           |        |
| * CN801        | 1-568-824-11 | SOCKET, CONNECTOR 5P      |        | R515          | 1-249-426-11 | CARBON 5.6K 5% 1/4W           |        |
| < DIODE >      |              |                           |        | R516          | 1-249-441-11 | CARBON 100K 5% 1/4W           |        |
| D402           | 8-719-987-63 | DIODE 1N4148M             |        | R517          | 1-249-426-11 | CARBON 5.6K 5% 1/4W           |        |
| D501           | 8-719-987-63 | DIODE 1N4148M             |        | R518          | 1-249-421-11 | CARBON 2.2K 5% 1/4W F         |        |
| D502           | 8-719-987-63 | DIODE 1N4148M             |        | R519          | 1-249-441-11 | CARBON 100K 5% 1/4W           |        |
| D503           | 8-719-001-91 | DIODE UZL-15M             |        | R551          | 1-249-435-11 | CARBON 33K 5% 1/4W            |        |
| D504           | 8-719-987-63 | DIODE 1N4148M             |        | △R701         | 1-212-934-00 | FUSIBLE 1 5% 1/2W F           |        |
| D505           | 8-719-987-63 | DIODE 1N4148M             |        | △R702         | 1-212-934-00 | FUSIBLE 1 5% 1/2W F           |        |
| D506           | 8-719-200-82 | DIODE 11ES2               |        | < RELAY >     |              |                               |        |
| D507           | 8-719-987-63 | DIODE 1N4148M             |        | RY401         | 1-515-765-11 | RELAY                         |        |
| D508           | 8-719-987-63 | DIODE 1N4148M             |        | *****         |              |                               |        |
| D551           | 8-719-987-63 | DIODE 1N4148M             |        | *             | A-4360-230-A | MIC BOARD, COMPLETE (AEP, UK) |        |
| D701           | 8-719-200-02 | DIODE 10E2                |        | *****         |              |                               |        |
| D702           | 8-719-200-02 | DIODE 10E2                |        | *             | A-4360-244-A | MIC BOARD, COMPLETE (G, IT)   |        |
| < IC >         |              |                           |        | *****         |              |                               |        |
| IC501          | 8-759-111-68 | IC uPC1237HA              |        | < CAPACITOR > |              |                               |        |
| IC502          | 8-759-103-93 | IC uPC393C                |        | C201          | 1-124-257-00 | ELECT 2.2uF 20% 50V           |        |
| IC701          | 8-759-820-13 | IC L78MR06                |        | C202          | 1-162-294-31 | CERAMIC 0.001uF 10% 50V       |        |
| IC702          | 8-759-231-58 | IC M5F7812L               |        | C203          | 1-162-286-31 | CERAMIC 220PF 10% 50V         |        |
| IC703          | 8-759-245-86 | IC TA7912S                |        | C204          | 1-162-286-31 | CERAMIC 220PF 10% 50V         |        |
| < TRANSISTOR > |              |                           |        | C205          | 1-124-464-11 | ELECT 0.22uF 20% 50V          |        |
| Q501           | 8-729-900-63 | TRANSISTOR DTA124ES       |        | C206          | 1-126-157-11 | ELECT 10uF 20% 16V            |        |
| Q502           | 8-729-118-01 | TRANSISTOR 2SB1116        |        | C207          | 1-124-261-00 | ELECT 10uF 20% 50V            |        |
| Q503           | 8-729-118-01 | TRANSISTOR 2SB1116        |        | C208          | 1-164-159-11 | CERAMIC 0.1uF 50V             |        |
| Q603           | 8-729-620-05 | TRANSISTOR 2SC2603-EF     |        | C253          | 1-162-286-31 | CERAMIC 220PF 10% 50V         |        |
| < RESISTOR >   |              |                           |        | C255          | 1-124-464-11 | ELECT 0.22uF 20% 50V          |        |
| R430           | 1-249-438-11 | CARBON 56K 5% 1/4W        |        | C256          | 1-126-157-11 | ELECT 10uF 20% 16V            |        |
| R431           | 1-249-417-11 | CARBON 1K 5% 1/4W F       |        | < CONNECTOR > |              |                               |        |
| R432           | 1-249-417-11 | CARBON 1K 5% 1/4W F       |        | * CN202       | 1-568-826-11 | SOCKET, CONNECTOR 7P          |        |
| R433           | 1-215-891-11 | METAL OXIDE 680 5% 2W F   |        | < IC >        |              |                               |        |
| R480           | 1-249-437-11 | CARBON 47K 5% 1/4W        |        | IC201         | 8-759-634-50 | IC M5218AL                    |        |
| R481           | 1-249-417-11 | CARBON 1K 5% 1/4W F       |        | < JACK >      |              |                               |        |
| R482           | 1-249-417-11 | CARBON 1K 5% 1/4W F       |        | J201          | 1-562-837-21 | JACK (MIC)                    |        |
| R501           | 1-249-435-11 | CARBON 33K 5% 1/4W        |        | < RESISTOR >  |              |                               |        |
| R502           | 1-249-441-11 | CARBON 100K 5% 1/4W       |        | R201          | 1-249-429-11 | CARBON 10K 5% 1/4W            |        |
| R503           | 1-249-429-11 | CARBON 10K 5% 1/4W        |        | R202          | 1-249-417-11 | CARBON 1K 5% 1/4W F           |        |
| R504           | 1-249-441-11 | CARBON 100K 5% 1/4W       |        | R203          | 1-249-441-11 | CARBON 100K 5% 1/4W           |        |
| R505           | 1-249-437-11 | CARBON 47K 5% 1/4W        |        | R204          | 1-249-417-11 | CARBON 1K 5% 1/4W F           |        |
| R506           | 1-249-430-11 | CARBON 12K 5% 1/4W        |        |               |              |                               |        |
| R508           | 1-249-429-11 | CARBON 10K 5% 1/4W        |        |               |              |                               |        |
| R509           | 1-249-429-11 | CARBON 10K 5% 1/4W        |        |               |              |                               |        |
| R510           | 1-249-429-11 | CARBON 10K 5% 1/4W        |        |               |              |                               |        |
| R511           | 1-249-417-11 | CARBON 1K 5% 1/4W F       |        |               |              |                               |        |

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

| Ref. No.       | Part No.                     | Description              | Remark | Ref. No. | Part No.     | Description                    | Remark |
|----------------|------------------------------|--------------------------|--------|----------|--------------|--------------------------------|--------|
| R205           | 1-249-438-11                 | CARBON 56K 5% 1/4W       |        |          |              | < CONNECTOR >                  |        |
| R206           | 1-249-409-11                 | CARBON 220 5% 1/4W F     |        | * CN201  | 1-568-826-11 | SOCKET, CONNECTOR 7P           |        |
| R207           | 1-249-429-11                 | CARBON 10K 5% 1/4W       |        | * CN602  | 1-568-858-11 | SOCKET, CONNECTOR 15P          |        |
| R208           | 1-249-438-11                 | CARBON 56K 5% 1/4W       |        |          |              | < DIODE >                      |        |
| R209           | 1-249-441-11                 | CARBON 100K 5% 1/4W      |        | D101     | 8-719-987-63 | DIODE 1N4148M                  |        |
| R256           | 1-249-409-11                 | CARBON 220 5% 1/4W F     |        | D151     | 8-719-987-63 | DIODE 1N4148M                  |        |
| *****          |                              |                          |        | D603     | 8-719-987-63 | DIODE 1N4148M                  |        |
| A-4360-229-A   | PANEL BOARD COMPLETE (AEP)   |                          |        | D605     | 8-719-987-63 | DIODE 1N4148M                  |        |
|                | *****                        |                          |        | D606     | 8-719-301-37 | LED SEL2210S-CD (ON/STANDBY)   |        |
| A-4360-239-A   | PANEL BOARD COMPLETE (UK)    |                          |        | D609     | 8-719-301-49 | LED SEL2810A                   |        |
|                | *****                        |                          |        |          |              | (DYNAMIC BASS SYSTEM)          |        |
| A-4360-243-A   | PANEL BOARD COMPLETE (G, IT) |                          |        | D610     | 8-719-301-37 | LED SEL2210S-CD (MUTING -20dB) |        |
|                | *****                        |                          |        | D613     | 8-719-301-37 | LED SEL2210S-CD (PHONO)        |        |
| * 1-690-880-31 | LEAD (WITH CONNECTOR)        |                          |        | D614     | 8-719-301-37 | LED SEL2210S-CD (TUNER)        |        |
|                | < CAPACITOR >                |                          |        | D615     | 8-719-301-37 | LED SEL2210S-CD (CD)           |        |
| C102           | 1-124-257-00                 | ELECT 2. 2uF 20% 50V     |        | D616     | 8-719-301-37 | LED SEL2210S-CD (MD/DAT)       |        |
| C103           | 1-162-282-31                 | CERAMIC 100PF 10% 50V    |        | D617     | 8-719-301-37 | LED SEL2210S-CD (TAPE)         |        |
| C104           | 1-162-282-31                 | CERAMIC 100PF 10% 50V    |        | D618     | 8-719-301-37 | LED SEL2210S-CD (VIDEO)        |        |
| C105           | 1-124-257-00                 | ELECT 2. 2uF 20% 50V     |        | D703     | 8-719-200-82 | DIODE 11ES2                    |        |
| C106           | 1-126-157-11                 | ELECT 10uF 20% 16V       |        |          |              | < IC >                         |        |
| C107           | 1-124-465-00                 | ELECT 0. 47uF 20% 50V    |        | IC101    | 8-759-634-50 | IC M5218AL                     |        |
| C108           | 1-136-165-00                 | FILM 0. 1uF 5% 50V       |        | IC601    | 8-759-163-92 | IC MC68HC05P9SC405648B         |        |
| C109           | 1-126-301-11                 | ELECT 1uF 20% 50V        |        | IC603    | 8-749-923-43 | IC GP1U57XB                    |        |
| C110           | 1-162-282-31                 | CERAMIC 100PF 10% 50V    |        | IC604    | 8-759-917-43 | IC SN74HC138AN                 |        |
| C152           | 1-124-257-00                 | ELECT 2. 2uF 20% 50V     |        |          |              | < TRANSISTOR >                 |        |
| C153           | 1-162-282-31                 | CERAMIC 100PF 10% 50V    |        | Q101     | 8-729-141-26 | TRANSISTOR 2SC3622A-LK         |        |
| C154           | 1-162-282-31                 | CERAMIC 100PF 10% 50V    |        | Q102     | 8-729-202-67 | TRANSISTOR 2SK246-GR3          |        |
| C155           | 1-124-257-00                 | ELECT 2. 2uF 20% 50V     |        | Q103     | 8-729-620-05 | TRANSISTOR 2SC2603-EF          |        |
| C156           | 1-126-157-11                 | ELECT 10uF 20% 16V       |        | Q104     | 8-729-141-26 | TRANSISTOR 2SC3622A-LK         |        |
| C157           | 1-124-465-00                 | ELECT 0. 47uF 20% 50V    |        | Q151     | 8-729-141-26 | TRANSISTOR 2SC3622A-LK         |        |
| C158           | 1-136-165-00                 | FILM 0. 1uF 5% 50V       |        | Q152     | 8-729-202-67 | TRANSISTOR 2SK246-GR3          |        |
| C159           | 1-126-301-11                 | ELECT 1uF 20% 50V        |        | Q153     | 8-729-620-05 | TRANSISTOR 2SC2603-EF          |        |
| C160           | 1-162-282-31                 | CERAMIC 100PF 10% 50V    |        | Q154     | 8-729-141-26 | TRANSISTOR 2SC3622A-LK         |        |
| C601           | 1-161-494-00                 | CERAMIC 0. 022uF 25V     |        | Q601     | 8-729-900-36 | TRANSISTOR DTC124ES            |        |
| C603           | 1-162-306-11                 | CERAMIC 0. 01uF 20% 16V  |        | Q602     | 8-729-620-05 | TRANSISTOR 2SC2603-EF          |        |
| C604           | 1-126-157-11                 | ELECT 10uF 20% 16V       |        | Q605     | 8-729-900-80 | TRANSISTOR DTC114ES            |        |
| C607           | 1-164-159-11                 | CERAMIC 0. 1uF 50V       |        | Q606     | 8-729-900-61 | TRANSISTOR DTA114ES            |        |
| C608           | 1-164-159-11                 | CERAMIC 0. 1uF 50V       |        | Q607     | 8-729-900-63 | TRANSISTOR DTA124ES            |        |
| C609           | 1-164-159-11                 | CERAMIC 0. 1uF 50V       |        | Q608     | 8-729-900-69 | TRANSISTOR DTA144WS            |        |
| C610           | 1-164-159-11                 | CERAMIC 0. 1uF 50V       |        | Q609     | 8-729-900-80 | TRANSISTOR DTC114ES            |        |
| C613           | 1-126-157-11                 | ELECT 10uF 20% 16V       |        | Q610     | 8-729-900-63 | TRANSISTOR DTA124ES            |        |
| C706           | 1-126-157-11                 | ELECT 10uF 20% 16V       |        | Q613     | 8-729-900-36 | TRANSISTOR DTC124ES            |        |
|                | < FILTER >                   |                          |        |          |              | < RESISTOR >                   |        |
| CF601          | 1-577-358-21                 | VIBRATOR, CERAMIC (4MHz) |        | R101     | 1-249-429-11 | CARBON 10K 5% 1/4W             |        |
|                |                              |                          |        | R102     | 1-249-433-11 | CARBON 22K 5% 1/4W             |        |
|                |                              |                          |        | R103     | 1-249-417-11 | CARBON 1K 5% 1/4W F            |        |

# PANEL POWER AMP

| Ref.No. | Part No.     | Description           | Remark |
|---------|--------------|-----------------------|--------|
| R107    | 1-247-903-00 | CARBON 1M 5% 1/4W     |        |
| R108    | 1-249-434-11 | CARBON 27K 5% 1/4W    |        |
| R110    | 1-249-441-11 | CARBON 100K 5% 1/4W   |        |
| R111    | 1-249-431-11 | CARBON 15K 5% 1/4W    |        |
| R113    | 1-249-419-11 | CARBON 1.5K 5% 1/4W F |        |
| R114    | 1-247-895-00 | CARBON 470K 5% 1/4W   |        |
| R115    | 1-249-427-11 | CARBON 6.8K 5% 1/4W F |        |
| R116    | 1-249-412-11 | CARBON 390 5% 1/4W F  |        |
| R117    | 1-249-417-11 | CARBON 1K 5% 1/4W F   |        |
| R118    | 1-249-429-11 | CARBON 10K 5% 1/4W    |        |
| R151    | 1-249-429-11 | CARBON 10K 5% 1/4W    |        |
| R152    | 1-249-433-11 | CARBON 22K 5% 1/4W    |        |
| R153    | 1-249-417-11 | CARBON 1K 5% 1/4W F   |        |
| R157    | 1-247-903-00 | CARBON 1M 5% 1/4W     |        |
| R158    | 1-249-434-11 | CARBON 27K 5% 1/4W    |        |
| R160    | 1-249-441-11 | CARBON 100K 5% 1/4W   |        |
| R161    | 1-249-431-11 | CARBON 15K 5% 1/4W    |        |
| R163    | 1-249-419-11 | CARBON 1.5K 5% 1/4W F |        |
| R164    | 1-247-895-00 | CARBON 470K 5% 1/4W   |        |
| R165    | 1-249-427-11 | CARBON 6.8K 5% 1/4W F |        |
| R166    | 1-249-412-11 | CARBON 390 5% 1/4W F  |        |
| R167    | 1-249-417-11 | CARBON 1K 5% 1/4W F   |        |
| R168    | 1-249-429-11 | CARBON 10K 5% 1/4W    |        |
| R602    | 1-249-433-11 | CARBON 22K 5% 1/4W    |        |
| R604    | 1-249-417-11 | CARBON 1K 5% 1/4W F   |        |
| R605    | 1-247-903-00 | CARBON 1M 5% 1/4W     |        |
| R606    | 1-249-429-11 | CARBON 10K 5% 1/4W    |        |
| R607    | 1-249-425-11 | CARBON 4.7K 5% 1/4W F |        |
| R608    | 1-249-393-11 | CARBON 10 5% 1/4W F   |        |
| R609    | 1-249-429-11 | CARBON 10K 5% 1/4W    |        |
| R610    | 1-249-429-11 | CARBON 10K 5% 1/4W    |        |
| R611    | 1-249-429-11 | CARBON 10K 5% 1/4W    |        |
| R612    | 1-249-422-11 | CARBON 2.7K 5% 1/4W F |        |
| R613    | 1-249-424-11 | CARBON 3.9K 5% 1/4W F |        |
| R615    | 1-249-429-11 | CARBON 10K 5% 1/4W    |        |
| R616    | 1-249-417-11 | CARBON 1K 5% 1/4W F   |        |
| R617    | 1-249-413-11 | CARBON 470 5% 1/4W F  |        |
| R619    | 1-249-417-11 | CARBON 1K 5% 1/4W F   |        |
| R620    | 1-249-441-11 | CARBON 100K 5% 1/4W   |        |
| R621    | 1-249-405-11 | CARBON 100 5% 1/4W F  |        |
| R622    | 1-249-405-11 | CARBON 100 5% 1/4W F  |        |
| R623    | 1-249-405-11 | CARBON 100 5% 1/4W F  |        |
| R624    | 1-249-429-11 | CARBON 10K 5% 1/4W    |        |
| R625    | 1-249-441-11 | CARBON 100K 5% 1/4W   |        |
| R626    | 1-249-417-11 | CARBON 1K 5% 1/4W F   |        |
| R627    | 1-249-405-11 | CARBON 100 5% 1/4W F  |        |
| R628    | 1-249-411-11 | CARBON 330 5% 1/4W    |        |
| R629    | 1-249-438-11 | CARBON 56K 5% 1/4W    |        |
| R630    | 1-249-441-11 | CARBON 100K 5% 1/4W   |        |
| R631    | 1-249-417-11 | CARBON 1K 5% 1/4W F   |        |

| Ref.No.               | Part No.     | Description                            | Remark |
|-----------------------|--------------|----------------------------------------|--------|
| R633                  | 1-249-426-11 | CARBON 5.6K 5% 1/4W                    |        |
| R634                  | 1-249-423-11 | CARBON 3.3K 5% 1/4W F                  |        |
| R635                  | 1-249-422-11 | CARBON 2.7K 5% 1/4W F                  |        |
| R636                  | 1-249-420-11 | CARBON 1.8K 5% 1/4W F                  |        |
| R637                  | 1-247-834-11 | CARBON 1.3K 5% 1/4W                    |        |
| R703                  | 1-249-417-11 | CARBON 1K 5% 1/4W F                    |        |
| < VARIABLE RESISTOR > |              |                                        |        |
| RV101                 | 1-223-336-11 | RES, VAR, CARBON 50K/50K (LEVEL)       |        |
| RV201                 | 1-241-813-11 | RES, VAR, CARBON 50K (MIC LEVEL)       |        |
| RV202                 | 1-223-201-11 | RES, VAR, CARBON 100K/100K (FREQUENCY) |        |
| < SWITCH >            |              |                                        |        |
| S601                  | 1-572-184-11 | SWITCH, KEYBOARD (SYSTEM POWER)        |        |
| S602                  | 1-572-184-11 | SWITCH, KEYBOARD (DYNAMIC BASS SYSTEM) |        |
| S603                  | 1-572-184-11 | SWITCH, KEYBOARD (MUTING -20dB)        |        |
| S604                  | 1-572-184-11 | SWITCH, KEYBOARD (VIDEO)               |        |
| S605                  | 1-572-184-11 | SWITCH, KEYBOARD (MD/DAT)              |        |
| S606                  | 1-572-184-11 | SWITCH, KEYBOARD (TAPE)                |        |
| S607                  | 1-572-184-11 | SWITCH, KEYBOARD (CD)                  |        |
| S608                  | 1-572-184-11 | SWITCH, KEYBOARD (TUNER)               |        |
| S609                  | 1-572-184-11 | SWITCH, KEYBOARD (PHONO)               |        |
| *****                 |              |                                        |        |
| *                     | A-4360-235-A | POWER AMP BOARD (ABP)                  |        |
| *****                 |              |                                        |        |
| *                     | A-4360-240-A | POWER AMP BOARD (UK)                   |        |
| *****                 |              |                                        |        |
| *                     | A-4360-247-A | POWER AMP BOARD (G, IT)                |        |
| *****                 |              |                                        |        |
| < CAPACITOR >         |              |                                        |        |
| C401                  | 1-124-257-00 | ELECT 2.2uF 20% 50V                    |        |
| C402                  | 1-162-286-31 | CERAMIC 220PF 10% 50V                  |        |
| C403                  | 1-162-282-31 | CERAMIC 100PF 10% 50V                  |        |
| C404                  | 1-126-967-11 | ELECT 47uF 20% 50V                     |        |
| C405                  | 1-126-967-11 | ELECT 47uF 20% 50V                     |        |
| C406                  | 1-124-122-11 | ELECT 100uF 20% 50V                    |        |
| C407                  | 1-136-165-00 | FILM 0.1uF 5% 50V                      |        |
| C408                  | 1-124-916-11 | ELECT 22uF 20% 63V                     |        |
| C409                  | 1-136-165-00 | FILM 0.1uF 5% 50V                      |        |
| C410                  | 1-136-163-00 | FILM 0.068uF 5% 50V                    |        |
| C411                  | 1-136-163-00 | FILM 0.068uF 5% 50V                    |        |
| C412                  | 1-126-967-11 | ELECT 47uF 20% 50V                     |        |
| C415                  | 1-162-294-31 | CERAMIC 0.001uF 10% 50V                |        |
| C431                  | 1-162-306-11 | CERAMIC 0.01uF 20% 16V                 |        |
| C451                  | 1-124-257-00 | ELECT 2.2uF 20% 50V                    |        |

## POWER AMP

## POWER SUPPLY

| Ref.No.        | Part No.     | Description               | Remark | Ref.No.            | Part No.     | Description              | Remark |
|----------------|--------------|---------------------------|--------|--------------------|--------------|--------------------------|--------|
| C452           | 1-162-286-31 | CERAMIC 220PF 10% 50V     |        | R424               | 1-249-437-11 | CARBON 47K 5% 1/4W       |        |
| C453           | 1-162-282-31 | CERAMIC 100PF 10% 50V     |        | R425               | 1-249-417-11 | CARBON 1K 5% 1/4W F      |        |
| C454           | 1-126-967-11 | ELECT 47uF 20% 50V        |        | R426               | 1-249-439-11 | CARBON 68K 5% 1/4W       |        |
| C455           | 1-126-967-11 | ELECT 47uF 20% 50V        |        | R427               | 1-249-437-11 | CARBON 47K 5% 1/4W       |        |
| C456           | 1-124-122-11 | ELECT 100uF 20% 50V       |        | R428               | 1-249-426-11 | CARBON 5.6K 5% 1/4W      |        |
| C457           | 1-136-165-00 | FILM 0.1uF 5% 50V         |        | R429               | 1-249-433-11 | CARBON 22K 5% 1/4W       |        |
| C460           | 1-136-163-00 | FILM 0.068uF 5% 50V       |        | R451               | 1-249-417-11 | CARBON 1K 5% 1/4W F      |        |
| C461           | 1-136-163-00 | FILM 0.068uF 5% 50V       |        | R452               | 1-249-438-11 | CARBON 56K 5% 1/4W       |        |
| < DIODE >      |              |                           |        | R453               | 1-249-416-11 | CARBON 820 5% 1/4W F     |        |
| D401           | 8-719-987-63 | DIODE 1N4148M             |        | R454               | 1-249-438-11 | CARBON 56K 5% 1/4W       |        |
| D451           | 8-719-987-63 | DIODE 1N4148M             |        | R455               | 1-249-425-11 | CARBON 4.7K 5% 1/4W F    |        |
| < IC >         |              |                           |        | R456               | 1-249-425-11 | CARBON 4.7K 5% 1/4W F    |        |
| IC401          | 8-749-900-24 | IC STK-4162MK2            |        | R457               | 1-249-425-11 | CARBON 4.7K 5% 1/4W F    |        |
| < COIL >       |              |                           |        | R458               | 1-249-425-11 | CARBON 4.7K 5% 1/4W F    |        |
| L401           | 1-420-872-00 | COIL, AIR CORE            |        | △R459              | 1-212-881-11 | FUSIBLE 100 5% 1/4W F    |        |
| L451           | 1-420-872-00 | COIL, AIR CORE            |        | △R460              | 1-217-151-00 | RES, METAL PLATE 0.22 2W |        |
| < TRANSISTOR > |              |                           |        | R461               | 1-249-417-11 | CARBON 1K 5% 1/4W F      |        |
| Q401           | 8-729-140-84 | TRANSISTOR 2SC1841-PAFAEA |        | R462               | 1-249-431-11 | CARBON 15K 5% 1/4W       |        |
| Q402           | 8-729-900-80 | TRANSISTOR DTC114ES       |        | R463               | 1-249-441-11 | CARBON 100K 5% 1/4W      |        |
| Q403           | 8-729-620-05 | TRANSISTOR 2SC2603-EF     |        | R468               | 1-249-397-11 | CARBON 22 5% 1/4W F      |        |
| Q451           | 8-729-140-84 | TRANSISTOR 2SC1841-PAFAEA |        | R469               | 1-249-397-11 | CARBON 22 5% 1/4W F      |        |
| < RESISTOR >   |              |                           |        | R470               | 1-249-397-11 | CARBON 22 5% 1/4W F      |        |
| R401           | 1-249-417-11 | CARBON 1K 5% 1/4W F       |        | R471               | 1-249-397-11 | CARBON 22 5% 1/4W F      |        |
| R402           | 1-249-438-11 | CARBON 56K 5% 1/4W        |        | *****              |              |                          |        |
| R403           | 1-249-416-11 | CARBON 820 5% 1/4W F      |        | POWER SUPPLY BOARD |              |                          |        |
| R404           | 1-249-438-11 | CARBON 56K 5% 1/4W        |        | *****              |              |                          |        |
| R405           | 1-249-425-11 | CARBON 4.7K 5% 1/4W F     |        | < CAPACITOR >      |              |                          |        |
| R406           | 1-249-425-11 | CARBON 4.7K 5% 1/4W F     |        | C708               | 1-136-165-00 | FILM 0.1uF 5% 50V        |        |
| R407           | 1-249-425-11 | CARBON 4.7K 5% 1/4W F     |        | C709               | 1-136-165-00 | FILM 0.1uF 5% 50V        |        |
| R408           | 1-249-425-11 | CARBON 4.7K 5% 1/4W F     |        | C710               | 1-130-483-00 | MYLAR 0.01uF 5% 50V      |        |
| △R409          | 1-212-881-11 | FUSIBLE 100 5% 1/4W F     |        | C711               | 1-130-483-00 | MYLAR 0.01uF 5% 50V      |        |
| △R410          | 1-217-151-00 | RES, METAL PLATE 0.22 2W  |        | < DIODE >          |              |                          |        |
| R411           | 1-249-417-11 | CARBON 1K 5% 1/4W F       |        | D706               | 8-719-200-02 | DIODE 10E2               |        |
| R412           | 1-249-431-11 | CARBON 15K 5% 1/4W        |        | D707               | 8-719-200-02 | DIODE 10E2               |        |
| R413           | 1-249-441-11 | CARBON 100K 5% 1/4W       |        | D708               | 8-719-200-02 | DIODE 10E2               |        |
| R414           | 1-249-421-11 | CARBON 2.2K 5% 1/4W F     |        | D709               | 8-719-200-02 | DIODE 10E2               |        |
| R415           | 1-249-421-11 | CARBON 2.2K 5% 1/4W F     |        | D710               | 8-719-200-82 | DIODE 11ES2              |        |
| R416           | 1-249-421-11 | CARBON 2.2K 5% 1/4W F     |        | D711               | 8-719-200-82 | DIODE 11ES2              |        |
| R417           | 1-249-421-11 | CARBON 2.2K 5% 1/4W F     |        | D712               | 8-719-312-09 | DIODE RBA-402            |        |
| R418           | 1-249-397-11 | CARBON 22 5% 1/4W F       |        | < RESISTOR >       |              |                          |        |
| R419           | 1-249-397-11 | CARBON 22 5% 1/4W F       |        | △R706              | 1-212-934-00 | FUSIBLE 1 5% 1/2W F      |        |
| R420           | 1-249-397-11 | CARBON 22 5% 1/4W F       |        | △R707              | 1-212-934-00 | FUSIBLE 1 5% 1/2W F      |        |
| R421           | 1-249-397-11 | CARBON 22 5% 1/4W F       |        | R708               | 1-249-429-11 | CARBON 10K 5% 1/4W       |        |
| R422           | 1-249-429-11 | CARBON 10K 5% 1/4W        |        | R709               | 1-249-429-11 | CARBON 10K 5% 1/4W       |        |
| R423           | 1-247-881-00 | CARBON 120K 5% 1/4W       |        | *****              |              |                          |        |

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

## PRIMARY

## SECONDARY

## SENSOR

## SPEAKER TERMINAL

## VOL

| Ref.No. | Part No.     | Description                     | Remark | Ref.No. | Part No.     | Description                                | Remark |
|---------|--------------|---------------------------------|--------|---------|--------------|--------------------------------------------|--------|
| *       | 1-647-246-11 | PRIMARY BOARD<br>*****          |        |         |              | < TERMINAL >                               |        |
| *****   |              |                                 |        | TM401   | 1-537-445-11 | TERMINAL BOARD (SP)<br>(FRONT SPEAKER)     |        |
|         |              | SECONDARY BOARD<br>*****        |        | *****   |              |                                            |        |
| *****   |              |                                 |        |         |              | VOL BOARD<br>*****                         |        |
| *       | 1-647-251-11 | SENSOR BOARD<br>*****           |        |         |              | < CAPACITOR >                              |        |
|         |              | < CAPACITOR >                   |        | C606    | 1-162-306-11 | CERAMIC 0.01uF 20% 16V                     |        |
| C512    | 1-164-159-11 | CERAMIC 0.1uF 50V               |        | C611    | 1-164-159-11 | CERAMIC 0.1uF 50V                          |        |
|         |              | < CONNECTOR >                   |        |         |              | < CONNECTOR >                              |        |
| * CN502 | 1-564-518-11 | PLUG, CONNECTOR 3P              |        | CN405   | 1-691-765-11 | PLUG (MICRO CONNECTOR) 3P                  |        |
|         |              | < IC >                          |        |         |              | < DIODE >                                  |        |
| IC503   | 8-759-947-34 | IC LM35DZ                       |        | D102    | 8-719-200-82 | DIODE 11ES2                                |        |
| *****   |              |                                 |        |         |              | < IC >                                     |        |
| *       | 1-647-248-11 | SPEAKER TERMINAL BOARD<br>***** |        | IC602   | 8-759-820-62 | IC LB1639                                  |        |
|         |              | < CAPACITOR >                   |        |         |              | < VARIABLE RESISTOR >                      |        |
| C416    | 1-136-163-00 | FILM 0.068uF 5% 50V<br>(G, IT)  |        | RV103   | 1-223-200-11 | RES, VAR, CARBON 10K/100K/100K<br>(VOLUME) |        |
| C417    | 1-136-163-00 | FILM 0.068uF 5% 50V<br>(G, IT)  |        | *****   |              |                                            |        |
| C466    | 1-136-163-00 | FILM 0.068uF 5% 50V<br>(G, IT)  |        |         |              | MISCELLANEOUS<br>*****                     |        |
| C467    | 1-136-163-00 | FILM 0.068uF 5% 50V<br>(G, IT)  |        | 4       | 1-590-033-11 | WIRE, FLAT TYPE (7 CORE)                   |        |
|         |              | < CONNECTOR >                   |        | 10      | 1-751-032-11 | WIRE (FLAT TYPE) (15 CORE)                 |        |
| CN402   | 1-691-766-11 | PLUG (MICRO CONNECTOR) 4P       |        | 12      | 1-575-662-11 | WIRE, FLAT TYPE (5 CORE)                   |        |
|         |              | < JACK >                        |        | 64      | 1-751-023-11 | WIRE (FLAT TYPE) (5 CORE)                  |        |
| J402    | 1-568-572-11 | JACK, PIN 2P (SURROUND SPEAKER) |        | △F701   | 1-532-259-00 | FUSE, TIME-LAG (T1.6A)                     |        |
|         |              | < RESISTOR >                    |        | M901    | 1-541-953-11 | MOTOR, DC FAN                              |        |
| R434    | 1-249-397-11 | CARBON 22 5% 1/4W F<br>(G, IT)  |        | △T901   | 1-423-531-11 | TRANSFORMER, POWER (AEP, G, IT)            |        |
| R435    | 1-249-397-11 | CARBON 22 5% 1/4W F<br>(G, IT)  |        | △       | 1-423-532-11 | TRANSFORMER, POWER (UK)                    |        |
| R484    | 1-249-397-11 | CARBON 22 5% 1/4W F<br>(G, IT)  |        | *****   |              |                                            |        |
| R485    | 1-249-397-11 | CARBON 22 5% 1/4W F<br>(G, IT)  |        |         |              | *****<br>HARDWARE LIST<br>*****            |        |
|         |              |                                 |        | #1      | 7-682-547-09 | SCREW +BVTT 3X6 (S)                        |        |
|         |              |                                 |        | #2      | 7-682-548-04 | SCREW +BVTT 3X8 (S)                        |        |
|         |              |                                 |        | #3      | 7-685-647-71 | SCREW +BVTP 3X10 TYPE2 IT-3                |        |
|         |              |                                 |        | #4      | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 N-S                 |        |
|         |              |                                 |        | #5      | 7-685-650-79 | SCREW +BVTP 3X16 TYPE2 IT-3                |        |
|         |              |                                 |        | #6      | 7-685-871-01 | SCREW +BVTT 3X6 (S)                        |        |

The components identified by mark  
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**Sony Corporation**  
**Audio Group**

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