

# TA-A77N/D709N

## SERVICE MANUAL

*AEP Model*  
*UK Model*

TA-D709N

*E Model*  
*Australian Model*  
*Tourist Model*

TA-A77N



This set is the Power Amplifier section in LBT-A77CD/A77CDM/D709CD/D759CD.

This photo is TA-A77N.

### SPECIFICATIONS

|                             |                                                                                                                                                                                                                                                                                                                            |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Peak music power output     | A77N : 1000W (4 speakers driven)                                                                                                                                                                                                                                                                                           |
| Continuous RMS power output |                                                                                                                                                                                                                                                                                                                            |
| FRONT                       | A77N : 90W+90W<br>(6 ohms, at 1kHz, 5% THD)<br>D709N: 80W+80W (6 ohms, DIN, 1kHz)<br>D709N: 100W+100W<br>(6 ohms, at 1kHz, 5% THD)                                                                                                                                                                                         |
| REAR                        | A77N : 25W+25W<br>(4 ohms, at 1kHz, 5% THD)<br>D709N: 18W+18W<br>(4 ohms, DIN, 1kHz)<br>D709N: 22W+22W<br>(4 ohms, at 1kHz, 5% THD)                                                                                                                                                                                        |
| Music power output          |                                                                                                                                                                                                                                                                                                                            |
| FRONT                       | D709N: 170W+170W<br>(6 ohms, at 1kHz, 10% THD)                                                                                                                                                                                                                                                                             |
| REAR                        | D709N: 30W+30W<br>(4 ohms, at 1kHz 10% THD)                                                                                                                                                                                                                                                                                |
| Frequency response          |                                                                                                                                                                                                                                                                                                                            |
| FRONT                       | 15Hz to 50kHz $\pm 0.5$ dB                                                                                                                                                                                                                                                                                                 |
| REAR                        | 15Hz to 50kHz $\pm 0.5$ dB                                                                                                                                                                                                                                                                                                 |
| Power requirements          | (model for Malaysia and Singapore)<br>120V/220V/230—240V AC,<br>adjustable with the voltage selector,<br>50/60Hz<br>(model for AUS, EA, E and JE)<br>120V/220V/240V AC,<br>adjustable with the voltage selector,<br>50/60Hz<br>(model for AEP, IT, EE and G)<br>220—230V AC, 50/60Hz<br>(model for UK)<br>240V AC, 50/60Hz |
| Power consumption           | A77N: 250W<br>D709N: 210W                                                                                                                                                                                                                                                                                                  |

Mass

Approx. 7.2kg (15 lbs 14 oz)

Dimensions

Approx. 355×135×330mm  
(14×5 $\frac{1}{4}$ ×12 $\frac{7}{8}$  inches)  
(w/h/d, including projections)

Design and specifications are subject to change without notice.

#### Note

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

#### • Abbreviations

|      |                     |
|------|---------------------|
| AUS: | Australian model    |
| EA : | Saudi Arabia model  |
| JE : | Tourist model       |
| IT : | Italian model       |
| EE : | East European model |
| G :  | German model        |

#### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  $\Delta$  OR DOTTED LINE WITH MARK  $\Delta$  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.

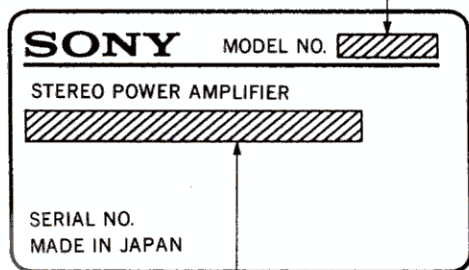
STEREO POWER AMPLIFIER  
**SONY**<sup>®</sup>



## MODEL IDENTIFICATION

—Specification Label—

AUS, EA, E, JE, MY, SP model: TA-A77N  
AEP, IT, EE, G, UK model : TA-D709N



AEP, IT, EE model : AC: 220V—230V~50/60Hz 210W  
G model : SYSTEM LBT-D709  
AC: 220V—230V~50/60Hz 210W  
UK model : AC: 240V~50/60Hz  
AUS, EA, E, JE model: AC: 120V/220V/240V~50/60Hz 250W  
MY, SP model : AC: 120V/220V/230V—240V 50/60Hz 250W

### NOTE FOR SERVICE

To input from the pin jack by using SEN/LBT service jig, connect the SYSTEM CONTROL 3 (white) of TA-A77N/D709N and the SYSTEM CONTROL 1 (blue) of the service jig with a 10pin or 11pin system cord. This allows pin input.

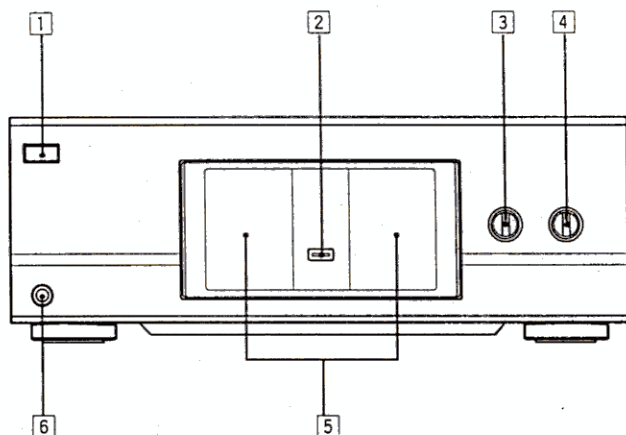
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## SECTION 1 GENERAL

This section is extracted from instruction manual.

### 1-1. PARTS IDENTIFICATION

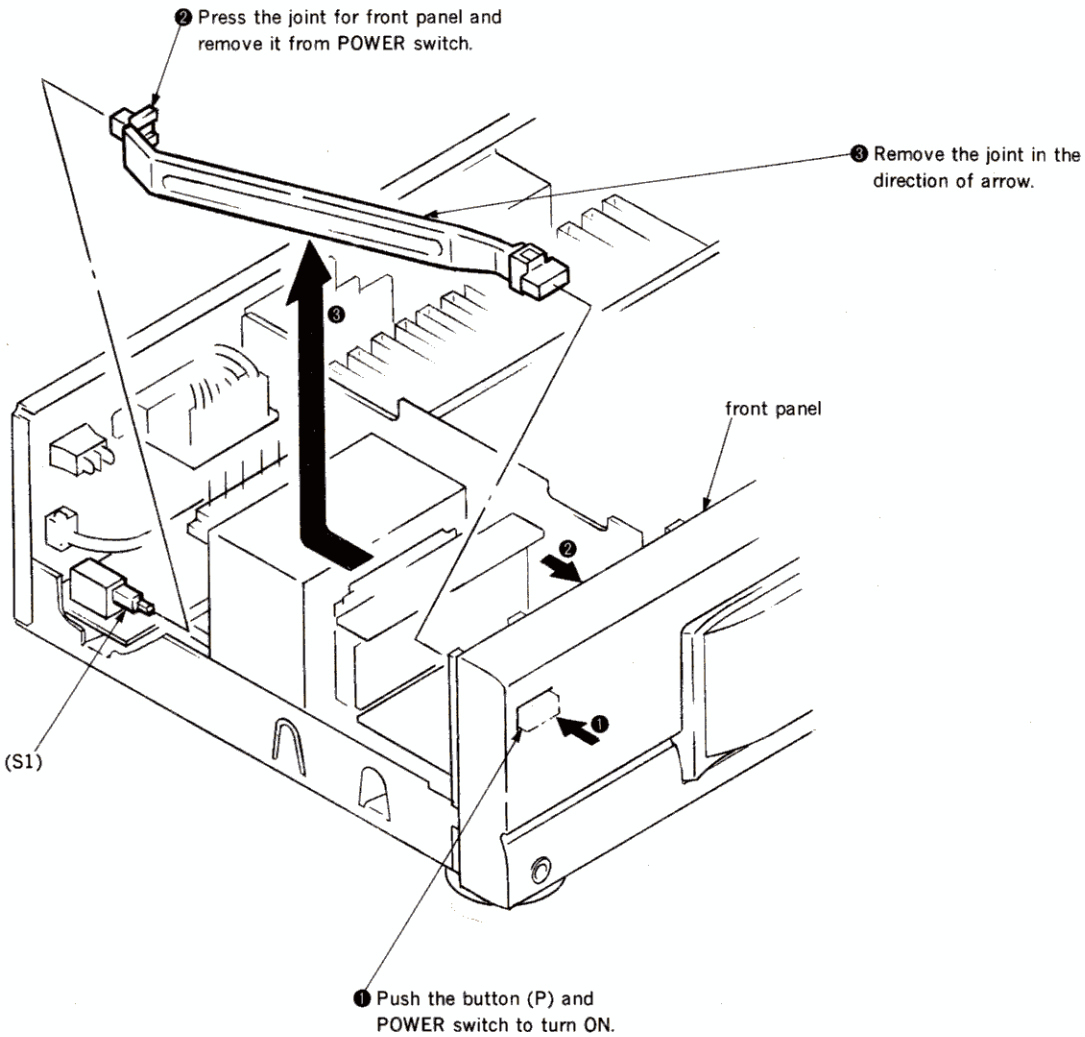


- ① POWER switch (18)
- ② OPERATION indicator (18)
- ③ RANGE switch (20)
- ④ SPEAKERS switch (20)
- ⑤ Peak level meters (20)
- ⑥ HEADPHONES jack (20)

## SECTION 2 SERVICE NOTE

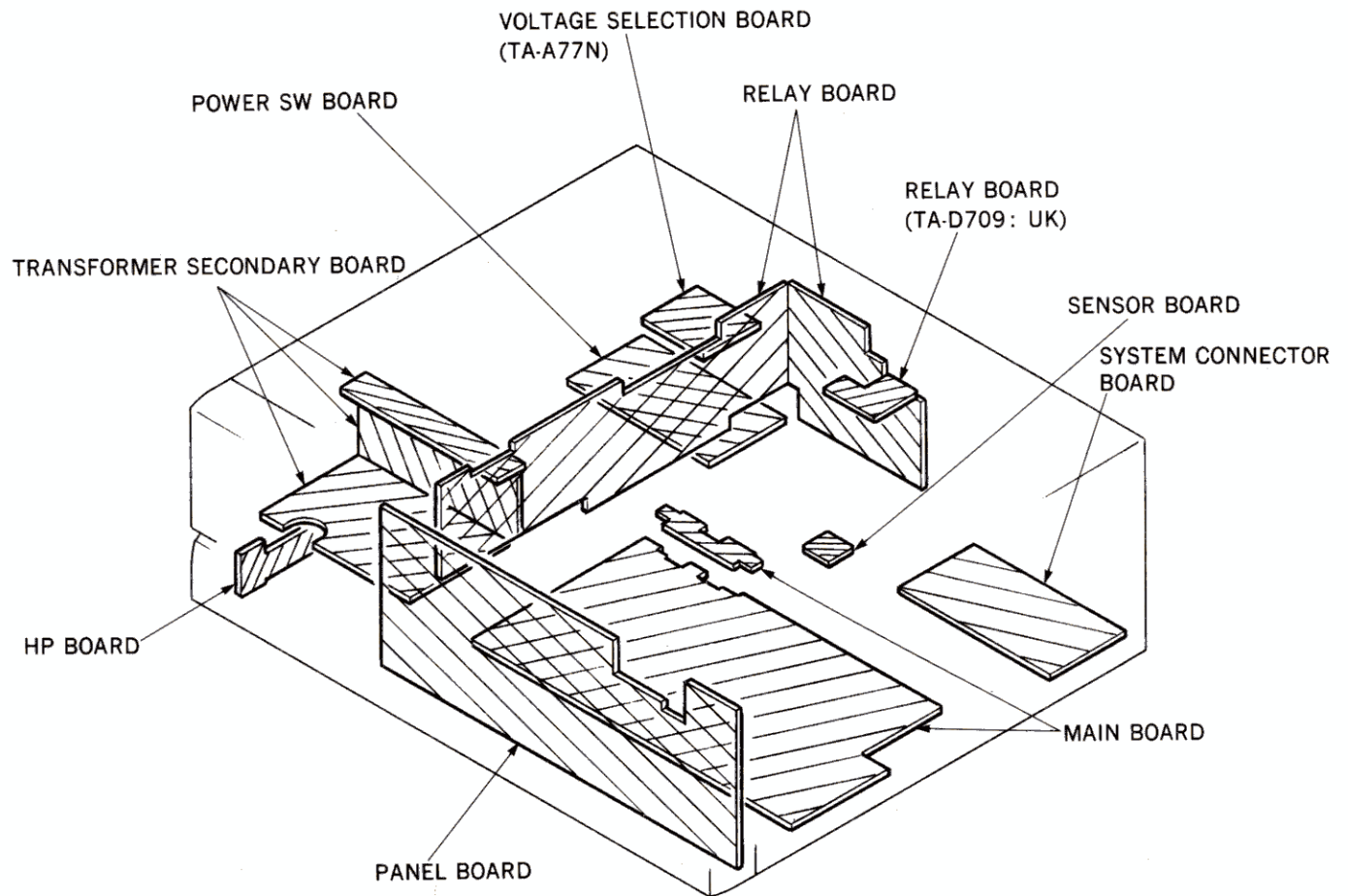
**Note:** Follow the disassembly procedure in the numerical order given.

### 2-1. REMOVAL OF JOINT



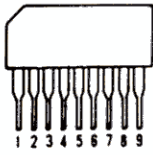
## SECTION 3 DIAGRAMS

### 3-1. CIRCUIT BOARDS LOCATION

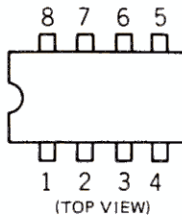


### 3-2. SEMICONDUCTOR LEAD LAYOUTS

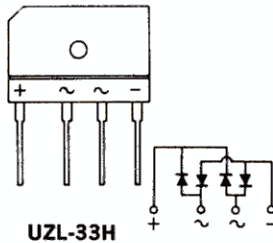
IR2E31A



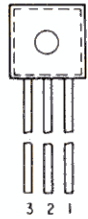
$\mu$ PC393C



RBA-402  
RBV-602-01



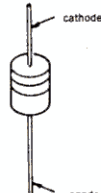
LM35DZ



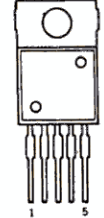
DTA124ES  
letter side



UZL-33H



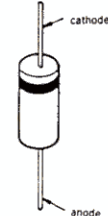
SI-18752N



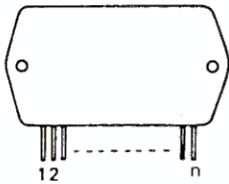
DTC124ES  
2SC2603-EF



UZP-6.8BC



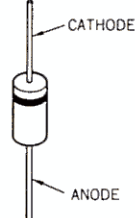
STK-4211MK2



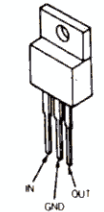
2SB733-34



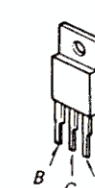
1N4148M  
1S1585  
10E2N



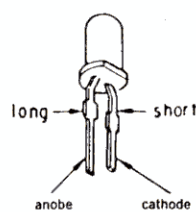
TA7812S



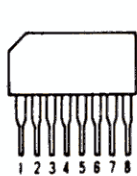
2SB1094-LK



SEL2210W-D  
SEL2410E-D



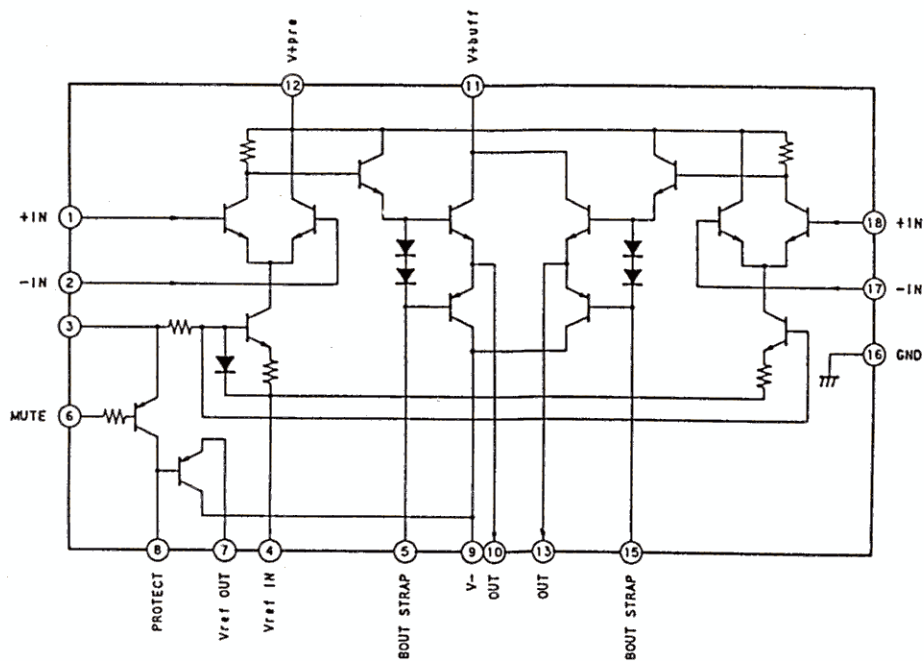
$\mu$ PC1237HA



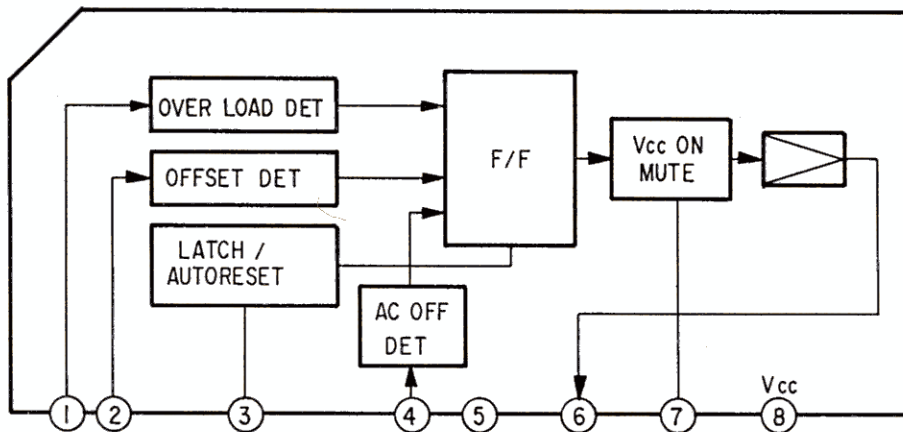
2SC1841-PAFAEA



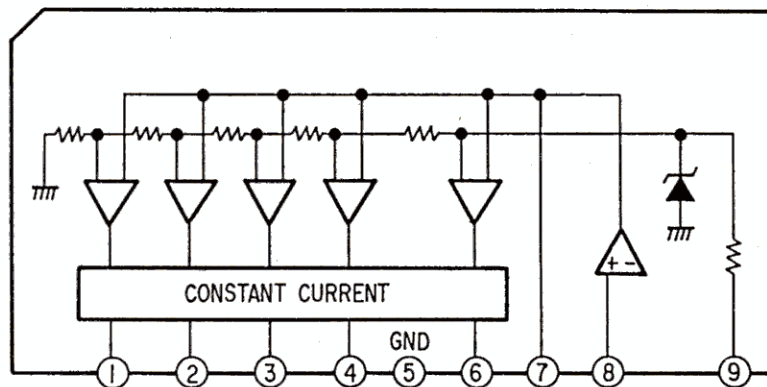
• IC Block Diagrams  
IC101 STK4211MKII



IC301  $\mu$ PC1237HA



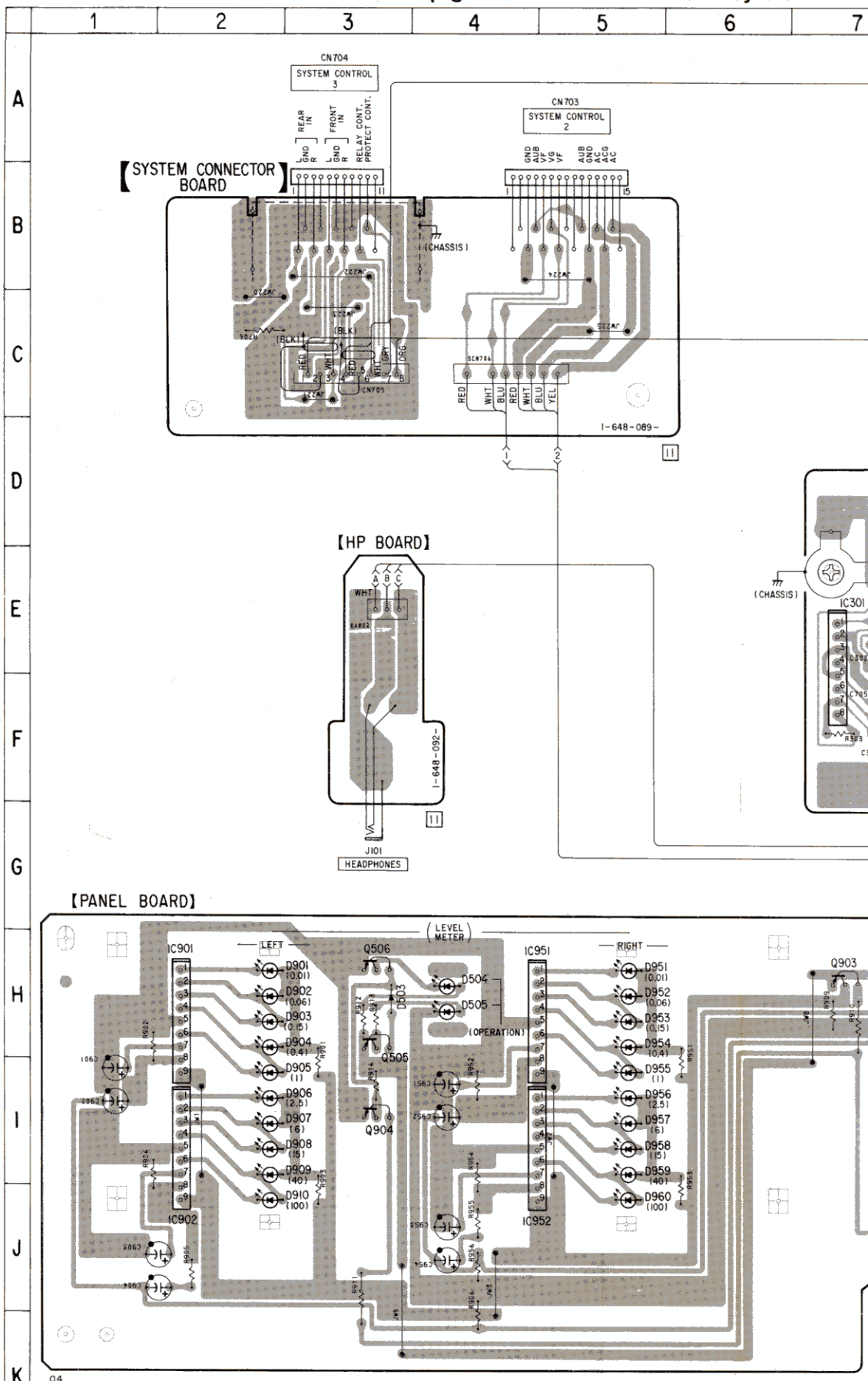
IC901, 902, 951, 952 IR2E31A



## ● Semiconductor Location

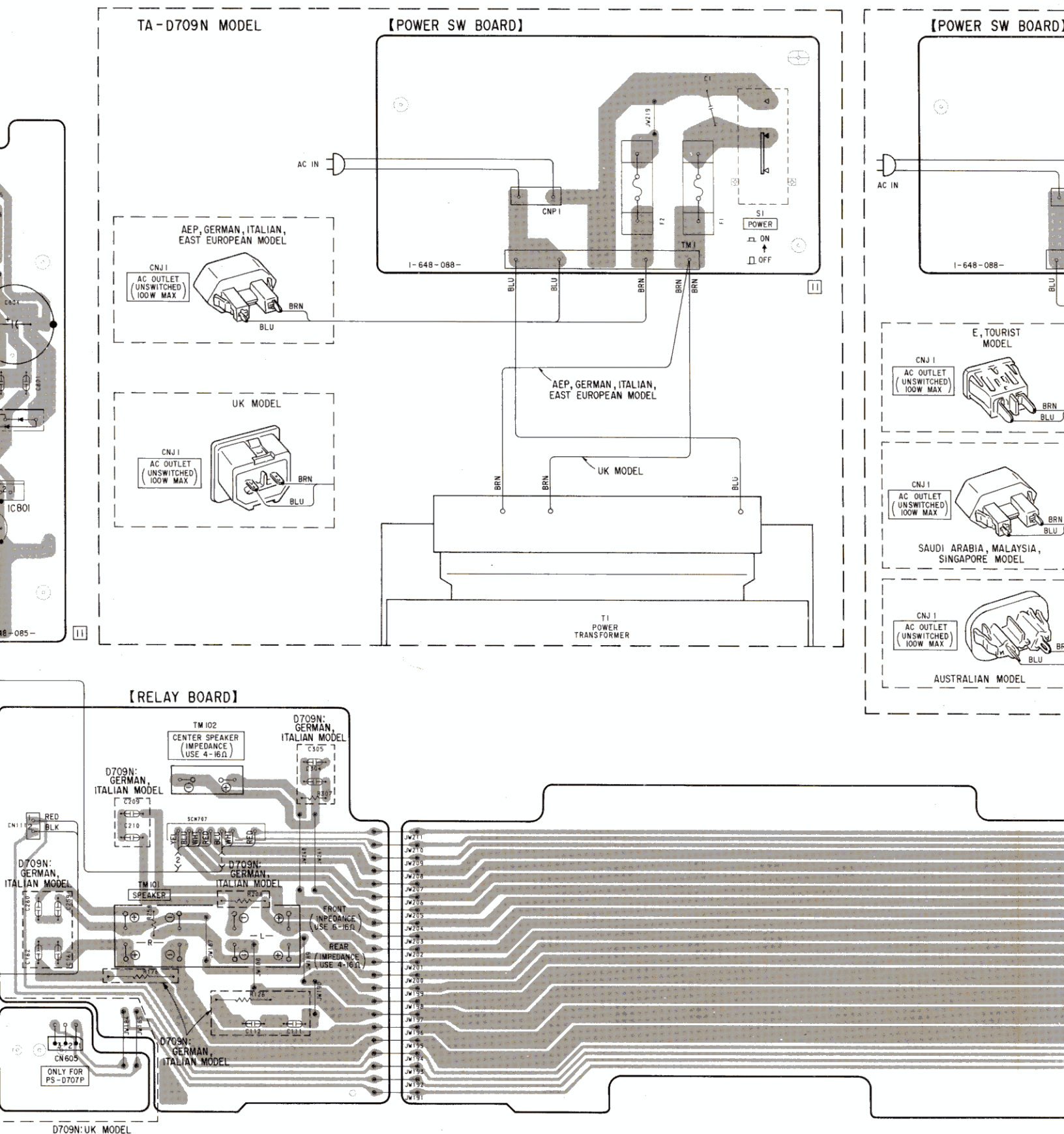
| Ref. No. | Location |
|----------|----------|
| D101     | D-11     |
| D102     | C-8      |
| D301     | D-7      |
| D302     | E-8      |
| D303     | F-9      |
| D304     | E-8      |
| D403     | C-11     |
| D405     | E-12     |
| D503     | H-3      |
| D504     | H-4      |
| D505     | H-4      |
| D601     | F-12     |
| D701     | E-9      |
| D702     | E-9      |
| D703     | E-10     |
| D704     | G-31     |
| D705     | H-30     |
| D706     | I-30     |
| D801     | E-14     |
| D901     | H-2      |
| D902     | H-2      |
| D903     | H-2      |
| D904     | H-2      |
| D905     | I-2      |
| D906     | I-2      |
| D907     | I-2      |
| D908     | I-2      |
| D909     | I-2      |
| D910     | J-2      |
| D951     | H-5      |
| D952     | H-5      |
| D953     | H-5      |
| D954     | H-5      |
| D955     | I-5      |
| D956     | I-5      |
| D957     | I-5      |
| D958     | I-5      |
| D959     | I-5      |
| D960     | J-5      |
| IC101    | A-10     |
| IC201    | A-14     |
| IC251    | A-12     |
| IC301    | E-7      |
| IC601    | F-14     |
| IC602    | G-13     |
| IC801    | E-14     |
| IC901    | H-2      |
| IC902    | I-2      |
| IC951    | H-4      |
| IC952    | I-4      |
| Q101     | D-11     |
| Q102     | C-8      |
| Q120     | C-8      |
| Q121     | D-8      |
| Q301     | E-7      |
| Q302     | F-8      |
| Q303     | E-8      |
| Q304     | E-8      |
| Q406     | E-11     |
| Q407     | E-11     |
| Q505     | H-3      |
| Q506     | H-3      |
| Q601     | F-13     |
| Q701     | G-30     |
| Q903     | H-7      |
| Q904     | I-3      |

## 3-3. PRINTED WIRING BOARDS ● Refer to page 5 for Semiconductor Lead Layouts.



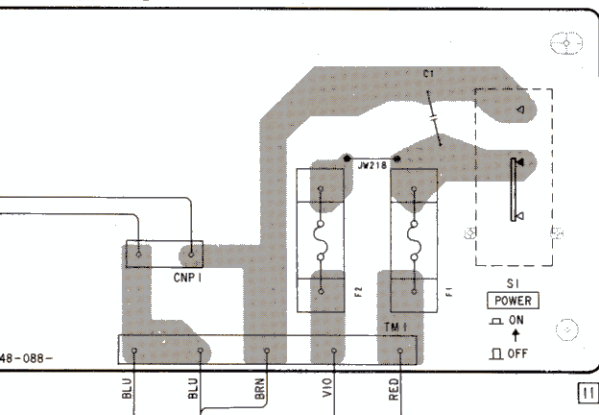
|   |   |   |   |    |    |    |    |    |    |
|---|---|---|---|----|----|----|----|----|----|
| 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|----|----|----|----|----|----|





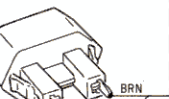
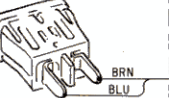
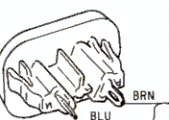
ER SW BOARD]

TA-A77N MODEL



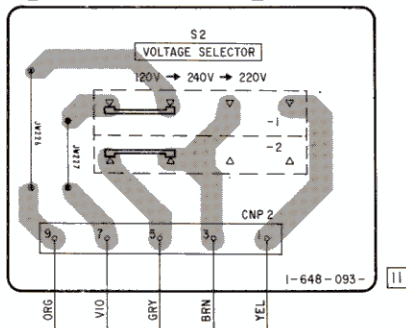
E, TOURIST

MODEL

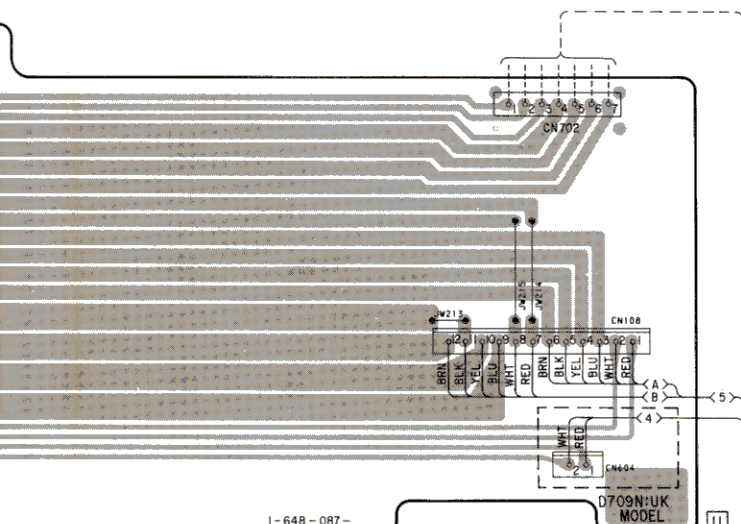
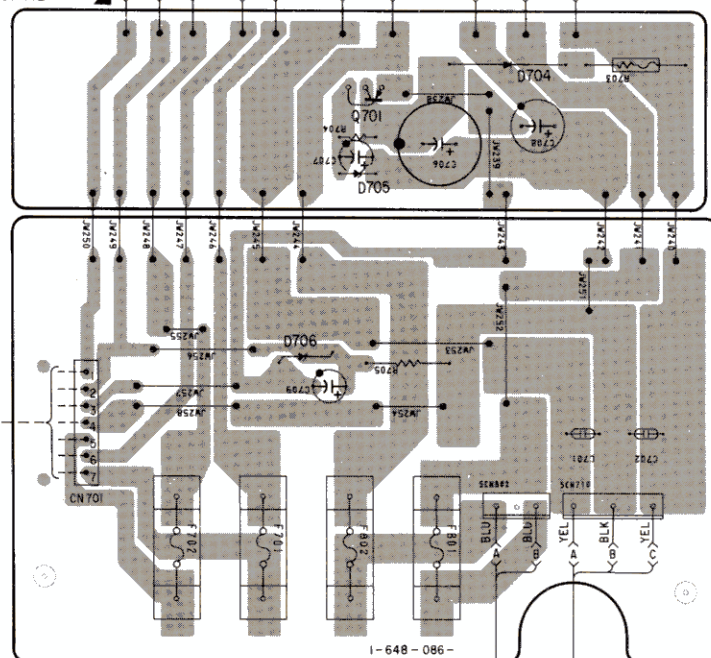
BIA, MALAYSIA,  
SINGAPORE MODEL

AUSTRALIAN MODEL

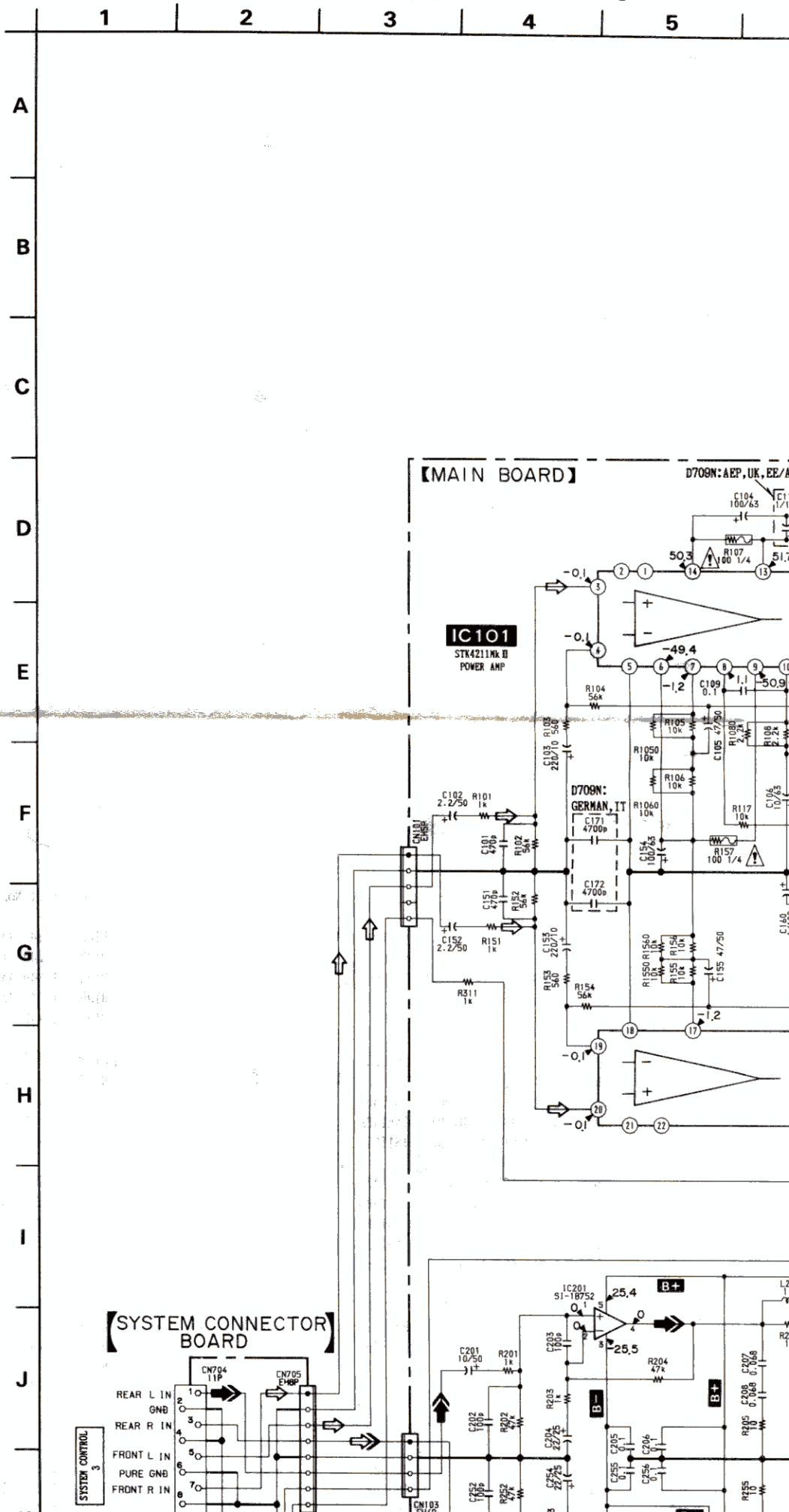
### VOLTAGE SELECTION BOARD



### TRANSFORMER SECONDARY BOARD



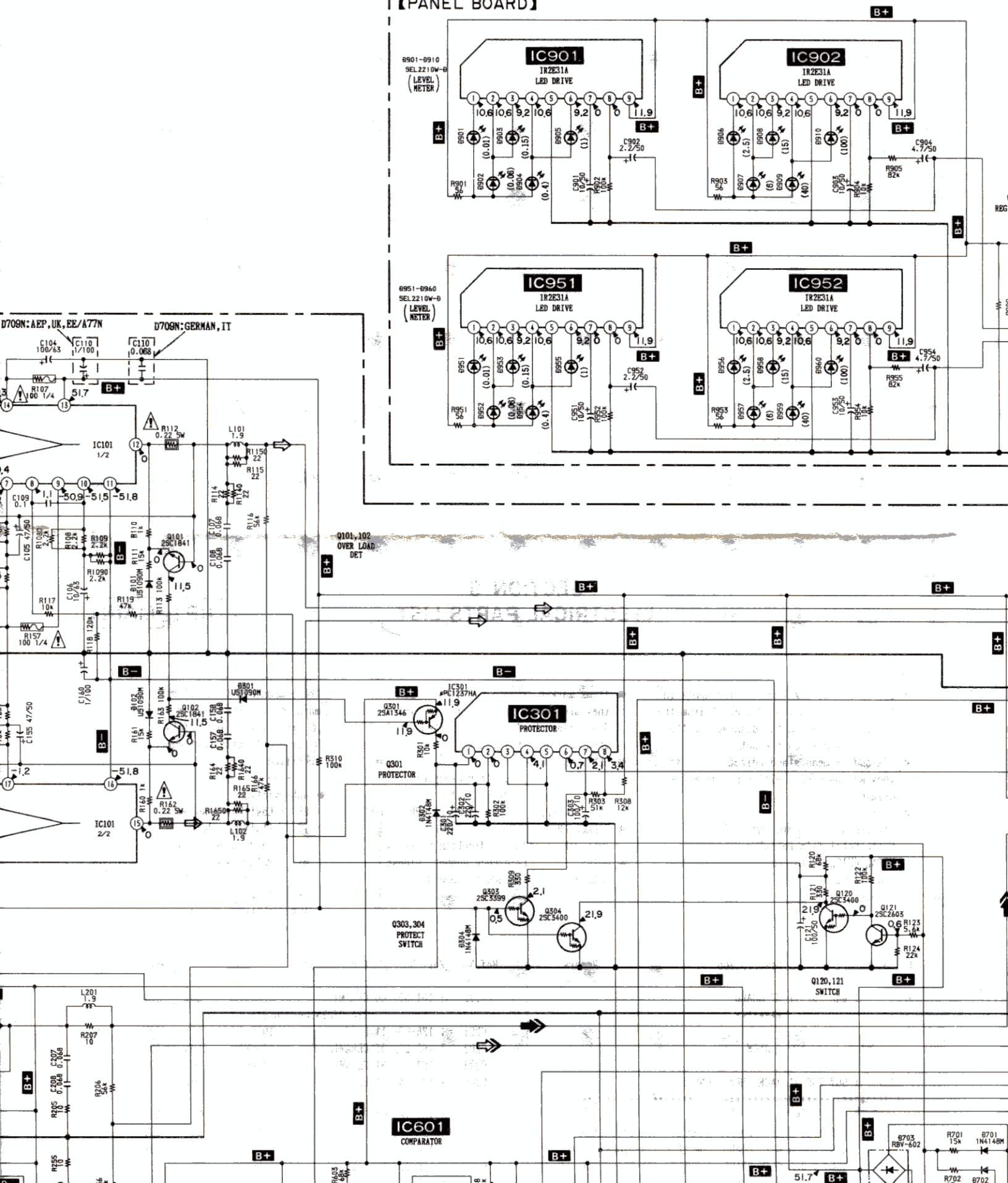
**3-4. SCHEMATIC DIAGRAM** • Refer to page 6 for IC Block Diagrams.

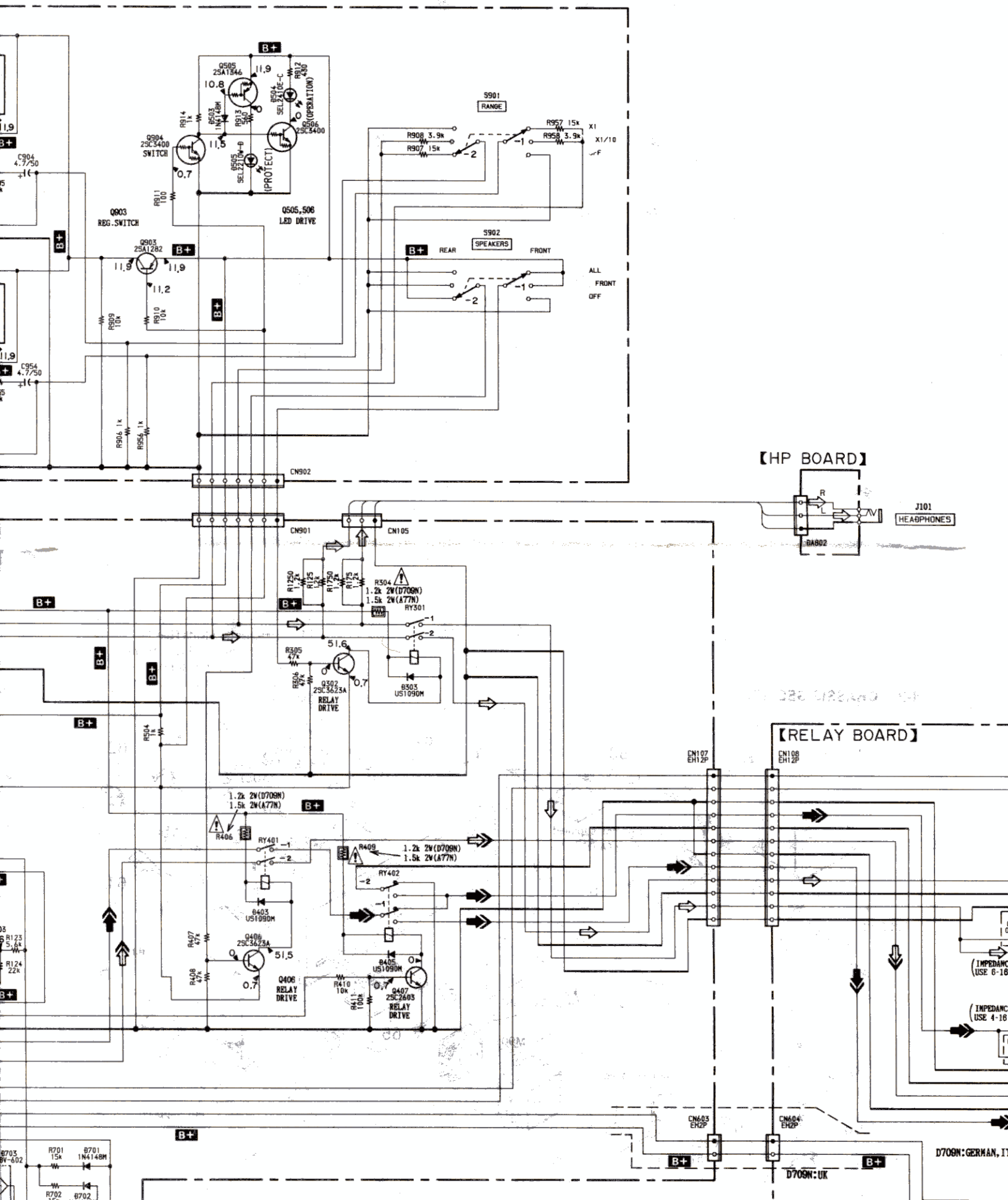


## 【PANEL BOARD】

D709N: AEP, UK, EE/A77N

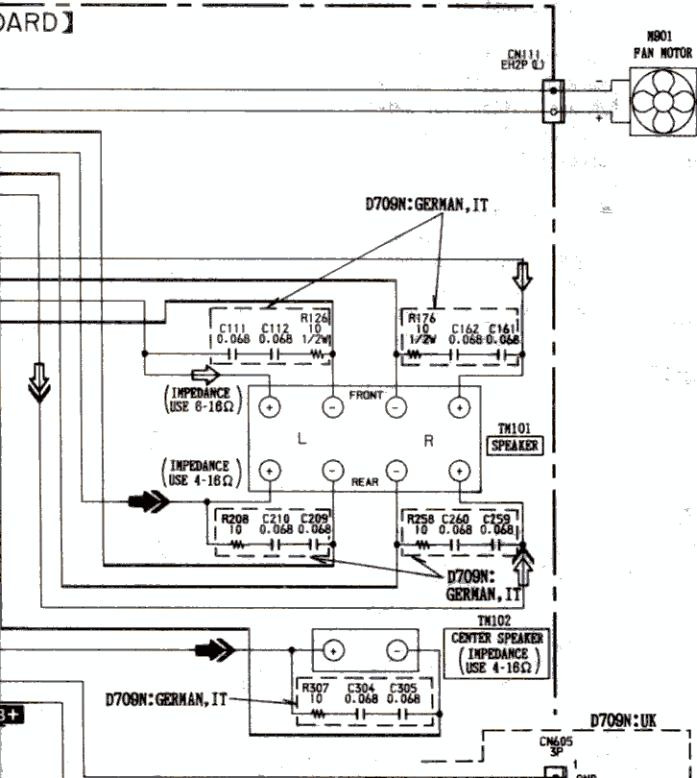
D709N: GERMAN, IT



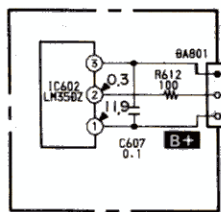
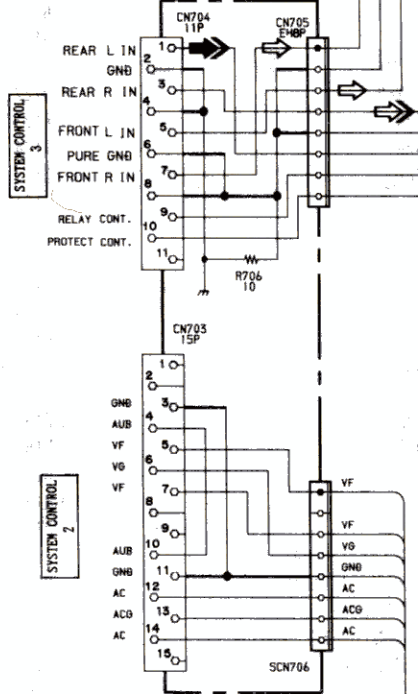


21 22 23 24

J101  
HEADPHONES



# **[SYSTEM CONNECTOR BOARD]**



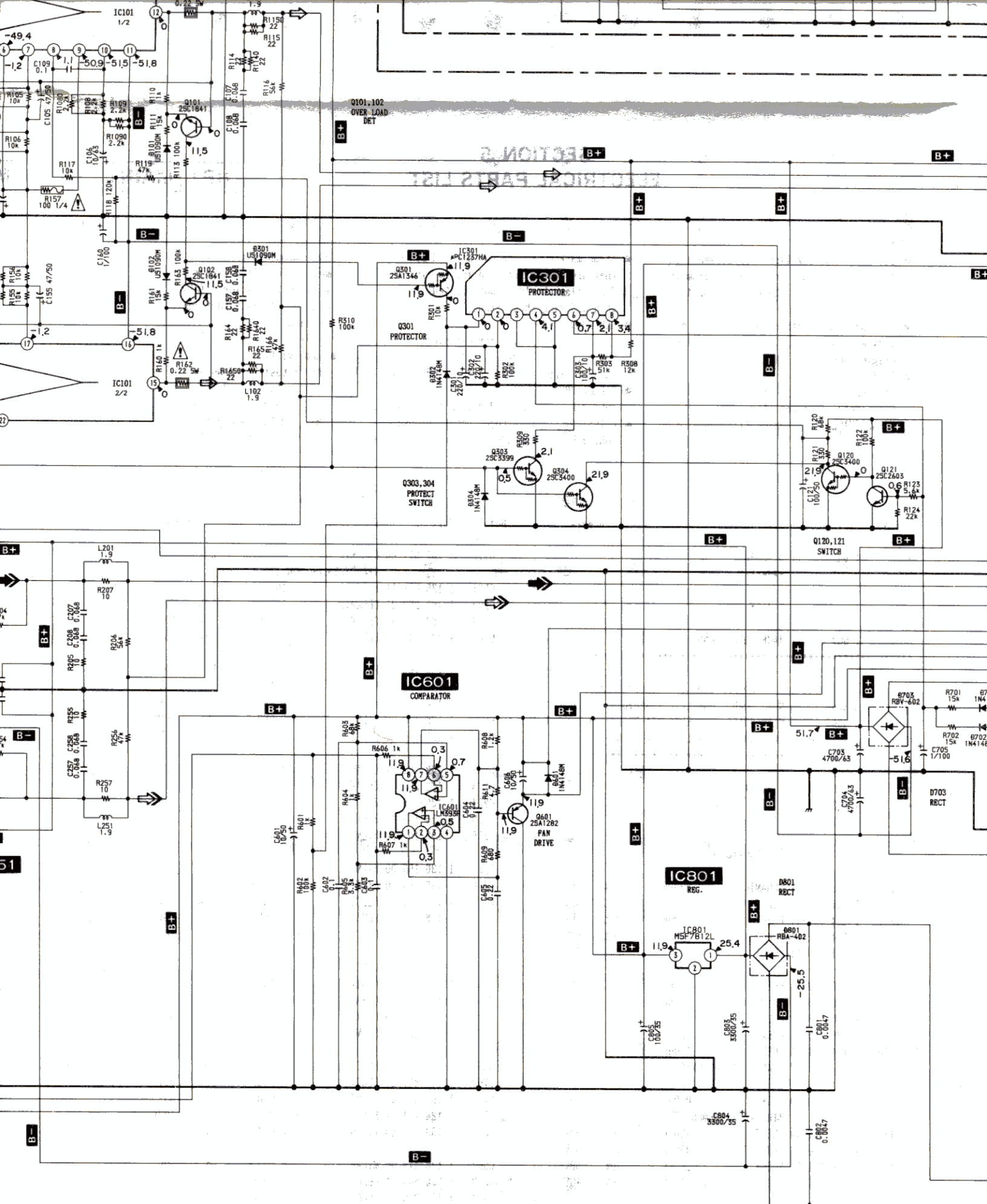
## **[SENSOR BOARD]**

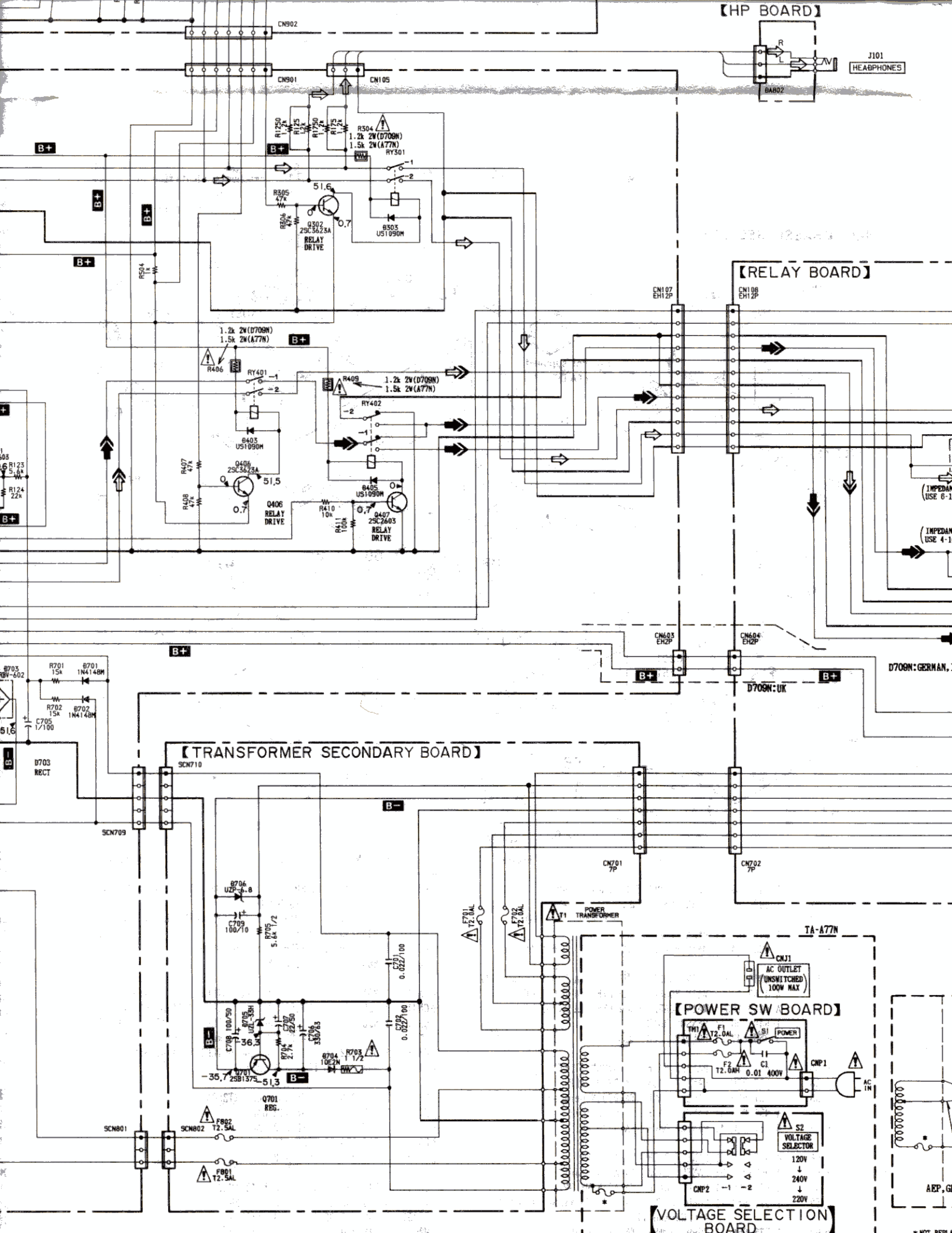
**IC101**  
STK4211MK II  
POWER AMP

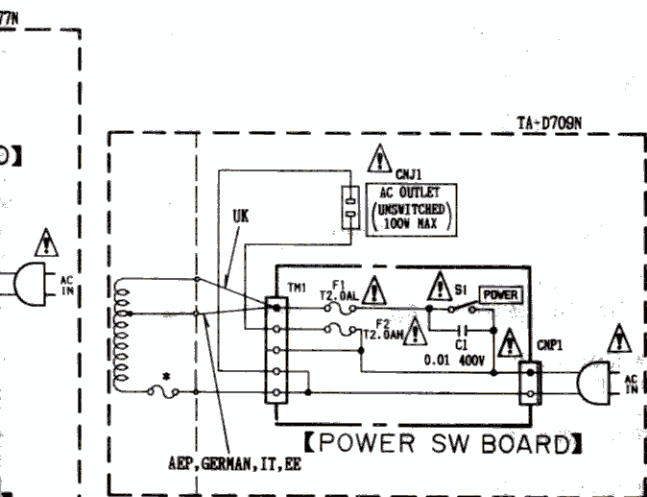
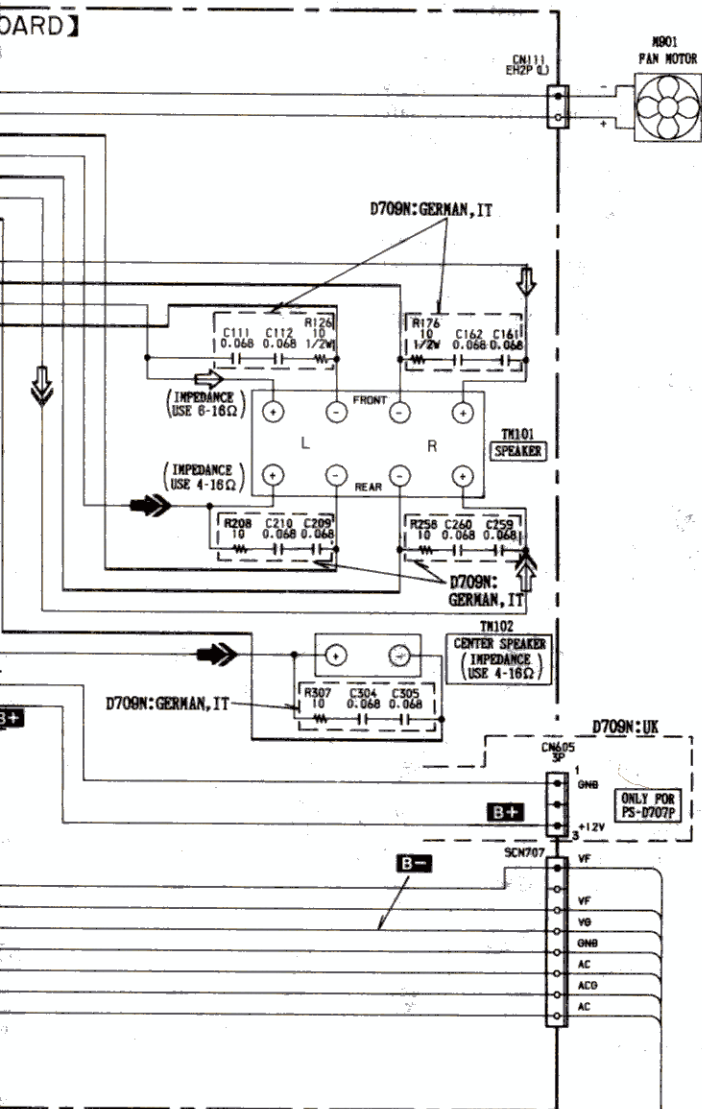
**D708N:**  
GERMAN TT  
C171

**IC201, IC251**  
LINE AMP

**IC602**  
THERMAL  
DET







2W31V 0P001A/C

**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted,  $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.

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

- Voltage is dc with respect to ground under no-signal conditions. no mark : POWER ON
- Voltages are taken with a VOM (Input Impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  - : PHONO
  - : SURROUND
  - : CENTER
- Abbreviations  
IT : Italian model

## SECTION 4 EXPLODED VIEWS

### NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- -XX and -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

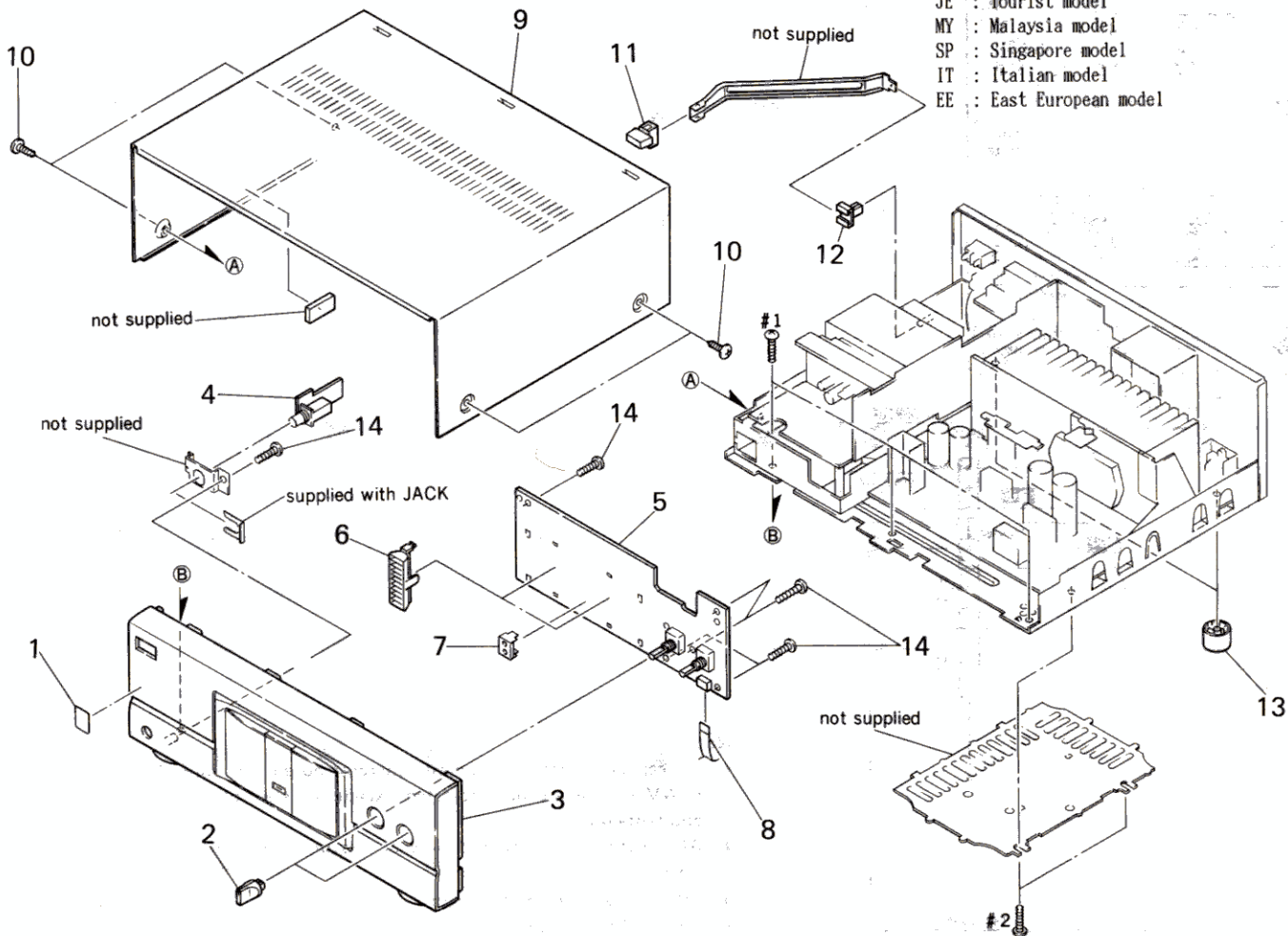
- Hardware (# mark) list is given in the last of this parts list.

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

### ● Abbreviations

EA : Saudi Arabia model  
AUS : Australian model  
JE : Tourist model  
MY : Malaysia model  
SP : Singapore model  
IT : Italian model  
EE : East European model

### 4-1. CABINET SECTION

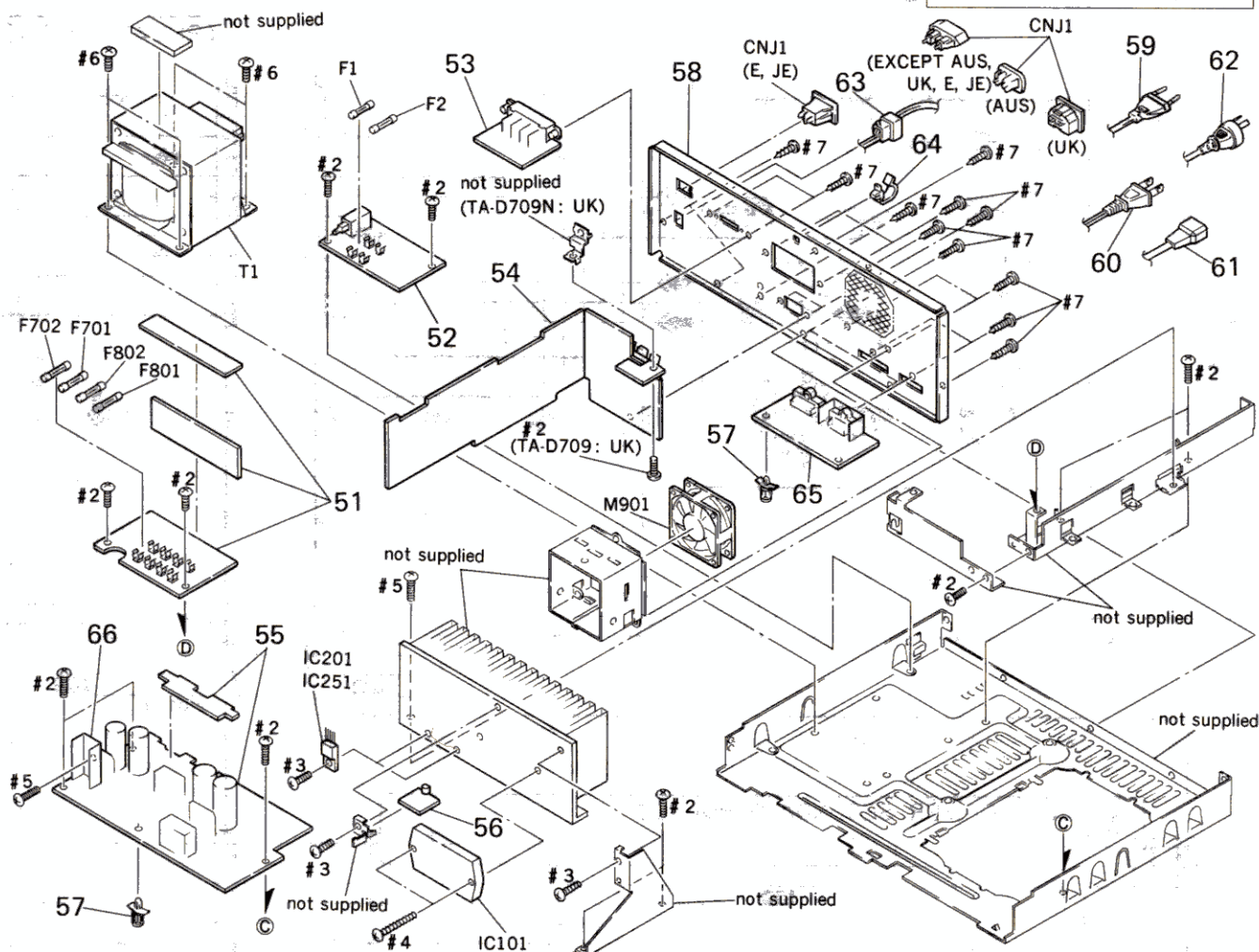


| Ref. No. | Part No.     | Description                                      | Remark |
|----------|--------------|--------------------------------------------------|--------|
| 1        | 3-703-710-41 | STICKER, SONY SYMBOL (12)                        |        |
| 2        | X-4944-100-1 | KNOB ASSY                                        |        |
| 3        | X-4943-567-1 | PANEL ASSY, FRONT (TA-D709N:AEP, German, IT, EE) |        |
| 3        | X-4943-683-1 | PANEL ASSY, FRONT (TA-A77N)                      |        |
| 3        | X-4943-689-1 | PANEL ASSY, FRONT (TA-D709N:UK)                  |        |
| * 4      | 1-648-092-11 | HP BOARD                                         |        |
| * 5      | A-4360-763-A | PANEL BOARD, COMPLETE                            |        |
| * 6      | 4-928-450-01 | HOLDER (L), LED                                  |        |

| Ref. No. | Part No.     | Description              | Remark |
|----------|--------------|--------------------------|--------|
| * 7      | 4-928-444-01 | HOLDER (S), LED          |        |
| 8        | 1-590-239-31 | WIRE, FLAT TYPE (7 CORE) |        |
| * 9      | 4-949-912-51 | CASE                     |        |
| 10       | 3-363-099-01 | SCREW (CASE 3 TP2)       |        |
| 11       | 4-942-061-11 | BUTTON (P)               |        |
| 12       | 4-866-342-00 | JOINT (B), KNOB          |        |
| 13       | 4-931-169-01 | FOOT                     |        |
| 14       | 4-951-620-01 | SCREW (2.6X8), +BVTP     |        |

## 4-2. CHASSIS SECTION

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



| Ref. No.    | Part No.     | Description                                                   | Remark |
|-------------|--------------|---------------------------------------------------------------|--------|
| * 51        | 1-648-086-11 | TRANSFORMER SECONDARY BOARD                                   |        |
| * 52        | 1-648-088-11 | POWER SW BOARD                                                |        |
| * 53        | 1-648-093-11 | VOLTAGE SELECTION BOARD (TA-A77N)                             |        |
| * 54        | 1-648-087-11 | RELAY BOARD                                                   |        |
| * 55        | A-4360-749-A | MAIN BOARD, COMPLETE (TA-D709N:AEP, EE)                       |        |
| * 55        | A-4360-750-A | MAIN BOARD, COMPLETE (TA-D709N:German, IT)                    |        |
| * 55        | A-4365-102-A | MAIN BOARD, COMPLETE (TA-D709N:UK)                            |        |
| * 55        | A-4365-103-A | MAIN BOARD, COMPLETE (TA-A77N)                                |        |
| * 56        | 1-648-090-11 | SENSOR BOARD                                                  |        |
| * 57        | 3-350-847-21 | HOLDER, PCB                                                   |        |
| * 58        | 4-957-930-01 | PANEL, BACK (TA-D709N:IT, EE)                                 |        |
| * 58        | 4-957-930-11 | PANEL, BACK (TA-D709N:AEP)                                    |        |
| * 58        | 4-957-930-21 | PANEL, BACK (TA-D709N:German)                                 |        |
| * 58        | 4-957-930-31 | PANEL, BACK (TA-D709N:UK)                                     |        |
| * 58        | 4-957-930-41 | PANEL, BACK (TA-A77N:AUS)                                     |        |
| * 58        | 4-957-930-51 | PANEL, BACK (TA-A77N:EA)                                      |        |
| * 58        | 4-957-930-61 | PANEL, BACK (TA-A77N:E, JE)                                   |        |
| * 58        | 4-957-930-71 | PANEL, BACK (TA-A77N:MY, SP)                                  |        |
| $\Delta$ 59 | 1-575-654-11 | CORD, POWER (TA-A77N:EA, MY, SP/TA-D709N:AEP, German, IT, EE) |        |
| $\Delta$ 60 | 1-575-656-11 | CORD, POWER (TA-A77N:E, JE)                                   |        |

| Ref. No.      | Part No.     | Description                                                              | Remark |
|---------------|--------------|--------------------------------------------------------------------------|--------|
| * 63          | 3-703-244-00 | BUSHING (2104), CORD (TA-A77N:EA, AUS, MY, SP/TA-D709N)                  |        |
| * 63          | 3-703-571-11 | BUSHING (S) (4516), CORD (TA-A77N:E, JE)                                 |        |
| * 64          | 4-949-235-01 | HOOK                                                                     |        |
| * 65          | 1-648-089-12 | SYSTEM CONNECTOR BOARD                                                   |        |
| * 66          | 4-880-403-11 | HEAT SINK                                                                |        |
| $\Delta$ CNJ1 | 1-251-078-11 | OUTLET, AC (AC OUTLET) (TA-A77N:AUS)                                     |        |
| $\Delta$ CNJ1 | 1-526-751-00 | OUTLET, AC (AC OUTLET) (TA-D709N:UK)                                     |        |
| $\Delta$ CNJ1 | 1-526-794-11 | OUTLET, AC (AC OUTLET) (TA-A77N:EA, MY, SP/TA-D709N:AEP, German, IT, EE) |        |
| $\Delta$ CNJ1 | 1-526-882-00 | OUTLET, AC (AC OUTLET) (TA-A77N:E, JE)                                   |        |
| $\Delta$ F1   | 1-532-203-00 | FUSE (T2.0AL)                                                            |        |
| $\Delta$ F2   | 1-576-228-31 | FUSE (H.B.C.) (T2.0AH)                                                   |        |
| $\Delta$ F701 | 1-532-203-00 | FUSE (T2.0AL)                                                            |        |
| $\Delta$ F702 | 1-532-203-00 | FUSE (T2.0AL)                                                            |        |
| $\Delta$ F801 | 1-532-286-00 | FUSE (T2.5AL)                                                            |        |
| $\Delta$ F802 | 1-532-286-00 | FUSE (T2.5AL)                                                            |        |
| IC101         | 8-749-921-04 | IC STK-4211MK2                                                           |        |
| IC201         | 8-759-502-32 | IC SI-18752N                                                             |        |
| IC251         | 8-759-502-32 | IC SI-18752N                                                             |        |
| M001          | 1-541-860-41 | MOTOR DC FAN                                                             |        |

## SECTION 5 ELECTRICAL PARTS LIST

HP

MAIN

### 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.
- -XX and -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

- 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

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

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

### • Abbreviations

EE : East European model  
IT : Italian model  
EA : Saudi Arabia model  
MY : Malaysia model  
SP : Singapore model  
JE : Tourist model  
AUS : Australian model

| Ref. No. | Part No.     | Description                                 | Remark  |     |      |  |
|----------|--------------|---------------------------------------------|---------|-----|------|--|
| *        | 1-648-092-11 | HP BOARD                                    |         |     |      |  |
|          |              | *****                                       |         |     |      |  |
|          |              | < JACK >                                    |         |     |      |  |
| J101     | 1-507-796-71 | JACK (HEADPHONES)                           |         |     |      |  |
|          |              | *****                                       |         |     |      |  |
| *        | A-4360-749-A | MAIN BOARD, COMPLETE (TA-D709N: AEP, EE)    |         |     |      |  |
| *        | A-4360-750-A | MAIN BOARD, COMPLETE (TA-D709N: German, IT) |         |     |      |  |
| *        | A-4365-102-A | MAIN BOARD, COMPLETE (TA-D709N: UK)         |         |     |      |  |
| *        | A-4365-103-A | MAIN BOARD, COMPLETE (TA-A77N)              |         |     |      |  |
|          |              | *****                                       |         |     |      |  |
| *        | 4-880-403-11 | HEAT SINK                                   |         |     |      |  |
| *        | 4-942-204-01 | PLATE, GROUND                               |         |     |      |  |
|          | 7-682-548-04 | SCREW +BVTT 3X8 (S)                         |         |     |      |  |
|          |              | < CAPACITOR >                               |         |     |      |  |
| C101     | 1-162-290-31 | CERAMIC                                     | 470PF   | 10% | 50V  |  |
| C102     | 1-126-161-11 | ELECT                                       | 2.2uF   | 20% | 50V  |  |
| C103     | 1-124-995-11 | ELECT                                       | 220uF   | 20% | 10V  |  |
| C104     | 1-124-572-11 | ELECT                                       | 100uF   | 20% | 63V  |  |
| C105     | 1-124-910-11 | ELECT                                       | 47uF    | 20% | 50V  |  |
| C106     | 1-126-059-11 | ELECT                                       | 10uF    | 20% | 63V  |  |
| C107     | 1-136-163-00 | FILM                                        | 0.068uF | 5%  | 50V  |  |
| C108     | 1-136-163-00 | FILM                                        | 0.068uF | 5%  | 50V  |  |
| C109     | 1-136-165-00 | FILM                                        | 0.1uF   | 5%  | 50V  |  |
| C110     | 1-124-791-11 | ELECT                                       | 1.0uF   | 20% | 100V |  |
|          |              | (EXCEPT TA-D709N: German, IT)               |         |     |      |  |
| C110     | 1-136-163-00 | FILM                                        | 0.068uF | 5%  | 50V  |  |
|          |              | (TA-D709N: German, IT)                      |         |     |      |  |
| C121     | 1-124-122-11 | ELECT                                       | 100uF   | 20% | 50V  |  |
| C151     | 1-162-290-31 | CERAMIC                                     | 470PF   | 10% | 50V  |  |
| C152     | 1-126-161-11 | ELECT                                       | 2.2uF   | 20% | 50V  |  |
| C153     | 1-124-995-11 | ELECT                                       | 220uF   | 20% | 10V  |  |
| C154     | 1-124-572-11 | ELECT                                       | 100uF   | 20% | 63V  |  |
| C155     | 1-124-910-11 | ELECT                                       | 47uF    | 20% | 50V  |  |
| C157     | 1-136-163-00 | FILM                                        | 0.068uF | 5%  | 50V  |  |
| C158     | 1-136-163-00 | FILM                                        | 0.068uF | 5%  | 50V  |  |
| C160     | 1-124-791-11 | ELECT                                       | 1.0uF   | 20% | 100V |  |

| Ref. No. | Part No.     | Description            | Remark   |     |      |  |
|----------|--------------|------------------------|----------|-----|------|--|
| C172     | 1-161-377-00 | CERAMIC                | 0.0047uF | 20% | 16V  |  |
|          |              | (TA-D709N: German, IT) |          |     |      |  |
| C201     | 1-126-059-11 | ELECT                  | 10uF     | 20% | 50V  |  |
| C202     | 1-162-282-31 | CERAMIC                | 100PF    | 10% | 50V  |  |
| C203     | 1-162-282-31 | CERAMIC                | 100PF    | 10% | 50V  |  |
| C204     | 1-126-049-11 | ELECT                  | 22uF     | 20% | 25V  |  |
| C205     | 1-136-165-00 | FILM                   | 0.1uF    | 5%  | 50V  |  |
| C206     | 1-136-165-00 | FILM                   | 0.1uF    | 5%  | 50V  |  |
| C207     | 1-136-163-00 | FILM                   | 0.068uF  | 5%  | 50V  |  |
| C208     | 1-136-163-00 | FILM                   | 0.068uF  | 5%  | 50V  |  |
| C251     | 1-126-059-11 | ELECT                  | 10uF     | 20% | 50V  |  |
| C252     | 1-162-282-31 | CERAMIC                | 100PF    | 10% | 50V  |  |
| C253     | 1-162-282-31 | CERAMIC                | 100PF    | 10% | 50V  |  |
| C254     | 1-126-049-11 | ELECT                  | 22uF     | 20% | 25V  |  |
| C255     | 1-136-165-00 | FILM                   | 0.1uF    | 5%  | 50V  |  |
| C256     | 1-136-165-00 | FILM                   | 0.1uF    | 5%  | 50V  |  |
| C257     | 1-136-163-00 | FILM                   | 0.068uF  | 5%  | 50V  |  |
| C258     | 1-136-163-00 | FILM                   | 0.068uF  | 5%  | 50V  |  |
| C301     | 1-126-101-11 | ELECT                  | 100uF    | 20% | 16V  |  |
| C302     | 1-126-101-11 | ELECT                  | 100uF    | 20% | 16V  |  |
| C303     | 1-124-994-11 | ELECT                  | 100uF    | 20% | 10V  |  |
| C601     | 1-126-059-11 | ELECT                  | 10uF     | 20% | 50V  |  |
| C602     | 1-164-159-11 | CERAMIC                | 0.1uF    |     | 50V  |  |
| C603     | 1-164-159-11 | CERAMIC                | 0.1uF    |     | 50V  |  |
| C604     | 1-136-169-00 | FILM                   | 0.22uF   | 5%  | 50V  |  |
| C605     | 1-136-169-00 | FILM                   | 0.22uF   | 5%  | 50V  |  |
| C606     | 1-126-059-11 | ELECT                  | 10uF     | 20% | 50V  |  |
| C703     | 1-107-497-51 | ELECT                  | 4700uF   | 20% | 63V  |  |
| C704     | 1-107-497-51 | ELECT                  | 4700uF   | 20% | 63V  |  |
| C705     | 1-124-791-11 | ELECT                  | 1.0uF    | 20% | 100V |  |
| C801     | 1-130-479-00 | MYLAR                  | 0.0047uF | 5%  | 50V  |  |
| C802     | 1-130-479-00 | MYLAR                  | 0.0047uF | 5%  | 50V  |  |
| C803     | 1-126-860-11 | ELECT                  | 3300uF   | 20% | 35V  |  |
| C804     | 1-126-860-11 | ELECT                  | 3300uF   | 20% | 35V  |  |
| C805     | 1-124-122-11 | ELECT                  | 100uF    | 20% | 50V  |  |

### < CONNECTOR >

- \* CN101 1-564-508-11 PLUG, CONNECTOR 5P
- \* CN103 1-564-507-11 PLUG, CONNECTOR 4P

# MAIN

| Ref. No. | Part No. | Description | Remark |
|----------|----------|-------------|--------|
|----------|----------|-------------|--------|

- \* CN601 1-564-337-00 PIN, CONNECTOR 3P
- \* CN603 1-564-505-11 PLUG, CONNECTOR 2P. (TA-D709N:UK)
- \* CN901 1-568-826-11 SOCKET, CONNECTOR 7P

## < DIODE >

|      |              |       |         |
|------|--------------|-------|---------|
| D101 | 8-719-815-85 | DIODE | 1S1585  |
| D102 | 8-719-815-85 | DIODE | 1S1585  |
| D301 | 8-719-815-85 | DIODE | 1S1585  |
| D302 | 8-719-987-63 | DIODE | 1N4148M |
| D303 | 8-719-815-85 | DIODE | 1S1585  |

|      |              |       |         |
|------|--------------|-------|---------|
| D304 | 8-719-987-63 | DIODE | 1N4148M |
| D403 | 8-719-987-63 | DIODE | 1N4148M |
| D405 | 8-719-987-63 | DIODE | 1N4148M |
| D601 | 8-719-987-63 | DIODE | 1N4148M |
| D701 | 8-719-987-63 | DIODE | 1N4148M |

|      |              |       |            |
|------|--------------|-------|------------|
| D702 | 8-719-987-63 | DIODE | 1N4148M    |
| D703 | 8-719-302-38 | DIODE | RBV-602-01 |
| D801 | 8-719-312-09 | DIODE | RBA-402    |

## < IC >

|       |              |    |             |
|-------|--------------|----|-------------|
| IC101 | 8-749-921-04 | IC | STK-4211MK2 |
| IC201 | 8-759-502-32 | IC | SI-18752N   |
| IC251 | 8-759-502-32 | IC | SI-18752N   |
| IC301 | 8-759-111-68 | IC | uPC1237HA   |
| IC601 | 8-759-103-93 | IC | uPC393C     |

|       |              |    |         |
|-------|--------------|----|---------|
| IC801 | 8-759-231-58 | IC | TA7812S |
|-------|--------------|----|---------|

## < COIL >

|      |              |                |
|------|--------------|----------------|
| L101 | 1-420-872-00 | COIL, AIR CORE |
| L102 | 1-420-872-00 | COIL, AIR CORE |
| L201 | 1-420-872-00 | COIL, AIR CORE |
| L251 | 1-420-872-00 | COIL, AIR CORE |

## < TRANSISTOR >

|      |              |            |                |
|------|--------------|------------|----------------|
| Q101 | 8-729-140-84 | TRANSISTOR | 2SC1841-PAFAEA |
| Q102 | 8-729-140-84 | TRANSISTOR | 2SC1841-PAFAEA |
| Q120 | 8-729-900-36 | TRANSISTOR | DTC124ES       |
| Q121 | 8-729-620-05 | TRANSISTOR | 2SC2603-EF     |
| Q301 | 8-729-900-63 | TRANSISTOR | DTA124ES       |

|      |              |            |            |
|------|--------------|------------|------------|
| Q302 | 8-729-620-05 | TRANSISTOR | 2SC2603-EF |
| Q303 | 8-729-620-05 | TRANSISTOR | 2SC2603-EF |
| Q304 | 8-729-900-36 | TRANSISTOR | DTC124ES   |
| Q406 | 8-729-620-05 | TRANSISTOR | 2SC2603-EF |
| Q407 | 8-729-620-05 | TRANSISTOR | 2SC2603-EF |

|      |              |            |           |
|------|--------------|------------|-----------|
| Q601 | 8-729-140-93 | TRANSISTOR | 2SB733-34 |
|------|--------------|------------|-----------|

## < RESISTOR >

|      |              |        |            |
|------|--------------|--------|------------|
| R101 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
|------|--------------|--------|------------|

| Ref. No. | Part No. | Description | Remark |
|----------|----------|-------------|--------|
|----------|----------|-------------|--------|

|      |              |        |             |
|------|--------------|--------|-------------|
| R102 | 1-249-438-11 | CARBON | 56K 5% 1/4W |
| R103 | 1-249-414-11 | CARBON | 560 5% 1/4W |
| R104 | 1-249-438-11 | CARBON | 56K 5% 1/4W |
| R105 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R106 | 1-249-429-11 | CARBON | 10K 5% 1/4W |

|       |              |         |               |
|-------|--------------|---------|---------------|
| △R107 | 1-212-881-11 | FUSIBLE | 100 5% 1/4W F |
| R108  | 1-249-421-11 | CARBON  | 2.2K 5% 1/4W  |
| R109  | 1-249-421-11 | CARBON  | 2.2K 5% 1/4W  |
| R110  | 1-249-417-11 | CARBON  | 1K 5% 1/4W    |
| R111  | 1-249-431-11 | CARBON  | 15K 5% 1/4W   |

|       |              |             |              |
|-------|--------------|-------------|--------------|
| △R112 | 1-217-156-00 | METAL PLATE | 0.22 5W      |
| R113  | 1-249-441-11 | CARBON      | 100K 5% 1/4W |
| R114  | 1-249-397-11 | CARBON      | 22 5% 1/4W   |
| R115  | 1-249-397-11 | CARBON      | 22 5% 1/4W   |
| R116  | 1-249-438-11 | CARBON      | 56K 5% 1/4W  |

|      |              |        |              |
|------|--------------|--------|--------------|
| R117 | 1-249-429-11 | CARBON | 10K 5% 1/4W  |
| R118 | 1-247-881-00 | CARBON | 120K 5% 1/4W |
| R119 | 1-249-437-11 | CARBON | 47K 5% 1/4W  |
| R120 | 1-249-439-11 | CARBON | 68K 5% 1/4W  |
| R121 | 1-249-411-11 | CARBON | 330 5% 1/4W  |

|      |              |        |              |
|------|--------------|--------|--------------|
| R122 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| R123 | 1-249-426-11 | CARBON | 5.6K 5% 1/4W |
| R124 | 1-249-433-11 | CARBON | 22K 5% 1/4W  |
| R125 | 1-249-418-11 | CARBON | 1.2K 5% 1/4W |
| R151 | 1-249-417-11 | CARBON | 1K 5% 1/4W   |

|      |              |        |             |
|------|--------------|--------|-------------|
| R152 | 1-249-438-11 | CARBON | 56K 5% 1/4W |
| R153 | 1-249-414-11 | CARBON | 560 5% 1/4W |
| R154 | 1-249-438-11 | CARBON | 56K 5% 1/4W |
| R155 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R156 | 1-249-429-11 | CARBON | 10K 5% 1/4W |

|       |              |             |               |
|-------|--------------|-------------|---------------|
| △R157 | 1-212-881-11 | FUSIBLE     | 100 5% 1/4W F |
| R160  | 1-249-417-11 | CARBON      | 1K 5% 1/4W    |
| R161  | 1-249-431-11 | CARBON      | 15K 5% 1/4W   |
| △R162 | 1-217-156-00 | METAL PLATE | 0.22 5W       |
| R163  | 1-249-441-11 | CARBON      | 100K 5% 1/4W  |

|      |              |        |              |
|------|--------------|--------|--------------|
| R164 | 1-249-397-11 | CARBON | 22 5% 1/4W   |
| R165 | 1-249-397-11 | CARBON | 22 5% 1/4W   |
| R166 | 1-249-437-11 | CARBON | 47K 5% 1/4W  |
| R175 | 1-249-418-11 | CARBON | 1.2K 5% 1/4W |
| R201 | 1-249-417-11 | CARBON | 1K 5% 1/4W   |

|      |              |        |             |
|------|--------------|--------|-------------|
| R202 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R203 | 1-249-417-11 | CARBON | 1K 5% 1/4W  |
| R204 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R205 | 1-249-393-11 | CARBON | 10 5% 1/4W  |
| R206 | 1-249-438-11 | CARBON | 56K 5% 1/4W |

|      |              |        |             |
|------|--------------|--------|-------------|
| R207 | 1-249-393-11 | CARBON | 10 5% 1/4W  |
| R251 | 1-249-417-11 | CARBON | 1K 5% 1/4W  |
| R252 | 1-249-437-11 | CARBON | 47K 5% 1/4W |
| R253 | 1-249-417-11 | CARBON | 1K 5% 1/4W  |

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

| Ref. No. | Part No.     | Description               | Remark |    |      |
|----------|--------------|---------------------------|--------|----|------|
| R254     | 1-249-437-11 | CARBON                    | 47K    | 5% | 1/4W |
| R255     | 1-249-393-11 | CARBON                    | 10     | 5% | 1/4W |
| R256     | 1-249-437-11 | CARBON                    | 47K    | 5% | 1/4W |
| R257     | 1-249-393-11 | CARBON                    | 10     | 5% | 1/4W |
| R301     | 1-249-429-11 | CARBON                    | 10K    | 5% | 1/4W |
| R302     | 1-249-441-11 | CARBON                    | 100K   | 5% | 1/4W |
| R303     | 1-247-872-11 | CARBON                    | 51K    | 5% | 1/4W |
| △R304    | 1-215-893-11 | METAL OXIDE<br>(TA-A77N)  | 1.5K   | 5% | 2W F |
| △R304    | 1-216-457-00 | METAL OXIDE<br>(TA-D709N) | 1.2K   | 5% | 2W F |
| R305     | 1-249-437-11 | CARBON                    | 47K    | 5% | 1/4W |
| R306     | 1-249-437-11 | CARBON                    | 47K    | 5% | 1/4W |
| R308     | 1-249-430-11 | CARBON                    | 12K    | 5% | 1/4W |
| R309     | 1-249-411-11 | CARBON                    | 330    | 5% | 1/4W |
| R310     | 1-249-441-11 | CARBON                    | 100K   | 5% | 1/4W |
| R311     | 1-249-417-11 | CARBON                    | 1K     | 5% | 1/4W |
| △R406    | 1-215-893-11 | METAL OXIDE<br>(TA-A77N)  | 1.5K   | 5% | 2W F |
| △R406    | 1-216-457-00 | METAL OXIDE<br>(TA-D709N) | 1.2K   | 5% | 2W F |
| R407     | 1-249-437-11 | CARBON                    | 47K    | 5% | 1/4W |
| R408     | 1-249-437-11 | CARBON                    | 47K    | 5% | 1/4W |
| △R409    | 1-215-893-11 | METAL OXIDE<br>(TA-A77N)  | 1.5K   | 5% | 2W F |
| △R409    | 1-216-457-00 | METAL OXIDE<br>(TA-D709N) | 1.2K   | 5% | 2W F |
| R410     | 1-249-429-11 | CARBON                    | 10K    | 5% | 1/4W |
| R411     | 1-249-441-11 | CARBON                    | 100K   | 5% | 1/4W |
| R504     | 1-249-417-11 | CARBON                    | 1K     | 5% | 1/4W |
| R601     | 1-249-417-11 | CARBON                    | 1K     | 5% | 1/4W |
| R602     | 1-249-441-11 | CARBON                    | 100K   | 5% | 1/4W |
| R603     | 1-249-439-11 | CARBON                    | 68K    | 5% | 1/4W |
| R604     | 1-249-417-11 | CARBON                    | 1K     | 5% | 1/4W |
| R605     | 1-249-423-11 | CARBON                    | 3.3K   | 5% | 1/4W |
| R606     | 1-249-417-11 | CARBON                    | 1K     | 5% | 1/4W |
| R607     | 1-249-417-11 | CARBON                    | 1K     | 5% | 1/4W |
| R608     | 1-249-418-11 | CARBON                    | 1.2K   | 5% | 1/4W |
| R609     | 1-249-415-11 | CARBON                    | 680    | 5% | 1/4W |
| R611     | 1-249-389-11 | CARBON                    | 4.7    | 5% | 1/4W |
| R701     | 1-249-431-11 | CARBON                    | 15K    | 5% | 1/4W |
| R702     | 1-249-431-11 | CARBON                    | 15K    | 5% | 1/4W |
| R1050    | 1-249-429-11 | CARBON                    | 10K    | 5% | 1/4W |
| R1060    | 1-249-429-11 | CARBON                    | 10K    | 5% | 1/4W |
| R1080    | 1-249-421-11 | CARBON                    | 2.2K   | 5% | 1/4W |
| R1090    | 1-249-421-11 | CARBON                    | 2.2K   | 5% | 1/4W |
| R1140    | 1-249-397-11 | CARBON                    | 22     | 5% | 1/4W |
| R1150    | 1-249-397-11 | CARBON                    | 22     | 5% | 1/4W |
| R1250    | 1-249-418-11 | CARBON                    | 1.2K   | 5% | 1/4W |
| R1550    | 1-249-429-11 | CARBON                    | 10K    | 5% | 1/4W |

| Ref. No.       | Part No.     | Description           | Remark                        |     |      |
|----------------|--------------|-----------------------|-------------------------------|-----|------|
| R1560          | 1-249-429-11 | CARBON                | 10K                           | 5%  | 1/4W |
| R1640          | 1-249-397-11 | CARBON                | 22                            | 5%  | 1/4W |
| R1650          | 1-249-397-11 | CARBON                | 22                            | 5%  | 1/4W |
| R1750          | 1-249-418-11 | CARBON                | 1.2K                          | 5%  | 1/4W |
| < RELAY >      |              |                       |                               |     |      |
| RY301          | 1-515-765-11 | RELAY                 |                               |     |      |
| RY401          | 1-515-920-11 | RELAY (24V)           |                               |     |      |
| RY402          | 1-515-360-21 | RELAY                 |                               |     |      |
| *****          |              |                       |                               |     |      |
| *              | A-4360-763-A | PANEL BOARD, COMPLETE |                               |     |      |
| *****          |              |                       |                               |     |      |
| *              | 4-928-444-01 | HOLDER (S), LED       |                               |     |      |
| *              | 4-928-450-01 | HOLDER (L), LED       |                               |     |      |
| < CAPACITOR >  |              |                       |                               |     |      |
| C901           | 1-126-059-11 | ELECT                 | 10uF                          | 20% | 50V  |
| C902           | 1-126-161-11 | ELECT                 | 2.2uF                         | 20% | 50V  |
| C903           | 1-126-059-11 | ELECT                 | 10uF                          | 20% | 50V  |
| C904           | 1-126-163-11 | ELECT                 | 4.7uF                         | 20% | 50V  |
| C951           | 1-126-059-11 | ELECT                 | 10uF                          | 20% | 50V  |
| C952           | 1-126-161-11 | ELECT                 | 2.2uF                         | 20% | 50V  |
| C953           | 1-126-059-11 | ELECT                 | 10uF                          | 20% | 50V  |
| C954           | 1-126-163-11 | ELECT                 | 4.7uF                         | 20% | 50V  |
| < CONNECTOR >  |              |                       |                               |     |      |
| * CN902        | 1-568-850-11 | SOCKET, CONNECTOR 7P  |                               |     |      |
| < DIODE >      |              |                       |                               |     |      |
| D503           | 8-719-987-63 | DIODE                 | 1N4148M                       |     |      |
| D504           | 8-719-301-44 | LED                   | SEL2410E-D (OPERATION)        |     |      |
| D505           | 8-719-302-75 | LED                   | SEL2210W-D (PROTECT)          |     |      |
| D901-910       |              |                       |                               |     |      |
|                | 8-719-302-75 | LED                   | SEL2210W-D (PEAK LEVEL METER) |     |      |
| D951-960       |              |                       |                               |     |      |
|                | 8-719-302-75 | LED                   | SEL2210W-D (PEAK LEVEL METER) |     |      |
| < IC >         |              |                       |                               |     |      |
| IC901          | 8-759-917-42 | IC                    | IR2E31A                       |     |      |
| IC902          | 8-759-917-42 | IC                    | IR2E31A                       |     |      |
| IC951          | 8-759-917-42 | IC                    | IR2E31A                       |     |      |
| IC952          | 8-759-917-42 | IC                    | IR2E31A                       |     |      |
| < TRANSISTOR > |              |                       |                               |     |      |
| Q505           | 8-729-900-63 | TRANSISTOR            | DTA124ES                      |     |      |
| Q506           | 8-729-900-36 | TRANSISTOR            | DTC124ES                      |     |      |
| Q903           | 8-729-140-93 | TRANSISTOR            | 2SB733-34                     |     |      |
| Q904           | 8-729-900-36 | TRANSISTOR            | DTC124ES                      |     |      |

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

# PANEL

# POWER SW

# RELAY

| Ref. No. | Part No. | Description | Remark |
|----------|----------|-------------|--------|
|----------|----------|-------------|--------|

## < RESISTOR >

|      |              |        |              |
|------|--------------|--------|--------------|
| R901 | 1-249-402-11 | CARBON | 56 5% 1/4W   |
| R902 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| R903 | 1-249-402-11 | CARBON | 56 5% 1/4W   |
| R904 | 1-249-429-11 | CARBON | 10K 5% 1/4W  |
| R905 | 1-249-440-11 | CARBON | 82K 5% 1/4W  |

|      |              |        |              |
|------|--------------|--------|--------------|
| R906 | 1-249-417-11 | CARBON | 1K 5% 1/4W   |
| R907 | 1-249-431-11 | CARBON | 15K 5% 1/4W  |
| R908 | 1-249-424-11 | CARBON | 3.9K 5% 1/4W |
| R909 | 1-249-429-11 | CARBON | 10K 5% 1/4W  |
| R910 | 1-249-429-11 | CARBON | 10K 5% 1/4W  |

|      |              |        |             |
|------|--------------|--------|-------------|
| R911 | 1-249-405-11 | CARBON | 100 5% 1/4W |
| R912 | 1-247-822-11 | CARBON | 430 5% 1/4W |
| R913 | 1-249-414-11 | CARBON | 560 5% 1/4W |
| R914 | 1-249-417-11 | CARBON | 1K 5% 1/4W  |
| R951 | 1-249-402-11 | CARBON | 56 5% 1/4W  |

|      |              |        |              |
|------|--------------|--------|--------------|
| R952 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| R953 | 1-249-402-11 | CARBON | 56 5% 1/4W   |
| R954 | 1-249-429-11 | CARBON | 10K 5% 1/4W  |
| R955 | 1-249-440-11 | CARBON | 82K 5% 1/4W  |
| R956 | 1-249-417-11 | CARBON | 1K 5% 1/4W   |

|      |              |        |              |
|------|--------------|--------|--------------|
| R957 | 1-249-431-11 | CARBON | 15K 5% 1/4W  |
| R958 | 1-249-424-11 | CARBON | 3.9K 5% 1/4W |

## < SWITCH >

|      |              |                           |
|------|--------------|---------------------------|
| S901 | 1-692-479-11 | SWITCH, ROTARY (RANGE)    |
| S902 | 1-692-479-11 | SWITCH, ROTARY (SPEAKERS) |

\*\*\*\*\*

|   |              |                |
|---|--------------|----------------|
| * | 1-648-088-11 | POWER SW BOARD |
|---|--------------|----------------|

\*\*\*\*\*

|   |              |              |
|---|--------------|--------------|
| * | 1-533-213-31 | HOLDER, FUSE |
|---|--------------|--------------|

## < CAPACITOR >

|     |              |         |        |      |
|-----|--------------|---------|--------|------|
| △C1 | 1-161-744-00 | CERAMIC | 0.01uF | 400V |
|-----|--------------|---------|--------|------|

## < CONNECTOR >

|        |              |                   |
|--------|--------------|-------------------|
| * CNP1 | 1-564-321-00 | PIN, CONNECTOR 2P |
|--------|--------------|-------------------|

## < FUSE >

|     |              |                       |
|-----|--------------|-----------------------|
| △F1 | 1-532-203-00 | FUSE (T2.0AL)         |
| △F2 | 1-576-228-31 | FUSE (H.B.C) (T2.0AH) |

## < SWITCH >

|     |              |                                         |
|-----|--------------|-----------------------------------------|
| △S1 | 1-554-920-51 | SWITCH, PUSH (AC POWER) (1 KEY) (POWER) |
|-----|--------------|-----------------------------------------|

| Ref. No. | Part No. | Description | Remark |
|----------|----------|-------------|--------|
|----------|----------|-------------|--------|

## < TERMINAL >

|       |              |                                |
|-------|--------------|--------------------------------|
| * TM1 | 1-535-142-00 | BASE POST 19MM (10MM PITCH) 5P |
|-------|--------------|--------------------------------|

\*\*\*\*\*

|   |              |             |
|---|--------------|-------------|
| * | 1-648-087-11 | RELAY BOARD |
|---|--------------|-------------|

\*\*\*\*\*

## < CAPACITOR >

|      |              |      |         |    |     |
|------|--------------|------|---------|----|-----|
| C111 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V |
|------|--------------|------|---------|----|-----|

(TA-D709N:German, IT)

|      |              |      |         |    |     |
|------|--------------|------|---------|----|-----|
| C112 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V |
|------|--------------|------|---------|----|-----|

(TA-D709N:German, IT)

|      |              |      |         |    |     |
|------|--------------|------|---------|----|-----|
| C161 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V |
|------|--------------|------|---------|----|-----|

(TA-D709N:German, IT)

|      |              |      |         |    |     |
|------|--------------|------|---------|----|-----|
| C162 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V |
|------|--------------|------|---------|----|-----|

(TA-D709N:German, IT)

|      |              |      |         |    |     |
|------|--------------|------|---------|----|-----|
| C209 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V |
|------|--------------|------|---------|----|-----|

(TA-D709N:German, IT)

|      |              |      |         |    |     |
|------|--------------|------|---------|----|-----|
| C210 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V |
|------|--------------|------|---------|----|-----|

(TA-D709N:German, IT)

|      |              |      |         |    |     |
|------|--------------|------|---------|----|-----|
| C259 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V |
|------|--------------|------|---------|----|-----|

(TA-D709N:German, IT)

|      |              |      |         |    |     |
|------|--------------|------|---------|----|-----|
| C260 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V |
|------|--------------|------|---------|----|-----|

(TA-D709N:German, IT)

|      |              |      |         |    |     |
|------|--------------|------|---------|----|-----|
| C304 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V |
|------|--------------|------|---------|----|-----|

(TA-D709N:German, IT)

|      |              |      |         |    |     |
|------|--------------|------|---------|----|-----|
| C305 | 1-136-163-00 | FILM | 0.068uF | 5% | 50V |
|------|--------------|------|---------|----|-----|

(TA-D709N:German, IT)

## < CONNECTOR >

|         |              |                     |
|---------|--------------|---------------------|
| * CN108 | 1-564-515-11 | PLUG, CONNECTOR 12P |
|---------|--------------|---------------------|

|         |              |                    |
|---------|--------------|--------------------|
| * CN111 | 1-564-517-11 | PLUG, CONNECTOR 2P |
|---------|--------------|--------------------|

|         |              |                                  |
|---------|--------------|----------------------------------|
| * CN604 | 1-564-505-11 | PLUG, CONNECTOR 2P (TA-D709N:UK) |
|---------|--------------|----------------------------------|

|         |              |                                       |
|---------|--------------|---------------------------------------|
| * CN605 | 1-566-210-11 | PIN, CONNECTOR 3P (ONLY FOR PS-D707P) |
|---------|--------------|---------------------------------------|

(TA-D709N:UK)

|         |              |                      |
|---------|--------------|----------------------|
| * CN702 | 1-569-493-11 | SOCKET, CONNECTOR 7P |
|---------|--------------|----------------------|

## < RESISTOR >

|      |              |        |            |
|------|--------------|--------|------------|
| R126 | 1-247-727-11 | CARBON | 10 5% 1/2W |
|------|--------------|--------|------------|

(TA-D709N:German, IT)

|      |              |        |            |
|------|--------------|--------|------------|
| R176 | 1-247-727-11 | CARBON | 10 5% 1/2W |
|------|--------------|--------|------------|

(TA-D709N:German, IT)

|      |              |        |            |
|------|--------------|--------|------------|
| R208 | 1-249-393-11 | CARBON | 10 5% 1/4W |
|------|--------------|--------|------------|

(TA-D709N:German, IT)

|      |              |        |            |
|------|--------------|--------|------------|
| R258 | 1-249-393-11 | CARBON | 10 5% 1/4W |
|------|--------------|--------|------------|

(TA-D709N:German, IT)

|      |              |        |            |
|------|--------------|--------|------------|
| R307 | 1-249-393-11 | CARBON | 10 5% 1/4W |
|------|--------------|--------|------------|

(TA-D709N:German, IT)

## < TERMINAL >

|       |              |                               |
|-------|--------------|-------------------------------|
| TM101 | 1-537-552-11 | TERMINAL, PUSH (8P) (SPEAKER) |
|-------|--------------|-------------------------------|

|       |              |                                      |
|-------|--------------|--------------------------------------|
| TM102 | 1-537-551-11 | TERMINAL, PUSH (2P) (CENTER SPEAKER) |
|-------|--------------|--------------------------------------|

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

# SENSOR

# SYSTEM CONNECTOR

# TRANSFORMER SECONDARY

## VOLTAGE SELECTION

| Ref. No. | Part No.     | Description                              | Remark  |
|----------|--------------|------------------------------------------|---------|
| *        | 1-648-090-11 | SENSOR BOARD<br>*****                    |         |
|          |              | < CAPACITOR >                            |         |
| C607     | 1-164-159-11 | CERAMIC 0.1uF                            | 50V     |
|          |              | < IC >                                   |         |
| IC602    | 8-759-947-34 | IC LM35DZ                                |         |
|          |              | < RESISTOR >                             |         |
| R612     | 1-249-405-11 | CARBON 100 5% 1/4W                       |         |
| *****    |              |                                          |         |
| *        | 1-648-089-12 | SYSTEM CONNECTOR BOARD<br>*****          |         |
|          |              | < CONNECTOR >                            |         |
| * CN703  | 1-566-859-11 | SOCKET, CONNECTOR 15P (SYSTEM CONTROL 2) |         |
| * CN704  | 1-566-858-31 | SOCKET, CONNECTOR 11P (SYSTEM CONTROL 3) |         |
| * CN705  | 1-564-511-11 | PLUG, CONNECTOR 8P                       |         |
|          |              | < RESISTOR >                             |         |
| R706     | 1-249-393-11 | CARBON 10 5% 1/4W                        |         |
| *****    |              |                                          |         |
| *        | 1-648-086-11 | TRANSFORMER SECONDARY BOARD<br>*****     |         |
| *        | 1-533-213-31 | HOLDER, FUSE                             |         |
|          |              | < CAPACITOR >                            |         |
| C701     | 1-106-375-12 | MYLAR 0.022uF                            | 5% 200V |
| C702     | 1-106-375-12 | MYLAR 0.022uF                            | 5% 200V |
| C706     | 1-124-920-11 | ELECT 330uF                              | 20% 63V |
| C707     | 1-126-233-11 | ELECT 22uF                               | 20% 50V |
| C708     | 1-124-122-11 | ELECT 100uF                              | 20% 50V |
| C709     | 1-124-994-11 | ELECT 100uF                              | 20% 10V |
|          |              | < CONNECTOR >                            |         |
| * CN701  | 1-569-502-11 | PIN, CONNECTOR 7P                        |         |
|          |              | < DIODE >                                |         |
| D704     | 8-719-200-77 | DIODE 10E2N                              |         |
| D705     | 8-719-002-67 | DIODE UZL-33H                            |         |
| D706     | 8-719-014-88 | DIODE UZP-6.8BC                          |         |
|          |              | < FUSE >                                 |         |
| △F701    | 1-532-203-00 | FUSE (T2. 0AL)                           |         |

| Ref. No. | Part No.     | Description                                                                  | Remark |
|----------|--------------|------------------------------------------------------------------------------|--------|
| △F702    | 1-532-203-00 | FUSE (T2. 0AL)                                                               |        |
| △F801    | 1-532-286-00 | FUSE (T2. 5AL)                                                               |        |
| △F802    | 1-532-286-00 | FUSE (T2. 5AL)                                                               |        |
|          |              | < TRANSISTOR >                                                               |        |
| Q701     | 8-729-141-83 | TRANSISTOR 2SB1094-LK                                                        |        |
|          |              | < RESISTOR >                                                                 |        |
| △R703    | 1-212-934-00 | FUSIBLE 1 5% 1/2W F                                                          |        |
| R704     | 1-249-422-11 | CARBON 2.7K 5% 1/4W                                                          |        |
| R705     | 1-247-761-11 | CARBON 5.6K 5% 1/2W                                                          |        |
| *****    |              |                                                                              |        |
| *        | 1-648-093-11 | VOLTAGE SELECTION BOARD (TA-A77N)<br>*****                                   |        |
|          |              | < CONNECTOR >                                                                |        |
| * CNP2   | 1-573-565-11 | PIN, CONNECTOR 5P (TA-A77N)                                                  |        |
|          |              | < SWITCH >                                                                   |        |
| △S2      | 1-572-009-11 | SELECTOR, VOLTAGE (VOLTAGE SELECTOR)<br>(TA-A77N)                            |        |
| *****    |              |                                                                              |        |
|          |              | MISCELLANEOUS<br>*****                                                       |        |
| 8        | 1-590-239-31 | WIRE, FLAT TYPE (7 CORE)                                                     |        |
| △59      | 1-575-654-11 | CORD, POWER (TA-A77N:EA, MY, SP/TA-D709N:<br>AEP, German, IT, EE)            |        |
| △60      | 1-575-656-11 | CORD, POWER (TA-A77N:E, JE)                                                  |        |
| △61      | 1-575-669-21 | CORD, POWER (TA-D709N:UK)                                                    |        |
| △62      | 1-751-355-11 | CORD, POWER (TA-A77N:AUS)                                                    |        |
| △CNJ1    | 1-251-078-11 | OUTLET, AC (AC OUTLET) (TA-A77N:AUS)                                         |        |
| △CNJ1    | 1-526-751-00 | OUTLET, AC (AC OUTLET) (TA-D709N:UK)                                         |        |
| △CNJ1    | 1-526-794-11 | OUTLET, AC (AC OUTLET) (TA-A77N:EA, MY, SP<br>/TA-D709N:AEP, German, IT, EE) |        |
| △CNJ1    | 1-526-882-00 | OUTLET, AC (AC OUTLET) (TA-A77N:E, JE)                                       |        |
| M901     | 1-541-860-41 | MOTOR, DC FAN                                                                |        |
| △T1      | 1-423-662-11 | TRANSFORMER, POWER (TA-D709N)                                                |        |
| △T1      | 1-423-664-11 | TRANSFORMER, POWER (TA-A77N)                                                 |        |
| *****    |              |                                                                              |        |

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 |
|----------|----------|-------------|--------|
|----------|----------|-------------|--------|

\*\*\*\*\*  
HARDWARE LIST  
\*\*\*\*\*

|    |              |                          |  |
|----|--------------|--------------------------|--|
| #1 | 7-685-646-79 | SCREW +BTP 3X8 TYPE2 N-S |  |
| #2 | 7-682-547-09 | SCREW +BVTT 3X6 (S)      |  |
| #3 | 7-685-646-81 | SCREW +BVTP 3X8 TYPE2    |  |
| #4 | 7-685-650-79 | SCREW +BVTP 3X16 TYPE2   |  |
| #5 | 7-682-548-04 | SCREW +BVTT 3X8 (S)      |  |
| #6 | 7-682-560-04 | SCREW +BVTT 4X6 (S)      |  |
| #7 | 7-621-849-00 | SCREW (BV/RING)          |  |