

# Service Manual



ORDER NO.  
RRV2506

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

# VSX-C300

# VSX-C300-S

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

| Type  | Model    |            | Power Requirement | Remarks |
|-------|----------|------------|-------------------|---------|
|       | VSX-C300 | VSX-C300-S |                   |         |
| HYXJI | ○        | ○          | AC220-230V        |         |
| HVXJI | ○        | ○          | AC230V            |         |

## CONTENTS

|                                              |    |                                                 |    |
|----------------------------------------------|----|-------------------------------------------------|----|
| 1. SAFETY INFORMATION .....                  | 2  | 7. GENERAL INFORMATION .....                    | 51 |
| 2. EXPLODED VIEWS AND PARTS LIST .....       | 3  | 7.1 DIAGNOSIS .....                             | 51 |
| 3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM ..... | 8  | 7.1.1 Test Mode .....                           | 51 |
| 4. PCB CONNECTION DIAGRAM .....              | 32 | 7.1.2 Protection of the Amplifier Line .....    | 52 |
| 5. PCB PARTS LIST .....                      | 46 | 7.1.3 Operation of the Fan-Control Line .....   | 53 |
| 6. ADJUSTMENT .....                          | 50 | 7.1.4 Specifications of Speaker Detection ..... | 54 |
|                                              |    | 7.1.5 Timing Chart .....                        | 55 |
|                                              |    | 7.2 PARTS .....                                 | 56 |
|                                              |    | 7.2.1 IC .....                                  | 56 |
|                                              |    | 7.2.2 DISPLAY .....                             | 62 |
|                                              |    | 8. PANEL FACILITIES AND SPECIFICATIONS .....    | 64 |

# 1. SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

## WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

## NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

## REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

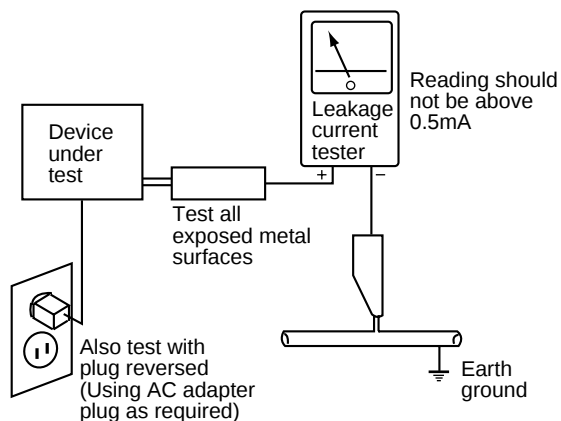
## (FOR USA MODEL ONLY)

### 1. SAFETY PRECAUTIONS

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

#### LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

### 2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a  $\Delta$  on the schematics and on the parts list in this Service Manual.

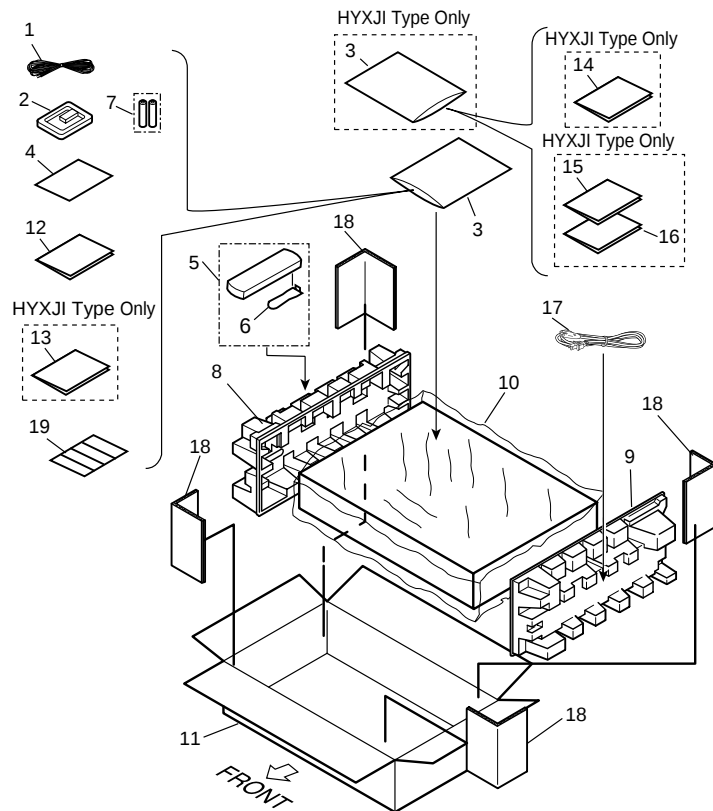
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

## 2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.  
 ● The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.  
 ● Screws adjacent to  $\nabla$  mark on the product are used for disassembly.

### 2.1 PACKING



#### (1) PACKING PARTS LIST

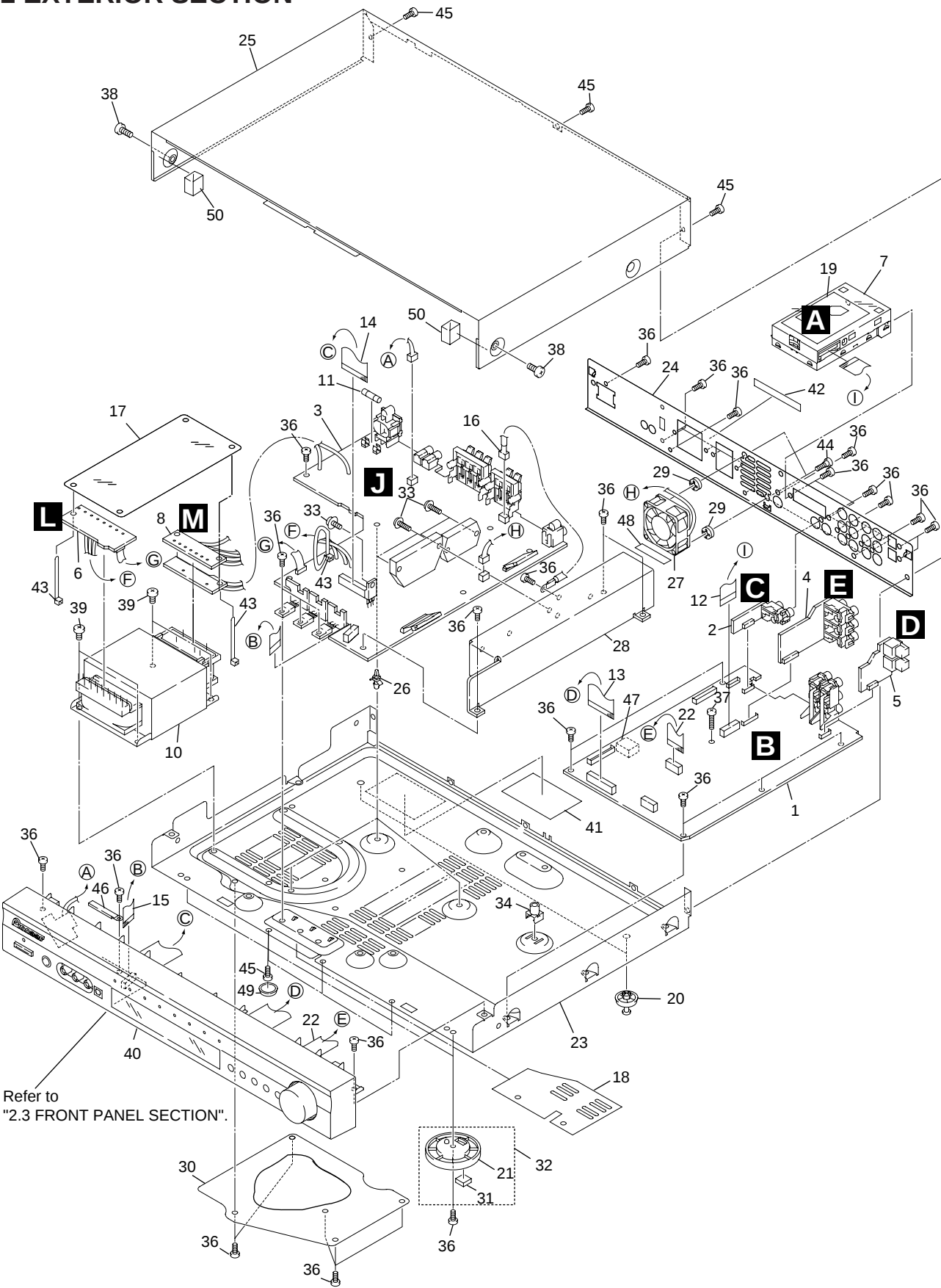
| Mark     | No. | Description                                    | Part No.               |
|----------|-----|------------------------------------------------|------------------------|
|          | 1   | FM Wire Antenna                                | ADH7005                |
|          | 2   | AM Loop Antenna                                | ATB7009                |
| NSP      | 3   | Polyethylene Bag<br>(0.03 × 230 × 340)         | Z21-038                |
| NSP      | 4   | Warranty Card                                  | ARY7022                |
|          | 5   | Remote Control Unit                            | AXD7311                |
| NSP      | 6   | Battery Cover                                  | AZA7378                |
|          | 7   | Dry Cell Battery (R6P, AA)                     | VEM-013                |
|          | 8   | Pulp Left Pad                                  | AHA7364                |
|          | 9   | Pulp Right Pad                                 | AHA7365                |
|          | 10  | Packing Sheet                                  | AHG7084                |
|          | 11  | Packing Case                                   | See Contrast table (2) |
|          | 12  | Operating Instructions<br>(English)            | ARB7247                |
|          | 13  | Operating Instructions<br>(German)             | See Contrast table (2) |
|          | 14  | Operating Instructions<br>(French/Italian)     | See Contrast table (2) |
|          | 15  | Operating Instructions<br>(Dutch/Swedish)      | See Contrast table (2) |
|          | 16  | Operating Instructions<br>(Spanish/Portuguese) | See Contrast table (2) |
| $\Delta$ | 17  | AC Power Cord                                  | See Contrast table (2) |
|          | 18  | L Spacer                                       | AHB7054                |
|          | 19  | Cable Label                                    | ARW7145                |

#### (2) CONTRAST TABLE

VSX-C300/HYXJI, HVXJI, VSX-C300-S/HYXJI and HVXJI are constructed the same except for the following:

| Mark | No. | Symbol and Description                      | Part No. |          |            |          | Remarks |
|------|-----|---------------------------------------------|----------|----------|------------|----------|---------|
|      |     |                                             | VSX-C300 |          | VSX-C300-S |          |         |
|      |     |                                             | /HYXJI   | /HVXJI   | /HYXJI     | /HVXJI   |         |
|      | 11  | Packing Case                                | AHD8009  | AHD8009  | AHD8008    | AHD8008  |         |
|      | 13  | Operating Instructions (German)             | ARC7342  | Not used | ARC7342    | Not used |         |
|      | 14  | Operating Instructions (French/Italian)     | ARE7281  | Not used | ARC7281    | Not used |         |
|      | 15  | Operating Instructions (Dutch/Swedish)      | ARE7282  | Not used | ARE7282    | Not used |         |
|      | 16  | Operating Instructions (Spanish/Portuguese) | ARE7283  | Not used | ARE7283    | Not used |         |
| △    | 17  | AC Power Cord                               | ADG1154  | ADG1156  | ADG1154    | ADG1156  |         |

2.2 EXTERIOR SECTION



**(1) EXTERIOR SECTION PARTS LIST**

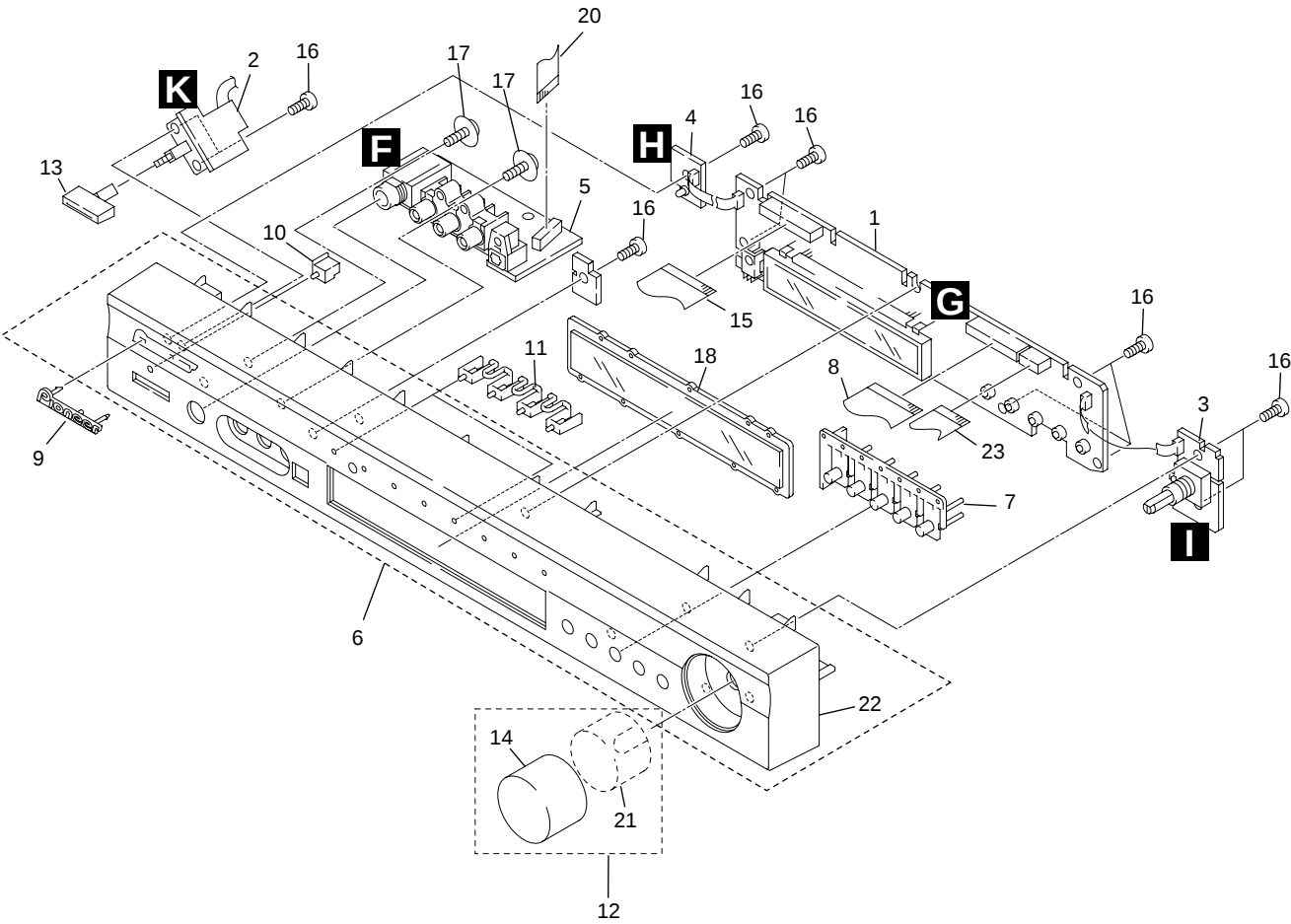
| Mark | No. | Description                                                           | Part No. | Mark | No. | Description                                             | Part No.               |
|------|-----|-----------------------------------------------------------------------|----------|------|-----|---------------------------------------------------------|------------------------|
|      | 1   | DSP ASSY                                                              | AWX7930  |      | 21  | Insulator 50                                            | AMR7363                |
|      | 2   | 2P - JACK ASSY                                                        | AWX7926  |      | 22  | FFC (J803 : 7P/150 BD 60V)<br>(DSP CN804 ↔ FRONT CN203) | ADD7292                |
|      | 3   | POWER ASSY                                                            | AWX7909  | NSP  | 23  | Under Base                                              | ANA7129                |
|      | 4   | VIDEO ASSY                                                            | AWX7928  |      | 24  | Rear Panel                                              | See Contrast table (2) |
|      | 5   | OPT - IN ASSY                                                         | AWX7908  |      | 25  | Bonnet Case (Box)                                       | See Contrast table (2) |
|      | 6   | TRANS 2 Assy                                                          | AWX7907  |      | 26  | PCB Support                                             | AEC7365                |
| NSP  | 7   | FM/AM TUNER MODULE                                                    | AXQ7232  |      | 27  | DC Fan Motor                                            | AXM7017                |
|      | 8   | TRANS 1 Assy                                                          | AWX7906  | NSP  | 28  | Heat Sink HL                                            | ANH7144                |
|      | 9   | • • • • •                                                             |          |      | 29  | Damper BK                                               | AEB7231                |
| △    | 10  | Power Transformer (AC230V)                                            | ATS7316  | NSP  | 30  | Trans Stabilizer                                        | ANG7362                |
|      | 11  | Fuse (FU1 : T1.25A)                                                   | REK1023  |      | 31  | Rubber Cushion                                          | AEB7235                |
| △    | 12  | FFC (J804 : 13P/180 BD 60V)<br>(DSP CN803<br>↔ TUNER CN201)           | ADD7242  |      | 32  | Insulator 50 Assy                                       | AMR7379                |
|      | 13  | FFC (J1702 : 23P/180 BD 60V)<br>(DSP CN1702<br>↔ FRONT CN4202)        | ADD7293  |      | 33  | Screw With Washier                                      | ABA7080                |
|      | 14  | FFC (J4201 : 23P/200 BD 60V)<br>(POWER CN303<br>↔ FRONT CN4201)       | ADD7293  |      | 34  | PCB Mold                                                | AMR2534                |
|      | 15  | FFC (J4101 : 11P/100 BD 60V)<br>(POWER CN304<br>↔ FRONT INPUT CN4101) | ADD7336  |      | 35  | • • • • •                                               |                        |
|      | 16  | Thermistor<br>(POWER CN306 ↔ TH9014)                                  | AEX7004  |      | 36  | Screw                                                   | BBZ30P080FZK           |
|      | 17  | Trans Shield Barrier                                                  | AEC7389  |      | 37  | Screw                                                   | BBZ30P140FMC           |
|      | 18  | REG. Cover                                                            | AEC7384  |      | 38  | Screw                                                   | See Contrast table (2) |
| △    | 19  | Tuner Barrier                                                         | AEC7383  |      | 39  | Screw                                                   | BBZ40P060FCC           |
|      | 20  | Leg Assy                                                              | REC-434  |      | 40  | Front Panel Assy                                        | See Contrast table (2) |
|      |     |                                                                       |          |      | 41  | Dolby DTS. Label                                        | ARW7136                |
|      |     |                                                                       |          |      | 42  | Speaker Label E                                         | AAX7870                |
|      |     |                                                                       |          |      | 43  | Binder                                                  | ZCA-BK1                |
|      |     |                                                                       |          |      | 44  | Screw (3x11.5)                                          | ABA7071                |
|      |     |                                                                       |          |      | 45  | Screw                                                   | See Contrast table (2) |
|      |     |                                                                       |          |      | 46  | Cord Clamper                                            | RNH-184                |
|      |     |                                                                       |          |      | 47  | Cushion H11                                             | AEB7239                |
|      |     |                                                                       |          |      | 48  | Damper Coshion                                          | AED7055                |
|      |     |                                                                       |          |      | 49  | Cushion Circle 16                                       | See Contrast table (2) |
|      |     |                                                                       |          |      | 50  | Rubber Cushion                                          | AEB7235                |

**(2) CONTRAST TABLE**

VSX-C300/HYXJI, HVXJI, VSX-C300-S/HYXJI and HVXJI are constructed the same except for the following:

| Mark | No. | Symbol and Description | Part No.     |              |              |              | Remarks |
|------|-----|------------------------|--------------|--------------|--------------|--------------|---------|
|      |     |                        | VSX-C300     |              | VSX-C300-S   |              |         |
|      |     |                        | /HYXJI       | /HVXJI       | /HYXJI       | /HVXJI       |         |
|      | 24  | Rear Panel             | ANC8011      | ANC8050      | ANC8012      | ANC8015      |         |
|      | 25  | Bonnet Case (Box)      | AZN7887      | AZN7887      | AZN7886      | AZN7886      |         |
|      | 38  | Screw                  | BBZ40P080FZK | BBZ40P080FZK | BBZ40P080FNI | BBZ40P080FNI |         |
|      | 40  | Front Panel Assy       | AMB7768      | AMB7768      | AMB7777      | AMB7777      |         |
|      | 45  | Screw                  | BBZ30P080FZK | BBZ30P080FZK | BBZ30P080FNI | BBZ30P080FNI |         |
|      | 49  | Cushion Circle         | AED7052      | AED7052      | AED7054      | AED7054      |         |

2.3 FRONT PANEL SECTION



**(1) FRONT PANEL SECTION PARTS LIST**

| Mark | No. | Description                                           | Part No.               |
|------|-----|-------------------------------------------------------|------------------------|
| NSP  | 1   | FRONT ASSY                                            | AWX7931                |
|      | 2   | POWER SW ASSY                                         | AWX7904                |
|      | 3   | ENCODER ASSY                                          | AWX7914                |
|      | 4   | LED ASSY                                              | AWX7913                |
|      | 5   | FRONT INPUT ASSY                                      | AWX7916                |
|      | 6   | Front Panel Assy                                      | See Contrast table (2) |
|      | 7   | Function Button                                       | See Contrast table (2) |
|      | 8   | FFC (J1702 : 23P<br>Front CN4202 ↔ DSP CN1702)        | ADD7293                |
|      | 9   | Name Plate                                            | See Contrast table (2) |
|      | 10  | Standby Lens                                          | AAK7902                |
|      | 11  | LED Lens                                              | AAK7903                |
|      | 12  | Volume Knob Assy                                      | See Contrast table (2) |
|      | 13  | Power Button                                          | See Contrast table (2) |
|      | 14  | Volume Cap                                            | See Contrast table (2) |
|      | 15  | FFC (J4201 : 23P<br>Front CN4201 ↔ Power CN303)       | ADD7293                |
|      | 16  | Screw                                                 | BPZ30P080FMC           |
|      | 17  | Screw (FE)                                            | ABA7009                |
|      | 18  | Display Panel                                         | AAK7904                |
|      | 19  | • • • •                                               |                        |
|      | 20  | FFC (J4101 : 11P<br>Front input CN4101 ↔ Power CN304) | ADD7336                |
|      | 21  | Volume Mold                                           | AAC7033                |
|      | 22  | Front Panel                                           | See Contrast table (2) |
|      | 23  | FFC (J803 : 7P<br>Front CN4203 ↔ DSP CN804)           | ADD7292                |

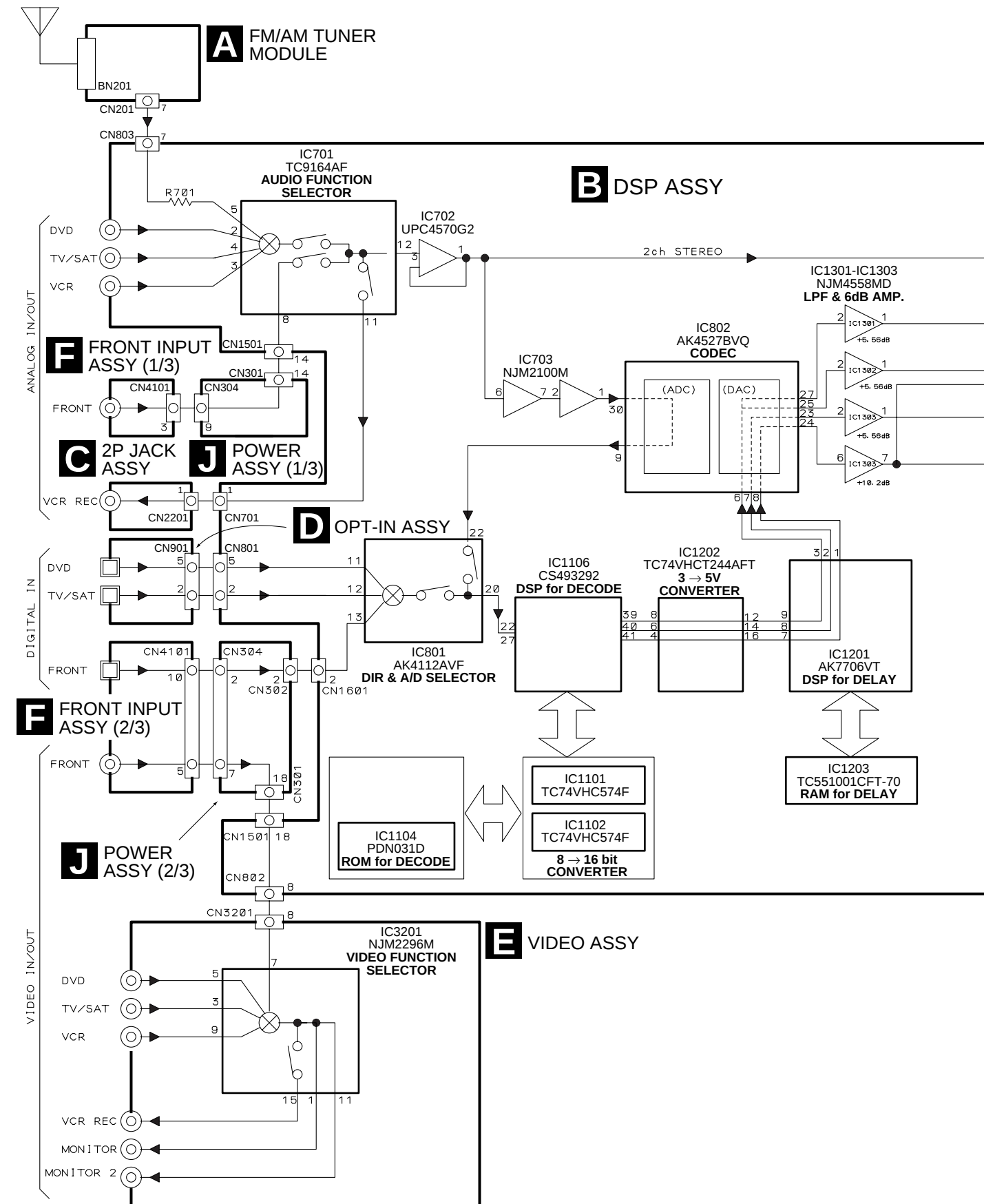
**(2) CONTRAST TABLE**

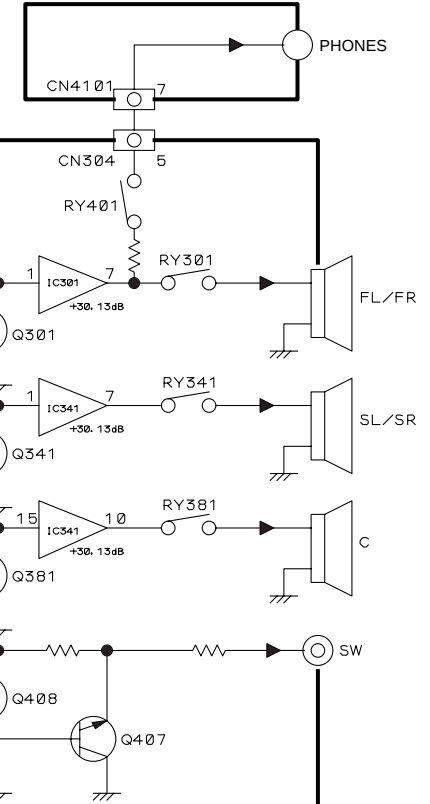
VSX-C300/HYXJI, HVXJI, VSX-C300-S/HYXJI and HVXJI are constructed the same except for the following:

| Mark | No. | Symbol and Description | Part No. |         |            |         | Remarks |
|------|-----|------------------------|----------|---------|------------|---------|---------|
|      |     |                        | VSX-C300 |         | VSX-C300-S |         |         |
|      |     |                        | /HYXJI   | /HVXJI  | /HYXJI     | /HVXJI  |         |
|      | 6   | Front Panel Assy       | AMB7768  | AMB7768 | AMB7777    | AMB7777 |         |
|      | 7   | Function Botton        | AAD7631  | AAD7631 | AAD7633    | AAD7633 |         |
|      | 9   | Name Plate             | VAM1109  | VAM1109 | VAM1129    | VAM1129 |         |
|      | 12  | Volume Knob Assy       | AAB7237  | AAB7237 | AAB7239    | AAB7239 |         |
|      | 13  | Power Button           | AAD7628  | AAD7628 | AAD7630    | AAD7630 |         |
|      | 14  | VOLUME Cap             | AAC7030  | AAC7030 | AAC7032    | AAC7032 |         |
|      | 22  | Front Panel            | AMB7759  | AMB7759 | AMB7775    | AMB7775 |         |

# 3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

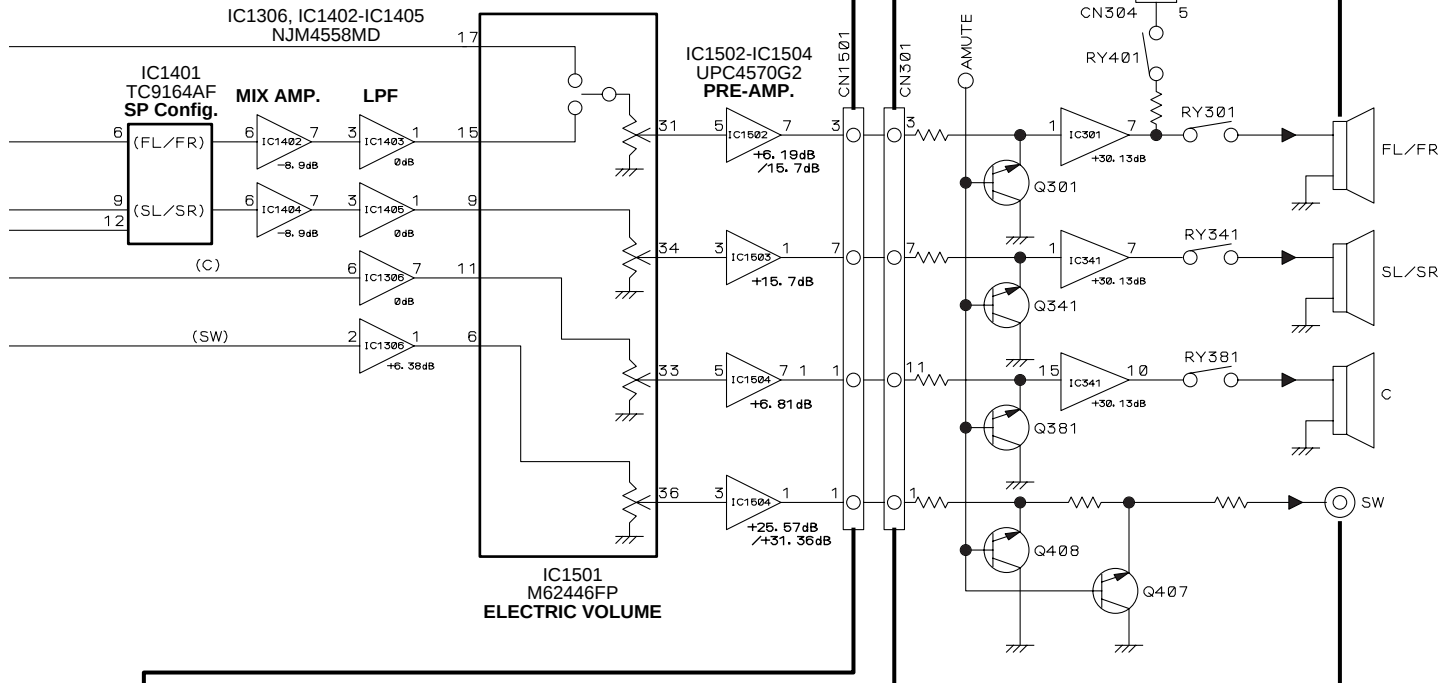
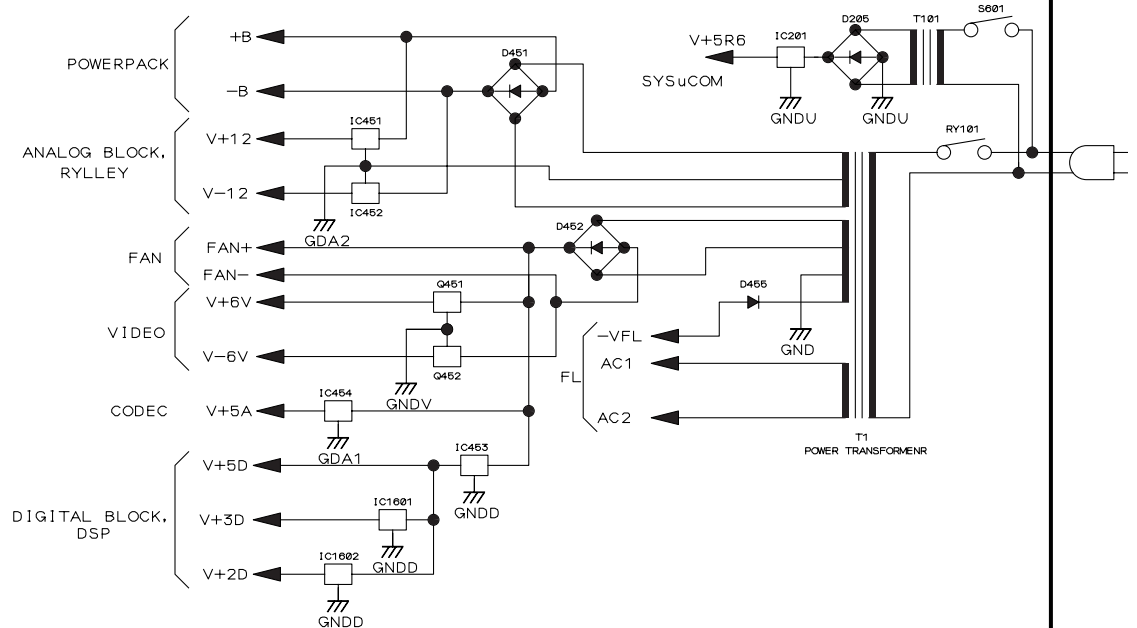
## 3.1 BLOCK DIAGRAM



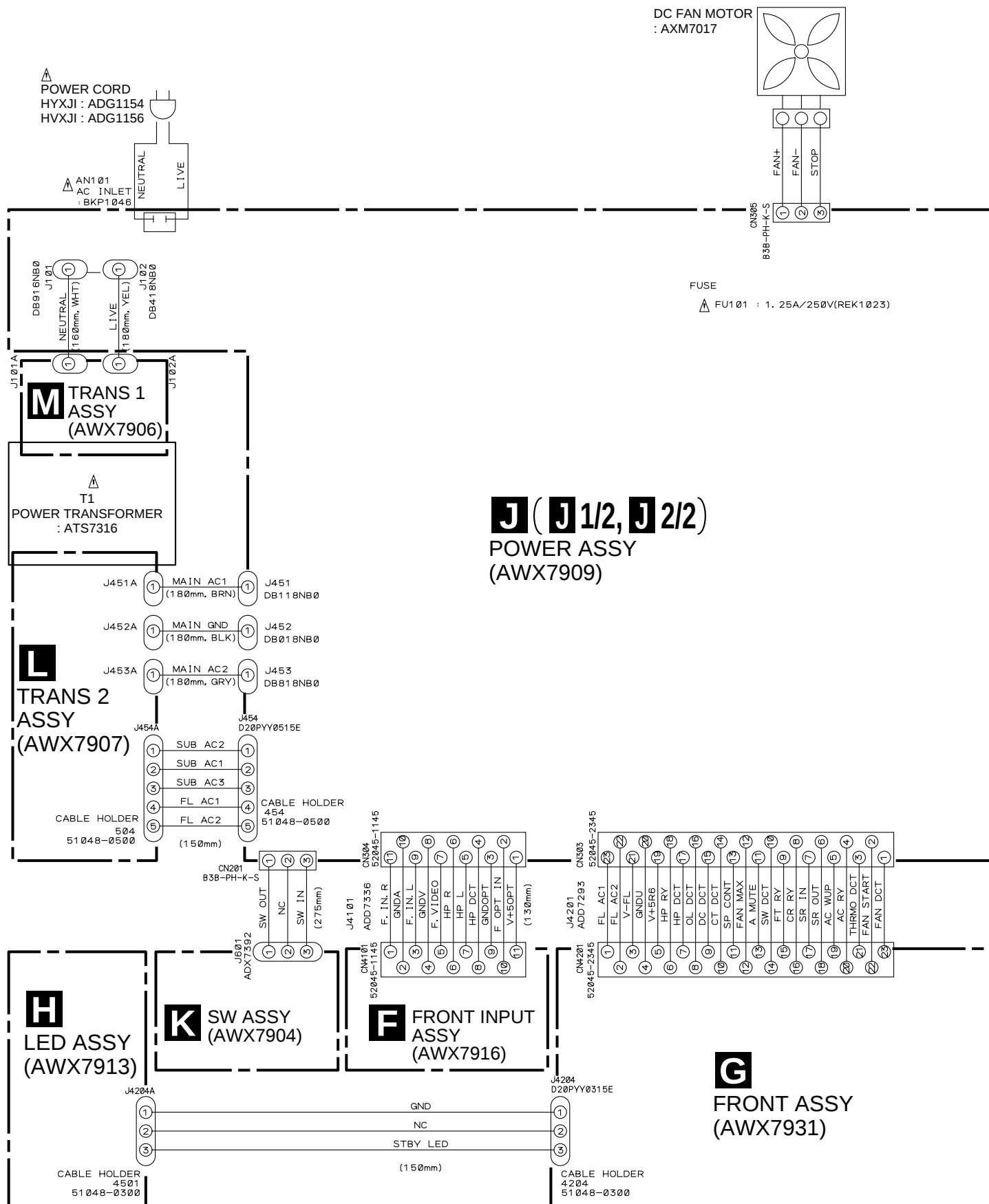
**F** FRONT INPUT ASSY (3/3)

## PRE GAIN

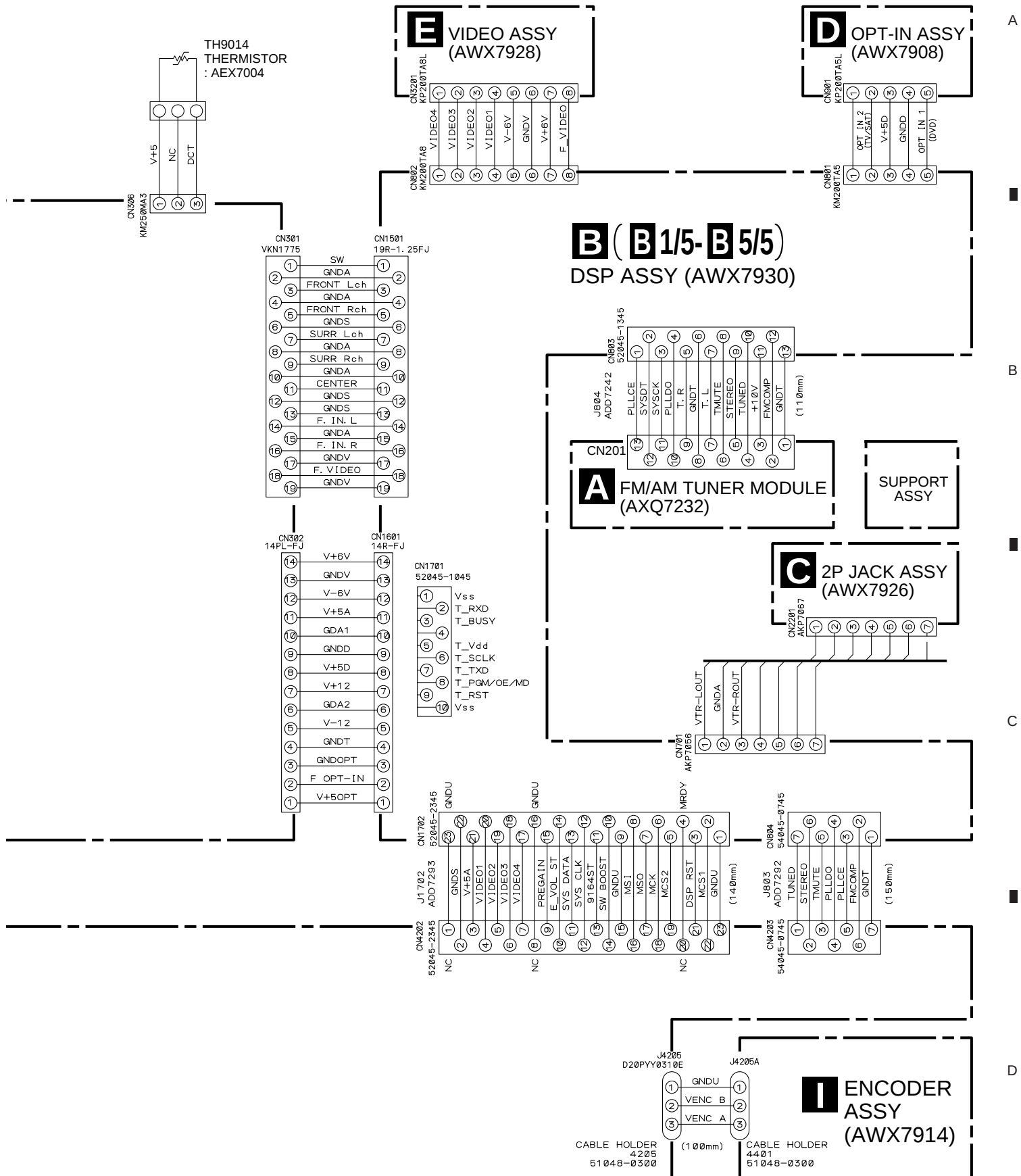
|          | DSP      | NORMAL  | S. BASS  |
|----------|----------|---------|----------|
| FRONT    | +15.7dB  | +6.19dB |          |
| SURROUND | +15.7dB  |         |          |
| CENTER   | +6.81dB  |         |          |
| SW       | +25.57dB |         | +31.36dB |

**J** POWER ASSY (3/3)

3.2 OVERALL WIRING DIAGRAM



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





## Notes

## 1. RESISTORS

Indicated in  $\Omega$ ,  $1/16W \pm 5\%$  Tolerance unless otherwise noted K:K $\Omega$ , M:M $\Omega$ .

## 2. CAPACITORS

Indicated in Capacity ( $\mu F$ )/VOLTAGE (V) unless otherwise noted P:PF.

## 3. DIODES

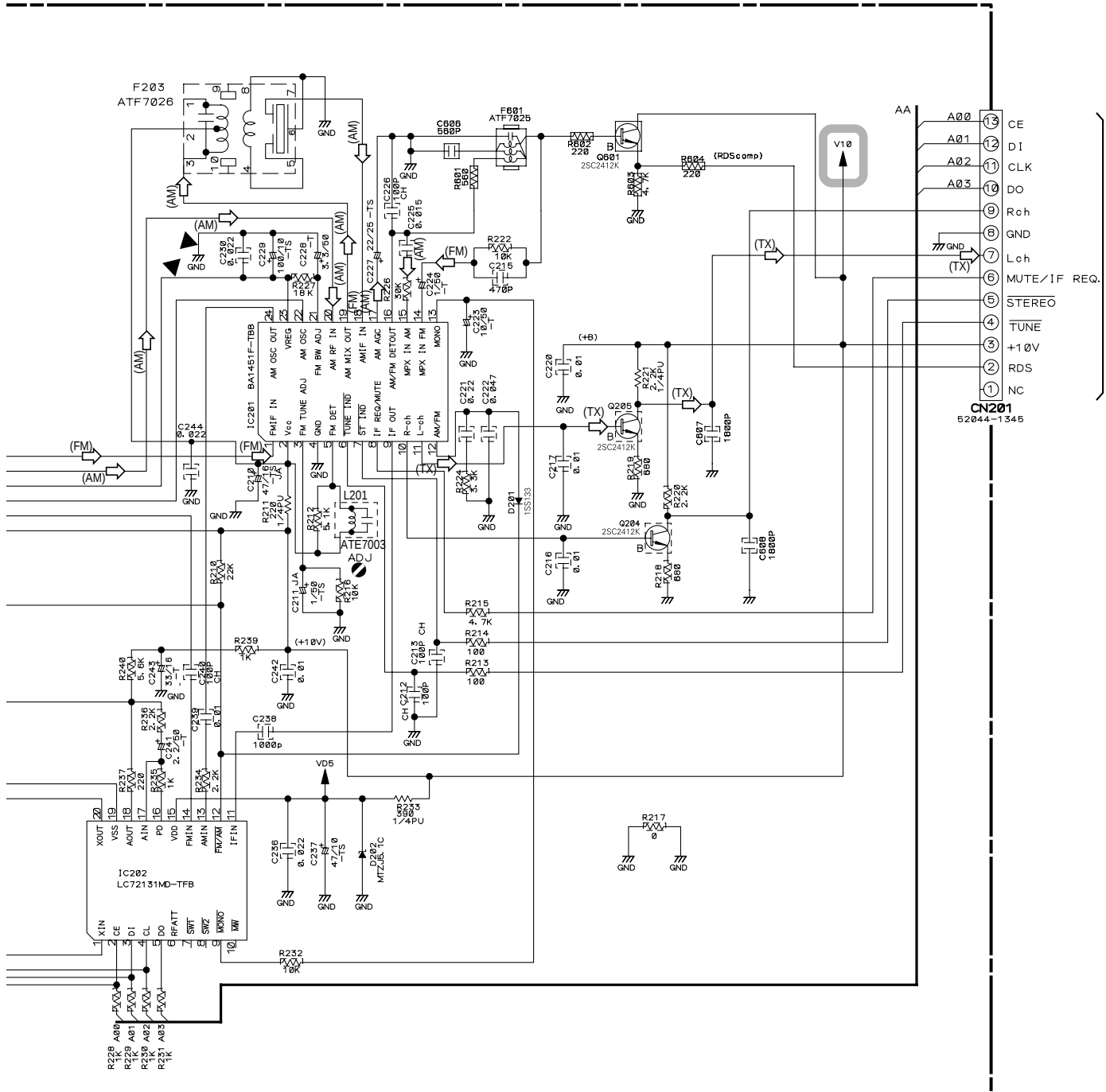
No mark diode is 1SS133.

 : The power supply is shown with the marked box.

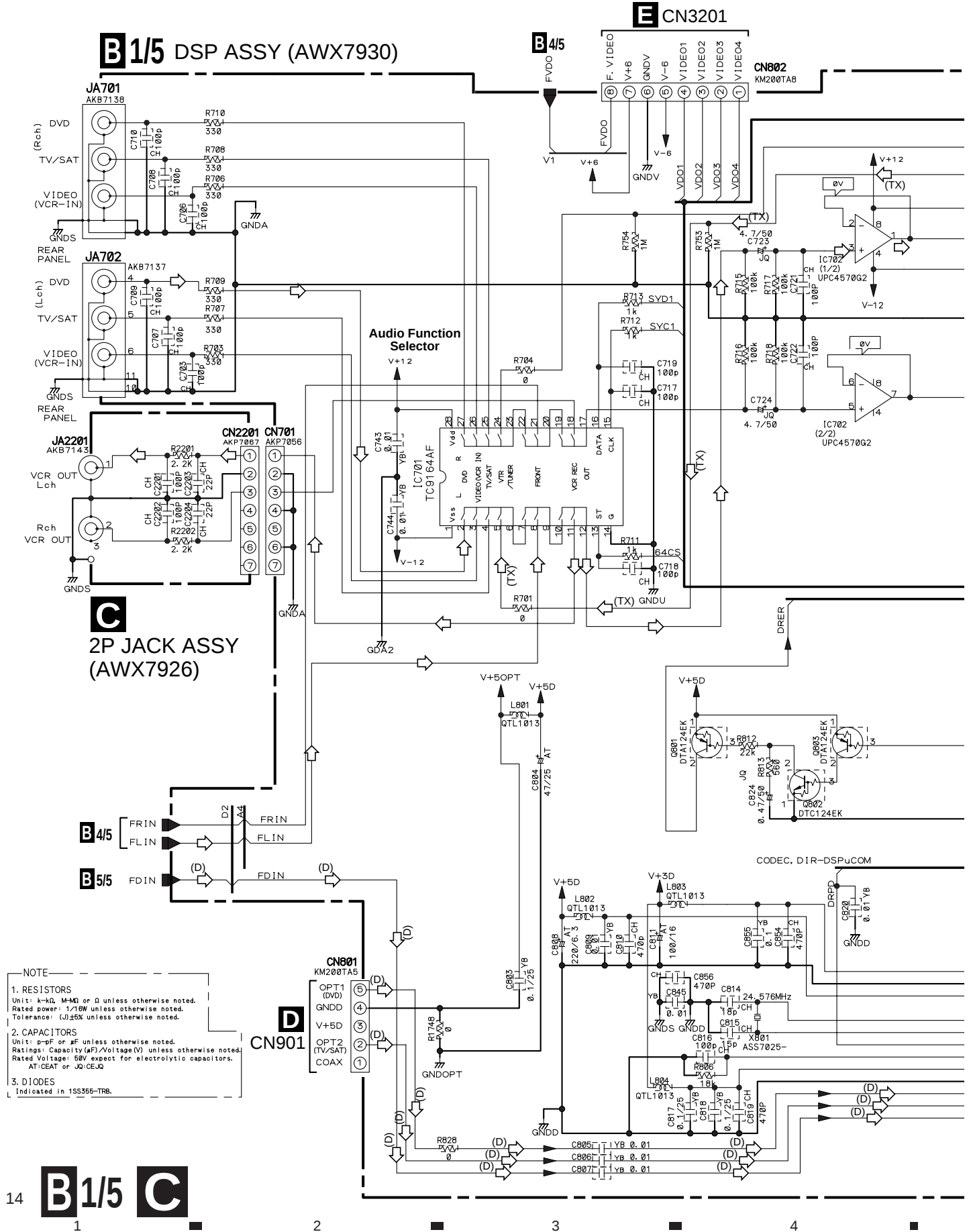
(TX)  : AUDIO SIGNAL ROUTE (TUNER)

(AM)  : AM SIGNAL ROUTE

(FM)  : FM SIGNAL ROUTE



3.4 DSP (1/5) and 2P JACK ASSYS

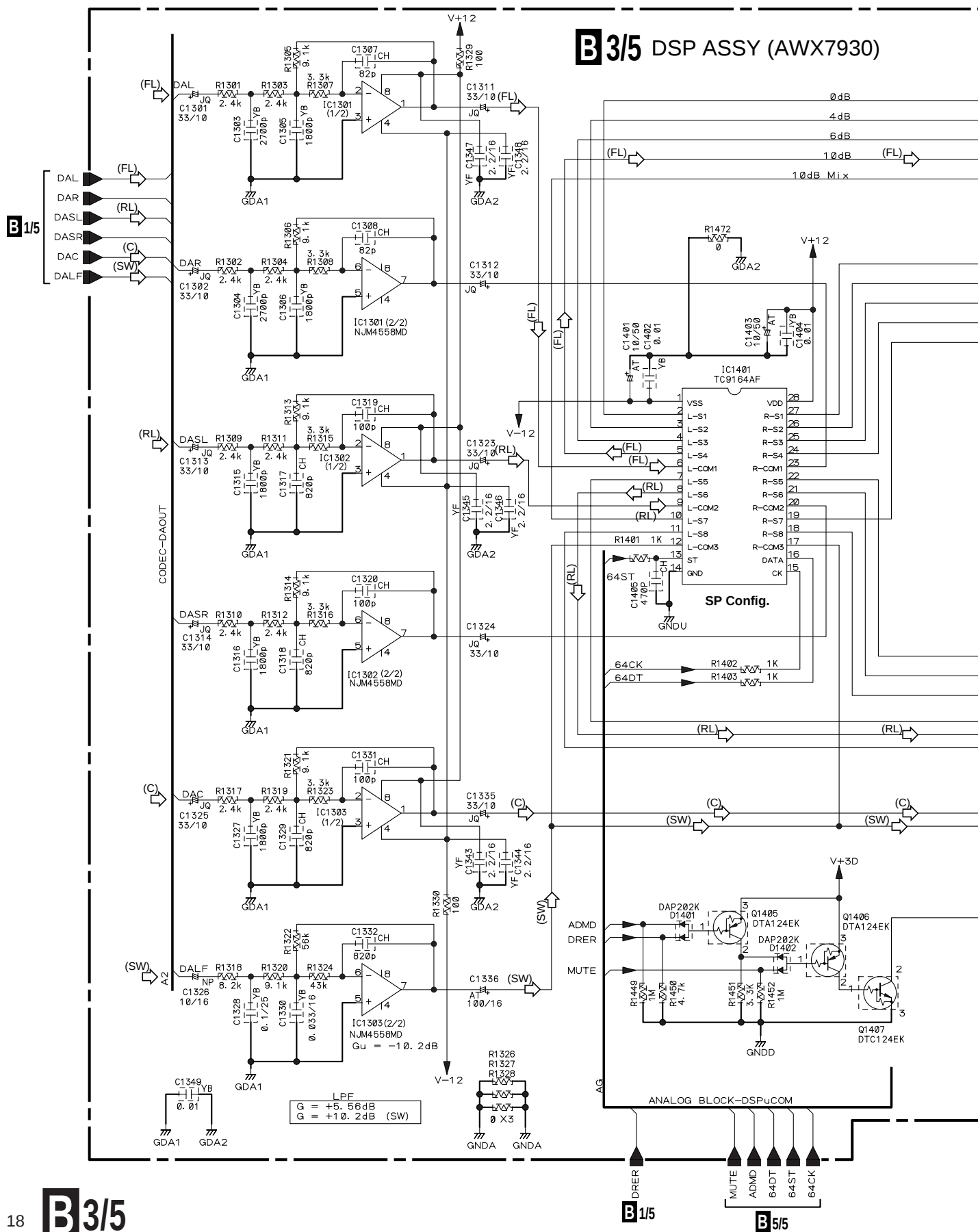


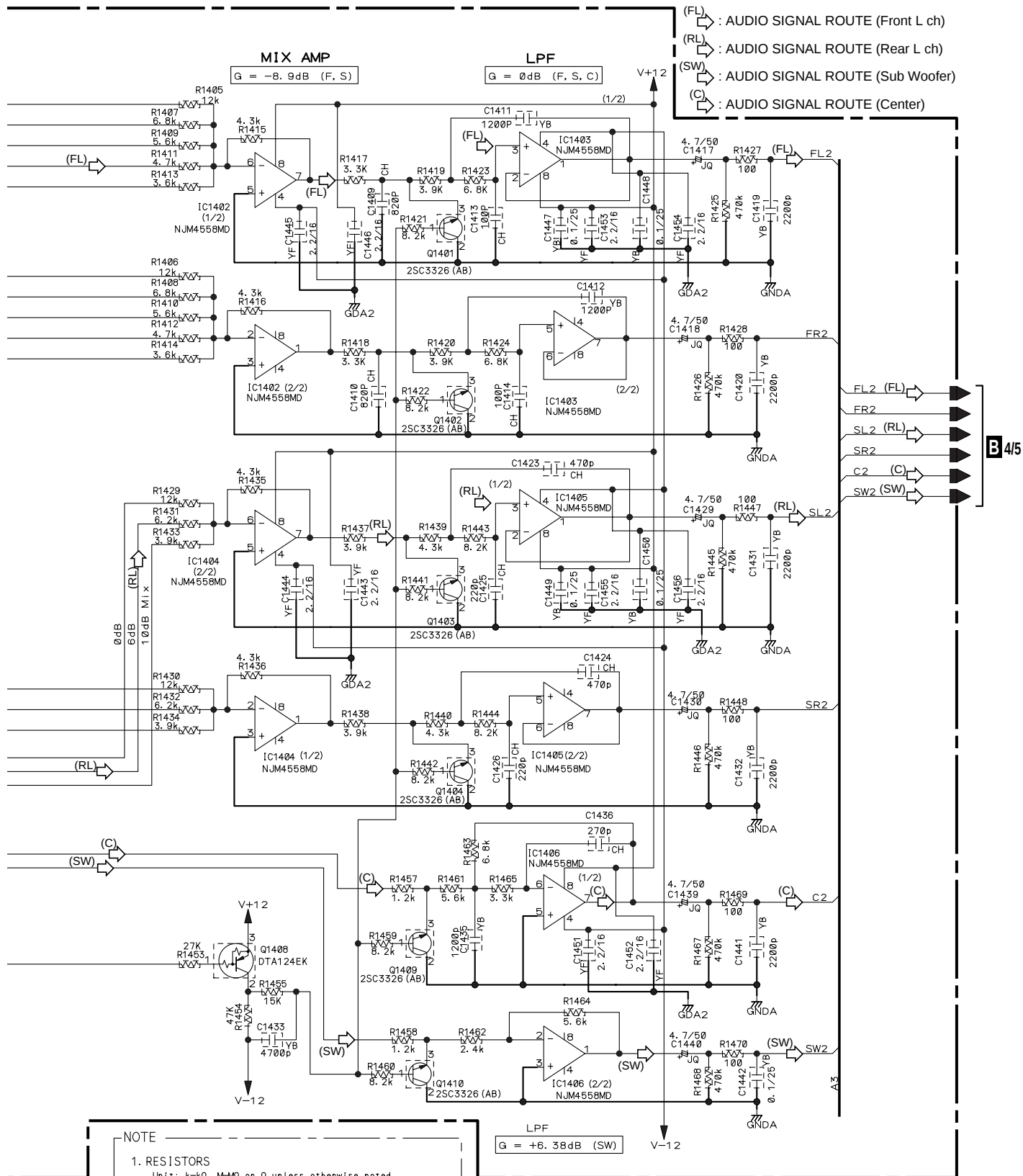






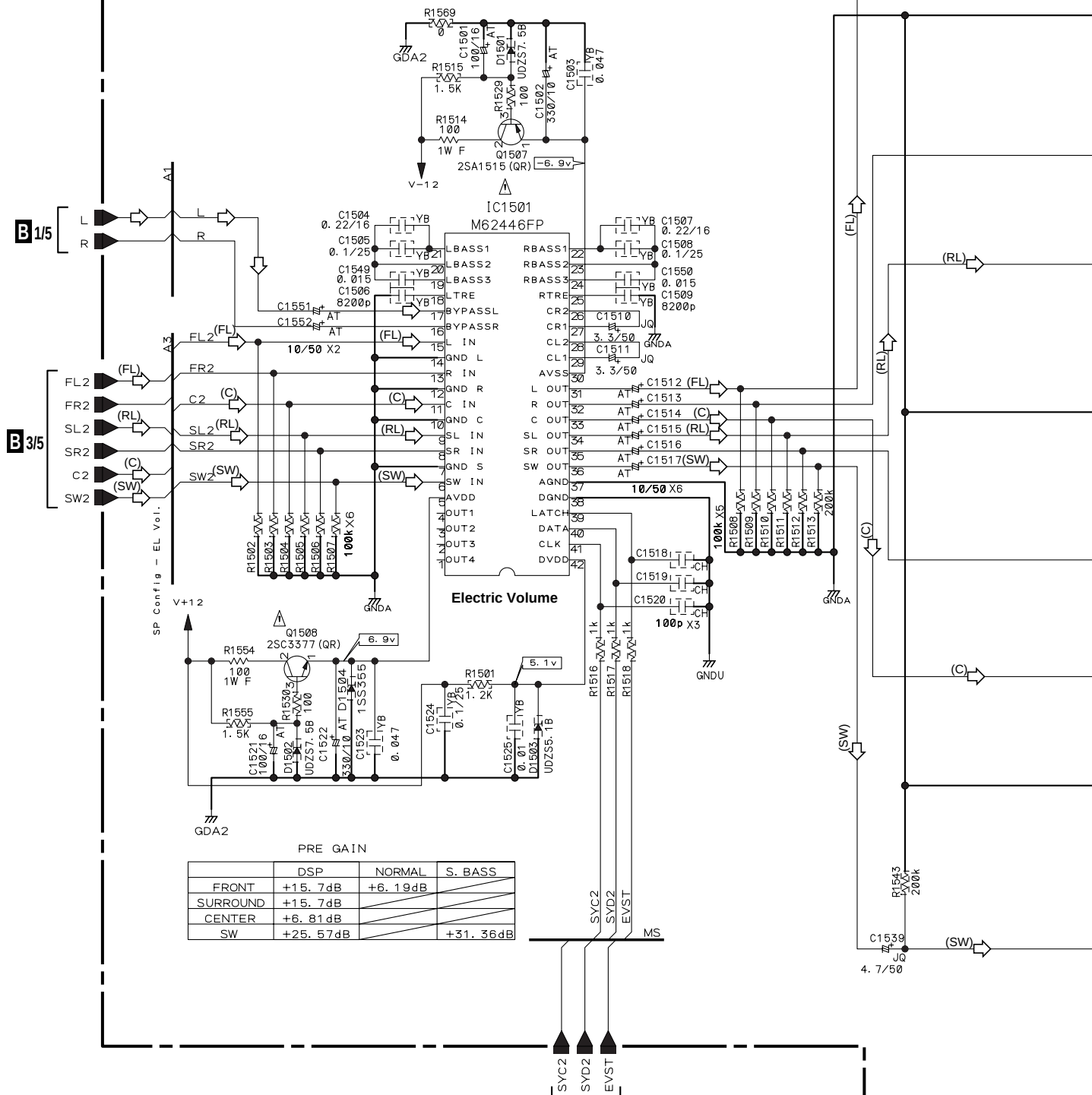
### 3.6 DSP ASSY (3/5)





3.7 DSP ASSY (4/5)

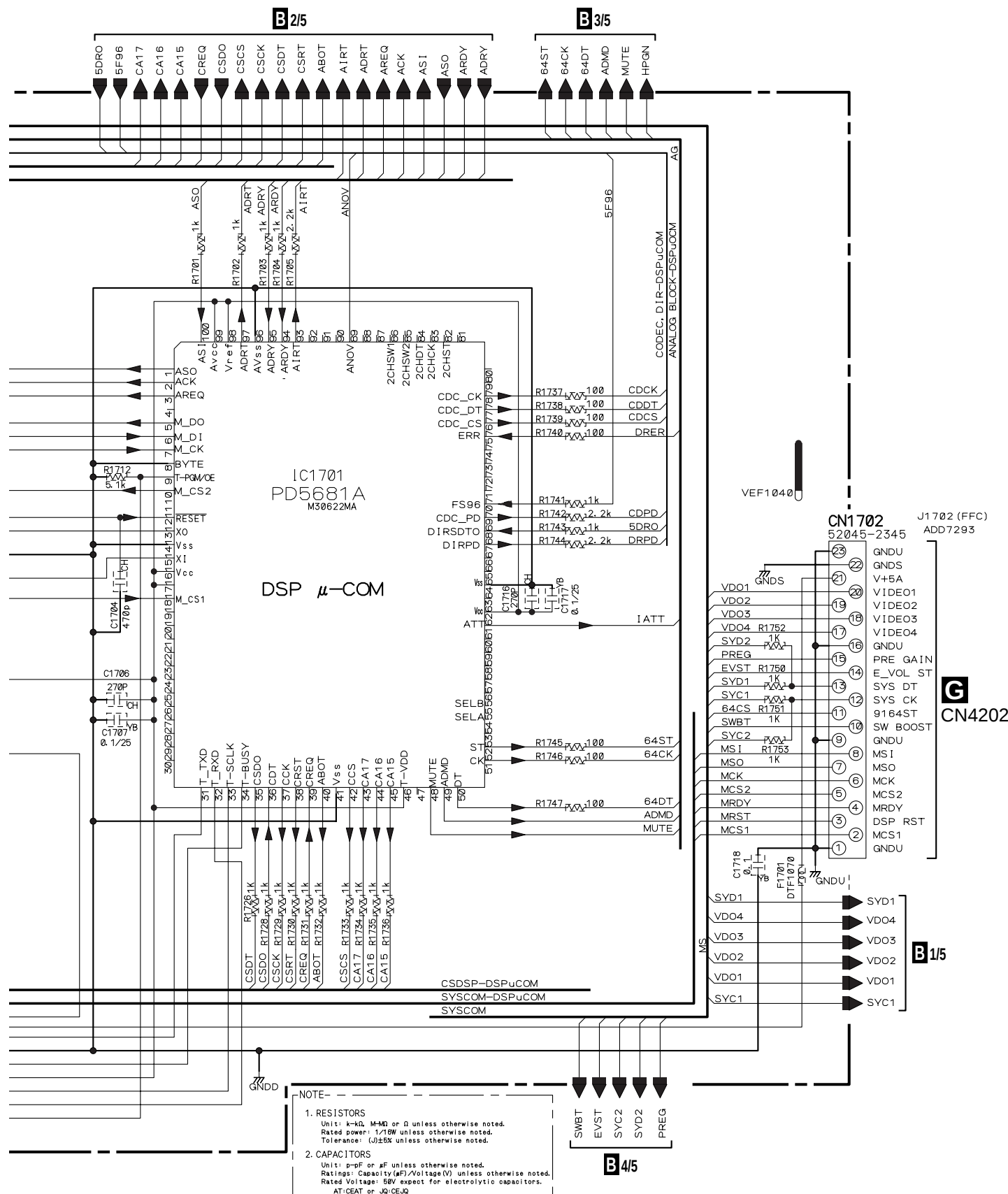
B 4/5 DSP ASSY (AWX7930)





**B 5/5 D**





: The power supply is shown with the marked box.

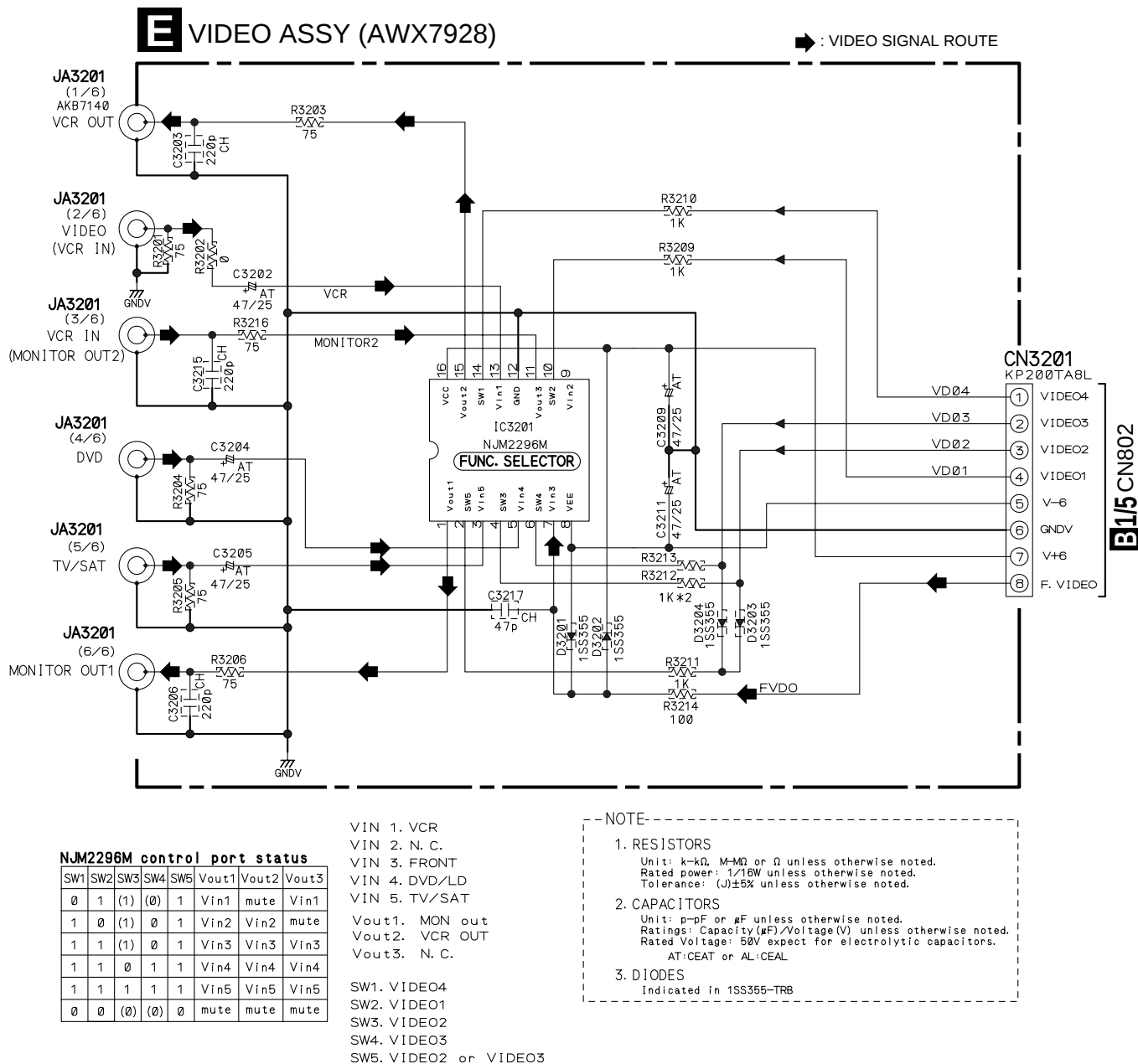
3.9 VIDEO ASSY

A

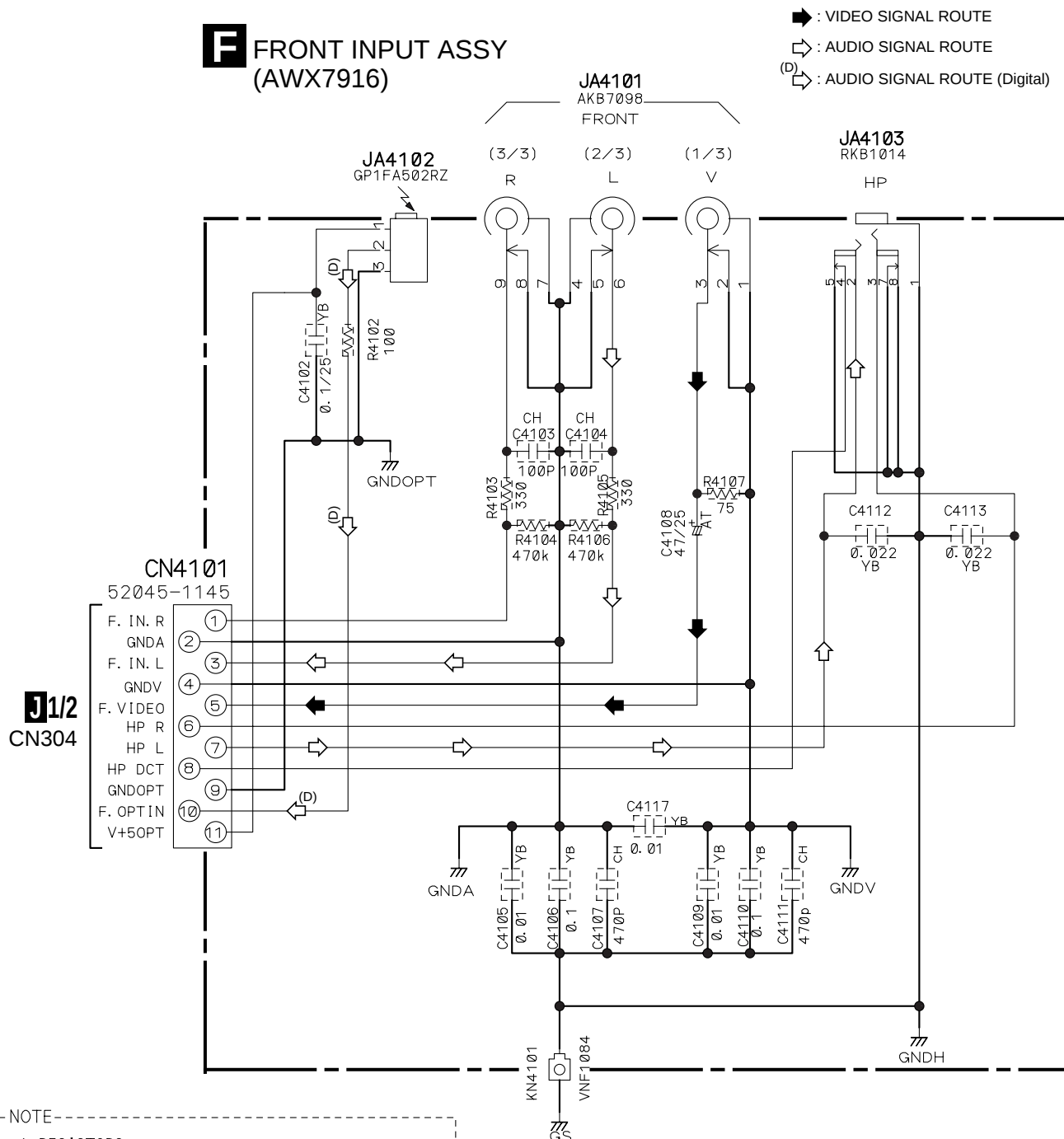
B

C

D

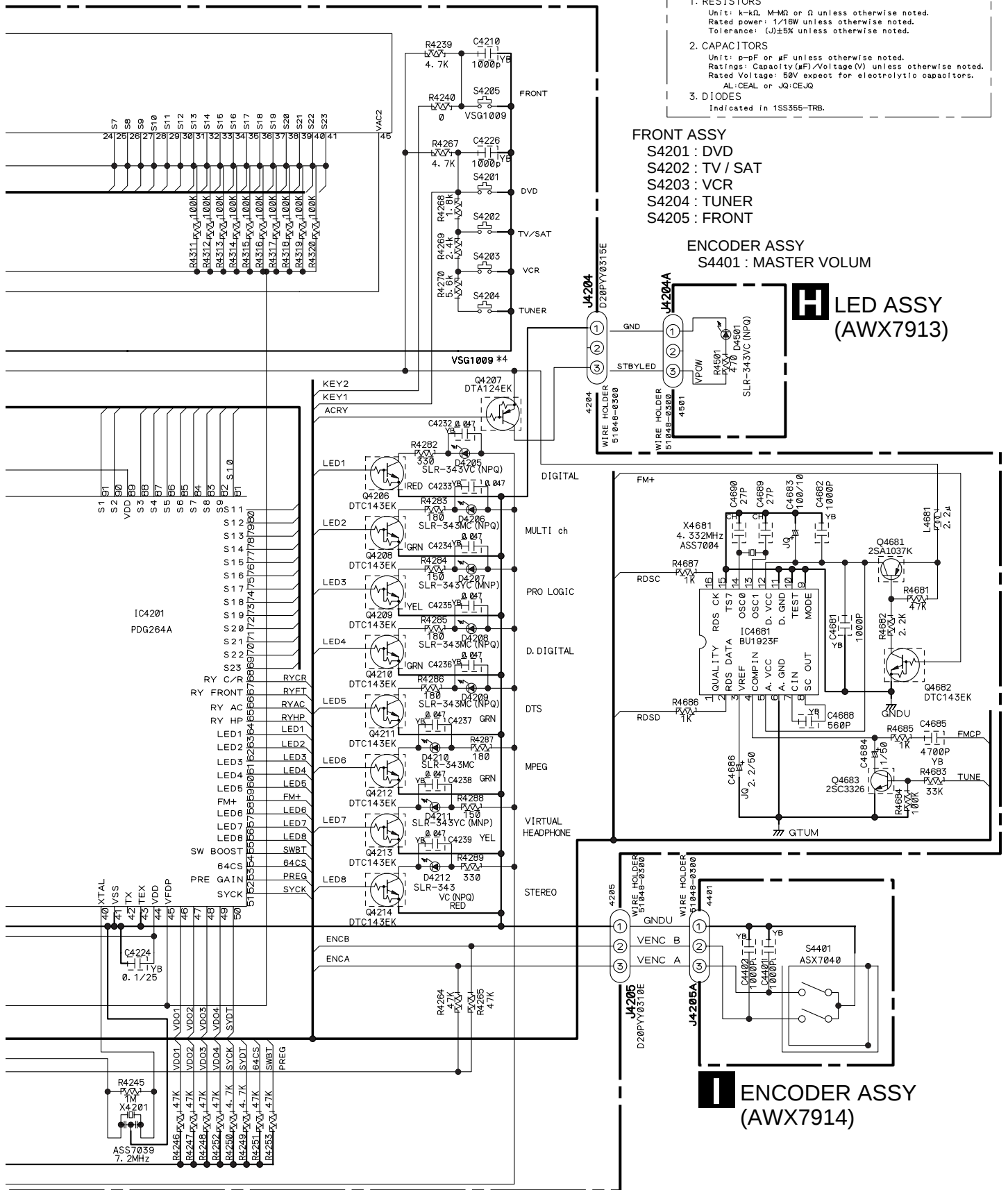


## 3.10 FRONT INPUT ASSY





**O** : The power supply is shown with the marked box.





➡ : VIDEO SIGNAL ROUTE

↗ : AUDIO SIGNAL ROUTE

(D) : AUDIO SIGNAL ROUTE (Digital)

(FL) : AUDIO SIGNAL ROUTE (Front L ch)

(RL) : AUDIO SIGNAL ROUTE (Rear L ch)

(SW) : AUDIO SIGNAL ROUTE (Sub Woofer)

(C) : AUDIO SIGNAL ROUTE (Center)

## NOTE

## 1. RESISTORS

Unit: k- $\Omega$ , M- $\Omega$  or  $\Omega$  unless otherwise noted.  
Rated power: 1/10W unless otherwise noted.  
Tolerance: (J) $\pm 5\%$  unless otherwise noted.

## 2. CAPACITORS

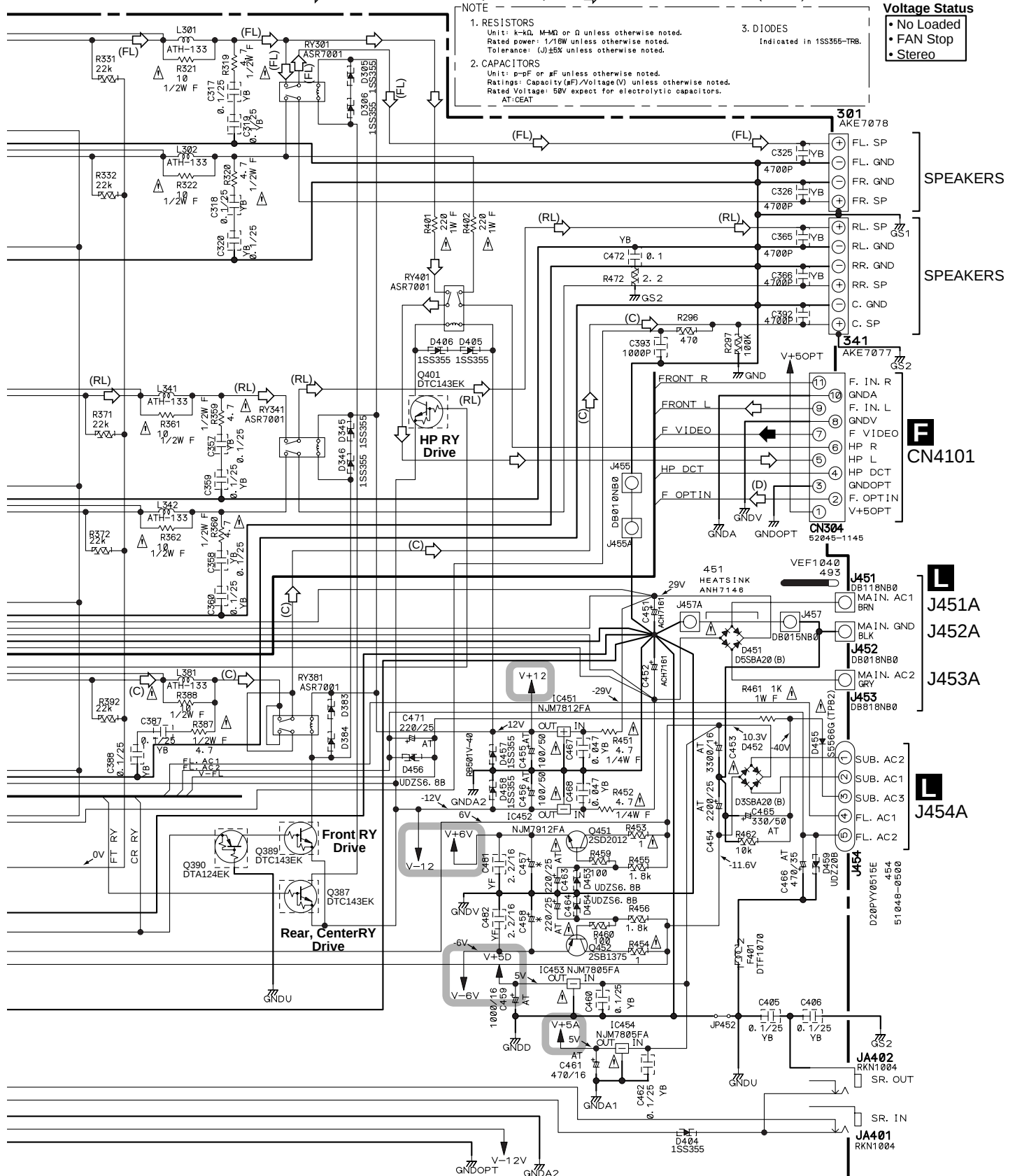
Unit: p-pF or  $\mu$ F unless otherwise noted.  
Ratings: Capacity( $\mu$ F)/Voltage(V) unless otherwise noted.  
Rated Voltage: 50V expect for electrolytic capacitors.  
AT-CEAT

## 3. DIODES

Indicated in 1SS355-TRB.

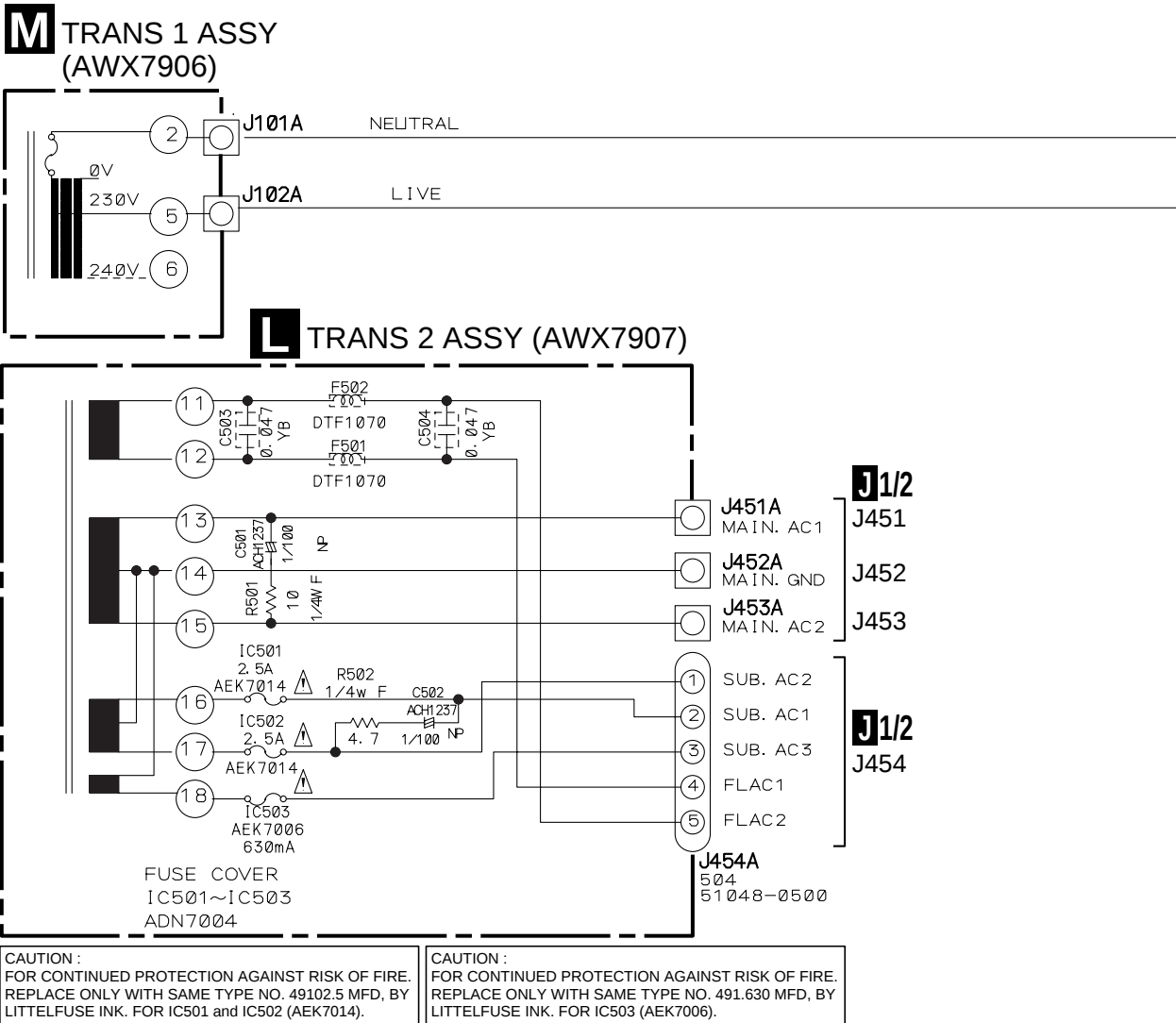
## Voltage Status

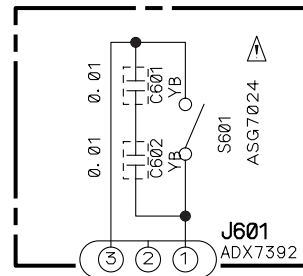
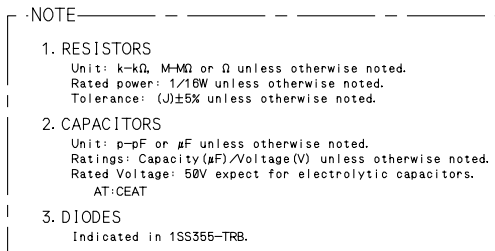
- No Loaded
- FAN Stop
- Stereo



⬡ : The power supply is shown with the marked box.

3.13 POWER (2/2), SW, TRANS 2 and TRANS 1 ASSYS

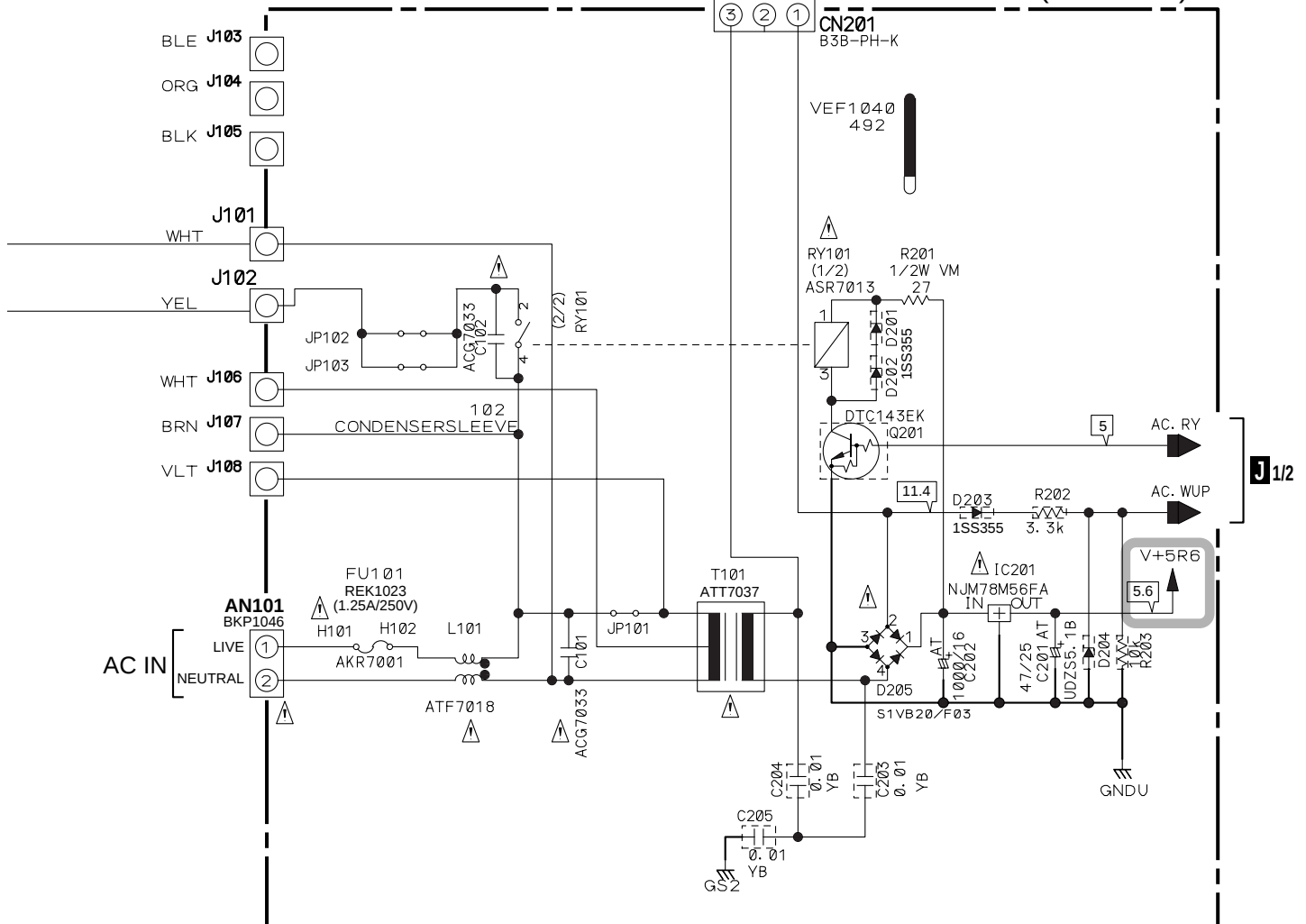




**K** SW ASSY  
(AWX7904)

SW ASSY  
S601 : POWER ON/OFF

**J** 2/2 POWER ASSY  
(AWX7909)



• NOTE FOR FUSE REPLACEMENT

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

 : The power supply is shown with the marked box.

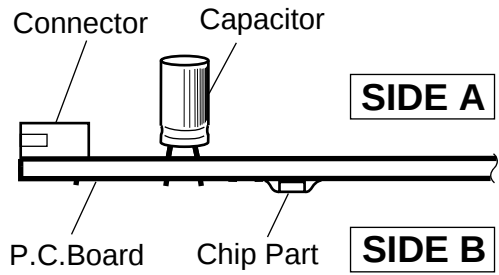
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

- 1. Part numbers in PCB diagrams match those in the schematic diagrams.
- 2. A comparison between the main parts of PCB and schematic diagrams is shown below.

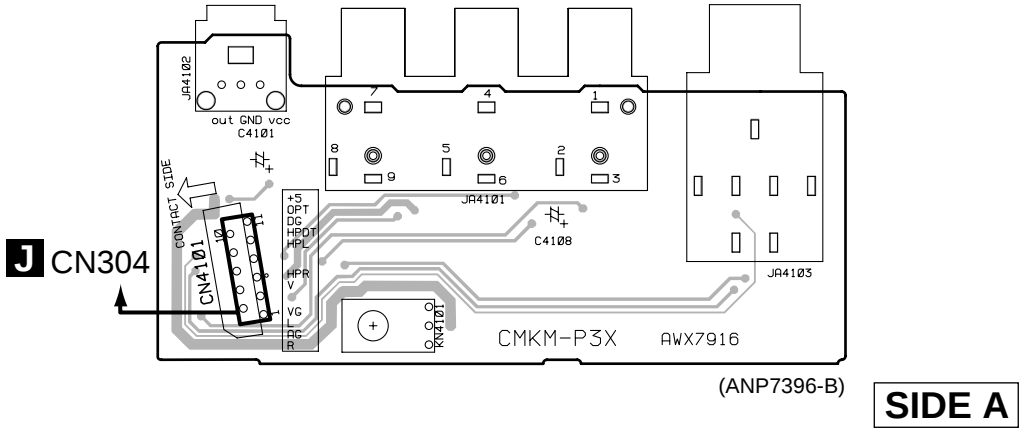
| Symbol In PCB Diagrams | Symbol In Schematic Diagrams | Part Name                |
|------------------------|------------------------------|--------------------------|
|                        |                              | Transistor               |
|                        |                              | Transistor with resistor |
|                        |                              | Field effect transistor  |
|                        |                              | Resistor array           |
|                        |                              | 3-terminal regulator     |

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

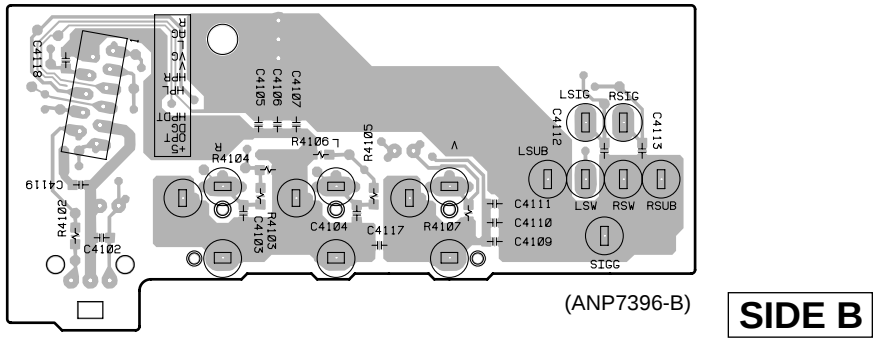


4.1 FRONT INPUT ASSY

FRONT INPUT ASSY



FRONT INPUT ASSY





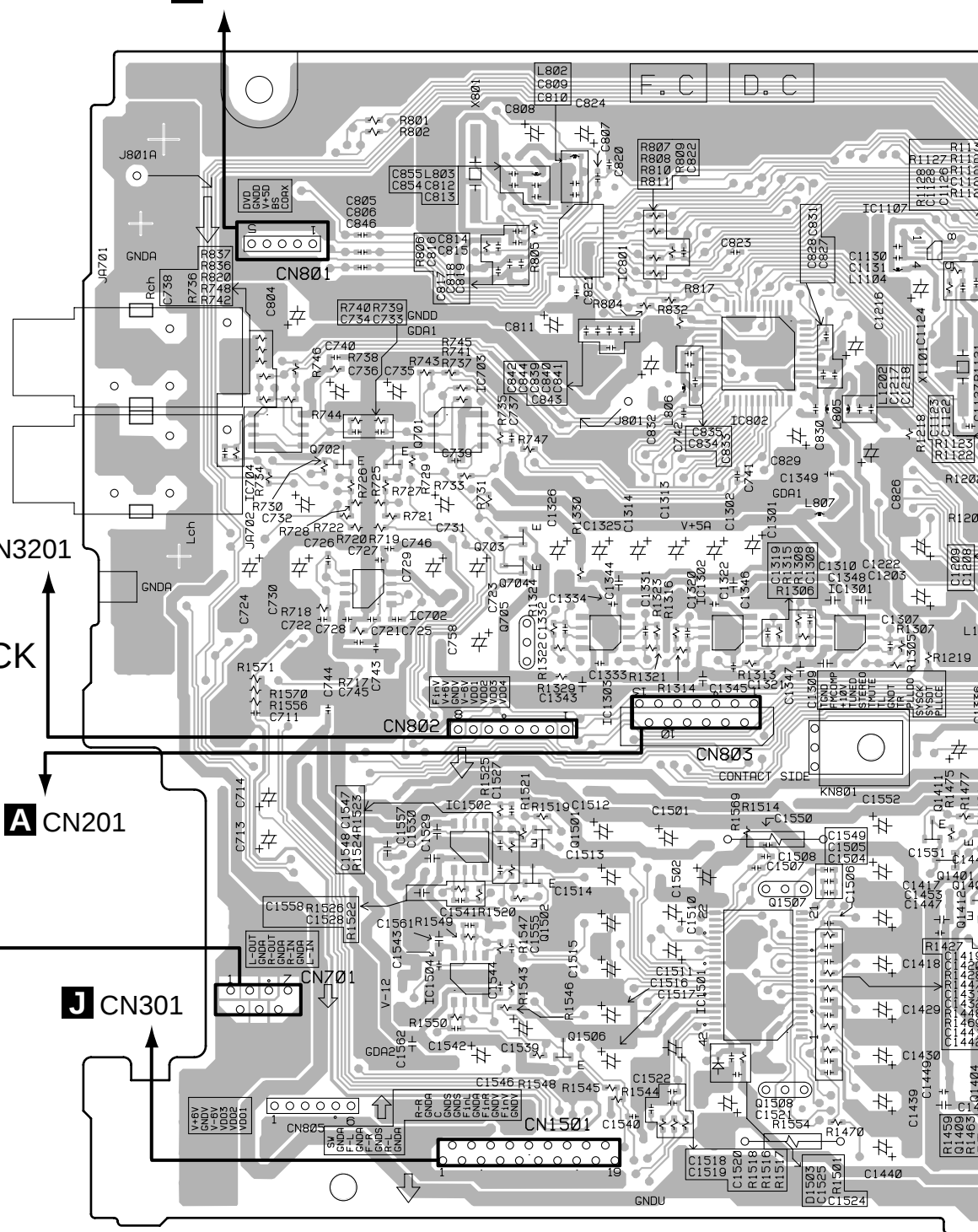
# 4.3 DSP and 2P-JACK ASSYS

**B** DSP ASSY **D** CN901

**C** 2PA-JACK ASSY

(ANP7395-C)

**SIDE A**



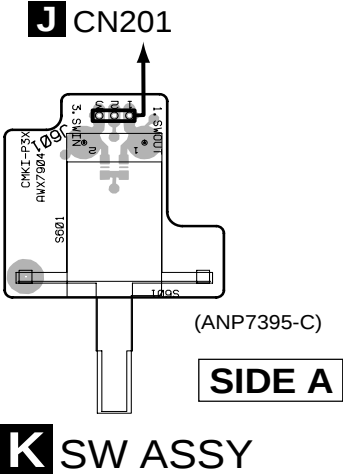
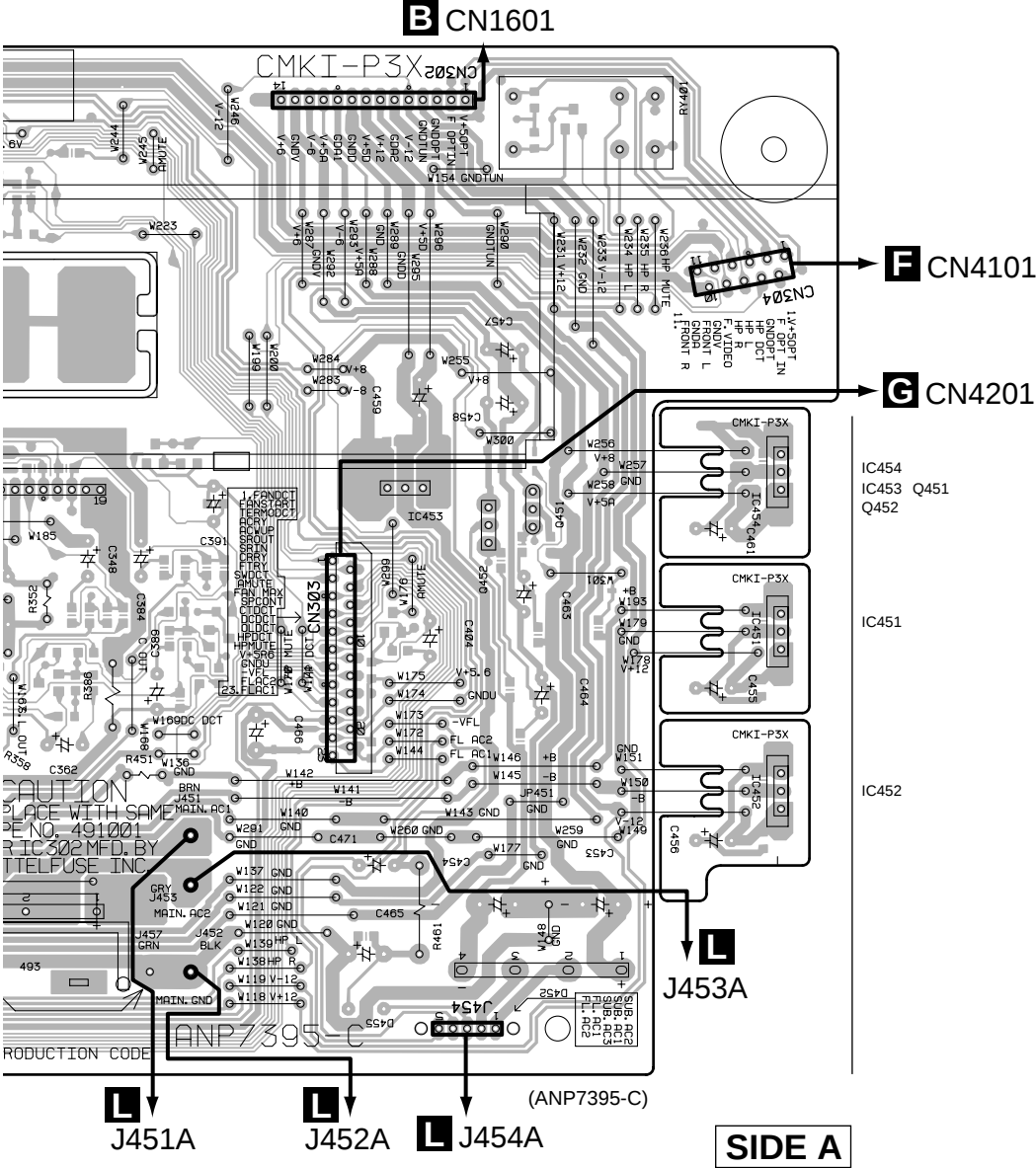
|        |       |      |        |       |        |        |        |
|--------|-------|------|--------|-------|--------|--------|--------|
| IC704  | Q702  | Q701 | IC703  | Q703  | IC801  | IC802  | IC1107 |
| IC1502 | IC702 |      | IC1504 | Q704  | IC1303 |        |        |
|        |       |      |        | Q705  |        | Q1507  | Q1411  |
|        |       |      |        | Q1501 |        | IC1501 | Q1401  |
|        |       |      |        | Q1502 | Q1506  | Q1508  | Q      |





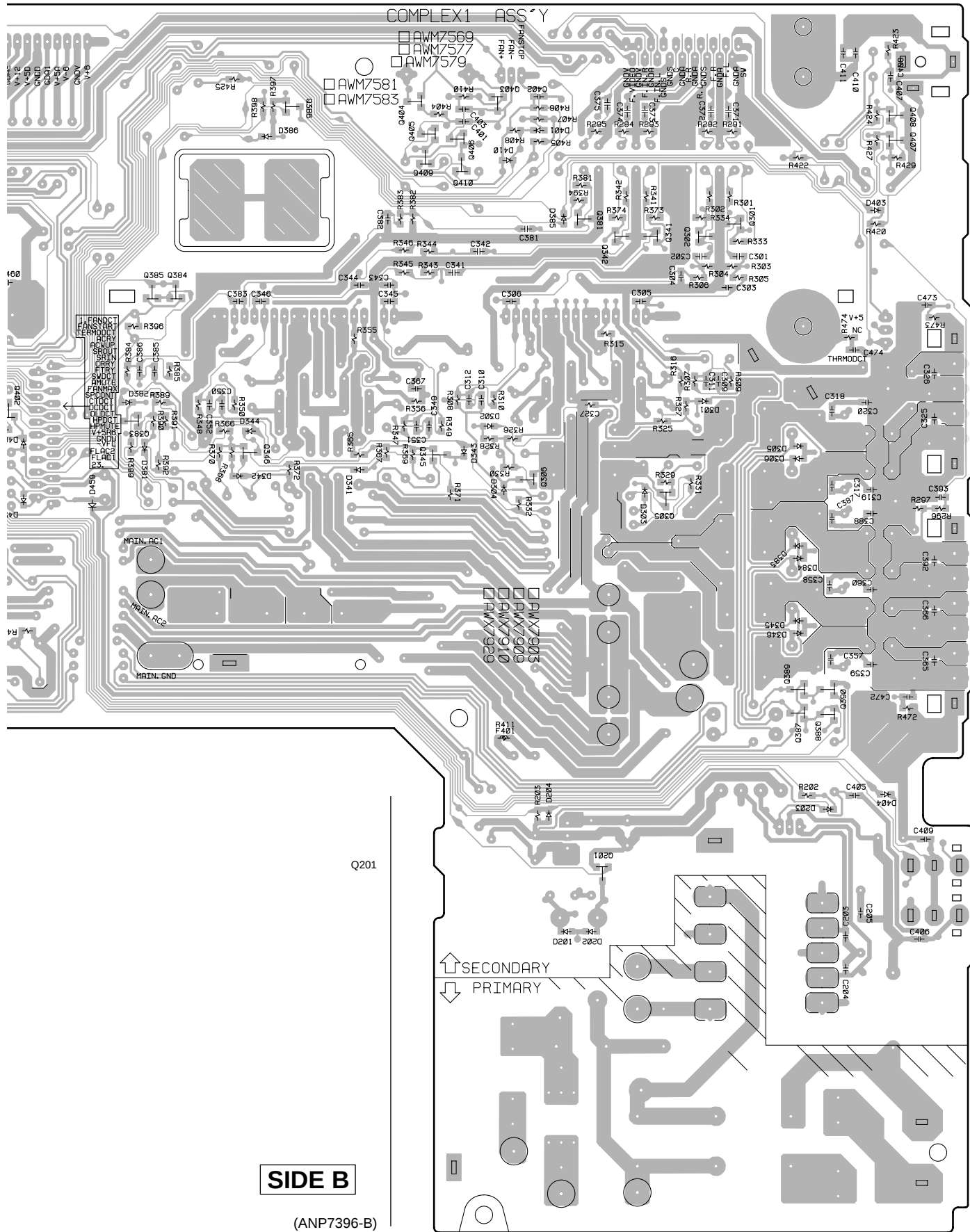






## 2













5. PCB PARTS LIST

- NOTES :
- Parts marked by “ NSP ” are generally unavailable because they are not in our Master Spare Parts List.
  - The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
  - When ordering resistors, first convert resistance values into code form as shown in the following examples.
- Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).
- $560\ \Omega \rightarrow 56 \times 10^1 \rightarrow 561$  ..... RD1/4PU  $\begin{matrix} 5 & 6 & 1 \end{matrix}$  J
- $47k\ \Omega \rightarrow 47 \times 10^3 \rightarrow 473$  ..... RD1/4PU  $\begin{matrix} 4 & 7 & 3 \end{matrix}$  J
- $0.5\ \Omega \rightarrow R50$  ..... RN2H  $\begin{matrix} R & 5 & 0 \end{matrix}$  K
- $1\ \Omega \rightarrow 1R0$  ..... RS1P  $\begin{matrix} 1 & R & 0 \end{matrix}$  K
- Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).
- $5.62k\ \Omega \rightarrow 562 \times 10^1 \rightarrow 5621$  ..... RN1/4PC  $\begin{matrix} 5 & 6 & 2 & 1 \end{matrix}$  F

| Mark                   | No.                         | Description        | Part No. | Mark      | No.                          | Description          | Part No.     |
|------------------------|-----------------------------|--------------------|----------|-----------|------------------------------|----------------------|--------------|
| LIST OF PCB ASSEMBLIES |                             |                    |          |           |                              |                      |              |
|                        |                             | FM/AM TUNER MODULE | AXQ7232  |           | C229                         |                      | CEAT101M10   |
|                        |                             |                    |          |           | C224                         |                      | CEAT1R0M50   |
|                        |                             |                    |          |           | C227                         |                      | CEAT220M25   |
| NSP                    | COMPLEX 1 ASSY              | AWM7577            |          |           | C241                         |                      | CEAT2R2M50   |
|                        | — SW ASSY                   | AWX7904            |          |           | C243                         |                      | CEAT330M16   |
|                        | — TRANS 2 ASSY              | AWX7907            |          |           |                              |                      |              |
|                        | — OPT-IN ASSY               | AWX7908            |          |           | C228                         |                      | CEAT3R3M50   |
|                        | — POWER ASSY                | AWX7909            |          |           | C237                         |                      | CEAT470M10   |
|                        | — 2P JACK ASSY              | AWX7926            |          |           | C211                         |                      | CEJQ1R0M50   |
|                        | — VIDEO ASSY                | AWX7928            |          |           | C210                         |                      | CEJQ470M16   |
|                        |                             |                    |          |           | C103, C104, C204, C238, C609 |                      | CKSRYB102K50 |
| NSP                    | COMPLEX 2 ASSY              | AWM7578            |          |           |                              |                      |              |
| NSP                    | — LED ASSY                  | AWX7913            |          |           | C102, C208, C216, C217, C220 |                      | CKSRYB103K50 |
|                        | — ENCODER ASSY              | AWX7914            |          |           | C239, C242, C604, C610, C615 |                      | CKSRYB103K50 |
|                        | — FRONT INPUT ASSY          | AWX7916            |          |           | C225                         |                      | CKSRYB153K50 |
|                        | — DSP ASSY                  | AWX7930            |          |           | C607, C608                   |                      | CKSRYB182K50 |
|                        | — FRONT ASSY                | AWX7931            |          |           | C201, C205, C214, C230, C236 |                      | CKSRYB223K50 |
|                        |                             |                    |          |           |                              |                      |              |
|                        |                             |                    |          |           | C244, C611                   |                      | CKSRYB223K50 |
|                        |                             |                    |          |           | C221                         |                      | CKSRYB224K10 |
|                        |                             |                    |          |           | C603                         |                      | CKSRYB392K50 |
|                        |                             |                    |          |           | C215                         |                      | CKSRYB471K50 |
|                        |                             |                    |          |           | C202, C222                   |                      | CKSRYB473K16 |
|                        |                             |                    |          |           |                              |                      |              |
|                        |                             |                    |          |           | C606                         |                      | CKSRYB561K50 |
| SEMICONDUCTORS         |                             |                    |          | RESISTORS |                              |                      |              |
|                        | IC201                       | BA1451F            |          |           | R211                         |                      | RD1/4PU221J  |
|                        | IC202                       | LC72131MD          |          |           | R221                         |                      | RD1/4PU222J  |
|                        | Q201, Q204, Q205, Q601      | 2SC2412K           |          |           | R233                         |                      | RD1/4PU391J  |
|                        | Q202                        | DTA124ES           |          |           | R103, R104                   |                      | RS1/10S221J  |
|                        | Q203, Q602                  | DTC124EK           |          |           | OtherResistors               |                      | RS1/16S□□□J  |
|                        |                             |                    |          | OTHERS    |                              |                      |              |
|                        | D201                        | 1SS133             |          |           | CN201                        | 13P SOCKET           | 52044-1345   |
|                        | D601                        | HVU187             |          |           | BN201                        | 2P ANTENNA TERM.     | AKA7002      |
|                        | D202                        | MTZJ5.1C           |          |           |                              | SHIELD CASE T        | ANK7072      |
|                        | D101                        | UDZS6.8B           |          |           |                              | SHIELD CASE B        | ANK7073      |
|                        |                             |                    |          |           | X201                         | CRYSTAR RES.(7.2MHz) | ASS1093      |
| COILS AND FILTERS      |                             |                    |          |           |                              |                      |              |
|                        | L201                        | FM DETECTOR COIL   | ATE7003  |           |                              | FM FRONT END         | AXF7005      |
|                        | F202                        | CERAMIC FILTER     | ATF-107  |           |                              | AM RF TUNING BLOCK   | AXX7072      |
|                        | F201                        | CERAMIC FILTER     | ATF-119  |           |                              |                      |              |
|                        | F601                        | ANTIBIRDY FILTER   | ATF7025  |           |                              |                      |              |
|                        | F203                        | AM CERAMIC FILTER  | ATF7026  |           |                              |                      |              |
|                        |                             |                    |          |           |                              |                      |              |
|                        | L602                        | LAU2R2J            |          |           |                              |                      |              |
|                        | L601                        | LCTA270J2520       |          |           |                              |                      |              |
| CAPACITORS             |                             |                    |          |           |                              |                      |              |
|                        | C605                        | CCSQCH680J50       |          |           |                              |                      |              |
|                        | C212, C213, C226, C233-C235 | CCSRCH101J50       |          |           |                              |                      |              |
|                        | C240, C614                  | CCSRCH101J50       |          |           |                              |                      |              |
|                        | C206                        | CCSRCH120J50       |          |           |                              |                      |              |
|                        | C231, C232                  | CCSRCH150J50       |          |           |                              |                      |              |
|                        | C223                        | CEAT100M50         |          |           |                              |                      |              |

| Mark                     | No.                               | Description | Part No.        |
|--------------------------|-----------------------------------|-------------|-----------------|
| <b>B</b>                 | <b>DSP ASSY</b>                   |             |                 |
| <b>SEMICONDUCTORS</b>    |                                   |             |                 |
|                          | IC801                             |             | AK4112AVF       |
|                          | IC802                             |             | AK4527BVQ       |
|                          | IC1201                            |             | AK7706VT        |
|                          | IC1203                            |             | BS62LV1024TC-70 |
|                          | IC1106                            |             | CS493292        |
|                          | IC1501                            |             | M62446FP        |
|                          | IC703, IC704                      |             | NJM2100M        |
|                          | IC1301-IC1303, IC1402-IC1406      |             | NJM4558MD       |
|                          | IC1701                            |             | PD5681A         |
|                          | IC1104                            |             | PDN031D         |
| ⚠                        | IC1601                            |             | PQ20WZ51        |
| ⚠                        | IC1602                            |             | PQ7VZ5          |
|                          | IC1105                            |             | TC74LVX244F     |
|                          | IC1101, IC1102                    |             | TC74VHC574F     |
|                          | IC1202                            |             | TC74VHCT244AF   |
|                          | IC1107                            |             | TC7WU04FU       |
|                          | IC1401, IC701                     |             | TC9164AF        |
|                          | IC1502-IC1504, IC702              |             | UPC4570G2       |
| ⚠                        | Q1507                             |             | 2SA1515         |
|                          | Q705                              |             | 2SC1740S        |
|                          | Q1401-Q1404, Q1409, Q1410         |             | 2SC3326         |
|                          | Q1501, Q1502, Q1506, Q701, Q702   |             | 2SC3326         |
| ⚠                        | Q1508                             |             | 2SC3377         |
|                          | Q1405, Q1406, Q1408, Q703, Q801   |             | DTA124EK        |
|                          | Q803                              |             | DTA124EK        |
|                          | Q1407, Q704, Q802, Q804           |             | DTC124EK        |
|                          | D1504, D701                       |             | 1SS355          |
|                          | D1401, D1402                      |             | DAP202K         |
|                          | D1503                             |             | UDZS5.1B        |
|                          | D1501, D1502                      |             | UDZS7.5B        |
| <b>COILS AND FILTERS</b> |                                   |             |                 |
|                          | L1103, L1201, L1601, L1602, L1701 |             | ATL7002         |
|                          | F1601-F1610, F1701                |             | DTF1070         |
|                          | L1101, L1102, L1104, L1202, L1203 |             | QTL1013         |
|                          | L701, L801-L808                   |             | QTL1013         |
| <b>CAPACITORS</b>        |                                   |             |                 |
|                          | C1127, C1128                      |             | CCSRCH100D50    |
|                          | C1319, C1320, C1331, C1413, C1414 |             | CCSRCH101J50    |
|                          | C1518-C1520, C703, C706-C710      |             | CCSRCH101J50    |
|                          | C717-C719, C721, C722, C816       |             | CCSRCH101J50    |
|                          | C815                              |             | CCSRCH150J50    |
|                          | C814                              |             | CCSRCH180J50    |
|                          | C1425, C1426, C1527, C1528        |             | CCSRCH221J50    |
|                          | C1533, C1534, C1541, C840         |             | CCSRCH221J50    |
|                          | C1130, C1436, C1706, C1716        |             | CCSRCH271J50    |
|                          | C1102, C1104, C1108, C1111, C1113 |             | CCSRCH471J50    |
|                          | C1119, C1120, C1122, C1125, C1133 |             | CCSRCH471J50    |
|                          | C1202, C1204, C1207, C1208, C1210 |             | CCSRCH471J50    |
|                          | C1212, C1218, C1220, C1405        |             | CCSRCH471J50    |
|                          | C1423, C1424, C1704, C755, C757   |             | CCSRCH471J50    |
|                          | C810, C819, C828, C834, C848      |             | CCSRCH471J50    |
|                          | C854, C856                        |             | CCSRCH471J50    |
|                          | C737, C738                        |             | CCSRCH560J50    |
|                          | C1307, C1308                      |             | CCSRCH820J50    |
|                          | C1317, C1318, C1329, C1332        |             | CCSRCH821J50    |
|                          | C1409, C1410                      |             | CCSRCH821J50    |
|                          | C1326                             |             | CEANP100M16     |

| Mark             | No.                               | Description  | Part No. |
|------------------|-----------------------------------|--------------|----------|
|                  | C1109, C1216, C1401, C1403        | CEAT100M50   |          |
|                  | C1512-C1517, C1551, C1552         | CEAT100M50   |          |
|                  | C713, C714                        | CEAT100M50   |          |
|                  | C1106, C1115, C1203, C1222, C1336 | CEAT101M16   |          |
|                  | C1501, C1521, C1601-C1604         | CEAT101M16   |          |
|                  | C1607-C1610, C1705, C758, C811    | CEAT101M16   |          |
|                  | C832                              | CEAT101M16   |          |
|                  | C808                              | CEAT221M6R3  |          |
|                  | C1502, C1522                      | CEAT331M10   |          |
|                  | C729, C730, C804                  | CEAT470M25   |          |
|                  | C826                              | CEAT471M16   |          |
|                  | C1124, C829                       | CEJQ2R2M50   |          |
|                  | C1301, C1302, C1311-C1314         | CEJQ330M10   |          |
|                  | C1323-C1325, C1335                | CEJQ330M10   |          |
|                  | C1510, C1511                      | CEJQ3R3M50   |          |
|                  | C1417, C1418, C1429, C1430        | CEJQ4R7M50   |          |
|                  | C1439, C1440, C1539, C1546        | CEJQ4R7M50   |          |
|                  | C1605, C1606, C723, C724          | CEJQ4R7M50   |          |
|                  | C731, C732, C735, C736            | CEJQ4R7M50   |          |
|                  | C824                              | CEJQR47M50   |          |
|                  | C753                              | CKSQYF105Z16 |          |
|                  | C1343-C1348, C1443-C1446          | CKSQYF225Z16 |          |
|                  | C1451-C1456, C1557-C1562, C756    | CKSQYF225Z16 |          |
|                  | C1542, C1714, C841                | CKSRYB102K50 |          |
|                  | C1101, C1103, C1107, C1110, C1112 | CKSRYB103K50 |          |
|                  | C1118, C1121, C1123, C1126, C1129 | CKSRYB103K50 |          |
|                  | C1131, C1132, C1201, C1205, C1206 | CKSRYB103K50 |          |
|                  | C1209, C1211, C1213, C1215, C1219 | CKSRYB103K50 |          |
|                  | C1349, C1402, C1404, C1525        | CKSRYB103K50 |          |
|                  | C743-C746, C805-C807, C809        | CKSRYB103K50 |          |
|                  | C820, C833, C836, C842, C845      | CKSRYB103K50 |          |
|                  | C847                              | CKSRYB103K50 |          |
|                  | C1223, C1328, C1442, C1447-C1450  | CKSRYB104K25 |          |
|                  | C1505, C1508, C1524, C1540, C1707 | CKSRYB104K25 |          |
|                  | C1717, C1718, C733, C734          | CKSRYB104K25 |          |
|                  | C739, C740, C754, C803            | CKSRYB104K25 |          |
|                  | C817, C818, C827, C830, C835      | CKSRYB104K25 |          |
|                  | C839, C844, C855                  | CKSRYB104K25 |          |
|                  | C1411, C1412, C1435               | CKSRYB122K50 |          |
|                  | C741, C742                        | CKSRYB152K50 |          |
|                  | C1549, C1550                      | CKSRYB153K50 |          |
|                  | C1305, C1306, C1315, C1316, C1327 | CKSRYB182K50 |          |
|                  | C1419, C1420, C1431, C1432, C1441 | CKSRYB222K50 |          |
|                  | C1217, C1504, C1507               | CKSRYB224K16 |          |
|                  | C1303, C1304                      | CKSRYB272K50 |          |
|                  | C1330                             | CKSRYB333K16 |          |
|                  | C1433                             | CKSRYB472K50 |          |
|                  | C1503, C1523                      | CKSRYB473K50 |          |
|                  | C825                              | CKSRYB682K50 |          |
|                  | C1506, C1509                      | CKSRYB822K50 |          |
| <b>RESISTORS</b> |                                   |              |          |
|                  | R1604, R1606                      | RS1/16S1201F |          |
|                  | R1514, R1554                      | RS1LMF101J   |          |
|                  | Other Resistors                   | RS1/16S□□□J  |          |
| <b>OTHERS</b>    |                                   |              |          |
|                  | CN1601 FJ CONNECTOR 14P           | 14R-FJ       |          |
|                  | CN1501 1.25 FJ CONNECTOR 19P      | 19R-1.25FJ   |          |
|                  | CN804 7P FFC CONNECTOR            | 52045-0745   |          |
|                  | CN1701 10P FFC CONNECTOR          | 52045-1045   |          |
|                  | CN803 13P FFC CONNECTOR           | 52045-1345   |          |

# VSX-C300, VSX-C300-S

| Mark | No.    | Description          | Part No.   |
|------|--------|----------------------|------------|
|      | CN1702 | 23P FFC CONNECTOR    | 52045-2345 |
|      | JA702  | 3P PIN JACK          | AKB7137    |
|      | JA701  | 3P PLUG              | AKB7138    |
|      | CN701  | 7P PLUG              | AKP7056    |
|      | X801   | CRYSTAL RESO.(24MHz) | ASS7025    |
|      | X1701  | CERAMIC RESO.(17MHz) | ASS7032    |
|      | CN801  | 5P PLUG              | KM200TA5   |
|      | CN802  | 8P PLUG              | KM200TA8   |
|      | 0      | PCB BINDER           | VEF1040    |
|      | KN801  | EARTH METAL FITTING  | VNF1084    |
|      | X1101  | CRYSTAL RESO.(27MHz) | VSS1086    |

## C 2P JACK ASSY

### CAPACITORS

|              |              |
|--------------|--------------|
| C2201, C2202 | CCSRCH101J50 |
| C2203, C2204 | CCSRCH220J50 |

### RESISTORS

|                |             |
|----------------|-------------|
| OtherResistors | RS1/16S□□□J |
|----------------|-------------|

### OTHERS

|        |             |         |
|--------|-------------|---------|
| 2201   | 2P PIN JACK | AKB7143 |
| CN2201 | 7P SOCKET   | AKP7067 |

## D OPT-IN ASSY

### CAPACITORS

|            |              |
|------------|--------------|
| C901, C902 | CKSRYB104K25 |
|------------|--------------|

### RESISTORS

|                |             |
|----------------|-------------|
| OtherResistors | RS1/16S□□□J |
|----------------|-------------|

### OTHERS

|              |                      |            |
|--------------|----------------------|------------|
| JA901, JA902 | OPTICAL RECEIVE MOD. | GP1FA502RZ |
| CN901        | 5P SOCKET            | KP200TA5L  |

## E VIDEO ASSY

### SEMICONDUCTORS

|             |          |
|-------------|----------|
| IC3201      | NJM2296M |
| D3201-D3204 | 1SS355   |

### CAPACITORS

|                                   |              |
|-----------------------------------|--------------|
| C3203, C3206, C3215               | CCSRCH221J50 |
| C3217                             | CCSRCH470J50 |
| C3202, C3204, C3205, C3209, C3211 | CEAT470M25   |

### RESISTORS

|                |             |
|----------------|-------------|
| OtherResistors | RS1/16S□□□J |
|----------------|-------------|

### OTHERS

|        |                  |           |
|--------|------------------|-----------|
| JA3201 | 6P PIN JACK JACK | AKB7140   |
| CN3201 | 8P SOCKET        | KP200TA8L |

## J POWER ASSY

### SEMICONDUCTORS

|                |           |
|----------------|-----------|
| △ IC302        | AEK7009   |
| △ IC453, IC454 | NJM7805FA |

| Mark | No.                          | Description | Part No.   |
|------|------------------------------|-------------|------------|
| △    | IC451                        |             | NJM7812FA  |
| △    | IC201                        |             | NJM78M56FA |
| △    | IC452                        |             | NJM7912FA  |
| △    | IC301                        |             | STK402-040 |
| △    | IC341                        |             | STK402-240 |
|      | Q386                         |             | 2SA1037K   |
| △    | Q452                         |             | 2SB1375    |
|      | Q384, Q385                   |             | 2SC2412K   |
|      | Q305, Q306, Q345, Q346, Q383 |             | 2SC2712    |
|      | Q403, Q404                   |             | 2SC2712    |
|      | Q301, Q302, Q341, Q342, Q381 |             | 2SC3326    |
|      | Q407, Q408                   |             | 2SC3326    |
| △    | Q451                         |             | 2SD2012    |
|      | Q390, Q402, Q405, Q406       |             | DTA124EK   |
|      | Q409, Q410                   |             | DTC124EK   |

|                            |            |
|----------------------------|------------|
| Q201, Q387, Q389, Q401     | DTC143EK   |
| D201-D203, D301-D306       | 1SS355     |
| D341-D346, D381-D386, D401 | 1SS355     |
| D403-D408                  | 1SS355     |
| D452                       | D3SBA20(B) |

△

|            |              |
|------------|--------------|
| D451       | D5SBA20(B)   |
| D457, D458 | RB501V-40    |
| D205       | S1VB20/F03   |
| D455       | S5566G(TPB2) |
| D459       | UDZ20B       |

|                  |          |
|------------------|----------|
| D204, D410       | UDZS5.1B |
| D409             | UDZS5.6B |
| D453, D454, D456 | UDZS6.8B |

### COILS AND FILTERS

|                              |         |
|------------------------------|---------|
| △ L101                       | ATF7018 |
| L301, L302, L341, L342, L381 | ATH-133 |
| F401                         | DTF1070 |

### SWITCHESANDRELAYS

|                            |         |
|----------------------------|---------|
| RY301, RY341, RY381, RY401 | ASR7001 |
| RY101                      | ASR7013 |

### CAPACITORS

|                              |              |
|------------------------------|--------------|
| △ C101, C102                 | ACG7033      |
| C451, C452                   | ACH7161      |
| C401, C403                   | CCSRCH101J50 |
| C305, C306, C345, C346, C383 | CCSRCH221J50 |
| C410                         | CCSRCH221J50 |

|                              |              |
|------------------------------|--------------|
| C407                         | CCSRCH331J50 |
| C303, C304, C343, C344, C382 | CCSRCH471J50 |
| C309- C312, C349- C352       | CCSRCH6R0D50 |
| C385, C386                   | CCSRCH6R0D50 |
| C313, C314, C353, C354       | CEAT100M50   |

|                  |            |
|------------------|------------|
| C455, C456       | CEAT101M50 |
| C202, C459       | CEAT102M16 |
| C408             | CEAT1R0M50 |
| C463, C464, C471 | CEAT221M25 |
| C454             | CEAT222M25 |

|                              |            |
|------------------------------|------------|
| C321, C322, C361, C362, C389 | CEAT2R2M50 |
| C465                         | CEAT331M50 |
| C453                         | CEAT332M16 |
| C201                         | CEAT470M25 |
| C404, C461                   | CEAT471M16 |

|                        |             |
|------------------------|-------------|
| C466                   | CEAT471M35  |
| C315, C316, C355, C356 | CEHAT101M35 |
| C391                   | CEHAT221M10 |

| Mark | No.                                                                                                                    | Description                                                                  | Part No. |
|------|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------|
|      | C307, C308, C347, C348, C384<br>C301, C302, C341, C342<br>C371-C375, C381, C481, C482<br>C393<br>C203-C205, C402       | CEHAT330M25<br>CKSQYF225Z16<br>CKSQYF225Z16<br>CKSRYB102K50<br>CKSRYB103K50  |          |
|      | C317-C320, C357-C360<br>C387, C388, C405, C406, C411<br>C460, C462, C472<br>C325, C326, C365, C366, C392<br>C467, C468 | CKSRYB104K25<br>CKSRYB104K25<br>CKSRYB104K25<br>CKSRYB472K50<br>CKSRYB473K50 |          |

**RESISTORS**

|   |                                      |                             |
|---|--------------------------------------|-----------------------------|
| △ | R321, R322, R361, R362, R388         | RD1/2LMF100J                |
| △ | R319, R320, R359, R360, R387<br>R201 | RD1/2MMF4R7J<br>RD1/2VM270J |
| △ | R311, R312, R351, R352               | RD1/4MUF101J                |
| △ | R451, R452                           | RD1/4MUF4R7J                |
| △ | R453, R454                           | RS1/16S1R0J                 |
| △ | R461                                 | RS1LMF102J                  |
| △ | R409                                 | RS1LMF121J                  |
| △ | R401, R402                           | RS1LMF221J                  |
| △ | R317, R318, R357, R358, R386         | XCN3001                     |

OtherResistors RS1/16S□□□J

**OTHERS**

|   |                            |             |
|---|----------------------------|-------------|
|   | CN302 FJ CONNECTOR 14P     | 14PL-FJ     |
|   | 454 5P CABLE HOLDER        | 51048-0500  |
|   | CN304 11P FFC CONNECTOR    | 52045-1145  |
|   | CN303 23P FFC CONNECTOR    | 52045-2345  |
|   | JA301 1P PIN JACK          | AKB7080     |
|   | 341 6P SPEAKER TERMINAL    | AKE7077     |
|   | 301 4P SPEAKER TERMINAL    | AKE7078     |
|   | H101, H102 FUSE CLIP       | AKR7001     |
|   | 451 D. HEAT SINK           | ANH7146     |
| △ | T101 SUB TRANS FORMER      | ATT7037     |
| △ | CN201, CN305 3P CONNECTOR  | B3B-PH-K    |
|   | AN101 AC INLET             | BKP1046     |
|   | J454 5P JUMPER             | D20PYY0515E |
|   | J457 JUMPER WIR UNIT       | DB015NB0    |
|   | CN306 3P PLUG              | KM250MA3    |
|   | JA401, JA402 REMOTE JACK   | RKN1004     |
|   | 491- 493 PCB BINDER        | VEF1040     |
|   | CN301 19P 1,25FJ CONNECTOR | VKN1775     |

**F FRONT INPUT ASSY****CAPACITORS**

|                                                                                     |                                                                            |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| C4103, C4104<br>C4107, C4111<br>C4108<br>C4105, C4109, C4117<br>C4102, C4106, C4110 | CCSRCH101J50<br>CCSRCH471J50<br>CEAT470M25<br>CKSRYB103K50<br>CKSRYB104K25 |
| C4112, C4113                                                                        | CKSRYB223K50                                                               |

**RESISTORS**

OtherResistors RS1/16S□□□J

**OTHERS**

|                      |            |
|----------------------|------------|
| CN4101 FFC CONNECTOR | 52045-1145 |
| JA4101 3P PIN JACK   | AKB7098    |
| JA4102 OPTICAL LINK  | GP1FA502RZ |

| Mark | No.    | Description         | Part No. |
|------|--------|---------------------|----------|
|      | JA4103 | HP. JACK            | RKB1014  |
|      | KN4101 | EARTH METAL FITTING | VNF1084  |

**G FRONT ASSY****SEMICONDUCTORS**

|                                                                                          |                                                       |
|------------------------------------------------------------------------------------------|-------------------------------------------------------|
| IC4681<br>IC4201<br>Q4681<br>Q4683<br>Q4201, Q4207                                       | BU1923F<br>PDG264A<br>2SA1037K<br>2SC3326<br>DTA124EK |
| Q4202, Q4205, Q4206, Q4208-Q4214<br>Q4682<br>D4213-D4215<br>D4203, D4204<br>D4201, D4202 | DTC143EK<br>DTC143EK<br>1SS355<br>DAN217<br>DAP202K   |
| D4206, D4208-D4210<br>D4205, D4212<br>D4207, D4211                                       | SLR-343MC(NPQ)<br>SLR-343VC(NPQ)<br>SLR-343YC(MNP)    |

**COILS AND FILTERS**

L4201, L4681 LFEA2R2J

**SWITCHESANDRELAYS**

S4201-S4205 VSG1009

**CAPACITORS**

|                                                                                                          |                                                                          |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| C4216<br>C4689, C4690<br>C4208<br>C4684<br>C4214                                                         | ACH7144<br>CCSRCH270J50<br>CEAL470M16<br>CEAT1R0M50<br>CEAT221M6R3       |
| C4683<br>C4686<br>C4230, C4231<br>C4201, C4210, C4226, C4681, C4682<br>C4202, C4209, C4213, C4215, C4222 | CEJQ101M10<br>CEJQ2R2M50<br>CKSQYF225Z16<br>CKSRYB102K50<br>CKSRYB103K50 |
| C4203-C4207, C4211, C4220, C4224<br>C4685<br>C4217, C4218, C4232-C4239<br>C4688                          | CKSRYB104K25<br>CKSRYB472K50<br>CKSRYB473K50<br>CKSRYB561K50             |

**RESISTORS**

OtherResistors RS1/16S□□□J

**OTHERS**

|                                                                                                                                        |                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| 4204, 4205 3P CABLE HOLDER<br>CN4203 7P FFC CONNECTOR<br>CN4201, CN4202 FFC CONNECTOR<br>V4301 FL TUBE<br>X4681 CERAMIC RESO. (4.3MHz) | 51048-0300<br>52045-0745<br>52045-2345<br>AAV7083<br>ASS7004 |
| X4201 CERAMIC RESO. (7.2MHz)<br>J4205 3P JUMPER WIRE<br>J4204 3P JUMPER WIRE<br>4201 REMOTE RECEIVER UNIT<br>4301 FL HOLDER            | ASS7039<br>D20PYY0310E<br>D20PYY0315E<br>GP1U27X<br>VNF1122  |

## VSX-C300, VSX-C300-S

| Mark | No. | Description | Part No. |
|------|-----|-------------|----------|
|------|-----|-------------|----------|

|                  |                       |                 |                |
|------------------|-----------------------|-----------------|----------------|
| <b>H</b>         | <b>LED ASSY</b>       |                 |                |
|                  | <b>SEMICONDUCTORS</b> |                 |                |
|                  | D4501                 |                 | SLR-343VC(NPQ) |
| <b>RESISTORS</b> |                       |                 |                |
|                  | OtherResistors        |                 | RS1/16S□□□J    |
| <b>OTHERS</b>    |                       |                 |                |
|                  | 4501                  | 3P CABLE HOLDER | 51048-0300     |

|                   |                           |                 |              |
|-------------------|---------------------------|-----------------|--------------|
| <b>I</b>          | <b>ENCODER ASSY</b>       |                 |              |
|                   | <b>SWITCHES AND RELAY</b> |                 |              |
|                   | S4401                     | ROTARY ENCODER  | ASX7040      |
| <b>CAPACITORS</b> |                           |                 |              |
|                   | C4401, C4402              |                 | CKSRYB102K50 |
| <b>OTHERS</b>     |                           |                 |              |
|                   | 4401                      | 3P CABLE HOLDER | 51048-0300   |

|                   |                            |                   |              |
|-------------------|----------------------------|-------------------|--------------|
| <b>K</b>          | <b>SW ASSY</b>             |                   |              |
|                   | <b>SWITCHES AND RELAYS</b> |                   |              |
|                   | △ S601                     |                   | ASG7024      |
| <b>CAPACITORS</b> |                            |                   |              |
|                   | C601, C602                 |                   | CKSRYB103K50 |
| <b>OTHERS</b>     |                            |                   |              |
|                   | J601                       | 3P SHIELD HOUSING | ADX7392      |

|                          |                       |                   |              |
|--------------------------|-----------------------|-------------------|--------------|
| <b>L</b>                 | <b>TRANS 2 ASSY</b>   |                   |              |
|                          | <b>SEMICONDUCTORS</b> |                   |              |
|                          | △ IC503               | PROTECTOR (0.63A) | AEK7006      |
|                          | △ IC501, IC502        | PROTECTOR (2.5A)  | AEK7014      |
| <b>COILS AND FILTERS</b> |                       |                   |              |
|                          | F501, F502            |                   | DTF1070      |
| <b>CAPACITORS</b>        |                       |                   |              |
|                          | C501, C502            |                   | ACH1237      |
|                          | C503, C504            |                   | CKSRYB473K50 |
| <b>RESISTORS</b>         |                       |                   |              |
|                          | R501                  |                   | RD1/4MUF100J |
|                          | R502                  |                   | RD1/4MUF4R7J |
| <b>OTHERS</b>            |                       |                   |              |
|                          | 504                   | 5P CABLE HOLDER   | 51048-0500   |

## **M** TRANS 1 ASSY

TRANS1 ASSY has no service part.

## 6. ADJUSTMENT

There is no information to be shown in this chapter.

## 7. GENERAL INFORMATION

### 7.1 DIAGNOSIS

#### 7.1.1 Test Mode

##### • How to Enter the Test Mode

With the attached Remote Control Unit

##### 1. For Preset mode, set the remote control

- (1) Enter [ REMOTE SETUP ] + [ 1 ] keys.  
(Simultaneous aggressiveness)
- (2) Enter [ 1 ], [ 5 ], [ 0 ] keys.  
(Call a PRESET ID code 150 )
- (3) Enter [ Front ] key. (Assign a function key)
- (4) Enter [ REMOTE SETUP ] key. (Confirm PRESET mode)

##### 2. Test mode ON " +10 " key

- "TEST" is displayed for 5 seconds when Test mode is entered.
- Function: TV/SAT
- Speaker setting: All high volume, SW ON  
No automatic speaker detection
- STANDARD mode
- Presetting of the tuner for Test mode will be carried out.  
Other settings will be returned to the factory-preset values.

##### 3. FL & LED light-emission check " 1 " key

Each time the remote-control code is received, the displays of the FL and LED change cyclically as follows:  
Normal display → All lights for the FL and LED on → All lights for the FL and LED off → FL: "ABCDEFGH" displayed; and LED: Every other letter of the alphabets is displayed → FL: "IJKLMNOP" displayed; and LED: Every other letter of the alphabets is displayed highlighted → Normal display → ...

##### 4. Rear-and-center-relay switch " 2 " key

Each time the remote-control code is received, the rear-and-center relay is toggled on or off.

##### 5. DOLBY Pro Logic mode " 3 " key

- Distance setting for the front and center speakers: 10 feet
  - Distance setting for the rear speaker: 5 feet
  - STANDARD mode
  - Speaker setting: All high volume, SW ON
- All settings other than the above will be returned to the factory-preset values.

##### 6. FAN ON/OFF switch " 4 " key

The fan is turned on or off and rotates as follows:  
Low speed → High speed → Off ...

##### 7. Master volume switch " 5 " key

The master volume is switched between minus infinity and 0 dB, and each trim is 0 dB.

When the remote-control code is received for the first time, the master volume is set to minus infinity.

##### 8. 9k/10k switch " 6 " key

For the models HL, SB and SP only, when the \$A55F+\$A505 code is received, this switches between 9k and 10k.

##### 9. Thermistor A/D value, time display " 7 " key

When the remote-control code is received, the A/D value (0-255) of the thermistor is displayed on the FL display. Time is displayed until 60:00, and then stops.

While the A/D value and time are displayed, if the remote-control code is received again, the display will return to the normal display. Time counting will not stop.

##### 10. Speaker auto-detection check " 8 " key

When the remote-control code is received, automatic detection of the speaker starts, and the result will be displayed for 5 seconds, as "C:\_SW:\_", where O<sub>1</sub> indicates connected, and × indicates that no speaker is connected.

##### 11. Analog inputs check " 9 " key

When the remote-control code is received, forced analog inputs and 2-channel stereo mode are set for all functions.

- Speaker setting: All high volume, SW ON
- When this mode is entered, "SJG:ANA" will be displayed for 5 seconds.

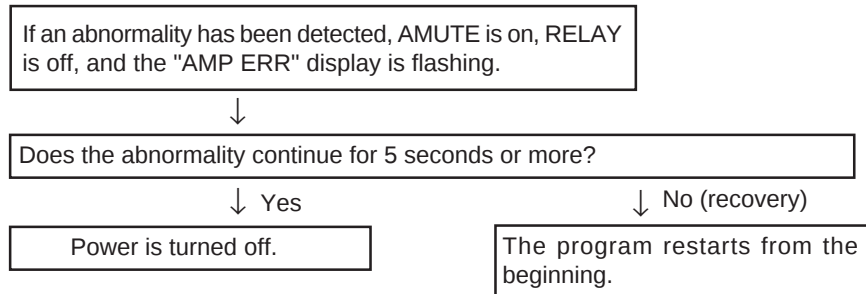
##### 12. STBY mode " 0 " key

STBY mode is entered when the remote-control code is received.

## 7.1.2 Protection of the Amplifier Line

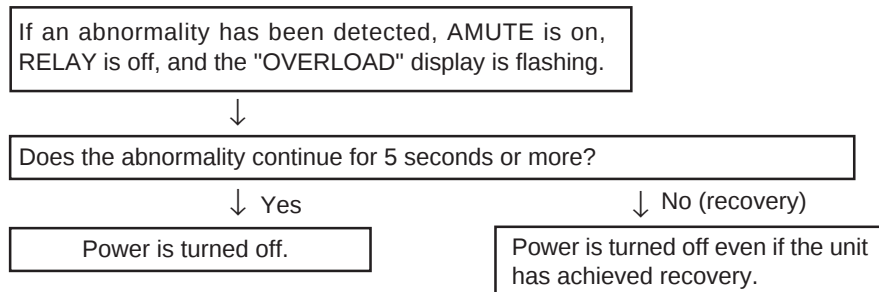
### 1. Detection of abnormalities in DC circuits

This detection has priority over the overload detection and abnormality detection for the fan and thermistor.



### 2. Detection of overload

This detection has priority over the abnormality detection of the fan and thermistor.



While the unit is recovering from the abnormality, the "OVERLOAD" display continues flashing.



7.1.4 Specifications of Speaker Detection

1. Purposes

Whether the speakers are connected or not is automatically detected, and settings appropriate for the detected speakers are made to allow you to easily play surround-sound without making cumbersome speaker settings.

2. Method of detecting speakers

Whether a center speaker and/or subwoofer is connected or not is detected 600 ms after the power is turned on.

< Detection of the center speaker >

The microcomputer sends a detection signal and after 10 ms will read the logic of the responding signal to judge whether the speaker is connected or not. The response signal will be read at A/D. A voltage of 3.5 V or more is judged as no speaker connected. The response signals at A/D are read every 2 ms, and if the same results (less or more than 3.5 V) are obtained, the detection result is considered correct. If a different result is obtained for the second detection, a third detection is carried out, and the two results that agree will outvote the other. If detection fails three times, then it is judged that no center speaker is connected.

< Detection of the subwoofer >

The logic of the signal from the phono jack with a switch is read by the microcomputer to judge whether the speaker is connected or not. The signals are read every 1 ms, and if the same results are obtained, the detection result is considered correct. If a different result is obtained for the second detection, a third detection is carried out, and the two results that agree will outvote the other. If detection fails three times, then it is judged that no subwoofer is connected.

3. Speaker settings

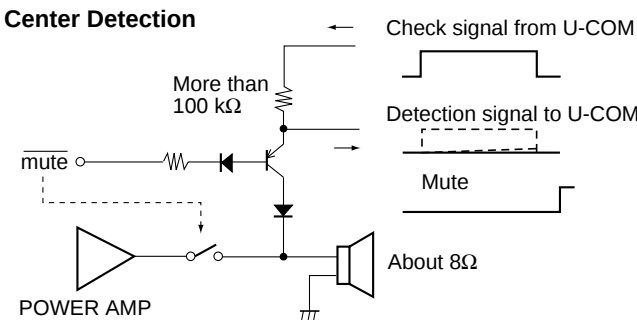
According to the results of the detection, speaker settings are made as follows:

| Results of the Detections |               | Speaker Settings |               |             |           |
|---------------------------|---------------|------------------|---------------|-------------|-----------|
| Center SP                 | Sub-woofer    | Front SP         | Center SP     | Surround SP | Subwoofer |
| Connected                 | Connected     | Low              | Low           | Low         | ON        |
| Connected                 | Not connected | High             | Low           | Low         | OFF       |
| Not connected             | Connected     | Low              | Not connected | Low         | ON        |
| Not connected             | Not connected | High             | Not connected | Low         | OFF       |

4. User's settings

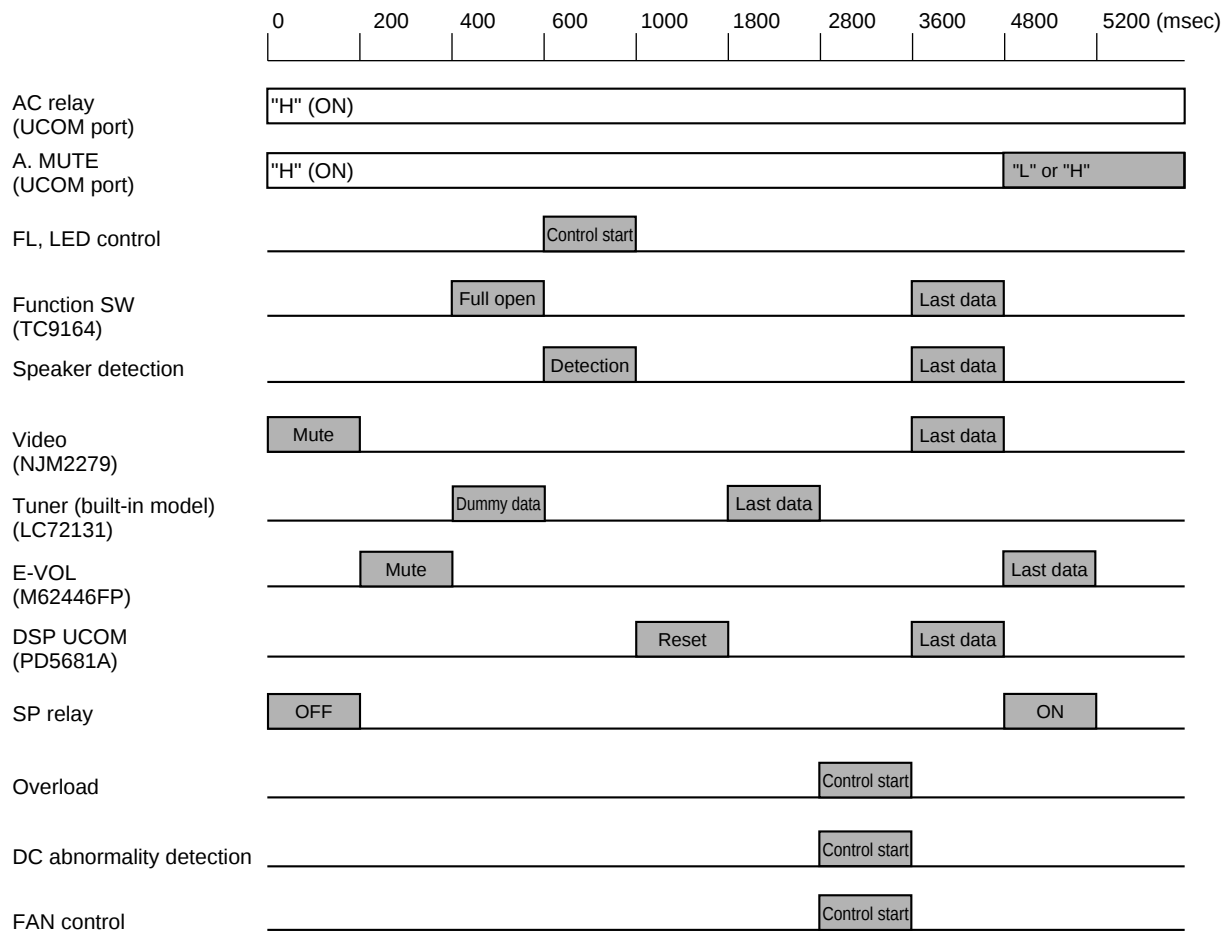
In Setup mode, more detailed speaker settings are available. Once the user's settings are made, those settings have priority. However, if the configuration of connected speakers has changed, then the detection results become valid and have priority over the user's settings until new user's settings are made.

5. Detection circuit for the center speaker

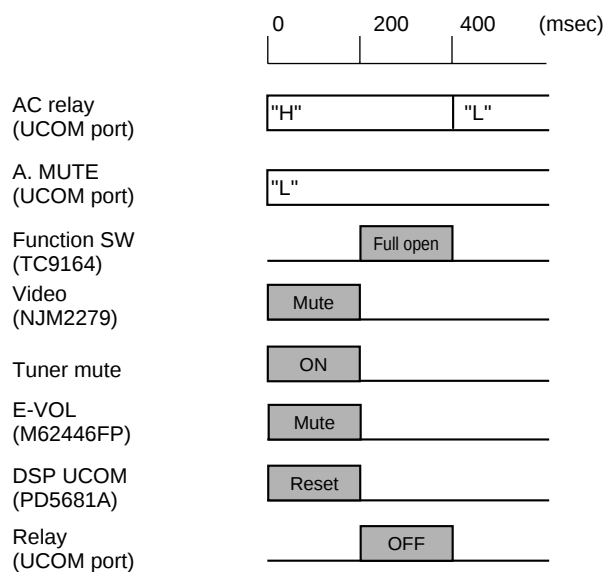


## 7.1.5 Timing Chart

### ● Timing Chart of Power ON Initial



### ● Timing Chart of Power OFF Initial



7.2 PARTS

7.2.1 IC

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

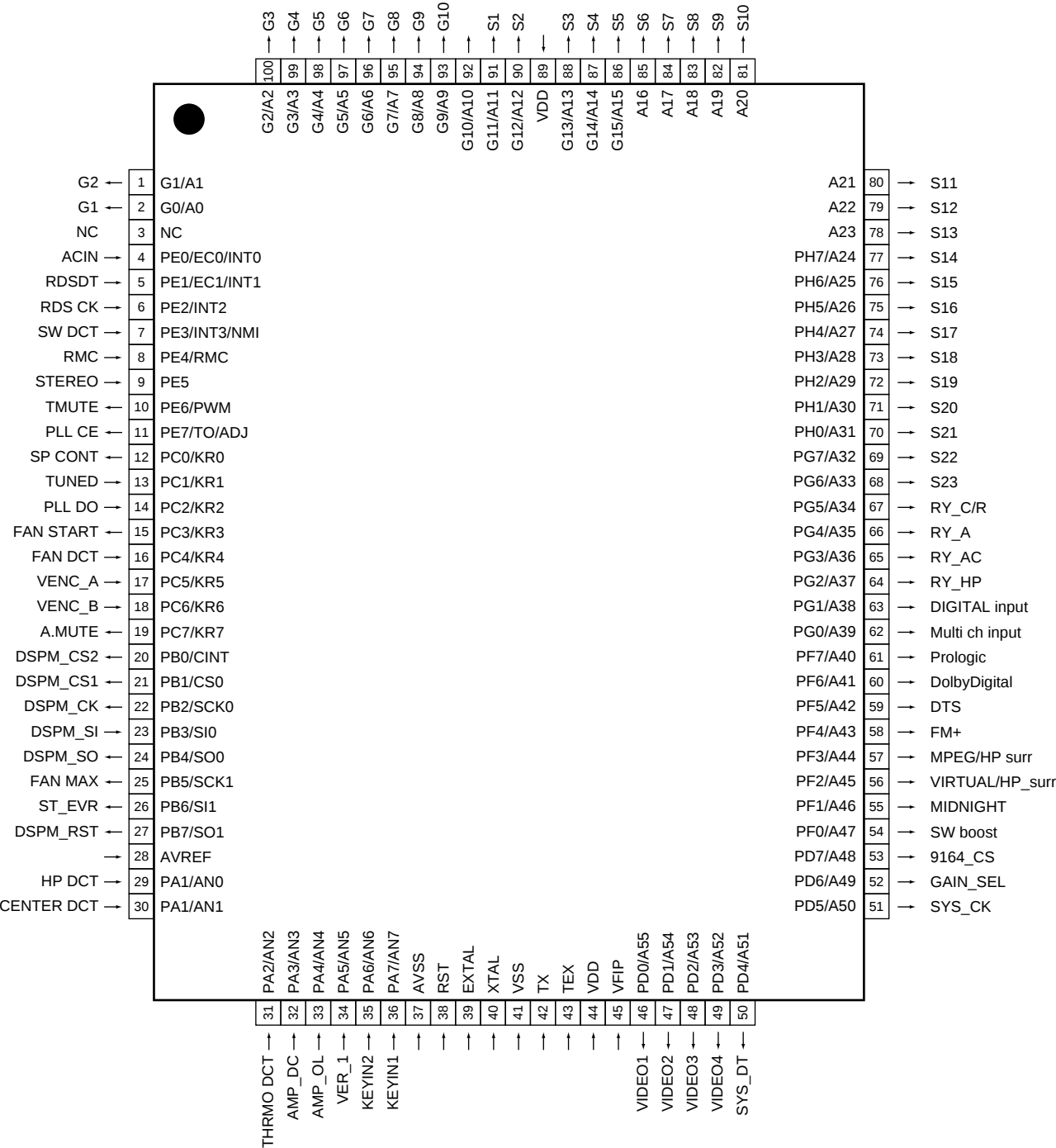
•List of IC

PDG264A, PD5681A

■ PDG264A (FRONT ASSY : IC4201)

• Mode Control IC

• Pin Assignment (Top view)



## ● Pin Function

| No. | Pin Name   | I/O | Function                                                                       | Active |
|-----|------------|-----|--------------------------------------------------------------------------------|--------|
| 1   | G2         | O   | Grid output 2                                                                  | H      |
| 2   | G1         |     | Grid output 1                                                                  | H      |
| 3   | NC         | –   | Connect to Vdd                                                                 |        |
| 4   | ACIN       | I   | AC pulse input                                                                 |        |
| 5   | RDS DT     | I   | Serial control data signal for RDS communication                               |        |
| 6   | RDS CK     | I   | Serial control clock signal for RDS communication (Use for external interrupt) |        |
| 7   | SW DCT     | I   | Subwoofer detection signal input                                               |        |
| 8   | RMC        | I   | Remote control signal input (non carrier signal)                               |        |
| 9   | STEREO     | I   | Discrimination signal of Stereo/Mono signal                                    |        |
| 10  | T_MUTE     | O   | Tuner mute                                                                     |        |
| 11  | PLL_CE     | O   | Chip select signal for communicate with LC72131 (tuner)                        |        |
| 12  | SP CONT    | O   | Signal output for center speaker detection                                     | H      |
| 13  | TUNED      | I   | TUNED information                                                              |        |
| 14  | PLL_DO     | I   | Data input signal for communicate with LC72131 (tuner)                         |        |
| 15  | FAN START  | O   | FAN rotation signal output                                                     | H      |
| 16  | FAN DCT    | I   | FAN STOP detection signal                                                      |        |
| 17  | VENC_A     | I   | EVOL rotary encoder signal input A                                             |        |
| 18  | VENC_B     |     | EVOL rotary encoder signal input B                                             |        |
| 19  | AMUTE      | O   | Audio mute                                                                     | L      |
| 20  | DSPM_CS2   | I   | CS input for DSP microcomputer control                                         |        |
| 21  | DSPM_CS1   | O   | CS output for DSP microcomputer control                                        | L      |
| 22  | DSPM_CK    | O   | Clock signal for communicate with the DSP microcomputer                        | H      |
| 23  | DSPM_SI    | I   | Data input signal for communicate with the DSP microcomputer                   |        |
| 24  | DSPM_SO    | O   | Data output signal for communicate with the DSP microcomputer                  | H      |
| 25  | FAN_MAX    | O   | FAN rotation signal output                                                     | H      |
| 26  | ST_EVR     | O   | Strobe signal for communicate with the E-VOL IC                                | H      |
| 27  | DSPM_RST   | O   | DSP microcomputer reset                                                        |        |
| 28  | AVref      | –   | Connect to Vdd                                                                 |        |
| 29  | HP DCT     | I   | Headphone detection signal input                                               |        |
| 30  | CENTER DCT | I   | Center speaker detection signal input                                          |        |
| 31  | THRMO DCT  | I   | Thermal detection signal input                                                 |        |
| 32  | AMP_DC     | I   | DC abnormal detection of the protection circuit (L: Abnormal detection)        |        |
| 33  | AMP_OL     | I   | Overload abnormal detection of the protection circuit (L: Abnormal detection)  |        |
| 34  | VER_1      | I   | Destination switch (A/D take-in)                                               |        |
| 35  | KEYIN2     | I   | A/D conversion port of key input                                               |        |
| 36  | KEYIN1     |     |                                                                                |        |
| 37  | AVSS       | –   | Connect to Vss                                                                 |        |
| 38  | RST        | –   | Reset                                                                          |        |
| 39  | EXTAL      | –   | Connect an oscillator 7.2MHz                                                   |        |
| 40  | XTAL       | –   |                                                                                |        |
| 41  | VSS        | –   | Connect to Vss                                                                 |        |
| 42  | TX         | –   | open                                                                           |        |
| 43  | TEX        | –   | Connect to Vss                                                                 |        |
| 44  | VDD        | –   | +5V                                                                            |        |
| 45  | VFDP       | –   | -30V                                                                           |        |
| 46  | VIDEO1     | O   | NJM2296 control                                                                |        |
| 47  | VIDEO2     |     |                                                                                | H      |
| 48  | VIDEO3     |     |                                                                                | H      |
| 49  | VIDEO4     |     |                                                                                | H      |
| 50  | SYS_DT     | O   | Data signal for communicate with M62446, TC9163 and PLL                        | H      |

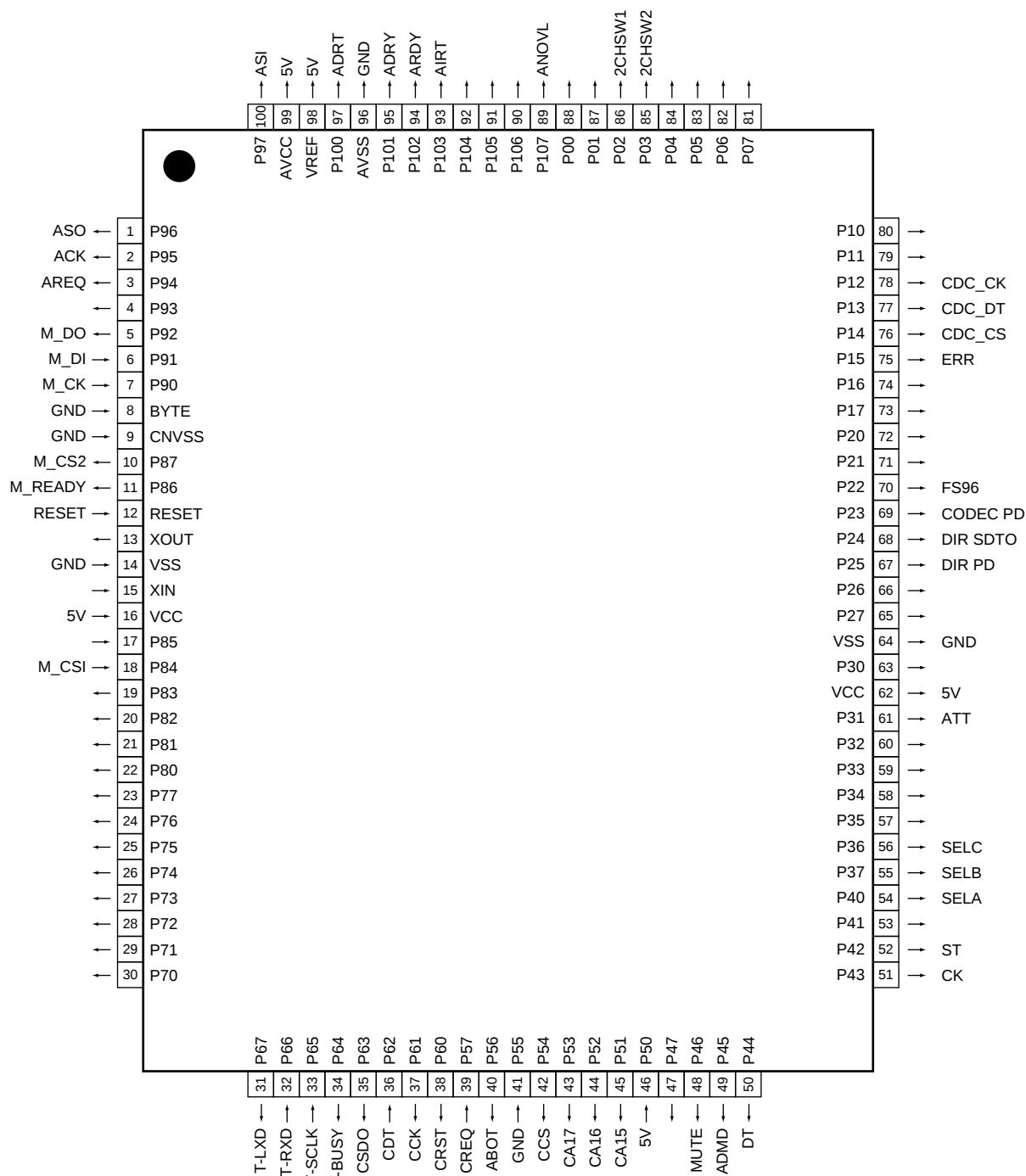
# VSX-C300, VSX-C300-S

| No. | Pin Name        | I/O | Function                                                                          | Active |
|-----|-----------------|-----|-----------------------------------------------------------------------------------|--------|
| 51  | SYS_CK          | O   | Clock signal for communicate with M62446, TC9163 and PLL                          | H      |
| 52  | GAIN_SEL        | O   | Gain switch L at Stereo and Flat of analog input                                  | H      |
| 53  | 9164_CS         | O   | TC9164 chip select                                                                | H      |
| 54  | SW boost        | O   | Subwoofer boost at S. BASS                                                        | H      |
| 55  | MIDNIGHT        | O   | LED display, Lights at midnight                                                   | H      |
| 56  | Virtual/HP surr | O   | LED display, K,S: at virtual , J, H: at HP SURR                                   | H      |
| 57  | MPEG/HP surr    | O   | LED display, MPEGAAC, J,H: at BC playback, K: at HP surr                          | H      |
| 58  | FM + (RDS)      | O   | Switching ON/OFF for power supply Tr of RDS decoder (L: AM, power OFF, H: others) | H      |
| 59  | DTS             | O   | LED display, Lights at DTS multi-channel playback                                 | H      |
| 60  | DolbyDigital    | O   | LED display, Lights at dolby digital decode playback                              | H      |
| 61  | Prologic        | O   | LED display, Lights at prologic playback                                          | H      |
| 62  | Multich input   | O   | Lights at digital input signal is excepted for 2ch                                | H      |
| 63  | DIGITAL input   | O   | Lights at digital input signal is locked                                          | H      |
| 64  | RY_HP           | O   | HP relay ON/OFF                                                                   | H      |
| 65  | RY_AC           | O   | AC relay ON/OFF                                                                   | H      |
| 66  | RY_A            | O   | Speaker A relay ON/OFF                                                            | H      |
| 67  | RY_C/R          | O   | Rear/Center relay ON/OFF                                                          | H      |
| 68  | S23             | O   | Segment output 3 to 23                                                            | H      |
| 69  | S22             |     |                                                                                   | H      |
| 70  | S21             |     |                                                                                   | H      |
| 71  | S20             |     |                                                                                   | H      |
| 72  | S19             |     |                                                                                   | H      |
| 73  | S18             |     |                                                                                   | H      |
| 74  | S17             |     |                                                                                   | H      |
| 75  | S16             |     |                                                                                   | H      |
| 76  | S15             |     |                                                                                   | H      |
| 77  | S14             |     |                                                                                   | H      |
| 78  | S13             |     |                                                                                   | H      |
| 79  | S12             |     |                                                                                   | H      |
| 80  | S11             |     |                                                                                   | H      |
| 81  | S10             |     |                                                                                   | H      |
| 82  | S9              |     |                                                                                   | H      |
| 83  | S8              |     |                                                                                   | H      |
| 84  | S7              |     |                                                                                   | H      |
| 85  | S6              |     |                                                                                   | H      |
| 86  | S5              |     |                                                                                   | H      |
| 87  | S4              |     |                                                                                   | H      |
| 88  | S3              |     |                                                                                   | H      |
| 89  | VDD             | —   | 5V                                                                                |        |
| 90  | S2              | O   | Segment output 1 and 2                                                            | H      |
| 91  | S1              | O   | Segment output 1 and 2                                                            | H      |
| 92  | Not used        | O   | Not used (fixed to VFDP)                                                          |        |
| 93  | G10             | O   | Grid output 3 to 10                                                               | H      |
| 94  | G9              |     |                                                                                   | H      |
| 95  | G8              |     |                                                                                   | H      |
| 96  | G7              |     |                                                                                   | H      |
| 97  | G6              |     |                                                                                   | H      |
| 98  | G5              |     |                                                                                   | H      |
| 99  | G4              |     |                                                                                   | H      |
| 100 | G3              |     |                                                                                   | H      |

■ PD5681A (DSP ASSY : IC1701)

- **DSP Microcomputer**

- **Pin Assignment (Top view)**



# VSX-C300, VSX-C300-S

## ● Pin Function

| No. | Pin Name | I/O | Function                                                |
|-----|----------|-----|---------------------------------------------------------|
| 1   | ASO      | O   | DSP                                                     |
| 2   | ACK      |     |                                                         |
| 3   | AREQ     |     |                                                         |
| 4   | Not used | O   | Not used                                                |
| 5   | M_DO     | O   | Data output to the main microcomputer                   |
| 6   | M_DI     | I   | Data input from the main microcomputer                  |
| 7   | M_CK     | I   | Clock input for communicate with the main microcomputer |
| 8   | BYTE     | I   | GND                                                     |
| 9   | T-PGM/OE | I   | Pull-down to CNVss and GND (for FLASH rewrite)          |
| 10  | M_CS2    | O   | CS output for main microcomputer communication          |
| 11  | M_READY  | O   | READY output for main microcomputer communication       |
| 12  | RESET    | –   | Reset from the main microcomputer                       |
| 13  | XOUT     | –   | Oscillator                                              |
| 14  | Vss      | –   | GND                                                     |
| 15  | XIN      | –   | Oscillator                                              |
| 16  | Vcc      | –   | 5V                                                      |
| 17  | NMI      | I   | 5V                                                      |
| 18  | M_CS1    | I   | CS input for main microcomputer communication           |
| 19  | Not used | O   | Not used                                                |
| 20  | Not used |     |                                                         |
| 21  | Not used |     |                                                         |
| 22  | Not used |     |                                                         |
| 23  | Not used |     |                                                         |
| 24  | Not used |     |                                                         |
| 25  | Not used |     |                                                         |
| 26  | Not used |     |                                                         |
| 27  | Not used |     |                                                         |
| 28  | Not used |     |                                                         |
| 29  | Not used |     |                                                         |
| 30  | Not used |     |                                                         |
| 31  | TXD      | O   | For FLASH rewrite                                       |
| 32  | RXD      | I   |                                                         |
| 33  | T-SCLK   | I   |                                                         |
| 34  | T-BUSY   | O   |                                                         |
| 35  | CSDO     | O   | For crystal DSP                                         |
| 36  | CDT      | I   |                                                         |
| 37  | CCK      | O   |                                                         |
| 38  | CRST     | O   |                                                         |
| 39  | CREQ     | I   |                                                         |
| 40  | ABOT     | O   |                                                         |
| 41  | Vss      | -   |                                                         |
| 42  | CCS      | O   | For crystal DSP                                         |
| 43  | CA17     | O   |                                                         |
| 44  | CA16     |     |                                                         |
| 45  | CA15     |     |                                                         |
| 46  | T-Vdd    | I   | 5V                                                      |
| 47  | Not used | O   | Not used                                                |
| 48  | MUTE     | O   | For E-SW (TC9164)                                       |
| 49  | ADMD     |     |                                                         |
| 50  | DT       |     |                                                         |

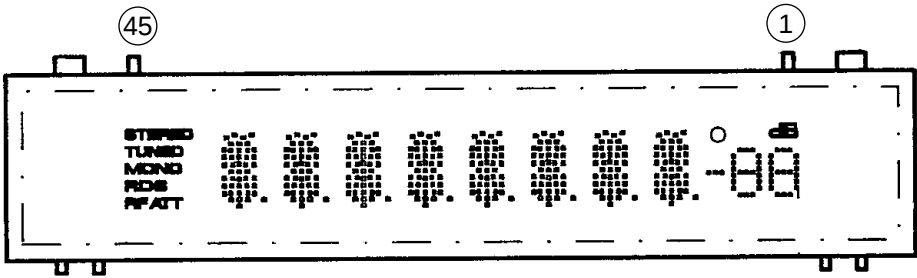
| No. | Pin Name | I/O | Function                                                     |
|-----|----------|-----|--------------------------------------------------------------|
| 51  | CK       | O   | For E-SW (TC9164)                                            |
| 52  | ST       |     |                                                              |
| 53  | Not used | O   | Not used                                                     |
| 54  | SELA     | O   | For Logic IC, TC74ACT151F                                    |
| 55  | SELB     |     |                                                              |
| 56  | SELC     |     |                                                              |
| 57  | Not used | O   | Not used                                                     |
| 58  | Not used |     |                                                              |
| 59  | Not used |     |                                                              |
| 60  | Not used |     |                                                              |
| 61  | ATT      | O   | ATT output                                                   |
| 62  | Vcc      | –   | 5V                                                           |
| 63  | Not used | O   | Not used                                                     |
| 64  | Vss      | –   | GND                                                          |
| 65  | Not used | O   | Not used                                                     |
| 66  | Not used |     |                                                              |
| 67  | DIR_PD   | O   | Power down for DIR                                           |
| 68  | DIR_STDO | I   | DIR data input                                               |
| 69  | CDC_PD   | O   | CODEC power down                                             |
| 70  | FS96     | I   | 96k                                                          |
| 71  | Not used | O   | Not used                                                     |
| 72  | Not used |     |                                                              |
| 73  | Not used |     |                                                              |
| 74  | Not used |     |                                                              |
| 75  | ERR      | I   | DIR                                                          |
| 76  | CDC_CS   | O   | CS for CODEC communication                                   |
| 77  | CDC_DT   | O   | Data output for CODEC communication                          |
| 78  | CDC_CK   | O   | Clock for CODEC communication                                |
| 79  | Not used | O   | Not used                                                     |
| 80  | Not used |     |                                                              |
| 81  | Not used |     |                                                              |
| 82  | Not used |     |                                                              |
| 83  | Not used |     |                                                              |
| 84  | Not used |     |                                                              |
| 85  | 2CHSW2   | O   | For TC9215 control (SW H: PASSIV, L: POWERRED)               |
| 86  | 2CHSW1   |     | For TC9215 control (SB H: DSP, L: 6CH)                       |
| 87  | Not used | O   | Not used                                                     |
| 88  | Not used |     |                                                              |
| 89  | ANOV     | I   | Overload detection of analog input (A/D)                     |
| 90  | Not used | O   | Not used                                                     |
| 91  | Not used |     |                                                              |
| 92  | Not used |     |                                                              |
| 93  | AIRT     | O   | DSP INIT reset (control at rising edge of power supply only) |
| 94  | ARDY     | I   | DSP                                                          |
| 95  | ADRY     | O   |                                                              |
| 96  | AVss     | –   | GND                                                          |
| 97  | ADRT     | O   | DSP reset                                                    |
| 98  | Vref     | –   | 5V                                                           |
| 99  | AVcc     | –   | 5V                                                           |
| 100 | ASI      | I   | DSP                                                          |

7.2.2 DISPLAY

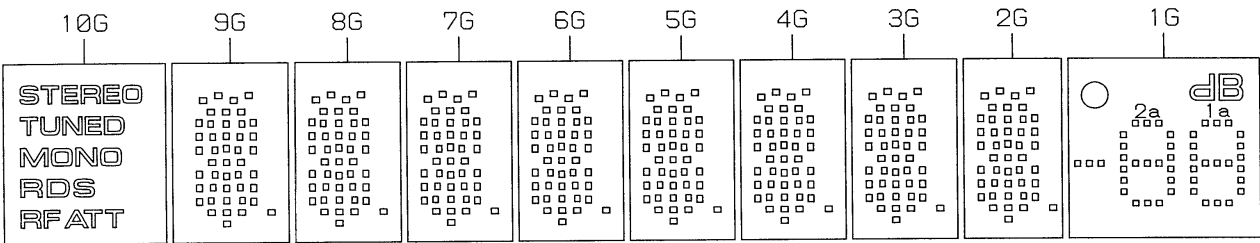
■ AAV7083 (FRONT ASSY : V4301)

• FL DISPLAY

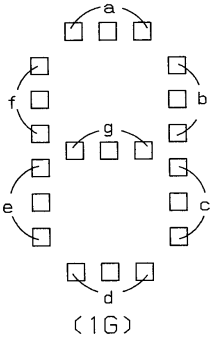
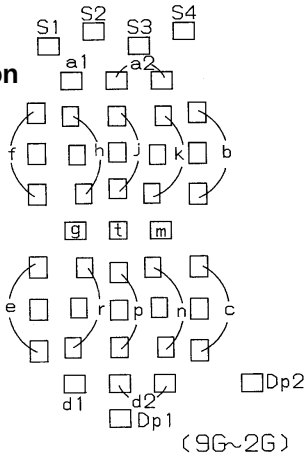
• Pin Assignment



• Grid Assignment



• Segment Designation



- **Pin Connection**

[illegible]

NOTE    1) F1,F2 --- Filament  
          2) NP ----- No pin  
          3) NX ----- No extend pin  
          4) DL ----- Datum Line  
          5) 1G~10G -- Grid

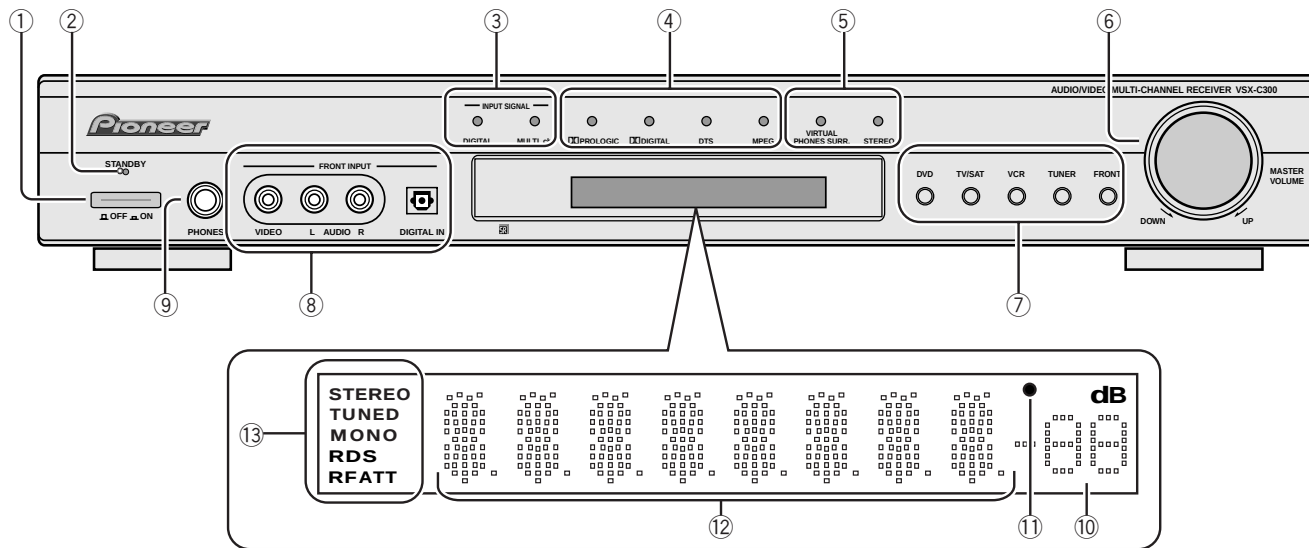
- **Anode Connection**

|     | 10G    | 9G  | 8G  | 7G  | 6G  | 5G  | 4G  | 3G  | 2G  | 1G                                                                                    |
|-----|--------|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------------------------------------------------------------------|
| P1  | STEREO | a1  | a1  | a1  | a1  | a1  | a1  | a1  | a1  |    |
| P2  | TUNED  | a2  | a2  | a2  | a2  | a2  | a2  | a2  | a2  | 2a                                                                                    |
| P3  | MONO   | h   | h   | h   | h   | h   | h   | h   | h   | 2b                                                                                    |
| P4  | RDS    | j   | j   | j   | j   | j   | j   | j   | j   | 2f                                                                                    |
| P5  | RF     | k   | k   | k   | k   | k   | k   | k   | k   | 2g                                                                                    |
| P6  | ATT    | b   | b   | b   | b   | b   | b   | b   | b   | 2c                                                                                    |
| P7  | -      | f   | f   | f   | f   | f   | f   | f   | f   | 2e                                                                                    |
| P8  | -      | m   | m   | m   | m   | m   | m   | m   | m   | 2d                                                                                    |
| P9  | -      | g   | g   | g   | g   | g   | g   | g   | g   | 1a                                                                                    |
| P10 | -      | c   | c   | c   | c   | c   | c   | c   | c   | 1b                                                                                    |
| P11 | -      | e   | e   | e   | e   | e   | e   | e   | e   | 1f                                                                                    |
| P12 | -      | r   | r   | r   | r   | r   | r   | r   | r   | 1g                                                                                    |
| P13 | -      | p   | p   | p   | p   | p   | p   | p   | p   | 1c                                                                                    |
| P14 | -      | n   | n   | n   | n   | n   | n   | n   | n   | 1e                                                                                    |
| P15 | -      | d1  | d1  | d1  | d1  | d1  | d1  | d1  | d1  | 1d                                                                                    |
| P16 | -      | d2  | d2  | d2  | d2  | d2  | d2  | d2  | d2  |  |
| P17 | -      | Dp2 | Dp2 | Dp2 | Dp2 | Dp2 | Dp2 | Dp2 | Dp2 | -                                                                                     |
| P18 | -      | Dp1 | Dp1 | Dp1 | Dp1 | Dp1 | Dp1 | Dp1 | Dp1 | -                                                                                     |
| P19 | -      | S1  | S1  | S1  | S1  | S1  | S1  | S1  | S1  | -                                                                                     |
| P20 | -      | S4  | S4  | S4  | S4  | S4  | S4  | S4  | S4  | -                                                                                     |
| P21 | -      | S2  | S2  | S2  | S2  | S2  | S2  | S2  | S2  | -                                                                                     |
| P22 | -      | S3  | S3  | S3  | S3  | S3  | S3  | S3  | S3  | -                                                                                     |
| P23 | -      | t   | t   | t   | t   | t   | t   | t   | t   |  |

## 8. PANEL FACILITIES AND SPECIFICATIONS

### 8.1 PANEL FACILITIES

#### Front Panel



① **OFF/ON button**

Press this button to the ON position so that the power button on the remote control will be operational. If the button is OFF (■), the power of the receiver is shut off and the RECEIVER button on the remote control does not function. When this button is ON, the power button on the remote control toggles between ON and STANDBY mode.

② **STANDBY indicator**

Lights when the receiver is in standby mode. The receiver uses a small amount of electricity (1W) in standby mode.

③ **INPUT SIGNAL indicators**

Indicates the kind of input signal.

**DIGITAL :**

When a digital source is input this indicator will light.

**MULTI :**

When a multichannel source is input this indicator will light.

④ **DECODE MODE indicators**

Indicates how the signal is being decoded.

**PRO LOGIC:**

Lights when PRO LOGIC decoding is in use.

**DIGITAL:**

Lights when playing a DIGITAL sound source

**DTS:**

Lights when playing a DTS sound source .

**MPEG:**

Lights when playing an MPEG source.

⑤ **2 Ch Listening Mode indicators**

When these indicators are lit sound is only coming from the front speakers (and possibly the subwoofer in some settings) or headphones.

**VIRTUAL/PHONES SURR.:**

Lights when the VIRTUAL or PHONES SURR.

listening modes are selected.

**STEREO:** Lights in stereo mode.

⑥ **MASTER VOLUME**

Use to set the overall listening volume.

⑦ **Input buttons**

Use to select the playback source: the possibilities are DVD, TV/SAT, VCR, TUNER and FRONT.

⑧ **FRONT jacks**

You can connect a portable DVD player, video camera, video game system, or whatever equipment you would like to have handy, to the **FRONT** jacks.

⑨ **PHONES jack**

Use to connect headphones (this switches the speakers off).

⑩ **Volume level indicator**

⑪ **MIDNIGHT indicator**

Lights when Midnight Listening mode is on.

⑫ **CHARACTER display**

Shows the current input (DVD, TV/SAT, etc.), listening mode, radio frequency, etc.

⑬ **TUNER indicators**

**STEREO:** Lights when a stereo FM broadcast is being received in auto stereo mode.

**TUNED:** Lights when a broadcast is being received.

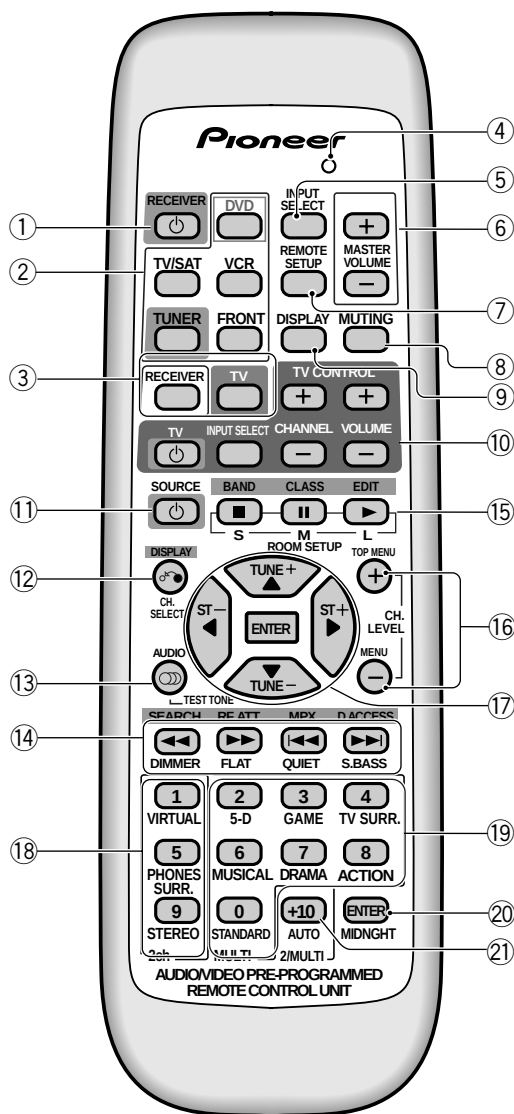
**MONO:** Lights when the mono mode is set using the MPX button.

**RDS:** Lights when an RDS broadcast is received.

**RF ATT:** Lights when the RF ATT is on .

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

## Remote Control



- ① **RECEIVER (Power) button:**  
This switches between STANDBY mode and power ON for this receiver.
- ② **Input/Control Mode Select buttons**  
Use to put the receiver/remote control in the input stated on the button. If the Direct Selection is off, then these buttons won't put the receiver in the input written on the button.
- ③ **Control Mode Select buttons:**  
Use these buttons to put the remote control in receiver or TV mode .
- ④ **LED indicator :**  
This indicator flashes when a command is sent from the remote control to the receiver. It also flashes at when teaching the receiver preset codes.
- ⑤ **INPUT SELECT button :**  
Use to select the playback source. This button lets you cycle through the different inputs: DVD, TV/SAT, VCR, TUNER and FRONT.
- ⑥ **MASTER VOLUME**  
+/- buttons: Use to set the overall listening volume.
- ⑦ **REMOTE SETUP button :**  
Use this button when setting up the remote control with the REMOTE SETUP feature.
- ⑧ **MUTING button :**  
Use to mute the sound or restore the sound if it has been muted.
- ⑨ **DISPLAY button :**  
Use to display information. You can confirm what settings have been made by going through the various displays.
- ⑩ **TV (Power) button :**  
Use to turn on/off the power of the TV.
- Ⓐ **INPUT SELECT button :**  
Use to select the TV input.
- Ⓑ **VOLUME +/- buttons :**  
Use to adjust the volume on your TV.
- Ⓒ **CHANNEL +/- buttons :**  
Use to select channels on your TV.
- ⑪ **SOURCE (Power) button :**  
Use this button to turn on and off the power of other components.
- ⑫ **CH SELECT button :**  
Use to select a speaker when setting the volume level of each channel.
- ⑬ **TEST TONE button :**  
Use to sound the TEST TONE when setting the volume level of each channel.
- ⑭ **DIMMER button :**  
Press to change the display brightness. The DIMMER button allows you to cycle through the four different brightness strengths for the display.
- Ⓐ **Tone Effect buttons:**  
FLAT button - Press for FLAT mode. This mode plays as recorded with no tone adjustments.  
QUIET button - Press for QUIET mode. This mode is for delicate soundtracks.  
S. BASS button - Press for S.BASS mode, which adds additional bass to the sound.

# VSX-C300, VSX-C300-S

## ⑮ ROOM SETUP (S-M-L) buttons :

Use these functions when setting up the surround sound speaker distances with the Quick Start, easy-to-do method.

## ⑯ CH.LEVEL +/- buttons :

Use these buttons to control the volume level of each channel or add or subtract the amount of effect in a listening mode.

## ⑰ ◀▶▲▼ & ENTER buttons :

Use these arrow buttons when setting up your surround system.

## ⑱ 2 channel listening mode buttons :

VIRTUAL button- Press for VIRTUAL listening mode. This listening mode imitates surround sound but only uses two channels.

PHONES SURR. button-

Press for PHONES SURR. listening mode. This listening mode imitates surround sound for headphones (also only two channel reproduction).

STEREO button-

Press for STEREO listening mode. This is regular stereo reproduction (always two channel sound).

## ⑲ 2 channel listening mode buttons :

STANDARD button-Press for STANDARD listening mode. This is the basic listening mode for listening to Dolby Digital 5.1, DTS 5.1 and other surround soundtracks as well as Dolby Surround soundtracks. It offers pure decoding of the signal with no added effects. 2 channel sources will get decoded and played back as Dolby Pro Logic surround soundtracks.

5-D button-Press for 5-D sound mode. This listening mode takes two channel sources and simulates surround sound.

GAME button-Press for GAME listening mode. This listening mode is best for games and other soundtracks with lots of electronic sounds.

TV SURR. button-Press for TV SURR. listening mode. This listening mode takes mono (TV sound) sources and simulates surround sound.

MUSICAL button- Press for MUSICAL listening mode. This listening mode is best for music and other soundtracks with lots of melody.

DRAMA button-Press for DRAMA listening mode. This listening mode is best for dramatic movies and other soundtracks with lots of dialog.

ACTION button-Press for ACTION listening mode. This listening mode is best for action movies and other soundtracks with lots of animated sounds.

## ⑳ MIDNIGHT button :

Use to put receiver in MIDNIGHT mode.

## ㉑ 2/MULTI channel listening mode button :

AUTO button: Use to put receiver in the AUTO mode, where the receiver automatically switches between STEREO (2 ch) and STANDARD (MULTI) according to the input.

## 8.2 SPECIFICATIONS

### Amplifier Section

Continuous Power Output (STEREO MODE)  
FRONT ..... 25 W + 25 W (DIN 1 kHz, THD 1 %, 8  $\Omega$ )

Continuous Power Output (SURROUND MODE)  
FRONT ..... 30 W/ch (1 kHz, THD 1 %, 8  $\Omega$ )  
CENTER ..... 30 W (1 kHz, THD 1 %, 8  $\Omega$ )  
SURROUND ..... 30 W/ch (1 kHz, THD 1 %, 8  $\Omega$ )

Input (Sensitivity/Impedance)  
DVD, TV/SAT, VCR, FRONT ..... 200 mV/47 k $\Omega$   
Frequency Response  
DVD, TV/SAT, VCR, FRONT  
..... 5 Hz to 100,000 Hz  $\pm 3$  dB  
Output (Level/Impedance)  
VCR OUT ..... 200 mV/2.2 k $\Omega$

Signal-to-Noise Ratio  
[DIN (Continuous rated power output/50 mW)]  
DVD, TV/SAT, VCR, FRONT ..... 88 dB/64 dB

### VIDEO Section

Input (Sensitivity/Impedance)  
DVD, TV/SAT, VCR, FRONT ..... 1 V<sub>p-p</sub>/75  $\Omega$   
Output (Level/Impedance)  
VCR, MONITOR ..... 1 V<sub>p-p</sub>/75  $\Omega$   
Frequency Response  
DVD, TV/SAT, VCR, FRONT  $\rightarrow$  MONITOR  
..... 5 Hz to 7 MHz  $\pm 3$  dB  
Signal-to-Noise Ratio ..... 55 dB

### FM Tuner Section

Frequency Range ..... 87.5 MHz to 108 MHz  
Usable Sensitivity  
Mono: 15.2 dBf, IHF (1.6  $\mu$ V/ 75  $\Omega$ )  
50 dB Quieting Sensitivity ..... Mono: 20.2 dBf  
..... Stereo: 41.2 dBf  
Signal-to-Noise Ratio ..... Mono: 76 dB (at 85 dBf)  
..... Stereo: 72 dB (at 85 dBf)  
Distortion ..... Stereo: 0.6 % (1 kHz)  
Alternate Channel Selectivity ..... 70 dB (400 kHz)  
Stereo Separation ..... 40 dB (1 kHz)  
Frequency Response ..... 30 Hz to 15 kHz ( $\pm 1$ dB)  
Antenna Input (DIN) ..... 75  $\Omega$  unbalanced

### AM Tuner Section

Frequency Range ..... 531 kHz to 1,602 kHz  
Sensitivity (IHF, Loop antenna) ..... 350  $\mu$ V/m  
Selectivity ..... 30 dB  
Signal-to-Noise Ratio ..... 50 dB  
Antenna ..... Loop antenna

### Miscellaneous

Power Requirements  
UK model ..... AC 220 – 230 V, 50/60 Hz  
European model ..... AC 220 – 230 V, 50/60 Hz  
Power Consumption ..... 130 W  
In Standby ..... 1 W  
Dimensions ..... 420 (W) x 65 (H) x 322 (D) mm  
Weight (without package) ..... 5.2 kg

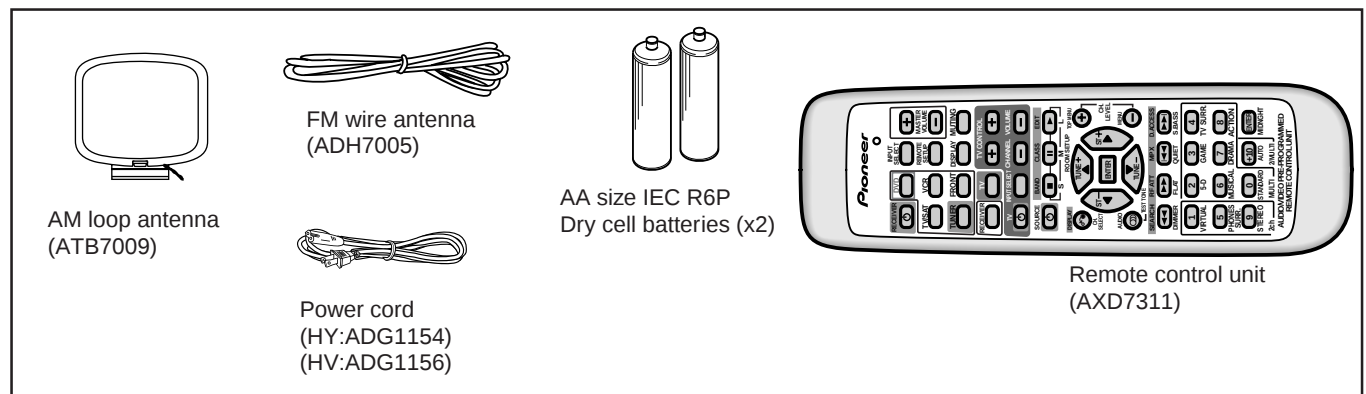
### Furnished Parts

AM loop antenna ..... 1  
FM wire antenna ..... 1  
Dry cell batteries (AA size IEC R6P) ..... 2  
Remote control unit ..... 1  
Power cord ..... 1  
Speaker cord labels ..... 1  
Operating instructions ..... 1

### NOTE:

- Specifications and the design are subject to possible modifications without notice, due to improvements.

### Accessories



# Service Manual



ORDER NO.  
RRV2524

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

# VSX-C300

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

| Type     | Model    | Power Requirement | Remarks |
|----------|----------|-------------------|---------|
|          | VSX-C300 |                   |         |
| KUXJI/CA | ○        | AC120V            |         |

## CONTENTS

|                                              |    |                                                 |    |
|----------------------------------------------|----|-------------------------------------------------|----|
| 1. SAFETY INFORMATION .....                  | 2  | 7. GENERAL INFORMATION .....                    | 51 |
| 2. EXPLODED VIEWS AND PARTS LIST .....       | 3  | 7.1 DIAGNOSIS .....                             | 51 |
| 3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM ..... | 8  | 7.1.1 Test Mode .....                           | 51 |
| 4. PCB CONNECTION DIAGRAM .....              | 32 | 7.1.2 Protection of the Amplifier Line .....    | 52 |
| 5. PCB PARTS LIST .....                      | 46 | 7.1.3 Operation of the Fan-Control Line .....   | 53 |
| 6. ADJUSTMENT .....                          | 50 | 7.1.4 Specifications of Speaker Detection ..... | 54 |
|                                              |    | 7.1.5 Timing Chart .....                        | 55 |
|                                              |    | 7.2 PARTS .....                                 | 56 |
|                                              |    | 7.2.1 IC .....                                  | 56 |
|                                              |    | 7.2.2 DISPLAY .....                             | 62 |
|                                              |    | 8. PANEL FACILITIES AND SPECIFICATIONS .....    | 64 |

# 1. SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

## WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

## NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

## REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

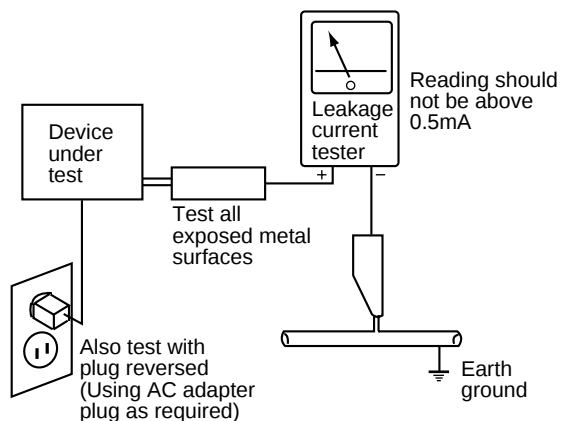
## (FOR USA MODEL ONLY)

### 1. SAFETY PRECAUTIONS

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

#### LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

### 2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a  $\Delta$  on the schematics and on the parts list in this Service Manual.

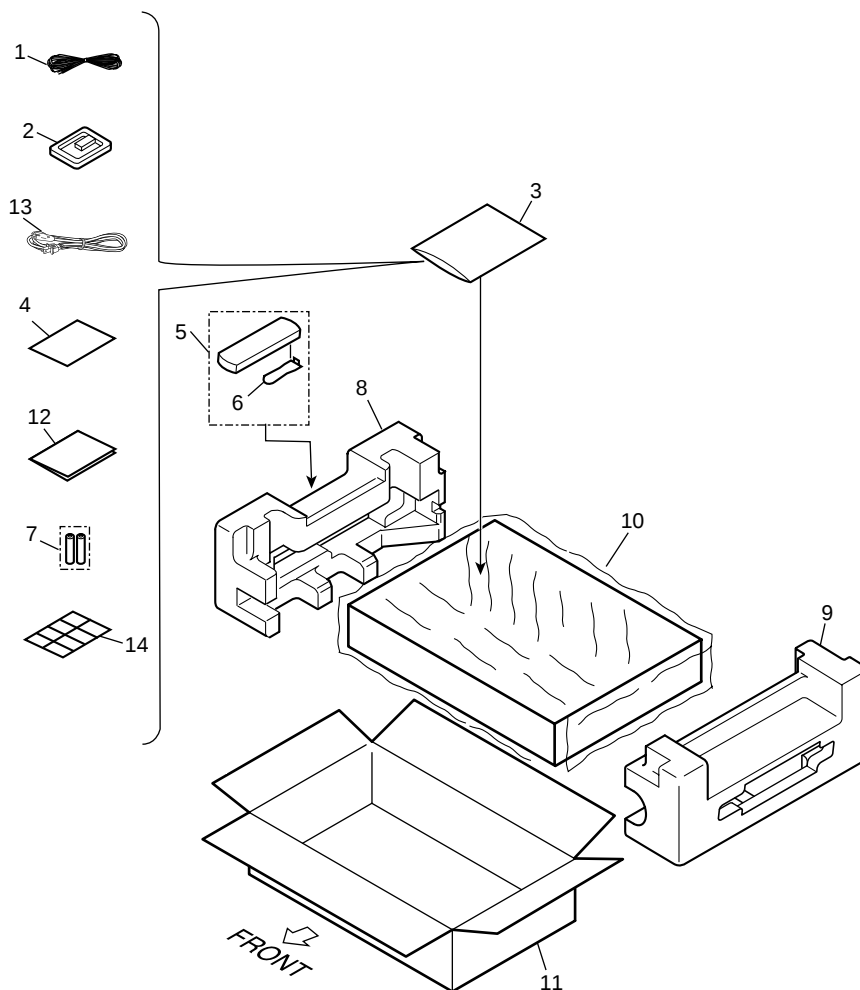
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

## 2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.  
 ● The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.  
 ● Screws adjacent to ▼ mark on the product are used for disassembly.

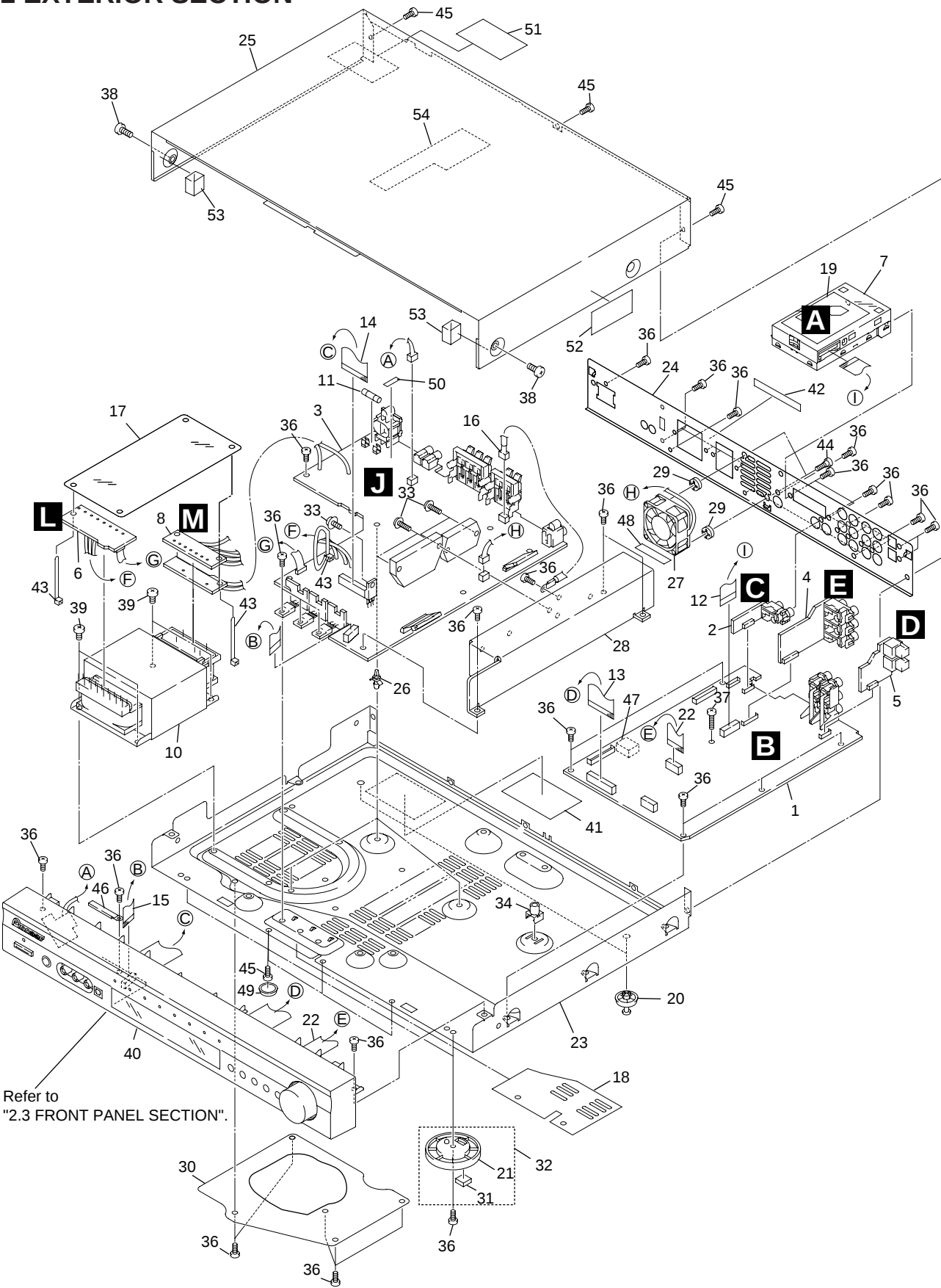
### 2.1 PACKING



#### ● PACKING PARTS LIST

| Mark | No. | Description                            | Part No. | Mark     | No. | Description   | Part No. |
|------|-----|----------------------------------------|----------|----------|-----|---------------|----------|
| NSP  | 1   | FM Wire Antenna                        | ADH7004  | $\Delta$ | 13  | AC Power Cord | ADG7022  |
|      | 2   | AM Loop Antenna                        | ATB7009  |          | 14  | Cable Label   | ARW7145  |
|      | 3   | Polyethylene Bag<br>(0.03 × 230 × 340) | Z21-038  |          |     |               |          |
| NSP  | 4   | Warranty Card                          | ARY7045  |          |     |               |          |
|      | 5   | Remote Control Unit                    | AXD7310  |          |     |               |          |
| NSP  | 6   | Battery Cover                          | AZA7378  |          |     |               |          |
|      | 7   | Dry Cell Battery (R6P, AA)             | VEM-013  |          |     |               |          |
|      | 8   | Left Pad                               | AHA7349  |          |     |               |          |
|      | 9   | Right Pad                              | AHA7350  |          |     |               |          |
|      | 10  | Packing Sheet                          | AHG7015  |          |     |               |          |
|      | 11  | Packing Case                           | AHD8010  |          |     |               |          |
|      | 12  | Operating Instructions<br>(English)    | ARB7248  |          |     |               |          |

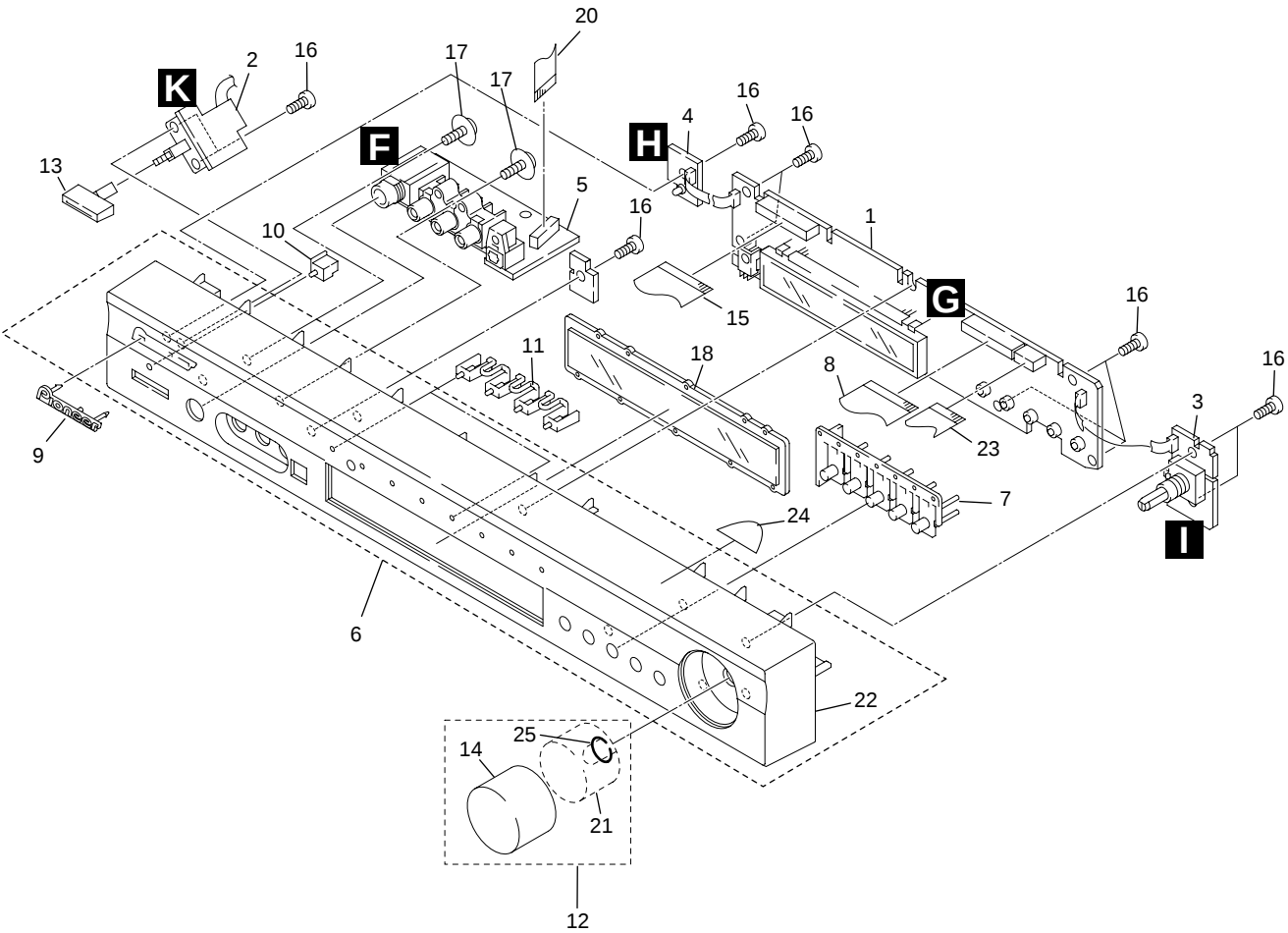
2.2 EXTERIOR SECTION



## ● EXTERIOR SECTION PARTS LIST

| Mark | No. | Description                                                           | Part No. | Mark | No. | Description        | Part No.     |
|------|-----|-----------------------------------------------------------------------|----------|------|-----|--------------------|--------------|
|      | 1   | DSP ASSY                                                              | AWX7937  |      | 31  | Rubber Cushion     | AEB7235      |
|      | 2   | 2P - JACK ASSY                                                        | AWX7926  |      | 32  | Insulator 50 Assy  | AMR7379      |
|      | 3   | POWER ASSY                                                            | AWX7910  |      | 33  | Screw With Washer  | ABA7080      |
|      | 4   | VIDEO ASSY                                                            | AWX7928  |      | 34  | PCB Mold           | AMR2534      |
|      | 5   | OPT - IN ASSY                                                         | AWX7908  |      | 35  | • • • • •          |              |
|      | 6   | TRANS 2 Assy                                                          | AWX7907  |      | 36  | Screw              | BBZ30P080FZK |
|      | 7   | FM/AM TUNER MODULE                                                    | AXQ7231  |      | 37  | Screw              | BBZ30P140FMC |
| NSP  | 8   | TRANS 1 Assy                                                          | AWX7906  |      | 38  | Screw              | BBZ40P080FNI |
|      | 9   | • • • • •                                                             |          |      | 39  | Screw              | BBZ40P060FCC |
| △    | 10  | Power Transformer (AC120V)                                            | ATS7317  |      | 40  | Front Panel Assy   | AMB7778      |
|      | 11  | Fuse (FU1 : 2.5A)                                                     | REK1112  |      | 41  | Dolby DTS. Label   | ARW7136      |
| △    | 12  | FFC (J804 : 13P/180 BD 60V)<br>(DSP CN803<br>↔ TUNER CN201)           | ADD7242  |      | 42  | Speaker Label E    | AAX7870      |
|      | 13  | FFC (J1702 : 23P/180 BD 60V)<br>(DSP CN1702<br>↔ FRONT CN4202)        | ADD7293  |      | 43  | Binder             | ZCA-BK1      |
|      | 14  | FFC (J4201 : 23P/200 BD 60V)<br>(POWER CN303<br>↔ FRONT CN4201)       | ADD7293  |      | 44  | Screw (3x11.5)     | ABA7071      |
|      | 15  | FFC (J4101 : 11P/100 BD 60V)<br>(POWER CN304<br>↔ FRONT INPUT CN4101) | ADD7336  |      | 45  | Screw              | BBZ30P080FNI |
|      | 16  | Thermistor<br>(POWER CN306 ↔ TH9014)                                  | AEX7004  |      | 46  | Cord Clamper       | RNH-184      |
|      | 17  | Trans Shield Barrier                                                  | AEC7380  |      | 47  | Cushion H11        | AEB7239      |
|      | 18  | REG. Cover                                                            | AEC7384  |      | 48  | Damper Cushion     | AED7055      |
| △    | 19  | Tuner Barrier                                                         | AEC7383  |      | 49  | Cushion Circle 16S | AED7054      |
|      | 20  | Leg Assy                                                              | REC-434  |      | 50  | Fuse Card          | AAX2344      |
|      | 21  | Insulator 50                                                          | AMR7363  |      | 51  | 65 Label           | ARW7050      |
|      | 22  | FFC (J803 : 7P/150 BD 60V)<br>(DSP CN804 ↔ FRONT CN203)               | ADD7292  |      | 52  | Caution Label      | ARW7143      |
| NSP  | 23  | Under Base                                                            | ANA7129  |      | 53  | Rubber Cushion     | AEB7235      |
|      | 24  | Rear Panel                                                            | ANC8017  |      | 54  | Support PCB        | ANZ7133      |
|      | 25  | Bonnet Case S (Box)                                                   | AZN7886  |      |     |                    |              |
|      | 26  | PCB Support                                                           | AEC7365  |      |     |                    |              |
|      | 27  | DC Fan Motor                                                          | AXM7017  |      |     |                    |              |
| NSP  | 28  | Heat Sink HL                                                          | ANH7144  |      |     |                    |              |
|      | 29  | Damper BK                                                             | AEB7231  |      |     |                    |              |
| NSP  | 30  | Trans Stabilizer                                                      | ANG7362  |      |     |                    |              |

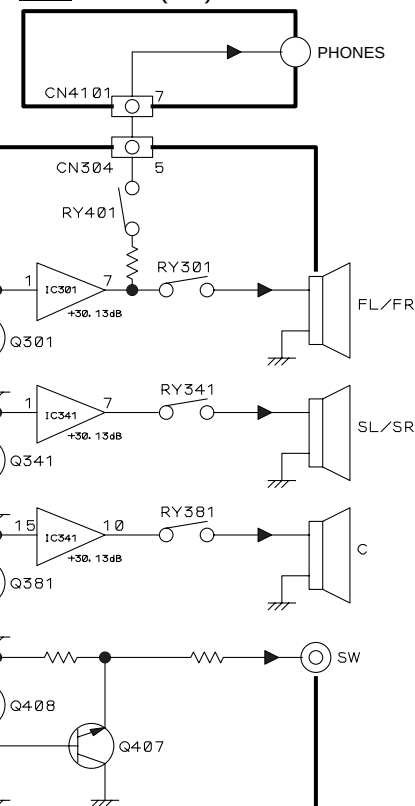
2.3 FRONT PANEL SECTION



## ● FRONT PANEL SECTION PARTS LIST

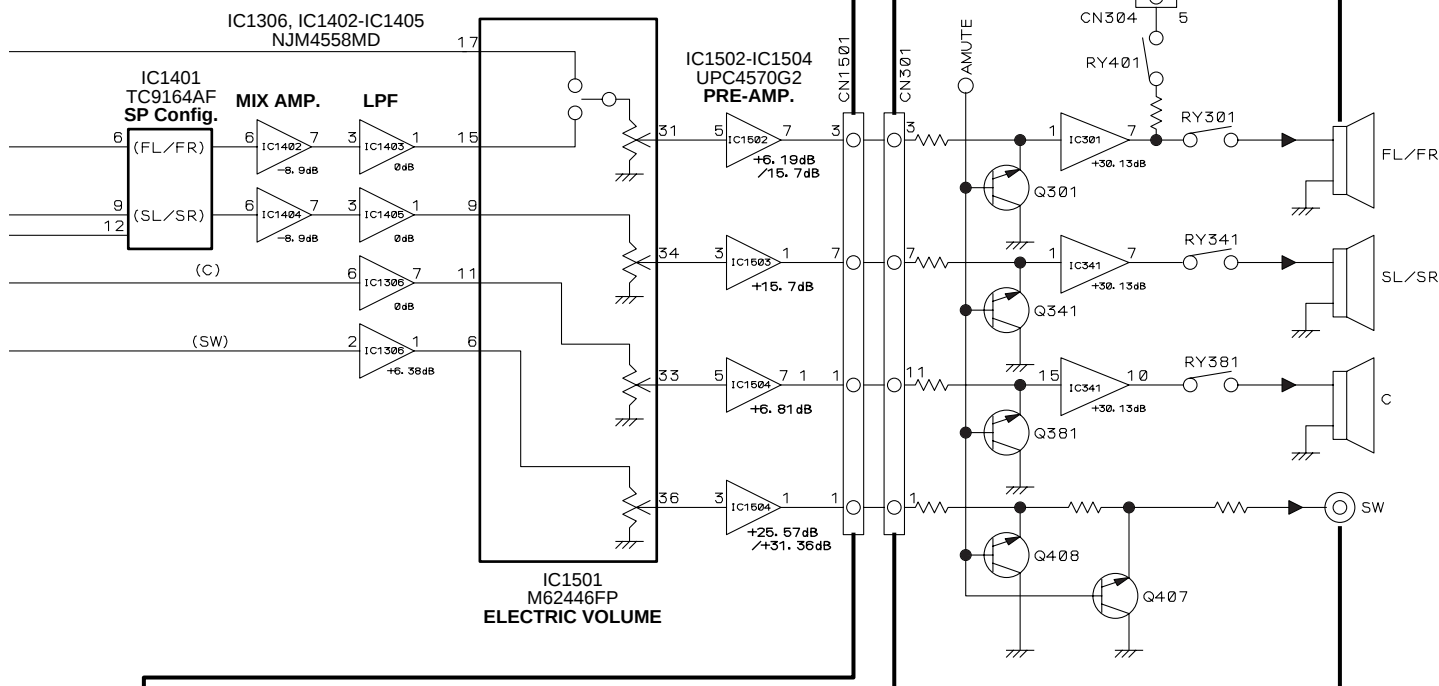
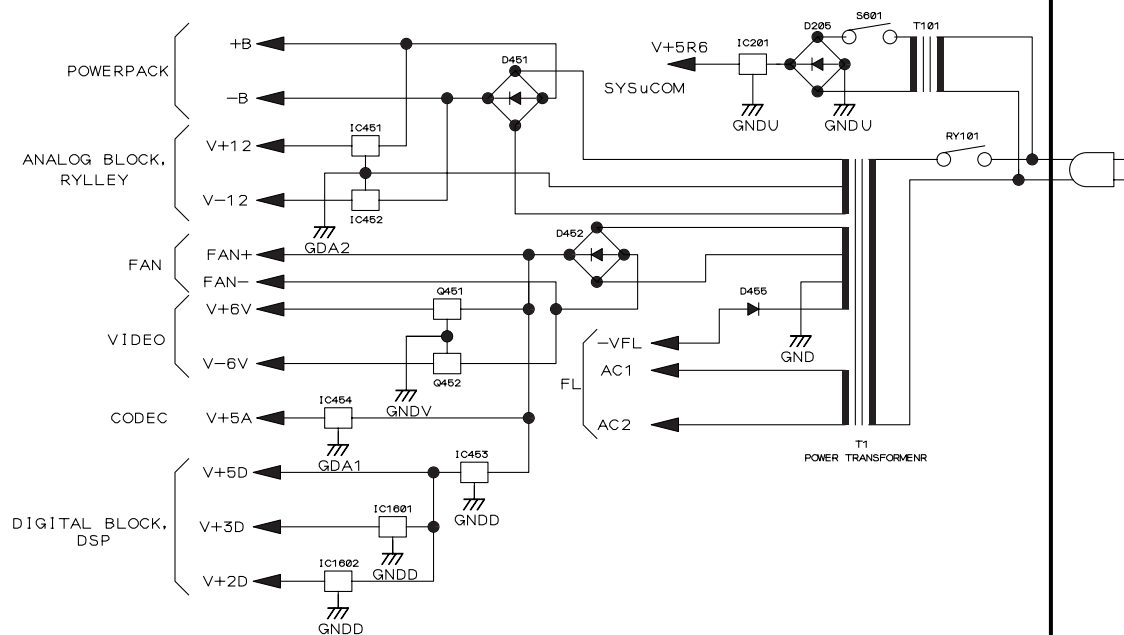
| Mark | No. | Description                                           | Part No.     |
|------|-----|-------------------------------------------------------|--------------|
| NSP  | 1   | FRONT ASSY                                            | AWX7933      |
|      | 2   | POWER SW ASSY                                         | AWX7904      |
|      | 3   | ENCODER ASSY                                          | AWX7914      |
|      | 4   | LED ASSY                                              | AWX7913      |
|      | 5   | FRONT INPUT ASSY                                      | AWX7916      |
|      | 6   | Front Panel Assy                                      | AMB7778      |
|      | 7   | Function Button                                       | AAD7633      |
|      | 8   | FFC (J1702 : 23P<br>Front CN4202 ↔ DSP CN1702)        | ADD7293      |
|      | 9   | Name Plate                                            | VAM1129      |
|      | 10  | Standby Lens                                          | AAK7902      |
|      | 11  | LED Lens                                              | AAK7903      |
|      | 12  | Volume Knob P Assy                                    | AAB7239      |
|      | 13  | Power Button                                          | AAD7630      |
|      | 14  | Volume Cap                                            | AAC7032      |
|      | 15  | FFC (J4201 : 23P<br>Front CN4201 ↔ Power CN303)       | ADD7293      |
|      | 16  | Screw                                                 | BPZ30P080FMC |
|      | 17  | Screw (FE)                                            | ABA7009      |
|      | 18  | Display Panel                                         | AAK7904      |
|      | 19  | • • • •                                               |              |
|      | 20  | FFC (J4101 : 11P<br>Front input CN4101 ↔ Power CN304) | ADD7336      |
|      | 21  | Volume Mold                                           | AAC7033      |
|      | 22  | Front Panel                                           | AMB7776      |
|      | 23  | FFC (J803 : 7P<br>Front CN4203 ↔ DSP CN804)           | ADD7292      |
|      | 24  | Energy Star Label                                     | AAX7876      |
|      | 25  | Ring                                                  | ABH7213      |



**F** FRONT INPUT ASSY (3/3)

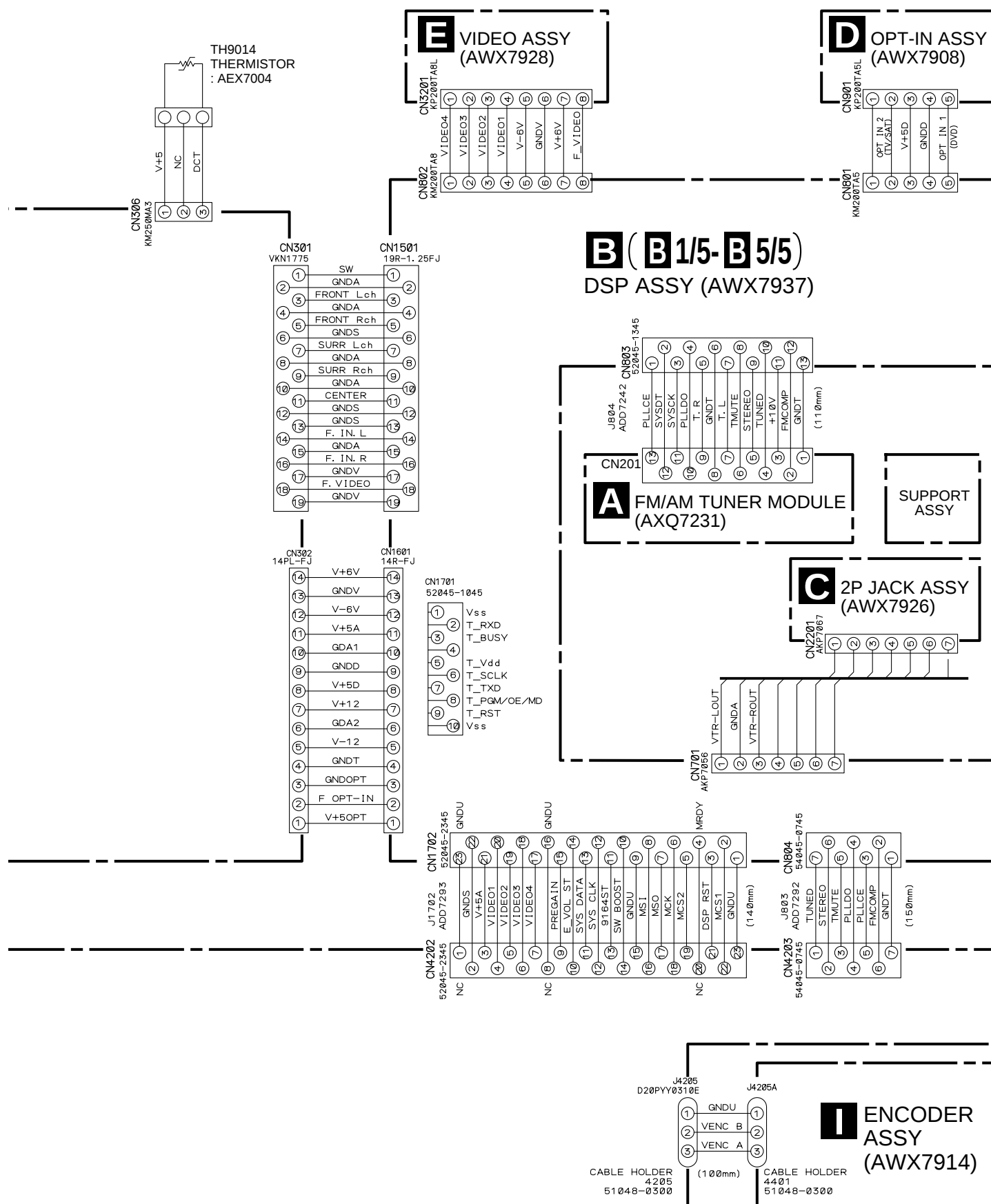
## PRE GAIN

|          | DSP      | NORMAL  | S. BASS  |
|----------|----------|---------|----------|
| FRONT    | +15.7dB  | +6.19dB |          |
| SURROUND | +15.7dB  |         |          |
| CENTER   | +6.81dB  |         |          |
| SW       | +25.57dB |         | +31.36dB |

**J** POWER ASSY (3/3)



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



A

B

C

D



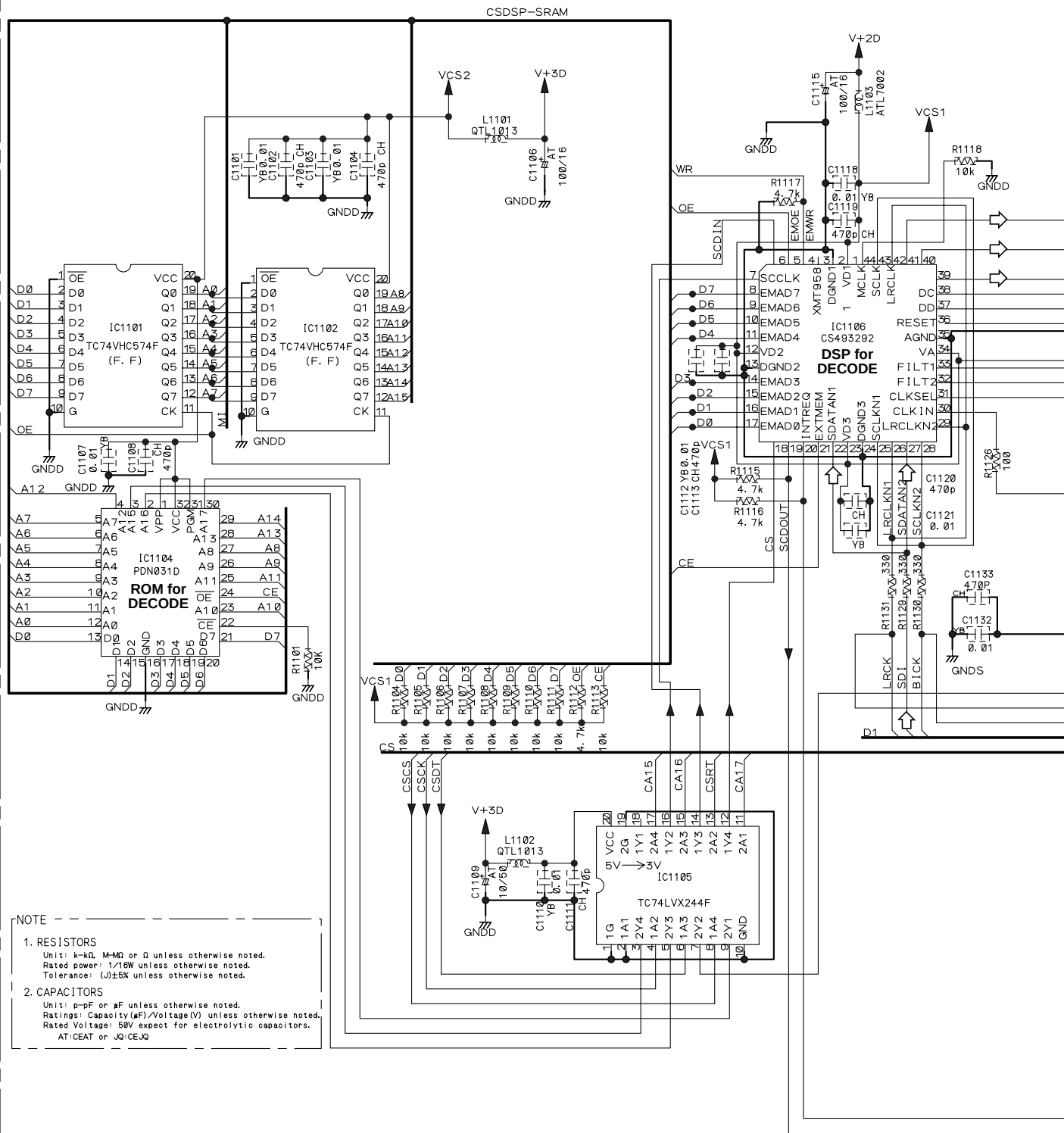






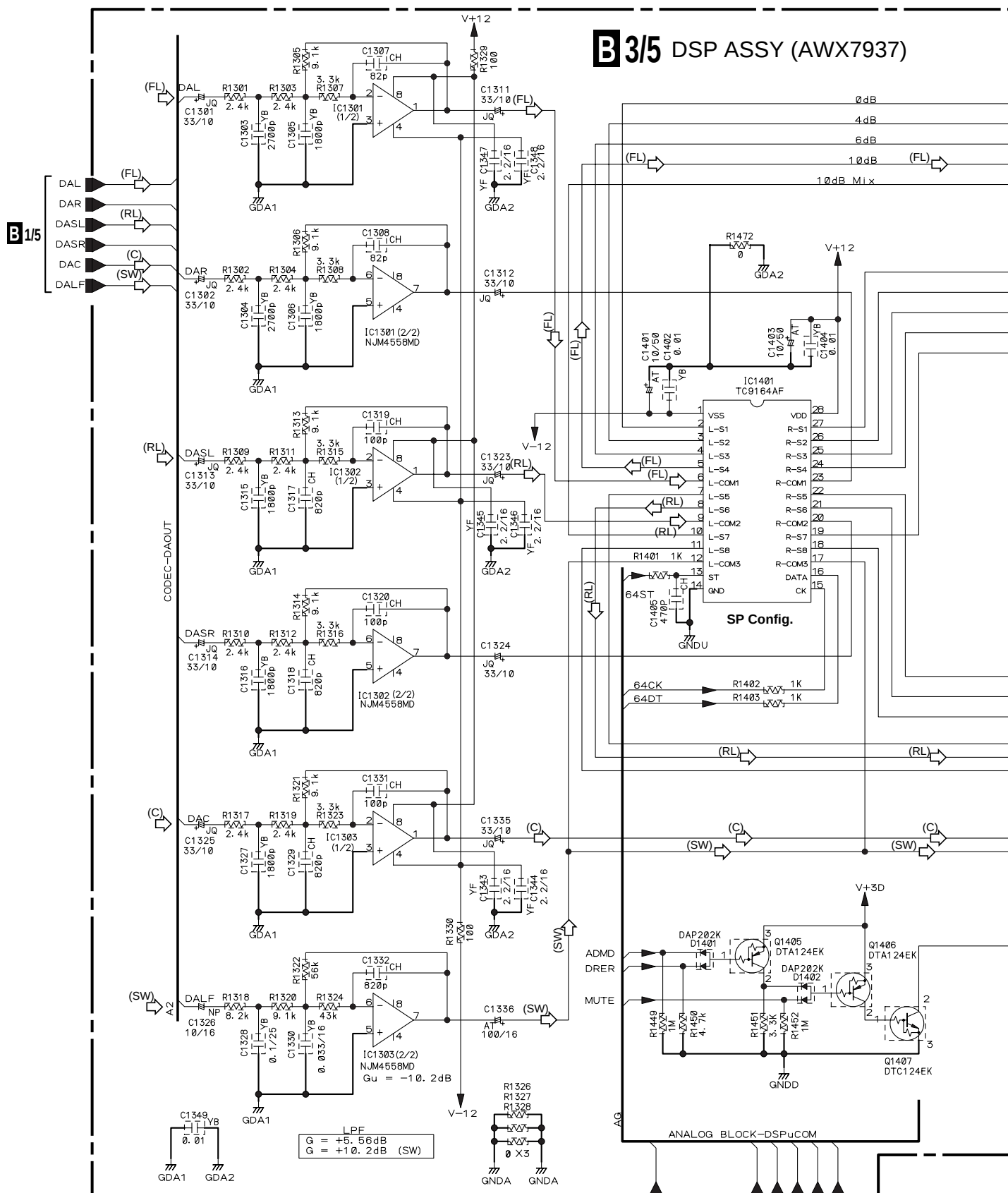
## 3.5 DSP ASSY (2/5)

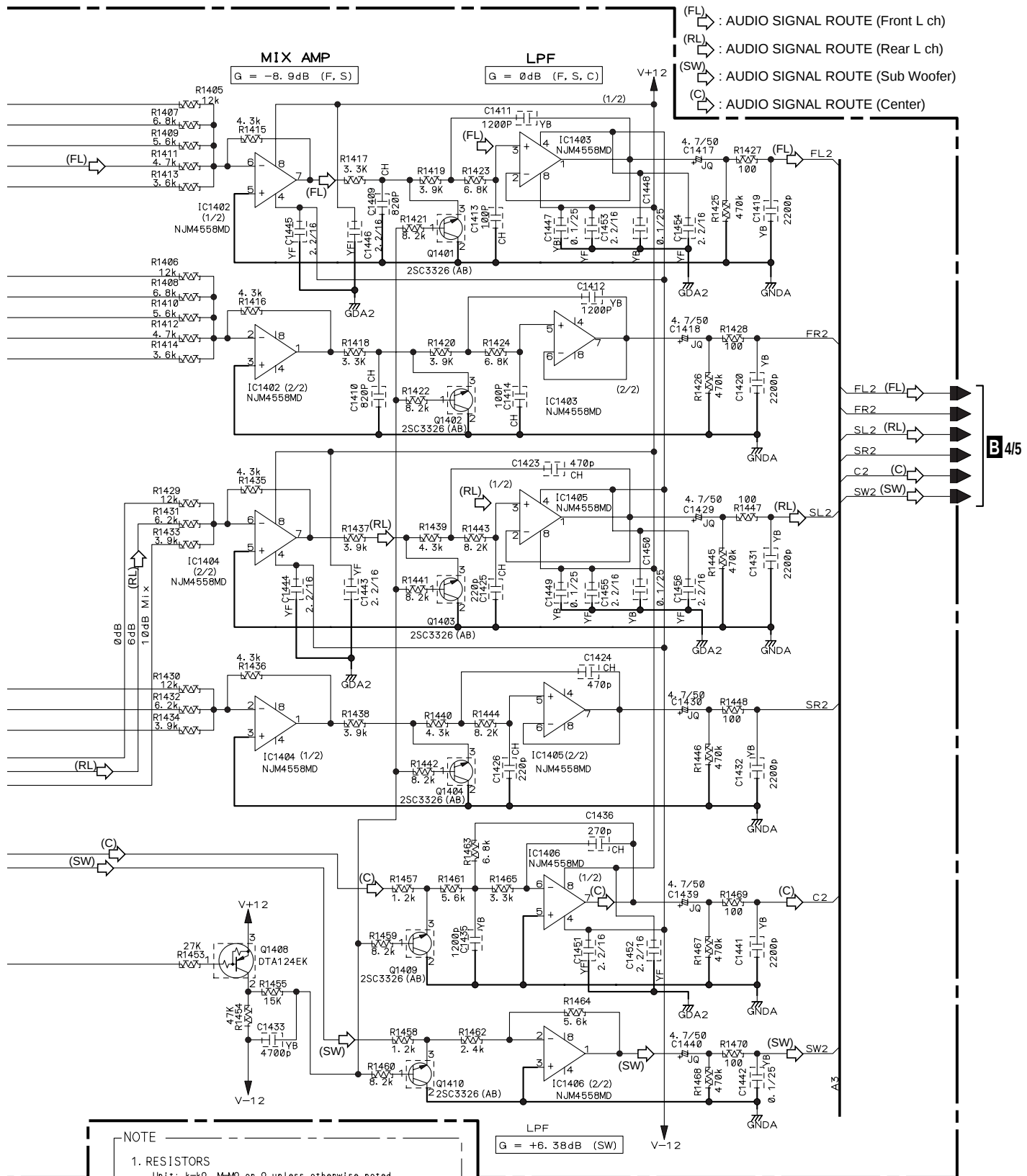
## B2/5 DSP ASSY (AWX7937)





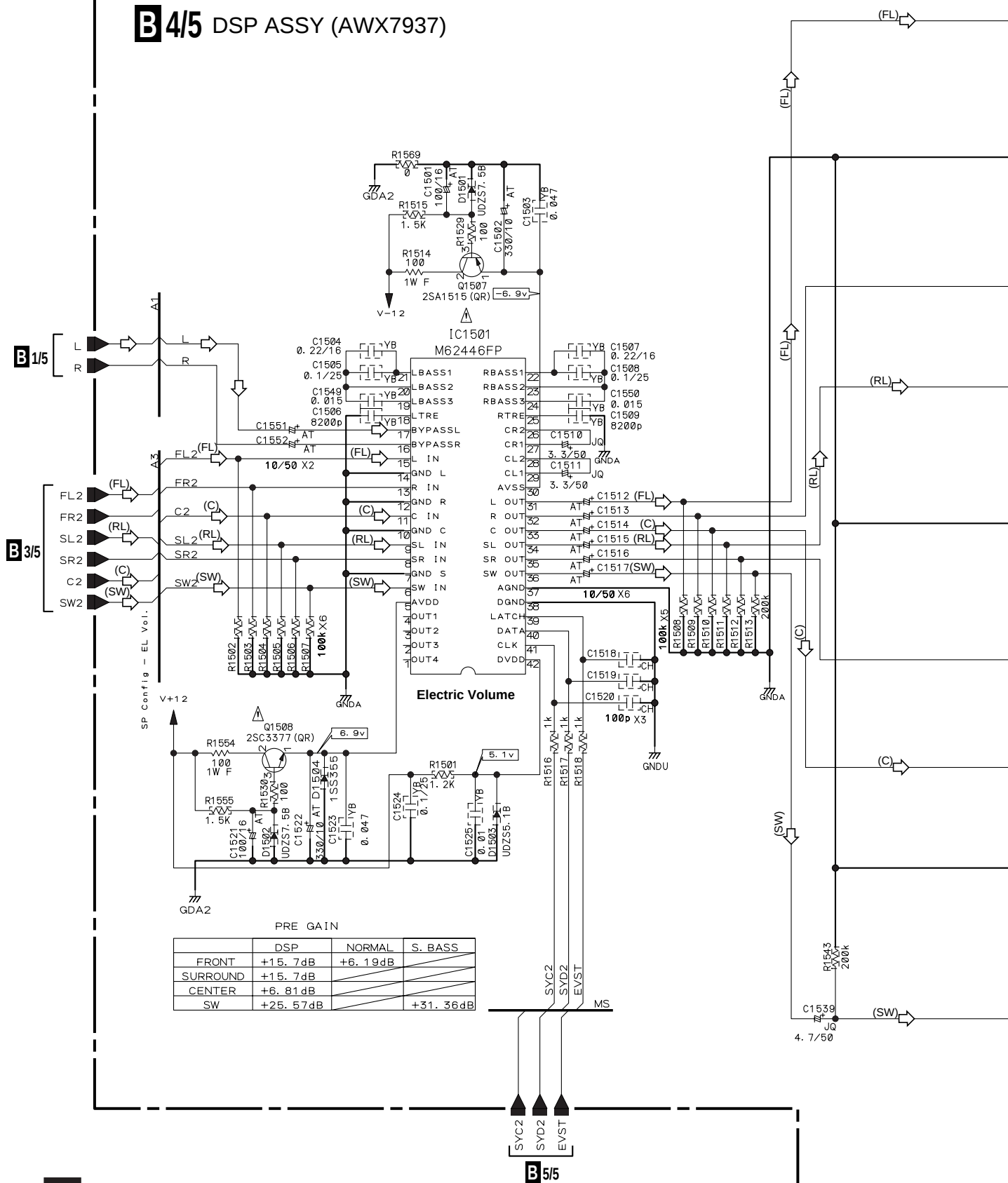
**B 3/5** DSP ASSY (AWX7937)





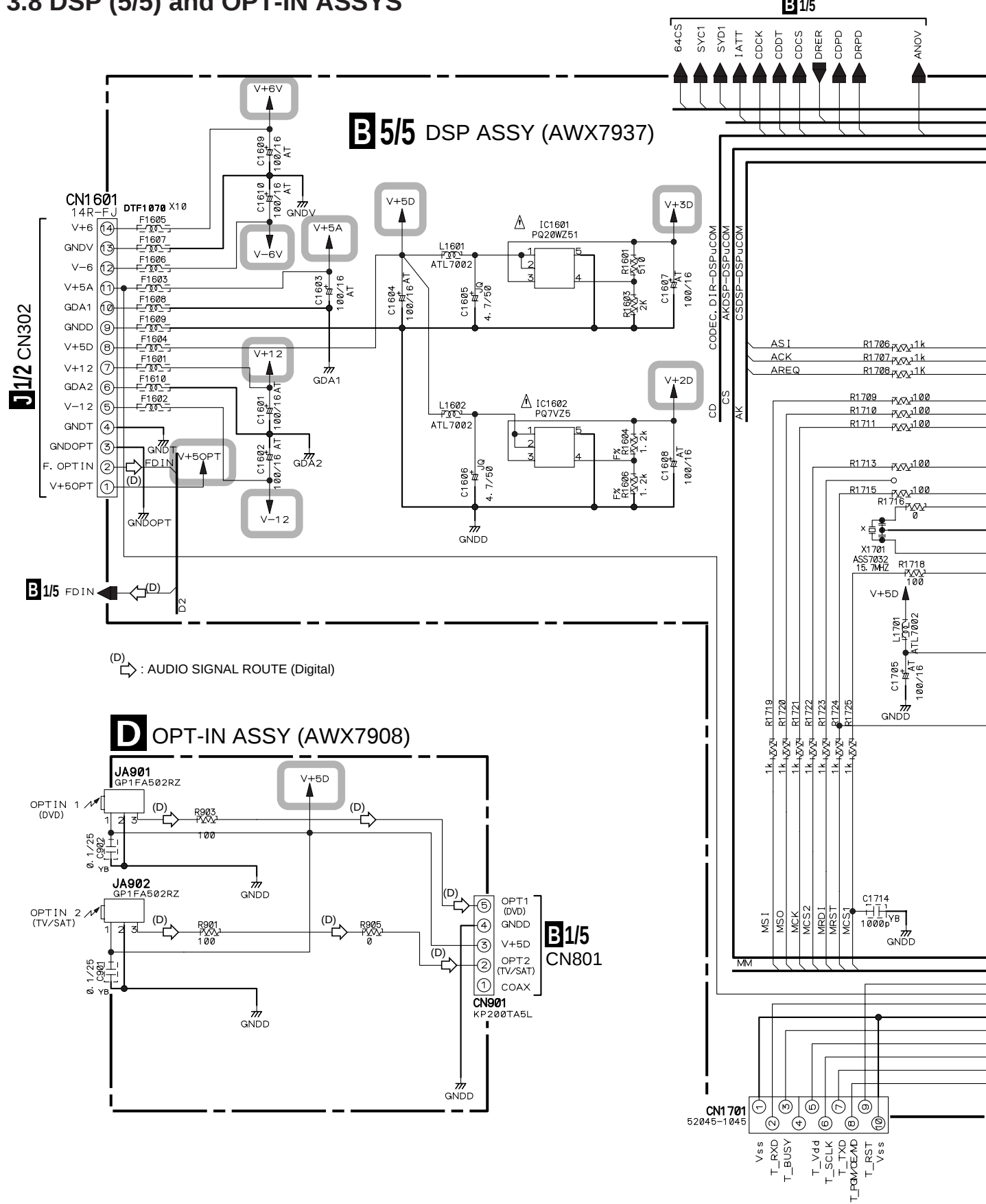
### 3.7 DSP ASSY (4/5)

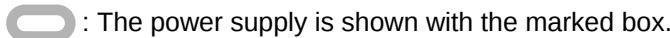
**B 4/5** DSP ASSY (AWX7937)





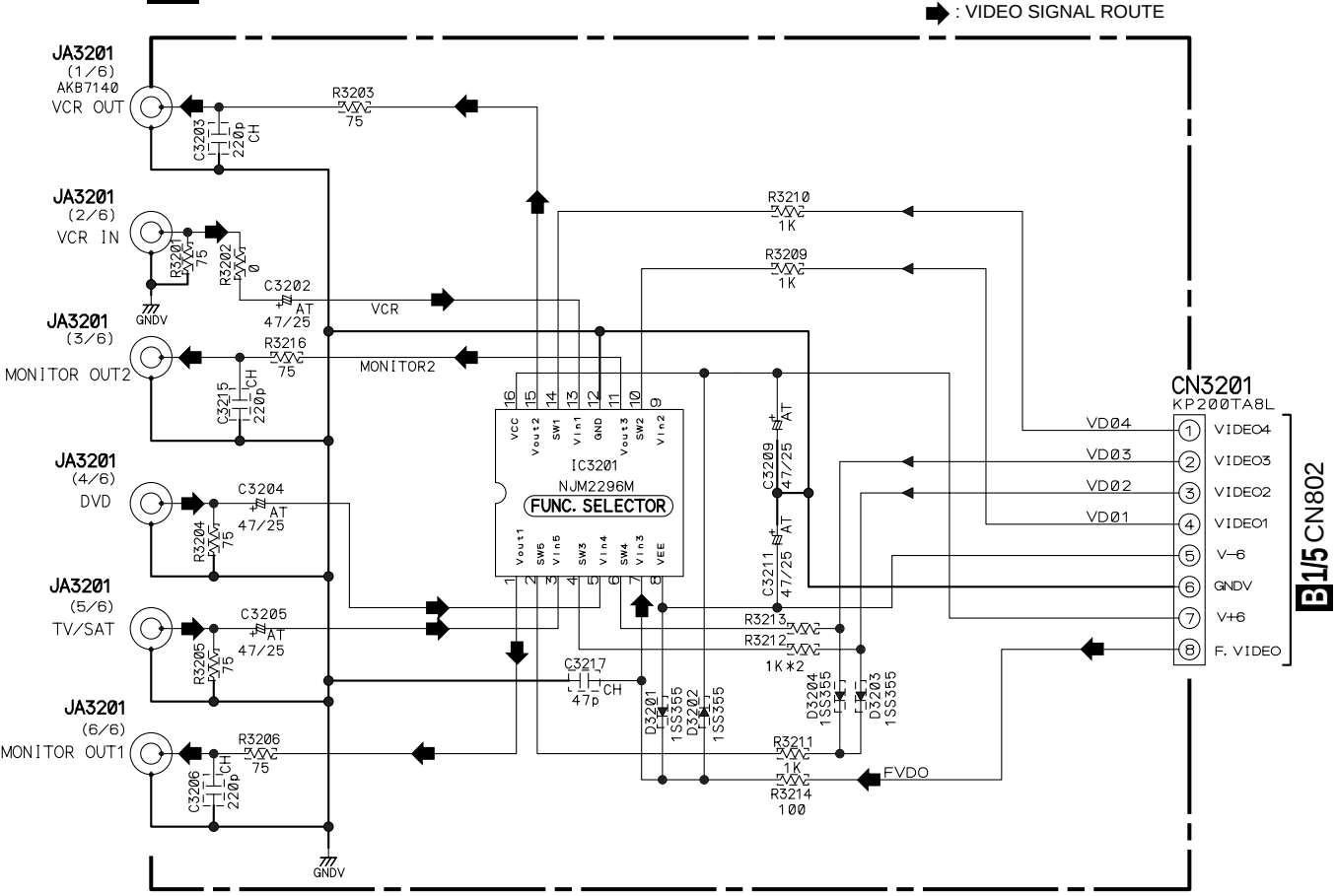
3.8 DSP (5/5) and OPT-IN ASSYS





3.9 VIDEO ASSY

VIDEO ASSY (AWX7928)



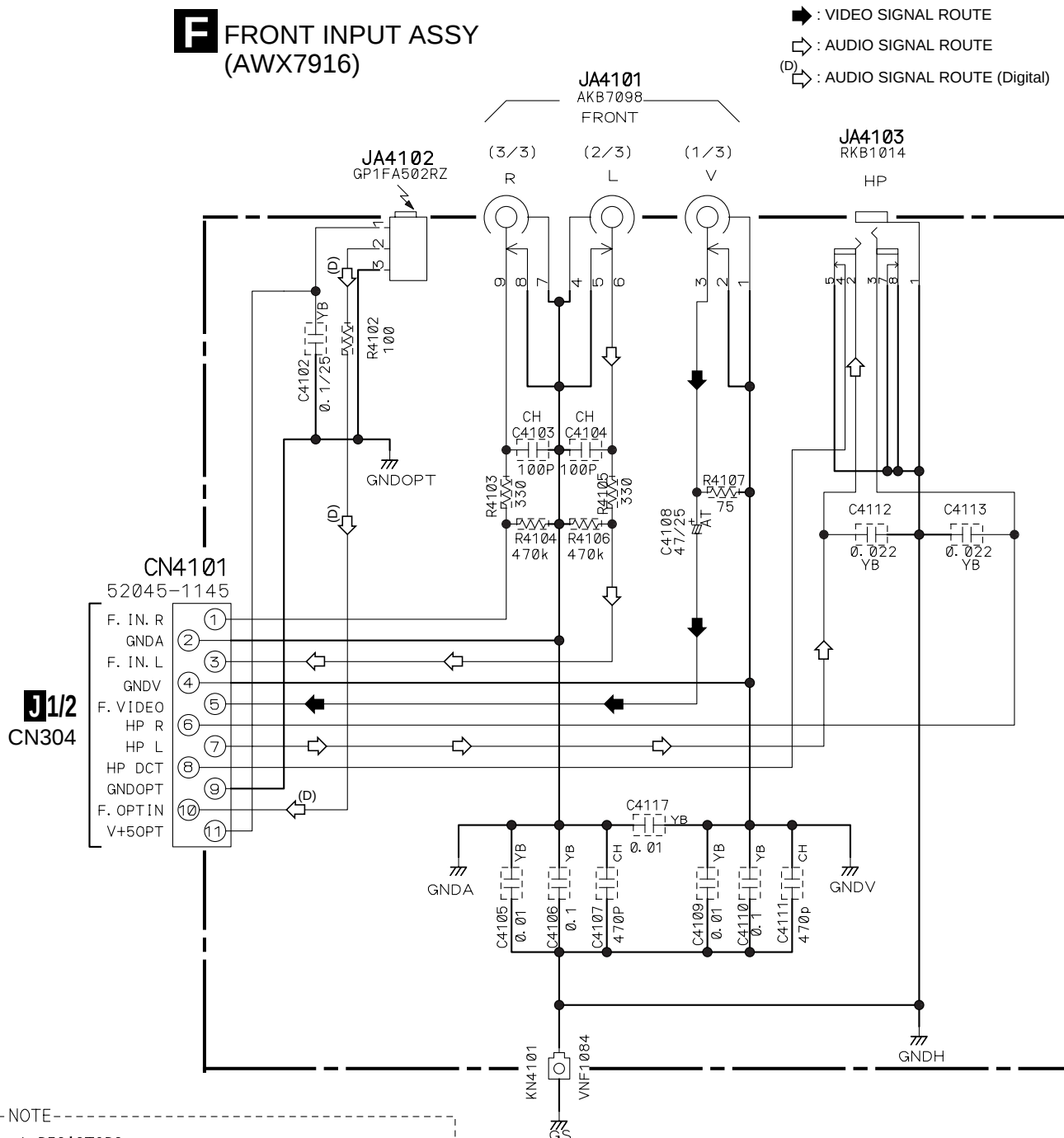
NJM2296M control port status

| SW1 | SW2 | SW3 | SW4 | SW5 | Vout1 | Vout2 | Vout3 |
|-----|-----|-----|-----|-----|-------|-------|-------|
| 0   | 1   | (1) | (0) | 1   | Vin1  | mute  | Vin1  |
| 1   | 0   | (1) | 0   | 1   | Vin2  | Vin2  | mute  |
| 1   | 1   | (1) | 0   | 1   | Vin3  | Vin3  | Vin3  |
| 1   | 1   | 0   | 1   | 1   | Vin4  | Vin4  | Vin4  |
| 1   | 1   | 1   | 1   | 1   | Vin5  | Vin5  | Vin5  |
| 0   | 0   | (0) | (0) | 0   | mute  | mute  | mute  |

VIN 1. VCR  
VIN 2. N. C.  
VIN 3. FRONT  
VIN 4. DVD/LD  
VIN 5. TV/SAT  
Vout1. MON out  
Vout2. VCR OUT  
Vout3. N. C.  
SW1. VIDEO4  
SW2. VIDEO1  
SW3. VIDEO2  
SW4. VIDEO3  
SW5. VIDEO2 or VIDEO3

--NOTE--  
1. RESISTORS  
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.  
Rated power: 1/16W unless otherwise noted.  
Tolerance: (J)±5% unless otherwise noted.  
2. CAPACITORS  
Unit: p-pF or μF unless otherwise noted.  
Ratings: Capacity(μF)/Voltage(V) unless otherwise noted.  
Rated Voltage: 50V expect for electrolytic capacitors.  
AT:CEAT or AL:CEAL  
3. DIODES  
Indicated in 1SS355-TRB

## 3.10 FRONT INPUT ASSY



## --NOTE--

## 1. RESISTORS

Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.  
 Rated power: 1/16W unless otherwise noted.  
 Tolerance: (J)±5% unless otherwise noted.

## 2. CAPACITORS

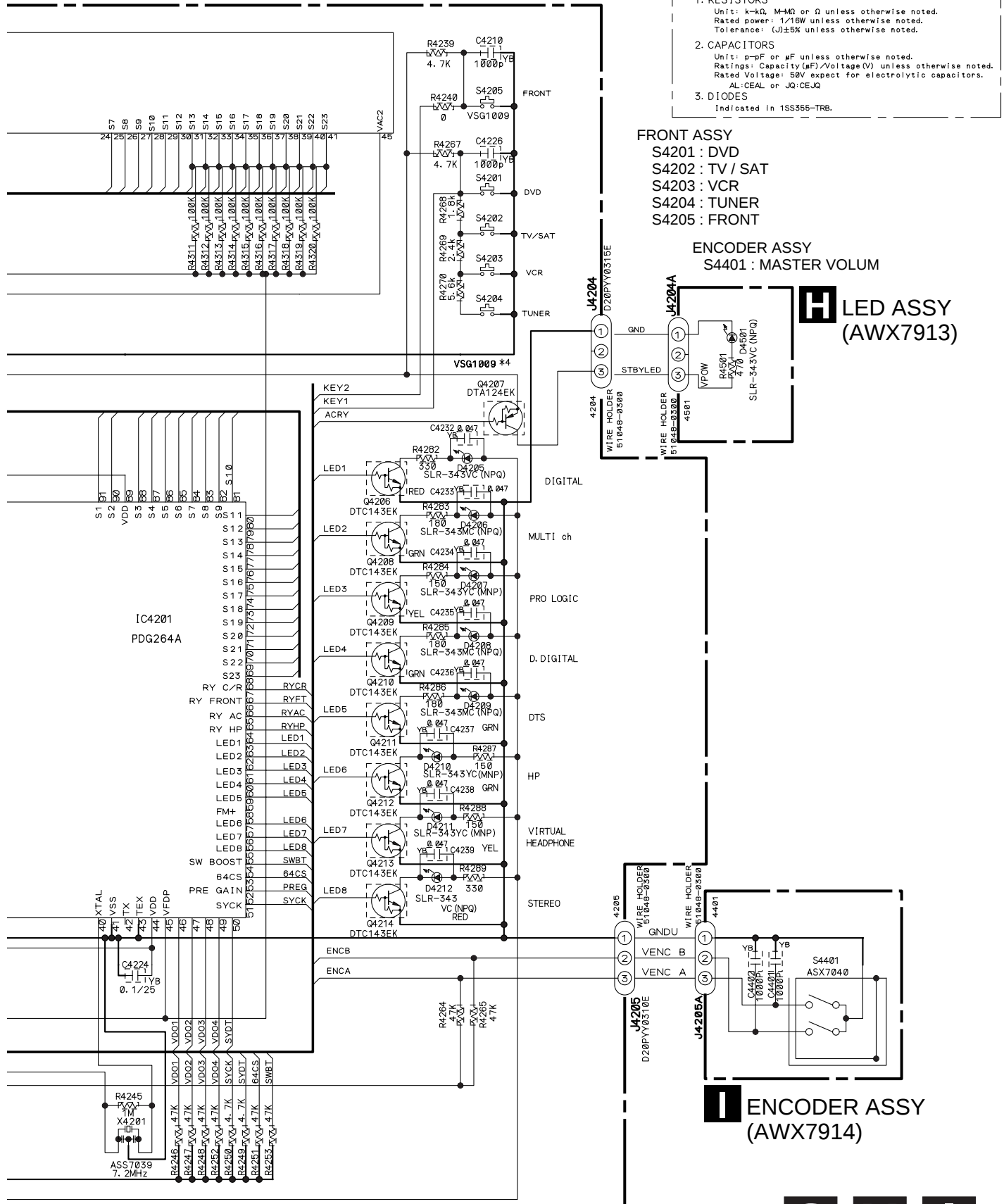
Unit: p-pF or μF unless otherwise noted.  
 Ratings: Capacity(μF)/Voltage(V) unless otherwise noted.  
 Rated Voltage: 50V expect for electrolytic capacitors.  
 AT:CEAT or AL:CEAL

## 3. DIODES

Indicated in 1SS355-TR8



**O** : The power supply is shown with the marked box.





▶ : VIDEO SIGNAL ROUTE

↗ : AUDIO SIGNAL ROUTE

(D) : AUDIO SIGNAL ROUTE (Digital)

(FL) : AUDIO SIGNAL ROUTE (Front L ch)

(RL) : AUDIO SIGNAL ROUTE (Rear L ch)

(SW) : AUDIO SIGNAL ROUTE (Sub Woofer)

(C) : AUDIO SIGNAL ROUTE (Center)

NOTE

1. RESISTORS

Unit: k-Ω, M-Ω or Ω unless otherwise noted.  
Rated power: 1/16W unless otherwise noted.  
Tolerance: (J)±5% unless otherwise noted.

2. CAPACITORS

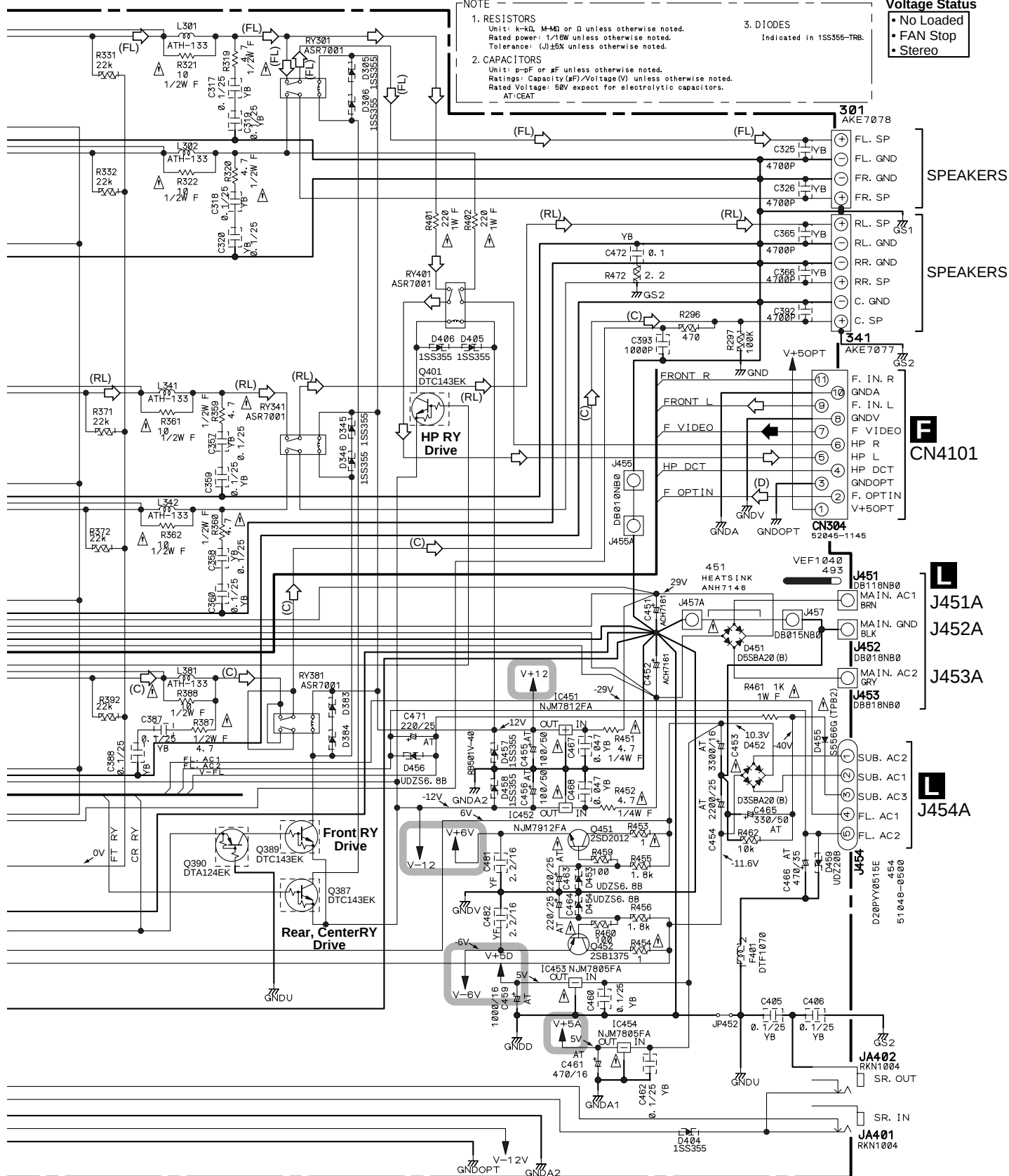
Unit: p-pF or μF unless otherwise noted.  
Ratings: Capacity (μF)/Voltage (V) unless otherwise noted.  
Rated Voltage: 50V except for electrolytic capacitors.  
AT: GEAT

3. DIODES

Indicated in 1SS355-TRB.

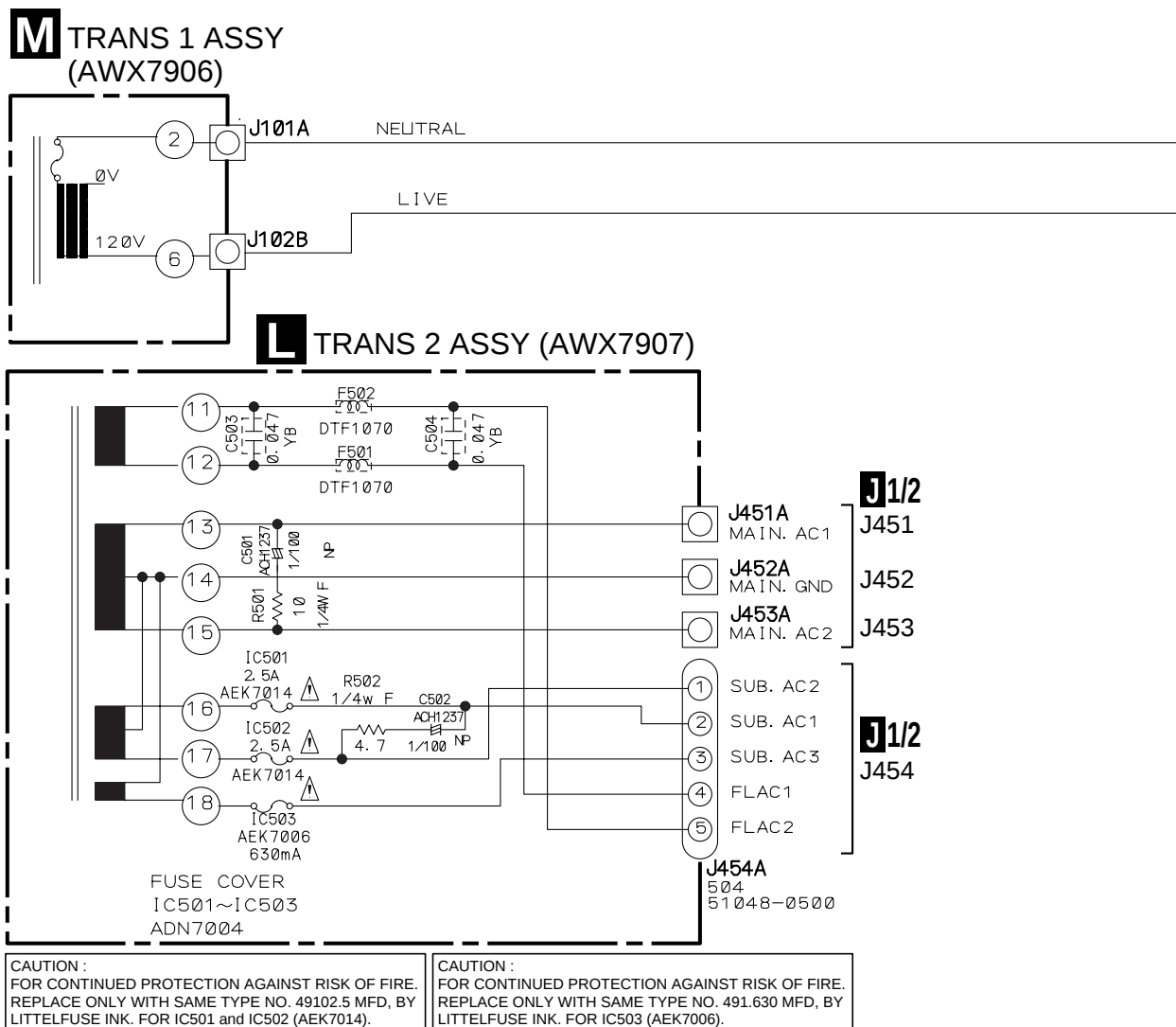
Voltage Status

- No Loaded
- FAN Stop
- Stereo



○ : The power supply is shown with the marked box.

### 3.13 POWER (2/2), SW, TRANS 2 and TRANS 1 ASSYS



## NOTE

## 1. RESISTORS

Unit: k- $\Omega$ , M-M $\Omega$  or  $\Omega$  unless otherwise noted.  
 Rated power: 1/16W unless otherwise noted.  
 Tolerance: (J) $\pm 5\%$  unless otherwise noted.

## 2. CAPACITORS

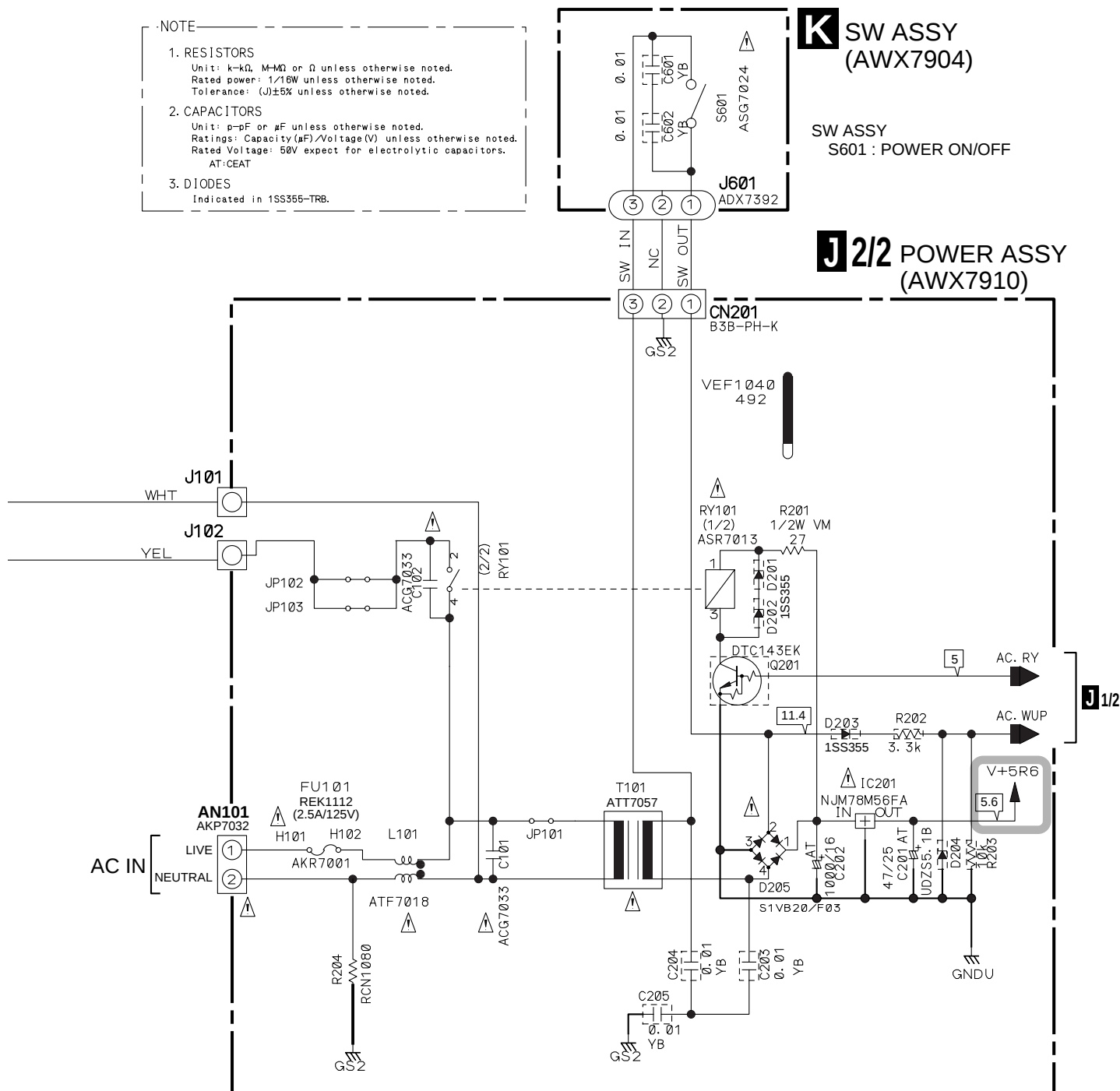
Unit: p-pF or  $\mu$ F unless otherwise noted.  
 Ratings: Capacity( $\mu$ F)/Voltage(V) unless otherwise noted.  
 Rated Voltage: 50V expect for electrolytic capacitors.  
 AT:CEAT

## 3. DIODES

Indicated in 1SS355-TRB.

**K** SW ASSY  
 (AWX7904)

SW ASSY  
 S601 : POWER ON/OFF

**J** 2/2 POWER ASSY  
 (AWX7910)


## • NOTE FOR FUSE REPLACEMENT

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

 : The power supply is shown with the marked box.

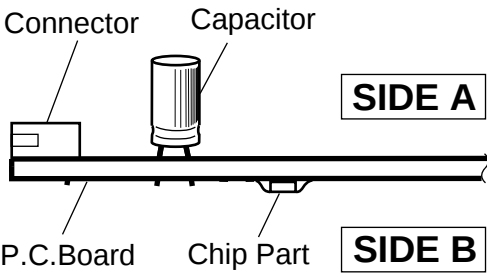
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

- 1. Part numbers in PCB diagrams match those in the schematic diagrams.
- 2. A comparison between the main parts of PCB and schematic diagrams is shown below.

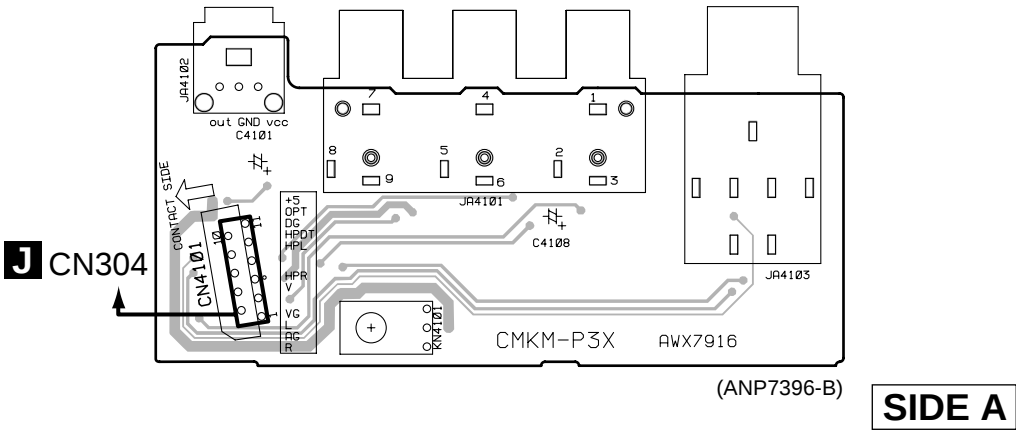
| Symbol In PCB Diagrams | Symbol In Schematic Diagrams | Part Name                |
|------------------------|------------------------------|--------------------------|
|                        |                              | Transistor               |
|                        |                              | Transistor with resistor |
|                        |                              | Field effect transistor  |
|                        |                              | Resistor array           |
|                        |                              | 3-terminal regulator     |

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

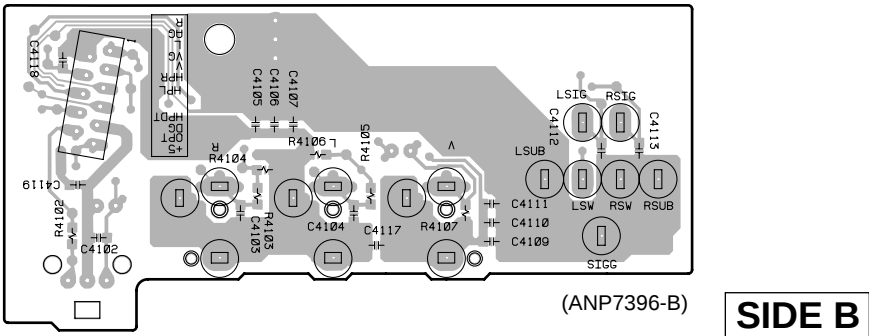


4.1 FRONT INPUT ASSY

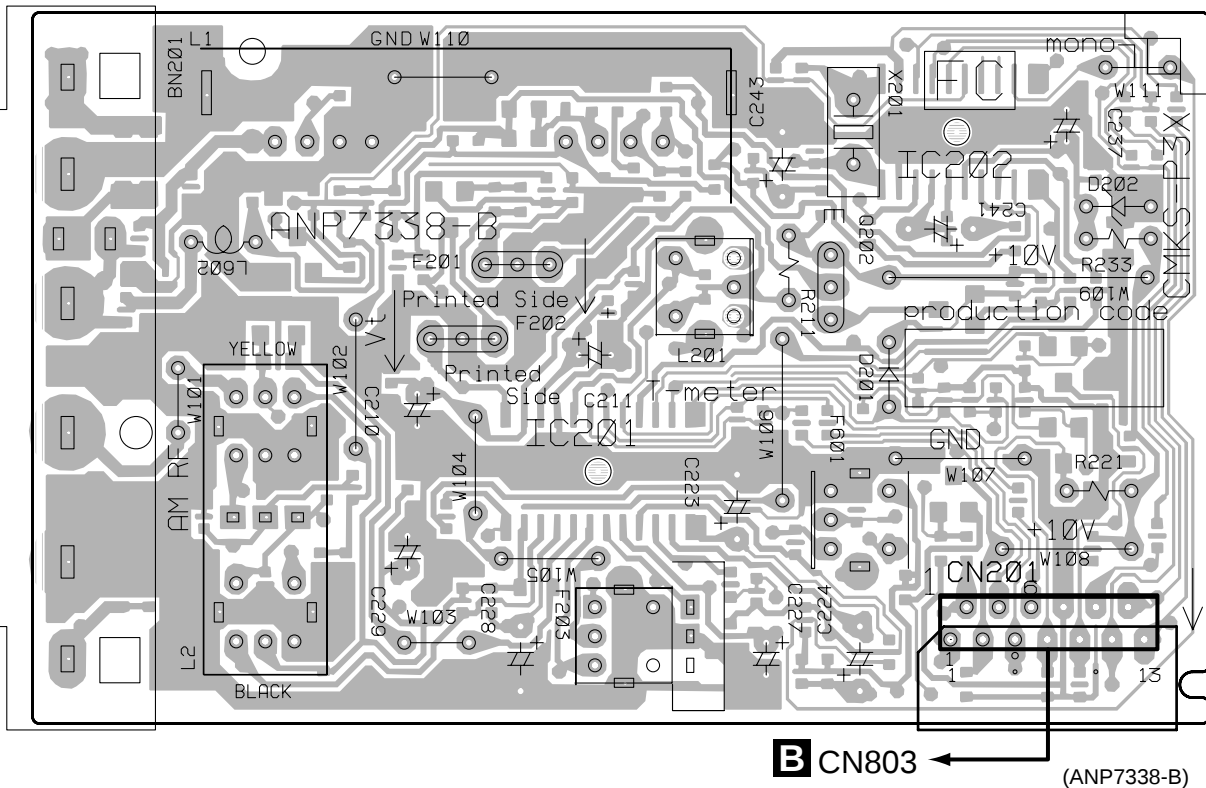
FRONT INPUT ASSY



FRONT INPUT ASSY

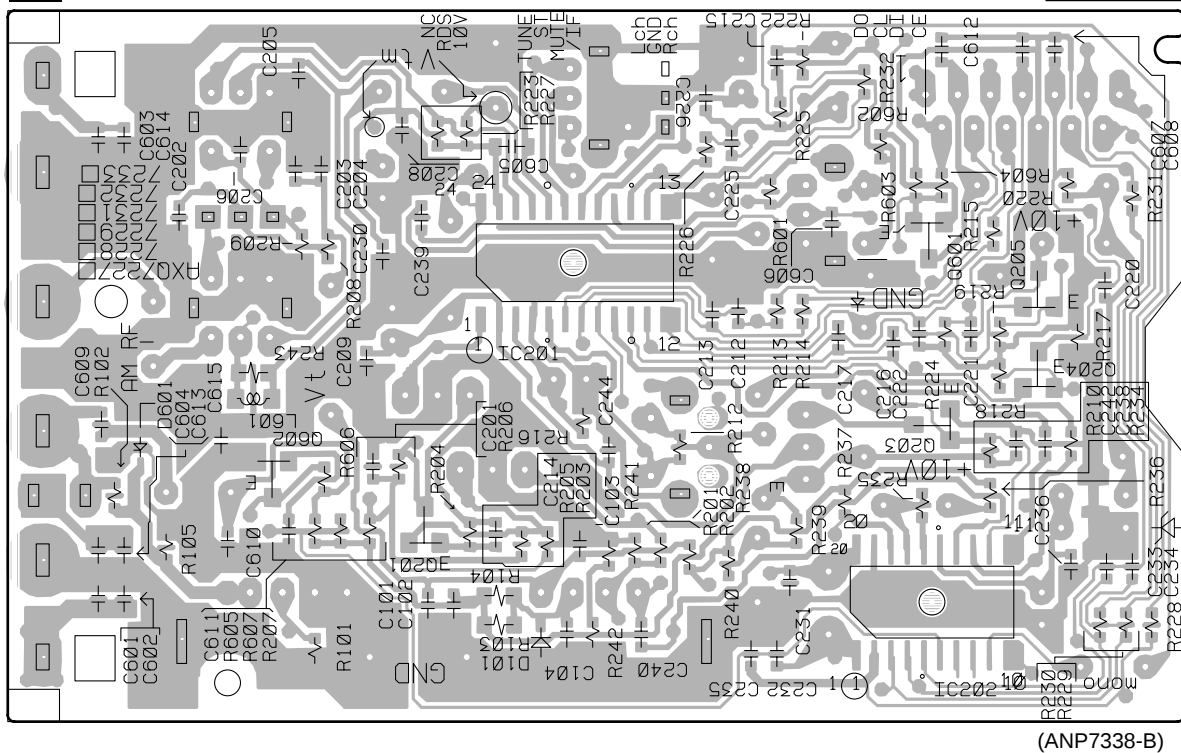


## 4.2 FM/AM TUNER MODULE

**A** FM/AM TUNER MODULE**SIDE A****B** CN803

(ANP7338-B)

Q202

**A** FM/AM TUNER MODULE**SIDE B**

(ANP7338-B)

Q201

IC201

Q203  
IC202Q205  
Q204

### 4.3 DSP and 2P-JACK ASSYS

A

**B** DSP ASSY

**D** CN901

B

**E** CN3201

**C** 2PA-JACK ASSY

**A** CN201

C

(ANP7395-C)

**SIDE A**

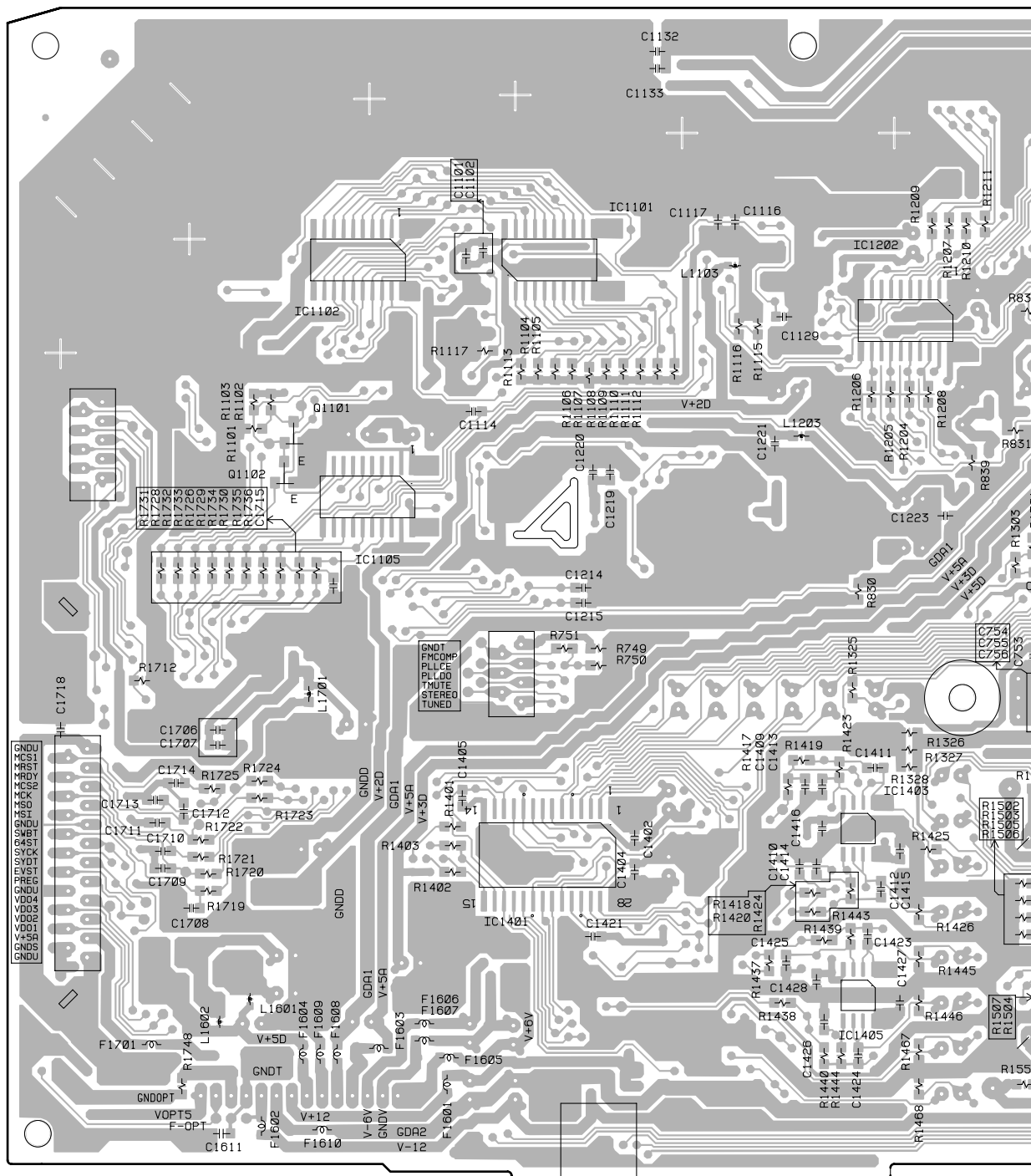
**J** CN301

D

|       |       |      |        |       |        |        |        |
|-------|-------|------|--------|-------|--------|--------|--------|
| IC704 | Q702  | Q701 | IC703  | Q703  | IC801  | IC802  | IC1107 |
|       | IC702 |      | IC1502 | Q704  | IC1303 |        |        |
|       |       |      | IC1504 | Q705  |        | Q1507  | IC1301 |
|       |       |      |        | Q1501 |        | IC1501 | Q1411  |
|       |       |      |        | Q1502 | Q1506  | Q1508  | Q1401  |
|       |       |      |        |       |        |        | Q1412  |
|       |       |      |        |       |        |        | Q      |



**B** DSP ASSY



Q1101 IC1102 IC1101 IC1202  
Q1102 IC1105 IC1401 IC1403  
IC1405

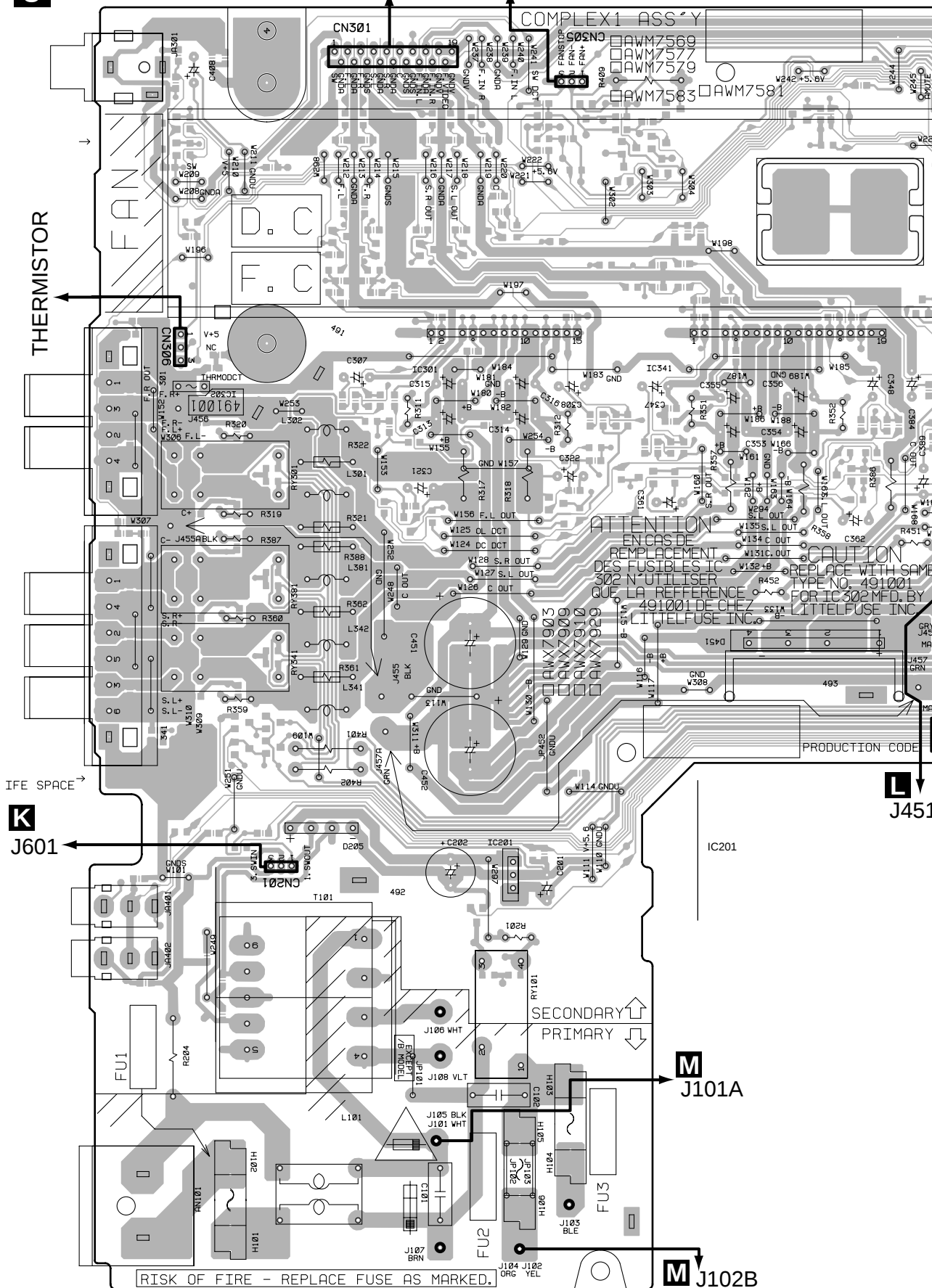


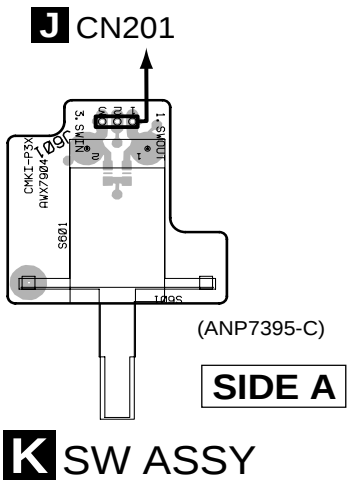
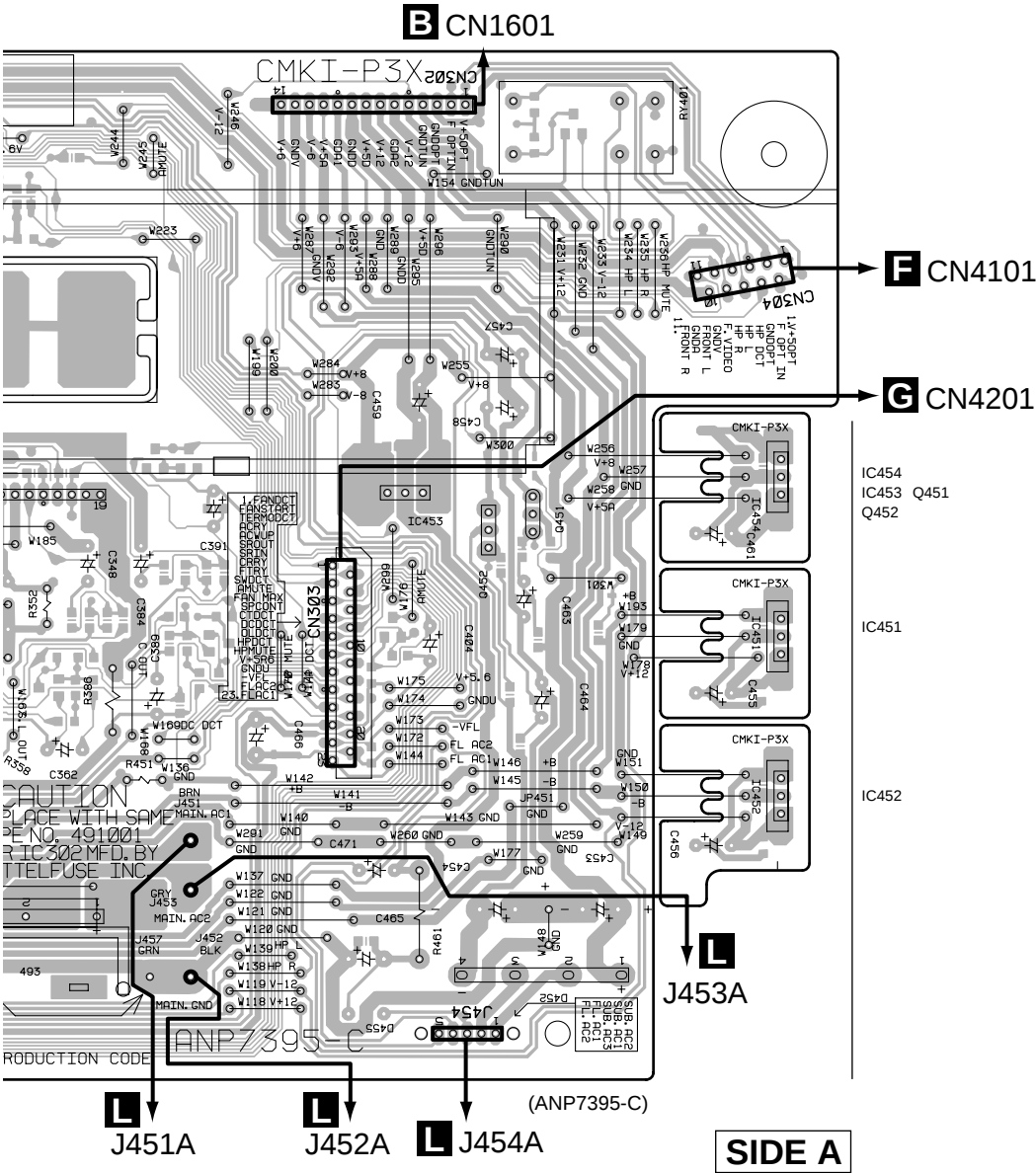
# 4.4 POWER and SW ASSYS

**J** POWER ASSY

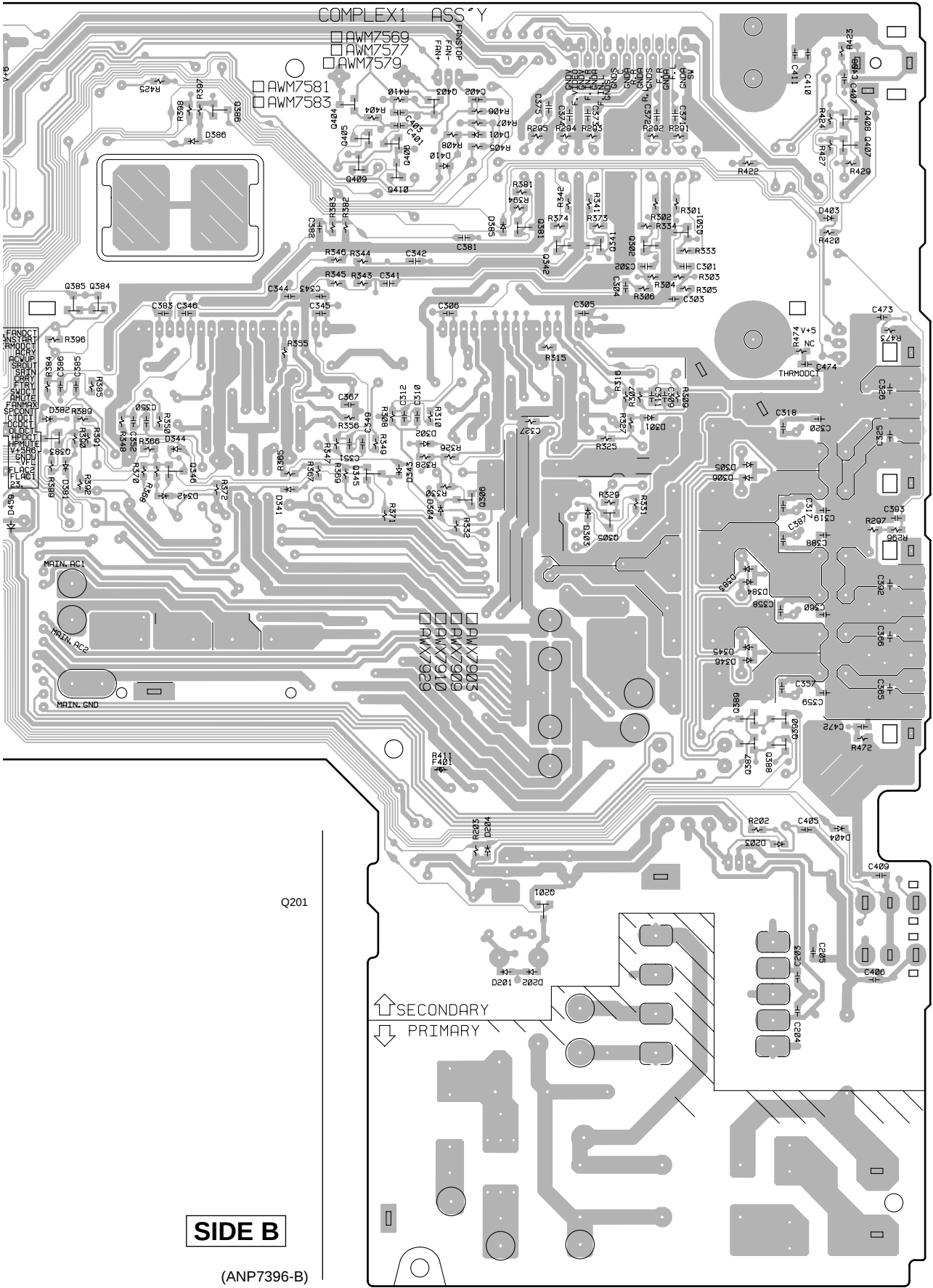
**B** CN1501

FANMOTOR









SIDE B

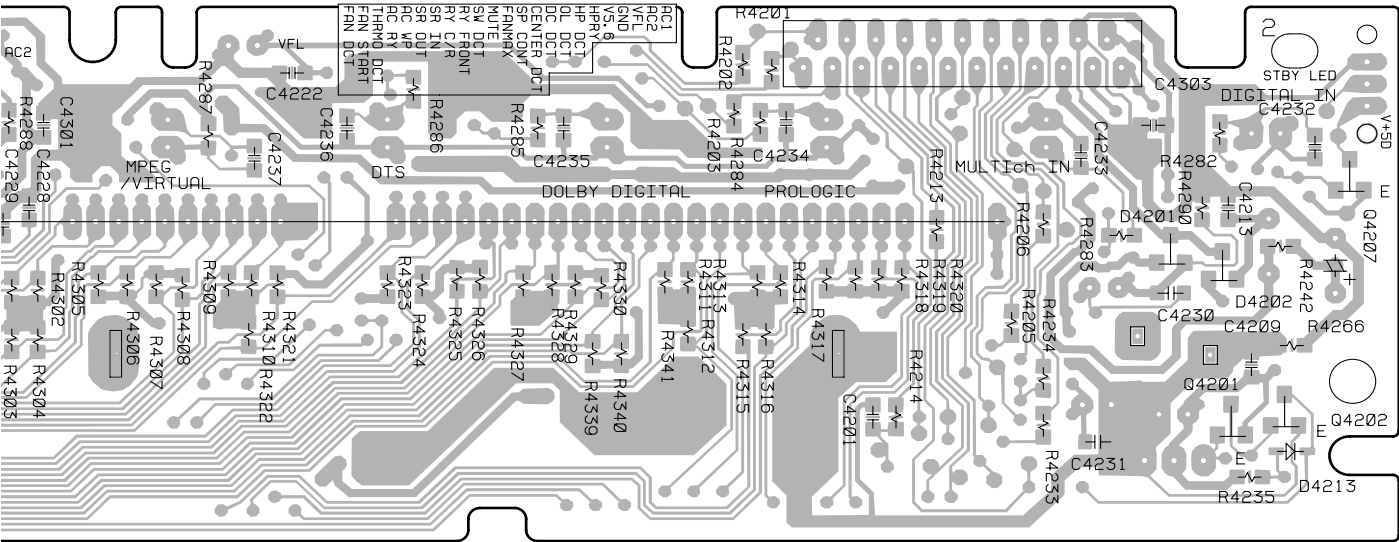
(ANP7396-B)







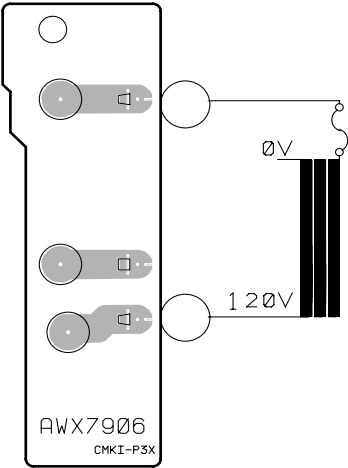
SIDE B



(ANP7396-B)

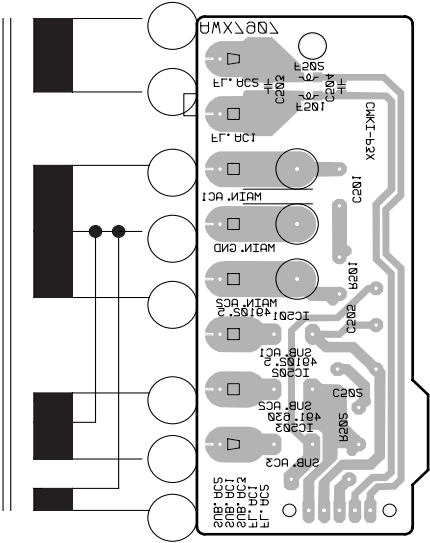
Q4201 Q4202 Q4207

M TRANS 1 ASSY



(ANP7395-C)

L TRANS 2 ASSY



(ANP7395-C)

Transformer

SIDE B

5. PCB PARTS LIST

NOTES : ● Parts marked by “ NSP ” are generally unavailable because they are not in our Master Spare Parts List.  
● The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part.  
Therefore, when replacing, be sure to use parts of identical designation.  
● When ordering resistors, first convert resistance values into code form as shown in the following examples.  
Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).  
560  $\Omega \rightarrow 56 \times 10^1 \rightarrow 561$  ..... RD1/4PU  $\begin{bmatrix} 5 & 6 & 1 \end{bmatrix}$  J  
47k  $\Omega \rightarrow 47 \times 10^3 \rightarrow 473$  ..... RD1/4PU  $\begin{bmatrix} 4 & 7 & 3 \end{bmatrix}$  J  
0.5  $\Omega \rightarrow R50$  ..... RN2H  $\begin{bmatrix} R & 5 & 0 \end{bmatrix}$  K  
1  $\Omega \rightarrow 1R0$  ..... RS1P  $\begin{bmatrix} 1 & R & 0 \end{bmatrix}$  K  
Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).  
5.62k  $\Omega \rightarrow 562 \times 10^1 \rightarrow 5621$  ..... RN1/4PC  $\begin{bmatrix} 5 & 6 & 2 & 1 \end{bmatrix}$  F

| Mark                   | No.                | Description        | Part No. | Mark | No.                          | Description | Part No.     |
|------------------------|--------------------|--------------------|----------|------|------------------------------|-------------|--------------|
| LIST OF PCB ASSEMBLIES |                    |                    |          |      |                              |             |              |
|                        |                    | FM/AM TUNER MODULE | AXQ7231  |      |                              |             |              |
| NSP                    | COMPLEX 1 ASSY     | AWM7579            |          |      | C228                         |             | CEAT3R3M50   |
|                        | └ SW ASSY          | AWX7904            |          |      | C237                         |             | CEAT470M10   |
|                        | └ TRANS 2 ASSY     | AWX7907            |          |      | C211                         |             | CEJA1R0M50   |
|                        | └ OPT-IN ASSY      | AWX7908            |          |      | C210                         |             | CEJA470M16   |
|                        | └ POWER ASSY       | AWX7910            |          |      | C204, C238, C602             |             | CKSRYB102K50 |
|                        | └ 2P JACK ASSY     | AWX7926            |          |      | C101, C102, C208, C220       |             | CKSRYB103K50 |
|                        | └ VIDEO ASSY       | AWX7928            |          |      | C239, C242, C601             |             | CKSRYB103K50 |
| NSP                    | COMPLEX 2 ASSY     | AWM7580            |          |      | C225, C216, C217             |             | CKSRYB153K50 |
| NSP                    | └ LED ASSY         | AWX7913            |          |      | C201, C205, C214, C230, C236 |             | CKSRYB223K50 |
|                        | └ ENCODER ASSY     | AWX7914            |          |      | C209                         |             | CKSRYB223K50 |
|                        | └ FRONT INPUT ASSY | AWX7916            |          |      | C221                         |             | CKSRYB224K10 |
|                        | └ DSP ASSY         | AWX7937            |          |      | C603                         |             | CKSRYB223K50 |
|                        | └ FRONT ASSY       | AWX7933            |          |      | C215                         |             | CKSRYB681K50 |
|                        |                    |                    |          |      | C202, C222                   |             | CKSRYB473K16 |

**A** FM/AM TUNER MODULE  
SEMICONDUCTORS

|                  |           |
|------------------|-----------|
| IC201            | BA1451F   |
| IC202            | LC72131MD |
| Q201, Q204, Q205 | 2SC2412K  |
| Q202             | DTA124ES  |
| Q203             | DTC124EK  |
| D201             | 1SS133    |
| D202             | MTZJ5.1C  |

COILS AND FILTERS

|      |                   |         |
|------|-------------------|---------|
| L201 | FM DETECTOR COIL  | ATE7003 |
| F202 | CERAMIC FILTER    | ATF-107 |
| F201 | CERAMIC FILTER    | ATF-119 |
| F203 | AM CERAMIC FILTER | ATF7026 |

CAPACITORS

|                             |              |
|-----------------------------|--------------|
| C212, C213, C226, C233-C235 | CCSRCH101J50 |
| C240                        | CCSRCH101J50 |
| C206                        | CCSRCH100D50 |
| C231, C232                  | CCSRCH150J50 |
| C223                        | CEAT100M50   |
| C229                        | CEAT101M10   |
| C224                        | CEAT1R0M50   |
| C227                        | CEAT220M25   |
| C241                        | CEAT2R2M50   |
| C243                        | CEAT330M16   |

RESISTORS

|                |             |
|----------------|-------------|
| R211           | RD1/4PU221J |
| R221           | RD1/4PU222J |
| R233           | RD1/4PU391J |
| R243           | RD1/10S0R0J |
| R103           | RS1/10S331J |
| R104           | RS1/10S391J |
| OtherResistors | RS1/16S□□□J |

OTHERS

|       |                      |            |
|-------|----------------------|------------|
| CN201 | 13P SOCKET           | 52044-1345 |
| BN201 | 4P ANTENNA TERM.     | AKA7003    |
|       | SHIELD CASE T        | ANK7072    |
|       | SHIELD CASE B        | ANK7073    |
| X201  | CRYSTAR RES.(7.2MHz) | ASS1093    |
|       | FM FRONT END         | AXF7003    |
|       | AM RF TUNING BLOCK   | AXX7071    |

| Mark              | No.                               | Description | Part No.        |
|-------------------|-----------------------------------|-------------|-----------------|
| B                 | DSP ASSY                          |             |                 |
|                   | SEMICONDUCTORS                    |             |                 |
|                   | IC801                             |             | AK4112AVF       |
|                   | IC802                             |             | AK4527BVQ       |
|                   | IC1201                            |             | AK7706VT        |
|                   | IC1203                            |             | BS62LV1024TC-70 |
|                   | IC1106                            |             | CS493292        |
|                   | IC1501                            |             | M62446FP        |
|                   | IC703, IC704                      |             | NJM2100M        |
|                   | IC1301-IC1303, IC1402-IC1406      |             | NJM4558MD       |
|                   | IC1701                            |             | PD5681A         |
|                   | IC1104                            |             | PDN031D         |
| ⚠                 | IC1601                            |             | PQ20WZ51        |
|                   | IC1602                            |             | PQ7VZ5          |
|                   | IC1105                            |             | TC74LVX244F     |
|                   | IC1101, IC1102                    |             | TC74VHC574F     |
|                   | IC1202                            |             | TC74VHCT244AF   |
|                   | IC1107                            |             | TC7WU04FU       |
|                   | IC1401, IC701                     |             | TC9164AF        |
| ⚠                 | IC1502-IC1504, IC702              |             | UPC4570G2       |
|                   | Q1507                             |             | 2SA1515         |
|                   | Q705                              |             | 2SC1740S        |
| ⚠                 | Q1401-Q1404, Q1409, Q1410         |             | 2SC3326         |
|                   | Q1501, Q1502, Q1506, Q701, Q702   |             | 2SC3326         |
|                   | Q1508                             |             | 2SC3377         |
|                   | Q1405, Q1406, Q1408, Q703, Q801   |             | DTA124EK        |
|                   | Q803                              |             | DTA124EK        |
|                   | Q1407, Q704, Q802, Q804           |             | DTC124EK        |
|                   | D1504, D701                       |             | 1SS355          |
|                   | D1401, D1402                      |             | DAP202K         |
|                   | D1503                             |             | UDZS5.1B        |
|                   | D1501, D1502                      |             | UDZS7.5B        |
| COILS AND FILTERS |                                   |             |                 |
|                   | L1103, L1201, L1601, L1602, L1701 |             | ATL7002         |
|                   | F1601-F1610, F1701                |             | DTF1070         |
|                   | L1101, L1102, L1104, L1202, L1203 |             | QTL1013         |
|                   | L701, L801-L808                   |             | QTL1013         |
| CAPACITORS        |                                   |             |                 |
|                   | C1127, C1128                      |             | CCSRCH100D50    |
|                   | C1319, C1320, C1331, C1413, C1414 |             | CCSRCH101J50    |
|                   | C1518-C1520, C703, C706-C710      |             | CCSRCH101J50    |
|                   | C717-C719, C721, C722, C816       |             | CCSRCH101J50    |
|                   | C815                              |             | CCSRCH150J50    |
|                   | C814                              |             | CCSRCH180J50    |
|                   | C1425, C1426, C1527, C1528        |             | CCSRCH221J50    |
|                   | C1533, C1534, C1541, C840         |             | CCSRCH221J50    |
|                   | C1130, C1436, C1706, C1716        |             | CCSRCH271J50    |
|                   | C1102, C1104, C1108, C1111, C1113 |             | CCSRCH471J50    |
|                   | C1119, C1120, C1122, C1125, C1133 |             | CCSRCH471J50    |
|                   | C1202, C1204, C1207, C1208, C1210 |             | CCSRCH471J50    |
|                   | C1212, C1218, C1220, C1405        |             | CCSRCH471J50    |
|                   | C1423, C1424, C1704, C755, C757   |             | CCSRCH471J50    |
|                   | C810, C819, C828, C834, C848      |             | CCSRCH471J50    |
|                   | C854, C856                        |             | CCSRCH471J50    |
|                   | C737, C738                        |             | CCSRCH560J50    |
|                   | C1307, C1308                      |             | CCSRCH820J50    |
|                   | C1317, C1318, C1329, C1332        |             | CCSRCH821J50    |
|                   | C1409, C1410                      |             | CCSRCH821J50    |
|                   | C1326                             |             | CEANP100M16     |

| Mark             | No.                               | Description  | Part No. |
|------------------|-----------------------------------|--------------|----------|
|                  | C1109, C1216, C1401, C1403        | CEAT100M50   |          |
|                  | C1512-C1517, C1551, C1552         | CEAT100M50   |          |
|                  | C713, C714                        | CEAT100M50   |          |
|                  | C1106, C1115, C1203, C1222, C1336 | CEAT101M16   |          |
|                  | C1501, C1521, C1601-C1604         | CEAT101M16   |          |
|                  | C1607-C1610, C1705, C758, C811    | CEAT101M16   |          |
|                  | C832                              | CEAT101M16   |          |
|                  | C808                              | CEAT221M6R3  |          |
|                  | C1502, C1522                      | CEAT331M10   |          |
|                  | C729, C730, C804                  | CEAT470M25   |          |
|                  | C826                              | CEAT471M16   |          |
|                  | C1124, C829                       | CEJQ2R2M50   |          |
|                  | C1301, C1302, C1311-C1314         | CEJQ330M10   |          |
|                  | C1323-C1325, C1335                | CEJQ330M10   |          |
|                  | C1510, C1511                      | CEJQ3R3M50   |          |
|                  | C1417, C1418, C1429, C1430        | CEJQ4R7M50   |          |
|                  | C1439, C1440, C1539, C1546        | CEJQ4R7M50   |          |
|                  | C1605, C1606, C723, C724          | CEJQ4R7M50   |          |
|                  | C731, C732, C735, C736            | CEJQ4R7M50   |          |
|                  | C824                              | CEJQR47M50   |          |
|                  | C753                              | CKSQYF105Z16 |          |
|                  | C1343-C1348, C1443-C1446          | CKSQYF225Z16 |          |
|                  | C1451-C1456, C1557-C1562, C756    | CKSQYF225Z16 |          |
|                  | C1542, C1714, C841                | CKSRYB102K50 |          |
|                  | C1101, C1103, C1107, C1110, C1112 | CKSRYB103K50 |          |
|                  | C1118, C1121, C1123, C1126, C1129 | CKSRYB103K50 |          |
|                  | C1131, C1132, C1201, C1205, C1206 | CKSRYB103K50 |          |
|                  | C1209, C1211, C1213, C1215, C1219 | CKSRYB103K50 |          |
|                  | C1349, C1402, C1404, C1525        | CKSRYB103K50 |          |
|                  | C743-C746, C805-C807, C809        | CKSRYB103K50 |          |
|                  | C820, C833, C836, C842, C845      | CKSRYB103K50 |          |
|                  | C847                              | CKSRYB103K50 |          |
|                  | C1223, C1328, C1442, C1447-C1450  | CKSRYB104K25 |          |
|                  | C1505, C1508, C1524, C1540, C1707 | CKSRYB104K25 |          |
|                  | C1717, C1718, C733, C734          | CKSRYB104K25 |          |
|                  | C739, C740, C754, C803            | CKSRYB104K25 |          |
|                  | C817, C818, C827, C830, C835      | CKSRYB104K25 |          |
|                  | C839, C844, C855                  | CKSRYB104K25 |          |
|                  | C1411, C1412, C1435               | CKSRYB122K50 |          |
|                  | C741, C742                        | CKSRYB152K50 |          |
|                  | C1549, C1550                      | CKSRYB153K50 |          |
|                  | C1305, C1306, C1315, C1316, C1327 | CKSRYB182K50 |          |
|                  | C1419, C1420, C1431, C1432, C1441 | CKSRYB222K50 |          |
|                  | C1217, C1504, C1507               | CKSRYB224K16 |          |
|                  | C1303, C1304                      | CKSRYB272K50 |          |
|                  | C1330                             | CKSRYB333K16 |          |
|                  | C1433                             | CKSRYB472K50 |          |
|                  | C1503, C1523                      | CKSRYB473K50 |          |
|                  | C825                              | CKSRYB682K50 |          |
|                  | C1506, C1509                      | CKSRYB822K50 |          |
| <b>RESISTORS</b> |                                   |              |          |
|                  | R1604, R1606                      | RS1/16S1201F |          |
|                  | R1514, R1554                      | RS1LMF101J   |          |
|                  | Other Resistors                   | RS1/16S□□□J  |          |
| <b>OTHERS</b>    |                                   |              |          |
|                  | CN1601 FJ CONNECTOR 14P           | 14R-FJ       |          |
|                  | CN1501 1.25 FJ CONNECTOR 19P      | 19R-1.25FJ   |          |
|                  | CN804 7P FFC CONNECTOR            | 52045-0745   |          |
|                  | CN1701 10P FFC CONNECTOR          | 52045-1045   |          |
|                  | CN803 13P FFC CONNECTOR           | 52045-1345   |          |

VSX-C300

| Mark | No.    | Description          | Part No.   |
|------|--------|----------------------|------------|
|      | CN1702 | 23P FFC CONNECTOR    | 52045-2345 |
|      | JA702  | 3P PIN JACK          | AKB7137    |
|      | JA701  | 3P PIN JACK          | AKB7138    |
|      | CN701  | 7P PLUG              | AKP7056    |
|      | X801   | CRYSTAL RESO.(24MHz) | ASS7025    |
|      | X1701  | CERAMIC RESO.(17MHz) | ASS7032    |
|      | CN801  | 5P PLUG              | KM200TA5   |
|      | CN802  | 8P PLUG              | KM200TA8   |
|      | 0      | PCB BINDER           | VEF1040    |
|      | KN801  | EARTH METAL FITTING  | VNF1084    |
|      | X1101  | CRYSTAL RESO.(27MHz) | VSS1086    |
|      | J801   | JUMPER WIRE          | DB010NB0   |

C 2P JACK ASSY

CAPACITORS

|              |              |
|--------------|--------------|
| C2201, C2202 | CCSRCH101J50 |
| C2203, C2204 | CCSRCH220J50 |

RESISTORS

|                |             |
|----------------|-------------|
| OtherResistors | RS1/16S□□□J |
|----------------|-------------|

OTHERS

|        |             |         |
|--------|-------------|---------|
| 2201   | 2P PIN JACK | AKB7143 |
| CN2201 | 7P SOCKET   | AKP7067 |

D OPT-IN ASSY

CAPACITORS

|            |              |
|------------|--------------|
| C901, C902 | CKSRYB104K25 |
|------------|--------------|

RESISTORS

|                |             |
|----------------|-------------|
| OtherResistors | RS1/16S□□□J |
|----------------|-------------|

OTHERS

|              |                      |            |
|--------------|----------------------|------------|
| JA901, JA902 | OPTICAL RECEIVE MOD. | GP1FA502RZ |
| CN901        | 5P SOCKET            | KP200TA5L  |

E VIDEO ASSY

SEMICONDUCTORS

|             |          |
|-------------|----------|
| IC3201      | NJM2296M |
| D3201-D3204 | 1SS355   |

CAPACITORS

|                                   |              |
|-----------------------------------|--------------|
| C3203, C3206, C3215               | CCSRCH221J50 |
| C3217                             | CCSRCH470J50 |
| C3202, C3204, C3205, C3209, C3211 | CEAT470M25   |

RESISTORS

|                |             |
|----------------|-------------|
| OtherResistors | RS1/16S□□□J |
|----------------|-------------|

OTHERS

|        |             |           |
|--------|-------------|-----------|
| JA3201 | 6P PIN JACK | AKB7140   |
| CN3201 | 8P SOCKET   | KP200TA8L |

J POWER ASSY

SEMICONDUCTORS

|   |              |           |
|---|--------------|-----------|
| △ | IC302        | AEK7009   |
| △ | IC453, IC454 | NJM7805FA |

| Mark | No.                          | Description | Part No.     |
|------|------------------------------|-------------|--------------|
| △    | IC451                        |             | NJM7812FA    |
| △    | IC201                        |             | NJM78M56FA   |
| △    | IC452                        |             | NJM7912FA    |
| △    | IC301                        |             | STK402-040   |
| △    | IC341                        |             | STK402-240   |
|      | Q386                         |             | 2SA1037K     |
| △    | Q452                         |             | 2SB1375      |
|      | Q384, Q385                   |             | 2SC2412K     |
|      | Q305, Q306, Q345, Q346, Q383 |             | 2SC2712      |
|      | Q403, Q404                   |             | 2SC2712      |
|      | Q301, Q302, Q341, Q342, Q381 |             | 2SC3326      |
|      | Q407, Q408                   |             | 2SC3326      |
| △    | Q451                         |             | 2SD2012      |
|      | Q390, Q402, Q405, Q406       |             | DTA124EK     |
|      | Q409, Q410                   |             | DTC124EK     |
|      | Q201, Q387, Q389, Q401       |             | DTC143EK     |
|      | D201-D203, D301-D306         |             | 1SS355       |
|      | D341-D346, D381-D386, D401   |             | 1SS355       |
|      | D403-D408                    |             | 1SS355       |
| △    | D452                         |             | D3SBA20(B)   |
| △    | D451                         |             | D5SBA20(B)   |
|      | D457, D458                   |             | RB501V-40    |
| △    | D205                         |             | S1VB20/F03   |
| △    | D455                         |             | S5566G(TPB2) |
|      | D459                         |             | UDZ20B       |
|      | D204, D410                   |             | UDZS5.1B     |
|      | D409                         |             | UDZS5.6B     |
|      | D453, D454, D456             |             | UDZS6.8B     |

COILS AND FILTERS

|   |                              |         |
|---|------------------------------|---------|
| △ | L101                         | ATF7018 |
|   | L301, L302, L341, L342, L381 | ATH-133 |
|   | F401                         | DTF1070 |

SWITCHESANDRELAYS

|   |                            |         |
|---|----------------------------|---------|
|   | RY301, RY341, RY381, RY401 | ASR7001 |
| △ | RY101                      | ASR7013 |

CAPACITORS

|   |                              |              |
|---|------------------------------|--------------|
| △ | C101, C102                   | ACG7033      |
|   | C451, C452 (4700μF/35v)      | ACH7161      |
|   | C401, C403                   | CCSRCH101J50 |
|   | C305, C306, C345, C346, C383 | CCSRCH221J50 |
|   | C410                         | CCSRCH221J50 |
|   | C407                         | CCSRCH331J50 |
|   | C303, C304, C343, C344, C382 | CCSRCH471J50 |
|   | C309-C312, C349-C352         | CCSRCH6R0D50 |
|   | C385, C386                   | CCSRCH6R0D50 |
|   | C313, C314, C353, C354       | CEAT100M50   |
|   | C202, C459                   | CEAT102M16   |
|   | C408                         | CEAT1R0M50   |
|   | C463, C464, C471             | CEAT221M25   |
|   | C454                         | CEAT222M25   |
|   | C321, C322, C361, C362, C389 | CEAT2R2M50   |
|   | C465                         | CEAT331M50   |
|   | C453                         | CEAT332M16   |
|   | C201                         | CEAT470M25   |
|   | C404, C461                   | CEAT471M16   |
|   | C466                         | CEAT471M35   |
|   | C315, C316, C355, C356       | CEHAT101M35  |
|   | C391                         | CEHAT221M10  |
|   | C455, C456                   | CEAT101M50   |

| Mark | No.                                                                                                                    | Description | Part No.                                                                     |
|------|------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------|
|      | C307, C308, C347, C348, C384<br>C301, C302, C341, C342<br>C371-C375, C381, C481, C482<br>C393<br>C203-C205, C402       |             | CEHAT330M25<br>CKSQYF225Z16<br>CKSQYF225Z16<br>CKSRYB102K50<br>CKSRYB103K50  |
|      | C317-C320, C357-C360<br>C387, C388, C405, C406, C411<br>C460, C462, C472<br>C325, C326, C365, C366, C392<br>C467, C468 |             | CKSRYB104K25<br>CKSRYB104K25<br>CKSRYB104K25<br>CKSRYB472K50<br>CKSRYB473K50 |

**RESISTORS**

|   |                                      |                             |
|---|--------------------------------------|-----------------------------|
| △ | R321, R322, R361, R362, R388         | RD1/2LMF100J                |
| △ | R319, R320, R359, R360, R387<br>R201 | RD1/2MMF4R7J<br>RD1/2VM270J |
| △ | R311, R312, R351, R352               | RD1/4MUF101J                |
| △ | R451, R452                           | RD1/4MUF4R7J                |
| △ | R453, R454                           | RS1/16S1R0J                 |
| △ | R461                                 | RS1LMF102J                  |
| △ | R409                                 | RS1LMF121J                  |
| △ | R401, R402                           | RS1LMF221J                  |
| △ | R317, R318, R357, R358, R386         | XCN3001                     |
|   | R204<br>OtherResistors               | RCN1080<br>RS1/16S□□□J      |

**OTHERS**

|   |              |                      |             |
|---|--------------|----------------------|-------------|
|   | CN302        | FJ CONNECTOR 14P     | 14PL-FJ     |
|   | 454          | 5P CABLE HOLDER      | 51048-0500  |
|   | CN304        | 11P FFC CONNECTOR    | 52045-1145  |
|   | CN303        | 23P FFC CONNECTOR    | 52045-2345  |
|   | JA301        | 1P PIN JACK          | AKB7080     |
|   | 341          | 6P SPEAKER TERMINAL  | AKE7077     |
|   | 301          | 4P SPEAKER TERMINAL  | AKE7078     |
|   | H101, H102   | FUSE CLIP            | AKR7001     |
|   | 451          | D. HEAT SINK         | ANH7146     |
| △ | T101         | SUB TRANS FORMER     | ATT7057     |
| △ | CN201, CN305 | 3P CONNECTOR         | B3B-PH-K    |
|   | AN101        | AC INLET             | AKP7032     |
|   | J454         | 5P JUMPER            | D20PYY0515E |
|   | J457         | JUMPER WIR UNIT      | DB015NB0    |
|   | CN306        | 3P PLUG              | KM250MA3    |
|   | JA401, JA402 | REMOTE JACK          | RKN1004     |
|   | 491- 493     | PCB BINDER           | VEF1040     |
|   | CN301        | 19P 1.25FJ CONNECTOR | VKN1775     |
|   | J455         | JUMPER WIR           | DB010NB0    |

**F FRONT INPUT ASSY****CAPACITORS**

|                                                                                     |                                                                            |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| C4103, C4104<br>C4107, C4111<br>C4108<br>C4105, C4109, C4117<br>C4102, C4106, C4110 | CCSRCH101J50<br>CCSRCH471J50<br>CEAT470M25<br>CKSRYB103K50<br>CKSRYB104K25 |
| C4112, C4113                                                                        | CKSRYB223K50                                                               |

**RESISTORS**

|                |             |
|----------------|-------------|
| OtherResistors | RS1/16S□□□J |
|----------------|-------------|

**OTHERS**

|        |                   |            |
|--------|-------------------|------------|
| CN4101 | 11P FFC CONNECTOR | 52045-1145 |
| JA4101 | 3P PIN JACK       | AKB7098    |

| Mark | No.    | Description         | Part No.   |
|------|--------|---------------------|------------|
|      | JA4102 | OPTICAL LINK        | GP1FA502RZ |
|      | JA4103 | HP. JACK            | RKB1014    |
|      | KN4101 | EARTH METAL FITTING | VNF1084    |

**G FRONT ASSY  
SEMICONDUCTORS**

|                                                                                           |                                                               |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| IC4201<br>Q4201, Q4207<br>Q4202, Q4205, Q4206, Q4208-Q4214<br>D4213-D4215<br>D4203, D4204 | PDG264A<br>DTA124EK<br>DTC143EK<br>1SS355<br>DAN217           |
| D4201, D4202<br>D4206, D4208-D4210<br>D4205, D4212<br>D4207, D4211                        | DAP202K<br>SLR-343MC(NPQ)<br>SLR-343VC(NPQ)<br>SLR-343YC(MNP) |

**COILS AND FILTERS**

|       |          |
|-------|----------|
| L4201 | LFEA2R2J |
|-------|----------|

**SWITCHESANDRELAYS**

|             |         |
|-------------|---------|
| S4201-S4205 | VSG1009 |
|-------------|---------|

**CAPACITORS**

|                                                                                                    |                                                                      |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| C4216<br>C4208<br>C4214<br>C4230, C4231<br>C4201, C4210, C4226                                     | ACH7144<br>CEAL470M16<br>CEAT221M6R3<br>CKSQYF225Z16<br>CKSRYB102K50 |
| C4202, C4209, C4213, C4215, C4222<br>C4203-C4207, C4211, C4220, C4224<br>C4217, C4218, C4232-C4239 | CKSRYB103K50<br>CKSRYB104K25<br>CKSRYB473K50                         |

**RESISTORS**

|                |             |
|----------------|-------------|
| OtherResistors | RS1/16S□□□J |
|----------------|-------------|

**OTHERS**

|                |                        |             |
|----------------|------------------------|-------------|
| 4204, 4205     | 3P CABLE HOLDER        | 51048-0300  |
| CN4203         | 7P FFC CONNECTOR       | 52045-0745  |
| CN4201, CN4202 | FFC CONNECTOR          | 52045-2345  |
| V4301          | FL TUBE                | AAV7083     |
| X4201          | CERAMIC RESO. (7.2MHz) | ASS7039     |
| J4205          | 3P JUMPER WIRE         | D20PYY0310E |
| J4204          | 3P JUMPER WIRE         | D20PYY0315E |
| 4201           | REMOTE RECEIVER UNIT   | GP1U27X     |
| 4301           | FL HOLDER              | VNF1122     |

**H LED ASSY  
SEMICONDUCTORS**

|       |                |
|-------|----------------|
| D4501 | SLR-343VC(NPQ) |
|-------|----------------|

**RESISTORS**

|       |             |
|-------|-------------|
| R4501 | RS1/16S471J |
|-------|-------------|

**OTHERS**

|      |                 |            |
|------|-----------------|------------|
| 4501 | 3P CABLE HOLDER | 51048-0300 |
|------|-----------------|------------|

| Mark | No. | Description | Part No. |
|------|-----|-------------|----------|
|------|-----|-------------|----------|

## I ENCODER ASSY

### SEMICONDUCTORS

|       |                |         |
|-------|----------------|---------|
| S4401 | ROTARY ENCODER | ASX7040 |
|-------|----------------|---------|

### CAPACITORS

|              |  |              |
|--------------|--|--------------|
| C4401, C4402 |  | CKSRYB102K50 |
|--------------|--|--------------|

### OTHERS

|      |                 |            |
|------|-----------------|------------|
| 4401 | 3P CABLE HOLDER | 51048-0300 |
|------|-----------------|------------|

## K SW ASSY

### SWITCHES AND RELAYS

|   |      |         |
|---|------|---------|
| △ | S601 | ASG7024 |
|---|------|---------|

### CAPACITORS

|            |  |              |
|------------|--|--------------|
| C601, C602 |  | CKSRYB103K50 |
|------------|--|--------------|

### OTHERS

|      |                   |         |
|------|-------------------|---------|
| J601 | 3P SHIELD HOUSING | ADX7392 |
|------|-------------------|---------|

## L TRANS 2 ASSY

### SEMICONDUCTORS

|   |              |                  |         |
|---|--------------|------------------|---------|
| △ | IC503        | PROTECTOR(0.63A) | AEK7006 |
| △ | IC501, IC502 | PROTECTOR(2.5A)  | AEK7014 |

### COILS AND FILTERS

|            |  |         |
|------------|--|---------|
| F501, F502 |  | DTF1070 |
|------------|--|---------|

### CAPACITORS

|            |  |              |
|------------|--|--------------|
| C501, C502 |  | ACH1237      |
| C503, C504 |  | CKSRYB473K50 |

### RESISTORS

|      |  |              |
|------|--|--------------|
| R501 |  | RD1/4MUF100J |
| R502 |  | RD1/4MUF4R7J |

### OTHERS

|     |                 |            |
|-----|-----------------|------------|
| 504 | 5P CABLE HOLDER | 51048-0500 |
|-----|-----------------|------------|

## M TRANS 1 ASSY

TRANS 1 ASSY has no service part.

## 6. ADJUSTMENT

There is no information to be shown in this chapter.

## 7. GENERAL INFORMATION

### 7.1 DIAGNOSIS

#### 7.1.1 Test Mode

##### • How to Enter the Test Mode

With the attached Remote Control Unit

##### 1. For Preset mode, set the remote control

- (1) Enter [ REMOTE SETUP ] + [ 1 ] keys.  
(Simultaneous aggressiveness)
- (2) Enter [ 1 ], [ 5 ], [ 0 ] keys.  
(Call a PRESET ID code 150 )
- (3) Enter [ Front ] key. (Assign a function key)
- (4) Enter [ REMOTE SETUP ] key. (Confirm PRESET mode)

##### 2. Test mode ON " +10 " key

- "TEST" is displayed for 5 seconds when Test mode is entered.
- Function: TV/SAT
- Speaker setting: All high volume, SW ON  
No automatic speaker detection
- STANDARD mode
- Presetting of the tuner for Test mode will be carried out.  
Other settings will be returned to the factory-preset values.

##### 3. FL & LED light-emission check " 1 " key

Each time the remote-control code is received, the displays of the FL and LED change cyclically as follows:

Normal display → All lights for the FL and LED on → All lights for the FL and LED off → FL: "ABCDEFGH" displayed; and LED: Every other letter of the alphabets is displayed → FL: "IJKLMNOP" displayed; and LED: Every other letter of the alphabets is displayed highlighted → Normal display → ...

##### 4. Rear-and-center-relay switch " 2 " key

Each time the remote-control code is received, the rear-and-center relay is toggled on or off.

##### 5. DOLBY Pro Logic mode " 3 " key

- Distance setting for the front and center speakers: 10 feet
  - Distance setting for the rear speaker: 5 feet
  - STANDARD mode
  - Speaker setting: All high volume, SW ON
- All settings other than the above will be returned to the factory-preset values.

##### 6. FAN ON/OFF switch " 4 " key

The fan is turned on or off and rotates as follows:  
Low speed → High speed → Off ...

##### 7. Master volume switch " 5 " key

The master volume is switched between minus infinity and 0 dB, and each trim is 0 dB.

When the remote-control code is received for the first time, the master volume is set to minus infinity.

##### 8. 9k/10k switch " 6 " key

For the models HL, SB and SP only, when the \$A55F+\$A505 code is received, this switches between 9k and 10k.

##### 9. Thermistor A/D value, time display " 7 " key

When the remote-control code is received, the A/D value (0-255) of the thermistor is displayed on the FL display. Time is displayed until 60:00, and then stops.

While the A/D value and time are displayed, if the remote-control code is received again, the display will return to the normal display. Time counting will not stop.

##### 10. Speaker auto-detection check " 8 " key

When the remote-control code is received, automatic detection of the speaker starts, and the result will be displayed for 5 seconds, as "C:\_SW:\_", where O<sub>1</sub> indicates connected, and × indicates that no speaker is connected.

##### 11. Analog inputs check " 9 " key

When the remote-control code is received, forced analog inputs and 2-channel stereo mode are set for all functions.

- Speaker setting: All high volume, SW ON
- When this mode is entered, "SJG:ANA" will be displayed for 5 seconds.

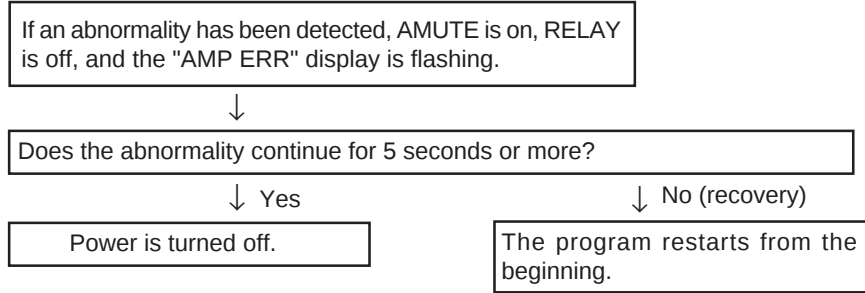
##### 12. STBY mode " 0 " key

STBY mode is entered when the remote-control code is received.

## 7.1.2 Protection of the Amplifier Line

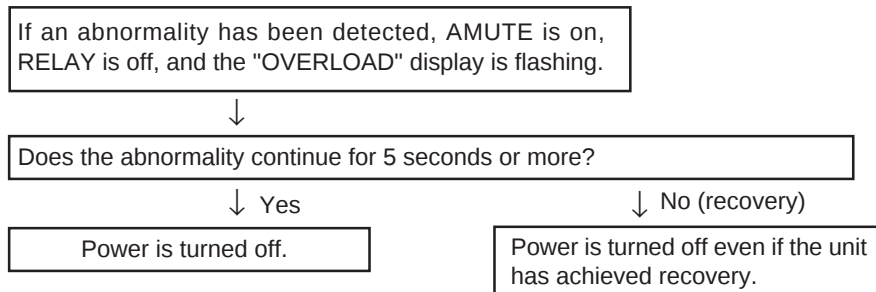
### 1. Detection of abnormalities in DC circuits

This detection has priority over the overload detection and abnormality detection for the fan and thermistor.



### 2. Detection of overload

This detection has priority over the abnormality detection of the fan and thermistor.



While the unit is recovering from the abnormality, the "OVERLOAD" display continues flashing.

### 7.1.3 Operation of the Fan-Control Line

#### 1. Detection of the heat sink

The detection is carried out every other second by taking in the voltage of the thermistor at A/D (PORT 31).

#### 2. According to the temperature detected, the following operation will be executed:

| 31 pin       | 15 pin             | 25 pin    | 64,66,67 pin | 19 pin   |       |                                                      |
|--------------|--------------------|-----------|--------------|----------|-------|------------------------------------------------------|
| THRMO DCT    | Set voltage of A/D | FAN START | FAN MAX      | SP RELAY | AMUTE | Display                                              |
| 0 to 0.1V    | < 5                | L         | L            | L        | L     | "THDCT NG" flashes for 5 seconds.                    |
| 0.1V to 2.4V | 5 to 122(60°C)     | L         | L            | H        | H     |                                                      |
| 2.6V to 2.8V | (70°C)134 –        | H         | L            | H        | H     |                                                      |
| 2.8V to 3.4V | (75°C)145 –        | L         | H            | H        | H     |                                                      |
| 3.4V to 4.1V | (90°C)174 –        | L         | H            | H        | H     | "HEAT UP" flashes for 5 seconds at 20-sec intervals. |
| 4.1V –       | (115°C)210 –       | L         | H            | L        | L     | "OVERHEAT" flashes.                                  |

- If you wish to switch FAN START from "H" to "L" and FAN MAX from "L" to "H," first set FAN START to "L," then after 100  $\mu$ s, set FAN MAX to "H."
- While "OVERHEAT" is flashing, only the POWER key is functional.

#### 3. FAN operation

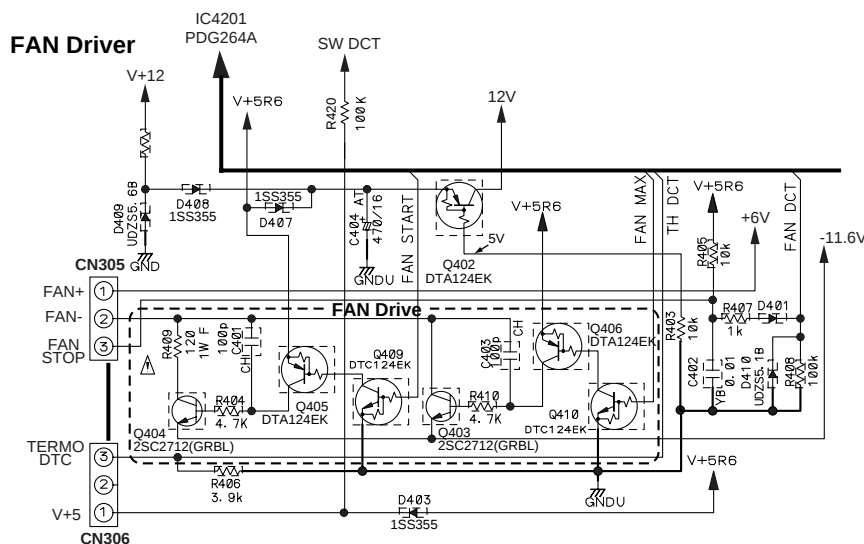
- Once the fan starts rotating, it continues to rotate at the same speed until the temperature falls to 65°C.
- Once the fan starts rotating, it continues to rotate for at least 20 seconds even after the temperature falls to the above-mentioned level.

#### 4. Detection of abnormalities in the fan

- If any abnormality is detected in the fan 5 seconds after it starts rotating at high speed, and if H (abnormal) is indicated for the FANDCT connector, "FAN STOP" is displayed for 5 seconds, then the power is turned off.
- While "FAN STOP" is displayed, AMUTE is on, and RELAY is off.
- While "FAN STOP" is displayed, only the POWER key is functional.
- While the fan is rotating at low speed, abnormality detection is not carried out.

#### 5. Abnormality in the thermistor

If an abnormality (A/D voltage: 0.1 V or less) is detected in the thermistor, "THDCT NG" is displayed for 5 seconds, then the power is turned off.



7.1.4 Specifications of Speaker Detection

1. Purposes

Whether the speakers are connected or not is automatically detected, and settings appropriate for the detected speakers are made to allow you to easily play surround-sound without making cumbersome speaker settings.

2. Method of detecting speakers

Whether a center speaker and/or subwoofer is connected or not is detected 600 ms after the power is turned on.

< Detection of the center speaker >

The microcomputer sends a detection signal and after 10 ms will read the logic of the responding signal to judge whether the speaker is connected or not. The response signal will be read at A/D. A voltage of 3.5 V or more is judged as no speaker connected.

The response signals at A/D are read every 2 ms, and if the same results (less or more than 3.5 V) are obtained, the detection result is considered correct. If a different result is obtained for the second detection, a third detection is carried out, and the two results that agree will outvote the other. If detection fails three times, then it is judged that no center speaker is connected.

< Detection of the subwoofer >

The logic of the signal from the phono jack with a switch is read by the microcomputer to judge whether the speaker is connected or not. The signals are read every 1 ms, and if the same results are obtained, the detection result is considered correct.

If a different result is obtained for the second detection, a third detection is carried out, and the two results that agree will outvote the other. If detection fails three times, then it is judged that no subwoofer is connected.

3. Speaker settings

According to the results of the detection, speaker settings are made as follows:

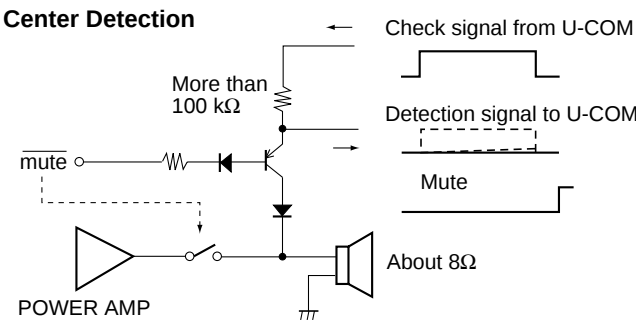
| Results of the Detections |               | Speaker Settings |               |             |           |
|---------------------------|---------------|------------------|---------------|-------------|-----------|
| Center SP                 | Sub-woofer    | Front SP         | Center SP     | Surround SP | Subwoofer |
| Connected                 | Connected     | low              | low           | low         | ON        |
| Connected                 | Not connected | high             | low           | low         | OFF       |
| Not connected             | Connected     | low              | Not connected | low         | ON        |
| Not connected             | Not connected | high             | Not connected | low         | OFF       |

4. User's settings

In Setup mode, more detailed speaker settings are available. Once the user's settings are made, those settings have priority.

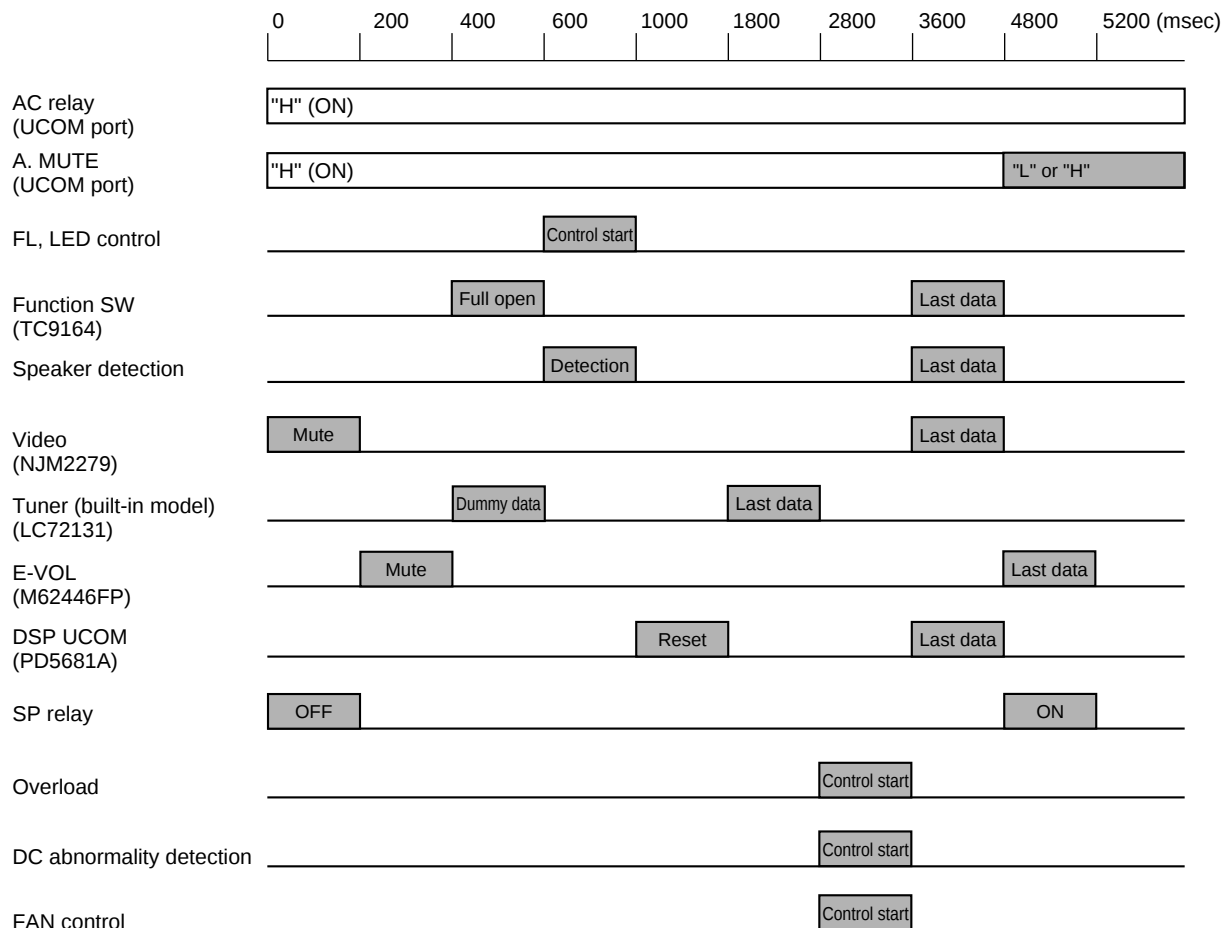
However, if the configuration of connected speakers has changed, then the detection results become valid and have priority over the user's settings until new user's settings are made.

5. Detection circuit for the center speaker

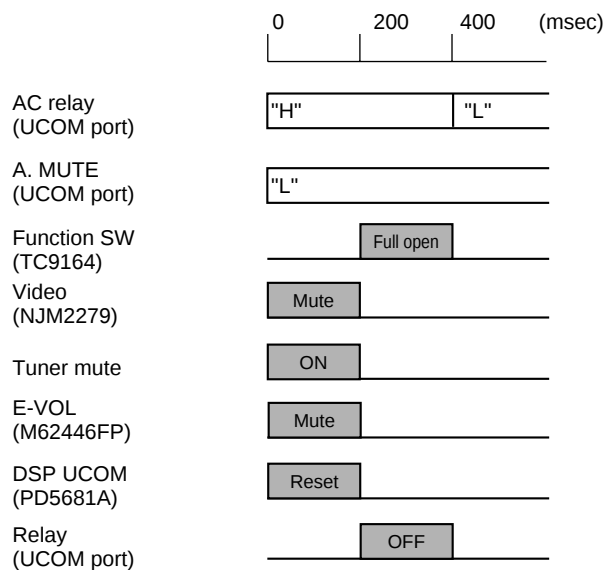


## 7.1.5 Timing Chart

### ● Timing Chart of Power ON Initial



### ● Timing Chart of Power OFF Initial



7.2 PARTS

7.2.1 IC

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

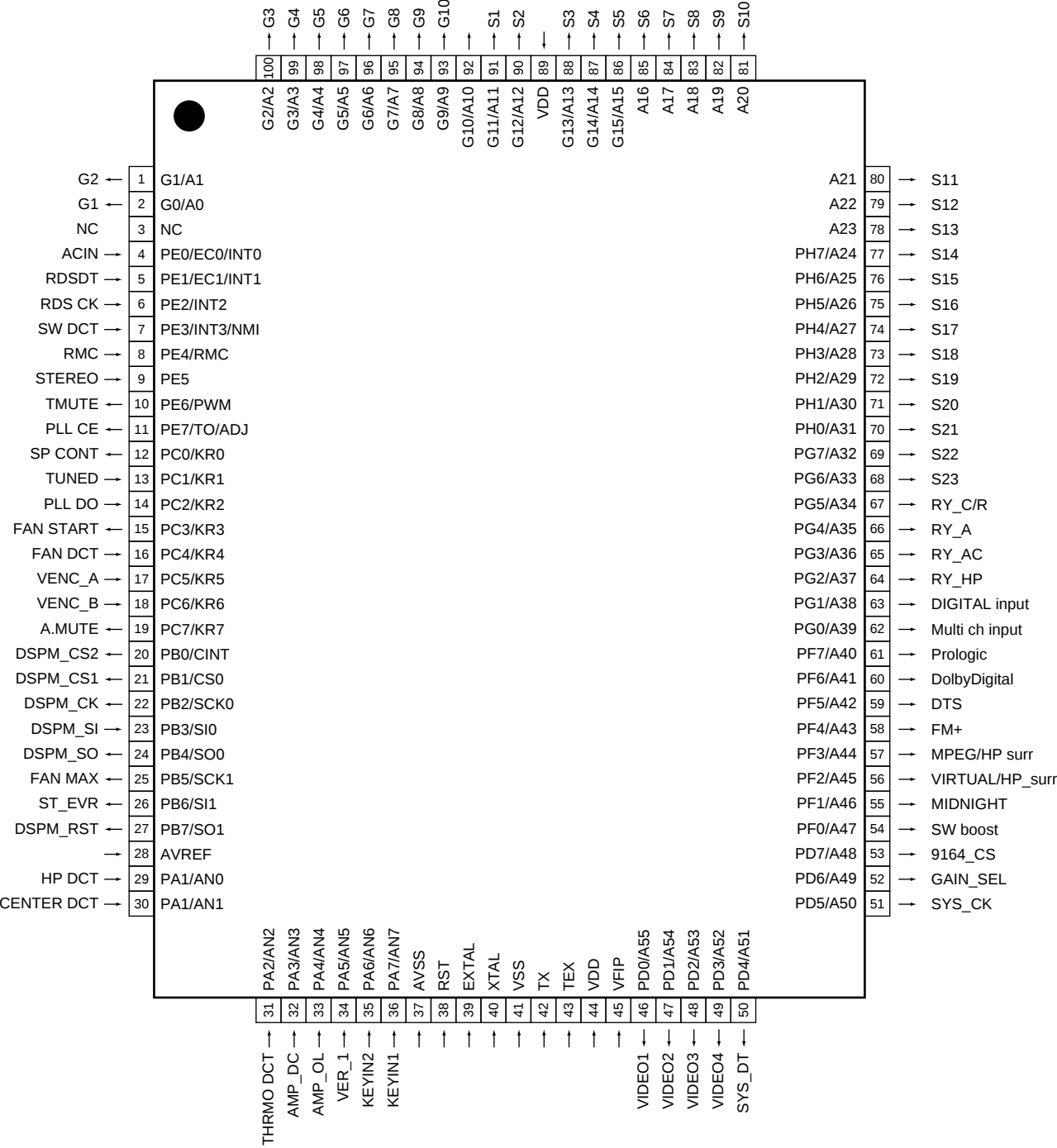
•List of IC

PDG264A, PD5681A

■ PDG264A (FRONT ASSY : IC4201)

• Mode Control IC

• Pin Assignment (Top view)



## ● Pin Function

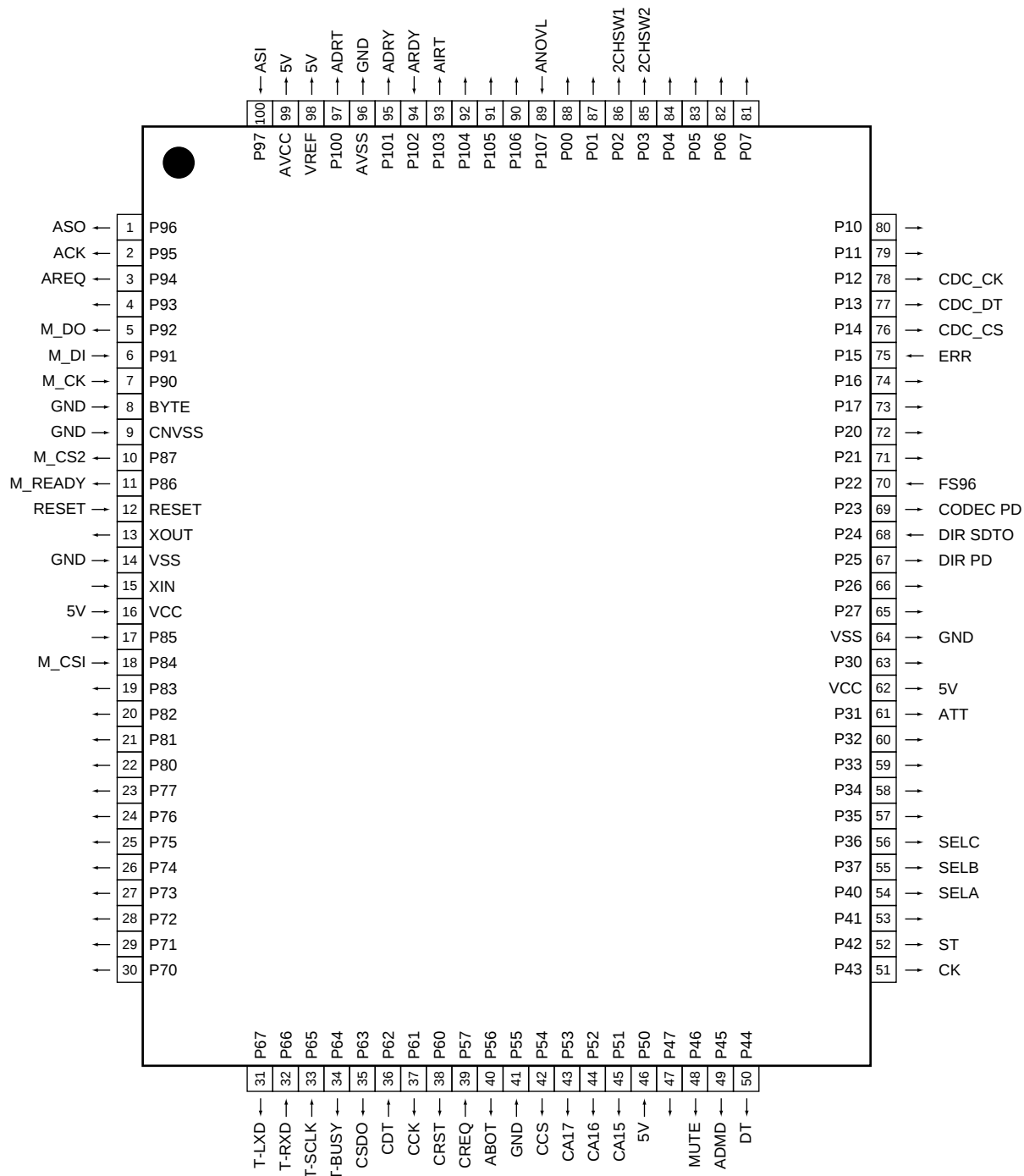
| No. | Pin Name   | I/O | Function                                                                       | Active |
|-----|------------|-----|--------------------------------------------------------------------------------|--------|
| 1   | G2         | O   | Grid output 2                                                                  | H      |
| 2   | G1         |     | Grid output 1                                                                  | H      |
| 3   | NC         | –   | Connect to Vdd                                                                 |        |
| 4   | ACIN       | I   | AC pulse input                                                                 |        |
| 5   | RDS DT     | I   | Serial control data signal for RDS communication                               |        |
| 6   | RDS CK     | I   | Serial control clock signal for RDS communication (Use for external interrupt) |        |
| 7   | SW DCT     | I   | Subwoofer detection signal input                                               |        |
| 8   | RMC        | I   | Remote control signal input (non carrier signal)                               |        |
| 9   | STEREO     | I   | Discrimination signal of Stereo/Mono signal                                    |        |
| 10  | T_MUTE     | O   | Tuner mute                                                                     |        |
| 11  | PLL_CE     | O   | Chip select signal for communicate with LC72131 (tuner)                        |        |
| 12  | SP CONT    | O   | Signal output for center speaker detection                                     | H      |
| 13  | TUNED      | I   | TUNED information                                                              |        |
| 14  | PLL_DO     | I   | Data input signal for communicate with LC72131 (tuner)                         |        |
| 15  | FAN START  | O   | FAN rotation signal output                                                     | H      |
| 16  | FAN DCT    | I   | FAN STOP detection signal                                                      |        |
| 17  | VENC_A     | I   | EVOL rotary encoder signal input A                                             |        |
| 18  | VENC_B     |     | EVOL rotary encoder signal input B                                             |        |
| 19  | AMUTE      | O   | Audio mute                                                                     | L      |
| 20  | DSPM_CS2   | I   | CS input for DSP microcomputer control                                         |        |
| 21  | DSPM_CS1   | O   | CS output for DSP microcomputer control                                        | L      |
| 22  | DSPM_CK    | O   | Clock signal for communicate with the DSP microcomputer                        | H      |
| 23  | DSPM_SI    | I   | Data input signal for communicate with the DSP microcomputer                   |        |
| 24  | DSPM_SO    | O   | Data output signal for communicate with the DSP microcomputer                  | H      |
| 25  | FAN_MAX    | O   | FAN rotation signal output                                                     | H      |
| 26  | ST_EVR     | O   | Strobe signal for communicate with the E-VOL IC                                | H      |
| 27  | DSPM_RST   | O   | DSP microcomputer reset                                                        |        |
| 28  | AVref      | –   | Connect to Vdd                                                                 |        |
| 29  | HP DCT     | I   | Headphone detection signal input                                               |        |
| 30  | CENTER DCT | I   | Center speaker detection signal input                                          |        |
| 31  | THRMO DCT  | I   | Thermal detection signal input                                                 |        |
| 32  | AMP_DC     | I   | DC abnormal detection of the protection circuit (L: Abnormal detection)        |        |
| 33  | AMP_OL     | I   | Overload abnormal detection of the protection circuit (L: Abnormal detection)  |        |
| 34  | VER_1      | I   | Destination switch (A/D take-in)                                               |        |
| 35  | KEYIN2     | I   | A/D conversion port of key input                                               |        |
| 36  | KEYIN1     |     |                                                                                |        |
| 37  | AVSS       | –   | Connect to Vss                                                                 |        |
| 38  | RST        | –   | Reset                                                                          |        |
| 39  | EXTAL      | –   | Connect an oscillator 7.2MHz                                                   |        |
| 40  | XTAL       | –   |                                                                                |        |
| 41  | VSS        | –   | Connect to Vss                                                                 |        |
| 42  | TX         | –   | open                                                                           |        |
| 43  | TEX        | –   | Connect to Vss                                                                 |        |
| 44  | VDD        | –   | +5V                                                                            |        |
| 45  | VFDP       | –   | -30V                                                                           |        |
| 46  | VIDEO1     | O   | NJM2296 control                                                                |        |
| 47  | VIDEO2     |     |                                                                                | H      |
| 48  | VIDEO3     |     |                                                                                | H      |
| 49  | VIDEO4     |     |                                                                                | H      |
| 50  | SYS_DT     | O   | Data signal for communicate with M62446, TC9163 and PLL                        | H      |

| No. | Pin Name        | I/O | Function                                                                          | Active |
|-----|-----------------|-----|-----------------------------------------------------------------------------------|--------|
| 51  | SYS_CK          | O   | Clock signal for communicate with M62446, TC9163 and PLL                          | H      |
| 52  | GAIN_SEL        | O   | Gain switch L at Stereo and Flat of analog input                                  | H      |
| 53  | 9164_CS         | O   | TC9164 chip select                                                                | H      |
| 54  | SW boost        | O   | Subwoofer boost at S. BASS                                                        | H      |
| 55  | STEREO          | O   | LED display, Lights at stereo                                                     | H      |
| 56  | Virtual/HP surr | O   | LED display, K,S: HP sudd , J, H: at HP SURR, virtual                             | H      |
| 57  | MPEG/virtual    | O   | LED display, MPEGAAC, J,H: at BC playback, K: at VIRTUAL                          | H      |
| 58  | FM + (RDS)      | O   | Switching ON/OFF for power supply Tr of RDS decoder (L: AM, power OFF, H: others) | H      |
| 59  | DTS             | O   | LED display, Lights at DTS multi-channel playback                                 | H      |
| 60  | DolbyDigital    | O   | LED display, Lights at dolby digital decode playback                              | H      |
| 61  | Prologic        | O   | LED display, Lights at prologic playback                                          | H      |
| 62  | Multich input   | O   | Lights at digital input signal is excepted for 2ch                                | H      |
| 63  | DIGITAL input   | O   | Lights at digital input signal is locked                                          | H      |
| 64  | RY_HP           | O   | HP relay ON/OFF                                                                   | H      |
| 65  | RY_AC           | O   | AC relay ON/OFF                                                                   | H      |
| 66  | RY_A            | O   | Speaker A relay ON/OFF                                                            | H      |
| 67  | RY_C/R          | O   | Rear/Center relay ON/OFF                                                          | H      |
| 68  | S23             | O   | Segment output 3 to 23                                                            | H      |
| 69  | S22             |     |                                                                                   | H      |
| 70  | S21             |     |                                                                                   | H      |
| 71  | S20             |     |                                                                                   | H      |
| 72  | S19             |     |                                                                                   | H      |
| 73  | S18             |     |                                                                                   | H      |
| 74  | S17             |     |                                                                                   | H      |
| 75  | S16             |     |                                                                                   | H      |
| 76  | S15             |     |                                                                                   | H      |
| 77  | S14             |     |                                                                                   | H      |
| 78  | S13             |     |                                                                                   | H      |
| 79  | S12             |     |                                                                                   | H      |
| 80  | S11             |     |                                                                                   | H      |
| 81  | S10             |     |                                                                                   | H      |
| 82  | S9              |     |                                                                                   | H      |
| 83  | S8              |     |                                                                                   | H      |
| 84  | S7              |     |                                                                                   | H      |
| 85  | S6              |     |                                                                                   | H      |
| 86  | S5              |     |                                                                                   | H      |
| 87  | S4              |     |                                                                                   | H      |
| 88  | S3              |     |                                                                                   | H      |
| 89  | VDD             | –   | 5V                                                                                |        |
| 90  | S2              | O   | Segment output 1 and 2                                                            | H      |
| 91  | S1              | O   |                                                                                   | H      |
| 92  | Not used        | O   | Not used (fixed to VFDP)                                                          |        |
| 93  | G10             | O   | Grid output 3 to 10                                                               | H      |
| 94  | G9              |     |                                                                                   | H      |
| 95  | G8              |     |                                                                                   | H      |
| 96  | G7              |     |                                                                                   | H      |
| 97  | G6              |     |                                                                                   | H      |
| 98  | G5              |     |                                                                                   | H      |
| 99  | G4              |     |                                                                                   | H      |
| 100 | G3              |     |                                                                                   | H      |

# **PD5681A (DSP ASSY : IC1701)**

• DSP Microcomputer

## • Pin Assignment (Top view)



## ● Pin Function

| No. | Pin Name | I/O | Function                                                |
|-----|----------|-----|---------------------------------------------------------|
| 1   | ASO      | O   | DSP                                                     |
| 2   | ACK      |     |                                                         |
| 3   | AREQ     |     |                                                         |
| 4   | Not used | O   | Not used                                                |
| 5   | M_DO     | O   | Data output to the main microcomputer                   |
| 6   | M_DI     | I   | Data input from the main microcomputer                  |
| 7   | M_CK     | I   | Clock input for communicate with the main microcomputer |
| 8   | BYTE     | I   | GND                                                     |
| 9   | T-PGM/OE | I   | Pull-down to CNVss and GND (for FLASH rewrite)          |
| 10  | M_CS2    | O   | CS output for main microcomputer communication          |
| 11  | M_READY  | O   | READY output for main microcomputer communication       |
| 12  | RESET    | –   | Reset from the main microcomputer                       |
| 13  | XOUT     | –   | Oscillator                                              |
| 14  | Vss      | –   | GND                                                     |
| 15  | XIN      | –   | Oscillator                                              |
| 16  | Vcc      | –   | 5V                                                      |
| 17  | NMI      | I   | 5V                                                      |
| 18  | M_CS1    | I   | CS input for main microcomputer communication           |
| 19  | Not used | O   | Not used                                                |
| 20  | Not used |     |                                                         |
| 21  | Not used |     |                                                         |
| 22  | Not used |     |                                                         |
| 23  | Not used |     |                                                         |
| 24  | Not used |     |                                                         |
| 25  | Not used |     |                                                         |
| 26  | Not used |     |                                                         |
| 27  | Not used |     |                                                         |
| 28  | Not used |     |                                                         |
| 29  | Not used |     |                                                         |
| 30  | Not used |     |                                                         |
| 31  | TXD      | O   | For FLASH rewrite                                       |
| 32  | RXD      | I   |                                                         |
| 33  | T-SCLK   | I   |                                                         |
| 34  | T-BUSY   | O   |                                                         |
| 35  | CSDO     | O   | For crystal DSP                                         |
| 36  | CDT      | I   |                                                         |
| 37  | CCK      | O   |                                                         |
| 38  | CRST     | O   |                                                         |
| 39  | CREQ     | I   |                                                         |
| 40  | ABOT     | O   |                                                         |
| 41  | Vss      | -   |                                                         |
| 42  | CCS      | O   | For crystal DSP                                         |
| 43  | CA17     | O   |                                                         |
| 44  | CA16     |     |                                                         |
| 45  | CA15     |     |                                                         |
| 46  | T-Vdd    | I   | 5V                                                      |
| 47  | Not used | O   | Not used                                                |
| 48  | MUTE     | O   | For E-SW (TC9164)                                       |
| 49  | ADMD     |     |                                                         |
| 50  | DT       |     |                                                         |

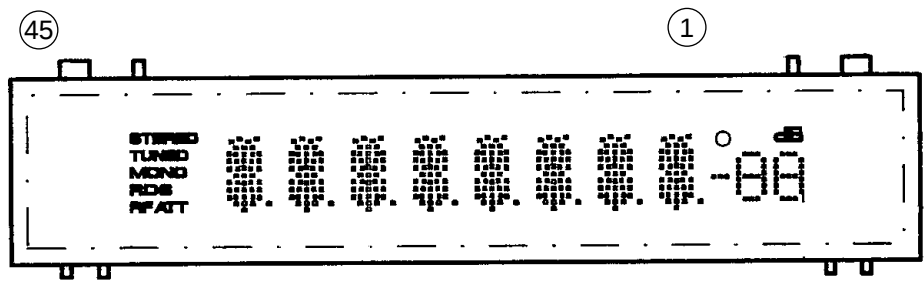
| No. | Pin Name | I/O | Function                                                     |
|-----|----------|-----|--------------------------------------------------------------|
| 51  | CK       | O   | For E-SW (TC9164)                                            |
| 52  | ST       |     |                                                              |
| 53  | Not used | O   | Not used                                                     |
| 54  | SELA     | O   | For Logic IC, TC74ACT151F                                    |
| 55  | SELB     |     |                                                              |
| 56  | SELC     |     |                                                              |
| 57  | Not used | O   | Not used                                                     |
| 58  | Not used |     |                                                              |
| 59  | Not used |     |                                                              |
| 60  | Not used |     |                                                              |
| 61  | ATT      | O   | ATT output                                                   |
| 62  | Vcc      | –   | 5V                                                           |
| 63  | Not used | O   | Not used                                                     |
| 64  | Vss      | –   | GND                                                          |
| 65  | Not used | O   | Not used                                                     |
| 66  | Not used |     |                                                              |
| 67  | DIR_PD   | O   | Power down for DIR                                           |
| 68  | DIR_STDO | I   | DIR data input                                               |
| 69  | CDC_PD   | O   | CODEC power down                                             |
| 70  | FS96     | I   | 96k                                                          |
| 71  | Not used | O   | Not used                                                     |
| 72  | Not used |     |                                                              |
| 73  | Not used |     |                                                              |
| 74  | Not used |     |                                                              |
| 75  | ERR      | I   | DIR                                                          |
| 76  | CDC_CS   | O   | CS for CODEC communication                                   |
| 77  | CDC_DT   | O   | Data output for CODEC communication                          |
| 78  | CDC_CK   | O   | Clock for CODEC communication                                |
| 79  | Not used | O   | Not used                                                     |
| 80  | Not used |     |                                                              |
| 81  | Not used |     |                                                              |
| 82  | Not used |     |                                                              |
| 83  | Not used |     |                                                              |
| 84  | Not used |     |                                                              |
| 85  | 2CHSW2   | O   | For TC9215 control (SW H: PASSIV, L: POWERRED)               |
| 86  | 2CHSW1   |     | For TC9215 control (SB H: DSP, L: 6CH)                       |
| 87  | Not used | O   | Not used                                                     |
| 88  | Not used |     |                                                              |
| 89  | ANOV     | I   | Overload detection of analog input (A/D)                     |
| 90  | Not used | O   | Not used                                                     |
| 91  | Not used |     |                                                              |
| 92  | Not used |     |                                                              |
| 93  | AIRT     | O   | DSP INIT reset (control at rising edge of power supply only) |
| 94  | ARDY     | I   | DSP                                                          |
| 95  | ADRY     | O   |                                                              |
| 96  | AVss     | –   | GND                                                          |
| 97  | ADRT     | O   | DSP reset                                                    |
| 98  | Vref     | –   | 5V                                                           |
| 99  | AVcc     | –   | 5V                                                           |
| 100 | ASI      | I   | DSP                                                          |

7.2.2 DISPLAY

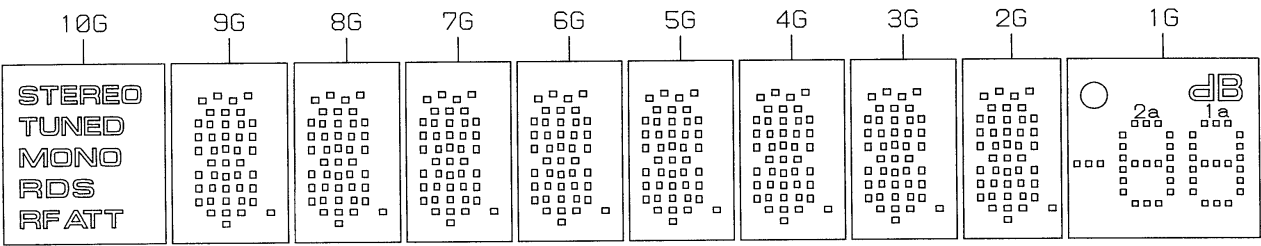
■ AAV7083 (FRONT ASSY : V4301)

• FL DISPLAY

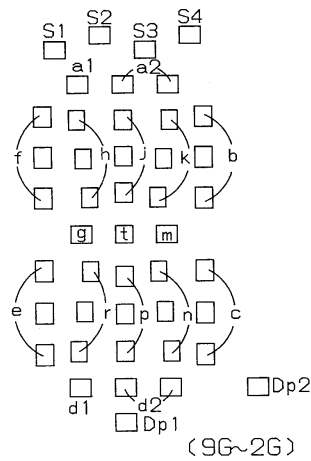
• Pin Assignment



• Grid Assignment



• Segment Designation



- **Pin Connection**

[illegible]

NOTE 1) F1,F2 --- Filament  
2) NP ----- No pin  
3) NX ----- No extend pin  
4) DL ----- Datum Line  
5) 1G~10G -- Grid

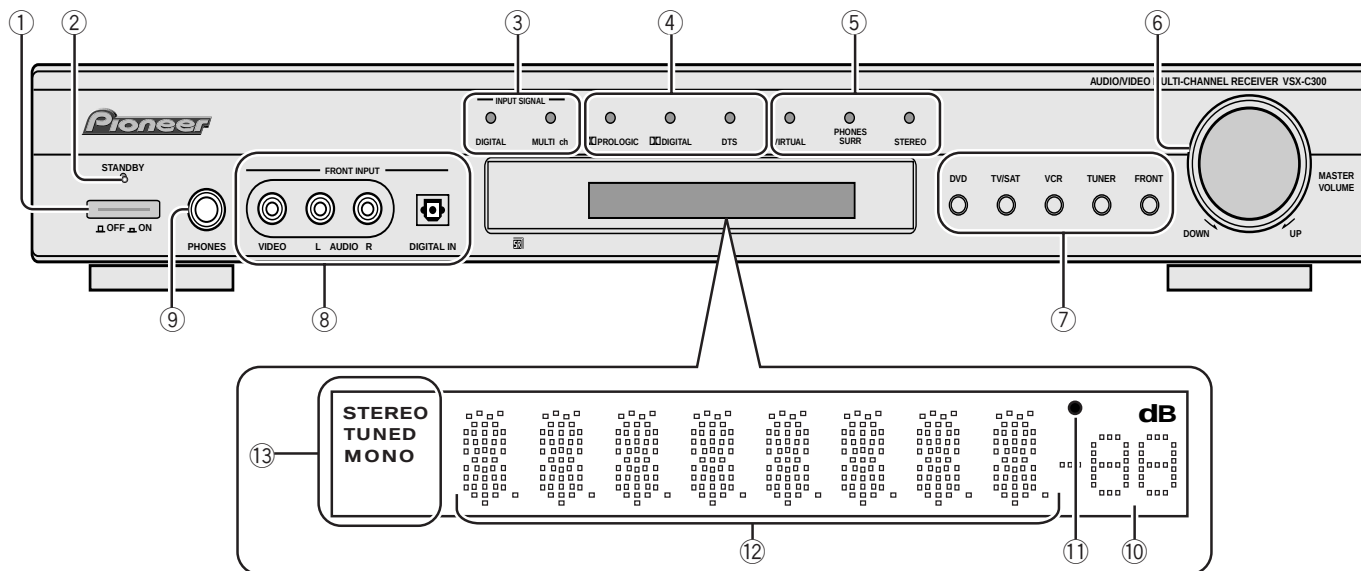
- **Anode Connection**

[illegible]

## 8. PANEL FACILITIES AND SPECIFICATIONS

### 8.1 PANEL FACILITIES

#### Front Panel



① **OFF/ON button**

Press this button to the ON position so that the power button on the remote control will be operational. If the button is OFF (■), the power of the receiver is shut off and the RECEIVER button on the remote control does not function. When this button is ON, the power button on the remote control toggles between ON and STANDBY mode.

② **STANDBY indicator**

Lights when the receiver is in standby mode. The receiver uses a small amount of electricity (1W) in standby mode.

③ **INPUT SIGNAL indicators**

Indicates the kind of input signal.

**DIGITAL :**

When a digital source is input this indicator will light.

**MULTI :**

When a multichannel source is input this indicator will light.

④ **DECODE MODE indicators**

Indicates how the signal is being decoded.

**PRO LOGIC:**

Lights when PRO LOGIC decoding is in use.

**DIGITAL:**

Lights when playing a DIGITAL sound source DTS:

lights when playing a DTS sound source .

⑤ **2 Ch Listening Mode indicators**

When these indicators are lit sound is only coming from the front speakers (and possibly the subwoofer in some settings) or headphones.

**VIRTUAL.:**

Lights when the VIRTUAL sound modes are selected.

**PHONES SURR.:**

Lights when the PHONES SURR. listening modes are selected.

**STEREO:** Lights in stereo mode.

⑥ **MASTER VOLUME**

Use to set the overall listening volume.

⑦ **Input buttons**

Use to select the playback source: the possibilities are DVD, TV/SAT, VCR, TUNER and FRONT.

If the receiver is in standby mode pressing these buttons will also turn the power on.

⑧ **FRONT jacks**

You can connect a portable DVD player, video camera, video game system, or whatever equipment you would like to have handy, to the **FRONT** jacks

⑨ **PHONES jack**

Use to connect headphones (this switches the speakers off).

⑩ **Volume level indicator**

⑪ **MIDNIGHT indicator**

Lights when Midnight Listening mode is on.

⑫ **CHARACTER display**

Shows the current input (DVD, TV/SAT, etc.), listening mode, radio frequency, etc.

⑬ **TUNER indicators**

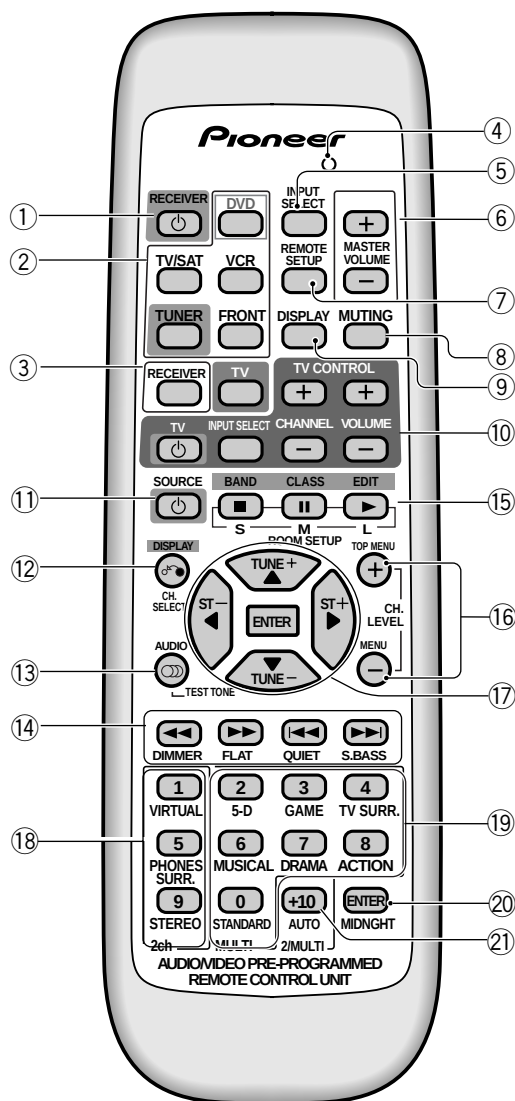
**STEREO:** Lights when a stereo FM broadcast is being received in auto stereo mode.

**TUNED:** Lights when a broadcast is being received.

**MONO:** Lights when the mono mode is set using the MPX button.

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

## Remote Control



- ① **RECEIVER (Power) button:**  
This switches between STANDBY mode and power ON for this receiver.
- ② **Input/Control Mode Select buttons**  
Use to put the receiver/remote control in the input stated on the button. If the Direct Selection is off, then these buttons won't put the receiver in the input written on the button.
- ③ **Control Mode Select buttons:**  
Use these buttons to put the remote control in receiver or TV mode .
- ④ **LED indicator :**  
This indicator flashes when a command is sent from the remote control to the receiver. It also flashes at when teaching the receiver preset codes.
- ⑤ **INPUT SELECT button :**  
Use to select the playback source. This button lets you cycle through the different inputs: DVD, TV/SAT, VCR, TUNER and FRONT.
- ⑥ **MASTER VOLUME**  
+/- buttons: Use to set the overall listening volume.
- ⑦ **REMOTE SETUP button :**  
Use this button when setting up the remote control with the REMOTE SETUP feature.
- ⑧ **MUTING button :**  
Use to mute the sound or restore the sound if it has been muted.
- ⑨ **DISPLAY button :**  
Use to display information. You can confirm what settings have been made by going through the various displays.
- ⑩ **TV (POWER) button :**  
Use to turn on/off the power of the TV.
- Ⓐ **INPUT SELECT button :**  
Use to select the TV input.
- Ⓑ **VOLUME +/- buttons :**  
Use to adjust the volume on your TV.
- Ⓒ **CHANNEL +/- buttons :**  
Use to select channels on your TV.
- ⑪ **SOURCE (Power) button :**  
Use this button to turn on and off the power of other components.
- ⑫ **CH SELECT button :**  
Use to select a speaker when setting the volume level of each channel.
- ⑬ **TEST TONE button :**  
Use to sound the TEST TONE when setting the volume level of each channel.
- ⑭ **DIMMER button :**  
Press to change the display brightness. The DIMMER button allows you to cycle through the four different brightness strengths for the display.
- Ⓐ **Tone Effect buttons:**  
FLAT button - Press for FLAT mode. This mode plays as recorded with no tone adjustments.  
QUIET button - Press for QUIET mode. This mode is for delicate soundtracks.  
S. BASS button - Press for S.BASS mode, which adds additional bass to the sound.

⑮ **ROOM SETUP (S-M-L) buttons :**

Use these functions when setting up the surround sound speaker distances with the Quick Start, easy-to-do method.

⑯ **CH.LEVEL +/- buttons :**

Use these buttons to control the volume level of each channel or add or subtract the amount of effect in a listening mode.

⑰ **◀▶▲▼ & ENTER buttons :**

Use these arrow buttons when setting up your surround system.

⑱ **2 channel listening mode buttons :**

**VIRTUAL** button- Press for VIRTUAL listening mode. This listening mode imitates surround sound but only uses two channels.

**PHONES SURR.** button-

Press for PHONES SURR. listening mode. This listening mode imitates surround sound for headphones (also only two channel reproduction).

**STEREO** button-

Press for STEREO listening mode. This is regular stereo reproduction (always two channel sound).

⑲ **MULTI channel listening mode buttons :**

**STANDARD** button-Press for STANDARD listening mode. This is the basic listening mode for listening to Dolby Digital 5.1, DTS 5.1 and other surround soundtracks as well as Dolby Surround soundtracks. It offers pure decoding of the signal with no added effects. 2 channel sources will get decoded and played back as Dolby Pro Logic surround soundtracks.

**5-D** button-Press for 5-D sound mode. This listening mode takes two channel sources and simulates surround sound.

**GAME** button-Press for GAME listening mode. This listening mode is best for games and other soundtracks with lots of electronic sounds.

**TV SURR.** button-Press for TV SURR. listening mode. This listening mode takes mono (TV sound) sources and simulates surround sound.

**MUSICAL** button- Press for MUSICAL listening mode. This listening mode is best for music and other soundtracks with lots of melody.

**DRAMA** button-Press for DRAMA listening mode. This listening mode is best for dramatic movies and other soundtracks with lots of dialog.

**ACTION** button-Press for ACTION listening mode. This listening mode is best for action movies and other soundtracks with lots of animated sounds.

⑳ **MIDNIGHT button :**

Use to put receiver in MIDNIGHT mode.

㉑ **2/MULTI channel listening mode button :**

**AUTO** button: Use to put receiver in the AUTO mode, where the receiver automatically switches between STEREO (2 ch) and STANDARD (MULTI) according to the input.

## 8.2 SPECIFICATIONS

### Amplifier Section

Continuous average power output of 21 watts\* per channel, min., at 6 ohms, from 20 Hz to 20,000 Hz with no more than 0.9 %\*\* total harmonic distortion (front).

#### Continuous Power Output (SURROUND MODE)

FRONT ..... 33 W / ch (1 kHz, THD 1 %, 6  $\Omega$ )  
 CENTER ..... 33 W (1 kHz, THD 1 %, 6  $\Omega$ )  
 SURROUND ..... 33 W / ch (1 kHz, THD 1 %, 6  $\Omega$ )

#### RMS Power Output (SURROUND MODE)

FRONT ..... 40 W / ch (1 kHz, THD 10 %, 6  $\Omega$ )  
 CENTER ..... 40 W (1 kHz, THD 10 %, 6  $\Omega$ )  
 SURROUND ..... 40 W / ch (1 kHz, THD 10 %, 6  $\Omega$ )

#### Input (Sensitivity/Impedance)

DVD, TV/SAT, VCR, FRONT ..... 200 mV/47 k $\Omega$

#### Frequency Response

DVD, TV/SAT, VCR, FRONT  
 ..... 5 Hz to 100,000 Hz  $^{+0}_{-3}$  dB

#### Output (Level/Impedance)

VCR OUT ..... 200 mV/2.2 k $\Omega$

#### Signal-to-Noise Ratio (IHF, short circuited, A network)

DVD, TV/SAT, VCR, FRONT ..... 97 dB

#### Signal-to Noise Ratio [EIA, at 1 W (1 kHz)]

DVD, TV/SAT, VCR, FRONT ..... 79 dB

\* Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifiers.

\*\* Measured by Audio Spectrum Analyzer.

### VIDEO Section

#### Input (Sensitivity/Impedance)

DVD, TV/SAT, VCR, FRONT ..... 1 Vp-p/75  $\Omega$

#### Output (Level/Impedance)

VCR, MONITOR ..... 1 Vp-p/75  $\Omega$

#### Frequency Response

DVD, TV/SAT, VCR, FRONT  $\rightarrow$  MONITOR  
 ..... 5 Hz to 7 MHz  $^{+0}_{-3}$  dB

Signal-to-Noise Ratio ..... 55 dB

### FM Tuner Section

Frequency Range ..... 87.5 MHz to 108 MHz

Usable Sensitivity ..... Mono: 13.2 dBf, IHF (1.3  $\mu$ V/ 75  $\Omega$ )

50 dB Quieting Sensitivity ..... Mono: 20.2 dBf

..... Stereo: 38.6 dBf

Signal-to-Noise Ratio ..... Mono: 73 dB (at 85 dBf)

..... Stereo: 70 dB (at 85 dBf)

Distortion ..... Stereo: 0.5 % (1 kHz)

Alternate Channel Selectivity ..... 60 dB (400 kHz)

Stereo Separation ..... 40 dB (1 kHz)

Frequency Response ..... 30 Hz to 15 kHz ( $\pm 1$  dB)

Antenna Input (DIN) ..... 75  $\Omega$  unbalanced

### AM Tuner Section

Frequency Range ..... 530 kHz to 1,700 kHz (10 kHz)

Sensitivity (IHF, Loop antenna) ..... 350  $\mu$ V/m

Selectivity ..... 25 dB

Signal-to-Noise Ratio ..... 50 dB

Antenna ..... Loop antenna

### Miscellaneous

Power Requirements ..... AC 120 V, 60 Hz

Power Consumption ..... 130 W

In Standby ..... 1 W

Dimensions ..... 420 (W) x 65 (H) x 322 (D) mm

..... 16 9/16 (W) x 2 9/16 (H) x 12 11/16 (D) in.

Weight (without package) ..... 5.2 kg (11 lb 8 oz)

### Furnished Parts

AM loop antenna ..... 1

FM wire antenna ..... 1

Dry cell batteries (AA size IEC R6P) ..... 2

Remote control unit ..... 1

Power cord ..... 1

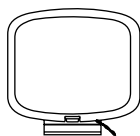
Speaker cord labels ..... 1

Operating instructions ..... 1

### NOTE:

- Specifications and the design are subject to possible modifications without notice, due to improvements.

## Accessories



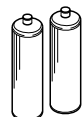
AM loop antenna  
(ATB7009)



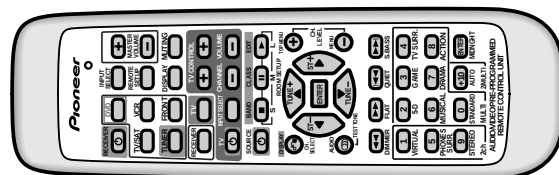
FM wire antenna  
(ADH7004)



AC Power cord  
(ADG7022)



AA size IEC R6P  
Dry cell batteries (x2)



Remote control unit  
(AXD7310)