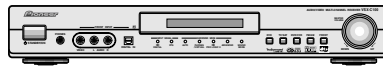


# Service Manual



VSX-C100-S

ORDER NO.  
**RRV2605**

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

# VSX-C100-S

## VSX-C100-K

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

Model	Type	Power Requirement	Remarks
VSX-C100-S	MYXU	AC220-230V	
VSX-C100-K	MYXU	AC220-230V	
VSX-C100-S	NVXU	AC240V	



For details, refer to "Important symbols for good services".

# SAFTY 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.

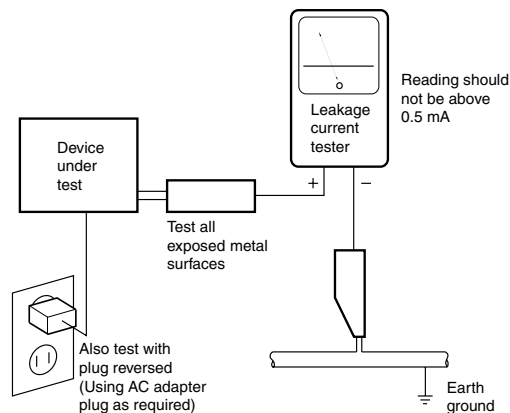
## (FOR USA MODEL ONLY)

### 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 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



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 ⚠ 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.

**[ Important symbols for good services ]**

In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely. When you find the procedures bearing any of the symbols, be sure to fulfill them:

**1. Product safety**

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

**2. Adjustments**

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

**3. Cleaning**

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

**4. Shipping mode and shipping screws**

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

**5. Lubricants, glues, and replacement parts**

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount. For replacement parts or tools, the prescribed ones should be used.

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# 1. SPECIFICATIONS

## Amplifier Section

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

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

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


RMS Power Output  
FRONT.....41 W/ch (1 kHz, THD 10 %, 6Ω)  
CENTER.....41 W (1 kHz, THD 10 %, 6 Ω)  
SURROUND.....41 W/ch (1 kHz, THD 10 %, 6 Ω)

•Above specifications are applicable when the power supply is 230V.

Input (Sensitivity/Impedance)  
DVD, TV/SAT, DVR/VCR, FRONT..... 200 mV/47 kΩ  
Frequency Response  
DVD, TV/SAT, DVR/VCR, FRONT.....5 Hz to 100,000 Hz  $\pm 0$  dB  
Output (Level/Impedance)  
VCR OUT ..... 200 mV/2.2 kΩ

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

VIDEO Section  
Input (Sensitivity/Impedance)  
DVD, TV/SAT, DVR/VCR, FRONT.....1 Vp-p/75 Ω  
Output (Level/Impedance)  
DVR/VCR, MONITOR.....1 Vp-p/75 Ω  
Frequency Response  
DVD, TV/SAT, DVR/VCR, FRONT → MONITOR  
.....5 Hz to 7 MHz  $\pm 0$  dB  
Signal-to-Noise Ratio.....55 dB

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

"DTS", "ES" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc.

## FM Tuner Section

Frequency Range.....87.5 MHz to 108 MHz  
Usable Sensitivity.....Mono:15.2 dBf, IHF (1.6 μV/ 75 Ω)  
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.....60 dB (400 kHz)  
Stereo Separation.....40 dB (1 kHz)  
Frequency Response.....30 Hz to 15 kHz (±1dB)  
Antenna Input .....75 Ω unbalanced

## AM Tuner Section

Frequency Range.....531 kHz to 1,602 kHz  
Sensitivity (IHF, Loop antenna).....350 μV/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.....120 W  
In Standby.....0.75 W  
Dimensions.....420 (W) x 65 (H) x 319 (D) mm  
Weight (without package).....4.8 kg

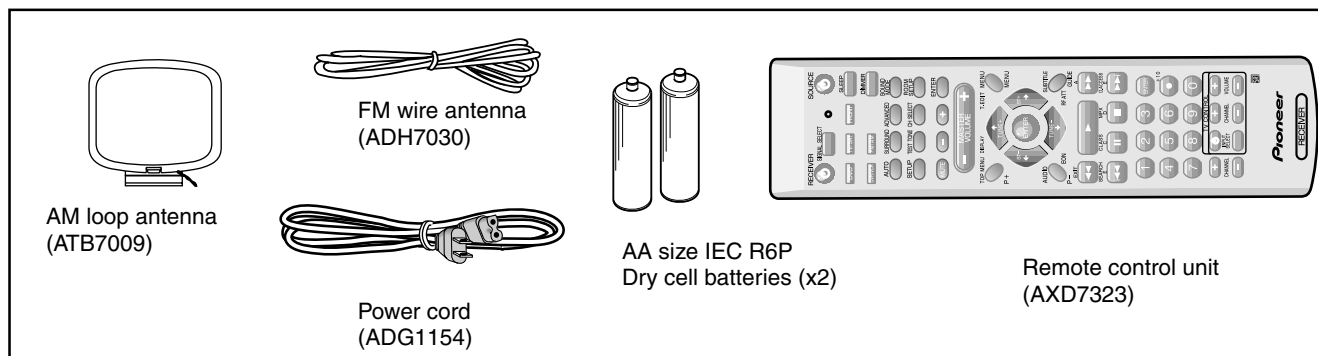
## Furnished Parts

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



### Note

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

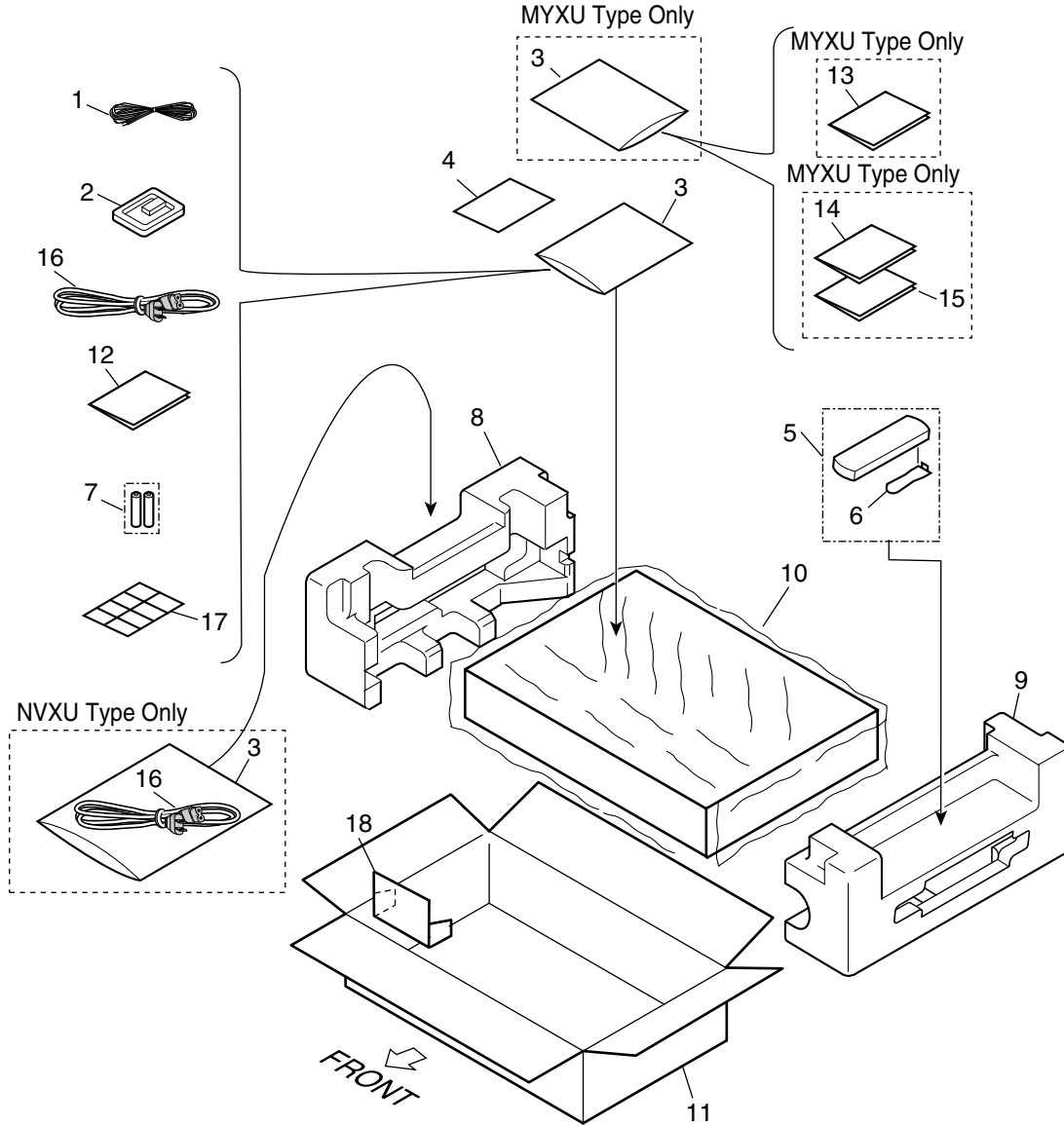
## Accessories



# 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  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
  - Screws adjacent to  mark on product are used for disassembly.
  - For the applying amount of lubricants or glue, follow the instructions in this manual.  
(In the case of no amount instructions, apply as you think it appropriate.)

## 2.1 PACKING



**(1)PACKING parts List**

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	FM Wire Antenna	ADH7030	11	Packing Case	See Contrast table(2)
2	AM Loop Antenna	ATB7009	12	Operating Instructions(English)	ARB7260
NSP 3	Polyethylene Bag	See Contrast table(2)	13	Operating Instructions (German)	See Contrast table(2)
NSP 4	Warranty Card	ARY7022	14	Operating Instructions (French, Italian)	See Contrast table(2)
5	Remote Control Unit	AXD7323	15	Operating Instructions (Dutch, Spanish)	See Contrast table(2)
6	Battery Cover	AZA7424	16	AC Power Cord	See Contrast table(2)
NSP 7	Dry Cell Battery (R6P, AA)	VEM1010	17	Speaker Cable Label	ARW7163
8	Left Pad C100	AHA7381	18	Spacer	AHC7026
9	Right Pad C100	AHA7382			
10	Packing Sheet	AHG7015			

**(2) CONTRAST TABLE**

VSX-C100-S/MYXU, /NVXU and VSX-C100-K/MYXU are constructed the same except for the following :

Mark	NO	Symbol and Description	VSX-C100-S/ MYXU	VSX-C100-S/ NVXU	VSX-C100-K/ MYXU
NSP	3	Polyethylene Bag	AHG7097	Z21-038	AHG7097
	11	Packing Case	AHD8065	AHD8066	AHD8068
	13	Operating Instructions(German)	ARC7382	Not used	ARC7382
	14	Operating Instructions(French, Italian)	ARC7384	Not used	ARC3384
	15	Operating Instructions(Dutch, Spanish)	ARC7385	Not used	ARC3385
	16	AC Power Cord	ADG1154	ADG1156	ADG1154

# 2.2 EXTERIOR SECTION

A

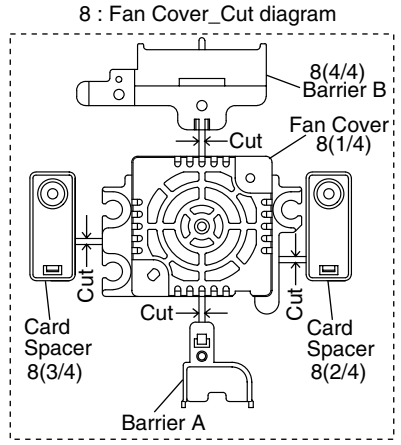
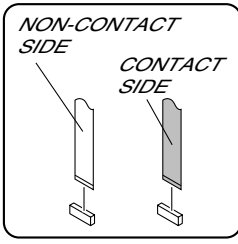
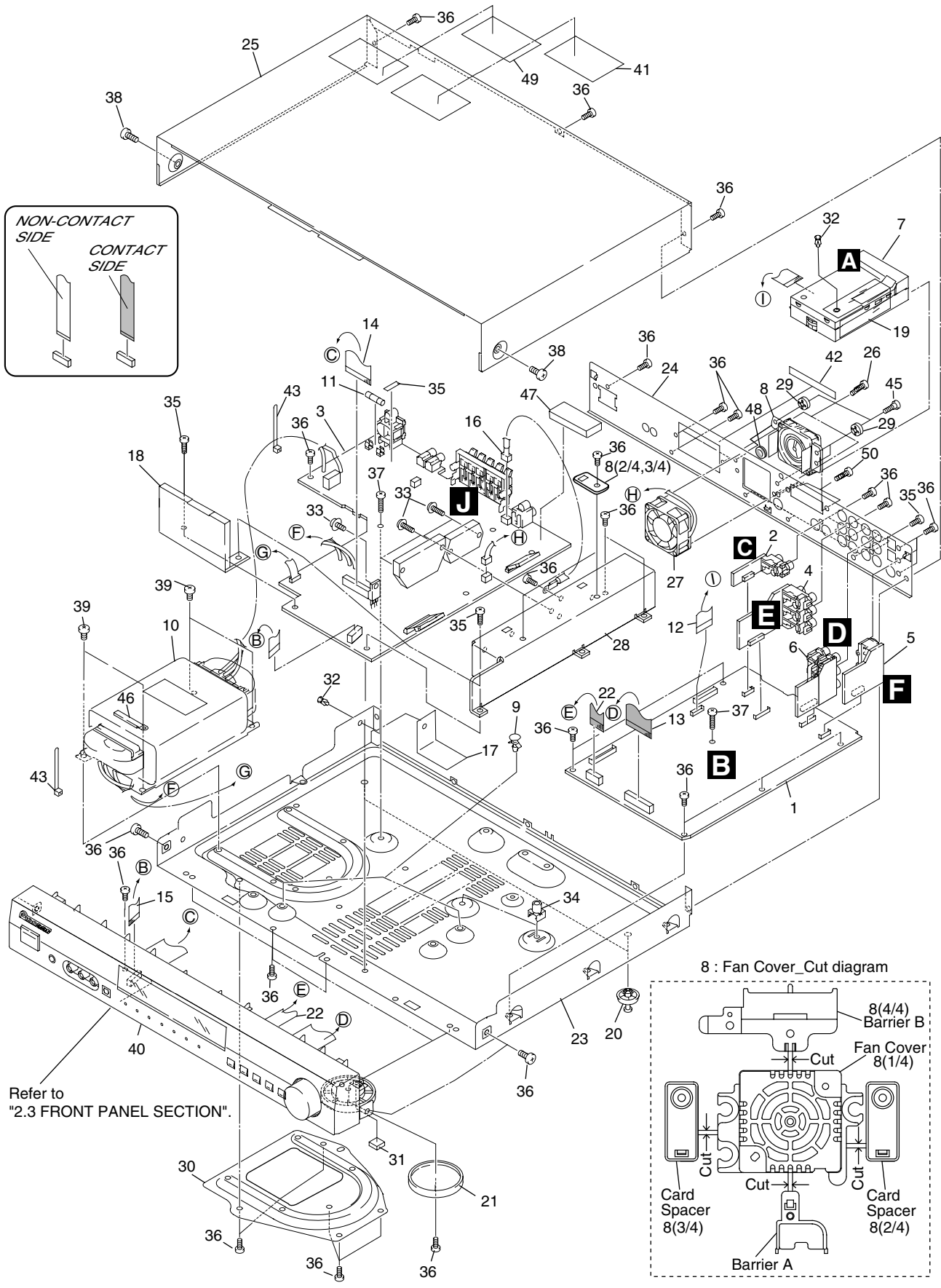
B

C

D

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F



Refer to "2.3 FRONT PANEL SECTION".



**(1) EXTERIOR SECTION parts List**

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	DSP ASSY	AWX8049	NSP 23	Under Base	ANA7139
2	2P_JACK ASSY	AWX8048	24	Rear Panel	See Contrast table(2)
3	POWER(H) ASSY	AWX8042	25	Bonnet Case (Box)	See Contrast table(2)
4	VIDEO ASSY	AWX8047	26	Screw	PPT30P100FZK
5	DIGITAL-IN ASSY	AWX8046	27	DC Fan Motor	AXM7021
6	6PA-JACK ASSY	AWX8043	NSP 28	Heat Sink AL	ANH7153
7	FM/AM TUNER MODULE	AXQ7232	29	Rubber Damper	VEB1112
8	FAN Cover(1/4)	AMR7389	30	Trans Stabilizer	ANG7415
9	Card Spacer	VEC1708	31	Rubber Cushion	VEB1325
⚠ 10	Power Transformer (AC230V)	ATS7336	32	Plastic Rivet	DEC1704
⚠ 11	Fuse (FU1: T1.25A)	REK1023	33	Screw With Washier	ABA7080
12	FFC (J005 :13P/90BD 60V) (DSP CN803 to TUNER CN201)	ADD7376	34	PCB Mold	AMR2534
13	FFC (J002 : 31P/100BD 60V) (DSP CN1702 to FRONT CN4202)	ADD7341	35	Screw	BBT30P080FCC
14	FFC (J001 : 27P/120BD 60V) (POWER CN301 to FRONT CN4201)	ADD7342	36	Screw	BBZ30P080FZK
15	FFC (J004 :13P/90BD 60V) (POWER CN301 to FRONT INPUT CN4201)	ADD7376	37	Screw	BBZ30P140FMC
16	Thermistor (POWER CN306 to TH9014)	AEX7004	38	Screw	See Contrast table(2)
17	AC Barrier	AEC7411	39	Screw	BBZ40P060FCC
18	Shield Plate	ANG7441	40	Front Panel Assy	See Contrast table(2)
19	Tuner Barrier	AEC7410	41	Dolby DTS. Label	ARW7169
20	Leg Assy	REC-434	42	Speaker Label E	ARW7161
21	Ring	VNK4840	43	Binder	ZCA-BK1
22	FFC (J003 : 7P/100BD 60V) (DSP CN804 to FRONT CN203)	ADD7344	44	Screw (3x11.5)	ABA7071
			45	Steper Screw	PBA1014
			46	Cord Clamper	RNH1005
			47	Damper Coshion	AED7055
			48	Coshion Circle 4.5	AED7056
			49	Label C100SMY	ARW7171

**(2) CONTRAST TABLE**

VSX-C100-S/MYXU, /NVXU and VSX-C100-K/MYXU are constructed the same except for the following :

Mark	NO	Symbol and Description	VSX-C100-S/ MYXU	VSX-C100-S/ NVXU	VSX-C100-K/ MYXU
	24	Rear Panel	ANC8077	ANC8078	ANC8080
	25	Bonnet Case (Box)	AZN7900	AZN7900	AZN7901
	38	Screw	BBZ40P080FNI	BBZ40P080FNI	BBZ40P080FZK
	40	Front Panel Assy	AXG7157	AXG7157	AXG7158

# 2.3 FRONT SECTION

A

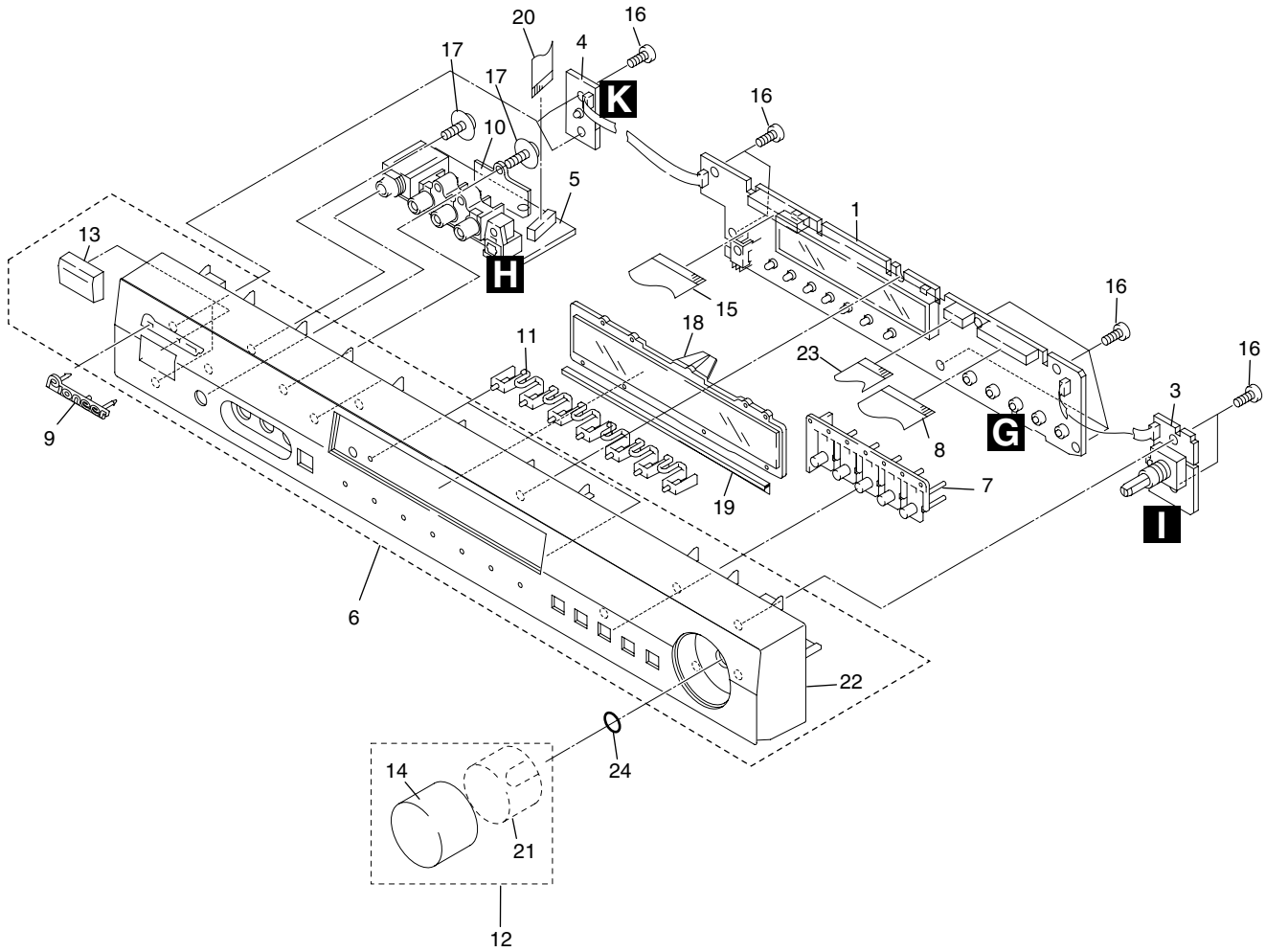
B

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**(1) FRONT SECTION parts Lis**

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	FRONT ASSY	AWX8050	NSP 14	Volume Cap	See Contrast table(2)
2	POWER SW ASSY	AWX8051	15	FFC (J001 : 27P/60V) (Front CN4201 to Power CN301)	ADD7342
3	ENCODER ASSY	AWX8052	16	Screw	PPZ30P080FMC
4	• • • •		17	Screw (FE)	ABA7009
5	FRONT INPUT ASSY	AWX8053	NSP 18	Display Panel	AAK7960
6	Front Panel Assy	See Contrast table(2)	NSP 19	Hologram	AAK7964
NSP 7	Function Button	See Contrast table(2)	20	FFC (J004 : 13P/60V) (Front input CN4101 to Power CN304)	ADD7376
8	FFC (J002 : 31P/60V) (Front CN4202 to DSP CN1702)	ADD7341	NSP 21	Volume Mold	AAC7033
9	Name Plate	See Contrast table(2)	NSP 22	Front Panel	See Contrast table(2)
10	Barrier B (4/4)	AMR7389	23	FFC (J003 : 7P/60v) (Front CN4203 to DSP CN804)	ADD7344
11	LED Lens	AAK7961	24	VOL Ring	ABH7220
12	Volume Knob Assy	See Contrast table(2)			
NSP 13	Power Button	See Contrast table(2)			

**(2) CONTRAST TABLE**

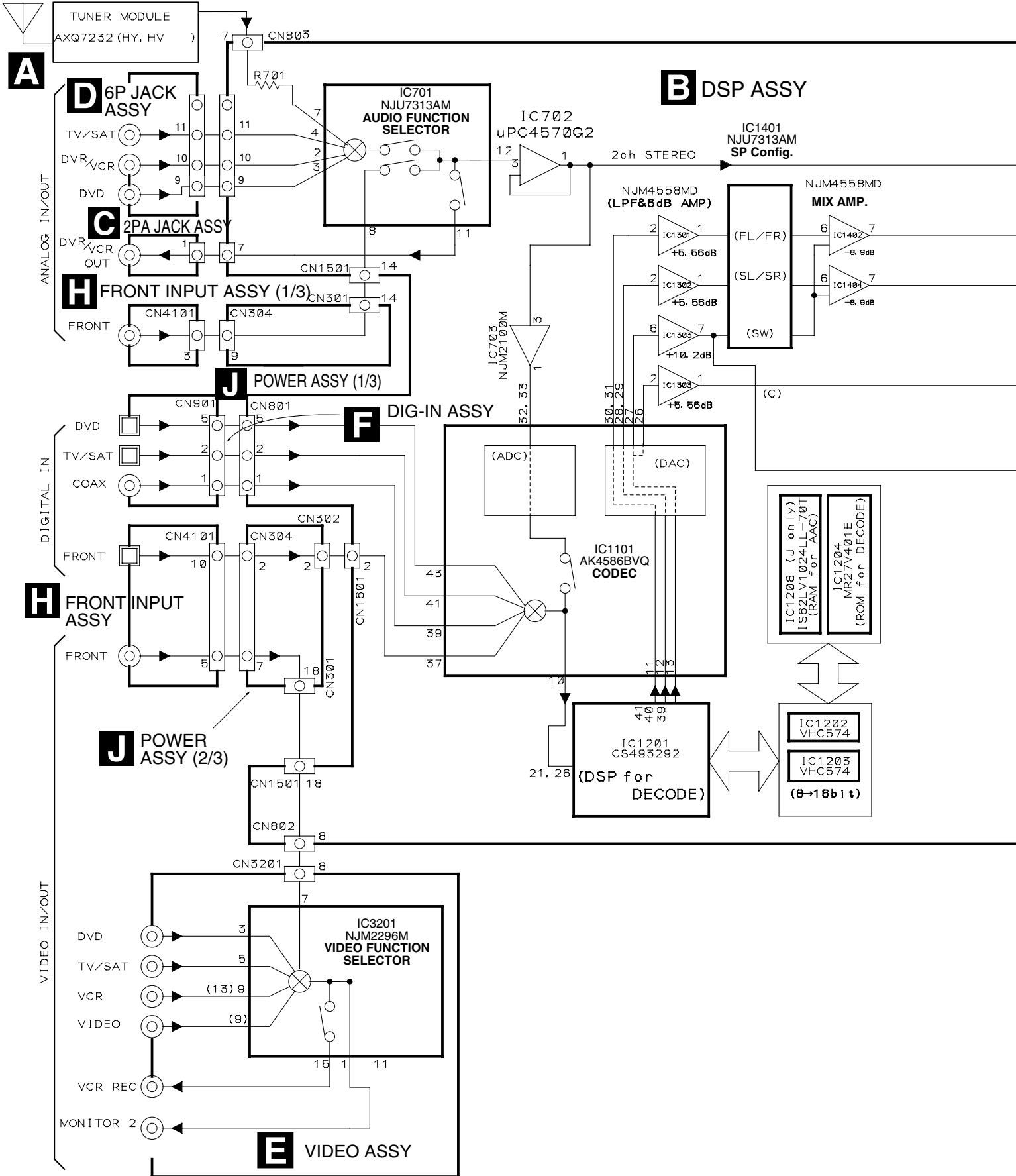
VSX-C100-S/MYXU, /NVXU and VSX-C100-K/MYXU are constructed the same except for the following :

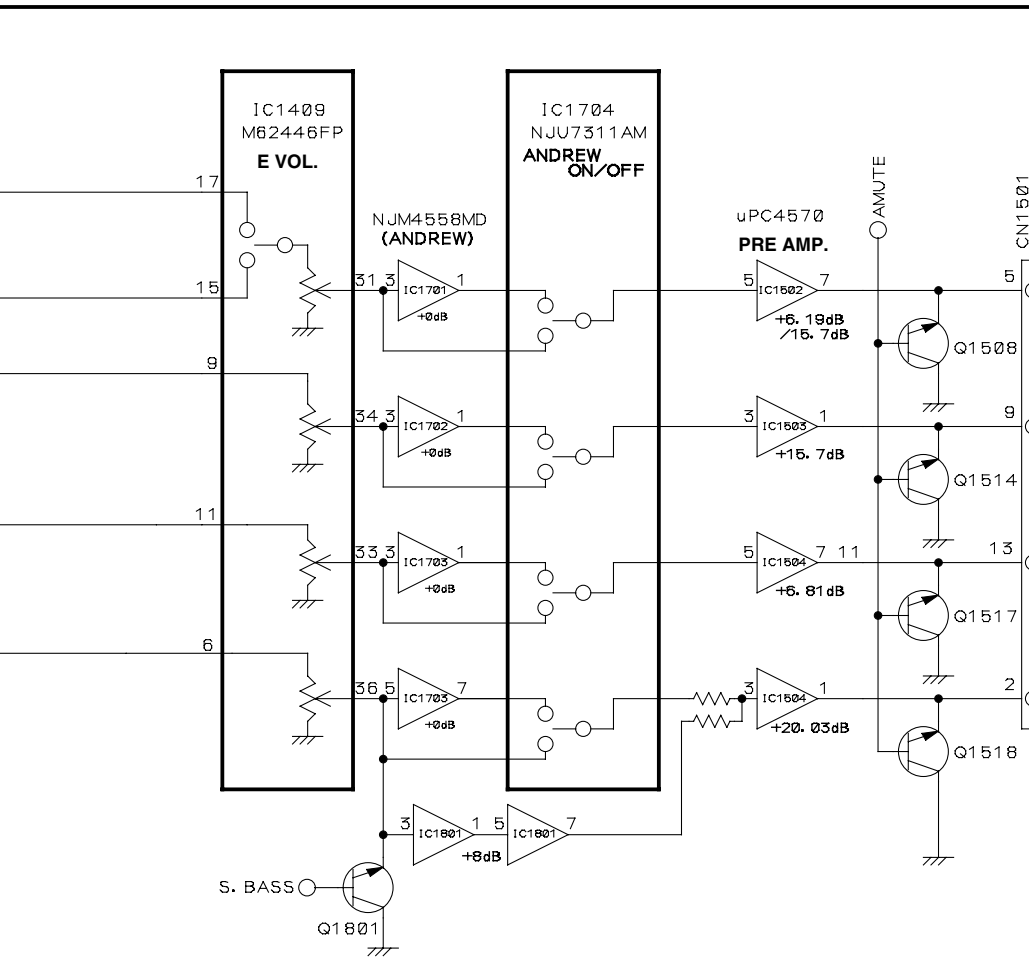
Mark	NO	Symbol and Description	VSX-C100-S/ MYXU	VSX-C100-S/ NVXU	VSX-C100-K/ MYXU
NSP	6	Front Panel Assy	AXG7157	AXG7157	AXG7158
	7	Function Button	AAD7652	AAD7652	AAD7653
	9	Name Plate	VAM1129	VAM1129	VAM1130
NSP	12	Volume Knob Assy	AAB7246	AAB7246	AAB7247
	13	Power Button	AAD7654	AAD7654	AAD7655
NSP	14	Volume Cap	AAC7041	AAC7041	AAC7042
NSP	22	Front Panel	AMB7812	AMB7812	AMB7813

# 3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

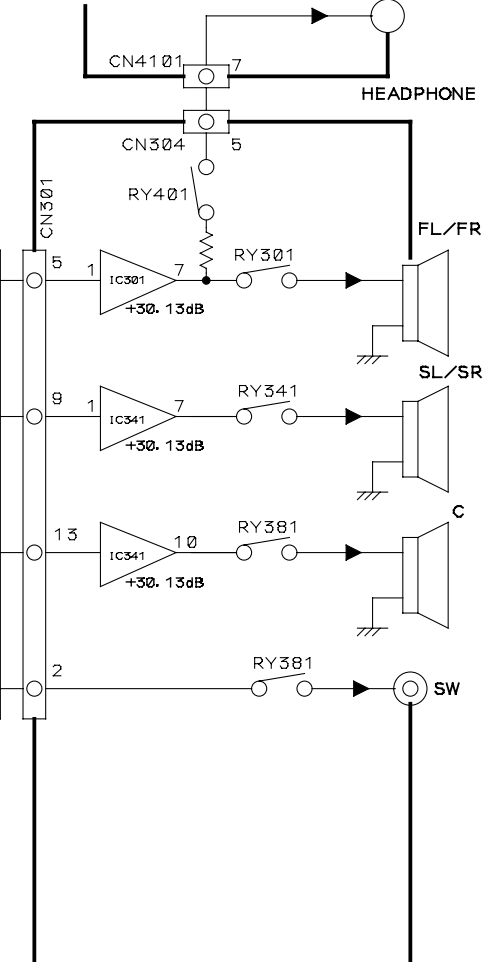
## 3.1 BLOCK DIAGRAM

A

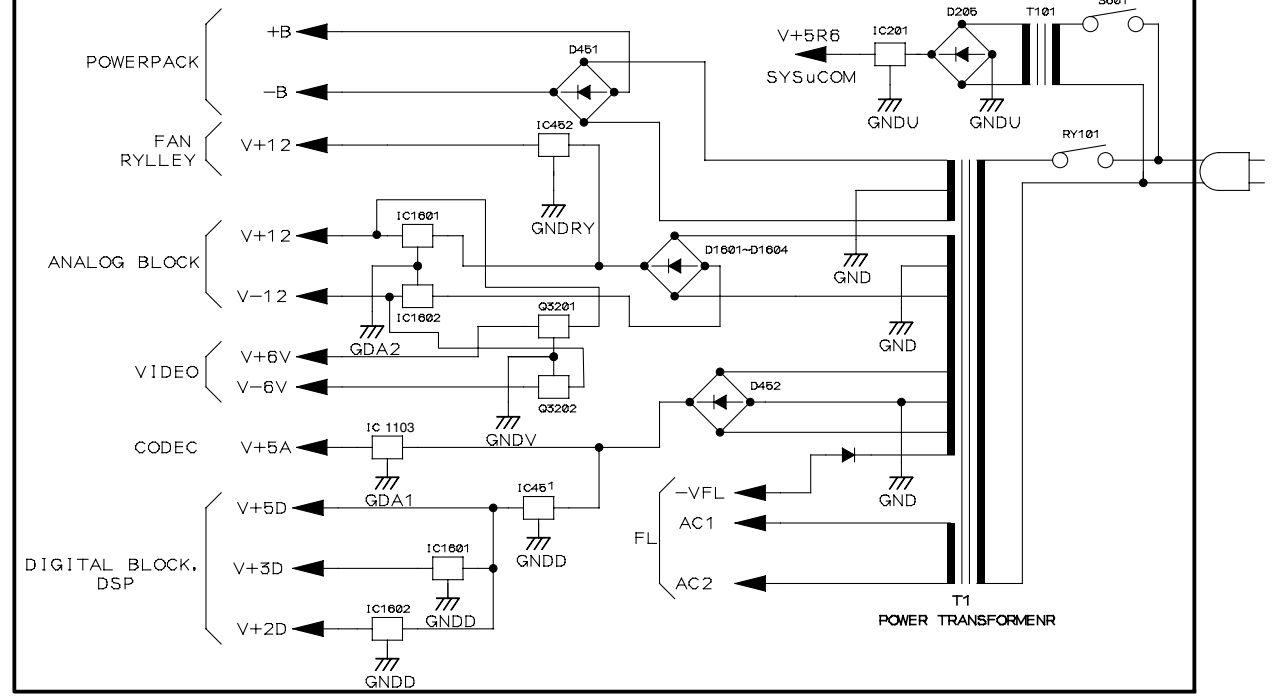




**H FRONT INPUT ASSY (3/3)**

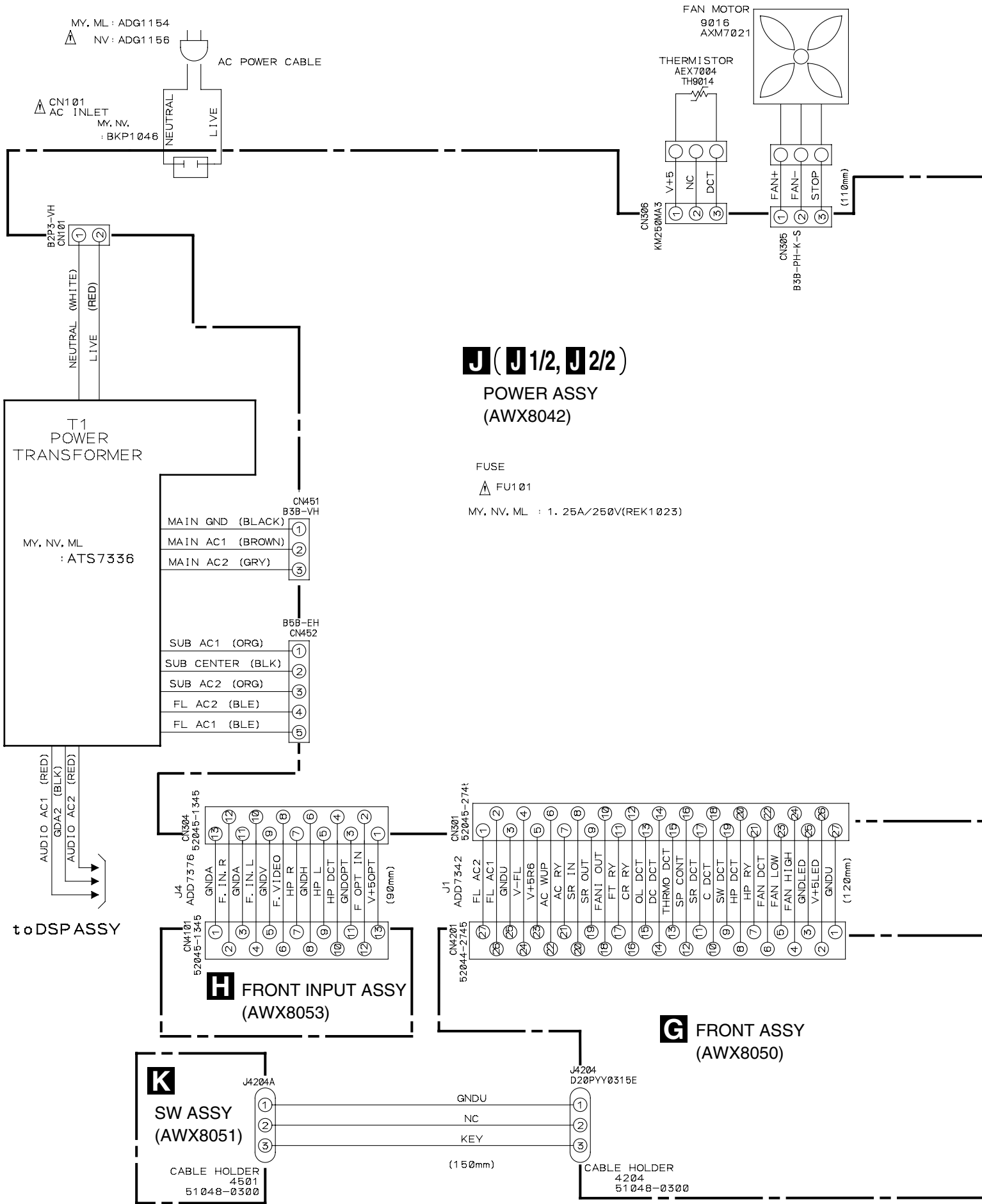


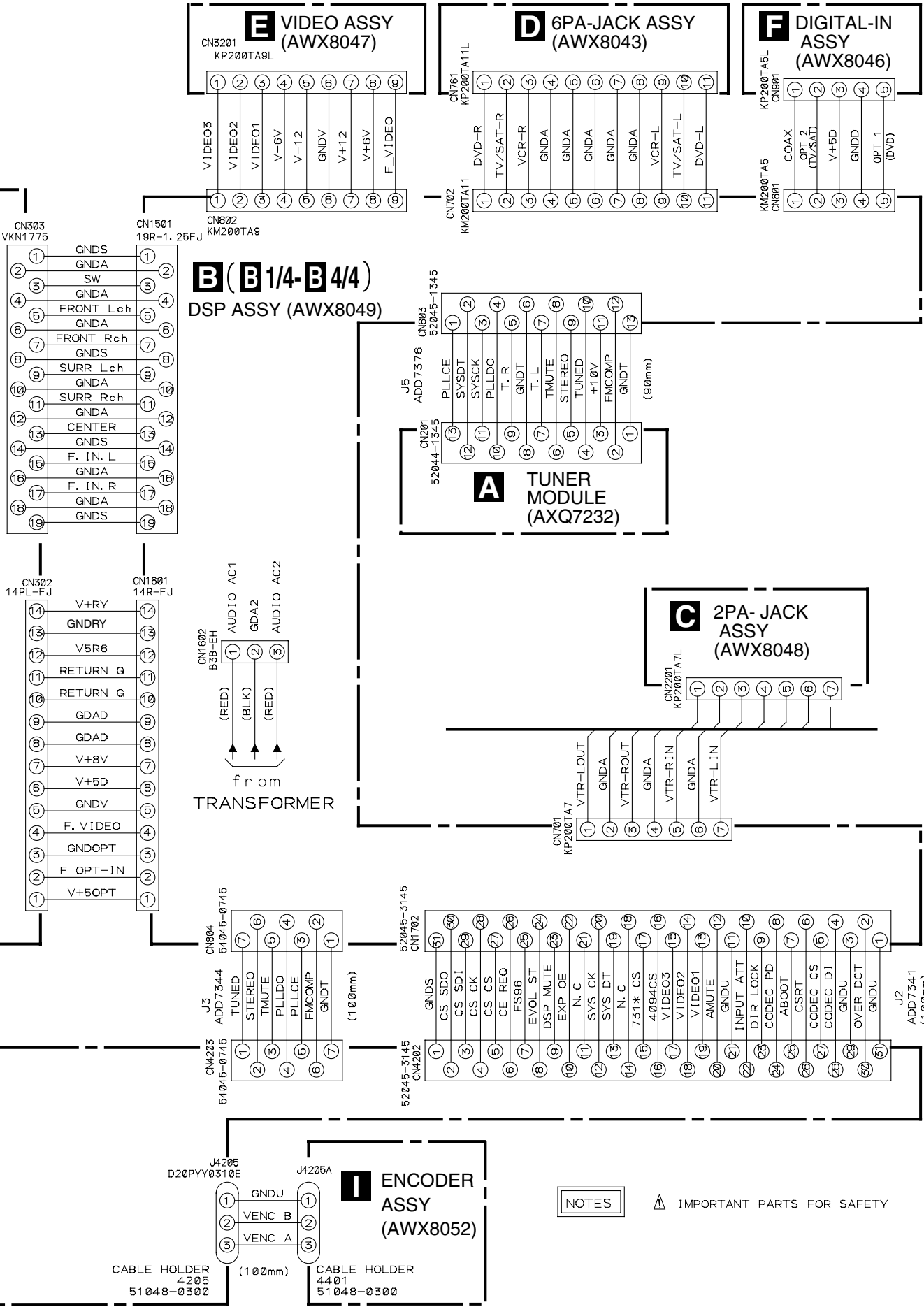
**J POWER ASSY (3/3)**



# 3.2 OVERALL WIRING DIAGRAM

A  
B  
C  
D  
E  
F





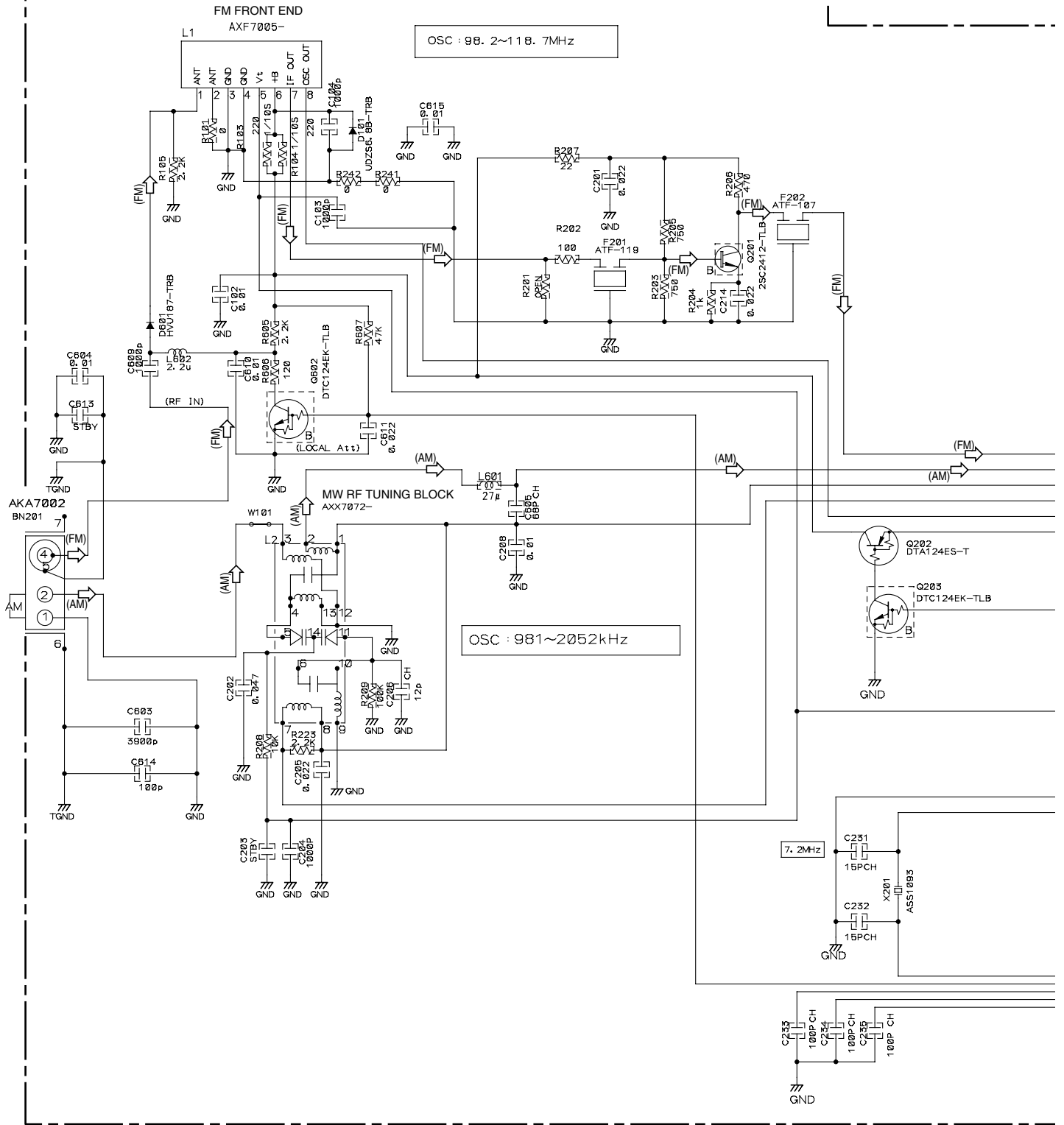
NOTES

▲ IMPORTANT PARTS FOR SAFETY

### 3.3 FM/AM TUNER MODULE

#### A FM/AM TUNER MODULE (AXQ7232)

MITSUMI FM FE





Notes

1. RESISTORS


Indicated in Ω, 1/16W±5% Tolerance unless otherwise noted K:KΩ, M:MΩ.




2. CAPACITORS

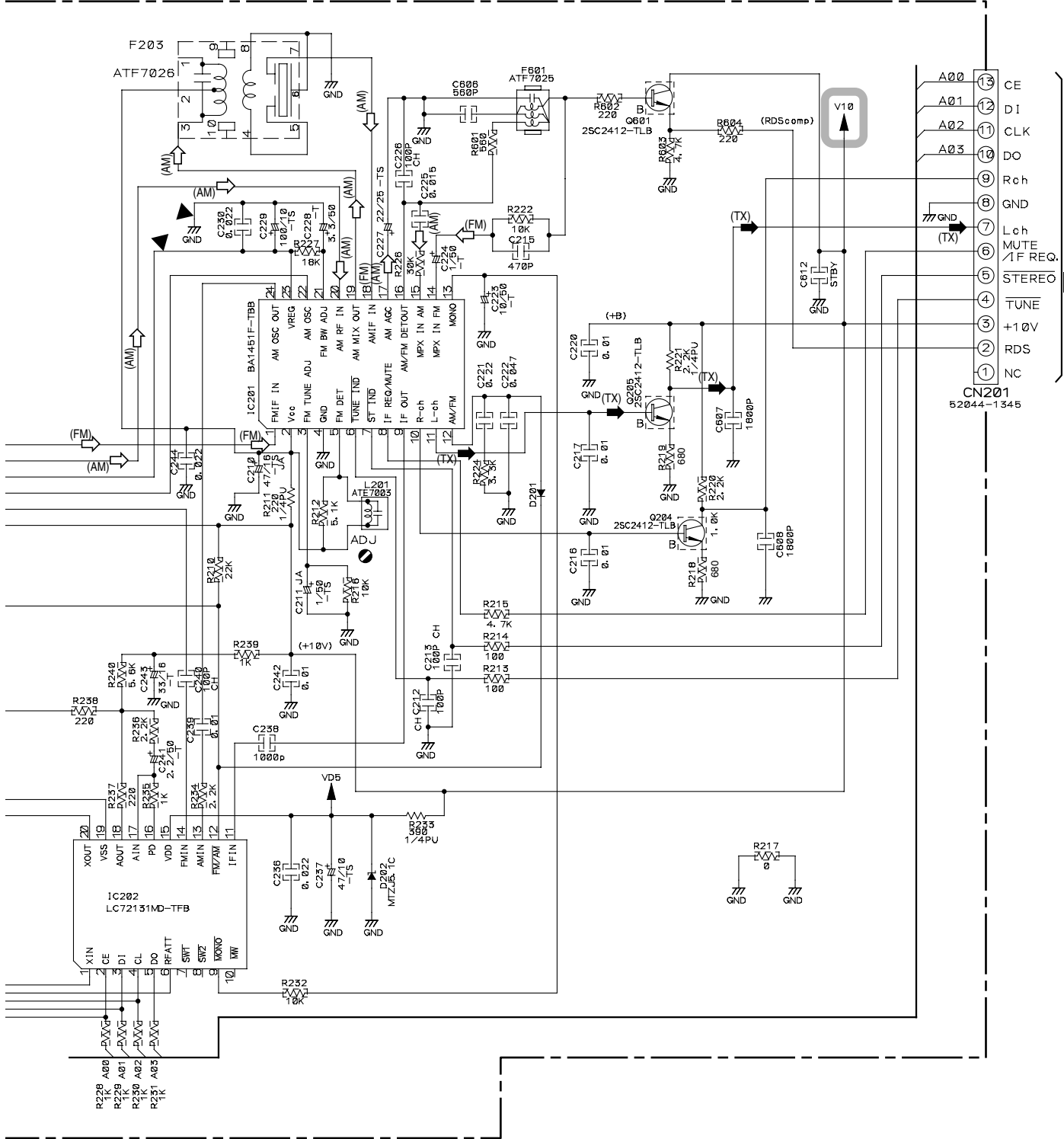
Indicated in Capacity (μF)/VOLTAGE (V) unless otherwise noted P:PF.

3. DIODES

No mark diode is 1SS133.

 : The power supply is shown with the marked box.

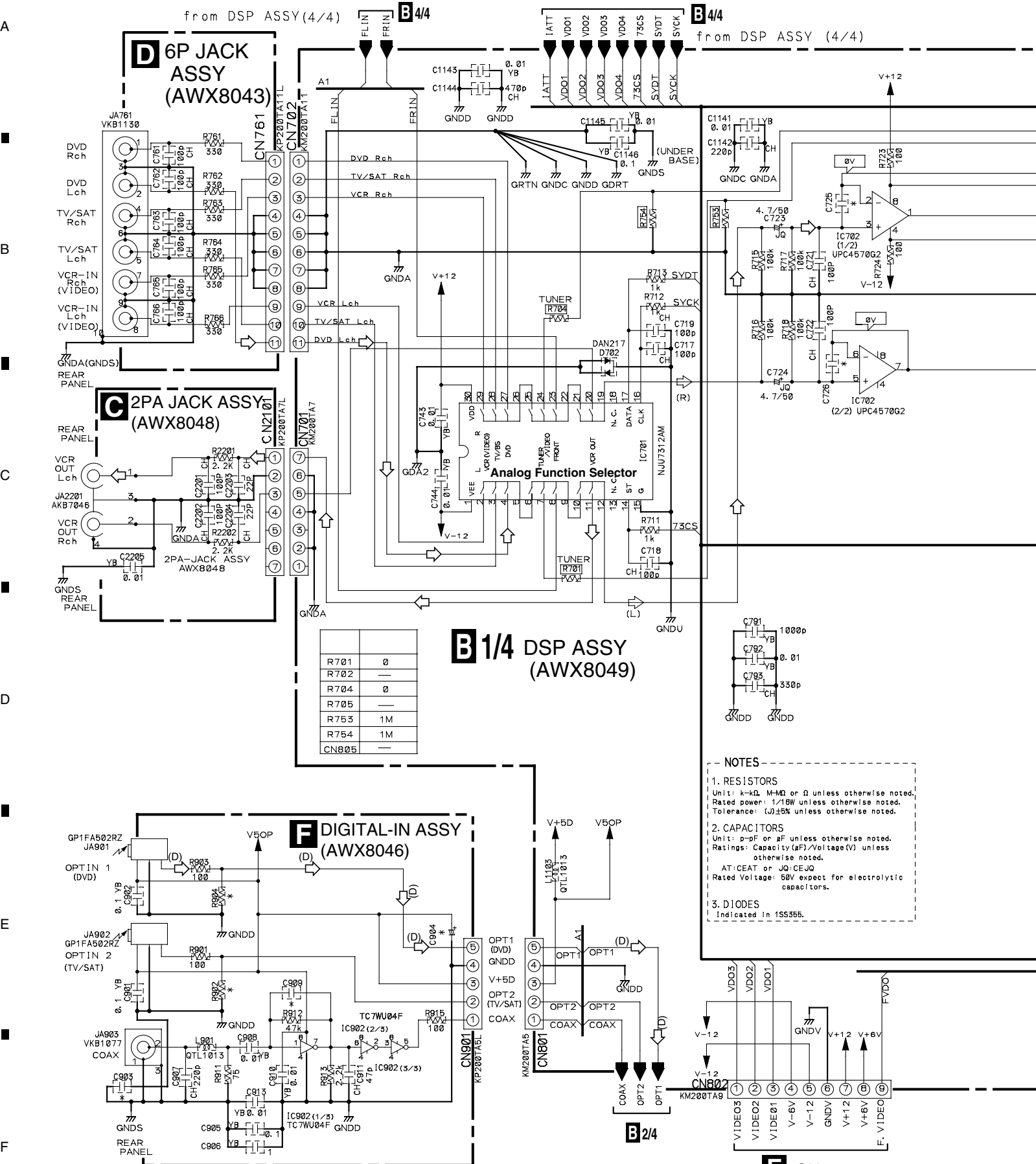
- (TX)  : AUDIO SIGNAL ROUTE (TUNER)
- (AM)  : AM SIGNAL ROUTE
- (FM)  : FM SIGNAL ROUTE



**B1/4** CN803

**A**

# 3.4 DSP(1/4), 2P-JACK, 6P-JACK, DIGITAL-IN and FRONT INPUT ASSYS



R701	0
R702	—
R704	0
R705	—
R753	1M
R754	1M
CN805	—

- NOTES**
- RESISTORS**  
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.  
Rated power: 1/18W unless otherwise noted.  
Tolerance: (J)±5% unless otherwise noted.
  - CAPACITORS**  
Unit: p-pF or nF unless otherwise noted.  
Ratings: Capacity (pF)/Voltage (V) unless otherwise noted.  
AT:CEAT or JQ:CEJQ  
Rated Voltage: 50V expect for electrolytic capacitors.
  - DIODES**  
Indicated in 1SS355.

**B1/4 C D F**

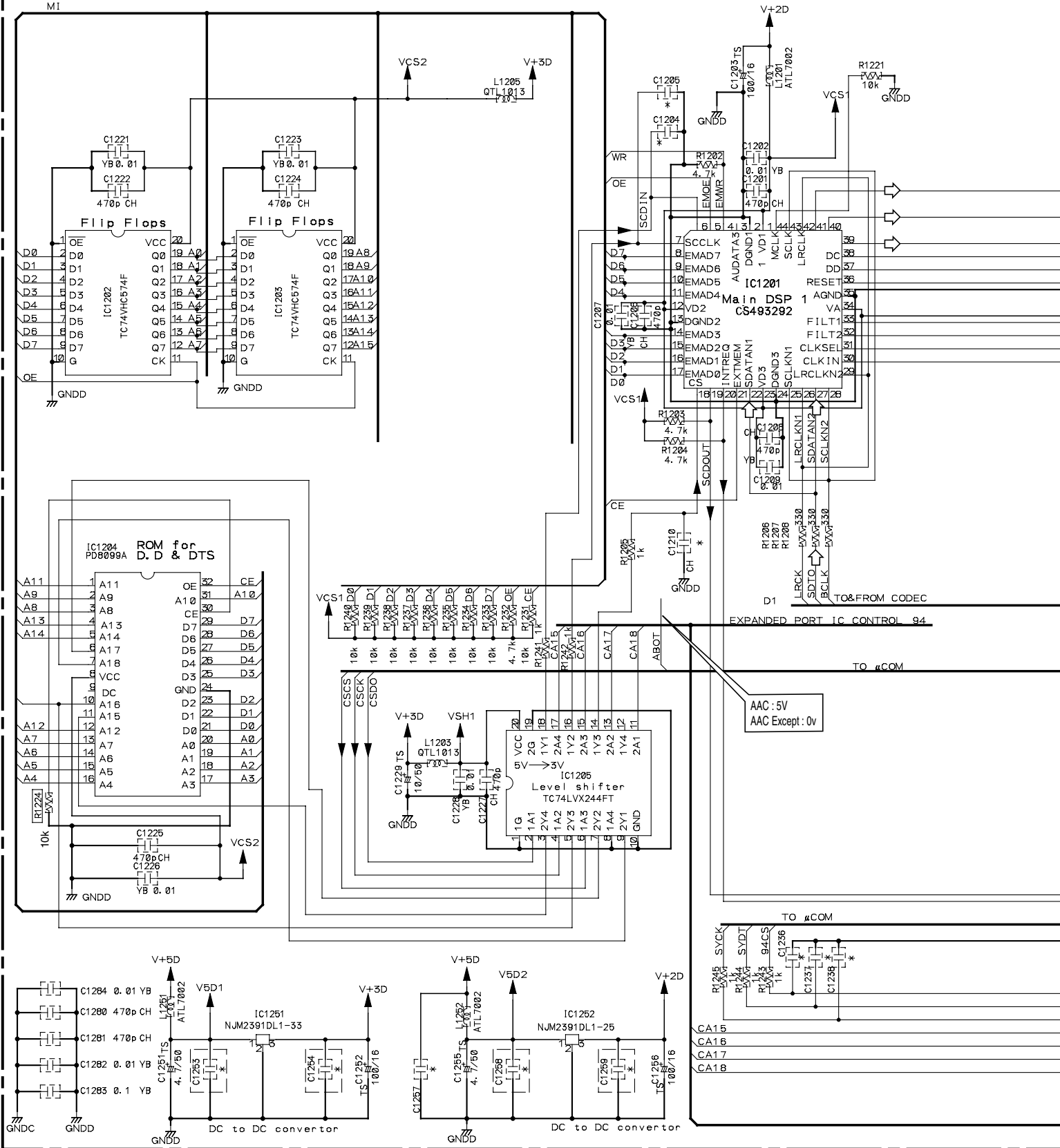
**E CN3201**

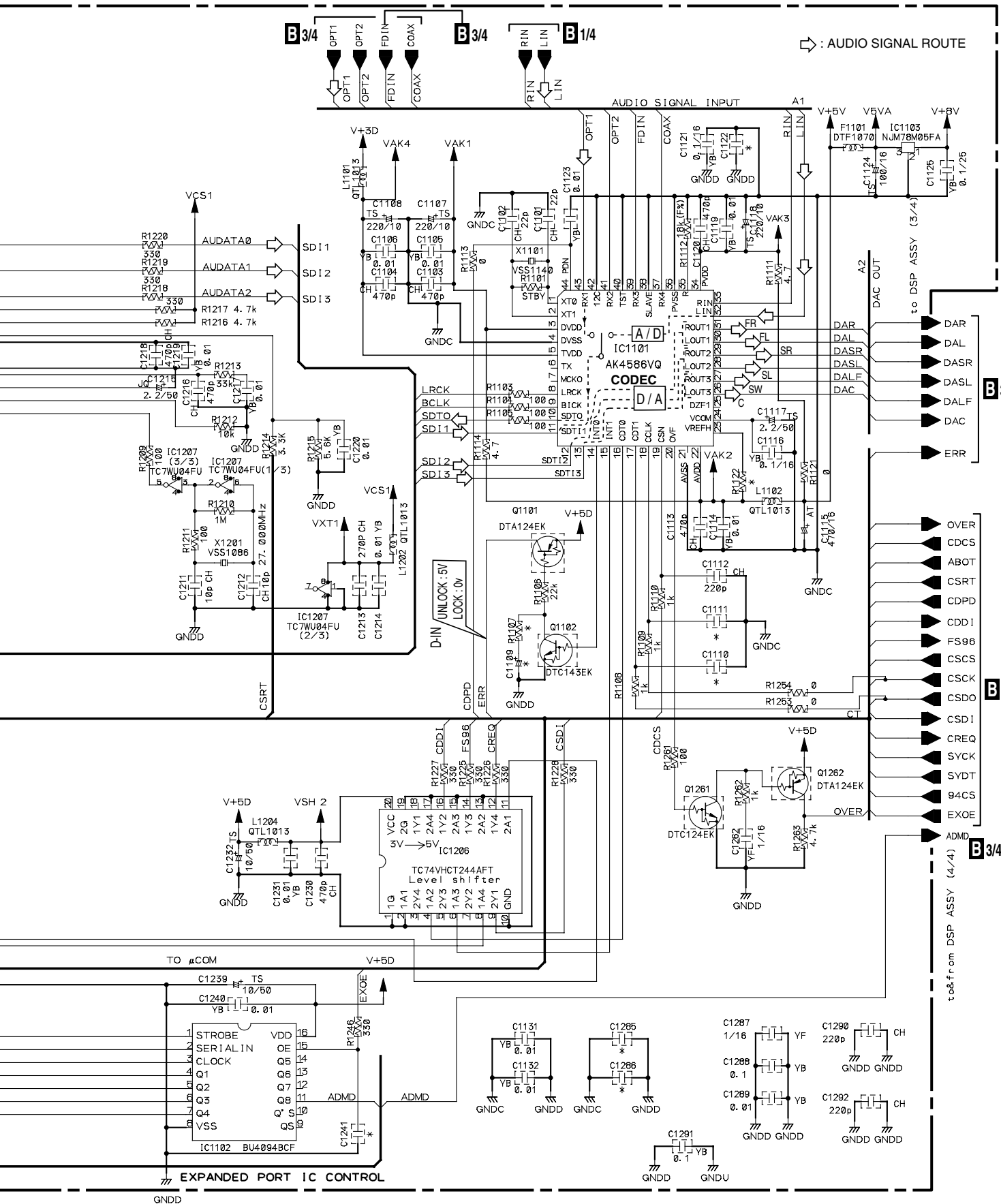


# 3.5 DSP(2/4) ASSY

## B2/4 DSP ASSY (AWX8048)

Main DSP 1 decodes D.D and DTS signals.





A  
B  
C  
D  
E  
F

**B2/4**

# 3.6 DSP(3/4) ASSY

A

B

C

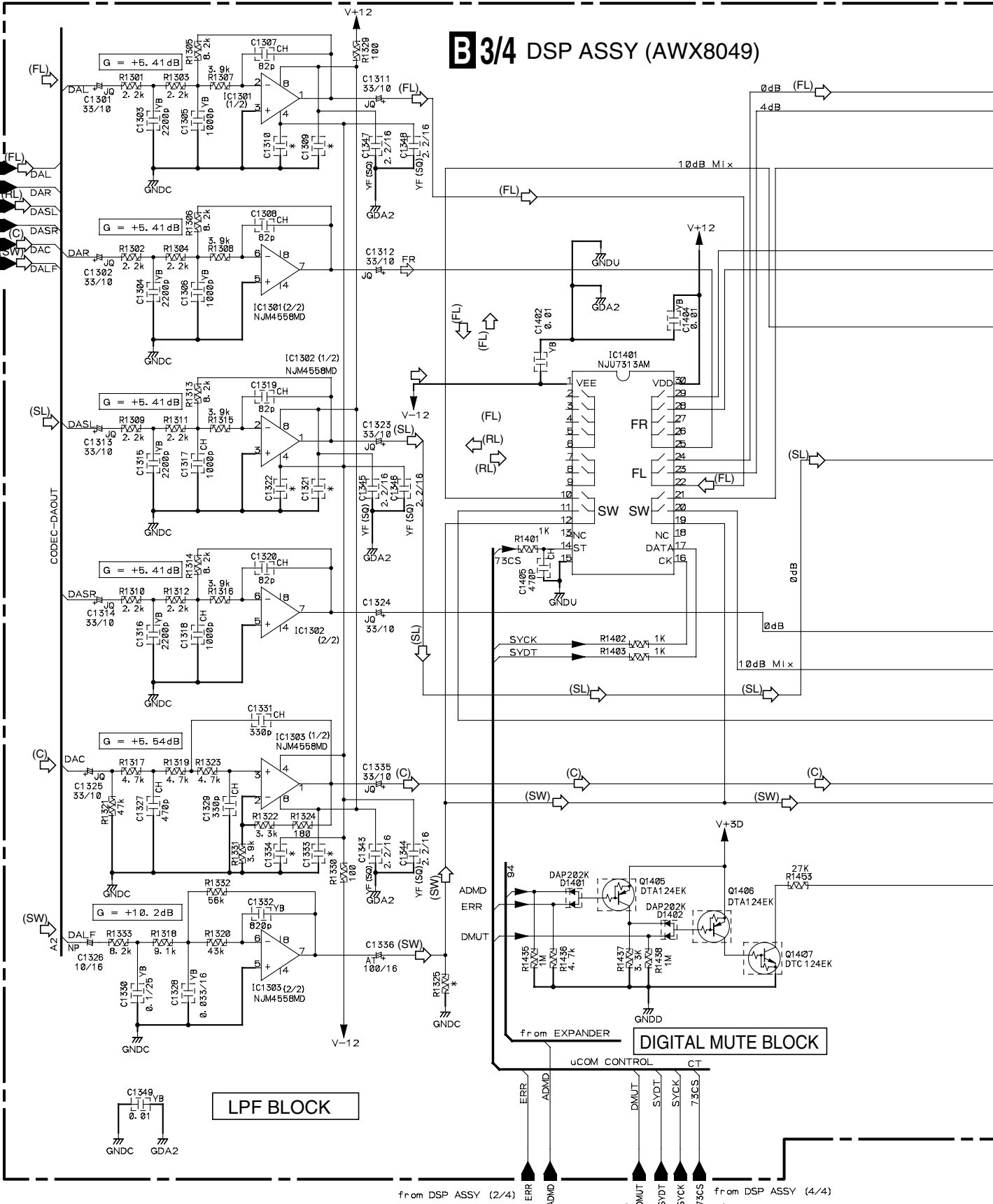
D

E

F

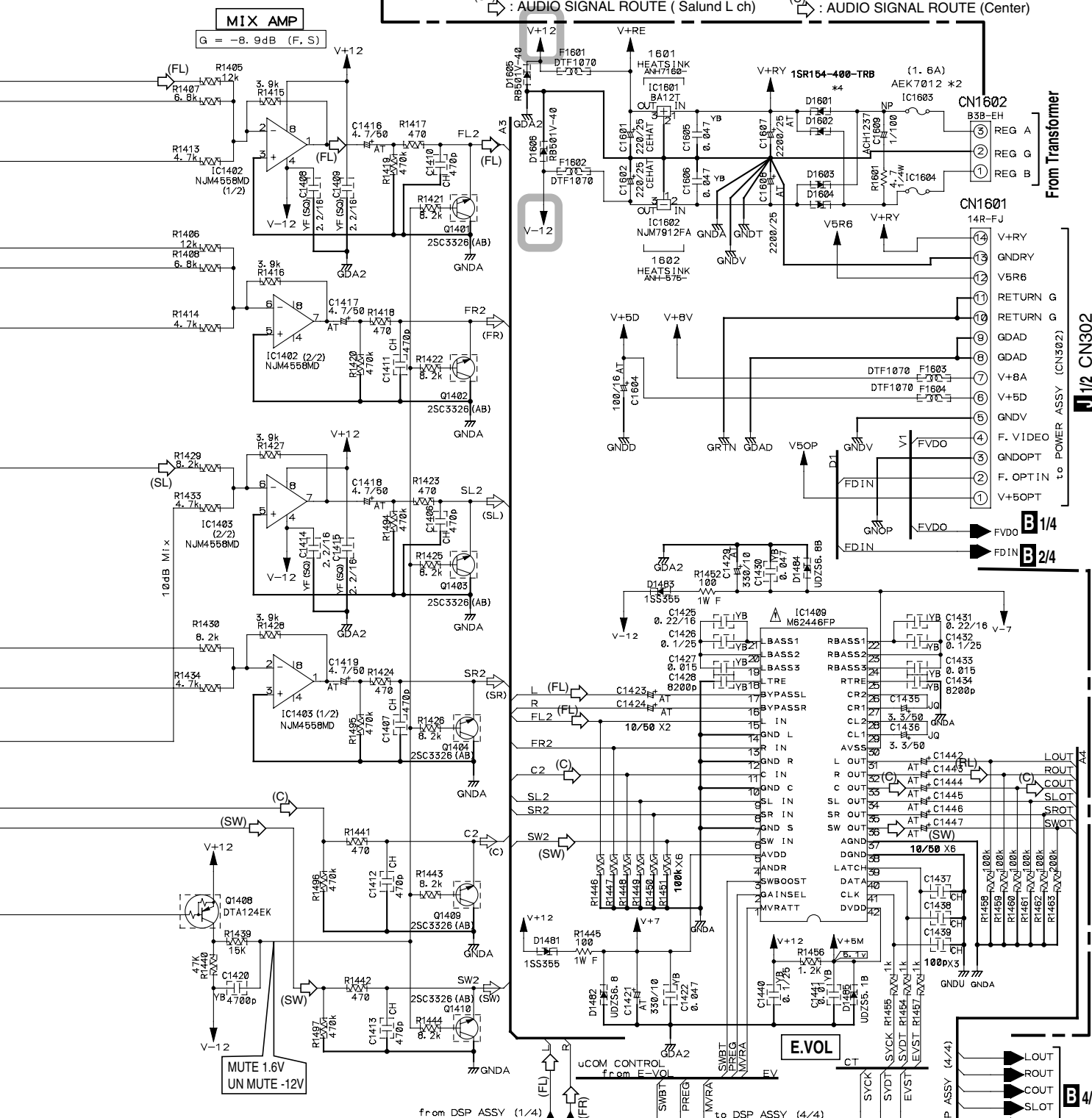
## B 3/4 DSP ASSY (AWX8049)

B 2/4  
from DSP ASSY (2/4)



## B 3/4

(FL) : AUDIO SIGNAL ROUTE (Front L ch) (SW) : AUDIO SIGNAL ROUTE (Sub Woofer)  
 (SL) : AUDIO SIGNAL ROUTE (Salund L ch) (C) : AUDIO SIGNAL ROUTE (Center)



**NOTES**

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

2. CAPACITORS  
 Unit: p-pF or  $\mu$ F unless otherwise noted.  
 Rating: Capacitance(Volts) unless otherwise noted.  
 AT-CENT OF JOULES  
 Rated Voltage: 50V expect for electrolytic capacitors.

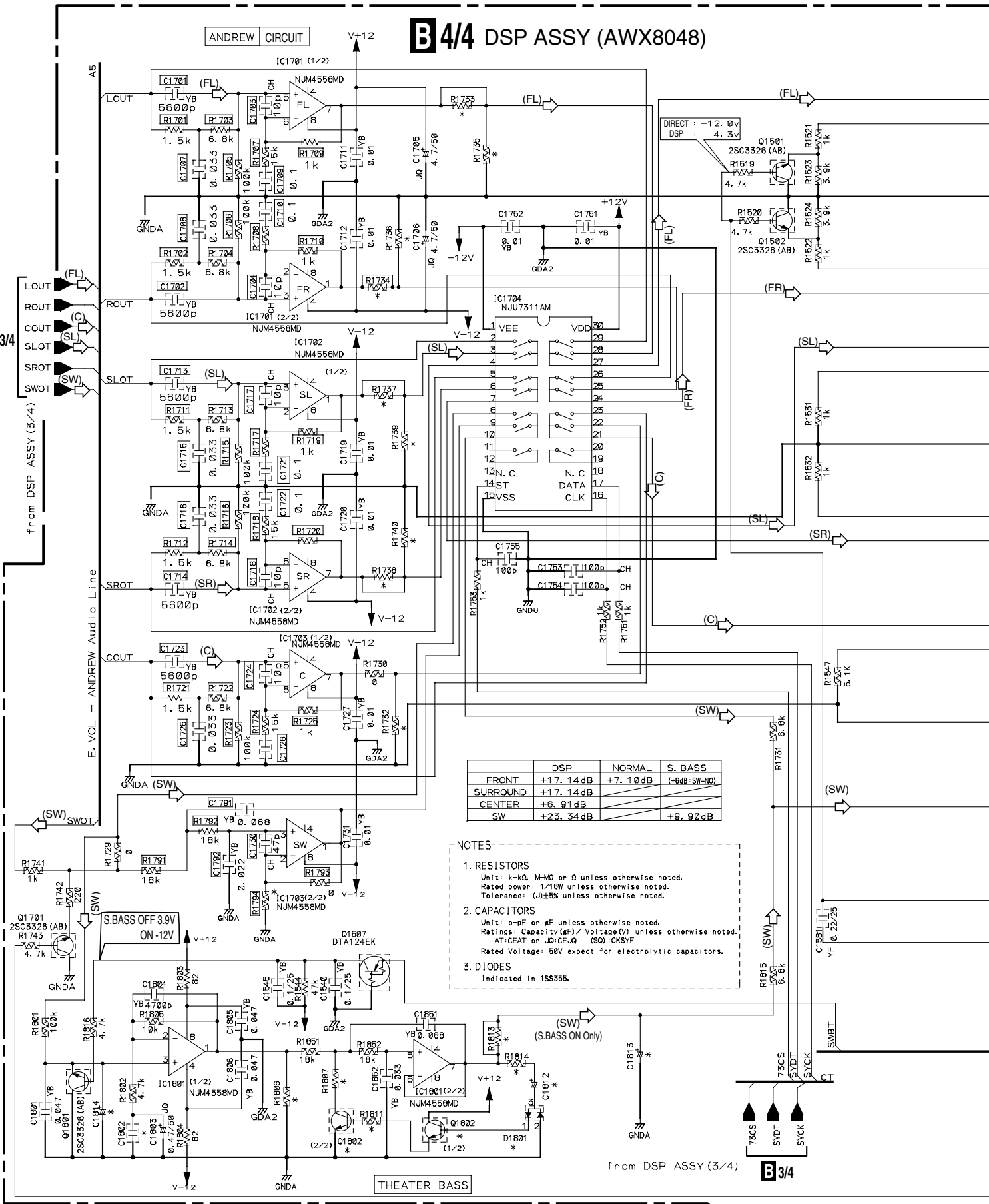
**O** : The power supply is shown with the marked box.

**B 3/4**

# 3.7 DSP(4/4) ASSY

A  
B  
C  
D  
E  
F

## B 4/4 DSP ASSY (AWX8048)



## B 4/4

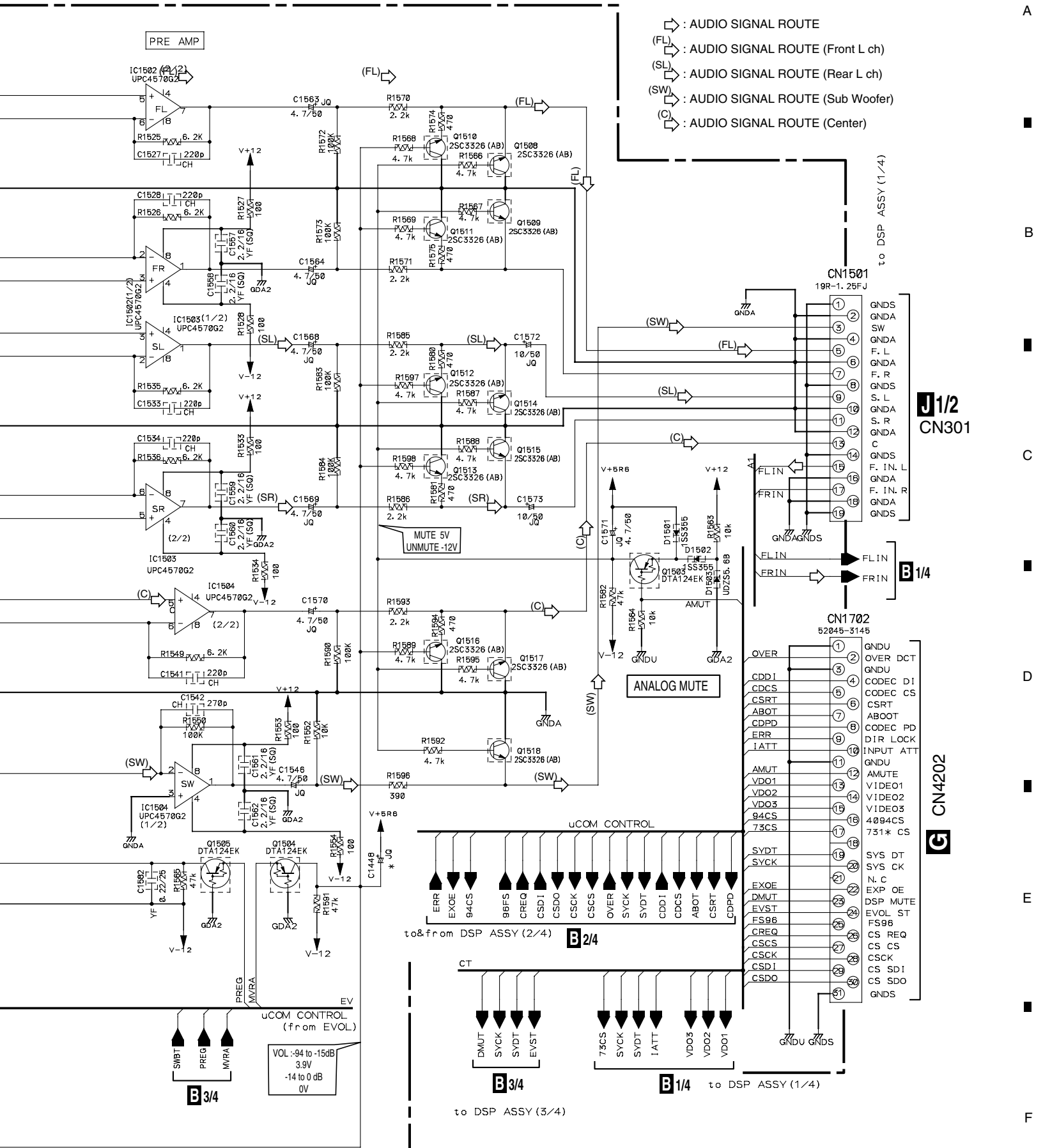
1

2

3

4





- ↷ : AUDIO SIGNAL ROUTE
- (FL) ↷ : AUDIO SIGNAL ROUTE (Front L ch)
- (SL) ↷ : AUDIO SIGNAL ROUTE (Rear L ch)
- (SW) ↷ : AUDIO SIGNAL ROUTE (Sub Woofer)
- (C) ↷ : AUDIO SIGNAL ROUTE (Center)

**J** 1/2  
CN301

**B** 1/4

**G**  
CN4202

**B** 2/4

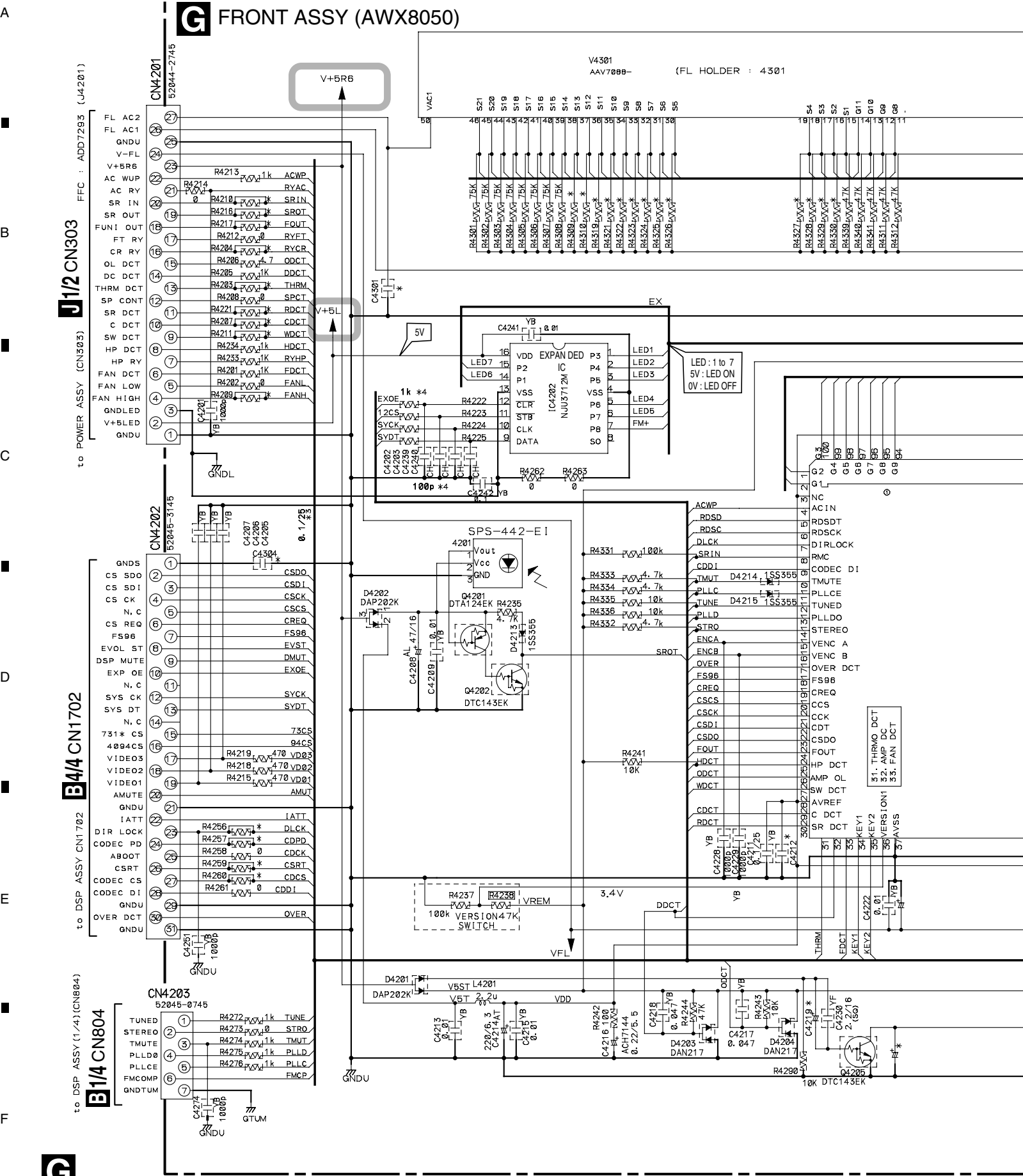
**B** 3/4

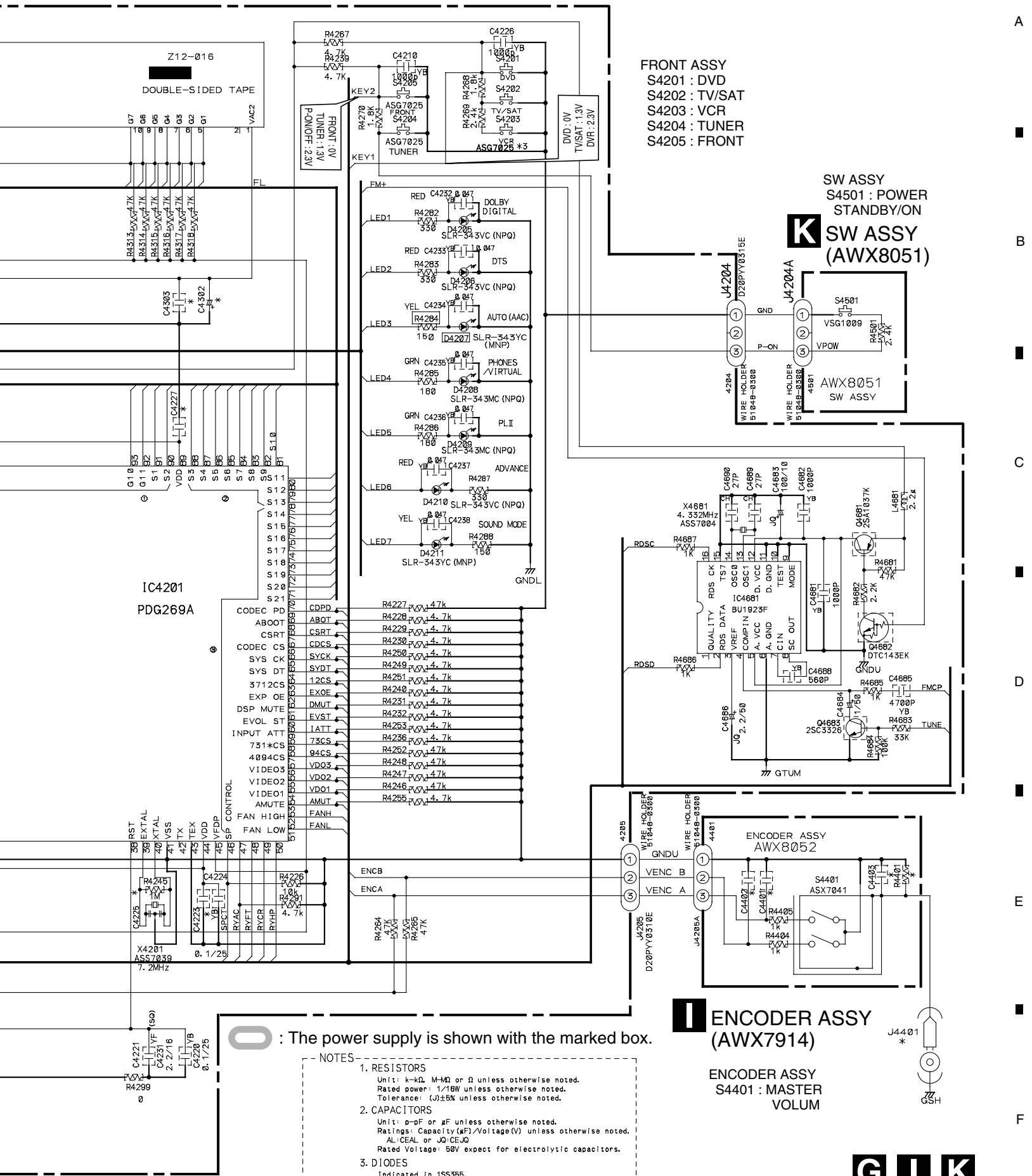
**B** 1/4

**B** 4/4

# 3.8 FRONT, ENCODER and SW ASSYS

## G FRONT ASSY (AWX8050)





# 3.9 POWER(1/2) ASSY

A  
B  
C  
D  
E  
F

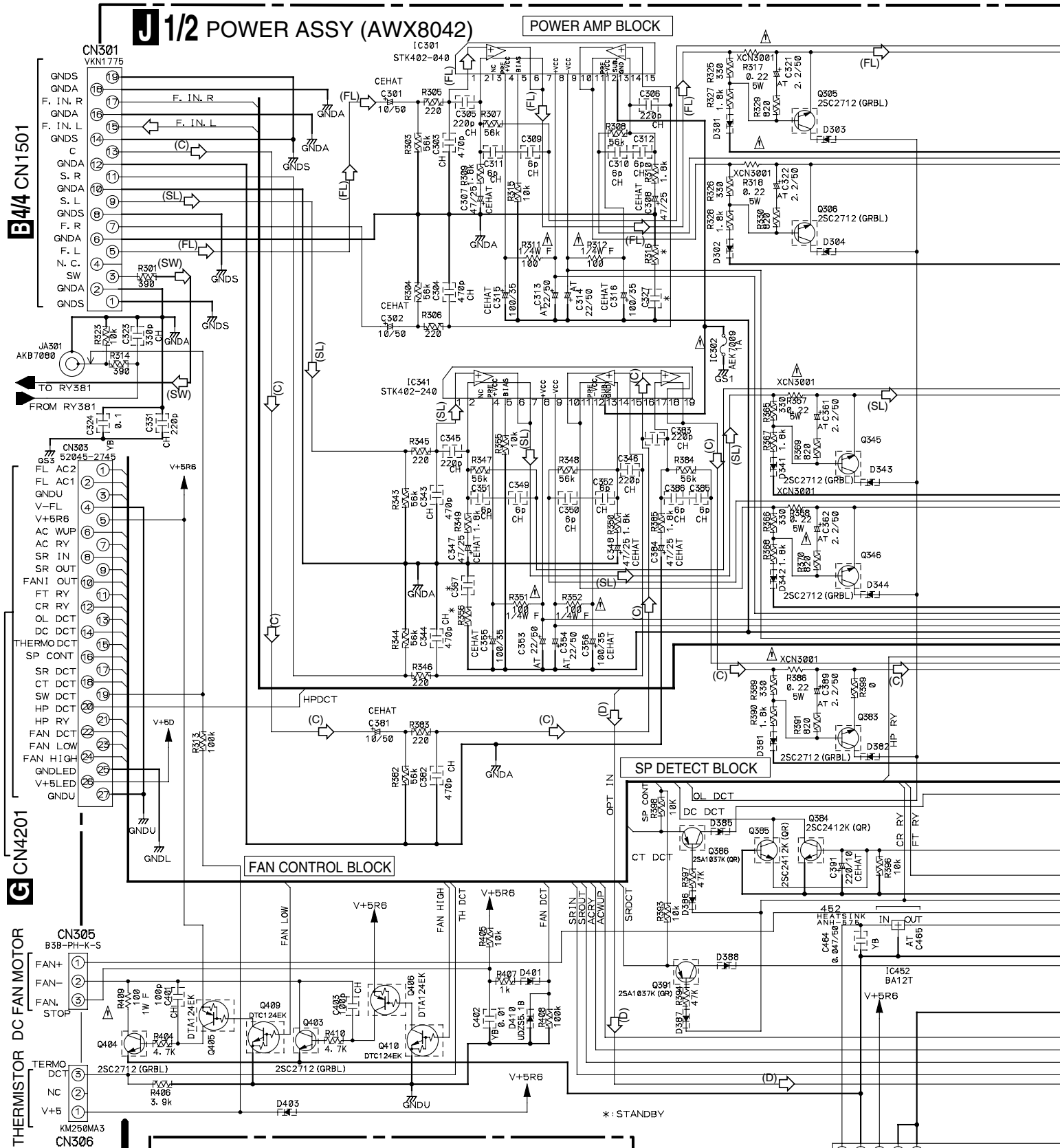
## J 1/2 POWER ASSY (AWX8042)

### POWER AMP BLOCK

### FAN CONTROL BLOCK

### SP DETECT BLOCK

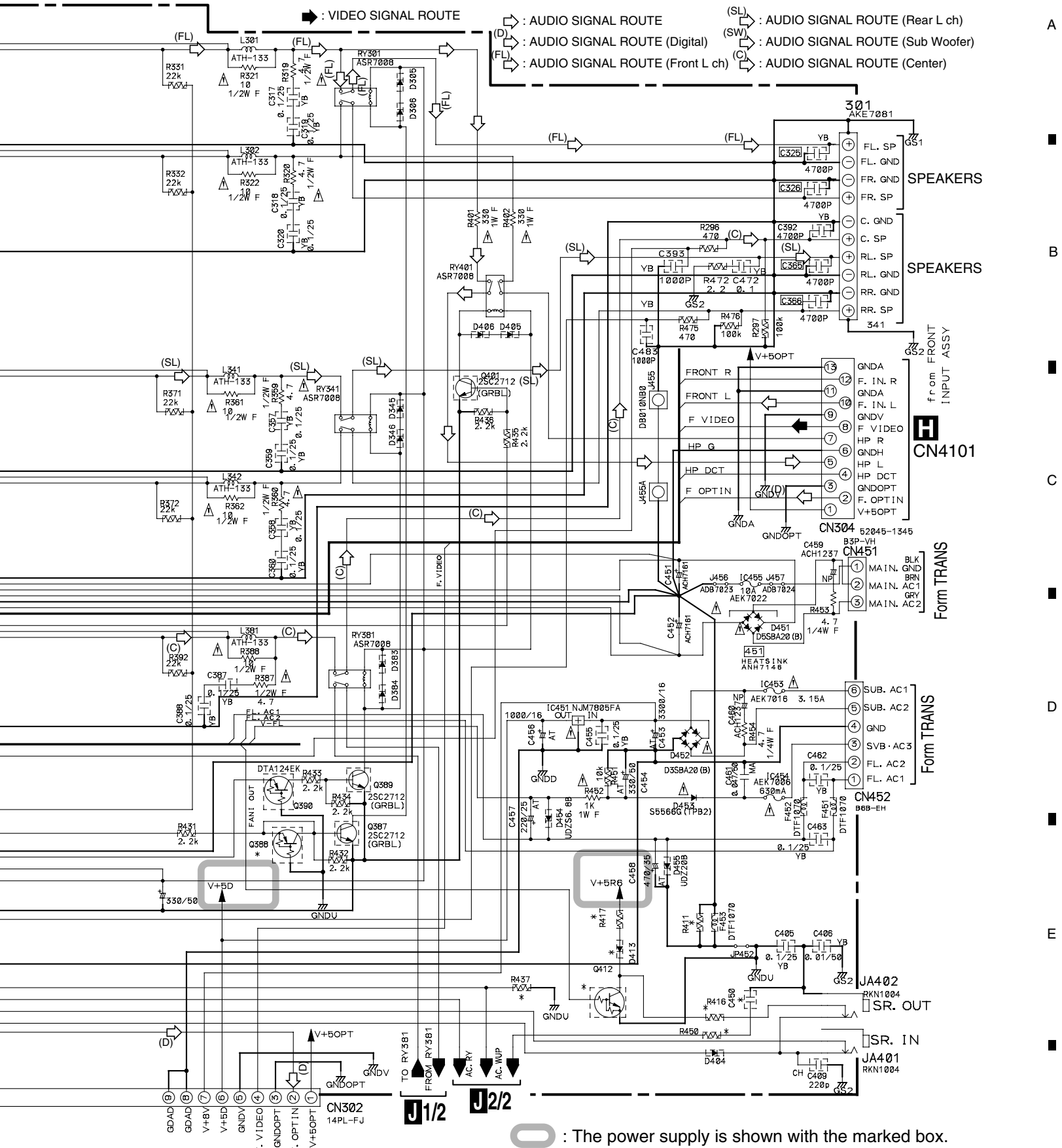
### THERMISTOR DC FAN MOTOR



- NOTES
- 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.
  - CAPACITORS  
Unit: p-pF or  $\mu$ F unless otherwise noted.  
Ratings: Capacity( $\mu$ F)/Voltage(V) unless otherwise noted.  
AT-CEAT (SQ) CKSQVF MA-CQMA  
Rated Voltage: 50V expect for electrolytic capacitors.
  - DIODES  
Indicated in 1S535.

## J 1/2

## B3/4 CN1601



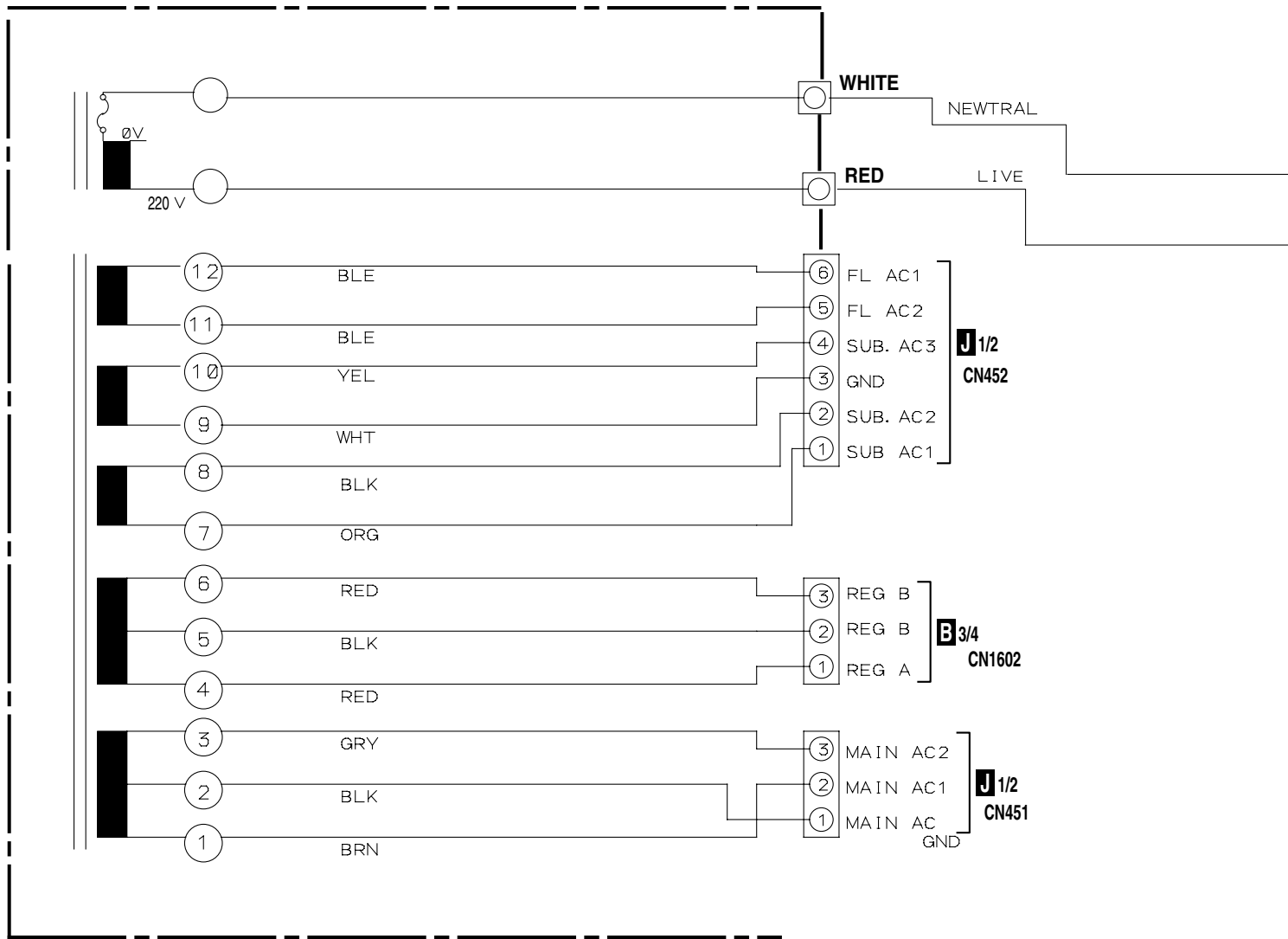
B3/4 CN1601

J 1/2

VSR-C100-S

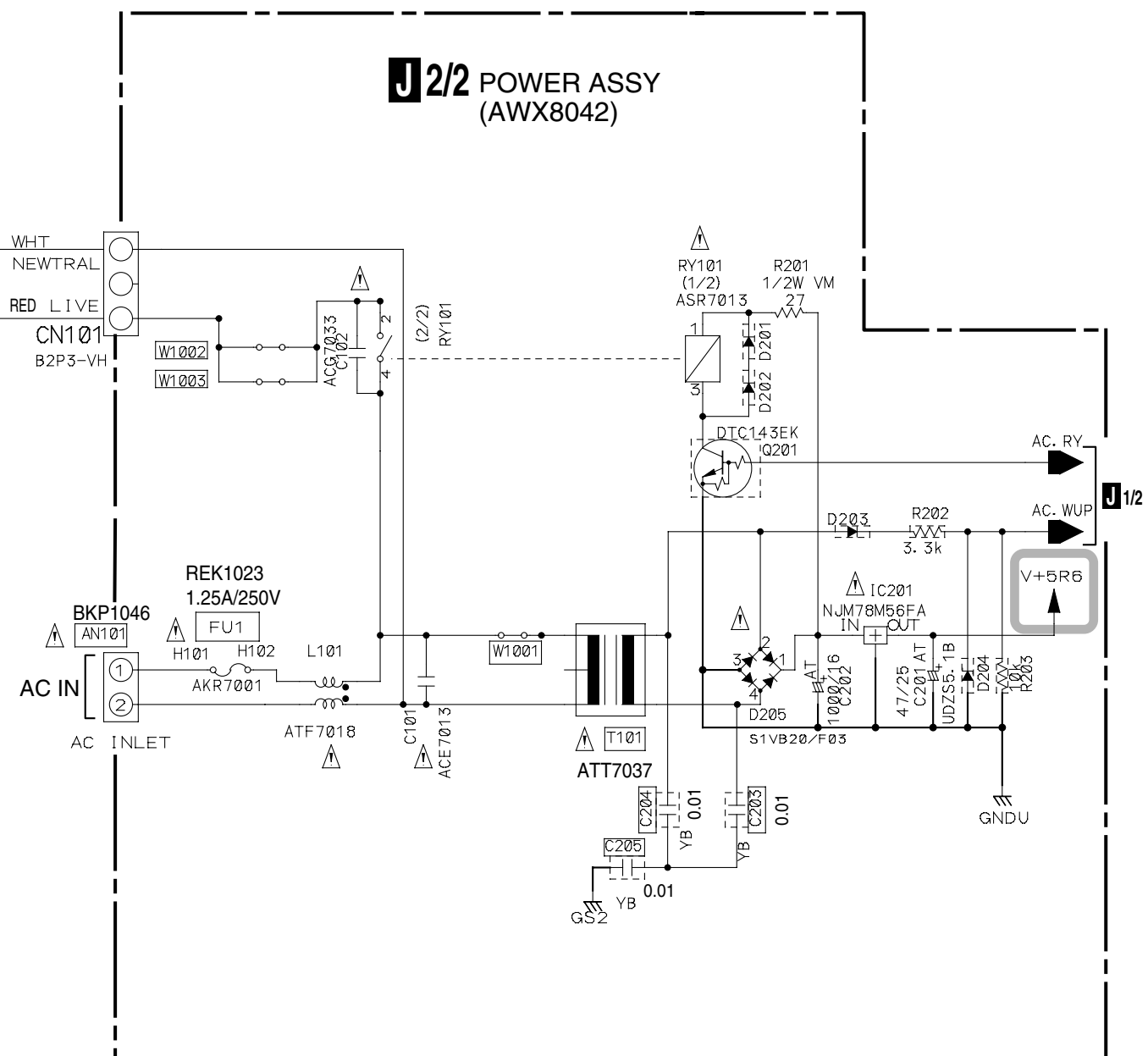
### 3.10 POWER(2/2) and TORANS ASSYS

#### POWER TRANSFORMER Secun Dary




NOTE

- RESISTORS  
Unit: k-Ω, M-Ω or Ω unless otherwise noted.  
Rated power: 1/10W unless otherwise noted.  
Tolerance: (J)±5% unless otherwise noted.
- 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
- DIODES  
Indicated in 1SS355-TRB.



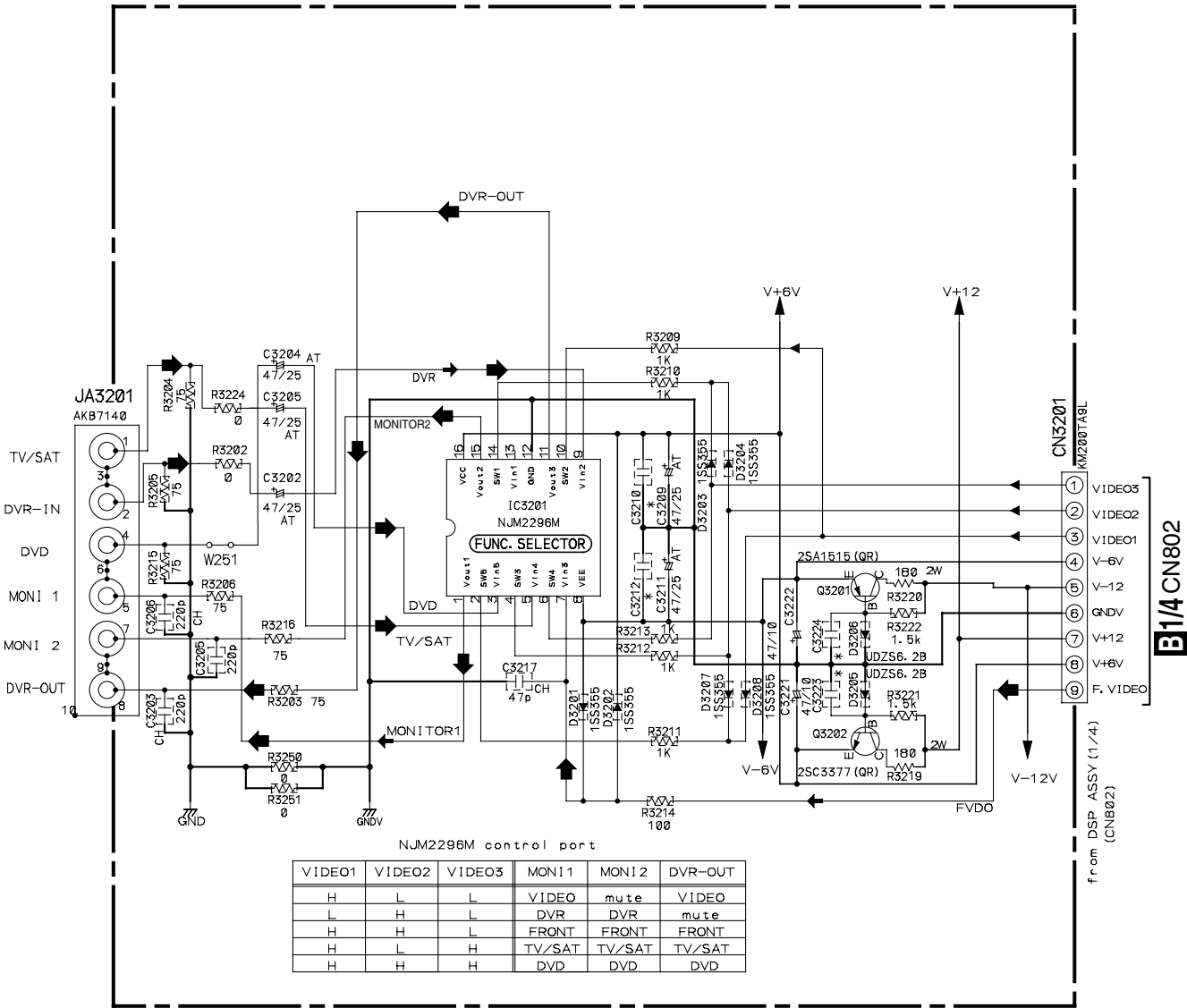
• NOTE FOR FUSE REPLACEMENT  
**CAUTION** -FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.  
REPLACE WITH SAME TYPE AND RATINGS ONLY.

 : The power supply is shown with the marked box.

# 3.11 VIDEO ASSY

## VIDEO ASSY (AWX8047)

➔ : VIDEO SIGNAL ROUTE



NOTE

- 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.
- 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 or AL:CEAL
- DIODES  
Indicated in 1SS355-TRB





5



6



7



8



A

B

C

D

E

F



5



6

VSX-C100-S



7




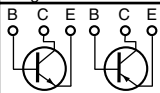

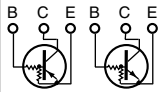

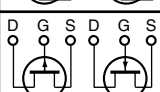

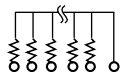


8



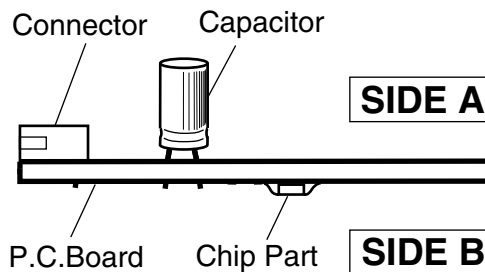
# 4. PCB CONNECTION DIAGRAM

## 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.

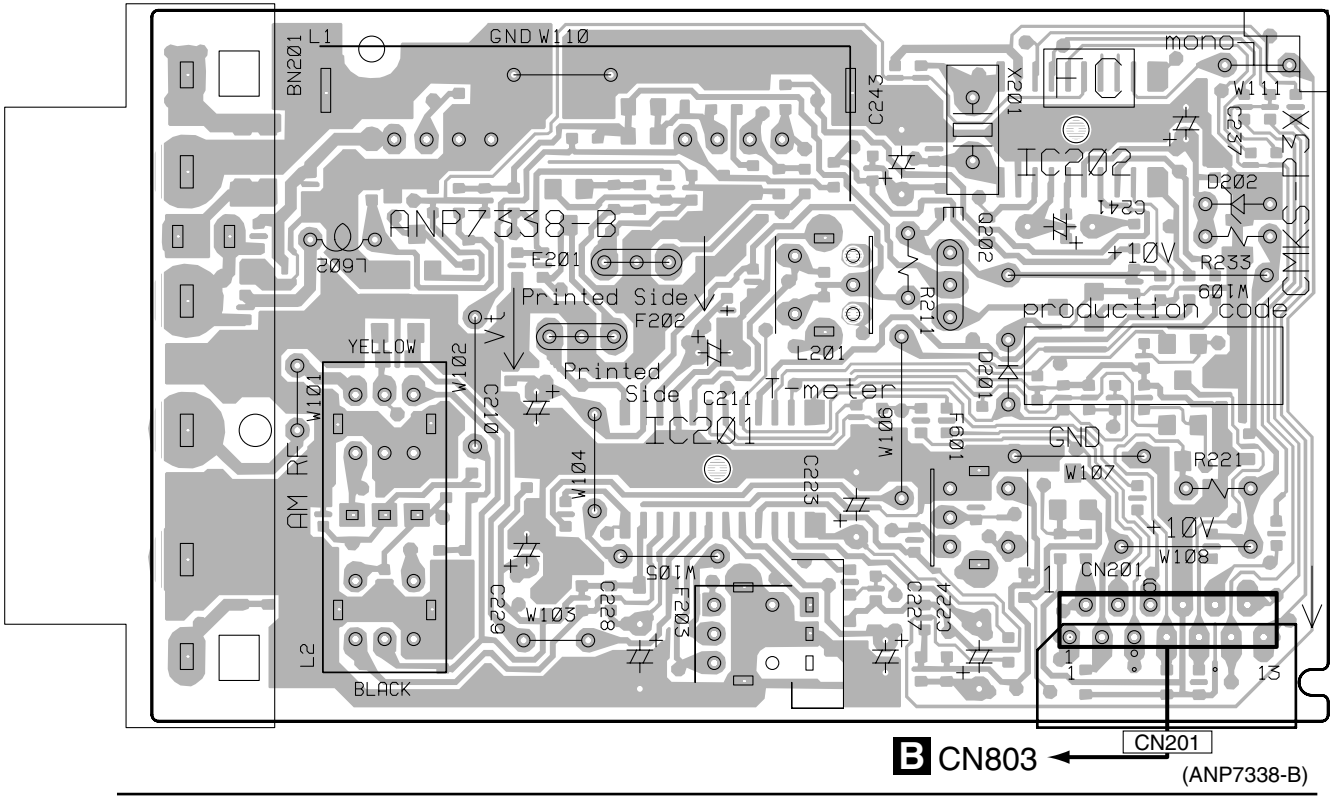


# 4.1 FM/AM TUNER MODULE

**SIDE B**

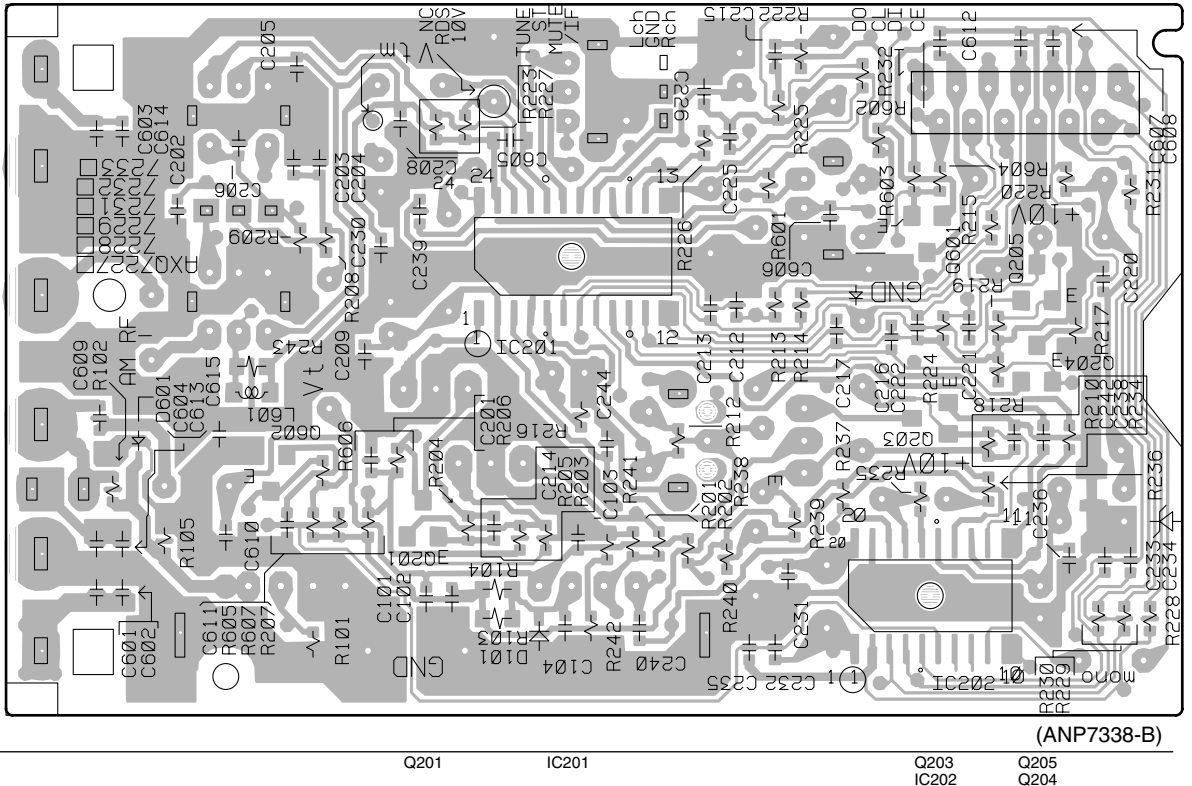
**SIDE A**

## **A** FM/AM TUNER MODULE



## **A** FM/AM TUNER MODULE

**SIDE B**



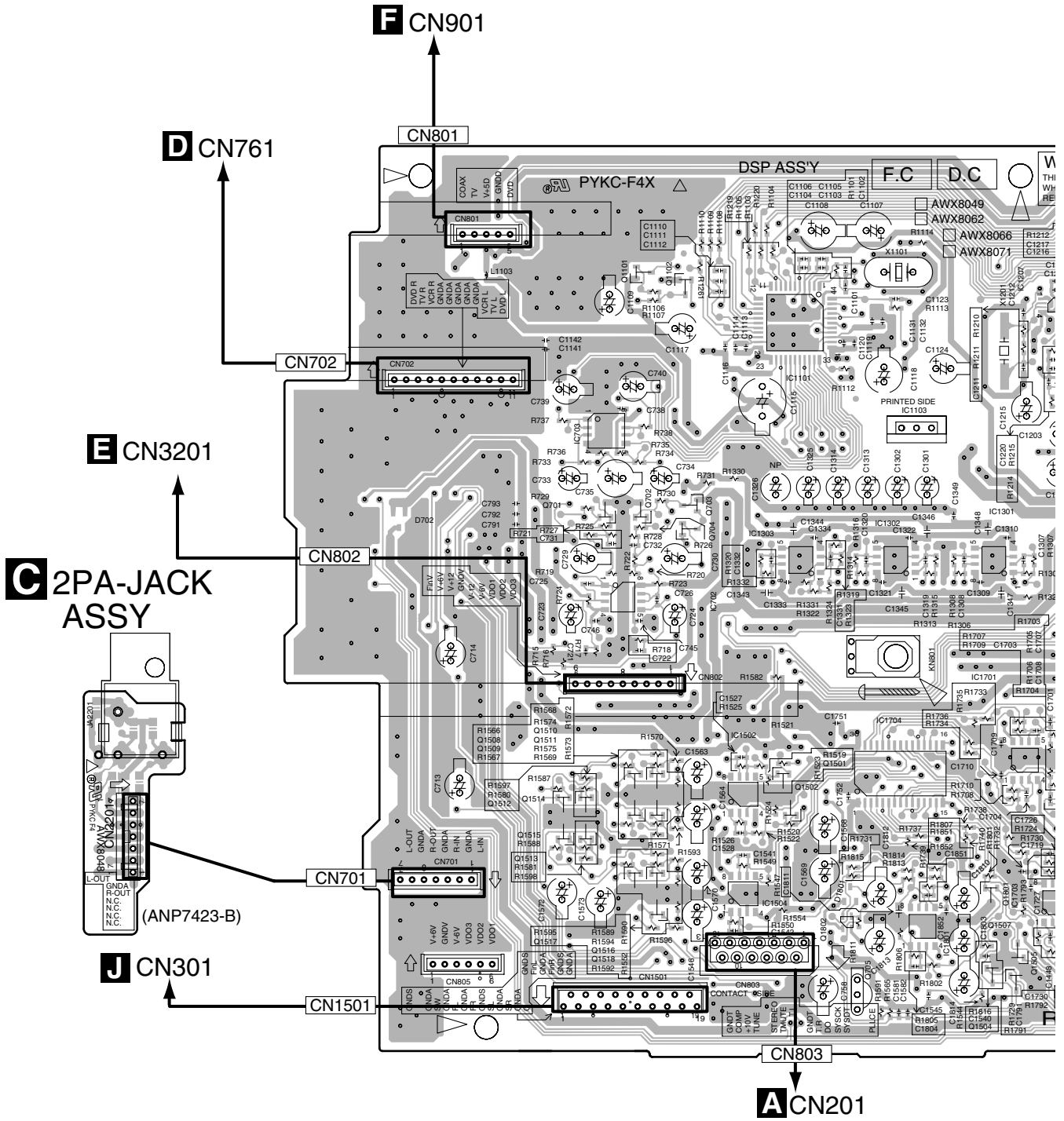
**A**

**A**

# 4.2 DSP and 2PA-JACK ASSY

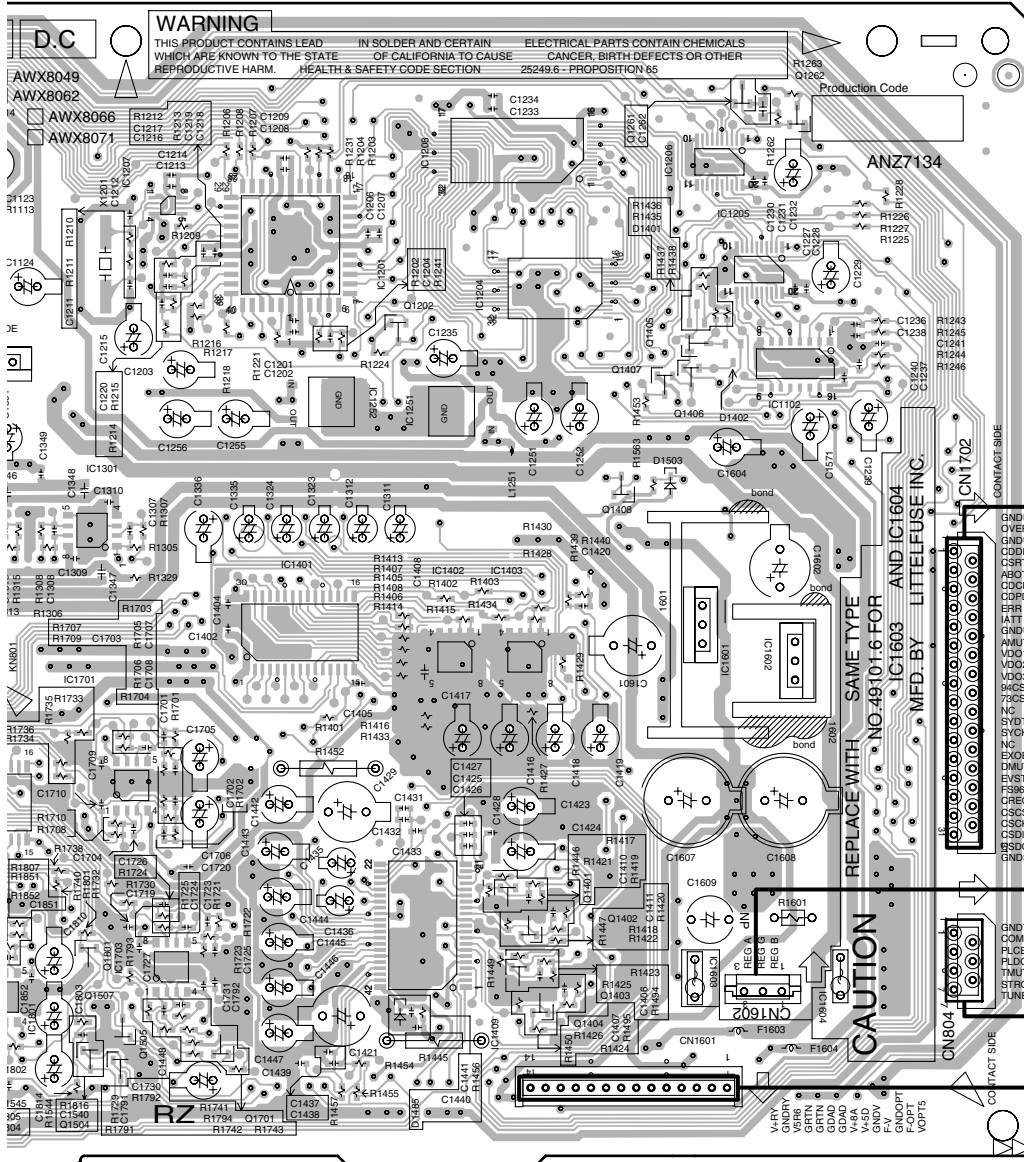
**SIDE A**

**B** DSP ASSY



Q1514	IC703	Q701	Q702	IC1502	IC1101	IC1704	IC1701	IC1207
Q1515	Q1512	Q1508	IC702	IC1504	Q1501	IC1801	Q1801	
	Q1513	Q1509	Q1510		Q1502		Q1804	Q1507
		Q1517	Q1511			Q1802		IC703
			Q1516			Q705		Q1505
			Q1518					

**B**



**G** CN4202

To Transformer

**G** CN4203

**J** CN302

(ANP7423-B)

01	IC1207	IC1201	Q1202	IC1208	Q1408	Q1261
Q1801	Q1411	IC1401	IC1252	IC1251	IC1204	IC1206
Q1804	Q1507			Q1401	Q1405	IC1205
	IC703		IC1409	Q1402	Q1406	IC1102
	Q1505	Q1701		Q1403	IC1603	IC1604
				Q1404		IC1601
						IC1602





# 4.3 POWER and FRONT INPUT ASSYS

**SIDE A**

**J POWER ASSY**

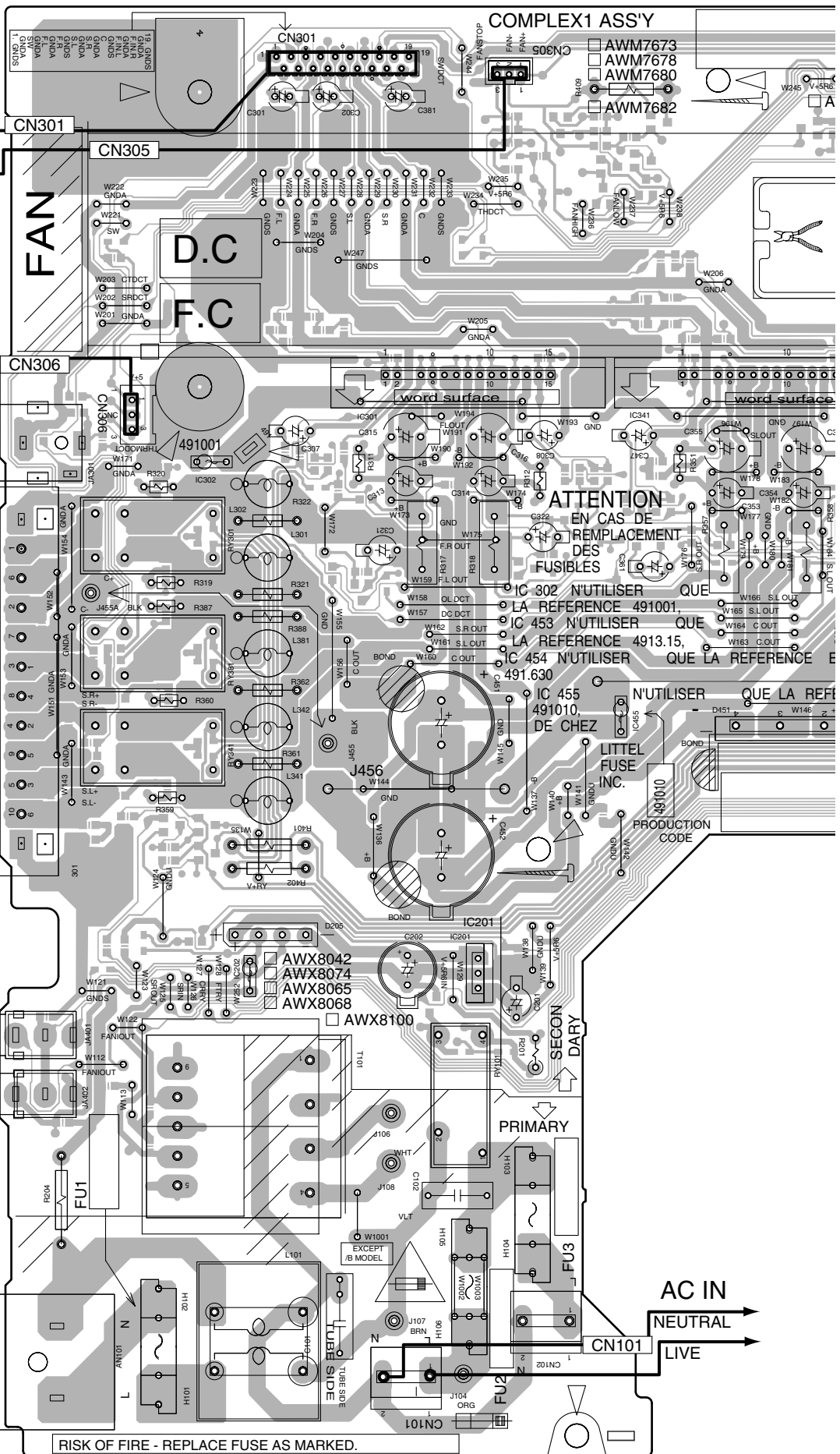
**B CN1501**

**FANMOTOR**

**THERMISTOR**

**COMPLEX1 ASS'Y**

- AWM7673
- AWM7678
- AWM7680
- AWM7682



**ATTENTION**  
**EN CAS DE**  
**REMPACEMENT**  
**DES**  
**FUSIBLES**  
**IC 302 N'UTILISER QUE**  
**LA REFERENCE 491001.**  
**IC 453 N'UTILISER QUE**  
**LA REFERENCE 4913.15.**  
**IC 454 N'UTILISER**  
**QUE LA REFERENCE**  
**491.630**  
**IC 455**  
**491010.**  
**N'UTILISER QUE LA REF**  
**DE CHEZ**

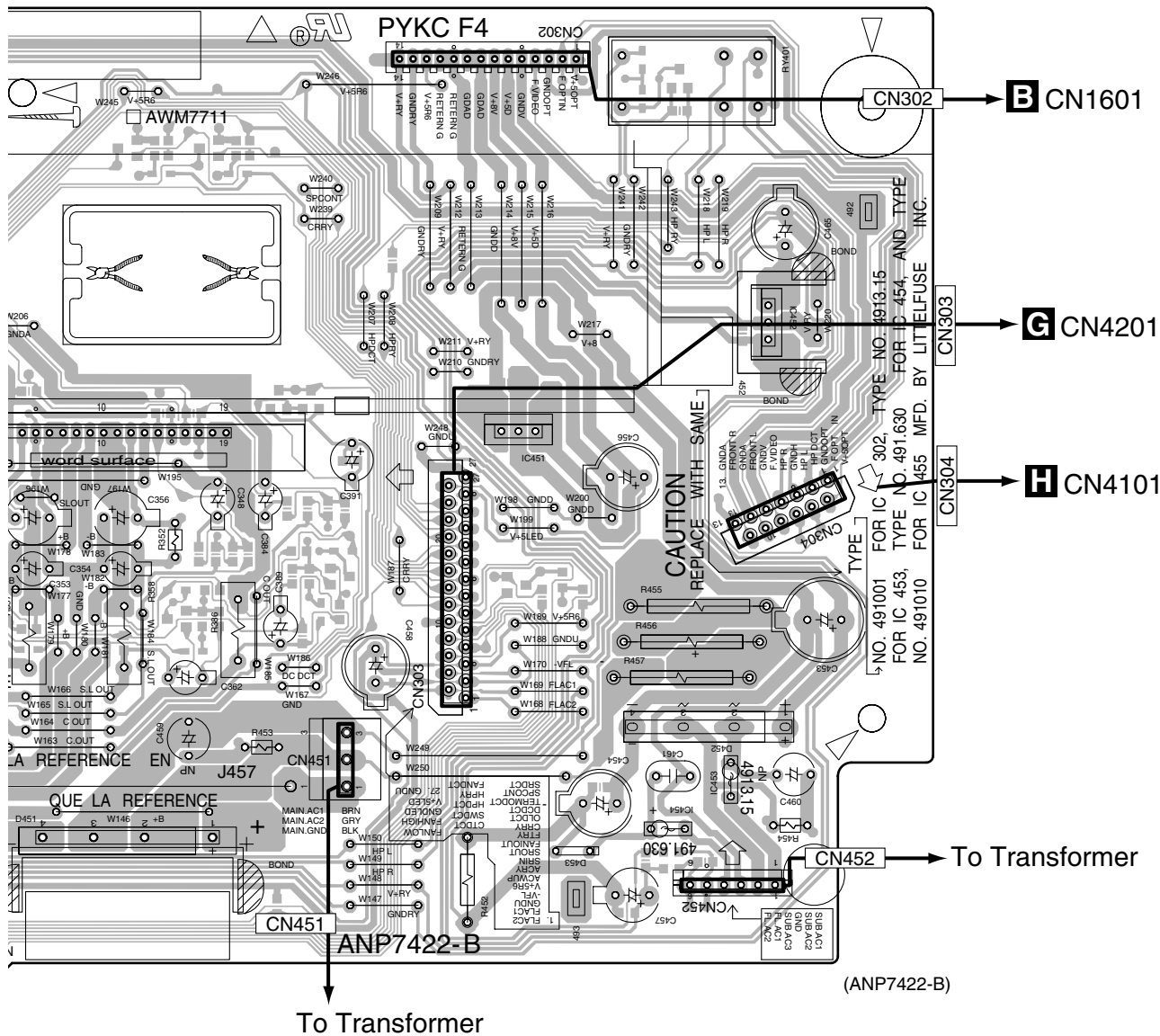
**LITTEL FUSE**  
**INC.**  
**491010**  
**PRODUCTION**  
**CODE**

**RISK OF FIRE - REPLACE FUSE AS MARKED.**

**VSX-C100-S**



**SIDE A**



**SIDE B**

**J POWER ASSY**

- Q401
- Q386 Q403
- Q391
- Q404
- Q405
- Q406
- Q409
- Q410

- Q385 Q384

- Q383
- Q412 Q346 Q345

- Q306

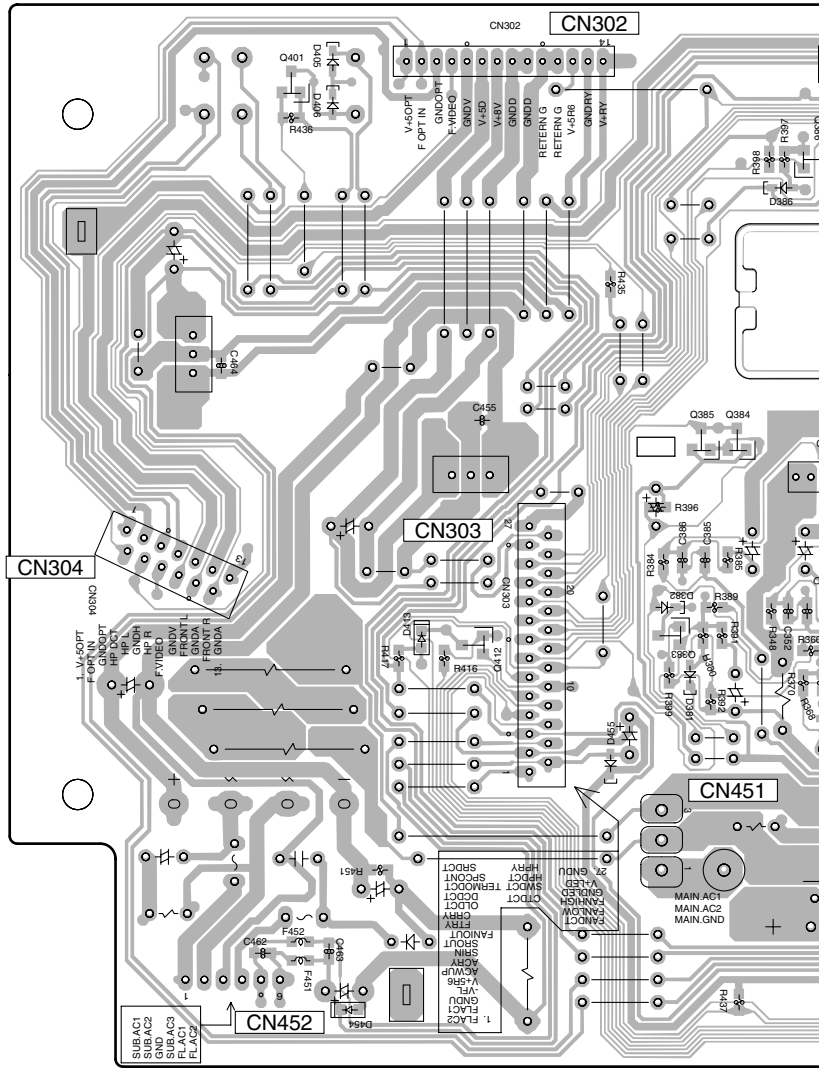
- Q305

- Q389

- Q390

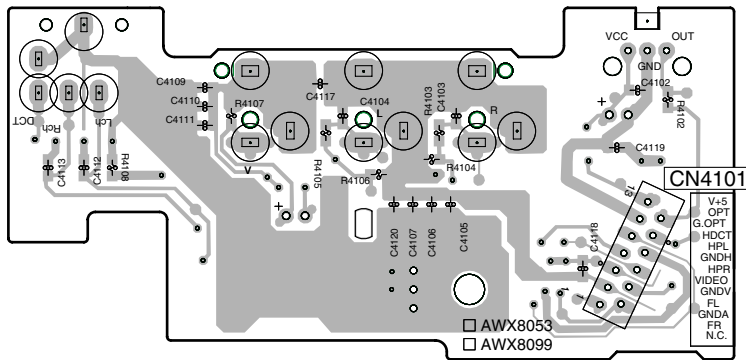
- Q387

- Q201



(ANP7422-B)

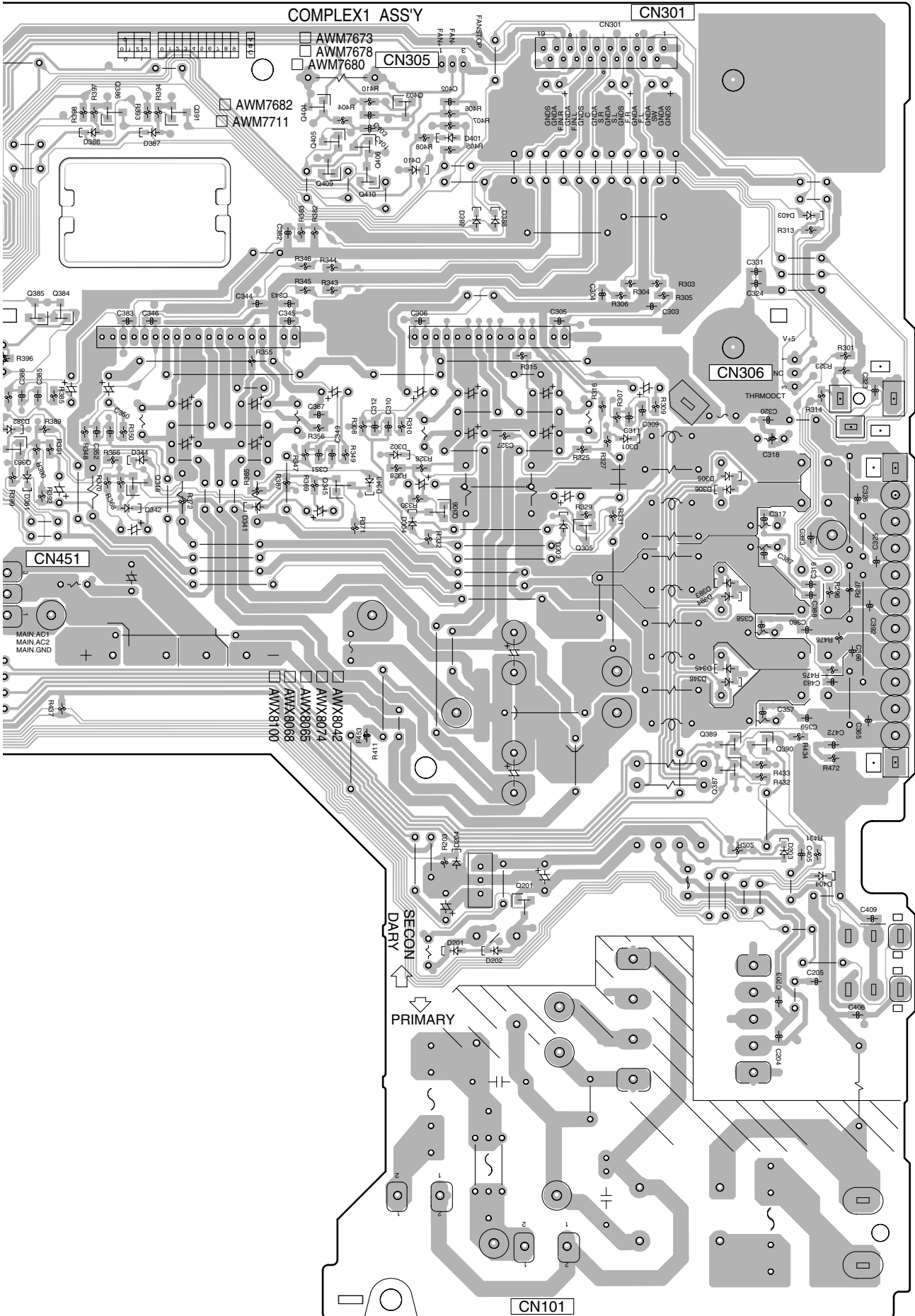
**H FRONT INPUT ASSY**



(ANP7423-B)

**SIDE B**

A  
B  
C  
D  
E  
F  
J

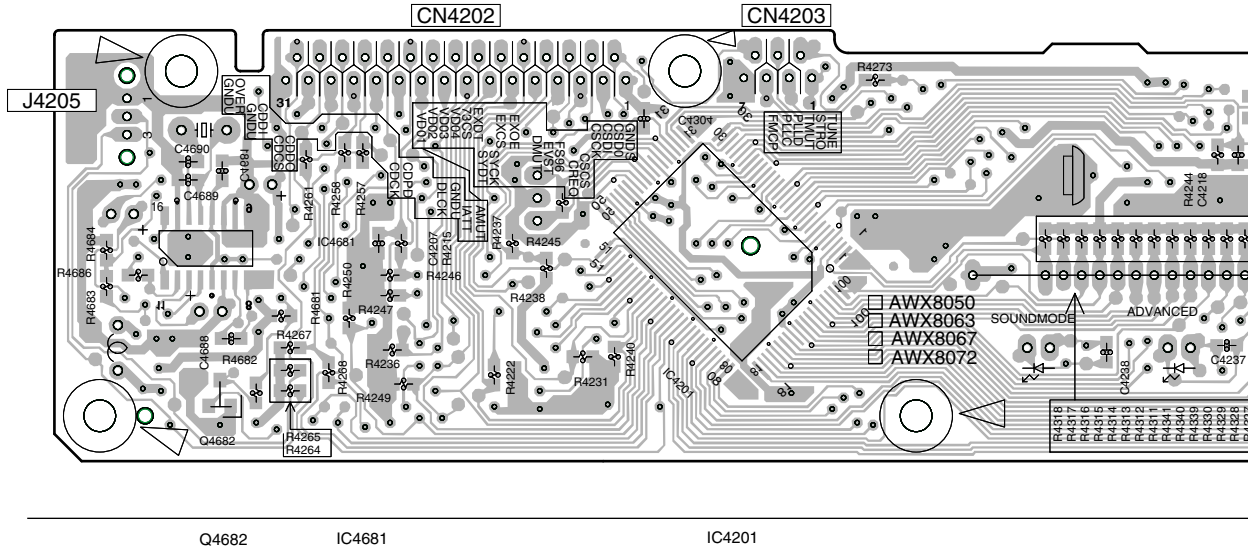




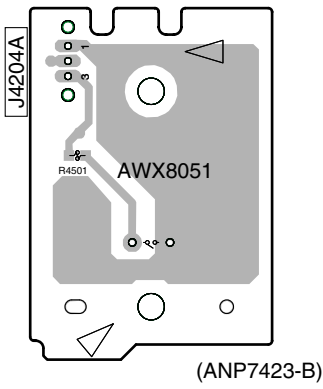


**SIDE B**

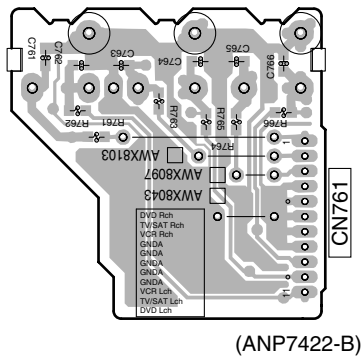
**G FRONT ASSY**



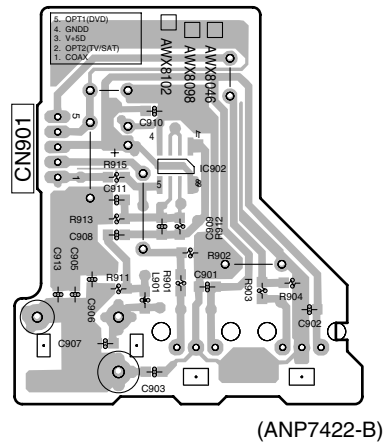
**K SW ASSY**



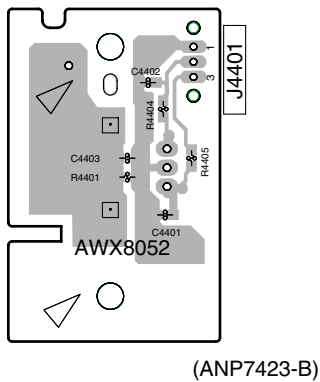
**D 6PA-JACK ASSY**



**F DIGITAL-IN ASSY**

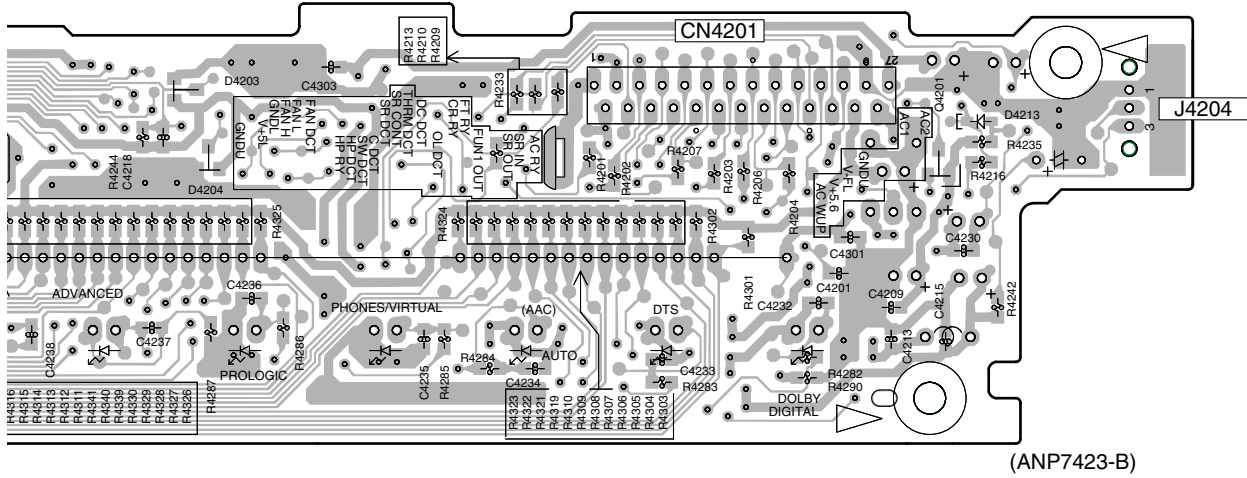


**I ENCODER ASSY**



**D F G I K**

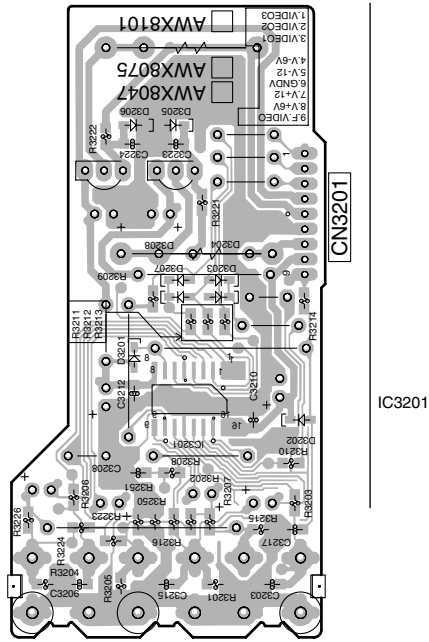
SIDE B



(ANP7423-B)

Q4201

E VIDEO ASSY



(ANP7422-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 x 10<sup>1</sup>  $\rightarrow$  561 ..... RD1/4PU  $\overline{561}J$

47k  $\Omega$   $\rightarrow$  47 x 10<sup>3</sup>  $\rightarrow$  473 ..... RD1/4PU  $\overline{473}J$

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

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

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

5.62k  $\Omega$   $\rightarrow$  562 x 10<sup>1</sup>  $\rightarrow$  5621 ..... RN1/4PC  $\overline{5621}F$

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

## LIST OF ASSEMBLIES

	1..FM/AM TUNER MODULE	AXQ7232	D346, D381		1SS355
			D382, D383		1SS355
			D384, D385		1SS355
NSP	1..COMPLEX 1 Assy	AWM7673	D386, D387		1SS355
	2..POWER Assy	AWX8042	D388, D401		1SS355
	2..6PA-JACK Assy	AWX8043			
	2..DIGITAL IN Assy	AWX8046	D403, D404		1SS355
	2..VIDEO Assy	AWX8047	D405, D406		1SS355
	2..2PA-JACK Assy	AWX8048	$\Delta$ D452		D3SBA20(B)
			$\Delta$ D451		D5SBA20(B)
			$\Delta$ D205		S1VB20/F03
NSP	1..COMPLEX 2 Assy	AWM7674	$\Delta$ D453		S5566G(TPB2)
	2..DSP Assy	AWX8049	D455		UDZ20B
	2..FRONT Assy	AWX8050	D204, D410		UDZS5.1B
	2..SW Assy	AWX8051	D454		UDZS6.8B
	2..ENCODER Assy	AWX8052			
	2..FRONT INPUT	AWX8053			

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

## J POWER ASSY

### SEMICONDUCTORS

$\Delta$ IC454	AEK7006
$\Delta$ IC302	AEK7009
$\Delta$ IC453	AEK7016
$\Delta$ IC455	AEK7022
$\Delta$ IC452	BA12T
$\Delta$ IC451	NJM7805FA
$\Delta$ IC201	NJM78M56FA
IC301	STK402-040
IC341	STK402-240
Q386, Q391	2SA1037K
Q384, Q385	2SC2412K
Q305, Q306, Q345	2SC2712
Q346, Q383	2SC2712
Q387, Q389, Q401	2SC2712
Q403, Q404	2SC2712
Q390, Q405	DTA124EK
Q406	DTA124EK
Q409, Q410	DTC124EK
Q201	DTC143EK
D201, D202, D203	1SS355
D301, D302	1SS355
D303, D304	1SS355
D305, D306,	1SS355
D341, D342, D343	1SS355
D344, D345	1SS355

### COILS AND FILTERS

$\Delta$ L101	ATF7018
L301, L302, L341	ATH-133
L342, L381	ATH-133
F451, F452	DTF1070
F453	DTF1070

### SWITCHES AND RELAYS

RY301, RY341, RY381	ASR7008
RY401	ASR7008
$\Delta$ RY101	ASR7013

### CAPACITORS

$\Delta$ C101	ACE7013
$\Delta$ C102	ACG7033
C459, C460	ACH1237
C451, C452	ACH7161
C401, C403	CCSRCH101J50
C305, C306, C331	CCSRCH221J50
C345, C346	CCSRCH221J50
C383, C409	CCSRCH221J50
C323	CCSRCH331J50
C303, C304, C343	CCSRCH471J50
C344, C382	CCSRCH471J50
C309, C310	CCSRCH6R0D50
C311, C312, C349	CCSRCH6R0D50
C350, C351	CCSRCH6R0D50
C352, C385	CCSRCH6R0D50
C386	CCSRCH6R0D50
C202, C456	CEAT102M16
C313, C314	CEAT220M50
C353, C354	CEAT220M50
C457	CEAT221M25



<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
C321, C322, C361 C362, C389 C454, C465 C453 C201		CEAT2R2M50 CEAT2R2M50 CEAT331M50 CEAT332M16 CEAT470M25
C458 C301, C302 C381 C315, C316, C355 C356		CEAT471M35 CEHAT100M50 CEHAT100M50 CEHAT101M35 CEHAT101M35
C391 C307, C308, C347 C348, C384 C464 C393, C483		CEHAT221M10 CEHAT470M25 CEHAT470M25 CKSQYB473K50 CKSRYB102K50
C203, C204, C205 C402, C406 C317, C318 C319, C320, C324 C357, C358, C359		CKSRYB103K50 CKSRYB103K50 CKSRYB104K25 CKSRYB104K25 CKSRYB104K25
C360, C360 C387, C388, C405 C455, C462, C463 C472 C325, C326, C365		CKSRYB104K25 CKSRYB104K25 CKSRYB104K25 CKSRYB104K25 CKSRYB472K50
C366, C392 ⚠ C461		CKSRYB472K50 CQMA473J50
<b><u>RESISTORS</u></b>		
⚠ R321, R322, R361 ⚠ R362, R388 ⚠ R319, R320 ⚠ R359, R360, R387 ⚠ R201		RD1/2LMF100J RD1/2LMF100J RD1/2MMF4R7J RD1/2MMF4R7J RD1/2VM270J
⚠ R311, R312, R351 ⚠ R352 ⚠ R453, R454 ⚠ R409 ⚠ R452		RD1/4MUF101J RD1/4MUF101J RD1/4MUF4R7J RS1LMF101J RS1LMF102J
⚠ R401, R402 ⚠ R317, R318 ⚠ R357, R358, R386 Other Resistors		RS1LMF331J XCN3001 XCN3001 RS1/16S###J
<b><u>OTHERS</u></b>		
CN302 FJ CONNECTOR 14P CN304 13P FFC CONNECTOR CN303 27P FFC CONNECTOR JA301 1P PIN JACK 301 6P SPEAKER TERMINAL		14PL-FJ 52045-1345 52045-2745 AKB7080 AKE7081
H101, H102 FUSE CLIP ⚠ T101 SUB TRANSFORMER ⚠ CN101 2P CONNECTOR		AKR7001 ATT7037 B2P3-VH
CN305 3P CONNECTOR CN451 3P CONNECTOR CN452 6P TOP POST AN101 AC INLET CN306 3P PLUG		B3B-PH-K B3P-VH B6B-EH BKP1046 KM250MA3
JA401, JA402 REMOTE JACK 491 PCB BINDER CN301 19P FJ CONNECTOR		RKN1004 VEF1040 VKN1775

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
<b>D</b>	<b>6PA-JACK ASSY</b>	
<b><u>CAPACITORS</u></b>		
	C761, C762, C763 C764, C765, C766	CCSRCH101J50 CCSRCH101J50
<b><u>RESISTORS</u></b>		
	Other Resistors	RS1/16S###J
<b><u>OTHERS</u></b>		
	CN761 11P SOCKET JA761 6P PIN JACK	KP200TA11L VKB1130
<b>F</b>	<b>DIGITAL-IN ASSY</b>	
<b><u>SEMICONDUCTORS</u></b>		
	IC902	TC7WU04F
<b><u>COILS AND FILTERS</u></b>		
	L901	QTL1013
<b><u>CAPACITORS</u></b>		
	C907 C911 C908, C910, C913 C901, C902, C905 C906	CCSRCH221J50 CCSRCH470J50 CKSRYB103K50 CKSRYB104K25 CKSRYB105K10
<b><u>RESISTORS</u></b>		
	Other Resistors	RS1/16S###J
<b><u>OTHERS</u></b>		
	JA901, JA902 OPTICAL RECEIVE CN901 5P SOCKET JA903	GP1FA502RZ KP200TA5L VKB1077
<b>E</b>	<b>VIDEO ASSY</b>	
<b><u>SEMICONDUCTORS</u></b>		
	IC3201 Q3201 Q3202 D3201, D3202, D3203 D3204, D3207, D3208  D3205, D3205, D3206, D3206	NJM2296M 2SA1515 2SC3377 1SS355 1SS355  UDZS6.2B
<b><u>CAPACITORS</u></b>		
	C3203, C3206, C3215 C3217 C3221, C3222 C3202, C3204, C3205 C3205, C3209, C3211	CCSRCH221J50 CCSRCH470J50 CEAT470M10 CEAT470M25 CEAT470M25
<b><u>RESISTORS</u></b>		
	⚠ R3219, R3220 Other Resistors	RS2LMF181J RS1/16S###J
<b><u>OTHERS</u></b>		
	JA3201 6P PIN JACK CN3201 9P SOCKET	AKB7140 KP200TA9L
<b>C</b>	<b>2P JACK ASSY</b>	

**Mark No.**      **Description**      **Part No.**

**CAPACITORS**

C2201, C2202      CCSRCH101J50  
 C2203, C2204      CCSRCH220J50  
 C2205      CKSRYB103K50

**RESISTORS**

Other Resistors      RS1/16S###J

**OTHERS**

JA2201 2P PIN JACK      AKB7046  
 CN2201 7P SOCKET      KP200TA7L

**A FM/AM TUNER MODULE**

**SEMICONDUCTORS**

IC201      BA1451F  
 IC202      LC72131MD  
 Q201, Q204, Q205, Q601      2SC2412K  
 Q202      DTA124ES  
 Q203, Q602      DTC124EK

D201      1SS133  
 D601      HVU187  
 D202      MTZJ5.1C  
 D101      UDZS6.8B

**COILS AND FILTERS**

L201      ATE7003  
 F202      ATF-107  
 F201      ATF-119  
 F601      ATF7025  
 F203      ATF7026

L602      LAU2R2J  
 L601      LCTA270J2520

**CAPACITORS**

C605      CCSQCH680J50  
 C212, C213, C226, C233-C235      CCSRCH101J50  
 C240, C614      CCSRCH101J50  
 C206      CCSRCH120J50  
 C231, C232      CCSRCH150J50

C223      CEAT100M50  
 C229      CEAT101M10  
 C224      CEAT1R0M50  
 C227      CEAT220M25  
 C241      CEAT2R2M50

C243      CEAT330M16  
 C228      CEAT3R3M50  
 C237      CEAT470M10  
 C211      CEJQ1R0M50  
 C210      CEJQ470M16

C103, C104, C204, C238, C609      CKSRYB102K50  
 C102, C208, C216, C217, C220      CKSRYB103K50  
 C239, C242, C604, C610, C615      CKSRYB103K50  
 C225      CKSRYB153K50  
 C607, C608      CKSRYB182K50

C201, C205, C214, C230, C236      CKSRYB223K50  
 C244, C611      CKSRYB223K50  
 C221      CKSRYB224K10  
 C603      CKSRYB392K50  
 C215      CKSRYB471K50

C202, C222      CKSRYB473K16  
 C606      CKSRYB561K50

**Mark No.**      **Description**      **Part No.**

**RESISTORS**

R211      RD1/4PU221J  
 R221      RD1/4PU222J  
 R233      RD1/4PU391J  
 R103, R104      RS1/10S221J  
 Other Resistors      RS1/16S###J

**OTHERS**

CN201 13P SOCKET      52044-1345  
 BN201 2P ANTENNA TERM.      AKA7002  
 SHIELD CASE T      ANK7072  
 SHIELD CASE B      ANK7073  
 X201 CRYSTAR RES. 7.2MHz      ASS1093

FM FRONT END      AXF7005  
 AM RF TUNING BLOCK      AXX7072

**B DSP ASSY**

**SEMICONDUCTORS**

⚠ IC1603, IC1604      AEK7012  
 IC1101      AK4586VQ  
 IC1601      BA12T  
 IC1102      BU4094BCF  
 IC1201      CS493292

IC1409      M62446FP  
 IC703      NJM2100M  
 IC1252      NJM2391DL1-25  
 IC1251      NJM2391DL1-33  
 IC1301, IC1302, IC1303, IC1402      NJM4558MD

IC1403, IC1701, IC1702, IC1703      NJM4558MD  
 IC1801      NJM4558MD  
 IC1103      NJM78M05FA  
 IC1602      NJM7912FA  
 IC1704      NJU7311AM

IC701      NJU7312AM  
 IC1401      NJU7313AM  
 IC1204      PD8099A  
 IC1205      TC74LVX244FT  
 IC1202, IC1203      TC74VHC574F

IC1206      TC74VHCT244AFT  
 IC1207      TC7WU04FU  
 IC1502, IC1503, IC1504, IC702      UPC4570G2  
 Q705      2SC1740S  
 Q1401, Q1402, Q1403, Q1404      2SC3326

Q1409, Q1410, Q1501, Q1502      2SC3326  
 Q1508, Q1509, Q1510, Q1511      2SC3326  
 Q1512, Q1513, Q1514, Q1515      2SC3326  
 Q1516, Q1517, Q1518, Q1701      2SC3326  
 Q1801, Q701, Q702      2SC3326

Q1101, Q1262, Q1405, Q1406      DTA124EK  
 Q1408, Q1408, Q1503, Q1504      DTA124EK  
 Q1505, Q1507, Q703      DTA124EK  
 Q1261, Q1407, Q704      DTC124EK  
 Q1102      DTC143EK

D1601, D1602, D1603, D1604      1SR154-400  
 D1481, D1483, D1501, D1502, D701      1SS355  
 D702      DAN217  
 D1401, D1402      DAP202K  
 D1605, D1606      RB501V-40

D1485      UDZS5.1B

Mark No.	Description	Part No.
D1503		UDZS5.6B
D1482, D1484		UDZS6.8B

### COILS AND FILTERS

L1201, L1251, L1252	ATL7002
F1101, F1601, F1602, F1603, F1604	DTF1070
L1101, L1102, L1103, L1202, L1203	QTL1013
L1204, L1205	QTL1013
L701, L701	QTL1013

### CAPACITORS

C1609	ACH1237
C1211, C1212, C1703, C1704, C1717	CCSRCH100D50
C1718, C1724	CCSRCH100D50
C1437, C1438, C1439, C1753, C1754	CCSRCH101J50
C1755, C717, C718, C719	CCSRCH101J50
C721, C722, C731, C732	CCSRCH101J50
C1317, C1318	CCSRCH102J50
C1101, C1102	CCSRCH220J50
C1112, C1142, C1290, C1292, C1527	CCSRCH221J50
C1528, C1533, C1534, C1541	CCSRCH221J50
C1213, C1542	CCSRCH271J50
C1329, C1331, C793	CCSRCH331J50
C1730	CCSRCH470J50
C1103, C1104, C1113, C1120, C1144	CCSRCH471J50
C1201, C1206, C1208, C1216, C1218	CCSRCH471J50
C1222, C1224, C1225, C1227, C1230	CCSRCH471J50
C1233, C1280, C1281, C1327, C1405	CCSRCH471J50
C1405, C1406, C1407, C1410, C1411	CCSRCH471J50
C1412, C1413, C712, C755, C757	CCSRCH471J50
C795, C797	CCSRCH471J50
C1307, C1308, C1319, C1320	CCSRCH820J50
C1326	CEANP100M16
C1229, C1232, C1239, C1423, C1424	CEAT100M50
C1442, C1443, C1444, C1445, C1446	CEAT100M50
C1447	CEAT100M50
C1124, C1203, C1235, C1252, C1256	CEAT101M16
C1336, C1604, C758	CEAT101M16
C1107, C1108, C1118	CEAT221M10
C1607, C1608	CEAT222M25
C1117	CEAT2R2M50
C1421, C1429	CEAT331M10
C729, C730	CEAT470M25
C1115	CEAT471M16
C1251, C1255, C1416, C1417, C1418	CEAT4R7M50
C1419	CEAT4R7M50
C1601	CEHAT221M25
C1572, C1573, C713, C714	CEJQ100M50
C739, C740	CEJQ100M50
C735	CEJQ221M6R3
C1215	CEJQ2R2M50
C1301, C1302, C1311, C1312, C1313	CEJQ330M10
C1314, C1323, C1324, C1325	CEJQ330M10
C1335	CEJQ330M10
C1435, C1436, C1546, C1563	CEJQ3R3M50
C1564, C1568, C1569, C1570, C1571	CEJQ4R7M50
C1705, C1706, C723, C724, C733	CEJQ4R7M50
C734	CEJQ4R7M50
C1803	CEJQR47M50
C1262, C1287, C753, C798	CKSQYF105Z16
C1343, C1344, C1345, C1346, C1347	CKSQYF225Z16

Mark No.	Description	Part No.
C1348, C1408, C1409, C1414		CKSQYF225Z16
C1414, C1415, C1557, C1558, C1559		CKSQYF225Z16
C1559, C1560, C1561, C1562, C756		CKSQYF225Z16
C1305, C1306, C751, C791		CKSRYB102K50
C1105, C1106, C1114, C1119, C1123		CKSRYB103K50
C1131, C1132, C1141, C1143, C1143		CKSRYB103K50
C1145, C1202, C1207, C1209, C1214		CKSRYB103K50
C1214, C1217, C1219, C1220, C1221		CKSRYB103K50
C1223, C1226, C1228, C1231		CKSRYB103K50
C1234, C1240, C1282, C1284, C1289		CKSRYB103K50
C1349, C1402, C1404, C1441, C1711		CKSRYB103K50
C1712, C1719, C1720, C1727, C1731		CKSRYB103K50
C1751, C1752, C711		CKSRYB103K50
C738, C743, C744, C745, C746		CKSRYB103K50
C792, C794, C796		CKSRYB103K50
C1116, C1121, C1146, C1283, C1288		CKSRYB104K16
C1291, C736		CKSRYB104K16
C1125, C1330, C1426		CKSRYB104K25
C1432, C1440, C1440		CKSRYB104K25
C1540, CC1545, C1709, C1710, C1721		CKSRYB104K25
C1722, C1726		CKSRYB104K25
C754		CKSRYB104K25
C1427, C1433		CKSRYB153K50
C1303, C1304, C1315, C1316		CKSRYB222K50
C1792		CKSRYB223K50
C1425, C1431		CKSRYB224K16
C1328, C1328		CKSRYB333K16
C1707, C1708, C1715, C1716, C1725		CKSRYB333K25
C1852		CKSRYB333K25
C1420, C1804		CKSRYB472K50
C1422, C1430, C1605, C1606, C1801		CKSRYB473K50
C1805, C1806		CKSRYB473K50
C1701, C1702, C1713		CKSRYB562K50
C1713, C1714, C1723		CKSRYB562K50
C1791, C1851		CKSRYB683K16
C1332		CKSRYB821K50
C1428, C1434	CKSRYB822K50	
C1581, C1582		CKSRYF224Z25

### RESISTORS

△ R1601	RD1/4MUF4R7J
R1112	RS1/16S1802F
△ R1445, R1452	RS1LMF101J
Other Resistors	RS1/16S###J

### OTHERS

CN1601 FJ CONNECTOR 14P	14R-FJ
CN1501 1.25FJ CONNECTOR	19R-1.25FJ
CN804 7P FFC CONNECTOR	52045-0745
CN803 13P FFC CONNECTOR	52045-1345
CN1702 31P FFC CONNECTOR	52045-3145
1601 HEAT SINK	ANH7160
1602 HEAT SINK	ANH-575
CN1602 3P PLUG	B3B-EH
CN702 11P PLUG	KM200TA11
CN801 5P PLUG	KM200TA5
CN701 7P PLUG	KM200TA7
CN802 9P PLUG	KM200TA9
KN801 EARTH METAL FITTING	VNF1084
X1201 CRYSTAL RESO.(27MHz)	VSS1086
X1101 CERAMIC RESO.(15.7MHz)	VSS1140

**Mark No. Description Part No.**  
**G FRONT ASSY**

**SEMICONDUCTORS**

IC4681	BU1923F
IC4202	NJU3712M
IC4201	PDG269A
Q4681	2SA1037K
Q4683	2SC3326

Q4201	DTA124EK
Q4202, Q4205, Q4682	DTC143EK
D4213, D4214, D4215	1SS355
D4203, D4204	DAN217
D4201, D4202	DAP202K

D4208, D4209	SLR-343MC(NPQ)
D4205, D4206, D4210	SLR-343VC(NPQ)
D4207, D4211	SLR-343YC(MNP)

**COILS AND FILTERS**

L4201, L4681	LFEA2R2J
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**SWITCHES AND RELAYS**

S4201, S4202, S4203	ASG7025
S4204, S4205	ASG7025

**CAPACITORS**

C4216 (0.22/5.5)	ACH7144
C4202, C4203, C4239, C4240	CCSRCH101J50
C4689, C4690	CCSRCH270J50
C4208	CEAL470M16
C4684	CEAT1R0M50

C4214	CEAT221M6R3
C4683	CEJQ101M10
C4686	CEJQ2R2M50
C4230, C4231	CKSQYF225Z16
C4201, C4210, C4226, C4228, C4229	CKSRYB102K50

C4251, C4274, C4681, C4682	CKSRYB102K50
C4209, C4213, C4215, C4222, C4241	CKSRYB103K50
C4205, C4206, C4207, C4211, C4220	CKSRYB104K25
C4224, C4242	CKSRYB104K25
C4685	CKSRYB472K50

C4217, C4218, C4232	CKSRYB473K50
C4233, C4234, C4235, C4236	CKSRYB473K50
C4236, C4237, C4238	CKSRYB473K50
C4688	CKSRYB561K50

**RESISTORS**

Other Resistors	RS1/16S###J
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**OTHERS**

4204,4205 3P CABLE HOLDER	51048-0300
CN4201 27P FFC CONNECTOR	52044-2745
CN4203 7P FFC CONNECTOR	52045-0745
CN4202 31P FFC CONNECTOR	52045-3145
V4301 FL TUBE	AAV7088

X4681 CERAMIC RESO.(4.3MHz)	ASS7004
X4201 CERAMIC RESO.(7.2MHz)	ASS7039
J4205 3P JUMPER WIRE	D20PYY0310E
J4204 3P JUMPER WIRE UNIT	D20PYY0315E
4201 REMOTE RECEIVER UNIT	SPS-442-E1

4301 FL HOLDER	VNF1122
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**Mark No. Description Part No.**  
**K SW ASSY**

**SWITCHES AND RELAYS**

S4501	VSG1009
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**RESISTORS**

Other Resistors	RS1/16S###J
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**OTHERS**

4501 3P CABLE HOLDER	51048-0300
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**I ENCODER ASSY**

**SWITCHES AND RELAYS**

S4401	ASX7041
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**RESISTORS**

Other Resistors	RS1/16S###J
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**OTHERS**

4401 3P CABLE HOLDER	51048-0300
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**H FRONT INPUT ASSY**

**CAPACITORS**

C4103, C4104	CCSRCH101J50
C4107, C4111	CCSRCH471J50
C4108	CEAL470M25
C4120	CKSQYF105Z16
C4105, C4109, C4117	CKSRYB103K50

C4102, C4106, C4110	CKSRYB104K25
C4112, C4113	CKSRYB223K50

**RESISTORS**

Other Resistors	RS1/16S###J
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**OTHERS**

CN4101 13P FFC CONNECTOR	52045-1345
JA4101 3P PIN JACK	AKB7098
JA4102 OPTICAL RECEIVE MOD.	GP1FA502RZ
JA4103 H.P. JACK	RKN1006
KN4101 EARTH METAL FITTING	VNF1084

## 6. ADJUSTMENT



Notice) Even if it removes TUNER, other functions operate.

### ■ AM Tuner Section

- There is no adjustment in the AM tuner.

### ■ FM Tuner Section

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1.

Step No.	Adjustment Title	ANT. Input level and signal condition			Adjustment	
		Frequency (MHz)	Modulation	Input Level (dB $\mu$ V)	Adjust point	Contents
1	T-METER Adjustment	98	OFF	80	L201	Adjust L201 so that the DC voltage between Pin 21 and Pin 23 of IC201 (Test point V <sub>tm</sub> ) gets within $0 \pm 50$ mV.

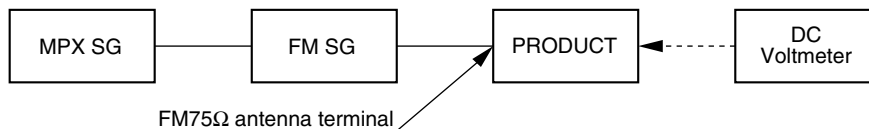
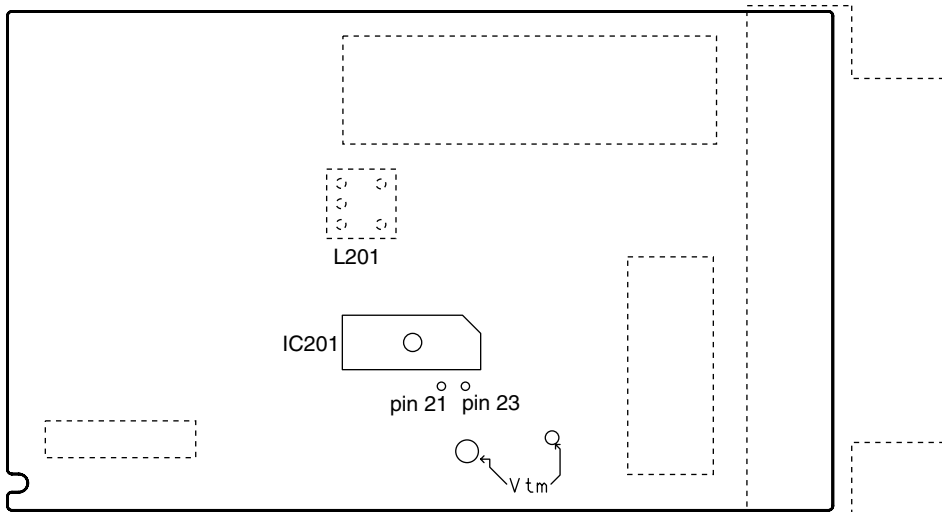


Fig.1 Adjustment Wiring Diagram

### U FM/AM TUNER MODULE



**SIDE B**

Fig.2 Adjustment Point

# 7. GENERAL INFORMATION

## 7.1 DIAGNOSIS

### 7.1.1 Test Mode

#### • How to Enter the Test Mode

With the attached Remote Control Unit

#### 1. Call the preset code of test mode with the remote control unit

- Preset code setting: Enter [FRONT] + [ENTER] keys  
Remote control unit LED lights.
- Input a preset code ID: Enter [1], [5] and [0] keys.  
Remote control unit LED goes out.

#### 2. Test mode ON "◀◀" key

- "TEST" is displayed for 5 seconds when Test mode is entered.
  - Function: TV/SAT
  - Speaker setting: All Large, SW ON
  - No automatic speaker detection.
  - PROLOGIC2 EMU mode
  - Perform the tuner preset for Test mode.
- Other settings will be returned to the factory-preset values.

#### 3. Test mode OFF "▶" key

Clear the test mode when receives a remote control code, and become initial state.

#### 4. FL & LED light-emission check "◀◀" 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 → ...

#### 5. Rear-and-center relay switch "||" key

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

#### 6. DOLBY Pro Logic mode "■" key

- Distance setting for the front and center speakers: 3 m
  - Distance setting for the rear speaker: 1.5 m
  - PROLOGIC2 EMU mode
  - Speaker setting: All Large, SW ON
- All settings other than the above will be returned to the factory-preset values.

#### 7. FAN ON/OFF switch "▶▶" key

The fan is turned on or off and rotates as follows:  
FAN ON LO SPEED → FAN ON HI SPEED → FAN OFF → ...

#### 8. Master volume switch "1" key

The master volume is switched as follows and each time is 0dB.  
Minus infinity → 0 dB → ...  
When the remote control code is received for the first time, the master volume is set to minus infinity.

#### 9. 9k/10k switch "2" key

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

#### 10. Thermistor check "3" key

When the remote control code is received, start the thermistor check.

When the remote control code is received after 90 seconds, display the result of thermistor check.

- At check OK, "THRM OK" flashes for five seconds.
- At check NG, "THRM NG" flashes for five seconds.
- During check, "CHECKING" flashes for five seconds.

#### 11. Speaker auto-detection check "(CH) ENTER" 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\_S\_W\_", where O, indicates connected, and × indicates that no speaker is connected.

#### 12. Analog inputs check "4" 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, "SIG:ANA" will be displayed for 5 seconds.

#### 13. SRAM check & dts check "▶▶" key

- Function: TV
  - VOL value: 0 dB
  - Distance setting for the front: 3 m
  - Other distance settings: 2.1 m
  - PROLOGIC2 EMU mode
  - Speaker setting: All Large, SW ON
- All settings other than the above will be returned to the factory-preset values.

#### 14. Audio mute check "5" key

When the remote control code is received, switch the ON/OFF of AMUTE pin (pin 53) cyclically.  
VOL value: 0 dB

#### 15. DSP mute check "6" key

When the remote control code is received, switch the ON/OFF of DSPMUTE pin (pin 61) cyclically.  
VOL value: 0 dB

#### 16. Digital input forced mode "●" key Check of DIR ERR

When the remote control code is received, turn the function to the forced digital input mode.

- Speaker setting: All high volume, SW ON
- When this mode is entered, "SIG:DIG" will be displayed for 5 seconds.
- VOL value: 0 dB

#### 17. Input ATT check "7" key

- Function: VCR
- When the remote control code is received, switch the ON/OFF of INPUT ATT cyclically.

## 7.1.2 Protection of the Amplifier Line

### 18. SW BOOST pin check

"8" key

When the remote control code is received, switch the ON/OFF cyclically.  
VOL value: 0 dB

### 19. FM+ pin check

"9" key

When the remote control code is received, switch the ON/OFF cyclically.

### 20. PREGAIN pin check

"0" key

When the remote control code is received, switch the ON/OFF cyclically.  
VOL value: 0 dB

### 21. MVRATT pin check

"(CH) +" key

Each time the remote-control code is received, switch H and L cyclically.  
VOL value: 0 dB

### 22. NJU7311 switching check

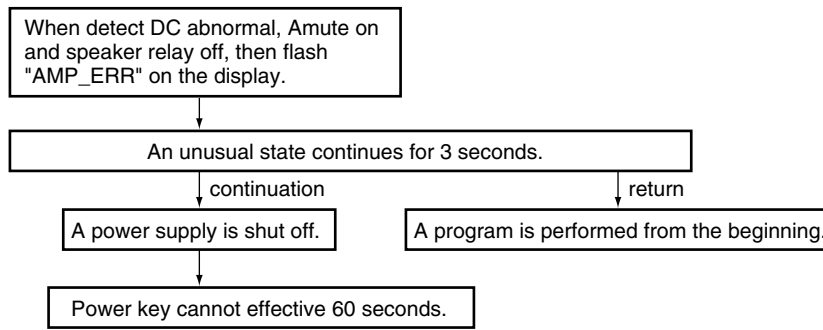
"(CH) -" key

Each time the remote-control code is received, switch the function cyclically as follows:  
OFF → NATURAL → BRIGHT → OFF → ...

## 7.1.2

### 1. DC Abnormality Detection

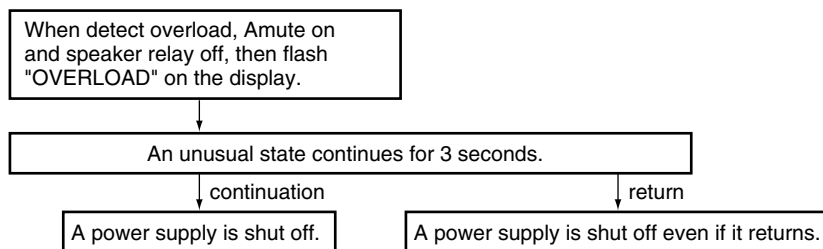
This detection has priority over the overload detection and abnormality detection for the fan and thermistor.



If AC plug is pulled off within 60 sec, then AC plug in again, receiver will reset for

### 2. Overload Detection

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.

### 3. Specifications of DSP Overload Detection

1. Detect overload detection signal of DSP in the port and light a "OVER" segment if detected for 30 seconds. Light it for 1 second if lighted once.
2. Do not detect in the following case.
  - During power OFF
  - During initialization
  - During mute
  - During Test tone
  - When analog direct path is selected  
→ SOUND mode is OFF in the STEREO mode. Front speaker is large and SW except PLUS, or during Headphones.





## 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, surround speaker and/or subwoofer is connected or not is detected 600 ms after the power is turned on.

#### < Detection of the center and surround speakers >

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:

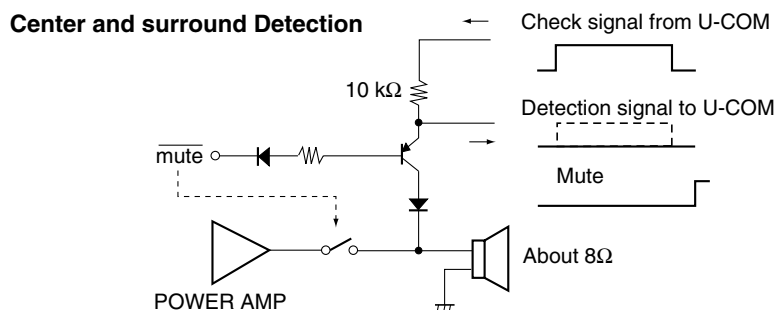
Results of the Detections			Speaker Setting			
Center SP	Surround SP	Sub-woofer	Front SP	Center SP	Surround SP	Sub-woofer
Connected	Connected	Connected	Small	Small	Small	Connected (200Hz)
Connected	Connected	Not connected	Large	Small	Small	Not connected
Connected	Not connected	Connected	Small	Small	Not connected	Connected (200Hz)
Connected	Not connected	Not connected	Large	Small	Not connected	Not connected
Not connected	Connected	Connected	Small	Not connected	Small	Connected (200Hz)
Not connected	Connected	Not connected	Large	Not connected	Small	Not connected
Not connected	Not connected	Connected	Small	Not connected	Not connected	Connected (200Hz)
Not connected	Not connected	Not connected	Large	Not connected	Not connected	Not connected

### 4. User's settings

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

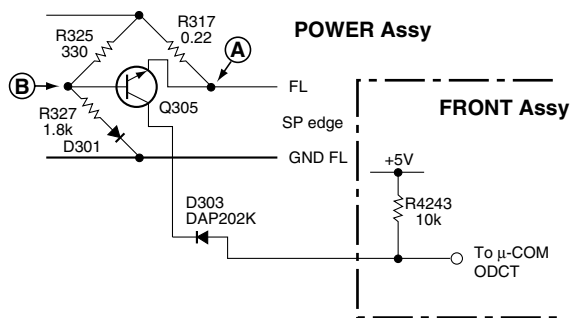
However, if the configuration of connected speakers has changed, then the detection results become valid and have priority over the user's settings until new user's settings are made.

### 5. Detection circuit for the center and surround speakers



## 7.1.5 Circuit Description

### 1 Protection circuit when the edge of speaker is overloaded



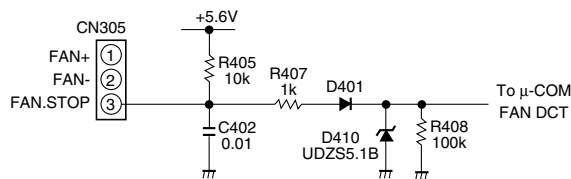
A speaker ( $6\Omega$ ) is connected between FL and GND FL normally. Q305 (306) (345) (346) (383) does not work because the voltage of (A) point is higher than (B) point.

If a resistance value between FL and GND FL becomes less than  $1.2\Omega$ , Q305 (306) (345) (346) (383) turns ON.

And ODCT becomes with negative component of output level.

→  $\mu$ -COM detects it, and turn the power OFF.

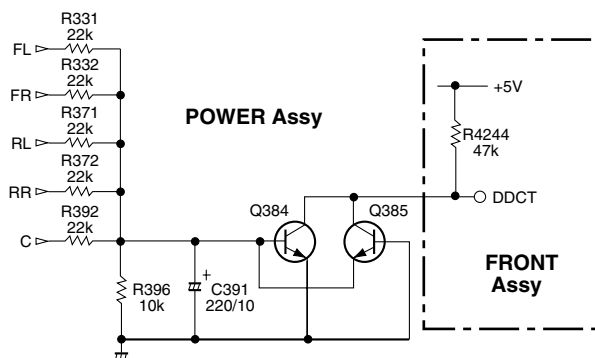
### 3 FAN detection circuit



When FAN is not connected between FAN+ and FAN-, or an alien substance is clogged up in the FAN at the FAN LOCK status, FAN STOP becomes the same electric potential as the FAN- (Low).

→  $\mu$ -COM detects it, and turn the power OFF.

### 2 DC detection circuit of SP terminal



• Q384 and Q385 are turning OFF together normally.

#### (1) When the DC voltage of the plus (+) side was generated on the SP edge

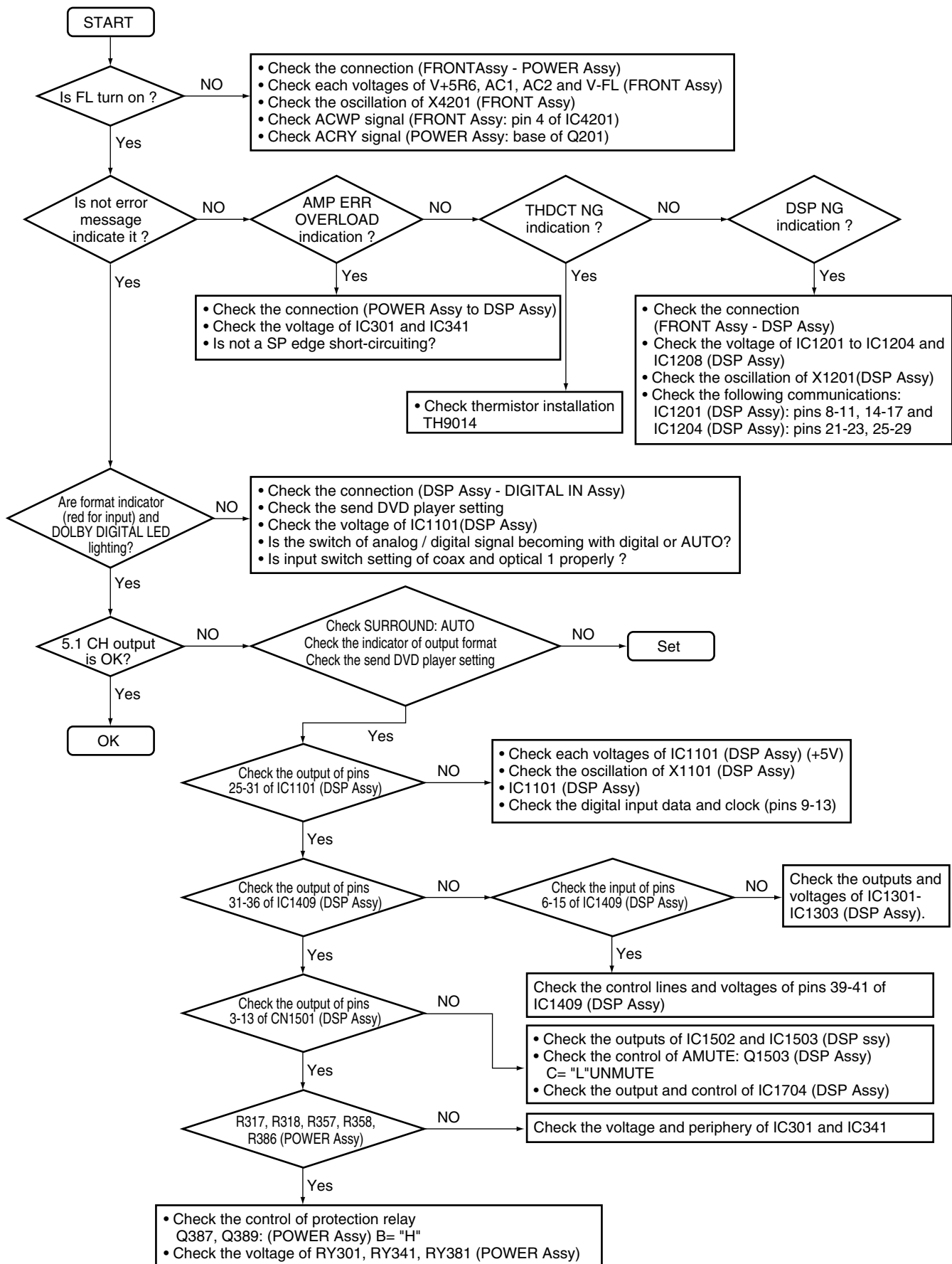
When the DC voltage of the plus (+) side was generated in L ch or R ch, Q384 turns ON and DDCT becomes Low level if VB of Q384 becomes higher than operating point.

→  $\mu$ -COM detects it, and turn the power OFF.

#### (2) When the DC voltage of the minus (-) side was generated on the SP edge

Q385 turns ON with + side in reverse, and DDCT works.

### 7.1.6 Trouble Shooting



## 7.1.7 Error Code

FL display	Time (sec)	Probable cause	
OVERLOAD	Flashes for five seconds	Display in the overload detecting circuit operation. Turn the power OFF after detection. Refer to the "Circuit description".	Error message about abnormal condition
AMP ERR	Flashes for five seconds	Display in the DC detecting circuit operation. Turn the power OFF after detection. Power ON is impossible for less than 1 minute. ON is afterward possible. Refer to the "Circuit description". SP edge short circuits, etc.	
DSP NG	Flashes for five seconds	Communication line abnormality of CRYSTAL DSP (IC1201/DSP Assy) and P2ROM (IC1204/DSP Assy). Refer to the "Trouble shooting".	
OVERHEAT	Flashes	When detection temperature of thermistor (TH9014) grows than 110 degrees, flash and display it. → Be using a product in high temperature environment. Refer to the "Circuit description".	
HEAT UP	Flashes for five seconds every 20 seconds	When detection temperature of thermistor (TH9014) grows than 90 degrees, flash and display it. → Be using a product in high temperature environment. Refer to the "Circuit description".	
FAN STOP	Flashes for five seconds	Display in the FAN abnormality operation detection after the FAN rotate. → POWER OFF Refer to the "Circuit description". FAN is not connected to CN305 (POWER Assy). FAN parts defectiveness	
THDCT NG	Flashes for five seconds	Display in the thermistor abnormality. → POWER OFF Refer to the "Circuit description". Thermistor is not connected to CN306 (POWER Assy). Thermistor parts defectiveness.	
VIRTUAL	Flashes for five seconds	In the playback with the VIRTUAL mode, display it when it was pressed the operation button which does not accept in the VIRTUAL mode.	Error display about specification (refer to each page of an operating instructions)
96.STEREO	Flashes for five seconds	When the fs=96kHz signal is input, display it when the operation button which does not accept was pressed in fs=96kHz signal.	
PHONES.IN	Flashes for five seconds	When the headphone is used, display it when it was pressed the operation button which does not accept.	

## 7.1.8 Fan Cleaning



Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

# 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.

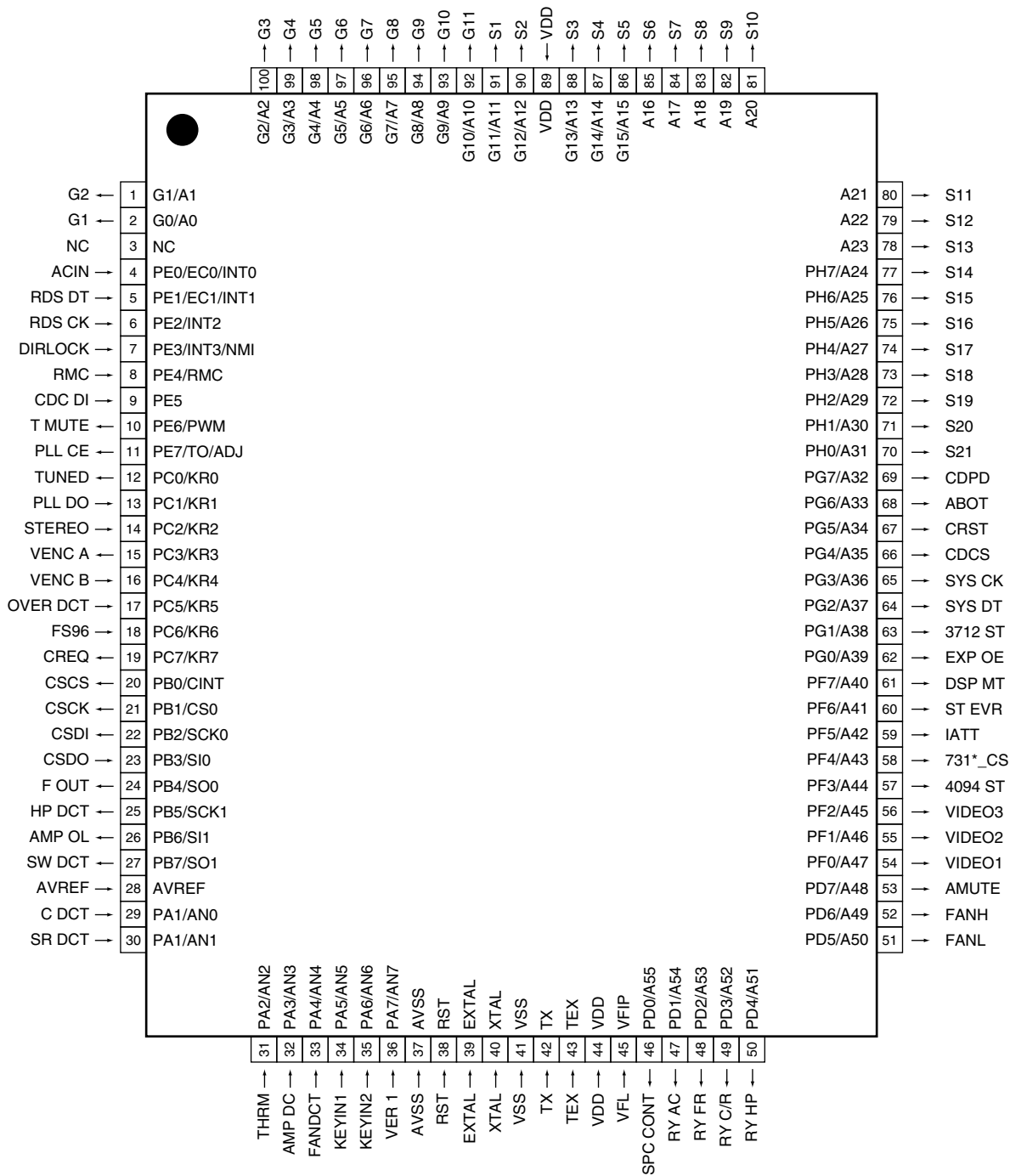
### ● List of IC

PDG269A, CS493292, BU4094BCF, NJU3712M, M62446

### ■ PDG269A (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	DLCK	I	ERR/OVER signal input from CODEC	
8	RMC	I	Remote control signal input (non carrier signal)	
9	CDC DI	I	DIR data input	
10	T MUTE	O	Tuner mute	H
11	PLL CE	O	Chip select signal for communicate with LC7213 (tuner)	
12	TUNED	I	TUNED information	
13	PLL DO	I	Data input signal for communicate with LC7213 (tuner)	
14	STEREO	I	Discrimination signal of Stereo/Mono signal	
15	VENC A	I	EVOL rotary encoder signal input A	
16	VENC B	I	EVOL rotary encoder signal input B	
17	OVER DCT	I	Overflow detection	
18	FS96	I	96k	
19	CREQ	I	REQ for crystal DSP	L
20	CSCS	O	CS for crystal DSP	L
21	CSCK	O	CLK for crystal DSP and CODEC	L
22	CSDI	I	DATAIN for crystal DSP	H
23	CSDO	O	DATAOUT for crystal DSP and CODEC	
24	F OUT	O	Output for furniture	H
25	HP DCT	I	HP detection	H
26	AMP OL	I	Overload detection of the protection circuit (L: Abnormal detection)	H
27	SW DCT	I	Subwoofer detection signal input	
28	AVref	–	Connect to Vdd	
29	CDCT	I	Center speaker detection signal input	
30	SRDCT	I	Surroundr speaker detection signal input	
31	THRM	I	Thermistor detection signal input	
32	AMP DC	I	DC abnormal detection of the protection circuit (L: Abnormal detection)	
33	FAN DCT	I	FAN abnormal detection signal input	
34	KEYIN1	I	A/D conversion port 1 of key input	
35	KEYIN2	I	A/D conversion port 2 of key input	L
36	VER 1	I	Destination switch 1 (A/D take-in)	L
37	AVSS	–	Connect to Vss	
38	RST	–	Reset	
39	EXTAL	–	Connect an oscillator 7.2MHz	
40	XTAL	–		
41	VSS	–	Connect to Vss	
42	TX	–	(Connect an oscillator 32kHz)	
43	TEX	–		
44	VDD	–	+5V	
45	VFDP	–	-30V	
46	SPCONT	O	Output for speaker detection	H
47	RY AC	O	AC relay ON/OFF	H
48	RY FR	O	Front speaker relay ON/OFF	H
49	RY C/R	O	Rear/center relay ON/OFF	H
50	RY HP	O	Headphone relay ON/OFF	H

No.	Pin Name	I/O	Function	Active
51	FANL	O	FAN L rotation	H
52	FANH	O	FAN H rotation	H
53	AMUTE	O	Audio mute	H
54	VIDEO1	O	Video input function select	H
55	VIDEO2	O		H
56	VIDEO3	O		H
57	4094 ST	O	Strobe of expansion IC (for 4094)	H
58	731* CS	O	Chip select of NJU7311 - 7313	H
59	IATT	O	Input ATT switch	H
60	EVOL ST	O	Strobe signal for communication with the electronic volume	H
61	DSP MT	O	DSP mute (Assy mute)	H
62	EXP OE	O	OE of expansion IC	H
63	3712 ST	O	Strobe of expansion IC (for 3712)	H
64	SYS DT	O	Common bus data	H
65	SYS CK	O	Common bus clock	H
66	CODEC CS	O	Chip select for CODEC communication	H
67	CRST	O	Reset for crystal DSP	H
68	ABOT	O	ABDOT for crystal DSP	H
69	CODEC PD	O	Reset for CODEC communication	H
70	S21	O	Segment output 3 to 21	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			H
92	G11	O	Grid output 3 to 10	H
93	G10			H
94	G9			H
95	G8			H
96	G7			H
97	G6			H
98	G5			H
99	G4			H
100	G3		H	

## ■ CS493292 (DSP ASSY: IC1201)

### • Mai DSP Microcomputer

#### ● Pin Function

No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	VD1	–	Digital power supply (+2.5V)	23	VD3	–	Digital power supply (+2.5V)
2	DGND1	–	Digital GND	24	DGND3	–	Digital GND
3	AUDATA3	–	Not used	25	SCLKN1	I	Bit clock input
4	EMWR	O	External memory WR	26	LRCLKN1	I	LR clock input
5	EMOE	O	External memory OE	27	SDATAN2	I	Audio data input
6	SCDIN	I	Microcomputer communication data input	28	SCLKN2	I	Bit clock input
7	SCCLK	I	Microcomputer communication clock input	29	LRCLKN2	I	LR clock input
8	EMAD7	I/O	External SRAM and P2ROM communication data	30	CLKIN	I	Master clock input (27MHz)
9	EMAD6			31	CLKSEL	I	Master clock control (L)
10	EMAD5			I	PLL circuit connection pins		
11	EMAD4						
12	VD2	–	Digital power supply (+2.5V)	34	VA	–	Analog power supply (+2.5V)
13	DGND2	–	Digital GND	35	AGND	–	Analog GND
14	EMAD3	I/O	External SRAM and P2ROM communication data	36	RESET	I	Reset pin (L: Reset)
15	EMAD2			37	DD	–	Not used
16	EMAD1			38	DC	–	Not used
17	EMAD0			39	AUDATA2	O	Audio data output (LFE/C)
18	CS	I	Chip select of microcomputer communication	40	AUDATA1	O	Audio data output (SL/SR)
19	SCDOUT	O	Data output of microcomputer communication	41	AUDATA0	O	Audio data output (FL/FR)
20	INTREQ	O	Microcomputer communication request	42	LRCLK	I	LR clock of audio output data
21	EXTMEM	O	Output enable of external memory	43	SCLK	I	Bit clock of audio output data
22	SDATAN1	I	Audio data input	44	MCLK	I	Audio master clock (Not used)

## ■ BU4094BCF (DSP ASSY: IC1102)

### • Expansion IC

#### ● Pin Function

No.	Pin Name	I/O	Function
4	CA15	O	For crystal DSP
5	CA16	O	For crystal DSP
6	CA17	O	For crystal DSP
7	CA18	O	For crystal DSP
11	ADMD	O	To DSP mute circuit
12	Q7	O	N.C.
13	Q6	O	N.C.
14	Q5	O	N.C.

## ■ NJU3712M (FRONT ASSY: IC4202)

### • Expansion IC

#### ● Pin Function

No.	Pin Name	I/O	Function
1	LED1	O	LED display DOLBYDIGITAL
2	LED2	O	LED display DTS
3	LED3	O	LED display MPEG AAC/AUTO
5	LED4	O	LED display PHONES/VIRTUL
6	LED5	O	LED display PRO-LOGIC2
7	FM+	O	To RDS circuit
14	LED6	O	LED display ADVANCED
15	LED7	O	LED display SOUNDMODE

## ■ M62446 (DSP ASSY: IC1409)

### • Out

#### ● Pin Function

No.	Pin Name	Function
1	MVRATT	-15dB or less: L
2	GAINSEL	Pre-gain switch
3	SWBOOST	Subwoofer boost
4	N.C.	N.C.

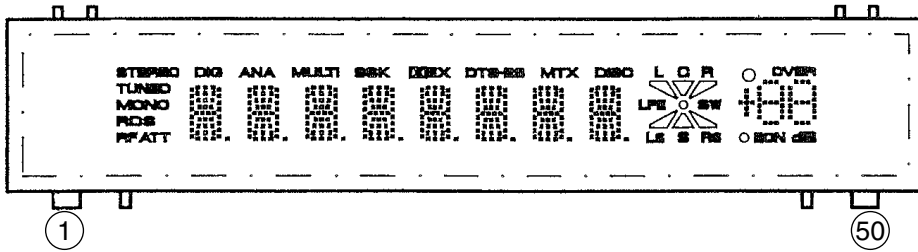


### 7.2.2 DISPLAY

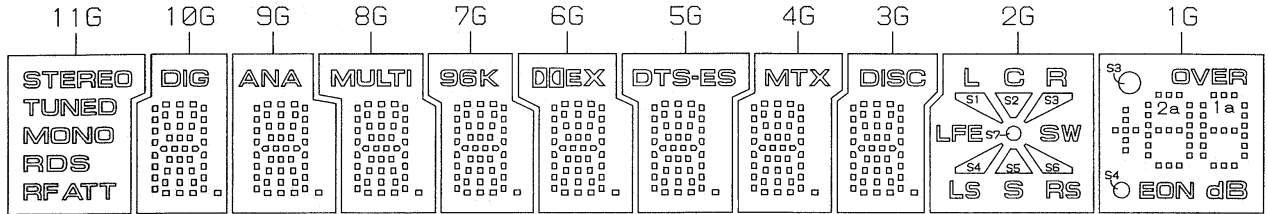
#### ■ AAV7088 (FRONT ASSY : V4301)

• FL DISPLAY

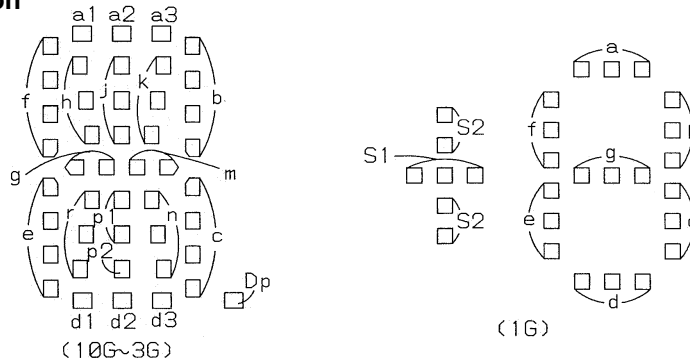
• Pin Assignment



• Grid Assignment



• Segment Designation



## • Pin Connection

PIN CONNECTION

PIN NO.	1	2	3	4	5	6	7	8	9	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5			
CONNECTION	F	N	N	N	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	
	X	P	P	P	1	0	9	8	7	6	5	4	3	2	1	0	9	8	7	X	X	X	X	X	X	X	X	X	6	5	4	3	2	1	G	G	G	G	G	G	G	G	G	G	G	P	X	2

## NOTE

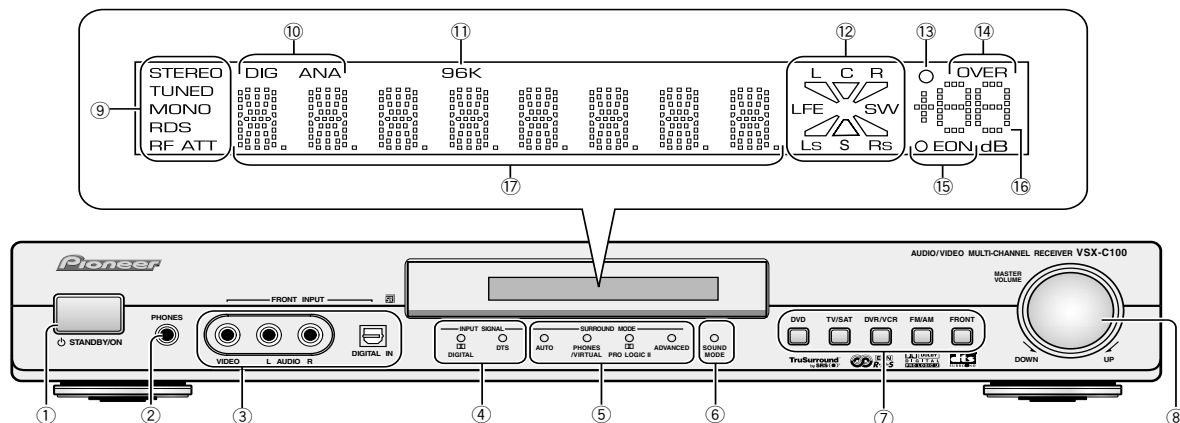
- 1) F1, F2 --- Filament  
 2) NP ----- No pin  
 3) NX ----- No extend pin  
 4) DL ----- Datum Line  
 5) 1G~11G --- Grid  
 6) 半田組成はSn-3Ag-0.5Cuとする。

## • Anode Connection

	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	STEREO	a1	a1	a1	a1	a1	a1	a1	a1	L	OVER
P2	TUNED	a2	a2	a2	a2	a2	a2	a2	a2	S1	2a
P3	MONO	h	h	h	h	h	h	h	h	C	2b
P4	RDS	j	j	j	j	j	j	j	j	S2	2f
P5	RF	k	k	k	k	k	k	k	k	R	2g
P6	ATT	b	b	b	b	b	b	b	b	S3	2c
P7	-	f	f	f	f	f	f	f	f	LFE	2e
P8	-	m	m	m	m	m	m	m	m	S7	2d
P9	-	g	g	g	g	g	g	g	g	SW	1a
P10	-	c	c	c	c	c	c	c	c	S4	1b
P11	-	e	e	e	e	e	e	e	e	S5	1f
P12	-	r	r	r	r	r	r	r	r	S6	1g
P13	-	p1	p1	p1	p1	p1	p1	p1	p1	LS	1c
P14	-	n	n	n	n	n	n	n	n	S	1e
P15	-	d1	d1	d1	d1	d1	d1	d1	d1	RS	1d
P16	-	d2	d2	d2	d2	d2	d2	d2	d2	-	S1
P17	-	Dp	Dp	Dp	Dp	Dp	Dp	Dp	Dp	-	S4
P18	-	a3	a3	a3	a3	a3	a3	a3	a3	-	S3
P19	-	p2	p2	p2	p2	p2	p2	p2	p2	-	EON
P20	-	d3	d3	d3	d3	d3	d3	d3	d3	-	S2
P21	-	DIG	ANA	MULTI	96K	DOEX	DTS-ES	MTX	DISC	-	dB

## 8. PANEL FACILITIES

### Front panel



① **STANDBY/ON (Main power) button**

Pressing this button switches the receiver ON from STANDBY mode.

RECEIVER button on the remote control also toggles between ON and STANDBY mode.

The receiver uses a small amount of electricity (less than 1W) in STANDBY mode.

② **PHONES jack**

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

③ **FRONT INPUT**

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

④ **INPUT SIGNAL indicators**

Indicates the kind of input signal.

**DIGITAL:**

When a DIGITAL source is input this indicator will light.

**DTS:**

When a DTS source is input this indicator will light.

⑤ **SURROUND MODE indicators**

Indicates the SURROUND mode of input signal.

**AUTO:**

Lights when the AUTO mode is selected. This mode automatically selects which kind of signal is being input and plays back in the appropriate mode.

**PHONES/VIRTUAL:**

Lights when the VIRTUAL or PHONES SURROUND mode is selected. The VIRTUAL mode simulates surround sound for two speakers (when headphones are not plugged in, see). The PHONES SURROUND mode simulates surround sound for headphones, when they are plugged in.

**PRO LOGIC II:**

Lights when the PRO LOGIC II mode is selected.

This mode automatically plays back in PRO LOGIC II .

**ADVANCED:**

Lights when an ADVANCED mode is selected.

These modes playback emphasizing certain characteristics of the sound .

⑥ **SOUND MODE**

Lights when you have chosen one of the sound modes to be applied to playback .

⑦ **Input buttons**

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

⑧ **MASTER VOLUME**

Use to set the overall listening volume.

### DISPLAY

⑨ **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 mpx (on the remote control).

RDS: Lights when an RDS broadcast is received.

RF ATT: Lights when the RF ATT is on .

⑩ **Digital (DIG) & Analog (ANA) indicators**

Light according to the kind of signal, digital or analog, received.

⑪ **96kHz playback indicator**

Lights when a 96 kHz source is being played.

⑫ **Format indicator**

Shows which speakers are currently in use based on the listening mode chosen, the source material and the type of decoding being used .

⑬ **SLEEP indicator**

Lights when the SLEEP function is set or active .

⑭ **OVER indicator**

Lights when the analog signal is too powerful, causing possible distortion .

⑮ **EON indicators**

EON lights when it has been set. The dot indicator next to it lights when the station you are currently tuned to carries the EON data service.

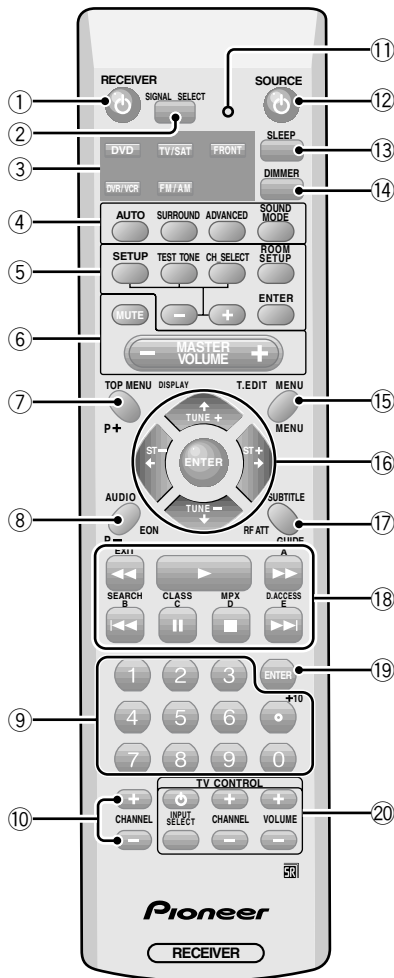
⑯ **Volume level indicator**

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

⑰ **Character display**

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

## Remote control



- ① **RECEIVER (Power) button:**  
This switches between STANDBY mode and power ON for this receiver.
- ② **SIGNAL SELECT button :**  
Press SIGNAL SELECT repeatedly to select one of the following:  
ANALOG: To select an analog signal.  
DIGITAL: To select a digital signal.  
AUTO: This is the default. If there are analog and digital signals input, the receiver automatically selects digital. If only analog is input the receiver will select analog.
- ③ **Input/Control Mode Select buttons:**  
Use to put the receiver/remote control in the input mode stated on the button. The FM/AM button puts the receiver in tuner mode if it was in another mode and switches between the FM and the AM band if the receiver was already in tuner mode.

④ **Listening Mode buttons:**

**Auto button:**

Use this button for direct decoding of the input signal with no added sound effects. The receiver will automatically detect what kind of signal (stereo, multichannel, etc.) is being input and play accordingly.

**Surround button :**

Use this button to choose one of the surround listening modes this receiver is equipped with.

**Advanced button :**

Use this button to choose one of the advanced listening modes this receiver is equipped with.

**Sound mode button :**

Use this button to choose one of the sound modes this receiver is equipped with.

⑤ **System setup buttons:**

**SETUP button :**

Use this button to start the receiver setup process which adjusts the settings to your particular system.

**TEST TONE button :**

Use to sound the TEST TONE when setting the volume level of each channel.

**CH SELECT button :**

Use to select a speaker when setting the volume level of each channel.

**ROOM SETUP button :**

Use to set the distance from your speakers to your normal listening position.

**+/- buttons :**

Use these buttons when making adjustments to the SETUP, TEST TONE, or CH.SELECT features.

**ENTER button:**

Use this button to enter Room Setup commands. You can also use this button to exit a SETUP mode.

⑥ **Volume buttons:**

**MASTER VOLUME +/- buttons:**

Use to set the overall listening volume.

**MUTE button :**

Use to mute the sound or restore the sound if it has been muted.

⑦ **TOP MENU button:**

Use to return to the most basic menu on a DVD player or disc. Also used for some tuner commands.

⑧ **AUDIO button:**

Use to switch the audio tracks of a DVD when in DVD mode or to access the EON function when in tuner mode.

⑨ **Number buttons:**

Use to enter track number on discs or radio frequencies.

⑩ **CHANNEL +/- buttons:**

Use to select channels on other components such as a DVR or satellite tuner.

⑪ **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.

⑫ **SOURCE (Power) button:**

Use this button to turn on and off the power of other components.

⑬ **SLEEP button :**

Use to put the receiver in sleep mode and select the amount of time before the receiver turns off.

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.

## Remote 2

### ⑮ MENU button:

Use to return to the most basic menu on a DVD player or disc.  
Also used for some tuner commands.

### ⑯ ⇐ ⇒ ↑ ↓ & ENTER buttons

Use these arrow buttons when adjusting the tuner or navigating TV or DVD menus. See these respective sections for more information.

### ⑰ SUBTITLE button:

Use to switch the subtitles on a DVD player or disc.  
Also used to turn on RF ATT when in tuner mode.

### ⑱ Component/Tuner/Satellite Tuner/CATV control buttons:

The main function of these buttons (3, 7, etc.) is to control a component (CD, for example) after you have selected it using the Input/Control Mode Select buttons.

The tuner/satellite tuner controls above these buttons can be accessed after you have selected the corresponding Input/Control Mode Select buttons (TUNER or SAT, etc.).

In this case the buttons marked with letters (A, etc.) or EXIT will access preset channels or functions, depending on your particular satellite/cable TV system.

### SEARCH button:

Use when searching for stations in RDS mode.

### CLASS button :

Switches between the three banks (classes) of radio station presets.

### MPX button :

Switches between stereo and mono reception of FM broadcasts. If the signal is weak then switching to mono will improve the sound quality. Also acts as a stop button for CDs, tapes, or DVDs.

### D. ACCESS button :

After pressing, you can access a radio station directly using the number buttons.

### ⑲ ENTER button :

It can be used to enter commands for TV, CATV and TUNER.

### ⑳ TV CONTROL buttons:

These controls are for your TV. They are dedicated TV controls and will work no matter what mode the remote control is in. They can, however, be set for different TVs.

By default they will control the TV. Thus if you only have one TV, assign it to the TV/SAT button .

A

B

C

D

E

F