OPTIMUS®

Service Manual

31-3042/31-3043

MODEL STAV-3770/HTS-102(STAV-3770)
AUDIO/VIDEO RECEIVER

Catalog Number: 31-3042

31-3043

- **The service manual for this product includes Pioneer's RRV1925 VSX-D307/KUXJI service manual. The pages preceding that manual list additional specifications, all service changes between Pioneer's RRV1925 VSX-D307/KUXJI and the 31-3042 STAV-3770/31-3043 HTS-102 (STAV-3770), and any RadioShack part numbers that are different from the Pioneer part numbers.**

- **The specifications on Page 49 of the RRV1925 service manual for Pioneer's model VSX-D307/KUXJI are like the specifications listed in the owner's manual for the 31-3042 STAV-3770/31-3043 HTS-102 (STAV-3770). Additional specs are given on the page inside the back cover.**

- **HOME THEATER SYSTEM Model HTS-102 contains AUDIO/VIDEO RECEIVER HTS-102 (STAV-3770) and 6 speakers (2 front speakers, 1 center speaker, 2 rear speakers and 1 passive subwoofer). The parts for the speakers are listed on page 3.**

PART NUMBER DIFFERENCES BETWEEN 31-3042 STAV-3770/ 31-3043 HTS-102(STAV-3770) AND VSX-D307/KUXJI

NOTES :
- *Parts marked by " NSP " are generally unavailable .*
- ⚠ *indicates safety critical components. Be sure to replace only with specified parts.*
- Ref. No. : *Numbers following P and hyphen(–) indicate the page(s) and location number(s) in the RRV1925 service manual, respectively.*

31-3042 STAV-3770/31-3043 HTS-102(STAV-3770) and VSX-D307/KUXJI are constructed the same except for the following:

Ref. No.	Mark	Symbol and Description	Part No.			Remarks
			VSX-D307 /KUXJI	31-3042 STAV-3770	31-3043 HTS-102	
		PACKING				
P3 - 3		Operating Instructions (English)	ARB7136	ARB7149	ARB7149	
P3 - 4	NSP	Warranty Card	ARY1051	Not used	Not used	
P3 - 5		Remote Control Unit (CU-VSX124)	AXD7161	Not used	Not used	
P3 - 5		Remote Control Unit	Not used	AXD7176	AXD7176	
P3 - 7	NSP	Dry Cell Battery (R6P, AA)	VEM-013	Not used	Not used	
P3 - 11		Packing Case	AHD7557	AHD7592	AHD7634	
		EXTERIOR SECTION				
P5 - 17		Rear Panel	ANC7627	ANC7662	ANC7702	
		FRONT PANEL SECTION				
P6 - 5		Power Button	AAD7440	AAD7472	AAD7472	
P6 - 7		PIONEER Badge	PAM1755	Not used	Not used	
P6 - 7		OPTIMUS Badge	Not used	AAM7001	AAM7001	
P6 - 9		Sheet	AAK7539	Not used	Not used	
P6 - 9		FL Panel	Not used	AAK7560	AAK7560	
		Front Panel Assy	Not used	AMB7511	AMB7511	
P6 - 6		├ Function Button (1/2)	AAD7441	AAD7458	AAD7458	
P6 - 6		├ Function Button (2/2)	AAD7441	AAD7441	AAD7441	
P6 - 10		├ Sub Panel	AAP7040	AAP7045	AAP7045	
P6 - 11		├ Front Panel	AMB7494	Not used	Not used	
P6 - 11	NSP	└ Front Panel	Not used	AMB7505	AMB7505	
		SPEAKER				
		Front Speaker	Not used	Not used	∗1	
		Center and Rear Speaker	Not used	Not used	∗1	
		Passive Subwoofer	Not used	Not used	∗1	
		ACCESSORY				
		RCA Cable Accesory Assy	Not used	Not used	259029	

Note ∗1: Refer to "31-3043 HTS-102 SPEAKERS".

31-3043 HTS-102 SPEAKERS

■ FRONT SPEAKER PARTS LIST

Mark	No.	Description	Part No.
	1	Speaker Wire Set (16' 18ga) for Front Speaker	258224
	2	Cabinet W/Speaker (Front Speaker)	258997

■ CENTER AND REAR SPEAKER PARTS LIST

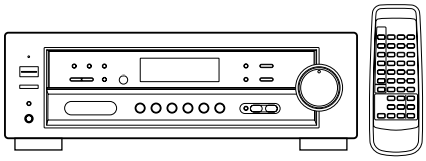
Mark	No.	Description	Part No.
	1	Speaker Wire Set (8' 18ga) for Center and Rear Speaker	258284
	2	Cabinet W/Speaker (Center Speaker)	259009
	3	Cabinet W/Speaker (Rear Speaker)	259014

■ PASSIVE SUBWOOFER PARTS LIST

Mark	No.	Description	Part No.
	1	Speaker Wire Set (10' 18ga) for Subwoofer	242393
	2	Low Freq. Transducer (8-inch cone woofer unit)	20-207A/XL
	3	SCR PPD0008PO4/4FBO (Woofer)	2221904
	4	Logo Badge	258922
	5	Front Port Ring	258635
	6	Rear Port Ring	258640
	7	Paper Port Tube	255136
	8	Foot W/Non Skid Pad	250111
	9	SCR PPD0008PO5/4FBO (Foot)	222539
	10	Terminal with Network	255121
	11	SCR PPD000605/8FBO (Terminal)	222539

Service Manual

PIONEER®
The Art of Entertainment



ORDER NO.
RRV1925

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-D307

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

Type	Model	Power Requirement	Remarks
	VSX-D307		
KUXJ	◯	AC120V	
KUXJI	◯	AC120V	
KCXJI	◯	AC120V	

CONTENTS

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE, INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER ELECTRONIC (EUROPE) N.V. Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 501 Orchard Road, #10-00 Lane Crawford Place, Singapore 0923

T - IZM MAR. 1998 Printed in Japan

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
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

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.

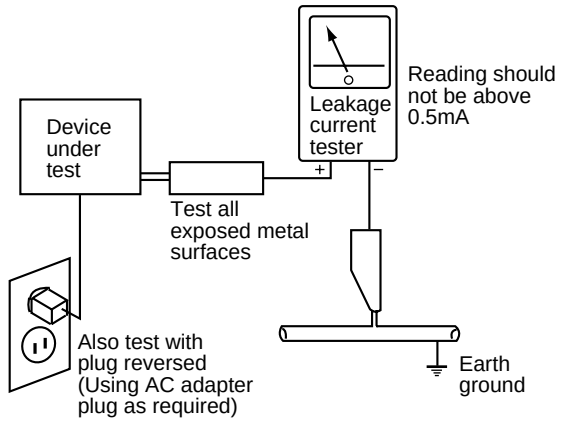
(FOR USA MODEL ONLY)

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 ⚠ on the schematics and on the parts list in this Service Manual.

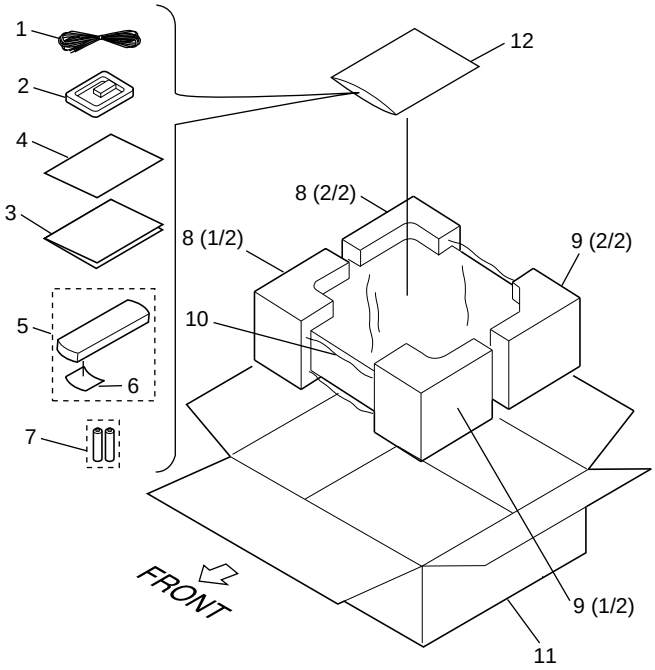
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

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 ⚠ 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



(1) PACKING PARTS LIST

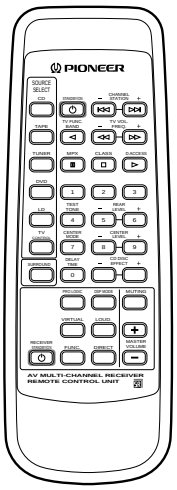
Mark	No.	Description	Part No.
	1	FM Antenna	ADH7004
	2	AM Loop Antenna	ATB7009
	3	Operating Instructions	See Contrast table (2)
NSP	4	Warranty Card	See Contrast table (2)
	5	Remote Control Unit (CU-VSX124)	AXD7161
	6	Battery Cover	RZN1156
NSP	7	Dry Cell Battery (R6P, AA)	VEM-013
	8	Left Pad	AHA7203
	9	Right Pad	AHA7204
	10	Packing Sheet	AHG1218
	11	Packing Case	See Contrast table (2)
	12	Polyethylene Bag (0.03×230×340)	Z21-038

(2) CONTRAST TABLE

VSX-D307/KUXJ, KUXJI and KCXJI are constructed the same except for the following :

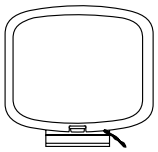
Mark	No.	Symbol and Description	Part No.			Remarks
			VSX-D307/KUXJ	VSX-D307/KUXJI	VSX-D307/KCXJI	
	3	Operating Instructions (English)	ARB7136	ARB7136	Not used	
	3	Operating Instructions (English/French)	Not used	Not used	ARE7159	
NSP	4	Warranty Card	ARY1051	ARY1051	ARY1075	
	11	Packing Case	AHD7595	AHD7557	AHD7582	

■ Accessories

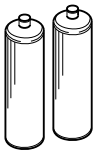


Remote Control Unit
(CU-VSX124 : AXD7161)

FM Antenna : ADH7004

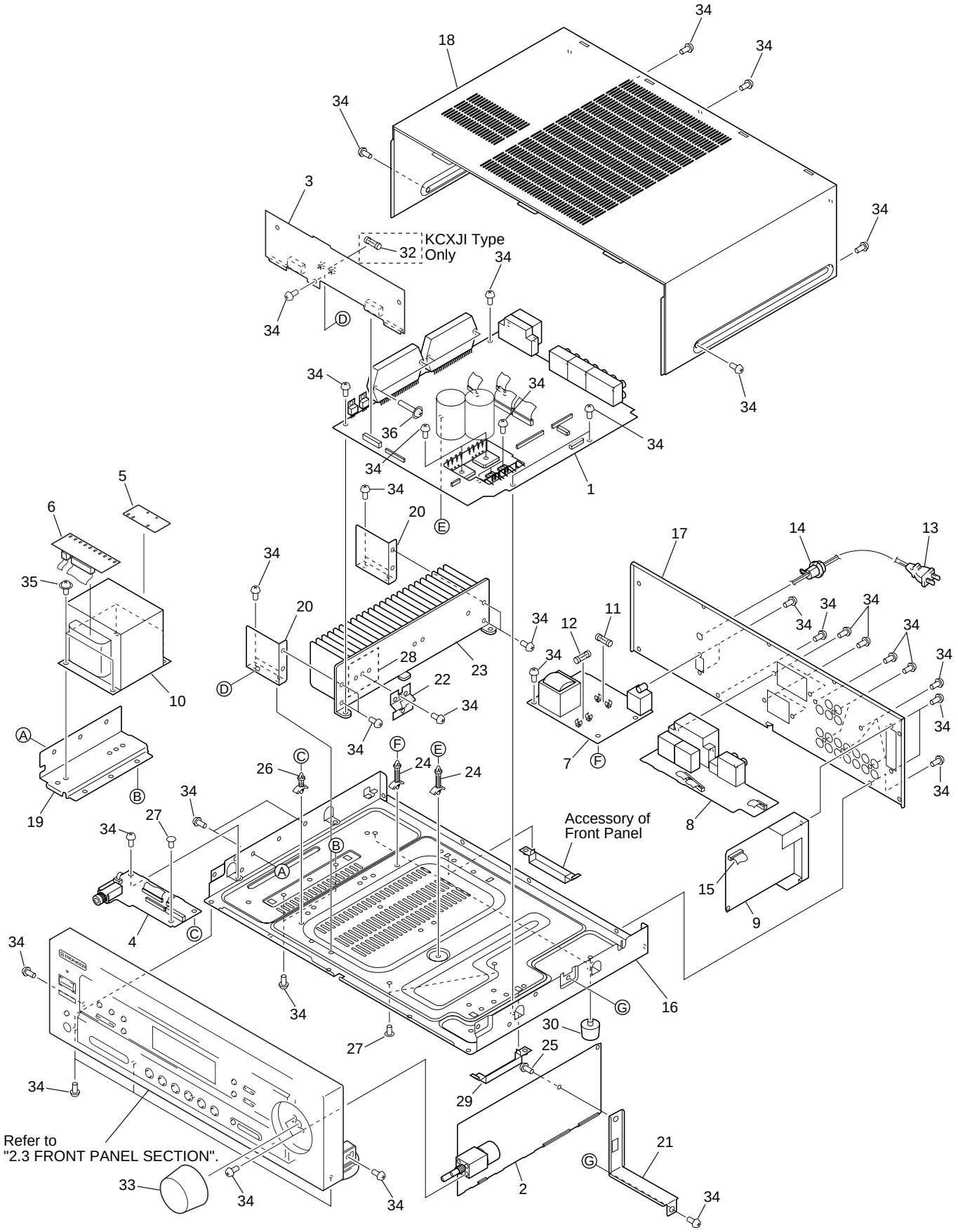


AM Loop Antenna : ATB7009



Dry Cell Battery : VEM-013
(size “AA” IEC R6P) × 2

2.2 EXTERIOR SECTION



(1) EXTERIOR SECTION PARTS LIST

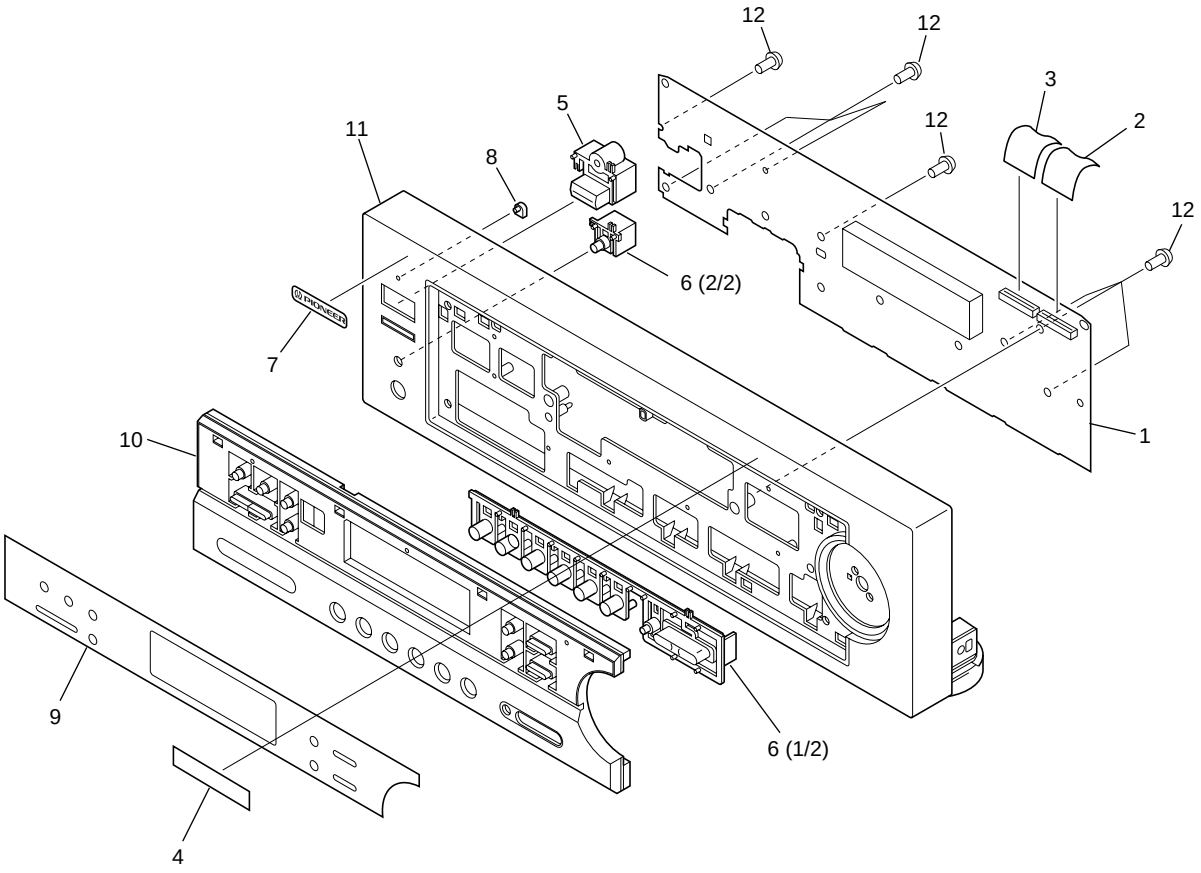
Mark	No.	Description	Part No.
	1	MOTHER Assy	See Contrast table (2)
	2	VOLUME DSP Assy	AWX7064
NSP	3	CONNECTION Assy	See Contrast table (2)
	4	HEADPHONE Assy	AWX7066
NSP	5	TRANS 1 Assy	AWX7070
NSP	6	TRANS 2 Assy	AWX7071
	7	PRIMARY Assy	AWX7067
	8	FRONT SPEAKER Assy	AWX7068
	9	FM/AM TUNER Unit	AXX7046
⚠	10	Power Transformer (T1 : AC120V)	ATS7205
⚠	11	Fuse (FU2 : 8A)	REK1086
⚠	12	Fuse (FU1 : 10A)	REK1087
⚠	13	AC Power Cord	PDG1057
	14	Cord Stopper	CM-22C
	15	Flexible Cable 13P (J32) (MOTHER CN110-FM/AM TUNER Unit)	ADD7081
NSP	16	Under Base	ANA7067
	17	Rear Panel	See Contrast table (2)
	18	Bonnet Case	AZN7710
	19	T Angle	ANG7178
	20	H Angle	ANG7179
	21	PCB Angle	ANG7180
	22	FET Angle	ANG7186
NSP	23	Heat Sink	ANH7075
	24	PCB Support	AEC7006
	25	Push Rivet	AEC7025
	26	PCB Support	AEC7132
	27	Card Spacer	AEC7133
	28	Mica Sheet	AEE7026
	29	Screw Cover	AMR7199
	30	Foot Assy	REC1263
	31	• • • • •	
⚠	32	Fuse (FU91 : 10A)	See Contrast table (2)
	33	Round Knob	AAB7082
	34	Screw	BBZ30P080FZK
	35	Screw	ABA7044
	36	Screw	ABA7043

(2) CONTRAST TABLE

VSX-D307/KUXJ, KUXJI and KCXJI are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.			Remarks
			VSX-D307/KUXJ	VSX-D307/KUXJI	VSX-D307/KCXJI	
	1	MOTHER Assy	AWX7058	AWX7058	AWX7177	
NSP	3	CONNECTION Assy	AWX7060	AWX7060	AWX7176	
	17	Rear Panel	ANC7663	ANC7627	ANC7691	
⚠	32	Fuse (FU91 : 10A)	Not used	Not used	REK1087	

2.3 FRONT PANEL SECTION



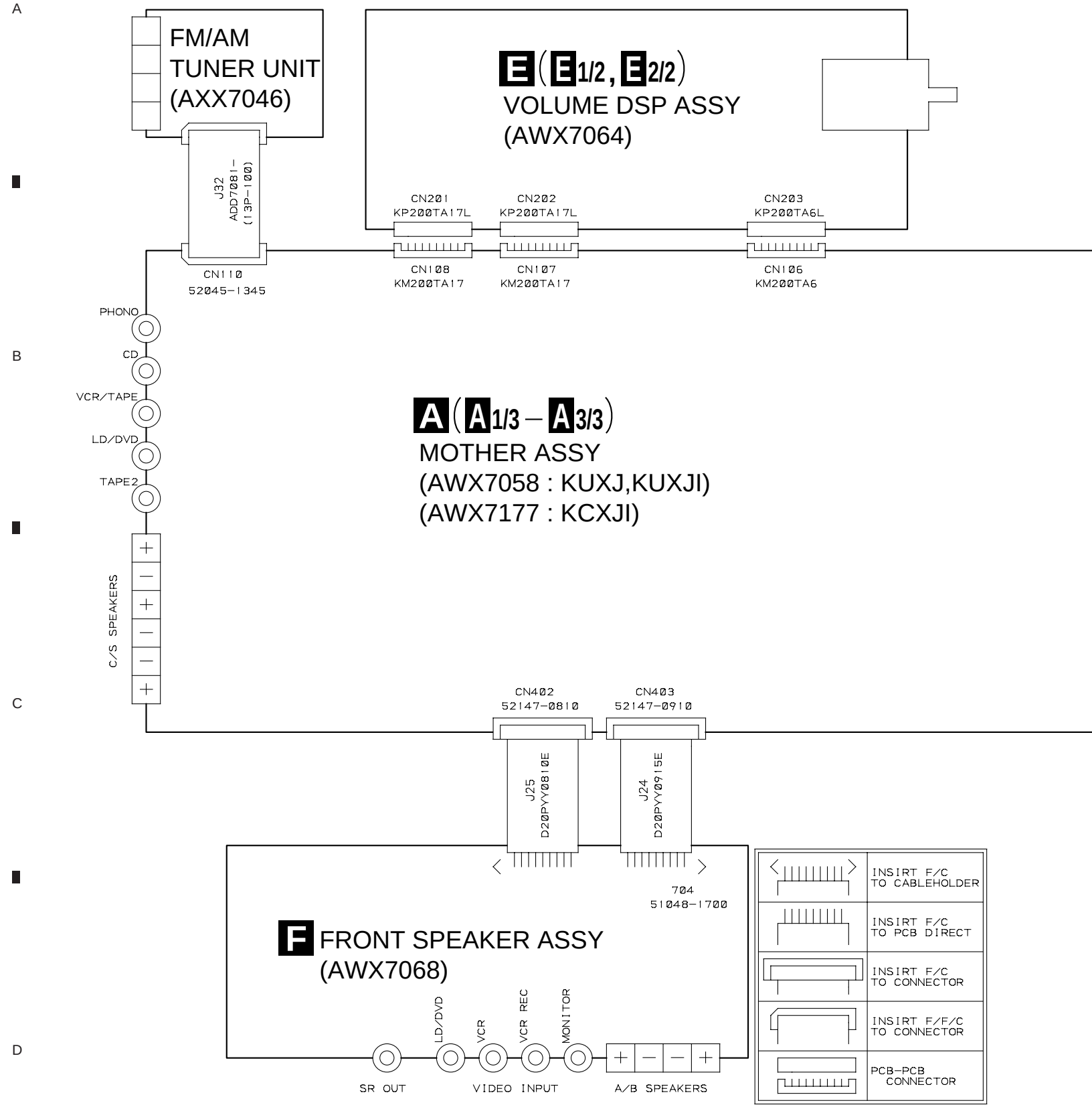
(1) FRONT PANEL SECTION PARTS LIST

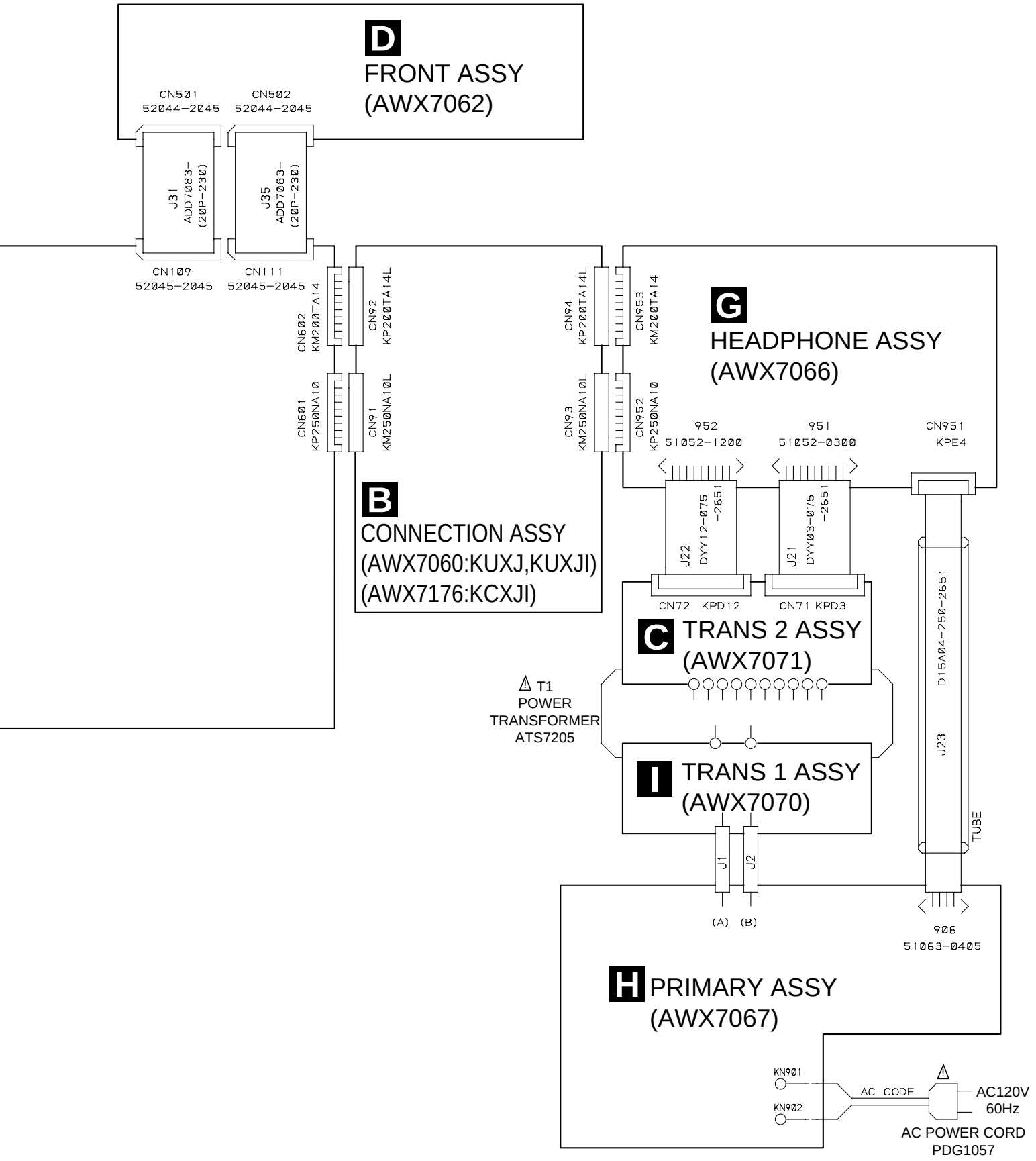
Mark	No.	Description	Part No.
	1	FRONT Assy	AWX7062
	2	Flexible Cable 20P (J31) (MOTHER CN109-FRONT CN501)	ADD7083
	3	Flexible Cable 20P (J35) (MOTHER CN111-FRONT CN502)	ADD7083
NSP	4	Getter	AAX7631
	5	Power Button	AAD7440
	6	Function Button	AAD7441
	7	PIONNER Badge	PAM1755
	8	LED Lens	PNW2019
	9	Sheet	AAK7539
	10	Sub Panel	AAP7040
	11	Front Panel	AMB7494
	12	Screw	BPZ30P080FMC

3. SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM

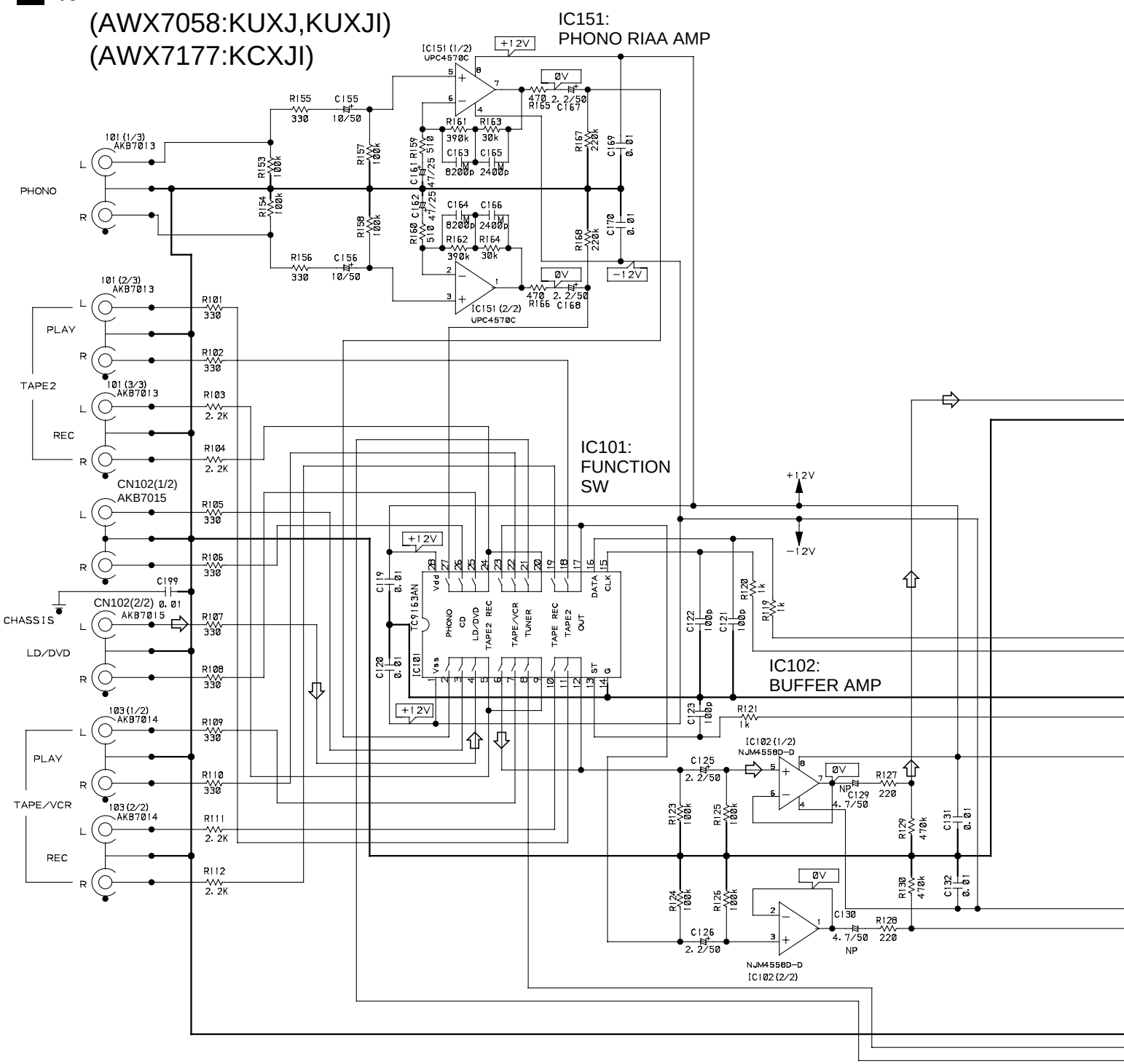
Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".





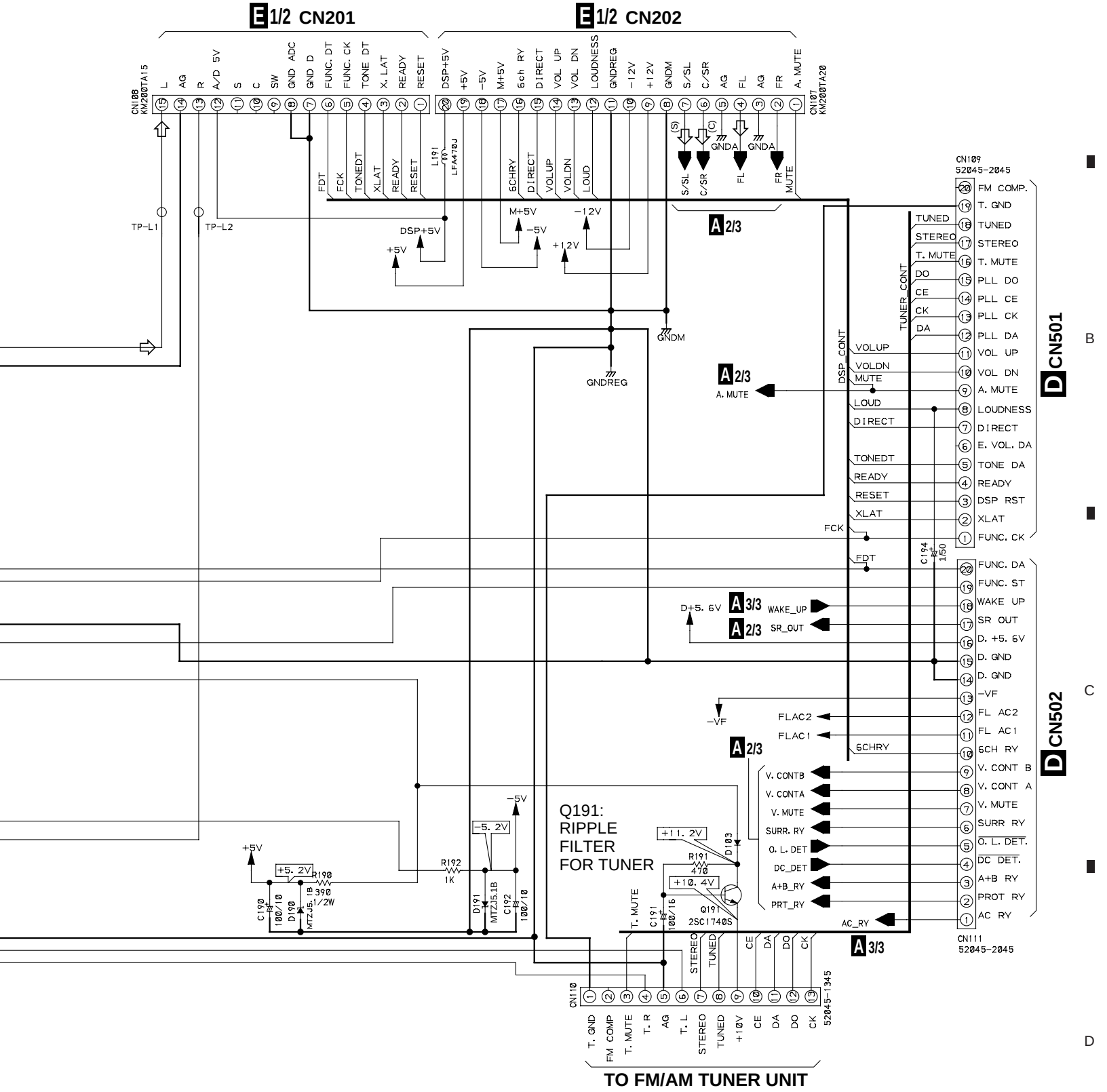
3.2 MOTHER ASSY (1/3)

A 1/3 MOTHER ASSY
(AWX7058:KUXJ,KUXJI)
(AWX7177:KCXJI)

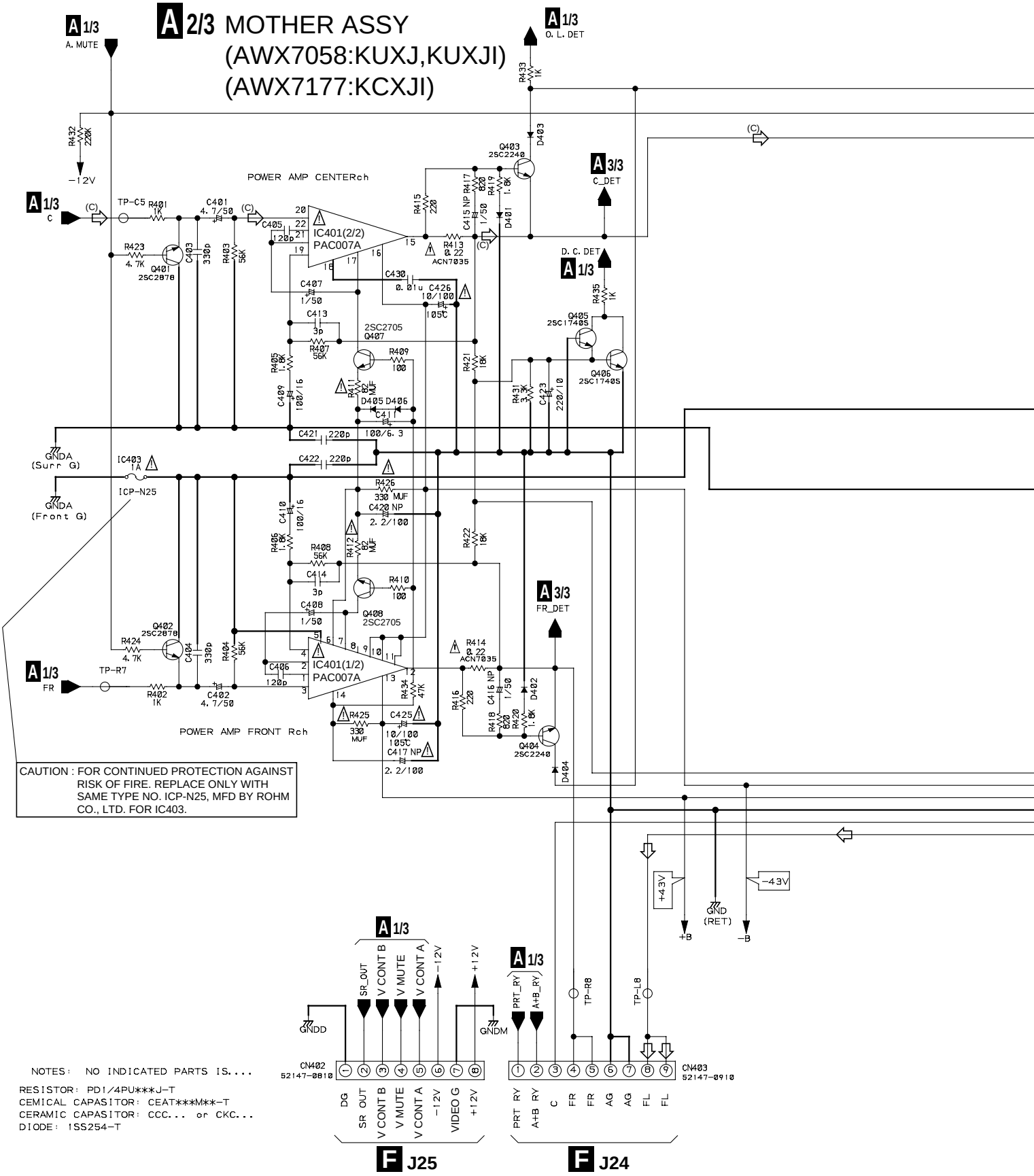


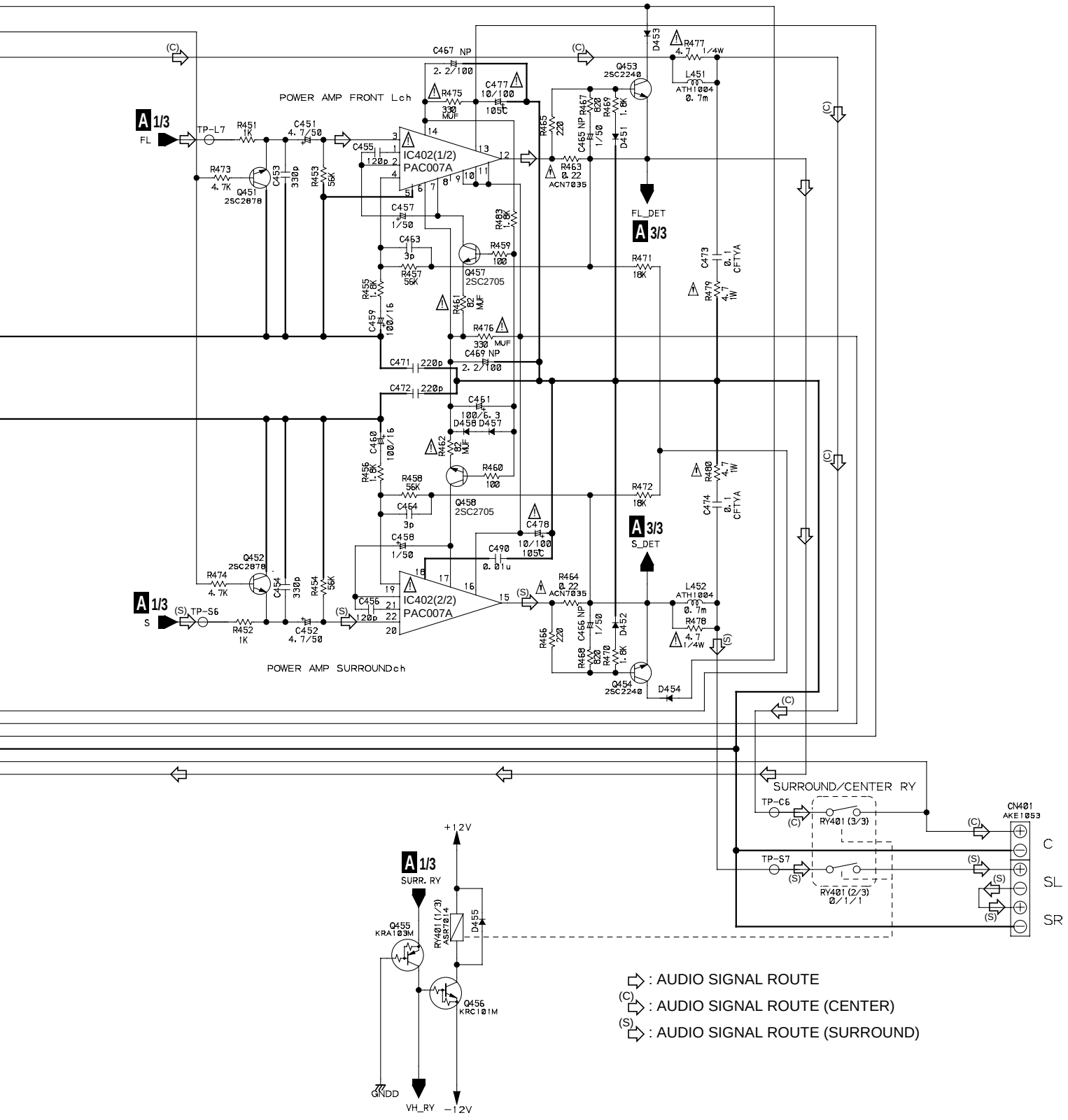
NOTES: NO INDICATED PARTS IS....
RESISTOR: PD1/4PU***J-T
CEMICAL CAPASITOR: CEAT***M**-T
CERAMIC CAPASITOR: CCC... or CKC...
DIODE: ISS254-T

⇨ : AUDIO SIGNAL ROUTE
(C) ⇨ : AUDIO SIGNAL ROUTE (CENTER)
(S) ⇨ : AUDIO SIGNAL ROUTE (SURROUND)

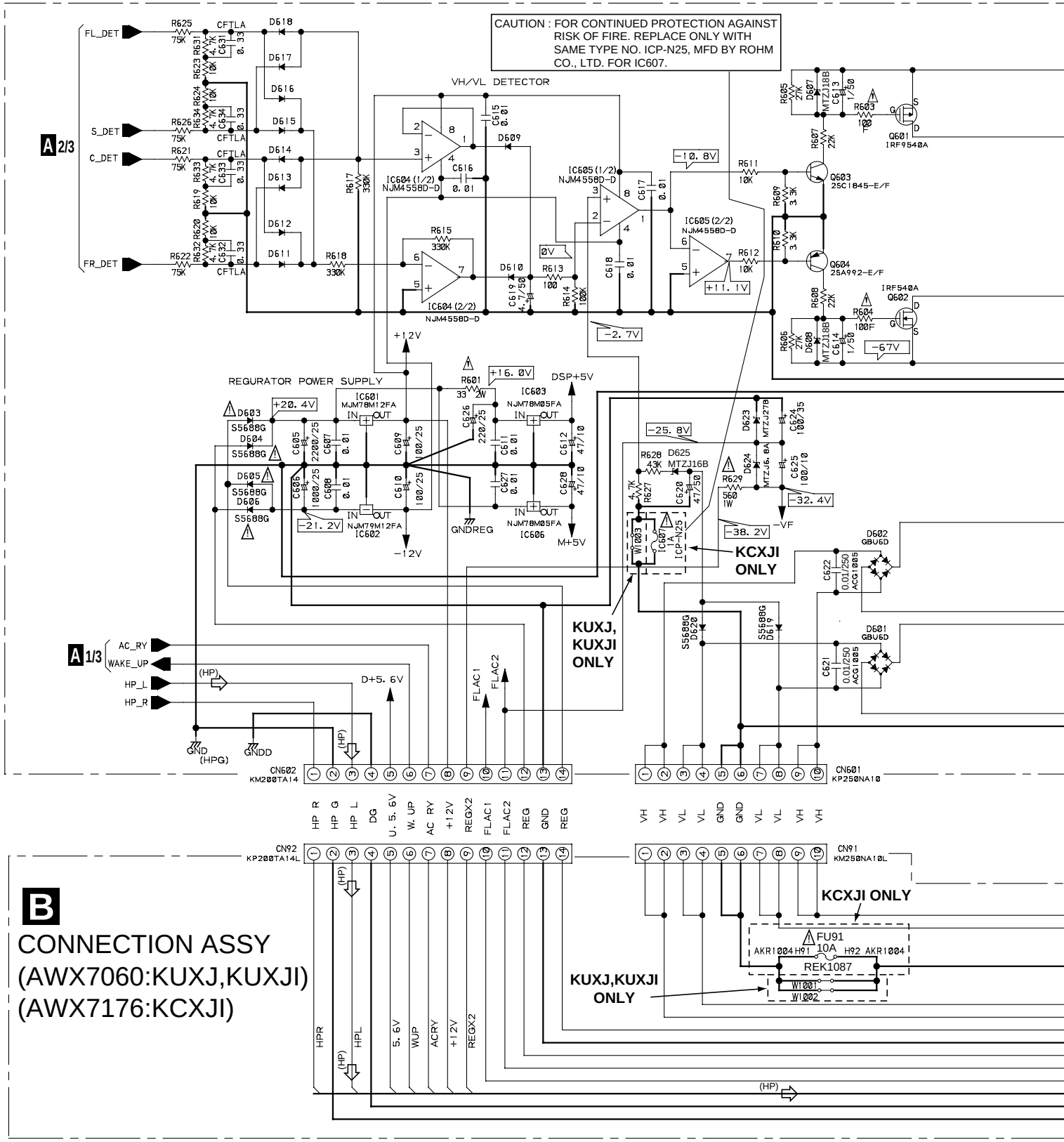


3.3 MOTHER ASSY (2/3)





3.4 MOTHER (3/3), CONNECTION AND TRANS 2 ASSEMBLIES

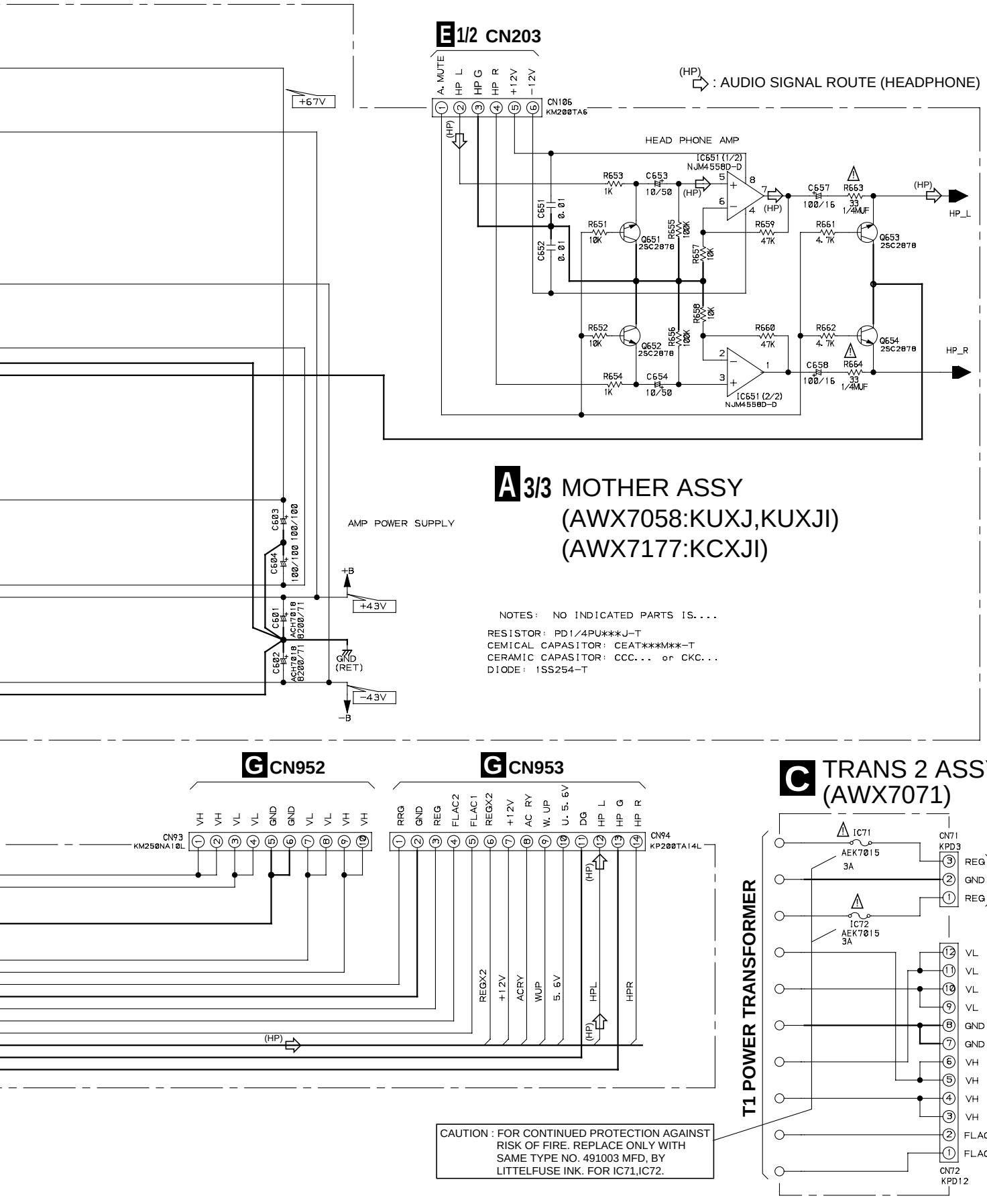


B

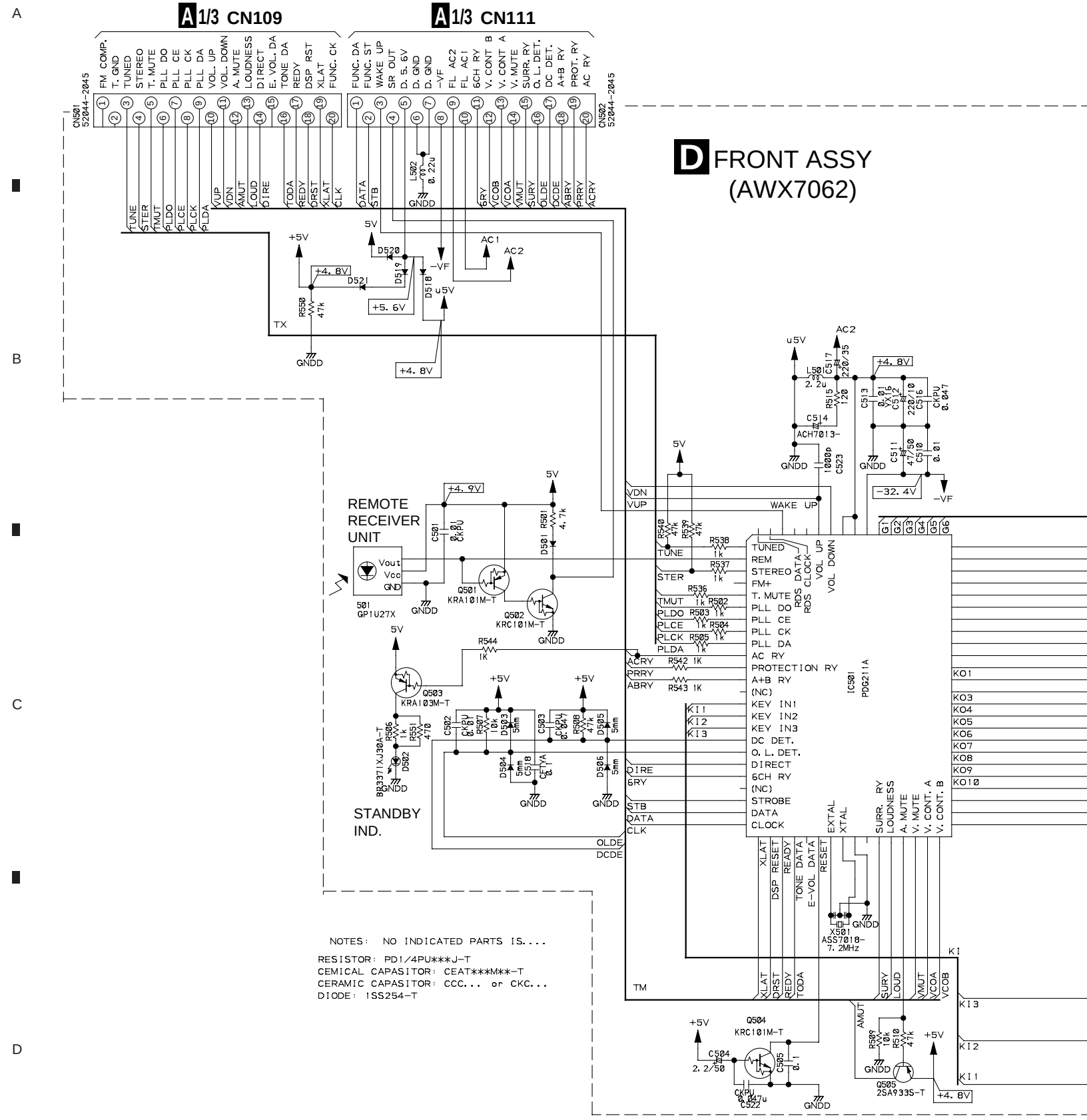
CONNECTION ASSY
(AWX7060:KUXJ,KUXJI)
(AWX7176:KCXJI)

• NOTE FOR FUSE REPLACEMENT

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

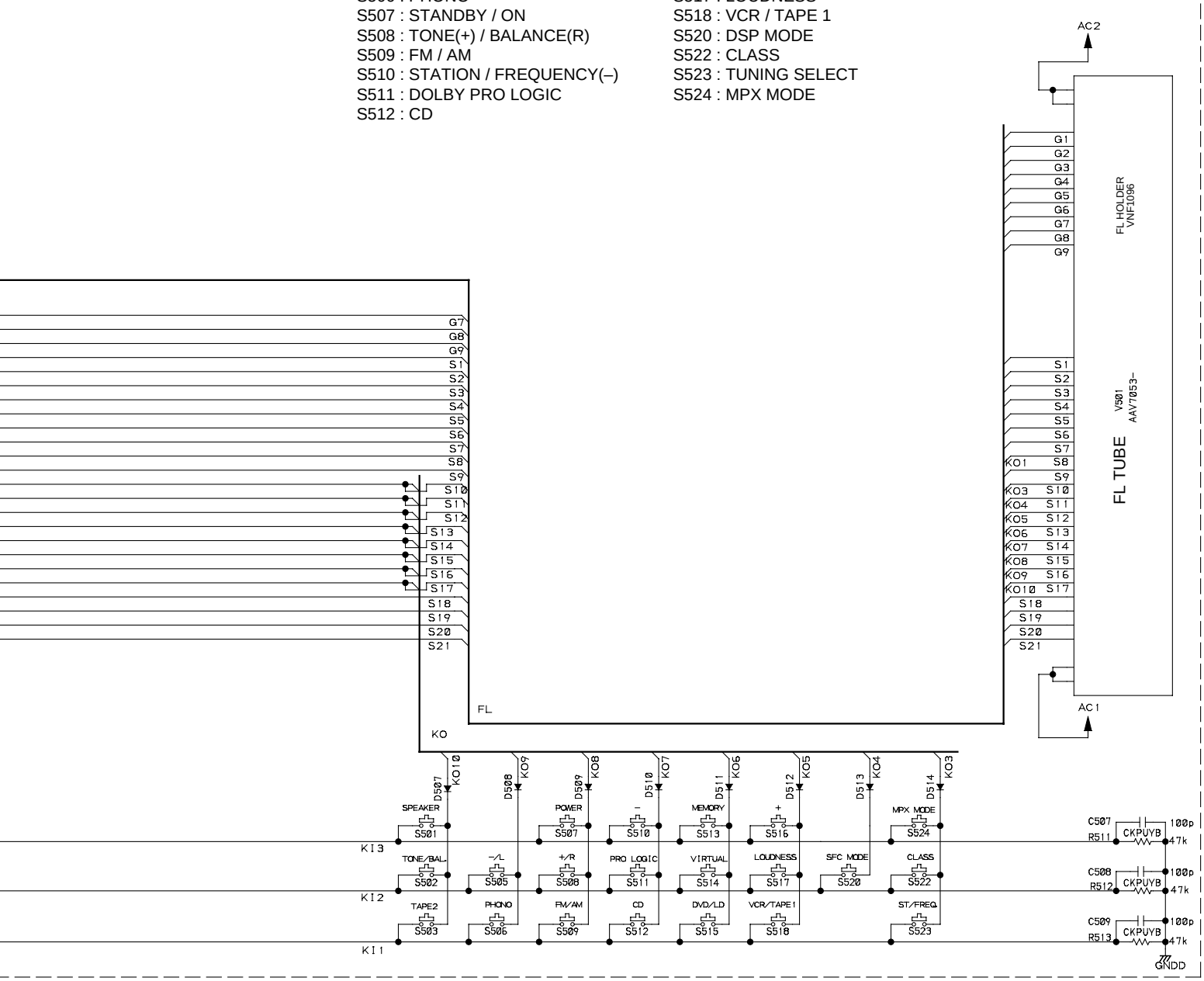


3.5 FRONT ASSY

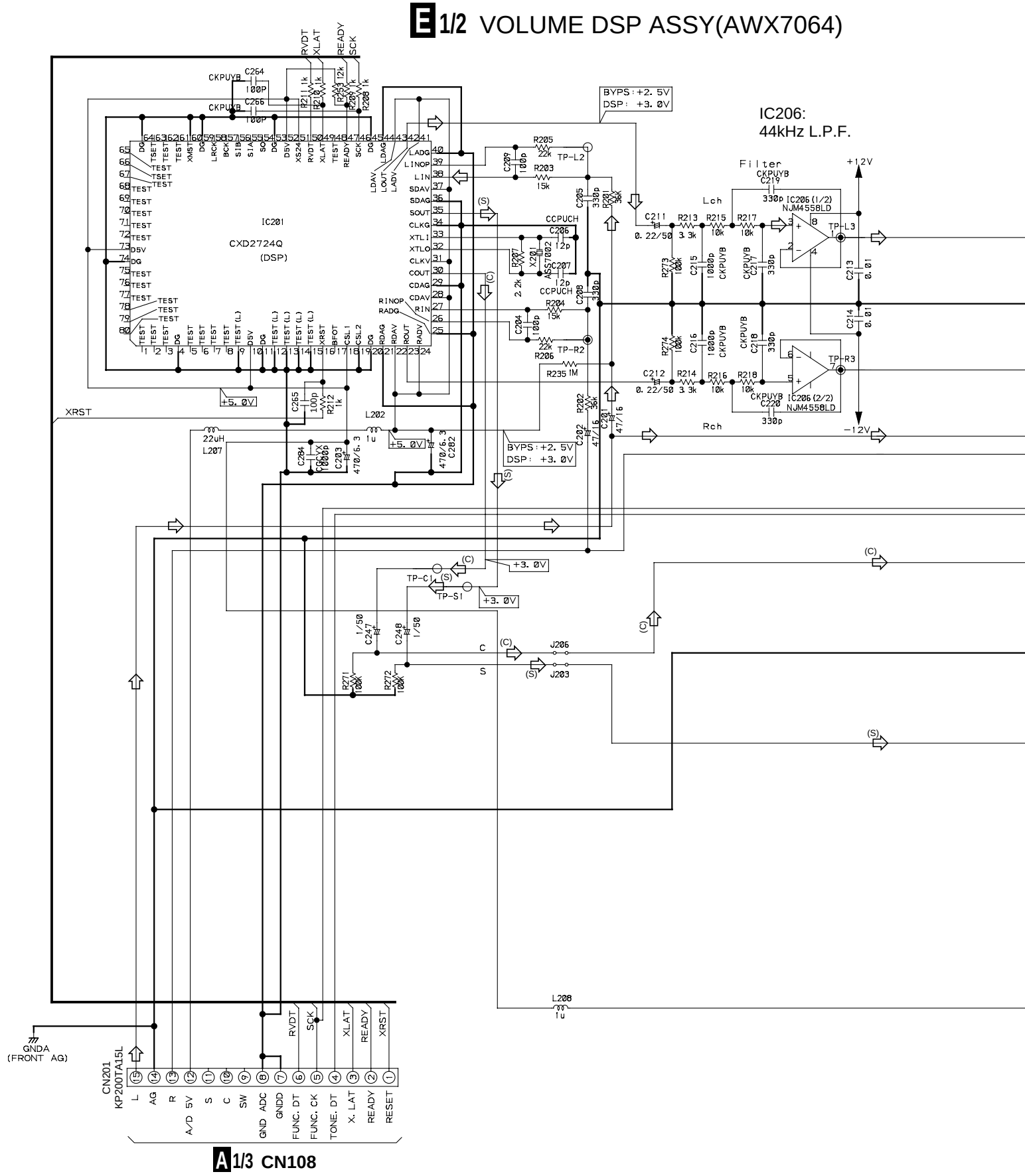


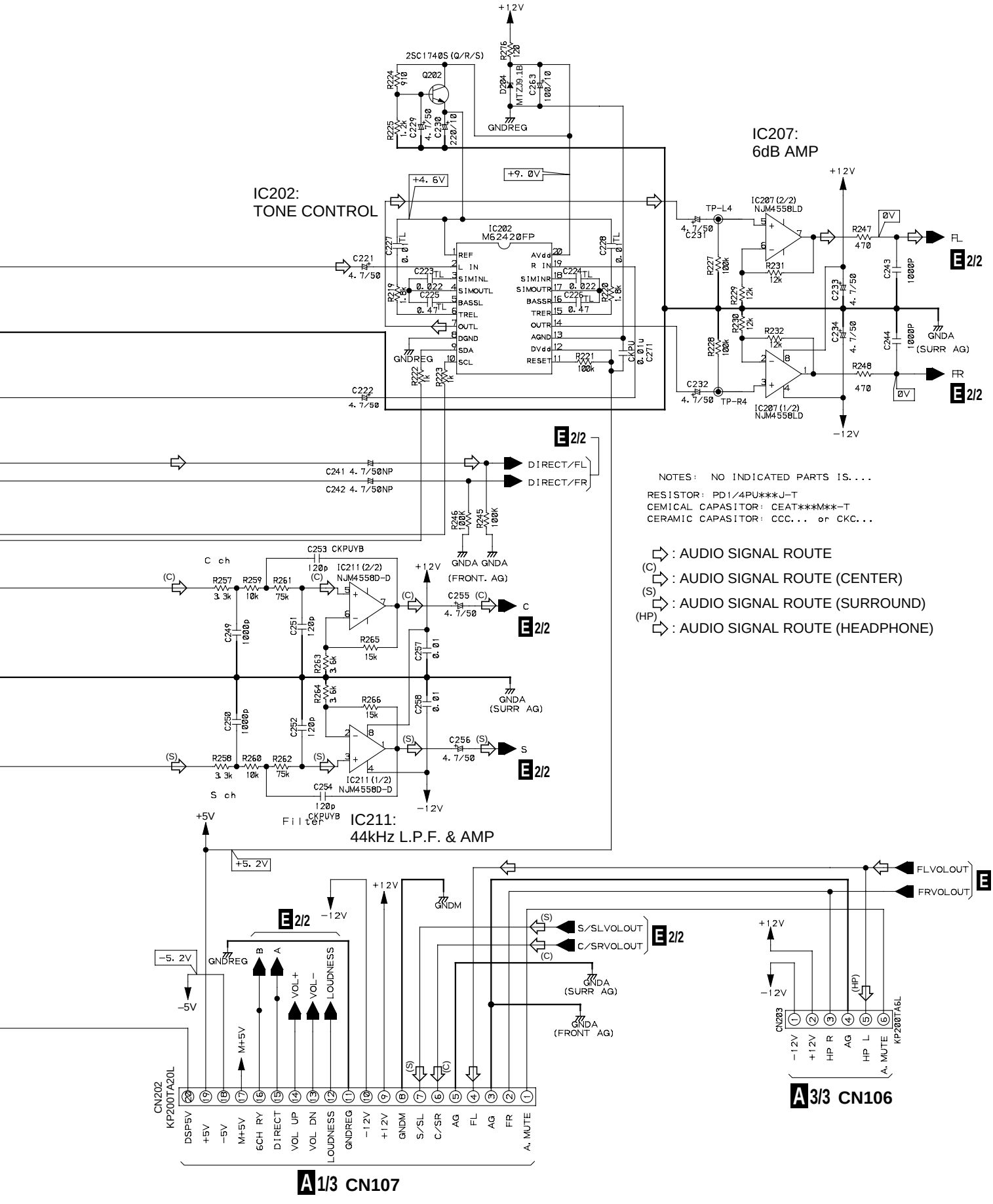
S501 : SPEAKER
S502 : SELECT
S503 : TAPE 2 MONITOR
S505 : TONE(–) / BALANCE(L)
S506 : PHONO
S507 : STANDBY / ON
S508 : TONE(+) / BALANCE(R)
S509 : FM / AM
S510 : STATION / FREQUENCY(–)
S511 : DOLBY PRO LOGIC
S512 : CD

S513 : MEMORY
S514 : DOLBY VIRTUAL
S515 : DVD / LD
S516 : STATION / FREQUENCY(+)
S517 : LOUDNESS
S518 : VCR / TAPE 1
S520 : DSP MODE
S522 : CLASS
S523 : TUNING SELECT
S524 : MPX MODE



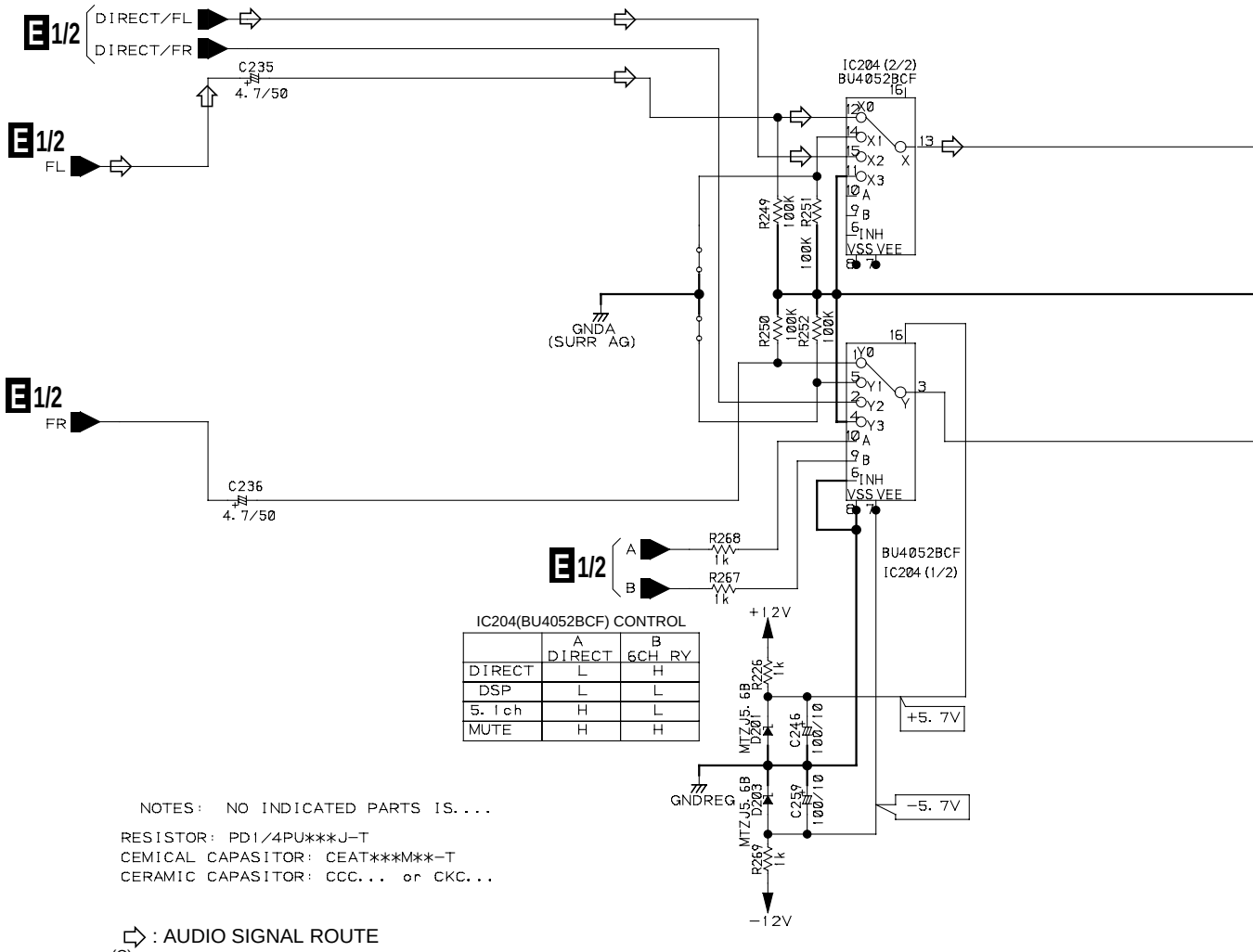
3.6 VOLUME DSP ASSY (1/2)





3.7 VOLUME DSP ASSY (2/2)

E 2/2 VOLUME DSP ASSY(AWX7064)



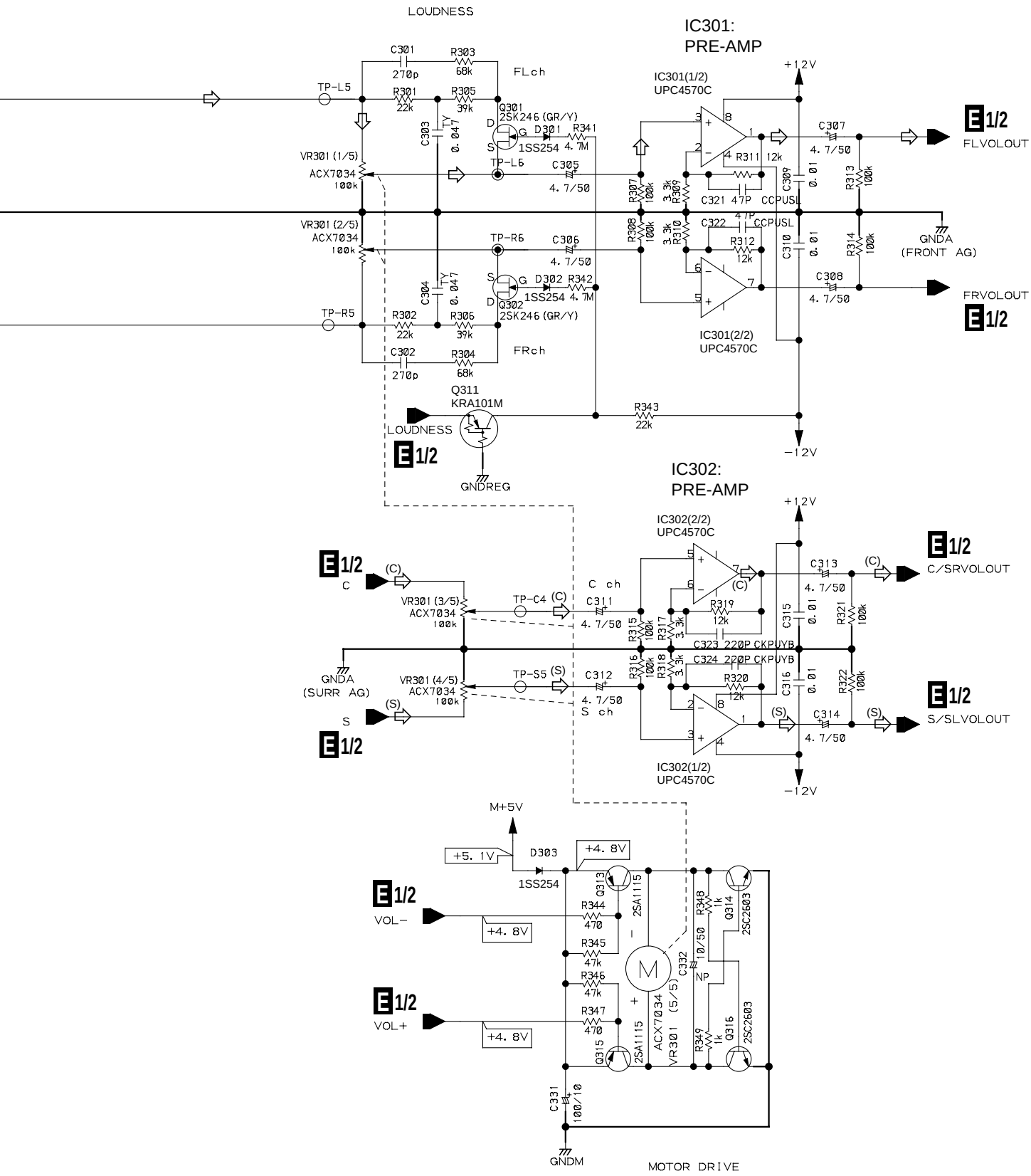
IC204(BU4052BCF) CONTROL

	A DIRECT	B 6CH RY
DIRECT	L	H
DSP	L	L
5.1ch	H	L
MUTE	H	H

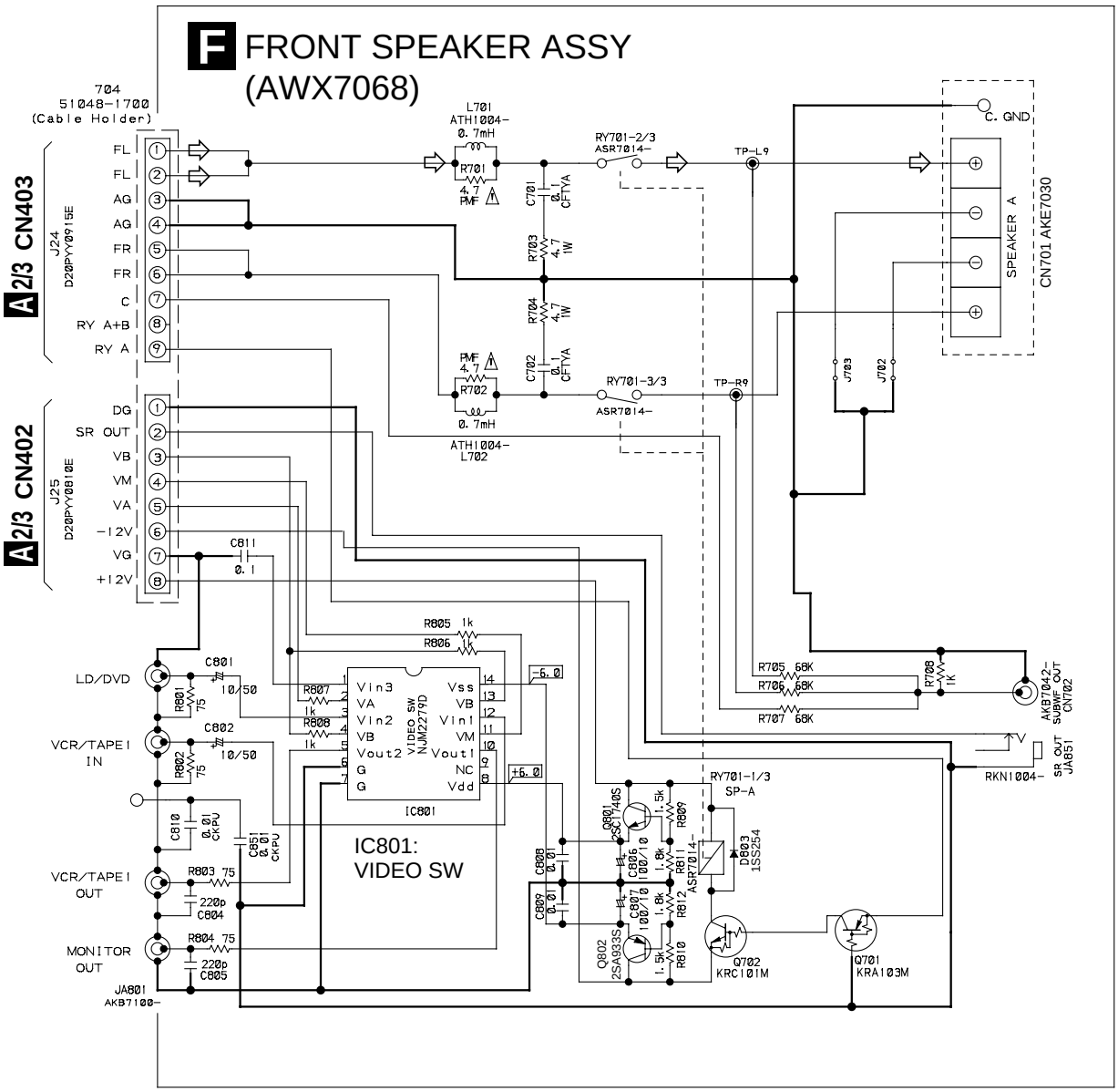
NOTES: NO INDICATED PARTS IS....

RESISTOR: PD1/4PU***J-T
CEMICAL CAPASITOR: CEAT***M**-T
CERAMIC CAPASITOR: CCC... or CKC...

⇨ : AUDIO SIGNAL ROUTE
(C) ⇨ : AUDIO SIGNAL ROUTE (CENTER)
(S) ⇨ : AUDIO SIGNAL ROUTE (SURROUND)



3.8 FRONT SPEAKER, HEADPHONE, PRIMARY AND TRANS 1 ASSEMBLIES



IC801(NJM2279D) LOGIC

FUNCTION	VA	VB	VM
VCR/TAPE	*(L)	L	H
LD/DVD	L	H	H
F-VIDEO	H	H	H
AUDIO	*(L)	*(L)	L

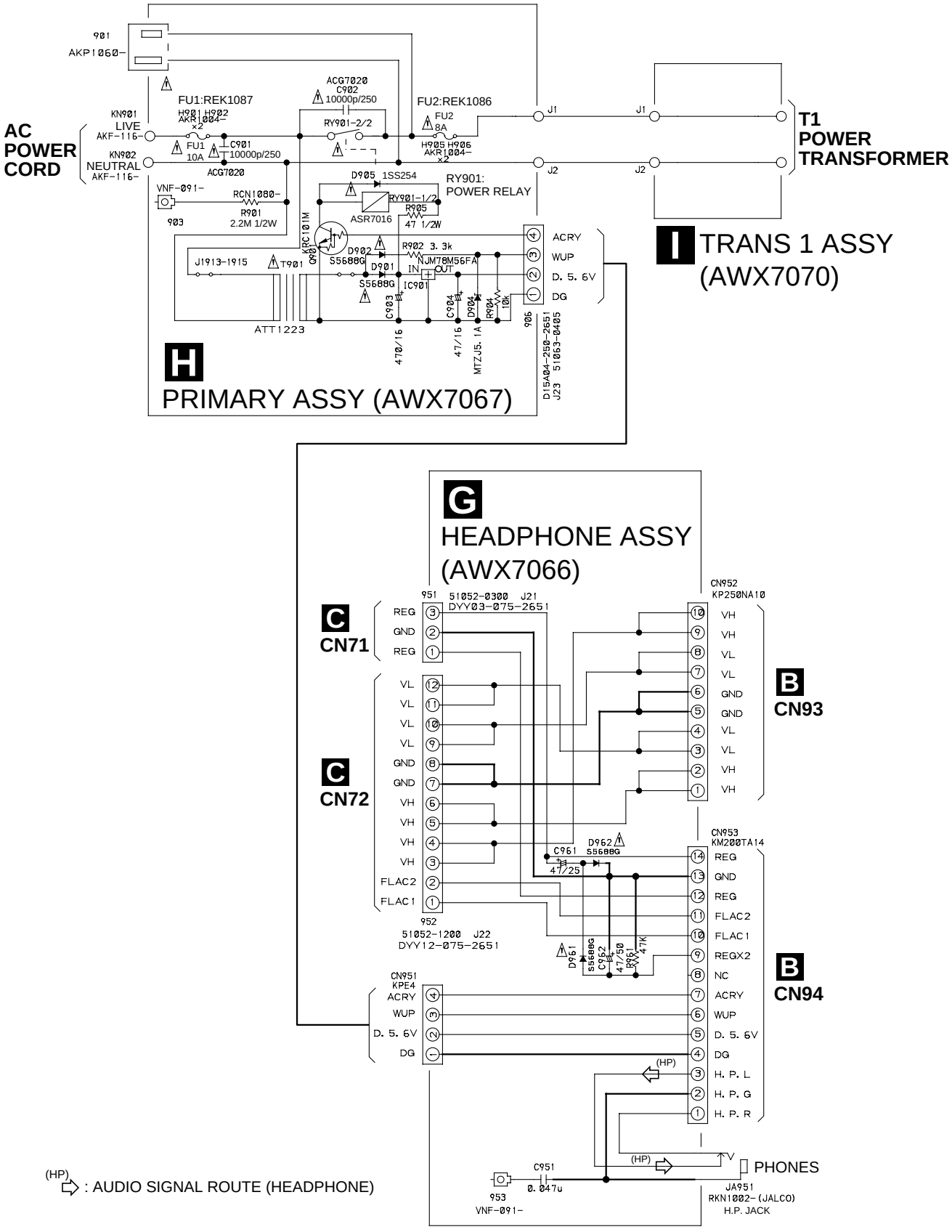
NOTES: NO INDICATED PARTS IS....

RESISTOR: PD1/4PU***J-T
CEMICAL CAPASITOR: CEAT***M**-T
CERAMIC CAPASITOR: CCC... or CKC...

⇨ : AUDIO SIGNAL ROUTE

• NOTE FOR FUSE REPLACEMENT

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



(HP) ⇨ : AUDIO SIGNAL ROUTE (HEADPHONE)

4. PCB CONNECTION DIAGRAM

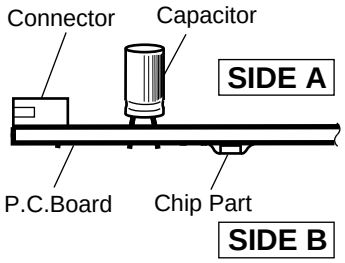
4.1 MOTHER ASSY

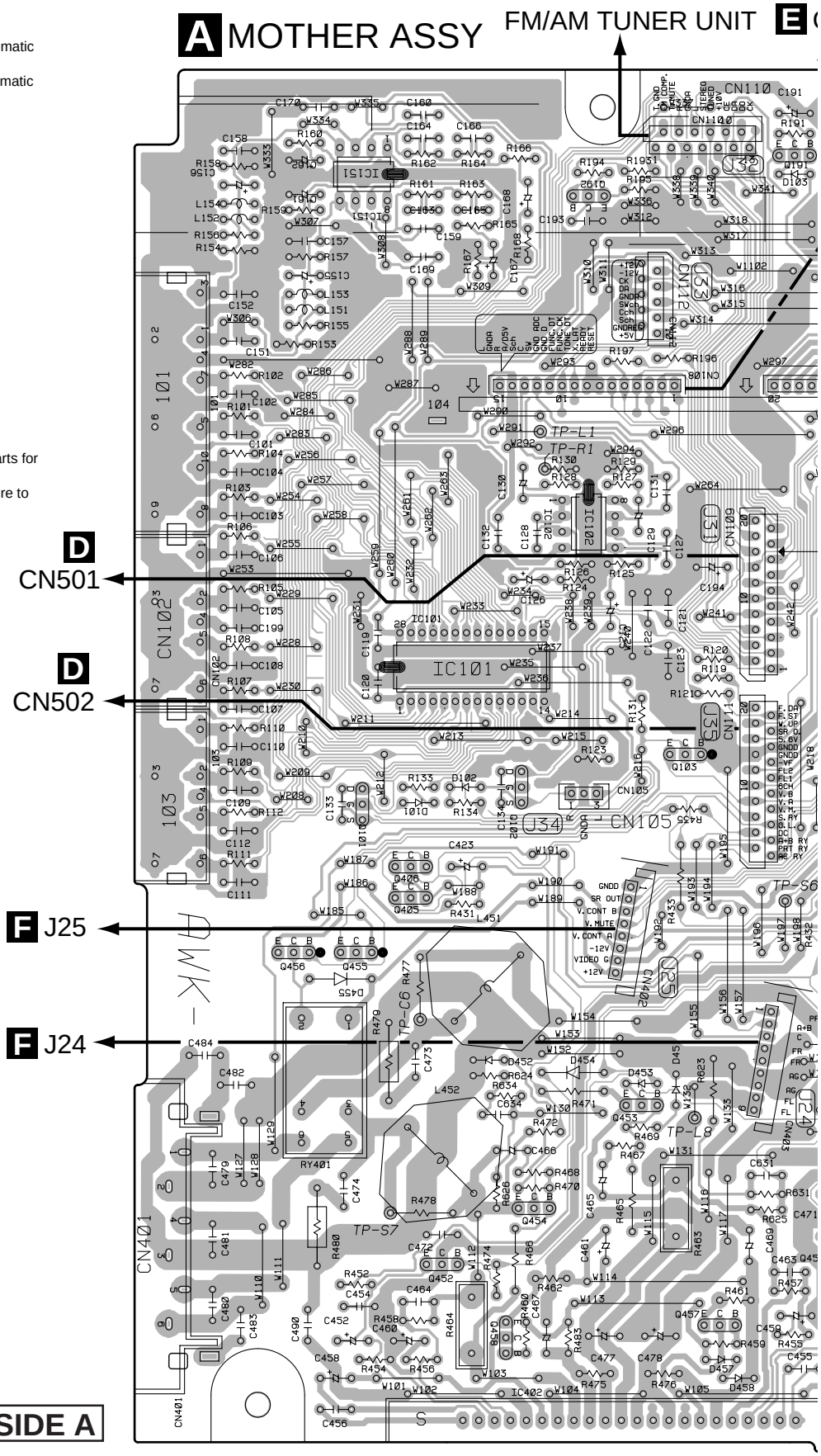
NOTE FOR PCB DIAGRAMS :

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.

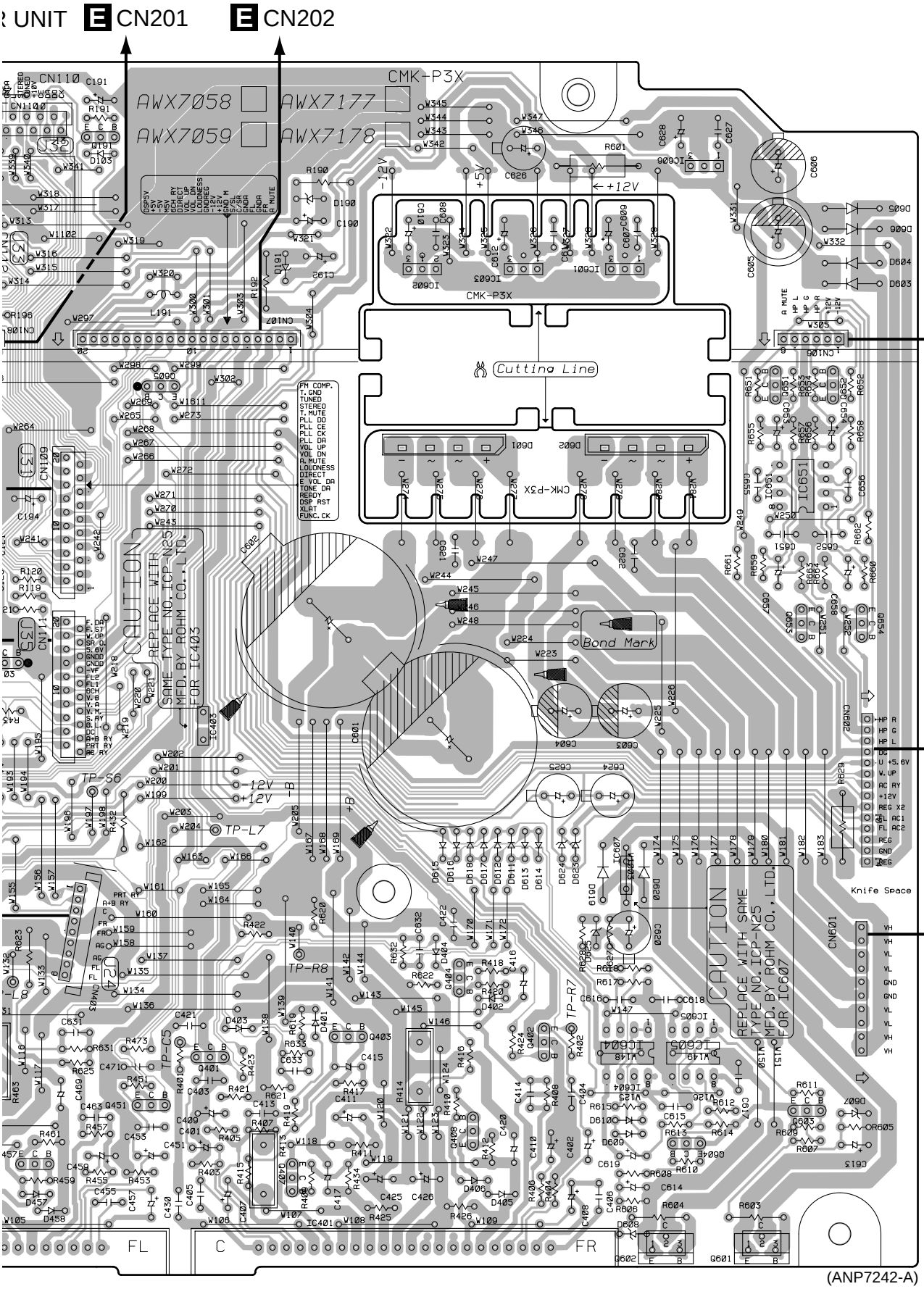
Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
B C E	B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

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.





IC151 IC101 IC102 Q192 Q103 Q191 Q605
Q101 Q406 Q405 Q454 Q453 Q457
Q456 Q455 Q452 Q458 IC402

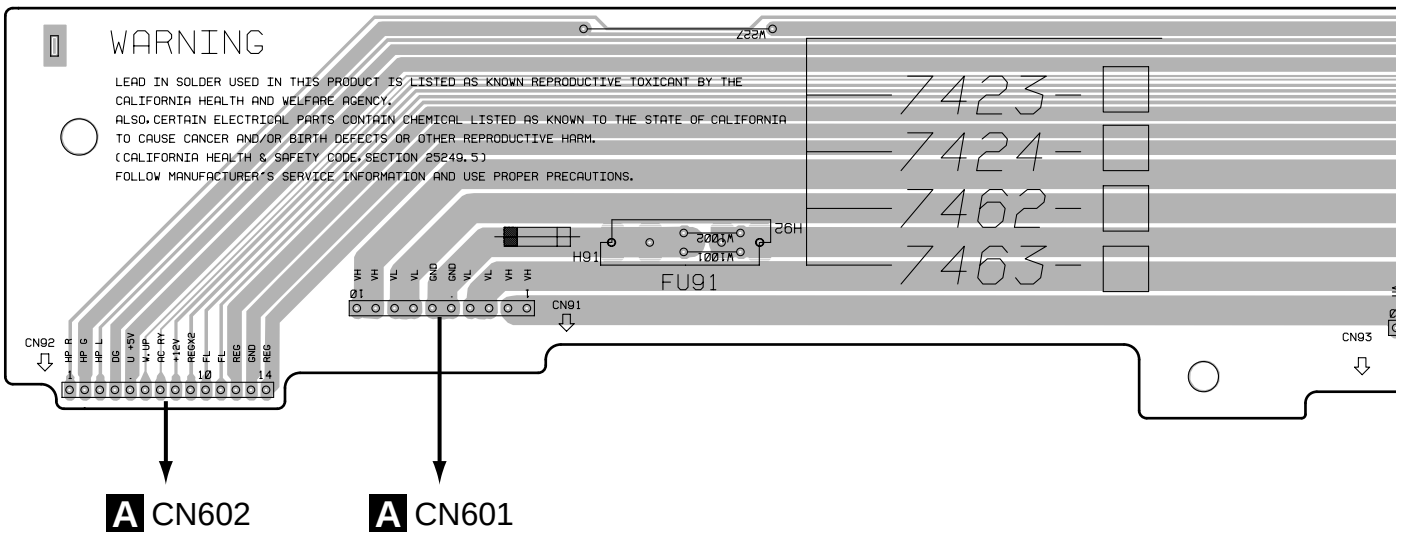


(ANP7242-A)

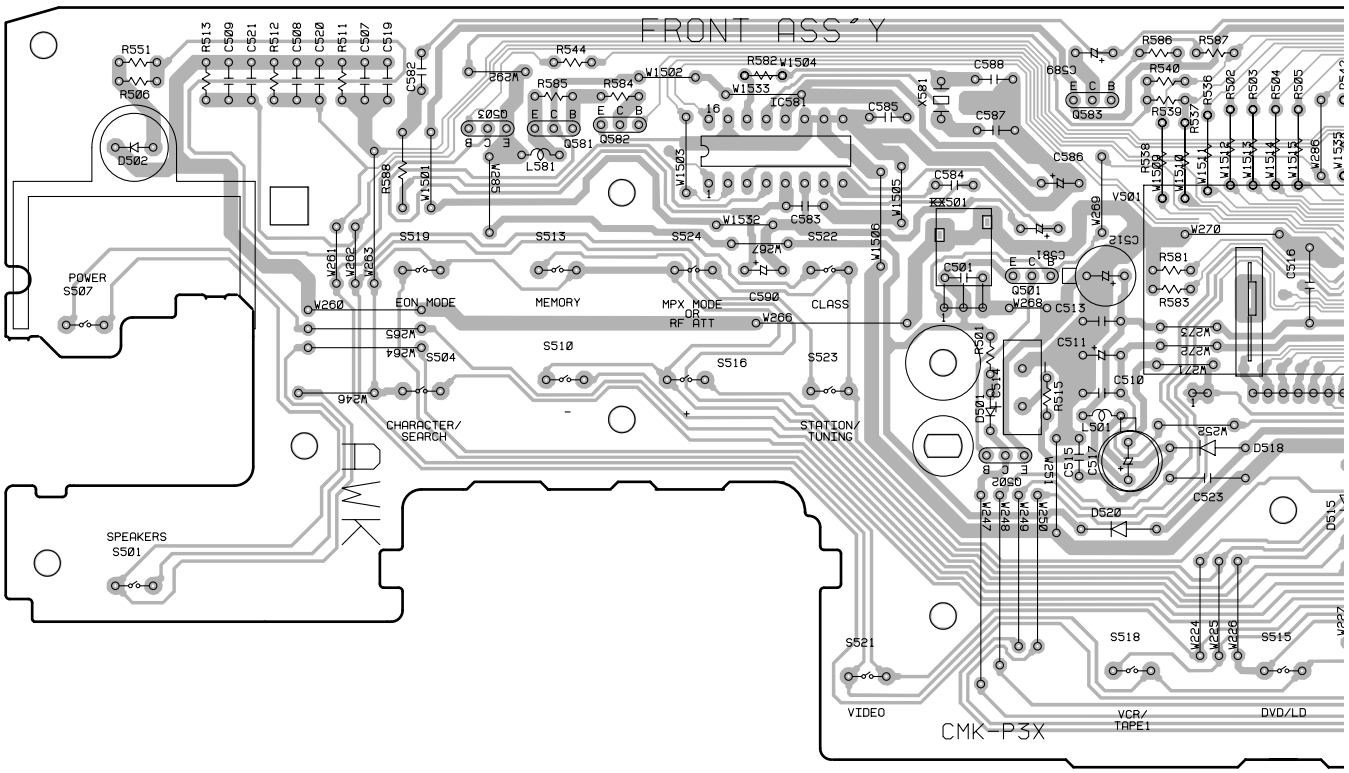
191 Q605
Q457 Q451 Q401 Q407
IC601-IC603 Q402-Q404
IC607 IC606 IC604 Q604
Q651-Q654 IC651
IC401 Q408 Q602 Q601 Q603

4.2 CONNECTION, TRANS 2 AND FRONT ASSEMBLIES

B CONNECTION ASSY



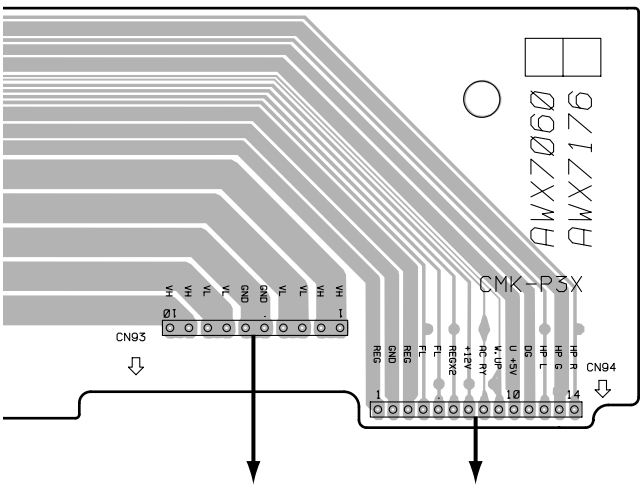
D FRONT ASSY



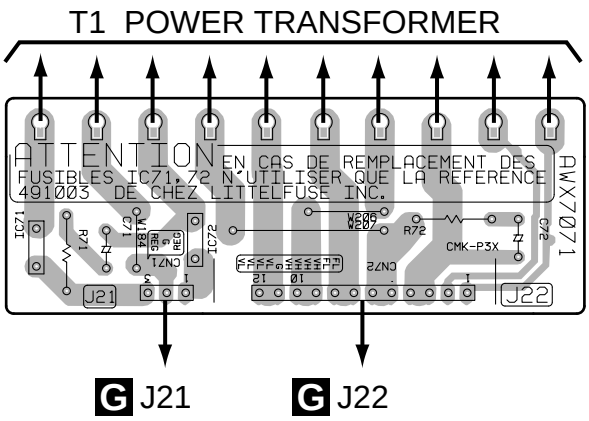
Q503 Q581 Q582 IC581 Q501 Q583 Q502

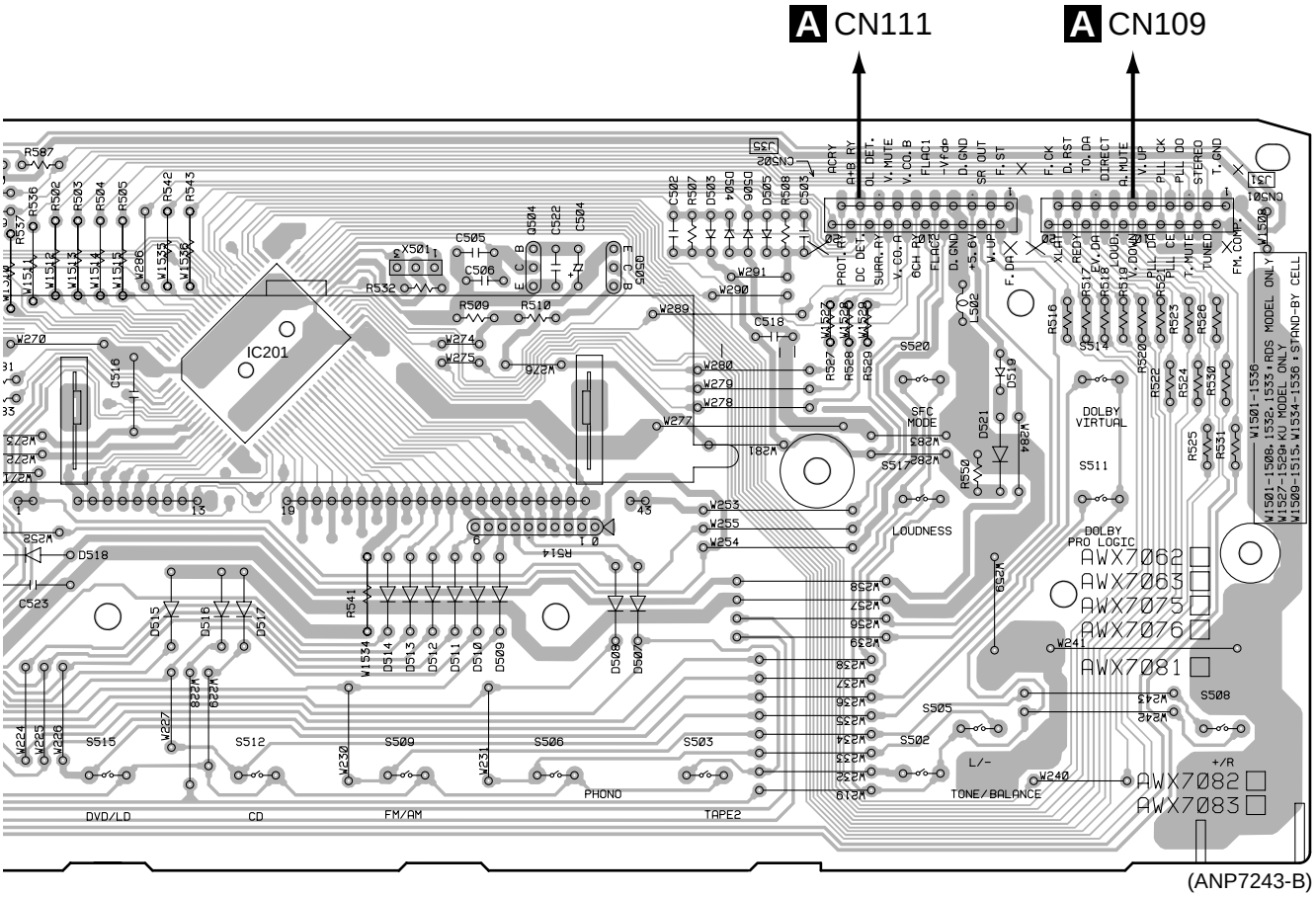
SIDE A

C TRANS 2 ASSY



(ANP7242-A)





(ANP7243-B)

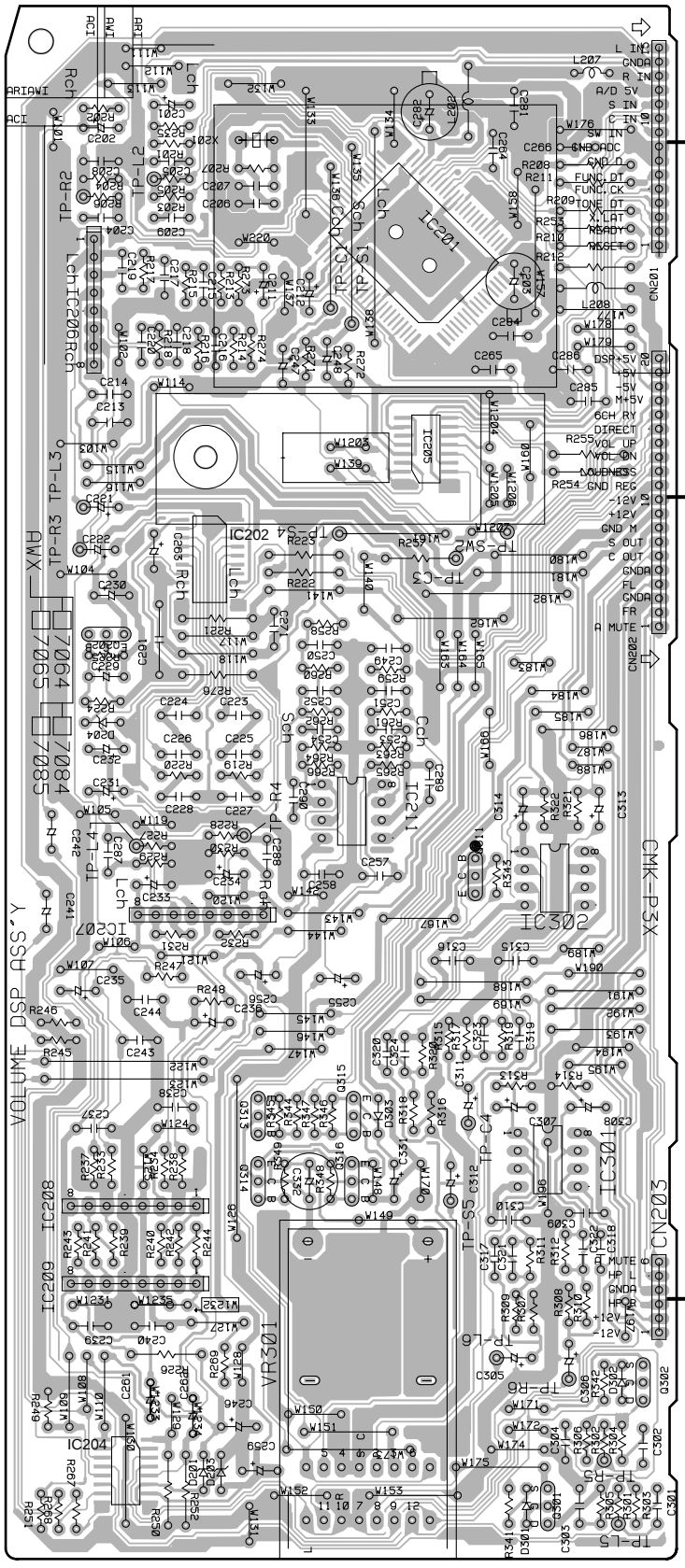
IC201 Q504 Q505

SIDE A

B C D

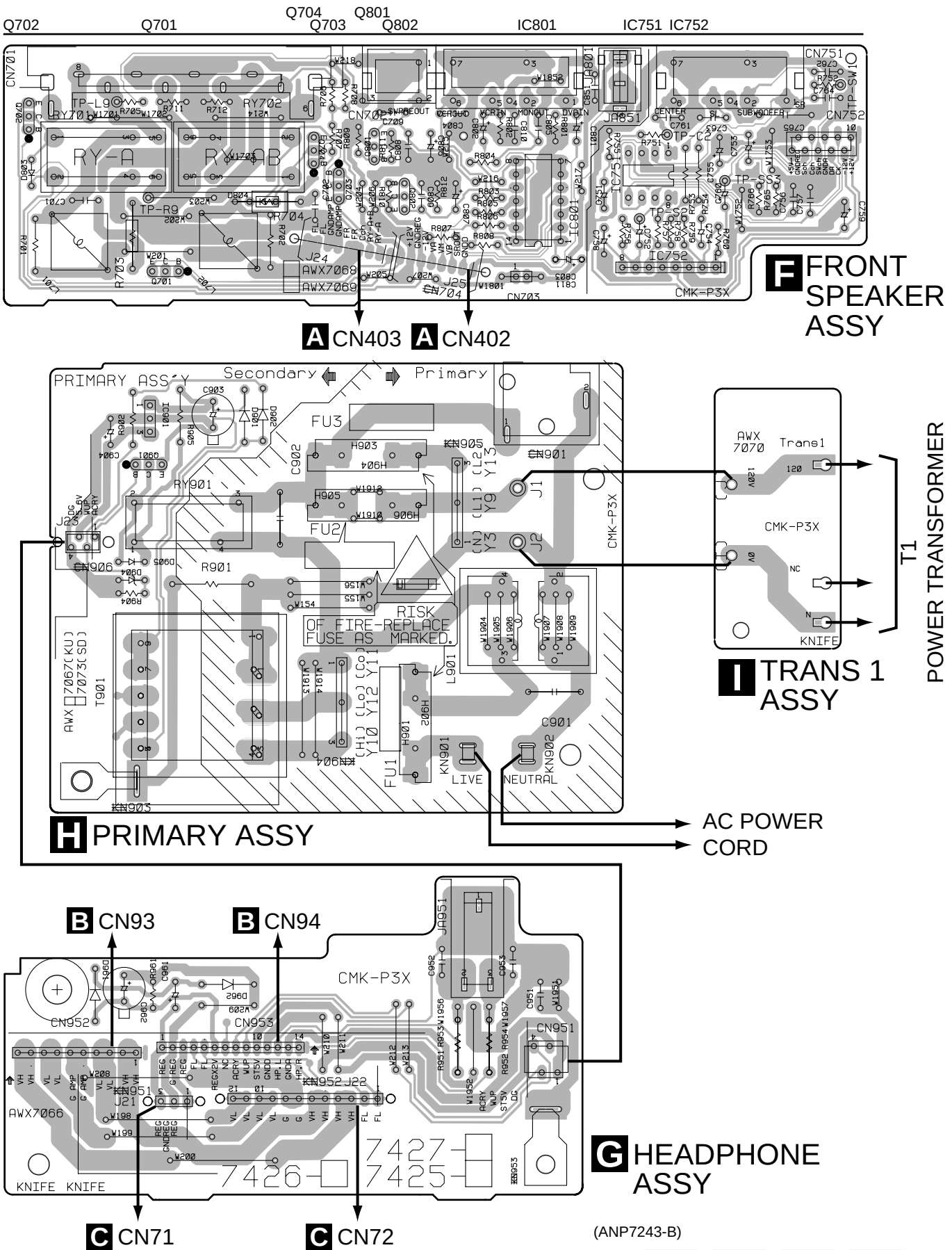
4.3 VOLUME DSP ASSY

E VOLUME DSP ASSY



SIDE A

4.4 FRONT SPEAKER, HEADPHONE, PRIMARY AND TRANS 1 ASSEMBLIES



SIDE A

F G H I

5. PCB 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.*
●*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 Ω → 56×10^1 → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47×10^3 → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K
Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62k Ω → 562×10^1 → 5621 ..... RN1/4PC 5 6 2 1 F

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.			Remarks
		VSX-D307/KUXJ	VSX-D307/KUXJI	VSX-D307/KCXJI	
NSP	MAIN ASSY	AWK7423	AWX7423	AWK7462	
	├ MOTHER ASSY	AWX7058	AWX7058	AWX7177	
NSP	├ CONNECTION ASSY	AWX7060	AWX7060	AWX7176	
NSP	└ TRANS 2 ASSY	AWX7071	AWX7071	AWX7071	
NSP	COMPLEX ASSY	AWK7425	AWK7425	AWK7425	
	├ FRONT ASSY	AWX7062	AWX7062	AWX7062	
	├ VOLUME DSP ASSY	AWX7064	AWX7064	AWX7064	
	├ FRONT SPEAKER ASSY	AWX7068	AWX7068	AWX7068	
	├ HEADPHONE ASSY	AWX7066	AWX7066	AWX7066	
	├ PRIMARY ASSY	AWX7067	AWX7067	AWX7067	
NSP	└ TRANS 1 ASSY	AWX7070	AWX7070	AWX7070	

A MOTHER ASSY

(1) CONTRAST TABLE

AWX7058 and AWX7177 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWX7058	AWX7177	
⚠	IC607	Not used	ICP-N25	

(2) PARTS LIST FOR AWX7058

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC101	E-SW IC	TC9163AN
	IC102	OP-AMP IC	NJM4558D-D
	IC151	IC	UPC4570C
⚠	IC401	AUDIO IC	PAC007A
⚠	IC402	AUDIO IC	PAC007A
⚠	IC403	IC PROTECTOR	ICP-N25
	IC601	REGULATOR IC	NJM78M12FA
	IC602	REGULATOR IC	NJM79M12FA
	IC603	REGULATOR IC	NJM78M05FA
	IC604	OP-AMP IC	NJM4558D-D
	IC605	OP-AMP IC	NJM4558D-D
	IC606	REGULATOR IC	NJM78M05FA
	IC651	OP-AMP IC	NJM4558D-D
	Q191	TRANSISTOR	2SC1740S
	Q401	TRANSISTOR	2SC2878
	Q402	TRANSISTOR	2SC2878
	Q403	TRANSISTOR	2SC2240
	Q404	TRANSISTOR	2SC2240
	Q405	TRANSISTOR	2SC1740S
	Q406	TRANSISTOR	2SC1740S
	Q407	TRANSISTOR	2SC2705
	Q408	TRANSISTOR	2SC2705
	Q451	TRANSISTOR	2SC2878
	Q452	TRANSISTOR	2SC2878
	Q453	TRANSISTOR	2SC2240
	Q454	TRANSISTOR	2SC2240
	Q455	TRANSISTOR	KRA103M
	Q456	TRANSISTOR	KRC101M
	Q457	TRANSISTOR	2SC2705
	Q458	TRANSISTOR	2SC2705
	Q601	POWER MOS FET	IRF9540A
	Q602	POWER MOS FET	IRF540A
	Q603	TRANSISTOR	2SC1845
	Q604	TRANSISTOR	2SA992
	Q651	TRANSISTOR	2SC2878
	Q652	TRANSISTOR	2SC2878
	Q653	TRANSISTOR	2SC2878
	Q654	TRANSISTOR	2SC2878
	D103	DIODE	1SS254
	D190	ZENER DIODE	MTZJ5.1B

Mark	No.	Description	Part No.
	D191	ZENER DIODE	MTZJ5.1B
	D401	DIODE	1SS254
	D402	DIODE	1SS254
	D403	DIODE	1SS254
	D404	DIODE	1SS254
	D405	DIODE	1SS254
	D406	DIODE	1SS254
	D451	DIODE	1SS254
	D452	DIODE	1SS254
	D453	DIODE	1SS254
	D454	DIODE	1SS254
	D455	DIODE	1SS254
	D457	DIODE	1SS254
	D458	DIODE	1SS254
	D601	DIODE	GBU6D
	D602	DIODE	GBU6D
⚠	D603	DIODE	S5688G
⚠	D604	DIODE	S5688G
⚠	D605	DIODE	S5688G
	D606	DIODE	S5688G
	D607	ZENER DIODE	MTZJ18B
	D608	ZENER DIODE	MTZJ18B
	D609	DIODE	1SS254
	D610	DIODE	1SS254
	D611	DIODE	1SS254
	D612	DIODE	1SS254
	D613	DIODE	1SS254
	D614	DIODE	1SS254
	D615	DIODE	1SS254
	D616	DIODE	1SS254
	D617	DIODE	1SS254
	D618	DIODE	1SS254
	D619	DIODE	S5688G
	D620	DIODE	S5688G
	D623	ZENER DIODE	MTZJ27B
	D624	ZENER DIODE	MTZJ6.8A
	D625	ZENER DIODE	MTZJ16B

RELAY

	RY401	RELAY	ASR7014

COILS

	L191	RADIAL INDUCTOR	LFA470J
	L451	COIL (0.7mH)	ATH1004
	L452	COIL (0.7mH)	ATH1004

CAPACITORS

	C119	CERAMIC CAPACITOR	CKCYF103Z50
	C120	CERAMIC CAPACITOR	CKCYF103Z50
	C121	CERAMIC CAPACITOR	CCCSL101J50
	C122	CERAMIC CAPACITOR	CCCSL101J50
	C123	CERAMIC CAPACITOR	CCCSL101J50
	C125	ELECT. CAPACITOR	CEAT2R2M50
	C126	ELECT. CAPACITOR	CEAT2R2M50
	C129	ELECT. CAPACITOR	CEANP4R7M50
	C130	ELECT. CAPACITOR	CEANP4R7M50
	C131	CERAMIC CAPACITOR	CKCYF103Z50
	C132	CERAMIC CAPACITOR	CKCYF103Z50
	C155	ELECT. CAPACITOR	CEAT100M50
	C156	ELECT. CAPACITOR	CEAT100M50
	C161	ELECT. CAPACITOR	CEAT470M25
	C162	ELECT. CAPACITOR	CEAT470M25

Mark	No.	Description	Part No.
	C163	FILM CAPACITOR	CQMBA822J50
	C164	FILM CAPACITOR	CQMBA822J50
	C165	MYLAR FILM CAPACITOR	CQMA242J50
	C166	MYLAR FILM CAPACITOR	CQMA242J50
	C167	ELECT. CAPACITOR	CEAT2R2M50
	C168	ELECT. CAPACITOR	CEAT2R2M50
	C169	CERAMIC CAPACITOR	CKCYF103Z50
	C170	CERAMIC CAPACITOR	CKCYF103Z50
	C190	ELECT. CAPACITOR	CEAT101M10
	C191	ELECT. CAPACITOR	CEAT101M16
	C192	ELECT. CAPACITOR	CEAT101M10
	C194	ELECT. CAPACITOR	CEAT1R0M50
	C199	CERAMIC CAPACITOR	CGCYX103M16
	C401	ELECT. CAPACITOR	CEAT4R7M50
	C402	ELECT. CAPACITOR	CEAT4R7M50
	C403	CERAMIC CAPACITOR	CCCSL331J50
	C404	CERAMIC CAPACITOR	CCCSL331J50
	C405	CERAMIC CAPACITOR	CCCSL121J50
	C406	CERAMIC CAPACITOR	CCCSL121J50
	C407	ELECT. CAPACITOR	CEAT1R0M50
	C408	ELECT. CAPACITOR	CEAT1R0M50
	C409	ELECT. CAPACITOR	CEAT101M16
	C410	ELECT. CAPACITOR	CEAT101M16
	C411	ELECT. CAPACITOR	CEAT101M6R3
	C413	CERAMIC CAPACITOR	CCCSL3R0C50
	C414	CERAMIC CAPACITOR	CCCSL3R0C50
	C415	ELECT. CAPACITOR	CEANP1R0M50
	C416	ELECT. CAPACITOR	CEANP1R0M50
⚠	C417	ELECT. CAPACITOR	CEANP2R2M2A
	C420	ELECT. CAPACITOR	CEANP2R2M2A
	C421	CERAMIC CAPACITOR	CCCSL221J50
	C422	CERAMIC CAPACITOR	CCCSL221J50
	C423	ELECT. CAPACITOR	CEAT221M10
⚠	C425	ELECT. CAPACITOR	CEHAQ100M2A
⚠	C426	ELECT. CAPACITOR	CEHAQ100M2A
	C430	CERAMIC CAPACITOR	CKCYF103Z50
	C451	ELECT. CAPACITOR	CEAT4R7M50
	C452	ELECT. CAPACITOR	CEAT4R7M50
	C453	CERAMIC CAPACITOR	CCCSL331J50
	C454	CERAMIC CAPACITOR	CCCSL331J50
	C455	CERAMIC CAPACITOR	CCCSL121J50
	C456	CERAMIC CAPACITOR	CCCSL121J50
	C457	ELECT. CAPACITOR	CEAT1R0M50
	C458	ELECT. CAPACITOR	CEAT1R0M50
	C459	ELECT. CAPACITOR	CEAT101M16
	C460	ELECT. CAPACITOR	CEAT101M16
	C461	ELECT. CAPACITOR	CEAT101M6R3
	C463	CERAMIC CAPACITOR	CCCSL3R0C50
	C464	CERAMIC CAPACITOR	CCCSL3R0C50
	C465	ELECT. CAPACITOR	CEANP1R0M50
	C466	ELECT. CAPACITOR	CEANP1R0M50
	C467	ELECT. CAPACITOR	CEANP2R2M2A
	C469	ELECT. CAPACITOR	CEANP2R2M2A
	C471	CERAMIC CAPACITOR	CCCSL221J50
	C472	CERAMIC CAPACITOR	CCCSL221J50
	C473	AUDIO FILM CAPACITOR	CFTYA104J50
	C474	AUDIO FILM CAPACITOR	CFTYA104J50
⚠	C477	ELECT. CAPACITOR	CEHAQ100M2A
⚠	C478	ELECT. CAPACITOR	CEHAQ100M2A
	C490	CERAMIC CAPACITOR	CKCYF103Z50

Mark	No.	Description	Part No.
	C601	ELECTROLYTIC CAPACITOR (8200µF/71V)	ACH7018
	C602	ELECTROLYTIC CAPACITOR (8200µF/71V)	ACH7018
	C603	ELECT. CAPACITOR	CEAT101M2A
	C604	ELECT. CAPACITOR	CEAT101M2A
	C605	ELECT. CAPACITOR	CEAT222M25
	C606	ELECT. CAPACITOR	CEAT102M25
	C607	CERAMIC CAPACITOR	CKCYF103Z50
	C608	CERAMIC CAPACITOR	CKCYF103Z50
	C609	ELECT. CAPACITOR	CEAT101M25
	C610	ELECT. CAPACITOR	CEAT101M25
	C611	CERAMIC CAPACITOR	CKCYF103Z50
	C612	ELECT. CAPACITOR	CEAT470M10
	C613	ELECT. CAPACITOR	CEAT1R0M50
	C614	ELECT. CAPACITOR	CEAT1R0M50
	C615	CERAMIC CAPACITOR	CKCYF103Z50
	C616	CERAMIC CAPACITOR	CKCYF103Z50
	C617	CERAMIC CAPACITOR	CKCYF103Z50
	C618	CERAMIC CAPACITOR	CKCYF103Z50
	C619	ELECT. CAPACITOR	CEAT4R7M50
	C620	ELECT. CAPACITOR	CEAT470M50
	C621	CKA (0.01µF/AC250V)	ACG1005
	C622	CKA (0.01µF/AC250V)	ACG1005
	C624	ELECT. CAPACITOR	CEAT101M35
	C625	ELECT. CAPACITOR	CEAT101M10
	C626	ELECT. CAPACITOR	CEAT221M25
	C627	CERAMIC CAPACITOR	CKCYF103Z50
	C628	ELECT. CAPACITOR	CEAT470M10
	C631	FILM CAPACITOR	CFTLA334J50
	C632	FILM CAPACITOR	CFTLA334J50
	C633	FILM CAPACITOR	CFTLA334J50
	C634	FILM CAPACITOR	CFTLA334J50
	C651	CERAMIC CAPACITOR	CKCYF103Z50
	C652	CERAMIC CAPACITOR	CKCYF103Z50
	C653	ELECT. CAPACITOR	CEAT100M50
	C654	ELECT. CAPACITOR	CEAT100M50
	C657	ELECT. CAPACITOR	CEAT101M16
	C658	ELECT. CAPACITOR	CEAT101M16

RESISTORS

Mark	No.	Description	Part No.
	R190	CARBON FILM RESISTOR	RD1/2PM391J
⚠	R411	CARBON FILM RESISTOR	RD1/4MUF820J
⚠	R412	CARBON FILM RESISTOR	RD1/4MUF820J
⚠	R413	RESISTOR (0.22Ω, 5W)	ACN7035
⚠	R414	RESISTOR (0.22Ω, 5W)	ACN7035
⚠	R425	CARBON FILM RESISTOR	RD1/4MUF331J
⚠	R426	CARBON FILM RESISTOR	RD1/4MUF331J
⚠	R461	CARBON FILM RESISTOR	RD1/4MUF820J
⚠	R462	CARBON FILM RESISTOR	RD1/4MUF820J
⚠	R463	RESISTOR (0.22Ω, 5W)	ACN7035
⚠	R464	RESISTOR (0.22Ω, 5W)	ACN7035
⚠	R475	CARBON FILM RESISTOR	RD1/4MUF331J
⚠	R476	CARBON FILM RESISTOR	RD1/4MUF331J
⚠	R477	CARBON FILM RESISTOR	RD1/4PMF4R7J
⚠	R478	CARBON FILM RESISTOR	RD1/4PMF4R7J
	R479	METAL OXIDE RESISTOR	RS1LMF4R7J
	R480	METAL OXIDE RESISTOR	RS1LMF4R7J
	R601	METAL OXIDE RESISTOR	RS2LMF330J
⚠	R603	CARBON FILM RESISTOR	RD1/4PMF101J
⚠	R604	CARBON FILM RESISTOR	RD1/4PMF101J
⚠	R629	METAL OXIDE RESISTOR	RS1LMF561J
⚠	R663	CARBON FILM RESISTOR	RD1/4MUF330J
⚠	R664	CARBON FILM RESISTOR	RD1/4MUF330J
	Other Resistors		RD1/4PU□□□J

OTHERS

	101	PIN JACK(6P)	AKB7013
	103	PIN JACK(4P)	AKB7014
	CN102	PIN JACK(4P)	AKB7015
	CN106	6P PLUG	KM200TA6
	CN107	20P PLUG	KM200TA20
	CN108	15P PLUG	KM200TA15
	CN109	20P CONNECTOR	52045-2045
	CN110	CONNECTOR	52045-1345
	CN111	20P CONNECTOR	52045-2045
	CN401	SPEAKER TERMINAL 6-P	AKE1053
	CN402	8P JUMPER CONNECTOR	52147-0810
	CN403	9P JUMPER CONNECTOR	52147-0910
	CN601	10P SOCKET	KP250NA10
	CN602	14P PLUG	KM200TA14

B CONNECTION ASSY

(1) CONTRAST TABLE

AWX7060 and AWX7176 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWX7060	AWX7176	
	H91,H92 Fuse Clip	Not used	AKR1004	

(2) PARTS LIST FOR AWX7060

OTHERS

	CN91	10P PLUG	KM250NA10L
	CN92	14P SOCKET	KP200TA14L
	CN93	10P PLUG	KM250NA10L
	CN94	14P SOCKET	KP200TA14L

C TRANS 2 ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
⚠	IC71	PROTECTOR(3A)	AEK7015
⚠	IC72	PROTECTOR(3A)	AEK7015

OTHERS

	CN71	3P JUMPER CONNECTOR	KPD3
	CN72	12P JUMPER CONNECTOR	KPD12

COMPLEX ASSY

OTHERS

	J1	LEAD WIRE UNIT	DB115NB0

Mark	No.	Description	Part No.

D FRONT ASSY

SEMICONDUCTORS

IC501	CONTROL MCU	PDG211A
Q501	TRANSISTOR	KRA101M
Q502	TRANSISTOR	KRC101M
Q503	TRANSISTOR	KRA103M
Q504	TRANSISTOR	KRC101M
Q505	TRANSISTOR	2SA933S
D501	DIODE	1SS254
D502	LED	BR3371XJ30A
D503	DIODE	1SS254
D504	DIODE	1SS254
D505	DIODE	1SS254
D506	DIODE	1SS254
D507	DIODE	1SS254
D508	DIODE	1SS254
D509	DIODE	1SS254
D510	DIODE	1SS254
D511	DIODE	1SS254
D512	DIODE	1SS254
D513	DIODE	1SS254
D514	DIODE	1SS254
D518	DIODE	1SS254
D519	DIODE	1SS254
D520	DIODE	1SS254
D521	DIODE	1SS254

SWITCHES

S501	SWITCH	ASG1034
S502	SWITCH	ASG1034
S503	SWITCH	ASG1034
S505	SWITCH	ASG1034
S506	SWITCH	ASG1034
S507	SWITCH	ASG1034
S508	SWITCH	ASG1034
S509	SWITCH	ASG1034
S510	SWITCH	ASG1034
S511	SWITCH	ASG1034
S512	SWITCH	ASG1034
S513	SWITCH	ASG1034
S514	SWITCH	ASG1034
S515	SWITCH	ASG1034
S516	SWITCH	ASG1034
S517	SWITCH	ASG1034
S518	SWITCH	ASG1034
S520	SWITCH	ASG1034
S522	SWITCH	ASG1034
S523	SWITCH	ASG1034
S524	SWITCH	ASG1034

COILS

L501	AXIAL INDUCTOR	LAU2R2J
L502	AXIAL INDUCTOR	LAUR22J

CAPACITORS

C501	CERAMIC CAPACITOR	CKPUYF103Z25
C502	CERAMIC CAPACITOR	CKPUYF103Z25
C503	CERAMIC CAPACITOR	CKPUYF473Z16
C504	ELECT. CAPACITOR	CEAT2R2M50
C505	CERAMIC CAPACITOR	CGCYX104M16
C507	AXIAL CAPACITOR	CKPUYB101K50
C508	AXIAL CAPACITOR	CKPUYB101K50
C509	AXIAL CAPACITOR	CKPUYB101K50
C510	CERAMIC CAPACITOR	CKCYF103Z50
C511	ELECT. CAPACITOR	CEAT470M50
C512	ELECT. CAPACITOR	CEAT221M10
C513	CERAMIC CAPACITOR	CGCYX103M16
C514	CAPACITOR	ACH7013
C516	CERAMIC CAPACITOR	CKPUYF473Z16
C517	ELECT. CAPACITOR	CEAT221M35
C518	AUDIO FILM CAPACITOR	CFTYA104J50
C522	CERAMIC CAPACITOR	CKPUYF473Z16
C523	CERAMIC CAPACITOR	CKPUYB102K50

RESISTORS

All Resistors		RD1/4PU□□□J

OTHERS

501	REMOTE RECEIVER UNIT	GP1U27X
CN501	20P CONNECTOR	52044-2045
CN502	20P CONNECTOR	52044-2045
V501	FL TUBE	AAV7053
X501	CERAMIC RESONATOR (7.2MHz)	ASS7018

E VOLUME DSP ASSY

SEMICONDUCTORS

IC201	DSP IC	CXD2724Q
IC202	E-VR IC	M62420FP
IC204	LOGIC IC	BU4052BCF
IC206	OP-AMP IC	NJM4558LD
IC207	OP-AMP IC	NJM4558LD
IC211	OP-AMP IC	NJM4558D-D
IC301	IC	UPC4570C
IC302	IC	UPC4570C
Q202	TRANSISTOR	2SC1740S
Q301	N-FET	2SK246
Q302	N-FET	2SK246
Q311	TRANSISTOR	KRA101M
Q313	TRANSISTOR	2SA1115
Q314	TRANSISTOR	2SC2603
Q315	TRANSISTOR	2SA1115
Q316	TRANSISTOR	2SC2603
D201	ZENER DIODE	MTZJ5.6B
D203	ZENER DIODE	MTZJ5.6B
D204	ZENER DIODE	MTZJ9.1B
D301	DIODE	1SS254
D302	DIODE	1SS254
D303	DIODE	1SS254

COILS

L202	AXIAL INDUCTOR	LAU1R0J
L207	AXIAL INDUCTOR	LAU220J
L208	AXIAL INDUCTOR	LAU1R0J

CAPACITORS

C201	ELECT. CAPACITOR	CEAT470M16
C202	ELECT. CAPACITOR	CEAT470M16
C203	ELECT. CAPACITOR	CEAT471M6R3
C204	CERAMIC CAPACITOR	CCCSL101J50
C205	CERAMIC CAPACITOR	CKPUYB331K50

Mark	No.	Description	Part No.
	C206	AXIAL CERAMIC C.	CCPUCH120J50
	C207	AXIAL CERAMIC C.	CCPUCH120J50
	C208	CERAMIC CAPACITOR	CKPUYB331K50
	C209	CERAMIC CAPACITOR	CCCSL101J50
	C211	ELECT. CAPACITOR	CEATR22M50
	C212	ELECT. CAPACITOR	CEATR22M50
	C213	CERAMIC CAPACITOR	CKCYF103Z50
	C214	CERAMIC CAPACITOR	CKCYF103Z50
	C215	CERAMIC CAPACITOR	CKPUYB102K50
	C216	CERAMIC CAPACITOR	CKPUYB102K50
	C217	CERAMIC CAPACITOR	CKPUYB331K50
	C218	CERAMIC CAPACITOR	CKPUYB331K50
	C219	CERAMIC CAPACITOR	CKPUYB331K50
	C220	CERAMIC CAPACITOR	CKPUYB331K50
	C221	ELECT. CAPACITOR	CEAT4R7M50
	C222	ELECT. CAPACITOR	CEAT4R7M50
	C223	FILM CAPACITOR	CFTLA223J50
	C224	FILM CAPACITOR	CFTLA223J50
	C225	FILM CAPACITOR	CFTLA474J50
	C226	FILM CAPACITOR	CFTLA474J50
	C227	FILM CAPACITOR	CFTLA103J50
	C228	FILM CAPACITOR	CFTLA103J50
	C229	ELECT. CAPACITOR	CEAT4R7M50
	C230	ELECT. CAPACITOR	CEAT221M10
	C231	ELECT. CAPACITOR	CEAT4R7M50
	C232	ELECT. CAPACITOR	CEAT4R7M50
	C233	ELECT. CAPACITOR	CEAT4R7M50
	C234	ELECT. CAPACITOR	CEAT4R7M50
	C235	ELECT. CAPACITOR	CEAT4R7M50
	C236	ELECT. CAPACITOR	CEAT4R7M50
	C241	ELECT. CAPACITOR	CEANP4R7M50
	C242	ELECT. CAPACITOR	CEANP4R7M50
	C243	CERAMIC CAPACITOR	CGCYX102K25
	C244	CERAMIC CAPACITOR	CGCYX102K25
	C246	ELECT. CAPACITOR	CEAT101M10
	C247	ELECT. CAPACITOR	CEAT1R0M50
	C248	ELECT. CAPACITOR	CEAT1R0M50
	C249	CERAMIC CAPACITOR	CGCYX102K25
	C250	CERAMIC CAPACITOR	CGCYX102K25
	C251	CERAMIC CAPACITOR	CCCSL121J50
	C252	CERAMIC CAPACITOR	CCCSL121J50
	C253	CERAMIC CAPACITOR	CKPUYB121K50
	C254	CERAMIC CAPACITOR	CKPUYB121K50
	C255	ELECT. CAPACITOR	CEAT4R7M50
	C256	ELECT. CAPACITOR	CEAT4R7M50
	C257	CERAMIC CAPACITOR	CKCYF103Z50
	C258	CERAMIC CAPACITOR	CKCYF103Z50
	C259	ELECT. CAPACITOR	CEAT101M10
	C263	ELECT. CAPACITOR	CEAT101M10
	C264	AXIAL CAPACITOR	CKPUYB101K50
	C265	CERAMIC CAPACITOR	CCCSL101J50
	C266	AXIAL CAPACITOR	CKPUYB101K50
	C271	CERAMIC CAPACITOR	CKPUYF103Z25
	C282	ELECT. CAPACITOR	CEAT471M6R3
	C284	CERAMIC CAPACITOR	CGCYX102K25
	C301	CERAMIC CAPACITOR	CCCSL271J50
	C302	CERAMIC CAPACITOR	CCCSL271J50
	C303	AUDIO FILM CAPACITOR	CFTYA473J50
	C304	AUDIO FILM CAPACITOR	CFTYA473J50
	C305	ELECT. CAPACITOR	CEAT4R7M50

Mark	No.	Description	Part No.
	C306	ELECT. CAPACITOR	CEAT4R7M50
	C307	ELECT. CAPACITOR	CEAT4R7M50
	C308	ELECT. CAPACITOR	CEAT4R7M50
	C309	CERAMIC CAPACITOR	CKCYF103Z50
	C310	CERAMIC CAPACITOR	CKCYF103Z50
	C311	ELECT. CAPACITOR	CEAT4R7M50
	C312	ELECT. CAPACITOR	CEAT4R7M50
	C313	ELECT. CAPACITOR	CEAT4R7M50
	C314	ELECT. CAPACITOR	CEAT4R7M50
	C315	CERAMIC CAPACITOR	CKCYF103Z50
	C316	CERAMIC CAPACITOR	CKCYF103Z50
	C321	AXIAL CAPACITOR	CCPUSL470J50
	C322	AXIAL CAPACITOR	CCPUSL470J50
	C323	AXIAL CAPACITOR	CKPUYB221K50
	C324	AXIAL CAPACITOR	CKPUYB221K50
	C331	ELECT. CAPACITOR	CEAT101M10
	C332	ELECT. CAPACITOR	CEANP100M50

RESISTORS

VR301	VARIABLE RESISTOR	ACX7034
Other Resistors		RD1/4PU□□□J

OTHERS

CN201	15P SOCKET	KP200TA15L
CN202	20P SOCKET	KP200TA20L
CN203	6P SOCKET	KP200TA6L
X201	XTAL RES (OSC)	ASS7002

F FRONT SPEAKER ASSY

SEMICONDUCTORS

IC801	VIDEO SW IC	NJM2279D
Q701	TRANSISTOR	KRA103M
Q702	TRANSISTOR	KRC101M
Q801	TRANSISTOR	2SC1740S
Q802	TRANSISTOR	2SA933S
D803	DIODE	1SS254

RELAY

RY701	RELAY	ASR7014

COILS

L701	COIL (0.7mH)	ATH1004
L702	COIL (0.7mH)	ATH1004

CAPACITORS

C701	AUDIO FILM CAPACITOR	CFTYA104J50
C702	AUDIO FILM CAPACITOR	CFTYA104J50
C801	ELECT. CAPACITOR	CEAT100M50
C802	ELECT. CAPACITOR	CEAT100M50
C804	CERAMIC CAPACITOR	CCCSL221J50
C805	CERAMIC CAPACITOR	CCCSL221J50
C806	ELECT. CAPACITOR	CEAT101M10
C807	ELECT. CAPACITOR	CEAT101M10
C808	CERAMIC CAPACITOR	CKCYF103Z50
C809	CERAMIC CAPACITOR	CKCYF103Z50
C810	CERAMIC CAPACITOR	CKPUYF103Z25
C811	CERAMIC CAPACITOR	CGCYX104M16
C851	CERAMIC CAPACITOR	CKPUYF103Z25

Mark	No.	Description	Part No.
RESISTORS			
⚠	R701	CARBON FILM RESISTOR	RD1/4PMF4R7J
⚠	R702	CARBON FILM RESISTOR	RD1/4PMF4R7J
	R703	METAL OXIDE RESISTOR	RS1LMF4R7J
	R704	METAL OXIDE RESISTOR	RS1LMF4R7J
	Other Resistors		RD1/4PU□□□J
OTHERS			
	CN701	SPEAKER TERMINAL 4-P	AKE7030
	CN702	PIN JACK 1-P	AKB7042
	J24	JUMPER WIRE 9P	D20PYY0915E
	J25	JUMPER WIRE 8P	D20PYY0810E
	JA801	PIN JACK(4P)YELLOW	AKB7100
	JA851	JACK	RKN1004

G HEADPHONE ASSY

Mark	No.	Description	Part No.
SEMICONDUCTORS			
⚠	D961	DIODE	S5688G
⚠	D962	DIODE	S5688G
CAPACITORS			
	C951	CERAMIC CAPACITOR	CGCYF473Z50
	C961	ELECT. CAPACITOR	CEAT470M25
	C962	ELECT. CAPACITOR	CEAT470M50
RESISTOR			
	R961	CARBON FILM RESISTOR	RD1/4PU473J
OTHERS			
	CN951	CONNECTOR(4P)	KPE4
	CN952	10P SOCKET	KP250NA10
	CN953	14P PLUG	KM200TA14
	951	CABLE HOLDER(3P)	51052-0300
	952	CABLE HOLDER(12P)	51052-1200
	953	GROUND PLATE	VNF-091
	JA951	JACK	RKN1002

H PRIMARY ASSY

Mark	No.	Description	Part No.
SEMICONDUCTORS			
	IC901	REGULATOR IC	NJM78M56FA
	Q901	TRANSISTOR	KRC101M
⚠	D901	DIODE	S5688G
⚠	D902	DIODE	S5688G
	D904	ZENER DIODE	MTZJ5.1A
	D905	DIODE	1SS254
RELAY			
⚠	RY901	LOWPOWER RELAY	ASR7016
TRANSFORMER			
⚠	T901	POWER TRANSFORMER	ATT1223
CAPACITORS			
⚠	C901	CKA (10000pF/AC250V)	ACG7020
⚠	C902	CKA (10000pF/AC250V)	ACG7020
	C903	ELECT. CAPACITOR	CEAT471M16
	C904	ELECT. CAPACITOR	CEAT470M16

Mark	No.	Description	Part No.
RESISTORS			
	R901	RESISTOR(2.2MΩ, 1/2W)	RCN1080
	R902	CARBON FILM RESISTOR	RD1/4PU332J
	R904	CARBON FILM RESISTOR	RD1/4PU103J
	R905	CARBON FILM RESISTOR	RD1/2PM470J
OTHERS			
	901	AC SOCKET 1-P	AKP1060
	903	GROUND PLATE	VNF-091
	906	CABLE HOLDER(4P)	51063-0405
	H901	FUSE CLIP	AKR1004
	H902	FUSE CLIP	AKR1004
	H905	FUSE CLIP	AKR1004
	H906	FUSE CLIP	AKR1004

I TRANS 1 ASSY

No service parts.

6. ADJUSTMENT

There is no information to be shown in this chapter.

7. GENERAL INFORMATION

7.1 PARTS

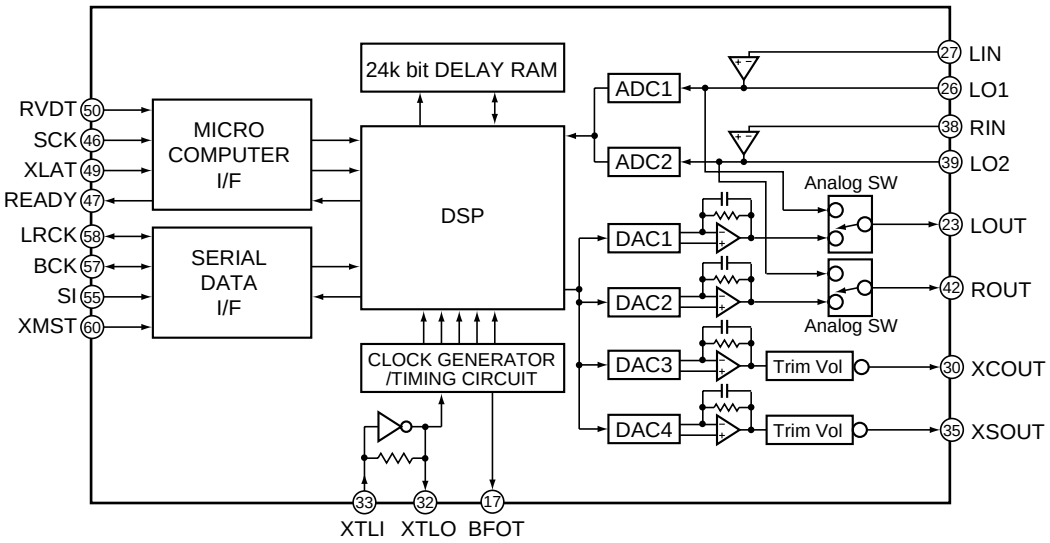
7.1.1 IC

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

■ CXD2724Q (VOLUME DSP ASSY : IC201)

• DSP IC

●Block Diagram



●Pin Function

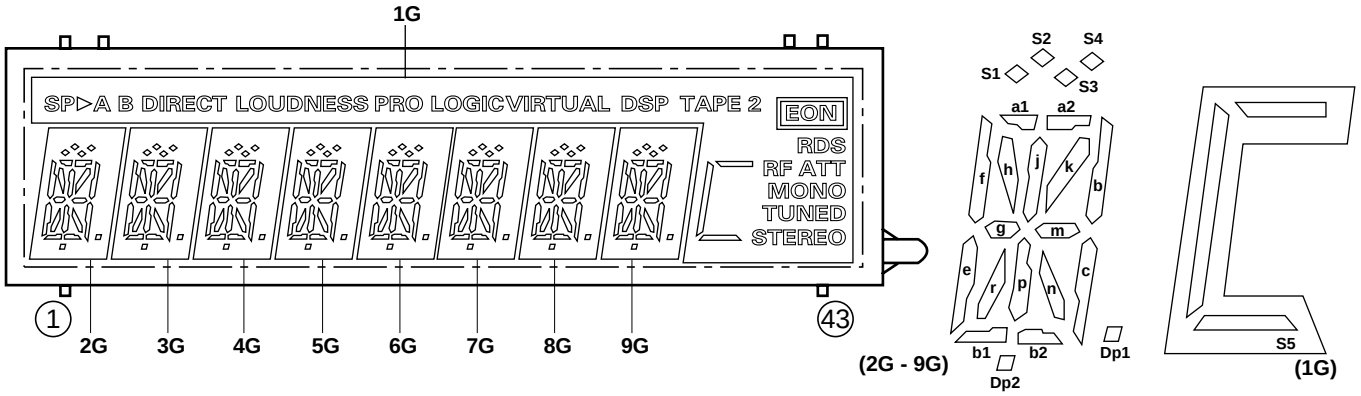
No.	Pin Name	I/O	Function
1-3	T.P	O	Monitor pin for test Normally, outputs "L".
4	VSS0	–	Digital ground
5-8	T.P	O	Monitor pin for test Normally, outputs "L".
9	TST0	I	Test pin Normally, fix to L.
10	VDD0	–	Digital power supply
11	VSS1	–	Digital ground
12	TST1	I	Test pin Normally, fix to "L".
13	TST2	I	Test pin Normally, fix to "L".
14	TST3	I	Test pin Normally, fix to "L".
15	TST4	I	Test pin Normally, fix to "L".
16	XRST	I	System reset input L : reset.
17	BFOT	O	Clock and divided frequency output (384/768/256/512 fs)
18	CSL1	I	Test pin Normally, fix to "H".
19	CSL2	I	Test pin Normally, fix to "L".
20	VSS2	–	Digital ground
21	AVS3	–	Ground for L-ch D/A converter
22	AVD3	–	Power supply for L-ch D/A converter
23	LOUT	O	L-ch A/D converter output
24	AVD1	–	Power supply for L-ch A/D converter
25	AVS1	–	Ground for L-ch A/D converter
26	LO1	O	OP amp. inverting output for LPF of L-ch A/D converter
27	LIN	I	Analog input of L-ch A/D converter
28	AVD5	–	Power supply for C-ch D/A converter
29	AVS5	–	Ground for C-ch D/A converter
30	XCOUT	O	C-ch D/A converter output
31	AVDX	–	Analog power supply for master clock
32	XTLO	O	Crystal oscillation circuit output

No.	Pin Name	I/O	Function
33	XTLI	I	Crystal oscillation circuit input
34	AVSX	–	Analog ground for master clock
35	XSOUT	O	S-ch D/A converter output
36	AVS6	–	Ground for S-ch D/A converter
37	AVD6	–	Power supply for S-ch D/A converter
38	RIN	I	Analog input of R-ch A/D converter
39	LO2	O	OP amp. inverting output for LPF of R-ch A/D converter
40	AVS2	–	Ground for R-ch A/D converter
41	AVD2	–	Power supply for R-ch A/D converter
42	ROUT	O	R-ch D/A converter output
43	AVD4	–	Power supply for R-ch D/A converter
44	AVS4	–	Ground for R-ch D/A converter
45	VSS3	–	Digital ground
46	SCK	I	Shift clock input of microprocessor interface
47	REDY	O	Transfer permission signal output of microprocessor interface L : Transfer prohibition
48	T.P	–	Monitor pin for test Normally, outputs "Hi-Z".
49	XLAT	I	Latch input of microprocessor interface
50	RVDT	I	Data input of microprocessor interface
51	XS24	I	24/32 bit slot selection of serial data L : 24 bit slot (It is effective at slave mode.)
52	VDD1	–	Digital power supply
53	VSS4	–	Digital ground
54	T.P	–	Monitor pin for test Normally, outputs "L".
55	SI	I	Serial data input of 1 sampling 2 channel
56	T.P	–	Input pin for test Normelly, outputs "L".
57	BCK	I/O	Serial bit transfer clock of serial input/output data SI and SO
58	LRCK	I/O	Sampling frequency clock of serial input/output data SI and SO
59	VSS5	–	Digital ground
60	XMST	I	Master/slave mode switching input of BCK and LRCK L : master mode
61-63	T.P	O	Monitor pin for test Normally, outputs "L".
64	VSS6	–	Digital ground
65-72	T.P	O	Monitor pin for test Normally, outputs "L".
73	VDD2	–	Digital power supply
74	VSS7	–	Digital ground
75-80	T.P	O	Monitor pin for test Normally, outputs "L".

7.1.2 DISPLAY

■ AAV7053 (FRONT ASSY : V501)

• FL TUBE



● ANODE AND GRID ASSIGNMENT

	1G	2G	3G	4G	5G	6G	7G	8G	9G
P1	SP▷	a1	a1	a1	a1	a1	a1	a1	a1
P2	A	a2	a2	a2	a2	a2	a2	a2	a2
P3	B	h	h	h	h	h	h	h	h
P4	DIRECT	j	j	j	j	j	j	j	j
P5	LOUDNESS	k	k	k	k	k	k	k	k
P6	PRO LOGIC	b	b	b	b	b	b	b	b
P7	VIRTUAL	f	f	f	f	f	f	f	f
P8	DSP	m	m	m	m	m	m	m	m
P9	TAPE 2	g	g	g	g	g	g	g	g
P10	EON	c	c	c	c	c	c	c	c
P11	RDS	e	e	e	e	e	e	e	e
P12	S5	r	r	r	r	r	r	r	r
P13	RF ATT	p	p	p	p	p	p	p	p
P14	MONO	n	n	n	n	n	n	n	n
P15	TUNED	d1	d1	d1	d1	d1	d1	d1	d1
P16	STEREO	d2	d2	d2	d2	d2	d2	d2	d2
P17	—	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1
P18	—	S1, S3	S1, S3	S1, S3	S1, S3	S1, S3	S1, S3	S1, S3	S1, S3
P19	—	S4	S4	S4	S4	S4	S4	S4	S4
P20	—	S2	S2	S2	S2	S2	S2	S2	S2
P21	—	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2

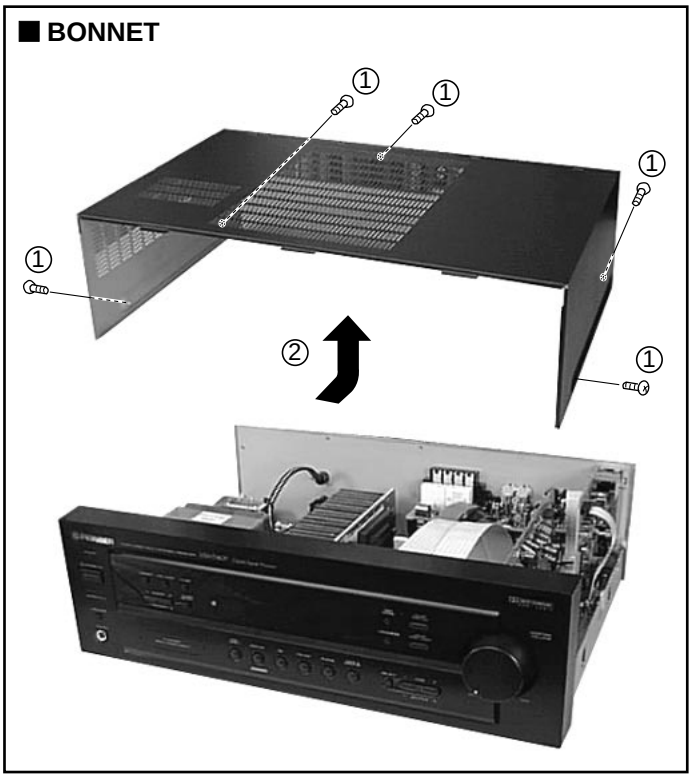
● PIN ASSIGNMENT

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Connection	F1	F1	NP	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	NX	NX	NX	NX	NX	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	NP	NP	F2	F2

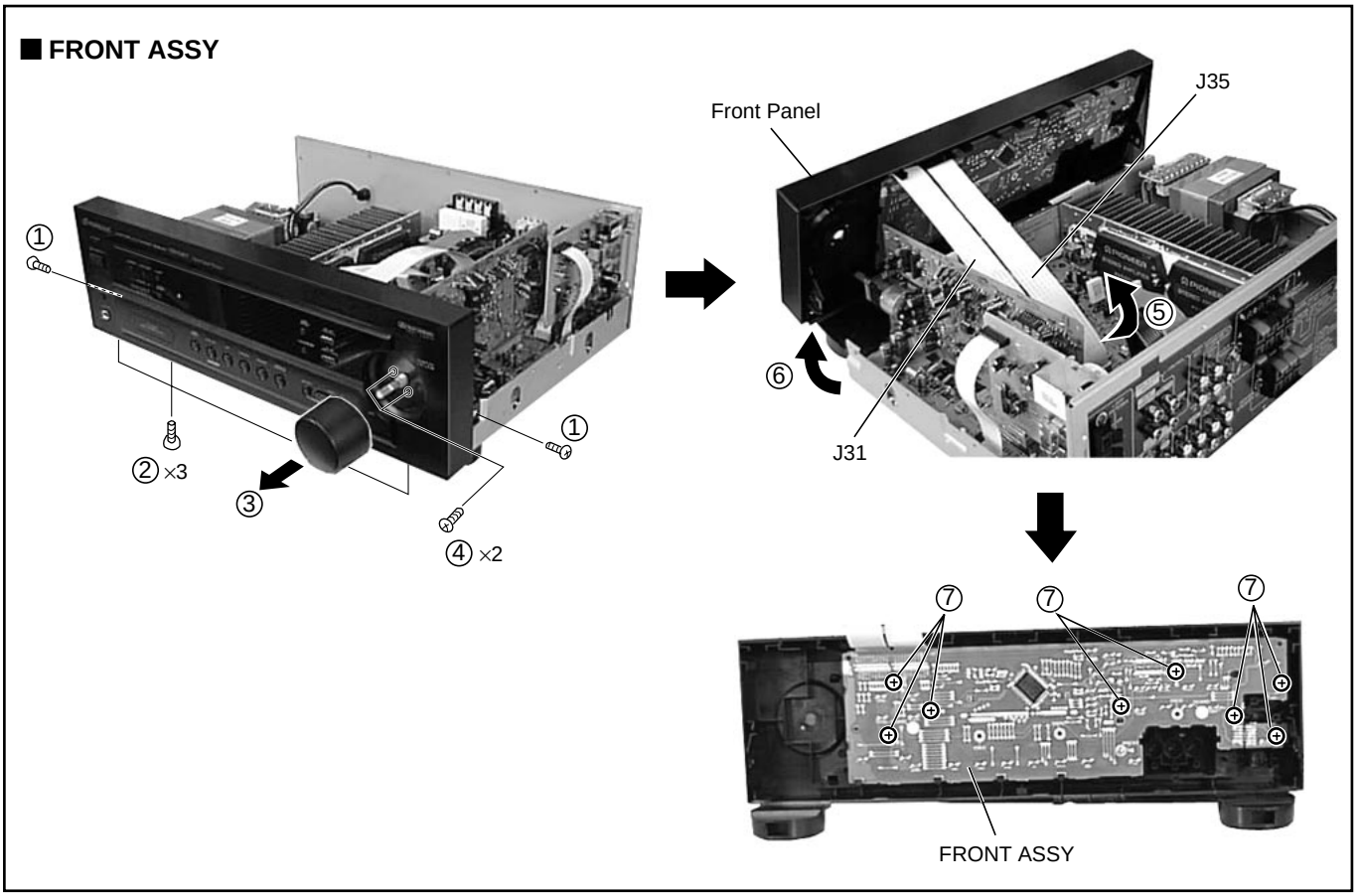
7.2 DISASSEMBLY

7.2.1 Bonnet and FRONT Assy

■ BONNET

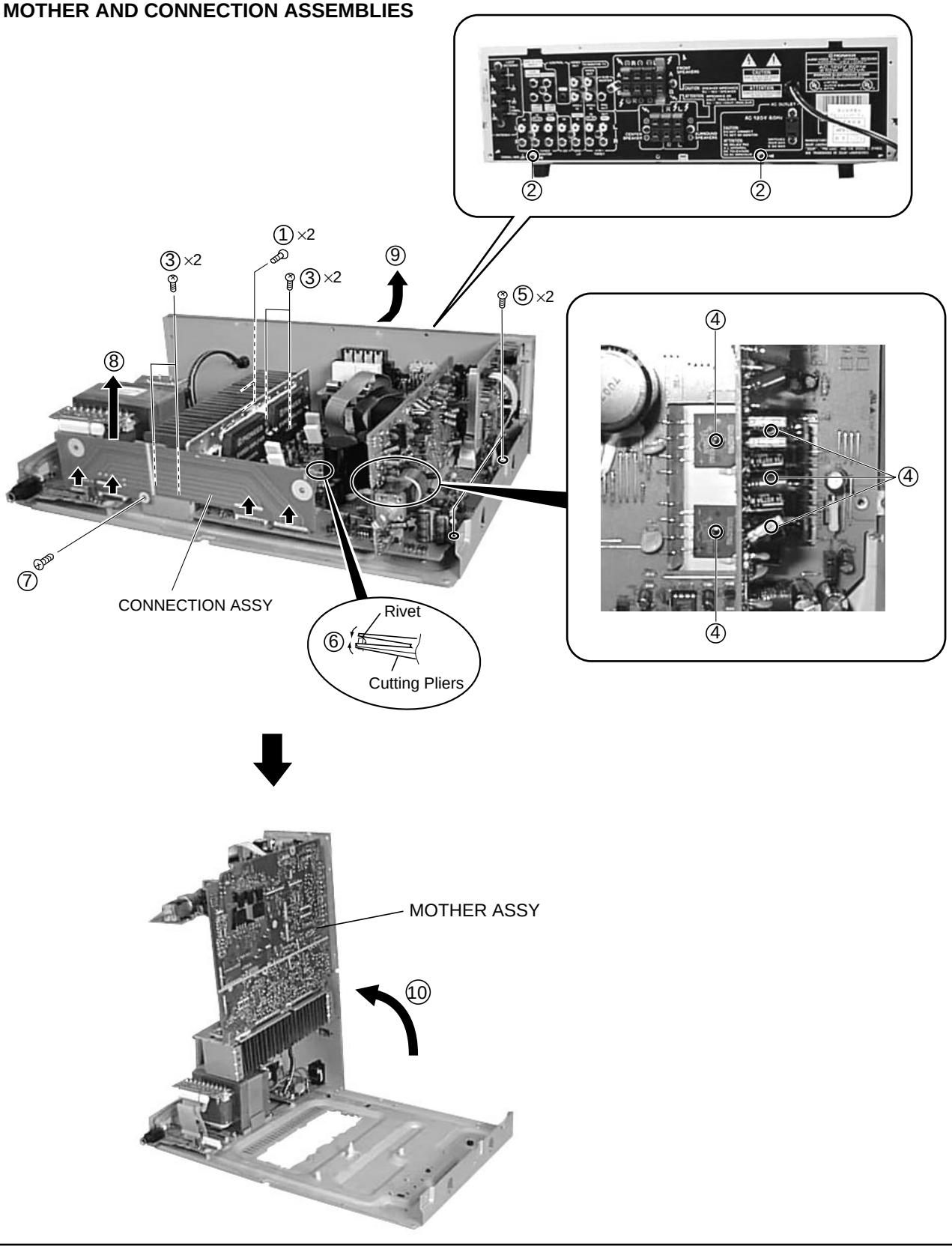


■ FRONT ASSY



7.2.2 MOTHER and CONNECTION Assemblies

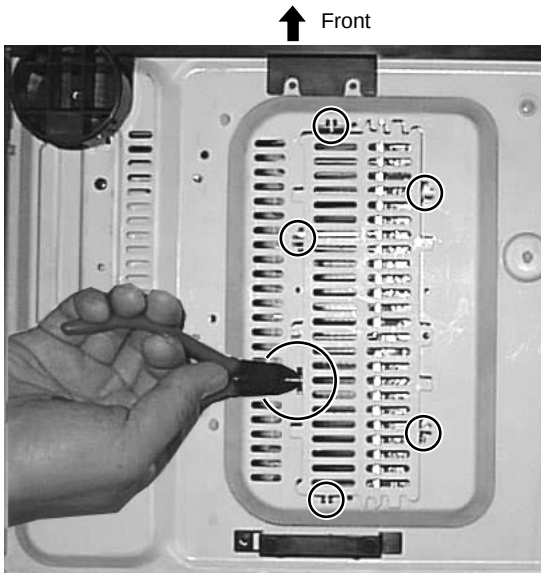
■ **MOTHER AND CONNECTION ASSEMBLIES**



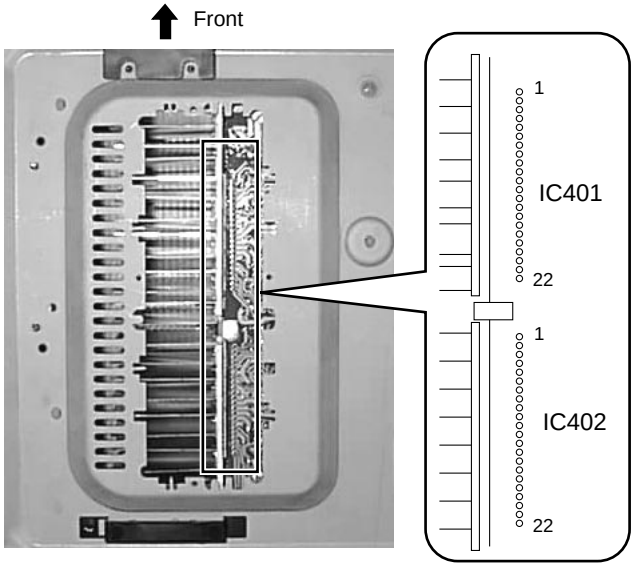
7.3 DIAGNOSIS

■ POWER PACK (MOTHER ASSY : IC401 and IC402) (At Bottom Side)

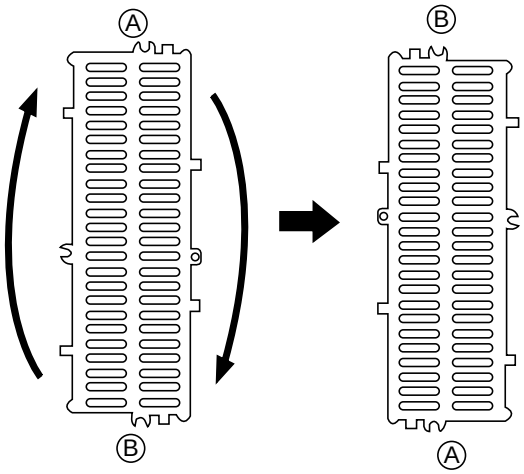
① Cut six portions on the Under Base by nipper and remove a Cover.



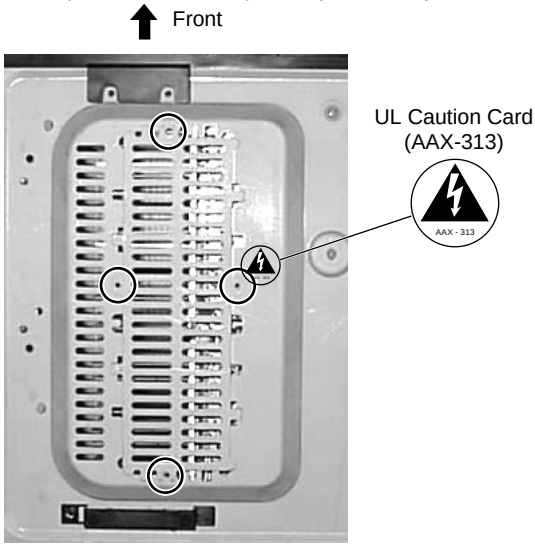
② Diagnose the POWER PACK (IC401 and IC402).



③ Turn the Cover.

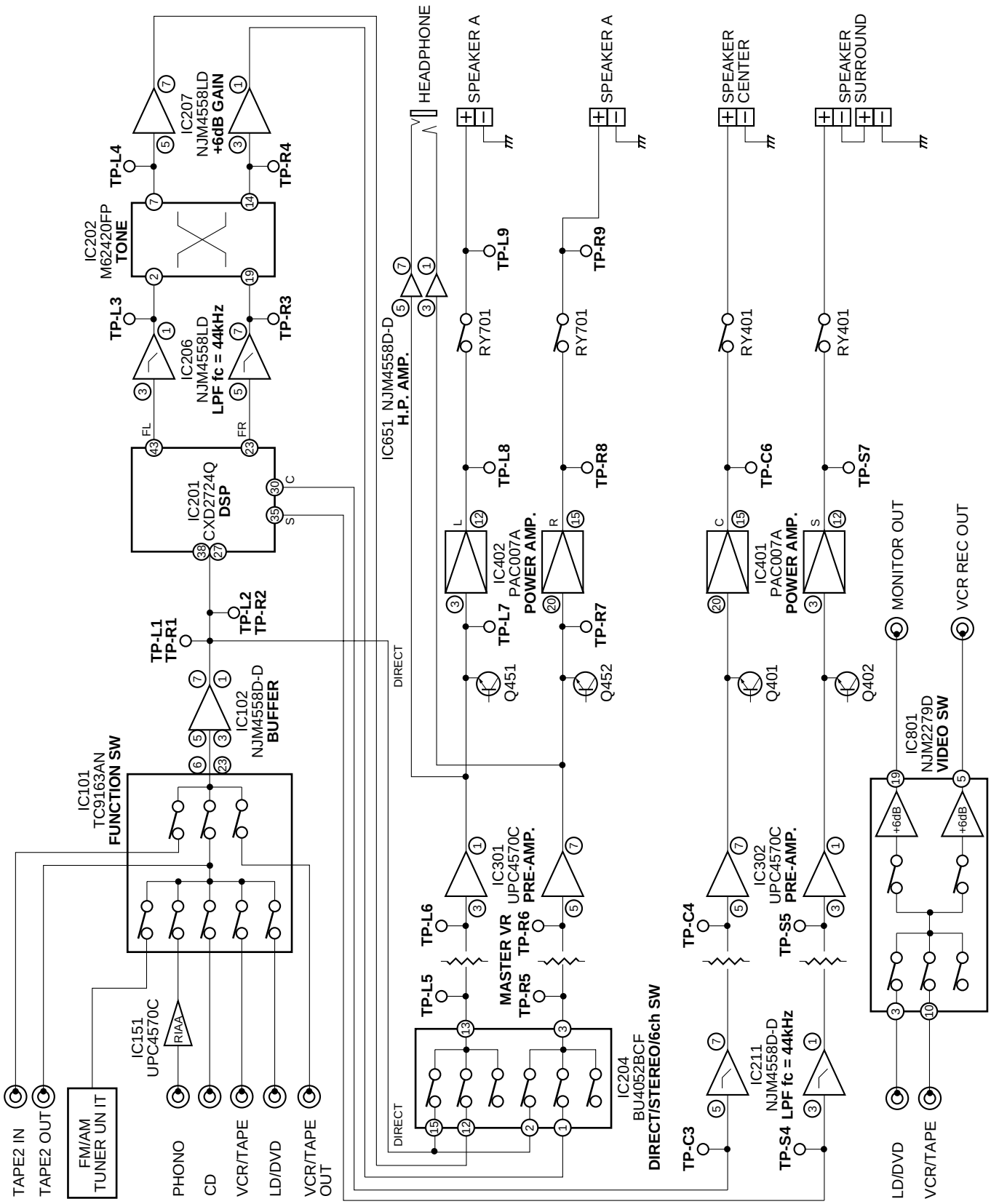


④ Fix the Cover with the four screws (BBZ30P080FMC),and stick the UL caution card (Part No : AAX-313) to the prescribed position.



CAUTION :
After performing the above operation, be sure to stick the UL caution card (Part No.: AAX-313) to the prescribed position.(It is required by the UL regulations.)
After cutting the Under base and the Cover with a pair of nippers, be sure to smooth roughness from the edges to protect the user from a risk of damage caused by sharp edges.

7.4 BLOCK DIAGRAM



● Test Points for Diagnosis

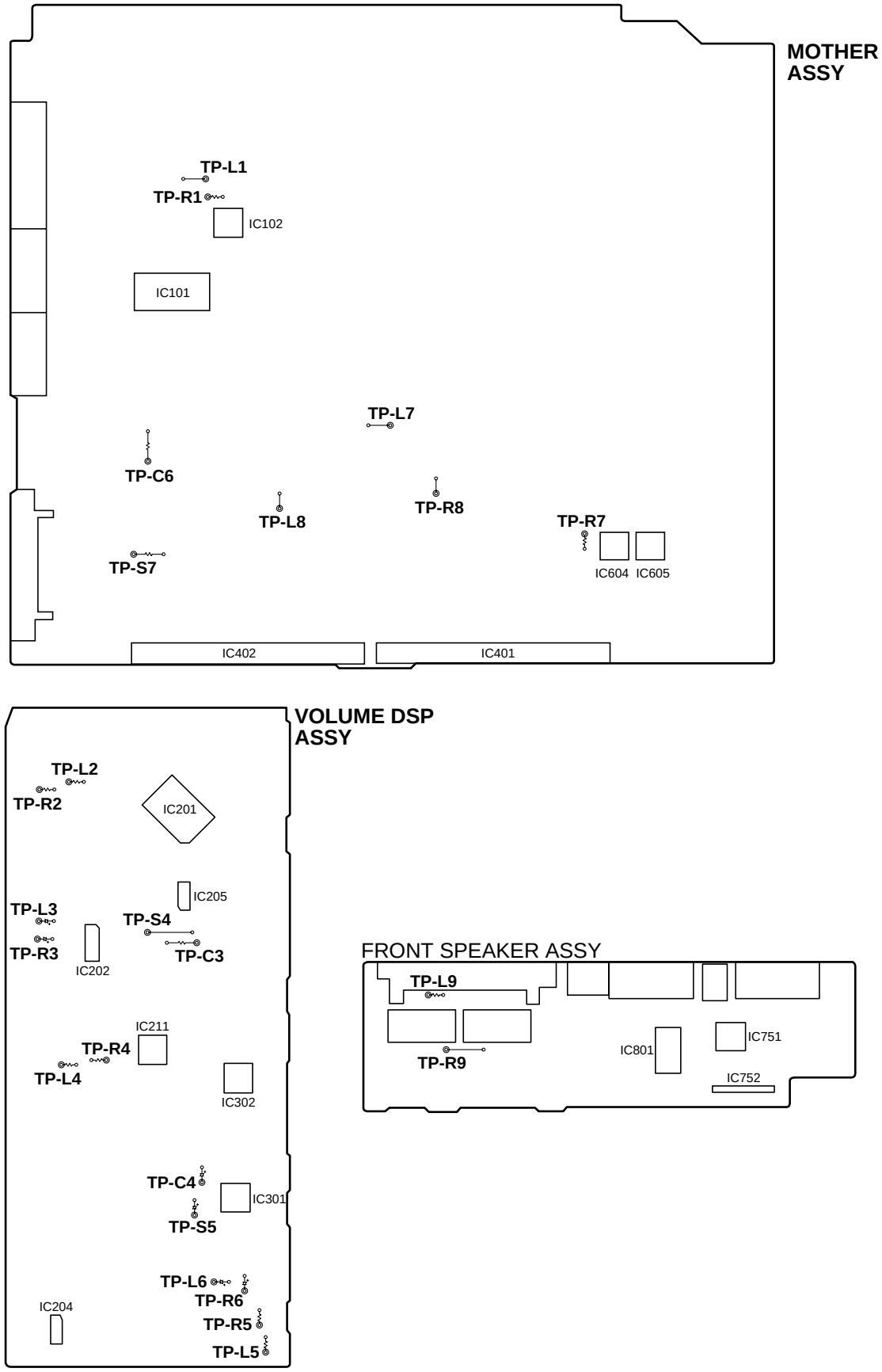


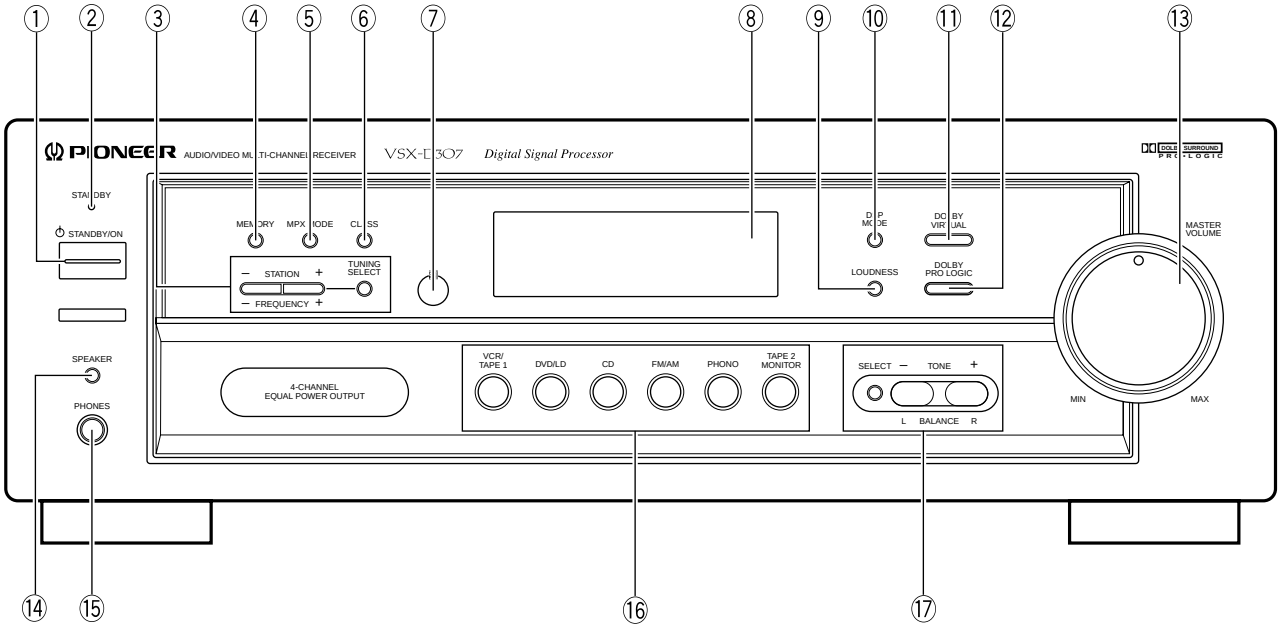
Fig.1 Test Point Location

8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

Front Panel

The size of characters in the figure may different from that on the actual product.



① **⏻STANDBY/ON button**

② **STANDBY indicator**

③ **TUNING SELECT, STATION(–, +), FREQUENCY (–, +) button**

TUNING SELECT:
Use to select the STATION mode and FREQUENCY mode when operating the tuner.
STATION (–, +):
Use to select the station number when operating the tuner.
FREQUENCY (–, +):
Use to select the frequency when operating the tuner.

④ **MEMORY button**

⑤ **MPX MODE button**

Use to switch the auto stereo/monaural mode for receiving FM broadcasts.
When the received broadcast signal is weak, press this button to set the monaural mode.

⑥ **CLASS button**

⑦ **Remote sensor**

⑧ **Display**

⑨ **LOUDNESS button**

Press this button when the volume is low to raise the low and high range levels so that the sound can be heard more easily.

⑩ **DSP MODE button**

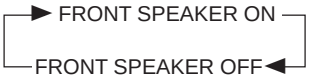
⑪ **DOLBY VIRTUAL button**

⑫ **DOLBY PRO LOGIC button**

⑬ **MASTER VOLUME**

⑭ **SPEAKER button**

Switches as follows with each press.

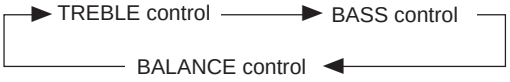


⑮ **PHONES jack (Headphone terminal)**

⑯ **Function buttons**

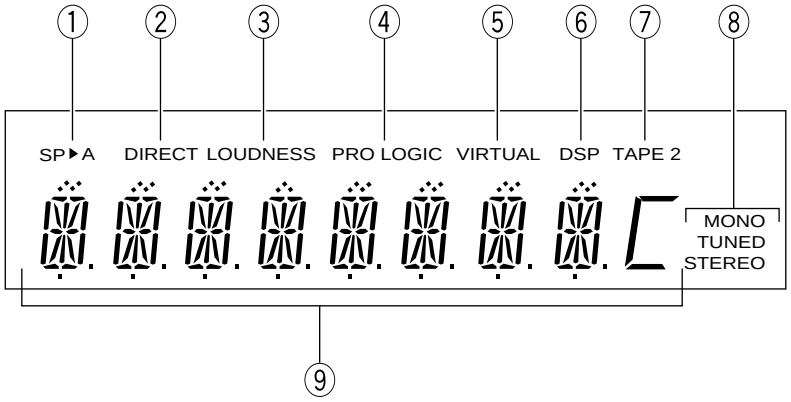
⑰ **SELECT, TONE (–, +) and BALANCE (L, R) button**

SELECT:
Use to select the TONE (TREBLE, BASS) and BALANCE control.



TONE (–, +):
Use to adjust tone.
BALANCE (L, R):
Use to adjust volume balance.

Display



① **SPEAKER A indicator**
Lights when FRONT SPEAKER is ON.

② **DIRECT indicator**
Lights when DIRECT is ON.

③ **LOUDNESS indicator**
Lights when LOUDNESS is ON.

④ **PRO LOGIC indicator**
Lights when Dolby Pro Logic is selected.

⑤ **VIRTUAL indicator**
Lights when DOLBY VIRTUAL is selected.

⑥ **DSP indicator**
Lights when HALL, JAZZ, DANCE, THEATER 1 and THEATER 2 has been selected with the DSP MODE button.

⑦ **TAPE 2 indicator**
Lights when TAPE 2 MONITOR is ON.

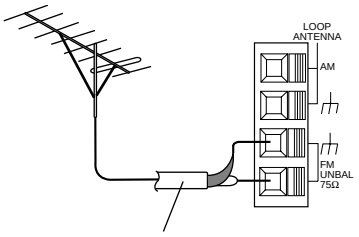
⑧ **TUNER indicator**
MONO:
Lights when the monaural mode is set using the MPX MODE button.
TUNED:
Lights when broadcasts are being received.
STEREO:
Lights when stereo broadcasts are received during auto stereo mode.

⑨ **CHARACTER display**

CONNECTING DEVICES

When connecting or changing equipment, be sure to turn OFF the POWER switch, and disconnect the power cord from the wall outlet.

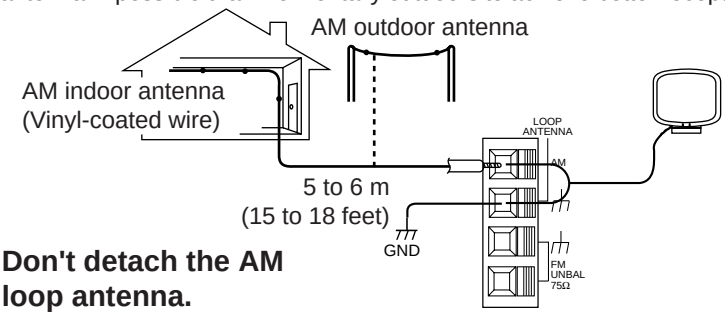
■ For better reception of signals, use the FM external antenna.



75 Ω coaxial cable.

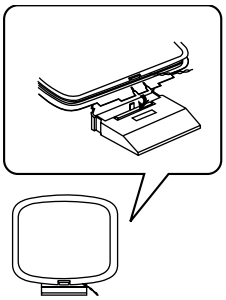
■ When AM broadcast reception is poor

Connect a 5 to 6 meter (15 to 18 feet) long vinyl-coated wire to the AM antenna. If possible draw horizontally outdoors to achieve better reception.

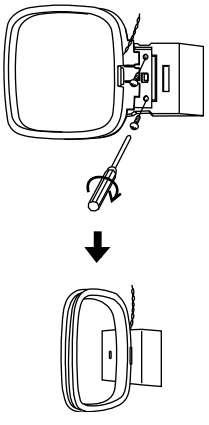


Don't detach the AM loop antenna.

■ Assembling the AM loop antenna

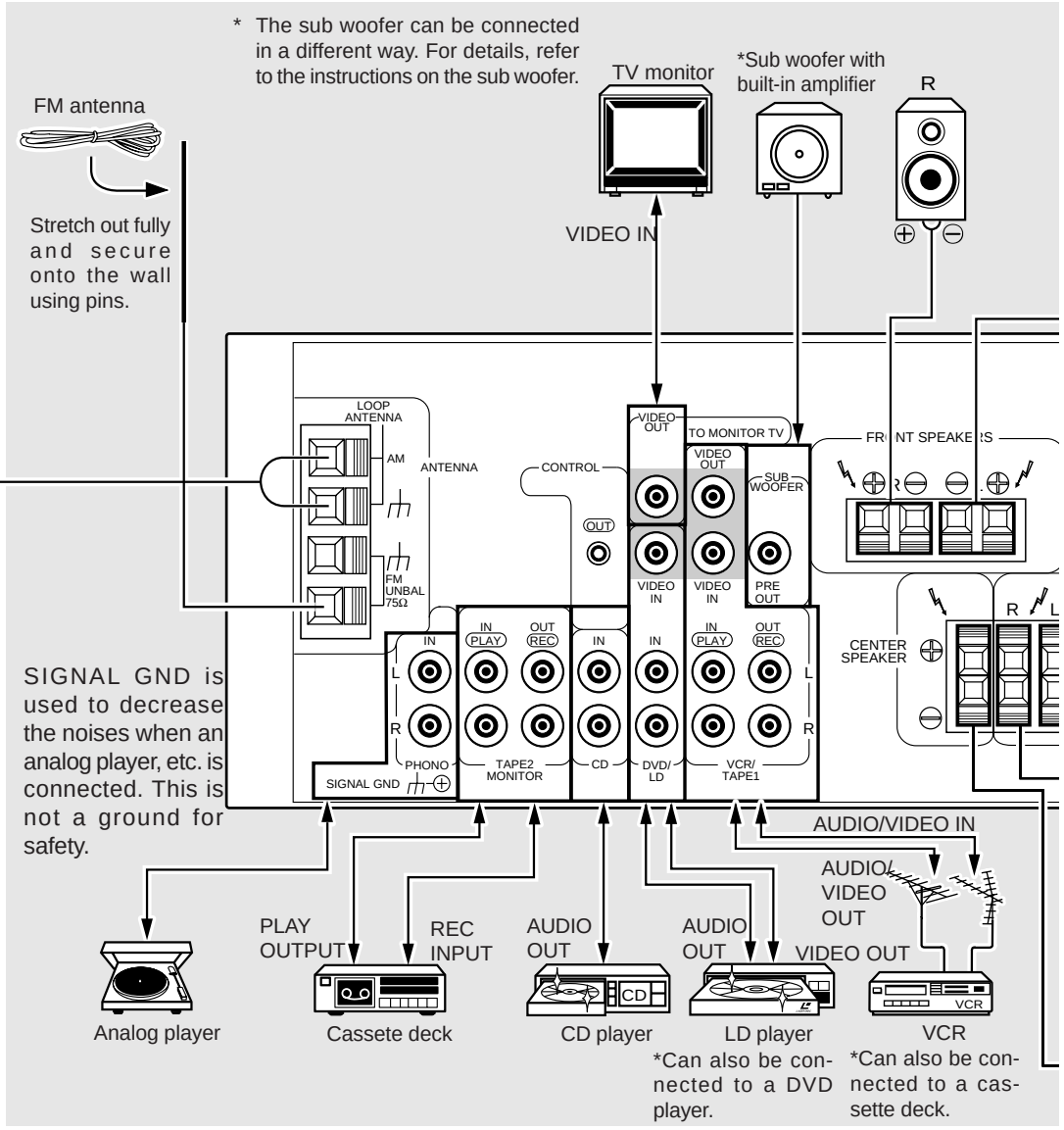


■ When attached on a wall, etc.

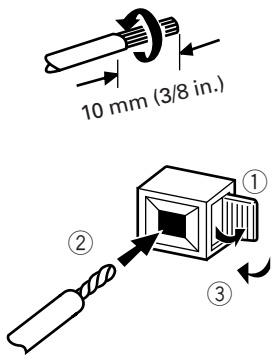


Face towards the direction with the best reception.

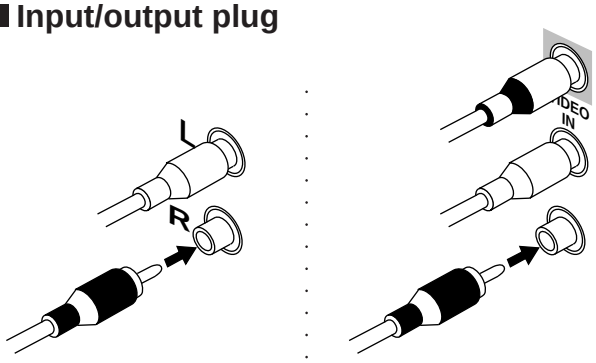
* The sub woofer can be connected in a different way. For details, refer to the instructions on the sub woofer.



■ Antenna terminal

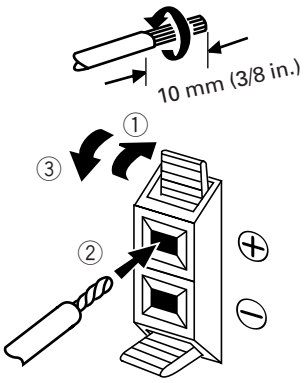


■ Input/output plug

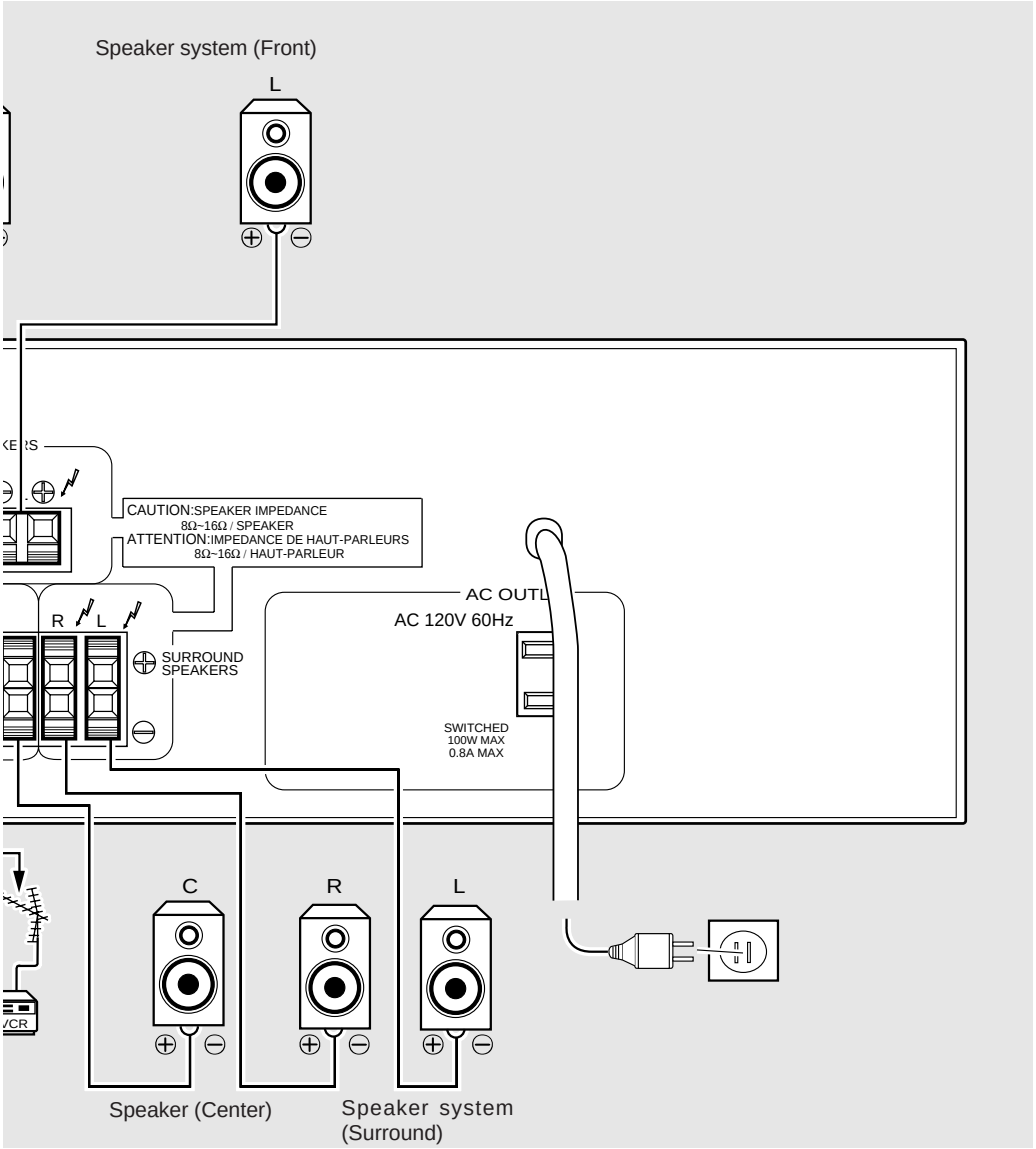


Connect the white plug to L, red plug to R, and yellow plug to VIDEO. Be sure to insert completely.

■ Speakers terminal



The size of characters and terminal positions in the figures may differ from those on the actual product.



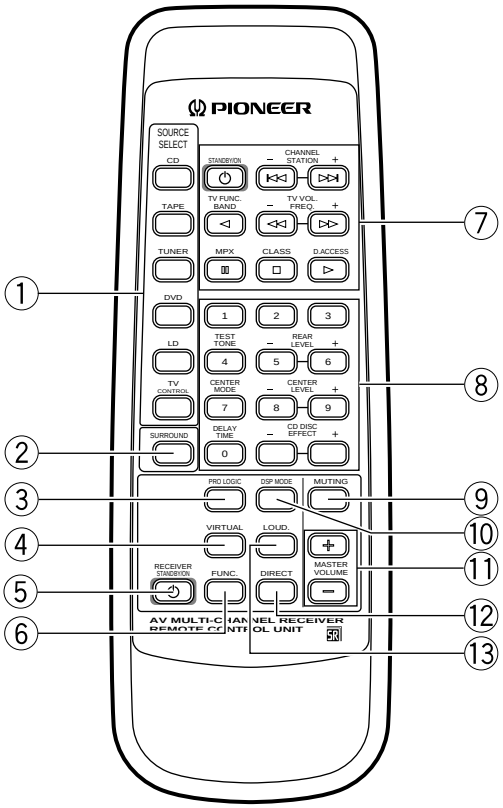
AC OUTLET [SWITCHED 100 W (0.8 A) MAX]

Power supplied through this outlet is turned on and off by the receiver's POWER switch.

Total electrical power consumption of connected equipment should not exceed 100 W (0.8 A).

Do not connect a heater, TV, etc.

REMOTE CONTROL UNIT



① SOURCE SELECT function buttons

When operating other devices, press any one of these buttons to specify the device to be operated.

memo

This button cannot be used to switch the functions of this unit.

② SURROUND button

Press to start the SURROUND function.

③ PRO LOGIC button

Use to turn ON/OFF DOLBY PRO LOGIC.

④ VIRTUAL button

Use to change the mode of DOLBY VIRTUAL.

⑤ RECEIVER STANDBY/ON button

⑥ FUNC. (FUNCTION) button

Use to switch the function setting of this unit.

TUNER → CD → DVD/LD → VCR/TAPE 1 → PHONO

⑦ [TUNER operations]

STATION –,+, BAND, FREQ. –,+, MPX, CLASS, D.ACCESS buttons

[TV operations]

STANDBY/ON,CHANNEL –,+, TV FUNC., TV VOL. –,+, buttons

[CD, TAPE, DVD, LD operations]

STANDBY/ON, ⏮, ⏭ (Chapter/Track search), ◄ (Play), ◄◄ (Rewind), ►► (Fast Forward), ❚❚ (Pause),■ (Stop), ► (Play)

⑧ Number/Surround setting buttons

TEST TONE: When turned ON (while in DOLBY PRO LOGIC), volume balance adjustment signals are output in order from the speakers and can be adjusted.
REAR LEVEL –,+: Adjusts the rear level.
CENTER MODE: Switches the center mode.
CENTER LEVEL –,+: Adjusts the center level.
DELAY TIME: Use to set the delay time.
EFFECT –,+: Adjusts DSP effects.

⑨ MUTING button

Press to mute the volume.

⑩ DSP MODE button

Use to switch the DSP mode.

⑪ MASTER VOLUME –/+ button

Use to adjust the volume.

⑫ DIRECT button

Use to playback sound without going through the tone and balance control circuits. DOLBY PRO LOGIC, DOLBY VIRTUAL, DSP MODE and LOUDNESS also turn off.

⑬ LOUD.(LOUDNESS) button

When LOUDNESS is turned ON at a small volume, the low frequency and high frequency levels increase, enabling the sound to be easier to hear.

8.2 SPECIFICATIONS

Amplifier section

Continuous average power output of 100 watts* per channel, min., at 8 ohms, from 40 Hz to 20,000 Hz with no more than 0.9 % total harmonic distortion (front).**

Continuous Power Output
- Front ..... 100 W + 100 W (1kHz, 0.9 %, 8 Ω)
- Center ..... 100 W (1kHz, 0.9 %, 8 Ω)
- Surround ..... 100 W (1kHz, 0.9 %, 8 Ω)

Input (Sensitivity/Impedance)
- PHONO MM ..... 2.8 mV/47 kΩ
- CD, VCR/TAPE 1, TAPE 2, DVD/LD ..... 200 mV/47 kΩ

Phono Overload level (T.H.D. 0.1 %, 1kHz)
- PHONO MM ..... 100 mV

Frequency Response
- PHONO MM ..... 20 Hz to 20,000 Hz ± 0.3 dB
- CD, VCR/TAPE 1, TAPE 2, DVD/LD ..... 5 Hz to 100,000 Hz $^{+0}_{-3}$ dB

Output (Level/Impedance)
- VCR/TAPE 1 REC, TAPE 2 REC ..... 200 mV/2.2 kΩ

Tone Control
- BASS ..... ± 8 dB (150 Hz)
- TREBLE ..... ± 8 dB (10 kHz)
- LOUDNESS ..... + 8 dB/+ 6 dB (100 Hz/10 kHz)

Signal-to-Noise Ratio (IHF, short circuited, A network)
- PHONO MM ..... 72 dB
- CD, VCR/TAPE 1, TAPE 2, DVD/LD ..... 96 dB

Signal-to Noise Ratio [EIA, at 1 W (1 kHz)]
- PHONO MM ..... 75 dB
- CD, VCR/TAPE 1, TAPE 2, DVD/LD ..... 79 dB

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

** Measured by Audio Spectrum Analyzer.

VIDEO Section

Input (Sensitivity/Impedance)
- VCR, DVD/LD ..... 1 Vp-p/75 Ω

Output (Level/Impedance)
- VCR ..... 1 Vp-p/75 Ω

Frequency Response
- VCR, DVD/LD → MONITOR ..... 5 Hz to 7 MHz $^{+0}_{-3}$ dB

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

Cross Talk ..... 55 dB

FM Tuner Section

Frequency Range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... Mono:13.2 dBf, IHF (1.3 µV/75 Ω)
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 (±1) dB
Antenna Input ..... 75 Ω unbalanced

AM Tuner Section

Frequency Range ..... 530 kHz to 1,700 kHz
Sensitivity (IHF, Loop antenna) ..... 350 µV/m
Selectivity ..... 25 dB
Signal-to-Noise Ratio ..... 50 dB
Antenna ..... Loop antenna

Miscellaneous

Power Requirements ..... AC 120 V, 60 Hz
Power Consumption ..... 210 W
In Standby Condition ..... 5 W
AC Outlet
SWITCHED ..... 100 W (0.8 A) MAX
Dimensions ..... 420 (W) × 143 (H) × 325 (D) mm
16-9/16 (W) × 5-5/8 (H) × 12-13/16 (D) in
Weight (without package) ..... 7.4 kg (16 lb 5 oz)

Furnished Parts

FM Antenna 1
AM Loop Antenna 1
Dry Cell Batteries
[size "AA" (IEC R6P)] 2
Remote Control Unit 1
Operating Instructions 1

- The remote control unit and dry cell battery are not provided with VSX-D307-HT.

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

MAINTENANCE OF EXTERNAL SURFACES

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surfaces are very dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleaners.
- Never use thinners, benzene, insecticide sprays or other chemicals on or near this unit, since these will corrode surfaces.

SPECIFICATIONS

Audio Amplifier Section

Continuous power output, 0.9% THD,
2 channels driven, 8 Ω load ..... 40 Hz : More than 90 W
1 kHz : More than 90 W
20 kHz : More than 90 W
Gain, 8 Ω load ..... Phono : 80.0 ± 3 dB
CD : 42.0 ± 3 dB
Noise output, 1 kΩ-terminated input,
VR at maximum ..... Phono : Less than 60 mV
CD : Less than 40 mV
Residual noise, VR at minimum ..... Less than 3 mV
Channel separation, 10 kHz ..... Phono : More than 35 dB
CD : More than 35 dB
RIAA equalizer response,
at TAPE 1 REC OUT ..... 100 Hz : RIAA ± 2 dB
10 kHz : RIAA ± 2 dB
Frequency response, CD input,
output at SP-A/8 Ω load ..... 20 kHz : –2.0 ± 5 dB
Tone control response, 100 Hz ..... Maximum : +8 ± 4 dB
Center : 0 ± 3 dB
Minimum : –8 ± 4 dB
Tone control response, 10 kHz ..... Maximum : +8 ± 4 dB
Center : 0 ± 3 dB
Minimum : –8 ± 4 dB

FM Tuner Section
(Unbalansed 75 Ω, at TAPE 1 REC-OUT)

Frequency Range ..... 87.5 MHz to 108 MHz
IHF usable sensitivity ..... 90 MHz : Less than 17 dBμV
98 MHz : Less than 17 dBμV
106 MHz : Less than 17 dBμV
Output level, 60 dBμV input ..... Within –3.7 dBV ± 7 dB
Signal to noise ratio, 60 dBμV input ..... More than 54 dB
Distortion, 60 dBμV input ..... Less than 4%
De-emphasis, deviation from 75 μs .....
100 Hz/10kHz : Within 0 ± 3 dB
Image interference ratio ..... 98 MHz : More than 19 dB

FM MPX Section
(Unbalansed 75 Ω, at TAPE 1 REC-OUT)

Output level, 60 dBμV input ..... Within –4.5 dBV ± 5 dB
Distortion, 60 dBμV input ..... Less than 4%
Stereo separation, 60 dBμV input ..... 100 Hz : More than 17 dB
1 kHz : More than 18 dB
10 kHz : More than 15 dB

AM Tuner Section
(Using AM loop antenna , at TAPE 1 REC-OUT)

Frequency Range ..... 530 kHz to 1700 kHz
Usable sensitivity, at 30 dB S/N .....
600 kHz : Less than 84 dBμV/m
1000 kHz : Less than 78 dBμV/m
1400 kHz : Less than 78 dBμV/m
Output level, 100 dBμV/m input ..... Within –16.5 dBV ± 8 dB
Signal to noise ratio, 100 dBμV/m input ..... More than 35 dB
Distortion, 100 dBμV/m input ..... Less than 5%
Image interference ratio ..... 1000 kHz : More than 15 dB
Tuning indicator sensitivity ..... Less than 78 dBμV/m
Selectivity, 74 dBμV/m input ..... More than 14 dB

Video Section
(DVD/LD input, at monitor terminal)

Video output level, color bar ..... Within 1 Vp-p ± 0.3 V
Video S/N, 100% white ..... More than 45 dB

Surround Section

Output power, 0.8% THD, 8 Ω load ..... Front : More than 90 W
Center : More than 90 W
Rear : More than 90 W
Residual noise, with 30 kHz LPF used .... Center : Less than 6 mV
Rear : Less than 6 mV

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