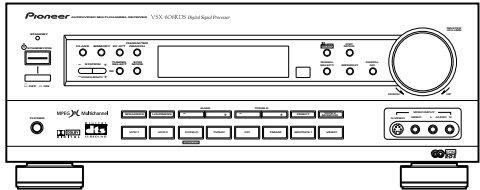


Service Manual

Pioneer



ORDER NO.
RRV2115

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-808RDS

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

Type	Model	Power Requirement	The voltage can be converted by the following method.
	VSX-808RDS		
HYXJI	○	AC220-230V	AC240V, *
HYXJIGR	○	AC220-230V	AC240V, *
HVXJI	○	AC230V	AC240V, *

* : Alter the wiring of the Power-supply block at the primary winding of Power-transformer referring to the "Line Voltage Selection" described in Service Manual.

CONTENTS

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2. EXPLODED VIEWS AND PARTS LIST	3	7.1 PARTS	45
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5. PCB PARTS LIST	39	7.2 DISASSEMBLY	50
6. ADJUSTMENT	44	7.3 BLOCK DIAGRAM	52
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		[CU-VSX140 (AXD7181)]	
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1. SAFETY INFORMATION

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

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



WARNING

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

Health & Safety Code Section 25249.6 – Proposition 65



NOTICE

(FOR CANADIAN MODEL ONLY)

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

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

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

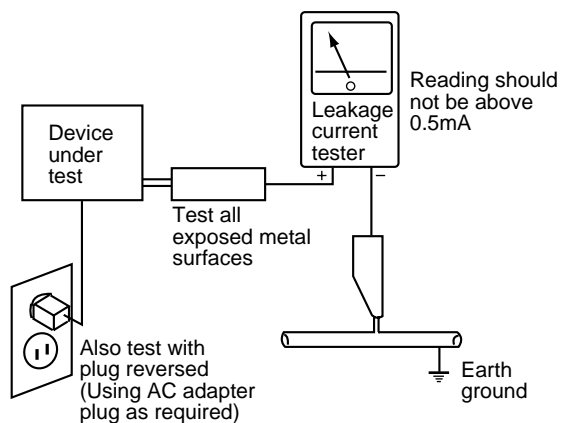
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

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

LEAKAGE CURRENT CHECK

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



AC Leakage Test

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

2. PRODUCT SAFETY NOTICE

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

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

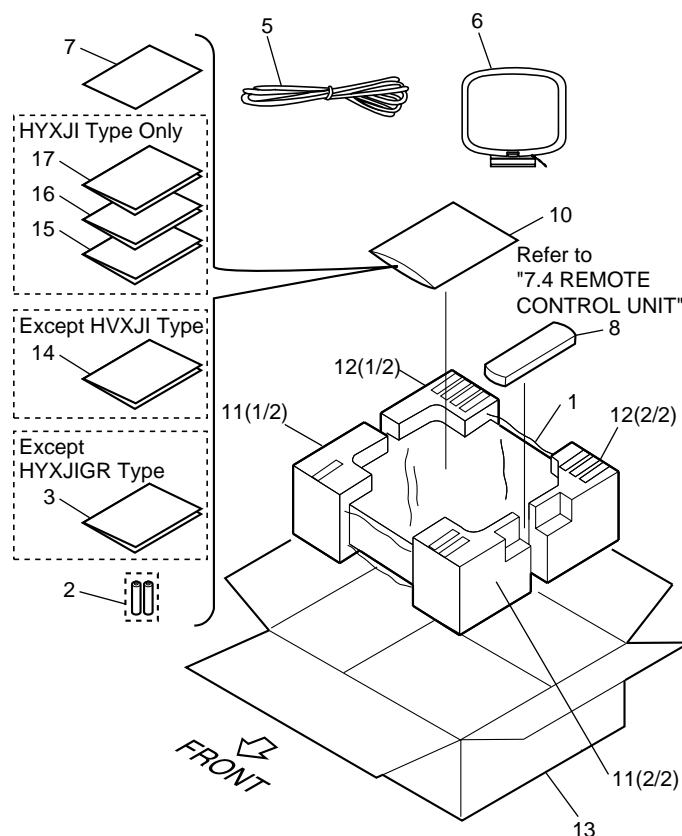
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

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 Δ 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

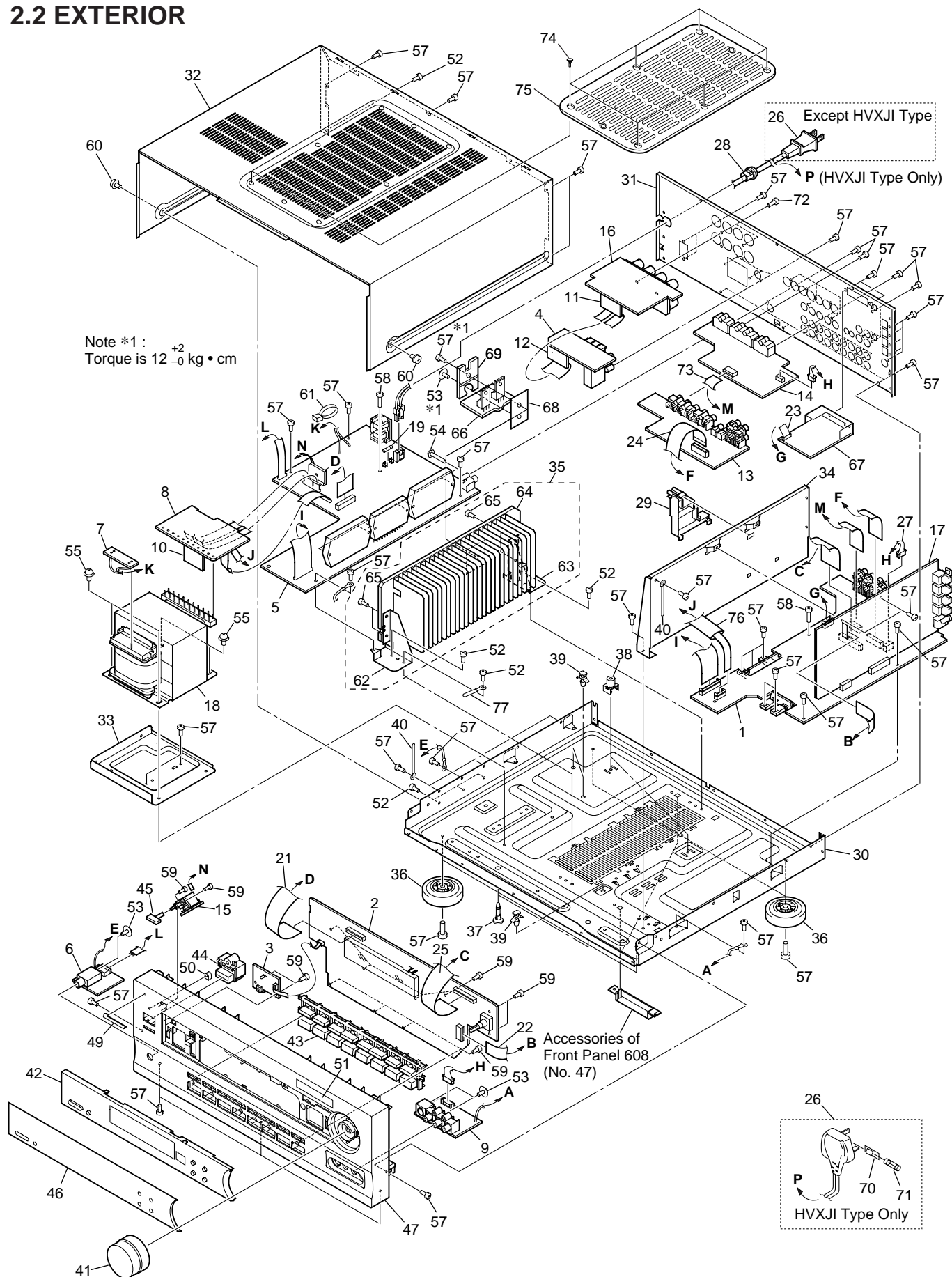
Mark	No.	Description	Part No.
NSP	1	Packing Sheet	AHG7010
	2	Alkaline Dry Cell Battery (LR6, AA)	VEM1012
	3	Operating Instructions	See Contrast table (2)
	4	•••••	
	5	FM Antenna	ADH7005
NSP	6	AM Loop Antenna	ATB7009
	7	Warranty Card	ARY7022
	8	Remote Control Unit (CU-VSX140)	AXD7181
	9	•••••	
	10	Polyethylene Bag (0.03×230×340)	Z21-038
	11	Front Pad 508	AHA7236
	12	Rear Pad 508	AHA7237
	13	Packing Case 808	AHD7695
	14	Operating Instructions	See Contrast table (2)
	15	Operating Instructions	See Contrast table (2)
	16	Operating Instructions	See Contrast table (2)
	17	Operating Instructions	See Contrast table (2)

(2) CONTRAST TABLE

VSX-808RDS/HYXJI, HYXJIGR and HVXJI are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.			Remarks
			HYXJI Type	HYXJIGR Type	HVXJI Type	
	3	Operating Instructions (English)	ARB7158	Not used	ARB7158	
	14	Operating Instructions (German)	ARC7203	ARC7203	Not used	
	15	Operating Instructions (French/Italian)	ARC7204	Not used	Not used	
	16	Operating Instructions (Swedish/Dutch)	ARC7205	Not used	Not used	
	17	Operating Instructions (Portuguese/Spanish)	ARC7206	Not used	Not used	

2.2 EXTERIOR



(1) EXTERIOR PARTS LIST

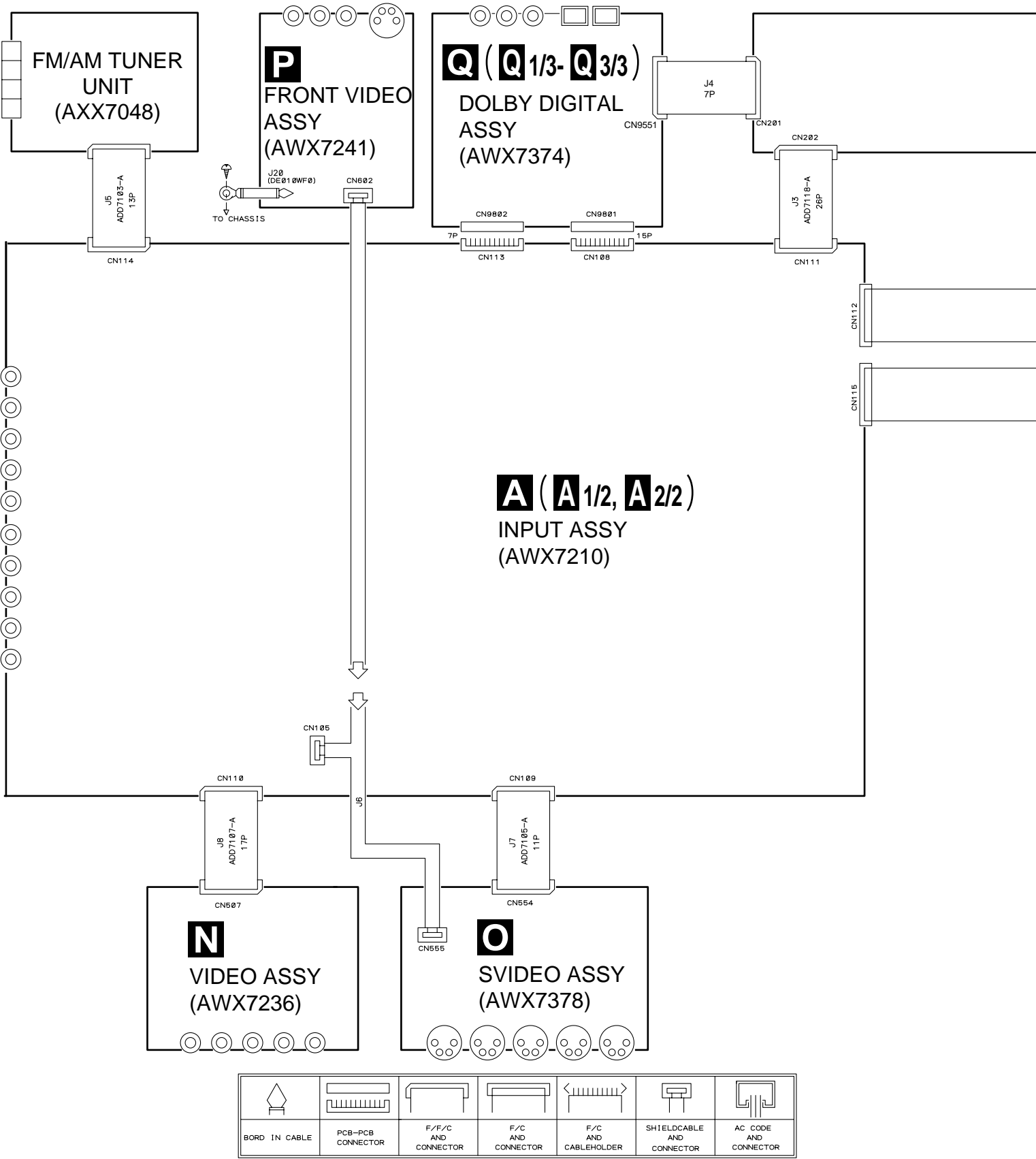
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
NSP	1	INPUT Assy	AWX7210		41	Volume Knob 508	AAB7179
	2	FRONT Assy	AWX7217		42	Sub Panel 508	AAD7482
	3	POWER SW Assy	AWX7222		43	Function Button 608	AAD7500
NSP	4	REAR SP Assy	AWX7251		44	Power Button	AAD7440
	5	AMP Assy	AWX7226		45	Power Button M	AAD7442
	6	HEADPHONE Assy	AWX7230		46	Display Window W808	AAK7612
NSP	7	TRANS 1 Assy	AWX7287		47	Front Panel 808	AMB7561
	8	TRANS 2 Assy	AWX7292		48	•••••	
	9	FRONT VIDEO Assy	AWX7241		49	Name Plate	PAM1776
	10	BARRIER Assy	AWX7284		50	LED Lens	PNW2019
NSP	11	F.SP.CONNECT Assy	AWX7285		51	•••••	
NSP	12	R.C.SP.CONNECT Assy	AWX7286		52	Screw	ABA7017
	13	VIDEO Assy	AWX7236		53	Screw	ABA7009
	14	SVIDEO Assy	AWX7378		54	Screw	ABA7043
	15	MECH SW Assy	AWX7247		55	Screw	RBA1099
	16	FRONT LARGE Assy	AWX7245		56	•••••	
△	17	DOLBY DIGITAL Assy	AWX7374		57	Screw	BBZ30P080FZK
△	18	Power Transformer (T1)	ATS7242		58	Screw	BBZ30P200FMC
	19	Fuse (FU1 : T2.5A)	REK-104		59	Screw	BPZ30P080FMC
	20	•••••			60	Screw	FBT40P080FZK
	21	FFC 21P (J2)	ADD7100		61	Binder (BK-1)	ZCA-BK1
	22	FFC 07P (J4)	ADD7101	NSP	62	Heat Sink Angle F	ANG7194
	23	FFC 13P (J5)	ADD7103		63	Heat Sink Angle R	ANG7195
	24	FFC 17P (J8)	ADD7107	NSP	64	Heat Sink D5	ANH7090
	25	FFC 26P (J3)	ADD7118		65	Screw	BBZ30P080FMC
△	26	AC Power Cord	See Contrast table (2)		66	FET Assy	AWX7228
NSP	27	8P Shield Cable (J6)	ADX7251	NSP	67	FM/AM TUNER Unit	AXX7048
	28	Cord Stopper	CM-22B		68	Sheet	AEE7026
	29	Tuner Holder B	AAD7490		69	FET Angle	ANG7186
NSP	30	Under Base D5	ANA7079	△	70	Fuse Holder	See Contrast table (2)
	31	Rear Panel	ANC7723	△	71	Fuse (T5A)	See Contrast table (2)
	32	Bonnet Case	AZN7771		72	Screw	BBT30P100FCC
	33	Trans Frame	ANG7193		73	FFC 11P (J7)	ADD7142
	34	DSP Shield	ANG7196		74	Push Rivet	AEC7025
NSP	35	Heat Sink Assy D5	ANH7095		75	Top Cover	AME7375
	36	Insulator	PNW2766		76	Shrink Shield 140	PDM1021
	37	Locking Card Spacer	AEC7160	NSP	77	Cord Clamper	RNH-184
	38	PCB Mold	AMR2533				
NSP	39	Card Spacer	DEC1770				
NSP	40	Binder	RNE1277				

(2) CONTRAST TABLE

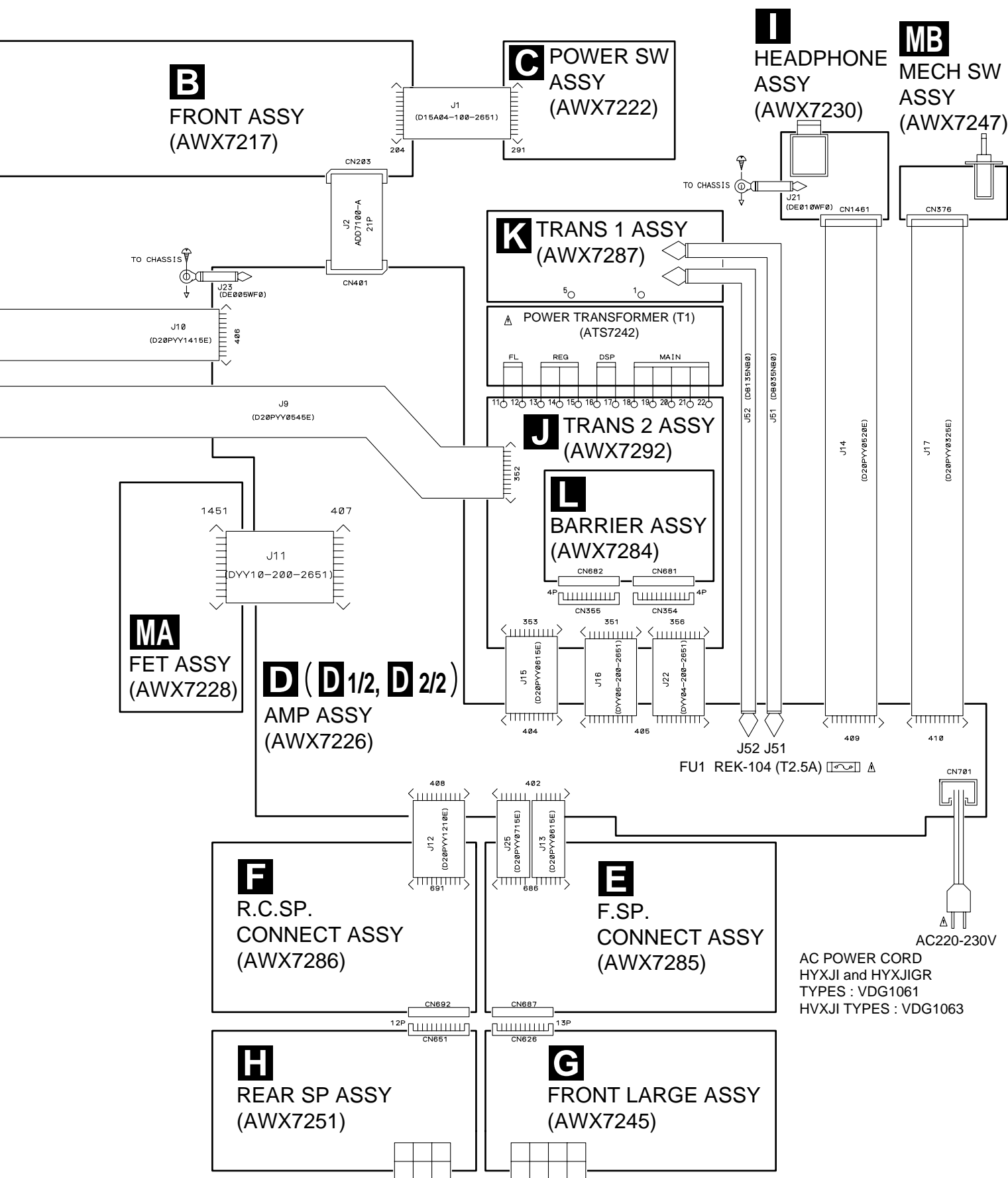
VSX-808RDS/HYXJI, HYXJIGR and HVXJI are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.			Remarks
			HYXJI Type	HYXJIGR Type	HVXJI Type	
△	26	AC Power Cord	VDG1061	VDG1061	VDG1063	
△	70	Fuse Holder	Not used	Not used	VKR1003	
△	71	Fuse (T5A)	Not used	Not used	PEK1003	

3. SCHEMATIC DIAGRAM
3.1 OVERALL WIRING CONNECTION DIAGRAM



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



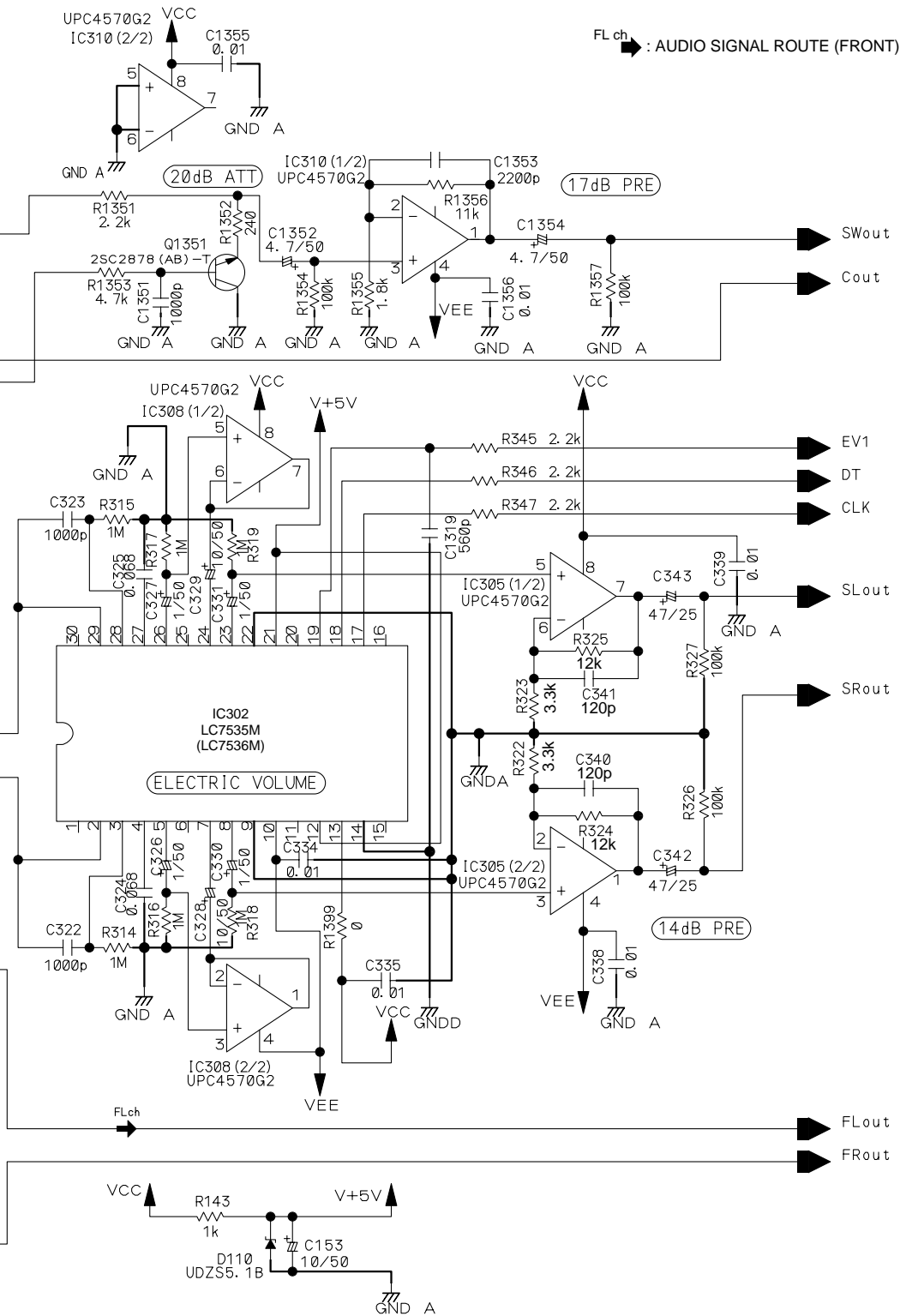
A

B

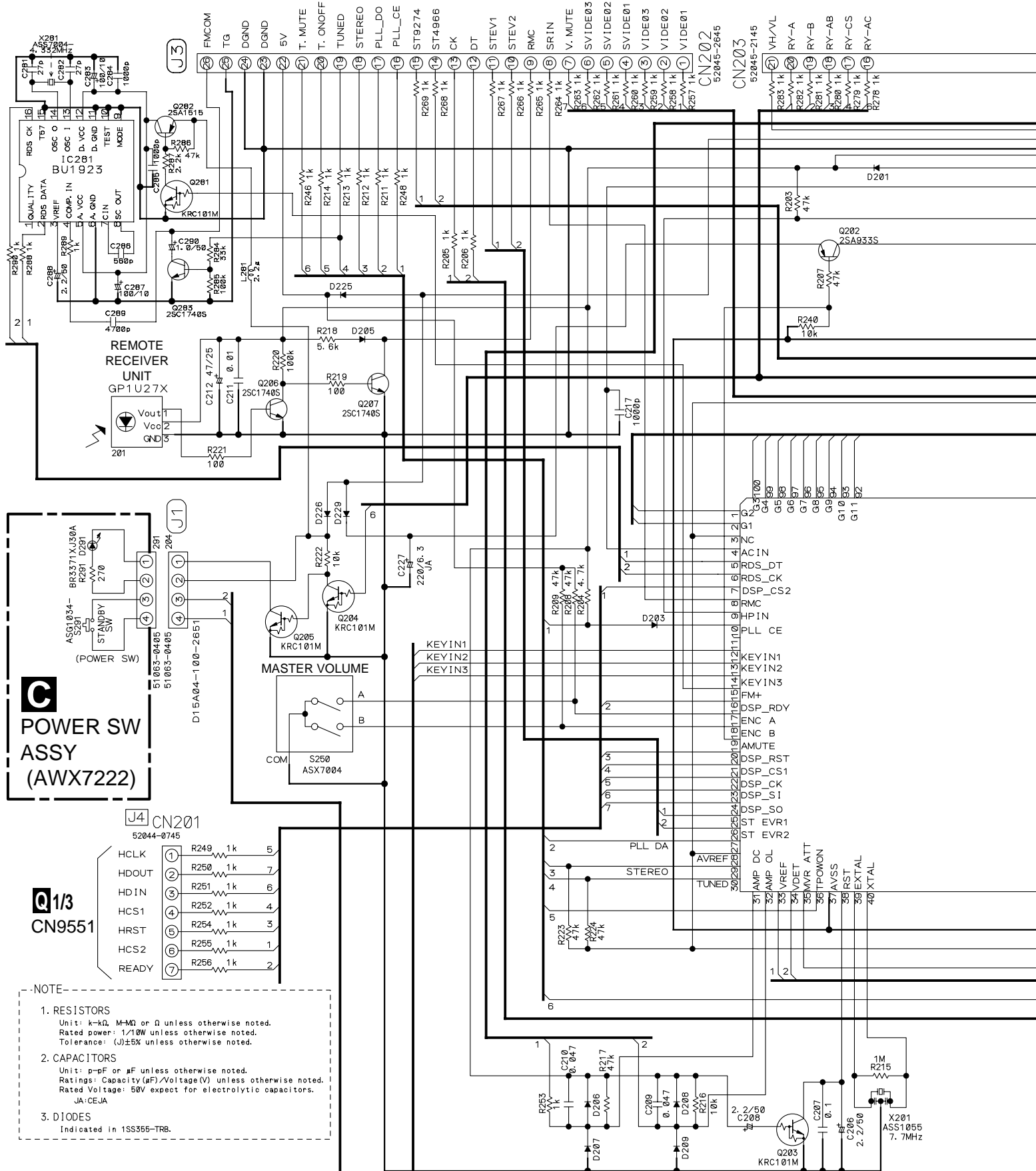
C

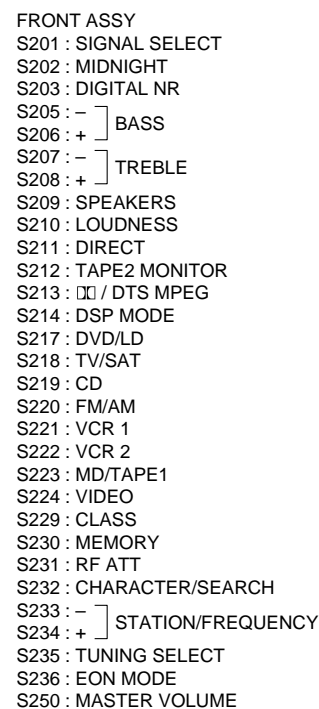
D





A 1/2





3.5 AMP (1/2), F.SP.CONNECT, R.C.SP.CONNECT, FRONT LARGE and REAR SP ASSYS

A

1. RESISTORS

Unit: k-k Ω , M-M Ω or Ω
unless otherwise noted.
Rated power: 1/4W
unless otherwise noted.
Tolerance: (J) $\pm 5\%$
unless otherwise noted.

2. CAPACITORS

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

3. DIODES

Indicated in 1SS133-T

B

A^{1/2} CN112

C

D

D $1/2$

D 1/2 AMP ASSY(1/2)
(AWX7226)

D2/2

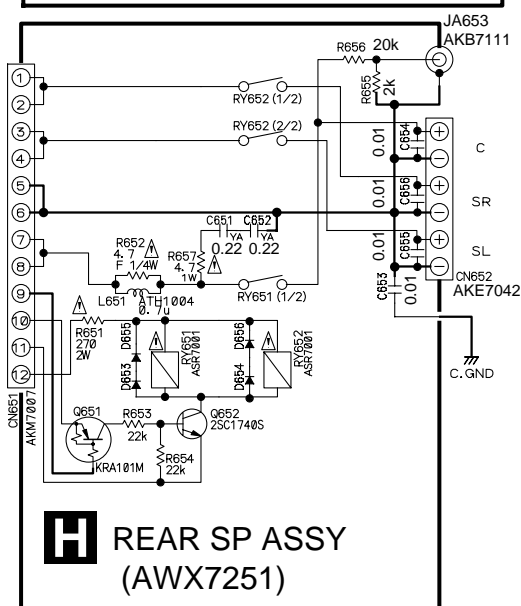


F



1

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE,
REPLACE ONLY WITH SAME TYPE NO. ICP-N25, MFD BY
ROHM CO., LTD. FOR IC404 and IC405.



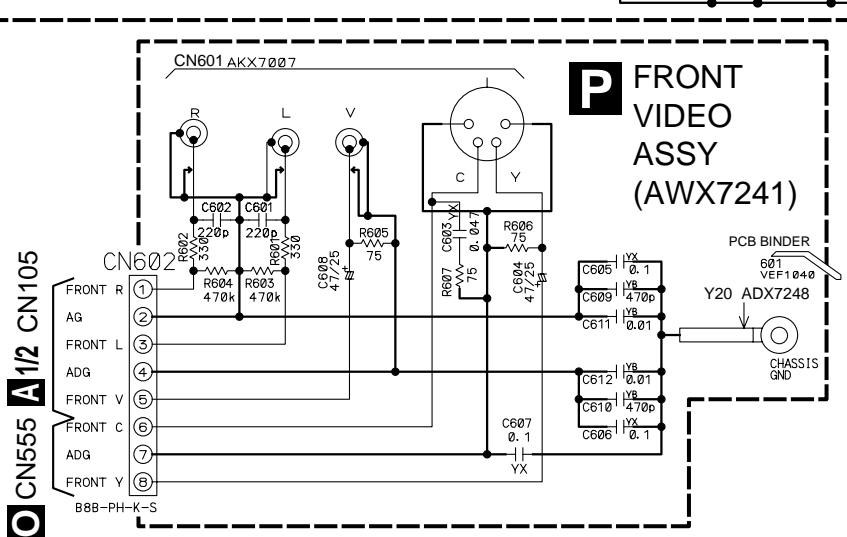
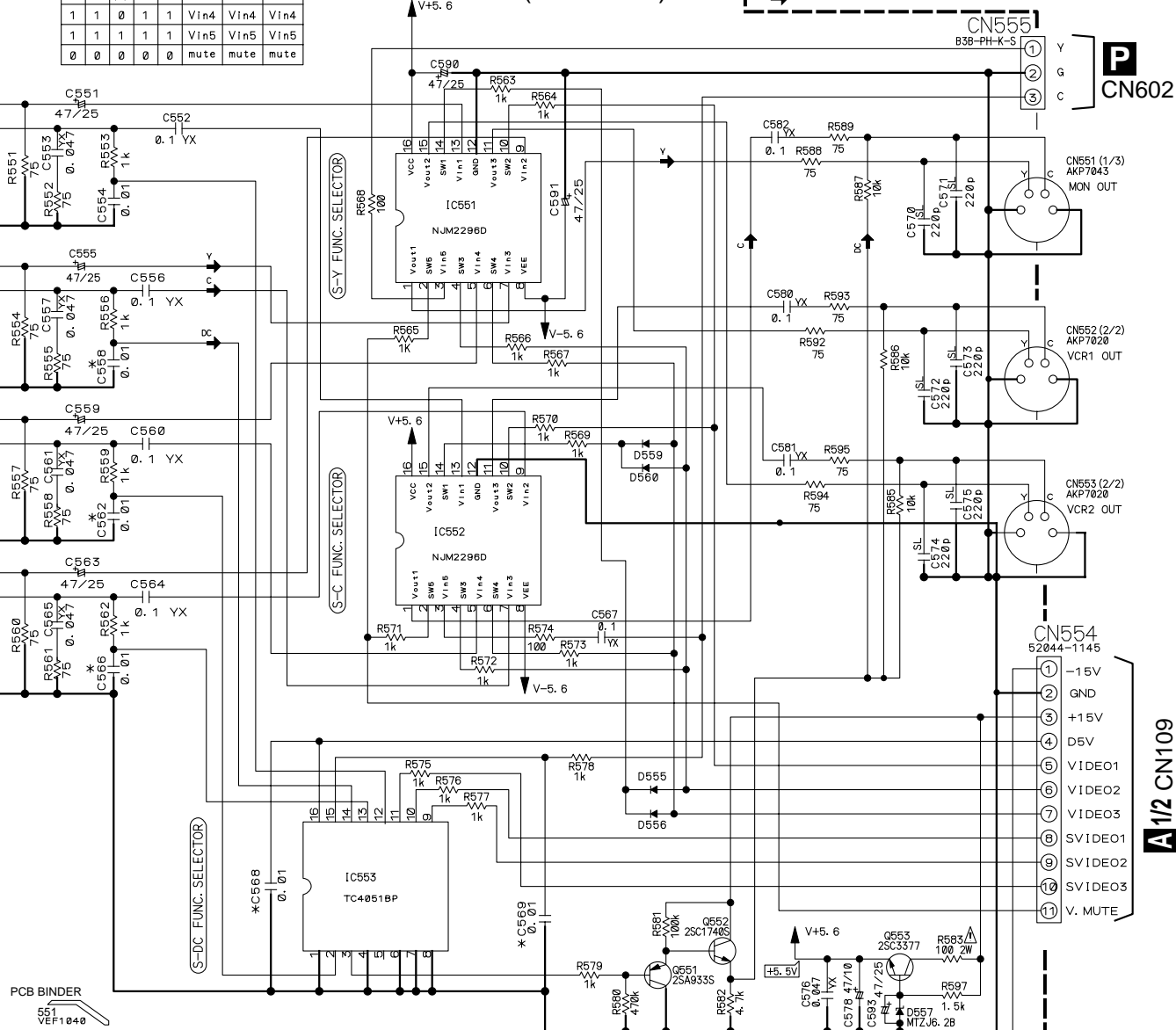


NJM2296D control port status

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

SVIDEO ASSY (AWX7378)

Y : S-VIDEO Y-SIGNAL ROUTE
C : S-VIDEO C-SIGNAL ROUTE
DC : S-VIDEO C-DC ROUTE



*marked parts are axial capacitors

C554, C558, C562, C566, C568, C569 CKPUY103M16

NOTE

1. RESISTORS

Unit: k- Ω , M- Ω or Ω unless otherwise noted.
Rated power: 1/4W unless otherwise noted.
Tolerance: (J) $\pm 5\%$ unless otherwise noted.

2. CAPACITORS

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

3. DIODES

Indicated in 1SS133-T





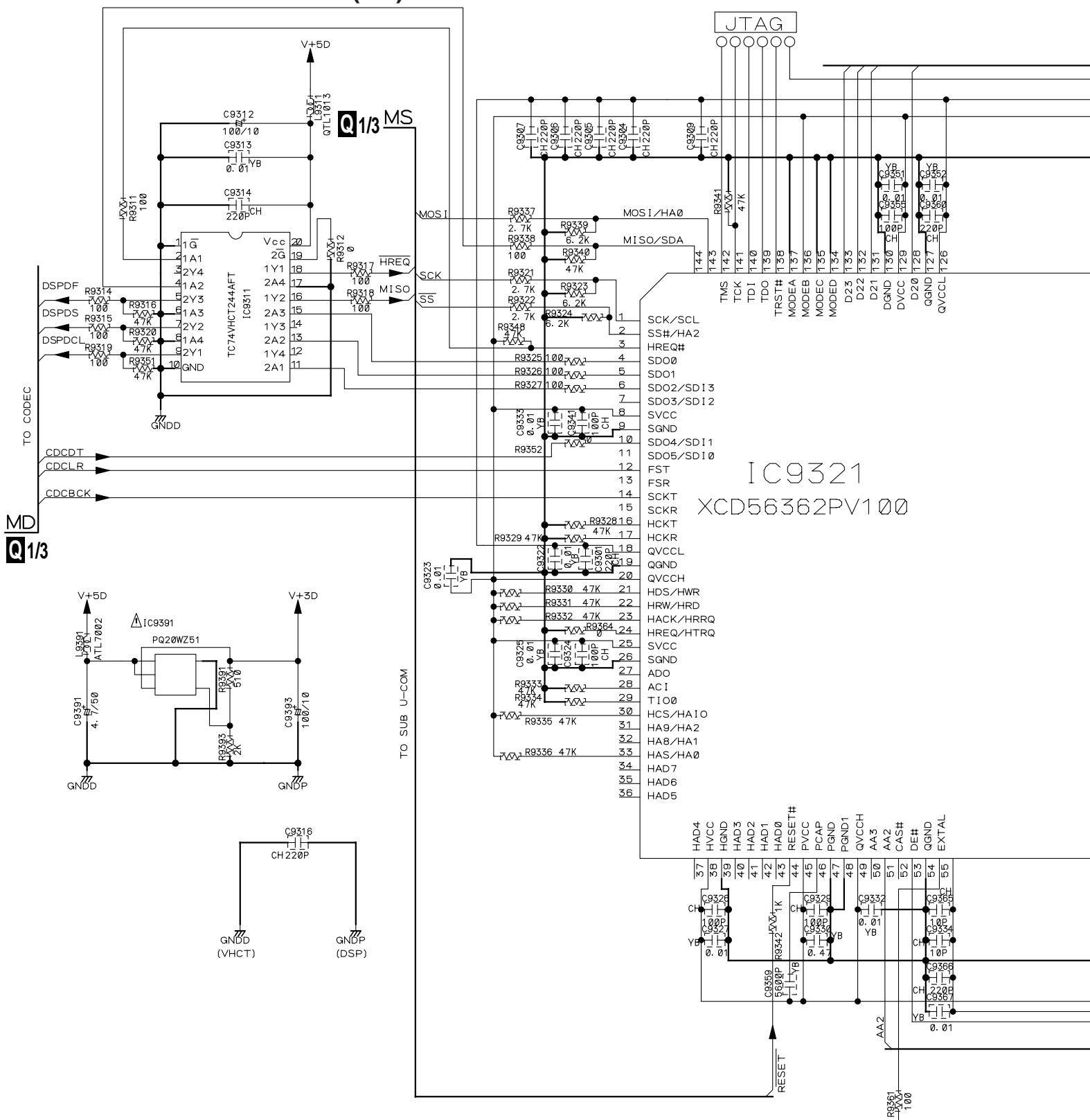
3.9 DOLBY DIGITAL ASSY (2/3)

A

B

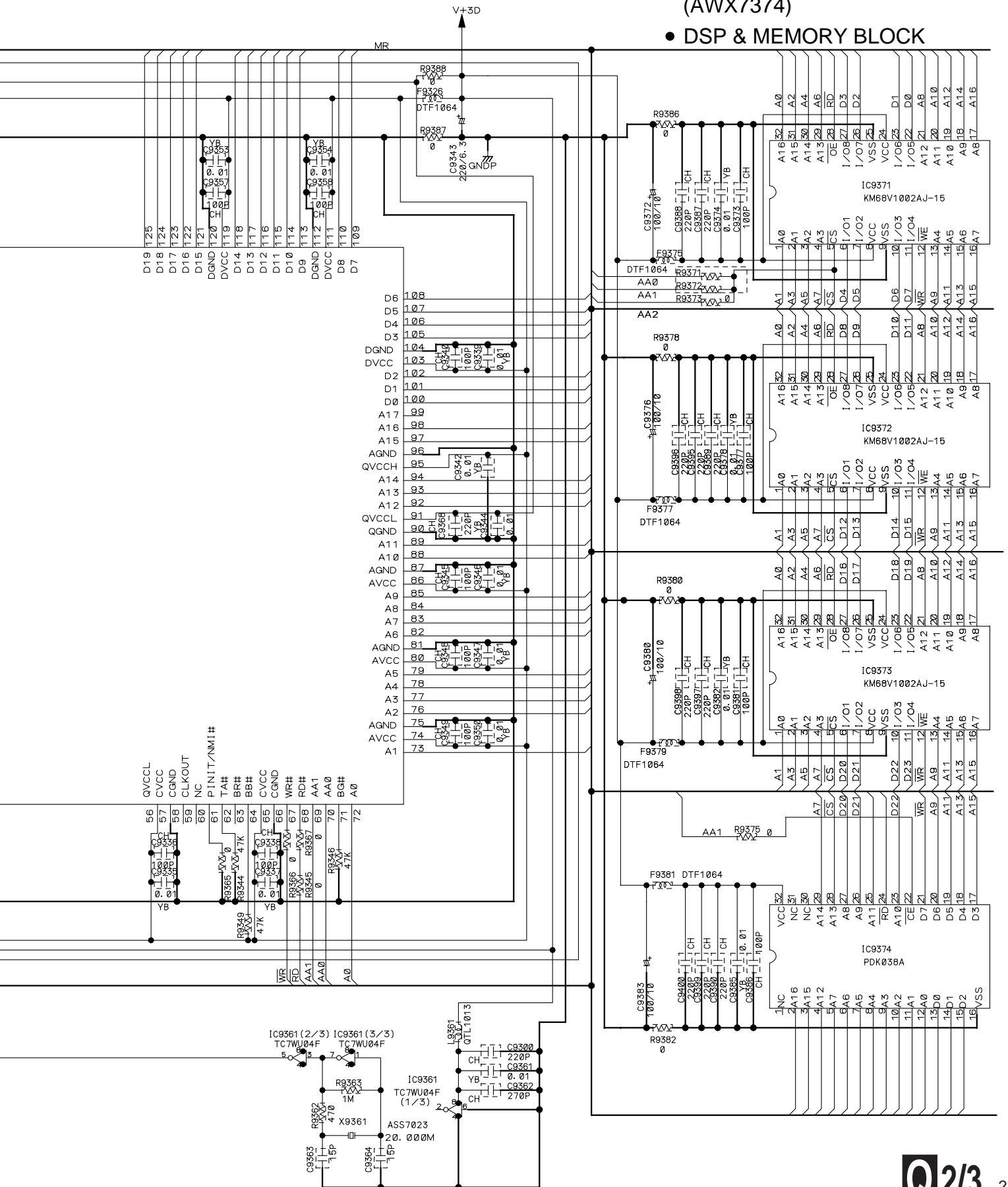
C

D

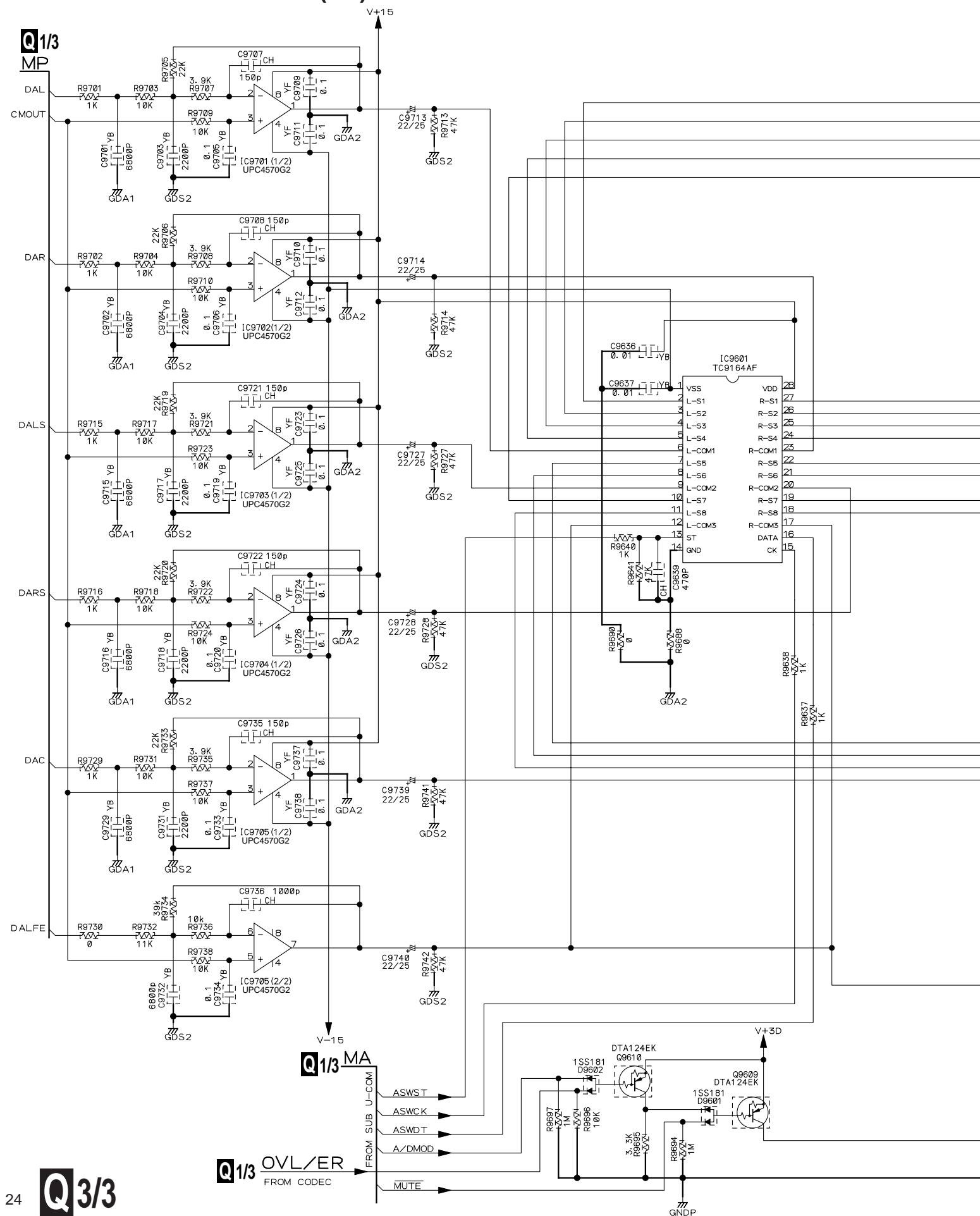


Q2/3 DOLBY DIGITAL ASSY(2/3) (AWX7374)

• DSP & MEMORY BLOCK

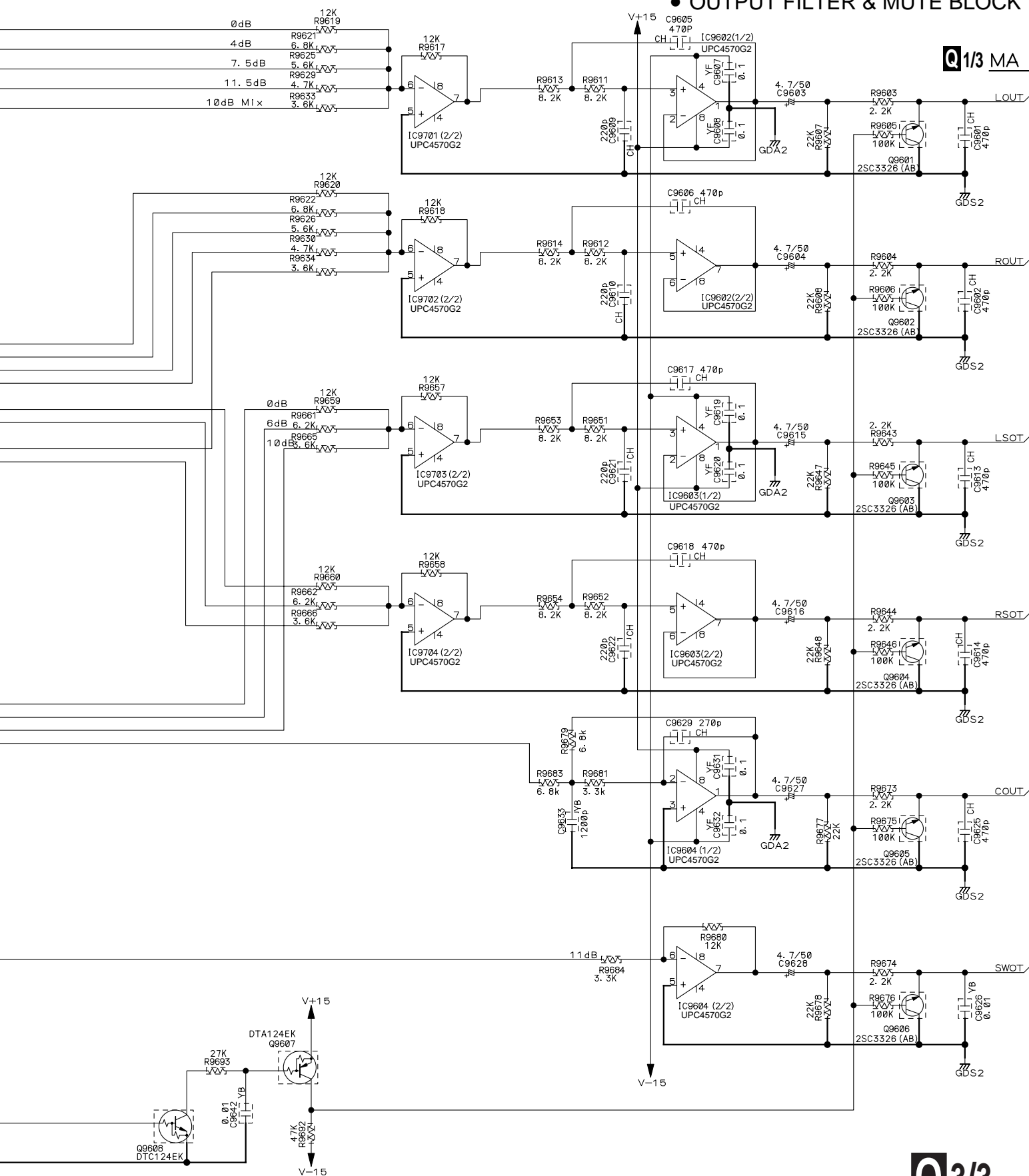


3.10 DOLBY DIGITAL ASSY (3/3)



Q3/3 DOLBY DIGITAL ASSY(3/3) (AWX7374)

• OUTPUT FILTER & MUTE BLOCK





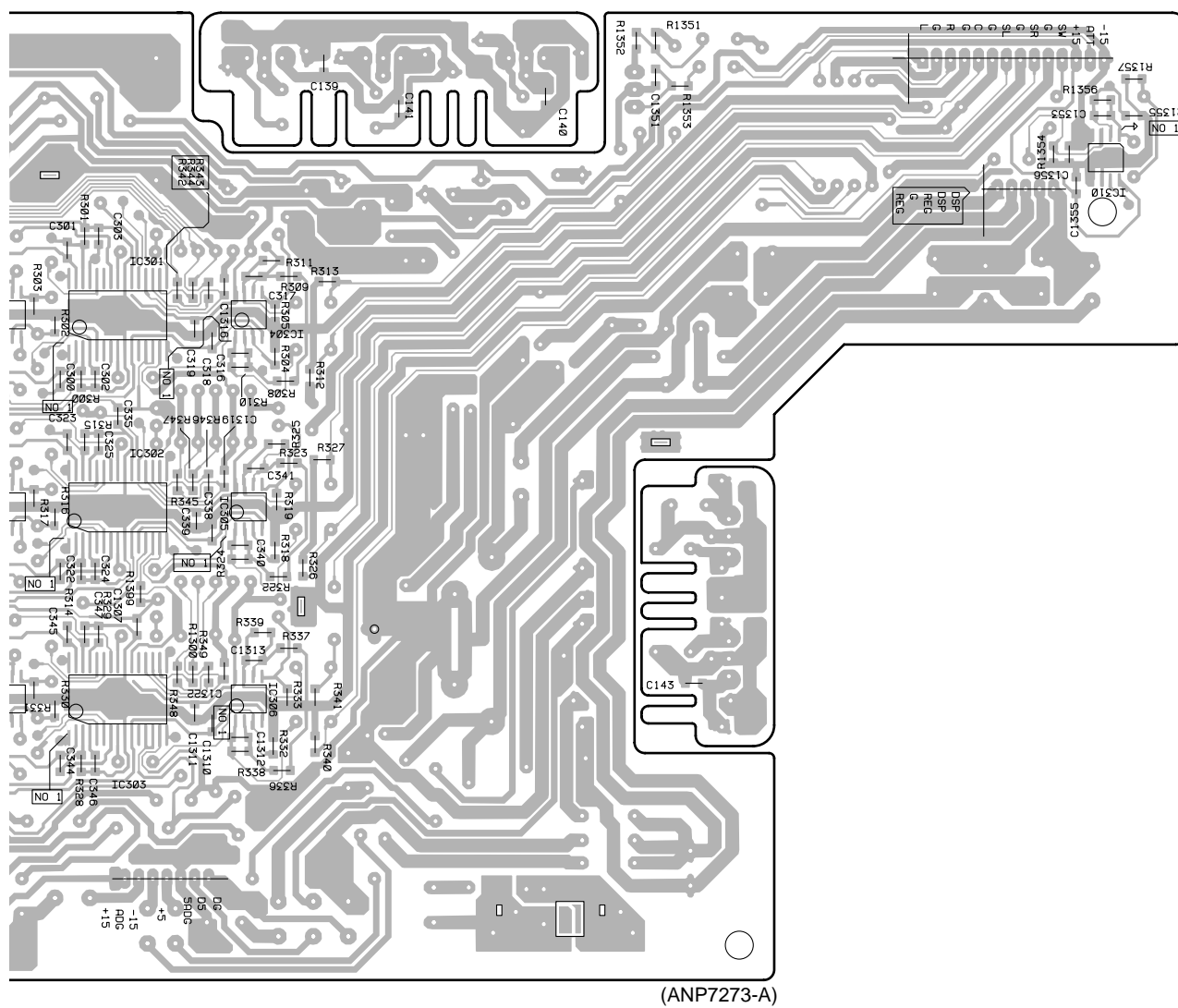
27

A INPUT ASSY

IC109

IC307-IC309

SIDE B

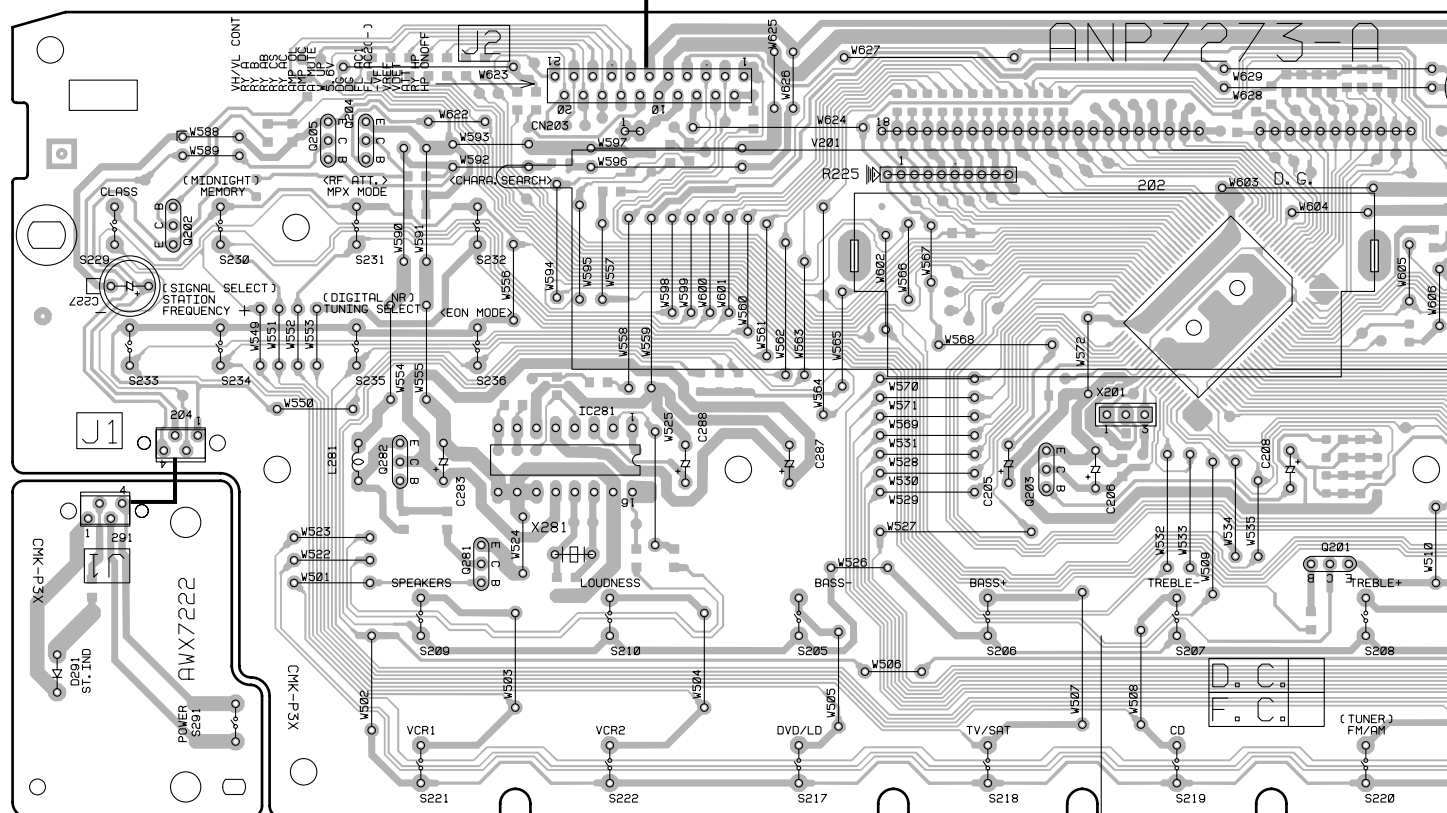


17-IC309 IC301-IC303 IC304-IC306

IC310

SIDE B

4.2 FRONT and POWER SW ASSYS

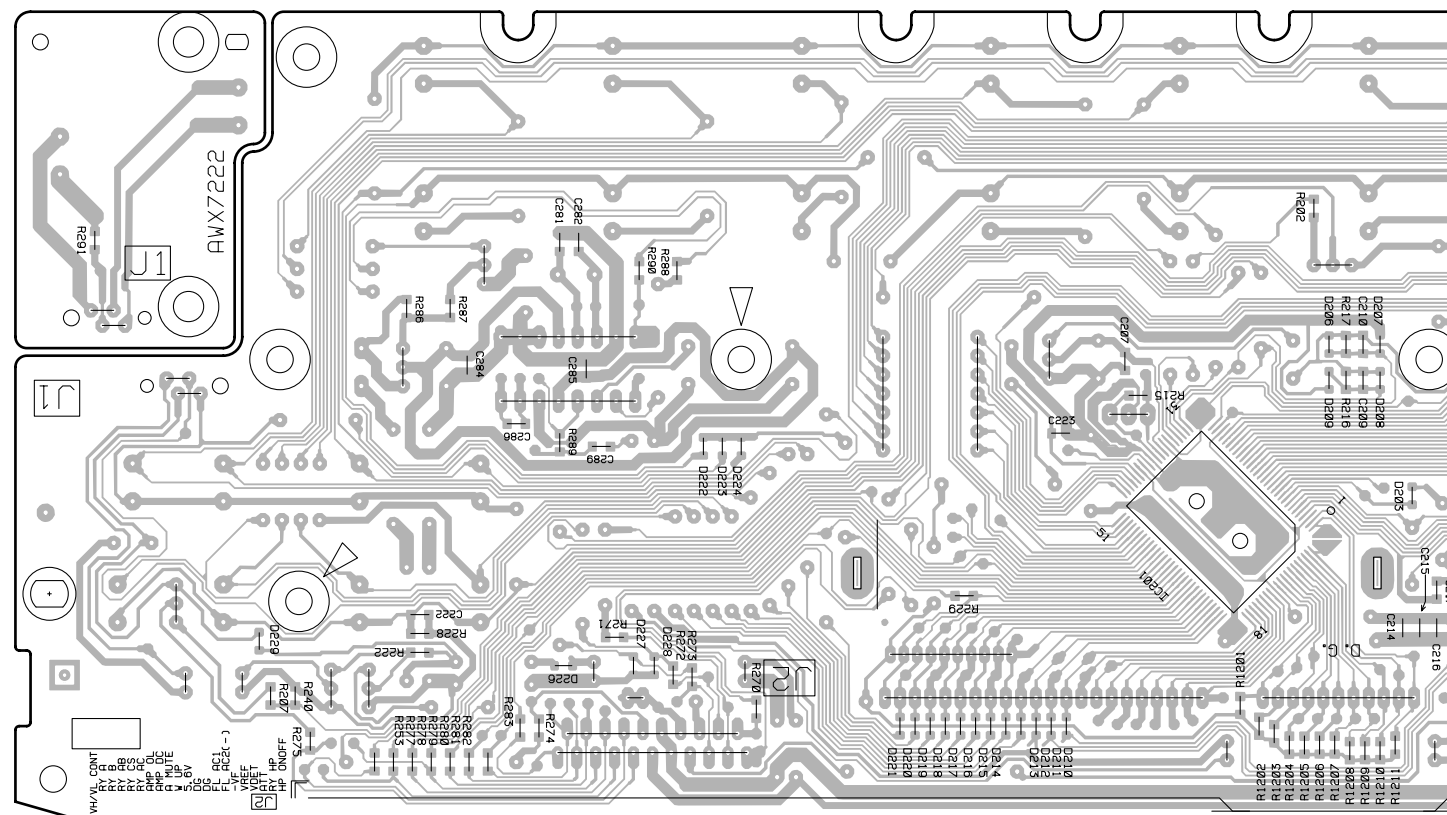
D CN401

C POWER
SW ASSY

Q202 Q205 Q204 Q282 Q281 IC281

Q203

Q201



IC201



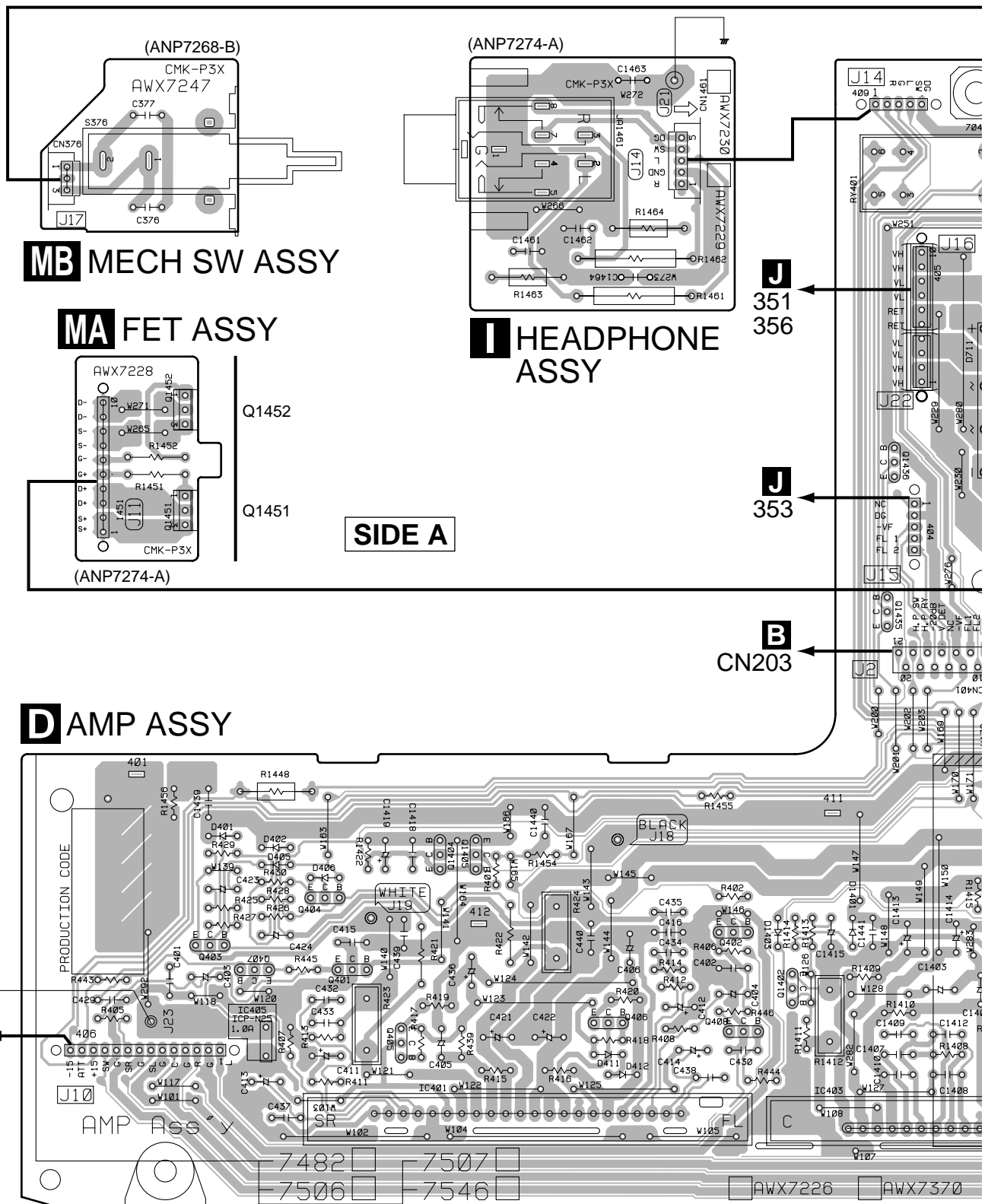
Q CN9551

FRONT ASSY

FRONT ASSY



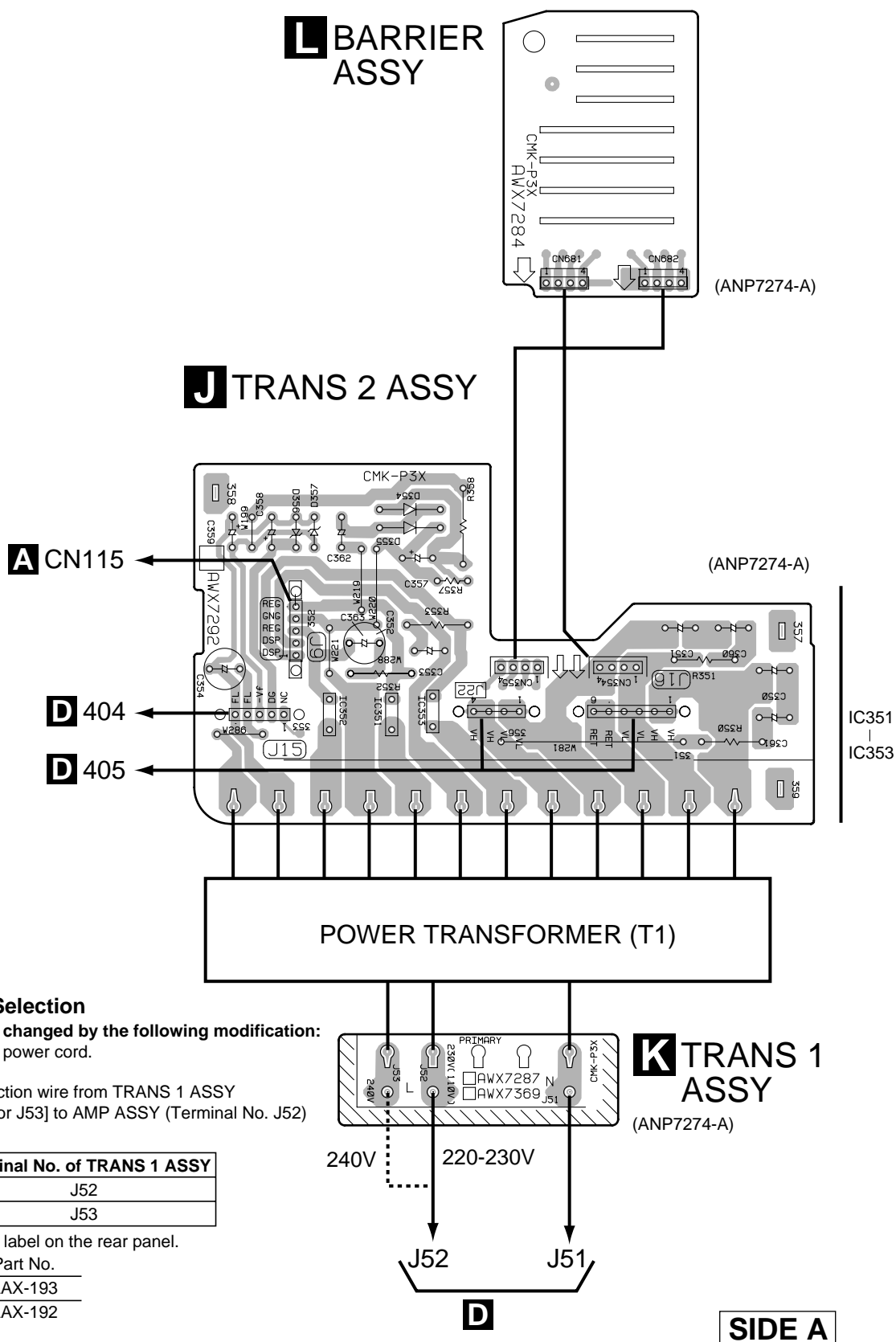
4.3 AMP, HEADPHONE, FET and MECH SW ASSYS

[illegible]



D 33
8

4.5 TRANS 2, TRANS 1 and BARRIER ASSYS



4.6 DOLBY DIGITAL ASSY

A

B
CN201

A
CN113

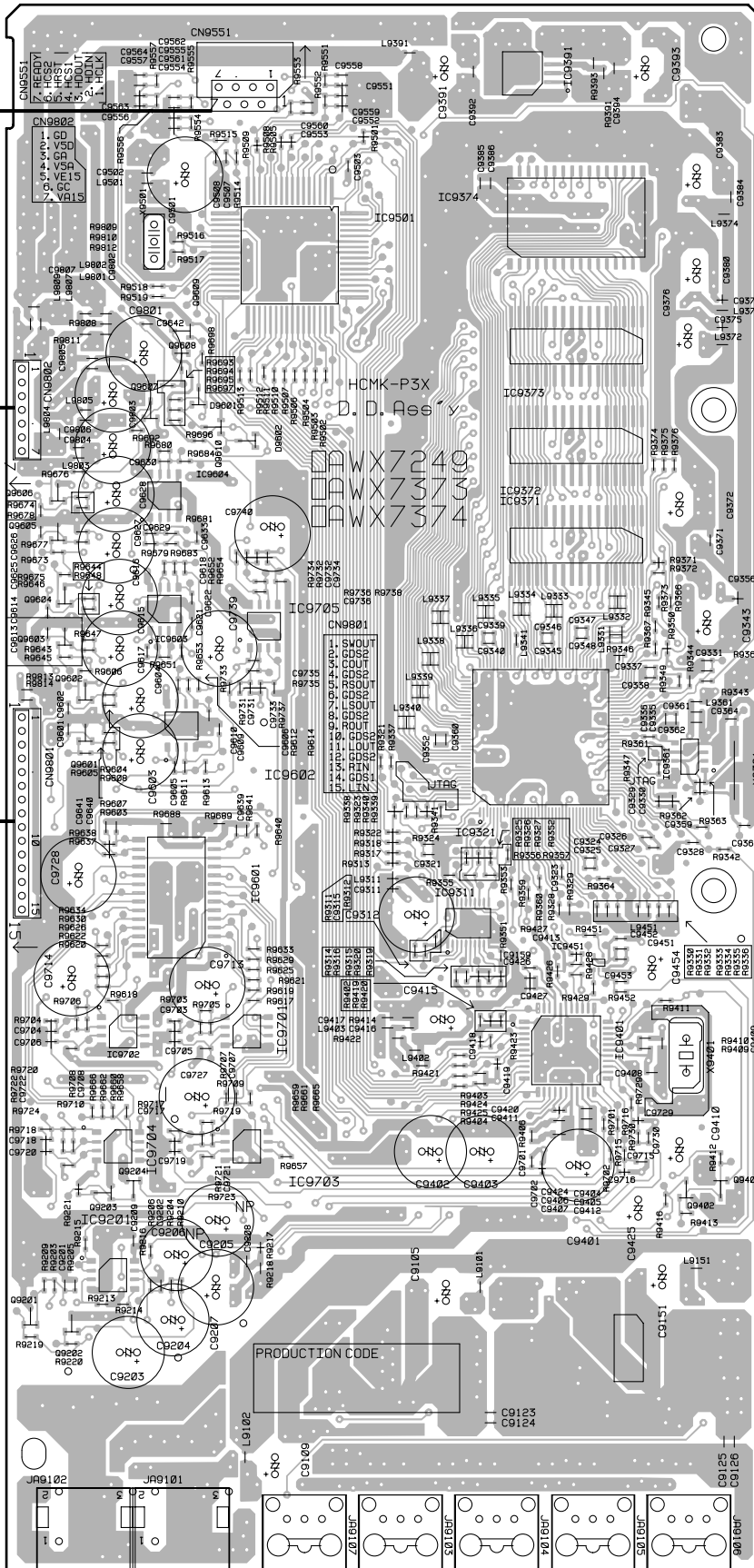
A
CN108

B

C

D

(ANP7297-B)
SIDE A



IC9391

IC9374

IC9501

Q9609

Q9608

IC9373

Q9607

Q9610 IC9372

Q9606 IC9604

Q9605 IC9371

Q9604 IC9603 IC9705

Q9603

Q9602

Q9601 IC9602 IC9361

IC9321

IC9601 IC9311

IC9451

IC9702 IC9701

IC9401

IC9704 IC9703

Q9203 Q9204 Q9401

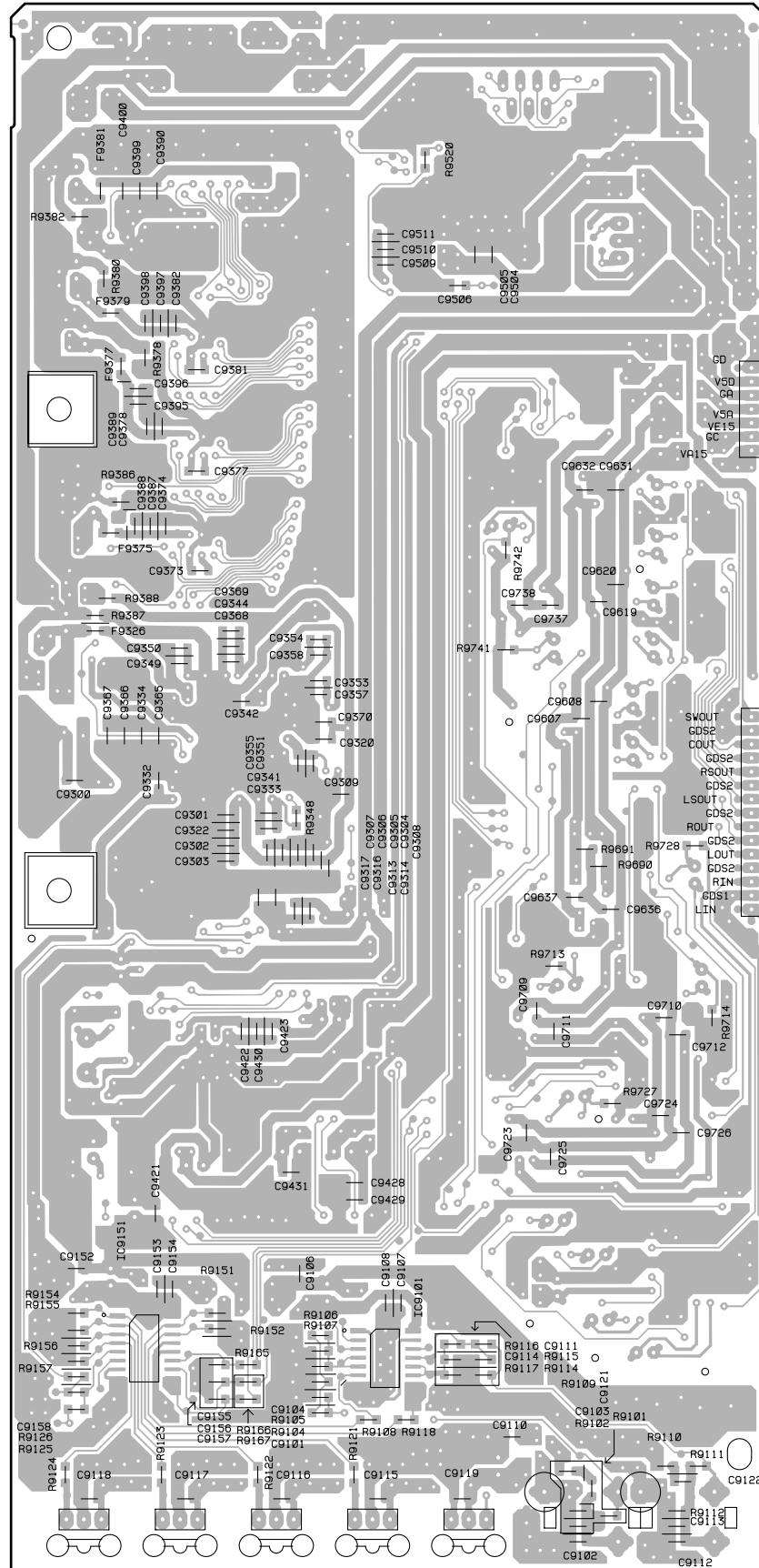
IC9201 Q9402

Q9201

Q9202

Q DOLBY
DIGITAL
ASSY

Q DOLBY
DIGITAL
ASSY



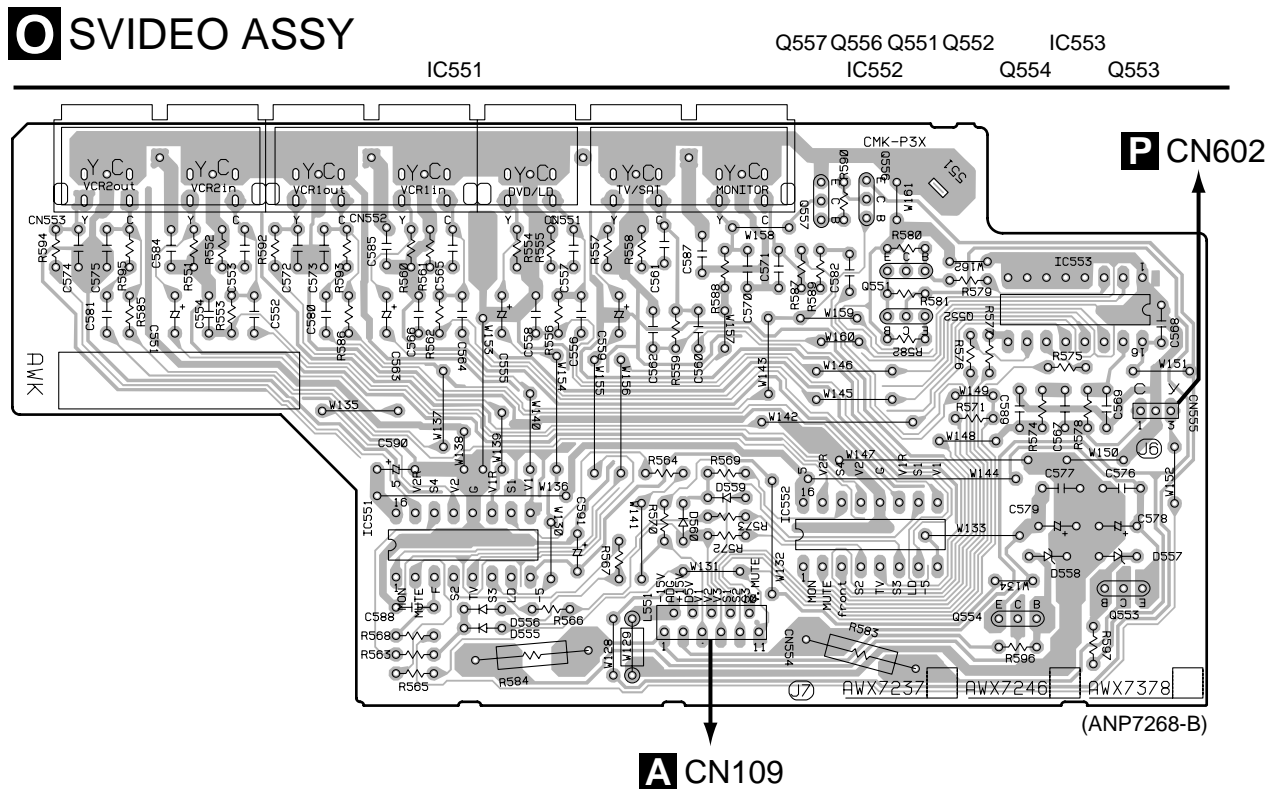
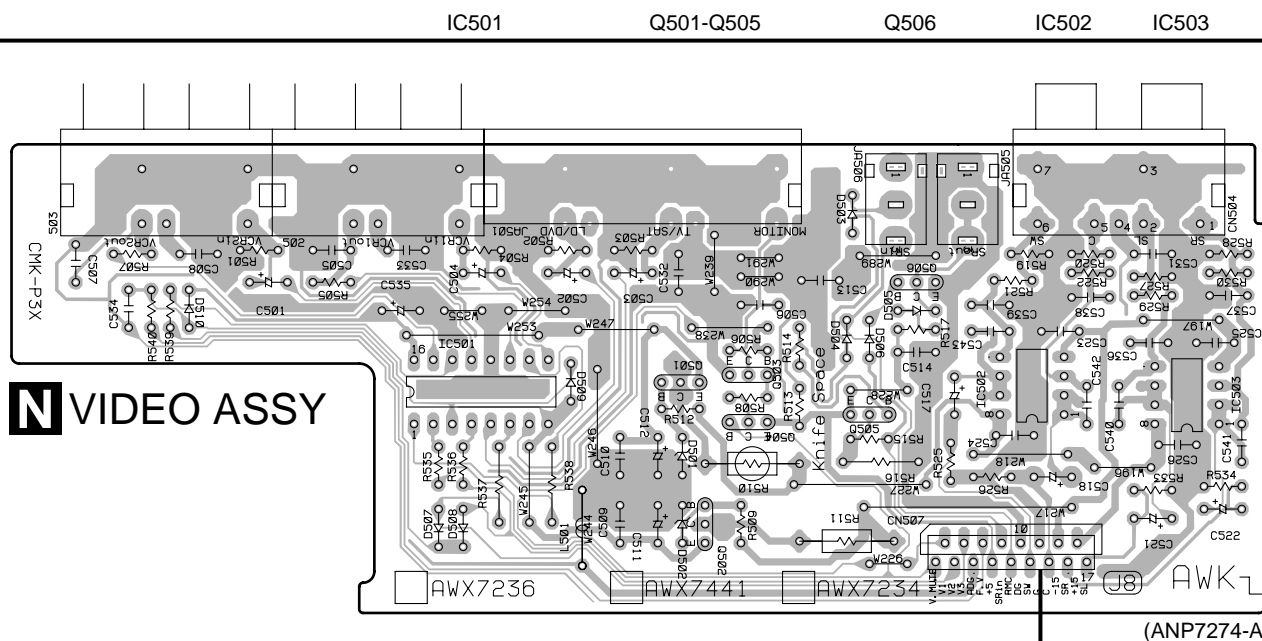
SIDE B

(ANP7297-B)

IC9151 IC9101

Q

4.7 VIDEO and SVIDEO ASSYS



SIDE A

VSX-808RDS

Mark	No.	Description	Part No.
	CN112	14P JUMPER CONNECTOR	52147-1410
	CN104	6P PIN JACK	AKB7015
	JA101-JA103	6P PIN JACK	AKB7113
	CN105	KR CONNECTOR	B5B-PH-K-S
	CN108	15P PLUG	KM200TA15
	CN113	7P PLUG	KM200TA7
	120-122	PCB BINDER	VEF1040

B FRONT ASSY SEMICONDUCTORS

IC281	BU1923
IC201	PDG252A
Q282	2SA1515
Q201, Q202	2SA933S
Q206, Q207, Q283	2SC1740S
Q203-Q205, Q281	KRC101M
D201-D203, D205-D221	1SS355
D224-D226, D229	1SS355
D227, D228	UDZS5.1B

COILS AND FILTERS

L201, L281	LFA2R2J
------------	---------

SWITCHES AND RELAYS

S201-S203, S205-S214	ASG1034
S217-S224, S229-S236	ASG1034
S250	ASX7004

CAPACITORS

C204 (0.047F/5.5V)	ACH7017
C220-C222	CCSQCH101J50
C217	CCSQCH102J50
C281, C282	CCSQCH270J50
C283, C287	CEAT101M10
C290	CEAT1R0M50
C206, C208, C288	CEAT2R2M50
C212	CEAT470M25
C205	CEAT470M50
C202	CEAT471M6R3
C227	CEJA221M6R3
C284, C285	CKSQYB102K50
C201, C203, C211	CKSQYB103K50
C214	CKSQYB104K25
C289	CKSQYB472K50
C209, C210	CKSQYB473K50
C286	CKSQYB561K50
C207	CKSQYF104Z25

RESISTORS

R230	RA8T103J
R225	RA9T104J
Other Resistors	RS1/10S□□□J

OTHERS

201	REMOTE RECEIVER UNIT	GP1U27X
204	4P CABLE HOLDER	51063-0405
CN201	15P FFC CONNECTOR	52044-0745
CN203	21P FFC CONNECTOR	52045-2145
CN202	26P FFC CONNECTOR	52045-2645

Mark	No.	Description	Part No.
	V201	FL TUBE	AAV7062
	X201	CERAMIC RESONATOR (7.7MHz)	ASS1055
	X281	CRYSTAL RESONATOR (4.332MHz)	ASS7004

C POWER SW ASSY SEMICONDUCTORS

D291	BR3371XJ30A
------	-------------

SWITCHES AND RELAYS

S291	ASG1034
------	---------

RESISTORS

All Resistors	RS1/10S□□□J
---------------	-------------

OTHERS

291	4P CABLE HOLDER	51063-0405
-----	-----------------	------------

D AMP ASSY SEMICONDUCTORS

△ IC404, IC405	ICP-N25
△ IC701	NJM78M56FA
△ IC401, IC402	PAC007A
△ IC403	PAC008A
Q712	2SA992

Q1404, Q1405	2SC1740S
Q711	2SC1845
Q1402, Q403, Q404, Q453, Q454	2SC2240
Q405, Q406, Q455, Q456	2SC2705
Q1401, Q1403, Q1434, Q401, Q402	2SC2878

Q407, Q408, Q451, Q452	2SC2878
Q457, Q458	2SC2878
Q1436, Q714	KRA103M
Q1435, Q701	KRC101M
Q713	KRC103M

D1401, D1403, D1435, D1436	1SS133
D401, D402, D405, D406	1SS133
D411, D412, D451, D452	1SS133
D455, D456, D461, D462	1SS133
D703-D705	1SS133

△ D711, D712, D717	D5SBA20(B)
D713, D714	MTZJ18B
D701	MTZJ5.1A
D702	S1WB20

COILS AND FILTERS

△ L701	LINE FILTER	ATF-151
L1432, L1433	AF CHOKE COIL	ATH1004

SWITCHES AND RELAYS

△ RY401	ASR7001
△ RY701	ASR7016

CAPACITORS

△ C704, C705 (10000pF/AC250V)	ACG7020
C715, C716 (8200μF/71V)	ACH7018
C1408, C1410	CCCSL101K2H
C1411, C1442, C415, C416	CCCSL221J50
C465, C466	CCCSL221J50

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
		C1441, C439, C442–C444 C1420, C1421 C437, C438, C479, C480 C1403, C1404, C405, C406 C455, C456	CCCSL221K2H CCCSL390J50 CCCSL470J50 CEANP2R2M2A CEANP2R2M2A	E	F.SP.CONNECT ASSY		
		C1415, C423, C424, C473, C474 C1402, C403, C404, C453, C454 C413, C414, C463, C464 C436, C486 C1405, C411, C412, C461, C462	CEANP2R2M50 CEANP4R7M50 CEAT100M50 CEAT101M10 CEAT101M25		OTHERS		
		C713, C714 C702 C490, C717, C718 C1419 C701	CEAT101M2A CEAT102M25 CEAT1R0M50 CEAT221M10 CEAT470M25		686	13P CABLE HOLDER	51048-1300
		C1413, C1414, C421, C422 C471, C472 C1432, C1433, C1436, C1437 C1440 C1417, C1418, C429, C430	CEAT4R7M2A CEAT4R7M2A CFTYA224J50 CGCYX104M25 CKCYB102K50	F	R.C.SP.CONNECT ASSY		
		C477, C478 C1401, C401, C402, C451, C452 C1412 C1407, C1409 C1439, C703, C706, C707	CKCYB102K50 CKCYB331K50 CKCYB471K2H CKCYB471K50 CKCYF103Z50		691	12P CABLE HOLDER	51048-1200
		C1438 C711, C712	CKPUYB331K50 CQMA103K2E	G	FRONT LARGE ASSY		
△				SEMICONDUCTORS			
					Q626–Q628 Q629–Q631 D626–D631		KRA103M KRC101M 1SS133
				COILS AND FILTERS			
					L627, L628	AF CHOKE COIL	ATH1004
				SWITCHES AND RELAYS			
				△	RY626–RY628		ASR7001
				CAPACITORS			
					C627–C630 C631–C636		CFTYA224J50 CQMA103K2E
RESISTORS				RESISTORS			
△		R1412, R423, R424, R473, R474 (0.22Ω, 5W)	ACN7094	△	R629, R630		RD1/4LMF4R7J
△		R703	RD1/2PM270J	△	R631, R632		RS1LMF4R7J
△		R1409, R1410, R415, R416	RD1/4MUF331J	△	R626–R628		RS1LMF561J
△		R465, R466	RD1/4MUF331J	OTHERS			
△		R419, R420, R469, R470	RD1/4MUF820J		627	8P SPEAKER TERMINAL	AKE7026
△		R1432, R1433	RD1/4PMF4R7J		CN626	13P PLUG	AKM7006
△		R1436, R1437	RS1LMF4R7J	H			
△		R1448	RS1LMF561J	REAR SP ASSY			
		Other Resistors	RD1/4PU□□□□	SEMICONDUCTORS			
OTHERS					Q652 Q651 D653–D656		2SC1740S KRA101M 1SS355
	410	3P CABLE HOLDER	51048-0300	COILS AND FILTERS			
	404, 409	5P CABLE HOLDER	51048-0500		L651	AF CHOKE COIL	ATH1004
	408	12P CABLE HOLDER	51048-1200	SWITCHES AND RELAYS			
	402	13P CABLE HOLDER	51048-1300	△	RY651, RY652		ASR7001
	405, 407	10P CABLE HOLDER	51052-1000	CAPACITORS			
	CN401	21P FFC CONNECTOR	52045-2145		C651, C652 C653 C654–C656		CFTYA224J50 CGCYX103M16 CQMA103K2E
	JA413	1P PIN JACK	AKB7111	RESISTORS			
	H701, H702	FUSE CLIP	AKR1004	△	R652		RD1/4LMF4R7J
△	T701	POWER TRANSFORMER	ATT7037	△	R657		RS1LMF4R7J
	J17	JUMPER WIRE 3P	D20PYY0325E	△	R651		RS2LMF271J
	J14	JUMPER WIRE 5P	D20PYY0520E		Other Resistors		RS1/10S□□□□
	J10	JUMPER WIRE 14P	D20PYY1415E				
	J18	BOARD IN WIRE	DB020ND0				
	CN701	AC CORD SOCKET	RKP1751				
	401, 403, 411, 412	PCB BINDER	VEF1040				
	704	GROUND PLATE	VNF-091				

VSX-808RDS

Mark	No.	Description	Part No.
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OTHERS

JA653	1P PIN JACK	AKB7111
CN652	SPEAKER TERMINAL 6P	AKE7042
CN651	12P PLUG	AKM7007

I HEADPHONE ASSY

CAPACITORS

C1461, C1462	CKCYB392K50
C1464	CKPUYB101K50

RESISTORS

△ R1463, R1464	RS1LMF681J
△ R1461, R1462	RS3LMF331J

OTHERS

JA1461	HEADPHONE JACK	RKB1014
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J TRANS2 ASSY

SEMICONDUCTORS

△ IC351, IC352 (5A)	AEK7019
△ IC353 (2.5A)	ICP-N70
D356	MTZJ20A
D357	MTZJ9.1B
D354, D355	S5688G

CAPACITORS

C350-C354, C360, C361(1μF/100V)	ACH1237
C362	CEANP470M25
C359	CEAT101M10
C358	CEAT101M35
C357	CEAT470M50

RESISTORS

△ R350-R352	RD1/4PMF100J
△ R353	RFA1/4PS4R7J
△ R358	RS1LMF182J
Other Resistors	RD1/4PU□□□□

OTHERS

352, 353	5P CABLE HOLDER	51048-0500
356	4P CABLE HOLDER	51052-0400
351	6P CABLE HOLDER	51052-0600
J9	JUMPER WIRE 5P	D20PYY0545E
CN354, CN355	4P PLUG	KM200TA4
357, 358	PCB BINDER	VEF1040

K TRANS1 ASSY

OTHERS

J51	LEAD WIRE UNIT	DB035NB0
J52	LEAD WIRE UNIT	DB135NB0

L BARRIER ASSY

OTHERS

CN681, CN682	4P SOCKET	KP200TA4L
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Mark	No.	Description	Part No.
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MA FET ASSY

SEMICONDUCTORS

△ Q1452	IRF540A
△ Q1451	IRF9540A

RESISTORS

△ R1451, R1452	RD1/4PMF101J
Other Resistors	RD1/4PM□□□□

OTHERS

1451	10P CABLE HOLDER	51052-1000
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MB MECH SW ASSY

SWITCHES AND RELAYS

S376	ASG7014
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CAPACITORS

C376, C377	CKCYF103Z50
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OTHERS

CN376	3PJUMPER CONNECTOR	52151-0310
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N VIDEO ASSY

SEMICONDUCTORS

IC501	NJM2296D
IC502, IC503	UPC4570C
Q502	2SA1515
Q505	2SA933S
Q501	2SC3377

Q506	KRC103M
D503, D505-D510	1SS133
D501, D502	MTZJ6.2B

CAPACITORS

C540-C543	CCCSL101J50
C505-C507, C536-C539	CCCSL221J50
C501-C504, C511, C512, C535	CEAT470M25
C517, C518, C521, C522	CEAT4R7M50
C545, C546	CEHAT470M25

C509, C510	CGCYX473M25
C508, C513, C514, C523-C526	CKCYF103Z50
C531-C533	CKCYF103Z50

RESISTORS

△ R510, R511	RS1LMF151J
Other Resistors	RD1/4PU□□□□

OTHERS

CN507	17P FFC CONNECTOR	52045-1745
502, 503	2P PIN JACK	AKB7017
JA501	3P PIN JACK	AKB7056
CN504	4P PIN JACK	AKB7087
JA505, JA506	REMOTE CONTROL JACK	RKN1004

Mark	No.	Description	Part No.
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**SVIDEO ASSY****SEMICONDUCTORS**

IC551, IC552	NJM2296D
IC553	TC4051BP
Q554	2SA1515
Q551	2SA933S
Q552	2SC1740S
Q553	2SC3377
D555, D556, D559, D560	1SS133
D557, D558	MTZJ6.2B

CAPACITORS

C570-C575	CCCSL221J50
C578, C579	CEAT470M10
C551, C555, C559, C563	CEAT470M25
C590, C591	CEAT470M25
C593, C594	CEHAT470M25
C552, C556, C560, C564, C567	CGCYX104M16
C580-C582	CGCYX104M16
C553, C557, C561, C565	CGCYX473M16
C576, C577	CGCYX473M16
C584, C585, C587	CKCYF103Z50

C554, C558, C562, C566	CKPUYY103M16
C568, C569	CKPUYY103M16

RESISTORS

△ R583, R584	RS2LMF101J
Other Resistors	RD1/4PU□□□J

OTHERS

CN554	11P FFC CONNECTOR	52044-1145
CN552, CN553	4P MINI DIN SOCKET	AKP7020
CN551	4P MINI DIN SOCKET	AKP7043
CN555	KR CONNECTOR 3P	B3B-PH-K-S
551	PCB BINDER	VEF1040

**FRONT VIDEO ASSY****CAPACITORS**

C601, C602	CCCSL221J50
C604, C608	CEAT470M25
C605-C607	CGCYX104M25
C603	CGCYX473M25
C609, C610	CKCYB471K50
C611, C612	CKCYF103Z50

RESISTORS

All Resistors	RD1/4PU□□□J
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OTHERS

CN601	FRONT PIN JACK	AKX7007
601	PCB BINDER	VEF1040

**DOLBY DIGITAL ASSY****SEMICONDUCTORS**

IC9401	CS4226-KQ
IC9371-IC9373	KM68V1002AJ-15
IC9201	NJM2100M
IC9501	PD5502A
IC9374	PDK038A

Mark	No.	Description	Part No.
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IC9391	PQ20WZ51
IC9151	TC74ACT151F
IC9101	TC74HCU04AF
IC9311	TC74VHCT244AFT
IC9451	TC7SH08FU

IC9361	TC7WU04F
IC9601	TC9164AF
IC9602-IC9604, IC9701-IC9705	UPC4570G2
IC9321	XCD56362PV100
Q9201, Q9202, Q9601-Q9606	2SC3326

Q9203, Q9402, Q9607, Q9609, Q9610	DTA124EK
Q9204, Q9401, Q9608	DTC124EK
D9601, D9602	1SS181

COILS AND FILTERS

L9391, L9501, L9807, L9809	ATL7002
CHIP FERRITE BEAD	
F9326, F9375, F9377, F9379, F9381	DTF1064
CHIP BEAD	
L9101, L9102, L9151, L9311, L9361	QTL1013
L9402, L9403, L9451, L9801-L9805	QTL1013
CHIP SOLID INDUCTOR	

CAPACITORS

C9334, C9365	CCSQCH100D50
C9341, C9349, C9355, C9357, C9358	CCSQCH101J50
C9373, C9377, C9381	CCSQCH101J50
C9300, C9301, C9304-C9307, C9309	CCSQCH221J50
C9314, C9316, C9366, C9368	CCSQCH221J50

C9387-C9390, C9395-C9400, C9422	CCSQCH221J50
C9428, C9429	CCSQCH221J50
C9108, C9154, C9505	CCSQCH271J50
C9127	CCSQCH471J50
C9104	CCSQCH560J50

C9159, C9201, C9202, C9324, C9326	CCSRCH101J50
C9329, C9336, C9338, C9340, C9345	CCSRCH101J50
C9348, C9386	CCSRCH101J50
C9736	CCSRCH102J50
C9363, C9364	CCSRCH150J50

C9420, C9707, C9708, C9721, C9722	CCSRCH151J50
C9735	CCSRCH151J50
C9408, C9409	CCSRCH180J50
C9360, C9405, C9424, C9554	CCSRCH221J50
C9609, C9610, C9621, C9622	CCSRCH221J50

C9362, C9629	CCSRCH271J50
C9411, C9426, C9427, C9452, C9508	CCSRCH471J50
C9601, C9602, C9605, C9606	CCSRCH471J50
C9613, C9614, C9617, C9618, C9625	CCSRCH471J50
C9639	CCSRCH471J50

C9105, C9109, C9151, C9312, C9372	CEJA101M10
C9376, C9380, C9383, C9393, C9402	CEJA101M10
C9501, C9801	CEJA101M10
C9410	CEJA1R0M50
C9803, C9805	CEJA220M25

C9207, C9343	CEJA221M6R3
C9391, C9401, C9415, C9454	CEJA4R7M50
C9205, C9206	CEJANP100M10
C9713, C9714, C9727, C9728	CEWAR220M25
C9739, C9740	CEWAR220M25

Mark	No.	Description	Part No.
	C9203, C9204, C9603, C9604 C9615, C9616, C9627, C9628 C9103 C9101, C9107, C9153, C9313, C9322 C9332, C9333, C9342, C9344		CEWAR4R7M50 CEWAR4R7M50 CKSQYB102K50 CKSQYB103K50 CKSQYB103K50
	C9350, C9351, C9353, C9354, C9367 C9374, C9378, C9382, C9636, C9637 C9158, C9504 C9407 C9330		CKSQYB103K50 CKSQYB103K50 CKSQYB104K16 CKSQYB224K16 CKSQYB474K16
	C9430 C9102, C9115–C9117, C9119, C9421 C9423, C9431, C9607, C9608 C9619, C9620, C9631, C9632 C9709–C9712, C9723–C9726		CKSQYF103Z50 CKSQYF104Z25 CKSQYF104Z25 CKSQYF104Z25 CKSQYF104Z25
	C9737, C9738 C9323, C9325, C9327, C9335, C9337 C9339, C9346, C9347, C9352, C9361 C9385, C9626, C9642 C9705, C9706, C9719, C9720		CKSQYF104Z25 CKSRYB103K50 CKSRYB103K50 CKSRYB103K50 CKSRYB104K16
	C9733, C9734 C9633 C9703, C9704, C9717, C9718, C9731 C9406 C9359		CKSRYB104K16 CKSRYB122K50 CKSRYB222K50 CKSRYB223K50 CKSRYB562K50
	C9701, C9702, C9715, C9716, C9729 C9732 C9123, C9125, C9451 C9208, C9209, C9404, C9807		CKSRYB682K50 CKSRYB682K50 CKSRYF103Z50 CKSRYF104Z16

RESISTORS

R9103, R9109, R9115, R9151, R9157 R9378, R9380, R9382, R9386–R9388 R9690 R9108, R9121–R9123, R9125, R9126 R9165–R9167	RS1/10S0R0J RS1/10S0R0J RS1/10S0R0J RS1/10S101J RS1/10S102J
R9107 R9106, R9348, R9521, R9713, R9714 R9727, R9728, R9741, R9742 R9101 Other Resistors	RS1/10S222J RS1/10S473J RS1/10S473J RS1/10S750J RS1/16S□□□J

OTHERS

CN9551 7P FFC CONNECTOR JA9103–JA9105 OPTICAL RECEIVE MODULE JA9107 OPTICAL SEND MODULE CN9801 15P SOCKET	52044-0745 GP1F32R GP1F32T KP200TA15L
CN9802 7P SOCKET JA9101 1P PIN JACK X9501 CERAMIC RESONATOR (7.7MHz) X9361 CERAMIC RESONATOR (20.000MHz) X9401 CERAMIC RESONATOR (18.432MHz)	KP200TA7L VKB1077 ASS1055 ASS7023 RSS1052

6. ADJUSTMENT

There is no information to be shown in this chapter.

7. GENERAL INFORMATION

7.1 PARTS

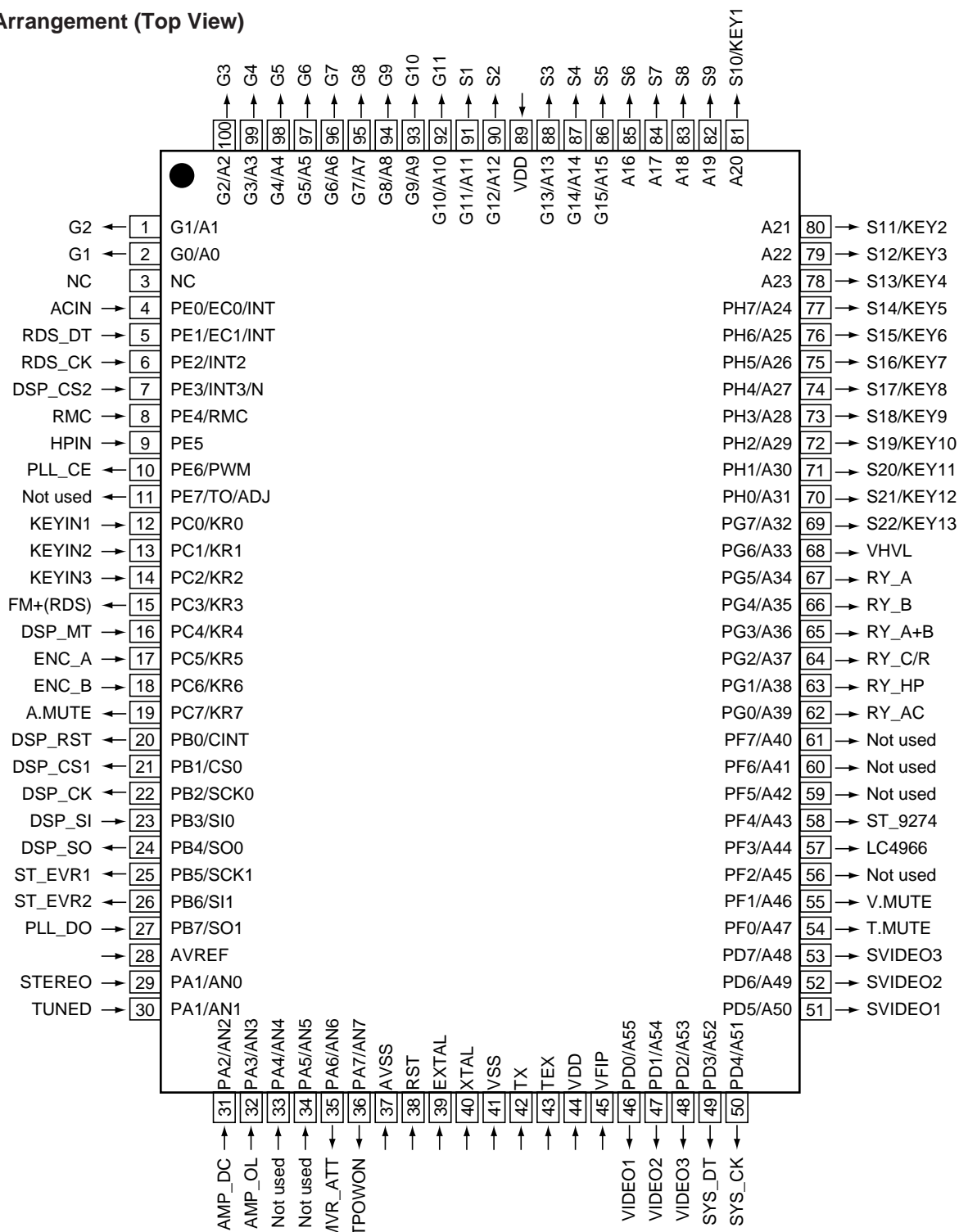
7.1.1 IC

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

■ PDG252A (FRONT ASSY : IC201)

- System Control Microcomputer

● Pin Arrangement (Top View)



●Pin Function

No.	Pin Name	I/O	Pin Function	Active
1	G2	O	Grid output 2	H
2	G1	O	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 (used for external interrupt)	
7	DSP_CS2	I	CS input from DSP microcomputer	
8	RMC	I	Remote control signal input (no-carrier signal)	
9	HPIN	I	Headphone connection detection (H : connect)	
10	PLL_CE	O	Chip select signal for communication with LC72131 (tuner)	H
11	Not used	O	Open	
12	KEYIN1	I	Key scan input 1	
13	KEYIN2	I	Key scan input 2	
14	KEYIN3	I	Key scan input 3	
15	FM+(RDS)	O	Tr switch ON/OFF for power supply of RDS decoder (L : AM power off, H : others)	H
16	DSP_MT	I	Mute requirement from DSP microcomputer (H : Mute requirement)	H
17	ENC_A	I	Rotary encoder signal input A	
18	ENC_B	I	Rotary encoder signal input B	
19	AMUTE	O	Audio mute	L
20	DSP_RST	O	Reset signal of DSP microcomputer	L
21	DSP_CS1	O	CS output to DSP microcomputer	L
22	DSP_CK	O	Clock signal for communication with DSP microcomputer	H
23	DSP_SI	I	Data input signal for communication with DSP microcomputer	
24	DSP_SO	O	Data output signal for communication with DSP microcomputer	H
25	ST_EVR1	O	Strobe 1 for electric volume LC7535M	H
26	ST_EVR2	O	Strobe 2 for electric volume LC7535M	H
27	PLL_DO	I	Data input signal for communication with LC72131 (tuner)	
28	AVref	–	Connect to VDD	
29	STEREO	I	Stereo/Monoral signal judgment signal	
30	TUNED	I	TUNED information	
31	AMP_DC	I	DC abnormality detection of protection circuit (L : Abnormality detection)	
32	AMP_OL	I	Over-load detection of protection circuit (L : Abnormality detection)	
33	Not used	I		
34	Not used	I		
35	MVR_ATT	O	ATT control of master volume (L : Less than -20dB)	L
36	TPOWON	O	Tuner module ON/OFF (North America model only)	H
37	AVSS	–	Connect to VSS	
38	RST	–	Reset	
39	EXTAL	–	Connect to the oscillator (8MHz)	
40	XTAL	–		
41	VSS	–	Connect to VSS	
42	TX	–	Open	
43	TEX	–	Connect to VSS	
44	VDD	–	+5V	
45	VFDP	–	-30V	
46	VIDEO1	O	NJM2296D control	H
47	VIDEO2			
48	VIDEO3			
49	SYS_DT	O	Clock signal for communication with LC7535M and TC9274N-001	H
50	SYS_CK			

No.	Pin Name	I/O	Pin Function	Active
51	SVIDEO1	O	TC4051 control (S terminal control)	H
52	SVIDEO2			
53	SVIDEO3			
54	TMUTE	O	Tuner mute	H
55	VMUTE	O	Video mute	L
56	Not used	O	Open	
57	LC4966	O	Input switch the DVD 6ch	H
58	ST_9174	O	Strobe signal for communication with TC9174	H
59	Not used	O	Open	
60	Not used	O	Open	
61	Not used	O	Open	
62	RY_AC	O	AC relay ON/OFF	H
63	RY_HP	O	Headphone relay ON/OFF	H
64	RY_C/R	O	Rear/Center relay ON/OFF	H
65	RY_A+B	O	Speaker A + B relay ON/OFF	H
66	RY_B	O	Speaker B relay ON/OFF	H
67	RY_A	O	Speaker A relay ON/OFF	H
68	VHVL	O	Power switch for AMP system (H : VH)	H
69	S22/KEY13	O	Segment output 22/key scan output 13	H
70	S21/KEY12		Segment output 21/key scan output 12	
71	S20/KEY11		Segment output 20/key scan output 11	
72	S19/KEY10		Segment output 19/key scan output 10	
73	S18/KEY9		Segment output 18/key scan output 9	
74	S17/KEY8		Segment output 17/key scan output 8	
75	S16/KEY7		Segment output 16/key scan output 7	
76	S15/KEY6		Segment output 15/key scan output 6	
77	S14/KEY5		Segment output 14/key scan output 5	
78	S13/KEY4		Segment output 13/key scan output 4	
79	S12/KEY3		Segment output 12/key scan output 3	
80	S11/KEY2		Segment output 11/key scan output 2	
81	S10/KEY1		Segment output 10/key scan output 1	
82	S9	O	Segment output 9	H
83	S8		Segment output 8	
84	S7		Segment output 7	
85	S6		Segment output 6	
86	S5		Segment output 5	
87	S4		Segment output 4	
88	S3		Segment output 3	
89	VDD	—	5V	
90	S2	O	Segment output 2	H
91	S1		Segment output 1	
92	G11		Grid output 11	
93	G10		Grid output 10	
94	G9		Grid output 9	
95	G8		Grid output 8	
96	G7		Grid output 7	
97	G6		Grid output 6	
98	G5		Grid output 5	
99	G4		Grid output 4	
100	G3		Grid output 3	

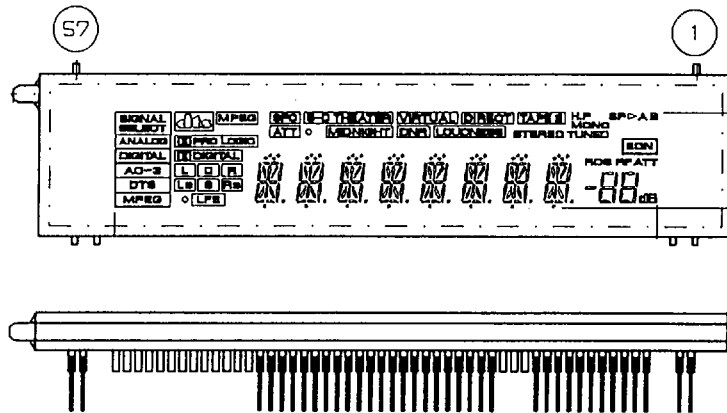
Note : • In the power off condition (with the remote control unit key or the main unit tact key), set to "L" excepting tuner mute (pin 54). However, it nothing is done against to the input port.

- When pin 10 and 11 detect "L" at the reset, be careful because it enter the microcomputer's own test mode.

7.1.2 DISPLAY

■ AAV7062 (FRONT ASSY : V201)

- FL Indicator Tube
- Pin Assignment



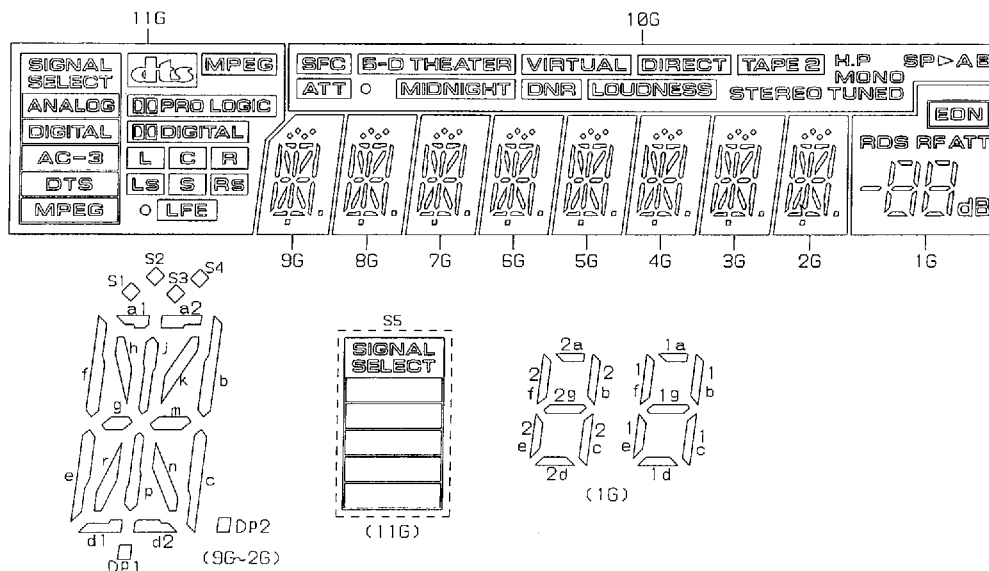
- **Pin Connection**

PIN NO.	509	487	465	443	421	400	398	376	355	343	322	310	299	287	265	243	222	210	198	177	165	143	122	110	98	76	54	32	1	
CONNECTION	NXX	NNX	NNX	NNX	NNX	NNX	PP2	PP9	PP7	PP6	PP5	PP4	PP3	PP1	PP9	PP7	PP6	PP5	PP4	PP3	PNX	NNX	NGG	GG8	GG7	GG6	GG5	GG3	GNP	FF1

PIN NO.	555555
CONNECTION	F2F2NNNN

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

- **Grid Assignment**



• Anode Connection

	11G	10G	9G~2G	1G
P1	LFE	B	a1	dB
P2	○	A	a2	2a
P3	RS	SP▷	h	2b
P4	S	H.P	j	2f
P5	LS	TUNED	k	2g
P6	R	MONO	b	2c
P7	C	STEREO	f	2e
P8	L	TAPE 2	m	2d
P9	DIGITAL	DIRECT	g	1a
P10	PRO LOGIC	LOUDNESS	c	1b
P11	MPEG	ONR	e	1f
P12	dtb	VIRTUAL	r	1g
P13	MPEG	MIDNIGHT	p	1c
P14	DTS	5-D THEATER	n	1e
P15	AC-3	○	d1	1d
P16	DIGITAL	ATT	d2	
P17	ANALOG	SFC	DP2	RDS
P18	SS	-	DP1	RFATT
P19	-	-	S1	EON
P20	-	-	S4	(EON)
P21	-	-	S2	-
P22	-	-	S3	-

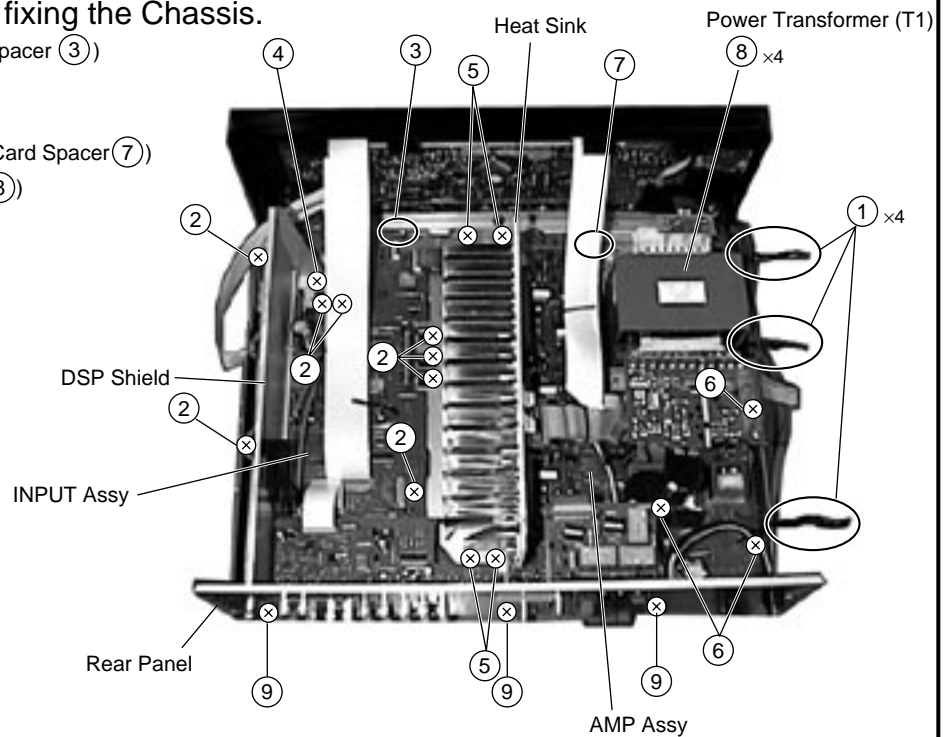
7.2 DISASSEMBLY

1 Remove the Bonnet. (seven screws)

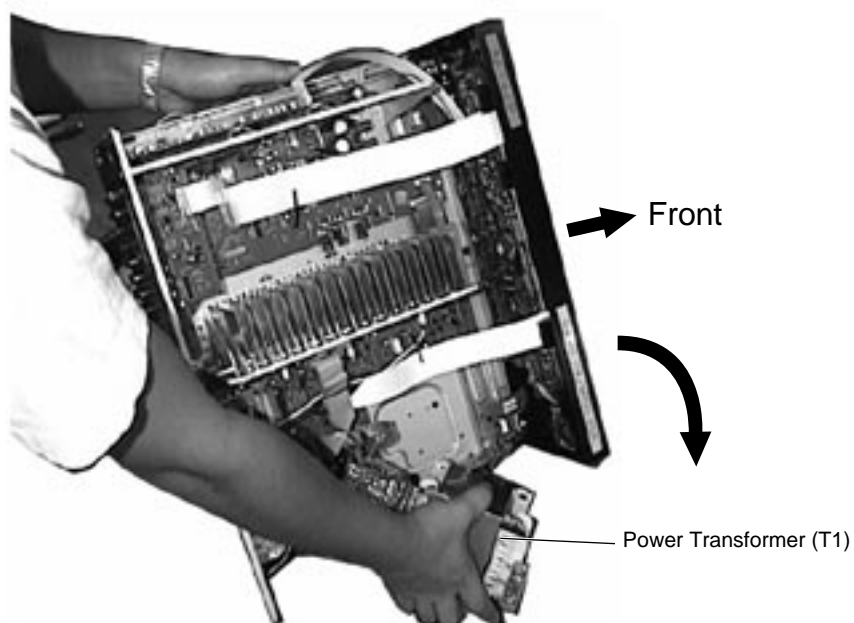
2 Release three binders (①) from the Power Transformer (T1).

3 Remove all screws which fixing the Chassis.

- INPUT Assy (eight screws ②, Card Spacer ③)
- DSP Shield (screw ④)
- Heat Sink (four screws ⑤)
- AMP Assy (three screws ⑥, Locking Card Spacer ⑦)
- Power Transformer (T1) (four screws ⑧)
- Rear Panel (three screws ⑨)

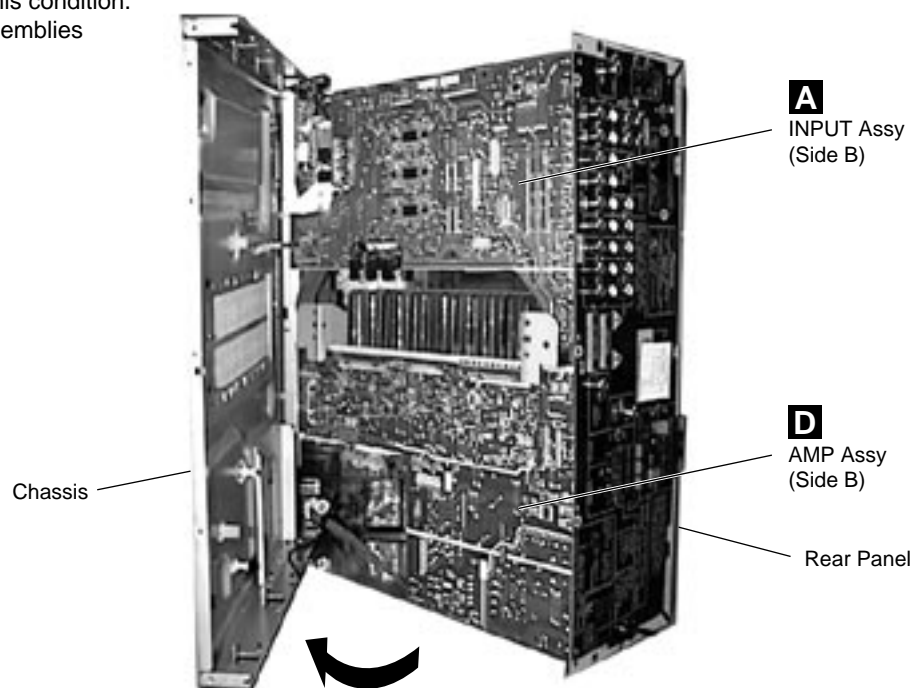


4 Put the Power Transformer on the bottom side, and stand the component sideways.

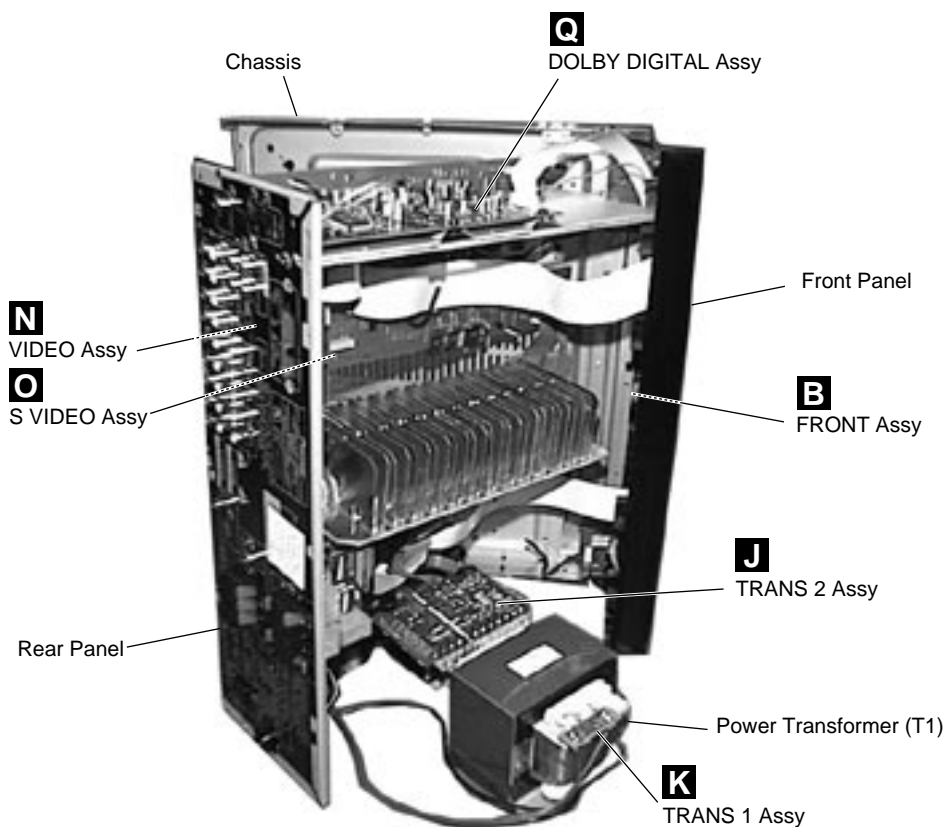


5 Open the Chassis and Rear Panel

It can be diagnosed under this condition.
Show the principal PCB Assemblies
in the illustration.

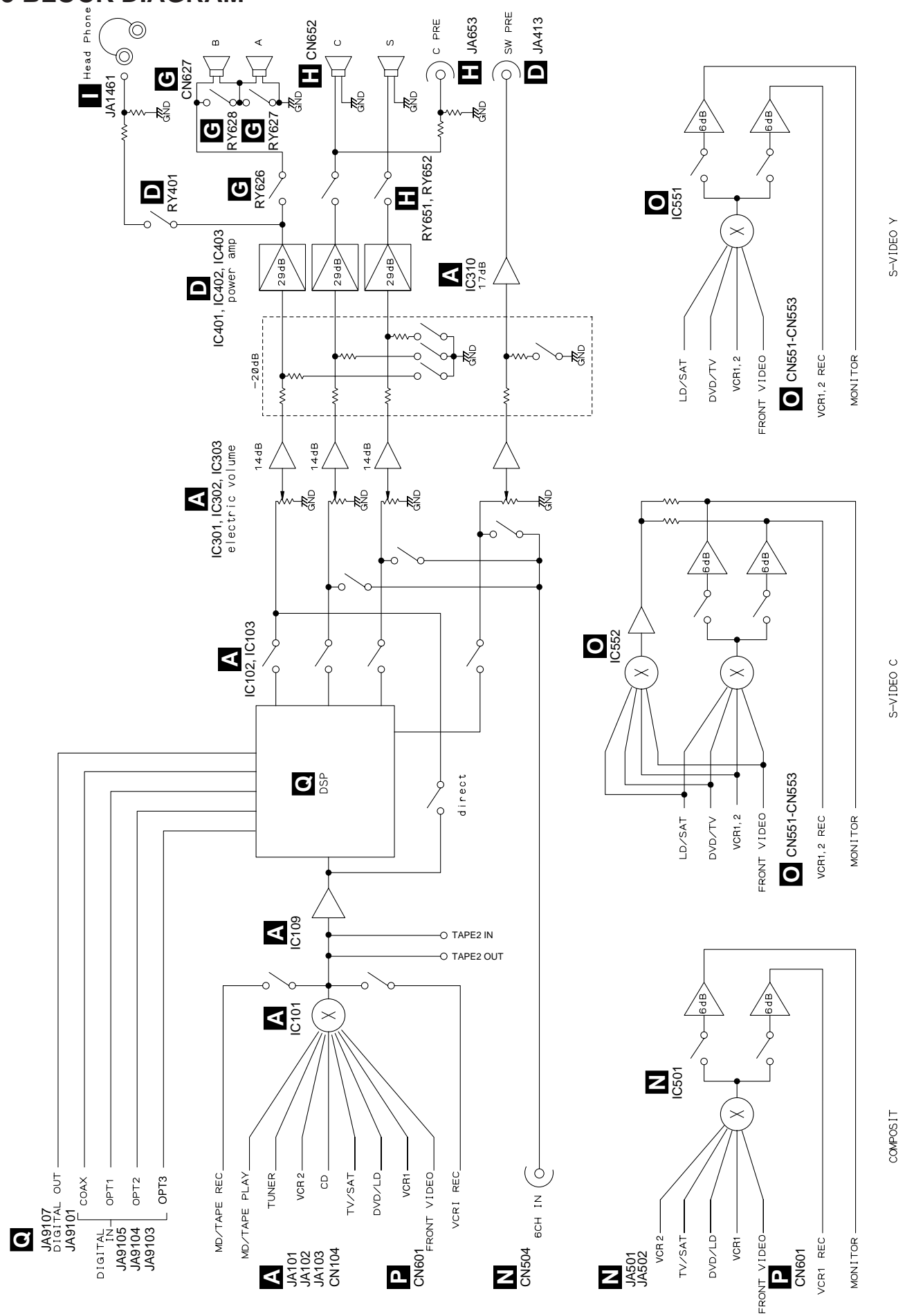


Rear View



Top View

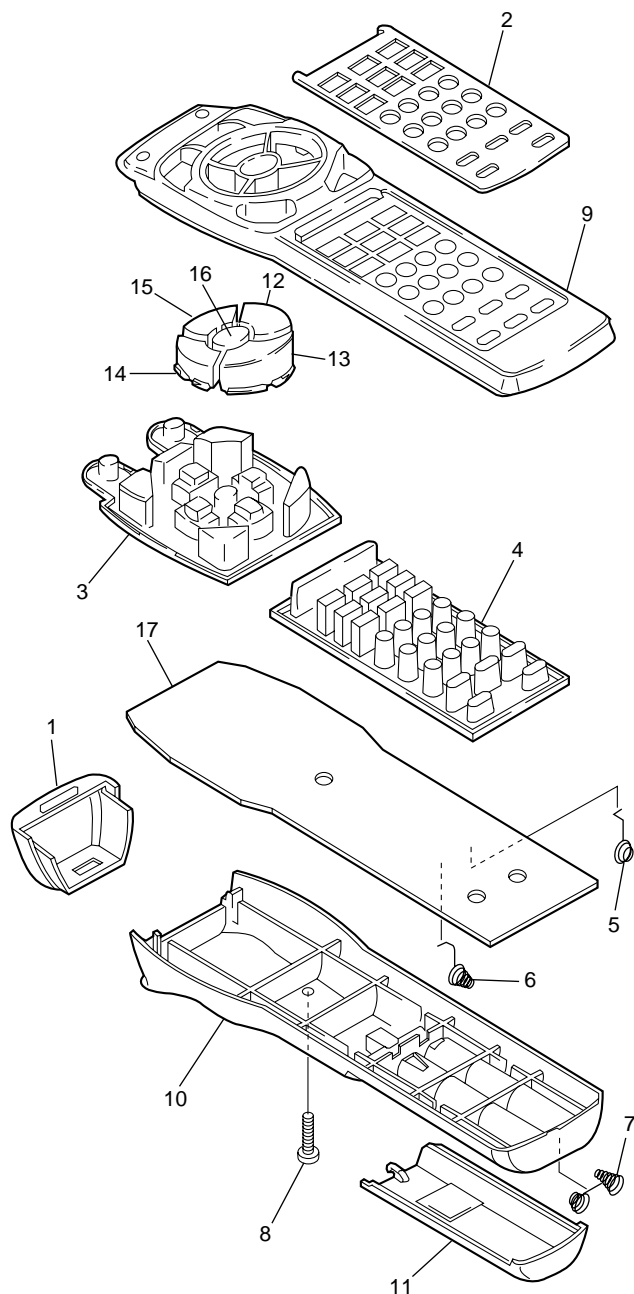
7.3 BLOCK DIAGRAM



7.4 REMOTE CONTROL UNIT [CU-VSX140 (AXD7181)]

7.4.1 Exploded Views and Parts List

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 ● The Δ 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.

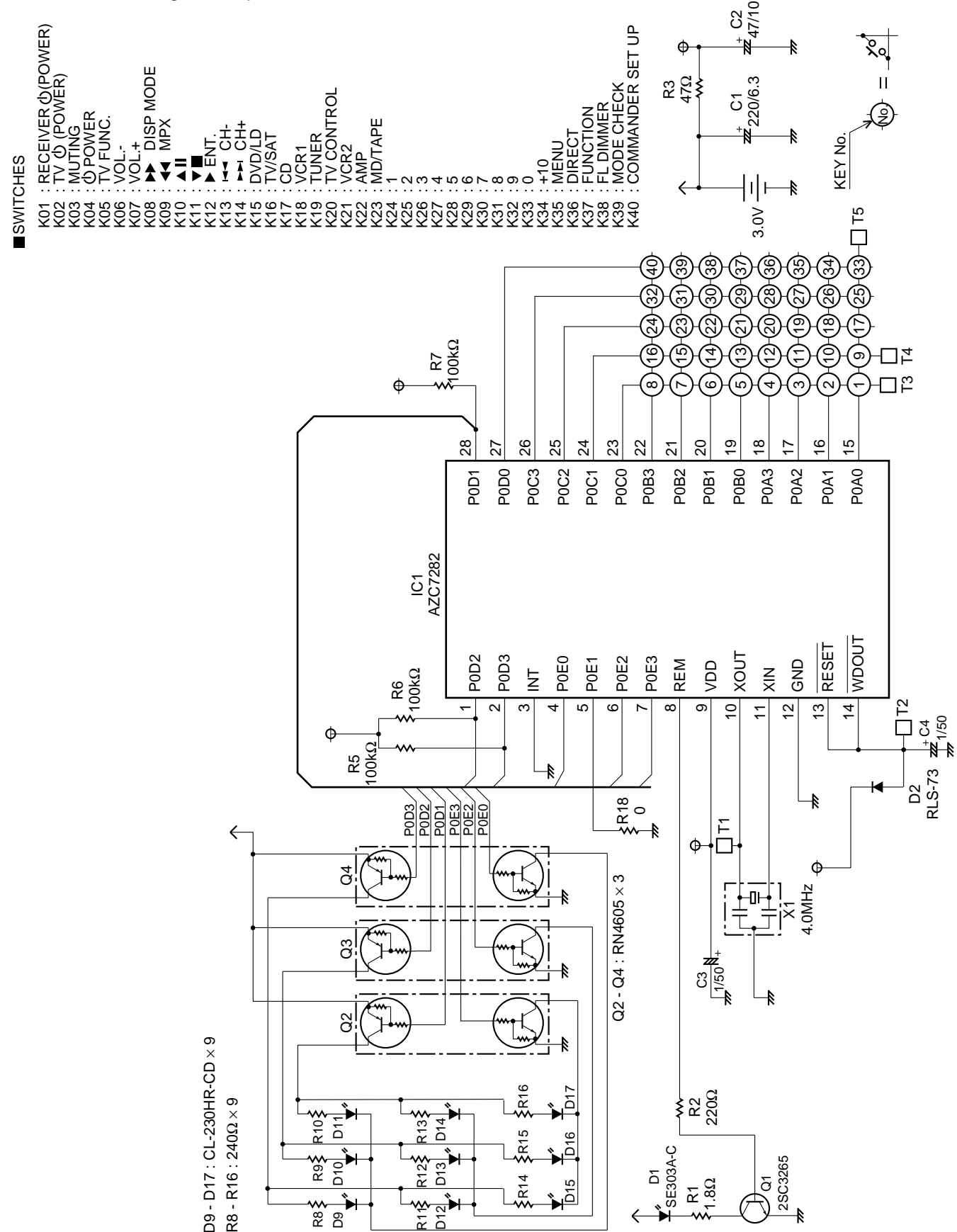


• Parts List

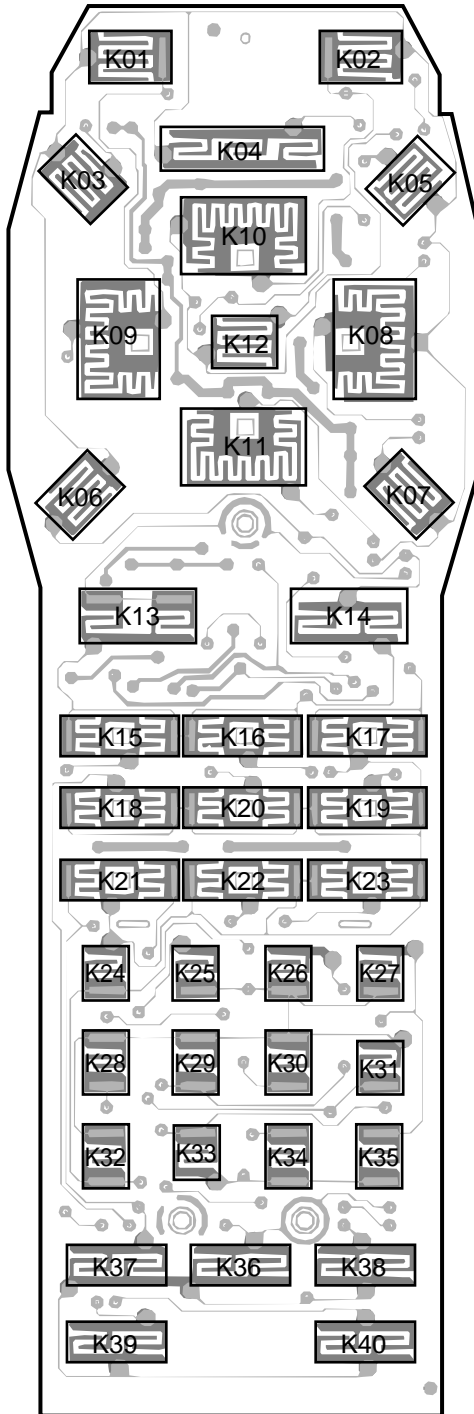
Mark	No.	Description	Part No.
	1	Filter	AZA7152
	2	Name Plate	AZA7317
	3	Rubber Sheet (A)	AZA7308
	4	Rubber Sheet (B)	AZA7307
	5	Spring (+)	AZB7049
	6	Spring (-)	AZB7050
	7	Spring	AZB7051
	8	Screw	AZB7052
	9	Remo-con Case (A)	AZN7738
	10	Remo-con Case (B)	AZN7326
	11	Battery Cover	AZN7327
	12	Main Key (FF)	AZN7751
	13	Main Key (STOP)	AZN7741
	14	Main Key (REV)	AZN7752
	15	Main Key (PAUSE)	AZN7742
	16	Main Key (PLAY)	AZN7664
NSP	17	PCB	AZW7248

7.4.2 Schematic Diagram

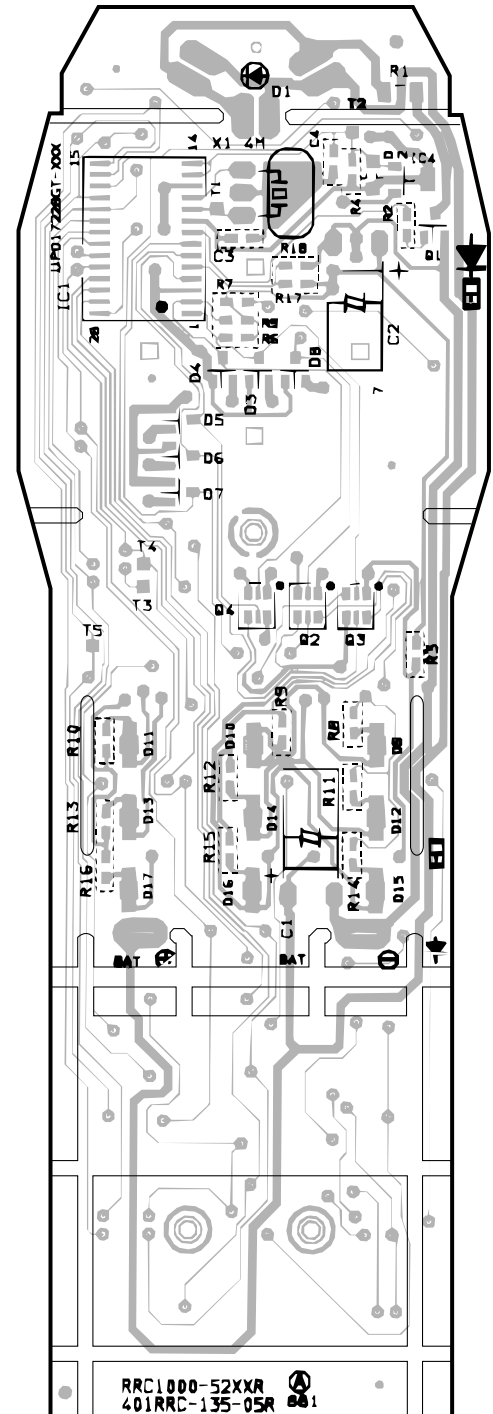
Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



7.4.3 PCB Diagram



SIDE A



SIDE B

7.4.4 PCB Parts List

NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
●The \triangle 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 \rightarrow 56×10^1 \rightarrow 561 RD1/4PU

5	6	1
---	---	---

 J
47k Ω \rightarrow 47×10^3 \rightarrow 473 RD1/4PU

4	7	3
---	---	---

 J
0.5 Ω \rightarrow R50 RN2H

R	5	0
---	---	---

 K
1 Ω \rightarrow 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 \rightarrow 562×10^1 \rightarrow 5621 RN1/4PC

5	6	2	1
---	---	---	---

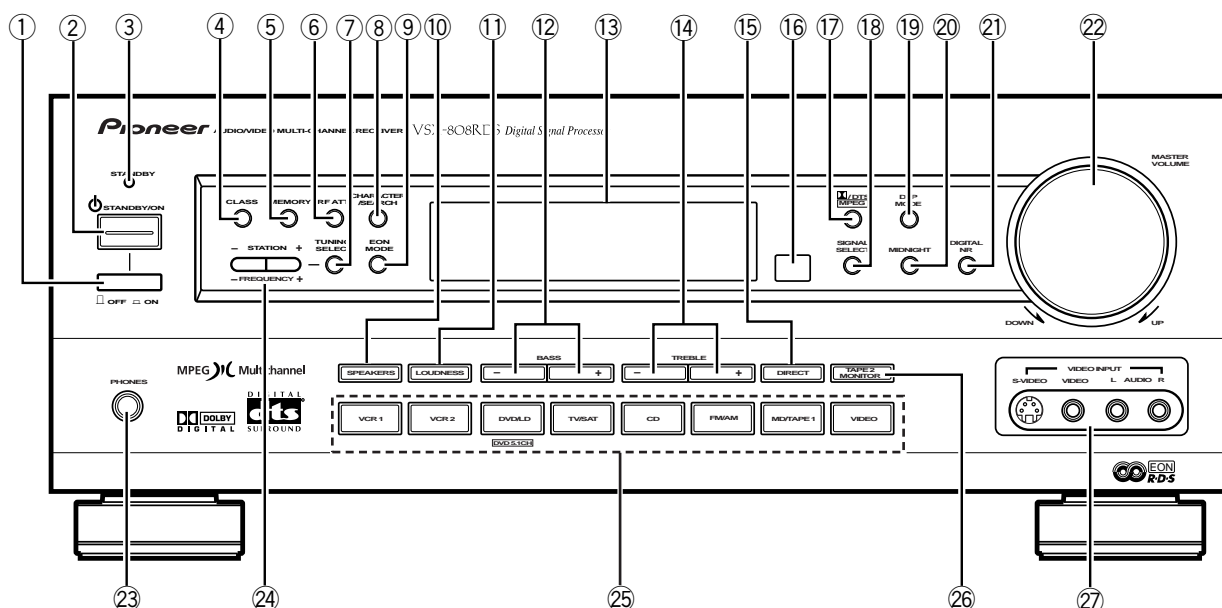
 F

Mark	No.	Description	Part No.				
SEMICONDUCTORS							
	IC1		AZC7282				
	Q1		2SC3265				
	Q2-Q4		RN4605				
	D1		SE303A-C				
	D2		RLS-73				
	D9-D17		CL-230HR-CD				
CAPACITORS							
	C2		CEAT470M10				
	C1		CEAT221M6R3				
	C3,C4		CEATR10M50				
RESISTORS							
	R1		RS1/8S1R8J				
	Other Resistors		RS1/10S <table border="1"><tr><td></td><td></td><td></td><td></td></tr></table> J				
OTHERS							
	X1	CERAMIC RESONATOR (4MHz)	KBR-4.0M				

8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

■ Front Section



① **Main power switch (■ OFF, ▬ ON)**

② **STANDBY/ON button**

Press to switch the receiver on or put in standby.

③ **STANDBY indicator**

Lights when the receiver is in standby mode. (Please note that this receiver consumes a small amount of power (2 W) during the standby mode.)

④ **CLASS button**

Press repeatedly to switch the preset station classes.

⑤ **MEMORY button**

Press to memorize a preset station.

⑥ **RF ATT button**

Set this button to on when receiving strong FM signals (nearby stations) to reduce sound distortion. Normally, this button should be set off. This button does not affect AM reception.

⑦ **TUNING SELECT button**

Press to switch between STATION and FREQUENCY.

⑧ **CHARACTER/SEARCH button**

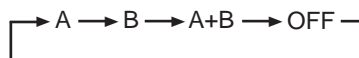
Press to select the character input mode, or initiate an RDS PTY search.

⑨ **EON MODE button**

Press to select the EON mode.

⑩ **SPEAKERS button**

Press repeatedly to switch between A and B speaker systems as follows.



⑪ **LOUDNESS button**

Switches the loudness on or off. Use to raise the level of the bass and treble so they can be more easily heard when listening at low volumes.

⑫ **BASS (+/-) button**

Press to adjust low frequencies in the range of ± 6 .

⑬ **Display**

⑭ **TREBLE (+/-) button**

Used to adjust high frequencies in the range of ± 6 .

⑮ **DIRECT button**

Switches direct playback on or off. Use to bypass the receiver's tone control circuitry or level control for higher fidelity to the program source. When DIRECT is ON, Dolby, DSP, LOUDNESS, DIGITAL NR and MIDNIGHT mode are automatically turned OFF.

⑯ **Remote sensor**

Point the remote control toward the remote sensor to operate the receiver.

⑰ **DOLBY/DTS MPEG button**

Press repeatedly to select the standard Dolby/DTS, MPEG mode and the ADVANCED THEATER modes.

⑱ SIGNAL SELECT button

Use to select input signals for the digital components.
First press DVD/LD, TV/SAT, MD/TAPE 1, CD or VCR 1 (⑳, Function buttons) to select the component, then press SIGNAL SELECT repeatedly to select one of the following:

ANALOG : Selects the analog (R and L) audio signals.

DIGITAL : Selects the digital audio signals. This receiver automatically detects and displays the format of the signal being input. AC-3 lights when Dolby Digital signals are input, DTS lights when DTS signals are input, and MPEG lights when MPEG signals are input. (AC-3 and DTS decoding is switched automatically.)

- SIGNAL SELECT is fixed in the "ANALOG" position for components not assigned to one of the four digital input jacks.
- Because the audio from a karaoke microphone and LD recorded with analog audio only is not output from the digital output, set SIGNAL SELECT to "ANALOG".
- This receiver can only play back Dolby Digital, PCM (32kHz, 44kHz, and 48kHz), DTS, and MPEG digital signal formats. With digital signal formats other than these, set SIGNAL SELECT to "ANALOG".

⑲ DSP MODE button

Press repeatedly to select a DSP sound mode (HALL 1, HALL 2, JAZZ, DANCE, THEATER 1, or THEATER 2). Use these modes to produce surround sound from standard (two channel) stereo sources.

⑳ MIDNIGHT button

Press to hear effective surround sound at low volume levels. The effect is automatically adjusted according to the volume level.

㉑ DIGITAL NR button

Switches DIGITAL NR on or off. Use to reduce noise in digital audio sources.

㉒ MASTER VOLUME

After turning on the desired component, rotate to adjust the volume.

㉓ PHONES jack

Connect headphones for private listening (the speakers turn off automatically).

㉔ STATION/FREQUENCY (+/-) button

STATION: Press to select the preset channel.

FREQUENCY: Press to select the frequency.

㉕ Function buttons

Selects the function. Each press switches the DVD/LD input between DVD/LD and DVD 5.1 channel.

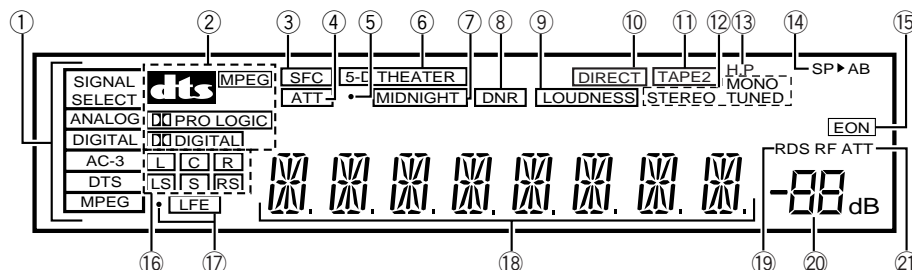
㉖ TAPE 2 MONITOR button

Switches the TAPE 2 monitor on or off.

㉗ VIDEO INPUT jacks

Connect a video camera, video game system, etc. to the VIDEO INPUT jacks.

■ Display



① SIGNAL SELECT indicators

Light to indicate the type of input signal selected for the current component (refer to "Front Panel", ①, SIGNAL SELECT).

ANALOG : Lights when the analog audio signals are selected.

DIGITAL : Lights when the digital audio signals are selected.

AC-3 : Lights when a source with Dolby Digital signals is played.

DTS : Lights when a source with DTS audio signals is played.

MPEG : Blinks when the MPEG mode is selected, and lights when a source with MPEG audio signals is played.

② Digital indicators

dts : Lights when DTS signals are input. (Dolby/DTS/MPEG mode is ON)

MPEG : Lights when MPEG signals are input. (Dolby/DTS/MPEG mode is ON)

PRO LOGIC : When the Dolby mode on the receiver is on, this indicator lights during 2 channel playback of Dolby Digital sources.

DIGITAL : When the Dolby mode on the receiver is on, this indicator lights to indicate playback of a Dolby Digital signal. However, **PRO LOGIC** lights during 2 channel playback of Dolby Digital.

③ SFC (DSP) mode indicator

Lights when the DSP mode or ADVANCED THEATER mode (except for 5-D THEATER) is selected.

④ ATT indicator

Lights when ATT (refer to "Remote Control", ⑦, Number buttons) is used to reduce the level of the input signal (available in ANALOG mode only).

⑤ Overload indicator

When "ANALOG" is selected in SIGNAL SELECT, this indicator lights to show that an excessively strong signal is being processed. When this occurs, press ATT on the remote control to attenuate the signal. Also, when "DIGITAL" is selected in SIGNAL SELECT, this indicator lights to show that a source containing an excessive amount of information is being processed. When this occurs.

⑥ 5-D THEATER indicator

Lights when 5-D THEATER is selected.

⑦ MIDNIGHT indicator

Lights when the MIDNIGHT mode is on.

⑧ DNR indicator

Lights when the DIGITAL NR is on.

⑨ LOUDNESS indicator

Lights when loudness is on (refer to "Front Panel", ⑪, LOUDNESS).

⑩ DIRECT indicator

Lights when direct playback is on (refer to "Front Panel", ⑮, DIRECT).

⑪ TAPE 2 indicator

Lights when TAPE 2 MONITOR is on.

⑫ Tuner indicators

STEREO : Lights when an FM stereo broadcast is received in the auto stereo mode.

TUNED : Lights when a broadcast is received.

MONO : Lights when the tuner is set to receive FM broadcasts in monaural.

⑬ H.P indicator

Lights when headphones are plugged in.

⑭ Speaker indicators

Light to indicate the current speaker system (refer to "Front Panel", ⑩, SPEAKERS (A/B)).

SP > A : Lights when speaker system A is selected.

SP > B : Lights when speaker system B is selected.

⑮ EON and EON reception indicators

EON indicator lights when the EON mode is on. EON reception indicator ☐ lights when an RDS station transmitting the EON data service is being received.

⑯ Program format indicators

The following indicators light to show the channels being played back.

L : Left front^{*1*2}, **C** : Center^{*1}, **R** : Right front^{*1*2},

LS : Left surround^{*1}, **S** : Surround (mono)^{*2},

RS : Right surround^{*1}

^{*1}: Indicates 5.1ch Dolby Digital playback.

^{*2}: Indicates Dolby surround playback.

⑰ LFE indicator

LFE (Low Frequency Effects) indicator lights to indicate that the program source contains an LFE channel. The indicator to the left of LFE lights during actual playback of the LFE signals (LFE signals are not present in all parts of the sound track).

⑱ Character display

⑲ RDS indicator

Lights when RDS broadcast is received.

⑳ Volume level display

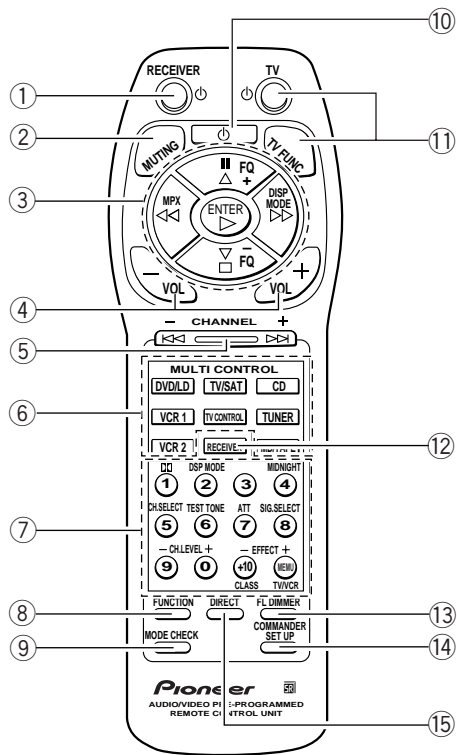
Displays the volume level. Volume level is maintained even when the power is off. ---dB indicates the minimum level, and 0dB indicates the maximum level.

- Depending on the level settings for individual channels, the MAX level can range between -10dB and 0dB.

㉑ RF ATT indicator

Remote Control Unit

These pages describe the buttons on the remote control used to operate the receiver.



① RECEIVER button

Press to switch the receiver on or to put in standby.

② MUTING button

Press to mute the volume. "MUTING" appears in the display. Press again to cancel.

③ [When set to SURROUND]

△, ▽, ◀, ▶, (Select/Adjust) buttons

[When set to other than OPERATIONS]

⏏(Pause), ⏏(Stop), ⏮(Rewind), ⏭(Fast Forward), ENTER/▶(Play) buttons

[Tuner Operations]

FQ + (to higher frequencies), FQ - (to lower frequencies), MPX, DISP MODE, ▶ (FM/AM) buttons

MPX: 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.

DISP MODE: Use to switch the RDS data while listening to an FM station. Each press changes the display in the order of RT, PS, PTY, and frequency.

④ VOL (+/-) buttons

Press to adjust the volume. When VOL (+/-) buttons are pressed while muting, muting is canceled.

⑤ CHANNEL (+/-) button

Use to select preset stations when operating the tuner. When the remote is used to control other components, this button may be used to change channels, tracks, or chapters.

⑥ MULTI CONTROL buttons

Use these buttons to select the remote operation mode. For example, pressing TUNER sets the remote to operate the tuner functions.

⑦ Number buttons

These buttons can perform a variety of different functions depending on the remote operation mode.

• [RECEIVER operations (press RECEIVER first)]

⏏ : Press repeatedly to select the standard mode, the ADVANCED THEATER modes and MPEG mode.

DSP MODE : Press repeatedly to select a DSP sound mode.

MIDNIGHT : Press to hear surround sound effectively at low volumes.

CH.SELECT : Use to select a speaker when adjusting speaker levels.

TEST TONE : Press to switch the test tone on or off when listening to a surround mode.

ATT : Press to attenuate (lower) the level of the input signals and prevent distortion (refer to "Display", ⑤, Overload indicator).

SIG.SELECT : When the same component uses both analog and digital connections, use to select input signals as digital or analog.

CH.LEVEL (-/+) : Use to adjust individual speaker levels.

EFFECT (+/-) : Use to adjust the DSP mode effect level.

• [TUNER operations (press TUNER first)]

Number buttons (0~9) : During preset tuning, use to input the number of the preset station. Use to input the station frequency during direct tuning.

CLASS (+10) : Press repeatedly to switch the preset station classes during preset tuning.

MENU : Press to activate direct tuning.

⑧ FUNCTION button

Press repeatedly to select a source.

⑨ MODE CHECK button

Press to confirm the current remote operation mode and to switch operation modes without changing the source .

⑩ Power button

Press to turn on or put in standby all connected components other than this unit.

⑪ TV/TV FUNC button

Press TV to turn the TV's power on or put in standby. Press TV FUNC to select the TV for remote control operation.

⑫ RECEIVER button

Press to select the receiver for remote control operation.

⑬ FL DIMMER button

Press to adjust the brightness of the fluorescent display. Four levels of brightness ranging from very dim to very bright can be selected.

⑭ COMMANDER SET UP button

Use to customize the remote control functions.

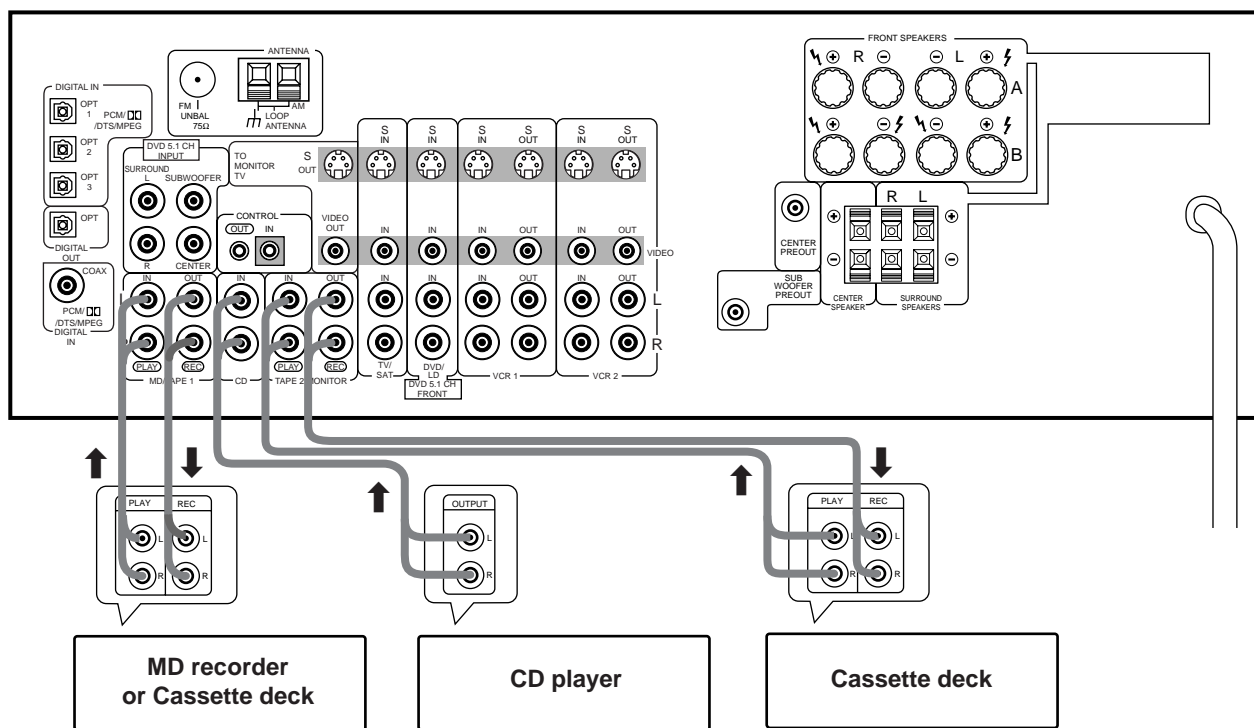
⑮ DIRECT button

Use to playback original source audio. When DIRECT is ON, Dolby, DSP, LOUDNESS, DIGITAL NR and MIDNIGHT mode are automatically turned OFF.

■ Audio Components Connections

Be sure to switch power to standby and remove the power cord from the wall outlet when you make or change connections.

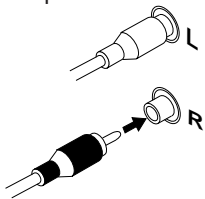
Connect your audio components as shown below.



*The arrows indicate the direction of the audio signal.

■ Audio cords

Use audio cords (not supplied) to connect the audio components.



Connect red plugs to R (right) and white plugs to L (left).
Be sure to insert completely.

Cassette deck placement

Depending on where the cassette deck is placed, noise may occur during playback of your cassette deck which is caused by leakage flux from the transformer in the receiver. If you experience noise, move the cassette deck farther away from the receiver.

8.2 SPECIFICATIONS

Amplifier Section

Continuous average power output of 80 watts* per channel, min., at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.09 % total harmonic distortion (front; stereo mode).**

Continuous Power Output

(DIN, 1 kHz, T.H.D. 1%, 8 Ω)

STEREO	Front	100 W + 100 W
SURROUND	Front	60 W + 60 W
	Center	60 W
	Rear	60 W

Input (Sensitivity/Impedance)

VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO, CD,
MD/TAPE 1, TAPE 2 200 mV/47 kΩ

Frequency Response

VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO, CD,
MD/TAPE 1, TAPE 2 5 Hz to 100,000 Hz ± 0 dB

Output (Level/Impedance)

VCR 1 REC, VCR 2 REC, MD/TAPE 1 REC,
TAPE 2 REC 200 mV/2.2 kΩ

Tone Control

BASS ± 6 dB (100 Hz)
TREBLE ± 6 dB (10 kHz)
LOUDNESS +9 dB/+7 dB (100 Hz/10 kHz)

Signal-to-Noise Ratio [DIN (Rated power output/50 mW)]*

VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO, CD,
MD/TAPE 1, TAPE 2 82 dB/62 dB

VIDEO Section

Input (Sensitivity/Impedance)

VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO 1 Vp-p/75 Ω

Output (Level/Impedance)

VCR 1, VCR 2, MONITOR 1 Vp-p/75 Ω

Frequency Response

VCR 1, VCR 2, MONITOR 5 Hz to 7 MHz ± 0 dB

Signal-to-Noise Ratio

Cross Talk 55 dB

* Direct: ON

** Measured by Audio Spectrum Analyzer.

FM Tuner Section

Frequency Range 87.5 MHz to 108 MHz

Usable Sensitivity Mono: 15.2 dBf, IHF (1.5 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 70 dB (400 kHz)

Stereo Separation 40 dB (1 kHz)

Frequency Response 30 Hz to 15 kHz (± 1) dB

Antenna Input 75 Ω unbalanced

Sensitivity (DIN) Mono: 1.1 μV (S/N 26 dB)

Stereo: 50 μV (S/N 46 dB)

Signal-to-Noise Ratio (DIN) Mono: 62 dB

Stereo: 58 dB

AM Tuner Section

Frequency Range 531 kHz to 1,620 kHz

Sensitivity (IHF, Loop antenna) 350 μV/m

Selectivity 30 dB

Signal-to-Noise Ratio 50 dB

Antenna Loop antenna

Miscellaneous

Power Requirement AC 220-230 V, 50/60 Hz

Power Consumption 220 W

Power Consumption in Standby mode 2 W

Dimensions 420 (W) × 158 (H) × 401 (D) mm

Weight (without package) 9.8 kg

Furnished Parts

FM Antenna 1

AM Loop Antenna 1

Dry Cell Batteries (SIZE "AA" (IEC LR6)) 2

Remote Control Unit 1

Operating Instructions 1

NOTE:

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

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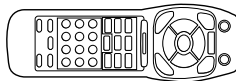
Accessories



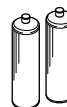
FM wire antenna
(ADH7005)



AM loop antenna
(ATB7009)



Remote control unit
(CU-VSX140 : AXD7181)



"AA" IEC LR6 batteries × 2