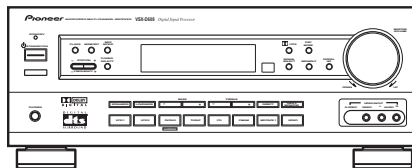


Service Manual

Pioneer



ORDER NO.
RRV2104

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-D608

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

Type	Model	Power Requirement	Remarks
	VSX-D608		
KUXJI	○	AC120V	
KCXJI	○	AC120V	

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		7.4 REMOTE CONTROL UNIT	53
		[CU-VSX138 (AXD7178)]	
		8. PANEL FACILITIES AND SPECIFICATIONS	57

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. 253 Alexandra Road, #04-01, Singapore 159936
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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.

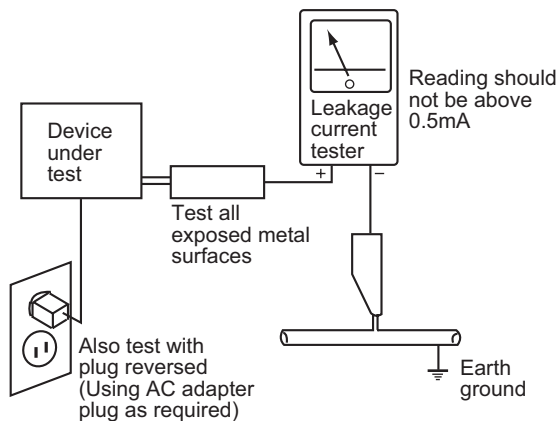
(FOR USA MODEL ONLY)

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.

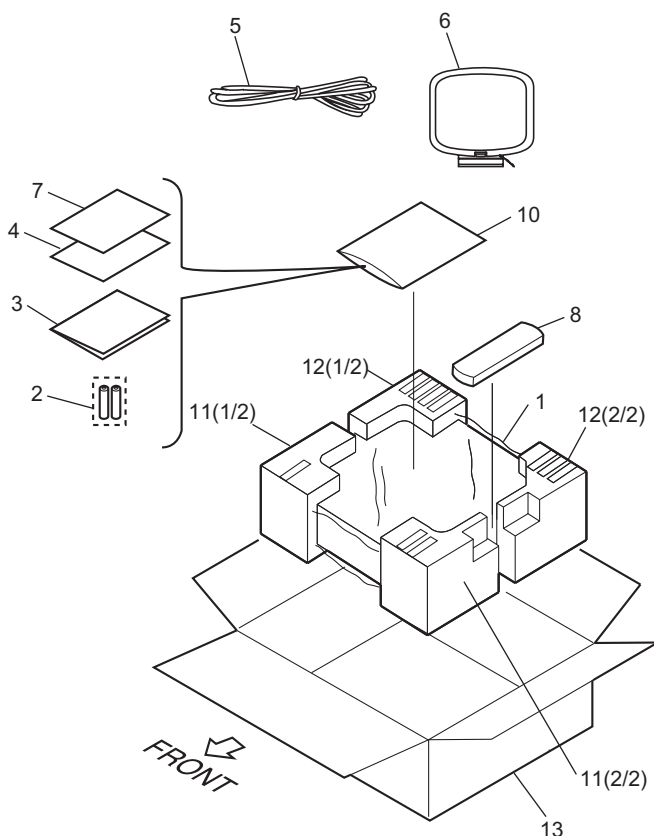
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

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 \blacktriangledown mark on the product are used for disassembly.

2.1 PACKING



(1) PACKING PARTS LIST

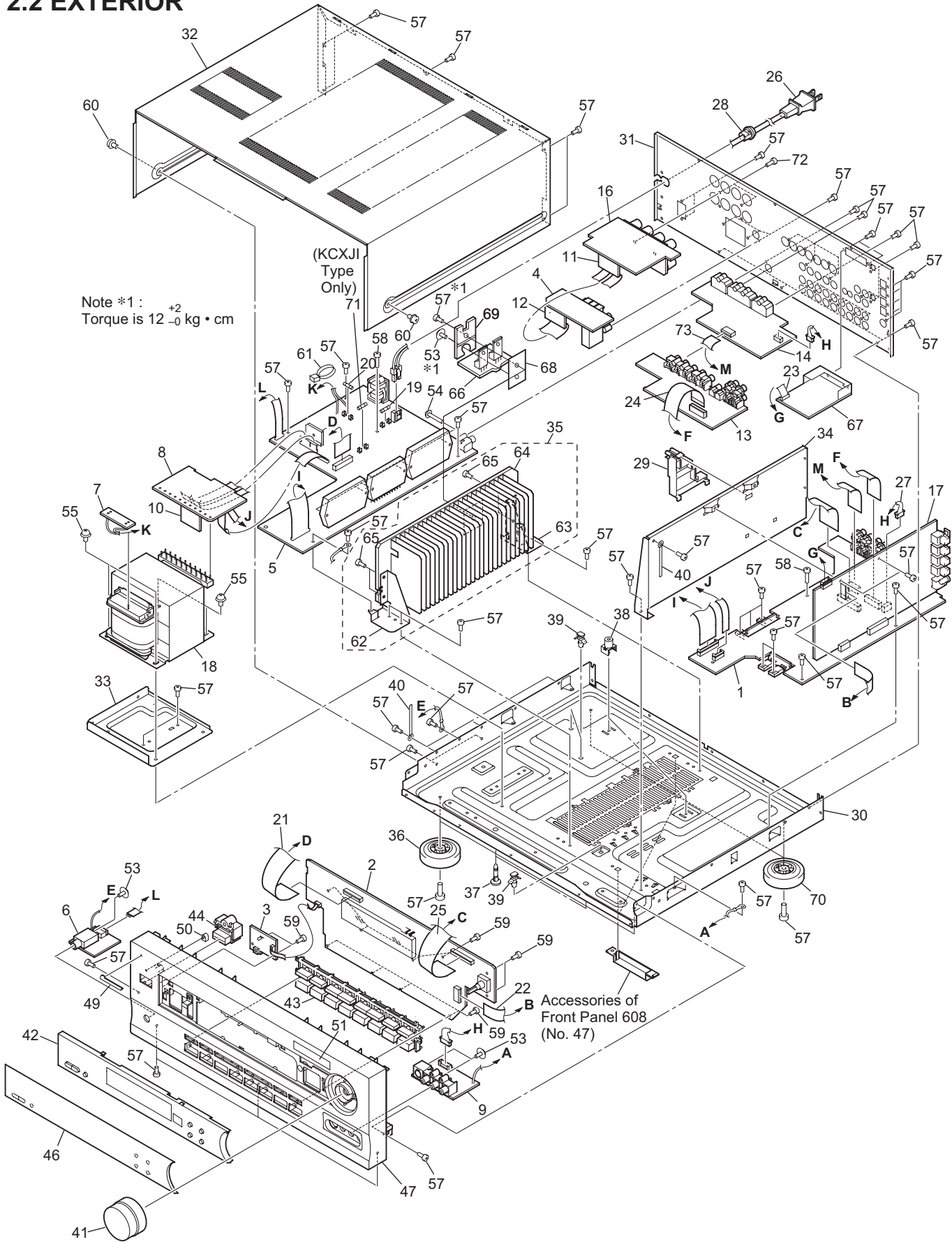
Mark	No.	Description	Part No.
NSP	1	Packing Sheet	AHG7010
	2	Alkaline Dry Cell Battery (LR6, AA)	VEM1012
	3	Operating Instructions	See Contrast table (2)
	4	Sub Instruction Manual (System Set Up)	ARH7048
NSP	5	FM Antenna	ADH7004
	6	AM Loop Antenna	ATB7009
	7	Warranty Card	See Contrast table (2)
	8	Remote Control Unit (CU-VSX138)	AXD7178
	9	.....
	10	Polyethylene Bag (0.03×230×340)	Z21-038
	11	Front Pad 508	AHA7236
	12	Rear Pad 508	AHA7237
	13	Packing Case 608UC	AHD7692

(2) CONTRAST TABLE

VSX-D608/KUXJI and KCXJI are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			KUXJI Type	KCXJI Type	
NSP	3	Operating Instructions (English)	ARB7157	Not used	
	3	Operating Instructions (English/French)	Not used	ARE7179	
	7	WarrantyCard	ARY7023	ARY7024	

2.2 EXTERIOR



(1) EXTERIOR PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	INPUT Assy	AWX7209		36	Insulator	PNW2766
	2	FRONT Assy	AWX7215		37	Locking Card Spacer	AEC7160
NSP	3	POWER SW Assy	AWX7222		38	PCB Mold	AMR2533
NSP	4	REAR SP Assy	AWX7250	NSP	39	Card Spacer	DEC1770
	5	AMP Assy	See Contrast table (2)	NSP	40	Binder	RNE1277
NSP	6	HEADPHONE Assy	AWX7229		41	Volume Knob 508	AAB7179
	7	TRANS 1 Assy	AWX7231		42	Sub Panel 508	AAD7482
	8	TRANS 2 Assy	AWX7232		43	Function Button 608	AAD7500
NSP	9	FRONT VIDEO Assy	AWX7371		44	Power Button	AAD7440
	10	BARRIER Assy	AWX7284		45	.....
NSP	11	F.SP.CONNECT Assy	AWX7285		46	Display Window R608	AAK7606
NSP	12	R.C.SP.CONNECT Assy	AWX7286		47	Front Panel 608	AMB7552
	13	VIDEO Assy	AWX7235		48	.....
	14	SVIDEO Assy	AWX7237		49	Name Plate	PAM1776
	15	.....			50	LED Lens	PNW2019
	16	FRONT LARGE Assy	AWX7288		51	.....
	17	DOLBY DIGITAL Assy	AWX7373		52	.....
△	18	Power Transformer (T1)	See Contrast table (2)		53	Screw	ABA7009
△	19	Fuse (FU1 : 10A)	REK1087		54	Screw	ABA7043
△	20	Fuse (FU2 : 7A)	VEK1027		55	Screw	ABA7044
	21	FFC 21P (J2)	ADD7100		56	.....
	22	FFC 07P (J4)	ADD7101		57	Screw	BBZ30P080FZK
	23	FFC 13P (J5)	ADD7103		58	Screw	BBZ30P200FMC
	24	FFC 17P (J8)	ADD7107		59	Screw	BPZ30P080FMC
	25	FFC 26P (J3)	ADD7118		60	Screw	FBT40P080FZK
△	26	AC Power Cord	ADG7024		61	Binder (BK-1)	ZCA-BK1
NSP	27	8P Shield Cable (J6)	ADX7243	NSP	62	Heat Sink Angle F	ANG7194
	28	Cord Stopper	CM-22C		63	Heat Sink Angle R	ANG7195
	29	Tuner Holder B	AAD7490	NSP	64	Heat Sink D5	ANH7090
NSP	30	Under Base D5	ANA7079		65	Screw	BBZ30P080FMC
	31	Rear Panel	See Contrast table (2)	NSP	66	FET Assy	AWX7228
	32	Bonnet Case	AZN7762		67	FM/AM TUNER Unit	AXX7046
	33	Trans Frame	ANG7193		68	Sheet	AEE7026
	34	DSP Shield	ANG7196		69	FET Angle	ANG7186
NSP	35	Heat Sink Assy D5	ANH7095		70	Insulator	AMR7198
				△	71	Fuse (FU701 : 10A)	See Contrast table (2)
					72	Screw	ABA1007
					73	FFC 11P (J7)	ADD7142

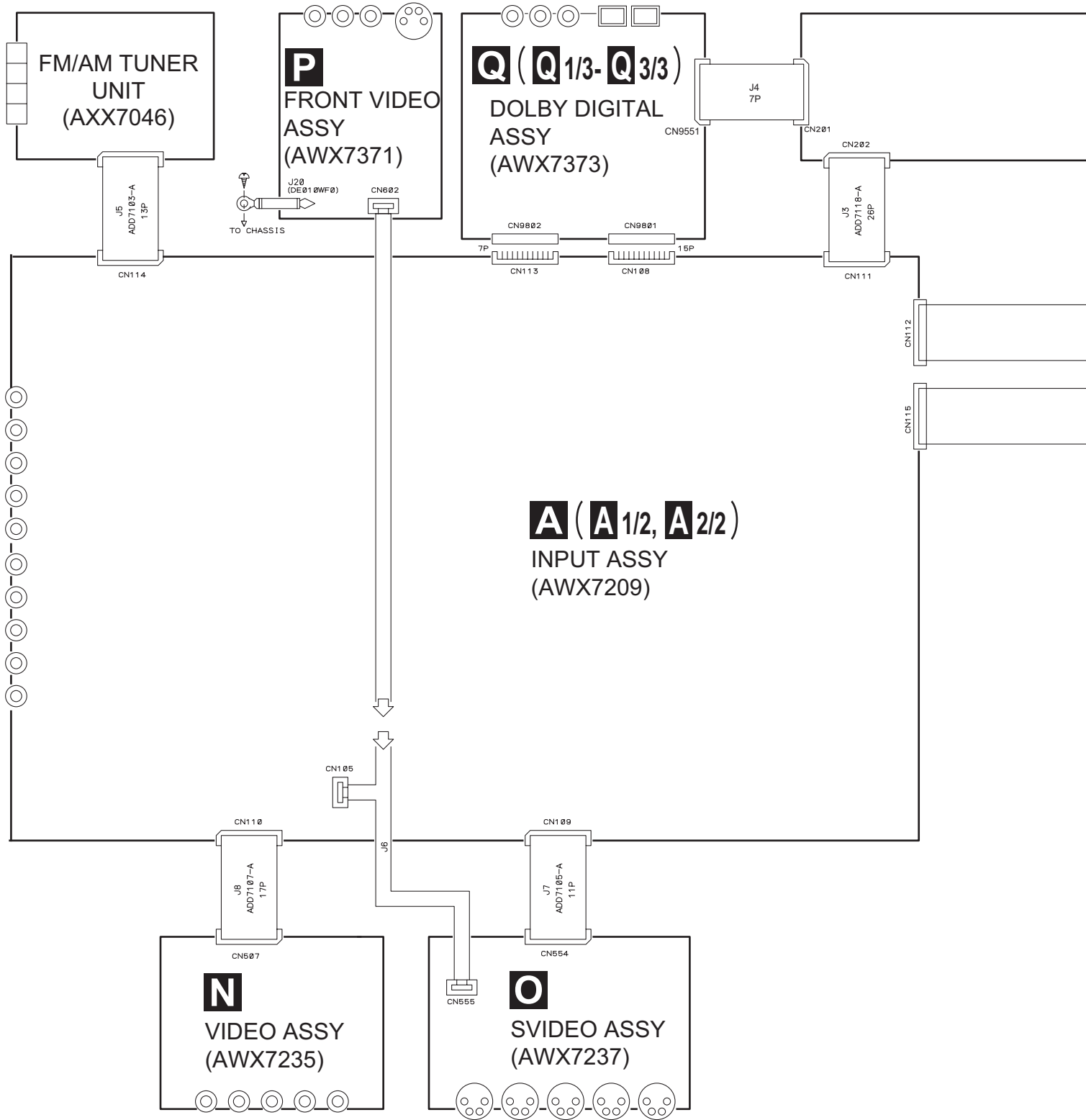
(2) CONTRAST TABLE

VSX-D608/KUXJI and KCXJI are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			KUXJI Type	KCXJI Type	
△	5	AMP Assy	AWX7223	AWX7331	
	18	Power Transformer (T1)	ATS7234	ATS7235	
	31	Rear Panel 608U	ANC7724	Not used	
	31	Rear Panel 608C	Not used	ANC7763	
△	71	Fuse (FU701 : 10A)	Not used	REK1087	

3. SCHEMATIC DIAGRAM

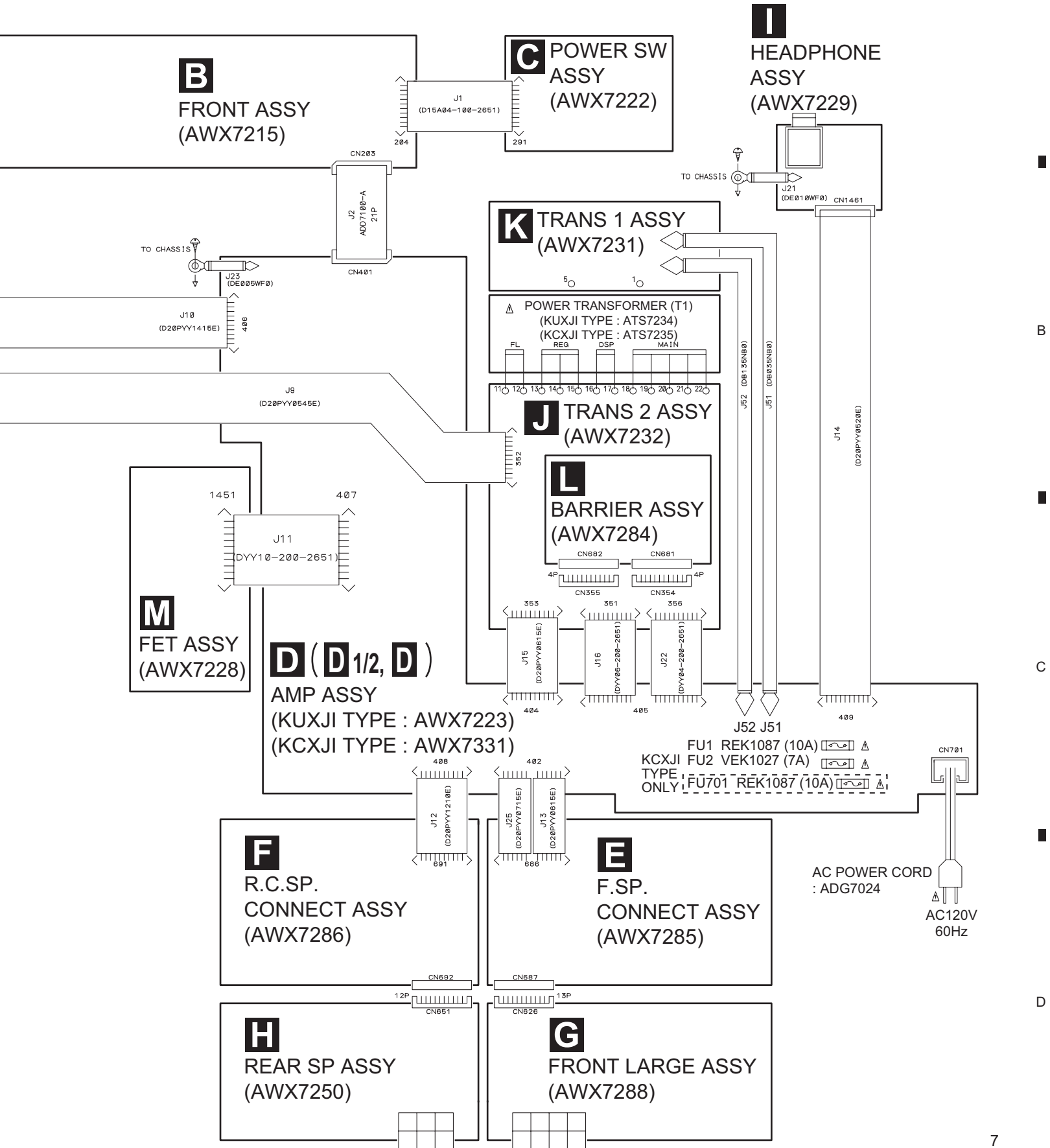
3.1 OVERALL WIRING CONNECTION DIAGRAM



A (A 1/2, A 2/2)
 INPUT ASSY
 (AWX7209)

BORD IN CABLE	PCB-PCB CONNECTOR	F/F/C AND CONNECTOR	F/C AND CONNECTOR	F/C AND CABLEHOLDER	SHIELDCABLE AND CONNECTOR	AC CODE AND CONNECTOR

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

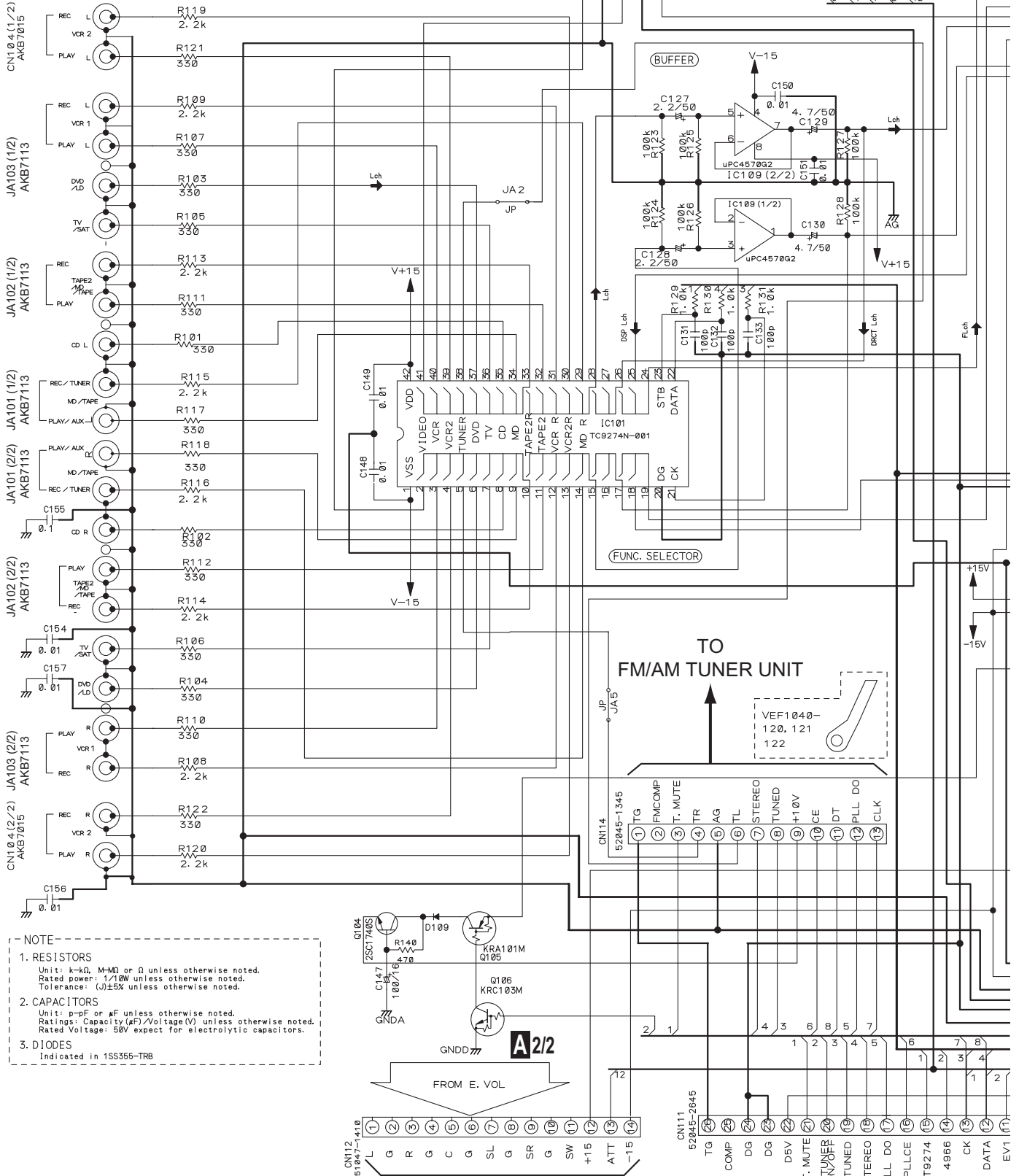


3.2 INPUT ASSY (1/2)

A 1/2 INPUT ASSY(1/2) (AWX7209)

● FUNCTION BLOCK

P CN602

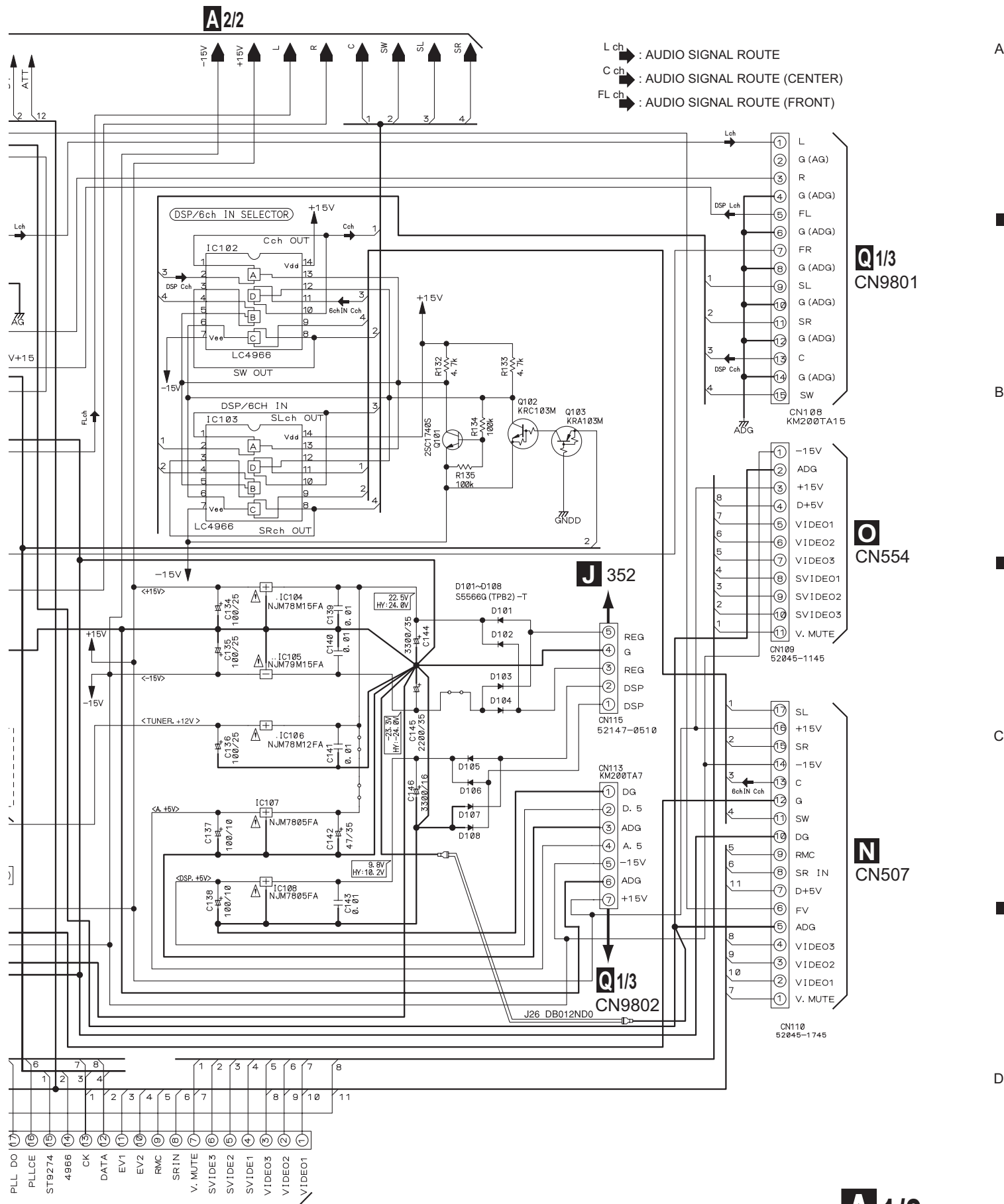


- NOTE
- RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated power: 1/10W unless otherwise noted.
Tolerance: (J)±5% unless otherwise noted.
 - CAPACITORS
Unit: p-pF or μF unless otherwise noted.
Ratings: Capacity(μF)/Voltage(V) unless otherwise noted.
Rated Voltage: 50V except for electrolytic capacitors.
 - DIODES
Indicated in 1SS355-TR8

8 A 1/2

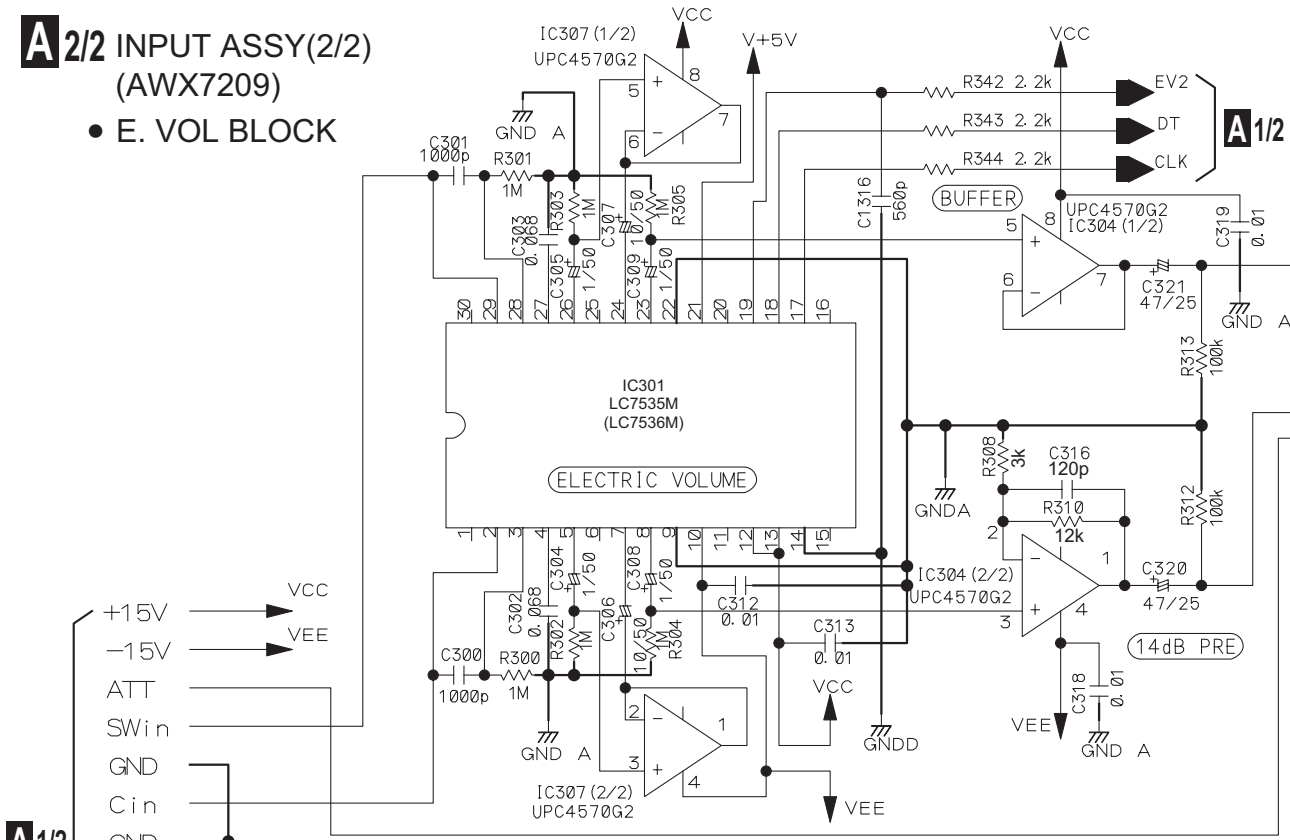
D 1/2 406

B CN202

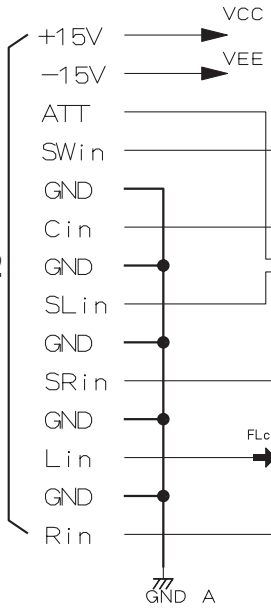


3.3 INPUT ASSY (2/2)

A 2/2 INPUT ASSY(2/2)
(AWX7209)
• E. VOL BLOCK

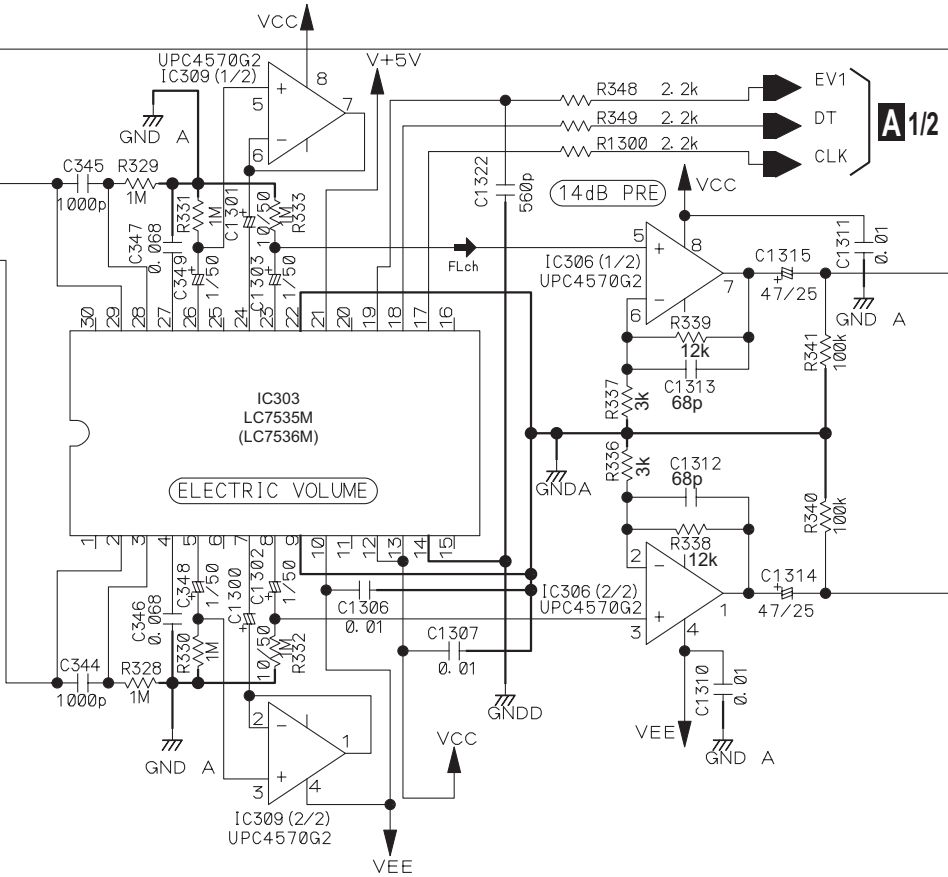


A/2

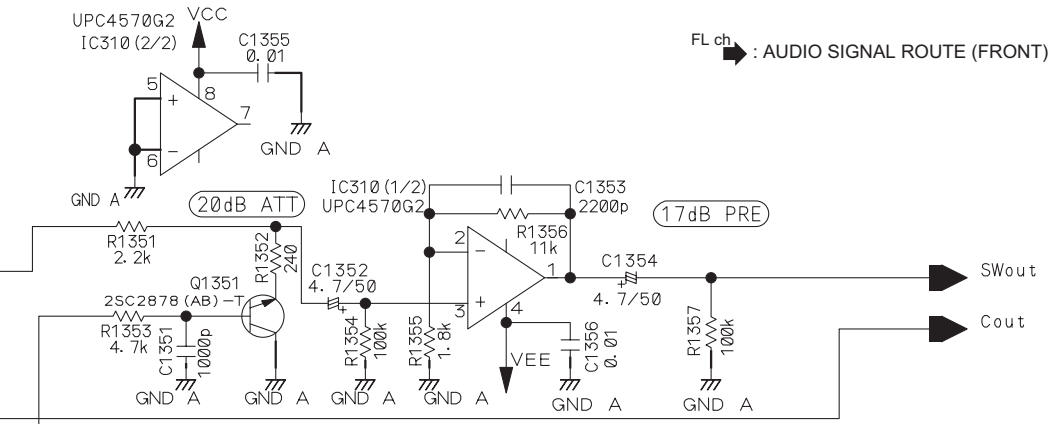


- NOTE
- RESISTORS
Unit: k- Ω , M- Ω or Ω unless otherwise noted.
Rated power: 1/10W unless otherwise noted.
Tolerance: (J) \pm 5% unless otherwise noted.
 - CAPACITORS
Unit: p-pF or μ F unless otherwise noted.
Ratings: Capacity (μ F) / Voltage (V) unless otherwise noted.
Rated Voltage: 50V expect for electrolytic capacitors.
CA:CECA
 - DIODES
Indicated in 1SS355-TRB

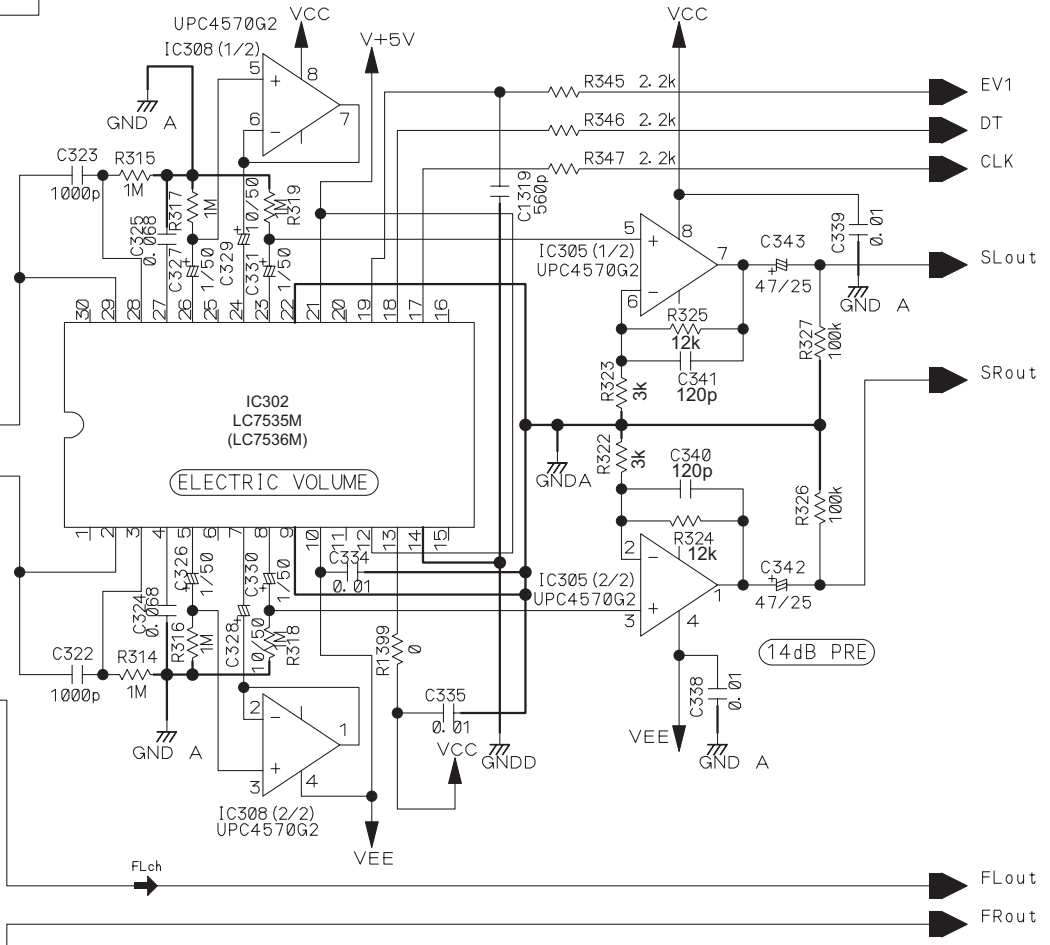
A 2/2



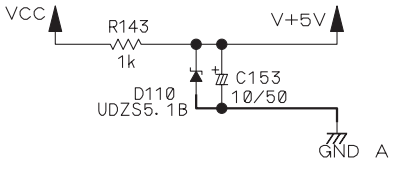
A/2



FL ch : AUDIO SIGNAL ROUTE (FRONT)



A1/2



3.4 FRONT and POWER SW ASSEMBLIES

A1/2 CN111

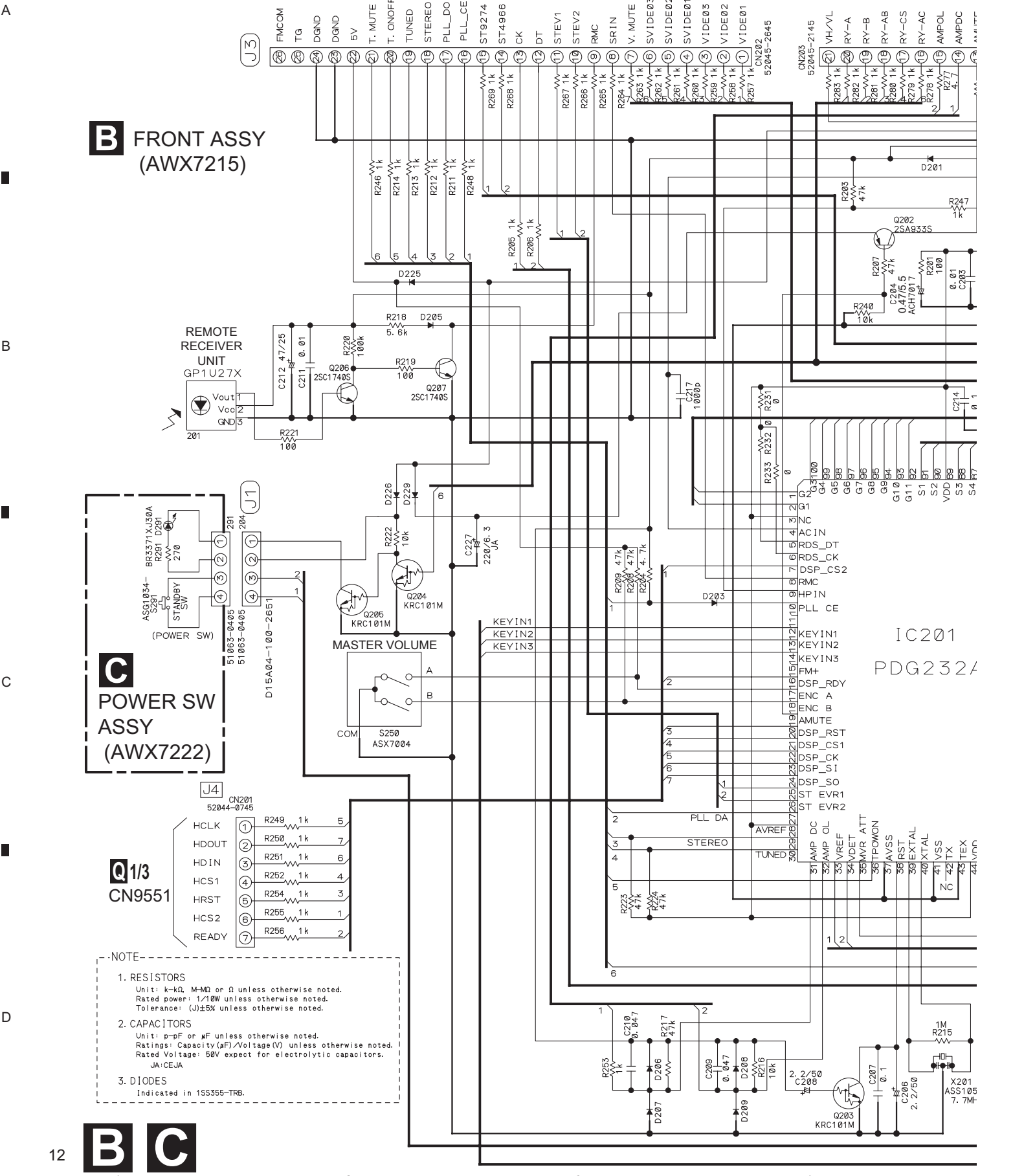
B FRONT ASSY (AWX7215)

C POWER SW ASSY (AWX7222)

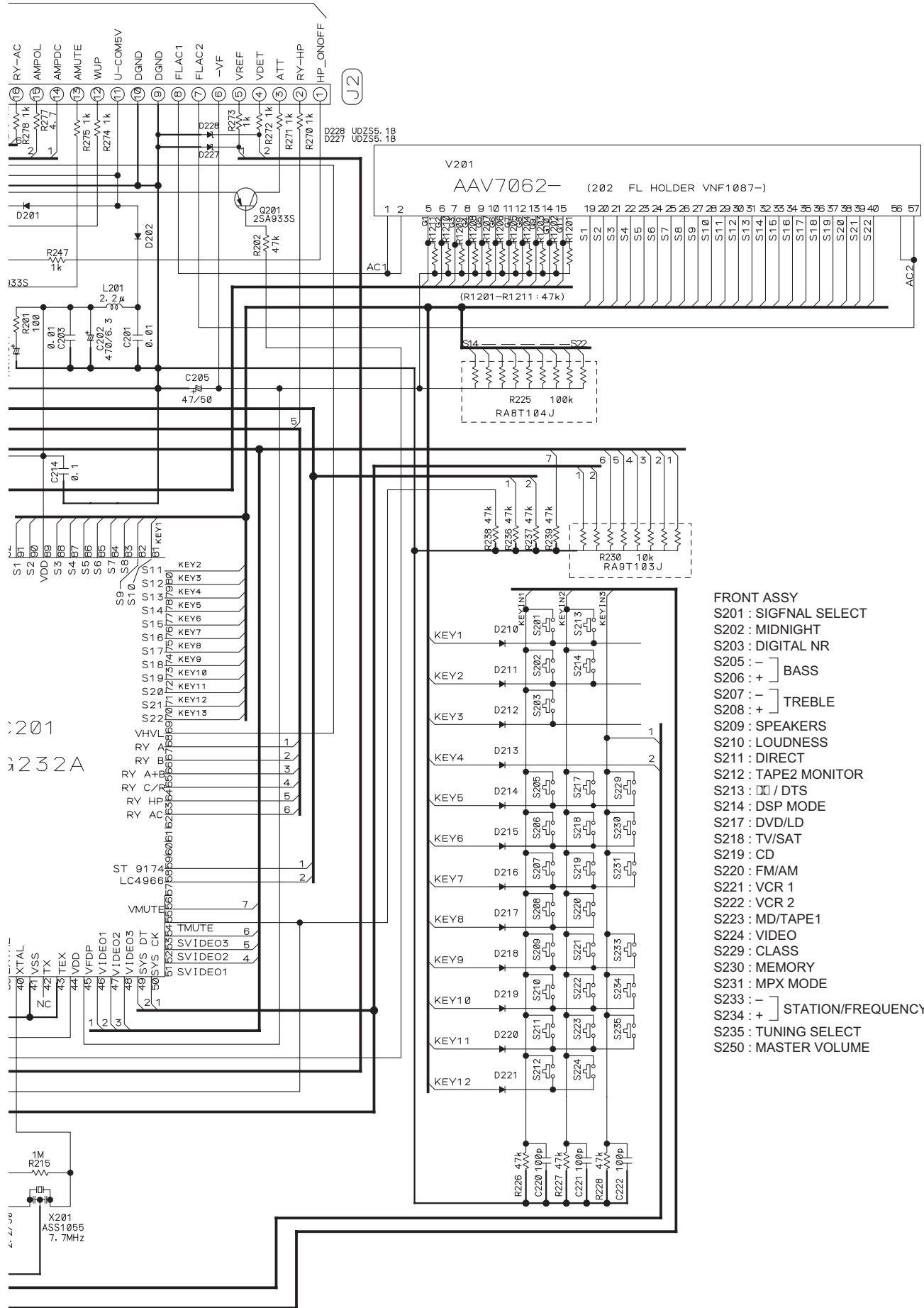
Q1/3 CN9551

- NOTE
- RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated power: 1/10W unless otherwise noted.
Tolerance: (J)±5% unless otherwise noted.
 - CAPACITORS
Unit: p-pF or μF unless otherwise noted.
Ratings: Capacity(μF)/Voltage(V) unless otherwise noted.
Rated Voltage: 50V except for electrolytic capacitors.
JA:CE/JA
 - DIODES
Indicated in 1SS355-TRB.

IC201 PDG232/



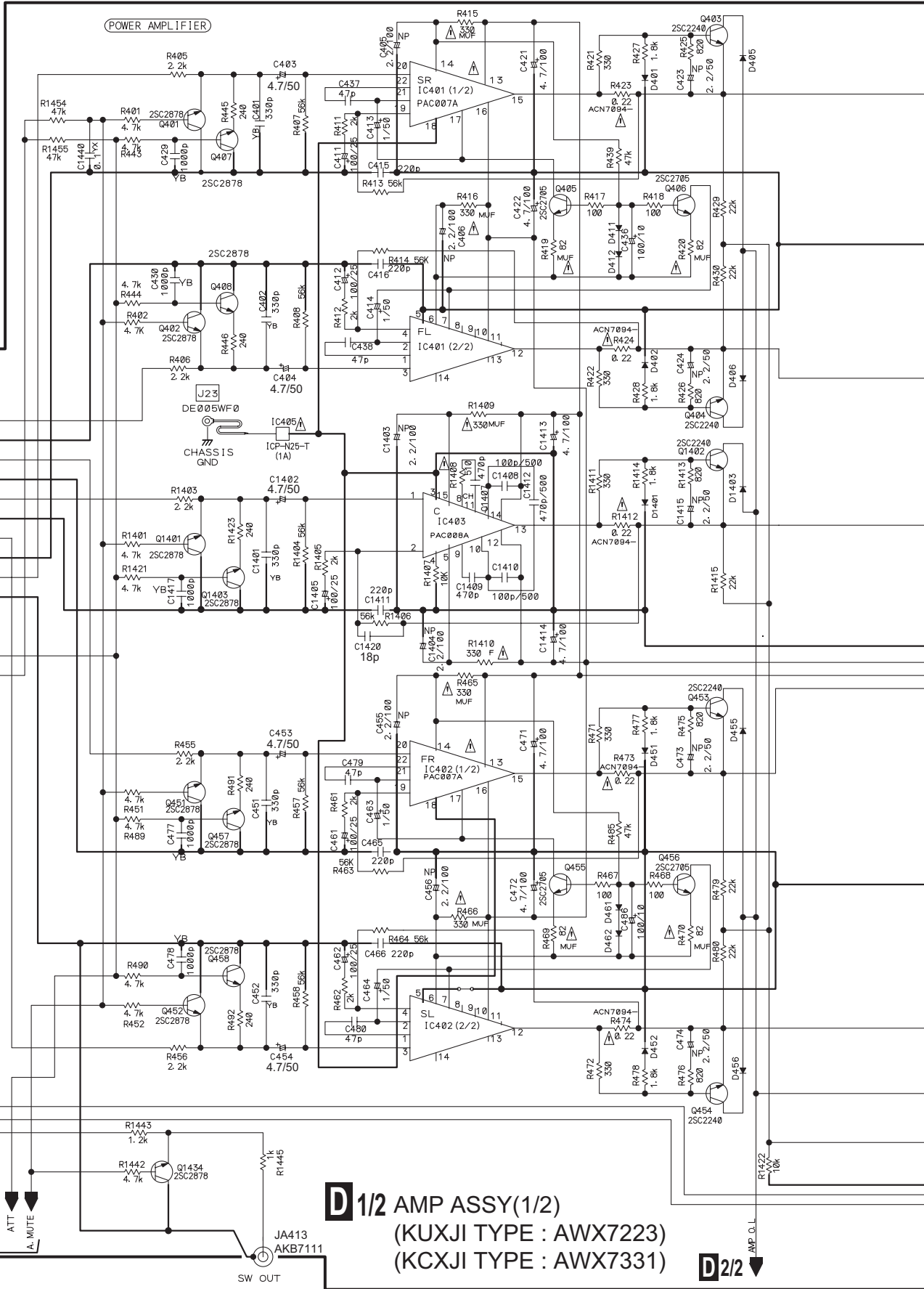
D2/2 CN401



- FRONT ASSY
- S201 : SIGFNL SELECT
 - S202 : MIDNIGHT
 - S203 : DIGITAL NR
 - S205 : -] BASS
 - S206 : +]
 - S207 : -] TREBLE
 - S208 : +]
 - S209 : SPEAKERS
 - S210 : LOUDNESS
 - S211 : DIRECT
 - S212 : TAPE2 MONITOR
 - S213 : DTS
 - S214 : DSP MODE
 - S217 : DVD/LD
 - S218 : TV/SAT
 - S219 : CD
 - S220 : FM/AM
 - S221 : VCR 1
 - S222 : VCR 2
 - S223 : MD/TAPE1
 - S224 : VIDEO
 - S229 : CLASS
 - S230 : MEMORY
 - S231 : MPX MODE
 - S233 : -] STATION/FREQUENCY
 - S234 : +]
 - S235 : TUNING SELECT
 - S250 : MASTER VOLUME

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

- NOTE
- RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated power: 1/4W unless otherwise noted.
Tolerance: J±5% unless otherwise noted.
 - CAPACITORS
Unit: p-pF or μF unless otherwise noted.
Ratings:
Capacity (μF)/Voltage (V) unless otherwise noted.
Rated Voltage: 50V except for electrolytic capacitors.
 - DIODES
Indicated in 1SS133-T



A

B

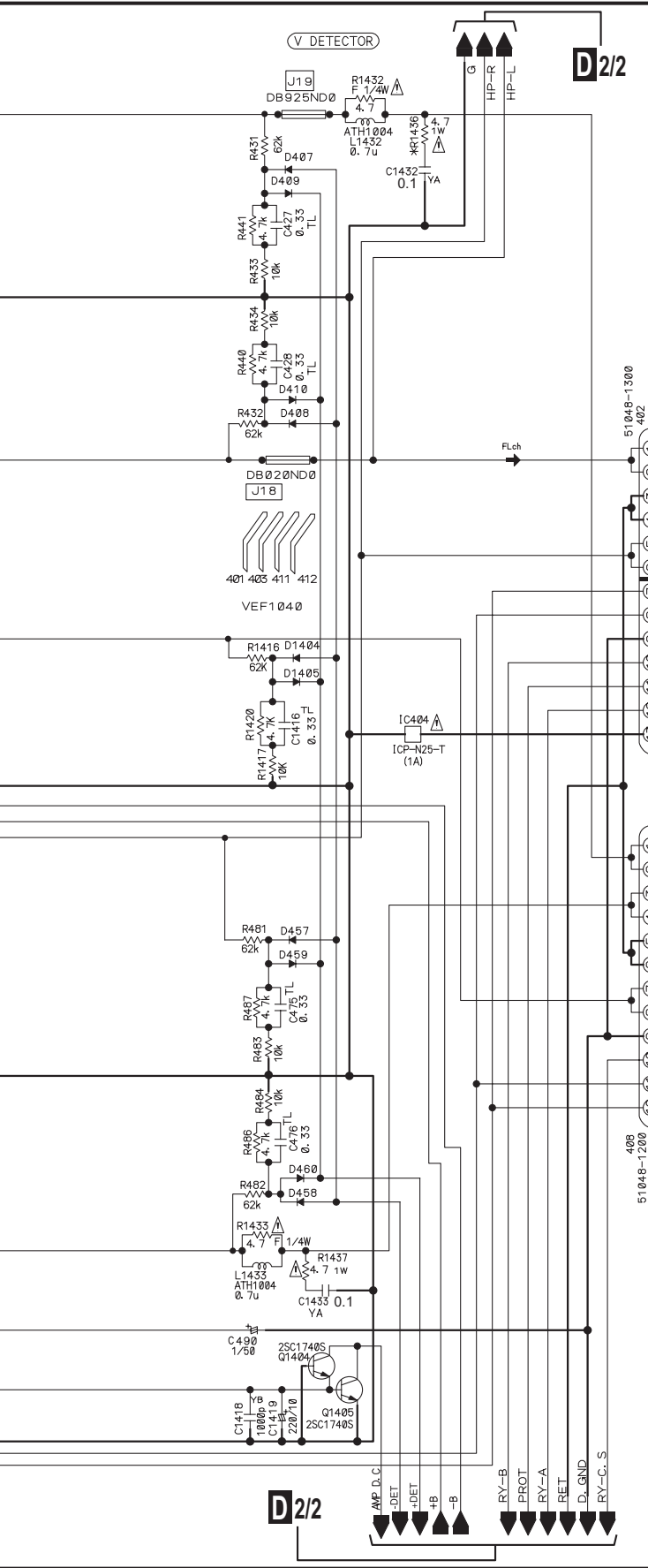
C

D

A 1/2 CN112

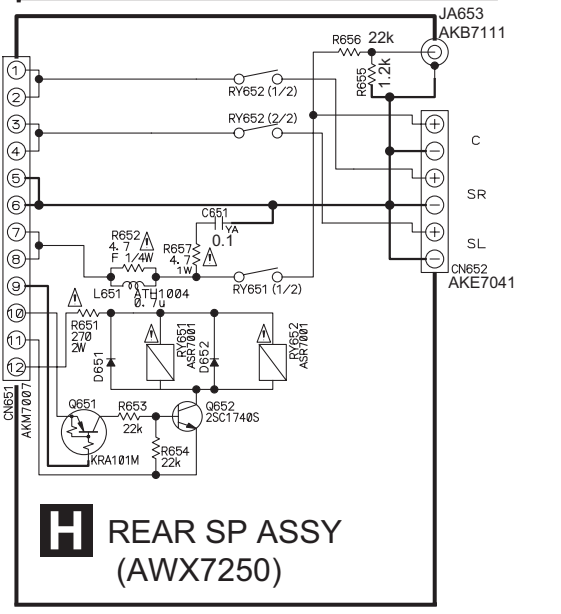
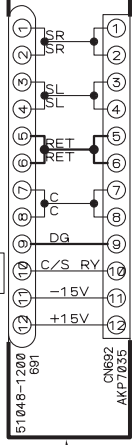
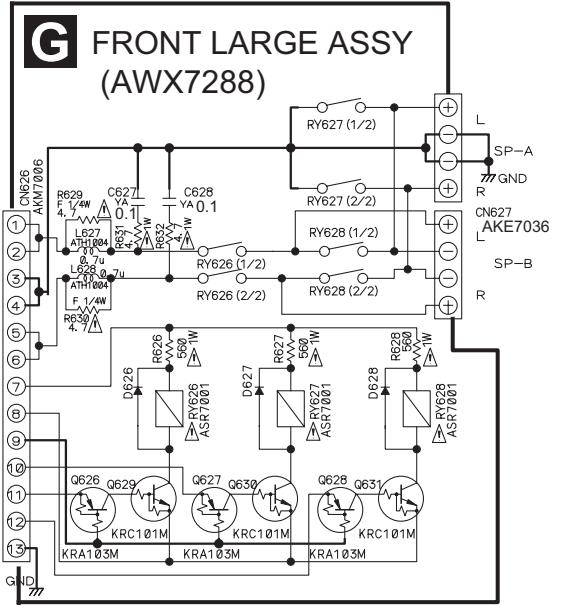
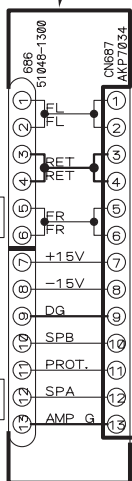
D 1/2 AMP ASSY(1/2)
(KUXJI TYPE : AWX7223)
(KCXJI TYPE : AWX7331)

D 1/2



FL ch : AUDIO SIGNAL ROUTE (FRONT)

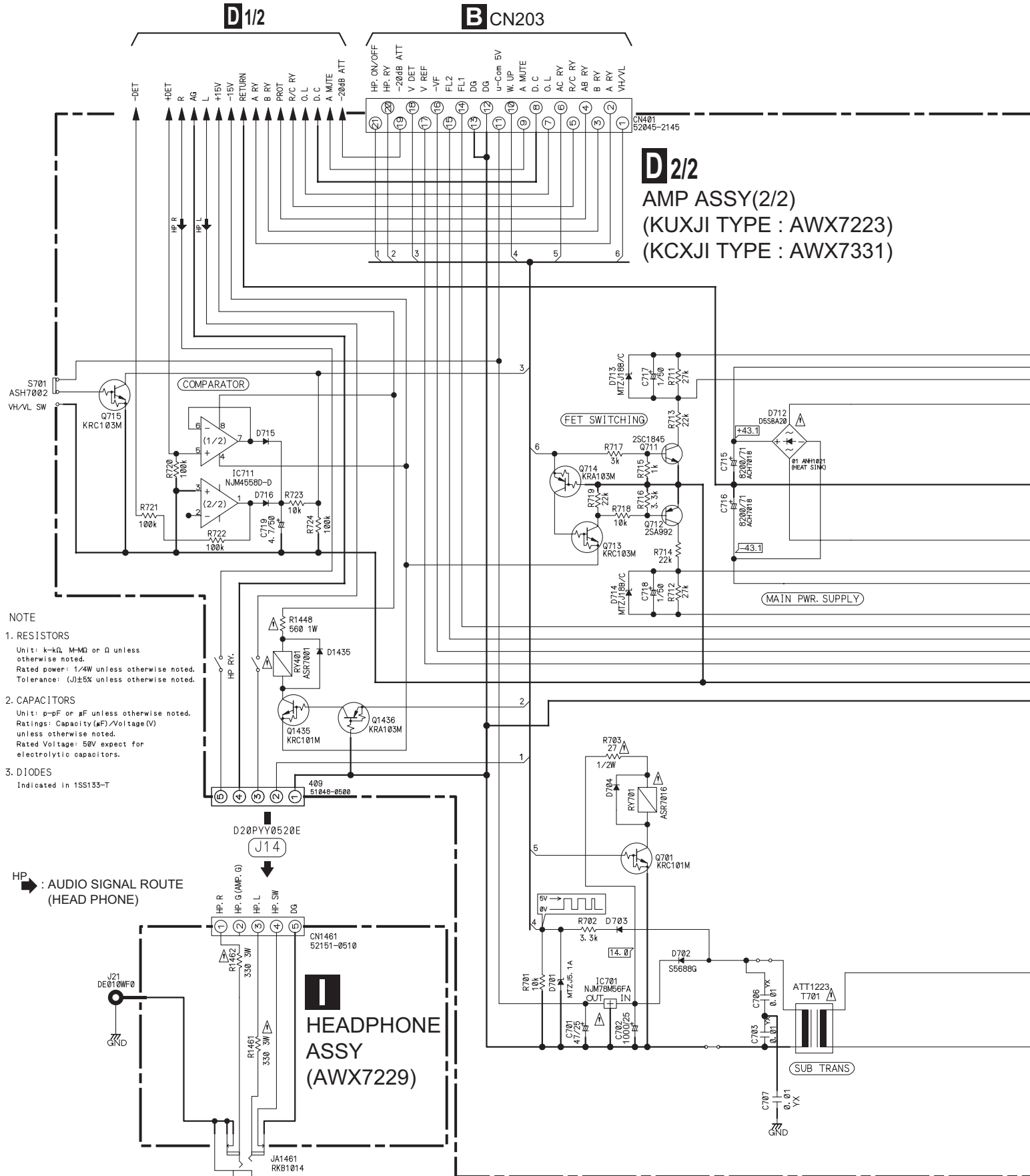
E F.SP. CONNECT ASSY (AWX7285)



F R.C.SP. CONNECT ASSY (AWX7286)

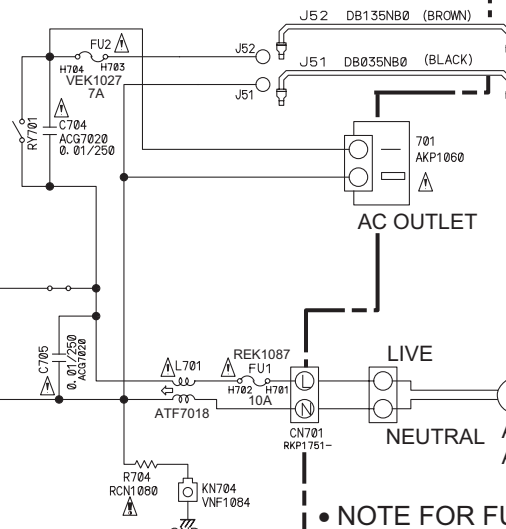
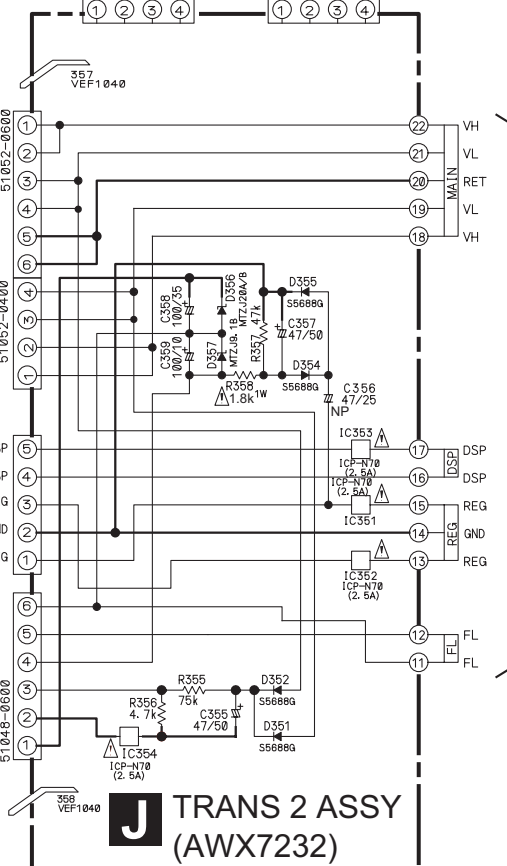
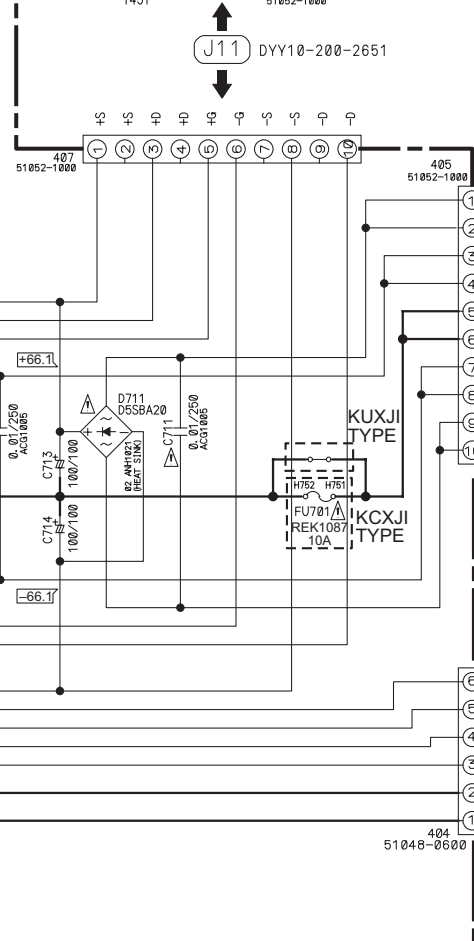
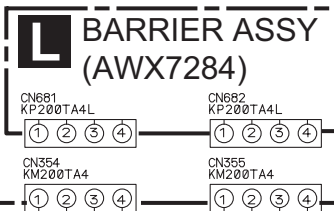
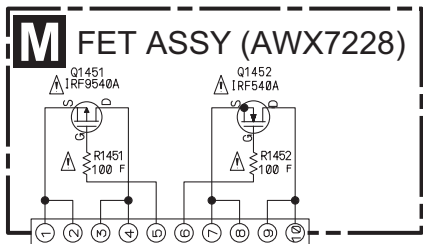
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-N25, MFD BY ROHM CO., LTD. FOR IC404 and IC405.

3.6 AMP (2/2), HEADPHONE, TRANS 2, TRANS 1, BARRIER and FET ASSEMBLIES



- NOTE**
- RESISTORS**
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated power: 1/4W unless otherwise noted.
Tolerance: (J)±5% unless otherwise noted.
 - CAPACITORS**
Unit: p-pF or μF unless otherwise noted.
Ratings: Capacity (μF)/Voltage(V) unless otherwise noted.
Rated Voltage: 50V except for electrolytic capacitors.
 - DIODES**
Indicated in 1SS133-T

HP → AUDIO SIGNAL ROUTE (HEAD PHONE)



CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-N70, MFD BY ROHM CO., LTD. FOR IC351 - IC354.

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

3.7 VIDEO, SVIDEO and FRONT VIDEO ASSEMBLIES

A

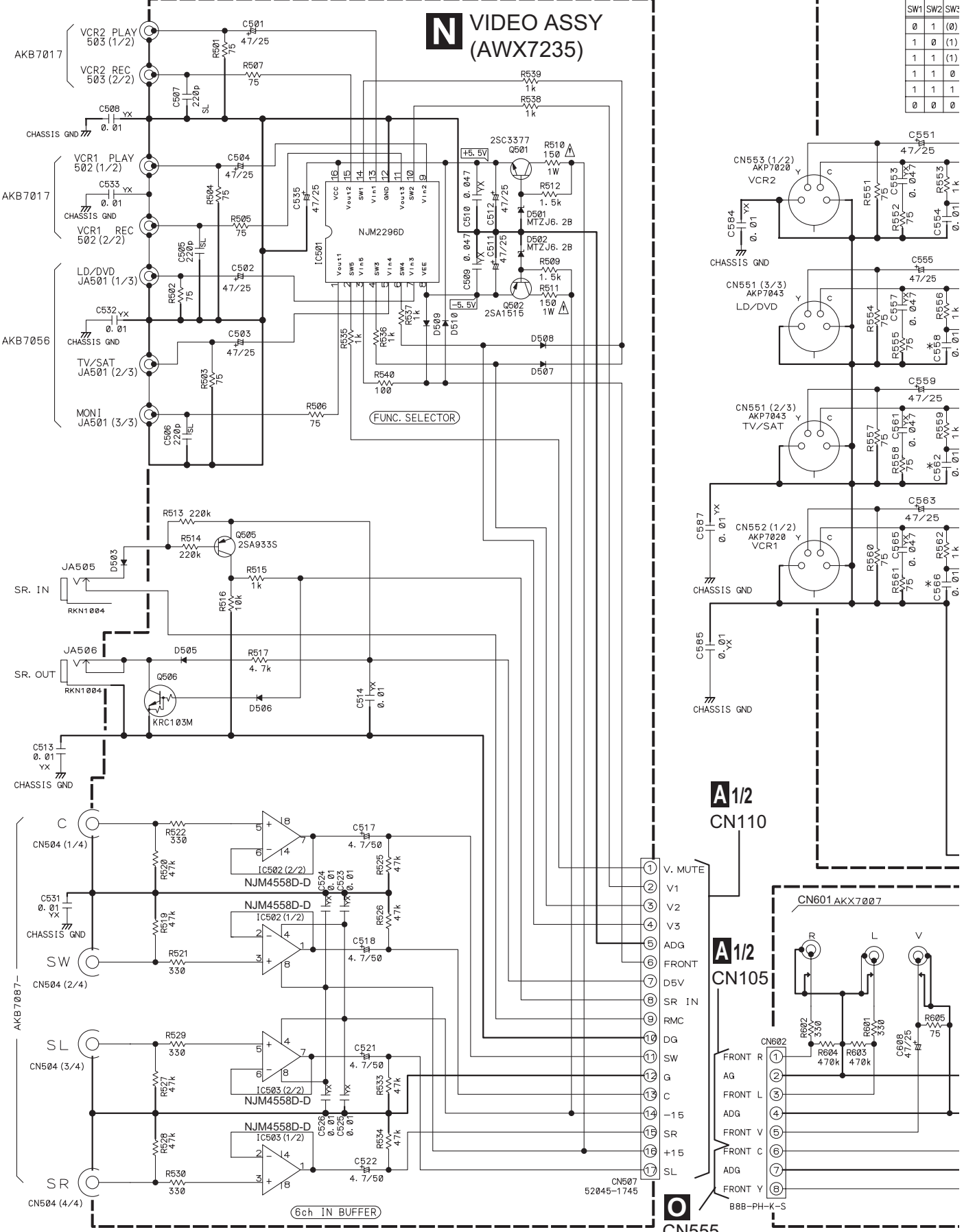
B

C

D

N VIDEO ASSY (AWX7235)

NJM22961		
SW1	SW2	SW3
0	1	(0)
1	0	(1)
1	1	(1)
1	1	0
0	0	0



A1/2
CN110

A1/2
CN105

O
CN555

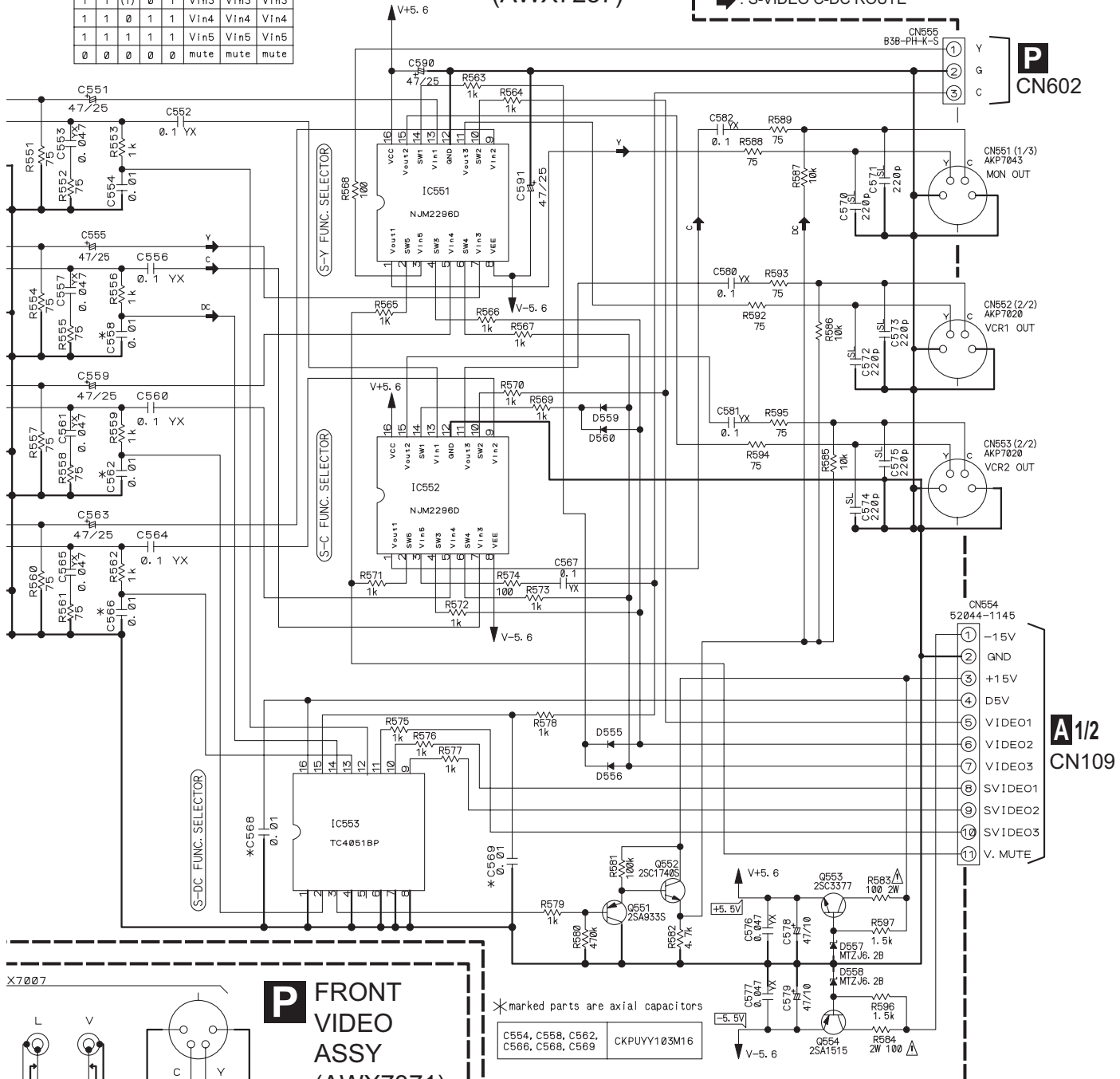


NUM2296D control port status

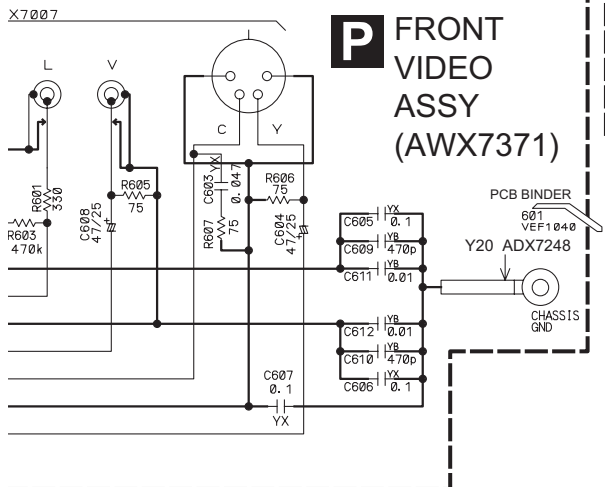
SW1	SW2	SW3	SW4	SW5	Vout1	Vout2	Vout3
0	1	(0)	(0)	1	Vin1	mute	Vin1
1	0	(1)	0	1	Vin2	Vin2	mute
1	1	(1)	0	1	Vin3	Vin3	Vin3
1	1	0	1	1	Vin4	Vin4	Vin4
1	1	1	1	1	Vin5	Vin5	Vin5
0	0	0	0	0	mute	mute	mute

SVIDEO ASSY (AWX7237)

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



FRONT VIDEO ASSY (AWX7371)



- NOTE-
- RESISTORS
 Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
 Rated power: 1/4W unless otherwise noted.
 Tolerance: (J)±5% unless otherwise noted.
 - CAPACITORS
 Unit: p-pF or μF unless otherwise noted.
 Ratings: Capacity (μF)/Voltage (V) unless otherwise noted.
 Rated Voltage: 50V expect for electrolytic capacitors.
 - DIODES
 Indicated in 1SS133-T



3.8 DOLBY DIGITAL ASSY (1/3)

A

B

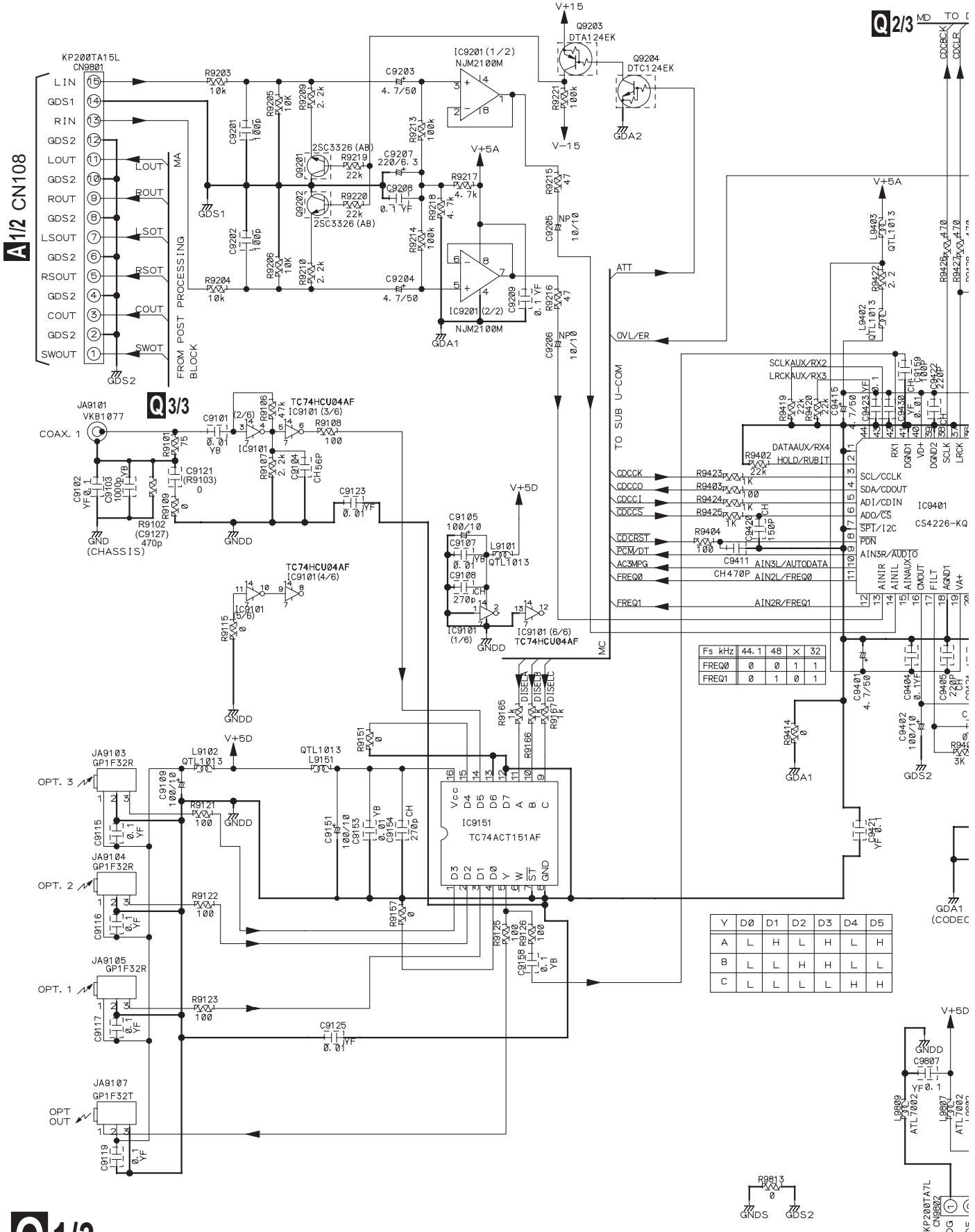
C

D

A/1/2 CN108

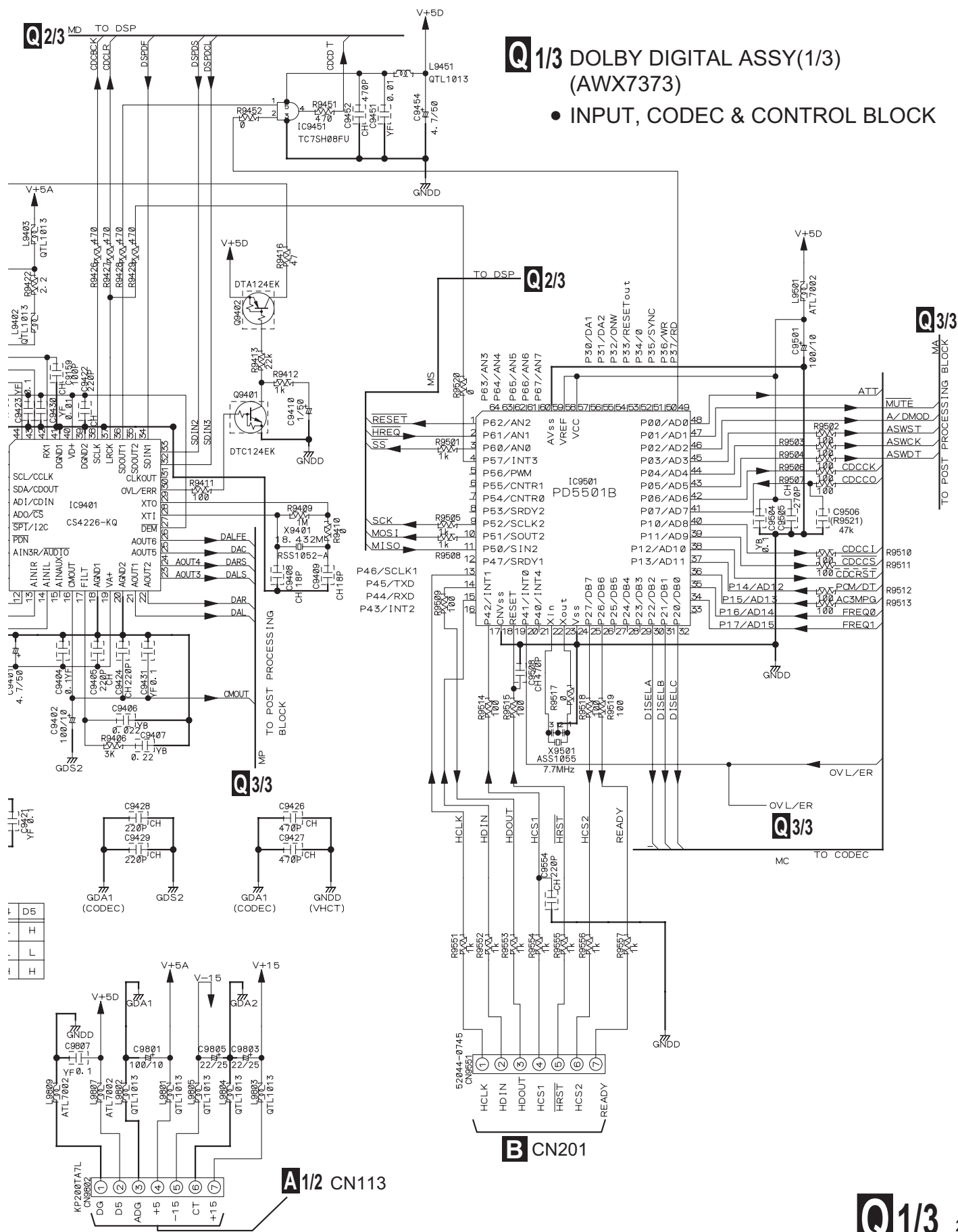
Q3/3

Q2/3



Fs	kHz	44.1	48	×	32
FREQ0		0	0	1	1
FREQ1		0	1	0	1

Y	D0	D1	D2	D3	D4	D5
A	L	H	L	H	L	H
B	L	L	H	H	L	L
C	L	L	L	L	H	H



Q 1/3 DOLBY DIGITAL ASSY(1/3)
(AWX7373)

- INPUT, CODEC & CONTROL BLOCK

A

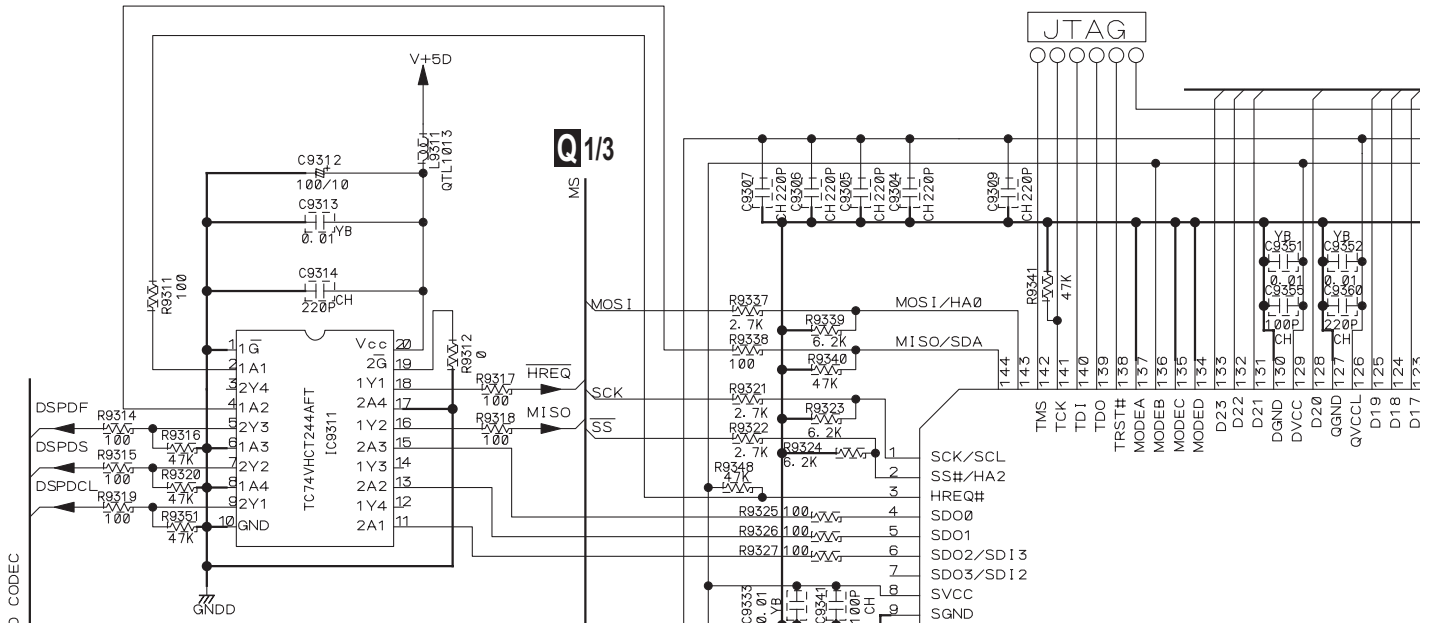
B

C

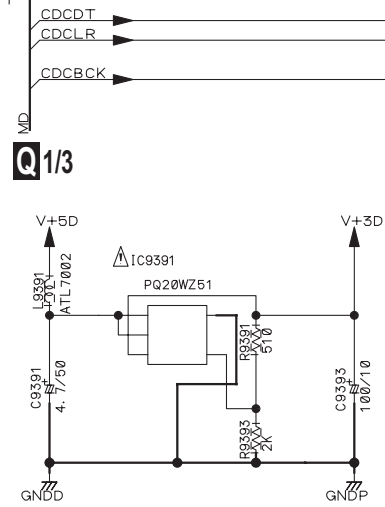
D

3.9 DOLBY DIGITAL ASSY (2/3)

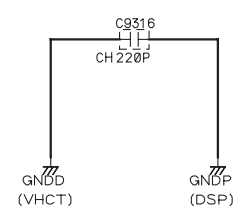
A



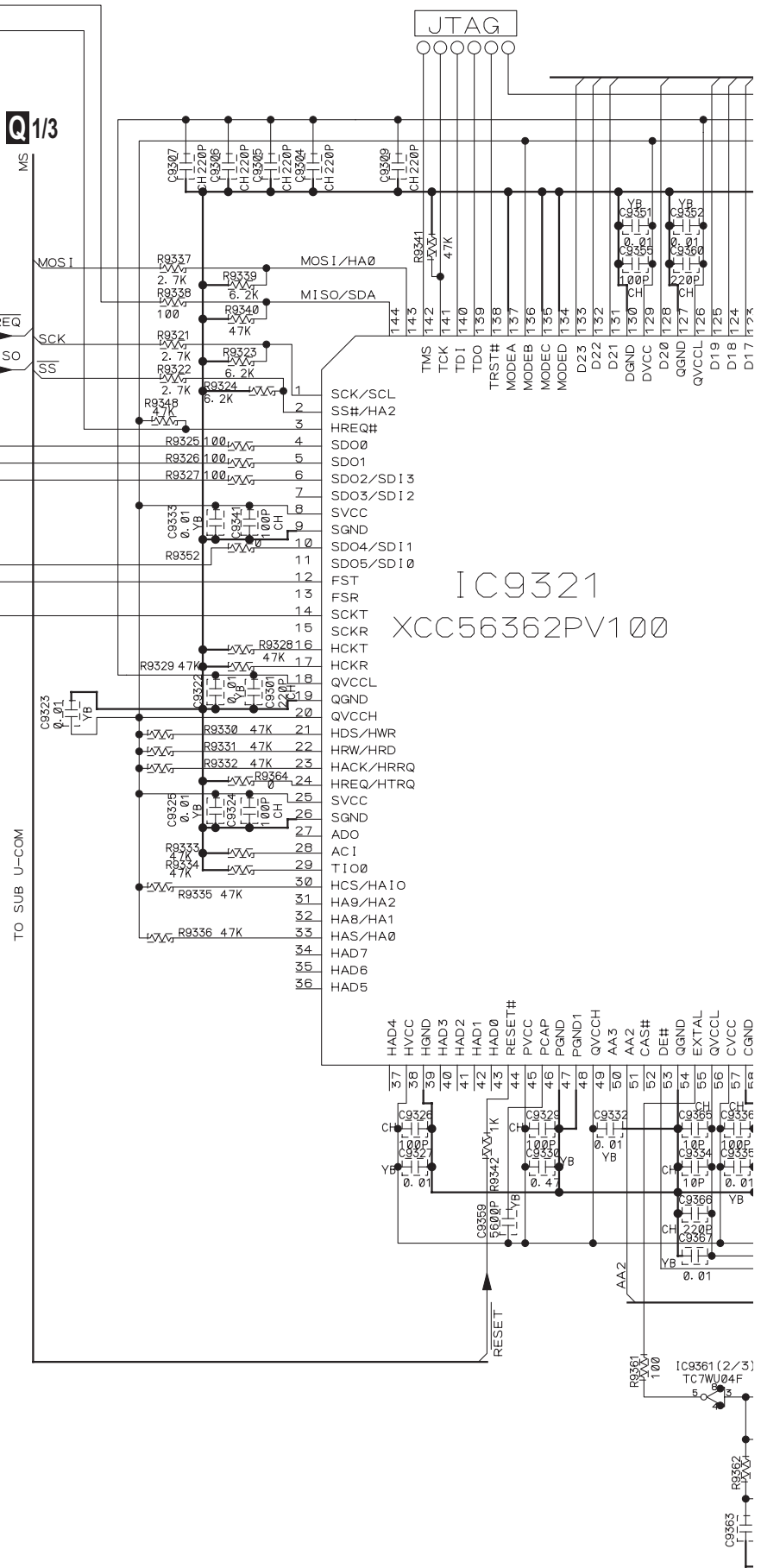
B



C

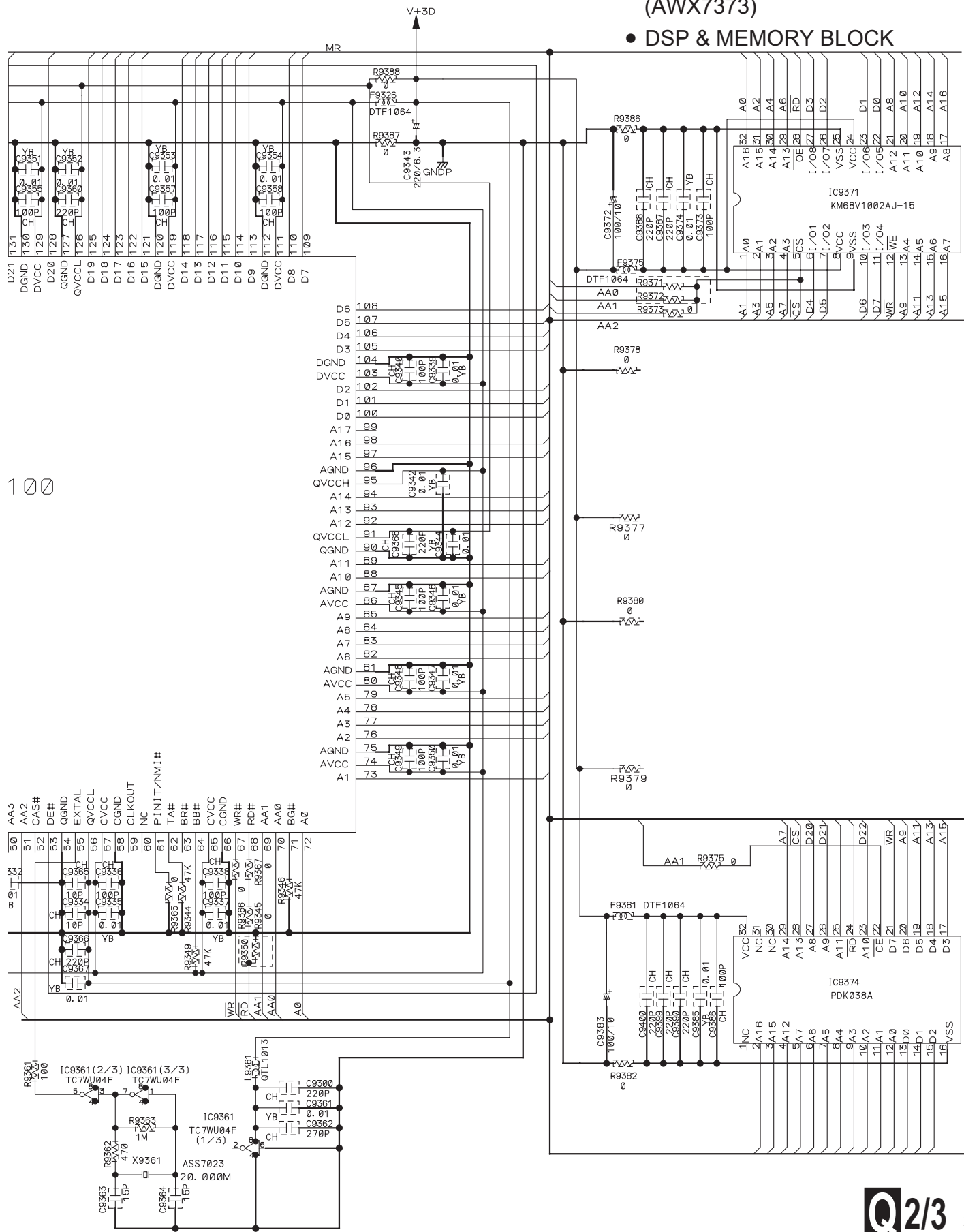


D



Q 2/3 DOLBY DIGITAL ASSY(2/3) (AWX7373)

● DSP & MEMORY BLOCK



100

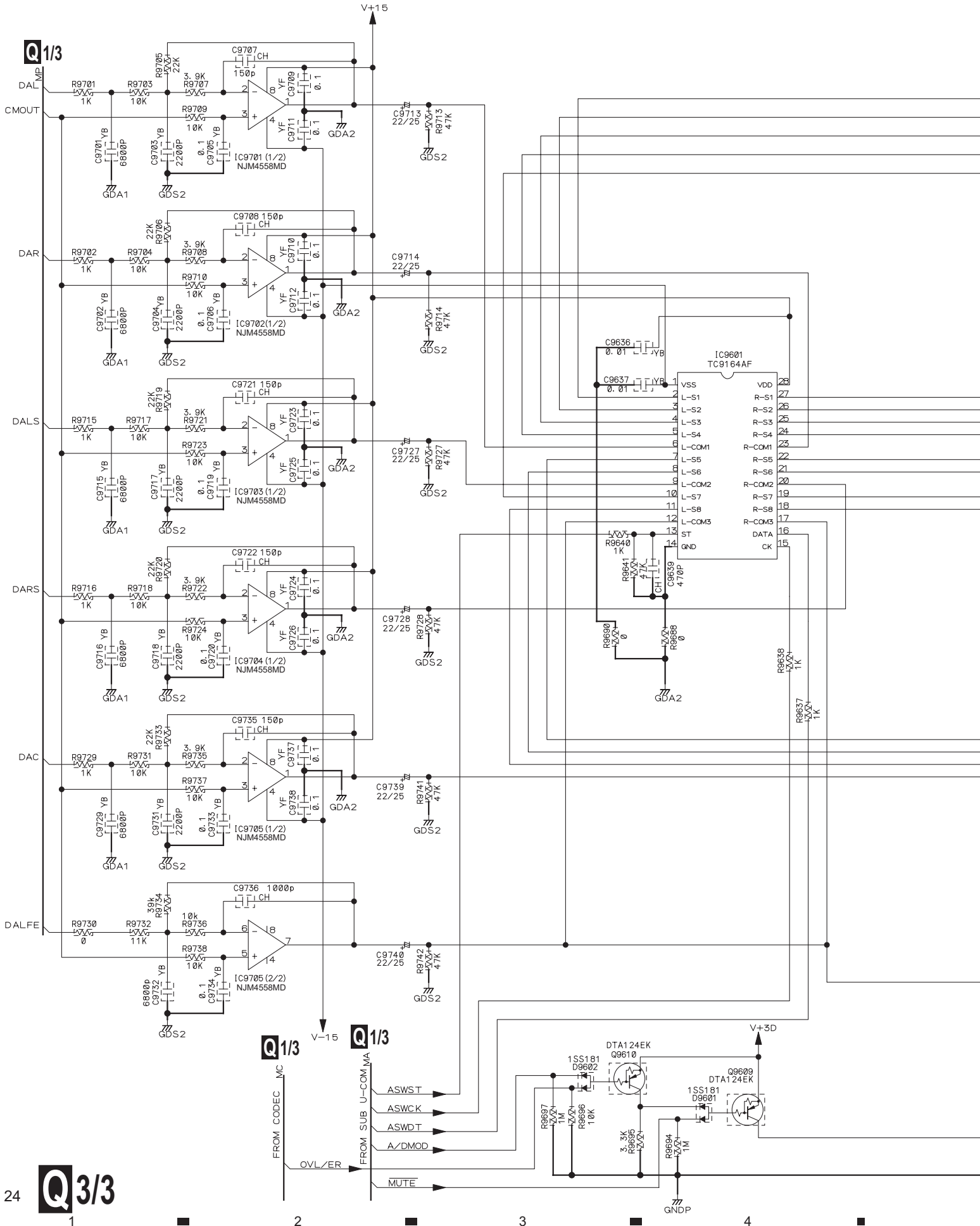
A

B

C

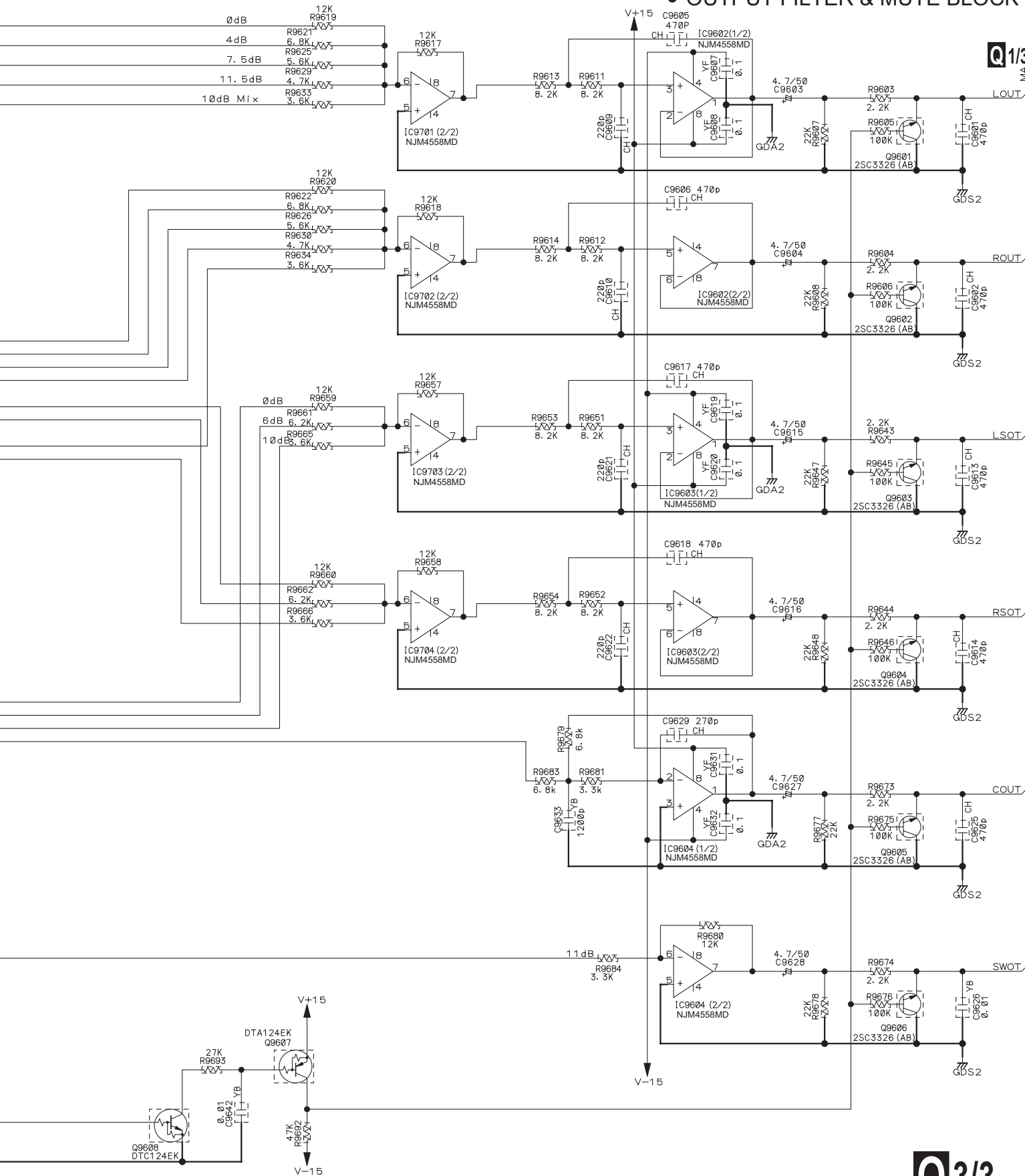
D

3.10 DOLBY DIGITAL ASSY (3/3)



Q 3/3 DOLBY DIGITAL ASSY(3/3) (AWX7373)

• OUTPUT FILTER & MUTE BLOCK



A

B

C

D