Service Manual

ORDER NO.
RRV2189

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-D938TX

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-D938TX		
HL	○	AC220-230V	AC240V, ✻
LB	○	AC110V	———

✻ : 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.

● This service manual should be used together with the following manual(s):

Model No.	Order No.	Remarks
VSX-908RDS-G/HY	RRV2166	

CONTENTS

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PIONEER ELECTRONIC (EUROPE) N.V. Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
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T – ZZK AUG. 1999 Printed in Japan

1. CONTRAST OF MISCELLANEOUS PARTS

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *Reference Nos. indicate the pages and Nos. in the service manual for the base model.*
- *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 → 56 x 10^1 → 561 ····· RD1/4PU 5 6 1 J
47k → 47 x 10^3 → 473 ····· RD1/4PU 4 7 3 J
0.5 → R50 ····· RN2H R 5 0 K
1 → 1R0 ····· RS1P 1 R 0 K

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

5.62k → 562 x 10^1 → 5621 ····· RN1/4PC 5 6 2 1 F

■ CONTRAST TABLE

VSX-D938TX/HL, LB and VSX-908RDS-G/HY are constructed the same except for the following :

Ref. No.	Mark	Symbol and Description	Part No.			Remarks
			VSX-908RDS-G /HY	VSX-D938TX /HL	VSX-D938TX /LB	
		ASSEMBLIES				
	NSP	MAIN ASSY	AWK7528	AWK7561	AWK7542	
P5- 5		└ MAIN CONTROL ASSY	AWX7410	AWX7465	AWX7428	
	NSP	POWER/CURRENT ASSY	AWK7510	AWK7510	AWK7548	
P5- 7		├ DIODE ASSY	AWX7469	AWX7469	AWX7343	
P5- 8		├ SP/PS ASSY	AWX7359	AWX7359	AWX7449	
P7- 8		└ VL-TERMINAL ASSY	AWX7511	AWX7511	AWX7324	
	NSP	COMPLEX ASSY	AWK7529	AWK7529	AWK7543	
P5-10		├ TRANS 1 ASSY	AWX7316	AWX7316	Not used	
P5-10		├ TRANS 1/LB ASSY	Not used	Not used	AWX7447	
P5-15		└ PRIMARY ASSY	AWX7345	AWX7345	AWX7429	
	NSP	FRONT/VAMP ASSY	AWK7530	AWK7544	AWK7544	
P8- 2		└ DISPLAY ASSY	AWX7414	AWX7408	AWX7408	
		PACKING SECTION				
P3- 2		FM Wire Antenna	ADH7010	ADH7010	ADH7011	
P3- 3		Operating Instructions (English)	ARB7187	ARE7213	ARE7213	
P3- 9		Packing Case	AHD7815	AHD7818	AHD7818	
P3-12	NSP	Warranty Card	ARY7022	Not used	Not used	
P3-14		Operating Instructions (German)	ARC7244	Not used	Not used	
P3-15		Operating Instructions (French)	ARC7245	Not used	Not used	
P3-16		Operating Instructions (Italian)	ARC7246	Not used	Not used	
P3-17		Operating Instructions (Dutch)	ARC7270	Not used	Not used	
P3-18		Operating Instructions (Swedish)	ARC7280	Not used	Not used	
P3-19		Operating Instructions (Spanish)	ARC7281	Not used	Not used	
P3-20		Operating Instructions (Portuguese)	ARC7282	Not used	Not used	
		Operating Instructions (Chinese)	Not used	ARC7286	ARC7286	
		EXTERIOR SECTION				
P5-20	⚠	AC Power Cord	ADG7029	VDG1063	ADG7023	
P5-21	⚠	Power Transformer (T1) (AC220-230V/240V)	ATS7253	ATS7253	Not used	
P5-21	⚠	Power Transformer (T1) (AC110V)	Not used	Not used	ATS7255	
P5-22		FM/AM TUNER Unit	AXX7048	AXX7048	AXX7047	
P5-23	⚠	Fuse (FU1 : T4A)	AEK-514	AEK-514	Not used	
P5-23	⚠	Fuse (FU1 : 10A)	Not used	Not used	DEK1045	
P5-26		AC Cord Spacer	ANG1153	ANG7281	Not used	
P5-26		Cord Stopper	Not used	CM-22B	CM-22C	
P5-27		Bonnet Case	AZN7809	AZN7809	AZN7794	
P5-54		Rear Panel	ANC7866	ANC7816	ANC7817	

Ref. No.	Mark	Symbol and Description	Part No.			Remarks
			VSX-908RDS-G /HY	VSX-D938TX /HL	VSX-D938TX /LB	
P5-72		Screw	BBT30P100FCC	BBT30P100FZK	BBT30P100FZK	
P5-75		Screw	IBZ30P100FCC	IBZ30P100FCC	Not used	
P5-78	⚠	AC Socket 3P	AKP-502	AKP-502	Not used	
P5-79		Caution Label	ARW7036	ARW7036	Not used	
P5-80		Fuse Holder	Not used	VKR1003	Not used	
P5-81	⚠	Fuse (T5A)	Not used	PEK1003	Not used	
P5-82	⚠	Fan Motor	AXM7012	AXM7012	Not used	
		HEAT SINK SECTION				
P7- 9	NSP	Heat Sink	ANH7102	ANH7103	ANH7102	
P7-16	⚠	Thermistor	AEX7004	AEX7004	Not used	
		FRONT PANEL SECTION				
P8-10		Door Sheet	AAH7057	AAH7054	AAH7054	
P8-14		MR Button	AAD7575	Not used	Not used	
P8-25		Front Panel	ANB7176	ANB7196	ANB7196	

Notes : For ASSEMBLIES, refer to “CONTRAST OF PCB ASSEMBLIES”, “2. PCB CONNECTION DIAGRAM” and “3. SCHEMATIC DIAGRAM”.

■ CONTRAST OF PCB ASSEMBLIES

DF MAIN CONTROL ASSY

AWX7465, AWX7428 and AWX7410 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		AWX7410	AWX7465	AWX7428	
	Q992	2SC2412K	Not used	Not used	
	C995	CKSQYB103K50	Not used	Not used	
	R921	RS1/10S103J	Not used	Not used	
	R922	Not used	RS1/10S103J	RS1/10S103J	
	R923	Not used	Not used	RS1/10S103J	
	R924	RS1/10S103J	RS1/10S103J	Not used	
	R925	Not used	RS1/10S103J	Not used	
	R926	RS1/10S103J	Not used	RS1/10S103J	
	R992	RS1/10S221J	Not used	Not used	
	R993	RS1/10S101J	Not used	Not used	
	R994	RS1/10S472J	Not used	Not used	

IF VL-TERMINAL ASSY

AWX7324 and AWX7511 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWX7511	AWX7324	
	C2011, C2012	CEAT4R7M2A	CEAT1R0M2A	

KF DIODE ASSY

AWX7343 and AWX7469 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWX7469	AWX7343	
⚠	D3001, D3002	LN6SB60-4003	D5SBA20(B)	

LF SP/PS ASSY

AWX7449 and AWX7359 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWX7359	AWX7449	
	IC3001	AEK7007	Not used	
	Q3501, Q3502	DTA124ES	Not used	
	Q3503	2SC4793	Not used	
	Q3504	2SC2235	Not used	
	D3501, D3502	S5688G	Not used	
	D3505	MTZJ27D	Not used	
	D3506, D3508	MTZJ12C	Not used	
	D3507	MTZJ5.1B	Not used	
	L3001, L3002	ATX1012	Not used	
	C3118	CEAT470M50	CEAT100M50	
	C3501	CEAT471M35	Not used	
	C3502	CEAT1R0M50	Not used	
	C3503	CKCYF103Z50	Not used	
	C3504	CEAT471M25	Not used	
	R3501	RD1/4PU471J	Not used	
	R3502	RD1/4PU473J	Not used	
	R3503	RD1/4PU102J	Not used	
	R3504	RD1/4PU104J	Not used	
	R3505	RS3LMF221J	Not used	
	R3506	RD1/4PU222J	Not used	
	R3507	RD1/4PU103J	Not used	
	CN3002	KM250MA3	Not used	

SF DISPLAY ASSY

AWX7408 and AWX7414 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWX7414	AWX7408	
	IC7401	BU1923	Not used	
	Q7002	DTC124EK	Not used	
	Q7401	2SA1993	Not used	
	Q7402	DTC143ES	Not used	
	Q7403	2SC1740S	Not used	
	D7002	SLR-343VR	Not used	
	L7401	LFA2R2J	Not used	
	S7019, S7020	VSG1009	Not used	
	C7401	CKSQYB472K50	Not used	
	C7402	CEAT2R2M50	Not used	
	C7403, C7404	CKSQYB102K50	Not used	
	C7405	CEAT101M10	Not used	
	C7406, C7407	CCSQCH270J50	Not used	
	C7408	CKSQYB561K50	Not used	
	C7409	CEAT1R0M50	Not used	
	R7038	RS1/10S271J	Not used	
	R7062	RS1/10S0R0J	Not used	
	R7401, S7407, S7408	RS1/10S102J	Not used	
	R7403	RS1/10S222J	Not used	
	R7404	RS1/10S473J	Not used	
	R7405	RS1/10S333J	Not used	
	R7406	RS1/10S104J	Not used	
	X7401 CRYSTAL RESONATOR (4.332MHz)	ASS7004	Not used	

VF PRIMARY ASSY

AWX7429 and AWX7345 are constructed the same except for the following :

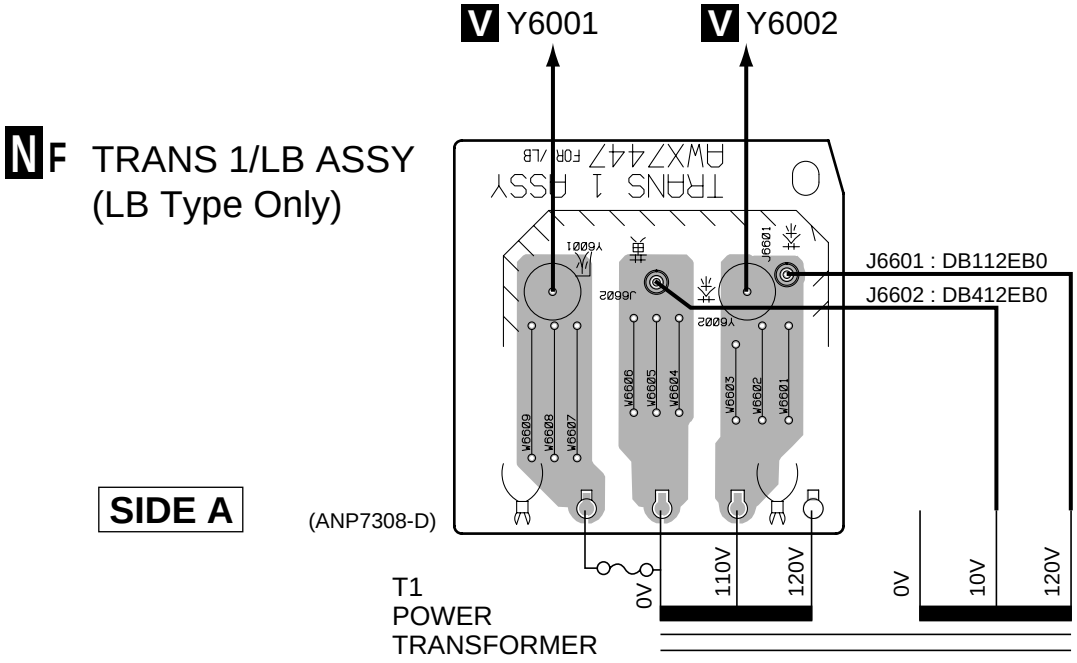
Mark	Symbol and Description	Part No.		Remarks
		AWX7345	AWX7429	
⚠	C6002, C6003 (10000pF/AC250V)	ACE7014	ACG7020	
	C6006	CEAT221M25	CEAT470M25	
	L6003, L6004	ATX1012	Not used	
⚠	RY6001 POWER RELAY	ASR1044	ASR7022	
⚠	T6001 STANDBY TRANS.	ATT7040	ATT7041	
	R6002	RD1/4PU1R0J	Not used	
	Y6003	ADX7321	Not used	
	Y6004	ADX7320	Not used	
	Y6005	ADX7319	Not used	
⚠	6004 3P AC OUTLET	Not used	AKP1053	

NF TRANS 1/LB ASSY

TRANS 1/LB Assy has no service parts.

2. PCB CONNECTION DIAGRAM

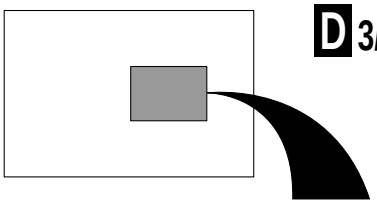
2.1 TRANS 1/LB ASSY



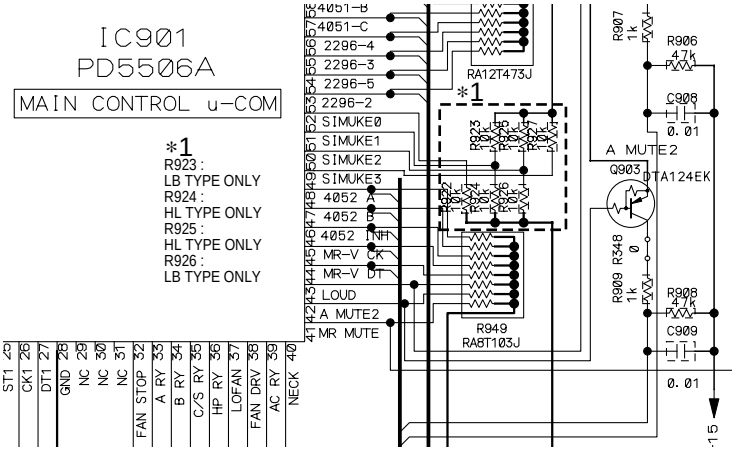
3. SCHEMATIC DIAGRAM

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

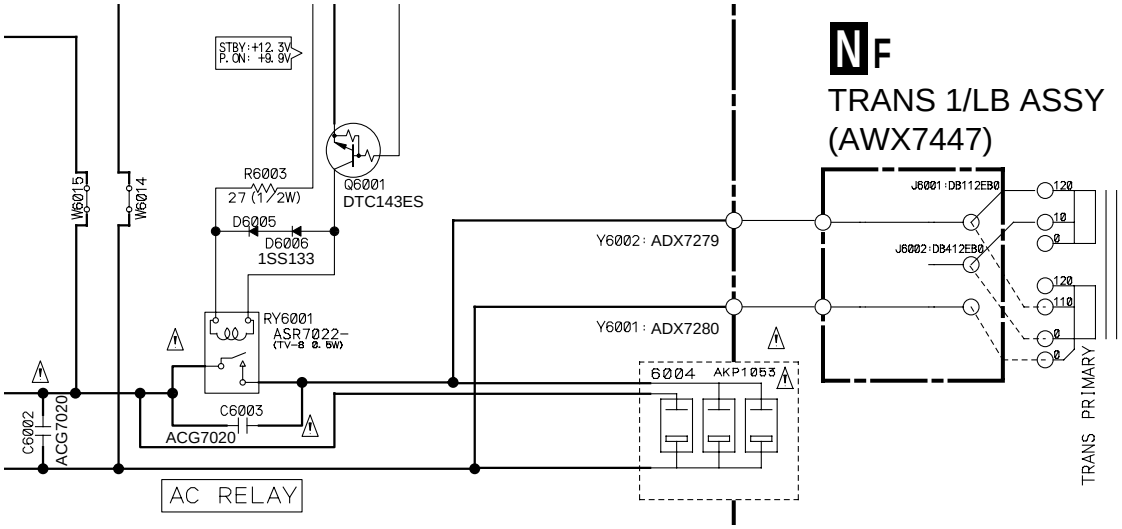
3.1 MAIN CONTROL, PRIMARY and TRANS 1/LB ASSYS



D 3/3F MAIN CONTROL ASSY
(HL TYPE : AWX7465)
(LB TYPE : AWX7428)

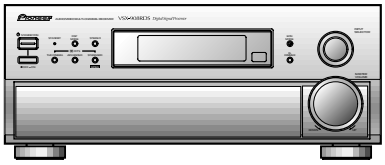


V F PRIMARY ASSY
(LB Type Only : AWX7429)



N F
TRANS 1/LB ASSY
(AWX7447)

Service Manual



ORDER NO.
RRV2166

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-908RDS
VSX-908RDS-G

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-908RDS	VSX-908RDS-G		
HY/EW	◯	–	AC220-230V	AC240V, ✻
HY/GR	◯	–	AC220-230V	AC240V, ✻
HV	◯	–	AC230V	AC240V, ✻
HY	–	◯	AC220-230V	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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T – ZZK JULY 1999 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
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.

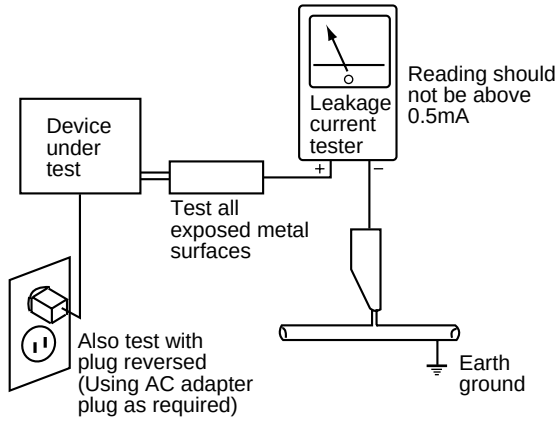
(FOR USA MODEL ONLY)

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

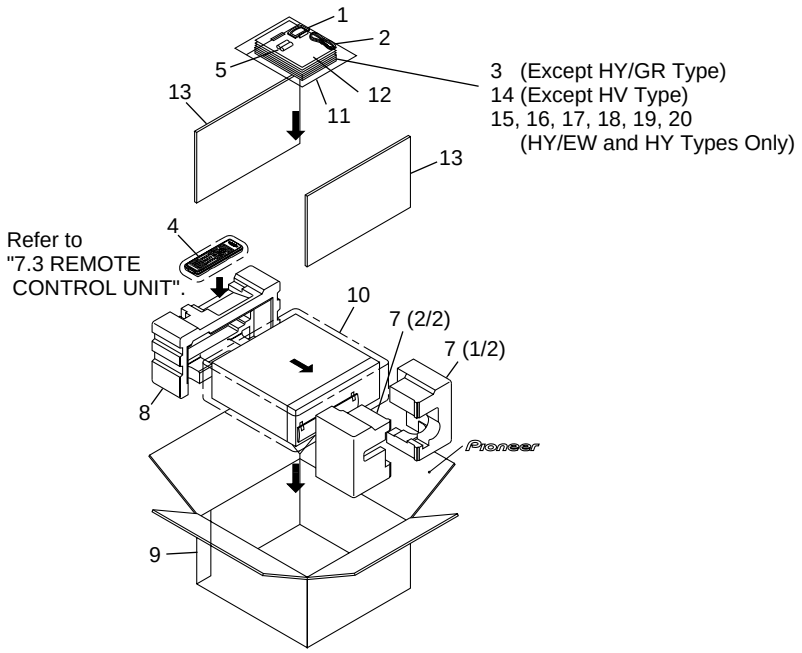
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

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

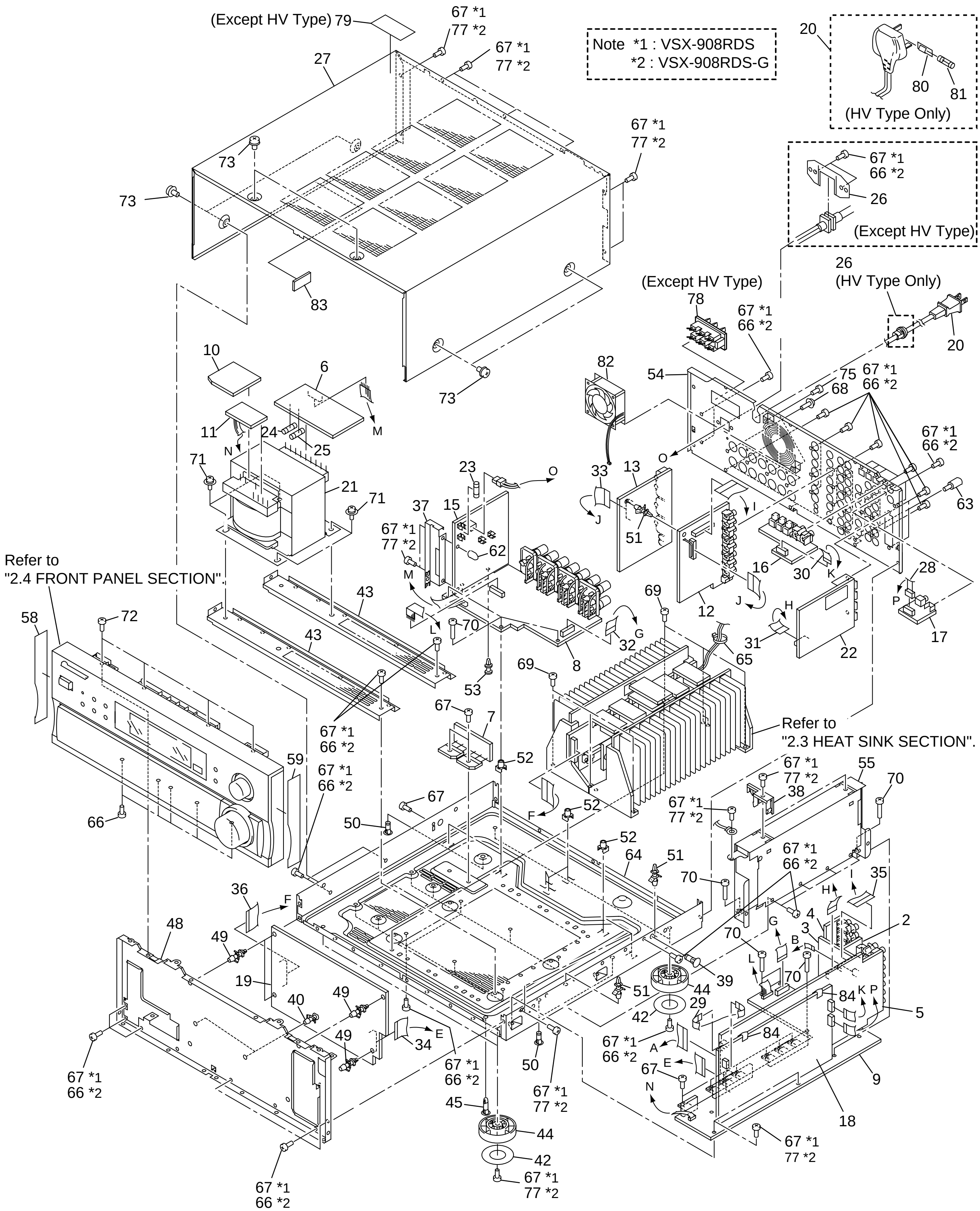
Mark	No.	Description	Part No.
	1	AM Loop Antenna	ATB7009
	2	FM Wire Antenna	ADH7010
	3	Operating Instructions(English)	See Contrast table (2)
	4	Remote Control Unit	See Contrast table (2)
NSP	5	Alkaline Dry Cell Battery (LR6, AA)	VEM1012
	6	•••••	
	7	Front Pad	AHA7253
	8	Rear Pad	AHA7254
	9	Packing Case	See Contrast table (2)
	10	Packing Sheet	RHC1023
	11	Polyethylene Bag (0.03×230×340)	Z21-038
NSP	12	Warranty Card	ARY7022
	13	Spacer	AHB7032
	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)
	18	Operating Instructions	See Contrast table (2)
	19	Operating Instructions	See Contrast table (2)
	20	Operating Instructions	See Contrast table (2)

(2) CONTRAST TABLE

VSX-908RDS/HY/EW, HY/GR, HV and VSX-908RDS-G/HY are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			VSX-908RDS /HY/EW	VSX-908RDS /HY/GR	VSX-908RDS /HV	VSX-908RDS -G/HY	
	3	Operating Instructions (English)	ARB7187	Not used	ARB7187	ARB7187	
	4	Remote Control Unit (CU-VSX162)	AXD7214	AXD7214	AXD7214	Not used	
	4	Remote Control Unit (CU-VSX165)	Not used	Not used	Not used	AXD7236	
	9	Packing Case	AHD7814	AHD7814	AHD7814	AHD7815	
	14	Operating Instructions (German)	ARC7244	ARC7244	Not used	ARC7244	
	15	Operating Instructions (French)	ARC7245	Not used	Not used	ARC7245	
	16	Operating Instructions (Italian)	ARC7246	Not used	Not used	ARC7246	
	17	Operating Instructions (Dutch)	ARC7270	Not used	Not used	ARC7270	
	18	Operating Instructions (Swedish)	ARC7280	Not used	Not used	ARC7280	
	19	Operating Instructions (Spanish)	ARC7281	Not used	Not used	ARC7281	
	20	Operating Instructions (Portuguese)	ARC7282	Not used	Not used	ARC7282	

2.2 EXTERIOR


Note *1 : VSX-908RDS
*2 : VSX-908RDS-G
(Except HV Type) 79
(HV Type Only)
(Except HV Type)
26
(HV Type Only)
(Except HV Type)
78
Refer to
"2.4 FRONT PANEL SECTION".
Refer to
"2.3 HEAT SINK SECTION".
67 *1
77 *2
67 *1
66 *2

(1) EXTERIOR PARTS LIST

Mark	No.	Description	Part No.
	1	• • • • •	
NSP	2	EXTERNAL IN Assy	AWX7413
NSP	3	A-PINJACK Assy	AWX7412
	4	CONNECTION Assy	AWX7347
	5	MAIN CONTROL Assy	AWX7410
	6	TRANS 2-1 ASSY	AWX7403
	7	DIODE Assy	AWX7343
	8	SP/PS Assy	AWX7359
	9	REGULATOR Assy	AWX7310
	10	TRANS 1 Assy	AWX7316
	11	TRANS 2-2 Assy	AWX7518
	12	VIDEO Assy	AWX7422
	13	S-VIDEO Assy	AWX7395
	14	• • • • •	
	15	PRIMARY Assy	See Contrast table (2)
	16	DIGITAL-I/O Assy	AWX7396
NSP	17	RF TERMINAL Assy	AWX7376
	18	DSP Assy	AWX7272
	19	V-AMP Assy	AWX7309
⚠	20	AC Power Cord	See Contrast table (2)
⚠	21	Power Transformer (T1)	ATS7253
	22	FM/AM TUNER Unit	AXX7048
⚠	23	Fuse (FU1 : T4A)	AEK-514
⚠	24	Fuse (FU4 : T2A)	AEK-511
⚠	25	Fuse (FU5 : T2A)	AEK-511
	26	AC Cord Spacer	See Contrast table (2)
	27	Bonnet Case	See Contrast table (2)
	28	2P Shield with Housing (J24)	ADX7250
	29	Lead Card 07P (J13)	ADD7161
	30	Lead Card 11P AD (J22)	ADD7170
	31	Lead Card 13P AD (J16)	ADD7169
	32	Lead Card 14P (J17)	ADD7165
	33	Lead Card 21P (J18)	ADD7164
	34	Lead Card 23P BD SLD (J12)	ADD7160
	35	Lead Card 26P (J15)	ADD7163
	36	Lead Card 28P (J23)	ADD7171
	37	Assy Holder	ANG7121
	38	Assy Holder B	AMR7267
	39	Card Spacer	AEC7133
	40	Card Spacer	DEC1772

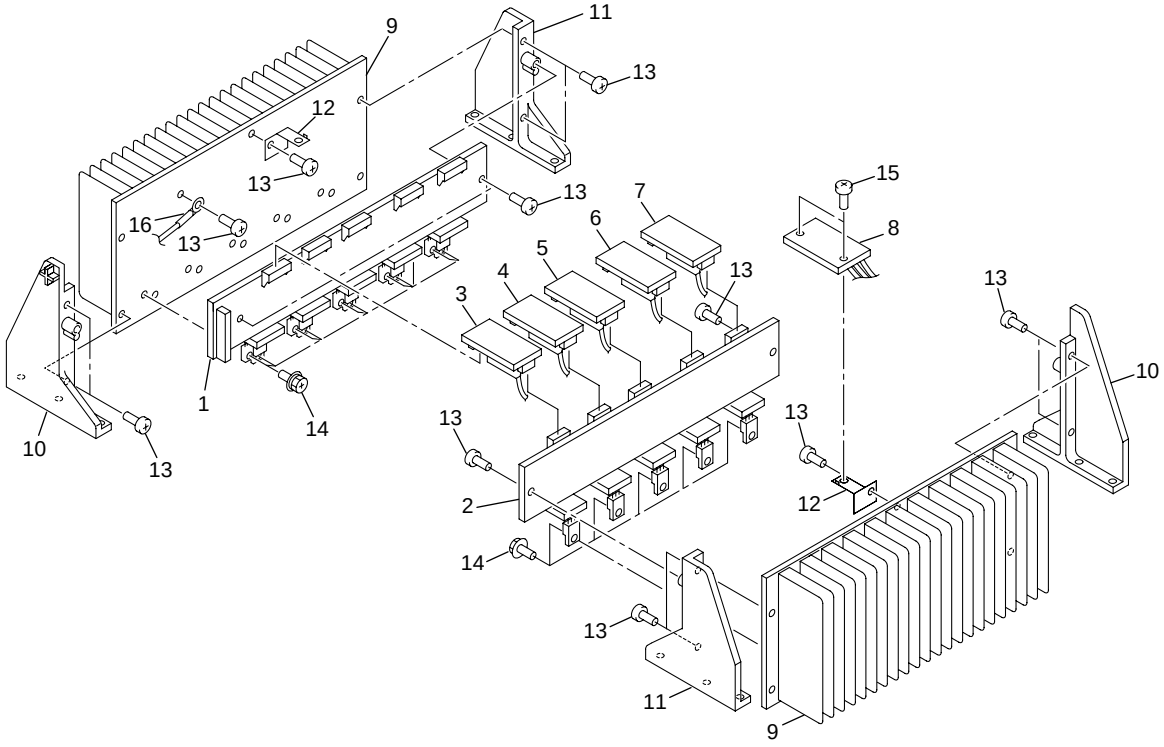
Mark	No.	Description	Part No.
	41	• • • • •	
	42	Cushion 55	PNM1316
NSP	43	Frame 26	ANG7238
	44	Insulator	PNW2766
	45	Locking Card Spacer	DEC1908
	46	• • • • •	
	47	• • • • •	
NSP	48	Panel Stay 26	AND7031
	49	PC Support	VEC1549
NSP	50	PCB Holder	AEC7057
NSP	51	PCB Holder	PNW2100
NSP	52	PCB Mould	AMR1525
	53	PCB Spacer	AEC1372
	54	Rear Panel	See Contrast table (2)
	55	Shield Case	ANK7054
	56	• • • • •	
	57	• • • • •	
	58	Side Escutheon L	See Contrast table (2)
	59	Side Escutheon R	See Contrast table (2)
	60	• • • • •	
	61	• • • • •	
	62	Stud Cover	AEC7105
	63	Terminal Screw	AKE-031
NSP	64	Under Base 26	ANA7089
NSP	65	Binder (BK-1)	ZCA-BK1
	66	Screw	BBT30P080FCC
	67	Screw	BBZ30P080FZK
	68	Screw	ABA1193
	69	Screw	IBZ30P080FCC
	70	Screw	BBZ30P180FMC
	71	Screw	ABA1015
	72	Screw	See Contrast table (2)
	73	Screw	See Contrast table (2)
	74	Screw	BBZ30P060FCC
	75	Screw	IBZ30P100FCC
	76	Screw	BBT30P080FZK
	77	Screw	BBZ30P080FCC
⚠	78	AC Socket 3P	See Contrast table (2)
	79	Caution Label	See Contrast table (2)
	80	Fuse Holder	See Contrast table (2)
⚠	81	Fuse (T5A)	See Contrast table (2)
⚠	82	Fan Motor	AXM7012
NSP	83	Spacer	AEB1254
	84	Remo-con. Cushion	AEB7167

(2) CONTRAST TABLE

VSX-908RDS/HY/EW, HY/GR, HV and VSX-908RDS-G/HY are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			VSX-908RDS /HY/EW	VSX-908RDS /HY/GR	VSX-908RDS /HV	VSX-908RDS -G/HY	
	15	PRIMARY Assy	AWX7345	AWX7345	AWX7454	AWX7345	
⚠	20	AC Power Cord	ADG7029	ADG7029	VDG1063	ADG7029	
	26	AC Cord Spacer	ANG1153	ANG1153	Not used	ANG1153	
	26	Cord Stopper	Not used	Not used	CM-22B	Not used	
	27	Bonnet Case	AZN7808	AZN7808	AZN7808	AZN7809	
	54	Rear Panel	ANC7742	ANC7742	ANC7818	ANC7866	
	58	Side Escutheon L 98	AAK7660	AAK7660	AAK7660	Not used	
	58	Side Escutheon L D8	Not used	Not used	Not used	AAK7662	
	59	Side Escutheon R 98	AAK7661	AAK7661	AAK7661	Not used	
	59	Side Escutheon R D8	Not used	Not used	Not used	AAK7663	
	72	Screw	BBT30P100FZK	BBT30P100FZK	BBT30P100FZK	BBT30P100FCC	
	73	Screw	FBT40P080FZK	FBT40P080FZK	FBT40P080FZK	FBT40P080FNI	
⚠	78	AC Socket 3p	AKP-502	AKP-502	Not used	AKP-502	
	79	Caution Label	ARW7036	ARW7036	Not used	ARW7036	
	80	Fuse Holder	Not used	Not used	VKR1003	Not used	
⚠	81	Fuse (T5A)	Not used	Not used	PEK1003	Not used	

2.3 HEAT SINK SECTION



(1) HEAT SINK SECTION PARTS LIST

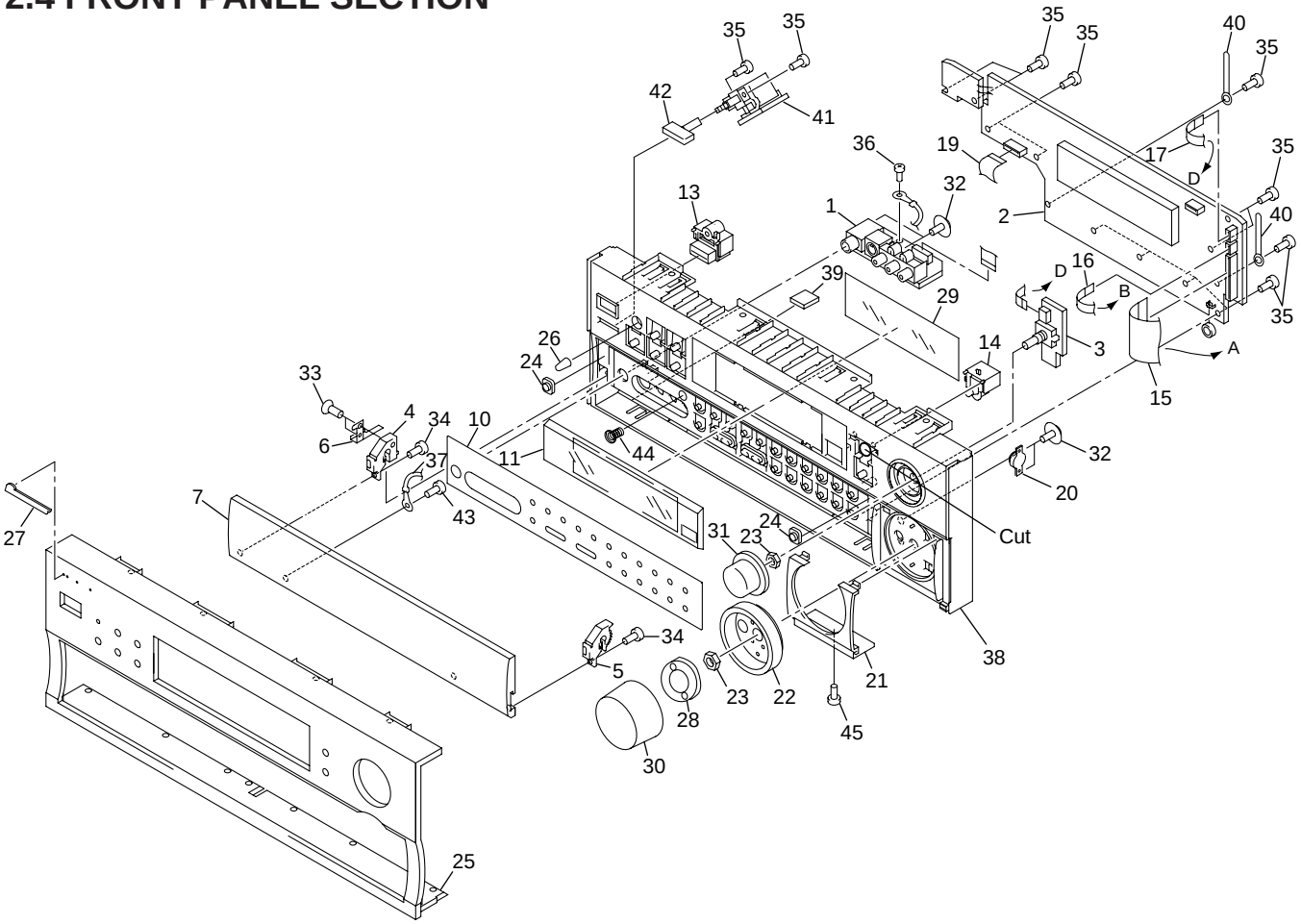
Mark	No.	Description	Part No.
	1	C-AMP N Assy	AWX7318
NSP	2	C-AMP-P Assy	AWX7317
NSP	3	OUTPUT-SL Assy	AWX7322
NSP	4	OUTPUT-FL Assy	AWX7319
	5	OUTPUT-C Assy	AWX7321
NSP	6	OUTPUT-FR Assy	AWX7320
NSP	7	OUTPUT-SR Assy	AWX7323
	8	VL-TERMINAL Assy	AWX7324
NSP	9	Heat Sink	ANH7102
	10	Heat Sink Holder B	AMR7256
	11	Heat Sink Holder A	AMR7255
NSP	12	Power Supply Plate	ANG7240
	13	Screw	See Contrast table (2)
	14	Screw	ABA1082
	15	Screw	IBZ30P080FCC
⚠	16	Thermistor	AEX7004

(2) CONTRAST TABLE

VSX-908RDS/HY/EW, HY/GR, HV and VSX-908RDS-G/HY are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			VSX-908RDS /HY/EW	VSX-908RDS /HY/GR	VSX-908RDS /HV	VSX-908RDS -G/HY	
	13	Screw	BBZ30P080FZK	BBZ30P080FZK	BBZ30P080FZK	BBZ30P080FCC	

2.4 FRONT PANEL SECTION



(1) FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	H. PHONE/F. VIDEO Assy	AWX7342
	2	DISPLAY Assy	AWX7414
NSP	3	ROTARY ENCODER Assy	AWX7405
	4	Door Hinge L	See Contrast table (2)
	5	Door Hinge R	See Contrast table (2)
NSP	6	Magnet Angle	ANG7241
	7	Door Panel	See Contrast table (2)
	8	• • • • •	
	9	• • • • •	
	10	Door Sheet	See Contrast table (2)
	11	Display Panel	See Contrast table (2)
	12	• • • • •	
	13	Power Button (STANDBY/ON)	See Contrast table (2)
	14	MR Button (MULTIROOM)	See Contrast table (2)
	15	Lead Card 32P (J11)	ADD7159
	16	Lead Card 05P (J14)	ADD7162
	17	Lead Card 06P (J20)	ADD7167
	18	• • • • •	
	19	Lead Card 12P (J21)	ADD7166
	20	Damper Assy (60)	AXA7076
	21	Sub Panel	See Contrast table (2)
	22	Volume Ring	See Contrast table (2)
	23	Nut	NK90FUC
	24	Door Cusion	See Contrast table (2)
	25	Front Panel	See Contrast table (2)

Mark	No.	Description	Part No.
	26	LED Lens	PNW2019
	27	Name Plate	See Contrast table (2)
	28	Ring Spacer D5	AWL7038
	29	FL Sheet D10	AAK7629
	30	Volume Knob (MASTER VOLUME)	See Contrast table (2)
	31	Rotary Knob (INPUT SELECTOR)	See Contrast table (2)
	32	Screw	ABA7053
	33	Screw	PBA1096
	34	Screw	BBZ30P060FCC
	35	Screw	BPZ30P080FMC
	36	Screw	See Contrast table (2)
NSP	37	Cord with Plug	ADH7020
	38	Panel Base	See Contrast table (2)
	39	Magnet	AMF7002
	40	Cord Clamper	RNH-184
	41	P-SW Assy	AWX7330
	42	Power Button MG	See Contrast table (2)
	43	Screw	See Contrast table (2)
	44	GND Spring	ABH7172
	45	Screw	See Contrast table (2)

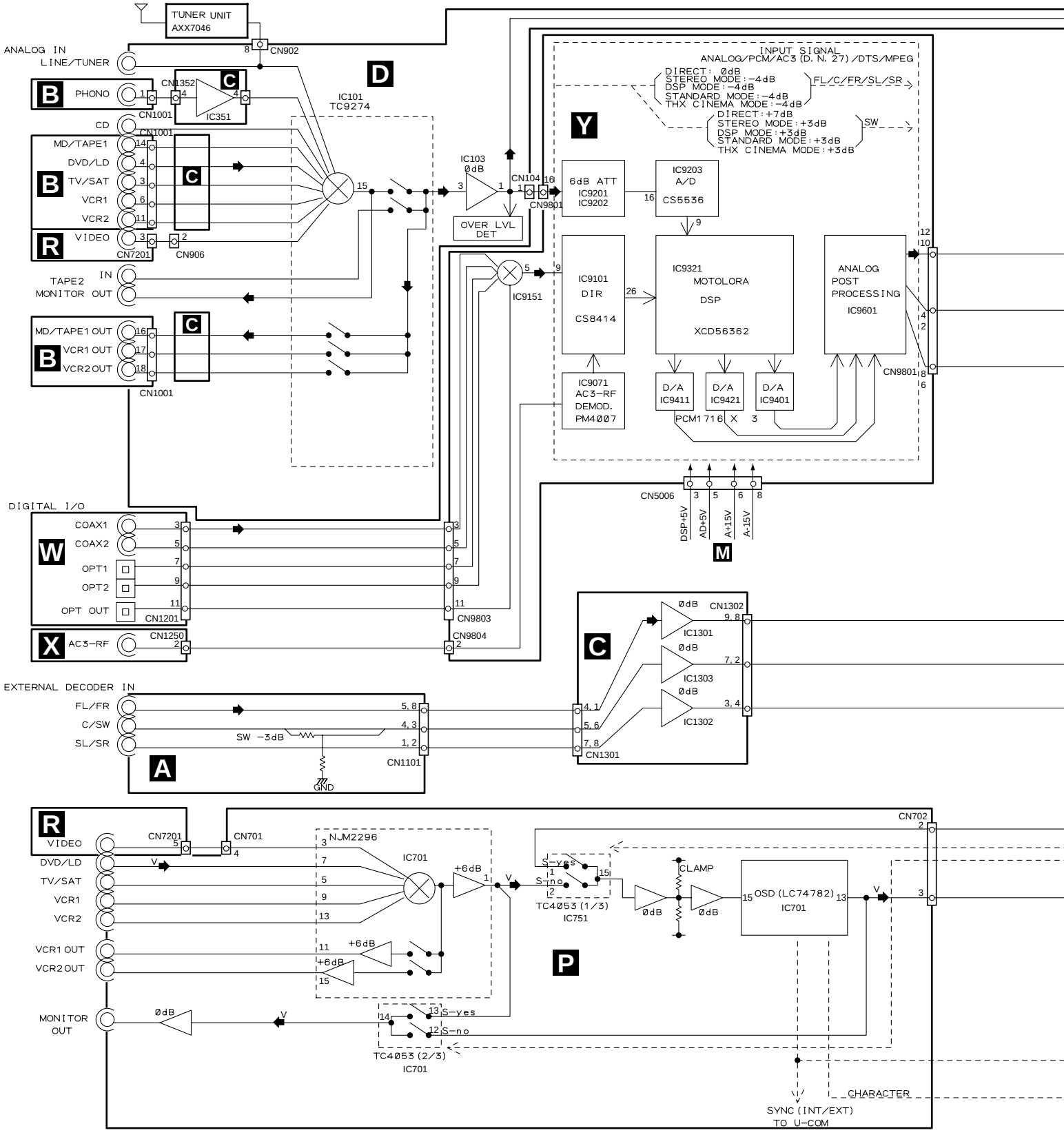
(2) CONTRAST TABLE

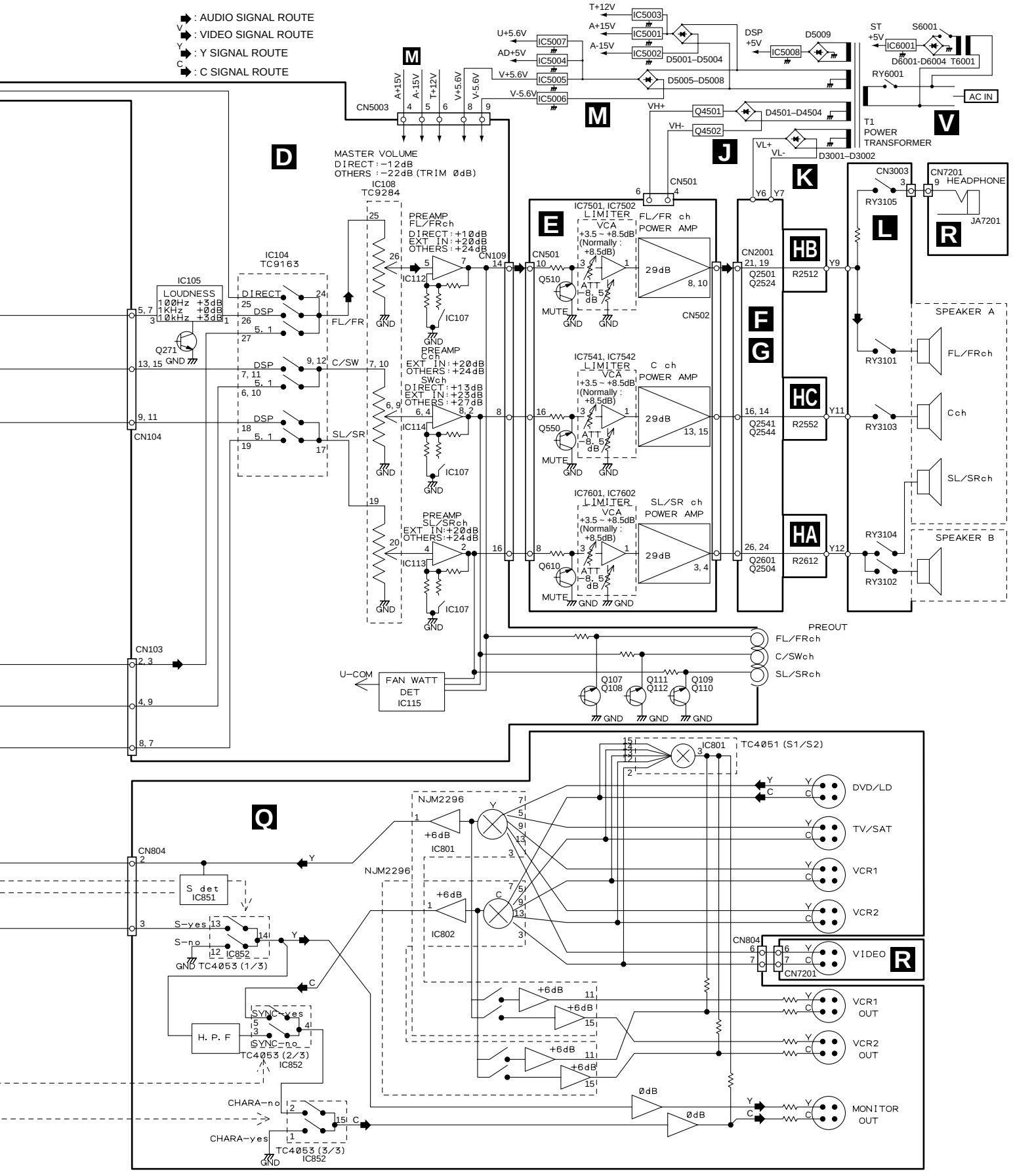
VSX-908RDS/HY/EW, HY/GR, HV and VSX-908RDS-G/HY are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			VSX-908RDS /HY/EW	VSX-908RDS /HY/GR	VSX-908RDS /HV	VSX-908RDS -G/HY	
	4	Door Hinge 26 L	AMR7252	AMR7252	AMR7252	Not used	
	4	Door Hinge D10 L	Not used	Not used	Not used	AMR7250	
	5	Door Hinge 26 R	AMR7253	AMR7253	AMR7253	Not used	
	5	Door Hinge D10 R	Not used	Not used	Not used	AMR7251	
	7	Door Panel 98	ANB7199	ANB7199	ANB7199	Not used	
	7	Door Panel E07	Not used	Not used	Not used	ANB7175	
	10	Door Sheet 98R	AAK7664	AAK7664	AAK7664	Not used	
	10	Door Sheet 98RG	Not used	Not used	Not used	AAH7057	
	11	Display Panel SD	AAK7630	AAK7630	AAK7630	Not used	
	11	Display Panel SDG	Not used	Not used	Not used	AAK7631	
	13	Power Button	AAD7440	AAD7440	AAD7440	Not used	
	13	Power Button G	Not used	Not used	Not used	AAD7485	
	14	MR Button 26	AAD7514	AAD7514	AAD7514	Not used	
	14	MR Button G	Not used	Not used	Not used	AAD7541	
	21	Sub Panel 98	ANB7200	ANB7200	ANB7200	Not used	
	21	Sub Panel D8	Not used	Not used	Not used	ANB7207	
	22	Volume Ring 98	AAH7028	AAH7028	AAH7028	Not used	
	22	Volume Ring D10	Not used	Not used	Not used	AAH7016	
	24	Door Cusion B	AEB7152	AEB7152	AEB7152	Not used	
	24	Door Cusion G	Not used	Not used	Not used	AEB7153	
	25	Front Panel 908	ANB7173	ANB7173	ANB7173	Not used	
	25	Front Panel 98RG	Not used	Not used	Not used	ANB7176	
	27	Name Plate B	PAN1376	PAN1376	PAN1376	Not used	
	27	Name Plate G	Not used	Not used	Not used	PAN1377	
	30	Volume Knob 98	AAB7199	AAB7199	AAB7199	Not used	
	30	Volume Knob 98HL	Not used	Not used	Not used	AAB7210	
	31	Rotary Knob 29	AAB7221	AAB7221	AAB7221	Not used	
	31	Rotary Knob E07	Not used	Not used	Not used	AAB7209	
	36	Screw	BBZ30P080FZK	BBZ30P080FZK	BBZ30P080FZK	BBZ30P080FCC	
	38	Panel Base 98	AMB7637	AMB7637	AMB7637	Not used	
	38	Panel Base D8	Not used	Not used	Not used	AMB7572	
	42	Power Button M	AAD7442	AAD7442	AAD7442	Not used	
	42	Power Button MG	Not used	Not used	Not used	AAD7491	
	43	Screw	BBZ30P050FZK	BBZ30P050FZK	BBZ30P050FZK	BBZ30P050FMC	
	45	Screw	BBT30P080FZK	BBT30P080FZK	BBT30P080FZK	BBT30P080FCC	

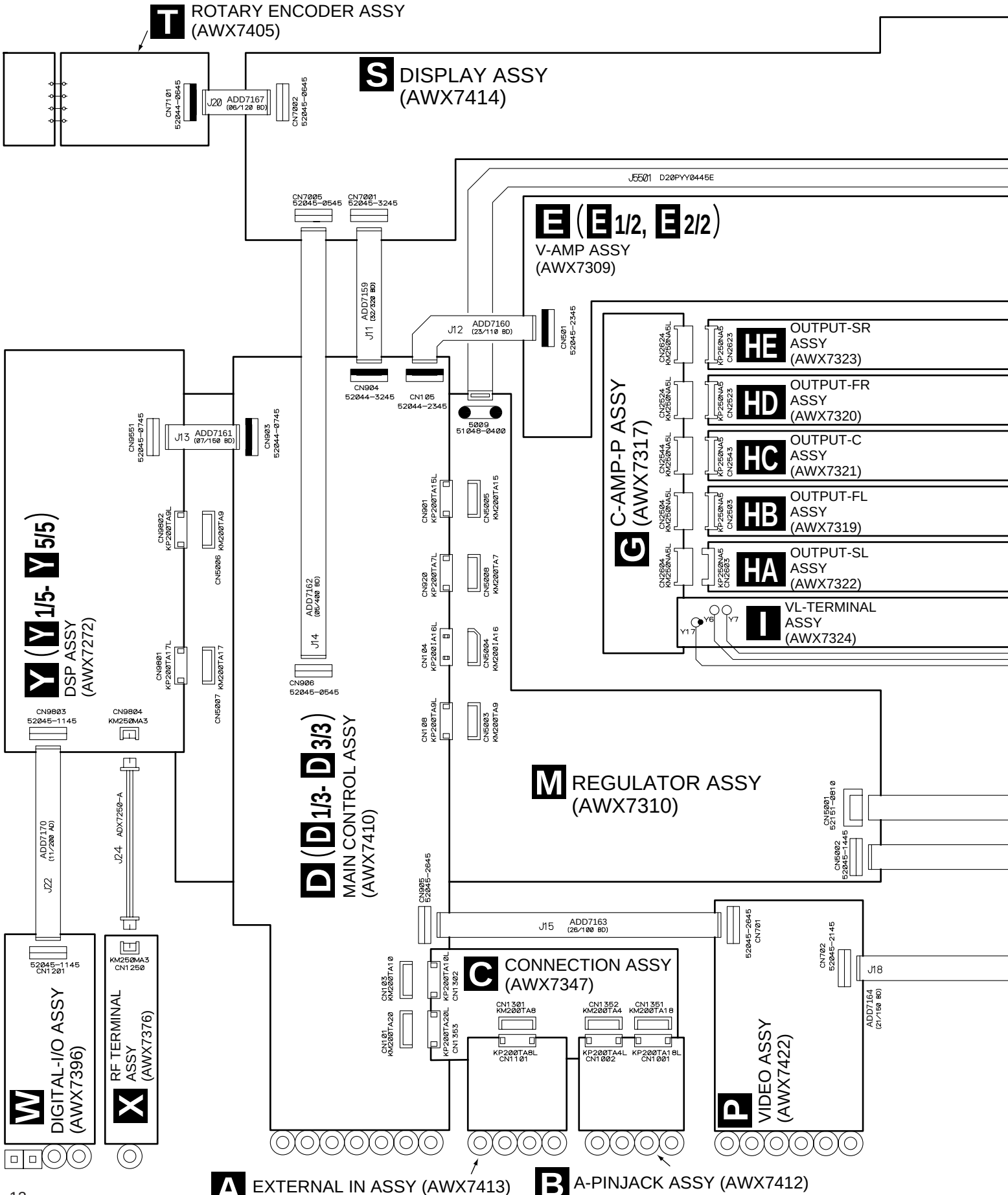
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

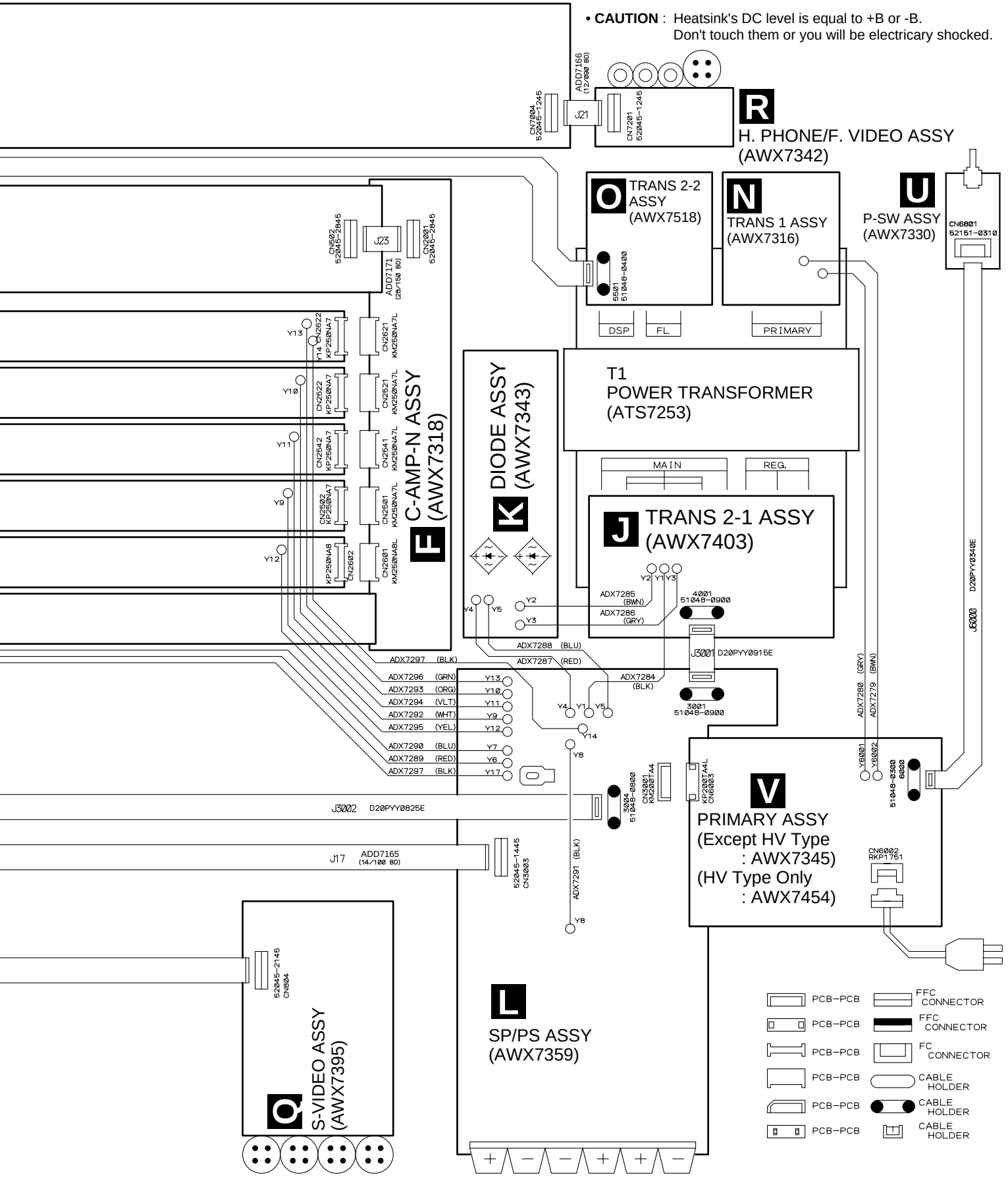



: AUDIO SIGNAL ROUTE
: VIDEO SIGNAL ROUTE
: Y SIGNAL ROUTE
: C SIGNAL ROUTE
M
D
E
F
G
HB
HC
HA
J
K
L
V
R
Q
CN5003
A+15V
A-15V
T+12V
V+5.6V
V-5.6V
IC5003
IC5001
IC5002
IC5007
IC5004
IC5005
IC5006
D5001–D5004
D5005–D5008
D5009
IC5008
DSP +5V
U+5.6V
AD+5V
V+5.6V
V-5.6V
T+12V
A+15V
A-15V
ST +5V
S6001
IC6001
D6001-D6004
T6001
RY6001
AC IN
T1 POWER TRANSFORMER
VH+
VH-
Q4501
Q4502
D4501–D4504
VL+
VL-
D3001–D3002
MASTER VOLUME
DIRECT : −12dB
OTHERS : −22dB (TRIM 0dB)
IC108
TC9284
IC104
TC9163
IC105
LOUDNESS
100Hz +3dB
1KHz +0dB
10kHz +3dB
Q271
DIRECT
DSP
5.1
FL/FR
C/SW
SL/SR
PREAMP
FL/FRch
DIRECT : +10dB
EXT IN : +20dB
OTHERS : +24dB
Cch
EXT IN : +20dB
OTHERS : +24dB
SWch
DIRECT : +13dB
EXT IN : +23dB
OTHERS : +27dB
SL/SRch
EXT IN : +20dB
OTHERS : +24dB
IC112
IC114
IC113
IC107
GND
CN109
CN501
CN502
IC7501, IC7502
IC7541, IC7542
IC7601, IC7602
LIMITER
VCA
+3.5 ~ +8.5dB
(Normally : +8.5dB)
FL/FR ch POWER AMP
C ch POWER AMP
SL/SR ch POWER AMP
29dB
ATT −8.5 dB
Q510
Q550
Q610
MUTE
CN2001
Q2501
Q2524
Q2541
Q2544
Q2601
Q2504
R2512
R2552
R2612
RY3105
RY3101
RY3103
RY3104
RY3102
CN3003
CN7201
HEADPHONE
JA7201
SPEAKER A
FL/FRch
Cch
SL/SRch
SPEAKER B
PREOUT
FL/FRch
C/SWch
SL/SRch
CN103
CN104
U−COM
FAN WATT DET
IC115
Q107
Q108
Q111
Q112
Q109
Q110
IC801
TC4051 (S1/S2)
NJM2296
+6dB
IC802
S det
IC851
S-yes
S-no
IC852
TC4053 (1/3)
SYNC-yes
SYNC-no
H. P. F
TC4053 (2/3)
CHARA-no
CHARA-yes
TC4053 (3/3)
ØdB
DVD/LD
TV/SAT
VCR1
VCR2
VIDEO
VCR1 OUT
VCR2 OUT
MONITOR OUT
CN804
CN7201

3.2 OVERALL WIRING CONNECTION DIAGRAM



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

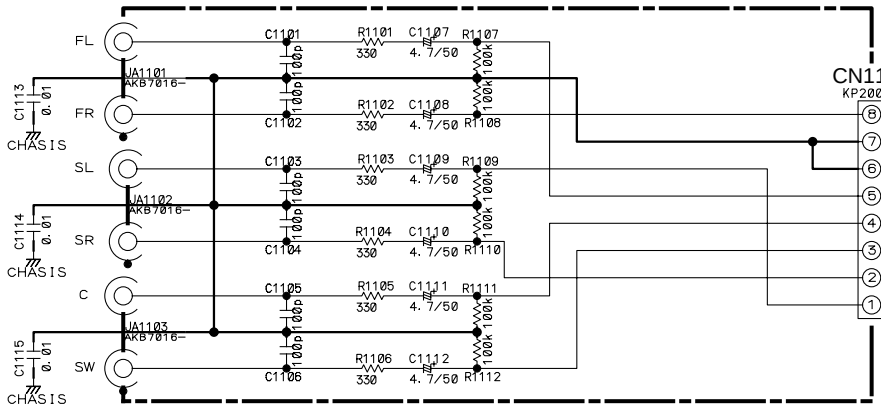


3.3 EXTERNAL IN, A-PINJACK and CONNECTION ASSYS

A

EXTERNAL IN ASSY
(AWX7413)

JA1101-JA1103 :
AKB7095

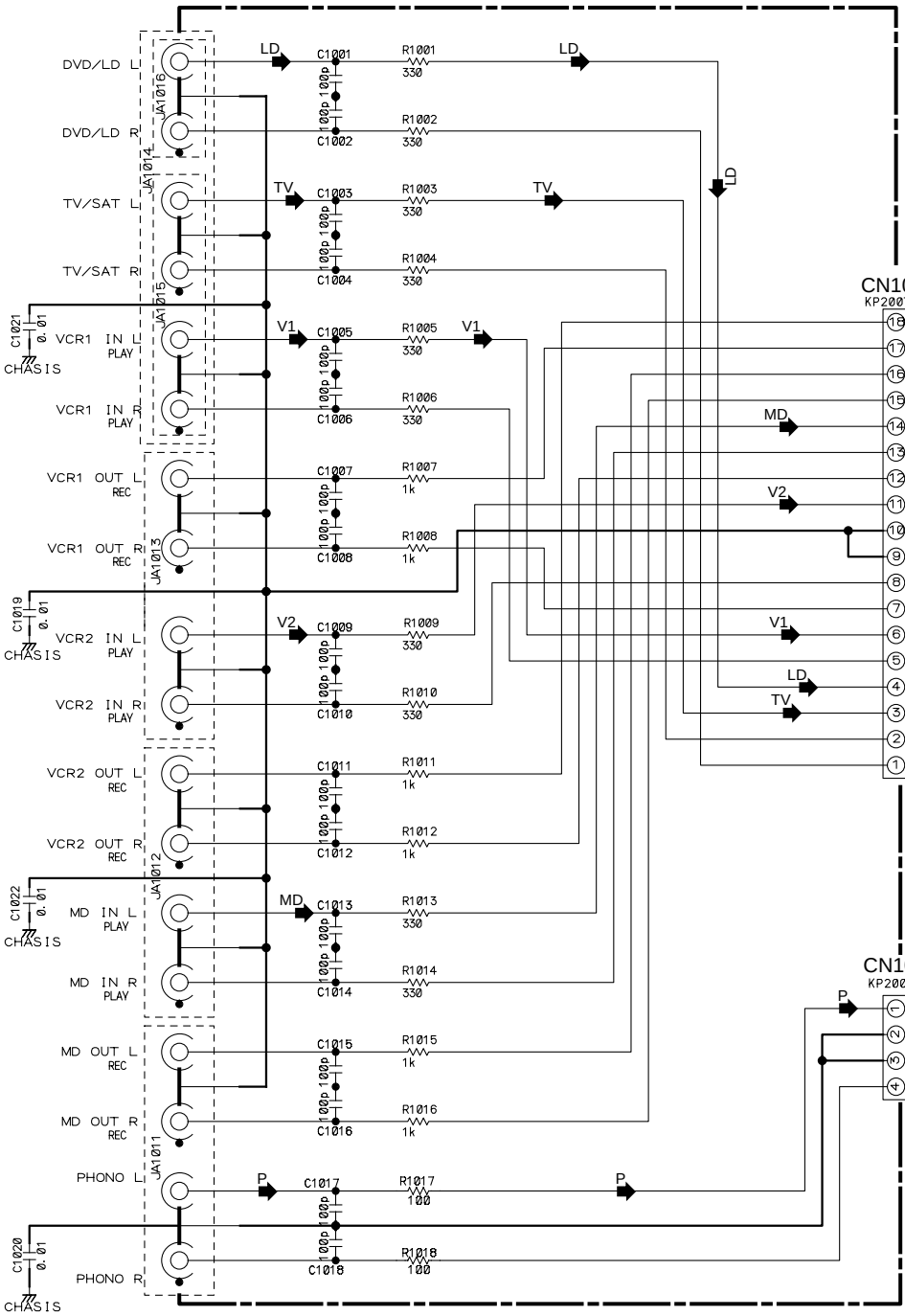


B

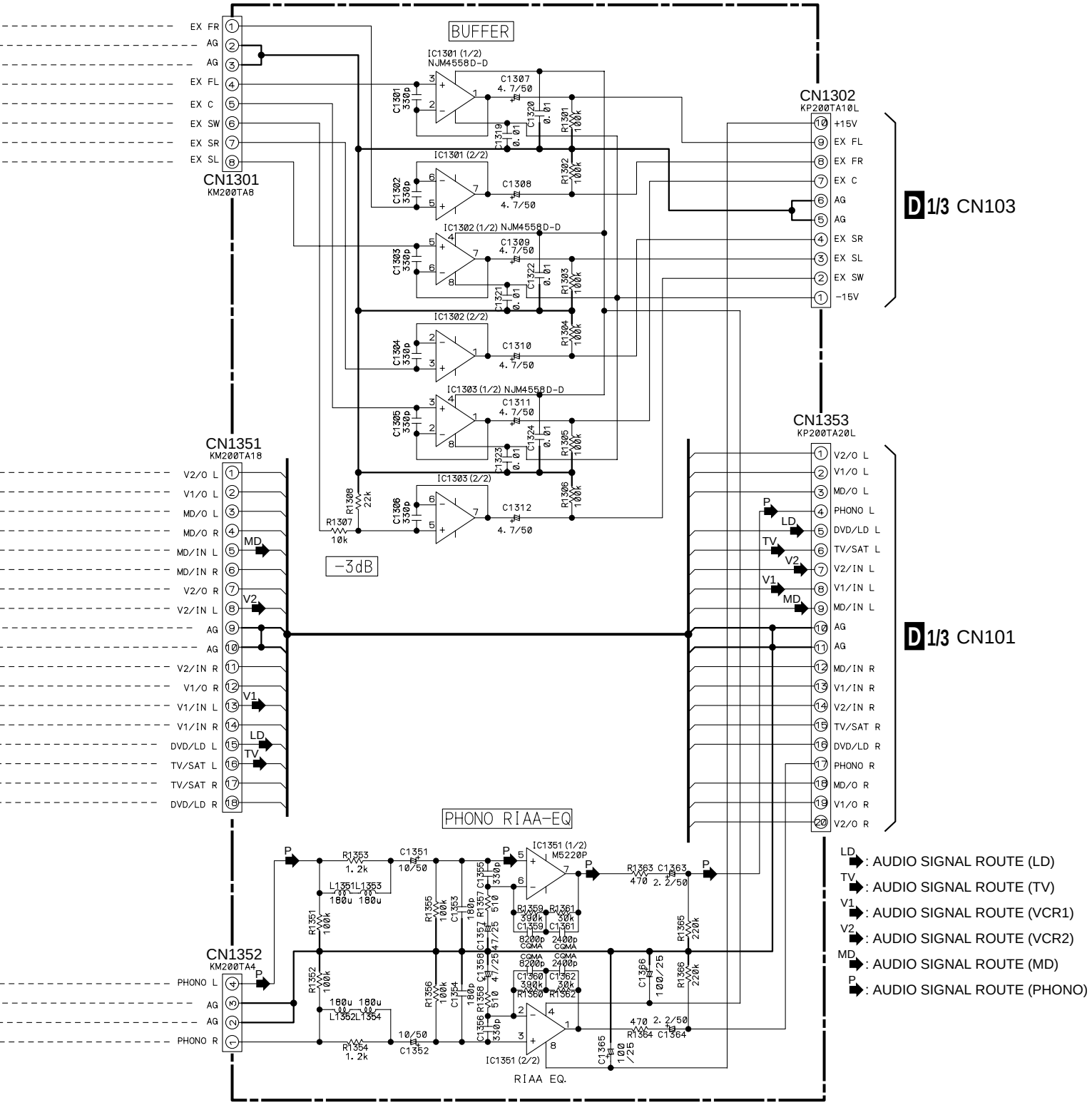
A-PINJACK ASSY
(AWX7412)

JA1015: AKB7048
JA1016: AKB7120

JA1011-JA1013 :
AKB7048



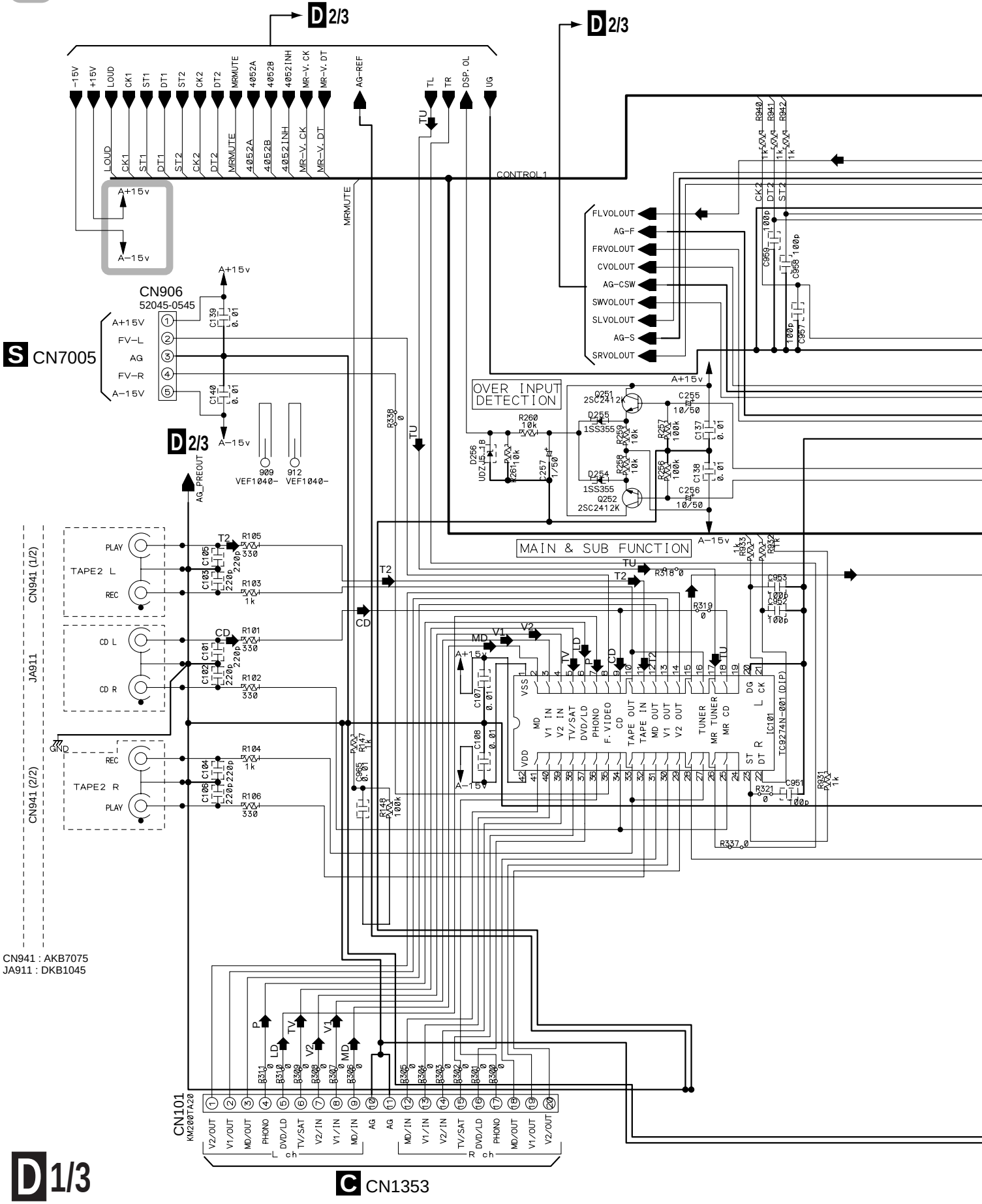
C CONNECTION ASSY (AWX7347)



LD : AUDIO SIGNAL ROUTE (LD)
TV : AUDIO SIGNAL ROUTE (TV)
V1 : AUDIO SIGNAL ROUTE (VCR1)
V2 : AUDIO SIGNAL ROUTE (VCR2)
MD : AUDIO SIGNAL ROUTE (MD)
P : AUDIO SIGNAL ROUTE (PHONO)

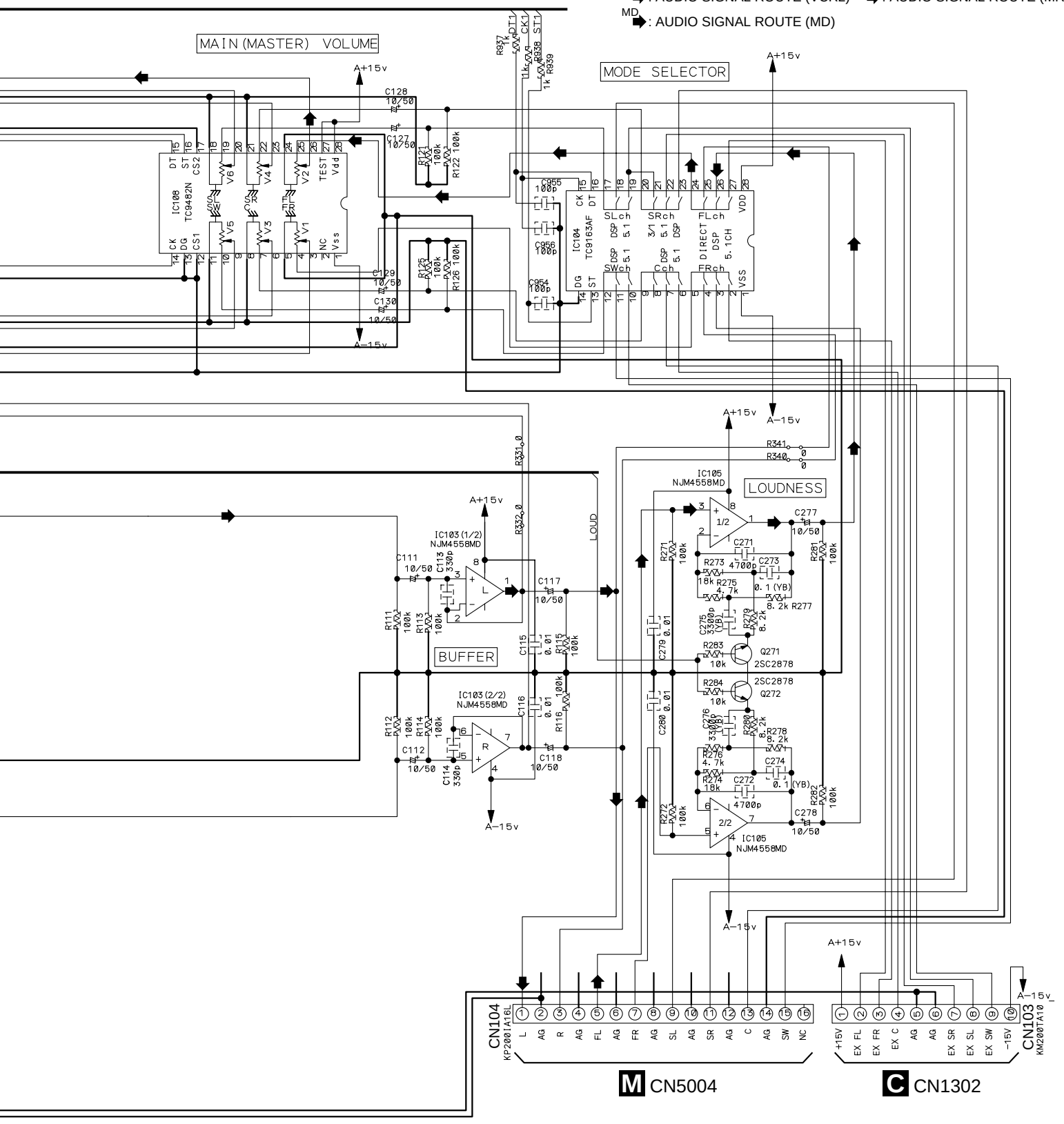
3.4 MAIN CONTROL ASSY (1/3)

: The power supply is shown with the marked box.

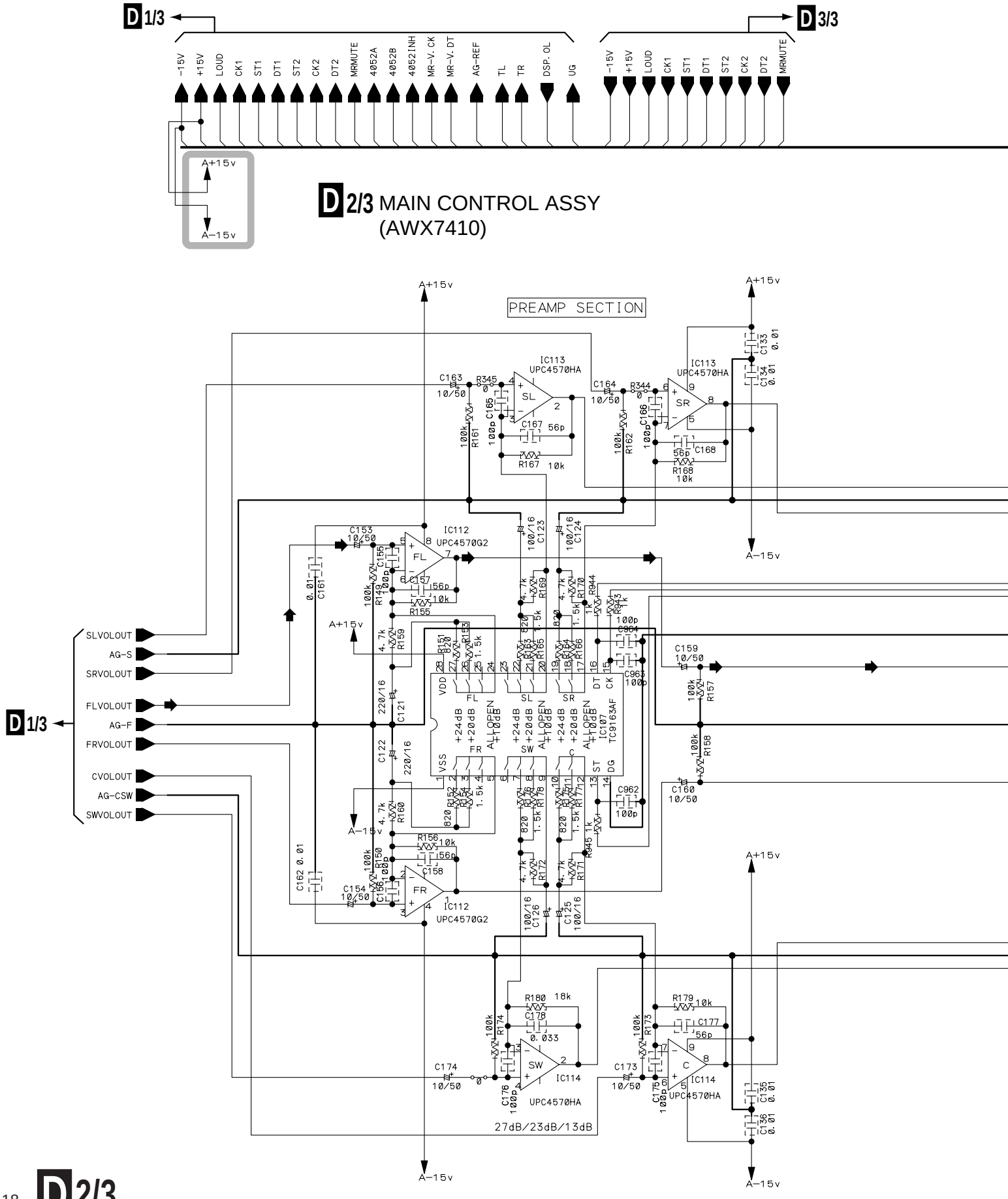


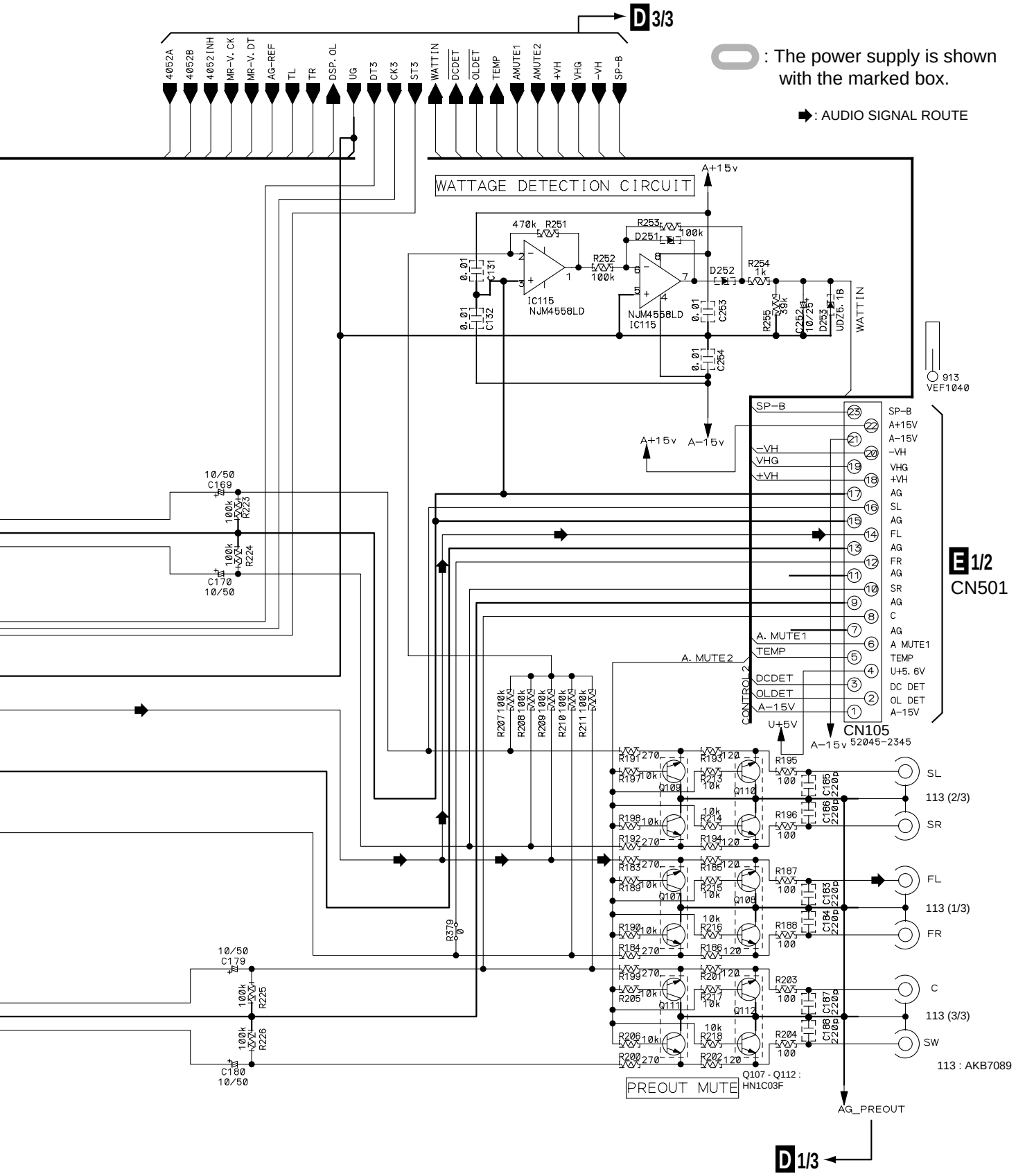
D 1/3
MAIN CONTROL ASSY
(AWX7410)

: AUDIO SIGNAL ROUTE
LD : AUDIO SIGNAL ROUTE (LD)
TV : AUDIO SIGNAL ROUTE (TV)
V1 : AUDIO SIGNAL ROUTE (VCR1)
V2 : AUDIO SIGNAL ROUTE (VCR2)
MD : AUDIO SIGNAL ROUTE (MD)
P : AUDIO SIGNAL ROUTE (PHONO)
TU : AUDIO SIGNAL ROUTE (TUNER)
CD : AUDIO SIGNAL ROUTE (CD)
T2 : AUDIO SIGNAL ROUTE (TAPE2)
MR : AUDIO SIGNAL ROUTE (MR)

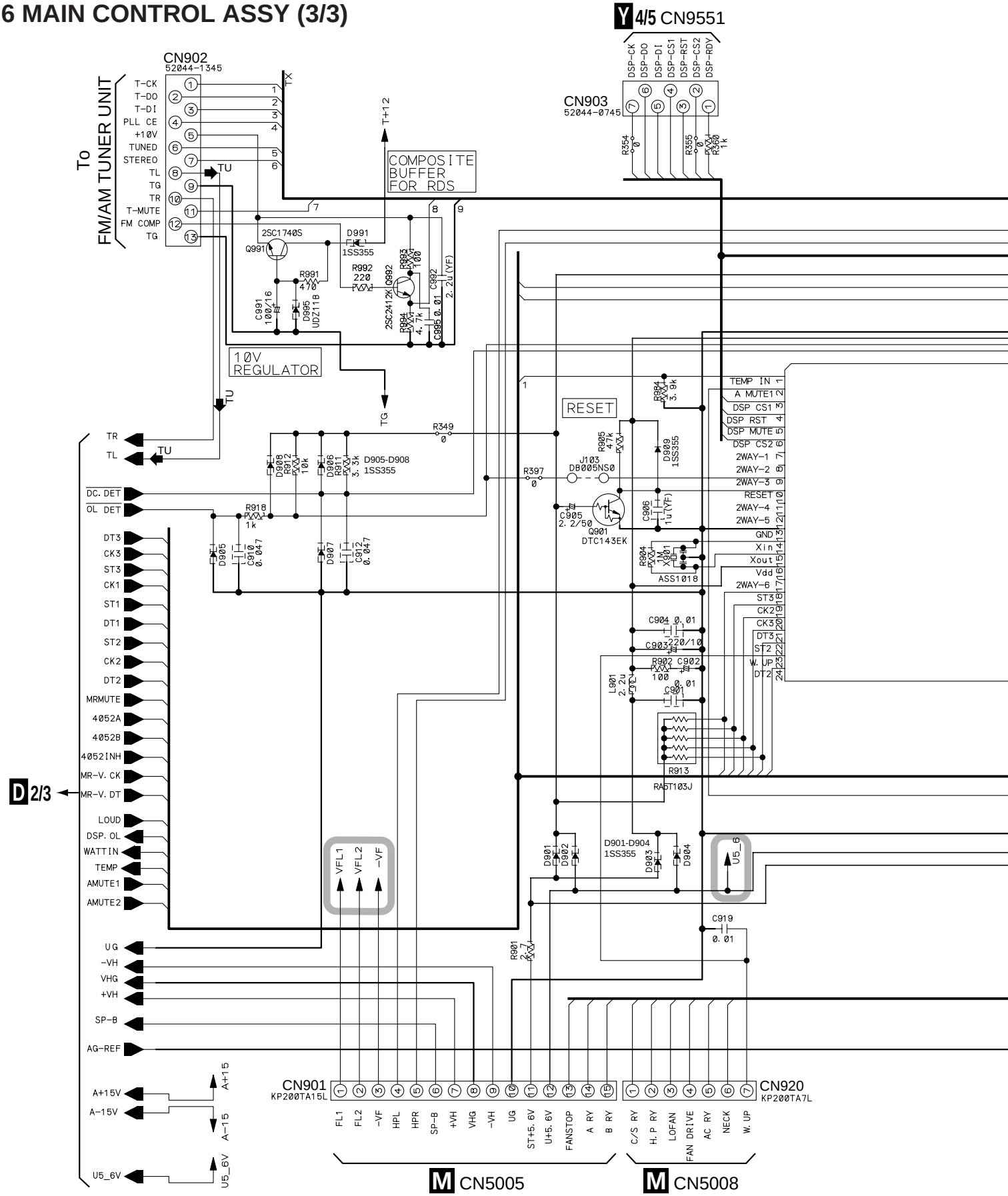


3.5 MAIN CONTROL ASSY (2/3)



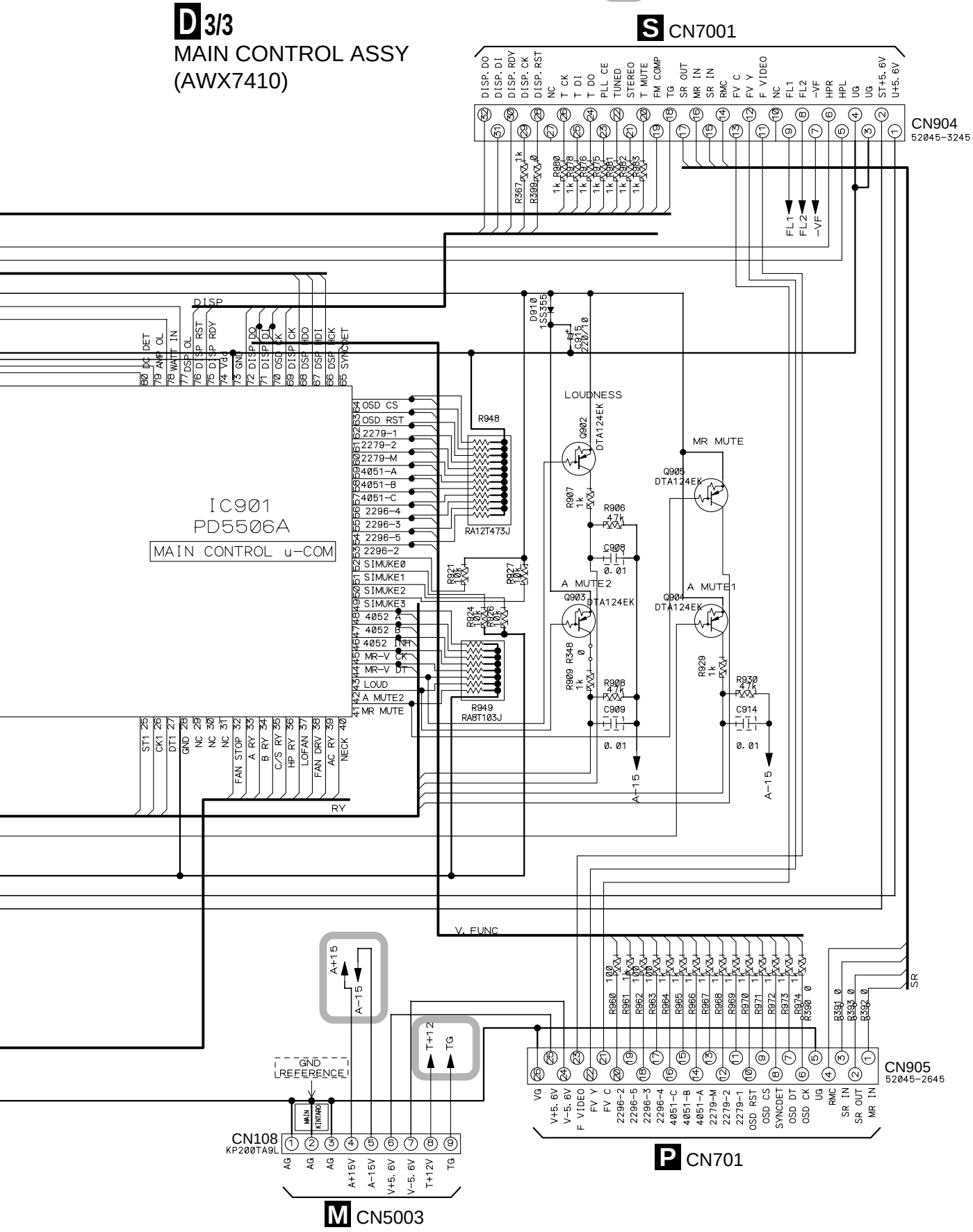

D 3/3
: The power supply is shown with the marked box.
: AUDIO SIGNAL ROUTE
4052A
4052B
4052INH
MR-V. CK
MR-V. DT
AG-REF
TL
TR
DSP. OL
UG
DT3
CK3
ST3
WATTIN
DCDET
OLDET
TEMP
AMUTE1
AMUTE2
+VH
VHG
-VH
SP-B
WATTAGE DETECTION CIRCUIT
A+15v
470k R251
R253
100k
D251
R252
100k
IC115
NJM4558LD
NJM4558LD
IC115
D252
R254
1k
R255
39k
C252
10/25
D253
UDZ5.1B
WATTIN
C131
C132
C253
C254
0.01
913
VEF1040
SP-B
A+15v
A-15v
-VH
VHG
+VH
A. MUTE1
TEMP
A. MUTE2
DCDET
OLDET
A-15v
U+5V
CONTROL 2
CN105
52045-2345
E 1/2
CN501
SP-B
A+15V
A-15V
-VH
VHG
+VH
AG
SL
AG
FL
AG
FR
AG
SR
AG
C
AG
A MUTE1
TEMP
U+5. 6V
DC DET
OL DET
A-15V
10/50
C169
C170
C179
C180
100k
R223
R224
R225
R226
R207 100k
R208 100k
R209 100k
R210 100k
R211 100k
R379
0
R191 270
R193 120
R195
100
R197 10k
R213 10k
Q109
Q110
C185 220p
SL
113 (2/3)
C186 220p
SR
R198 10k
R214 10k
R196
100
R192 270
R194 120
R183 270
R185 120
R187
100
R189 10k
R215 10k
Q107
Q108
C183 220p
FL
113 (1/3)
C184 220p
FR
R190 10k
R216 10k
R188
100
R184 270
R186 120
R199 270
R201 120
R203
100
R205 10k
R217 10k
Q111
Q112
C187 220p
C
113 (3/3)
C188 220p
SW
R206 10k
R218 10k
R204
100
R200 270
R202 120
113 : AKB7089
Q107 - Q112 : HN1C03F
PREOUT MUTE
AG_PREOUT
D 1/3

3.6 MAIN CONTROL ASSY (3/3)



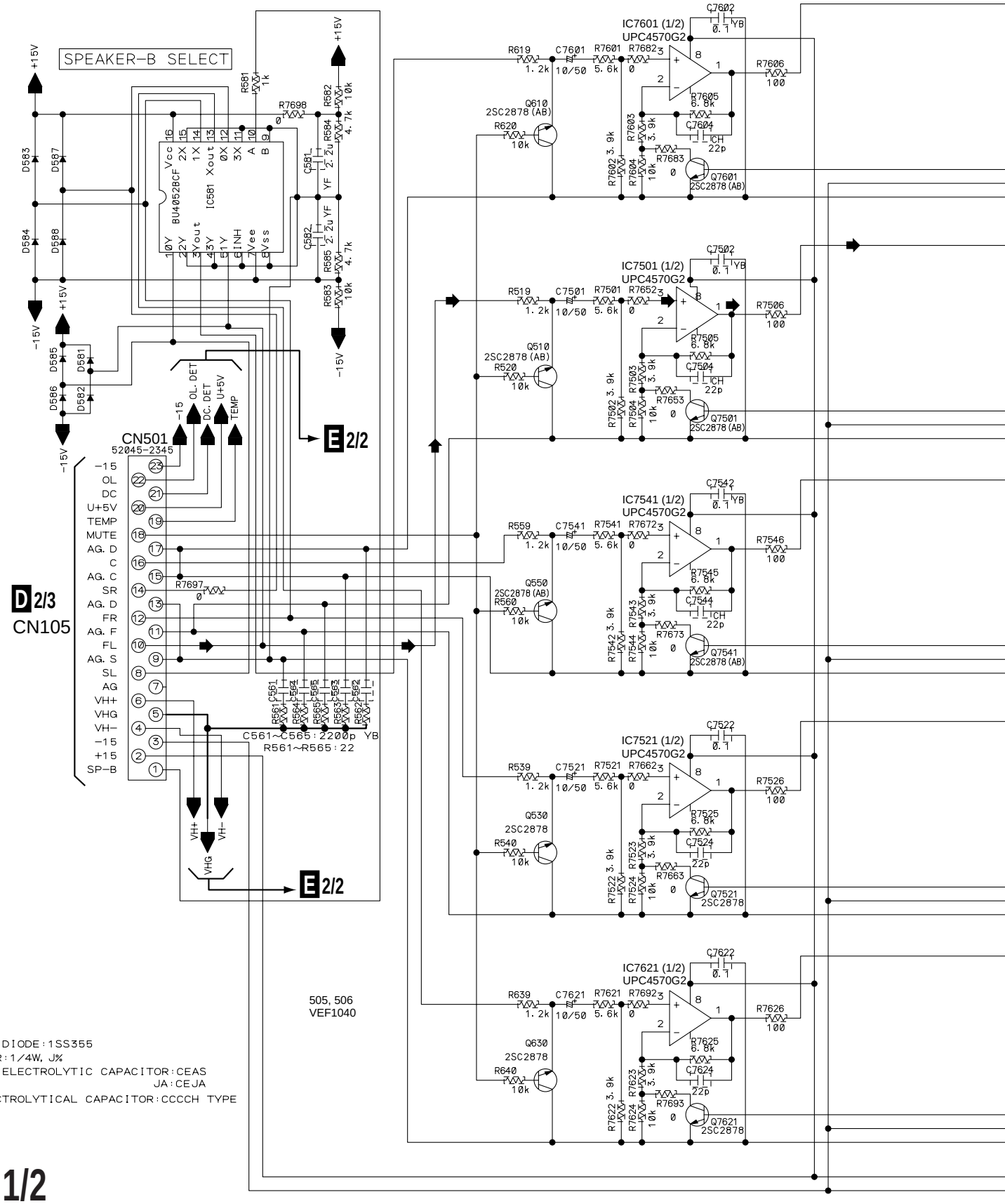
: The power supply is shown with the marked box.

D 3/3
MAIN CONTROL ASSY
(AWX7410)



3.7 V-AMP ASSY (1/2)

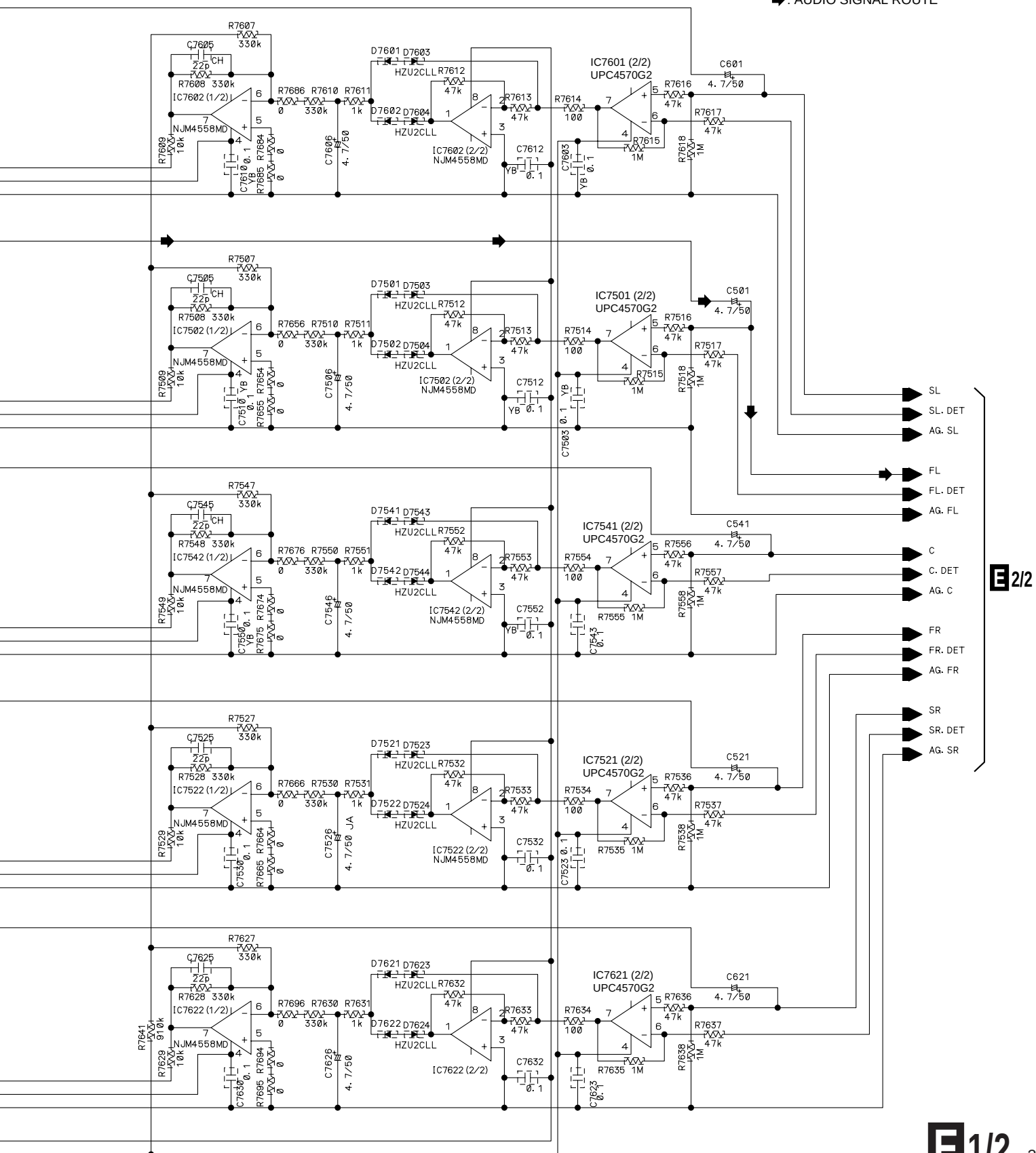
E 1/2 V-AMP ASSY
(AWX7309)



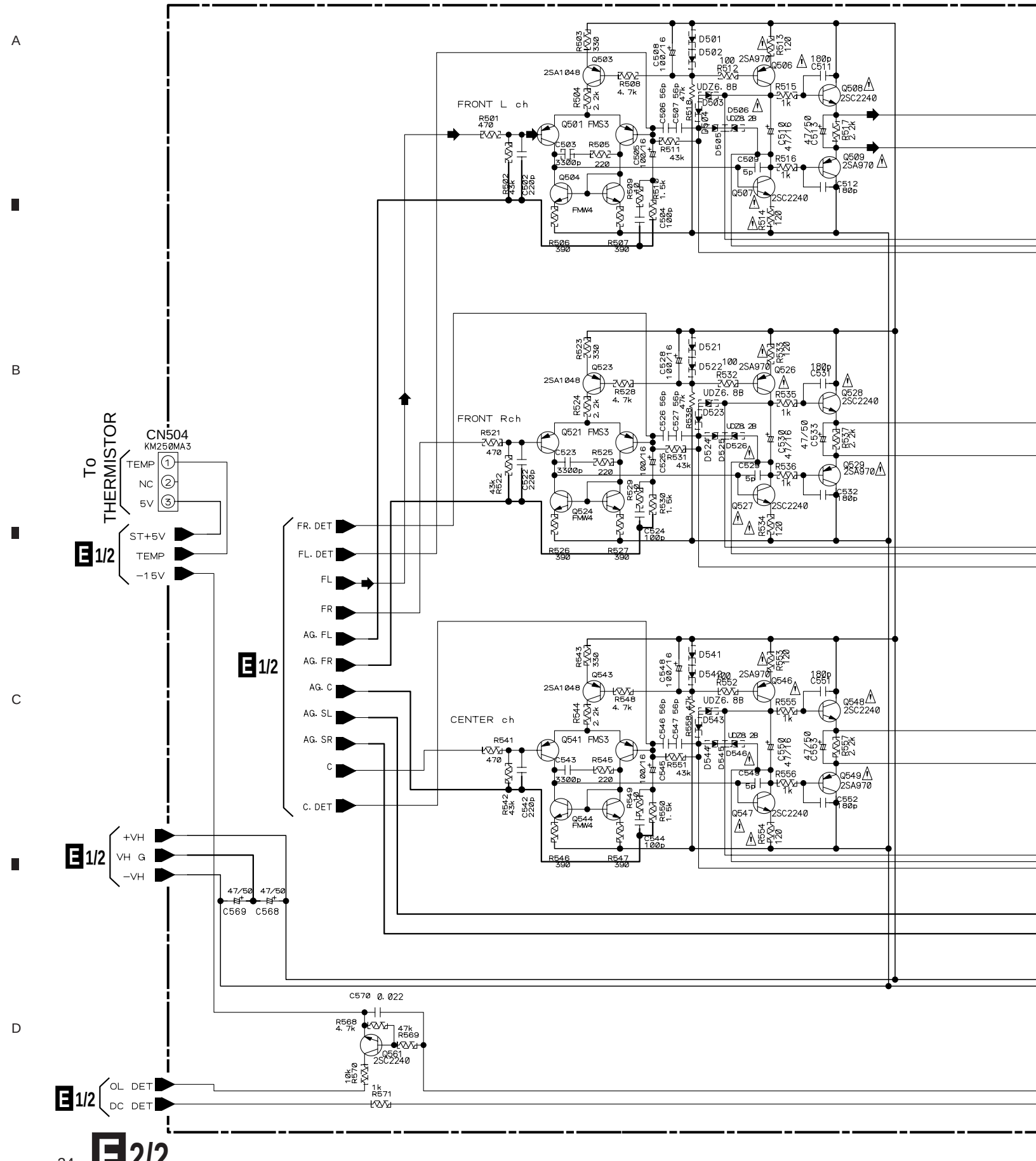
·NO MARK DIODE: 1SS355
·RESISTOR: 1/4W, J%
·NO MARK ELECTROLYTIC CAPACITOR: CEAS
JA: CEJA
·NON ELECTROLYTICAL CAPACITOR: CCCCH TYPE

MAIN CHANNEL LIMITER

➡: AUDIO SIGNAL ROUTE



3.8 V-AMP ASSY (2/2)

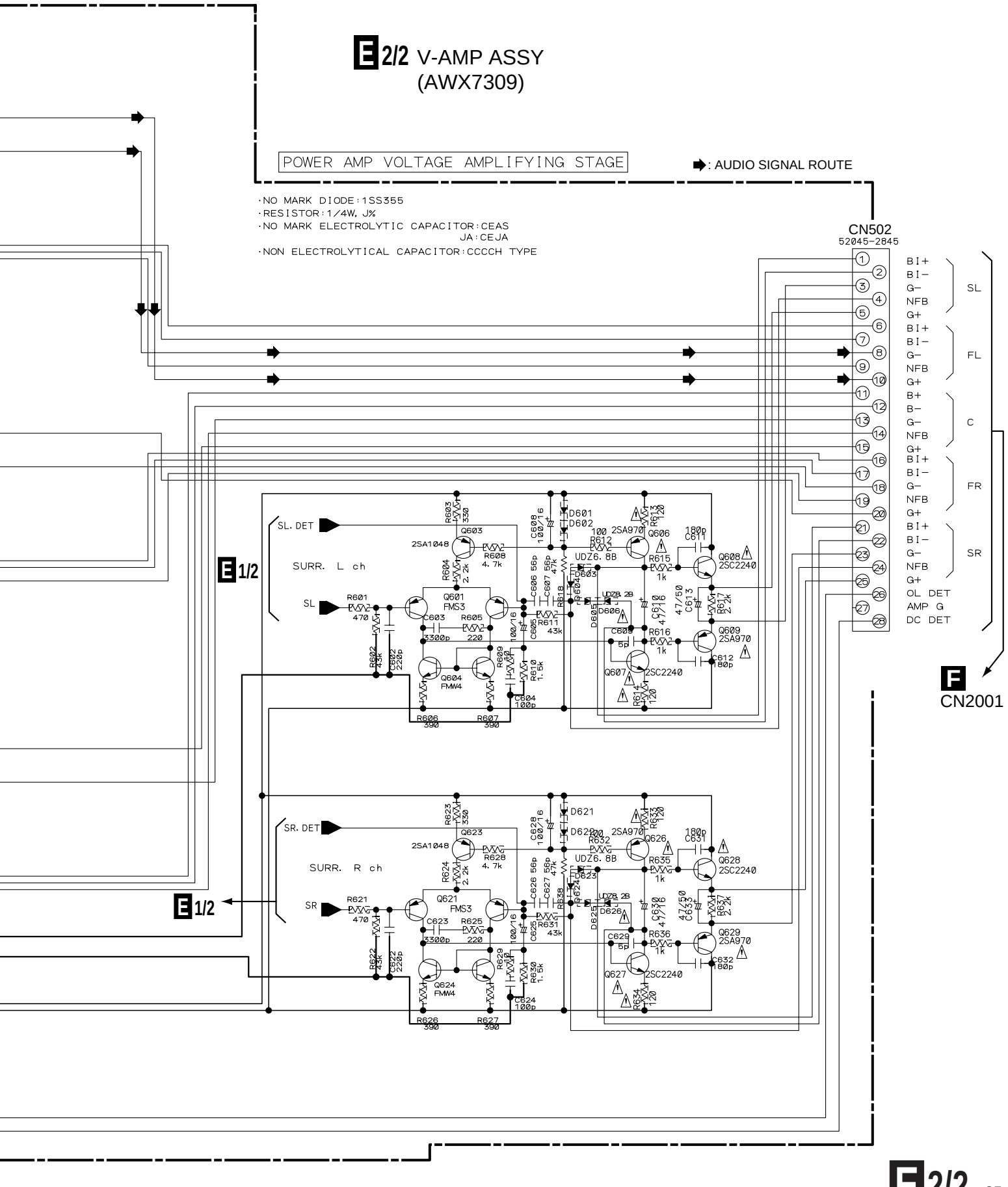


E 2/2 V-AMP ASSY (AWX7309)

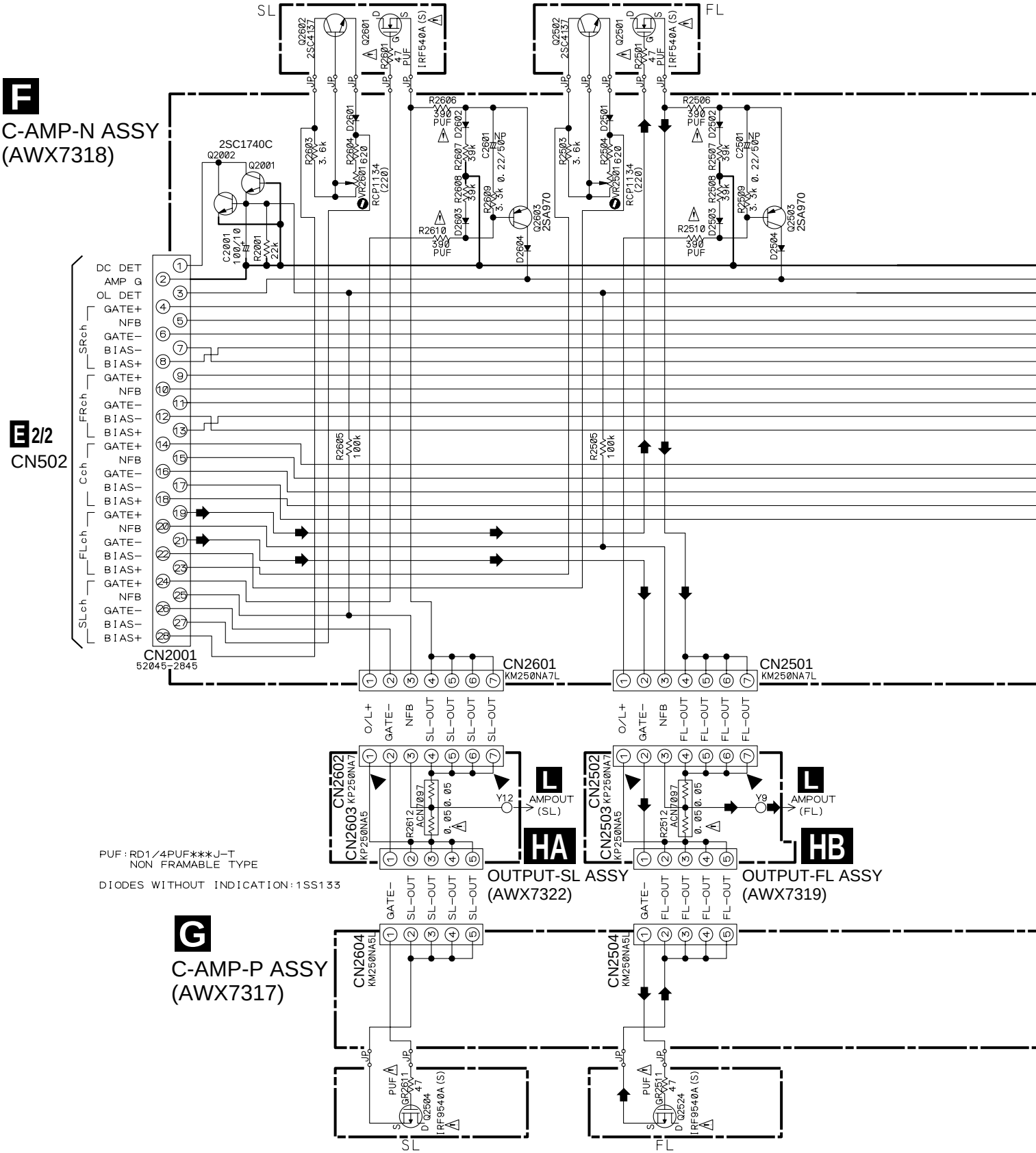
POWER AMP VOLTAGE AMPLIFYING STAGE

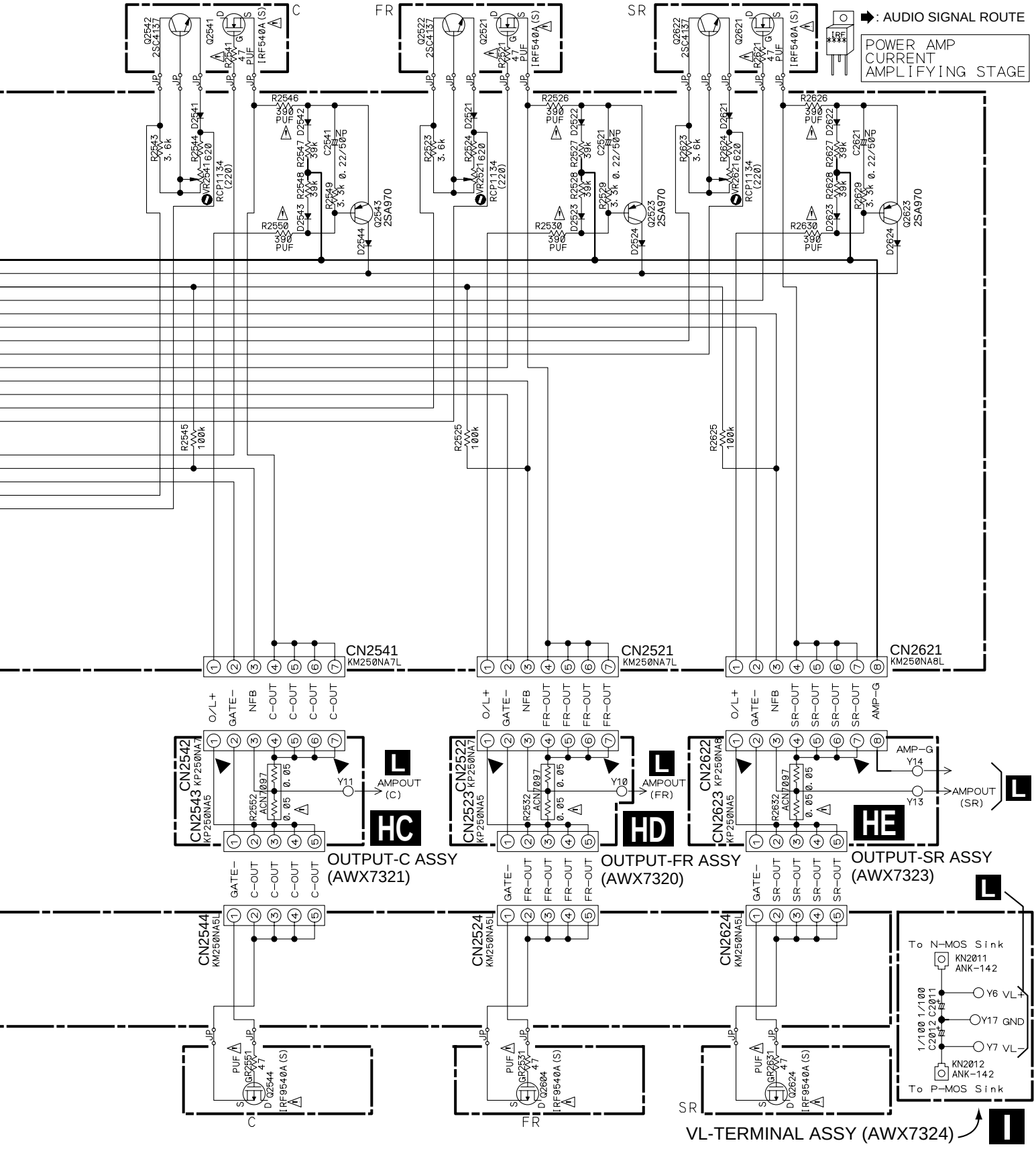
: AUDIO SIGNAL ROUTE

- NO MARK DIODE : 1SS355
- RESISTOR : 1/4W, J%
- NO MARK ELECTROLYTIC CAPACITOR : CEAS
  JA : CEJA
- NON ELECTROLYTICAL CAPACITOR : CCCCH TYPE

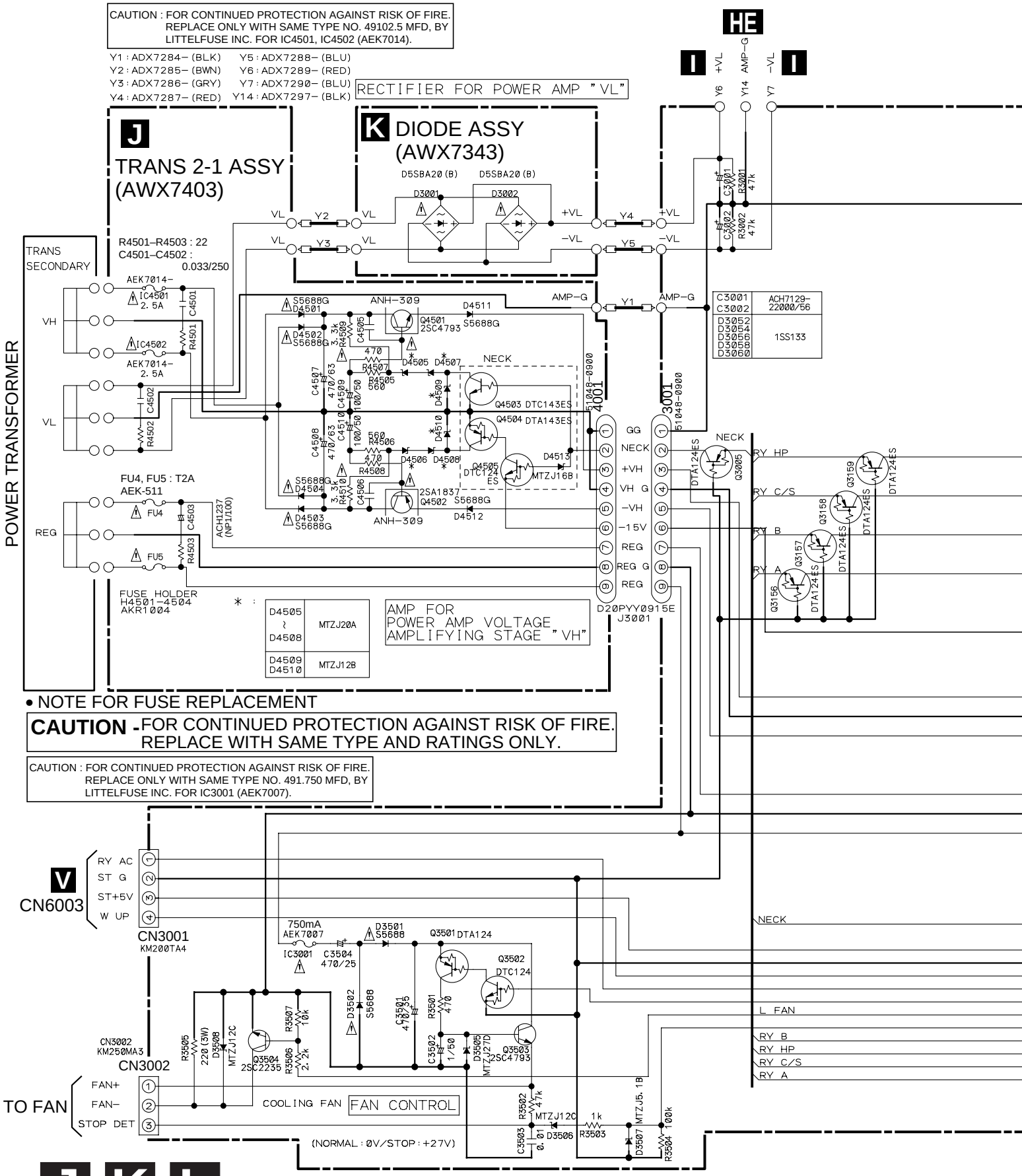


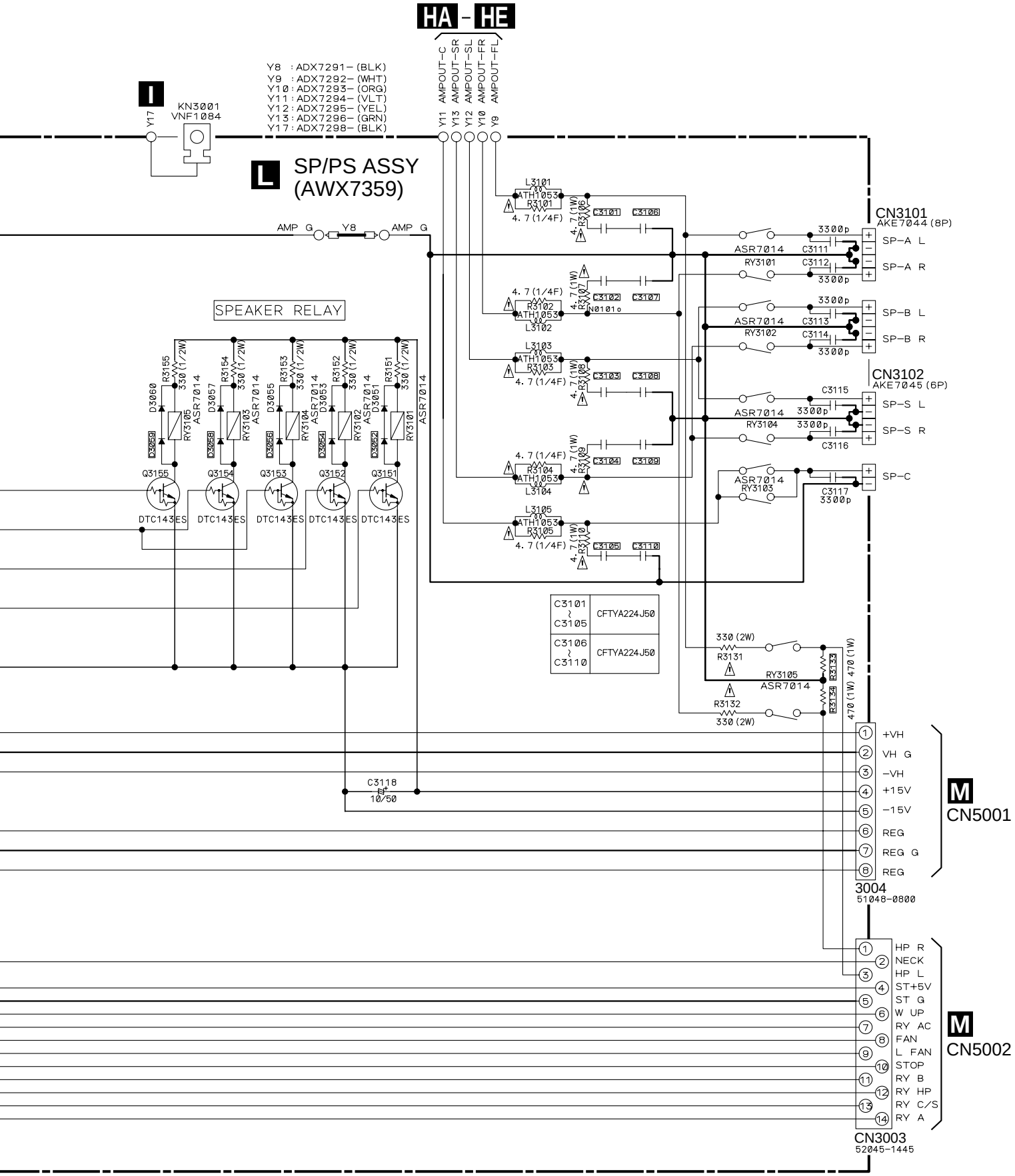
3.9 C-AMP-N, C-AMP-P, OUTPUT-SL, OUTPUT-FL, OUTPUT-C, OUTPUT-FR, OUTPUT-SR and VL-TERMINAL ASSYS



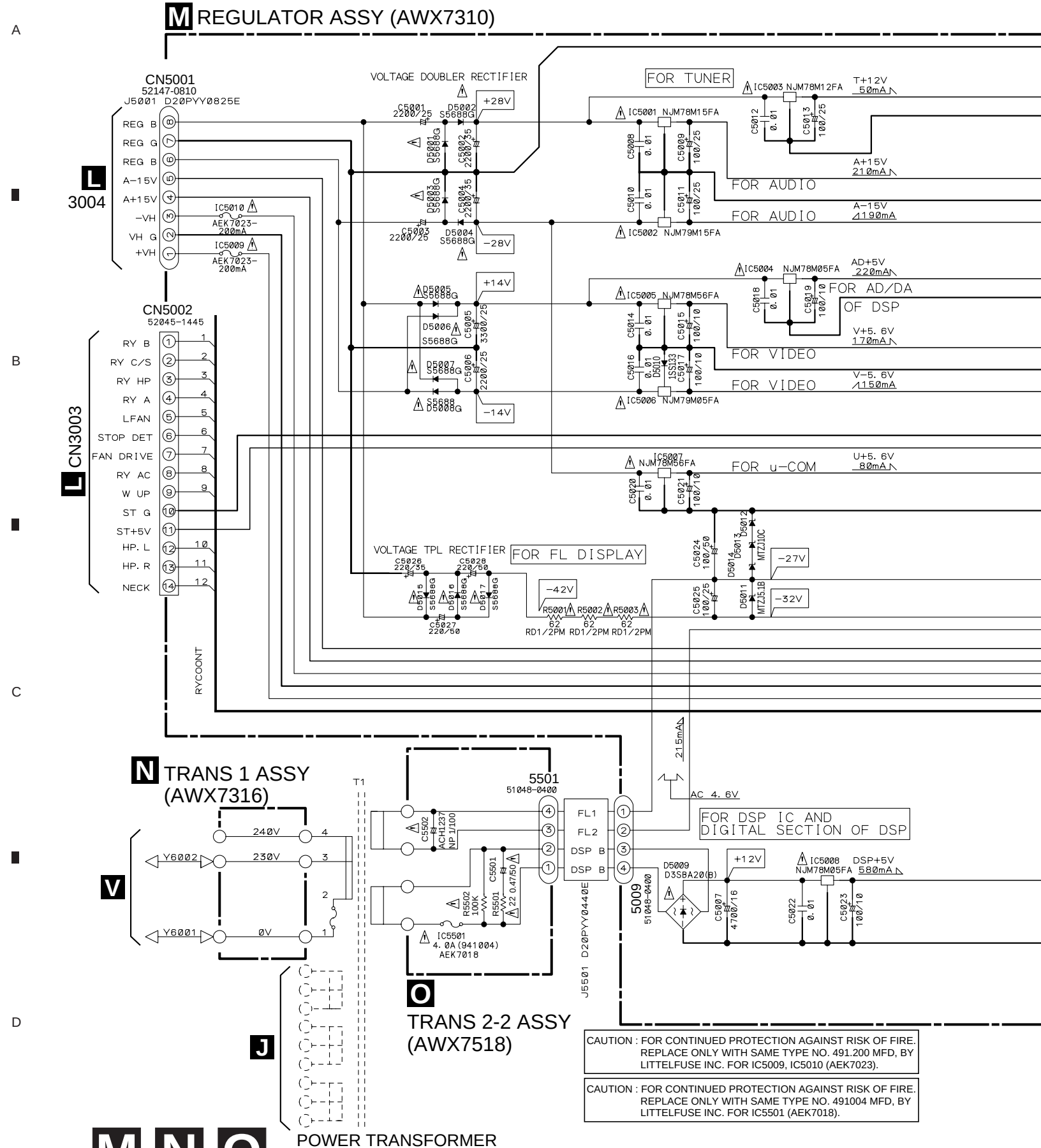

: AUDIO SIGNAL ROUTE
POWER AMP CURRENT AMPLIFYING STAGE
C
FR
SR
CN2541 KM250NA7L
CN2521 KM250NA7L
CN2621 KM250NA8L
O/L+ GATE– NFB C–OUT C–OUT C–OUT C–OUT
O/L+ GATE– NFB FR–OUT FR–OUT FR–OUT FR–OUT
O/L+ GATE– NFB SR–OUT SR–OUT SR–OUT SR–OUT AMP–G
CN2542 KP250NA7
CN2543 KP250NA5
CN2522 KP250NA7
CN2523 KP250NA5
CN2622 KP250NA8
CN2623 KP250NA5
AMPOUT (C)
AMPOUT (FR)
AMPOUT (SR)
AMP–G
HC
HD
HE
OUTPUT-C ASSY (AWX7321)
OUTPUT-FR ASSY (AWX7320)
OUTPUT-SR ASSY (AWX7323)
CN2544 KM250NA5L
CN2524 KM250NA5L
CN2624 KM250NA5L
GATE– C–OUT C–OUT C–OUT C–OUT
GATE– FR–OUT FR–OUT FR–OUT FR–OUT
GATE– SR–OUT SR–OUT SR–OUT SR–OUT
To N–MOS Sink
KN2011 ANK–142
Y6 VL+
Y17 GND
Y7 VL–
KN2012 ANK–142
To P–MOS Sink
VL-TERMINAL ASSY (AWX7324)

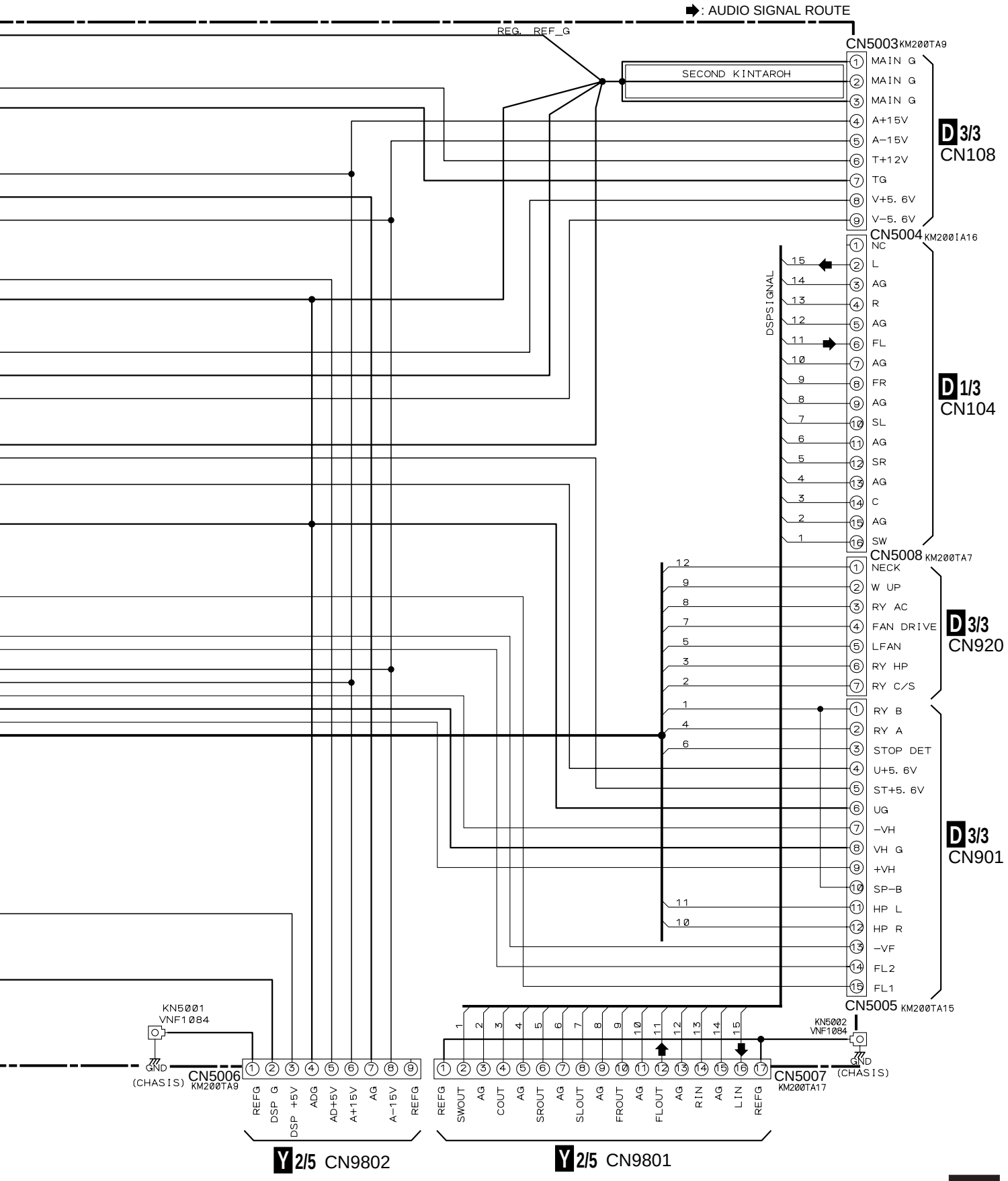
3.10 TRANS 2-1, DIODE and SP/PS ASSYS




HA - HE
Y8 : ADX7291- (BLK)
Y9 : ADX7292- (WHT)
Y10 : ADX7293- (ORG)
Y11 : ADX7294- (VLT)
Y12 : ADX7295- (YEL)
Y13 : ADX7296- (GRN)
Y17 : ADX7298- (BLK)
Y11 AMPOUT-C
Y13 AMPOUT-SR
Y12 AMPOUT-SL
Y10 AMPOUT-FR
Y9 AMPOUT-FL
I
Y17
KN3001
VNF1084
L SP/PS ASSY
(AWX7359)
AMP G
Y8
AMP G
SPEAKER RELAY
L3101
ATH1053
R3101
4.7 (1/4F)
R3106
4.7 (1W)
C3101
C3106
L3102
R3102
R3107
C3102
C3107
L3103
R3103
R3108
C3103
C3108
L3104
R3104
R3109
C3104
C3109
L3105
R3105
R3110
C3105
C3110
CN3101
AKE7044 (8P)
3300p
ASR7014
RY3101
C3111
C3112
SP-A L
SP-A R
RY3102
C3113
C3114
SP-B L
SP-B R
CN3102
AKE7045 (6P)
RY3104
C3115
C3116
SP-S L
SP-S R
RY3103
C3117
SP-C
C3101 ~ C3105 CFTYA224J50
C3106 ~ C3110 CFTYA224J50
D3060
D3059
D3057
D3058
D3055
D3056
D3053
D3054
D3051
D3052
R3155
R3154
R3153
R3152
R3151
330 (1/2W)
RY3105
RY3103
RY3104
RY3102
RY3101
ASR7014
Q3155
Q3154
Q3153
Q3152
Q3151
DTC143ES
330 (2W)
R3131
R3132
RY3105
R3133
R3134
470 (1W)
C3118
10/50
M
CN5001
3004
51048-0800
+VH
VH G
-VH
+15V
-15V
REG
REG G
REG
M
CN5002
CN3003
52045-1445
HP R
NECK
HP L
ST+5V
ST G
W UP
RY AC
FAN
L FAN
STOP
RY B
RY HP
RY C/S
RY A

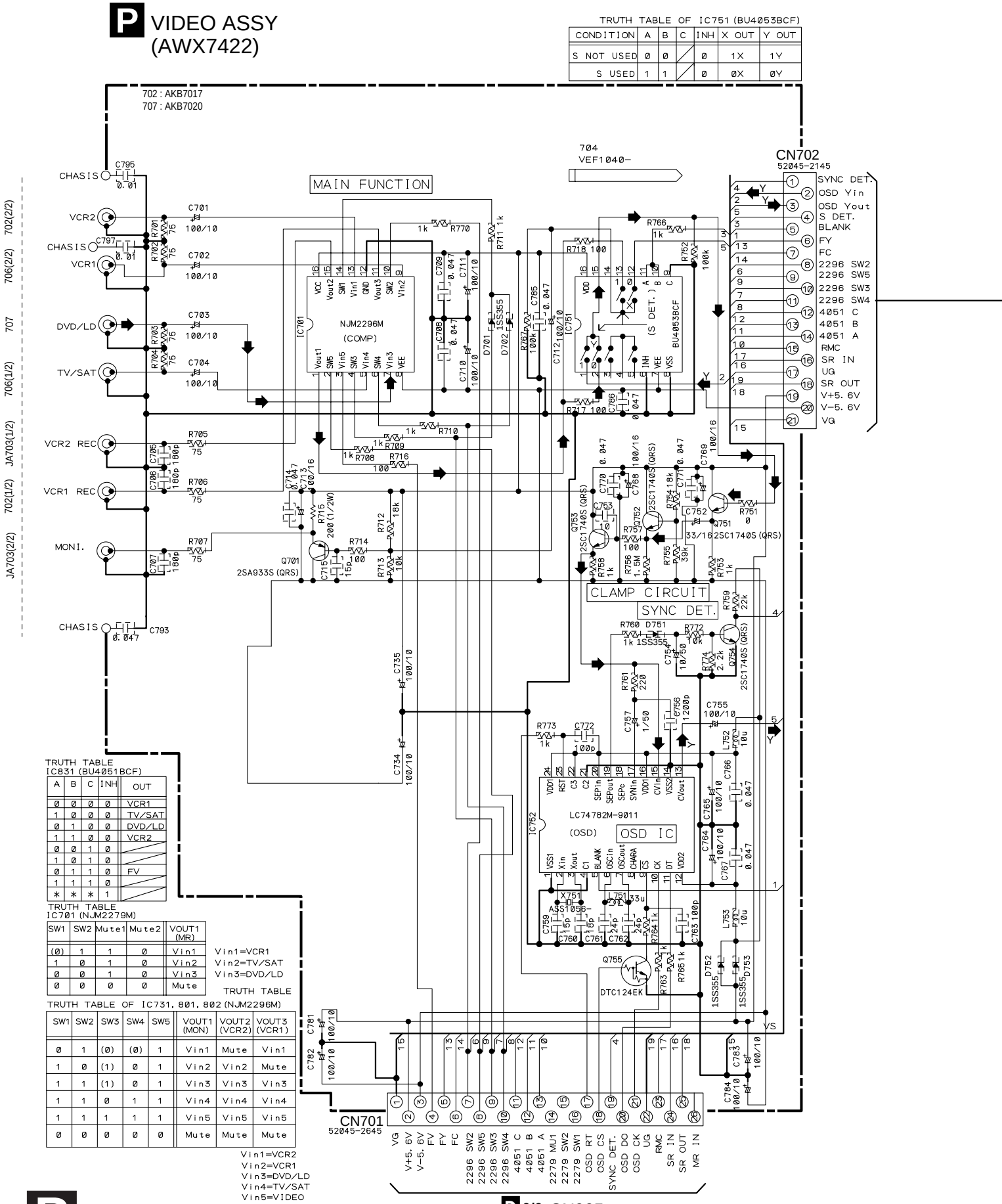
3.11 REGULATOR, TRANS 1 and TRANS 2-2 ASSYS



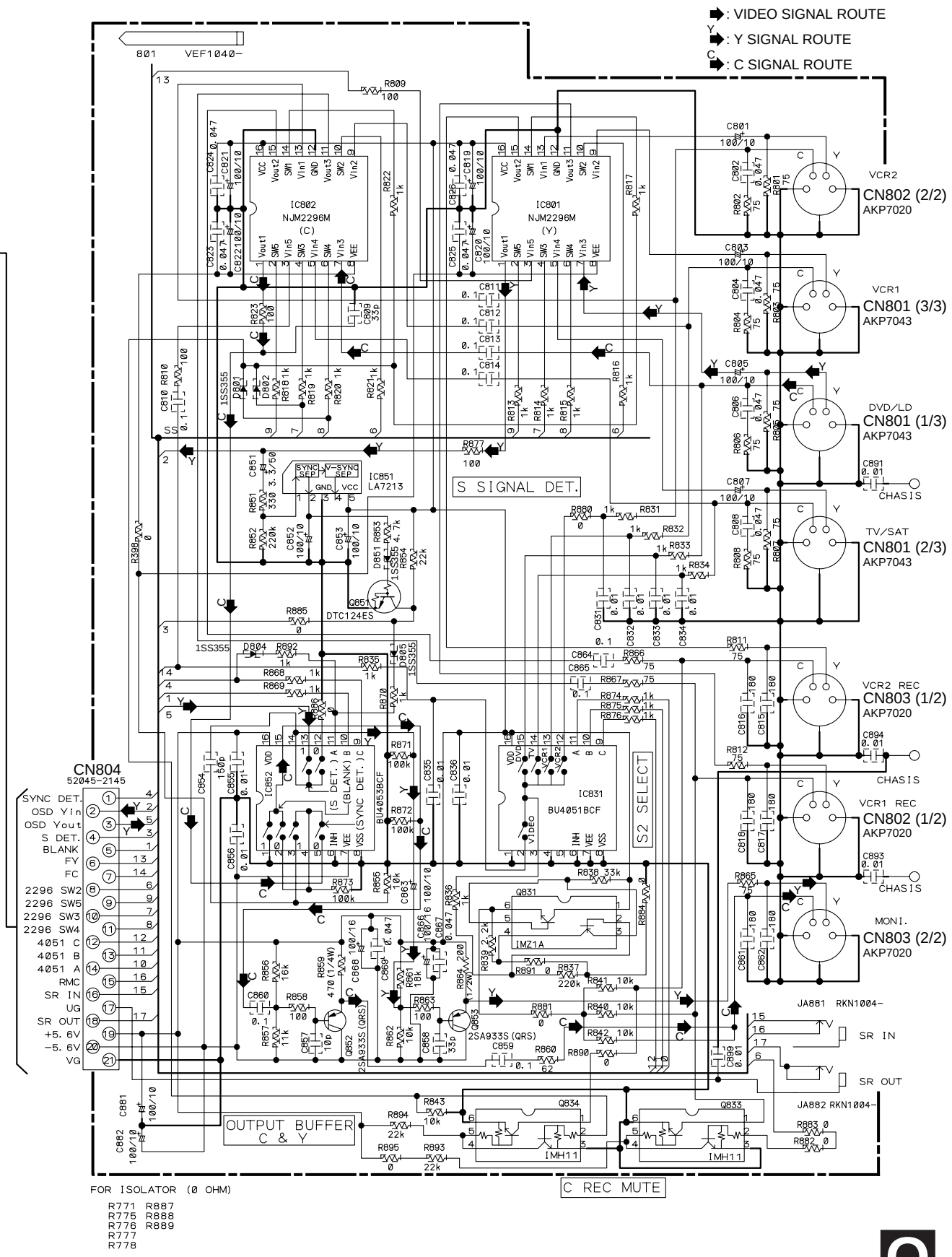

: AUDIO SIGNAL ROUTE
REG. REF_G
CN5003 KM200TA9
SECOND KINTAROH
MAIN G
MAIN G
MAIN G
A+15V
A−15V
T+12V
TG
V+5. 6V
V−5. 6V
D 3/3 CN108
CN5004 KM200IA16
NC
L
AG
R
AG
FL
AG
FR
AG
SL
AG
SR
AG
C
AG
SW
DSPSIGNAL
D 1/3 CN104
CN5008 KM200TA7
NECK
W UP
RY AC
FAN DRIVE
LFAN
RY HP
RY C/S
D 3/3 CN920
RY B
RY A
STOP DET
U+5. 6V
ST+5. 6V
UG
−VH
VH G
+VH
SP−B
HP L
HP R
−VF
FL2
FL1
D 3/3 CN901
CN5005 KM200TA15
KN5001 VNF1084
GND (CHASIS)
CN5006 KM200TA9
REFG
DSP G
DSP +5V
ADG
AD+5V
A+15V
AG
A−15V
REFG
Y 2/5 CN9802
KN5002 VNF1084
GND (CHASIS)
CN5007 KM200TA17
REFG
SWOUT
AG
COUT
AG
SROUT
AG
SLOUT
AG
FROUT
AG
FLOUT
AG
RIN
AG
LIN
REFG
Y 2/5 CN9801

3.12 VIDEO and S-VIDEO ASSYS

P VIDEO ASSY
(AWX7422)

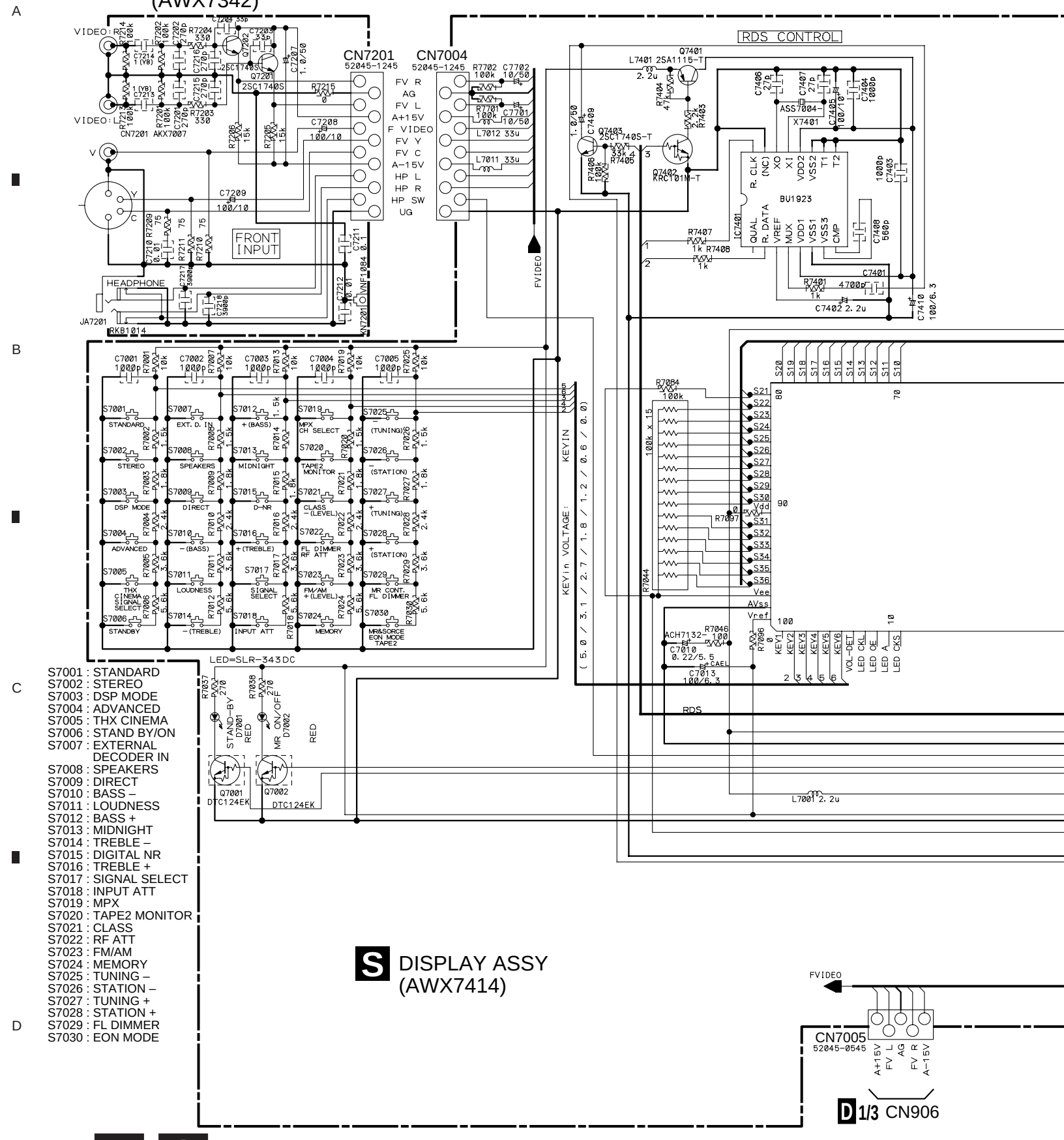


S-VIDEO ASSY (AWX7395)

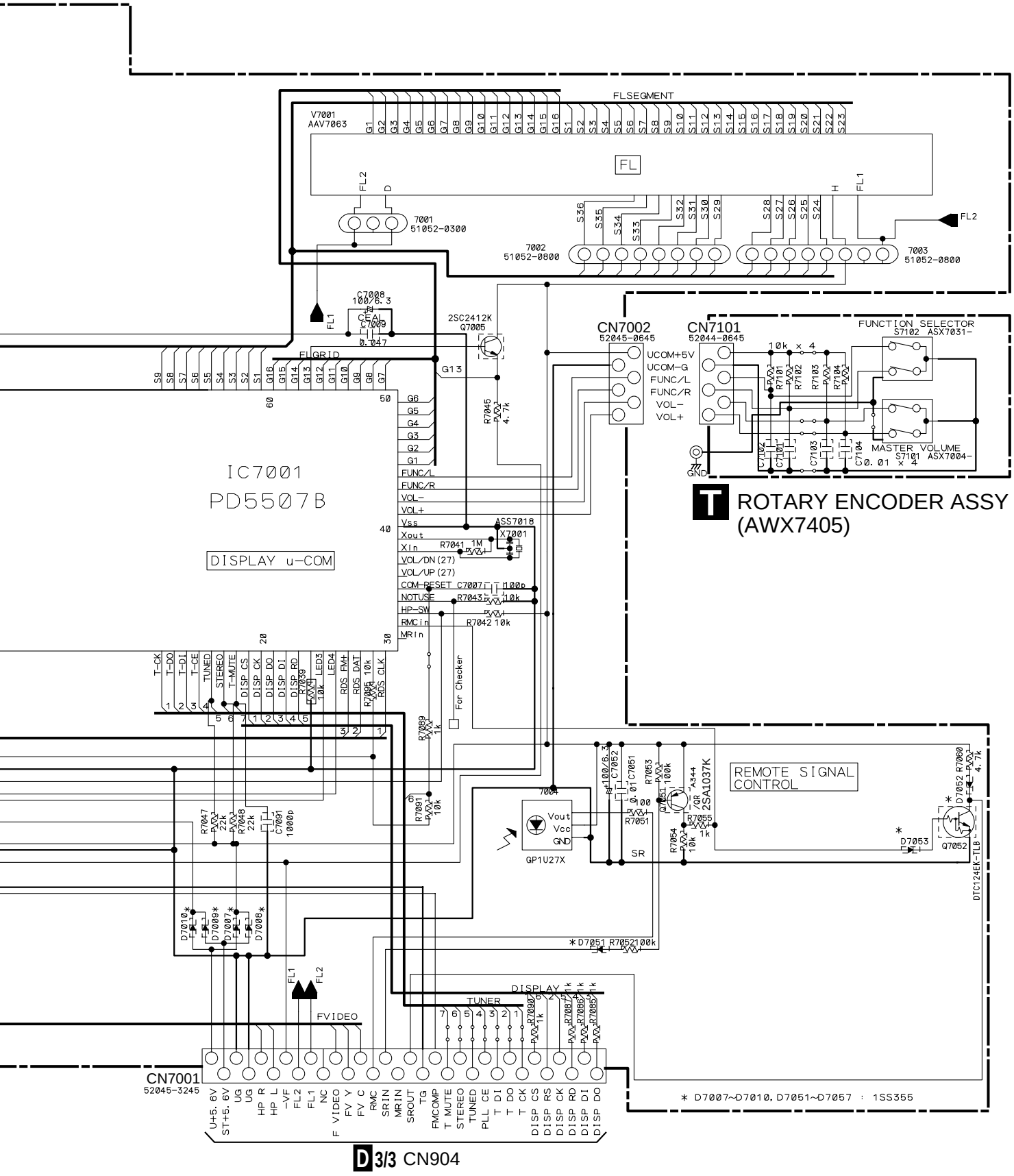


3.13 H. PHONE/F. VIDEO, DISPLAY and ROTARY ENCODER ASSYS

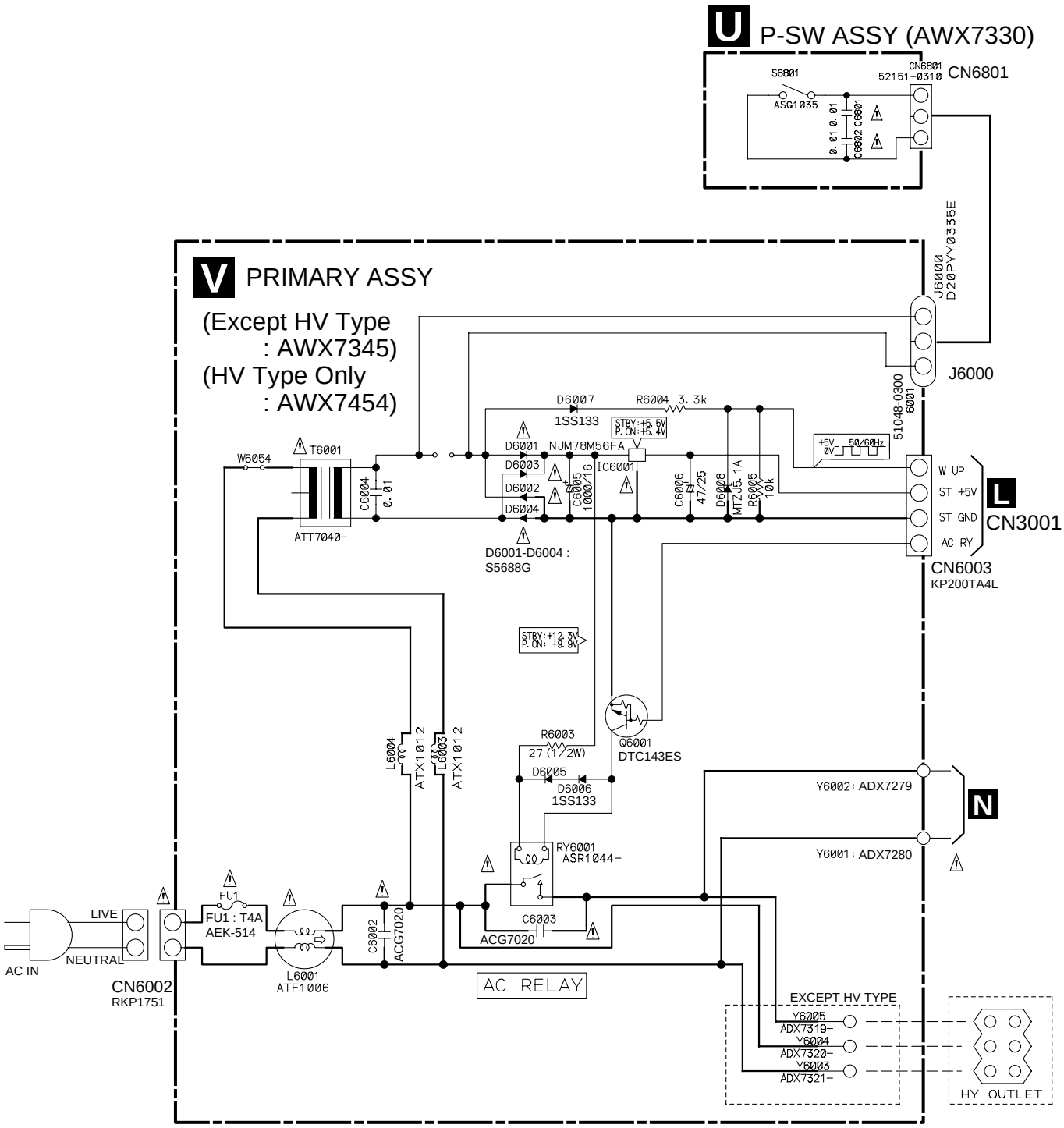
R H. PHONE/F. VIDEO ASSY
(AWX7342)



S DISPLAY ASSY
(AWX7414)

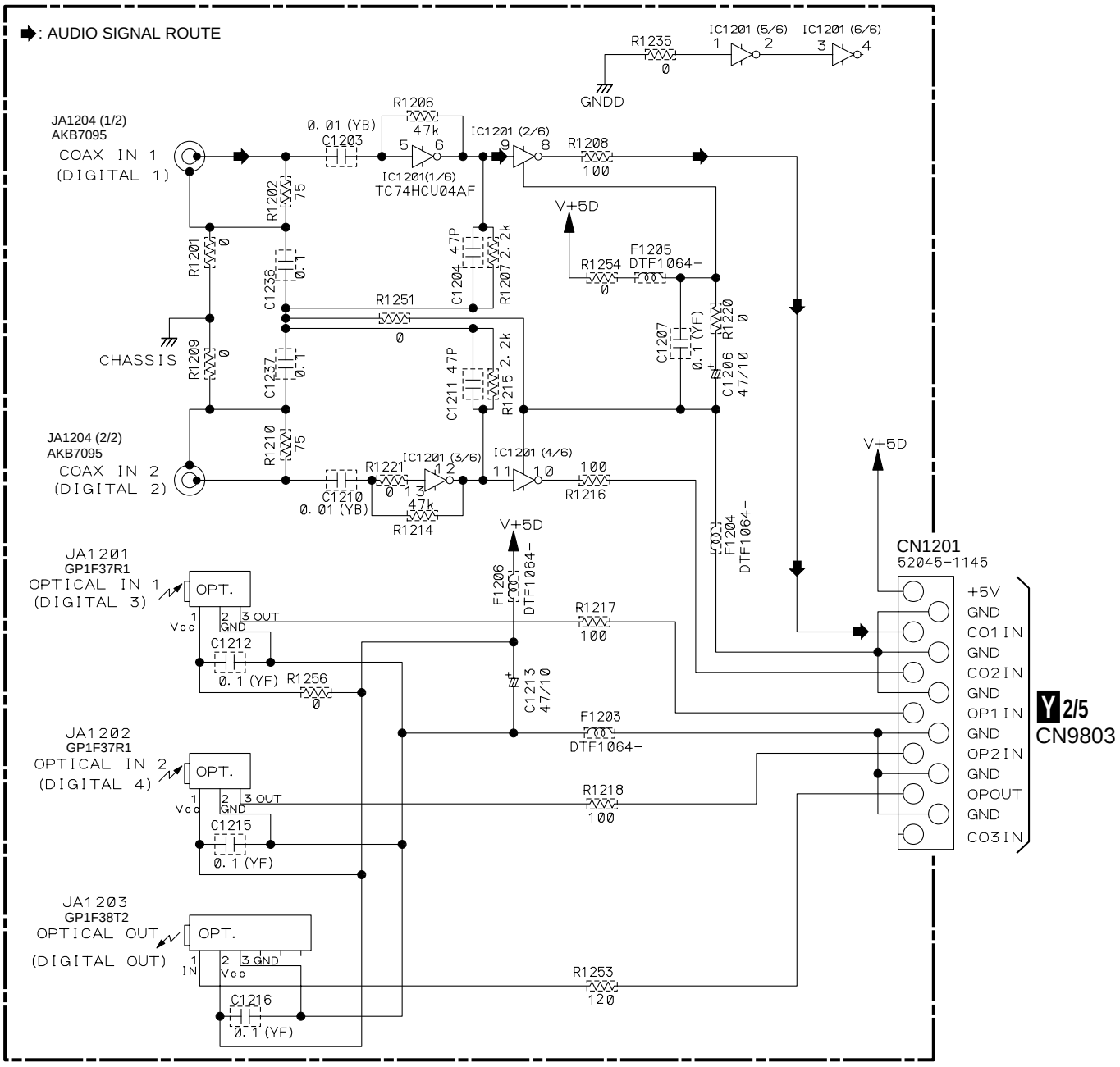

FLSEGMENT
V7001
AAV7063
FL
FL2
FL1
7001
51052-0300
7002
51052-0800
7003
51052-0800
C7008
100/6.3
C7009
0.047
2SC2412K
Q7005
CN7002
52045-0645
CN7101
52044-0645
UCOM+5V
UCOM-G
FUNC/L
FUNC/R
VOL-
VOL+
FUNCTION SELECTOR
S7102 ASX7031-
10k x 4
MASTER VOLUME
S7101 ASX7004-
0.01 x 4
GND
FL GRID
G13
R7045
4.7k
IC7001
PD5507B
DISPLAY u-COM
ASS7018
X7001
R7041 1M
VOL/DN(27)
VOL/UP(27)
COM-RESET C7007 100p
NOTUSE
R7043 10k
HP-SW
RMCin
R7042 10k
MRin
For Checker
R7039 10k
R7085 10k
R7089 1k
R7091 10k
R7047 22k
R7048 22k
C7091 1000p
REMOTE SIGNAL
CONTROL
GP1U27X
Vout
Vcc
GND
SR
R7051
R7052
R7053 100k
R7054 10k
R7055 1k
Q7051 A344 /QR 2SA1037K
Q7052
D7052 R7060 4.7k
D7053
DTC124EK-TL
D7010*
D7009*
D7007*
D7008*
*D7051 R7052100k
DISPLAY
TUNER
R7090 1k
R7087 1k
R7086 1k
R7085 1k
FVIDEO
CN7001
52045-3245
U+5.6V
ST+5.6V
UG
UG
HP R
HP L
-VF
FL2
FL1
NC
F VIDEO
FV Y
FV C
RMC
SRIN
MRIN
SROUT
TG
FMCOMP
T MUTE
STEREO
TUNED
PLL CE
T DI
T DO
T CK
DISP CS
DISP RS
DISP CK
DISP RD
DISP DI
DISP DO
* D7007~D7010, D7051~D7057 : 1SS355
D 3/3 CN904
T ROTARY ENCODER ASSY
(AWX7405)

3.14 PRIMARY and P-SW ASSY

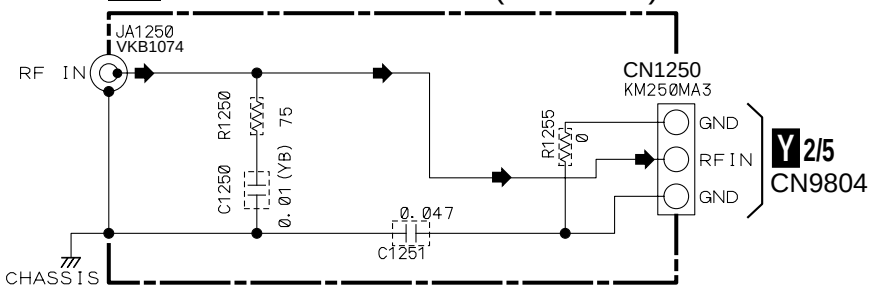


3.15 DIGITAL-I/O and RF TERMINAL ASSYS

W DIGITAL-I/O ASSY (AWX7396)

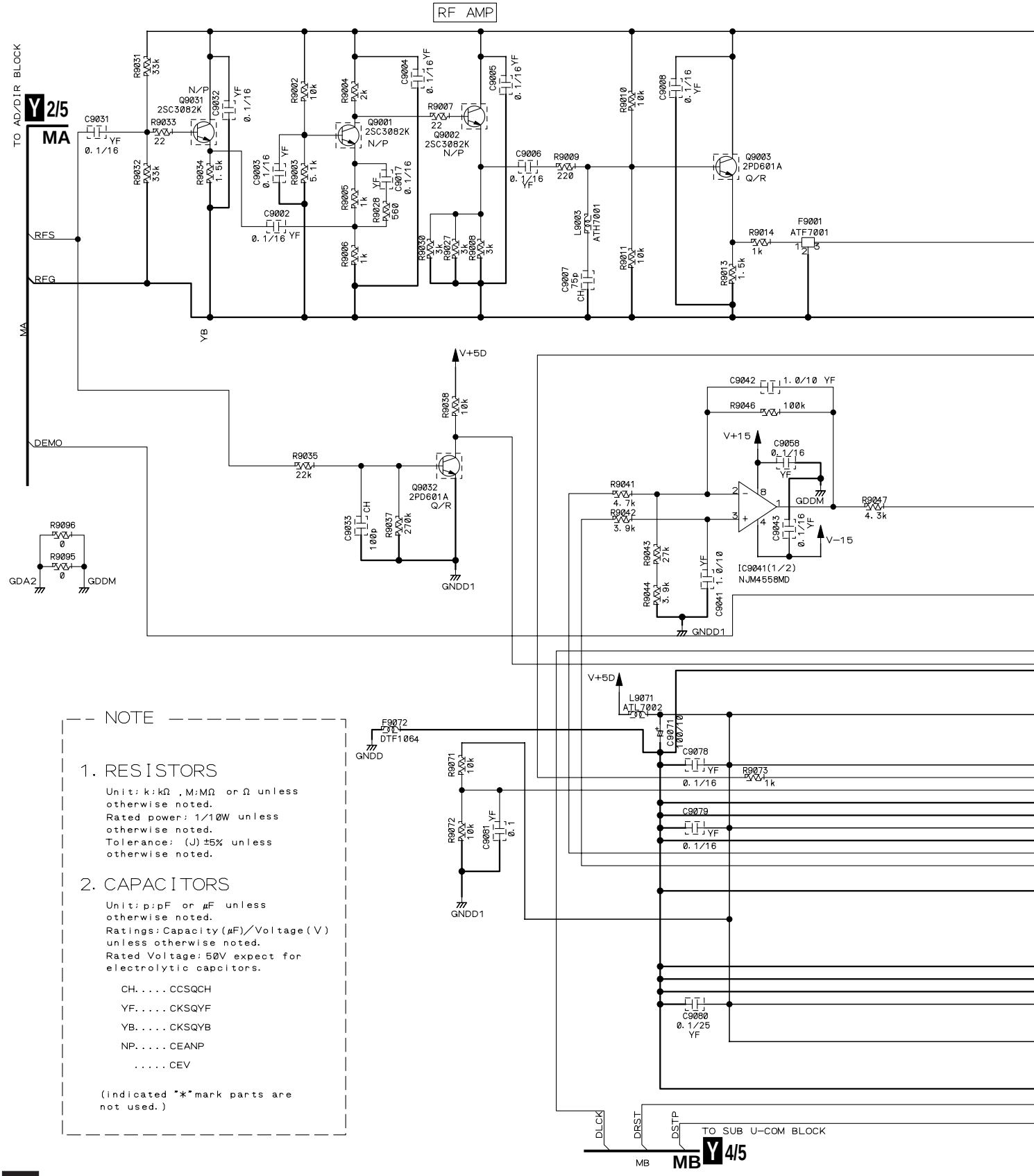


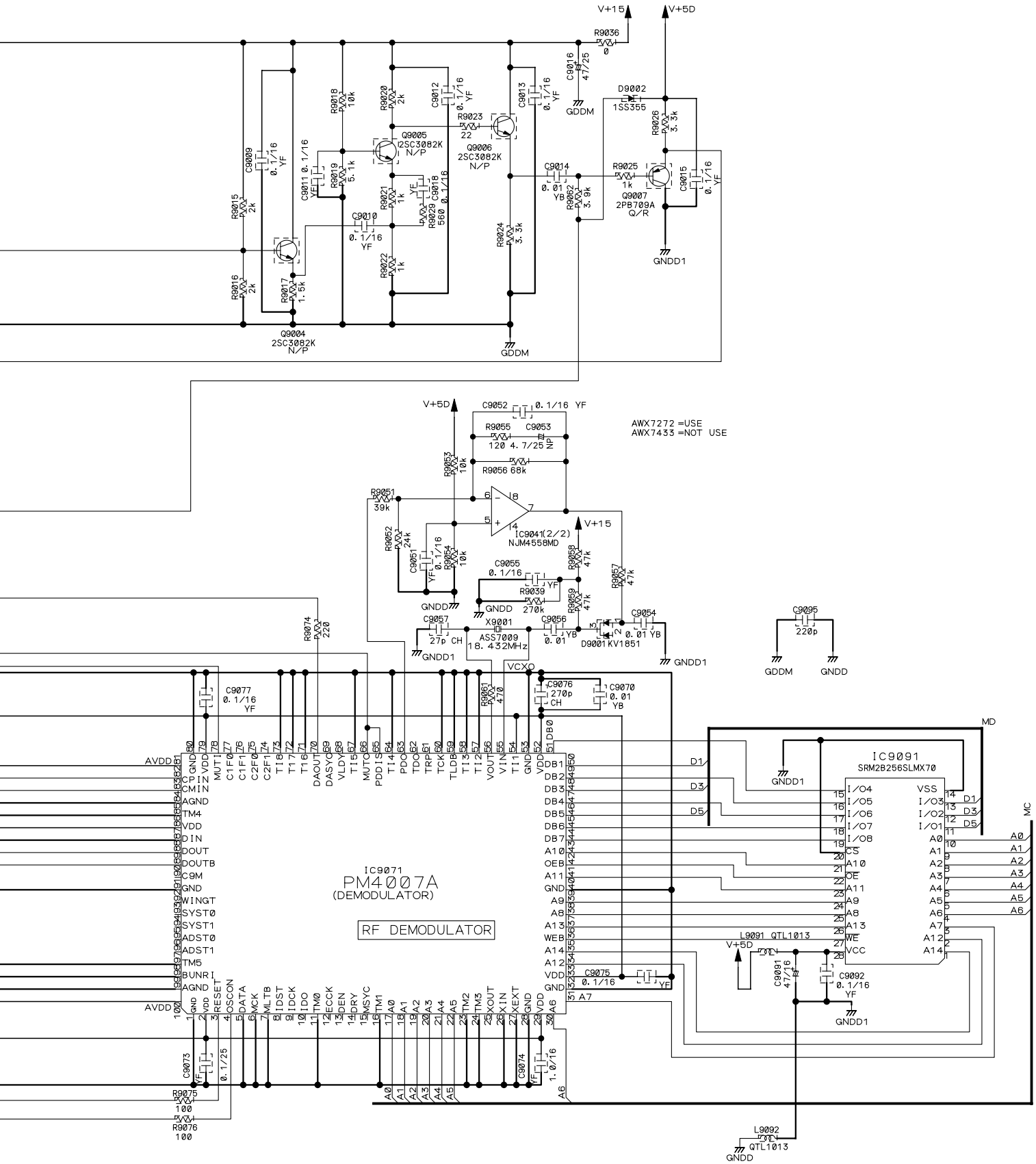
X RF TERMINAL ASSY (AWX7376)



3.16 DSP ASSY (1/5)

Y 1/5 DSP ASSY
(AWX7272)



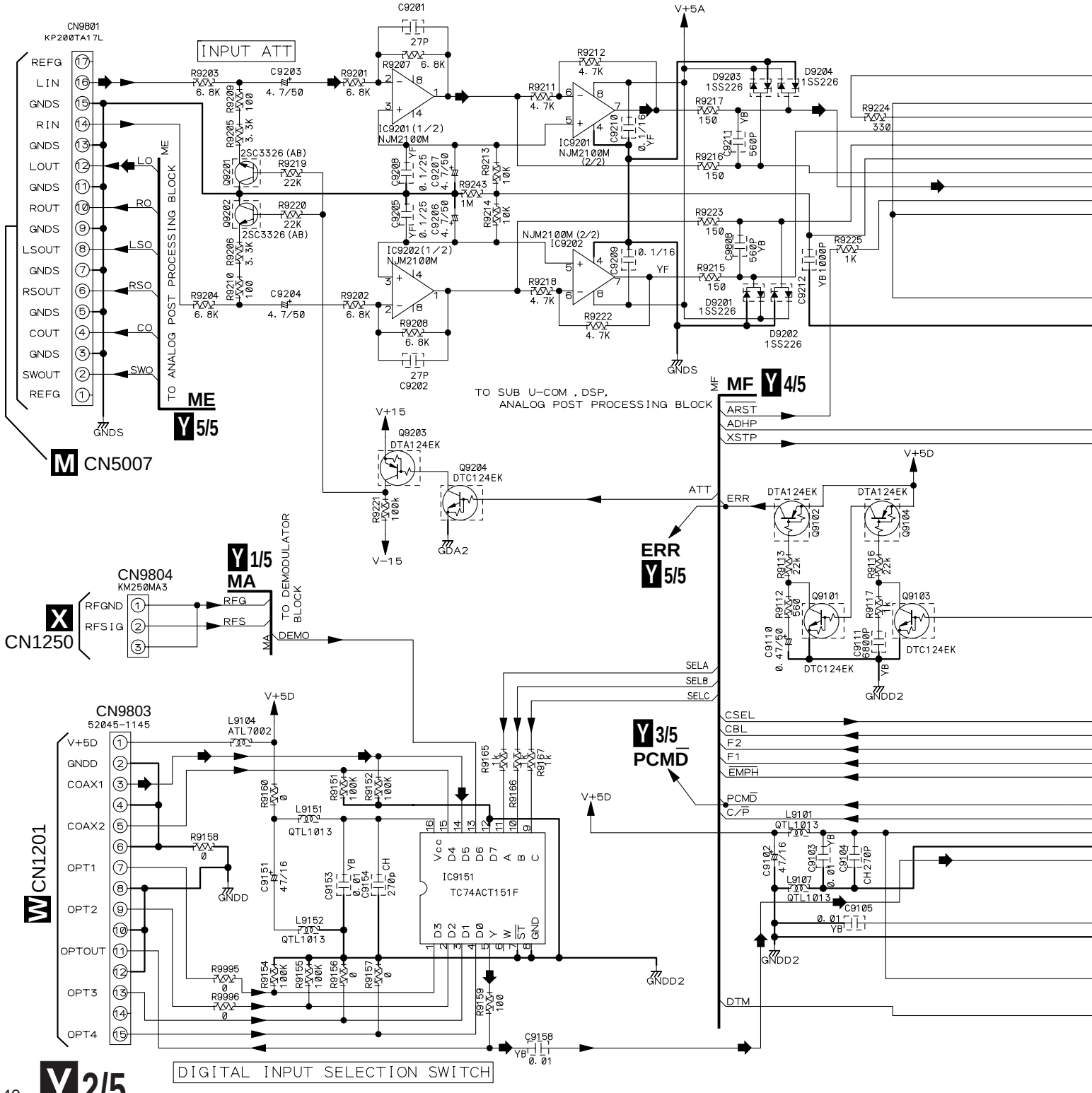

V+15
V+5D
R9036 0
C9016 47/25
GDDM
D9002 1SS355
R9026 3.3k
R9018 10k
R9020 2k
C9012 0.1/16 YF
C9013 0.1/16 YF
R9023 22
Q9005 2SC3082K N/P
Q9006 2SC3082K N/P
C9009 0.1/16 YF
C9011 0.1/16 YF
R9019 5.1k
C9014 0.01 YB
R9062 3.9k
R9025 1k
Q9007 2PB709A Q/R
C9015 0.1/16 YF
GNDD1
R9015 2k
C9010 0.1/16 YF
R9021 1k
C9018 0.1/16 YF
R9029 560
R9024 3.3k
R9022 1k
R9016 2k
R9017 1.5k
Q9004 2SC3082K N/P
GDDM
V+5D
C9052 0.1/16 YF
R9055 120
C9053 4.7/25 NP
R9056 68k
R9053 10k
AWX7272 =USE
AWX7433 =NOT USE
R9051 39k
IC9041(2/2) NJM4558MD
V+15
R9052 24k
C9051 0.1/16 YF
R9054 10k
R9058 47k
R9057 47k
C9055 0.1/16 YF
R9039 270k
R9059 47k
GNDD
C9057 27p CH
X9001 ASS7009 18.432MHz
C9056 0.01 YB
C9054 0.01 YB
D9001 KV1851
GNDD1
C9095 220p
GDDM
GNDD
R9074 220
VCXO
C9077 0.1/16 YF
C9076 270p CH
C9070 0.01 YB
R9061 470
MD
IC9091
SRM2B256SLMX70
GNDD1
L9091 QTL1013
V+5D
C9091 47/16
C9092 0.1/16 YF
GNDD1
MC
IC9071
PM4007A
(DEMODULATOR)
RF DEMODULATOR
AVDD
C9075 0.1/16 YF
C9073 0.1/25 YF
C9074 1.0/16 YF
R9075 100
R9076 100
L9092 QTL1013
GNDD

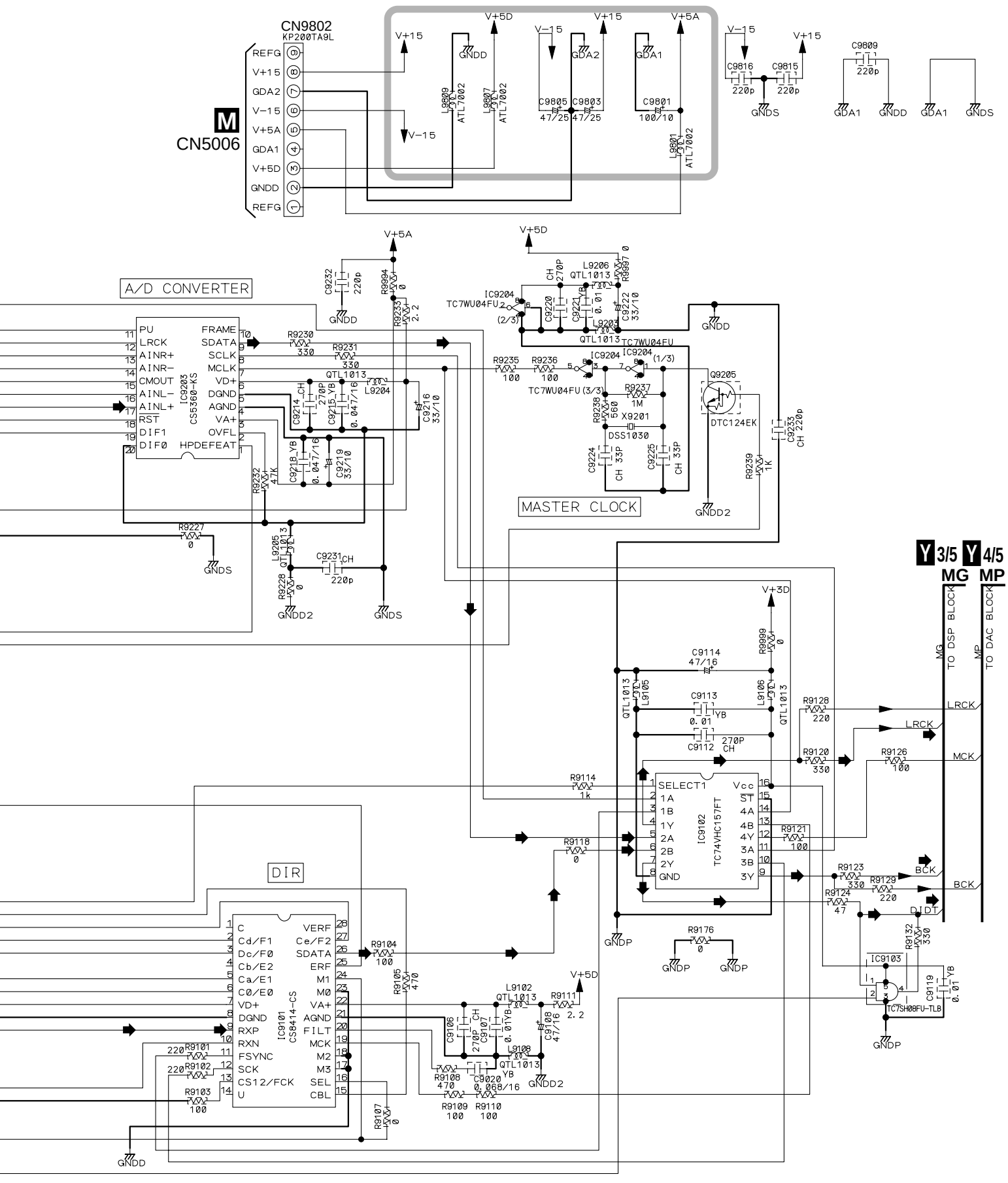
3.17 DSP ASSY (2/5)

: The power supply is shown with the marked box.

Y 2/5 DSP ASSY
(AWX7272)

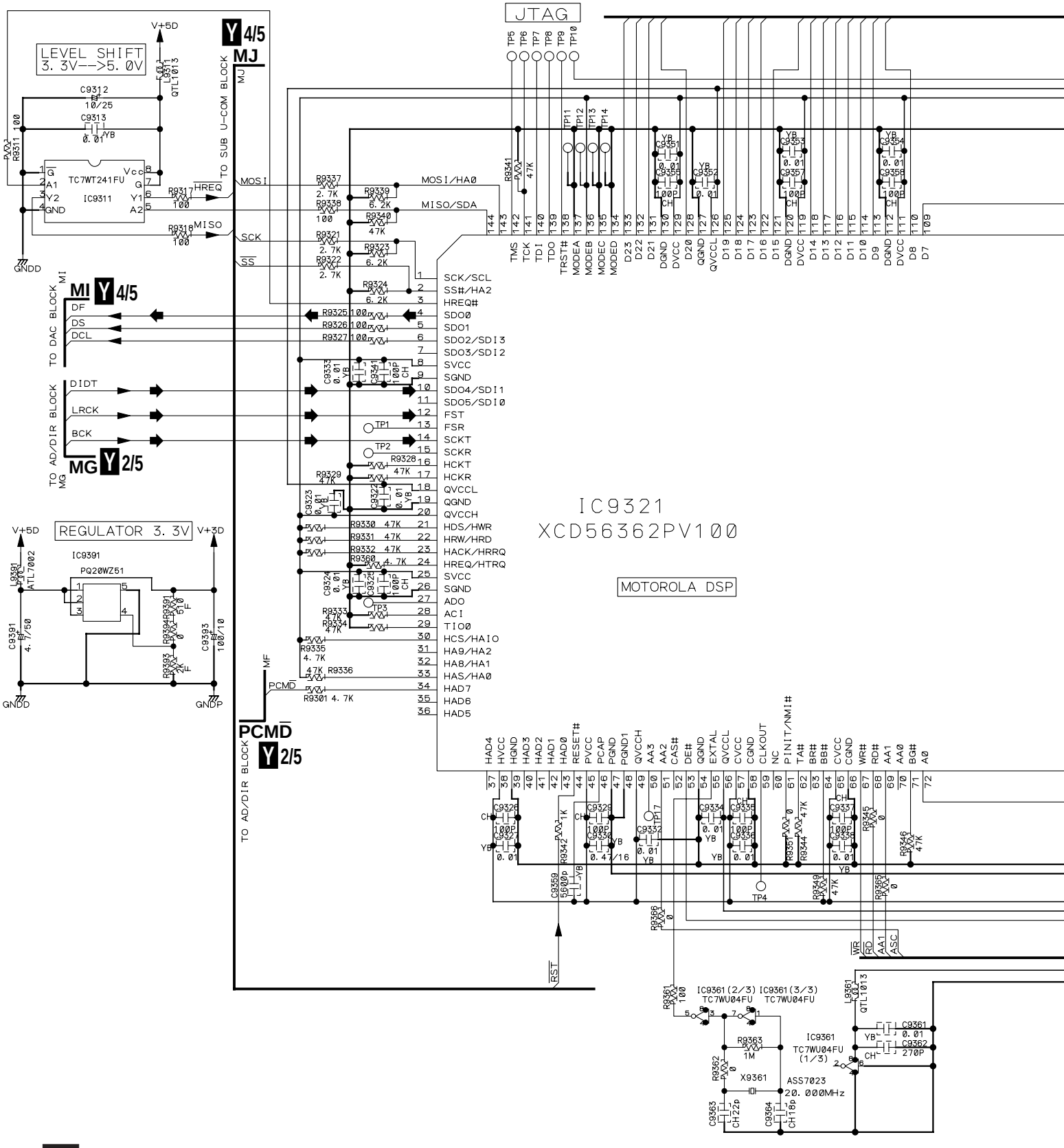
: AUDIO SIGNAL ROUTE

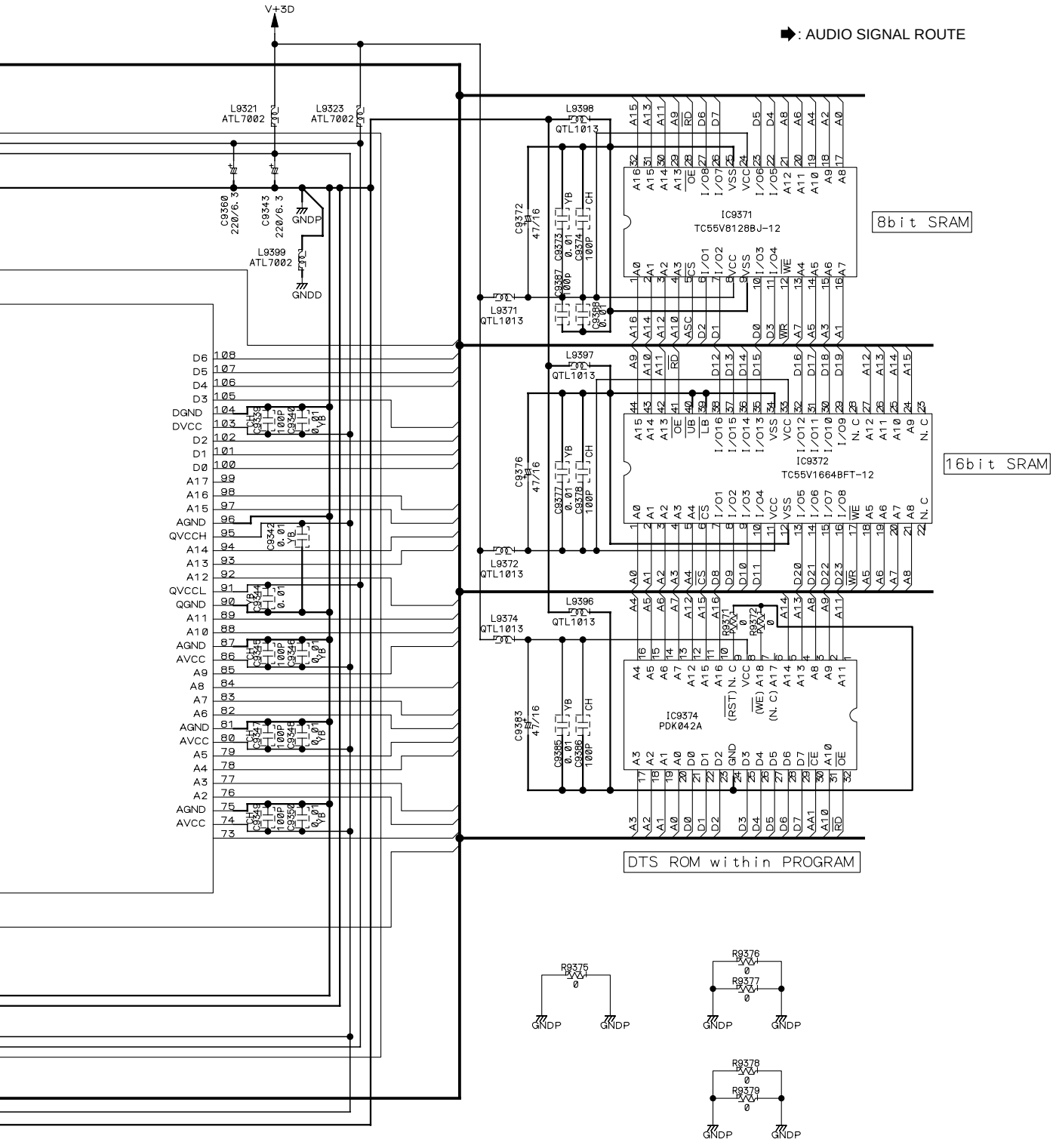



CN9802
KP200TA9L
M
CN5006
REFG
V+15
GDA2
V−15
V+5A
GDA1
V+5D
GNDD
REFG
A/D CONVERTER
IC9203
CS5360-KS
PU
LRCK
AINR+
AINR−
CMOUT
AINL−
AINL+
RST
DIF1
DIF0
FRAME
SDATA
SCLK
MCLK
VD+
DGND
AGND
VA+
OVFL
HPDEFEAT
MASTER CLOCK
IC9204
TC7WU04FU
DTC124EK
DSS1030
X9201
DIR
IC9101
CS8414-CS
IC9102
TC74VHC157FT
SELECT1
IC9103
TC7SH08FU-TLB
TO DSP BLOCK
TO DAC BLOCK
MG
MP
LRCK
MCK
BCK
DIDT
GNDD
GNDD2
GNDS
GNDP
V+3D
Y 3/5
Y 4/5

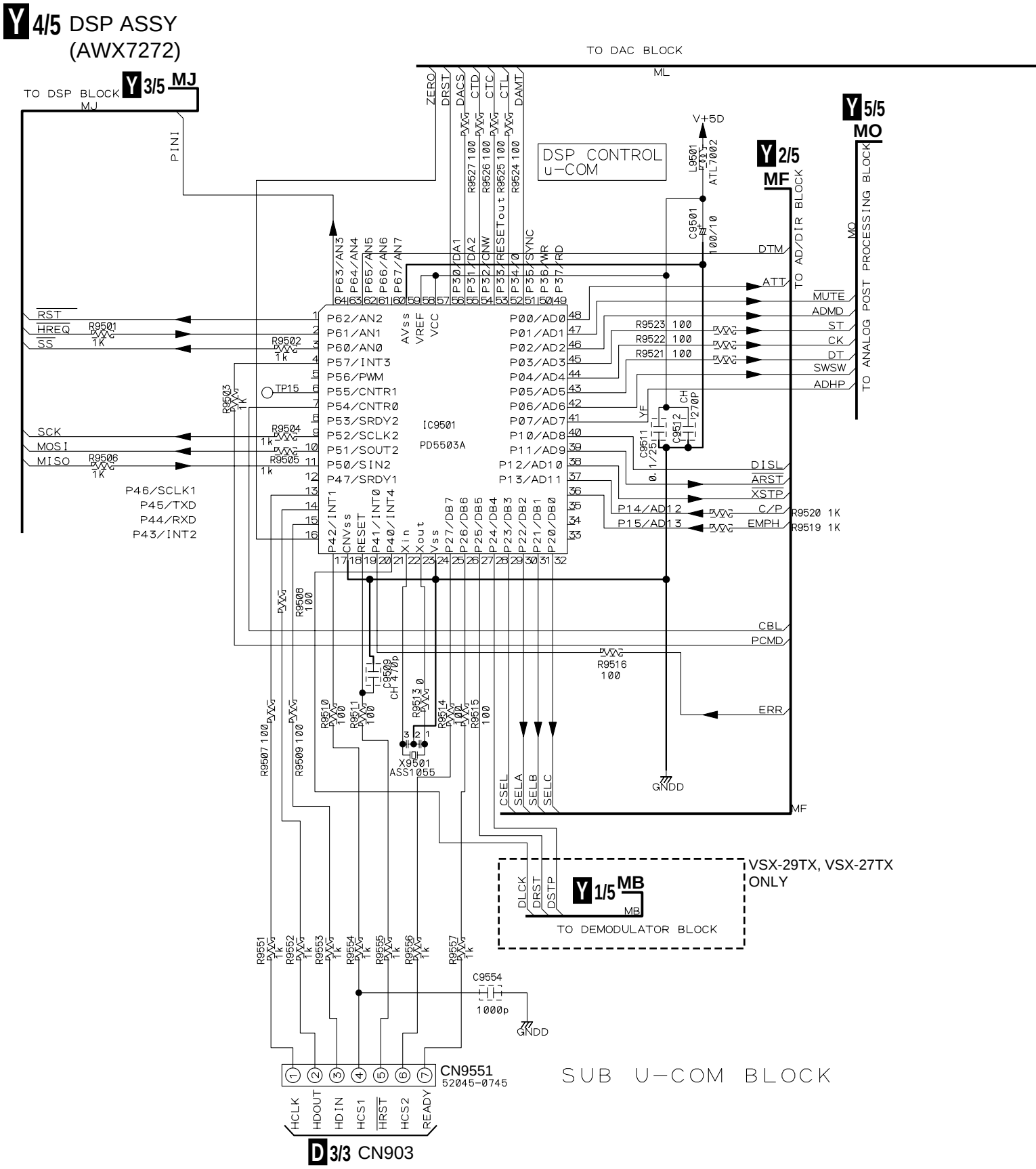
3.18 DSP ASSY (3/5)

Y 3/5 DSP ASSY
(AWX7272)

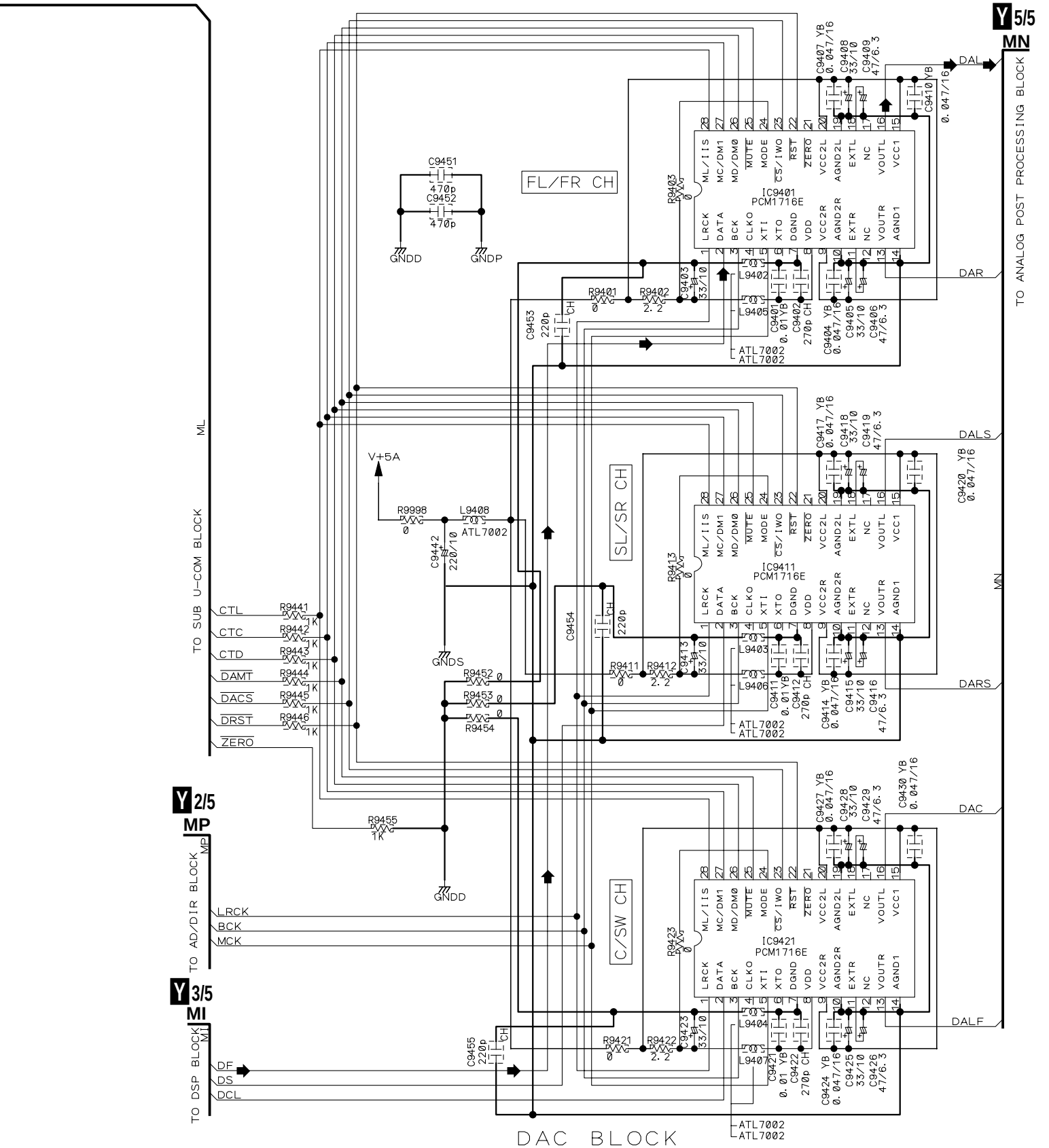



➡: AUDIO SIGNAL ROUTE
V+3D
8bit SRAM
16bit SRAM
DTS ROM within PROGRAM
IC9371
TC55V8128BJ-12
IC9372
TC55V1664BFT-12
IC9374
PDK042A

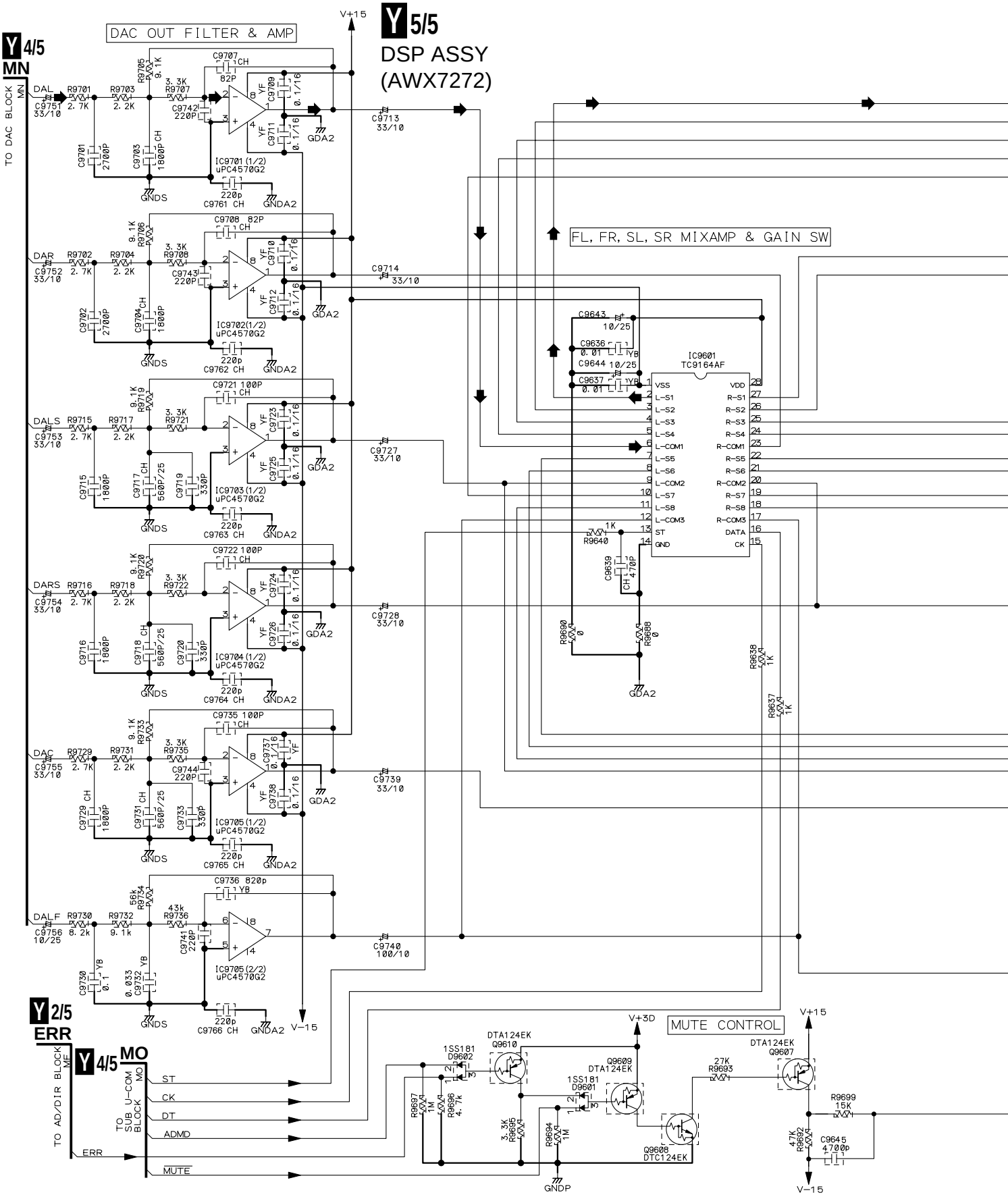
3.19 DSP ASSY (4/5)



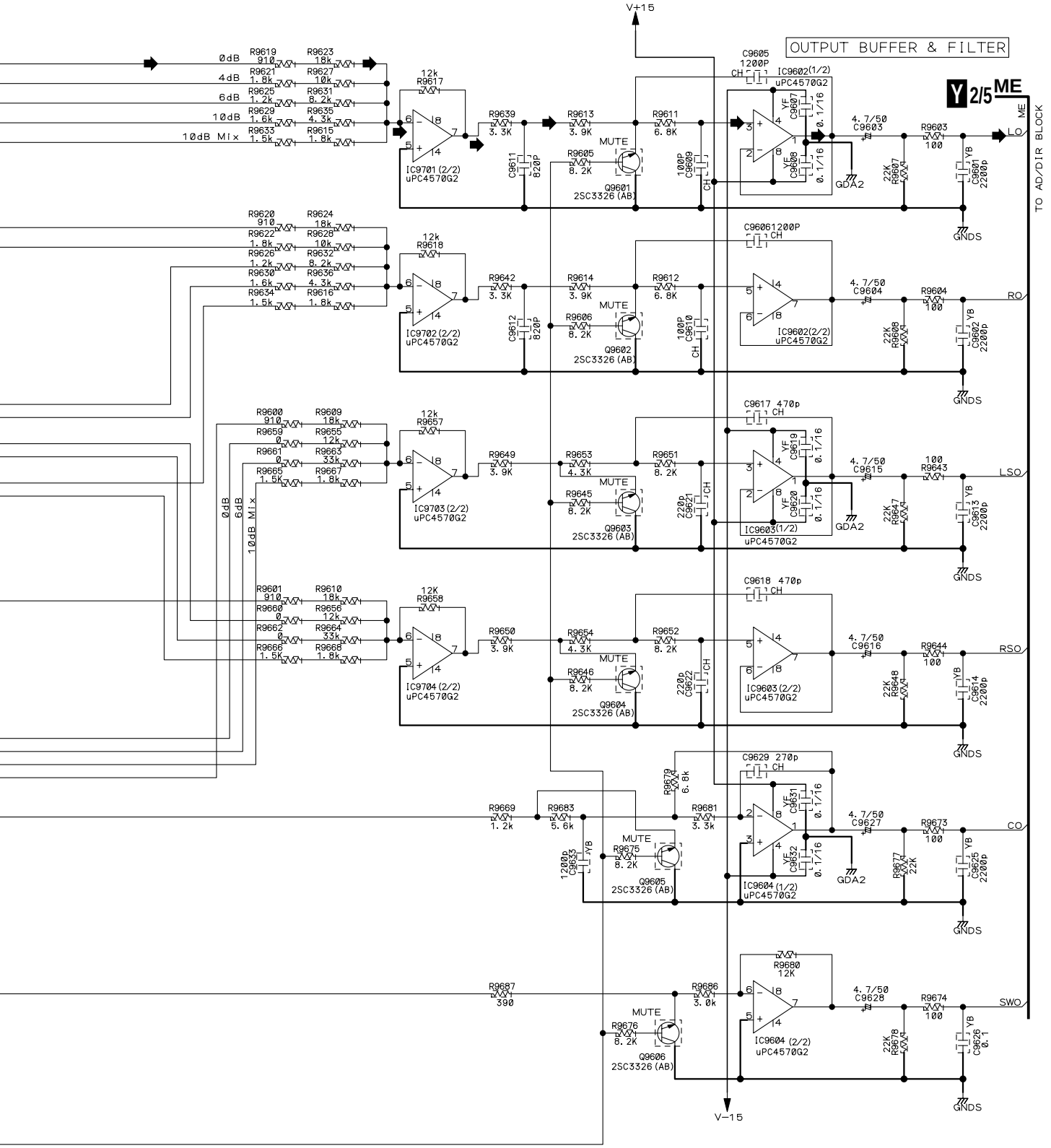
: AUDIO SIGNAL ROUTE



3.20 DSP ASSY (5/5)



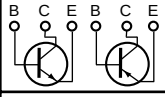
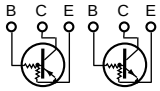
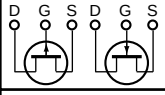
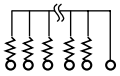
: AUDIO SIGNAL ROUTE



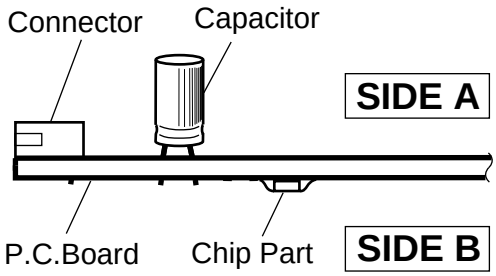
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

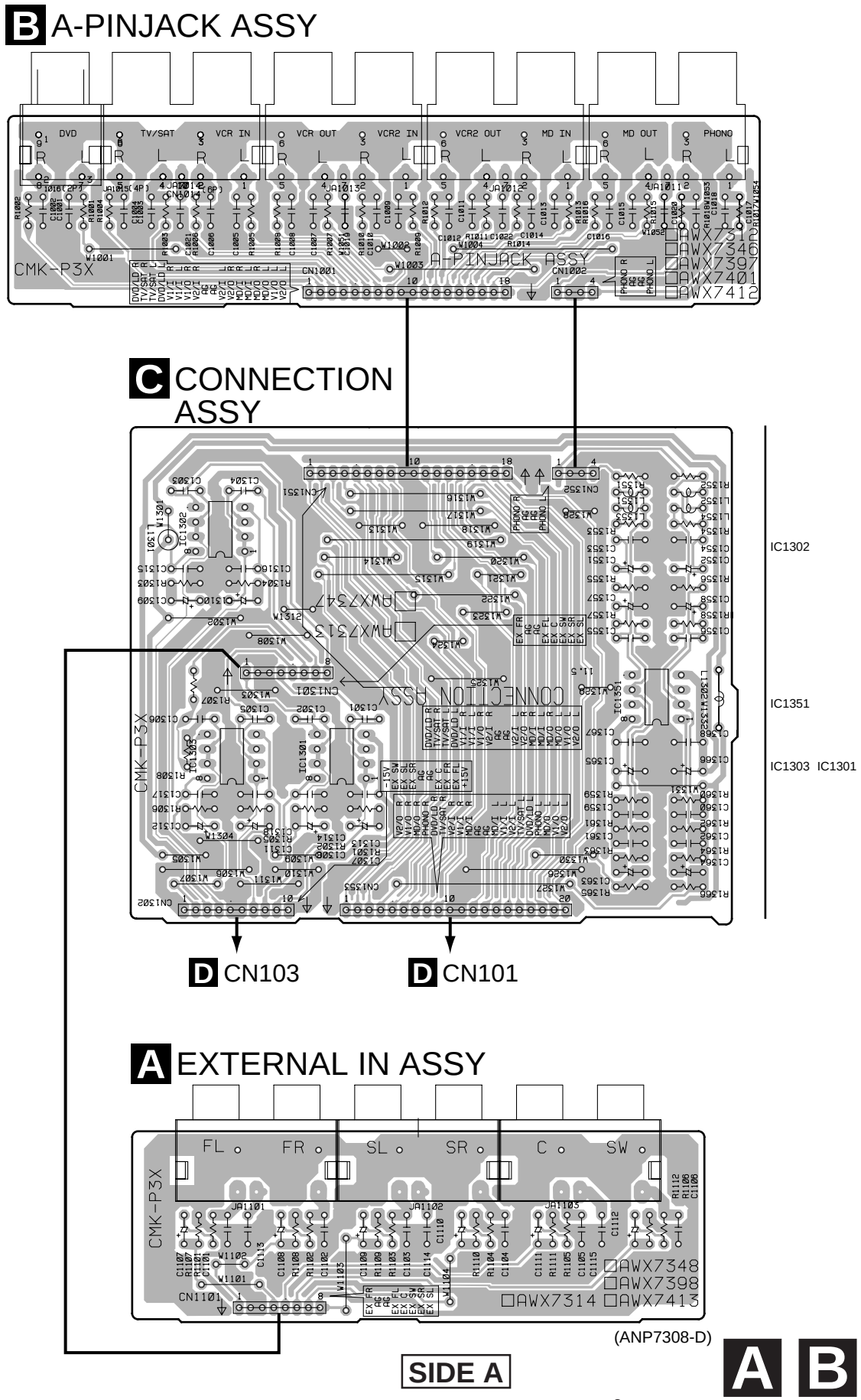
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

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

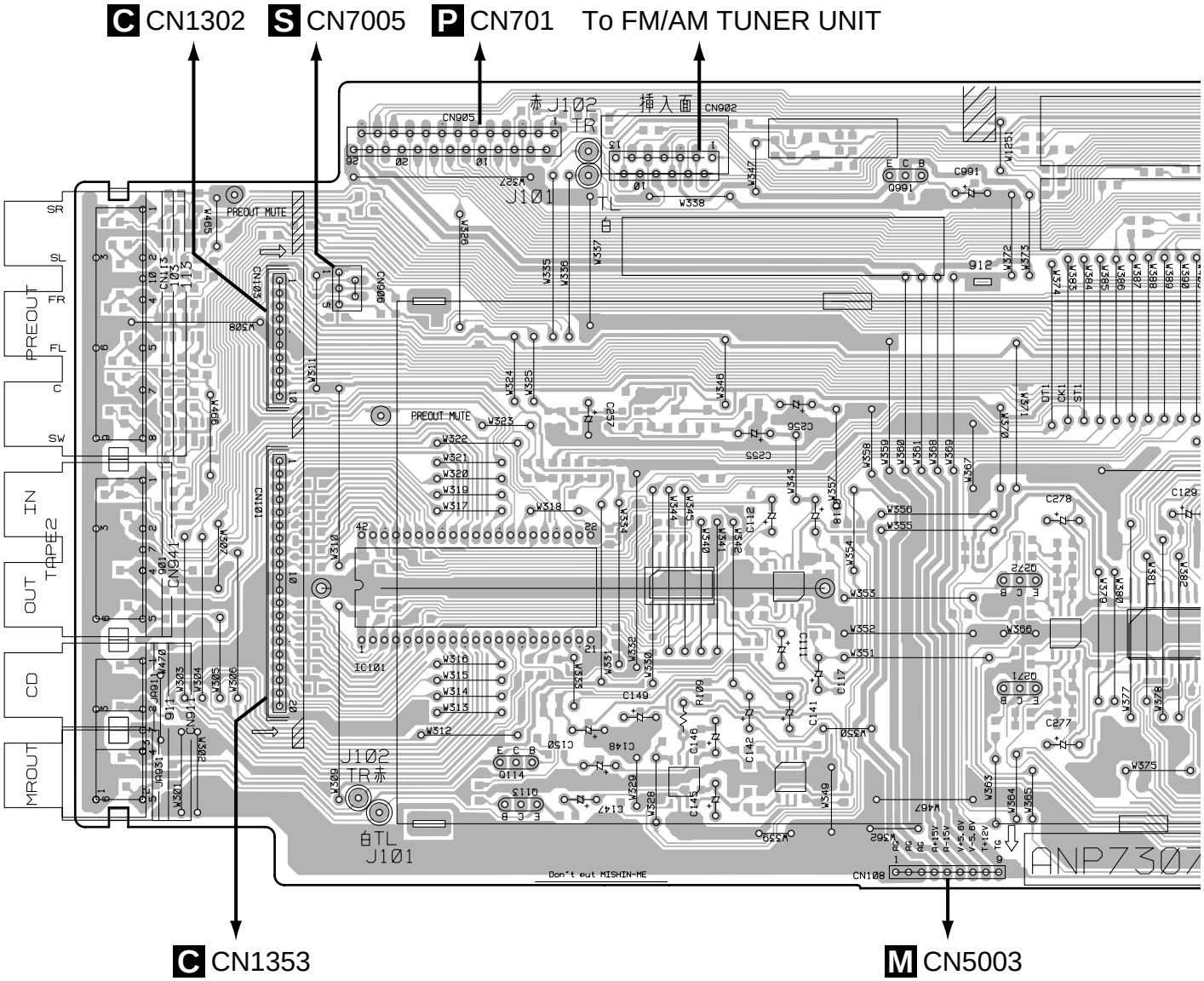
3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



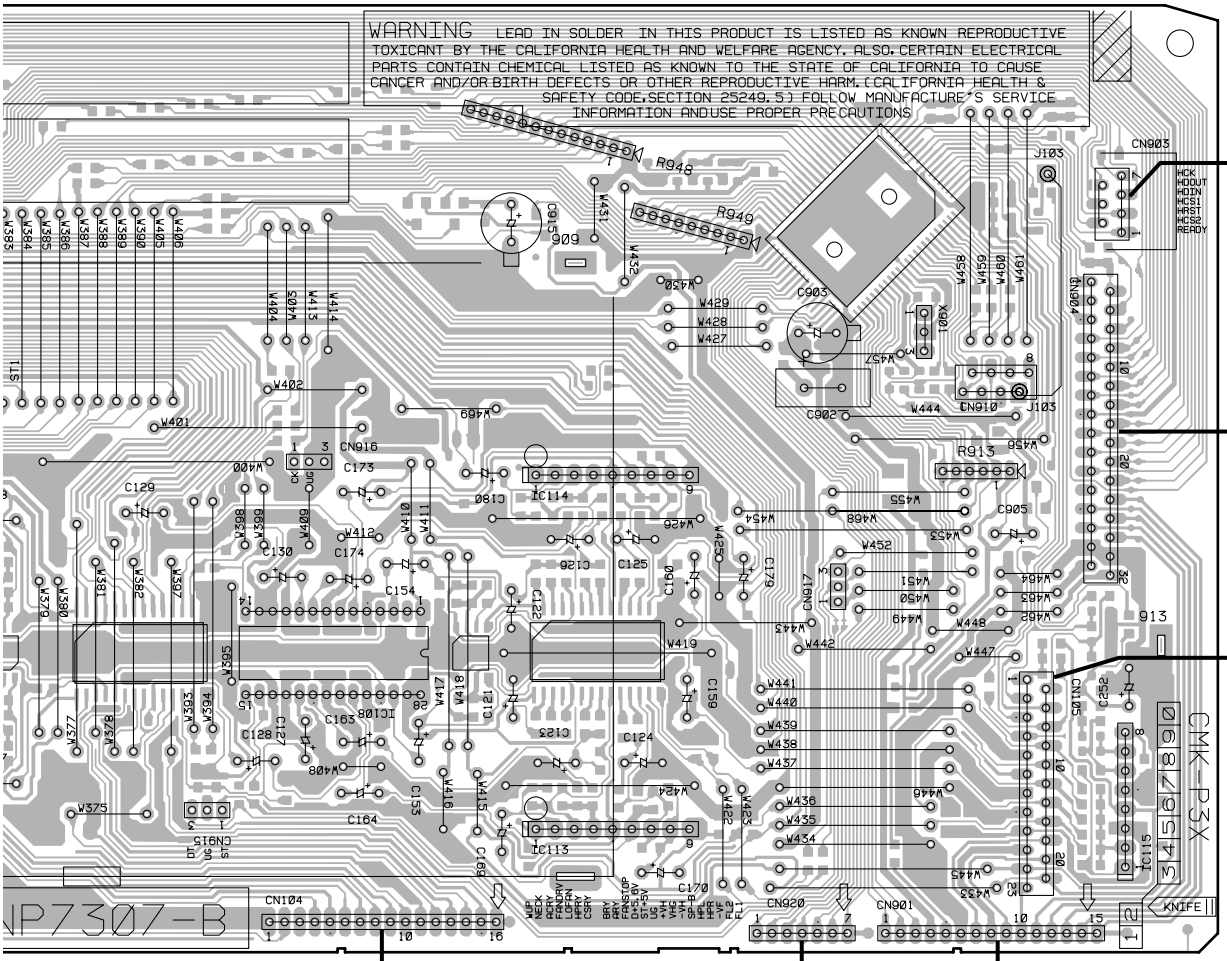
4.1 EXTERNAL IN, A-PINJACK and CONNECTION ASSYS



4.2 MAIN CONTROL ASSY



D MAIN CONTROL ASSY



Y CN9551

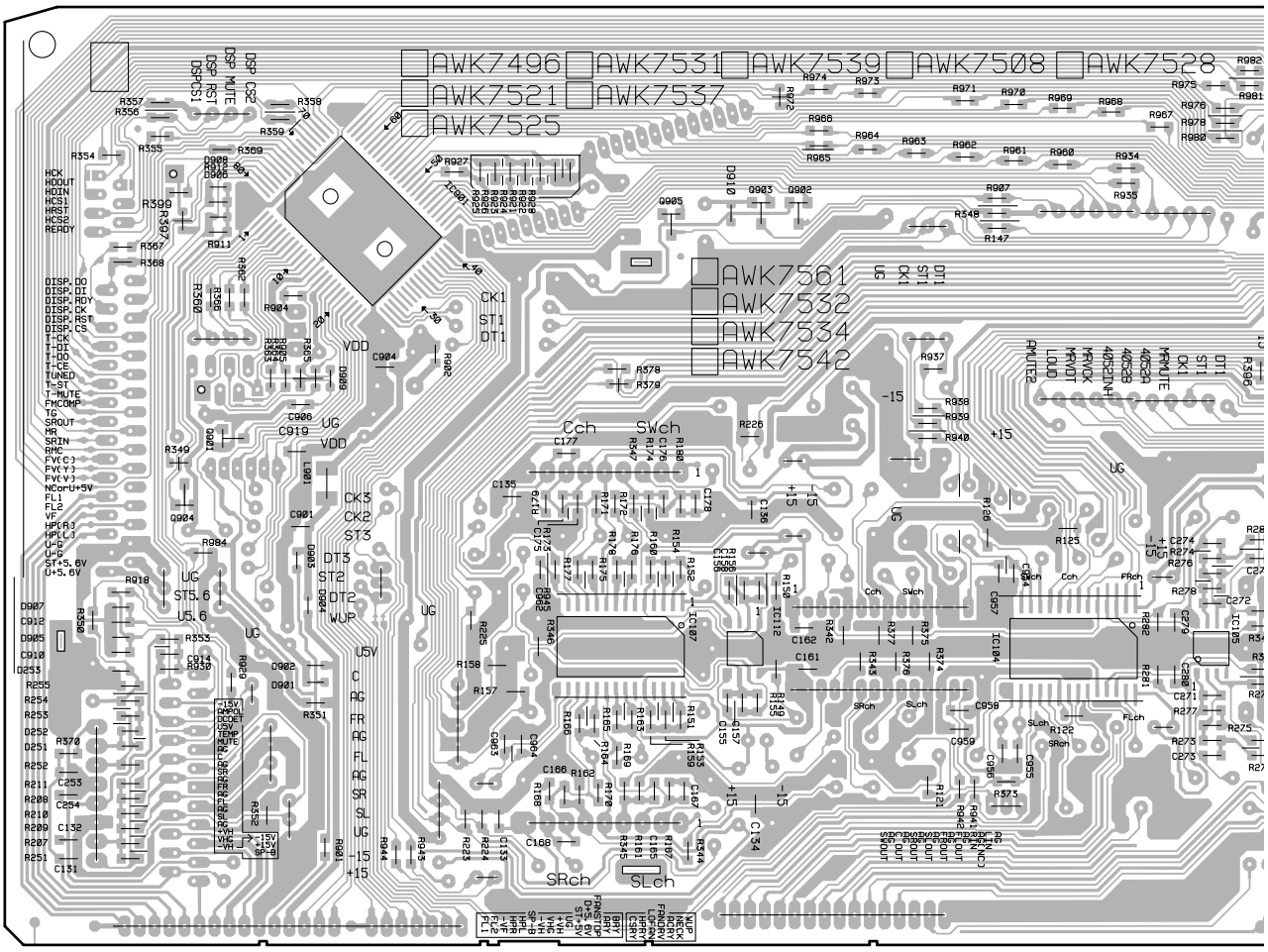
S CN7001

E CN501

M CN5004 M CN5008 M CN5005

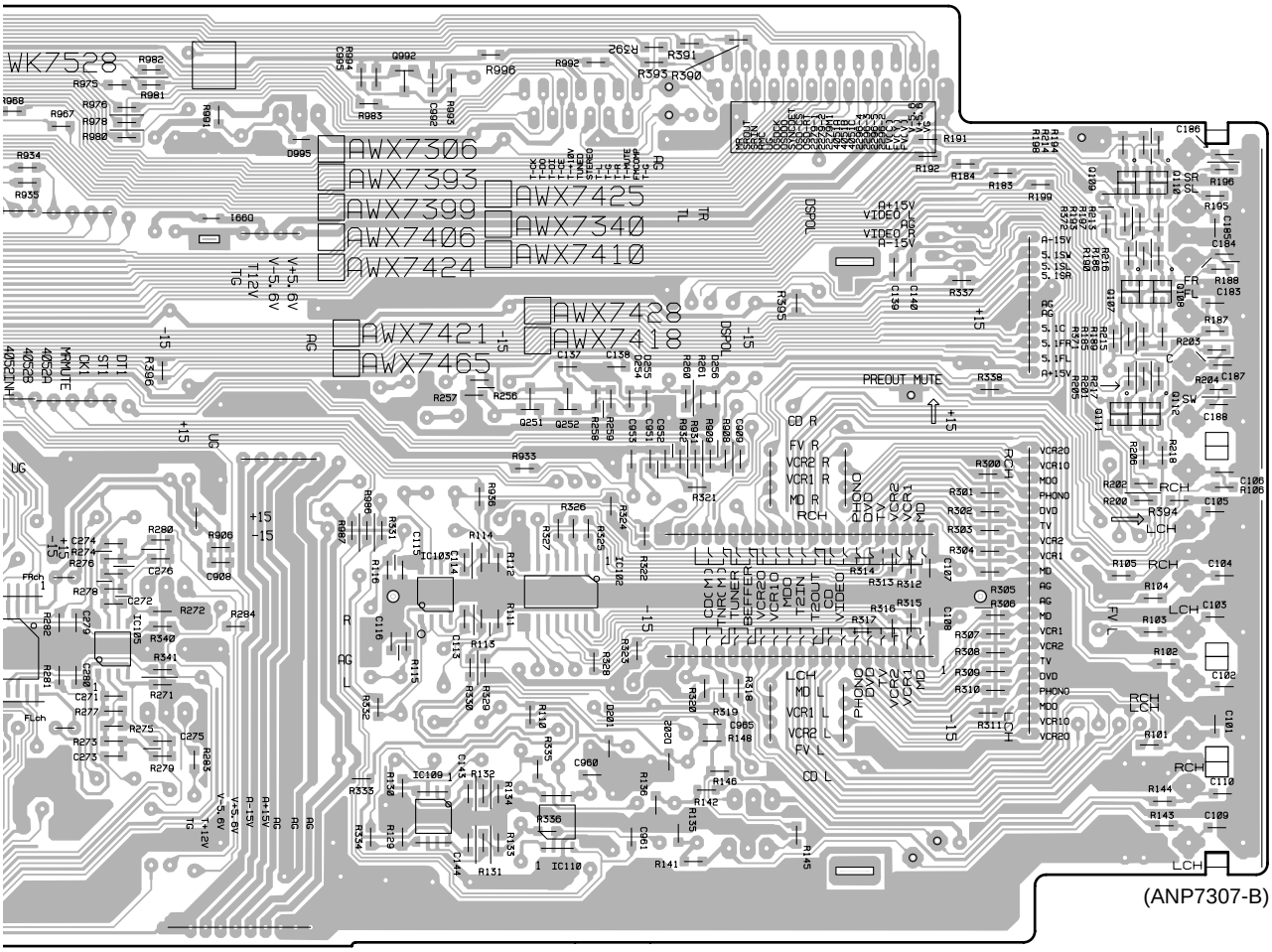
IC108 IC114 IC113 IC115

D MAIN CONTROL ASSY



Q904 Q901 IC901 Q905 Q903 Q902 IC104 IC105
IC107 IC112

SIDE B



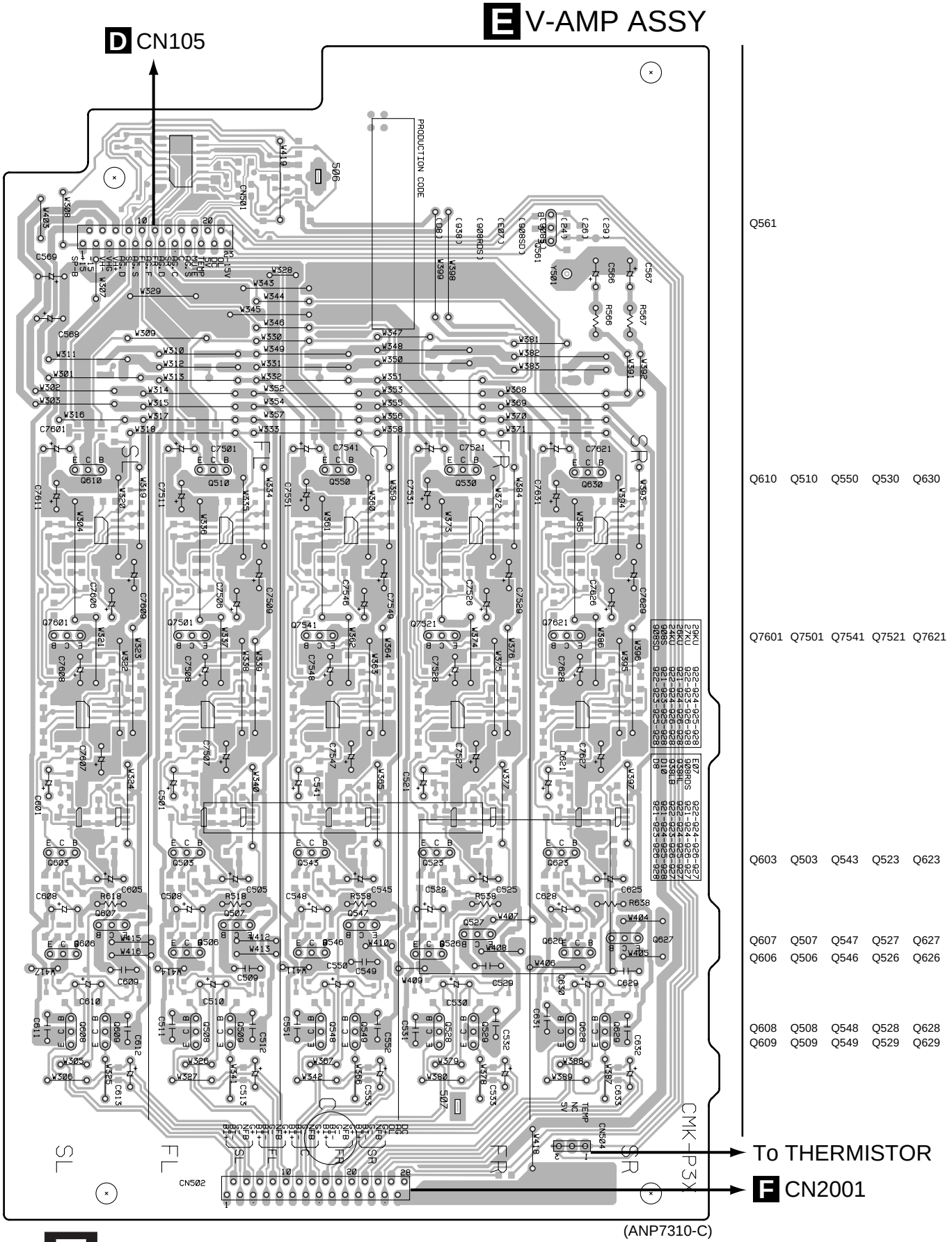
IC105

Q902 IC103 IC109

Q251 Q252 IC102 IC110

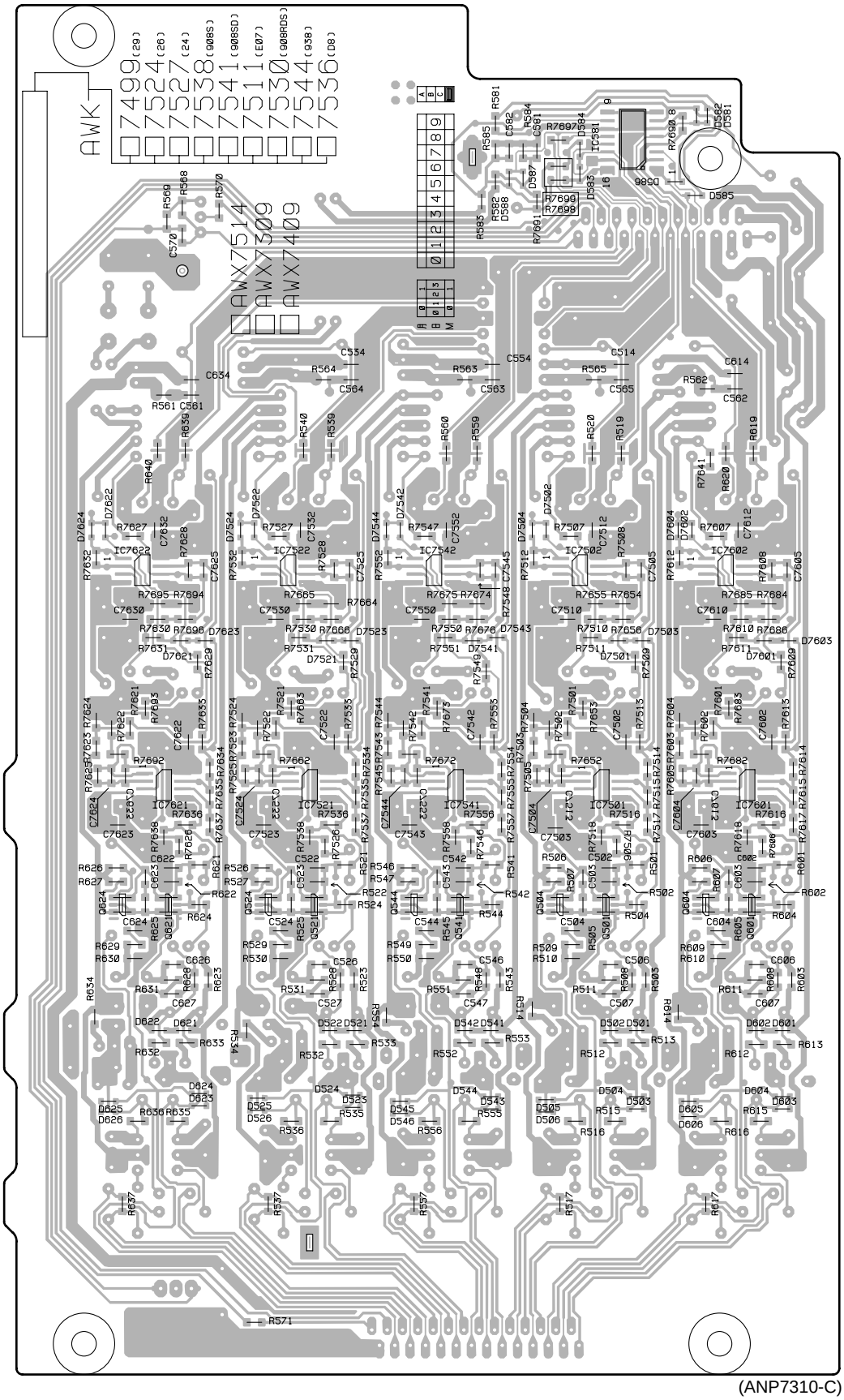
Q109 Q110 Q107 Q108 Q111 Q112

4.3 V-AMP ASSY



(ANP7310-C)

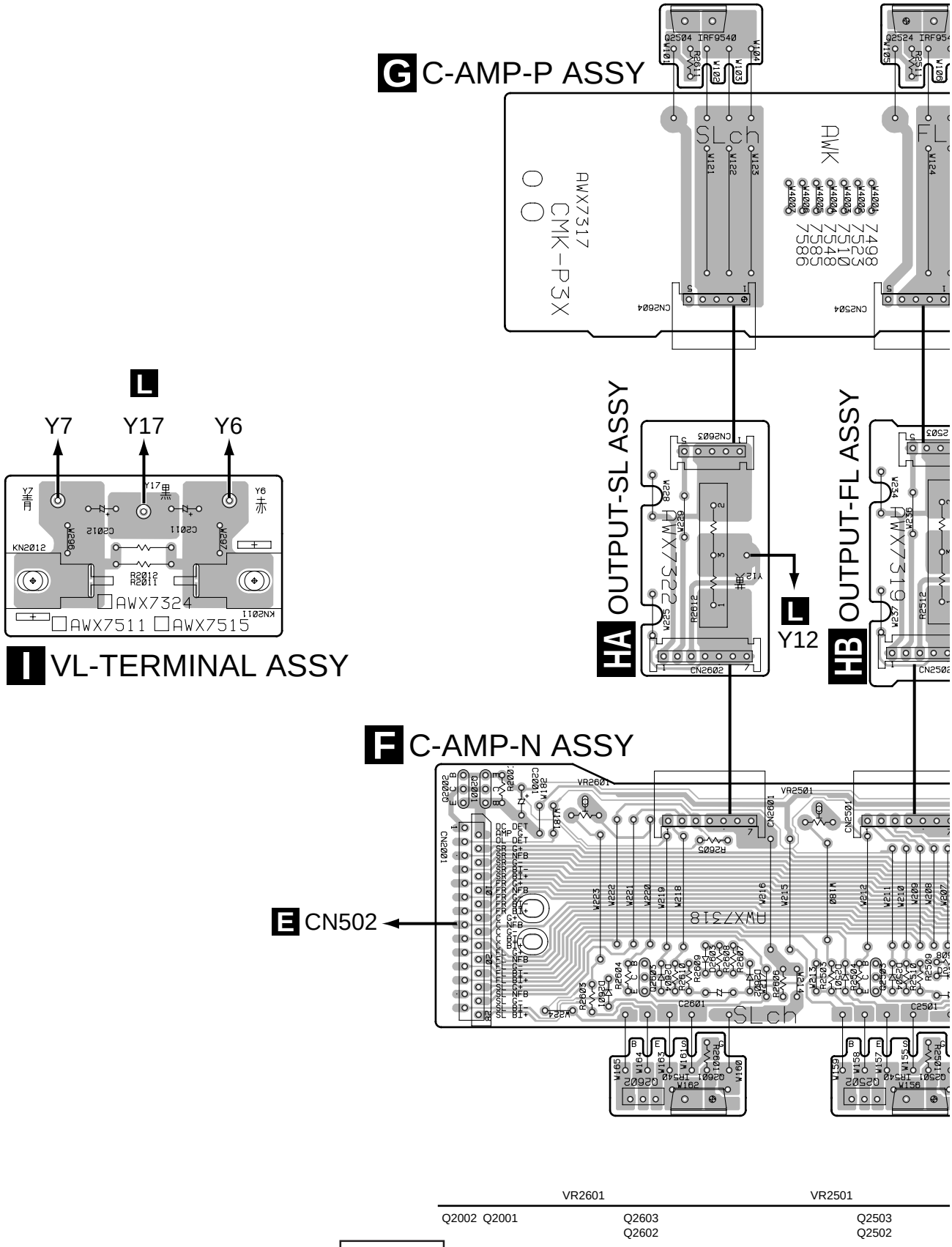
E V-AMP ASSY

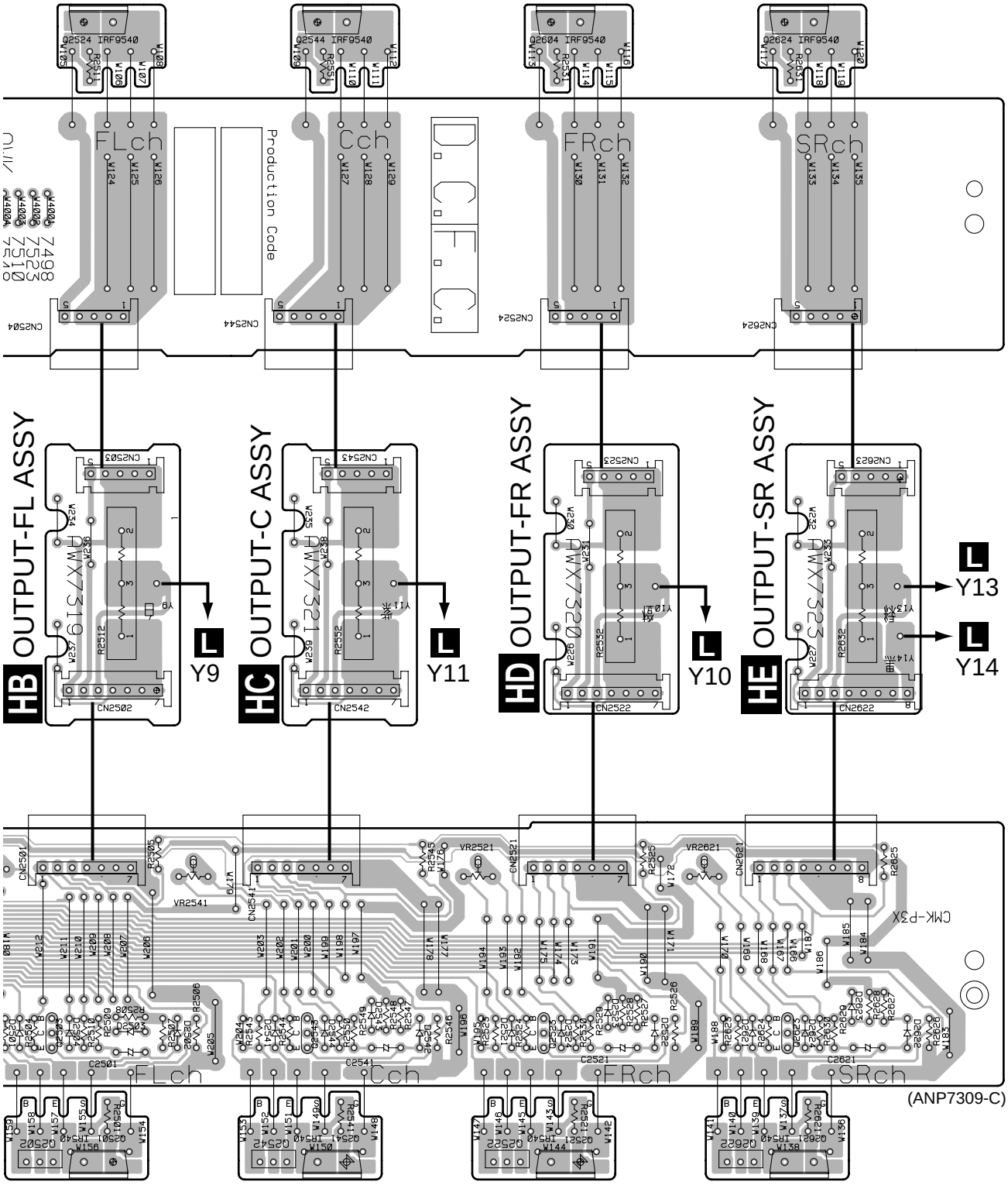


(ANP7310-C)

SIDE B

4.4 C-AMP-N, C-AMP-P, OUTPUT-SL, OUTPUT-FL, OUTPUT-C, OUTPUT-FR, OUTPUT-SR and VL-TERMINAL ASSYS





2501	VR2541	VR2521	VR2621
Q2503 Q2502	Q2543 Q2542	Q2523 Q2522	Q2623 Q2622

4.5 TRANS 2-1, DIODE, TRANS 1 and TRANS 2-2 ASSYS

● Line Voltage Selection

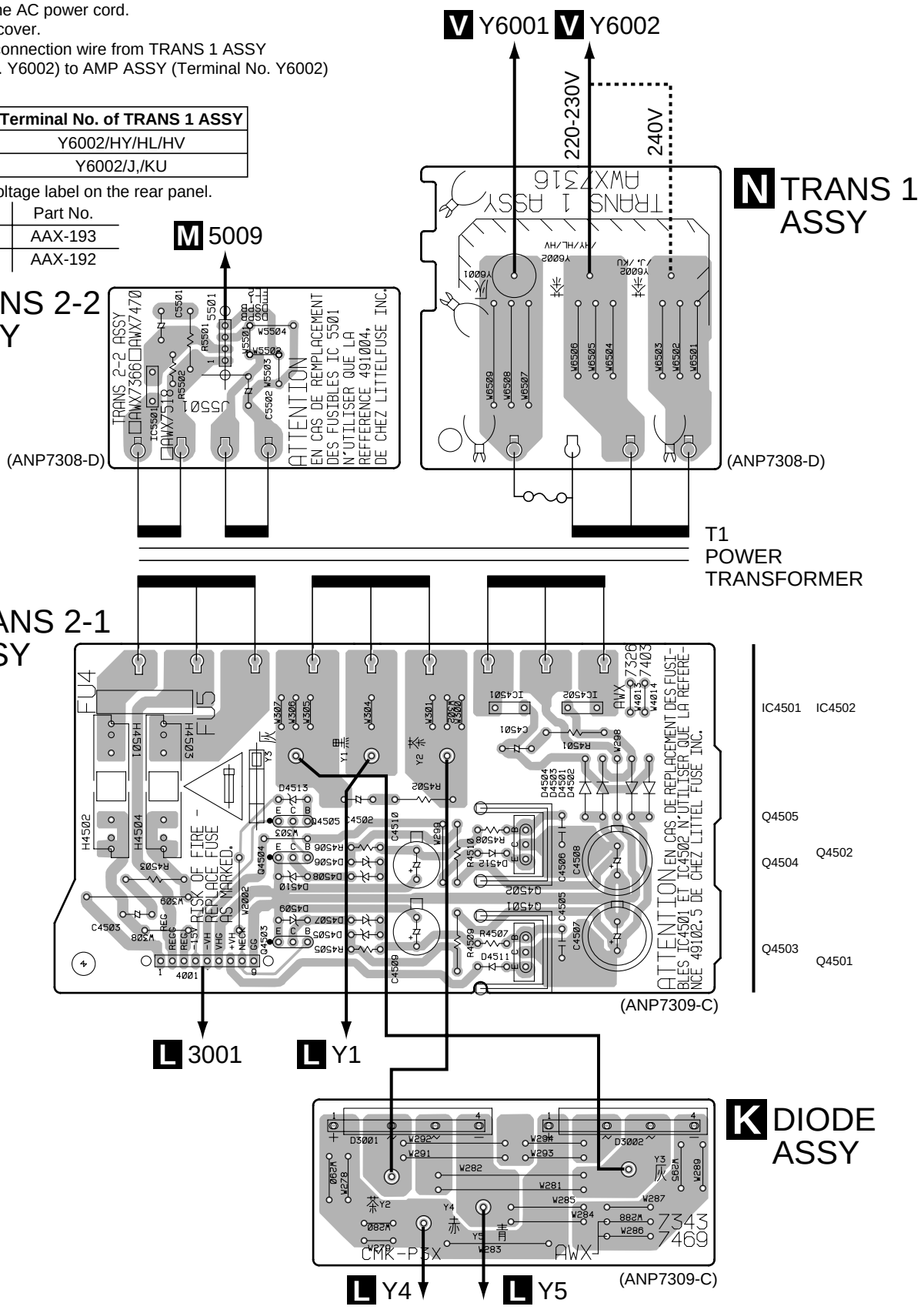
Line Voltage can be changed by the following modification:

1. Disconnect the AC power cord.
2. Remove the cover.
3. Change the connection wire from TRANS 1 ASSY (Terminal No. Y6002) to AMP ASSY (Terminal No. Y6002) as follows.

Voltage	Terminal No. of TRANS 1 ASSY
220-230V	Y6002/HY/HL/HV
240V	Y6002/J,/KU

4. Stick a line voltage label on the rear panel.

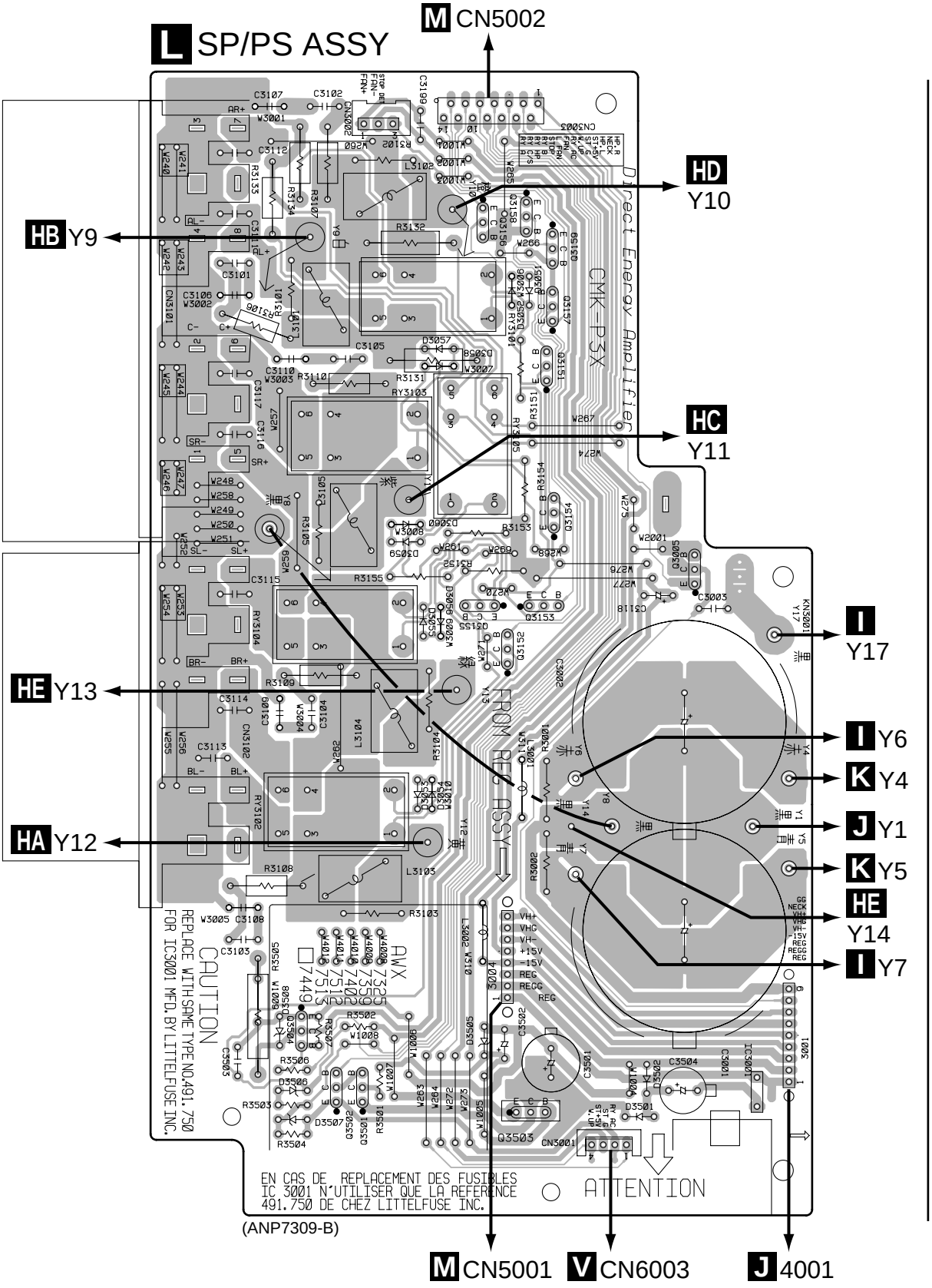
Description	Part No.
220V label	AAX-193
240V label	AAX-192



SIDE A

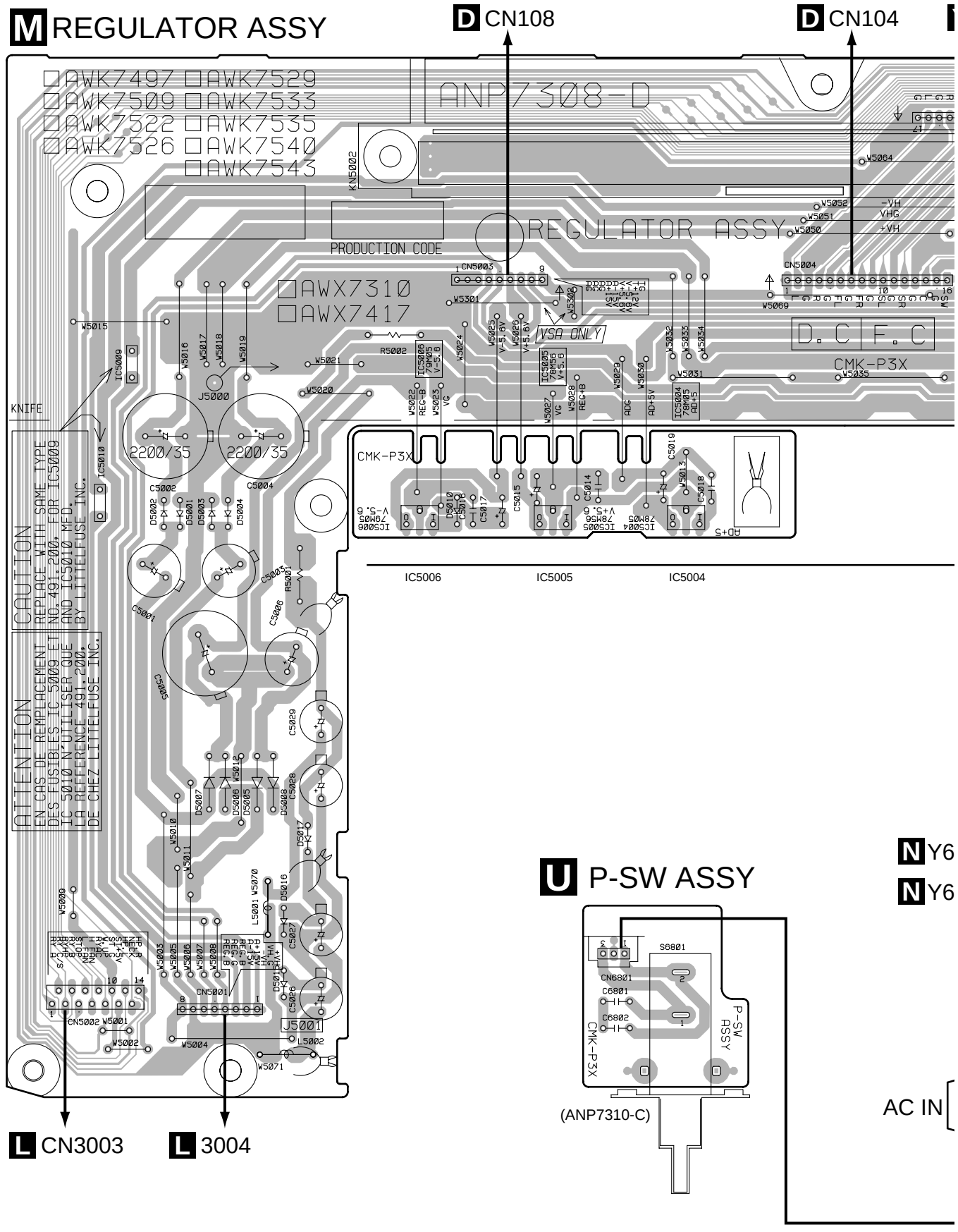
J K N O

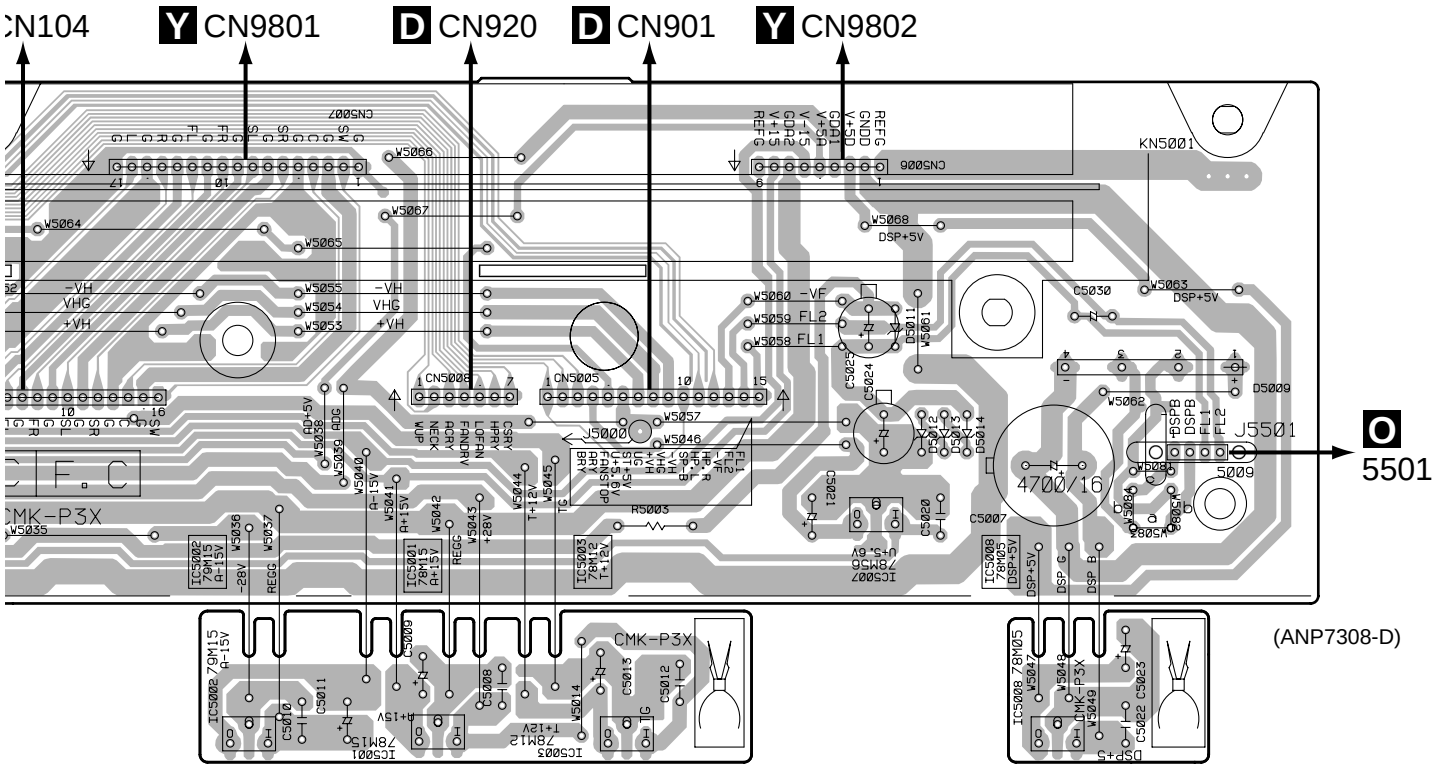
4.6 SP/PS ASSY

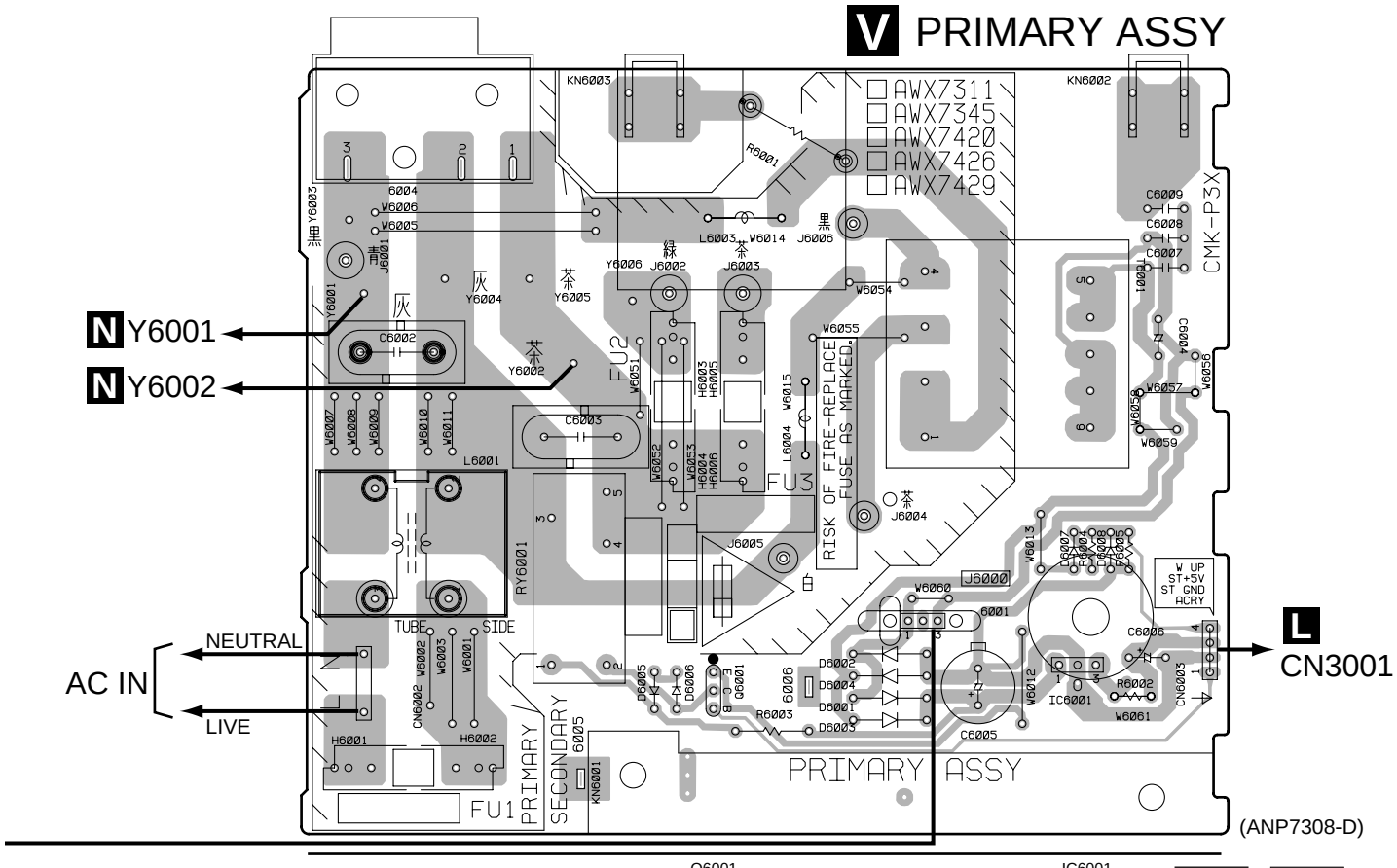


SIDE A

4.7 REGULATOR, PRIMARY and P-SW ASSYS

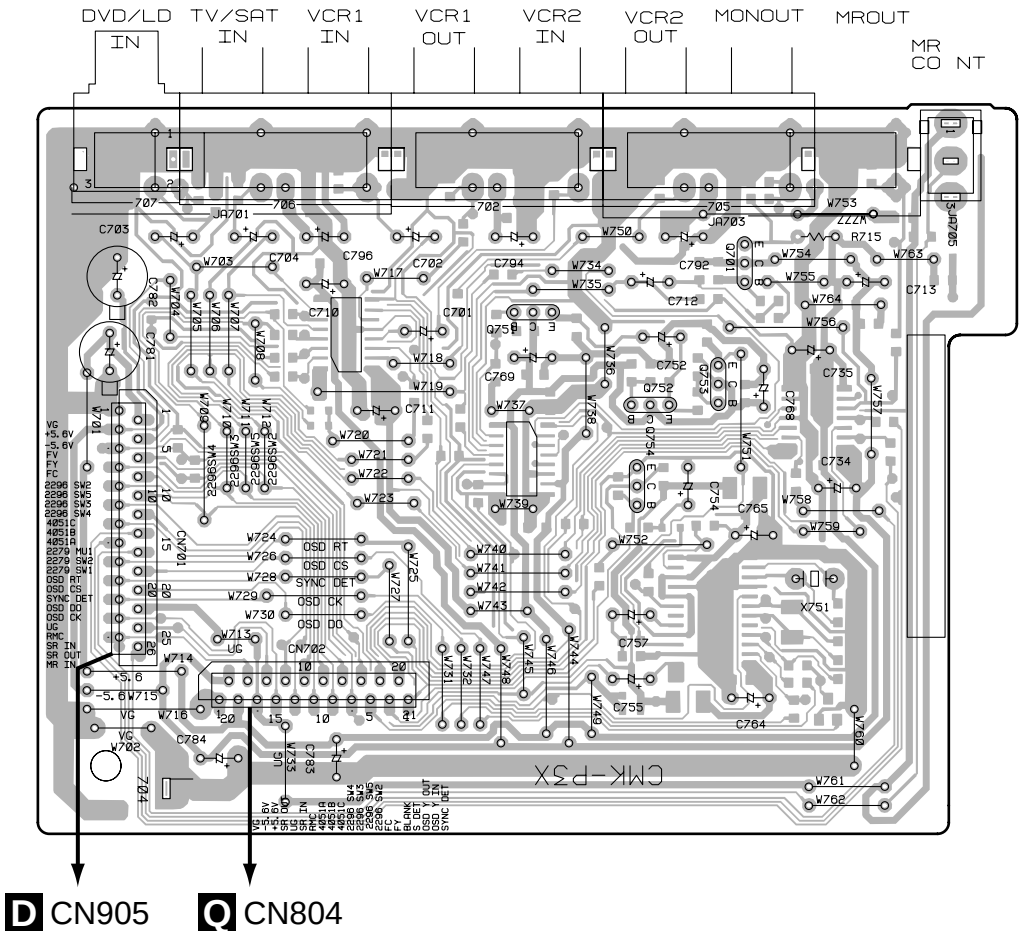



CN104
Y CN9801
D CN920
D CN901
Y CN9802
O 5501
CMK-P3X
(ANP7308-D)
IC5002
IC5001
IC5003
IC5007
IC5008

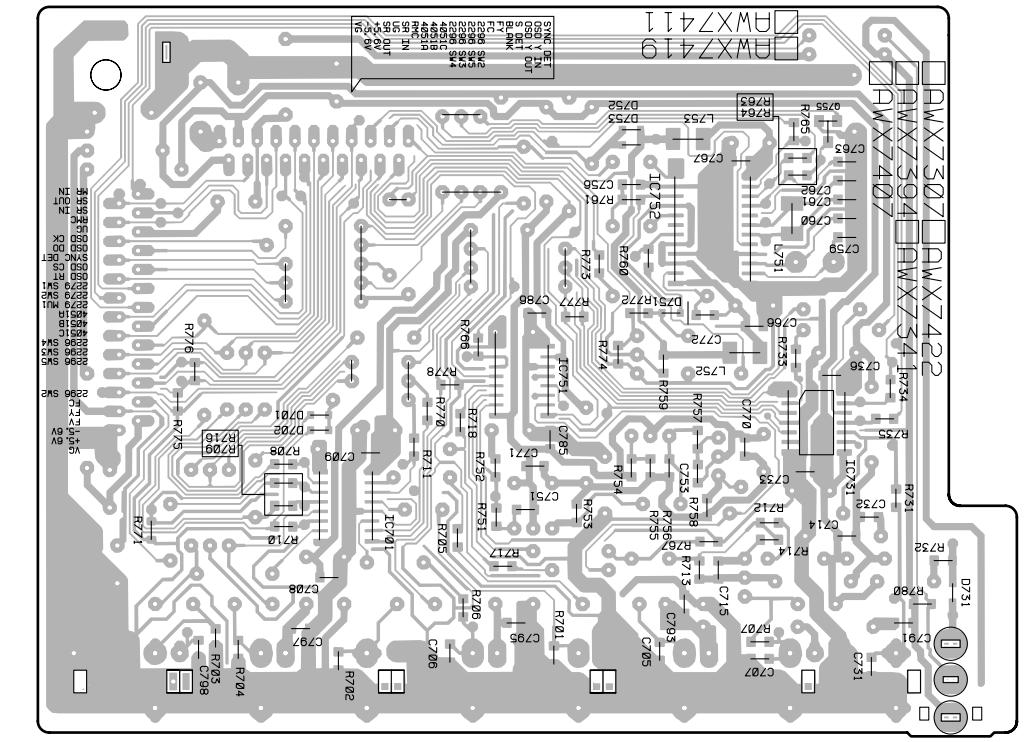

V PRIMARY ASSY
N Y6001
N Y6002
AC IN
NEUTRAL
LIVE
L CN3001
AWX7311
AWX7345
AWX7420
AWX7426
AWX7429
RISK OF FIRE-REPLACE FUSE AS MARKED.
PRIMARY ASSY
(ANP7308-D)
Q6001
IC6001

4.8 VIDEO ASSY

P VIDEO ASSY



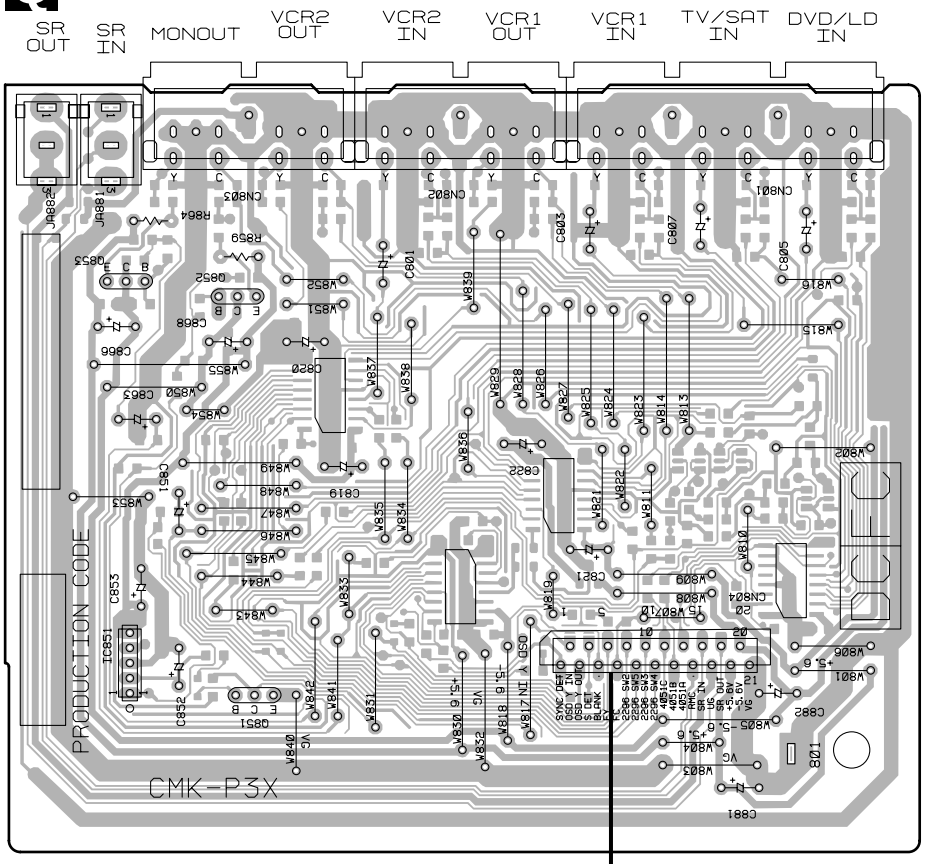
P VIDEO ASSY



(ANP7307-B)

4.9 S-VIDEO ASSY

Q S-VIDEO ASSY



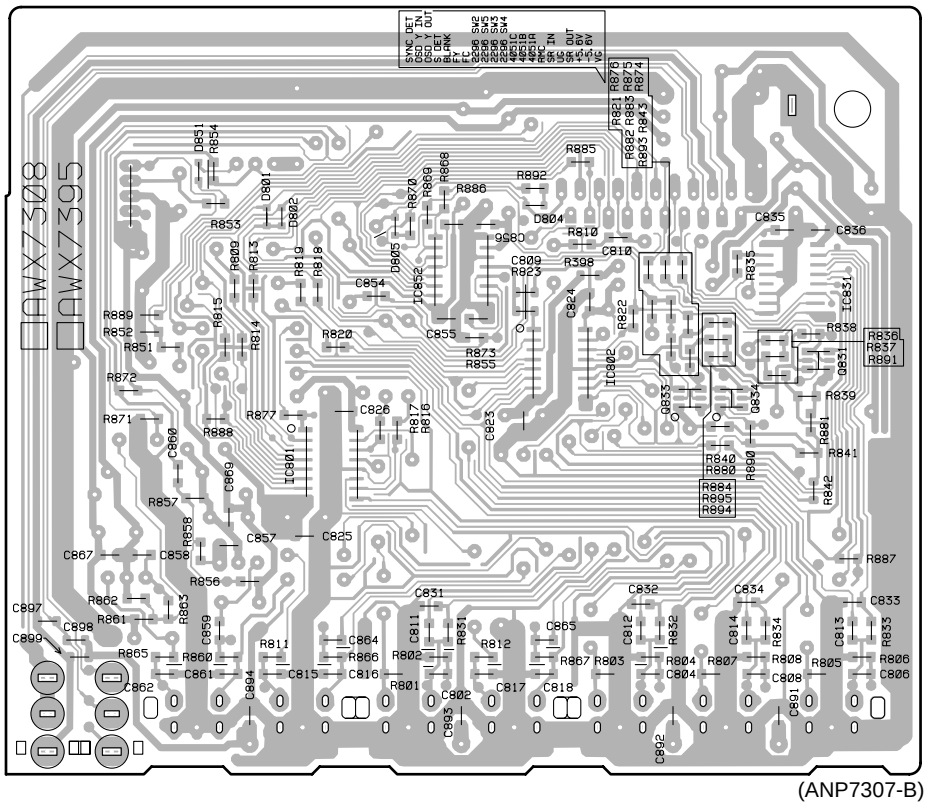
Q853 Q852

IC851 Q851

SIDE A

P CN702

Q S-VIDEO ASSY



IC852 IC831

IC802 Q831

Q833 Q834

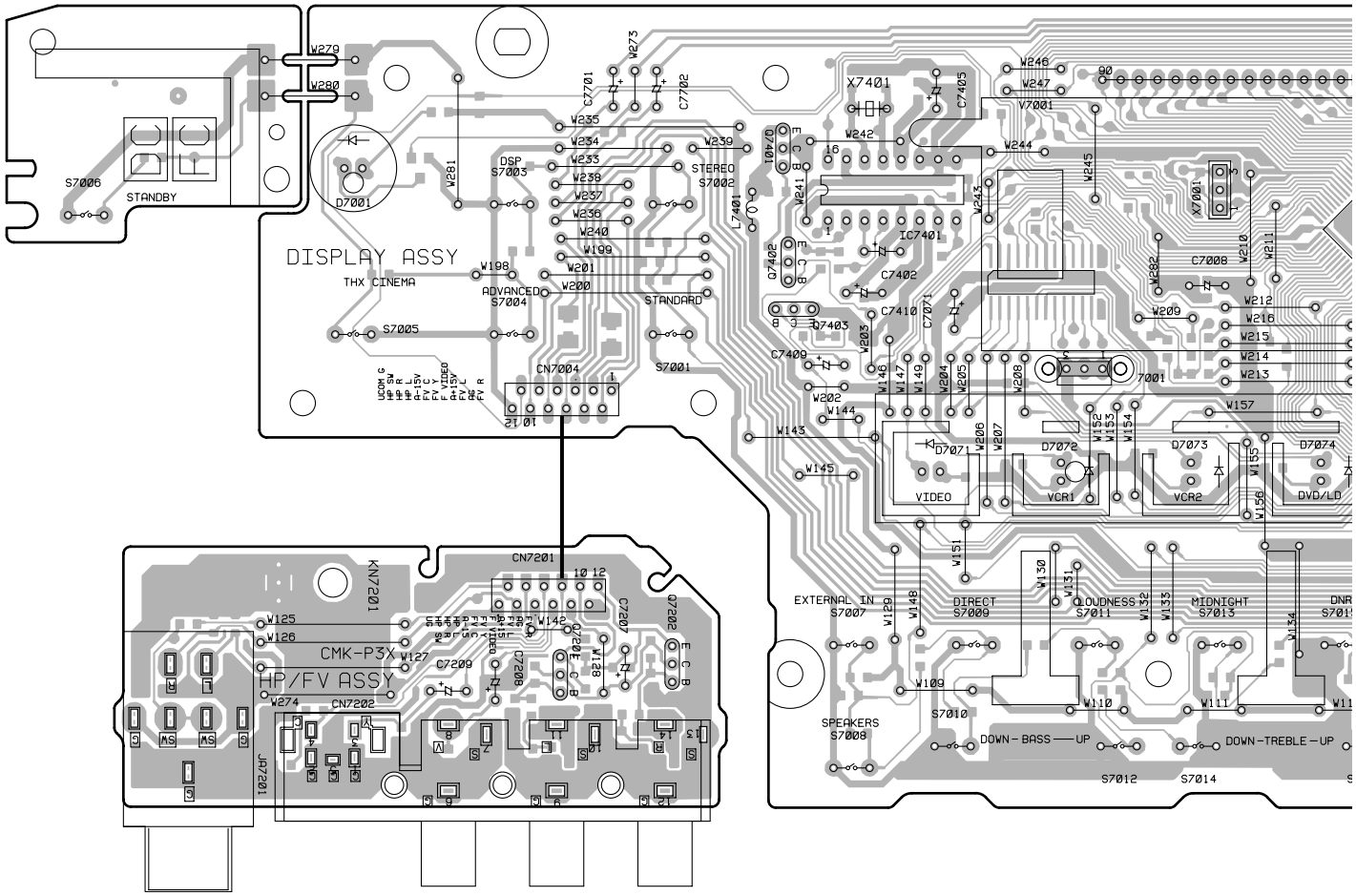
IC801

SIDE B

(ANP7307-B)

4.10 H. PHONE/F. VIDEO, DISPLAY and ROTARY ENCODER ASSYS

S DISPLAY ASSY

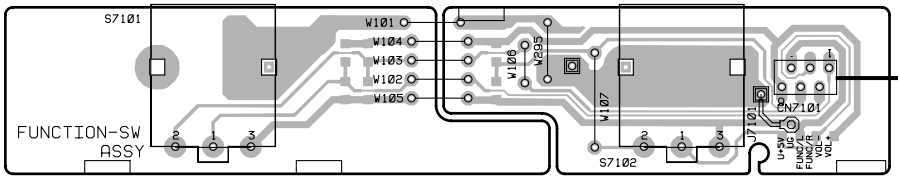


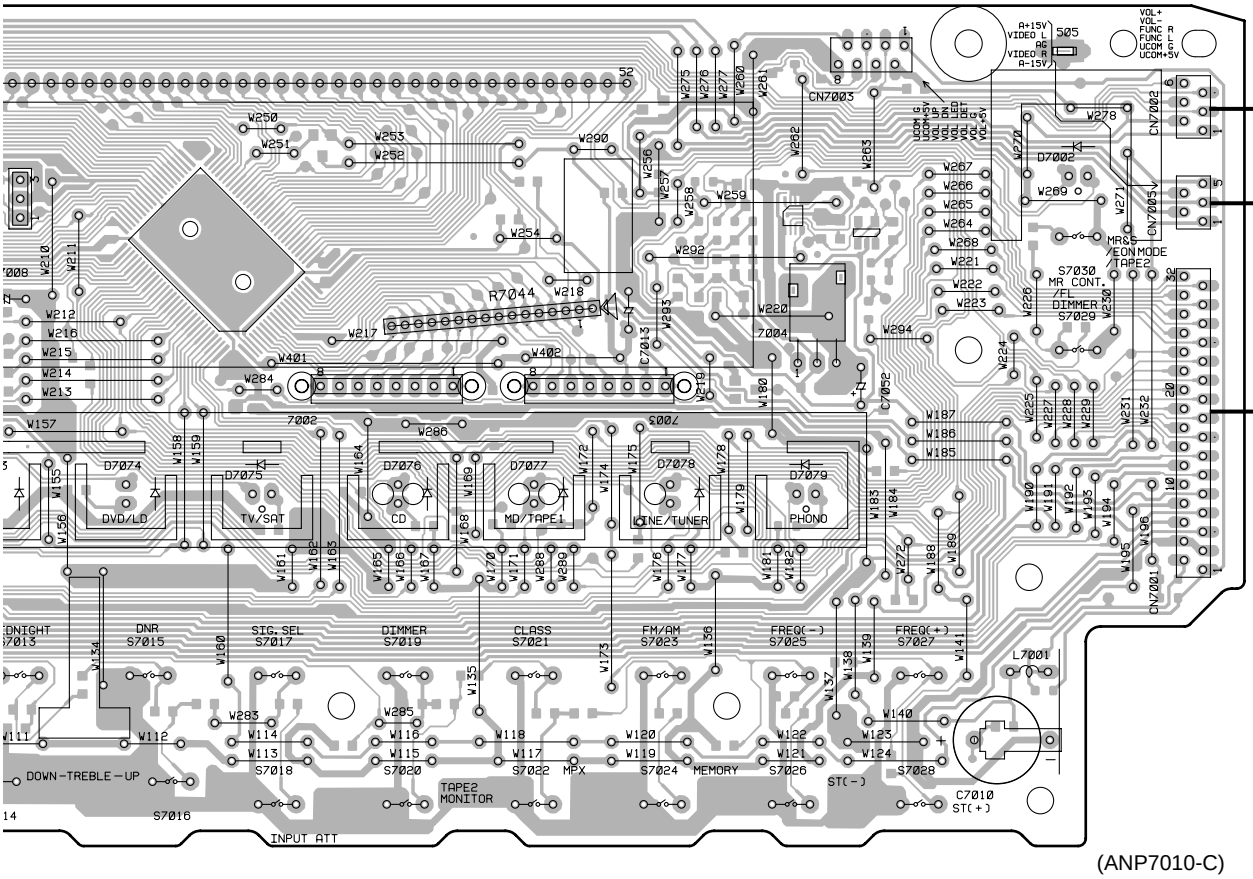
R H. PHONE/F. VIDEO ASSY

Q7201 Q7202

Q7401 IC7401
Q7403

T ROTARY ENCODER ASSY



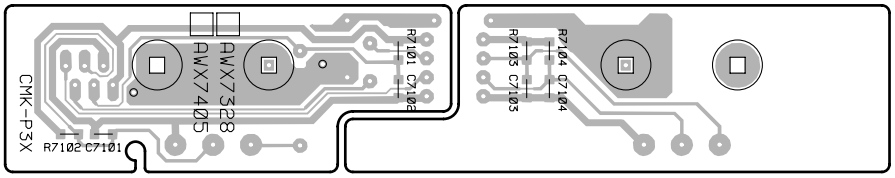


D CN906

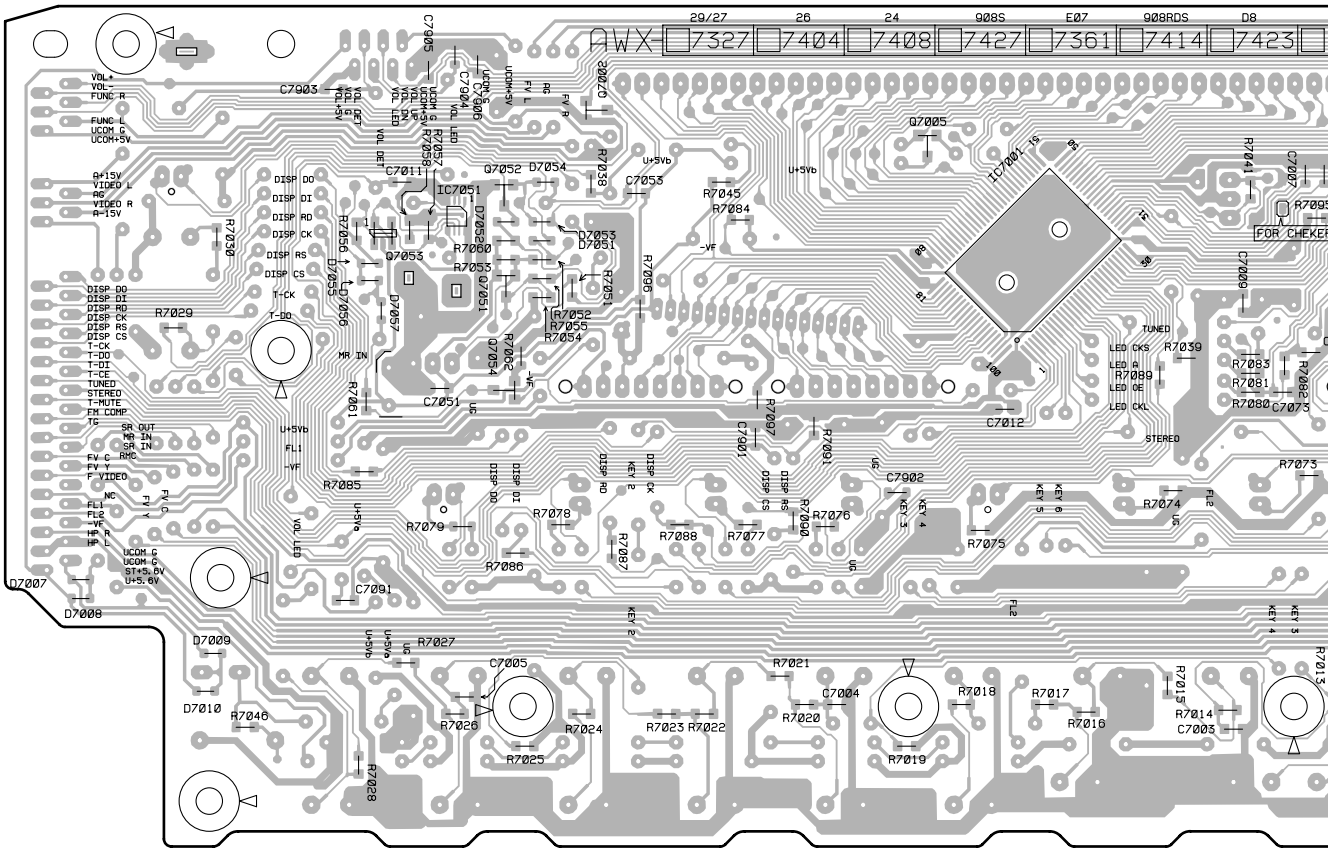
D CN904

(ANP7010-C)

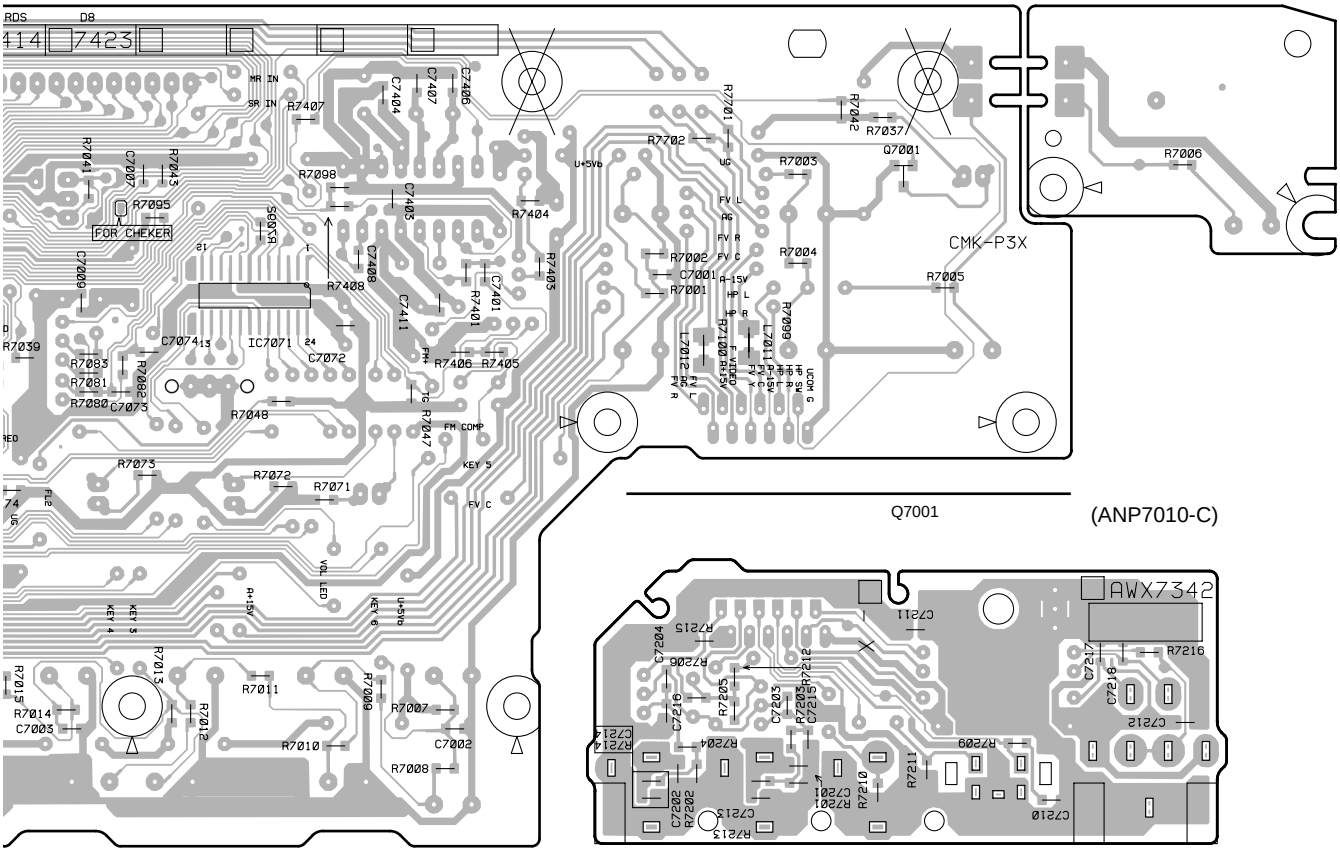
T ROTARY ENCODER ASSY



S DISPLAY ASSY



Q7053 Q7052 Q7002 Q7005 IC7001
IC7051
Q7051 Q7054

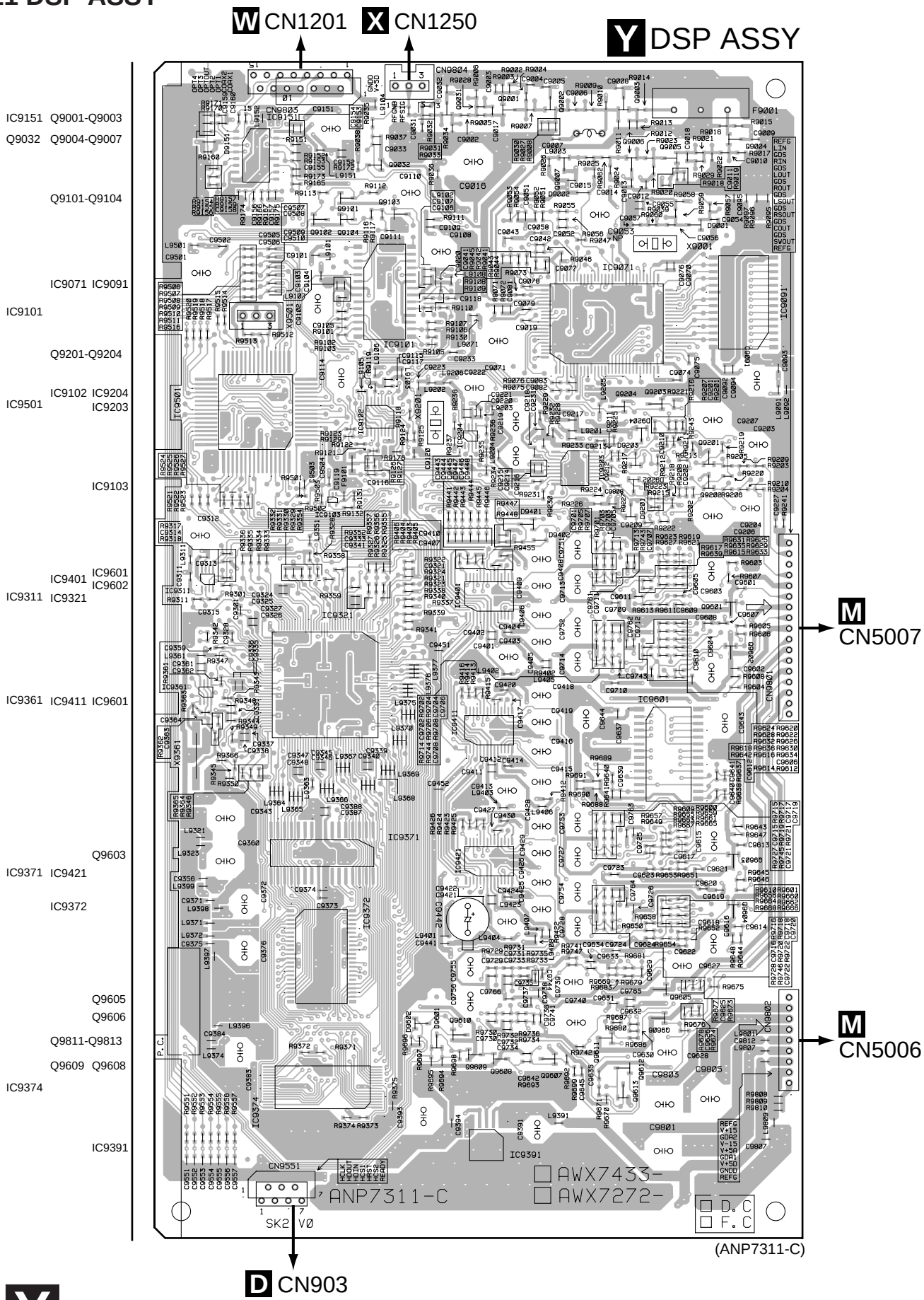


R H. PHONE/F. VIDEO ASSY

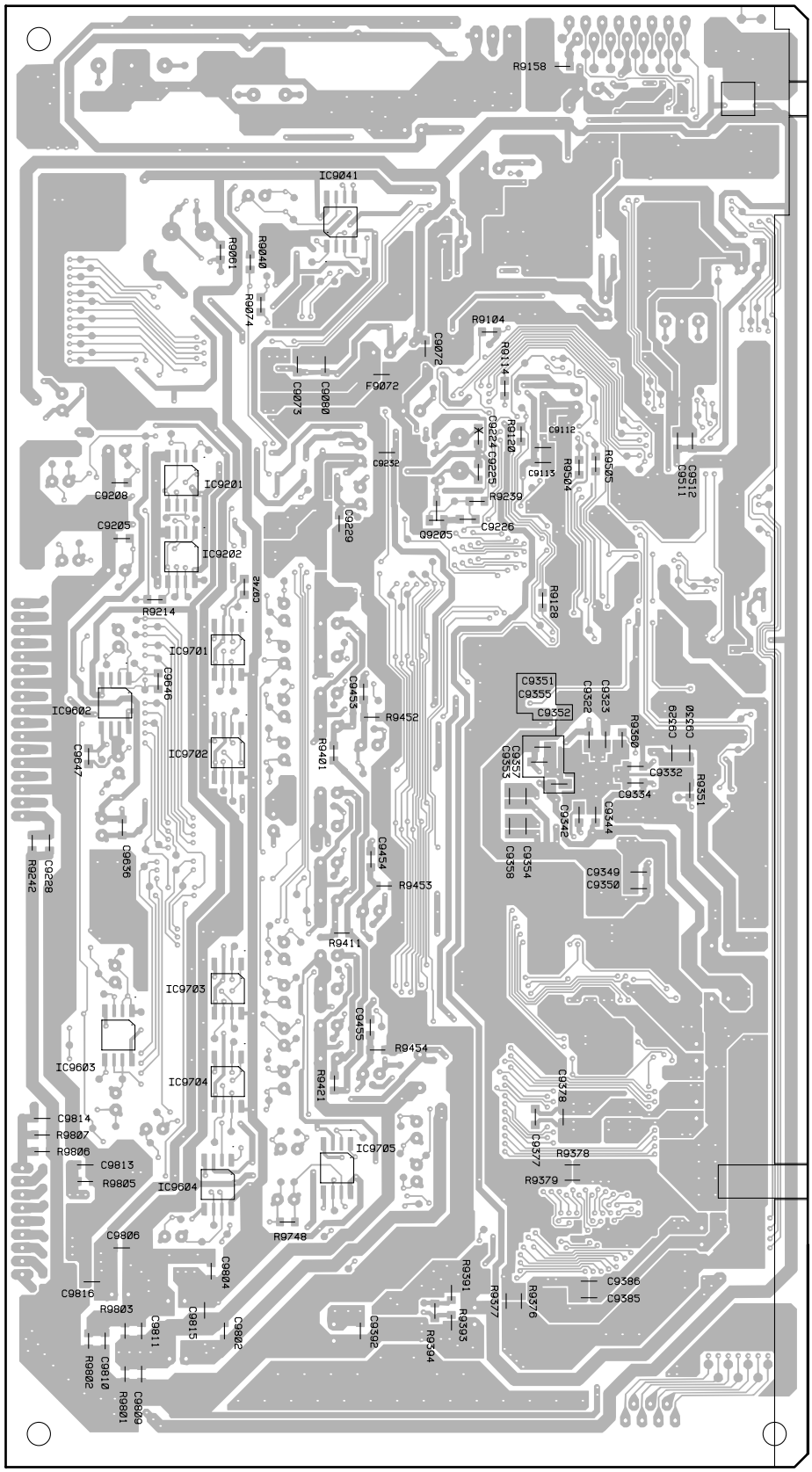
IC7071

Q7001

4.11 DSP ASSY

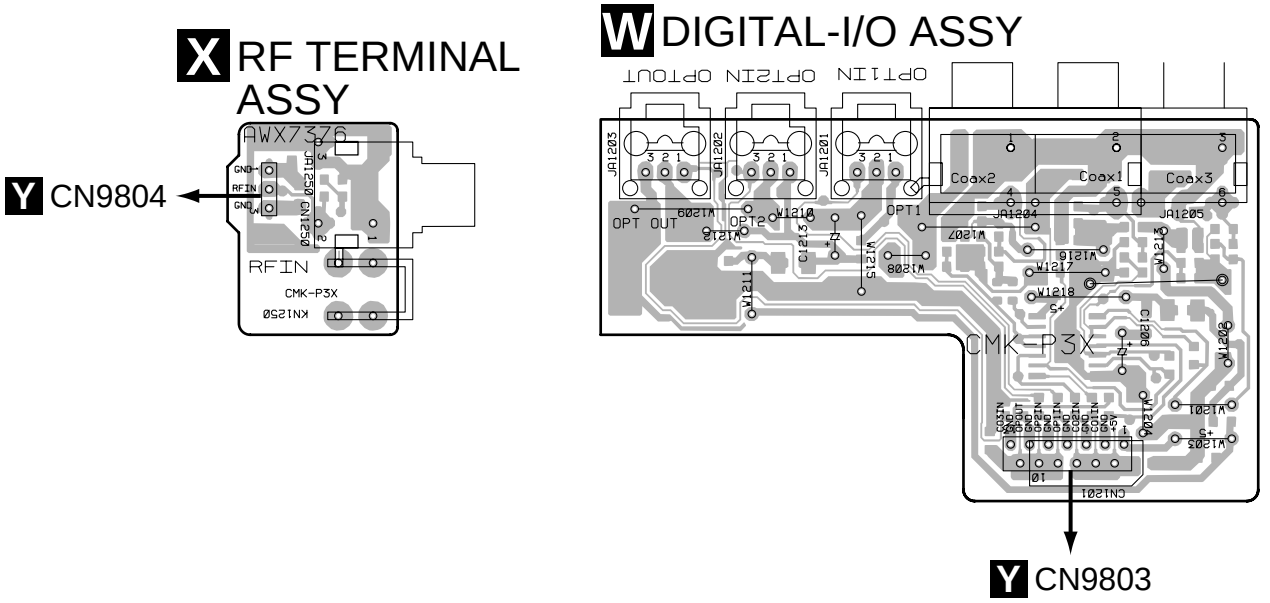

W CN1201
X CN1250
Y DSP ASSY
IC9151 Q9001-Q9003
Q9032 Q9004-Q9007
Q9101-Q9104
IC9071 IC9091
IC9101
Q9201-Q9204
IC9102 IC9204
IC9501 IC9203
IC9103
IC9401 IC9601
IC9602
IC9311 IC9321
IC9361 IC9411 IC9601
Q9603
IC9371 IC9421
IC9372
Q9605
Q9606
Q9811-Q9813
Q9609 Q9608
IC9374
IC9391
M CN5007
M CN5006
D CN903
CN9551
SK2
V0
ANP7311-C
AWX7433-
AWX7272-
D. C
F. C
(ANP7311-C)

Y DSP ASSY

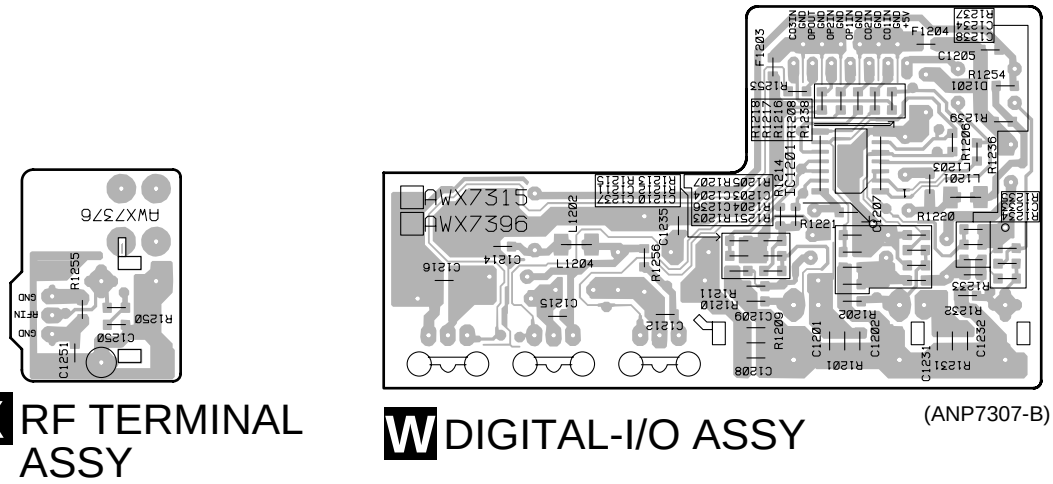


(ANP7311-C)

4.12 DIGITAL-I/O and RF TERMINAL ASSYS



SIDE A



SIDE B

5. PCB PARTS LIST

NOTES: ●*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 × 10¹ → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47 × 10³ → 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 × 10¹ → 5621 ..... RN1/4PC 5 6 2 1 F

Mark	No.	Description	Part No.
NSP		MAIN ASSY	AWK7528
NSP		├ RF TERMINAL ASSY	AWX7376
		├ S-VIDEO ASSY	AWX7395
		├ DIGITAL-I/O ASSY	AWX7396
		├ MAIN CONTROL ASSY	AWX7410
		└ VIDEO ASSY	AWX7422
NSP		COMPLEX ASSY (EXCEPT HV TYPE)	AWK7529
NSP		COMPLEX ASSY (ONLY HV TYPE)	AWK7557
		├ REGULATOR ASSY	AWX7310
		├ PRIMARY ASSY (EXCEPT HV TYPE)	AWX7345
		├ PRIMARY ASSY (ONLY HV TYPE)	AWX7454
		├ CONNECTION ASSY	AWX7347
		├ A-PINJACK ASSY	AWX7412
		├ EXTERNAL IN ASSY	AWX7413
		├ TRANS 2-2 ASSY	AWX7518
		└ TRANS 1 ASSY	AWX7316
NSP		FRONT/VAMP ASSY	AWK7530
		├ V-AMP ASSY	AWX7309
		├ P-SW ASSY	AWX7330
		├ H.PHONE/F.VIDEO ASSY	AWX7342
NSP		├ ROTARY ENCODER	AWX7405
		└ DISPLAY ASSY	AWX7414
NSP		POWER/CURRENT ASSY	AWK7510
NSP		├ C-AMP-P ASSY	AWX7317
		├ C-AMP-N ASSY	AWX7318
NSP		├ OUTPUT-FL ASSY	AWX7319
NSP		├ OUTPUT-FR ASSY	AWX7320
		├ OUTPUT-C ASSY	AWX7321
NSP		├ OUTPUT-SL ASSY	AWX7322
NSP		├ OUTPUT-SR ASSY	AWX7323
		├ VL-TERMINAL ASSY	AWX7324
		├ DIODE ASSY	AWX7343
		├ SP/PS ASSY	AWX7359
		└ TRANS 2-1 ASSY	AWX7403
		DSP ASSY	AWX7272

A EXTERNAL IN ASSY

CAPACITORS

C1101–C1106	CCCSL101J50
C1107–C1112	CEAT4R7M50
C1113–C1115	CKCYF103Z50

RESISTORS

All Resistors	RD1/4PU□□□J

OTHERS

JA1101–JA1103 2P PIN JACK	AKB7095
CN1101 8P SOCKET	KP200TA8L

B A-PINJACK ASSY

CAPACITORS

C1001–C1018	CCCSL101J50
C1019–C1022	CKCYF103Z50

RESISTORS

All Resistors	RD1/4PU□□□J

OTHERS

JA1011-JA1013,JA1015 4P PIN JACK	AKB7048
1016 2P PINJACK	AKB7120
CN1001 18P SOCKET	KP200TA18L
CN1002 4P SOCKET	KP200TA4L

C CONNECTION ASSY

SEMICONDUCTORS

IC1351	M5220P
IC1301–IC1303	NJM4558D-D

COILS AND FILTERS

L1351–L1354	LAU181J

CAPACITORS

C1353, C1354	CCCSL181J50
C1301–C1306	CCCSL331J50
C1351, C1352	CEAT100M50
C1365, C1366	CEAT101M25
C1363, C1364	CEAT2R2M50
C1357, C1358	CEAT470M25
C1307–C1312	CEAT4R7M50
C1355, C1356	CKCYB331K50
C1313–C1318	CKCYF103Z50
C1361, C1362	CQMA242J50
C1359, C1360	CQMBA822J50

RESISTORS

All Resistors	RD1/4PU□□□J

OTHERS

CN1351 18P PLUG	KM200TA18
CN1352 4P PLUG	KM200TA4
CN1301 8P PLUG	KM200TA8
CN1302 10P SOCKET	KP200TA10L
CN1353 20P SOCKET	KP200TA20L

Mark	No.	Description	Part No.

D MAIN CONTROL ASSY

SEMICONDUCTORS

	IC115	NJM4558LD
	IC103, IC105	NJM4558MD
	IC901	PD5506A
	IC104, IC107	TC9163AF
	IC101	TC9274N-001
	IC108	TC9482N
	IC112	UPC4570G2
	IC113, IC114	UPC4570HA
	Q991	2SC1740S
	Q251, Q252, Q992	2SC2412K
	Q271, Q272	2SC2878
	Q902–Q905	DTA124EK
	Q901	DTC143EK
	Q107–Q112	HN1C03F
	D251, D252, D254, D255	1SS355
	D901–D910, D991	1SS355
	D995	UDZ11B
	D253, D256	UDZS5.1B

COILS AND FILTERS

	L901	CHIP COIL	LCTA2R2J3225

CAPACITORS

	C902	ACH7058
	C155, C156, C165, C166	CCSQCH101J50
	C175, C176, C951–C959	CCSQCH101J50
	C962–C964	CCSQCH101J50
	C101–C106, C183–C188	CCSQCH221J50
	C113, C114	CCSQCH331J50
	C157, C158, C167, C168, C177	CCSQCH560J50
	C111, C112, C117, C118	CEAT100M50
	C127–C130, C153, C154	CEAT100M50
	C159, C160, C163, C164	CEAT100M50
	C169, C170, C173, C174	CEAT100M50
	C179, C180, C252, C255, C256	CEAT100M50
	C277, C278	CEAT100M50
	C123–C126, C991	CEAT101M16
	C257	CEAT1R0M50
	C903	CEAT221M10
	C121, C122	CEAT221M16
	C905	CEAT2R2M50
	C915	CEAT331M10
	C107, C108, C115, C116	CKSQYB103K50
	C131–C140, C161, C162	CKSQYB103K50
	C253, C254, C279, C280, C901	CKSQYB103K50
	C904, C908, C909, C914, C919	CKSQYB103K50
	C965, C995	CKSQYB103K50
	C273, C274	CKSQYB104K25
	C275, C276	CKSQYB332K50
	C178	CKSQYB333K50
	C271, C272	CKSQYB472K50
	C910, C912	CKSQYB473K50
	C906	CKSQYF105Z16
	C992	CKSQYF225Z16

RESISTORS

	R948	RA12T473J
	R913	RA5T103J
	R949	RA8T103J
	Other Resistors	RS1/10S□□□J

Mark	No.	Description	Part No.

OTHERS

	CN903	7P FFC CONNECTOR	52044-0745
	CN902	13P FFC CONNECTOR	52044-1345
	CN906	5P FFC CONNECTOR	52045-0545
	CN105	23P FFC CONNECTOR	52045-2345
	CN905	26P FFC CONNECTOR	52045-2645
	CN904	32P FFC CONNECTOR	52045-3245
	CN941	4P PIN JACK	AKB7015
	113	6P PIN JACK	AKB7089
	JA911	2P PIN JACK	DKB1045
	CN103	10P PLUG	KM200TA10
	CN101	20P PLUG	KM200TA20
	CN104	16P SOCKET	KP200IA16L
	CN901	15P SOCKET	KP200TA15L
	CN920	7P SOCKET	KP200TA7L
	CN108	9P SOCKET	KP200TA9L
	909, 912, 913	PCB BINDER	VEF1040
	X901	CERAMIC RESONATOR (4.19MHz)	ASS1018

E V-AMP ASSY

SEMICONDUCTORS

	IC581	BU4052BCF
	IC7502, IC7522, IC7542, IC7602	NJM4558MD
	IC7622	NJM4558MD
	IC7501, IC7521, IC7541, IC7601	UPC4570G2
	IC7621	UPC4570G2
	Q503, Q523, Q543, Q603, Q623	2SA1048
	Q506, Q509, Q526, Q529, Q546	2SA970
	Q549, Q606, Q609, Q626, Q629	2SA970
	Q507, Q508, Q527, Q528	2SC2240
	Q547, Q548, Q561, Q607, Q608	2SC2240
	Q627, Q628	2SC2240
	Q510, Q530, Q550, Q610, Q630	2SC2878
	Q7501, Q7521, Q7541, Q7601, Q7621	2SC2878
	Q501, Q521, Q541, Q601, Q621	FMS3
	Q504, Q524, Q544, Q604, Q624	FMW4
	D501, D502, D504, D505	1SS355
	D521, D522, D524, D525	1SS355
	D541, D542, D544, D545	1SS355
	D581–D588, D601, D602	1SS355
	D604, D605, D621, D622	1SS355
	D624, D625, D7501, D7502	1SS355
	D7521, D7522, D7541, D7542	1SS355
	D7601, D7602, D7621, D7622	1SS355
	D7503, D7504, D7523, D7524	HZU2CLL
	D7543, D7544, D7603, D7604	HZU2CLL
	D7623, D7624	HZU2CLL
	D503, D523, D543, D603, D623	UDZS6.8B
	D506, D526, D546, D606, D626	UDZS8.2B

CAPACITORS

	C511, C512, C531, C532	CCCSL181K2H
	C551, C552, C611, C612	CCCSL181K2H
	C631, C632	CCCSL181K2H
	C509, C529, C549, C609, C629	CCCSL5R0C2H
	C504, C524, C544, C604, C624	CCSQCH101J50
	C7504, C7505, C7524, C7525	CCSQCH220J50
	C7544, C7545, C7604, C7605	CCSQCH220J50
	C7624, C7625	CCSQCH220J50
	C502, C522, C542, C602, C622	CCSQCH221J50
	C506, C507, C526, C527	CCSQSL560J50

Mark	No.	Description	Part No.
	C546, C547, C606, C607		CCSQSL560J50
	C626, C627		CCSQSL560J50
	C7501, C7521, C7541, C7601, C7621		CEAT100M50
	C505, C508, C525, C528, C545		CEAT101M16
	C548, C605, C608, C625, C628		CEAT101M16
	C510, C530, C550, C610, C630		CEAT470M16
	C513, C533, C553, C568, C569		CEAT470M50
	C613, C633		CEAT470M50
	C501, C521, C541, C601, C621		CEAT4R7M50
	C7506, C7526, C7546, C7606, C7626		CEAT4R7M50
	C7502, C7503, C7510, C7512		CKSQYB104K25
	C7522, C7523, C7530, C7532		CKSQYB104K25
	C7542, C7543, C7550, C7552		CKSQYB104K25
	C7602, C7603, C7610, C7612		CKSQYB104K25
	C7622, C7623, C7630, C7632		CKSQYB104K25
	C561–C565		CKSQYB222K50
	C503, C523, C543, C603, C623		CKSQYB332K50
	C570		CKSQYF223Z50
	C581, C582		CKSQYF225Z16
	RESISTORS		
	R518, R538, R558, R618, R638		RD1/4MUF473J
⚠	R513, R514, R533, R534		RS1/10S121J
⚠	R553, R554, R613, R614		RS1/10S121J
⚠	R633, R634		RS1/10S121J
	Other Resistors		RS1/10S□□□J
	OTHERS		
	CN501	23P FFC CONNECTOR	52045-2345
	CN502	28P FFC CONNECTOR	52045-2845
	CN504	3P PLUG	KM250MA3
	506	PCB BINDER	VEF1040

F C-AMP-N ASSY

Mark	No.	Description	Part No.
	SEMICONDUCTORS		
	Q2503, Q2523, Q2543, Q2603, Q2623		2SA970
	Q2001, Q2002		2SC1740S
	Q2502, Q2522, Q2542, Q2602, Q2622		2SC4137
⚠	Q2501, Q2521, Q2541, Q2601, Q2621		IRF540A
	D2501–D2504, D2521–D2524		1SS133
	D2541–D2544, D2601–D2604		1SS133
	D2621–D2624		1SS133
	CAPACITORS		
	C2501, C2521, C2541, C2601, C2621		CEANPR22M50
	C2001		CEAT101M10
	RESISTORS		
⚠	R2506, R2510, R2526, R2530, R2546		RD1/4PUF391J
⚠	R2550, R2606, R2610, R2626, R2630		RD1/4PUF391J
⚠	R2501, R2521, R2541, R2601, R2621		RD1/4PUF470J
	VR2501, VR2521, VR2541 (22Ω)		RCP1134
	VR2601, VR2621 (22Ω)		RCP1134
	Other Resistors		RD1/4PU□□□J
	OTHERS		
	CN2001	28P FFC CONNECTOR	52045-2845
	CN2501, CN2521, CN2541, CN2601	7P PLUG	KM250NA7L
	CN2621	8P PLUG	KM250NA8L

G C-AMP-P ASSY

Mark	No.	Description	Part No.
	SEMICONDUCTORS		
⚠	Q2504, Q2524, Q2544, Q2604, Q2624		IRF9540A
	RESISTORS		
⚠	R2511, R2531, R2551, R2611, R2631		RD1/4PUF470J
	OTHERS		
	CN2504, CN2524, CN2544	5P PLUG	KM250NA5L
	CN2604, CN2624	5P PLUG	KM250NA5L

HA OUTPUT-SL ASSY

Mark	No.	Description	Part No.
	RESISTORS		
⚠	R2612	(0.05Ω/5W)	ACN7097
	OTHERS		
	CN2603	5P SOCKET	KP250NA5
	CN2602	7P SOCKET	KP250NA7

HB OUTPUT-FL ASSY

Mark	No.	Description	Part No.
	RESISTORS		
⚠	R2512	(0.05Ω/5W)	ACN7097
	OTHERS		
	CN2503	5P SOCKET	KP250NA5
	CN2502	7P SOCKET	KP250NA7

HC OUTPUT-C ASSY

Mark	No.	Description	Part No.
	RESISTORS		
⚠	R2552	(0.05Ω/5W)	ACN7097
	OTHERS		
	CN2543	5P SOCKET	KP250NA5
	CN2542	7P SOCKET	KP250NA7

HD OUTPUT-FR ASSY

Mark	No.	Description	Part No.
	RESISTORS		
⚠	R2532	(0.05Ω/5W)	ACN7097
	OTHERS		
	CN2523	5P SOCKET	KP250NA5
	CN2522	7P SOCKET	KP250NA7

HE OUTPUT-SR ASSY

Mark	No.	Description	Part No.
	RESISTORS		
⚠	R2632	(0.05Ω/5W)	ACN7097
	OTHERS		
	CN2623	5P SOCKET	KP250NA5
	CN2622	8P SOCKET	KP250NA8

Mark	No.	Description	Part No.

I VL-TERMINAL ASSY

CAPACITORS

	C2011, C2012		CEAT1R0M2A

OTHERS

	KN2011,KN2012	GROUND PLATE	ANK-142

J TRANS 2-1 ASSY

SEMICONDUCTORS

⚠	IC4501, IC4502 (2.5A)	AEK7014
	Q4502	2SA1837
	Q4501	2SC4793
	Q4504	DTA143ES
	Q4505	DTC124ES
	Q4503	DTC143ES
	D4509, D4510	MTZJ12B
	D4513	MTZJ16B
	D4505–D4508	MTZJ20A
	D4501–D4504, D4511, D4512	S5688G

CAPACITORS

	C4503 (1µF/100V, NP)	ACH1237
	C4507, C4508	CEAT471M63
	C4509, C4510	CECA101M50
	C4501, C4502	CQMA333K2E

RESISTORS

	R4509, R4510	RD1/4PMF332J
	R4501–R4503	RFA1/4PS220J
	Other Resistors	RD1/4PU□□□J

OTHERS

	4001	9P CABLE HOLDER	51048-0900
	H4501–H4504	FUSE CLIP	AKR1004
	4501, 4502	HEAT SINK	ANH-309
	4503, 4504	SCREW	BPZ30P080FZK

K DIODE ASSY

SEMICONDUCTORS

⚠	D3001, D3002	D5SBA20(B)

L SP/PS ASSY

SEMICONDUCTORS

	IC3001 (750mA)	AEK7007
	Q3504	2SC2235
	Q3503	2SC4793
	Q3005, Q3156–Q3159, Q3501	DTA124ES
	Q3502	DTC124ES
	Q3151–Q3155	DTC143ES
	D3051–D3060	1SS133
	D3506, D3508	MTZJ12C
	D3505	MTZJ27D
	D3507	MTZJ5.1B
	D3501, D3502	S5688G

COILS AND FILTERS

	L3101–L3105	AF CHOKE COIL	ATH1053

Mark	No.	Description	Part No.

SWITCHES AND RELAYS

	RY3101-RY3105	ASR7014

CAPACITORS

	C3001, C3002 (22000µF/56V)	
	C3118	CEAT100M50
	C3502	CEAT1R0M50
	C3504	CEAT471M25
	C3501	CEAT471M35
	C3101–C3110	CFTYA224J50
	C3503	CKCYF103Z50
	C3111–C3117	CQMA332K2E

RESISTORS

	R3151–R3155	RD1/2PM331J
	R3503	RD1/4PU102J
	R3507	RD1/4PU103J
	R3504	RD1/4PU104J
	R3506	RD1/4PU222J
	R3501	RD1/4PU471J
	R3502	RD1/4PU473J
	R3133, R3134	RS1LMF471J
	R3106–R3110	RS1LMF4R7J
	R3131, R3132	RS2LMF331J
	R3505	RS3LMF221J
	Other Resistors	RD1/4PM□□□J

OTHERS

	3004	8P CABLE HOLDER	51048-0800
	3001	9P CABLE HOLDER	51048-0900
	CN3003	14P FFC CONNECTOR	52045-1445
	CN3101	8P SPEAKER TERMINAL	AKE7044
	CN3102	6P SPEAKER TERMINAL	AKE7045
	J3002	JUMPER WIRE 8P	D20PYY0825E
	J3001	JUMPER WIRE 9P	D20PYY0915E
	CN3001	4P PLUG	KM200TA4
	CN3002	3P PLUG	KM250MA3
	KN3001	EARTH METAL FITTING	VNF1084

M REGULATOR ASSY

SEMICONDUCTORS

⚠	IC5009, IC5010 (200mA)	AEK7023
⚠	IC5004, IC5008	NJM78M05FA
⚠	IC5003	NJM78M12FA
⚠	IC5001	NJM78M15FA
⚠	IC5005, IC5007	NJM78M56FA
⚠	IC5006	NJM79M05FA
⚠	IC5002	NJM79M15FA
	D5010	1SS133
⚠	D5009	D3SBA20(B)
	D5012–D5014	MTZJ10C
	D5011	MTZJ5.1B
⚠	D5001–D5008, D5015–D5017	S5688G

CAPACITORS

	C5015, C5017, C5019, C5021, C5023	CEAT101M10
	C5009, C5011, C5013, C5025	CEAT101M25
	C5024	CEAT101M50
	C5026	CEAT221M35
	C5027, C5028	CEAT221M50

Mark	No.	Description	Part No.
	C5001, C5003, C5006		CEAT222M25
	C5002, C5004		CEAT222M35
	C5005		CEAT332M25
	C5007		CEAT472M16
	C5008, C5010, C5012, C5014, C5016		CKCYF103Z50
	C5018, C5020, C5022		CKCYF103Z50

RESISTORS

	R5001–R5003		RD1/2PM620J

OTHERS

	5009	4P CABLE HOLDER	51048-0400
	CN5002	14P FFC CONNECTOR	52045-1445
	CN5001	8P JUMPER CONNECTOR	52147-0810
	J5000	BOARD IN WIRE	DB022ND0
	CN5004	16P PLUG	KM200IA16
	CN5005	15P PLUG	KM200TA15
	CN5007	17P PLUG	KM200TA17
	CN5008	7P PLUG	KM200TA7
	CN5003,CN5006	9P PLUG	KM200TA9
	KN5001,KN5002		VNF1084
		EARTH METAL FITTING	

N TRANS 1 ASSY

TRANS 1 Assy has no service parts.

O TRANS 2-2 ASSY

SEMICONDUCTORS

Mark			
⚠	IC5501	(4A)	AEK7018

CAPACITORS

Mark			
⚠	C5502	(1µF/100V)	ACH1237
⚠	C5501		CEANPR47M50

RESISTORS

Mark			
⚠	R5501		RFA1/4PS100J
	Other Resistors		RD1/4PU□□□J

OTHERS

	5501	4P CABLE HOLDER	51048-0400

P VIDEO ASSY

SEMICONDUCTORS

IC751		BU4053BCF
IC752		LC74782M-9011
IC701		NJM2296M
Q701		2SA933S
Q751–Q754		2SC1740S
Q755		DTC124EK
D701, D702, D751–D753		1SS355

COILS AND FILTERS

L752, L753	CHIP COIL	LCTA100J3225
L751	CHIP COIL	LCTA330J3225

CAPACITORS

C753	CCSQCH100D50
C763, C772	CCSQCH101J50
C715, C759	CCSQCH150J50
C760	CCSQCH180J50
C705–C707	CCSQCH181J50
C761, C762	CCSQCH240J50
C754	CEAT100M50
C701–C704, C710–C712	CEAT101M10
C734, C735, C755, C764, C765	CEAT101M10
C781–C784	CEAT101M10
C713, C768, C769	CEAT101M16
C757	CEAT1R0M50
C752	CEAT330M16
C795, C797	CKSQYB103K50
C756	CKSQYB122K50
C708, C709, C714, C766, C767	CKSQYB473K50
C770, C771, C785, C786, C793	CKSQYB473K50

RESISTORS

R715	RD1/2VM201J
Other Resistors	RS1/10S□□□J

OTHERS

CN702	21P FFC CONNECTOR	52045-2145
CN701	26P FFC CONNECTOR	52045-2645
702, 705, 706	2P RCA PIN JACK	AKB7017
707	1P RCA PIN JACK	AKB7020
704	PCB BINDER	VEF1040
X751	CRYSTAL RESONATOR (14.31818MHz)	ASS1056

Q S-VIDEO ASSY

SEMICONDUCTORS

IC831	BU4051BCF
IC852	BU4053BCF
IC851	LA7213
IC801, IC802	NJM2296M
Q852, Q853	2SA933S
Q851	DTC124ES
Q833, Q834	IMH11
Q831	IMZ1A
D801, D802, D804, D805, D851	1SS355

CAPACITORS

C857	CCSQCH100D50
C854	CCSQCH151J50
C815–C818, C861, C862	CCSQCH181J50
C898	CCSQCH221J50
C809, C858	CCSQCH330J50
C801, C803, C805, C807	CEAT101M10
C819–C822, C852, C853, C863	CEAT101M10
C881, C882	CEAT101M10
C866, C868	CEAT101M16
C851	CEAT3R3M50
C831–C836, C855, C856, C891	CKSQYB103K50
C893, C894, C899	CKSQYB103K50
C810–C814, C859, C860	CKSQYB104K25
C864, C865	CKSQYB104K25
C802, C804, C806, C808	CKSQYB473K50
C823–C826, C867, C869	CKSQYB473K50

RESISTORS

R864	RD1/2VM201J
R859	RD1/4VM471J
Other Resistors	RS1/10S□□□J

Mark	No.	Description	Part No.
OTHERS			
	CN804	21P FFC CONNECTOR	52045-2145
	CN802, CN803	4P MINI DIN SOCKET	AKP7020
	CN801	4P MINI DIN SOCKET	AKP7043
	JA881, JA882	REMOTE CONTROL JACK	RKN1004
	801	PCB BINDER	VEF1040

R H. PHONE/F. VIDEO ASSY

SEMICONDUCTORS			
	Q7201, Q7202		2SC1740S
CAPACITORS			
	C7201, C7202, C7215, C7216		CCSQCH271J50
	C7203, C7204		CCSQCH330J50
	C7208, C7209		CEAT101M10
	C7207		CEAT470M35
	C7210, C7212		CKSQYB103K50
	C7211		CKSQYB104K25
	C7213, C7214		CKSQYB105K10
	C7217, C7218		CKSQYB392K50
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	CN7201	12P FFC CONNECTOR	52045-1245
	CN7202	FRONT PIN JACK 4P	AKX7007
	JA7201	HEADPHONE JACK	RKB1014
	KN7201	EARTH METAL FITTING	VNF1084

S DISPLAY ASSY

SEMICONDUCTORS			
	IC7401		BU1923
	IC7001		PD5507B
	Q7051		2SA1037K
	Q7401		2SA1993
	Q7403		2SC1740S
	Q7005		2SC2412K
	Q7001, Q7002, Q7052		DTC124EK
	Q7402		DTC143ES
	D7007–D7010, D7051–D7053		1SS355
	D7001, D7002		SLR-343VR(MNP)
COILS AND FILTERS			
	L7011, L7012		LCTA330J3225
	L7001, L7401		LFA2R2J
SWITCHES AND RELAYS			
	S7001–S7030		VSG1009
CAPACITORS			
	C7010	(0.047µF/5.5V)	ACH7132
	C7007		CCSQCH101J50
	C7406, C7407		CCSQCH270J50
	C7008, C7013		CEAL101M6R3
	C7701, C7702		CEAT100M50
	C7405		CEAT101M10
	C7052, C7410		CEAT101M6R3
	C7409		CEAT1R0M50
	C7402		CEAT2R2M50
	C7001–C7005, C7091, C7403, C7404		CKSQYB102K50
	C7051		CKSQYB103K50
	C7401		CKSQYB472K50
	C7009		CKSQYB473K50
	C7408		CKSQYB561K50
RESISTORS			
	R7044		RA15T104J
	Other Resistors		RS1/10S□□□J
OTHERS			
	7001	3P CABLE HOLDER	51052-0300
	7002, 7003	8P CABLE HOLDER	51052-0800
	CN7005	5P FFC CONNECTOR	52045-0545
	CN7002	6P FFC CONNECTOR	52045-0645
	CN7004	12P FFC CONNECTOR	52045-1245
	CN7001	32P FFC CONNECTOR	52045-3245
	V7001	FL TUBE	AAV7063
	X7401	CRYSTAL RESONATOR (4.332MHz)	ASS7004
	X7001	CERAMIC RESONATOR (7.2MHz)	ASS7018
	7004	REMOTE RECEIVER UNIT	GP1U28X

T ROTARY ENCODER ASSY

SWITCHES AND RELAYS			
	S7101		ASX7004
	S7102		ASX7031
CAPACITORS			
	C7101–C7104		CKSQYB103K50
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	CN7101	6P FFC CONNECTOR	52044-0645

U P-SW ASSY

SWITCHES AND RELAYS			
	S6801		ASG1035
CAPACITORS			
	C6801, C6802		CGCYX103K25
OTHERS			
	CN6801		52151-0310

V PRIMARY ASSY

(1) CONTRAST TABLE

AWX7345 and AWX7454 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		AWX7345	AWX7454	
	Y6003 BOARD IN	ADX7321	Not used	
	Y6004 BOARD IN	ADX7320	Not used	
	Y6005 BOARD IN	ADX7319	Not used	

Mark	No.	Description	Part No.

(2) PARTS LIST FOR AWX7345

SEMICONDUCTORS

	IC6001		NJM78M56FA
	Q6001		DTC143ES
	D6005–D6007		1SS133
	D6008		MTZJ5.1A
⚠	D6001–D6004		S5688G

COILS AND FILTERS

⚠	L6001	LINE FILTER	ATF1006
⚠	L6003, L6004		ATX1012

TRANSFORMERS

⚠	T6001	STANDBY TRANS.	ATT7040

SWITCHES AND RELAYS

⚠	RY6001	POWER RELAY	ASR1044

CAPACITORS

⚠	C6002, C6003 (10000pF/AC250V)	ACG7020
	C6005	CEAT102M16
	C6006	CEAT470M25
	C6004	CKCYF103Z50

RESISTORS

	R6003	RD1/2PM270J
	Other Resistors	RD1/4PU□□□J

OTHERS

	6001	3P CABLE HOLDER	51048-0300
	Y6005	AWG18 BOARD IN	ADX7319
	Y6004	AWG18 BOARD IN	ADX7320
	Y6003	AWG18 BOARD IN	ADX7321
	H6001, H6002	FUSE CLIP	AKR1004
	J6000	3P JUMPER WIRE	D20PYY0335E
	CN6003	4P SOCKET	KP200TA4L
⚠	CN6002	AC CORD SOCKET	RKP1751
	6005, 6006	PCB BINDER	VEF1040
	6002, 6003	SCREW TERMINAL	VNE1948

W DIGITAL-I/O ASSY

SEMICONDUCTORS

	IC1201	TC74HCU04AF

COILS AND FILTERS

	F1203–F1206 CHIP BEAD	DTF1064

CAPACITORS

C1204, C1211	CCSQCH470J50
C1206, C1213	CEAT470M10
C1203, C1210	CKSQYB103K50
C1207, C1212, C1215, C1216	CKSQYF104Z25
C1236, C1237	CKSQYF104Z25

RESISTORS

All Resistors	RS1/10S□□□J

OTHERS

CN1201	11P FFC CONNECTOR	52045-1145
JA1204	2P PIN JACK	AKB7095
JA1201,JA1202	OPTICAL RECEIVE MOD.	GP1F37R1
JA1203	OPTICAL LINK MOD.	GP1F38T2

Mark	No.	Description	Part No.

X RF TERMINAL ASSY

CAPACITORS

C1251	CKSQYB473K50
C1250	CKSQYF473Z50

RESISTORS

All Resistors	RS1/10S□□□J

OTHERS

CN1250	3P PLUG	KM250MA3
JA1250	1P PIN JACK (AU, BLK)	VKB1074
1250	SCREW TERMINAL	VNE1948

Y DSP ASSY

SEMICONDUCTORS

IC9203	CS5360-KS
IC9101	CS8414-CS
IC9201, IC9202	NJM2100M
IC9041	NJM4558MD
IC9401, IC9411, IC9421	PCM1716E
IC9501	PD5503A
IC9374	PDK042A
IC9071	PM4007A
IC9391	PQ20WZ51
IC9091	SRM2B256SLMX70
IC9372	TC55V1664BFT-12
IC9371	TC55V8128BJ-12
IC9151	TC74ACT151F
IC9102	TC74VHC157FT
IC9103	TC7SH08FU
IC9311	TC7WT241FU
IC9204, IC9361	TC7WU04FU
IC9601	TC9164AF
IC9602–IC9604, IC9701–IC9705	UPC4570G2
IC9321	XCD56362PV100
Q9007	2PB709A
Q9003, Q9032	2PD601A
Q9001, Q9002, Q9004–Q9006, Q9031	2SC3082K
Q9201, Q9202, Q9601–Q9606	2SC3326
Q9102, Q9104, Q9203, Q9607	DTA124EK
Q9609, Q9610	DTA124EK
Q9101, Q9103, Q9204, Q9205, Q9608	DTC124EK
D9601, D9602	1SS181
D9201–D9204	1SS226
D9002	1SS355
D9001	KV1851

COILS AND FILTERS

F9001 BPF	ATF7001
L9003 INDUCTOR	ATH7001
L9071, L9104, L9321, L9323, L9391	ATL7002
L9399, L9402–L9408, L9501, L9801	ATL7002
L9807, L9809	ATL7002
CHIP FERRITE BEAD	
F9072 CHIP BEAD	DTF1064
L9091, L9092, L9101, L9102	QTL1013
L9105–L9108, L9151, L9152	QTL1013
L9203–L9206, L9311, L9361	QTL1013
L9371, L9372, L9374, L9396–L9398	QTL1013
CHIP SOLID INDUCTOR	

Mark	No.	Description	Part No.
CAPACITORS			
	C9329, C9349, C9355, C9357, C9358		CCSQCH101J50
	C9378, C9386		CCSQCH101J50
	C9232, C9453–C9455, C9742, C9809		CCSQCH221J50
	C9815, C9816		CCSQCH221J50
	C9112, C9512		CCSQCH271J50
	C9224, C9225		CCSQCH330J50
	C9033, C9325, C9326, C9335, C9337		CCSRCH101J50
	C9339, C9341, C9345, C9347, C9374		CCSRCH101J50
	C9387, C9609, C9610, C9721, C9722		CCSRCH101J50
	C9735		CCSRCH101J50
	C9364		CCSRCH180J50
	C9363		CCSRCH220J50
	C9095, C9231, C9233, C9621, C9622		CCSRCH221J50
	C9743, C9744, C9761–C9766		CCSRCH221J50
	C9057, C9201, C9202		CCSRCH270J50
	C9076, C9104, C9106, C9154, C9214		CCSRCH271J50
	C9220, C9362, C9402, C9412, C9422		CCSRCH271J50
	C9629		CCSRCH271J50
	C9719, C9720, C9733		CCSRCH331J50
	C9741		CCSRCH470J50
	C9451, C9452, C9509, C9617, C9618		CCSRCH471J50
	C9639		CCSRCH471J50
	C9211, C9717, C9718, C9731, C9808		CCSRCH561J25
	C9007		CCSRCH750J50
	C9707, C9708		CCSRCH820J50
	C9611, C9612		CCSRCH821J25
	C9312, C9643, C9644, C9756		CEJA100M25
	C9071, C9393, C9501, C9740, C9801		CEJA101M10
	C9442		CEJA221M10
	C9343, C9360		CEJA221M6R3
	C9216, C9219, C9222, C9403, C9405		CEJA330M10
	C9408, C9413, C9415, C9418, C9423		CEJA330M10
	C9425, C9428		CEJA330M10
	C9091, C9102, C9108, C9114, C9151		CEJA470M16
	C9372, C9376, C9383		CEJA470M16
	C9016, C9803, C9805		CEJA470M25
	C9406, C9409, C9416, C9419, C9426		CEJA470M6R3
	C9429		CEJA470M6R3
	C9206, C9207, C9391		CEJA4R7M50
	C9053		CEJANP4R7M25
	C9110		CEJAR47M50
	C9713, C9714, C9727, C9728, C9739		CEWAR330M10
	C9751–C9755		CEWAR330M10
	C9203, C9204, C9603, C9604		CEWAR4R7M50
	C9615, C9616, C9627, C9628		CEWAR4R7M50
	C9113, C9322, C9323, C9332, C9334		CKSQYB103K50
	C9342, C9344, C9350–C9354, C9377		CKSQYB103K50
	C9385, C9636		CKSQYB103K50
	C9330		CKSQYB474K16
	C9073, C9080, C9205, C9208, C9511		CKSQYF104Z25
	C9212, C9554		CKSRYB102K50
	C9014, C9054, C9056, C9070, C9103		CKSRYB103K50
	C9105, C9107, C9119, C9153, C9158		CKSRYB103K50
	C9221, C9313, C9324, C9327, C9333		CKSRYB103K50
	C9336, C9338, C9340, C9346, C9348		CKSRYB103K50
	C9361, C9373, C9388, C9401, C9411		CKSRYB103K50
	C9421, C9637		CKSRYB103K50
	C9626, C9730		CKSRYB104K16
	C9605, C9606, C9633		CKSRYB122K50
	C9703, C9704, C9715, C9716, C9729		CKSRYB182K50
	C9601, C9602, C9613, C9614, C9625		CKSRYB222K50
	C9701, C9702		CKSRYB272K50
	C9732		CKSRYB333K16
	C9645		CKSRYB472K50
	C9215, C9218, C9404, C9407, C9410		CKSRYB473K16
	C9414, C9417, C9420, C9424, C9427		CKSRYB473K16
	C9430		CKSRYB473K16
	C9359		CKSRYB562K50
	C9111		CKSRYB682K50
	C9020		CKSRYB683K16
	C9736		CKSRYB821K50
	C9002–C9006, C9008–C9013, C9015		CKSRYF104Z16
	C9017, C9018, C9031, C9032, C9043		CKSRYF104Z16
	C9051, C9052, C9055, C9058		CKSRYF104Z16
	C9074, C9075, C9077–C9079, C9081		CKSRYF104Z16
	C9092, C9209, C9210, C9607, C9608		CKSRYF104Z16
	C9619, C9620, C9631, C9632		CKSRYF104Z16
	C9709–C9712, C9723–C9726		CKSRYF104Z16
	C9737, C9738		CKSRYF104Z16
	C9041, C9042		CKSRYF105Z10
RESISTORS			
	R9158, R9351, R9376–R9379, R9394		RS1/10S0R0J
	R9401, R9411, R9421, R9452–R9454		RS1/10S0R0J
	R9104		RS1/10S101J
	R9114, R9239, R9504, R9505		RS1/10S102J
	R9214		RS1/10S103J
	R9393		RS1/10S2001F
	R9074, R9128		RS1/10S221J
	R9120		RS1/10S331J
	R9061		RS1/10S471J
	R9360		RS1/10S472J
	R9391		RS1/10S5100F
	Other Resistors		RS1/16S□□□J
OTHERS			
	CN9551	7P FFC CONNECTOR	52045-0745
	CN9803	11P FFC CONNECTOR	52045-1145
		PC BOARD DSP	ANP7311
	CN9804	3P PLUG	KM250MA3
	CN9801	17P SOCKET	KP200TA17L
	CN9802	9P SOCKET	KP200TA9L
	X9501	CERAMIC RESONATOR (7.70MHz)	ASS1055
	X9001	CRYSTAL RESONATOR (18.432MHz)	ASS7009
	X9361	CRYSTAL RESONATOR (20MHz)	ASS7023
	X9201	CRYSTAL RESONATOR (12.288MHz)	DSS1030

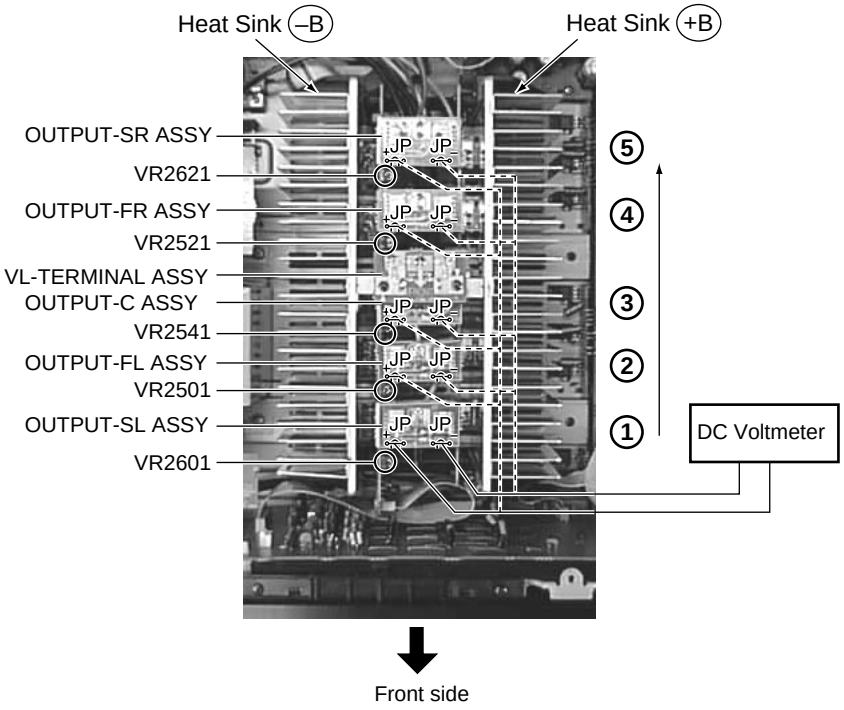
6. ADJUSTMENT

6.1 IDLE CURRENT ADJUSTMENT

• **CAUTION** : Heatsink's DC level is equal to +B or -B.
Don't touch them or you will be electricary shocked.

1. Decrease the level of the Adjustment Variable resistors (VR) for the channel to be adjusted. (Turn counterclockwise.)
2. Set the power switch to ON.
3. Connect the DC voltmeter as shown below and adjust VRs in step No. order so that voltages become 16mV $^{+4mV}_{-0mV}$.
4. Ages for seven minutes.
5. Readjust in step No. order so that the voltages become 11.5mV ± 1mV (10.5 to 12.5mV). Adjustment is completed.

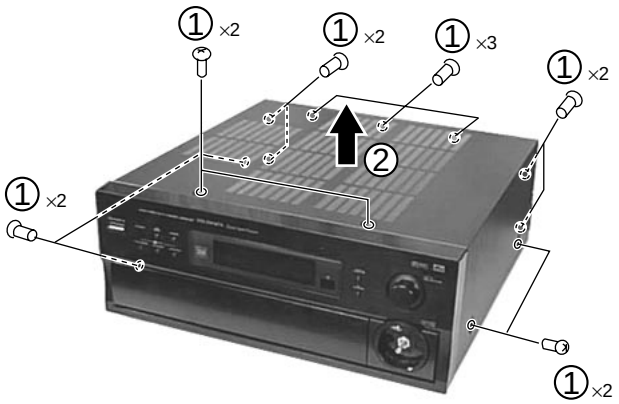
Step No.	Adjustment VR	Adjustment ch
1	VR2601	SL ch
2	VR2501	FL ch
3	VR2541	C ch
4	VR2521	FR ch
5	VR2621	SR ch

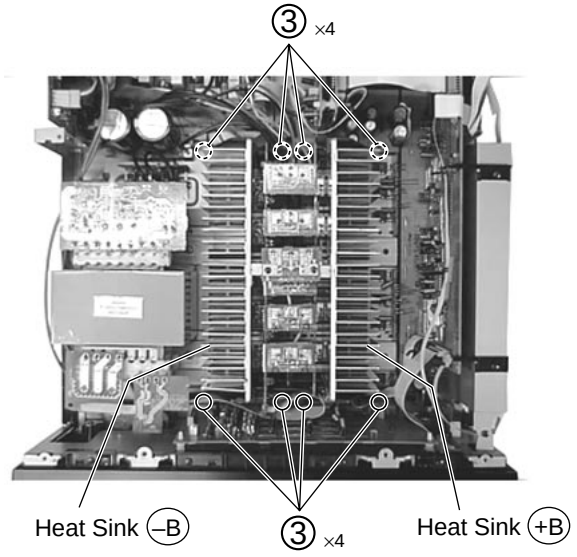


7. GENERAL INFORMATION

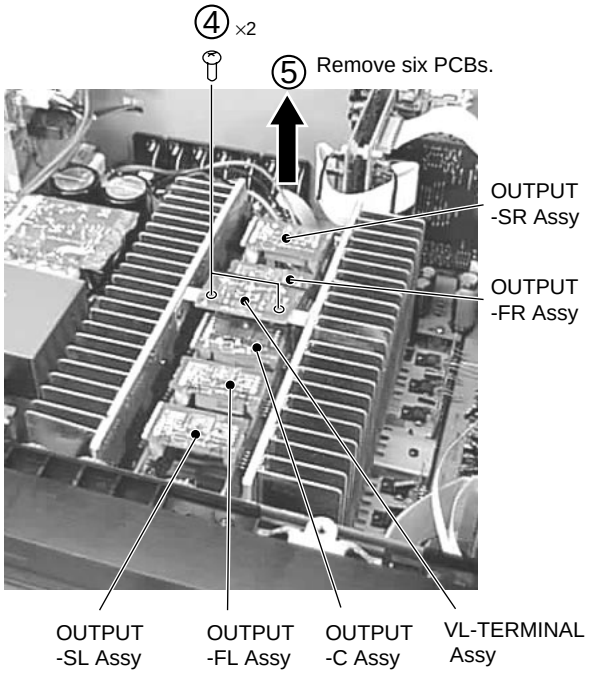
7.1 DISASSEMBLY

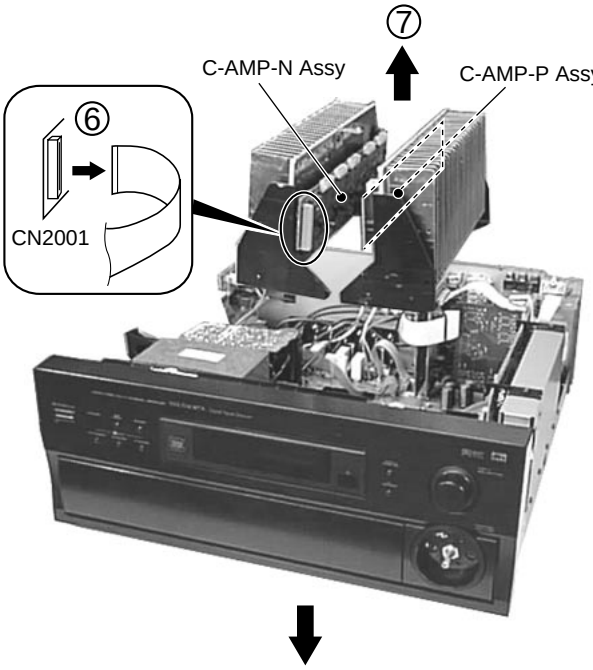
■ C-AMP-N and C-AMP-P ASSYS





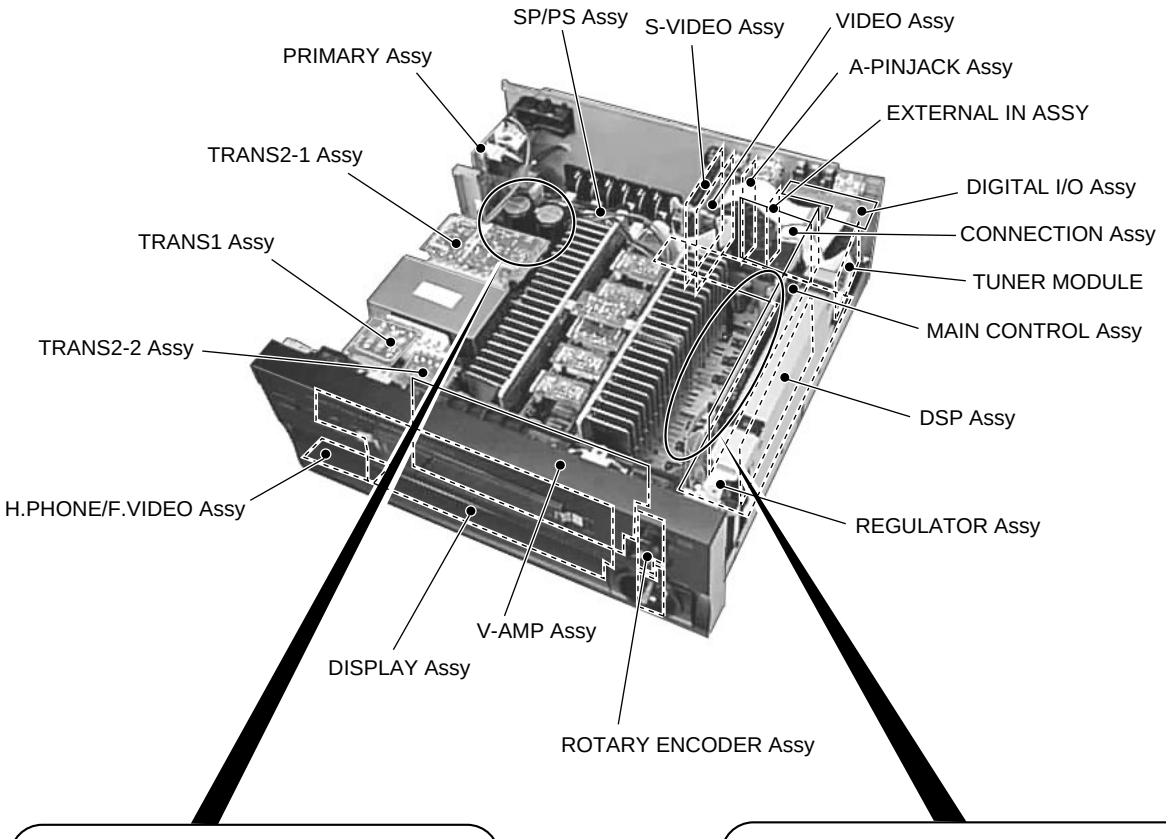
• **CAUTION** : Heatsink's DC level is equal to +B or - B. Don't touch them or you will be electricary shocked.

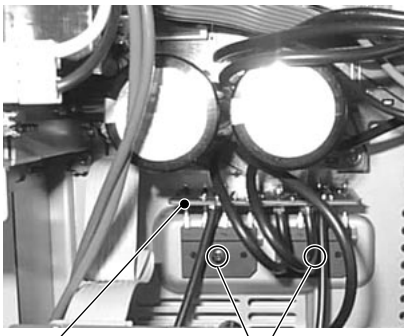




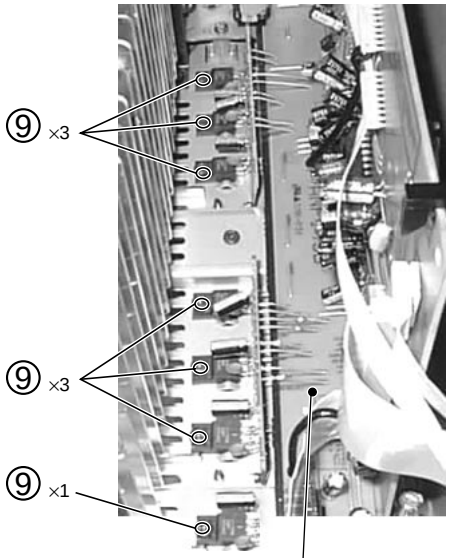
Replace the FETs on the C-AMP-N and C-AMP-P assemblies.

■ DIODE, REGULATOR and Other ASSYS





Replace the diode.



Replace the Regulator IC.

7.2 PARTS

7.2.1 IC

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

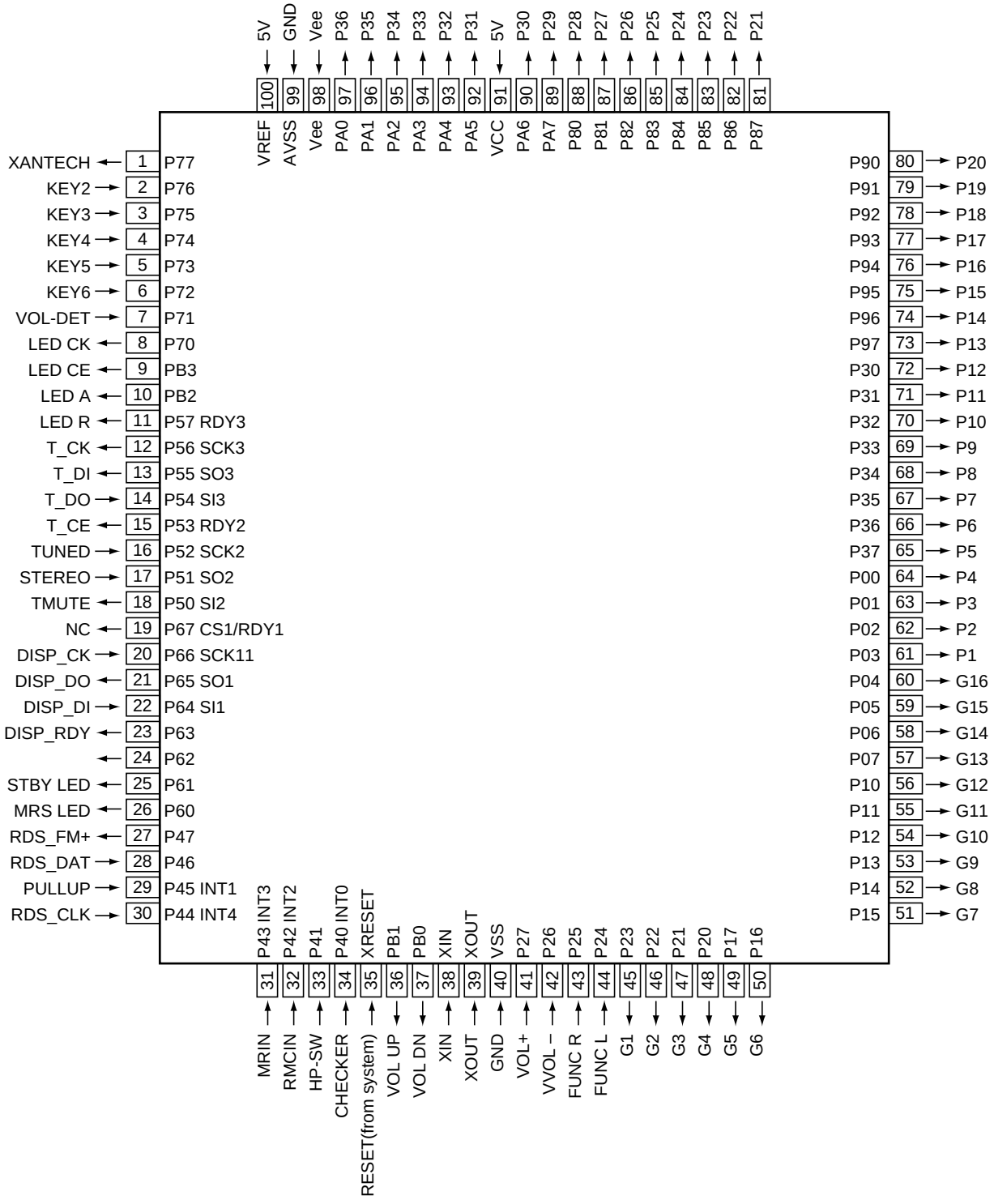
●List of IC

PD5507B, PD5506A

■ PD5507B (DISPLAY ASSY : IC7001)

• Display Control IC

● Pin Assignment (Top View)



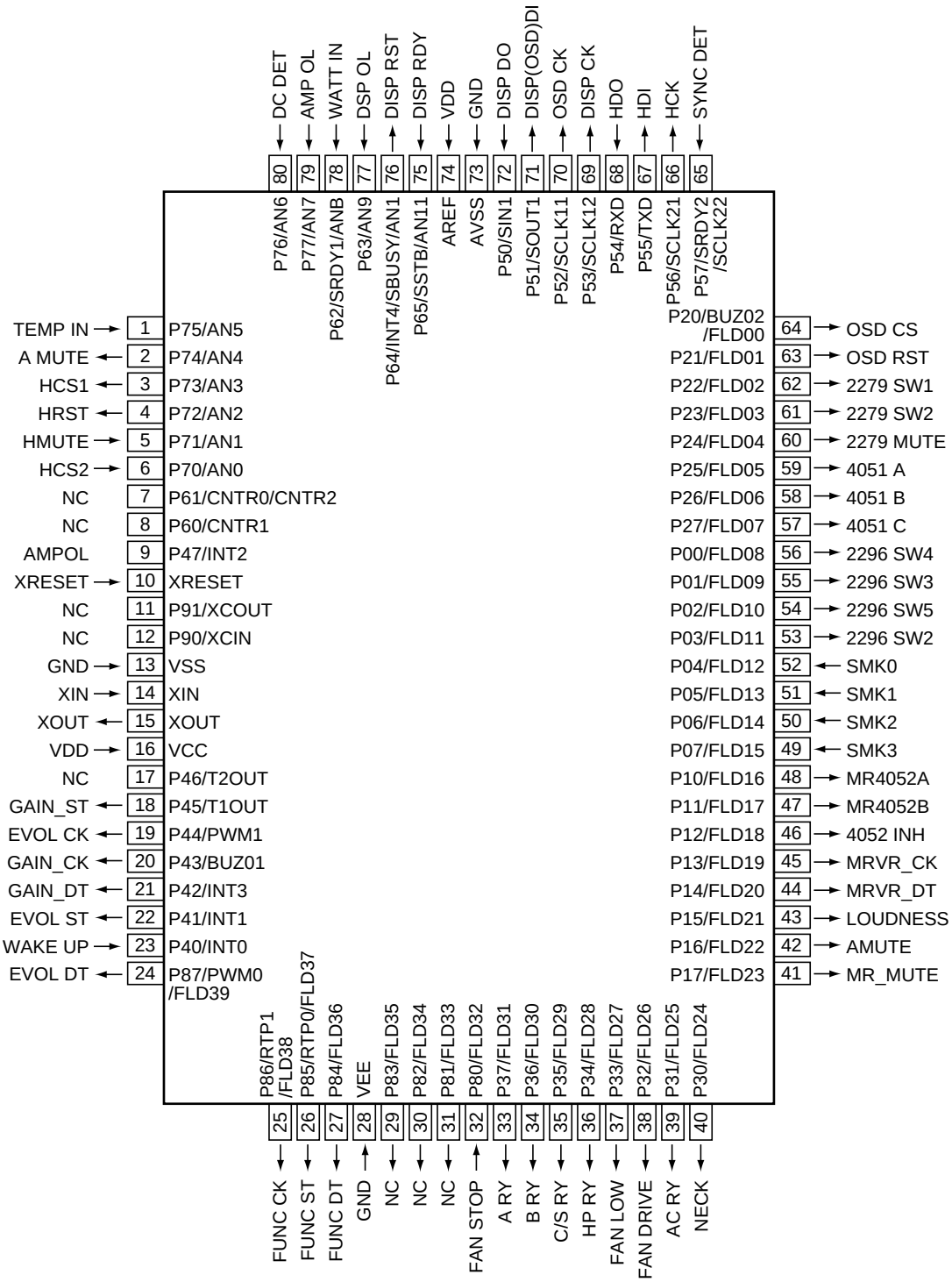
● Pin Function

No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	XANTECH	O	XANTECH ON/OFF	51	G7	O	Grid output 7
2	KEY 2	I	Key scan input 2	52	G8	O	Grid output 8
3	KEY 3	I	Key scan input 3	53	G9	O	Grid output 9
4	KEY 4	I	Key scan input 4	54	G10	O	Grid output 10
5	KEY 5	I	Key scan input 5	55	G11	O	Grid output 11
6	KEY 6	I	Key scan input 6	56	G12	O	Grid output 12
7	VOL-DET	I	Detection of volume position	57	G13	O	Grid output 13
8	LED CKL	O	Clock for IC7071 M66311	58	G14	O	Grid output 14
9	LED OE	O	Output enable for IC7071 M66311	59	G15	O	Grid output 15
10	LED A	O	Data for IC7071 M66311	60	G16	O	Grid output 16
11	LED R	O	Reset for IC7071 M66311	61	S1	O	Segment output 1
12	T-CK	O	Clock for tuner module	62	S2	O	Segment output 2
13	T-DI	O	Data for tuner module	63	S3	O	Segment output 3
14	T-DO	I	Data from tuner module	64	S4	O	Segment output 4
15	T-CE	O	Chip enable for tuner module	65	S5	O	Segment output 5
16	TUNED	I	Tuned data from tuner module	66	S6	O	Segment output 6
17	STEREO	I	Stereo tuned data from tuner module	67	S7	O	Segment output 7
18	T-MUTE	O	Tuner mute ON/OFF	68	S8	O	Segment output 8
19	NC	O	Open	69	S9	O	Segment output 9
20	DISP CK	I	Clock from IC901 MAIN U-COM	70	S10	O	Segment output 10
21	DISP DO	O	Data for IC901 MAIN U-COM	71	S11	O	Segment output 11
22	DISP DI	I	Data from IC901 MAIN U-COM	72	S12	O	Segment output 12
23	DISP RDY	O	Data request for IC901 MAIN U-COM	73	S13	O	Segment output 13
24	NC	–	Open	74	S14	O	Segment output 14
25	STBY LED	O	Standby LED	75	S15	O	Segment output 15
26	MRS LED	O	Sub room LED (MR&S model), EON LED (RDS model)	76	S16	O	Segment output 16
27	RDS FM+	–	VDD for IC7401 BU1923 (RDS model only)	77	S17	O	Segment output 17
28	RDS DAT	O	Data for IC7401 BU1923 (RDS model only)	78	S18	O	Segment output 18
29	NC	I	(pull-up)	79	S19	O	Segment output 19
30	RDS CLK	I	Clock for IC7401 BU1923 (RDS model only)	80	S20	O	Segment output 20
31	MR IN	I	Sub room remote control (MR&S, MR model only)	81	S21	O	Segment output 21
32	RMC IN	I	Remote control	82	S22	O	Segment output 22
33	HP-SW	I	Headphone connect detect	83	S23	O	Segment output 23
34	NC	I	For unit check test mode detection	84	S24	O	Segment output 24
35	RESET	I	Reset	85	S25	O	Segment output 25
36	VOL/UP	O	Control for VOIL UP	86	S26	O	Segment output 26
37	VOL/DN	O	Control for VOL DOWN	87	S27	O	Segment output 27
38	XIN	–	Connect a 7.2MHz oscillator	88	S28	O	Segment output 28
39	XOUT	–		89	S29	O	Segment output 29
40	VSS	–	GND	90	S30	O	Segment output 30
41	VOL+	I	Rotary encoder signal +	91	VCC	–	Power supply +5V
42	VOL-	I	Rotary encoder signal -	92	S31	O	Segment output 31
43	FUNC/R	I	Rotary encoder signal R	93	S32	O	Segment output 32
44	FUNC/L	I	Rotary encoder signal L	94	S33	O	Segment output 33
45	G1	O	Grid output 1	95	S34	O	Segment output 34
46	G2	O	Grid output 2	96	S35	O	Segment output 35
47	G3	O	Grid output 3	97	S36	O	Segment output 36
48	G4	O	Grid output 4	98	VEE	–	Power supply 5V
49	G5	O	Grid output 5	99	AVSS	–	GND
50	G6	O	Grid output 6	100	VREF	–	Reference voltage 5V

■ PD5506A (MAIN CONTROL ASSY : IC901)

• **Main Control IC**

● **Pin Assignment (Top View)**



● Pin Function

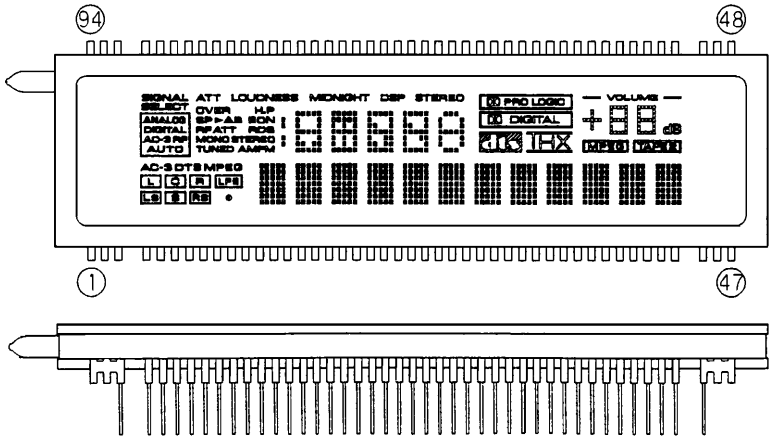
No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	TEMP IN	I/O	O/open (KU,J,SD), I/Fan temperature A/D input (other)	41	MR MUTE	O	Audio mute ON/OFF for sub room (MR&S, MR model only)
2	A MUTE	O	Audio mute ON/OFF	42	A MUTE2	O	Audio preout mute ON/OFF
3	DSP CS1	O	Chip select for IC9501 DSP U-COM	43	LOUD	O	Loudness ON/OFF
4	DSP RST	O	Reset for IC9501 DSP U-COM	44	MR-V DT	O	Data for IC110 M62429FP control (MR&S model only)
5	DSP MUTE	I	Mute request from IC9501 DSP U-COM	45	MR-V CK	O	Clock for IC110 M62429FP control (MR&S model only)
6	DSP CS2	I	Chip select from IC9501 DSP U-COM	46	4052 INH	O	Inhibit for IC102 BU4052BCF control (MR&S model only)
7	NC	O	Open	47	4052 B	O	Control for IC102 BU4052BCF (MR&S model only)
8	NC	O	Open	48	4052 A		
9	AMPOL	I	Amp Overload detect	49	SIMUKE 3	I	SIMUKE (pull-up or down)
10	RESET	I	Reset	50	SIMUKE 2		
11	NC	O	Open	51	SIMUKE 1		
12	NC	O	Open	52	SIMUKE 0		
13	GND	–	GND	53	2296-2	O	Control for IC701, 801, 802 NJM2296M
14	XIN	I	Connect a 4.19MHz oscillator	54	2296-5		
15	XOUT	O		55	2296-3		
16	VDD	–	Power supply +5V	56	2296-4		
17	NC	O	Open	57	4051-C	O	Control for IC831 BU4051BCF
18	ST3	O	Strobe for IC107 TC9163F control	58	4051-B		
19	CK2	O	Clock for IC108 TC9482N control	59	4051-A		
20	CK3	O	Clock for IC107 TC9163F control	60	2279-M	O	Control for IC731 NJM2279M (MR&S model only)
21	DT3	O	Data for IC107 TC9163F control	61	2279-2		
22	ST2	O	Strobe for IC108 TC9482N control	62	2279-1		
23	W.UP	I	AC pulse input	63	OSD RST	O	Reset for IC752 LC74782M-9011
24	DT2	O	Data for IC108 TC9482N control	64	OSD CS	O	Chip select for IC752 LC74782M-9011
25	CK1	O	Clock for IC101 TC9274N and IC104 TC9163F control	65	SYNC DET	I	Detection of synchronizing signal
26	ST1	O	Strobe for IC101 TC9274N and IC104 TC9163F control	66	DSP HCK	O	Clock for IC9501 DSP U-COM
27	DT1	O	Data for IC101 TC9274N and IC104 TC9163F control	67	DSP HDI	O	Data for IC9501 DSP U-COM
28	GND	–	GND	68	DSP HDO	I	Data from IC9501 DSP U-COM
29	NC	O	Open	69	DISP CK	O	Clock for IC7001 DISP U-COM
30	NC	O	Open	70	OSD CK	O	Clock for IC752 LC74782M-9011
31	NC	O	Open	71	DISP DI	O	Data for IC7001 DISP U-COM
32	FAN STOP	I/O	O/Open (KU,J,SD), I/Fan stop detecter (other)	72	DISP DO	I	Data from IC7001 DISP U-COM
33	A RY	O	SP A relay ON/OFF	73	GND	–	GND
34	B RY	O	SP B relay ON/OFF	74	VDD	–	Power supply +5V
35	C/S RY	O	SP C/S relay ON/OFF	75	DISP RDY	I	Data request from IC7001 DISP U-COM
36	HP RY	O	Headphone relay ON/OFF	76	DISP RST	O	Reset for IC7001 DISP U-COM
37	FAN LOW	O	Open (KU,J,SD), Fan low (other)	77	DSP OL	I	DSP overload detect, A/D input
38	FAN DRIVE	O	Open (KU,J,SD), Fan drive (other)	78	WATT IN	I/O	O/Open (KU,J,SD), I/Fan wattage input, A/D input (other)
39	AC RY	O	AC relay ON/OFF	79	AMP OL	I	Amp overload detect, A/D input
40	NECK	O	Neck ON/OFF (24,26,908,938 only)	80	DC DET	I	Detection of amp power error, A/D input

7.2.2 DISPLAY

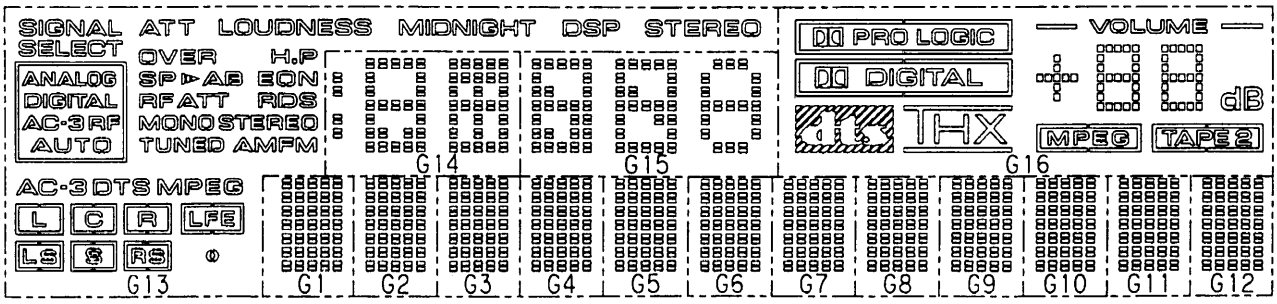
■ AAV7063 (DISPLAY ASSY :V7001)

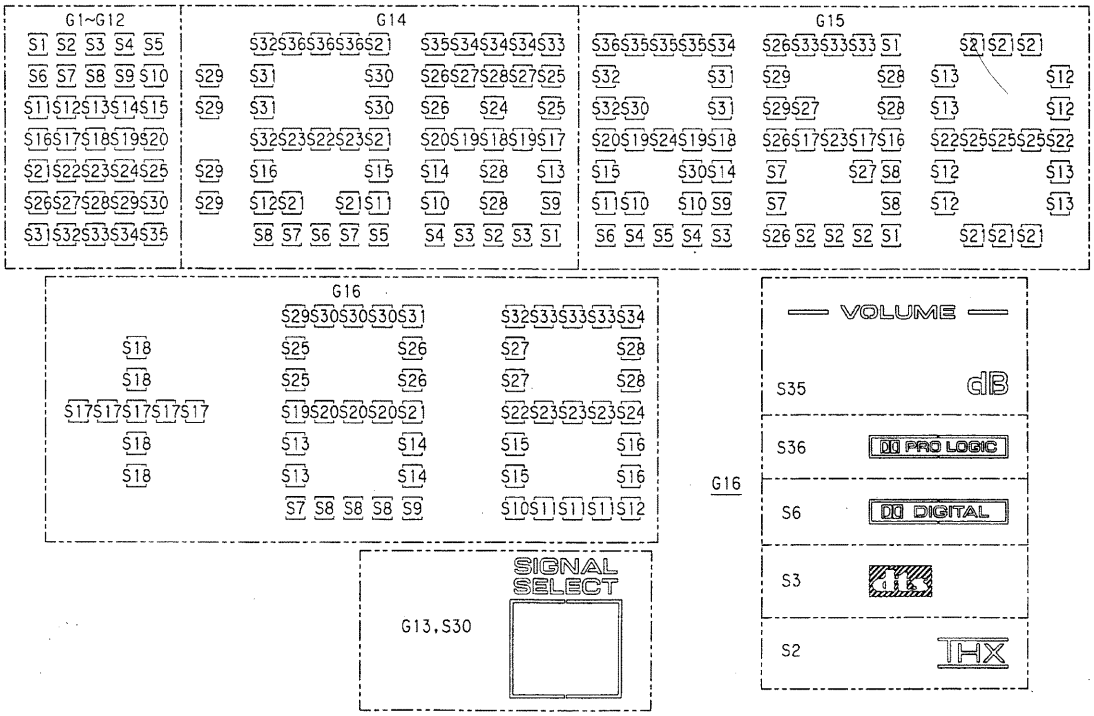
- **FL Indicator Tube**

● Pin Assignment



● Grid Assignment





● Anode and Grid Connection

	G1~G12	G13	G14	G15	G16
S1	S1		S1	S1	
S2	S2	FM	S2	S2	S2
S3	S3	AM	S3	S3	S3
S4	S4	MPEG	S4	S4	TAPE2
S5	S5	LFE	S5	S5	MPEG
S6	S6	STEREO	S6	S6	S6
S7	S7	TUNED	S7	S7	S7
S8	S8	MONO	S8	S8	S8
S9	S9	R	S9	S9	S9
S10	S10	C	S10	S10	S10
S11	S11	L	S11	S11	S11
S12	S12	RDS	S12	S12	S12

	G1~G12	G13	G14	G15	G16
S13	S13	DTS	S13	S13	S13
S14	S14	AC-3 (DTS)	S14	S14	S14
S15	S15	RFATT	S15	S15	S15
S16	S16	EON	S16	S16	S16
S17	S17	(▶A)B	S17	S17	S17
S18	S18	(▶)A(B)	S18	S18	S18
S19	S19	⏻	S19	S19	S19
S20	S20	Ls	S20	S20	S20
S21	S21	S	S21	S21	S21
S22	S22	Rs	S22	S22	S22
S23	S23	SP▷▷	S23	S23	S23
S24	S24	OVER	S24	S24	S24

	G1~G12	G13	G14	G15	G16
S25	S25	H.P	S25	S25	S25
S26	S26	AUTO	S26	S26	S26
S27	S27	AC-3RF	S27	S27	S27
S28	S28	DIGITAL	S28	S28	S28
S29	S29	ANALOG	S29	S29	S29
S30	S30	S30	S30	S30	S30
S31	S31	ATT	S31	S31	S31
S32	S32	LOUDNESS	S32	S32	S32
S33	S33	MIDNIGHT	S33	S33	S33
S34	S34	DSP	S34	S34	S34
S35	S35	(DSP) STEREO	S35	S35	S35
S36			S36	S36	S36

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
Assignment	NL	NL	F1	NP	D	IC	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL

Pin No.	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
Assignment	NL	NL	S36	S35	S34	S33	S32	S31	S30	S29	NL	NL	NL	S28	S27	S26	S25	S24	H	NP	F2	NL	NL

Pin No.	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
Assignment	NL	NL	NL	NP	S23	S22	S21	S20	S19	S18	S17	S16	S15	S14	S13	S12	S11	S10	S9	S8	S7	S6	S5	S4

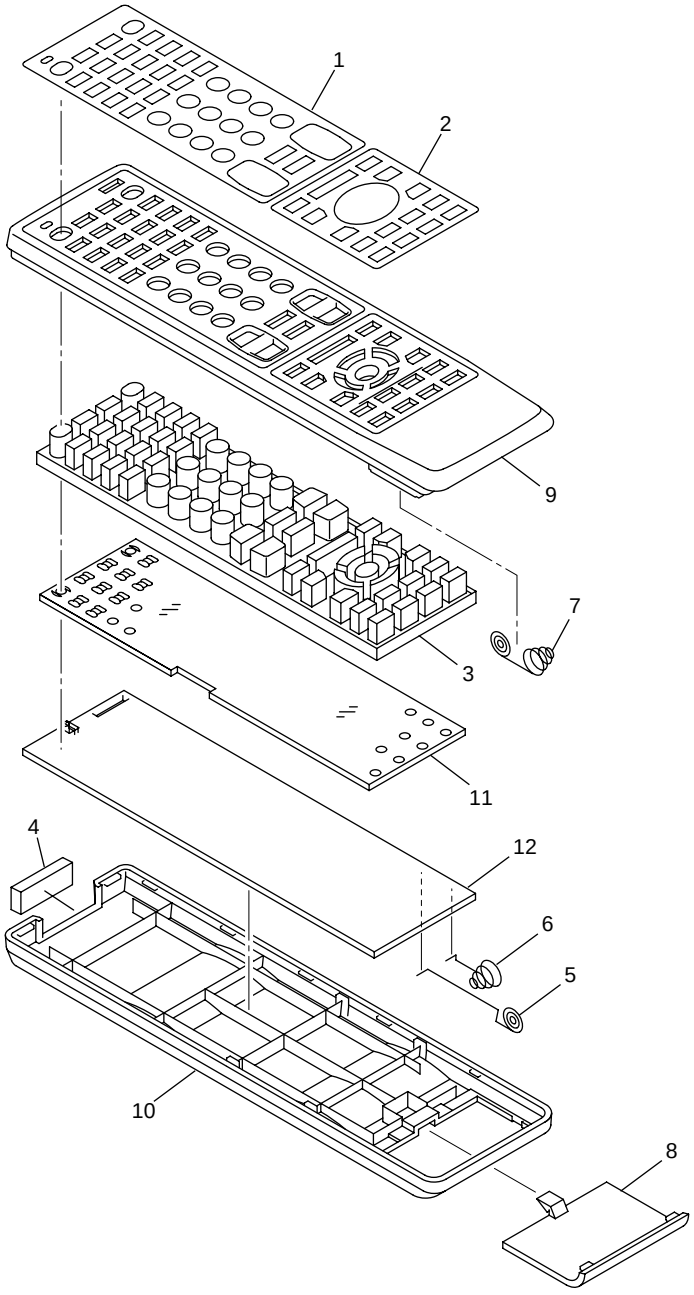
Pin No.	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94
Assignment	S3	S2	S1	G16	G15	G14	G13	G12	G11	G10	G9	G8	G7	G6	G5	G4	G3	G2	G1	NP	NL	NL	NL

F1, F2 : Filament G1 to G16 : Grid S1 to S36 : Anode D : External connect to F1 NP: No Pin NL : Lead
H : Power supply grid usually (ec level = Apply Typ 35.0 VDC) IC : Internal connection

7.3 REMOTE CONTROL UNIT [AXD7214 (CU-VSX162) and AXD7236 (CU-VSX165)]

7.3.1 EXPLODED VIEWS AND PARTS LIST

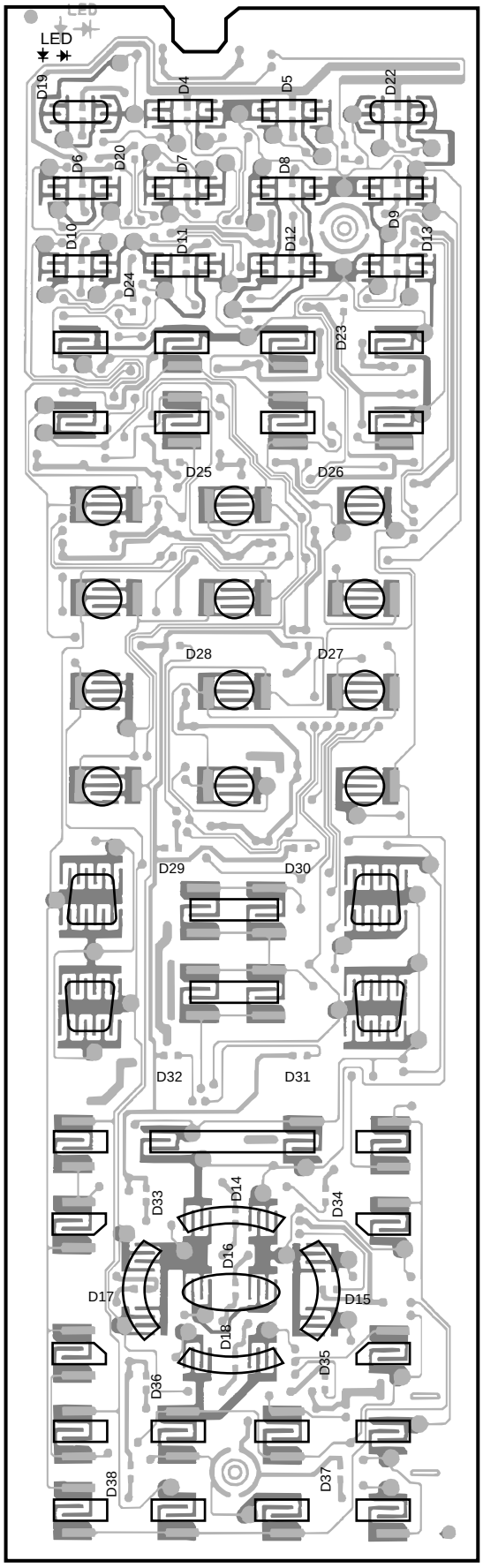
NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent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



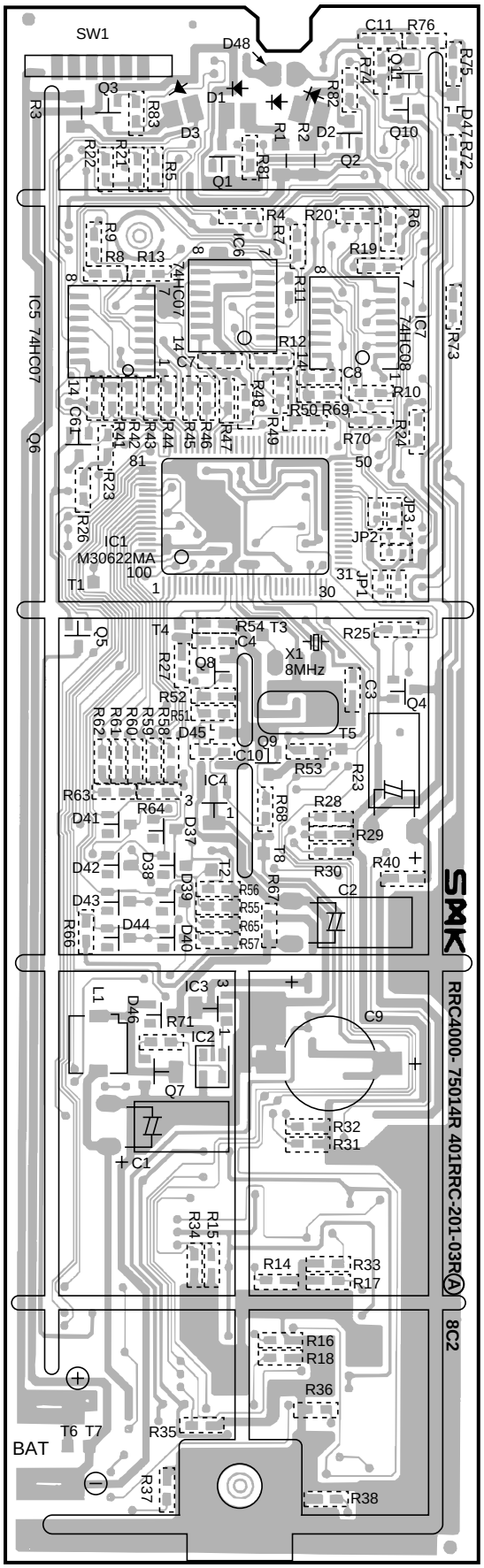
● PARTS LIST

Mark	No.	Description	Part No.
	1	Name Plate A (AXD7214)	AZA7356
	1	Name Plate A (AXD7236)	AZA7353
	2	Name Plate B (AXD7214)	AZA7376
	2	Name Plate B (AXD7236)	AZA7377
	3	Rubber Sheet	AZA7355
	4	Filter	AZA7340
	5	Terminal A (+)	AZB7141
	6	Terminal B (-)	AZB7142
	7	Spring	AZB7143
	8	Battery Cover (AXD7214)	AZN2401
	8	Battery Cover (AXD7236)	AZN7791
	9	Case (A) (AXD7214)	AZN7780
	9	Case (A) (AXD7236)	AZN7792
	10	Case (B) (AXD7214)	AZN7781
	10	Case (B) (AXD7236)	AZN7793
	11	Illumi Plate	AZN7782
NSP	12	PCB	AZW7254

7.3.2 PCB DIAGRAM

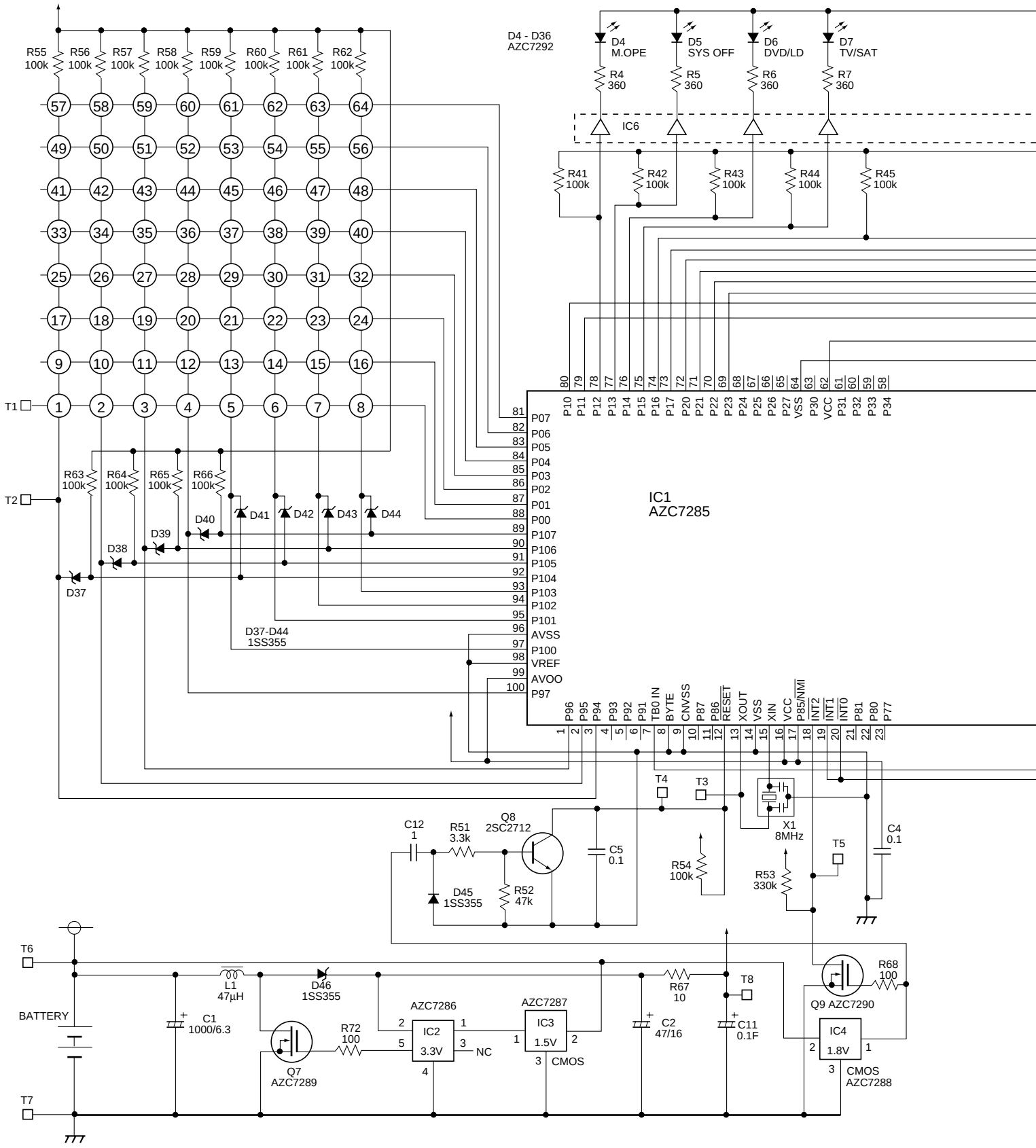


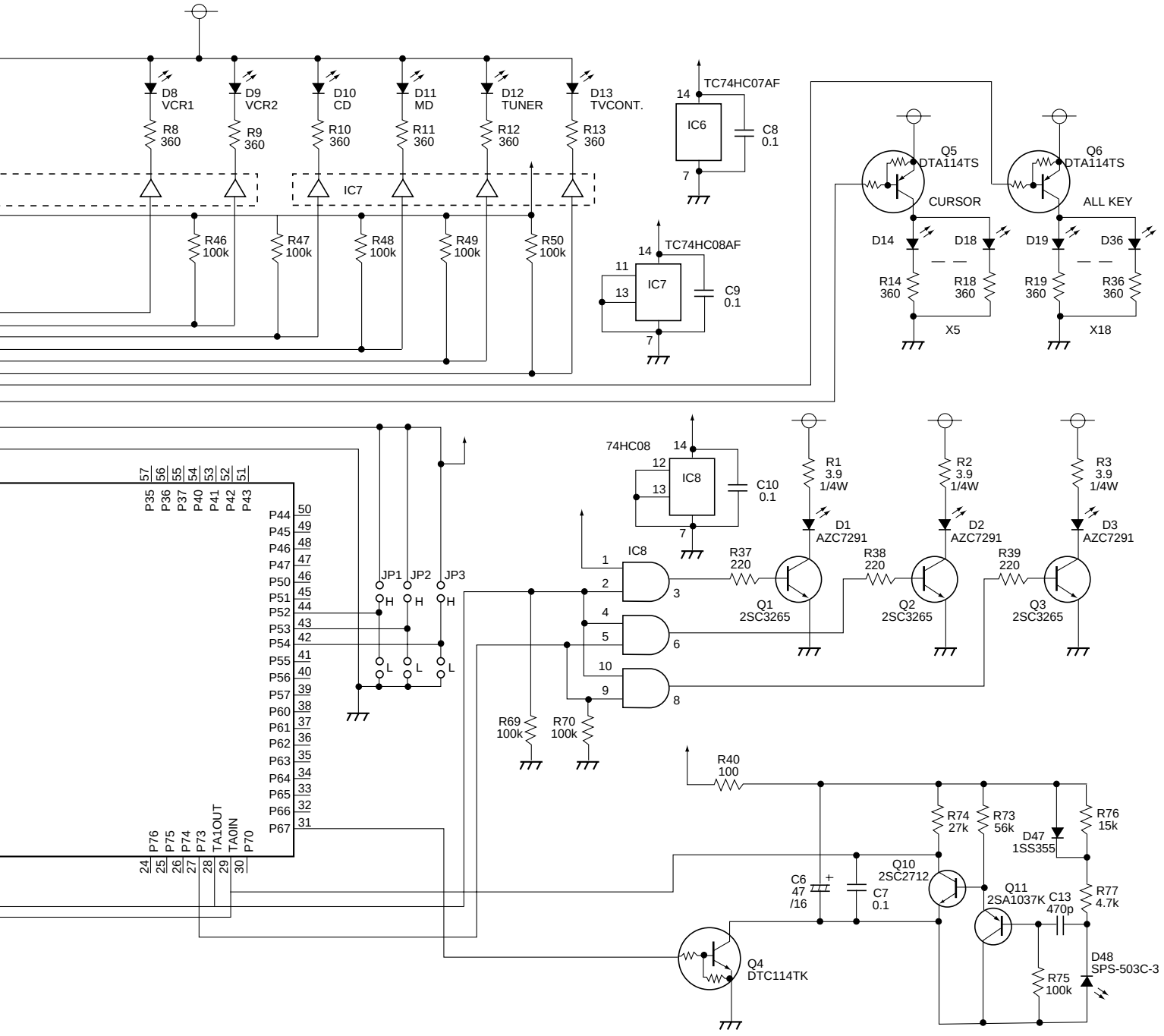
SIDE A



SIDE B

7.3.3 SCHEMATIC DIAGRAM




D8 VCR1
D9 VCR2
D10 CD
D11 MD
D12 TUNER
D13 TVCONT.
R8 360
R9 360
R10 360
R11 360
R12 360
R13 360
IC7
R46 100k
R47 100k
R48 100k
R49 100k
R50 100k
TC74HC07AF
IC6
C8 0.1
TC74HC08AF
IC7
C9 0.1
Q5 DTA114TS
Q6 DTA114TS
CURSOR
ALL KEY
D14
D18
D19
D36
R14 360
R18 360
R19 360
R36 360
X5
X18
74HC08
IC8
C10 0.1
R1 3.9 1/4W
R2 3.9 1/4W
R3 3.9 1/4W
D1 AZC7291
D2 AZC7291
D3 AZC7291
R37 220
R38 220
R39 220
Q1 2SC3265
Q2 2SC3265
Q3 2SC3265
JP1
JP2
JP3
R69 100k
R70 100k
R40 100
R74 27k
R73 56k
R76 15k
D47 1SS355
Q10 2SC2712
Q11 2SA1037K
C6 47 /16
C7 0.1
C13 470p
R77 4.7k
R75 100k
D48 SPS-503C-3
Q4 DTC114TK
P35
P36
P37
P40
P41
P42
P43
P44
P45
P46
P47
P50
P51
P52
P53
P54
P55
P56
P57
P60
P61
P62
P63
P64
P65
P66
P67
P76
P75
P74
P73
TA1OUT
TA0IN
P70

7.3.4 PCB PARTS LIST

NOTES: ● *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 × 10¹ → 561 ..... RD1/4PU [5][6][1] J
47k Ω → 47 × 10³ → 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 × 10¹ → 5621 ..... RN1/4PC [5][6][2][1] F

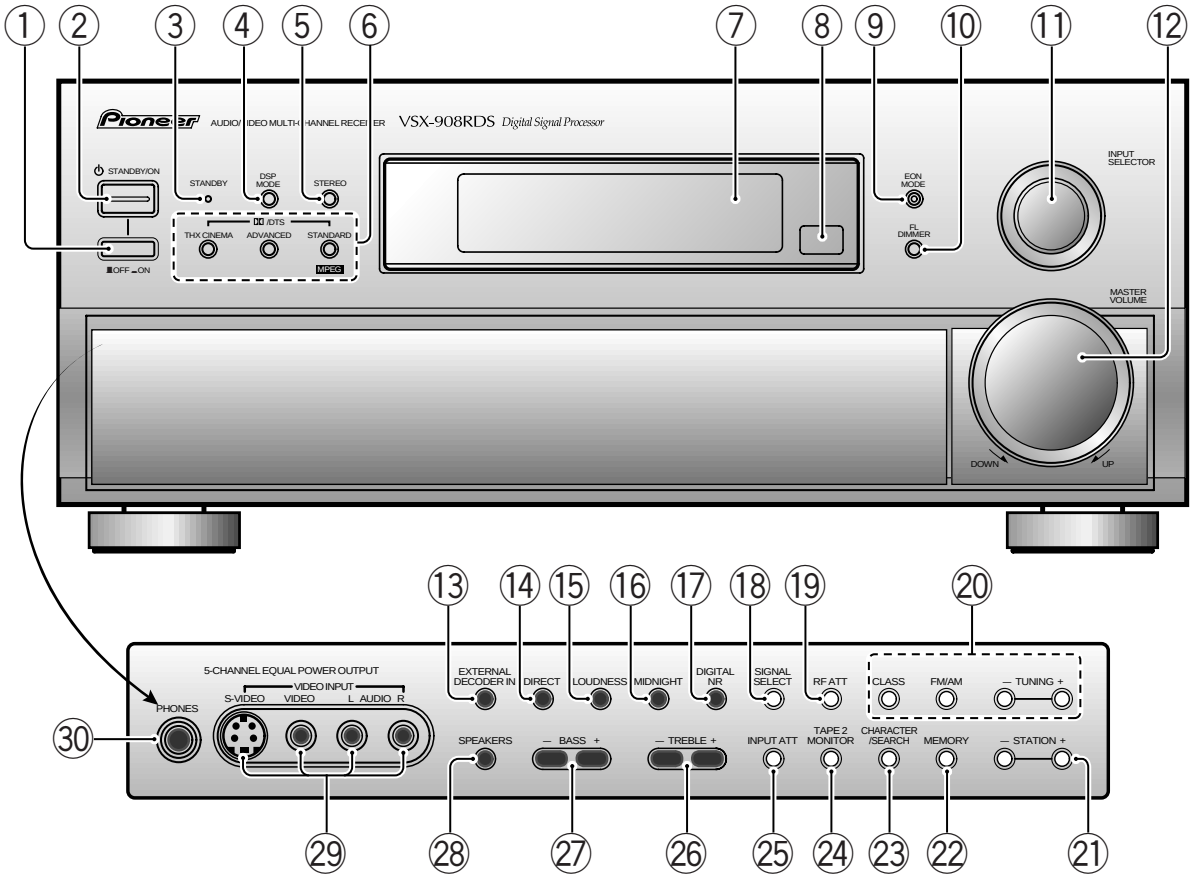
Mark	No.	Description	Part No.
	IC1	U-COM(M30662)	AZC7285
	IC2	VOLTAGE REG. 3.3V	AZC7286
	IC3	VOLTAGE DETECTOR 1.5	AZC7287
	IC4	VOLTAGE DETECTOR 1.8	AZC7288
	IC5, IC6		TC74HC07AF
	IC7		TC74HC08AF
	Q7	FET(2SK1959)	AZC7289
	Q9	FET(2SK2009)	AZC7290
	Q5, Q6		DTA114TS
	Q4		DTC114TK
	Q11		2SA1037K
	Q8, Q10		2SC2712
	Q1–Q3		2SC3265
	D1–D3	INFRARED LED	AZC7291
	D4–D36	ORANGE LED	AZC7292
	D48	PIN PHOTO DIODE	SPS-503C-3
	D37–D47		1SS355

8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

■ Front Section

All the controls on the front panel are explained and/or referenced here. To open the front panel push gently on the lower third of the panel.



① Main power (■ ON/ ▂ OFF) button

If the button is OFF (▂), the power of the receiver is shut off and the STANDBY/ON button (②) on the receiver or the remote control do not function. Pressing the button again will turn the receiver ON (■) and the receiver enters the standby mode. In the standby mode, you can turn on the receiver using the STANDBY/ON button (②) on the receiver or the remote control.

② ⏻ STANDBY/ON button

Press to switch the receiver ON or into the STANDBY mode.

③ STANDBY indicator

Lights when the receiver is in the STANDBY mode. (Please note that this receiver consumes a small amount of power (1.0 W) during the standby mode.)

④ 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 and create different listening environments.

⑤ STEREO button

Press to select the STEREO sound mode. In this mode, sound comes from the front (left and right) speakers only.

⑥ DD/DTS buttons

THX CINEMA : Press to select the HOME THX CINEMA mode when listening to Dolby Digital, Dolby Pro Logic, DTS, or a variety of other sources.

ADVANCED : Press to select one of the four Advanced Theater modes.

STANDARD (MPEG) : Press repeatedly to select the STANDARD or MPEG mode.

⑦ Display

⑧ Remote sensor

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

⑨ EON MODE button/indicator

Press to select the EON mode in the FM mode. The indicator lights when the EON mode is selected.

⑩ FL DIMMER button

Use to adjust the brightness of the main display.

⑪ INPUT SELECTOR dial

Turn to select a source component. The source indicators on the display shows the current component:
DVD/LD : DVD player or Laser Disc player.
TV/SAT : TV tuner or satellite tuner.
CD : Compact disc player.
MD/TAPE 1 : Tape deck or Mini disc recorder connected to MD/TAPE 1/CD-R inputs/outputs.
TUNER : The built-in tuner.
PHONO : Turntable.
VIDEO : Video camera (etc.) connected to the VIDEO INPUT on the front panel.
VCR 1 : Video cassette recorder connected to VCR 1 inputs.
VCR 2 : Video cassette recorder or other component connected to VCR 2 inputs.

⑫ MASTER VOLUME

Adjusts the overall receiver volume.

⑬ EXTERNAL DECODER IN button

Use to hook up an external component that can decode other types of signals and input them into the receiver.

⑭ DIRECT button

Switches direct playback on or off. Use to bypass the tone controls and channel level for the most accurate reproduction of a program source. It will automatically put the receiver in the STEREO mode for that function.

⑮ LOUDNESS button

Switches the LOUDNESS mode on or off.

⑯ MIDNIGHT button

Switches the MIDNIGHT listening mode on or off.

⑰ DIGITAL NR button

Switches the DIGITAL NR on or off (STEREO mode only).

⑱ SIGNAL SELECT button

Use to select the signal from the digital components. Press SIGNAL SELECT repeatedly to select one of the following:
ANALOG : To select an analog signal.
DIGITAL : To select an optical or coaxial digital signal.
AC-3 RF: To select an AC-3 RF signal.
AUTO: This is the default. If there are both analog and digital input signals, the receiver automatically selects the best possible signal.

⑲ RF ATT button

Press to turn the RF attenuator on when receiving strong FM signals (nearby stations) to reduce sound distortion. Normally, set the RF attenuator to off. This button does not affect AM reception.

⑳ Tuner control buttons

CLASS : Press repeatedly to switch the preset station classes.
FM/AM : Press to select the AM or FM band.
TUNING –/+ : Use to manually tune into radio stations.

㉑ STATION –/+ buttons

Use to choose programmed radio stations.

㉒ MEMORY button

Press to start the memorization of a preset station.

㉓ CHARACTER/SEARCH button

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

㉔ TAPE 2 MONITOR button

Selects the tape deck (MD recorder, etc.) connected to the TAPE 2 MOINTOR inputs/outputs. Allows monitoring of a recording as it is being made.

㉕ INPUT ATT button

Use to lower the input level of an analog signal that is too powerful, thus causing the receiver to distort (the OVER indicator will light furiously).

㉖ TREBLE (–/+) buttons

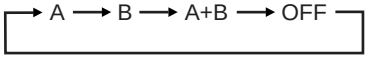
Use to adjust the high frequencies.

㉗ BASS (–/+) buttons

Use to adjust low frequencies.

㉘ SPEAKERS (A/B) buttons

A is the primary setting. It plays all speakers hooked up to the A system. A and B setting only plays the front speakers of both the A and B systems and the sub-woofer. Multi channel sources will be down-mixed to these speakers so no sound will be lost. B setting only plays the front speakers connected to the B system and Multi channel sources will be down-mixed to these two speakers.



㉙ VIDEO INPUT jacks

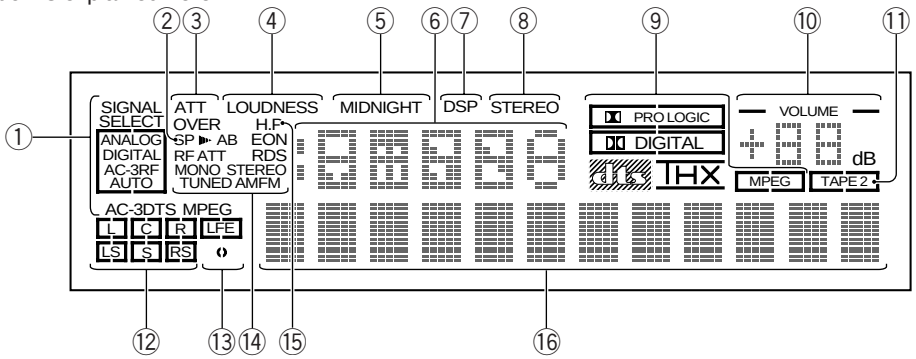
S-VIDEO : Video input for connecting a video camera (etc.), that has an S-Video out.
VIDEO / AUDIO (L/R) : Video input for connecting a video camera, etc. that has standard video/audio outputs.

㉚ PHONES jack

Connect headphones for private listening (no sound will be heard through the speakers).

■ Display

All the display information is explained here.



① SIGNAL SELECT indicators

Light to indicate the type of input signal assigned for the current component (see “Front Panel”, ⑱, SIGNAL SELECT).
ANALOG : Lights when an analog signal is selected.
DIGITAL : Lights when a digital audio signal is selected (DVD/LD, CD, MD/TAPE1, TV/SAT, VCR 1, VCR 2).
AC-3RF: Lights when an AC-3 RF signal is selected (DVD/LD, TV/SAT, VCR 1, VCR 2).
AUTO: Lights when the receiver is set to select the input signal automatically (DVD/LD, CD, MD/TAPE 1, TV/SAT, VCR 1, VCR 2).
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 Speaker indicators

Light to indicate the current speaker system (see “Front Panel”, ㉘, SPEAKERS (A/B)).
SP ▷ A : Lights when speaker system A is selected.
SP ▷ B : Lights when speaker system B is selected.
SP ▷ AB : Lights when speaker systems A and B are both selected.

③ Analog level indicators

OVER : If “ANALOG” is selected in SIGNAL SELECT, this indicator lights to show that an excessively strong signal is being processed. When this occurs, press INPUT ATT on the front panel to attenuate (lower) 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.
ATT : Lights when INPUT ATT is used to reduce the level of the input signal (available in ANALOG mode only).

④ LOUDNESS indicator

Lights when the LOUDNESS mode is on.

⑤ MIDNIGHT indicator

Lights when the MIDNIGHT listening mode is on.

⑥ Radio Frequency/Source indicator

Displays the source or the frequency of the current radio station.

⑦ DSP indicator

Lights when a DSP or Advanced Theater mode is selected.

⑧ STEREO indicator

Lights when a Stereo mode is selected.

⑨ Surround/dts (MPEG) mode indcators

DIGITAL : When the Surround/dts 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.
PRO LOGIC : When the Surround/dts mode on the receiver is on, this indicator lights during 2 channel playback. The indicator does not light when both the A + B speaker systems, just the B speaker system, or the headphones are selected for playback.
dts : Lights when DTS signals are input.
THX: Lights when the HOME THX CINEMA mode is selected.
MPEG: Lights when the MPEG mode is selected. (Surround/dts (MPEG) mode is ON)

⑩ MASTER VOLUME indicator

Displays current level of master volume.

⑪ TAPE 2 indicator

Lights when the TAPE 2 monitor is on.

⑫ Program format indicator

When a Dolby Digital or DTS signal is input, 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 Pro Logic playback.

⑬ LFE indicator

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

⑭ Tuner/ FM/AM indicators

MONO : Lights when the tuner is set to receive FM broadcasts with the MONO mode selected.
STEREO : Lights when a FM stereo broadcast is received in the auto stereo mode.
TUNED : Lights when a broadcast is received.
AM/FM : Light to indicate the current band (FM or AM).
EON: Lights when an RDS stations transmitting the EON data service is being received.
RF ATT: Lights when the RF attenuator is on.
RDS: Lights when RDS broadcast is being received.

⑮ H.P (headphones)

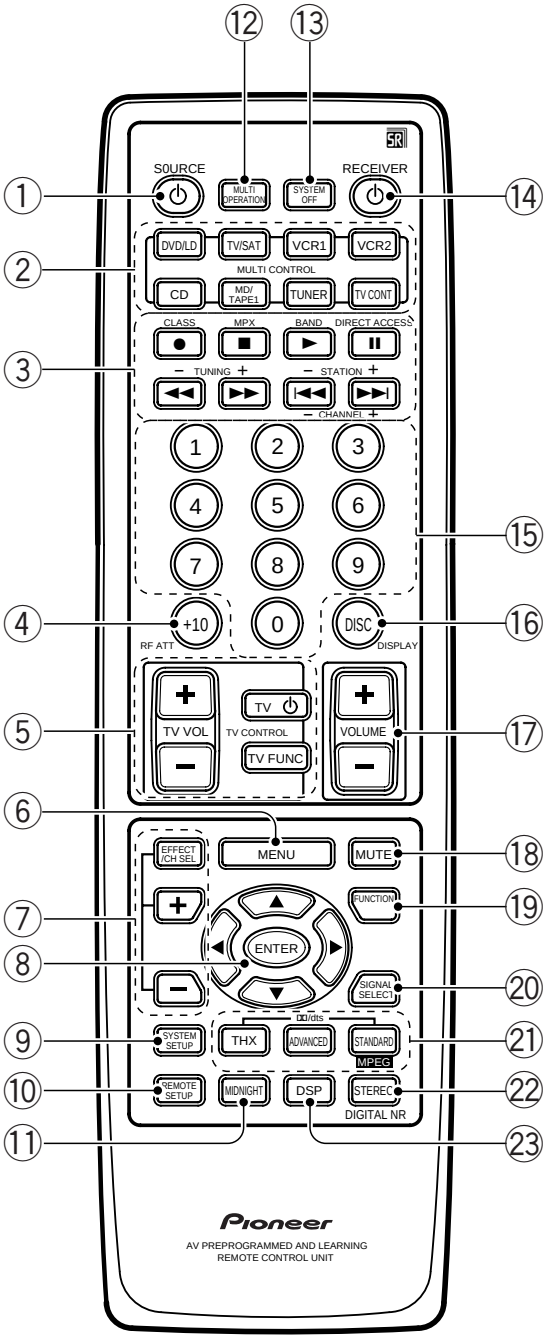
Lights when headphones are connected to the PHONES jack (speakers A and B turn off automatically).

⑯ Character display

Displays sound modes, general information, etc.

■ Remote Control Unit

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



① SOURCE ⏻ button

Use to turn on the power of your other components after you have recalled or taught the signals to this remote control.

② MULTI CONTROL buttons

Use these buttons to select a source and the corresponding remote operation mode.
For example, pressing the TUNER button selects the built-in tuner and sets the remote control in the tuner operation mode.

③ Component control buttons

[Tuner control]
CLASS: Press repeatedly to switch the preset station classes.
MPX: Press to switch between auto stereo and MONO reception of FM broadcasts.
BAND: Press to select AM or FM band.
DIRECT ACCESS: Press to activate the direct access tuning mode.
TUNING +/–: Use to manually tune into radio stations.
STATION +/–: Use to choose programmed radio stations.

④ RF ATT button

Press to turn the RF attenuator on when receiving strong FM signals (nearby stations) to reduce sound distortion. Normally, set the RF attenuator to off. This button does not affect AM reception.

⑤ TV CONTROL buttons

The following buttons are used to control the TV only and can be used no matter what function the remote control is set to.
TV ⏻: Press to turn the power of the TV on/off.
TV FUNC : Press to select the TV for remote control operation.
TV VOL +/– : Press to control the volume of the TV.

⑥ MENU button

Use to display various menus on the TV screen.

⑦ EFFECT/CH SEL +/– buttons

EFFECT : Use these buttons to increase or decrease the amount of effect applied in a DSP or Advanced Theater mode. When the amount of effect is increased in a DSP/ Advanced Theater mode, the characteristics of that mode become stronger and more noticeable. The scale ranges from 10-90 with 70 as the default setting. First turn on the DSP or ADVANCED Theater mode (by pressing the ㉑ DSP or Advanced button until you get the mode) and then increase or decrease the amount of effect.
CH SEL : You may want to adjust the channels when listening to some sound sources. Use this button to select the channel you want to adjust.
+/– : Use these buttons to select the amount of effect in a sound mode or to adjust the channel level when making surround sound settings.

⑧ ▲/▼/◄/►/ENTER buttons

Use to operate the on-screen menu on your TV screen and enter commands when setting up surround sound, speakers levels & settings, and other setup features. Specific use of these buttons is described in conjunction with the operations they perform. For more information see each section.

⑨ SYSTEM SETUP button

Use to set up the speaker and sound systems.

⑩ REMOTE SETUP button.

Use to customize the remote control functions and the remote control itself.

Press the SIGNAL SELECT and REMOTE SETUP buttons simultaneously to switch from the SIGNAL SELECT operation to EXTERNAL DECODER operation. Then press the button to get the EXTERNAL DECODER function. To get back to the SIGNAL SELECT control, press the REMOTE SETUP button and the SIGNAL SELECT button simultaneously once again.

⑪ MIDNIGHT button

Switches the MIDNIGHT listening mode on or off.

⑫ MULTI OPERATION button

Use this button to start the MULTI OPERATION mode.

⑬ SYSTEM OFF button

This button turns off components in two ways. First, when pressed, it will turn off all PIONEER components. Secondly, any component that has programmed into the SYSTEM OFF settings will also be turned off.

For example : If you programmed power-on for your TV and VCR, pressing the SYSTEM OFF button will turn off these components even if they are not PIONEER products.

⑭ RECEIVER ⏻ button

Press to turn power of the receiver on or to STANDBY (off).

⑮ Number buttons

These buttons can perform a variety of different functions depending on the remote operation mode. They are most useful for CD player and tuner operations.

⑯ DISC/DISPLAY button

Press to switch the RDS data while listening to an FM station.
Each press changes the display mode in the order of RT, PS, PTY, and frequency.
This button can perform a variety of different functions depending on the remote operation mode.

⑰ VOLUME button

Use to raise or lower the volume of the receiver.

⑱ MUTE button

Press to mute or restore the volume.

⑲ FUNCTION button

Press to select a source. The button will cycle through all the possible sources.

⑳ SIGNAL SELECT button

Press SIGNAL SELECT repeatedly to select one of the following:
ANALOG : To select an analog signal.
DIGITAL : To select a digital signal (DVD/LD, TV/SAT, CD, MD/TAPE 1, VCR 1, VCR 2).
AC-3 RF: To select an AC-3 RF signal (DVD/LD, TV/SAT, VCR 1, VCR 2).
AUTO: This is the default. If there are both analog and digital input signals, the receiver automatically selects the best possible signal. Press the SIGNAL SELECT and REMOTE SETUP buttons simultaneously to switch from the SIGNAL SELECT operation to EXTERNAL DECODER operation. Then press the button to get the EXTERNAL DECODER function. To get back to the SIGNAL SELECT control, press the REMOTE SETUP button and the SIGNAL SELECT button simultaneously once again.

㉑ DD/dts buttons

Press these buttons to put the receiver in the selected sound mode.

㉒ STEREO/DIGITAL NR button

STEREO : Press this button to put the receiver into the stereo mode when it's in a different sound mode. For more information on the sound modes.
DIGITAL NR : Switches the DIGITAL NR on or off .

㉓ DSP button

Press repeatedly to select a DSP sound mode.

■ Audio Components Connections

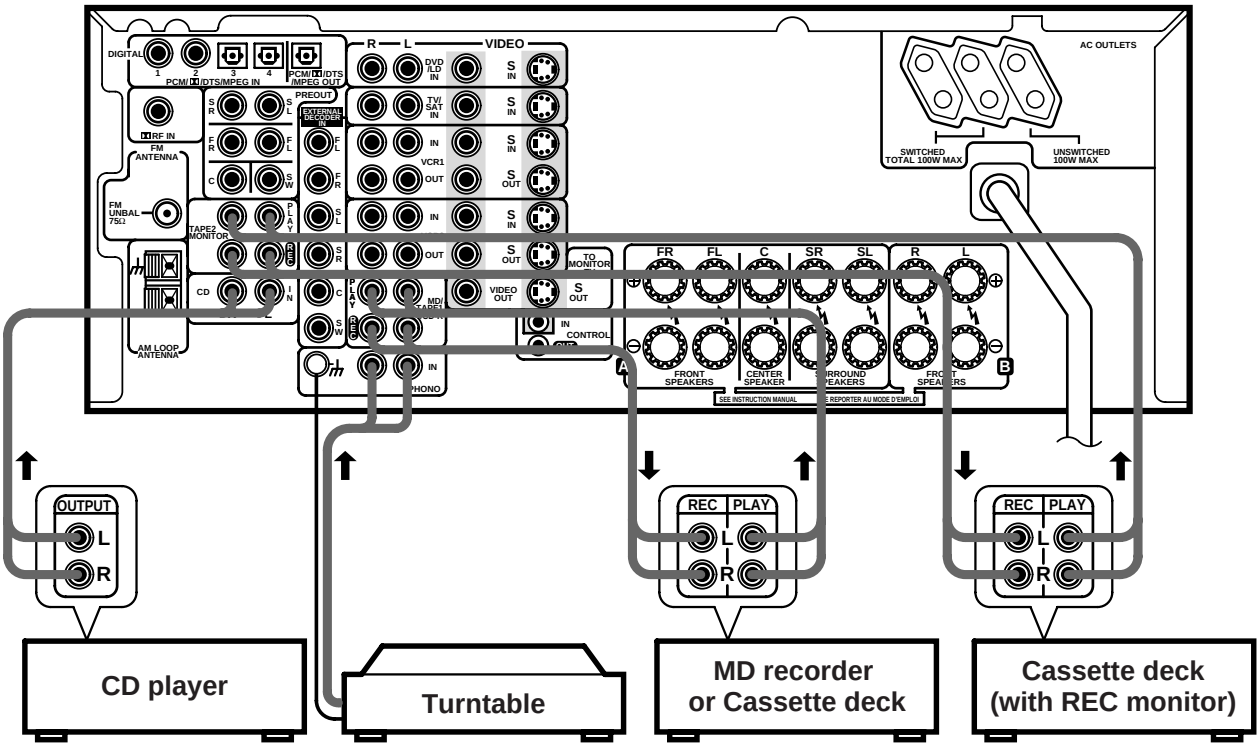
Before making or changing the connections, switch off the power and disconnect the power cord from the AC outlet.

To begin set up connect your audio components to the jacks as shown below. These are all analog connections and your analog audio components (turntable, cassette deck) use these jacks. Remember that for components you want to record with you need to hook up four plugs (a set of stereo ins and a set of stereo outs), but for components that only play (like a turntable) you only need to hook up one set of stereo plugs (two plugs). To use DTS surround sound features you must hook up your digital components to the digital inputs but it is also a good idea to hook up your digital components to analog audio jacks. If you want to record to/from digital components (like an MD) to/from analog components you must hook up your digital equipment with these analog connections.

Memo

The arrows indicate the direction of the audio signal.

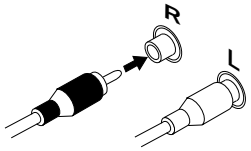
The illustration is not applicable to the UK model.



If your turntable has a ground wire, connect it to the ⏚ (signal ground) terminal.

■ 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 Power Output (STEREO MODE)
FRONT ..... 110 W + 110 W (DIN 1 kHz, THD 1 %, 8Ω)
Continuous Power Output (SURROUND MODE)
FRONT ..... 110 W + 110 W (DIN 1 kHz, THD 1 %, 8Ω)
CENTER ..... 110 W (DIN 1 kHz, THD 1 %, 8Ω)
SURROUND ..... 110 W + 110 W
..... (DIN 1 kHz, THD 1 %, 8Ω)
Rated Power Output ..... 100 W + 100 W
..... (20-20 kHz, THD 0.09 %, 8Ω)

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

Input (Sensitivity/Impedance)
PHONO MM ..... 4.7 mV/47 kΩ
VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO, CD,
MD/TAPE 1/CD-R, TAPE 2 ..... 335 mV/47 kΩ
Frequency Response
PHONO MM ..... 80 dB
VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO, CD,
MD/TAPE 1/CD-R, TAPE 2 ..... 5 Hz to 100,000 Hz $^{+0}_{-3}$ dB
Output (Level/Impedance)
VCR 1 REC, VCR 2 REC, MD/TAPE 1/CD-R REC,
TAPE 2 REC ..... 335 mV/2.2 kΩ
Tone Control
BASS ..... ± 6 dB (100 Hz)
TREBLE ..... ± 6 dB (10 kHz)
LOUDNESS ..... +3 dB (100 Hz/10 kHz)
Signal-to-Noise Ratio (IHF, short circuited, A network)
PHONO MM ..... 80 dB
VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO, CD,
MD/TAPE 1/CD-R, TAPE 2 ..... 101 dB
Signal-to-Noise Ratio [EIA, at 1 W (1 kHz)]
PHONO MM ..... 80 dB
VCR 1, VCR 2, DVD/LD, TV/SAT, VIDEO, CD,
MD/TAPE 1/CD-R, TAPE 2 ..... 83 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 10 MHz $^{+0}_{-3}$ dB
Signal-to-Noise Ratio ..... 65 dB

FM Tuner Section

Frequency Range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... Mono: 15.2 dBf, IHF (1.6 µV/75 Ω)
50 dB Quieting Sensitivity ..... Mono: 20.2 dBf
Stereo: 41.2 dBf
Sensitivity (DIN) ..... Mono: 1.1 µV (S/N 26 dB)
Stereo: 50 µV (S/N 46 dB)
Signal-to-Noise Ratio ..... Mono: 76 dB (at 85 dBf)
Stereo: 72 dB (at 85 dBf)
Signal-to-Noise Ratio (DIN) ..... Mono: 62 dB
Stereo: 58 dB
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 (± 1dB)
Antenna Input ..... 75 Ω unbalanced

AM Tuner Section

Frequency Range ..... 531 kHz to 1.602 kHz
Sensitivity (IHF, Loop antenna) ..... 350 µV/m
Selectivity ..... 30 dB
Signal-to-Noise Ratio ..... 50 dB
Antenna ..... Loop antenna

Miscellaneous

Power Requirements
UK model ..... AC 230 V, 50/60 Hz
European model ..... AC 220 - 230 V, 50/60 Hz
Power Consumption ..... 400 W
Power Consumption in Standby mode ..... 1.0 W
AC Outlets (except for the UK model)
SWITCHED (×2) ..... Total 100 W MAX.
UNSWITCHED ..... 100 W MAX.
Dimensions ..... 420 (W) × 173 (H) × 470 (D) mm
Weight (without package) ..... 14.9 kg

Furnished Parts

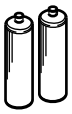
FM Antenna 1
AM Loop Antenna 1
Dry Cell Batteries (SIZE “AA” (IEC LR6)) 2
Remote Control Unit 1
Operating Instructions 1

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

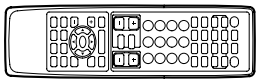
Accessories

FM wire antenna
(ADH7010)

AM loop antenna
(ATB7009)



“AA” IEC LR6 batteries x 2



Remote control unit
(CU-VSX162 : AXD7214)
VSX-908RDS
(CU-VSX165 : AXD7236)
VSX-908RDS-G