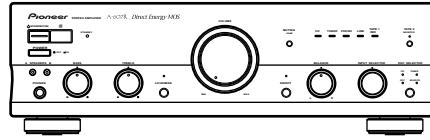


Service Manual

Pioneer



ORDER NO.
RRV2033

STEREO AMPLIFIER

A-607R

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.
	A-607R		
MV	○	AC220 – 230V	_____
MY/EW	○	AC220 – 230V	_____
MY/GR	○	AC220 – 230V	_____
SD	○	AC110V/120 – 127V/220/240V	With the voltage selector

CONTENTS

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2. EXPLODED VIEWS AND PARTS LIST	3	7.1 IC INFORMATION	23
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4. PCB CONNECTION DIAGRAM	14	8. PANEL FACILITIES AND SPECIFICATIONS	25
5. PCB PARTS LIST	19		
6. ADJUSTMENT	22		

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan
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1. SAFETY INFORMATION

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

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

WARNING

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

Health & Safety Code Section 25249.6 – Proposition 65



NOTICE

(FOR CANADIAN MODEL ONLY)

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

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

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

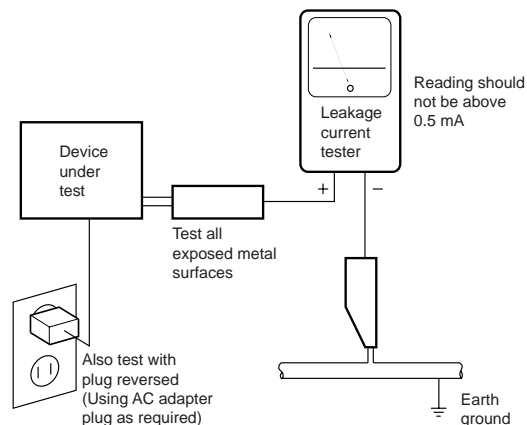
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

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

LEAKAGE CURRENT CHECK

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



AC Leakage Test

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

2. PRODUCT SAFETY NOTICE

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

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

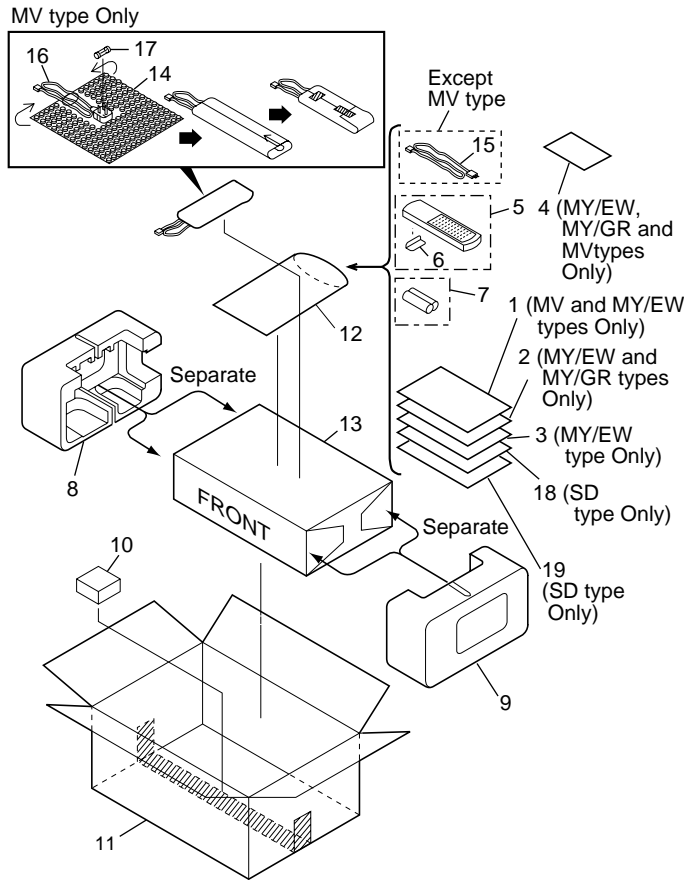
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. EXPLODED VIEWS AND PARTS LIST

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

2.1 PACKING



(1) PACKING PARTS LIST

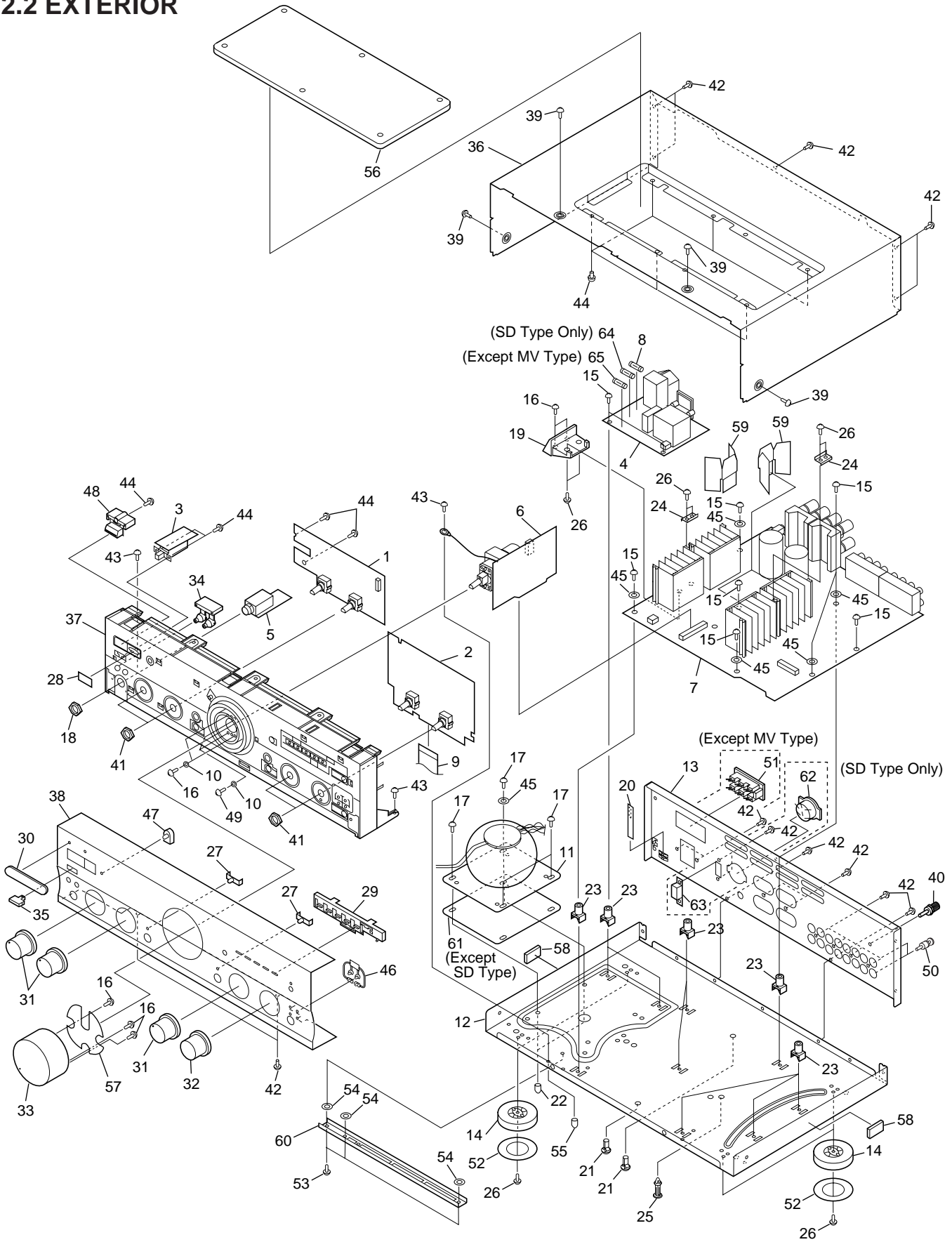
Mark	No.	Description	Part No.
	1	Operating Instructions (English)	See Contrast table (2)
	2	Operating Instructions (German)	See Contrast table (2)
	3	Operating Instructions (French/Italian/Dutch/Swedish/Spanish/Portugese)	See Contrast table (2)
NSP	4	Warranty Card	See Contrast table (2)
	5	Remote Control Unit (CU-A018)	AXD7187
	6	Battery Cover	AZN2249
NSP	7	Dry Cell Battery (R6P,AA)	AEX-010
	8	Side Protector L	AHA7127
	9	Side Protector R	AHA7128
	10	Sub Pad	AHA7245
	11	Packing Case	See Contrast table (2)
NSP	12	Literature Bag	AHG-117
	13	Packing Sheet	AHG1016
NSP	14	Air Cap	See Contrast table (2)
Δ	15	Power Cord	See Contrast table (2)
Δ	16	Power Cord with Fuse	See Contrast table (2)
Δ	17	Fuse (T5A)	See Contrast table (2)
	18	Operating Instructions (Spanish/Chinese)	See Contrast table (2)
NSP	19	Caution Label 220V	See Contrast table (2)

(2) CONTRAST TABLE

A-607R/MV, MY/EW, MY/GR and SD types are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			MV Type	MY/EW Type	MY/GR Type	SD Type	
	1	Operating Instructions (English)	ARB7161	ARB7161	Not used	Not used	
	2	Operating Instructions (German)	Not used	ARC7211	ARC7211	Not used	
	3	Operating Instructions (French/Italian/Dutch/Swedish/Spanish/Portuguese)	Not used	ARC7212	Not used	Not used	
	4	Warranty Card	ARY7022	ARY7022	ARY7022	Not used	
NSP	11	Packing Case	AHD7653	AHD7653	AHD7653	AHD7675	
Δ	14	Air Cap	AHG1087	Not used	Not used	Not used	
Δ	15	Power Cord	Not used	ADG1154	ADG1154	ADG1158	
Δ	16	Power Cord with Fuse	ADG1156	Not used	Not used	Not used	
Δ	17	Fuse (T5A)	AEK1046	Not used	Not used	Not used	
	18	Operating Instructions (Spanish/Chinese)	Not used	Not used	Not used	ARC7210	
NSP	19	Caution Label 220V	Not used	Not used	Not used	ARR7003	

2.2 EXTERIOR



(1) EXTERIOR PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	FRONT L Assy	AWX7054		31	Rotary Knob A	AAB7148
	2	FRONT R Assy	AWX7146		32	Rotary Knob B	AAB7149
	3	POWER SW Assy	See Contrast table (2)		33	Volume Knob	AAB7189
	4	AC PRIMARY Assy	See Contrast table (2)		34	Speaker Button	AAD7435
NSP	5	HEADPHONE Assy	AWX7052		35	Main Power Button	See Contrast table (2)
	6	VOLUME Assy	AWX7171		36	Bonnet Case	ANE7220
	7	AF Assy	AWX7200		37	Panel Base	See Contrast table (2)
△	8	Fuse (FU1, T2A L250V)	AEK1057		38	Front Panel	See Contrast table (2)
	9	Flexible Cable (J1, 21P) (AF CN202 - FRONT R CN601)	ADD1114		39	Screw	BBT30P080FZK
	10	Washer	ABE1002		40	Terminal Screw	AKE-031
△	11	Power Transformer (T1)	See Contrast table (2)		41	Nut	NK90FUC
NSP	12	Chassis	ANA7048		42	Screw	ABA1006
	13	Rear Panel	See Contrast table (2)		43	Screw	ABA1009
	14	Insulator	PNW2766		44	Screw	BPZ30P080FMC
	15	Screw	ABA1018		45	Washer	WG40FCC
	16	Screw	ABA1050		46	LED Lens B	AAK7538
	17	Screw (4 × 10)	See Contrast table (2)		47	LED Lens	PNW2019
	18	Nut	ABN-065		48	Power Button	AAD7436
NSP	19	PCB Mold	AMR7222		49	Screw	BMZ30P080FCU
	20	Barrier	AEC7072		50	Short Pin Plug	AKM-050
NSP	21	PCB Holder	AEC7057	△	51	AC Outlet 3-P	See Contrast table (2)
	22	Stud Cover	AEC7096		52	Cushion 55	PNM1316
NSP	23	PCB Mold	AMR1525		53	Screw	ABA1193
NSP	24	Radiator Plate A	AMR7221		54	Spacer	ABF7004
	25	Locking Card Spacer	DEC1908		55	Stud Cover	AEC7105
	26	Screw	ABA-298		56	Top Cover	AME1086
	27	LED Lens	AAK2459		57	Dump Plate	ANG7198
	28	IR Filter	AAK7532		58	Cushion Gum	AEB7004
	29	LED Lens T	AAK7544	NSP	59	Radiator Plate C	AMR7257
	30	Name Plate	PAN1376	NSP	60	Sub Frame	ANG7137
					61	Trans Plate	See Contrast table (2)
				△	62	Voltage Selector (S1)	See Contrast table (2)
				△	63	Voltage Selector (S2)	See Contrast table (2)
				△	64	Fuse (FU2 : T2A)	See Contrast table (2)
				△	65	Fuse (FU3 : T0.5A)	See Contrast table (2)

(2) CONTRAST TABLE

A-607R/MV, MY/EW, MY/GR and SD types are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.				Remarks
			MV Type	MY/EW Type	MY/GR Type	SD Type	
	3	POWER SW ASSY	AWX7057	AWX7057	AWX7057	Not used	
	4	AC PRIMARY Assy	AWX7056	AWX7197	AWX7197	AWX7198	
△	11	Power Transformer (T1 : AC220-230V)	ATS7128	ATS7128	ATS7128	Not used	
△	11	Power Transformer (T1 : AC110V/120-127V/220V/240V)	Not used	Not used	Not used	ATS7129	
	13	Rear Panel	ANC7726	ANC7725	ANC7725	ANC7727	
	17	Screw	ABA1014	ABA1014	ABA1014	ABA7047	
	35	Main Power Button	ADD7437	ADD7437	ADD7437	Not used	
	37	Panel Base	AMB7484	AMB7484	AMB7484	AMB7553	
	38	Front Panel	ANB7149	ANB7149	ANB7149	ANB7152	
△	51	AC Outlet 3-P	Not used	AKP-502	AKP-502	AKP7007	
	61	Trans Plate	ANG7228	ANG7228	ANG7228	Not used	
△	62	Voltage Selector (S1)	Not used	Not used	Not used	AKX-507	
△	63	Voltage Selector (S2)	Not used	Not used	Not used	AKX1004	
△	64	Fuse (FU2 : T2A)	Not used	Not used	Not used	AEK1057	
△	65	Fuse (FU3 : T0.5A)	Not used	AEK1051	AEK1051	AEK1051	

3. SCHEMATIC DIAGRAM

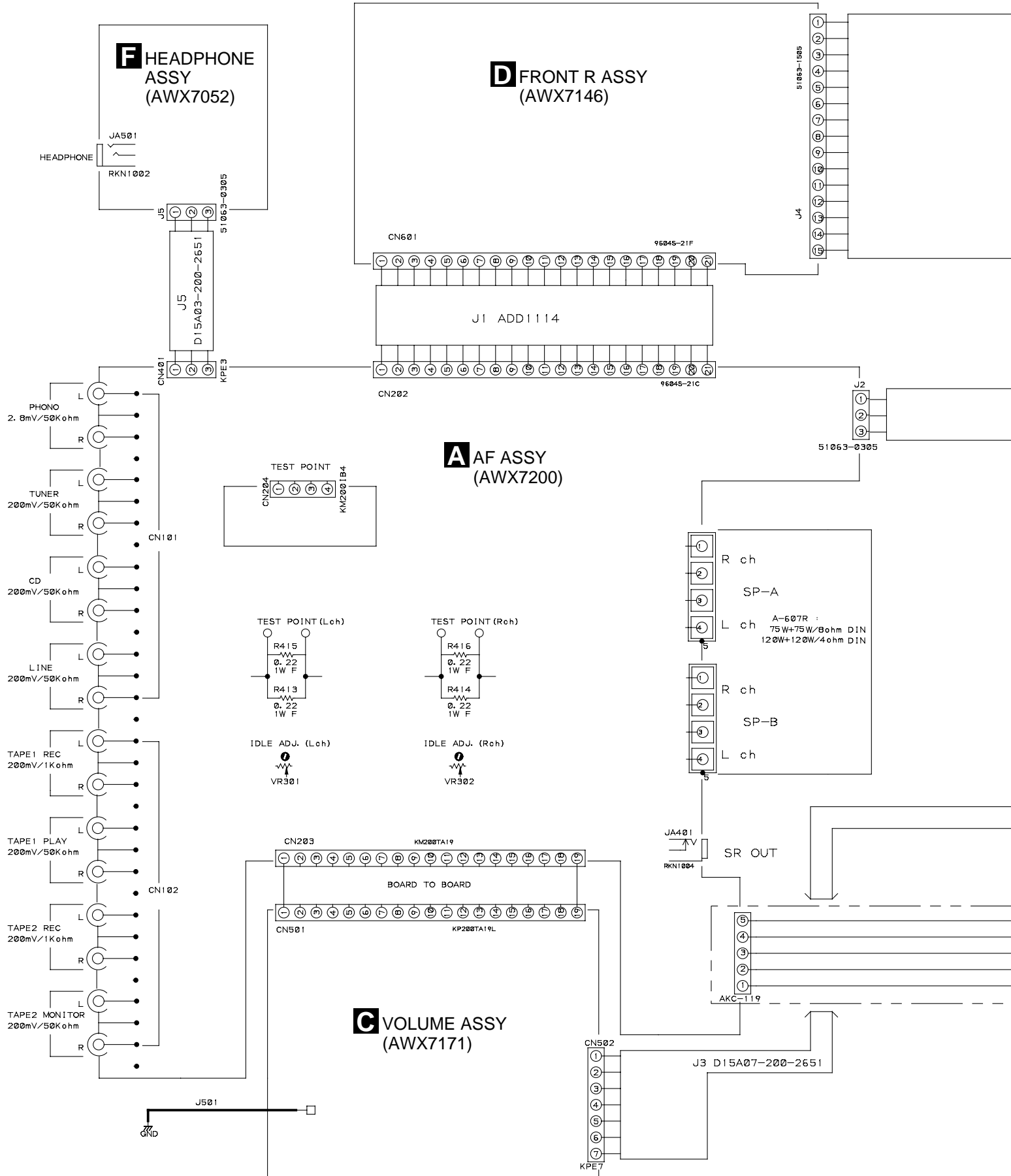
3.1 OVERALL CONNECTION DIAGRAM

A

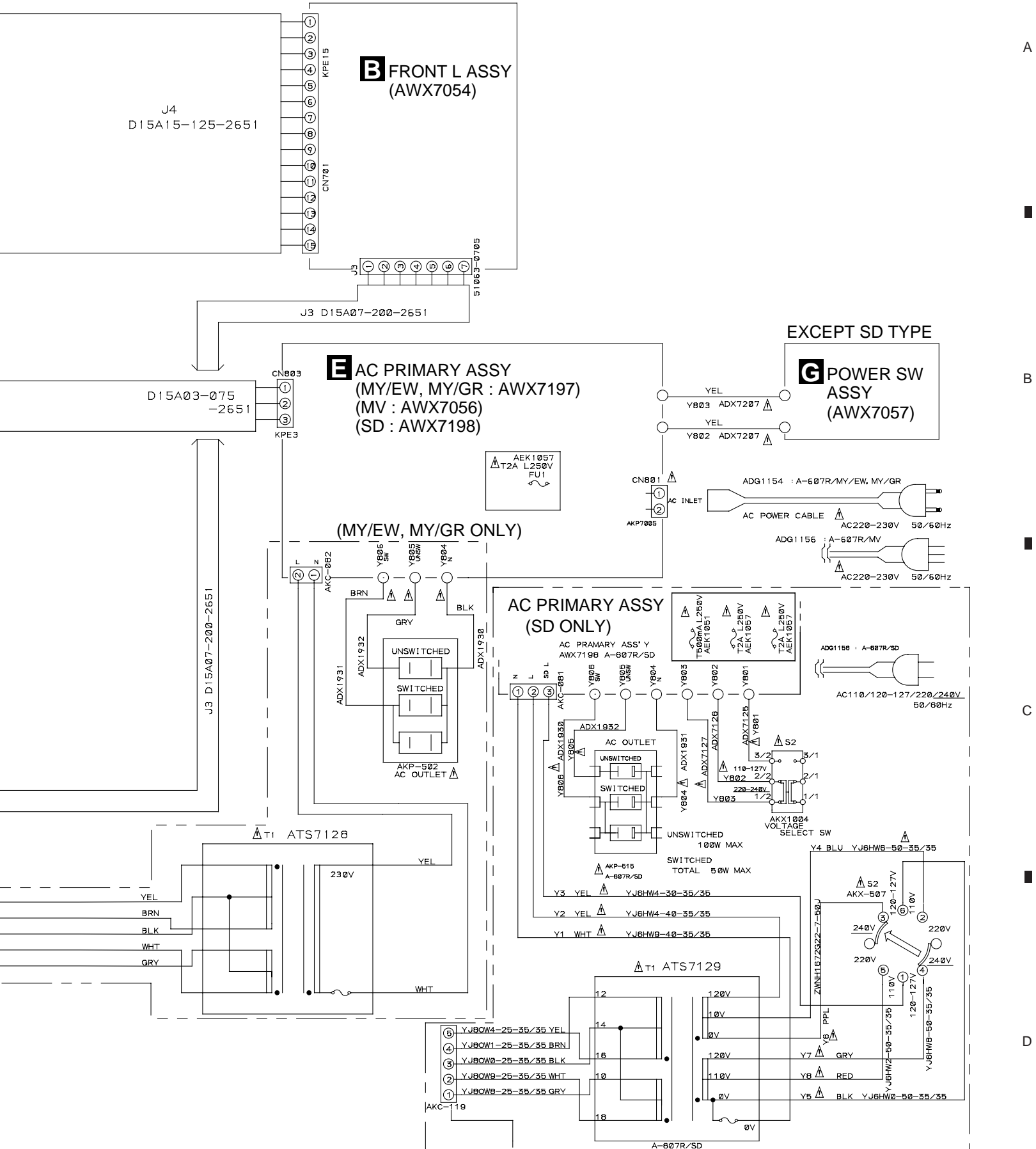
B

C

D



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



A

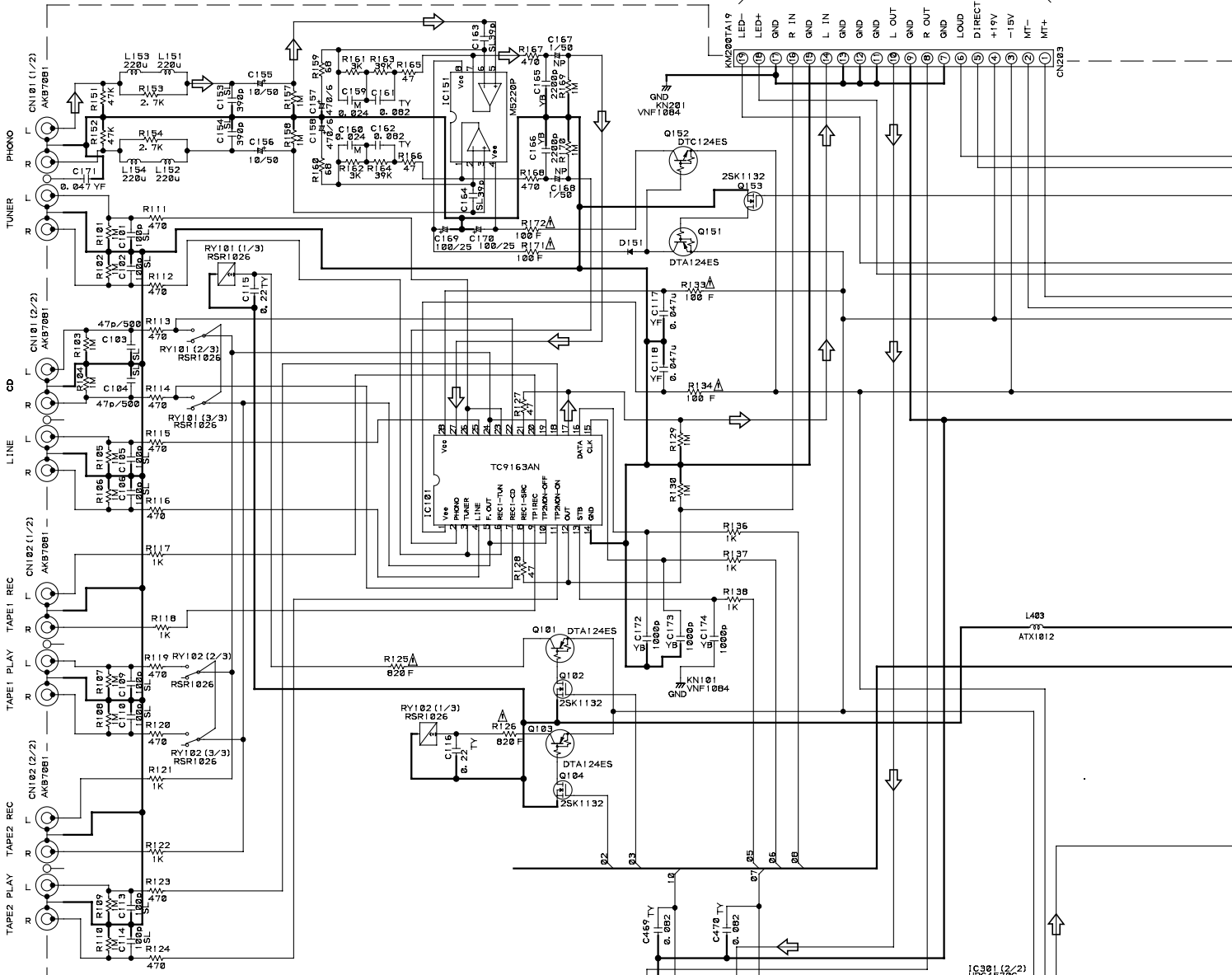
B

C

D

3.2 AF ASSY

CN501



- NOTES
- RESISTORS
INDICATED IN Ohm 1/4W±5% TOLERANCE UNLESS OTHERWISE NOTED K:Kohm
F:FL-NON-FRAMABLE TYPE
FU:NON-FRAMABLE TYPE (QUICK OPEN TYPE)
R:RDR TYPE
 - CAPACITORS
INDICATED IN CAPACITY (uF)/VOLTAGE (V) UNLESS OTHERWISE NOTED p:pF
INDICATED WITHOUT VOLTAGE IS 50V EXCEPT ELECTROLYTIC CAPACITOR.
BA:CEBA ZA:CEZA TYPE
TF:CFTLA TY:CFTYA
M:MYLAR FILM TYPE
 - INDUCTORS
INDICATED IN uH, ±10%
 - DIODES
NO MARK DIODES ARE HSS104-02
 - VOLTAGE
INDICATED IN DC VOLTAGE (NO SIGNAL/DIN POWER OUT)
(NO SIGNAL/105W±2ch, 4ohm) A-D5a

!! CAUTION !!
HEATSINKS (Q323-326) DC LEVEL IS EQUAL TO +B OR -B.
DON'T TOUCH OR YOU WILL BE ELECTRICALLY SHOCKED.

⇒ : AUDIO SIGNAL ROUTE

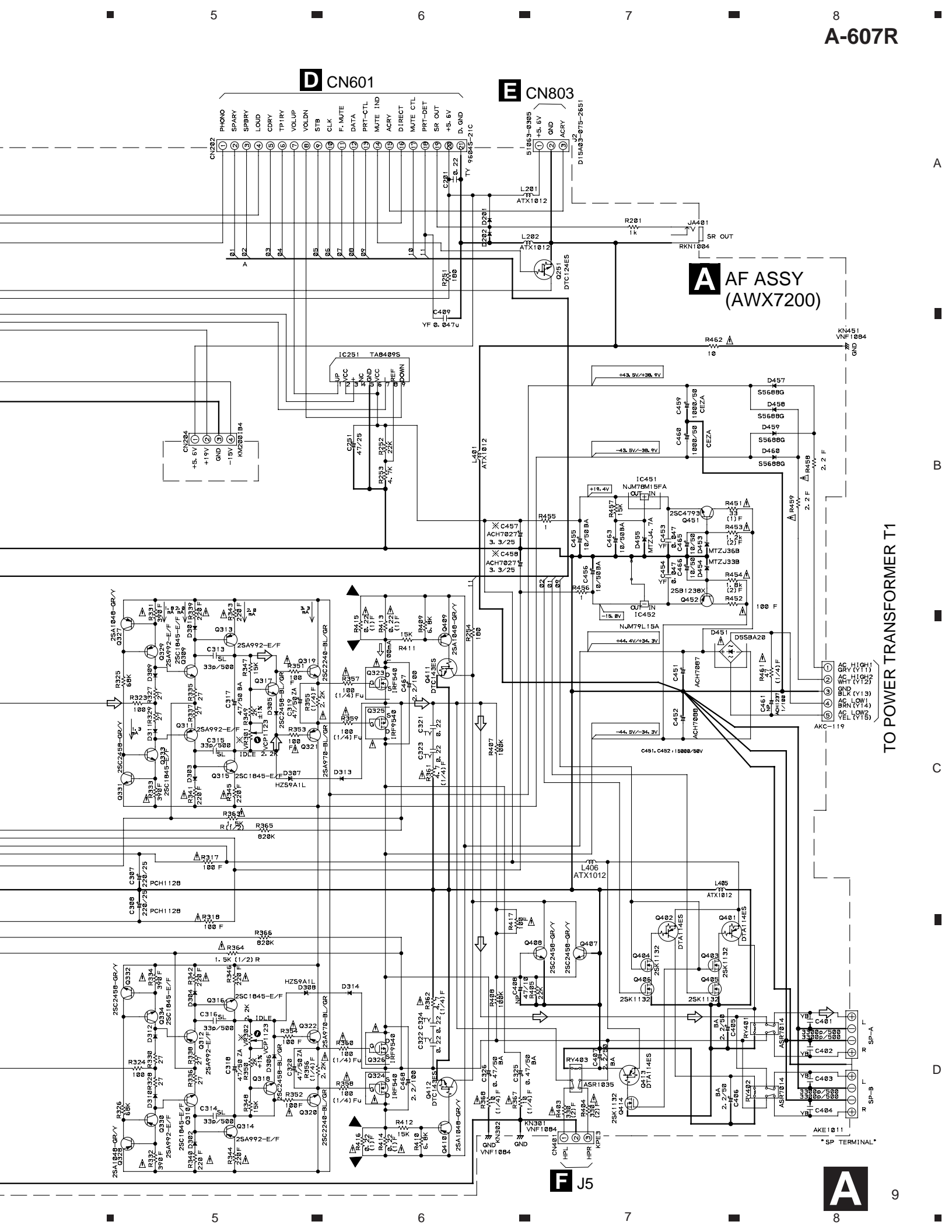


D CN601

E CN803

A AF ASSY (AWX7200)

TO POWER TRANSFORMER T1



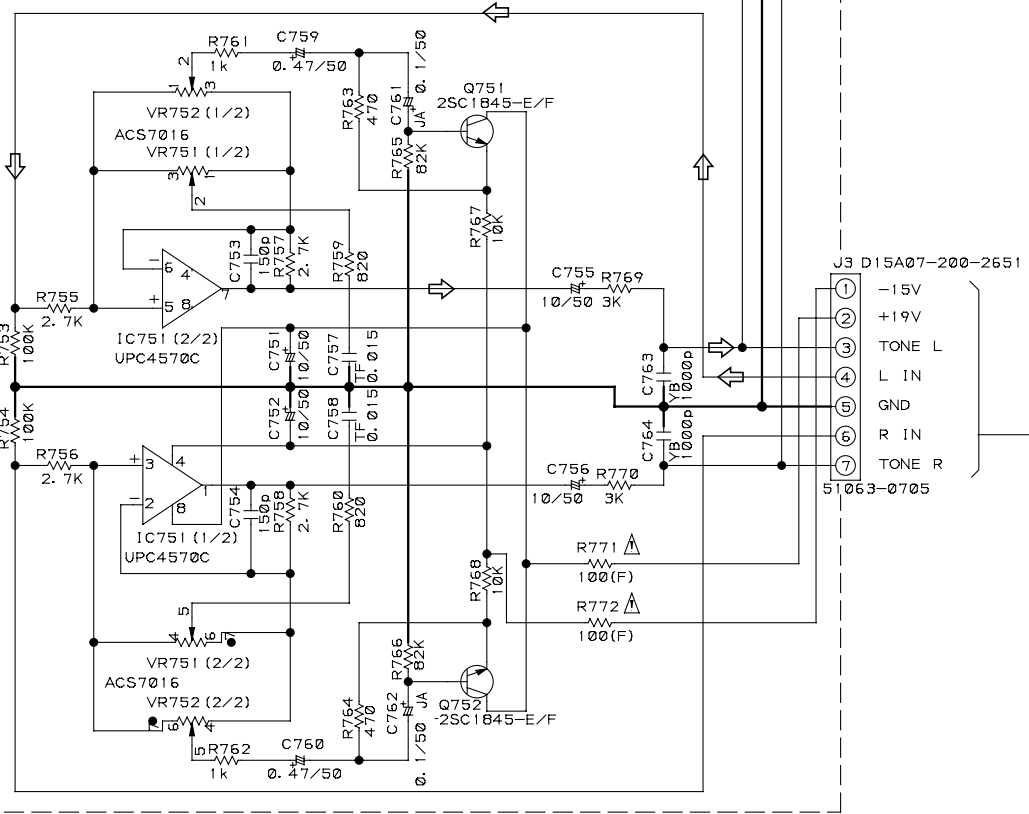
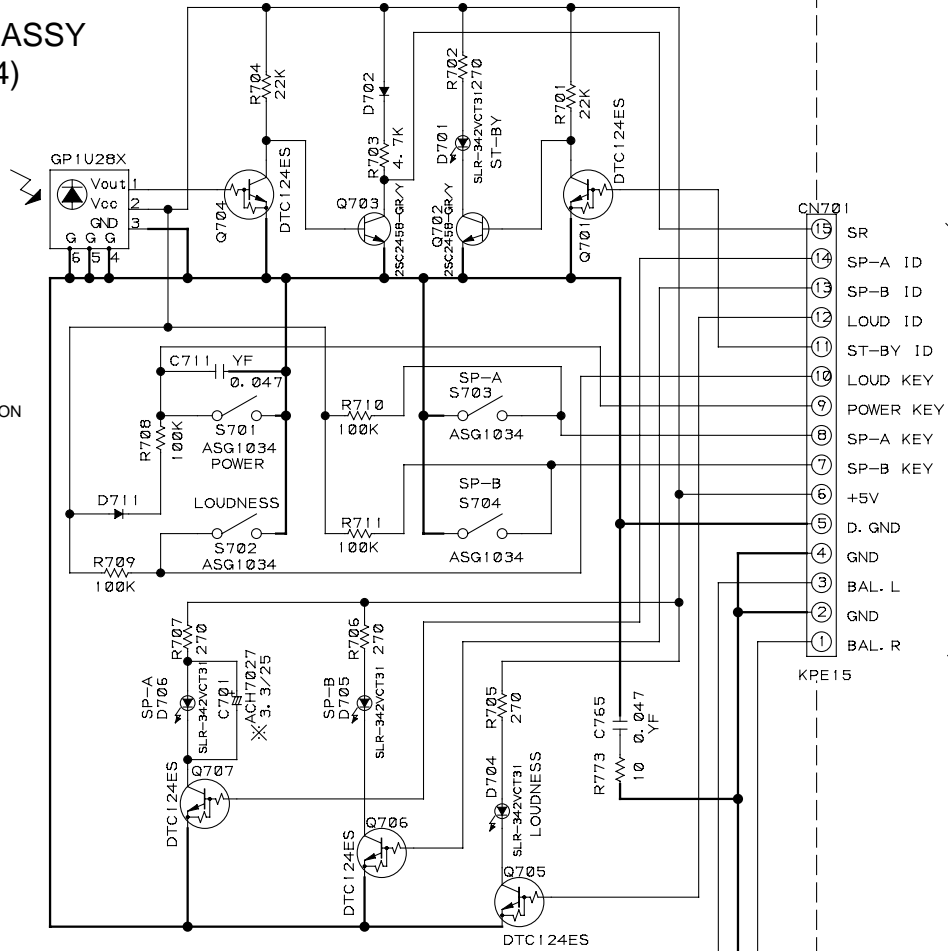
F J5

A

3.3 FRONT L AND VOLUME ASSEMBLIES

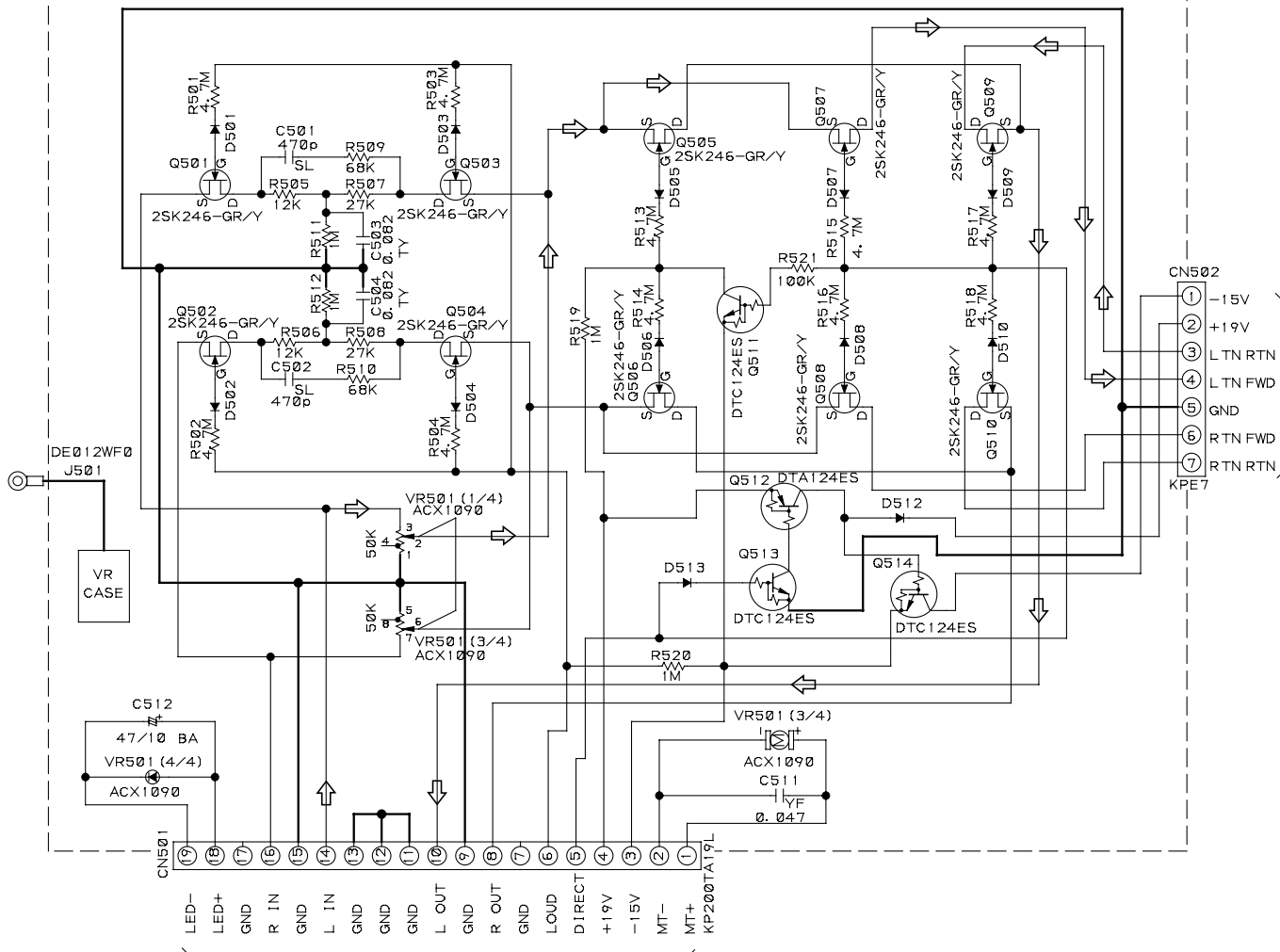
B FRONT L ASSY
(AWX7054)

FRONT L ASSY
S 701 : POWER STANDBY/ON
S 702 : LOUDNESS
S 703 : SPEAKERS A
S 704 : SPEAKERS B



D J4

C VOLUME ASSY (AWX7171)



A CN203

↷ : AUDIO SIGNAL ROUTE

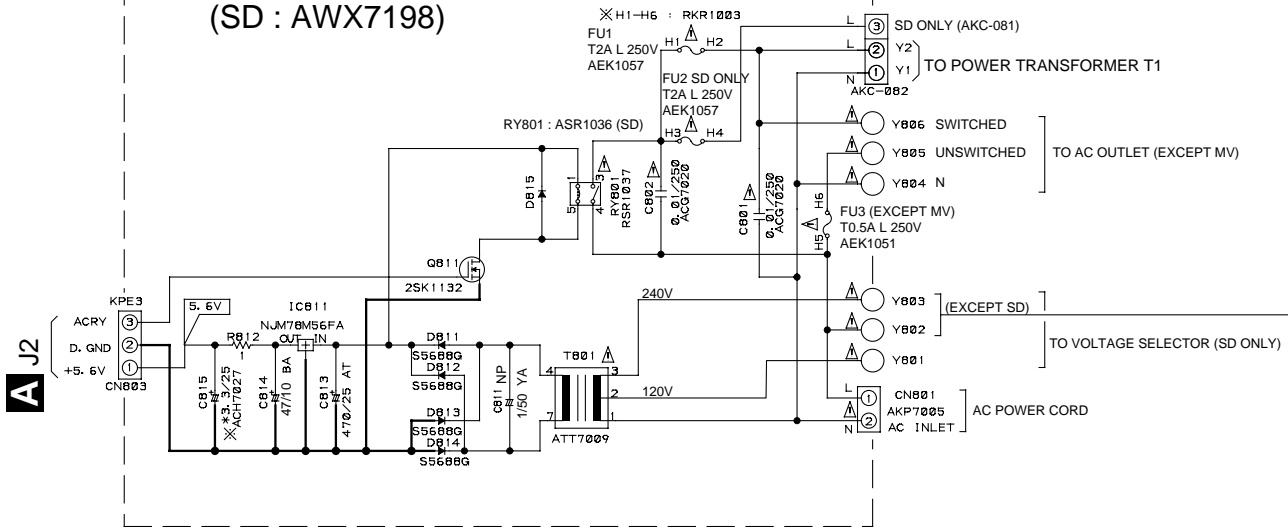
NOTES

- RESISTORS
INDICATED IN Ohm 1/4W±5% TOLERANCE UNLESS OTHERWISE NOTED K;Kohm
F, FL:NON-FRAMABLE TYPE
- CAPACITORS
INDICATED IN CAPACITY (uF)/VOLTAGE (V) UNLESS OTHERWISE NOTED p;pF
INDICATED WITHOUT VOLTAGE IS 50V EXCEPT ELECTROLYTIC CAPACITOR.
TF:CTLA TY:CFTYA
JA:CEJA BA:CEBA
- DIODES
NO MARK DIODES ARE HSS104-02



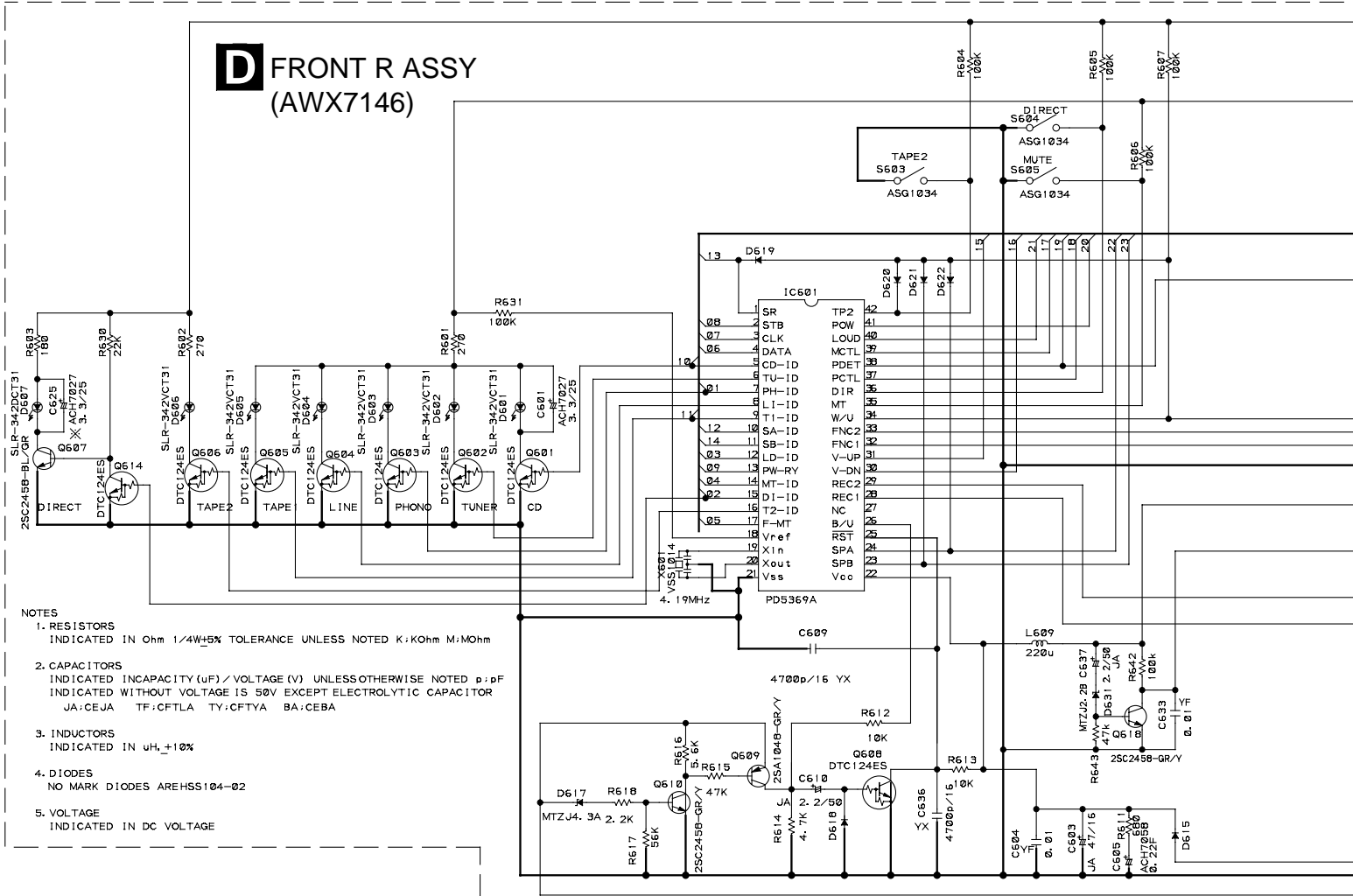
3.4 FRONT R, AC PRIMARY, HEADPHONE AND POWER SW ASSEMBLIES

E AC PRIMARY ASSY
(MY/EW, MY/GR : AWX7197)
(MV : AWX7056)
(SD : AWX7198)



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

D FRONT R ASSY
(AWX7146)

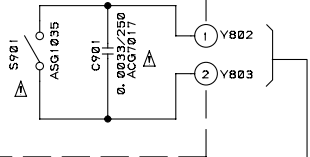


- NOTES
1. RESISTORS INDICATED IN Ohm 1/4W±5% TOLERANCE UNLESS NOTED K:KOhm M:MOhm
 2. CAPACITORS INDICATED IN CAPACITY (uF) / VOLTAGE (V) UNLESS OTHERWISE NOTED p:pF INDICATED WITHOUT VOLTAGE IS 50V EXCEPT ELECTROLYTIC CAPACITOR JA:CEJA TF:CFTLA TY:CFTYA BA:CEBA
 3. INDUCTORS INDICATED IN uH, ±10%
 4. DIODES NO MARK DIODES AREHSS104-02
 5. VOLTAGE INDICATED IN DC VOLTAGE

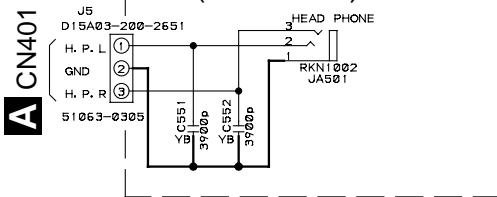


EXCEPT SD TYPE

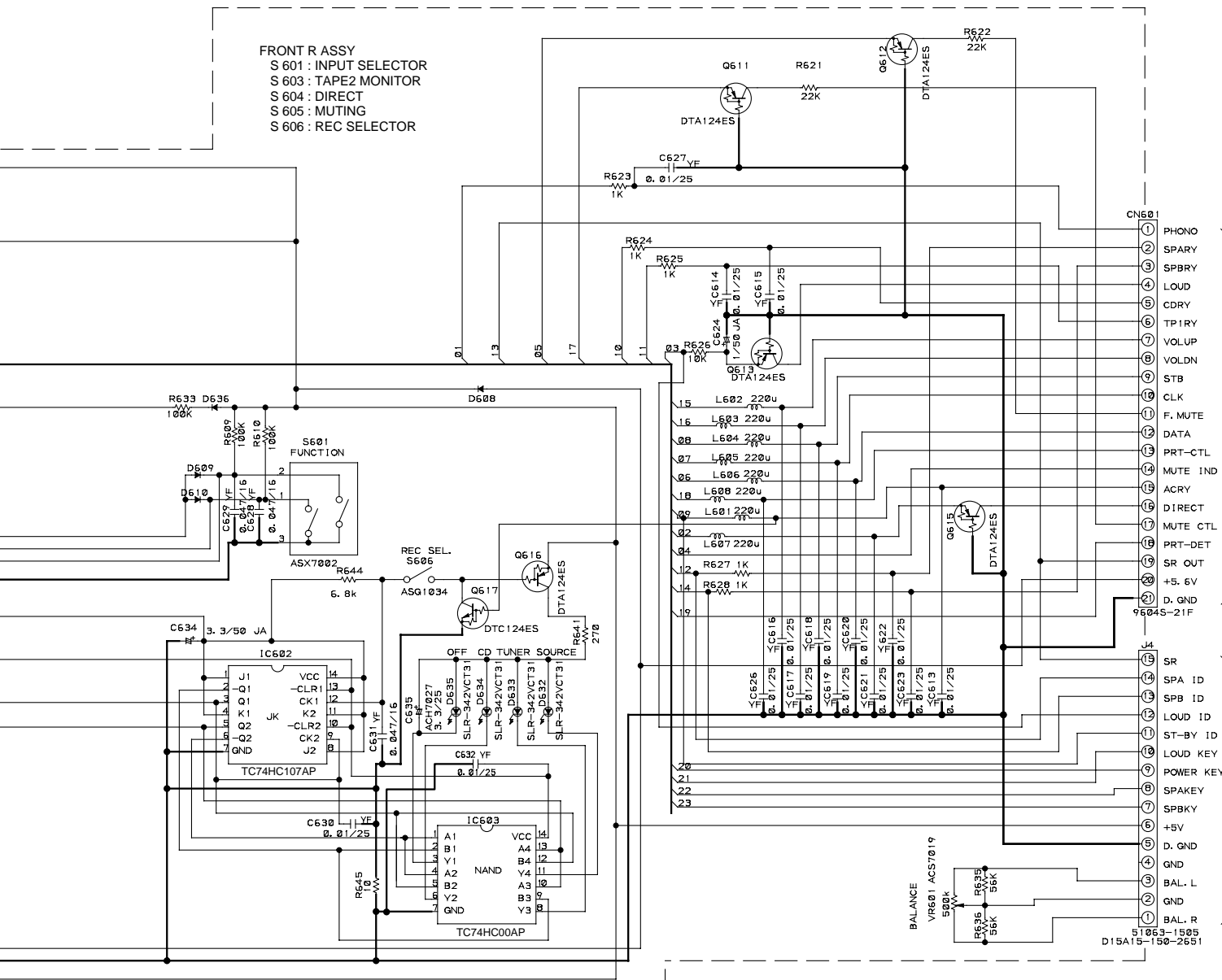
G POWER SW ASSY (AWX7057)



F HEADPHONE ASSY (AWX7052)



FRONT R ASSY
 S 601 : INPUT SELECTOR
 S 603 : TAPE2 MONITOR
 S 604 : DIRECT
 S 605 : MUTING
 S 606 : REC SELECTOR



- ① PHONO
- ② SPARY
- ③ SPBRY
- ④ LOUD
- ⑤ CDRY
- ⑥ TP 1RY
- ⑦ VOLUP
- ⑧ VOLDN
- ⑨ STB
- ⑩ CLK
- ⑪ F. MUTE
- ⑫ DATA
- ⑬ PRT-CTL
- ⑭ MUTE IND
- ⑮ ACRY
- ⑯ DIRECT
- ⑰ MUTE CTL
- ⑱ PRT-DET
- ⑲ SR OUT
- ⑳ +5. 6V
- ㉑ D. GND
- ㉒ 9604S-21F
- ⑳ SR
- ㉓ SPA ID
- ㉔ SPB ID
- ㉕ LOUD ID
- ㉖ ST-BY ID
- ㉗ LOUD KEY
- ㉘ SPAKEY
- ㉙ SPBKY
- ㉚ +5V
- ㉛ D. GND
- ㉜ GND
- ㉝ BAL. L
- ㉞ GND
- ㉟ BAL. R

A CN202

B CN701



4. PCB CONNECTION DIAGRAM

4.1 AF ASSY

A
AF ASSY

POWER TRANSFORMER T1

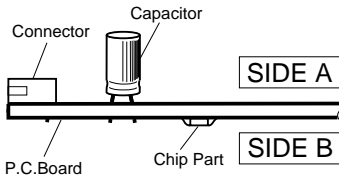
E
CN803

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
		MOS Field effect transistor
		Resistor array
		3-terminal regulator

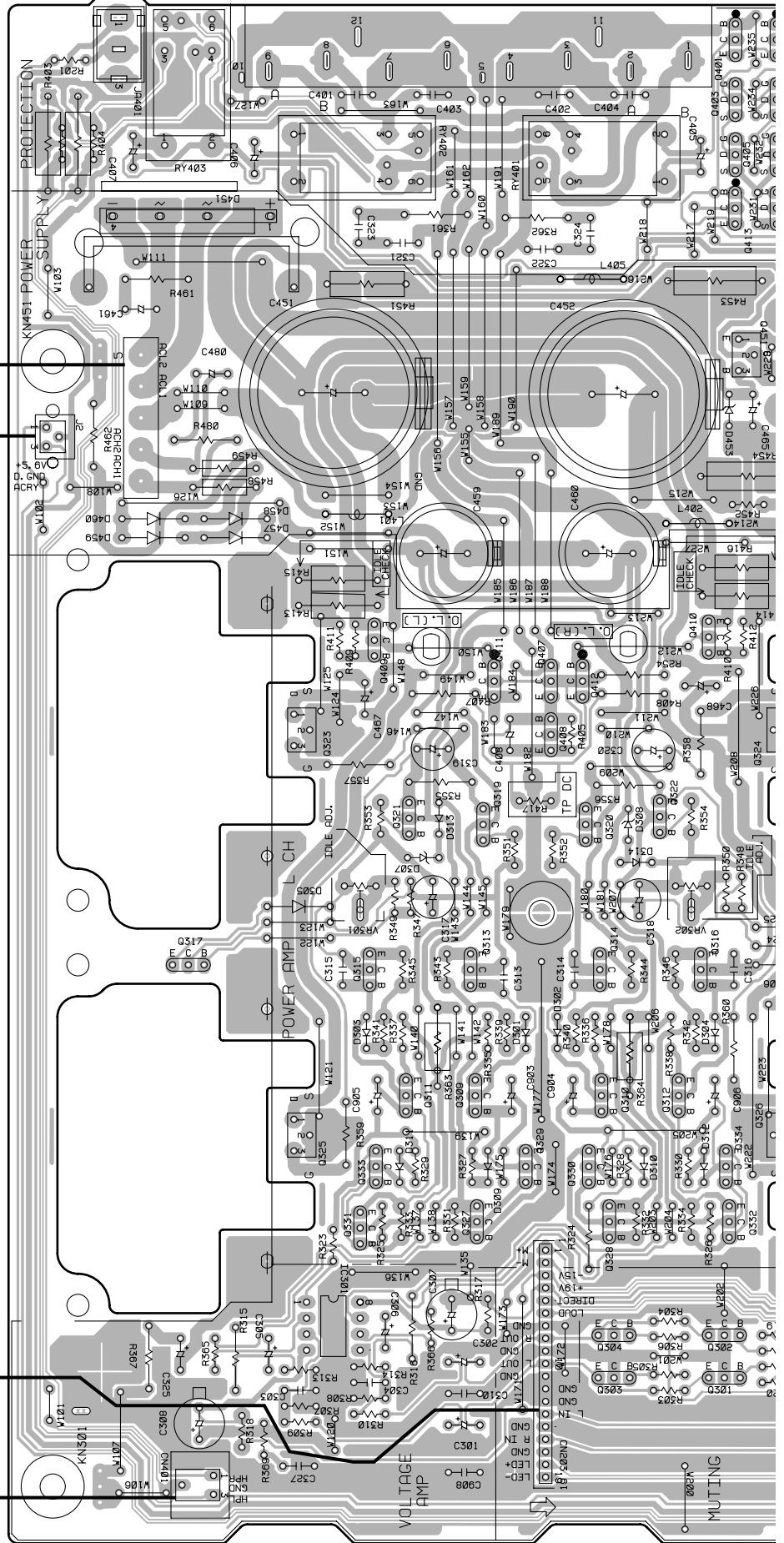
3. The parts mounted on this PCB include all necessary parts for several destination. For further information for respective destinations, be sure to check with the schematic diagram.
4. Viewpoint of PCB diagrams

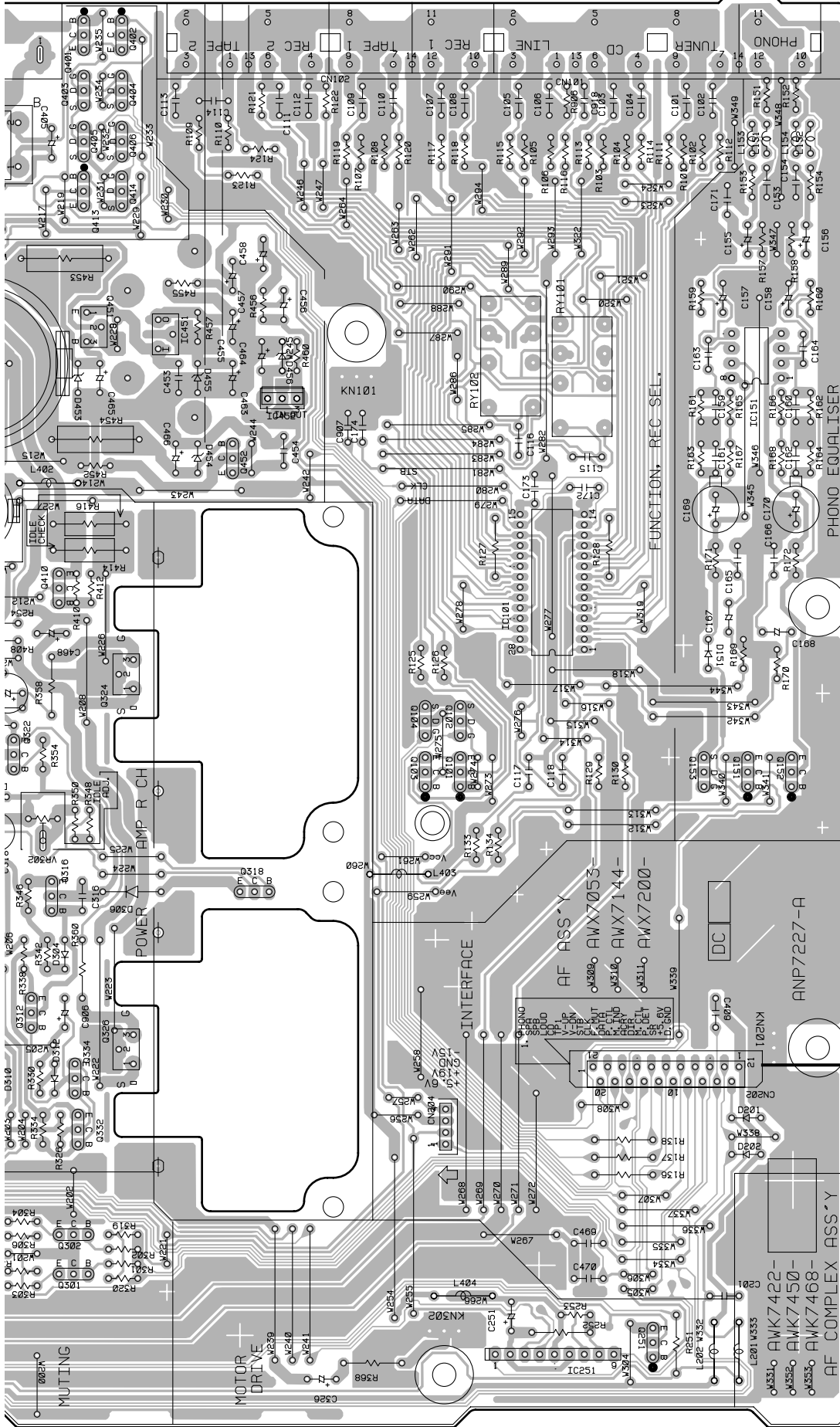


A
SIDE A

C
CN501

F
J5





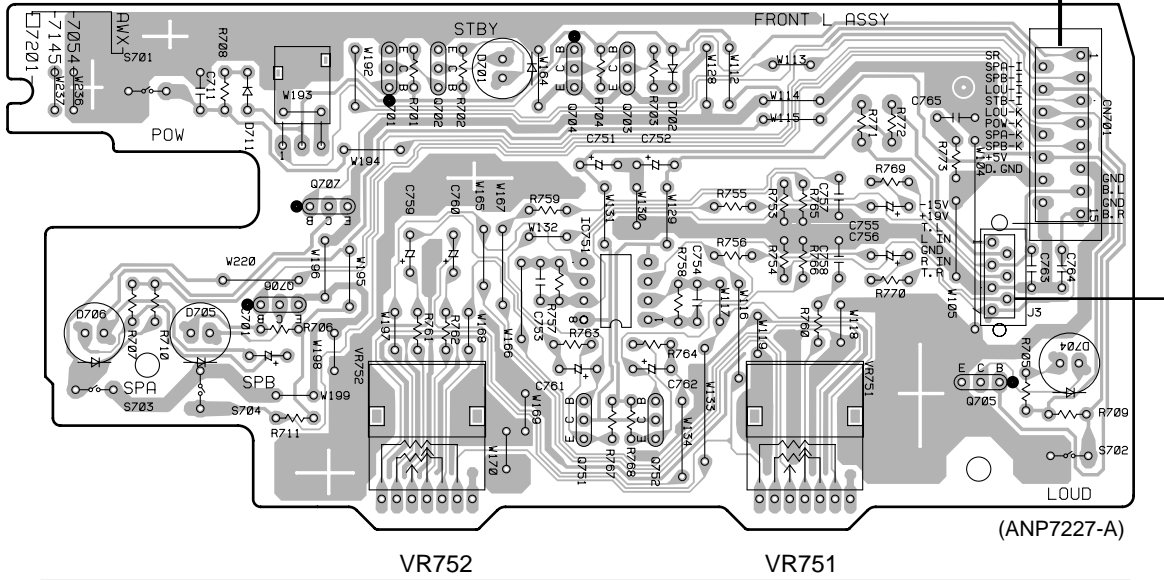
- Q401
- Q406
- Q413 Q414
- Q451 IC451 IC151 IC452
- Q452
- IC101
- Q409 Q410 Q411 Q407 Q412 Q323 Q408 Q324
- Q319 Q101 Q151 Q322 Q104 Q153
- VR301 VR302
- Q313 Q318
- D** CN601
- Q309 Q312 Q325
- Q334
- IC301 Q301 Q304
- IC251 Q251

(ANP7227-A)



4.2 FRONT L AND VOLUME ASSEMBLIES

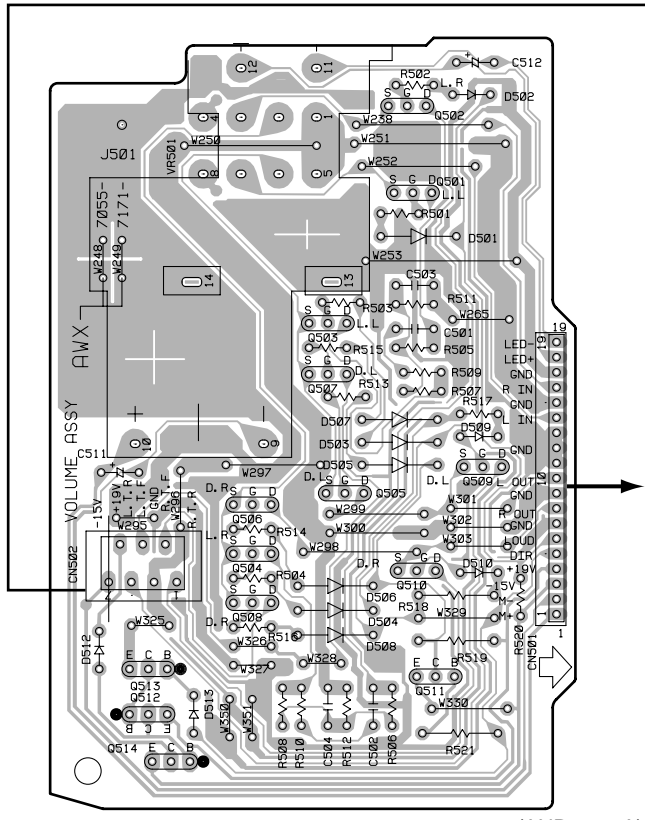
B FRONT L ASSY



Q701 Q702 Q704 Q703
 Q707 IC751
 Q706 Q751 Q752
 Q705

SIDE A

Q502
 Q501
 Q503
 Q507
 Q509
 Q506 Q505
 Q504
 Q510
 Q508
 Q513
 Q511
 Q512
 Q514

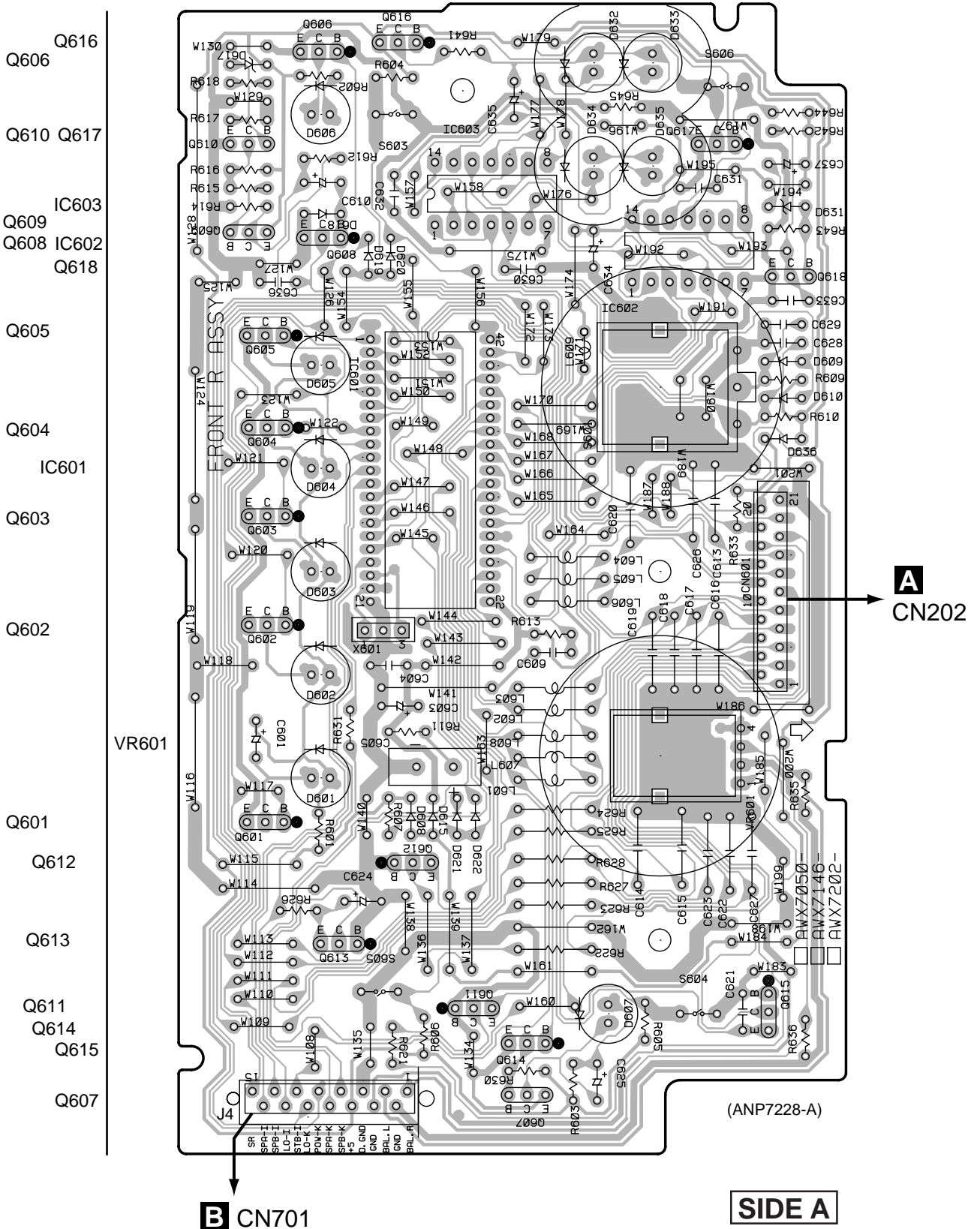


C VOLUME ASSY

(ANP7227-A)

4.3 FRONT R ASSY

D FRONT R ASSY



VR601

(ANP7228-A)

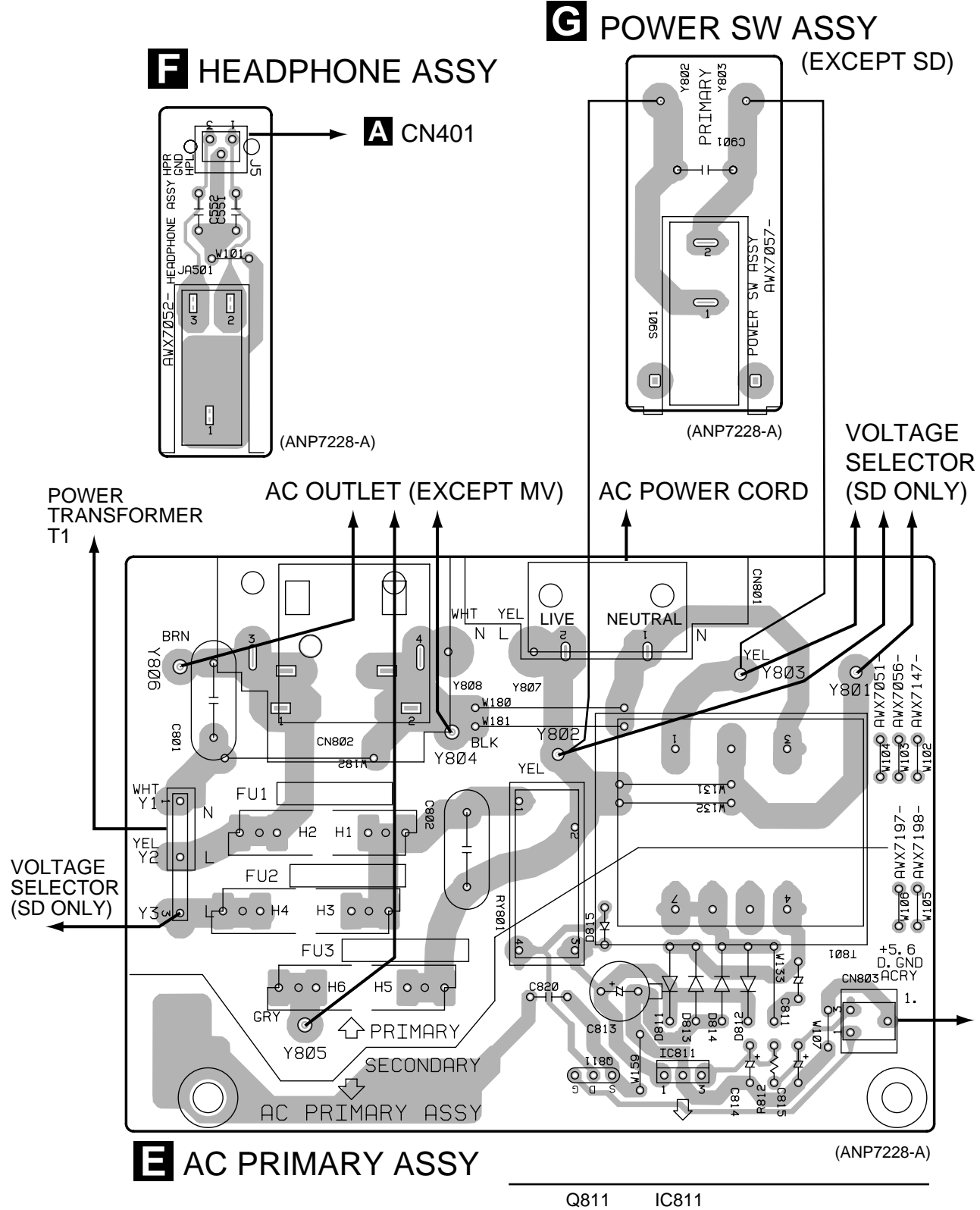
SIDE A

A CN202

B CN701

D

4.4 AC PRIMARY, HEADPHONE AND POWER SW ASSEMBLIES



SIDE A

5. PCB PARTS LIST

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

●The Δ mark found on some component parts indicates the importance of the safety factor of the part.

Therefore, when replacing, be sure to use parts of identical designation.

●When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω \rightarrow 56×10^1 \rightarrow 561 RD1/4PU $\boxed{5} \boxed{6} \boxed{1} J$

47k Ω \rightarrow 47×10^3 \rightarrow 473 RD1/4PU $\boxed{4} \boxed{7} \boxed{3} J$

0.5 Ω \rightarrow R50 RN2H $\boxed{R} \boxed{5} \boxed{0} K$

1 Ω \rightarrow 1R0 RS1P $\boxed{1} \boxed{R} \boxed{0} K$

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

5.62k Ω \rightarrow 562×10^1 \rightarrow 5621 RN1/4PC $\boxed{5} \boxed{6} \boxed{2} \boxed{1} F$

LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.				Remarks
		MV Type	MY/EW Type	MY/GR Type	SD Type	
NSP	AF COMPLEX ASSY	AWK7468	AWK7468	AWK7468	AWK7468	
	└ AF ASSY	AWX7200	AWX7200	AWX7200	AWX7200	
	└ FRONT L ASSY	AWX7054	AWX7054	AWX7054	AWX7054	
	└ VOLUME ASSY	AWX7171	AWX7171	AWX7171	AWX7171	
NSP	CONTROL ASSY	AWG7017	AWG7015	AWG7015	AWG7016	
	└ FRONT R ASSY	AWX7146	AWX7146	AWX7146	AWX7146	
	└ AC PRIMARY ASSY	AWX7056	AWX7197	AWX7197	AWX7198	
NSP	└ HEADPHONE ASSY	AWX7052	AWX7052	AWX7052	AWX7052	
	└ POWER SW ASSY	AWX7057	AWX7057	AWX7057	Not used	

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
A	AF ASSY			Δ	D451	D5SBA20	
SEMICONDUCTORS					D151, D201, D202, D301–D306	HSS104-02	
	IC151	M5220P			D309–D314	HSS104-02	
	IC451	NJM78M15FA			D307, D308	HZS9A1L	
	IC452	NJM79L15A			D454	MTZJ33B	
	IC251	TA8409S			D453	MTZJ36B	
	IC101	TC9163AN			D455	MTZJ4.7A	
					D457–D460	S5688G	
	IC301	UPC4570C		COILS AND FILTERS			
	Q327, Q328, Q409, Q410	2SA1048		L201, L202, L401, L403		ATX1012	
	Q321, Q322	2SA970		L405, L406		ATX1012	
	Q311–Q314, Q329, Q330	2SA992		L151–L154		LAU221J	
	Q452	2SB1238X		SWITCHES AND RELAYS			
	Q309, Q310, Q315, Q316	2SC1845		RY403		ASR1035	
	Q333, Q334	2SC1845		RY401, RY402		ASR7014	
	Q319, Q320	2SC2240		RY101, RY102		RSR1026	
	Q317, Q318, Q331, Q332	2SC2458		CAPACITORS			
	Q407, Q408	2SC2458		C461 (1 μ F/100V)		ACH1237	
	Q301–Q304	2SC2878		C301, C302, C457, C458		ACH7027	
	Q451	2SC4793		(3.3 μ F/25V)			
	Q102, Q104, Q153, Q403–Q406	2SK1132		C451 (15000 μ F/50V)		ACH7087	
	Q414	2SK1132		C452 (15000 μ F/50V)		ACH7088	
	Q401, Q402, Q413	DTA114ES		C101, C102, C105, C106		CCCCL101J50	
	Q101, Q103, Q151	DTA124ES		C109, C110, C113, C114		CCCCL101J50	
	Q152, Q251	DTC124ES		C153, C154		CCCCL221J50	
	Q411, Q412	DTC143ES		C303, C304		CCCCL221K2H	
Δ	Q323, Q324	IRF540		C313–C316		CCCCL330K2H	
Δ	Q325, Q326	IRF9540		C163, C164		CCCCL390J50	

A-607R

Mark	No.	Description	Part No.
	C103, C104 C167, C168 C408 C155, C156, C465, C466 C169, C170		CCCSL470K2H CEANP1R0M50 CEANP470M10 CEAS100M50 CEAS101M25
	C467, C468 C251 C157, C158 C305, C306, C455, C456, C463 C405-C407		CEAS2R2M2A CEAS470M25 CEAS471M6R3 CEBA100M50 CEBA2R2M50
	C317, C318 C325, C326 C459, C460 C319, C320 C115, C116, C201, C321-C324		CEBA470M50 CEBAR47M50 CEZA102M50 CEZA470M50 CFTYA224J50
	C161, C162, C469, C470 C165, C166 C401-C404 C117, C118, C171, C310, C327 C409, C453, C454		CFTYA823J50 CKCYB222K50 CKCYB332K2H CKCYF473Z50 CKCYF473Z50
	C172-C174 C159, C160 C307, C308		CKPUYB102K50 CQMA243J50 PCH1128

RESISTORS

△	R458, R459	RD1/4LMF2R2J
△	R133, R134, R171, R172	RD1/4MUF101J
△	R317, R318, R351-R354, R417	RD1/4MUF101J
△	R452	RD1/4MUF101J
△	R339-R346	RD1/4MUF221J
△	R331-R334	RD1/4MUF391J
△	R125, R126	RD1/4MUF821J
△	R367, R368	RD1/4PMF100J
△	R355, R356	RD1/4PMF222J
△	R461	RD1/4PMF470J
△	R361, R362	RD1/4PMF4R7J
△	R462	RD1/4PU100J
△	R363, R364	RDR1/2PM152J
△	R315, R316	RDR1/4PM561J
△	R357-R360	RFA1/4PS101J
△	R349, R350	RN1/4PC2001F
△	R451	RS1LMF330J
△	R413-R416	RS1LMFR22J
△	R453	RS2LMF122J
△	R454	RS2LMF182J
△	R403, R404	RS2LMF331J
	VR301, VR302 (2.2kΩ) Other Resistors	VCP1123 RD1/4PU□□□J

OTHERS

CN202	CABLE HOLDER (3P) 21P FFC CONNECTOR SCREW SCREW SCREW	51063-0305 9604S-21C ABA-298 ABA1007 ABA1052
CN101, CN102	PIN JACK(8P) SPEAKER TERMINAL 8-P HEAT SINK B HEAT SINK	AKB7081 AKE1011 ANH1021 ANH1150
J2	JUMPER WIRE	D15A03-075-2651

Mark	No.	Description	Part No.
	CN204 CN203 CN401 JA401	4P PLUG 19P PLUG CONNECTOR (3P) REMOTE CONTROL JACK PCB BINDER	KM200IB4 KM200TA19 KPE3 RKN1004 VEF1040
	KN101, KN201, KN301, KN302 KN451	EARTH METAL FITTING	VNF1084 VNF1084

B FRONT L ASSY

SEMICONDUCTORS

IC751 Q751, Q752 Q702, Q703 Q701, Q704-Q707 D702, D711	UPC4570C 2SC1845 2SC2458 DTC124ES HSS104-02
D701, D704-D706	SLR-342VCT31

SWITCHES AND RELAYS

S701-S704	ASG1034
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CAPACITORS

C701 (3.3μF/25V) C753, C754 C751, C752, C755, C756 C759, C760 C761, C762	ACH7027 CCCSL151J50 CEAS100M50 CEASR47M50 CEJAR10M50
C757, C758 C765 C763, C764 C711	CFTLA153J50 CKCYF473Z50 CKPUYB102K50 CKPUYF473Z16

RESISTORS

R771, R772 VR751, VR752 (30kΩ) Other Resistors	RD1/4MUF101J ACS7016 RD1/4PU□□□J
--	--

OTHERS

J3 CN701	CABLE HOLDER (7P) JUMPER WIRE CONNECTOR (15P) REMOTE RECEIVER UNIT	51063-0705 D15A07-200-2651 KPE15 GP1U28X
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C VOLUME ASSY

SEMICONDUCTORS

Q501-Q510 Q512 Q511, Q513, Q514 D501-D510, D512, D513	2SK246 DTA124ES DTC124ES HSS104-02
--	---

CAPACITORS

C501, C502 C512 C503, C504 C511	CCCSL471J50 CEBA470M10 CFTYA823J50 CKCYF473Z50
--	---

RESISTORS

VR501 (50kΩ) Other Resistors	ACX1090 RD1/4PU□□□J
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OTHERS

CN501 CN502	19P SOCKET CONNECTOR (7P)	KP200TA19L KPE7
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Mark No. Description Part No.

D FRONT R ASSY

SEMICONDUCTORS

IC601	PD5369A
IC603	TC74HC00AP
IC602	TC74HC107AP
Q609	2SA1048
Q607, Q610, Q618	2SC2458
Q611-Q613, Q615, Q616	DTA124ES
Q601-Q606, Q608, Q614, Q617	DTC124ES
D608-D610, D615, D618-D622	HSS104-02
D636	HSS104-02
D631	MTZJ2.2B
D617	MTZJ4.3A
D607	SLR-342DCT31
D601-D606, D632-D635	SLR-342VCT31

COILS AND FILTERS

L601-L609	LAU221J
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SWITCHES AND RELAYS

S603-S606	ASG1034
S601	ASX7002

CAPACITORS

C601, C625, C635 (3.3μF/25V)	ACH7027
C605 (0.22F)	ACH7058
C624	CEJA1R0M50
C610, C637	CEJA2R2M50
C634	CEJA3R3M50
C603	CEJA470M16
C604	CKCYF103Z50
C613-C623, C626, C627, C630	CKPUYF103Z25
C632, C633	CKPUYF103Z25
C628, C629, C631	CKPUYF473Z16
C609, C636	CKPUYX472M16

RESISTORS

VR601 (500KΩ)	ACS7019
Other Resistors	RD1/4PU□□□□J

OTHERS

	CABLE HOLDER (15P)	51063-1505
CN601	21P FFC CONNECTOR	9604S-21F
J4	JUMPER WIRE	D15A15-125-2651
X601	CERAMIC RESONATOR (4.19MHZ)	VSS1014

E AC PRIMARY ASSY

(1) CONTRAST TABLE

AWX7056, AWX7197 and AWX7198 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		AWX7056	AWX7197	AWX7198	
	H3, H4 FUSE HOLDER	Not used	Not used	RKR1003	
	H5, H6 FUSE HOLDER	Not used	RKR1003	RKR1003	
△	RY801	RSR1037	RSR1037	ASR1036	

Mark No. Description Part No.

(2) PARTS LIST FOR AWX7056

SEMICONDUCTORS

IC811	NJM78M56FA
Q811	2SK1132
D815	HSS104-02
D811-D814	S5688G

TRANSFORMERS

△ T801	ATT7009
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SWITCHES AND RELAYS

△ RY801	RSR1037
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CAPACITORS

△ C801, C802 (0.01μF/AC250V)	ACG7020
C815 (3.3μF/25V)	ACH7027
C813	CEAT471M25
C814	CEBA470M10
C811	CEYANP1R0M50

RESISTORS

Other Resistors	RD1/4PU□□□□J
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OTHERS

△ Y802, Y803 BOARDIN READ WIRE	ADX7207
△ CN801 AC INLET	AKP7005
CN803 CONNECTOR (3P)	KPE3
H1, H2 FUSE HOLDER	RKR1003

F HEADPHONE ASSY

CAPACITORS

C551, C552	CKCYB392K50
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OTHERS

	CABLE HOLDER (3P)	51063-0305
J5	JUMPER WIRE	D15A03-150-2651
JA501	HEADPHONE JACK	RKN1002

G POWER SW ASSY

SWITCHES AND RELAYS

△ S901	ASG1035
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CAPACITORS

△ C901 (0.0033μF/AC250V)	ACG7017
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6. ADJUSTMENTS

6.1 IDLE CURRENT ADJUSTMENT

- CAUTION : Heatsinks' (Q323–Q326) DC level is equal to +B or -B.
Don't touch them or you will be electrically shocked.

1. Connect the measuring instrument as Fig.6-1. (R415 or R416)
2. Set the VOLUME CONTROL to minimum, BASS TONE CONTROL to center, TREBLE TONE CONTROL to center and BALANCE CONTROL to center. Set VR301 and VR302 to minimum.
3. Set the POWER switch to ON.
4. Adjust VR301 (VR302) so that the voltage between both sides of R415 (R416) becomes $16\text{mV} \pm 1\text{mV}$. (Within 10 seconds from when the relay is turned ON)
5. Ages for 7 minutes.
6. Adjust VR301 (VR302) so that the voltage between both sides of R415 (R416) becomes $11\text{mV} \pm 1\text{mV}$.

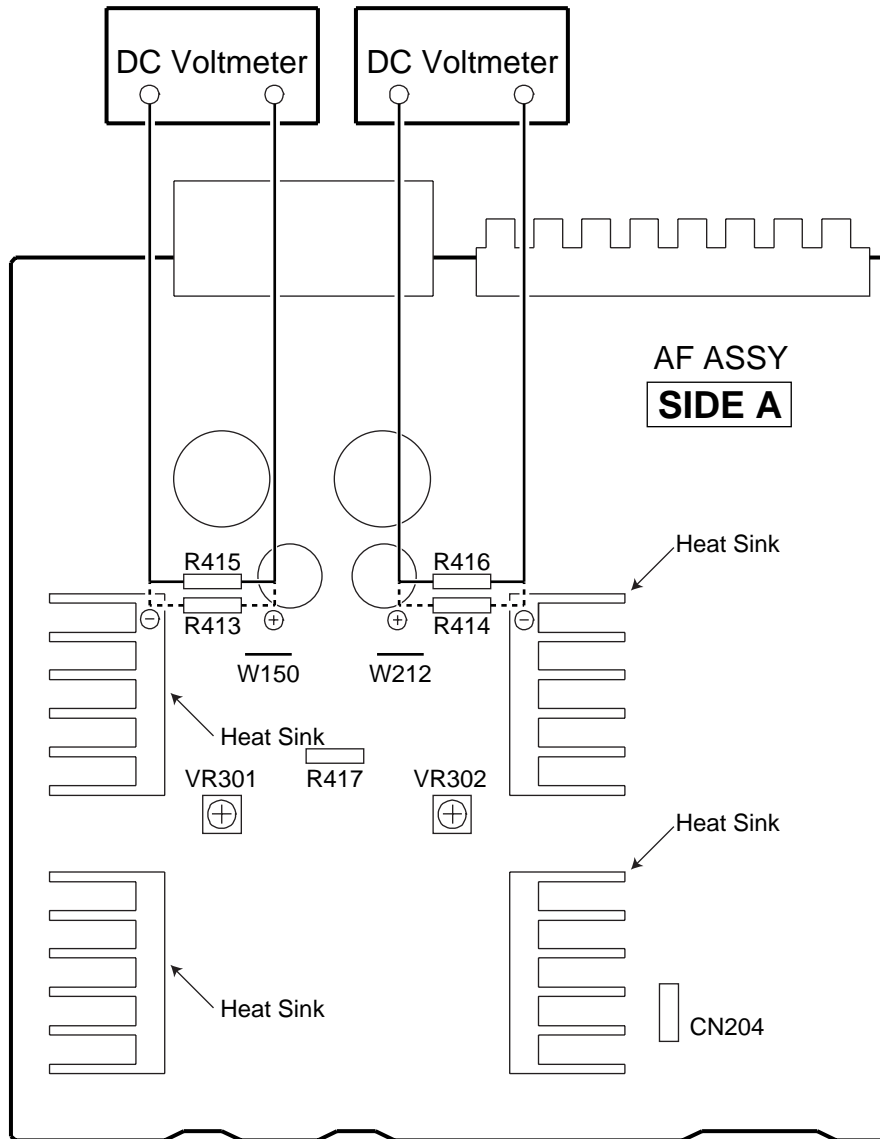


Fig.6-1 Adjustment Method

7. GENERAL INFORMATION

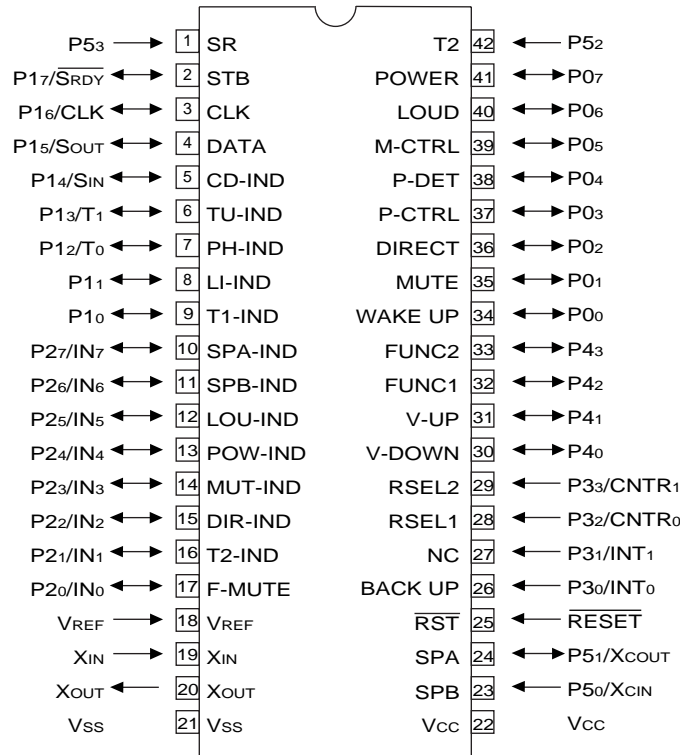
7.1 IC INFORMATION

■ PD5369A (FRONT R ASSY : IC601)

• REMOTE CONTROL AMP MICROCOMPUTER

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

• Pin Assignment (Top view)

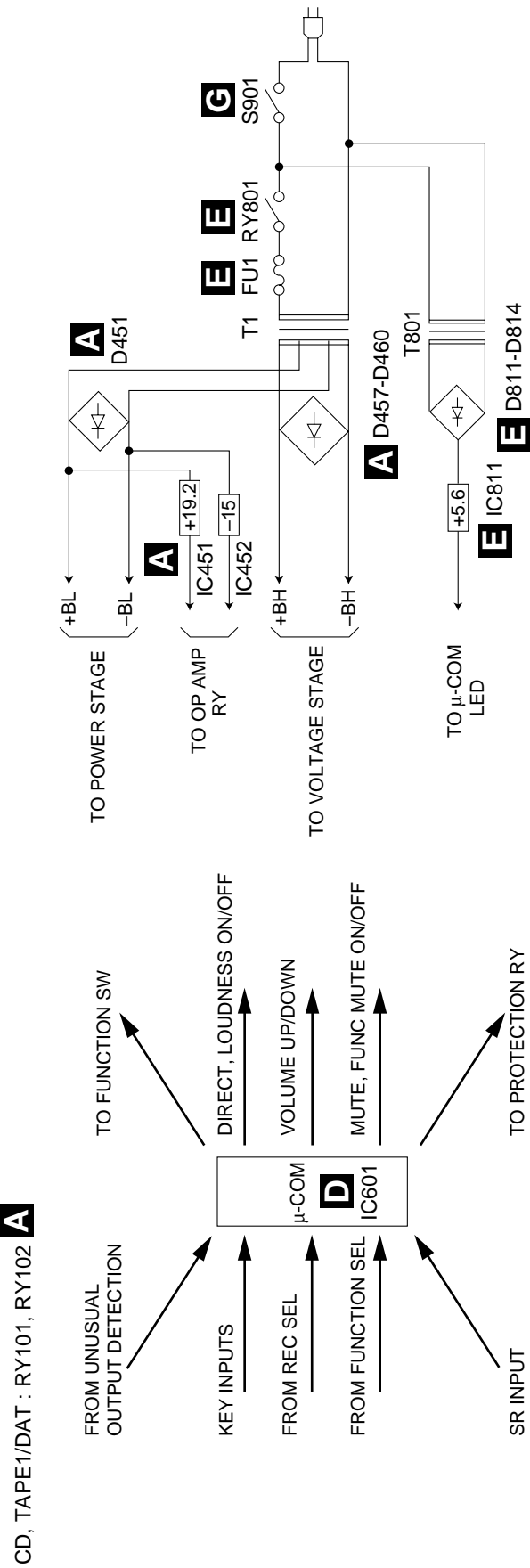
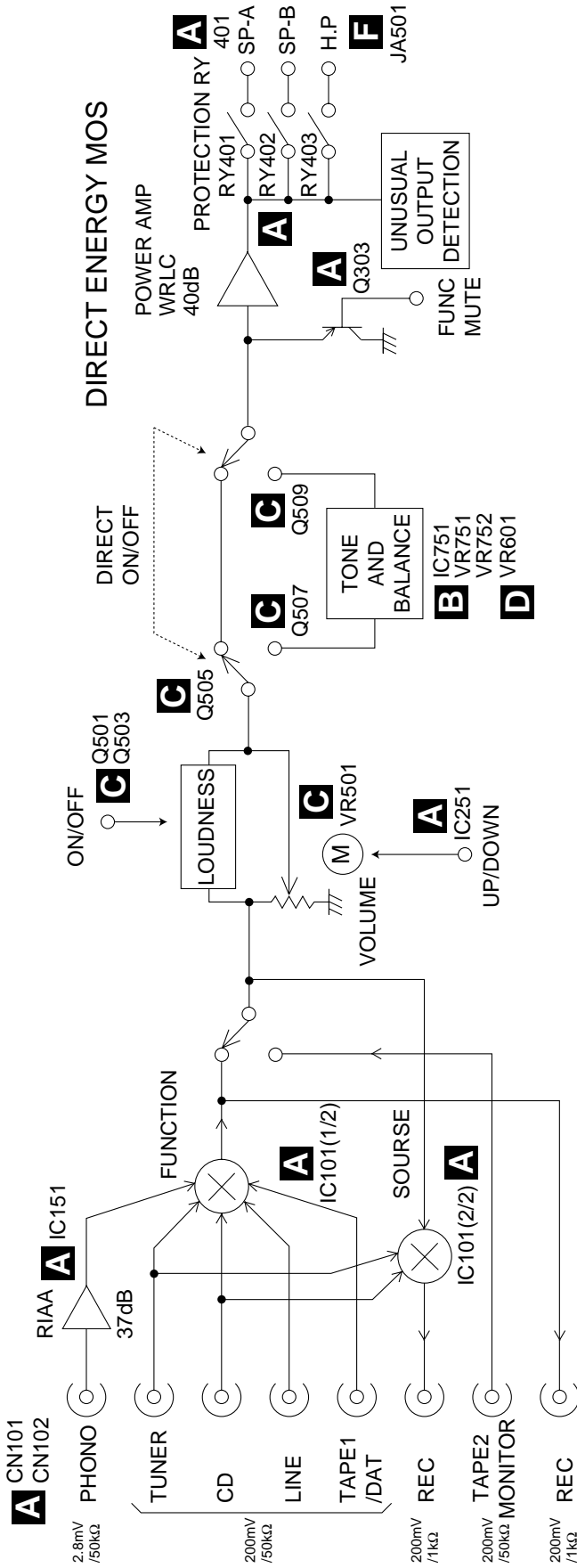


• Pin Function

No.	Pin name	I/O	Function
1	P5 ₃	I	Remote control signal input pin.
2	P1 ₇ /S _{RDY}	O	STB for TC9163N.
3	P1 ₆ /CLK	O	CLOCK for TC9163N.
4	P1 ₅ /S _{OUT}	O	DATA for TC9163N.
5	P1 ₄ /S _{IN}	O	CD INDICATOR.
6	P1 ₃ /T ₁	O	TUNER INDICATOR.
7	P1 ₂ /T ₀	O	PHONO INDICATOR.
8	P1 ₁	O	LINE INDICATOR.
9	P1 ₀	O	TAPE1 INDICATOR.
10	P2 ₇ /IN ₇	O	SPEAKER-A INDICATOR.
11	P2 ₆ /IN ₆	O	SPEAKER-B INDICATOR.
12	P2 ₅ /IN ₅	O	LOUDNESS INDICATOR.
13	P2 ₄ /IN ₄	O	POWER (STAND-BY) INDICATOR.
14	P2 ₃ /IN ₃	O	MUTE INDICATOR. MUTE ON : Repeats H and L every 1 second. Normal : "H"
15	P2 ₂ /IN ₂	O	DIRECT INDICATOR.
16	P2 ₁ /IN ₁	O	TAPE2 INDICATOR.
17	P2 ₀ /IN ₀	O	FUNCTION switch MUTE.
18	V _{REF}	I	Pulls up to 5V.
19	X _{IN}	I	4.19MHz .
20	X _{OUT}	O	Ceramic vibrating and connecting terminal.
21	V _{SS}	-	Digatal GND.
22	V _{CC}	-	Power supply +5V.
23	P5 ₀ /X _{CIN}	I	SPEAKER-B KEY input.

No.	Pin name	I/O	Function
24	P5 ₁ /X _{COU} T	I	SPEAKER-A KEY input.
25	RESET	I	Reset pin.
26	P3 ₀ /INT ₀	I	BACK UP detection pin. interrupt specification.
27	P3 ₁ /INT ₁	O	Not used.
28	P3 ₂ /CNTR ₀	I	REC selector input 1.
29	P3 ₃ /CNTR ₁	I	REC selector input 2. interrupt specification.
30	P4 ₀	O	Volume DOWN data output.
31	P4 ₁	O	Volume UP data output.
32	P4 ₂	I	FUNCTION selector input 1.
33	P4 ₃	I	FUNCTION selector input 2.
34	P0 ₀	I	WAKE UP input. Key on wake up specification.
35	P0 ₁	I	MUTE KEY input. Key on wake up specification.
36	P0 ₂	I	DIRECT KEY input. Key on wake up specification.
37	P0 ₃	O	Protection control pin.
38	P0 ₄	I	Output error detection pin
39	P0 ₅	O	MUTING control pin.
40	P0 ₆	I	LOUDNESS KEY input. Key on wake up specification.
41	P0 ₇	I	POWER KEY input. Key on wake up specification.
42	P5 ₂	I	TAPE2 KEY input.

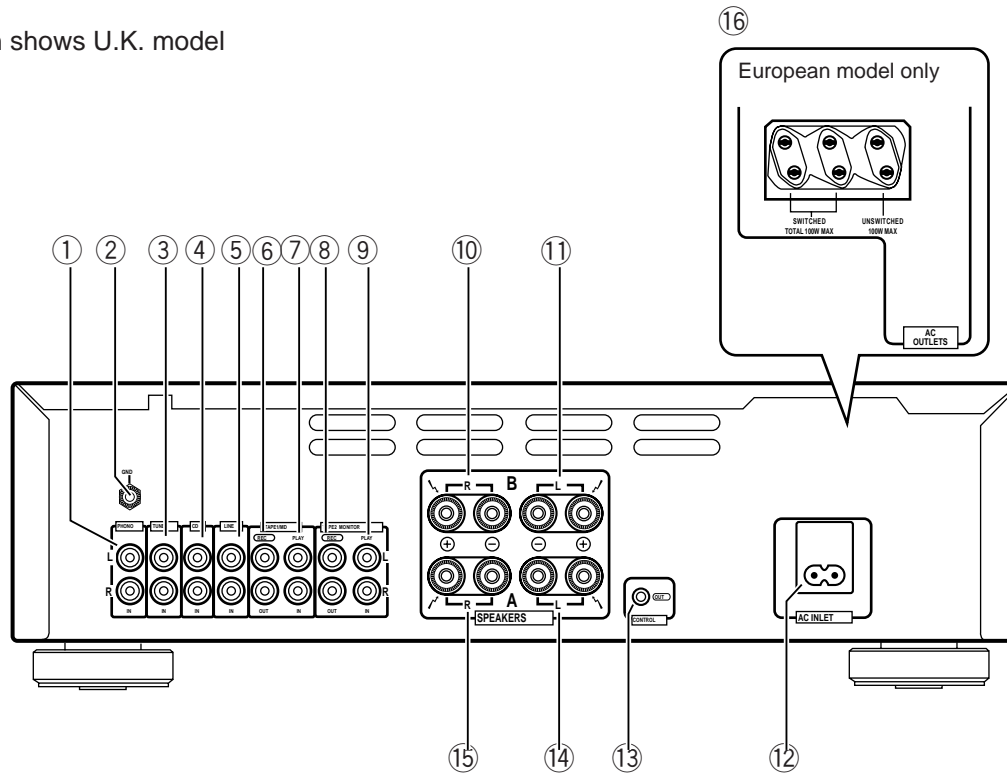
7.2 BLOCK DIAGRAM




8. PANEL FACILITIES AND SPECIFICATIONS

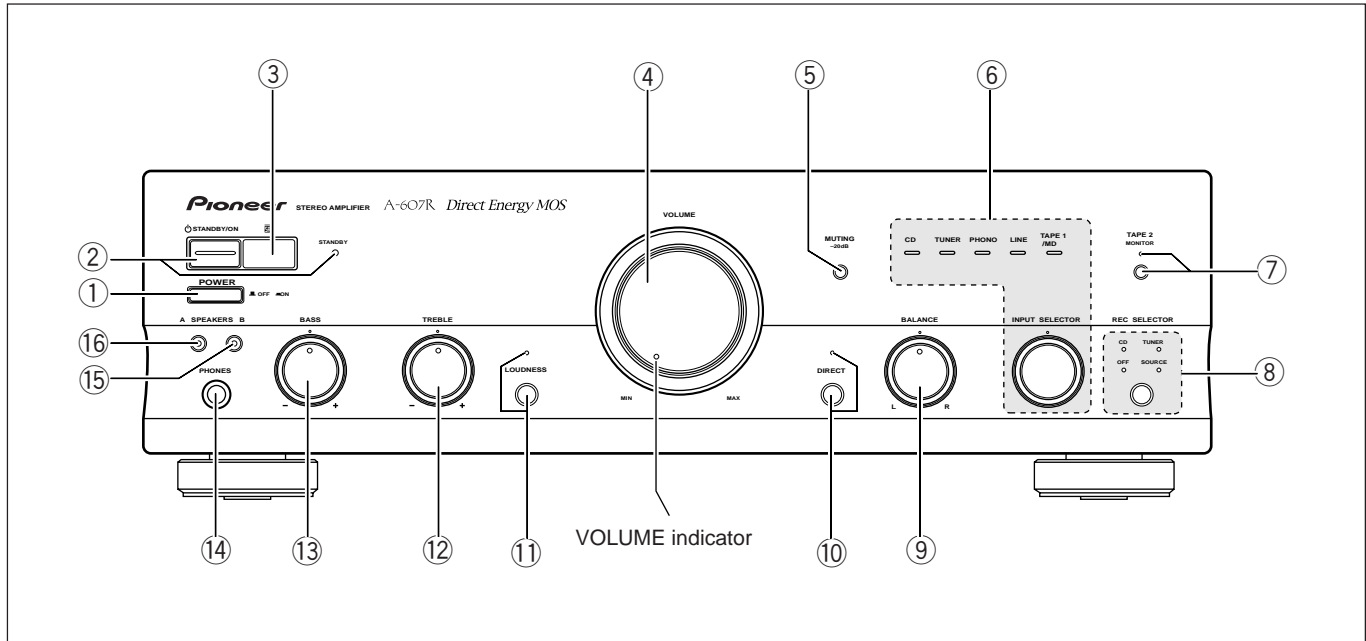
8.1 REAR PANEL

Illustration shows U.K. model



- ① PHONO terminals
- ② SIGNAL GND (Turntable ground) terminal
- ③ TUNER terminals
- ④ CD terminals
- ⑤ LINE terminals
- ⑥ TAPE 1/MD REC (OUT) terminals
- ⑦ TAPE 1/MD PLAY (IN) terminals
- ⑧ TAPE 2 MONITOR REC (OUT) terminals
- ⑨ TAPE 2 MONITOR PLAY (IN) terminals
- ⑩ SPEAKERS B terminals (Right channel)
- ⑪ SPEAKERS B terminals (Left channel)
- ⑫ AC INLET jack
Connect one end of the power cord to here and the other end to an AC wall socket, or the AC outlet of an audio timer. If you are going to be away from home for a long period of time, disconnect the unit from the wall socket.
- ⑬ CONTROL OUT jack
This jack is for outputting control signals when operating other components bearing the  mark with the amplifier's remote control unit.
- ⑭ SPEAKERS A terminals (Left channel)
- ⑮ SPEAKERS A terminals (Right channel)
- ⑯ AC OUTLETS (European model only)

8.2 FRONT PANEL

① **POWER (■ OFF/ ■ ON) switch**

Press to turn power to the unit ON and OFF.

② **STANDBY/ON switch/indicator**

This is the switch for electric power.

This switch does not function unless the POWER ■ OFF/ ■ ON switch is set to ON.

ON : When set to the ON position, power is supplied and the unit becomes operational.

STANDBY : When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness. When the STANDBY indicator lights, the unit is in STANDBY.

NOTE:

When performing timer recording with this unit, be sure to set the POWER and STANDBY/ON switch to ON.

③ **Remote control sensor window**④ **VOLUME control**

Use to adjust the volume level.

NOTE:

The TONE effect functions regardless of volume levels.

⑤ **MUTING button/indicator**

Use to temporarily lower sound volume.

On : The VOLUME indicator flashes. The sound volume is lowered to one-tenth (-20dB).

Off : The VOLUME indicator lights. The sound will return to its previous volume.

⑥ **INPUT SELECTOR knob/indicators**

Turn the knob clockwise or counterclockwise so that the indicator lights for your desired input source. Turning the knob clockwise causes the lit indicator to right. Turning counterclockwise causes it to left.

- CD** : For compact disc playback with a CD player.
- TUNER** : For AM or FM broadcast reception with a tuner.
- PHONO** : For record playback with a turntable.
- LINE** : Set to this position when listening to a program from a component connected to the LINE terminals.
- TAPE 1/MD** : For playback with a cassette deck or MD recorder connected to the TAPE 1/MD terminals.

⑦ **TAPE 2 MONITOR button/indicator**

Use when there is an adaptor component (graphic equalizer, etc.) or cassette deck connected to the TAPE 2 MONITOR terminals.

Off : Indicator goes out when not in use.

On : Indicator lights when using the adaptor component or listening to the cassette deck.

NOTE:

When no connections are made to the TAPE 2 MONITOR terminals, or when they are not in use, be sure to set this switch to the off position. (No sound will be heard if it is set to the on position.)

⑧ REC SELECTOR switch /indicator(For TAPE 1/MD terminals)

This switch is used to select the recording source component. The signal from the selected component is output at the TAPE1/MD jacks for recording. To select a recording source component, press the REC SELECTOR switch so that the indicator of the desired source component lights up. When this switch is set to [TUNER] or [CD], the signal from the selected component can be recorded regardless of the input selector switch and TAPE2 MONITOR button settings.

- CD** : To record from the equipment connected to the CD terminals.
- TUNER** : To record from the equipment connected to the TUNER terminals.
- SOURCE** : To record from the equipment selected by the INPUT SELECTOR knob.
- OFF** : In this position, nothing from the REC terminals of TAPE 1/MD is output. Set to this position when not recording; the cassette deck will be disconnected, improving sound quality.

NOTE:

The function selected using the INPUT SELECTOR knob will be recorded irrespective of the position of the REC SELECTOR switch (TAPE 2 MONITOR terminals).

⑨ BALANCE control

Should normally be left in the center position. Adjust the balance if the sound is louder from one of the speakers. If the right side is louder, turn toward the L (left) position and if the left side is louder, turn toward the R (right) position.

NOTE:

This control does not operate when the DIRECT button is in the on position.

⑩ DIRECT button/indicator

Use this button when you do not wish to pass the output from input terminal equipment through the various frequency adjusting circuits (BASS, TREBLE, BALANCE, LOUDNESS).

- On** : The indicator lights. The signals input through the input terminals are reproduced without passing through the various frequency adjusting circuits. This results in flat, pure sound which is a more faithful reproduction of the input source.
- Off** : The indicator goes out. The signal passes through the various frequency adjusting circuits.

⑪ LOUDNESS button/indicator

Use when listening at low volume level.

- On** : The indicator lights. Boosts low and high frequencies to give added punch to playback even at low volume level.
- Off** : The indicator goes out. Should normally be left in this position.

NOTE:

This button does not operate when the DIRECT button is in the on position.

⑫ TREBLE tone control

Use to adjust the high-frequency tone. The center position is the flat (normal) position. When turned to the right, the high-frequency tone is emphasized; when turned to the left, the high-frequency tone is de-emphasized.

NOTE:

This control does not operate when the DIRECT button is in the on position.

⑬ BASS tone control

Use to adjust the low-frequency tone. The center position is the flat (normal) position. When turned to the right, the low-frequency tone is emphasized; when turned to the left, the low-frequency tone is de-emphasized.

NOTE:

This control does not operate when the DIRECT button is in the on position.

⑭ PHONES jack

When using headphones, insert the plug into this jack.

⑮ SPEAKERS B (ON/OFF) button/indicator

Use this button to listen to the speaker system connected to the SPEAKERS B terminals.

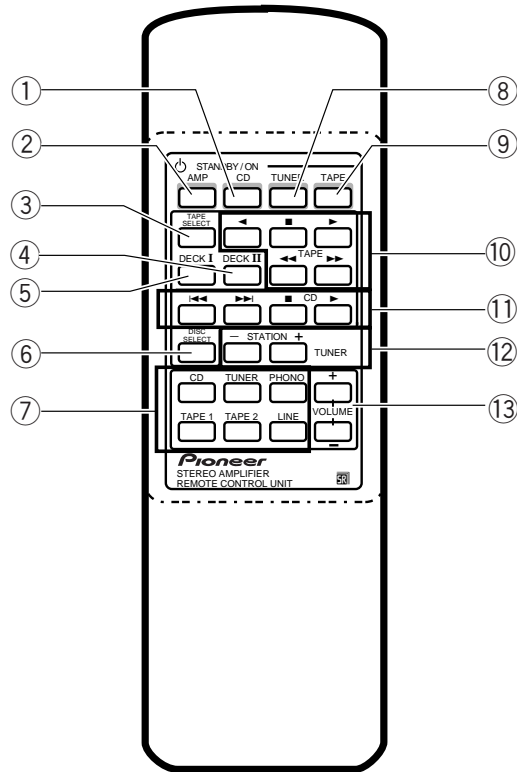
- On** : The indicator lights. Sound is heard from the speaker system.
- Off** : The indicator goes out. No sound is heard from the speaker system. Set to this position when listening with headphones.

⑯ SPEAKERS A (ON/OFF) button/indicator

Use this button to listen to the speaker system connected to the SPEAKERS A terminals.

- On** : The indicator lights. Sound is heard from the speaker system.
- Off** : The indicator goes out. No sound is heard from the speaker system. Set to this position when listening with headphones.

8.3 REMOTE CONTROL UNIT



- ① **CD STANDBY/ON button**
Switches CD player power STANDBY/ON.
- ② **AMP STANDBY/ON button**
Switches the amplifier power STANDBY/ON.
- ③ **TAPE SELECT button**
Selects the cassette No. (1 to 6) for a multi-cassette changer.
- ④ **DECK II button**
To operate Deck II, press this button before pressing the operating buttons. Also, when using a single deck, press this button before pressing the operating buttons.
- ⑤ **DECK I button**
To operate Deck I, press this button before pressing the operating buttons.
- ⑥ **DISC SELECT button**
Press this to select discs on a multi or twin tray compact disc player.
- ⑦ **Input selector buttons**
Use to select the playback source.
CD : For compact disc playback with a CD player.
TUNER : For AM or FM broadcast reception with a tuner.
PHONO : For record playback with a turntable.
TAPE 1 : For playback with a cassette deck or MD recorder connected to the TAPE 1/MD terminals.
TAPE 2 : For playback with a cassette deck or adaptor connected to the TAPE 2 MONITOR terminals.
LINE : For playback with a component connected to the LINE terminal.
- ⑧ **TUNER STANDBY/ON button**
Switches TUNER power STANDBY/ON.
- ⑨ **TAPE STANDBY/ON button**
Switches the cassette deck power STANDBY/ON.
- ⑩ **TAPE operation buttons**
 : Playback in the direction of the arrows.
 : Stop
 : Tape fast forward/reverse.
- ⑪ **CD player operation buttons**
 : Returns you to the start of the current track (Track search).
 : Takes you to the start of the next track (Track search).
 : Stop
 : Play
- ⑫ **STATION +, - buttons (TUNER)**
Calls each station number in sequence.
- ⑬ **VOLUME +, - buttons**
+ Increases the volume.
- Decreases the volume.

NOTE:
When the accessory remote control unit is used to operate other PIONEER components with the mark, it cannot be used to operate functions which do not correspond to the functions listed on the remote control unit.

8.4 SPECIFICATIONS

Amplifier Section

Continuous power output

(both channels driven at 20 Hz to 20 kHz)**

T.H.D. 0.06 %, 8 Ω 60 W + 60 W*

T.H.D. 0.09 %, 4 Ω 90 W + 90 W*

DIN Continuous power output (both channels driven at 1 kHz)

T.H.D. 1.0 %, 8 Ω 75 W + 75 W

T.H.D. 1.0 %, 4 Ω 120 W + 120 W

Total harmonic distortion**

20 Hz to 20 kHz, 30 W, 8 Ω 0.06 %*

● **Power output specification is for when power supply is 230V.**

Input sensitivity/ impedance

PHONO (MM) 2.8 mV/ 50 kΩ

CD, TUNER, LINE, TAPE 1/MD,

TAPE 2 MONITOR 200 mV/ 50 kΩ

PHONO (MM) overload level

1 kHz, T.H.D. 0.1 % 150 mV

Output level/ impedance

TAPE 1/MD, TAPE 2 MONITOR output

..... 200 mV/ 1 kΩ

Frequency response

PHONO (MM) 20 Hz to 20 kHz ± 0.5 dB

CD, TUNER, LINE, TAPE 1/MD,

TAPE 2 MONITOR 5 Hz to 150 kHz ⁺⁰₋₃dB*

Tone control

BASS -8 dB (100 Hz)

TREBLE -8 dB (10 kHz)

Loudness contour (volume control set at -30 dB position)

..... + 5 dB (100 Hz)/ + 3 dB (10 kHz)

Signal-to-Noise ratio (IHF short circuit, A network)

PHONO (MM, 5 mV input) 88 dB*

CD, TUNER, LINE, TAPE 1/MD,

TAPE 2 MONITOR 108 dB*

Signal-to-Noise ratio (DIN, continuous power/ 50 mW)

PHONO (MM) 71 dB/ 67 dB*

CD, TUNER, LINE, TAPE 1/MD,

TAPE 2 MONITOR 95 dB/ 71 dB*

MUTING (volume control set at -30 dB position) -20 dB

Power Supply/ Miscellaneous

Power requirements AC 220 - 230 Volts, 50/ 60 Hz

Power consumption 220 W

AC outlets (European model only)

Switched (x2) total 100 W

Unswitched (x1) 50 W

Power Consumption in standby mode 1 W

Dimensions (including knobs and other protruding parts)

..... 420 (W) x 335 (D) x 128 (H) mm

Weight (without package) 7.0 kg

Accessories

Remote control unit 1

Batteries (AA/R6P) 2

Operating instructions 1

Power cord(Rated current 2.5 A) 1

NOTE:

Specifications and design subject to possible modification without notice, due to improvements.

* Measured with the DIRECT button set to on.

** Measured by Audio Spectrum Analyzer.

● ACCESSORIES

