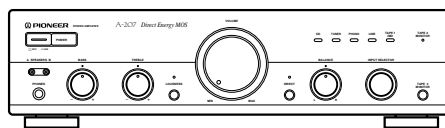


Service Manual

PIONEER
The Art of Entertainment



ORDER NO.
RRV1935

STEREO AMPLIFIER A-207

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-207		
MLXJ	○	AC220 – 230V	_____
SDXJ	○	AC110V/120 – 127V/220V/240V	With the voltage selector

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6. ADJUSTMENT	25		

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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

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.



NOTICE

(FOR CANADIAN MODEL ONLY)

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

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

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

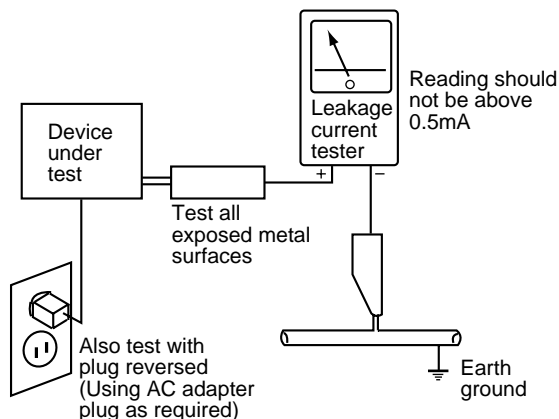
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

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

LEAKAGE CURRENT CHECK

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



AC Leakage Test

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

2. PRODUCT SAFETY NOTICE

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

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

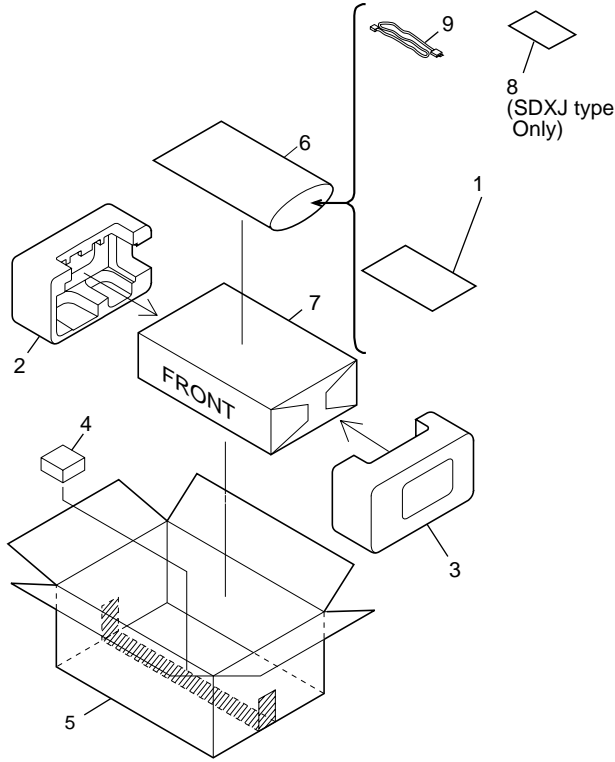
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

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 \triangle mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Screws adjacent to \blacktriangledown mark on the product are used for disassembly.

2.1 PACKING



(1) PACKING PARTS LIST

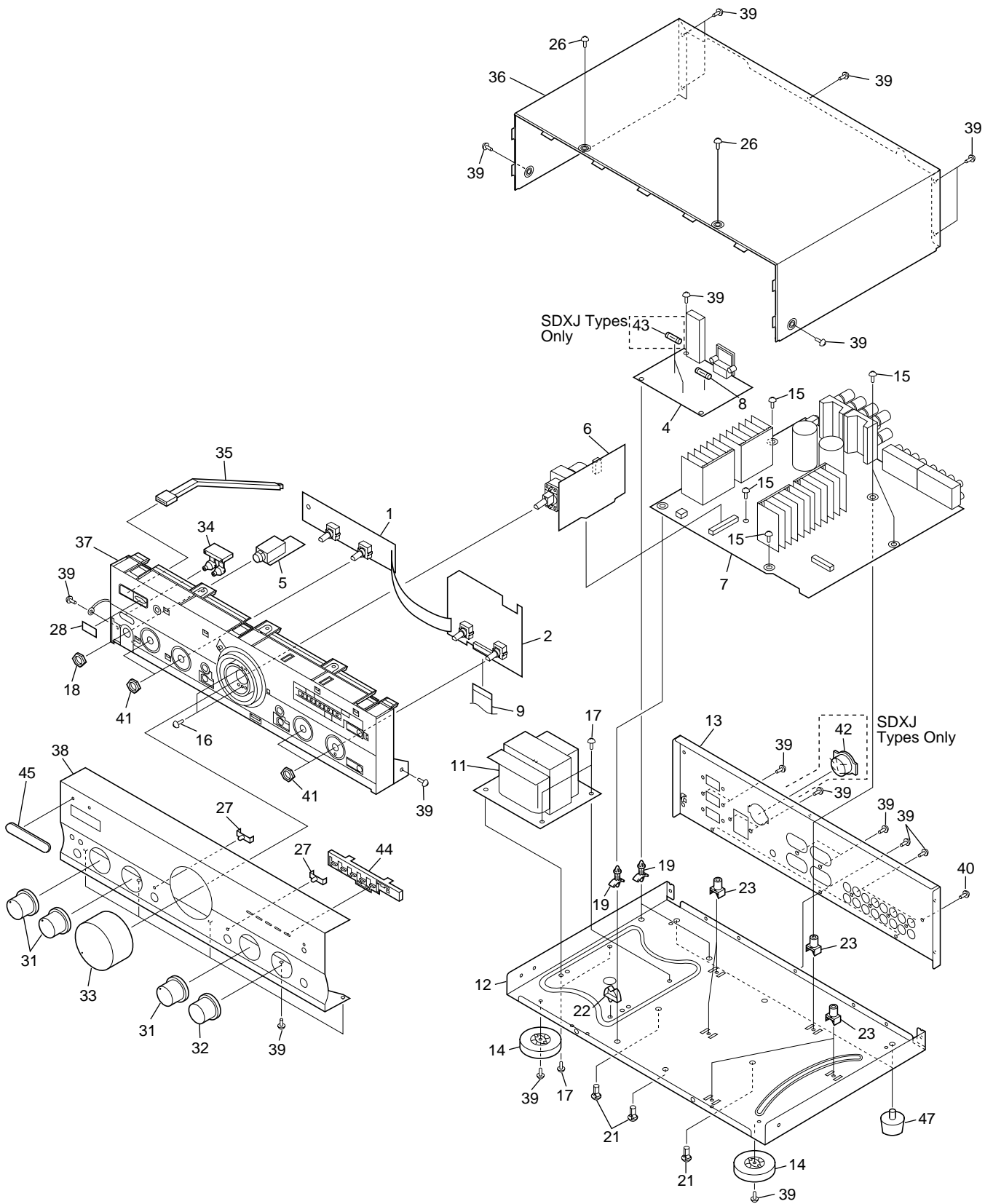
Mark	No.	Description	Part No.
	1	Operating Instructions (English/Spanish/Chinese)	ARE7158
	2	Side Pad L	AHA7205
	3	Side Pad R	AHA7206
	4	Sub Pad	AHA7218
NSP	5	Packing Case	AHD7562
	6	Literature Bag	AHG1180
	7	Packing Sheet	AHG7015
\triangle	8	Caution Label 220V	See Contrast table(2)
	9	Power Cord	See Contrast table(2)

(2) CONTRAST TABLE

A-207/MLXJ and SDXJ are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			MLXJ type	SDXJ type	
\triangle	8	Caution Label 220V	Not used	ARR1003	
	9	Power Cord	ADG1154	ADG1158	

2.2 EXTERIOR



(1) EXTERIOR PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	FRONT L Assy	AWX7122		26	Screw	PBA1096
	2	FRONT R Assy	AWX7121		27	LED Lens	AAK2459
	3	•••••			28	PVC Cover	AAK7541
NSP	4	AC PRIMARY Assy	See Contrast table(2)		29	•••••	
	5	HEADPHONE Assy	AWX7114		30	•••••	
	6	VOLUME Assy	AWX7112		31	Rotary Knob A	AAB7148
	7	AF Assy	AWX7116		32	Rotary Knob B	AAB7149
△	8	Fuse (FU1)	See Contrast table(2)		33	Volume Knob	AAB7150
	9	Flexible Cable (19P) (AF CN202-FRONT R CN601)	ADD7032		34	Speaker Button	AAD7435
	10	•••••			35	Power Joint	AAD7439
△	11	Power Transformer (T1)	See Contrast table(2)		36	Bnnet Case	ANE7183
NSP	12	Chassis	ANA7064		37	Panel Base	AMB7489
	13	Rear Panel	See Contrast table(2)		38	Front Panel	AMB7492
	14	Insulator	AMR7198		39	Screw	BBZ30P080FZK
	15	Screw	ABA1018		40	Screw	BCZ30P060FCC
	16	Screw	ABA1027		41	Nut	NK90FUC
	17	Screw (4 × 10)	ABA7047	△	42	Voltage Selector (S2)	See Contrast table(2)
	18	Nut	ABN-065	△	43	Fuse (FU2, FU3 : 2A)	See Contrast table(2)
	19	PCB Support	AEC7006		44	LED Lens A	AAK7537
	20	•••••			45	PIONEER Badge	PAM1755
NSP	21	PCB Holder	AEC7057		46	•••••	
NSP	22	Cord Clamp F	AEC7134		47	Foot	REC1263
	23	PCB Mold	AMR2533				
	24	•••••					
	25	•••••					

(2) CONTRAST TABLE

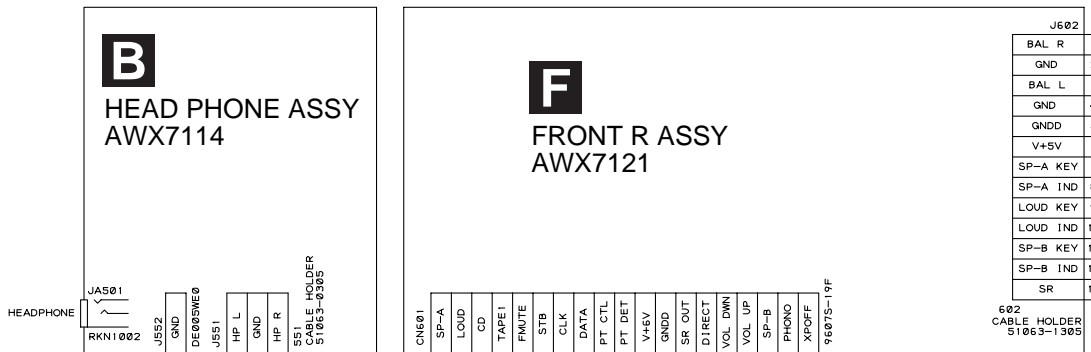
A-207/MLXJ and SDXJ are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			MLXJ type	SDXJ type	
△	4	AC PRIMARY ASSY	AWX7113	AWX7115	
△	8	Fuse (FU1 : 1.25A)	REK1023	Not used	
△	8	Fuse (FU1 : 6.3A)	Not used	REK1030	
△	11	Power Transformer (T1 : AC220-230V)	ATS7190	Not used	
△	11	Power Transformer (T1 : AC110V/120-127V/220V/240V)	Not used	ATS7191	
	13	Rear Panel	ANC7642	ANC7641	
△	42	Voltage Selector	Not used	AKX-507	
△	43	Fuse (FU2, FU3 : 1.25A)	Not used	REK1023	

3. SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM

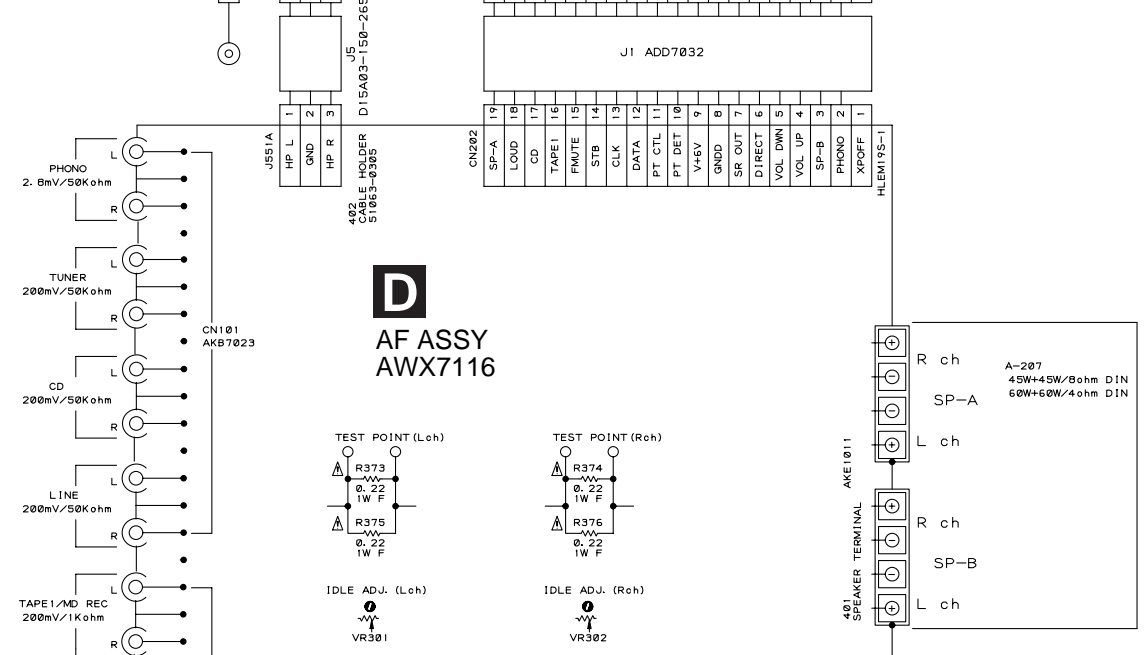
A



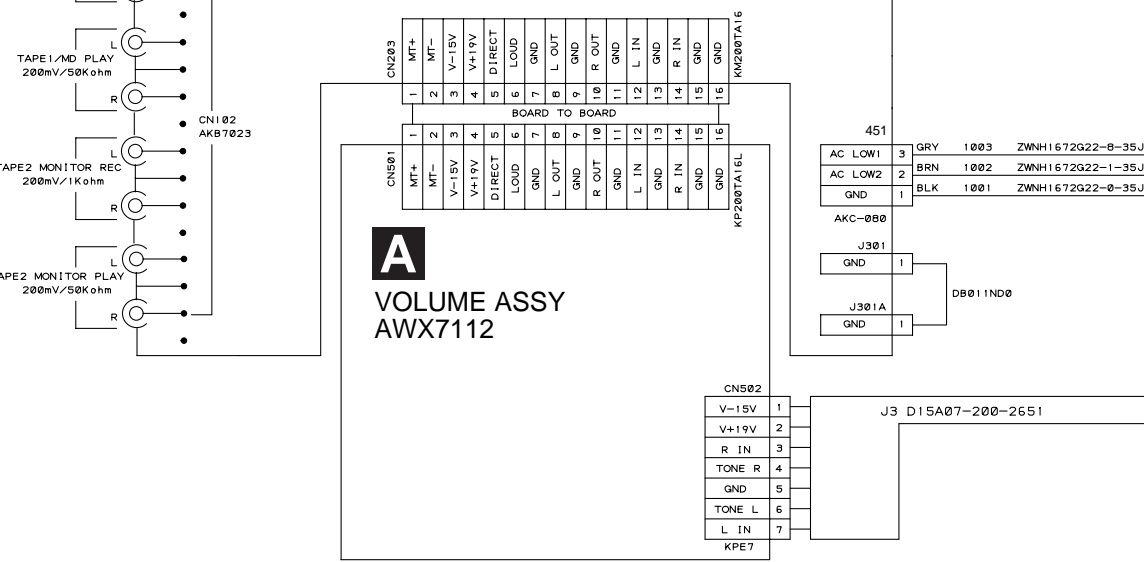
J602	
BAL R	1
GND	2
BAL L	3
GND	4
GNDD	5
V+5V	6
SP-A KEY	7
SP-A IND	8
LOUD KEY	9
LOUD IND	10
SP-B KEY	11
SP-B IND	12
SR	13

602 CABLE HOLDER 51063-1305

B

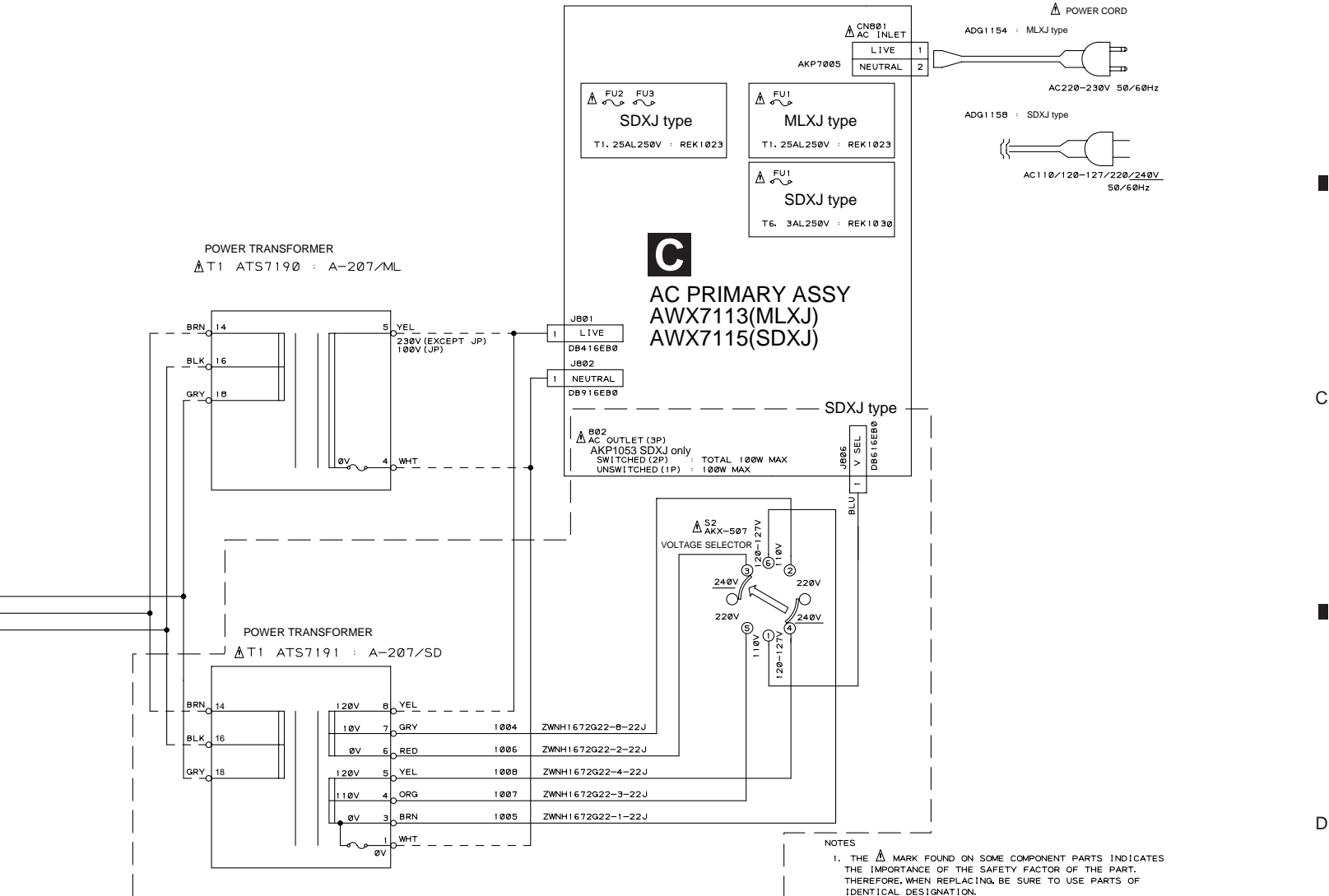
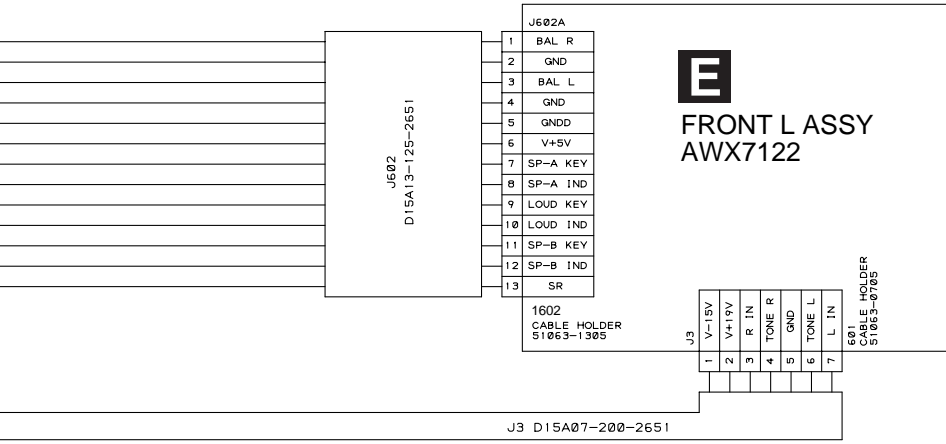


C



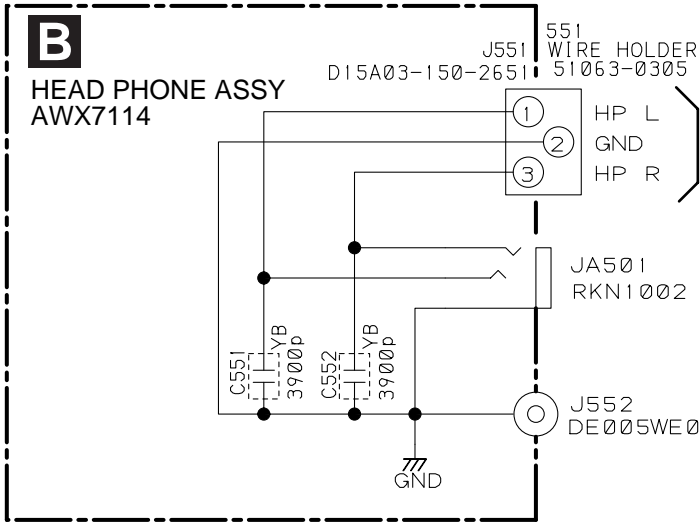
D

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



3.2 VOLUME AND HEAD PHONE ASSEMBLIES

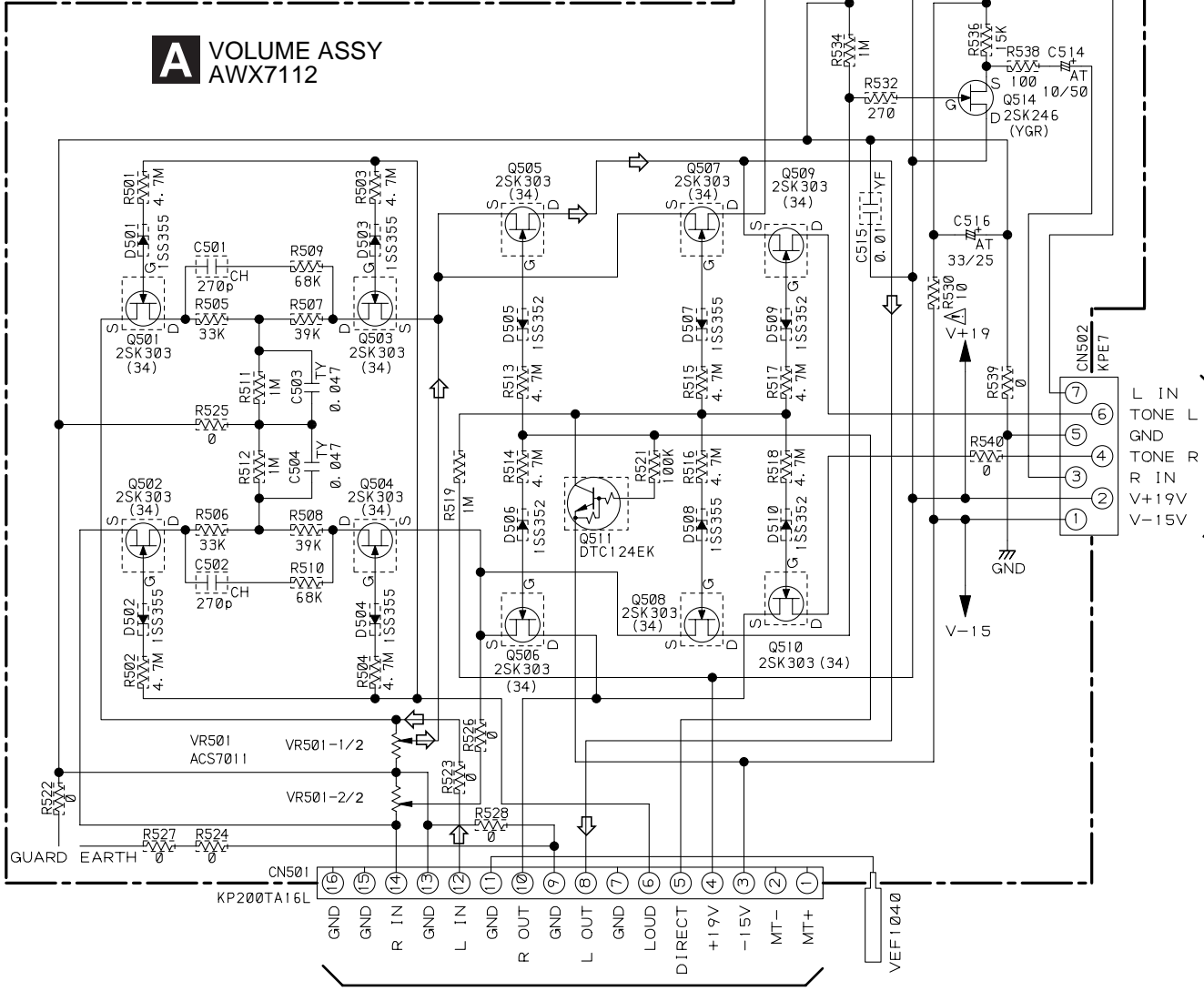
A



D J551A

B

A VOLUME ASSY AWX7112



E J3

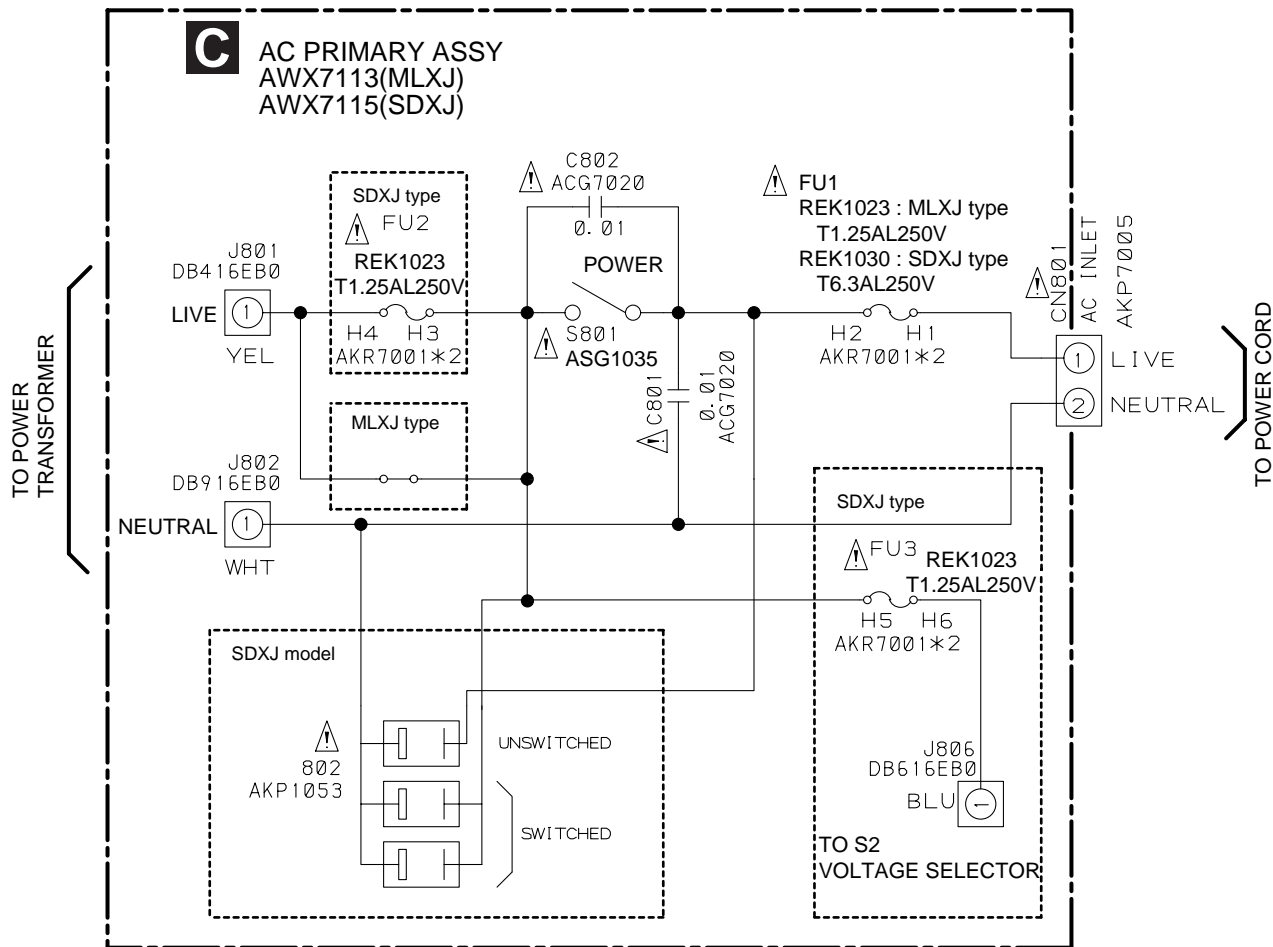
D CN203

D

3.3 AC PRIMARY ASSY

• NOTE FOR FUSE REPLACEMENT

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



NOTES

- RESISTORS
INDICATED IN Ohm 1/10W 5% TOLERANCE UNLESS OTHERWISE NOTED
k : kOhm, M : MOhm
- CAPACITORS
INDICATED IN CAPACITY (uF) /VOLTAGE (V) UNLESS OTHERWISE NOTED p : pF
INDICATED WITHOUT VOLTAGE IS 50V EXCEPT ELECTROLYTIC CAPACITOR.
TY : CFTYA, CH : CCSQCH, YB : CKSQYB, YF : CKSQYF
- 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.

3.4 AF ASSY

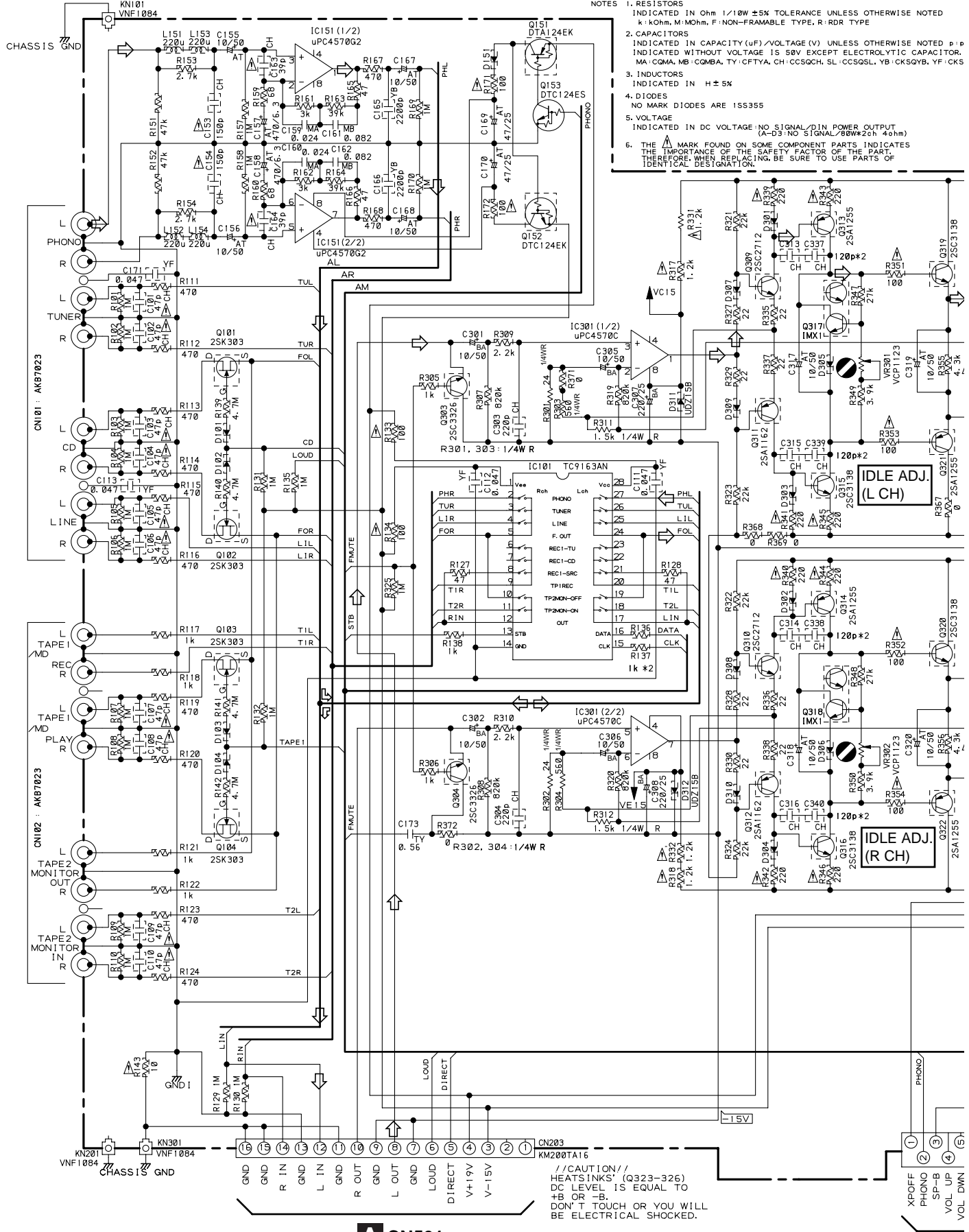
A

B

C

D

- NOTES
1. RESISTORS
INDICATED IN Ohm 1/10W ±5% TOLERANCE UNLESS OTHERWISE NOTED
k: kOhm, M: MOhm, F: NON-FRAMABLE TYPE, R: RDR TYPE
 2. CAPACITORS
INDICATED IN CAPACITY (uF) /VOLTAGE (V) UNLESS OTHERWISE NOTED p: pF
INDICATED WITHOUT VOLTAGE IS 50V EXCEPT ELECTROLYTIC CAPACITOR.
MA: CQMA, MB: CQMA, TY: CFTYA, CH: CCSQCH, SL: CCSQSL, YB: CKSQYB, YF: CKS
 3. INDUCTORS
INDICATED IN H ±5%
 4. DIODES
NO MARK DIODES ARE IS5355
 5. VOLTAGE
INDICATED IN DC VOLTAGE NO SIGNAL/DIN POWER OUTPUT
(A-D3: NO SIGNAL/80W*2ch 40hm)
 6. 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.



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

A CN501



NOTED

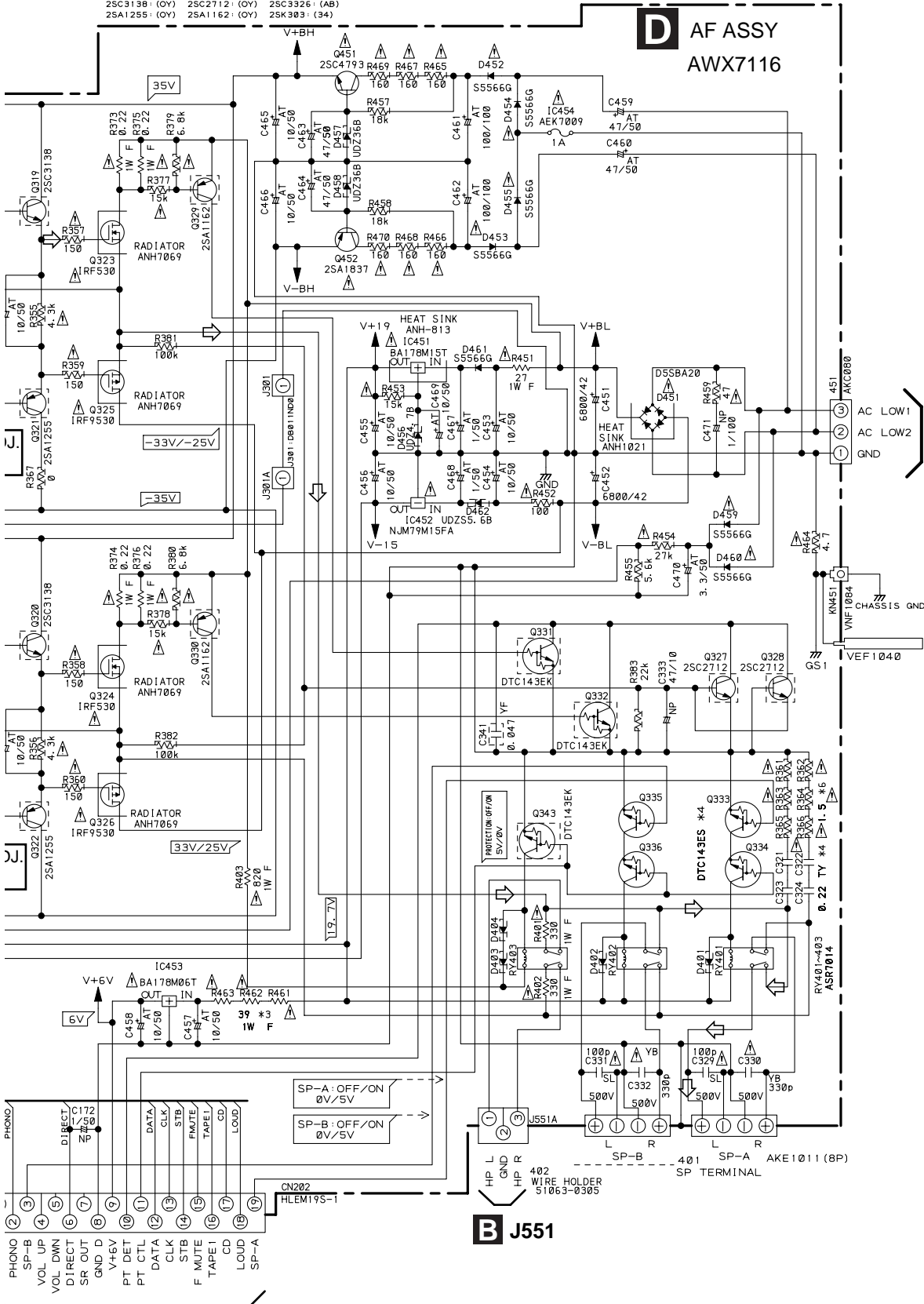
⇨ : AUDIO SIGNAL ROUTE

NOTED P: pF
APACITOR:
YB, YF: CKS0YF, BA: CEBA

CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE,
REPLACE ONLY WITH SAME TYPE NO. 491001 MFD, BY
LITTELFUSE INK. FOR IC454(AEK7009).

7. TRANSISTOR'S RANK

- 2SC3138: (OY) 2SC2712: (OY) 2SC3326: (AB)
- 2SA1255: (OY) 2SA1162: (OY) 2SK303: (34)



D AF ASSY
AWX7116

B J551

F CN601

TO POWER TRANSFORMER

- PHONO
- SP-B
- VOL UP
- VOL DWN
- DIRECT
- SR OUT
- GND D
- V+6V
- PT DET
- DATA
- CLK
- STB
- F MUTE
- TAPE1
- CD
- LOUD
- SP-A

SP-A: OFF/ON
0V/5V

SP-B: OFF/ON
0V/5V

J551A

L HP 402
GND HP 402
R HP 402

401 SP-A
401 SP-B

AKE1011 (8P)
SP TERMINAL

A

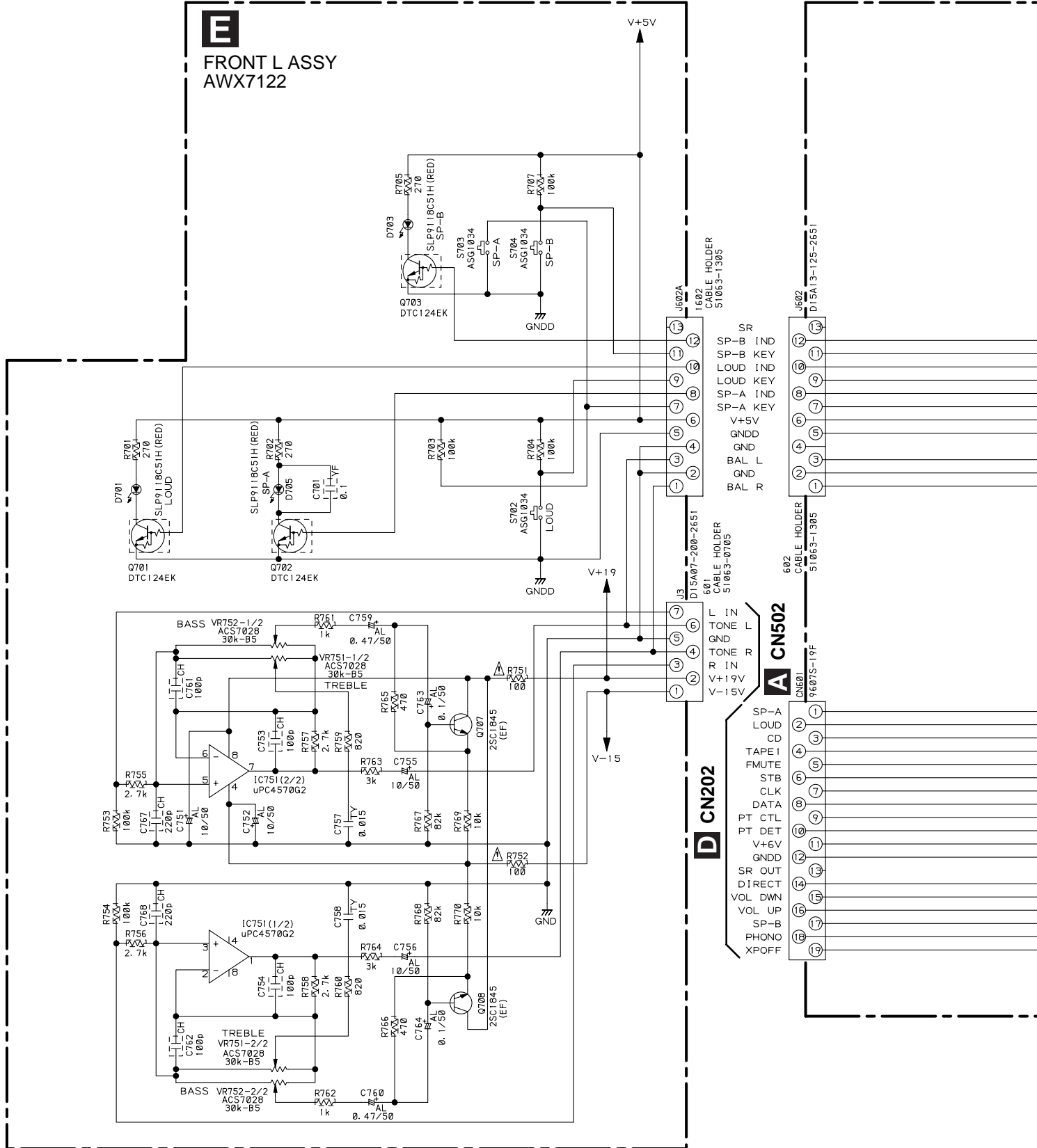
B

C

D

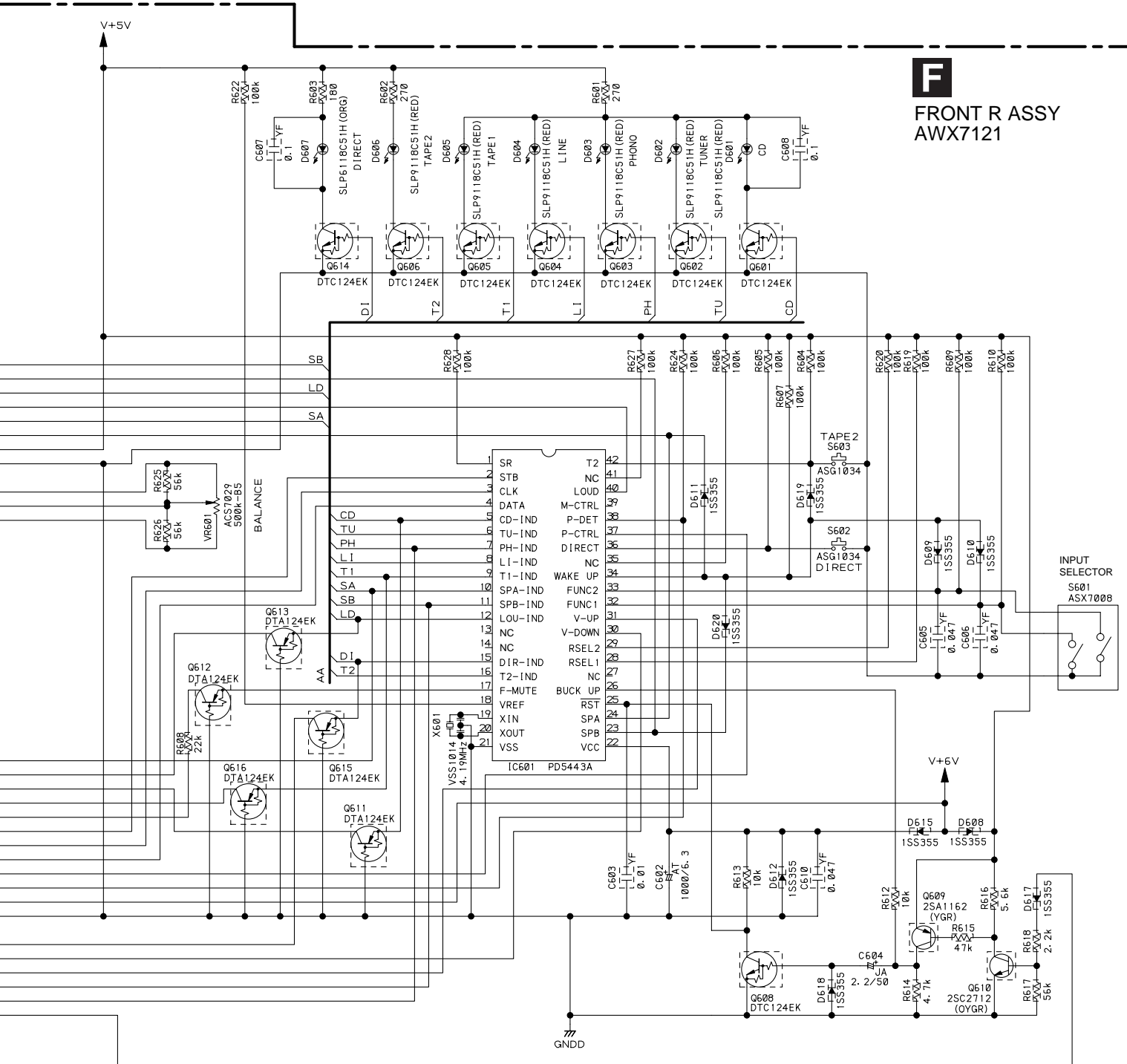
D

3.5 FRONT L AND FRONT R ASSEMBLIES





FRONT R ASSY
AWX7121



FRONT R ASSY
 S601 : INPUT SELECTOR
 CD
 TUNER
 PHONE
 LINE
 TAPE1/MD
 S602 : DIRECT
 S603 : TAPE2 MONITOR

NOTES

1. RESISTORS INDICATED IN Ohm 1/10W± 5% TOLERANCE UNLESS OTHERWISE NOTED
k : kOhm
2. CAPACITORS INDICATED IN CAPACITY (uF) /VOLTAGE (V) UNLESS OTHERWISE NOTED p : pF INDICATED WITHOUT VOLTAGE IS 50V EXCEPT ELECTROLYTIC CAPACITOR.
AL : CEAL, AT : CEAT, JA : CEJA, TY : CFTYA, CH : CCSQCH, YF : CKSQYF
3. 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.



4. PCB CONNECTION DIAGRAM

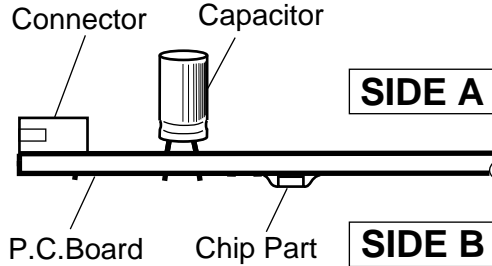
4.1 VOLUME ASSY

NOTE FOR PCB DIAGRAMS :

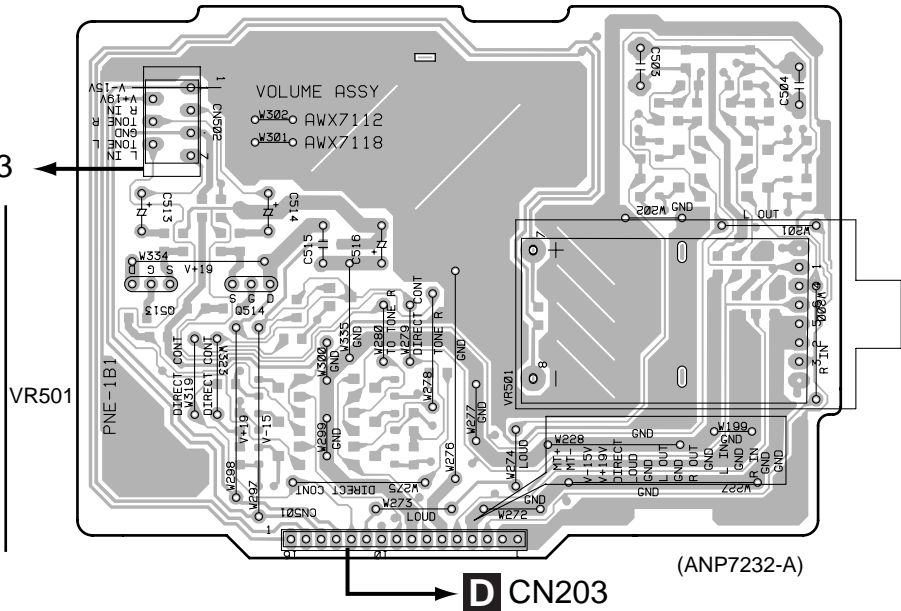
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

3. The parts mounted on this PCB include all necessary parts for several destinations.
4. View point of PCB diagrams.

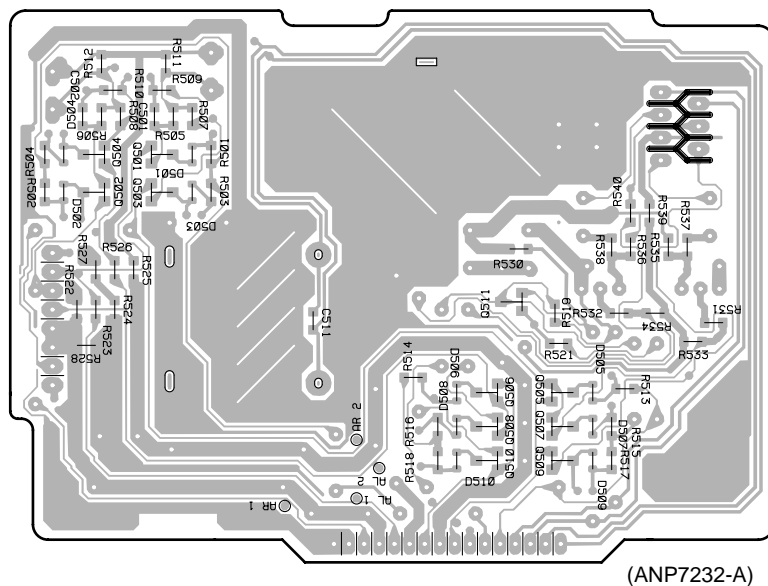
Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator



A VOLUME ASSY

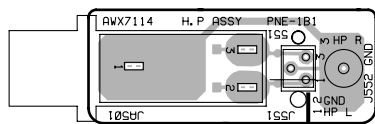


A VOLUME ASSY



4.2 HEADPHONE AND AC PRIMARY ASSEMBLIES

B HEADPHONE ASSY

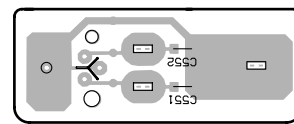


SIDE A

(ANP7232-A)

D J551A

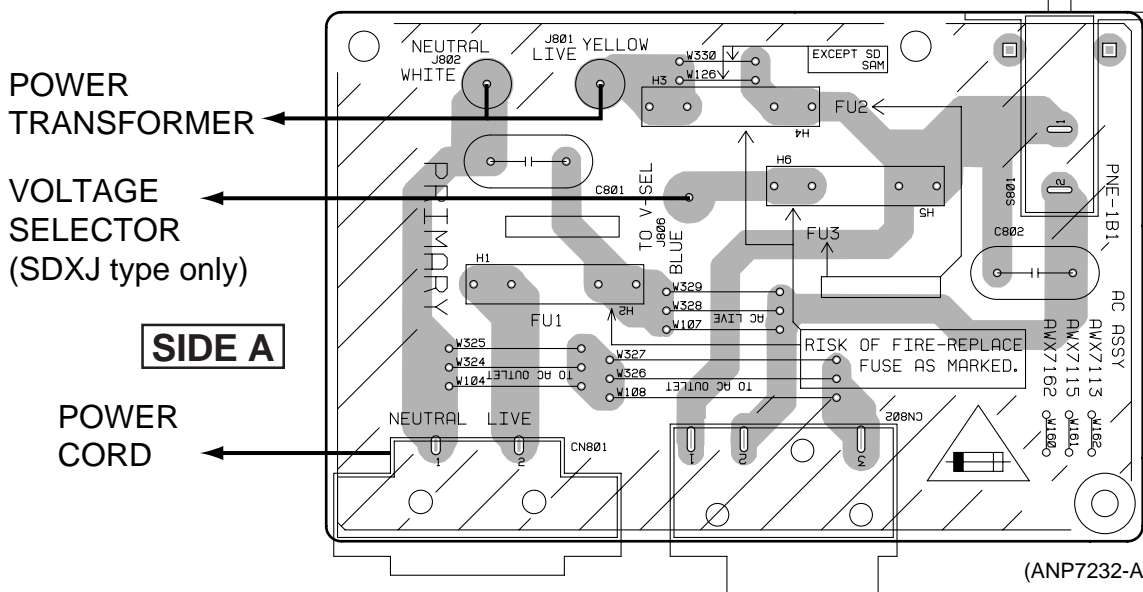
B HEADPHONE ASSY



SIDE B

(ANP7232-A)

C AC PRIMARY ASSY

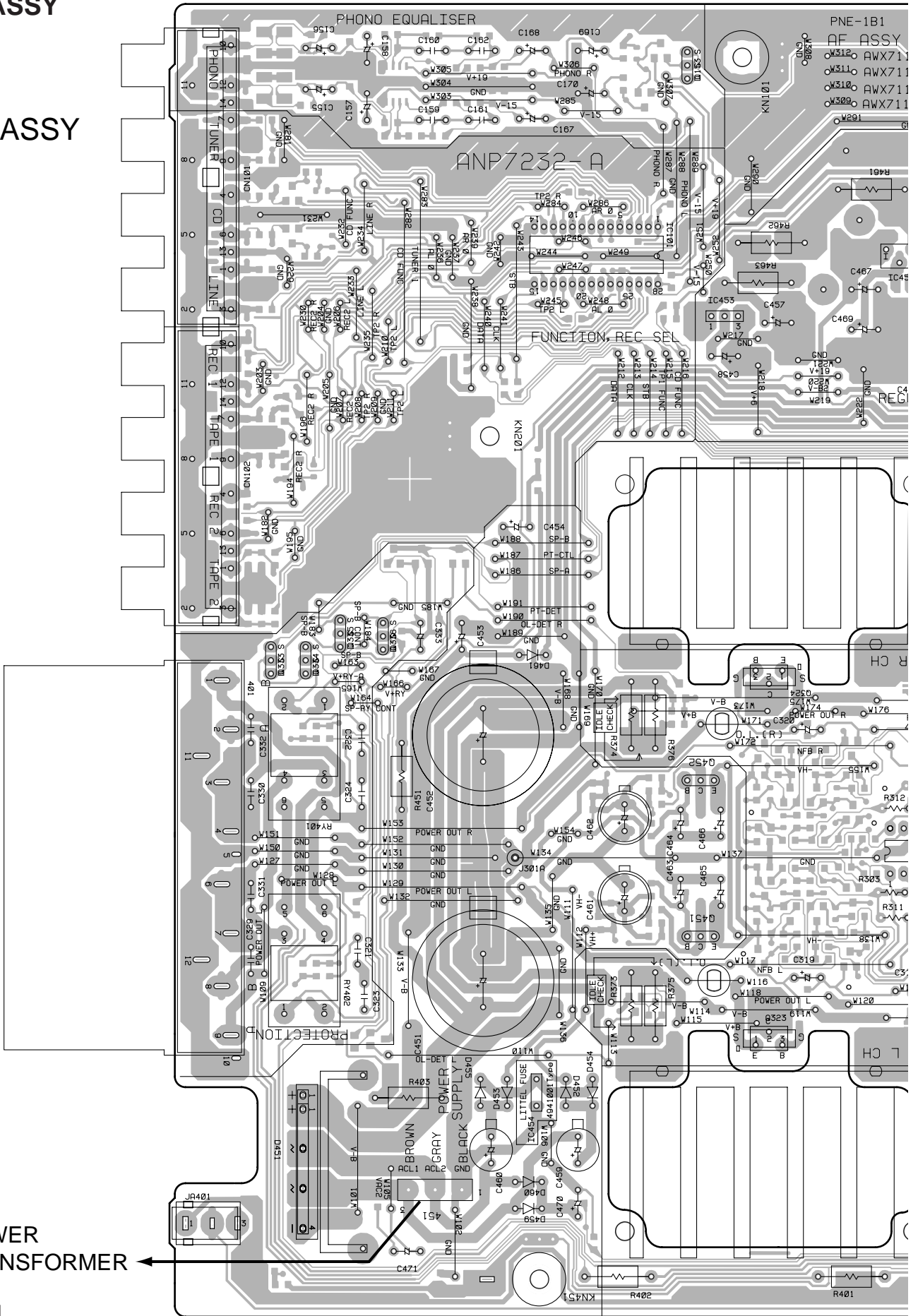


SIDE A

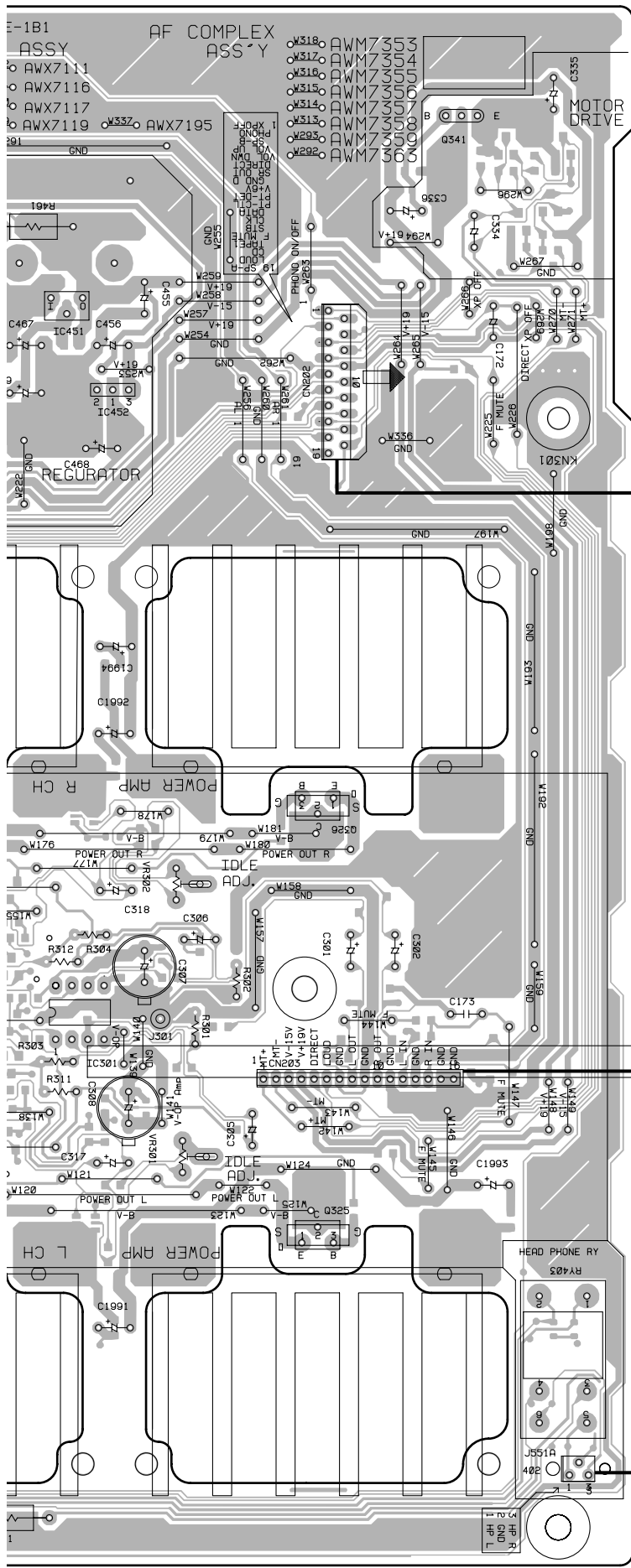
(ANP7232-A)

4.3 AF ASSY

D AF ASSY



SIDE A



F CN601

A CN501

B J551

Q153
 Q341
 IC101
 IC451-IC453

Q333-Q336
 Q324, Q326
 VR302
 Q452

IC301
 Q451

VR301
 Q323, Q325
 IC454

A

B

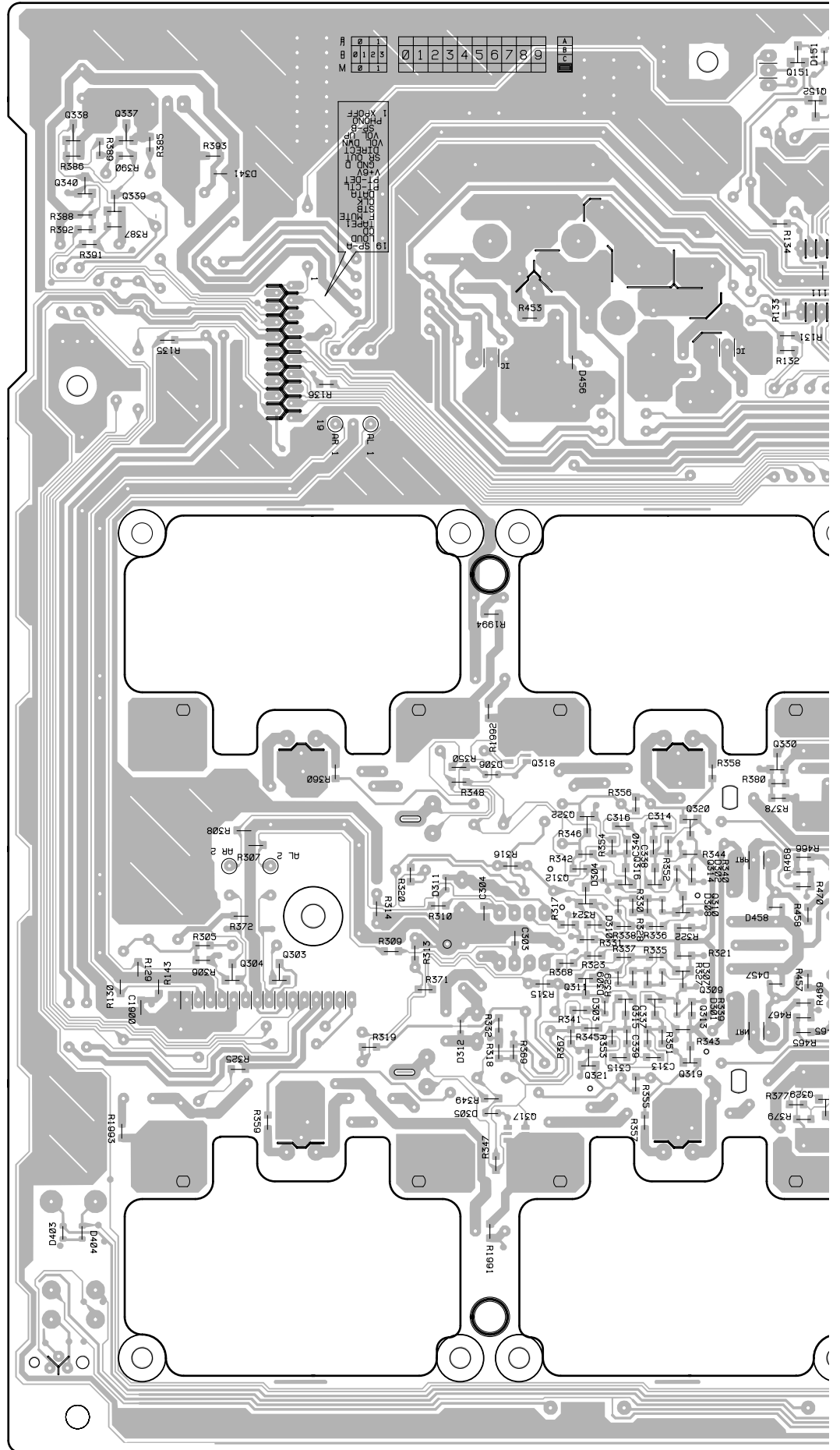
C

D

(ANP7232-A)

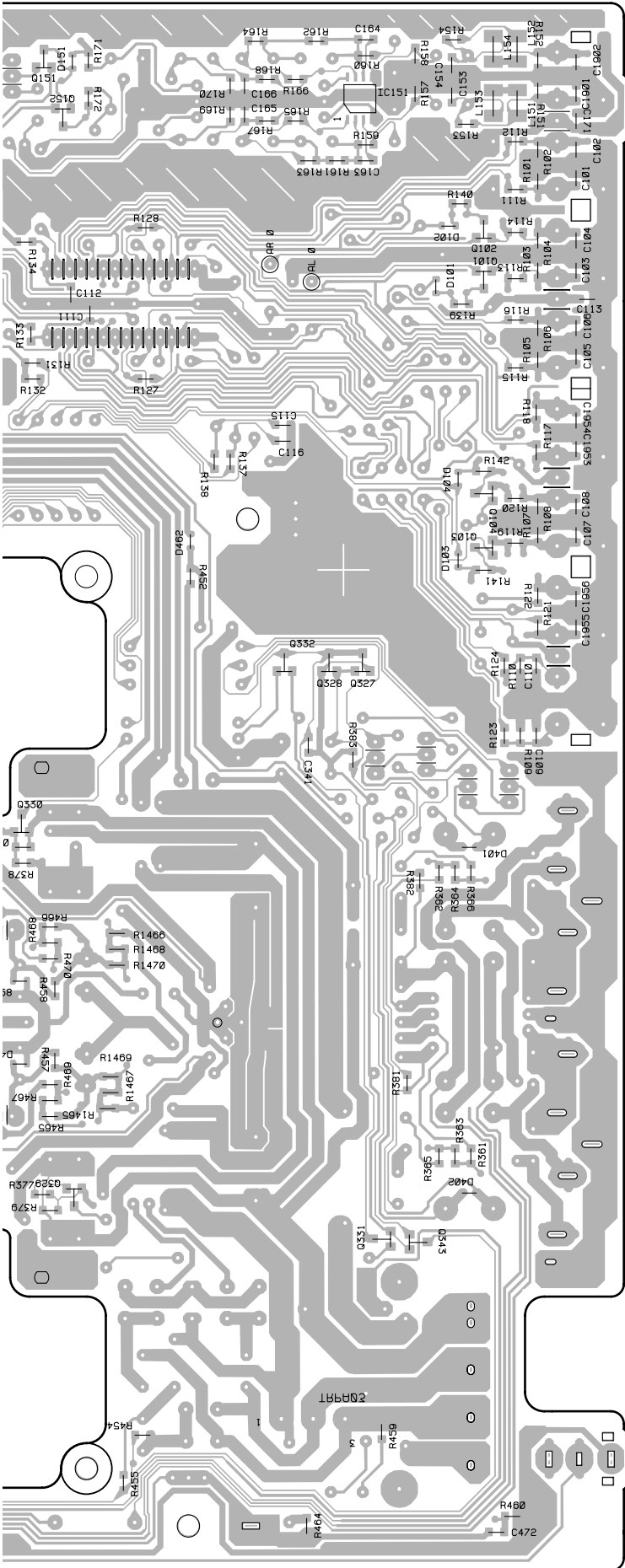
D

D AF ASSY



D

SIDE B



Q151
 IC151
 Q152
 Q338,Q337

A

Q340,Q339
 Q102
 Q101

B

Q104
 Q103

B

Q332
 Q328,Q327

B

Q318,Q330
 Q322,Q320

C

Q316,Q314
 Q312,Q310
 Q304,Q303
 Q311,Q309
 Q315,Q313

C

Q321,Q319
 Q317,Q329

C

Q331,Q343

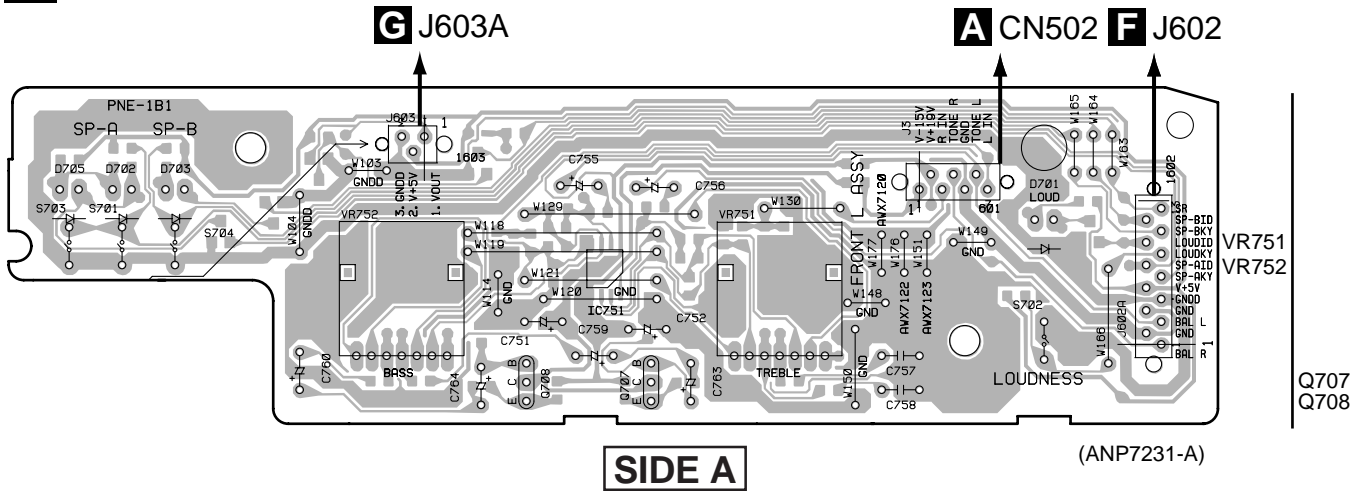
D

(ANP7232-A)

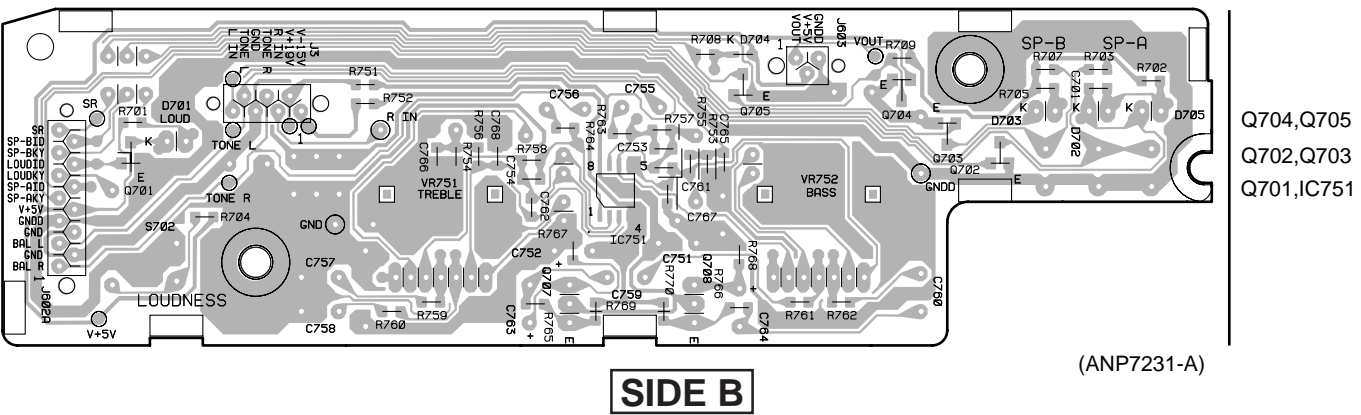


4.4 FRONT L ASSY

E FRONT L ASSY

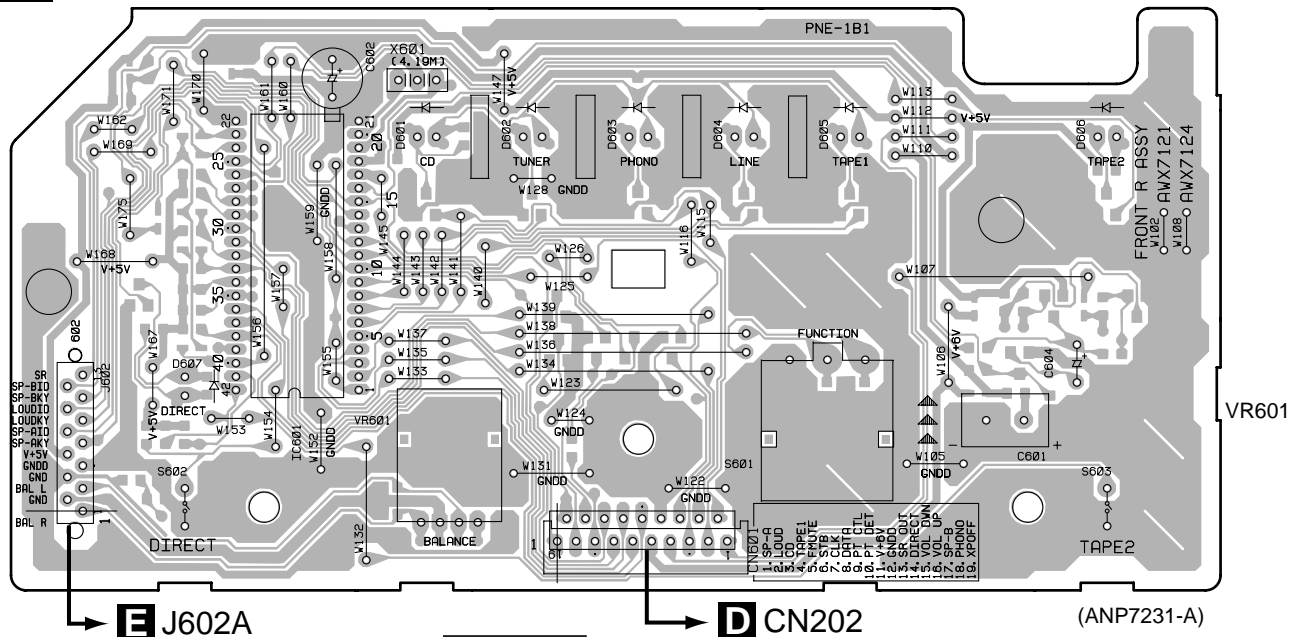


E FRONT L ASSY



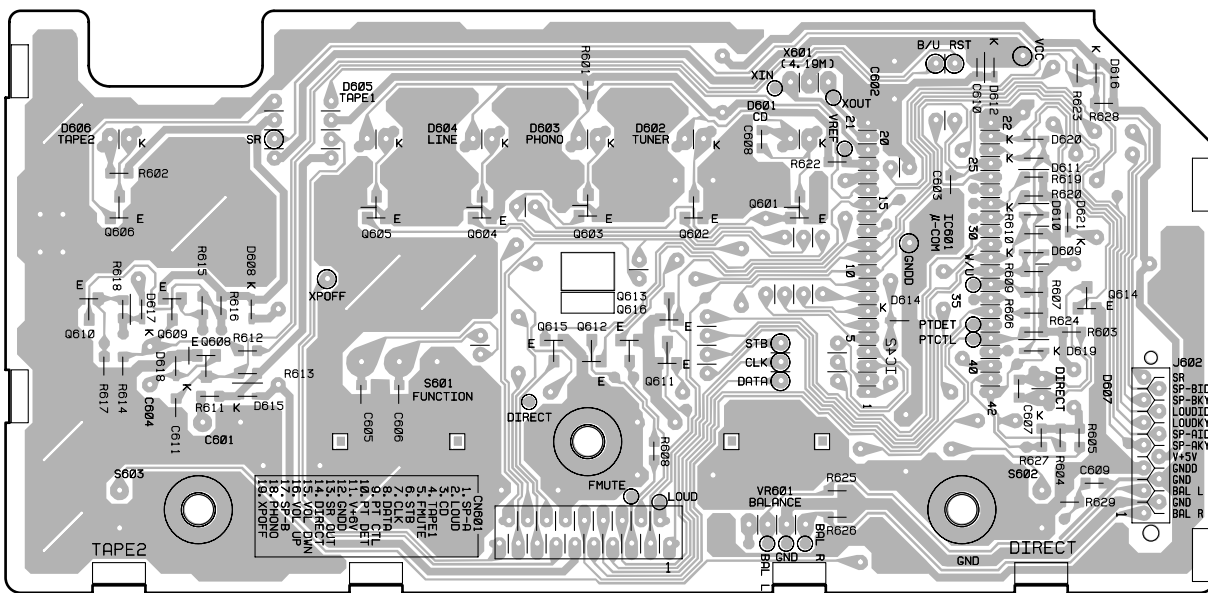
4.5 FRONT R ASSY

F FRONT R ASSY



F FRONT R ASSY

SIDE A



SIDE B



5. PCB PARTS LIST

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

● The \triangle mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

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

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

560 Ω \rightarrow $56 \times 10^1 \rightarrow 561$ RD1/4PU $\begin{matrix} 5 & 6 & 1 \\ \hline \end{matrix}$ J

47k Ω \rightarrow $47 \times 10^3 \rightarrow 473$ RD1/4PU $\begin{matrix} 4 & 7 & 3 \\ \hline \end{matrix}$ J

0.5 Ω \rightarrow R50 RN2H $\begin{matrix} R & 5 & 0 \\ \hline \end{matrix}$ K

1 Ω \rightarrow 1R0 RS1P $\begin{matrix} 1 & R & 0 \\ \hline \end{matrix}$ K

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

5.62k Ω \rightarrow $562 \times 10^1 \rightarrow 5621$ RN1/4PC $\begin{matrix} 5 & 6 & 2 & 1 \\ \hline \end{matrix}$ F

■ LIST OF ASSEMBLIES

Mark	PCB Assemblies	Part No.		Remarks
		A-207 / MLXJ	A-207 / SDXJ	
NSP	CONTROL ASSY	AWG7012	AWG7012	
	└ FRONT R ASSY	AWX7121	AWX7121	
	└ FRONT L ASSY	AWX7122	AWX7122	
NSP	AF COMPLEX ASSY	AWM7355	AWM7356	
	└ VOLUME ASSY	AWX7112	AWX7112	
NSP	└ AC PRIMARY ASSY	AWX7113	AWX7115	
	└ HEADPHONE ASSY	AWX7114	AWX7114	
	└ AF ASSY	AWX7116	AWX7116	

■ CONTRAST OF PCB ASSEMBLIES

C AC PRIMARY ASSY

AWX7113 and AWX7115 are constructed the same except for the following:

Mark	Symbol and Description	Part No.		Remarks
		AWX7113	AWX7115	
\triangle	H3 – H6 802 FUSE CLIP AC OUTLET 3P	Not used Not used	AKR7001 AKP1053	

■ PARTS LIST FOR A-207/MLXJ

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
A VOLUME ASSY							
SEMICONDUCTORS							
	Q513, Q514		2SK246		IC301		UPC4570C
	Q501-Q510		2SK303		IC151		UPC4570G2
	Q511		DTC124EK		Q311, Q312, Q329, Q330		2SA1162
	D505, D506, D509, D510		1SS352		Q313, Q314, Q321, Q322		2SA1255
	D501-D504, D507, D508		1SS355		Q452		2SA1837
CAPACITORS							
	C501, C502		CCSQCH271J50		Q309, Q310, Q327, Q328		2SC2712
	C513, C514		CEAT100M50		Q315, Q316, Q319, Q320		2SC3138
	C516		CEAT330M25		Q303, Q304		2SC3326
	C503, C504		CFTYA473J50		Q451		2SC4793
	C515		CKCYF103Z50		Q101-Q104		2SK303
RESISTORS							
	R530		RS1/10S100J		Q151		DTA124EK
	VR501	100kΩ-A5×2	ACS7011		Q152		DTC124EK
	Other Resistors		RS1/10S□□□J		Q153		DTC124ES
OTHERS							
	CN501	16P SOCKET	KP200TA16L		Q331, Q332, Q343		DTC143EK
	CN502	CONNECTOR(7P)	KPE7		Q333-Q336		DTC143ES
		PCB BINDER	VEF1040		Q317, Q318		IMX1
OTHERS							
					Q323, Q324		IRF530
					Q325, Q326		IRF9530
					D101-D104, D151, D301-D310		1SS355
					D401-D404		1SS355
OTHERS							
					D451		D5SBA20
					D452-D455, D459, D460		S5566G
					D461		S5566G
					D311, D312		UDZ15B
					D457, D458		UDZ36B
OTHERS							
					D456		UDZ4.7B
					D462		UDZS5.6B
C AC PRIMARY ASSY							
SWITCHES AND RELAYS				COILS AND FILTERS			
	S801		ASG1035		L151-L154		LCTA221J3225
CAPACITORS				SWITCHES AND RELAYS			
	C801, C802	10000pF/AC250V	ACG7020		RY401-RY403		ASR7014
OTHERS				CAPACITORS			
	CN801	AC INLET	AKP7005		C451	6800μF/DC42V	ACH7080
	H1, H2	FUSE CLIP	AKR7001		C452	6800μF/DC42V	ACH7081
OTHERS							
					C329, C331		CCCSL101K2H
					C313-C316, C337-C340		CCSQCH121J50
					C153, C154		CCSQCH151J50
OTHERS							
					C303, C304		CCSQCH221J50
					C163, C164		CCSQCH390J50
					C101-C110		CCSQCH470J50
					C471		CEANP1R0M2A
					C172		CEANP1R0M50
OTHERS							
	551	CABLE HOLDER(3P)	51063-0305		C333		CEANP470M10
	J552	CORD WITH PLUG	DE005WE0		C155, C156, C167, C168		CEAT100M50
	JA501	JACK	RKN1002		C317-C320, C453-C458		CEAT100M50
					C465, C466, C469		CEAT100M50
					C461, C462		CEAT101M2A
OTHERS							
					C467, C468		CEAT1R0M50
					C470		CEAT3R3M50
					C169, C170		CEAT470M25
					C459, C460, C463, C464		CEAT470M50
					C157, C158		CEAT471M6R3
D AF ASSY							
SEMICONDUCTORS							
	IC454 (1A)		AEK7009				
	IC453		BA178M06T				
	IC451		BA178M15T				
	IC452		NJM79M15FA				
	IC101		TC9163AN				

Mark	No.	Description	Part No.
	C301, C302, C305, C306		CEBA100M50
	C307, C308		CEBA221M25
	C321-C324		CFTYA224J50
	C173		CFTYA564J50
⚠	C330, C332		CKCYB331K2H
	C165, C166		CKSQYB222K50
	C111-C113, C171, C341		CKSQYF473Z50
	C159, C160		CQMA243J50
	C161, C162		CQMBA823J50

RESISTORS

	R311, R312		RDR1/4VM152J
	R301, R302		RDR1/4VM240J
	R303, R304		RDR1/4VM561J
⚠	R143		RS1/10S100J
⚠	R133, R134, R171, R172		RS1/10S101J
⚠	R351-R354, R452		RS1/10S101J
⚠	R317, R318, R331, R332		RS1/10S122J
⚠	R357-R360		RS1/10S151J
⚠	R377, R378, R453		RS1/10S153J
⚠	R465-R470		RS1/10S161J
⚠	R361-R366		RS1/10S1R5J
⚠	R339-R346		RS1/10S221J
⚠	R454		RS1/10S273J
⚠	R355, R356		RS1/10S432J
⚠	R459		RS1/10S470J
⚠	R464		RS1/10S4R7J
⚠	R379, R380		RS1/10S682J
⚠	R451		RS1LMF270J
⚠	R401, R402		RS1LMF331J
⚠	R461-R463		RS1LMF390J
⚠	R403		RS1LMF821J
⚠	R373-R376		RS1LMFR22J
	VR301 2.2kΩ		VCP1123
	VR302 2.2kΩ		VCP1123
	Other Resistors		RS1/10S□□□J

OTHERS

402	CABLE HOLDER(3P)	51063-0305
	SCREW	ABA1007
	SCREW	ABA1052
CN101	PIN JACK(8P)	AKB7023
CN102	PIN JACK(8P)	AKB7023
401	SPEAKER TERMINAL 8P	AKE1011
	HEAT SINK M	ANH-813
	HEAT SINK B	ANH1021
CN202	CONNECTOR 19P	HLEM19S-1
CN203	16P PLUG	KM200TA16
	PCB BINDER	VEF1040
KN101	EARTH METAL FITTING	VNF1084
KN201	EARTH METAL FITTING	VNF1084
KN301	EARTH METAL FITTING	VNF1084
KN451	EARTH METAL FITTING	VNF1084

F FRONT R ASSY

SEMICONDUCTORS

IC601	PD5443A
Q609	2SA1162
Q610	2SC2712
Q611-Q613, Q615, Q616	DTA124EK
Q601-Q606, Q608, Q614	DTC124EK

Mark	No.	Description	Part No.
	D608-D612, D615, D617-D620		1SS355
	D607		SLP6118C51H
	D601-D606		SLP9118C51H

SWITCHES AND RELAYS

S602, S603	ASG1034
S601	ASX7008

CAPACITORS

C602	CEAT102M6R3
C604	CEJA2R2M50
C603	CKSQYF103Z50
C607, C608	CKSQYF104Z25
C605, C606, C610	CKSQYF473Z50

RESISTORS

VR601 100kΩ	ACS7029
Other Resistors	RS1/10S□□□J

OTHERS

X601 CERAMIC RESONATOR (4.19MHz)	VSS1014
602 CABLE HOLDER(13P)	51063-1305
CN601 CONNECTOR 19P	9607S-19F

E FRONT L ASSY

SEMICONDUCTORS

IC751	UPC4570G2
Q707, Q708	2SC1845
Q701-Q703	DTC124EK
D701, D703, D705	SLP9118C51H

SWITCHES AND RELAYS

S702-S704	ASG1034
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CAPACITORS

C753, C754, C761, C762	CCSQCH101J50
C767, C768	CCSQCH221J50
C751, C752, C755, C756	CEAL100M50
C763, C764	CEALR10M50
C759, C760	CEALR47M50
C757, C758	CFTYA153J50
C701	CKSQYF104Z25

RESISTORS

⚠ R751, R752	RS1/10S101J
VR751 30kΩ-B5×2	ACS7028
VR752 30kΩ-B5×2	ACS7028
Other Resistors	RS1/10S□□□J

OTHERS

601 CABLE HOLDER(7P)	51063-0705
1602 CABLE HOLDER(13P)	51063-1305

6. ADJUSTMENT

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. (R373 or R374)
2. Turn the POWER switch to ON.
3. Adjust VR301 (VR302) so that the voltage between both sides of R373 (R374) becomes $10\text{mV} \pm 1\text{mV}$.
4. Ages for 5 minutes.
5. Adjust VR301 (VR302) so that the voltage between both sides of R373 (R374) becomes $11\text{mV} \pm 1\text{mV}$.

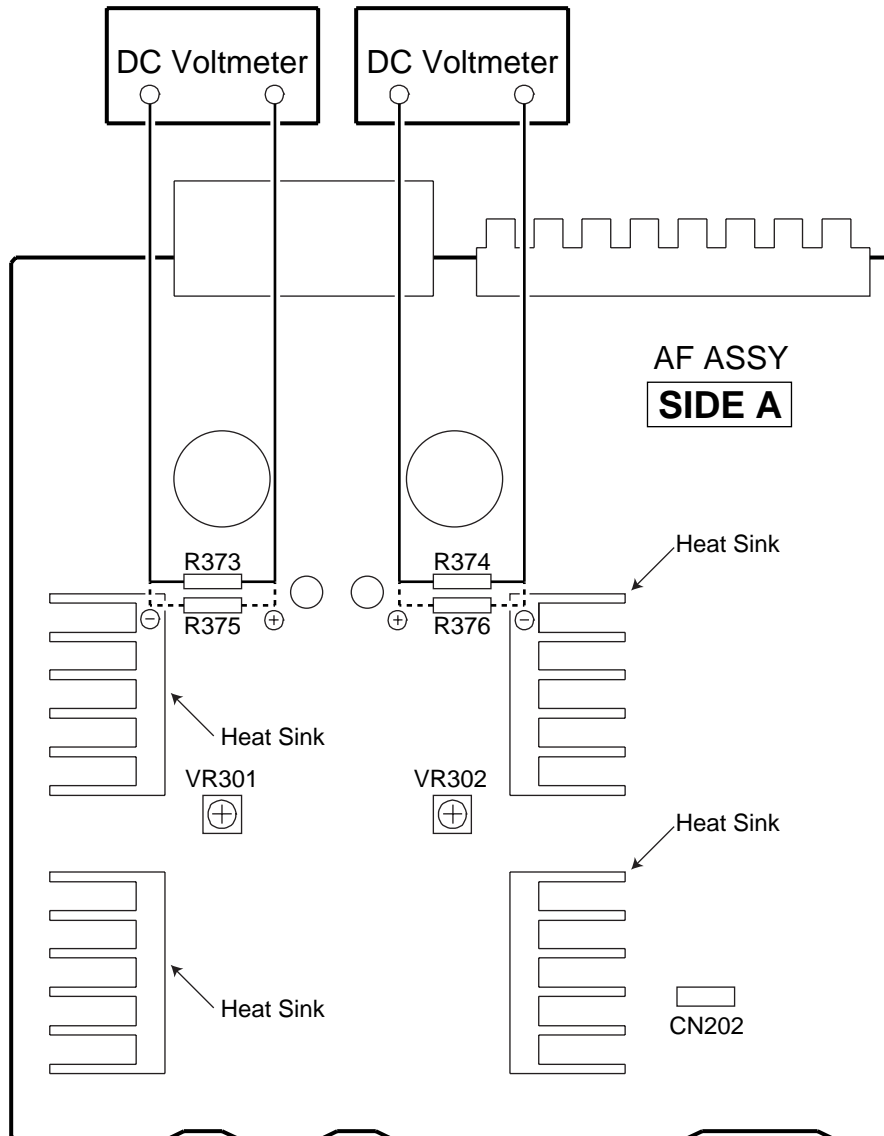


Fig.6-1 Adjustment Method

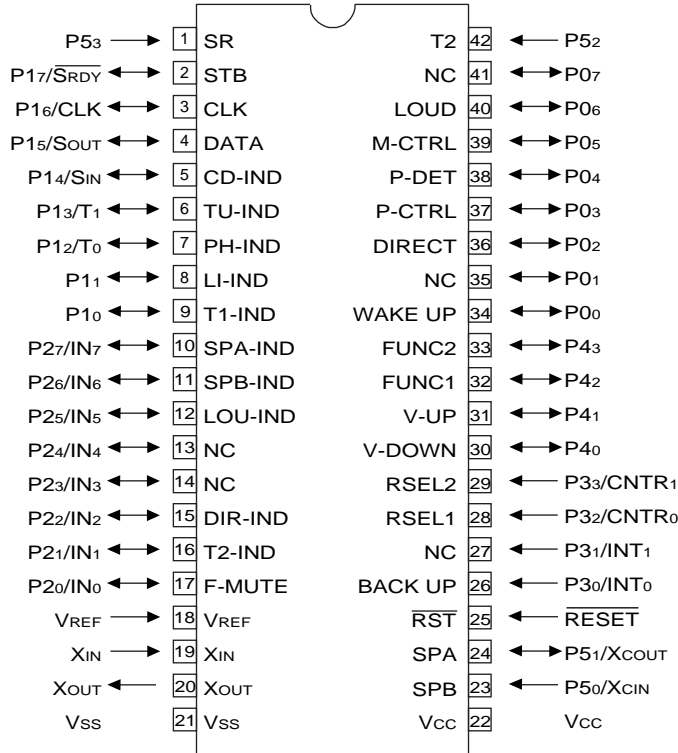
7. GENERAL INFORMATION

7.1 IC

■ PD5443A (FRONT R ASSY : IC601)

● REMOTE CONTROL AMP MICROCOMPUTER

● Pin Assignment (Top view)



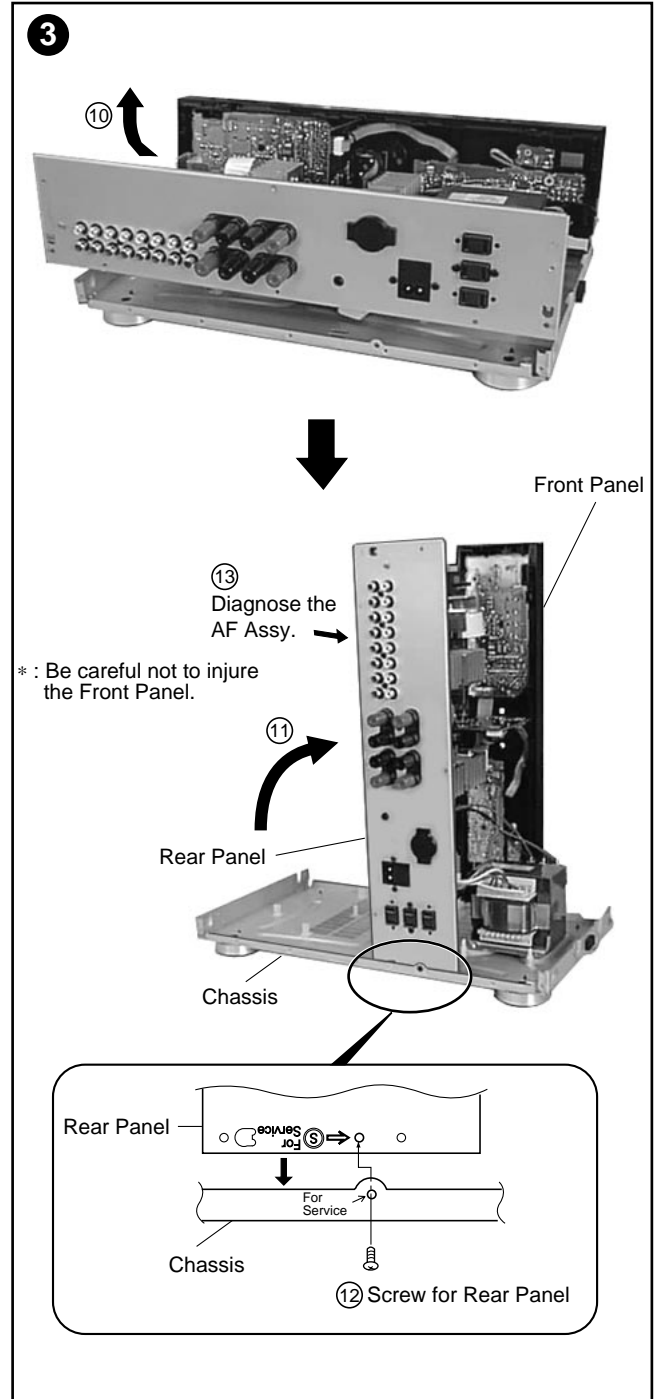
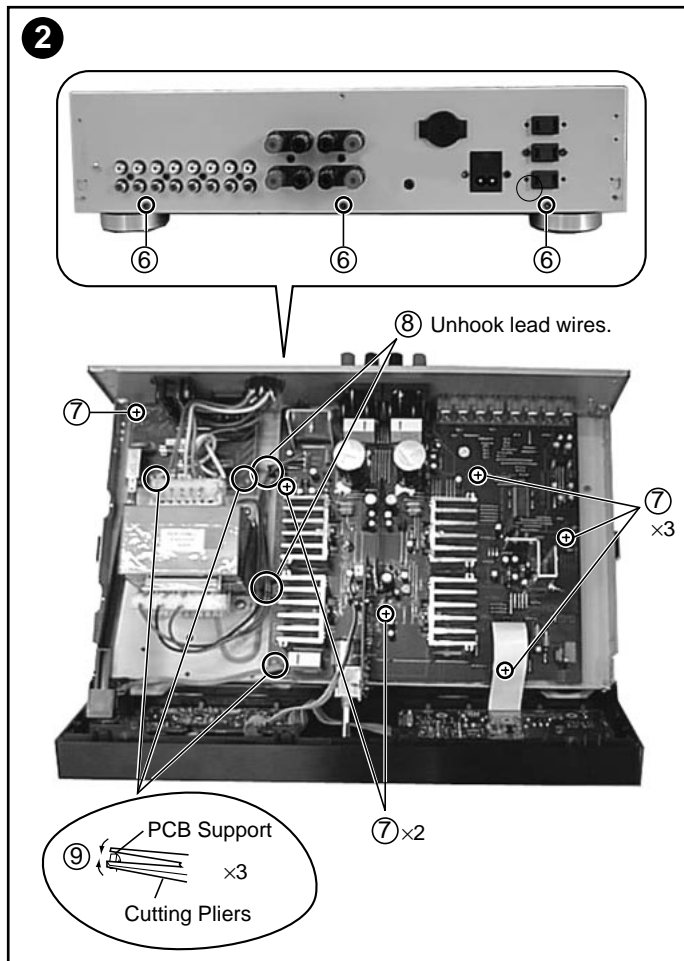
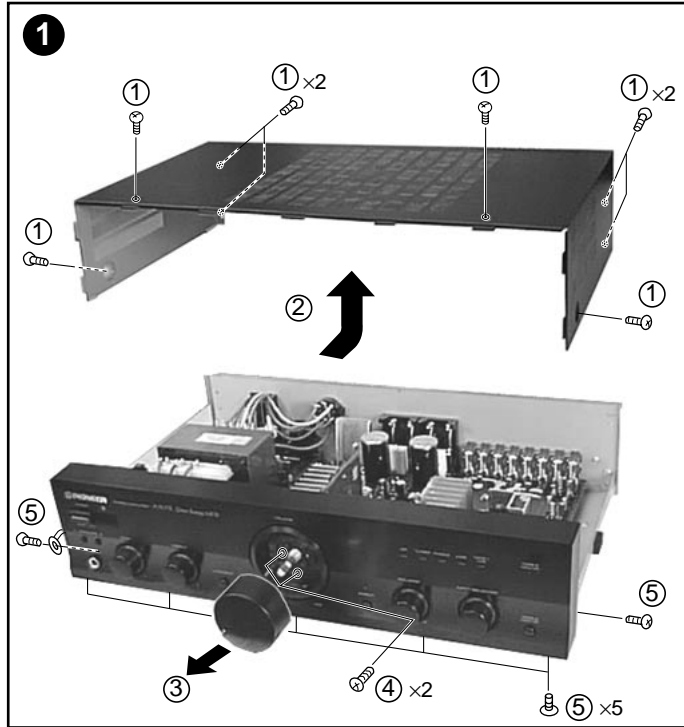
- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

● Pin Function

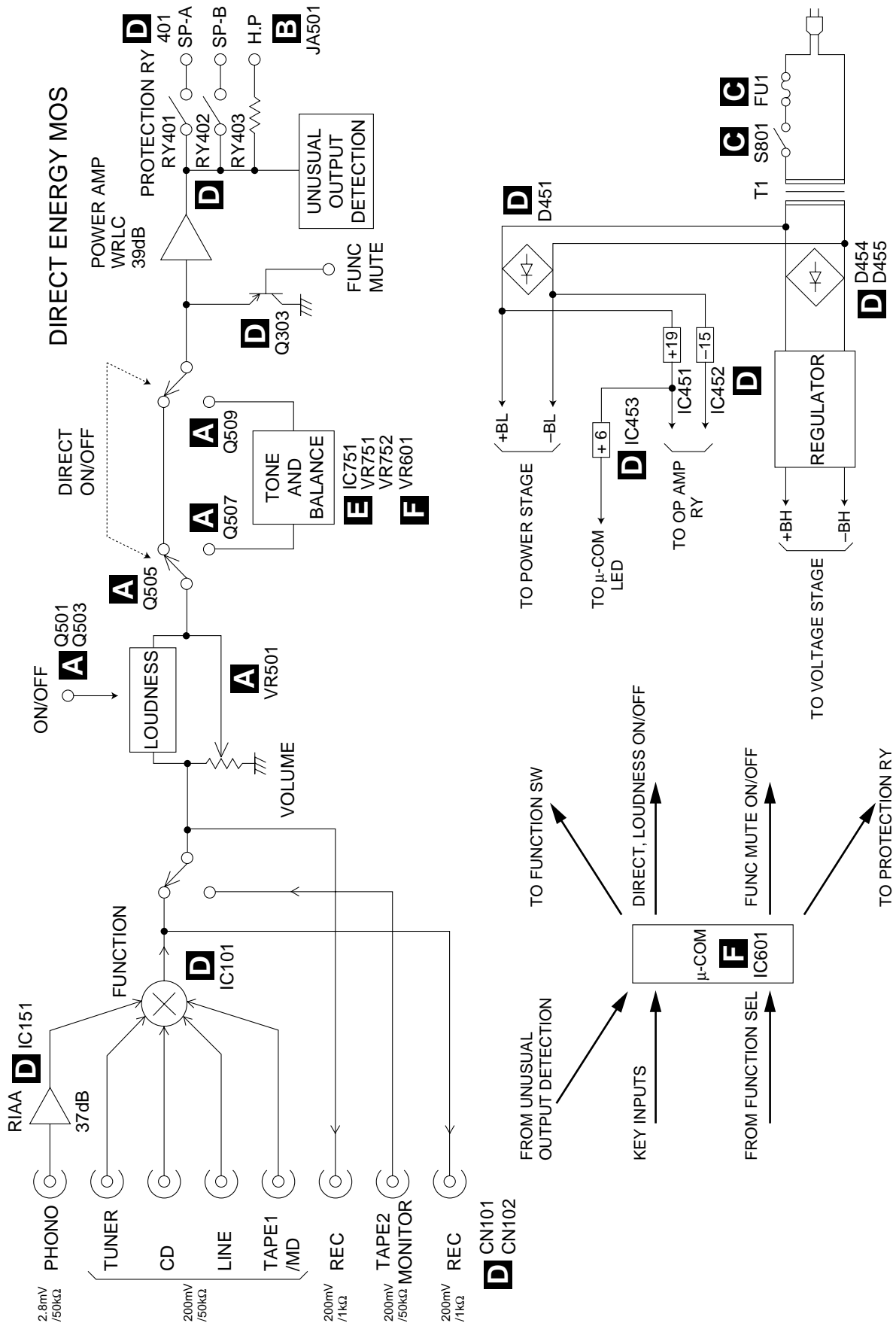
No.	Pin name	I/O	Function
1	P5 ₃	I	Remote control signal input pin.
2	P17/ $\overline{\text{SRDY}}$	O	STB for TC9163N.
3	P16/CLK	O	CLOCK for TC9163N.
4	P15/SOUT	O	DATA for TC9163N.
5	P14/SIN	O	CD INDICATOR.
6	P13/T ₁	O	TUNER INDICATOR.
7	P12/T ₀	O	PHONO INDICATOR.
8	P11	O	LINE INDICATOR.
9	P10	O	TAPE1 INDICATOR.
10	P27/IN ₇	O	SPEAKER-A INDICATOR.
11	P26/IN ₆	O	SPEAKER-B INDICATOR.
12	P25/IN ₅	O	LOUDNESS INDICATOR.
13	P24/IN ₄	O	Not used.
14	P23/IN ₃	O	Not used.
15	P22/IN ₂	O	DIRECT INDICATOR.
16	P21/IN ₁	O	TAPE2 INDICATOR.
17	P20/IN ₀	O	FUNCTION switch MUTE.
18	VREF	I	Pulls up to 5V.
19	XIN	I	4.19MHz .
20	XOUT	O	Ceramic vibrating and connecting terminal.
21	VSS	-	Digital GND.
22	VCC	-	Power supply +5V.
23	P5 ₀ /XCIN	I	SPEAKER-B KEY input.

No.	Pin name	I/O	Function
24	P5 ₁ /XCOUT	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	I	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	O	Not used.
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	O	Not used.
42	P5 ₂	I	TAPE2 KEY input.

7.2 DISASSEMBLY



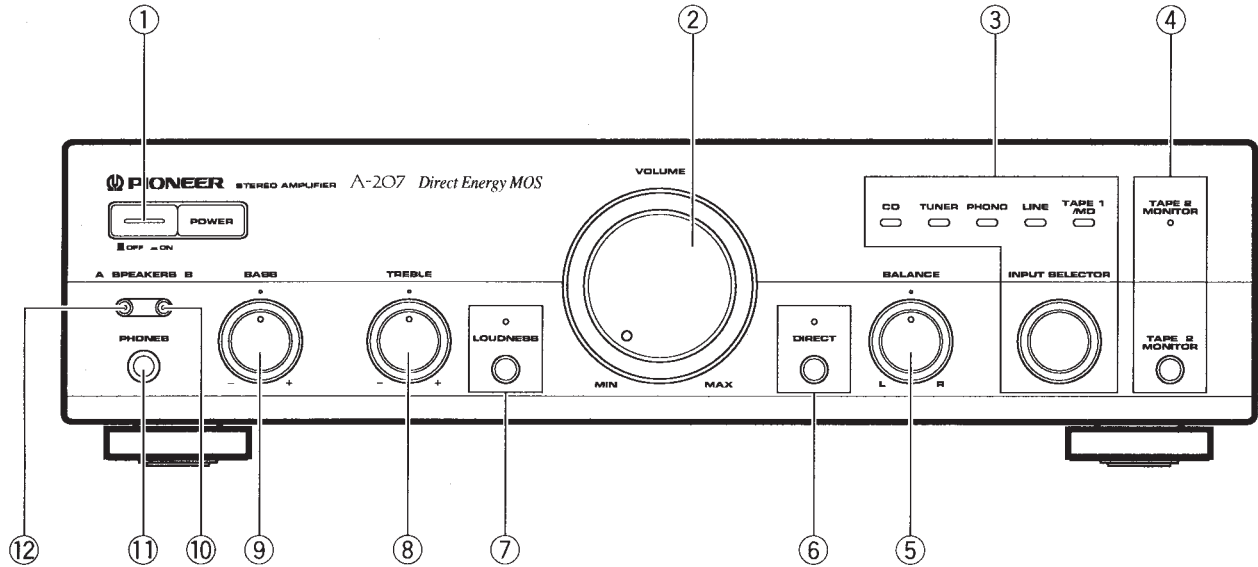
7.3 BLOCK DIAGRAM



8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

[FRONT PANEL]



① POWER (OFF/ON) switch

Press to turn power to the unit ON and OFF.

② VOLUME control

Use to adjust the volume level.

③ 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 the 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.

④ 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.

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

Off : Indicator goes off when not in use.

NOTES:

- 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.)
- When the TAPE 2 MONITOR indicator is on and the INPUT SELECTOR knob is not set to TAPE 1/MD, the signals which are input through TAPE 2 MONITOR are then output at TAPE 1/MD REC OUT.

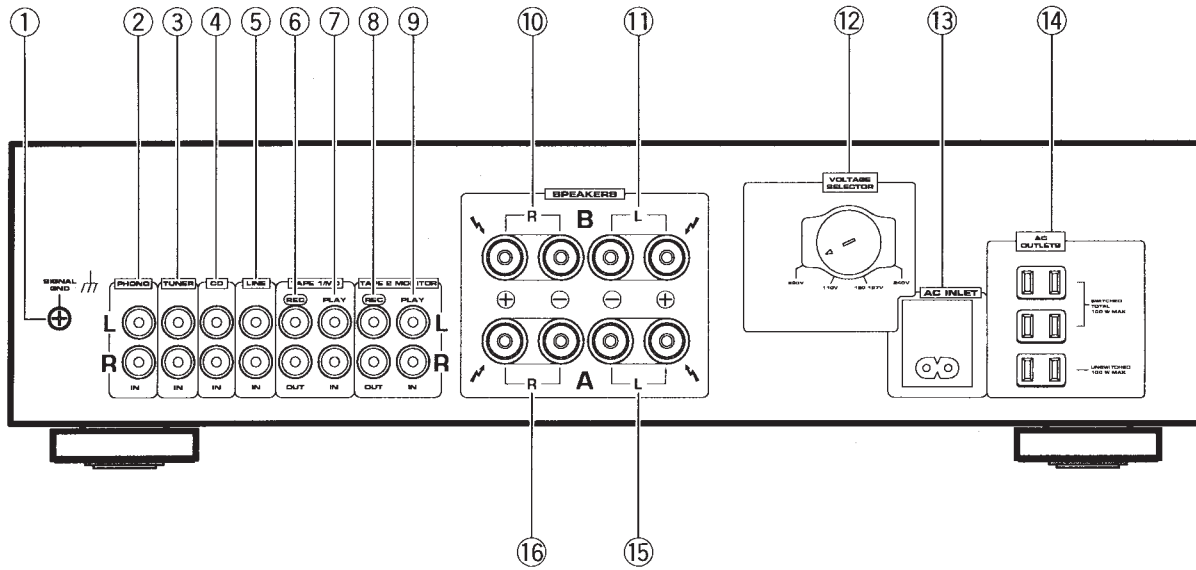
⑤ BALANCE control

Should normally be left in the center position. Adjust 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.

[REAR PANEL]



① GND (Turntable ground) terminal

② PHONO terminals

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 VOLTAGE SELECTOR
(Multi-voltage model only)

⑬ 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.

NOTE:

- If you use an other power cord than provided, we cannot assume the liabilities in what may occur as a result of it.

⑭ AC OUTLETS
(Multi-voltage model only)

NOTES:

- This unit should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.
- Do not connect appliances with high power consumption such as heaters, irons, or television sets to this AC OUTLET in order to avoid overheating and fire risk. This can also cause the receiver to malfunction.

⑮ SPEAKERS A terminals (Right channel)

⑯ SPEAKERS A terminals (Left channel)

8.2 SPECIFICATIONS

Amplifier Section

Continuous power output (both channels driven at 20 Hz to 20 kHz)**	
T.H.D. 0.1 %, 8 Ω	35 W + 35 W*
T.H.D. 0.15 %, 4 Ω	45 W + 45 W*
DIN Continuous power output (both channels driven at 1 kHz)	
T.H.D. 1.0 %, 8 Ω	45 W + 45 W
T.H.D. 1.0 %, 4 Ω	60 W + 60 W
Total harmonic distortion**	
20 Hz to 20 kHz, 17.5 W, 8 Ω	0.08 %*
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 REC, TAPE 2 MONITOR REC	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 100kHz dB*
Tone control	
BASS	± 8 dB (100 Hz)
TREBLE	± 8 dB (10 kHz)
Loudness contour (volume control set at – 30 dB position)	
.....	+ 6 dB (100 Hz)/ + 4 dB (10 kHz)
Signal-to-Noise ratio (IHF short circuit, A network)	
PHONO (MM, 5 mV input)	85dB*
CD, TUNER, LINE, TAPE 1/MD, TAPE 2 MONITOR	106 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	91 dB/ 71 dB*

Power Supply/ Miscellaneous

Power requirements	
Multi-voltage model AC 110 V/120 - 127 V/220 V/240 V, (switchable), 50/60 Hz	
Except for Multi-voltage model	AC 220 - 230 V
Power consumption	
Multi-voltage model	310 W
Except for Multi-voltage model	130 W
AC outlets (Multi-voltage model)	
Switched (x 2)	100 W
Unswitched (x 1)	100 W
Dimensions (including knobs and other protruding parts)	
.....	420 (W) X 114 (H) X 307 (D) mm
Weight (without package)	
.....	4.7 kg

Accessories

Operating Instructions	1
Power cord	1

NOTE:

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

* Measured with DIRECT button set to on.

** Measured by Audio Spectrum Analyzer.