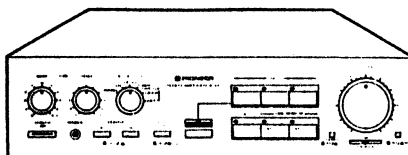


Service Manual

**CIRCUIT DESCRIPTIONS
REPAIR & ADJUSTMENTS**



**ORDER NO.
ARP1234-A**

STEREO AMPLIFIER

A-44(BK)

MODEL A-44 (BK) COMES IN THREE VERSIONS DISTINGUISHED AS FOLLOWS:

Type	Power requirement	Export destination
HEZ	AC220V, 240V (switchable)	West Germany
HE	AC220V, 240V (switchable)	European continent
HB	AC220V, 240V (switchable)	United Kingdom

- This service manual is applicable to the A-44 (BK)/HEZ, HE and HB types.
- As to the HE and HB types, please refer to page 17.

CONTENTS

1. EXPLODED VIEWS AND PARTS LIST	3	4. SCHEMATIC DIAGRAM	11
2. PACKING	6	5. ELECTRICAL PARTS LIST	14
3. P.C. BOARDS CONNECTION DIAGRAM	7	6. FOR HE AND HB TYPES	17

Line voltage selection (HE, HEZ and HB types)

Line voltage can be changed with following steps.

1. Disconnect the AC power cord.
2. Remove the top cover.
3. Change the connection wire (To Power transformer) of Terminal No. 3 (WHITE) as follows.

Voltage	Terminal No. 3	Terminal No. 5
220V	White wire	.....
240V	.....	White wire

1. EXPLODED VIEWS AND PARTS LIST

NOTES:

- Parts without part number cannot be supplied.
- 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.
- For your Parts Stock Control, the fast moving items are indicated with the marks ****** and *****.
**** GENERALLY MOVES FASTER THAN ***
 This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- Parts marked by " \odot " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Parts List of Exterior

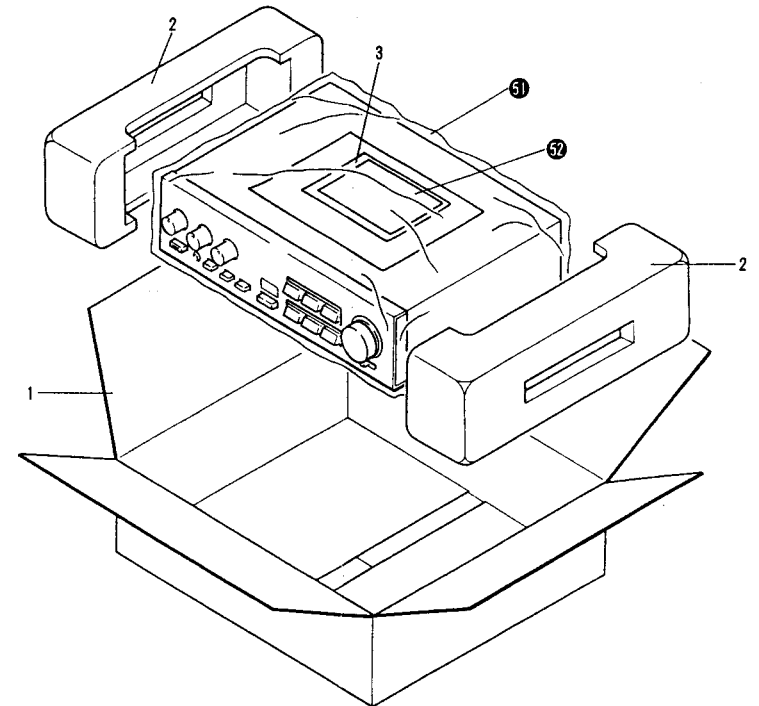
Mark	No.	Part No.	Description	Mark	No.	Part No.	Description
Δ **	1	2SA1516	Transistor (Q3, Q4)		36	VMZ30P060FMC	Screw
Δ **	2	2SC3907	Transistor (Q1, Q2)		37	AWZ1208	AF complex assembly
Δ	3	ACG1003	Power capacitor (0.01 μ F/AC400V, C1)		38	AWZ1209	Tone, Function assembly
Δ *	4	ATS1040	Power transformer (220V/240V, T1)		39	AWT1003	Line filter assembly
Δ **	5	ASG-552	Push switch (POWER, S1)	**	40	ASU1001	Remote slide rotary switch (REC SELECTOR)
Δ **	6	AEK-017	Fuse (T2A/250V, FU1)		41	AAD1066	Function knob (VIDEO/AUX)
	7	AEC1032	Leg assembly		42	AMR1088	Joint bar
	8	AMD1004	Panel base assembly		43	ANG1088	Ring (EARTH)
	9	ANB1051	Front panel assembly		44	AAT-118	Indicator lens C
	10	AAB1011	Knob (VOLUME)		45	BBZ30P080FCU	Screw
	11	AAB1012	Knob (TONE)		101		Volume assembly
	12	AAD1060	Knob (POWER)		102		Speaker switch assembly
	13	AAD1061	Knob (SPEAKER)		103		SP Terminal assembly
	14	AAD1062	Function knob (PHONO)		109		Transformer frame
	15	AAD1063	Knob (CD DIRECT)		105		Terminal (GND)
	16	AAD1064	Function knob (TUNER)		106		Chassis
	17	AAD1065	Function knob (CD)		107		Rear panel
	18	AAD1067	Function knob (TAPE1)		108		Bottom plate
	19	AAD1068	Function knob (TAPE2)		109		Transframe
	20	AAD1070	Knob (LOUDNESS)		110		Switch holder
	21	AAK1124	CD Direct plate		111		P.C.B. Holder
	22	AAT-110	Indicator lens C		112		Heat sink
	23	ANE1059	Bonnet		113		Binder
	24	ABH1015	Coil spring		114		Plate (EARTH)
	25	ABH1019	Coil spring				
	26	AEC-525	Nylon rivet				
	27	AEP-313	Mica seat				
	28	ABA-115	Screw				
	29	ABA-258	Screw				
	30	BBZ30P080FMC	Screw				
Δ	31	ADG-068	AC Power cord				
	32	BBZ30P080FZK	Screw				
	33	NK70FUC	Nut				
	34	NK90FUC	Nut				
	35	VBZ30P080FMC	Screw				

2. PACKING

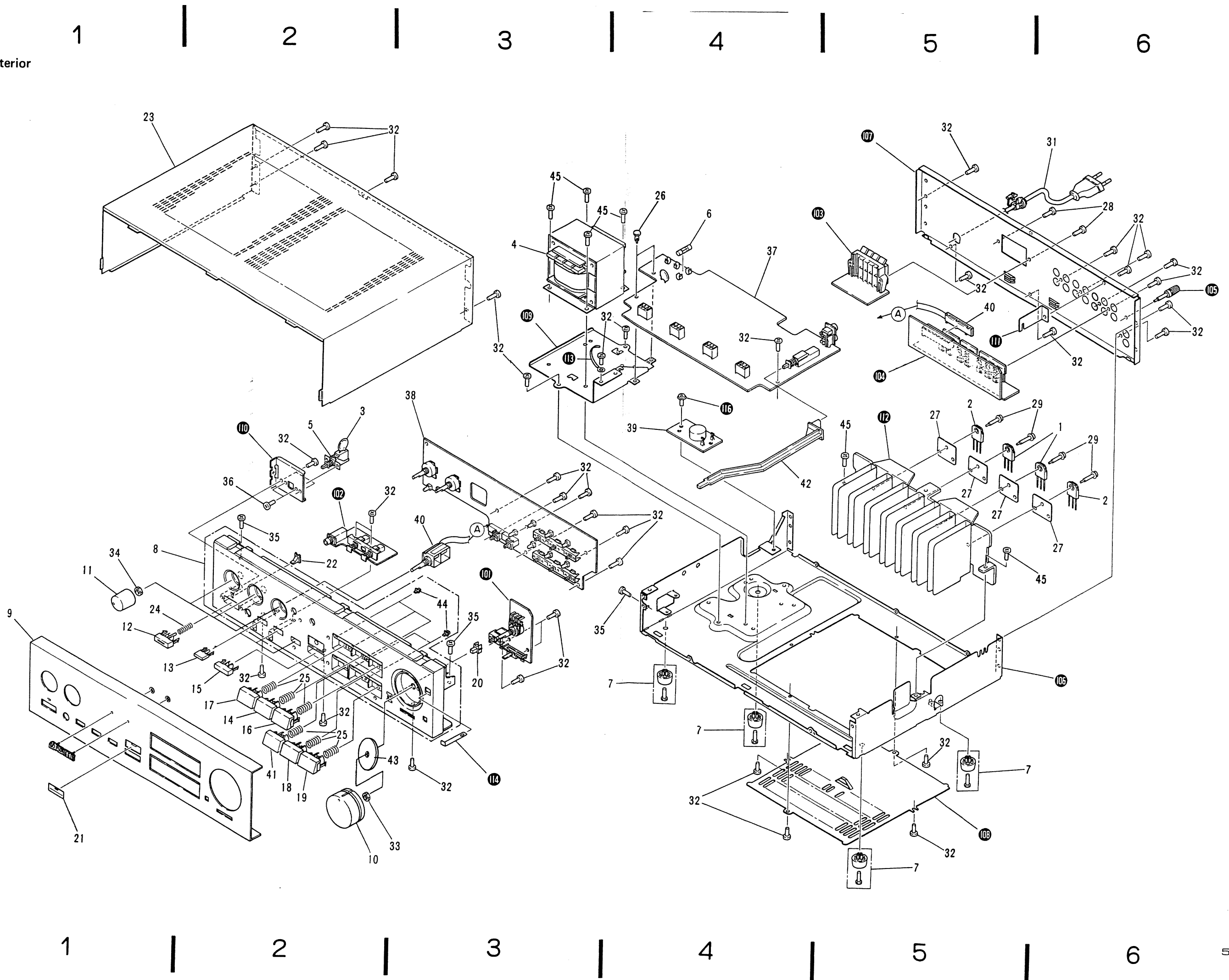
Parts List of Packing

Mark	No.	Part No.	Description
	1	AHD1109	Packing case
	2	AHA1015	Front rear pad
	3	ARC1018	Operating instructions
	51		Seat
	52		Warranty card

A
B
C
D



Exterior

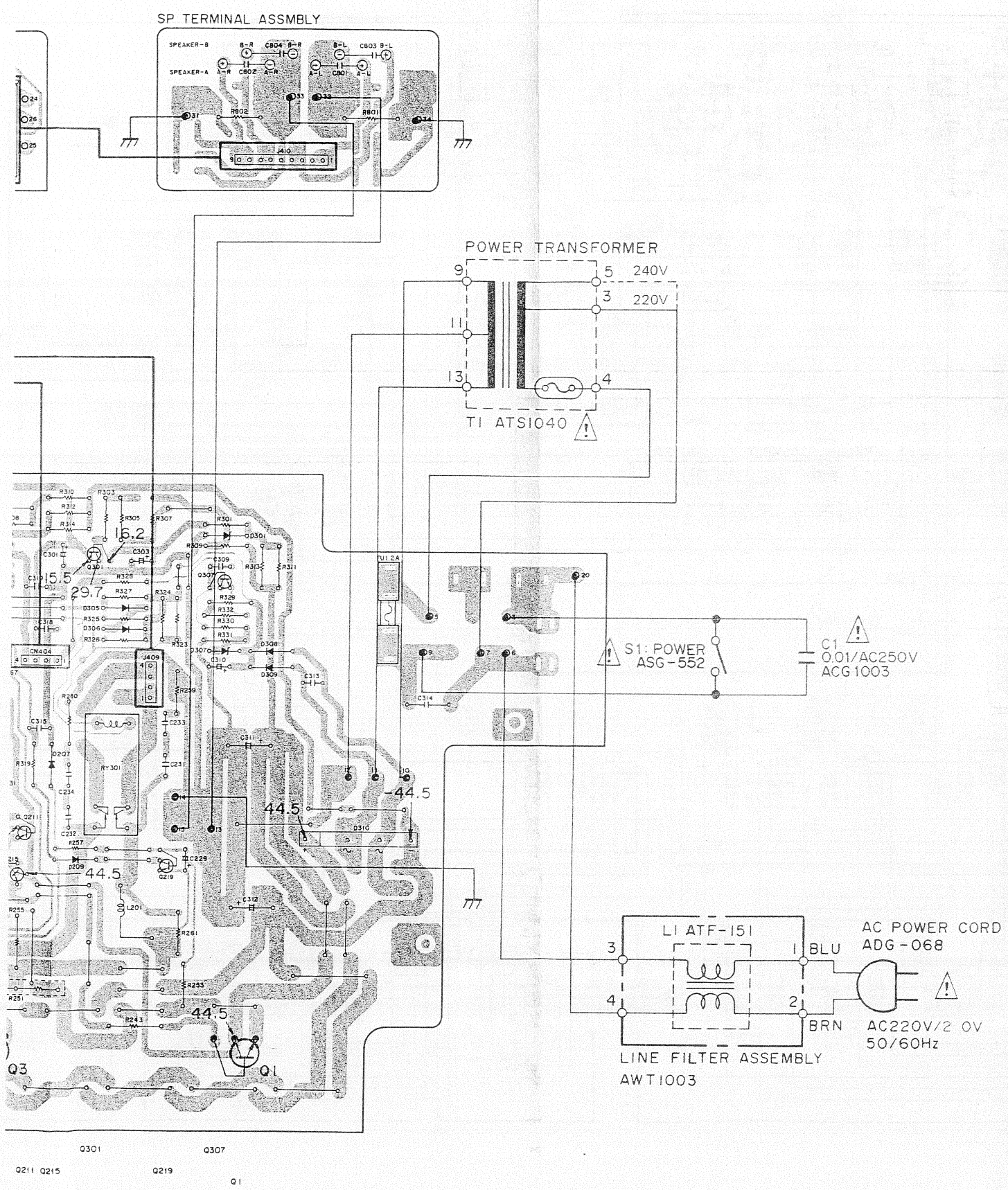


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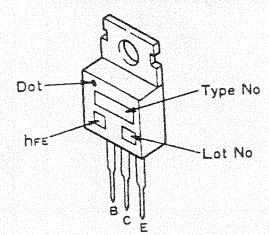
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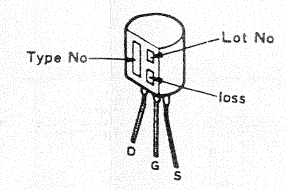
External Appearance of Transistors and ICs

A

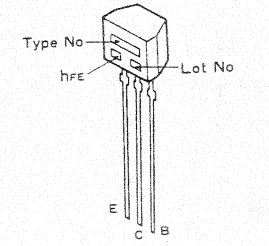
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2SA1111



2SK170

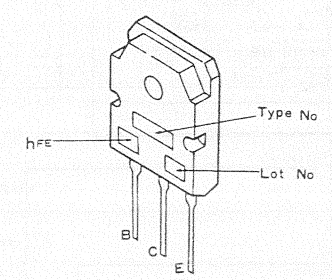


2SC2458

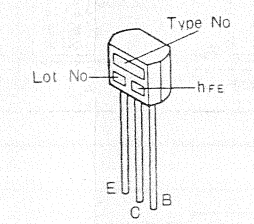


B

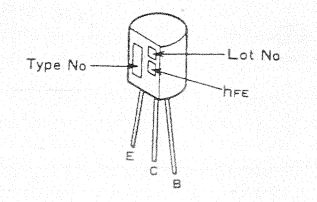
2SC3907
2SA1516



2SA1115
2SC2603

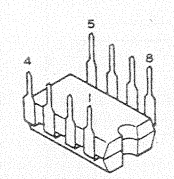


2SA992
2SC1845

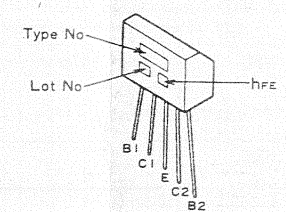


C

M5210P

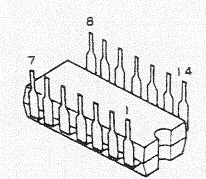


2SA979

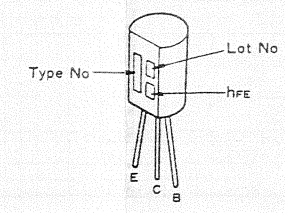


D

PA0016



2SA1145
2SC2705



7

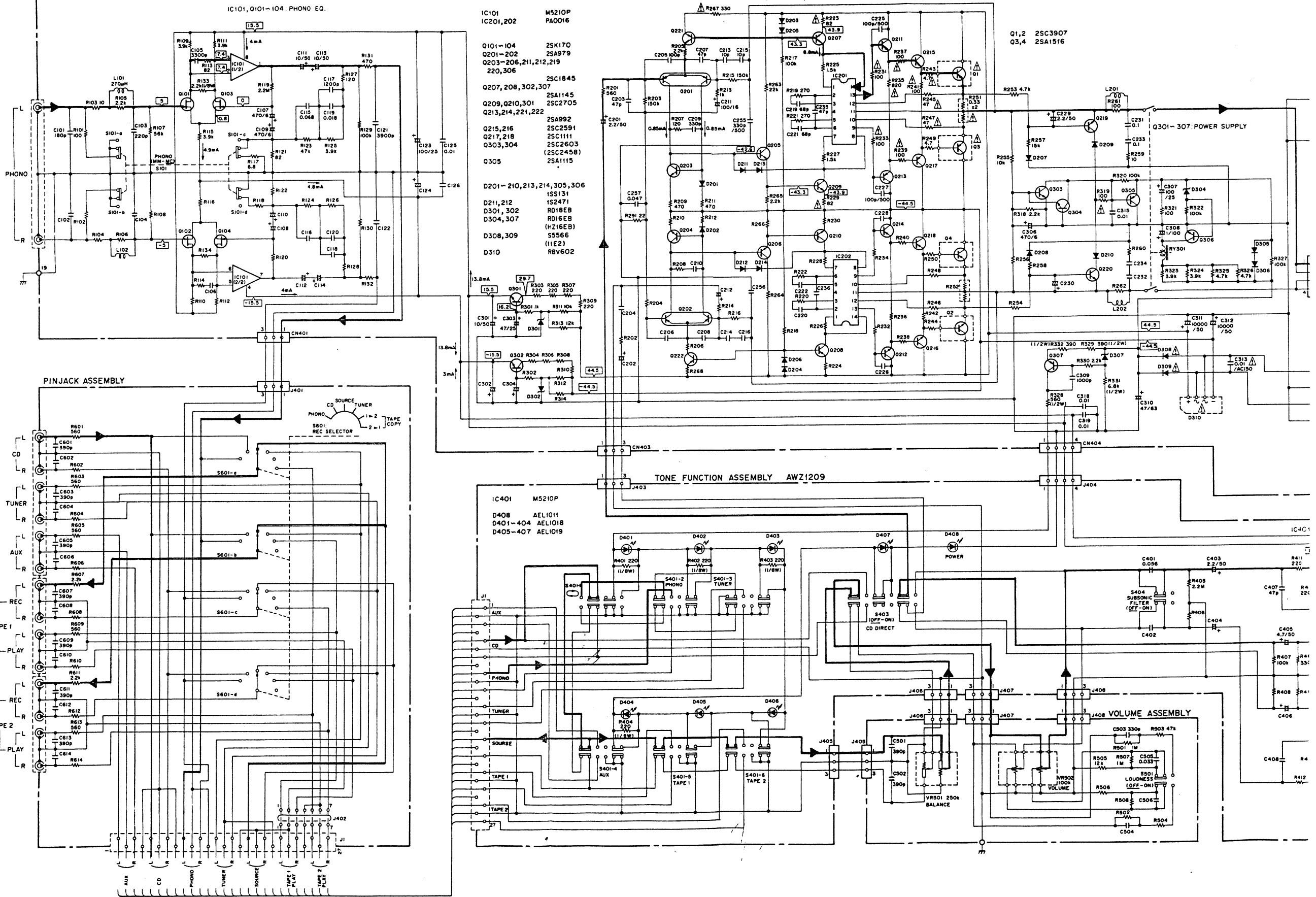
8

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10

4. SCHEMATIC DIAGRAM

AF COMPLEX ASSEMBLY AWZ1208



A

B

C

D

1

2

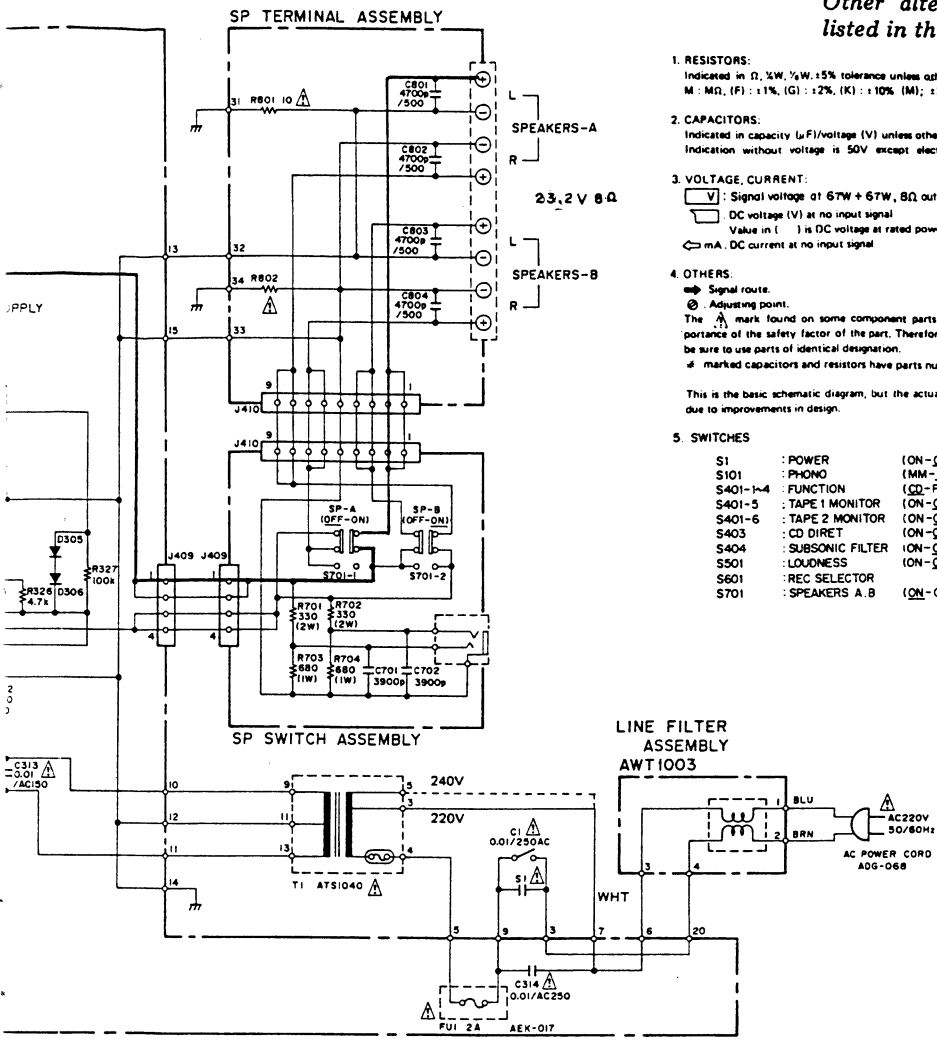
3

4

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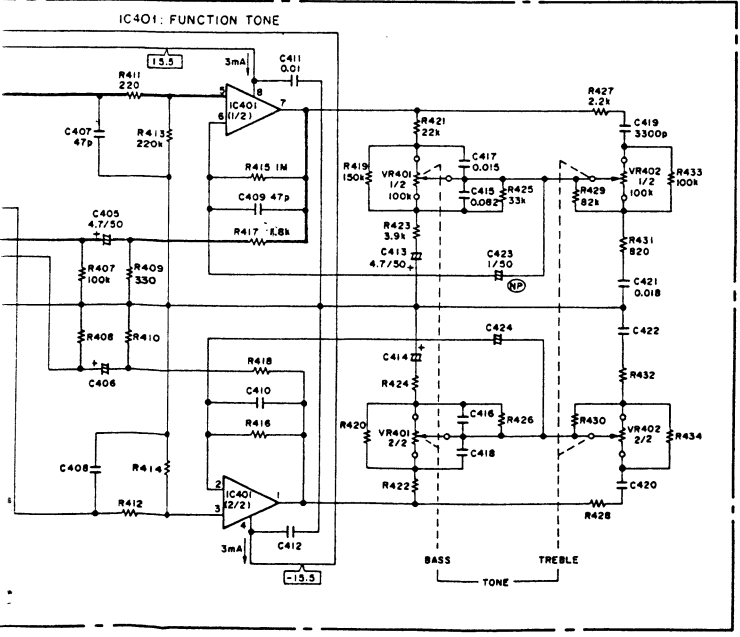
6

NOTE:
 The indicated semiconductors are representative ones only.
 Other alternative semiconductors may be used and are listed in the parts list.



- RESISTORS:**
 Indicated in Ω, $\frac{1}{2}W$, $\frac{1}{4}W$; 5% tolerance unless otherwise noted k: kΩ, M: MΩ, (F): ±1%, (G): ±2%, (K): ±10% (M): ±20% tolerance
 - CAPACITORS:**
 Indicated in capacity (μF)/voltage (V) unless otherwise noted p: pF
 Indication without voltage is 50V except electrolytic capacitor.
 - VOLTAGE, CURRENT:**
 [V] : Signal voltage at 67W + 67W, 8Ω output (1kHz)
 [V] : DC voltage (V) at no input signal
 Value in () is DC voltage at rated power.
 [mA] : DC current at no input signal
 - OTHERS:**
 → Signal route.
 ⊕ Adjusting point.
 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.
 # marked capacitors and resistors have parts numbers.
- This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.
- SWITCHES**

S1	: POWER	(ON-OFF)
S101	: PHONO	(MM-MC)
S401-1-4	: FUNCTION	(CD-PHONO-TUNER-AUX)
S401-5	: TAPE 1 MONITOR	(ON-OFF)
S401-6	: TAPE 2 MONITOR	(ON-OFF)
S403	: CD DIRET	(ON-OFF)
S404	: SUBSONIC FILTER	(ON-OFF)
S501	: LOUDNESS	(ON-OFF)
S601	: REC SELECTOR	
S701	: SPEAKERS A, B	(ON-OFF)



5. ELECTRICAL PARTS LIST

NOTES:

- 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%).

560Ω	56 × 10 ¹	561	RD4PS	5	6	1	J
47kΩ	47 × 10 ³	473	RD4PS	4	7	3	J
0.5Ω	0R5		RN2H	0	5		K
1Ω	010		RS1P	0	1	0	K
 - Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ	562 × 10 ¹	5621	RN4SR	5	6	2	1	F
--------	-----------------------	------	-------	---	---	---	---	---
- 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.
- For your Parts Stock Control, the fast moving items are indicated with the marks ** and *.
- ** **GENERALLY MOVES FASTER THAN ***
This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- Parts marked by " \odot " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Miscellaneous Parts

P.C. BOARD ASSEMBLIES

Mark	Symbol & Description	Part No.
	AF complex assembly	AWZ1208
	Tone, Function assembly	AWZ1209
	LINE filter assembly	AWT1003
	Volume assembly	Non supply
	Pin jack assembly	Non supply
	Speaker switch assembly	Non supply
	SP terminal assembly	Non supply

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
Δ **	Q3, Q4 Transistor	2SA1516
Δ **	Q1, Q2 Transistor	2SC3907

SWITCHES

Mark	Symbol & Description	Part No.
Δ **	S1 Push switch (POWER)	ASG-552
**	S601 Slide rotary switch (REC SELECTOR)	ASU1001

TRANSFORMER

Mark	Symbol & Description	Part No.
Δ *	T1 Power transformer (220/240V)	ATS1040

CAPACITOR

Mark	Symbol & Description	Part No.
Δ	C1 Power capacitor (0.01/AC400V)	ACG1003

OTHERS

Mark	Symbol & Description	Part No.
Δ	AC power cord	ADG-068
Δ **	FU1 Fuse (T2A/250V)	AEK-017

AF Complex Assembly (AWZ1208)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
**	IC101	M5210P
**	IC201, IC202	PA0016
**	Q217, Q218	2SA1111
**	Q305	2SA1115
**	Q207, Q208, Q302, Q307	2SA1145
**	Q201, Q202	2SA979
**	Q213, Q214, Q221, Q222	2SA992
**	Q203-Q206, Q211, Q212, Q219, Q220, Q306	2SC1845
**	Q215, Q216	2SC2591
**	Q303, Q304	2SC2603
**	Q209, Q210, Q301	(2SC2458) 2SC2705
**	Q101-Q104	2SK170

Mark	Symbol & Description	Part No.
Δ *	D310	R8V602
*	D304, D307	RD16EB (HZ16EB)
*	D301, D302	RD18EB
Δ *	D308, D309	S5566 (11E2)
*	D201-D210, D213, D214, D305, D306	1SS131
*	D211, D212	1S2471

SWITCH, RELAY

Mark	Symbol & Description	Part No.
**	S101 Push switch (MM-MC)	ASG1012
**	RY301 Relay (PROTECTION)	ASR-112 (ASR-107) (ASR-109)

COILS

Mark	Symbol & Description	Part No.
	L201, L202 AF choke coil	ATH1009
	L101, L102 Inductor	ATH1010

CAPACITORS

Mark	Symbol & Description	Part No.
Δ	C313 (0.01/AC150)	ACG-019
Δ	C314 (0.01/AC400)	ACG1003
	C311, C312 (10000/50)	ACH1020
	C213-C216	CCCSL100D50
	C205, C206	CCCSL101J50
	C225-C228	CCCSL101K500
	C203, C204, C207, C208, C235, C236	CCCSL470J50
	C219-C222	CCCSL680J50
	C101, C102	CCDSL181J50
	C103, C104	CCDSL221J50
	C308	CEAS010M100
	C111-C114, C301, C302	CEAS100M50
	C211, C212	CEYA101M16
	C123, C124, C307	CEAS101M25
	C229, C230	CEAS2R2M50
	C201, C202	CEYA2R2M50
	C303, C304	CEAS470M25
	C310	CEAS470M63
	C107-C110, C306	CEAS470M6
	C309	CKCYB102K50
	C209, C210	CKCYB331K50
	C315, C318, C319	CKCYF103Z50
	C255, C256	CKDYB331K500
	C125, C126	CKDYF103Z50
	C257	CKDYF473Z50
	C231-C234	CQMA104K50
	C117, C118	CQMA122J50
	C119, C120	CQMA183J50
	C105, C106	CQMA332K50
	C121, C122	CQMA392K50
	C115, C116	CQMA683J50

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
Δ	R251, R252 (0.33Ωx2)	ACN-139
	R328, R329, R331, R332	RD1/2PM□□□J
Δ	R223, R224, R229, R230, R235, R236, R245-R248, R259-R262, R267, R268, R319	RD1/4PMF□□□J
Δ	R231-R234, R237-R244, R249, R250	RFA1/4PS□□□J
Δ	R201, R202, R203, R204, R213-R216	RDR1/4PM□□□J
	Other resistors	RD1/4PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	Terminal 2P (PHONO)	AKB-119
	Transistor socket	AKH-017

Tone, Function Assembly (AWZ1209)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
**	IC401	M5210P
*	D408 LED (POWER)	AEL1011
*	D401-D404 LED (CD, PHONO, TUNER, AUX)	AEL1018
*	D405-D407 LED (TAPE1, TAPE2, CD DIRECT)	AEL1019

SWITCH

Mark	Symbol & Description	Part No.
**	S401 Push switch (FUNCTION, TAPE1, TAPE2)	ASG1013
**	S404 Push switch (SUBSONIC FILTER)	SEAV2S
**	S403 Push switch (CD DIRECT)	SECV6S

CAPACITORS

Mark	Symbol & Description	Part No.
	C407-C410	CCCSL470J50
	C423, C424	CEANP010M50
	C403, C404	CEAS2R2M50
	C405, C406, C413, C414	CEAS4R7M50
	C411, C412	CKCYF103Z50
	C417, C418	CQMA153K50
	C421, C422	CQMA183K50
	C419, C420	CQMA332K50
	C401, C402	CQMA563K50
	C415, C416	CQMA823K50

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
★	VR401, VR402 Variable resistor (TONE, 100kΩ)	ACT1019
	R401-R404 Other resistors	RD1/8PM221J RD1/4PM000J

Line Filter Assembly (AWT1003)

COIL

Mark	Symbol & Description	Part No.
△	L1 Line filter	ATF-151

Volume Assembly

SWITCH

Mark	Symbol & Description	Part No.
★★	S501 Push switch (LOUDNESS)	SEAV2S

CAPACITORS

Mark	Symbol & Description	Part No.
	C503, C504	CKCYB331K50
	C501, C502	CKCYB391K50
	C505, C506	CQMA333K50

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
★	VR502 Variable resistor (VOLUME, 100kΩ)	ACT1016
★	VR501 Variable resistor (BALANCE, 250kΩ)	ACU1008
	R501-R508	RD1/4PM000J

Pin Jack Assembly

SWITCH

Mark	Symbol & Description	Part No.
★★	S601 Remote slide switch (REC SELECTOR)	ASU1002

CAPACITORS

Mark	Symbol & Description	Part No.
	C601-C614	CKDYB391K50

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R603-R614	RD1/4PM000J
	R601, R602	RDR1/4PM000J

OTHERS

Mark	Symbol & Description	Part No.
	Terminal 4P (TAPE1, TAPE2)	AKB-115
	Terminal 6P (CD, TUNER, AUX)	AKB-117

Speaker Switch Assembly

SWITCH

Mark	Symbol & Description	Part No.
★★	S701 Push switch (SPEAKER A/B)	SUL6LXBXS

CAPACITORS

Mark	Symbol & Description	Part No.
	C701, C702	CKCYB392K50

RESISTORS

Mark	Symbol & Description	Part No.
	R703, R704	RS1PMF681J
	R701, R702	RS2LMF331J

OTHERS

Mark	Symbol & Description	Part No.
	Phone jack (PHONES)	AKN1002

SP Terminal Assembly

CAPACITORS

Mark	Symbol & Description	Part No.
	C801-C804	CKDYB472K50

RESISTORS

Mark	Symbol & Description	Part No.
△	R801, R802	RD1/4PMF100J

OTHERS

Mark	Symbol & Description	Part No.
	Terminal 8P (SPEAKERS)	AKE-111

6. FOR HE AND HB TYPES

6.1 CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- Parts without part number cannot be supplied.
- 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.
- For your Parts Stock Control, the fast moving items are indicated with the marks ★★ and ★.
- ★★ **GENERALLY MOVES FASTER THAN ★**
This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

The A-44 (BK)/HE and HB types are the same as A-44 (BK)/HEZ type with the exception of the following sections:

Mark	Symbol & Description	Part No.			Remarks
		A-44 [BK]/ HEZ type	A-44 [BK]/ HE type	A-44 [BK]/ HB type	
	AF complex assembly	AWZ1208	AWZ1237	AWZ1237	(For Speaker terminal)
	SP Terminal assembly	Non supply	Non supply	Non supply	
	Pin jack assembly	Non supply	Non supply	Non supply	
	Line filter assembly	AWT1003	.....	.....
	Screw	ABA-115	.....	.....
	Operating instructions (German)	ARC1018	.....	.....
	Operating instructions (English/German/French/Italian)	.....	ARE1037	ARE1037
	AC power cord	ADG-068	ADG-068	ADG-063	
△★★	FU1 Fuse (T2A/250V)	AEK-017	AEK-017	AEK-511	

6.2 ELECTRICAL PARTS LIST

NOTES:

- 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%).

560Ω	56 × 10 ¹	561	RD4PS	5	6	1	J
47kΩ	47 × 10 ³	473	RD4PS	4	7	3	J
0.5Ω	0R5		RN2H	0	5		K
1Ω	010		RS1P	0	1	0	K
 - Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ	562 × 10 ¹	5621	RN4SR	5	6	2	1	F
--------	-----------------------	------	-------	---	---	---	---	---
- 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.
- For your Parts Stock Control, the fast moving items are indicated with the marks ** and *.
- ** **GENERALLY MOVES FASTER THAN ***
This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- Parts marked by " \odot " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

AF Complex Assembly (AWZ1237)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
**	IC101	M5210P
**	IC201, IC202	PA0016
**	Q217, Q218	2SA1111
**	Q305	2SA1115
**	Q207, Q208, Q302, Q307	2SA1145
**	Q201, Q202	2SA979
**	Q213, Q214, Q221, Q222	2SA992
**	Q203-Q206, Q211, Q212, Q219, Q220, Q306	2SC1845
**	Q215, Q216	2SC2591
**	Q303, Q304	2SC2603 (2SC2458)
**	Q209, Q210, Q301	2SC2705
**	Q101-Q104	2SK170
Δ *	D310	RBV602
*	D304, D307	RD16EB (HZ16EB)
*	D301, D302	RD18EB (HZ18EB)
Δ *	D308, D309	S5566 (11E2)
*	D201-D210, D213, D214, D305, D306	1SS131
*	D211, D212	1S2471

SWITCH, RELAY

Mark	Symbol & Description	Part No.
**	S101 Push switch (MM-MC)	ASG1012
**	RY301 Relay (PROTECTION)	ASR-112 (ASR-107) (ASR-109)

COILS

Mark	Symbol & Description	Part No.
	L201, L202 AF choke coil	ATH1004

CAPACITORS

Mark	Symbol & Description	Part No.
Δ	C313 (0.01/AC150)	ACG-019
Δ	C314 (0.01/AC400)	ACG1003
	C311, C312 (10000/50)	ACH1020
	C213-C216	CCCSL100D50
	C205, C206	CCCSL101J50
	C225-C228	CCCSL101K500
	C203, C204, C207, C208, C235, C236	CCCSL470J50
	C219-C222	CCCSL680J50
	C103, C104	CCDSL221J50
	C308	CEAS010M100
	C111-C114, C301, C302	CEAS100M50
	C211, C212	CEYA101M16
	C123, C124, C307	CEAS101M25
	C229, C230	CEAS2R2M50
	C201, C202	CEYA2R2M50
	C303, C304	CEAS470M25
	C310	CEAS470M63
	C107-C110, C306	CEAS470M6
	C309	CKCYB102K50
	C209, C210	CKCYB331K50
	C315	CKCYF103Z50
	C125, C126	CKDYF103Z50
	C231-C234	CQMA104K50
	C117, C118	CQMA122J50
	C119, C120	CQMA183J50
	C105, C106	CQMA332K50
	C121, C122	CQMA392K50
	C115, C116	CQMA683J50

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
Δ	R251, R252 (0.33Ωx2)	ACN-139
	R328, R329, R331, R332	RD1/2PM□□□J
Δ	R235, R236, R253, R254, R259-R262, R267, R268	RD1/4PMF□□□J
Δ	R223, R224, R229, R230, R231-R234, R237-R250, R319	RFA1/4PS□□□J
	R201-R204, R213-R216	RDR1/4PM□□□J
	Other resistors	RD1/4PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	Terminal 2P (PHONO)	AKB-119
	Transistor socket	AKH-017

Pin Jack Assembly

SWITCH

Mark	Symbol & Description	Part No.
**	S601 Remote slide switch (REC SELECTOR)	ASU1002

RESISTORS

Note: When ordering resistors, convert the resistance value into code form, and then rewrite the part no. as before.

Mark	Symbol & Description	Part No.
	R603-R614	RD1/4PM□□□J
	R601, R602	RDR1/4PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	Terminal 4P (TAPE1, TAPE2)	AKB-115
	Terminal 6P (CD, TUNER, AUX)	AKB-117

SP Terminal Assembly

OTHERS

Mark	Symbol & Description	Part No.
	Terminal 8P (SPEAKERS)	AKE-111

6.3 SCHEMATIC DIAGRAM

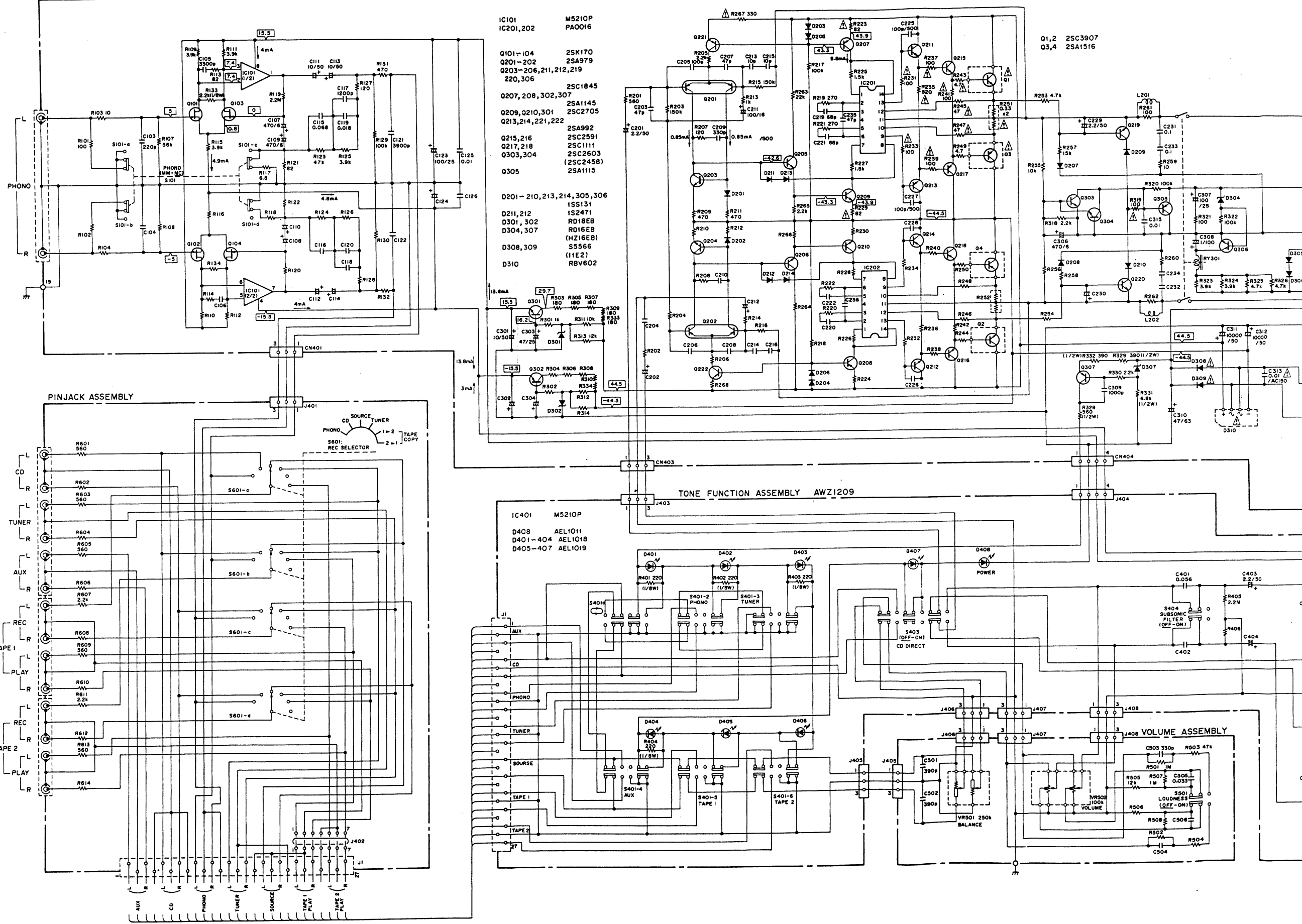
AF COMPLEX ASSEMBLY AWZ1237

A

B

C

D



IC101 M5210P
IC201,202 PA0016

Q101-104 2SK170
Q201-202 2SA979
Q203-206,211,212,219 220,306
Q207,208,302,307 2SC1845
Q209, Q210,301 2SA1145
Q213,214,221,222 2SC2705
Q215,216 2SA992
Q217,218 2SC2591
Q303,304 2SC1111
Q305 2SC2603 (2SC245B)
2SA1115

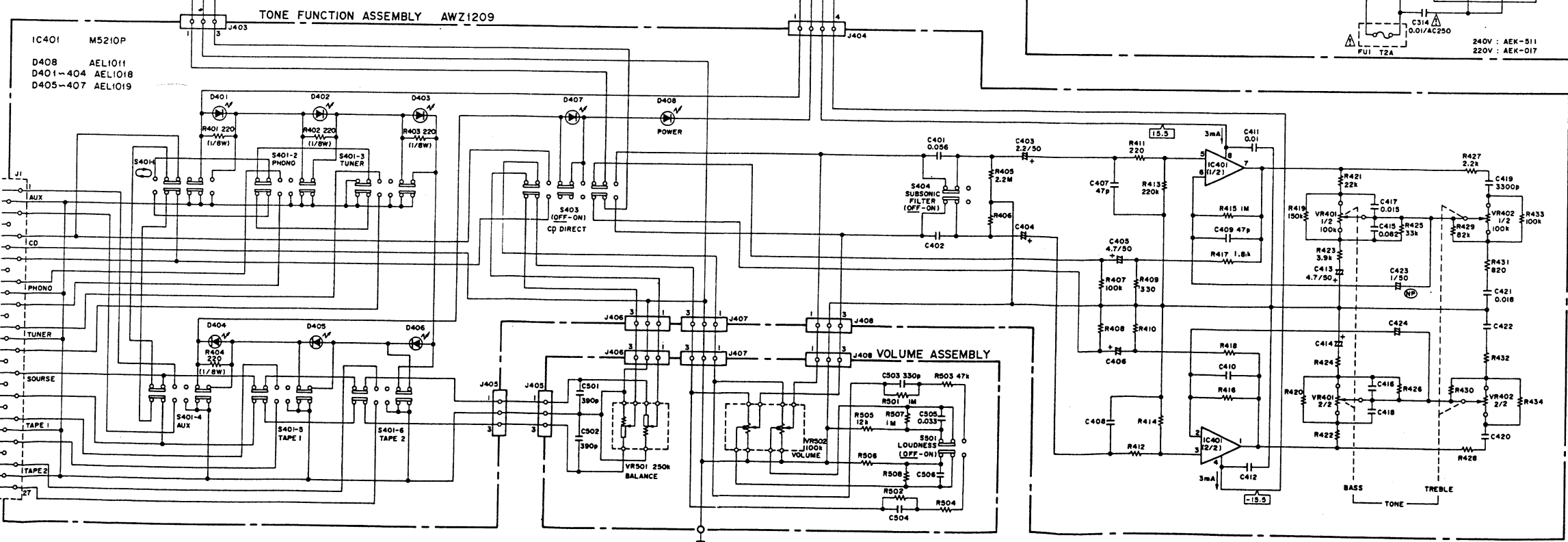
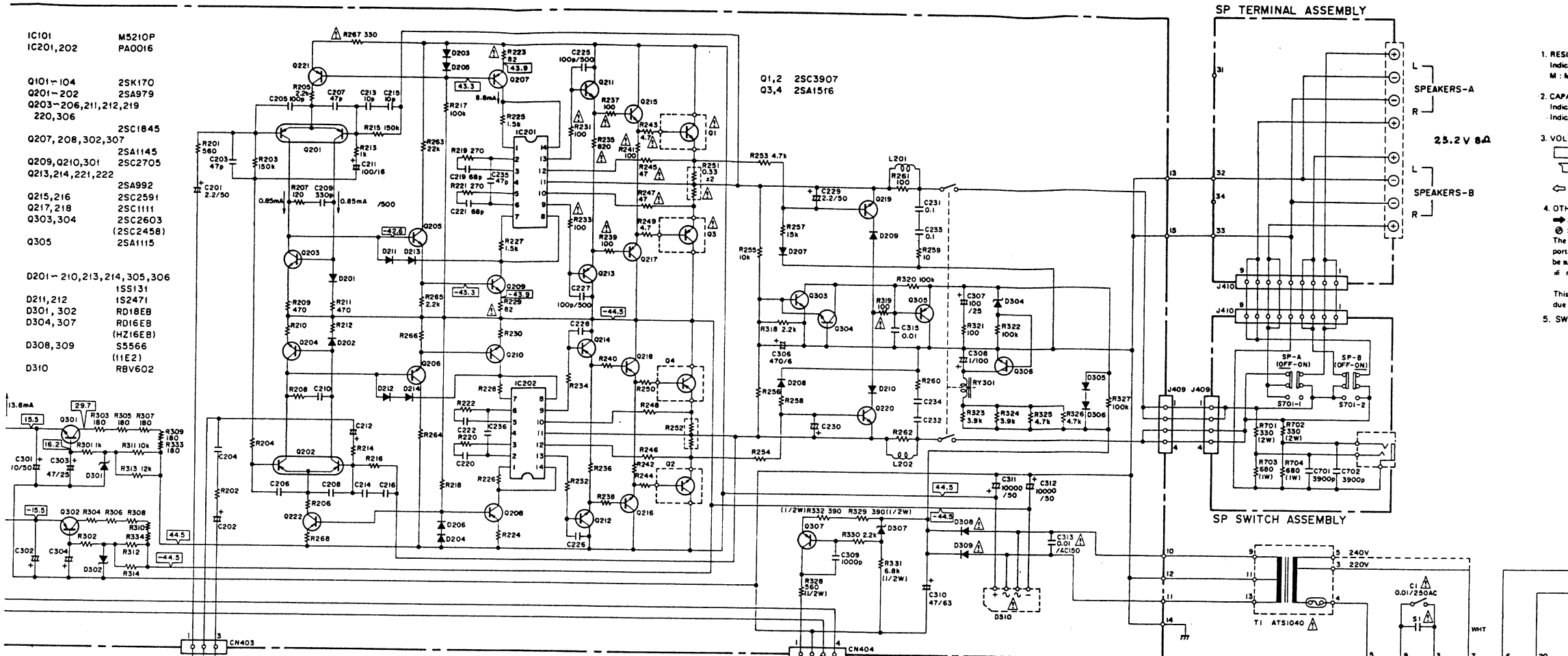
D201-210,213,214,305,306 1S5131
D211,212 1S2471
D301,302 RD18EB
D304,307 RD16EB (HZ16EB)
D308,309 S5566 (11E2)
D310 RBV602

D201-210,213,214,305,306 1S5131
D211,212 1S2471
D301,302 RD18EB
D304,307 RD16EB (HZ16EB)
D308,309 S5566 (11E2)
D310 RBV602

Q301 2SK170
Q302 2SK170
Q303 2SK170
Q304 2SK170
Q305 2SK170
Q306 2SK170
Q307 2SK170
Q308 2SK170
Q309 2SK170
Q310 2SK170
Q311 2SK170
Q312 2SK170
Q313 2SK170
Q314 2SK170
Q315 2SK170
Q316 2SK170
Q317 2SK170
Q318 2SK170
Q319 2SK170
Q320 2SK170
Q321 2SK170
Q322 2SK170
Q323 2SK170
Q324 2SK170
Q325 2SK170
Q326 2SK170
Q327 2SK170
Q328 2SK170
Q329 2SK170
Q330 2SK170
Q331 2SK170
Q332 2SK170
Q333 2SK170
Q334 2SK170
Q335 2SK170
Q336 2SK170
Q337 2SK170
Q338 2SK170
Q339 2SK170
Q340 2SK170

IC401 M5210P
D408 AEL1011
D401-404 AEL1018
D405-407 AEL1019

AUX
CD
PHONO
TUNER
SOURCE
TAPE 1
TAPE 2



- RESISTORS:**
Indicated in Ω, kΩ, MΩ, % tolerance unless otherwise noted k: kΩ, M: MΩ, (F): ±1%, (G): ±2%, (K): ±10% (M): ±20% tolerance
 - CAPACITORS:**
Indicated in capacity (μF)/voltage (V) unless otherwise noted p: pF. Indication without voltage is 50V except electrolytic capacitor.
 - VOLTAGE, CURRENT:**
V: Signal voltage at 10W + 10W, 8Ω output (1kHz)
DC voltage (V) at no input signal
Value in () is DC voltage at rated power.
mA: DC current at no input signal
 - OTHERS:**
⊕: Signal route
⊙: Adjusting point
⚠: 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.
* marked capacitors and resistors have parts numbers.
- This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.
- SWITCHES**

- S1 : POWER (ON-OFF)
- S101 : PHONO (MM-MC)
- S401-1-4 : FUNCTION (CD-PHONO-TUNER-AUX)
- S401-5 : TAPE 1 MONITOR (ON-OFF)
- S401-6 : TAPE 2 MONITOR (ON-OFF)
- S403 : CD DIRECT (ON-OFF)
- S404 : SUBSONIC FILTER (ON-OFF)
- S501 : LOUDNESS (ON-OFF)
- S601 : REC SELECTOR
- S701 : SPEAKERS A,B (ON-OFF)

A

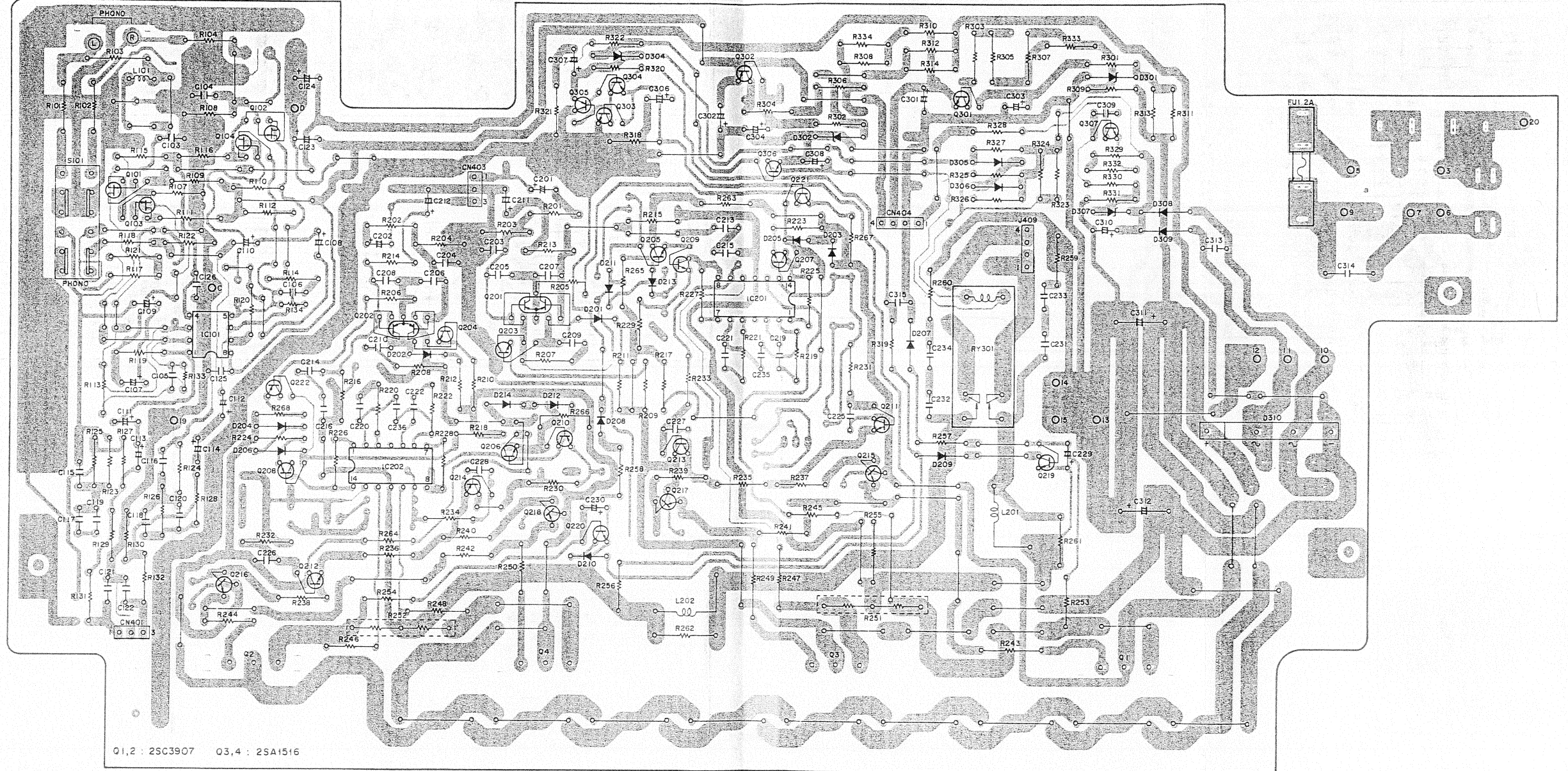
B

C

D

6.4 P.C. BOARD PATTERNS

AF COMPLEX ASSEMBLY AWZ1237

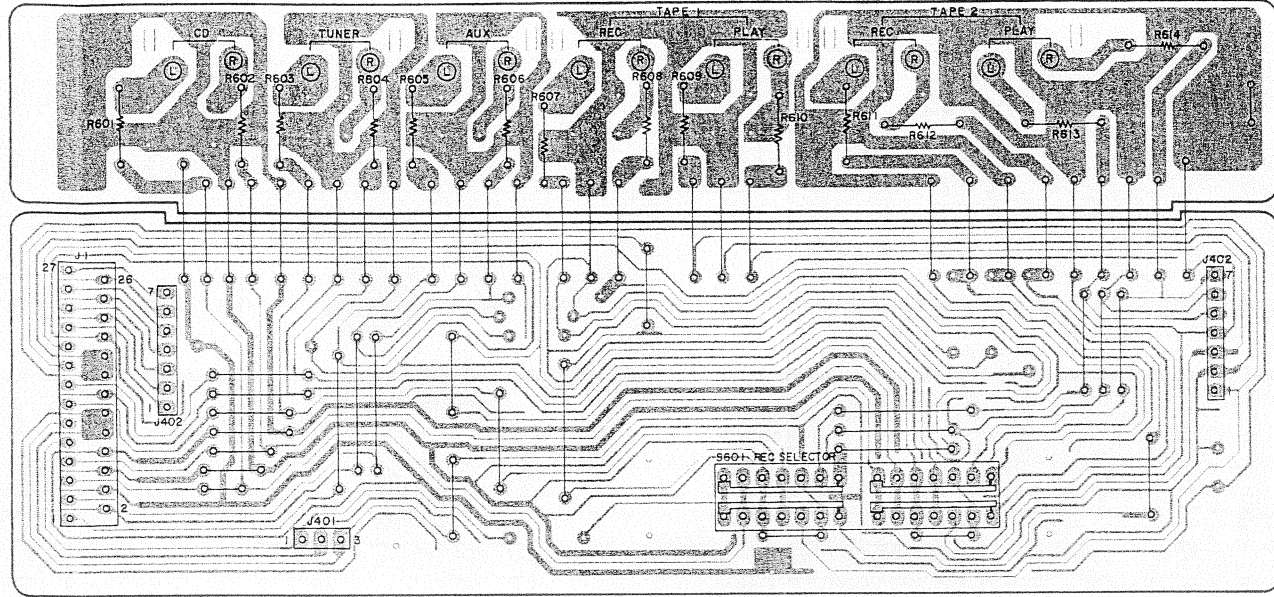


Q1,2 : 2SC3907 Q3,4 : 2SA1516

Q101 Q103 IC101 Q104 Q102 Q222 Q208 Q216 Q2 Q212
Q202 IC202 Q204 Q201 Q203 Q214 Q206 Q210 Q4 Q218 Q220 Q303 ~ 305 Q205 Q209 Q213 Q217 Q302 Q306 IC201 Q207 Q221 Q3 Q211 Q215 Q219 Q301 Q307 Q1



PINJACK ASSEMBLY



A

B

C

D

SP TERMINAL ASSEMBLY

