

# NEC **Authentic series**

**MODELS AUA-6300E**  
TYPE (SS)/(SE)

STEREO AMPLIFIER

## SERVICE MANUAL



**Better Service**  
**Better Reputation**  
**Better Profit**



### SPECIFICATIONS

<b>ELECTRICAL PERFORMANCE</b>	<b>NOMINAL VALUE</b>
Continuous Output Power . . . . .	35W RMS x 2 (8 ohms)
(20Hz~20kHz both channels driven)	40W RMS x 2 (4 ohms)
Total Harmonic Distortion	
Rated Power at 20Hz~20kHz . . . . .	0.08%
30W Power at 20Hz~20kHz . . . . .	0.05%
1W Power at 20Hz~20kHz . . . . .	0.05%
Intermodulation Distortion	
Rated Power at 60Hz : 7kHz = 4 : 1 . . . . .	0.08%
30W Power at 60Hz : 7kHz = 4 : 1 . . . . .	0.05%
1W Power at 60Hz : 7kHz = 4 : 1 . . . . .	0.05%
Power Bandwidth	
(IHF both channels driven at 8 ohms) . . . . .	10Hz~30kHz
Damping Factor at 20Hz~20kHz . . . . .	30 (8 ohms)
Recommended Speaker Impedance	
Speakers A & B Terminals . . . . .	4~16 ohms
Speakers A + B Terminals . . . . .	8~16 ohms
Headphone Jack . . . . .	4~16 ohms
Input Sensitivity/Impedance	
PHONO . . . . .	2.5mV/47k ohms
TUNER/AUX/TAPE-2 . . . . .	150mV/47k ohms
PHONO Overload . . . . .	190mV maximum
TAPE Output Level . . . . .	140mV

Frequency Response	
PHONO . . . . .	10Hz~20kHz ± 0.5dB
TUNER/AUX/TAPE-1/TAPE-2 . . . . .	20Hz~40kHz ± 1dB
Signal to Noise Ratio . . . . . (IHF A-network, shortcircuit)	
PHONO . . . . .	75dB
TUNER/AUX/TAPE-1/TAPE-2 . . . . .	95dB
Tone Control Response	
BASS . . . . .	±10dB at 100Hz
TREBLE . . . . .	±10dB at 10kHz
Loudness Control Response . . . . . (at -40dB volume control setting)	
100Hz . . . . .	+6dB
10kHz . . . . .	+3dB

#### OTHER SPECIFICATIONS:

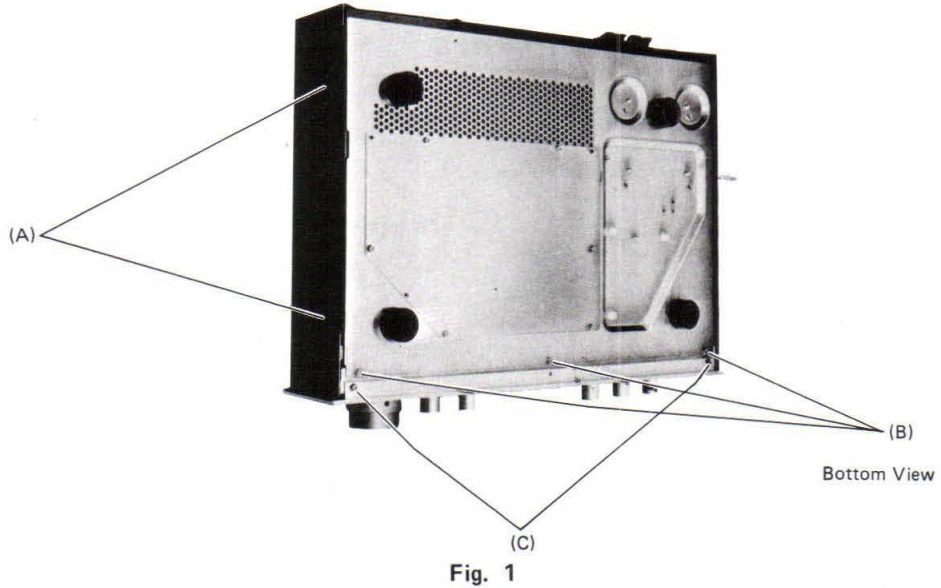
Power Supply & Service Outlet		
TYPE . . . . .	<b>SS</b>	<b>SE</b>
Voltage (VAC) . . . . .	220	110/120/220/240
Hertz (Hz) . . . . .	50	50/60
Switched Service Outlet . . . . .	NIL	1
Unswitched Service Outlet . . . . .	NIL	1
Dimensions . . . . .	450W x 100H x 340D (mm)	
Weight . . . . .	Approximately 11 kgs	

NOTE: The above specifications are subject to change without notice for further improvement.

**Nippon Electric Co., Ltd.**

TOKYO, JAPAN

# DISASSEMBLY INSTRUCTIONS



**Removing cabinet top and bottom cover. See Fig. 1.**

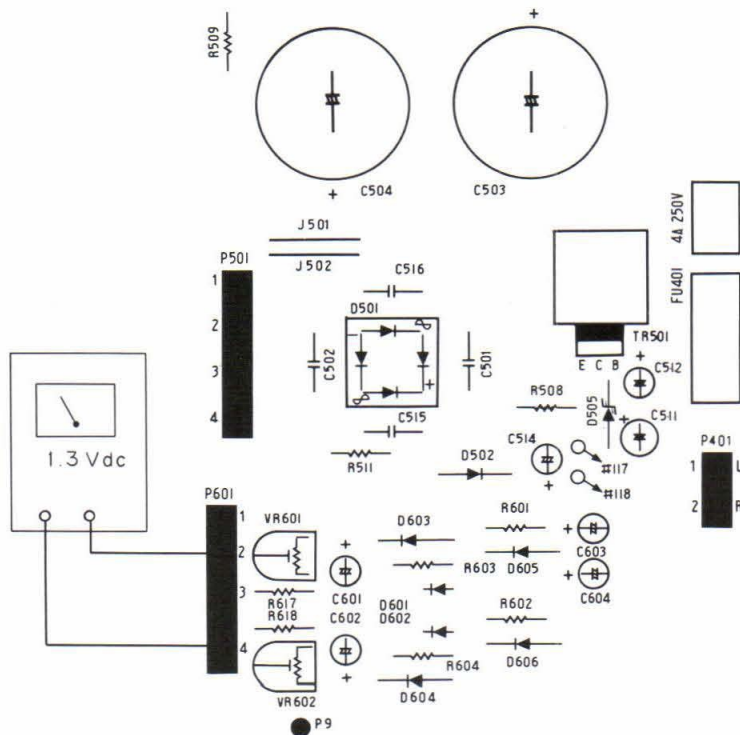
1. Remove four cabinet screws (A) from left and right sides and lift off cabinet.
2. Remove three bottom cover screws (B) and lift off bottom cover.

**Removing front panel. See Fig. 1.**

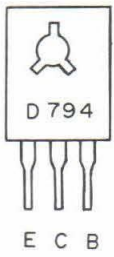
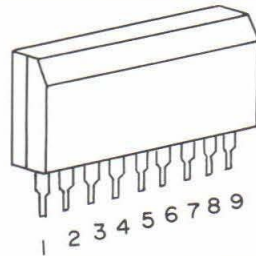
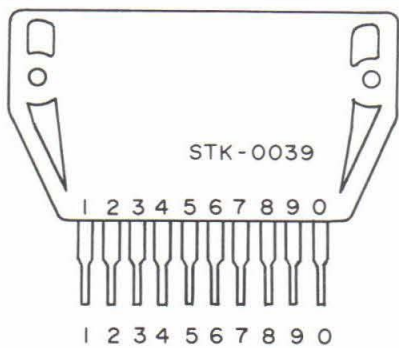
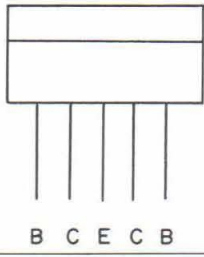
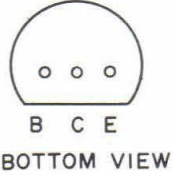
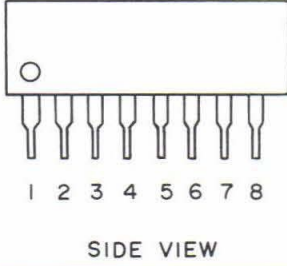
1. Remove four screws (C) from top and bottom sides and lift off front panel.

## Power Level Indicator Alignment Method

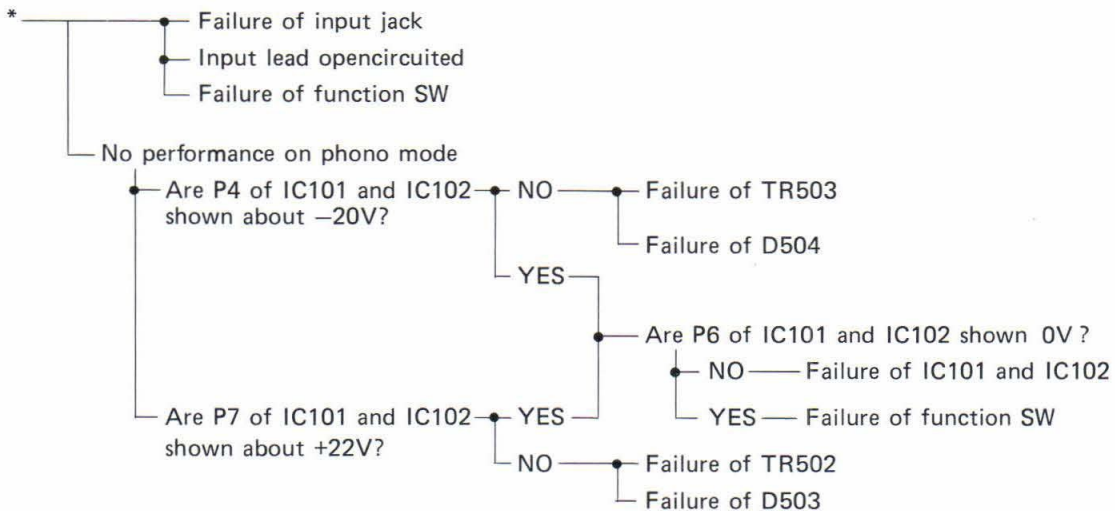
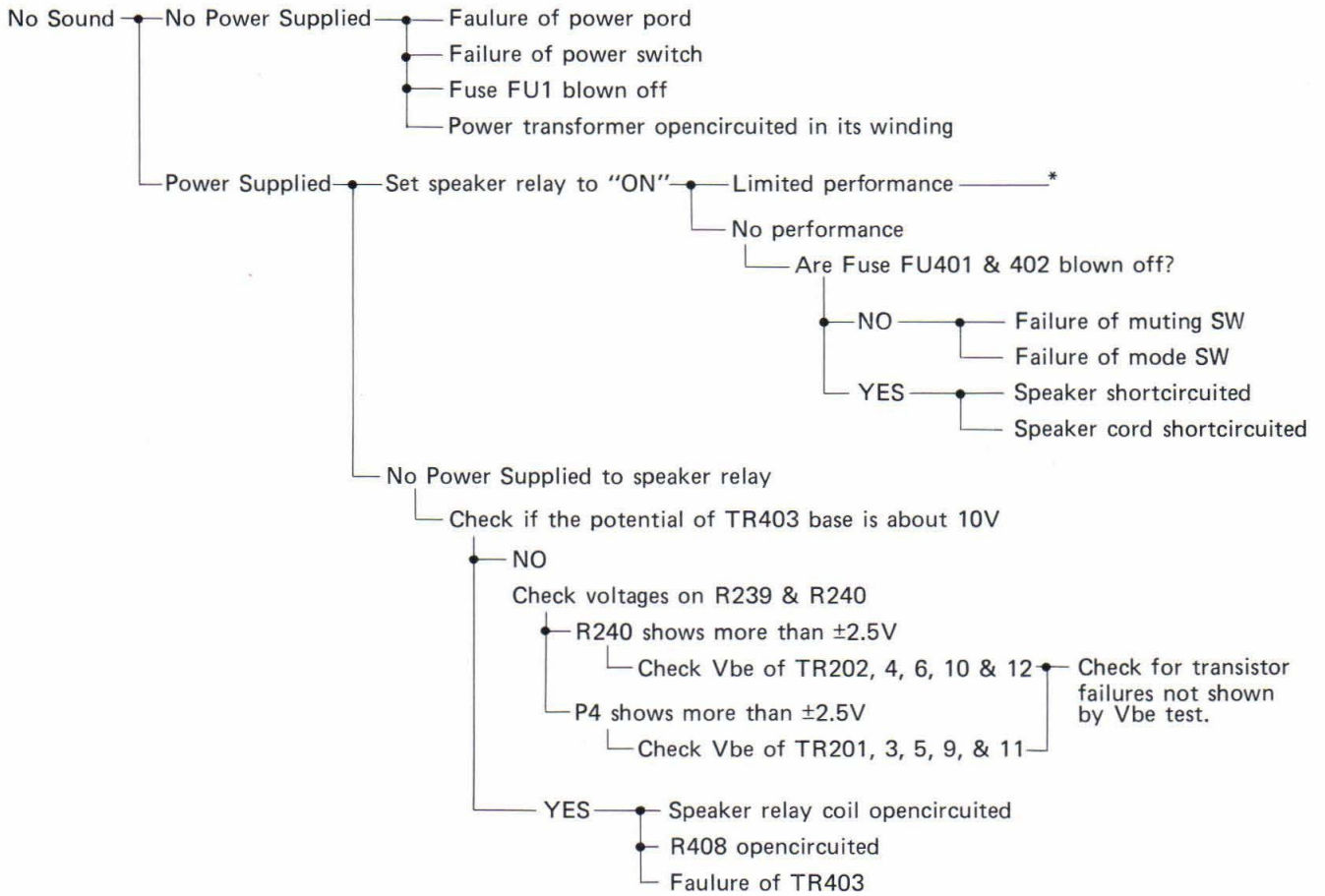
1. Set 1 kHz, 8V on speaket output.
2. Meanwhile, adjust VR601 and VR602 to 1.3Vdc on P601 of P2 and P4.



# TRANSISTOR & IC BASE CONNECTION

TR501	2SD794(Q)	
IC601, 602	M51903	
IC201 IC202	STK-0039	
TR201 TR202	2SA798(G)	
TR203 TR204 TR205 TR206 TR207 TR208 TR401	2SC-1845(E,F)	
TR402 TR403 TR502 TR207 TR208 TR503	2SA992(E,F)	
IC101 IC102	M5213L	

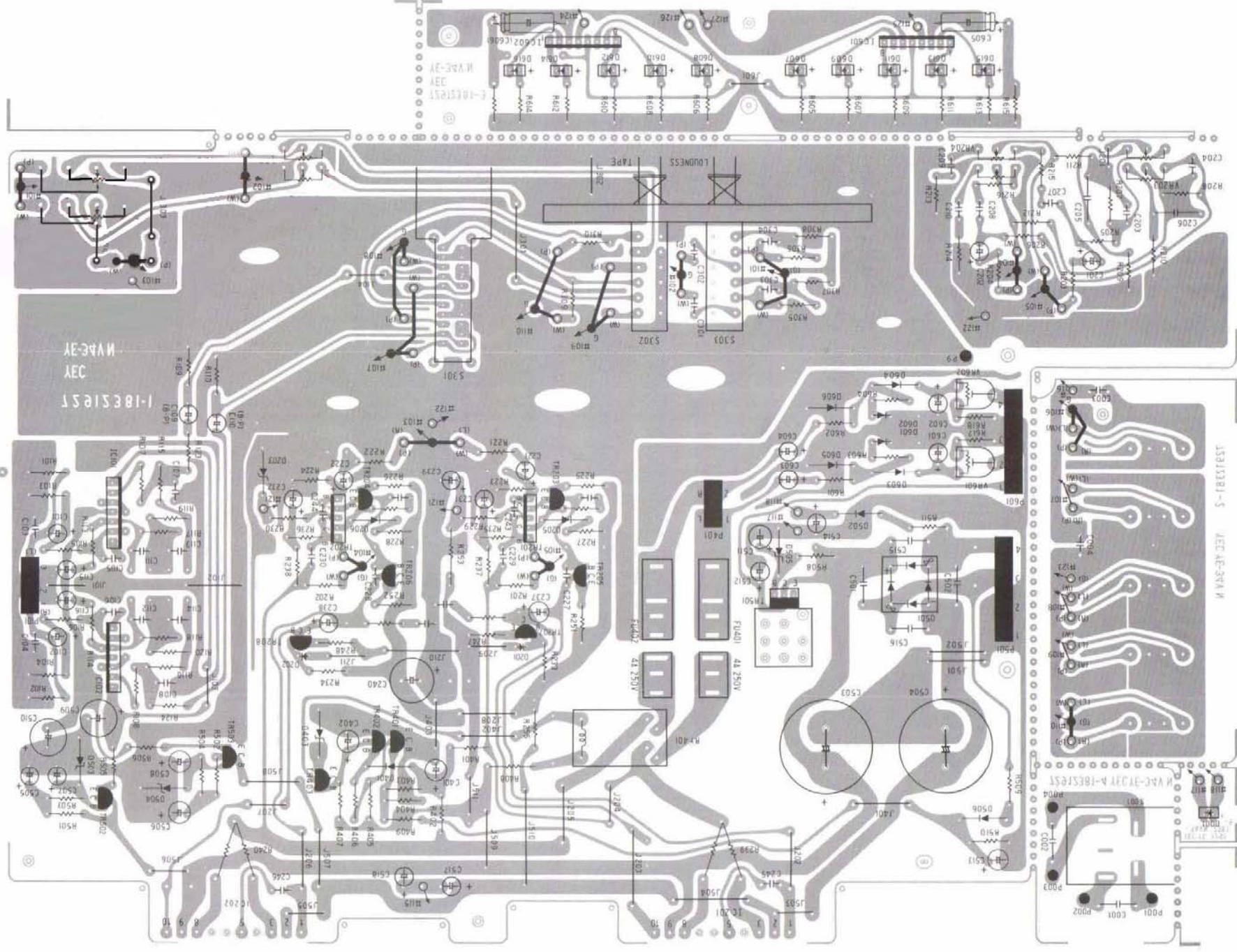
# TROUBLESHOOTING





# MAIN PWB ASS'Y

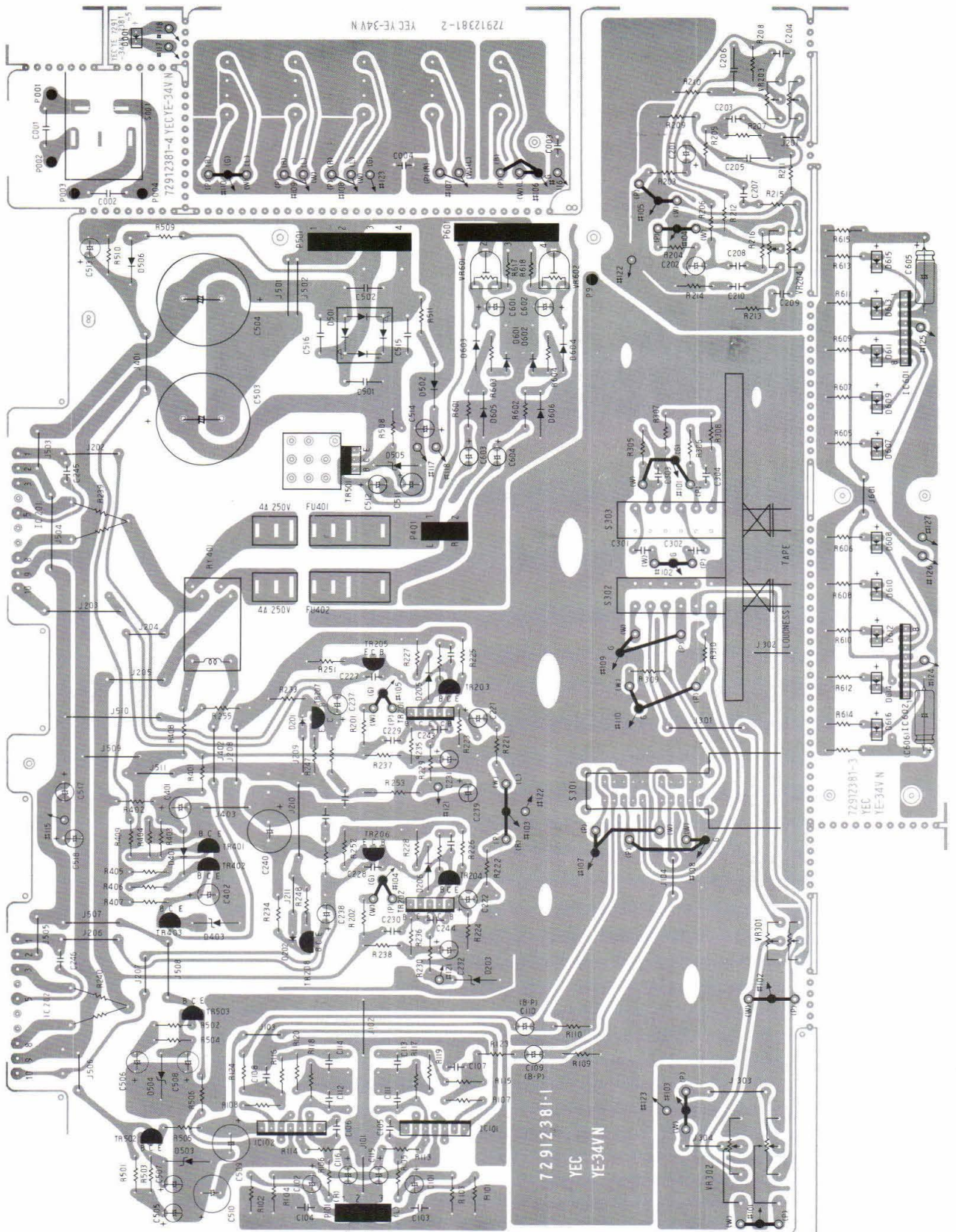
— Component Side —





# MAIN PWB ASS'Y

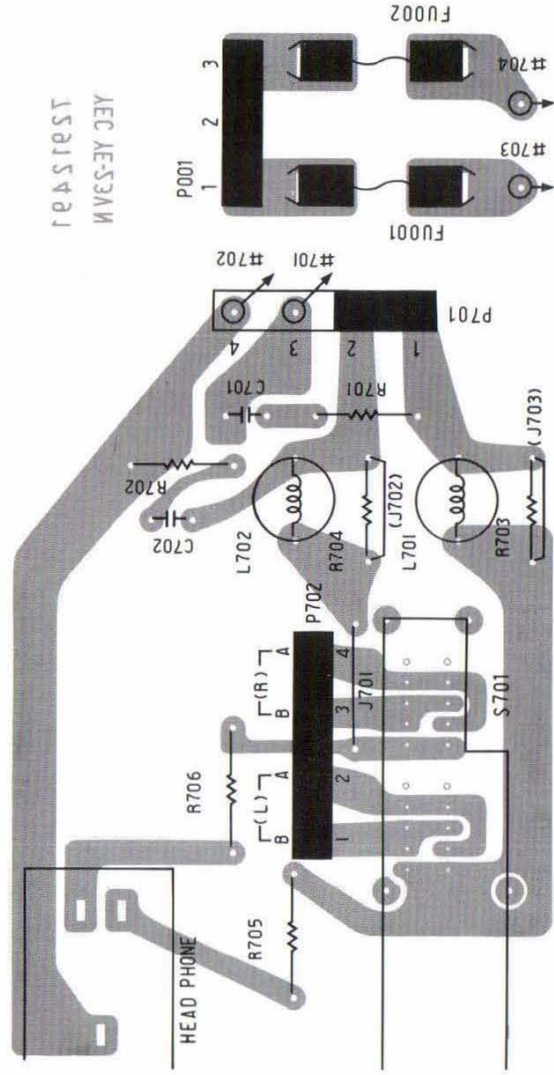
— Solder Side —



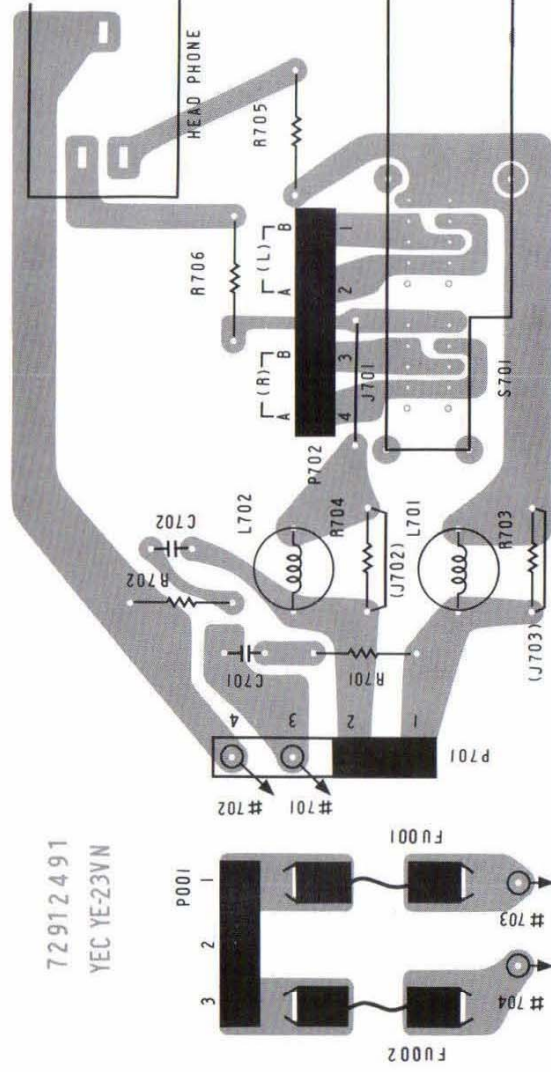


# SPEAKER SWIESW SWITCH PWB ASS'Y

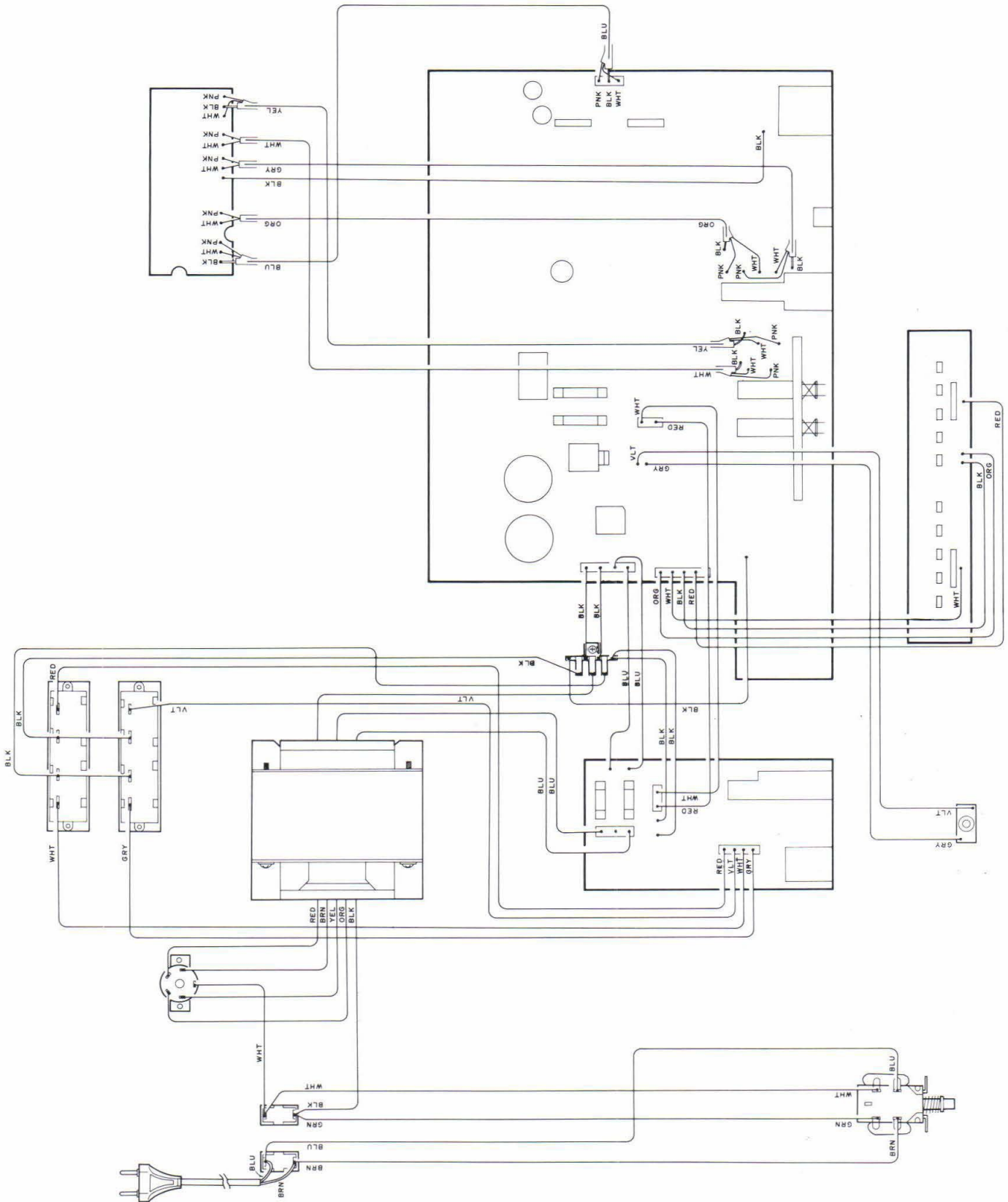
— Component Side —



— Solder Side —

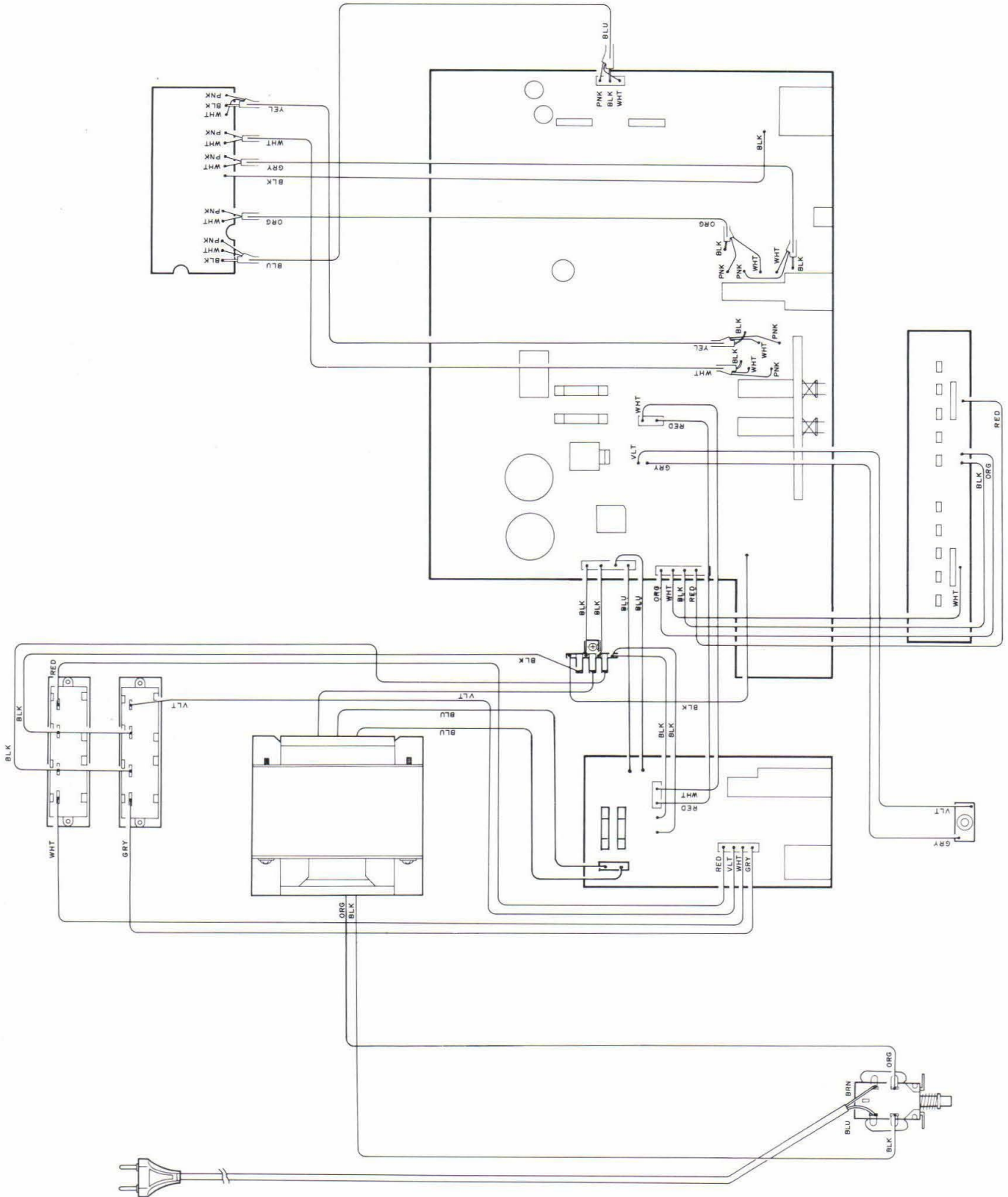


# WIRING DIAGRAM(SE)





# WIRING DIAGRAM(SS)







# Replacement Parts List

SYMBOL	PARTS NO.	DESCRIPTION	Q'TY PER UNIT	REMARKS
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## Transistors

TR201, 202	35901207	TR, 2SA-798 G	2	
TR207, 208, 503	35901805	TR, 2SA992 E	3	
TR203, 204, 401~403, 502	35947405	TR, 2SC1845 E	6	
TR205, 206	35947406	TR, 2SC1845 F	2	
TR501	35962617	TR, 2SD 794 Q	1	

## Diodes

D205, 206, 401	36001009	Diode, Si. 1S-2473	3	
D502, 506	36001528	Diode, 1S954	2	
D603~606	36002513	Diode, GE 20A90	4	
D403	36003037	Diode, Zener RD9.1EB	1	
D505	36902016	Diode, RD-15EB	1	
D203	36902027	Diode, RD-15EC	1	
D501	36902046	Diode, S4VB20	1	
D001, D607~616	36904037	Led TLR 205	11	
D504	36905085	Zener Diode RD-22E B2		
D504	36905086	Zener Diode RD-22E B3	1	
D503	36905090	Zener Diode RD-24E B3		
D503	36905091	Zener Diode RD-24E B4	1	
D201, 202, 601, 602	38005013	Varister, VD1222	4	

SYMBOL	PARTS NO.	DESCRIPTION	Q'TY PER UNIT	REMARKS
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ICs

IC601, 602	37901038	IC M51903 L	2	
IC201, 202	37901041	Power IC STK-0039	2	
IC101, 102	37901051	IC M-5213L	2	

Resistors

R705, 706	40351157	R, Metal 220Ω 5% 1W	2	
R253	40351187	R, Metal 3.9Ω 5% 1W	1	
R615	40809725		1	
R701, 702	40912125	R, Carbon 10Ω 5% 1/2W	2	
R408	40912167	R, Carbon 560Ω 5% 1/2W	1	
R255	40913141	R, Carbon 47Ω 5% 1/4W	1	
R247, 248, 251, 252	40913149	R, Carbon 100Ω 5% 1/4W	4	
R239, 240	40920041	R, 0.47Ω (5W) x 2	2	
R603, 604	40982143	R, Carbon 56Ω 5% 1/4W	2	
R115, 116	40982153	R, Carbon 150Ω 5% 1/4W	2	
R107, 108, 505, 506	40982161	R, Carbon 330Ω 5% 1/4W	4	
R213~216, 225, 226	40982167	R, Carbon 560Ω 5% 1/4W	8	
R227, 228, 113, 114, 123, 124	40982168	R, Carbon 620Ω 5% 1/4W	4	
R235, 236	40982172	R, Carbon 910Ω 5% 1/4W	2	
R105, 106	40982173	R, Carbon 1.0KΩ 5% 1/4W	2	
R209, 210	40982175	R, Carbon 1.2KΩ 5% 1/4W	2	
R605~R610	40982177	R, Carbon 1.5KΩ 5% 1/4W	10	
R611~614, 211, 212, 601, 602	40982179	R, Carbon 1.8KΩ 5% 1/4W	4	
R221, 222, 309, 310	40982181	R, Carbon 1.1KΩ 5% 1/4W	4	
R503, 504	40982183	R, Carbon 2.7KΩ 5% 1/4W	2	
R501, 502	40982184	R, Carbon 3.0KΩ 5% 1/4W	2	
R511	40982185	R, Carbon 3.3KΩ 5% 1/4W	1	
R201, 202, 508	40982189	R, Carbon 4.7KΩ 5% 1/4W	3	
R203, 204, 509	40982191	R, Carbon 5.6KΩ 5% 1/4W	3	
R510	40982197	R, Carbon 10KΩ 5% 1/4W	1	
R205, 206	40982199	R, Carbon 12KΩ 5% 1/4W	2	
R229, 230, 307, 308	40982201	R, Carbon 15KΩ 5% 1/4W	4	
R401, 402	40982203	R, Carbon 18KΩ 5% 1/4W	2	
R117, 118	40982207	R, Carbon 27KΩ 5% 1/4W	2	
R404	40982211	R, Carbon 39KΩ 5% 1/4W	1	
R403	40982215	R, Carbon 56KΩ 5% 1/4W	1	



SYMBOL	PARTS NO.	DESCRIPTION	Q'TY PER UNIT	REMARKS
R237, 238	40982217	R, Carbon 68K $\Omega$ 5% 1/4W	2	
R233, 234	40982218	R, Carbon 75K $\Omega$ 5% 1/4W	2	
R101~104, 109, 110	40982221	R, Carbon 100K $\Omega$ 5% 1/4W	10	
R223, 224, 406, 407, 207, 208, 617, 618	40982225	R, Carbon 150K $\Omega$ 5% 1/4W	4	
R405	40982229	R, Carbon 220K $\Omega$ 5% 1/4W	1	
R409	40982231	R, Carbon 270K $\Omega$ 5% 1/4W	1	
R119, 120, 305, 306	40982233	R, Carbon 330K $\Omega$ 5% 1/4W	4	

#### Controls

VR601, 602	41950060	R, Variable 20K $\Omega$ (SS)	2	
VR601, 602	41950062	R, Variable 50K $\Omega$ , B (SE)	2	
VR203, 204	41950315	R, Variable 100K $\Omega$ x 2	2	
VR302	41950324	R, Variable 150K $\Omega$	1	
VR301	41950325	R, Variable 500K $\Omega$	1	

#### Capacitors

C501, 502, 515, 516	42019575	C, Ceramic 500V 0.01UF	4	
C003, 004, 701, 702	42110433	C, Ceramic 50V 0.047UF	4	
C107, 108	42130205	C, Ceramic	2	
C227, 228	42201032	C, Ceramic 500V 27PF	2	
C245, 246	42201034	C, Ceramic 500V 33PF	2	
C229, 230	42332025	C, Ceramic 50V 15PF	2	
C105, 106	42332037	C, Ceramic 50V 47PF	2	
C103, 104	42332043	C, Ceramic 50V 82PF	2	
C243, 244	42332045	C, Ceramic 50V 100PF	2	
C001x2, 002x2	42606007	C, Metalized Paper 4700PF 250V	4	
C207, 208	42754056	C, Mylar 50V 2700PF	2	
C203, 204	42754067	C, Mylar 50V 0.022UF	2	
C209, 210	42754068	C, Mylar 50V 0.027UF	2	
C303, 304	42754071	C, Mylar 50V 0.047UF (SE)	2	
C205, 206	42754077	C, Mylar 50V 0.22UF	2	
C303, 304	42754072	C, Mylar 50V 0.05UF(SS)	2	
C001~003	42940009	C, Ceramic 4700PF, VDE	3	
C111, 112	42974001	C, POLY 50V 0.0027UF	2	
C113, 114	42974016	C, POLY 50V 10000PF	2	
C301, 302	42974213	C, POLY 100V 330PF 5%	2	
C605	43021028	C, Elec. 16V 10UF	1	
C503, 504	43910027	C, Elec 45V 682UF	2	

SYMBOL	PARTS NO.	DESCRIPTION	Q'TY PER UNIT	REMARKS
C101, 102, 221, 222	43980055	C, Elec 50V 2.2UF	4	
C109, 110	43982067	C, Elec 50V 2.2UF	2	
C115, 116	43993015	C, Elec 10V 100UF	2	
C201, 202, 514	43993024	C, Elec 16V 10UF	3	
C231, 232	43993027	C, Elec 16V 40UF	2	
C401	43993028	C, Elec 16V 100UF	1	
C239	43993038	C, Elec 25V 22UF	1	
C507, 508	43993040	C, Elec 25V 47UF	2	
C402	43993041	C, Elec 25V 100UF	1	
C509, 510	43993042	C, Elec 25V 220UF	2	
C512, 513, 603, 604	43993048	C, Elec 35V 4.7UF	4	
C505, 506, 511	43993052	C, Elec 35V 47UF	3	
C237, 238	43993060	C, Elec 50V 1UF	2	
C601, 602	43993061	C, Elec 50V 2.2UF	2	
C517, 518	43993062	C, Elec 50V 3.3UF	2	
C240	43993069	C, Elec 50V 220UF	1	

#### Electrical Parts

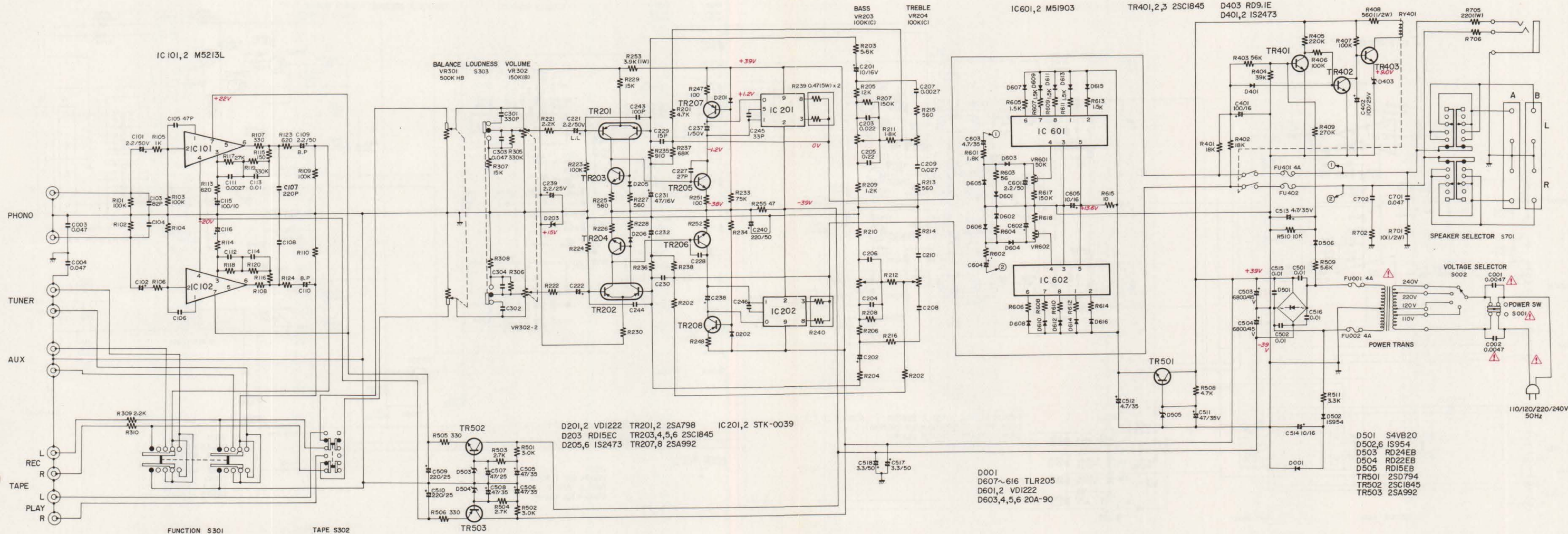
	45027090	Power Trans. (SE)	1	
	45019099	Power Trans. (SS)	1	
S002	65901039	SW, Voltage Selecter	1	
S001	65904049	SW, Power	1	
	65904126	SW, Push	1	
RY401	65910049	Reley AP-2 DC24V	1	
S701	65912017	Slide Rotary Sw.	1	
	65912021	Slide Rotary Sw. 4-3	1	
FU001, 002	66671016	Fuse 4A	2	
FU401, 402	66901042	Fuse 4.0A SEMKO	2	
	79759123	Line Cord CENELEC	1	
	87A01101	Main PWB ASS'Y (SE)	1	
	87A02101	Main PWB ASS'Y (SS)	1	
	87A01201	SPK SW PWB Unit ASSY	1	

#### Knobs

3	18456811	Knob	1	
5	18456841	Knob, Push	2	
4	18457601	Knob, Selector	5	
6	18459561	VR, Knob ASSY	1	

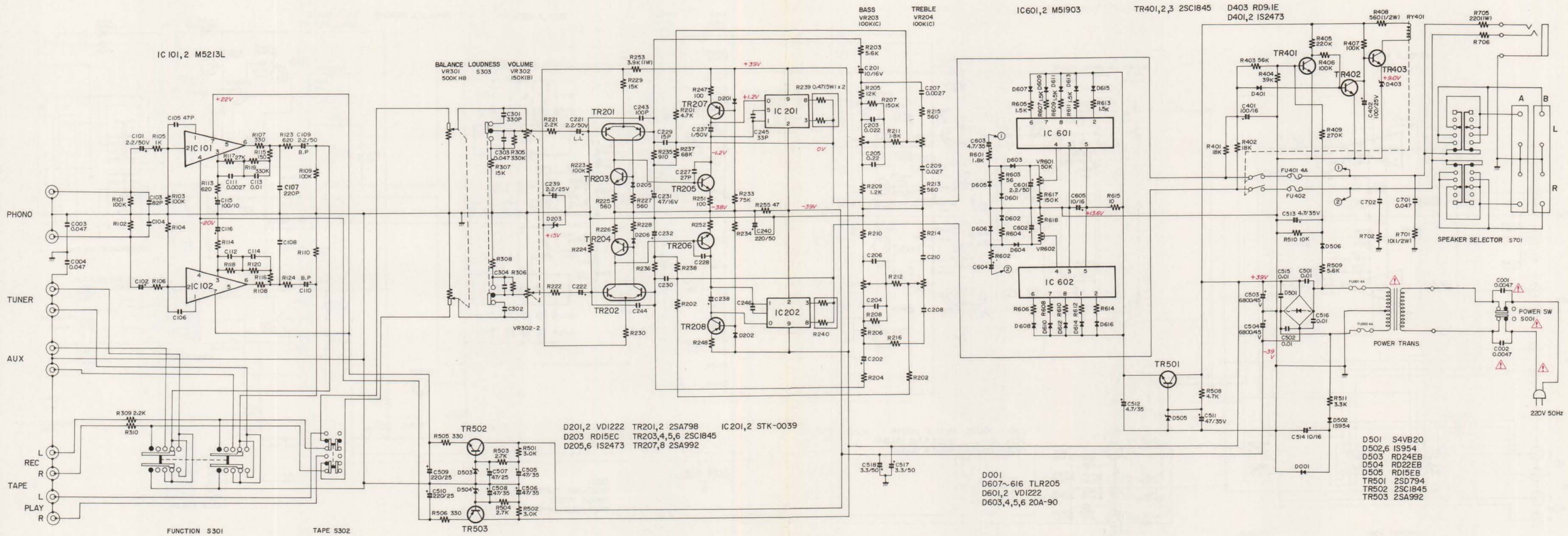


# SCHEMATIC DIAGRAM AUA-6300E(SE)



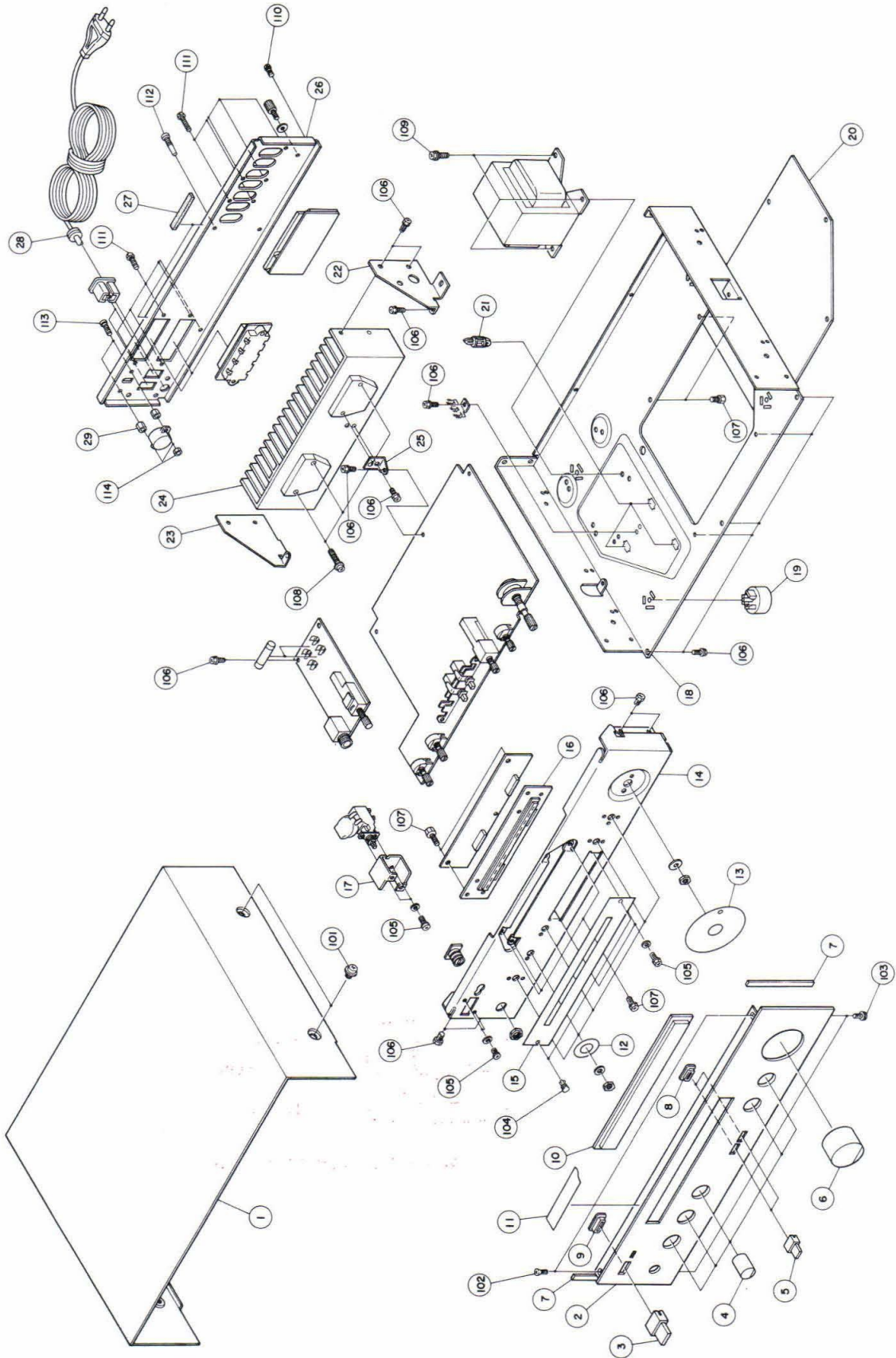


# SCHEMATIC DIAGRAM AUA-6300E(SS)





# EXRLODED VIEW OF SET



SYMBOL	PARTS NO.	DESCRIPTION	Q'TY PER UNIT	REMARKS
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**Cabinet Parts**

19	18286241	Foot UL	4	
1	18514141	Cabinet	1	
20	18514163	Cover, Bottom	1	
26	18515552	Panel, Rear (SE)	1	
26	18515591	Panel, Rear (SS)	1	
2	88A01631	Front Panel Subass'y	1	

**Packing Materials & Accessories**

	18753101	Label	1	
	18801031	Bag, Polyethylene (1/12)	1	
	18805371	Filler, Carton	2	
	18805671	Display Box	1	
	19800672	Bag-B, Polyethylene	1	
	19804261	Bag, Protection	1	
	23750891	Serial Number Label	1	
	78911821	Instruction Book	1	

**Miscellaneous Parts**

	18287821	Heat Sink IC-1625-ST	1	
	18289171	Wrench	1	
21	18289341	Holder	3	
16	18403641	Lid Holder (A)	1	
	18504221	Lug	4	
22	18510482	Bracket, Main Amp, R Mount	1	
25	18510491	Bracket, PWB	1	
29	18513901	Stud (SE)	2	
17	18514022	Bracket	1	
18	18514513	Chassis Pan	1	
23	18514281	Bracket	1	
14	18515542	Sub Chassis	1	
24	18515561	Heat Sink	1	
13	18603641	Cover (A)	1	
12	18603652	Cover (B)	5	
11	18603671	Cushion Sheet	1	
27	18603731	Cushion Piece	2	
	18604141	Lid Holder	1	
15	18711981	Lid Plate, Ornamental	1	

SYMBOL	PARTS NO.	DESCRIPTION	Q'TY PER UNIT	REMARKS
10	18711991	Filter	1	
104	18850871	Push Rivet	2	
109	18851641	Special Screw M4	4	
110	18852251	Special Screw	6	
112	18852741	Special Screw	1	
111	18852811	Screw, Special	7	
108	18853451	Special Screw	4	
101	18853701	Special, Screw	4	
9	19407191	Knob Collar (A)	1	
8	19407201	Knob Collar (B)	2	
	19408141	Lid, Collar	1	
7	19604081	Cover	2	
105	23850871	Special Screw	6	
	23850951	Special Screw	1	
28	24280261	Wire Clamper	1	
	24850201	Washed Screw	1	
106	24851541	Screw, F.T*3*6*15BF	22	
107	24851551	Screw, F.T*3*8*15BF	5	
103	24851971	Screw, W.M*3*8*15CF	3	
	24852441	Screw, P.T*3*8*15BF	3	
	71905127	Terminal 4P	2	
	71905133	Terminal Board 6P	1	
	71905134	Terminal Board	1	
	71905137	Terminal Earth	1	
113	91013086	Screw, CPIMS*3*14*3KF	2	
102	91053032	Screw, CPIMS*3*6*15CF	2	
114	91430302	Nut, AHXIN*3*15CF	2	



