

NEC

Authentic series

MODEL AUA-7300E
TYPE (SS)/(SE)

STEREO AMPLIFIER SERVICE MANUAL

SER. NO. 4031



**Better Service
Better Reputation
Better Profit**



SPECIFICATIONS

ELECTRICAL PERFORMANCE	NOMINAL VALUE
Continuous Output Power	45W RMS x 2 (8Ω)
20Hz-20KHz both channels driven . . .	50W RMS x 2 (4Ω)
Total Harmonic Distortion	
Rated Power at 20Hz-20KHz	0.03%
30W Power at 20Hz-20KHz	0.02%
1W Power at 20Hz-20KHz	0.02%
Intermodulation Distortion	
Rated Power at 60Hz : 7KHz = 4 : 1	0.03%
30W Power at 60Hz : 7KHz = 4 : 1	0.02%
1W Power at 60Hz : 7KHz = 4 : 1	0.02%
Power Bandwidth	
(IHF both channels driven at 8Ω)	10Hz-30KHz
Damping Factor at 20Hz-20KHz	30 (8Ω)
Recommended Speaker Impedance	
Speakers A & B Terminals	4-16Ω
Speakers A + B Terminals	8-16Ω
Headphone Jack	4-16Ω
Input sensitivity/Impedance	
PHONO	2.5mV/47KΩ
TUNER/AUX/TAPE-1/TAPE-2	150mV/47KΩ
PHONO Overload	190mV maximum
TAPE-1 & TAPE-2 Output Level	140mV
Frequency Response	
PHONO	20Hz-20KHz ±0.5dB

TUNER/AUX/TAPE-1/TAPE-2	20Hz-40KHz	+0dB, -1dB
Signal to Noise Ratio (IHF A-network, shortcircuit)		
PHONO	75dB	
TUNER/AUX/TAPE-1/TAPE-2	95dB	
Tone Control Response		
BASS	±9dB at 100Hz	
TREBLE	±9dB at 10KHz	
Loudness Control Response (at -40dB volume control setting)		
100Hz	+6dB	
10KHz	+3dB	
Muting Attenuation	20dB	

OTHER SPECIFICATIONS:

Power Supply & Service Outlet	TYPE	SS	SE
Voltage (V AC)	220	110/120/220/240	
Hertz (Hz)	50	50/60	
Switched Service Outlet . . .	NIL	1	
Unswitched Service Outlet . .	NIL	1	
Dimensions	450(W) x 100(H) x 340(D) mm		
Weight	Approximately 12Kg		

Nippon Electric Co., Ltd.

TOKYO, JAPAN

DISASSEMBLY INSTRUCTIONS

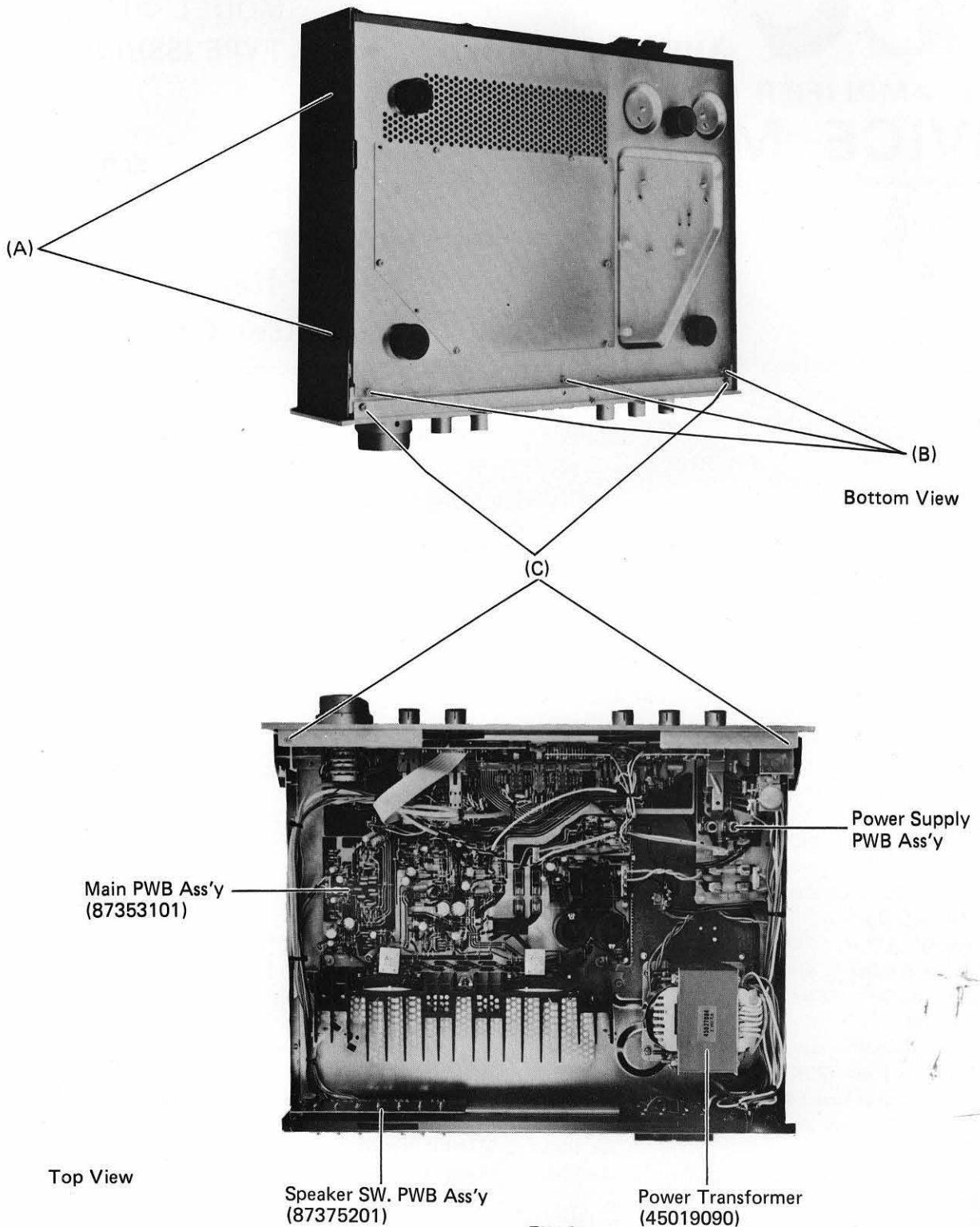


Fig. 1

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

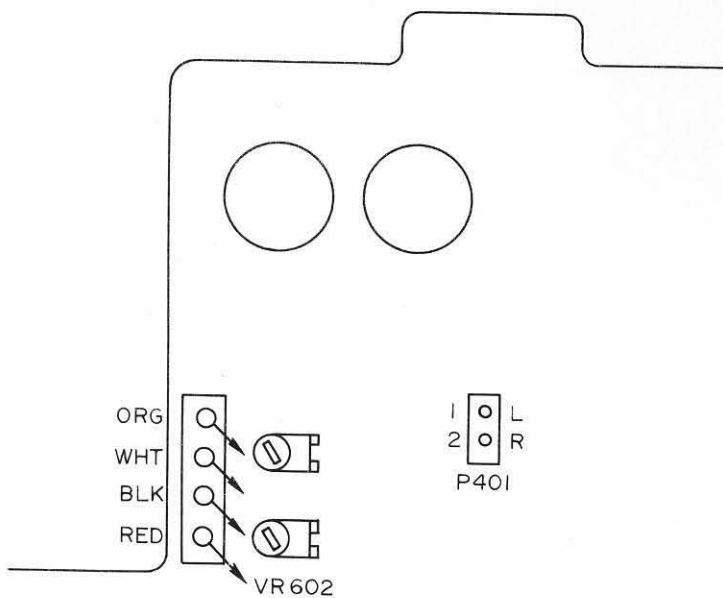
1. Remove four cabinet screws (A) from left and right sides and lift off cabinet.
2. Remove three bottom cover screws (B) and lift off bottom cover.

Removing front panel. See Fig. 1.

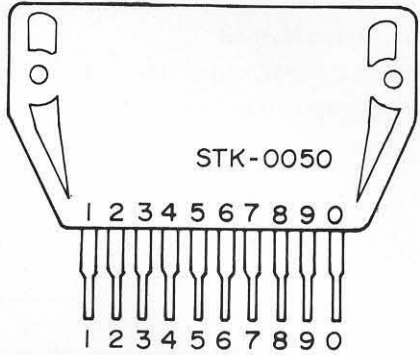
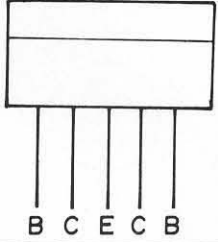
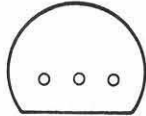
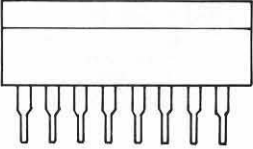
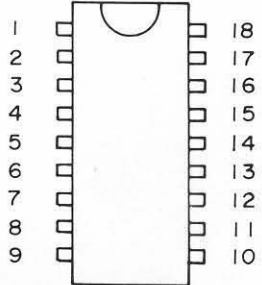
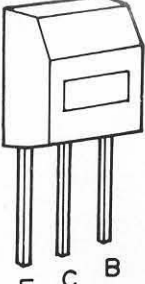
1. Remove four screws (C) from chassis and lift off front panel.

Power Indicator Alignment Method

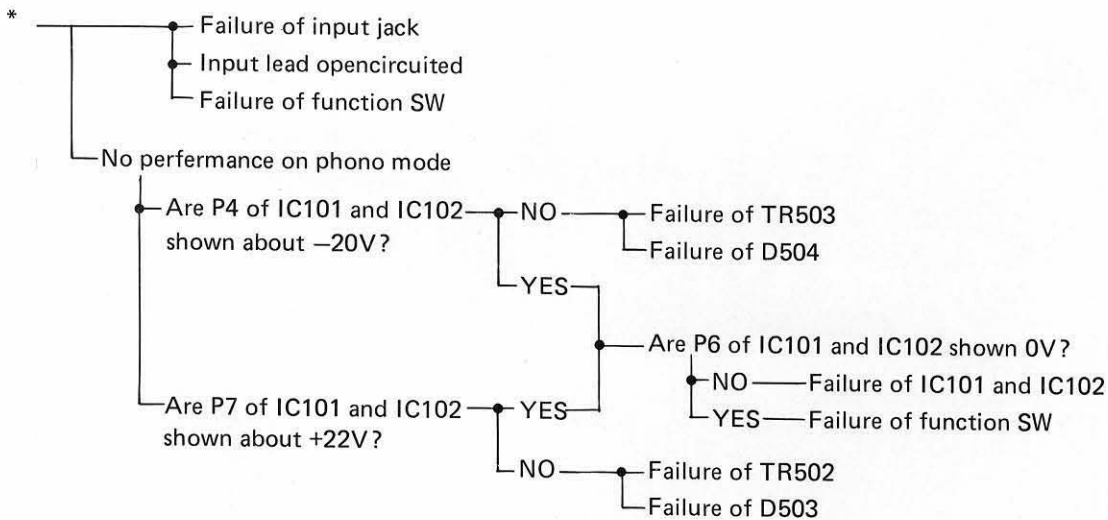
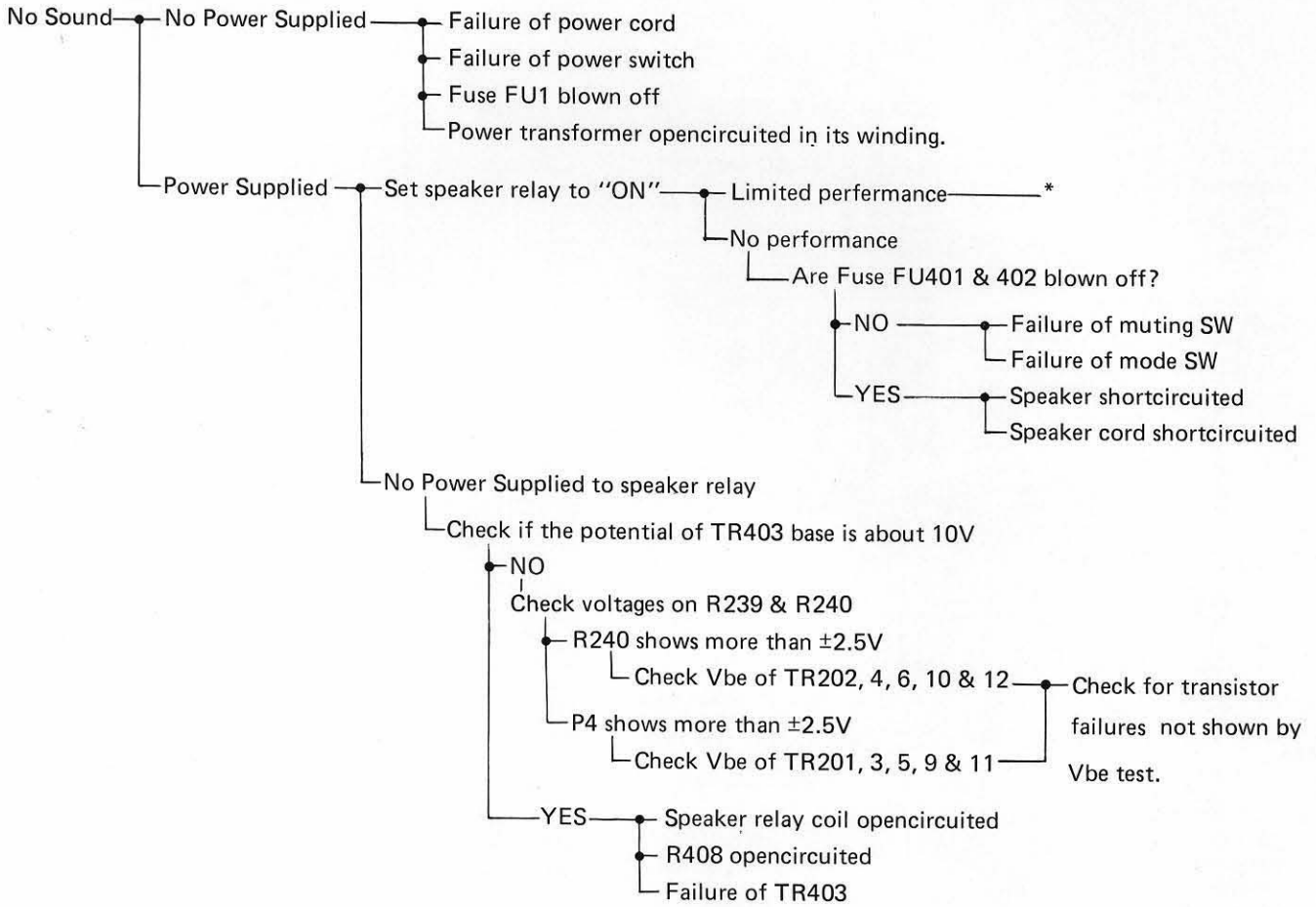
1. Set terminal 1 and 2 of P401 to 1 KHz 13.4V rms.
2. Adjust number eleven power level indicator to lighten with VR601 and VR602.



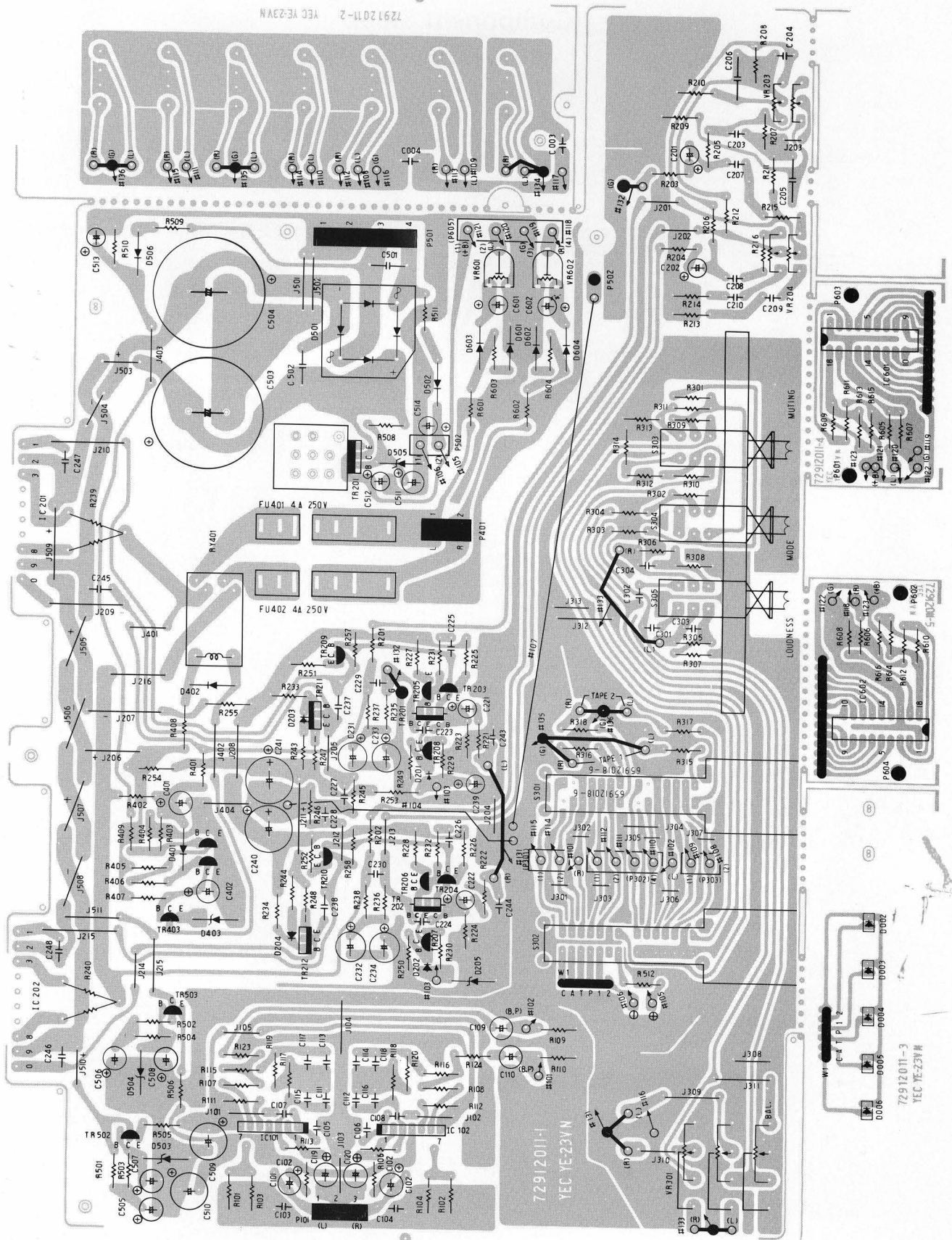
TRANSISTOR & IC BASE CONNECTION

IC201 IC202	STK-0050	 <p style="text-align: center;">STK-0050</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 0</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 0</p>
TR201 TR202	2SA798 (G)	 <p style="text-align: center;">B C E C B</p>
TR203 TR402 TR204 TR403 TR205 TR502 TR206 TR209 TR207 TR210 TR208 TR401 TR503	2SC1845 (E, F) 2SA992 (E, F)	 <p style="text-align: center;">BOTTOM VIEW</p>
IC101 IC102	TA7136P	 <p style="text-align: center;">1 2 3 4 5 6 7 8</p> <p style="text-align: center;">SIDE VIEW</p>
IC601 IC602	UAA180	 <p style="text-align: center;">TOP VIEW</p>
TR211 TR212	2SA916 (L)	 <p style="text-align: center;">E C B</p>

TROUBLESHOOTING

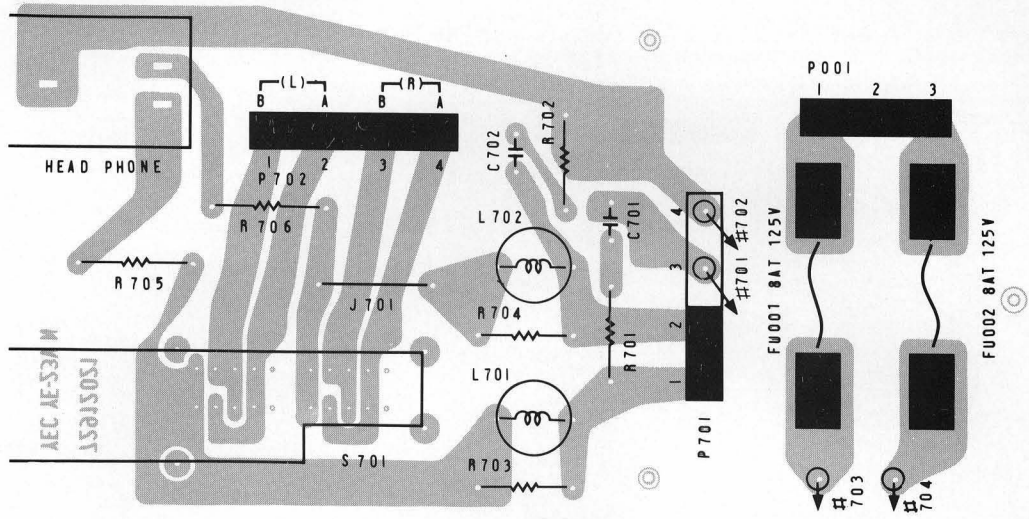


MAIN PWB ASS'Y (Solder Side)

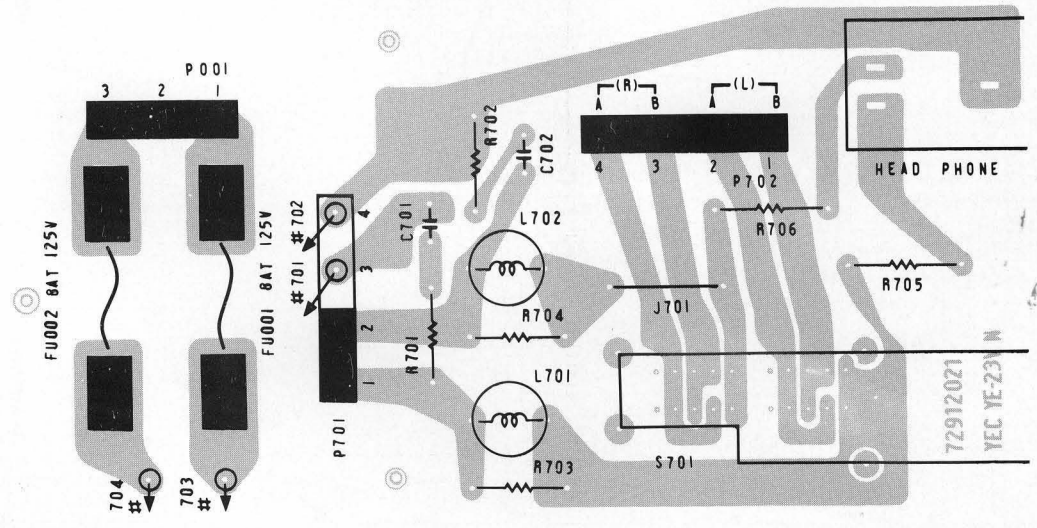


SPEAKER SWITCH PWB ASS'Y

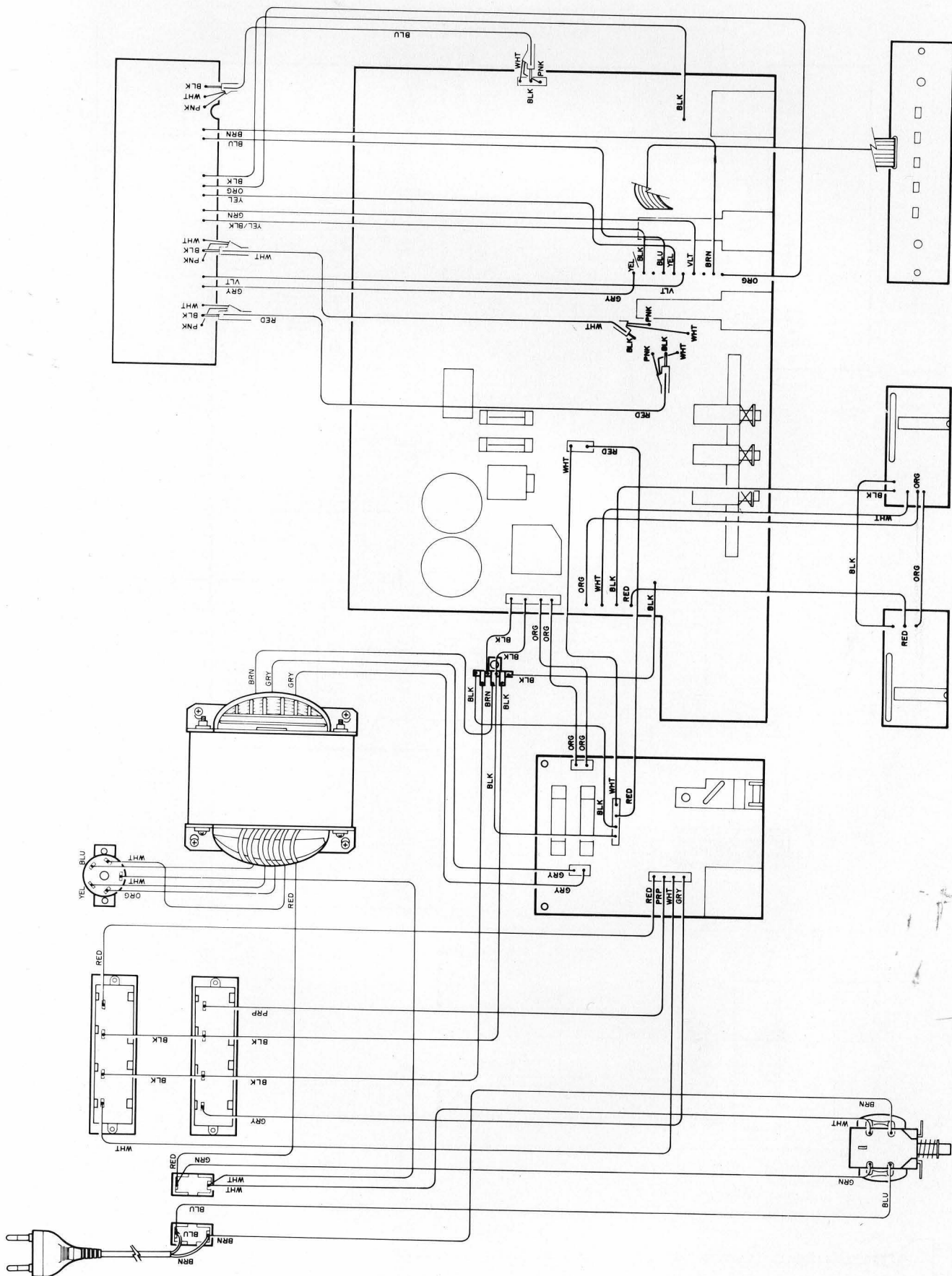
(Component Side)



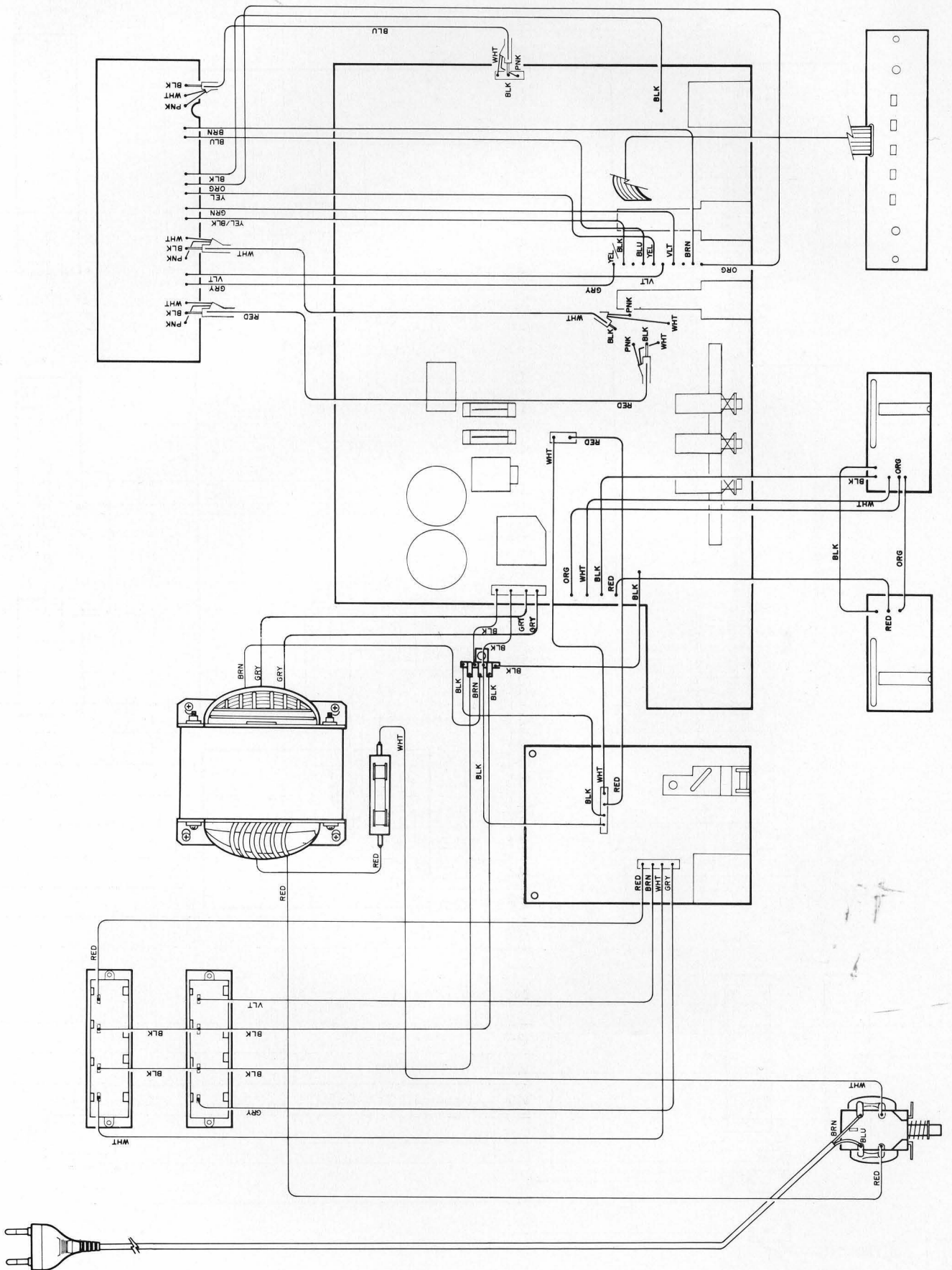
(Solder Side)



WIRING DIAGRAM (SE)



WIRING DIAGRAM (SS)



REPLACEMENT PARTS LIST

FOR

NEC

STEREO AMPLIFIER



EXPLODED VIEW NO.	SYMBOL NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
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Transistors

	TR211, 212	35004112	Transistor, 2SA916 L	2	
	TR201, 202	35901207	Transistor, 2SA-798 G	2	
	TR207, 208, 503	35901805	Transistor, 2SA992E	3	
	TR203, 204, 205, 206, 401, 402, 403, 502	35947405	Transistor, 2SC1845E	8	
	TR209, 210	35947406	Transistor, 2SC1845F	2	
	TR501	35962617	Transistor, 2SD 794Q	1	

Diodes

	D401, 402, 601, 602	36001009	Diode, Si. 1S-2473	4	
	D502, 506	36001528	Diode, 1S954	2	
	D603, 604	36002513	Diode, Ge. 20A90	2	
	D403	36003037	Diode, Zener RD9.1EB	1	
	D205	36003094	Diode, RD8.2EB	1	
	D505	36902016	Diode, RD-15EB	1	
	D501	36902057	Diode, S5VB 20	1	
	D002, 003, 004, 005, 006	36904037	LED TLR205	5	
		36904044	LED Meter Unit	2	
	D503, 504	36905086	Zener Diode, RD-22E B3	2	
	D201, 202, 203, 204	38005013	Varister, VD1222	4	

Integrated Circuit

	IC601, 602	37901036	IC UAA180	2	
	IC101, 102	37901040	IC TA7136P	2	
	IC201, 202	37901042	Power IC STK-0050	2	

EXPLODED VIEW NO.	SYMBOL NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
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Resistors

	R705, 706	40351157	R, Metal 220Ω 5% 1W	2	
	R701, 702, 703, 704	40912125	R, Carbon 10Ω 5% ½W	4	
	R408	40912169	R, Carbon 680Ω 5% ½W	1	
	R253	40912190	R, Carbon 5.1KΩ 5% ½W	1	
	R254, 255	40913141	R, Carbon 47Ω 5% ¼W	2	
	R247, 248, 251, 252	40913149	R, Carbon 100Ω 5% ¼W	4	
	R239, 240	40920041	R, Wire 0.47Ω 10% 5W	2	
	R107, 108	40982125	R, Carbon 10Ω 5% ¼W	2	
	R603, 604	40982143	R, Carbon 56Ω 5% ¼W	2	
	R243, 244	40982148	R, Carbon 91Ω 5% ¼W	2	
	R512	40982149	R, Carbon 100Ω 5% ¼W	1	
	R105, 106, 115, 116, 505, 506	40982161	R, Carbon 330Ω 5% ¼W	6	
	R229, 230	40982163	R, Carbon 390Ω 5% ¼W	2	
	R213, 214, 215, 216, 225, 226, 227, 228, 235, 236	40982167	R, Carbon 560Ω 5% ¼W	10	
	R113, 114, 123, 124	40982168	R, Carbon 620Ω 5% ¼W	4	
	R209, 210, 211, 212	40982179	R, Carbon 1.8KΩ 5% ¼W	5	
	R221, 222, 315, 316, 317, 318, 605, 606	40982181	R, Carbon 2.2KΩ 5% ¼W	8	
	R231, 232, 501, 502	40982184	R, Carbon 3.0KΩ 5% ¼W	4	
	R303, 304, 503, 504, 601, 602	40982185	R, Carbon 3.3KΩ 5% ¼W	6	
	R201, 202, 508	40982189	R, Carbon 4.7KΩ 5% ¼W	3	
	R203, 204, 301, 302, 611, 612	40982191	R, Carbon 5.6KΩ 5% ¼W	6	
	R313, 314, 509	40982193	R, Carbon 6.8KΩ 5% ¼W	3	
	R249, 250, 510	40982197	R, Carbon 10KΩ 5% ¼W	3	
	R205, 206	40982199	R, Carbon 12KΩ 5% ¼W	2	
	R401, 402	40982203	R, Carbon 18KΩ 5% ¼W	2	
	R117, 118	40982207	R, Carbon 27KΩ 5% ¼W	2	
	R307, 308, 615, 616	40982209	R, Carbon 33KΩ 5% ¼W	4	
	R404	40982211	R, Carbon 39KΩ 5% ¼W	1	
	R309, 310, 403	40982215	R, Carbon 56KΩ 5% ¼W	3	
	R237, 238, 257, 258	40982217	R, Carbon 68KΩ 5% ¼W	4	
	R207, 208, 233, 234, 609, 610	40982219	R, Carbon 82KΩ 5% ¼W	6	
	R101, 102, 103, 104, 109, 110, 223, 224, 406, 407	40982221	R, Carbon 100KΩ 5% ¼W	10	
	R111, 112	40982223	R, Carbon 120KΩ 5% ¼W	2	
	R405	40982229	R, Carbon 220KΩ 5% ¼W	1	
	R409	40982231	R, Carbon 270KΩ 5% ¼W	1	

EXPLODED VIEW NO.	SYMBOL NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	R119, 120, 305, 306	40982233	R, Carbon 330K Ω 5% $\frac{1}{4}$ W	4	
	R311, 312	40982239	R, Carbon 560K Ω 5% $\frac{1}{4}$ W	2	
	R613, 614	40982245	R, Carbon 1.0M Ω 5% $\frac{1}{4}$ W	2	
	VR601, 602	41950060	R, Variable 20K Ω B	2	
		41950306	R, Variable	1	
	VR203, 204	41950315	R, Variable 100K Ω	2	

Capacitors

	C501, 502	42019575	C, Ceramic 500V 0.01 μ F	2	
	C225, 226	42039553	C, Ceramic 500V 150pF	2	
	C227, 228	42039559	C, Ceramic 500V 470pF	2	
	C003, 004, 701, 702	42110433	C, Ceramic 50V 0.047 μ F	4	
	C107, 108	42130205	C, Ceramic 220pF	2	
	C105, 106, 229, 230	42332015	C, Ceramic 50V 10pF	4	
	C243, 244	42332037	C, Ceramic 50V 47pF	2	
	C103, 104	42332043	C, Ceramic 50V 82pF	2	
		42606007	C, Metalized Paper 4700pF 250V (SS)	2	
	C207, 208	42754055	C, Mylar 50V 2200pF	2	
	C303, 304	42754066	C, Film 50V 0.018 μ F	2	
	C209, 210	42754067	C, Mylar 50V 0.022 μ F	2	
	C203, 204	42754069	C, Mylar 50V 0.033 μ F	2	
	C237, 238	42754075	C, Mylar 50V 0.1 μ F	2	
	C205, 206	42754077	C, Mylar 50V 0.22 μ F	2	
	C001, 002, 003	42940009	C, Ceramic 4700pF, VDE (SE)	3	
	C301, 302	42970130	C, Poly 50V 130pF 5%	2	
	C113, 114	42974006	C, Film 50V 4700pF	2	
	C115, 116	42974011	C, Poly 50V 1500pF	2	
	C111, 112	42974035	C, Poly 50V 1300pF	2	
	C117, 118	42974041	C, Poly 50V 5100pF	2	
	C503, 504	43910039	C, Elec. 50V 10000 μ F	2	
	C101, 102, 221, 222	43980055	C, Elec. 50V 2.2 μ F	4	
	C109, 110	43982067	C, Elec. 50V 2.2 μ F	2	
	C119, 120	43993015	C, Elec. 10V 100 μ F	2	
	C231, 232, 233, 234	43993016	C, Elec. 10V 220 μ F	4	
	C201, 202, 514	43993024	C, Elec. 16V 10 μ F	3	
	C401	43993028	C, Elec. 16V 100 μ F	1	
	C239	43993038	C, Elec. 25V 22 μ F	1	
	C507, 508	43993040	C, Elec. 25V 47 μ F	2	
	C402	43993041	C, Elec. 25V 100 μ F	1	
	C509, 510	43993042	C, Elec. 25V 220 μ F	2	

EXPLODED VIEW NO.	SYMBOL NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	C512, 513, 601, 602	43993048	C, Elec. 35V 4.7 μ F	4	
	C505, 506, 511	43993052	C, Elec. 35V 47 μ F	3	
	C240, 241	43993069	C, Elec. 50V 220 μ F	2	

Electrical Parts

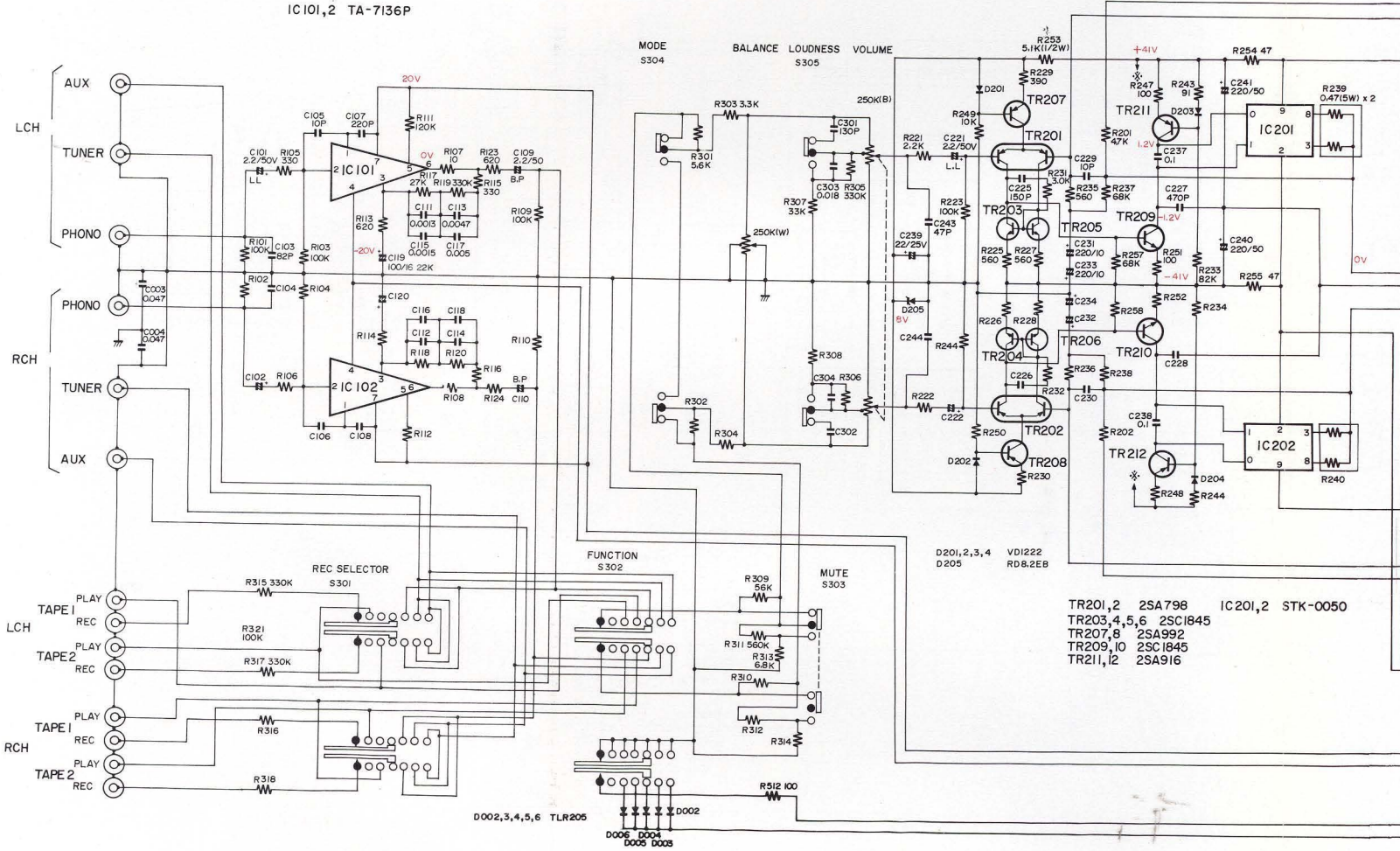
		45027084	Trans. Power (SE)	1	
		45019090	Trans. Power (SS)	1	
	L701, 702	61911097	Coil	2	
	S002	65901039	SW, Voltage Selecter (SE)	1	
	S001	65904049	SW, Power	1	
		65904111	Switch, Push 3	1	
	RY401	65910049	Reley AP-2 DC24V	1	
	S701	65912017	Slide Rotary SW	1	
	S301	65912018	Slide Rotary SW 4-6	1	
	S302	65912019	Slide Rotary SW 4-5	1	
	FU001, 002	66901027	Fuse 8A (SE)	2	
	FU401, 402	66901042	Fuse 4.0A SEMKO	2	
		66901032	Fuse, 4.0A	1	
		79759093	Line Cord SEMKO	1	
		87353101	Main PWB Ass'y	1	
			• Input PWB		
			• Function Indicator LED PWB		
			• LED DRIVE PWB (IC601)		
			• LED DRIVE PWB (IC602)		
		87353201	Speaker SW. PWB Ass'y	1	

Mechanical Parts

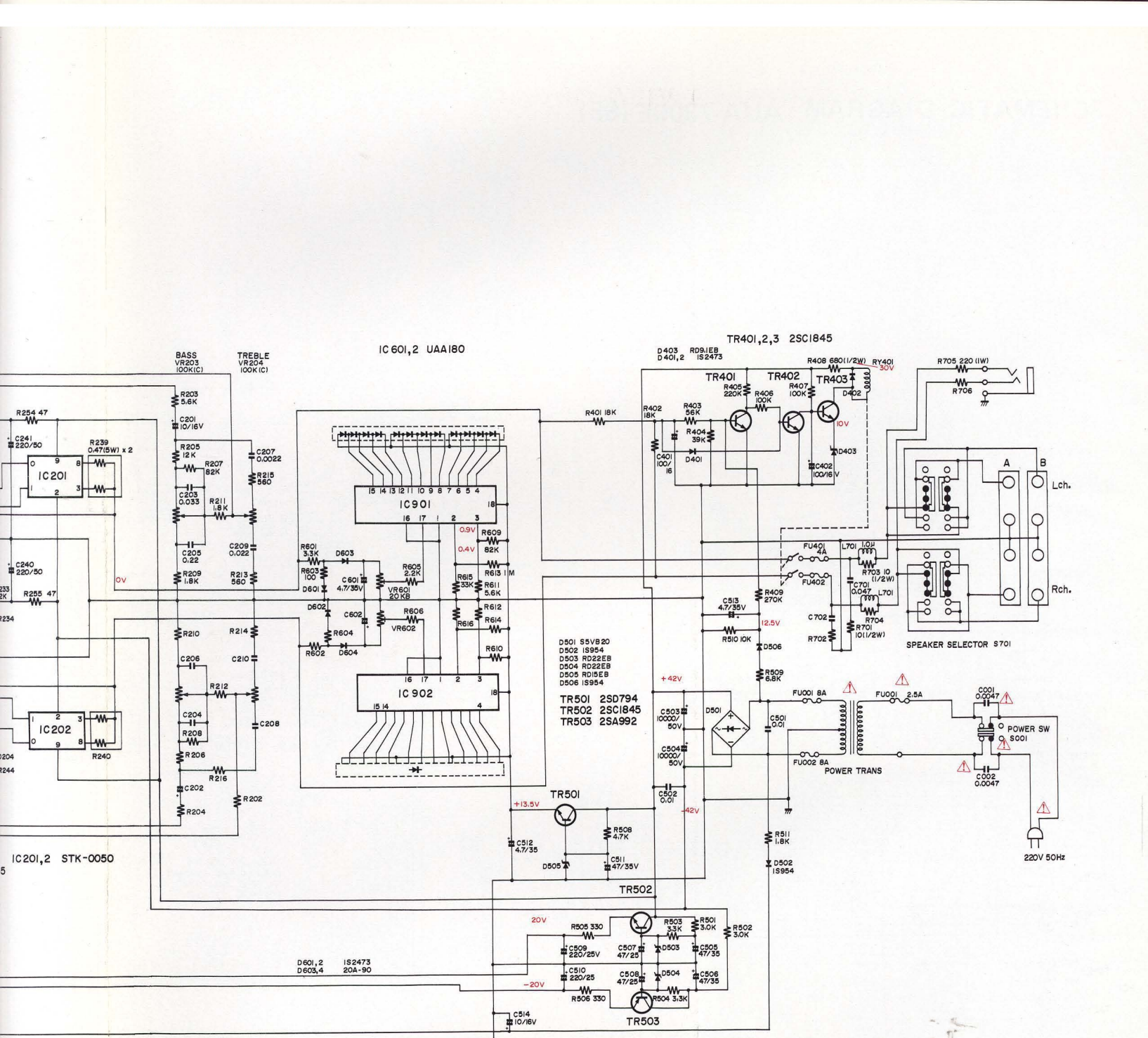
18		18514022	Bracket	1	
		70599039	Connector-2P S-19118 (SE)	1	
		70905206	AC Connector (SE)	2	
		70905226	Jack, Plate	1	
		71205034	Fuse Holder	4	
		71903012	Fuse Holder (SE)	4	
		71905029	Terminal	1	
		71205034	Fuse, Holder	4	
		71905127	Terminal 4P	2	
		71905133	Terminal Board 6P	1	
		71905134	Terminal Board	2	
		71905137	Earth Terminal	1	

SCHEMATIC DIAGRAM AUA-7300E (SE)

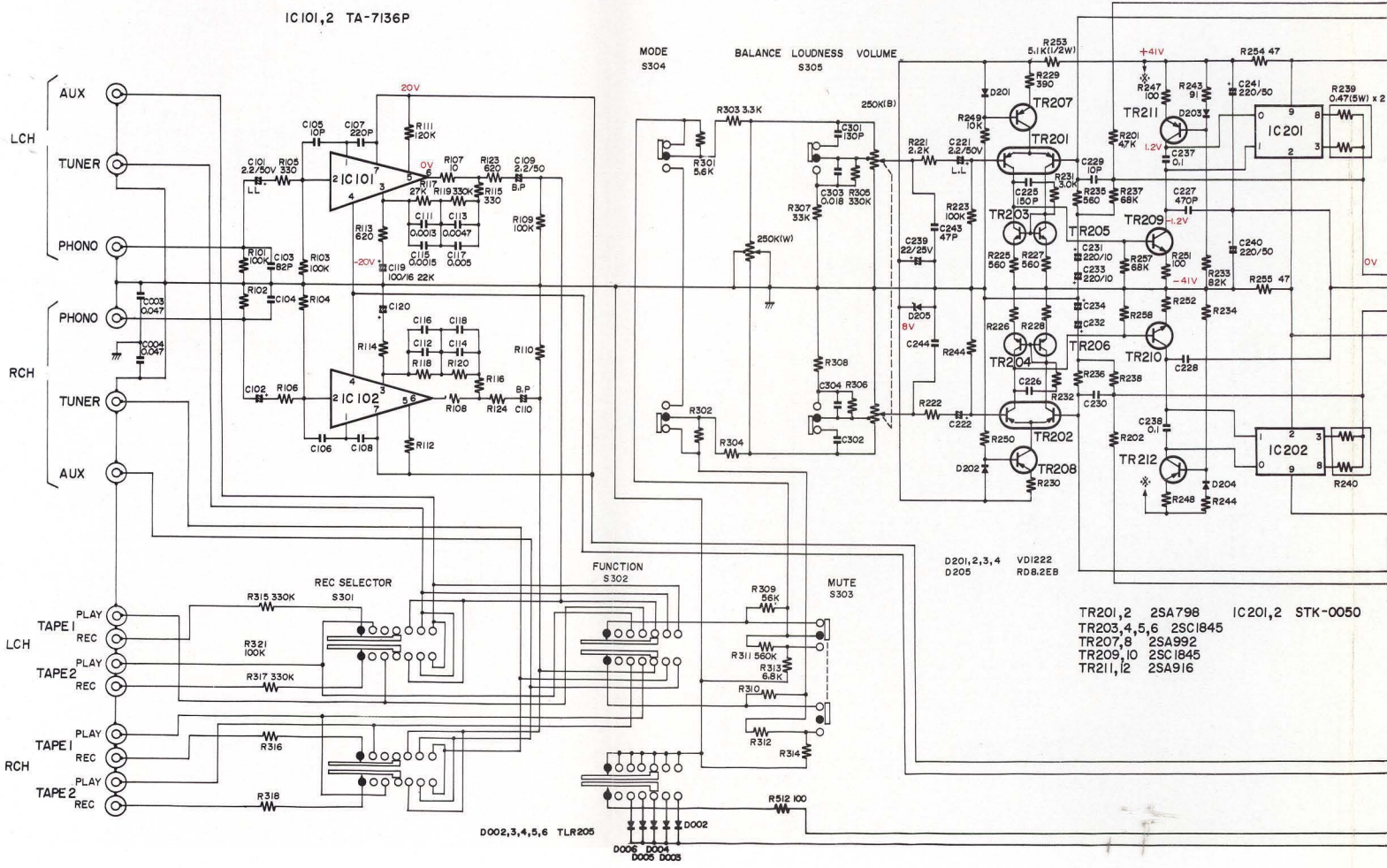
IC101,2 TA-7136P



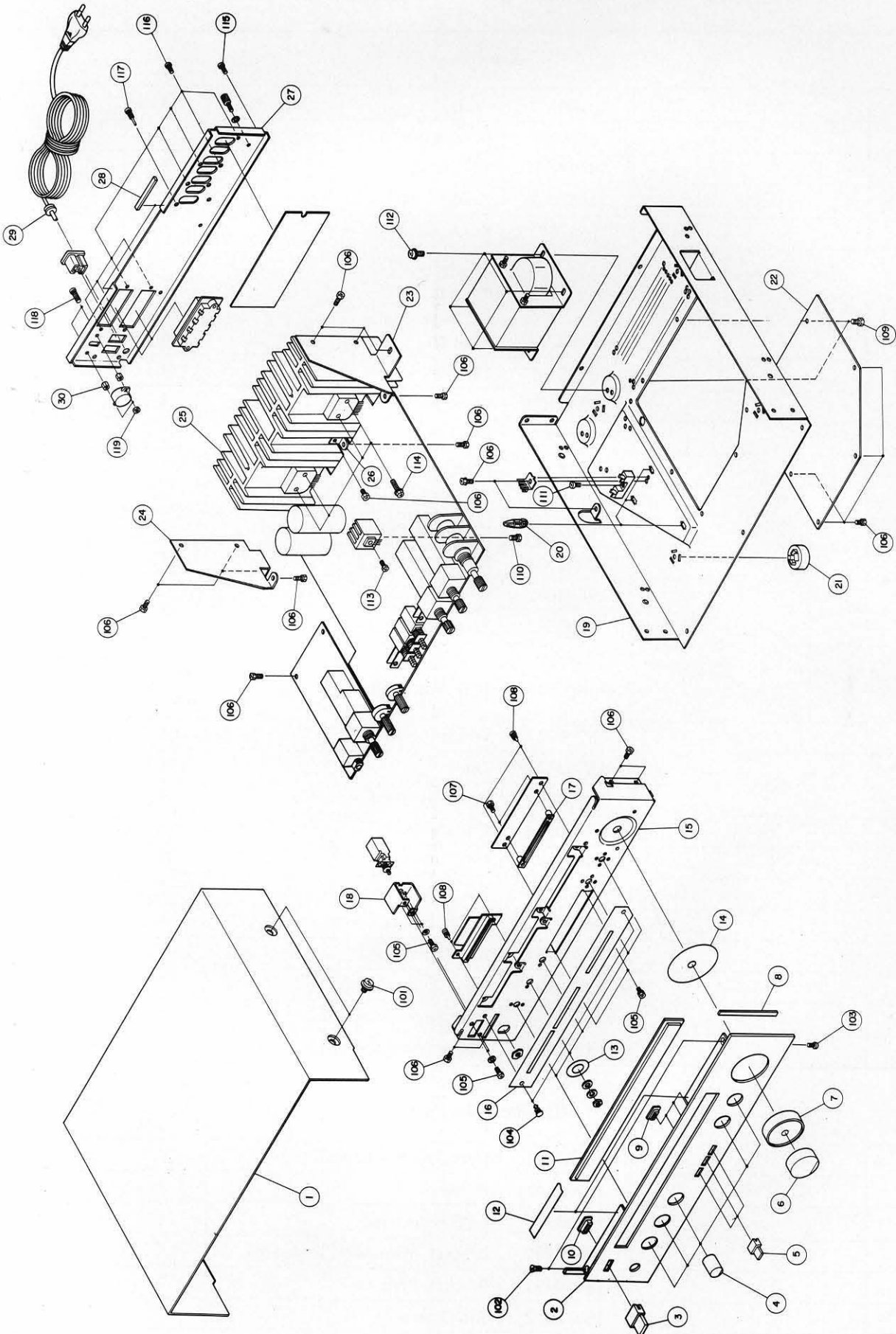
- TR201,2 2SA798
- TR203,4,5,6 2SC1845
- TR207,8 2SA992
- TR209,10 2SC1845
- TR211,12 2SA916
- IC201,2 STK-0050



SCHEMATIC DIAGRAM AUA-7300E (SS)



EXPLODED VIEW OF SET



EXPLODED VIEW NO.	SYMBOL NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
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Knobs

3		18456811	Knob	1	
5		18456841	Knob, Push	3	
6		18457571	VR, Knob	1	
7		18457592	Knob	1	
4		18457601	Knob, Selector	5	

Cabinet Parts

21		18286241	Foot UL	4	
1		18514141	Cabinet	1	
22		18514162	Cover, Bottom	1	
27		18514172	Panel, Rear (SE)	1	
27		18514261	Panel, Rear (SS)	1	
16		18710921	LED Plate, Ornamental	1	
10		19407191	Knob Color (A)	1	
9		19407201	Knob Color (B)	3	
8		19604081	Cover	2	
2		88353631	Front Panel Sub-Ass'y	1	

Packing Materials & Accessories

		18289171	Winch	1	
		18753101	Label	1	
		18801031	Bag, Polyethylene (1/12)	1	
		18805172	Display Box	1	
		18805371	Filler, Carton	2	
		18875429	Fuse, Label (SS)	1	
		19800672	Bag-B, Polyethylene	1	
		19804261	Bag, Protection	1	
		23750891	Serial Number Label	1	
		78911671	Instruction Book (SE)	1	
		78911691	Instruction Book (SS)	1	

Miscellaneous Parts

		18287821	Heat Sink IC-1625-ST	1	
20		18289341	Holder	3	
17		18403311	LED Holder (B)	1	
23		18510482	Bracket, Main AMP, R Mount	1	
26		18510491	Bracket, PWB	1	
15		18513872	Sub Chassis	1	

EXPLODED VEIW NO.	SYMBOL NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
		18513901	Stud (SE)	2	
19		18514151	Chassis Pan	1	
25		18514192	Heat Sink	1	
24		18514281	Bracket	1	
14		18603641	Cover (A)	1	
13		18603652	Cover (B)	5	
12		18603671	Cushion Sheet	1	
		18603731	Cushion Piece	4	
11		18710411	Filter A	1	
104		18850871	Push Rivet	6	
112		18851641	Special Screw, M4	4	
115		18852251	Special Screw	6	
117		18852741	Special Screw	1	
116		18852811	Special Screw	9	
114		18853451	Special Screw	4	
101		18853701	Special Screw	4	
105		23850871	Special Screw	6	
110		23850951	Special Screw	1	
106		24851541	Screw, F.T*3*6*15BF	22	
109		24851551	Screw, F.T*3*8*15BF	2	
108		24851801	Push Rivet	6	
103		24851971	Screw, W.M*3*8*15CF	3	
107		24852441	Screw, P.T*3*8*15BF	2	
118		91013086	Screw, CPIMS*3*14*3KF	2	
102		91053032	Screw, CPIMS*3*6*15CF	2	
119		91430302	NUT, AHEXIN*3*15CF	2	

