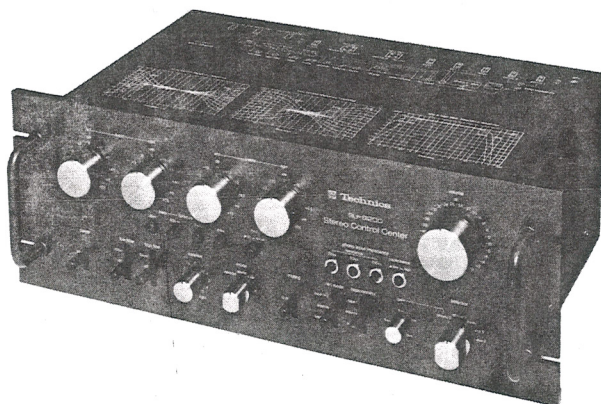


Service Manual

 **Technics**
HI-FI COMPONENTS
 **Technics**

Stereo Control Center

MODEL **SU-9200**

Stereo Power Amplifier

MODEL **SE-9200**
TECHNICAL SPECIFICATION (IHF) (For accommodating future improvements, specifications are subject to change without notice.)

SU-9200		SE-9200	
AMPLIFIER SECTIONS		AMPLIFIER SECTION	
Input sensitivity and impedance		1 kHz continuous power	
PHONO 1	2mV/25k, 50k, 100k Ω	each channel driven	110W/110W (4 Ω)
PHONO 2	2mV~10mV/25k, 50k, 100k Ω		83W / 83W (8 Ω)
TUNER, AUX 1, AUX 2	100mV/47k Ω	both channels driven	103W + 103W (4 Ω)
TAPE DECK 1, 2 PLAYBACK	100mV/47k Ω		82W + 82W (8 Ω)
PHONO maximum input voltage	520mV	20 Hz~20 kHz continuous power	
Total harmonic distortion	0.05%	both channels driven	93W + 93W (4 Ω)
Intermodulation distortion	0.05%		76W + 76W (8 Ω)
Signal-to-noise ratio		Total harmonic distortion	
PHONO 1, 2	70 dB	0.08%	
TUNER, AUX 1, 2	90 dB	Intermodulation distortion	
Frequency response		0.08%	
PHONO 1, 2	RIAA standard curve ± 0.25 dB	Power bandwidth	
TUNER, AUX 1, 2	7 Hz~110 kHz, +0 dB, -3 dB	(both channels driven at 8 Ω) 5 Hz~70 kHz, -3 dB	
Tone controls		Frequency response	
BASS	50 Hz, +7.5 dB~-7.5 dB (11 steps)	5 Hz~100 kHz, +0 dB, -3 dB	
TREBLE	20 kHz, +7.5 dB~-7.5 dB (11 steps)	Signal-to-noise ratio	
Turnover frequencies		110 dB	
BASS	125 Hz, 500 Hz	Residual hum & noise	
TREBLE	2 kHz, 8 kHz	0.3mV	
Filters		Damping factor	
Low	15 Hz, 30 Hz -12 dB/oct	Load impedance 8 ohms 100, 10, 3, 1	
High	10 kHz, 15 kHz -12 dB/oct	Load impedance 4 ohms 50, 5, 1.5, 0.5	
Muting	-20 dB	Input sensitivity and impedance	
Output voltage and impedance		1V/40k Ω	
OUTPUT	Rated 1V/500 Ω	Load impedance	
	Max. 10V/500 Ω	MAIN or REMOTE 4~16 Ω	
TAPE DECK 1, 2	REC OUT 100mV/500 Ω	MAIN + REMOTE 8~16 Ω	
GENERAL		GENERAL	
Power supply	50 Hz-60 Hz, 110V/120V/220V/240V	Power supply 110V/120V/220V/240V	
Power consumption	22W	Power consumption 760W	
Dimensions (W x H x D)	17 $\frac{3}{8}$ " x 6 $\frac{1}{8}$ " x 10 $\frac{1}{2}$ " (450 x 173 x 266.5 mm)	Dimensions (W x H x D) 17 $\frac{3}{8}$ " x 6 $\frac{1}{8}$ " x 14 $\frac{3}{8}$ " (450 x 173 x 380.5 mm)	
Weight	15 lb. (6.8 kg)	Weight 33.1 lb. (15 kg)	

Matsushita Electric
Matsushita Electric Trading Co., Ltd.
P. O. Box 288, Central Osaka, Japan

REPLACEMENT PARTS LIST

Model SU-9200

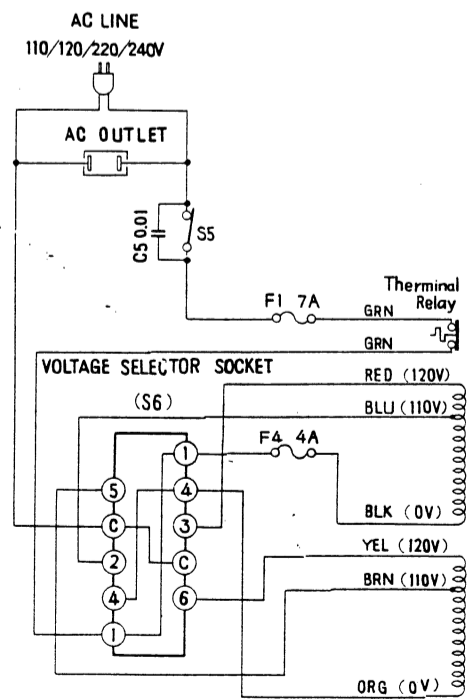
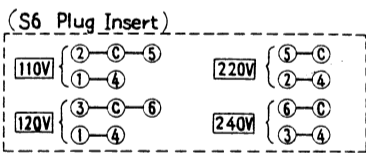
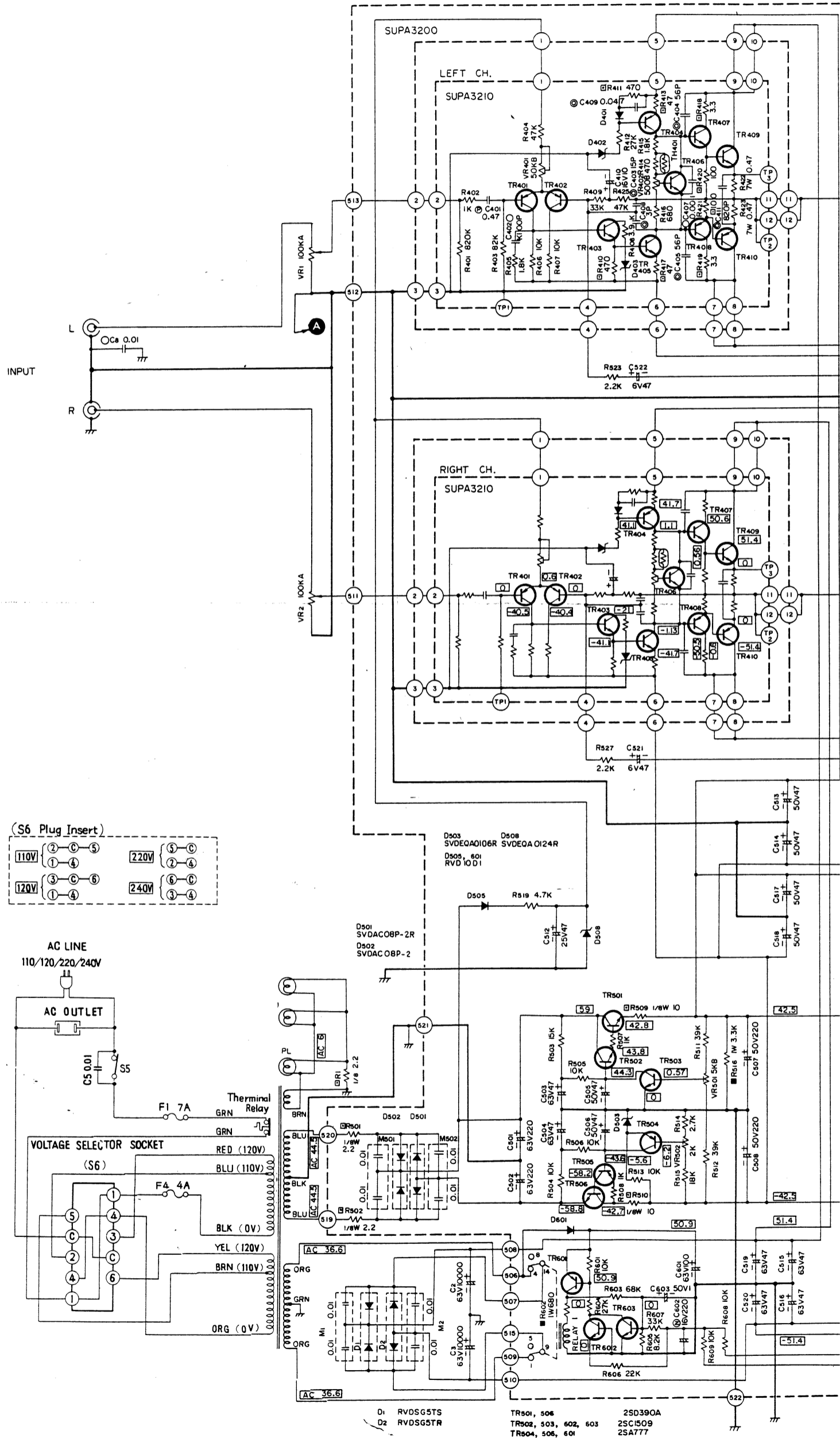
- NOTES:**
- Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
 - X-Z rank: X rank parts will cover 80% of repair needs. X+Y rank parts will cover 95% of repair needs. Z rank parts are less necessary.
 - SAFETY** Indicates that only parts specified by the manufacturer be used for replacement in critical circuits.

Ref. No.	Part No.	Description	Per Set (Pcs)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs)	Remarks
TRANSISTORS					R71, 72, 73, 74, 75, 76, 79, 80, 261, 262	ERD14TJ123	12kΩ, 1/4W, ± 5%, Carbon	10	Y
TR101, 102, 103, 104, 201, 202, 203, 204	2SA722-T	Equalizer & Tone Differential Amplifier	8	X	R219, 220, 221, 222, 361, 362, 363, 364, 503	ERD14TJ153	15kΩ, 1/4W, ± 5%, Carbon	9	Y
TR105, 106	2SC1509-Q	Equalizer Amplifier	2	X	R115, 116, 117, 118, 255, 256, 515	ERD14TJ183	18kΩ, 1/4W, ± 5%, Carbon	7	Y
TR107, 108	2SC1509-Q	Equalizer Amp	2	X	R307	ERD14TJ223	22kΩ, 1/4W, ± 5%, Carbon	1	Y
TR109, 110	2SA777-Q	Equalizer Amp	2	X	R5, 6, 81, 82, 523	ERD14TJ333	33kΩ, 1/4W, ± 5%, Carbon	5	Y
TR205, 206, 301, 302	2SC1328-T	Tone & Filter Amplifier	4	X	R83, 84, 135, 136, 511, 512	ERD14TJ393	39kΩ, 1/4W, ± 5%, Carbon	6	Y
TR207, 208	2SC1318-R	Tone Flat Amp	2	X	R33, 34, 39, 40, 251, 252	ERD14TJ473	47kΩ, 1/4W, ± 5%, Carbon	6	Y
TR209, 210	2SA720-R	Tone Flat Amp	2	X	R317, 318	ERD14TJ513	51kΩ, 1/4W, ± 5%, Carbon	2	Y
TR501, 506	2SD389A-P	DC Voltage Control	2	○ X	R319, 320, 520	ERD14TJ683	68kΩ, 1/4W, ± 5%, Carbon	3	Y
TR504, 505	2SA777-Q	DC Voltage Control	3	X	R233, 234, 259, 260, 359, 360	ERD14TJ104	100kΩ, 1/4W, ± 5%, Carbon	6	Y
TR502, 503, 509	2SC1509-Q	DC Voltage Control & Relay Driver	2	X	R215, 216	ERD14TJ154	150kΩ, 1/4W, ± 5%, Carbon	2	Y
TR507	2SC828-R	Relay Switching	1	X	R139, 140, 143, 144, 239, 240, 323, 324	ERD14TJ224	220kΩ, 1/4W, ± 5%, Carbon	8	Y
TR508	2SC828A-R	Relay Switching	1	X	R257, 258, 522	ERD14TJ334	330kΩ, 1/4W, ± 5%, Carbon	3	Y
DIODES					R353, 354, 357, 358	ERD14TJ564	560kΩ, 1/4W, ± 5%, Carbon	4	Y
D101, 102	MA150	Equalizer Amplifier Bias	2	X	R351, 352, 355, 356, 365, 366	ERD14TJ824	820kΩ, 1/4W, ± 5%, Carbon	6	Y
D501	SVDAC08P-2	Rectifier	1	X	R107, 108	ERD14TSJ393	39kΩ, 1/4W, ± 5%, Carbon	2	Y
D502	SVDAC08P-2R	Rectifier	1	X	R301, 302	ERD14TSJ823	82kΩ, 1/4W, ± 5%, Carbon	2	Y
D503	SVDEQA0106R	6V Zener	1	X	R3, 4, 309, 310	FRD14TSJ104	100kΩ, 1/4W, ± 5%, Carbon	4	Y
D504, 505, 508, 509	RVD10D1	Rectifier	4	X	R207, 208	ERD14TSJ154	150kΩ, 1/4W, ± 5%, Carbon	2	Y
D506, 507	SVDEQA0124R	24V Zener	2	X	R213, 214	ERD14TSJ184	180kΩ, 1/4W, ± 5%, Carbon	2	Y
TRANSFORMER					R101, 102, 105, 106	ERD14TSJ224	220kΩ, 1/4W, ± 5%, Carbon	4	Y
	SLTA5L19	Power Transformer	1	○ XXXX X	R205, 206, 315, 316	ERD14TSJ334	330kΩ, 1/4W, ± 5%, Carbon	4	Y
RESISTORS					R217, 218	ERD14TSJ394	390kΩ, 1/4W, ± 5%, Carbon	2	Y
R93, 94	ERD14TJ151	150Ω, 1/4W, ± 5%, Carbon	2	Y	R1, 2, 201, 202	ERD14TSJ564	560kΩ, 1/4W, ± 5%, Carbon	4	Y
R225, 226	ERD14TJ331	330Ω, 1/4W, ± 5%, Carbon	2	Y	R311	ERD14TSJ105	1MΩ, 1/4W, ± 5%, Carbon	1	Y
R57, 58, 229, 230, 231, 232	ERD14TJ391	390Ω, 1/4W, ± 5%, Carbon	6	Y	R131, 132, 133, 134	ERD14FJ221	220Ω, 1/4W, ± 5%, Carbon	4	Y
R55, 56, 137, 138, 235, 236, 329, 330	ERD14TJ471	470Ω, 1/4W, ± 5%, Carbon	8	Y	R121, 122, 125, 126	ERD14FJ331	330Ω, 1/4W, ± 5%, Carbon	4	Y
R51, 52	ERD14TJ561	560Ω, 1/4W, ± 5%, Carbon	2	Y	R325, 326	ERD14FJ392	3.9kΩ, 1/4W, ± 5%, Carbon	2	Y
R49, 50, 77, 78, 113, 114	ERD14TJ681	680Ω, 1/4W, ± 5%, Carbon	6	Y	R518	ERD18FJ2R2	2.2Ω, 1/8W, ± 5%, Carbon	1	XXXX Y
R151, 152	ERD14TJ821	820Ω, 1/4W, ± 5%, Carbon	2	Y	R501, 502, 509, 510	ERD18FJ100	10Ω, 1/8W, ± 5%, Carbon	4	XXXX Y
R45, 46, 91, 92, 507, 508	ERD14TJ102	1kΩ, 1/4W, ± 5%, Carbon	6	Y	R525	ERD12FJ181	180Ω, 1/2W, ± 5%, Carbon	1	XXXX Y
R123, 124, 313, 314	ERD14TJ122	1.2kΩ, 1/4W, ± 5%, Carbon	4	Y	R149, 150	ER014CKF6802	68kΩ, 1/4W, ± 1%, Metallic	2	○ Y
R89, 90	ERD14TJ152	1.5kΩ, 1/4W, ± 5%, Carbon	2	Y	R145, 146	ER014CKF8203	820kΩ, 1/4W, ± 1%, Metallic	2	Y
R59, 60, 109, 110, 111, 112, 203, 204, 141, 142	ERD14TJ182	1.8kΩ, 1/4W, ± 5%, Carbon	10	Y	R367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378	ERC14GK825	8.2MΩ, 1/4W, ±10%, Solid	12	Y
R87, 88, 103, 104	ERD14TJ222	2.2kΩ, 1/4W, ± 5%, Carbon	4	Y	R308	ERD14VJ223	22kΩ, 1/4W, ± 5%, Carbon	1	Y
R514	ERD14TJ272	2.7kΩ, 1/4W, ± 5%, Carbon	1	Y	R312	ERD14VJ105	1MΩ, 1/4W, ± 5%, Carbon	1	Y
R85, 86, 119, 120, 241, 242, 243, 244, 327, 328	ERD14TJ392	3.9kΩ, 1/4W, ± 5%, Carbon	10	Y	VARIABLE RESISTORS				
R31, 32, 35, 36, 253, 254, 321, 322, 516, 517, 519, 521	ERD14TJ472	4.7kΩ, 1/4W, ± 5%, Carbon	12	Y	VR1	EWCD1AR30A-T	100kΩ(A), Volume Control	1	Y
R7, 8, 47, 48	ERD14TJ562	5.6kΩ, 1/4W, ± 5%, Carbon	4	Y	VR2	EWFNATF25252	250kΩ(BH), Balance Control	1	Y
R37, 38, 41, 42, 53, 54, 223, 224, 227, 228	ERD14TJ682	6.8kΩ, 1/4W, ± 5%, Carbon	10	Y	VR3	EWFOPA025B24	20kΩ(B), Phono 2 Gain Control	1	○ Y
R43, 44, 209, 210	ERD14TJ822	8.2kΩ, 1/4W, ± 5%, Carbon	4	Y	VR501	EVL33AA00B53	5kΩ(B), Positive Voltage Control	1	Y
R211, 212, 303, 304, 305, 306, 504, 505, 506, 513, 524	ERD14TJ103	10kΩ, 1/4W, ± 5%, Carbon	11	Y	VR502	EVL33AA00B23	2kΩ(B), Negative Voltage Control	1	Y
CAPACITORS					C207, 208	ECDD1H100KC	10pF, 50WV, ±10%, Ceramic	2	Z
					C251, 252, 255, 256	ECDD1H180K	18pF, 50WV, ±10%, Ceramic	4	Z
					C253, 254	ECDD1H220K	22pF, 50WV, ±10%, Ceramic	2	Z
					C105, 106	ECDD1H390K	39pF, 50WV, ±10%, Ceramic	2	Z
					C121, 122	ECDD1H101K	100pF, 50WV, ±10%, Ceramic	2	Z
					C1, 2	ECDD1H151K	150pF, 50WV, ±10%, Ceramic	2	Z
					C111, 112	ECDD2H150K	15pF, 500WV, ±10%, Ceramic	2	Z
					C103, 104	ECKC1H471KB	470pF, 50WV, ±10%, Ceramic	2	Z
					C257, 258	ECKC1H681KB	680pF, 50WV, ±10%, Ceramic	2	Z
					C125, 126	ECKE1H102MD	0.001μF, 50WV, ±20%, Ceramic	2	Z
					C511	ECKE1H103MD	0.01μF, 50WV, ±20%, Ceramic	1	Z
					C3, 4	ECQU2A103MD	0.01μF, 250VAC, ±20%, Polyester	2	XXXX Z

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
RELAY 1	SSYA1	Relay, Speakers Protections	1	Y					
FUSES and LAMP									
F1	XBA2E70NS5	7A Fuse, Power Source	1	XXXX X		SJFA5403	Terminal, Speakers	2	Y
F2,3	XBAS1A5001	5A Fuse, Circuit Protection	2	XXXX X		SJFA1	Holder, Circuit Protection Fuses	2	Y
F4	XBA2K40NS5	4A Fuse, Power Source	1	○XXXX X		SJSA66-1	Socket, AC Outlet	1	XXXX Y
PL	XAM37T150	Pilot Lamp (7.5V 75mA)	1	X		SJAA6	AC Cord	1	XXXX Y
CABINET PARTS									
	SSMA28-1	Output Level Meter	2	X		SHRA108	Bushing, AC Cord	1	Z
	SGWA1371	Front Panel	1	Y		SJJA10-3	Jack, Headphones	1	Y
	SKYA4	Handle, Front Panel	2	Z		SJSA65	Socket, Main Amp p.c.b. Connector	4	Z
	SKYA8	Plate, Front Panel Handle M'tg.	2	Z		SMZA6091	Bracket, Pilot Lamp	1	Z
	SGUA23	Plastic Plate, Meter	2	Z		SJFA107	Holder, Power Source Fuse	1	Y
	SGLA9	Orange Dial Light	1	Z		SBCA53	Button, Speakers Switch	2	Y
	SKUA410	Bottom Board	1	○ Z					
	SHGA303	Leg	4	Z					
	XTB4+8BR	Red Screw, Bottom Board M'tg.	8	Z					
	XYN3DC8KS	Bolt, Front Panel M'tg.	6	Z					
	SKA820-1	Cabinet	1	○ Y					
	XSB4+10KS	Screw, Cabinet M'tg.	4	Z					
	SBNA130	Knob, Output Level Control	2	Y					
	SBSA12	Knob, Output Impedance Switch	1	Y					
	SBLA4-1	Knob, Power & Meter Range Switch	2	Y					
	SGPA650-1A	Rear Panel	1	○ Z					
	SJFA3207	Terminal, Input	1	Y					
ACCESSORIES									
						SJP2129	Connector Cord	1	Y
						XBAS1A5001	5A Fuse, Circuit Protection	2	XXXX X
						RJP5	Pin Plug	4	Y
						RJP74-1	AC Plug	1	Y
						RJP75	AC Plug	1	Y
PACKING PARTS									
						SPPA27	Soft Cover	1	Z
						SPHA6008	Polyethylene Sheet	1	Z
						SPSA130	Pad, Right & Left Side	2	○ Z
						SPNA109	Pad, Top Side	1	Z
						SPS11	Pad, Rear Side	1	Z
						SPNA380A	Carton Box, Inner	1	○ Z
						SPGA721A	Carton Box, Outer	1	○ Z
						SOFA256	Printed Matter, Complete	1	○ Y

Schematic Diagram..... Model SE-9200 (This schematic diagram may be modified)

TR401, 402	2SA640AD	TR406	2SC828	TR410	2SB539B
TR403	2SC1328	TR407	2SD381	D401	MA150
TR404	2SA794	TR408	2SB536	D402, 403	SVDEQA0
TR405	2SC1567	TR409	2SD287B		

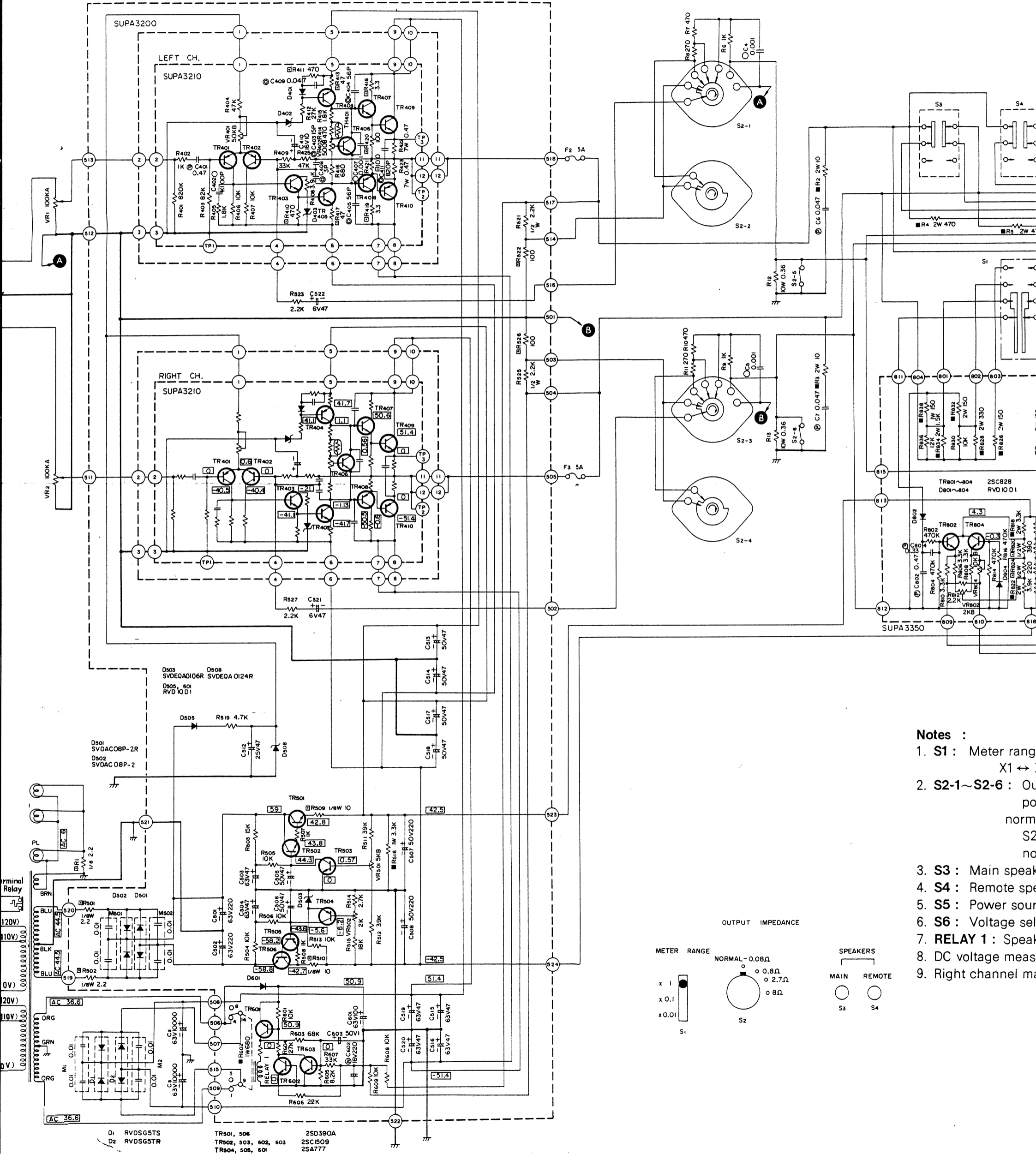


D1	RVDSG5TS	TR501, 506	2SD390A
D2	RVDSG5TR	TR502, 503, 602, 603	2SC1509
		TR504, 506, 601	2SA777

Model SE-9200

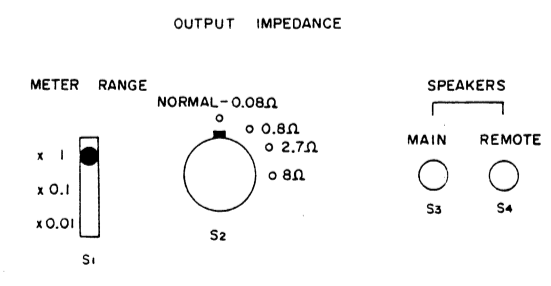
(This schematic diagram may be modified at any time with the development of new technology)

TR401, 402	2SA640AD	TR406	2SC828	TR410	2SB539B
TR403	2SC1328	TR407	2SD381	D401	MAI50
TR404	2SA794	TR408	2SB536	D402, 403	SVDEQA0112R
TR405	2SC1567	TR409	2SD287B		



Notes :

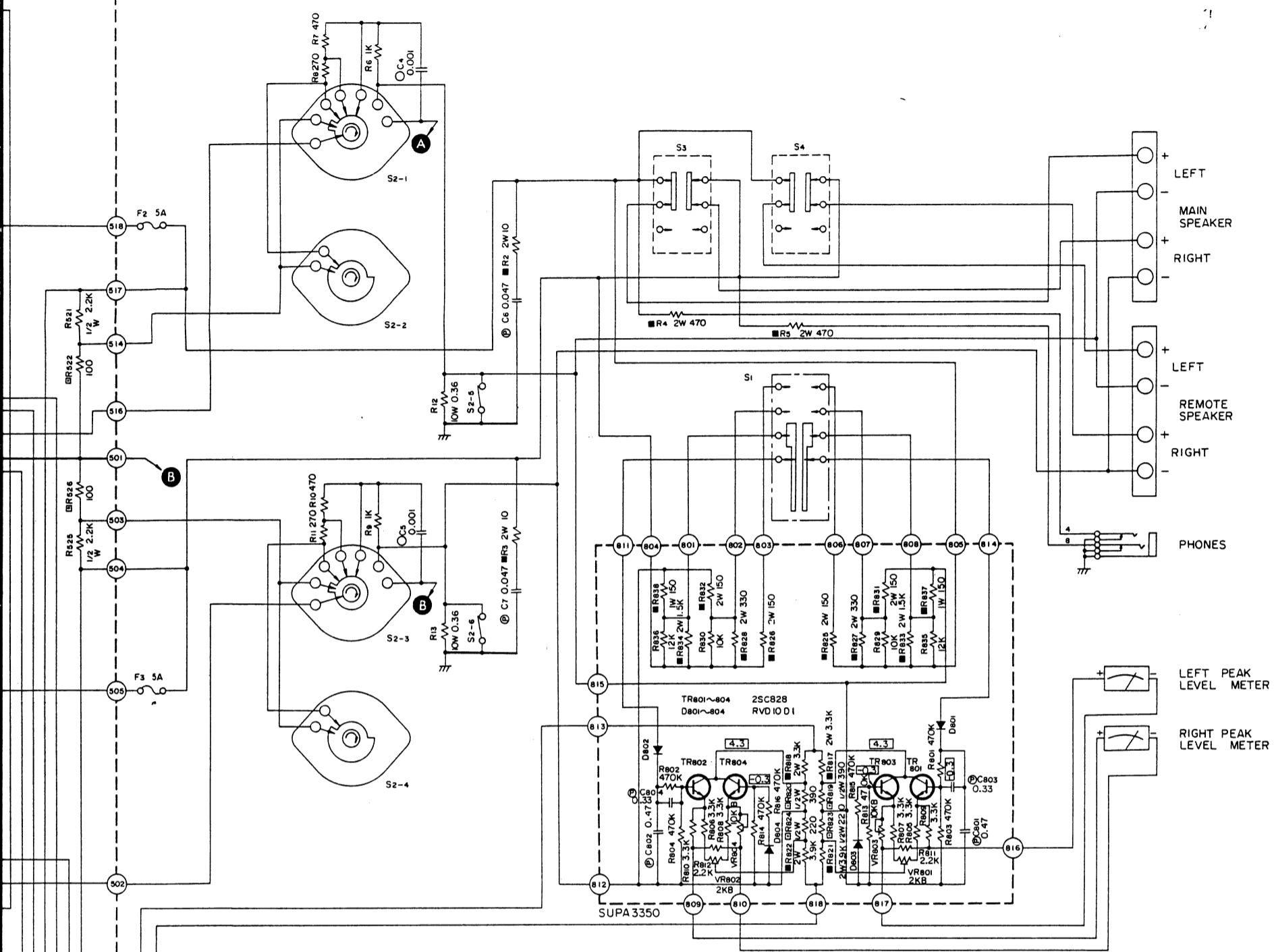
1. S1 : Meter range selector switch (X1 ↔ X0.01)
2. S2-1 ~ S2-6 : Output impedance selector switch (NORMAL, 0.08Ω, 0.8Ω, 2.7Ω, 8Ω)
3. S3 : Main speaker selector switch (MAIN ↔ REMOTE)
4. S4 : Remote speaker selector switch (MAIN ↔ REMOTE)
5. S5 : Power source selector switch (AC ↔ DC)
6. S6 : Voltage selector switch (10V ↔ 20V)
7. RELAY 1 : Speaker relay
8. DC voltage measurement points
9. Right channel measurement points



D1	RVDSG5TS	TR501, 506	2SD390A
D2	RVDSG5TR	TR502, 503, 602, 603	2SC1509
		TR504, 506, 601	2SA777

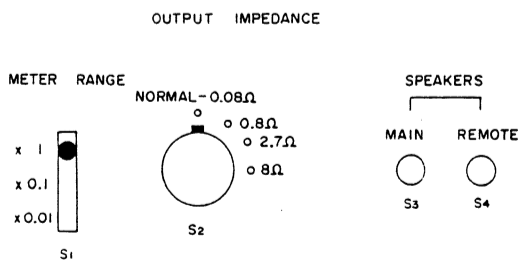
at any time with the development of new technology)

D112R



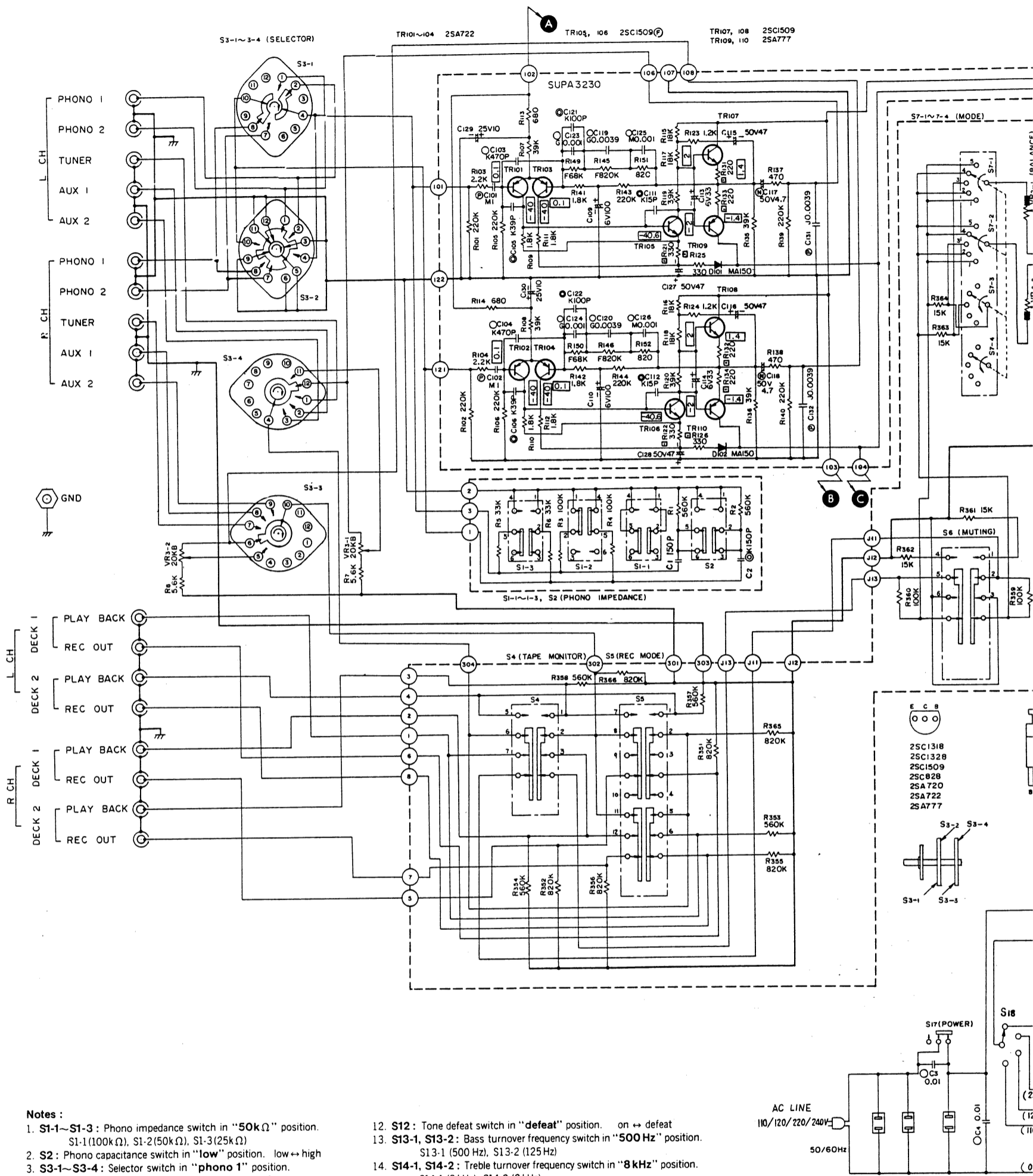
Notes :

1. **S1** : Meter range selector switch in "X1" position.
X1 ↔ X0.1 ↔ X0.01
2. **S2-1~S2-6** : Output impedance (damping factor) selector switch in "normal (0.08Ω)" position.
normal (0.08Ω) ↔ 0.8Ω ↔ 2.7Ω ↔ 8Ω
S2-5, S2-6 is short condition, when output impedance selector switch is normal position only.
3. **S3** : Main speakers switch in "on" position.
4. **S4** : Remote speakers switch in "on" position.
5. **S5** : Power source switch in "on" position.
6. **S6** : Voltage selector socket.
7. **RELAY 1** : Speakers protection relay in "normal" position.
8. DC voltage measurements are taken with DC VTVM from chassis ground.
9. Right channel main amplifier is same as left channel main amplifier.



Schematic Diagram..... Model SU-9200

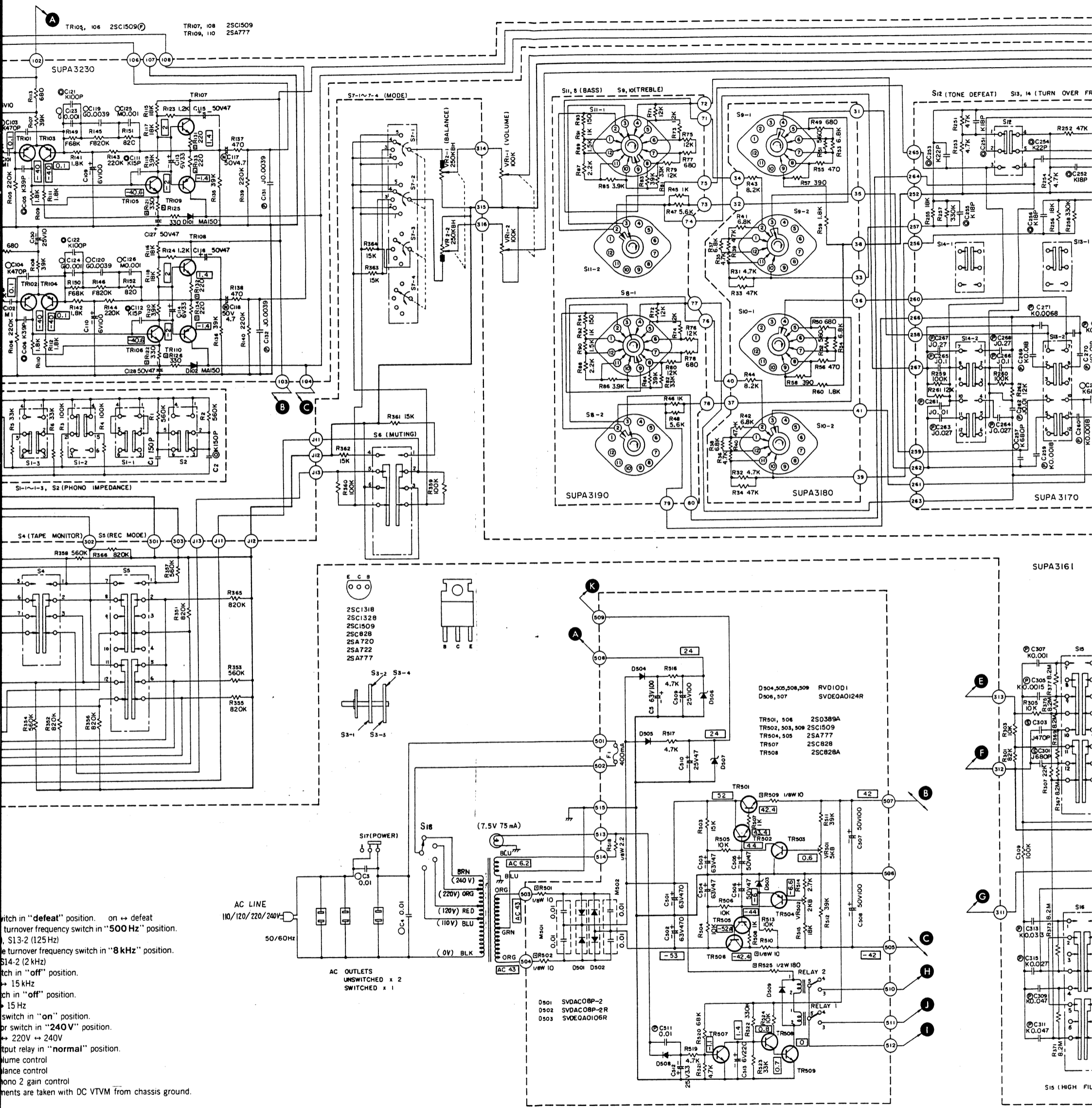
(This schematic diagram may be modified at any time without notice.)



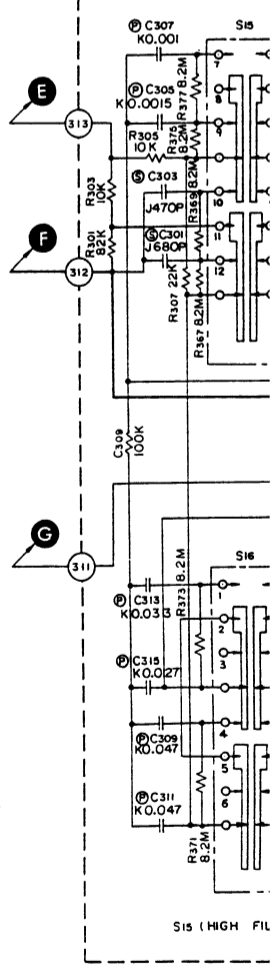
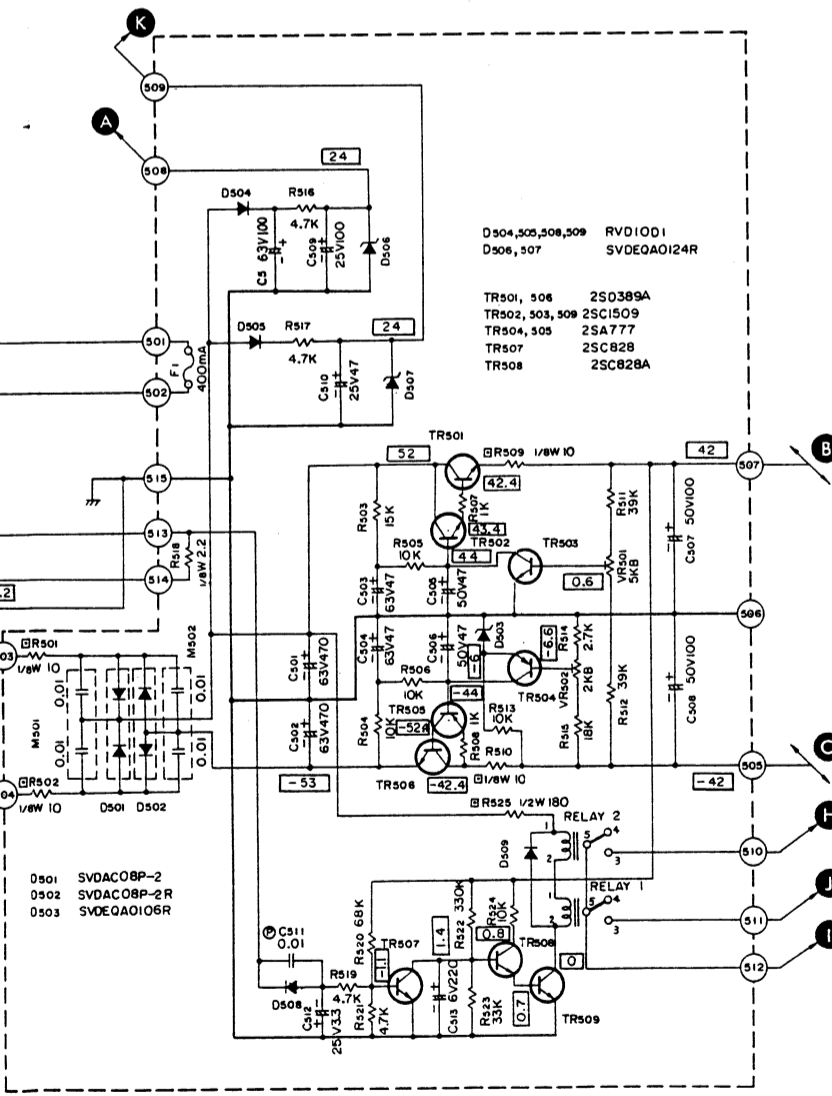
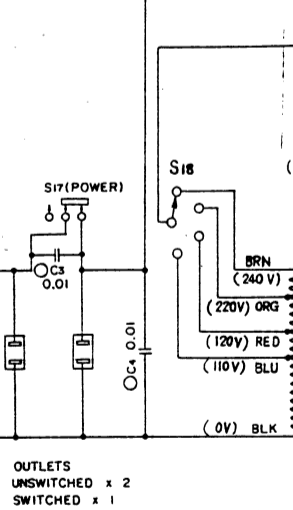
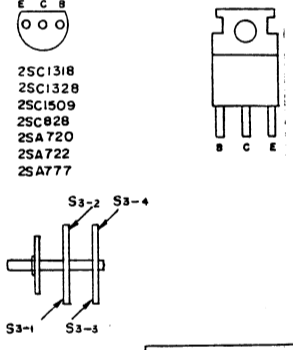
Notes :

1. S1-1~S1-3 : Phono impedance switch in "50kΩ" position.
S1-1(100kΩ), S1-2(50kΩ), S1-3(25kΩ)
2. S2 : Phono capacitance switch in "low" position. low ↔ high
3. S3-1~S3-4 : Selector switch in "phono 1" position.
phono 2 ↔ phono 1 ↔ tuner ↔ aux1 ↔ aux 2
4. S4 : Tape monitor switch in "source" position.
tape 1 ↔ source ↔ tape 2
5. S5 : Tape rec mode (dubbing) switch in "source" position.
tape 1 ▶ 2 ↔ source ↔ tape 2 ▶ 1
6. S6 : Audio muting switch in "0 dB" position. 0 dB ↔ -20 dB
7. S7-1~S7-4 : Mode switch in "Stereo" position.
reverse ↔ stereo ↔ L+R ↔ L ↔ R
8. S8-1, S8-2 : Right channel bass control switch in "0 dB" position.
-7.5 dB ~ (1.5 dB steps) ~ +7.5 dB
9. S9-1, S9-2 : Left channel treble control switch in "0 dB" position.
-7.5 dB ~ (1.5 dB steps) ~ +7.5 dB
10. S10-1, S10-2 : Right channel treble control switch in "0 dB" position.
-7.5 dB ~ (1.5 dB steps) ~ +7.5 dB
11. S11-1, S11-2 : Left channel bass control switch in "0 dB" position.
-7.5 dB ~ (1.5 dB steps) ~ +7.5 dB
12. S12 : Tone defeat switch in "defeat" position. on ↔ defeat
13. S13-1, S13-2 : Bass turnover frequency switch in "500 Hz" position.
S13-1 (500 Hz), S13-2 (125 Hz)
14. S14-1, S14-2 : Treble turnover frequency switch in "8 kHz" position.
S14-1 (8 kHz), S14-2 (2 kHz)
15. S15 : High filter switch in "off" position.
10 kHz ↔ off ↔ 15 kHz
16. S16 : Low filter switch in "off" position.
30 Hz ↔ off ↔ 15 Hz
17. S17 : Power source switch in "on" position.
18. S18 : Voltage selector switch in "240V" position.
110V ↔ 120V ↔ 220V ↔ 240V
19. RELAY 1, 2 : AF output relay in "normal" position.
20. VR1-1, VR1-2 : Volume control
21. VR2-1, VR2-2 : Balance control
22. VR3-1, VR3-2 : Phono 2 gain control
23. DC voltage measurements are taken with DC VTVM from chassis ground.

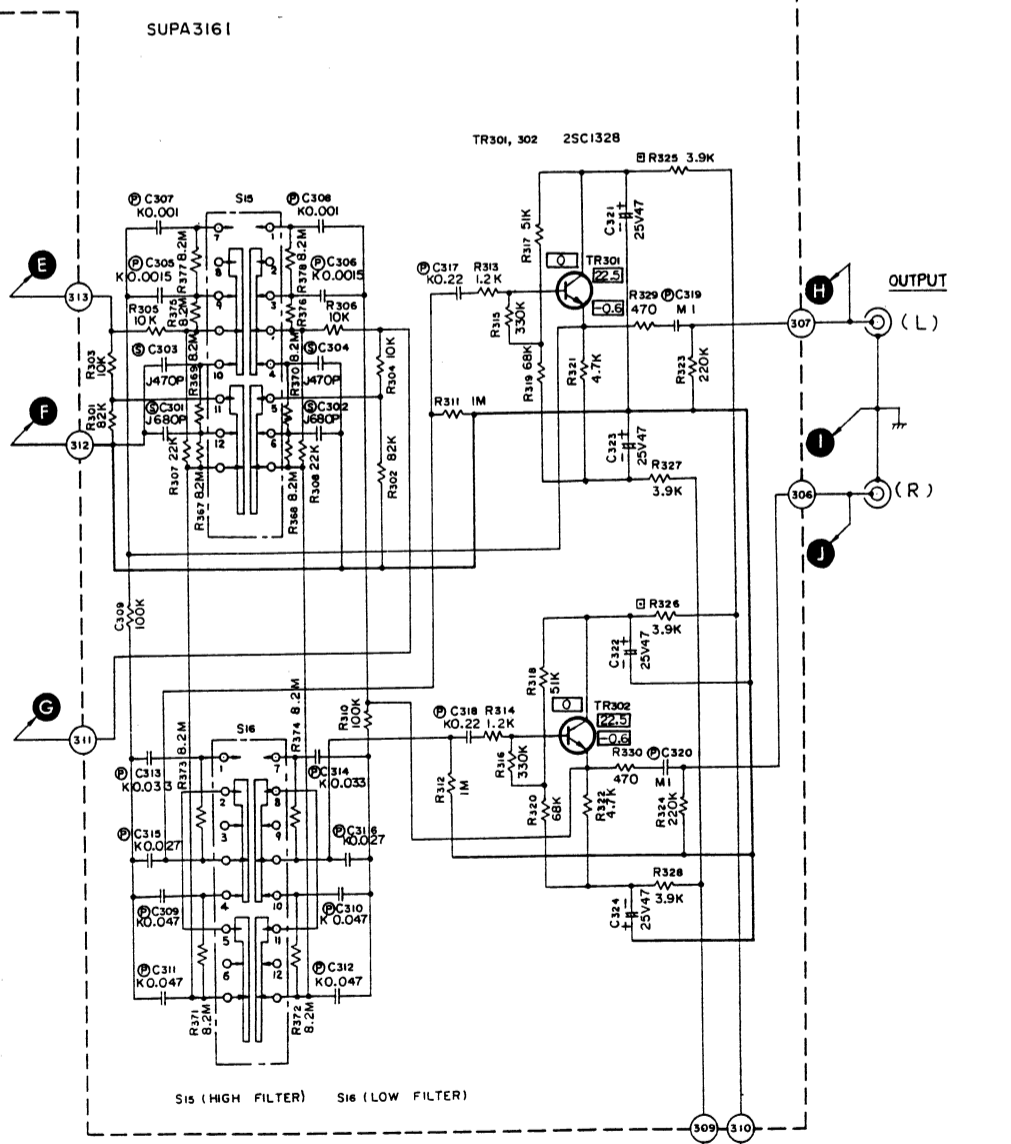
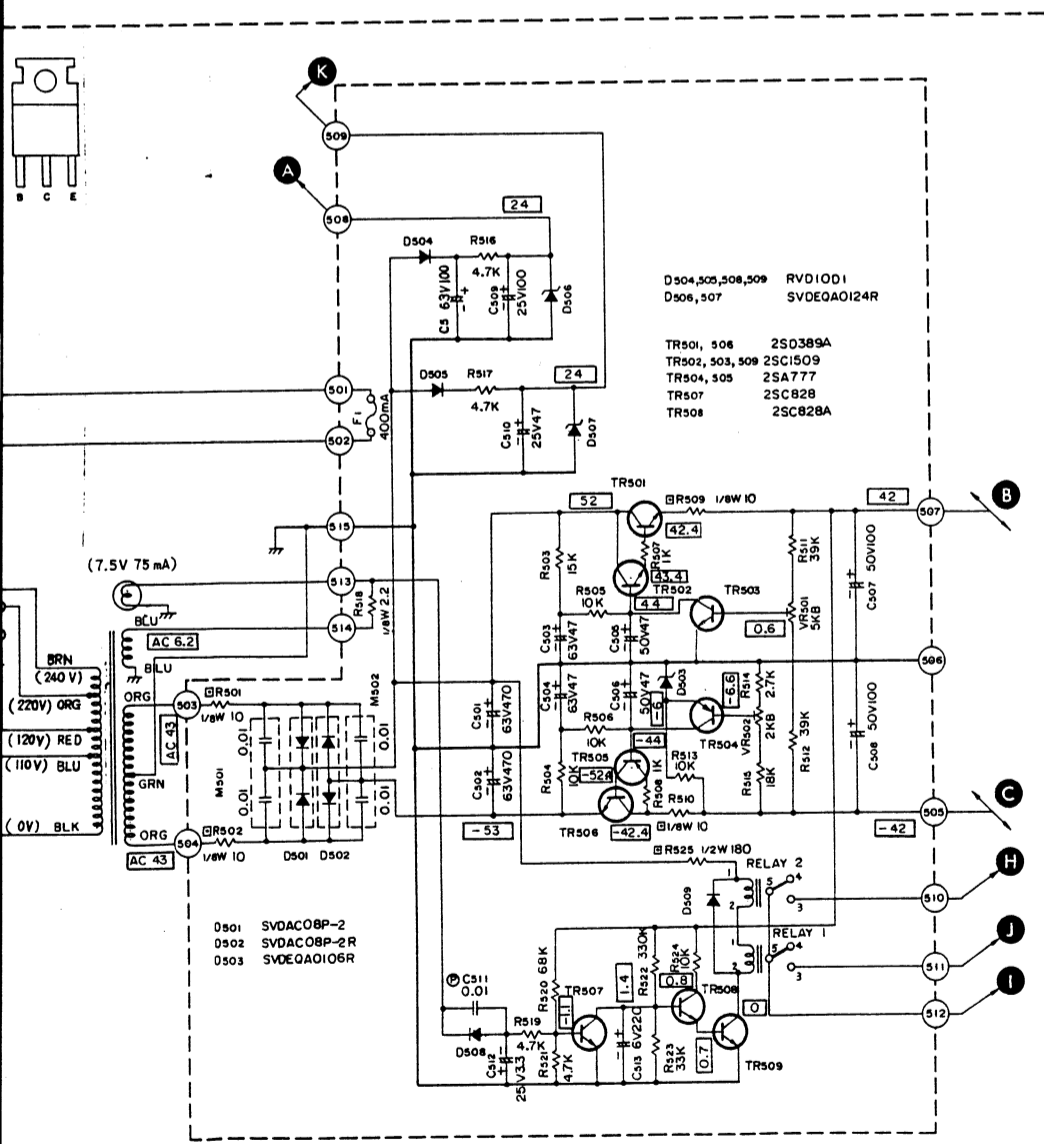
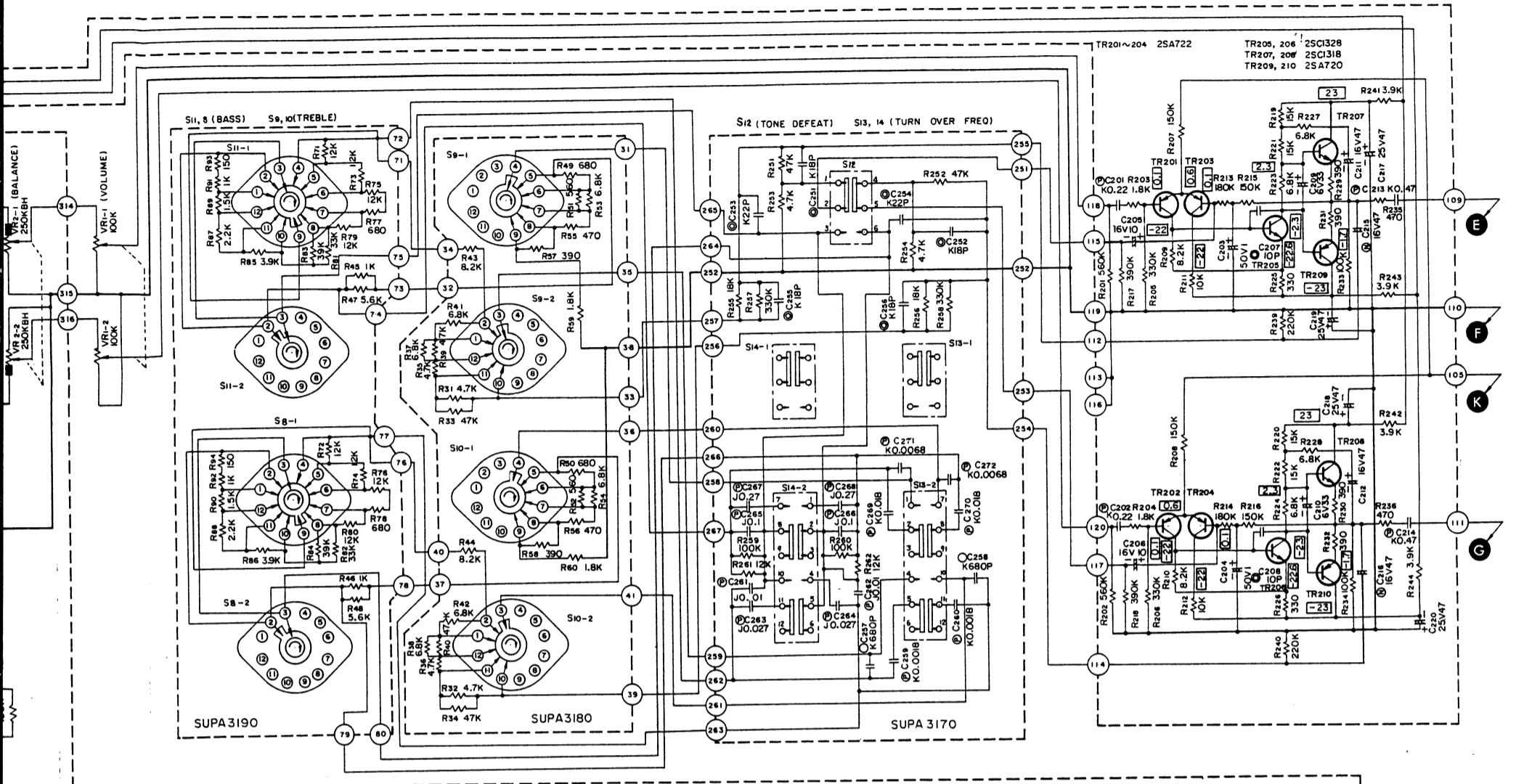
Model SU-9200 (This schematic diagram may be modified at any time with the development of new technology.)



switch in "defeat" position. on ↔ defeat
 turnover frequency switch in "500 Hz" position.
 S13-2 (125 Hz)
 the turnover frequency switch in "8 kHz" position.
 S14-2 (2 kHz)
 switch in "off" position.
 → 15 kHz
 switch in "off" position.
 → 15 Hz
 switch in "on" position.
 or switch in "240 V" position.
 → 220V ↔ 240V
 output relay in "normal" position.
 volume control
 balance control
 phono 2 gain control
 components are taken with DC VTVM from chassis ground.



any time with the development of new technology.)



Service Manual

Supplementary-2

Stereo Control Center

SU-9200-(X,XE,XH,FEE)

- * This service manual includes only the changes of SU-9200-(X,XE,XH,FEE) service manual (ORDER NO. SD7512-1007-1).
- * This manual should be filed with the service manual for model SU-9200-(X,XE,XH,FEE) (ORDER NO. SD7512-1007-1).
- * When servicing model SU-9200-(X,XE,XH,FEE) this service manual should be used together.

SUBJECT ; Modification of Muting

The above model has had its D.C. Supply polarity modified from plus to minus for the muting relay circuit. The modified models have changed serial numbers ; from "B" to "C" and "C" to "D".

★ SU-9200-(XE) B → C

SER. NO.		MODIFIED SER. NO.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	➔	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

★ SU-9200-(X,XH,FEE.) C → D

SER. NO.		MODIFIED SER. NO.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	➔	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> D <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

MODIFICATION PARTS LIST

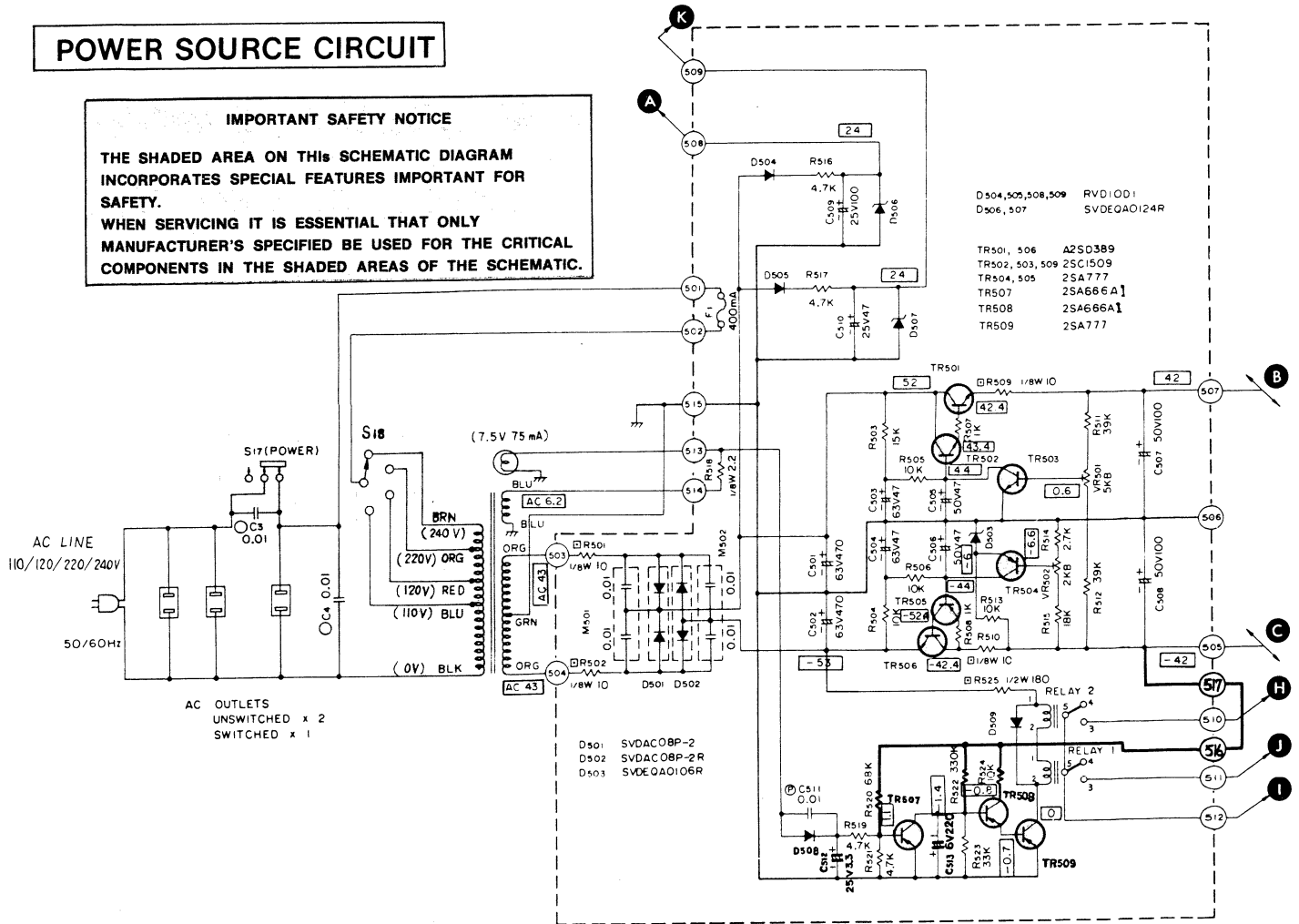
Ref. No.	Ser. No. B & C	Modified	Ser. No. C & D	Description	Per Set (Pcs)
TR507	2SC828		2SA666A1	Relay Switching	1
TR508	2SC828		2SA666A1	Relay Switching	1
TR509	2SC1509		2SA777	D.C. Voltage Control & Relay Driver	1
RELAY 1, 2	SSEA14		SSY11	A.F. Output Relay	2

CHANGED POLARITY OF COMPONENTS (MODIFIED SER. NO. C & D)

Ref. No.	Part No.	Description	Per Set (Pcs)	Remarks
D508	RVD10D1	Diode	1	
D509	RVD10D1	Diode	1	
C512	ECEA25V3R3L	Electrolytic	1	
C513	ECEA6V220L	Electrolytic	1	

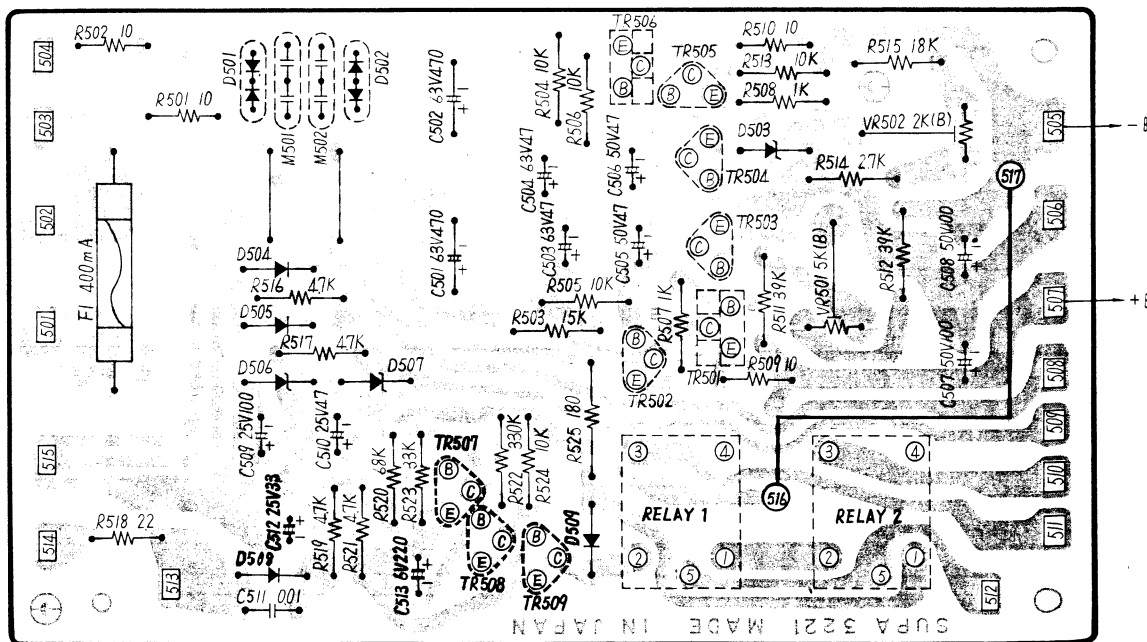
Modified schematic diagram and printed circuit board are as follows.

POWER SOURCE CIRCUIT



POWER SOURCE CIRCUIT BOARD

(SUPA3221)



TR509	TR508	TR507
C - 0 V	C - 0.8 V	C - 1.4 V
B - 0 V	B - 1.4 V	B + 1 V
E - 0 V	E - 0.7 V	E - 0 V