

Service Manual

Technics
by Panasonic

HI-FI COMPONENTS

Technics
by Panasonic


(for European Military)

Stereo Control Center

MODEL **SU-9600**

TECHNICAL SPECIFICATIONS (For accommodating future improvements, specifications are subject to change without notice.)

AMPLIFIER SECTIONS (IHF)

Input sensitivity and impedance

PHONO 1	2 mV/25k, 50k, 100k Ω
PHONO 2	1 mV~3 mV/25k, 50k, 100k Ω
TUNER, AUX 1, AUX 2	100mV/50k Ω
TAPE DECK 1, 2 PLAYBACK	100mV/50k Ω

PHONO maximum input voltage

PHONO 1	900mV
PHONO 2	450mV~1350mV

Total harmonic distortion

0.08%

Intermodulation distortion

0.08%

Signal-to-noise ratio

PHONO 1	73 dB
PHONO 2	69 dB~76 dB
TUNER, AUX 1, 2	95 dB

Frequency response

PHONO	RIAA standard curve ± 0.3 dB
TUNER, AUX 1, 2	2 Hz~100 kHz, +0 dB, -3 dB

Tone controls

BASS	50 Hz, +12.5 dB - 12.5 dB (11 steps)
TREBLE	20 kHz, +12.5 dB - 12.5 dB (11 steps)

Turnover frequencies

BASS	125 Hz, 500 Hz
TREBLE	2 kHz, 8 kHz

Filters

Low	15 Hz, 30 Hz - 18 dB/oct.
High	10 kHz, 15 kHz - 18 dB/oct.

Muting

-20 dB

Output voltage and impedance

OUTPUT 1, 2	Rated	1V/600 Ω
	Max.	11V/600 Ω
TAPE DECK 1, 2	REC OUT	100mV/600 Ω

GENERAL

Power supply	AC 110/120/220/240V 50/60Hz
Power consumption	17W
Dimensions (W x H x D)	17 $\frac{3}{4}$ " x 6 $\frac{1}{8}$ " x 14 $\frac{3}{4}$ "
	450 x 173 x 375 mm
Weight	23.2 lb. 10.5 kg

Matsushita Electric Corp. of America
Matsushita Electric Corp. of Hawaii, Inc.
Matsushita Electric of Canada Ltd.

Pan Am Bldg., 200 Park Ave., New York, N. Y. 10017
320. Waiakamilo Road Honolulu, Hawaii 96817
40 Ronson Drive, Rexdale, Ont.

REPLACEMENT PARTS LIST

NOTES:

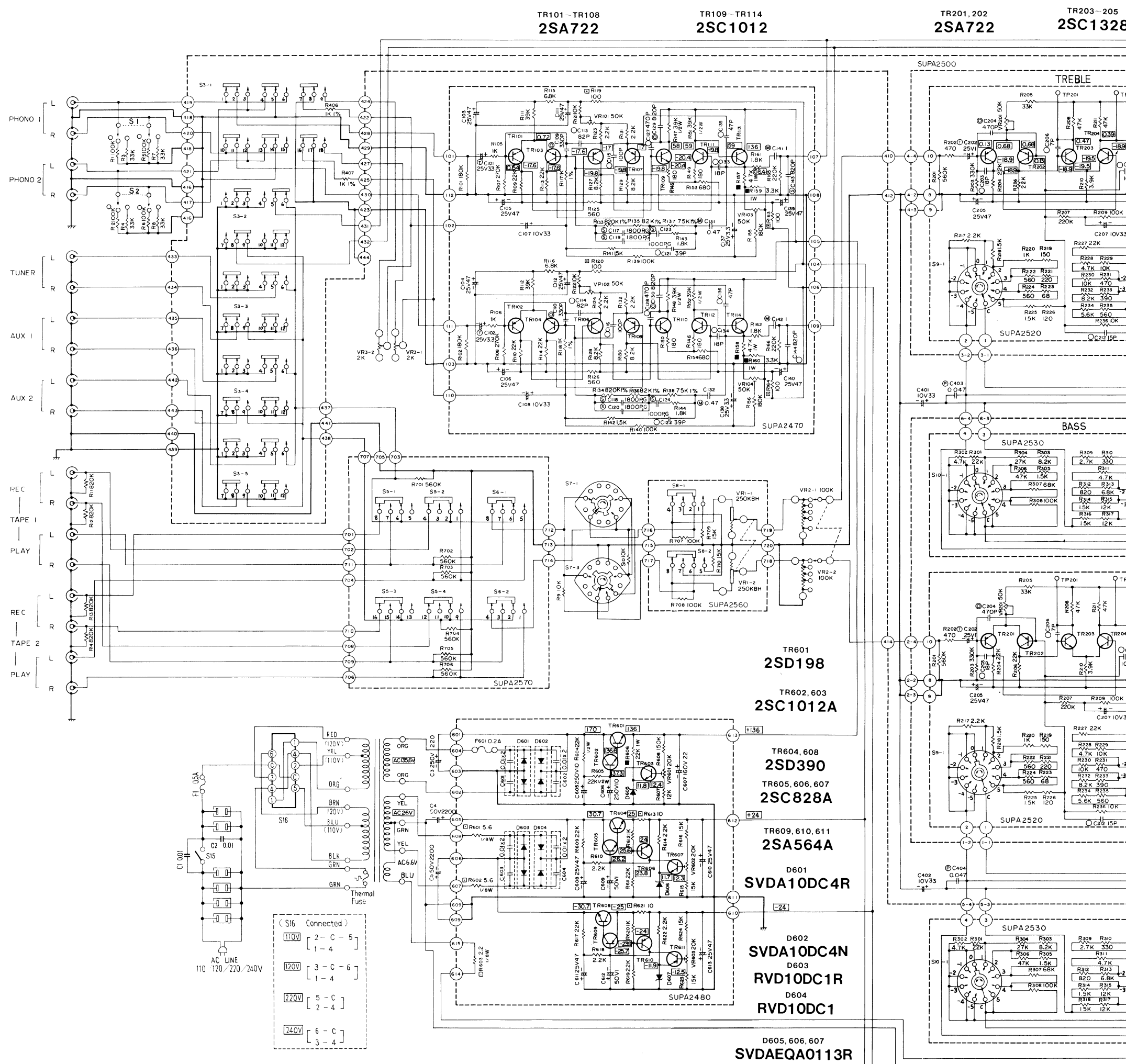
1. Part numbers are indicated on most mechanical parts.
Please use this part number, for parts orders.

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
TRANSISTORS					R9, 10, 121, 122, (229, 230, 236) × 2, 509, 510, 527, 528, 537, 538, 541, 542, 551, 552, 561, 562, 563, 564, 573, 574	ERD14TJ103	10kΩ, 1/4W, ±5%, Carbon	26	
TR101, 102, 103, 104, 105, 106, 107, 108, (201, 202) × 2, 501, 502, 505, 506, 509, 510, 513, 514	2SA722T	Equalizer, Tone & Filter Amplifier	20		R (315, 317) × 2, 401, 607	ERD14TJ123	12kΩ, 1/4W, ±5%, Carbon	6	
TR109, 110, 111, 112, 113, 114	2SC1012	Equalizer Amplifier	6		R (316) × 2, 615, 616, 623, 624, 709, 710	ERD14TJ153	15kΩ, 1/4W, ±5%, Carbon	8	
TR (203, 204, 205) × 2, 503, 504, 507, 508, 511, 512, 515, 516	2SC1328T	Tone & Filter Amplifier	14		R109, 110, 113, 114, (204, 206, 227, 301) × 2, 609, 611, 617, 619	ERD14TJ223	22kΩ, 1/4W, ±5%, Carbon	16	
TR601	2SD198	DC Voltage Control	1		R (304) × 2, R3, 4, 7, 8, (205) × 2	ERD14TJ273	27kΩ, 1/4W, ±5%, Carbon	2	
TR602, 603	2SC1012A	An Error Voltage Det. & DC Amp.	2		R111, 112, 403, R (208, 211, 306) × 2, 404	ERD14TJ333	33kΩ, 1/4W, ±5%, Carbon	6	
TR604, 608	2SD390P	DC Voltage Control	2		R525, 526	ERD14TJ393	39kΩ, 1/4W, ±5%, Carbon	3	
TR401, 402, 605, 606, 607	2SC828A-R	Relay Driver & An Error Voltage Detector	5		R (307) × 2, 507, 508	ERD14TJ473	47kΩ, 1/4W, ±5%, Carbon	7	
TR609, 610, 611	2SA564A-R	DC Amp & An Error Voltage Det.	3		R1, 2, 5, 6, (308) × 2, 707, 708	ERD14TJ563	56kΩ, 1/4W, ±5%, Carbon	2	
DIODES					R (307) × 2, 507, 508	ERD14TJ683	68kΩ, 1/4W, ±5%, Carbon	4	
D401	MA150	Rectifier	1		R1, 2, 5, 6, (308) × 2, 707, 708	ERD14TJ104	100kΩ, 1/4W, ±5%, Carbon	8	
D601	SVDA100C4-R	Rectifier	1		R139, 140, (209) × 2, 543, 544, 545, 546, 565, 566, 567, 568	ERD14TSJ104	100kΩ, 1/4W, ±5%, Carbon	12	
D602	SVDA100C4-N	Rectifier	1		R511, 512, 529, 530	ERD14TSJ154	150kΩ, 1/4W, ±5%, Carbon	4	
D603	RVD100C1-R	Rectifier	1		R608	ERD14TJ154	150kΩ, 1/4W, ±5%, Carbon	1	
D604	RVD100C1	Rectifier	1		R405	ERD14TJ184	180kΩ, 1/4W, ±5%, Carbon	1	
D605, 606, 607	SVDAEQAO113R	13V Zener, Voltage Stabilizer	3		R101, 102, 155, 156, 523, 524	ERD14TSJ184	180kΩ, 1/4W, ±5%, Carbon	6	
TRANSFORMER					R (207) × 2, 505, 506, R165, 166, (214) × 2, 517, 518, 535, 536, 557, 558, 579, 580	ERD14TSJ224	220kΩ, 1/4W, ±5%, Carbon	4	
T1	SLTA5N15S	Power Transformer	1		R107, 108	ERD14TSJ274	270kΩ, 1/4W, ±5%, Carbon	2	
RESISTORS					R (203) × 2, R501, 502, 519, 520, 539, 540, 559, 560	ERD14TSJ334	330kΩ, 1/4W, ±5%, Carbon	8	
R (223) × 2	ERD14TJ680	68Ω, 1/4W, ±5%, Carbon	2		R (201) × 2, 701, 702, 703, 704, 705, 706	ERD14TSJ474	470kΩ, 1/4W, ±5%, Carbon	8	
R (226) × 2	ERD14TJ121	120Ω, 1/4W, ±5%, Carbon	2		R11, 12, 13, 14	ERD14TSJ564	560kΩ, 1/4W, ±5%, Carbon	8	
R (219) × 2	ERD14TJ151	150Ω, 1/4W, ±5%, Carbon	2		R117, 118, 406, 407	ERD14TSJ824	820kΩ, 1/4W, ±5%, Carbon	4	
R149, 150	ERD14TJ181	180Ω, 1/4W, ±5%, Carbon	2		R137, 138	ERD14TF7502	75kΩ, 1/4W, ±1%, Carbon	2	
R (221) × 2	ERD14TJ221	220Ω, 1/4W, ±5%, Carbon	2		R135, 136	ERD14TF8202	82kΩ, 1/4W, ±1%, Carbon	2	
R (310) × 2	ERD14TJ331	330Ω, 1/4W, ±5%, Carbon	2		R133, 134	ERD14CKF8203	820kΩ, 1/4W, ±1%, Carbon	2	
R (233) × 2	ERD14TJ391	390Ω, 1/4W, ±5%, Carbon	2		R613, 621	ERD14FJ100	10Ω, 1/4W, ±5%, Carbon	2	
R (202, 231) × 2	ERD14TJ471	470Ω, 1/4W, ±5%, Carbon	4		R119, 120, 163, 164, (215, 216) × 2, 581, 582, 583, 584	ERD14FJ101	100Ω, 1/4W, ±5%, Carbon	12	
R125, 126	ERD14TJ561	560Ω, 1/4W, ±5%, Carbon	18		R145, 146	ERD14FJ181	180Ω, 1/4W, ±5%, Carbon	2	
(213, 222, 224, 235) × 2, 515, 516, 533, 534, 555, 556, 577, 578					R153, 154	EDD14FJ681	680Ω, 1/4W, ±5%, Carbon	2	
R (312) × 2	ERD14TJ821	820Ω, 1/4W, ±5%, Carbon	2		R105, 106	ERD14FJ102	1kΩ, 1/4W, ±5%, Carbon	2	
R (220) × 2, 503, 504, 521, 522, 547, 548, 569, 570, 612, 620	ERD14TJ102	1kΩ, 1/4W, ±5%, Carbon	12		R603	ERD18FJ2R2	2.2Ω, 1/4W, ±5%, Carbon	1	
R141, 142, (218, 225, 305, 314) × 2	ERD14TJ152	1.5kΩ, 1/4W, ±5%, Carbon	10		R601, 602	ERD18FJ5R6	5.6Ω, 1/4W, ±5%, Carbon	2	
R143, 144, 161, 162	ERD14TJ182	1.8kΩ, 1/4W, ±5%, Carbon	4		R604, 605	ERD12TJ223	22kΩ, 1/4W, ±5%, Carbon	2	
R123, 124, 131, 132 (217) × 2, 610, 614, 618, 622	ERD14TJ222	2.2kΩ, 1/4W, ±5%, Carbon	10		R147, 148, 151, 152	ERD12TJ393	39kΩ, 1/4W, ±5%, Carbon	4	
R (309) × 2	ERD14TJ272	2.7kΩ, 1/4W, ±5%, Carbon	2		R159, 160	ERGIANJ332	3.3kΩ, 1W, ±5%, Metallic	2	
R402	ERD14TJ332	3.3kΩ, 1/4W, ±5%, Carbon	1		R157, 158	ERGIANJ472	4.7kΩ, 1W, ±5%, Metallic	2	
R (210, 212) × 2	ERD14TJ392	3.9kΩ, 1/4W, ±5%, Carbon	1		R606	ERGIANJ223	22kΩ, 1W, ±5%, Metallic	1	
R (228, 302, 311) × 2	ERD14TJ472	4.7kΩ, 1/4W, ±5%, Carbon	6		VARIABLE RESISTORS				
R (239) × 2	ERD14TJ562	5.6kΩ, 1/4W, ±5%, Carbon	6		VR601, 602, 603	EVLS3AA00B24	20kΩ (B), Voltage Stabilizer Adjustment	3	
513, 514, 531, 532									
R115, 116, (313) × 2, 553, 554, 575, 576	ERD14TJ682	6.8kΩ, 1/4W, ±5%, Carbon	8						
R127, 128, 129, 130, (232, 303) × 2, 549, 550, 571, 572	ERD14TJ822	8.2kΩ, 1/4W, ±5%, Carbon	12						

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
VR101, 102, 103, 104, VR (201) × 2 VR1-1, 1-2 VR2-1, 2-2 VR3-1, 3-2	EVLS3AA00B54 EVLS0AA00B54 EWFNTAF25252 SVVAG38260R EVR4AA300B23	50kΩ (B), Equalizer Circuit Adjustment 50kΩ (B), Tone Amp. Adjustment 250kΩ (BH), Balance Control 100kΩ (A), Volume Control 2kΩ (B), Phono Gain Control	4 2 1 1 1		LIGHT and FUSES				
					PL F1 F601	XAM37K250 XBA2F05NU5 XBA2H02NS5	Pilot Lamp (7.5V 75mA) Fuse, Power Source. 0.5A Fuse, Power Source. 0.2A	1 1 1	
CAPACITORS					SWITCHES				
C (206) × 2 C (208) × 2 C (212) × 2 C (203) × 2 C113, 114 C115, 116 C133, 134 C135, 136 C (204) × 2 C425 C109, 110 C127, 128 C129, 130 C415, 416, 417, 418, 525, 526 C539, 540 C523, 524 C143, 144, 537, 538 C123, 124 C117, 118, 119, 120 C419, 420, 531, 532 C545, 546 C527, 528 C541, 542 C423, 424 C407, 408 C405, 406 C421, 422 C409, 410 C413, 414 C403, 404 C513, 514, 515, 516, 517, 518 C411, 412, 505, 506, 507, 508, 509, 510 C428 C511, 512, 519, 520 C (211) × 2 533, 534, 547, 548 C141, 142 C131, 132 C1 C2 C4, 5 C3 C107, 108 (207) × 2, 401, 402 C529, 530, 543, 544 C427 C137, 138, 426 C (209) × 2 C105, 106, 139, 140, (205, 210) × 2, 501, 502, 503, 504, 610, 613 C609, 612 C608, 611 C607 C605, 606 C103, 104, 111, 112 C101, 102 C (202) × 2 521, 522, 535, 536 C601, 602, 603, 604 C121, 122	ECCD1H070DC ECCD1H100DC ECCD1H150K ECCD1H180K ECCD1H820JC ECCD1H101JC ECCD2H180K ECCD2H470JC ECKD1H471KB ECKE1H472MD ECKD2H331KB ECKD2H471KB ECKD2H821KB ECQS1331JZ ECQS1371JZ ECQS1471JZ ECQS1821JZ ECQS1102GZ ECQS1182GZ ECQM05102JZ ECQM05152JZ ECQM05182JZ ECQM05272JZ ECQM05332JZ ECQM05392JZ ECQM05472JZ ECQM05103JZ ECQM05153JZ ECQM05223JZ ECQM05473JZ ECQM05563JZ ECQM05104JZ ECQM05154M Z ECQM05474M Z ECQM05105M Z ECQH2105M Z ECQT2474N ECQU2A103MD ECQU2A103MD ECEM50R222U ECEM250V220U ECEA10V33 ECEA10V47 ECEA10V1000 ECEA25V3R3 ECEA25V10 ECEA25V47 ECEA50V1 ECEA50V47 ECEA160V22 ECEA250V10 ECEB25V47L ECSZ25EF3R3 ECSZ25EF1 RXAF103P22HD ECCD1H390K	7pF, 50WV, ±0.5pF, Ceramic 10pF, 50WV, ±0.5pF, Ceramic 15pF, 50WV, ±10%, Ceramic 18pF, 50WV, ±10%, Ceramic 82pF, 50WV, ±5%, Ceramic 100pF, 50WV, ±5%, Ceramic 18pF, 500WV, ±10%, Ceramic 47pF, 500WV, ±5%, Ceramic 470pF, 50WV, ±10%, Ceramic 0.0047μF, 50WV, ±20%, Ceramic 330pF, 500WV, ±10%, Ceramic 470pF, 500WV, ±10%, Ceramic 820pF, 500WV, ±10%, Ceramic 330pF, 125WV, ±5%, Styrol 370pF, 125WV, ±5%, Styrol 470pF, 125WV, ±5%, Styrol 820pF, 125WV, ±5%, Styrol 1000pF, 125WV, ±2%, Styrol 1800pF, 125WV, ±2%, Styrol 0.001μF, 50WV, ±5%, Polyester 0.0015μF, 50WV, ±5%, Polyester 0.0018μF, 50WV, ±5%, Polyester 0.0027μF, 50WV, ±5%, Polyester 0.0033μF, 50WV, ±5%, Polyester 0.0039μF, 50WV, ±5%, Polyester 0.0047μF, 50WV, ±5%, Polyester 0.01μF, 50WV, ±5%, Polyester 0.015μF, 50WV, ±5%, Polyester 0.022μF, 50WV, ±5%, Polyester 0.047μF, 50WV, ±5%, Polyester 0.056μF, 50WV, ±5%, Polyester 0.1μF, 50WV, ±5%, Polyester 0.15μF, 50WV, ±20%, Polyester 0.47μF, 50WV, ±20%, Polyester 1μF, 50WV, ±20%, Polyester 1μF, 250WV, ±20%, Polyester 0.47μF, 250WV, ±20%, Polyester 0.01μF, 250VAC, ±20% Polyester 0.01μF, 250VAC, ±20% Polyester 2200μF, 50WV, Electrolytic 220μF, 250WV, Electrolytic 33μF, 10WV, Electrolytic 47μF, 10WV, Electrolytic 1000μF, 10WV, Electrolytic 3.3μF, 25WV, Electrolytic 10μF, 25WV, Electrolytic 47μF, 25WV, Electrolytic 1μF, 50WV, Electrolytic 47μF, 50WV, Electrolytic 22μF, 160WV, Electrolytic 10μF, 250WV, Electrolytic 47μF, 25WV, Electrolytic 3.3μF, 25WV, Electrolytic 1μF, 25WV, Electrolytic 0.01μF (X2), 500WV, ±100%, Ceramic 39pF, 50WV, ±10%, Ceramic	2 2 2 2 2 2 2 2 2 2 1 2						

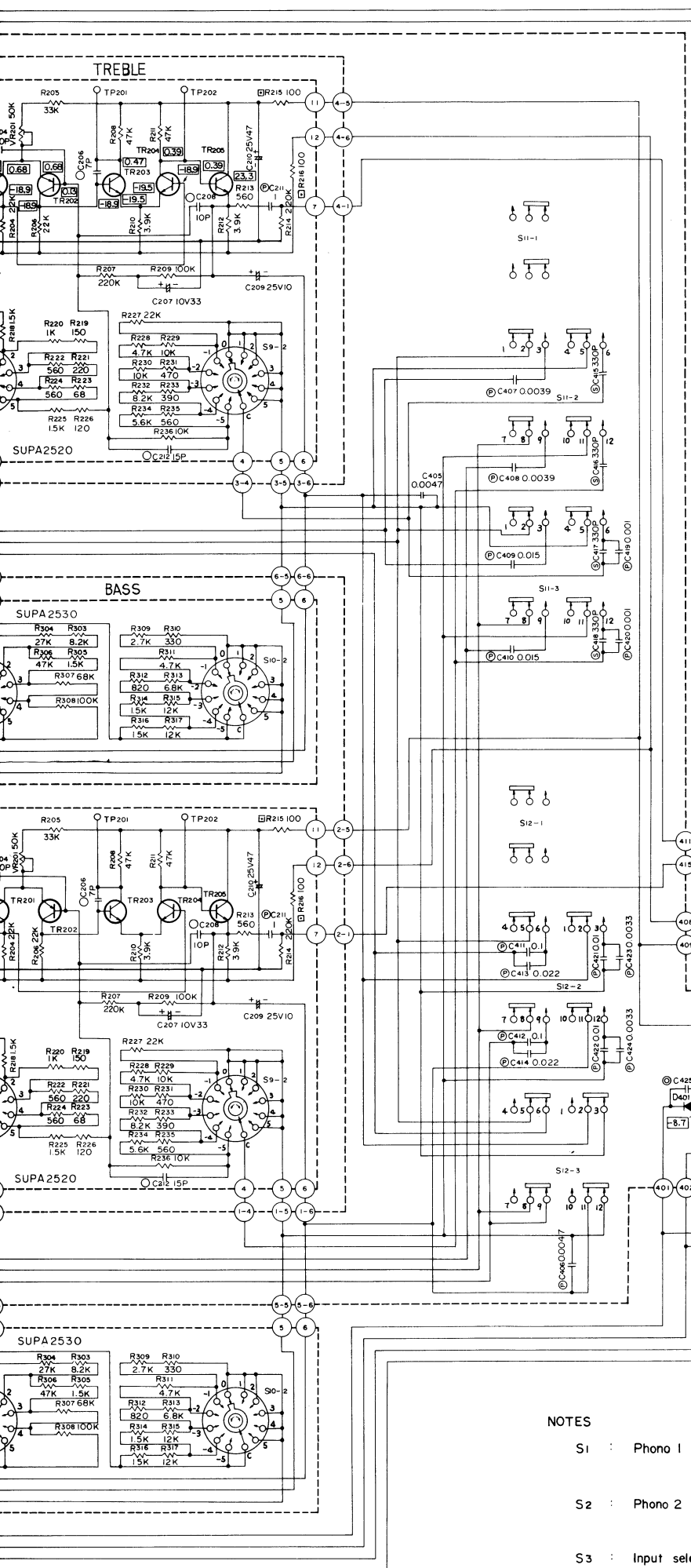
Schematic Diagram Model SU-9600

(This schematic diagram may be modified at any time with the development of ne



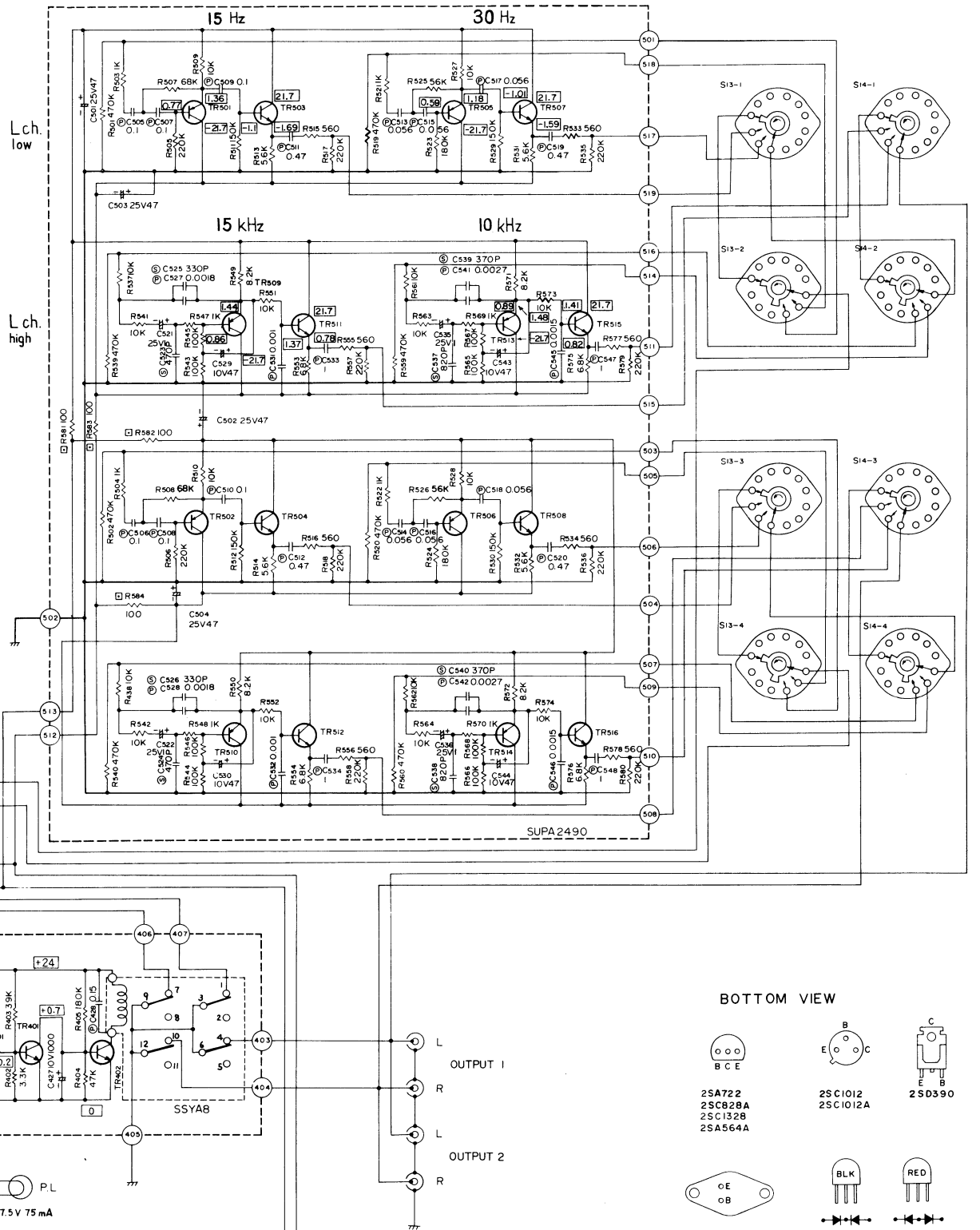
the development of new technology)

TR203-205
2SC1328

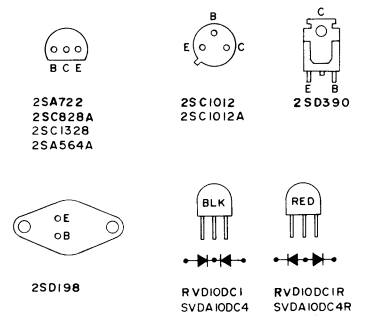


TR501, 502, 505, 506,
509, 510, 513, 514
2SA722

TR503, 504, 507, 508,
511, 512, 515, 516
2SC1328



BOTTOM VIEW



NOTES

- S1 : Phono 1 impedance selector switch in "50 kΩ" position.
25 kΩ ↔ 50 kΩ ↔ 100 kΩ
- S2 : Phono 2 impedance selector switch in "50 kΩ" position.
25 kΩ ↔ 50 kΩ ↔ 100 kΩ
- S3 : Input selector switch in "phono 1" position.
S3-1 (phono 1 or phono 2), S3-2 (phono), S3-3 (tuner),
S3-4 (aux 1), S3-5 (aux 2)
- S5-1 ~ S5-4 : Recording mode switch in "source" position.
tape 1 ▶ tape 2 ↔ source ↔ tape 2 ▶ tape 1
- S6-1, S6-2 : Tape monitor switch in "source" position.
tape 1 ↔ source ↔ tape 2
- S7-1, S7-3 : Mode switch in "stereo" position.
reverse ↔ stereo ↔ L+R ↔ L-R
- S8-1, S8-2 : Audio muting switch in "0 dB" position.

- S9-1, S9-2 : Treble control switch in "0 dB" position.
-12.5 dB ~ (2.5 dB step) ~ 0 dB ~ (2.5 dB step) ~ +12.5 dB
- S10-1, S10-2 : Bass control switch in "0 dB" position.
-12.5 dB ~ (2.5 dB step) ~ 0 dB ~ (2.5 dB step) ~ +12.5 dB
- S11 : Treble turn over frequency switch in "treble defeat" position.
S11-1 (treble defeat), S11-2 (8 kHz), S11-3 (2 kHz)
- S12 : Bass turn over frequency switch in "bass defeat" position.
S12-1 (500 Hz), S12-2 (125 Hz), S12-3 (bass defeat)
- S13-1 ~ S13-4 : Low filter switch in "off" position.
off ↔ 15 Hz ↔ 30 Hz
- S14-1 ~ S14-4 : High filter switch in "off" position.
off ↔ 15 kHz ↔ 10 kHz
- S15 : Power source switch in "off" position.
- S16 : Voltage Selector Socket
- DC voltage measurements are taken with DC VTVM from chassis ground.

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

Service Manual

Supplementary-1



Stereo Control Center

MODEL **SU-9600**

TECHNICAL SPECIFICATIONS (For accommodating future improvements, specifications are subject to change without notice.)

AMPLIFIER SECTIONS (IHF)

Input sensitivity and impedance

PHONO 1	2 mV/25k, 50k, 100k Ω
PHONO 2	1 mV~3 mV/25k, 50k, 100k Ω
TUNER, AUX 1, AUX 2	100mV/50k Ω
TAPE DECK 1, 2 PLAYBACK	100mV/50k Ω

PHONO maximum input voltage

PHONO 1	900mV
PHONO 2	450mV~1350mV

Total harmonic distortion	0.08%
intermodulation distortion	0.08%

Signal-to-noise ratio

PHONO 1	73 dB
PHONO 2	69 dB~76 dB
TUNER, AUX 1, 2	95 dB

Frequency response

PHONO	RIAA standard curve ± 0.3 dB
TUNER, AUX 1, 2	2 Hz~100 kHz, +0 dB, -3 dB

Tone controls

BASS	50 Hz, +12.5 dB -12.5 dB (11 steps)
TREBLE	20 kHz, +12.5 dB -12.5 dB (11 steps)

Turnover frequencies

BASS	125 Hz, 500 Hz
TREBLE	2 kHz, 8 kHz

Filters

Low	15 Hz, 30 Hz -18 dB/oct.
High	10 kHz, 15 kHz -18 dB/oct.

Muting

-20 dB

Output voltage and impedance

OUTPUT 1, 2	Rated	1V/600 Ω
	Max.	11V/600 Ω
TAPE DECK 1, 2	REC OUT	100mV/600 Ω

GENERAL

Power supply	AC 110/120/220/240V 50/60Hz
Power consumption	17W

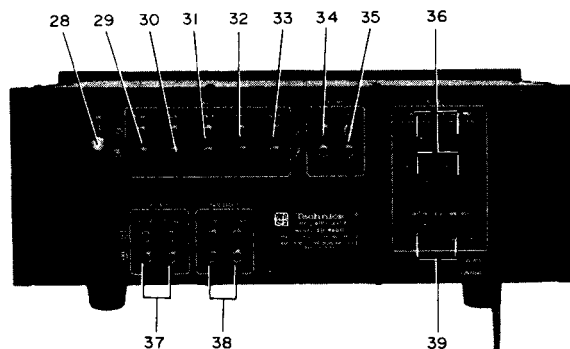
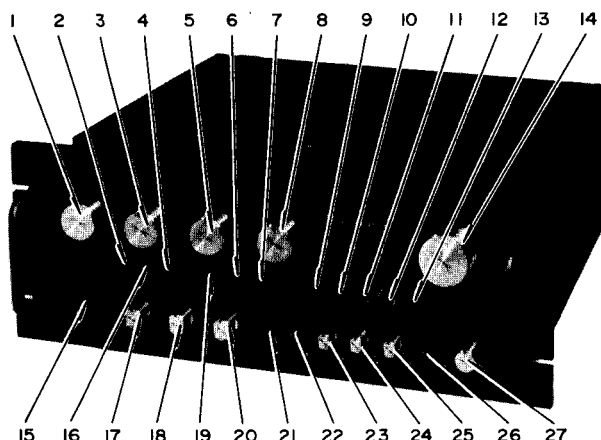
Dimensions (W x H x D) 17 $\frac{33}{32}$ " x 6 $\frac{13}{16}$ " x 14 $\frac{3}{4}$ "

450 x 173 x 375 mm

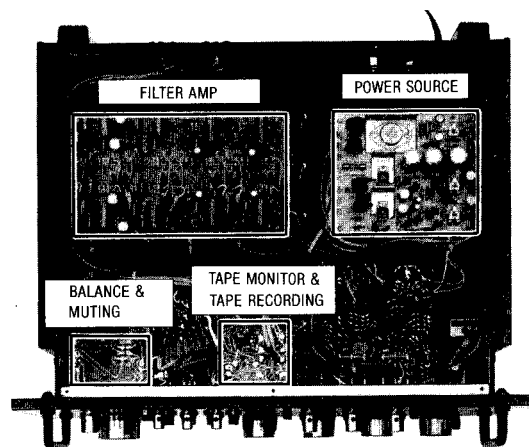
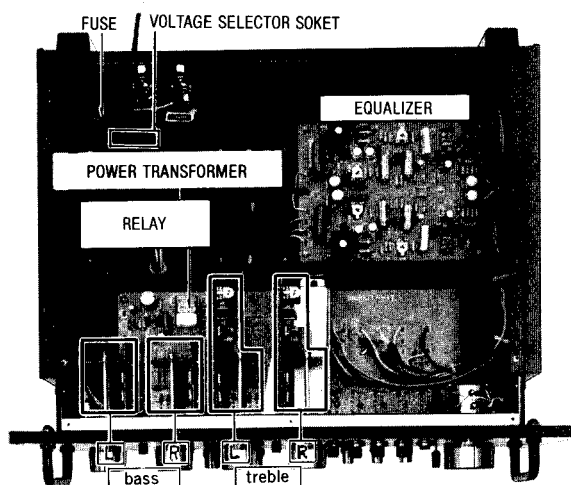
Weight 23.2 lb. 10.5 kg

Matsushita Electric
Matsushita Electric Trading Co., Ltd.
P. O. Box 238, Central Osaka, Japan

■ LOCATION OF CONTROLS



- | | | |
|---|---|--------------------------------------|
| 1. BASS CONTROL SWITCH OF LEFT CHANNEL | 12. INPUT SELECTOR SWITCH. AUX 1 | 25. PHONO 2 INPUT GAIN CONTROL |
| 2. BASS DEFEAT SWITCH | 13. INPUT SELECTOR SWITCH. AUX 2 | 26. AUDIO MUTING SWITCH |
| 3. BASS CONTROL SWITCH OF RIGHT CHANNEL | 14. VOLUME CONTROL | 27. BALANCE CONTROL |
| 4. 500Hz TURNOVER SWITCH | 15. POWER SOURCE SWITCH | 28. GROUND TERMINAL |
| 5. TREBLE CONTROL SWITCH OF LEFT CHANNEL | 16. 125Hz TURNOVER SWITCH | 29. PHONO 1 INPUT TERMINALS |
| 6. 8kHz TURNOVER SWITCH | 17. LOW FILTER SWITCH | 30. PHONO 2 INPUT TERMINALS |
| 7. TREBLE DEFEAT SWITCH | 18. HIGH FILTER SWITCH | 31. TUNER INPUT TERMINALS |
| 8. TREBLE CONTROL SWITCH OF RIGHT CHANNEL | 19. 2kHz TURNOVER SWITCH | 32. AUX 1 INPUT TERMINALS |
| 9. PHONO INPUT 1 & 2 SELECTOR SWITCH | 20. MODE SWITCH | 33. AUX 2 INPUT TERMINALS |
| 10. INPUT SELECTOR SWITCH. PHONO | 21. REC MODE (TAPE DOUBBING) SWITCH | 34. OUTPUT 1 TERMINALS |
| 11. INPUT SELECTOR SWITCH. TUNER | 22. TAPE MONITOR SWITCH | 35. OUTPUT 2 TERMINALS |
| | 23. PHONO 1 INPUT IMPEDANCE SELECTOR SWITCH | 36. AC OUTLET (UNSWITCHED) |
| | 24. PHONO 2 INPUT IMPEDANCE SELECTOR SWITCH | 37. TAPE DECK 1 CONNECTION TERMINALS |
| | | 38. TAPE DECK 2 CONNECTION TERMINALS |
| | | 39. AC OUTLET (SWITCHED) |



■ ALIGNMENT POINTS

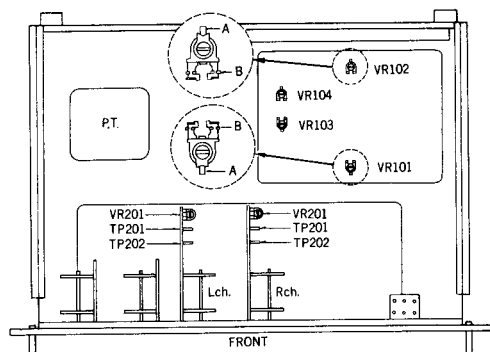


Fig. 1 (Set Top View)

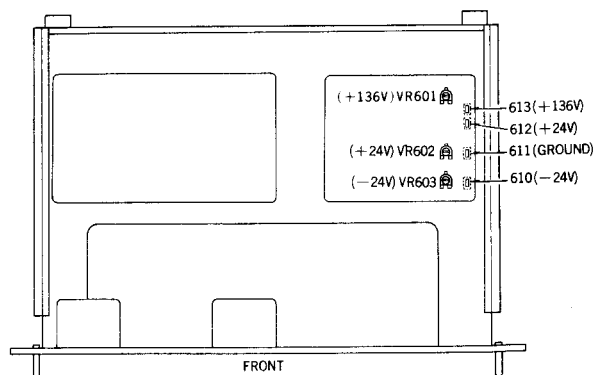
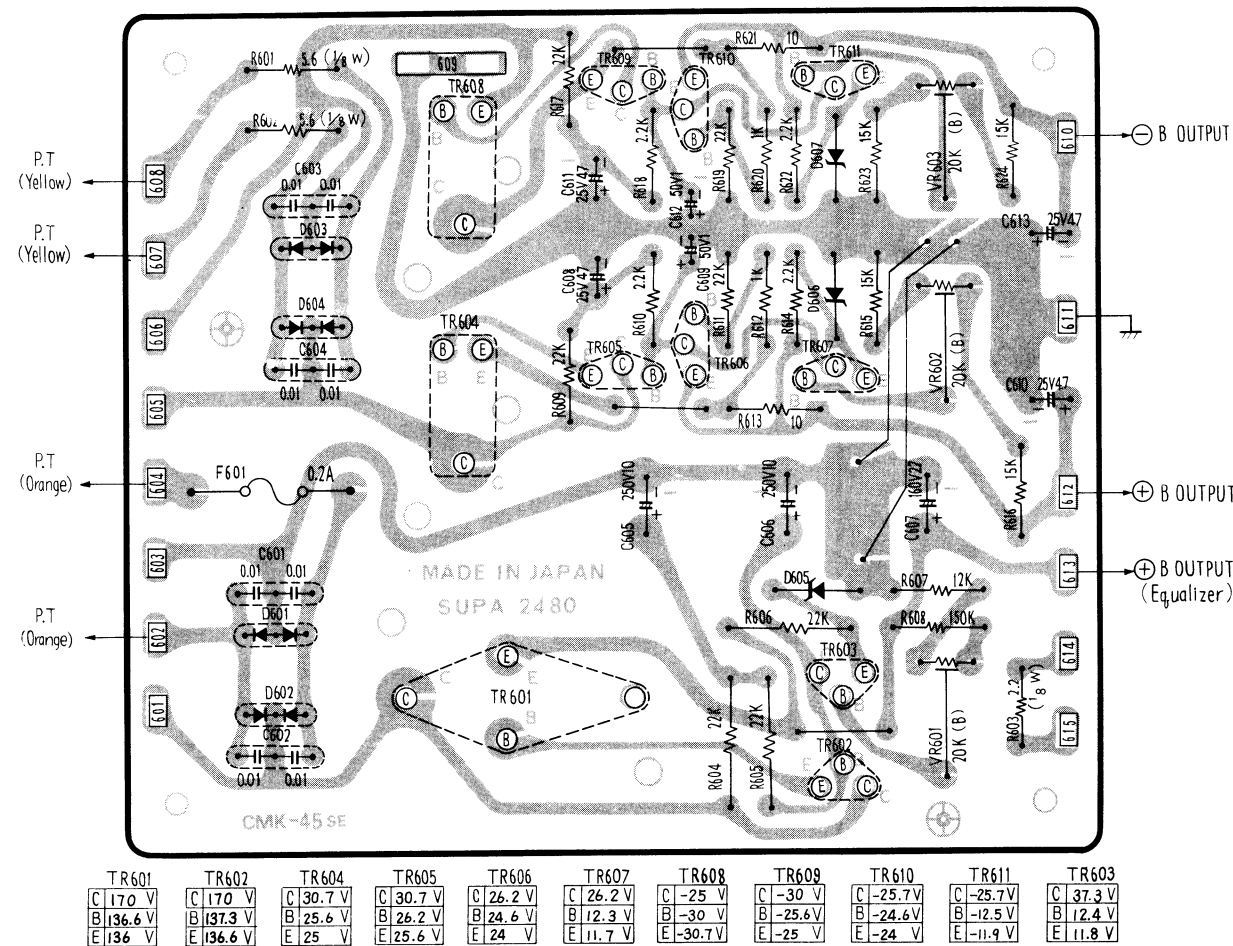


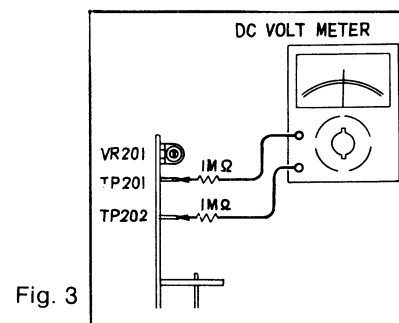
Fig. 2 (Set Bottom View)

POWER SOURCE CIRCUIT BOARD



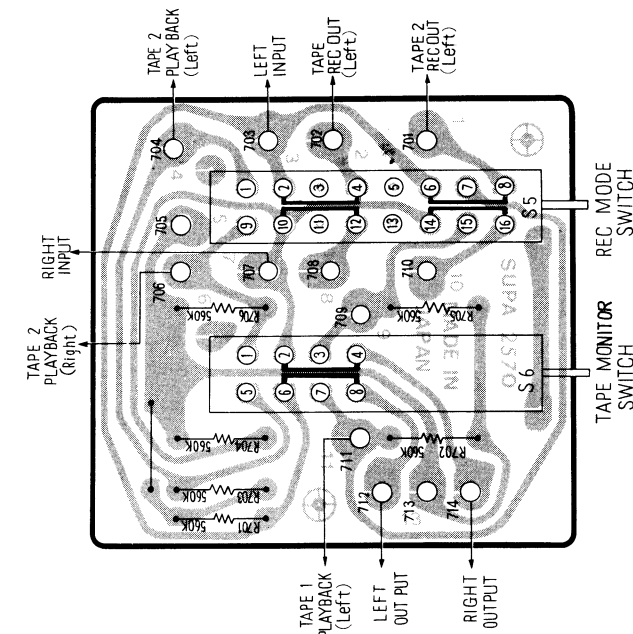
■ ALIGNMENT INSTRUCTIONS

- Notes:
- Volume control to "minimum" position.
 - Recording mode switch and tape monitor switch to "source" position.



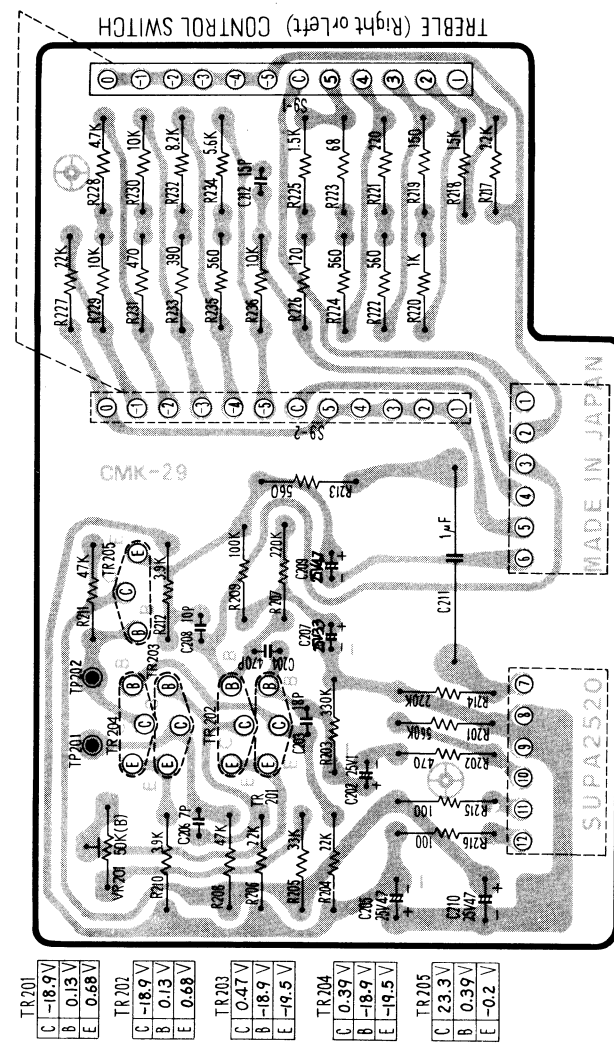
ALIGNMENT	DC VOLTMETER CONNECTION	ALIGNMENT POINTS	REMARKS
EQUALIZER	Connect circuit tester to point A and point B of VR101 and VR102. Refer to fig. 1.	VR101 (L ch) VR102 (R ch)	① Power switch to "off" position ② Make adjustments so that the indication on circuit tester (Resistor) becomes 30 kΩ
NEGATIVE POWER VOLTAGE	Connect DC VTVM to No. 611 and No. 610 terminal. Refer to fig. 2	VR603	Make sure that DC VTVM becomes negative (-) 24 volts
POSITIVE POWER VOLTAGE	Connect DC VTVM to No. 611 and No. 612 terminal. Refer to fig. 2	VR602	Make sure that DC VTVM becomes positive (+) 24 volts
POSITIVE POWER	Connect DC VTVM to No. 611 and No. 613 terminal. Refer to fig. 2	VR601	Make sure that DC VTVM becomes positive (+) 136 volts
TONE CONTROL	Connect DC VTVM to TP201 and TP202 through 1 MΩ resistor. Refer to fig. 3	VR201 (L ch or R ch)	Make sure that VTVM becomes 0 volt
BIAS OF EQUALIZER	① Connect distortion meter to REC OUT terminal of set rear panel ② Impouring 1 kHz signal and 1V signal level	VR103 (L ch) VR104 (R ch)	① Connect distortion meter to REC OUT terminal of set rear panel ② Adjust for minimum distortion.

TAPE MONITOR & TAPE REC MODE SWITCH CIRCUIT BOARD

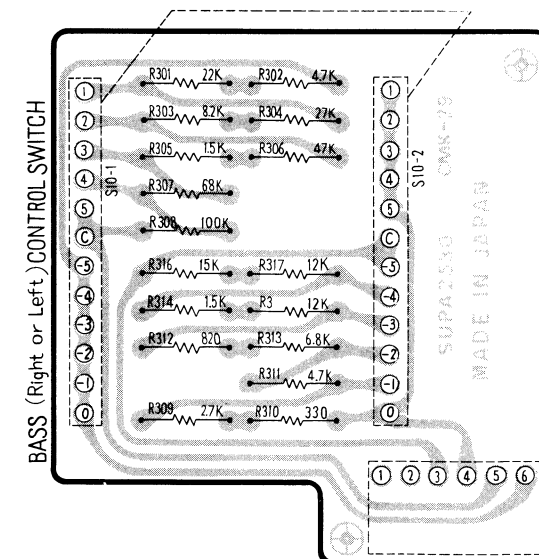
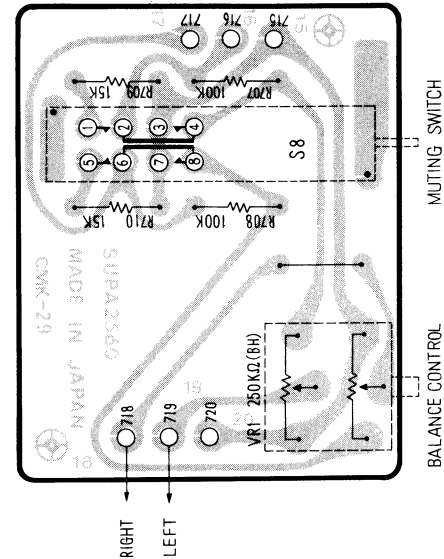


TREBLE CONTROL & TONE AMP. CIRCUIT BOARD

Left channel is same as Right channel.



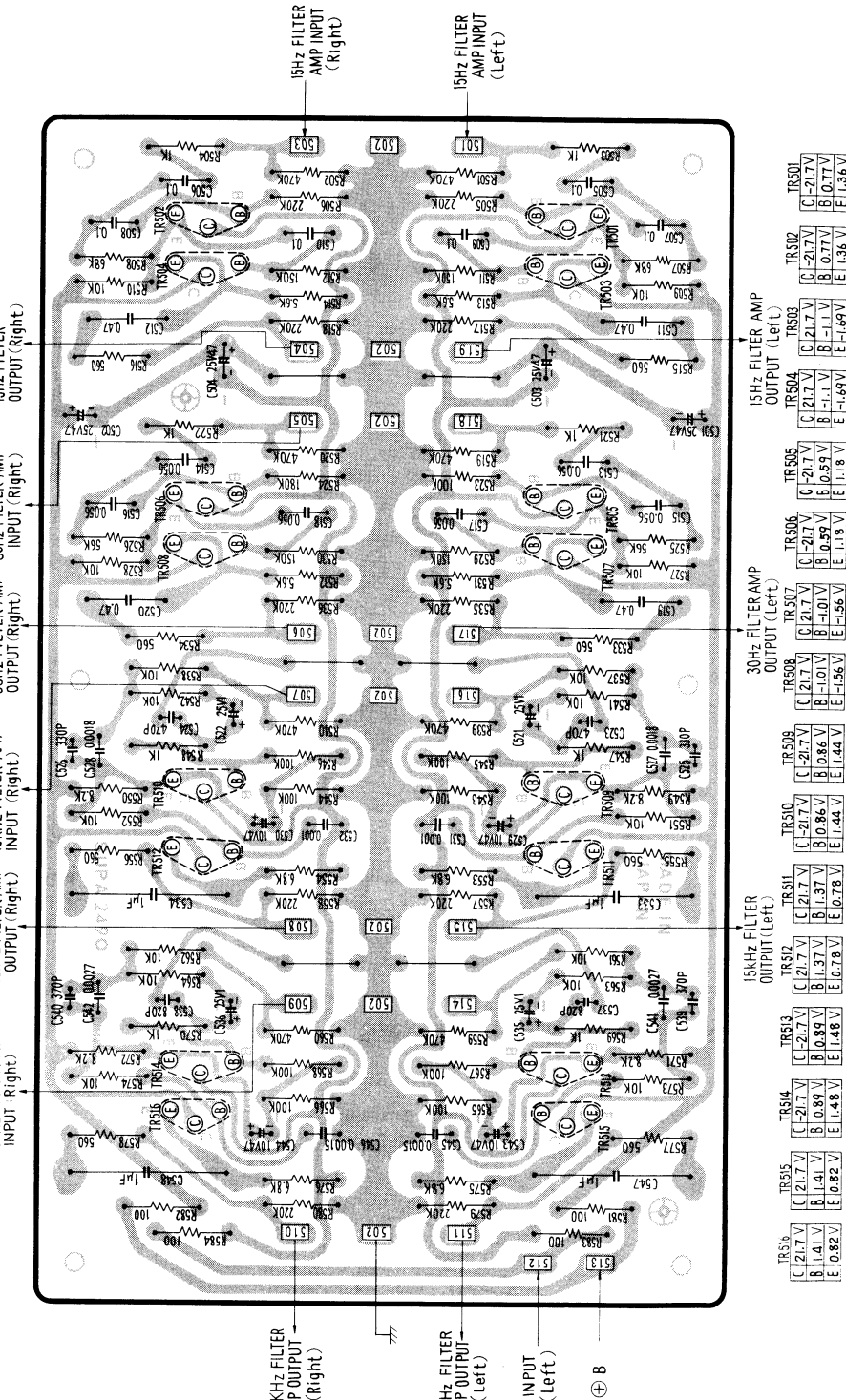
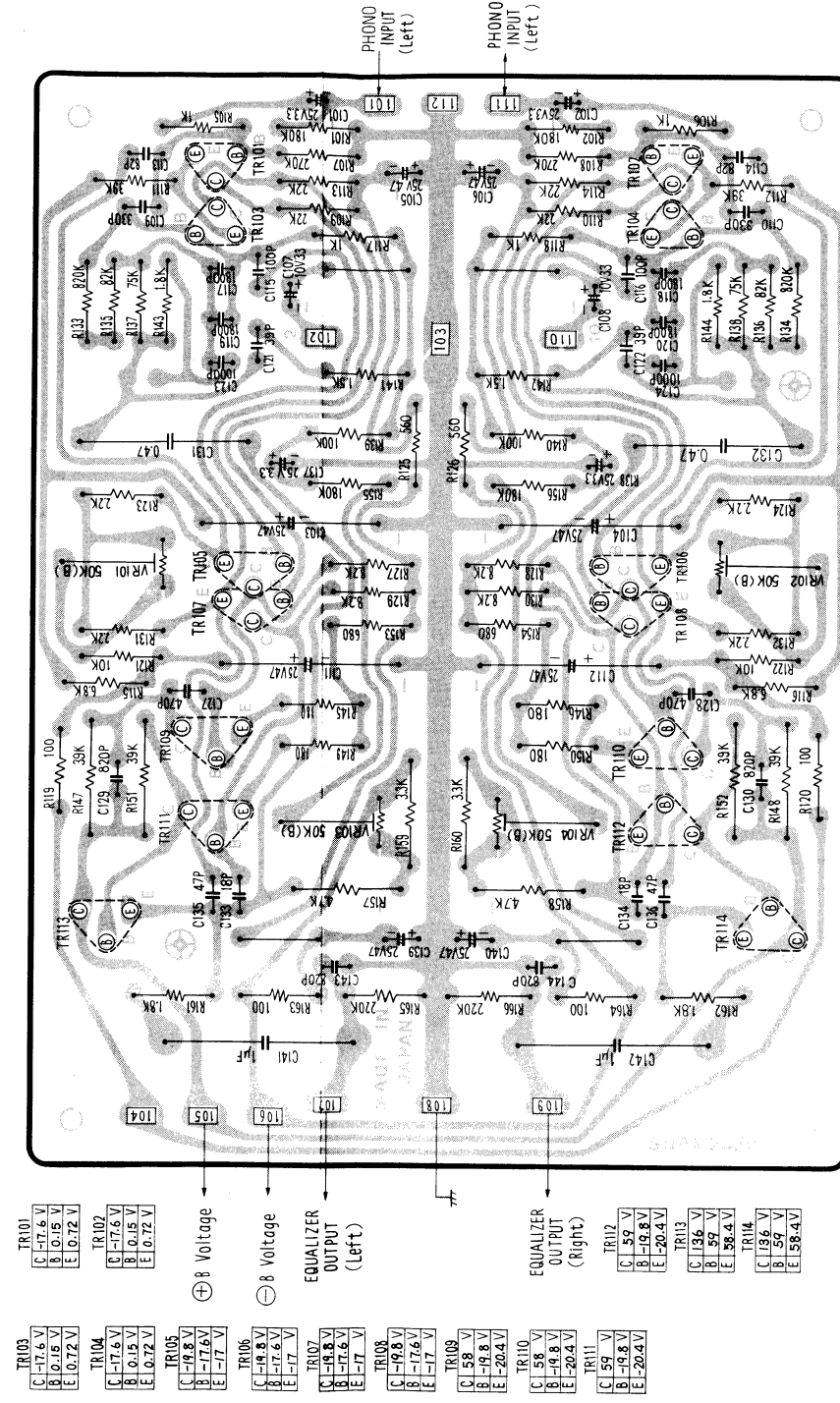
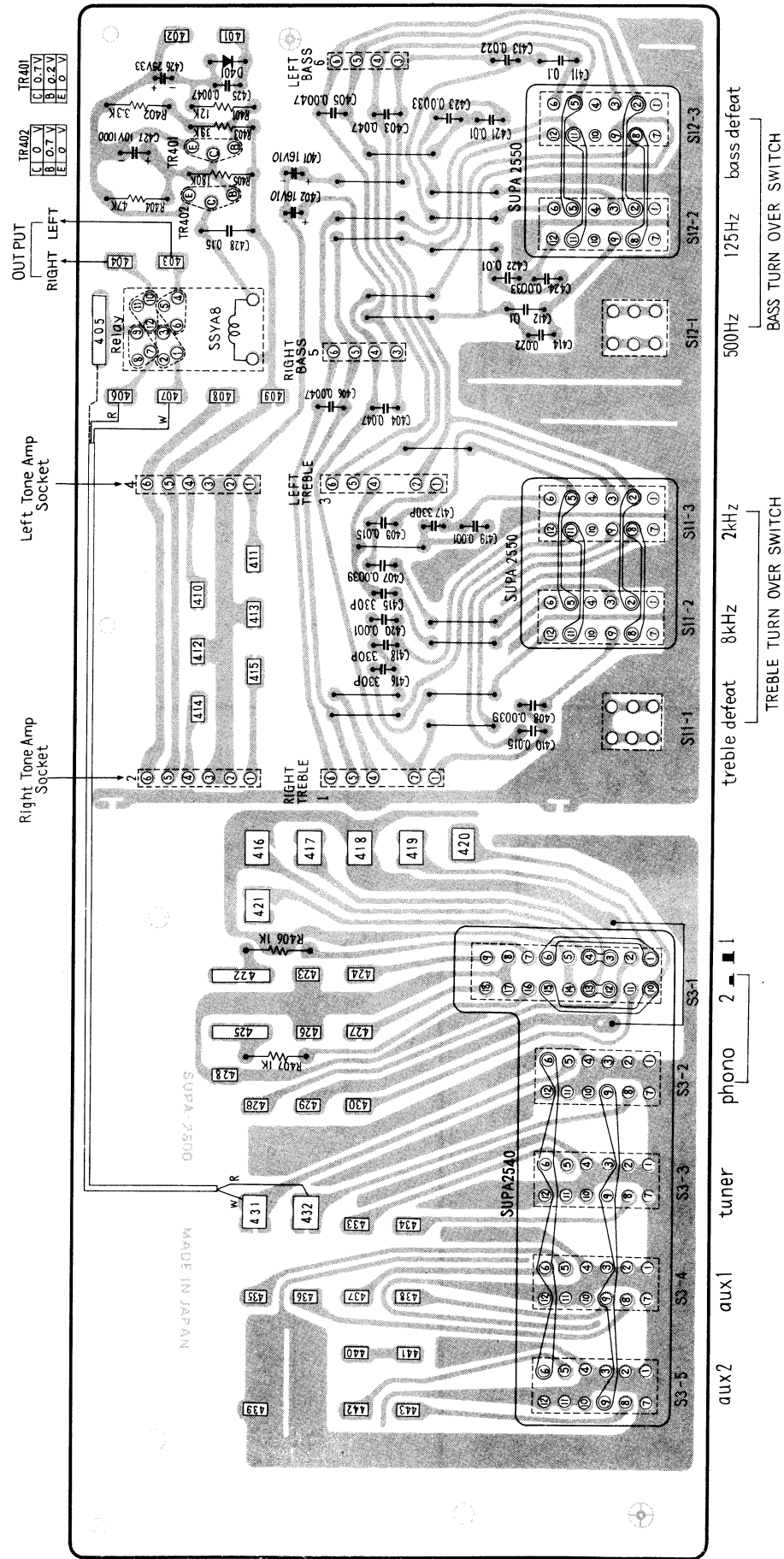
BALANCE & MUTING CIRCUIT BOARD



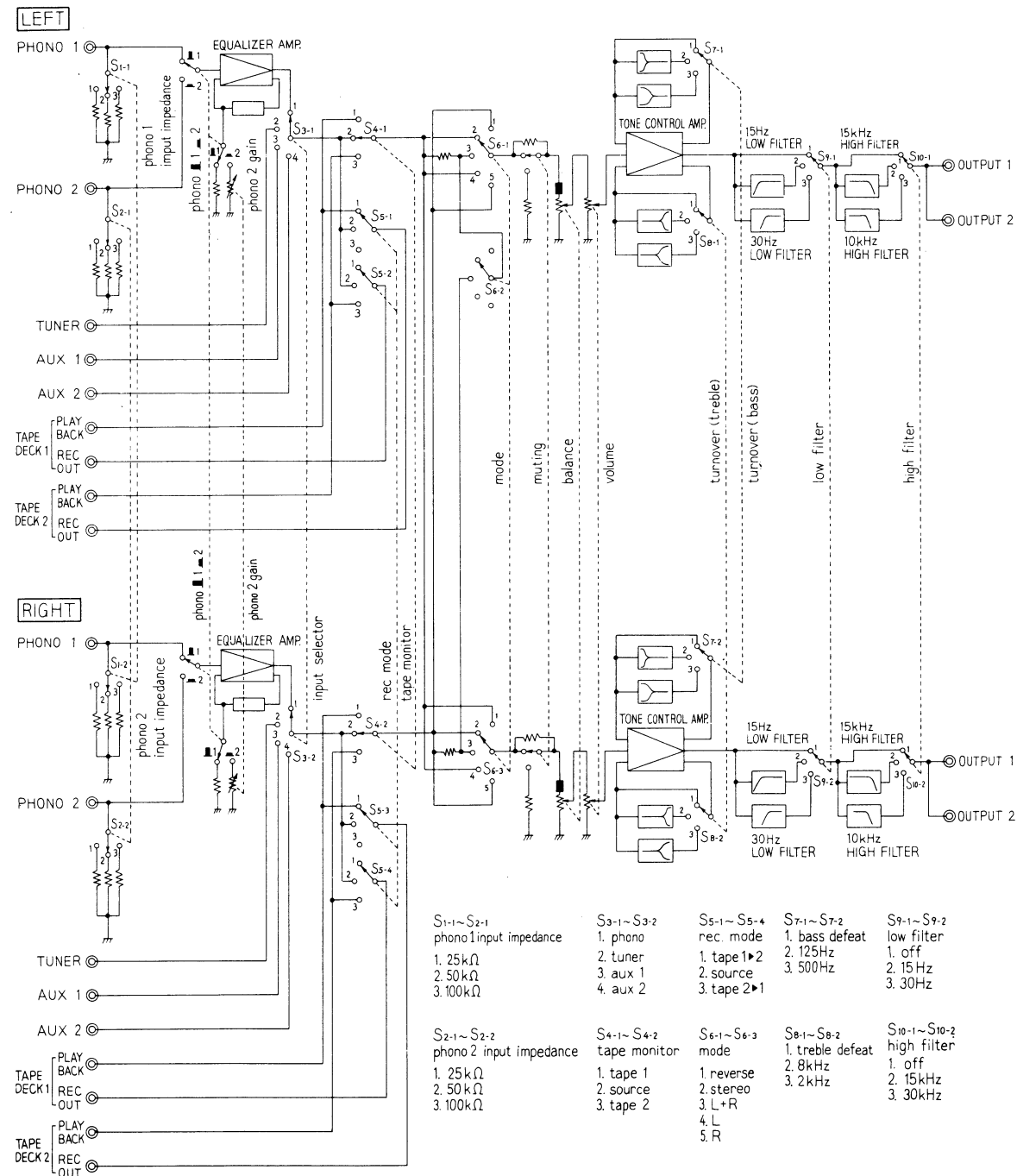
BASS CONTROL CIRCUIT BOARD

Left channel is same as Right channel.

RELAY, TURNOVER FREQUENCY SWITCH & INPUT SELECTOR SWITCH CIRCUIT BOARD



■ BLOCK DIAGRAM



■ TO REMOVE FRONT PANEL

1. Remove four (4) knobs of lever switches.
2. Remove control knobs by accessory screw driver.
3. Remove three (3) six corner screws, nos. ① ~ ③ or remove two (2) nuts, nos. ④ and ⑤, as illustrated in fig. 4. (Left and Right sides)
4. Remove front panel from chassis.

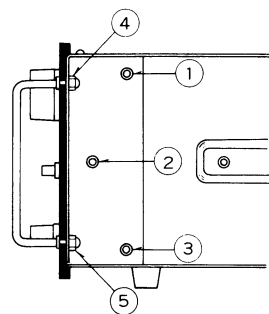


Fig. 4

■ REPLACEMENT PARTS LIST

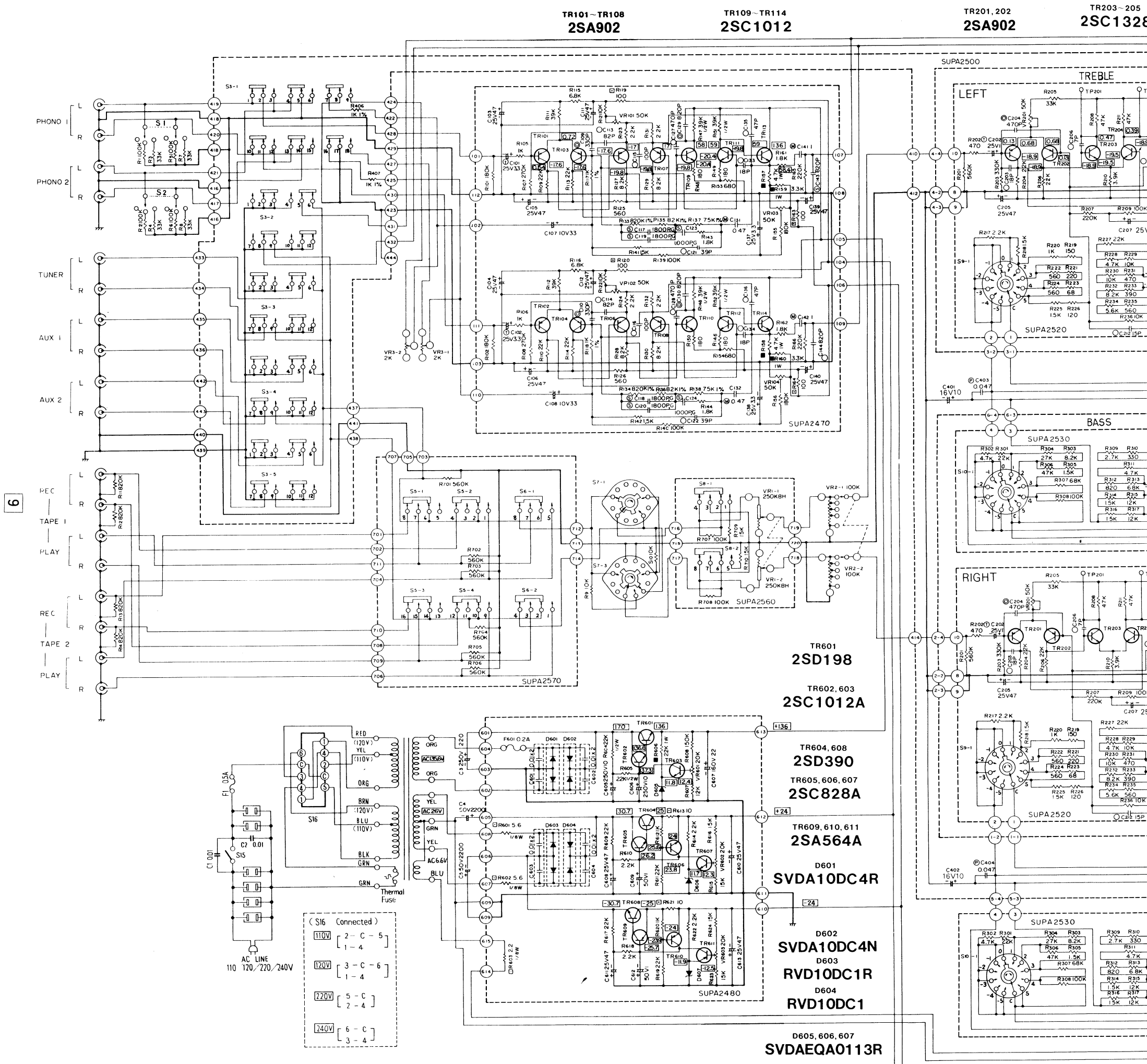
NOTES:

1. Part numbers are indicated on most mechanical parts. Please use this part number, for parts orders.

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
TRANSISTORS									
TR101, 102, 103, 104, 105, 106, 107, 108, (201, 202) × 2, 501, 502, 505, 506, 509, 510, 513, 514	2SA902F	Equalizer, Tone & Filter Amplifier	20	○	R9, 10, 121, 122, (229, 230, 236) × 2, 509, 510, 527, 528, 537, 538, 541, 542, 551, 552, 561, 562, 563, 564, 573, 574	ERD14TJ103	10kΩ, 1/4W, ±5%, Carbon	26	
TR109, 110, 111, 112, 113, 144, TR (203, 204, 205) × 2, 503, 504, 507, 508, 511, 512, 515, 516	2SC1012	Equalizer Amplifier	6		R (315, 317) × 2, 401, 607	ERD14TJ123	12kΩ, 1/4W, ±5%, Carbon	6	
TR601	2SC1328T	Tone & Filter Amplifier	14		R (316) × 2, 615, 616, 623, 624, 709, 710	ERD14TJ153	15kΩ, 1/4W, ±5%, Carbon	8	
TR602, 603	2SD198	DC Voltage Control	1	○	R109, 110, 113, 114, (204, 206, 227, 301) × 2, 609, 611, 617, 619	ERD14TJ223	22kΩ, 1/4W, ±5%, Carbon	16	
TR604, 608	2SC1012A	An Error Voltage Det. & DC Amp.	2	○	R (304) × 2	ERD14TJ273	27kΩ, 1/4W, ±5%, Carbon	2	
TR401, 402, 605, 606, 607	2SD390P	DC Voltage Control	2		R3, 4, 7, 8, (205) × 2	ERD14TJ333	33kΩ, 1/4W, ±5%, Carbon	6	
TR609, 610, 611	2SC828A-R	Relay Driver & An Error Voltage Detector	5		R111, 112, 403, R (208, 211, 306) × 2, 404	ERD14TJ393	39kΩ, 1/4W, ±5%, Carbon	3	
	2SA564A-R	DC Amp & An Error Voltage Det.	3		R525, 526	ERD14TJ473	47kΩ, 1/4W, ±5%, Carbon	7	
DIODES									
D401	MA150	Rectifier	1		R (307) × 2, 507, 508	ERD14TJ563	56kΩ, 1/4W, ±5%, Carbon	2	
D601	SVDA10DC4-R	Rectifier	1		R1, 2, 5, 6, (308) × 2, 707, 708	ERD14TJ683	68kΩ, 1/4W, ±5%, Carbon	4	
D602	SVDA10DC4-N	Rectifier	1		R139, 140, (209) × 2, 543, 544, 545, 546, 565, 566, 567, 568	ERD14TJ104	100kΩ, 1/4W, ±5%, Carbon	8	
D603	RVD10DC1-R	Rectifier	1		R511, 512, 529, 530	ERD14TSJ104	100kΩ, 1/4W, ±5%, Carbon	12	
D604	RVD10DC1	Rectifier	1		R (207) × 2, 505, 506, 517, 518, 535, 536, 557, 558, 579, 580	ERD14TSJ154	150kΩ, 1/4W, ±5%, Carbon	4	
D605, 606, 607	SVDAEQAO113R	13V Zener, Voltage Stabilizer	3	○	R (201) × 2, 701, 702, 703, 704, 705, 706	ERD14TSJ224	220kΩ, 1/4W, ±5%, Carbon	12	
TRANSFORMER									
T1	SLTA5N15S	Power Transformer	1	○	R11, 12, 13, 14, R117, 118, 406, 407	ERD14TSJ274	270kΩ, 1/4W, ±5%, Carbon	2	
RESISTORS									
R (223) × 2	ERD14TJ680	68Ω, 1/4W, ±5%, Carbon	2		R (203) × 2, R501, 502, 519, 520, 539, 540, 559, 560	ERD14TSJ334	330kΩ, 1/4W, ±5%, Carbon	2	
R (226) × 2	ERD14TJ121	120Ω, 1/4W, ±5%, Carbon	2		R (201) × 2, 701, 702, 703, 704, 705, 706	ERD14TSJ474	470kΩ, 1/4W, ±5%, Carbon	8	
R (219) × 2	ERD14TJ151	150Ω, 1/4W, ±5%, Carbon	2		R11, 12, 13, 14, R117, 118, 406, 407	ERD14TSJ564	560kΩ, 1/4W, ±5%, Carbon	8	
R149, 150	ERD14TJ181	180Ω, 1/4W, ±5%, Carbon	2		R137, 138	ERD14TSJ824	820kΩ, 1/4W, ±5%, Carbon	4	
R (221) × 2	ERD14TJ221	220Ω, 1/4W, ±5%, Carbon	2		R135, 136	ERD14TF7502	75kΩ, 1/4W, ±1%, Carbon	2	
R (310) × 2	ERD14TJ331	330Ω, 1/4W, ±5%, Carbon	2		R133, 134	ERD14TF8203	82kΩ, 1/4W, ±1%, Carbon	2	
R (233) × 2	ERD14TJ391	390Ω, 1/4W, ±5%, Carbon	2		R613, 621	ERD14CKF8203	820kΩ, 1/4W, ±1%, Carbon	2	
R (202, 231) × 2	ERD14TJ471	470Ω, 1/4W, ±5%, Carbon	4		R613, 621	ERD14FJ100	10Ω, 1/4W, ±5%, Carbon	2	
R125, 126, (213, 222, 224, 235) × 2, 515, 516, 533, 534, 555, 556, 577, 578	ERD14TJ561	560Ω, 1/4W, ±5%, Carbon	18		R119, 120, 163, 164, (215, 216) × 2, 581, 582, 583, 584	ERD14FJ101	100Ω, 1/4W, ±5%, Carbon	12	
R (312) × 2	ERD14TJ821	820Ω, 1/4W, ±5%, Carbon	2		R145, 146	ERD14FJ181	180Ω, 1/4W, ±5%, Carbon	2	
R (220) × 2, 503, 504, 521, 522, 547, 548, 569, 570, 612, 620	ERD14TJ102	1kΩ, 1/4W, ±5%, Carbon	12		R153, 154	ERD14FJ681	680Ω, 1/4W, ±5%, Carbon	2	
R141, 142, (218, 225, 305, 314) × 2	ERD14TJ152	1.5kΩ, 1/4W, ±5%, Carbon	10		R105, 106	ERD14FJ102	1kΩ, 1/4W, ±5%, Carbon	2	
R143, 144, 161, 162	ERD14TJ182	1.8kΩ, 1/4W, ±5%, Carbon	4		R603	ERD18FJ2R2	2.2Ω, 1/4W, ±5%, Carbon	1	
R123, 124, 131, 132, (217) × 2, 610, 614, 618, 622	ERD14TJ222	2.2kΩ, 1/4W, ±5%, Carbon	10		R601, 602	ERD18FJ5R6	5.6Ω, 1/4W, ±5%, Carbon	2	
R (309) × 2	ERD14TJ272	2.7kΩ, 1/4W, ±5%, Carbon	2		R604, 605	ERD12TJ223	22kΩ, 1/4W, ±5%, Carbon	2	
R402	ERD14TJ332	3.3kΩ, 1/4W, ±5%, Carbon	1		R147, 148, 151, 152	ERD12TJ393	39kΩ, 1/4W, ±5%, Carbon	4	
R (210, 212) × 2	ERD14TJ392	3.9kΩ, 1/4W, ±5%, Carbon	4		R159, 160	ERG1ANJ332	3.3kΩ, 1W, ±5%, Metallic	2	
R (228, 302, 311) × 2	ERD14TJ472	4.7kΩ, 1/4W, ±5%, Carbon	6		R157, 158	ERG1ANJ472	4.7kΩ, 1W, ±5%, Metallic	2	
R (239) × 2, 513, 514, 531, 532	ERD14TJ562	5.6kΩ, 1/4W, ±5%, Carbon	6		R606	ERG1ANJ223	22kΩ, 1W, ±5%, Metallic	1	
R115, 116, (313) × 2, 553, 554, 575, 576	ERD14TJ682	6.8kΩ, 1/4W, ±5%, Carbon	8						
R127, 128, 129, 130, (232, 303) × 2, 549, 550, 571, 572	ERD14TJ822	8.2kΩ, 1/4W, ±5%, Carbon	12						
VARIABLE RESISTORS									
VR601, 602, 603	EVLS3AA00B24	20kΩ (B), Voltage Stabilizer Adjustment	3						

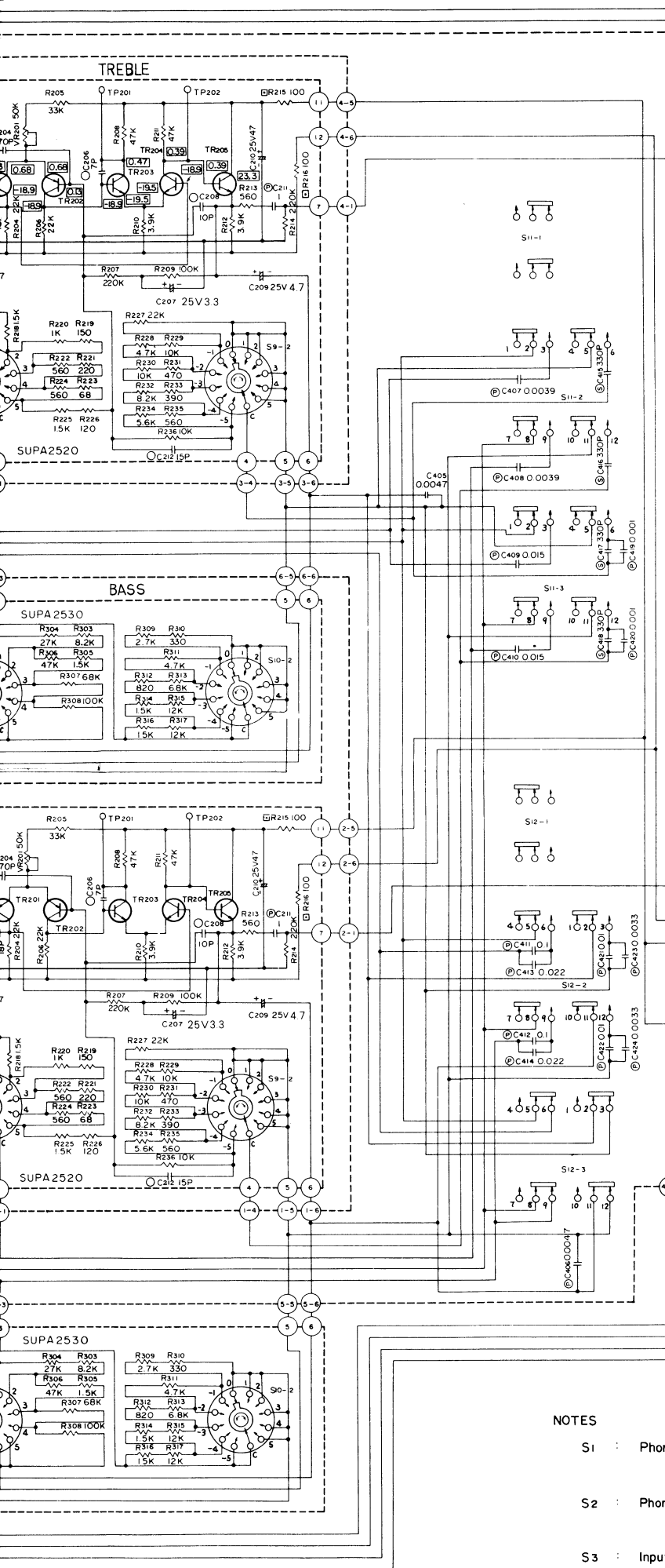
Schematic Diagram.....Model SU-9600

(This schematic diagram may be modified at any time with the development of ne



the development of new technology)

TR203-205
2SC1328

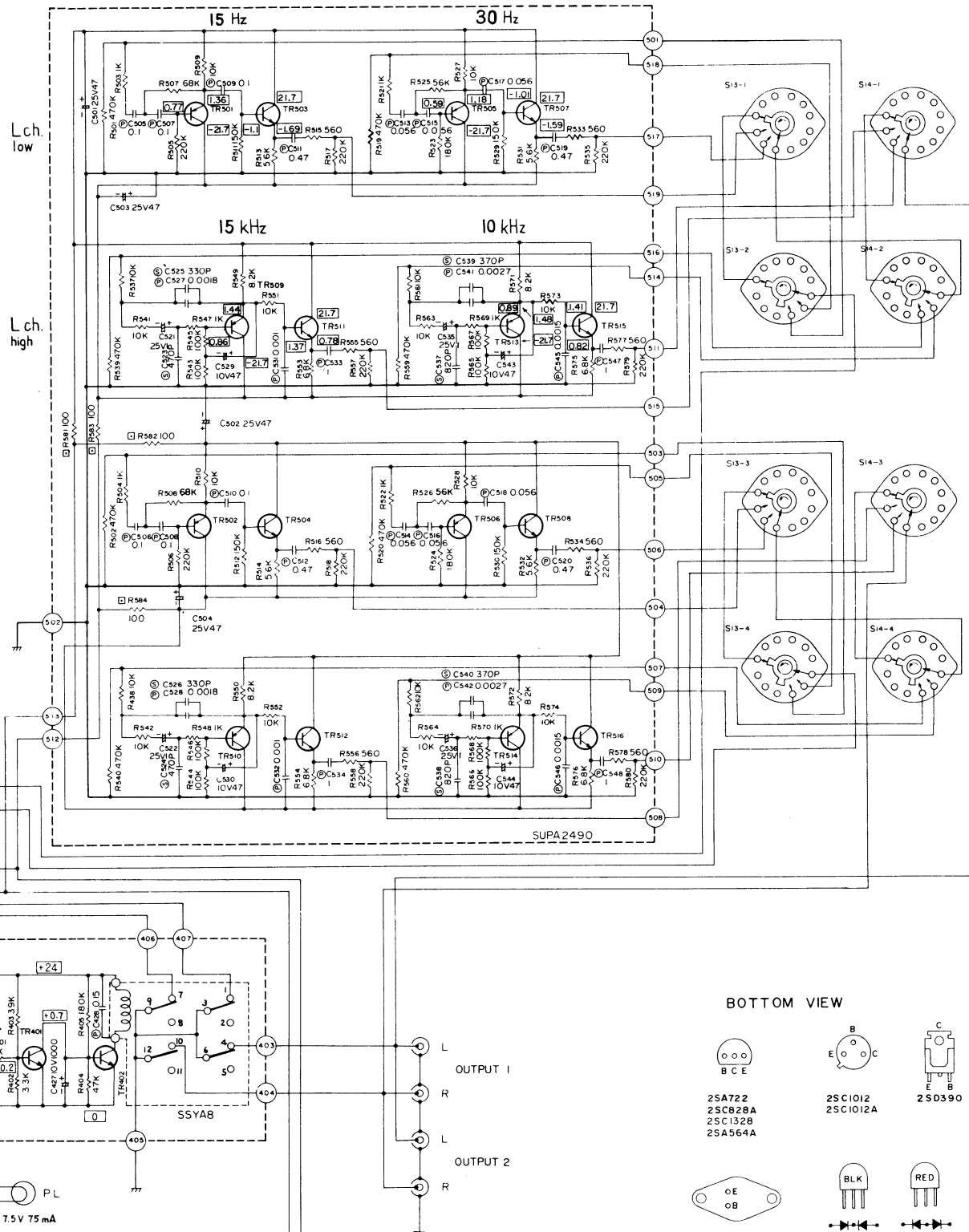


NOTES

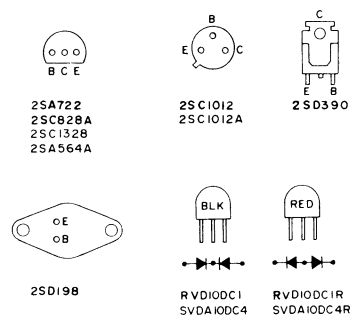
- S1 : Phono 1 impedance selector switch in "50 kΩ" position.
25 kΩ ↔ 50 kΩ ↔ 100 kΩ
- S2 : Phono 2 impedance selector switch in "50 kΩ" position.
25 kΩ ↔ 50 kΩ ↔ 100 kΩ
- S3 : Input selector switch in "phono 1" position.
S3-1 (phono 1 or phono 2), S3-2 (phono), S3-3 (tuner),
S3-4 (aux 1), S3-5 (aux 2)
- S5-1 ~ S5-4 : Recording mode switch in "source" position.
tape 1 ▶ tape 2 ↔ source ↔ tape 2 ▶ tape 1
- S6-1, S6-2 : Tape monitor switch in "source" position.
tape 1 ↔ source ↔ tape 2
- S7-1, S7-3 : Mode switch in "stereo" position.
reverse ↔ stereo ↔ L+R ↔ L-R
- S8-1, S8-2 : Audio muting switch in "0 dB" position.

TR501, 502, 505, 506,
509, 510, 513, 514
2SA902

TR503, 504, 507, 508,
511, 512, 515, 516
2SC1328



BOTTOM VIEW



- S9-1, S9-2 : Treble control switch in "0 dB" position.
-12.5 dB ~ (2.5 dB step) ~ 0 dB ~ (2.5 dB step) ~ +12.5 dB
- S10-1, S10-2 : Bass control switch in "0 dB" position.
-12.5 dB ~ (2.5 dB step) ~ 0 dB ~ (2.5 dB step) ~ +12.5 dB
- S11 : Treble turn over frequency switch in "treble defeat" position.
S11-1 (treble defeat), S11-2 (8 kHz), S11-3 (2 kHz)
- S12 : Bass turn over frequency switch in "bass defeat" position.
S12-1 (500 Hz), S12-2 (125 Hz), S12-3 (bass defeat)
- S13-1 ~ S13-4 : Low filter switch in "off" position.
off ↔ 15 Hz ↔ 30 Hz
- S14-1 ~ S14-4 : High filter switch in "off" position.
off ↔ 15 kHz ↔ 10 kHz
- S15 : Power source switch in "off" position.
- S16 : Voltage Selector Socket
- DC voltage measurements are taken with DC VTVM from chassis ground.

