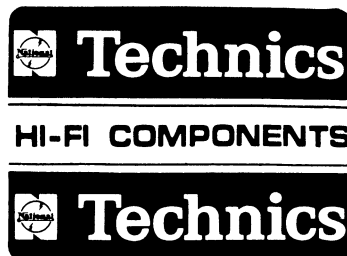


Service Manual



Stereo Integrated Amplifier



MODEL SU-3500

TECHNICAL SPECIFICATION (IHF)

MAIN AMPLIFIER SECTION

Music Power:	190W (4Ω) 125W (8Ω)
1kHz continuous power:	
each channel driven	65W/65W (4Ω) 50W/50W (8Ω)
both channels driven	55W+55W (4Ω) 43W+43W (8Ω)
20Hz~20kHz continuous power:	
both channels driven	47W+47W (4Ω) 41W+41W (8Ω)
Total harmonic distortion:	0.08%
Intermodulation distortion:	0.08%
Power bandwidth:	
(both channels driven at 8Ω)	5Hz~70kHz -3dB 5Hz~200kHz +0dB
Frequency response:	0.5mV
Residual hum and noise:	110dB
S/N:	50 (4Ω) 100 (8Ω)
Damping factor:	1V/50kΩ
Input sensitivity and impedance:	4~16Ω
Load impedance:	8~16Ω
	MAIN or REMOTE MAIN + REMOTE

PRE AMPLIFIER SECTION

Input sensitivity and impedance:	PHONO 1, 2 2mV/25kΩ 50kΩ 100kΩ
	TUNER, AUX 1, 2 100mV/50kΩ
	TAPE DECK 1, 2 (PLAYBACK) 100mV/50kΩ
	TAPE DECK 1, REC/PLAY (Input) 100mV/50kΩ

PHONO 1, 2 maximum input voltage:	510mV
Total harmonic distortion:	0.05%
S/N:	PHONO 1, 2 70dB TUNER, AUX 1, 2 90dB
Frequency response:	
PHONO 1, 2	RIAA standard curve ±0.5dB
TUNER, AUX 1, 2	5Hz~100kHz +0dB~-3dB
BASS	50Hz +12dB~-12dB
TREBLE	20kHz +12dB~-12dB
LOW	30Hz -12dB/oct
HIGH	8kHz -12dB/oct
Loudness control (volume at -30dB):	100Hz +8dB
Output voltage and impedance:	PRE OUT rated 1V/100Ω max. 11V/100Ω
	TAPE DECK 1, 2 (REC OUT) 100mV/500Ω
	TAPE DECK 1 REC/PLAY (output) 30mV/80kΩ

GENERAL

Power Supply:	50Hz/60Hz 110/120/220/240V
Power consumption:	380W
Dimensions (W×H×D):	16-1/8"×5-1/2"×13-3/8" (410×140×340) mm
Weight:	22.5 lbs. (10.2kg)

TECHNISCHE DATEN (DIN 45 500)

VERSTÄRKERTEIL

Musikleistung:	2×95W (4Ω) 2×62.5W (8Ω)
RMS-Dauerleistung bei 1kHz:	
beide Kanäle zusammen angesteuert	2×55W (4Ω) 2×43W (8Ω)
20Hz~20kHz RMS-Dauerleistung:	
beide Kanäle zusammen angesteuert	2×47W (4Ω) 2×41W (8Ω)
Harmonische Verzerrungen:	Nennleistung bei 1kHz 4Ω 0.08%
	Nennleistung bei 40Hz~16000Hz 4Ω 0.08%
Intermodulationsverzerrung:	
Nennleistung bei 250Hz: 8000Hz = 4:1 4Ω	0.08%
Leistungsbandbreite:	
(beide Kanäle zusammen angesteuert bei 4Ω)	5Hz~70kHz -3dB 5Hz~100kHz +0dB -3dB
Frequenzgang:	PHONO 60dB
Fremdspannungsabstand:	AUX 80dB
	PHONO 53dB
	AUX 54dB
Dämpfungsfaktor:	50 (4Ω) 100 (8Ω)
Endimpedanz:	MAIN oder REMOTE 4~16Ω
	MAIN + REMOTE 8~16Ω

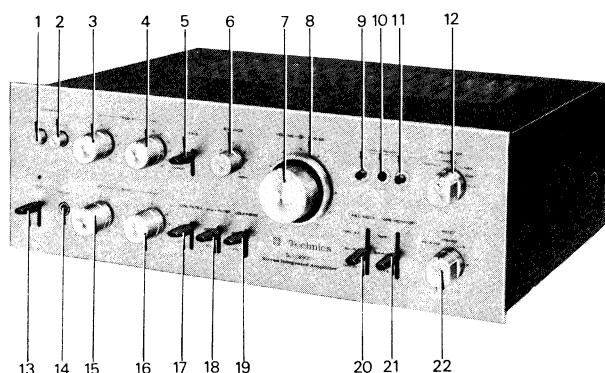
Eingangsempfindlichkeit & Impedanz:	MAIN IN 1V/50kΩ
	PHONO 1, 2 2mV/25kΩ 50kΩ 100kΩ
	TUNER, AUX 1, 2 100mV/50kΩ
	TAPE DECK 1, 2 (PLAYBACK) 100mV/50kΩ
	TAPE DECK 1 REC/PLAY (Wiedergabe) 100mV/50kΩ
PHONO 1, 2 Maximal Eingangsspannungen:	510mV
Klangregler:	Bässe 50Hz +12dB~-12dB
	Höhen 20kHz +12dB~-12dB
Filter:	Rumpel 30Hz -12dB/oct
	Rausch 8kHz -12dB/oct
Gehörrichtige Lautstärkekontur: (Lautstärke -30dB)	100Hz +8dB
Ausgangsspannungen & Impedanz:	PRE OUT Nenn 1V/100Ω
	Maximal 11V/100Ω
	TAPE DECK 1, 2 (REC OUT) 100mV/500Ω
	TAPE DECK 1 REC/PLAY (Aufnahme) 30mV/80kΩ

ALLGEMEINE DATEN

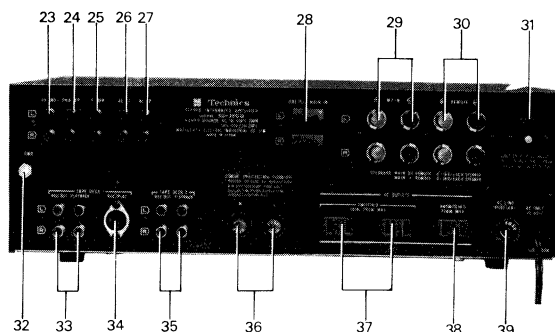
Netzspannung Umschaltbar:	50Hz/60Hz 110/120/220/240V
Leistungsaufnahme:	380W
Abmessungen (B×H×T):	410×140×340 mm
Gewicht:	10.2kg

MATSUSHITA ELECTRIC
MATSUSHITA ELECTRIC TRADING CO., LTD.
P. O. Box 288, Central Osaka, Japan

■ LOCATION OF CONTROLS



1. MAIN SPEAKER SWITCH [S10]
2. REMOTE SPEAKER SWITCH [S11]
3. LEFT TREBLE CONTROL
4. RIGHT TREBLE CONTROL
5. TONE SWITCH [S6]
6. BALANCE CONTROL
7. VOLUME CONTROL
8. PRE-SET
9. PHONO IMPEDANCE 25kΩ SWITCH [S2-1]
10. PHONO IMPEDANCE 50kΩ SWITCH [S2-2]
11. PHONO IMPEDANCE 100kΩ SWITCH [S2-3]
12. SELECTOR SWITCH [S1]
13. POWER SOURCE SWITCH [S12]
14. HEADPHONES JACK
15. LEFT BASS CONTROL
16. RIGHT BASS CONTROL
17. LOW FILTER SWITCH [S8]
18. HIGH FILTER SWITCH [S9]
19. LOUDNESS SWITCH [S7]
20. RECORDING MODE SWITCH [S4]
21. TAPE MONITOR SWITCH [S3]
22. MODE SWITCH [S5]



23. PHONO 1 INPUT TERMINALS
24. PHONO 2 INPUT TERMINALS
25. TUNER INPUT TERMINALS
26. AUX 1 INPUT TERMINALS
27. AUX 2 INPUT TERMINALS
28. PRE AMP AND MAIN AMP CONNECTION TERMINALS
29. MAIN SPEAKER TERMINALS
30. REMOTE SPEAKER TERMINALS
31. VOLTAGE SELECTOR SWITCH [S13]
32. GROUND TERMINAL
33. TAPE DECK 1 CONNECTION TERMINALS
34. TAPE DECK 1 CONNECTION DIN SOCKET
35. TAPE DECK 2 CONNECTION TERMINALS
36. CIRCUIT PROTECTION FUSES
37. AC OUTLETS Switched
38. AC OUTLET Unswitched
39. AC LINE FUSE

■ TO REMOVE CABINET AND BOTTOM BOARD

1. Remove six (6) cabinet mounting screws, nos. ① ~ ④, as illustrated in figure 1. (No. ③ and ④ screws are left and right side of cabinet.)
2. Remove cabinet from chassis.
3. Remove six (6) bottom board mounting red screws, nos. ⑤ ~ ⑩, as illustrated in figure 2.
4. Remove bottom board from chassis.

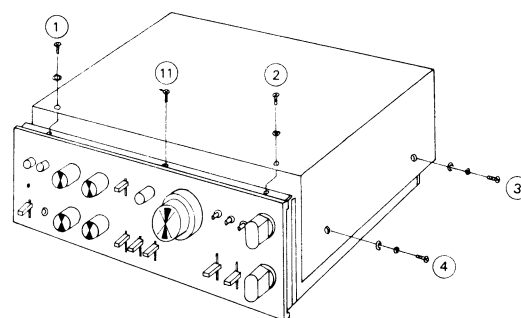


Fig. 1

■ TO REMOVE FRONT PANEL

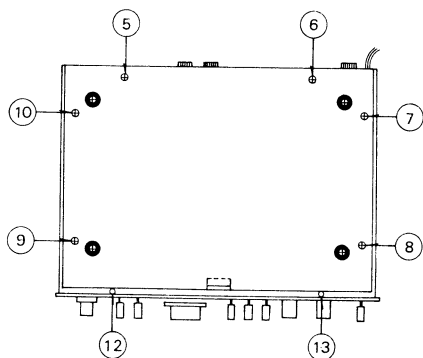


Fig. 2

1. Remove cabinet from chassis.
2. Remove control knobs from set. Refer to "Cabinet & Chassis Parts Location" on page 7.
3. Remove pre-set from set. Refer to "Cabinet & Chassis Parts Location" on page 7.
4. Remove three (3) panel mounting black screws, nos. ⑪ ~ ⑬ as illustrated in figure 1 and figure 2.
5. Remove front panel from chassis.

■ ALIGNMENT INSTRUCTIONS

Notes:

1. Volume control Minimum
2. Maintain line voltage at rated voltage.
3. Before adjusting, lco adjusting volumes (VR402, Left and Right channel) should be turned to the right side completely.
4. The lco adjustment should be started about 5 minutes after setting the power switch to the ON position.

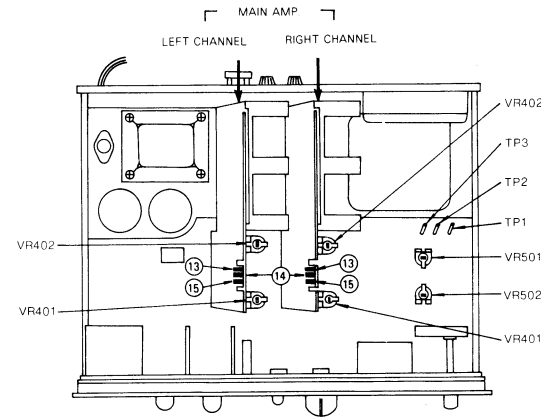
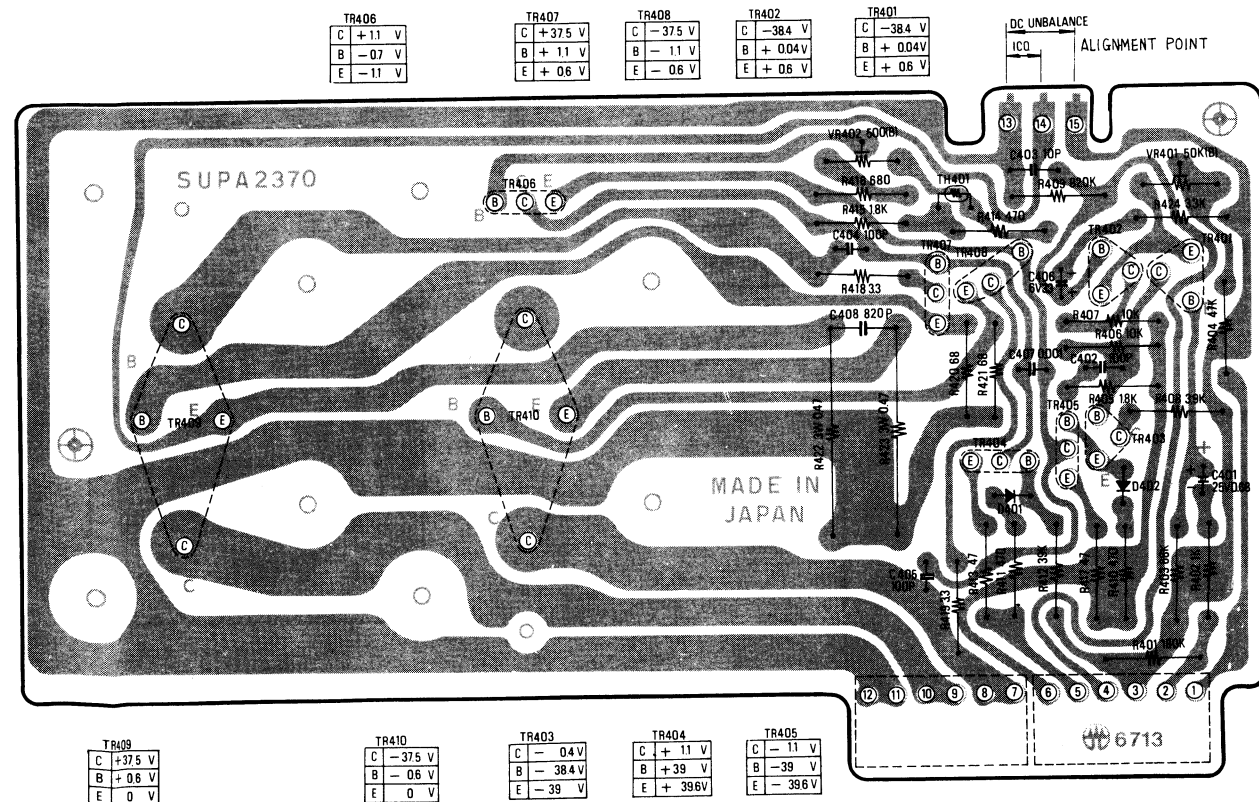


Fig. 3

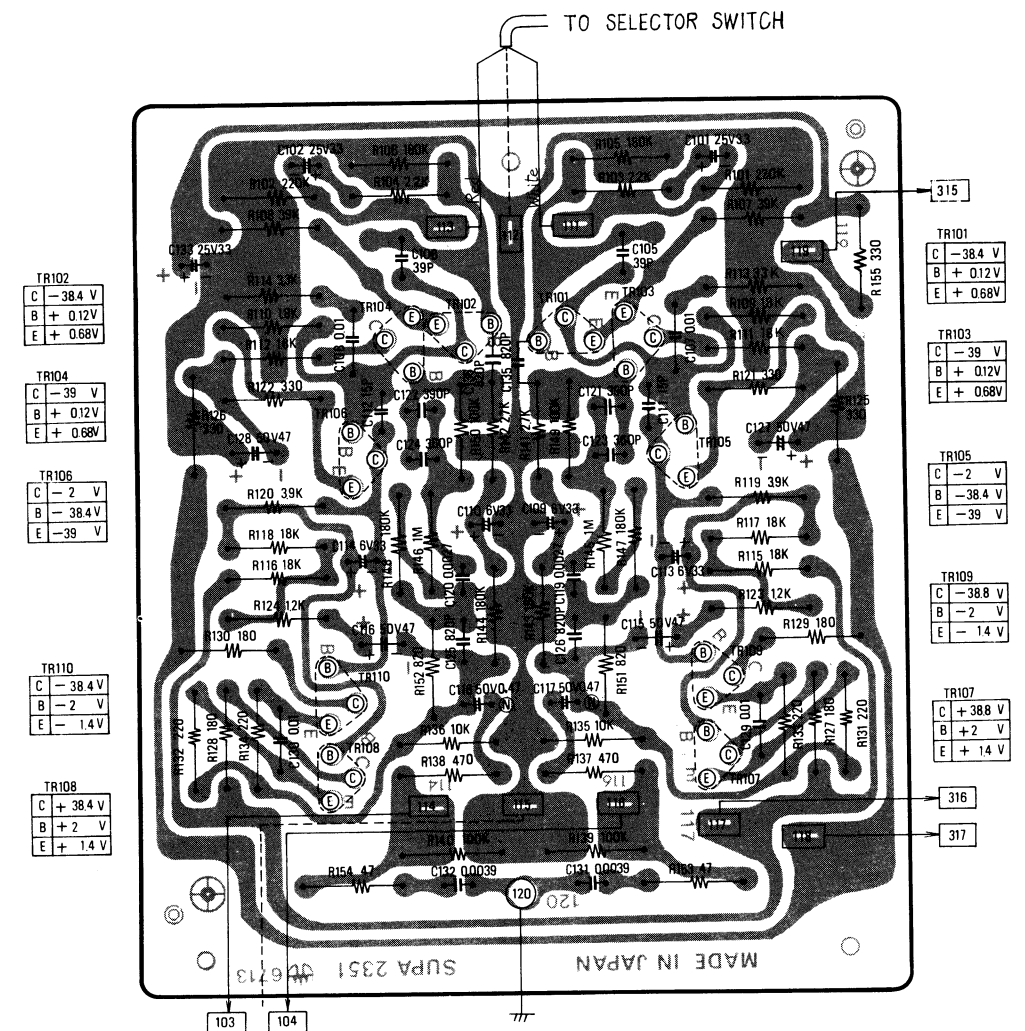
ALIGNMENT	DC VTVM CONNECTION	ADJUSTMENT POINTS	REMARKS
POSITIVE POWER VOLTAGE	Connect DC VTVM to test point TP3 . Common to test point TP1 .	VR501	Make sure that DC VTVM becomes positive (+) 40V.
NEGATIVE POWER VOLTAGE	Connect DC VTVM to test point TP1 . Common to test point TP2 .	VR502	Make sure that DC VTVM becomes negative (-) 40V.
DC UNBALANCE	Connect DC VTVM to alignment point ⑬ and ⑮ terminals. Refer to figure 3.	VR401	Make sure that DC VTVM becomes zero (0) V. [Left and Right side]
lco	Connect DC VTVM to alignment point ⑭ (positive side) and ⑬ (negative side) terminals. Refer to figure 3.	VR402	Make adjustment so that the indication on DC VTVM becomes 15mV. [Left and Right side]

MAIN AMPLIFIER Circuit

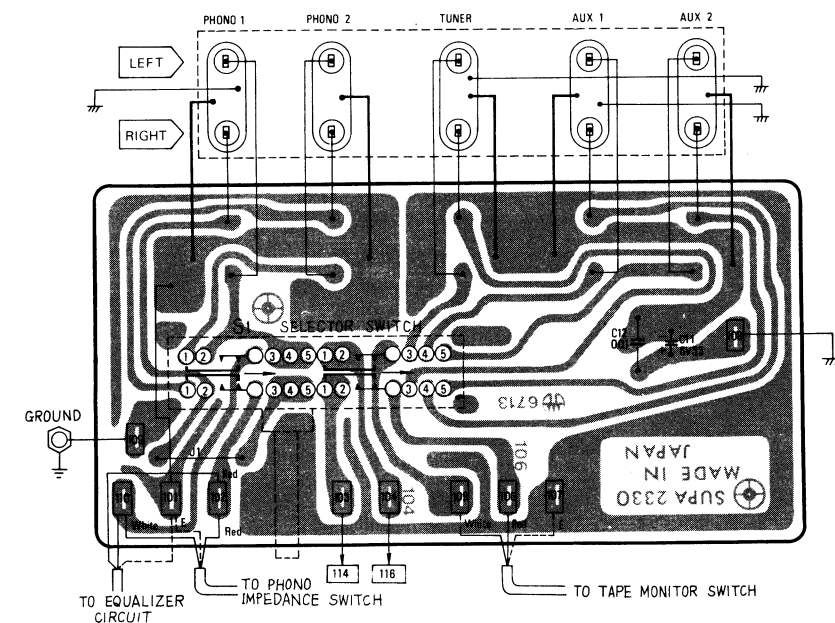
Left channel is same as Right channel



EQUALIZER Circuit Board



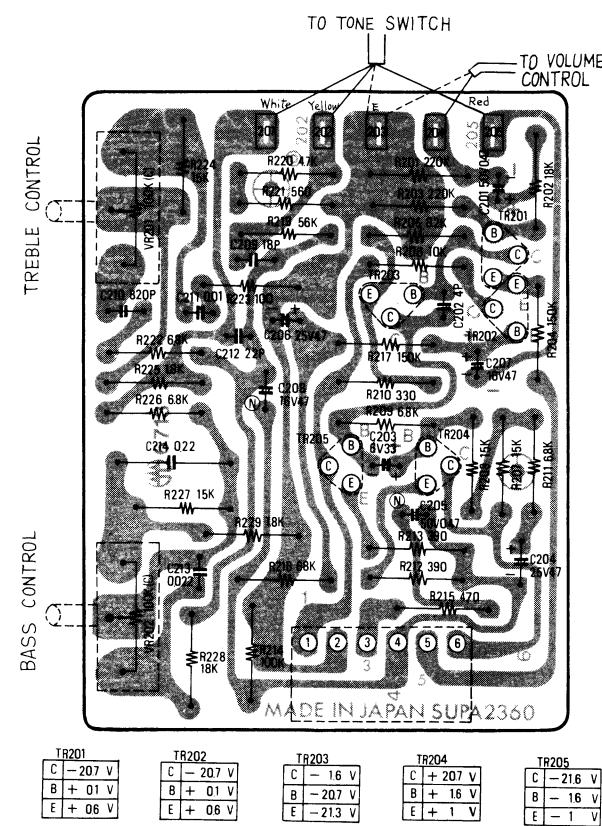
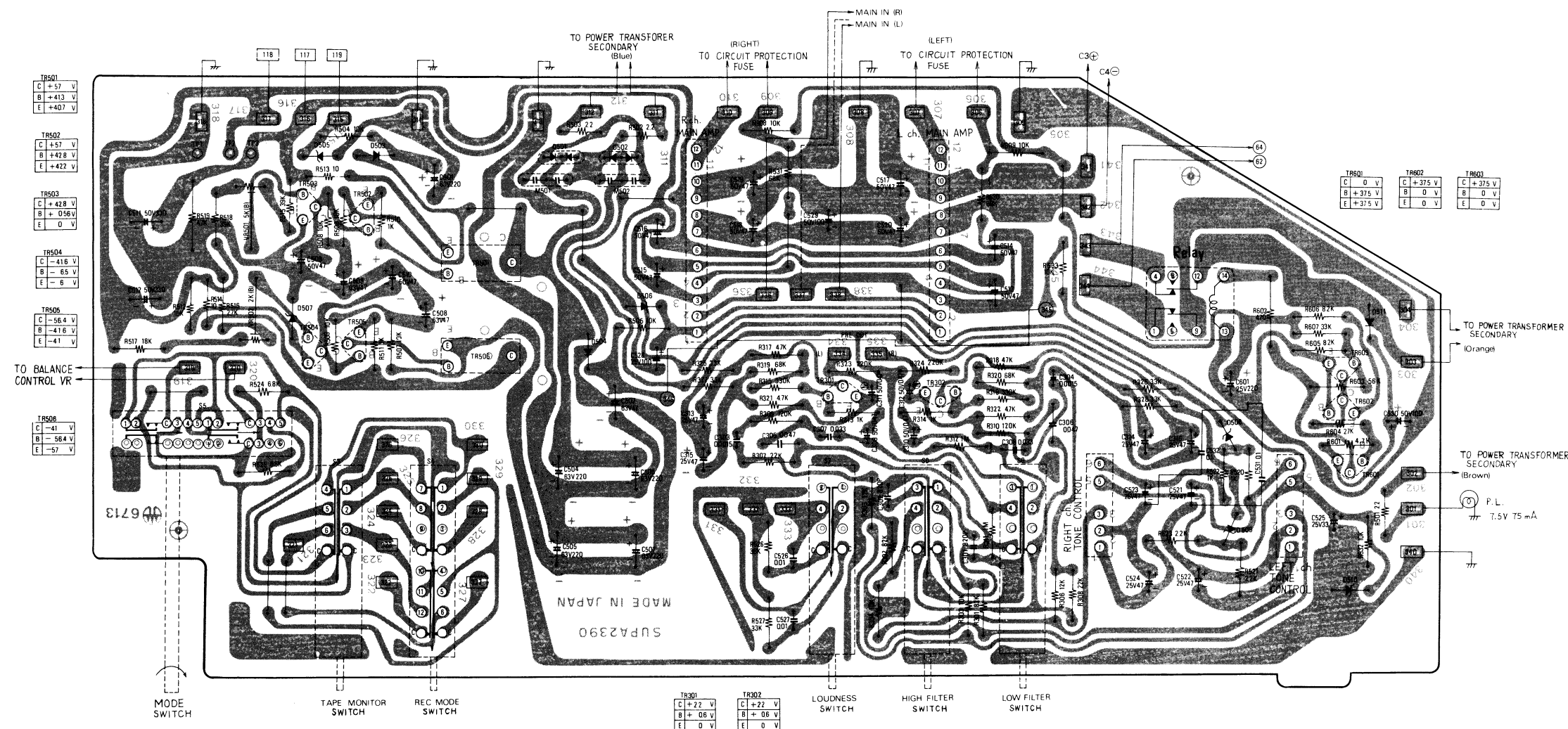
SELECTOR SWITCH Circuit Board



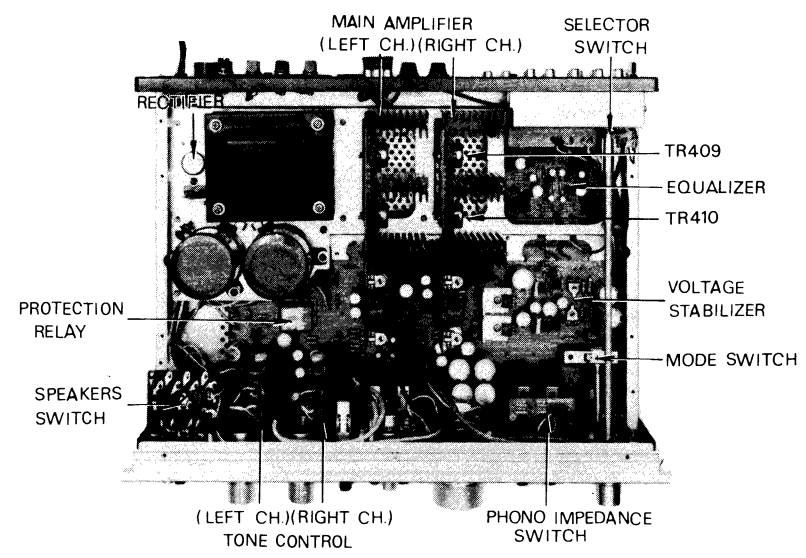
POWER SOURCE, SPEAKER PROTECTION, FILTER AMP, TAPE MONITOR SWITCH & MODE SWITCH Circuit Board

tone control Circuit Board

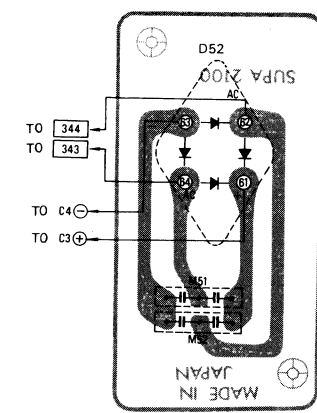
Left channel is same as Right channel



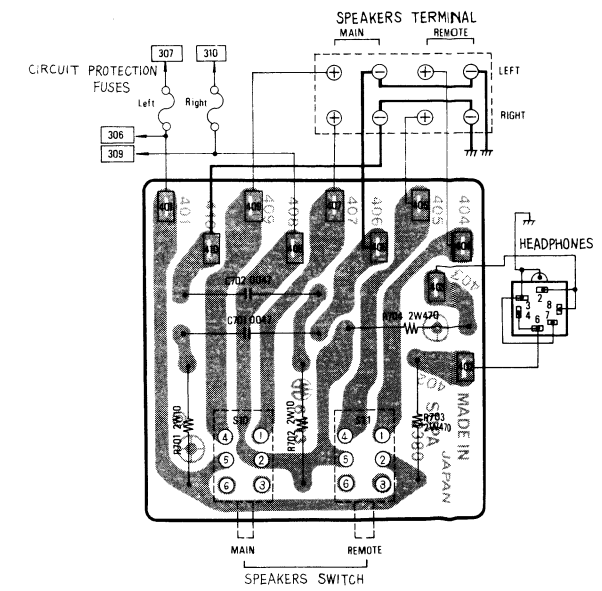
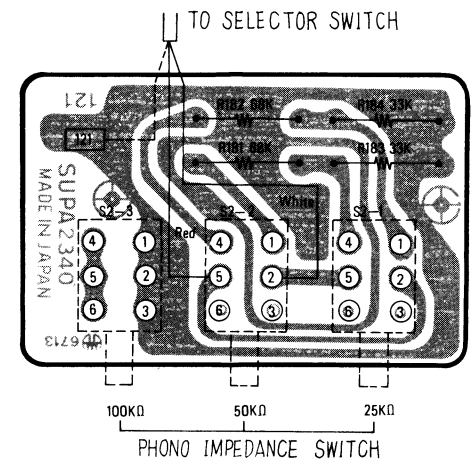
SPEAKERS SWITCH Circuit Board



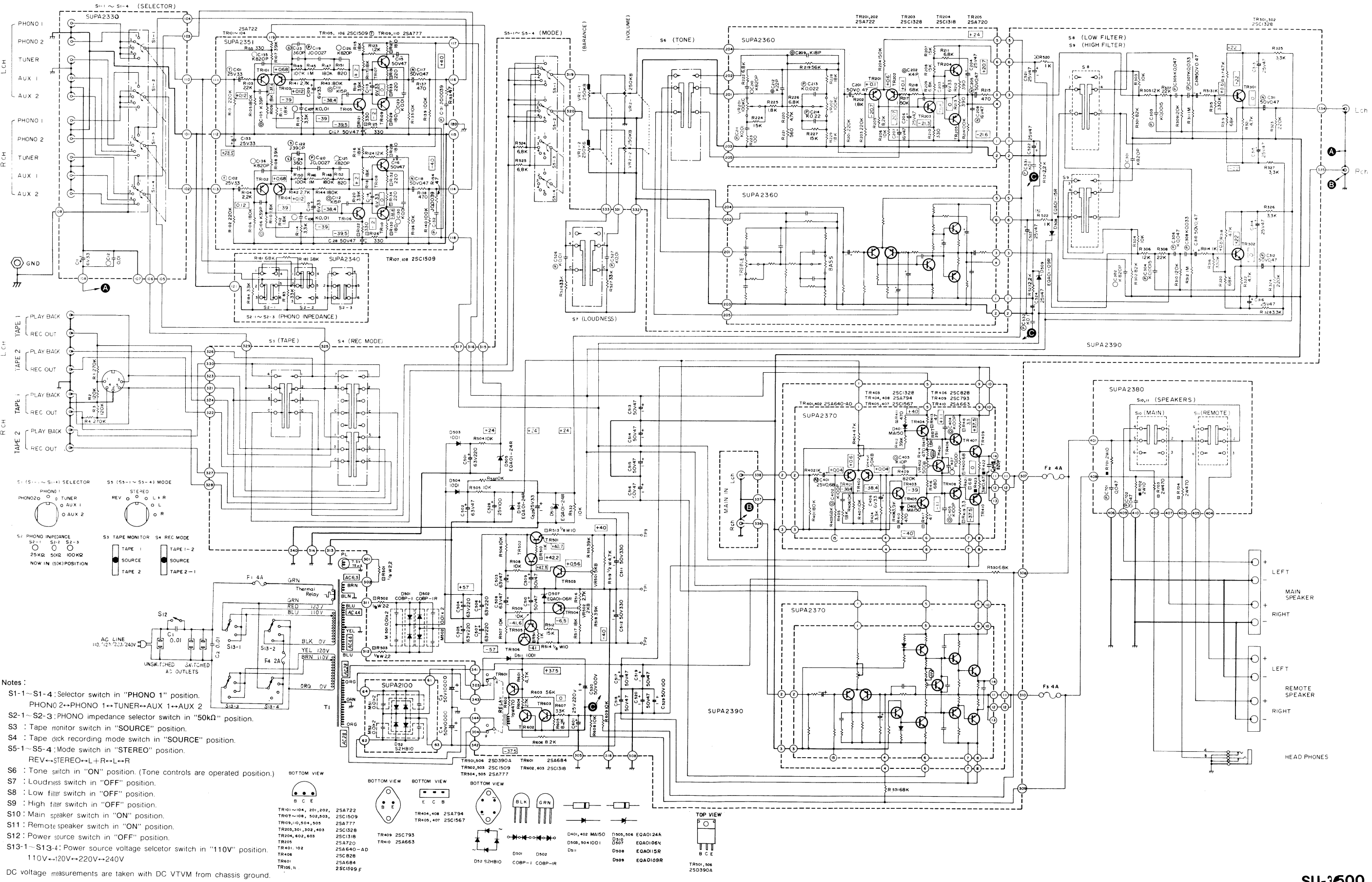
RECTIFIER



PHONO IMPEDANCE SWITCH Circuit Board

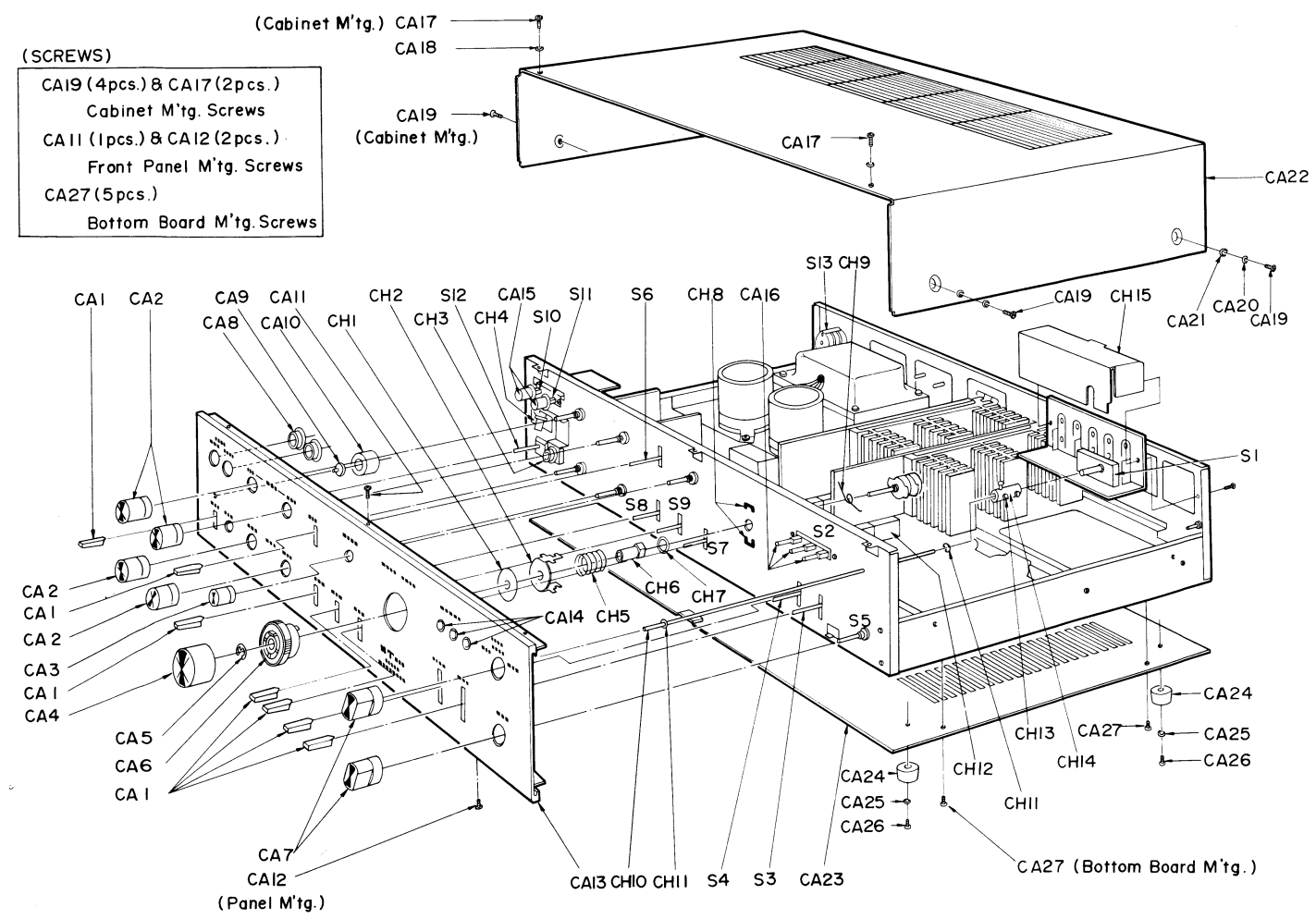


Schematic Diagram Model SU-3500 (This schematic diagram may be modified at any time with the development of new technology.)

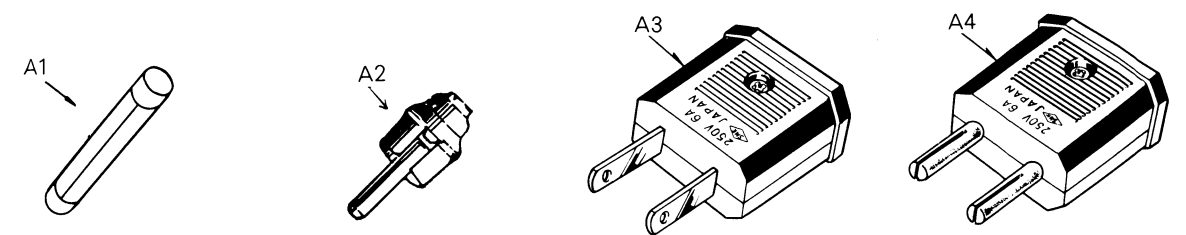


Notes :
S1-1~S1-4: Selector switch in "PHONO 1" position.
PHONO 2→PHONO 1→TUNER→AUX 1→AUX 2
S2-1~S2-3: PHONO impedance selector switch in "50KΩ" position.
S3 : Tape monitor switch in "SOURCE" position.
S4 : Tape deck recording mode switch in "SOURCE" position.
S5-1~S5-4: Mode switch in "STEREO" position.
REV→STEREO→L+R→L→R
S6 : Tone switch in "ON" position. (Tone controls are operated position.)
S7 : Loudness switch in "OFF" position.
S8 : Low filter switch in "OFF" position.
S9 : High filter switch in "OFF" position.
S10: Main speaker switch in "ON" position.
S11: Remote speaker switch in "ON" position.
S12: Power source switch in "OFF" position.
S13-1~S13-4: Power source voltage selector switch in "110V" position.
110V→120V→220V→240V
DC voltage measurements are taken with DC VTVM from chassis ground.

CABINET & CHASSIS PARTS LOCATION



ACCESSORIES



REPLACEMENT PARTS LIST

NOTES: 1. Part numbers are indicated on most mechanical parts. Please use this part number, for parts orders. 2. 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.

Bemerkungen: 1. Die meisten mechanischen Teile sind mit Teilnummern versehen. Bitte geben Sie diese Nummern an, sofern die Teile keine Bezugsnummern haben. 2. Gruppen X-Z: Teile der Gruppe X machen 80% des Ersatzteilbedarfes aus. Teile der Gruppen X und Y machen 95% des Ersatzteilbedarfes aus. Teile der Gruppe Z werden seltener benötigt.

Ref. No	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No	Part No	Description	Per Set (Pcs.)	Remarks
TRANSISTORS					R209(x2), 211(x2), 222(x2), 226(x2), 524.525	ERD14TJ682	6.8kΩ 1/4W ±5% Carbon	10	Y
TR101.102.103	2SA722T	Equalizer Differential & Tone Differential Amplifier	8	X	R205(x2), 605.606	ERD14TJ822	8.2kΩ 1/4W ±5% Carbon	4	Y
104.201 (x2), 202(x2)	2SC1509 @Q	Equalizer Amplifier	2	○ X	R135.136	ERD14TJ103	10kΩ 1/4W ±5% Carbon	20	Y
TR105.106	2SC1328T	Tone, Filter & Main Pre Driver Amplifier	6	X	206(x2), 303, 304.406(x2), 407(x2), 504, 505.506.507, 508.509.532, 533.608, 609	ERD14TJ123	12kΩ 1/4W ±5% Carbon	2	Y
TR203(x2), 301.302, 403(x2)	2SA720R	Tone Control Amplifier	2	X	R305.306	ERD14TJ153	15kΩ 1/4W ±5% Carbon	9	Y
TR205(x2)	2SC1318R	Tone Amp & Speaker Protection Switching	4	X	R207(x2), 208(x2), 224(x2), 227(x2), 512	ERD14TJ183	18kΩ 1/4W ±5% Carbon	7	Y
TR204(x2), 602.603	2SA777Q	Equalizer Amp. An Error Voltage Detector & DC Amp.	4	X	R115.116.117, 118.228(x2), 517	ERD14TJ223	22kΩ 1/4W ±5% Carbon	2	Y
TR109.110.504	2SC1509Q	Equalizer Amp. DC Amp. & An Error Voltage Detector	4	X	R307.308	ERD14TJ273	27kΩ 1/4W ±5% Carbon	1	Y
505	2SA640AD-R	Main Amp. Differential Amplifier	4	X	R604	ERD14TJ333	33kΩ 1/4W ±5% Carbon	5	Y
TR107.108.502	2SC828R	Thermal Compensation Pre Driver & Driver Amplifier	2	X	R183.184.526	ERD14TJ393	39kΩ 1/4W ±5% Carbon	4	Y
TR401(x2), 402(x2)	2SA794R	Pre Driver & Driver Amplifier	4	○ X	527.607	ERD14TJ563	56kΩ 1/4W ±5% Carbon	3	Y
TR406(x2)	2SC1567R	Power Amplifier	2	○ X	R412(x2), 515, 518	ERD14TJ683	68kΩ 1/4W ±5% Carbon	10	Y
TR404(x2), 408(x2)	2SC793Y	Power Amplifier	2	○ X	R219(x2), 603	ERD14TJ823	82kΩ 1/4W ±5% Carbon	2	Y
TR405(x2), 407(x2)	2SA663Y	Power Amplifier	2	○ X	R181.182	ERD14TJ104	100kΩ 1/4W ±5% Carbon	6	Y
TR409(x2)	2SD390A-Q	DC Voltage Control	2	○ X	218(x2), 319, 320.403(x2), 530.531	ERD14TJ124	120kΩ 1/4W ±5% Carbon	4	Y
TR501.506	2SA684Q	Speaker Protection Relay Switching	1	○ X	R301.302	ERD14TJ154	150kΩ 1/4W ±5% Carbon	2	Y
TR601					R139.140.149, 150.214(x2), R2.3.309.310	ERD14TJ184	180kΩ 1/4W ±5% Carbon	4	Y
DIODES					R217(x2)	ERD14TJ224	220kΩ 1/4W ±5% Carbon	2	Y
D52	SVDAS2HB10	Rectifier	1	X	R143.144.147, 148	ERD14TJ274	270kΩ 1/4W ±5% Carbon	2	Y
D401(x2), 402(x2)	MA150	Thermal Correction	4	X	R323.324	ERD14TJ824	820kΩ 1/4W ±5% Carbon	2	Y
D501	SVDAC08P-1	Rectifier, Positive Output	1	X	R1.4	ERD14TJ105	1MΩ 1/4W ±5% Carbon	4	Y
D502	SVDAC08P-1R	Rectifier, Negative Output	1	X	R409(x2)	ERD14TSJ393	39kΩ 1/4W ±5% Carbon	2	Y
D503.504.511	RVD10D1	Shock Noise Cancel & Rectifier	3	X	R145.146.311, 312	ERD14TSJ473	47kΩ 1/4W ±5% Carbon	4	Y
D505.506.510	SVDAEQA0124R	24V Zener, Shock Noise Cancel	3	○ X	R107.108	ERD14TSJ154	150kΩ 1/4W ±5% Carbon	2	Y
D507	SVDAEQA0106R	6V Zener, Voltage Stabilizer	1	○ X	R317.318	ERD14TSJ184	180kΩ 1/4W ±5% Carbon	4	Y
D508	SVDAEQA0115R	15V Zener, Voltage Dropper	1	○ X	404(x2)	ERD14TSJ224	220kΩ 1/4W ±5% Carbon	6	Y
D509	SVDAEQA0109R	9V Zener, Voltage Dropper	1	○ X	R204(x2), R105.106, 401(x2), R101.102	ERD14TSJ334	330kΩ 1/4W ±5% Carbon	2	Y
TRANSFORMER and THERMISTORS					R201(x2), 203(x2)	ERD14FJ3R3	3.3Ω 1/4W ±5% Carbon	4	Y
T1	SLTA5024S	Power Transformer	1	○ X	R315.316	ERD14FJ470	47Ω 1/4W ±5% Carbon	4	Y
TH401(x2)	RRT251	Thermistor, Driver Circuit	2	Y	R418(x2), 419(x2)	ERD14FJ680	68Ω 1/4W ±5% Carbon	4	Y
RESISTORS					R413(x2), 417(x2)	ERD14FJ181	180Ω 1/4W ±5% Carbon	4	Y
R153.154	ERD14TJ470	47Ω 1/4W ±5% Carbon	2	Y	R420(x2), 421(x2)	ERD14FJ221	220Ω 1/4W ±5% Carbon	4	Y
R223(x2)	ERD14TJ101	100Ω 1/4W ±5% Carbon	2	Y	R127.128.129, 130	ERD14FJ331	330Ω 1/4W ±5% Carbon	4	Y
R155.210(x2)	ERD14TJ331	330Ω 1/4W ±5% Carbon	3	Y	R131.132.133, 134	ERD14FJ471	470Ω 1/4W ±5% Carbon	4	Y
R212(x2), 213(x2)	ERD14TJ391	390Ω 1/4W ±5% Carbon	4	Y	R121.122.125, 126	ERD14FJ102	1kΩ 1/4W ±5% Carbon	4	Y
R137.138, 215(x2), 414(x2)	ERD14TJ471	470Ω 1/4W ±5% Carbon	6	Y	R410(x2), 411(x2)	ERD14FJ102	1kΩ 1/4W ±5% Carbon	4	Y
R221(x2)	ERD14TJ561	560Ω 1/4W ±5% Carbon	2	Y	R510.511.520, 522	ERD12TJ471	470Ω 1/2W ±5% Carbon	1	Y
R416(x2)	ERD14TJ681	680Ω 1/4W ±5% Carbon	2	Y	R602	ERD12TJ472	4.7kΩ 1/2W ±5% Carbon	1	Y
R151.152	ERD14TJ821	820Ω 1/4W ±5% Carbon	2	Y	R519	ERD18FJ2R2	2.2Ω 1/8W ±5% Carbon	3	Y
R313.314, 402(x2)	ERD14TJ102	1kΩ 1/4W ±5% Carbon	4	Y	R51.3.514	ERD18FJ100	10Ω 1/8W ±5% Carbon	2	○ Y
R123.124	ERD14TJ122	1.2kΩ 1/4W ±5% Carbon	2	Y	R701.702	ERX2ANJ100	10Ω 2W ±5% Metallic	2	○ Y
R109.110.111, 112.202(x2), 225(x2), 229(x2), 405(x2), 415(x2)	ERD14TJ182	1.8kΩ 1/4W ±5% Carbon	14	Y	R422(x2), 423(x2)	ERX3ANJR47	0.47Ω 3W ±5% Metallic	4	○ Y
R103.104.521, 523	ERD14TJ222	2.2kΩ 1/4W ±5% Carbon	4	Y	R703.704	ERG2ANJ471	470Ω 2W ±5% Metallic	2	○ Y
R141.142.516	ERD14TJ272	2.7kΩ 1/4W ±5% Carbon	3	Y					
R113.114.325, 326.327.328, 424(x2)	ERD14TJ332	3.3kΩ 1/4W ±5% Carbon	8	Y					
R119.120	ERD14TJ392	3.9kΩ 1/4W ±5% Carbon	4	Y					
R220(x2), 321.322.601	ERD14TJ472	4.7kΩ 1/4W ±5% Carbon	5	Y					

Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
VARIABLE RESISTORS					S4	SSLA21S	Recording Mode Switch	1	○ X
VR1	EVF54A082252	250kΩ(B). Balance Control	1	○ X	S5	SSRA57	Mode Switch	1	○ X
VR2	EVG63A041BF5	250kΩ(B). Volume Control	1	○ X	S6	SSLA24S	Tone Switch	1	○ X
VR201(×2)	EVC82A082C15	100kΩ(C). Bass & Treble Control	4	○ X	S7 8.9	SSLA23S	Loudness. Low & High Filter Switch	3	○ X
VR401(×2)	EVLS0AA00B54	50kΩ(B). DC Unbalance Adjustment	2	X	S10.11	SSHA42	Speakers Switch	1	○ X
VR402(×2)	EVLS0AA00B52	500Ω(B). ICQ Adjustment	2	X	S12	SSLA20S	Power Source Switch	1	○ X
VR501	EVLS3AA00B53	5kΩ(B). Voltage Stabilizer Adjustment	1	X	S13	SSRA7S	Voltage Selector Switch	1	X
VR502	EVLS3AA00B23	2kΩ(B). Voltage Stabilizer Adjustment	1	X	FUSES and LIGHTS				
CAPACITORS					F1	XBAS2A4001	Fuse. 4A Power Source	1	○ X
C202(×2)	ECCD1H040C	4pF. 50WV. ±0.25pF. Ceramic	2	Z	F2.3	XBAS1A4001	Fuse. 4A Circuit Protection	2	X
C209(×2)	ECCD1H180K	18pF. 50WV. ±10%. Ceramic	2	Z	F4	XBAS2B2002	Fuse. 2A Power Source	1	○ X
C212(×2)	ECCD1H220K	22pF. 50WV. ±10%. Ceramic	2	Z	PL	XAM37K150	Pilot Lamp (7.5V 75mA)	1	X
C105106	ECCD1H390K	39pF. 50WV. ±10%. Ceramic	2	Z	CABINET PARTS				
C402(×2)	ECCD1H101K	100pF. 50WV. ±10%. Ceramic	2	Z	CA1	SBLA3	Knob. Lever Switches	7	○ X
C403(×2)	ECCD2H100K	10pF. 500WV. ±10%. Ceramic	2	Z	CA2	SBNA95.2E	Knob. Bass & Treble Controls	4	○ X
C111.112	ECCD2H150K	15pF. 500WV. ±10%. Ceramic	2	○ Z	CA3	SBNA116	Knob. Balance Control	1	○ X
C404(×2)	ECCD2H101K	100pF. 500WV. ±10%. Ceramic	4	Z	CA4	SBNA114E	Knob. Volume Control	1	○ X
405(×2)					CA5	XUC8FZ	E-ring. Pre-Set	1	Y
C408(×2)	ECKD1H821KB	820pF. 50WV. ±10%. Ceramic	2	Z	CA6	SBNA115E	Knob. Pre-Set	1	○ X
C125.126.135.	ECKD2H821KB	820pF. 500WV. ±10%. Ceramic	8	Z	CA7	SBSA8	Knob. Selector & Mode Switch	2	○ X
136.210(×2).					CA8	SGXA6004	Bracket. Speaker Switch Button	2	Z
301.302					CA9	SGLA9	Panel Light	1	○ Z
C407(×2)	ECKD1H102PF	0.001 μF. 50WV. ±100%. Ceramic	2	Z	CA10	SHRA601	Bracket. Pilot Lamp	1	Z
C12.107.108.	ECKE1H103PF	0.01 μF. 50WV. ±100%. Ceramic	5	Z	CA11	XSS3+6KS	Screw. Front Panel M'tg	1	Z
129.130					CA12	XTV3D8CK	Screw. Front Panel M'tg	2	Z
C1.2	ECQU2A103MD	0.01 μF. 250VAC. ±20%. Polyester	2	Z		SYWA160A	Front Panel. Complete	1	○ Y
C303.304	ECQM05152KZ	0.0015 μF. 50WV. ±10%. Polyester	2	Z	CA13	SGWA1210	Panel. Not Available Order	(1)	
C119.120	ECQM05272JZ	0.0027 μF. 50WV. ±5%. Polyester	2	Z	CA14	SGXA57	Bracket. SYWA 160A	(3)	
C131.132	ECQM05392JZ	0.0039 μF. 50WV. ±5%. Polyester	2	Z	CA15	SBCA50	Button. Speaker Switches	2	○ Y
C211(×2).526.	ECQM05103KZ	0.01 μF. 50WV. ±10%. Polyester	4	Z	CA16	SBCA51	Button. Phono Impedance Switches	3	○ Y
527					CA17	XSB3+8KS	Screw. Cabinet M'tg	2	Z
C213(×2)	ECQM05223KZ	0.022 μF. 50WV. ±10%. Polyester	2	Z	CA18	XWG3K	Washer. Cabinet M'tg Screw	2	Z
C307.308	ECQM05333KZ	0.033 μF. 50WV. ±10%. Polyester	2	Z	CA19	XSB4+10KS	Screw. Cabinet M'tg	4	Z
C305.306	ECQM05473KZ	0.047 μF. 50WV. ±10%. Polyester	2	Z	CA20	XWA4BK	Spring Washer. Cabinet M'tg Screw	4	Z
C531.532	ECQM05104KZ	0.1 μF. 50WV. ±10%. Polyester	2	Z	CA21	XWG4K	Washer. Cabinet M'tg Screw	4	Z
C214(×2)	ECQM05224KZ	0.22 μF. 50WV. ±10%. Polyester	2	Z	CA22	SKAA691	Cabinet	1	○ Y
C701.702	ECOM1473M	0.047 μF. 125WV. ±20%. Polyester	2	Z		SYUA81A	Bottom Board. Complete	1	○ Y
C123.124	ECQS1361JZ	360pF. 125WV. ±5%. Styrol	2	Z	CA23	SKUA351	Bottom Board Only	1	○ Z
C121.122	ECQS1391JZ	390pF. 125WV. ±5%. Styrol	2	Z	CA24	SHGA929	Leg	4	Z
C11.109.110.	ECEA6V33	33 μF. 6.3WV. Electrolytic	9	Y	CA25	XWG3F10	Washer. Leg M'tg Screw	4	Z
113.114.					CA26	XTN3D12B	Screw. Leg M'tg	4	Z
203(×2).					CA27	XTB4+8BR	Red Screw. Bottom Board M'tg	6	Z
406(×2)					CA28	SJFA3015	Terminal. Phono. Tuner & Aux. Input	1	○ Y
C207(×2)	ECEA16V47	47 μF. 16WV. Electrolytic	2	Y		SYPA252AS	Rear Panel. Complete	1	○ Y
C208(×2)	ECEA16N47	47 μF. 16WV. Non Polar Electrolytic	2	○ Y	CA29	SNEA404	Nut. Ground Terminal	1	Z
C401(×2)	ECAG25ER68X	0.68 μF. 25WV. Electrolytic	2	Y		SNEA204.2S	Volt. Ground Terminal	1	Z
C101.102	ECSS225EF3R3	3.3 μF. 25WV. Electrolytic	2	Y	CA30	SGPA363A	Rear Panel Only	1	○ Z
C206(×2)	ECEA25V47	47 μF. 25WV. Electrolytic	2	Y	CA31	SJFA3409	Terminal. Pre & Main Amp Connector	1	Y
C133.525	ECEA25V33	33 μF. 25WV. Electrolytic	2	Y	CA32	SJFA4807	Terminal. Speakers	1	○ Y
C204(×2).313.	ECEA25V47	47 μF. 25WV. Electrolytic	10	Y	CA33	SJFA3407	Terminal. Tape Monitor 1 & 2	2	Y
314.315.316.					CA34	RJS31-1	DIN Socket. Tape Monitor	1	Y
521.522.523.					CA35	SJFA107	Holder. Circuit Protection Fuses	2	Y
524					CA36	SJSA66	Sodket. AC Outlet	3	○ Y
C528	ECEA25V100	100 μF. 25WV. Electrolytic	1	Y	CA37	LSJFA1	Holder. Power Source Fuses	1	○ Y
C601	ECEA25V220V	220 μF. 25WV. Electrolytic	1	○ Y	CA38	SJAA3	AC Cord/with AC Plug	1	Y
C205(×2).117.	ECEA50NR47X	0.47 μF. 50WV. Non Polar Electrolytic	6	Y	CA39	RHR111	Bushing. AC Cord	1	Z
118.311.312					CA40	SJPA9201	Short Pin. Pre & Main Amplifier	2	X
C201(×2).	ECEA50VR47G	0.47 μF. 50WV. Electrolytic	4	Y	CA41	SJP9103	Short Pin Plug. Phono 2 Terminal	2	Y
309.310					CHASSIS PARTS				
C115.116.127.	ECEA50V47	47 μF. 50WV. Electrolytic	14	Y	CH1	SNWA951	Slider. Pre-Set	1	Z
128.509.510.					CH2	SUWA167-1	Mounting. Pre-Set	1	Z
513.514.515.					CH3	SJJA14	Jack. Headphones	1	Y
516.517.518.					CH4	SMZA6091	Bracket. Pilot Lamp	1	Z
519.520					CH5	SUSA33	Coil Type Spring. Pre-Set	1	Z
C529	ECEA50V100	100 μF. 50WV. Electrolytic	1	Y	CH6	SUHA8	Nut. Volume & Pre-Set	1	Z
C530	ECEA50V100V	100 μF. 50WV. Electrolytic	1	○ Y	CH7	XWV8	Washer. Nut	1	Z
C511.512	ECEA50V330	330 μF. 50WV. Electrolytic	2	Y	CH8	SHGA943	Rubber Bracket. Pre-Set Mounting	2	Z
C34	ECSEM50R103E	10000 μF. 50WV. Electrolytic	2	○ Y	CH9	SUSA34-1	Spring. Pre-Set Mounting	1	Z
C502.503.508	ECEA63V47L	47 μF. 63WV. Electrolytic	3	○ Y	CH10	SUBA18	Coupling Rod. Selector Switch	1	○ Z
C501.504.505.	ECEA63V220L	220 μF. 63WV. Electrolytic	5	○ Y	CH11	XUC5FW	E-ring. Coupling Rod	2	Y
506.507					CH12	SJSA65	Socket. Main & Tone Amp Circuit	6	Y
COMPONENT COMBINATIONS					CH13	XXAR3H6S	Screw. Coupler M'tg	3	Z
M51.52.501.	RXAF103P22HD	Hum Canceler. 0.01 μF. 500WV	4	Y	CH14	SUBA21S	Coupler. Selector switch & Coupling Rod	1	○ Z
502					CH15	SMWA21S	Cover. Input Terminal	1	○ Z
SPEAKERS PROTECTION RELAY					ACCESSORIES				
	SSYA1	Relay. Power Source Circuit	1	X	A1	XBAS1A4001	4A Fuse. Circuit Protection	2	Y
SWITCHES					A2	RJP5	Pin Plug	4	Y
S1	SSRA58	Selector Switch	1	○ X	A3	RJP16AS	AC Plug	1	Y
S2	SSHA43S	Phono Impedance Selector Switch	1	○ X	A4	RJP 7AS	AC Plug	1	Y
S3	SSLA22S	Tape Monitor Switch	1	○ X					

Ref. No.	Part No.	Description	Per Set (Pcs)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs)	Remarks
PACKING PARTS					P5	SPNA230A	Carton Box, Inner	1	○ Z
P1	SPPA16-1	Soft Cover	1	Z	P6	SPSA30	Pad, Between Inner & Outer Carton Box	1	Z
P2	SPP163	Polyethylene Bag	1	Z	P7	SPGA440A	Carton Box, Outer	1	○ Z
P3	SPSA73	Pad, Left Side	1	○ Z	P8	SQFA191	Printed Matter, Complete	1	○ Y
P4	SPSA70	Pad, Right Side	1	○ Z		SQXA5114	Instructions Book (Order SQFA191)	(1)	

■ PACKINGS

