ORDER NO. SD7704-1216

Service Manual

Stereo Integrated Amplifier

SU-7300

(M), (MC)



Simulated wood cabinet

- The model SU-7300 (M) is available in America only.
- The model SU-7300 (MC) is available in Canada only.

TECHNICAL SPECIFICATIONS (Specifications are subject to change without notice for further improvement.)

AMPLIFIER SECTION

Rated minimum sine wave RMS power output
20 Hz ~ 20 kHz
both channels driven
0.08% total harmonic distortion
48W per channel (4 ohms)
41W per channel (8 ohms)

1 kHz continuous power output
both channels driven
0.08% total harmonic distortion 55W per channel (4 ohms)
43W per channel (8 ohms)

Total harmonic distortion
0.08% at rated power (20 Hz ~ 20 kHz)
0.04% at half power (20 Hz ~ 20 kHz)
0.02% at half power (1 kHz)

Intermodulation distortion	0.08%
Damping factor	20 (4 ohms), 40 (8 ohms)
Input sensitivity and impedance	
PHONO	2.5mV/47 kilohms
TUNER	150mV/47 kilohms
TAPE 1, 2 (PLAYBACK)	150mV/47 kilohms
PHONO maximum input voltage (1 kHz, RMS)	150mV
S/N (IHF, A)	
PHONO	78 dB
TUNER	97 dB
Residual hum and noise	0.6mV
Frequency response	
PHONO	RIAA standard curve ±0.3 dB
TUNER	7 Hz ~ 80 kHz, −3 dB
	20 Hz ~ 20 kHz, ±0.5 dB
Tone controls	
BASS	50 Hz, +12 dB ~ −12 dB
TREBLE	20 kHz, +12 dB ~ −12 dB
High filter	8 kHz, −6 dB/oct.
Loudness control (volume at −30 dB)	100 Hz, +8 dB
Output voltage	
TAPE 1, 2 (REC OUT)	150mV
Load impedance	
MAIN or REMOTE	4 ~ 16 ohms

GENERAL

Power consumption	140W (only for America)
	260VA (only for Canada)
Power supply	AC 120V 60 Hz
Dimensions (W x H x D)	17 5/16" × 5 3/4" × 13 5/32"
	(441 x 146 x 334) mm
Weight	20.1 lb. (9.1 kg)

Weights and dimensions shown are approximate.

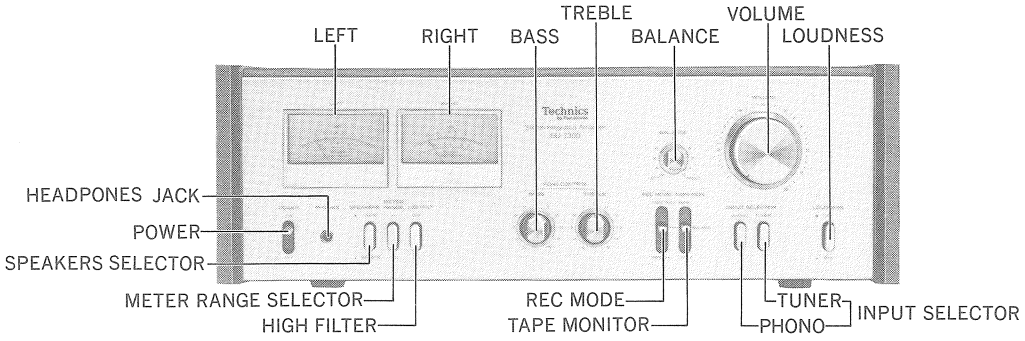
Technics by Panasonic

Panasonic Company
Division of Matsushita Electric
Corporation of America
One Panasonic Way, Secaucus,
New Jersey 07094

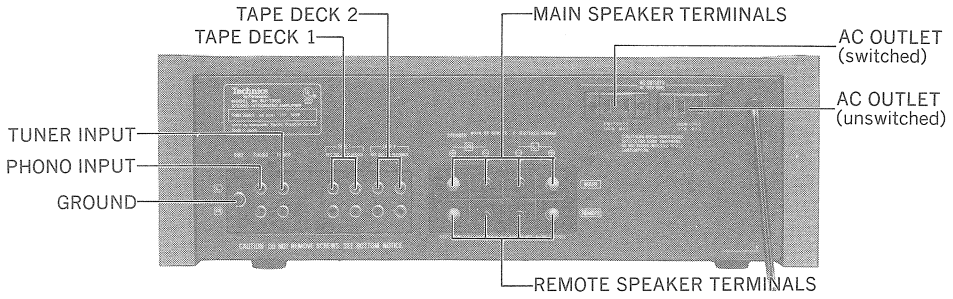
Matsushita Electric of Hawaii, Inc.
320 Waiakamilo Road, Honolulu,
Hawaii 96817

Matsushita Electric of Canada Ltd.
40 Ronson Drive, Rexdale,
Ontario, Canada M9W 1B5

■ LOCATION OF CONTROLS

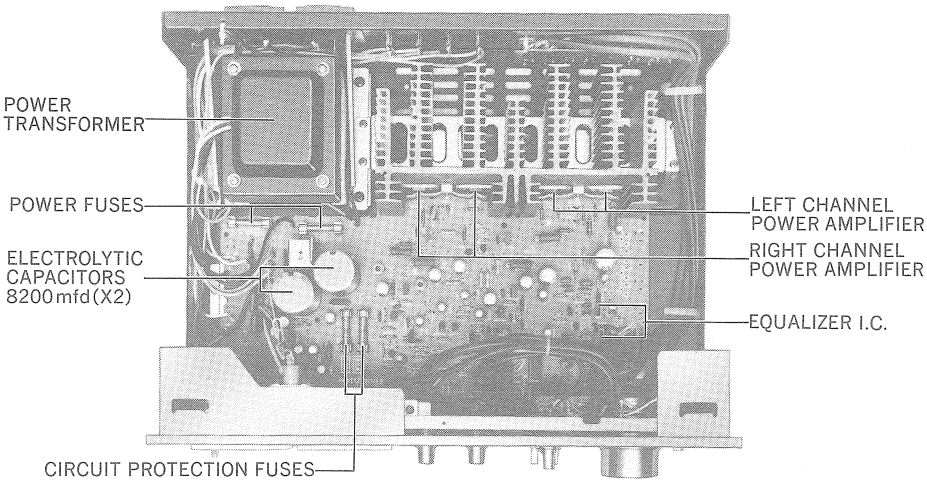


Front Panel View



Rear Panel View

NOTE:
The unit is provided with the speaker circuit protection fuses at the right and left channels respectively.
The fuse is to prevent the power transistor from destruction, should the speaker terminals be short-circuited.
Accordingly, if the unit fails to function upon completion of the speaker connections, check the speaker protection fuses first of all for possible blowing.



Chassis View

■ TO REMOVE CABINET

1. Remove four (4) cabinet-mounting screws, nos. ① ~ ④, as shown in fig. 1.
2. Remove cabinet from chassis.
3. To reassenble, reverse above procedure.

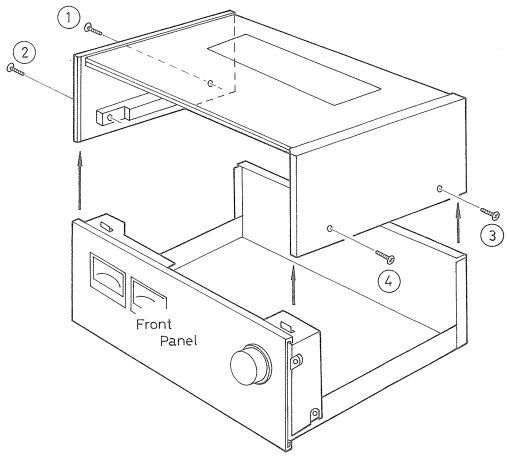


Fig. 1

■TO REMOVE CHASSIS

1. Remove cabinet from chassis. (Refer to "To remove cabinet")
2. Remove four (4) panel bracket-mounting screws, nos. ① ~ ④, as shown in fig. 2.
3. Remove panel bracket from chassis. (right and left side)
4. Remove four (4) panel-mounting screws, nos, ⑤ ~ ⑧, as shown in fig. 2.
5. Remove lead wire from lead clamp, as shown in fig. 3.

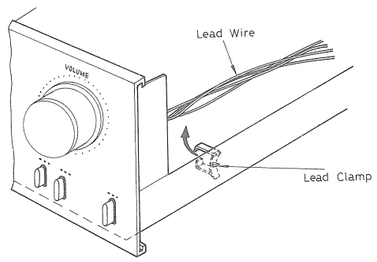


Fig. 3

6. Remove a metal clamp-mounting screw, no. ⑨, as shown in fig. 4.
7. Remove metal clamp of printed circuit board.
8. Remove four (4) heatsink- mounting screws, nos. ⑩ ~ ⑬, as shown in fig. 4.

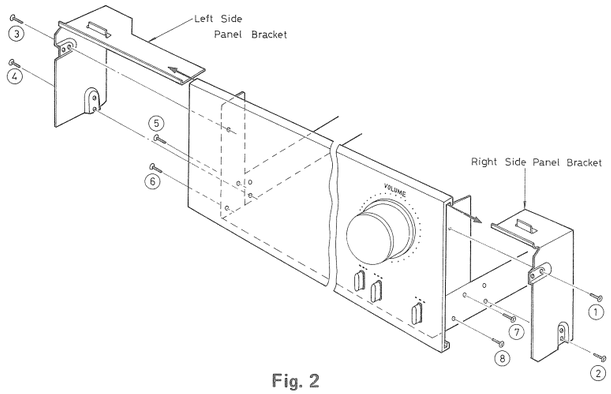


Fig. 2

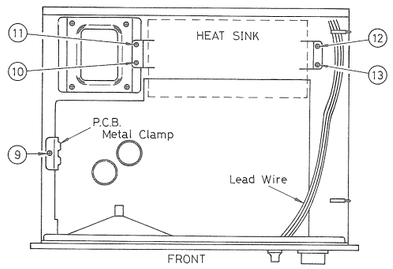


Fig. 4

9. As shown in fig. 5, hold the panel at its side ends abd push it downward tilting slightly its top part to the frontward direction.
10. Remove the front panel from the chassis, as shown in fig. 6 to fig. 7.
11. Set the printed circuit board on the chassis as indicated in fig. 8.
12. The front panel can be reset in the reverse sequence.
13. Mount the lever switch bracket inside the chassis prior to resetting the front panel, as shown in fig. 8.

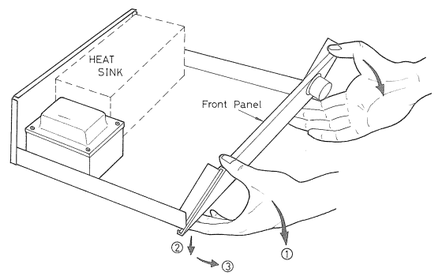


Fig. 5

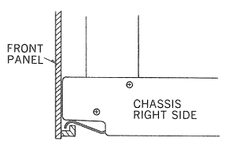


Fig. 6

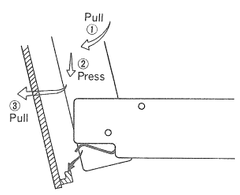


Fig. 7

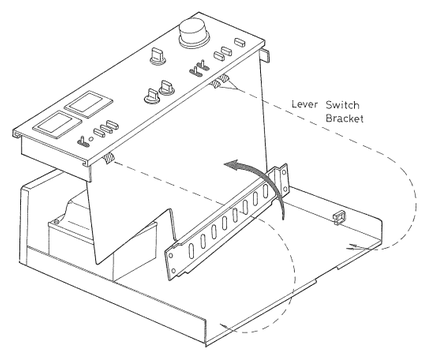


Fig. 8

■ ALIGNMENT INSTRUCTIONS

- When the power transistor is replaced, be sure to apply silicone compound (or equivalent thermal diffusion agent) onto the mica plate, and at the same time confirm the idling current of the power transistor. (measure voltage across the emitter resistance)

Ⓐ For adjustment with DC voltmeter

1. Turn the speaker switch "OFF".
2. Connect the DC voltmeter as in fig. 9 of the adjusting spot diagram.
3. If the reading is under 25mV approximately several minutes after turning ON the power supply, the circuit is "OK". On the other hand, if the reading is over 25mV, cut off the lead wire for **L** in the case of left channel (The lead wire for **R** in the case of right channel).
4. Should the reading not fall under 25mV even when the lead wire has been cut off, there is something wrong with the circuit, and therefore, check the power source circuit or main amplifier circuit.

Ⓑ Current should be checked only when adjustment is made with a tester. (measuring instrument incapable of measuring voltage in mV unit).

1. Turn OFF the power supply for the set.
2. Connect the ammeter as shown in fig.11 .
3. After ensuring that the ammeter will not come off, turn ON the power supply.
4. If the reading is under 75mA after several minutes (But, when nothing resistance of internal resistor by ammeter) the circuit is "OK". If over 75mA, cut off the lead wire for **L** in the case of left channel (The lead wire for **R** in the case of right channel).
5. If the reading does not fall under 75mA, there is something wrong with the circuit.

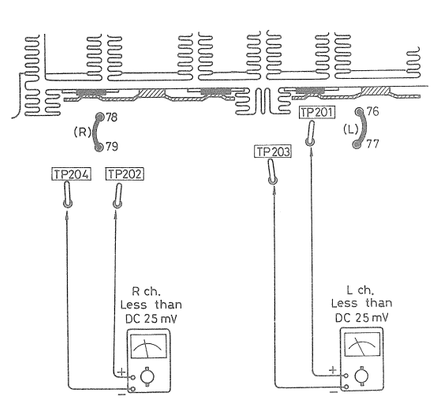
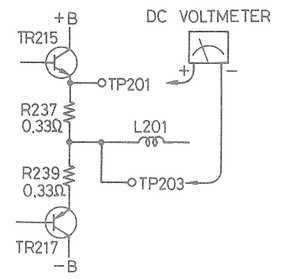


Fig. 9

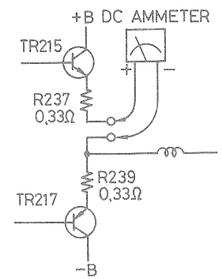
Notes:

1. When cutting off the lead wire, cut off the same at root.
2. The adjustment may be made either by Ⓐ or by Ⓑ method. (We recommend the method Ⓐ where possible).
3. Fig. 10 and 11 are related to the case of left channel.



Voltage check method

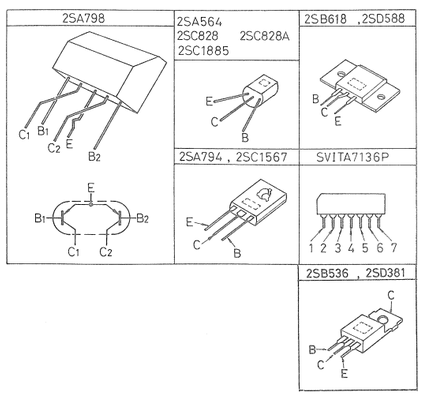
Fig. 10



Current check method

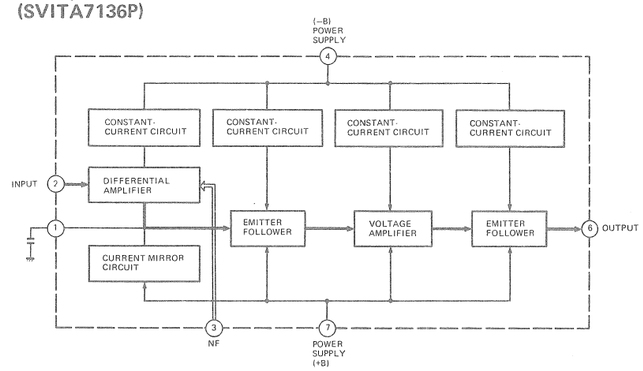
Fig. 11

■ TR. & I.C. TERMINAL GUIDE

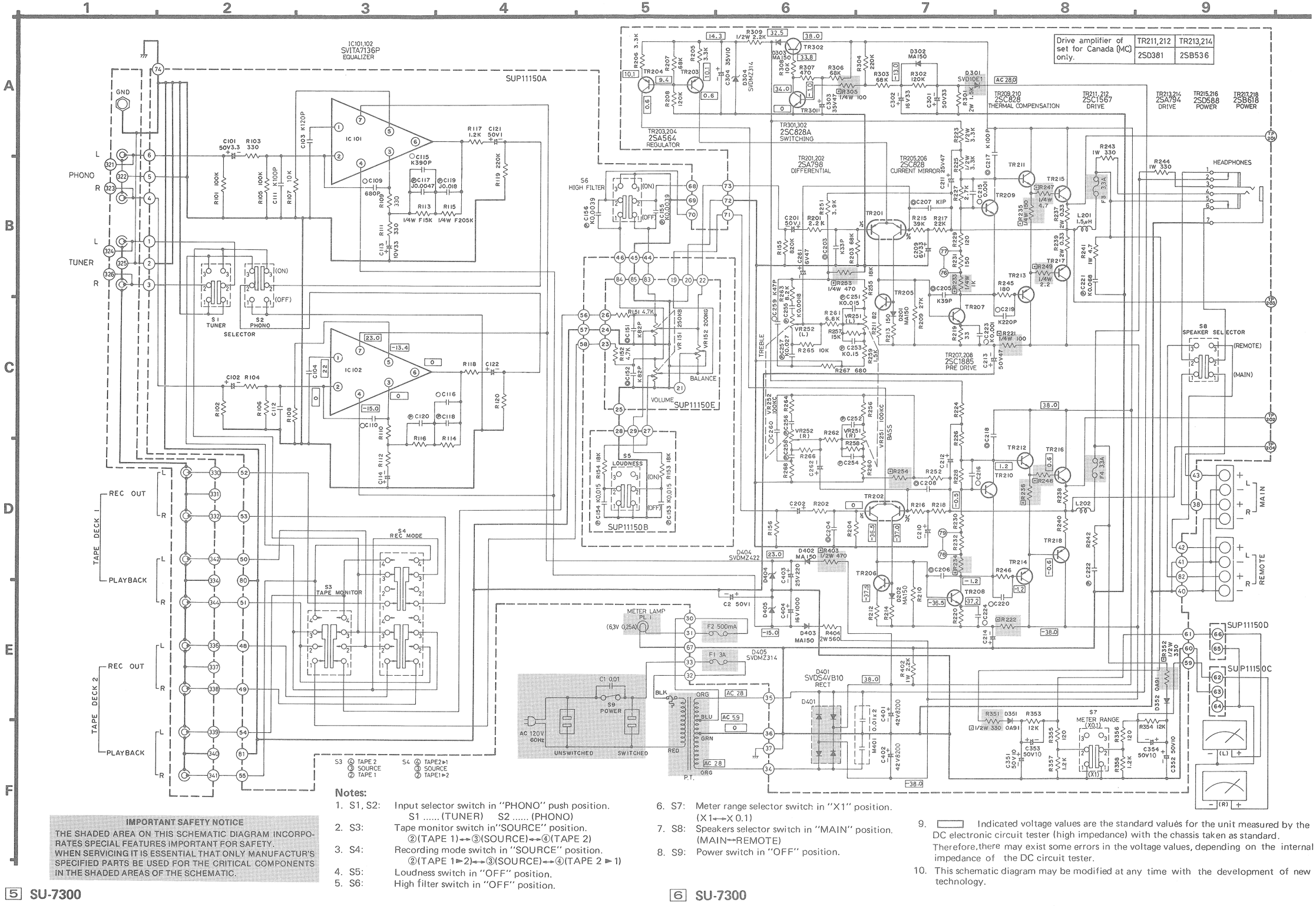


■ BLOCK DIAGRAM OF INTEGRATED CIRCUIT

IC101, IC102
(SVITA7136P)



Schematic Diagram ..... Model SU-7300



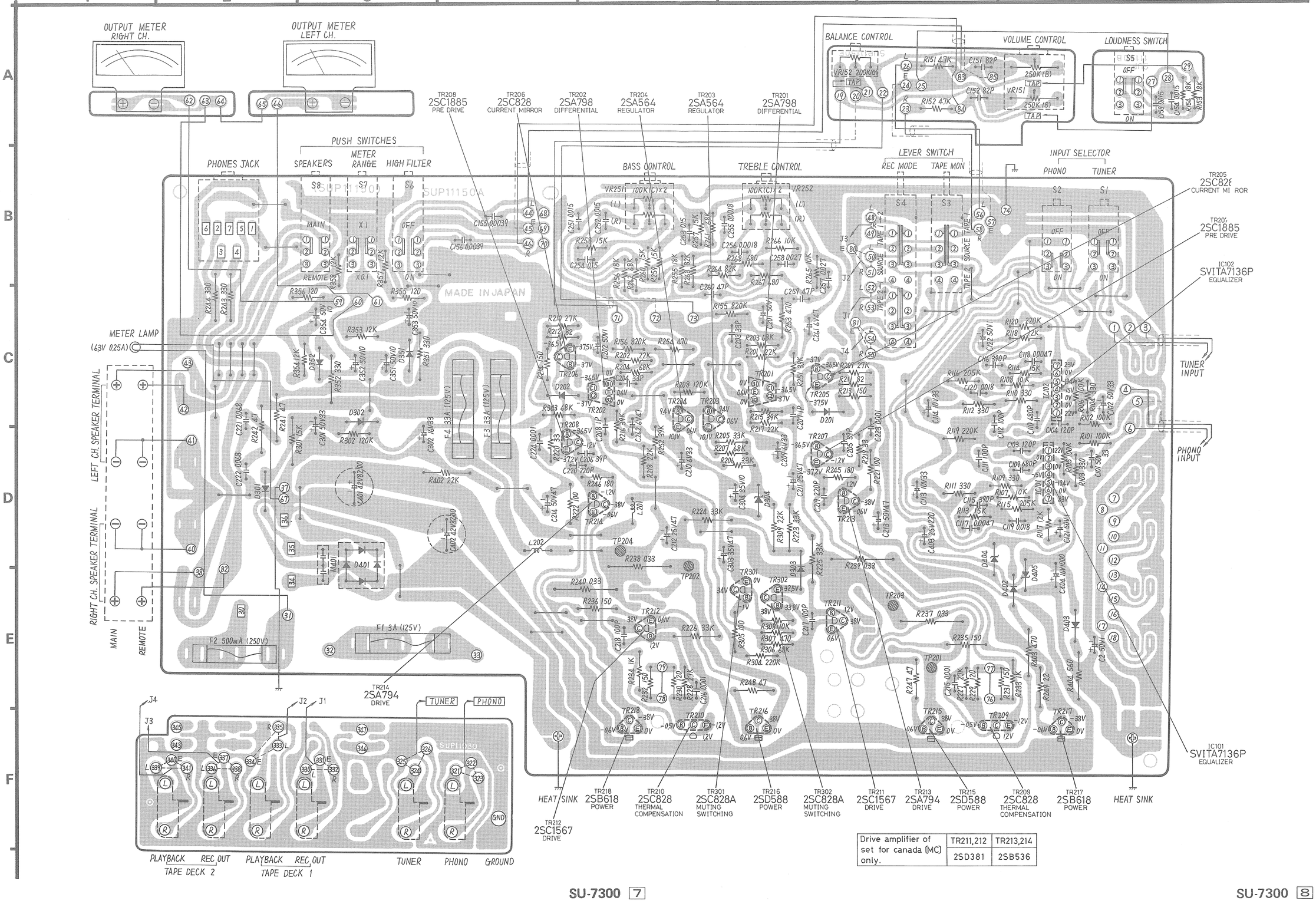
IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR SAFETY. WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTUR'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

Notes:

1. S1, S2: Input selector switch in "PHONO" push position. S1 ..... (TUNER) S2 ..... (PHONO)
2. S3: Tape monitor switch in "SOURCE" position. ②(TAPE 1)↔③(SOURCE)↔④(TAPE 2)
3. S4: Recording mode switch in "SOURCE" position. ②(TAPE 1►2)↔③(SOURCE)↔④(TAPE 2►1)
4. S5: Loudness switch in "OFF" position.
5. S6: High filter switch in "OFF" position.
6. S7: Meter range selector switch in "X1" position. (X1↔X 0.1)
7. S8: Speakers selector switch in "MAIN" position. (MAIN↔REMOTE)
8. S9: Power switch in "OFF" position.
9. ▭ Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
10. This schematic diagram may be modified at any time with the development of new technology.

Printed Circuit Board ..... Model SU-7300

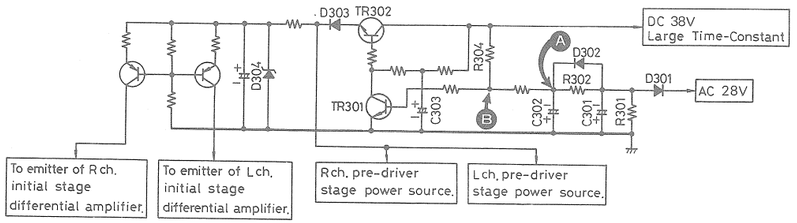


Drive amplifier of set for canada (MC) only.	TR211,212	TR213,214
	2SD381	2SB536

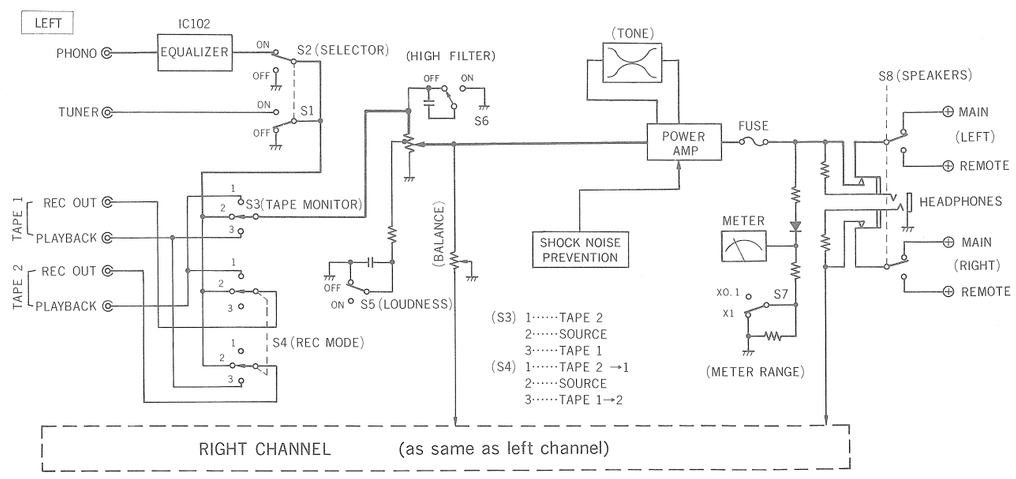
■ SERVICE AID

Shock noise prevention circuit during ON-OFF of power supply

In the voltage at the point Ⓐ, at the moment when the power supply is turned ON, C302 is charged by the current rectified to negative through D301. Therefore, gradual change to minus takes place from 0V. During this time, positive voltage is applied to the base of TR301 which is thus rendered conductive. Consequently, the base of TR302 connected to TR301 is of ground potential, with TR302 not being functioning. In other words, no current is Howing through the preamplifier in this state. After the power supply is turned ON, the potential at the point Ⓑ gradually decreases as the point Ⓐ is saturated to negative through time constant of R302 and C302, and when TR301 reaches cut- off state, positive voltage goes on charging C303. Upon rising of the base potential of TR302 close to 0.7V, TR302 is turned ON, thus causing current to flow through the preamplifier. Time required from turning ON of the power supply to functioning of the preamplifier is set to be approximately 6 to 7 seconds. When the power supply is turned OFF, D302 is biased in the forward direction, and if R301≪R302, the charges in C301 and C302 are discharged through R301 in a short period of time. However, large positive voltage of specific constant does not fall immediately, with voltage at the point Ⓑ rising up to TR301 operating voltage for causing TR301 to function. Accordingly, the charge in C303 is discharged, and TR302 rapidly reaches cut-off state, with current being prevented from flowing through the preamplifier, so that the shock noises from the preamplifier section during turning OFF of the power supply can be eliminated.



■ BLOCK DIAGRAM



■ REPLACEMENT PARTS LIST

Important Safety Notice

Components identified by shaded area have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

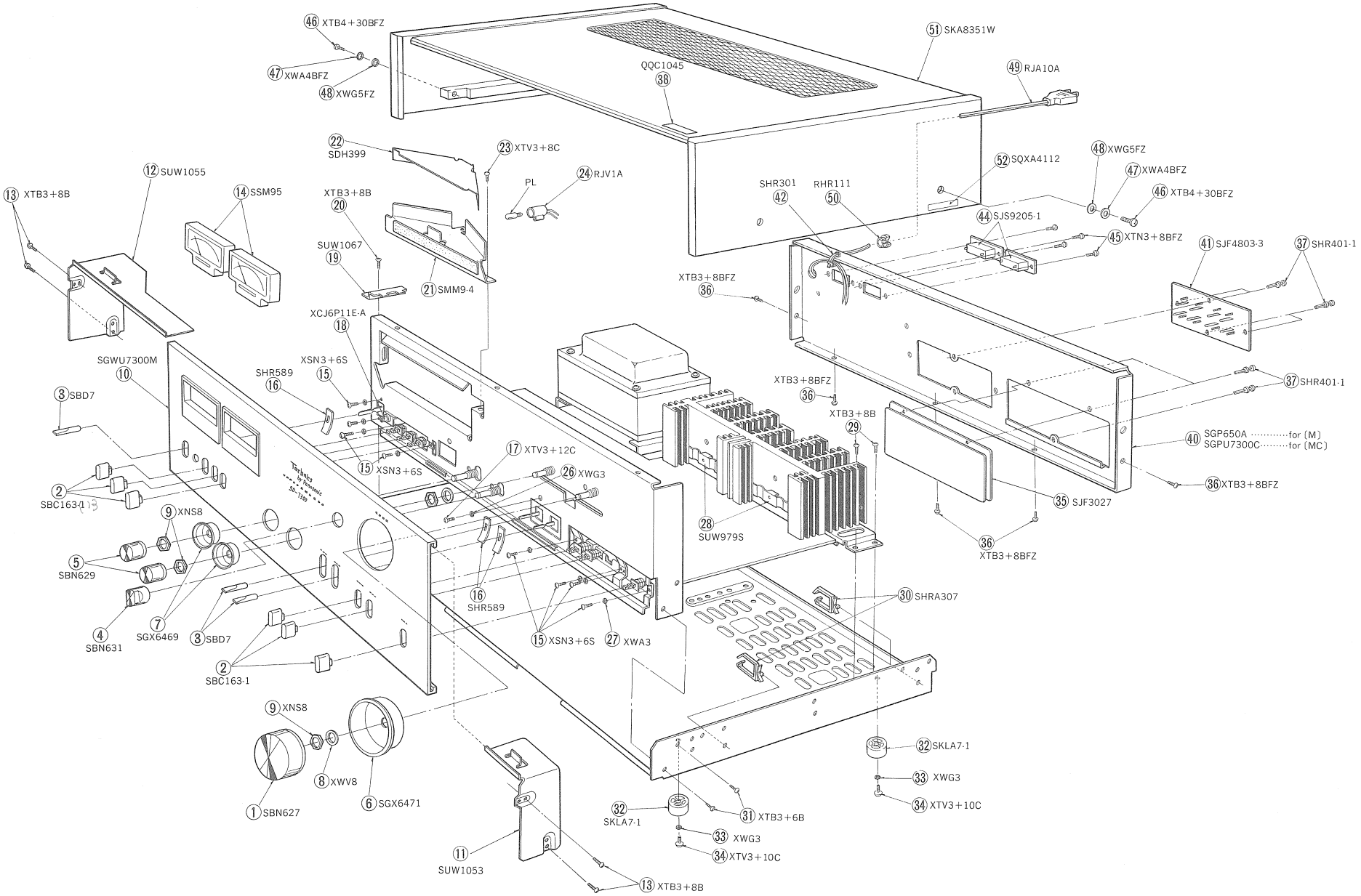
NOTE: 1. Part numbers are indicated on most mechanical parts.
Please use this part number for parts orders.

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		INTEGRATED CIRCUITS		
IC101, 102	SVITA7136PM	IC, Equalizer Amplifier	2	
		TRANSISTORS		
TR201, 202	**2SA798A-G2**	Transistor, Differential Amplifier (Use in ranks F2 or G2)	2	
TR203, 204	**2SA666A1-R**	Transistor, Regulator (in ranks Q, R or S)	2	
TR205, 206, 301, 302	**2SC1328-T**	Transistor, Current Mirror & Switching (Use in ranks T, U or S)	4	
TR207, 208	2SC1885-R	Transistor, Pre Drive (in ranks Q, R or S)	2	
TR209, 210	**2SC828A-R**	Transistor, Thermal Compensator	2	
TR211, 212 [M]	2SC1567-Q	Transistor, Drive Amp. (Use in ranks Q or R) only for [M]	2	
TR213, 214	2SA794-Q			
TR211, 212 [MC]	2SD381-K9	Transistor, Drive Amp. (Use in ranks K9 or L9) only for [MC]	2	
TR213, 214	2SB536-K9	Transistor, Drive Amp. (Use in ranks K9 or L9)	2	
		(Use pair ranks as same as TR211, 212, 213 and TR214)		
TR215, 216	2SD588-Q	Transistor, Power Amp. (Use in ranks Q or R)	2	
TR217, 218	2SB618-Q	Transistor, Power Amp. (Use in ranks Q or R)	2	
		(Use pair ranks as same as TR215, 216, 217 and TR218)		
		DIODES		
D201, 202, 302, 303, 402, 403	MA150	Diode, Current Mirror & Switching	6	
D301	SVD10E1	Rectifier	1	
D304, 405	SVDMZ314	Zener Diode, 14V	2	
D351, 352	OA91	Diode, Meter Detector	2	
D401	SVDS4YB10	Rectifier	1	
D404	SVDMZ422	Zener Diode, 22V	1	
		COILS and TRANSFORMER		
L201, 202	SLQY15G-1U	Coil, Compensation	2	
T1 [M]	SLT5Q47	Power Transformer	1	○
T1 [MC]	SLT5Q89	Power Transformer	1	○
		RESISTORS		
R101	**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%	1	
R102	**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%	1	
R103	**ERD25TJ331**	Carbon, 330Ω, 1/4W, ± 5%	1	
R104	**ERD25TJ331**	Carbon, 330Ω, 1/4W, ± 5%	1	
R105	**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%	1	
R106	**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%	1	
R107	**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%	1	
R108	**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%	1	
R109	**ERD25TJ331**	Carbon, 330Ω, 1/4W, ± 5%	1	
R110	**ERD25TJ331**	Carbon, 330Ω, 1/4W, ± 5%	1	
R111	**ERD25TJ331**	Carbon, 330Ω, 1/4W, ± 5%	1	
R112	ERO25CKF1502	Metal Film, 15kΩ, 1/4W, ± 1%	1	
R113	ERO25CKF1502	Metal Film, 15kΩ, 1/4W, ± 1%	1	
R114	ERO25CKF2053	Metal Film, 205kΩ, 1/4W, ± 1%	1	
R115	ERO25CKF2053	Metal Film, 205kΩ, 1/4W, ± 1%	1	
R116				
R117	**ERD25TJ122**	Carbon, 1.2kΩ, 1/4W, ± 5%	1	
R118	**ERD25TJ122**	Carbon, 1.2kΩ, 1/4W, ± 5%	1	
R119	**ERD25TJ224**	Carbon, 220kΩ, 1/4W, ± 5%	1	
R120	**ERD25TJ224**	Carbon, 220kΩ, 1/4W, ± 5%	1	
R151	**ERD25TJ472**	Carbon, 4.7kΩ, 1/4W, ± 5%	1	
R152	**ERD25TJ472**	Carbon, 4.7kΩ, 1/4W, ± 5%	1	
R153	**ERD25TJ183**	Carbon, 18kΩ, 1/4W, ± 5%	1	
R154	**ERD25TJ183**	Carbon, 18kΩ, 1/4W, ± 5%	1	
R155	**ERD25TJ824**	Carbon, 820kΩ, 1/4W, ± 5%	1	
R156	**ERD25TJ824**	Carbon, 820kΩ, 1/4W, ± 5%	1	
R201	**ERD25TJ222**	Carbon, 2.2kΩ, 1/4W, ± 5%	1	
R202	**ERD25TJ222**	Carbon, 2.2kΩ, 1/4W, ± 5%	1	
R203	**ERD25TJ683**	Carbon, 68kΩ, 1/4W, ± 5%	1	
R204	**ERD25TJ683**	Carbon, 68kΩ, 1/4W, ± 5%	1	
R205	**ERD25TJ332**	Carbon, 3.3kΩ, 1/4W, ± 5%	1	
R206	**ERD25TJ332**	Carbon, 3.3kΩ, 1/4W, ± 5%	1	
R207	**ERD25TJ683**	Carbon, 68kΩ, 1/4W, ± 5%	1	
R208	**ERD25TJ124**	Carbon, 120kΩ, 1/4W, ± 5%	1	
R209	**ERD25TJ273**	Carbon, 27kΩ, 1/4W, ± 5%	1	
R210	**ERD25TJ273**	Carbon, 27kΩ, 1/4W, ± 5%	1	
R211	**ERD25TJ820**	Carbon, 82Ω, 1/4W, ± 5%	1	
R212	**ERD25TJ820**	Carbon, 82Ω, 1/4W, ± 5%	1	
R213	**ERD25TJ151**	Carbon, 150Ω, 1/4W, ± 5%	1	
R214	**ERD25TJ151**	Carbon, 150Ω, 1/4W, ± 5%	1	
R215	**ERD25TJ393**	Carbon, 39kΩ, 1/4W, ± 5%	1	
R216	**ERD25TJ393**	Carbon, 39kΩ, 1/4W, ± 5%	1	
R217	**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%	1	
R218	**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%	1	
R219	**ERD25TJ330**	Carbon, 33Ω, 1/4W, ± 5%	1	
R220	**ERD25TJ330**	Carbon, 33Ω, 1/4W, ± 5%	1	
R221	**ERD14FJ101**	Carbon, 100Ω, 1/4W, ± 5%	1	
R222	**ERD14FJ101**	Carbon, 100Ω, 1/4W, ± 5%	1	
R223	**ERD50TJ332**	Carbon, 3.3kΩ, 1/2W, ± 5%	1	
R224	**ERD50TJ332**	Carbon, 3.3kΩ, 1/2W, ± 5%	1	
R225	**ERD50TJ332**	Carbon, 3.3kΩ, 1/2W, ± 5%	1	
R226	**ERD25TJ272**	Carbon, 2.7kΩ, 1/4W, ± 5%	1	
R227	**ERD25TJ272**	Carbon, 2.7kΩ, 1/4W, ± 5%	1	
R228	**ERD25TJ121**	Carbon, 120Ω, 1/4W, ± 5%	1	
R229	**ERD25TJ121**	Carbon, 120Ω, 1/4W, ± 5%	1	
R230				
R231	**ERD25TJ151**	Carbon, 150Ω, 1/4W, ± 5%	1	
R232	**ERD25TJ151**	Carbon, 150Ω, 1/4W, ± 5%	1	
R233	**ERD14FJ102**	Carbon, 1kΩ, 1/4W, ± 5%	1	
R234	**ERD14FJ102**	Carbon, 1kΩ, 1/4W, ± 5%	1	
R235	**ERD14FJ151**	Carbon, 150Ω, 1/4W, ± 5%	1	
R236	**ERD14FJ151**	Carbon, 150Ω, 1/4W, ± 5%	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R237	ERX2ANJR33	Metal Film, 0.33Ω, 2W, ± 5%	1	
R238	ERX2ANJR33	Metal Film, 0.33Ω, 2W, ± 5%	1	
R239	ERX2ANJR33	Metal Film, 0.33Ω, 2W, ± 5%	1	
R240	ERX2ANJR33	Metal Film, 0.33Ω, 2W, ± 5%	1	
R241	**ERX1ANJ4R7**	Metal Film, 4.7Ω, 1W, ± 5%	1	
R242	**ERX1ANJ4R7**	Metal Film, 4.7Ω, 1W, ± 5%	1	
R243	**ERG1ANJ331**	Metal Film, 330Ω, 1W, ± 5%	1	
R244	**ERG1ANJ331**	Metal Film, 330Ω, 1W, ± 5%	1	
R245	**ERD25TJ181**	Carbon, 180Ω, 1/4W, ± 5%	1	
R246	**ERD25TJ181**	Carbon, 180Ω, 1/4W, ± 5%	1	
R247	**ERD14FJ4R7**	Carbon, 4.7Ω, 1/4W, ± 5%	1	
R248	**ERD14FJ4R7**	Carbon, 4.7Ω, 1/4W, ± 5%	1	
R249	**ERD14FJ2R2**	Carbon, 2.2Ω, 1/4W, ± 5%	1	
R251	**ERD25TJ392**	Carbon, 3.9kΩ, 1/4W, ± 5%	1	
R252	**ERD25TJ392**	Carbon, 3.9kΩ, 1/4W, ± 5%	1	
R253	**ERD14FJ471**	Carbon, 470Ω, 1/4W, ± 5%	1	
R254	**ERD14FJ471**	Carbon, 470Ω, 1/4W, ± 5%	1	
R255	**ERD25TJ183**	Carbon, 18kΩ, 1/4W, ± 5%	1	
R256	**ERD25TJ183**	Carbon, 18kΩ, 1/4W, ± 5%	1	
R257	**ERD25TJ153**	Carbon, 15kΩ, 1/4W, ± 5%	1	
R258	**ERD25TJ153**	Carbon, 15kΩ, 1/4W, ± 5%	1	
R259	**ERD25TJ152**	Carbon, 1.5kΩ, 1/4W, ± 5%	1	
R260	**ERD25TJ152**	Carbon, 1.5kΩ, 1/4W, ± 5%	1	
R261	**ERD25TJ682**	Carbon, 6.8kΩ, 1/4W, ± 5%	1	
R262	**ERD25TJ682**	Carbon, 6.8kΩ, 1/4W, ± 5%	1	
R263	**ERD25TJ822**	Carbon, 8.2kΩ, 1/4W, ± 5%	1	
R264	**ERD25TJ822**	Carbon, 8.2kΩ, 1/4W, ± 5%	1	
R265	**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%	1	
R266	**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%	1	
R267	**ERD25TJ681**	Carbon, 680Ω, 1/4W, ± 5%	1	
R268	**ERD25TJ681**	Carbon, 680Ω, 1/4W, ± 5%	1	
R301	**ERG2ANJ152**	Metal Film, 1.5kΩ, 2W, ± 5%	1	
R302	**ERD25TJ124**	Carbon, 120kΩ, 1/4W, ± 5%	1	
R303	**ERD25TJ683**	Carbon, 68kΩ, 1/4W, ± 5%	1	
R304	**ERD25TJ224**	Carbon, 220kΩ, 1/4W, ± 5%	1	
R305	**ERD14FJ101**	Carbon, 100Ω, 1/4W, ± 5%	1	
R306	**ERD25TJ683**	Carbon, 68kΩ, 1/4W, ± 5%	1	
R307	**ERD25TJ471**	Carbon, 470Ω, 1/4W, ± 5%	1	
R308	**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%	1	
R309	**ERD50TJ222**	Carbon, 2.2kΩ, 1/2W, ± 5%	1	
R351	ERD12FJ331	Carbon, 330Ω, 1/2W, ± 5%	1	
R352	ERD12FJ331	Carbon, 330Ω, 1/2W, ± 5%	1	
R353	**ERD25TJ123**	Carbon, 12kΩ, 1/4W, ± 5%	1	
R354	**ERD25TJ123**	Carbon, 12kΩ, 1/4W, ± 5%	1	
R355	**ERD25TJ121**	Carbon, 120Ω, 1/4W, ± 5%	1	
R356	**ERD25TJ121**	Carbon, 120Ω, 1/4W, ± 5%	1	
R357	**ERD25TJ122**	Carbon, 1.2kΩ, 1/4W, ± 5%	1	
R358	**ERD25TJ122**	Carbon, 1.2kΩ, 1/4W, ± 5%	1	
R402	**ERG1ANJ222**	Metal Film, 2.2kΩ, 1W, ± 5%	1	
R403	ERD12FJ471	Carbon, 470Ω, 1/2W, ± 5%	1	
R404	**ERG2ANJ561**	Metal Film, 560Ω, 2W, ± 5%	1	
		VARIABLE RESISTORS		
VR151	EWF0MA024BF5	Volume Control, 250kΩ (B)	1	
VR152	EVHGSAF25G25	Balance Control, 200kΩ (G)	1	
VR251, 252	EWKGYA033C15	Bass & Treble Control, 100kΩ (C)	2	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		CAPACITORS		
C1 [M]	ECQU1A103MD	Polyester, 0.01μF, 125V, ±20%	1	
C1 [MC]	ECQU1A103MC	Polyester, 0.01μF, 125V, ±20%	1	
C2	ECEA50V1	Electrolytic, 1μF, 50V	1	
C101	ECEA50M3R3R	Electrolytic, 3.3μF, 50V	1	
C102	ECEA50M3R3R	Electrolytic, 3.3μF, 50V	1	
C103	ECCD2H121KB	Ceramic, 120pF, 500V, ±10%	1	
C104	ECCD2H121KB	Ceramic, 120pF, 500V, ±10%	1	
C109	ECKD2H681KB	Ceramic, 680pF, 500V, ±10%	1	
C110	ECKD2H681KB	Ceramic, 680pF, 500V, ±10%	1	
C111	ECCD1H101K	Ceramic, 100pF, 50V, ±10%	1	
C112	ECCD1H101K	Ceramic, 100pF, 50V, ±10%	1	
C113	ECEA10V33	Electrolytic, 33μF, 10V	1	
C114	ECEA10V33	Electrolytic, 33μF, 10V	1	
C115	ECKD2H391KB	Ceramic, 390pF, 500V, ±10%	1	
C116	ECKD2H391KB	Ceramic, 390pF, 500V, ±10%	1	
C117	ECQM1H472JZ	Polyester, 0.0047μF, 50V, ± 5%	1	
C118	ECQM1H472JZ	Polyester, 0.0047μF, 50V, ± 5%	1	
C119	ECQM1H183JZ	Polyester, 0.018μF, 50V, ± 5%	1	
C120	ECQM1H183JZ	Polyester, 0.018μF, 50V, ± 5%	1	
C121	ECEA50M1R	Electrolytic, 1μF, 50V	1	
C122	ECEA50M1R	Electrolytic, 1μF, 50V	1	
C151	ECCD1H820K	Ceramic, 82pF, 50V, ±10%	1	
C152	ECCD1H820K	Ceramic, 82pF, 50V, ±10%	1	
C153	ECQM1H153KZ	Polyester, 0.015μF, 50V, ±10%	1	
C154	ECQM1H153KZ	Polyester, 0.015μF, 50V, ±10%	1	
C155	ECQM1H392KZ	Polyester, 0.0039μF, 50V, ±10%	1	
C156	ECQM1H392KZ	Polyester, 0.0039μF, 50V, ±10%	1	
C201	ECEA50M1R	Electrolytic, 1μF, 50V	1	
C202	ECEA50M1R	Electrolytic, 1μF, 50V	1	
C203	ECCD1H330K	Ceramic, 33pF, 50V, ±10%	1	
C204	ECCD1H330K	Ceramic, 33pF, 50V, ±10%	1	
C205	ECCD1H390K	Ceramic, 39pF, 50V, ±10%	1	
C206	ECCD1H390K	Ceramic, 39pF, 50V, ±10%	1	
C207	ECCD1H010C	Ceramic, 1pF, 50V, ±0.25pF	1	
C208	ECCD1H010C	Ceramic, 1pF, 50V, ±0.25pF	1	
C209	ECEA6V33	Electrolytic, 33μF, 6.3V	1	
C210	ECEA6V33	Electrolytic, 33μF, 6.3V	1	
C211	**ECEA35V47V**	Electrolytic, 47μF, 35V	1	
C212	**ECEA35V47V**	Electrolytic, 47μF, 35V	1	
C213	**ECEA50V47V**	Electrolytic, 47μF, 50V	1	
C214	**ECEA50V47V**	Electrolytic, 47μF, 50V	1	
C215	ECKD1H102PE	Ceramic, 0.001μF, 50V, $^{+100}_{-0}$%	1	
C216	ECKD1H102PE	Ceramic, 0.001μF, 50V, $^{+100}_{-0}$%	1	
C217	ECCD1H101K	Ceramic, 100pF, 50V, ±10%	1	
C218	ECCD1H101K	Ceramic, 100pF, 50V, ±10%	1	
C219	ECKD2H221KB	Ceramic, 220pF, 500V, ±10%	1	
C220	ECKD2H221KB	Ceramic, 220pF, 500V, ±10%	1	
C221	ECQM1H683KZ	Polyester, 0.068μF, 50V, ±10%	1	
C222	ECQM1H683KZ	Polyester, 0.068μF, 50V, ±10%	1	
C223	ECKD1H102PE	Ceramic, 0.001μF, 50V, $^{+100}_{-0}$%	1	
C224	ECKD1H102PE	Ceramic, 0.001μF, 50V, $^{+100}_{-0}$%	1	
C251	ECQM1H153KZ	Polyester, 0.015μF, 50V, ±10%	1	
C252	ECQM1H153KZ	Polyester, 0.015μF, 50V, ±10%	1	

■ EXPLODED VIEWS

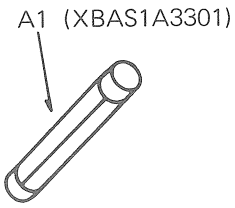


Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C253	ECQM1H154KZ	Polyester, 0.15μF, 50V, ±10%	1	
C254	ECQM1H154KZ	Polyester, 0.15μF, 50V, ±10%	1	
C255	ECQM1H182KZ	Polyester, 0.0018μF, 50V, ±10%	1	
C256	ECQM1H182KZ	Polyester, 0.0018μF, 50V, ±10%	1	
C257	ECQM1H273KZ	Polyester, 0.027μF, 50V, ±10%	1	
C258	ECQM1H273KZ	Polyester, 0.027μF, 50V, ±10%	1	
C259	ECCD1H470K	Ceramic, 47pF, 50V, ±10%	1	
C260	ECCD1H470K	Ceramic, 47pF, 50V, ±10%	1	
C261	ECEA6V47	Electrolytic, 47μF, 6.3V	1	
C262	ECEA6V47	Electrolytic, 47μF, 6.3V	1	
C301	**ECEA63V33V**	Electrolytic, 33μF, 63V	1	
C302	ECEA25V33V	Electrolytic, 33μF, 25V	1	
C303	**ECEA35V47V**	Electrolytic, 47μF, 35V	1	
C304	ECEA35V10	Electrolytic, 10μF, 35V	1	
C351	**ECEA50V10V**	Electrolytic, 10μF, 50V	1	
C352	**ECEA50V10V**	Electrolytic, 10μF, 50V	1	
C353	**ECEA50V10V**	Electrolytic, 10μF, 50V	1	
C354	**ECEA50V10V**	Electrolytic, 10μF, 50V	1	
C401	ECET42R822S	Electrolytic, 8200μF, 42V	1	○
C402	ECET42R822S	Electrolytic, 8200μF, 42V	1	○
C403	**ECEA25V220V**	Electrolytic, 220μF, 25V	1	
C404	**ECEA16V1000V**	Electrolytic, 1000μF, 16V	1	
		FUSES		
F1	XBA1F30NU100	Fuse, 3A(125V), Power Source	1	
F2	XBA2F05NU100	Fuse, 500mA(250V), Power Source	1	
F3, 4	XBASIA3301	Fuse, 3.3A(125V), Speaker Circuit Protection	2	
		COMPONENT COMBINATION		
M401	RXAF103P22HD	Component Combination, 0.01μF (X2)	1	
		PILOT LAMP		
PL1	XAMR53K	Meter Lamp (6.3V 0.25A)	1	
		SWITCHES		
S1, 2	SSH235S	Switch, Input Selector	1	
S3, 4	SSL23	Switch, Recording Mode & Tape Monitor	1	
S5	SSH67S	Switch, Loudness	1	
S6, 7, 8	SSH329S	Switch, Filter, Meter & Speaker	1	
S9	SSL35S	Switch, Power Source	1	○
		CABINET and CHASSIS PARTS		
1	SBN627	Knob, Volume Control	1	
2	SBC163-1)-3	Button, Push Switches	6	○
3	SBD7	Knob, Lever Switches	3	
4	SBN631	Knob, Balance Control	1	
5	SBN629	Knob, Bass & Treble	2	
6	SGX6471	Ornament, Volume Knob	1	
7	SGX6469	Ornament, Bass & Treble Knobs	2	
8	XWV8	Washer (Spring), Balance & Volume	2	
9	XNS8	Nut, Bass, Treble, Balance & Volume	4	
10	SGWU7300M	Panel, Front Ass'y	1	○

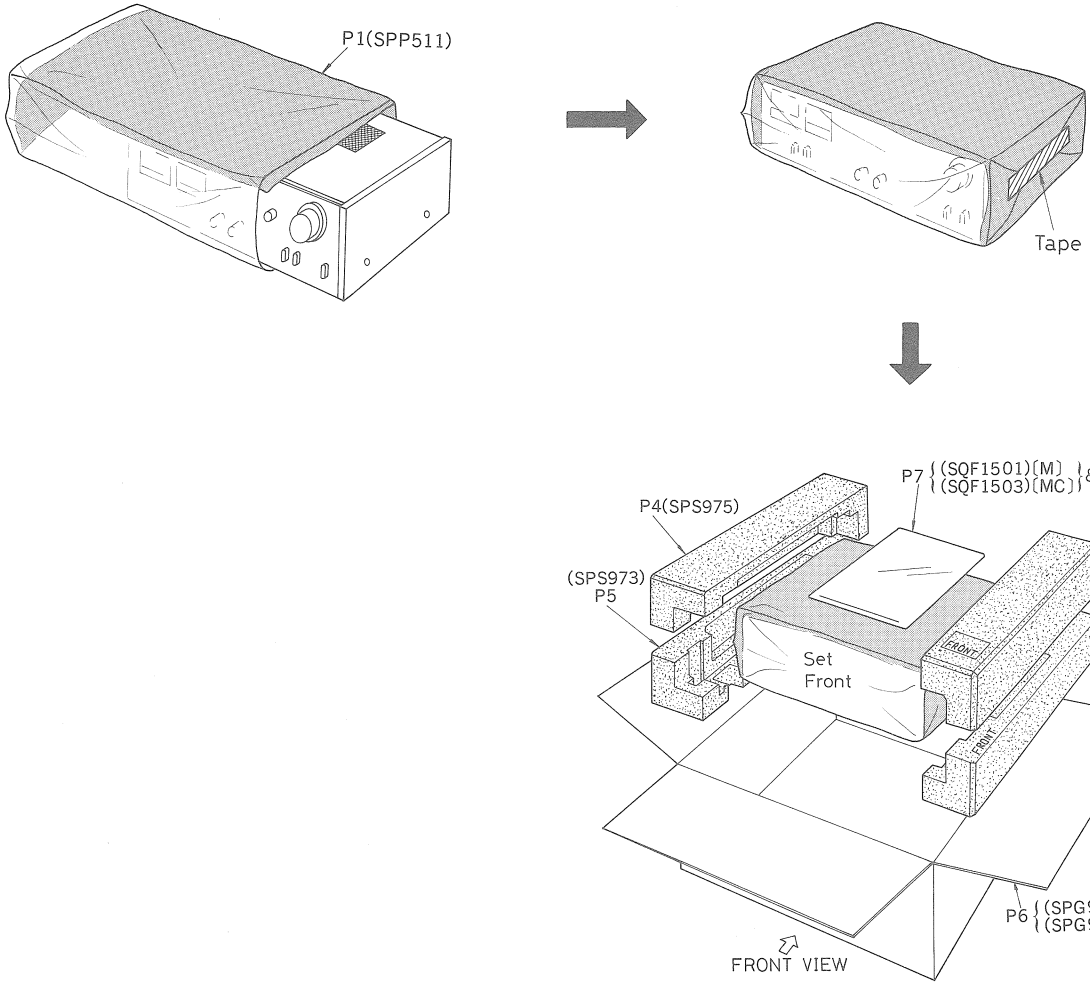
Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
11	SUW1053	Bracket, Front Panel	1	*○
12	SUW1055	Bracket, Front Panel	1	*○
13	XTB3+8B	Screw, Front Panel Bracket M'tg	4	
14	SSM95	Meter, Output Level	2	
15	XSN3+6S	Screw, Push Switches & Power Switch M'tg	8	
16	SHR589	Bracket, Power, Tape & Rec Mode Switch	3	○
17	XTV3+12C	Screw, Tape & Rec Mode Switch M'tg	1	
18	XCJ6P11E-A	Jack, Headphones	1	
19	SUW1067	Bracket, Printed Circuit Board	1	*○
20	XTB3+8B	Screw, Printed Circuit Board M'tg	1	
21	SMM9-4	Bracket, Meter	1	*
22	SDH399	Reflector Plate	1	*○
23	XTV3+8C	Screw, Meter Bracket M'tg	1	
24	RJV1A	Holder, Meter Lamp	1	
26	XWG3	Washer, Tape & Rec Mode Switch M'tg Screw	1	
27	XWA3	Washer (Spring), Push Switch M'tg Screw	8	
28	SUW979S	Bracket, Power Transistor	2	*
29	XTB3+8B	Screw, Printed Circuit Board M'tg	2	
30	SHRA307	Lead Clamp	2	
31	XTB3+6B	Screw, Chassis M'tg (Left & Right Side)	4	
32	SKLA7-1	Foot, Set Bottom Board	4	
33	XWG3	Washer, Foot M'tg Screw	4	
34	XTV3+10C	Screw, Foot M'tg	4	
35	SJF3027	Terminal, Input	1	○
36	XTB3+8BFZ	Screw, Rear Panel M'tg	5	
37	SHR401-1	Latch, Input & Speaker Terminal M'tg	7	
38	QQC1045	Caushion Label, Cabinet	1	
40 [M]	SGP650A	Rear Panel	1	○
40 [MC]	SGPU7300C	Rear Panel, SGP650A with Name Plate (SGT13652)	1	○
41	SJF4803-3	Terminal, Speakers	1	○
42	SHR301	Clamp, AC Cord	1	
44	SJS9205-1	Socket, AC Power	2	
45	XTN3+8BFZ	Screw, AC Outlet M'tg	4	
46	XTB4+30BFZ	Screw, Cabinet M'tg	4	
47	XWA4BFZ	Washer (Spring), Cabinet M'tg Screw	4	
48	XWG5FZ	Washer, Cabinet M'tg Screw	4	
49	**RJA10A**	AC Cord	1	
50	RHR111	Bushing, AC Cord	1	
51	SKA8351W	Cabinet, Simulated Wood	1	○
52	SQXA4112	Caushion Label, Cabinet Screw	1	
		ACCESSORY		
A1	XBASIA3301	Fuse, 3.3A (125V) Speaker Circuit Protection	2	
		PACKING PARTS		
P1	SPP511	Polyethylene Bag	1	
P2	SPS979	Pad, Right Upper Side	1	○
P3	SPS977	Pad, Right Lower Side	1	○
P4	SPS975	Pad, Left Upper Side	1	○
P5	SPS973	Pad, Left Lower Side	1	○
P6 [M]	SPG991	Carton Box	1	○
P6 [MC]	SPG993	Carton Box	1	○
P7 [M]	SQF1501	Printed Matter, (Instructions Book)	1	○
P7 [MC]	SQF1503	Printed Matter, (Instructions Book)	1	○

The model **[M]** is available in America only.
The model **[MC]** is available in Canada only.

■ ACCESSORY



■ PACKINGS



Printed in Japan
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