

Service Manual

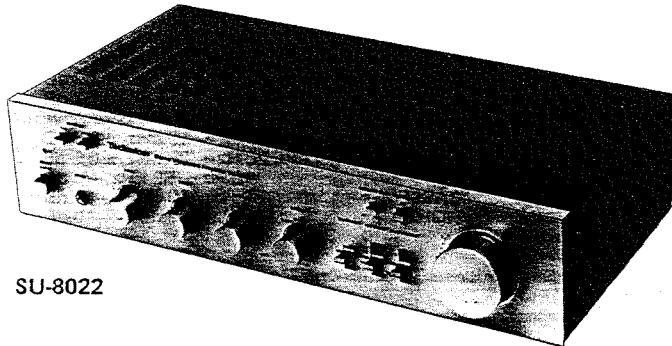
Stereo Integrated Amplifier

SU-8022

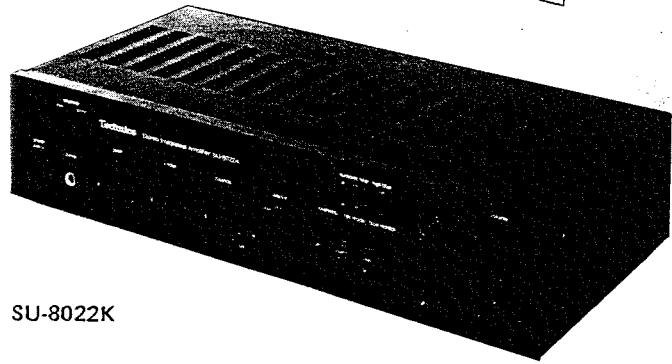
(D), (DG), (XGH), (XGF), (EB),
(XE), (XSW), (X), (XA), (XAL)

SU-8022K

(D), (DG), (XGH), (XE),
(XSW), (EB)



SU-8022



SU-8022K

TECHNICAL SPECIFICATIONS

Specifications are subject to change without notice for further improvement.

[DIN 45 500]

AMPLIFIER SECTION

20 Hz ~ 20 kHz continuous power output both channels driven	2 x 35W (8Ω)
40 Hz ~ 16 kHz continuous power output both channels driven	2 x 40 W (4Ω), 2 x 35 W (8Ω)
1 kHz continuous power output both channels driven	2 x 45 W (4Ω), 2 x 38 W (8Ω)
Power bandwidth both channels driven, -3 dB	5 Hz ~ 30 kHz (4Ω) 5 Hz ~ 30 kHz (8Ω)

Total harmonic distortion rated power at 20 Hz ~ 20 kHz	0.05% (4Ω), 0.03% (8Ω)
rated power at 40 Hz ~ 16 kHz	0.05% (4Ω), 0.03% (8Ω)
rated power at 1 kHz	0.05% (4Ω), 0.03% (8Ω)
half power at 20 Hz ~ 20 kHz	0.02% (8Ω)
half power at 1 kHz	0.008% (8Ω)
-26 dB power at 1 kHz	0.15% (4Ω)
50mW power at 1 kHz	0.2% (4Ω)

Intermodulation distortion rated power at 250 Hz: 8 kHz = 4:1, 4Ω	0.05%
rated power at 60 Hz: 7 kHz = 4:1, SMPTE, 8Ω	0.03%

Residual hum & noise	0.6 mV (0.6 mV, IHF)
Damping factor	16 (4Ω), 32 (8Ω)

Input sensitivity and impedance PHONO	2.5 mV/47 kΩ
TUNER, AUX	150 mV/27 kΩ
TAPE 1, PLAYBACK	180 mV/33 kΩ

PHONO maximum input voltage (1 kHz, RMS)	150 mV
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S/N	rated power at 4Ω PHONO TUNER, AUX	72 dB (IHF, A: 80 dB) 86 dB (IHF, A: 97 dB)
	-26 dB power at 4Ω PHONO TUNER, AUX	62 dB 63 dB
	50 mW power at 4Ω PHONO TUNER, AUX	62 dB 62 dB
Frequency response	PHONO	RIAA standard curve 30 Hz ~ 15 kHz, ±0.8 dB
	TUNER, AUX, TAPE	20 Hz ~ 20 kHz, ±0.5 dB 10 Hz ~ 50 kHz, -1 dB
Tone controls	BASS	50 Hz, +10 dB ~ -10 dB
	TREBLE	20 kHz, +10 dB ~ -10 dB
High filter		7 kHz, -6 dB/oct.
Subsonic filter		30 Hz, -6 dB/oct.
Loudness switch (volume at -30 dB)		50 Hz, +9 dB
Output voltage and impedance	REC OUT REC/PLAY	150 mV 30 mV/82 kΩ
Channel balance (250 Hz ~ 6300 Hz), AUX		±1.0 dB
Channel separation at 1 kHz, AUX		55 dB
Headphones output level and impedance		330 mV/330Ω
Load impedance	MAIN or REMOTE MAIN + REMOTE	4 ~ 16Ω 8 ~ 16Ω

GENERAL

Power consumption	400 W
Power supply (50 Hz/60 Hz)	110V/120V/220V/240V
Dimensions (W x H x D)	430 x 97 x 240 mm (16-29/32" x 3-13/16" x 9-7/16")
Weight	5.4 kg (11.9 lb.)

TECHNISCHE DATEN

Spezifikationen können infolge von Verbesserungen ohne Ankündigung geändert werden.

[DIN 45 500]

VERSTÄRKERTEIL

Dauertonleistung bei 20 Hz ~ 20 kHz beide Kanäle zusammen ausgesteuert	2 x 35 W (8Ω)
Dauertonleistung bei 40 Hz ~ 16 kHz beide Kanäle zusammen ausgesteuert	2 x 40 W (4Ω) 2 x 35 W (8Ω)
Dauertonleistung bei 1 kHz beide Kanäle zusammen ausgesteuert	2 x 45 W (4Ω), 2 x 38 W (8Ω)
Leistungsbandbreite beide Kanäle zusammen ausgesteuert, -3 dB	5 Hz ~ 30 kHz (4Ω) 5 Hz ~ 30 kHz (8Ω)
Harmonische Verzerrungen	
Nennausgangsleistung bei 20 Hz ~ 20 kHz	0,05% (4Ω) 0,03% (8Ω)
Nennausgangsleistung bei 40 Hz ~ 16 kHz	0,05% (4Ω), 0,03% (8Ω)
Nennausgangsleistung bei 1 kHz	0,05% (4Ω), 0,03% (8Ω)
Halber Ausgangsleistung bei 20 Hz ~ 20 kHz	0,02% (8Ω)
Halber Ausgangsleistung bei 1 kHz	0,008% (8Ω)
-26 dB Ausgangsleistung bei 1 kHz	0,15% (4Ω)
50 mW Ausgangsleistung bei 1 kHz	0,2% (4Ω)
Intermodulationsverzerrung	
Nennausgangsleistung bei 250 Hz: 8 kHz = 4:1, 4Ω	0,05%
Nennausgangsleistung bei 60 Hz: 7 kHz = 4:1, SMPTE 8Ω	0,03%
Brummen & Rauschen	0,6 mV (0,6 mV, IHF)
Dämpfungs faktor	16 (4Ω), 32 (8Ω)
Eingangsempfindlichkeit & Impedanz	
PHONO	2,5 mV/47 kΩ
TUNER, AUX	150 mV/27 kΩ
TAPE 1, PLAYBACK	180 mV/33 kΩ
PHONO Maximale Eingangsspannungen (1 kHz RMS)	150 mV

Fremdspannungsabstand

Nennausgangsleistung bei 4Ω

PHONO	72 dB (IHF, A: 80 dB)
TUNER, AUX	86 dB (IHF, A: 97 dB)

-26 dB Ausgangsleistung bei 4Ω

PHONO	62 dB
TUNER, AUX	63 dB

50 mW Ausgangsleistung bei 4Ω

PHONO	62 dB
TUNER, AUX	62 dB

Frequenzgang

PHONO	RIAA Standardkurve
TUNER, AUX, TAPE	30 Hz ~ 15 kHz, ±0,8 dB

Klangregler

BÄSSE	10 Hz ~ 50 kHz, -1 dB
HÖHEN	50 Hz, +10 dB ~ -10 dB

Unterschallfilter

Hochton filter	20 kHz, +10 dB ~ -10 dB
	30 Hz, -6 dB/oct.

Gehörgerechte Lautstärkekorrektur (Lautstärke bei -30 dB)

	50 Hz, +9 dB
Ausgangsspannungen & Impedanz	150 mV

REC OUT

REC/PLAY	30 mV/82 kΩ
Kanalabweichung (250 Hz ~ 6300 Hz), AUX	±1,0 dB

Kanaltrennung bei 1 kHz, AUX

Kopfhörerpegel und Ausgangsimpedanz

Lautsprecher-Ausgangsimpedanz	330 mV/330Ω
MAIN oder REMOTE	4 ~ 16Ω

MAIN und REMOTE

MAIN und REMOTE	8 ~ 16Ω
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ALLGEMEINE DATEN

Leistungsaufnahme

Netzspannung umschaltbar (50 Hz/60 Hz)	400 W
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Abmessungen (B x H x T)

110V/120V/220V/240V	430 x 97 x 240 mm
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Gewicht

	5,4 kg
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CARACTERISTIQUES TECHNIQUES

[DIN 45 500]

PARTIE AMPLIFICATEUR

Puissance de sortie continue de 20 Hz ~ 20 kHz les deux canaux en circuit avec distortion	2 x 35 W (8Ω)
Puissance de sortie continue de 40 Hz ~ 16 kHz les deux canaux en circuit avec distortion	2 x 40 W (4Ω) 2 x 35 W (8Ω)
Puissance de sortie continue à 1 kHz les deux canaux en circuit avec distortion	2 x 45 W (4Ω) 2 x 38 W (8Ω)
Largeur de bande de puissance pour l'ensemble des canaux excités, -3 dB	5 Hz ~ 30 kHz (4Ω) 5 Hz ~ 30 kHz (8Ω)
Distortion harmonique totale pour la puissance mesurée à 20 Hz ~ 20 kHz	0,05% (4Ω) 0,03% (8Ω)
pour la puissance mesurée à 40 Hz ~ 16 kHz	0,05% (4Ω), 0,03% (8Ω)
pour la puissance mesurée à 1 kHz	0,05% (4Ω), 0,03% (8Ω)
pour la demi-puissance mesurée à 20 Hz ~ 20 kHz	0,02% (8Ω)
pour la demi-puissance mesurée à 1 kHz	0,008% (8Ω)
pour une puissance mesurée de -26 dB, 1 kHz	0,15% (4Ω)
pour une puissance mesurée de 50 mW, 1 kHz	0,2% (4Ω)
Distortion d'intermodulation	
pour la puissance mesurée à 250 Hz: 8 kHz = 4:1, 4Ω	0,05%
pour la puissance mesurée à 60 Hz: 7 kHz = 4:1, 8Ω	0,03%
Tension résiduelle de bruit	0,6 mV (0,6 mV, IHF)
Facteur d'amortissement	16 (4Ω), 32 (8Ω)
Sensibilité & impédance d'entrée	
PHONO	2,5 mV/47 kΩ
TUNER, AUX	150 mV/27 kΩ
TAPE 1, PLAYBACK	180 mV/33 kΩ

Voltage d'entrée maximum (PHONO, 1 kHz, RMS)

	150 mV
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Report signal/bruit

pour la puissance nominale, 4Ω	
PHONO	72 dB (IHF, A: 80 dB)

TUNER, AUX	86 dB (IHF, A: 97 dB)
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pour une sortie de -26 dB, 4Ω	62 dB
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PHONO	63 dB
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TUNER, AUX	62 dB
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TUNER, AUX, TAPE	62 dB
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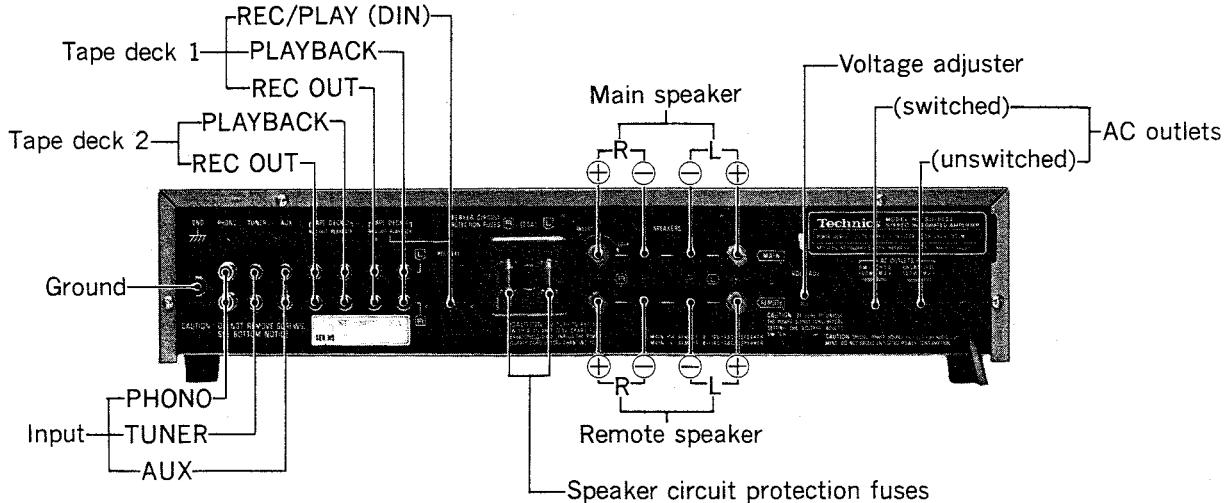
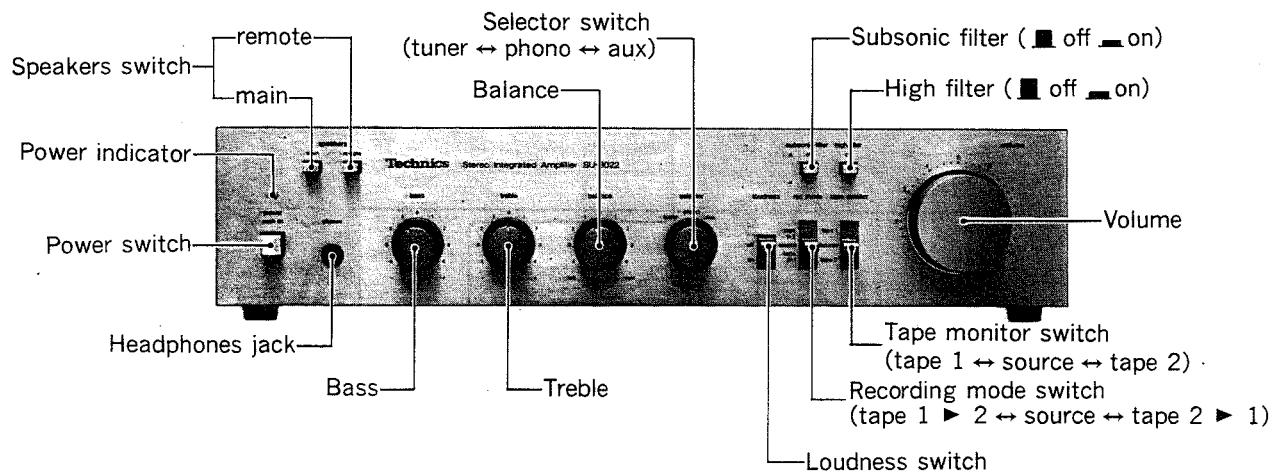
	62 dB

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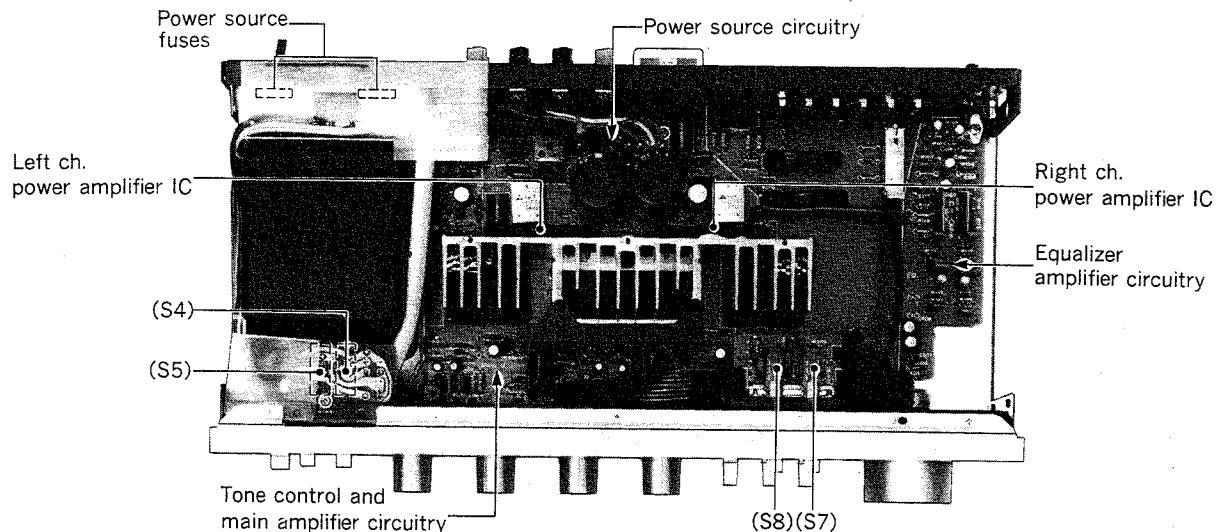
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■ LOCATION OF CONTROLS



* This photo shows only the products for (X) and (XA).

* The products for other destinations except (X) and (XA) are not equipped with AC outlets.



■ 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 IC 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 circuit protection fuses first of all for possible blowing.

■ HOW TO REMOVE THE CABINET, BOTTOM BOARD AND FRONT PANEL

How to remove the cabinet

1. Remove the 4 setscrews (① ~ ④ in Fig. 1) on the side and 4 setscrews (⑤ ~ ⑧ in Fig. 2) on the back of the cabinet.
2. Shift the cabinet backward and lift it upward. (Arrow A in Fig. 1)

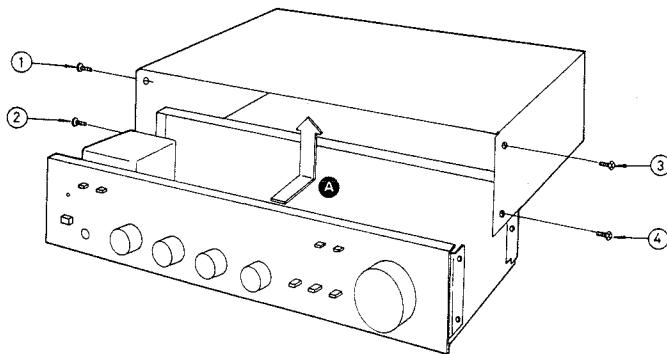


Fig. 1

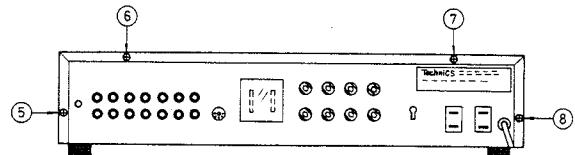


Fig. 2

How to detach the bottom board

1. Remove the 4 setscrews (⑩ ~ ⑬ in Fig. 3) used to secure bottom board and 4 setscrews (⑭ ~ ⑯ in Fig. 3) for the legs. Then the bottom board can be detached.

How to detach the front panel

1. Remove the 4 setscrews (⑯ ~ ㉑ in Fig. 4) and then carefully pull the front panel toward you.

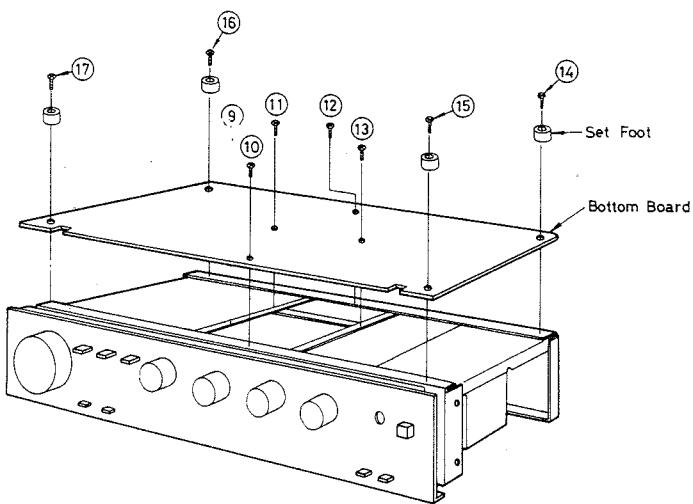


Fig. 3

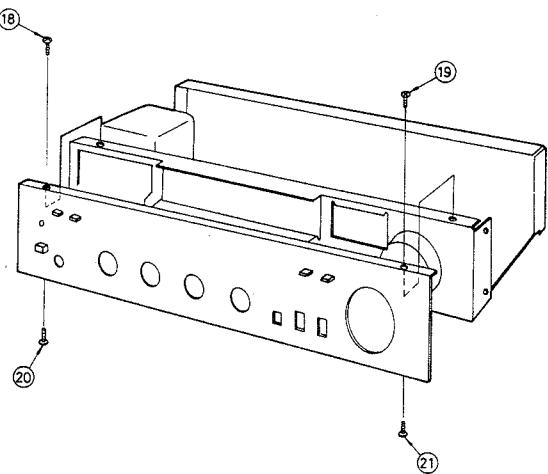
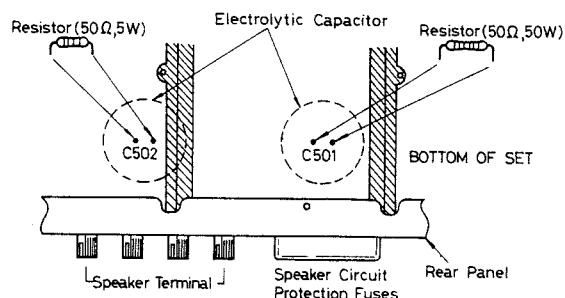


Fig. 4

■ BEFORE STARTING THE REPAIRING

Before adjusting or repairing, be sure to short-circuit opposite poles of the $8200\mu F$ capacitors (C501, 502) with a resistor approximately of "50Ω, 5W" for discharging the charged voltage.

Short-circuiting with a screw driver and the like is not only dangerous, but may destroy transistors and diodes, and should therefore be avoided.



■ HOW TO REMOVE THE POWER IC

1. Remove the solder of power IC for both Lch and Rch.
2. Remove the 3 setscrews (① ~ ③ in Fig. 5) used to fasten the heat sink from the center bracket.
3. Remove the heat sink along with power IC in the direction of arrow A (Fig. 6)
4. Remove the 2 setscrews (④, ⑤ in Fig. 6) used to secure the power IC on the heat sink, and then pull the power IC in the direction of arrow B.
5. When mounting the power IC, apply silicone compound (or equivalent heat diffuser) to the back of power IC, and then follow the steps 1 ~ 4 reversely.

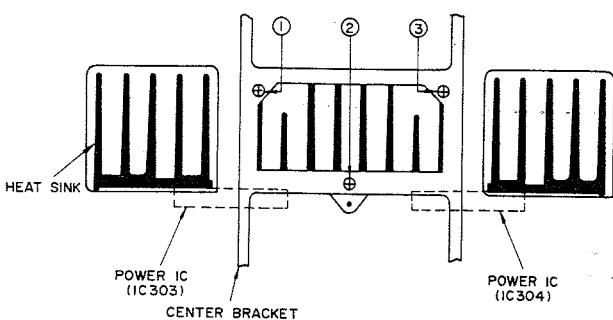


Fig. 5

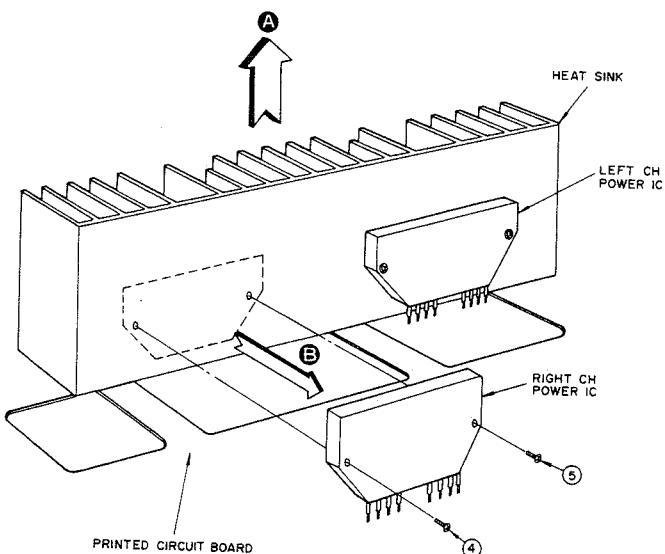
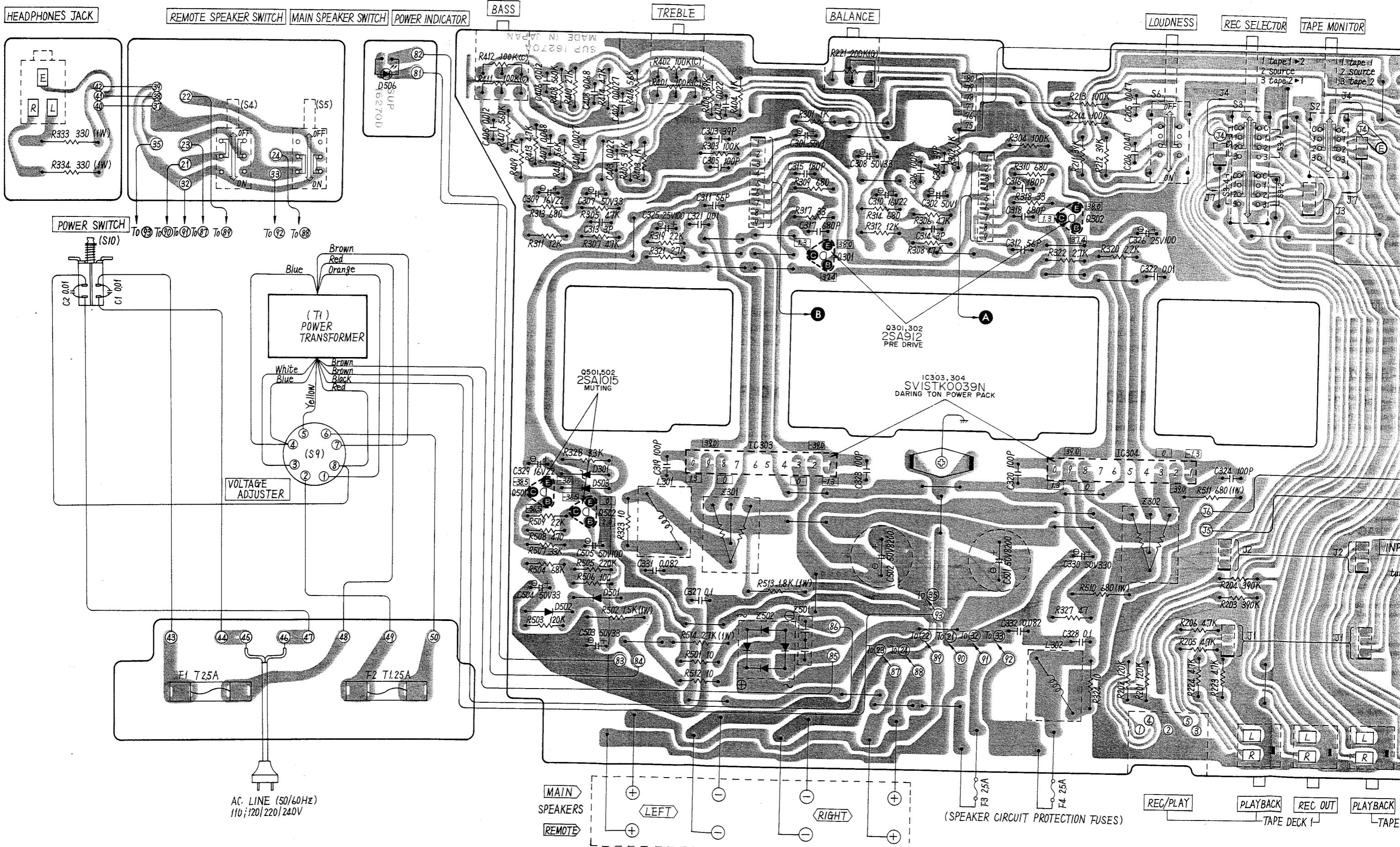
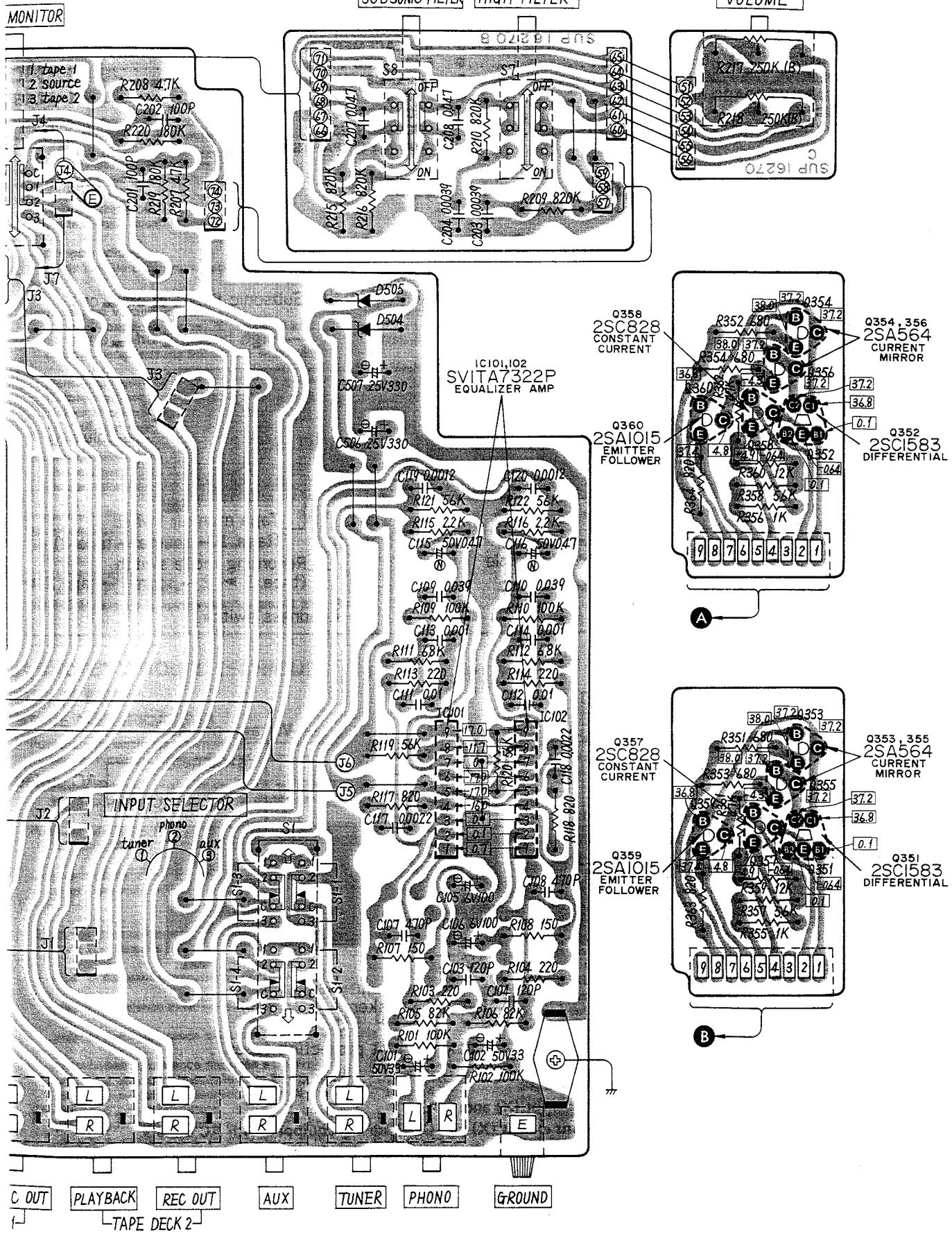


Fig. 6

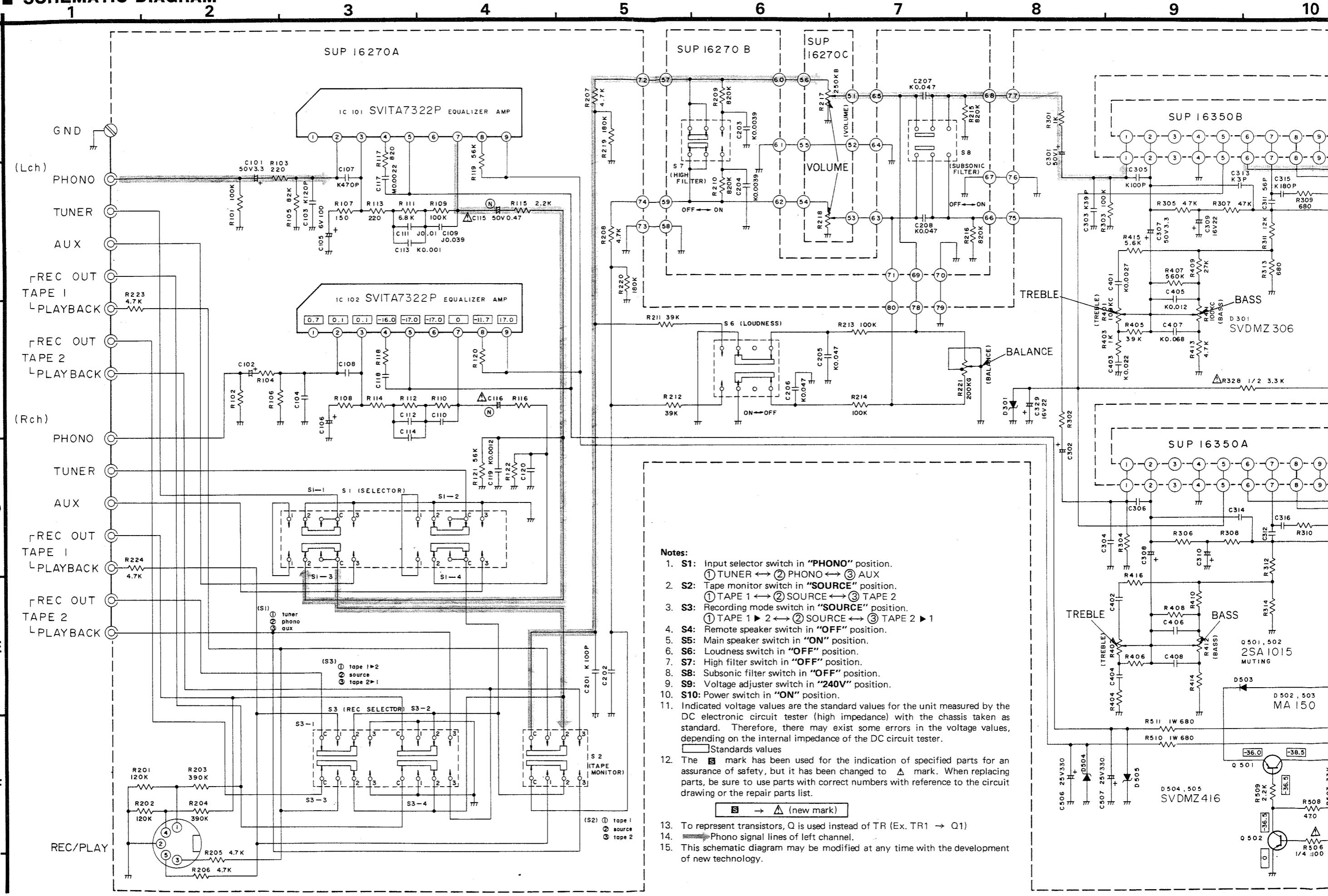
SU-8022/K**PRINTED CIRCUIT BOARD WIRING VIEW**

Earth (Ground) Lines

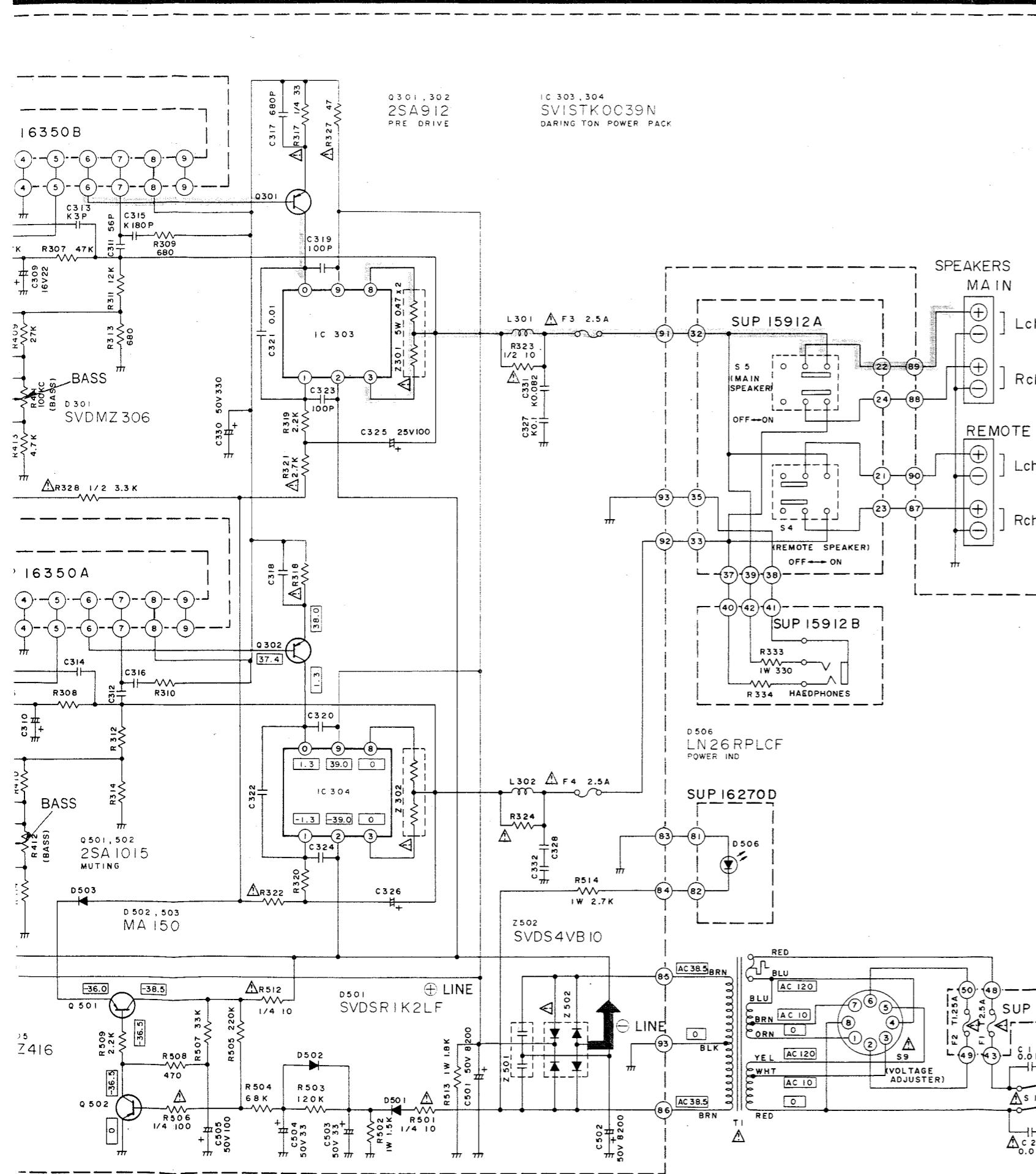




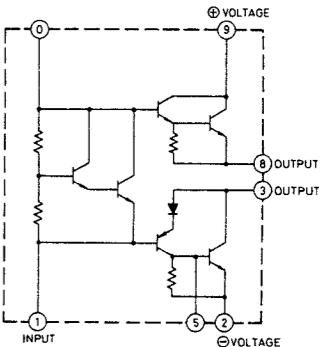
■ SCHEMATIC DIAGRAM



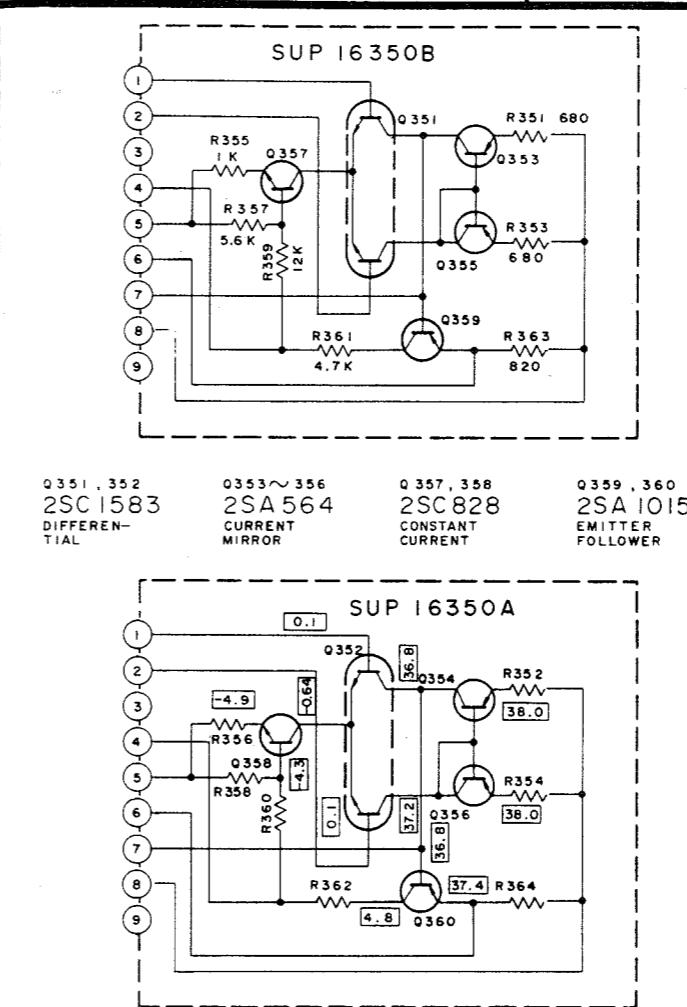
10 11 12 13 14 15 16 17 18 19



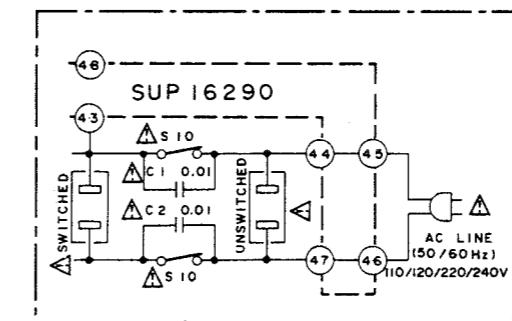
■ BLOCK DIAGRAM OF INTEGRATED CIRCUITS



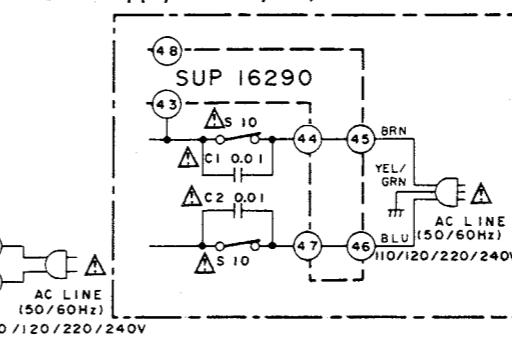
IC303, 304 (SVISTK0039N)
Power Amplifier



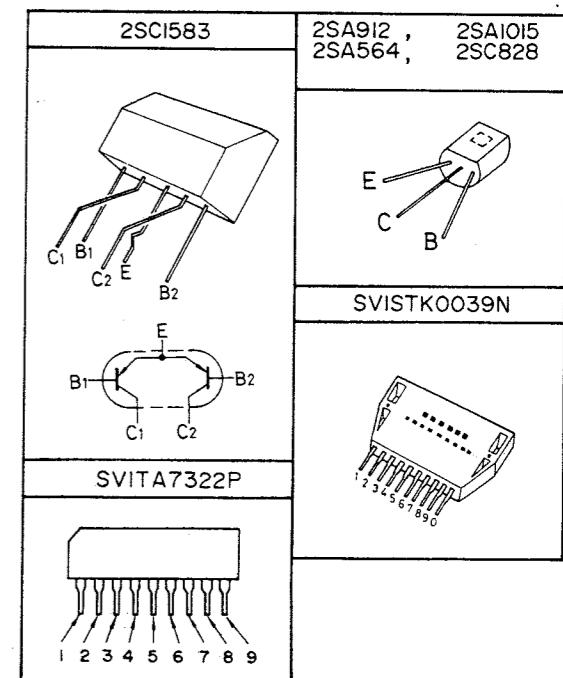
- Power supply circuitry of product for [X] and [XA] only.



- Power supply circuitry of product for [XAL] only.



■ TERMINAL GUIDE OF TRANSISTOR & IC



REPLACEMENT PARTS LIST Electric Parts

Notes: 1. Part numbers are indicated on most mechanical parts.

Please use this part number for parts order.

2. Δ indicates that only parts specified by the manufacturer be used for safety.

Ref. No.		Part No.	Part Name & Description
INTEGRATED CIRCUITS			
IC101, 102		SVITA7322P	IC, Equalizer Amplifier
IC303, 304		SVISTK0039N	IC, Darington Power Pack
TRANSISTORS			
Q301, 302		2SA912-R	Transistor, Pre Drive (Use ranks Q, R or S)
Q351, 352		2SC1583-F	Transistor, Differential Amplifier (Use ranks F or G)
Q353, 354, 355, 356		2SA666AI-R	Transistor, Current Mirror
Q357, 358		2SC1328-T	Transistor, Constant Current
Q359, 360, 501, 502		2SA1015-O	Transistor, Emitter Follower & Ripple Filter (Use ranks Y or O)
DIODES			
D301		SVDMZ306	Diode, Zener 6V
D501		SVDSR1K2	Diode
D502, 503		MA150	Diode, Bias
D504, 505		SVDMZ416	Diode, Zener 16V
D506		LN26RPL	Diode, Power Indicator
COILS and TRANSFORMER			
L301, 302	Δ	SLQY15G-3P	Coil, Choke
T1		SLT5N329	Transformer, Power
COMPONENT COMBINATIONS			
Z301, 302	Δ	ERF5GEKR47N	Component Combination, 0.47 Ω (X2)
Z501		EXRFS203ZS	Component Combination, 0.01 μ F (X2)
Z502	Δ	SVDS4VB10	Component Combination, Rectifier
FUSES			
F1	Δ	XBA2C25TR0	Fuse, T2.5A (250V) P.T. Primary
F2	Δ	XBA2C12TR0	Fuse, T1.2A (250V) P.T. Primary
F3, 4	Δ	XBA2C25SS0	Fuse, 2.5A (250V) Speaker Circuit
SWITCHES			
S1		ESA2691	\times Switch, Input Selector
S2		SSL137	Switch, Tape Monitor
S3		SSL117	Switch, Rec Mode
S4, 5		SSH263	Switch, Speakers Selector
S6		SSL121	Switch, Loudness
S7, 8		SSH239S	Switch, High Filter and Subsonic Filter
S9	Δ	ESE37200	Switch, Voltage Adjuster
S10	Δ	ESB70133	\times Switch, Power
VARIABLE RESISTORS			
R217, 218		EWF6LA031BF5	Volume Control, 250k Ω (B)
R221		EVHFD505G25	Balance Control, 200k Ω (G)
R401, 402, 411, 412		EWKGSA091C15	Bass & Treble Control, 100k Ω (C)
RESISTORS			
R101, 102		ERD25TJ104	Carbon, 100k Ω , 1/4W, \pm 5%
R103, 104		ERD25TJ221	Carbon, 220k Ω , 1/4W, \pm 5%
R105, 106		ERD25TJ823	Carbon, 82k Ω , 1/4W, \pm 5%
R107, 108		ERD25TJ151	Carbon, 150 Ω , 1/4W, \pm 5%
R109, 110		ERD25TJ104	Carbon, 100k Ω , 1/4W, \pm 5%
R111, 112		ERD25TJ682	Carbon, 6.8k Ω , 1/4W, \pm 5%
R113, 114		ERD25TJ221	Carbon, 220 Ω , 1/4W, \pm 5%
R115, 116		ERD25TJ222	Carbon, 2.2k Ω , 1/4W, \pm 5%
R117, 118		ERD25TJ821	Carbon, 820 Ω , 1/4W, \pm 5%
R119, 120		ERD25TJ563	Carbon, 56k Ω , 1/4W, \pm 5%
R121, 122		ERD25TJ563	Carbon, 56k Ω , 1/4W, \pm 5%
R201, 202		ERD25TJ124	Carbon, 120k Ω , 1/4W, \pm 5%
R203, 204		ERD25TJ394	Carbon, 390k Ω , 1/4W, \pm 5%
R205, 206		ERD25TJ472	Carbon, 4.7k Ω , 1/4W, \pm 5%
R207, 208		ERD25TJ472	Carbon, 4.7k Ω , 1/4W, \pm 5%
R209, 210		ERD25TJ824	Carbon, 820k Ω , 1/4W, \pm 5%
R211, 212		ERD25TJ383	Carbon, 39k Ω , 1/4W, \pm 5%
R213, 214		ERD25TJ104	Carbon, 100k Ω , 1/4W, \pm 5%
R215, 216		ERD25TJ824	Carbon, 820k Ω , 1/4W, \pm 5%
R219, 220		ERD25TJ184	Carbon, 180k Ω , 1/4W, \pm 5%
R223, 224		ERD25TJ472	Carbon, 4.7k Ω , 1/4W, \pm 5%
R301, 302		ERD25TJ102	Carbon, 1k Ω , 1/4W, \pm 5%
R303, 304		ERD25TJ104	Carbon, 100k Ω , 1/4W, \pm 5%
R305, 306		ERD25TJ473	Carbon, 47k Ω , 1/4W, \pm 5%
R307, 308		ERD25TJ473	Carbon, 47k Ω , 1/4W, \pm 5%

Ref. No.		Part No.	Part Name & Description
R309, 310		ERD25TJ681	Carbon, 680 Ω , 1/4W, \pm 5%
R311, 312		ERD25TJ123	Carbon, 12k Ω , 1/4W, \pm 5%
R313, 314		ERD25TJ681	Carbon, 680 Ω , 1/4W, \pm 5%
R317, 318	Δ	ERD25FJ330	Carbon, 33 Ω , 1/4W, \pm 5%
R319, 320		ERD25TJ222	Carbon, 2.2k Ω , 1/4W, \pm 5%
R321, 322	Δ	ERD25FJ272	Carbon, 2.7k Ω , 1/4W, \pm 5%
R323, 324	Δ	ERD50FJ100	Carbon, 100 Ω , 1/2W, \pm 5%
R327	Δ	ERD25FJ470	Carbon, 47 Ω , 1/4W, \pm 5%
R328	Δ	ERD50FJ332	Carbon, 3.3k Ω , 1/2W, \pm 5%
R333, 334		ERG1ANJ331	Metal Oxide, 330 Ω , 1W, \pm 5%
R351, 352		ERD25TJ681	Carbon, 680 Ω , 1/4W, \pm 5%
R353, 354		ERD25TJ681	Carbon, 680 Ω , 1/4W, \pm 5%
R355, 356		ERD25TJ102	Carbon, 1k Ω , 1/4W, \pm 5%
R357, 358		ERD25TJ562	Carbon, 5.6k Ω , 1/4W, \pm 5%
R359, 360		ERD25TJ123	Carbon, 12k Ω , 1/4W, \pm 5%
R361, 362		ERD25TJ472	Carbon, 4.7k Ω , 1/4W, \pm 5%
R363, 364		ERD25TJ821	Carbon, 820 Ω , 1/4W, \pm 5%
R403, 404		ERD25TJ102	Carbon, 1k Ω , 1/4W, \pm 5%
R405, 406		ERD25TJ393	Carbon, 39k Ω , 1/4W, \pm 5%
R407, 408		ERD25TJ564	Carbon, 560k Ω , 1/4W, \pm 5%
R409, 410		ERD25TJ273	Carbon, 27k Ω , 1/4W, \pm 5%
R413, 414		ERD25TJ472	Carbon, 4.7k Ω , 1/4W, \pm 5%
R415, 416		ERD25TJ562	Carbon, 5.6k Ω , 1/4W, \pm 5%
R501		ERD25FJ100	Carbon, 10 Ω , 1/4W, \pm 5%
R502		ERG1ANJ152	Metal Oxide, 1.5k Ω , 1W, \pm 5%
R503		ERD25TJ124	Carbon, 120k Ω , 1/4W, \pm 5%
R504		ERD25TJ683	Carbon, 68k Ω , 1/4W, \pm 5%
R505		ERD25TJ224	Carbon, 220k Ω , 1/4W, \pm 5%
R506		ERD25FJ101	Carbon, 100 Ω , 1/4W, \pm 5%
R507		ERD25TJ333	Carbon, 33k Ω , 1/4W, \pm 5%
R508		ERD25TJ471	Carbon, 470 Ω , 1/4W, \pm 5%
R509		ERD25TJ222	Carbon, 2.2k Ω , 1/4W, \pm 5%
R510, 511		ERG1ANJ681	Metal Oxide, 680 Ω , 1W, \pm 5%
R512		ERD25FJ100	Carbon, 10 Ω , 1/4W, \pm 5%
R513		ERG1ANJ182	Metal Oxide, 1.8k Ω , 1W, \pm 5%
R514		ERG1ANJ272	Metal Oxide, 2.7k Ω , 1W, \pm 5%
CAPACITORS			
C1, 2		ECKDH103SE2	Ceramic, 0.01 μ F, 400VAC, \pm 5%
C101, 102		ECEA50M3R3R	Electrolytic, 3.3 μ F, 50V
C103, 104		ECCD1H121K	Ceramic, 120pF, 50V, \pm 10%
C105, 106		ECEA1AS101	Electrolytic, 100 μ F, 10V
C107, 108		ECKD1H471KB	Ceramic, 470pF, 50V, \pm 10%
C109, 110		ECQM1H393JZ	Polyester, 0.039 μ F, 50V, \pm 5%
C111, 112		ECQM1H103JZ	Polyester, 0.01 μ F, 50V, \pm 5%
C113, 114		ECQM1H102KZ	Polyester, 0.001 μ F, 50V, \pm 5%
C115, 116		ECEA50NR47	Non-Polar Electrolytic, 0.47 μ F, 50V
C117, 118		ECKD1H222MD	Ceramic, 0.0022 μ F, 50V, \pm 20%
C119, 120		ECQM1H122KZ	Polyester, 0.0012 μ F, 50V, \pm 10%
C201, 202		ECCD1H101K	Ceramic, 100pF, 50V, \pm 10%
C203, 204		ECQM1H392KZ	Polyester, 0.0039 μ F, 50V, \pm 10%
C205, 206		ECQM1H473KZ	Polyester, 0.047 μ F, 50V, \pm 10%
C207, 208		ECQM1H473KZ	Polyester, 0.047 μ F, 50V, \pm 10%
C301, 302		ECEA50Z1	Electrolytic, 1 μ F, 50V
C303, 304		ECCD1H390K	Ceramic, 39pF, 50V, \pm 10%
C305, 306		ECCD1H101K	Ceramic, 100pF, 50V, \pm 10%
C307, 308		ECEA50Z3R3	Electrolytic, 3.3 μ F, 50V
C309, 310		ECEA1ES220	Electrolytic, 22 μ F, 25V
C311, 312		ECCD2H560K	Ceramic, 56pF, 500V, \pm 10%
C313, 314		ECCD1H030C	Ceramic, 3pF, 50V, \pm 0.25pF
C315, 316		ECCD1H181K	Ceramic, 180pF, 50V, \pm 10%
C317, 318		ECKD1H681KB	Ceramic, 680pF, 50V, \pm 10%
C319, 320		ECCD2H101K	Ceramic, 100pF, 500V, \pm 10%
C321, 322		ECKD1H103MD	Ceramic, 0.01 μ F, 50V, \pm 20%
C323, 324		ECCD2H101K	Ceramic, 100pF, 500V, \pm 10%
C325, 326		ECEA1ES101	Electrolytic, 100 μ F, 25V
C327, 328		ECOM1H104KZ	Polyester, 0.1 μ F, 50V, \pm 10%
C329		ECEA1ES220	Electrolytic, 22 μ F, 25V
C330		ECEA1HS101	Electrolytic, 100 μ F, 50V
C331, 332		ECQM1H823KZ	Polyester, 0.082 μ F, 50V, \pm 10%
C401, 402		ECQM1H272KZ	Polyester, 0.0027 μ F, 50V, \pm 10%
C403, 404		ECQM1H223KZ	Polyester, 0.022 μ F, 50V, \pm 10%
C405, 406		ECQM1H123KZ	Polyester, 0.012 μ F, 50V, \pm 10%
C407, 408		ECQM1H683KZ	Polyester, 0.068 μ F, 50V, \pm 10%
C501, 502		ECET50R822SW	Electrolytic, 8200 μ F, 50V
C503, 504		ECEA1JS330	Electrolytic, 33 μ F, 63V
C505		ECEA1HS101	Electrolytic, 100 μ F, 50V
C506, 507		ECEA1ES331	Electrolytic, 330 μ F, 25V

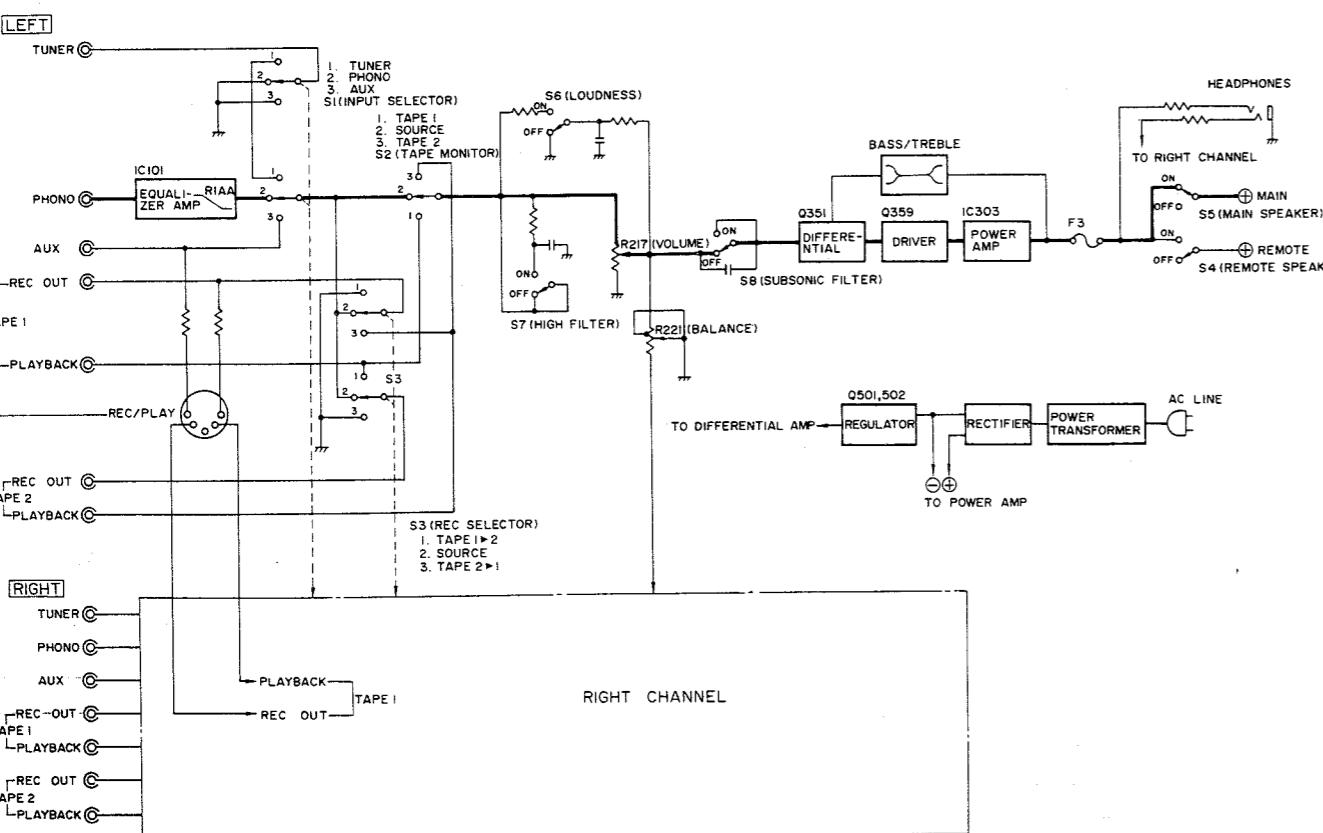
Ref. No.
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2
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12
13
14
15
16
17
18
19
20 [D]
20 [XE, XGH, DG, EB]
20 [XAL]
20 [XSW]
20 [X, XA]
21
22
23 [D, XGH, XEB, DG, XSW]
23 [XE]
23 [X, XA]
23 [XAL]
Notes: (D) a (XG) b (XG) c (EB) d
BLO
LEFT
TUNER
PHONO
AUX
REC OUT
TAPE I
PLAYBACK
REC OUT
TAPE 2
PLAYBACK
RIGHT
TUNER
PHONO
AUX
REC OUT
TAPE I
PLAYBACK
REC OUT
TAPE 2
PLAYBACK
RIGHT
TUNER
PHONO
AUX
REC OUT
TAPE I
PLAYBACK
REC OUT
TAPE 2
PLAYBACK
RIGHT
TUNER
PHONO
AUX
REC OUT
TAPE I
PLAYBACK
REC OUT
TAPE 2
PLAYBACK

■ REPLACEMENT PARTS LIST Cabinet and Chassis Parts

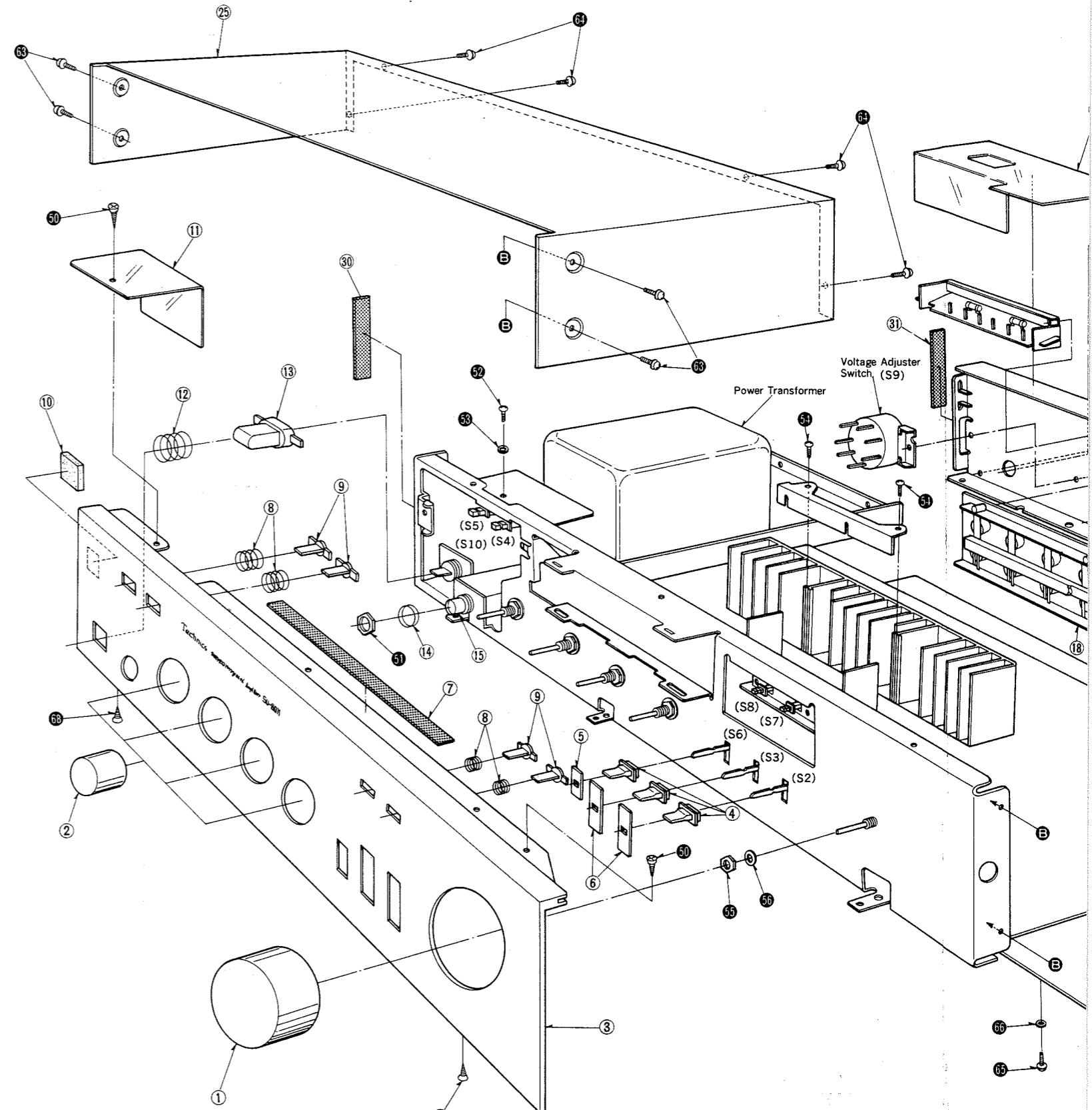
Ref. No.	Part No.	Part Name & Description
CABINET and CHASSIS PARTS		
1	SBN813	Knob, Volume Control
2	SBN815	Knob, Bass, Treble, Balance & Input Selector Switch
3	SGWU8022D	Panel, Front Ass'y (Silver)
4	SBD21	Knob, Loudness, Rec Mode, Tape Monitor Switch
5	SHR5037	Spacer, Loudness Switch
6	SHR5043	Spacer, Rec Mode, Tape Monitor Switch
7	SHS6101-1	Fiber, Front Panel
8	SUS123-1	Spring, Push Switch
9	SBC211	Button, High Filter, Subsonic Filter and Speakers Switch
10	SHR9491	Rubber Cushion, Indicator
11	SMX267	Cover, Power Switch
12	SUS145	Spring, Power Switch
13	SBC209	Button, Power Switch
14	SNE59-1	Washer, Headphones Jack M'tg
15	XJC6P21B-A	Headphones Jack
16	ESA338	Remote Switch, Input Selector Terminal, Input
17	SJF3029	Terminal, Speakers
18	SJF8013-1	Terminal, DIN
19	SJS6803	Rear Panel
20 [D]	SGP1790A	Rear Panel, SGP1790A with Name Plate (SGT20010)
20 [XE, XGH, XGF, DG, EB]	SGPU8022D	Rear Panel, SGP1790-2A with Name Plate (SGT20030)
20 [XAL]	SGPU8022L	Rear Panel, SGP1790A with Name Plate (SGT20590)
20 [XSW]	SGPU8022W	Rear Panel
20 [X, XA]	SGP1790-1A	Cover, Speaker Terminal Cover, Power Fuses AC Cord, with Plug
21	SUV337	AC Cord
22	SMX269	AC Cord, with Plug
23 [D, XGH, XGF, EB, DG, XSW]	RJA23ZC	AC Cord
23 [XE]	RJA45ZC	AC Cord, with Plug
23 [X, XA]	SJA111	AC Cord, with Plug
23 [XAL]	QFC1207M	AC Cord, with Plug

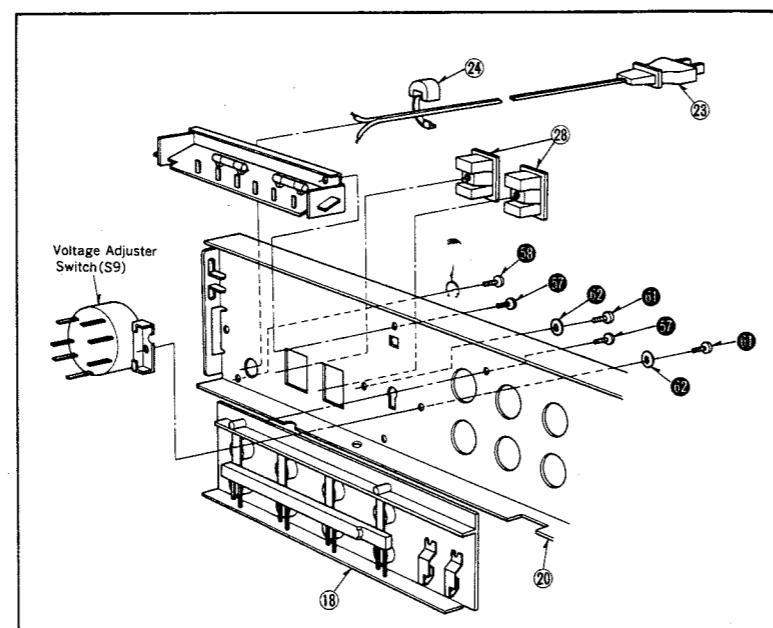
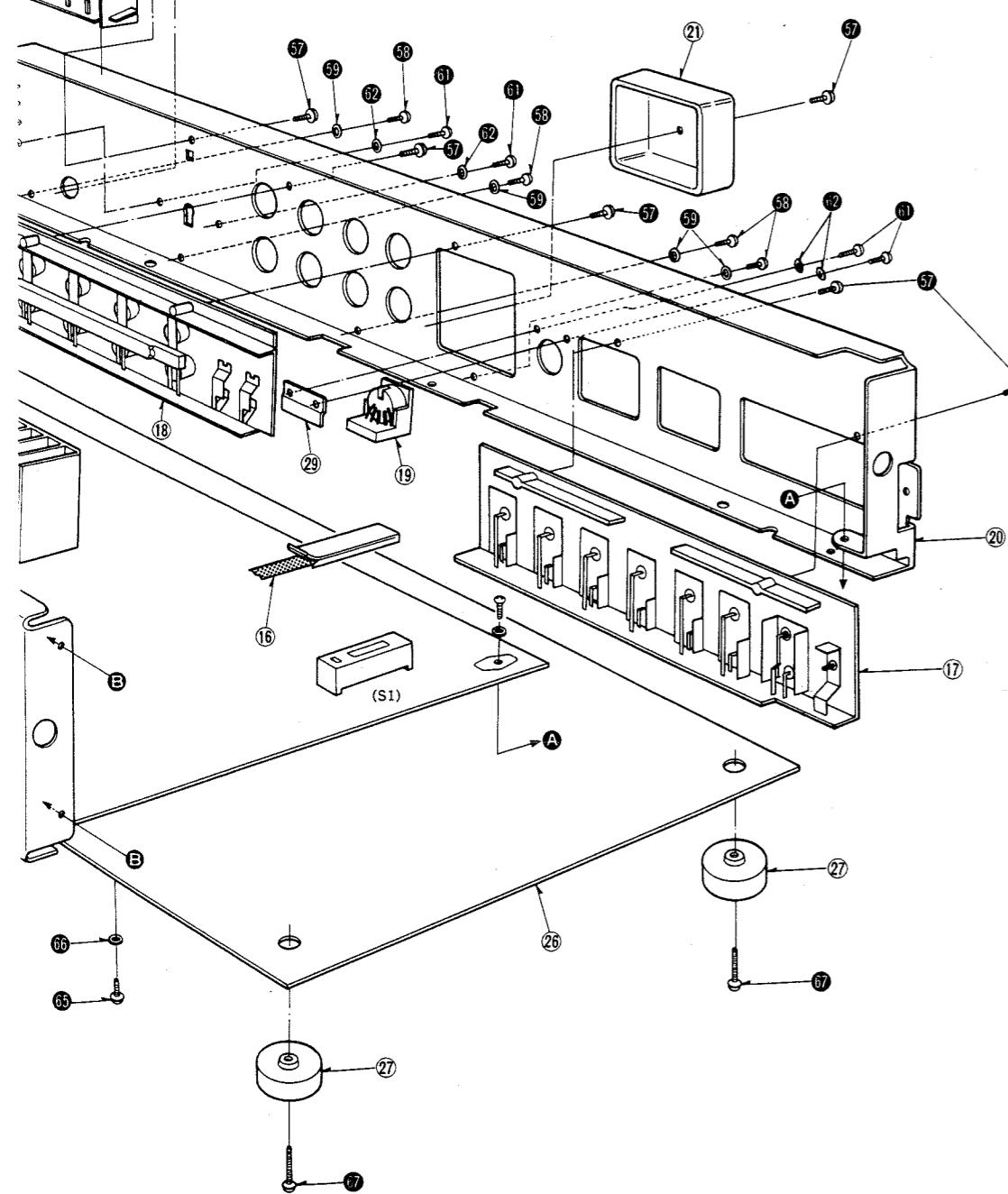
Notes: (D) and (DG) are available in Scandinavia and European only. (XE) is available in United Kingdom only. (XGH) is available in Holland only. (XSW) is available in Switzerland only. (XGF) is available in France only. (X) and (XA) are available in Asia, Latin America, Middle East and Africa only. (XAL) is available in Australia only.

■ BLOCK DIAGRAM



■ EXPLODED VIEW



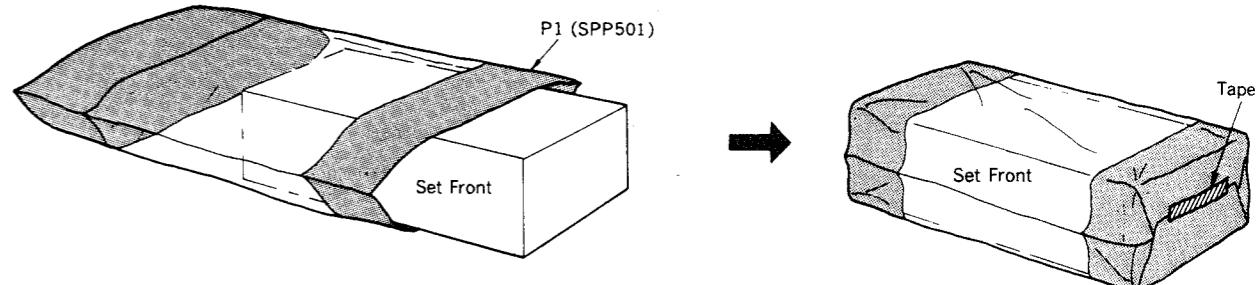


■ REPLACEMENT PARTS LIST Accessories and Packing Parts

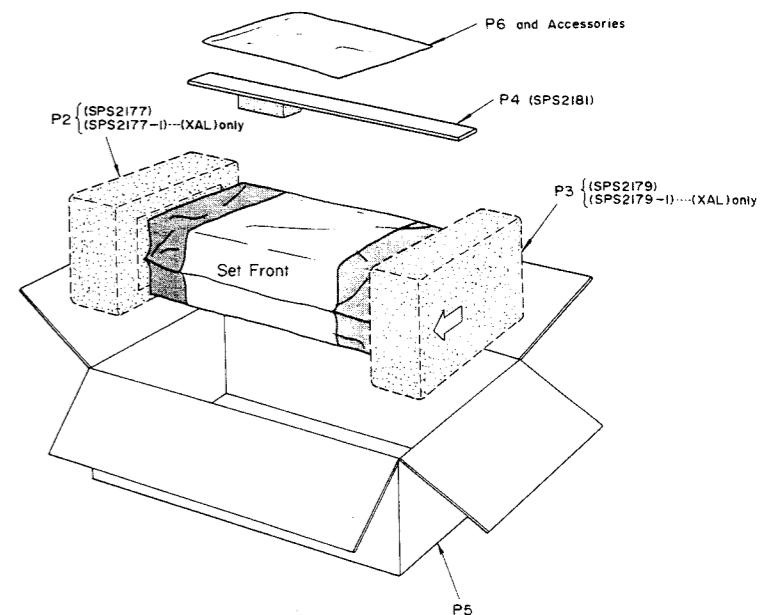
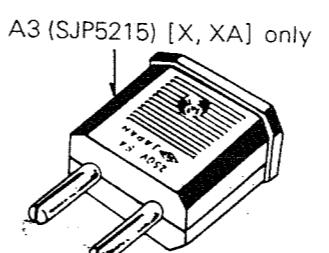
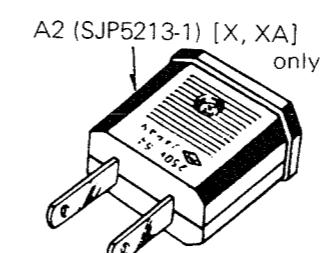
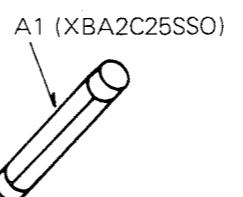
Ref. No.	Part No.	Part Name & Description
ACCESSORIES		
A1 A2 [X, XA] only A3 [X, XA] only	▲ XBA2C25SS0 ▲ SJP5213-1 ▲ SJP5215	Fuse, 2.5A (250V) Speaker Circuit Plug Adapter, AC Power Plug Adapter, AC Power
PACKING PARTS		
P1 P2 [XAL] only P3 [XAL] only	SPP501 SPS2177 SPS2177-1 SPS2179 SPS2179-1	Polyethylene Bag Pad, Left Side Pad, Left Side Pad, Right Side Pad, Right Side
P4 P5 [D] P5 [XE, XGH, EB, DG, XSW] P5 [X, XA] P5 [XAL] P5 [XGF] P6 [D, XGH, XGF, EB, DG, XSW] P6 [XE, X, XA, XAL]	SPS2181 SPG2077 SPG2079 SPG2081 SPG2083 SPG2087 SQF10199 SQF10201	Pad, Top Side Carton Box Carton Box Carton Box Carton Box Carton Box Instructions Book, Printed Matter Instructions Book, Printed Matter

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(EB) is available in Belgium only.
(XE) is available in United Kingdom only.
(XSW) is available in Switzerland only.
(X) and (XA) are available in Asia, Latin America, Middle East and Africa on
(XAL) is available in Australia only.

■ PACKINGS



■ ACCESSORIES



■ CHANGE OF PARTS LIST

SU-8022K

(D), (DG), (XGH), (XE), (XSW) , (EB)

Notes: This parts list included only the change of the model SU-8022 parts list.

Ref. No.	Change of Part No.	Part Name & Description	
	SU-8022	SU-8022K	
CABINET and CHASSIS PARTS			
1	SBN813	SBN833	Knob, Volume Control
2	SBN815	SBN835	Knob, Bass, Treble, Balance & Input Selector Switch
3	SGWU8022D	SGWU8022KD	Panel, Front Ass'y (Black)
4	SBD21	SBD21-1	Knob, Loudness, Rec Mode, Tape Monitor Switch
5	SHR5037	SHR5037-1	Spacer, Loudness Switch
6	SHR5043	SHR5043-1	Spacer, Rec Mode, Tape Monitor Switch
9	SBC211	SBC211-1	Button, High Filter, Subsonic Filter and Speaker Switch
13	SBC209	SBC209-1	Button, Power Switch
20	SGP1790A [DI]	SGP1790B [D]	Rear Panel
	SGPU8022D [XE, XGH, XGF, DG, EB]		
21	SGPU8022L [XAL]	SGPU8022KD [DG, XGH, EB, XE]	Rear Panel, SGP1790B with Name Plate (SGT20150)
	SGPU8022W [XSW]		
22	SGP1790-1A [X, XA]	SGPU8022KW [XSW]	Rear Panel, SGP1790B with Name Plate (SGT20610)
	RJA23ZC [D, XGH, XGF, EB, DG, XSW]	RJA23ZC [D, DG, EB, XGH, XSW]	AC Cord, with Plug
23	RJA45ZC [XE]	RJA45ZC [XE]	AC Cord
	SJA111 [X, XA]		
24	QFC1207M [XAL]		
	SHR127	SHR127 [D, DG, XGH, EB, XSW]	Bushing, AC Cord
25	SHR129 [XE] only	SHR129 [XE]	Bushing, AC Cord
	SKA10676	SKA10677 [D, DG, XGH, EB]	Cabinet (Black)
26	SKAU8022E [XE, XSW]	SKAU8022KE [XSW, XE]	Cabinet (Black)
SCREWS and WASHERS			
63	XTB4+8FFN	XTB4+8FFZ	Screw, Cabinet M'tg
64	XTB3+8BFN	XTB3+8FFZ	Screw, Cabinet M'tg
PACKING PARTS			
P2	SPS2177	SPS2177	Pad, Left Side
	SPS2177-1 [XAL] only		
P3	SPS2179	SPS2179	Pad, Right Side
	SPS2179-1 [XAL] only		
P5	SPG2077 [D]	SPG2085	Carton Box
	SPG2079 [XE, XGH, EB, DG, XSW]		
	SPG2081 [X, XA]		
	SPG2083 [XAL]		
P6	SPG2087 [XGF]		
	SQF10199 [D, XGH, XGF, EB, DG, XSW]	SQF10199 [D, DG, XGH, EB, XSW]	Instructions Book, Printed Matter
	SQF10201 [XE, X, XA, XAL]	SQF10201 [XE]	Instructions Book, Printed Matter

Notes: (D) and (DG) are available in Scandinavia and European only.

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(XE) is available in United Kingdom only.

(XSW) is available in Switzerland only.

(EB) is available in Belgium only.