ORDER NO. SD81061938C8

Service Manual

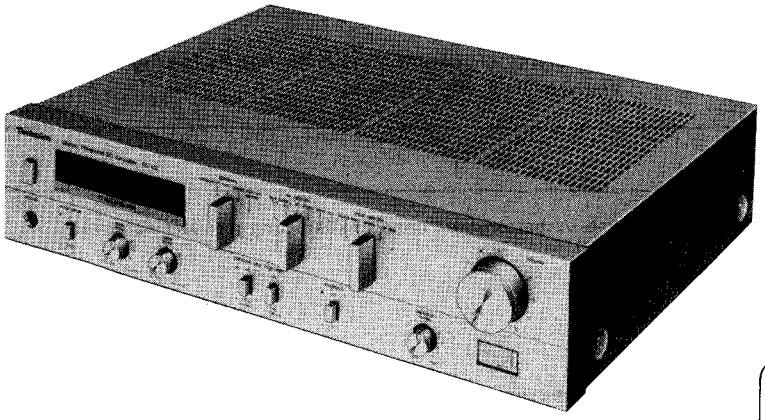
Stereo Integrated DC Amplifier

SU-V3

[E],[EG],[EK],[EF],[EH],
[EB],[Ei],[XA],[XL]

SU-V3(K)

[E],[EG],[EH],[EB],
[Ei],[XA]



* The cabinet and front panel are available in black color and silver types.
* The black type model is provided with (K) in the Service Manual.

English

Areas

* [E] is available in Scandinavia and Switzerland.
* [EG] is available in F.R. Germany.
* [EK] is available in United Kingdom.
* [EF] is available in France.
* [EH] is available in Holland.
* [EB] is available in Belgium.
* [Ei] is available in Italy.
* [XA] is available in Southeast Asia, Oceania, Africa, Middle Near East and Central South America.
* [XL] is available in Australia.

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 × 45W (4Ω)
	2 × 40W (8Ω)
40 Hz~16 kHz continuous power output	
both channels driven	2 × 45W (4Ω)
	2 × 40W (8Ω)
1 kHz continuous power output	
both channels driven	2 × 50W (4Ω)
	2 × 45W (8Ω)
Total harmonic distortion	
rated power at 20 Hz~20 kHz	0.03% (4Ω)
	0.007% (8Ω)
rated power at 40 Hz~16 kHz	0.03% (4Ω)
	0.007% (8Ω)
rated power at 1 kHz	0.007% (4Ω)
	0.003% (8Ω)
half power at 20 Hz~20 kHz	0.007% (8Ω)
half power at 1 kHz	0.003% (8Ω)
−26 dB power at 1 kHz	0.05% (4Ω)
50 mW power at 1 kHz	0.08% (4Ω)
Intermodulation distortion	
rated power at 250 Hz: 8 kHz=4:1, 4Ω	0.03%
rated power at 60 Hz: 7 kHz=4:1, SMPTE, 8Ω	0.007%
Power bandwidth	
both channels driven, −3 dB	
	5 Hz~30 kHz (4Ω THD 0.03%)
	5 Hz~30 kHz (8Ω THD 0.02%)
Residual hum and noise	0.5 mV
Damping factor	20 (4Ω), 40 (8Ω)

Input sensitivity and impedance	
PHONO	2.5 mV/47kΩ
TUNER, AUX	150 mV/22kΩ
TAPE 1 REC/PLAY	180 mV/27kΩ
TAPE 2	150 mV/22kΩ
PHONO maximum input voltage (1 kHz, RMS)	150 mV
S/N	
rated power (4Ω)	
PHONO	78 dB (IHF, A: 82dB)
TUNER, AUX	89 dB (IHF, A: 100 dB)
−26 dB power (4Ω)	
PHONO	68 dB
TUNER, AUX	68 dB
50 mW power (4Ω)	
PHONO	64 dB
TUNER, AUX	65 dB
Frequency response	
PHONO	RIAA standard curve
	±0.8 dB (30 Hz~15 kHz)
TUNER, AUX, TAPE	2 Hz~100 kHz (−3 dB)
	+0 dB (20 Hz~20 kHz)
	−0.2 dB (20 Hz~20 kHz)
Tone controls	
BASS	50 Hz, +10 dB~ −10 dB
TREBLE	20 kHz, +10 dB~ −10 dB
Subsonic filter	30 Hz, −6 dB/oct.
High-cut filter	7 kHz, −6 dB/oct.
Loudness control (volume at −30 dB)	50 Hz, +9 dB

Continued on page 2

Technics

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

Output voltage and impedance	
REC OUT	150 mV
REC/PLAY	30 mV/82kΩ
Channel balance, AUX 250 Hz~6,300 Hz	±1.0 dB
Channel separation, AUX 1 kHz	55 dB
Headphones output level and impedance	420 mV/330Ω
Load impedance	
MAIN or REMOTE	4Ω~16Ω
MAIN and REMOTE	8Ω~16Ω

■ GENERAL

Power consumption	460W
Power supply	AC 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensions (W×H×D)	430 × 97 × 310 mm (16-15/16" × 3-13/16" × 12-7/32")
Weight	7.2 kg (15.9 lb.)

Note:
Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

Deutsch

TECHNISCHE DATEN (Spezifikationen Können infolge von Verbesserungen ohne Ankündigung geändert werden.)

(DIN 45 500)

■ VERSTÄRKERTEIL

Dauerton-Ausgangsleistung bei 20 Hz ~ 20 kHz	
beide Kanäle ausgesteuert	2 × 45W (4 Ω) 2 × 40W (8 Ω)
Dauerton-Ausgangsleistung bei 40 Hz ~ 16 kHz	
beide Kanäle ausgesteuert	2 × 45W (4 Ω) 2 × 40W (8 Ω)
Dauerton-Ausgangsleistung bei 1 kHz	
beide Kanäle ausgesteuert	2 × 50W (4 Ω) 2 × 45W (8 Ω)
Gesamtklirrfaktor	
Nennleistung bei 20 Hz ~ 20 kHz	0,03% (4 Ω) 0,007% (8 Ω)
Nennleistung bei 40 Hz ~ 16 kHz	0,03% (4 Ω) 0,007% (8 Ω)
Nennleistung bei 1 kHz	0,007% (4 Ω) 0,003% (8 Ω)
halbe Nennleistung bei 20 Hz ~ 20 kHz	0,007% (8 Ω)
halbe Nennleistung bei 1 kHz	0,003% (8 Ω)
−26 dB Leistung bei 1 kHz	0,05% (4 Ω)
50 mW Leistung bei 1 kHz	0,08% (4 Ω)
Intermodulationsfaktor	
Nennleistung bei 250 Hz: 8 kHz = 4:1, 4 Ω	0,03%
Nennleistung bei 60 Hz: 7 kHz = 4:1, nach SMPTE, 8 Ω	0,007%
Leistungsbandbreite	
beide Kanäle ausgesteuert bei −3 dB	5 Hz ~ 30 kHz (4 Ω, THD 0,03%) 5 Hz ~ 30 kHz (8 Ω, THD 0,02%)
Restbrumm und Geräusch	0,5 mV
Dämpfungsfaktor	20 (4 Ω), 40 (8 Ω)
Geräuschabstand	
Nennleistung (4 Ω)	
Phono	78 dB (82 dB nach IHF, A)
Tuner, Aux	89 dB (nach IHF, A: 100 dB)
−26 dB Leistung (4 Ω)	
Phono	68 dB
Tuner, Aux	68 dB
50 mW Leistung (4 Ω)	
Phono	64 dB
Tuner, Aux	65 dB
Maximale TA-Eingangsspannung (1 kHz, eff.)	150 mV
Eingangsempfindlichkeit und -impedanz	
Phono	2,5 mV/47 kΩ
Tuner, Aux	150 mV/22 kΩ
Tape 1 Aufnahme/Wiedergabe (TAPE 1 REC/PLAY)	180 mV/27 kΩ
Tape 2 (TAPE 2)	150 mV/22 kΩ
Frequenzgang	
Phono	RIAA-Standardkurve ±0,8 dB (30 Hz ~ 15 kHz)
Tuner, Aux, Tape	2 Hz ~ 100 kHz(−3 dB) +0 dB (20 Hz ~ 20 kHz) −0,2 dB (20 Hz ~ 20 kHz)
Klangregler	
Baßregler (BASS)	50 Hz, +10 dB ~ −10 dB
Höhenregler (TREBLE)	20 kHz, +10 dB ~ −10 dB
Tiefenfilter	30 Hz, −6 dB/Okt.
Rauschfilter	7 kHz, −6 dB/Okt.
Gehörrichtige Lautstärkekorrektur (Loudness)	
(bei −30 dB Ausgangsleistung)	50 Hz, +9 dB
Ausgangsspannung und -impedanz	
Aufnahme (REC OUT)	150 mV
Aufnahme/Wiedergabe (REC/PLAY)	30 mV/82 kΩ
Kanalabweichung (Aux, 250 Hz ~ 6300 Hz)	±1,0 dB
Übersprechdämpfung (Aux, 1 kHz)	55 dB
Kopfhörerpegel und -impedanz	420 mV/330 Ω
Lautsprecherimpedanz	
MAIN oder REMOTE	4 Ω ~ 16 Ω
MAIN und REMOTE	8 Ω ~ 16 Ω

■ ALLGEMEINE DATEN

Leistungsaufnahme	460 W
Netzspannung	Wechselstrom 50 Hz/60 Hz, 110V/120V/220V/240V
Abmessungen (B×H×T)	430 × 97 × 310 mm
Gewicht	7,2 kg

Bemerkung:
Der Gesamtklirrfaktor wurde mit einem digitalen Rauschspektrometer (Anlage H.P. 3045) gemessen.

Français

CARACTERISTIQUES (Sujet à changement sans preavis.)

(DIN 45 500)

■ SECTION AMPLIFICATEUR

Puissance de sortie continue de 20 Hz~20 kHz, les deux canaux en circuit 2 × 45W (4Ω), 2 × 40W (8Ω)
Puissance de sortie continue de 40 Hz~16 kHz, les deux canaux en circuit 2 × 45W (4Ω), 2 × 40W (8Ω)
Puissance de sortie continue à 1 kHz les deux canaux en circuit 2 × 50W (4Ω), 2 × 45W (8Ω)
Distorsion harmonique totale
à puissance nominale (20 Hz~20 kHz) 0,03% (4Ω), 0,007% (8Ω)
à puissance nominale (40 Hz~16 kHz) 0,03% (4Ω), 0,007% (8Ω)
à puissance nominale (1 kHz) 0,007% (4Ω), 0,003% (8Ω)
à demi-puissance (20 Hz~20 kHz) 0,007% (8Ω)
à demi-puissance (1 kHz) 0,003% (8Ω)
puissance de −26 dB à 1 kHz 0,05% (4Ω)
puissance de 50 mW à 1 kHz 0,08% (4Ω)
Distorsion d'intermodulation
à puissance nominale à 250 Hz: 8 kHz=4:1, 4Ω 0,03%
à puissance nominale à 60 Hz: 7 kHz=4:1, SMPTE, 8Ω 0,007%
Réponse de fréquences
les deux canaux en circuit, −3 dB
5 Hz~30 kHz (4Ω, THD 0,03%)
5 Hz~30 kHz (8Ω, THD 0,02%)
Bruit et ronflement résiduels 0,5 mV
Coefficient d'amortissement 20 (4Ω), 40 (8Ω)
Signal/Bruit
à puissance nominale (4Ω)
PHONO 78 dB (82 dB, IHF, A)
SYNTONISATEUR, AUX (TUNER, AUX) 89 dB (IHF, A: 100 dB)
puissance de −26 dB (4Ω)
PHONO 68 dB
SYNTONISATEUR, AUX (TUNER, AUX) 68 dB
puissance de 50 mW (4Ω)
PHONO 64 dB
SYNTONISATEUR, AUX (TUNER, AUX) 65 dB
PHONO (tension d'entrée maximum, 1 kHz RMS) 150 mV

Sensibilité et impédance d'entrée
PHONO 2,5 mV/47kΩ
SYNTONISATEUR, AUX (TUNER, AUX) 150 mV/22kΩ
BANDE 1, ENREGISTREMENT/LECTURE (TAPE 1 REC/PLAY) 180 mV/27kΩ
BANDE 2 (TAPE 2) 150 mV/22kΩ
Réponse de fréquence
PHONO Courbe nominale RIAA ±0,8 dB (30 Hz~15 kHz)
SYNTONISATEUR, AUX, BANDE (TUNER, AUX, TAPE) 2 Hz~100 kHz (−3 dB), +0 dB (20 Hz~20 kHz), −0,2 dB (20 Hz~20 kHz)
Réglage de la tonalité
BASSES (BASS) 50 Hz, +10 dB~ −10 dB
AIGUS (TREBLE) 20 kHz, +10 dB~ −10 dB
Filtre subsonique 30 Hz, −6 dB/oct.
Filtre coupe-hauts 7 kHz, −6 dB/oct.
Compensateur physiologique (volume à −30 dB) 50 Hz, +9 dB
Tension de sortie et impédance
SORTIE ENREGISTREMENT (REC OUT) 150 mV
ENREGISTREMENT/LECTURE (REC/PLAY) 30 mV/82kΩ
Equilibrage des canaux, AUX 250 Hz~6 300 Hz ±1,0 dB
Séparation des canaux, AUX 1 kHz 55 dB
Niveau de sortie des casques et impédance 420 mV/330Ω
Impédance de charge
PRINCIPALE ou AUXILIAIRE (MAIN or REMOTE) 4Ω~16Ω
PRINCIPALE et AUXILIAIRE (MAIN and REMOTE) 8Ω~16Ω

■ DIVERS

Consommation 460W
Alimentation CA 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensions (L×H×Pr) 430 × 97 × 310 mm
Poids 7,2 kg

Remarque:
On mesure la distorsion harmonique totale au moyen d'un analyseur de spectre digital (Système H.P. 3045).

Español

ESPECIFICACIONES (Estas especificaciones están sujetas a cualquier cambio sin previo eviso.)

(DIN 45 500)

■ SECCION AMPLIFICADOR

Potencia continua de 20 Hz~20 kHz en ambos canales 2 × 45W (4Ω), 2 × 40W (8Ω)
Potencia continua de 40 Hz~16 kHz en ambos canales 2 × 45W (4Ω), 2 × 40W (8Ω)
Potencia continua de 1 kHz en ambos canales 2 × 50W (4Ω), 2 × 45W (8Ω)

Distorsión armónica total
potencia de régimen a 20 Hz~20 kHz 0,03% (4Ω), 0,007% (8Ω)
potencia de régimen a 40 Hz~16 kHz 0,03% (4Ω), 0,007% (8Ω)
potencia de régimen a 1 kHz 0,007% (4Ω), 0,003% (8Ω)
mitad de potencia a 20 Hz~20 kHz 0,007% (8Ω)
mitad de potencia a 1 kHz 0,003% (8Ω)
−26 dB de potencia a 1 kHz 0,05% (4Ω)
50 mW de potencia a 1 kHz 0,08% (4Ω)

Continuado en la página 4.

Distorsión por intermodulación	
potencia de régimen a 250 Hz: 8 kHz=4:1, 4Ω	0,03%
potencia de régimen a 60 Hz: 7 kHz=4:1, SMPTE, 8Ω	0,007%
Ancho de banda de potencia	
con ambos canales, −3 dB	
	5 Hz~30 kHz (4Ω, THD 0,03%)
	5 Hz~30 kHz (8Ω, THD 0,02%)
Zumbido residual y ruido	0,5 mV
Factor de amortiguamiento	20 (4Ω), 40 (8Ω)
Sensibilidad e impedancia de entrada	
TOCADISC. (PHONO)	2,5 mV/47kΩ
SINTON., AUX. (TUNER, AUX)	150 mV/22kΩ
GRAB. 1 GRAB./REPR. (TAPE 1 REC/PLAY)	180 mV/27kΩ
GRAB. 2 (TAPE 2)	150 mV/22kΩ
Voltaje máximo de entrada de PHONO (1 kHz, RMS)	150 mV
Relación de señal a ruido	
potencia de régimen (4Ω)	
TOCADISC. (PHONO)	78 dB (82 dB, IHF, A)
SINTON., AUX. (TUNER, AUX)	89 dB (IHF, A: 100 dB)
−26 dB de potencia (4Ω)	
TOCADISC. (PHONO)	68 dB
SINTON., AUX. (TUNER, AUX)	68 dB
50 mW de potencia (4Ω)	
TOCADISC. (PHONO)	64 dB
SINTON, AUX. (TUNER, AUX)	65 dB
Respuesta de frecuencia	
TOCADISC. (PHONO)	curva RIAA estándar
	±0,8 dB (30 Hz~15 kHz)
SINTON., AUX., GRAB. (TUNER, AUX, TAPE)	
	2 Hz~100 kHz (−3 dB)
	+0 dB (20 Hz~20 kHz)
	−0,2 dB (20 Hz~20 kHz)

Controles de tono	
BAJOS (BASS)	50 Hz, +10 dB~ −10 dB
AGUDOS (TREBLE)	20 kHz, +10 dB~ −10 dB
Filtro subsónico	30 Hz, −6 dB/oct.
Filtro de corte de altos	7 kHz, −6 dB/oct.
Control de sonoridad (volumen a −30 dB)	50 Hz, +9 dB
Voltaje e impedancia de salida	
SAL. GRAB. (REC OUT)	150 mV
GRAB./REPR. (REC/PLAY)	30 mV/82kΩ
Equilibrio de canales, AUX 250 Hz~6 300 Hz	±1,0 dB
Separación de canales, AUX 1 kHz	55 dB
Impedancia y nivel de salida de los auriculares	420 mV/330Ω
Impedancia de carga	
MAIN o REMOTE	4Ω~16Ω
MAIN y REMOTE	8Ω~16Ω

■ GENERAL

Consumo de energía	460W
Alimentación de energía	CA 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensiones (An.×Al.×Prof.)	430 × 97 × 310 mm
Peso	7,2 kg

Nota:
La distorsión armónica total se mide con el analizador de espectro digital (sistema H.P. 3045).

■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlined below:

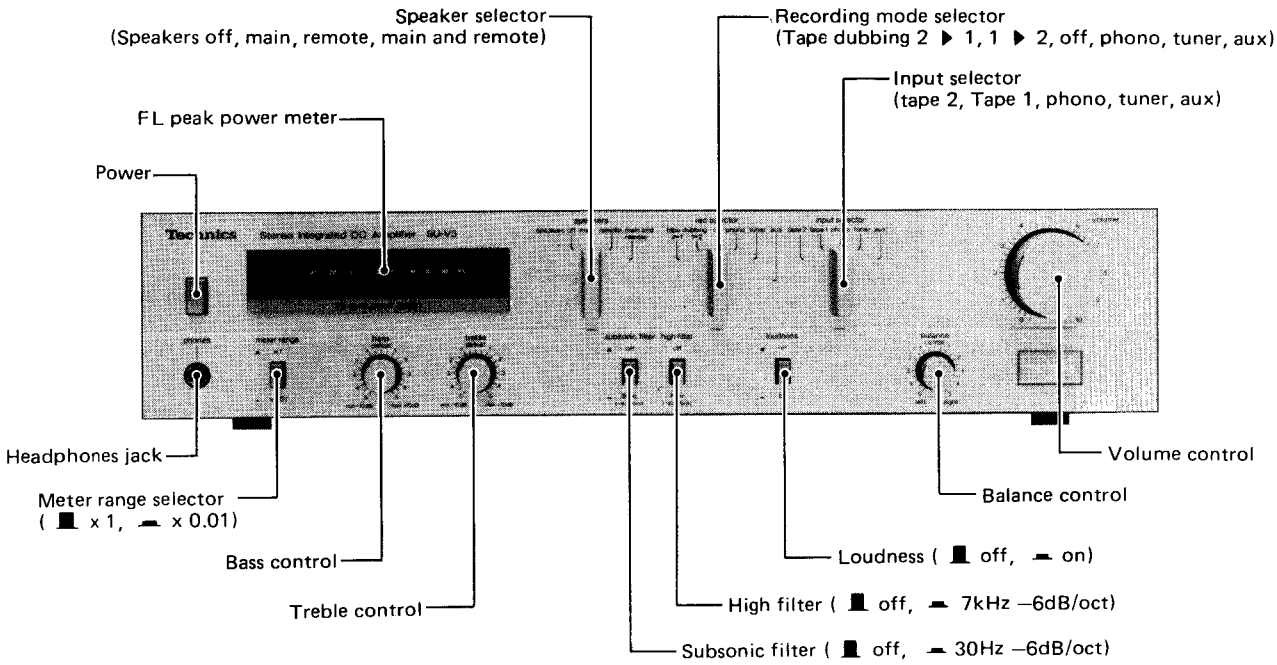
1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again.

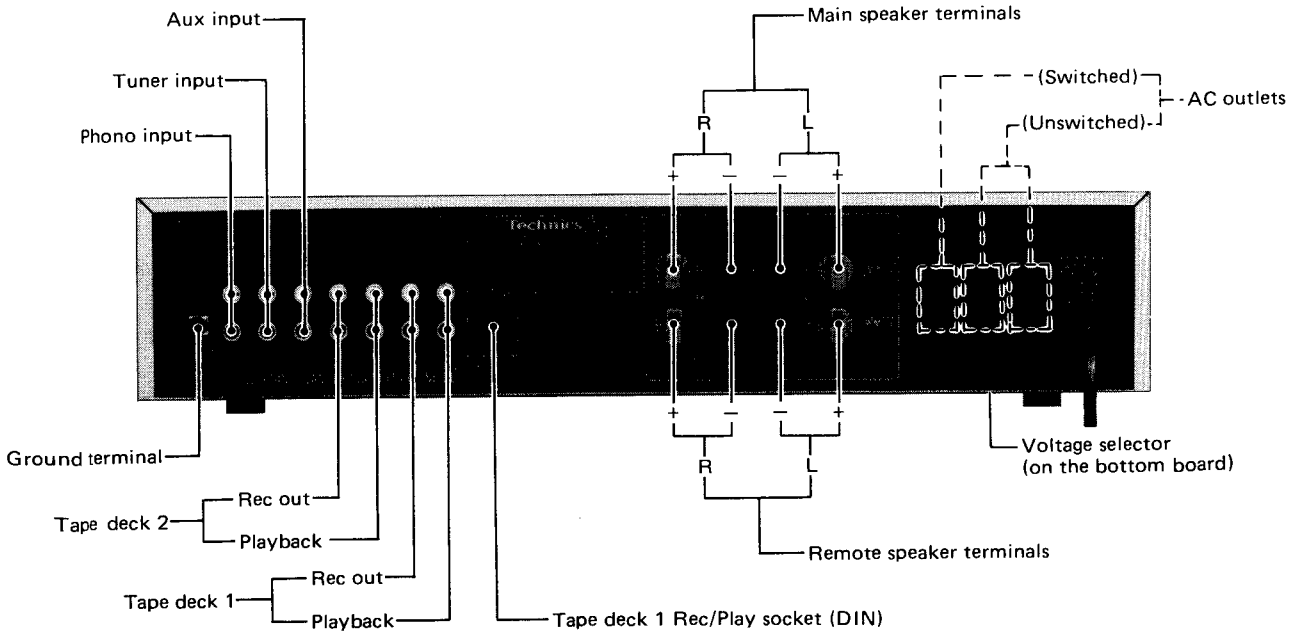
Note:

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

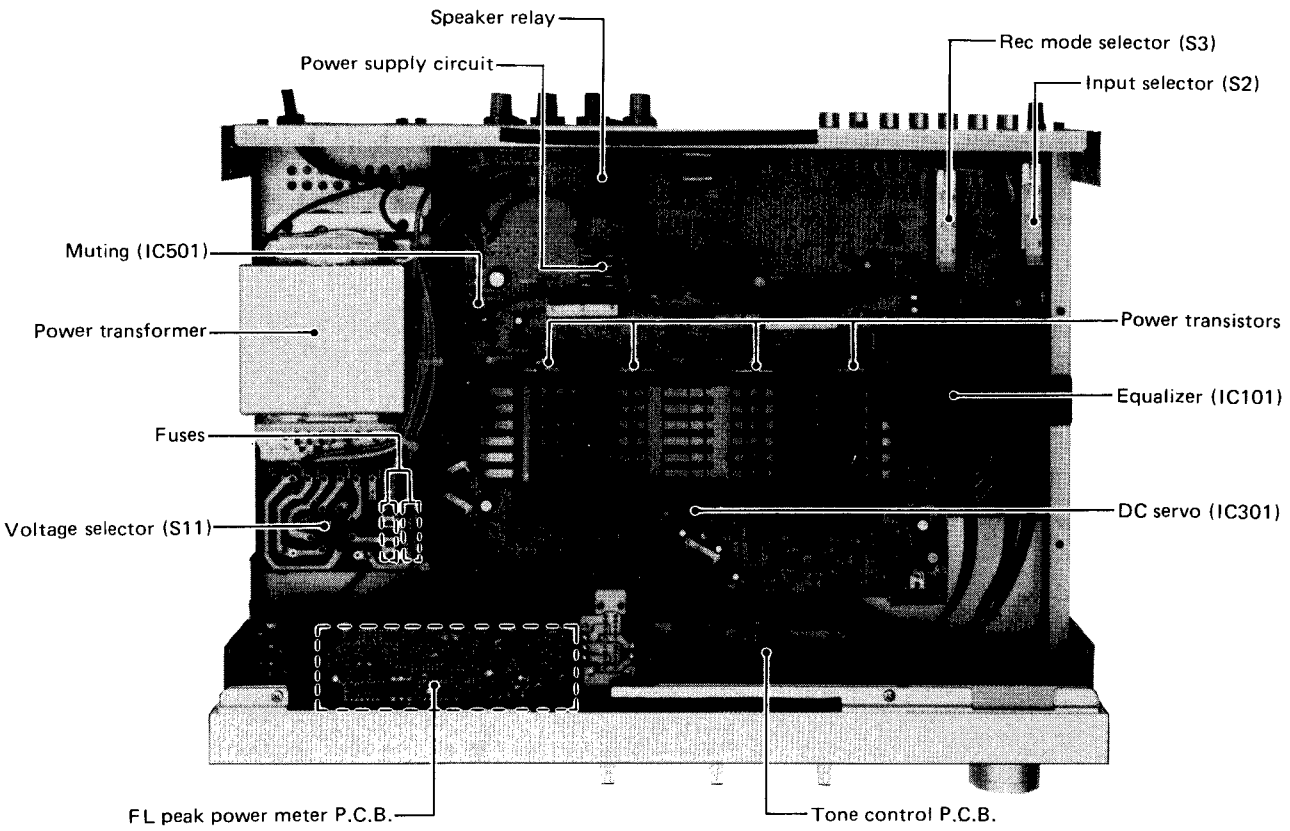
■ CONTENTS

■ LOCATION OF CONTROLS





*** The product for destination [XA] is equipped with AC outlets.**



■ TECHNICAL GUIDE

DESCRIPTION OF MUTING/RELAY DRIVE IC (SVITA7317P)

- **Functions**
  1. Click noise prevention during power ON/OFF.
  2. Protection of speakers and power transistors from breakdown.

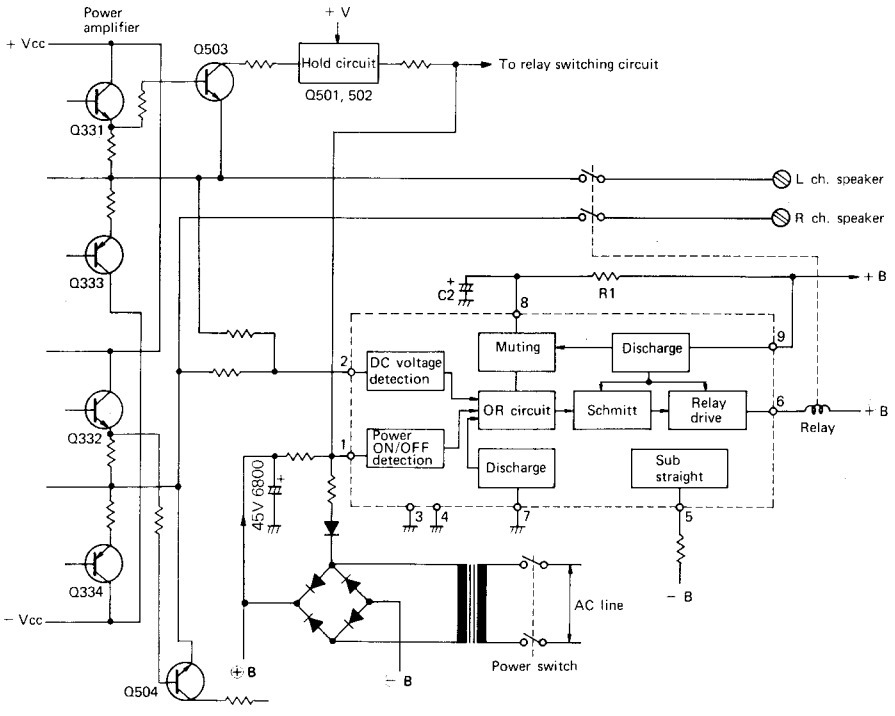
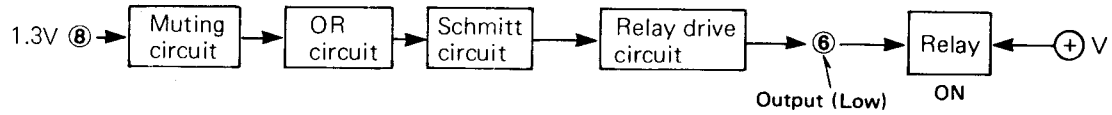


Fig. 1

- **Operation**

1-1 Relay (RLY401) turns ON about 5 seconds after power ON. Therefore, no click noise is produced from the speaker.



- About 5 seconds after power ON, about 1.3V is applied to terminal ⑧. This voltage is applied to "OR circuit", turning the "Schmitt circuit" ON, "Relay drive circuit" ON, and the voltage of terminal ⑥ to "Low, then the relay turns ON.
  At that time, –0.7V is applied to terminal ①, causing "power ON/OFF detection circuit" to turn OFF, and the voltage (1.3V) to be applied to the "Schmitt circuit".
  (Note) Voltage of terminal ⑧ is determined by R1 and C2.

(Complete charge characteristic curve)

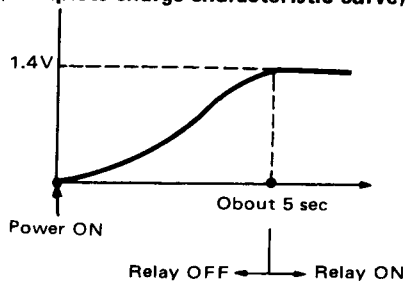
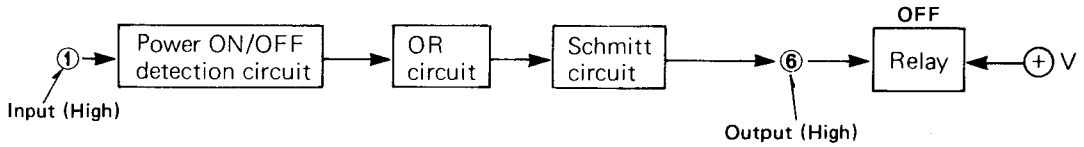
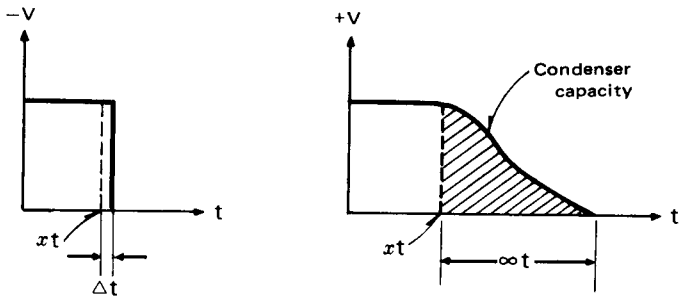


Fig. 2

1-2. No click noise is produced from the speaker when power supply is turned OFF.



- When power supply is turned OFF, the negative (–) voltage drops faster than the positive (+) voltage. At that instant, the positive (+) voltage is applied to terminal ①, turning the "Power ON/OFF detection circuit" ON, "OR circuit" OFF, "Schmitt circuit" ON, "Relay drive circuit" OFF, and the voltage of terminal ⑥ to "High", then the relay turns OFF.



(Voltage drop time comparison)

Fig. 3

xt: power switch OFF-time
Δt: negative (–) voltage drop time
∞t: positive (+) voltage drop time

$\Delta t < \infty t$

1-3. Difference in drop speed between negative and positive voltages

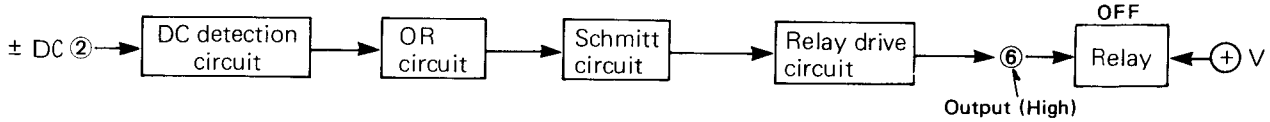
- No condenser is located on the negative (–) side, while a condenser (45V, 6800μF) is on the positive (+) side. Therefore, the voltage drop speed is faster on the negative (–) side.

2-1. Protection of power transistor in case of speaker terminal shortcircuit

When speaker terminal is short-circuited, a large amount of current flows into the emitter resistor of power transistor, causing Q503 (in case of Lch) to turn ON. Then, the collector potential becomes zero, and the hold circuit (Q501, 502) is turned ON. As the hold circuit is ON, the voltage level of pin ① of SVITA7317P becomes high, and so becomes the output of pin ⑥, causing the relay to turn OFF.
Through these operations, the relay is turned OFF, and the speaker terminal and power amplifier connecting circuit is opened. However, the relay remains turned OFF by the hold circuit (Q501, 502) even in case of no abnormality. So, reset the relay by turning off the power switch.

2-2. It protects the speakers when main amplifier becomes defective

When DC voltage is applied to terminal ② due to main amplifier trouble, the "DC detection circuit" turns ON, "OR circuit" turns OFF, "Schmitt circuit" ON, "Relay drive circuit" OFF, and the voltage of terminal ⑥ to "High", then the relay turns OFF, thus protecting the speakers.



■ DISASSEMBLY INSTRUCTIONS

1. How to remove the cabinet and bottom board

1. Remove the 4 setscrews (❶ ~ ❹ in Fig. 4) of the cabinet.
2. Remove the 7 setscrews (❺ ~ ⓫ in Fig. 5) of the bottom board.

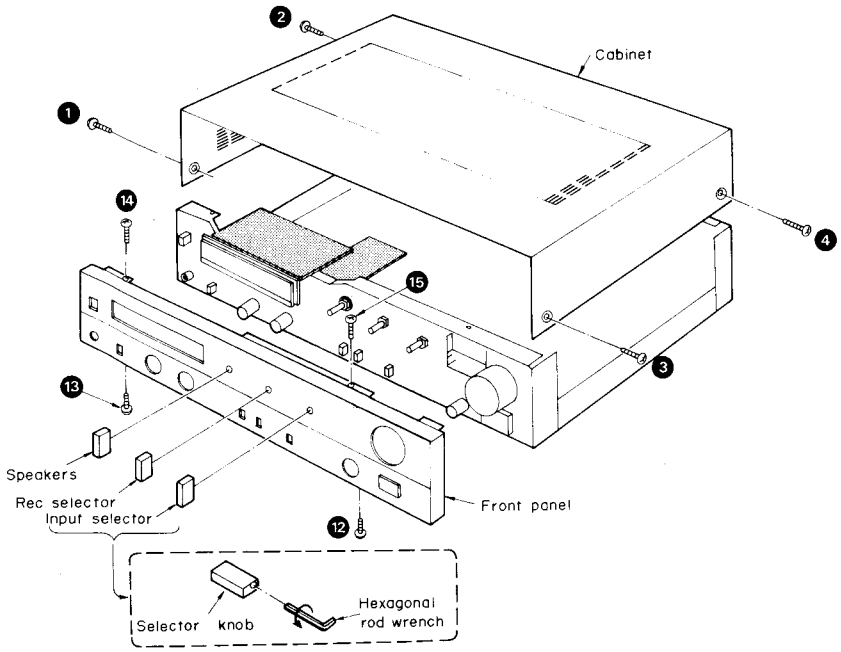


Fig. 4

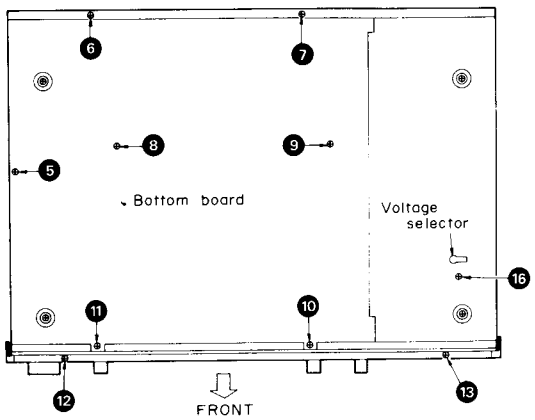


Fig. 5

2. How to remove the front panel

1. Remove the cabinet.
2. Remove the 3 selector knobs. (Use hexagonal rod wrench for M3 screws.) Refer to Fig. 4.
3. Remove the 4 setscrews (⓬ ~ ⓯ in Fig. 4) of the front panel.
4. Remove the front panel from the chassis, holding its right and left sides, taking care not to damage the knobs, etc.
5. Fit the transparent cover of FL meter in the front panel window as in Fig. 7 by moving it with fingers as in Fig. 6.

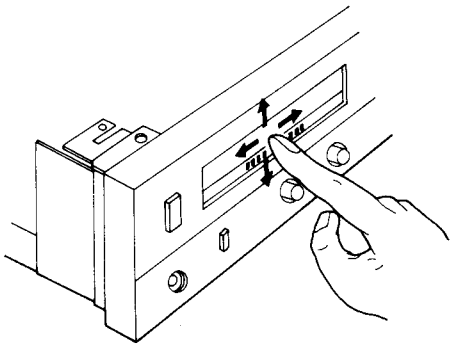


Fig. 6

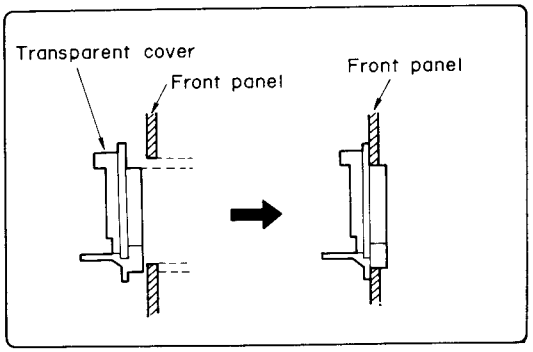


Fig. 7

3. How to remove fuse and voltage selector

1. Remove the cabinet.
2. Take off the fuse cover.
3. Remove the screw No. ⑯. (Refer to Fig. 5 and 8)
4. Remove the fuse printed circuit board as in Fig. 8.
5. Replace the fuse.

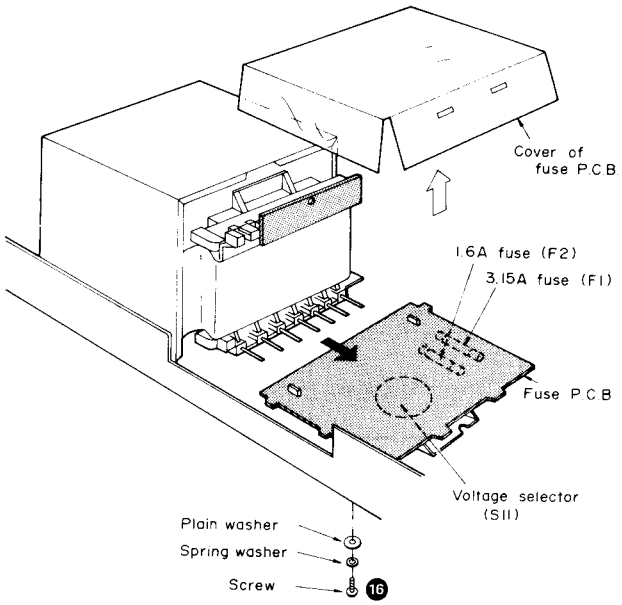


Fig. 8

4. How to remove the power transistor

1. Unsolder the power transistor as shown in Fig. 9.
2. Remove the 7 setscrews (⑰ ~ ㉓ in Fig. 10 and 11) of heat-sink and then lift the heat-sink along with the power transistor.
3. When installing the power transistor, apply heat diffusing agent (silicon powder, etc.) to both sides of the mica plate, and secure it on the heat-sink with setscrews. Next, secure the heat-sink on the chassis and then solder the power transistors.
   Also, when installing heat-sink, apply heat diffusing compound (silicon powder, etc.) to Ⓐ and Ⓑ point. (Refer to Fig. 11)

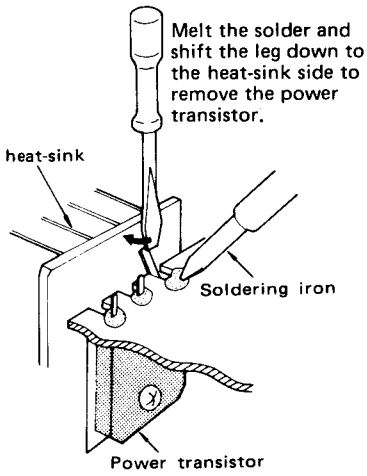


Fig. 9

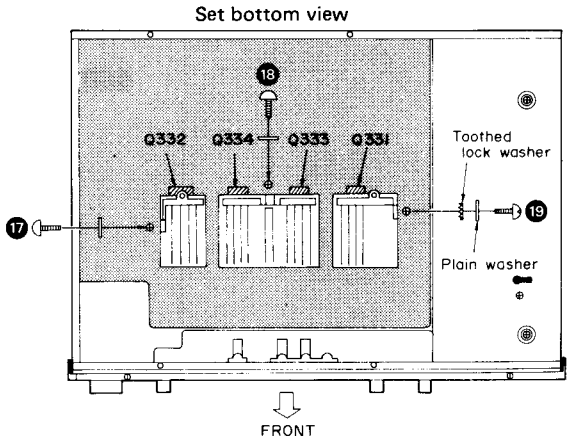


Fig. 10

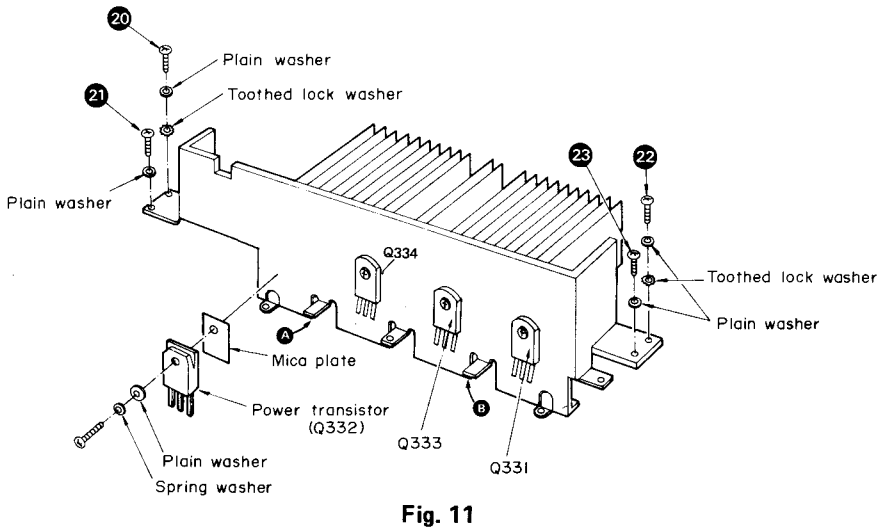


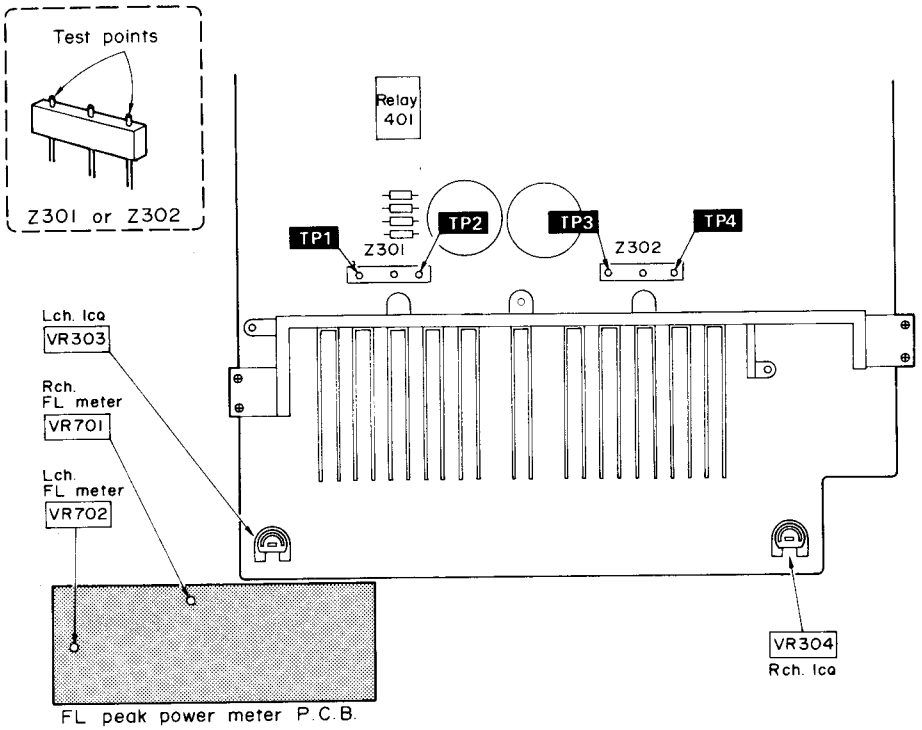
Fig. 11

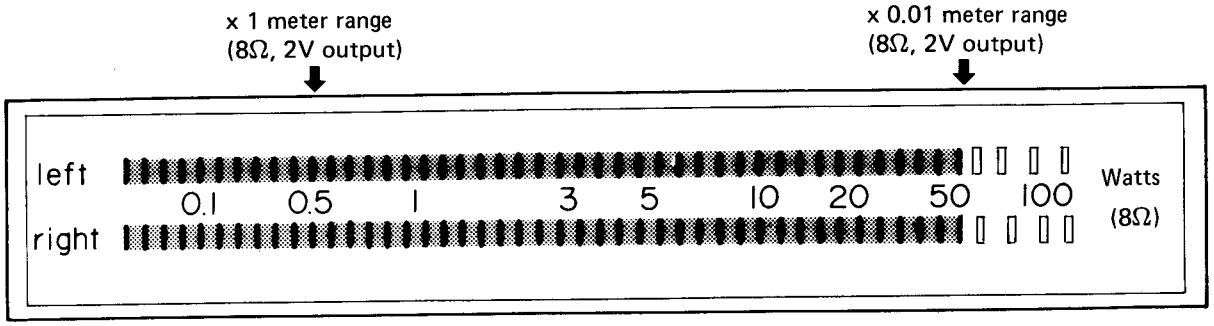
■ BEFORE REPAIR AND ADJUSTMENT

Turn off the power supply and short-circuit both ends of power supply condensers (C601, C602, 6800μF) at resistance (about 10Ω, 5W) in order to discharge the charged voltage. Avoid short-circuit with a screwdriver or the like, otherwise the transistors or diodes may break down.
Before turning on the power supply after completion of repair, slowly apply the primary voltage by using a voltage regulator to make sure that the current consumed is free of abnormality. The current consumed at 60Hz/50Hz in no-signal mode is shown below with respect to supply voltage 110V/120V/220V/240V.

Power supply voltage		AC 110V	AC 120V	AC 220V	AC 240V
Current consumed	50Hz	200 ~ 400mA	190 ~ 380mA	110 ~ 220mA	100 ~ 200mA
	60Hz	180 ~ 360mA	170 ~ 340mA	90 ~ 180mA	85 ~ 170mA

■ ADJUSTMENT POINTS





FL peak power meter

Fig. 12 (Abb. 12)

■ MEASUREMENTS AND ADJUSTMENTS ——— English

1. Idling current of power transistor (ICQ)

● Setting and instruments used

1. Speaker selector . . . . . main
2. Sound volume . . . . . 0 (minimum)
3. DC voltmeter (able to measure 4mV)
4. Instruments for circuit operation check
   (AC voltmeter, 1kHz oscillator, 8Ω load, 5W 0.33Ω resistor).

Item	Connection of DC voltmeter	VR adjusted	Adjustment
Adjustment of ICQ	L channel Connect voltmenter to TP1 (+) and TP2 (–)	VR303	① Completely turn VR303 and VR304 anticlockwise beforehand ② Adjust VR303 (L channel) and VR304 (R channel) so that the voltage is 20mV, about 10 min. after power supply ON.
	R channel Connect voltmeter to TP3 (–) and TP4 (+)	VR304	

2. Fluorescent peak power meter

Setting

- Connect a low frequency oscillator to the tuner input terminal, and 8-ohm load resistor and AC electronic voltmeter to the speaker terminal.
- Add 1kHz signal from the low frequency oscillator to the set.
- Set the sound volume to the maximum point.

Item	Meter range select switch position	VR adjusted	Adjustment
Peak-power indicators	Range switch ... X0.01	VR702 (L ch) VR701 (R ch)	1. Adjust the input level so that the AC voltmeter indicates 2 volts. 2. Adjust the semi-fixed variable resistors VR702 (L ch.) and VR701 (R ch.) so that the 50W segment of FL meter lights up dimly. (Fig. 12)

3. Check points

● DC balance

① Make the sound volume minimum.
② Connect DC voltmeter and 8Ω load to speaker terminal.
③ Make sure that output voltage is within ±30mV.

● Overload detection circuit

① Connect 8Ω load to "main" speaker terminal and 5W 0.33Ω resistance to "remote" speaker terminal.
② Apply 1kHz 40mV signal to "TUNER" terminal.
③ Make the sound volume maximum.
④ With speaker selector set at main and remote, make sure that relay in the set is OFF and no output is delivered.

*** If protection relay turns OFF due to overload, the circuit and load will not restore their normal conditions unless power supply is once turned OFF and again turned ON.**

■ MESSUNGEN UND JUSTIERUNGEN ——— Deutsch

1. ICQ

● Einstellungen und verwendete Instrumente

1. Lautsprecher-Wahlschalter . . . . "main"
2. Lautstärke . . . . . 0 (Minimum)
3. Gleichstrom-Voltmeter (zum Messen von 4mV geeignet)
4. Instrumente für die Schaltungsbetrieb-Prüfung (Wechselstrom-Voltmeter, 1kHz-Oszillator, 8Ω-Belastung, 5W 0,33Ω-Widerstand)

Gegenstand	Anschluß des Voltmeters	Zu justierender Drehwiderstand	Justierung
Justierung von ICQ	Linker Kanal Voltmeter an TP1 (+) und TP2 (–) anschließen.	VR303	① VR303 und VR304 vorher bis zum Anschlag entgegen dem Uhrzeigersinn drehen. ② VR303 (linker Kanal) und VR304 (rechter Kanal) so justieren, daß die Spannung, ca. 10 Minuten nach dem Einschalten der Stromzufuhr, 20mV beträgt.
	Rechter Kanal Voltmeter an TP3 (–) und TP4 (+) anschließen.	VR304	

2. Spitzenwertanzeigen

Einstellung:

- Einen Niederfrequenzoszillator an die Eingangsklemme des Tuners schließen und parallel zu 8-ohm Belastungswiderstand den elektronischen Wechselstrom-Voltmeter an die Lautsprecherklemme schließen.
- 1 kHz Signal aus dem Niederfrequenzoszillator in das Gerät speisen.
- Lautstärkeregler auf den minimalen Punkt einstellen.

Gegenstand	Stellung des Meterbereichswählers	Zu justierender widerstand	Justierung
Spitzenwertanzeigen	Bereichswähler auf X0.01	VR702 (Linker Kanal) VR701 (Rechter Kanal)	1. Den Eingangspegel so justieren, daß der Wechselstrom-Voltmeter 2,0V anzeigt. 2. Die halbfest eingestellten Widerstände VR702 (linker Kanal) und VR701 (rechter Kanal) so einstellen, daß das 50W-Segment des Fluoreszenz-Aussteuerungsinstru-mentes schwach aufleuchtet. (Abb. 12)

3. Prüfpunkte

● Gleichstrom-Balance

① Den Lautstärkeregler ganz zudrehen.
② Das Gleichstrom-Voltmeter und eine 8Ω-Last an den Lautsprecheranschluß anschließen.
③ Überprüfen, daß die Ausgangsspannung innerhalb ±30mV liegt.

● Überbelastungs-Detektorschaltung

① Eine 8Ω-Last an den "main"-Lautsprecheranschluß und einen 5W, 0,33Ω-Widerstand an den "remote"-Lautsprecheranschluß anschließen.
② Ein Signal von 1kHz, 40mV an den "TUNER"-Anschluß anlegen.
③ Den Lautstärkeregler ganz aufdrehen.
④ Mit auf "main and remote" eingestelltem Lautsprecher-Wahlschalter überprüfen, daß das Relais ausgeschaltet ist, und keine Ausgangsleistung ausgegeben wird.

*** Nachdem das Schutzrelais aufgrund von Überbelastung ausgeschaltet wurde, muß der Netzschalter einmal aus- und wieder eingeschaltet werden, damit die Schaltung und die Last wieder in ihren normalen Zustand versetzt werden.**

■ MESURAGES ET RÉGLAGES — Français

1. ICQ

- **Réglages et appareils utilisés**

1. Sélecteur de haut-parleurs . . . . . principal (main)
2. Volume sonore . . . . . 0 (minimum)
3. Voltmètre à C.C. (capable de mesurer 4mV)
4. Appareils pour la vérification du fonctionnement du circuit. (Voltmètre à C.A., oscillateur de 1kHz, charge de 8Ω, résistance de 5W 0,33Ω)

Article	Branchement du voltmètre à C.C.	VR à régler	Réglage
Réglage de I_{CQ}	Canal de gauche Brancher le voltmètre à TP1 (+) et TP2 (—).	VR303	① Tourner préalablement complètement dans le sens inverse des aiguilles d'une montre VR303 et VR304. ② Régler VR303 (canal de gauche) et VR304 (canal de droite) de façon à ce que la tension soit de 20mV, environ 10 minutes après la mise en marche de la tension d'alimentation.
	Canal de droite Brancher le voltmètre à TP3 (—) et à TP4 (+).	VR304	

2. Indicateurs de puissance de crête fluorescents

Réglage:

- Brancher un oscillateur à basse fréquence à la borne de sortie du tuner et une résistance de charge de 8 ohms et un voltmétre électronique à la borne de l'enceinte.
- Par l'oscillateur à basse fréquence, appliquer un signal de 1 kHz à l'appareil.
- Régler le volume du son au maximum.

Article	Position du commutateur de sélection de la gamme du compteur	VR à régler	Réglage
Indicateurs de puissance de crête fluorescents	Commutateur de gamme X0,01	VR702 (CG) VR701 (CD)	1. Régler le niveau de sortie de telle sorte que la voltmétre CA indique 2,0V. 2. Régler les résistances variables semi-fixes VR702 (canal de gauche) et VR701 (canal de droite), de façon à ce que le segment de 50W de l'appareil de mesure FL s'éclaire faiblement. (Fig. 12)

3. Points de vérification

1. Compensation du C.C.

① Diminuer le volume sonore au minimum.
② Brancher le voltmètre à C.C. et une charge de 8Ω à la prise de haut-parleurs.
③ S'assurer que la tension de sortie est en deçà de ±30mV.

- **Circuit de détection d'une surcharge**

① Connecter une charge de 8Ω à la prise de haut-parleurs "principale" ("main") et une résistance de 5W 0,33Ω à la prise de haut-parleurs "auxiliaire" ("remote").
② Appliquer un signal de 1kHz 40mV à la borne du "TUNER".
③ Augmenter le volume sonore au maximum.
④ Avec le sélecteur de haut-parleurs réglé sur "main" (principal) et sur "remote" (auxiliaire), s'assurer que le relais dans l'appareil soit mis hors circuit et qu'aucune sortie ne soit livrée.

*** Si le relais de protection est mis hors circuit à cause d'une surcharge, le circuit et la charge ne récupéreront pas leurs conditions normales à moins que l'alimentation secteur soit une fois mise hors circuit et remise à nouveau en marche.**

■ MEDICIONES Y AJUSTES — Español

1. Corriente de reposo de transistor de potencia (ICQ)

- **Puesta e instrumentos usados**

1. Selector de altavoz . . . . . principal
2. Volumen de sonido . . . . . 0 (mínimo)
3. Voltímetro de CC (capaz de medir 4mV)
4. Instrumentos para verificación de operación de circuito (Voltímetro de CA, oscilador 1kHz, carga 8Ω, resistor 5W 0,33Ω)

Item	Conexión de voltímetro de CC	RV ajustado	Procedimiento de ajuste
Ajuste de I_{CQ}	Canal I Conectar voltímetro a TP1 (+) y TP2 (—)	VR303	① Girar completamente VR301 y VR304 a la izquierda de antemano ② Ajustar VR303 (canal I) y VR304 (canal D) de manera que el voltaje sea 20mV, unos 10 min. después de conectar el suministro de energía.
	Canal D Conectar voltímetro a TP3 (—) y TP4 (+)	VR304	

2. Medidor fluorescente de potencia de cresta

Puesta

- Conectar un oscilador de baja frecuencia al terminal de entrada de sintonizador, y el resistor de carga 8-ohmios y voltímetro electrónico de CA al terminal del altavoz.
- Añadir señal 1kHz del oscilador de baja frecuencia al aparato.
- Poner el volumen de sonido al punto máximo.

Item	Posición de interruptor selector de gama de medidor	RV ajustado	Procedimiento de ajuste
Indicadores de potencia-cresta	Interruptor de gama ... X0.01	VR702 (Canal I) VR701 (Canal D)	1. Ajustar el nivel de entrada de manera que el voltímetro de CA indique 2 voltios. 2. Ajustar los resistores variables semifijos VR702 (C.I.) y VR701 (C.D.) de manera que el segmento de 50W del medidor FI se ilumine débilmente (Fig. 12)

3. Puntos de verificación

- **Equilibrio de CC**

① Hacer el volumen de sonido mínimo.
② Conectar el voltímetro de CC y carga de 8Ω al terminal del altavoz.
③ Asegurarse de que el voltaje de salida esté dentro de ±30mV.

- **Circuito de detección de sobrecarga**

① Conectar la carga de 8Ω al terminal del altavoz "principal" (main) y la resistencia de 5W 0,33Ω al terminal del altavoz "remoto" (remote).
② Aplicar señal de 1kHz 40mV al terminal del "SINTONIZADOR" (TUNER).
③ Hacer el volumen de sonido máximo.
④ Con el selector del altavoz puesto en principal y remoto, asegurarse de que el relé del aparato esté en OFF (desconectado) y no se transmita potencia de salida.

*** Si el relé de protección se desconecta debido a sobrecarga, el circuito y la carga no se repondrán a sus condiciones normales, a no ser que el suministro de energía se desconecte una vez y se conecte de nuevo.**

■ CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM

• Fluorescent peak power meter circuit

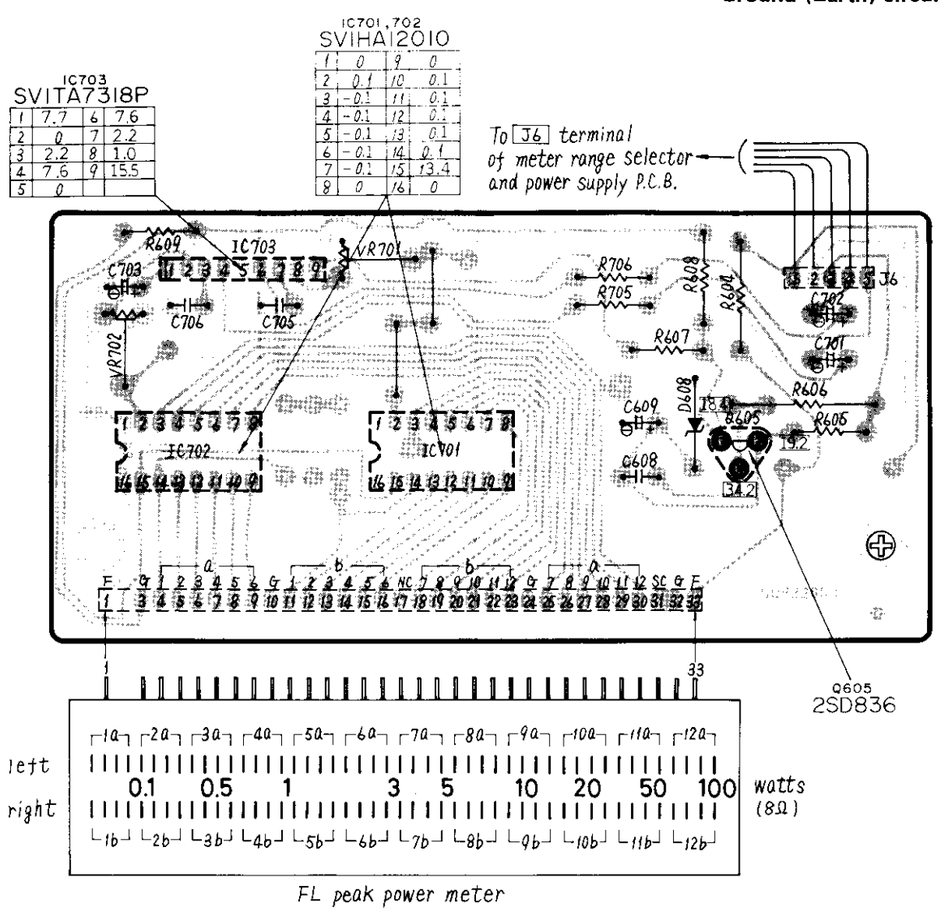
Ground (Earth) circuit

IC703
SVITA7318P

1	7.7	6	7.6
2	0	7	2.2
3	2.2	8	1.0
4	7.6	9	15.5
5	0		

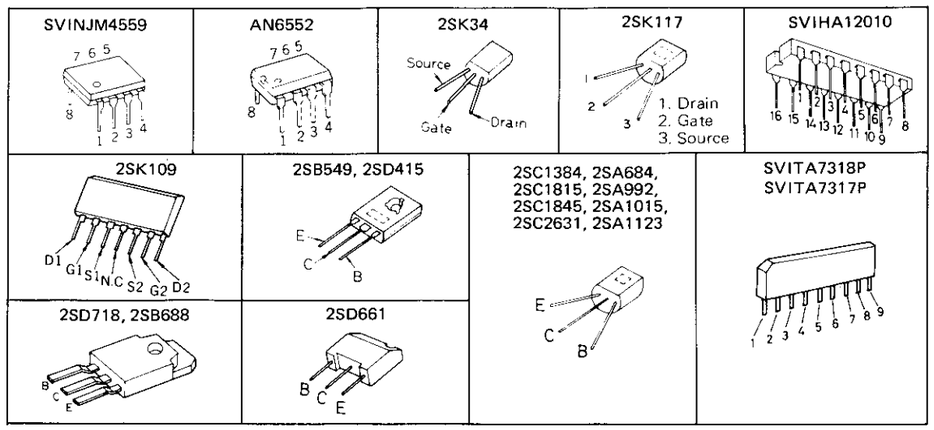
IC701, 702
SVIHA12010

1	0	9	0
2	0.1	10	0.1
3	-0.1	11	0.1
4	-0.1	12	0.1
5	-0.1	13	0.1
6	-0.1	14	0.1
7	-0.1	15	13.4
8	0	16	0



FL peak power meter

■ TERMINAL GUIDE OF TRANSISTORS AND IC'S

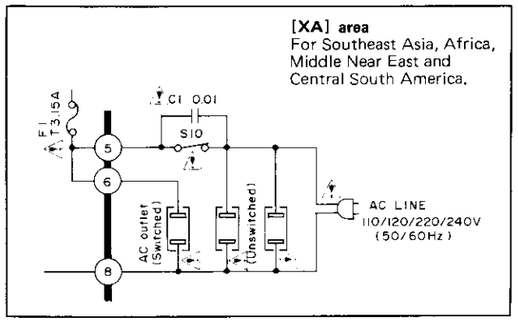


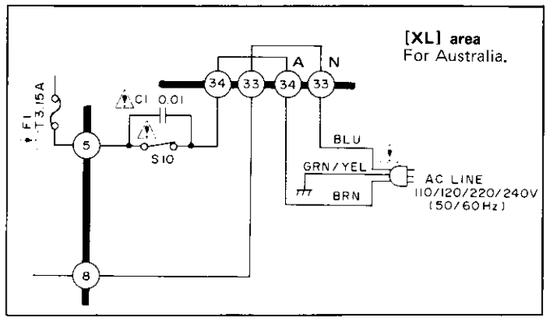
■ NOTES OF SCHEMATIC DIAGRAM

Notes:

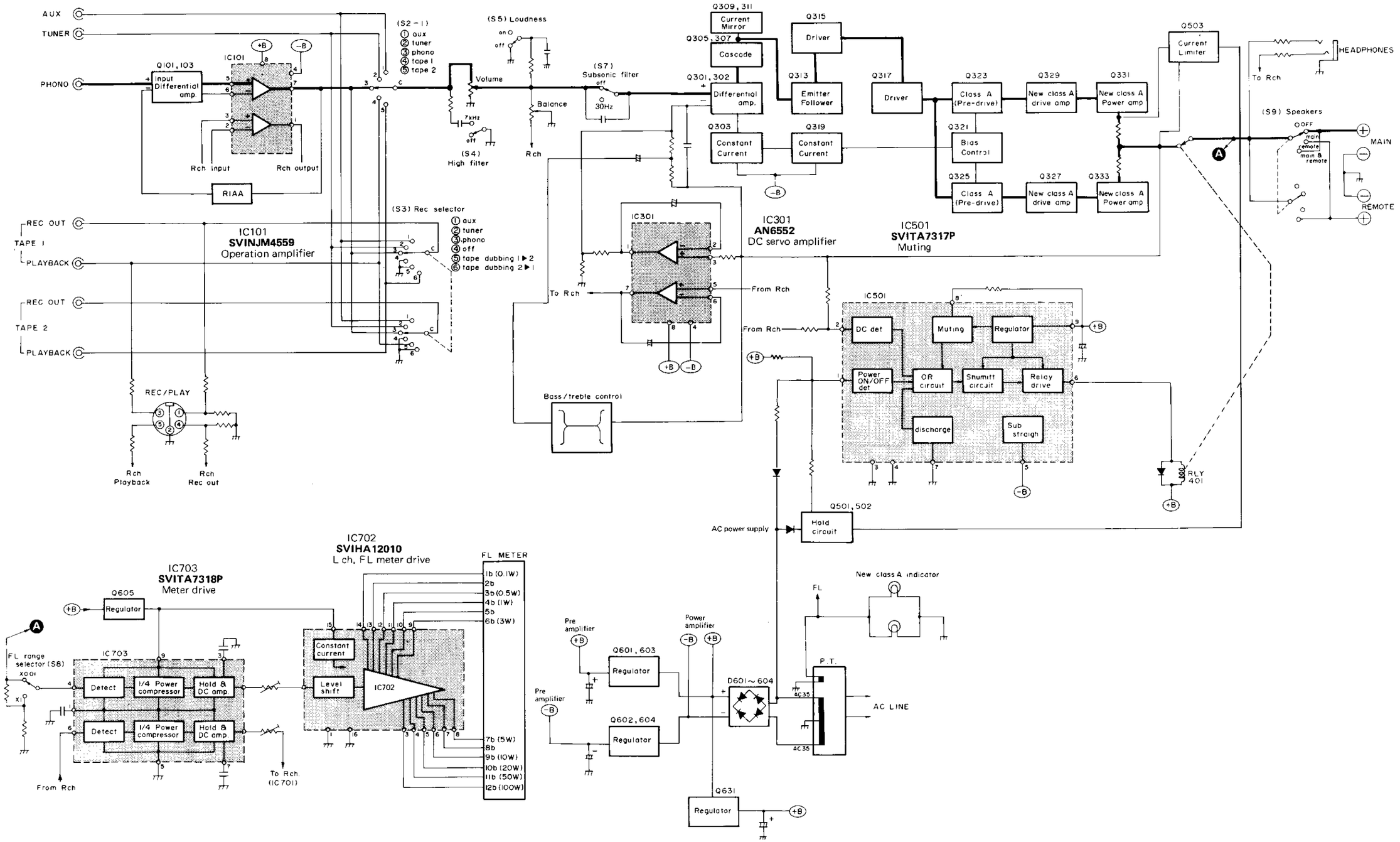
1. **S2-1, S2-2:** Input selector switch in "**phono**" position. (① aux ↔ ② tuner ↔ **3** phono ↔ ④ tape 1 ↔ ⑤ tape 2)
2. **S3-1~S3-4:** Recording output selector switch in "**phono**" position. (① aux ↔ ② tuner ↔ ③ phono ↔ ④ off ↔ ⑤ tape dubbing 1 ▶ 2 ↔ ⑥ tape dubbing 2 ▶ 1)
3. **S4:** High filter switch in "**off**" position. (off ↔ 7kHz, −6dB/oct.)
4. **S5:** Loudness switch in "**off**" position.
5. **S6:** Subsonic filter switch in "**off**" position (off ↔ 30Hz, −6dB/oct.)
6. **S8:** Meter range selector switch in "**x0.01**" position. (x0.01 ↔ x1)
7. **S9:** Speakers selector switch in "**main**" position. (① speakers off ↔ ② main ↔ ③ remote ↔ ④ main and remote)
8. **S10:** Power source switch in "**on**" position.
9. **S11:** Voltage selector switch in "**220V**" position. (120V ↔ 110V ↔ 220V ↔ 240V)
10. Same circuit is used for both L and R channels. For the resistance and capacity of R channel (lower of circuit diagram), refer to L channel. For the voltage value, refer to R channel.
11. ☐ Indicated voltage values are the standard values for 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.
    * Figures in (( )) stand for DC voltage in FL light up condition.
12. Phono signal lines of left channel
13. ▬▬▶ Positive (+B) voltage lines.
14. ▪▪▪▶ Negative (−B) voltage lines.
15. Important safety notice:
    Componetns identified by △ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

• Power source circuit for [XA] and [XL] area only





■ BLOCK DIAGRAM



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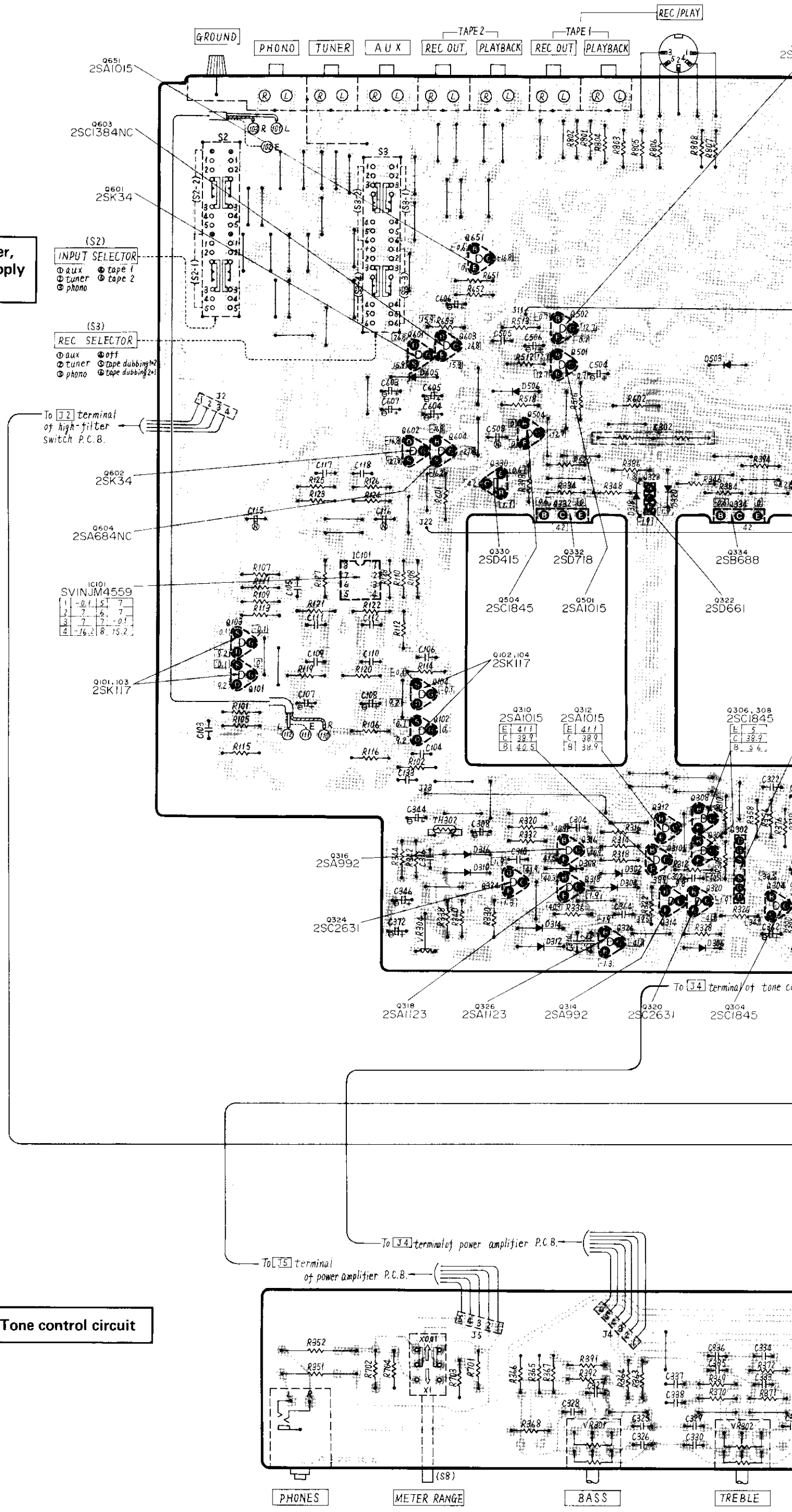
■ CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM

Model **SU-V3**

Ground (Earth) lines

- **Equalizer, power amplifier, protection and power supply circuits**



- **Tone control circuit**

20

REC/PLAY

MAIN SPEAKER

REMOTE SPEAKER

MAIN SPEAKER

REMOTE SPEAKER

(RIGHT)

(LEFT)

AC LINE
110/120/220/240V
(50/60Hz)

① speakers off
② main
③ remote
④ main & remote

(S9)

SPEAKERS

Q502
2SC1815

L301

L302

RLY401

D408

Z304

Z303

R350

R439

Z601

R597

R506

D401

D402

D403

D404

C601

C602

D503

J13

J11

J21

J22

R521

R508

C501

R504

R502

R505

R501

C511

C502

C503

C507

R517

R515

D505

D501

IC501
SVITA7317P

1	0.8	6	1.1
2	0	7	0
3	0	8	1.3
4	0	9	3.1
5	0.8		

(T1)
Power transformer

Q329
Q327
Q328
Q333
Q331
Q321
Q322

Q503
2SC1845

Chassis ground throught heat-sink

Q334
2SB688

Q327, 328
2SB549

Q333
2SB688

Q331
2SD718

Q322
2SD661

Q321
2SD661

Q329
2SD415

Q306, 308
2SC1845

E	5
C	38.9
B	5.6

Q302
2SK109

S	0.2
D	5
G	0

IC301
AN6552

1	0.7	5	0
2	0	6	0
3	0	7	0.7
4	-16.2	8	15.3

Q305, 307
2SC1845

E	5
C	38.9
B	5.6

Q311
2SA1015

E	41.1
C	38.9
B	38.9

Q309
2SA1015

E	41.1
C	38.9
B	40.5

Q315
2SA992

J6

J5

C343

R314

R331

C307

D315

D309

C315

R341

THB01

R343

C345

C371

C321

C322

C342

C341

C340

C339

C323

C324

C305

C306

C313

C312

C311

C310

C309

C308

R312

R311

R310

R309

R308

R307

R306

R305

R304

R303

R302

R301

R358

R357

R356

R355

R354

R353

R352

R351

R350

R349

R348

R347

R346

R345

R344

R343

R342

R341

R340

R339

R338

R337

R336

R335

R334

R333

R332

R331

R330

R329

R328

R327

R326

R325

R324

R323

R322

R321

R320

R319

R318

R317

R316

R315

R314

R313

R312

R311

R310

R309

R308

R307

R306

R305

R304

R303

R302

R301

J4

J3

J2

J1

To J6 terminal of FL peak power meter P.C.B.

To J5 terminal of headphone jack P.C.B.

To J4 terminal of tone control P.C.B.

To J3 terminal of subsonic filter switch P.C.B.

PL1

PL2

(8V 150mA)

"New Class A" Light

C1 0.01

(S10)

POWER

120V
240V
110V
220V

(S11)

VOLTAGE SELECTOR

F2 T1.6A

F1 T3.15A

Q320
2SC2631

Q304
2SC1845

Q301
2SK109

Q303
2SC1845

Q319
2SC2631

Q313
2SA992

Q325
2SA1123

Q317
2SA1123

Q323
2SC2631

J1

VR201

VOLUME

To J2 terminal of input selector P.C.B.

To J3 terminal of power amplifier P.C.B.

C207

30Hz

7kHz

R203

R204

C203

C204

C208

R205

J2

J3

R201

R202

C202

C201

R206

R207

C205

R208

C206

VR202

(S6)

(S4)

(S5)

TREBLE

SUBSONIC FILTER

HIGH FILTER

LOUDNESS

BALANCE

C336

C334

C337

C338

C335

C333

R372

R371

R370

C332

C329

C331

C330

VR302

SUP 22690A

Q301, 302	Q303, 304	Q309 ~ 312	Q315, 316	Q319, 32
2SK109	2SC1845	2SA1015	2SA992	2SC2
DIFFERENTIAL	CONSTANT CURRENT	CURRENT MIRROR	PRE DRIVE	CONSTAN
Q305 ~ 308	Q313, 314	Q317, 318	Q321, 32	
2SC1845	2SA992	2SA1123	2SD6	
CASCADE	EMITTER FOLLOWER	CASCADE	BIAS CO	

(L ch) PHONO

(R ch) PHONO

GND

Q101 ~ 104
2SK117
DIFFERENTIAL

IC101
SVINJM4559
EQUALIZER

Output

Output

SUP 22630B

Volume

Balance

Bass

Treble

Bass

Treble

ICQ

ICQ

Input selector

Input selector

(S2) ① aux ④ tape 1
② tuner ⑤ tape 2
③ phono

(L ch)
TUNER
AUX
REC OUT TAPE 1 PLAYBACK
REC OUT TAPE 2 PLAYBACK
(R ch)
TUNER
AUX
REC OUT TAPE 1 PLAYBACK
REC OUT TAPE 2 PLAYBACK

TAPE 1 REC/PLAY

Rec mode selector

(S3) ① aux ③ phono ⑤ tape dubbing 1 ▶ 2
② tuner ④ off ⑥ tape dubbing 2 ▶ 1

High filter

Loudness

Subsonic filter

NF line

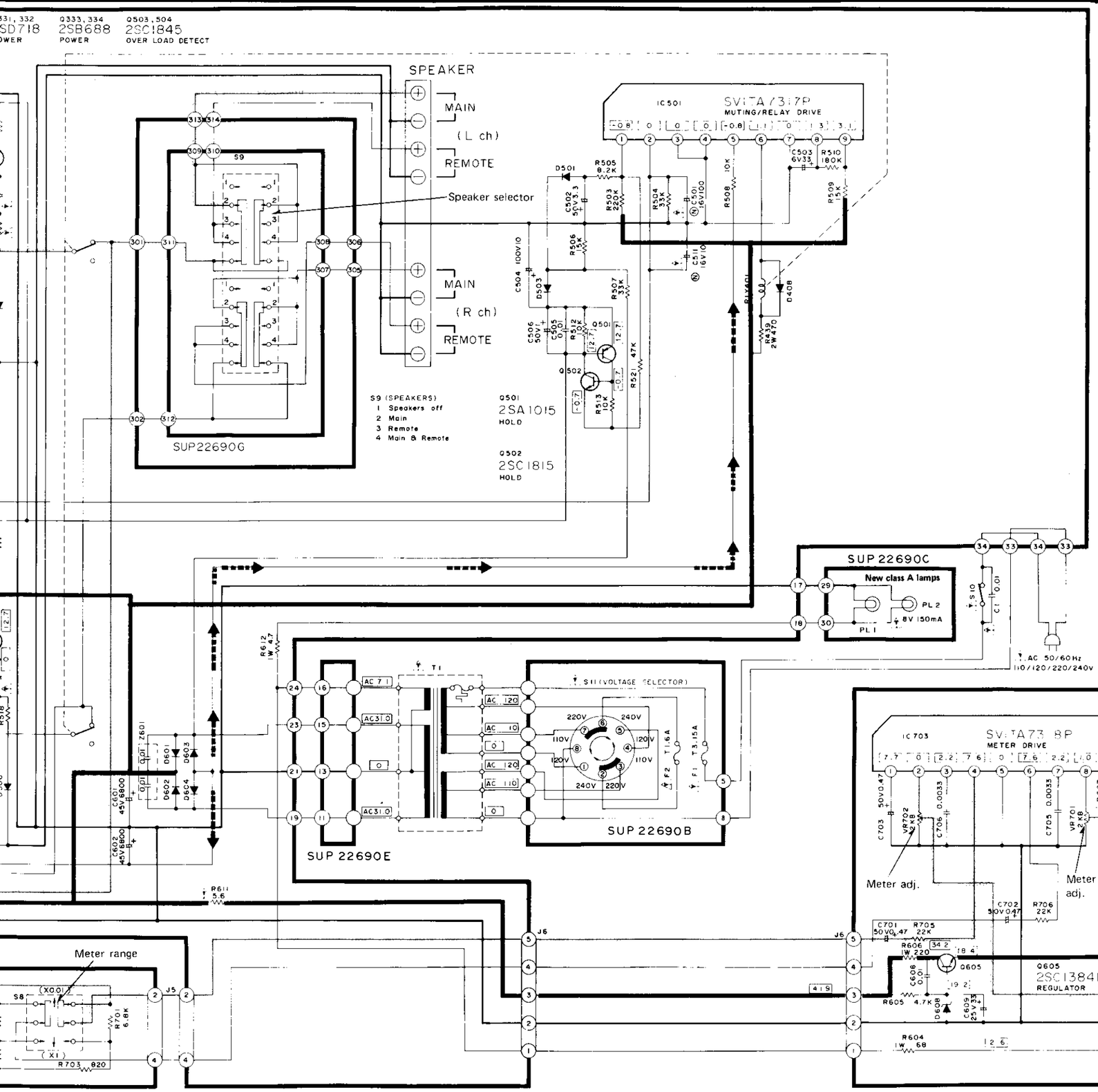
Q601, 602	Q603	Q604
2SK34	2SC1384NC	2SA684NC
REGULATOR	REGULATOR	REGULATOR

Q651
2SA1015
REGULATOR

SUP 22630A

Q301, 302 2SK109 DIFFERENTIAL
Q303, 304 2SC1845 CONSTANT CURRENT
Q305 ~ 308 2SC1845 CASCADE
Q309 ~ 312 2SA 015 CURRENT MIRROR
Q313, 314 2SA992 EMITTER FOLLOWER
Q315, 316 2SA992 PRE DRIVE
Q317, 318 2SA1123 CASCADE
Q319, 320 2SC2631 CONSTANT CURRENT
Q321, 322 2SD661 BIAS CONTROL
Q323, 324 2SC2631 CLASS A DRIVE
Q325, 326 2SA1123 CLASS A DRIVE
Q327, 328 2SB549 NEW CLASS A DRIVE
Q329, 330 2SD415 NEW CLASS A DRIVE
Q331, 332 2SD718 POWER
Q333, 334 2SB688 POWER
Q503, 504 2SC1845 OVER LOAD DETECT

LFB
ICQ
IC301 AN6552 DC SERVO
TP1
TP2
TP3
TP4
SPEAKER
MAIN (L ch) REMOTE
MAIN (R ch) REMOTE
Speaker selector
S9 (SPEAKERS)
1 Speakers off
2 Main
3 Remote
4 Main & Remote
SUP22690G
IC501 SVITA73:7P MUTING/RELAY DRIVE
Q501 2SA1015 HOLD
Q502 2SC1815 HOLD
SUP 22690C
New class A lamps
PL 2 6V 150mA
PL 1
AC 50/60Hz 110/120/220/240
SUP 22690E
SUP 22690B
S11 (VOLTAGE SELECTOR)
IC703 SVITA73:8P METER DRIVE
Meter adj.
Meter range
HEADPHONES
Q601, 602 2SK34 REGULATOR
Q603 2SC1384NC REGULATOR
Q604 2SA684NC REGULATOR
Q651 2SA1015 REGULATOR
Q605 2SC138 REGULATOR



■ SCHEMATIC DIAGRAM

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

Refer to notes on page 16.

● Part number of diodes

Diode Ref. No.	Production Part No.	Standardized Part No.
D301, 302	SVDMA26-2	MA27A2
D303, 304	MA162A	←
D305~308	SVDMA26-2	MA27A2
D309~D316	OA90	20A90
D317~D320	SVDMA26-2	MA27A2
D331, 332	SVDMA26-2	MA27A2
D408	MA150	MA162A
D501, 503	MA150	MA162A
D505, 506	MA162A	←
D601~604	SVDS3V20	SVDS3V40
D605	SVDMZ316B	←
D608	MA1200	←

SU-V3 SU-V3

■ REPLACEMENT PARTS LIST

Notes:
1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. Important safety notice:
   Components identified by ⚠ mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
3. K -marked parts are used for black only, while ○ marked parts are for silver type only.
4. Parts other than K - and ○-marked are used for both black and silver types.
5. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.

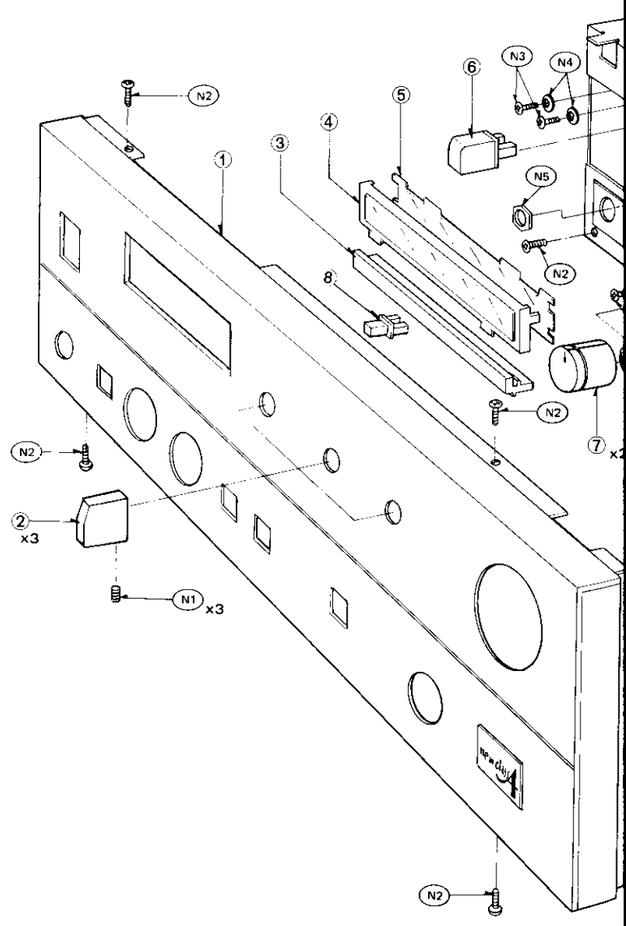
Black type model No.: SU-V3 (K)

Ref. No.		Part No.	Part Name & Description
INTEGRATED CIRCUITS			
IC101		SVINJM4559DD	IC, Equalizer Amplifier
IC301		AN6552F	IC, DC Servo
IC501		SVITA7317P	IC, Muting/Relay Drive
IC701, 702		SVIHA12010	IC, FL Driver
IC703		SVITA7318P	IC, FL Driver
TRANSISTORS			
Q101~104		2SK117-GR	Transistor, Differential Amplifier
Q301, 302		2SK109-D	Transistor, Buffer
Q303~308 503, 504		2SC1845	Transistor, Differential Amplifier, Over Load Detect
Q309~312, 501, 651		2SA1015-Y	Transistor, Differential Amplifier, Hold (Use in ranks Y or O)
Q313~316		2SA992	Transistor, Emitter Follower
Q317, 318		2SA1123-R	Transistor, Pre Drive
Q319, 320		2SC2631-R	Transistor, Pre Drive
Q321, 322		2SD661-S	Transistor, Bias Supply
Q323, 324		2SC2631-R	Transistor, Pre Drive } Use in pair ranks
Q325, 326		2SA1123-R	Transistor, Pre Drive }
Q327, 328		2SB549-Q	Transistor, Driver } Use in pair ranks
Q329, 330		2SD415-Q	Transistor, Driver }
Q331, 332		2SD718-O	Transistor, Power } Use in pair ranks
Q333, 334		2SB688-O	Transistor, Power }
Q502		2SC1815-Y	Transistor, Hold
Q601, 602		2SK34-D1	Transistor, Current Stabilizer (Use in ranks D1 or D2)
Q603, 605		**2SC1384AR**	Transistor, Regulator
Q604		**2SA684-QNC**	Transistor, Regulator
DIODES			
D301, 302, 305~308, 317~320, 331, 332		**MA27A2**	Diode, Bias Supply
D303, 304, 505, 506		**MA162A**	Diode, Bias Supply, Switching
D309~316		**20A90**	Diode, Bias Supply
D408, 501, 503		**MA162A**	Diode, Switching
D601~604	⚠	**SVDS3V40**	Rectifier
D605		SVDMZ316B	Diode, 16V Zener
D608		MA1200	Diode, 20V Zener
COIL and TRANSFORMER			
L301, 302		SLQY15G-30	Coil, Choke
T1	⚠	SLT5N365	Transformer, Power Source
VARIABLE RESISTORS			
VR201		EWJGFA066B15	Volume Control, 100kΩ (B)
VR202		EWHHMA541G16	Balance Control, 100kΩ (G)
VR301		EWGJCY067530	Bass Control
VR302		EWGJC0067C15	Treble Control, 100kΩ (C)
VR303, 304		EVNK6AA00B52	ICQ Adjustment, 500Ω (B)
VR701, 702		EVNK6AA00B23	FL Meter Level Adjustment, 2kΩ (B)
THERMISTER			
TH301, 302		ERTD2ZHL103S	Thermister, Thermal Compensation 10kΩ
COMPONENT COMBINATIONS			
Z301, 302	⚠	ERF3GBKR22N	Component Combination, 3W, 0.22Ω (x2)
Z303, 304		ECQJ0517	Component Combination, 0.047μF, 10Ω
Z601		SXRFS203ZSM	Component Combination, 0.01μF (x2)
FUSES			
F1	⚠	XBA2C31TR0	Fuse, Power Source T3.15A (250V)
F2	⚠	XBA2C16TR0	Fuse, Power Source T1.6A (250V)
RELAY			
RLY401	⚠	SSY69	Relay, Speaker Output
FLUORESCENT DISPLAY TOBE			
FL		SADBG89Z	Fluorescent Display Tube

Ref. No.		Part No.	Part Name & Description
SWITCHES			
S2, 3		ESA2682	Switch, Input Selector, Rec. Selector
S4, 6		SSH2019	Switch, High Filter and Subsonic Filter
S5, 8		SSH197	Switch, Loudness Control and FL Range Selector
S9		SSR151-1	Switch, Speaker Selector
S10	⚠	ESB90259S	Switch, Power Source
S11	⚠	ESE37219	Switch, Voltage Selector
LAMP			
PL1, 2	⚠	XAMR81S10	Lamp, New Class A, 150mA (8V)
RESISTORS			
R101, 102		**ERD25TJ473**	Carbon, 1/4W, 47kΩ, ±5%
R105, 106		**ERD25FJ101**	Carbon, 1/4W, 100Ω, ±5%
R107, 108		**ERD25FJ472**	Carbon, 1/4W, 4.7kΩ, ±5%
R109, 110		**ERD25FJ472**	Carbon, 1/4W, 4.7kΩ, ±5%
R111, 112		**ERD25FJ391**	Carbon, 1/4W, 390Ω, ±5%
R113, 114		**ERD25FJ472**	Carbon, 1/4W, 4.7kΩ, ±5%
R115, 116		**ERD25FJ271**	Carbon, 1/4W, 270Ω, ±5%
R119, 120		**ERD25TJ184**	Carbon, 1/4W, 180kΩ, ±5%
R121, 122		**ERD25TJ123**	Carbon, 1/4W, 12kΩ, ±5%
R123, 124		**ERD25TJ334**	Carbon, 1/4W, 330kΩ, ±5%
R125, 126		**ERD25FJ561**	Carbon, 1/4W, 560Ω, ±5%
R127, 128		**ERD25FJ121**	Carbon, 1/4W, 120Ω, ±5%
R201, 202		**ERD25FJ222**	Carbon, 1/4W, 2.2kΩ, ±5%
R203, 204		**ERD25TJ824**	Carbon, 1/4W, 820kΩ, ±5%
R205, 206		**ERD25TJ183**	Carbon, 1/4W, 18kΩ, ±5%
R207, 208		**ERD25TJ473**	Carbon, 1/4W, 47kΩ, ±5%
R301, 302		**ERD25TJ104**	Carbon, 1/4W, 100kΩ, ±5%
R303, 304		**ERD25FJ221**	Carbon, 1/4W, 220Ω, ±5%
R305, 306		**ERD25FJ272**	Carbon, 1/4W, 2.7kΩ, ±5%
R307, 308		**ERD25TJ273**	Carbon, 1/4W, 27kΩ, ±5%
R309, 310		**ERD25TJ473**	Carbon, 1/4W, 47kΩ, ±5%
R311, 312		**ERD25FJ471**	Carbon, 1/4W, 470Ω, ±5%
R313, 314	⚠	**ERD25FJ561**	Carbon, 1/4W, 560Ω, ±5%
R315, 316	⚠	**ERD25FJ561**	Carbon, 1/4W, 560Ω, ±5%
R317, 318		**ERD25FJ103**	Carbon, 1/4W, 10kΩ, ±5%
R319, 320	⚠	**ERD25FJ561**	Carbon, 1/4W, 560Ω, ±5%
R321, 322		**ERD25TJ562**	Carbon, 1/4W, 5.6kΩ, ±5%
R323, 324		**ERD25TJ393**	Carbon, 1/4W, 39kΩ, ±5%
R325, 326		**ERD25FJ822**	Carbon, 1/4W, 8.2kΩ, ±5%
R327, 328	⚠	**ERD25FJ151**	Carbon, 1/4W, 150Ω, ±5%
R329, 330		**ERD25TJ473**	Carbon, 1/4W, 47kΩ, ±5%
R331, 332	⚠	**ERD25FJ560**	Carbon, 1/4W, 56Ω, ±5%
R333, 334	⚠	**ERD25FJ100**	Carbon, 1/4W, 10Ω, ±5%
R335, 336		**ERD25FJ472**	Carbon, 1/4W, 4.7kΩ, ±5%
R337, 338	⚠	**ERD25FJ681**	Carbon, 1/4W, 680Ω, ±5%
R339, 340	⚠	**ERD25FJ102**	Carbon, 1/4W, 1kΩ, ±5%
R341, 342	⚠	**ERD25FJ102**	Carbon, 1/4W, 1kΩ, ±5%
R343, 344		**ERD25TJ823**	Carbon, 1/4W, 82kΩ, ±5%
R345, 346		**ERD25TJ124**	Carbon, 1/4W, 120kΩ, ±5%
R347, 348		**ERD25TJ124**	Carbon, 1/4W, 120kΩ, ±5%
R349, 350	⚠	**ERD50FJ100**	Carbon, 1/2W, 10Ω, ±5%
R351, 352		**ERG2ANJ331**	Metal Oxide, 2W, 330Ω, ±5%
R355, 356		**ERD25TJ124**	Carbon, 1/4W, 120kΩ, ±5%
R357, 358		**ERD25TJ223**	Carbon, 1/4W, 22kΩ, ±5%
R363, 364		**ERD25TJ153**	Carbon, 1/4W, 15kΩ, ±5%
R365, 366		**ERD25FJ272**	Carbon, 1/4W, 2.7kΩ, ±5%
R367, 368		**ERD25TJ393**	Carbon, 1/4W, 39kΩ, ±5%
R369, 370		**ERD25FJ821**	Carbon, 1/4W, 820Ω, ±5%
R371, 372		**ERD25FJ272**	Carbon, 1/4W, 2.7kΩ, ±5%
R373, 374		**ERD25TJ104**	Carbon, 1/4W, 100kΩ, ±5%
R375, 376		**ERD25TJ104**	Carbon, 1/4W, 100kΩ, ±5%
R377, 378		**ERD25TJ823**	Carbon, 1/4W, 82kΩ, ±5%
R379, 380		**ERD25FJ102**	Carbon, 1/4W, 1kΩ, ±5%
R383, 384	⚠	**ERD25FJ680**	Carbon, 1/4W, 68Ω, ±5%

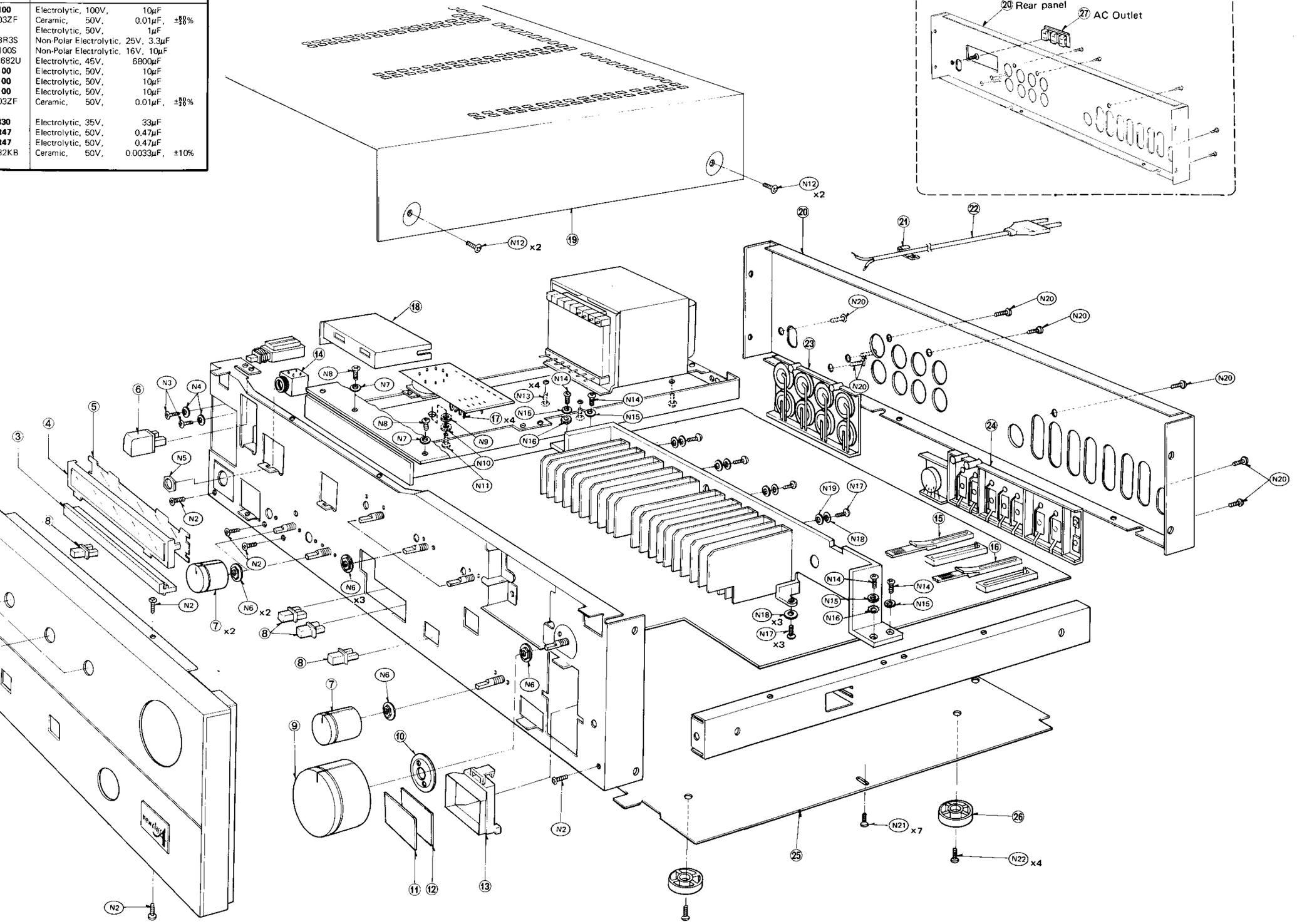
Ref. No.		Part No.	Part Name & Description
R385, 386	⚠	**ERD25FJ221**	Carbon, 1/4W, 220Ω, ±5%
R391, 392		**ERD25TJ394**	Carbon, 1/4W, 390kΩ, ±5%
R393, 394	⚠	**ERD25FJ3R3**	Carbon, 1/4W, 3.3Ω, ±5%
R397, 398	⚠	**ERD25FJ3R3**	Carbon, 1/4W, 3.3Ω, ±5%
R439	⚠	**ERG2ANJ471**	Metal Oxide, 2W, 470Ω, ±5%
R501		**ERD25TJ124**	Carbon, 1/4W, 120kΩ, ±5%
R502		**ERD25TJ104**	Carbon, 1/4W, 100kΩ, ±5%
R503		**ERD25TJ224**	Carbon, 1/4W, 220kΩ, ±5%
R504		**ERD25TJ333**	Carbon, 1/4W, 33kΩ, ±5%
R505		**ERD25FJ822**	Carbon, 1/4W, 8.2kΩ, ±5%
R506		**ERD25TJ153**	Carbon, 1/4W, 15kΩ, ±5%
R507		**ERD25TJ333**	Carbon, 1/4W, 33kΩ, ±5%
R508		**ERD25FJ103**	Carbon, 1/4W, 10kΩ, ±5%
R509		**ERD25TJ153**	Carbon, 1/4W, 15kΩ, ±5%
R510		**ERD25TJ184**	Carbon, 1/4W, 180kΩ, ±5%
R512, 513		**ERD25FJ103**	Carbon, 1/4W, 10kΩ, ±5%
R515, 516		**ERD25TJ223**	Carbon, 1/4W, 22kΩ, ±5%
R517, 518	⚠	**ERD25FJ272**	Carbon, 1/4W, 2.7kΩ, ±5%
R519, 520	⚠	**ERD25FJ391**	Carbon, 1/4W, 390Ω, ±5%
R521		**ERD25TJ473**	Carbon, 1/4W, 47kΩ, ±5%
R601	⚠	**ERD50FJ821**	Carbon, 1/2W, 820Ω, ±5%
R602	⚠	**ERD50FJ681**	Carbon, 1/2W, 680Ω, ±5%
R604		**ERG1ANJ680**	Metal Oxide, 1W, 68Ω, ±5%
R605		**ERD25FJ472**	Carbon, 1/4W, 4.7kΩ, ±5%
R606		**ERG1ANJ221**	Metal Oxide, 1W, 220Ω, ±5%
R607	⚠	**ERD25FJ561**	Carbon, 1/4W, 560Ω, ±5%
R608	⚠	**ERD50FJ271**	Carbon, 1/2W, 270Ω, ±5%
R609		**ERD25FJ471**	Carbon, 1/4W, 470Ω, ±5%
R611	⚠	**ERD25FJ5R6**	Carbon, 1/4W, 5.6Ω, ±5%
R612		**ERX1ANJ4R7**	Metal Film, 1W, 4.7Ω, ±5%
R651		**ERD25FJ102**	Carbon, 1/4W, 1kΩ, ±5%
R652, 653		**ERD25TJ153**	Carbon, 1/4W, 15kΩ, ±5%
R701, 702		**ERD25FJ682**	Carbon, 1/4W, 6.8kΩ, ±5%
R703, 704		**ERD25FJ821**	Carbon, 1/4W, 820Ω, ±5%
R705, 706		**ERD25TJ223**	Carbon, 1/4W, 22kΩ, ±5%
R801, 802		**ERD25TJ394**	Carbon, 1/4W, 390kΩ, ±5%
R803, 804		**ERD25FJ392**	Carbon, 1/4W, 3.9kΩ, ±5%
R805, 806		**ERD25FJ392**	Carbon, 1/4W, 3.9kΩ, ±5%
R807, 808		**ERD25TJ104**	Carbon, 1/4W, 100kΩ, ±5%
CAPACITORS			
C1	⚠	ECKDKC103PF	Ceramic, 400VAC, 0.01μF, +100-0%
C103 104		ECCD1H820K	Ceramic, 50V, 82pF, ±10%
C105, 106		ECKD1H681KB	Ceramic, 50V, 680pF, ±10%
C107, 108		**ECEA1AS101**	Electrolytic, 10V, 100μF
C109, 110		ECQM1H223JZ	Polyester, 50V, 0.022μF, ±5%
C111, 112		ECQM1H682JZ	Polyester, 50V, 0.0068μF, ±5%
C115, 116		ECEA1EN3R3S	Non-Polar Electrolytic, 25V, 3.3μF
C117, 118		ECQM1H472KZ	Polyester, 50V, 0.0047μF, ±10%
C133		ECKD1H103ZF	Ceramic, 50V, 0.01μF, +80-20%
C201, 202		ECCD1H181K	Ceramic, 50V, 180pF, ±10%
C203, 204		ECQM1H682KZ	Polyester, 50V, 0.0068μF, ±10%
C205, 206		ECQM1H563KZ	Polyester, 50V, 0.056μF, ±10%
C207, 208		ECQM1H473KZ	Polyester, 50V, 0.047μF, ±10%
C301, 302		ECKD1H471KB	Ceramic, 50V, 470pF, ±10%
C303, 304		ECKD1H681KB	Ceramic, 50V, 680pF, ±10%
C305, 306		ECCD1H390K	Ceramic, 50V, 39pF, ±10%
C307, 308		**ECEA50Z4R7**	Electrolytic, 50V, 4.7μF
C309, 310		ECCD1H270K	Ceramic, 50V, 27pF, ±10%
C311, 312		ECCD1H270K	Ceramic, 50V, 27pF, ±10%
C313, 314		ECKD1H681KB	Ceramic, 50V, 680pF, ±10%
C315, 316		ECKD1H681KB	Ceramic, 50V, 680pF, ±10%
C321, 322		ECCD1H050C	Ceramic, 50V, 5pF, ±0.25pF
C323, 324		**ECEA25Z4R7**	Electrolytic, 25V, 4.7μF
C325, 326		ECQM1H223KZ	Polyester, 50V, 0.022μF, ±10%
C327, 328		ECQM1H124KZ	Polyester, 50V, 0.12μF, ±10%
C329, 330		ECQS1821JZ	Styrol, 125V, 820pF, ±5%
C331, 332		ECCD1H121K	Ceramic, 50V, 120pF, ±10%
C333, 334		ECQM1H102KZ	Polyester, 50V, 0.001μF, ±10%
C335, 336		ECQM1H272KZ	Polyester, 50V, 0.0027μF, ±10%
C337, 338		ECQM1H393KZ	Polyester, 50V, 0.039μF, ±10%
C339, 340		**ECEA50Z1**	Electrolytic, 50V, 1μF
C341, 342	⚠	ECEA1EN3R3S	Non-Polar Electrolytic, 25V, 3.3μF
C343, 344		**ECEA1HS470**	Electrolytic, 50V, 47μF
C345, 346		**ECEA1HS100**	Electrolytic, 50V, 10μF
C361, 362		**ECEA1HS100**	Electrolytic, 50V, 10μF
C363, 364		ECCD1H050C	Ceramic, 50V, 5pF, ±0.25pF
C371, 372		**ECEA1HS100**	Electrolytic, 50V, 10μF
C501	⚠	ECEA1CN101S	Non-Polar Electrolytic, 16V, 100μF
C502		**ECEA50Z3R3**	Electrolytic, 50V, 3.3μF
C503		**ECEA1CS330**	Electrolytic, 16V, 33μF

Ref. No.		Part No.	Part Name & Description
C504		**ECEA2AS100**	Electrolytic, 100V, 10μF
C505		ECKD1H103ZF	Ceramic, 50V, 0.01μF, +80-20%
C506		**ECEA50Z1**	Electrolytic, 50V, 1μF
C507, 508	⚠	ECEA1EN3R3S	Non-Polar Electrolytic, 25V, 3.3μF
C511	⚠	ECEA1CN100S	Non-Polar Electrolytic, 16V, 10μF
C601, 602		ECETS45V682U	Electrolytic, 45V, 6800μF
C603, 604		**ECEA1HS100**	Electrolytic, 50V, 10μF
C605, 606		**ECEA1HS100**	Electrolytic, 50V, 10μF
C607		**ECEA1HS100**	Electrolytic, 50V, 10μF
C608		ECKD1H103ZF	Ceramic, 50V, 0.01μF, +80-20%
C609		**ECEA1VS330**	Electrolytic, 35V, 33μF
C701, 702		**ECEA50ZR47**	Electrolytic, 50V, 0.47μF
C703		**ECEA50ZR47**	Electrolytic, 50V, 0.47μF
C705, 706		ECKD1H332KB	Ceramic, 50V, 0.0033μF, ±10%

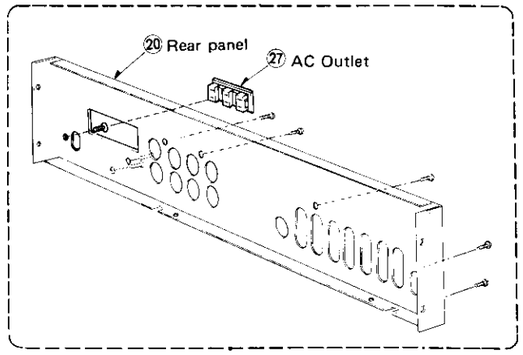


o.	Part Name & Description		
100	Electrolytic, 100V,	10µF	
03ZF	Ceramic, 50V,	0.01µF,	±80/20%
	Electrolytic, 50V,	1µF	
3R3S	Non-Polar Electrolytic, 25V,	3.3µF	
100S	Non-Polar Electrolytic, 16V,	10µF	
682U	Electrolytic, 45V,	6800µF	
00	Electrolytic, 50V,	10µF	
00	Electrolytic, 50V,	10µF	
00	Electrolytic, 50V,	10µF	
03ZF	Ceramic, 50V,	0.01µF,	±80/20%
330	Electrolytic, 35V,	33µF	
47	Electrolytic, 50V,	0.47µF	
47	Electrolytic, 50V,	0.47µF	
32KB	Ceramic, 50V,	0.0033µF,	±10%

■ EXPLODED VIEW

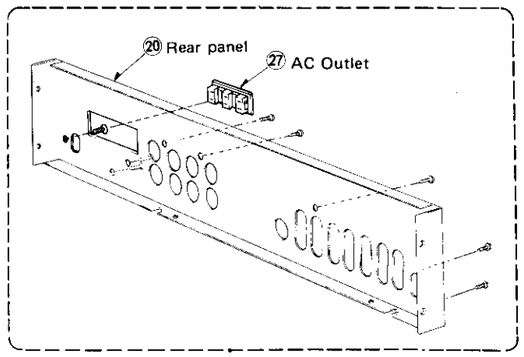


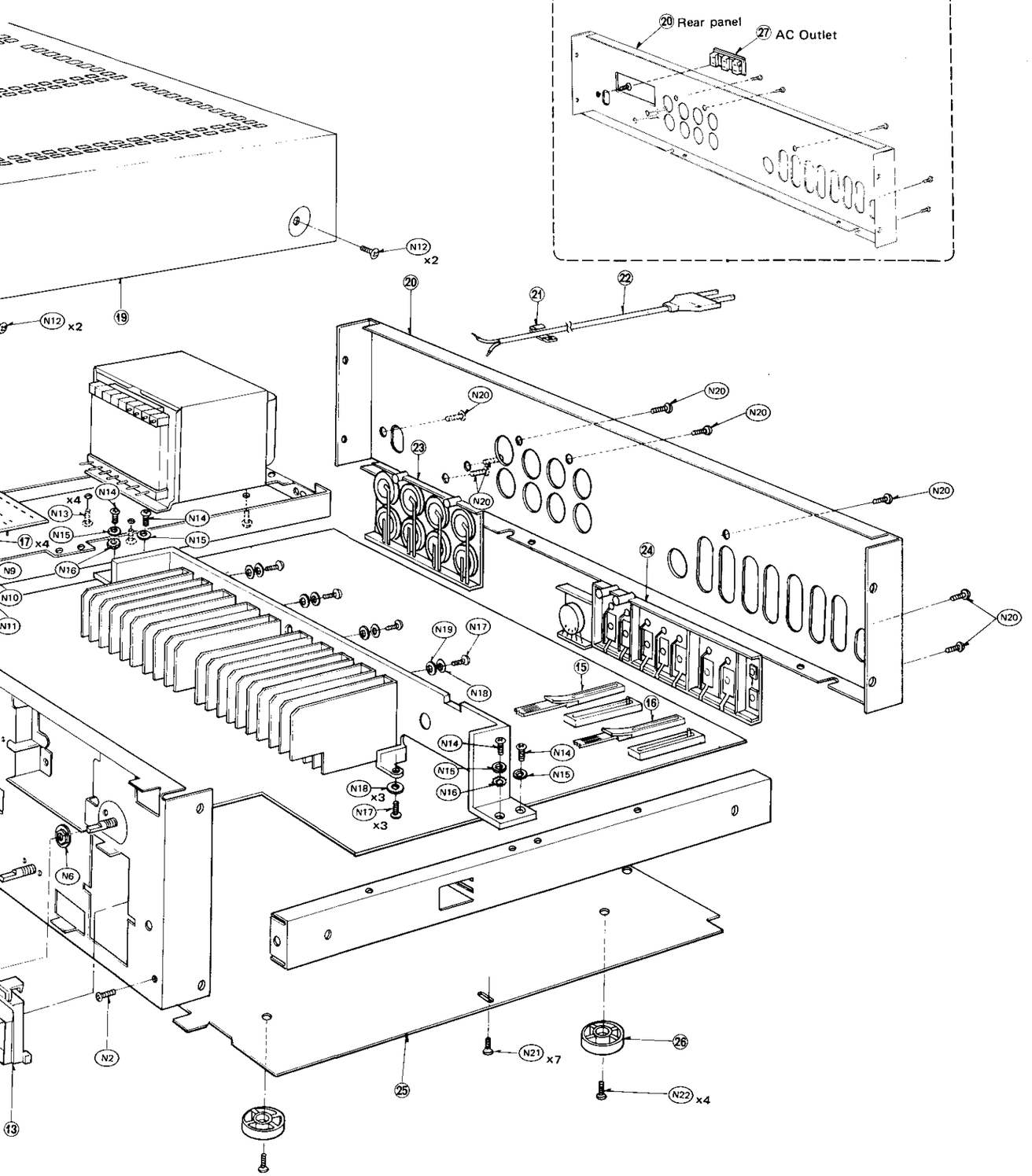
Rear Panel and AC Outlet . . . for [XA]



Ref. No.		Part No.	Part Name & Descr
CABINET and CHASSIS PARTS			
1	○	SYW485	Front Panel Ass'y
1	⊗	SYW485–1	Front Panel Ass'y (Black)
2		SBN995	Knob, Speaker, Input, Rec Se
3	○	SGX7133	Ornament, FL
3	⊗	SGX7133–1	Ornament, FL (Black)
4		SGU237	Transparent Cover, FL
5	○	SDU81	Filter, FL
5	⊗	SDU81–1	Filter, FL (Black)
6		SBC337	Button, Power Source
7		SBN1065	Knob, Bass, Treble and Balan
8		SBC409	Button, Push Switch
9		SBN999–1	Knob, Main Volume
10		SHP9301–1	Spacer, Knob (Main Volume)
11		SDU59–1	Filter, Lamp (new class A)
12		SDE259–1	Tinted Cover
13		SMP305	Case, Lamp (new class A)
14		XCJS6P21B–A1	Jack, Headphone
15		ESA3385B	Remote Control, Rec Selecto
16		ESA3386B	Remote Control, Input Select
17		SJT347	Holder, Fuse
18		SMX455	Cover, PCB
19 [EK] only	○	SKCUV3EK	Cabinet Cover
19	○	SKC810S1	Cabinet Cover
19	⊗	SKC810B1	Cabinet Cover (Black)
20 [E] only		SGP2790A	Rear Panel
20		SGPUV3E	Rear Panel
20 [XL] only		SGP2790–1A	Rear Panel
20 [XA] only		SGP2790–2A	Rear Panel
21		SHR127	Bushing, AC Cord
21 [EK] only		SHR129	Bushing, AC Cord
21 [XL] only		SHR131	Bushing, AC Cord
22	⚠	**SJA88**	AC Cord
22 [EK] only	⚠	**QFC1205M**	AC Cord
22 [XL] only	⚠	**QFC1207MA**	AC Cord
22 [XA] only	⚠	SJA111	AC Cord
23		SJF4813–1	Terminal Board, Speaker
24		SJF3045–10N	Terminal Board, Input
25		SKU9330	Bottom Board
26		SKL227–1	Foot
27 [XA] only	⚠	SJS601–3	Socket, AC Outlet
SCREWS, WASHERS and NUTS			
N1		XXE4D5FZ	Screw, Selector Switch
N2		**XTB3+8BFZ**	Screw, Tapping ⊕ 3x8
N3		**XSN3+6S**	Screw, ⊕ 3x6
N4		**XWA3B**	Washer, Spring ϕ3
N5		**XNS12**	Nut, ϕ12
N6		SNE4021	Nut, Volume
N7		**XWG3**	Washer, Plain ϕ3
N8		**XTN3+8B**	Screw, Tapping ⊕ 3x8
N9		**XWG3**	Washer, Plain ϕ3
N10		**XWA3B**	Washer, Spring ϕ3
N11		**XSN3+10S**	Screw, ⊕ 3x10
N12	○	**XTB4+8BFN**	Screw, Tapping ⊕ 4x8
N12	⊗	**XTB4+8BFZ**	Screw, Tapping ⊕ 4x8
N13		**XTB4+10BFZ**	Screw, Tapping ⊕ 4x10
N14		**XTN3+10B**	Screw, Tapping ⊕ 3x10
N15		**XWG3**	Washer, Plain ϕ3
N16		**XWC4B**	Washer, External Toothed Lo
N17		**XTN3+12B**	Screw, Tapping ⊕ 3x12
N18		**XWG3**	Washer, Plain ϕ3
N19		**XWA3B**	Washer, Spring ϕ3
N20		XTBS3+8BFZ1	Screw, Tapping with Detent ⊕
N21		**XTB3+8BFZ**	Screw, Tapping ⊕ 3x8
N21 [XL] only		XTBS3+8BFZ1	Screw, Tapping with Detent ⊕
N22		**XTB3+10BFZ**	Screw, Tapping ⊕ 3x8
ACCESSORIES			
A1 [XA] only	⚠	SJP5213–1	Plug Adapter, AC Power
A2 [XA] only	⚠	SJP5215	Plug Adaptor, AC Power
A3		SQF10835	Instructions Book, Printed Ma
A3 [XL] only		SQF10837	Instructions Book, Printed Ma
A3 [XA] only		SQF10839	Instructions Book, Printed Ma
A3 [EI] only		SQF10931	Instructions Book, Printed Ma

Rear Panel and AC Outlet . . . for [XA]

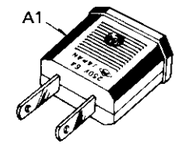


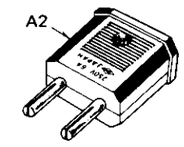


Ref. No.		Part No.	Part Name & Description
CABINET and CHASSIS PARTS			
1	○	SYW485	Front Panel Ass'y
1	Ⓚ	SYW485–1	Front Panel Ass'y (Black)
2		SBN995	Knob, Speaker, Input, Rec Selector
3	○	SGX7133	Ornament, FL
3	Ⓚ	SGX7133–1	Ornament, FL (Black)
4		SGU237	Transparent Cover, FL
5	○	SDU81	Filter, FL
5	Ⓚ	SDU81–1	Filter, FL (Black)
6		SBC337	Button, Power Source
7		SBN1065	Knob, Bass, Treble and Balance
8		SBC409	Button, Push Switch
9		SBN999–1	Knob, Main Volume
10		SHP9301–1	Spacer, Knob (Main Volume)
11		SDU59–1	Filter, Lamp (new class A)
12		SDE259–1	Tinted Cover
13		SMP305	Case, Lamp (new class A)
14		XCJS6P21B–A1	Jack, Headphone
15		ESA3385B	Remote Control, Rec Selector
16		ESA3386B	Remote Control, Input Selector
17		SJT347	Holder, Fuse
18		SMX455	Cover, PCB
19 [EK] only	○	SKCUV3EK	Cabinet Cover
19	○	SKC810S1	Cabinet Cover
19	Ⓚ	SKC810B1	Cabinet Cover (Black)
20 [E] only		SGP2790A	Rear Panel
20		SGPUV3E	Rear Panel
20 [XL] only		SGP2790–1A	Rear Panel
20 [XA] only		SGP2790–2A	Rear Panel
21		SHR127	Bushing, AC Cord
21 [EK] only		SHR129	Bushing, AC Cord
21 [XL] only		SHR131	Bushing, AC Cord
22	⚠	**SJA88**	AC Cord
22 [EK] only	⚠	**QFC1205M**	AC Cord
22 [XL] only	⚠	**QFC1207MA**	AC Cord
22 [XA] only	⚠	SJA111	AC Cord
23		SJF4813–1	Terminal Board, Speaker
24		SJF3045–10N	Terminal Board, Input
25		SKU9330	Bottom Board
26		SKL227–1	Foot
27 [XA] only	⚠	SJS601–3	Socket, AC Outlet
SCREWS, WASHERS and NUTS			
N1		XXE4D5FZ	Screw, Selector Switch
N2		**XTB3+8BFZ**	Screw, Tapping ⊕ 3x8
N3		**XSN3+6S**	Screw, ⊕ 3x6
N4		**XWA3B**	Washer, Spring ϕ3
N5		**XNS12**	Nut, ϕ12
N6		SNE4021	Nut, Volume
N7		**XWG3**	Washer, Plain ϕ3
N8		**XTN3+8B**	Screw, Tapping ⊕ 3x8
N9		**XWG3**	Washer, Plain ϕ3
N10		**XWA3B**	Washer, Spring ϕ3
N11		**XSN3+10S**	Screw, ⊕ 3x10
N12	○	**XTB4+8BFN**	Screw, Tapping ⊕ 4x8
N12	Ⓚ	**XTB4+8BFZ**	Screw, Tapping ⊕ 4x8
N13		**XTB4+10BFZ**	Screw, Tapping ⊕ 4x10
N14		**XTN3+10B**	Screw, Tapping ⊕ 3x10
N15		**XWG3**	Washer, Plain ϕ3
N16		**XWC4B**	Washer, External Toothed Lock ϕ4
N17		**XTN3+12B**	Screw, Tapping ⊕ 3x12
N18		**XWG3**	Washer, Plain ϕ3
N19		**XWA3B**	Washer, Spring ϕ3
N20		XTBS3+8BFZ1	Screw, Tapping with Detent ⊕ 3x8
N21		**XTB3+8BFZ**	Screw, Tapping ⊕ 3x8
N21 [XL] only		XTBS3+8BFZ1	Screw, Tapping with Detent ⊕ 3x8
N22		**XTB3+10BFZ**	Screw, Tapping ⊕ 3x8
ACCESSORIES			
A1 [XA] only	⚠	SJP5213–1	Plug Adapter, AC Power
A2 [XA] only	⚠	SJP5215	Plug Adaptor, AC Power
A3		SQF10835	Instructions Book, Printed Matter
A3 [XL] only		SQF10837	Instructions Book, Printed Matter
A3 [XA] only		SQF10839	Instructions Book, Printed Matter
A3 [EI] only		SQF10931	Instructions Book, Printed Matter

Ref. No.		Part No.	Part Name & Description
PACKING PARTS			
P1		SPP689	Polyethylene Bag
P2		SPS3257	Pad, Left Side
P2 [XL] only		SPS3257–1	Pad, Left Side
P3		SPS3259	Pad, Right Side
P3 [XL] only		SPS3259–1	Pad, Right Side
P4	○	SPG3221	Carton Box
P4 [XL] only	○	SPG3223	Carton Box
P4 [EF] only	○	SPG3225	Carton Box
P4	Ⓚ	SPG3227	Carton Box

● Accessories





Areas

* [E] is available in Scandinavia and Switzerland.
* [EG] is available in F.R. Germany.
* [EK] is available in United Kingdom.
* [EF] is available in France.
* [EH] is available in Holland.
* [EB] is available in Belgium.
* [Ei] is available in Italy.
* [XA] is available in Southeast Asia, Oceania, Africa, Middle Near East and Central South America.
* [XL] is available in Australia.

Printed in Japan
81068500⊗KK/TN