

Service Manual

Stereo Integrated DC Amplifier

SU-V4A

[E], [EG], [XGH], [EB]

SU-V4A(K)

[E], [EG], [XGH], [EB]



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

Areas

* [E] and [EG] are available in Scandinavia and European except Belgium and Holland.
* [XGH] is available in Holland.
* [EB] is available in Belgium.

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TECHNICAL SPECIFICATIONS (DIN 45 500)

Specifications are subject to change without notice for further improvement.

AMPLIFIER SECTION

20 Hz~20 kHz continuous power output
both channels driven

2 × 60W (4Ω)
2 × 55W (8Ω)

40 Hz~16 kHz continuous power output
both channels driven

2 × 60W (4Ω)
2 × 55W (8Ω)

1 kHz continuous power output
both channels driven

2 × 75W (4Ω)
2 × 60W (8Ω)

Total harmonic distortion

rated power at 20 Hz~20 kHz

0.03% (4Ω)

rated power at 40 Hz~16 kHz

0.02% (8Ω)

rated power at 1 kHz

0.03% (4Ω)

0.02% (8Ω)

0.02% (4Ω)

0.02% (8Ω)

half power at 20 Hz~20 kHz

0.015% (8Ω)

half power at 1 kHz

0.005% (8Ω)

−26 dB power at 1 kHz 0.12% (4Ω)

50 mW power at 1 kHz 0.2% (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 0.02%

Power bandwidth

both channels driven, −3 dB

(THD 0.03%) 5 Hz~30 kHz (4Ω)

(THD 0.02%) 5 Hz~30 kHz (8Ω)

Residual hum and noise (straight DC)

0.65 mV

Damping factor

25 (4Ω), 50 (8Ω)

Input sensitivity and impedance

PHONO MM 2.5 mV/47kΩ

MC 170 μV/47Ω

TUNER, AUX 150 mV/27kΩ

TAPE 1 REC/PLAY 180 mV/33kΩ

TAPE 2 150 mV/27kΩ

PHONO maximum input voltage (1 kHz, RMS)

MM 150 mV

MC 10 mV

Technics

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

ORDER NO. SD8007-1770

DONNEES TECHNIQUES (DIN 45 500)

Sujet à changement sans préavis.

SECTION AMPLIFICATEUR

Puissance de sortie continue de 20 Hz~20 kHz, les deux canaux en circuit	2 × 60W (4Ω) 2 × 55W (8Ω)
Puissance de sortie continue de 40 Hz~16 kHz, les deux canaux en circuit	2 × 60W (4Ω) 2 × 55W (8Ω)
Puissance de sortie continue à 1 kHz les deux canaux en circuit	2 × 75W (4Ω) 2 × 60W (8Ω)
Distorsion harmonique totale	
à puissance nominale (20 Hz~20 kHz)	0,03% (4Ω) 0,02% (8Ω)
à puissance nominale (40 Hz~16 kHz)	0,03% (4Ω) 0,02% (8Ω)
à puissance nominale (1 kHz)	0,02% (4Ω) 0,02% (8Ω)
à demi-puissance (20 Hz~20 kHz)	0,015% (8Ω)
à demi-puissance (1 kHz)	0,005% (8Ω)
puissance de -26 dB à 1 kHz	0,12% (4Ω)
puissance de 50 mW à 1 kHz	0,2% (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	0,02%
Réponse de fréquences	
les deux canaux en circuit, -3 dB	(THD 0,03%) 5 Hz~30 kHz (4Ω) (THD 0,02%) 5 Hz~30 kHz (8Ω)
Bruit et ronflement résiduels (straight DC)	0,65 mV
Coefficient d'amortissement	25 (4Ω), 50 (8Ω)
Sensibilité et impédance d'entrée	
PHONO, AIMANT MOBILE (PHONO MM)	2,5 mV/47kΩ
PHONO, BOBINE MOBILE (PHONO MC)	170 μV/47Ω
SYNTONISATEUR, AUX (TUNER, AUX)	150 mV/27kΩ
BANDE 1, ENREGISTREMENT/LECTURE (TAPE 1 REC/PLAY)	180 mV/33kΩ
BANDE 2 (TAPE 2)	150 mV/27kΩ
PHONO (tension d'entrée maximum, 1 kHz RMS)	
AIMANT MOBILE (MM)	150 mV
BOBINE MOBILE (MC)	10 mV
Signal/Bruit	
à puissance nominale (4Ω)	
PHONO, AIMANT MOBILE (PHONO MM)	77 dB (85 dB, IHF'66)

PHONO, BOBINE MOBILE (PHONO MC)

63 dB (68 dB, IHF'66: 250 μV input)

SYNTONISATEUR, AUX (TUNER, AUX)

90 dB (97 dB IHF'66)

puissance de -26 dB (4Ω)

PHONO, AIMANT MOBILE (PHONO MM)

66 dB

PHONO, BOBINE MOBILE (PHONO MC)

62 dB

SYNTONISATEUR, AUX (TUNER, AUX)

67 dB

puissance de 50 mW (4Ω)

PHONO, AIMANT MOBILE (PHONO MM)

62 dB

PHONO, BOBINE MOBILE (PHONO MC)

62 dB

SYNTONISATEUR, AUX (TUNER, AUX)

62 dB

Réponse de fréquence

PHONO

Courbe nominale RIAA

±0,8 dB (30 Hz~15 kHz)

SYNTONISATEUR, AUX (TUNER, AUX)

(straight DC)

5 Hz~150 kHz (-3 dB)

+0 dB, -0,3 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/82 kΩ

Equilibrage des canaux, AUX 250 Hz~6 300 Hz

±1,0 dB

Séparation des canaux, AUX 1 kHz

53 dB

Niveau de sortie des casques et impédance

500 mV/330Ω

Impédance de charge

PRINCIPALE ou AUXILIAIRE (MAIN or REMOTE)

4Ω~16Ω

PRINCIPALE et AUXILIAIRE (MAIN and REMOTE)

8Ω~16Ω

DIVERS

Consommation

580W

Alimentation

CA 50 Hz/60 Hz, 110V/120V/220V/240V

Dimensions (L×H×Pr)

430 × 142 × 292 mm

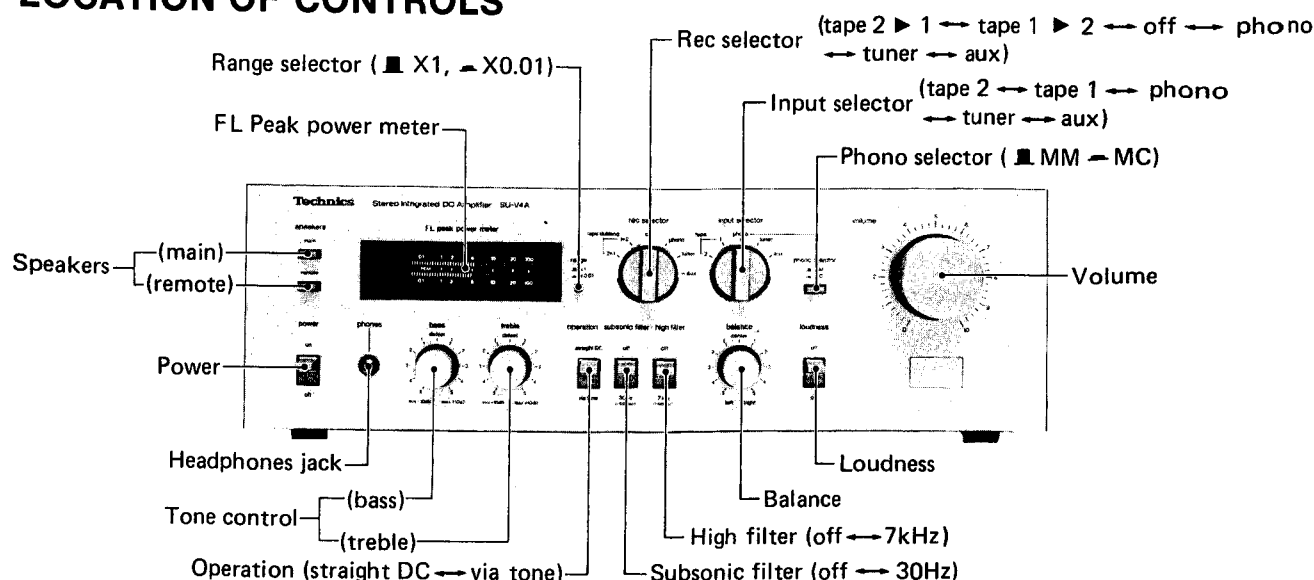
Poids

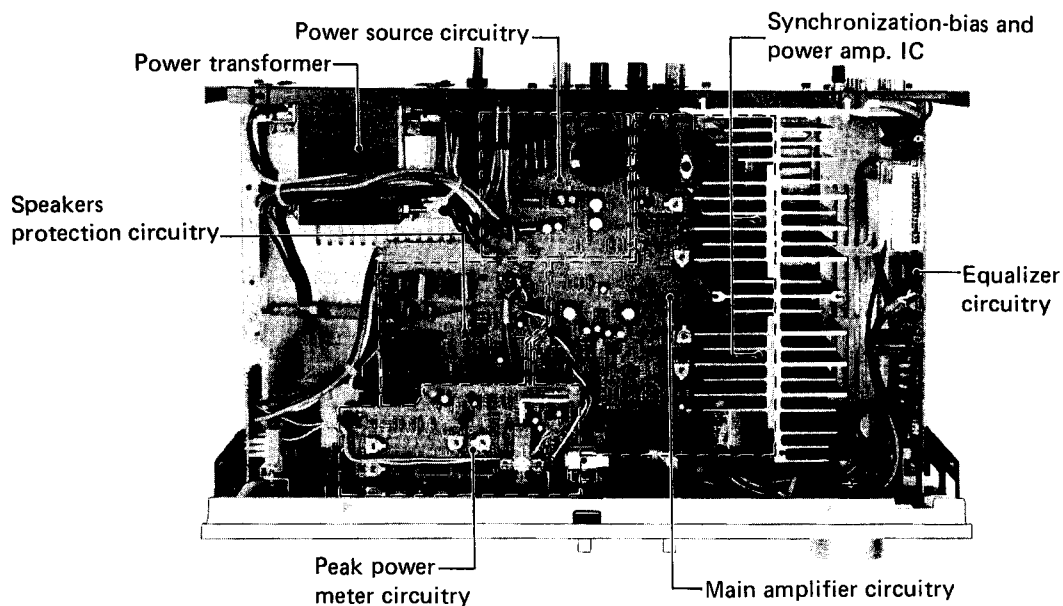
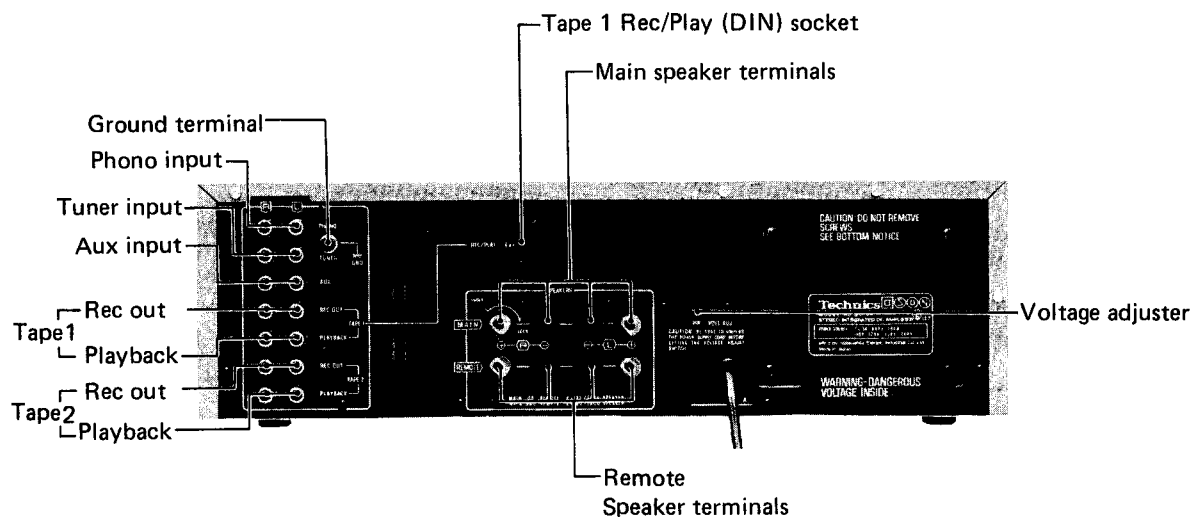
9 kg

Remarque:

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

LOCATION OF CONTROLS

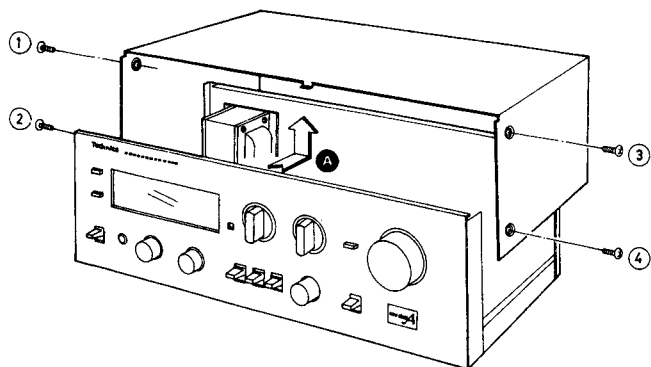




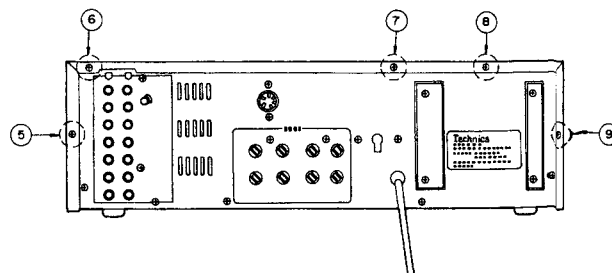
DISASSEMBLY INSTRUCTIONS

• How to remove the cabinet

1. Remove the 4 setscrews (Fig. 1 : ①~④) on the side and 5 setscrews (Fig. 2 : ⑤~⑨) on the back of the cabinet.
2. Shift the cabinet backward and lift it upward. (Arrow A in Fig. 1)



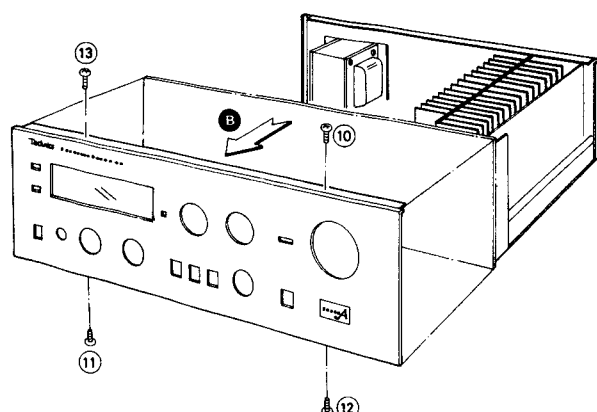
[Fig. 1]



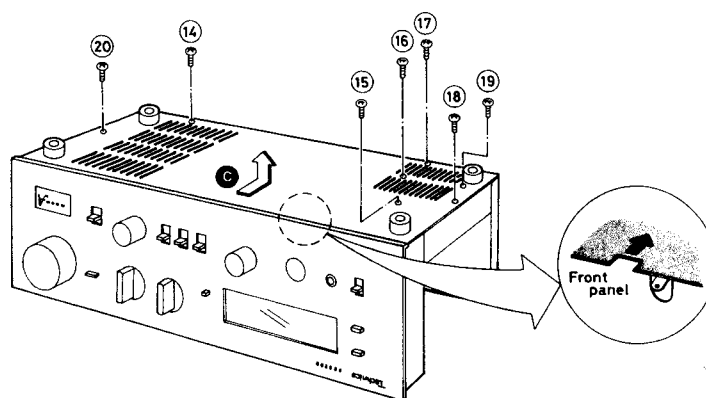
[Fig. 2]

● How to remove the front panel and the bottom board

1. Remove the 4 setscrews (Fig. 3 : ⑩ ~ ⑬) holding the front panel.
2. Pull the front panel outward from the front of the unit. (Fig. 3 : ㉑)
3. To remove the bottom board, remove the 7 setscrews (Fig. 4 : ⑭ ~ ⑳) holding the bottom board.



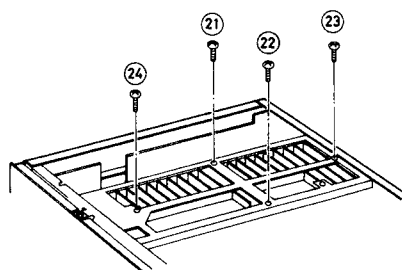
[Fig. 3]



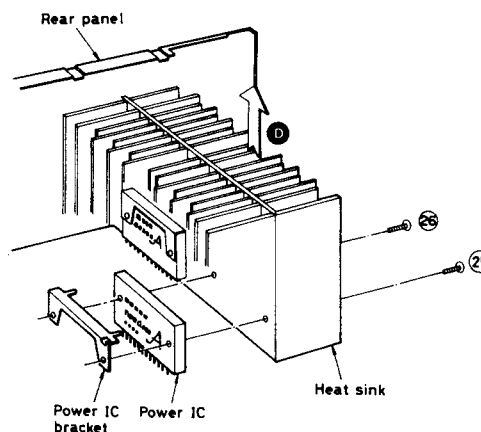
[Fig. 4]

● How to remove the power IC

1. Remove the cabinet and bottom board. (Refer to the sections "How to remove the cabinet" and "How to remove the front panel and the bottom board".)
2. Unsolder of power IC for both L ch and R ch.
3. Remove the 4 setscrews (Fig. 5 : ㉑ ~ ㉔) at the bottom of the heat sink and then remove the heat sink along with the power IC in the direction of the arrow ㉕. (Refer to Fig. 6)
4. Remove the 2 setscrews (Fig. 6 : ㉕, ㉖) used to secure the power IC on the heat sink and then pull the power IC.
5. When mounting the power IC, apply silicone compound (or equivalent heat diffuser) to the rear side of power IC, and then follow the steps 1 ~ 4 reversely.



[Fig. 5]



[Fig. 6]

■ ADJUSTING INSTRUCTIONS ————— ENGLISH

● Setting of controls and instruments to be used

1. Speaker switch main
2. Volume 0 (minimum)
3. DC voltmeter (capable to measure 5mV)

1. Adjustment of Clamp Voltage and Ica

No.	Adjustment	DC Voltmeter Connections	Adjusting Point	Adjustment Procedure
1	Clamp Voltage	L channel Between TP301 and TP303 (minus probe) R channel Between TP302 and TP304 (minus probe)	R337 (L channel) R338 (R channel)	* Turn Ica semi-fixed resistors R367, 368 to minimum. (counter-clockwise direction) * Adjust R337 (L ch) and R338 (R ch) to approx. 0.5mV after ten minutes warm-up time.
2	Ica (Adjustment using a DC voltmeter)	L channel Between TP301 and TP303 (minus probe) R channel Between TP302 and TP304 (minus probe)	R367 (L channel) R368 (R channel)	* Adjust R367 (L ch) and R368 (R ch) to approx. 15.5mV after ten minutes warm-up time.

2. Adjustment of FL power meter

• Setting of controls and instruments to be used

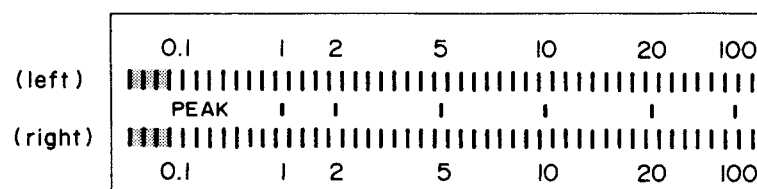
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|--|-----------------------------|
| 1. Input selector tuner | 5. Low frequency oscillator |
| 2. Speaker switch main | 6. AC electronic voltmeter |
| 3. Meter range switch. X0.01 or X1 | 7. 8-ohm load resistor |
| 4. Volume 10 (max.) | |

2-1.

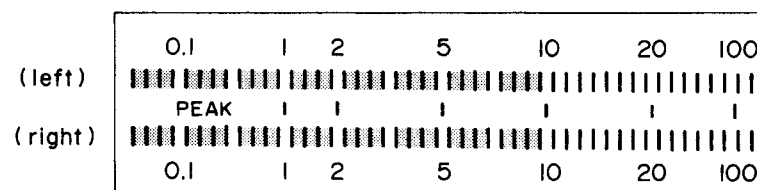
- 1) Connect the low frequency oscillator to the tuner terminals for both channels, and the AC electronic voltmeter to the speaker terminals in parallel with the load resistor.
- 2) Set the meter range switch to "X0.01" position.
- 3) Add 1kHz signal from the low frequency oscillator, and regulate the input level so that the AC electronic voltmeter indicates 0.15V.
- 4) Adjust **VR801** (L ch), **VR802** (R ch) while observing the FL peak power meter until the first segment is about to turn on (Refer to Fig. 7)

2-2.

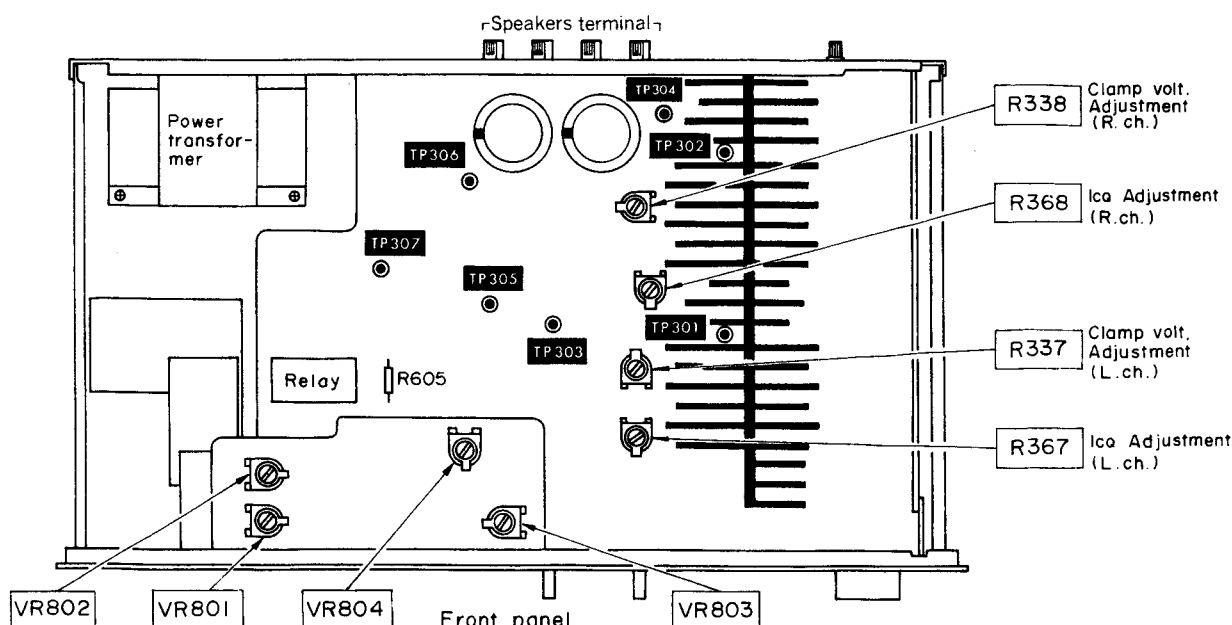
- 1) Set the meter range switch to "X1" position.
- 2) Regulate the input level so that the AC electronic voltmeter indicates 8.9V.
- 3) Make the adjustment in the same way as mentioned in 2-1 by regulating **VR803** (L ch), **VR804** (R ch) so that the 8th segment to turn on. (Refer to Fig. 8) * Each segment consists of four bars.
- 4) Next, make the adjustment in 2-1 by regulating the input level.
- 5) Again regulate the input level to make the output 8.9V, and make sure that the segment at 10W (Refer to Fig. 8) position is on.



[Fig. 7] (Abb. 1)



[Fig. 8] (Abb. 2)



EINSTELLUNGSANWEISUNGEN DEUTSCH

• Einstellung der zu benutzenden Regler und Instrumente

1. Lautsprecherschalter Hauptlautsprecher ("main")
2. Lautstärkeregler '0' (Minimalstellung)
3. Gleichstromvoltmeter. 5mV Meßbereich erforderlich.

1	Klemmspannung	L-Kanal. Zwischen TP301 und TP303 (Minustest) R-Kanal. Zwischen TP302 und TP304 (Minustest)	R337 (L-Kanal) R338 (R-Kanal)	* Die Ico halbfeinjustierten Widerstände R367 und R368 auf Minimalstellung drehen. (Entgegen dem Uhrzeigersinn) * R337 (L-Kanal) und R338 (R-Kanal) auf ungefähr 0,5mV, nach 10 Minuten Anwärmezeit, einstellen.
2	Ico (Einstellungen mit einem Gleichstromvoltmeter)	L-Kanal. Zwischen TP301 und TP303 (Minustest) R-Kanal. Zwischen TP302 und TP304 (Minustest)	R367 (L-Kanal) R368 (R-Kanal)	* R367 (L-Kanal) und R368 (R-Kanal) auf ungefähr 15,5mV, nach 10 Minuten Anwärmezeit einstellen.

2. Abgleichen des FL-Leistungsmeßgerätes

• Einstellung der zu benutzenden Regler und Instrumente

1. Eingangsschalter. tuner
2. Lautsprecherschalter main
3. Meßbereichschalter X0.01 oder X1
4. Lautstärkeregler 10 (max.)
5. Niederfrequenz-Oszillator
6. Wechselstrom-Elektronen-Voltmeter
7. 8 Ohm Belastungswiderstand

2-1.

- 1) An die Tunerklemmen der beiden Kanäle Niederfrequenz-Oszillator anschließen, und an die Lautsprecherklemme parallel mit Belastungswiderstand den Wechselstrom-Elektronen-Voltmeter anschließen.
- 2) Meßbereichschalter auf "X0.01" position.
- 3) Vom Niederfrequenz-Oszillator 1kHz Signal speisen, und Eingangspegel so einstellen, daß Wechselstrom-Elektronen-Voltmeter 0.15 anzeigt.
- 4) Unter Beobachten auf FL-Leistungsmeßgerät **VR801** (L-Kanal), **VR802** (R-Kanal) einstellen, bis das erste Segment fast aufzuleuchten beginnt. (Vgl Abb. 1)

2-2.

- 1) Meßbereichschalter auf "X1" position.
- 2) Eingangspegel so einstellen, daß Wechselstrom-Elektronen-Voltmeter 8.9V anzeigt.
- 3) Unter Einstellung von **VR803** (L-Kanal), **VR804** (R-Kanal) in gleicher Weise wie oben in 2-1 so abgleichen, daß das 8. Segment fast aufzuleuchten beginnt.
- 4) Dann Eingangspegel einstellen und wie in 2-1 abgleichen.
- 5) Eingangspegel wieder einstellen, damit der Eingang 8.9V wird, und sicherstellen, daß das Segment bei 10W aufleuchtet. (Vgl Abb. 2)

INSTRUCTIONS DE REGLAGE FRANÇAIS

• Réglage des commandes et instruments à utiliser

1. Commutateur du haut-parleur Principal
2. Potentiomètre de volume 0 (minimum)
3. Voltmètre CC (pouvant mesurer 5mV)

1	Tension de blocage	Canal G. Entre TP301 et TP303 (sonde au moins) Canal D. Entre TP302 et TP304 (sonde au moins)	R337 (Canal G) R338 (Canal D)	* Tourner les résistances R367, 368 semifixes Ico sur le minimum. (à gauche). * Régler R337 (canal gauche) et R338 (canal droit) sur env. 0.5mV après 10 minutes de temps de chauffage.
2	Ico (réglage à l'aide d'un voltmètre CC)	Canal G. Entre TP301 et TP303 (sonde au moins) Canal D. Entre TP302 et TP304 (sonde au moins)	R367 (Canal G) R368 (Canal D)	* Régler les R367 (canal gauche) et R368 (canal droit) sur env. 15.5mV après 10mn. de préchauffage.

2. Réglage du compteur d'alimentation FL

* Conditions de l'appareil et équipement utilisé

1. Sélecteur d'entrée Commande d'accord
2. Commutateur de l'enceinte Principal
3. Commutateur de la gamme du compteur X0.01 or X1
4. Potentiomètre de volume 10 (maxi)
5. Oscillateur de basse fréquence
6. Voltmètre électronique CA
7. Résistance de 8 ohms de charge

2-1.

- 1) Brancher l'oscillateur de basse fréquence aux bornes de la commande d'accord des deux canaux; et le voltmètre électronique aux bornes de l'enceinte en parallèle avec la résistance de charge.
- 2) Placer le commutateur de gamme du compteur sur "X0.01" position.
- 3) Alimenter un signal de 1kHz par l'oscillateur de basse fréquence et régler le niveau d'entrée de telle sorte que le voltmètre électronique indique 0.15V.
- 4) Régler le **VR801** (Canal G), **VR802** (Canal D) tout en observant le compteur d'alimentation FL jusqu'à ce que le premier segment soit sur le point d'être branché. (Voir Fig. 7)

2-2.

- 1) Régler le commutateur de gamme du compteur sur "X1".
- 2) Régler le niveau d'entrée de telle sorte que le compteur électronique indique 8.9V.
- 3) Faire le réglage de la même façon que le réglage mentionné dans le paragraphe 2-1 en réglant **VR803** (Canal G), **VR804** (Canal D) de telle sorte que le huitième segment soit sur le point d'être branché.
- 4) Effectuer le réglage comme dans le paragraphe 2-1 en réglant le niveau d'entrée.
- 5) De nouveau régler le niveau d'entrée pour donner une sortie de 8.9V et s'assurer que le segment à position 10W, est branché. (Voir Fig. 8)

■ REPLACEMENT PARTS LIST...Electrical Parts

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

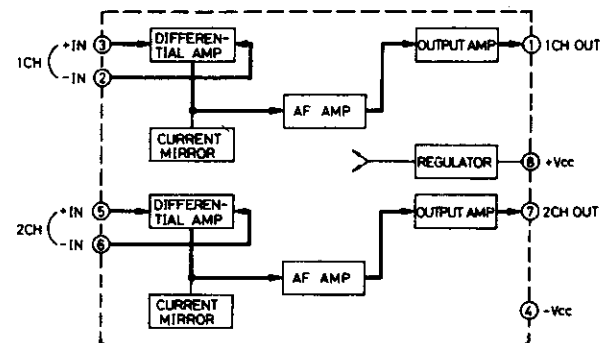
2. Δ indicates that only parts specified by the manufacturer be used for safety.

Ref No.	Part No.	Part Name & Description
INTEGRATED CIRCUITS		
IC101 IC301, 302	SVINJM4559DS SVISTK8050	IC, Equalizer Amplifier IC, Synchronous Bias Circuit and Power Amplifier
IC303 IC601 IC801, 802 IC803	AN6552F SVITA7317P SVIBA663 AN6552	IC, Tone Control Amplifier IC, Speakers Protection IC, FL Comparator and Driver IC, Voltage Amplifier
TRANSISTORS		
Q101~104 Q301, 302 Q303~306 Q307~310, 603 Q311, 312 Q313, 314 Q315, 316 Q401 Q402 Q601, 602 Q604 Q801, 802 Q803	2SK170-GR 2SK109-D 2SC2631-R 2SA1015-Y 2SA921-T 2SA1124-R 2SC2632-R 2SD836-Q 2SB750-Q 2SC1980-T 2SC1685-T 2SC1685-T 2SD762-O	Transistor, Differential Amplifier Transistor, Buffer Transistor, Differential Amplifier Transistor, Current Mirror and Relay Hold Transistor, Emitter Follower Transistor, Pre Drive Transistor, Constant Current Transistor, Regulator Transistor, Regulator Transistor, Current Detector Transistor, Relay Hold Transistor, Muting Transistor, Regulator
DIODES		
D101, 102 D301, 302 D303~310 D311, 312 D403~406 D407, 408 D601, 602, 605, 606 D603 D801 ~ 805 D806	MA162A MA162A 20A90 MA27A1 Δ SV D3V40 SVD MZ316C MA162A SVDSR1K2 MA162A SVD MZ322	Diode, Detector Diode, Detector Diode, Detector Diode, Detector Rectifier Diode, 16V Zener Diode, Detector Diode, Bias Diode, Detector Diode, 22V Zener
COILS and TRANSFORMER		
L301, 302 P.T.	Δ SLQY15G-3P SLT5P199-W	Coil, Choke Transformer, Power Source
VARIABLE RESISTORS		
R337, 338, 367, 368	EVTS3MA00B53	Clamp Voltage and Icq Adjustment, 5k Ω (B)

Ref No.	Part No.	Part Name & Description
VR201 VR202 VR203 VR204 VR801, 802 VR803, 804	EW66LA031BF5 EVHHPA505G25 EWJFD0090C15 EWJFDY090530 EVTS3MA00B53 EVTS3MA00B14	Volume Control, 250k Ω (B) Balance Control, 200k Ω (W) Treble Control, 100k Ω (C) Bass Control, 100k Ω (C) FL Power Meter Adjustment, 500 Ω (B) FL Power Meter Adjustment, 10k Ω (B)
COMPONENT COMBINATION		
Z401	EXRFS203ZS	Component Combination, 0.01 μ F (x2)
THERMISTORS		
TH301, 302	ERTD2ZHL332S	Thermistor, Temperature Compensation 3.3k Ω
FUSES		
F1 F2	Δ XBA2C16TRO Δ XBA2C31TRO	Fuse, T1.6A(250V), Power Primary Fuse, T3.15A (250V), Power Primary
LAMP		
PL401	Δ XAMR73S350A	Lamp, New Class A Badge, 250mA (6.3V)
SWITCHES		
S1 S2, 3 S4~7 S8 S9 S10 S11	 Δ SSH153 ESA2682 SSL145 Δ SSH281 ESL21210S SSH105 Δ ESE37200	Switch, Phono Selector Switch, Input Selector and RecSelector Switch, High Filter, Subsonic Filter, Loudness and Operation Switch, Speakers Selector Switch, Power Switch, Meter Range Switch, Voltage Adjuster
RELAY		
RLY1	Δ SSY69	Relay, Speaker Protection
METER		
	SADBG78Z	Meter, Fluorescent Peak Power

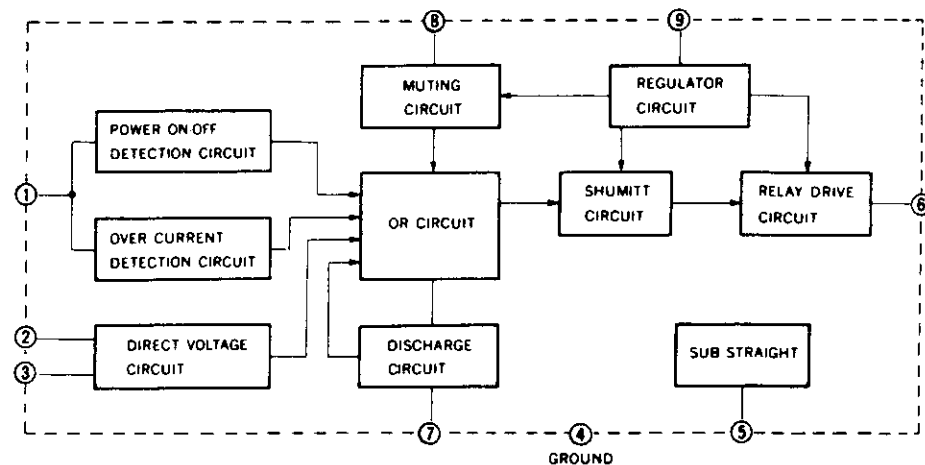
■ BLOCK DIAGRAM OF IC'S

- This is the basic block diagram of the inside circuit of IC. In an actual circuit, there may be sometimes idle terminals or some different functions other than the basic circuit.

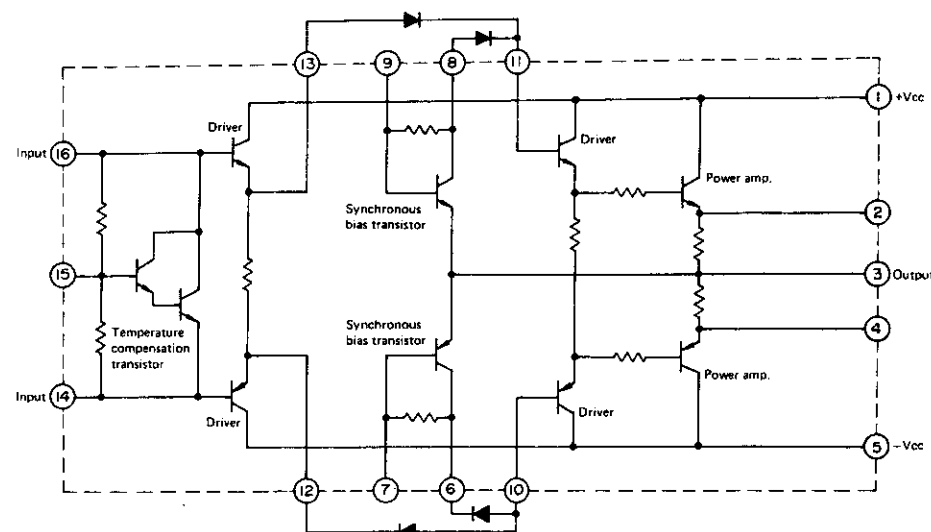


IC101 (SVINJM4559DS)
Equalizer amplifier

IC303, 803 (AN6552)
Tone control amplifier & voltage amplifier

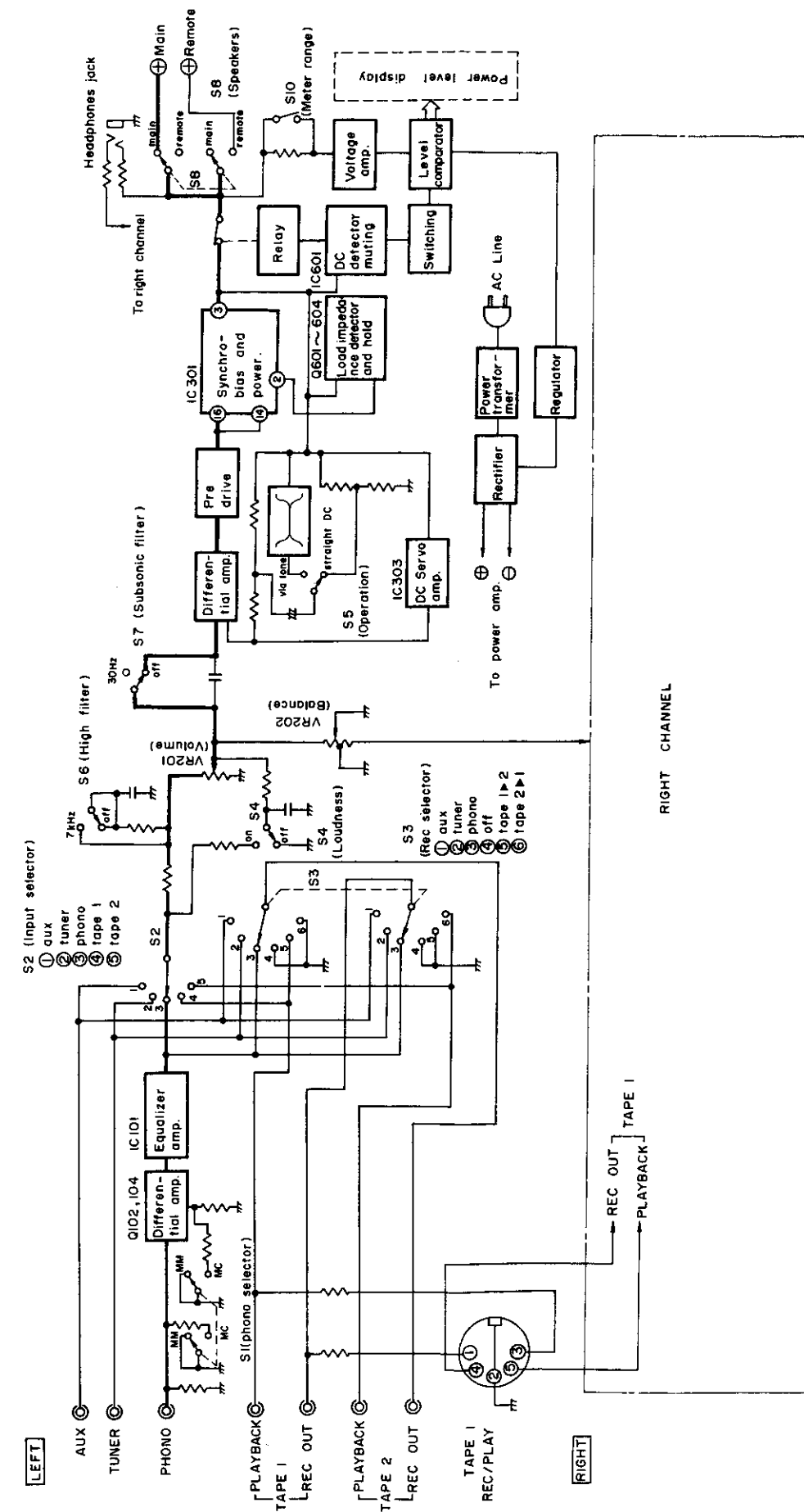


IC601 (SVITA7317P) Speakers protection

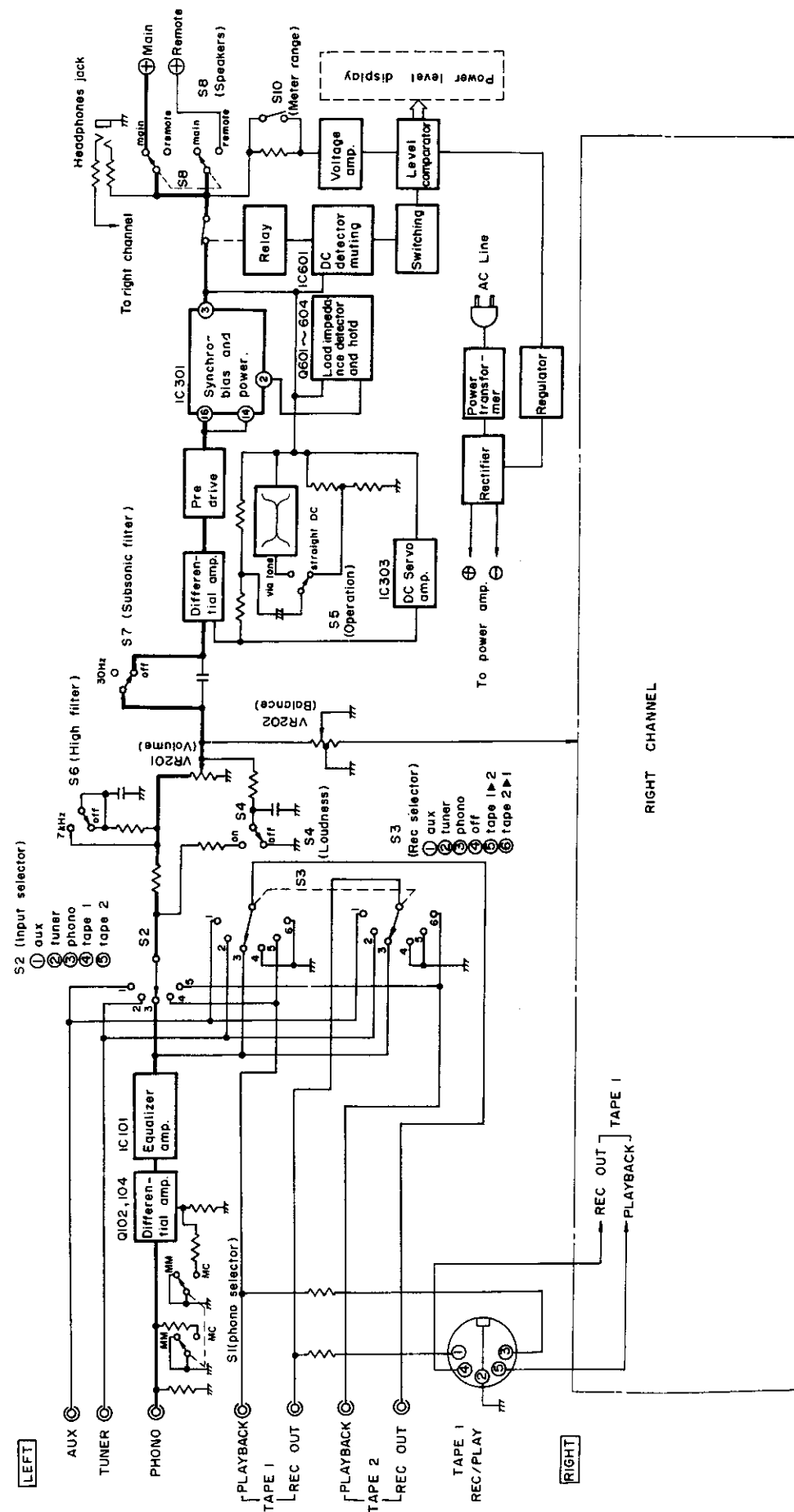


IC301, 302 (SVISTK8050) Synchronous bias circuit and power amplifier

■ BLOCK DIAGRAM



BLOCK DIAGRAM

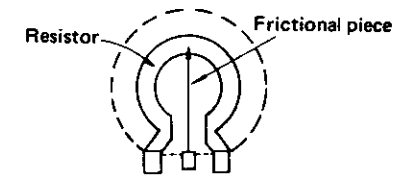
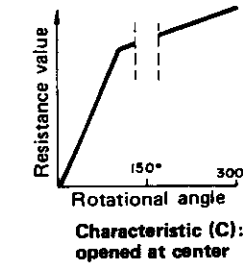
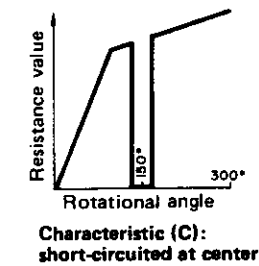
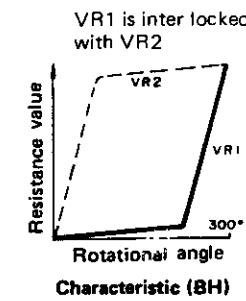
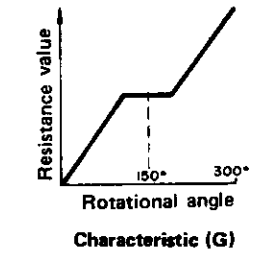
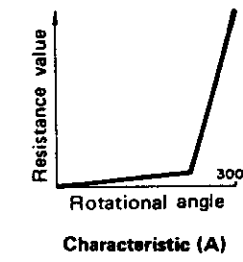
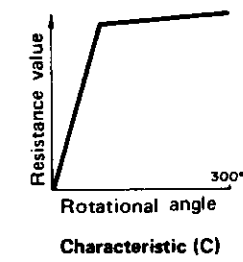
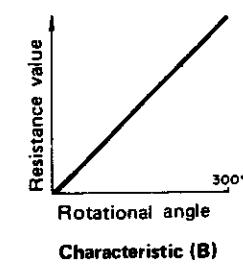


VARIABLE RESISTORS

● Alteration of resistance values according to the rotational angles of variable resistors

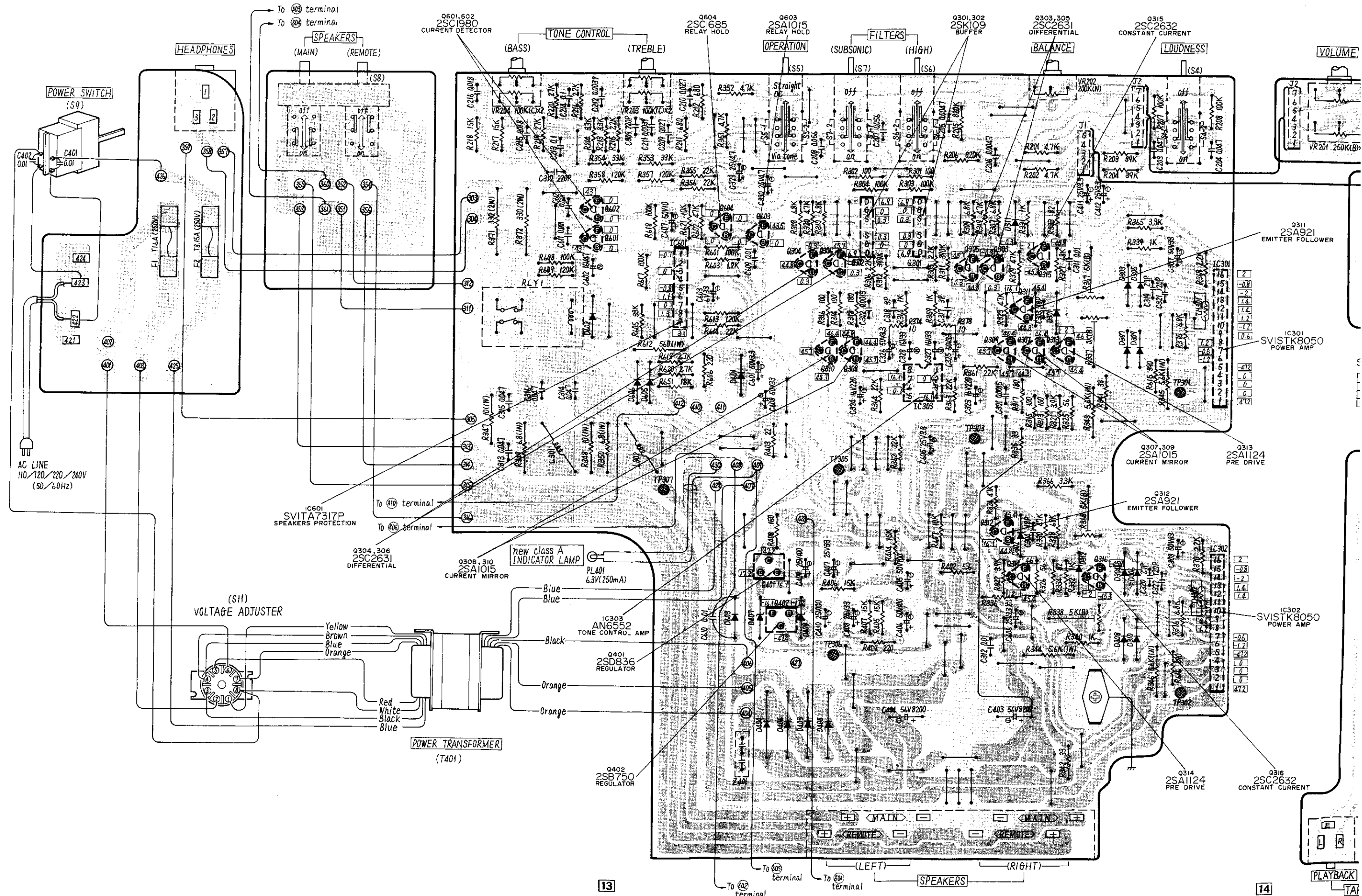
Alteration characteristics as shown below are often used for sets. All are intended to keep the frequency response of the set at optimum levels, and are used according to the types of circuits. For example, characteristic (B) is used for sound volume adjustment; (A) and (C) are for bass and treble sound quality adjustment; (G) is for medium sound quality adjustment; and (BH) is for the adjustment of sound balance between the right and left.

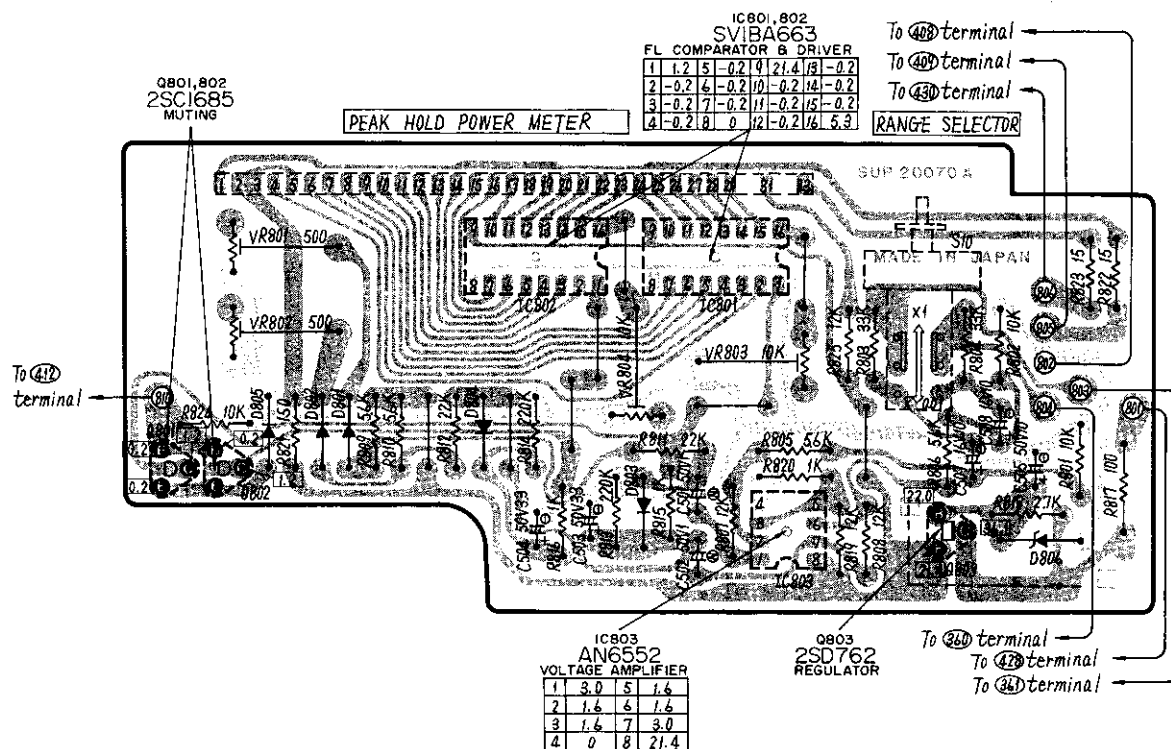
In the case of this unit, variable resistor with characteristic (C) which is short-circuited between its ends at rotational angle of 150° (center) is used for bass adjustment. Also, variable resistor with characteristic (C) whose resistance is zero at rotational angle of 150° (center) is used for treble adjustment.



PRINTED CIRCUIT BOARD WIRING VIEW

Ground (Earth) Lines

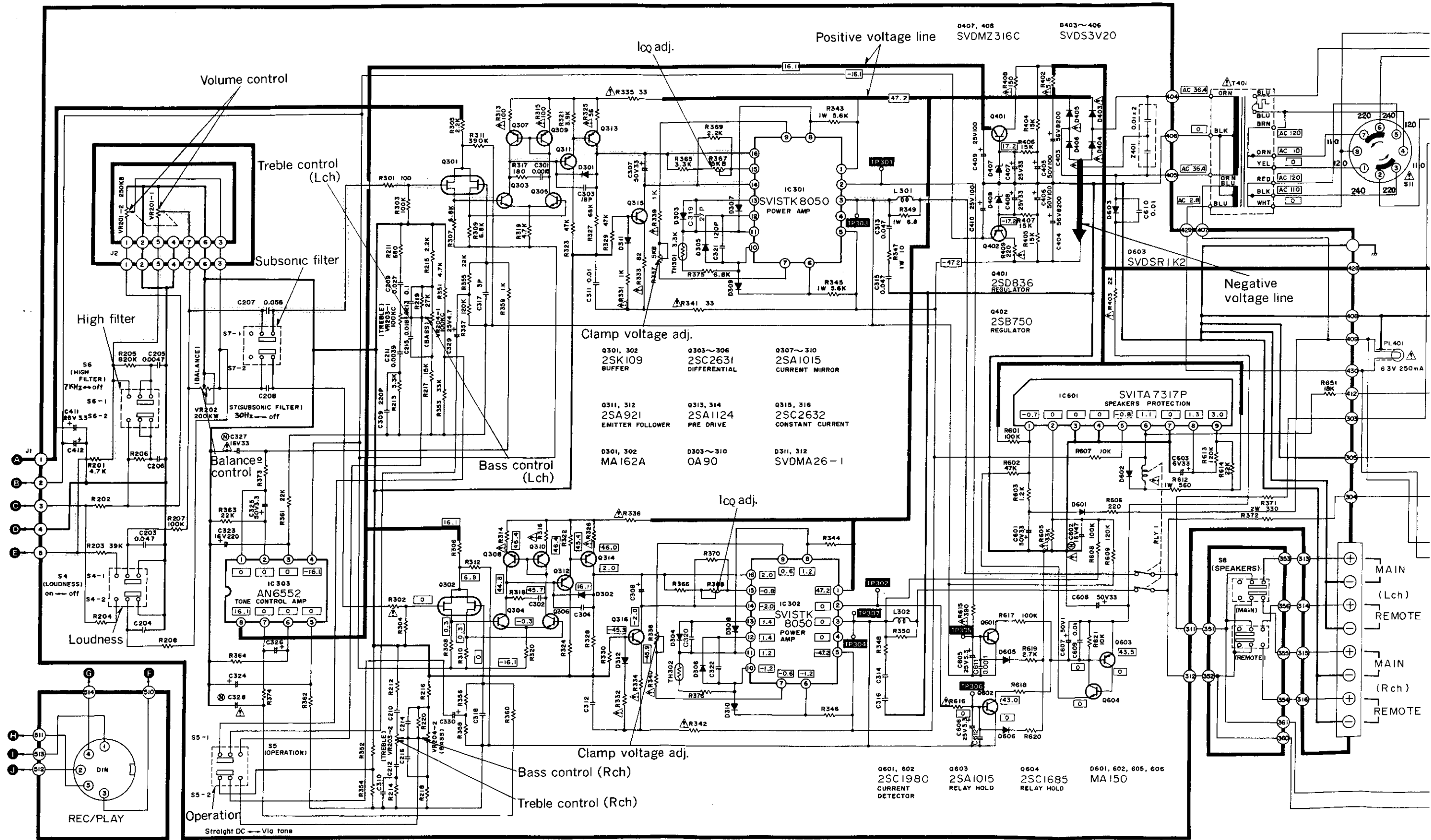


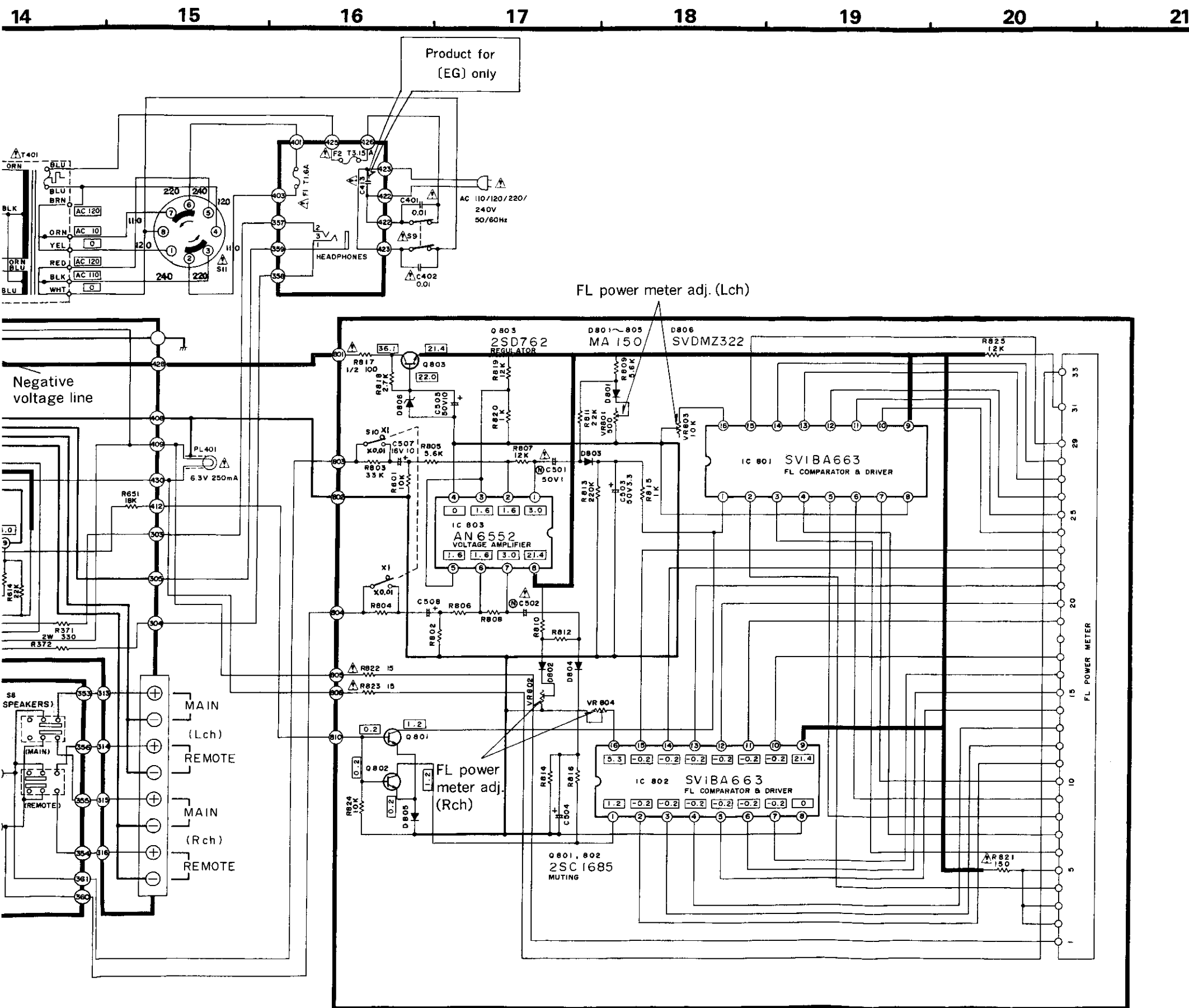


■ TERMINAL GUIDE OF TRANSISTORS AND IC'S

SVINJM4559	SVISTK8050	AN6552	SVITA7317P
2SK170	2SK109	2SD836, 2SB750 2SD762	2SC2631, 2SA1015 2SA921, 2SA1124 2SC2632, 2SC1980 2SC1685
SVIBA663			





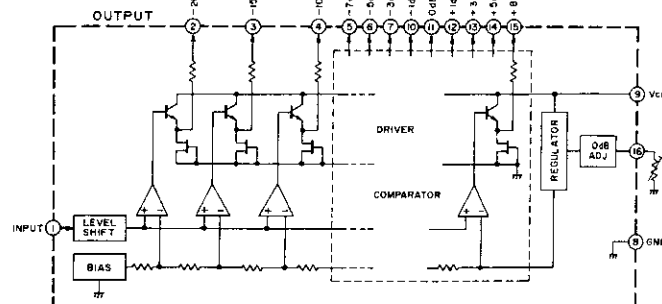


SCHEMATIC DIAGRAM

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

Notes:

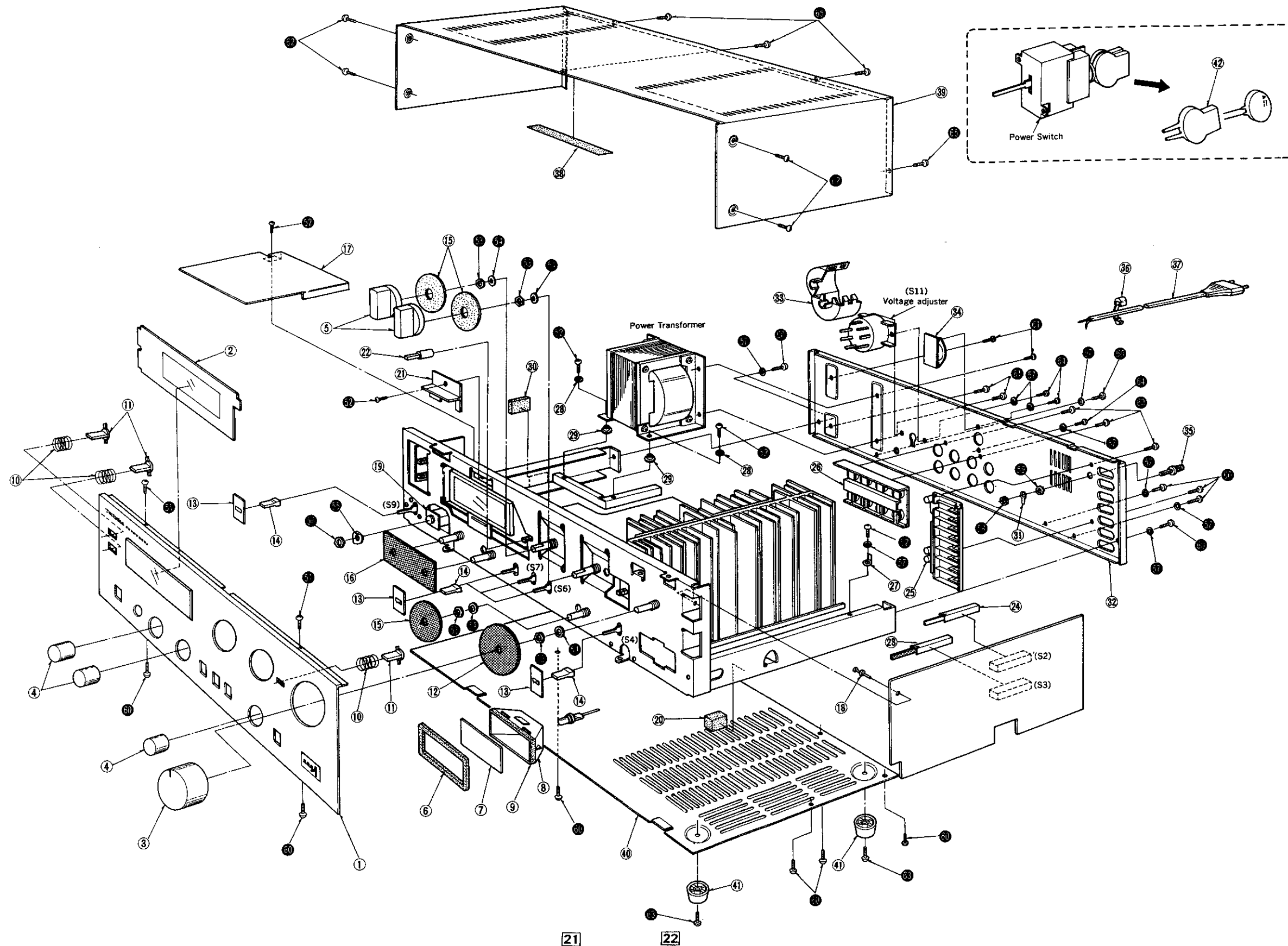
1. S1: Phono selector switch in "MM" position.
MM ↔ MC
2. S2: Input selector switch in "phono" position.
① aux ↔ ② tuner ↔ ③ phono ↔ ④ tape 1 ↔ ⑤ tape 2
3. S3: Rec selector switch in "phono" position.
① aux ↔ ② tuner ↔ ③ phono ↔ ④ off ↔ ⑤ tape 2 ▶ 1
↔ ⑥ tape 1 ▶ 2
4. S4: Loudness switch in "off" position.
5. S5: Operation switch in "straight DC" position.
6. S6: High filter switch in "off" position.
7. S7: Subsonic filter switch in "off" position.
8. S8: Speaker switch in "main" position.
main ↔ remote
9. S9: Power switch in "on" position.
10. S10: Meter range selector switch in "X1" position.
X1 ↔ X0.01
11. S11: Voltage adjustment switch in "220V" position.
240V ↔ 220V ↔ 110V ↔ 120V
12. ⚠ Indicates that only parts specified by the manufacturer be used for safety.
13. □ Indicated voltage values are the standard values for the DC electronic circuit tester (high impedance) with chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
14. — Phono signal lines of left channel
15. — Positive (+B) voltage lines



IC801, 802 (SVIBA663)
FL comparator and Driver

SU-V4A SU-V4A

EXPLODED VIEWS



REPLACEMENT PARTS LIST...Cabinet, Chassis and Packing Parts

- Notes:** 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
 2. Δ indicates that only parts specified by the manufacturer be used for safety.
 3. $\square$ -marked parts are used for black type only, while O-marked parts are for silver type only.
 4. Parts other than $\square$ and O-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-V4A(K)

Ref. No.	Part No.	Part Name & Description
CABINET and CHASSIS PARTS		
1	$\square$ SYW263-3	Panel, Front Ass'y
2	$\square$ SYW263-4	Panel, Front Ass'y (Black)
3	$\square$ SDU37	Filter, Peak Power Meter
4	$\square$ SDU37-1	Filter, Peak Power Meter
5	$\square$ SBN911	Knob, Volume
6	$\square$ SBN911-1	Knob, Volume (Black)
7	$\square$ SBN909	Knob, Balance, Treble and Bass
8	$\square$ SBN909-1	Knob, Balance, Treble and Bass (Black)
9	$\square$ SBN929	Knob, Rec Selector and Input Selector
10	$\square$ SBN929-1	Knob, Rec Selector and Input Selector (Black)
11	$\square$ SHG6089	Cushion, New Class A Badge
12	$\square$ SDE253	Filter, New Class A Badge
13	$\square$ SDE253-1	Filter, New Class A Badge
14	$\square$ SMP281	Holder, New Class A Badge
15	$\square$ SHS6111	Fiber, New Class A Badge
16	$\square$ SUS187	Spring, Push Switch Button
17	$\square$ SBC259	Button, Push Switch
18	$\square$ SBC259-1	Button, Push Switch
19	$\square$ SHP9299	Cover, Volume Knob
20	$\square$ SHR5089	Cover, Lever Switch Knobs
21	$\square$ SHR5089-1	Cover, Lever Switch Knobs (Black)
22	$\square$ SBD31	Knob, Lever Switch
23	$\square$ SBD31-1	Knob, Lever Switch (Black)
24	$\square$ SHP9301	Cover, Balance, Input Selector and Rec Selector
25	$\square$ SHP9305	Cover, Treble and Bass Knob
26	$\square$ SMX361	Cover, Fuse P.C.B.
27	$\square$ SHR401-1	Latch, Equalizer P.C.B.
28	$\square$ XJC6P21B-A	Jack, Headphones
29	$\square$ SHG1491	Cushion, Equalizer P.C.B.
30	$\square$ SMM41	Escutcheon, Peak Power Meter M'tg
31	$\square$ SBC271	Button, Range Selector
32	$\square$ SBC271-1	Button, Range Selector (Black)
33	$\square$ ESA3361B	Remote Control, Rec Selector
34	$\square$ ESA3368B	Remote Control, Input Selector
35	$\square$ SJF3043AN	Terminal, Input
36	$\square$ SJF5811	Terminal, Speaker
37	$\square$ RJT202B	Terminal, Ground 1 Pin
38	$\square$ SNW429-1	Washer, Power Transformer M'tg
39	$\square$ SMXA26	Spacer, Power Transformer
40	$\square$ SHG6051	Cushion, Cabinet
41	$\square$ SJT215	Terminal, Ground 1 pin
42	$\square$ SGP2310-1B	Rear Panel
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