

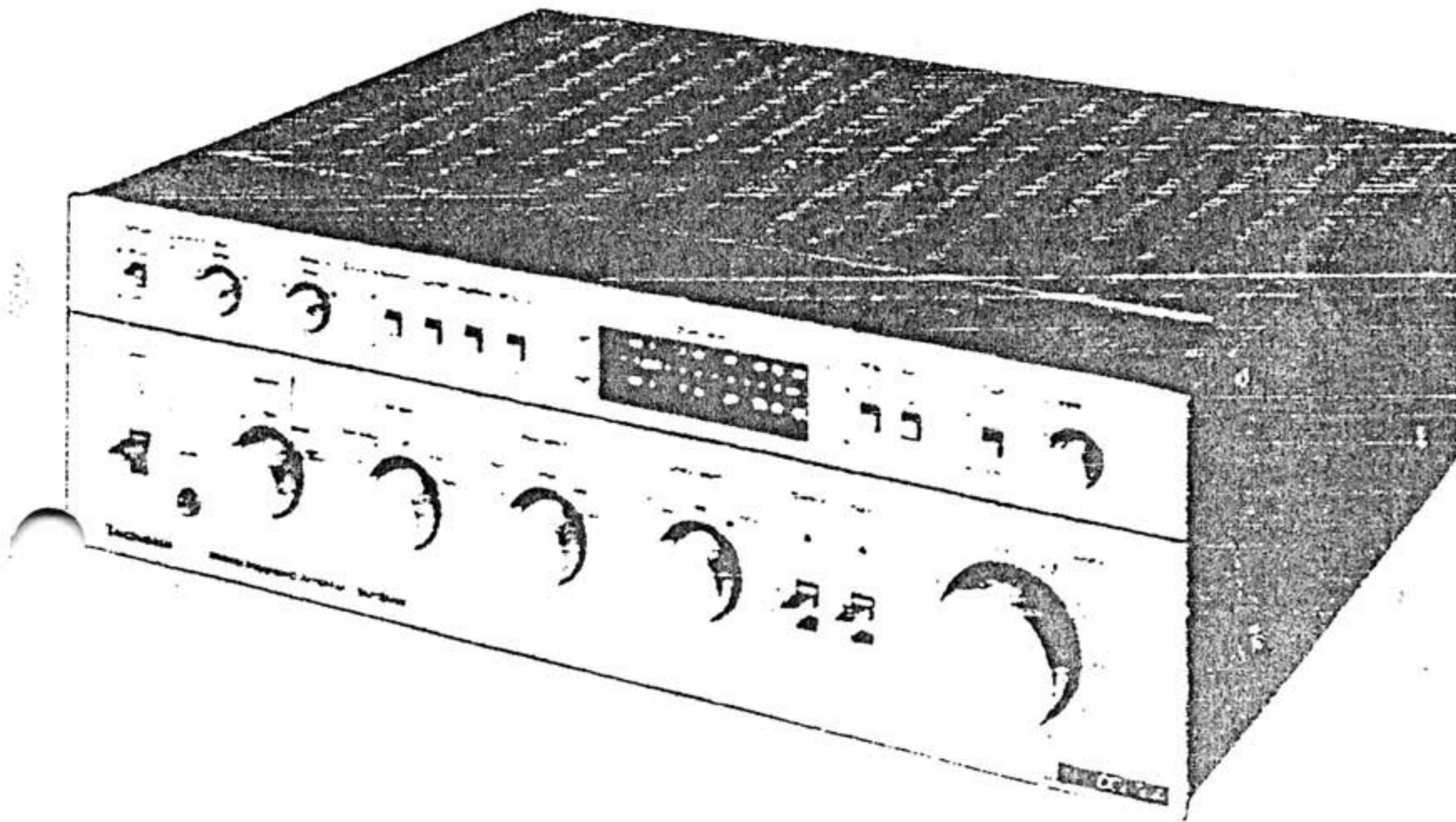
Service Manual

Stereo Integrated Amplifier

Tentative

SU-8088K

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



- The models SU-8088 (D, DG) and SU-8088K (D, DG) are available in Scandinavia and European only.
- The models SU-8088 (EB) and SU-8088K (EB) are available in Belgium only.
- The models SU-8088 (XSW) and SU-8088K (XSW) are available in Switzerland only.
- The model SU-8088 (XGF) is available in France only.
- The model SU-8088 (XGH) is available in Holland only.
- The model SU-8088K (XE) is available in United Kingdom only.
- The models SU-8088K (X, XA) are available in Asia, Latin America, Middle East and Africa only.
- The model SU-8088K (XAL) is available in Australia only.

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

[DIN 45 500]

AMPLIFIER SECTION

20Hz ~ 20kHz continuous power output	
both channels driven	2 x 90 W (4Ω), 2 x 80 W (8Ω)
40 Hz ~ 16 kHz continuous power output	
both channels driven	2 x 90 W (4Ω), 2 x 80 W (8Ω)
1 kHz continuous power output	
both channels driven	2 x 95 W (4Ω), 2 x 85 W (8Ω)
Power bandwidth both channels driven, -3 dB	
THD 0.02%	5 Hz ~ 50 kHz (4Ω)
THD 0.01%	5 Hz ~ 60 kHz (8Ω)

Total harmonic distortion	
rated power at 20 Hz ~ 20 kHz	0.02% (4Ω), 0.01% (8Ω)
rated power at 40 Hz ~ 16 kHz	0.01% (4Ω, 8Ω)
rated power at 1 kHz	0.01% (4Ω, 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	0.07% (4Ω)
50mW power at 1 kHz	0.12% (4Ω)

Intermodulation distortion	
rated power at 250 Hz : 8 kHz = 4 : 1, 4Ω	0.02%
rated power at 60 Hz : 7 kHz = 4 : 1, SMPTE, 8Ω	0.01%
Residual hum & noise (Straight DC)	0.3 mV (0.3 mV, IHF A)
Damping factor	25 (4Ω), 50 (8Ω)

Input sensitivity and impedance	
PHONO 1, 2 MM	2.5 mV/47 kΩ
PHONO 1 MC	100 μV/47Ω
TUNER, AUX	200 mV/47 kΩ
TAPE 1, 2 (PLAYBACK), REC/PLAY	200 mV/47 kΩ
MAIN IN	1V/18 kΩ
PHONO maximum input voltage (1 kHz, RMS)	MM 250 mV
	MC 10 mV

S/N	rated power at 4Ω	
	PHONO 1, 2 MM	75 dB (90 dB, IHF A)
	PHONO 1 MC	70 dB (78 dB, IHF A)
	TUNER, AUX	92 dB (110 dB, IHF A)

S/N	-26 dB power at 4Ω	
	PHONO 1, 2 MM, PHONO 1 MC	67 dB
	TUNER, AUX	69 dB

S/N	50 mW power at 4Ω	
	PHONO 1, 2 MM, PHONO 1 MC	64 dB
	TUNER, AUX	65 dB

Frequency response	PHONO	RIAA standard curve
		30 Hz ~ 15 kHz, ±0.2 dB
	TUNER, AUX, TAPE	20 Hz ~ 20 kHz, ±0.3 dB
		0.5 Hz ~ 100 kHz, -1 dB

Tone controls	BASS	50 Hz, +7.5 dB ~ -7.5 dB
	TREBLE	20 kHz, +7.5 dB ~ -7.5 dB
Turnover frequency	BASS	125 Hz, 500 Hz
	TREBLE	2 kHz, 8 kHz

High filter		7 kHz, -6 dB/oct.
Subsonic filter		20 Hz, -12 dB/oct.

Loudness control (volume at -30 dB)		50 Hz, +7.5 dB
Output voltage and impedance	PRE OUT	rated 1V, max. 7V
	REC OUT	200 mV
	REC/PLAY	30 mV/32 kΩ

Channel balance (250 Hz ~ 6300 Hz), AUX		±1.0 dB
Channel separation at 1 kHz, AUX		60 dB
Headphones output level and impedance		600 mV/330Ω
Load impedance	MAIN or REMOTE	4 ~ 16Ω
	MAIN + REMOTE	8 ~ 16Ω

GENERAL

Power consumption		830 W
Power supply (50 Hz/60 Hz)		110V/120V/220V/240V
Dimensions (W x H x D)		450 x 142 x 360 mm
		(17-23/32" x 5-19/32" x 14-3/16")
Weight		15 kg (33.1 lb.)

TECHNISCHE DATEN Spezifikationen können infolge von Verbesserungen ohne Ankündigung geändert werden

[DIN 45 500]

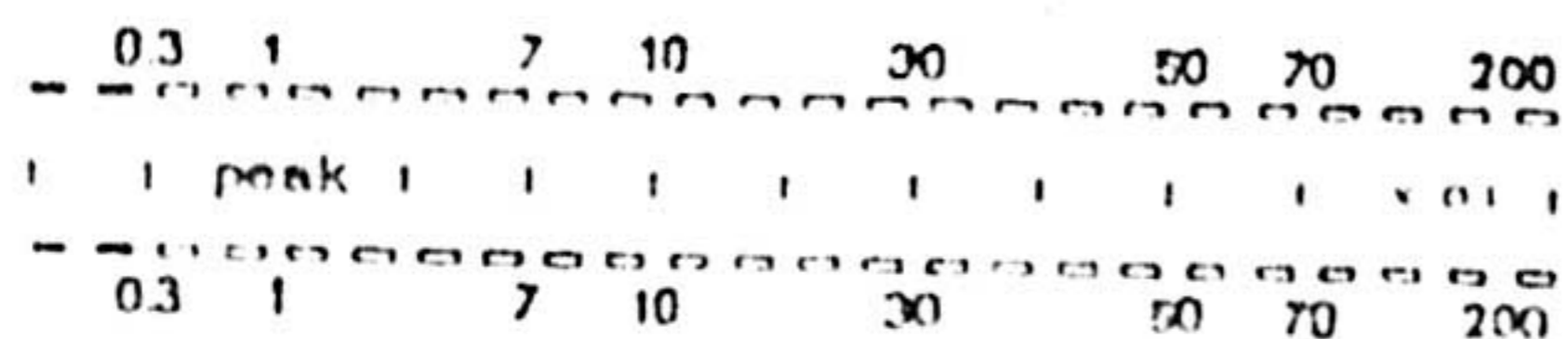
VERSTÄRKERTEIL

Dauertonleistung bei 20 Hz ~ 20 kHz beide Kanäle zusammen angesteuert	2 x 90 W (4 Ω) 2 x 80 W (8 Ω)
Dauertonleistung bei 40 Hz ~ 16 kHz beide Kanäle zusammen angesteuert	2 x 90 W (4 Ω) 2 x 80 W (8 Ω)
Dauertonleistung bei 1 kHz beide Kanäle zusammen angesteuert	2 x 95 W (4 Ω) 2 x 85 W (8 Ω)
Leistungsbandbreite beide Kanäle zusammen angesteuert, -3 dB	THD 0,02% 5 Hz ~ 50 kHz (4 Ω) THD 0,01% 5 Hz ~ 60 kHz (8 Ω)
Harmonische Verzerrungen	
Nennausgangsleistung bei 20 Hz ~ 20 kHz	0,02% (4 Ω), 0,01% (8 Ω)
Nennausgangsleistung bei 40 Hz ~ 16 kHz	0,01% (4 Ω, 8 Ω)
Nennausgangsleistung bei 1 kHz	0,01% (4 Ω, 8 Ω)
Halber Ausgangsleistung bei 20 Hz ~ 20 kHz	0,007% (8 Ω)
Halber Ausgangsleistung bei 1 kHz	0,003% (8 Ω)
-26 dB Ausgangsleistung bei 1 kHz	0,07% (4 Ω)
50 mW Ausgangsleistung bei 1 kHz	0,12% (4 Ω)
Intermodulationsverzerrung	
Nennausgangsleistung bei 250 Hz: 8 kHz = 4:1, 4 Ω	0,02%
Nennausgangsleistung bei 60 Hz: kHz = 4:1, SMPTE 8 Ω	0,01%
Brummen & Rauschen	0,3 mV (0,3 mV, IHF A)
Dämpfungsfaktor	25 (4 Ω), 50 (8 Ω)
Eingangsempfindlichkeit & Impedanz	
PHONO 1, 2 MM	2,5 mV/47 kΩ
PHONO 1 MC	100 μV/47 Ω
TUNER, AUX	200 mV/47 kΩ
TAPE 2, REC/PLAY	200 mV/47 kΩ
TAPE 2	200 mV/47 kΩ
MAIN IN	1V/18kΩ
PHONO Maximale Eingangsspannungen	MM 250 mV MC 10 mV
Frequenzgang	
PHONO	RIAA Standardkurve 30 Hz ~ 15 kHz, ±0,2 dB
TUNER, AUX, TAPE	0,5 Hz ~ 100 kHz, -1 dB +0 20 Hz ~ 20 kHz, -0,1 dB

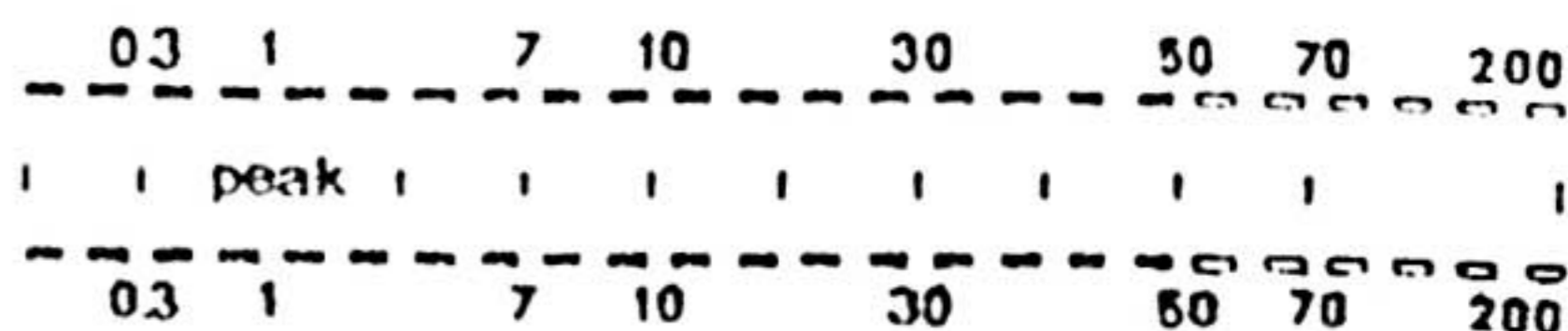
Fremdspannungsabstand	
Nennausgangsleistung bei 4 Ω	
PHONO 1, 2 MM	75 dB (90 dB, IHF A)
PHONO 1 MC	70 dB (78 dB, IHF A)
TUNER, AUX	92 dB (110 dB, IHF A)
-26 dB Ausgangsleistung bei 4 Ω	PHONO 1, 2 MM 67 dB PHONO 1 MC 67 dB TUNER, AUX 69 dB
50mW Ausgangsleistung bei 4 Ω	PHONO 1, 2 MM 64 dB PHONO 1 MC 64 dB TUNER, AUX 65 dB
Klangregler	BASSE 50 Hz, +7,5 dB ~ -7,5 dB HÖHEN 20 kHz, +7,5 dB ~ -7,5 dB
Übergangsfrequenz:	BASSE 125Hz, 500Hz HÖHEN 2kHz, 8kHz
Höhenfilter (HIGH)	7 kHz, -6 dB/oct
Unterschallfilter	20 Hz, -12 dB/oct
Gehörgerechte Lautstärkekorrektur (Lautstärke bei -30 dB)	
	50 Hz, +7,5 dB
† Ausgangsspannungen & Impedanz	PRE OUT Nennleistung 1V, max. 7V REC OUT 200 mV REC/PLAY 30 mV/82 kΩ
Kanalabweichung (250 Hz ~ 6300 Hz), AUX	±1,0 dB
Kanaltrennung bei 1 kHz, AUX	60 dB
Kopfhörerpegel und Ausgangsimpedanz	600 mV/330 Ω
Lautsprecher-Ausgangsimpedanz	
MAIN oder REMOTE	4 ~ 16 Ω
MAIN und REMOTE	8 ~ 16 Ω

ALLGEMEINE DATEN

Leistungsaufnahme	830 W
Netzspannung umschaltbar (50 Hz/60Hz)	110V/120V/220V/240V
Abmessungen (B x H x T)	450 x 142 x 360 mm
Gewicht	15 kg

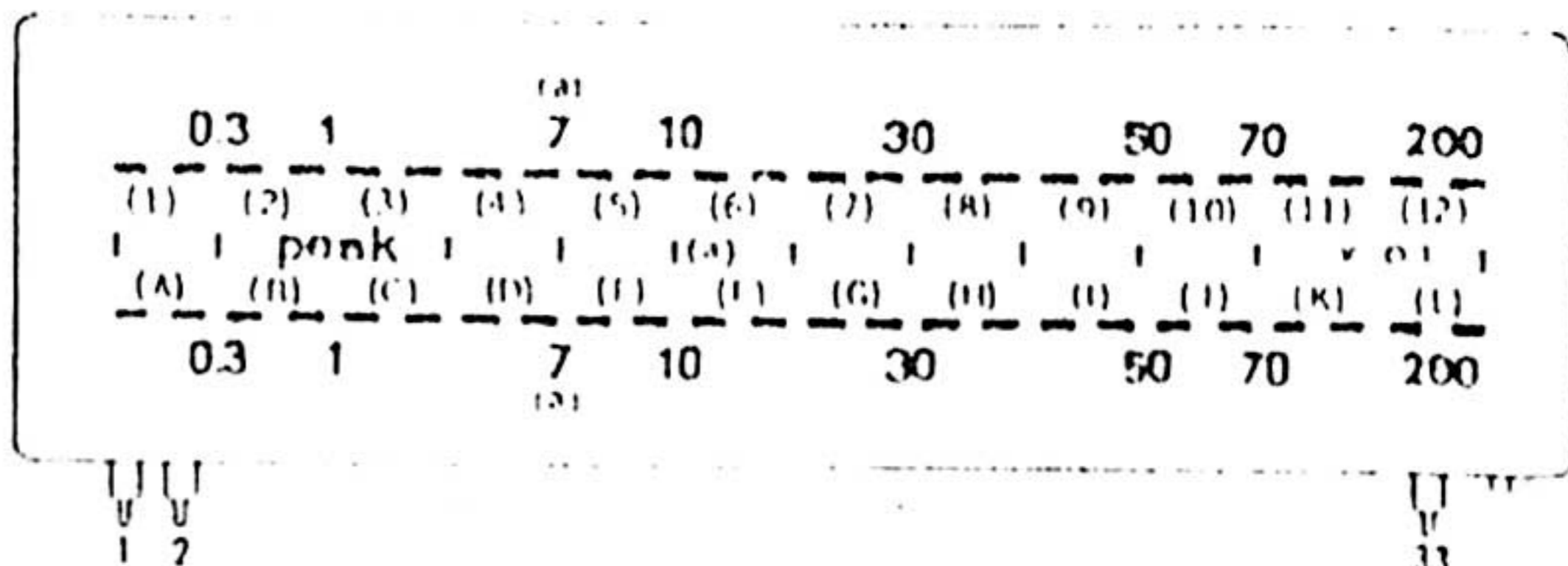


0.03W
[Fig. 1]



50W
[Fig. 2]

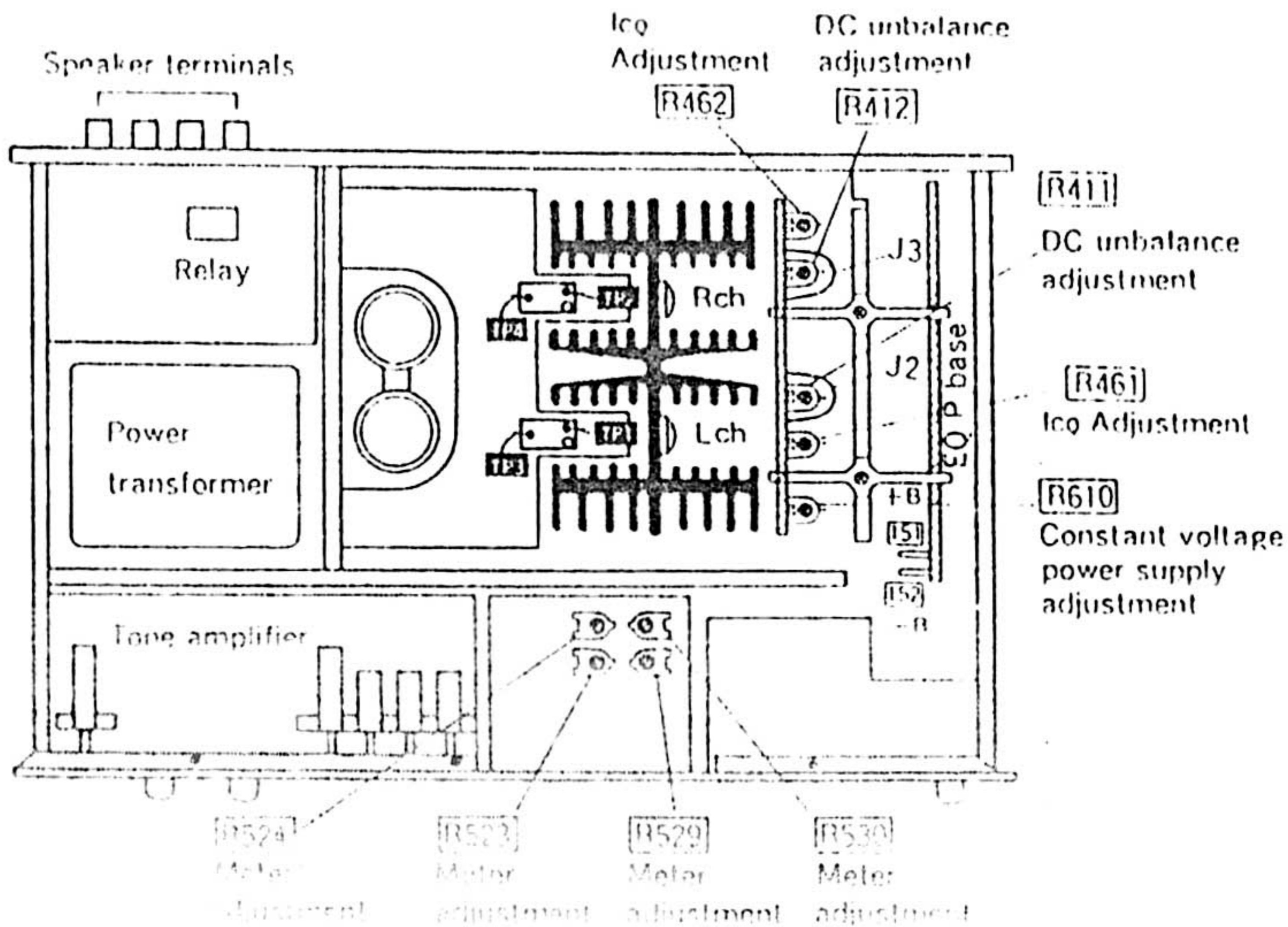
• Segment indication pattern



Terminal No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Electrode	f	peak	a	1	g	2	3	1	5	6	A	B	C	D	E	F	G
Terminal No.	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	
Electrode	g	H	I	I	K	L	7	8	9	10	11	12		× 0.1			

- Note: 1 (a) represents the segments for the top and bottom number scales and for central bar scales.
 2 Each segment consists of two bars.
 (— — — — — 1 segment)

■ ALIGNMENT POINTS



1. Abgleichen der unausgeglichene Gleichspannung und ICO (Leerlauf der Leistung TR)

◦ Stellungszustand und verwendete Geräte

1. Betriebsschalter straight DC (Gleichstrom)
2. Lautsprecherschalter main
3. Lautstärke 0 (Min.)
4. Gleichstrom-Voltmeter
5. 8 Ohm Belastungswiderstand (nur für Abgleichen der unausgeglichene Gleichspannung verwendet.)

Abgleich	Anschluß des Gleichstrom-Voltmeters	Abgleichspunkte	Abgleichsverfahren
Stromzuführung konstanter Spannung	Die (+) - Klemme des Gleichstrom-Voltmeters an die Klemme Nr. 151, und die (-) - Klemme an die Erdung schließen.	R610	(1) Zwischen Klemme 151 und Erdung die Spannung auf (+)48V einstellen. (2) Dabei zwischen Klemme 152 und Erdung überprüfen, daß die Spannung von (-)47V bis (-)48V beträgt.
Unausgeglichene Gleichspannung des Leistungsverstärkers	In Parallel mit dem 8-Ohm-Belastungsregister das Meter an die Lautsprecherklemme für L- und R-Kanal schließen.	R411 (L) R412 (R)	(1) Mit möglichst kleinem Meßbereich das Meter auf "0" stellen. Anmerkung: Wenn es nicht eingestellt werden kann, vor Einstellung den Schaltdraht J2(L-Kanal) und J3(R-Kanal) abschneiden.
ICO (Leerlauf der Leistung TR)	(+) Seite TP3 } L-Kanal (-) Seite TP1 } (+) Seite TP4 } R-Kanal (-) Seite TP2 }	R461 (L) R462 (R)	Ein paar Minuten nach Schalten auf Leistungszufuhr auf ca. 15 mV einstellen.

2. Abgleichen des FL-Leistungsmeßgerätes

◦ Stellungszustand und verwendete Geräte

1. Eingangsumschalter tuner
2. Lautsprecherschalter main
3. Meßbereichschalter X 0,1 oder X1
4. Schalter für Meßgerätebeleuchtungsstärke dim oder bright
5. Lautstärke 10 (Max.)
6. Niederfrequenz-Oszillator
7. Wechselstrom-Elektronen-Voltmeter
8. 8 Ohm Belastungswiderstand

2-1. Abgleichen von 0,03W

- 1) An die Tunerklemmen der beiden Kanäle Niederfrequenz-Oszillator anschließen, und an die Lautsprecherklemmen parallel mit Belastungswiderstand den Wechselstrom-Elektronen-Voltmeter anschließen.
 - 2) Meßbereichschalter auf "x 0,1" und Schalter für Gerätebeleuchtungsstärke auf "dim" stellen.
 - 3) Vom Niederfrequenz-Oszillator 1 kHz Signal speisen, und Eingangspegel so einstellen, daß Wechselstrom-Elektronen-Voltmeter 0,75 anzeigt.
 - 4) Unter Beobachten auf FL-Leistungsmeßgerät R523 (L-Kanal) einstellen, bis das erste Segment fast aufzuleuchten beginnt. (0,3 x 0,1 W)
 - 5) Anschließend R524 (R-Kanal) in gleicher Weise abgleichen. Wenn sich dabei die Anzeige des L-Kanals ändert R523 berichtigen.
- Anmerkung:** Wenn das Abgleichen so erfolgt, daß das zweite Segment fast aufzuleuchten beginnt, so leuchtet das erste Segment ohne Eingang auf.

2-2. Abgleichen von 50 W

- 1) Meßbereichschalter auf "X1", und Schalter für Gerätebeleuchtungsstärke auf "bright" stellen.
- 2) Eingangspegel so einstellen, daß Wechselstrom-Elektronen-Voltmeter 19 V anzeigt.
- 3) Unter Einstellung von R529 (L-Kanal) und R530 (R-Kanal) in gleicher Weise wie oben in 2-1 so abgleichen, bis das 9. Segment fast aufzuleuchten beginnt.
- 4) Dann Eingangspegel einstellen und wie in 2-1 (0,03W) abgleichen.
- 5) Eingangspegel wieder einstellen, damit der Eingang 19 V wird, und sicherstellen, daß das Segment bei 50 W aufleuchtet.

- Before repairing this unit, disconnect the power supply line and then short-circuit between the poles of electrolytic capacitor 15,000 μ F with resistor (about 100 Ω , 3W) to discharge the capacitor.
When replacing the power transistor, use 2SA1065 and 2SC2489 which are same in h_{FE} (Common Emitter Direct Current Gain) rank.
- When connecting the indicator connecting sockets for operation and muting to indicator LED's (D608, 609), be careful of the polarity. (See Fig. 1)

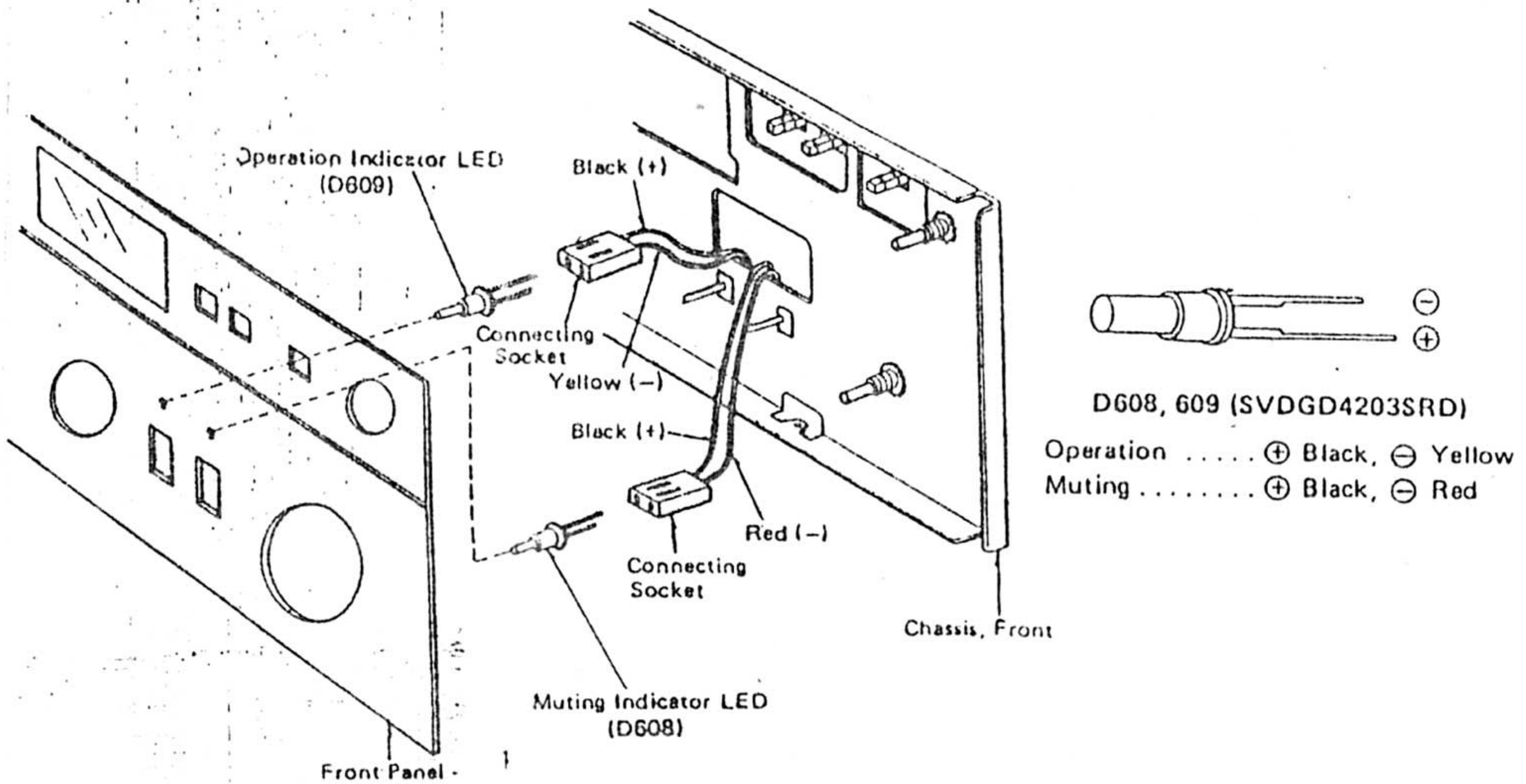


Fig. 1

HOW TO REMOVE THE REMOTE-SWITCH BANDS

1. Use a small screwdriver to push the projection of the remote-switch bands in the direction shown by the arrow in figure 2, and remove them from the remote switch.
2. When removing, remove (A) in figure 3 first.
3. When attaching, attach (B) in figure 3 first, and then install (A).
4. Check to be sure that the remote-switch bands are securely attached to the remote switch.

Note: When removing the remote-switch bands, be careful not to pull the bands nor to hold them as shown in (C) of figure 2, because to do so may result in damage. Also be careful not to bend or twist the bands excessively.

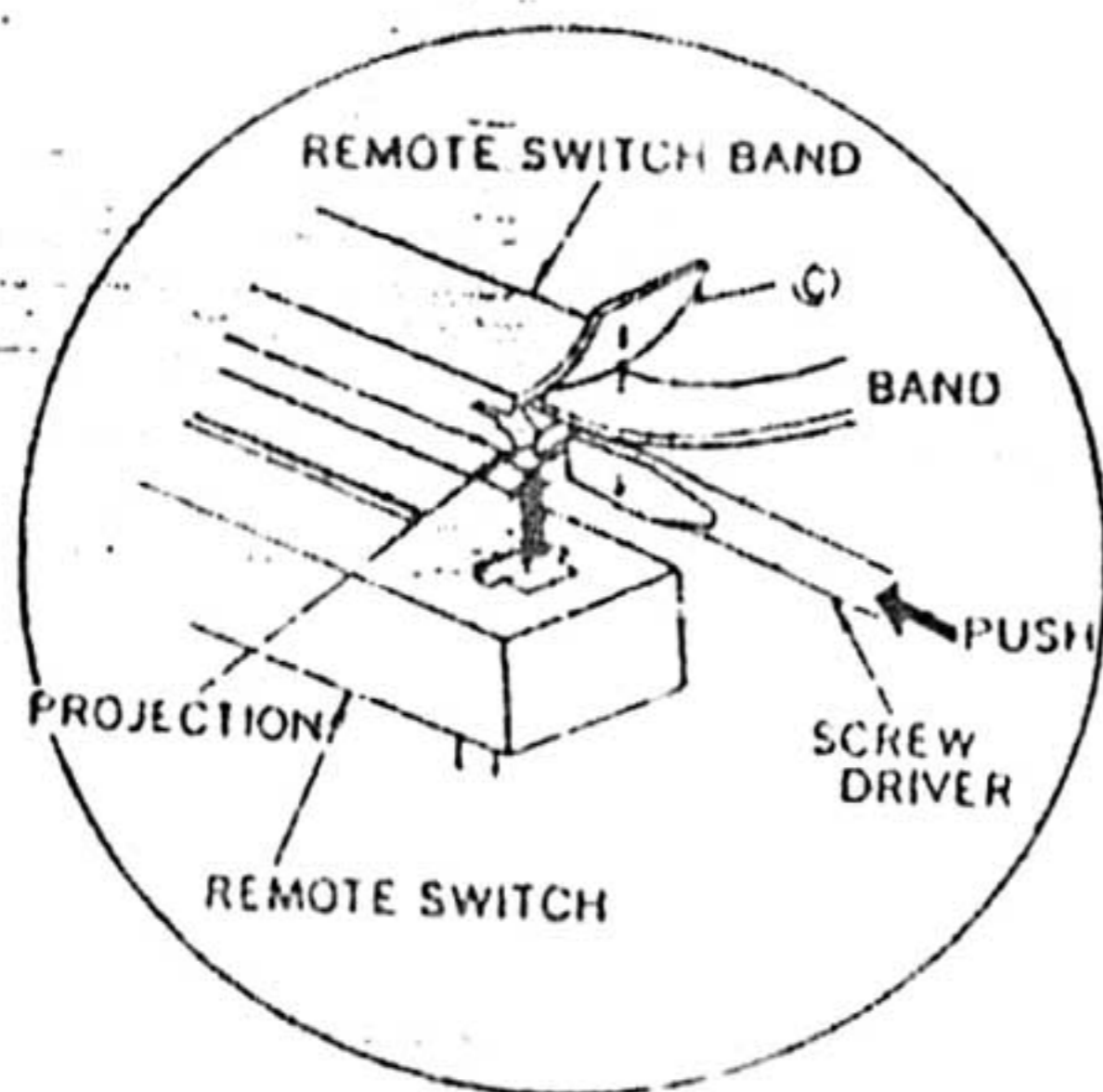


Fig. 2

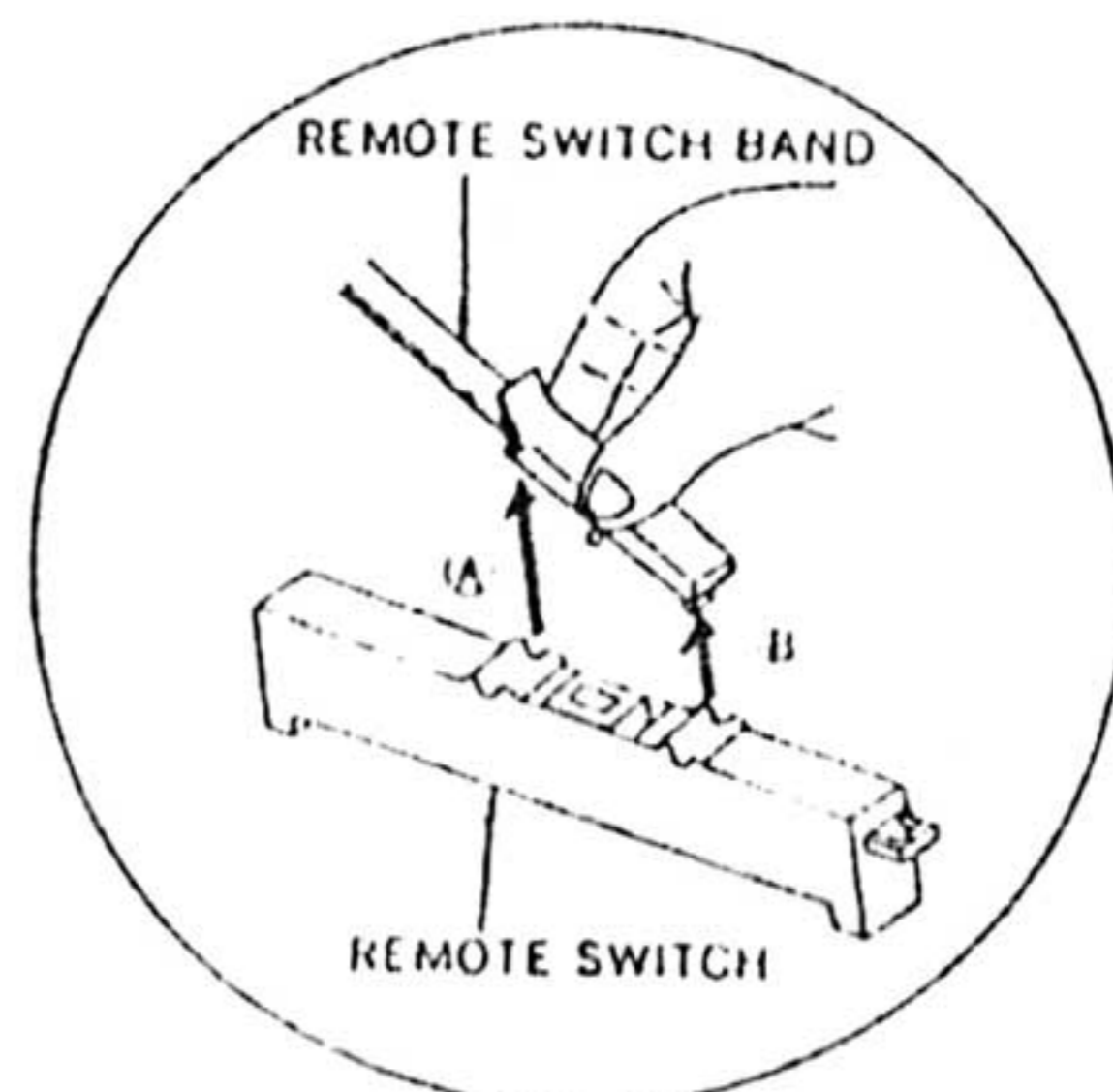


Fig. 3

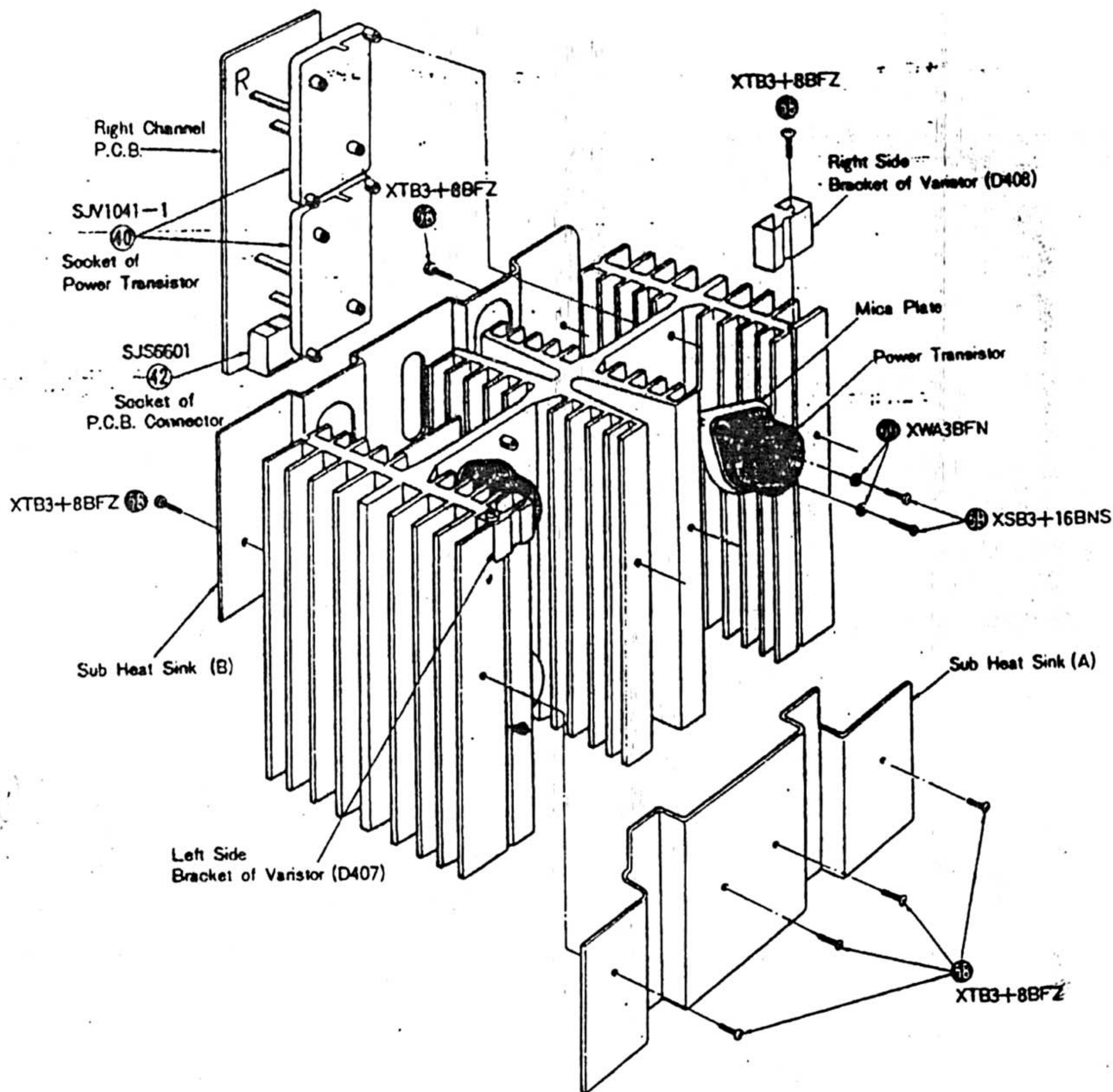


Fig. 8

■ TO REMOVE EQUALIZER AMPLIFIER P.C.B.

1. Remove two metal fittings used to secure the equalizer amplifier P.C.B. and the main amplifier P.C.B. (Fig. 9)
2. Pull out the 2-pin socket inserted into the equalizer amplifier P.C.B. And then remove the lug terminal fastening the electric capacitor.
3. Remove six setscrews used to secure the tuner, aux, tape deck 1 and 2 connection terminal of rear panel. (Fig. 9)
4. Remove the equalizer amplifier P.C.B.
5. The main amplifier P.C.B. can be detached by removing two setscrews used to secure the chassis. (Screws (B) and (C) in Fig. 9)

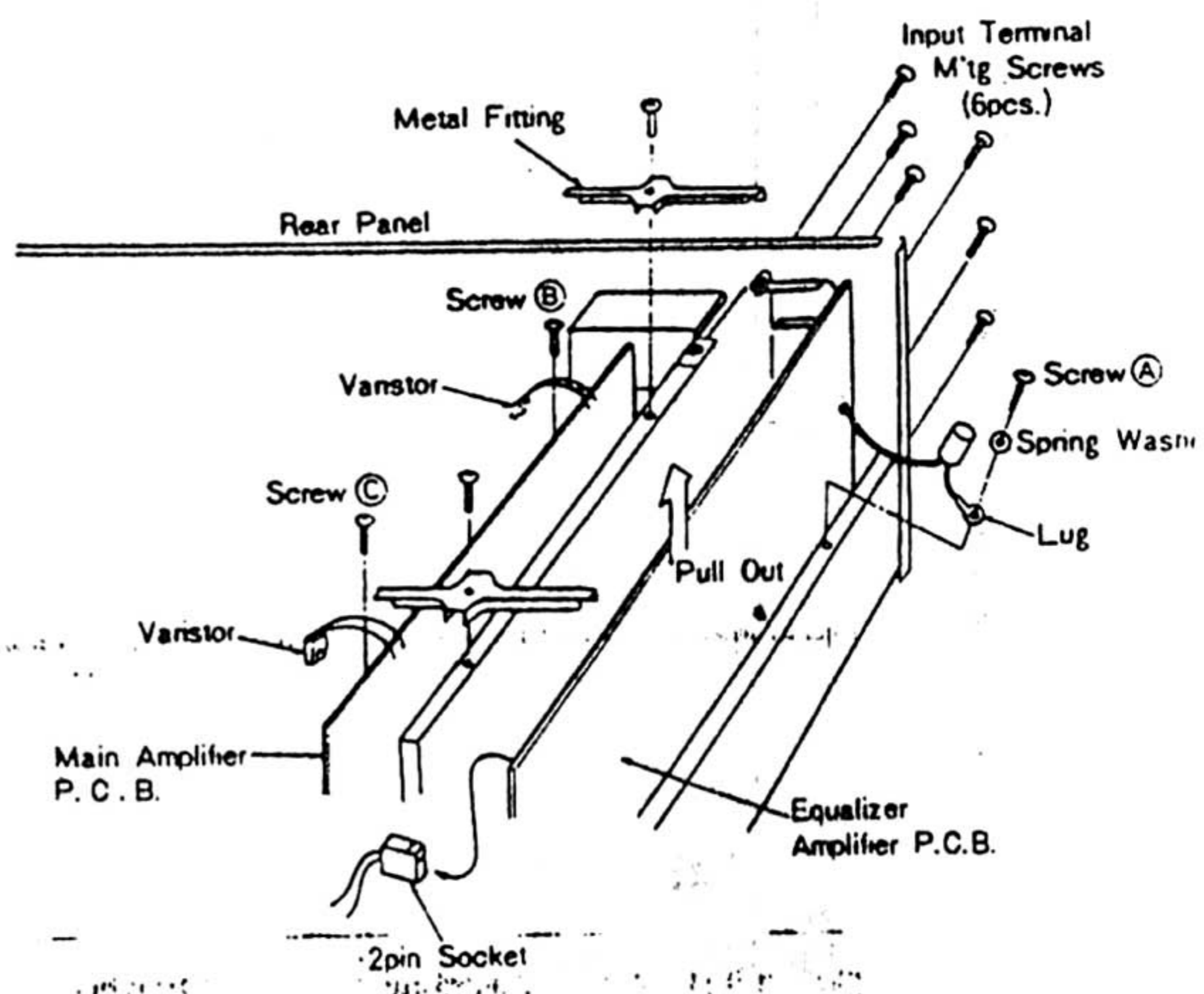
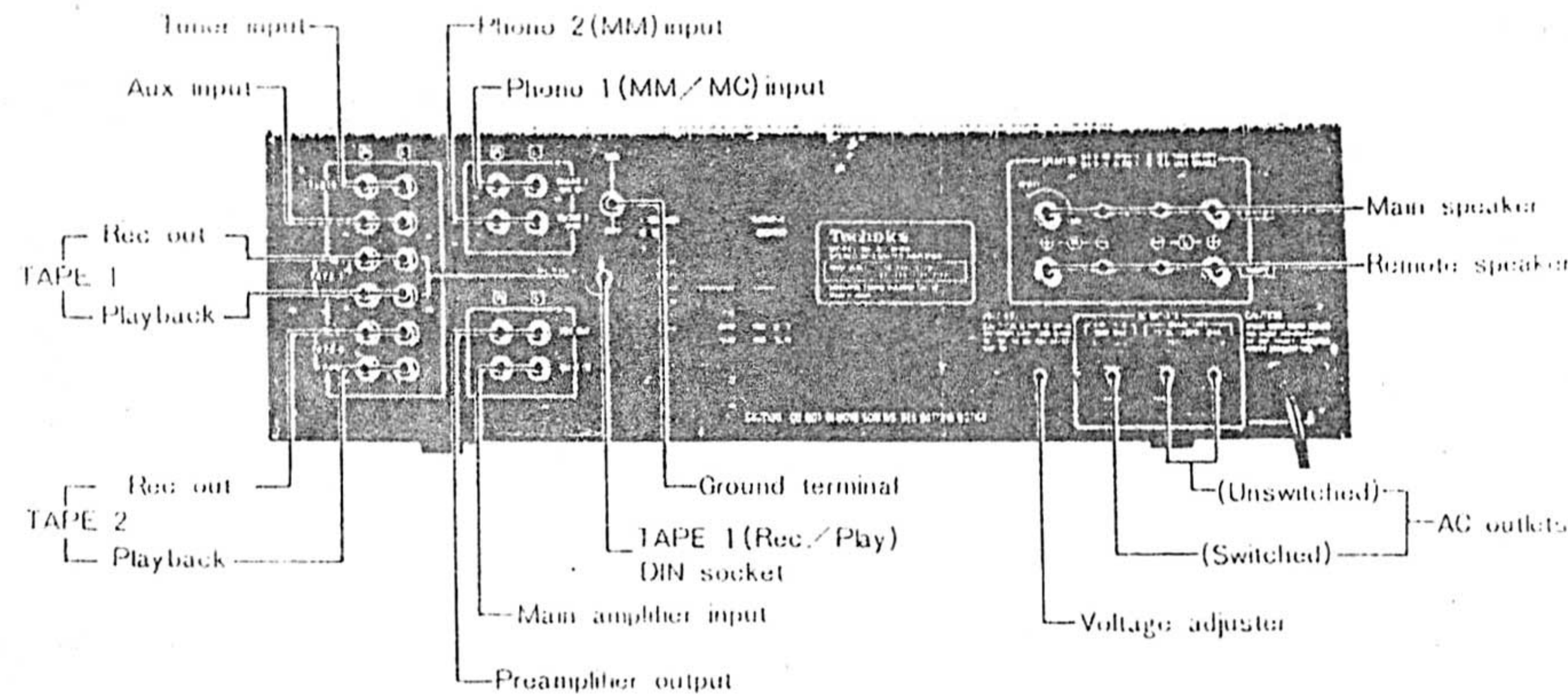
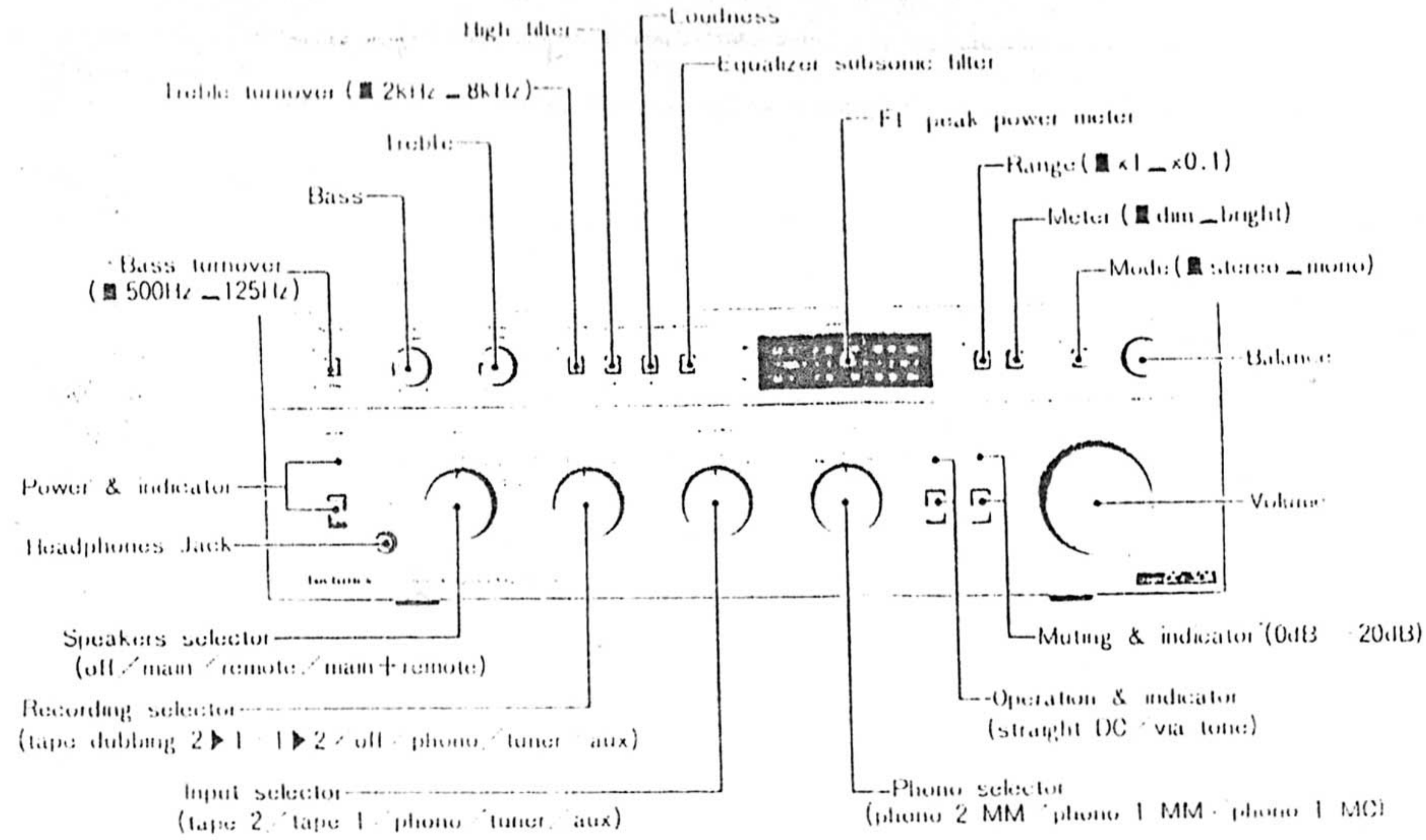


Fig. 9

LOCATION OF CONTROLS



- This rear panel photo shows only the products for SU-8088K (X) and SU 8088K (XA).
- The products for other destinations except SU-8088K (X) and SU 8088K (XA) are not equipped with AC outlets.

HOW TO PREPARE LEAD-CONNECTOR SOCKETS

1. As shown in figure 4 (A), insert the lead wire into the terminal (part no. SJTA712).
2. As shown in figure 4 (B), press the terminal to secure the lead wire.
3. As shown in figure 4 (C), insert into a 3-pin socket (part no. SJS5317) or 2-pin socket (part no. SJS5209).
4. To remove from the socket, hold the terminal with a sharp-point tool such as a needle, as shown in figure 5, and pull out the lead wire at the same time.

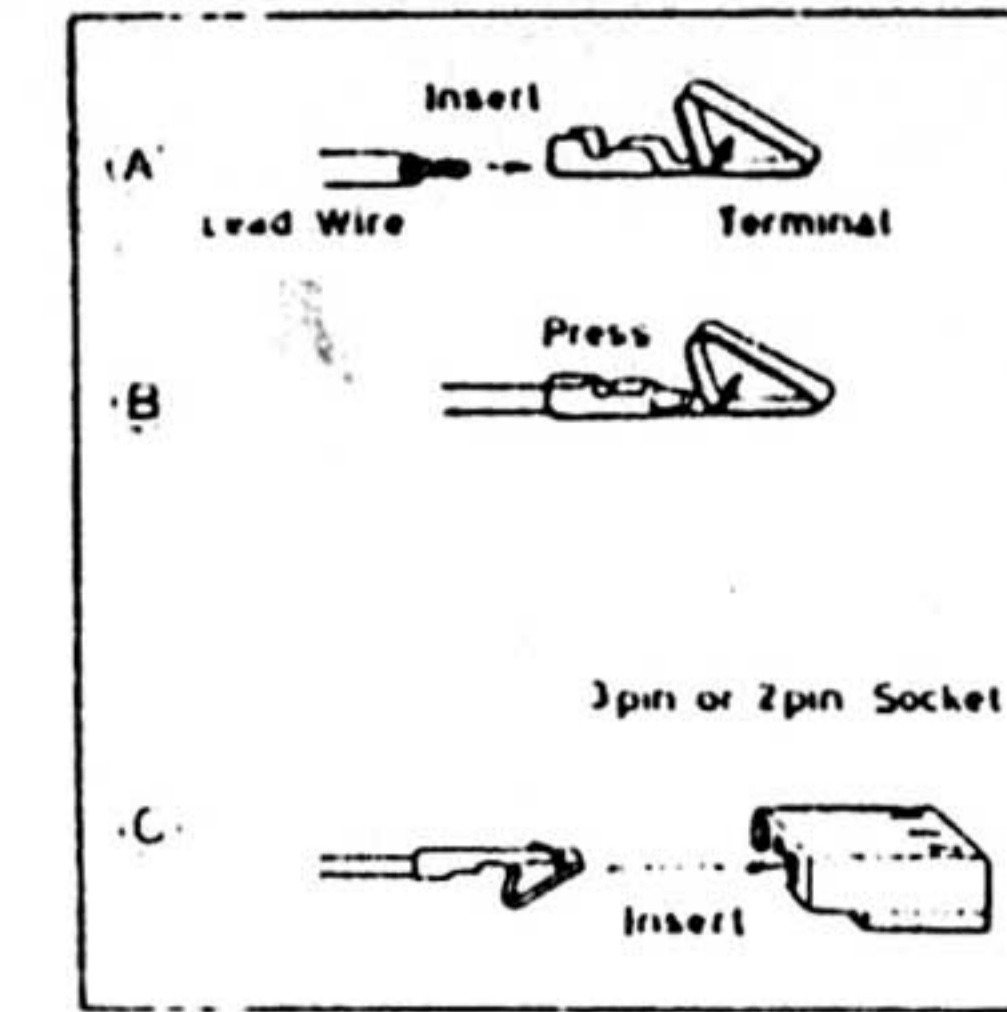


Fig. 4

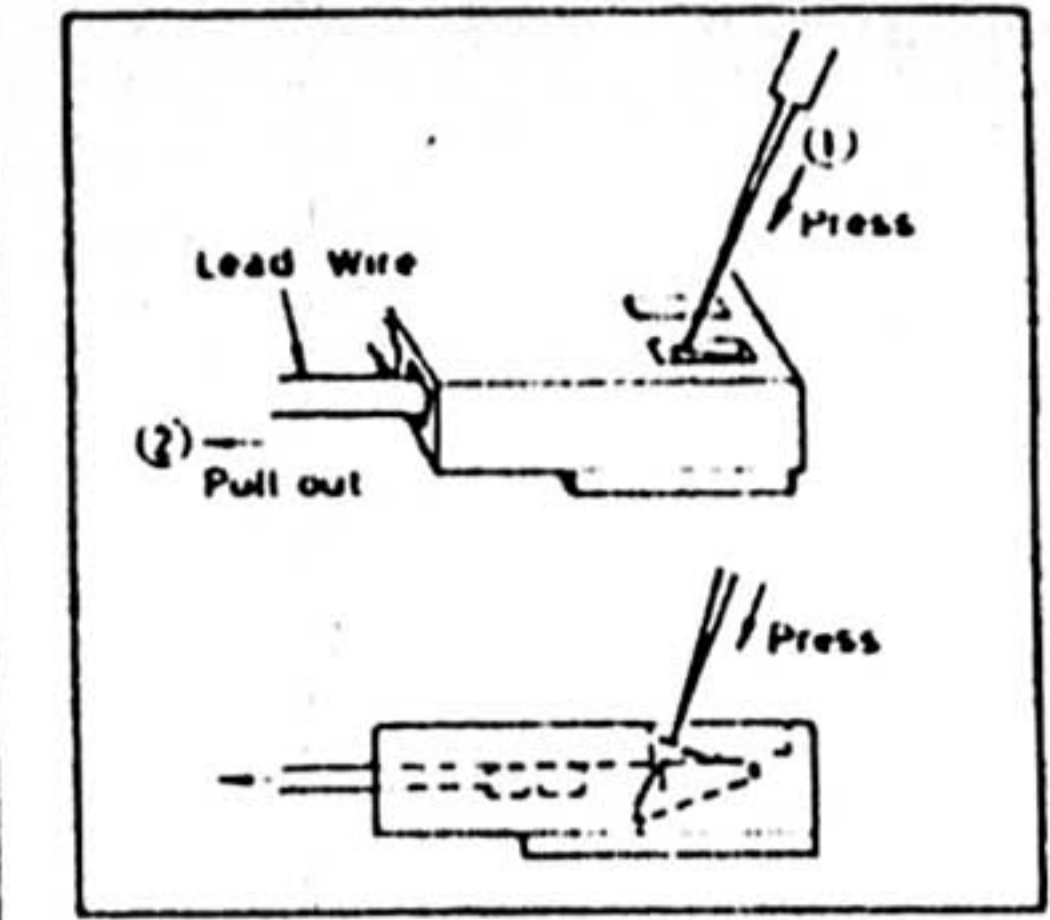


Fig. 5

TO REMOVE POWER TRANSISTOR

1. Remove the bottom board.
2. Remove four heat sink setscrews from the back of the set. (Fig. 6)
3. Pull out varistors (D407, D408) for thermal compensation which is inserted into the heat sink. (Fig. 7)
4. Pulling the heat sink upwards removes the 6-pin socket of P.C.B. Then the heat sink can be removed from the chassis.
5. Remove sub heat sinks (A) and (B) from the heat sink. (Fig. 8)
6. Remove the power transistor setscrews and pull it out of the heat sink. (Fig. 8)
7. When installing the power transistor, apply a heat diffuser to both sides of the mica plate beforehand.

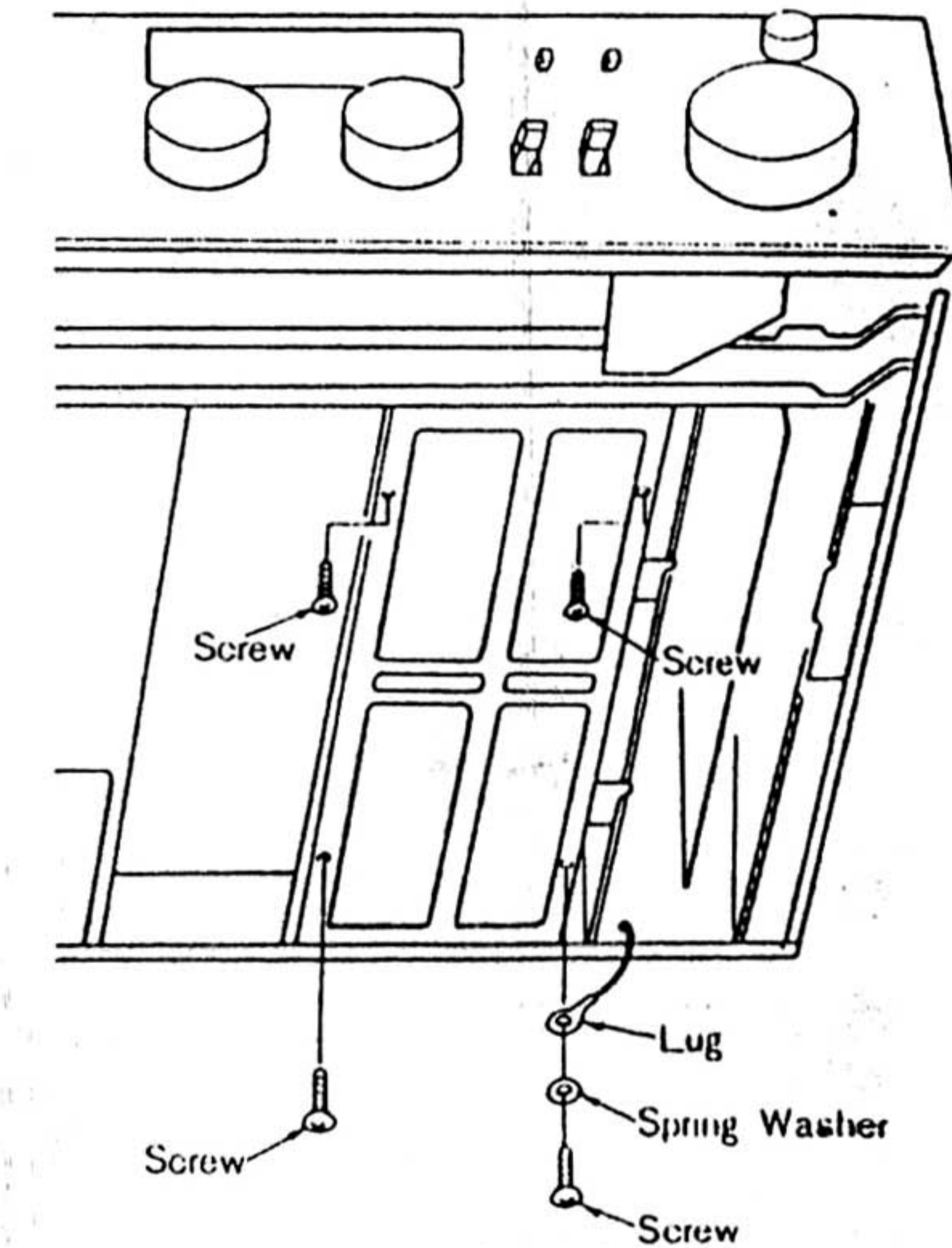


Fig. 6

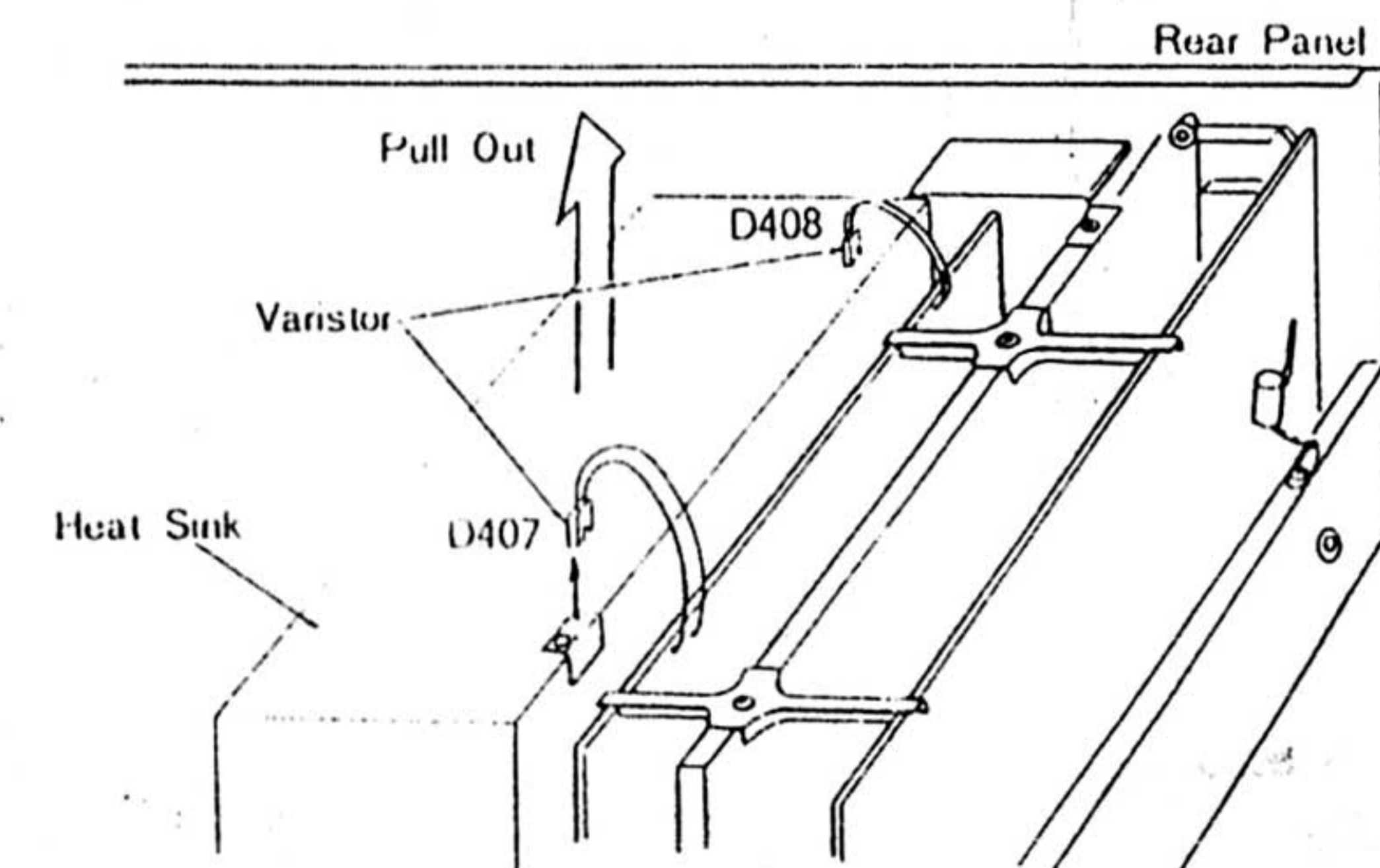


Fig. 7

1. **Technics original straight DC system that has approached an ideal reproducing ability.**

This unit employs a DC Amplifier system ever since Model SU-8080, intending to achieve a wave transmitting characteristic as faithful as possible. Also, it is the straight DC system that has realized, the reproduction by DC Amplifier from high-level inputs such as tuner, aux, etc.

2. **Concentrated power block and SLPT (Super Linear Power Transistor) that have greatly improved the high frequency (up to 100 kHz) reproducing ability.**

The main amplifier output stage and the current supply section of this unit are concentrated on one block (concentrated power block) in order to eliminate high frequency distortion completely. This system minimizes the worsening of distortion of high frequency band due to electromagnetic waves, connecting the output, power source and power supply line at the shortest distance. In addition, a large current section is provided by using copper plate to make the most of the effects, thus breaking up the general idea of conventional wiring.

Furthermore, SLPT (Super Linear Power Transistors 2SA1065, 2SC2489) is employed at the output stage in an attempt to improve the high frequency characteristic. The SLPT, developed by utilizing the high frequency transistor technology employed for high frequency (100 MHz) power amplification, is a nearly ideal power transistor for audio equipment; and its gain band-width product frequency f_T is as high as 50 ~ 60 megahertz, the linearity of h_{FE} (Common emitter dc current gain) is excellent, and ASO (Area of safety operation) is very wide.

3. **High S/N ratio MC pre-pre-amp that permits direct reproduction of MC cartridge.**

This unit is equipped with a pre-pre-amp for MC cartridge so that an MC cartridge can be directly reproduced at a high S/N ratio and low distortion factor. Also, due to the extra-low noise transistor, the S/N ratio is 78 dB (250 μ V input) that is equivalent to a conventional MM equalizer's.

4. **Complete electronic FL (Fluorescence) power meter of accurate, quick response**

This unit employs a complete electronic FL power meter which is optimum for checking the amplifier output. Unlike a mechanical meter, the FL power meter indicates the output with light, therefore it assures quick, accurate response, and is most suitable for checking signal levels varying incessantly.

Because of the meter range and the meter brightness changeover switch, it is easy to read the indication in case of a minute output, and possible to change the brightness as needed.

5. **Low leakage power transformer**

The power transformer of this unit is a high efficiency transformer with the coil floating in special resin, which is stored in a sufficiently shielded case. The power capacity is provided with a sufficient allowance, and the generation of leakage flux is minimized, therefore the influence due to hum, etc. is extremely slight, and these advantages make a great contribution to the high S/N ratio design of the unit. Also, the floating coil in special resin greatly contributes to the reduction of mechanical vibration of the transformer.

6. **Equalizer circuit that has realized high S/N ratio (90 dB), using extra-low noise FET at the initial stage.**

The MM equalizer circuit with extra-low noise FET (2SK155) at the initial stage has disused the coupling capacitor at the input stage.

This equalizer circuit is designed in low circuit impedance in order to minimize the generation of noise. Consequently, a high S/N ratio of 90 dB (2.5mV input) that will cause almost no noise has been achieved. Also, a metallic film resistor and polypropylene capacitor of less than $\pm 2\%$ deviation are used for the RIAA element that determines the sound quality (frequency characteristic) of the equalizer circuit.

This has realized a very accurate frequency characteristic with RIAA deviation of 20 Hz ~ 20 kHz \pm 0.2 dB.

7. **High efficiency tone control circuit of turn-over 2-step selection and mid-point complete defeat type**

The tone control can be used with the operation switch of this unit set to via tone. The circuit includes high efficiency IC's and two steps (125 Hz, 500 Hz) for bass and two steps (2 kHz, 8 kHz) for treble to set the turn-over frequency that determines the alteration characteristic.

Also, since parts such as capacitors, etc. which may affect the frequency characteristic are completely isolated from the adjusting volume by means of a special switch mechanism at the mechanical center, the frequency characteristic is flat.

8. **Recording selector that has greatly improved tape handling convenience, separating the recording signal line from the input selector.**

9. **Remote action switch that has reduced the wiring and brought about high efficiency performance.**

1. **Adjustment of unbalanced DC voltage and Ico (idling current of power transistor)**

• **Conditions of the set, and equipment used**

- 1. Operation switch. straight DC
- 2. Speaker switch main
- 3. Sound volume. 0 (minimum)
- 4. DC voltmeter
- 5. 8-ohm load resistor (used only for unbalanced DC voltage adjustment)

Adjustments	DC voltmeter connections	Adjusting portions	Adjusting procedure
Constant voltage power supply	Connect the (+) terminal of a DC voltmeter to No. 151 terminal, and the (-) terminal to ground.	R610	(1) Adjust voltage for (+) 48V between terminal 151 and ground. (2) At this time, check voltage between terminal 152 and ground be (-) 47V to (-) 48.5V.
Unbalanced DC voltage of power amplifier	Connect the meter to the speaker terminals for L and R channels in parallel with the 8 ohm load resistor.	R411 (L ch) R412 (R ch)	(1) Set the meter to "0" with measuring range as small as possible. Note: If it cannot be adjusted, cut off the jumper wire J2 (L ch.) and J3 (R ch.) before adjustment.
Ico (idling current of power transistor)	(+) side . . . TP3 } (-) side . . . TP1 } (+) side . . . TP4 } (-) side . . . TP2 }	R461 (L ch) R462 (R ch)	Adjust it to about 15mV a few minutes after turning on the power supply.

2. **Adjustment of FL power meter**

• **Conditions of the set, and equipment used**

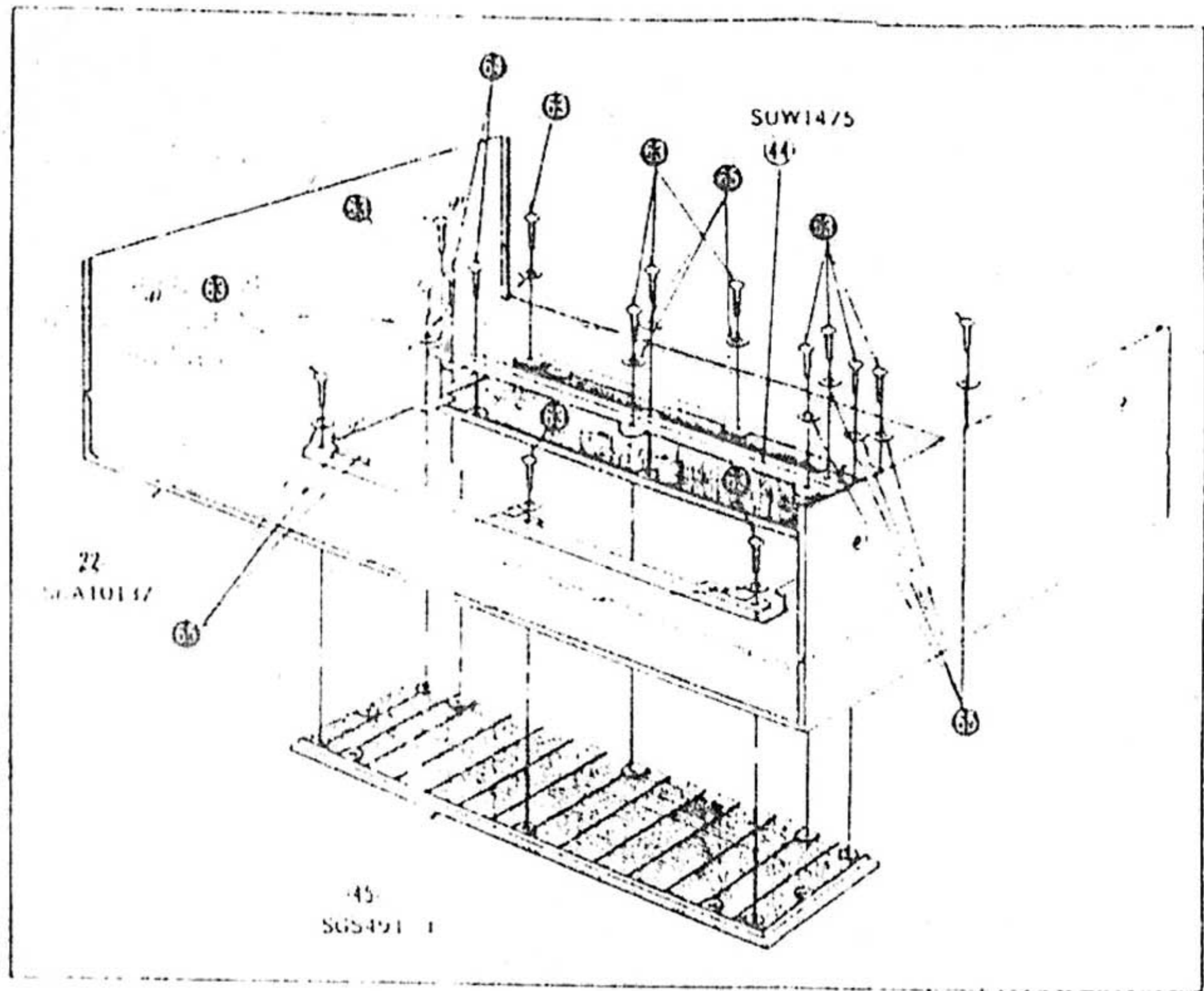
- 1. Input selector tuner
- 2. Speaker switch main
- 3. Meter range switch. X0.1 or X1
- 4. Meter brightness switch dim or bright
- 5. Sound volume. 10 (max.)
- 6. Low frequency oscillator
- 7. AC electronic voltmeter
- 8. 8-ohm load resistor

2-1. **Adjustment of 0.03W**

- 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 "X0.1", and the meter brightness switch to "dim".
 - 3) Add 1 kHz signal from the low frequency oscillator, and regulate the input level so that the AC electronic voltmeter indicates 0.75V.
 - 4) Adjust R523 (L ch) while observing the FL power meter until the first segment is about to turn on. (0.3W position of X0.1 range). Refer to fig. 1.
 - 5) Similarly, make the adjustment of R524 (R ch). At that time, if the indication of L ch varies, correct R523.
- Note: When the adjustment has been made so that the second segment is about to turn on, the first segment turns on without input.

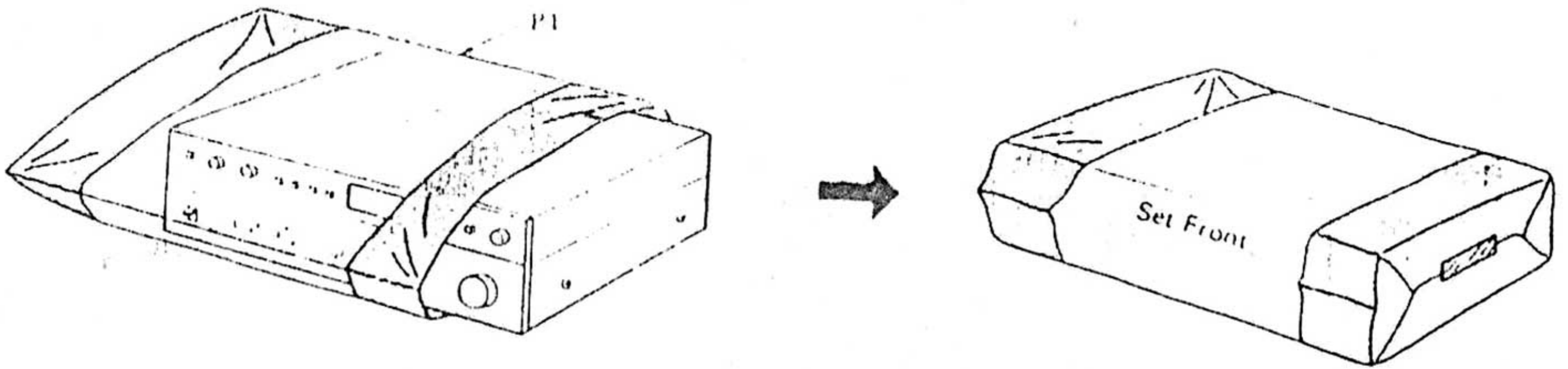
2-2. **Adjustment of 50W**

- 1) Set the meter range switch to "X1", and the meter brightness switch to "bright".
- 2) Regulate the input level so that the AC electronic voltmeter indicates 19V.
- 3) Make the adjustment in the same way as mentioned in 2-1 by regulating R529 (L ch) and R530 (R ch) so that the 9th segment (at 50W position) is about to turn on. Refer to fig. 2.
- 4) Next, make the adjustment in 2-1 (0.03W) by regulating the input level.
- 5) Again regulate the input level to make the output 19V, and make sure that the segment at 50W position is on

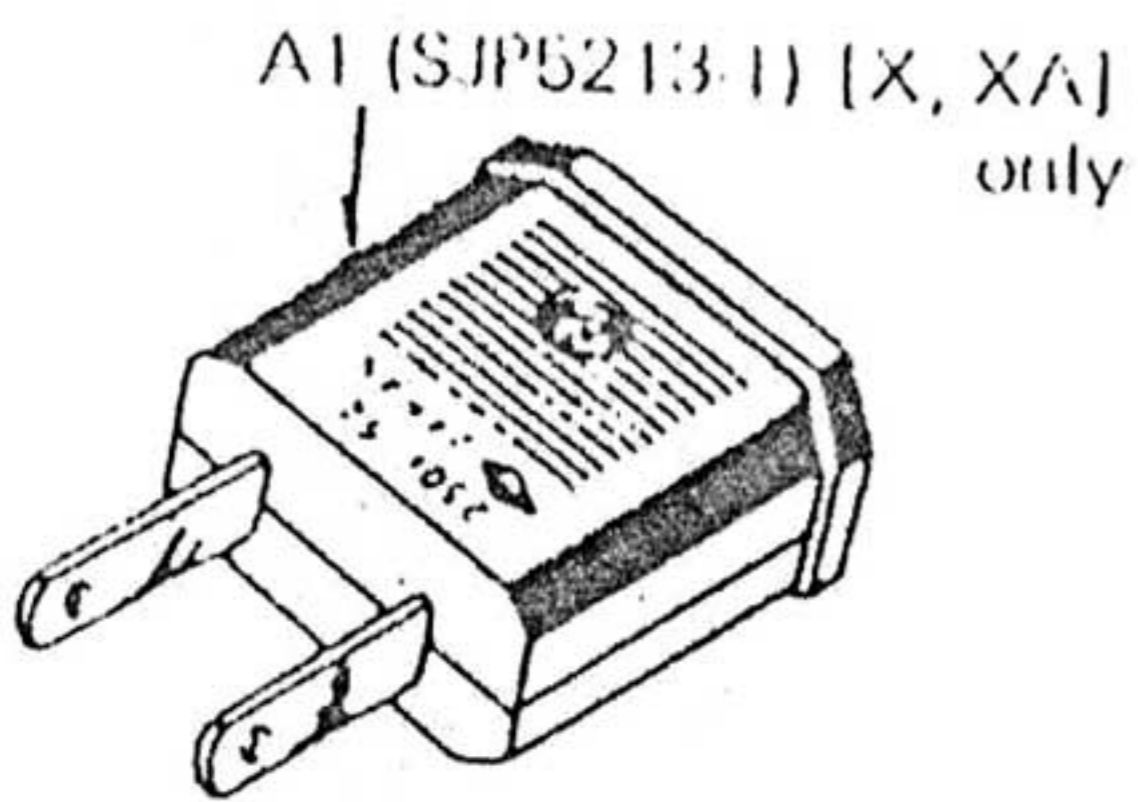


(This Cabinet is available in SU-8088K [XE] only.)

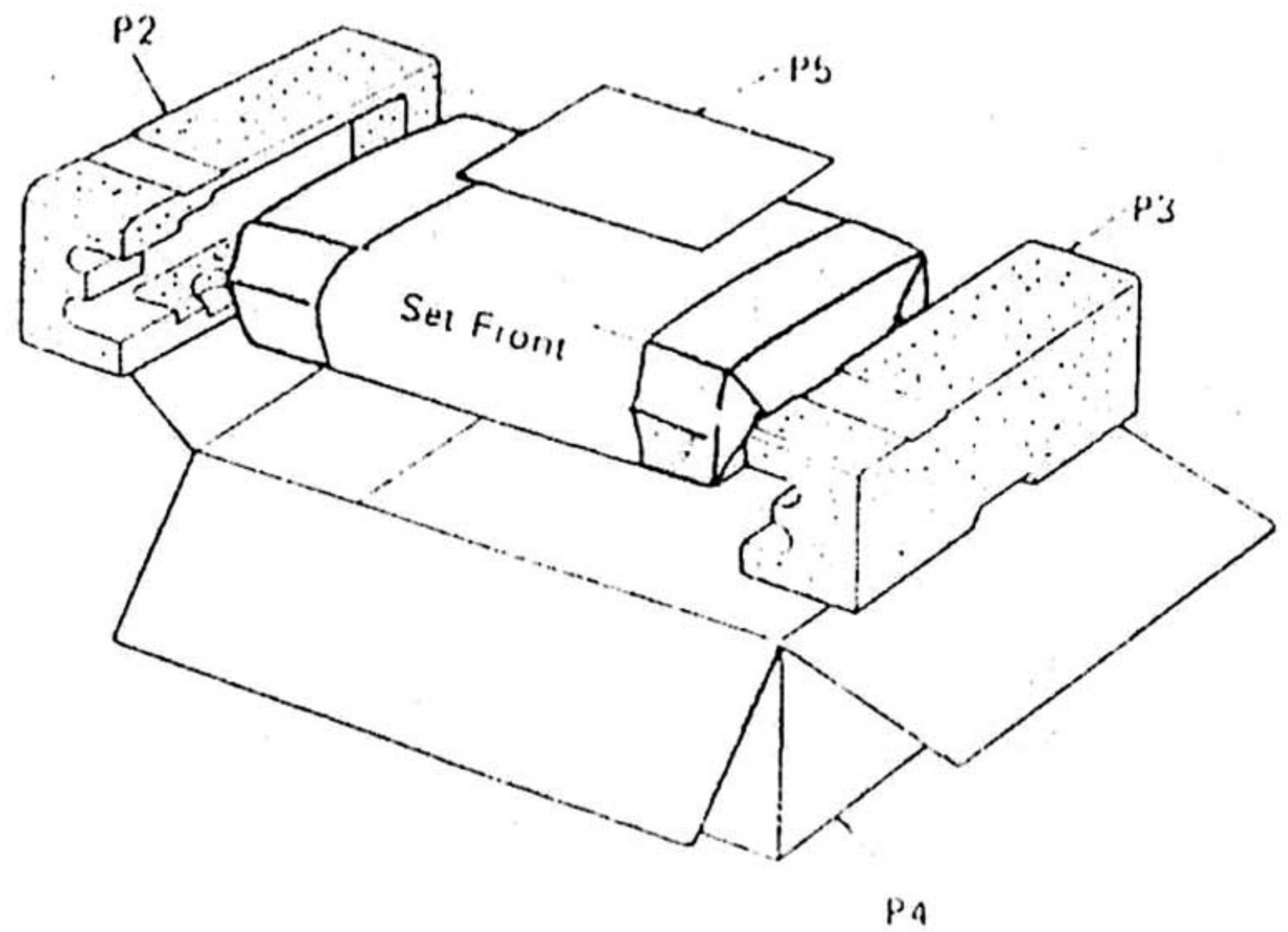
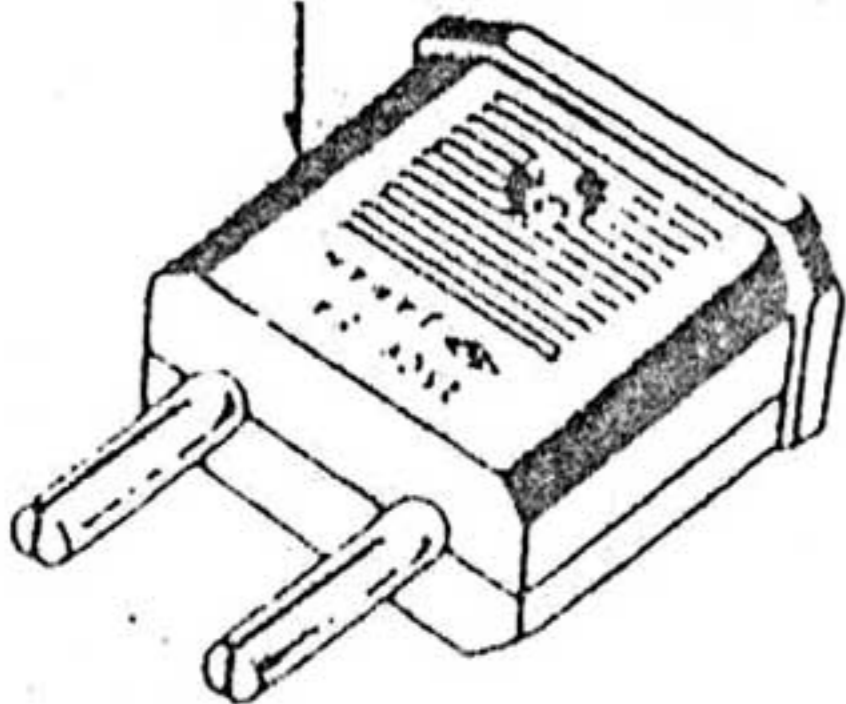
■ PACKINGS



■ ACCESSORIES



A2 (SJP5215) [X, XA] only



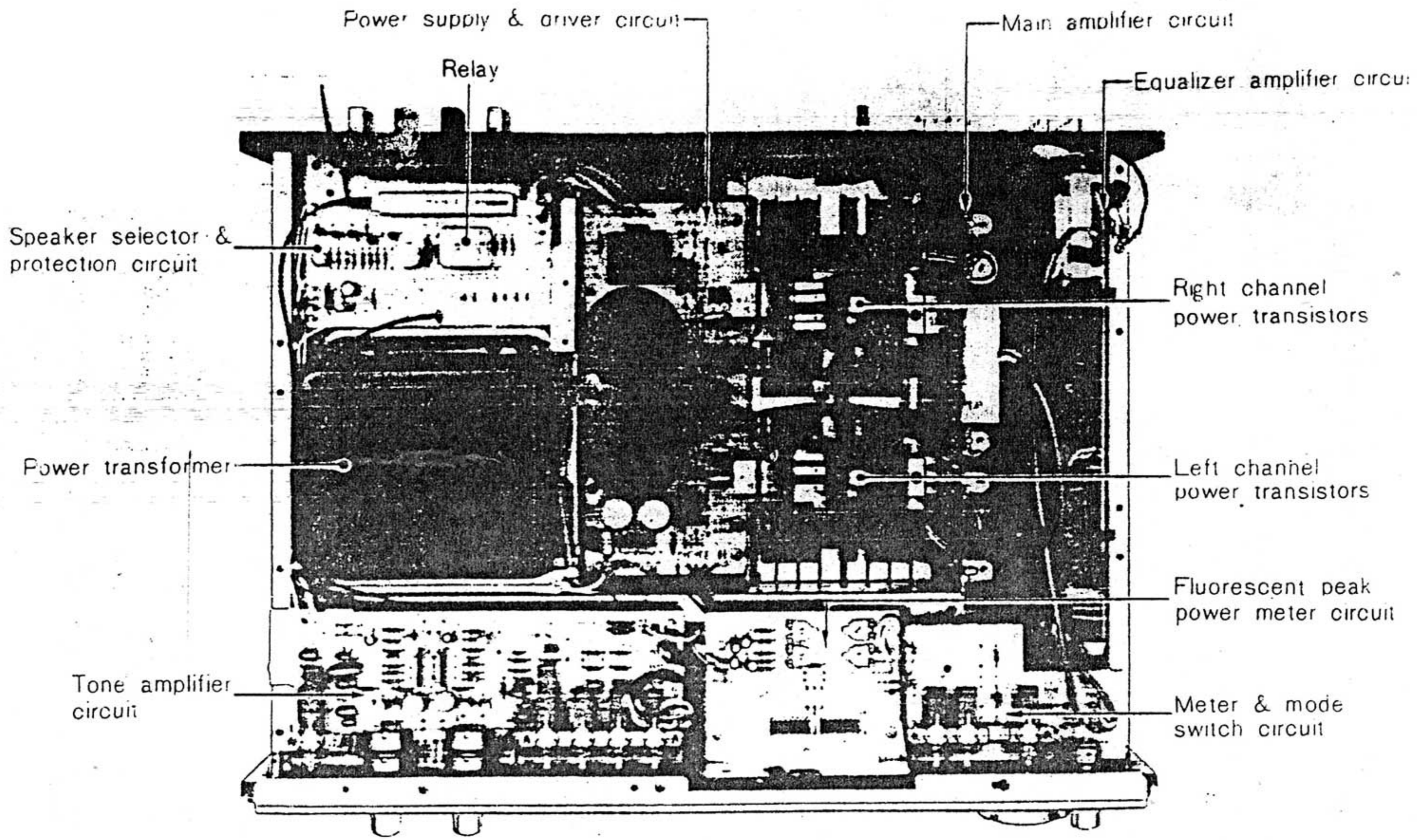
• (X) and (XA) are available in Asia Latin America, Middle East and Africa only.

SU-8088K

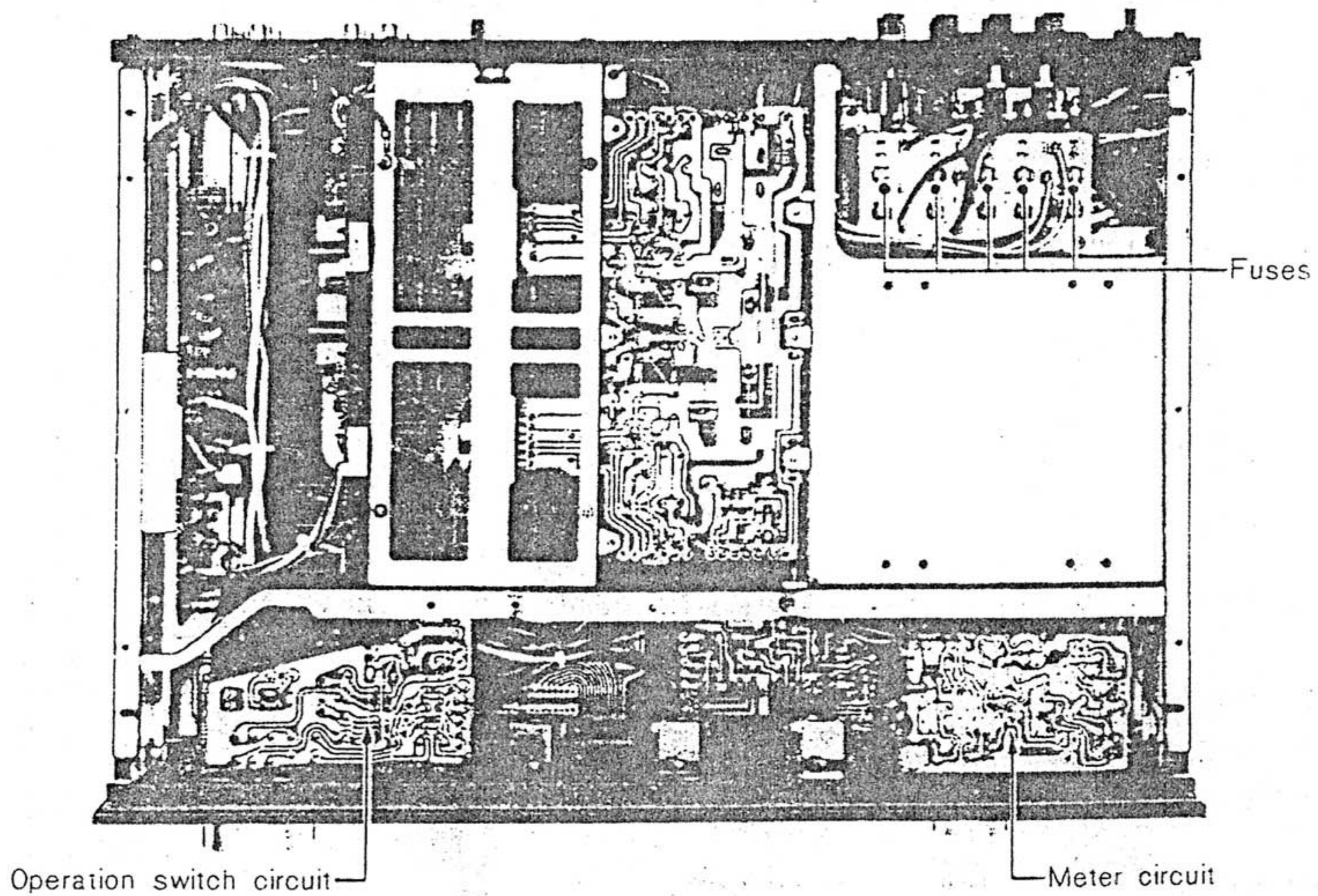
(D), (DG), (EB), (XSW), (XE), (X), (XA), (XAL)

Note: This parts list included only the changes of the model SU-8088 parts list

Ref. No.	Change of Part No.		Part Name & Description
	SU-8088	SU-8088K	
TRANSFORMER			
T1	SL15Q99	SL15Q99	Transformer, Power Source (Except for [X1])
		SL15Q101 [XE] only	Transformer, Power Source
FUSE			
F2	XBA2C25TR0	XBA2C25TR0	Fuse, T2.5A (250V) Except for [XE]
		XBAS2A2502 [XE] only	Fuse, T2.5A (250V)
CABINET and CHASSIS PARTS			
1	SBN773	SNB827	Knob, Volume Control
2	SBN771	SBN831	Knob, Balance, Bass & Treble Control
3	SBN769	SBN829	Knob, Selector Switches
4	SGWU8088M	SGWU8088KD	Panel, Front Ass'y (Black)
10	SBD19	SBD19-1	Knob, Lever Switches
22	SKA10131	SKA10132	Cabinet
24	SJA97 [XSW]	SJA97	AC Cord, with Plug (Except for [XSW, XAL, XE])
		SJA111 [XSW] only	AC Cord, with Plug
		QFC1207M [XAL] only	AC Cord, with Plug
		RJA452C [XE] only	AC Cord
25	SHR127	SHR127	Bushing, AC Cord (Except for [XAL, XE])
		SHR131 [XAL] only	Bushing, AC Cord
		SHR129 [XE] only	Bushing, AC Cord
29	SGPU8088W	SGPU8088KD	Rear Panel, SGPU8088W with Name Plate (SGT19551) Except for [X, XA, XAL]
		SGPU8088KX [X, XA] only	Rear Panel, SGP1530-1A with Name Plate (SGT19430)
		SGPU8088KL [XAL] only	Rear Panel, SGP1530-2B with Name Plate (SGT19430)
43	Addition	SJS601 [X, XA] only	Socket, AC Outlet
SCREWS and WASHERS			
⑩	XTB318BFN	XTB318BFZ	Screw, Front Panel M'tg
⑪	XTB418FFN	XTB418BFZ	Screw, Cabinet M'tg
PACKING PARTS			
P4	SPG1979 [XSW]	SPG2011 [XSW] only	Carton Box
	SPG1997 [XGF]	SPG2009	Carton Box, Except for [XSW]
	SPG1995		
ACCESSORIES			
A1	Addition	SJP5213-1 [X, XA] only	Plug Adapter, Power Source
A2	Addition	SJP5215 [X, XA] only	Plug Adapter, Power Source



TOP VIEW

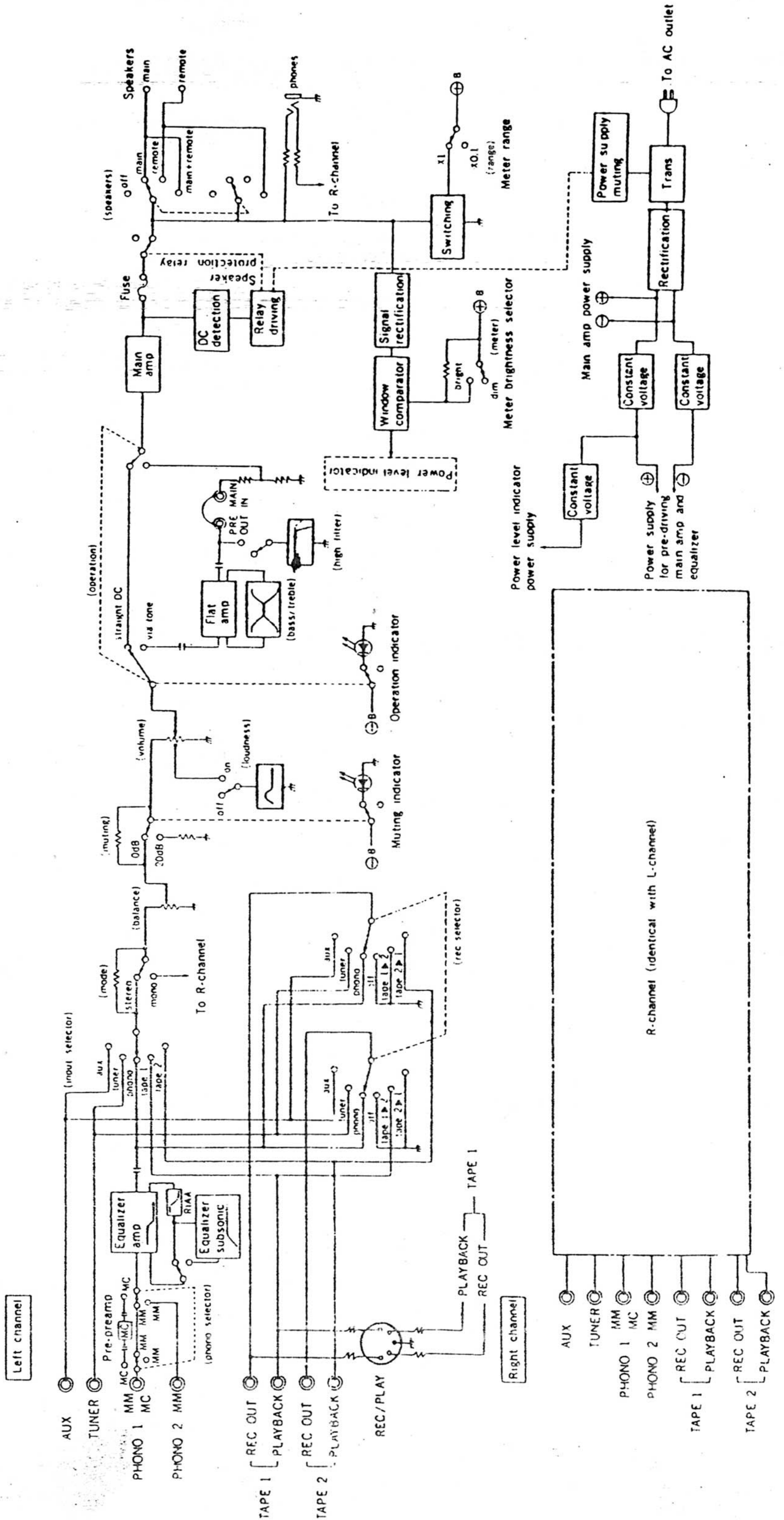


BOTTOM VIEW

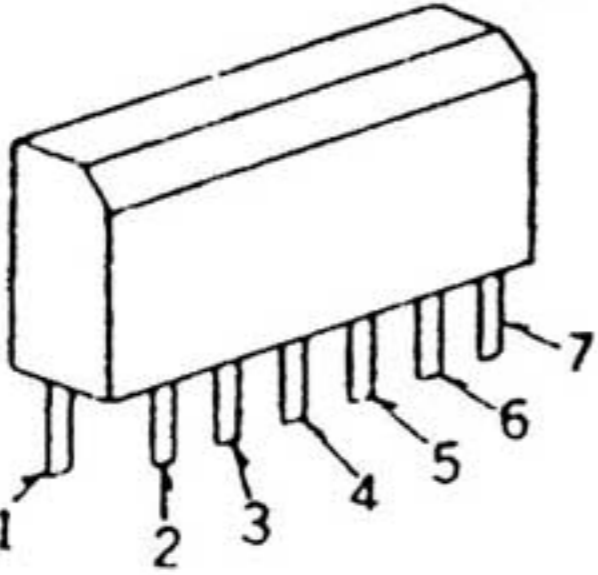
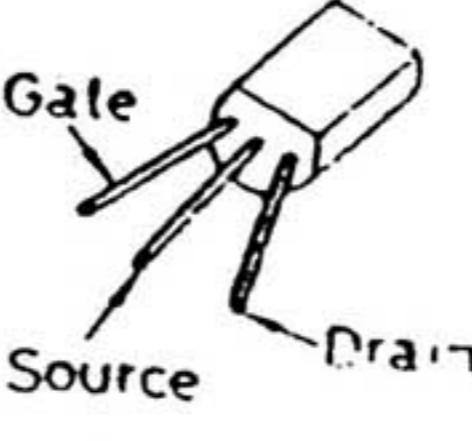
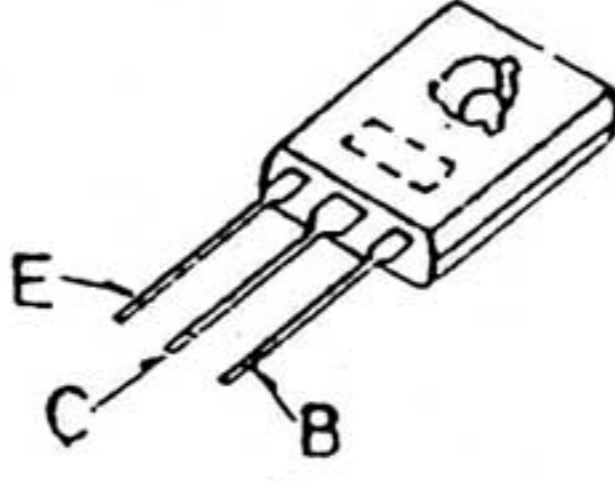
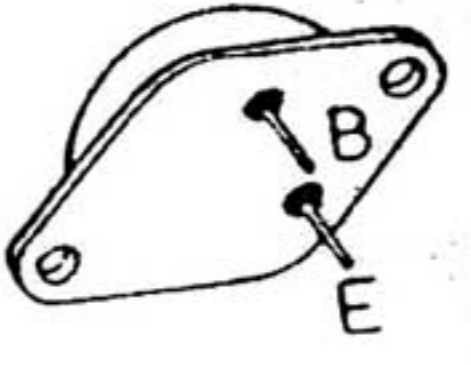
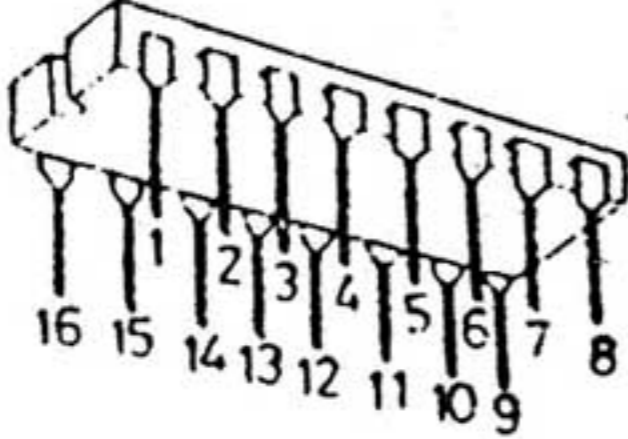
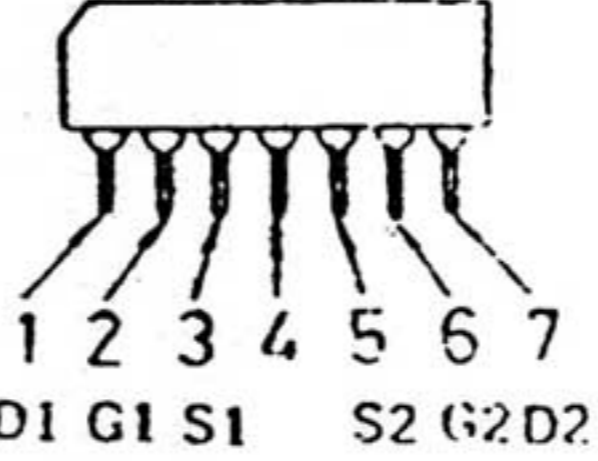
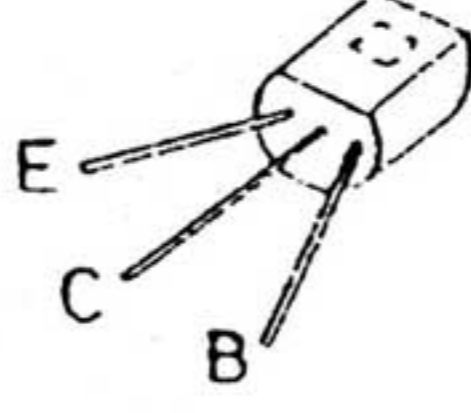
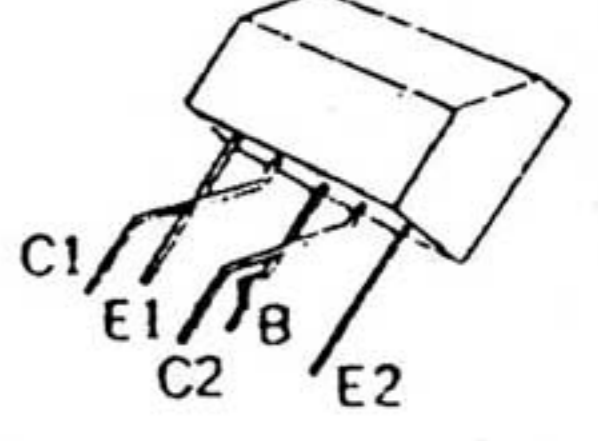
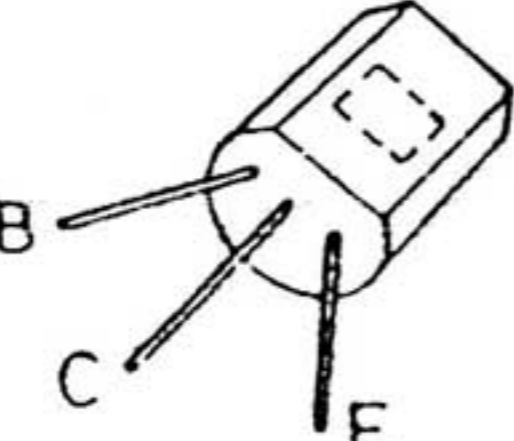
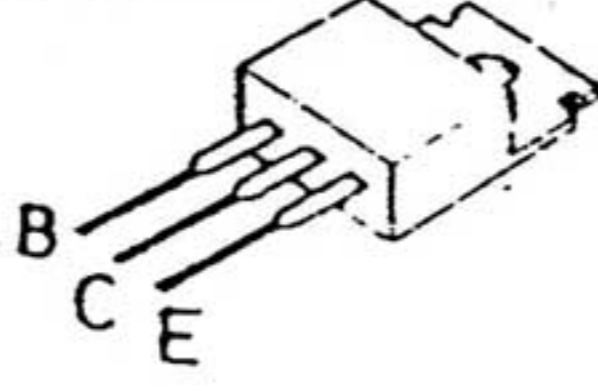
■ OUTLINE OF THIS UNIT

This is a straight DC amplifier which has been developed in quest of ideal sound quality while scientifically verifying the results of hearing tests with the best use of the 3DA (3 Dimension Analysis) to make analyses in relation to the three factors of amplifier (frequency characteristic, distortion, dynamic range) that determine the sound quality, and an I/O (Input/Output) distortion analyser which enabled us to analyze amplifier distortion by using musical signals.

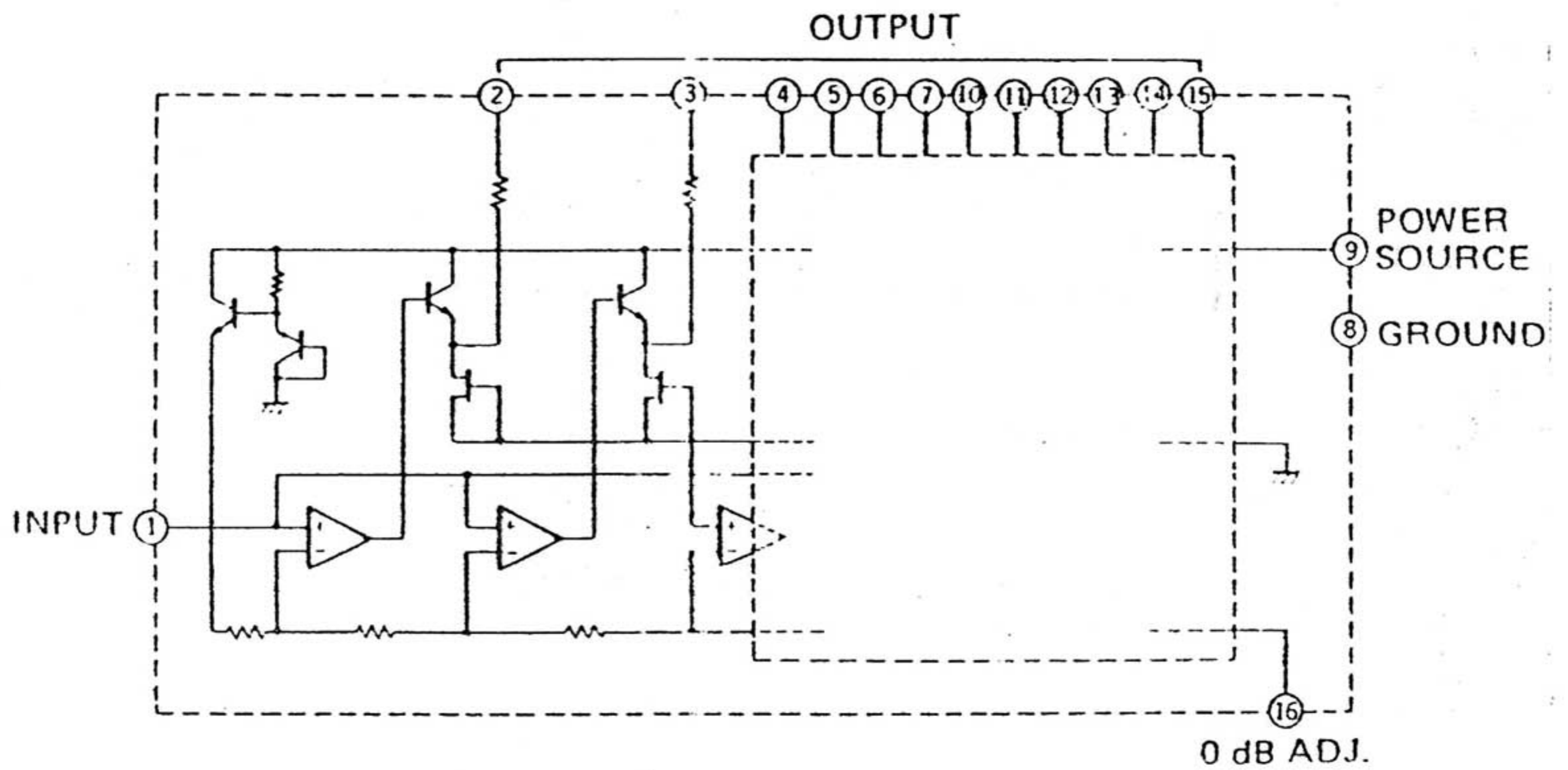
■ BLOCK DIAGRAM



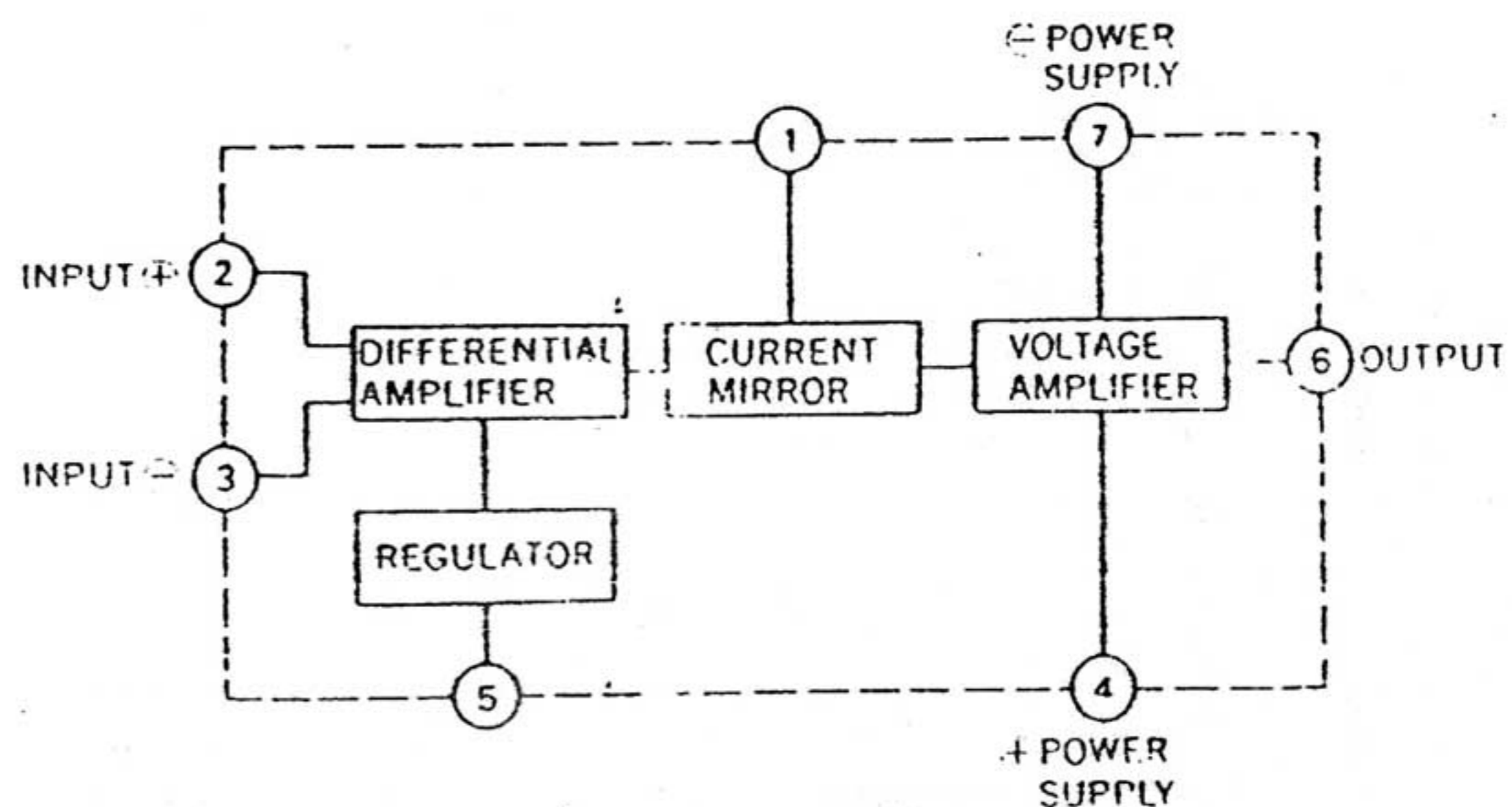
■ TERMINAL GUIDE OF TRANSISTORS AND IC'S

<p>SVIM5213L</p> 	<p>2SK155</p> 	<p>2SA794, 2SC1567</p> 	<p>2SA1065, 2SC2489</p> 
<p>SVIBA658</p> 	<p>2SK150</p> 	<p>2SA564, 2SA722 2SA777, 2SA912 2SA921, 2SA1015 2SC1318, 2SC1328 2SC1815, 2SC1885 2SC1980</p> 	<p>2SA995, 2SC2291</p> 
<p>2SA978, 2SC2385</p> 	<p>2SA913, 2SC1913 2SC1983</p> 		

■ BLOCK DIAGRAM OF IC'S

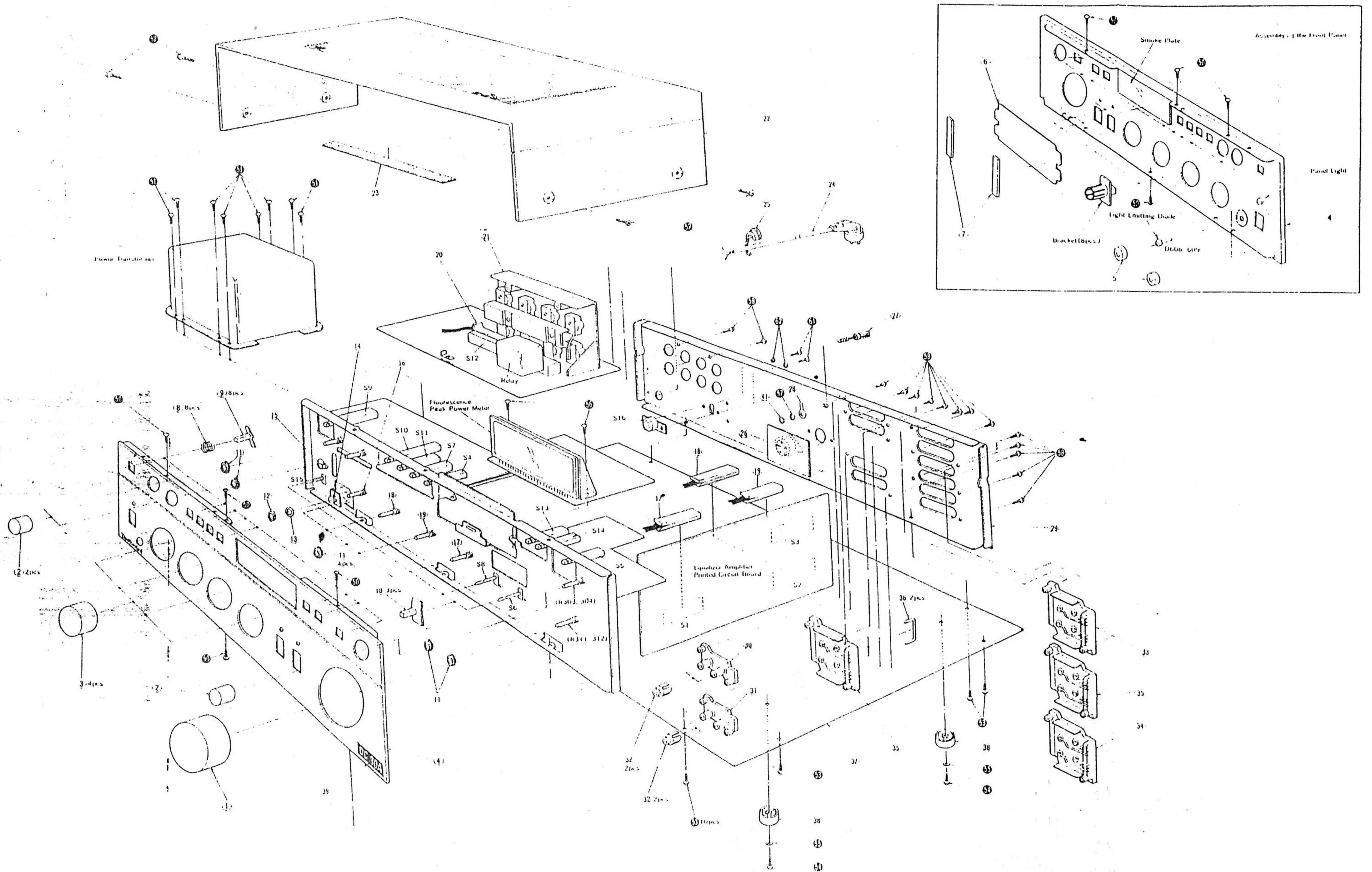


IC501, 502 (SVIBA658)
Level comparator



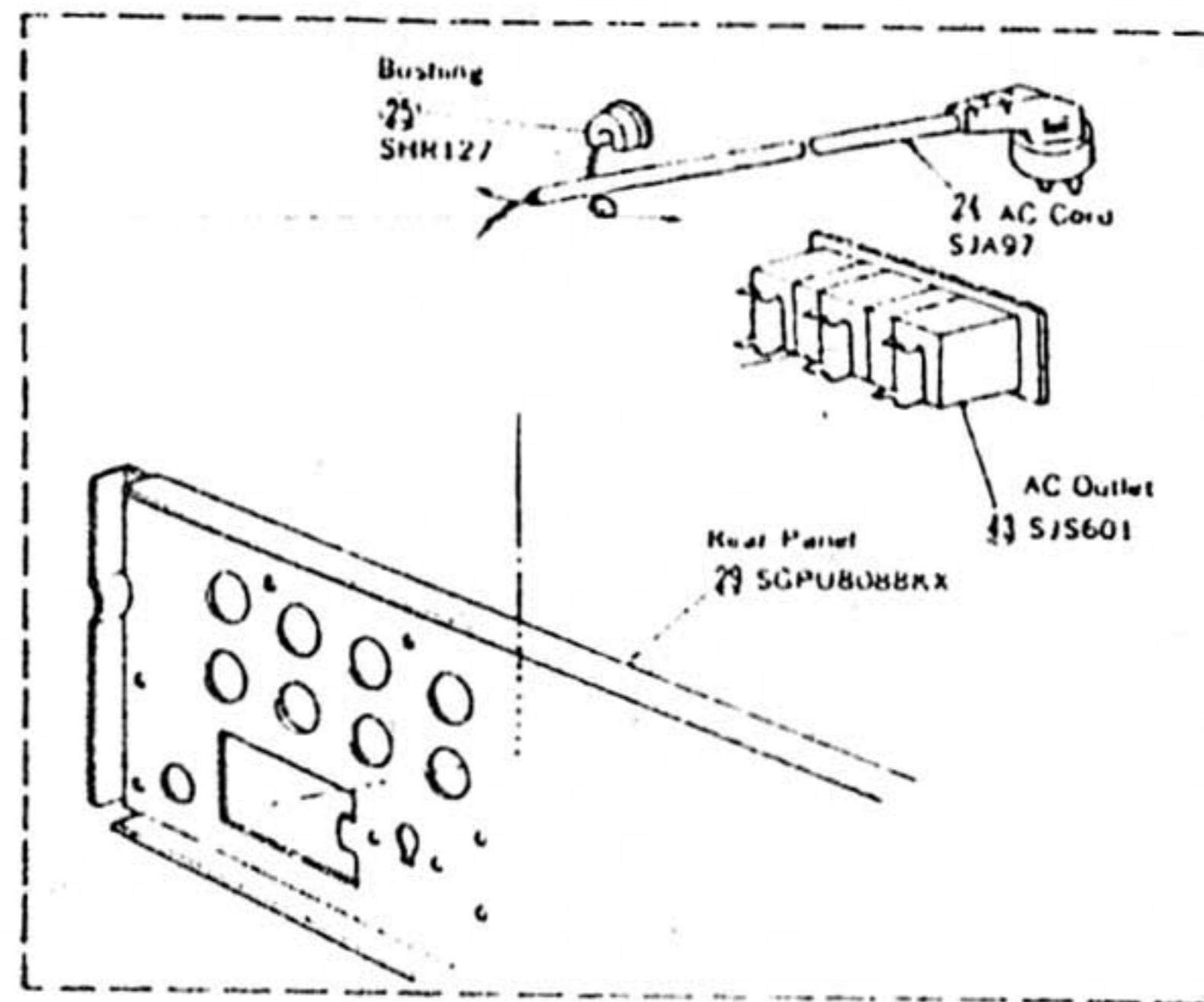
IC301, 302 (SVIM5213L)
Tone amplifier

EXPLODED VIEWS



Addition of AC outlets, only for products

SU-8088K (X) and SU-8088K (XA)



REPLACEMENT PARTS LIST Cabinet and Chassis 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	Ref. No.	Part No.	Part Name & Description
CABINET and CHASSIS PARTS					
1	SBN773	Knob, Volume Control	32	SJP1103	Pin Plug, Phono Input Terminal
2	SBN771	Knob, Balance, Bass & Treble Control	33	SJF3423	Terminal, PHONE and AUX Input
3	SBN769	Knob, Selector Switches	34	SJF3125	Terminal, Tape Deck 2 Connection
4	SGWUB088M	Panel, Front Ass'y	35	SJF3121	Terminal, Pre/Start, Tape 1 Connection
5	SHG1481	Bracket, LED Indicators	36	SJP9205 1	Connector Pin, Pre & Main Amplifier
6	SDU15	Filter, FL Peak Power Meter	37	SKU7210	Bottom Board
7	SHG1479	Rubber Cushion, Filter	38	SKLA7 1	Foot, Bottom Board
8	SUS123 2	Spring, Push Switches	39	SGK1263	Label, Front Panel (straight DC & 3DA)
9	SBC197	Button, Push Switches	40	SIV1401 1	Socket, Power Transistor
10	SBD19	Knob, Lever Switches	41	XNGR6	Net, Ground Terminal M'tg
11	SNE4021	Nut, Volumes & Selector Switches M'tg	42	SJS6001	Socket, Printed Circuit Board, 6 pin
12	XNSS12	Nut, Headphones Jack M'tg	SCREWS and WASHERS		
13	SNE59 1	Washer	①	XTB3+8BFN	Screw, Front Panel M'tg
14	XCI6P21B A	Jack, Headphones	②	XTB4+8BFZ	Screw, Power Transformer M'tg
15	SHGA204	Rubber Bracket, Power Indicator	③	XTB4+8FFN	Screw, Cabinet M'tg
16	ESA23421	Remote Switch, Speakers Selector	④	XTB3+8BFN	Screw, Bottom Board M'tg
17	ESA338	Remote Switch, Phono Selector (w/Wire)	⑤	XTN3+10B	Screw, Foot M'tg
18	ESA332	Remote Switch, Recording Selector (w/Wire)	⑥	XWG3	Washer
19	ESA335	Remote Switch, Input Selector (w/Wire)	⑦	XTB3+8BFN	Screw, FL Meter P.C.B. M'tg
20	ESA2072	Remote Switch, Speakers (w/Wire)	⑧	XWC6B	Washer, Ground Terminal
21	SJF5807	Terminal, Speakers	⑨	XTB3+8BFZ	Screw, Speaker & Input Terminal M'tg
22	SKA10131	Cabinet	⑩	XSB3+16BNS	Screw, Power Transistor M'tg
23	SHS1000	Fiber, Cabinet	⑪	XWA30FN	Washer, Spring
24	SJA97	AC Cord, Power Source (with Plug)	⑫	XSN3+6BVS	Screw, Voltage Adjuster M'tg
24 [XSW] only	SJA111	AC Cord, Power Source (with Plug)	⑬	XWA3BFZ	Washer, Spring
25	SHR127	Bushing, AC Cord	PACKING PARTS		
26	SJS6001	DIN Socket, Tape Deck Connection	P1	SPF595	Polyethylene Bag
27	SJF4101	Terminal, Ear (Ground)	P2	SPS1717 1	Pad, Left Side
28	SJF301	Log, Earth (Ground)	P2 [XSW] only	SPS1717	Pad, Left Side
29 [D, XSW] only	SGPU8088W	Rear Panel, SGP1530 1B with Plate (SGP9017)	P3	SPS1719 1	Pad, Right Side
30	SGPU8088D	Rear Panel, SGP1530 1B with Name Plate (SGI19560)	P3 [XSW] only	SPS1719	Pad, Right Side
31	SJF3211 5	Terminal, PHONO 1 Input	P4 [XSW] only	SPG1979	Carton Box
32	SJF3211 4	Terminal, PHONO 2 Input	P4 [XGF] only	SPG1997	Carton Box
			P4	SPG1995	Carton Box
			P5	SQF10175	Instructions Book, Printed Matter

Ref. No.	Part No.	Part Name & Description
R901	ERD25TJ472	Carbon, 4.7k Ω , 1/4W, $\pm 5\%$
R903, 904	ERD25TJ472	Carbon, 4.7k Ω , 1/4W, $\pm 5\%$
R905, 906	ERD25TJ664	Carbon, 560k Ω , 1/4W, $\pm 5\%$
R907, 908	ERD25TJ104	Carbon, 100k Ω , 1/4W, $\pm 5\%$

CAPACITORS

Ref. No.	Part No.	Part Name & Description
C7, 2, 3	Δ ECKDHS103SE	Ceramic, 0.01 μ F, 400VAC, $\pm 5\%$
C4	ECEA1AS331	Electrolytic, 330 μ F, 10V
C100	ECEAOJS221	Electrolytic, 220 μ F, 10V
C101, 102	ECEA1AS470	Electrolytic, 47 μ F, 10V
C103, 104	ECEA1AS470	Electrolytic, 47 μ F, 10V
C105, 106	ECQM1H102KZ	Polyester, 0.001 μ F, 50V, $\pm 10\%$
C107, 108	ECQM1H102KZ	Polyester, 0.001 μ F, 50V, $\pm 10\%$
C109, 110	ECEAOJS221	Electrolytic, 220 μ F, 10V
C111, 112	ECEAOJS221	Electrolytic, 220 μ F, 10V
C113, 114	ECKD1H331KB	Ceramic, 330pF, 50V, $\pm 10\%$
C115, 116	ECKD1H331KB	Ceramic, 330pF, 50V, $\pm 10\%$
C117, 118	ECEAOJS101	Electrolytic, 100 μ F, 10V
C119, 120	ECEAOJS101	Electrolytic, 100 μ F, 10V
C121, 122	Δ ECEA16N100	Non-Polar Electrolytic, 10 μ F, 16V
C151, 152	ECEA1VS330	Electrolytic, 33 μ F, 35V
C153, 154	ECEA1VS330	Electrolytic, 33 μ F, 35V
C155	ECEA16Z10	Electrolytic, 10 μ F, 16V
C156	ECEA1HS101	Electrolytic, 100 μ F, 50V
C201, 202	ECCD1H820K	Ceramic, 82pF, 50V, $\pm 10\%$
C203, 204	ECQM1H332KZ	Polyester, 0.0033 μ F, 50V, $\pm 10\%$
C205, 206	ECEA1ES101	Electrolytic, 100 μ F, 25V
C207, 208	ECEA1HS100	Electrolytic, 10 μ F, 50V
C209, 210	ECKD1H561KB	Ceramic, 560pF, 50V, $\pm 10\%$
C211, 212	ECCD1H101K	Ceramic, 100pF, 50V, $\pm 10\%$
C213, 214	ECCD1H151K	Ceramic, 150pF, 50V, $\pm 10\%$
C215, 216	ECEAOJS102	Electrolytic, 1000 μ F, 63V
C217, 218	ECEA1HS010	Electrolytic, 1 μ F, 50V
C219, 220	ECEA1VS330	Electrolytic, 33 μ F, 35V
C221, 222	Δ ECEA50N1	Non-Polar Electrolytic, 1 μ F, 50V
C223, 224	ECQM1H102KZ	Polyester, 0.001 μ F, 50V, $\pm 10\%$
C225, 226	ECOP1273GZ	Polypropylene, 0.027 μ F, 100V, $\pm 2\%$
C227, 228	ECQM1H102JZ	Polyester, 0.001 μ F, 50V, $\pm 5\%$
C229, 230	ECOP1104GZ	Polypropylene, 0.1 μ F, 100V, $\pm 2\%$
C231, 232	ECEA1AS470	Electrolytic, 47 μ F, 10V
C233, 234	ECEAOJS102	Electrolytic, 1000 μ F, 6.3V
C235, 236	ECEAOJS221	Electrolytic, 220 μ F, 10V
C237, 238	ECEA1HS470	Electrolytic, 47 μ F, 50V
C301, 302	ECQM1H682KZ	Polyester, 0.0068 μ F, 50V, $\pm 10\%$
C303, 304	ECEA50MR68R	Electrolytic, 0.68 μ F, 50V
C305, 306	ECKD1H221KB	Ceramic, 220pF, 50V, $\pm 10\%$

Ref. No.	Part No.	Part Name & Description
C307, 308	ECCD1H120K	Ceramic, 12pF, 50V, $\pm 10\%$
C309, 310	ECEA50M3R3R	Electrolytic, 3.3 μ F, 50V
C311, 312	Δ ECEA50NR68	Non-Polar Electrolytic, 0.68 μ F, 50V
C313, 314	Δ ECEA16N47	Non-Polar Electrolytic, 47 μ F, 16V
C315, 316	ECQM1H123KZ	Polyester, 0.012 μ F, 50V, $\pm 10\%$
C317, 318	ECQM1H333KZ	Polyester, 0.033 μ F, 50V, $\pm 10\%$
C319, 320	ECQM1H103KZ	Polyester, 0.01 μ F, 50V, $\pm 10\%$
C321, 322	ECQM1H393KZ	Polyester, 0.039 μ F, 50V, $\pm 10\%$
C323, 324	ECQM1H124KZ	Polyester, 0.12 μ F, 50V, $\pm 10\%$
C325, 326	ECKD1H561KB	Ceramic, 560pF, 50V, $\pm 10\%$
C327, 328	ECQM1H392KZ	Polyester, 0.0039 μ F, 50V, $\pm 10\%$
C329, 330	ECQM1H152KZ	Polyester, 0.0015 μ F, 50V, $\pm 10\%$
C331, 332	ECQM1H123KZ	Polyester, 0.012 μ F, 50V, $\pm 10\%$
C333, 334	ECEA1HS010	Electrolytic, 1 μ F, 50V
C400	ECEAOJS330	Electrolytic, 33 μ F, 16V
C401, 402	ECCD2H330K	Ceramic, 33pF, 500V, $\pm 10\%$
C403, 404	ECCD2H330K	Ceramic, 33pF, 500V, $\pm 10\%$
C405, 406	ECCD2H270K	Ceramic, 27pF, 500V, $\pm 10\%$
C407, 408	ECEAOJS102	Electrolytic, 1000 μ F, 6.3V
C415, 416	ECCD2H560K	Ceramic, 56pF, 500V, $\pm 10\%$
C417, 418	ECCD2H101K	Ceramic, 100pF, 500V, $\pm 10\%$
C419, 420	ECQM1H472KZ	Polyester, 0.0047 μ F, 50V, $\pm 10\%$
C421, 422	ECQM1H472KZ	Polyester, 0.0047 μ F, 50V, $\pm 10\%$
C423, 424	ECQM1H823KZ	Polyester, 0.082 μ F, 50V, $\pm 10\%$
C425	ECEA1ES470	Electrolytic, 47 μ F, 25V
C431, 432	ECQM1H823KZ	Polyester, 0.082 μ F, 50V, $\pm 10\%$
C441, 442	ECKD1H821KB	Ceramic, 820pF, 50V, $\pm 10\%$
C501, 502	ECEA1ES4R7	Electrolytic, 4.7 μ F, 25V
C503, 504	ECCD1H120K	Ceramic, 12pF, 50V, $\pm 10\%$
C505, 506	ECEA1HS2R2	Electrolytic, 2.2 μ F, 50V
C507, 508	ECEA1HS010	Electrolytic, 1 μ F, 50V
C509, 510	ECEAOJS330	Electrolytic, 33 μ F, 16V
C511	ECEA1HS101	Electrolytic, 100 μ F, 50V
C512	ECEA1ES330	Electrolytic, 33 μ F, 35V
C601, 602	ECM56R153U	Electrolytic, 15000 μ F, 56V
C603, 604	ECEA2AS471	Electrolytic, 470 μ F, 100V
C605, 606	ECEA1JS330	Electrolytic, 33 μ F, 63V
C607, 608	ECQM1H102KZ	Polyester, 0.001 μ F, 50V, $\pm 10\%$
C609, 610	ECEA1HS010	Electrolytic, 1 μ F, 50V
C612	ECEA1HS010	Electrolytic, 1 μ F, 50V
C613, 614	ECEA1HS470	Electrolytic, 47 μ F, 50V
C615, 616	ECEA1HS010	Electrolytic, 1 μ F, 50V
C617	ECEA1AS221	Electrolytic, 220 μ F, 10V
C701	Δ ECEA16N220	Non-Polar Electrolytic, 22 μ F, 16V
C702	ECEAOJS221	Electrolytic, 220 μ F, 10V
C703	ECEA50M3R3R	Electrolytic, 3.3 μ F, 50V

CHANGE OF PARTS LIST

SU-8088K

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

Note: This parts list included only the changes of the model SU 8088 parts list.

Ref. No.	Change of Part No.		Part Name & Description
	SU-8088	SU-8088K	
TRANSFORMER			
T1	SLT5Q99	SLT5Q99	Transformer, Power Source (Except for [XE])
		SLT5Q101 [XE] only	Transformer, Power Source
FUSE			
F2	XBA2C25TR0	XBA2C25TR0	Fuse, T2.5A (250V) Except for [XE]
		XBAS2A2502 [XE] only	Fuse, T2.5A (250V)
CABINET and CHASSIS PARTS			
1	SBN773	SBN827	Knob, Volume Control
2	SBN771	SBN831	Knob, Balance, Bass & Treble Control
3	SBN769	SBN829	Knob, Selector Switches
4	SGWUB088M	SGWUB088KD	Panel, Front Ass'y (Back)
9	SBC197	SBC197-1	Button, Push Switches
10	SBD19	SBD19-1	Knob, Lever Switches
22	SKA10131	SKA10132	Cabinet, Ass'y Except for [XE]
		SKA10137 [XE] only	Cabinet
	SJA97	SJA97	AC Cord, with Plug (Except for [XSW, XAL, XE])
24	SJA111 [XSW]	SJA111 [XSW] only	AC Cord, with Plug
		QFC1207M [XAL] only	AC Cord, with Plug
		RJA452C [XE] only	AC Cord
25	SHR127	SHR127	Bushing, AC Cord (Except for [XAL, XE])
		SHR131 [XAL] only	Bushing, AC Cord
		SHR129 [XE] only	Bushing, AC Cord
29	SGPU8088W	SGPU8088KD	Rear Panel, SGPU8088W with Name Plate (SGT19551) Except for [X, XA, XAL]
		SGPU8088KX [X, XA] only	Rear Panel, SGP1530-1A with Name Plate (SGT19430)
	SGPU8088D	SGPU8088KL [XAL] only	Rear Panel, SGP1530-2B with Name Plate (SGT19430)
43	Addition	SJS301 [X, XA] only	Socket, AC Outlet
44	Addition	SUW1475 [XE] only	Metal Fitting (Addition Only Products for [XE])
45	Addition	SGS491-1 [XE] only	Ventilation (Addition Only Products for [XE])
SCREWS and WASHERS			
①	XTB3+8BFN	XTB3+8BFZ	Screw, Front Panel M'tg
②	XTB4+8FFN	XTB4+8BFZ	Screw, Cabinet M'tg
③	Addition	XSN3+6BVS [XE] only	Screw, Ventilation M'tg (Addition Only Products for [XE])
④	Addition	XSS3+6BVS [XE] only	Screw, Ventilation M'tg (Addition Only Products for [XE])
⑤	Addition	XWA3BFZ	Washer, Ventilation M'tg Screw (Addition Only Products for [XE])
PACKING PARTS			
P2	SPS1717 [XSW] only	SPS1717-1	Pad, Left Side
		SPS1717 [XE, XSW] only	Pad, Left Side
P3	SPS1719 [XSW] only	SPS1719-1	Pad, Right Side
		SPS1719 [XC, XSW] only	Pad, Right Side
P4	SPG1997 [XGF]	SPG1979 [XSW]	Carton Box
		SPG1995	SPG2011 [XE, XSW] only
ACCESSORIES			
A1	Addition	SJP5212-1 [X, XA] only	Plug Adapter, Power Source
A2	Addition	SJP5215 [X, XA] only	Plug Adapter, Power Source

(D) and (DG) are available in Scandinavia and European only.
 (EB) is available in Belgium only.
 (XSW) is available in Switzerland only.
 (XGH) is available in Holland only.

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

REPLACEMENT PARTS LIST Electric Parts

- NOTES 1: 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	Ref. No.	Part No.	Part Name & Description
INTEGRATED CIRCUITS					
U101, 102 U101, 102	5VIM5215L 5VIB5058	IC, Tone Amplifier IC, Level Comparator	D409, 410, 413, 414 D411, 412, 415, 416 D417 ~ 420 D427 D501, 502	MA162A SVDMA26 2 MA162 SVDM2 J22B 2 0A99	Diode, Protection Circuitry Diode, Bias Supply Diode, Protection Circuitry Diode, Zener 22V Diode, Detector
TRANSISTORS					
Q101, 102, 107, 108 Q103, 104, 105, 106 Q201, 202 Q203, 204, 205, 206, 101 Q207, 208 Q209, 210 Q211, 212 Q301, 402 Q303, 404 Q305, 406 Q307, 408, 409, 410, 604, 703, 704 Q311, 412 Q313, 414 Q319, 420, 605 Q321, 422, 606 Q323, 424 Q325, 426 Q327, 428 Q329, 430 Q301, 302, 303, 304 Q305 Q306 Q307 Q308 Q309 Q310, 302, 705	2SC2 815 G 2SA978 G 2SK155 S 2SC1328 T 2SA921 T 2SC1567-Q 2SA794-Q 2SK150 G 2SC2291N G 2SA955N G 2SA921 T 2SA912 H 2SC1885-R 2SC1913 R 2SA913 H 2SC2489 O 2SA1065 O 2SC1318-R 2SA777 Q 2SC1815 O 2SA1015 O 2SC1981 2SA9025-F 2SC1980 T 2SA666A1-R	Transistor, MC Amplifier (Use in ranks G or H) } Use in part parts as same as Q101 Transistor, MC Amplifier (Use in ranks G or H) } ~ 107 and 108 Transistor, Equalizer Amplifier (Use in ranks H, S or T) [111] Transistor, Equalizer Amplifier & Regulator (Use in ranks S, T or U) Transistor, Equalizer Amplifier (Use in ranks S, T or U) Transistor, Equalizer Amplifier (Use in ranks Q or R) } Use in part ranks as same as Q209 ~ 211 and 212 Transistor, Equalizer Amplifier (Use in ranks Q or R) } [111] Transistor, Cascade (Use in ranks F or G) Transistor, Current Mirror (Use in ranks F or G) Transistor, Power Drive, Regulator & Relay Driver (Use in ranks S, T or U) Transistor, Power Drive Amplifier (Use in ranks Q, R or S) Transistor, Current Stabilizer (Use in ranks Q, R or S) Transistor, Drive & Regulator (Use in ranks P, Q or R) } Use in part ranks as same as Q419 ~ 422, 605 and 606 Transistor, Drive & Regulator (Use in ranks P, Q or R) } Use in part ranks as same as Q423 ~ 425 and 426 Transistor, Power Amplifier (Use in ranks O, P or Q) Transistor Power Amplifier (Use in ranks O, P or Q) Transistor, Circuit Protection (Use in ranks Q, R or S) Transistor, Circuit Protection (Use in ranks Q or R) Transistor, Emitter Follower & Switching (Use in ranks Y or O) Transistor, Switching (Use in ranks Y or O) Transistor, Ripple Filter Transistor, Regulator (Product Part No. 2SA722) (Use in ranks F or G) Transistor, Regulator (Use in ranks Q, R, S or T) Transistor, Switching (Product Part No. 2SA564) (Use in ranks Q or H)	D503 D601 D602 ~ 605, 701 D606 D608, 609 E401, 402 E1 E301, 402 E601, 602 E603, 304 E611, 312 E631, 332 E645, 346 E641, 412, 610 E641, 402 E652, 524 E659, 530 E61 E1, 4, 5 RELAY S1 S2, 3 S4, 7, 10, 11 S5, 13, 14 S6 S8 S9 S12 S15 S16 FL	MA162A SVDMA26 2 MA162 SVDM2 J22B 2 0A99 SVDM2 J18A SVD515VB20 SVD5H1K2 SVDM2 406B SVDGD420JSH1 SI OY15G 3P SI T5QJ9 ERF5GLKH33N EXHFS203ZS EWRK4A090252 EWF81AF25BF5 EWF8XA063C15 EWF7XA063C15 EVL50AA00B53 LVL57AA00B12 EVL53AA00B13 EVL53AA00B53 XAMR28T300 XBA20501H0 XBA20251H0 XBA20051H0 SSY191 ESA2691 ESA2682 SSH421 SSH355 SSI129 SSI131 SSH89 ESA273 ESI21162 ESE37200 SAD24A15YS	Diode, Protection Circuitry Diode, Bias Supply Diode, Protection Circuitry Diode, Zener 22V Diode, Detector Diode, Zener 18V Rectifier Rectifier Diode, Zener 6V Light Emitting Diode Coil, Output Transformer, Power Source Component Combination, 0.33 Ω 5W (X2) Component Combination, 0.01 μ F (X2) Balance Control, 250 Ω (B1) Volume Control, 250k Ω (B) Bass Control, 100k Ω (C) Treble Control, 100k Ω (C) DC Unbalance & Constant Voltage Adjustment, 5k Ω (B) ICA Adjustment, 100 Ω (B) FL Power Meter, 1k Ω (B) FL Power Meter, 5k Ω (B) Lamp, Power Indicator (7.5V / 5mA) Fuse, 15A (250V) Fuse, 12.5A (250V) Fuse, 1500mA (250V) Relay, Speaker Protection Switch, Photo Selector Switch, Input & Recording Mode Selector Switch, Equalizer Subtune Filter, Loudness, Treble Turn Over & High Filter Switch, Mode, Meter Range & Bright/Dimmer Switch, Muting Switch, Operation Selector Switch, Bass Turn Over Switch, Speakers Selector Switch, Power Source Switch, Voltage Adjuster Meter, Fluorescence Peak Power
COILS and TRANSFORMER					
COMPONENT COMBINATIONS					
VARIABLE RESISTORS					
LAMP					
FUSES					
RELAY					
SWITCHES					
FL-METER					
DIODES					
U101, 102 U101, 302 U101 ~ 404, 421 ~ 424, 607, 702 U305, 406 U307, 308	SVDMZ324B SVDMZ318 MA160 SVDMA26 1 SVD51V41G	Diode, Zener 24V Diode, Zener 18V Diode, Bias Supply & Protection Circuitry Diode, Bias Supply Diode, Varistor			

RESISTORS

R101, 102	ERD25TJ470	Carbon	47kΩ	1/4W	± 5%	R407, 408	ERO25CKG6802	Metal Film	68kΩ	1/4W	± 2%
R103, 104	ERD25TJ222	Carbon	2.2kΩ	1/4W	± 5%	R409, 410	ERO25CKG8200	Metal Film	820Ω	1/4W	± 2%
R105, 106	ERD25TJ222	Carbon	2.2kΩ	1/4W	± 5%	R413, 414	ERO25CKG8200	Metal Film	820Ω	1/4W	± 2%
R107, 108	ERD25TJ8R2	Carbon	8.2Ω	1/4W	± 5%	R415, 416	ERO25CKG6802	Metal Film	68kΩ	1/4W	± 2%
R109, 110	ERO25CKF1001	Metal Film	1kΩ	1/4W	± 1%	R417, 418	ERO25CKG8200	Metal Film	820Ω	1/4W	± 2%
R111, 112	ERO25CKF1001	Metal Film	1kΩ	1/4W	± 1%	R419, 420	ERO25CKG8200	Metal Film	8.2kΩ	1/4W	± 2%
R113, 114	ERO25CKF6801	Metal Film	6.8kΩ	1/4W	± 1%	R421, 422	ERD25TJ562	Carbon	5.6kΩ	1/4W	± 5%
R115, 116	ERO25CKF6801	Metal Film	6.8kΩ	1/4W	± 1%	R423, 424	ERD25TJ822	Carbon	8.2kΩ	1/4W	± 5%
R117, 118	ERO25CKF5601	Metal Film	5.6kΩ	1/4W	± 1%	R425, 426	ERD25TJ102	Carbon	1kΩ	1/4W	± 5%
R119, 120	ERD25TJ221	Carbon	220Ω	1/4W	± 5%	R427, 428	ERD25TJ563	Carbon	56kΩ	1/4W	± 5%
R121, 122	ERO25CKF5601	Metal Film	5.6kΩ	1/4W	± 1%	R429, 430	ERD25FJ271	Carbon	270Ω	1/4W	± 5%
R123, 124	ERD25TJ181	Carbon	180Ω	1/4W	± 5%	R431, 432	ERD25FJ271	Carbon	270Ω	1/4W	± 5%
R125, 126	ERD25TJ181	Carbon	180Ω	1/4W	± 5%	R433, 434	ERD25FJ471	Carbon	470Ω	1/4W	± 5%
R127, 128	ERD25TJ162	Carbon	1.5kΩ	1/4W	± 5%	R435, 436	ERD25FJ332	Carbon	3.3kΩ	1/4W	± 5%
R151, 152	ERD50FJ332	Carbon	3.3kΩ	1/2W	± 5%	R437, 438	ERD25TJ473	Carbon	47kΩ	1/4W	± 5%
R153, 154	ERD50FJ332	Carbon	3.3kΩ	1/2W	± 5%	R439, 440	ERD25TJ183	Carbon	18kΩ	1/4W	± 5%
R155, 156	ERO25CKG2201	Metal Film	2.2kΩ	1/4W	± 2%	R441, 442	ERD25FJ151	Carbon	150Ω	1/4W	± 5%
R157	ERD50FJ222	Carbon	2.2kΩ	1/2W	± 5%	R443, 444	ERD25TJ561	Carbon	560Ω	1/4W	± 5%
R158	ERD50FJ471	Carbon	470Ω	1/2W	± 5%	R445, 446	ERD25TJ332	Carbon	3.3kΩ	1/4W	± 5%
R159	ERD50FJ391	Carbon	390Ω	1/2W	± 5%	R447, 448	ERD25TJ473	Carbon	47kΩ	1/4W	± 5%
R201, 202	ERD25TJ220	Carbon	22Ω	1/4W	± 5%	R449, 450	ERD25FJ331	Carbon	330Ω	1/4W	± 5%
R203, 204	ERD25TJ473	Carbon	47kΩ	1/4W	± 5%	R451, 452	ERD25FJ470	Carbon	47Ω	1/4W	± 5%
R205, 206	ERD25TJ101	Carbon	100Ω	1/4W	± 5%	R459, 460	ERD25FJ121	Carbon	120Ω	1/4W	± 5%
R207, 208	ERO25CKG4701	Metal Film	4.7kΩ	1/4W	± 2%	R463, 464	ERD25FJ222	Carbon	2.2kΩ	1/4W	± 5%
R209, 210	ERD25TJ182	Carbon	1.8kΩ	1/4W	± 5%	R467, 468	ERG2ANJ272	Metal Oxide	2.7kΩ	2W	± 5%
R211, 212	ERO25CKG1001	Metal Film	1kΩ	1/4W	± 2%	R473, 474	ERG2ANJ272	Metal Oxide	2.7kΩ	2W	± 5%
R213, 214	ERD25TJ393	Carbon	39kΩ	1/4W	± 5%	R475, 476	ERD25FJ331	Carbon	330Ω	1/4W	± 5%
R215, 216	ERD25TJ330	Carbon	33Ω	1/4W	± 5%	R477, 478	ERD25FJ182	Carbon	1.8kΩ	1/4W	± 5%
R217, 218	ERD25TJ273	Carbon	27kΩ	1/4W	± 5%	R479, 480	ERD25FJ182	Carbon	1.8kΩ	1/4W	± 5%
R219, 220	ERD25TJ124	Carbon	120kΩ	1/4W	± 5%	R481, 482	ERD25FJ331	Carbon	330Ω	1/4W	± 5%
R221, 222	ERD25TJ103	Carbon	10kΩ	1/4W	± 5%	R483, 484	ERD25FJ121	Carbon	120Ω	1/4W	± 5%
R223, 224	ERD25FJ102	Carbon	1kΩ	1/4W	± 5%	R485, 486	ERX1ANJ6R8	Metal Film	6.8Ω	1W	± 5%
R225, 226	ERD25FJ331	Carbon	330Ω	1/4W	± 5%	R487, 488	ERG2ANJ100	Metal Oxide	10Ω	2W	± 5%
R227, 228	ERD25TJ822	Carbon	8.2kΩ	1/4W	± 5%	R489, 490	ERG2ANJ331	Metal Oxide	330Ω	2W	± 5%
R229, 230	ERD25TJ472	Carbon	4.7kΩ	1/4W	± 5%	R491	ERD25TJ222	Carbon	2.2kΩ	1/4W	± 5%
R231, 232	ERQ12HJ470	Fuse type metallic	47Ω	1/2W	± 5%	R501, 502	ERD25TJ823	Carbon	82kΩ	1/4W	± 5%
R233, 234	ERD25FJ470	Carbon	47Ω	1/4W	± 5%	R503, 504	ERD25TJ123	Carbon	12kΩ	1/4W	± 5%
R235, 236	ERD25TJ102	Carbon	1kΩ	1/4W	± 5%	R505	ERD25TJ682	Carbon	6.8kΩ	1/4W	± 5%
R237, 238	ERD25TJ224	Carbon	220kΩ	1/4W	± 5%	R507	ERD25TJ103	Carbon	10kΩ	1/4W	± 5%
R239, 240	ERO25CKF2671	Metal Film	2.67kΩ	1/4W	± 1%	R509	ERD25TJ272	Carbon	2.7kΩ	1/4W	± 5%
R241, 242	ERO25CKF3242	Metal Film	32.4kΩ	1/4W	± 1%	R511, 512	ERD25TJ104	Carbon	100kΩ	1/4W	± 5%
R243, 244	ERD25TJ220	Carbon	22Ω	1/4W	± 5%	R513, 514	ERD25TJ823	Carbon	82kΩ	1/4W	± 5%
R245, 246	ERD25TJ123	Carbon	12kΩ	1/4W	± 5%	R515, 516	ERD25TJ182	Carbon	1.8kΩ	1/4W	± 5%
R247, 248	ERD25TJ680	Carbon	68Ω	1/4W	± 5%	R517, 518	ERD25TJ123	Carbon	12kΩ	1/4W	± 5%
R249, 250	ERD25TJ471	Carbon	470Ω	1/4W	± 5%	R519, 520	ERD25TJ223	Carbon	22kΩ	1/4W	± 5%
R251, 252	ERD25TJ471	Carbon	470Ω	1/4W	± 5%	R521, 522	ERD25TJ331	Carbon	330Ω	1/4W	± 5%
R253, 254	ERD25TJ470	Carbon	47Ω	1/4W	± 5%	R525, 526	ERD25TJ824	Carbon	820kΩ	1/4W	± 5%
R255, 256	ERD25TJ681	Carbon	680Ω	1/4W	± 5%	R527, 528	ERD25TJ102	Carbon	1kΩ	1/4W	± 5%
R257, 258	ERD25TJ681	Carbon	680Ω	1/4W	± 5%	R531	ERD25FJ821	Carbon	820Ω	1/4W	± 5%
R301, 302	ERD25TJ153	Carbon	15kΩ	1/4W	± 5%	R533	ERG1ANJ471	Metal Oxide	470Ω	1W	± 5%
R305, 306	ERD25TJ393	Carbon	39kΩ	1/4W	± 5%	R534	ERD25TJ222	Carbon	2.2kΩ	1/4W	± 5%
R307, 308	ERD25TJ472	Carbon	4.7kΩ	1/4W	± 5%	R535	ERG1ANJ330	Metal Oxide	33Ω	1W	± 5%
R309, 310	ERD25TJ333	Carbon	33kΩ	1/4W	± 5%	R537	ERD25FJ560	Carbon	56Ω	1/4W	± 5%
R313, 314	ERD25TJ564	Carbon	560kΩ	1/4W	± 5%	R53E	ERG1ANJ471	Metal Oxide	470Ω	1W	± 5%
R315, 316	ERD25TJ124	Carbon	120kΩ	1/4W	± 5%	R601	ERQ12HJ2R2	Fuse Type Metallic	2.2Ω	1/2W	± 5%
R317, 318	ERD25TJ561	Carbon	560Ω	1/4W	± 5%	R602	ERD25FAJ2R2	Carbon	2.2Ω	1/4W	± 5%
R319, 320	ERD25TJ681	Carbon	680Ω	1/4W	± 5%	R603, 604	ERD25TJ223	Carbon	22kΩ	1/4W	± 5%
R321, 322	ERD25TJ104	Carbon	100kΩ	1/4W	± 5%	R605, 606	ERD25TJ473	Carbon	47kΩ	1/4W	± 5%
R323, 324	ERD25TJ393	Carbon	39kΩ	1/4W	± 5%	R607	ERO25CKF2262	Metal Film	22.6kΩ	1/4W	± 1%
R325, 326	ERD25TJ222	Carbon	2.2kΩ	1/4W	± 5%	R60E	ERD25TJ273	Carbon	27kΩ	1/4W	± 5%
R327, 328	ERD25TJ183	Carbon	18kΩ	1/4W	± 5%	R609	ERD25TJ472	Carbon	4.7kΩ	1/4W	± 5%
R329, 330	ERD25TJ393	Carbon	39kΩ	1/4W	± 5%	R611	ERD25TJ333	Carbon	33kΩ	1/4W	± 5%
R333, 334	ERD25TJ822	Carbon	8.2kΩ	1/4W	± 5%	R612, 613	ERD25TJ561	Carbon	560Ω	1/4W	± 5%
R335, 336	ERD25TJ824	Carbon	820kΩ	1/4W	± 5%	R614, 615	ERD25TJ181	Carbon	180Ω	1/4W	± 5%
R337, 338	ERD25TJ334	Carbon	330kΩ	1/4W	± 5%	R618	ERO25CKF2322	Metal Film	23.2kΩ	1/4W	± 1%
R339, 340	ERD25TJ393	Carbon	39kΩ	1/4W	± 5%	R620	ERD25FJ470	Carbon	47Ω	1/4W	± 5%
R341, 342	ERD25TJ824	Carbon	820kΩ	1/4W	± 5%	R621	ERD25FJ220	Carbon	22Ω	1/4W	± 5%
R343, 344	ERD25TJ153	Carbon	15kΩ	1/4W	± 5%	R701, 702	ERD25TJ223	Carbon	22kΩ	1/4W	± 5%
R347, 348	ERD25TJ272	Carbon	2.7kΩ	1/4W	± 5%	R703	ERD25TJ223	Carbon	22kΩ	1/4W	± 5%
R349, 350	ERD25TJ824	Carbon	820kΩ	1/4W	± 5%	R704	ERD25TJ472	Carbon	4.7kΩ	1/4W	± 5%
R351, 352	ERD25TJ824	Carbon	820kΩ	1/4W	± 5%	R705	ERD25TJ393	Carbon	39kΩ	1/4W	± 5%
R353, 354	ERD50FJ272	Carbon	2.7kΩ	1/2W	± 5%	R706	ERD25TJ564	Carbon	560kΩ	1/4W	± 5%
R355, 356	ERD25TJ331	Carbon	330Ω	1/4W	± 5%	R707	ERD25TJ681	Carbon	680Ω	1/4W	± 5%
R361, 362	ERD25TJ824	Carbon	820kΩ	1/4W	± 5%	R70E	ERD25TJ223	Carbon	22kΩ	1/4W	± 5%
R363, 364	ERD25TJ824	Carbon	820kΩ	1/4W	± 5%	R709	ERG1ANJ681	Metal Oxide	680Ω	1W	± 5%
R399, 400	ERD25TJ102	Carbon	1kΩ	1/4W	± 5%	R710	ERD25TJ332	Carbon	3.3kΩ	1/4W	± 5%
R401, 402	ERD25TJ153	Carbon	15kΩ	1/4W	± 5%	R711	ERD25TJ682	Carbon	6.8kΩ	1/4W	± 5%
R403, 404	ERD25TJ392	Carbon	3.9kΩ	1/4W	± 5%	R712	ERD25TJ683	Carbon	68kΩ	1/4W	± 5%
R405, 406	ERD25TJ104	Carbon	100kΩ	1/4W	± 5%	R71E	ERD25TJ223	Carbon	22kΩ	1/4W	± 5%

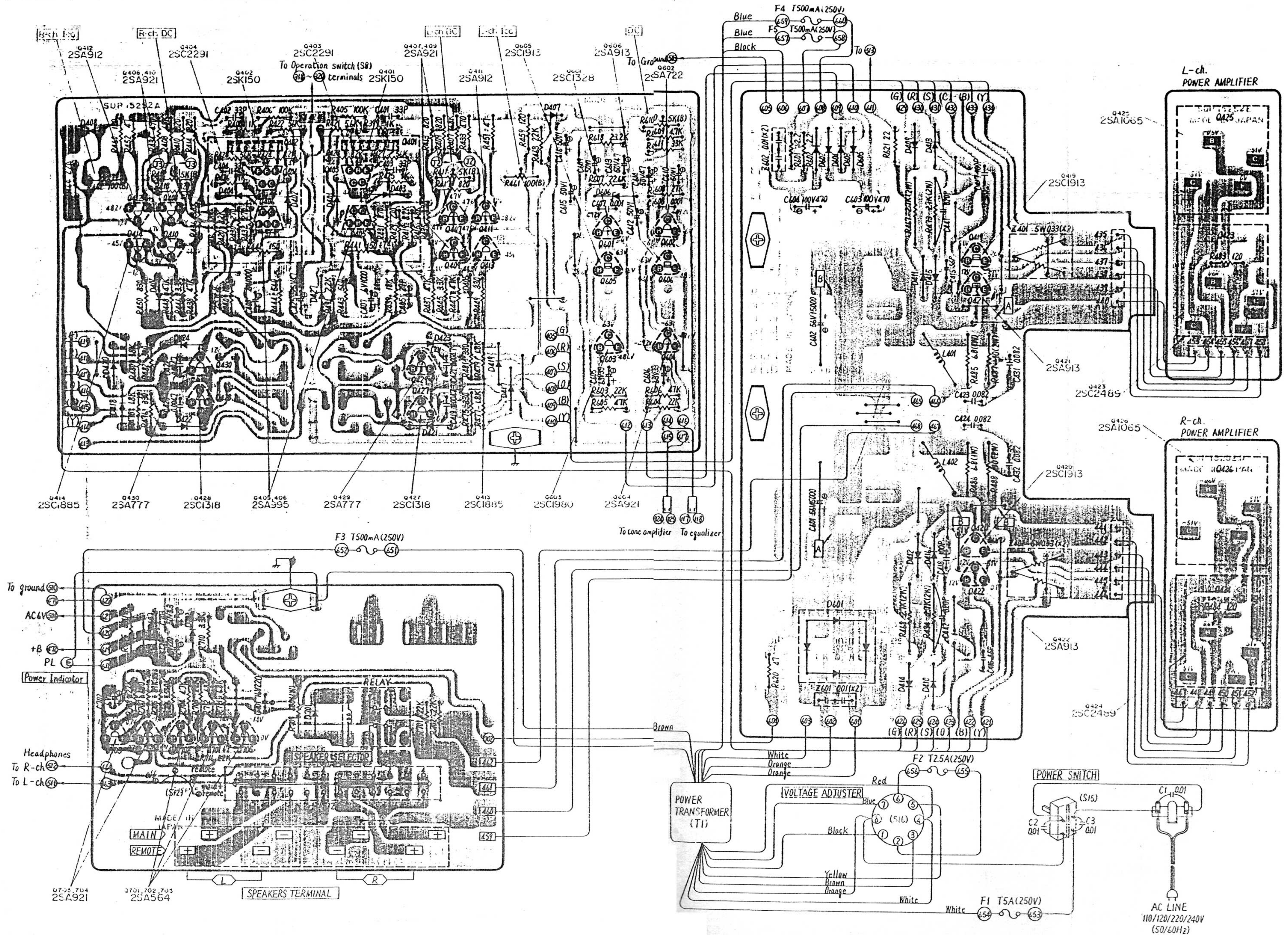
REPLACEMENT PARTS LIST Electric Parts

- NOTES 1. 1. Part numbers are indicated on most mechanical parts:
Please use this part number for parts orders.
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Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description
INTEGRATED CIRCUITS					
IC301, 302 IC501, 502	SVIM5213L SVIBA658	IC, Tone Amplifier IC, Level Comparator	D409, 410, 413, 414 D411, 412, 415, 416 D417 ~ 420 D427 D501, 502	MA162A SVDMA26-2 MA162 SVDMZ322B 2-OA99	Diode, Protection Circuitry Diode, Bias Supply Diode, Protection Circuitry Diode, Zener 22V Diode, Detector
TRANSISTORS					
Q101, 102, 107, 108 Q103, 104, 105, 106 Q201, 202	2SC2385-G 2SA978-G 2SK155-S	Transistor, MC Amplifier } Use in pair ranks (Use in ranks G or H) } as same as Q101 Transistor, MC Amplifier } ~ 107, and 108. (Use in ranks G or H)	D503 D601 D602 ~ 605, 701 D606 D608, 609	SVDMZ318A SVDS15VB20 SVDSR1K2 SVDMZ306B SVDGD4203SRD	Diode, Zener 18V Rectifier Rectifier Diode, Zener 6V Light Emitting Diode
Q203, 204, 205, 206, 601	2SC1328-T	Transistor, Equalizer Amplifier & Regulator (Use in ranks S, T or U)			
Q207, 208	2SA921-T	Transistor, Equalizer Amplifier (Use in ranks S, T or U)	COILS and TRANSFORMER		
Q209, 210	2SC1567-Q	Transistor, Equalizer Amplifier } Use in pair (Use in ranks Q or R) } ranks as same	L401, 402 T1	SLOY15G-3P SLT5Q99	Coil, Output Transformer, Power Source
Q211, 212	2SA794-Q	Transistor, Equalizer Amplifier } as Q209 ~ (Use in ranks Q or R) } 211 and 212	COMPONENT COMBINATIONS:		
Q401, 402	2SK150-G	Transistor, Differential Amplifier (FET) (Use in ranks G or B)	Z401, 402 Z601, 602	Δ ERF5GEKR33N EXRFS203ZS	Component Combination, 0.33 Ω 5W (X2) Component Combination, 0.01 μ F (X2)
Q403, 404	2SC2291N-G	Transistor, Cascade (Use in ranks F or G)	VARIABLE RESISTORS		
Q405, 406	2SA995N-G	Transistor, Current Mirror (Use in ranks F or G)	R303, 304 R311, 312 R331, 332 R345, 346 R411, 412, 610	EWKK4A090252 EWF81AF258F5 EWF8XA063C15 EWF7XA063C15 EVLS0AA00853	Balance Control, 250k Ω (BH) Volume Control, 250k Ω (B) Bass Control, 100k Ω (C) Treble Control, 100k Ω (C) DC Unbalance & Constant Voltage Adjustment, 5k Ω (B)
Q407, 408, 409, 410, 604, 703, 704	2SA921-T	Transistor, Power Drive, Regulator & Relay Driver (Use in ranks S, T or U)	R461, 462 R523, 524 R529, 530	EVLS7AA00812 EVLS3AA00813 EVLS3AA00853	ICA Adjustment, 100 Ω (B) FL Power Meter, 1k Ω (B) FL Power Meter, 5k Ω (B)
Q411, 412	2SA912-R	Transistor, Power Drive Amplifier (Use in ranks Q, R or S)	LAMP		
Q413, 414	2SC1885-R	Transistor, Current Stabilizer (Use in ranks Q, R or S)	PL1	Δ XAMR28T300	Lamp, Power Indicator (7.5V 75mA)
Q419, 420, 605	2SC1913-R	Transistor, Drive & Regulator } Use in pair (Use in ranks P, Q or R) } ranks as same	FUSES		
Q421, 422, 606	2SA913-R	Transistor, Drive & Regulator } as Q419~422 (Use in ranks P, Q or R) } 605 and 606.	F1 F2	Δ XBA2C50TR0 Δ XBA2C25TR0	Fuse, T5A (250V) Fuse, T2.5A (250V)
Q423, 424	2SC2489-O	Transistor, Power Amplifier } Use in pair (Use in ranks O, P or Q) } ranks as same	F3, 4, 5	Δ XBA2C05TR0	Fuse, T500mA (250V)
Q425, 426	2SA1065-O	Transistor Power Amplifier } as Q423 ~ (Use in ranks O, P or Q) } 425 and 426.	RELAY		
Q427, 428	2SC1318-R	Transistor, Circuit Protection (Use in ranks Q, R or S)	RELAY	Δ SSY19-1	Relay, Speaker Protection
Q429, 430	2SA777-Q	Transistor, Circuit Protection (Use in ranks Q or R)	SWITCHES		
Q501, 502, 503, 504	2SC1815-O	Transistor, Emitter Follower & Switching (Use in ranks Y or O)	S1 S2, 3 S4, 7, 10, 11	ESA2691 ESA2682 SSH421	Switch, Phono Selector Switch, Input & Recording Mode Selector Switch, Equalizer Subsonic Filter, Loudness, Treble Turn Over & High Filter
Q505	2SA1015-O	Transistor, Switching (Use in ranks Y or O)	S5, 13, 14 S6 S8 S9	SSH355 SSL129 SSL131 SSH99	Switch, Mode, Meter Range & Bright/Dimmer Switch, Muting Switch, Operation Selector Switch, Bass Turn Over
Q506 Q602	2SC1983 2SA902S-F	Transistor, Ripple Filter Transistor, Regulator (Product Part No. 2SA722) (Use in ranks F or G)	S12 S15 S16	ESA273 Δ ESL21182 Δ ESE37200	Switch, Speakers Selector Switch, Power Source Switch, Voltage Adjuster
Q603	2SC1980-T	Transistor, Regulator (Use in ranks Q, R, S or T)	FL-METER		
Q701, 702, 705	2SA666A1-R	Transistor, Switching (Product Part No. 2SA564) (Use in ranks Q or R)	FL	SAD24A15YS	Meter, Fluorescence Peak Power
DIODES					
D101, 102 D301, 302 D401 ~ 404, 421 ~ 424, 607, 702	SVDMZ324B SVDMZ318 MA150	Diode, Zener 24V Diode, Zener 18V Diode, Bias Supply & Protection Circuitry			
D405, 406 D407, 408	SVDMA26-1 SVDSTV4HG	Diode, Bias Supply Diode, Varistor			

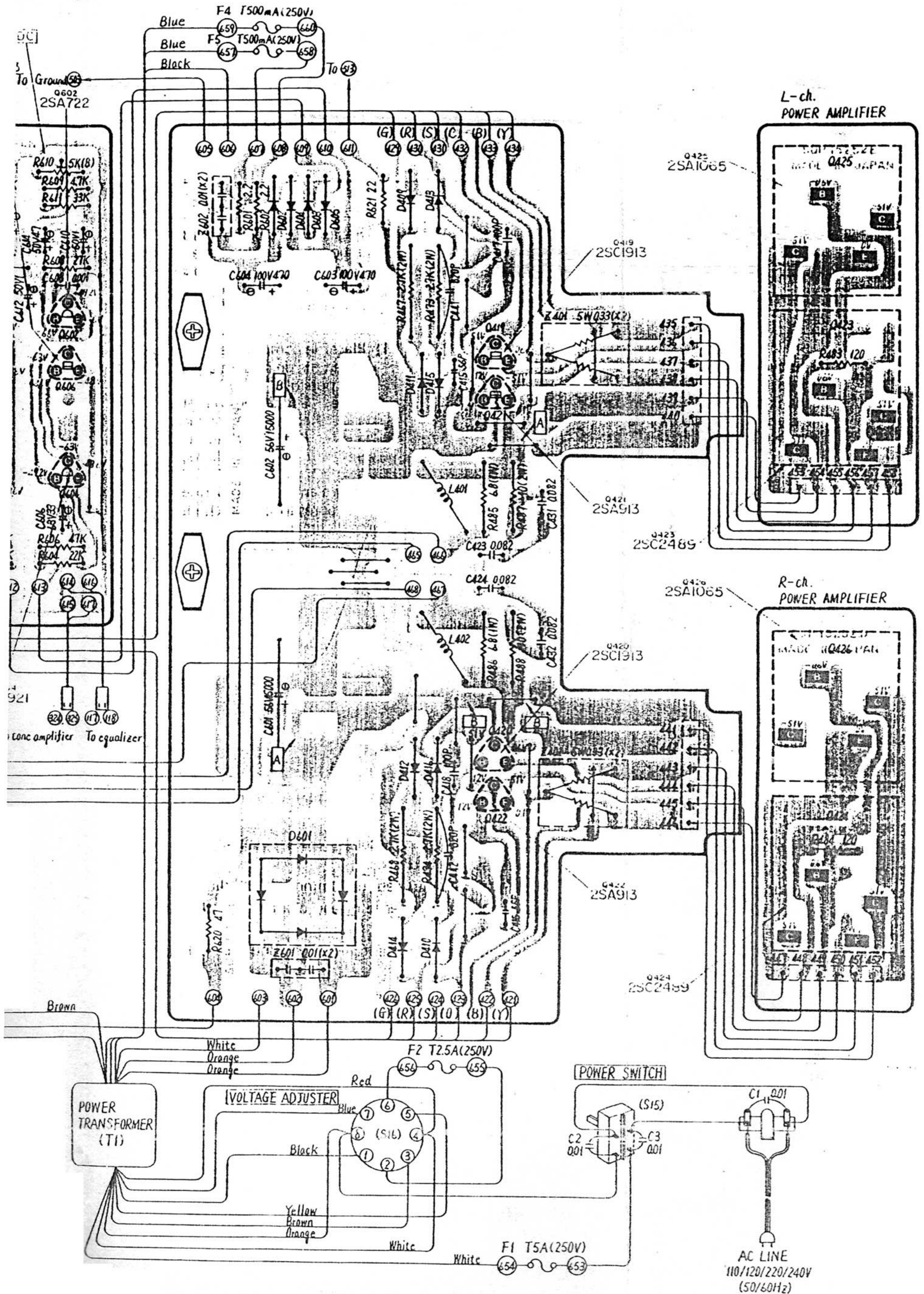
PRINTED CIRCUIT BOARD WIRING VIEW POWER SUPPLY & POWER AMPLIFIER CIRCUITS

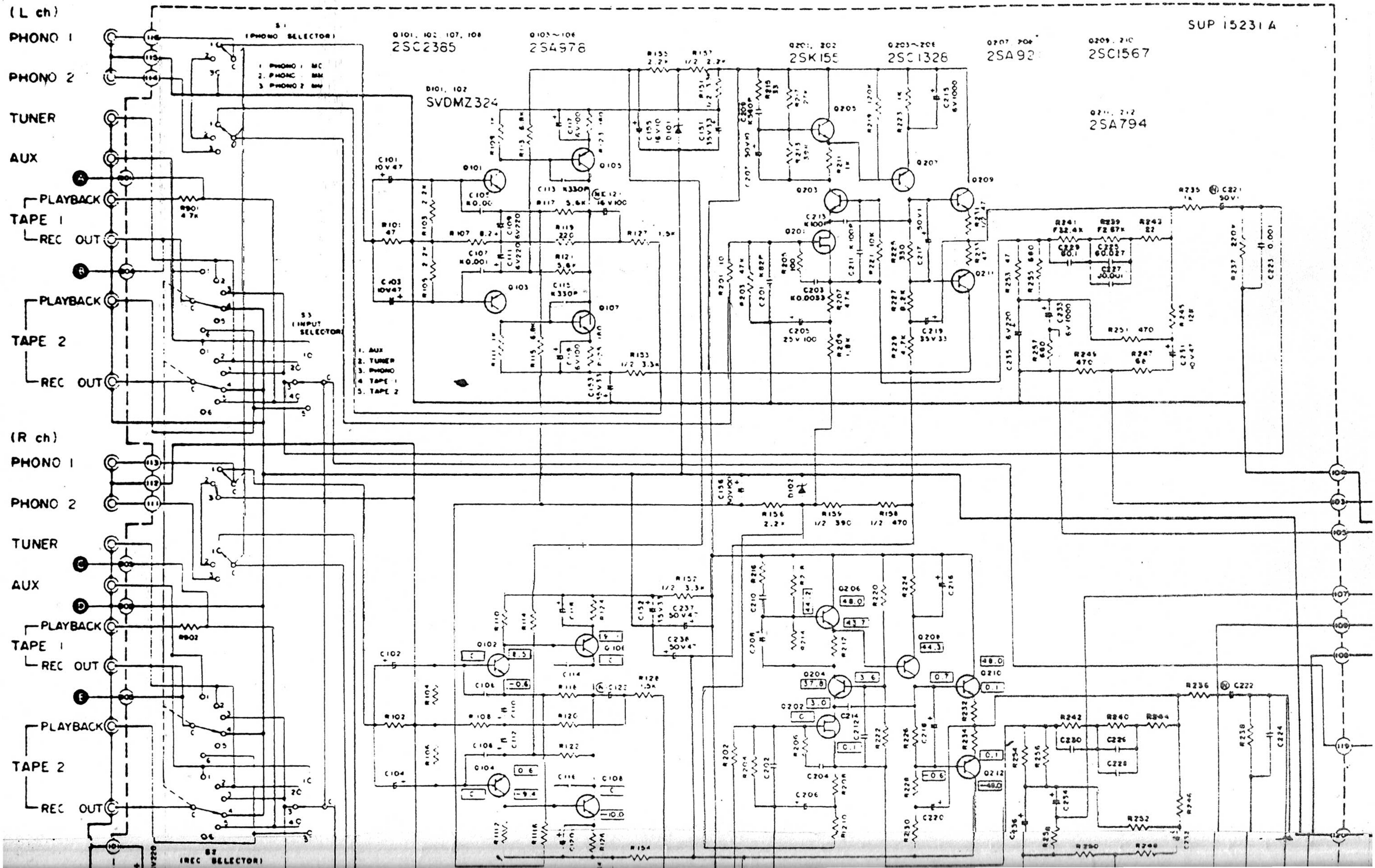
Earth (Ground) Lines



ER AMPLIFIER CIRCUITS

Earth (Ground) Lines

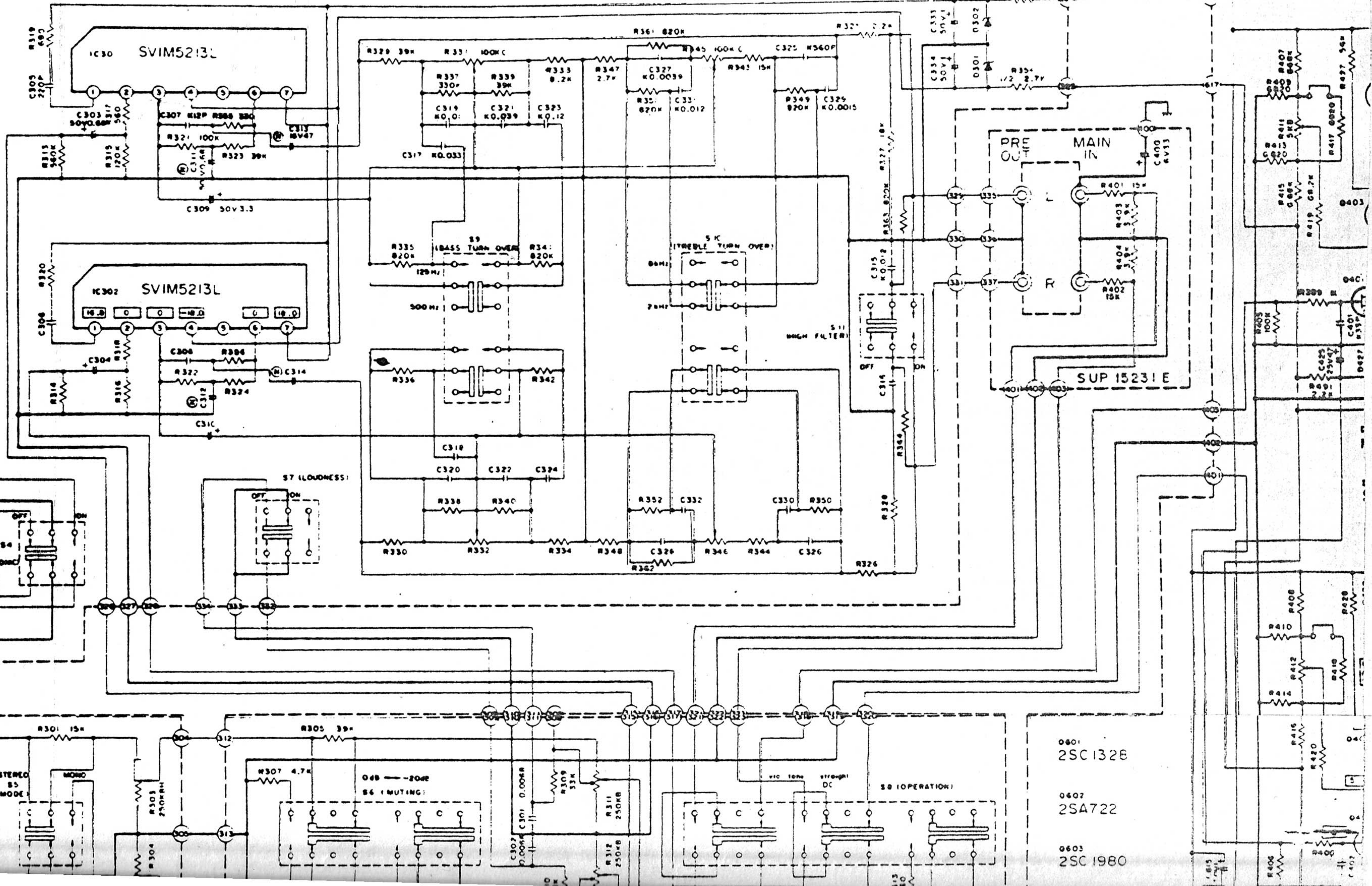




SUP 15231B

SUP 15251A
0401 402
2SK150 2SC

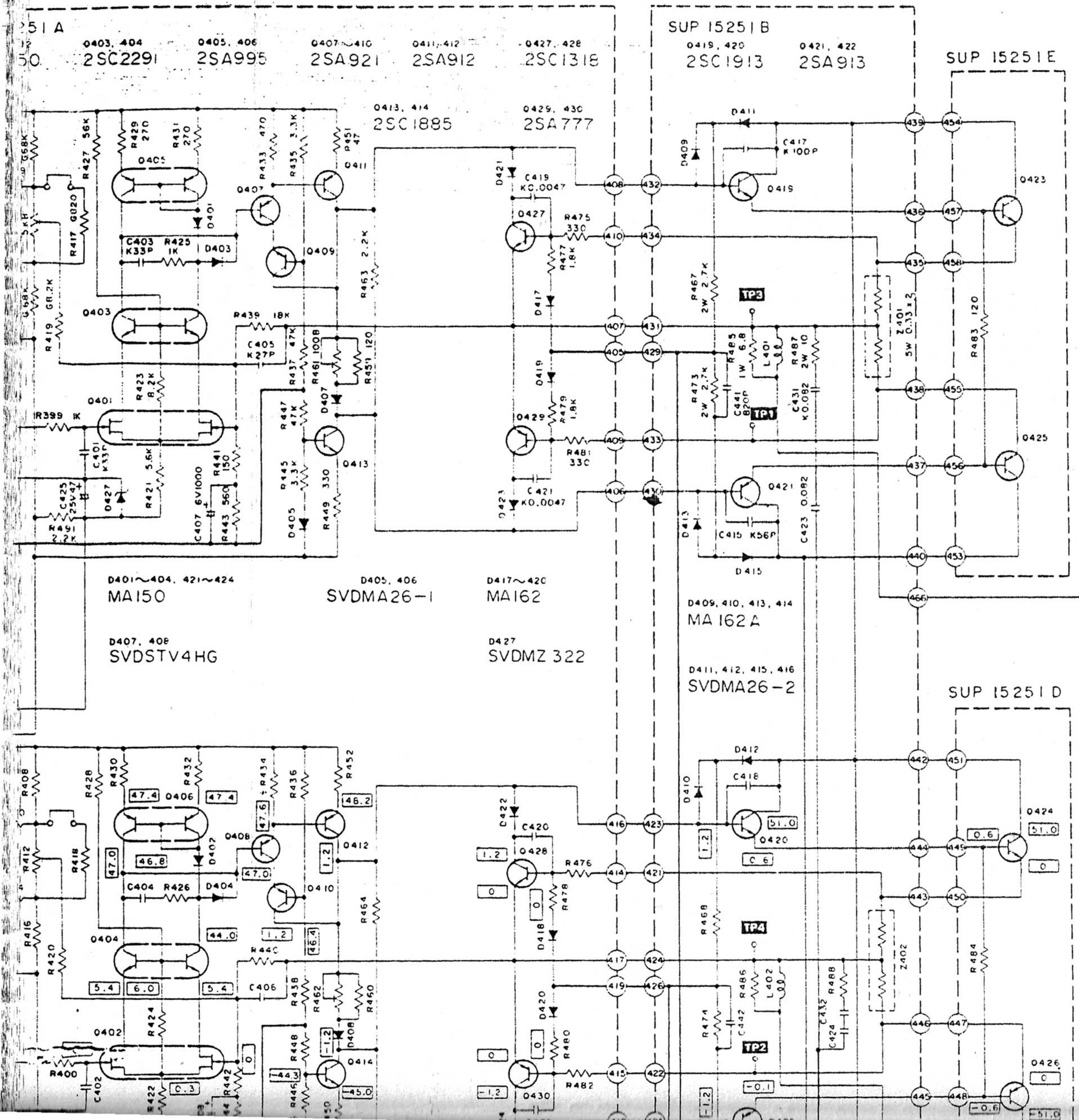
D301 302
SVDMZ 31E



0401 2SC132E
 0407 2SA722
 0603 2SC1980

223 D001

222



51 A
 0403, 404 2SC2291
 0405, 406 2SA995
 0407, 410 2SA921
 0411, 412 2SA912
 0427, 428 2SC1318

SUP 1525 | B
 0419, 420 2SC1913
 0421, 422 2SA913

SUP 1525 | E

0413, 414 2SC1885
 0429, 430 2SA777

0423, 424 2SC2489

0425, 426 2SA1065

D401~404, 421~424 MA150
 D407, 408 SVDSTV4HG

D405, 406 SVDMA26-1
 D417~420 MA162
 D427 SVDMZ 322

D409, 410, 413, 414 MA 162 A
 D411, 412, 415, 416 SVDMA26-2

SUP 1525 | D

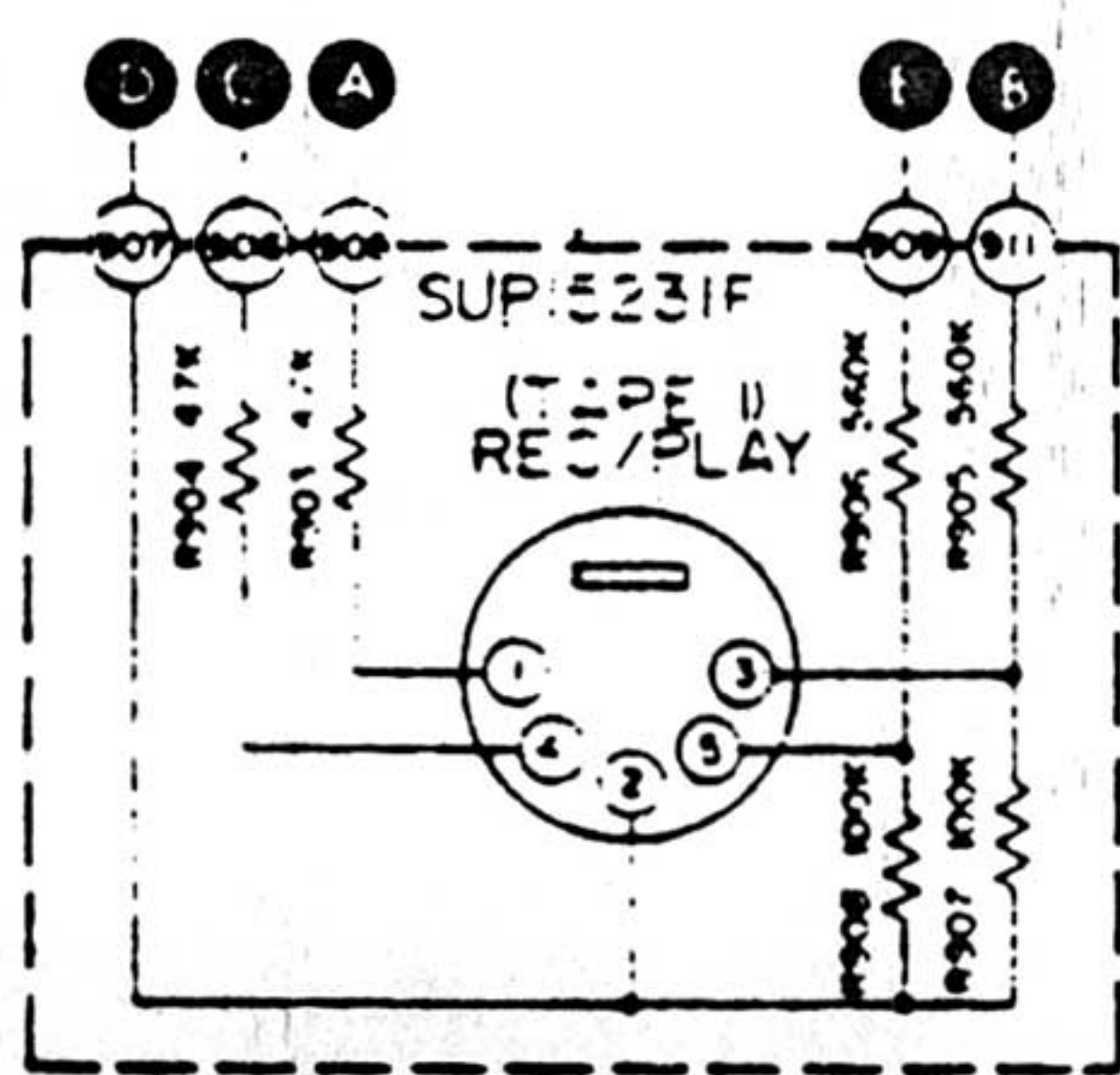
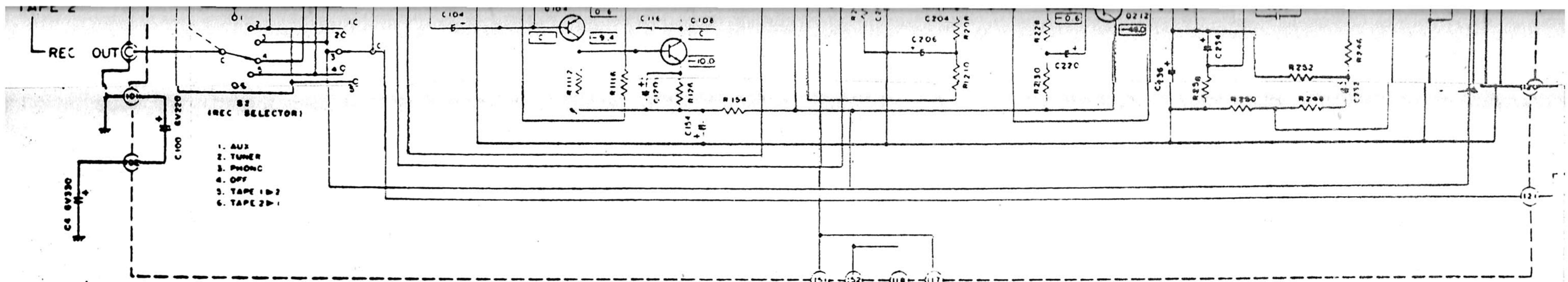
A

B

C

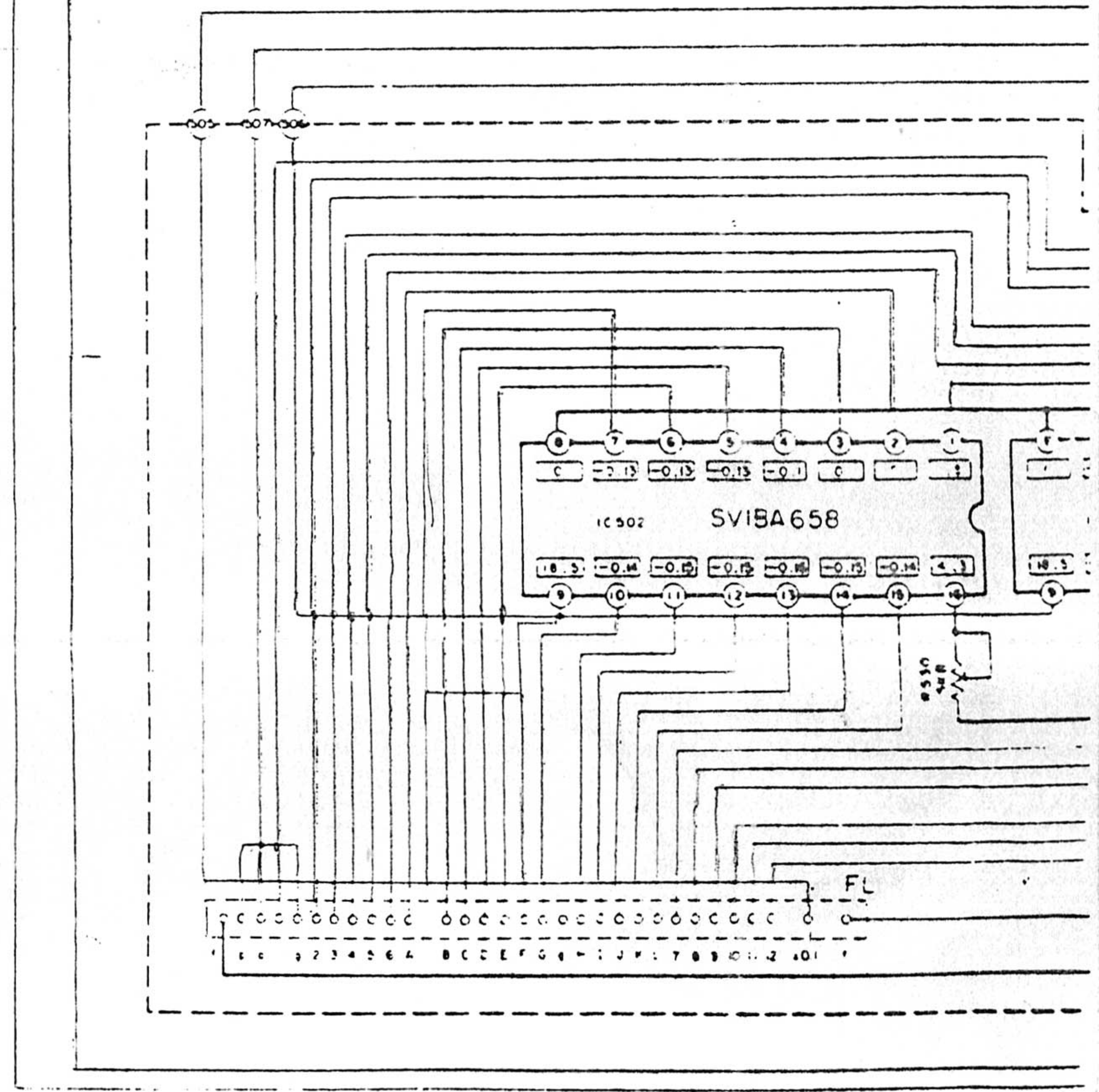
D

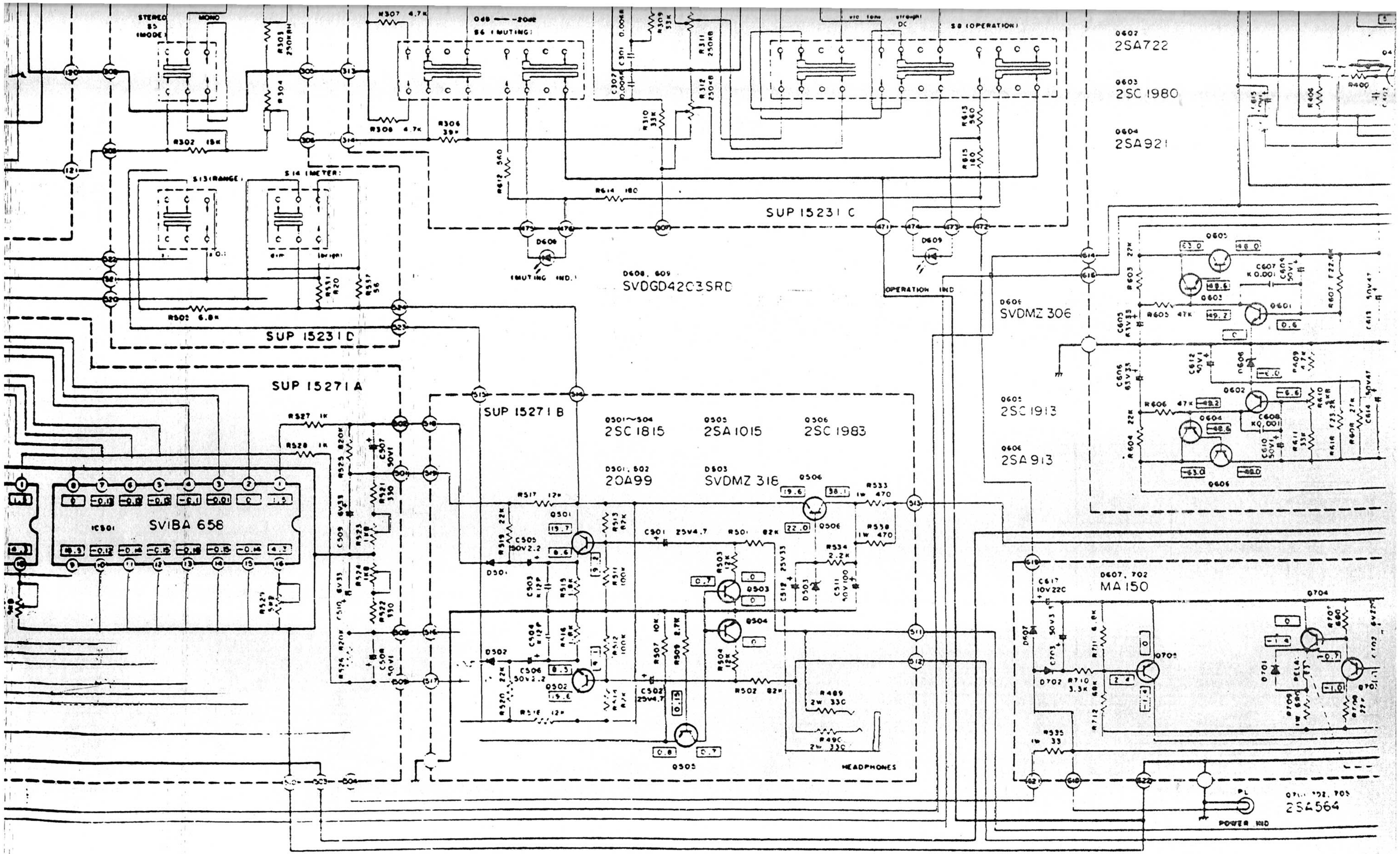
E



NOTES

1. **S1** : Phono selector switch in "phono 1 MC" position.
 1 phono 1 MC → 2 phono 1 MM → 3 phono 2 MM
 2. **S2** : Recording selector switch in "off" position.
 1 aux → 2 tuner → 3 phono → 4 off → 5 tape dubbing 1 → 2
 → 6 tape dubbing 2 → 1
 3. **S3** : Input selector switch in "phono" position.
 1 aux → 2 tuner → 3 phono → 4 tape 1 → 5 tape 2
 4. **S4** : Equalizer subsonic filter switch in "off" position
 5. **S5** : Mode switch in "stereo" position (stereo → mono)
 6. **S6** : Muting switch in "0 dB" position (0 dB → 20 dB)
 7. **S7** : Loudness switch in "off" position.
 8. **S8** : Operation switch in "straight DC" position. (straight DC → via tone)
 9. **S9** : Bass turnover frequency switch in "500 Hz" position. (500Hz → 125 Hz)
 10. **S10** : Treble turnover frequency switch in "2 kHz" position. (2 kHz → 8 kHz)
 11. **S11** : High filter switch in "off" position
 12. **S12** : Speakers switch in "off" position.
 1 off → 2 main → 3 remote → 4 main + remote
 13. **S13** : Meter range switch in "X1" position.
 14. **S14** : Meter switch in "dim" position.
 15. **S15** : Power switch in "on" position.
 16. **S16** : Voltage adjuster switch in "240V" position
 120V (1 5 8 1) ↔ 110V (3 4 7 8) ↔ 220V (3 3 6 7) ↔ 240V (1 2 5 6)
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
17. This schematic diagram may be modified at any time with the development of new technology.
 18. To represent transistors, Q is used instead of TR (E.g. TR1 → Q1).





0607
2SA722
0603
2SC1980
0604
2SA921

D608, 609
SVDGD42C3SRD

D606
SVDMMZ 306

D605
2SC1913

D606
2SA913

0501-504
2SC1815
0505
2SA1015
0506
2SC1983

D501, 502
20A99
D503
SVDMMZ 318

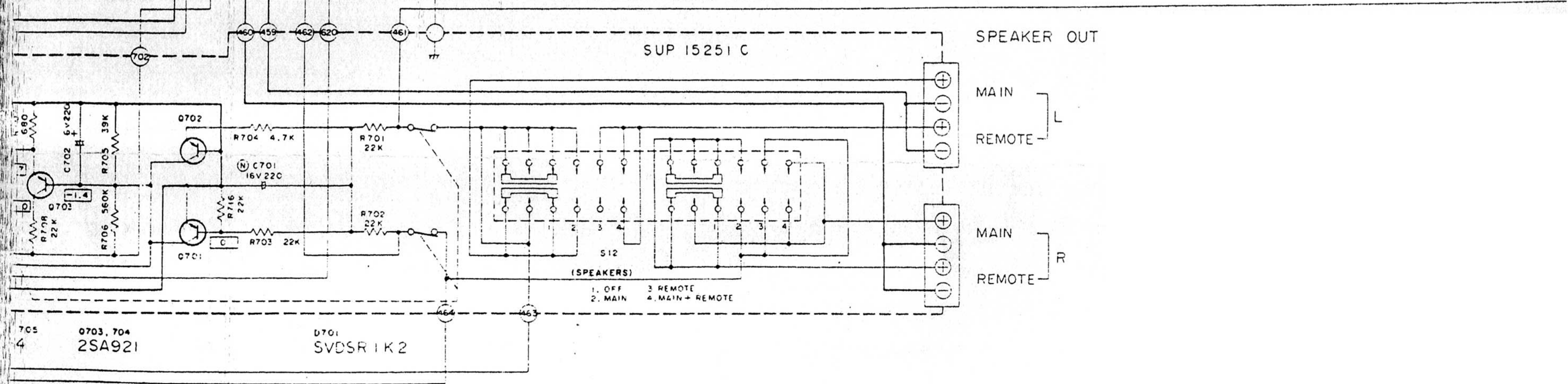
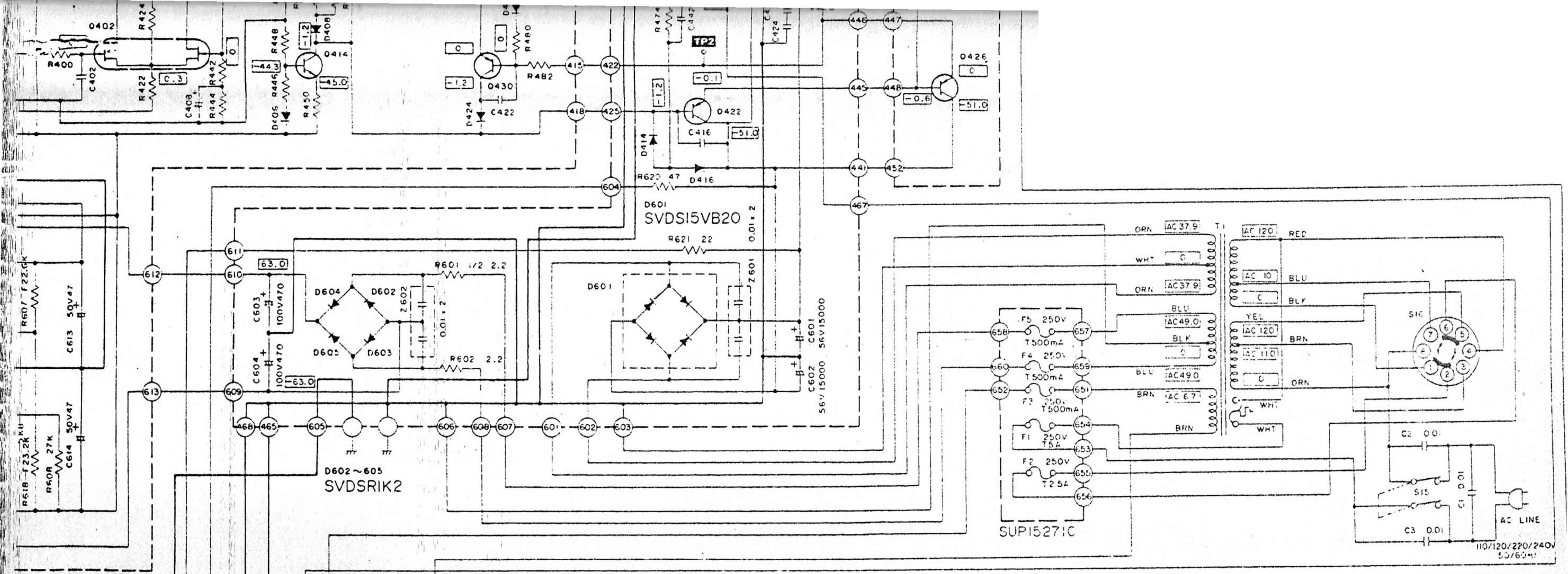
D607, 702
MA150

0704

HEADPHONES

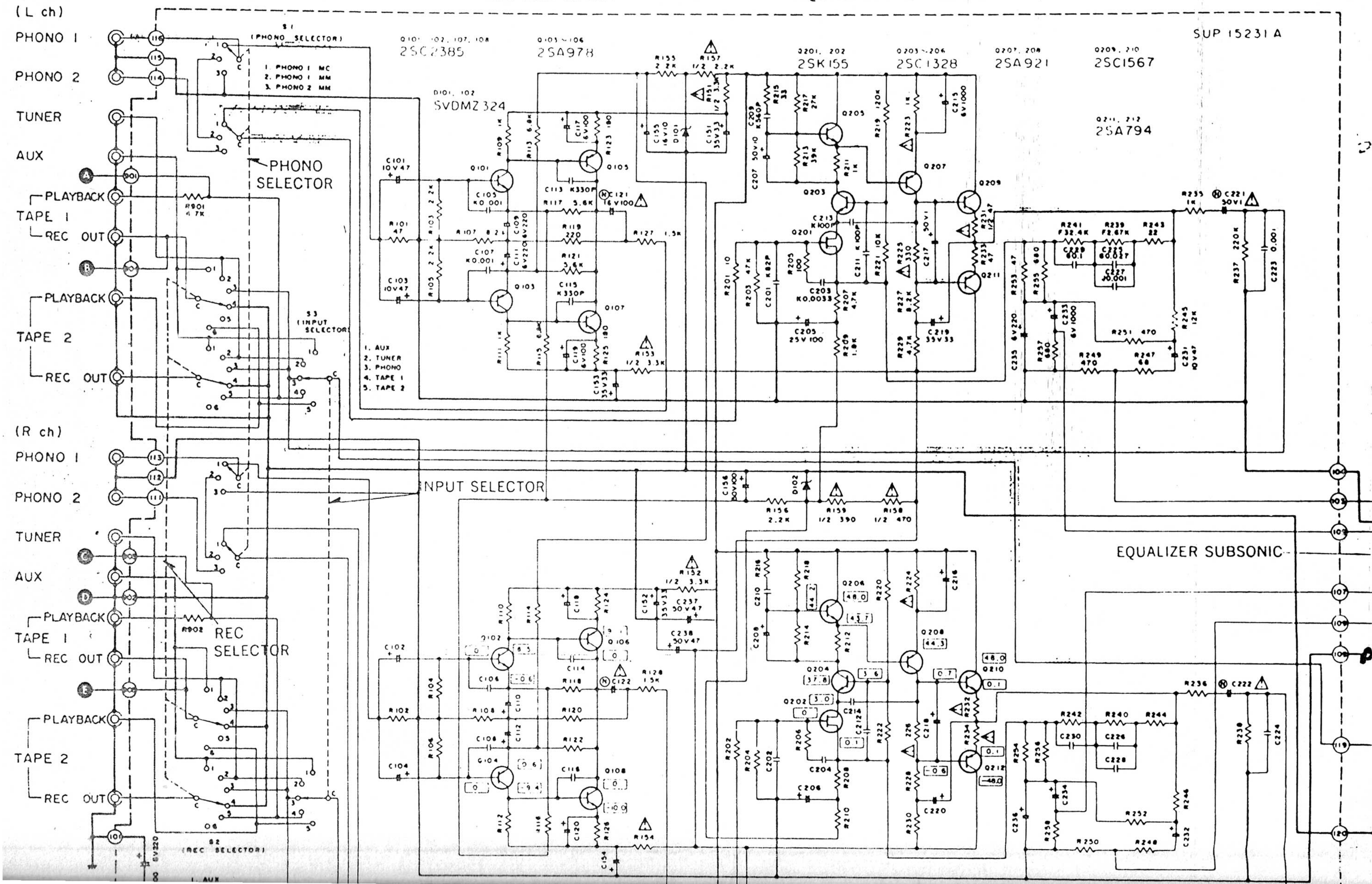
POWER IND

0701, 702, 703
2SA564

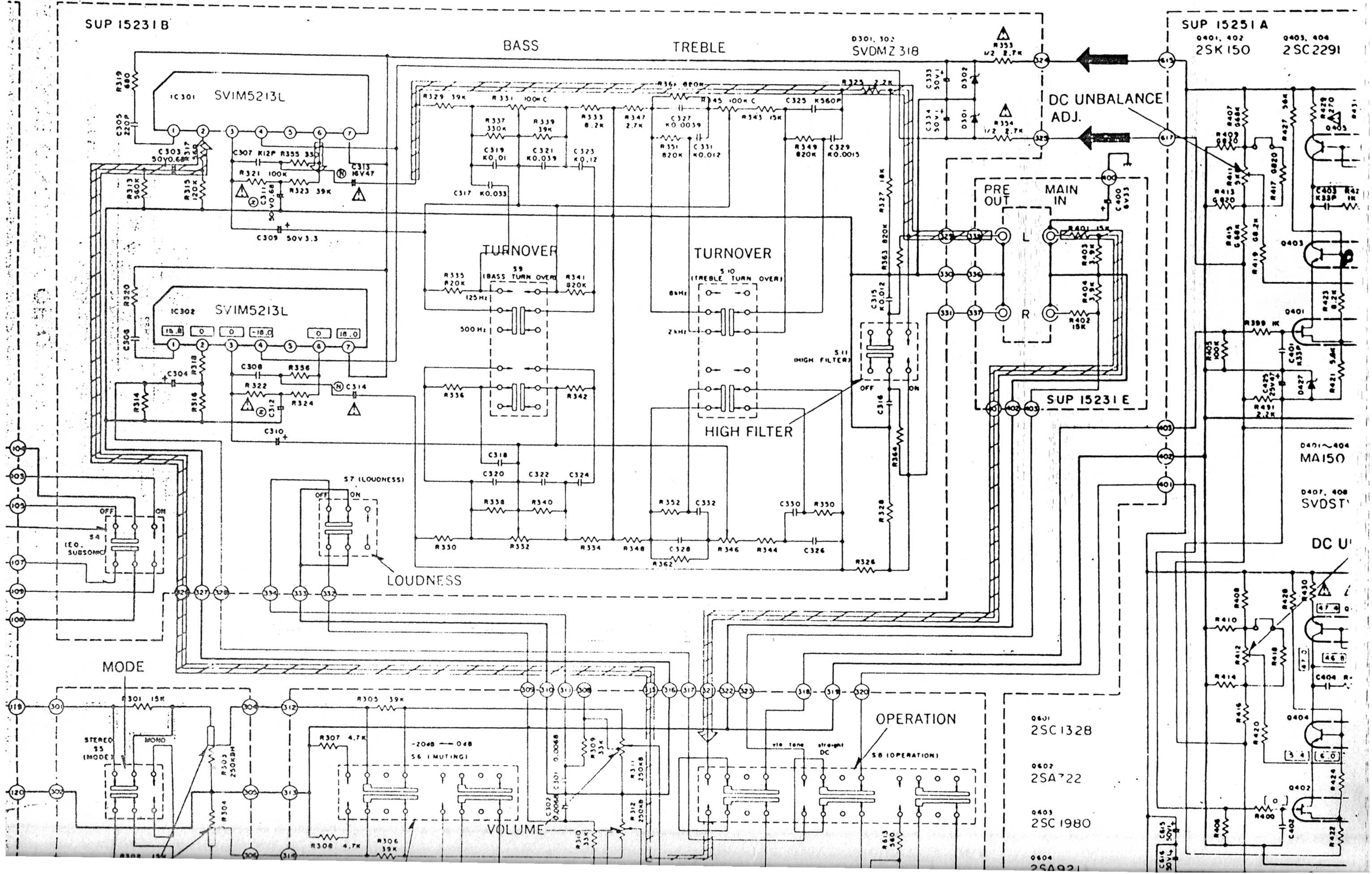


MC AMPLIFIER

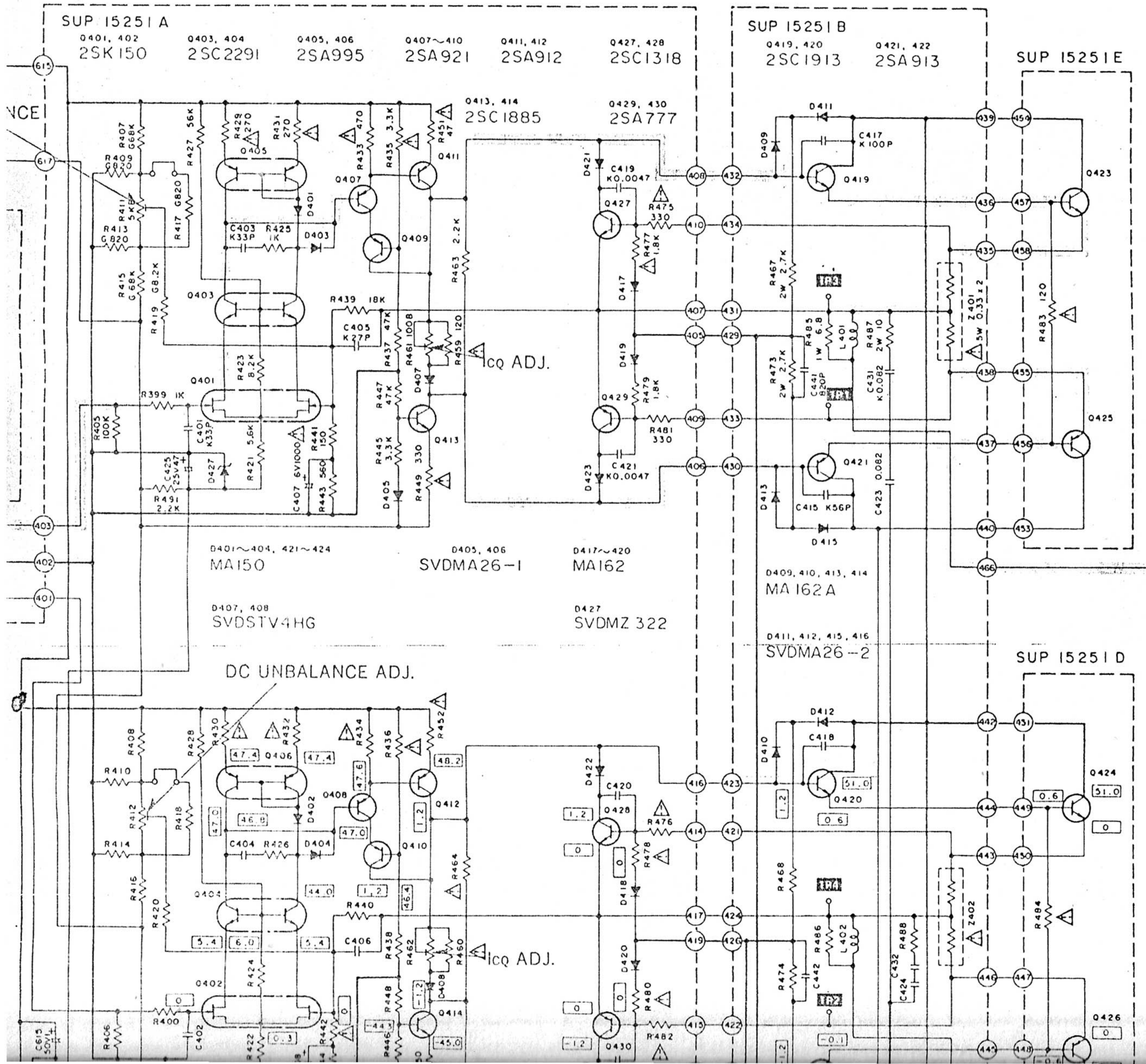
EQUALIZER AMPLIFIER



TONE AMPLIFIER



MAIN AMPLIFIER



Ref. No.	Production Part	Standard Part
Q602	2SA722-T	2SA902S-F
Q701, 702, 705	2SA564-P	2SA666AI-R

Q423, 424
2SC 2489

Q425, 426
2SA1065

D401~404, 421~424
MA150

D407, 408
SVDSTV4HG

D405, 406
SVDMA26-1

D417~420
MA162

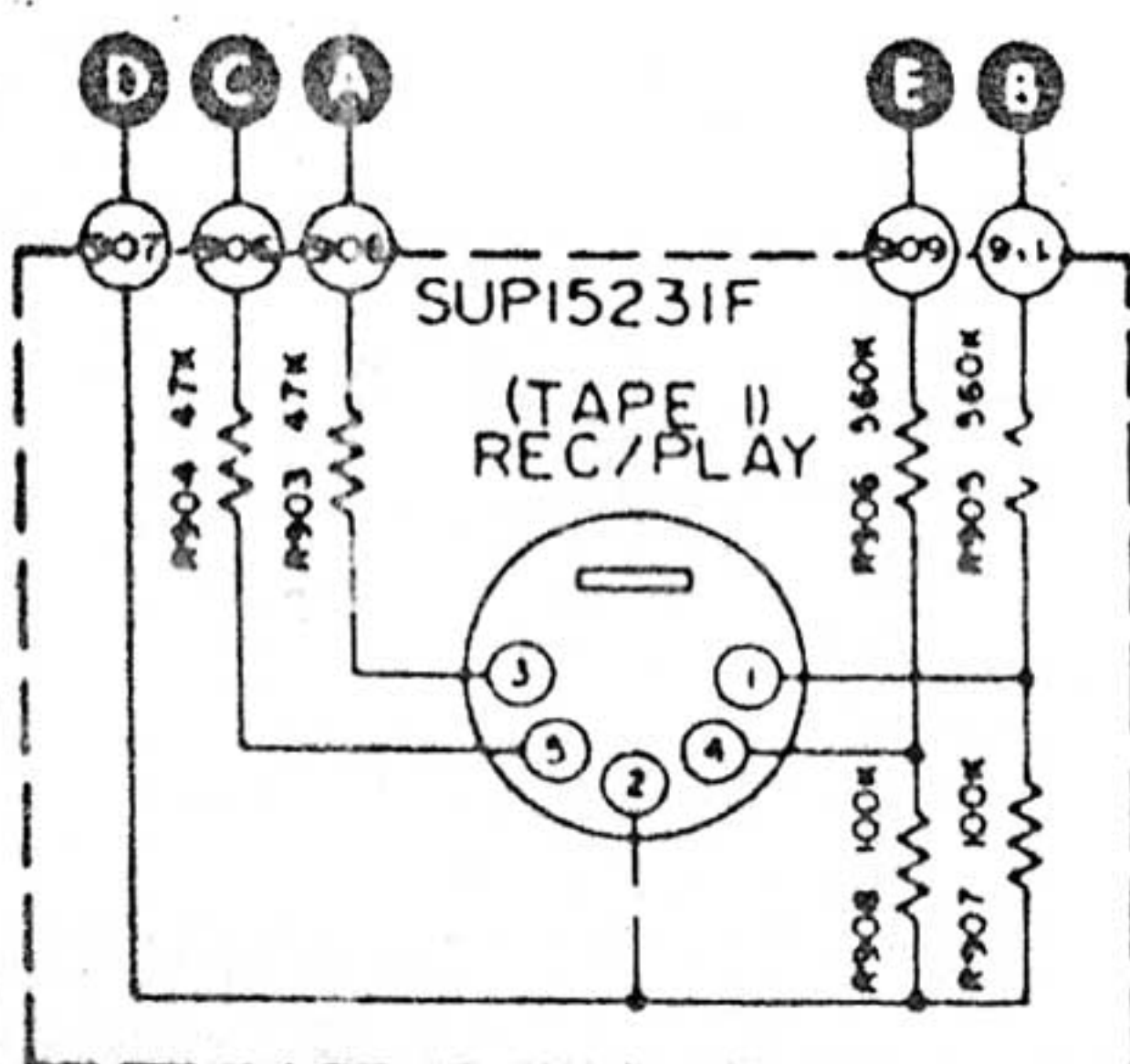
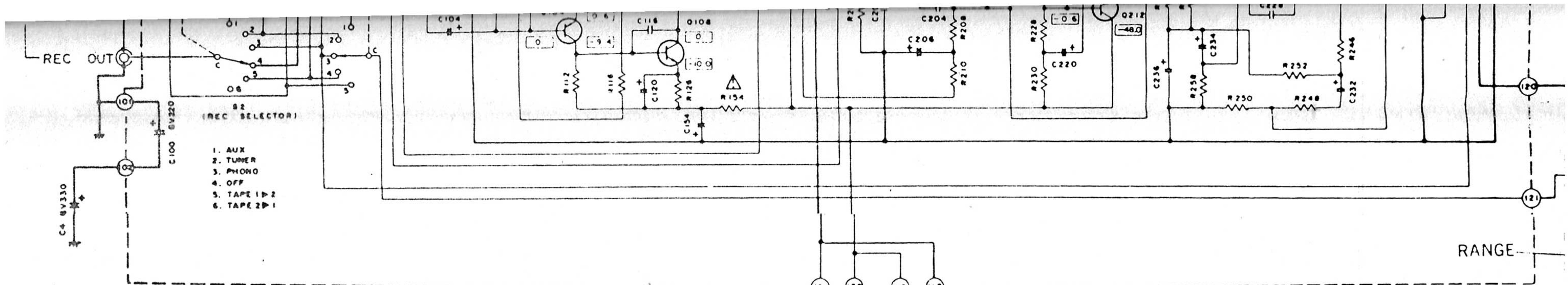
D427
SVDMZ 322

D409, 410, 413, 414
MA162 A

D411, 412, 415, 416
SVDMA26-2

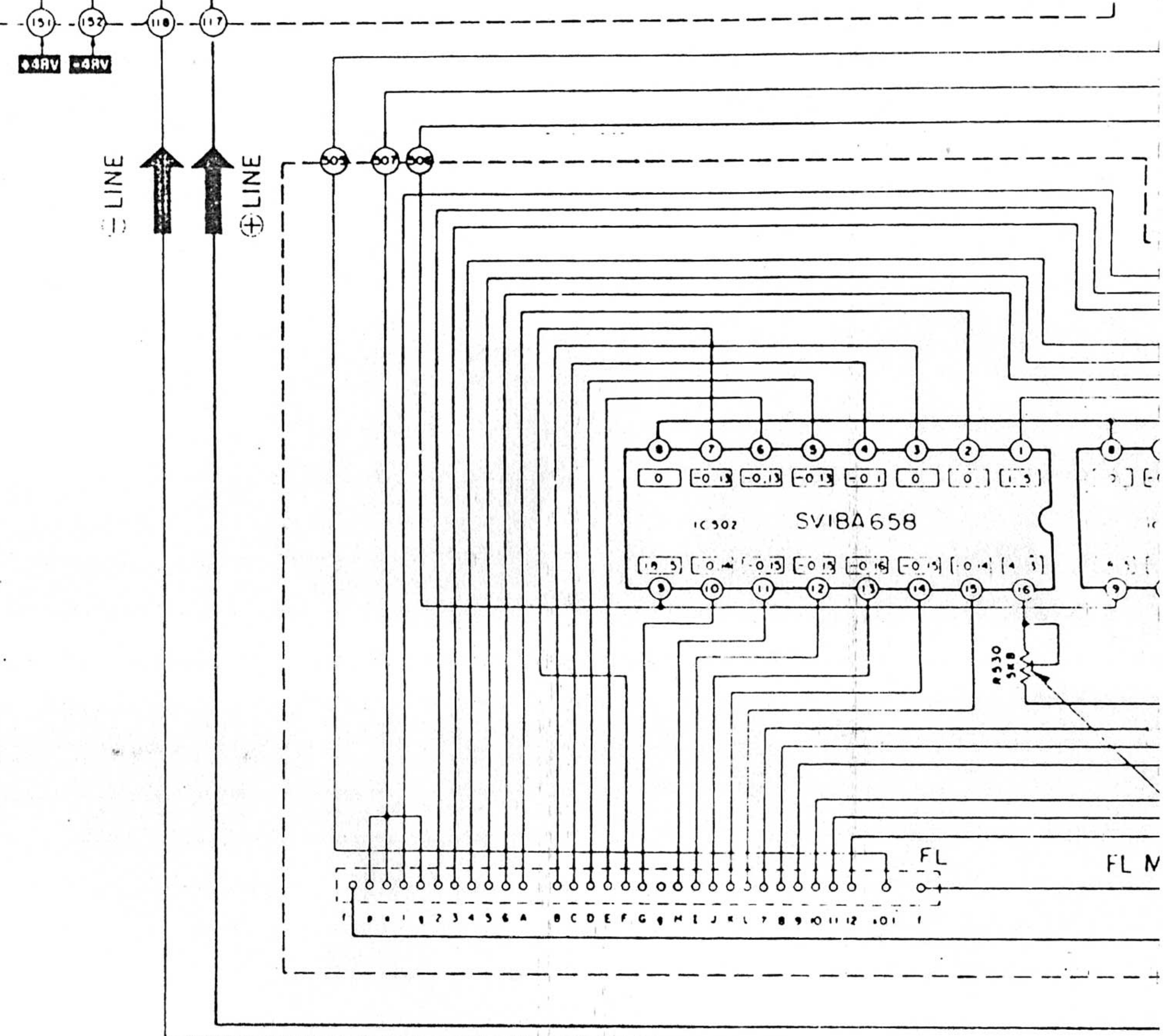
DC UNBALANCE ADJ.

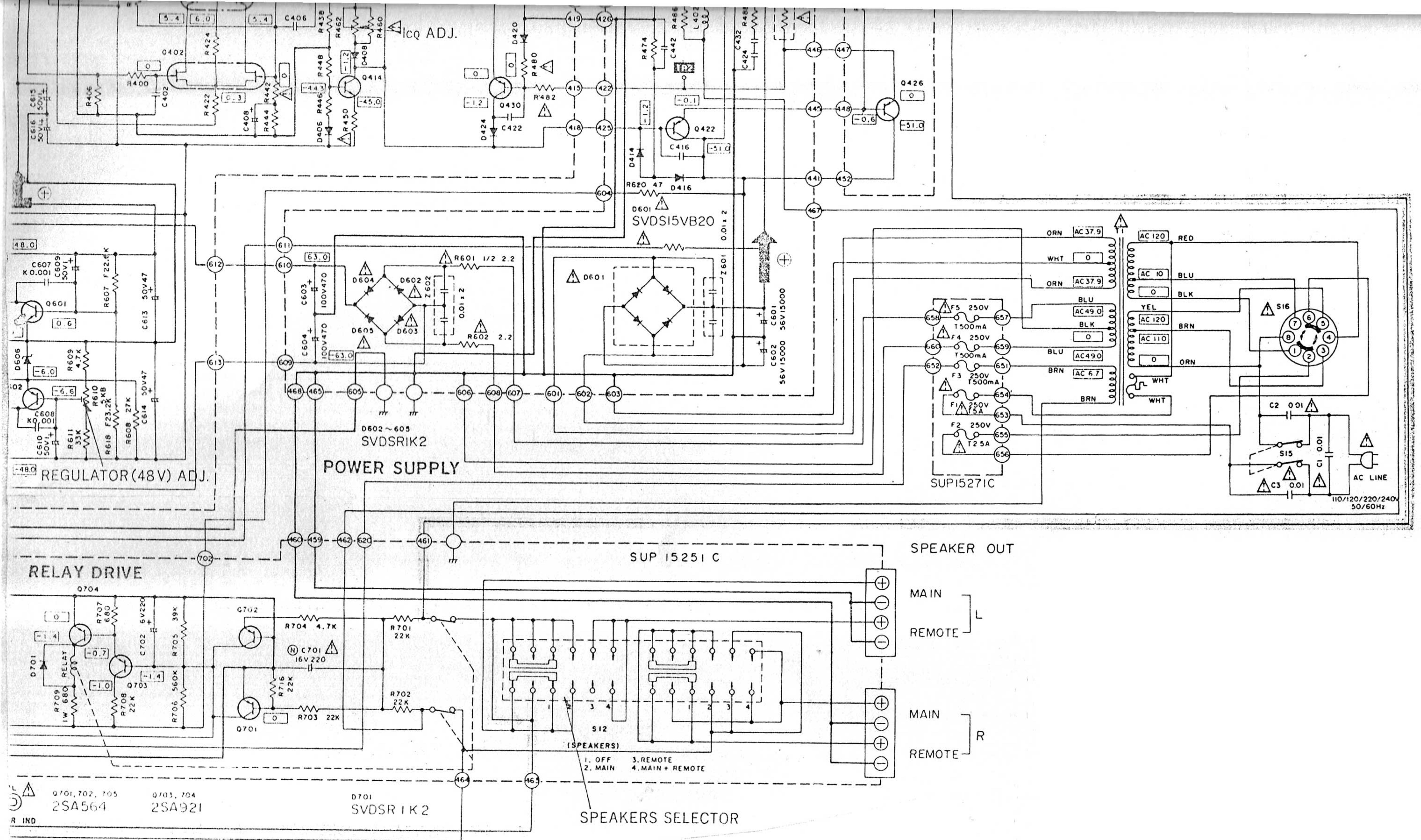
icq ADJ.



NOTES

1. **S1** : Phono selector switch in "phono 1 MC" position.
 ① phono 1 MC ↔ ② phono 1 MM ↔ ③ phono 2 MM
 2. **S2** : Recording selector switch in "off" position.
 ① aux ↔ ② tuner ↔ ③ phono ↔ ④ off ↔ ⑤ tape dubbing 1 ▶ 2
 ↔ ⑥ tape dubbing 2 ▶ 1
 3. **S3** : Input selector switch in "phono" position.
 ① aux ↔ ② tuner ↔ ③ phono ↔ ④ tape 1 ↔ ⑤ tape 2
 4. **S4** : Equalizer subsonic filter switch in "off" position
 5. **S5** : Mode switch in "stereo" position. (stereo ↔ mono)
 6. **S6** : Muting switch in "0 dB" position. (0 dB ↔ 20 dB)
 7. **S7** : Loudness switch in "off" position.
 8. **S8** : Operation switch in "straight DC" position. (straight DC ↔ via tone)
 9. **S9** : Bass turnover frequency switch in "500 Hz" position. (500Hz ↔ 125 Hz)
 10. **S10** : Treble turnover frequency switch in "2 kHz" position. (2 kHz ↔ 8 kHz)
 11. **S11** : High filter switch in "off" position.
 12. **S12** : Speakers switch in "off" position
 ① off ↔ ② main ↔ ③ remote ↔ ④ main + remote
 13. **S13** : Meter range switch in "X1" position.
 14. **S14** : Meter switch in "dim" position.
 15. **S15** : Power switch in "on" position.
 16. **S16** : Voltage adjuster switch in "240V" position.
 120V (④⑤⑧①) ↔ 110V (③④⑦⑧) ↔ 220V (②③⑥⑦) ↔ 240V (①②⑤⑥)
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
 Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
17. Phono MM signal lines of left channel.
 18. Via tone signal lines of left channel.
 19. This schematic diagram may be modified at any time with the development of new technology.
 20. To represent transistors, Q is used instead of TR (e.g. TR1 → Q)
 21. indicates that only parts specified by the manufacturer be used for safety.





ICQ ADJ.

POWER SUPPLY

REGULATOR (48V) ADJ.

RELAY DRIVE

SUP 15251 C

SPEAKER OUT

MAIN
REMOTE } L

MAIN
REMOTE } R

SPEAKERS SELECTOR

Q701, 702, 705
2SA564

Q703, 704
2SA921

D701
SVDSR 1K2

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