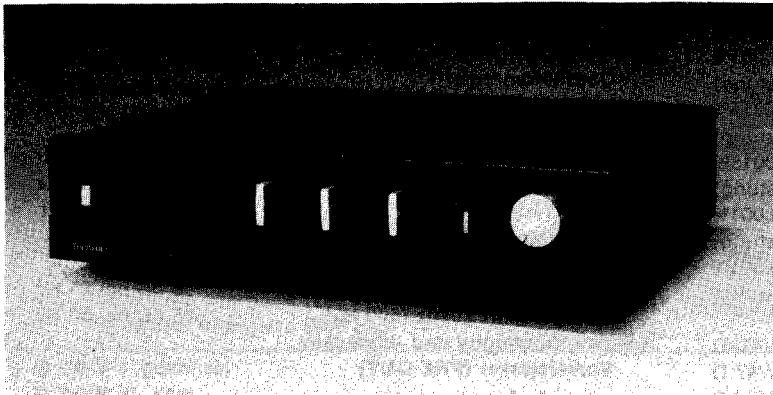


Service Manual

Stereo DC Control Amplifier

SU-A4K

[E], [EG], [EB], [XGH],
[XGF], [XE], [XA]



Areas

- * [E] and [EG] are available in Scandinavia and European except Belgium, United Kingdom, Switzerland Holland and France.
- * [EB] is available in Belgium.
- * [XGH] is available in Holland.
- * [XGF] is available in France.
- * [XE] is available in United Kingdom.
- * [XA] is available in Asia Latin America, Middle East and Africa.

TECHNICAL SPECIFICATIONS

Specifications are subject to change without notice for further improvement.

(DIN 45 500)

■ AMPLIFIER SECTION

Total harmonic distortion (20 Hz~20 kHz)

PHONO MM	0.001%
(1V output at vol. -30 dB)	0.001%
(5V output at vol. max.)	0.0015%
PHONO MC	0.0015%
(1V output at vol. -30 dB)	0.0015%
(5V output at vol. max.)	0.001%
TUNER, AUX, TAPE	0.001%
(1V output at vol. -30 dB)	0.001%
(5V output at vol. max.)	

Input sensitivity and impedance

PHONO 1 MM	2.5 mV/47kΩ
MC	100 μV/47Ω
PHONO 2 MM	2.5 mV/47kΩ
TUNER, AUX, TAPE	150 mV/47kΩ

PHONO maximum input voltage (THD 0.01%)

MM	300 mV (1 kHz, RMS)
MC	12 mV (1 kHz, RMS)

S/N

rated output	
PHONO MM	79 dB (90 dB, IHF '66)
MC	73 dB (78 dB, IHF '66, 250 μV input)
TUNER, AUX, TAPE	98 dB (105 dB, IHF '66)
-26 dB output	
PHONO MM	78 dB
MC	70 dB
TUNER, AUX, TAPE	84 dB

Frequency response

PHONO MM	RIAA ±0.2 dB (20 Hz~100 kHz)
PHONO MM/MC	RIAA ±0.15 dB (20 Hz~20 kHz)
TUNER, AUX, TAPE	DC ~400 kHz (-3 dB)
	+0 dB, -0.1 dB (DC~20 kHz)

Shelving tone

SUPER TREBLE (50 kHz)	-10 dB~+10 dB
TREBLE (20 kHz)	-5 dB~+5 dB
BASS (50 Hz)	-5 dB~+5 dB
SUPER BASS (20 Hz, 12 dB/oct)	0 dB~+12 dB

Turnover frequency

SUPER TREBLE	8 kHz
TREBLE	2 kHz
SUPER BASS (12 dB/oct)	50 Hz~200 Hz continuously adjustable

BASS 500 Hz

Equalizer subsonic filter 20 Hz, -12 dB/oct.

Loudness control (volume at -30 dB)

Turnover frequency (250 Hz)	+8 dB at 25 Hz
Turnover frequency (500 Hz)	+8 dB at 50 Hz

Output voltage and impedance

PRE OUT	rated 1V/0.2Ω
	max. 15V/0.2Ω
REC OUT	150 mV/220Ω

Channel balance, AUX 250 Hz~6,300 Hz ±1.0 dB

Channel separation, AUX 1 kHz 55 dB

Muting -20 dB

■ GENERAL

Power consumption 70W

Power supply AC 50 Hz/60 Hz, 110V/120V/220V/240V

Dimensions (W×H×D) 430 × 97 × 360 mm
(16-15/16" × 3-13/16" × 14-3/16")

Weight 8.8 kg
(19.4 lb.)

Note:

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

Technics

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

TECHNISCHE DATEN

Spezifikationen können infolge von verbesserungen ohne Ankündigung geändert wenrden.

(DIN 45 500)

■ VERSTÄRKERTEIL

Gesamtklirrfaktor (20 Hz~20 kHz)	
Phono - magnetisch (PHONO MM)	0,001%
(1 V Ausgangsspannung bei -30 dB Leistung)	0,001%
(5 V Ausgangsspannung bei Höchstleistung)	0,0015%
Phono - dynamisch (PHONO MC)	0,0015%
(1 V Ausgangsspannung bei -30 dB Leistung)	0,0015%
(5 V Ausgangsspannung bei Höchstleistung)	0,001%
Tuner, Aux, Tape	0,001%
(1 V Ausgangsspannung bei -30 dB Leistung)	0,001%
(5 V Ausgangsspannung bei Höchstleistung)	
Eingangsempfindlichkeit und -impedanz	
Phono 1 - magnetisch (PHONO 1 MM)	2,5 mV/47kΩ
Phono 1 - dynamisch (PHONO 1 MC)	100 μV/47 Ω
Phono 2 - magnetisch (PHONO 2 MM)	2,5 mV/47 kΩ
Tuner, Aux, Tape	150 mV/47 kΩ
Maximale TA-Eingangsspannung (THD 0,01%)	
magnetisch (MM)	300 mV (1 kHz, eff.)
dynamisch (MC)	12 mV (1 kHz, eff.)
Geräuschabstand	
Nenn Ausgangsspannung	
Phono - magnetisch (PHONO MM)	79 dB (90 dB nach IHF '66)
Phono - dynamisch (PHONO MC)	73 dB (78 dB nach IHF '66, 250 μV)
Tuner, Aux, Tape	98 dB (105 dB, nach IHF '66)
-26 dB Ausgangsspannung	
Phono - magnetisch (PHONO MM)	78 dB
Phono - dynamisch (PHONO MC)	70 dB
Tuner, Aux, Tape	84 dB
Frequenzgang	
PHONO MM	RIAA ±0,2 dB (20 Hz ~ 100 kHz)
PHONO MM/MC	RIAA ±0,15 dB (20 Hz ~ 20 kHz)
Tuner Aux, Tape	DC ~ 400 kHz (-3 dB)
	+0 dB, -0,1 dB (DC ~ 20 kHz)

Shelving-Tonregler	
Überhöhenregler (50 kHz)	-10 dB ~ +10 dB
Höhenregler (20 kHz)	-5 dB ~ +5 dB
Baßregler (50 Hz)	-5 dB ~ +5 dB
Tiefbaßreglers (20 Hz, 12 dB/Okt.)	0 dB~+12 dB
Übergangsfrequenz	
Überhöhenregler	8 kHz
Höhenregler	2 kHz
Tiefbaßreglers (12 dB/Okt.)	von 50 Hz bis 200 Hz stufenlos eintellbar
Baßregler	500 Hz
Entzerrer-Tiefenfilter	20 Hz, -12 dB/Okt.
Gehörriichtige Lautstärkekorrektur (Loudness)	
(bei -30 dB Ausgangsleistung)	
Übergangsfrequenz (250 Hz)	+8 dB bei 25 Hz
Übergangsfrequenz (500 Hz)	+8 dB bei 50 Hz
Ausgangsspannung und -impedanz	
Vorverstärker (PRE OUT)	Nennspg. 1 V/0,2 Ω
	max. 15 V/0,2 Ω
Aufnahmeausgang (REC OUT)	150 mV/220 Ω
Kanalabweichung (Aux, 250 Hz ~ 6300 Hz)	±1,0 dB
Übersprechdämpfung (Aux, 1 kHz)	55 dB
Tondämpfung	-20 dB

■ ALLGEMEINE DATEN

Leistungsaufnahme	70 W
Netzspannung	Wechselstrom 50 Hz/60 Hz, 110V/120V/220V/240V
Abmessungen (B×H×T)	430 × 97 × 360 mm
Gewicht	8,8 kg

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

DONNEES TECHNIQUES

Sujet à changment sans préanis.

(DIN 45 500)

■ SECTION AMPLIFICATEUR

Distorsion harmonique totale (20 Hz~20 kHz)	
PHONO, AIMANT MOBILE (PHONO MM)	0,001%
(sortie de 1V à vol. -30 dB)	0,001%
(sortie de 5V à vol. max.)	0,0015%
PHONO, BOBINE MOBILE (PHONO MC)	0,0015%
(sortie de 1V à vol. -30 dB)	0,0015%
(sortie de 5V à vol. max.)	0,001%
SYNTONISATEUR, AUX, BANDE (TUNER, AUX, TAPE)	0,001%
(sortie de 1V à vol. -30 dB)	0,001%
(sortie de 5V à vol. max.)	
Sensibilité et impédance d'entrée	
PHONO 1, AIMANT MOBILE (PHONO 1 MM)	2,5 mV/47kΩ
PHONO 1, BOBINE MOBILE (PHONO 1 MC)	100 μV/47Ω

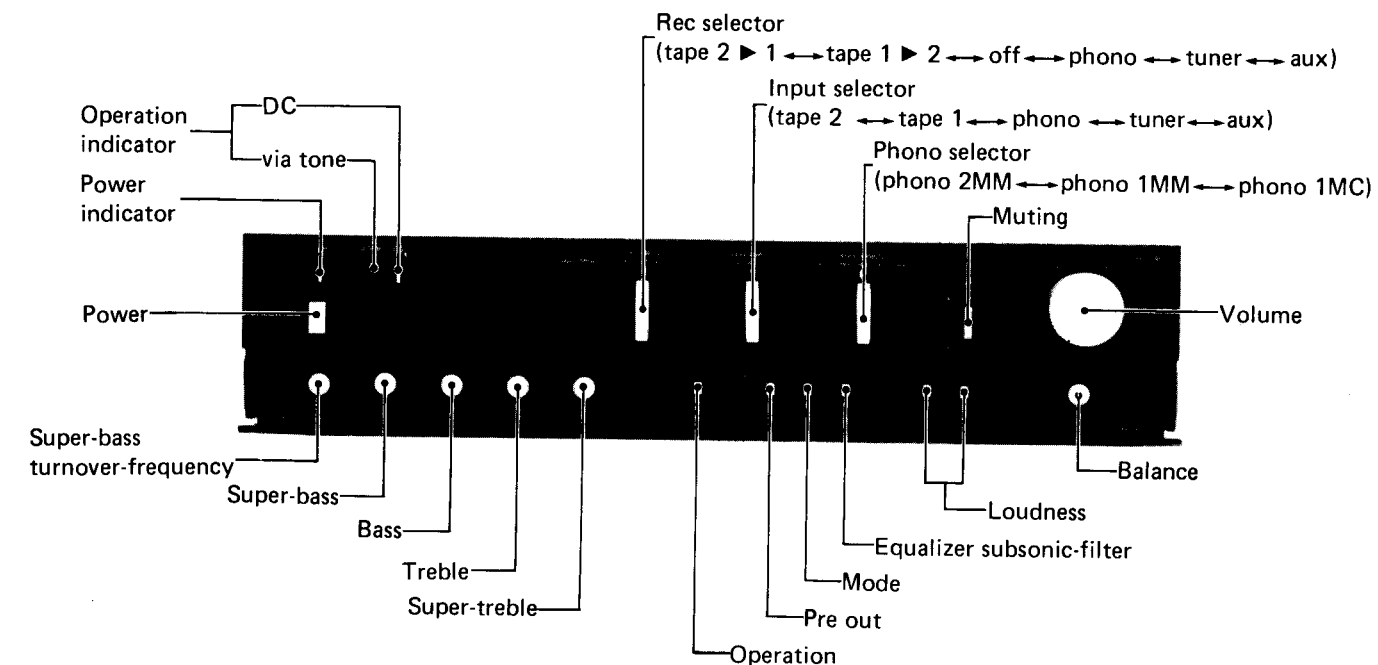
PHONO 2, AIMANT MOBILE (PHONO 2 MM)	
	2,5 mV/47kΩ
SYNTONISATEUR, AUX, BANDE (TUNER, AUX, TAPE)	
	150 mV/47kΩ
PHONO (tension d'entrée maximum, THD 0,01%)	
AIMANT MOBILE (MM)	300 mV (1 kHz, RMS)
BOBINE MOBILE (MC)	12 mV (1 kHz, RMS)
Signal/Bruit	
pour la tension de sortie	
PHONO, AIMANT MOBILE (PHONO MM)	79 dB (90 dB, IHF '66)
PHONO, BOBINE MOBILE (PHONO MC)	73 dB (78 dB, IHF '66, 250μV input)
SYNTONISATEUR, AUX, BANDE (TUNER, AUX, TAPE)	98 dB (105 dB, IHF '66)
pour la tension de sortie -26 dB	
PHONO, AIMANT MOBILE (PHONO MM)	78 dB
PHONO, BOBINE MOBILE (PHONO MC)	70 dB
SYNTONISATEUR, AUX, BANDE (TUNER, AUX, TAPE)	84 dB

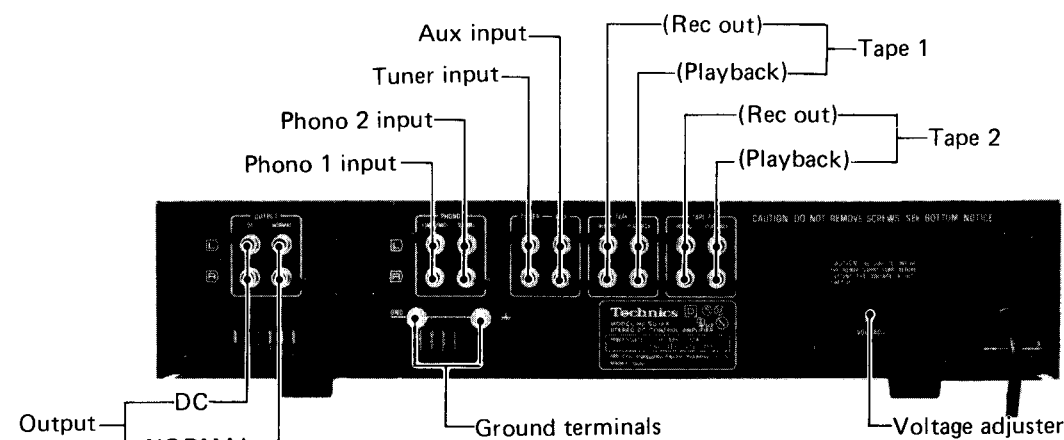
Réponse de fréquence	
PHONO MM	RIAA ±0,2 dB (20 Hz~100 kHz)
PHONO MM/MC	RIAA ±0,15 dB (20 Hz~20 kHz)
SYNTONISATEUR, AUX, BANDE (TUNER, AUX, TAPE)	
	DC~400 kHz (-3 dB)
	+0 dB, -0,1 dB (DC~20 kHz)
Tonalité shelving	
ULTRA-AIGUËS (50 kHz)	-10 dB~+10 dB
AIGUËS (20 kHz)	-5 dB~+5 dB
BASSES (50 Hz)	-5 dB~+5 dB
ULTRA-BASSES (20 Hz, 12 dB/oct)	0 dB~+12 dB
Fréquence charnière	
ULTRA-AIGUËS	8 kHz
AIGUËS	2 kHz
ULTRA-BASSES (12 dB/oct)	50 Hz~200 Hz réglable en continu
BASSES	500 Hz
Filtre subsonique d'égalisateur	20 Hz, -12 dB/oct.
Compensateur physiologique (volume à -30 dB)	
Fréquence charnière (250 Hz)	+8 dB à 25 Hz
Fréquence charnière (500 Hz)	+8 dB à 50 Hz
Tension de sortie et impédance	
PREAMPLI (PRE OUT)	
	nominale 1V/0,2Ω
	maxi. 15V/0,2Ω
SORTIE ENREGISTREMENT (REC OUT)	
	150 mV/220Ω
Equilibrage des canaux, AUX 250 Hz~6 300 Hz	
	±1,0 dB
Séparation des canaux, AUX 1 kHz	
	55 dB
Réglage silencieux	
	-20 dB
■ DIVERS	
Consommation	
	70W
Alimentation	
	CA 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensions (L×H×Pr)	
	430 × 97 × 360 mm
Poids	
	8,8 kg
Remarque:	
On mesure la distorsion harmonique totale au moyen d'un analyseur de spectre digital (Système H.P. 3045).	

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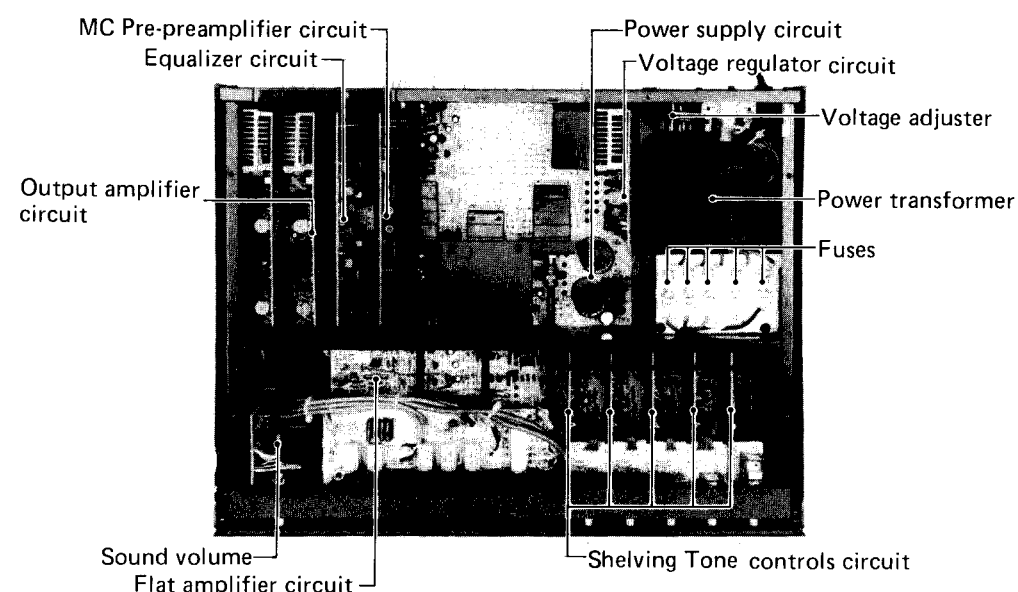
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■ LOCATION OF CONTROLS





• The products for destination [XA] is equipped with AC outlet.



DISASSEMBLY INSTRUCTIONS

• How to remove the knobs (Refer to Fig. 1.)

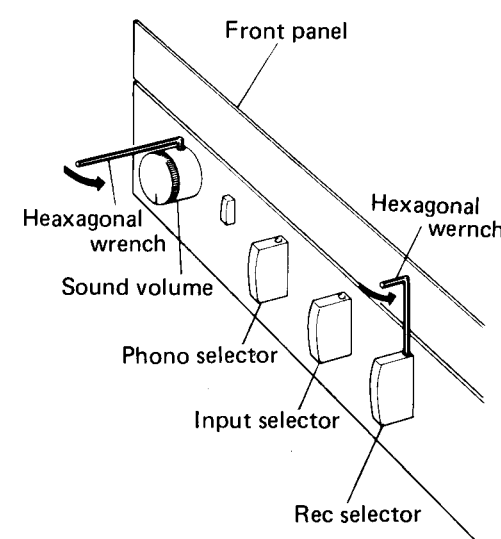
1. Remove the phono switch, input selector switch and record output switch by using M3 hexagonal wrench.
2. When removing the sound volume knob, use a hexagonal rod spanner for M4 screws.

• How to remove the cabinet

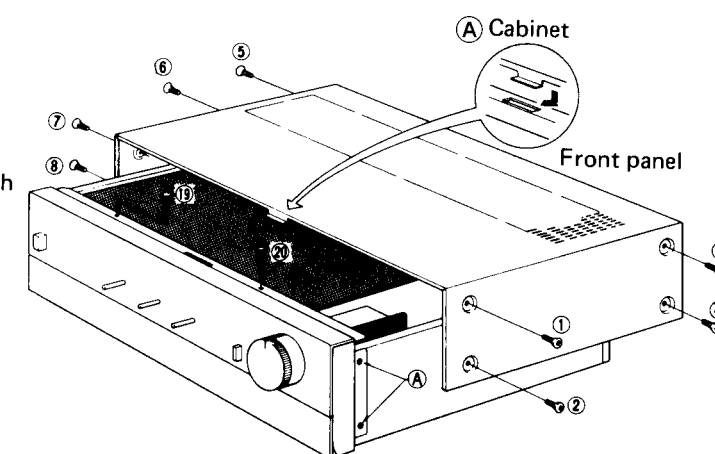
1. Remove the 8 setscrews (① ~ ⑧ in Fig. 2) on the side of the cabinet. Slightly push the cabinet and lift it.
2. To install the cabinet, fit the projection of the cabinet into the square hole before tightening the setscrews.

• How to remove the bottom board

Remove the 10 setscrews (⑨ ~ ⑳ in Fig. 3) of the bottom board, and the bottom board can be removed.



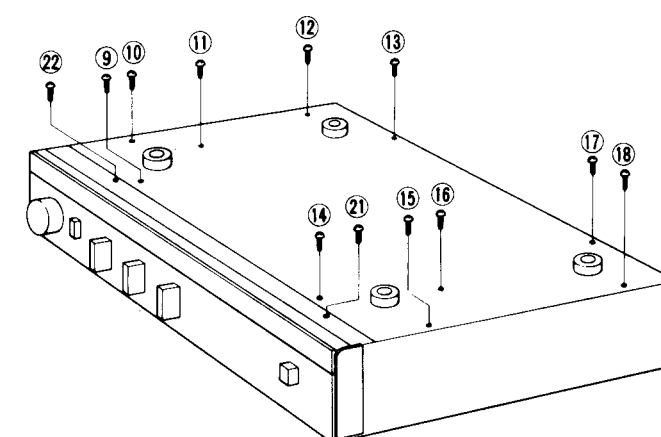
[Fig. 1]



[Fig. 2]

• How to remove the front panel

1. Remove the 3 knobs (phono, input, record output switches). (Refer to "How to remove knobs".)
2. Loosen the setscrews of front panel side plate (① in Fig. 2).
3. Remove the 4 setscrews of front panel (⑱ ~ ㉓ in Fig. 2; ㉔ , ㉕ in Fig. 3), then pull the front panel toward you.



[Fig. 3]

■ PRECAUTIONS FOR REPAIR

The S/N ratio of the equalizer circuit is slightly influenced due to lead wire treatment and coil installation.

• Lead wire treatment

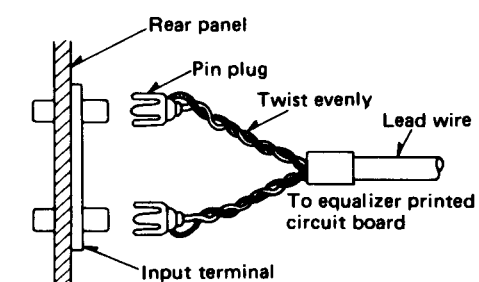
When the pin plug and the lead wire are changed, evenly twist the lead wires of phono 1-2 and solder them to the pin plugs. This will work to decrease hum level. (Refer to Fig. 4.)

• Coil treatment

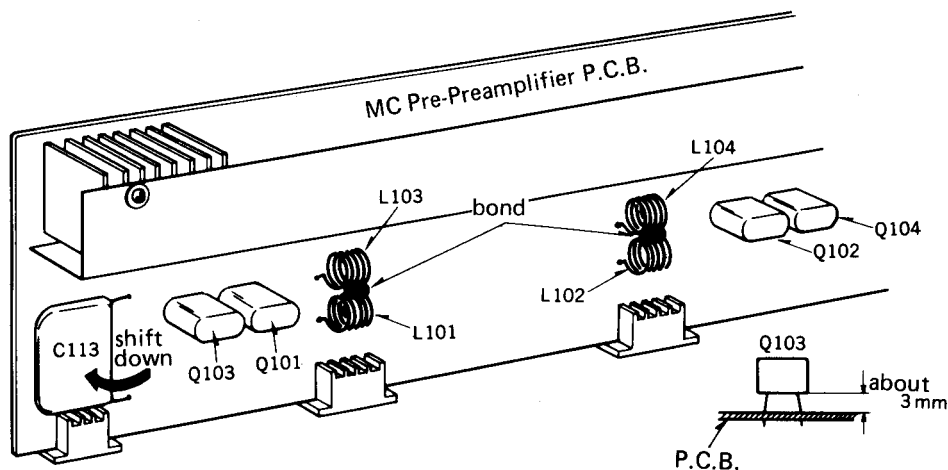
When the MC preamplifier circuit coils (L101 & L103, L102 & L104) are replaced, apply bond between the coils as illustrated in Fig. 5. This will work to obtain hum cancelling effects.

Note: When inserting the printed board with parts (C113 & Q103) installed on the printed board of MC preamplifier circuit, take care so that the board will not touch the electrolytic capacitors and switches.

- 1) Shift down C113 toward the printed board side.
- 2) Adjust the leg length of Q103 to about 3mm.

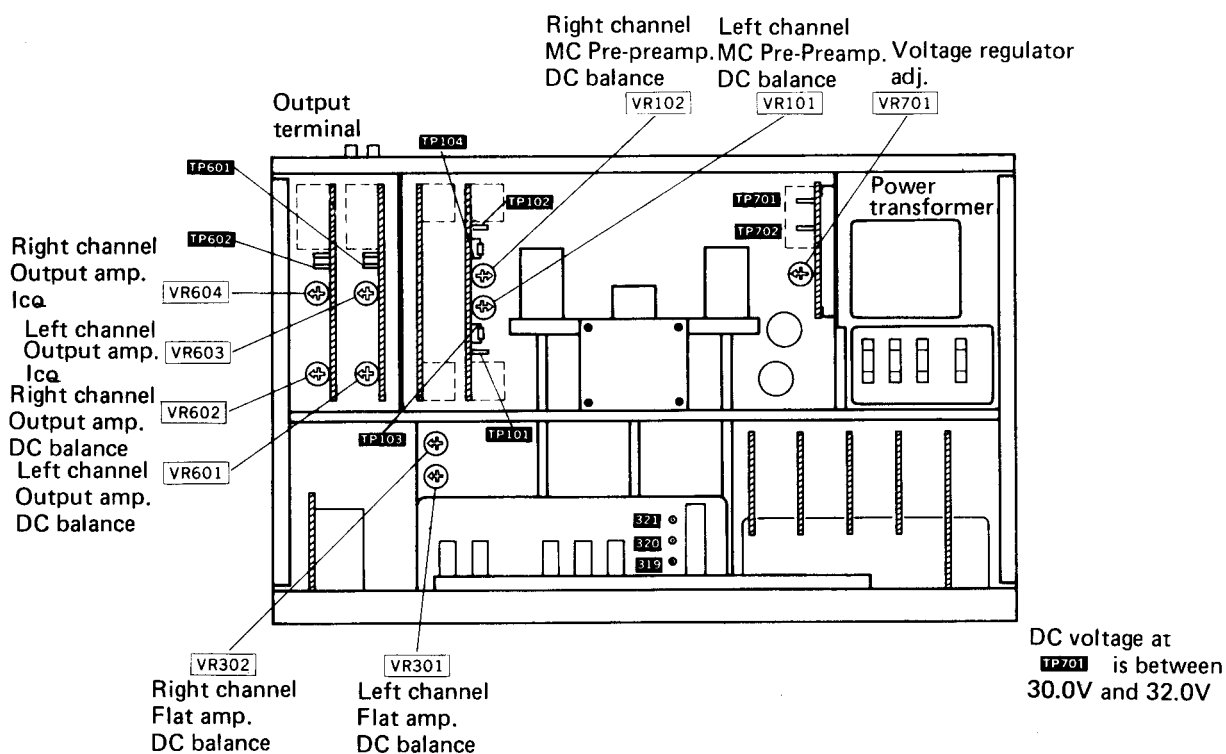


[Fig. 4]



[Fig. 5]

■ ADJUSTING POINTS



(Gleichstromspannung am Testpunkt TP701 zwischen 30.0V und 32.0V)

(La tension CC à TP701 est 30.0V et 32.0V)

■ ADJUSTING INSTRUCTIONS ————— ENGLISH

● **Setting of controls and instruments to be used.**

1. Operation switch DC
2. Output cut-off switch on
3. Sound volume "∞" (minimum)
4. DC voltmeter (capable to measure 1mV)

No.	Adjustments	DC voltmeter connections	Adjusting Point	Adjustment Procedure
1	Voltage regulator	Between TP702 and ground	VR701	* Turn voltage regulator semi-fixed resistor VR701 to minimum. (counterclockwise direction) * Adjust VR701 to -31.0V.
2	DC Balance (MC Pre-Preamplifier)	L channel Between TP101 and TP103 (minus probe) R channel Between TP102 and TP104 (minus probe)	VR101 (L channel) VR102 (R channel)	* Adjust VR101 (L ch) and VR102 (R ch) to obtain a minimum reading, using the 300mV range on the DC voltmeter.
3	DC Balance (Flat amplifier)	L channel Between 319 and 320 (minus probe) R channel Between 321 and 320 (minus probe)	VR301 (L channel) VR302 (R channel)	* Adjust VR301 (L ch) and VR302 (R ch) to obtain a minimum reading, using the 3mV range on the DC voltmeter.
4	DC Balance (Output amplifier)	DC Output terminals	VR601 (L channel) VR602 (R channel)	* Adjust VR601 (L ch) and VR602 (R ch) to obtain a minimum reading, using the 1mV range on the DC voltmeter.
5	I _{ca}	L channel TP601 R channel TP602	VR603 (L channel) VR604 (R channel)	* Turn I _{ca} semi-fixed resistor VR603, VR604 to minimum. (counterclockwise direction) * Adjust VR603 (L ch) and VR604 (R ch) to approx. 7mV after ten minutes warm-up time.

■ EINSTELLUNGSANWEISUNGEN ————— DEUTSCH

● **Einstellung der zu benutzenden Regler und Instrumente**

1. Funktionsschalter "DC"
2. Ausgangssignal-Unterbrechungsschalter . . "on"
3. Lautstärke "∞" (Minimalstellung)
4. Gleichstromvoltmeter 1mV Meßbereich erforderlich

Nr	Einstellungen	Gleichstromvoltmeter- verbindungen	Einstellungspunkte	Einstellungsvorgang
1	Spannungsregler	Zwischen TP702 und Masse.	VR701	* Die spannungsregler halbfesteingestellten Widerstände VR701 auf Minimalstellung drehen. (Entgegen dem Uhrzeigersinn) * VR701 auf -31.0V abstimmen.
2	Gleichstrom balance	L-Kanal Zwischen TP101 und TP103 (Minustest) R-Kanal Zwischen TP102 und TP104 (Minustest)	VR101 (L-Kanal) VR102 (R-Kanal)	* Durch Benutzung des 300mV-Bereiches des Gleichstromvoltmeters, den regelbaren Widerstand VR101 (L-Kanal) und VR102 (R-Kanal) auf minimalen Wert einstellen.
3		L-Kanal Zwischen 319 und 320 (Minustest) R-Kanal Zwischen 321 und 320 (Minustest)	VR301 (L-Kanal) VR302 (R-Kanal)	* Durch Benutzung des 3mV-Bereiches des Gleichstromvoltmeters, den regelbaren Widerstand VR301 (L-Kanal) und VR302 (R-Kanal) auf minimalen Wert einstellen.
4		Gleichstromausgangsbuchsen	VR601 (L-Kanal) VR602 (R-Kanal)	* Durch Benutzung des 1mV-Bereiches des Gleichstromvoltmeters, den regelbaren Widerstand VR601 (L-Kanal) und VR602 (R-Kanal) auf minimalen Wert einstellen.
5	I _{ca}	L-Kanal TP601 R-Kanal TP602	VR603 (L-Kanal) VR604 (R-Kanal)	* Die I _{ca} halbfesteingestellten Widerstände VR603 und VR604 auf Minimalstellung drehen (Entgegen dem Uhrzeigersinn). * VR603 (L-Kanal) und VR604 (R-Kanal) auf ungefähr 7mV, nach 10 Minuten Anwärmezeit, einstellen.

INSTRUCTIONS DE REGLAGE ————— FRANÇAIS

● Réglage des commandes et instruments à utiliser

1. Sélecteur de fonctionnement “DC”
2. Commutateur de coupure de sortie . . . “on”
3. Volume du son “∞” (minimum)
4. Voltmètre CC (pouvant mesurer 1mV)

No.	Réglages	Connexions du voltmètre CC	Point de réglage	Procédé de réglage
1	Régulateur de potential	Entre TP702 et la masse	VR701	* Tourner les résistances VR701 semifixes regulateur de potentiol sur le minimum. (à gauche) * Régler les VR701 sur −31.0V.
2		Canal gauche Entre TP101 et TP103 (sonde au moins) Canal droit Entre TP102 et TP104 (sonde aumoins)	VR101 (Canal gauche) VR102 (Canal droit)	* Régler VR101 (Canal gauche) et VR102 (Canal droit) pour obtenir une lecture minimale, à l'aide de la gamme de 300mV sur le voltmètre CC.
3	Equilibre CC	Canal gauche Entre 319 et 320 (sonde au moins) Canal droit Entre 321 et 320 (sonde au moins)	VR301 (Canal gauche) VR302 (Canal droit)	* Régler VR301 (Canal gauche) et VR302 (Canal droit) pour obtenir une lecture minimale, à l'aide de la gamme de 3mV sur le voltmètre CC.
4		Bornes de sortie CC	VR601 (Canal gauche) VR602 (Canal droit)	* Régler VR601 (Canal gauche) et VR602 (Canal droit) pour obtenir une lecture minimale, à l'aide de la gamme de 1mV sur le voltmètre CC.
5	IcQ	Canal gauche TP601 Canal droit TP602	VR603 (Canal gauche) VR604 (Canal droit)	* Tourner les résistances VR603, VR604 semifixes IcQ sur le minimum. (à gauche). * Régler VR603 (Canal gauche) et VR604 (Canal droit) sur env. 7mV après 10 minuts de temps de chauffage.

REPLACEMENT PARTS LIST...Electric Parts

- Notes: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. ⚠ indicates that only parts specified by the manufacturer be used for safety.

Ref. No.	Part No.	Part Name & Description
INTEGRATED CIRCUITS		
501, 502 503 ~ 507	SVINJM4559DS AN6552F	IC, Super Treble and Treble Buffer IC, Super Bass and Bass Buffer, Super Bass Filter
TRANSISTORS		
01 ~ 104, 01, 202 05 ~ 108 02, 705 09 ~ 112	2SK146—BL	Transistor, Differential Amplifier
	2SC1815—O	Transistor, Current Stabilizer
13, 114	2SA978—G	Transistor, MC Pre-Preamplifier (Use in ranks G or H)
15, 116	2SC1567—Q	Transistor, MC Pre-Preamplifier (Use in ranks Q, R or S)
	2SA794—Q	Transistor, MC Pre-Preamplifier (Use in ranks Q, R or S)
03, 204, 303 04, 603, 604 05, 206, 305 06, 605, 606 07, 208, 307 10, 607 ~ 10 11, 212, 311, 12, 611, 612 13 ~ 216	2SC2291N—G	Transistor, Current Stabilizer (Use in ranks F or G)
	2SA995N—G	Transistor, Current Mirror (Use in ranks F or G)
	2SA999L—F	Transistor, Equalizer Amp., Flat Amp. and Output Amp.
	2SA921—T	Transistor, Equalizer Amp., Flat Amp. and Output Amp.
	2SC1885—R	Transistor, Current Stabilizer (Use in ranks Q, R or S)
17, 218	2SC2592—R	Transistor, Equalizer Amplifier (Use in ranks Q, R or S)
19, 220	2SA1112—R	Transistor, Equalizer Amplifier (Use in ranks Q, R or S)
01, 302	SVIUPA68HG—L	Transistor, Differential Amplifier

Ref. No.	Part No.	Part Name & Description
Q313 ~ 316	2SC1980—T	Transistor, Current Stabilizer (Use in ranks R, S or T)
Q317, 318	2SC2631—R	Transistor, Flat Amplifier (Use in ranks Q, R or S)
Q319, 320	2SA1123—R	Transistor, Flat Amplifier (Use in ranks Q, R or S)
Q321, 322	2SC2592—R	Transistor, Flat Amplifier (Use in ranks Q, R or S)
Q323, 324	2SA1112—R	Transistor, Flat Amplifier (Use in Q, R or S)
Q325, 703	2SD836—Q	Transistor, Regulator (Use in ranks P, Q or R)
Q326, 704	2SB750—Q	Transistor, Regulator (Use in ranks P, Q or R)
Q401, 402, 425 426, 451, 452 457, 476	2SA798A—G2	Transistor, Differential Amplifier
Q403, 404, 427, 428, 453, 454, 477, 478, 613, ~ 616	2SC1980—T	Transistor, Tone Amplifier and Current Stabilizer (Use in ranks R, S or T)
Q405, 406, 429, 430, 455, 456, 479, 480, 625, 626	2SC2631—R	Transistor, Tone Output Amp- lifier and Output Amplifier (Use in ranks Q, R or S)
Q407, 408, 431, 432, 457, 458, 481, 482, 627 628	2SA1123—R	Transistor, Tone Output Amp- lifier and Output Amplifier (Use in ranks Q, R or S)
Q601, 602 Q617, 618, 621, 622	SVIUPA68HG—L 2SC1328—T	Transistor, Differential Amplifier Transistor, Output Amplifier (Buffer)
Q619, 620, 623, 624	2SA902S—F	Transistor, Output Amplifier (Buffer) (Product Part No. 2SA722—S, T or U)
Q629, 630	2SC2592—R	Transistor, Output Amplifier (Use in ranks Q, R or S)
Q631, 632	2SA1112—R	Transistor, Output Amplifier (Use in ranks Q, R or S)

Ref. No.	Part No.	Part Name & Description
Q701, 706, 802, 803 Q707, 709, 711, 804 Q708, 710, 712	2SA1015—O 2SC1509F—R 2SA777—Q	Transistor, Regulator and Relay Drive Transistor, Voltage Stabilizer and Relay Drive Transistor, Voltage Stabilizer (Use in ranks Q, R or S)
DIODES		
D301, 302, 605, 606, 701, 702, 802 D303 ~ 306 D307 ~ 310 621 ~ 624 D311 ~ 314 D315 ~ 318 D321, 322 D601 ~ 604 609 ~ 612 617 ~ 620, 821 D607, 608 D613 ~ 616 703 D704, 705	MA27A1 MA162A SVDMZ324A MA162A SVDMZ306 SVDMZ333A MA162A SVDSTV4HG SVDMZ306B SVDMZ316B SVDMZ322A SVDSR1K2 LN81CP SVDMZ303A SVDS1RBA40	Diode, Bias Supply Diode, Bias Supply Diode, Zener 24V Diode, Bias Supply Diode, Zener 6V Diode, Zener 33V Diode, Bias Supply and Rectifier Diode, Bias Supply Diode, Zener 6V Diode, Zener 16V Diode, Zener 22V Diode, Rectifier Light Emitting Diode Diode, Zener 3V Diode, Rectifier
VARIABLE RESISTORS		
VR101, 102 VR301, 302 VR303 VR304 VR501 ~ 503 VR504 VR505 VR601, 602	EVMG1GA01B23 EVMH9GA00B53 EWS2HS35AT7 EWKK4A061616 EWJF4A067G14 EWKKMA06553X EWKU9A073C5T EVMH8GA00B53	MC Pre-Preamp. DC Balance, 2kΩ (B) Flat Amplifier DC Balance, 5kΩ (B) Sound Volume, 50kΩ (x 2), 10kΩ (x 2) Balance Control, 5kΩ (BH) Super Treble, Treble and Bass Control, 10kΩ (G) Super Bass Control, 5kΩ (X) Super Bass Frequency Control, 150kΩ (T) Output Amplifier DC Balance, 5kΩ (B)

RESISTOR AND CAPACITOR PARTS LIST

Ref. No.	Part No.	Part Name & Description
RESISTORS		
R101, 102 R103, 104 R105, 106 R107, 108 R109, 110 R111, 112 R113, 114 R115, 116 R117, 118 R119, 120	ERO25CKF56R0 ERO25CKF2200 ERO25CKF1202 ERO25CKF1800 ERO25CKF4701 ERO25CKF6800 ERO25CKF6801 ERO25CKF5600 ERD25FJ220 ERD25FJ220	Metal Film, 56Ω, 1/4W, ± 1% Metal Film, 220Ω, 1/4W, ± 1% Metal Film, 12kΩ, 1/4W, ± 1% Metal Film, 180Ω, 1/4W, ± 1% Metal Film, 4.7kΩ, 1/4W, ± 1% Metal Film, 680Ω, 1/4W, ± 1% Metal Film, 6.8kΩ, 1/4W, ± 1% Metal Film, 560Ω, 1/4W, ± 1% Carbon, 22Ω, 1/4W, ± 5% Carbon, 22Ω, 1/4W, ± 5%
R121, 122 R123, 124 R125, 126 R127, 128 R129, 130 R131, 132 R133, 134 R135, 136 R137, 138 R139, 140	ERO25CKF1502 ERO25CKF1000 ERO25CKF3901 ERO25CKF1201 ERO25CKF4702 ERX14AF3R9 ERG1ANJ122 ERG1ANJ152 ERO25CKF56R0	Metal Film, 15kΩ, 1/4W, ± 1% Metal Film, 100Ω, 1/4W, ± 1% Metal Film, 3.9kΩ, 1/4W, ± 1% Metal Film, 1.2kΩ, 1/4W, ± 1% Metal Film, 47kΩ, 1/4W, ± 1% Metal Film, 1.2kΩ, 1/4W, ± 1% Metal Film, 3.9Ω, 1/4W, ± 1% Metal Oxide, 1.2kΩ, 1W, ± 5% Metal Oxide, 1.5kΩ, 1W, ± 5% Metal Film, 56Ω, 1/4W, ± 1%
R141, 142 R143, 144 R201, 202 R203, 204 R205, 206 R207, 208 R209, 210 R211, 212 R213, 214 R215, 216	ERO25CKF56R0 ERO25CKF1801 ERD25FJ5R6 ERO25CKF4702 ERO25CKF2202 ERO25CKF5602 ERD25FJ101 ERD25FJ101 ERO25CKF18R0 ERD25FJ151	Metal Film, 56Ω, 1/4W, ± 1% Metal Film, 1.8kΩ, 1/4W, ± 1% Carbon, 5.6Ω, 1/4W, ± 5% Metal Film, 47kΩ, 1/4W, ± 1% Metal Film, 22kΩ, 1/4W, ± 1% Metal Film, 56kΩ, 1/4W, ± 1% Carbon, 100Ω, 1/4W, ± 5% Carbon, 100Ω, 1/4W, ± 5% Metal Film, 18Ω, 1/4W, ± 1% Carbon, 150Ω, 1/4W, ± 5%
R217, 218 R221, 222	ERD25FJ5R6 ERO25CKF2700	Carbon, 5.6Ω, 1/4W, ± 5% Metal Film, 270Ω, 1/4W, ± 1%

Ref. No.	Part No.	Part Name & Description
VR603, 604 VR701	EVMH8GA00B52 EVMH8GA00B33	Output Amplifier IcQ, 500Ω (B) Voltage Regulator, 3kΩ (B)
COILS and TRANSFORMER		
L101 ~ 104 L651, 652 T1	ELQ5A9 SLQY15G—1U SLT5M127	Coil, Choke Coil, Choke Transformer, Power Source
COMPONENT COMBINATION		
Z802	EXRF203ZS	Component Combination, 0.01μF x 2
SWITCHES		
S1 S2 S3 S4, 5 S6, 7, 8 S9 S10 S11 S11 [XA] only S12	EVQ03HF20 EVQ3MBF20 EVQ5MKF20 SSH273 SSH377 SSH149 SSH147 SSH119 ESB9997S ESE37200	Switch, Phono Selector Switch, Input Selector Switch, Rec Selector Switch, Loudness Switch, Eg, Subsonic, Mode, Pre Out Switch, Operation Switch, Muting Switch, Power Source Switch, Power Source Switch, Voltage Adjuster
RELAYS		
RLY1 RLY2	SSY9 SSY83	Relay, output (Equalizer) Relay, output
LAMPS		
	⚠ XAMR21S350C	Lamp, Power and Operation Indicator
FUSES		
F1 F2 F3 F4, 5	⚠ XBA2C16TRO ⚠ XBA2C08TRO ⚠ XBA2C10TRO ⚠ XBA2C12TRO	Fuse, T1.6A (250V) Fuse, T800mA (250V) Fuse, T1.0A (250V) Fuse, T1.2A (250V)

Ref. No.		Part No.	Part Name & Description			
R329, 330		ERO25CKF3901	Metal Film,	3.9kΩ,	1/4W,	± 1%
R331, 332	Δ	ERD25FJ331	Carbon,	330Ω,	1/4W,	± 5%
R333, 334		ERQ12HJ470	Fuse Type Metallic,	47Ω,	1/2W,	± 5%
R335, 336	Δ	ERQ12HJ470	Fuse Type Metallic,	47Ω,	1/2W,	± 5%
R337, 338		ERO25CKF1001	Metal Film,	1kΩ,	1/4W,	± 1%
R339, 340		ERO25CKF3900	Metal Film,	390Ω,	1/4W,	± 1%
R341, 342		ERO25CKF5601	Metal Film,	5.6kΩ,	1/4W,	± 1%
R343, 344		ERO25CKF2201	Metal Film,	2.2kΩ,	1/4W,	± 1%
R345, 346		ERO25CKF1001	Metal Film,	1kΩ,	1/4W,	± 1%
R347, 348		ERO25CKF5600	Metal Film,	560Ω,	1/4W,	± 1%
R349, 350		ERO25CKF8200	Metal Film,	820Ω,	1/4W,	± 1%
R351, 352		ERO25CKF1002	Metal Film,	10kΩ,	1/4W,	± 1%
R353, 354		ERO25CKF2702	Metal Film,	27kΩ,	1/4W,	± 1%
R355, 356	Δ	ERD25FJ560	Carbon,	56Ω,	1/4W,	± 5%
R357, 358	Δ	ERD25FJ560	Carbon,	56Ω,	1/4W,	± 5%
R359, 360		ERO25CKF5601	Metal Film,	5.6kΩ,	1/4W,	± 1%
R361, 362		ERO25CKF4701	Metal Film,	4.7kΩ,	1/4W,	± 1%
R365, 366		ERO25CKF1003	Metal Film,	100kΩ,	1/4W,	± 1%
R367, 368		ERO25CKF10R0	Metal Film,	10Ω,	1/4W,	± 1%
R371, 372		ERO25CKF4701	Metal Film,	4.7kΩ,	1/4W,	± 1%
R373, 374		ERO25CKF1201	Metal Film,	1.2kΩ,	1/4W,	± 1%
R375, 376		ERO25CKF4701	Metal Film,	4.7kΩ,	1/4W,	± 1%
R377		ERO25CKF4703	Metal Film,	470kΩ,	1/4W,	± 1%
R379, 380		ERO25CKF8201	Metal Film,	8.2kΩ,	1/4W,	± 1%
R381, 382		ERO25CKF1202	Metal Film,	12kΩ,	1/4W,	± 1%
R401, 402		ERO25CKF1502	Metal Film,	15kΩ,	1/4W,	± 1%
R403, 404		ERO25CKF5600	Metal Film,	560Ω,	1/4W,	± 1%
R405, 406		ERO25CKF1201	Metal Film,	1.2kΩ,	1/4W,	± 1%
R407, 408		ERO25CKF2701	Metal Film,	2.7kΩ,	1/4W,	± 1%
R409, 410	Δ	ERD25FJ221	Carbon,	220Ω,	1/4W,	± 5%
R411, 412		ERO25CKF8200	Metal Film,	820Ω,	1/4W,	± 1%
R413, 414		ERO25CKF6800	Metal Film,	680Ω,	1/4W,	± 1%
R415, 416		ERO25CKF1202	Metal Film,	12kΩ,	1/4W,	± 1%
R417, 418		ERO25CKF3901	Metal Film,	3.9kΩ,	1/4W,	± 1%
R419, 420	Δ	ERD25FJ470	Carbon,	47Ω,	1/4W,	± 5%
R421, 422	Δ	ERD25FJ470	Carbon,	47Ω,	1/4W,	± 5%
R425, 426		ERO25CKF1502	Metal Film,	15kΩ,	1/4W,	± 1%
R427, 428		ERO25CKF5600	Metal Film,	560Ω,	1/4W,	± 1%
R429, 430		ERO25CKF1201	Metal Film,	1.2kΩ,	1/4W,	± 1%
R431, 432		ERO25CKF2701	Metal Film,	2.7kΩ,	1/4W,	± 1%
R433, 434	Δ	ERD25FJ221	Carbon,	220Ω,	1/4W,	± 5%
R435, 436		ERO25CKF8200	Metal Film,	820Ω,	1/4W,	± 1%
R437, 438		ERO25CKF6800	Metal Film,	680Ω,	1/4W,	± 1%
R439, 440		ERO25CKF1202	Metal Film,	12kΩ,	1/4W,	± 1%
R441, 442		ERO25CKF3901	Metal Film,	3.9kΩ,	1/4W,	± 1%
R443, 444	Δ	ERD25FJ470	Carbon,	47Ω,	1/4W,	± 5%
R445, 446	Δ	ERD25FJ470	Carbon,	47Ω,	1/4W,	± 5%
R451, 452		ERO25CKF1502	Metal Film,	15kΩ,	1/4W,	± 1%
R453, 454		ERO25CKF5600	Metal Film,	560Ω,	1/4W,	± 1%
R455, 456		ERO25CKF1201	Metal Film,	1.2kΩ,	1/4W,	± 1%
R457, 458		ERO25CKF2701	Metal Film,	2.7kΩ,	1/4W,	± 1%
R459, 460	Δ	ERD25FJ221	Carbon,	220Ω,	1/4W,	± 5%
R461, 462		ERO25CKF8200	Metal Film,	820Ω,	1/4W,	± 1%
R463, 464		ERO25CKF6800	Metal Film,	680Ω,	1/4W,	± 1%
R465, 466		ERO25CKF1202	Metal Film,	12kΩ,	1/4W,	± 1%
R467, 468		ERO25CKF3901	Metal Film,	3.9kΩ,	1/4W,	± 1%
R469, 470	Δ	ERD25FJ470	Carbon,	47Ω,	1/4W,	± 5%
R471, 472	Δ	ERD25FJ470	Carbon,	47Ω,	1/4W,	± 5%
R475, 476		ERO25CKF1502	Metal Film,	15kΩ,	1/4W,	± 1%
R477, 478		ERO25CKF5600	Metal Film,	560Ω,	1/4W,	± 1%
R479, 480		ERO25CKF1201	Metal Film,	1.2kΩ,	1/4W,	± 1%
R481, 482		ERO25CKF2701	Metal Film,	2.7kΩ,	1/4W,	± 1%
R483, 484	Δ	ERD25FJ221	Carbon,	220Ω,	1/4W,	± 5%
R485, 486		ERO25CKF8200	Metal Film,	820Ω,	1/4W,	± 1%
R487, 488		ERO25CKF6800	Metal Film,	680Ω,	1/4W,	± 1%
R489, 490		ERO25CKF1202	Metal Film,	12kΩ,	1/4W,	± 1%
R491, 492		ERO25CKF3901	Metal Film,	3.9kΩ,	1/4W,	± 1%
R493, 494	Δ	ERD25FJ470	Carbon,	47Ω,	1/4W,	± 5%
R495, 496	Δ	ERD25FJ470	Carbon,	47Ω,	1/4W,	± 5%
R501, 502		ERO25CKF5601	Metal Film,	5.6kΩ,	1/4W,	± 1%
R503, 504		ERO25CKF5601	Metal Film,	5.6kΩ,	1/4W,	± 1%
R505, 506		ERO25CKF1802	Metal Film,	18kΩ,	1/4W,	± 1%
R507, 508		ERO25CKF1002	Metal Film,	10kΩ,	1/4W,	± 1%
R509, 510		ERO25CKF3901	Metal Film,	3.9kΩ,	1/4W,	± 1%
R511, 512		ERO25CKF4700	Metal Film,	470Ω,	1/4W,	± 1%
R513, 514		ERO25CKF5601	Metal Film,	5.6kΩ,	1/4W,	± 1%
R515, 516		ERO25CKF5601	Metal Film,	5.6kΩ,	1/4W,	± 1%
R517, 518		ERO25CKF1802	Metal Film,	18kΩ,	1/4W,	± 1%
R519, 520		ERO25CKF1002	Metal Film,	10kΩ,	1/4W,	± 1%
R521, 522		ERO25CKF3901	Metal Film,	3.9kΩ,	1/4W,	± 1%
R523, 524		ERO25CKF3301	Metal Film,	3.3kΩ,	1/4W,	± 1%
R525, 526		ERO25CKF5601	Metal Film,	5.6kΩ,	1/4W,	± 1%

Ref. No.		Part No.	Part Name & Description			
R527, 528		ERO25CKF5601	Metal Film,	5.6kΩ,	1/4W,	± 1%
R529, 530		ERO25CKF1002	Metal Film,	10kΩ,	1/4W,	± 1%
R531, 532		ERO25CKF1002	Metal Film,	10kΩ,	1/4W,	± 1%
R533, 534		ERO25CKF1002	Metal Film,	10kΩ,	1/4W,	± 1%
R535, 536		ERO25CKF2701	Metal Film,	2.7kΩ,	1/4W,	± 1%
R537, 538		ERO25CKF5601	Metal Film,	5.6kΩ,	1/4W,	± 1%
R539, 540		ERO25CKF1003	Metal Film,	100kΩ,	1/4W,	± 1%
R541, 542		ERO25CKF5601	Metal Film,	5.6kΩ,	1/4W,	± 1%
R543, 544		ERO25CKF1002	Metal Film,	10kΩ,	1/4W,	± 1%
R545, 546		ERO25CKF1002	Metal Film,	10kΩ,	1/4W,	± 1%
R547, 548		ERO25CKF8201	Metal Film,	8.2kΩ,	1/4W,	± 1%
R549, 550		ERO25CKF3901	Metal Film,	3.9kΩ,	1/4W,	± 1%
R551, 552		ERO25CKF2700	Metal Film,	270Ω,	1/4W,	± 1%
R553, 554		ERO25CKF1002	Metal Film,	10kΩ,	1/4W,	± 1%
R555, 556		ERO25CKF1000	Metal Film,	100Ω,	1/4W,	± 1%
R557, 558		ERO25CKF4702	Metal Film,	47kΩ,	1/4W,	± 1%
R561, 562		ERO25CKF6801	Metal Film,	6.8kΩ,	1/4W,	± 1%
R563, 564		ERO25CKF6801	Metal Film,	6.8kΩ,	1/4W,	± 1%
R571, 572		ERO25CKF1802	Metal Film,	18kΩ,	1/4W,	± 1%
R573, 574		ERO25CKF1002	Metal Film,	10kΩ,	1/4W,	± 1%
R575, 576		ERO25CKF1002	Metal Film,	10kΩ,	1/4W,	± 1%
R577, 578		ERO25CKF8201	Metal Film,	8.2kΩ,	1/4W,	± 1%
R579, 580		ERO25CKF1002	Metal Film,	10kΩ,	1/4W,	± 1%
R581, 582		ERO25CKF4702	Metal Film,	47kΩ,	1/4W,	± 1%
R583, 584		ERO25CKF4702	Metal Film,	47kΩ,	1/4W,	± 1%
R601, 602		ERO25CKF1001	Metal Film,	1kΩ,	1/4W,	± 1%
R603, 604		ERO25CKF4702	Metal Film,	47kΩ,	1/4W,	± 1%
R605, 606		ERO25CKF1202	Metal Film,	12kΩ,	1/4W,	± 1%
R607, 608		ERO25CKF2202	Metal Film,	22kΩ,	1/4W,	± 1%
R609, 610		ERO25CKF5600	Metal Film,	560Ω,	1/4W,	± 1%
R611, 612		ERO25CKF5600	Metal Film,	560Ω,	1/4W,	± 1%
R613, 614		ERO25CKF3300	Metal Film,	330Ω,	1/4W,	± 1%
R615, 616	Δ	ERD25FJ121	Carbon,	120Ω,	1/4W,	± 5%
R617, 618	Δ	ERD25FJ5R6	Carbon,	5.6Ω,	1/4W,	± 5%
R619, 620	Δ	ERD25FJ5R6	Carbon,	5.6Ω,	1/4W,	± 5%
R621, 622		ERO25CKF8200	Metal Film,	820Ω,	1/4W,	± 1%
R625, 626		ERO25CKF8202	Metal Film,	82kΩ,	1/4W,	± 1%
R627, 628		ERO25CKF3901	Metal Film,	3.9kΩ,	1/4W,	± 1%
R629, 630		ERO25CKF3901	Metal Film,	3.9kΩ,	1/4W,	± 1%
R631, 632		ERO25CKF4702	Metal Film,	47kΩ,	1/4W,	± 1%
R633, 634		ERO25CKF8200	Metal Film,	820Ω,	1/4W,	± 1%
R635, 636		ERO25CKF1003	Metal Film,	100kΩ,	1/4W,	± 1%
R637, 638		ERO25CKF1501	Metal Film,	1.5kΩ,	1/4W,	± 1%
R639, 640		ERO25CKF8200	Metal Film,	820Ω,	1/4W,	± 1%
R641, 642		ERO25CKF5600	Metal Film,	560Ω,	1/4W,	± 1%
R643, 644		ERO25CKF1000	Metal Film,	100Ω,	1/4W,	± 1%
R645, 646		ERO25CKF8201	Metal Film,	8.2kΩ,	1/4W,	± 1%
R647, 648		ERO25CKF2702	Metal Film,	27kΩ,	1/4W,	± 1%
R649, 650		ERO25CKF6801	Metal Film,	6.8kΩ,	1/4W,	± 1%
R651, 652		ERO25CKF6801	Metal Film,	6.8kΩ,	1/4W,	± 1%
R653, 654		ERO25CKF1201	Metal Film,	1.2kΩ,	1/4W,	± 1%
R655, 656		ERO25CKF4700	Metal Film,	470Ω,	1/4W,	± 1%
R657, 658		ERO25CKF4700	Metal Film,	470Ω,	1/4W,	± 1%
R659, 660		ERO25CKF5600	Metal Film,	560Ω,	1/4W,	± 1%
R661, 662		ERX1ANJ1R8	Metal Film,	1.8Ω,	1W,	± 5%
R663, 664		ERX1ANJ1R8	Metal Film,	1.8Ω,	1W,	± 5%
R665, 666	Δ	ERD25FJ560	Carbon,	56Ω,	1/4W,	± 5%
R667, 668	Δ	ERD25FJ560	Carbon,	56Ω,	1/4W,	± 5%
R669, 670		ERO25CKF3300	Metal Film,	330Ω,	1/4W,	± 1%
R671, 672		ERO25CKF1501	Metal Film,	1.5kΩ,	1/4W,	± 1%
R673, 674		ERO25CKF5601	Metal Film,	5.6kΩ,	1/4W,	± 1%
R675, 676		ERO25CKF5601	Metal Film,	5.6kΩ,	1/4W,	± 1%
R681, 682	Δ	ERD50FJ100	Carbon,	10Ω,	1/2W,	± 5%
R683, 684	Δ	ERD50FJ6R8	Carbon,	6.8Ω,	1/2W,	± 5%
R685, 686	Δ	ERO25CKF5602	Metal Film,	56kΩ,	1/4W,	± 1%
R687, 688		ERX3ANJ470	Metal Film,	47Ω,	3W,	± 5%
R689, 690		ERX3ANJ470	Metal Film,	47Ω,	3W,	± 5%
R701, 702	Δ	ERD25FJ101	Carbon,	100Ω,	1/4W,	± 5%
R703, 704		ERO25CKF2702	Metal Film,	27kΩ,	1/4W,	± 1%
R705, 706	Δ	ERD25FJ101	Carbon,	100Ω,	1/4W,	± 5%
R709, 710		ERO25CKF2202	Metal Film,	22kΩ,	1/4W,	± 1%
R711		ERO25CKF4701	Metal Film,	4.7kΩ,	1/4W,	± 1%
R712		ERO25CKF5602	Metal Film,	56kΩ,	1/4W,	± 1%
R713		ERO25CKF3301	Metal Film,	3.3kΩ,	1/4W,	± 1%
R714		ERO25CKF5602	Metal Film,	56kΩ,	1/4W,	± 1%
R715, 716	Δ	ERD25FJ221	Carbon,	220Ω,	1/4W,	± 5%
R717, 718		ERO25CKF8201	Metal Film,	8.2kΩ,	1/4W,	± 1%
R719, 720	Δ	ERQ12HJ101	Fuse Type Metallic,	100Ω,	1/2W,	± 5%
R721, 722		ERO25CKF4701	Metal Film,	4.7kΩ,	1/4W,	± 1%
R723, 724	Δ	ERQ12HJ101	Fuse Type Metallic,	100Ω,	1/2W,	± 5%
R725, 726		ERO25CKF4701	Metal Film,	4.7kΩ,	1/4W,	± 1%
R802		ERO25CKF4701	Metal Film,	4.7kΩ,	1/4W,	± 1%

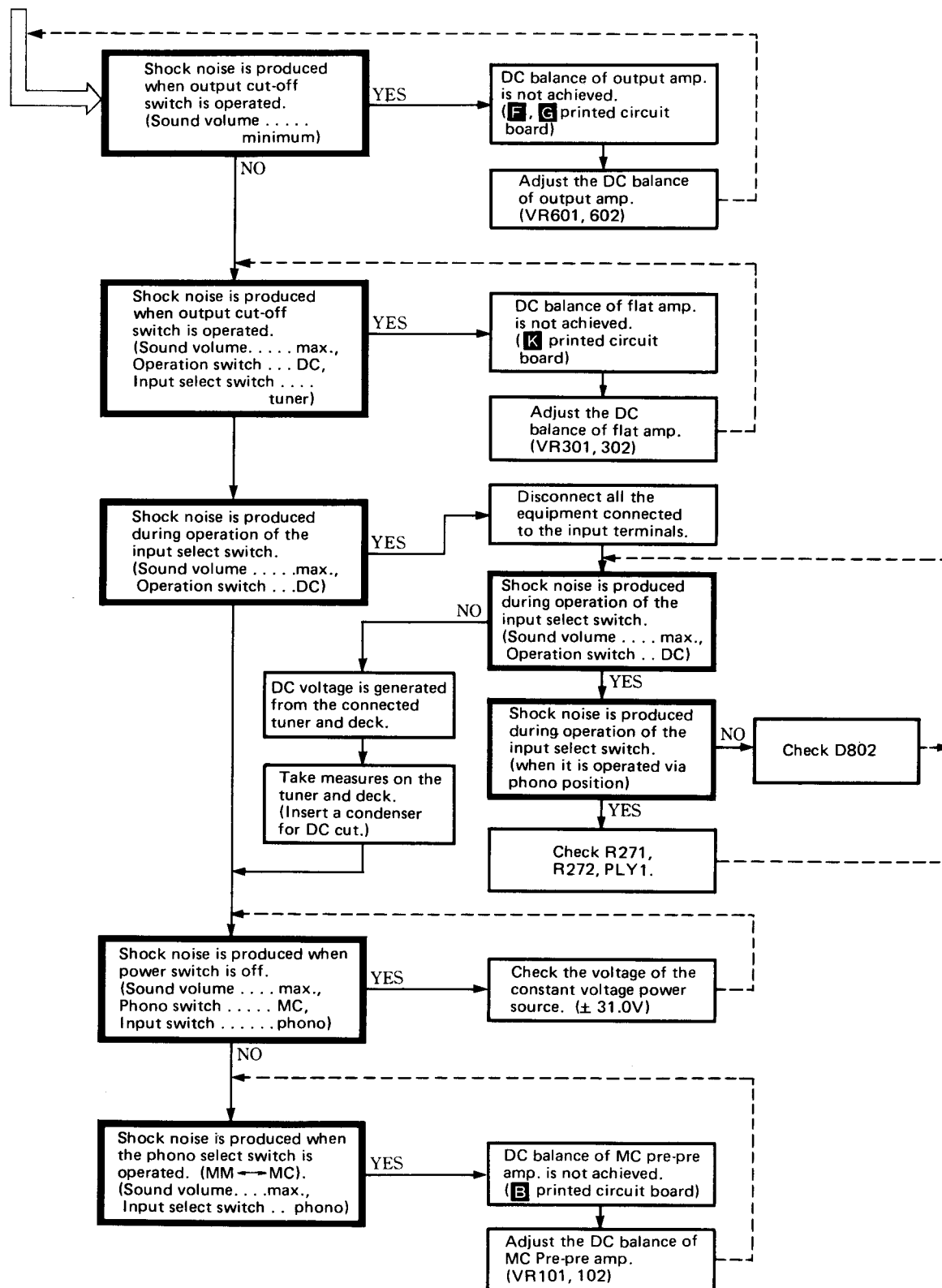
Ref. No.		Part No.	Part Name & Description			
R803		ERD25TJ393	Carbon,	39kΩ,	1/4W,	± 5%
R804		ERD25TJ684	Carbon,	680kΩ,	1/4W,	± 5%
R805		ERO25CKF3302	Metal Film,	33kΩ,	1/4W,	

■ TROUBLE SHOOTING

Measures against shock noise

Since this is a DC control amplifier, shock noise is produced during switch control if DC voltage is generated in the signal line. In that case, check it according to the following procedure.

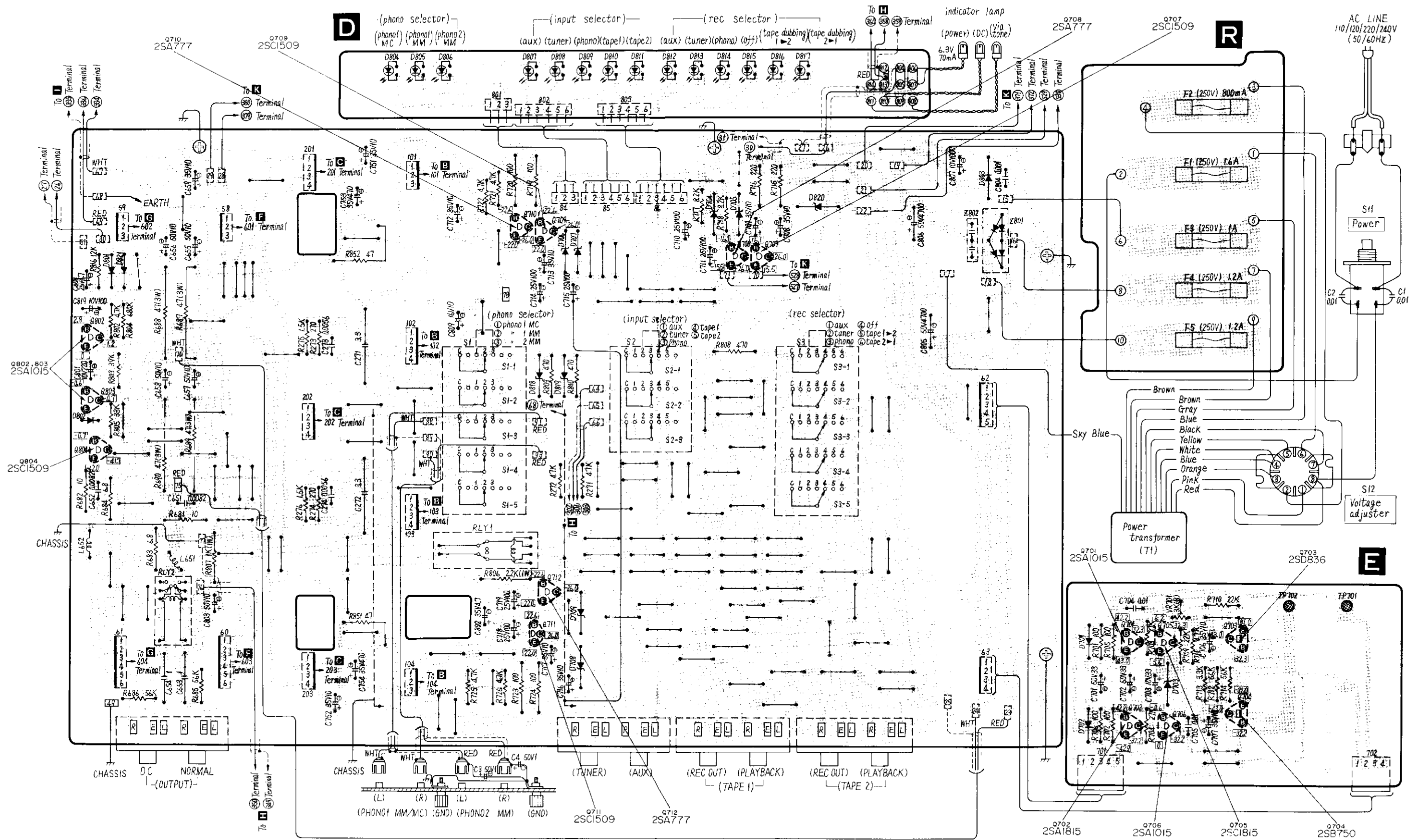
Shock noise is produced.



PRINTED CIRCUIT BOARD

(A) Selector switches & Relay drive circuits, (D) Indicators circuit, (E) Voltage regulator circuit, (R) Power source fuse circuit

Earth (Ground) Lines

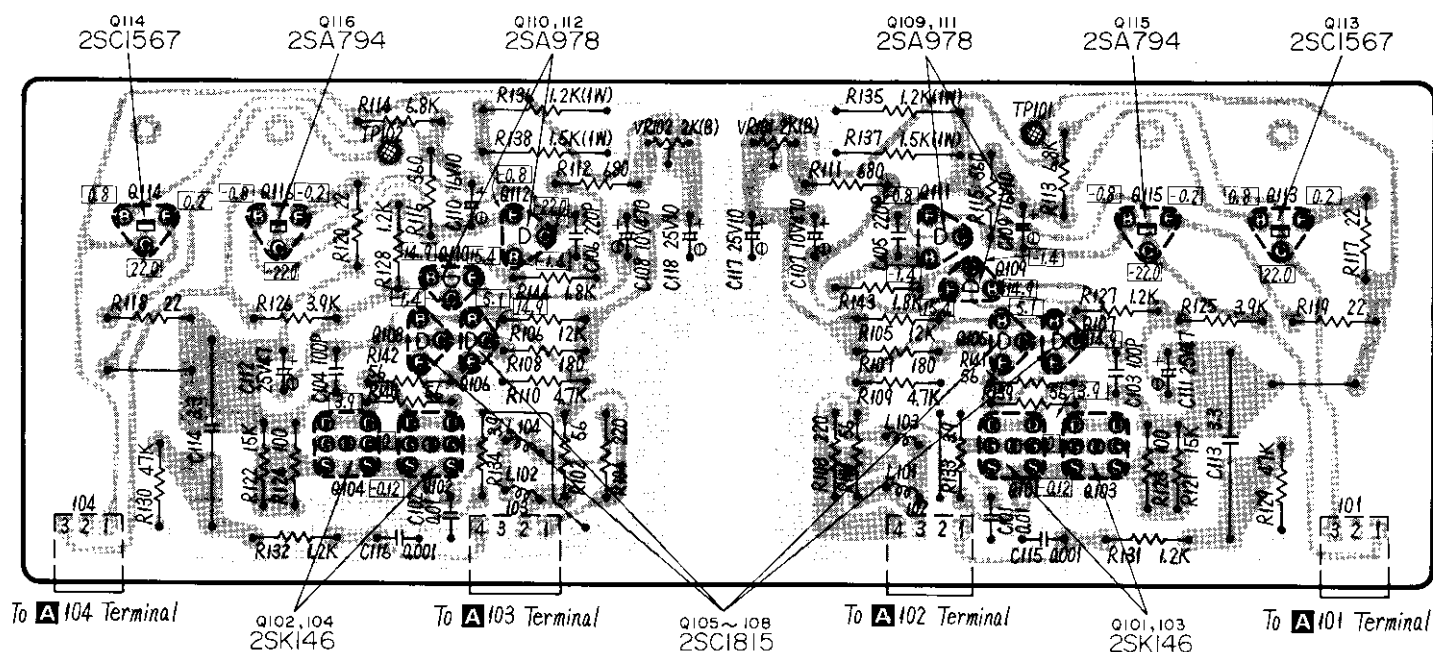


PRINTED CIRCUIT BOARD

Earth (Ground) Lines

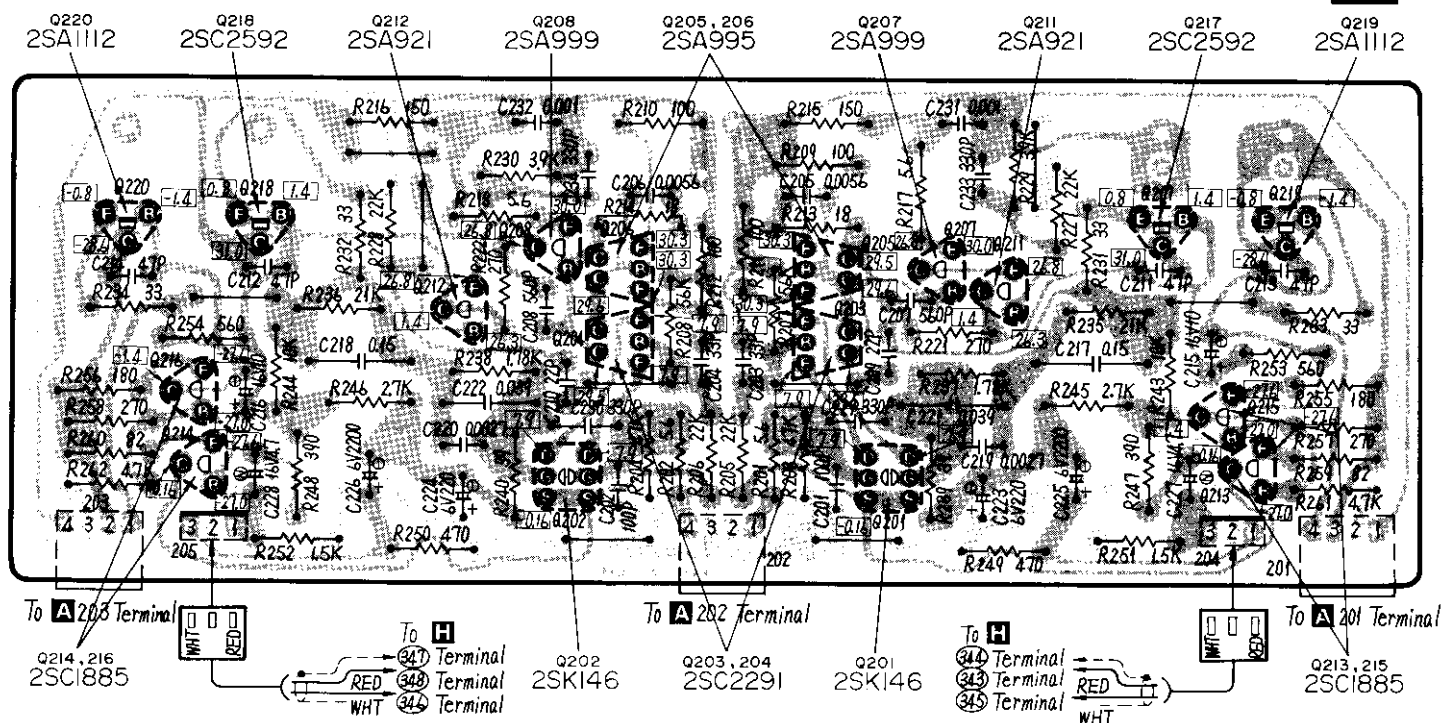
MC Pre-amplifier circuit

B



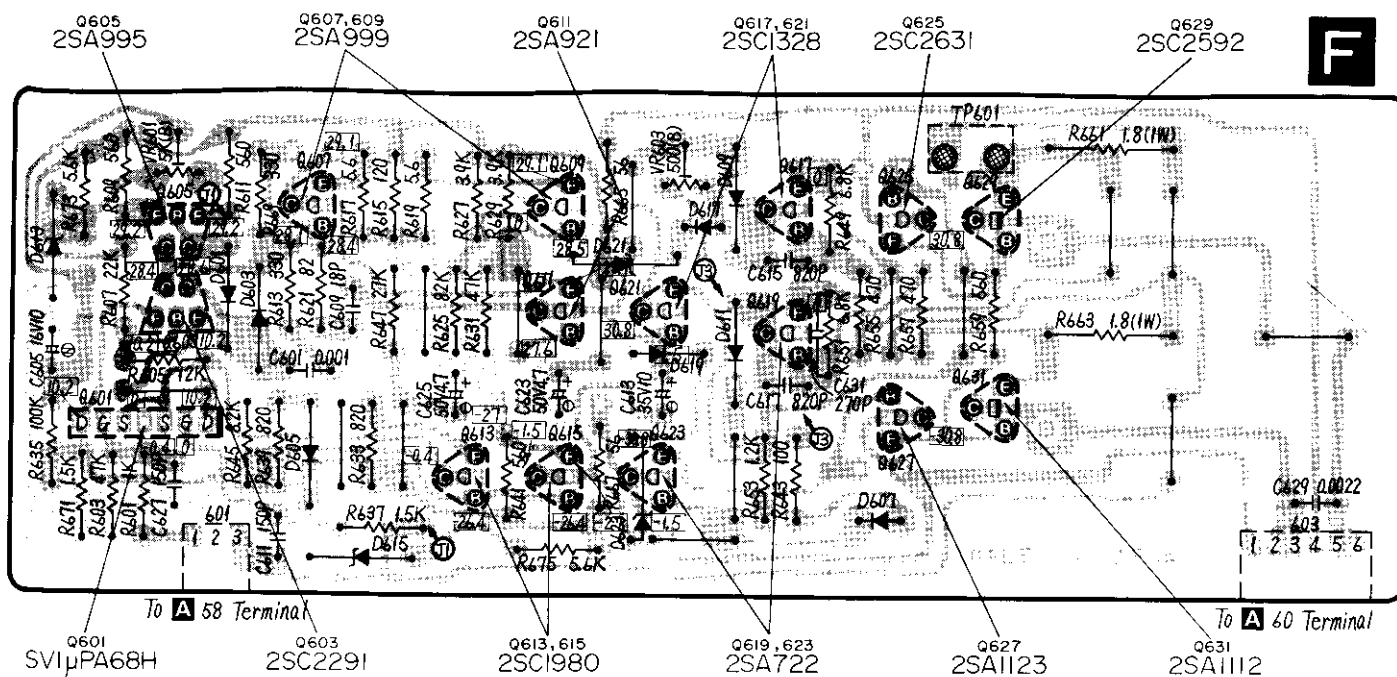
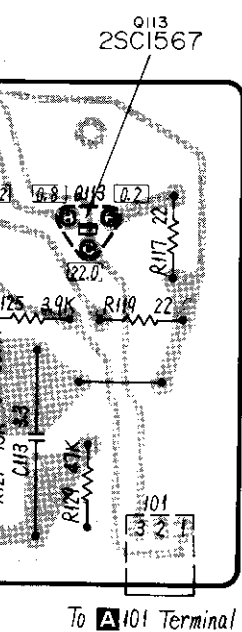
Equalizer circuit

C

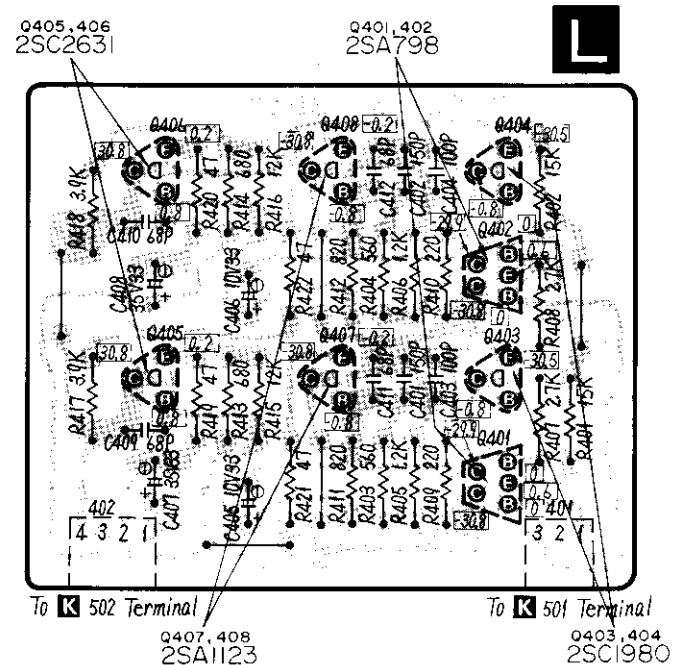


B

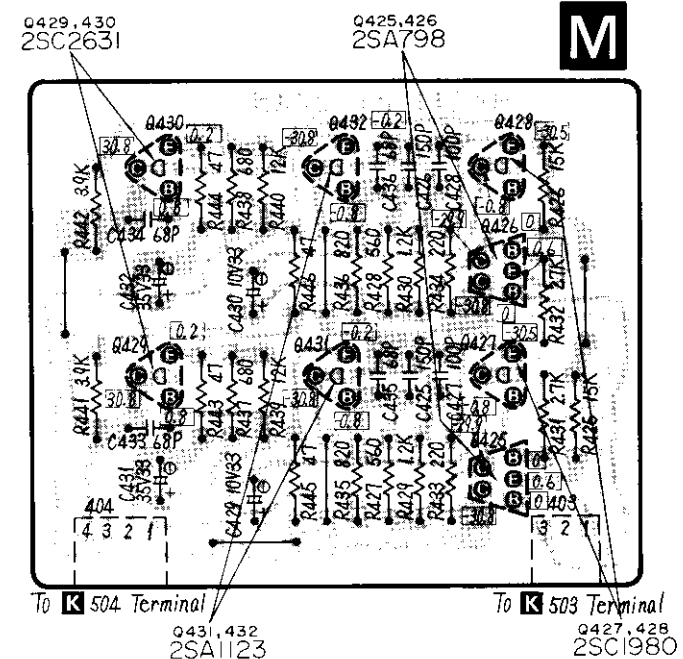
F



L

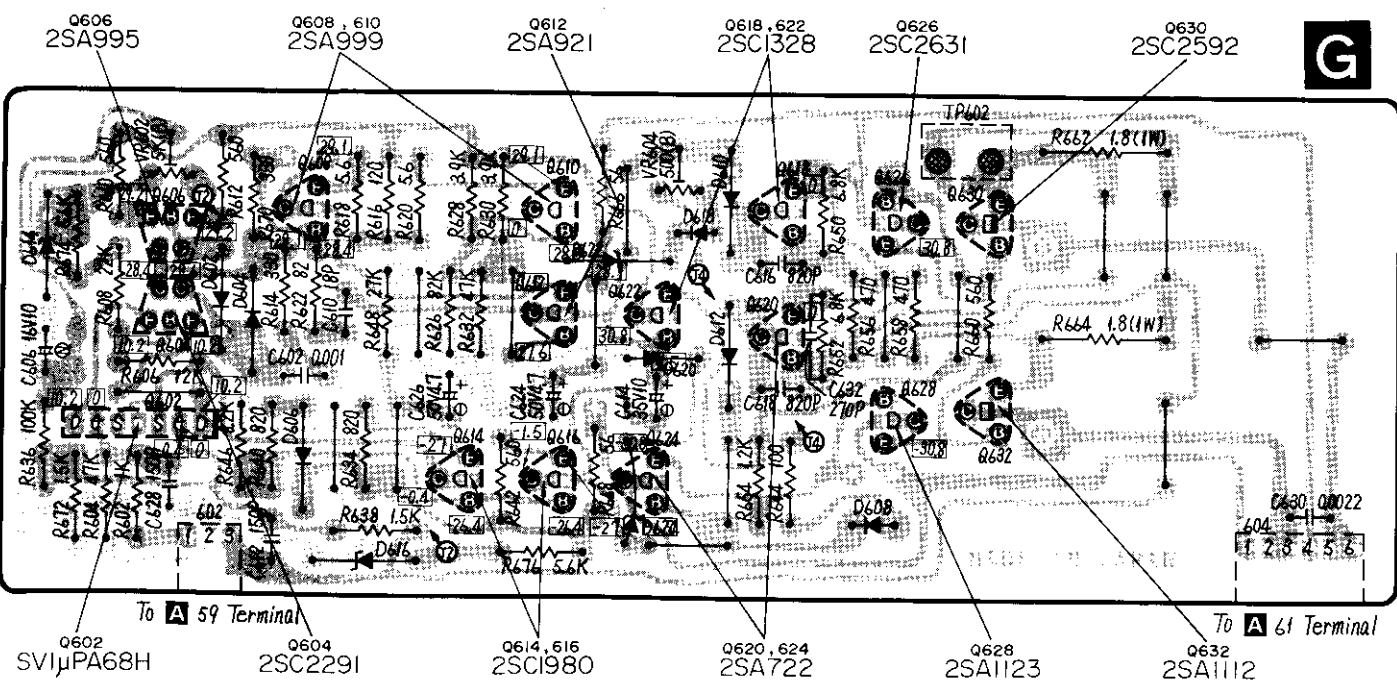
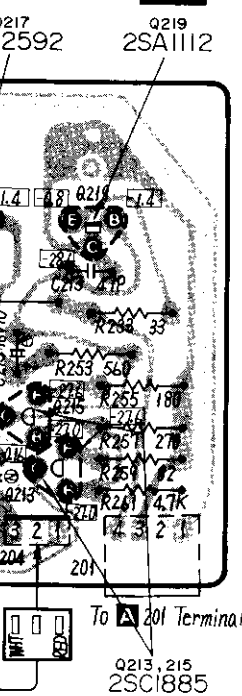


M

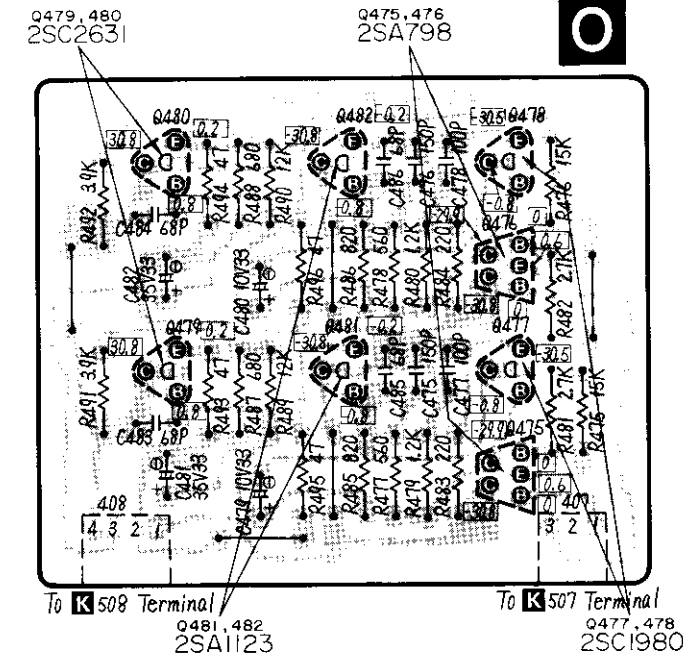
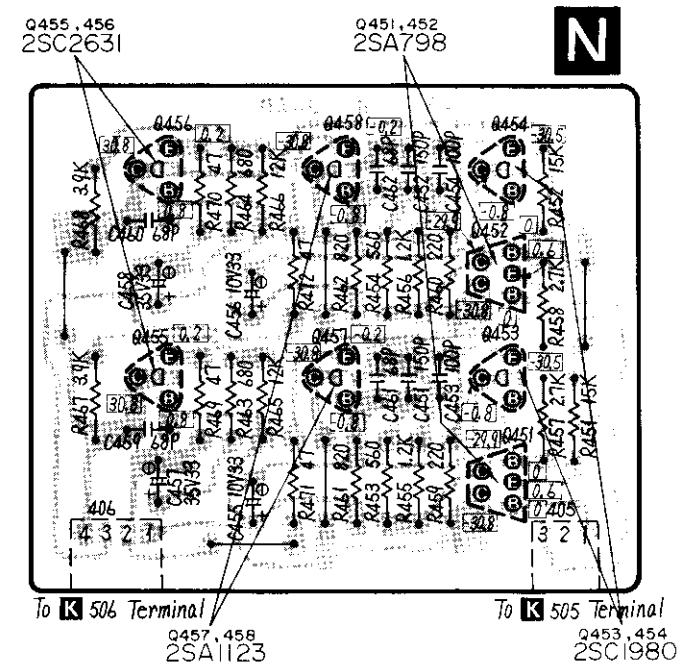


C

G

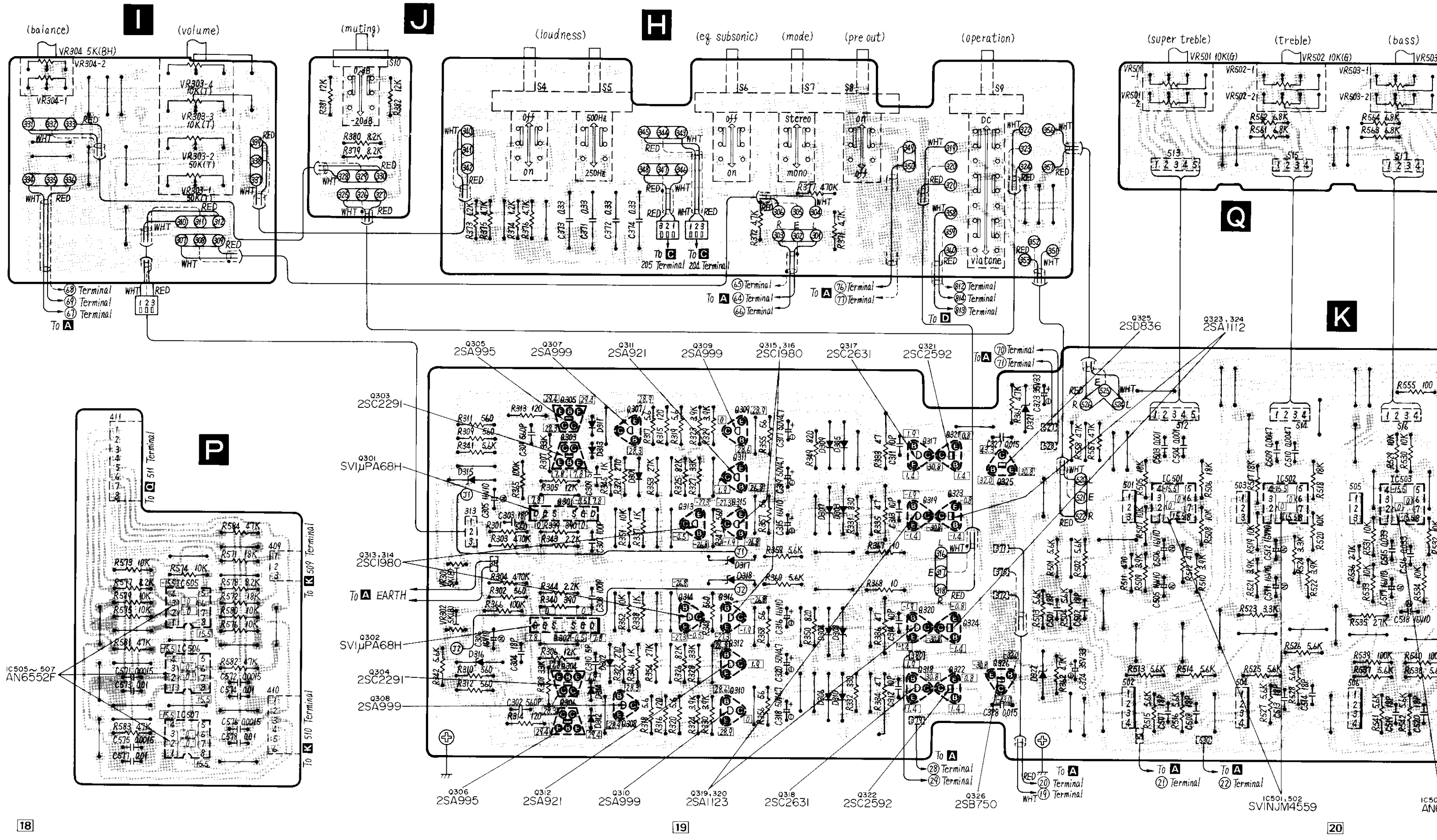


N



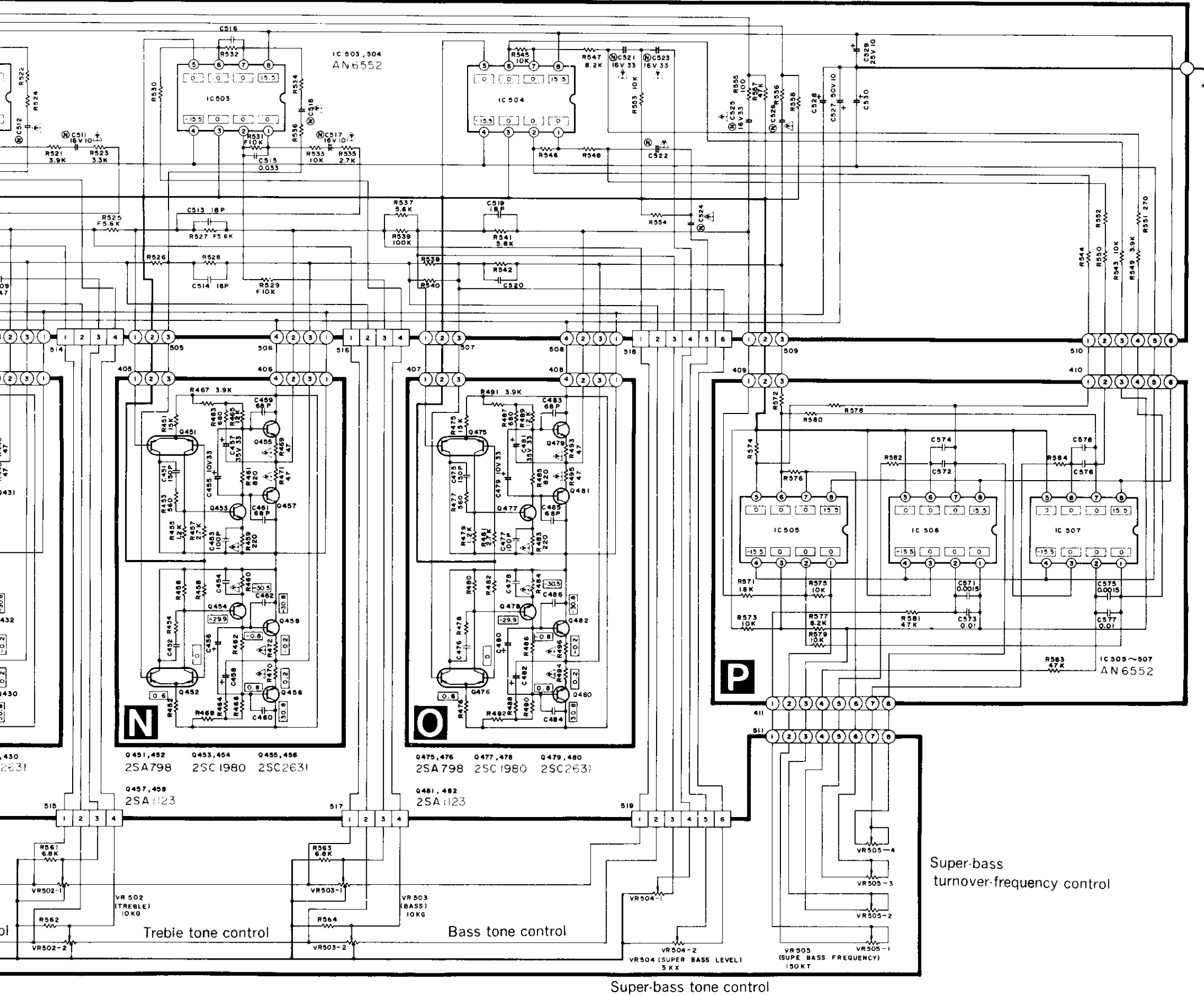
PRINTED CIRCUIT BOARD

(H) Operation switches circuit, (I) Volume & Balance control, (J) Muting switch, (K) Flat amplifier & Tone control circuits, (Q) Tone control volume

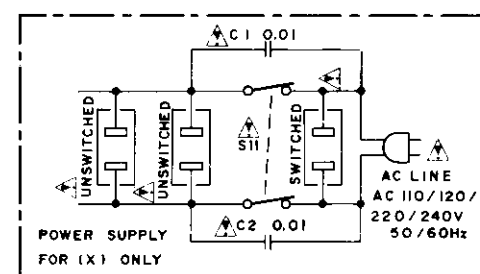
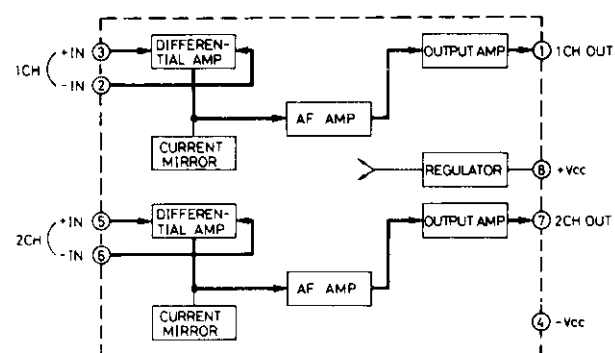


SVINJM4559DS	AN6552F
2SK146	2SA794, 2SC1567
SV1μPA68H	2SA978
2SA798	2SA995, 2SC2291
2SA1112, 2SC2592 2SB750, 2SD836	2SA722, 2SC1328 2SA777, 2SC1509 2SA921, 2SC1815 2SA999L, 2SC1885 2SA1015, 2SC1980 2SA1123, 2SC2631

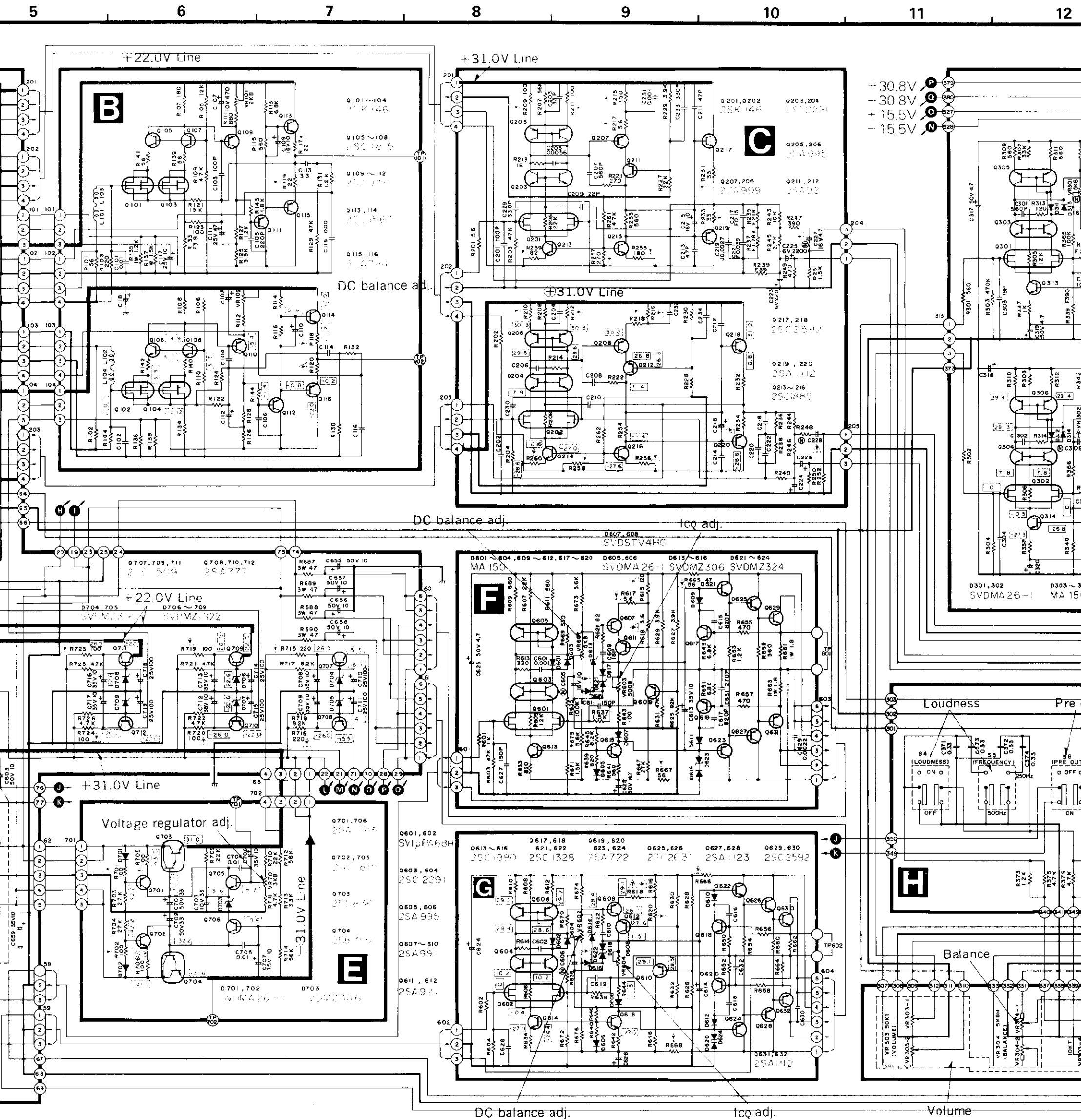




IC501, 502 (SVINJM4559)
IC503 ~ 507 (AN6552)



may be modified at any time with the development of new technology.)

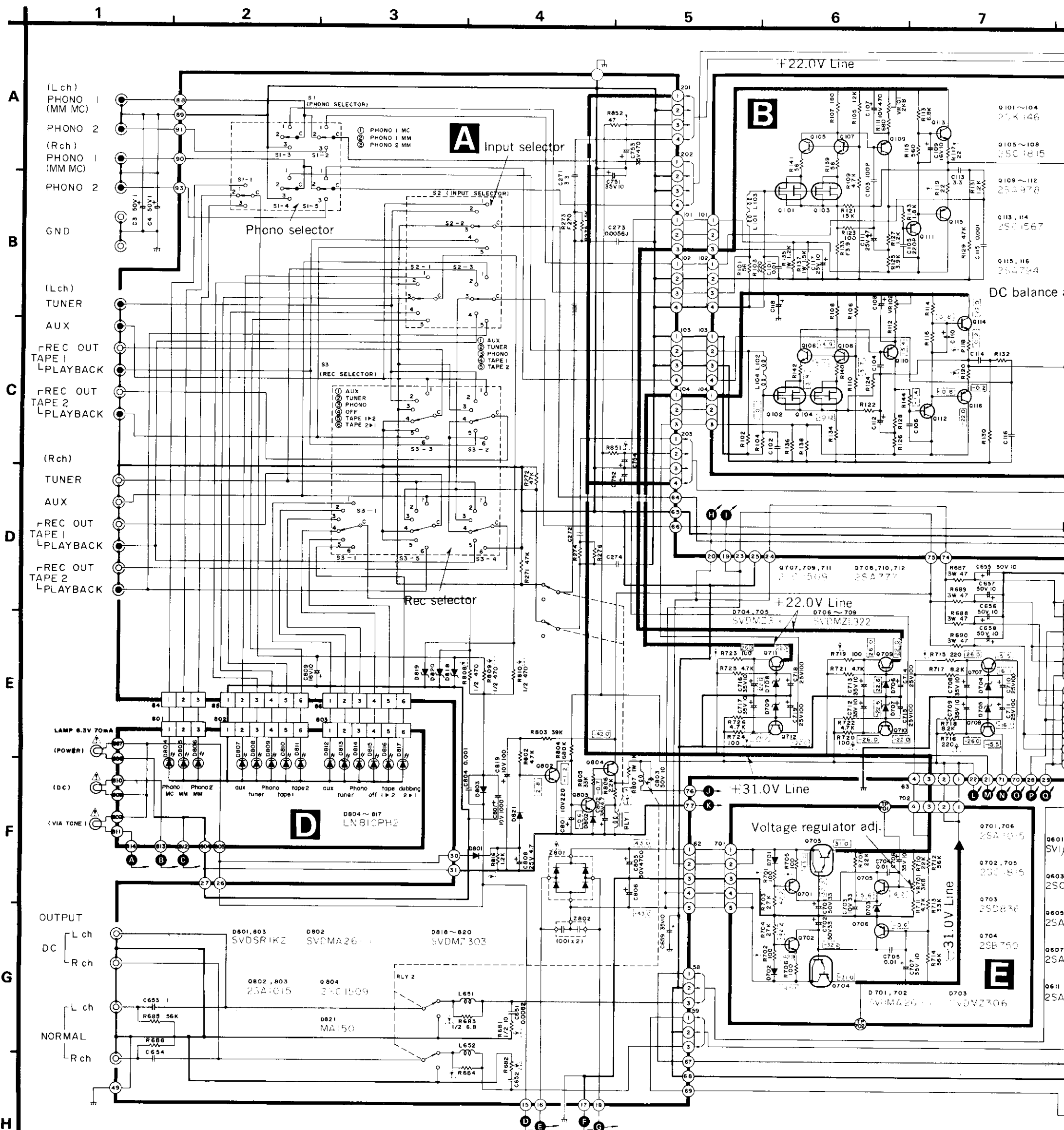


■ BLOCK DIAGRAM OF

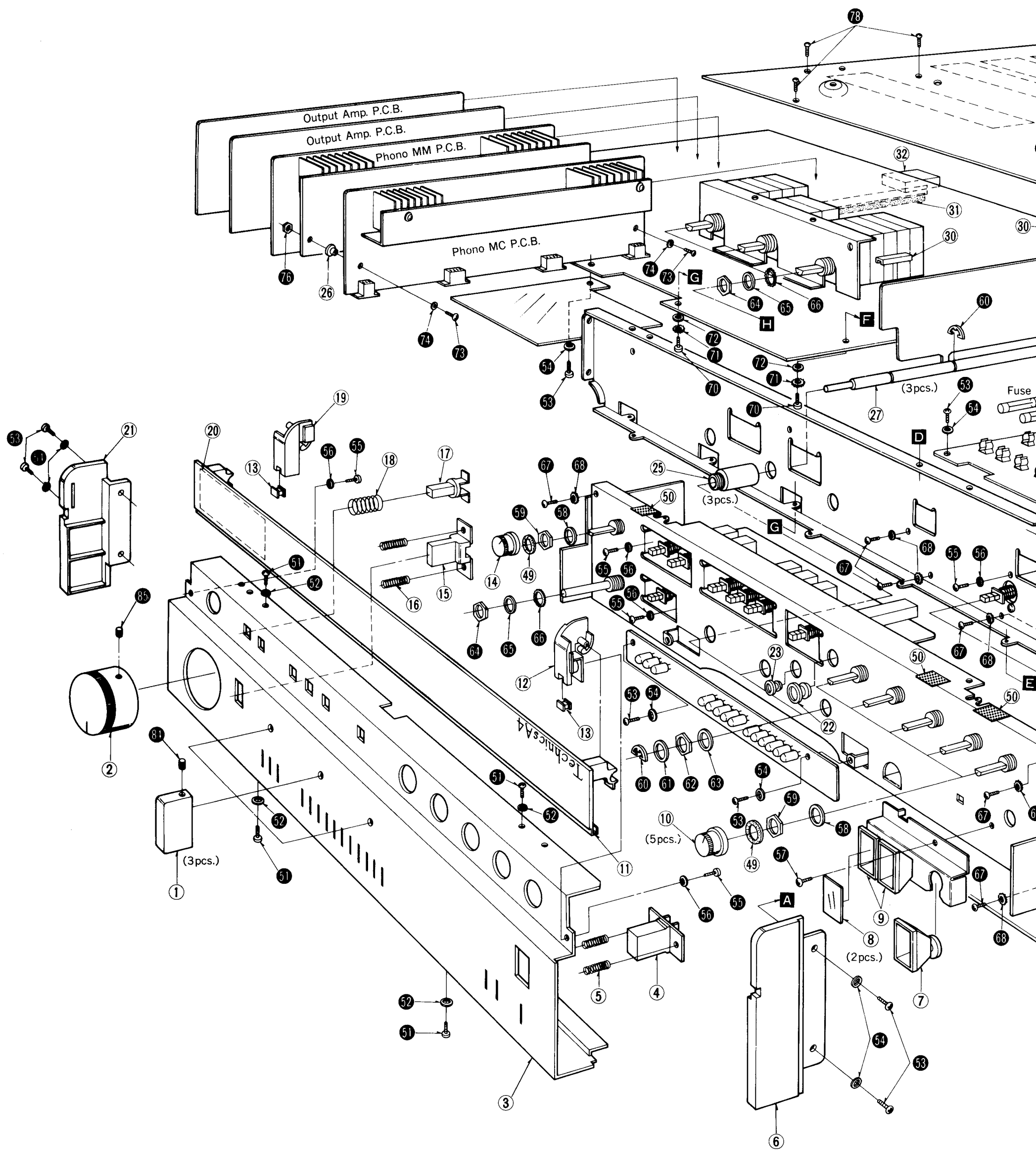
IC501, 502 (SVINJM4)
IC503~507 (AN6552)

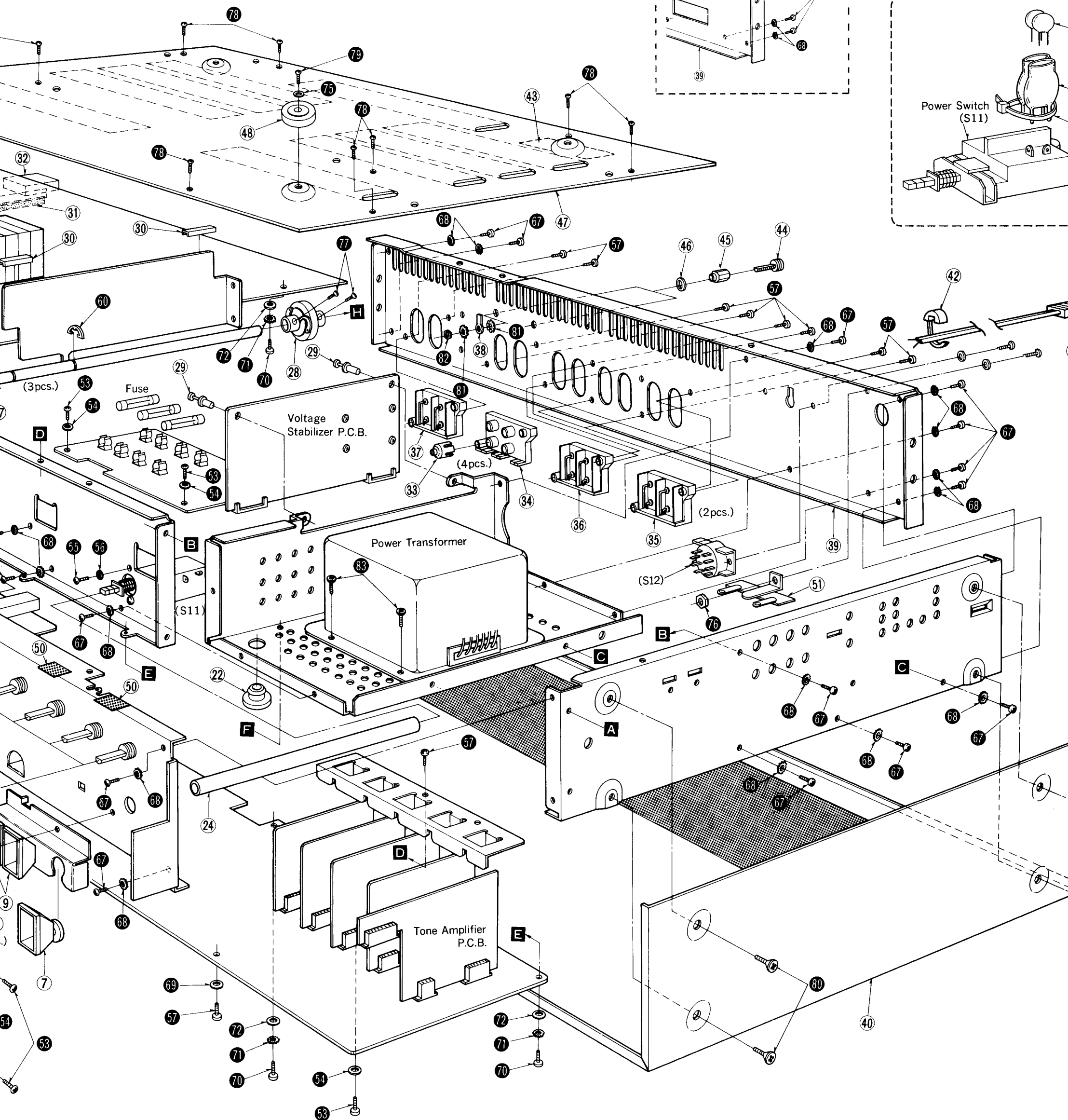
SU-A4K

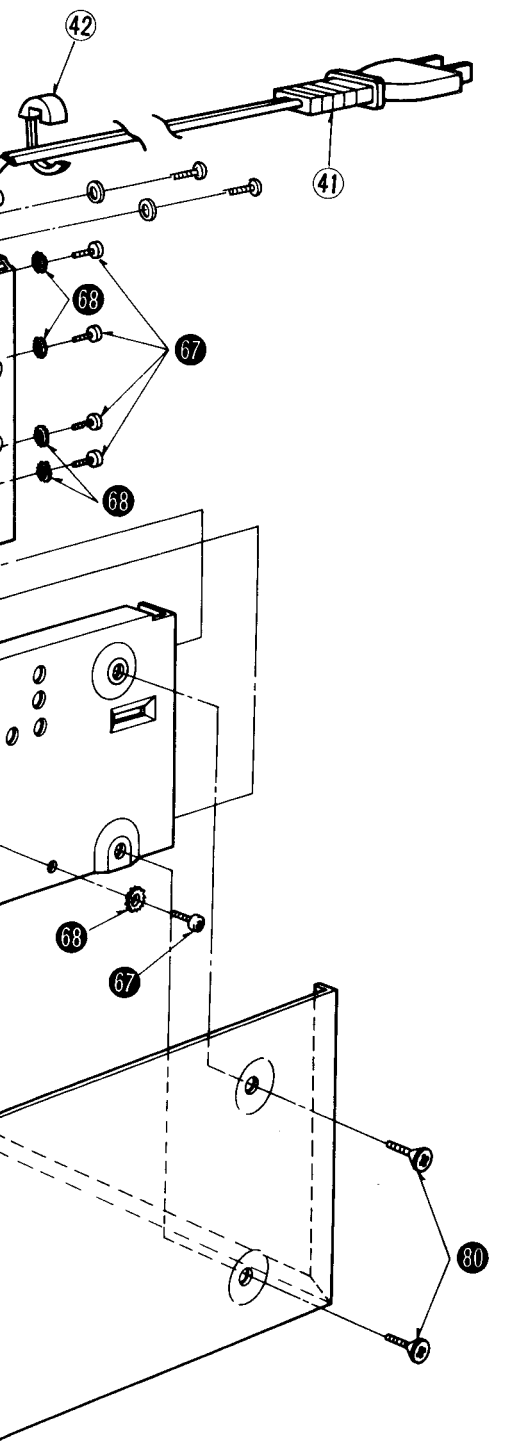
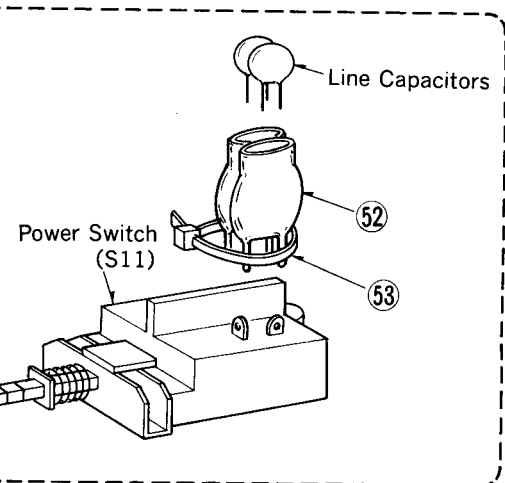
(This schematic diagram may be modified at any time with the development of new technology.)



■ EXPLODED VIEWS







SU-A4K SU

REPLACEMENT PARTS LIST (Cabinet and Chassis 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 manufacture be used for safety.
 3. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description
CABINET and CHASSIS PARTS		
1	SBN903-2	Knob, Phono Selector, Input Selector & Rec Selector
2	SBN905-1	Knob, Volume Control
3	SGWUA4N	Panel, Front Ass'y
4	SBC261	Button, Power Switch
5	SUS193	Spring, Power Switch
6	SGX6791	Ornament, Front Panel
7	SHG1081	Rubber Bracket, Power Indicator
8	SDE249	Filter, Operation Indicator
9	SHG1383-1	Rubber Bracket, Operation Indicator
10	SBN907-1	Knob, Tone Controls
11	SGWUA4KE	Panel, Front Panel (Door)
12	SBH9185	Hinge, Front Panel (Door)
13	SHG1553	Rubber Cushion, Hinge
14	SBN907-1	Knob, Balance Control
15	SBC219-1	Button, Audio Muting Switch
16	SUS159	Spring, Audio Muting Switch
17	SBC263	Button, Push Switches
18	SUS123-2	Spring, Push Switches
19	SBH9187	Hinge, Front Panel (Door)
20	SGK1461-1	Label, Operation
21	SGX6789	Ornament, Front Panel
22	RHR110	Bushing, Lead Wire
23	RHR109	Bushing, Lead Wire
24	SUB43	Coupling Rod, Power Switch
25	SDX265-2	Mounting, Shaft
26	SHR9339	Spacer, Phono MC Amplifier P.C.B.
27	SUB41-1	Shaft, Selector Switches
28	SUB45	Coupler, Selector Switches Shaft
29	SHR401-1	Latch, P.C.B. M'tg
30	SHG1379-3	Rubber Cushion
31	SHG1511-1	Rubber Cushion
32	SHG6013-1	Rubber Cushion
33	SJP1103-1	Pin Plug, Phono Input Terminal
34	SJF2431SA	Terminal, Phono
35	SJF3431-1SA	Terminal, Tape 1 and Tape 2
36	SJF3431SA	Terminal, Tuner and Aux
37	SJF3431A	Terminal, Output
38	RJT204A	Lug, Earth Terminal
39 [E] only	SGP2170-2A	Rear Panel
39 [XA] only	SGP2170-3A	Rear Panel
39 [Other Areas]	SGPUA4KG	Rear Panel
40	SKCUA4N	Cabinet
41 [Other Areas]	Δ SJA88	AC Cord, Power Source
41 [XE] only	Δ QFC1205M	AC Cord, Power Source
41 [XA] only	Δ SJA121	AC Cord, Power Source
42 [XE] only	SHR129	Bushing, AC Cord
42 [Other Areas]	SHR127	Bushing, AC Cord
43	SMX371	Sheet, Shield
44	SNEA204-1S	Terminal, Earth (GND)
45	SNE4017-1	Terminal, Earth (GND)
46	SNTA421-1	Washer, Earth Terminal
47	SKU8290-1	Bottom Board
48	SKL247	Foot
49	SHG1567	Cover, Volume
50	SHR5039	Spacer, Volume Cover
51	SJR205	Terminal, 2 Pin (Except [XA])
52	SMXA65	Cover, Line Capacitors
53	SHR301	Clamper, Wire
54 [XA] only	Δ SJA66-2	Socket, AC Outlets

Ref. No.	Part No.	Part Name & Description
SCREWS, NUTS and WASHERS		
1	XSN3+8BVS	Screw, $\oplus$ 3 + 8 (Front Panel)
2	XWA3B	Washer, Spring, ϕ 3 (Front Panel)
3	XTV3+8BFZ	Screw, $\oplus$ 3 + 8
4	XWG3FZ	Washer, Plain, ϕ 3
5	XSN3+6S	Screw, $\oplus$ 3 + 6 (Switches)
6	XWA3B	Washer, Spring, ϕ 3 (Switches)
7	XTB3+8BFZ	Screw, Tapping, $\oplus$ 3 + 8
8	XWA8B	Washer, Spring, ϕ 8
9	XNS8	Nut, M8
10	XUC5FT	Circlip
11	SNE81	Washer
12	XNS9	Nut, M9
13	SNE31	Washer
14	XNS8	Nut, M8
15	XWA8B	Washer, Spring, ϕ 8
16	XWC8B	Washer, Toothed Lock, ϕ 8
17	XTB3+8BFZ	Screw, Tapping, $\oplus$ 3 + 8
18	XWC3B	Washer, Toothed Lock, ϕ 3
19	SNW429-1	Washer
20	XTB3+8BFN	Screw, Tapping, $\oplus$ 3 + 8
21	XWC3B	Washer, Toothed Lock ϕ 3
22	XWG3FN	Washer, Plain, ϕ 3
23	XSN3+10S	Screw, $\oplus$ 3 + 10
24	XWA3B	Washer, Spring, ϕ 3
25	XWG3FZ	Washer, Plain, ϕ 3
26	XNG3ES	Nut, M3
27	XXAS3K5S	Screw, (Coupler)
28	XTB3+8BFZ	Screw, Tapping, $\oplus$ 3 + 8
29	XTB3+10BFZ	Screw, Tapping, $\oplus$ 3 + 10
30	XSS5+12F1S	Screw, $\oplus$ 5 + 12 (Cabinet)
31	XWC4B	Washer, Toothed Lock, ϕ 4
32	XNG4ES	Nut, M4 (Earth Terminal)
33	XTB4+8BFZ	Screw, Tapping, $\oplus$ 4 + 8
34	XXE3D5FZ	Screw, (Selector Knob)
35	XXE4D5FZ	Screw, (Volume Control Knob)
ACCESSOIRES		
A1	SJP2237-1	Cord, Stereo Pin-Type Connection
A2 [XA] only	Δ RJP74-1	Plug Adaptor, AC Power
A3 [XA] only	Δ RJP75	Plug Adaptor, AC Power
PACKING PARTS		
P1	SPP661	Polyethylene Bag
P2	SPE313	Pad, Front Panel (Door)
P3	SPE315	Pad, AC Cord
P4	SPJ15	Polyethylene Bag (AD Plug)
P5	SPS2567-1	Pad, Left Side
P6	SPS2569-1	Pad, Right Side
P7	SPS2813	Pad, Top Side
P8	SPG2699	Carton Box
P8 [XGF] only	SPG2689	Carton Box
P9	SQF10567	Instructions Book, Printed Matter
P9 [XA] only	SQF10575	Instructions Book, Printed Matter

Areas

- * [E] and [EG] are available in Scandinavia and European except Belgium, United Kingdom, Switzerland, Holland and France.
- * [EB] is available in Belgium.
- * [XE] is available in United Kingdom.
- * [XGH] is available in Holland.
- * [XGF] is available in France.
- * [XA] is available in Asia, Latin America, Middle East and Africa.

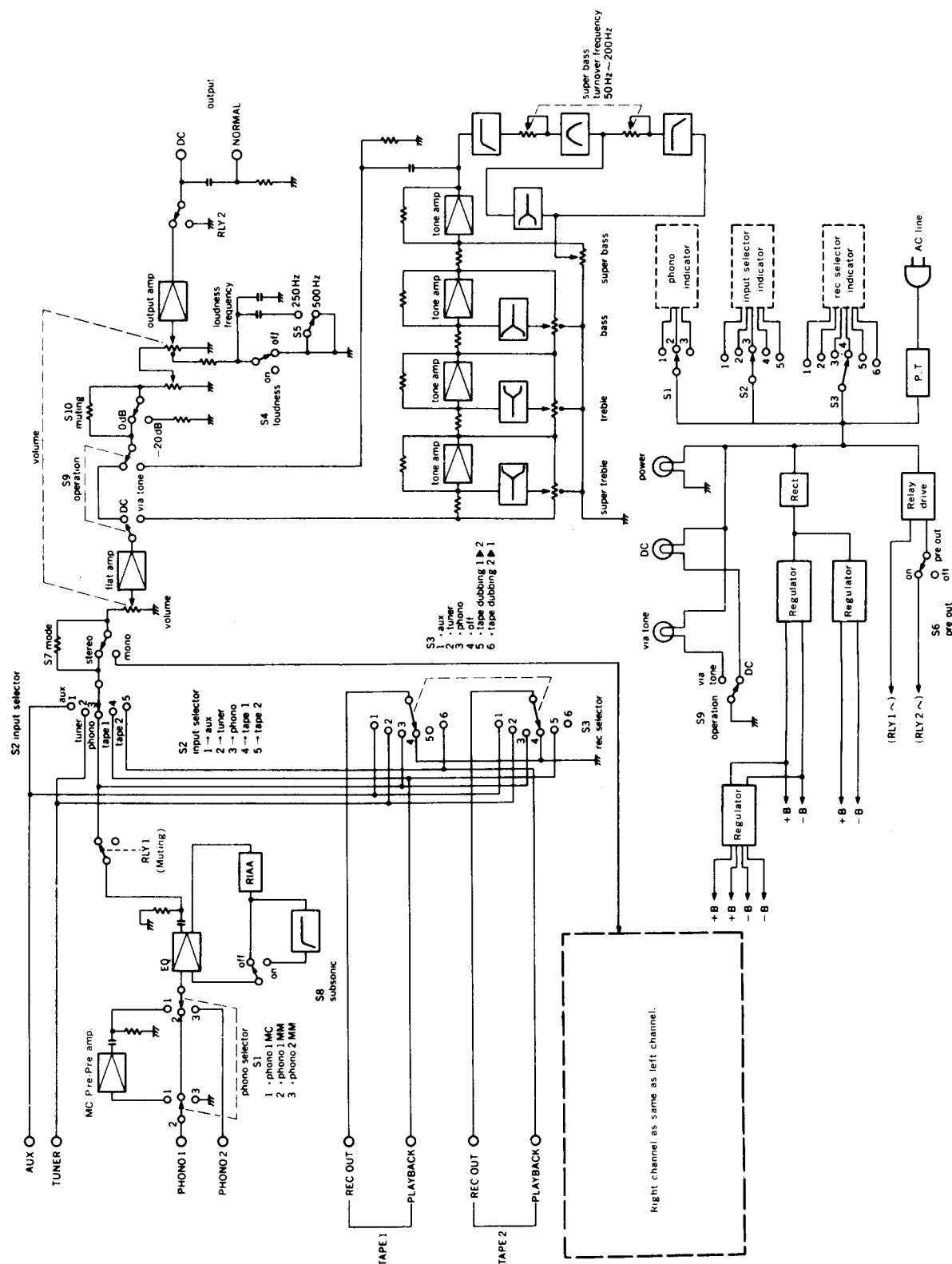
SU-A4K SU-A4K

Cabinet and Chassis Parts)

Please use this part number for parts orders.
 Part number must be used for safety.
 The area. Parts without these indications can be

■ BLOCK DIAGRAM

Ref. No.	Part No.	Part Name & Description
SCREWS, NUTS and WASHERS		
①	XSN3+8BVS	Screw, $\oplus$ 3 + 8 (Front Panel)
②	XWA3B	Washer, Spring, ϕ 3 (Front Panel)
③	XTV3+8BFZ	Screw, $\oplus$ 3 + 8
④	XWG3FZ	Washer, Plain, ϕ 3
⑤	XSN3+6S	Screw, $\oplus$ 3 + 6 (Switches)
⑥	XWA3B	Washer, Spring, ϕ 3 (Switches)
⑦	XTB3+8BFZ	Screw, Tapping, $\oplus$ 3 + 8
⑧	XWA8B	Washer, Spring, ϕ 8
⑨	XNS8	Nut, M8
⑩	XUC5FT	Circclip
⑪	SNE81	Washer
⑫	XNS9	Nut, M9
⑬	SNE31	Washer
⑭	XNS8	Nut, M8
⑮	XWA8B	Washer, Spring, ϕ 8
⑯	XWC8B	Washer, Toothed Lock, ϕ 8
⑰	XTB3+8BFZ	Screw, Tapping, $\oplus$ 3 + 8
⑱	XWC3B	Washer, Toothed Lock, ϕ 3
⑲	SNW429-1	Washer
⑳	XTB3+8BFN	Screw, Tapping, $\oplus$ 3 + 8
㉑	XWC3B	Washer, Toothed Lock ϕ 3
㉒	XWG3FN	Washer, Plain, ϕ 3
㉓	XSN3+10S	Screw, $\oplus$ 3 + 10
㉔	XWA3B	Washer, Spring, ϕ 3
㉕	XWG3FZ	Washer, Plain, ϕ 3
㉖	XNG3ES	Nut, M3
㉗	XXAS3K5S	Screw, (Coupler)
㉘	XTB3+8BFZ	Screw, Tapping, $\oplus$ 3 + 8
㉙	XTB3+10BFZ	Screw, Tapping, $\oplus$ 3 + 10
㉚	XSS5+12F1S	Screw, $\oplus$ 5 + 12 (Cabinet)
㉛	XWC4B	Washer, Toothed Lock, ϕ 4
㉜	XNG4ES	Nut, M4 (Earth Terminal)
㉝	XTB4+8BFZ	Screw, Tapping, $\oplus$ 4 + 8
㉞	XXE3D5FZ	Screw, (Selector Knob)
㉟	XXE4D5FZ	Screw, (Volume Control Knob)
ACCESSOIRES		
A1	SJP2237-1	Cord, Stereo Pin-Type Connection
A2 [XA] only	RJP74-1	Plug Adaptor, AC Power
A3 [XA] only	RJP75	Plug Adaptor, AC Power
PACKING PARTS		
P1	SPP661	Polyethylene Bag
P2	SPE313	Pad, Front Panel (Door)
P3	SPE315	Pad, AC Cord
P4	SPJ15	Polyethylene Bag (AD Plug)
P5	SPS2567-1	Pad, Left Side
P6	SPS2569-1	Pad, Right Side
P7	SPS2813	Pad, Top Side
P8	SPG2699	Carton Box
P8 [XGF] only	SPG2689	Carton Box
P9	SQF10567	Instructions Book, Printed Matter
P9 [XA] only	SQF10575	Instructions Book, Printed Matter



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