

Service Manual

Stereo DC Control Amplifier SU-A4MK2

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



Areas

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

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 2.5 mV	0.006% (0.001%, 2V output at vol. max.)
PHONO MC 250 μ F	0.01% (0.001%, 2V output at vol. max.)
TUNER, AUX, CD, VIDEO, TAPE 1, TAPE 2	0.006% (0.001%, 2V output at vol. max.)
Input sensitivity and impedance	
PHONO 1 MM	1 mV/47k Ω
	2.5 mV/47k Ω
PHONO 1 MC	70 μ V/30 Ω
	250 μ V/470 Ω
PHONO 2 MM	2.5 mV/47k Ω
TUNER	150 mV/47k Ω
AUX/CD/VIDEO	150 mV/47k Ω
TAPE 1, 2	150 mV/47k Ω
PHONO maximum input voltage	
MM	160 mV
MC	16 mV
S/N	
PHONO MM	79 dB (92 dB, IHF, A)
MC	74 dB (82 dB, IHF, A)
TUNER, AUX/CD/VIDEO, TAPE 1, TAPE 2	100 dB (IHF, A: 106 dB)
Frequency response	
PHONO MM	RIAA standard curve ± 0.15 dB (20 Hz~20 kHz)
PHONO MC	RIAA standard curve ± 0.2 dB (20 Hz~100 kHz)
TUNER, AUX/CD/VIDEO, TAPE 1, TAPE 2	DC~20 kHz (+0 dB, -0.1 dB) DC~200 kHz (+0 dB, -3 dB)

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)	0 dB~+10 dB
Turnover frequency	
SUPER TREBLE	8 kHz
TREBLE	2 kHz
SUPER BASS (12 dB/oct)	75 Hz, 150 Hz
BASS	500 Hz
Subsonic filter	20 Hz, -12 dB/oct.
High-cut filter	7 kHz, -6 dB/oct.
Loudness control (volume at -30 dB)	50 Hz, +7 dB
Muting	-20 dB
Output voltage and impedance	
PRE OUT	rated 2V/2 Ω max. 8V/2 Ω
TAPE 1, 2 REC OUT	150 mV/600 Ω

GENERAL

Power consumption	15W
Power supply	AC 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensions (W×H×D)	430 × 97 × 330 mm (16-15/16" × 3-13/16" × 13")
Weight	8 kg (17.6 lb.)

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

SU-A4MK2

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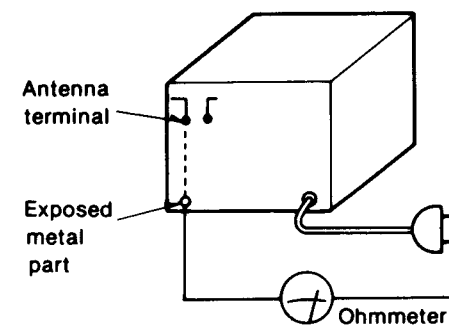
SAFETY PRECAUTIONS

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from electric shock hazard.

INSULATION RESISTANCE TEST

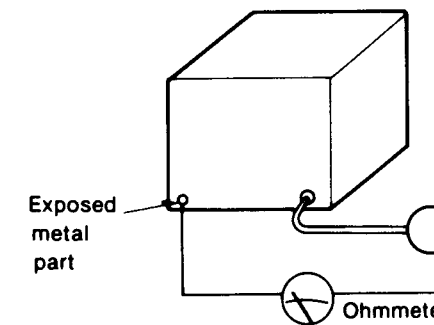
1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3M Ω and 5.2M Ω to all exposed parts. (Fig. A) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. B)

Note: Some exposed parts may be isolated from the chassis by design. These will read infinity.



(Fig. A)

Resistance = 3M Ω —5.2M Ω

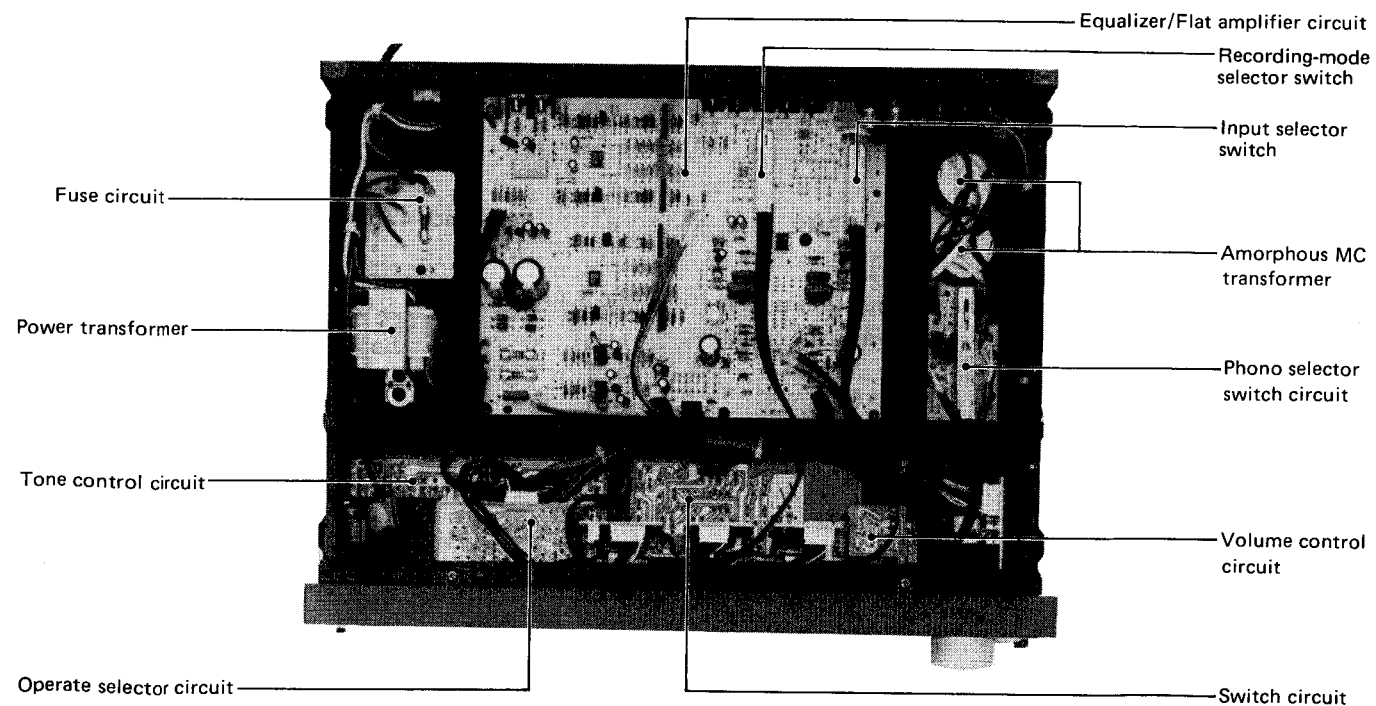
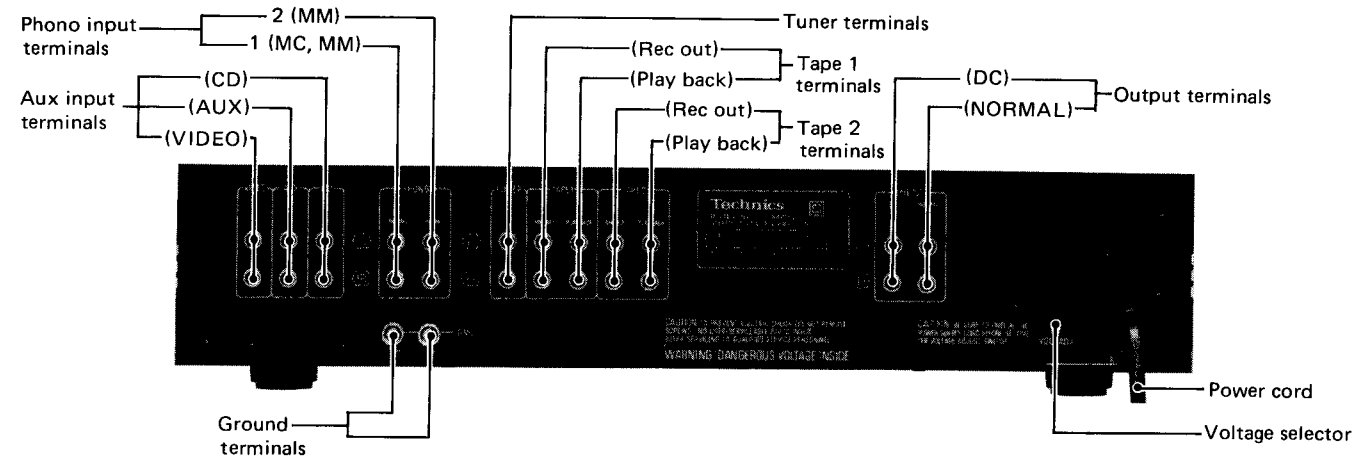
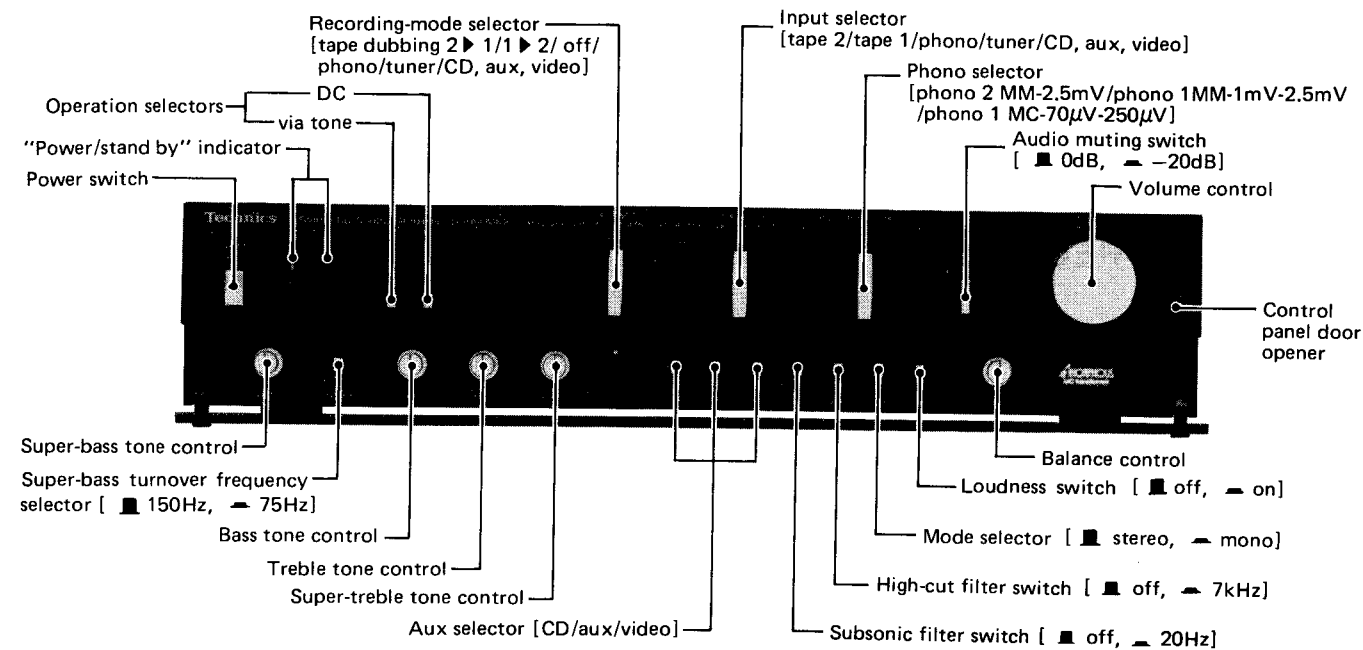


(Fig. B)

Resistance = Approx ∞

4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

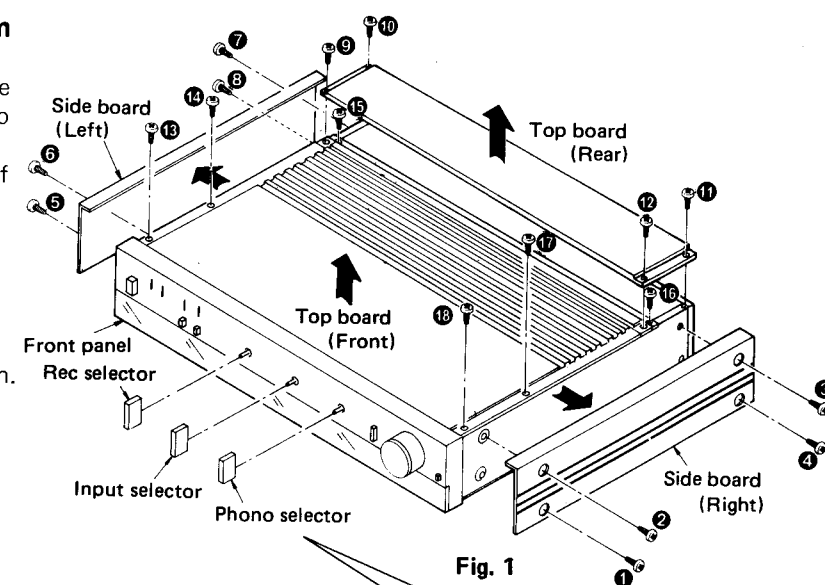
LOCATION OF CONTROLS



DISASSEMBLY INSTRUCTIONS

How to remove the side, top and bottom board.

1. Remove the 8 setscrews [Fig. 1: ① ~ ⑧] of side board and 10 setscrews [Fig. 1: ⑨ ~ ⑱] of top board.
2. Remove the 11 setscrews [Fig. 2: ⑲ ~ ⑳] of bottom board.

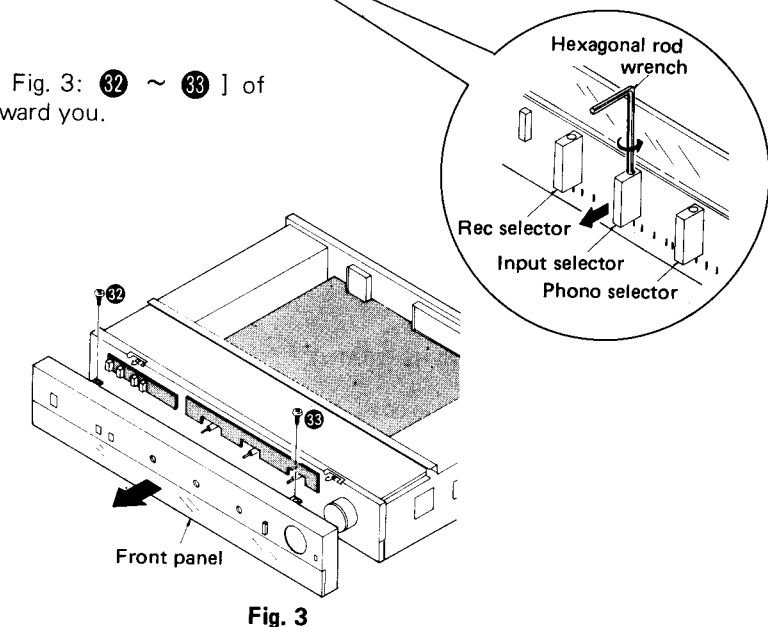
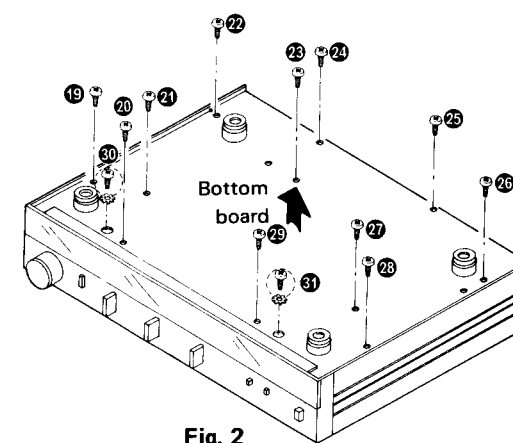


Note

Remove the screws by using the hexagonal rod wrench, when the knob in the front panel has to be removed.

How to remove the front panel

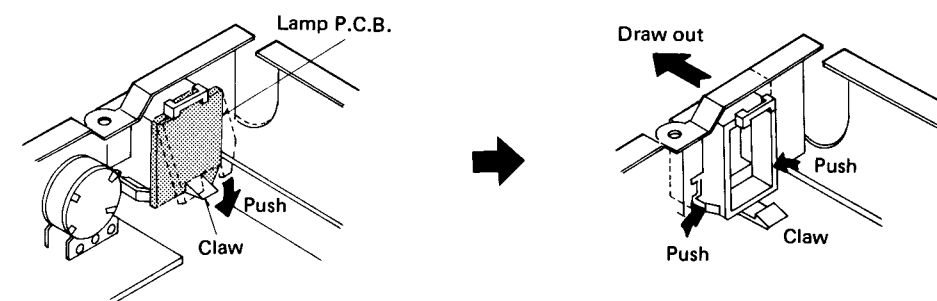
1. Remove the side and top boards.
2. Remove the 4 (red) setscrews [Fig. 2: ⑳ ~ ㉑, Fig. 3: ㉒ ~ ㉓] of front panel, and carefully pull out the volume knob toward you.



Note) Remove the screw in the circle (broken line) when the front panel has to be removed.

How to remove the lamp holder [Fig. 4]

1. Remove the bottom board and front panel.
2. Remove the lamp board and holder.



Stereo DC Control Amplifier

SU-A4MK2

- This booklet contains the specifications and adjusting procedures for SU-A4MK2, written Germany, French and Spanish.
- File this manual together with the SU-A4MK2 service manual (Order No. SD83062524C8).
- Diese Broschüre enthält die technischen Daten und die Beschreibungen der Justiermethoden für SU-A4MK2 in deutscher, französischer und spanischer Sprache.
- Bewahren Sie das Büchlein zusammen mit der Bedienungsanleitung für SU-A4MK2 (Bestell-Nr. SD83062524C8) auf.
- Cette brochure contient les spécifications et les procédures de réglage pour le SU-A4MK2, écrites en allemand, en français et en espagnol.
- Classer ce manuel en même temps qu'avec le manuel de service du SU-A4MK2 (N° d'ordre : SD83062524C8).
- Este librito contiene las especificaciones y procedimientos de ajuste para SU-A4MK2, escritas en alemán, francés y español.
- Guardar este manual juntamente con el manual de servicio de SU-A4MK2 (Pedido N°. SD83062524C8).

DEUTSCH

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

(DIN 45 500)

■ VERSTÄRKERTEIL

Gesamtklirrfaktor (20 Hz~20 kHz)

Phono - magnetisch (PHONO MM) 2,5 mV	0,006%
(0,001%, 2 V Ausgangsspannung bei Höchstleistung)	
Phono - dynamisch (PHONO MC) 250 μ F	0,01%
(0,001%, 2 V Ausgangsspannung bei Höchstleistung)	
Tuner, Aux, CD, VIDEO, Tape 1, Tape 2	0,006%
(0,001%, 2 V Ausgangsspannung bei Höchstleistung)	

Eingangsempfindlichkeit und -impedanz

Phono 1 magnetisch (PHONO 1 MM)	1 mV/47 k Ω
	2,5 mV/47 k Ω
Phono 1 - dynamisch (PHONO 1 MC)	70 μ V/30 Ω
	250 μ V/470 Ω
Phono 2 magnetisch (PHONO 2 MM)	2,5 mV/47 k Ω
Tuner	150 mV/47 k Ω
AUX/CD/VIDEO	150 mV/47 k Ω
Tape 1/2	150 mV/47 k Ω

Maximale TA-Eingangsspannung

magnetisch (MM)	160 mV
dynamisch (MC)	16 mV

Geräuschabstand

Phono - magnetisch (PHONO MM)	79 dB (92 dB nach IHF, A)
Phono - dynamisch (PHONO MC)	74 dB (82 dB nach IHF, A)
Tuner, Aux/CD/Video, Tape 1, Tape 2	100 dB (nach IHF, A: 106 dB)

Frequenzgang

Phono magnetisch	RIAA-Standardkurve
	$\pm 0,15$ dB (20 Hz ~ 20 kHz)
Phono dynamisch	RIAA-Standardkurve
	$\pm 0,2$ dB (20 Hz ~ 100 kHz)
Tuner, Aux/CD/Video, Tape 1, Tape 2	
	DC ~ 20 kHz (+0 dB, -0,1 dB)
	DC ~ 200 kHz (+0 dB, -3 dB)

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)	0 dB~+10 dB

Übergangsfrequenz

Überhöhenregler	8 kHz
Höhenregler	2 kHz
Tiefbaßreglers (12 dB/okt.)	75 Hz, 150 Hz
Baßregler	500 Hz

Tiefenfilter

20 Hz, -12 dB/Ok.

Rauschfilter

7 kHz, -6 dB/Ok.

Gehörliche Lautstärkekorrektur (Loudness)

(bei -30 dB Ausgangsleistung) 50 Hz, +7 dB

Tondämpfung

-20 dB

Ausgangsspannung und -impedanz

Vorverstärker (PRE OUT) Nennspg. 2 V/2 Ω
max. 8 V/2 Ω Tape 1/2 Aufnahme (TAPE 1, 2 REC OUT) 150 mV/600 Ω
■ ALLGEMEINE DATEN

Leistungsaufnahme

15 W

Netzspannung

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

Abmessungen (B×H×T)

430 × 97 × 330 mm

Gewicht

8 kg

Bemerkung:

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

■ ABGLEICH-METHODE

○ Einstellungen am Gerät und zu verwendende Instrumente

1. Eingangswahlschalter tuner
2. Betriebsart-Schalter DC
3. Gleichstrom-Voltmeter (Hochpräzisions-Typ)

Justierung	Gleichstrom-Voltmeter-Anschlüsse	Zu justierender Drehwiderstand	Vorgehen
Konstantspannungs-Stromversorgung	Zwischen TP 701 und Masse (+B Spannung)	VR701	○ So abgleichen, daß Voltmeter 17V anzeigt.
	Zwischen TP 702 und Masse (-B Spannung)	—	○ Überprüfen, daß Voltmeter-Anzeige -17 bis -18V beträgt.
Gleichstrom-Balance (Puffer-Verst.)	Zwischen Gleichstrom-Ausgangsanschluß (L.K.) und Masse	VR601	(1) Lautstärke auf Minimum einstellen (∞). (2) Auf Minimum (0 mV) am Voltmeter im 3 mV-Bereich abgleichen.
	Zwischen Gleichstrom-Ausgangsanschluß (R.K.) und Masse	VR602	
Gleichstrom-Balance (Flacher Verst.)	Zwischen Gleichstrom-Ausgangsanschluß (L.K.) und Masse	VR501	(1) Lautstärke auf Maximum (0) einstellen. (2) Auf Minimum (0 mV) am Voltmeter im 10 mV-Bereich abgleichen.
	Zwischen Gleichstrom-Ausgangsanschluß (R.K.) und Masse	VR502	

FRANÇAIS

■ CARACTERISTIQUES

(Sujet à changement sans preavis.)

(DIN 45 500)

■ SECTION AMPLIFICATEUR

Distorsion harmonique totale (20 Hz~20 kHz)

PHONO, AIMANT MOBILE (PHONO MM) 2,5 mV 0,006%
(sortie de 0,001%, 2V à vol. max.)

PHONO, BOBINE MOBILE (PHONO MC) 250 μ F 0,01%
(sortie de 0,001%, 2V à vol. max.)

SYNTONISATEUR, AUX, CD, VIDEO,
BANDE 1, BANDE 2 (TUNER, AUX, CD, VIDEO,
TAPE 1, TAPE 2) 0,006%
(sortie de 0,001%, 2V à vol. max.)

Sensibilité et impédance d'entrée

PHONO 1 AIMANT MOBILE (PHONO 1 MM) 1 mV/47k Ω
2,5 mV/47k Ω

PHONO 1 BOBINE MOBILE (PHONO 1 MC) 70 μ V/30 Ω
250 μ V/470 Ω

PHONO 2 AIMANT MOBILE 2,5 mV/47k Ω

SYNTONISATEUR (TUNER) 150 mV/47k Ω

AUX/CD/VIDEO 150 mV/47k Ω

BANDE 1, 2 (TAPE 1, 2) 150 mV/47k Ω

PHONO (tension d'entrée maximum)

AIMANT MOBILE (MM) 160 mV

BOBINE MOBILE (MC) 16 mV

Signal/Bruit

PHONO, AIMANT MOBILE (PHONO MM)
79 dB (92 dB, IHF, A)

PHONO, BOBINE MOBILE (PHONO MC)
74 dB (82 dB, IHF, A)

SYNTONISATEUR, AUX/CD/VIDEO, BANDE 1,
BANDE 2 (TUNER, AUX/CD/VIDEO,
TAPE 1, TAPE 2) 100 dB (IHF, A: 106 dB)

Réponse de fréquence

PHONO AIMANT MOBILE Courbe nominale RIAA
 $\pm 0,15$ dB (20 Hz~20 kHz)

PHONO BOBINE MOBILE Courbe nominale RIAA
 $\pm 0,2$ dB (20 Hz~100 kHz)

SYNTONISATEUR, AUX/CD/VIDEO, BANDE 1,
BANDE 2 (TUNER, AUX/CD/VIDEO,
TAPE 1, TAPE 2) DC~20 kHz (+0 dB, -0,1 dB)
DC~200 kHz (+0 dB, -3 dB)

Tonalité shelving			■ DIVERS	
ULTRA-AIGUËS (50 kHz)	-10 dB~+10 dB		Consommation	15W
AIGUËS (20 kHz)	-5 dB~+5 dB		Alimentation	CA 50 Hz/60 Hz, 110V/120V/220V/240V
BASSES (50 Hz)	-5 dB~+5 dB		Dimensions (L×H×Pr)	430 × 97 × 330 mm
ULTRA-BASSES (20 Hz)	0 dB~+10 dB		Poids	8 kg
Fréquence charnière			Nota:	
ULTRA-AIGUËS	8 kHz		La Société NATIONAL-PANASONIC-FRANCE, importateur du matériel MATSUSHITA-ELECTRIC déclare que cet appareil est conforme aux prescriptions de la directive 76/889/C.E.E. (arrêté 14 Janvier 1980).	
AIGUËS	2 kHz			
ULTRA-BASSE (12 dB/oct)	75 Hz, 150 Hz			
BASSES	500 Hz			
Filtre subsonique	20 Hz, -12 dB/oct.			
Filtre coupe-hauts	7 kHz, -6 dB/oct.			
Compensateur physiologique (volume à -30 dB)			Remarque:	
	50 Hz, +7 dB		On mesure la distorsion harmonique totale au moyen d'un analyseur de spectre digital (Système H.P. 3045).	
Réglage silencieux	-20 dB			
Tension de sortie et impédance				
PREAMPLI (PRE OUT)	nominale 2V/2Ω maxi. 8V/2Ω			
SORTIE ENREGISTREMENT/BANDE 1, 2 (TAPE 1, 2 REC OUT)		150 mV/600Ω		

■ PROCEDURE DE MISE AU POINT

○ Conditions de l'appareil et appareil utilisé.

1. Commutateur sélecteur d'entrée tuner (synthéonisateur)
2. Commutateur de commande DC (C.C.)
3. Voltmètre à C.C. (modèle de précision)

Points de réglage	Raccordements du voltmètre à C.C.	VR à régler	Procédure
Alimentation à tension constante	Entre TP701 et la terre (tension +B)	VR701	○ Ajuster de telle sorte que la lecture du voltmètre soit de 17V.
	Entre TP702 et la terre (tension -B)	—	○ Vérifier que la lecture du voltmètre soit de -17 à -18V.
Compensation du C.C. (Ampli. séparateur)	Entre la borne de sortie C.C. (canal de gauche) et la terre	VR601	(1) Régler le volume sonore au minimum (∞). (2) L'ajuster au minimum (0 mV) sur le voltmètre à C.C. dans une plage de 3 mV.
	Entre la borne de sortie C.C. (canal de droite) et la terre	VR602	
Compensation du C.C. (Ampli. plat)	Entre la borne de sortie C.C. (canal de gauche) et la terre	VR501	(1) Régler le volume sonore au maximum (0). (2) L'ajuster au minimum (0 mV) sur le voltmètre à C.C. dans une plage de 10 mV.
	Entre la borne de sortie C.C. (canal de droite) et la terre	VR502	

ESPAÑOL

■ ESPECIFICACIONES

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

(DIN 45 500)

■ SECCION AMPLIFICADOR

Distorsión armónica total (20 Hz~20 kHz)

TOCADISC. I.M. (PHONO MM) 2,5 mV 0,006%
(0,001%, 2V de salida a vol. máx.)

TOCADISC. B.M. (PHONO MC) 250 μF 0,01%
(0,001%, 2V de salida a vol. máx.)

SINTON., AUX., CD, VIDEO, GRAB. 1, GRAB. 2
(TUNER, AUX, CD, VIDEO, TAPE 1, TAPE 2) 0,006%
(0,001%, 2V de salida a vol. máx.)

Sensibilidad e impedancia de entrada

TOCADISC. 1 I. M. (PHONO 1 MM) 1 mV/47kΩ
2,5 mV/47kΩ

TOCADISC. 1 B. M. (PHONO 1 MC) 70 μV/30Ω
250 μV/470Ω

TOCADISC. 2 I. M. (PHONO 2 MM) 2,5 mV/47kΩ

SINTON. (TUNER) 150 mV/47kΩ

AUX./CD/VIDEO (AUX/CD/VIDEO) 150 mV/47kΩ

GRAB. 1, 2 (TAPE 1, 2) 150 mV/47kΩ

Voltaje máximo de entrada de PHONO

I. M. (MM) 160 mV

B. M. (MC) 16 mV

Relación de señal a ruido

TOCADISC. I. M. (PHONO MM) 79 dB (92 dB, IHF, A)

TOCADISC. B. M. (PHONO MC) 74 dB (82 dB, IHF, A)

SINTON., AUX./CD/VIDEO, GRAB.
(TUNER, AUX/CD/VIDEO, TAPE) 100 dB (IHF, A: 106 dB)

Respuesta de frecuencia

TOCADISC. I. M. (PHONO MM) curva RIAA estándar
±0,15 dB (20 Hz~20 kHz)

TOCADISC. B. M. (PHONO MC) curva RIAA estándar
±0,2 dB (20 Hz~100 kHz)

SINTON., AUX./CD/VIDEO, GRAB. 1, GRAB. 2
(TUNER, AUX/CD/VIDEO, TAPE 1, TAPE 2)
DC~20 kHz (+0 dB, -0,1 dB)
DC~200 kHz (+0 dB, -3 dB)

Tono de múltiples segmentos

SUPERAGUDOS (50 kHz) -10 dB~+10 dB

AGUDOS (20 kHz) -5 dB~+5 dB

BAJOS (50 Hz) -5 dB~+5 dB

SUPERBAJOS (20 Hz) 0 dB~+10 dB

Frecuencia de tránsito

SUPERAGUDOS 8 kHz

AGUDOS 2 kHz

SUPERBAJOS (12 dB/oct) 75 Hz, 150 Hz

BAJOS 500 Hz

Filtro subsónico 20 Hz, -12 dB/oct.

Filtro de corte de altos 7 kHz, -6 dB/oct.

Control de sonoridad (volumen a -30 dB) 50 Hz, +7 dB

Silenciamiento -20 dB

Voltaje e impedancia de salida

SAL. PREAMPLIF. (PRE OUT) de régimen 2V/2Ω
máx. 8V/2Ω

GRAB. 1, 2 SAL. GRAB. (TAPE 1, 2 REC OUT) 150 mV/600Ω

■ GENERAL

Consumo de energía 15W

Alimentación de energía CA 50 Hz/60 Hz, 110V/120V/220V/240V

Dimensiones (An.×Al.×Prof.) 430 × 97 × 330 mm

Peso 8 kg

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

■ PROCEDIMIENTO DE AJUSTE

○ Condiciones del aparato e instrucciones usadas

1. Interruptor selector de entrada tuner (sintonizador)
2. Interruptor de operación DC(CC)
3. Voltímetro de CC (tipo de precisión)

Items de ajuste	Conexiones de voltímetro de CC	VR ajustado	Procedimiento
Fuente de alimentación de voltaje constante	Entre TP701 y tierra (voltaje +B)	VR701	○ Ajustar de manera que la lectura de voltímetro sea 17V.
	Entre TP702 y tierra (voltaje -B)	—	○ Comprobar que la lectura de voltímetro sea -17 a -18V.
Equilibrio de CC (Amp. separador)	Entre terminal de salida de CC (canal I) y tierra	VR601	(1) Ajustar volumen de sonido a mínimo (∞). (2) Ajustarlo a mínimo (0 mV) en voltímetro de CC en la gama de 3 mV.
	Entre terminal de salida de CC (canal D) y tierra	VR602	
Equilibrio de CC (Amp. de respuesta plana)	Entre terminal de salida de CC (canal I) y tierra	VR501	(1) Ajustar volumen de sonido a máximo (0). (2) Ajustarlo a mínimo (0 mV) en voltímetro de CC en la gama de 10 mV.
	Entre salida de CC (canal D) y tierra	VR502	

● How to remove the booster transformer (Amorphous MC transformer)

1. Remove the top board.
2. Remove the 8 setscrews [Fig. 5: ③④ ~ ④①] of shield cover.
3. Remove the remote cable of S1. [Fig. 6]
4. Remove the 2 connectors and the 2 setscrews [Fig. 6: ④② ~ ④③] of phono select switch (4) P.C.B.
5. Unsolder the booster transformer leads and 4 setscrews [Fig. 6: ④④ ~ ④⑦]
6. For the wiring of booster transformer, refer to Fig. 7.

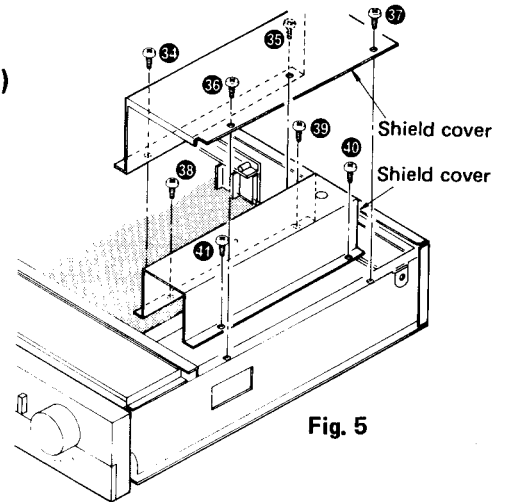


Fig. 5

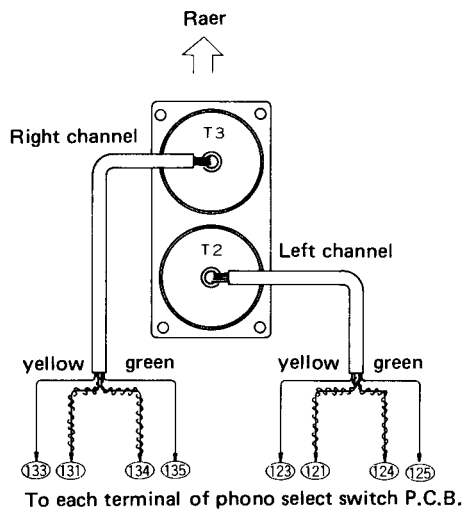


Fig. 7

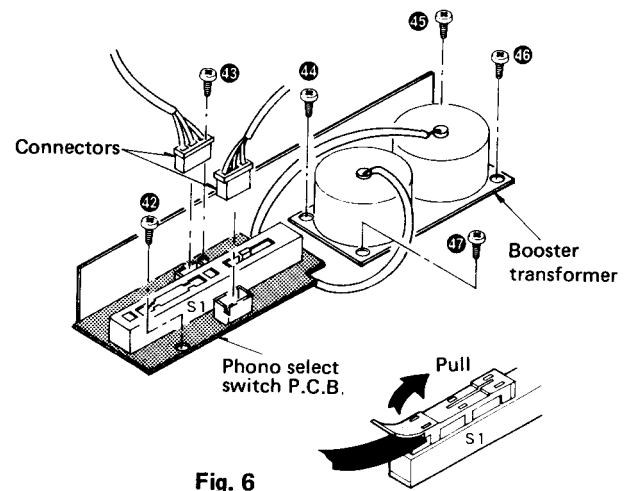


Fig. 6

● How to remove the tone control P.C.B. and switch P.C.B.

1. Remove the bottom board and front panel, and turn over the set.
2. Remove each tone control knob and 4 units of the volume knobs, and raise the switch P.C.B. in the direction of the arrow. [Fig. 8]
3. Remove the balance knob of switch P.C.B. as well as 1 nut and 2 switch setscrews [Fig. 8: ④⑧, ④⑨] and draw out the tone control P.C.B. in the direction of the arrow.

● How to remove the fuse

1. Remove the top board.
2. Remove the 4 setscrews [Fig. 9: ⑤⑩ ~ ⑤③] of shield case, and remove the Fuse.

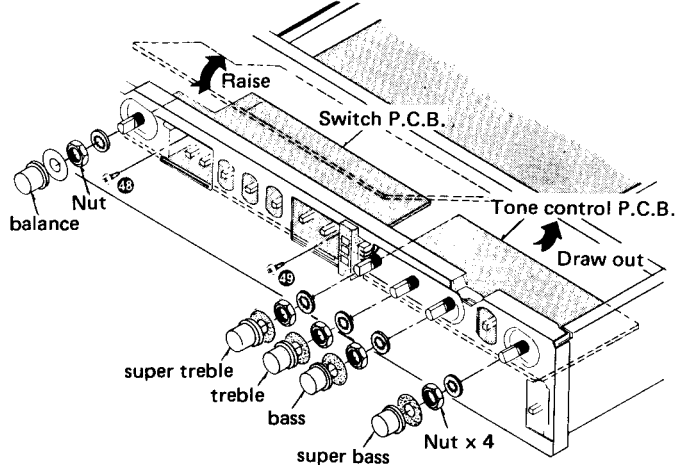


Fig. 8

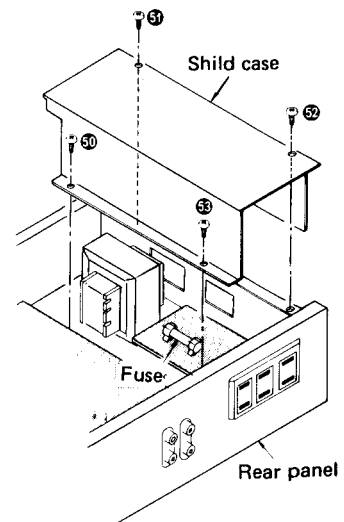


Fig. 9

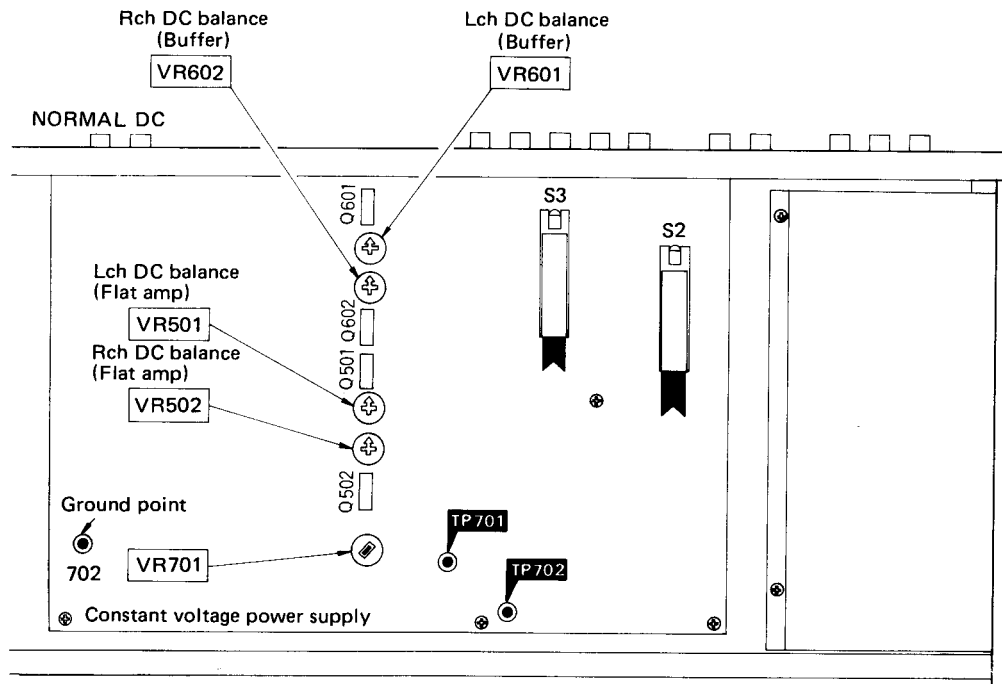
ADJUSTMENT PROCEDURE

Conditions of the set, and instruments used

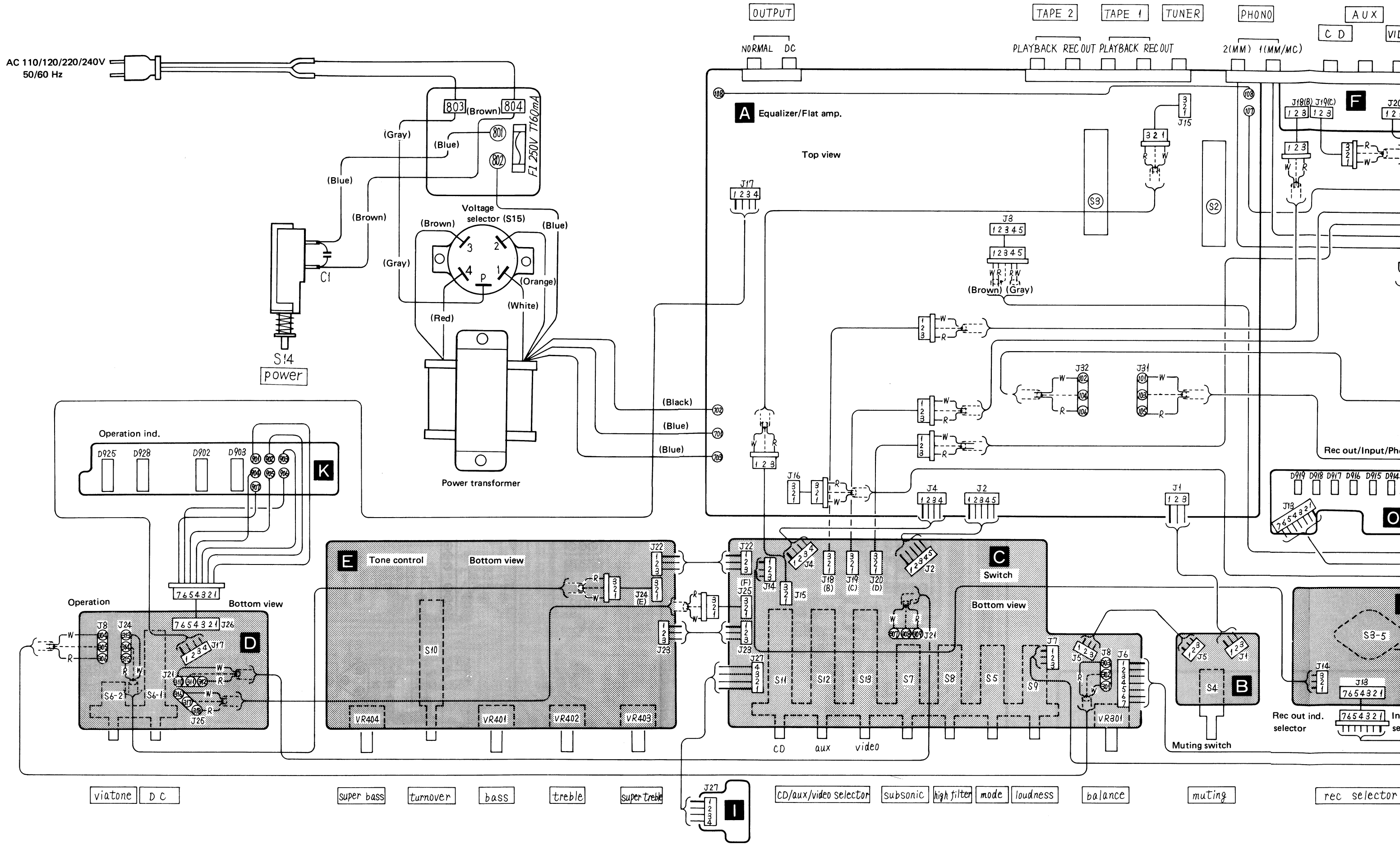
1. Input select switch tuner
2. Operation switch DC
3. DC voltmeter (precision type)

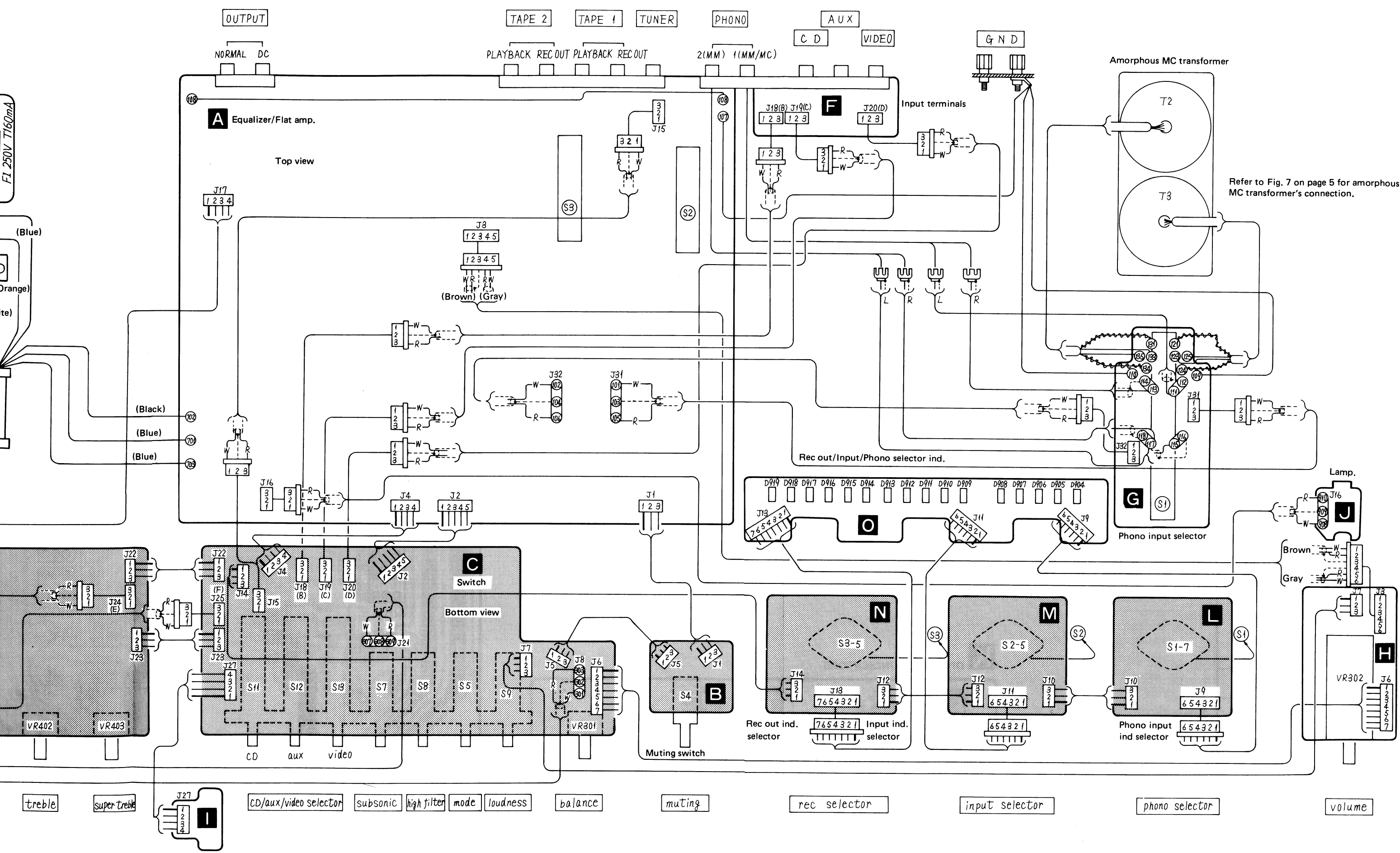
Adjusting items	DC voltmeter connections	VR adjusted	Procedure
Constant voltage power supply	Between TP701 and ground (+B voltage)	VR701	◦ Adjust so that voltmeter reading is 17 V.
	Between TP702 and ground (-B voltage)	—	◦ Check that voltmeter reading is -17 to -18 V.
DC balance (Buffer)	Between DC output terminal (Lch) and ground	VR601	(1) Set the volume control to minimum (∞). (2) Adjust it to minimum (0 mV) on DC voltmeter in 3 mV range.
	Between DC output terminal (Rch) and ground	VR602	
DC balance (Flat amp)	Between DC output terminal (Lch) and ground	VR501	(1) Set the volume control to minimum (0). (2) Adjust it to minimum (0 mV) on DC voltmeter in 10 mV range.
	Between DC output (Rch) and ground	VR502	

Adjustment points



PRINTED CIRCUIT BOARDS WIRING CONNECTION DIAGRAM





Refer to Fig. 7 on page 5 for amorphous MC transformer's connection.

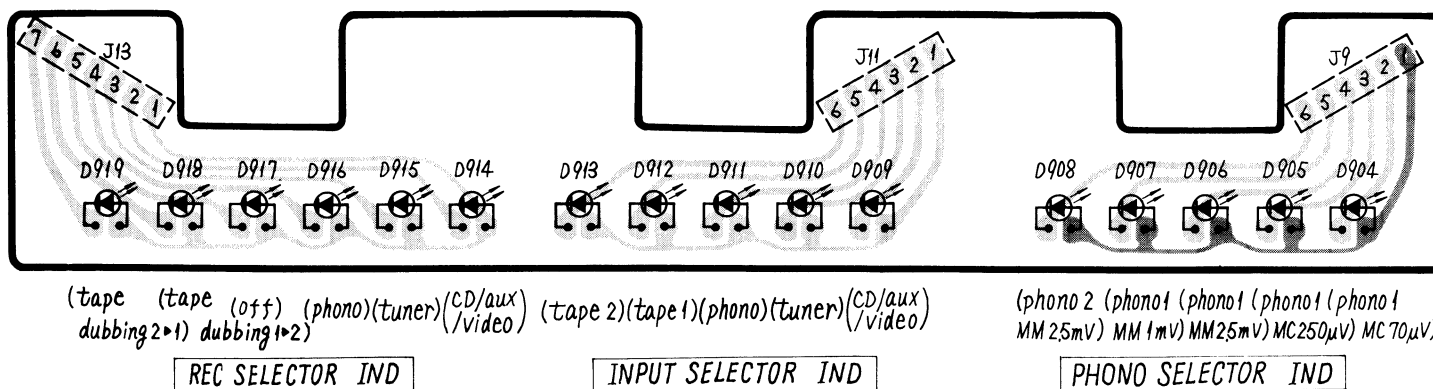
PRINTED CIRCUIT BOARDS

Ground (Earth) lines

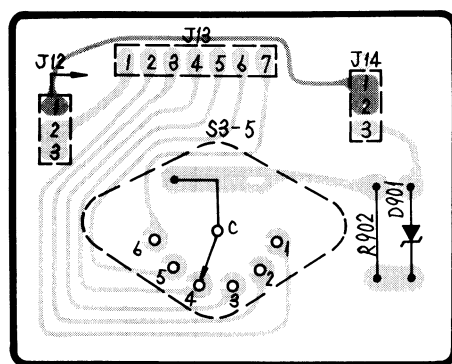
Terminal guide of transistors, diodes and IC's

SVINJM4556DA SVINJ4559DSM SVINJ4559DMM	AN6552
2SK146	SV1μ PA68H
2SA995	2SA1015, 2SC1815
2SC1913, 2SA913	MA150, MA27W-A
SVDMZ307A SVDMZ312	SVDSR1K2
LN846RP	LN0202RP2 LN0202YP2

REC SELECTOR/INPUT SELECTOR/PHONO SELECTOR INDICATORS

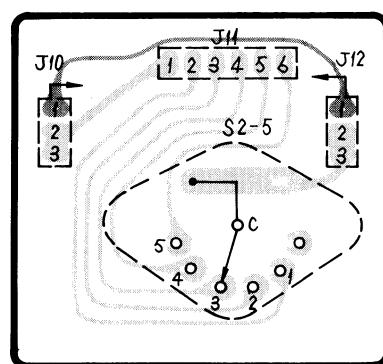


REC IND. SELECTOR



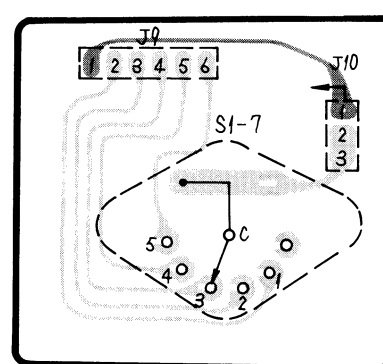
- REC SELECTOR
- ① CD/aux/video
 - ② tuner
 - ③ phono
 - ④ off
 - ⑤ tape dubbing 1 → 2
 - ⑥ tape dubbing 2 → 1

INPUT IND. SELECTOR



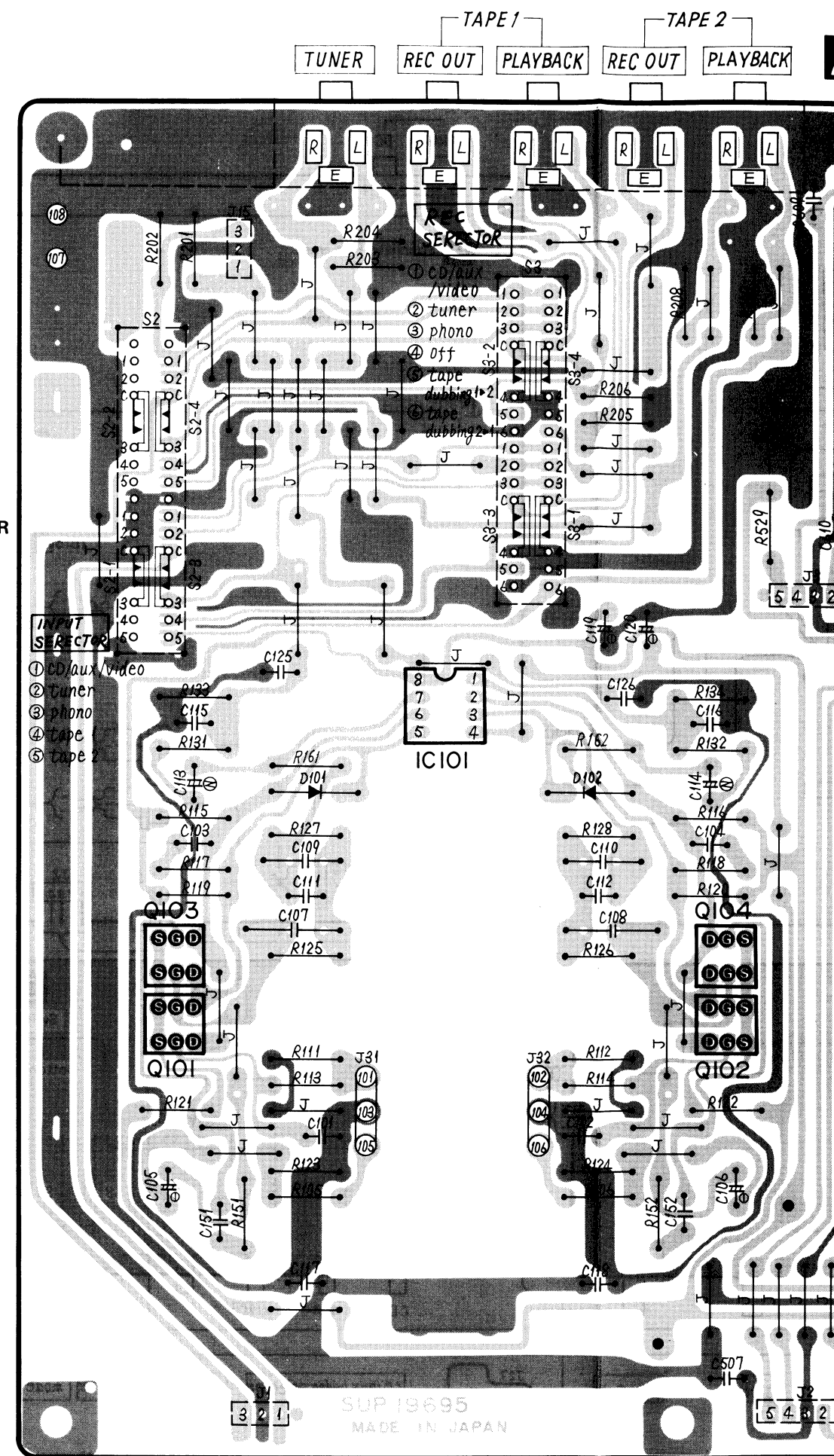
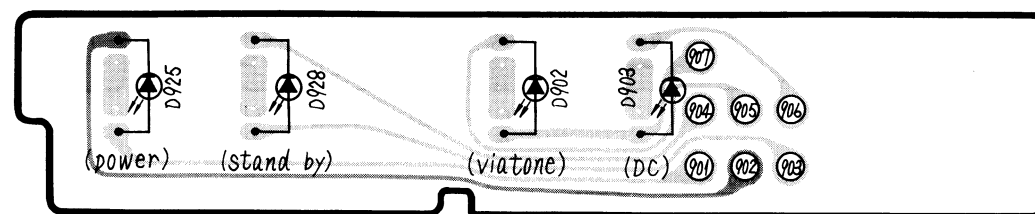
- INPUT SELECTOR
- ① CD/aux/video
 - ② tuner
 - ③ phono
 - ④ tape 1
 - ⑤ tape 2

PHONO INPUT IND. SELECTOR



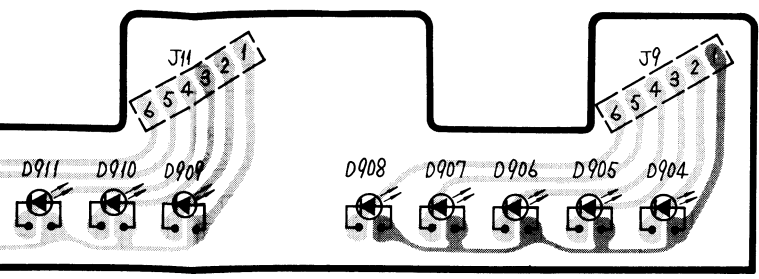
- PHONO SELECTOR
- ① phono 1 MC (70μV)
 - ② phono 1 MC (250μV)
 - ③ phono 1 MM (2.5mV)
 - ④ phono 1 MM (1mV)
 - ⑤ phono 2 MM (2.5mV)

OPERATION INDICATORS



SUP 19695
MADE IN JAPAN

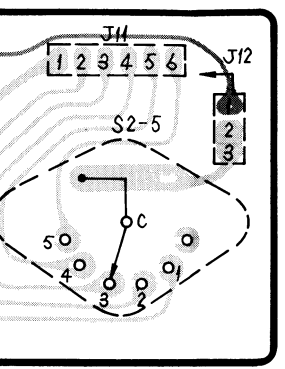
INDICATOR



(phono)(tuner)(CD/aux)(video)

SELECTOR IND

INPUT IND. SELECTOR



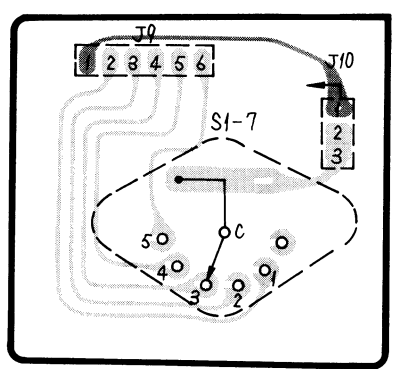
INPUT SELECTOR

- ① CD/aux/video
- ② tuner
- ③ phono
- ④ tape 1
- ⑤ tape 2

PHONO SELECTOR IND

(phono 2)(phono 1)(phono 1)(phono 1)(phono 1)
MM 2.5mV MM 1mV MM 2.5mV MC 250μV MC 70μV

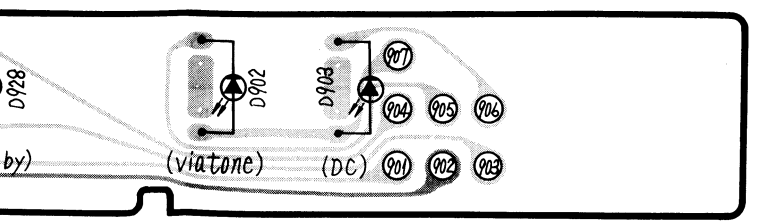
PHONO INPUT IND. SELECTOR



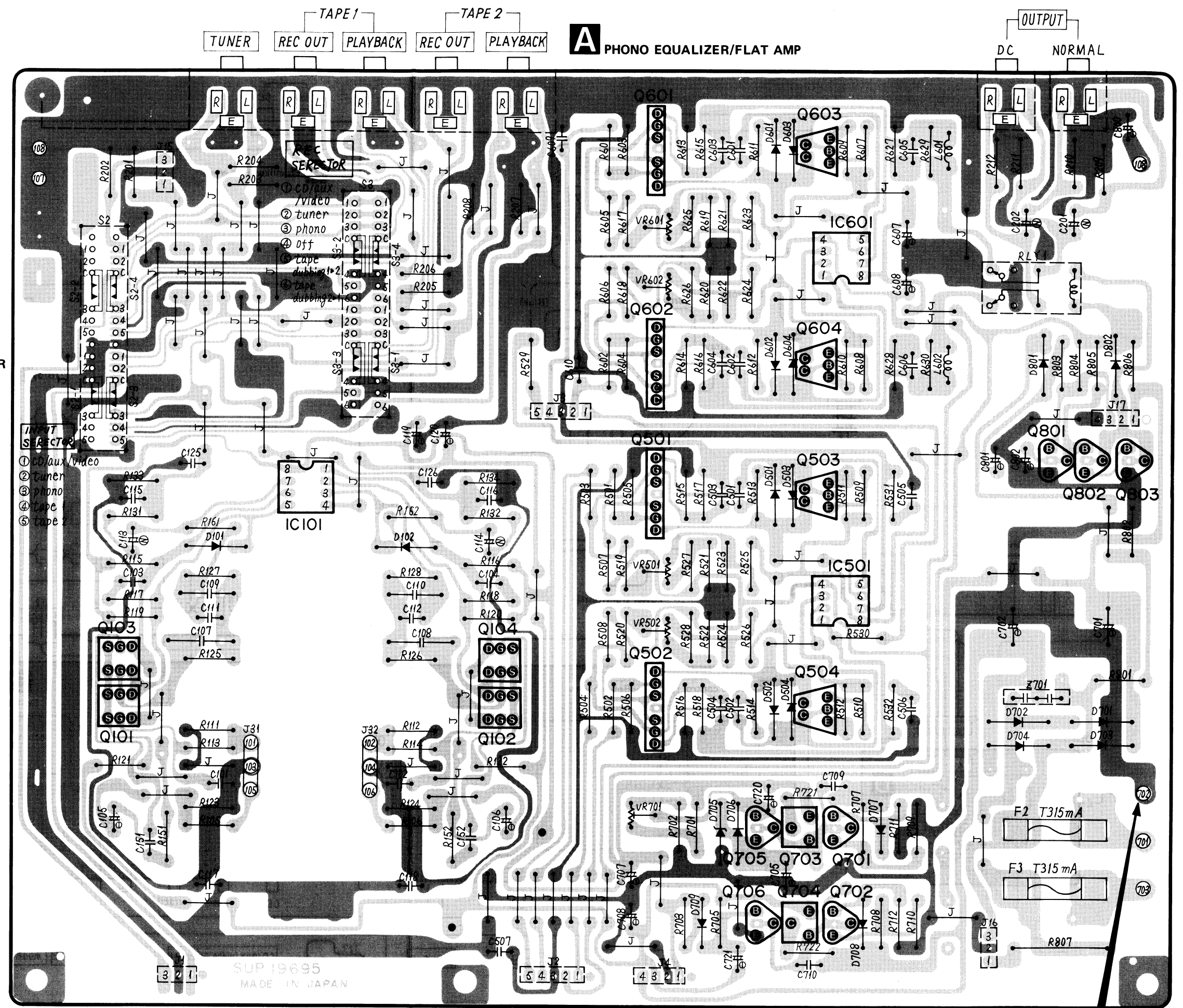
PHONO SELECTOR

- ① phono 1 MC (70μV)
- ② phono 1 MC (250μV)
- ③ phono 1 MM (2.5mV)
- ④ phono 1 MM (1mV)
- ⑤ phono 2 MM (2.5mV)

INDICATORS

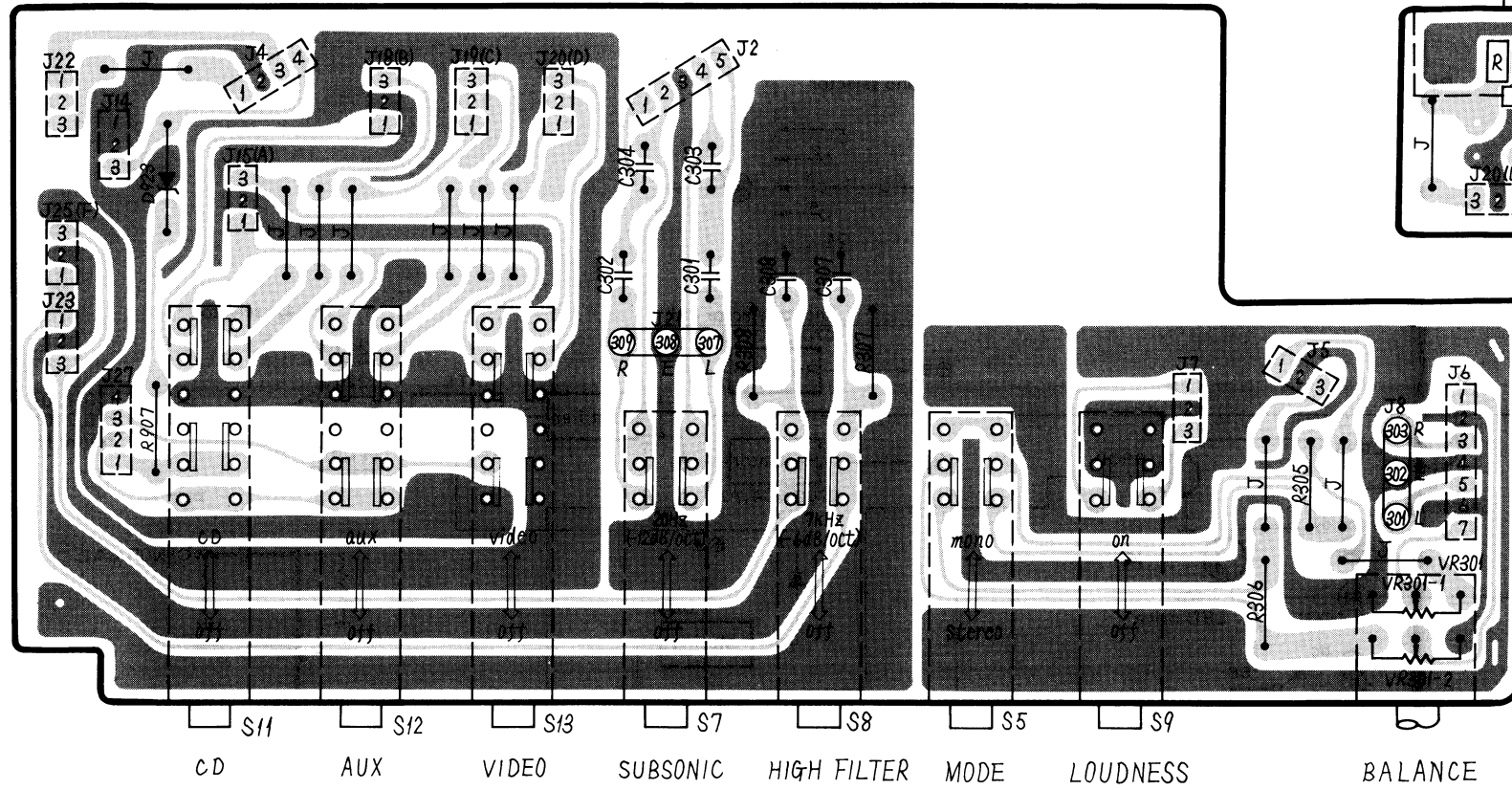


(viatone) (DC) (901) (902) (903) (904) (905) (906)

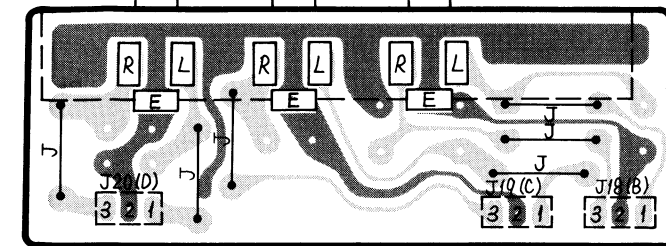


SUP 19695
MADE IN JAPAN

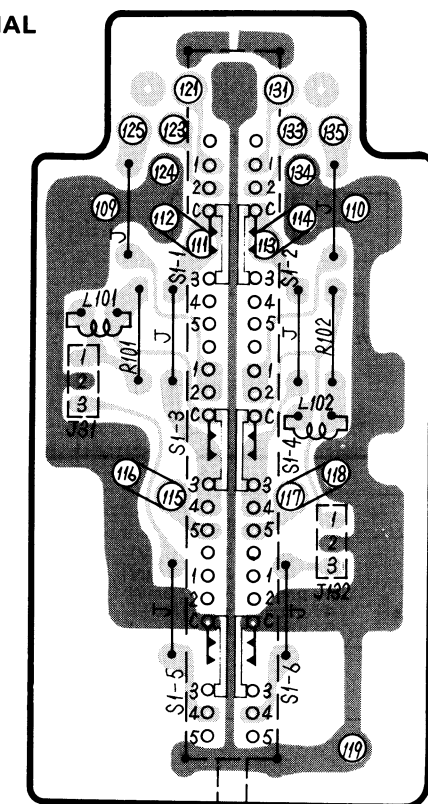
C SWITCHES



VIDEO AUX CD **F** INPUT TERMINAL

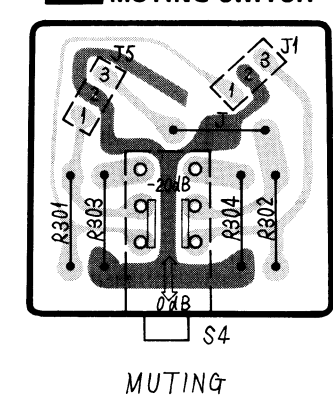


G PHONO SELECTOR

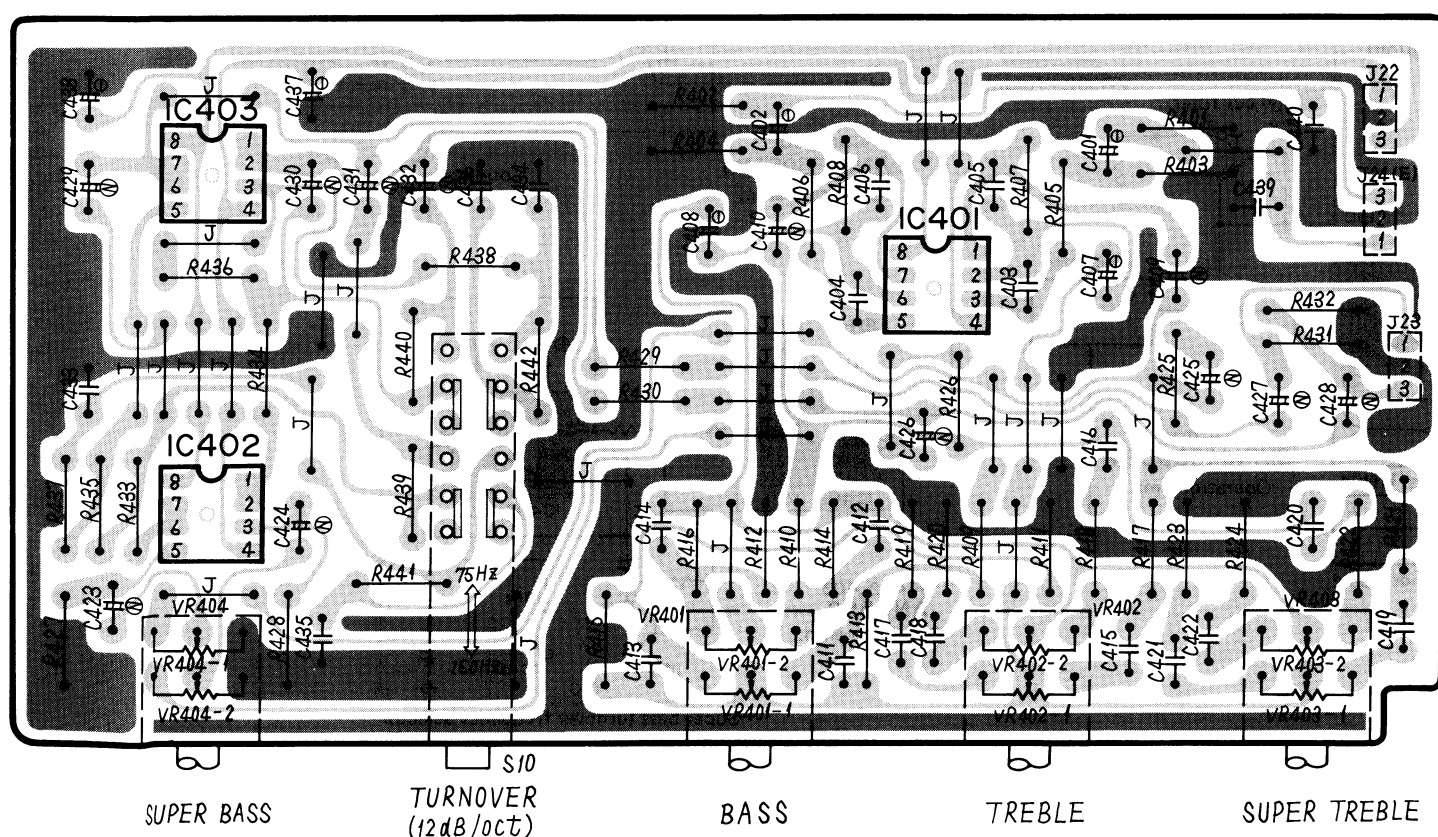


- PHONO SELECTOR
- ① phono 1 MC (70μV)
 - ② phono 1 MC (250μV)
 - ③ phono 1 MM (2.5mV)
 - ④ phono 1 MM (1mV)
 - ⑤ phono 2 MM (2.5mV)

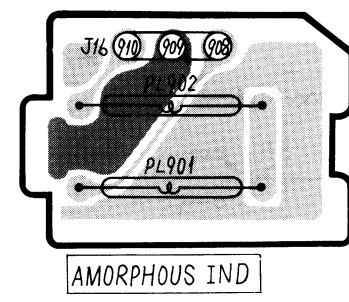
B MUTING SWITCH



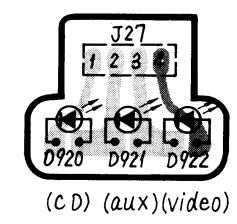
E TONE CONTROL



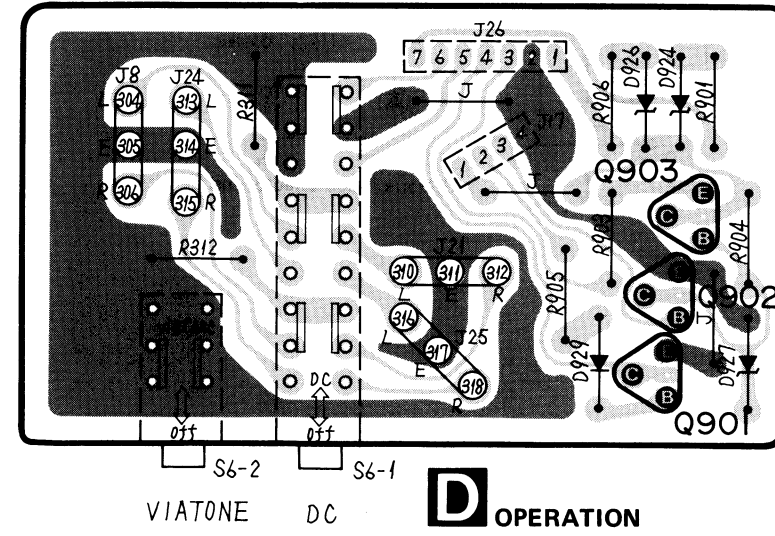
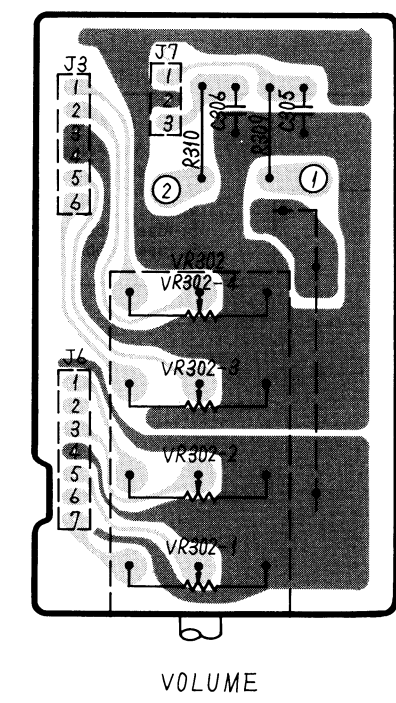
J LAMP



I CD/AUX/VIDEO IND

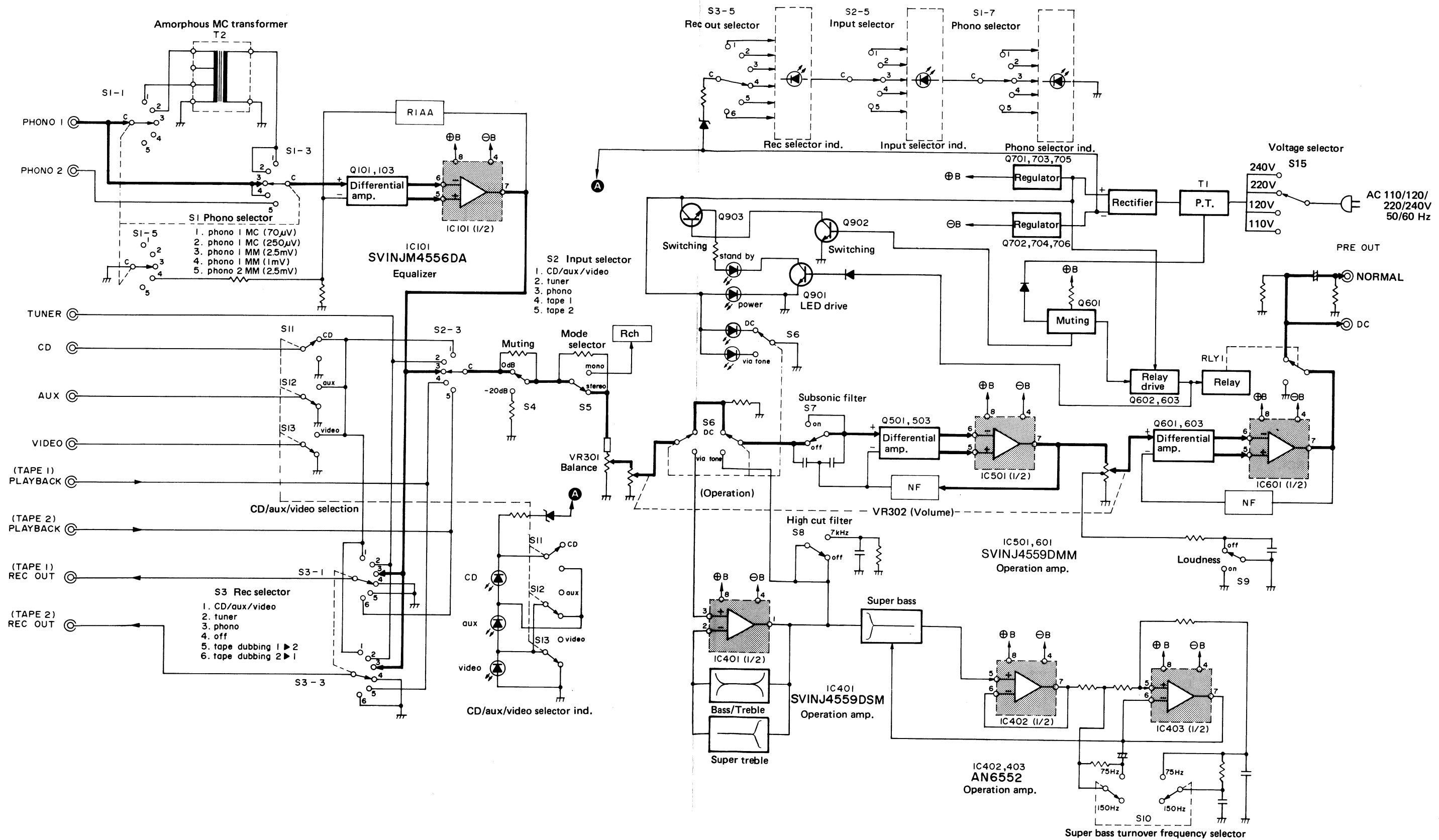


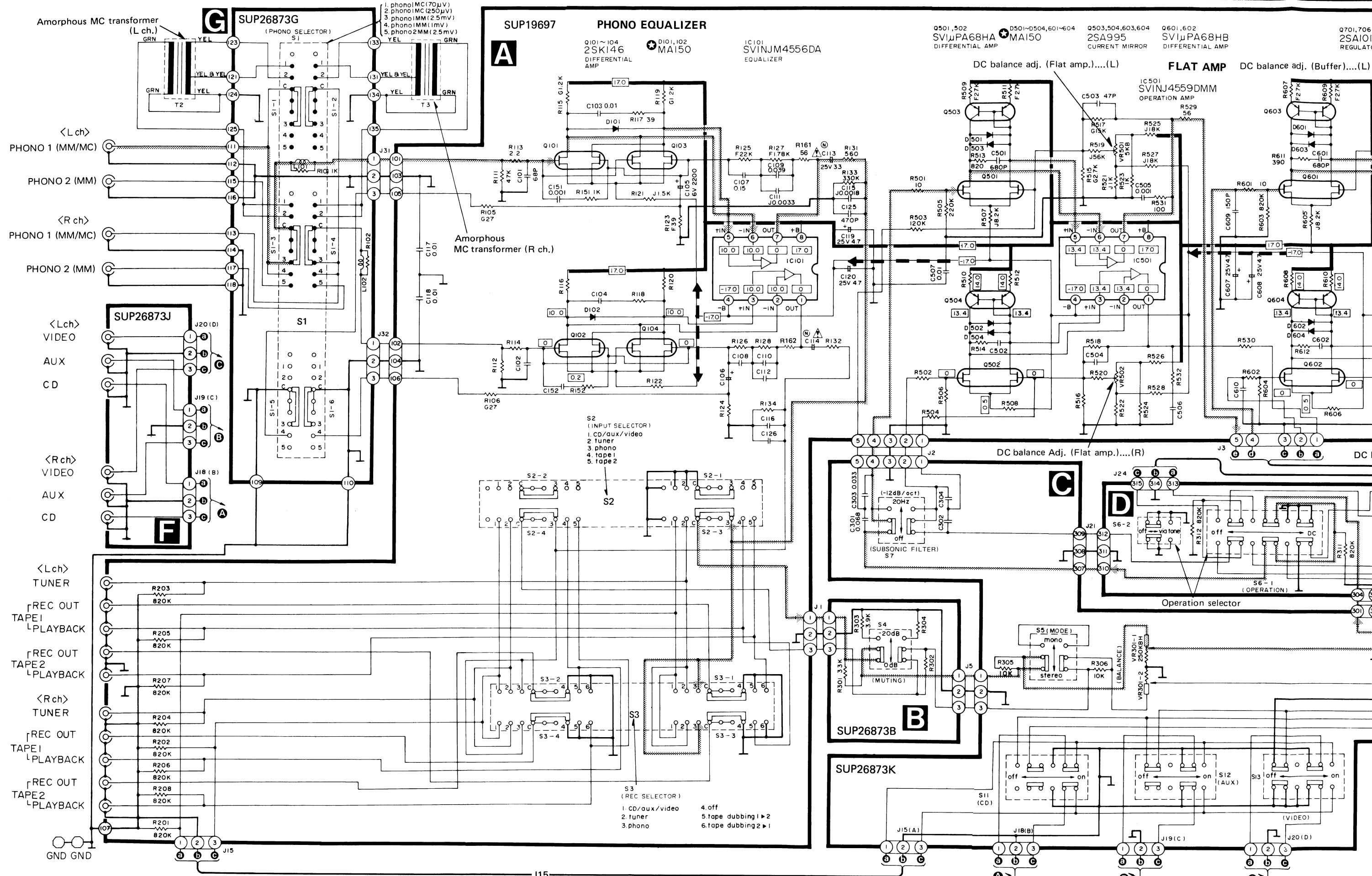
H VOLUME



SU-A4MK2 SU-A4MK2

BLOCK DIAGRAM





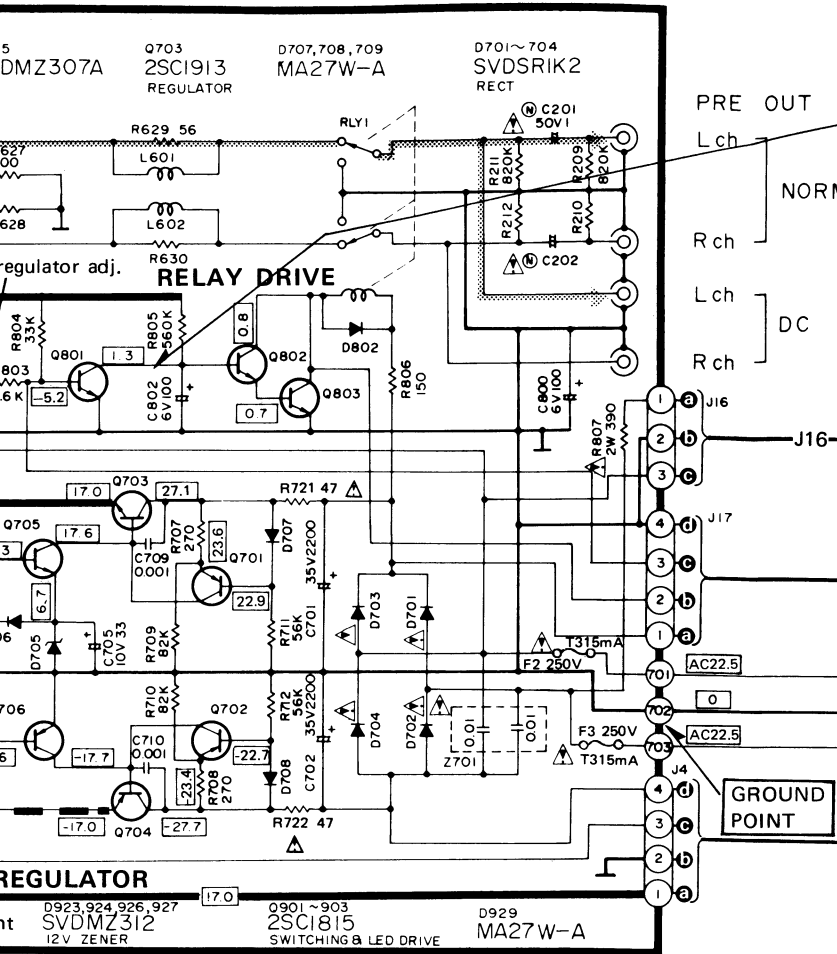
- 1. phono 1MC (70µV)
- 2. phono 1MC (250µV)
- 3. phono 1MM (2.5mV)
- 4. phono 1MM (1mV)
- 5. phono 2MM (2.5mV)

- Q101~104 2SK146 DIFFERENTIAL AMP
- D101,102 MA150
- IC101 SVINJM4556DA EQUALIZER

- Q501,502 SVIµPA68HA DIFFERENTIAL AMP
- D501-D504,601-604 2SA995 CURRENT MIRROR
- Q601,602 SVIµPA68HB DIFFERENTIAL AMP
- Q701,706 2SA1015 REGULATOR

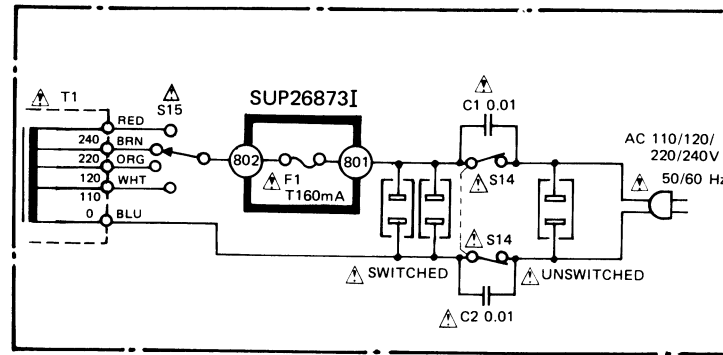
SCHEMATIC DIAGRAM

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



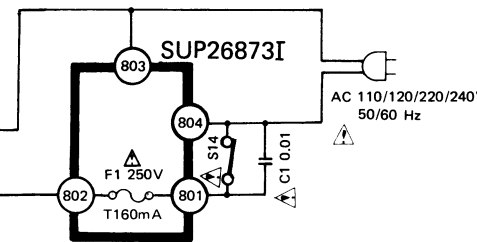
Power source

For [XA] area.



Power source

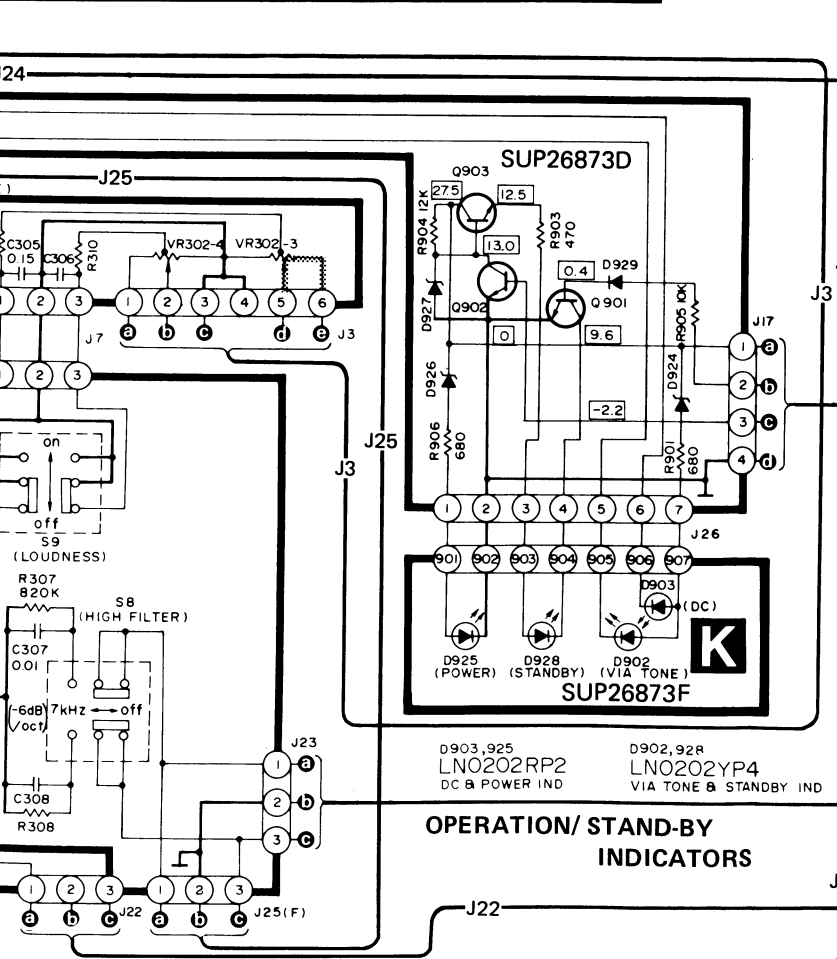
For continental Europe.



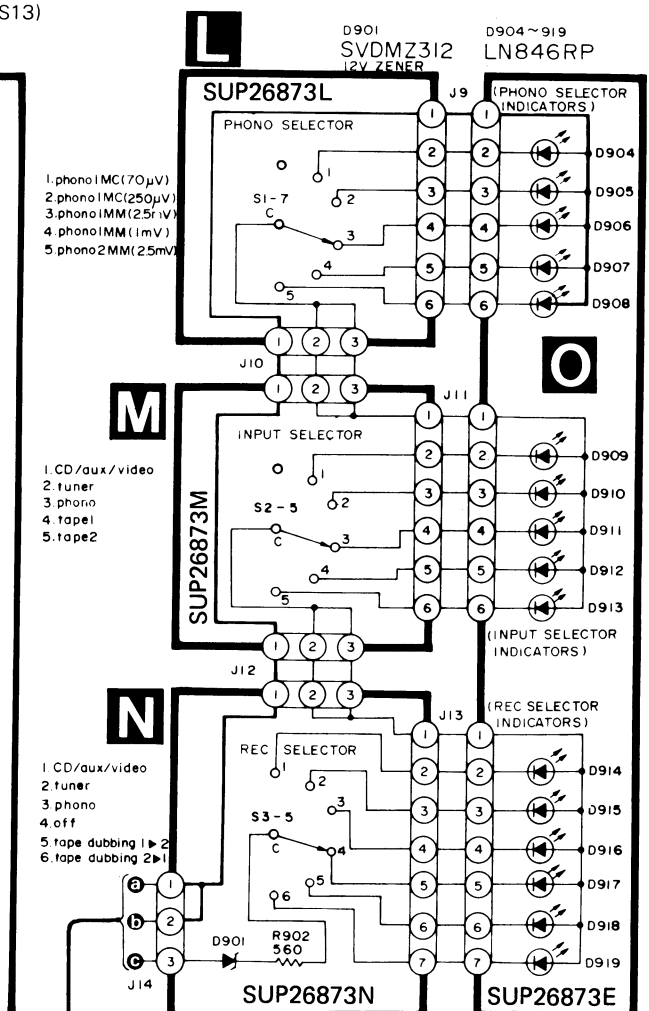
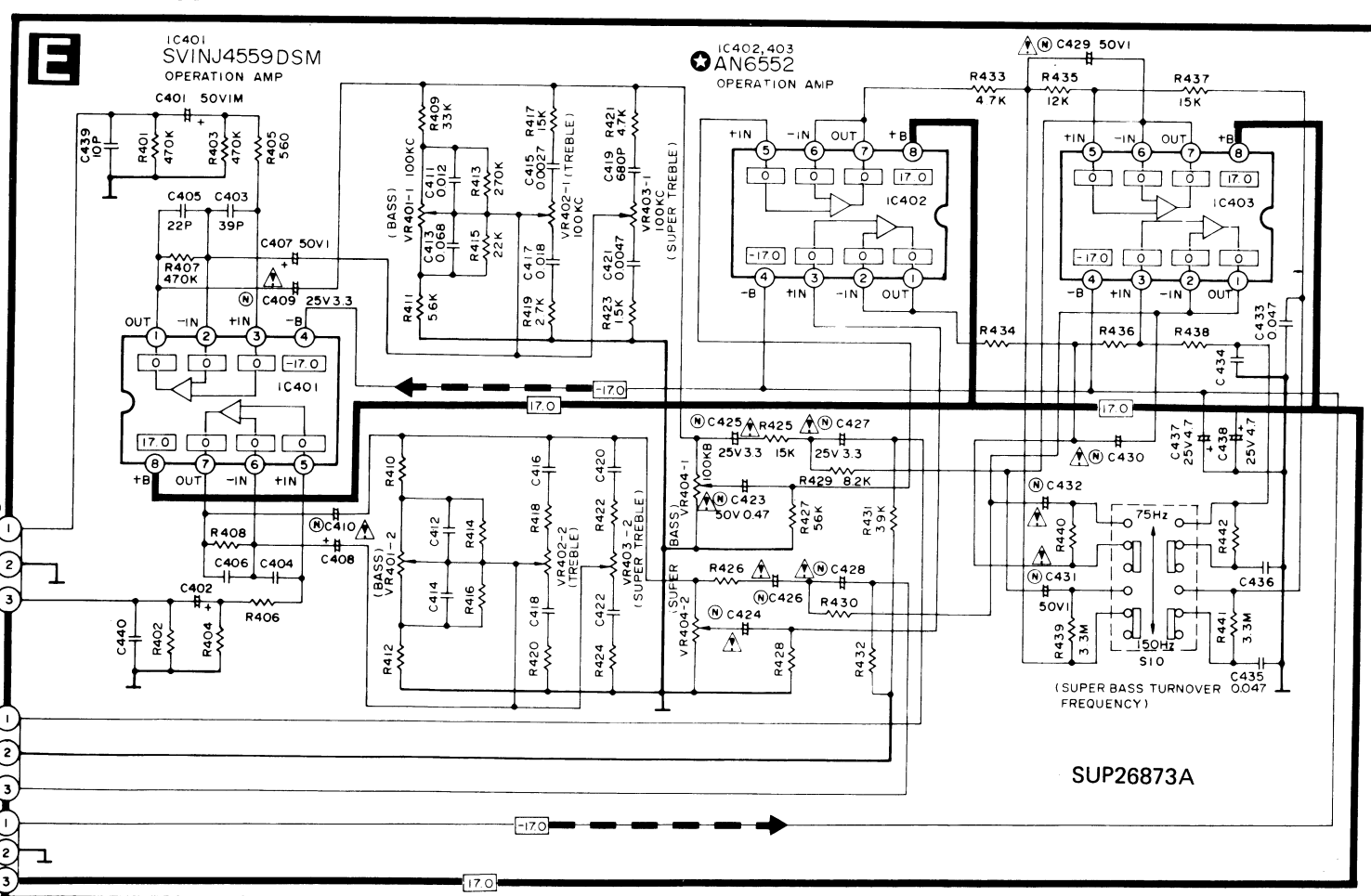
Notes:

- This is the basic circuit diagram (For continental Europe) of this unit.
Note that part of the circuit is subject to change depending on the area.
- S1-1 ~ S1-7** : Phono selector switch in "phono 1(MM) 2.5mV" position.
phono 2(MM) 2.5mV ↔ phono 1(MM) 1mV ↔ phono 1(MM) 2.5mV ↔ phono 1(MC) 250μV ↔ phono 1(MC) 70μV
- S2-1 ~ S2-5** : Input selector switch in "phono" position.
tape 2 ↔ tape 1 ↔ phono ↔ tuner ↔ aux/CD/video
- S3-1 ~ S3-5** : Rec selector switch in "off" position.
tape dubbing 2 ▶ 1 ↔ tape dubbing 1 ▶ 2 ↔ off ↔ phono ↔ tuner ↔ CD/aux/video
- S4** : Muting switch in "0dB" position.
0dB ↔ -20dB
- S5** : Mode switch in "stereo" position.
stereo ↔ mono
- S6-1, S6-2** : Operation switch in "DC" position.
via tone ↔ DC
- S7** : Subsonic filter switch in "off" position.
off ↔ 20Hz
- S8** : High cut filter switch in "off" position.
off ↔ 7kHz
- S9** : Loudness switch in "off" position.
off ↔ on
- S10** : Super bass turnover frequency switch in "150Hz" position.
150Hz ↔ 75Hz
- S11 ~ S13** : aux, CD or video input selector switch in "CD" position.
CD(S11) ↔ aux(S12) ↔ video(S13)

- S14** : Power source switch in "on" position.
- S15** : Voltage selector switch "220V" position.
240V ↔ 220V ↔ 120V ↔ 110V
- Same circuit is used for both L and R channels. For the resistance and capacity of R channel (lower of circuit diagram), refer to L channel. For the voltage value, refer to R channel.
- Indicated voltage values are the standard values for the DC electronic circuit tester (high impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
- Phono signal lines of left channel.
- Positive (+B) voltage lines.
- Negative (-B) voltage lines.
- Important safety notice:
Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
- The part No. of transistors, IC and diodes mentioned in the schematic diagram stand for production part No. Regarding the part No. with \odot mark, the production part No. are different from the replacement part No. Therefore, when placing an order for replacement parts, please use the part No. in the replacement parts list.



OPERATION/STAND-BY INDICATORS



RESISTORS & CAPACITORS

- Notes:** 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
 2. Important safety notice: Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

3. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.
 4. The "S" mark is service standard parts and may differ from production parts.
 5. The unit of resistance is OHM (Ω).
 K = 1000 Ω , M = 1000K Ω
 6. The unit of capacitance is MICROFARAD (μ F)
 P = 10⁻⁶ μ F

Numbering System of Resistor

Example

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value
ERG	2	AN	J	2R2
Type	Wattage	Shape	Tolerance	Value

Numbering System of Capacitor

Example

ECKD	1H	102	M	D
Type	Voltage	Value	Tolerance	Peculiarity
ECEA	50	M	R47	R
Type	Voltage	Peculiarity	Value	Special use

Resistor Type	Wattage	Tolerance
ERD : Carbon	14 : 1/4W	F : \pm 1%
ERG : Metal Oxide	25 : 1/4W	G : \pm 2%
ERO : Metal Film	2A : 2W	J : \pm 5%
ERC : Solid	2F : 1/4W	K : \pm 10%
ERQ : Fuse Type Metal		

Capacitor Type	Voltage		Tolerance
	ECEA Type	Others	
ECEA : Electrolytic	OJ : 6.3V	1H : 50V	J : \pm 5%
ECEA : Non Polar	7A : 10V	2H : 500V	K : \pm 10%
Electrolytic	1C : 16V	KC : 400V AC	Z : +80%, -20%
ECCD : Ceramic	1E : 25V	1 : 100V	P : +100%, -0%
ECKD : Ceramic	1H : 50V		
ECQM : Polyester	1V : 35V		
ECQP : Polypropylene	50 : 50V		
	25 : 25V		

RESISTORS

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
R101,102	ERD25FJ102	1K	R311,312	ERD25TJ824	820K	R507,508	ER025CKF8201	8.2K	R625,626	ER025CKF1802	18K
R105,106	ER025CKG27R0	27	R401,402	ERD25TJ474	470K	R509,510	ER025CKF2701	2.7K	R627,628	ERD25FJ101	100
R111,112	ERD25TJ473	47K	R403,404	ERD25TJ474	470K	R511,512	ER025CKF2701	2.7K	R629,630	ERD25FJ560	56
R113,114	ERD25FJ2R2	2.2	R405,406	ERD25FJ561	560	R513,514	ERD25FJ821	820	R701	ER025CKF1202	12K
R115,116	ER025CKF1201	1.2K	R407,408	ERD25TJ474	470K	R515,516	ER025CKF2701	2.7K	R702	ER025CKF8201	8.2K
R117,118	ERD25FJ390	39	R409,410	ERD25TJ333	33K	R517,518	ER025CKF1502	15K	R703	ER025CKF1202	12K
R119,120	ER025CKF1201	1.2K	R411,412	ERD25FJ562	5.6K	R519,520	ER025CKF5602	56K	R705	ER025CKF1202	12K
R121,122	ER025CKF1501	1.5K	R413,414	ERD25TJ274	270K	R521,522	ER025CKF1001	1K	R707,708	ERD25FJ271	270
R123,124	ER025CKF39R0	39	R415,416	ERD25TJ223	22K	R523,524	ER025CKF1001	1K	R709,710	ERD25TJ823	82K
R125,126	ER025CKF2202	22K	R417,418	ERD25TJ153	15K	R525,526	ER025CKF1802	18K	R711,712	ERD25TJ563	56K
R127,128	ER025CKF1781	1.78K	R419,420	ERD25FJ272	2.7K	R527,528	ER025CKF1802	18K	R721,722	ERD2FCG470	47
R131,132	ERD25FJ561	560	R421,422	ERD25FJ472	4.7K	R529,530	ERD25FJ560	56	R801	ERD25FJ562	5.6K
R133,134	ERD25TJ334	330K	R423,424	ERD25FJ152	1.5K	R531,532	ERD25FJ101	100	R802	ERD25FJ332	3.3K
R151,152	ERD25FJ102	1K	R425,426	ERD25TJ153	15K	R601,602	ERD25FJ100	10	R803	ERD25FJ562	5.6K
R161, 162	ERD25FJ560	56	R427,428	ERD25TJ563	56K	R603,604	ERD25TJ824	820K	R804	ERD25TJ333	33K
R201,202	ERD25TJ824	820K	R429,430	ERD25FJ822	8.2K	R605,606	ER025CKF8201	8.2K	R805	ERD25TJ564	560K
R203,204	ERD25TJ824	820K	R431,432	ERD25FJ392	3.9K	R607,608	ER025CKF2701	2.7K	R806	ERD25FJ151	150
R205,206	ERD25TJ824	820K	R433,434	ERD25FJ472	4.7K	R609,610	ER025CKF2701	2.7K	R807	ERG2ANJ391	390
R207,208	ERD25TJ824	820K	R435,436	ERD25TJ123	12K	R611,612	ERD25FJ821	820	R901	ERD25FJ681	680
R209,210	ERD25TJ824	820K	R437,438	ERD25TJ153	15K	R613,614	ER025CKF3301	3.3K	R902	ERD25FJ561	560
R211,212	ERD25TJ824	820K	R439,440	ERC14GK335	3.3M	R615,616	ER025CKF3001	3K	R903	ERD25FJ471	470
R301,302	ERD25TJ333	33K	R441,442	ERC14GK335	3.3M	R617,618	ER025CKF3902	39K	R904	ERD25TJ123	12K
R303,304	ERD25FJ392	3.9K	R501,502	ERD25FJ100	10	R619,620	ER025CKF1001	1K	R905	ERD25FJ103	10K
R305,306	ERD25FJ103	10K	R503,504	ERD25TJ124	120K	R621,622	ER025CKF1001	1K	R906	ERD25FJ681	680
R307,308	ERD25TJ824	820K	R505,506	ERD25TJ224	220K	R623,624	ER025CKF1802	18K	R907	ERD25FJ561	560
R309,310	ERD25FJ222	2.2K									

CAPACITORS

Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
C1	ECKDKC103PF2	0.01	C151.152	ECKD1H102KB	0.001	C417.418	ECQM1H183KV	0.018	C507	ECKD1H103ZF	0.01
C2(XA)only	ECKDKC103PF2	0.01	C201.202	ECEA1HN010S	1	C419.420	ECKD1H681KB	680p	C601.602	ECKD1H681KB	680p
C101.102	ECCD1H680K	68p	C301.302	ECQM1H683KV	0.068	C421.422	ECQM1H472KV	0.0047	C603.604	ECCD1H221K	220p
C103.104	ECQM1H103KV	0.01	C303.304	ECQM1H333KV	0.033	C423.424	ECEA1HN47S	0.47	C605.606	ECQM1H222KV	0.0022
C105.106	ECEA0JS222	2200	C305.306	ECQM1H154KV	0.15	C425.426	ECEA1EN3R3S	3.3	C607.608	ECEA25Z4R7	4.7
C107.108	ECQP1154FZ	0.15	C307.308	ECQM1H103KV	0.01	C427.428	ECEA1EN3R3S	3.3	C609.610	ECCD1H151K	150p
C109.110	ECQP1393FZ	0.039	C401.402	ECEA50M1R	1	C429.430	ECEA1HN010S	1	C701.702	ECEA1VS222	2200
C111.112	ECQM1H332JV	0.0033	C403.404	ECCD1H390K	39p	C431.432	ECEA1HN010S	1	C705	ECEA1CS330	33
C113.114	ECEA1EN3R3S	3.3	C405.406	ECCD1H220K	22p	C433.434	ECQM1H683KV	0.068	C707.708	ECEA1ES470	47
C115.116	ECQM1H182JV	0.0018	C407.408	ECEA50Z1	1	C435.436	ECQM1H683KV	0.068	C709.710	ECKD1H102KB	0.001
C117.118	ECKD1H103ZF	0.01	C409.410	ECEA1EN3R3S	3.3	C437.438	ECEA25Z4R7	4.7	C720.721	ECEA1HS100	10
C119.120	ECEA25Z4R7	4.7	C411.412	ECQM1H123KV	0.012	C439.440	ECCD1H100K	10p	C800	ECEA1AS101	100
C125.126	ECKD1H471KB	470p	C413.414	ECQM1H683KV	0.068	C501.502	ECKD1H681KB	680p	C801	ECEA50Z3R3	3.3
			C415.416	ECQM1H272KV	0.0027	C503.504	ECKD1H470K	47p	C802	ECEA1AS101	100
						C505.506	ECQM1H102KV	0.001			

REPLACEMENT PARTS LIST

- Notes:** 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
 2. Important safety notice: Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
 3. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.
 4. The "S" mark is service standard parts and may differ from production parts.
 5. The parenthesized numbers in the column of description stand for the quantity per set.

Areas

- *[E] is available in Sca
 *[EH] is available in H
 *[EB] is available in E
 *[EF] is available in F
 *[EK] is available in U
 *[Ei] is available in It
 *[XA] is available in S
 East and Centr

Ref. No.	Part No.	Description
INTEGRATED CIRCUITS		
IC101	SVINJM4556DA	Equalizer
IC401	SVINJ4559DSM	Operation Amp.
IC402.403	AN6552F	Operation Amp.
IC501.601	SVINJ4559DMM	Operation Amp.
TRANSISTORS		
Q101 ~ 104	2SK146-BL	Differential Amp.
Q501.502	SVIUPA68HA	Differential Amp.
Q503.504.603.604	2SA995N-Q	Current Mirror
Q601.602	SVIUPA68HB	Differential Amp.
Q701.706	2SA1015-Y	Regulator
Q702.705.801.	2SC1815-Y	Regulator, Relay Drive
802.803		
Q703	2SC1913B-Q	Regulator
Q704	2SA913B-Q	Regulator
Q901.902.903	2SC1815-Y	Switching, L.E.D Drive
D101.102.	MA162A	Bias
501~504.		
601~604.706.		
801.802		
D701~704	SVDSR1K2	Rectifier
D705	SVDMZ307A	7V, Zener
D707~709.929	MA27W-A	Bias
D901.923.924.	SVDMZ312	12V, Zener
926.927		
D903.925	LN0202YP4	L.E.D.(Via Tone Stand-by)
D904~922	LN846RP	L.E.D.(DC. Power) Input and Rec Selector
COILS		
L101.102	SLQW471-1P2	Choke
L601.602	SLQX101-2D	Choke
TRANSFORMERS		
T1	SLT5L173	Power Source
T2, 3	SLTUA4MK2N	Amorphous MC Transformer
VARIABLE RESISTORS		
VR301	EWGGCA067252	Balance, 250k Ω (BH)
VR302	EWI10A0491C3	Volume, 50k Ω (B)
VR401	EWGGCY067530	Bass, 100k Ω (C)
VR402.403	EWGGC0067C15	Treble, Super Treble, 100k Ω (C)
VR404	EWKKMA065B15	Super Bass, 100k Ω (B)
VR501.502.601.	EVMH1GA00B53	DC Balance Adj, 5k Ω (B)
602		
VR701	EVTR4SA00B53	Voltage Regulator, 5k Ω (B)

Ref. No.	Part No.	Description
COMPONENT COMBINATION		
Z701	SXRFS203ZSM	0.01 μ F(\times 2)
RELAY		
RLY1	SSY115	Muting
LAMPS		
PL901.902	XAMR85S15	Amorphous Ind., (50mA, 12V)
FUSES		
F1	Δ XBA2C016TRO	T160mA, 250V
F2.3	Δ XBA2C03TRO	T315mA, 250V
SWITCHES		
S1-1~1.6	ESA3370B	Phono Selector
S1-7	ESA26523	Phono Selector
S2-1~2.4	ESA3369B	Input Selector
S2-5	ESA2682	Input Selector
S3-1~3.4	ESA3368B	Rec Selector
S3-5	ESA26559	Rec Selector
S4	SSH177	Muting
S5.7~9.11~13	SSH711	Mode, Subsonic Filter, High Filter, Loudness, CD / Aux/Video Selector
S6-1,6-2	SSH2057	Operation
S10	SSH159	Super Bass Turnover Frequency
S14(XA)only	Δ ESB9997S	Power Source
S14 (other areas)	Δ ESB9399S	Power Source
S15	Δ ESE3787	Voltage Selector
CABINET and CHASSIS PARTS		
1	SGWUA4MK2N	Front Panel, Ass'y (1)
2	SGU187-1	Transparent plate (1)
3	SBN1169	Knob, Volume (1)
4	SBN1167	Knob, Balance, Super treble, Treble, Bass and Super bass (5)
5	SBN1165	Knob, Rec. Input. and Phono selector (3)
6	SNE2083	Lock Pin (2)
7	SHG6131	Volume, 50k Ω (B) (2)
8	SHR9575	Spacer (2)
9	SUB51	Hinge, Operation Lever (1)
10	SUB53	Hinge, Tinted Glass (1)
11	SUB57	Operation Lever, Tinted Glass (1)
12	SUE23-1	Holder, Operation Lever (1)
13	SUB55	Operation Lever (1)
14	SUS223	Spring (1)
15	SGX6919	Spacer (1)
35(XA)only	SMCUA4MK2X	Shield Plate (1)
35(other areas)	SMCUA4MK2N	Shield Plate (1)
36	SUV525	Cover (1)
37	SKP73	Upper Board, (Front) (1)
38	SKP75	Upper Board, (Rear) (1)
39	SKS27	Side Board (2)
40	SMNUA4MK2E	Bracket, Power transformer (1)
41	SMC1099	Bracket, Power transformer (1)
42	SHE113	Spacer (5)
43	SJT347	Holder, Fuse (6

ST

parts. Please use this part number for parts order.
 by Δ mark have special characteristics important for safety.
 only manufacturer's specified parts.
 ify the area. Parts without these indications can be used for all areas.
 differ from production parts.
 description stand for the quantity per set.

Areas

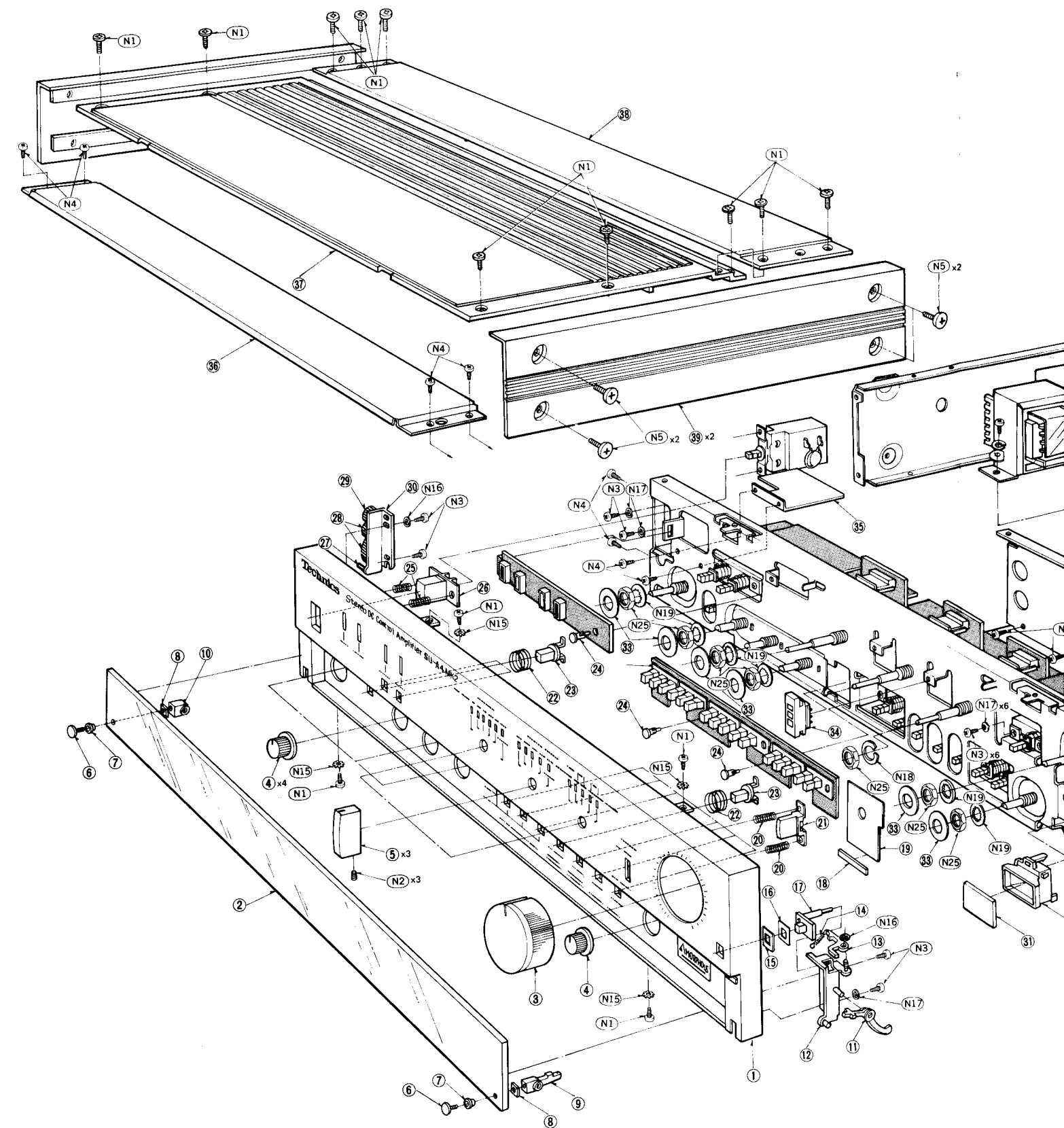
- *[E] is available in Scandinavia and Switzerland.
- *[EH] is available in Holland.
- *[EB] is available in Belgium.
- *[EF] is available in France.
- *[EK] is available in United Kingdom.
- *[Ei] is available in Italy.
- *[XA] is available in Southeast Asia, Oceania, Africa, Middle Near East and Central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

Ref. No.	Part No.	Description
COMPONENT COMBINATION		
	SXRF203ZSM	0.01 μ F(\times 2)
MUTING		
	SSY115	Muting
AMPS		
1.902	XAMR85S15	Amorphous Ind., (50mA, 12V)
RES		
	Δ XBA2C016TRO	T160mA, 250V
	Δ XBA2C03TRO	T315mA, 250V
CONNECTORS		
1-1.6	ESA3370B	Phono Selector
	ESA26523	Phono Selector
2-4	ESA3369B	Input Selector
	ESA2682	Input Selector
3-3.4	ESA3368B	Rec Selector
	ESA26559	Rec Selector
	SSH177	Muting
9.11~13	SSH711	Mode, Subsonic Filter, High Filter, Loudness, CD / Aux/Video Selector
15-2	SSH2057	Operation
	SSH159	Super Bass Turnover Frequency
	ESB9997S	Power Source
	ESB99399S	Power Source
	ESE3787	Voltage Selector
CABINET and CHASSIS PARTS		
	SGWUA4MK2N	Front Panel, Ass'y (1)
	SGU187-1	Transparent plate (1)
	SBN1169	Knob, Volume (1)
	SBN1167	Knob, Balance, Super treble, Treble, Bass and Super bass (5)
	SBN1165	Knob, Rec. Input, and Phono selector (3)
	SNE2083	Lock Pin (2)
	SHG6131	Spacer (2)
	SHR9575	Spacer (2)
	SUB51	Hinge, Operation Lever (1)
	SUB53	Hinge, Tinted Glass (1)
	SUB57	Operation Lever, Tinted Glass (1)
	SUE23-1	Holder, Operation Lever (1)
	SUB55	Operation Lever (1)
	SUS223	Spring (1)
	SGX6919	Spacer (1)

Ref. No.	Part No.	Description
CABINET and CHASSIS PARTS		
16	SHG6129	Spacer (1)
17	SBC313	Button (1)
18	SHG619	Rubber (1)
19	SHP9317	Sheet (1)
20	SUS159	Spring, Button (Muting) (2)
21	SBC219-2	Button, Muting (1)
22	SUS123-3	Spring, Button (00)
23	SBC263	Button (00)
24	SHR401-1	Lock Pin (3)
25	SUS193	Spring, Button (Power) (2)
26	SBC261-1	Button, Power switch (1)
27	SUB63	Gear (1)
28	SUB59	Gear (2)
29	SUB65	Gear (1)
30	SUE25-2	Holder, Gear (1)
31	SDE259-1	Filter, Lamp Case (1)
32	SMP305	Lamp Case (1)
33	SHP9319	Spacer, Knob (6)
34	SMP343	Holder, LED (1)
35(XA)only	SMCUA4MK2X	Shield Plate (1)
35(other areas)	SMCUA4MK2N	Shield Plate (1)
36	SUV525	Cover (1)
37	SKP73	Upper Board, (Front) (1)
38	SKP75	Upper Board, (Rear) (1)
39	SKS27	Side Board (2)
40	SMNUA4MK2E	Bracket, Power transformer (1)
41	SMC1099	Bracket, Power transformer (1)
42	SHE113	Spacer (5)
43	SJT347	Holder, Fuse (6)
44(XA)only	SUVUA4MK2X	Shield Cover (1)
44(other areas)	SUV523	Shield Cover (1)
45(EK)only	SHR129	Bushing, AC Cord (1)
45(other areas)	SHR127	Bushing, AC Cord (1)
46(XA)only	SJA121	AC Cord (1)
46(EK)only	QFC1205M	AC Cord (1)
46(other areas)	SJA138-3	AC Cord (1)
47	SUDA41	Spacer, Voltage Selector (2)
48(E)only	SGPUA4MK2E	Rear Panel (1)
48(XA)only	SGPUA4MK2X	Rear Panel (1)
48(other areas)	SGPUA4MK2F	Rear Panel (1)
49	SNE4017-1	Terminal (2)
50	SNTA421-1	Terminal (2)
51	RJT204A	Terminal (2)
52	SNE204-1S	Terminal (2)

Ref. No.	Part No.	Description
CABINET and CHASSIS PARTS		
53	SJF3247A	Terminal Board (2)
54	SJF3043-1SA	Terminal Board (1)
55	SJF2043-2SA	Terminal Board (1)
56	SMC1071	Shield Cover (1)
57	SMN1871-1	Bracket (1)
58	SKL247-1	Foot (4)
59	SMC1073	Shield Cover (1)
60	SKUUA4MK2N	Bottom Board (1)
61	SJP1103-1	Plug (4)
62(XA)only	Δ SJS601-2	Socket, AC Outlet (1)
63	SUV523	Shield Cover (1)
SCREWS		
N1	\odot XT B3+8BFZ	Tapping, \odot 3 \times 8 (2)
N2	\odot XES4D5FZS	\odot 3 \times 6 (3)
N3	\odot XSN3+6S	\odot 3 \times 6 (02)
N4	\odot XT B3+8BFZ1	Tapping with Detent, \odot 3 \times 8 (5)
N5	\odot XSSS5+12F1S	\odot 5 \times 12 (4)
N6	\odot XT B4+10BFZ	Tapping, \odot 4 \times 10(2)
N7	\odot XT N3+8B	Tapping, \odot 3 \times 8 (3)
N8	\odot XSN3+8BVS	\odot 3 \times 8 (2)
N9	\odot XSN3+14BVS	\odot 3 \times 14 (1)
N10	\odot SHD3+31S	(1)
N11	\odot XT B3+12BFZ	Tapping, \odot 3 \times 12(4)
WASHERS		
N15	\odot XWC3B	External Toothed Lock, ϕ 3 (4)
N16	\odot XUC3FT	(1)
N17	\odot XWA3B	Spring, ϕ 3 (4)
N18	\odot XWV8	Spring, ϕ 8 (3)
N19	\odot XWC9B	External Toothed Lock, ϕ 9 (6)
N20	\odot XWA4BFZ	Spring, ϕ 4 (2)
N21	\odot XWT4	Plain, ϕ 4 (2)
N21	\odot XWG3	Plain, ϕ 3 (5)
N22	\odot XWC4B	External Toothed Lock, ϕ 4 (2)
NUTS		
N25	\odot XNS8	ϕ 8 (9)
N26	\odot XNG3ES	ϕ 3 (2)
N27	\odot XNG4ES	ϕ 4 (2)
ACCESSORIES		
A1	SJP2237-2	Cord (1)
A2(XA)only	Δ SJP9215	Plug Adaptor (1)
A3(other areas)	SQF11745	Instruction Book (1)
A3(XA)only	SQF11749	Instruction Book (1)
PACKING PARTS		
P1	SPP687	Polyethylene Bag (Transparent Plate) (1)
P2	SPP689	Polyethylene Bag (Transparent Plate) (1)
P3	SPH207	Sheet (1)
P4	SPS4063	Pad, AC Cord (1)
P5	SPS2955-3	Pad, Left Side (1)
P6	SPS2957-3	Pad, Right Side (1)
P7(EF)only	SPG4487	Carton Box (1)
P7(other areas)	SPG4483	Carton Box (1)

EXPLODED VIEWS



EXPLODED VIEWS

