

Service Manual

Stereo Integrated DC Amplifier

SU-8044

(X), (XA), (XAL), (XGH)

(E), (EG), (XE), (XGF), (EB)

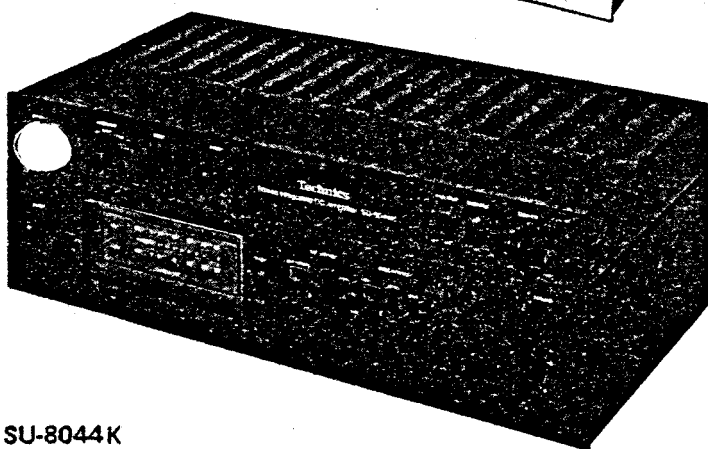
SU-8044K

(X), (XA), (XAL), (XGH)

(E), (EG), (EB)



SU-8044



SU-8044K

- * The models SU-8044 (X, XA) and SU-8044K (X, XA) are available in Asia, Latin America, Middle East and Africa only.
- * The models SU-8044 (XAL) and SU-8044K (XAL) are available in Australia only.
- * The models SU-8044 (XGH) and SU-8044K (XGH) are available in Holland only.
- * The models SU-8044 (E, EG) and SU-8044K (E, EG) are available in Scandinavia and European only.
- * The model SU-8055 (XE) is available in United Kingdom only.
- * The models SU-8044 (EB) and SU-8044K (EB) are available in Belgium only.
- * The model SU-8055 (XGF) is available in France only.

TECHNICAL SPECIFICATIONS

Specifications are subject to change without notice for further improvement.

[DIN 45 500]

AMPLIFIER SECTION

1 kHz continuous power output	
both channels driven	2 x 46 W (4Ω), 2 x 40 W (8Ω)
40 Hz ~ 16 kHz continuous power output	
both channels driven	2 x 40 W (4Ω), 2 x 38 W (8Ω)
20 Hz ~ 20 kHz continuous power output	
both channels driven	2 x 40 W (4Ω), 2 x 38 W (8Ω)
Power bandwidth	
both channels driven, -3 dB	5 Hz ~ 30 kHz (4Ω) 5 Hz ~ 50 kHz (8Ω)
Total harmonic distortion	
rated power at 1 kHz	0.03% (4Ω), 0.02% (8Ω)
rated power at 40 Hz ~ 16 kHz	0.03% (4Ω), 0.02% (8Ω)
rated power at 20 Hz ~ 20 kHz	0.03% (4Ω), 0.02% (8Ω)
half power at 20 Hz ~ 20 kHz	0.015% (8Ω)
half power at 1 kHz	0.008% (8Ω)
-26 dB power at 1 kHz	0.15% (4Ω)
50mW power at 1 kHz	0.2% (4Ω)
Intermodulation distortion	
rated power at 250 Hz: 8 kHz = 4:1, 4Ω	0.03%
rated power at 60 Hz: 7 kHz = 4:1, SMPTE, 8Ω	0.02%
Residual hum & noise	0.8 mV (0.6 mV, IHF, A)
Damping factor	16 (4Ω), 32 (8Ω)
Input sensitivity and impedance	
PHONO	2.5 mV/47 kΩ
TUNER, AUX	150 mV/47 kΩ
TAPE 1, REC/PLAY	180 mV/33 kΩ
TAPE 2	150 mV/33 kΩ
PHONO maximum input voltage (1 kHz, RMS)	150 mV

S/N

rated power at 4Ω	PHONO	73 dB (IHF, A: 80 dB)
	TUNER, AUX, TAPE	86 dB (IHF, A: 97 dB)
-26 dB power at 4Ω	PHONO	62 dB
	TUNER, AUX, TAPE	63 dB
50 mW power at 4Ω	PHONO	58 dB
	TUNER, AUX, TAPE	60 dB
Frequency response	PHONO	RIAA standard curve
		30 Hz ~ 15 kHz, ±0.8 dB
	TUNER, AUX, TAPE	20 Hz ~ 20 kHz, ±0.5 dB
		10 Hz ~ 50 kHz, -1 dB
Tone controls	BASS	50 Hz, +10 dB ~ -10 dB
	TREBLE	20 kHz, +10 dB ~ -10 dB
High filter		7 kHz, -6 dB/oct
Loudness control (volume at -30 dB)		50 Hz, +9 dB
Output voltage and impedance	REC OUT	150 mV
	REC/PLAY	30 mV/82 kΩ
Channel balance (250 Hz ~ 6300 Hz), AUX		±1.0 dB
Channel separation at 1 kHz, AUX		58 dB
Headphones output level and impedance		440 mV/330Ω
Load impedance	MAIN or REMOTE	4 ~ 16Ω
	MAIN + REMOTE	8 ~ 16Ω

GENERAL

Power consumption	400 W
Power supply (50 Hz/60 Hz)	110V/120V/220V/240V
Dimensions (W x H x D)	430 x 142 x 255 mm
Weight	6.7 kg

Technics

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

TECHNISCHE DATEN

Spezifikationen können infolge von Verbesserungen ohne Ankündigung geändert werden.

[DIN 45 500]

VERSTÄRKERTEIL

RMS-Dauertonleistung bei 1 kHz beide Kanäle zusammen angesteuert	2 x 46 W (4Ω) 2 x 40 W (8Ω)
RMS-Dauertonleistung bei 40 Hz ~ 16 kHz beide Kanäle zusammen angesteuert	2 x 40 W (4Ω) 2 x 38 W (8Ω)
RMS-Dauertonleistung bei 20 Hz ~ 20 kHz beide Kanäle zusammen angesteuert	2 x 40 W (4Ω), 2 x 38 W (8Ω)
Leistungsbandbreite beide Kanäle zusammen angesteuert, -3 dB	5 Hz ~ 30 kHz (4Ω) 5 Hz ~ 50 kHz (8Ω)
Harmonische Verzerrungen	
Nennausgangsleistung bei 1 kHz	0,03% (4Ω), 0,02% (8Ω)
Nennausgangsleistung bei 40 Hz ~ 16 kHz	0,03% (4Ω), 0,02% (8Ω)
Nennausgangsleistung bei 20 Hz ~ 20 kHz	0,03% (4Ω), 0,02% (8Ω)
Halber Ausgangsleistung bei 20 Hz ~ 20 kHz	0,015% (8Ω)
Halber Ausgangsleistung bei 1 kHz	0,008% (8Ω)
-26 dB Ausgangsleistung bei 1 kHz	0,15% (4Ω)
50 mW Ausgangsleistung bei 1 kHz	0,2% (4Ω)
Interdulationsverzerrung	
Nennausgangsleistung bei 250 Hz: 8 kHz = 4:1, 4Ω	0,03%
Nennausgangsleistung bei 60 Hz: 7 kHz = 4:1, 8Ω	0,02%
Brummen & Rauschen	0,8 mV (0,6 mV, IHF A)
Dämpfungsfaktor	16 (4Ω), 32 (8Ω)
Eingangsempfindlichkeit & Impedanz	
PHONO	2,5 mV/47 kΩ
TUNER, AUX	150 mV/47 kΩ
TAPE 1, REC/PLAY	180 mV/33 kΩ
TAPE 2	150 mV/33 kΩ
PHONO Maximale Eingangsspannungen (1 kHz RMS)	150 mV

Fremdspannungsabstand	
Nennausgangsleistung bei 4Ω	
PHONO	73 dB (IHF, A: 80 dB)
TUNER, AUX	86 dB (IHF, A: 97 dB)
-26 dB Ausgangsleistung bei 4Ω	PHONO 62 dB TUNER, AUX, TAPE 63 dB
50 mW Ausgangsleistung bei 4Ω	PHONO 58 dB TUNER, AUX, TAPE 60 dB
Frequenzgang	PHONO RIAA Standardkurve TUNER, AUX, TAPE 30 Hz ~ 15 kHz, ±0,8 dB 20 Hz ~ 20 kHz, ±0,5 dB 10 Hz ~ 50 kHz, -1 dB
Klangregler	BÄSSE 50 Hz, +10 dB ~ -10 dB HÖHEN 20 kHz, +10 dB ~ -10 dB
Höhenfilter (HIGH)	7 kHz, -6 dB/oct
Gehörgerechte Lautstärkekorektur (Lautstärke bei -30 dB)	50 Hz, +9 dB
Ausgangsspannungen & Impedanz REC OUT	150 mV
REC/PLAY Aufnahme	30 mV/82 kΩ
Kanalabweichung (250 Hz ~ 6300 Hz), AUX	±1,0 dB
Kanaltrennung bei 1 kHz, AUX	58 dB
Kopfhörerpegel und Ausgangsimpedanz	440 mV/330Ω
Lautsprecher-Ausgangsimpedanz	
MAIN oder REMOTE	4 ~ 16Ω
MAIN und REMOTE	8 ~ 16Ω

ALLGEMEINE DATEN

Leistungsaufnahme	400 W
Netzspannung umschaltbar (50 Hz/60 Hz)	110V/120V/220V/240V
Abmessungen (B x H x T)	430 x 142 x 255 mm
Gewicht	6,7 kg

CARACTERISTIQUES TECHNIQUES

Sujet à changement sans préavis.

[DIN 45 500]

PARTIE AMPLIFICATEUR

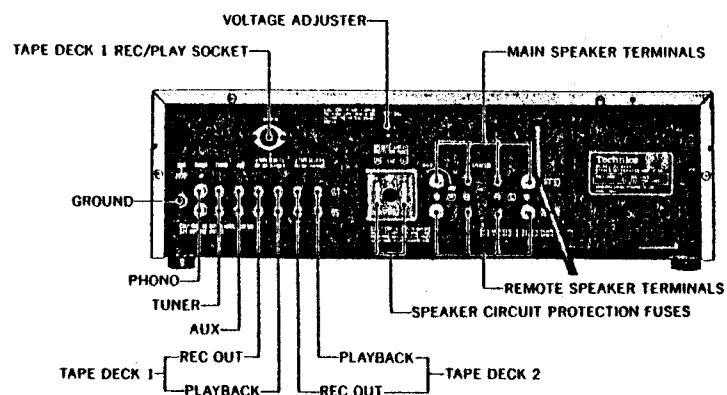
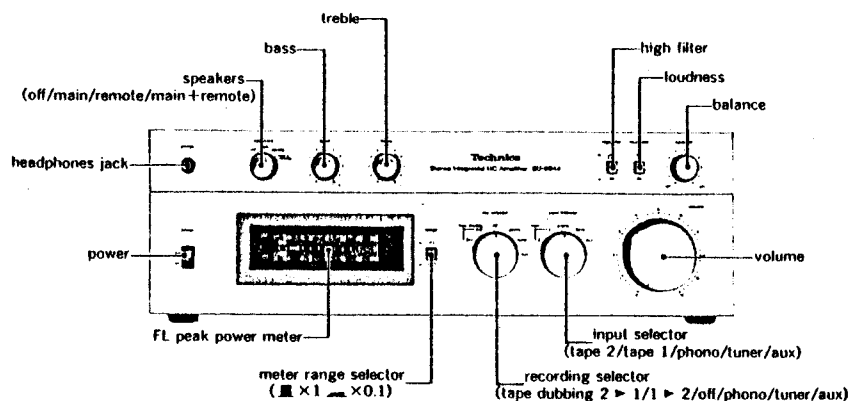
Puissance RMS (continue) à 1 kHz pour l'ensemble des canaux excités	2 x 46 W (4Ω) 2 x 40 W (8Ω)
Puissance RMS (continue) à 40 Hz ~ 16 kHz pour l'ensemble des canaux excités	2 x 40 W (4Ω) 2 x 38 W (8Ω)
Puissance RMS (continue) à 20 Hz ~ 20 kHz pour l'ensemble des canaux excités	2 x 40 W (4Ω), 2 x 38 W (8Ω)
Largeur de bande de puissance pour l'ensemble des canaux excités, -3 dB	5 Hz ~ 30 kHz (4Ω) 5 Hz ~ 50 kHz (8Ω)
Distorsion harmonique totale	
pour la puissance mesurée à 1 kHz	0,03% (4Ω), 0,02% (8Ω)
pour la puissance mesurée à 40 Hz ~ 16 kHz	0,03% (4Ω), 0,02% (8Ω)
pour la puissance mesurée à 20 Hz ~ 20 kHz	0,03% (4Ω), 0,02% (8Ω)
pour la demi-puissance mesurée à 20 Hz ~ 20 kHz	0,015% (8Ω)
pour la demi-puissance mesurée à 1 kHz	0,008% (8Ω)
pour une puissance mesurée de -26 dB, 1 kHz	0,15% (4Ω)
pour une puissance mesurée de 50 mW, 1 kHz	0,2% (4Ω)
Distorsion d'intermodulation	
pour la puissance mesurée à 250 Hz: 8 kHz = 4:1, 4Ω	0,03%
pour la puissance mesurée à 60 Hz: 7 kHz = 4:1, 8Ω	0,02%
Tension résiduelle de bruit	0,8 mV (0,6 mV: IHF, A)
Facteur d'amortissement	16 (4Ω), 32 (8Ω)
Sensibilité & impédance d'entrée	
PHONO	2,5 mV/47 kΩ
TUNER, AUX	150 mV/47 kΩ
TAPE 1, REC/PLAY	180 mV/33 kΩ
TAPE 2	150 mV/33 kΩ
Voltage d'entrée maximum (PHONO, 1 kHz, RMS)	150 mV

Rapport signal/bruit	
pour la puissance nominale, 4Ω	
PHONO	73 dB (IHF, A: 80 dB)
TUNER, AUX, TAPE	86 dB (IHF, A: 97 dB)
pour une sortie de -26 dB, 4Ω	PHONO 62 dB TUNER, AUX, TAPE 63 dB
pour une sortie de 50 mW, 4Ω	PHONO 58 dB TUNER, AUX, TAPE 60 dB
Réponse de fréquence	
PHONO	Courbe standard RIAA 30 Hz ~ 15 kHz, ±0,8 dB 20 Hz ~ 20 kHz, ±0,5 dB 10 Hz ~ 50 kHz, -1 dB
TUNER, AUX, TAPE	
Réglage de la tonalité	
BASS (graves)	50 Hz, +10 dB ~ -10 dB
TREBLE (aigus)	20 kHz, +10 dB ~ -10 dB
Filtre Aigu (HIGH)	7 kHz, -6 dB/oct
Correction physiologique (volume à -30 dB)	50 Hz, +9 dB
Tension de sortie & impédance	REC OUT 150 mV REC/PLAY 30 mV/82 kΩ
Equilibrage de canaux (250 Hz ~ 6300 Hz), AUX	±1,0 dB
Séparation des canaux, AUX 1 kHz	58 dB
Niveau du casque et impédance de sortie	400 mV/330Ω
Impédance de charge	PRINCIPALE ou ELOIGNEE 4 ~ 16Ω PRINCIPALE + ELOIGNEE 8 ~ 16Ω

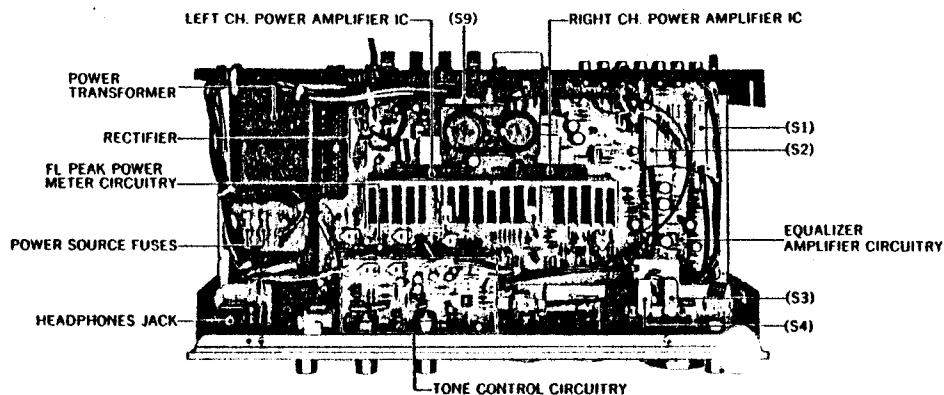
GENERALITES

Consommation	400 W
Alimentation (50 Hz/60 Hz)	110V/120V/220V/240V
Dimensions (L x H x Pr)	430 x 142 x 255 mm
Poids	6,7 kg

■ LOCATION OF CONTROLS



- The products for destinations (X) and (XA) are equipped with AC outlets.



■ NOTE

The unit is provided with the speaker circuit protection fuses at the right and left channels respectively. The fuse is to prevent the power IC from destruction, should the speaker terminals be short circuited. Accordingly, if the unit fails to function upon completion of the speaker connections, check the speaker circuit protection fuses first of all for possible blowing.

■ HOW TO REMOVE THE AMPLIFIER CABINET, BOTTOM PLATE AND FRONT PANEL

How to remove the amplifier cabinet

1. Remove the 4 setscrews (① ~ ④ in Fig. 1) on the side and 4 setscrews (⑤ ~ ⑧ in Photo 1) on the back of the amplifier cabinet.
2. Shift the cabinet backward and lift it upward. (Arrow ⑨ in Fig. 1)
3. When mounting the cabinet, completely fit the top lug of the cabinet with the front panel before tightening the setscrews. (See Fig. 1 (1).)

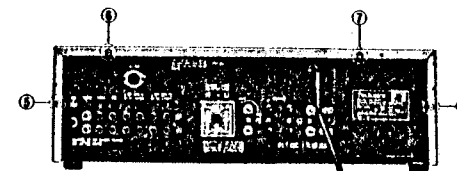
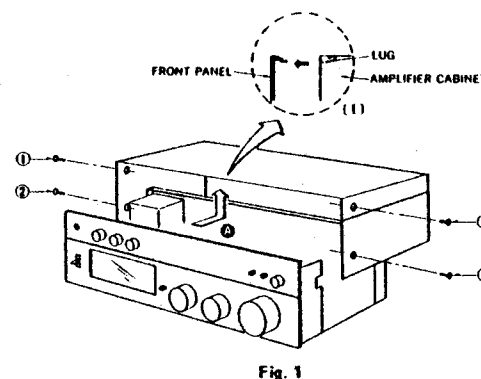


PHOTO 1

How to detach the bottom plate

1. Remove the 2 setscrews (⑪, ⑫ in Fig. 2) used to secure bottom plate and 4 setscrews (⑨, ⑩, ⑬, ⑭ in Fig. 2) for the legs. Then the bottom plate can be detached.

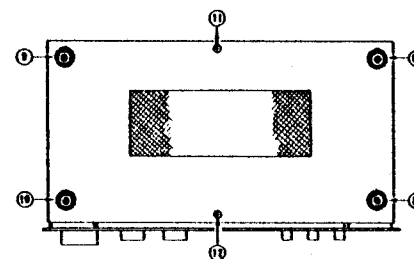


Fig. 2

How to detach the front panel

1. Remove the 4 setscrews (⑮ ~ ⑰ in Fig. 3) and then carefully pull the front panel toward you.

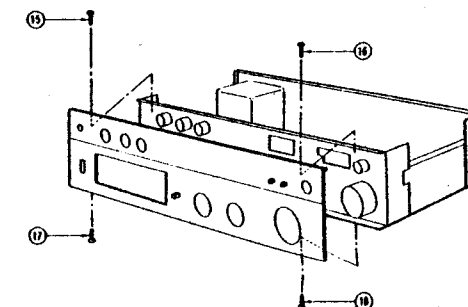
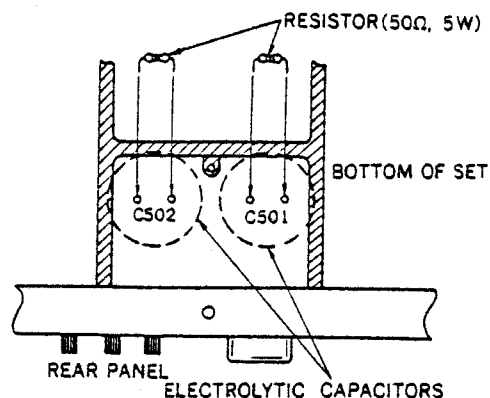


Fig. 3

■ BEFORE STARTING THE REPAIRING

Before adjusting or repairing, be sure to short-circuit opposite poles of the $8200\mu\text{F}$ capacitors (C501, 502) with a resistor approximately of " 50Ω , 5W " for discharging the charged voltage.

Short-circuiting with a screw driver and the like is not only dangerous, but may destroy transistors and diodes, and should therefore be avoided.



■ ALIGNMENT INSTRUCTIONS ENGLISH

Setting

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

Adjustment item	Meter range select switch position	Parts to be adjusted	Adjusting procedure
FL peak power meter	Range Switch... X0.1	R617 (Lch)	1. Adjust the input level so that the AC voltmeter indicates 0.7V. 2. Adjust R617 while observing the FL peak power meter so that the segment at 0.1W is about to turn on. (Fig. 4)
		R618 (Rch)	1. Adjust R618 in the same way as for Lch. If the indication of Lch changes, re-adjust R617.
	Range Switch... X1	R628 (Rch)	1. Adjust the input level so that the L-channel segment at 10 W of the FL peak power meter is about to turn on, and read the output voltage with the AC voltmeter. 2. Adjust the input level so that the R-channel output voltage becomes equal to the L-channel's one read above, then adjust R628 so that the R-channel segment at 10 W is about to turn on. (Fig. 5)
	Range Switch... X0.1	R618 (Rch)	1. Adjust the input level so that the AC voltmeter indicates 0.7V. Rotate R617 counterclockwise to turn them off. Again adjust R618 so that the segment at 0.1W is about to turn on.

Adjustment of DC unbalanced voltage

- 1) Connect the DC electronic voltmeter to the speaker terminals of L and R channels.
- 2) Set the power supply switch to "ON".
- 3) Shift the range knob of the DC voltmeter to as small measuring range as possible. Then adjust R413 (Lch) and R414 (Rch) so that the voltmeter indicates 0 V.

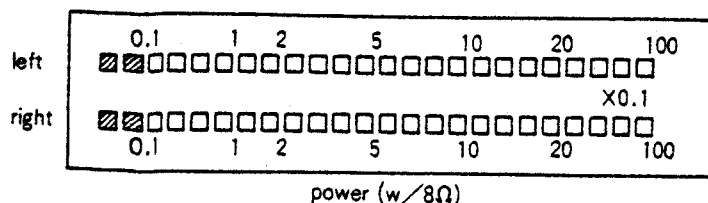


Fig. 4 (Adb. 4)

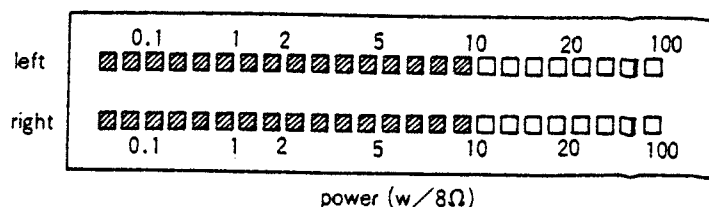


Fig. 5 (Abb. 5)

■ ANWEISUNGEN FÜR ABGLEICHUNG

DEUTSCH

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

Justierung	Stellung des Meterbereichswählers	Zu justierende Teile	Justierungsvorgang
FL-Spitzenleistungsmeter	Bereichswähler auf X0.1	R617 (Linker Kanal)	1. Den Eingangsspegel so justieren, daß der Wechselstrom-Voltmeter 0,7 V anzeigt. 2. Unter Beobachtung des FL-Spitzenleistungsmeters R617 so justieren, daß das Segment an 0,1 W aufzuleuchten beginnt. (Abb. 4)
		R618 (Rechter K.)	1. R618 in der gleichen Weise wie bei linkem Kanal justieren. Bei Änderung der Anzeige des linken Kanals R617 wiederjustieren.
	Bereichswähler auf X1	R628 (Rechter K.)	1. Den Eingangsspegel justieren, bis der L-Kanalabschnitt bei 10 W des FL-Spitzenleistungsmeters fast einschaltet, und am Wechselstromvoltmeter die Ausgangsspannung ablesen. 2. Den Eingangsspegel justieren, bis die R-Kanalabschnitt der oben abgelesenen des L-Kanals gleichsteht, dann R628 justieren, bis der R-Kanalabschnitt bei 10 W fast einschaltet. (Abb. 5)
	Bereichswähler auf X0.1	R618 (Rechter K.)	1. Den Eingangsspegel so justieren, daß der Wechselstrom-Voltmeter 0,7 V anzeigt. R617 im Gegensinn zum Uhrzeiger drehen, bis sie erlöschen. R618 wieder so justieren, daß das Segment an 0,1 W aufzuleuchten beginnt.

Justierung der unausgeglichene Gleichstromspannung

- 1) Den elektronischen Gleichstrom-Voltmeter an die Lautsprecherklemme des linken und rechten kanal schließen.
 - 2) Den Netzschalter auf "ON" stellen.
 - 3) Den Bereichsknopf des Gleichstrom-Voltmeters auf den möglichst kleinen Meßbereich umschalten.
- Dann R413 (Linker K.) und R414 (Rechter K.) so justieren, daß der Voltmeter 0 V anzeigt.

■ INSTRUCTIONS D'ALIGNMENT

FRANÇAIS

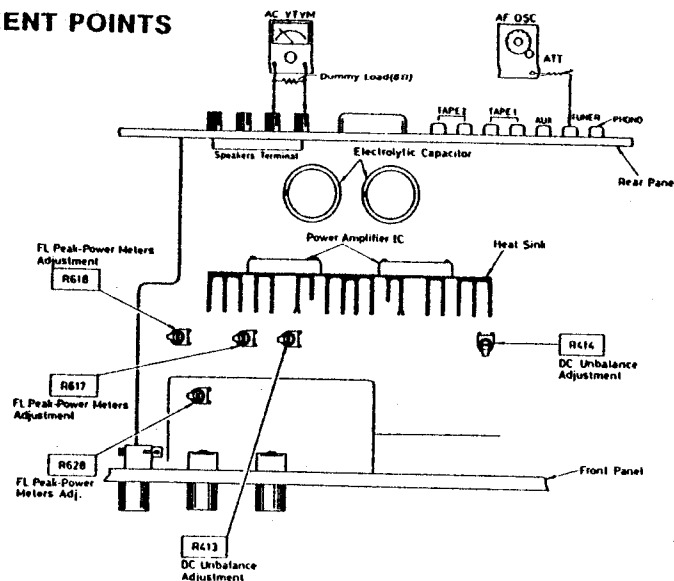
- Réglage • Brancher un oscillateur à basse fréquence à la borne de sortie du tuner et une résistance de charge de 8 ohms et un voltmètre électronique à la borne de l'enceinte.
- Par l'oscillateur à basse fréquence, appliquer un signal de 1 kHz à l'appareil.
 - Régler le volume du son au maximum.

Élément de réglage	Position du commutateur de sélection de la gamme du compteur	Éléments à régler	Procédé de réglage
Compteur de puissance de crête de niveau de fréquence	Commutateur de gamme X0.1	R617 (CG)	1. Régler le niveau de sortie de telle sorte que le voltmètre CA indique 0,7 V. 2. Régler la R617 tout en observant le compteur de puissance de crête de niveau de fréquence, de telle sorte que le segment à 0,1 W soit sur le point d'être allumé. (Fig. 4)
		R618 (CD)	1. Régler la R618 de la même façon que pour le canal gauche (CG). Si l'indication du canal gauche est modifiée, re-régler la R617.
	Commutateur de gamme X1	R628 (CD)	1. Régler le niveau d'entrée de telle sorte que le segment du canal gauche à 10W du compteur de puissance de crête FL soit sur le point d'être branché et lire la tension de sortie avec un voltmètre CA. 2. Régler le niveau d'entrée de telle sorte que la tension de sortie du canal droit, soit égale à celle du canal gauche lue ci-dessus, puis régler le R628 de telle sorte que le segment du canal droit à 10 W soit sur le point d'être branché. (Fig. 5)
	Commutateur de gamme X0.1	R618 (CD)	1. Régler le niveau de sortie de telle sorte que le voltmètre CA indique 0,7 V. Tourner les R617 à gauche pour les éteindre. Régler de nouveau le R618 pour que le segment de 0,1 W soit sur le point d'être allumé.

Réglage de la tension CC déséquilibrée

- 1) Brancher un voltmètre électronique CC aux bornes de l'enceinte des canaux droit et gauche.
- 2) Placer le commutateur d'alimentation sur "ON".
- 3) Déplacer le bouton de gamme du voltmètre CC sur la plus petite gamme de mesure possible. Puis régler le R413 (CG) et le R414 (CD) de telle sorte que le voltmètre indique 0 V.

■ ALIGNMENT POINTS



■ HOW TO REMOVE THE POWER IC

1. Remove the solder of power IC for both Lch and Rch.
2. Remove the 3 setscrews (①~③ in Fig. 6) used to fasten the heat sink from the center bracket.
3. Remove the setscrew (④ in Fig. 6) used to fasten the heat sink from the reinforce bracket.
4. Remove the heat sink along with power IC in the direction of arrow A (Fig. 7).
5. Remove the 2 setscrews (⑥ in Fig. 7) used to secure the power IC on the heat sink, and then pull the power IC in the direction of arrow B.
6. When mounting the power IC, apply silicone compound (or equivalent heat diffuser) to the back of power IC, and then follow the steps 1 ~ 5 reversely.

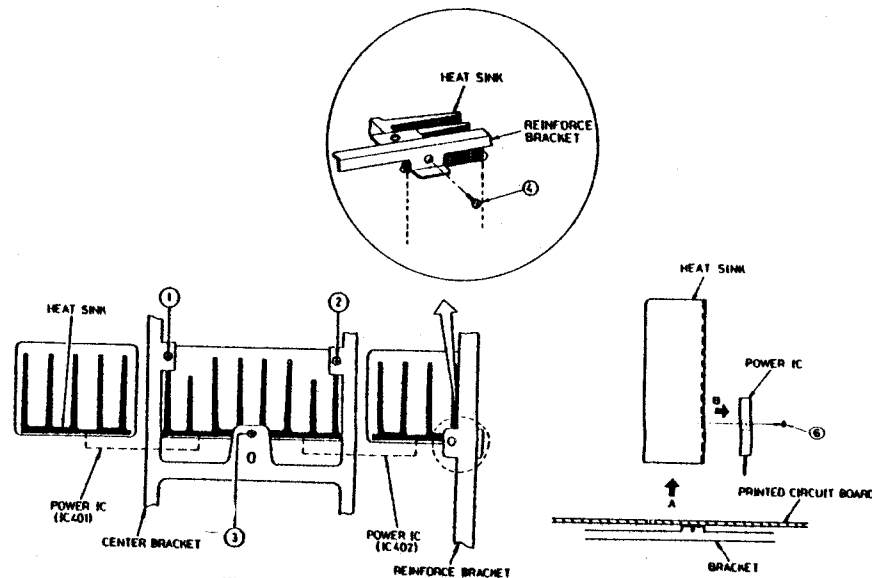
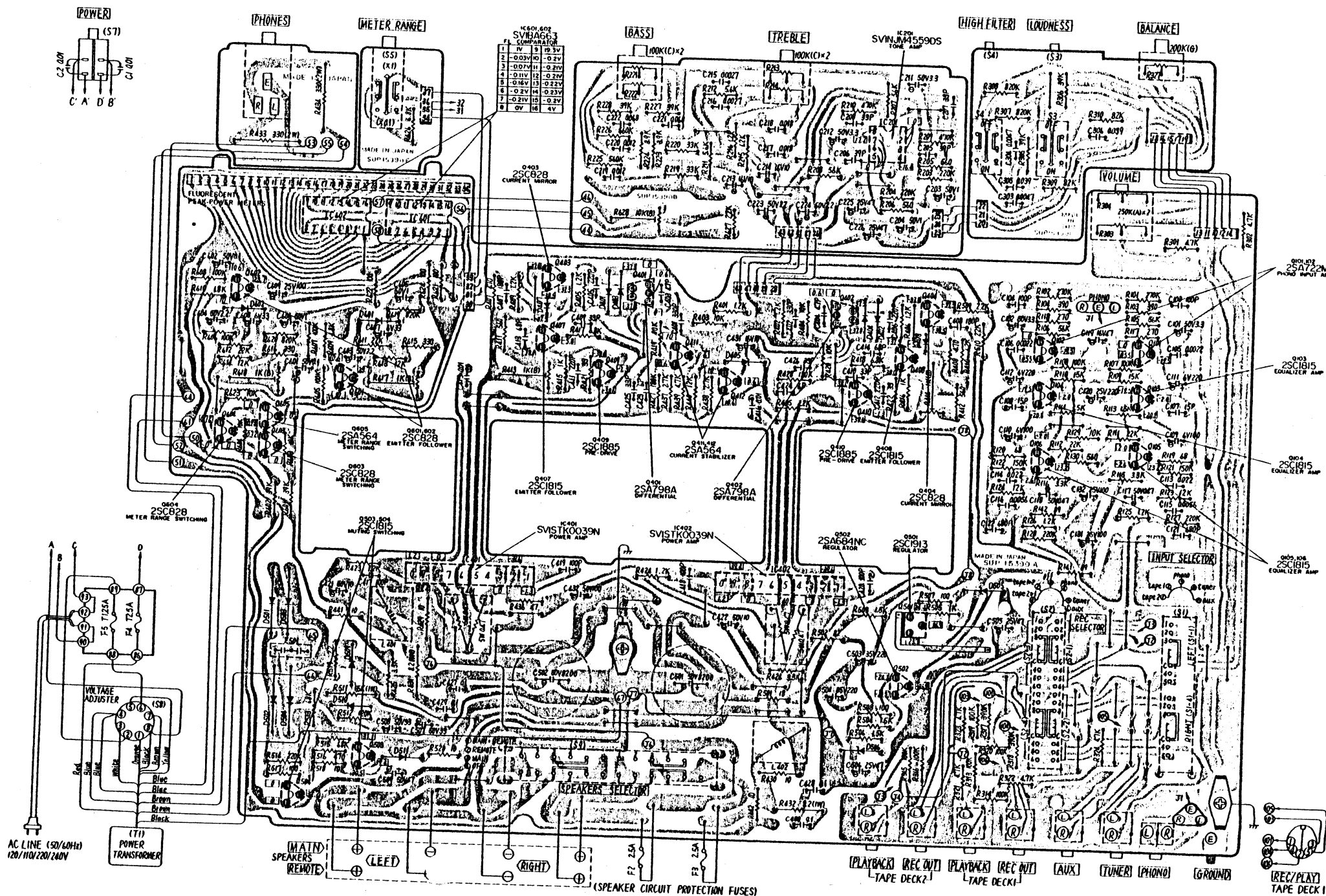



Fig. 6

Fig. 7

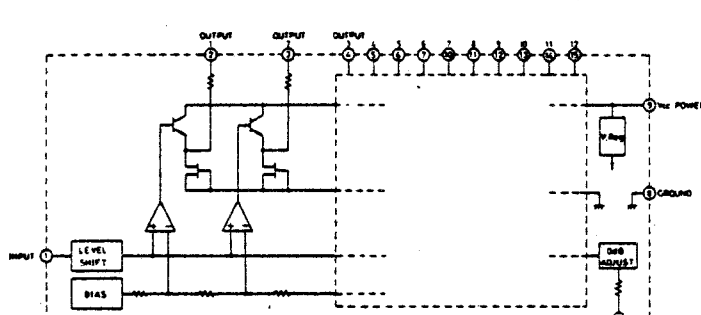
Earth (Ground) Lines



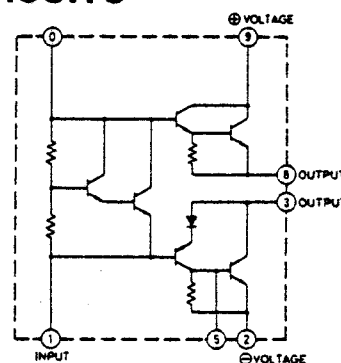
Notes:

1. **S1** : Input selector switch in "PHONO" position.
① TAPE 2 ↔ ② TAPE 1 ↔ ③ PHONO ↔ ④ TUNER ↔ ⑤ AUX
2. **S2** : Rec selector switch in "OFF" position.
① TAPE 2 ▶ 1 ↔ ② TAPE 1 ▶ 2 ↔ ③ OFF ↔ ④ PHONO ↔ ⑤ TUNER ↔ ⑥ AUX
3. **S3** : Loudness switch in "OFF" position.
4. **S4** : High filter switch in "OFF" position.
5. **S5** : Range switch in "X1" position.
6. **S7** : Power switch in "ON" position.
7. **S8** : Voltage adjuster switch in "240V" position.
(240V ↔ 220V ↔ 120V ↔ 110V)
8. **S9** : Speaker switch in "MAIN" position.
9. 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.
□ Standards values () Bright
10. The **S** mark has been used for the indication of specified parts for an assurance of safety, but it has been changed to **Δ** mark. When replacing parts, be sure to use parts with correct numbers with reference to the circuit drawing or the repair parts list.
□ **S** → **Δ** (new mark)
11. To represent transistors, Q is used instead of TR (Ex. TR1 → Q1)
12.  Phono signal lines of left channel.
13. This schematic diagram may be modified at any time with the development of new technology.

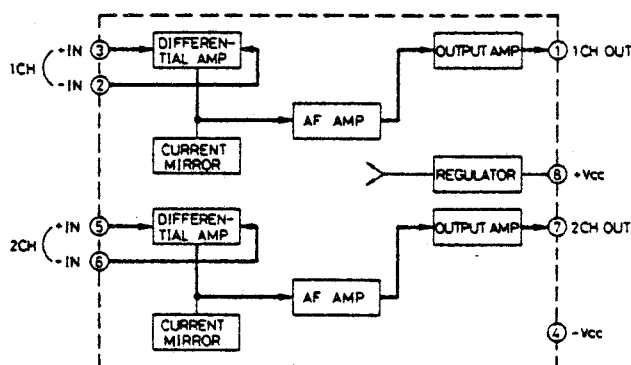
■ BLOCK DIAGRAM OF INTEGRATED CIRCUITS



IC601, 602 (SVIBA663)
FL Comparator

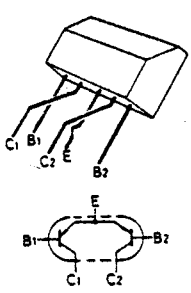
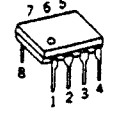
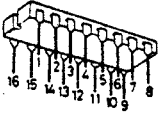
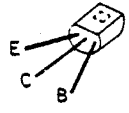
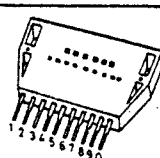
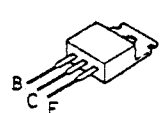


IC401, 402 (SVISTK0039N)
Power Amplifier

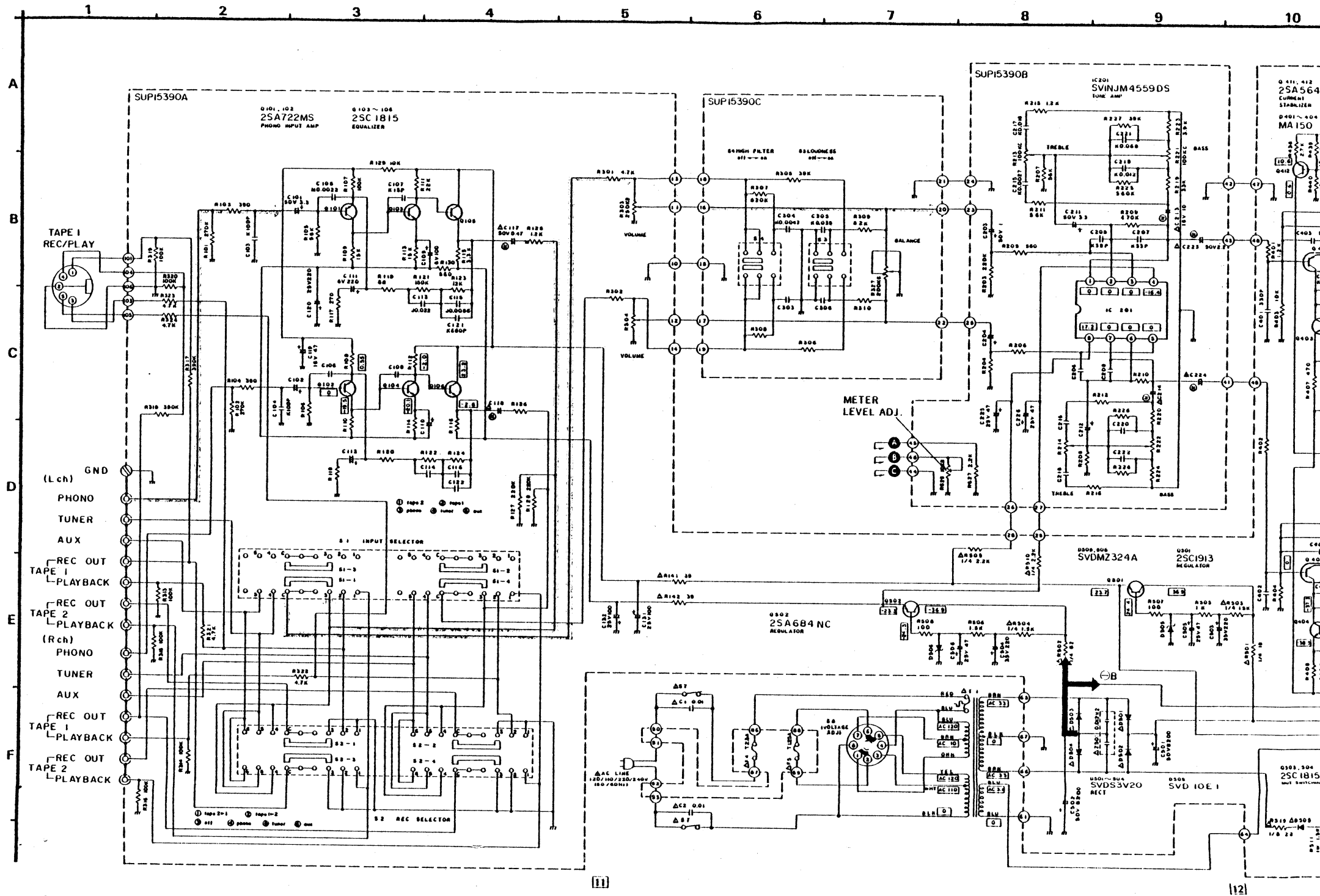


IC201 (SVINJM4559DS)
Tone Amplifier

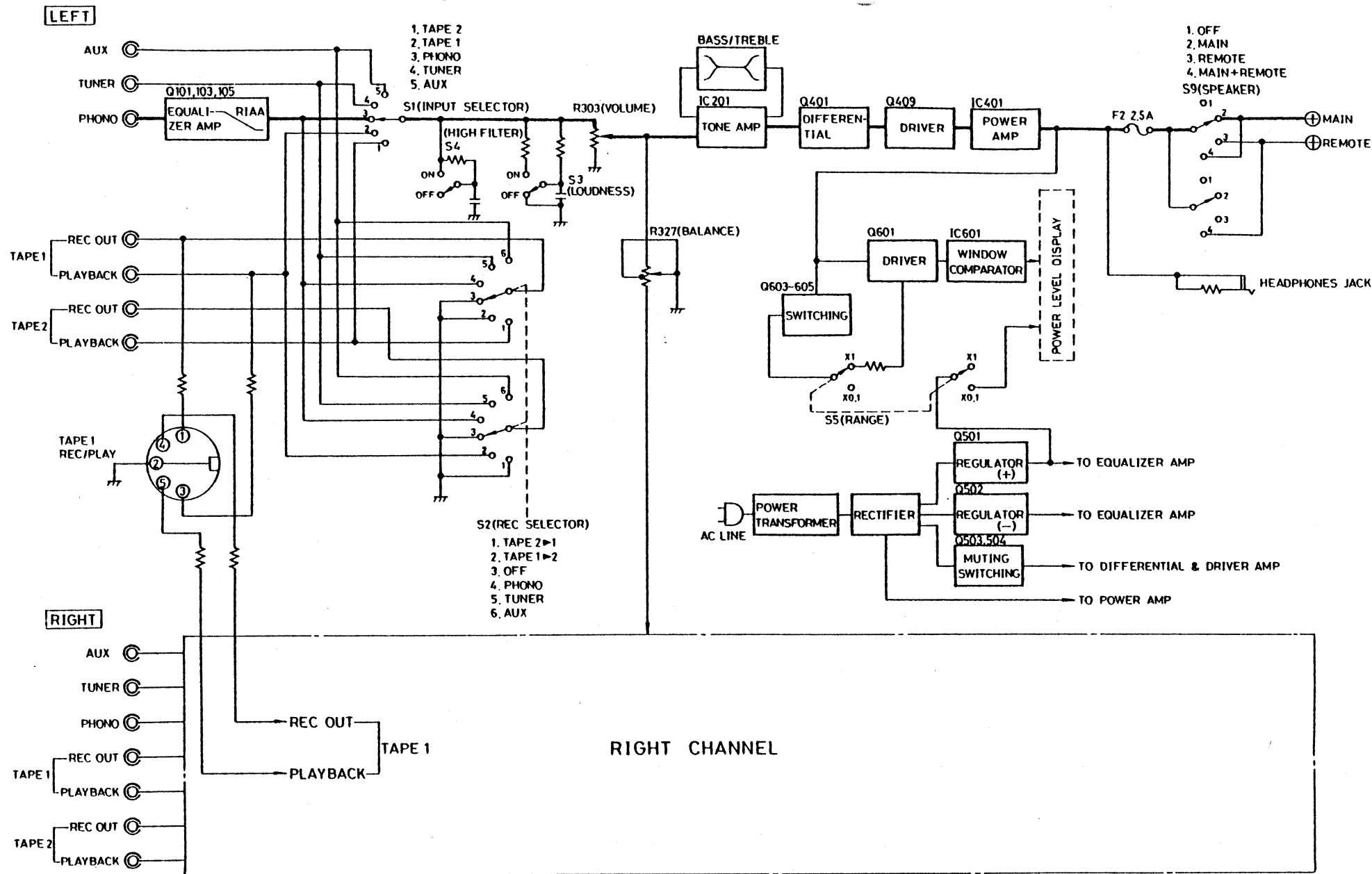
■ TERMINAL GUIDE OF TRANSISTOR & IC

2SA798A	SVINJM4559DS	SVIBA663	2SA722, 2SA684NC, 2SC828,	2SC1815 2SA564 2SC1885
				
	SVISTK0039N	2SC1913		
				

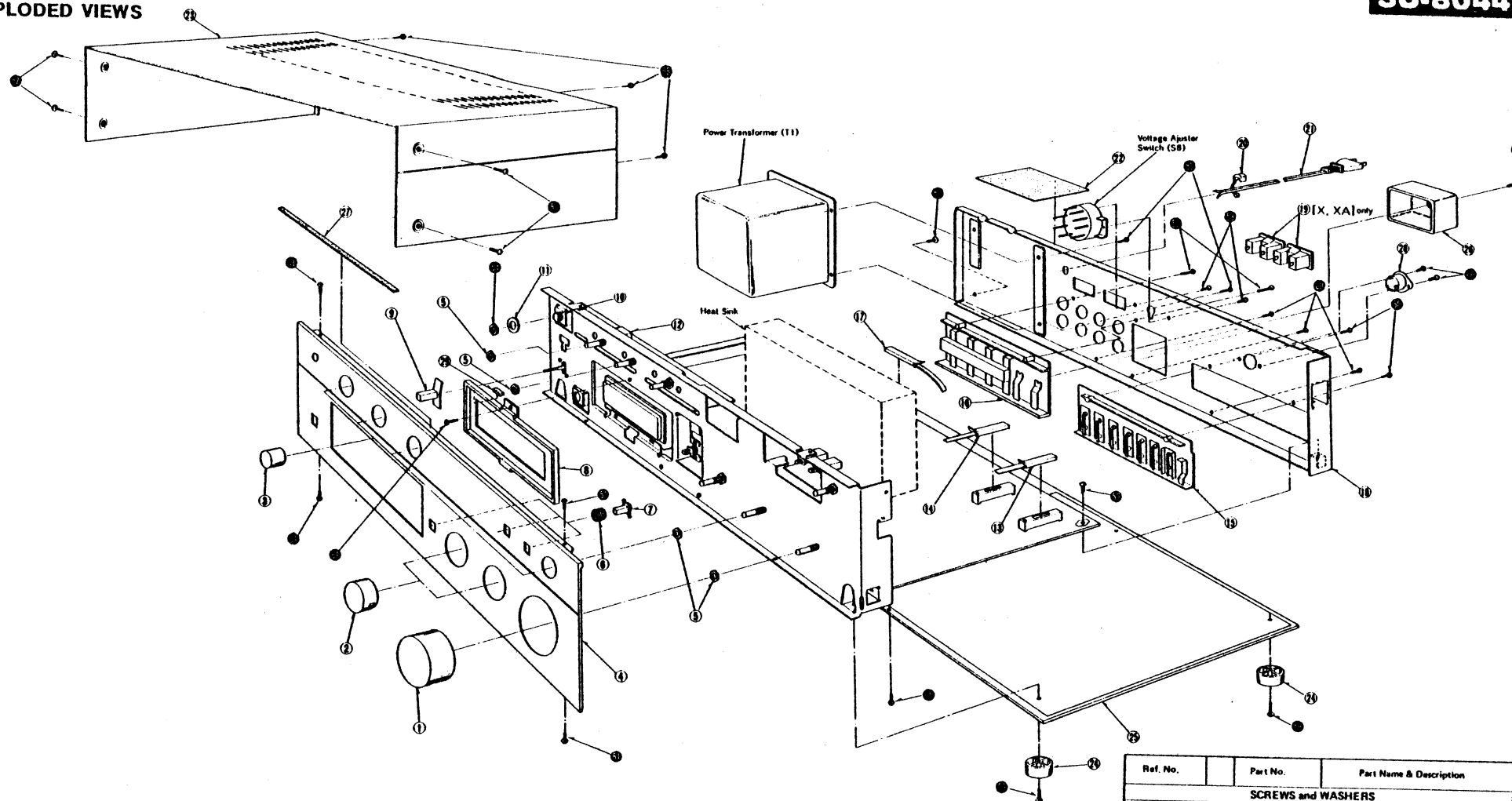
■ SCHEMATIC DIAGRAM



■ BLOCK DIAGRAM



EXPLODED VIEWS



REPLACEMENT PARTS LIST

- 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	SBN821	Knob, Volume	11	SNE59-1	Washer, Headphones Jack
2	SBN823	Knob, Rec Selector & Input Selector	12	ESA23426	Remote Control Switch, Speakers
3	SBN825	Knob, Speakers Selector, Bass, Treble & Balance	13	ESA3310	Wire, Remote Control Switch
4	SGW8044 M	Panel, Front Assy	14	ESA339	Wire, Remote Control Switch
5	SNE4021	Nut, Volume, Rec Selector, Input Selector	15	SJF3029	Terminal, Input
6	SUS123-1	Spring, Range, High Filter & Loudness Switch	16	SJF8013-1	Terminal, Speakers
7	SBC197	Button, Range, High Filter & Loudness Switch	17	ESA2073	Wire, Remote Control Switch
8	SYE545	Bracket, Fluorescent Peak Power Meters	18 [E]	SGP1671A	Rear Panel
9	SBD19	Button, Power Switch	18 [XE, EG, XGH, XGF, EB]	SGPU8044E	Rear Panel, SGP1671A with Name Plate (SGT18370)
10	XCJ6P218 A	Jack, Headphones	18 [XAL]	SGPU8044L	ear Panel, SGP1671-1A with Name Plate (SGT18390)
			18 [X, XA]	SGP1651-1A	Rear Panel

Ref. No.	Part No.	Part Name & Description
19 [X, XA] only	Δ SJS468-1	Socket, AC Outlet
20 [E, EG, XGH, XGF, EB, X, XA]	SHR127	Bushing, AC Cord
20 [XE]	SHR129	Bushing, AC Cord
20 [XAL]	SHR131	Bushing, AC Cord
21 [E, EG, XGH, XGF, EB]	RJA232C	AC Cord, with Plug
21 [X, XA]	Δ SJA97	AC Cord, with Plug
21 [XE]	RJA452C	AC Cord
21 [XAL]	QFC1207M	AC Cord, with Plug
22	SHS6107	Cloth, Protector
22 [X, XA] only	SHS6109	Cloth, Protector
23	SKA10416	Cabinet
24	SKLA7-1	Foot, Set
25	SVU189-1	Bottom
26	SUV337	Cover, Fuses
27	SHS6101-1	Cloth, 1
28	RJ531-1	Socket, DIN (REC/PLAY)
29	SHG1529	Rubber Cushion, FL Peak Power Meter Bracket

Ref. No.	Part No.	Part Name & Description
SCREWS and WASHERS		
	XTB318BFZ	Screw, Speaker Terminal, Input Terminal & Fuse Cover M'tg
	XTB318B	Screw, Front Panel M'tg
	XWC30	Washer, Front Panel Screw
	XTB318B	Screw, Printed Circuit Board M'tg
	XWC36	Washer Printed Circuit Board Screw
	XSN316FZS	Screw, Voltage Adjuster Switch M'tg
	XWA3BFZ	Washer (Spring), Voltage Adjuster Switch
	XNSS12	Screw
	XTN318B	Nut, Headphones Jack M'tg
	XWG3	Screw, Bottom Board M'tg
	XTB410FZ	Screw, Power Source Transformer M'tg
	XWA4FZ	Washer (Spring), Power Source Transformer
	XWG4FZ	Screw
	XTB418FN	Washer, Power Source Transformer Screw
	XTB318BFN	Screw, Cabinet M'tg
	XWC3FN	Screw, Cabinet M'tg
	XTB318B	Washer, Cabinet Screw
	XTB318BFZ	Screw, Set Foot M'tg
	XWC3FZ	Screw, Rear Panel and DIN Socket M'tg
	XSN318S	Washer, Rear Panel and DIN Socket Screw
	XWA3	Screw, FL Peak Power Meter M'tg
	XWG3	Washer (Spring), FL Peak Power Meter
		Screw
		Washer, FL Peak Power Meter Screw

REPLACEMENT PARTS LIST Electric 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
INTEGRATED CIRCUITS		
IC201	SV1N4M559DS	IC, Tone Amplifier
IC401, 402	SV1STK0039N	IC, Power Amplifier
IC601, 602	SV1BA663	IC, F.L. Comparator
TRANSISTORS		
Q101, 102	2SA902S-F	Transistor, PHONO Input Amplifier (Use in ranks F or G)
Q103, 104	2SC1815-O	Transistor, Equalizer Amplifier (Use in ranks Y or O)
Q105, 106	2SC1815-O	Transistor, Equalizer Amplifier (Use in ranks Y or O)
Q401, 402	2SA798A-G2	Transistor, Differential Amplifier (Use in ranks F2 or G2)
Q403, 404	2SC1328-T	Transistor, Current Mirror (Use in ranks S, T or U)
Q407, 408	2SC1815-O	Transistor, Emitter Follower (Use in ranks Y or O)
Q409, 410	2SC1885-R	Transistor, Pre Drive Amplifier (Use in ranks Q, R or S)
Q411, 412	2SA886A-R	Transistor, Current Stabilizer (Use in ranks P, Q or R)
Q501	2SC1913-R	Transistor, Regulator (Use in ranks Q or R)
Q502	2SA884NC-R	Transistor, Regulator (Use in ranks P, Q or R)
Q503, 504	2SC1815-O	Transistor, Muting Switching (Use in ranks Y or O)
Q601, 602, 603, 604 Q605	2SC1328-T 2SA886A-R	Transistor, Meter Range Switching (Use in ranks S, T or U) Transistor, Meter Range Switching (Use in ranks P, Q or R)
DIODES		
D401, 402, 403, 404 D405	MA150	Diode, Input Limiter
D407, 408 D501, 502, 503, 504 D505, 506 D509 D510, 511 D601, 602	SVDM2314B SVDMA26-1 SVDS3V20 SVDM2324A SVO10E1 MA150 2-0A99	Diode, 14V Zener Diode Rectifier Diode, 24V Zener Rectifier Diode, Switching Diode, Detector
COILS and TRANSFORMER		
L401, 402 T1	SLQY15G-3U SLT5N327	Coil, Power Amplifier Output Transformer, Power Source
COMPONENT COMBINATIONS		
Z401, 402 Z501	ERF5GKKR47N EXRF52032S	Non-Flammable Resistor, 0.47Ω (X2) 5W 0.01μF (X2), Rectifier
VARIABLE RESISTORS		
R213, 214 221, 222 R303, 304 R327 R413, 414 R617, 618 R628	EWK32F25C15S FWF6LA031BF5 EVLH63F25G25S EVL33AA00813 EVL33AA00813 EVL33AA00814	Treble & Bass Control, 100kΩ (C) Volume Control, 250kΩ (A) Balance Control, 200kΩ (G) DC Unbalance Adjustment, 1kΩ (B) Meter Level Adjustment, 1kΩ (B) Meter Level Adjustment, 10kΩ (B)
FUSES		
F2, 3 F4 F5	XBA2C26SS0 XBA2C26T1A XBA2C12TR0	Fuse, 2.5A (250V), Speaker Circuit Fuse, T2 5A (250V), Primary Fuse, T1 2.5A (250V), Primary
SWITCHES		
S1, 2 S3, 4 S5 S7 S8 S9	ESA2682 SSH257-1 SSH105 ESL21182 ESE37200 ESA273	Switch, Input & Recording Selector Switch, High Filter & Loudness Switch, Meter Range Switch, Power Source Switch, Voltage Adjuster Switch, Speakers
METER		
	SAD241A7YS	Meter, Fluorescent Peak Power

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	ERD25TJ274 ERD25TJ291 ERD25TJ263 ERD25TJ104 ERD25TJ153 ERD25TJ223 ERD25TJ162 ERD25TJ332 ERD25TJ271 ERD25TJ272	Carbon, 270kΩ, 1/4W, ± 5% Carbon, 300Ω, 1/4W, ± 5% Carbon, 56kΩ, 1/4W, ± 5% Carbon, 100kΩ, 1/4W, ± 5% Carbon, 15kΩ, 1/4W, ± 5% Carbon, 22kΩ, 1/4W, ± 5% Carbon, 1.5kΩ, 1/4W, ± 5% Carbon, 3.3kΩ, 1/4W, ± 5% Carbon, 270Ω, 1/4W, ± 5% Carbon, 68Ω, 1/4W, ± 5%
R121, 122 R123, 124 R125, 126 R127, 128 R129 R130 R141, 142 R203, 204 R205, 206 R207, 208	ERD25TJ154 ERD25TJ124 ERD25TJ122 ERD25TJ103 ERD25TJ361 ERD25TJ360 ERD25TJ224 ERD25TJ361 ERD25TJ563	Carbon, 150kΩ, 1/4W, ± 5% Carbon, 120kΩ, 1/4W, ± 5% Carbon, 1.2kΩ, 1/4W, ± 5% Carbon, 220kΩ, 1/4W, ± 5% Carbon, 10kΩ, 1/4W, ± 5% Carbon, 560Ω, 1/4W, ± 5% Carbon, 30Ω, 1/4W, ± 5% Carbon, 220kΩ, 1/4W, ± 5% Carbon, 560Ω, 1/4W, ± 5% Carbon, 56kΩ, 1/4W, ± 5%
R209, 210 R211, 212 R215, 216	ERD25TJ474 ERD25TJ562 ERD25TJ122	Carbon, 470kΩ, 1/4W, ± 5% Carbon, 5.6kΩ, 1/4W, ± 5% Carbon, 1.2kΩ, 1/4W, ± 5%
R218, 220 R223, 224 R225, 226 R227, 228 R301, 302 R305, 306	ERD25TJ333 ERD25TJ392 ERD25TJ364 ERD25TJ393 ERD25TJ472 ERD25TJ393	Carbon, 33kΩ, 1/4W, ± 5% Carbon, 3.9kΩ, 1/4W, ± 5% Carbon, 560kΩ, 1/4W, ± 5% Carbon, 39kΩ, 1/4W, ± 5% Carbon, 4.7kΩ, 1/4W, ± 5% Carbon, 39kΩ, 1/4W, ± 5%
R307, 308 R309, 310	ERD25TJ424 ERD25TJ423	Carbon, 820kΩ, 1/4W, ± 5% Carbon, 82kΩ, 1/4W, ± 5%
R313, 314 R315, 316 R317, 318 R319, 320 R321, 322 R323, 324	ERD25TJ104 ERD25TJ104 ERD25TJ394 ERD25TJ104 ERD25TJ472 ERD25TJ472	Carbon, 100kΩ, 1/4W, ± 5% Carbon, 100kΩ, 1/4W, ± 5% Carbon, 390kΩ, 1/4W, ± 5% Carbon, 100kΩ, 1/4W, ± 5% Carbon, 4.7kΩ, 1/4W, ± 5% Carbon, 4.7kΩ, 1/4W, ± 5%
R401, 402 R403, 404 R405, 406 R407, 408 R409, 410 R411, 412 R415, 416 R417, 418 R419, 420 R421, 422	ERD25TJ122 ERD25TJ103 ERD25TJ122 ERD25TJ171 ERD25TJ122 ERD25TJ641 ERD25FJ102 ERD25TJ082 ERD25TJ103 ERD25FJ330	Carbon, 1.2kΩ, 1/4W, ± 5% Carbon, 10kΩ, 1/4W, ± 5% Carbon, 1.2kΩ, 1/4W, ± 5% Carbon, 470Ω, 1/4W, ± 5% Carbon, 1.2kΩ, 1/4W, ± 5% Carbon, 560Ω, 1/4W, ± 5% Carbon, 1kΩ, 1/4W, ± 5% Carbon, 6.8kΩ, 1/4W, ± 5% Carbon, 10kΩ, 1/4W, ± 5% Carbon, 33Ω, 1/4W, ± 5%
R423, 424 R425, 426 R427, 428 R429, 430 R431, 432 R433, 434 R435 R436 R437, 438 R439 R440 R441, 442 R501 R502 R503, 504	ERD25FJ122 ERD25FJ332 ERD25TJ184 ERD50FJ100 ERK1ANJ8R2 ERQ2ANJ331 ERD25FJ222 ERD25FJ470 ERD25TJ272 ERD25TJ472 ERD25TJ123 ERD25FJ100 ERD25FJ180 ERD25FJ152	Carbon, 1.2kΩ, 1/4W, ± 5% Carbon, 3.3kΩ, 1/4W, ± 5% Carbon, 180kΩ, 1/4W, ± 5% Carbon, 10Ω, 1/2W, ± 5% Metal Film, 1W, ± 5% Metal Oxide, 330Ω, 2W, ± 5% Carbon, 2.2kΩ, 1/4W, ± 5% Carbon, 47Ω, 1/4W, ± 5% Carbon, 2.7kΩ, 1/4W, ± 5% Carbon, 4.7kΩ, 1/4W, ± 5% Carbon, 12kΩ, 1/4W, ± 5% Carbon, 10Ω, 1/4W, ± 5% Carbon, 18Ω, 1/4W, ± 5% Carbon, 82Ω, 1/4W, ± 5% Carbon, 1.5kΩ, 1/4W, ± 5%
R505 R506 R507, 508 R509, 510 R511 R512 R513 R514 R515 R516	ERD25TJ102 ERD25TJ182 ERD25TJ101 ERD25FJ222 ERQ1ANJ182 ERD25TJ124 ERD25TJ643 ERD25 ERD25 ERD25	Carbon, 1kΩ, 1/4W, ± 5% Carbon, 1.5kΩ, 1/4W, ± 5% Carbon, 100Ω, 1/4W, ± 5% Carbon, 820Ω, 1/4W, ± 5% Metal Oxide, 1.5kΩ, 1W, ± 5% Carbon, 120kΩ, 1/4W, ± 5% Carbon, 68kΩ, 1/4W, ± 5% Carbon, 220kΩ, 1/4W, ± 5% Carbon, 68kΩ, 1/4W, ± 5% Carbon, 470Ω, 1/4W, ± 5%
R517 R518	ERD25TJ181 ERD25TJ183	Carbon, 100Ω, 1/4W, ± 5% Carbon, 10kΩ, 1/4W, ± 5%

Ref. No.	Part No.	Part Name & Description
R510 R520 R601, 602 R603, 604 R605, 606 R607, 608 R609, 610 R611, 612	ERD18FAJ2R2 ERD25FJ100 ERD25TJ393 ERD25TJ103 ERD25TJ104 ERD25TJ104 ERD25TJ182 ERD25TJ223	Carbon, 2.2kΩ, 1/4W, ± 5% Carbon, 10Ω, 1/4W, ± 5% Carbon, 39kΩ, 1/4W, ± 5% Carbon, 10kΩ, 1/4W, ± 5% Carbon, 100kΩ, 1/4W, ± 5% Carbon, 100kΩ, 1/4W, ± 5% Carbon, 1.8kΩ, 1/4W, ± 5% Carbon, 22kΩ, 1/4W, ± 5%
R613, 614 R615, 616 R619, 620 R621, 622 R624 R623 R626 R627	ERD25TJ123 ERD25TJ331 ERD25TJ624 ERD25TJ101 ERD25FJ101 ERD25TJ103 ERD25TJ082 ERD25TJ222	Carbon, 12kΩ, 1/4W, ± 5% Carbon, 330Ω, 1/4W, ± 5% Carbon, 820kΩ, 1/4W, ± 5% Carbon, 100Ω, 1/4W, ± 5% Carbon, 100Ω, 1/4W, ± 5% Carbon, 10kΩ, 1/4W, ± 5% Carbon, 6.8kΩ, 1/4W, ± 5% Carbon, 2.2kΩ, 1/4W, ± 5%
CAPACITORS		
C1, 2 C103, 102 C103, 104 C105, 106 C107, 108 C109, 110 C111, 112 C113, 114 C115, 116 C117, 118 C119 C120 C121, 122 C131, 132 C203, 204 C205, 206 C207, 208 C211, 212 C213, 214 C215, 216	ECKDHS1035E2 ECEA50M3R3R ECCD1H101K ECCD1H222MD ECCD1H150K ECEA1A5101 ECEA1A5221 ECOM1H223JZ ECOM1H562KZ ECEA50NR47 ECEA1E5470 ECEA1E5221 ECCD1H081K8 ECEA1E5101 ECEA5021R ECCD1H390K ECCD1H330K ECEA5023R3 ECEA1B1010 ECOM1H272KZ ECOM1H183KZ ECOM1H123KZ ECOM1H083KZ ECEA50V2R2 ECEA1E5470 ECOM1H472KZ ECOM1H393KZ ECCD1H331K8 ECCD1H470K	Ceramic, 0.01μF, 450VAC Electrolytic, 3.3μF, 50V Ceramic, 100pF, 50V, ±10% Ceramic, 0.0022μF, 50V, ±20% Ceramic, 0.001μF, 50V, ±10% Electrolytic, 100μF, 10V Electrolytic, 220μF, 10V Polyester, 0.022μF, 50V, ± 5% Polyester, 0.0056μF, 50V, ±10% Non-Polar Electrolytic, 0.47μF, 50V Electrolytic, 47μF, 25V Electrolytic, 220μF, 25V Ceramic, 680pF, 50V, ±10% Electrolytic, 100μF, 25V Electrolytic, 1μF, 50V Ceramic, 39pF, 50V, ±10% Ceramic, 33pF, 50V, ±10% Electrolytic, 3.3μF, 50V Non-Polar Electrolytic, 10μF, 16V Polyester, 0.0027μF, 50V, ±10% Polyester, 0.018μF, 50V, ±10% Polyester, 0.012μF, 50V, ±10% Polyester, 0.008μF, 50V, ±10% Non-Polar Electrolytic, 2.2 F, 50V Electrolytic, 47μF, 25V Polyester, 0.0047μF, 50V, ±10% Polyester, 0.039μF, 50V, ±10% Ceramic, 330pF, 50V, ±10% Ceramic, 47pF, 50V, ±10%
C303, 304 C306, 308 C401, 402 C403, 404 C405, 406	ECOM1H472KZ ECOM1H393KZ ECCD1H331K8 ECCD1H470K ECCD1H221K8	Electrolytic, 47μF, 50V, ±10% Polyester, 0.039μF, 50V, ±10% Ceramic, 330pF, 50V, ±10% Ceramic, 47pF, 50V, ±10% Ceramic, 220pF, 50V, ±10%

Notes: * (X) and (XA) are available in Asia, Latin America, Middle East and Africa only.
* (XAL) is available in Australia only.
* (XGH) is available in Holland only.
* (E) and (EG) are available in Scandinavia and European only.

CHANGE OF PARTS LIST

SU-8044K

(X), (XA), (XAL), (XGH), (E), (EG), (EB)

Note: This parts list included only the changes of the model SU-8044 parts list.

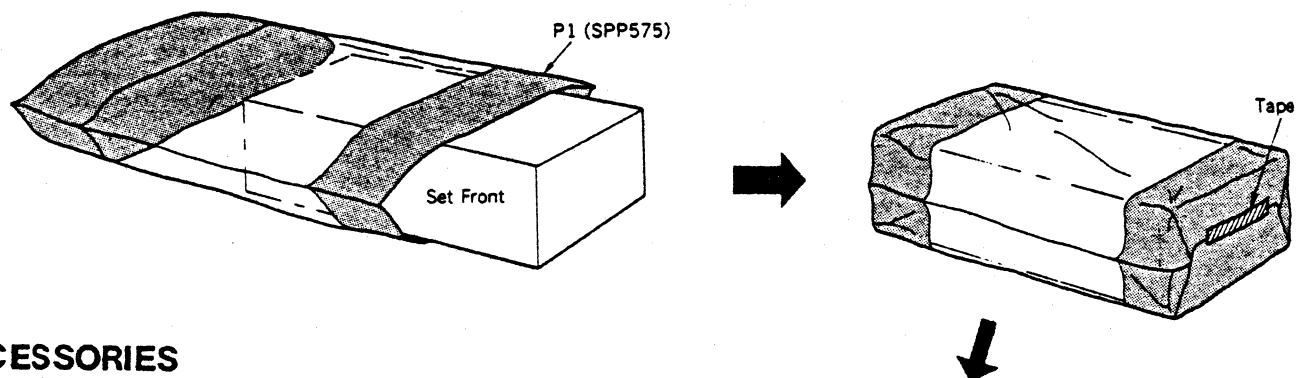
Ref. No.	Change of Part No.	Part Name & Description
CABINET and CHASSIS PARTS		
1	SBN821 → SBN827	Knob, Volume
2	SBN823 → SBN829	Knob, Rec Selector & Input Selector
3	SBN826 → SBN831	Knob, Speakers Selector, Bass, Treble & Balance
4	SGWUR044 M → SGWUR044KE	Panel, Front Assy
7	SBI → SBC197-1	Button, Range, High Filter & Loudness Switch
8	SYE1 → SYE545-1	Bracket, Fluorescent Peak Power Meters
9	SBD19 → SBD19-1	Button, Power Switch

Ref. No.	Part No.	Part Name & Description
C407, 408 C409, 410 C411, 412 C413, 414 C415, 416 C417, 418 C419, 420 C421, 422 C423, 424	ECCD1H101K ECCD1H330K ECCD1H221K8 ECCD2H680K ECCD1H103MD ECCD2H101K ECEA1H5100 ECCD1H060C	Ceramic, 100pF, 50V, ±10% Ceramic, 33pF, 50V, ±10% Ceramic, 22pF, 50V, ±10% Ceramic, 68pF, 500V, ±10% Ceramic, 0.01μF, 50V, ±20% Ceramic, 100pF, 50V, ±10% Ceramic, 100pF, 500V, ±10% Electrolytic, 10μF, 50V Ceramic, 6pF, 50V, ±0.25pF
C425, 426 C427, 428 C429, 430 C431 C501, 502 C503, 504 C505, 506 C507, 508 C509	ECCD2H330K ECOM1H104KZ ECOM1H104KZ ECEA1H5100 ECEA1H5101 ECE150R822 ECEA1V5221 ECEA1E5470 ECEA1E5330 ECEA1H5470	Ceramic, 33pF, 500V, ±10% Polyester, 0.1μF, 50V, ±10% Polyester, 0.1μF, 50V, ±10% Electrolytic, 10μF, 50V Electrolytic, 100μF, 50V Electrolytic, 8200μF, 50V Electrolytic, 220μF, 35V Electrolytic, 47μF, 25V Electrolytic, 33μF, 63V Electrolytic, 47μF, 50V
ACCESSORIES		
A1 A2 [X, XA] only A3 [X, XA] only	XBA2C25SS0 SJP5213-1 SJP5215	Fuse, 2.5A (250V) Speaker Circuit Plug Adapter, AC Power Plug Adapter, AC Power
PACKING PARTS		
P1 P2 [X, XA, XAL] P2 [X, XE, EG, XGH, XGF, EB] P3 [X, XA, XAL] P3 [X, XE, EG, XGH, XGF, EB] P4 [E] P4 [XE, EG, XGH, EB] P4 [X, XA] P4 [XAL] P4 [XGF]	SPS167 SPS1967-1 SPS1969 SPS1969-1 SPG1793 SPG1839 SPG1841 SPG1843 SPG1791	Polyethylene Bag Pad, Left Side Pad, Left Side Pad, Right Side Pad, Right Side Carton Box Carton Box Carton Box Carton Box Carton Box
P5 [E, EG, XGH, XGF, EB] P5 [XE, XA, XAL]	SQF10087 SQF10089	Instructions Book, Printed Matter Instructions Book, Printed Matter

* (EB) is available in Belgium only.
* (XGF) is available in France only.
* (XE) is available in United Kingdom only.

Ref. No.	Change of Part No.		Part Name & Description
	SU-8044	SU-8044K	
18	SGP1671A [E]	SGP1671B [E]	Rear Panel
		SGPU8044KD [XGH, EB, EG]	Rear Panel, SGP1671B with Name Plate (SGT19630)
	SGPU8044E [XE, EG, XGH, XGF, EB]	SGPU8044KL [XAL]	Rear Panel, SGP1671-1A with Name Plate (SGT19950)
	SGPU8044L [XAL]	SGPU8044KX [X, XA]	Rear Panel, SGP1651-1A with Name Plate (SGT19950)
20	SGP1651-1A [X, XA]		
	SHR127 [E, EG, XGH, XGF, EB, X, XA]	SHR127 [E, XGH, EB, EG, X, XA]	Bushing, AC Cord
	SHR129 [XE]		
21	SHR131 [XAL]	SHR131 [XAL]	Bushing, AC Cord
	RJA23ZC [E, EG, XGH, XGF, EB]	RJA23ZC [E, EG, XGH, EB]	AC Cord, Power Source
	SJA97 [X, XA]	SJA97 [X, XA]	AC Cord, Power Source
	RJA45ZC [XE]		
23	QFC1207M [XAL]	QFC1207M [XAL]	AC Cord, Power Source
	SKA10416	SKA10419	Cabinet
SCREWS and WASHERS			
●	XTB4+8FFN	XTB4+8FFZ	Screw, Cabinet M'tg
●	XTB3+8BFN	XTB3+8BFZ	Screw, Cabinet M'tg
	XWC3FN		
PACKING PARTS			
P4	SPG1793 [E]	SPG1967 [E]	Carton Box
	SPG1839 [XE, EG, XGH, EB]	SPG1969 [XGH, EB, EG]	Carton Box
	SPG1841 [X, XA]		
	SPG1843 [XAL]	SPG2029 [X, XA, XAL]	Carton Box

■ PACKINGS



■ ACCESSORIES

