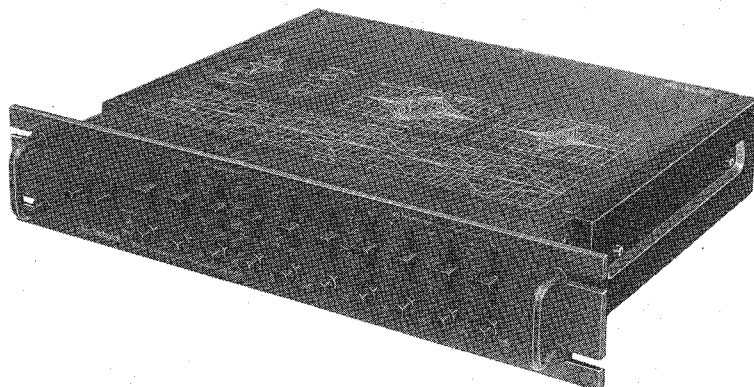


Service Manual

Stereo Universal Frequency Equalizer

SH-9010

(X), (XG), (XGH), (XE),
(XSD), (XSW)

- The model SH-9010 (X) is available in Asia, Latin America, Oceania, Middle East and Africa.
- The model SH-9010 (XG) is available in European only.
- The model SH-9010 (XGH) is available in Holland only.
- The model SH-9010 (XE) is available in England only.
- The model SH-9010 (XSD) is available in Scandinavia only.
- The model SH-9010 (XSW) is available in Swiss only.

TECHNICAL SPECIFICATIONS

Specifications are subject to change without notice for further improvement.

Output voltage and impedance:

Rated 1V/300Ω
Maximum 5V/300Ω

Total harmonic distortion:

(Band-level controls: 0dB)
0.02% (rated output)

Input sensitivity and impedance:

1V/47kΩ (1kHz)

Frequency response (All band-level controls: 0dB):

10Hz ~ 20kHz, +0
-0.2 dB
10Hz ~ 70kHz, +0
-3 dB
0 ± 1dB

Gain:

S/N (IHF, A Signal = 1V):

S/N (DIN 45 500):

Band-level controls:

87dB (rated output)
+12dB ~ -12dB
(5 elements, continuously variable)

Center-frequency controls:

From 1.6 octave above to 1.6
octave below the standard frequency
(5 elements, continuously variable)

Bandwidth control [Q]:

0.7 ~ 7
(5 elements, continuously variable)

Center frequencies:

60Hz (20Hz ~ 180Hz)
240Hz (80Hz ~ 720Hz)
1kHz (333Hz ~ 3kHz)
4kHz (1.33kHz ~ 12kHz)
16kHz (5.3kHz ~ 48kHz)

GENERAL

Power consumption:

8W

Power supply:

110/120/220/240V

Dimensions (W x H x D):

450 x 92 x 364mm (17 3/4" x 3 5/8" x 14 1/2")

Weight:

6.0kg (13.2 lb.)

TECHNISCHE DATEN

Spezifikationen können infolge von Verbesserungen ohne Ankündigung geändert werden.

Ausgangsspannungen & Impedanz:

Nominal 1V/300Ω
Maximal 5V/300Ω

Harmonische Verzerrungen:

(Bandpegelregler 0dB)
0.02% (Sollleistung)

Eingangsempfindlichkeit & Impedanz:

1V/47kΩ (1kHz)

Frequenzgang (Bandpegelregler: 0dB):

10Hz ~ 20kHz, +0
-0.2 dB
10Hz ~ 70kHz, +0
-3 dB
0 ± 1dB

Verstärkung:

Rauschabstand (nach IHF, A Signal = 1V):

Rauschabstand (nach DIN 45 500):

Bandpegelregler:

87 dB (Sollleistung)
+12dB ~ -12dB
(5 Elemente, kontinuierlich einstellbar)

Mittenfrequenzregler:

Von 1,6 Oktaven über, bis 1,6 Oktaven
unter der Standard frequenz
(5 Elemente, kontinuierlich einstellbar)

Bandbreiteregler [Q]:

0.7 ~ 7
(5 Elemente, kontinuierlich einstellbar)

Mittenfrequenzen:

60Hz (20Hz ~ 280Hz)
240Hz (80Hz ~ 720Hz)
1kHz (333Hz ~ 3kHz)
4 kHz (1.33kHz ~ 12kHz)
16kHz (5.3kHz ~ 48kHz)

ALLGEMEINE DATEN

Leistungsaufnahme:

8W

Netzspannung umschaltbar:

110/120/220/240V

Abmessungen (B x H x T):

450 x 92 x 364mm

Gewicht:

6.0kg

CARACTERISTIQUES TECHNIQUES

Sujet à changement sans préavis.

Tension de sortie & impédance de sortie:

Nominale 1V/300Ω
Maximale 5V/300Ω

(Commandes de niveau des bandes: 0dB)

Distorsion harmonique totale:

0.02% (à la puissance nom.)

Sensibilité & impédance d'entrée:

1V/47kΩ (1kHz)

Courbe de réponse (Toutes les commandes de niveau des bandes:

0 dB): 10Hz ~ 20kHz, +0
-0.2 dB
10Hz ~ 70kHz, +0
-3 dB
0 ± 1dB

Gain:

Rapport S/B (IHF, A Signal = 1V):

Rapport S/B (DIN 45 500):

Commandes de niveau des bandes:

87dB (à la puissance nom.)
+12dB ~ -12dB
(5 éléments: continuellement variable)

Commande de la fréquence médiane:

(5 divisions de 1,6 octave au-dessus à 1,6 octave
au-dessous de la fréquence normale)

Commande de largeur bande [Q]:

0.7 à 7
(5 éléments: continuellement variable)

Fréquence médiane:

60Hz (20Hz ~ 180Hz)
240Hz (80Hz ~ 720Hz)
1kHz (333Hz ~ 3kHz)
4kHz (1.33kHz ~ 12kHz)
16kHz (5.3kHz ~ 48kHz)

GENERALITES

Consommation:

8W

Alimentation:

110/120/220/240V

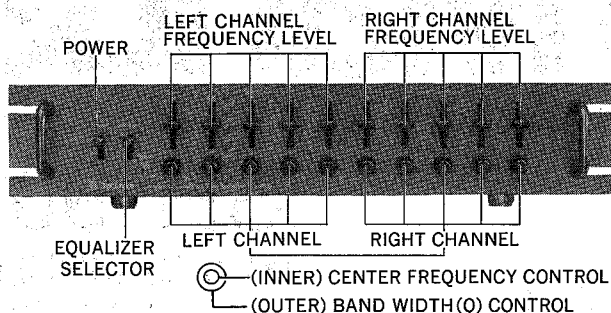
Dimensions (L x H x P):

450 x 92 x 364 mm

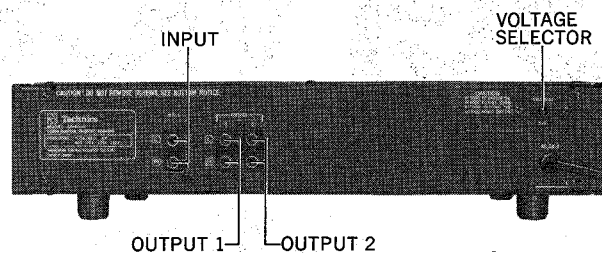
Poids:

6.0kg

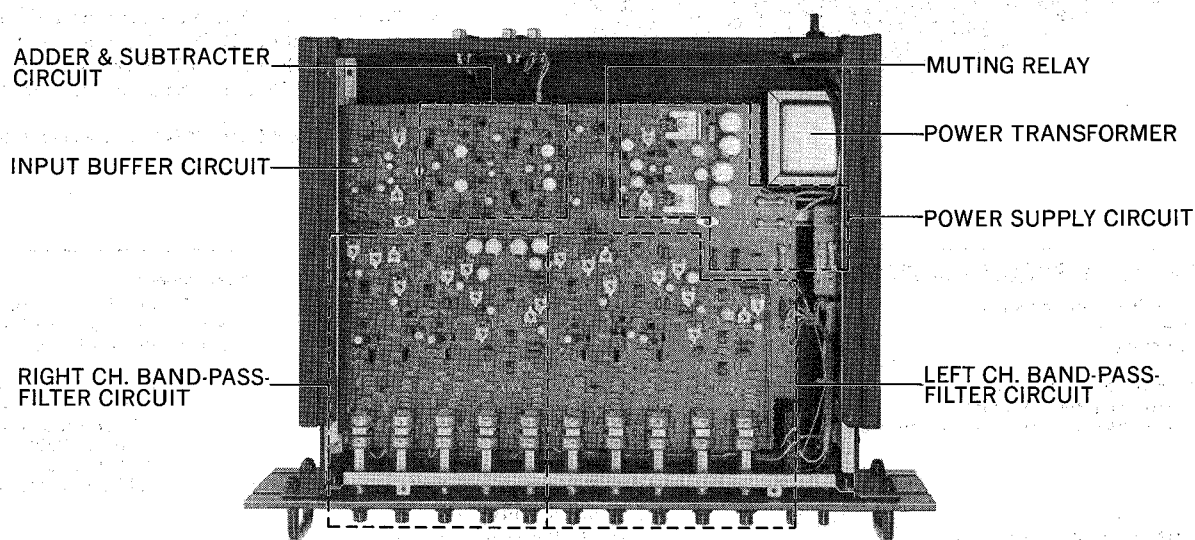
■ LOCATION OF CONTROLS



FRONT VIEW

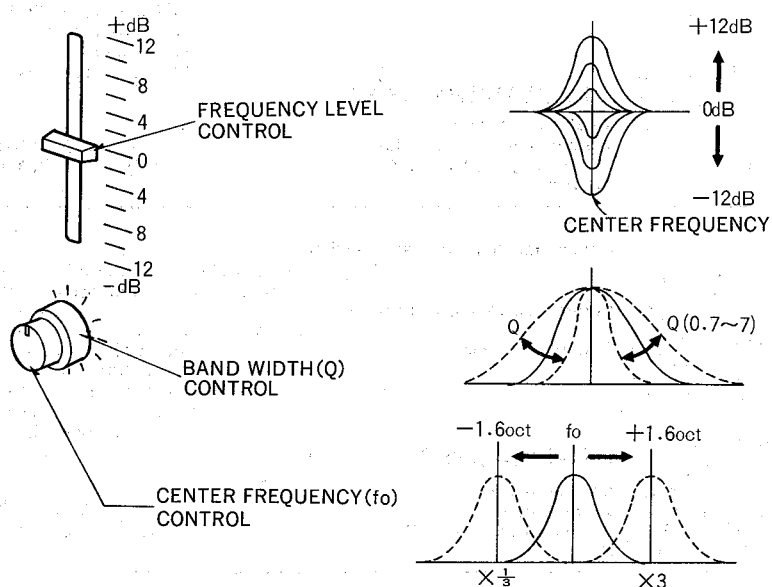


REAR VIEW



INSIDE VIEW

■ CONTROL OF THE FREQUENCY RESPONSE



Frequency response can be adjusted by using the 5 bandlevel controls, one for each band, the 5 center-frequency controls, and the 5 bandwidth controls. The maximum adjustment is from 20 Hz to 48 kHz (corresponding to a range of $\pm 12\text{dB}$ in which the band level is variable).

The standard frequency for each of the 5 divisions is: 60 Hz, 240 Hz, 1 kHz, 4 kHz and 16 kHz. One band-level control, one center-frequency control, and one bandwidth control are assigned to each division, and variations are possible within a range of $+12\text{dB}$ to -12dB (for each band-level control), 1.6 octave above and below the standard frequency (for each center-frequency control), and, of "Q", from 0.7 to 7 (the sharpness of the peak and dip).

The function of each control is explained below. Although the frequency range differs for each division, the actual operation of the controls for all 5 divisions is the same.

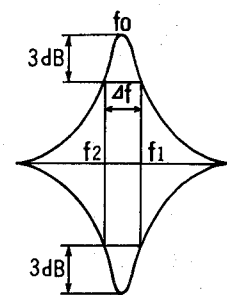
• Frequency level controls

These controls can be used for continuously varying the level of each frequency response from +12dB to -12dB.

• Bandwidth controls [bandwidth "Q"]

These controls can be used for continuously varying the sharpness of the peak and the dip of the frequency response. The "Q" is one of the measuring methods used for expressing the sharpness of the peak and the dip.

Definition of "Q"



"Q" expresses the sharpness of the peak and the dip, and its value is expressed as the value obtained when the center frequency (f_0) is decreased by 3 dB (the dip point is increased by 3 dB), and is divided by the frequency range ($\Delta f = f_1 - f_2$).

$$Q = \frac{f_0}{\Delta f}$$

■ SERVICE AID

The equalizer section of this unit is mainly divided into two parts: the band-pass filter section and the operational section.

1. Band-Pass Filter Section

There are 5 band-pass filters, each filter consisting of three operational amplifiers (OP amplifier) (figure 1). The three operational amplifiers are: two integrators and one adder. Because the center frequency of the band-pass filter is determined by the time constant relative to R and C, it is operated by a 2-gang volume control (VR201-3, VR201-4 [Lch.] at 60 Hz in the circuit diagram).

In addition, the "Q" of the resonance peak characteristic (bandwidth) of the band-pass filter is to be varied with the 2-gang volume "r" VR201-1, VR201-2 [Lch.] at 60 Hz in the circuit diagram).

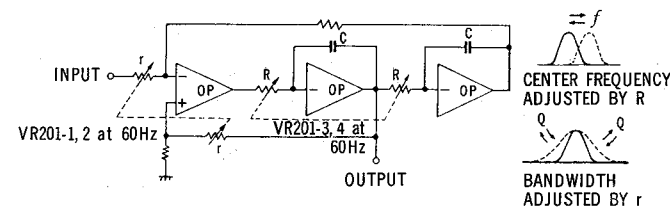


Fig. 1

• Center-frequency controls

These controls can be used for continuously varying the center frequency of the peak and dip frequency response 1.6 octave upward and 1.6 octave downward with respect to the indicated standard frequency.

A variable range of 1.6 octave upward and downward means a range of 1/3 to 3 times the indicated standard frequency. For example, for the 60 Hz center-frequency control, continuous variation is possible within a range of 20 Hz to 180 Hz. The center frequency becomes lower when this control is turned to the left, and the center frequency becomes 1/3 of the indicated standard frequency by turning it completely to the left.

The center frequency becomes higher when this control is turned to the right, and becomes 3 times the indicated standard frequency by turning it all the way to the right. (The indicated standard frequencies are 60 Hz, 240 Hz, 1 kHz, 4 kHz and 16 kHz, as indicated on the front panel.)

2. Operational Section

This "block" functions to form the peak and dip frequency response; figure 2 shows this circuit construction. When the level volume VR (VR1 [Lch.] at 60 Hz in the circuit diagram) is located at the center position, the band-pass filter is disengaged from the circuit, so that the gain of both input and output is:

$$G = \frac{R_2}{R_1} \times \frac{R_4}{R_3}$$

When the sliding VR is located at position ①, the output becomes the total of the input from R_3 added to the output of the band-pass filter.

$$\text{That is, } G = \frac{R_2}{R_1} \times \left(\frac{R_4}{R_3} + \frac{R_4}{R_5} \text{ TB} \right)$$

TB: gain characteristic of the band-pass filter.

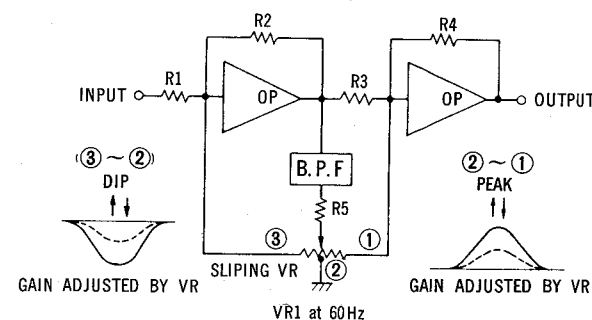


Fig. 2

In this way, as the overall response, a frequency response which has a peak is produced.

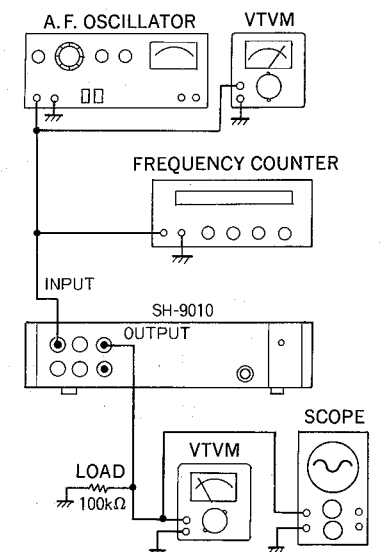
When the sliding VR is located at position ③, the band-pass filter enters the NF circuit of the first-stage amplifier so that negative feedback, which is the synthesis of a band-

pass filter which has a peak and of R_2 , will be applied. The result is a frequency response which has a dip.

There are 5 band-pass filters and sliding volume controls in parallel (each channel), making it possible to form the desired frequency response for each frequency.

■ ALIGNMENT INSTRUCTIONS

- This unit should be re-adjusted when capacitors or resistors (especially the volume control) are replaced.
- A complete and very precise measuring instrument is required for adjustment of this unit; it is especially necessary to use a frequency oscillator which oscillates a stable signal for individual frequency bands.
- For adjustment of this unit, turn the power switch "on" and the equalizer selector switch to the "in" position.
- Refer to right figure for information concerning connections of measuring instruments.
- Follow the steps described below before beginning adjustments.
 - * Set individual frequency band level control to 0dB.
 - * Set center frequency control to middle position.
 - * Set bandwidth control to right turned position (Narrow band).
 - * Set standard input voltage (each frequency) to 0dB in the 1V range (0.775V).



Adjustment of Voltage Regulation Circuit

DC VOLTMETER CONNECTION	ADJUSTMENT POINTS	VOLTAGE
Connect a DC voltmeter between terminal 111 and terminal 716 of the p.c.b.	VR701	+17V
Connect a DC voltmeter between terminal 111 and terminal 717 of the p.c.b.	VR702	-17V

Adjustment of DC Unbalanced Voltage

DC VOLTMETER CONNECTION	ADJUSTMENT POINTS	VOLTAGE
Connect a DC voltmeter between terminal 118 and testpoint TP1 of printed circuit board.	VR101	0mV
Connect a DC voltmeter between terminal 118 and testpoint TP2 of printed circuit board.	VR102	0mV

Adjustment of Individual Frequency Gain (When adjusting 1kHz gain)

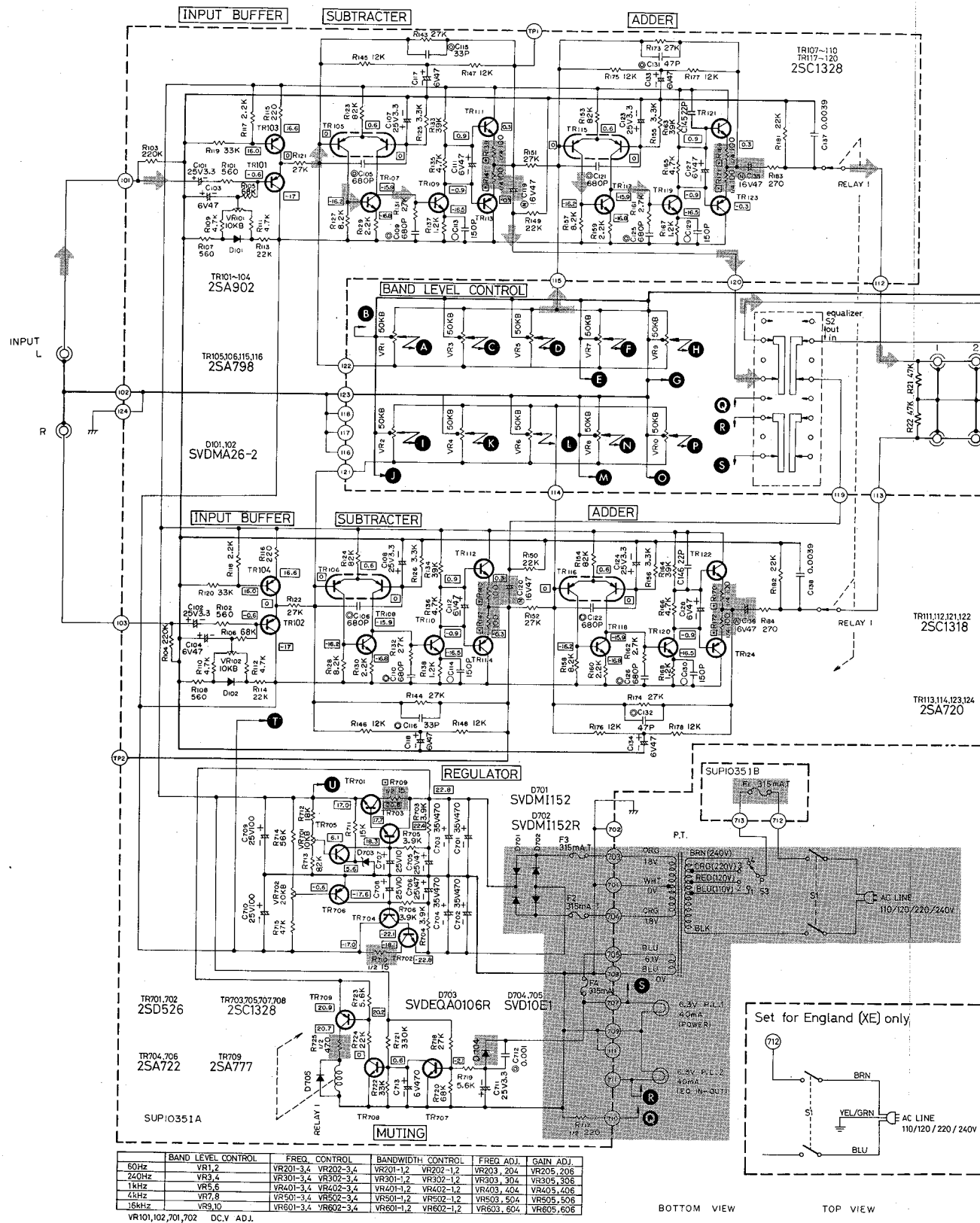
Input Frequency	Output Voltage	Adjustment Points	Procedure of Adjustment
1kHz	1V range 0 dB	Input Level of this unit	Vary input level to make output power 0dB (0.775V) in the 1V range at 1kHz input.
	Maximum	Left channel VR403	Set the 1kHz level control to +12dB and adjust VR403 to obtain maximum output.
		Right channel VR404	Set the 1kHz level control to +12dB and adjust VR404 to obtain maximum output.
	3V range +2dB	Left channel VR405	Adjust VR405 to +2dB in the 3V range of output at this time.
		Right channel VR406	Adjust VR406 to +2dB in the 3V range of output at this time.

* Concerning other frequencies, adjust them by the same procedure as described in Adjustment of 1kHz gain.

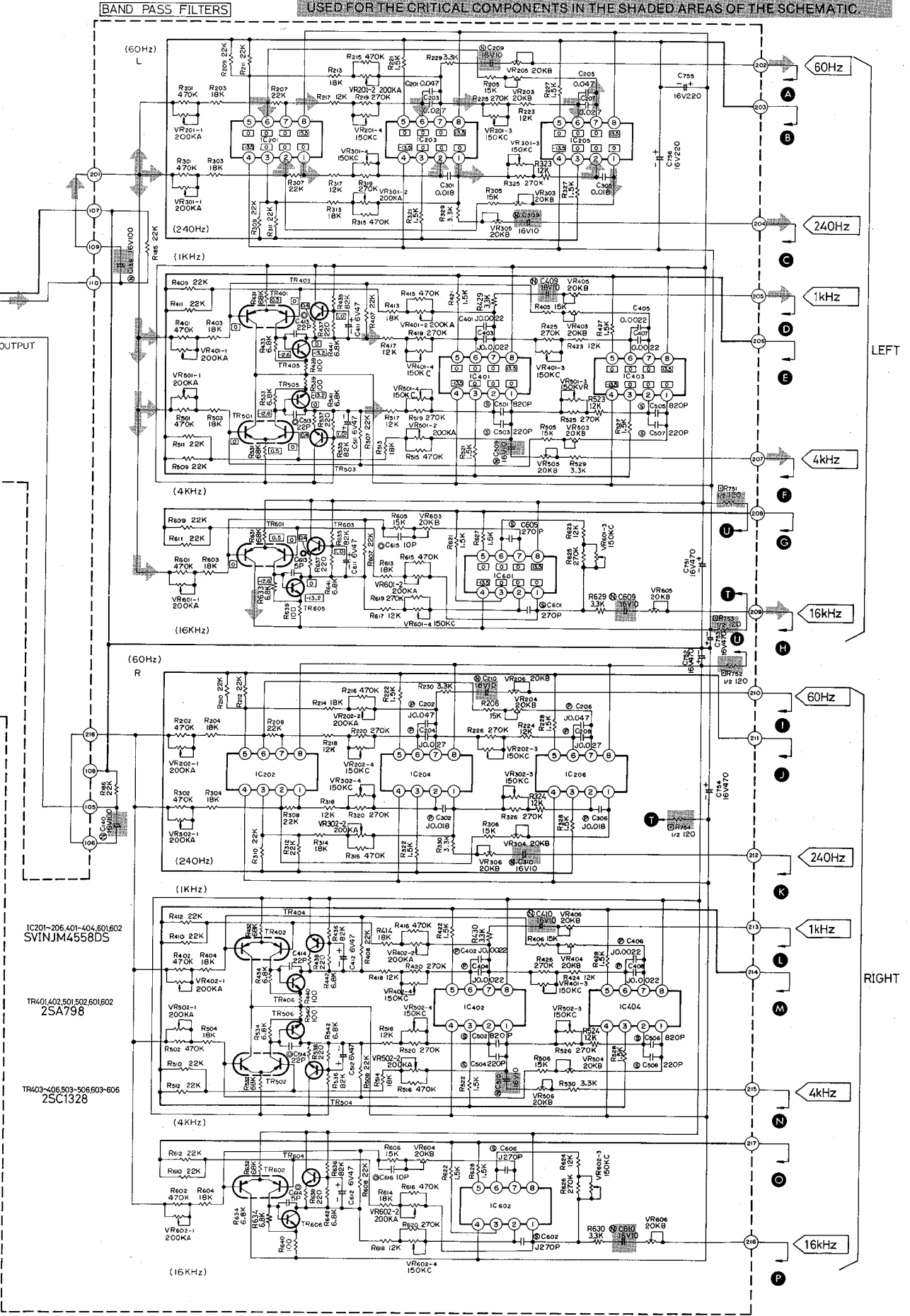
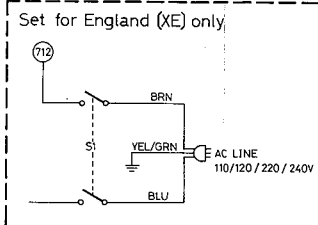
FREQUENCIES		60Hz	240Hz	1kHz	4kHz	16 kHz
TO MAXIMUM OUTPUT	Left channel	VR203	VR303	VR403	VR503	VR603
	Right channel	VR204	VR304	VR404	VR504	VR604
TO +2dB IN THE 3V RANGE OF OUTPUT	Left channel	VR205	VR305	VR405	VR505	VR605
	Right channel	VR206	VR306	VR406	VR506	VR606

Schematic Diagram — Model SH-9010

IMPORTANT SAFETY NOTICE
THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR SAFETY.
WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.



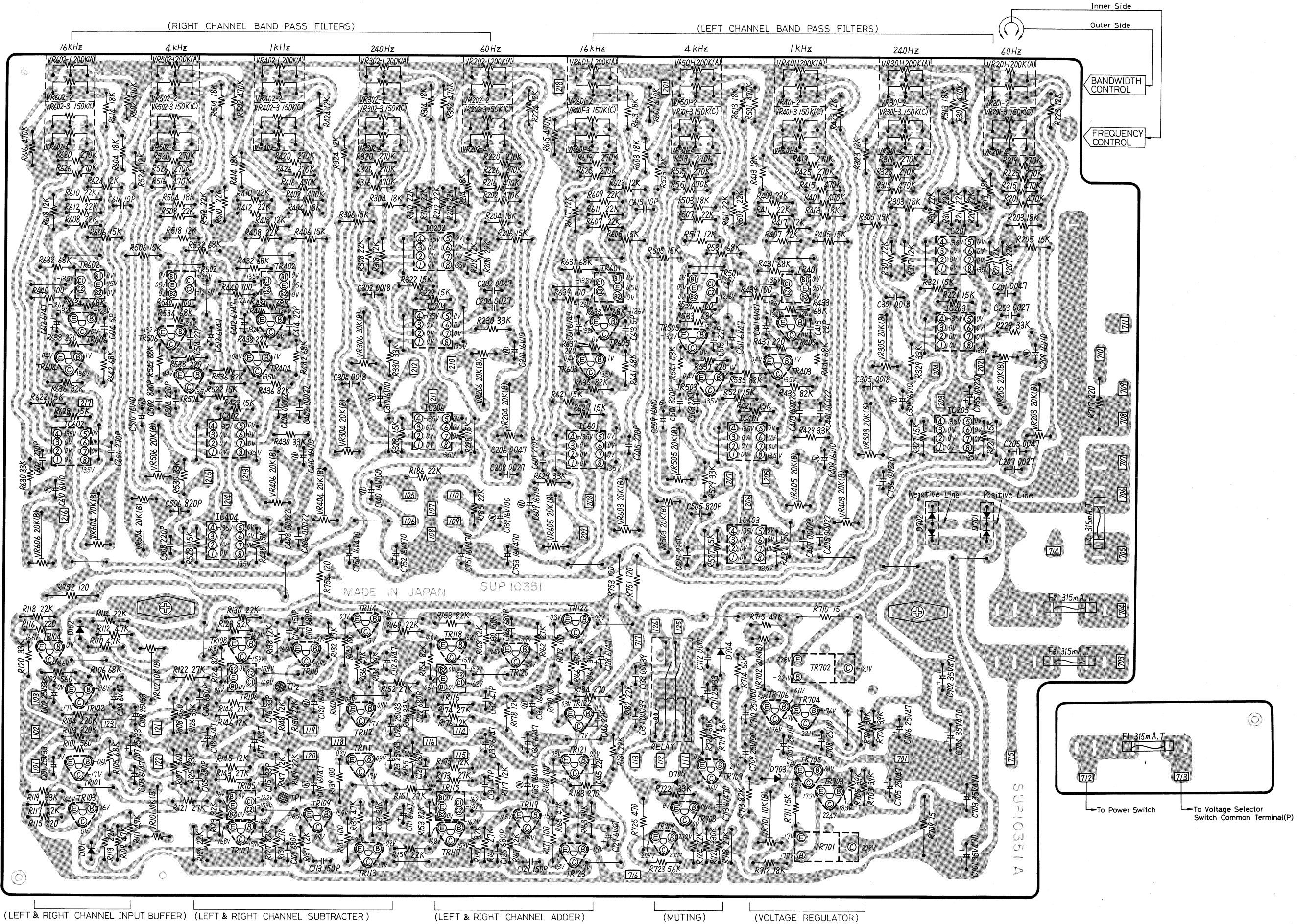
BAND	BAND LEVEL CONTROL	FREQ. CONTROL	BANDWIDTH CONTROL	FREQ. ADJ.	GAIN ADJ.
60Hz	VR1.2	VR201-3.4	VR201-1.2	VR203.204	VR205.206
240Hz	VR3.4	VR301-3.4	VR301-1.2	VR303.304	VR305.306
1kHz	VR5.6	VR401-3.4	VR401-1.2	VR403.404	VR405.406
4kHz	VR7.8	VR501-3.4	VR501-1.2	VR503.504	VR505.506
16kHz	VR9.10	VR601-3.4	VR601-1.2	VR603.604	VR605.606



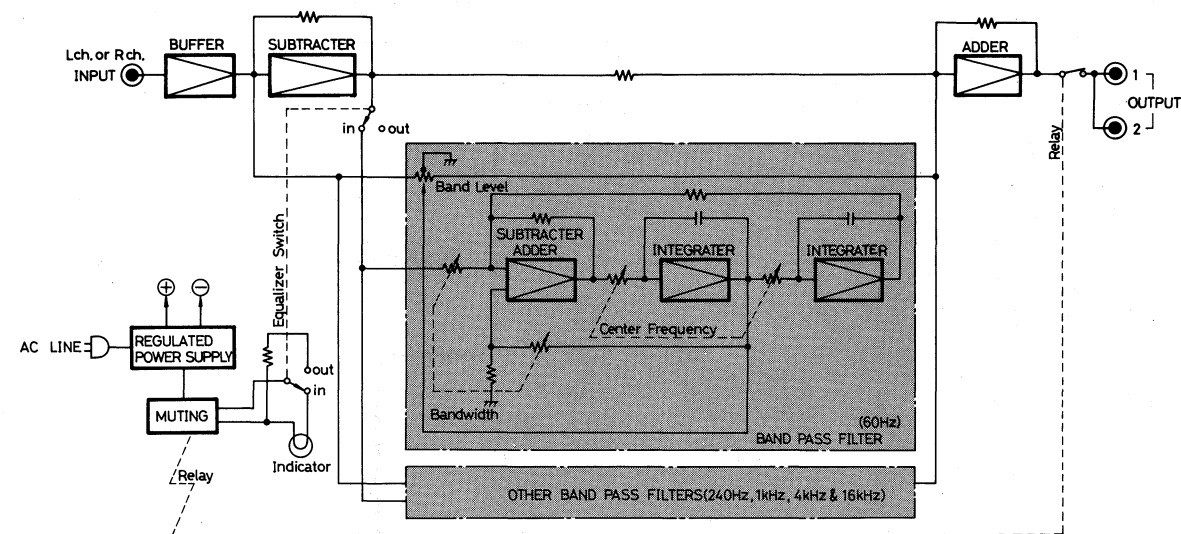
Notes:

- S1: Power switch in "on" position. (on → off)
- S2: Equalizer switch in "in" position. (in → out)
- S3: Voltage selector switch in "240V" position.
① 110V → ② 120V → ③ 220V → ④ 240V
- 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.
- Marks are signal line.
- This schematic diagram may be modified at any time with the development of new technology.

Printed Circuit Board

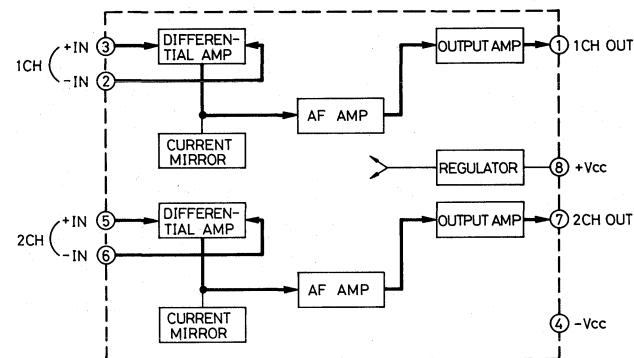


■ BLOCK DIAGRAM (each channel)

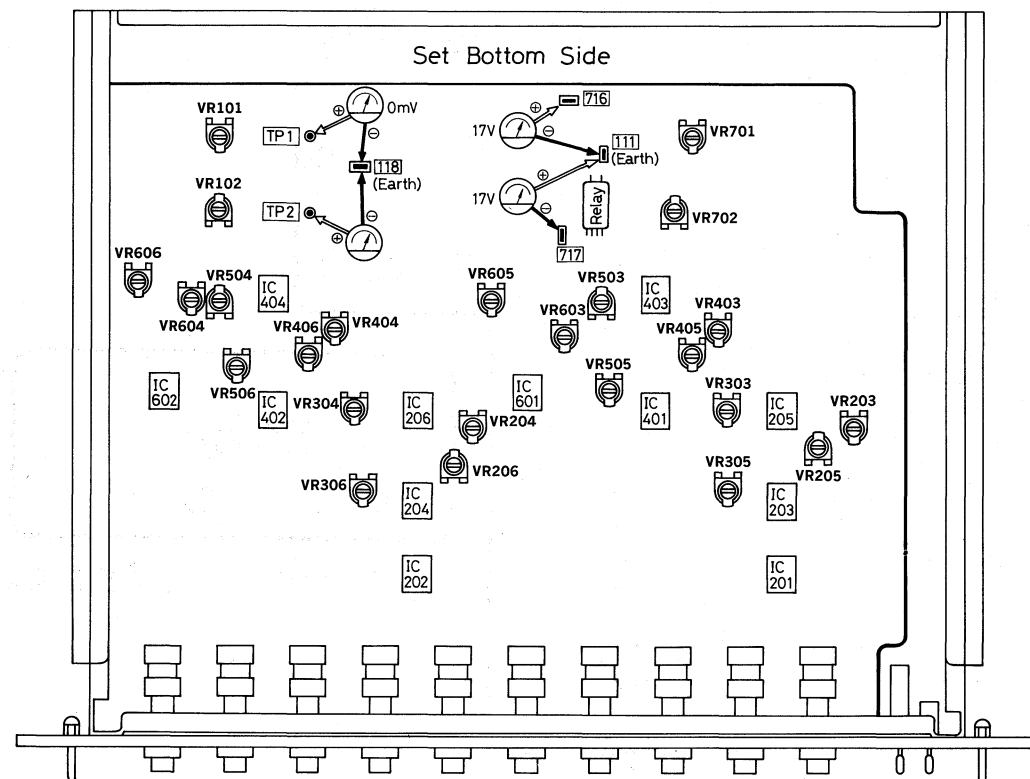


■ BLOCK DIAGRAM OF I.C.

Part No. (SVINJM4558DS)
Built-in two channel amplifier



■ ALIGNMENT POINTS



■ ANLEITUNGEN ZUM ABSTIMMEN

- Dieses Gerät sollte neu abgestimmt werden, wenn Kondensatoren oder Resistoren (im besonderen der Lautstärkeregler) ausgewechselt worden sind.
- Zum Abstimmen dieses Gerätes wird ein vollständiges und sehr präzises Meßinstrument benötigt. Es ist besonders wichtig, daß ein Frequenzoszilloskop verwendet wird, welches ein gleichmäßiges Signal für die einzelnen Frequenzbänder ausstrahlt.
- Schalten Sie zum Abstimmen dieses Gerätes den Netzschalter auf "ON" und den Entzerrungswählschalter in die "IN"-Position.
- Folgen Sie den nachstehenden Anleitungen, bevor Sie mit dem Abstimmen beginnen.
 - * Stellen Sie den Frequenzbandpegelregler auf 0 dB.
 - * Stellen Sie den Mittelfrequenzregler in die Mittelstellung.
 - * Stellen Sie den Bandbreiteregler in die rechte Position (schmales Band).
 - * Stellen Sie die Standard-Eingangsspannung (jede Frequenz) auf 0 dB im Bereich von 1 V (0,775 V).

Abstimmen der Spannungsausgleich-Schaltung

	ANSCHLUSS DES GLEICHSTROM-VOLTMETERS	ABSTIMMUNGSSTELLE	SPANNUNG
1	Schließen Sie einen Gleichstrom-Voltmeter zwischen Anschluß III und Anschluß 716 auf der gedruckten Schaltung an.	VR701	+17V
2	Schließen Sie einen Gleichstrom-Voltmeter zwischen Anschluß III und Anschluß 717 auf der gedruckten Schaltung an.	VR702	-17V

Abstimmen der unausgeglichene Spannung

	ANSCHLUSS DES GLEICHSTROM-VOLTMETERS	ABSTIMMUNGSSTELLE	SPANNUNG
1	Schließen Sie einen Gleichstrom-Voltmeter zwischen Anschluß 118 und Prüfstelle TP1 auf der gedruckten Schaltung an.	VR101	0 mV
2	Schließen Sie einen Gleichstrom-Voltmeter zwischen Anschluß 118 und Prüfstelle TP2 auf der gedruckten Schaltung an.	VR102	0 mV

Abstimmen der individuellen Frequenzverstärkung (beim Abstimmen der 1 kHz Verstärkung)

Eingangs-frequenz	Ausgangsspannung	Abstimmungsstelle	Abstimmungsmethode
1	1V Bereich 0 dB	Eingangspegel dieses Gerätes	Den Eingangspegel verändern, um die Ausgangsleistung auf 0 dB (0,775V) im 1V Bereich bei 1 kHz Eingangsfrequenz zu bringen.
2	Maximum	L Kanal VR403	Den 1 kHz Pegelregler auf +12 dB stellen und VR403 abgleichen, um maximale Ausgangsleistung zu erzielen.
		R Kanal VR404	Den 1 kHz Pegelregler auf +12 dB stellen und VR404 abgleichen, um maximale Ausgangsleistung zu erzielen.
3	3V Bereich +2 dB	L Kanal VR405	VR405 auf +2 dB im 3V Bereich der Ausgangsleistung zu dieser Zeit justieren.
		R Kanal VR406	VR406 auf +2 dB im 3V Bereich der Ausgangsleistung zu dieser Zeit justieren.

* Zum Abstimmen anderer Frequenzen, verwenden Sie dieselbe Methode, wie im Abschnitt "Abstimmen der 1 kHz Verstärkung" beschrieben.

FREQUENZEN		60 Hz	240 Hz	1 kHz	4 kHz	16 kHz
AUF MAXIMUM-AUSGANGSLEISTUNG	L Kanal	VR203	VR303	VR403	VR503	VR603
	R Kanal	VR204	VR304	VR404	VR504	VR604
AUF +2 dB IM 3V BEREICH DER AUSGANGSLEISTUNG	L Kanal	VR205	VR305	VR405	VR505	VR605
	R Kanal	VR206	VR306	VR406	VR506	VR606

■ DIRECTIVES POUR LE SYNCHRONISME

- Cet appareil devra être réglé à nouveau lorsque les condensateurs et les résistances (particulièrement le réglage de volume) sont remplacés ou remis en place.
- Un appareil de mesure complet et très précis est nécessaire pour la mise au point de cet ensemble. Il est particulièrement nécessaire d'utiliser un oscilloscope de fréquences qui puisse osciller à un signal stable pour les bandes de fréquences individuelles.
- Pour la mise au point de cet appareil tourner l'interrupteur d'alimentation sur "ON" et l'interrupteur sélecteur de compensation sur la position "IN".
- Suivre les étapes décrites ci-dessous, avant de commencer les réglages.
 - * Régler le régulateur de niveau de bandes de fréquences individuelles sur 0 dB.
 - * Régler le réglage de fréquences central sur une position médiane.
 - * Régler le réglage de la bande passante sur une position dirigée vers la droite, (Bande étroite).
 - * Régler la tension d'entrée nominale (pour chaque fréquence) sur 0 dB dans la gamme de 1V (0,775V).

Mise au point du circuit de régulation de tension

	BRANCHEMENTS DU VOLTMETRE A C.C.	POINTS DE REGLAGE	TENSION
1	Brancher un voltmètre à C.C. entre la borne III et la borne 716 de la plaque à circuits imprimés.	VR701	+17V
2	Brancher un voltmètre à C.C. entre la borne III et la borne 717 de la plaque à circuits imprimés.	VR702	-17V

REPLACEMENT PARTS LIST

Important Safety Notice

Components identified by shaded area have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

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

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
INTEGRATED CIRCUITS				
IC201,202,203, 204,205,206, 401,402,403, 404,601,602	SVINJM4558DS	Band Pass Filter Circuit	12	O
TRANSISTORS				
TR101,102,103, 104,704,706	2SA902-F	Input Buffer Amplifier & Voltage Regulator	6	
TR105,106,115, 116,401,402, 501,502,601, 602	2SA798-F	Differential Amplifier (Use in ranks F or G2)	10	
TR107,108,109, 110,117,118, 119,120,403, 404,405,406, 503,504,505, 506,603,604, 605,606,703, 705,707,708	2SC1328-T	Adder & Subtractor Amplifier, Band Pass Filter, Voltage Regulator Circuit & Muting Switching (Use in ranks T, U or S)	24	
TR111,112,121, 122	2SC1318-R	Adder & Subtractor Amplifier (Use in ranks Q or R)	4	
TR113,114,123, 124	2SA720-R	Adder & Subtractor Amplifier (Use in ranks Q or R)	4	
TR701,702	2SD526-O	Voltage Stabilizer (Use in ranks R, O or Y2)	2	
TR709	2SA777-Q	Relay Driver (Use in ranks Q or R)	1	
DIODES				
D101,102	SVDMA26-2	Buffer Amplifier Bias Supply	2	
D701	RVD10DC2	Rectifier	1	
D702	RVD10DC2R	Rectifier	1	
D703	SVDEQA0106R	6V Zener, Voltage Stabilizer	1	
D704,705	SVD10E1	Rectifier	2	
TRANSFORMER				
T1	SLT5M65-W	Power Transformer	1	O
RESISTORS				
R21	ERD25TJ473	Carbon, 47kΩ, 1/4W, ±5%	1	
R22	ERD25TJ473	Carbon, 47kΩ, 1/4W, ±5%	1	
R101	ERD25TJ561	Carbon, 560Ω, 1/4W, ±5%	1	
R102	ERD25TJ561	Carbon, 560Ω, 1/4W, ±5%	1	
R103	ERD25TJ224	Carbon, 220kΩ, 1/4W, ±5%	1	
R104	ERD25TJ224	Carbon, 220kΩ, 1/4W, ±5%	1	
R105	ERD25TJ683	Carbon, 68kΩ, 1/4W, ±5%	1	
R106	ERD25TJ683	Carbon, 68kΩ, 1/4W, ±5%	1	
R107	ERD25TJ561	Carbon, 560Ω, 1/4W, ±5%	1	

Mise au point de la tension asymétrique à C.C.

BRANCHEMENTS DU VOLTMETRE A C.C.		POINTS DE REGLAGE	TENSION
1	Brancher un voltmètre à C.C. entre la borne [118] et le point de mesure TP1 de la plaquette à circuits imprimés.	VR101	0 mV
2	Brancher un voltmètre à C.C. entre la borne [118] et le point de mesure TP2 de la plaquette à circuits imprimés.	VR102	0 mV

Mise au point de l'amplification de fréquence individuelle (Lors d'un réglage d'amplification de 1 kHz.)

Fréquence d'entrée	Tension de sortie	Points de réglage	Procédure de mise au point		
1	Gamme de 1V 0dB	Niveau d'entrée de cet appareil	Modifier le niveau d'entrée pour amener 0 dB de la puissance de sortie (0,775V) dans la gamme 1V à une entrée de 1 kHz.		
2	1 kHz	Canal de gauche	Régler le régulateur de niveau de 1 kHz sur +12dB et ajuster VR403 pour obtenir une sortie maximum.		
		Canal de droite	Régler le régulateur de niveau de 1 kHz sur +12dB et ajuster VR404 pour obtenir une sortie maximum.		
3	Gamme de 3V +2dB	Canal de gauche	Régler VR405 sur +2dB dans la gamme de 3V à la sortie de cette période.		
		Canal de droite	Régler VR406 sur +2dB dans la gamme de 3V à la sortie de cette période.		

* Au sujet des autres fréquences, les régler en utilisant la même procédure que celle décrite dans le "Réglage d'amplification de 1 kHz".

FREQUENCES					
1	A UNE SORTIE MAXIMUM	Canal de gauche		60Hz	240Hz
		Canal de droite		VR203	VR303
		Canal de gauche		VR204	VR304
		Canal de droite		VR205	VR305
2	A +2dB DANS LA GAMME DE 3V DE SORTIE	Canal de gauche		VR206	VR306
		Canal de droite		VR206	VR306
		Canal de gauche		VR406	VR506
		Canal de droite		VR406	VR506

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R313	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R314	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R315	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R316	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R317	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R318	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R319	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R320	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R321	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R322	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R323	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R324	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R325	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R326	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R327	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R328	ERD25TJ332	Carbon, 33kΩ, 1/4W, ±5%	1	
R329	ERD25TJ332	Carbon, 33kΩ, 1/4W, ±5%	1	
R330	ERD25TJ332	Carbon, 33kΩ, 1/4W, ±5%	1	
R401	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R402	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R403	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R404	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R405	ERD25TJ153	Carbon, 15kΩ, 1/4W, ±5%	1	
R406	ERD25TJ153	Carbon, 15kΩ, 1/4W, ±5%	1	
R407	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R408	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R409	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R410	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R411	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R412	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R413	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R414	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R415	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R416	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R417	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R418	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R419	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R420	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R421	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R422	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R423	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R424	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R425	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R426	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R427	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R428	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R429	ERD25TJ332	Carbon, 33kΩ, 1/4W, ±5%	1	
R430	ERD25TJ332	Carbon, 33kΩ, 1/4W, ±5%	1	
R431	ERD25TJ683	Carbon, 68kΩ, 1/4W, ±5%	1	
R432	ERD25TJ683	Carbon, 68kΩ, 1/4W, ±5%	1	
R433	ERD25TJ682	Carbon, 68kΩ, 1/4W, ±5%	1	
R434	ERD25TJ682	Carbon, 68kΩ, 1/4W, ±5%	1	
R435	ERD25TJ823	Carbon, 82kΩ, 1/4W, ±5%	1	
R436	ERD25TJ823	Carbon, 82kΩ, 1/4W, ±5%	1	
R437	ERD25TJ221	Carbon, 220Ω, 1/4W, ±5%	1	
R438	ERD25TJ221	Carbon, 220Ω, 1/4W, ±5%	1	
R439	ERD25TJ101	Carbon, 100Ω, 1/4W, ±5%	1	
R440	ERD25TJ101	Carbon, 100Ω, 1/4W, ±5%	1	
R441	ERD25TJ682	Carbon, 68kΩ, 1/4W, ±5%	1	
R442	ERD25TJ682	Carbon, 68kΩ, 1/4W, ±5%	1	

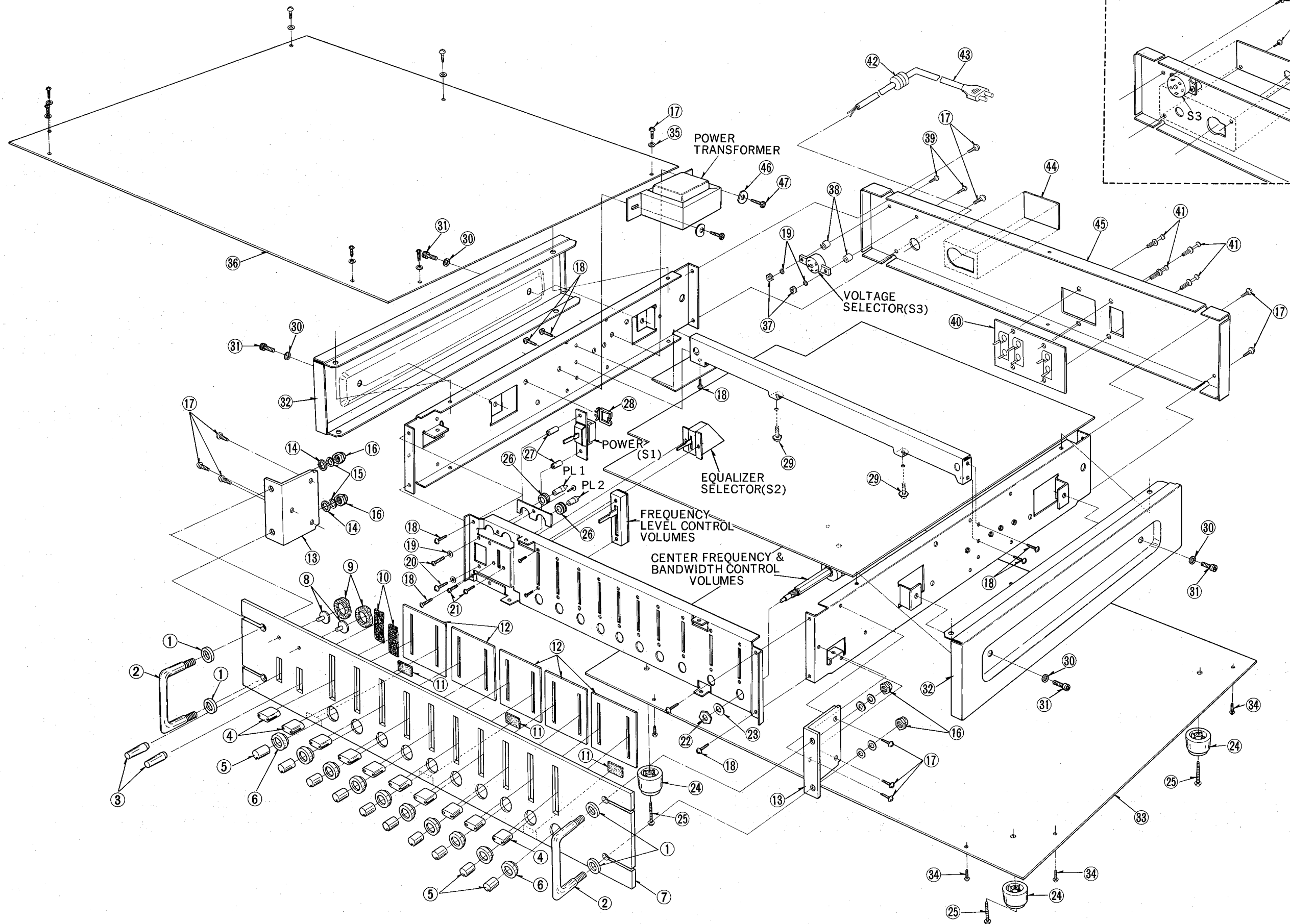
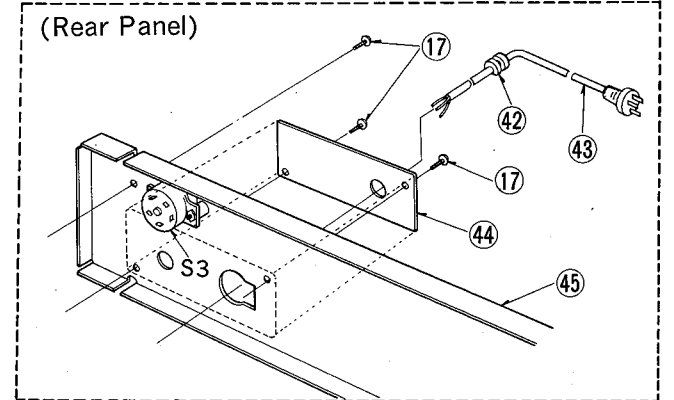
Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R501	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R502	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R503	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R504	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R505	ERD25TJ153	Carbon, 15kΩ, 1/4W, ±5%	1	
R506	ERD25TJ153	Carbon, 15kΩ, 1/4W, ±5%	1	
R507	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R508	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R509	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R510	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R511	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R512	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R513	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R514	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R515	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R516	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R517	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R518	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R519	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R520	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R521	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R522	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R523	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R524	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R525	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R526	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R527	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R528	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R529	ERD25TJ332	Carbon, 33kΩ, 1/4W, ±5%	1	
R530	ERD25TJ332	Carbon, 33kΩ, 1/4W, ±5%	1	
R531	ERD25TJ683	Carbon, 68kΩ, 1/4W, ±5%	1	
R532	ERD25TJ683	Carbon, 68kΩ, 1/4W, ±5%	1	
R533	ERD25TJ682	Carbon, 68kΩ, 1/4W, ±5%	1	
R534	ERD25TJ682	Carbon, 68kΩ, 1/4W, ±5%	1	
R535	ERD25TJ823	Carbon, 82kΩ, 1/4W, ±5%	1	
R536	ERD25TJ823	Carbon, 82kΩ, 1/4W, ±5%	1	
R537	ERD25TJ221	Carbon, 220Ω, 1/4W, ±5%	1	
R538	ERD25TJ221	Carbon, 220Ω, 1/4W, ±5%	1	
R539	ERD25TJ101	Carbon, 100Ω, 1/4W, ±5%	1	
R540	ERD25TJ101	Carbon, 100Ω, 1/4W, ±5%	1	
R541	ERD25TJ682	Carbon, 68kΩ, 1/4W, ±5%	1	
R542	ERD25TJ682	Carbon, 68kΩ, 1/4W, ±5%	1	
R601	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R602	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R603	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R604	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R605	ERD25TJ153	Carbon, 15kΩ, 1/4W, ±5%	1	
R606	ERD25TJ153	Carbon, 15kΩ, 1/4W, ±5%	1	
R607	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R608	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R609	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R610	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R611	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R612	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R613	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R614	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R615	ERD25TJ474	Carbon, 470kΩ, 1/4W, ±5%	1	
R616	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R617	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R618	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R619	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R620	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R621	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R622	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R623	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R624	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%	1	
R625	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R626	ERD25TJ274	Carbon, 270kΩ, 1/4W, ±5%	1	
R627	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R628	ERD25TJ152	Carbon, 15kΩ, 1/4W, ±5%	1	
R629	ERD25TJ332	Carbon, 33kΩ, 1/4W, ±5%	1	
R630	ERD25TJ332	Carbon, 33kΩ, 1/4W, ±5%	1	
R631	ERD25TJ683	Carbon, 68kΩ, 1/4W, ±5%	1	
R632	ERD25TJ683	Carbon, 68kΩ, 1/4W, ±5%	1	
R633	ERD25TJ682	Carbon, 68kΩ, 1/4W, ±5%	1	
R634	ERD25TJ682	Carbon, 68kΩ, 1/4W, ±5%	1	
R635	ERD25TJ823	Carbon, 82kΩ, 1/4W, ±5%	1	
R636	ERD25TJ823	Carbon, 82kΩ, 1/4W, ±5%	1	
R637	ERD25TJ221	Carbon, 220Ω, 1/4W, ±5%	1	
R638	ERD25TJ221	Carbon, 220Ω, 1/4W, ±5%	1	
R639	ERD25TJ101	Carbon, 100Ω, 1/4W, ±5%	1	
R640	ERD25TJ101	Carbon, 100Ω, 1/4W, ±5%	1	
R641	ERD25TJ682	Carbon, 68kΩ, 1/4W, ±5%	1	
R642	ERD25TJ682	Carbon, 68kΩ, 1/4W, ±5%	1	
R703	ERD25TJ392	Carbon, 39kΩ, 1/4W, ±5%	1	
R704	ERD25TJ392	Carbon, 39kΩ, 1/4W, ±5%	1	
R705	ERD25TJ392	Carbon, 39kΩ, 1/4W, ±5%	1	
R706	ERD25TJ392	Carbon, 39kΩ, 1/4W, ±5%	1	
R709	ERD12EJ150	Fuse Type Metalic 150, 1/2W, ±5%	1	
R710	ERD12EJ150	Fuse Type Metalic 150, 1/2W, ±5%	1	
R711	ERD25TJ153	Carbon, 15kΩ, 1/4W, ±5%	1	
R712	ERD25TJ183	Carbon, 18kΩ, 1/4W, ±5%	1	
R713	ERD25TJ822	Carbon, 82kΩ, 1/4W, ±5%	1	
R714	ERD25TJ563	Carbon, 56kΩ, 1/4W, ±5%	1	
R715	ERD25TJ473	Carbon, 47kΩ, 1/4W, ±5%	1	
R717	ERD12EJ121	Carbon, 220Ω, 1/2W, ±5%	1	
R718	ERD25TJ273	Carbon, 27kΩ, 1/4W, ±5%	1	
R719	ERD25TJ562	Carbon, 56kΩ, 1/4W, ±5%	1	
R720	ERD25TJ683	Carbon, 68kΩ, 1/4W, ±5%	1	
R721	ERD25TJ334	Carbon, 330kΩ, 1/4W, ±5%	1	
R722	ERD25TJ333	Carbon, 33kΩ, 1/4W, ±5%	1	
R723	ERD25TJ562	Carbon, 56kΩ, 1/4W, ±5%	1	
R724	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%	1	
R725	ERD12EJ471	Carbon, 470Ω, 1/2W, ±5%	1	
R751	ERD12EJ121	Carbon, 120Ω, 1/2W, ±5%	1	
R752	ERD12EJ121	Carbon, 120Ω, 1/2W, ±5%	1	
R753	ERD12EJ121	Carbon, 120Ω, 1/2W, ±5%	1	
R754	ERD12EJ121	Carbon, 120Ω, 1/2W, ±5%	1	
VARIABLE RESISTORS				
VR1,2,3,4,5,6,7,8,9,10	EVAV11D28854	Band Level Control, 50kΩ (B)	10	○
VR101,102,701	EVLS3AA00B14	Bias & Voltage Adjustment, 10kΩ (B)	3	○
VR201,202,301,302,401,402,501,502,601,602	EWK2PAS31848	Double Variable Resistors, Band Width & Frequency Control 200kΩ (A) & 150kΩ (C)	10	○

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
VR203,204,205, 206,303,304, 305,306,403, 404,405,406, 503,504,505, 506,603,604, 605,606,702	EVLS3AA00B24	Frequency & Gain Adjustment, 20kΩ (B)	21	
CAPACITORS				
C101	ECEA25M3R3R	Electrolytic, 3.3μF, 25WV	1	
C102	ECEA25M3R3R	Electrolytic, 3.3μF, 25WV	1	
C103	ECEA6V47	Electrolytic, 47μF, 6.3WV	1	
C104	ECEA6V47	Electrolytic, 47μF, 6.3WV	1	
C105	ECKD2H681KB	Ceramic, 680pF, 500WV, ±10%	1	
C106	ECKD2H681KB	Ceramic, 680pF, 500WV, ±10%	1	
C107	ECEA25V3R3	Electrolytic, 3.3μF, 25WV	1	
C108	ECEA25V3R3	Electrolytic, 3.3μF, 25WV	1	
C109	ECKD2H681KB	Ceramic, 680pF, 500WV, ±10%	1	
C110	ECKD2H681KB	Ceramic, 680pF, 500WV, ±10%	1	
C111	ECEA6V47	Electrolytic, 47μF, 6.3WV, 6.3WV,	1	
C112	ECEA6V47	Electrolytic, 47μF, 6.3WV,	1	
C113	ECCD1H151K	Ceramic, 150pF, 50WV, ±10%	1	
C114	ECCD1H151K	Ceramic, 150pF, 50WV, ±10%	1	
C115	ECCD1H330K	Ceramic, 33pF, 50WV, ±10%	1	
C116	ECCD1H330K	Ceramic, 33pF, 50WV, ±10%	1	
C117	ECEA6V47	Electrolytic, 47μF, 6.3WV	1	
C118	ECEA6V47	Electrolytic, 47μF, 6.3WV	1	
C119	ECEA16N47	Non-Polar Electrolytic, 47μF, 16WV	1	
C120	ECEA16N47	Non-Polar Electrolytic, 47μF, 16WV	1	
C121	ECKD2H681KB	Ceramic, 680pF, 500WV, ±10%	1	
C122	ECKD2H681KB	Ceramic, 680pF, 500WV, ±10%	1	
C123	ECEA25V3R3	Electrolytic, 3.3μF, 25WV	1	
C124	ECEA25V3R3	Electrolytic, 3.3μF, 25WV	1	
C125	ECKD2H681KB	Ceramic, 680pF, 500WV, ±10%	1	
C126	ECKD2H681KB	Ceramic, 680pF, 500WV, ±10%	1	
C127	ECEA6V47	Electrolytic, 47μF, 6.3WV	1	
C128	ECEA6V47	Electrolytic, 47μF, 6.3WV	1	
C129	ECCD1H151K	Ceramic, 150pF, 50WV, ±10%	1	
C130	ECCD1H151K	Ceramic, 150pF, 50WV, ±10%	1	
C131	ECCD1H470K	Ceramic, 47pF, 50WV, ±10%	1	
C132	ECCD1H470K	Ceramic, 47pF, 50WV, ±10%	1	
C133	ECEA6V47	Electrolytic, 47μF, 6.3WV	1	
C134	ECEA6V47	Electrolytic, 47μF, 6.3WV	1	
C135	ECEA16N47	Non-Polar Electrolytic, 47μF, 16WV	1	
C136	ECEA16N47	Non-Polar Electrolytic, 47μF, 16WV	1	
C137	ECQM05392JZ	Polyester, 0.0039μF, 50WV, ±5%	1	
C138	ECQM05392JZ	Polyester, 0.0039μF, 50WV, ±5%	1	
C139	ECEA16N100	Non-Polar Electrolytic, 100μF, 16WV	1	
C140	ECEA16N100	Non-Polar Electrolytic, 100μF, 16WV	1	
C145	ECCD1H220K	Ceramic, 22pF, 50WV, ±10%	1	
C146	ECCD1H220K	Ceramic, 22pF, 50WV, ±10%	1	
C201	ECQM05473JZ	Polyester, 0.047μF, 50WV, ±5%	1	
C202	ECQM05473JZ	Polyester, 0.047μF, 50WV, ±5%	1	
C203	ECQM05273JZ	Polyester, 0.027μF, 50WV, ±5%	1	
C204	ECQM05273JZ	Polyester, 0.027μF, 50WV, ±5%	1	
C205	ECQM05473JZ	Polyester, 0.047μF, 50WV, ±5%	1	
C206	ECQM05473JZ	Polyester, 0.047μF, 50WV, ±5%	1	
C207	ECQM05273JZ	Polyester, 0.027μF, 50WV, ±5%	1	
C208	ECQM05273JZ	Polyester, 0.027μF, 50WV, ±5%	1	

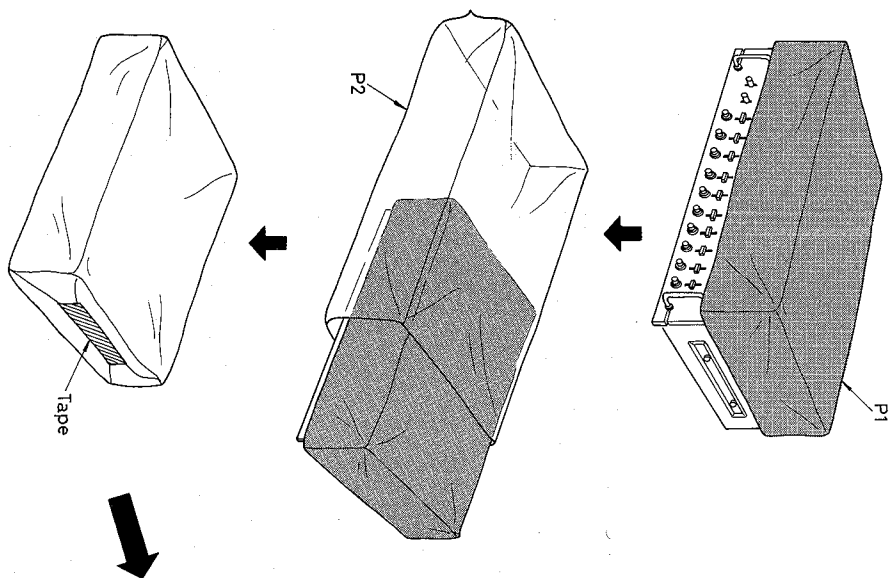
EXPLODED VIEWS

Available in England (XE) only

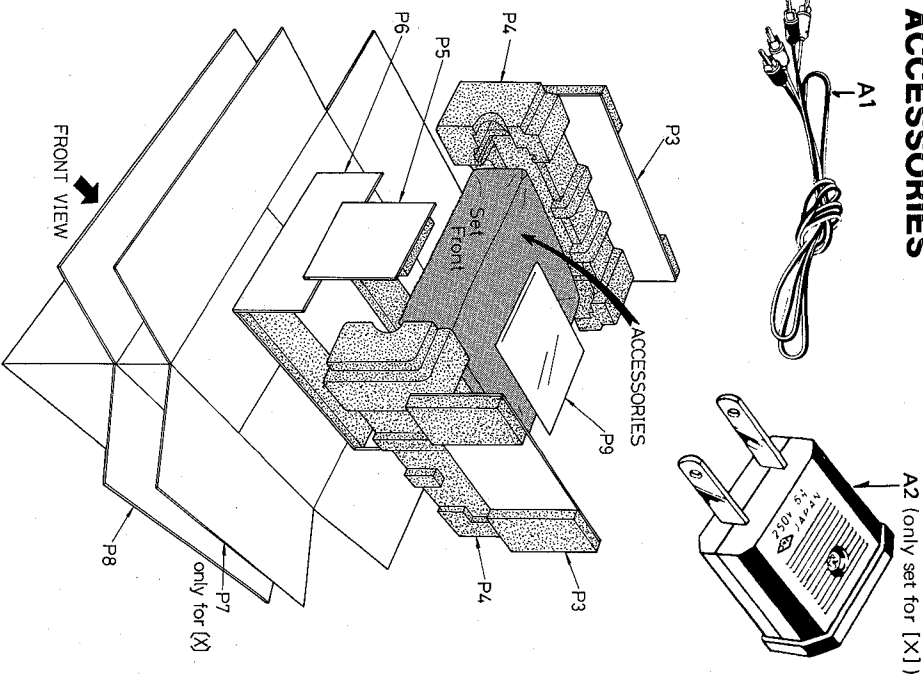


Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C209	ECEA16N10	Non-Polar Electrolytic, 10 μ F, 16WV	1	
C210	ECEA16N10	Non-Polar Electrolytic, 10 μ F, 16WV	1	
C301	ECQM05183JZ	Polyester, 0.018 μ F, 50WV, $\pm$ 5%	1	
C302	ECQM05183JZ	Polyester, 0.018 μ F, 50WV, $\pm$ 5%	1	
C305	ECQM05183JZ	Polyester, 0.018 μ F, 50WV, $\pm$ 5%	1	
C306	ECQM05183JZ	Polyester, 0.018 μ F, 50WV, $\pm$ 5%	1	
C309	ECEA16N10	Non-Polar Electrolytic, 10 μ F, 16WV	1	
C310	ECEA16N10	Non-Polar Electrolytic, 10 μ F, 16WV	1	
C401	ECQM05222JZ	Polyester, 0.0022 μ F, 50WV, $\pm$ 5%	1	
C402	ECQM05222JZ	Polyester, 0.0022 μ F, 50WV, $\pm$ 5%	1	
C403	ECQM05222JZ	Polyester, 0.0022 μ F, 50WV, $\pm$ 5%	1	
C404	ECQM05222JZ	Polyester, 0.0022 μ F, 50WV, $\pm$ 5%	1	
C405	ECQM05222JZ	Polyester, 0.0022 μ F, 50WV, $\pm$ 5%	1	
C406	ECQM05222JZ	Polyester, 0.0022 μ F, 50WV, $\pm$ 5%	1	
C407	ECQM05222JZ	Polyester, 0.0022 μ F, 50WV, $\pm$ 5%	1	
C408	ECQM05222JZ	Polyester, 0.0022 μ F, 50WV, $\pm$ 5%	1	
C409	ECEA16N10	Non-Polar Electrolytic, 10 μ F, 16WV	1	
C410	ECEA16N10	Non-Polar Electrolytic, 10 μ F, 16WV	1	
C411	ECEA6V47	Electrolytic, 47 μ F, 6.3WV	1	
C412	ECEA6V47	Electrolytic, 47 μ F, 6.3WV	1	
C413	ECCD1H220K	Ceramic, 22pF, 50WV, $\pm$ 10%	1	
C414	ECCD1H220K	Ceramic, 22pF, 50WV, $\pm$ 10%	1	
C501	ECQS1821JZ	Styrol, 820pF, 125WV, $\pm$ 5%	1	
C502	ECQS1821JZ	Styrol, 820pF, 125WV, $\pm$ 5%	1	
C503	ECQS1221JZ	Styrol, 220pF, 125WV, $\pm$ 5%	1	
C504	ECQS1221JZ	Styrol, 220pF, 125WV, $\pm$ 5%	1	
C505	ECQS1821JZ	Styrol, 820pF, 125WV, $\pm$ 5%	1	
C506	ECQS1821JZ	Styrol, 820pF, 125WV, $\pm$ 5%	1	
C507	ECQS1221JZ	Styrol, 220pF, 125WV, $\pm$ 5%	1	
C508	ECQS1221JZ	Styrol, 220pF, 125WV, $\pm$ 5%	1	
C509	ECEA16N10	Non-Polar Electrolytic, 10 μ F, 16WV	1	
C510	ECEA16N10	Non-Polar Electrolytic, 10 μ F, 16WV	1	
C511	ECEA6V47	Electrolytic, 47 μ F, 6.3WV	1	
C512	ECEA6V47	Electrolytic, 47 μ F, 6.3WV	1	
C513	ECCD1H220K	Ceramic, 22pF, 50WV, $\pm$ 10%	1	
C514	ECCD1H220K	Ceramic, 22pF, 50WV, $\pm$ 10%	1	
C601	ECQS1271JZ	Styrol, 270pF, 125WV, $\pm$ 5%	1	
C602	ECQS1271JZ	Styrol, 270pF, 125WV, $\pm$ 5%	1	
C605	ECQS1271JZ	Styrol, 270pF, 125WV, $\pm$ 5%	1	
C606	ECQS1271JZ	Styrol, 270pF, 125WV, $\pm$ 5%	1	
C609	ECEA16N10	Non-Polar Electrolytic, 10 μ F, 16WV	1	
C610	ECEA16N10	Non-Polar Electrolytic, 10 μ F, 16WV	1	
C611	ECEA6V47	Electrolytic, 47 μ F, 6.3WV	1	
C612	ECEA6V47	Electrolytic, 47 μ F, 6.3WV	1	
C613	ECCD1H050C	Ceramic, 5pF, 50WV, $\pm$ 0.25pF	1	
C614	ECCD1H050C	Ceramic, 5pF, 50WV, $\pm$ 0.25pF	1	
C615	ECCD1H100K	Ceramic, 10pF, 50WV, $\pm$ 10%	1	
C616	ECCD1H100K	Ceramic, 10pF, 50WV, $\pm$ 10%	1	
C701	ECEA35V470V	Electrolytic, 470 μ F, 35WV	1	
C702	ECEA35V470V	Electrolytic, 470 μ F, 35WV	1	
C703	ECEA35V470V	Electrolytic, 470 μ F, 35WV	1	
C704	ECEA35V470V	Electrolytic, 470 μ F, 35WV	1	
C705	ECEA25V47V	Electrolytic, 47 μ F, 25WV	1	
C706	ECEA25V47V	Electrolytic, 47 μ F, 25WV	1	
C707	ECEA25V10L	Electrolytic, 10 μ F, 25WV	1	
C708	ECEA25V10L	Electrolytic, 10 μ F, 25WV	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C709	ECEA25V100V	Electrolytic, 100 μ F, 25WV	1	
C710	ECEA25V100V	Electrolytic, 100 μ F, 25WV	1	
C711	ECEA25V3R3	Electrolytic, 3.3 μ F, 25WV	1	
C712	ECKD2H102PF	Ceramic, 0.001 μ F, 500WV, $\pm$ 100%	1	
C713	ECEA6V470V	Electrolytic, 470 μ F, 6.3WV	1	
C751	ECEA16V470V	Electrolytic, 470 μ F, 16WV	1	
C752	ECEA16V470V	Electrolytic, 470 μ F, 16WV	1	
C753	ECEA16V470V	Electrolytic, 470 μ F, 16WV	1	
C754	ECEA16V470V	Electrolytic, 470 μ F, 16WV	1	
C755	ECEA16V220V	Electrolytic, 220 μ F, 16WV	1	
C756	ECEA16V220V	Electrolytic, 220 μ F, 16WV	1	
LAMPS				
PL1,2	XAMR38S200	Pilot Lamp, Indicator, 6.3V 40mA	2	
FUSES				
F1,2,3,4	XBA2C03TR0	Fuse, 315mA T [250V]	4	
SWITCHES				
S1	SSL5S	Switch, Power Source	1	
S2	SSLA35S	Switch, Equalizer Selector	1	
S3	ESE372	Switch, Voltage Selector	1	
RELAY				
RELAY 1	SSY9	Relay, Muting	1	
CABINET and CHASSIS PARTS				
1	SGXA64	Sleeve, Handle	4	
2	SKH47	Handle, Front Panel	2	
3	SBLA4-3	Knob, Power & Equalizer Switch	2	
4	SBD5-1	Knob, Slide Volume	10	○
5	SBN613	Knob, Rotary Volume, Inside	10	○
6	SBN619	Knob, Rotary Volume, Outside	10	○
7	SGW8110	Panel, Front	1	○
8	SGLA9	Panel Light, Orange	2	
9	SHRA601	Bracket, Lamps	2	
10	SHSA22	Shading Cloth, Lever Switch	2	
11	SHSA921	Paper Cloth	3	
12	SHG1359	Shading Rubber, Slide Volume	5	○
13	SKT3	Bracket, Handle	2	○
14	XWE6EFZ	Washer, Handle	4	
15	XWAR6BFZ	Washer, Spring	4	
16	XNA6FFZ	Nut, Handle M'tg	4	
17	XTB3+8BFZ	Screw, Top Board, Rear Panel & Handle Bracket M'tg	17	
18	XTV3+8C	Screw, Chassis M'tg	9	
19	XWA3B	Washer, Spring	4	
20	XSN3+12S	Screw, Power Switch M'tg	2	
21	XYN3+C6S	Screw, Equalizer Switch M'tg	2	
22	XNS9	Nut, Rotary Volume M'tg	10	
23	XWV9	Washer, Rotary Volume	10	
24	SKL151	Foot, Bottom Board	4	○
25	XTV3+16C	Screw, Foot M'tg	4	
26	SHGA204	Bracket, Pilot Lamp	2	



PACKINGS



ACCESSORIES

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
27	SUD171	Sleeve, Power Switch M'tg Screw	2	* O
28	SHRA306	Clamp, Lead Wire	1	
29	XYA3+EB8FZ	Screw, Printed Circuit Board M'tg	2	
30	XWE4FZ	Washer, Side Board	4	
31	XVE4B8FZS	Bolt, Side Board M'tg	4	
32	SKS1	Side Board	2	*
33	SKU5350-1	Bottom Board	1	*
34	XTB3+8BFYR	Screw, Red, Bottom Board M'tg	7	
35	SNW329	Washer, Top Board	7	
36	SKP25	Top Board	1	O
37	XNG3BS	Nut, Voltage Selector Switch M'tg	2	
38	SUDA41	Sleeve, Voltage Selector Switch Screw	2	*
39	XSB3+14FZS	Screw, Voltage Selector Switch M'tg	2	
40	SJF3803-2	Terminal, Input & Output	1	O
41	SHR401-1	Latch, Terminal M'tg	4	
42	SHR127	Bushing, AC Cord (Except Set for [XE])	1	
42 [XE] only	SHR131	Bushing, AC Cord	1	
43 [X,XG] only	SJA95	AC Cord	1	
43 [XSD,XGH] only	SJA81	AC Cord	1	
43 [XSW] only	SJA68	AC Cord	1	
43 [XE] only	SJA73	AC Cord	1	
44	SUE7	Plate, Hole Cover (Except Set for [XE])	1	
44 [XE] only	SGE411	Bracket, AC Cord Bushing	1	O O O
45	SGP91-1A	Rear Panel (Except Set for [XSD] & [XSW])	1	
45[XSD,XSW]only	SGPH9010D	Rear Panel (SGP91-1A) with Name Plate (SGT13430)	1	
46	XWT4	Washer, Power Transformer	2	
47	XTB4+12FFZ	Screw, Power Transformer M'tg	2	
ACCESSORIES				
A1	SJP2129-5	Cord, Connection Shield	2	
A2 [X] only	SJP5213	Plug Adapter, Power (only set for [X])	1	
PACKING PARTS				
P1	SPP461	Soft Cover	1	
P2	SPP163	Polyethylene Bag	1	
P3	SPS1009	Pad, Outer Side (Right and Left Side)	2	O O O O O O O O
P4	SPS109-1	Pad, Inner Side (Right and Left Side)	2	
P5	SPS1011	Pad, Front Side	1	
P6	SPS1007	Pad, Bottom Side	1	
P7 [X] only	SPN5195	Carton, Inside, Use only for [X]	1	
P8 [X] only	SPG905	Carton, Outside	1	
P8	SPG907	Carton, Except Set for [X]	1	
P9	SQF1451	Printed Matter Except set for [XE]	1	
P9 [XE] only	SQF1453	Printed Matter	1	
NOTES:				
The model SH-9010 [X] is available in Asia, Latin America, Oceania, Middle East and Africa.				
The model SH-9010 [XGH] is available in Holland only.				
The model SH-9010 [XSD] is available in Scandinavia only.				
The model SH-9010 [XSW] is available in Swiss only.				
The model SH-9010 [XE] is available in England only.				
The model SH-9010 [XG] is available in European only.				