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3250



**marantz**

model 3250

*Stereo Control Console*

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## 1. INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for Marantz Model 3250 Stereo Control Console.

Servicing information and voltage data included in this manual are intended for use by knowledgeable and experienced personnel only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of circuitry operation.

The parts list furnishes complete ordering information. Most replacement parts should be ordered from the Marantz Company. However, a simple description is included for parts which can be obtained locally.

## 2. P.W. BOARD

As can be seen from the circuit diagram, the chassis of Model 3250 consists of following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

1. Pre-Amp. Ass'y. (Phono Amp., Tone Amp., Power Supply) . . . . . mounted on P.W.B. P J 01
2. Front Panel Ass'y . . . . . mounted on P.W.B. P S 01
3. Rear Panel Ass'y . . . . . mounted on P.W.B. P V 01
4. Speaker Switch Ass'y . . . . . mounted on P.W.B. P W 01
5. Fuse Ass'y . . . . . mounted on P.W.B. P P 01

## 3. TEST EQUIPMENT REQUIRED FOR SERVICING

Table 1 lists the test equipment required for servicing the Model 3250 Stereo Control Console.

Item	Manufacturer and Model No.	Use
Distortion Analyzer Audio Oscillator AC VTVM	SoundTechnology Model 1700B	Distortion measurements Sinewave and squarewave signal source Voltage measurements (AC)
Oscilloscope	Tektronix Model T932 Philips Model 3232	Waveform analysis and trouble shooting
Circuit Tester		Trouble shooting
DC VTVM	Fluke Model 8000 "Digital" Simpson Model 313, Triplet Model 801	Voltage measurements (DC)
AC Wattmeter	Simpson Model 1379	Monitors primary power to amplifier
AC Ammeter	Commercial Grade (1-10A)	Monitors amplifier output under short circuit condition
Line Voltmeter	Simpson Model 1359	Monitors potential of primary power to amplifier
Variable Autotransformer	Superior Electronic Co., Powerstat Model 116B - 10A	Adjusts level of primary power to amplifier
Shorting Plug	Use phono plug with 600 ohm across center pin and shell	Shorts amplifier input to eliminate noise pickup

## 4. ALIGNMENT PROCEDURES

1. Set the VOLUME control at maximum, and also BASS, MID, TREBLE and BALANCE Controls at mechanical center position.
2. Connect 47 k $\Omega$  dummy load resistor to each R and L channel on PRE OUT Jacks of the unit.

ITEM	SIGNAL APPLICATION	INDICATOR CONNECTION
CHECK OF THE TECHNICAL SPEC.	PHONO, AUX, TAPE	TAPE OUT, PRE CUT

● **EUROPEAN MODEL ONLY**

**5. VOLTAGE CONVERSION**

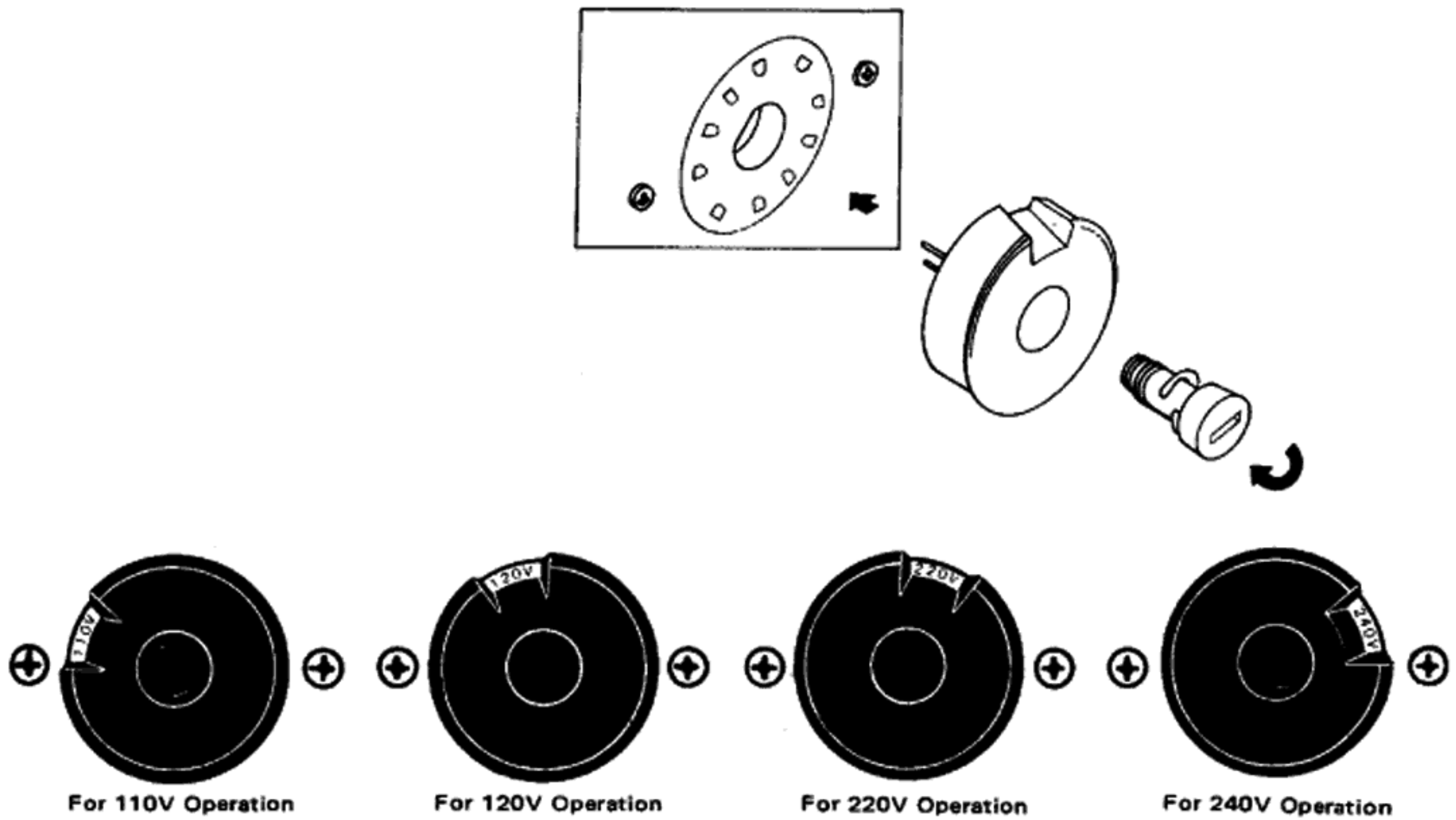
This Model is equipped with a universal power transformer to permit operation at 110, 120, 220 and 240 V AC 50/60 Hz.

To convert the unit to the required voltage, set the plug as illustrated so that you can adjust the voltage as required.

**CAUTION**

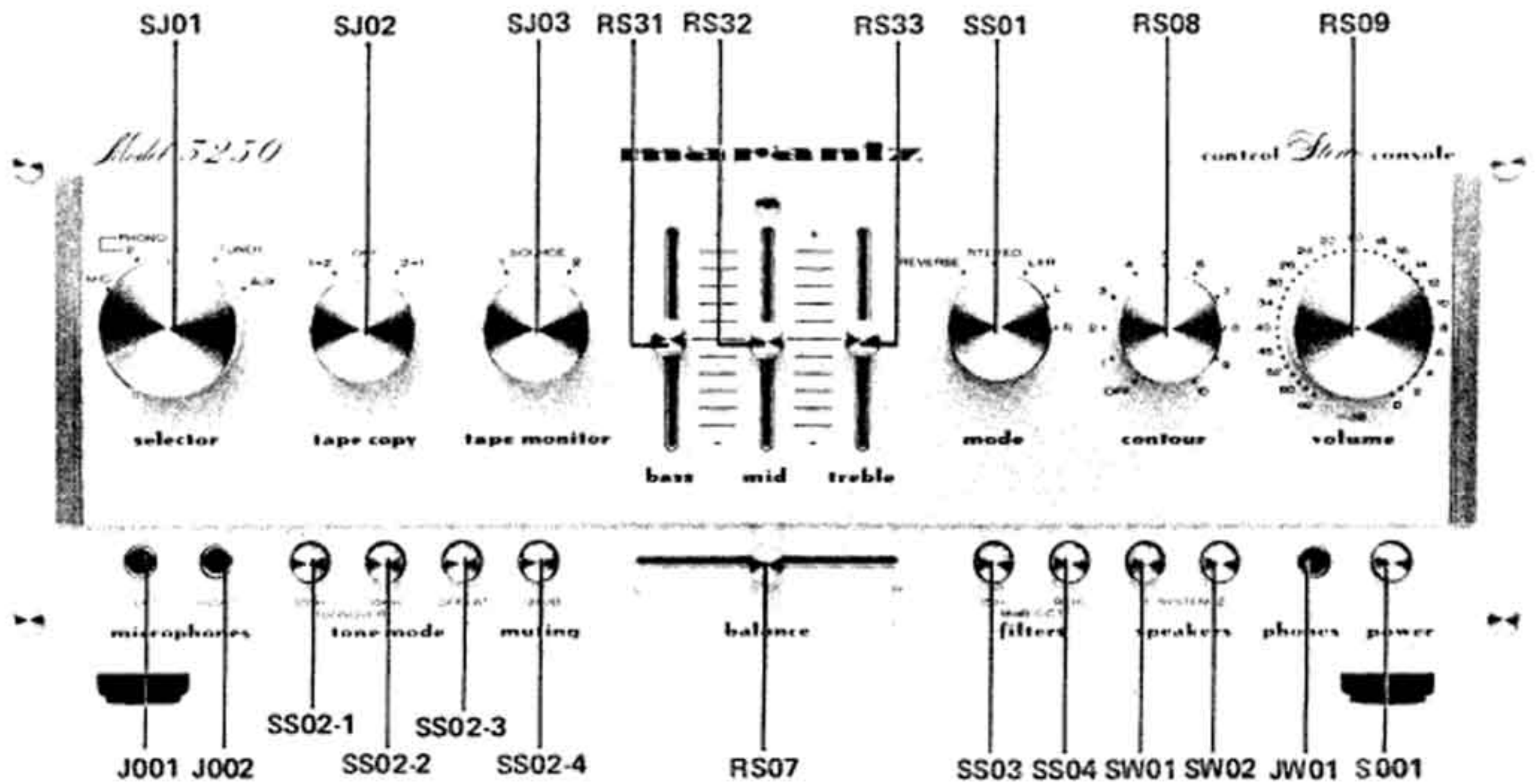
DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.

**5.1 Voltage Conversion Chart**

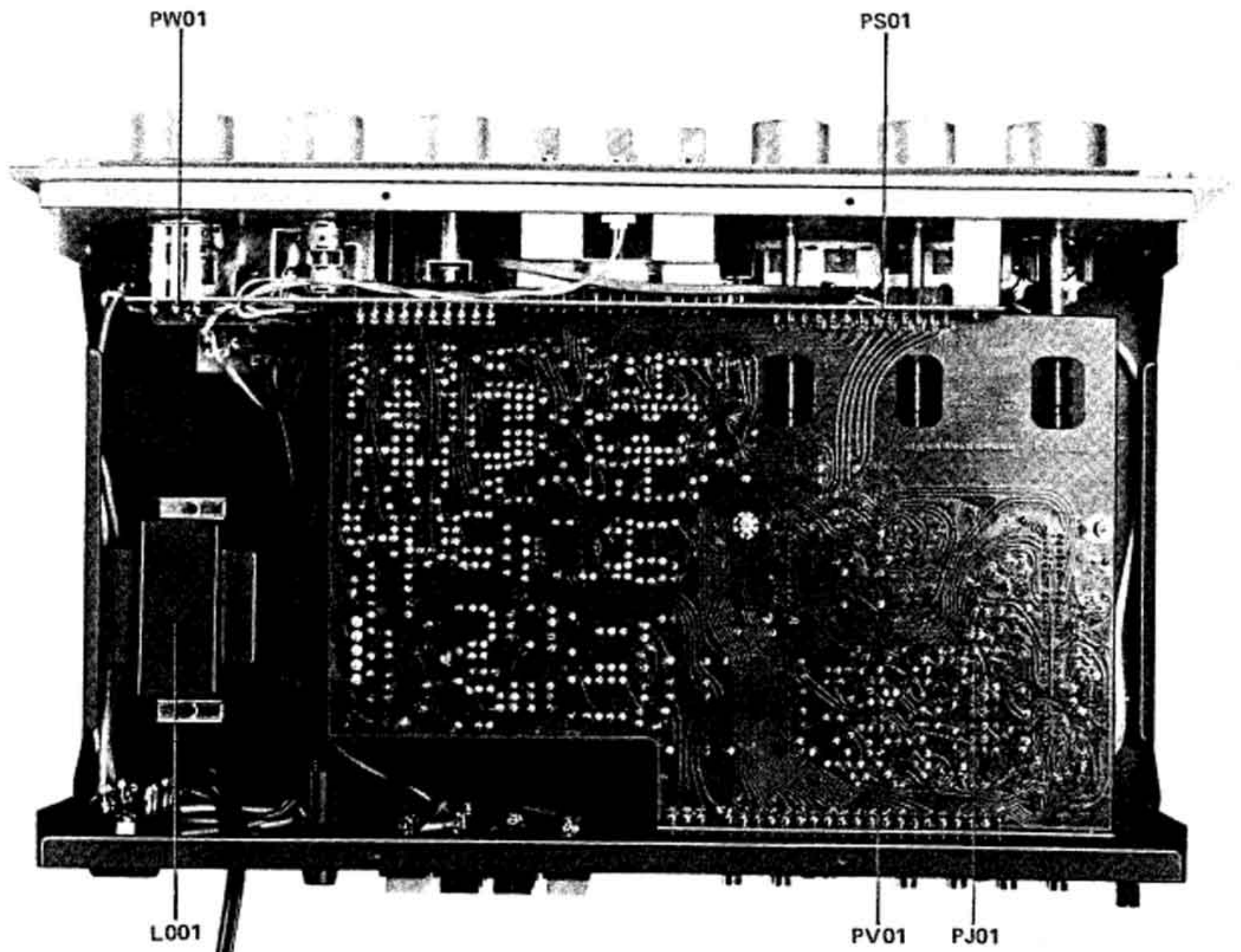


## 6. MAJOR COMPONENT LOCATIONS

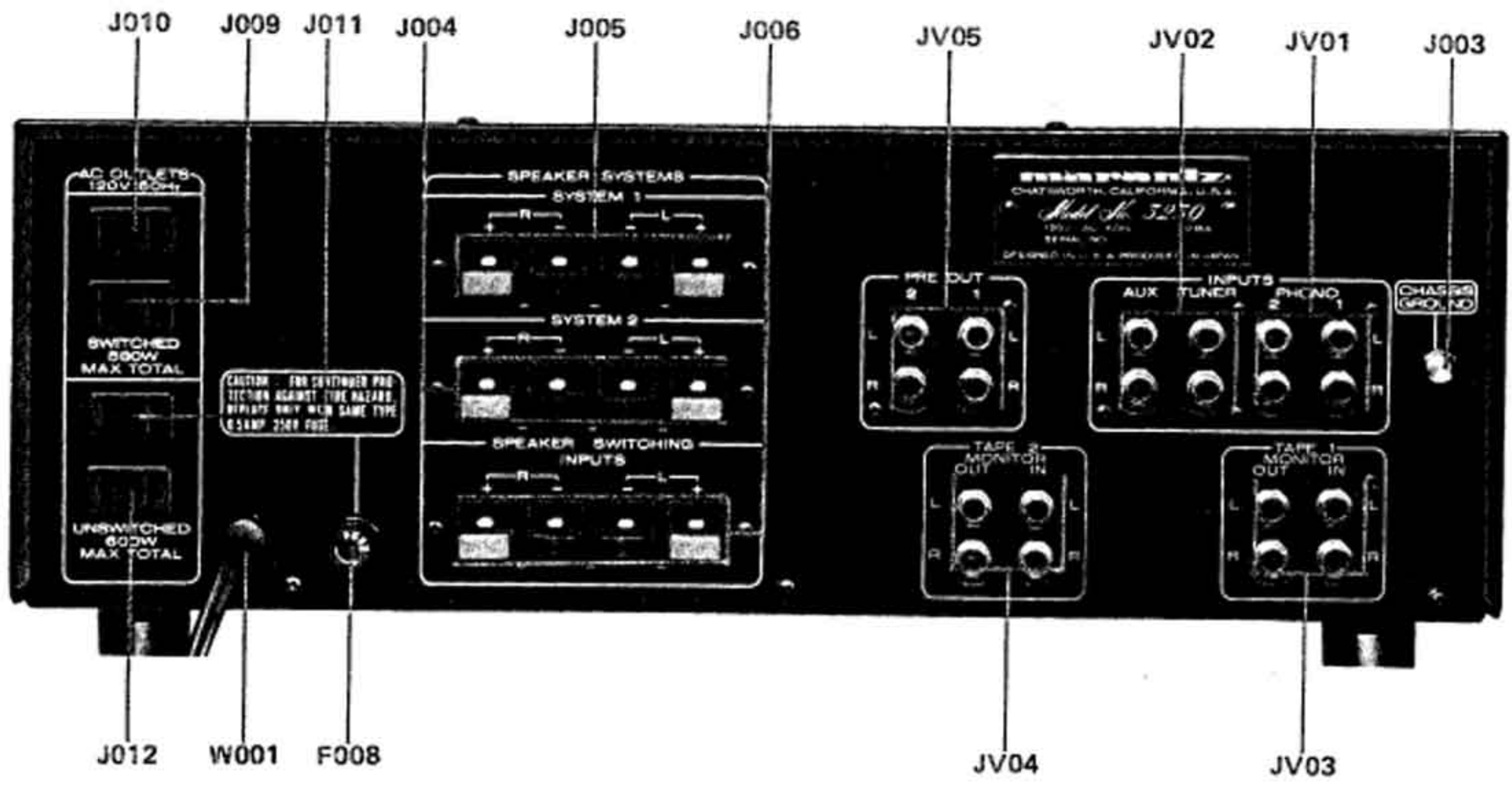
### 6.1 Front Panel Adjustment and Component Locations



### 6.2 Main Chassis Component Locations (Top View)

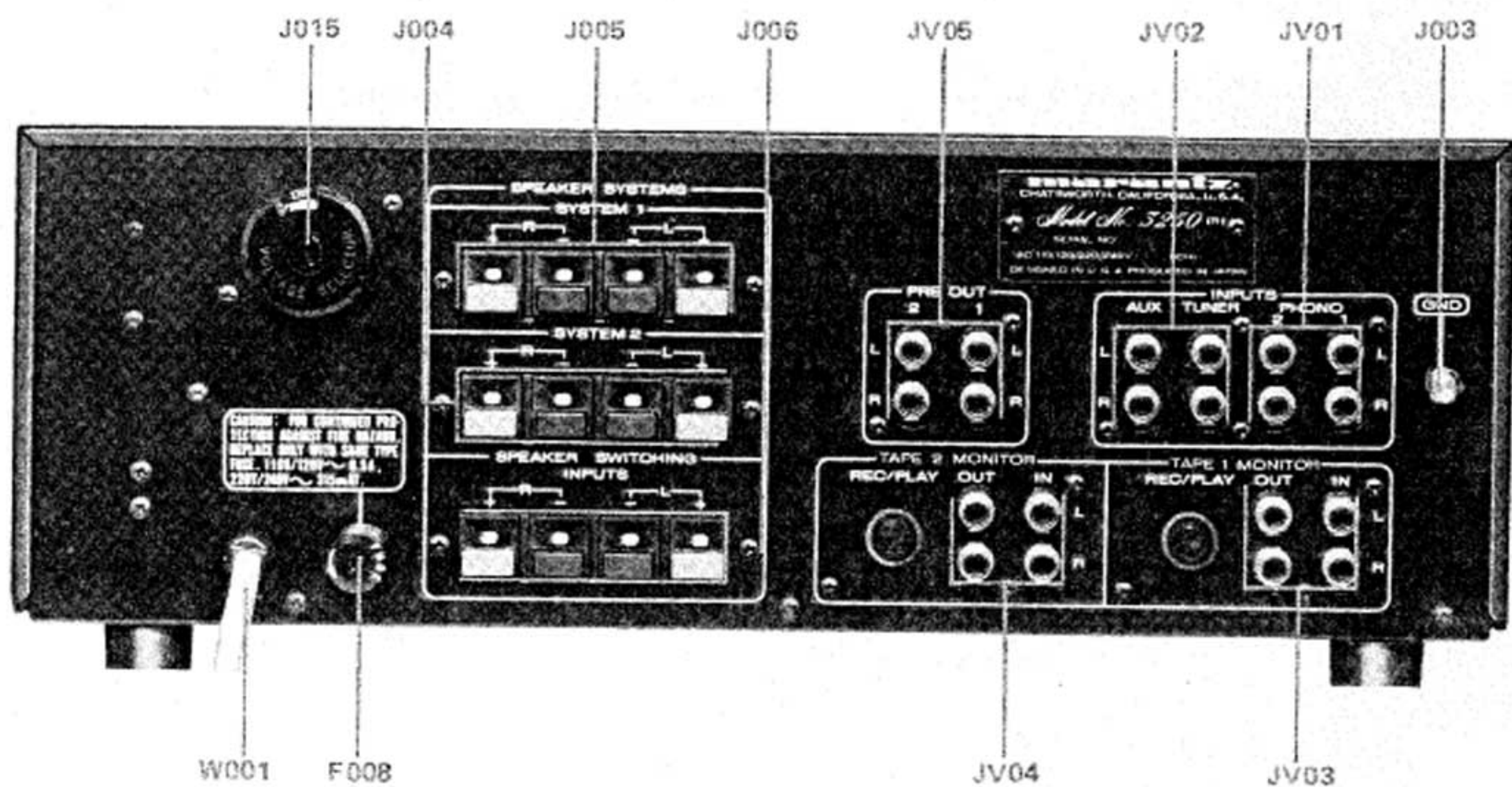


### 6.3 Rear Panel Adjustment and Component Locations

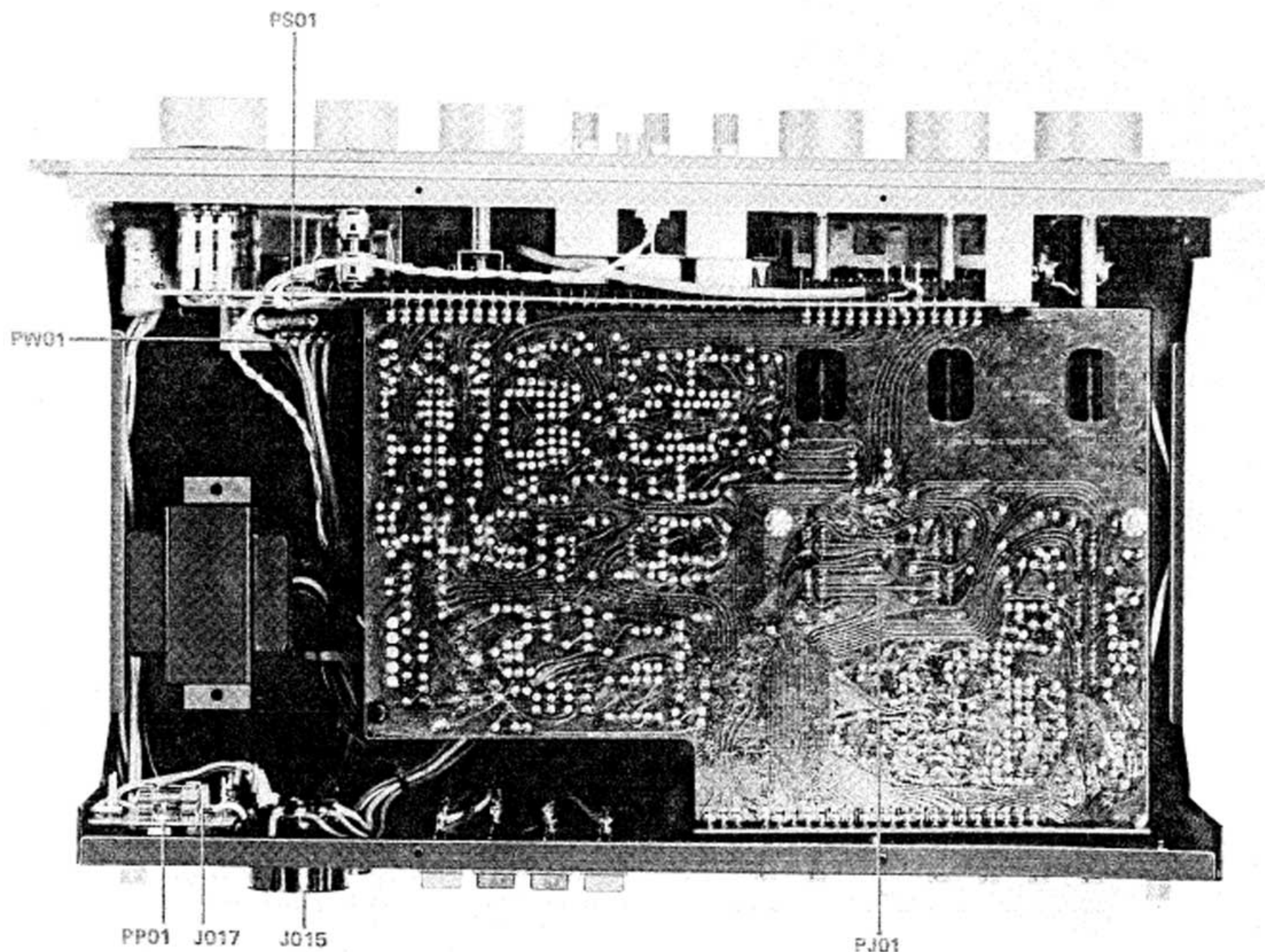


● EUROPEAN MODEL

6.4 Rear Panel Adjustment and Component Locations for Europe



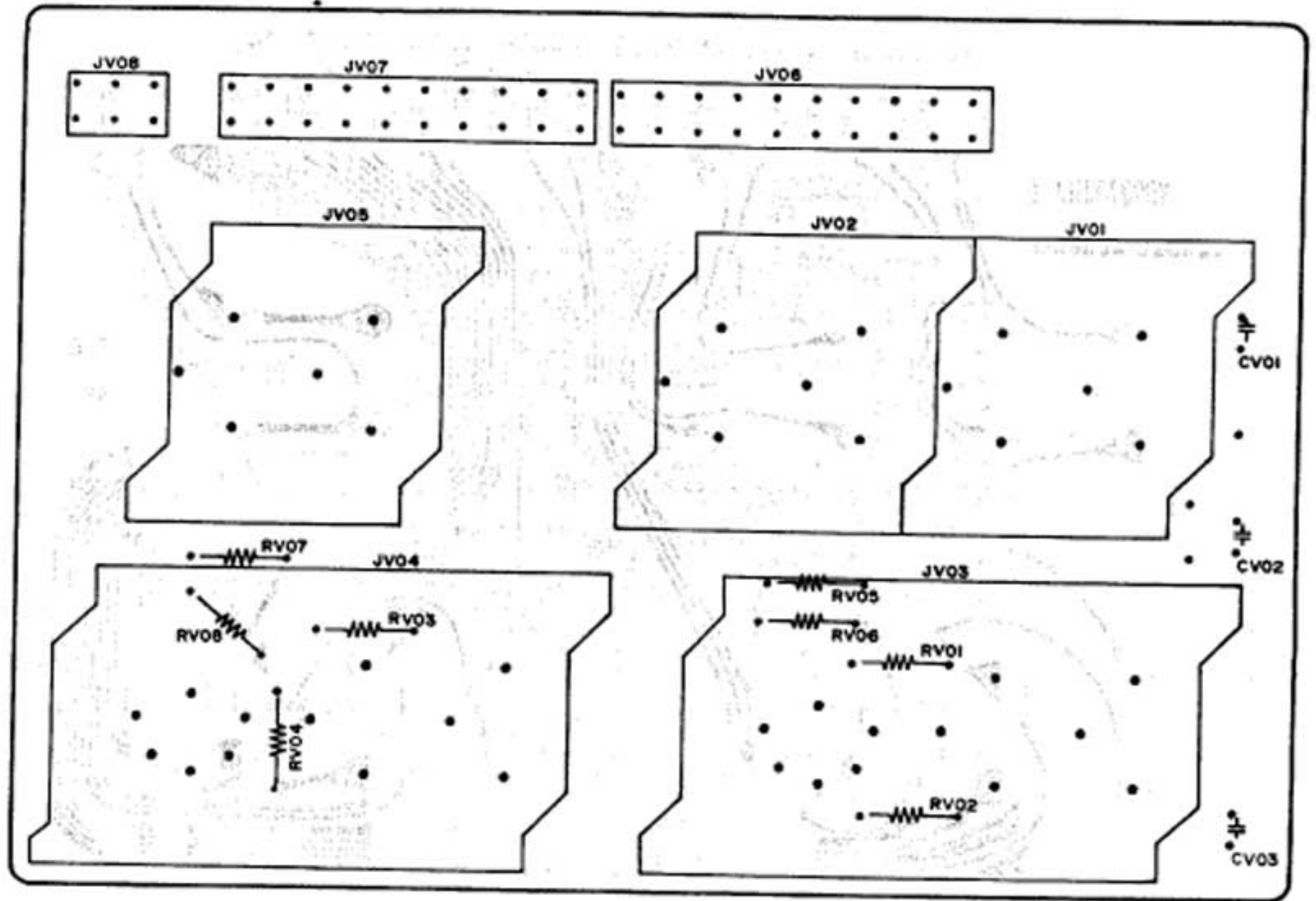
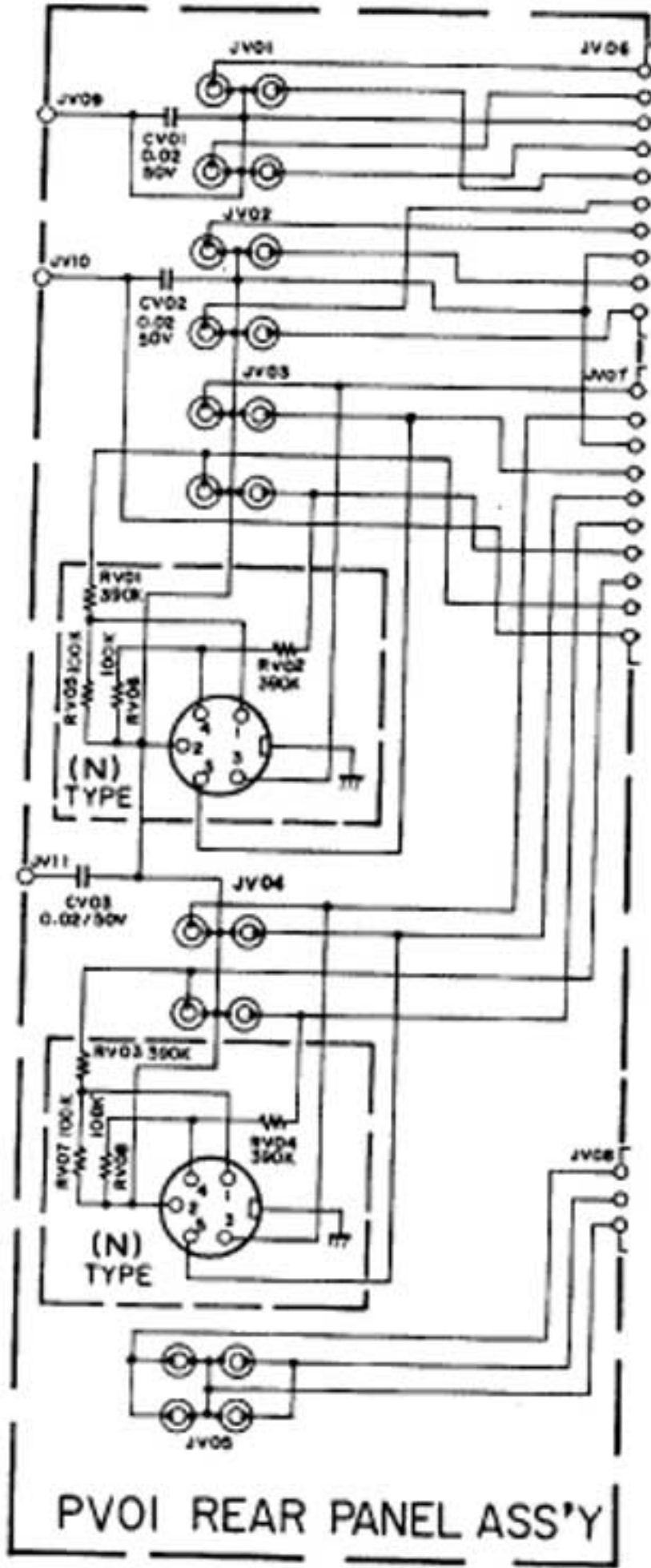
6.5 Main Chassis Component Locations (Top View) for Europe



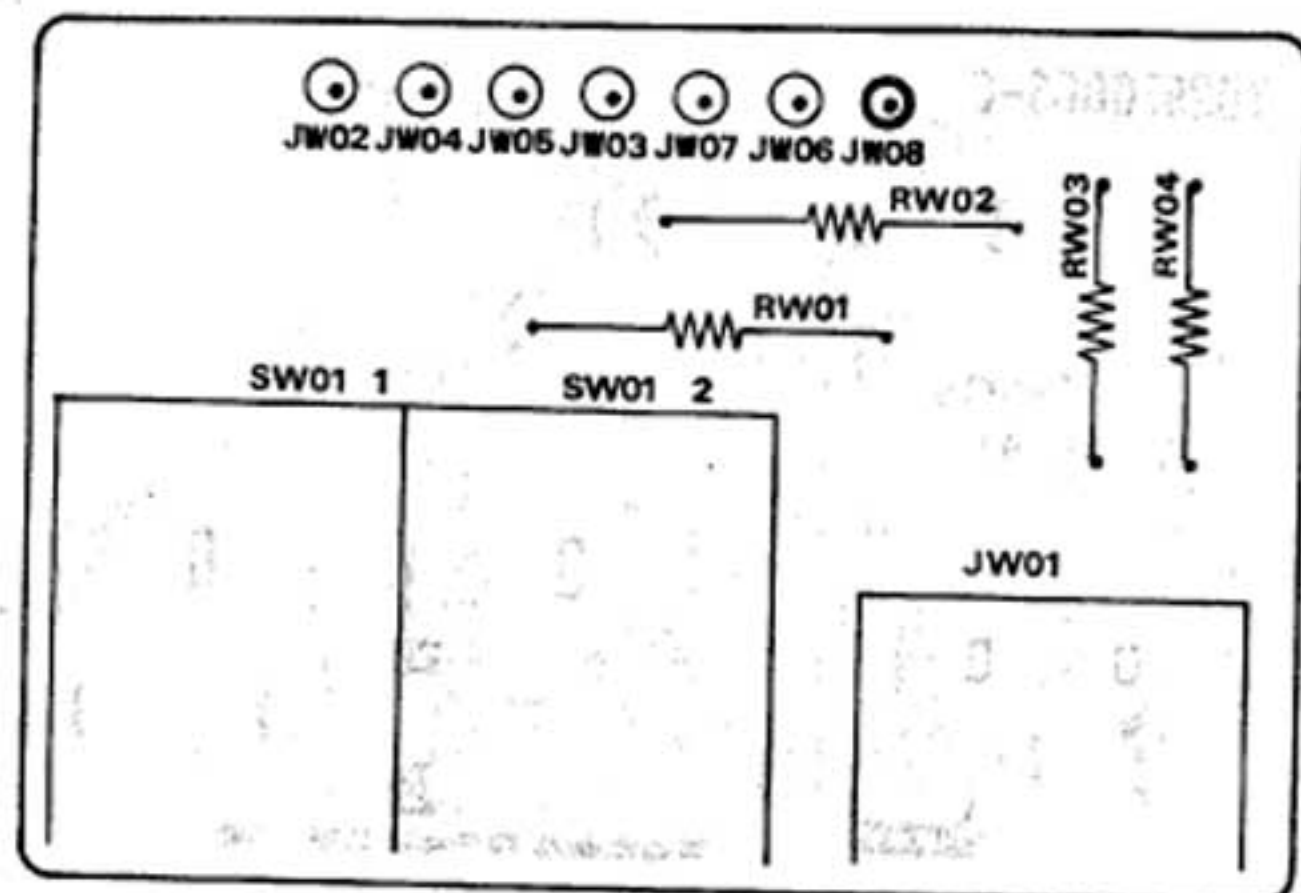
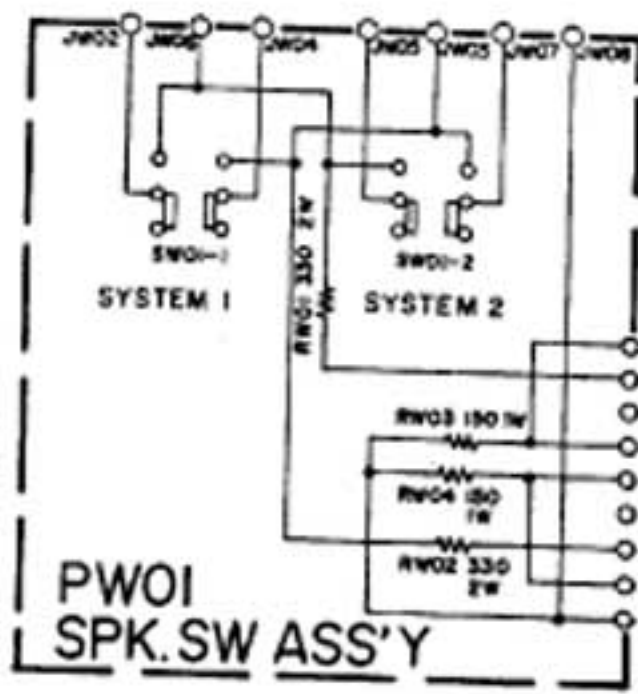


## 7. DIAGRAM AND COMPONENT LOCATIONS

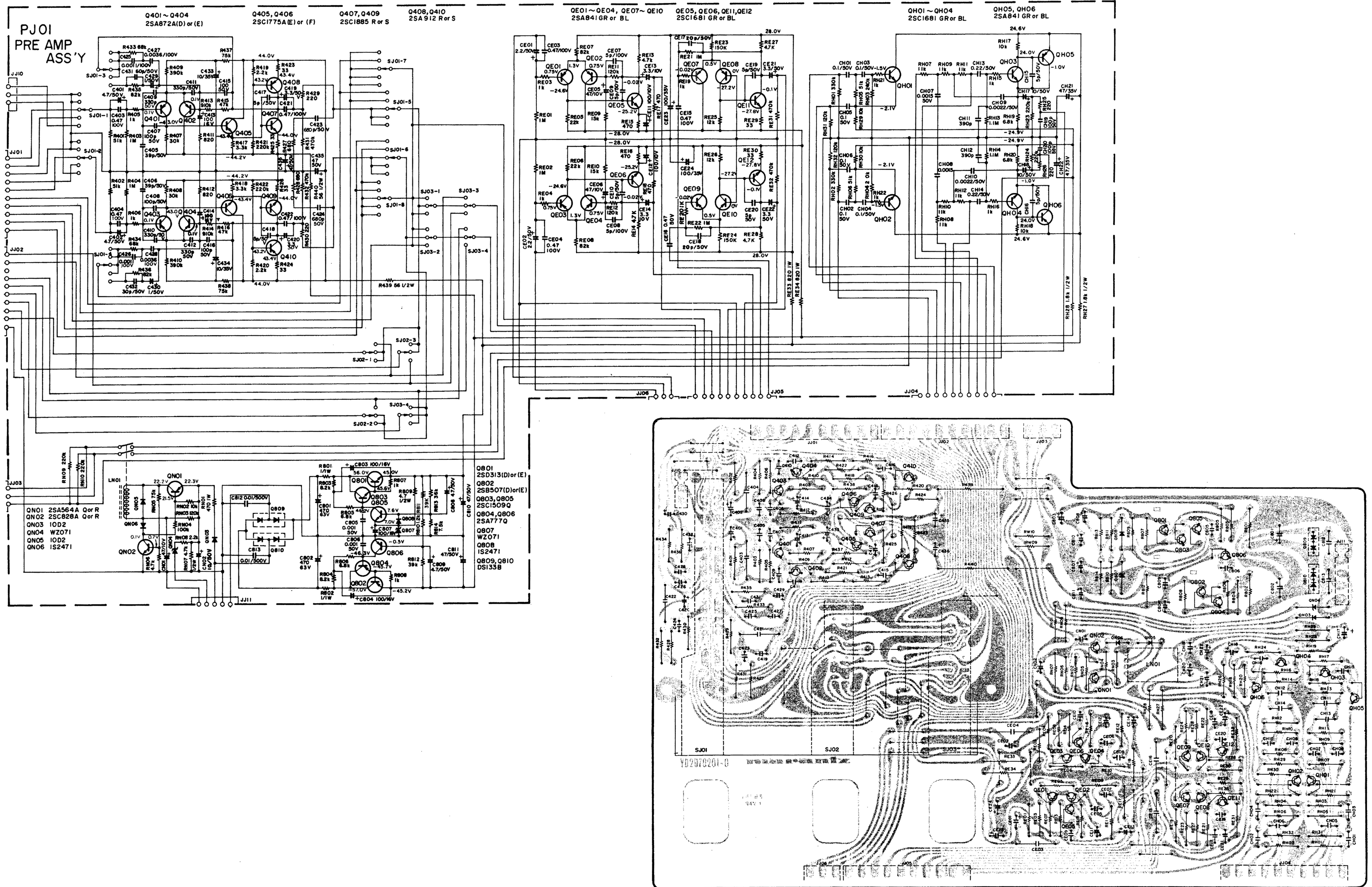
### 7.1 Rear Panel Assembly (PV01) Schematic Diagram and Component Locations



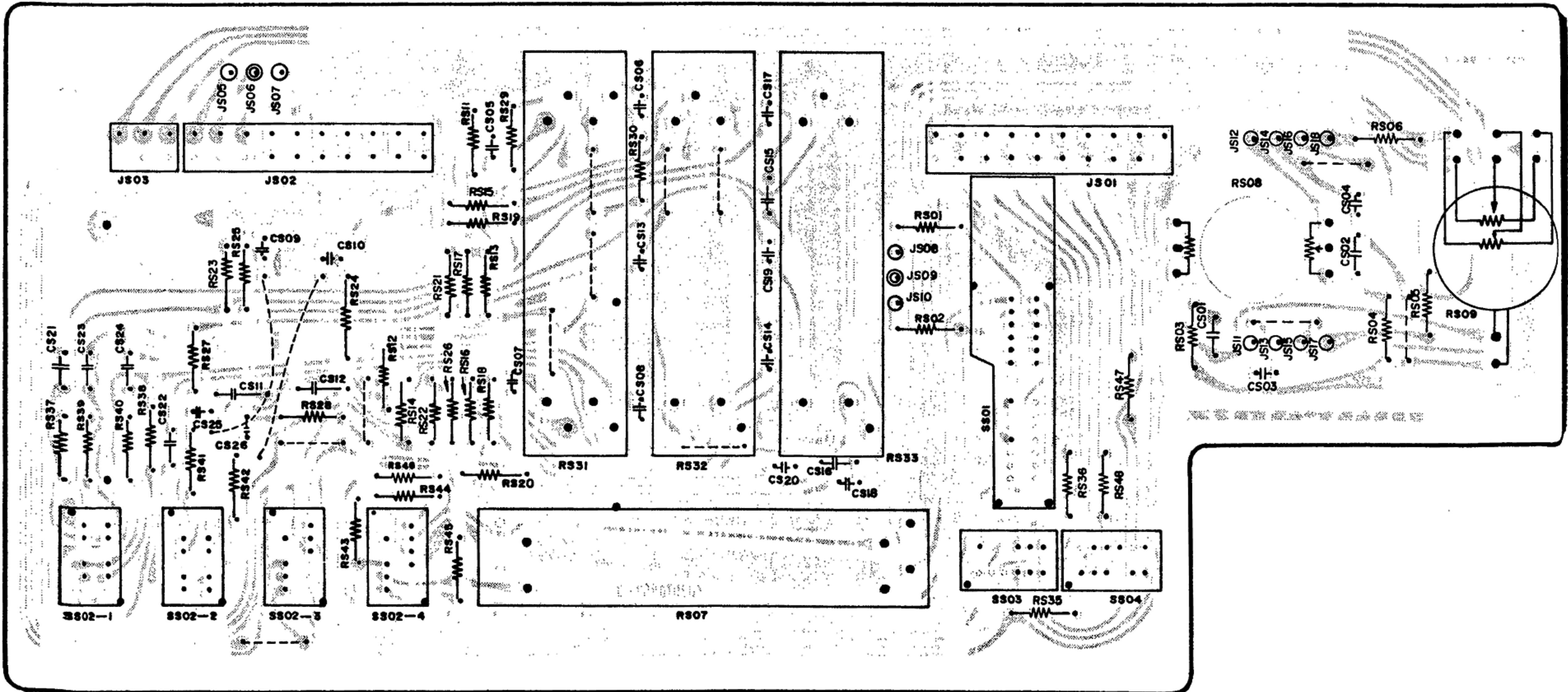
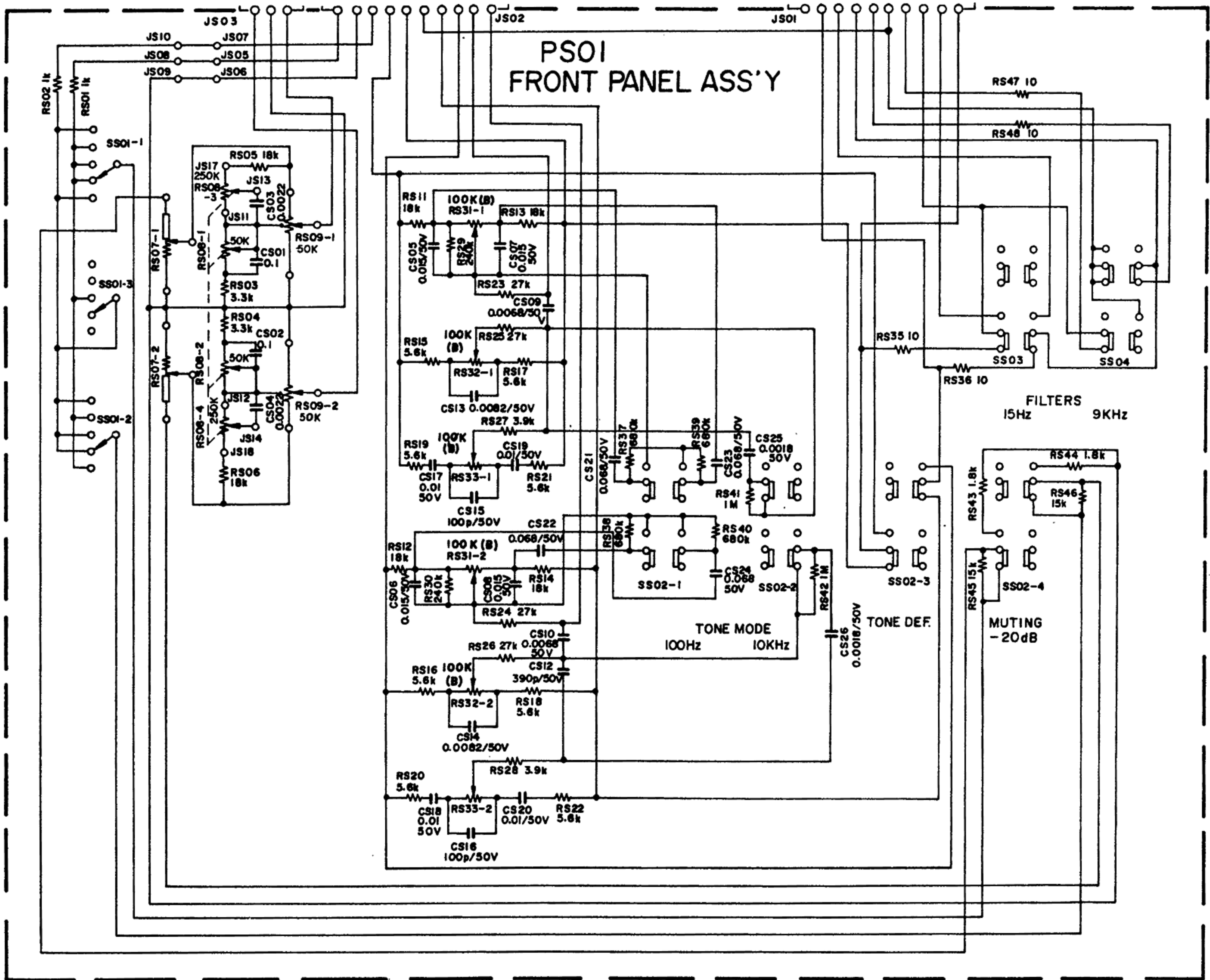
### 7.2 Speaker Switch Assembly (PW01) Schematic Diagram and Component Locations



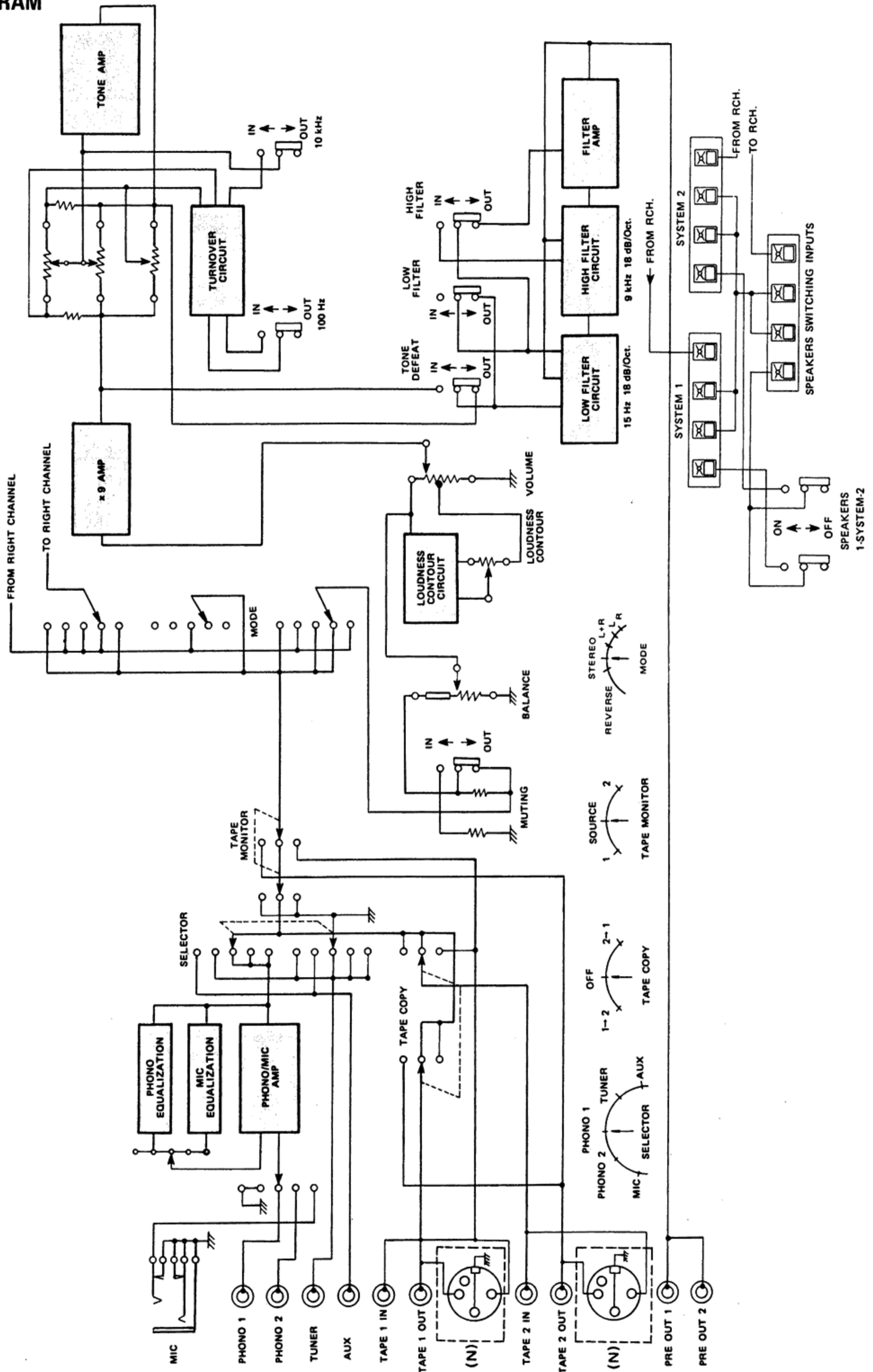
### 7.3 Pre-Amp. Assembly (PJ01) Schematic Diagram and Component Locations



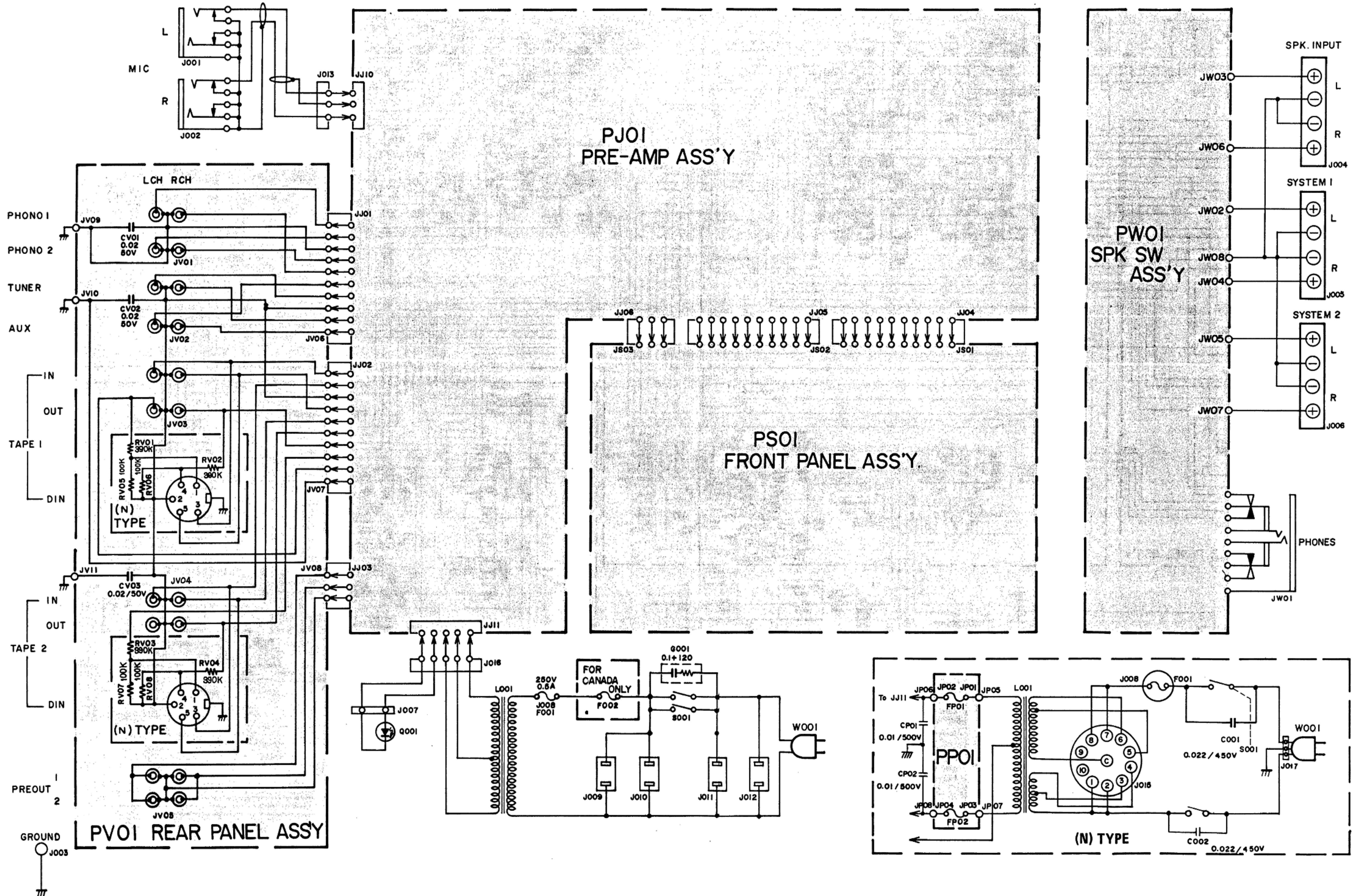
# 7.4 Front Panel Assembly (PS01) Schematic Diagram and Component Locations

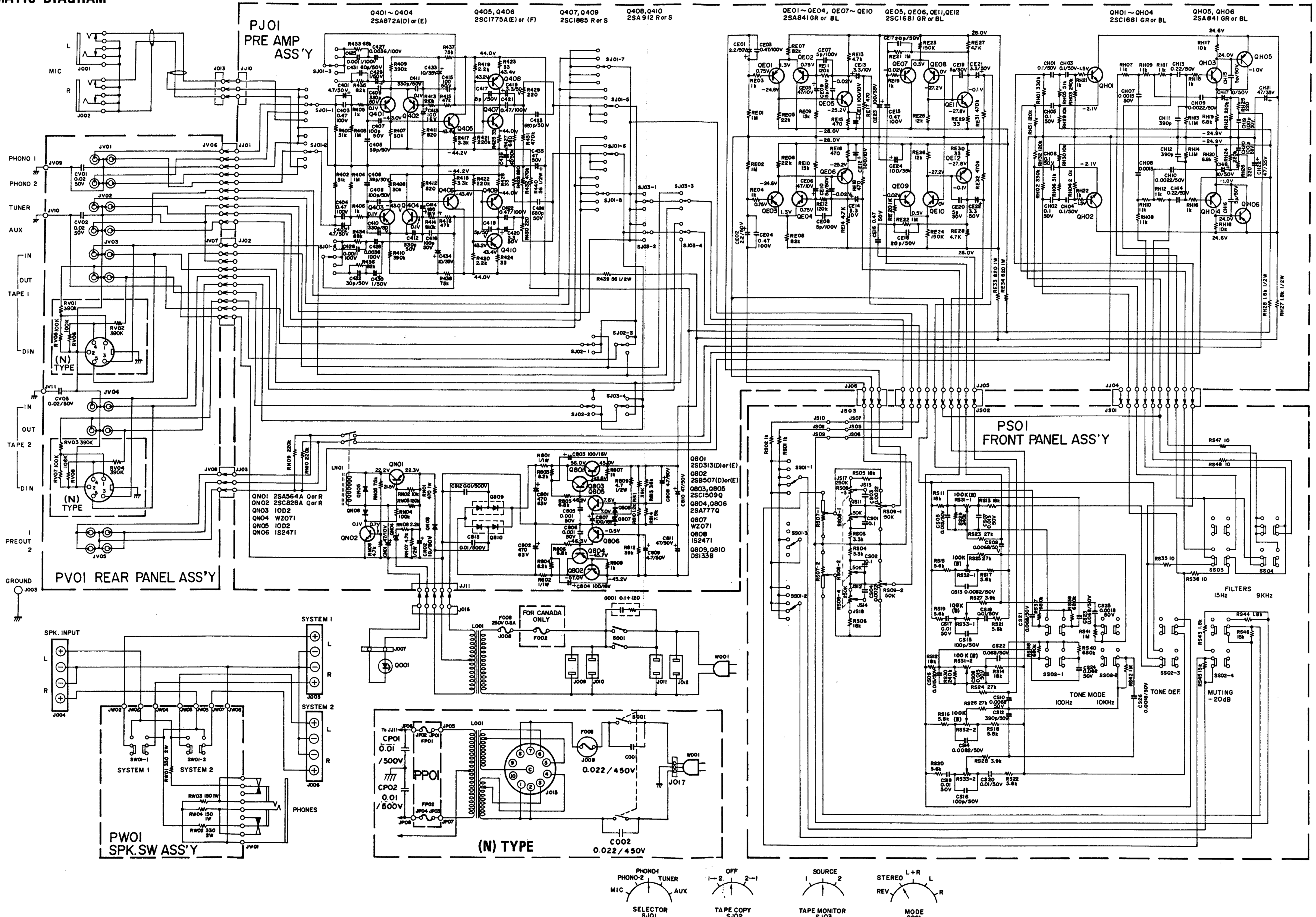


# 8. BLOCK DIAGRAM

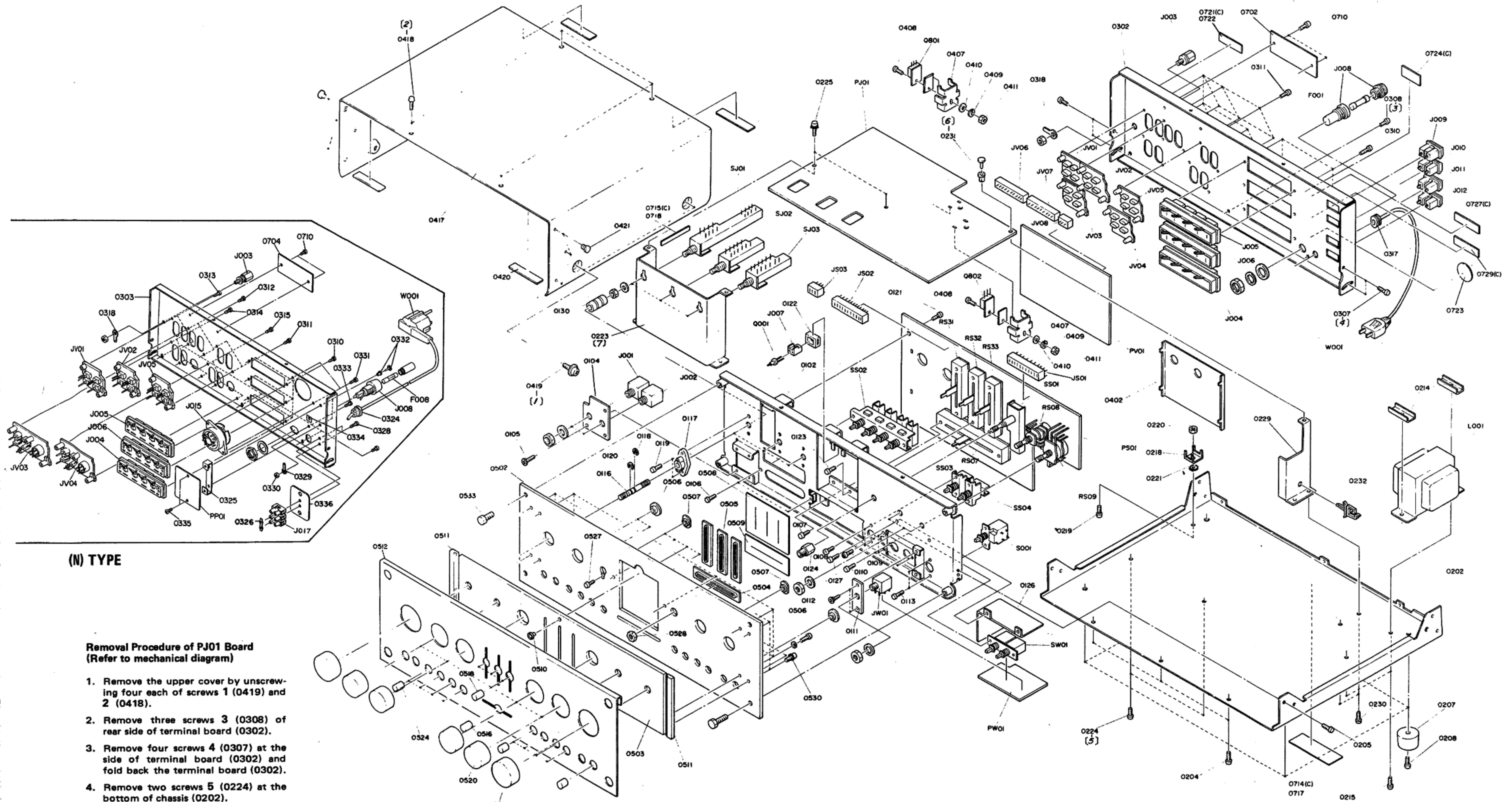


9. CONNECTION DIAGRAM





# 11. EXPLODED MECHANICAL DIAGRAM



(N) TYPE

### Removal Procedure of PJ01 Board (Refer to mechanical diagram)

1. Remove the upper cover by unscrewing four each of screws 1 (0419) and 2 (0418).
2. Remove three screws 3 (0308) of rear side of terminal board (0302).
3. Remove four screws 4 (0307) at the side of terminal board (0302) and fold back the terminal board (0302).
4. Remove two screws 5 (0224) at the bottom of chassis (0202).
5. Disengaging the clamp 6 (0231) on the board, shift the board with the mounting bracket 7 (0223) toward the rear.

## 12. PARTS LIST

• (U) for U.S.A.  
 • (C) for Canada  
 • (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
A	1	1	1	2970063400	Front Panel Assembly
0502	1	1	1	2970063022	Escutcheon
0503	1	1	1	2970063033	Escutcheon
0504	1	1	1	2926259040	Bushing
0505	3	3	3	2970259010	Bushing
0506	3	3	3	2978259020	Bushing
0507	9	9	9	2978259010	Bushing
0508	1	1	1	2970303010	Mask
0509	1	1	1	2926303020	Mask
0510	1	1	1	2979259020	Bushing
0511	2	2	2	2965063050	Escutcheon
0512	1	1	1	2970053010	Cover
B	1	1	1	2970257400	Lid Assembly, Upper
0417	1	1	1	2970257012	Lid
0420	4	4	4	2965118010	Spacer
0421	6	6	6	2979259030	Bushing
<b>FRONT PANEL</b>					
0102	1	1	1	2970160013	Bracket
0104	1	1	1	2970120010	Insulator
0105	3	3	3	51340306B0	F.H. Tapped Screw, F3 x 6
0106	2	2	2	51100306A9	B.H.M. Screw, B3 x 6
0107	2	2	2	51100306A9	B.H.M. Screw, B3 x 6
0108	2	2	2	51100306A9	B.H.M. Screw, B3 x 6
0109	2	2	2	51100306A9	B.H.M. Screw, B3 x 6
0110	2	2	2	51100306A9	B.H.M. Screw, B3 x 6
0111	1	1	1	2970120020	Insulator
0112	2	2	2	51340306B0	F.H. Tapped Screw, F3 x 6
0113	2	2	2	51100306B9	B.H.M. Screw, B3 x 6
0115	3	3	3	2970112513	Shaft, K
0119	6	6	6	51280308B0	B.H. Tapped Screw, B3 x 8
0121	1	1	1	51280306B0	B.H. Tapped Screw, B3 x 6
0122	1	1	1	2978259060	Bushing
0123	6	6	6	51100306A9	B.H.M. Screw, B3 x 6
0124	1	1	1	2970101010	Support
0126	1	1	1	2970109010	Shield
0127	2	2	2	51100306A9	B.H.M. Screw, B3 x 6
0130	3	3	3	2963125010	Joint
<b>CHASSIS</b>					
0202	1	1	1	2970105013	Chassis
0204	3	3	3	51280410U0	B.H. Tapped Screw, B4 x 10
0205	2	2	2	51280308U0	B.H. Tapped Screw, B3 x 8
0207	4	4	4	2932057010	Leg
0208	4	4	4	51570410S9	P.H. Tapped Screw, P4 x 10
0214	2	2	2	2922005010	Clamper
0215	2	2	2	51100408S9	B.H.M. Screw, B4 x 8
0218	1	1	1	2910123010	Contacting
0219	1	1	1	51100306S9	B.H.M. Screw, B3 x 6
0220	1	1	1	53110303B9	Hexagon Nut

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
0221	1	1	1	54050300R0	T.L. Washer, OR
<b>ROTARY SW. FITTING</b>					
0223	1	1	1	2970160030	Bracket
0224	2	2	2	51100306S9	B.H.M. Screw, B3 x 6
0225	2	2	2	51600306B0	P.H. Tapped Screw, P3 x 6
<b>P.W.B. FITTING</b>					
0229	1	1	1	2970160040	Bracket
0230	2	2	2	51100306S9	B.H.M. Screw, B3 x 6
0231	1	1	1	2965005010	Clamper
0232	1	1	1	2886005020	Clamper
<b>TERMINAL BOARD</b>					
0302	1	1		2970160022	Bracket
0303			1	2970160120	Bracket
0307	4	4	4	51280306U0	B.H. Tapped Screw, B3 x 6
0308	3	3	3	51280306U0	B.H. Tapped Screw, B3 x 6
0310	6	6	6	51280308U0	B.H. Tapped Screw, B3 x 8
0311	2	2	2	51280308U0	B.H. Tapped Screw, B3 x 8
0312	2	2	2	51280308U0	B.H. Tapped Screw, B3 x 8
0313	2	2	2	51280308U0	B.H. Tapped Screw, B3 x 8
0314			3	51280308U0	B.H. Tapped Screw, B3 x 8
0315			3	51280308U0	B.H. Tapped Screw, B3 x 8
0317	1	1		1455259070	Bushing
0318	1	1	2	62040029W0	Lug
0320	4	4		51280308U0	B.H. Tapped Screw, B3 x 8
0324			1	1455259040	Bushing
0326			1	53110303A9	Hexagon Nut
0328			1	51100308S9	B.H.M. Screw, B3 x 8
0331			2	51100308S9	B.H.M. Screw, B3 x 8
<b>FOR FRONT P.W.B.</b>					
0402	1	1	1	2970109020	Shield
<b>FOR AMP. P.W.B.</b>					
0407	2	2	2	2947267050	Heatsink
0408	2	2	2	51100306S9	B.H.M. Screw, B3 x 6
0409	2	2	2	54040302N0	Spring Washer
0410	2	2	2	54020301E0	Flat Washer, P
0411	2	2	2	53110303E9	Hexagon Nut
<b>COVER</b>					
0418	4	4	4	51280306U0	B.H. Tapped Screw, B3 x 6
0419	4	4	4	51480406S9	B.H.M. Screw, B4 x 6
0516	1	1	1	2970154012	Knob
0518	3	3	3	2970154023	Knob
0520	4	4	4	2970154050	Knob
0522	2	2	2	2963154010	Knob
0524	9	9	9	2963154030	Knob
0527	1	1	1	51302608B0	P.H. Tapped Screw, P2.6 x 8
0528	1	1	1	53118179A0	Hexagon Nut
0530	10	10	10	51480306A9	F. Washer Screw
0533	4	4	4	52017069J0	H. Head Bolt
<b>LABELS</b>					
0702	1			2970265012	Indicator
0703		1		2970265022	Indicator
0704			1	2970265030	Indicator



- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
0710	2	2	2	51280306U0	B.H. Tapped Screw, B3 x 6
0714		1		2911861110	Label
0715		1		2911861140	Label
0717	1		1	2578861010	Label
0718	1		1	2932861010	Label
0721		1		9510911010	Label, LL No.
0722	1			9510911020	Label, UL Factory
0723	1			9511101010	Label
0727		1		2911861230	Label
0729		1		2911861190	Label
<b>PRINTED MATER</b>					
0804	1			2970851010	Instructions, Set
0806		1	1	2970851310	Instructions, Set
0809		1		2886851100	Instructions
<b>PACKING MATERIAL</b>					
0902	1	1	1	2970801012	Packing Case
0911	2	2	2	2970809012	Cushion
0916	1	1	1	9014550180	Polyethylene Bag
0918	1	1	1	9013025010	Polyethylene Bag
0923	1	1	1	2864804010	Sleeve
0924		1		9560000042	Hang Tag
0926		1		2731821010	Silicagel
1002	3			9522815010	Serial No. Card
1003		3		9523015120	Serial No. Card
1004			3	9523015110	Serial No. Card
1014		2		9510901020	Label
<b>GUARANTEE CARD</b>					
1104	1			2577813010	Envelope
1105		1		2918813012	Envelope
1106			1	2818813010	Envelope
1111	1			2577851020	Instructions, Important
1112		1	1	2818851120	Instructions, Important
1116	1			2577854012	Guarantee Card
1117		1	1	9630000180	Guarantee Card
1121		1		9650000050	S. Station Card
1125	1			2818854022	Guarantee Card
1126		1		2818854040	Guarantee Card
1132	1			2818851040	Instructions, Packing
1133		1	1	2818851140	Instructions, Packing
<b>PV01 REAR PANEL ASS'Y BOARD</b>					
PV01	1	1	1	YD29700020	P.W. Board
	1	1		ZZ29700020	P.W. Board Assembly
			1	ZZ29708020	P. W. Board Assembly
RV01		1		RT05394140	Resistor, 390kΩ ±5% ¼W
RV02		1		RT05394140	Resistor, 390kΩ ±5% ¼W
RV03		1		RT05394140	Resistor, 390kΩ ±5% ¼W
RV04		1		RT05394140	Resistor, 390kΩ ±5% ¼W
RV05		1		RT05104140	Resistor, 100kΩ ±5% ¼W
RV06		1		RT05104140	Resistor, 100kΩ ±5% ¼W
RV07		1		RT05104140	Resistor, 100kΩ ±5% ¼W
RV08		1		RT05104140	Resistor, 100kΩ ±5% ¼W
CV01	1	1	1	DK18203010	Ceramic Cap., 0.02μF ±80% 50V
CV02	1	1	1	DK18203010	Ceramic Cap., 0.02μF ±80% 50V

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
CV03	1	1	1	DK18203010	Ceramic Cap., 0.02μF ±80% 50V
JV01	1	1	1	YT02040150	Terminal, Phono 1, 2 4P
JV02	1	1	1	YT02040150	Terminal, Tuner, Aux 4P
JV03			1	BY01050060	Terminal, Tape 1 4P + DIN
JV04			1	BY01050060	Terminal, Tape 2 4P + DIN
JV05	1	1	1	YT02040150	Terminal, Pre-out 1, 2
JV06	1	1	1	YJ06000400	Socket, 10P
JV07	1	1	1	YJ06000400	Socket, 10P
JV08	1	1	1	YJ06000330	Socket, 3P
JV09	1	1	1	YP10001130	Plug
JV10	1	1	1	YP10001130	Plug
JV11	1	1	1	YP10001130	Plug
JV03	1	1		YT02040150	Terminal, Tape 1, 2 4P
JV04	1	1		YT02040150	Terminal, Tape 1, 2 4P
<b>PS01 FRONT PANEL ASS'Y BOARD</b>					
PS01	1	1	1	YD29702020	P.W. Board
	1	1	1	ZZ29702020	P.W. Board Assembly
PS11	10	10	10	75061251P0	Jumper
RS01	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
RS02	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
RS03	1	1	1	RT05332140	Resistor, 3.3kΩ ±5% ¼W
RS04	1	1	1	RT05332140	Resistor, 3.3kΩ ±5% ¼W
RS05	1	1	1	RT05183140	Resistor, 18kΩ ±5% ¼W
RS06	1	1	1	RT05183140	Resistor, 18kΩ ±5% ¼W
RS07	1	1	1	RS05030320	Variable Resistor, 50k x 2
RS08	1	1	1	RG05030040	Variable Resistor, 50k (A) x 2
RS09	1	1	1	RM05030720	Variable Resistor, 50k x 2
RS11	1	1	1	RT05183140	Resistor, 18kΩ ±5% ¼W
RS12	1	1	1	RT05183140	Resistor, 18kΩ ±5% ¼W
RS13	1	1	1	RT05183140	Resistor, 18kΩ ±5% ¼W
RS14	1	1	1	RT05183140	Resistor, 18kΩ ±5% ¼W
RS15	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RS16	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RS17	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RS18	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RS19	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RS20	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RS21	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RS22	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RS23	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
RS24	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
RS25	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
RS26	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
RS27	1	1	1	RT05392140	Resistor, 3.9kΩ ±5% ¼W
RS28	1	1	1	RT05392140	Resistor, 3.9kΩ ±5% ¼W
RS29	1	1	1	RT05274140	Resistor, 270kΩ ±5% ¼W
RS30	1	1	1	RT05274140	Resistor, 270kΩ ±5% ¼W
RS31	1	1	1	RS01040040	Variable Resistor, Bass 100k(B) x 2
RS32	1	1	1	RS01040040	Variable Resistor, Mid. 100k(B) x 2
RS33	1	1	1	RS01040040	Variable Resistor, Treble 100k(B) x 2
RS35	1	1	1	RT05100140	Resistor, 10Ω ±5% ¼W
RS36	1	1	1	RT05100140	Resistor, 10Ω ±5% ¼W
RS37	1	1	1	RT05684140	Resistor, 680kΩ ±5% ¼W
RS38	1	1	1	RT05684140	Resistor, 680kΩ ±5% ¼W
RS39	1	1	1	RT05684140	Resistor, 680kΩ ±5% ¼W
RS40	1	1	1	RT05684140	Resistor, 680kΩ ±5% ¼W

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
RS41	1	1	1	RT05105140	Resistor, 1MΩ ±5% ¼W
RS42	1	1	1	RT05105140	Resistor, 1MΩ ±5% ¼W
RS43	1	1	1	RT05182140	Resistor, 1.8kΩ ±5% ¼W
RS44	1	1	1	RT05182140	Resistor, 1.8kΩ ±5% ¼W
RS45	1	1	1	RT05153140	Resistor, 15kΩ ±5% ¼W
RS46	1	1	1	RT05153140	Resistor, 15kΩ ±5% ¼W
RS47	1	1	1	RT05100140	Resistor, 10Ω ±5% ¼W
RS48	1	1	1	RT05100140	Resistor, 10Ω ±5% ¼W
CS01	1	1	1	DF15104010	Film Cap., 0.1µF ±5% 50V
CS02	1	1	1	DF15104010	Film Cap., 0.1µF ±5% 50V
CS03	1	1	1	DF15222010	Film Cap., 0.0022µF ±5% 50V
CS04	1	1	1	DF15222010	Film Cap., 0.0022µF ±5% 50V
CS05	1	1	1	DF15153010	Film Cap., 0.015µF ±5% 50V
CS06	1	1	1	DF15153010	Film Cap., 0.015µF ±5% 50V
CS07	1	1	1	DF15153010	Film Cap., 0.015µF ±5% 50V
CS08	1	1	1	DF15153010	Film Cap., 0.015µF ±5% 50V
CS09	1	1	1	DF15682010	Film Cap., 0.0068µF ±5% 50V
CS10	1	1	1	DF15682010	Film Cap., 0.0068µF ±5% 50V
CS11	1	1	1	DF65391010	Film Cap., 390pF ±5%
CS12	1	1	1	DF65391010	Film Cap., 390pF ±5%
CS13	1	1	1	DF15822010	Film Cap., 0.0082µF ±5% 50V
CS14	1	1	1	DF15822010	Film Cap., 0.0082µF ±5% 50V
CS15	1	1	1	DD15101020	Ceramic Cap., 100pF ±5% 50V
CS16	1	1	1	DD15101020	Ceramic Cap., 100pF ±5% 50V
CS17	1	1	1	DF15103010	Film Cap., 0.01µF ±5% 50V
CS18	1	1	1	DF15103010	Film Cap., 0.01µF ±5% 50V
CS19	1	1	1	DF15103010	Film Cap., 0.01µF ±5% 50V
CS20	1	1	1	DF15103010	Film Cap., 0.01µF ±5% 50V
CS21	1	1	1	DF15683010	Film Cap., 0.068µF ±5% 50V
CS22	1	1	1	DF15683010	Film Cap., 0.068µF ±5% 50V
CS23	1	1	1	DF15683010	Film Cap., 0.068µF ±5% 50V
CS24	1	1	1	DF15683010	Film Cap., 0.068µF ±5% 50V
CS25	1	1	1	DF15182010	Film Cap., 0.0018µF ±5% 50V
CS26	1	1	1	DF15182010	Film Cap., 0.0018µF ±5% 50V
SS01	1	1	1	SR04050100	Rotary Switch, Mode Sw.
SS02	1	1	1	SP04040170	Pushswitch, Tone, Mode 100Hz, 10kHz, Def.
SS03	1	1	1	SP04010210	Pushswitch, Filter 15Hz
SS04	1	1	1	SP04010210	Pushswitch, Filter 9kHz
JS01	1	1	1	YJ06000400	Socket 10P,
JS02	1	1	1	YJ06000400	Socket 10P,
JS03	1	1	1	YJ06000330	Socket 3P,
JS04	1	1	1	YJ06000330	Socket 3P,
JS13	10	10	10	YP10001130	Plug
					<b>PJ01 PRE-AMP. BOARD</b>
PJ01	1	1	1	YD29702010	P.W. Board
	1	1	1	ZZ29702010	P.W. Board Assembly
PJ08	26	26	26	2933118020	Spacer
PJ11	36	36	36	75061251P0	Jumper
R401	1	1	1	RN05513140	Resistor, 51kΩ ±5% ¼W
R402	1	1	1	RN05513140	Resistor, 51kΩ ±5% ¼W
R403	1	1	1	RN05105140	Resistor, 1MΩ ±5% ¼W
R404	1	1	1	RN05105140	Resistor, 1MΩ ±5% ¼W
R405	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
R406	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
R407	1	1	1	RN05303140	Resistor, 30kΩ ±5% ¼W

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
R408	1	1	1	RN05303140	Resistor, 30kΩ ±5% ¼W
R409	1	1	1	RN05394140	Resistor, 390kΩ ±5% ¼W
R410	1	1	1	RN05394140	Resistor, 390kΩ ±5% ¼W
R411	1	1	1	RT02821140	Resistor, 820Ω ±2% ¼W
R412	1	1	1	RT02821140	Resistor, 820Ω ±2% ¼W
R413	1	1	1	RT02914140	Resistor, 910kΩ ±2% ¼W
R414	1	1	1	RT02914140	Resistor, 910kΩ ±2% ¼W
R415	1	1	1	RT02473140	Resistor, 47kΩ ±2% ¼W
R416	1	1	1	RT02473140	Resistor, 47kΩ ±2% ¼W
R417	1	1	1	RT05332140	Resistor, 3.3kΩ ±5% ¼W
R418	1	1	1	RT05332140	Resistor, 3.3kΩ ±5% ¼W
R419	1	1	1	RT05222140	Resistor, 2.2kΩ ±5% ¼W
R420	1	1	1	RT05222140	Resistor, 2.2kΩ ±5% ¼W
R421	1	1	1	RT05224140	Resistor, 220kΩ ±5% ¼W
R422	1	1	1	RT05224140	Resistor, 220kΩ ±5% ¼W
R423	1	1	1	RT05330140	Resistor, 33Ω ±5% ¼W
R424	1	1	1	RT05330140	Resistor, 33Ω ±5% ¼W
R425	1	1	1	RT05330140	Resistor, 33Ω ±5% ¼W
R426	1	1	1	RT05330140	Resistor, 33Ω ±5% ¼W
R427	1	1	1	RT05681140	Resistor, 680Ω ±5% ¼W
R428	1	1	1	RT05681140	Resistor, 680Ω ±5% ¼W
R429	1	1	1	RT05221140	Resistor, 220Ω ±5% ¼W
R430	1	1	1	RT05221140	Resistor, 220Ω ±5% ¼W
R431	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W
R432	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W
R433	1	1	1	RT02683140	Resistor, 68kΩ ±2% ¼W
R434	1	1	1	RT02683140	Resistor, 68kΩ ±2% ¼W
R435	1	1	1	RT05823140	Resistor, 82kΩ ±5% ¼W
R436	1	1	1	RT05823140	Resistor, 82kΩ ±5% ¼W
R437	1	1	1	RT05753140	Resistor, 75kΩ ±5% ¼W
R438	1	1	1	RT05753140	Resistor, 75kΩ ±5% ¼W
R439	1	1	1	GF05560120	Resistor, 56Ω ±5% ¼W
R440	1	1	1	GF05560120	Resistor, 56Ω ±5% ¼W
C401	1	1	1	EE47505040	Electrolytic Cap., 47µF 50V
C402	1	1	1	EE47505040	Electrolytic Cap., 47µF 50V
C403	1	1	1	DF16474510	Film Cap., 0.47µF ±10% 100V
C404	1	1	1	DF16474510	Film Cap., 0.47µF ±10% 100V
C405	1	1	1	DD15390010	Ceramic Cap., 39pF ±5% 50V
C406	1	1	1	DD15390010	Ceramic Cap., 39pF ±5% 50V
C407	1	1	1	DD15101020	Ceramic Cap., 100pF ±5% 50V
C408	1	1	1	DD15101020	Ceramic Cap., 100pF ±5% 50V
C409	1	1	1	DD15331010	Ceramic Cap., 330pF ±5% 50V
C410	1	1	1	DD15331010	Ceramic Cap., 330pF ±5% 50V
C411	1	1	1	DD15331010	Ceramic Cap., 330pF ±5% 50V
C412	1	1	1	DD15331010	Ceramic Cap., 330pF ±5% 50V
C413	1	1	1	EE10701640	Electrolytic Cap., 100µF 16V
C414	1	1	1	EE10701640	Electrolytic Cap., 100µF 16V
C415	1	1	1	DF65101010	Film Cap., 100pF ±5% 50V
C416	1	1	1	DF65101010	Film Cap., 100pF ±5% 50V
C417	1	1	1	DD11050010	Ceramic Cap., 5pF ±0.5pF 50V
C418	1	1	1	DD11050010	Ceramic Cap., 5pF ±0.5pF 50V
C419	1	1	1	EE33505040	Electrolytic Cap., 3.3µF 50V
C420	1	1	1	EE33505040	Electrolytic Cap., 3.3µF 50V
C421	1	1	1	DF16474510	Film Cap., 0.47µF ±10% 100V
C422	1	1	1	DF16474510	Film Cap., 0.47µF ±10% 100V
C423	1	1	1	DD15391010	Film Cap., 390pF ±5% 50V
C424	1	1	1	DD15391010	Film Cap., 390pF ±5% 50V

- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION	REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N				U	C	N		
C425	1	1	1	DF14112010	Film Cap., 0.0011μF ±2% 100V	CE02	1	1	1	EE22505040	Electrolytic Cap., 2.2μF 50V
C426	1	1	1	DF14112010	Film Cap., 0.0011μF ±2% 100V	CE03	1	1	1	DF16474510	Film Cap., 0.47μF ±10% 100V
C427	1	1	1	DF14362010	Film Cap., 0.0036μF ±2% 100V	CE04	1	1	1	DF16474510	Film Cap., 0.47μF ±10% 100V
C428	1	1	1	DF14362010	Film Cap., 0.0036μF ±2% 100V	CE05	1	1	1	EE47601040	Electrolytic Cap., 47μF 10V
C429	1	1	1	EE10505040	Electrolytic Cap., 1μF 50V	CE06	1	1	1	EE47601040	Electrolytic Cap., 47μF 10V
C430	1	1	1	EE10505040	Electrolytic Cap., 1μF 50V	CE07	1	1	1	DD11050010	Ceramic Cap., 5pF ±0.5% 50V
C431	1	1	1	DD15300010	Ceramic Cap., 30pF ±5% 50V	CE08	1	1	1	DD11050010	Ceramic Cap., 5pF ±0.5% 50V
C432	1	1	1	DD15300010	Ceramic Cap., 30pF ±5% 50V	CE09	1	1	1	DD11050010	Ceramic Cap., 5pF ±0.5% 50V
C433	1	1	1	EA10603590	Electrolytic Cap., 10μF 35V	CE10	1	1	1	DD11050010	Ceramic Cap., 5pF ±0.5% 50V
C434	1	1	1	EA10603590	Electrolytic Cap., 10μF 35V	CE11	1	1	1	EA10701090	Electrolytic Cap., 100μF 10V
C435	1	1	1	EA47605090	Electrolytic Cap., 47μF 50V	CE12	1	1	1	EA10701090	Electrolytic Cap., 100μF 10V
C436	1	1	1	EA47605090	Electrolytic Cap., 47μF 50V	CE13	1	1	1	EE33505040	Electrolytic Cap., 3.3μF 50V
Q401	1	1	1	HT108722D0	Transistor, 2SA872A (D or E)	CE14	1	1	1	EE33505040	Electrolytic Cap., 3.3μF 50V
Q402	1	1	1	HT108722D0	Transistor, 2SA872A (D or E)	CE15	1	1	1	DF16474510	Film Cap., 0.47μF ±10% 100V
Q403	1	1	1	HT108722D0	Transistor, 2SA872A (D or E)	CE16	1	1	1	DF16474510	Film Cap., 0.47μF ±10% 100V
Q404	1	1	1	HT108722D0	Transistor, 2SA872A (D or E)	CE17	1	1	1	DD15200010	Ceramic Cap., 20pF ±0.5% 50V
Q405	1	1	1	HT317752E0	Transistor, 2SC1775A (E or F)	CE18	1	1	1	DD15200010	Ceramic Cap., 20pF ±0.5% 50V
Q406	1	1	1	HT317752E0	Transistor, 2SC1775A (E or F)	CE19	1	1	1	DD11050010	Ceramic Cap., 5pF ±0.5% 50V
Q407	1	1	1	HT318852C0	Transistor, 2SC1885 (R or S)	CE20	1	1	1	DD11050010	Ceramic Cap., 5pF ±0.5% 50V
Q408	1	1	1	HT109122C0	Transistor, 2SA912 (R or S)	CE21	1	1	1	EE33505040	Electrolytic Cap., 3.3μF 50V
Q409	1	1	1	HT318852S0	Transistor, 2SC1885 (R or S)	CE22	1	1	1	EE33505040	Electrolytic Cap., 3.3μF 50V
Q410	1	1	1	HT109122S0	Transistor, 2SA912 (R or S)	CE23	1	1	1	EA10703590	Electrolytic Cap., 100μF 35V
RE01	1	1	1	RT05105140	Resistor, 1MΩ ±5% ¼W	CE24	1	1	1	EA10703590	Electrolytic Cap., 100μF 35V
RE02	1	1	1	RT05105140	Resistor, 1MΩ ±5% ¼W	QE01	1	1	1	HT108412A0	Transistor, 2SA841 (GR or BL)
RE03	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W	QE02	1	1	1	HT108412A0	Transistor, 2SA841 (GR or BL)
RE04	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W	QE03	1	1	1	HT108412A0	Transistor, 2SA841 (GR or BL)
RE05	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W	QE04	1	1	1	HT108412A0	Transistor, 2SA841 (GR or BL)
RE06	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W	QE05	1	1	1	HT316812A0	Transistor, 2SC1681 (GR or BL)
RE07	1	1	1	RT05823140	Resistor, 82kΩ ±5% ¼W	QE06	1	1	1	HT316812A0	Transistor, 2SC1681 (GR or BL)
RE08	1	1	1	RT05823140	Resistor, 82kΩ ±5% ¼W	QE07	1	1	1	HT108412A0	Transistor, 2SA841 (GR or BL)
RE09	1	1	1	RT02153140	Resistor, 15kΩ ±2% ¼W	QE08	1	1	1	HT108412A0	Transistor, 2SA841 (GR or BL)
RE10	1	1	1	RT02153140	Resistor, 15kΩ ±2% ¼W	QE09	1	1	1	HT108412A0	Transistor, 2SA841 (GR or BL)
RE11	1	1	1	RT02124140	Resistor, 120kΩ ±2% ¼W	QE10	1	1	1	HT108412A0	Transistor, 2SA841 (GR or BL)
RE12	1	1	1	RT02124140	Resistor, 120kΩ ±2% ¼W	QE11	1	1	1	HT316812A0	Transistor, 2SC1681 (GR or BL)
RE13	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% ¼W	QE12	1	1	1	HT316812A0	Transistor, 2SC1681 (GR or BL)
RE14	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% ¼W	RH01	1	1	1	RT05334140	Resistor, 330kΩ ±5% ¼W
RE15	1	1	1	RT05471140	Resistor, 470Ω ±5% ¼W	RH02	1	1	1	RT05334140	Resistor, 330kΩ ±5% ¼W
RE16	1	1	1	RT05471140	Resistor, 470Ω ±5% ¼W	RH03	1	1	1	RT05244140	Resistor, 240kΩ ±5% ¼W
RE17	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W	RH04	1	1	1	RT05244140	Resistor, 240kΩ ±5% ¼W
RE18	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W	RH05	1	1	1	RT05513140	Resistor, 51kΩ ±5% ¼W
RE19	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W	RH06	1	1	1	RT05513140	Resistor, 51kΩ ±5% ¼W
RE20	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W	RH07	1	1	1	RT05113140	Resistor, 11kΩ ±5% ¼W
RE21	1	1	1	RT05105140	Resistor, 1MΩ ±5% ¼W	RH08	1	1	1	RT05113140	Resistor, 11kΩ ±5% ¼W
RE22	1	1	1	RT05105140	Resistor, 1MΩ ±5% ¼W	RH09	1	1	1	RT05113140	Resistor, 11kΩ ±5% ¼W
RE23	1	1	1	RT05154140	Resistor, 150kΩ ±5% ¼W	RH10	1	1	1	RT05113140	Resistor, 11kΩ ±5% ¼W
RE24	1	1	1	RT05154140	Resistor, 150kΩ ±5% ¼W	RH11	1	1	1	RT05113140	Resistor, 11kΩ ±5% ¼W
RE25	1	1	1	RT05123140	Resistor, 12kΩ ±5% ¼W	RH12	1	1	1	RT05113140	Resistor, 11kΩ ±5% ¼W
RE26	1	1	1	RT05123140	Resistor, 12kΩ ±5% ¼W	RH13	1	1	1	RT05115140	Resistor, 1.1MΩ ±5% ¼W
RE27	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% ¼W	RH14	1	1	1	RT05115140	Resistor, 1.1MΩ ±5% ¼W
RE28	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% ¼W	RH15	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
RE29	1	1	1	RT05330140	Resistor, 33Ω ±5% ¼W	RH16	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
RE30	1	1	1	RT05330140	Resistor, 33Ω ±5% ¼W	RH17	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W
RE31	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W	RH18	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W
RE32	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W	RH19	1	1	1	RT05682140	Resistor, 6.8kΩ ±5% ¼W
RE33	1	1	1	GJ05821010	Resistor, 820Ω ±5% 1W	RH20	1	1	1	RT05682140	Resistor, 6.8kΩ ±5% ¼W
RE34	1	1	1	GJ05821010	Resistor, 820Ω ±5% 1W	RH21	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
CE01	1	1	1	EE22505040	Electrolytic Cap., 2.2μF 50V	RH22	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W



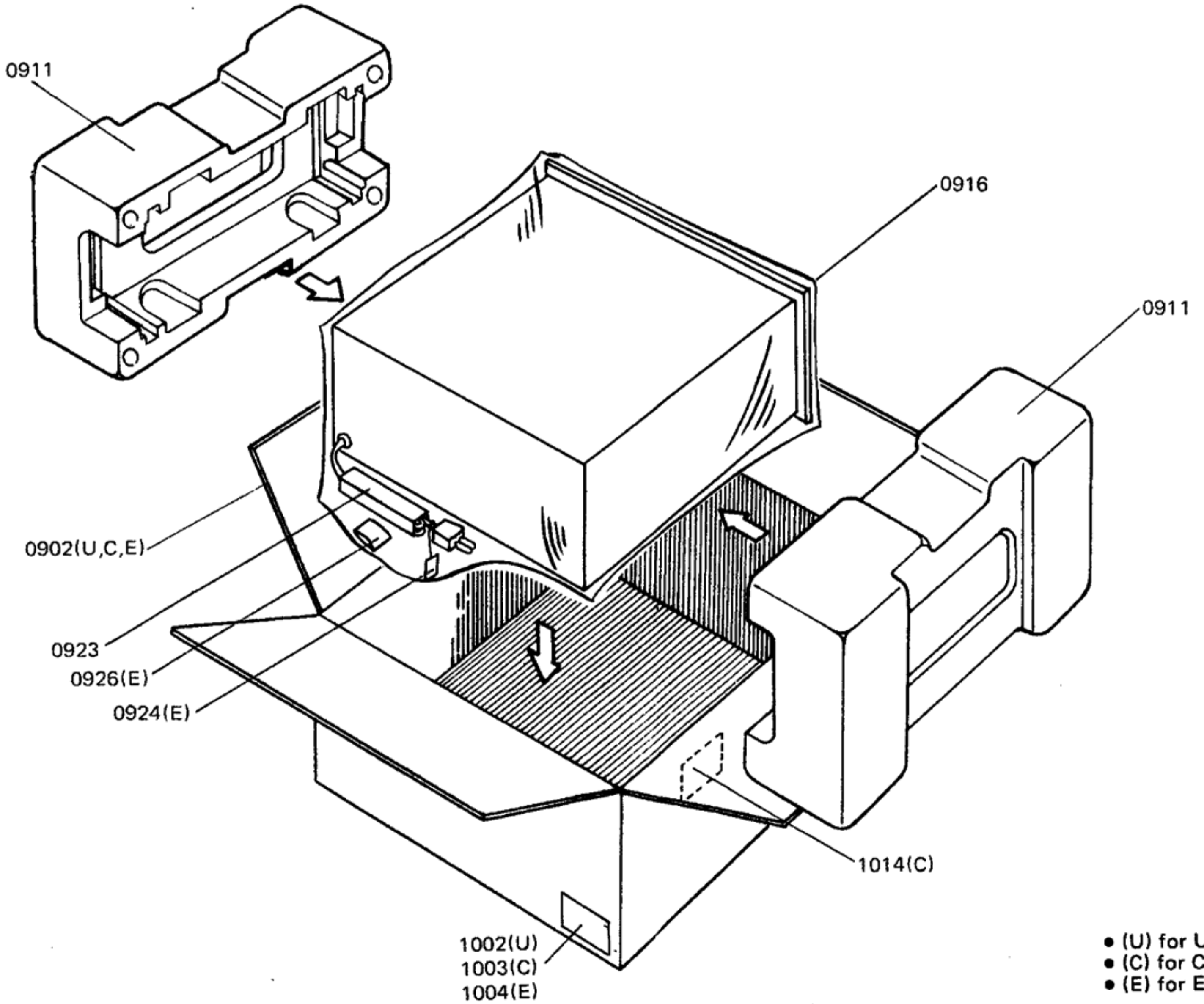
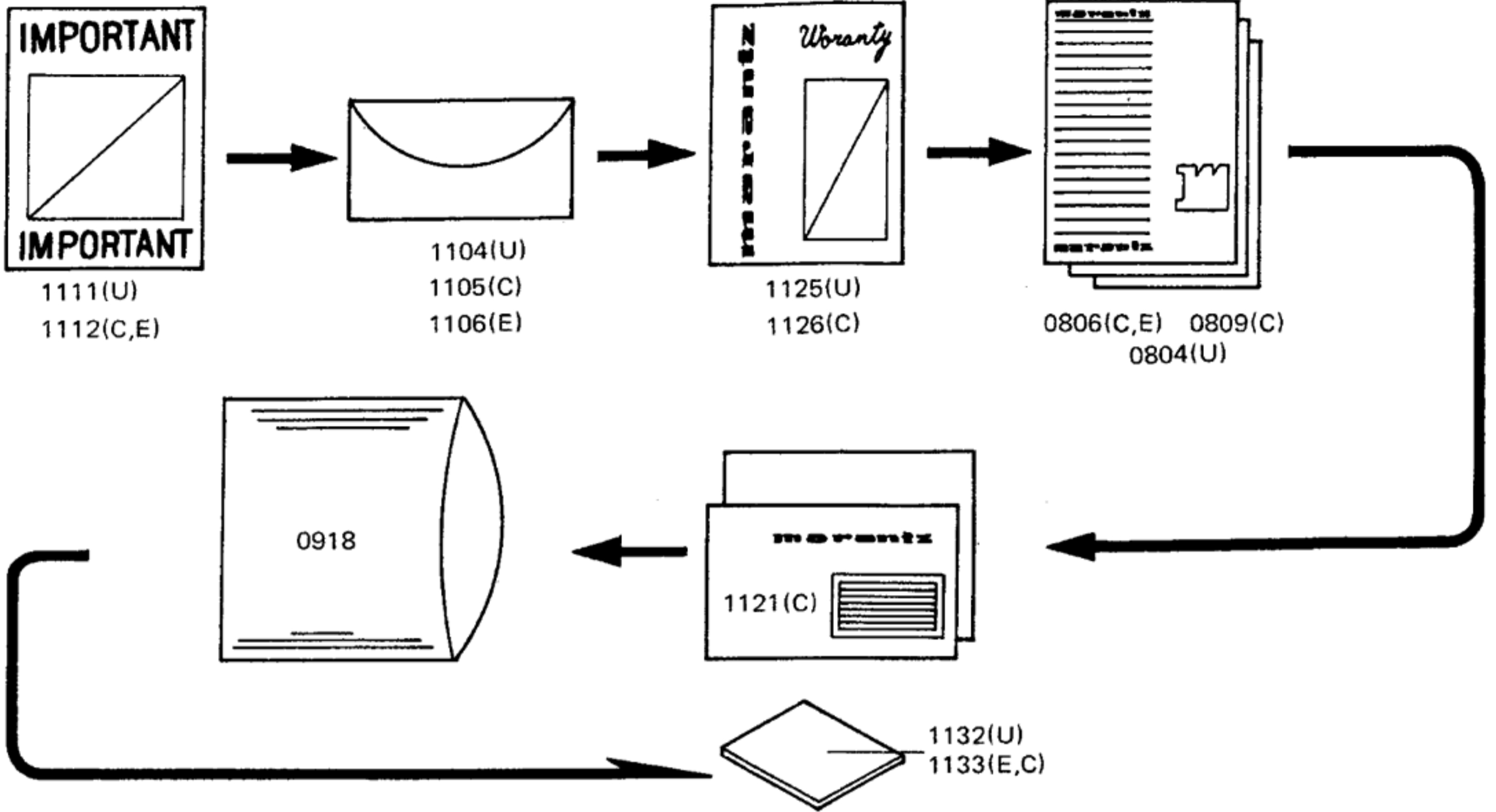
- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
SW01	1	1	1	SP02020240	Pushswitch, Spkr. Sw.
JW01	1	1	1	YJ01000860	Jack, Headphone
JW02					
?	7	7	7	YP10001130	Plug
JW08					
S001	1	1		SP02020210	Pushswitch, TV-5
S001			1	SP02010250	Pushswitch
Q001	1	1	1	HI10004030	LED
C001		1		DF17104560	Film Cap., 0.1 $\mu$ F
G001	1			BF10400040	Cap Comp., 0.1 $\mu$ F +120 $\Omega$
C001			1	DO07223510	Oil-Paper Cap., 0.022 $\mu$ F 450V
C002			1	DO07223510	Oil-Paper Cap., 0.022 $\mu$ F 450V
F001	1	1		FS10050090	Fuse, 0.5A UL
F001			1	FS10031800	Fuse, 315mAT (20mm)
F002		1		FS20050030	Fuse, 0.5A
L001	1	1		TS16012020	Power Transformer
L001			1	TS16012040	Power Transformer
J001	1	1	1	YJ01001010	Jack, Mic.
J002	1	1	1	YJ01001010	Jack, Mic.
J003	1	1	1	YT01010050	Terminal, Ground
J004	1	1	1	YT03040160	Terminal, Spkr.
J005	1	1	1	YT03040160	Terminal, Spkr.
J006	1	1	1	YT03040160	Terminal, Spkr.
J007	1	1	1	YJ05000250	Jack, LED Socket
J008	1	1		YJ08000120	Jack, Fuse Holder (30mm)
J008			1	YJ08000220	Jack, Fuse Holder (20mm)
J009	1	1		YJ04000560	Jack, AC Outlet
J010	1	1		YJ04000560	Jack, AC Outlet
J011	1	1		YJ04000560	Jack, AC Outlet
J012	1	1		YJ04000560	Jack, AC Outlet
J013	1	1	1	YJ06001040	Jack, 3P
J015			1	BY03110010	Terminal
J016	1	1	1	YJ06001050	Jack, 5P
J017			1	YL09030010	Terminal, 3P
CP01			1	DK18103510	Ceramic Cap., 0.01 $\mu$ F 500V
CP02			1	DK18103510	Ceramic Cap., 0.01 $\mu$ F 500V
W001	1	1		YC02400170	AC Power Cord, UL, CSA 10A
W001			1	YC01900030	AC Power Cord
PP01			1	YF29700010	<b>PP01 FUSE BOARD</b> P.W. Board
			1	ZZ29700010	P.W. Board Assembly
JP01			4	YJ08000200	Holder, Fuse
?					
JP04					
JP05			4	YP10001130	Plug
?					
JP08					
FPO1			1	FS10031800	Fuse, 315mAT (20mm)
FPO2			1	FS10031800	Fuse, 315mAT (20mm)

### 13. TECHNICAL SPECIFICATIONS

Rated Output Level	3 Volts RMS
Maximum Output Level (at 1 kHz) (tone controls out)	10 Volts 0.02% THD
Total Harmonic Distortion, 20 Hz 20 kHz	
At Rated Output Level (3 Volts RMS)	0.01%
Intermodulation Distortion at Rated Output Level	0.01%
Phono Section	
Input Overload 1 kHz	310 mV
THD 100 mV input and 1 kHz	0.01%
Equivalent Input Noise ("A" weighted)	0.24 V
Dynamic Range	122dB
(Dynamic Range is the ratio of input overload to equivalent input noise)	
Input Sensitivity (ref. output 1.5 V)	1.8 mV
Input Impedance	47 k ohms
Input Capacitance	100pF
Frequency Response, RIAA 20 Hz 20 kHz	0.2 dB
Signal to Noise Ratio (ref. to rated output and 7.75 mV input 1 kHz, "A" weighted)	90 dB
Microphone Input	
Sensitivity (ref. output 1.5 V)	1.8 mV
Input Impedance	47 k ohms
High Level Inputs (Aux, Tape, and Tuner)	
Input Sensitivity (ref. output 1.5 V)	180 mV
Input Impedance	20 k ohms
Frequency Response	
5 Hz 60 kHz	1 dB
20 Hz 20 kHz	0.1 dB
Signal to Noise Ratio (ref. to rated output and 775 mV input, "A" weighted)	98 dB
Output Levels	
Tape Out (ref. 7.75 mV at Phone inputs)	775 mV
Pre-Out (ref. 180 mV at Aux inputs)	1.5 Volts
(ref. 500 mV at Aux inputs)	4.2 Volts
Output Impedance	
Tape Out (phono mode)	330 Ohms
Pre-Out	220 Ohms
General	
Power Requirements	120 V AC, 60 Hz
Power Consumption	11 Watts
Dimensions	
Panel Width	416 mm (16-3/8 inches)
Panel Height	146 mm ( 5-3/4 inches)
Depth	239 mm (9-3/8 inches)
Weight	
Unit Alone	6.5 kg (14.3 lbs)
Packed for Shipment	7.9 kg (17.4 lbs)

# 14. PACKING MATERIAL EXPLODED VIEW



• (U) for U.S.A.  
 • (C) for Canada  
 • (E) for Europe



**marantz**

**MARANTZ CO., INC. · P. O. BOX 577 · CHATSWORTH, CALIFORNIA · 91311**



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